

## Military Al Works 6<sup>th</sup> Anniversary Al Airshow Package



Version: 1.0 For FS 2004 / FS9 Project Manager: Michael "Magic" MacIntyre

The Military AI Works (MAIW) was formed and officially launched with the opening of its website on August 11<sup>th</sup> and 12<sup>th</sup>, 2006. In its 6 years of operation it has released 225 complete Military AI packages, attracted more than 4535 members to its website and become a premier contributor in the field of Military AI for use in Flight Simulator 2004 (FS9).

### A Statement from the MAIW Staff:

### "Six Years and Counting!

Time sure does fly by when you are having fun! No one associated with Military AI Works could have imagined that we would still be going strong six full years after we started on this endeavor. While it hasn't always been easy and there have been some bleak times in our past, we celebrate our sixth anniversary as a freeware AI group this year with a few more gray hairs and few less brain cells but with as talented a team of international contributors as ever before!

With the recent announcement from Microsoft that their newest foray into the flight simulation world, "Flight" is officially dead, we all now know where things stand. Six years ago MAIW started with the Flight Simulator 2004 platform. At the time it was the latest and greatest in the long line of flight simulation programs for home computers. By then, FS9 as it is commonly known, was already three years old and the next version of Flight Simulator was already on the horizon. However with a couple years of developmental maturity and an open source design policy, developers across the hobby began to see the true capabilities of what was then the state of the art flight simulator program.

With the introduction of artificially intelligent traffic starting with FS2002, the living environment inside the game had begun to blossom and by August of 2006, a group of frustrated flight simulator enthusiasts had decided that the exclusion of military airfields, aircraft models and AI models needed to be fixed. With a few dollars for a website and a whole host of ideas, Military AI Works was born and here we are, six years later still alive and kicking!

Having cut our design teeth on the FS9 Al traffic system, that is what we know and for now, that is what we are sticking to. With FSX not being universally accepted, there has been little reason for MAIW to make a move to producing only FSX Al traffic packages. Instead, with a little extra work, it has been found that most MAIW packages can be made to work inside of the FSX platform and the extra work to produce packages for both simulators is currently beyond the capabilities of our limited staff members and contributors. However, as time goes by, we will most likely begin to make a better effort to accommodate users of both simulators.

As we begin our sixth year, we now have the luxury of revisiting some of the earliest military AI models and improving upon them with our latest tricks and techniques. Such is the case with the recently released KC-135R and F-15J models. Expect that to continue in our future as we expand our ever growing list of military AI packages. We have recently upgraded our forums to be more user friendly and more friendly to our FSX users. We have a learning section that contains tips and tutorials for all sorts of design and development related topics. Our forum membership continues to grow and while we'd like to think that "MAIW" is a known entity within the flight simulator community, we still get new forum users who are discovering our work for the very first time.

Without the support of our users we wouldn't be able to keep the motivation to continue producing Al traffic packages. It is with your support and cheering that this six year journey is slated to continue indefinitely. In the year 2006 there was no such thing as a PC tablet, so we can only guess at what the future may hold for Military Al Works. In the meantime we will continue to do our best to bring you the highest quality freeware military Al models, scenery and traffic packages as our time allows. We thank you for your support over the last six years!"

This freeware Military AI Works 6th Anniversary AI Airshow Package was produced by Mike "Magic" MacIntyre in conjunction with the Military AI Works to recognize and celebrate the 6th Anniversary of the Military AI Works and to provide a unique bonus AI package to all its staff, contributors and loyal customers to whom so much is owed for the success of MAIW.

The Military AI Works 6th Anniversary AI Airshow takes place Saturday mornings for ~2 hours and 14 minutes at Sherman Field (KNPA), NAS Pensacola and requires that at least the Military AI Works NAS Pensacola Complete Package and Military AI Works Pensacola Texans Complete Package be installed in FS9 in order to have the NAS Pensacola scenery and military aircraft present. It is optional to have the Military AI Works USAF T-1 Part 2 AI Package installed in order to have the T-1A's of the 479<sup>th</sup> FTG also present. The Military AI Works 6th Anniversary AI Airshow Package includes all the custom airshow AI aircraft, AI FDE's, repaints, AFCADs, flight plans, effect files and call sign files required for the AI airshow.

To view the MAIW 6th Anniversary Al Airshow go to Sherman Field (KNPA) at NAS Pensacola and set your favorite Al spotting vehicle about halfway down the east side of Runway 1 with the sun at your back. If you don't already have a favorite Al spotting vehicle, then it is highly recommended that you download and install the outstanding Mobile Control Tower addon from the mct074rc.zip (12.3 MB) by Ronald R. Cachemaille available at <a href="http://library.avsim.net/download.php?DLID=50656">http://library.avsim.net/download.php?DLID=50656</a>. The MAIW 6<sup>th</sup> Anniversary Al Airshow was created using the second level of this addon with the radar active to detect the Al Flights as they come within 40 NM of Sherman Field. It is also highly recommended that you use Microsoft's Traffic Explorer from the TrafficToolBox\_SDK (1.4 MB) available at <a href="http://www.fsdeveloper.com/forum/downloads.php?do=file&id=38">http://www.fsdeveloper.com/forum/downloads.php?do=file&id=38</a> to both track which Al are within the Al viewable area around Sherman Field and occasionally switch to spot view to follow along with any of them. The FS9 ATC does not support the type of Airshow Al flights and precision timing involved in this Airshow and thus Runway 1/19 at Sherman Field has to be uncontrolled and use UNICOM set to 120.700. If you want to listen to the pilot transmissions to Sherman traffic, set a communications radio to 120.700. Please do not use a second communications radio to also listen to either or both approach and departure control as these transmissions may step on the UNICOM transmissions to Sherman Traffic and impact the timing of the Airshow Al flights.

Unfortunately with FS9 this type of Al Airshow must be watched from the exact Airshow starting time or the flyby and demo flight sequencing will become compromised, so set the time to Saturday, August 11, 2012 at exactly 09:55:00 AM (14:55:00 GMT). There will be 2 Blue Angel F-18D "Vomit Comets" about 40 miles to the south on IFR approaches to Runway 1 carrying a couple members of the MAIW Staff on VIP orientation flights. These will perform two very low IFR approaches before flying a left VFR pattern to a full stop landing. Concurrently Fat Albert will taxi out and depart for an IFR missed approach to Runway 1 followed by a left VFR pattern to a full stop landing followed by a couple of visiting USAF F-15C's that taxi out and depart in a 2-ship formation to the south. Subsequently Blue Angels 1-6 also taxi out and depart to the south from Runway 1 in 2-ship formations followed by Blue Angels 7 and 8 which will depart, but fly a 2-ship formation left closed pattern to a VFR TNG before also departing to the south.

Immediately after the last "Vomit Comet" lands and parks, a series of formation flybys begin and continue every 1 to 3 minutes for ~21 minutes. About five minutes after the last flyby the Blue Angels return to fly a brief airshow demonstration followed by appearances by the RAF Red Arrows, AMI Frecce Tricolori, RAAF Roulettes and ROCAF Thunder Tigers. The Blue Angels, Red Arrows, Frecce Tricolori, Thunder Tigers and Roulettes team up for a grand finale demonstration and then the US Navy's TAW-6 T-6 Texan II's followed by a pair of USAF F-15C's close the airshow demonstration flights. Shortly thereafter the Blue Angels and USAF F-15C's return IFR in 2-ship formations to fly single IFR missed approaches to left hand VFR patterns and full stop landings with the last pair touching down just after noon local time and parking at ~12:09 PM local time.

During the Airshow please be aware that several of the AI aircraft models included have novel new animations developed by Mark Griggs and these animations occur whether FS9 is running or paused. Therefore during the flybys and demo flights watch carefully for the two, T-6A Texan II's escorting the MAIW banner tug, Thunder Tiger 1 & 2, and Blue Angel 5, 7 & 8. If the animation for any of these AI aircraft is not occurring pause FS9 until it starts and then un-pause FS9 to watch the animation. In the case of Blue Angel 5 it is best to watch the animation with FS9 paused.

Enjoy the show!

"Magic"

### **NOTAMS**

- 1) **DO NOT** set the FS9 time to a time between the 09:55:00 AM local start time and the 12:09:00 PM finish time for this Airshow because as stated above it will seriously scramble the Airshow timings.
- 2) For the MAIW 6th Anniversary Al Airshow Runway 1/19 at Sherman Field has been closed to all other Al traffic. In order to return Sherman Field to its original, normal operating condition just deactivate the MAIW 6th Anniversary Al Airshow folder and reinstall the original MAIW\_NAS\_Pensacola AFCAD file, Blue Angel 8 and Fat Albert aircraft.cfg files, Blue Angel 8 texture file and MAIW\_NAS\_Pensacola traffic file provided in the backup folders that were installed in the various standard locations for these files by the MAIW 6th Anniversary Al Airshow package.
- 3) FS9 was never intended to support the type of AI flights and the precision timing involved in the MAIW 6<sup>th</sup> Anniversary AI Airshow and thus does not provide as precise control of the Estimated Times of Departures (ETD's) for the AI as would be most effective and consequently there will be some variation in the timing from one Airshow viewing to the next.
- 4) The decompiling and recompiling of traffic.bgl files with TTools can introduce ETD time drifts and in the case of the types of precisely timed AI formation flights utilized in the MAIW 6<sup>th</sup> Anniversary AI Airshow can be catastrophic, so please do not decompile and recompile any of the Traffic files.
- 5) All the waypoints that were used in this package are imaginary in that they do not have AFCADs, so none of the Airshow Al can be followed and/or viewed outside the boundary of the Al viewable area around Sherman Field either with Traffic View Board or a user flyable FS9 aircraft.
- 6) Traffic View Board causes significant if not infinite extension of the downwind leg of the VFR AI pattern when used to follow AI VFR flights in the VFR pattern or to follow AI IFR approaches in the vicinity of AI VFR flights on the downwind leg of the VFR pattern. Since, with only a few exceptions, the AI arrivals at Sherman Field in this Airshow use the VFR pattern and the few IFR approaches included are made in the vicinity of AI on the VFR downwind leg, it is recommended that Traffic View board not be used to follow any AI arrivals at Sherman Field.

### **Table of Contents**

(use hyperlinks to navigate)

- 1. About MAIW
- 2. Credits
- 3. Units Included in This Package
- 4. Installation
- 5. Troubleshooting
- 6. Notes and Resources
- 7. Permissions and Disclaimers

### 1. About MAIW

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

- Produce <u>only</u> high-quality, freeware packages and products
   Create military AI traffic accurately within the bounds of MS Flightsim
- 3) Promote new freeware military Al 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 <a href="http://www.militaryaiworks.com">http://www.militaryaiworks.com</a>.

### 2. Credits

### AFCADs:

· Mike MacIntyre

### Models:

- Nick Black
- Mark Griggs
- Edith Black
- Andrew Hall
- Kevin Reed · Rysiek Winawer

### FDE and Effects Design:

- Mike MacIntyre
- · Henry Tomkiewicz

### Repaints:

- Nick Black
- Mark Griggs
- Aaron Haase
- Andrew Hall Graham King
- Mike MacIntyre
- Lewis Magruder
- Mark Walsh

### Voicepacks:

- Mike MacIntyre
- Stewart Pearson

### Flightplans:

Mike MacIntyre

## Custom Scenery: • None Included

U

### 3. Units Included in this Package



**United States Navy Flight Demonstration Squadron** 

Callsigns: Blue Angel 1-8 & Fat Albert Aircraft: F/A-18A/C/D, C-130T



### The Royal Air Force Aerobatic Team

Callsigns: Apollo & Big Battle Aircraft: Hawk T Mark 1A



### **RAAF Aerobatic Team**

Callsign: Roulette 6
Aircraft: PC-9A



### 313° Gruppo Addestramento Acrobatico

Callsigns: Arrow & Diamond Aircraft: MB-339-A/PAN



### Thunder Tiger Aerobatics Team

Callsigns: Thunder Tiger 1 & 2 Aircraft: AT-3 Tz-Chiang



## United States Navy TAW-6, VT-10 Callsigns: Texan 2, 3, 4 & 6

Aircraft: T-6A Texan II



Royal Australian Air Force Callsigns: Hawk 5 & 6, Hornet 1 & Aardvarck Aircraft: Hawk, F-18F & F-111



**United States Navy** 

Callsign: Hornet 2 Aircraft: F-18F



# United States Navy Fighter Weapons School– Top Gun Callsigns: TopGun 2 & Ghostrider Aircarft: F-14A



U

### 4. Installation

### Step 1) Install this package

1a) Install the package in accordance with the on-screen prompts

Step 2) Remove duplicate AFCAD files

Open your "Flight Simulator 9/Addon Scenery/scenery" folder and remove any <u>previously</u> 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:

KNPA - Visible Custom AFCAD for Sherman Field, NAS Pensacola from the Military AI Works Pensacola Texans Complete Package, but with Runway 1/19 closed to all Al traffic.

ANPA - Invisible Overlay AFCAD with Drive Through Parking for 2-Ship Formation Takeoffs and Landings on Runway 1R at Sherman Field (KNPA).

BNPA - Invisible Overlay AFCAD with Drive Through Parking for 2-Ship Formation Takeoffs and Landings on Runway 1L at Sherman Field (KNPA).

CNPA - Invisible Overlay AFCAD for Low Approach to Runway 1R at Sherman Field (KNPA).

DNPA - Invisible Overlay AFCAD for Low Approach to Runway 19R at Sherman Field (KNPA).

ENPA - Invisible Overlay AFCAD for Very Low Approach to Runway 1R at Sherman Field (KNPA).

FNPA - Invisible Overlay AFCAD for Very Low Approach to Runway 1L at Sherman Field (KNPA).

If you have installed the Military AI Works USAF T-1 Part 2 AI Package, Military AI Works NAS Pensacola Complete Package and Military Al Works Pensacola Texans Complete Package according to the instructions in their readme files, no further action should be required.

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 add-on scenery for one of the above airfields, it is recommended you do NOT remove the AFCAD for the add-on scenery, but instead remove the MAIW AFCAD file (e.g. MAIW\_XXXX\_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.
- 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 Al Works/USA/USN/NAS Pensacola/Voicepack Callsigns
- 3e) Click "open" for each file

### Callsigns

**Aardvarck** 

**Apollo** 

Big Battle

Blue Angel

Diamond

Eagle

Fat Albert

Ghostrider

Hawk

Hornet Reach

Roulette

Texan

**Thunder Tiger** 

**Topgun** 

### **Airports**

4NEP - North (Virtual)

5NEP - North (Virtual) 5NEP - North (Virtual) 6NEP - North (Virtual) 4SWP - South (Virtual) 5SWP - South (Virtual)

6SWP - South (Virtual)

4SEP – East (Virtual) 5SEP – East (Virtual)

6SEP – East (Virtual) 4NWP – West (Virtual) 5NWP – West (Virtual)

```
6NWP – West (Virtual)
ANPA – Sherman (Invisible)
BNPA - Sherman (Invisible)
CNPA - Sherman (Invisible)
DNPA - Sherman (Invisible)
ENPA – Sherman (Invisible)
FNPA – Sherman (Invisible)
```

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) Activate MAIW Scenery

- 1) The folder "MAIW 6<sup>th</sup> Anniversary Al Airshow" has 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 6<sup>th</sup> Anniversary Al Airshow" folder which should be, by default after installation, located in "Flight Simulator 9\Addon Scenery".
- 3) Shut down FS and then when you restart the scenery will be installed and ready to use.

That's it! You've successfully installed this package. Your Al traffic files will be automatically updated the next time you run FS9



### 5. Troubleshooting

### Problems addressed:

"I've installed the package, but there are no Military AI aircraft at the airports" "When I go to an airport, there are AI planes parked on top of one another"

"I can't find the aircraft in the aircraft selection menu"

"When the Military Al planes talk to ATC, they use only numbers, not callsigns"

"I'm following the Military Al aircraft, and they won't come back for touch-and-gos"

Problem: "I've installed the package, but there are no Military Al 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 15%.

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:

**KNPA** 

**ANPA** 

**BNPA** 

**CNPA DNPA** 

### ENPA FNPA

Files may be named in several ways. The most common are "AF2\_KXXX.bgl," "AF2\_KXXX\_DEFAULT\_XX.bgl" and "PAI\_AF2\_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"

<u>Issue</u>: These are AI aircraft and have been programmed to not show up in the flyable aircraft selection menu

<u>Fix action</u>: 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

<u>Fix action</u>: Run the EditVoicepack software. Look for the following callsigns in the "custom modifications/callsigns" section of the program:

### Callsigns

AARDVARCK
APOLLO
BIG BATTLE
BLUE ANGEL
DIAMOND
EAGLE
FAT ALBERT
GHOSTRIDER
HAWK
HORNET
REACH
ROULETTE
TEXAN
THUNDER TIGER
TOPGUN

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/USN/NAS Pensacola/Voicepack Callsigns"

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 Al aircraft, and they won't come back for touch-and-gos"

Potential issue: You're following your Al aircraft

Fix action: Stop following your Al aircraft. For some reason, a watched Al 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



### 6. Notes and Resources

This package was built by the Military Al Works online community. If you are interested in making Military Al 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 <u>TrafficTools</u> 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 Al callsign, give it a try!

### AFCADs:

All AFCADs were created using Lee Swordy's <u>AFCAD v2.21</u>. This has got to be one of the finest freeware programs ever created. Want to add some Al parking to your local airport? AFCAD makes it fun!



### 7. Permissions and Disclaimers

### Adverse Effects:

The contents of this package should not adversely affect your FS9 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

THESE FILES MAY ONLY BE UPLOADED TO AVSIM or FLIGHTSIM.COM BY THE AUTHOR(s)

THESE FILES MAY NOT BE UPLOADED TO ANY OTHER SITE WITHOUT THE AUTHOR'S WRITTEN PERMISSION. THESE MODELS, REPAINTS AND FLIGHTPLANS ARE FREEWARE AND MAY NOT BE SOLD, OR PUT ON ANY SITE THAT CHARGES FOR DOWNLOADING FREE FILES. THE FILES FOUND IN THIS ARCHIVE MAY NOT BE DISTRIBUTED ON CD OR ANY MEDIUM FOR ANY KIND OF FEE, INCLUDING THE COST OF PRODUCTION, MATERIALS OR POSTAGE. THE MODELS, REPAINTS AND FLIGHTPLANS OWNERSHIP REMAIN WITH THE AUTHORS AS MENTIONED IN THE PACKAGE

Upload to FSPLANET.com will never be allowed by Military Al 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.

Hello Jackie

U