French Air Force and Navy Rafales

For FS 2004 / FS9
Project Managers: Nick Black & Greg Loones

This package by Nick Black, Michael MacIntyre and Greg Loones for Military AI Works, depicts the Dassault Rafale in service with the Armée de l'air (French Air Force) and Aéronavale (French Navy). The Dassault Rafale is a 4th/5th Generation Omni-Role Fighter currently used solely by the French Military (although various countries have expressed interest in an export version). The Rafale is produced in 3 versions, the 'B' (Biplace) 2-seater, the 'C' (Chasseur) Single Seater, and the 'M' (Marine) Naval version Single Seater.

The Armée de l'air currently operates a fleet of 53 B/C Rafales split between the Air Wings EC 01.007 and EC 01.091 based at Saint Dizier / Robinson AB in the North East of France. There are also aircraft based at Mont-de-Marsan AB and Istres / Le Tubé in the South of France used for Evaluation and Testing work. The Aéronavale currently have 17 'M' version Rafales, most of which are assigned to 12 Flotille at Landivisiau in North West France, with several frames based elsewhere for testing and evaluation work. The Aéronavale also

operate the Rafale M from onboard France's only Aircraft Carrier, the Charles de Gaulle (R91).

This package features all current Rafale airframes in service with both air arms, full scenery of Saint Dizier / Robinson, Landivisiau, Mont-de-Marsan and Istres / Le tubé airbases and a special treat, and a first for an MAIW package, a working AI model that operates realistically from scenery of an Aircraft Carrier, taking off from the bow as if being launched from a catapult and landing on the angled deck trapping a wire to stop instantly. Also included is a buddy-refueling version of the Rafale M that will fly a pattern off the North West Coast of France allowing you to simulate air-to-air refueling.

Special thanks go to 'Magic' Mike MacIntyre for making the carrier and air-refueling operations come to life and to Joel Malliot for allowing MAIW to include his scenery project of the Charles de Gaulle Aircraft Carrier.

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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 only 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
www.militaryaiworks.com

2. Credits

Models:
- Dassault Rafale by Nick Black

Flight Dynamics:
- Mike MacIntyre

AFDs:
- Nick Black and Mike MacIntyre (Carrier AFDs)

Repaints:
- Nick Black

Voicepack Callsigns:
- Nick Black and Mike MacIntyre

Flightplans:
- Nick Black, Greg Loones and Mike MacIntyre (Carrier Flightplans)

Custom Effects:
- Steve Holland, Nick Needham, Mike MacIntyre and Henry Tomkiewicz

Scenery Enhancements:
- Nick Black

Charles de Gaulle Carrier Scenery
- Joel Malliot

Airport Background Polygons:
- Edith Black and John Stinstrom

MAIW Scenery Library Objects:
- John Stinstrom and Edith Black
- Matthew Tomkins and Ted Andrews

Recorder Flights
- Edith Black

3. Units Included in this Package

Armée de l'air (Air Force)

BA 113 Saint Dizier / Robinson AB (LFSI)

EC 01.007

EC 01.091

BA 118 Mont-de-Marsan AB (LFBM)

ECE 05.330

<u>**Aéronavale (Navy)**</u>

BAN Landivisiau (LFRJ)

12 Flotille

<u>**Both Air Arms**</u>

BA 125 Istres / Le Tubé (LFMI)

CEV (Centre d'Essais en Vol)

4. Installation

Step 1) Install this package

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

Step 2) Remove duplicate AFD files

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

LFSI
LFRJ
1FRJ
LFBM
LFMI
LFTH
LCDG
PCDG
SCDG
TCDG
1NDG
1SDG
4SLV
5SLV
6SLV
LF01
LFFS

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 AFDs 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 AFD for the add-on scenery, but instead remove the MAIW AFD 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 <u>clicking here</u>.

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\France\French Air Force and Navy Rafales\Callsigns" in the "Look in:" window

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

CALOT
CEV
COBRA
FRENCHAF
FRENCHNAVY
LCDG
LOSCAR
MINX
PCDG
RASOIR
RICARD
SCDG
TCDG
4LSV
5LSV
6LSV

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 a set of buildings as custom scenery to spruce up the airports. It should be noted that not installing the scenery will not detract from your enjoyment or use of this package however. To install this scenery you need to do the following:
1) The folders "MAIW French AB Scenery" and "MAIW Scenery Library Objects" 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 French AB Scenery" and "MAIW Scenery Library Objects" folders which should be, by default after installation, located in "Flight Simulator 9\Addon Scenery".

***Note it is important that you place the "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.
3) Shut down FS and then when you restart the scenery will be installed and ready to use.
*** Please Note *** - The scenery enhancements included with this package are created from the MAIW Scenery Libraries, which are a collection of objects that can be used to enhance default FS airports. This scenery is not intended to be accurate, but instead to be a representation of the buildings situated at each base.

Step 5) Install Charles de Gaulle Carrier scenery by Joel Marriot

By kind permission of Joel Malliot, included in this package is his excellent scenery object of the Charles de Gaulle Aircraft Carrier. The Carrier Scenery is located off the coast of BREST in the North West of France, not far from Landivisiau. You will need to install this scenery if you wish to see the Carrier Aircraft operate from its flight deck. If you do not install this scenery then you will lose 5 Rafales from the Aéronavale fleet, which have been assigned there on the flightplans. In order to install the carrier scenery you need to do the following:

1) The folder "P.A.N CDG R91" and 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 folder "Addon Scenery\P.A.N CDG R91". Highlight this folder and click OK.

3) Shut down FS and then when you restart the scenery will be installed and ready to use.

Please note that this scenery object was designed for FS2002 originally, but it will work in FS2004.

**If you already have the scenery of the Charles de Gaulle Carrier by Joel Malliot installed it is advised that you remove it before installing this part of the package. The version of the

NBAI Rafale M Air to Air Refueling Over the Marine Nationale's Charles de Gaulle (CdG) Carrier

The Marine Nationale's Charles de Gaulle (CdG) Carrier is located off Brest, France with 5 NBAI Rafale M models aboard. Every afternoon bewteen 15:00 and 16:30 GMT an NBAI Rafale M buddy tanker from Landivisiau Navy (LFRJ) flies directly north and then directly south over the CdG at FL091 and 250 KIAS (286 KTAS) with its refueling drogue extended.

In order to have this NBAI Rafale M buddy tanker fly a straight line course without constant course corrections due to the winds aloft, the user should adjust the FS9 weather to the default Weather Theme, Clear Skies. This will eliminate any winds aloft.

To observe the NBAI Rafale M flyover, the user should locate themselves aboard the CdG. At ~15:23 GMT the NBAI Rafale M buddy tanker will appear in the AI visible area around the CdG flying directly north on a course that will take it directly over the CdG at ~15:37 GMT. At ~16:03 GMT it will reappear in the AI visible area around the CdG flying directly south on a course that will again take it directly over the CdG at ~16:15 GMT.

If a user wants to simulate air-to-air refueling using the NBAI Rafale M buddy tanker, one approach is to fly to the CdG and then from directly above the CdG depart at ~15:00 GMT at FL091 on a course directly south towards the virtual waypoint at 1SDG,N46* 52.47,W4* 30.85',9100. This should allow the user to intercept the NBAI Rafale M buddy tanker ~20-30 minutes south of the CdG. The same approach can be used to intercept the NBAI Rafale M buddy tanker on its southerly return flight by departing the CdG at ~15:40 GMT on a course directly north towards the virtual waypoint 1NDG,N49* 35.96,W5* 05.32',9100.

In order for the NBAI Rafale M buddy tanker to successfully complete its daily round robin flights from Landivisiau Naval (LFRJ) to 1SDG, 1SDG over the CdG to 1NDG, 1NSDG over the CdG to 1SDG and finally from 1SDG back to LFRJ, virtual waypoints had to be used. Unfortunately this results in the NBAI Rafale M buddy tanker disappearing as it approaches these virtual waypoints before respawning on the next leg of its flight.

That's it! You've successfully installed this package.

Bonus Files!

1) Optional Splash Screen for FS2004

Installed in this package is an optional splash screen for your pleasure, in order to install this splash screen please follow the instructions:

The automatic installation of this package has placed a file called "dlgsplash_Rafale.bmp in your folder "Flight Simulator 9\Uires" Go to this folder and find this file. Also find a file called "dlgsplash.bmp". This is the current default splash screen for FS. Rename it to "original_dlgsplash.bmp" and then select the file "dlgsplash_Rafale.bmp". Rename the selected file to "dlgsplash.bmp". And that's it; you now have a new Splash screen for FS. The old original splash screen is still there, and if you want to revert to it at any time, simply rename the file you currently have as "dlgsplash.bmp" to another name, and rename your file "original_dlgsplash.bmp" back to "dlgsplash.bmp".

2) Flyable model for multiplayer

Nick Black has also kindly included a Rafale model with this package that is meant for use in multiplayer operations. This is the same basic model included in this package but it has the conditionally based animations and parts removed from it. It is also just a single low poly model however it will now look correct when viewed in a multiplayer session. This extra model is located inside the "*Military AI Works / France / French Air Force and Navy Rafales*" folder. It will be visible in your FS9 aircraft selection screen.

3) Recorder Flight Files

We have included several Recorder module flight files to be used with the NBAI Rafale models. These flight files and instructions for their use can be found inside the "*Military AI Works / France / French Air Force and Navy Rafales / Recorder Tanker Flights*" folder.

4) Paint kits

For the repainters out there, we have included a layered paint kit for each of the models. These are in .psd format and are compatible with Photoshop and Paint Shop Pro.

Enjoy. Any feedback and questions can be posted in the Technical Support section of our forums at http://www.militaryaiworks.com.

5. Troubleshooting

Problems addressed:

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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 20%.

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

Potential issue: Multiple AFDs 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:

LFSI
LFRJ
1FRJ
LFBM
LFMI
LFTH
LCDG
PCDG
SCDG
TCDG
1NDG
1SDG
4SLV
5SLV
6SLV
LF01
LFFS

Files may be named in several ways. The most common are "AF2_EXXX.bgl," "AF2_EXXX_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"

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:

CALOT
CEV
COBRA
FRENCHAF
FRENCHNAVY
LCDG
LOSCAR
MINX
PCDG
RASOIR
RICARD
SCDG
TCDG
4LSV
5LSV
6LSV

If any of these are missing, choose "File/import" and open the appropriate .vcpmod file in the folder:-
Flight Simulator 9\Military AI Works\France\French Air Force and Navy Rafales\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 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: "Where is the Carrier and when can I see the aircraft operate from it?"

NBAI Rafale M Air Operations Aboard the Marine Nationale's Charles de Gaulle (CdG) Carrier

The Marine Nationale's Charles de Gaulle Carrier is located off Brest, France with 5 NBAI Rafale M models aboard. Approximately one hour daily air operations taking place at both 9:00:00 and 14:00:00 GMT have the NBAI Rafale M aircraft launching off the bow catapult and being trapped on the wires on the angled landing deck. With the exception of the NBAI Rafale M IFR low approaches, these AI air operations are designed to take place and be observed within the 10 mile AI visible radius around the Charles de Gaulle carrier. In order to condense the time for both the AM and PM air operations there will be one instance of duplicate LASCAR 1 & 2 aircraft flying within and outside of this 10 mile radius simultaneously.

In order to observe the complete NBAI Rafale M air operations USERS MUST OBSERVE THEM FROM START TO FINISH. If you try to observe them at some intermediate time between 9:00:00 and 10:07:00 GMT or 14:00:00 and 15:04:20 GMT you will disturb the sequencing and timing of the 5 NBAI Rafale M flights and miss some of them. If you feel that observing them for an hour is too long, you may use 2-4X acceleration appropriately without disturbing the sequencing and timing significantly.

09:00:00 GMT Air Operations
09:00:00 GMT - LASCAR 1 taxis out to take off and depart IFR to the south.
09:01:30 GMT - LASCAR 2 taxis out to take off and depart IFR to the south.
09:05:00 GMT - LASCAR 3 taxis out to take off and fly 3 IFR low approaches to the Charles de Gaulle before flying 1 VFR circuit to a full stop landing at ~09:49:51.
09:07:30 GMT - LASCAR 4 taxis out to take off and fly 3 IFR low approaches to the Charles de Gaulle before flying 1 VFR circuit to a full stop landing at ~09:53:12.
09:10:00 GMT - LASCAR 5 taxis out to take off and fly 3 IFR low approaches to the Charles de Gaulle before flying 1 VFR circuit to a full stop landing at ~09:57:03.
09:11:33 GMT - LASCAR 1 and 2 perform a 2 ship flyby from the south at 200 feet and 250 knots IAS.
09:58:30 GMT - LASCAR 1 and 2 fly an IFR formation approach from the south with LASCAR 1 landing and LASCAR 2 going around to fly a VFR circuit and full stop landing at ~10:05:50.
10:07:00 GMT - LASCAR 1-5 Parked.

14:00:00 GMT Air Operations
14:00:00 GMT - LASCAR 1 taxis out to take off and depart VFR to the west.
14:01:30 GMT - LASCAR 2 taxis out to take off and depart VFR to the west.
14:02:30 GMT - LASCAR 3 taxis out to take off and fly a VFR circuit to a full stop landing at ~14:11:54.
14:05:52 GMT - LASCAR 1 and 2 return from the west to fly the VFR pattern in formation before separating for full stop landings at ~14:13:33 and ~14:15:00 respectively.
14:15:00 GMT - LASCAR 4 taxis out to take off and fly 3 IFR low approaches to the Charles de Gaulle before flying 1 VFR circuit to a full stop landing at ~14:58:54.
14:17:30 GMT - LASCAR 5 taxis out to take off and fly 3 IFR low approaches to the Charles de Gaulle before flying 1 VFR circuit to a full stop landing at ~15:03:17.
15:04:20 GMT - LASCAR 1-5 Parked.

** Please note times are approximate **

** Please also note that these are very intricately created flightplans, and as such they do not always behave as expected. If you load up your simulator at odd-times and attempt to watch the Carrier borne AI it may not behave exactly as described above. Unfortunately this is something to do with Microsoft and not MAIW, we have pushed the boundaries to the maximum and hope you can get some enjoyment out of the results. **
The actual traffic files for these special AI flight plans are located inside the "FS9 / Addon Scenery / P.A.N CDG R91 / Scenery folder.

6. Notes and Resources

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 AFD for the aircraft to show up there, AFD's may be found at Avsim.com and Flightsim.com.

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!

AFDs:
All AFDs were created using AFX from Flight1 Software and Lee Swordy's AFCAD v2.21.

*** Important*** It is highly recommend you do not open any files marked with "AFX" for editing with any application other than Flight1's AFX. You may and probably will lose some elements included in the AFD file!

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:

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.