

AI_ATC



What is it?

AI_ATC is a study level simulation of ATC procedures at Nellis Airforce base.

It is completely modular and can be added to any .miz file allowing users to design their own missions around it.

Who is it for?

Virtual pilots interested in learning realistic ATC procedures and familiarizing themselves with the Phraseology. It is intended to be used by small\medium sized groups to practice procedures and build confidence in communicating with ATC. It can be flown in both single player and multiplayer environments.

REFERENCE MATERIAL:

Nellis AFB local flying procedures:

- <https://static.e-publishing.af.mil/production/1/nellisafb/publication/nellisafbi11-250/nellisafbi11-250.pdf>

NTTR Operations:

- https://static.e-publishing.af.mil/production/1/nellisafb/publication/afi13-212v1_accsup_nttrsup_add_a/afman13-212v1_nttr_add_a.pdf

FAA- Air traffic control JO 7110.65BB:

- https://www.faa.gov/documentLibrary/media/Order/7110.65BB_Basic_dtd_2-20-25.pdf

ACKNOWLEDGEMENTS:

MOOSE framework

- <https://flightcontrol-master.github.io/MOOSE/>

VFR Charts by Tim “Stretch” Morgan:

- <https://forums.pilotedge.net/viewtopic.php?t=8983>

F-10 map drawings by Dark_S3ntry

- <https://www.digitalcombatsimulator.com/en/files/3335725/>

YouTube content and testing by Garf @ DCS Hacks

- <https://www.youtube.com/@DCSHacks>

VoiceAttack Profile and SME Cabi~599

INSTALLING AI_ATC:

Adding AI_ATC Sound Files to an Existing Mission

AI_ATC uses approximately 2,500 pre-recorded sound files. To incorporate them into an existing mission, follow these steps:

1. Add Sound Files to the Mission:

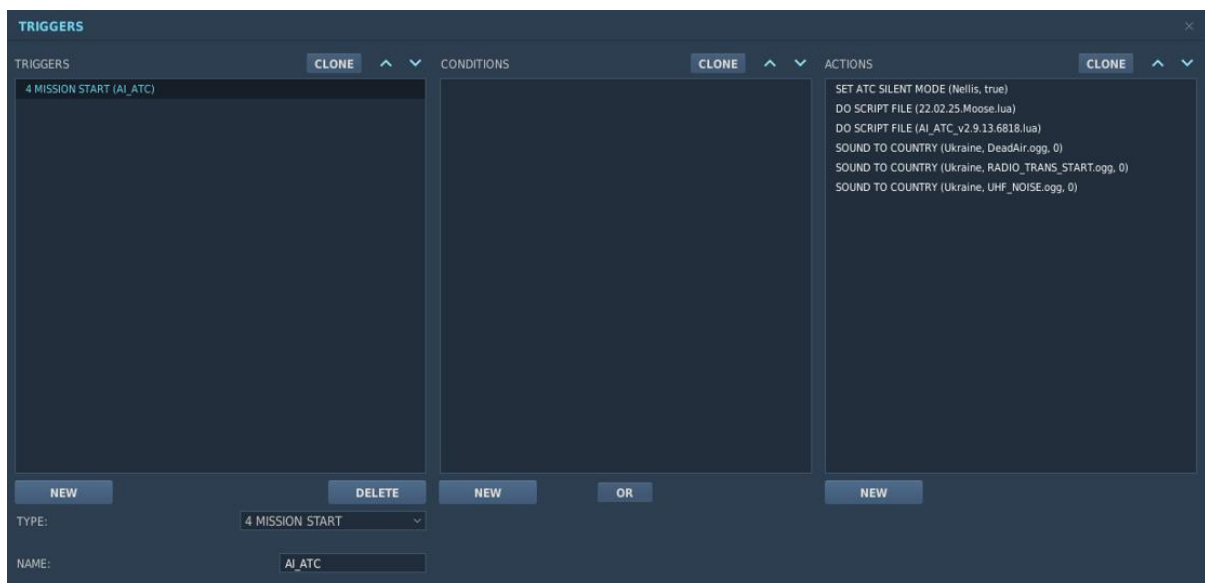
- Open the .miz file using your preferred archiving software (e.g., 7-Zip, WinRAR).
- Copy the sound files into the appropriate folder within the archive.

2. Configure the Mission in the Mission Editor:

- Launch the **Mission Editor** and open your mission.
- Create a **MISSION START** trigger event:
 - Add a **DO SCRIPT FILE** action to include the MOOSE and AI_ATC script files.
 - Add a **SOUND TO COUNTRY** trigger action for the 3 miscellaneous sound files.

3. Set DCS ATC to Silent Mode:

- Ensure that the DCS ATC is set to **Silent Mode** at Nellis to avoid conflicts with the AI_ATC audio.



AI_ATC OPTIONS:

AI_ATC has several customisable parameters that mission designers can use when designing a mission. Simply add the desired function to a DO SCRIPT trigger action.

Setting a Group's Callsign

AI_ATC supports **135 different callsigns** that can be preset using the following function:

```
AI_ATC:SetCallsign([Group name], "[callsign]", "[Integer]")
```

```
AI_ATC:SetCallsign("My F-5E", "Dragon", "31")
```

In this example:

- "My F-5E" is the name of the group.
- "Dragon" is the desired callsign.
- "31" is the numerical identifier for the callsign.

You can adjust the callsign and integer to match any of the 135 available options to suit your mission requirements.

Setting Radio Frequency

Each agency can broadcast on **either UHF or VHF**, but not both. By default, all agencies broadcast on **UHF**. You can change this by specifying the frequency range for an agency using the following function:

```
AI_ATC:SetRadioFrequency("[Agency]", "[Frequency Range]")
```

```
AI_ATC:SetRadioFrequency("Ground", "VHF")
```

In this example:

- "Ground" refers to the agency.
- "VHF" sets the agency to broadcast on the **VHF** frequency range.

Adding Dissimilar Groups of Aircraft

AI_ATC interacts with clients on the GROUP level. In DCS, a group can only contain one type of aircraft. However, AI_ATC allows mission designers to combine dissimilar aircraft into a single group for ATC interaction, even though they are different types. This enables mixed formations and better coordination for multiplayer scenarios.

To specify which client aircraft make up a group, use the following function:

```
AI_ATC:AddPlayerToGroup([Recipient Group Name], [Donor Group Name])
```

```
AI_ATC:AddPlayerToGroup("Nellis_F/A-18C", "Nellis_F-16C")
```

In this example:

- "Nellis_F/A-18C" is the Recipient Group, which will be the primary group name.
- "Nellis_F-16C" is the Donor Group, which will be added to the recipient group.

AI_ATC will treat both aircraft as one group, allowing them to receive the same ATC instructions, callsigns, and sequencing.

RADIO CHANNELIZATION:

Nellis AFB uses local radio frequency Channelization. All radio frequencies are pre set to a specific channel number.

CHANNEL	AGENCY	COMM-1 UHF	COMM-2 VHF
1	INTRAFLIGHT FREQUENCY	305.000	155.970
2	NELLIS CLEARANCE	289.400	120.900
3	NELLIS GROUND	275.800	121.800
4	NELLIS TOWER	327.000	132.550
5	NELLIS DEPARTURE	385.400	135.100
6	NELLIS APPROACH	273.550	124.950
7	NATCIF SALLY	317.525	126.650
8	NATCIF LEE	254.400	119.350
9	SOF BULLSEYE SOF	305.600	142.750
10	EMERGENCY APPROACH	343.725	
11	ATIS	270.100	
12	CREECH AFB TOWER	360.625	118.300
13	NOT USED		
14	KC-135-TEXACO-I-I	297.500	
15	KC-135MPRS-SHELL-I-I	295.400	
16	BLACKJACK	377.800	
17	SHOWTIME	343.300	125.300
18	RANGE 76 JTAC	309.800	133.000
19	NOT USED		
20	HAVE QUICK TOD CHECK	300.050	

NOTE: AI_ATC can broadcast on either **UHF** or **VHF** but not both. In most use cases the default UHF channel is sufficient.

INTERACTING WITH AI_ATC:

You can interact with AI_ATC using the F-10 Radio menu. Simply tune your radio to the agency you want to talk to and select the F-10 Radio option.



It is highly recommended to use voice recognition software such as VoiceAttack to execute these commands. A complete set up guide for using AI_ATC with VoiceAttack is included separately.

AI_ATC allows you to communicate with the following Agencies:

1. Nellis Clearance
2. Nellis Ground
3. Nellis Tower
4. Nellis Departure
5. Nellis Approach
6. NATCF Sally
7. NATCF Lee
8. BLACKJACK
9. ATIS

CLEARANCE\DELIVERY



Clearance\Delivery allows Pilots to request their desired departure. Pilots should reference the included Kneeboard for the departure procedure.

VFR DEPARTURES:

- FLEX North
- FLEX West
- FLEX Mormon Mesa transition.

IFR DEPARTURES:

- DREAM 7
- FYTTR 7
- MORMON MESA 8

Clearance\Delivery also serves as the “Options” Menu for AI_ATC. From here you can assign a custom callsign and choose to join another group.

Pilot: “Nellis Clearance, Dragon1-1, Clearance on request, IFR, DREAM 7”

ATC: “Dragon 1-1, Nellis clearance. Cleared north via Dream 7 departure. Squawk 6001. Departure frequency 387.5. Contact Nellis ground prior to taxi.”