

Tutorial Description

Hello and welcome to the Flight Tutorial.

This is the eighth in a series of tutorials designed to teach players the fundamentals of airplane operations in CMANO. In this tutorial, the following topics will be covered:

- Operation of modern American stealth fighters.
- Operation in a jammed environment.
- Operation with land-based SAM batteries.
- Operation in a contested airspace against numerous Russian and Chinese modern planes.
- Operation at night.

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Briefing

Welcome to the Advanced Combat Tutorial.

In this scenario you will be guided through the following topics:

- Operation of modern American stealth fighters.
- Operation in a jammed environment.
- Operation with land-based SAM batteries.
- Operation in a contested airspace against numerous Russian and Chinese modern planes.
- Operation at night.

In this scenario pop-ups will appear with important messages. You can find them in the document that comes with the tutorial or you can open the message history in a second window by pressing Ctrl+Shift+M and scrolling to the appropriate message.

Note: To successfully complete this scenario, you will need to use the knowledge gained in the previous tutorials.

Message 1

Good evening!

Today you will impersonate the commander of the Ramat David Air Base in Northern Israel and you will learn advanced air-to-air combat.

The following airplanes are under your command:

2 F-22A Raptor stealth fighters, 6 F-35I Lightning II Adir stealth fighters, 4 F-14D Tomcat fighters, 6 F-15I Eagle Raam multirole fighters, 6 F-16I Falcon Sufa multirole fighters, 4 F-15C Eagle fighters, 2 F-15A Eagle Baz, 2 Gulfstream G550 AEW Nahshon, 2 707 Saknayee tankers and 2 Hermes 900 Star UAV.

On the various airplanes, you have loaded these Air-to-Air missiles:

AIM-120D AMRAAM – All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance – 2-75nm

AIM-120C-7 AMRAAM – All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance – 2-60nm

AIM-54C Phoenix – Time-Shared Semi-Active (TSARH) mid-course plus Active Radar Homing (ARH) terminal guidance – 4-120nm

AIM-7P Sparrow III – Semi-Active Radar Homing (SARH) – 2-55nm

AIM-7F Sparrow III – Semi-Active Radar Homing (SARH) – 2-55nm

Python 5 – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-15 nm

Python 4 – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AIM-9X-2 Sidewinder Blk II – All-Aspect High Off-Boresight and Datalink (DL/INS) mid-course plus Passive terminal guidance – 0,2-10 nm

AIM-9X Sidewinder – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AIM-9M Sidewinder – All-Aspect mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10nm

AIM-9L Sidewinder – All-Aspect mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10nm

Python 3 – All-Aspect mid-course plus Passive Infrared (IR) terminal guidance – 0,2-8nm

You also have a PAC-2 GEM+ (Track via Missile TVM – 55nm) SAM System under your command.

TVM is a combination of SARH and radio command guidance.

The ground radar illuminates the target and the resulting reflection is detected by the missile. Unlike the SARH missile, the data collected is returned to the ground station via a data link, elaborated and then sent back to the missile in the form of guidance commands.

A targeted aircraft will be aware that it's being illuminated by the SAM ground radar, but it will not know for certain if it has been engaged.

On the other hand, the ground radar must be switched on throughout an engagement or the missiles will self-destruct, therefore can be targeted by airplanes loaded with anti-radiation missiles.

Most modern SAM systems (HQ-9, Patriot and many versions of the S-300 and S-400) use the TVM technique.

Message 2

We have good intelligence that the Syrians are planning to strike our base and we must stop their airplanes before they can hit us.

We expect the Syrians to use these planes:

MiG-23ML Flogger G, armed with:

AA-7 Apex C [R-24R] – SARH 2-24nm

AA-8 Aphid [R-60TM] – All-Aspect mid-course plus Passive Infrared (IR) terminal guidance 0,2-5nm

MiG-25P Foxbat A, armed with:

AA-6 Acrid A [R-40R] – SARH 4-30nm

AA-6 Acrid B [R-40T] – Rear-Aspect mid-course plus Passive Infrared (IR) terminal guidance 4-30nm

MiG-29M2 Fulcrum C, armed with:

AA-11 Archer [R-73] – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AA-10 Alamo A [R-27R] – SARH 2-45nm

AA-12 Adder A [R-77] - All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance – 2-45nm

MiG-29KUB Fulcrum D, armed with:

AA-11 Archer [R-73] – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AA-12 Adder B [R-77-1] - All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance – 2-60nm

J-10B Vigorous Dragon, armed with:

PL-8C (Python 3) – All-Aspect mid-course plus Passive Infrared (IR) terminal guidance – 0,2-8nm

PL-12 – All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance – 2-50nm

They also have some Su-30SM Flanker G for the SEAD role, armed with:

AA-11 Archer [R-73] – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AA-10 Alamo A [R-27R] – SARH 2-45nm

AS-17 Krypton C - ARM (Anti-Radiation Missile) – 1-60nm

Moreover, we should expect a few H-6M Badger bombers armed with FAB-500M-54 GPB iron bombs, an A-50 Mainstay A AEW plane and a Tu-16P Badger J Electronic Warfare airplane.

The Mainstay and the Badger are HVTs, one providing targeting data to Syrian planes and the other jamming our sensors and protecting enemy planes from our missiles.

Therefore, they should be destroyed as soon as possible.

These airplanes usually patrol the sky behind a cover of friendly fighters, so even if they are defenseless they are not an easy target. You should send an interceptor with very long-range missiles (F-14) or a stealth fighter (F-22 and F-35) to take care of these planes.

The Patriot can assist you in destroying the Syrian planes, but switching on the radar is dangerous with ARM-armed planes around. Try to destroy the enemy SEAD planes as soon as possible. If they manage to fire an AS-17 Krypton C towards your forces, switch off the land-based radars immediately (this will result in the ARMs losing the target and missing)!

Now, launch a G550 AEW Nahshon and a few fighters and try to find the enemy forces!

Message 3

You have just detected some airplanes.

Before engaging, make sure that it's an enemy plane.

There is a lot of civilian traffic in this part of the world, so you need to carefully identify those airplanes!

Message 4

We have found some Syrian military planes!

Destroy them before they can get to Israel!

Note 1: F-22 and F-35 are the most advanced stealth airplanes in the World.

These airplanes are harder to detect and to target, even more than the J-20 and PAK-FA you have used in the previous tutorial.

Therefore you can get much closer to the enemy and engage them with short-range missiles.

Note 2: It's currently night, so the visual detection range is greatly reduced.

If you destroy the enemy AEW plane, the Syrians will be in great trouble.

You can then use your AEW airplanes andIRST systems to ambush the enemy, but be careful when approaching the J-10B Vigorous Dragons, as they have a modern and powerfulIRST system.

Message 5

Well done! You have successfully destroyed all the enemy airplanes.

Congratulations!

This was the last Flight Tutorial, and you should now be ready to try complex scenarios and campaigns!

Message Failure

You have sustained unacceptable losses!

Play again the scenario and try to destroy the enemy airplane without losses!

Message Civilian Killed

You have just destroyed a civilian airplane!

In real life, this is a war crime!

Play again the scenario and be more careful when you decide to shoot!