

## **Scenario Description**

Welcome to the Advanced Combat tutorial.

This is the eighth in a series of tutorials designed to teach players the fundamentals of air operations in Command. 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.

Pop-ups will appear with important messages during this scenario. You can find a PDF of them in the documents folder that comes with these tutorials. The default location is: C:\Program Files (x86)\Command Modern Operations\Scenarios\Tutorials\Air Warfare Tutorials\Flight Tutorial\Documents.

For Steam users, they will be located at: C:\Program Files (x86)\Steam\steamapps\common\Command - Modern Operations\Scenarios\Tutorials\Air Warfare Tutorials\Flight Tutorial.

Created by Andrea D., a.k.a. SirAndrew.

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

## **Scenario 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.

Pop-ups will appear with important messages during this scenario. You can find a PDF of them in the documents folder that comes with these tutorials. The default location is: C:\Program Files (x86)\Command Modern Operations\Scenarios\Tutorials\Air Warfare Tutorials\Flight Tutorial\Documents.

For Steam users, they will be located at: C:\Program Files (x86)\Steam\steamapps\common\Command - Modern Operations\Scenarios\Tutorials\Air Warfare Tutorials\Flight Tutorial.

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

## **Message 1**

Good morning!

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

You have a combination of US and Israel aircraft available. Four F-14D Tomcat, two F-15A Baz, four F-15C Eagle, six F-15I Raam, six F-16I Sufa, two F-22A Raptor, six F-35I Adir, two Gulfstream G550 AEW Nahshon, two 707 Saknayee tankers and two Hermes 900 Star UAV under your command.

Your fighters are armed as follows:

- 4x F-14D Tomcat: 4x AIM-54C Phoenix, 2x AIM-7P Sparrow III, and 2x AIM-9M Sidewinder.
- 2x F-15A Baz: 4x AIM-7F Sparrow III, 2x AIM-9L Sidewinder, and 2x Python 3.
- 4x F-15C Eagle: 6x AIM-120D AMRAAM P31.4 and 2x AIM-9X Sidewinder.
- 2x F-15I Raam: 4x AIM-120C-7 AMRAAM P31.3 and 4x Python 4.
- 4x F-15I Raam: 6x AIM-120C-7 AMRAAM P31.3 and 2x Python 4.
- 2x F-16I Sufa: 2x AIM-120C-7 AMRAAM P31.3 and 2x Python 5.
- 3x F-16I Sufa: 4x AIM-120C-7 AMRAAM P31.3 and 2x Python 5.
- 2x F-22A Raptor: 6x AIM-120D AMRAAM P31.4 and 2x AIM-9X-2 Sidewinder Blk II.
- 6x F-35A Adir: 4x AIM-120C-7 AMRAAM P31.3

## Missile Types:

- AIM-7F Sparrow III: Semi-Active Radar Homing (SARH). Range: 2-38nm.
- AIM-7P Sparrow III: Semi-Active Radar Homing (SARH). Range: 2-38nm.
- AIM-9L Sidewinder: All-Aspect mid-course plus Passive Infrared terminal guidance. Range: 0.2-10nm.
- AIM-9M Sidewinder: All-Aspect mid-course plus Passive Infrared terminal guidance. Range: 0.2-10nm.
- AIM-9X Sidewinder: Inertial (INS) mid-course plus Passive Infrared (IR) terminal guidance. Range: 0.2-14nm.
- AIM-9X-2 Sidewinder: Inertial (INS) and Datalink (DL/INS) mid-course plus Passive terminal guidance. Range: 0.2-14nm.
- AIM-54C Phoenix: Time-Shared Semi-Active (TSARH) mid-course Plus Active Radar Homing (ARH) terminal guidance. Range: 2-99.4nm.
- AIM-120C-7 AMRAAM: All-Aspect Long-Range (Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance. Range: 2-56.7nm.
- AIM-120D AMRAAM P31.4: GPS-Updated Inertial (INS) and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance. Range: 1.1-86.4nm.
- Python 3: All-Aspect mid-course plus Passive Infrared terminal guidance. Range: 0.2-8nm.
- Python 4: All-Aspect High Off-Boresight mid-course plus Passive Infrared terminal guidance. Range: 0.2-10nm.
- Python 5: Inertial (INS) mid-course plus Passive Infrared (IR) terminal guidance. Range: 0.2-15nm.

You also have a PAC-2 GEM+ (Track via Missile TVM, Range: 2-55nm) SAM systems 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 aircraft loaded with anti-radiation missiles. Most modern SAM systems (HQ-9, Patriot and many versions of the S-300 and S-400) use TVM guidance.

## **Message 2**

We have good intelligence that the Syrians are planning to strike our base. The intruders must be destroyed.

We expect the Syrians to use these fighters:

- J-10B Vigorous Dragon: PL-12 and PL-8.
- MiG-23ML Flogger G: AA-7 Apex C [R-24R, SARH] and AA-8 Aphid [R-60M].
- MiG-25P Foxbat A: AA-6 Acrid A [R-40R, SARH] and AA-6 Acrid B [R-40T, IR].
- MiG-29M2 Fulcrum C: AA-10 Alamo A [R-27R, MR TSARH] and AA-11 Archer [R-73].
- MiG-29KUB Fulcrum D: AA-11 [R-73] Archer and AA-12 Adder B [R-77-1, RVV-SD].
- Su-30SM Flanker G: AA-10 Alamo A [R-27R, MR TSARH], AA-11 Archer [R-73M1], and AS-17 Krypton C [Kh-31P, ARM]. These are for Suppression of Enemy Air Defenses (SEAD).

### **Red Missile Types:**

- AA-6 Acrid A [R-40R, SARH]: Semi-Active Radar Homing (SARH). Range: 4-30nm
- AA-6 Acrid B [R-40T, IR]: Rear-Aspect mid-course plus Passive Infrared (IR) terminal guidance. Range: 4-30nm.
- AA-7 Apex C [R-24R, SARH]: Semi-Active Radar Homing (SARH). Range: 2-27nm.
- AA-8 Aphid [R-60M]: All-Aspect mid-course plus Passive Infrared terminal guidance. Range: 0.2-5nm.
- AA-10 Alamo A [R-27R, MR TSARH]: Semi-Active Radar Homing (SARH). Range: 2-45nm.
- AA-11 Archer [R-73]: All-Aspect, High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance. Range: 0.2-10nm.
- AA-11 Archer [R-73M1]: All-Aspect, High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance. Range: 0.2-10nm.
- AA-12 Adder [R-77, RVV-AE]: All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance. Range: 2-43.2nm.
- AA-12 Adder [R-77-1, RVV-SD]: All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance. Range: 2-45nm.
- AS-17 Krypton C [Kh-31P, ARM]: Inertial (INS) mid-course plus Passive Radar Homing (ARM) terminal guidance. Range: 1-60nm. Anti-radiation missiles are used to destroy enemy radars.

- PL-8: All-Aspect mid-course plus Passive Infrared terminal guidance. Range: 0.2-8nm.
- PL-12: All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance. Range: 2-50nm.

They also have a few H-6E Badger bombers armed with FAB-500M-54 GPB iron bombs, an A-50 Mainstay A AEW, and a Tu-16P Badger J Electronic Warfare aircraft.

The Mainstay and the Tu-16P Badger are HVTs. The Mainstay provides tracking and targeting data for the Syrian fighters, and the Badger provides Offensive Electronic Counter Measures (OECM). Jamming our radars and protecting the enemy aircraft from our missiles. They should be destroyed as soon as possible.

These aircraft usually patrol 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 aircraft (F-22 or F-35) to take care of them.

The Patriot can assist you in destroying the Syrian aircraft, but switching on the radar is dangerous with ARM-armed aircraft around. With older ARM missiles without "ARM Target Memory" you can turn off your radars and the missile will miss. However, that won't work in this case as the AS-17 does have this capability.

### **Message 3**

You have just detected some aircraft.

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

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

**Note:** Remember that military aircraft usually fly together in groups.

### **Message 4**

We have identified some Syrian military aircraft!

Destroy them before they can get to Israel!

**Note 1:** The F-22 and F-35 are the most advanced stealth airplanes in the World. These aircraft are harder to detect and to target, even more than the J-20 and PAK-FA you have used in the previous tutorial.

**Note 2:** It's currently night, so the visual detection range is greatly reduced. If you destroy the enemy AEW aircraft the Syrians will be in trouble. You can then use your AEW aircraft and IRST systems to ambush the enemy but be careful when approaching the J-10B Vigorous Dragons, as they also have an IRST system.

### **Message 5**

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

Congratulations!

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