

CREATING PRO MISSIONS

TOC

The Pro Mission Creator allows you to set up more complex missions involving multiple wings, multiple ground targets, and air defenses. With the Quick Mission Generator, the computer creates a mission from a few general parameters that you set. With the Pro Mission Creator, however, you control every aspect of every object in the game — plotting exactly where they go at what time, what their objectives are, and how they react to other objects of different classes.

- ♦ [Loading and Saving Missions](#)
- ♦ [Designing Missions](#)

LOADING AND SAVING MISSIONS

You can load and save the missions you create with the **FILE** menu, or by pressing the keys described below. To create a new mission, simply begin making changes to the mission map that appears when the *Mission Creator* screen pops up.

If you wish to make changes to a mission you have already saved, choose **LOAD MISSION** from the **FILE** menu, or press **L**.

L **LOAD MISSION** Loads a mission you've already saved into the Pro Mission Creator, so you can make changes to it.

If you are unhappy with the mission you are working on, select **NEW MISSION**. A prompt appears, asking if you want to save your latest changes. Choose **NO** to lose the changes (in which case the mission reverts back to its last saved version), and begin work on a new mission. Choose **YES** to keep the changes and begin work on an entirely new mission. Whichever you choose, a clean mission map appears.

Ctrl N **NEW MISSION** Gives you a new mission map, so you can start over.



When you've created a mission you like, choose **SAVE MISSION** from the **FILE** menu. Type in a name for the mission, and then click **OK** or press **Enter**. The file will appear in your ATF directory with a ".m" extension attached to it. You can load it from the *Pro Mission Creator* screen if you want to modify it, and it will appear as a choice on the *Play Single Mission* selection screen.

S **SAVE MISSION** Saves the mission you've created in your ATF directory.

To fly a mission you've created, select **PLAY SINGLE MISSION** from the *Choose Activity* screen, and cycle through the missions on the selection panel until the name of your mission appears.

(See [Play Single Mission](#).)



DESIGNING MISSIONS

Although creating a challenging mission is more of an art than a science, a few basic procedures are involved:

- ◆ [Establishing a World](#)
- ◆ [Looking at the Mission Map](#)
- ◆ [Adding Objects to the Mission Map](#)
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- ◆ [Duplicating and Deleting Objects](#)
- ◆ [Defining Objects and Assigning Targets](#)
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- ◆ [Grounding Aircraft and Delaying takeoff](#)
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- ◆ [Setting Waypoint Formations and Objectives](#)

Establishing a World

The **WORLD** menu on the menu bar at the top of the *Mission Creator* screen has several options:



Set Map

Set Friendly and Enemy Sides

Set Weather (and Time of Day)

Set Screens

Set Skill Levels

Set Map

When the *Mission Creator* screen appears, a map of EGYPT shows up in the map area. This is the default map, but there are two others, FRANCE and VLADIVOSTOK. These determine the theater in which the mission takes place and the terrain you will fly over.

SET MAP (World Menu) Calls up a selection panel where you can choose the theater in which your mission takes place.

Set Friendly and Enemy Sides

You will notice blue and red icons on the map. Red icons denote enemy objects, and blue icons denote friendlies. An object's nationality determines whether it is friendly or hostile. You determine which nations are friendly and hostile by choosing SET FRIENDLY AND ENEMY SIDES from the **WORLD** menu.

SET FRIENDLY AND ENEMY SIDES (World Menu) Choose which nations are your allies and which are your enemies.

The *Assign nationalities to Enemy side* selection panel appears:



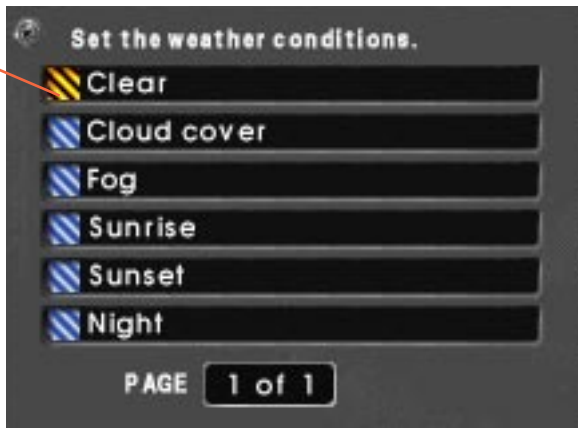
To change a country's alliance, click on the button next to it. When you are satisfied with the lineup, click OK.

Set Weather (and Time of Day)

Weather conditions and time of day can help or hinder all sides in air combat. For example, cloud cover and darkness provide visual cover for attacking aircraft and create headaches for the defenders.

SET WEATHER (World Menu) Select visibility conditions for the mission. Default is CLEAR.

Click a condition,
then press OK.



Set Screens

This option allows you to control what screens a player sees before he flies the mission. You may restrict or grant access to the *Mission Briefing* screen with BRIEFING PAPER, the *Mission Map* screen with BRIEFING MAP, the *Select Aircraft* screen with SELECT PLANE and the *Load Ordnance* screen with ARM PLANE.

SET SCREENS

(World Menu) Sends you to a panel where you can turn the available screens on and off.

NOTE: If SELECT PLANE is turned on, the players will be able to choose an aircraft other than the one you've designated. If ARM PLANE is turned on, the player will be able to choose his own weapons load. Otherwise, he will be forced to fly with the default loadout.

Set Skill Levels

You can set the default skill levels of your enemy's ground and air forces, as well as your own, by selecting any of these options from the **WORLD** menu. These are default levels for the entire group — you can change the skill levels for individual objects once you've added them to the map. Use your mouse to highlight the skill level you want.

FRIENDLY PILOT SKILLS

Set the default skill level for friendly aircraft and other vehicles.

FRIENDLY SAM SKILLS

Set the default accuracy level for friendly SAMs.

ENEMY PILOT SKILLS

Set the default skill level for enemy aircraft and other vehicles.

ENEMY SAM SKILLS

Set the default accuracy level for enemy SAMs.

Looking at the Mission Map

The Show Menu

The **SHOW** menu controls what items are displayed on the map. Items with check marks next to them are visible; items without check marks are hidden.

PLANES	Hide/display aircraft.	MISSION ITEMS ONLY	Display only objects that take part in the mission (targets, enemy aircraft)
SAM SITES	Hide/display SAM sites.	SAM THREAT RANGES	Show the ranges for all SAM and AAA sites. These appear as circles around the sites.
AAA SITES	Hide/display AAA sites.	DISTANCE GRID	Superimposes a grid over the map; each square is 25nm on a side.
SHIPS	Hide/display ships.		
AIRPORTS	Hide/display airports and aircraft carriers.		
VEHICLES	Hide/display ground vehicles (tanks, trucks, etc.).		
OTHER	Hide/display all other objects		



Scrolling and Zooming

Click and drag the scroll bars and click the zoom switch on the map, or use the following keyboard commands and options from the **VIEW** menu to control the map.

- [A] **SCROLL LEFT**
- [S] **SCROLL RIGHT**
- [↑] **SCROLL UP**
- [↓] **SCROLL DOWN**
- [N] **CENTER MAP AT CURSOR**
- [B] **CENTER MAP AT SELECTION (i.e., on the selected icon)**
- [+] **ZOOM IN**
- [-] **ZOOM OUT**



Scroll bar

Zoom switch

If **SMART ZOOM** is activated, the map remains centered on selected icon as you zoom.



Adding Objects to the Mission Map

Determining what fighters, ground targets, air defense sites, etc. a player will encounter, when and where he will encounter them, and how they will react is the heart of designing a challenging mission. Objects fall into two categories, **permanent** and **mission** objects.

Permanent Objects. When you've chosen your map, you will notice there are already a few objects on it, most notably friendly and enemy airbases. These are permanent objects — they *cannot* be deleted, changed or assigned as mission objectives. They can be attacked during the mission, and fragile objects like buildings and bridges can be destroyed; however, damage done to permanent objects has no bearing on the outcome of a mission.

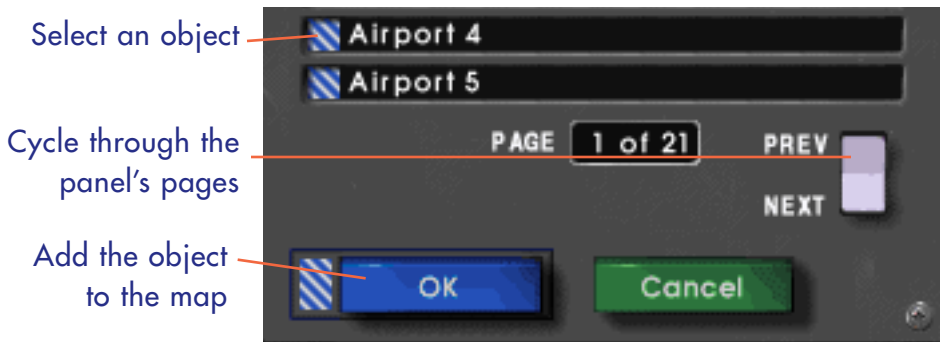
Mission Objects. You must add the objects that play an active part in your mission — such as friendly and enemy planes, SAM sites and ships — to the objects already displayed on the map.

The [Appendix E: Object List](#) includes all objects in the game, grouped by class (i.e., fighter, bomber, ship).



To add objects, press **[Ins]** or choose ADD from the **OBJECT** menu.

The *Add Object* selection panel appears:



Aircraft followed by asterisks (***) can be flown by players in single missions; all other objects must be controlled by the computer. (Players can fly any plane in multi-player missions.)

You can use **[↑]**, **[↓]** to scroll through objects, or Press any letter to jump to the objects beginning with that letter (e.g., press **[R]** to go to the objects beginning with R).



Map Icons



Fighter



Helicopter



Bomber



Tank



Airport



Structure



Miscellaneous



Other



Aircraft carrier



Ship



SAM



AAA

Note: If an object doesn't appear on the map, make sure its class (e.g., PLANES, SHIPS) is active on the **SHOW** menu.



Selecting and Moving Objects

Click on any object to select it. To move a selected object to another location, drag it with the mouse. Note that positioning an aircraft icon over a runway puts the aircraft in flight over that runway. To place an airplane in an airport or on a carrier, see [Grounding Aircraft](#).

Duplicating and Deleting Objects

To delete or duplicate an object on the map, select it and press the appropriate key, or choose the corresponding option from the object menu.

U

Duplicate

Duplicate the selected icon.

Del

Delete

Delete the selected icon.

Defining Objects and Assigning Them Targets

To modify the object, its assignment, or its effect on the mission, click on the appropriate text button, click the text buttons to the right of the mission map.

American A-7E Corsair II , flown by

- ♦ Choose the object's **nationality**, to set whether it is an enemy or friendly unit. Enemy objects have **red** icons, friendly objects have **blue** ones.
- ♦ Select the **type** of object. This button brings up the *Add Object* selection panel and allows you to change the object to something else.



Anonymous, an average computer pilot.

- ◆ If the object is an aircraft, you can **name its pilot**. This button brings up the *Enter Pilot Name* panel. Type a name for the pilot, and then click OK or press .
- ◆ Set the **experience level** for this unit. Experience affects how well a pilot flies and uses countermeasures; how accurately a tank or AAA site aims; etc.
- ◆ Designates whether the pilot is a **human or the computer**. Except in multi-player missions, players can only fly aircraft marked with *** on the *Choose Object* panel.

Heading north at 10000 feet.

- ◆ Give the object an **initial heading**.
- ◆ If the object is an airplanes, set its **initial altitude** between 1,000 and 60,000ft ASL. If an aircraft is positioned *directly* over an airport or carrier, ground level is also available.



ASSIGNMENT

No assigned target.

- Click the **assignment** box to get the prompt, *Assign a friendly unit to escort or an enemy target.* Click on an enemy object or object. This is the target or escorted unit assigned to the object for the entire mission.

Fighter

Attack

Bomber

Attack

Ship

Defend

- The next series of text buttons specifies the selected object's **default reactions** to different classes of objects.

You have four choices:

ATTACK Find enemy targets of this class and attack them.

DEFEND Defend if under attack by this class of enemy.

IGNORE Ignore enemies of this class.

EVADE Attempt to gain separation from objects of this class.



Search for targets at any distance .

- ◆ Designate the range at which the object searches for enemies. Note that any particular object is still limited by the range of its detection device.

MISSION

Mission success is not affected by object.

- ◆ Designate the object as a “mission objective,” if you wish:

MISSION SUCCESS IS NOT AFFECTED BY OBJECT.

The object has no bearing on player's success or failure.

MISSION SUCCESS ONLY IF OBJECT IS DESTROYED.

Player must destroy the object in order to succeed.

MISSION SUCCESS ONLY IF OBJECT SURVIVES.

Player must protect the object from all aggressors.

MISSION SUCCESS ONLY IF OBJECT FINISHES WAYPOINTS.

Player must protect the object from all aggressors until the object reaches its final waypoint.



Other objects can attack

- ◆ Choose whether **enemy objects attack** the unit or just ignore it. This only affects computer-controlled enemies and in no way limits the player from attacking the object. This option is basically a mission designer's cheat to ensure that computer-controlled objects do not do the player's work by destroying mission objectives.

Wait 0 minutes before starting.

- ◆ Set **how long the object waits** before beginning its mission. **Note:** this only applies to objects on the ground. Aircraft at any altitude above ground level are moving and cannot be delayed.

Show in briefing map.

- ◆ Determine whether or not the player will see the object on the briefing map. This allows you to set how current the player's intelligence data is, and install surprise ambushes and hidden SAM sites.



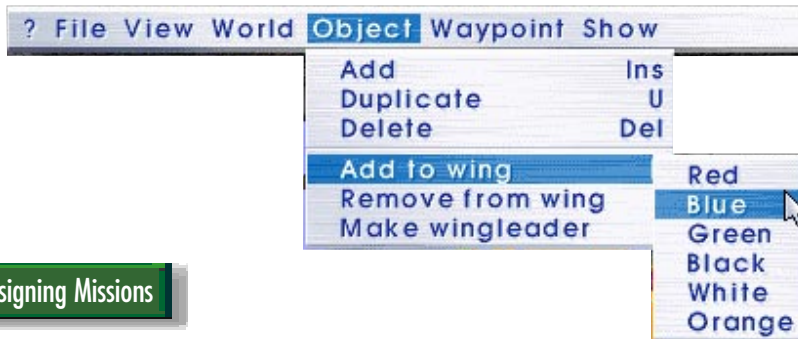
Creating Wings

Aircraft operate together in groups called wings. A wing allows you to assign a single mission objective for up to 10 aircraft.

Commands governing wings are available from the **OBJECT** menu.

To create a wing, add up to 10 aircraft to the map. Click on one of the aircraft to select it, and highlight **ADD TO WING** on the **OBJECT** menu. A submenu appears listing six wing colors. Highlight the color of the new wing and release the mouse button. Add the rest of the aircraft to the wing in the same manner.

ADD TO WING Add selected object to a wing. Choose the wing from the submenu that appears.



A wing appears on the map as one icon, and when you give orders to one aircraft in the wing, the other aircraft receive those orders, too. When a wing is selected, information about its wingleader appears in the text to the right. You can cycle through the individual airplanes that form a wing by clicking the wing color and number at the top of the information panel to the right. You can remove an airplane from a wing or designate it as the wingleader by choosing options from the OBJECT menu:

REMOVE FROM WING

Removes the selected aircraft from the wing.

MAKE WINGLEADER

Makes selected aircraft wingleader.



Grounding Aircraft and Delaying Takeoff

You can create waves of aircraft by grounding them at airports or on carriers and giving them different take-off times.

To place an airplane or wing on the runway or on a carrier, position its icon over a runway or carrier icon and release. Next click on the altitude text button in the text to the right of the map until the altitude reads GROUND LEVEL. Grounded aircraft do not appear on enemy radar until they take to the air.

Unless directed to wait, grounded aircraft will take off from their base as soon as the mission begins. You can delay them, which in effect hides the enemy air units on the ground until the you want them to begin their mission.

To delay takeoff, click on the grounded unit to select it. Look at the bottom of the text to the right for *Wait __ minutes before starting* and click the text button until the appropriate delay time appears. A wing of grounded aircraft take off one at a time, beginning with the wingleader.

Assigning Waypoints

Giving a unit waypoints specifies a series of actions for it to perform. You can assign waypoints to any object that can normally move — aircraft, ships and ground units.

Select the unit to which you wish to assign waypoints, and select **ADD** from the **WAYPOINT** menu or press **[A]**. A waypoint marker, labeled “A,” appears on the map.

Add as many waypoints as you want to give the selected object, and then re-position them on the map by selecting them and dragging them with the mouse. A white line connects all of the waypoints in a series; the object will travel to the waypoints in alphabetical order (from A to B to C, etc.).

[A]	ADD	Give the selected unit a waypoint.
[D]	DELETE	Delete the selected waypoint.
[I]	SELECT PREV WAYPOINT	Cycle through waypoints in reverse order.
[J]	SELECT NEXT WAYPOINT	Cycle through waypoints in alphabetical order.



Creating Loops

You can create a loop for objects with waypoints by selecting an ending waypoint, pressing **[C]** (or choosing **CREATE LOOP** from the **WAYPOINT** menu), and selecting a previous waypoint. The object will travel from its first waypoint, along any intermediary waypoints to the final waypoint, and then back to the first, repeating the cycle until the mission ends. To delete a loop, click on the final waypoint and select **DELETE LOOP** from the **WAYPOINT** menu or press **[E]**.



CREATE LOOP

Create a loop, beginning at the selected icon.



DELETE LOOP

Delete a loop (must have final waypoint of loop selected).



Setting Waypoint Formation and Objectives

Information about the waypoint appears in the text to the right of the map. You can specify a name for each waypoint and give the object an assignment to carry out there. If the waypoint is for a wing, you can also determine the default formation in which the airplanes fly to the waypoint.

Select a waypoint by clicking on it, then use the text boxes to alter the following parameters in the text to the right of the map.

A screenshot of a game interface showing a waypoint label. The text "WAYPOINT ALPHA" is displayed in a white, monospace-style font, underlined. Below it, the text "(unnamed)" is displayed in a smaller, white, monospace-style font. The background is a dark, textured grey.

WAYPOINT ALPHA
(unnamed)

- ◆ **Name** the waypoint (Ingress, Merge, etc.).



FORMATION

Echelon formation, far spacing,
level stacking, loose control.

- ◆ Choose a **formation type** for a computer-controlled wing (or a default formation for wing under human control). See [Formation Diagrams](#).
- ◆ Choose **spacing** for wing. See [Spacing Diagrams](#).
- ◆ Choose **stacking** for wing. See [Stacking Diagrams](#).
- ◆ Govern how strictly the aircraft **control** their formation:
 - TIGHT** Wingmen maintain formation no matter what happens
 - MEDIUM** Wingmen maintain formation until the wingleader directs them to attack, but break to avoid missiles
 - LOOSE** Wingmen break when an enemy or incoming missile is detected, and once broken, will continue to search attack until their wingleader signals to disengage.



Maintain 350 knots at 10000 feet.
ETA 15:15.

- ◆ Set the **speed** at which an object travels to this waypoint. Note that as you change the speed, the ETA (Estimated Time of Arrival) changes accordingly. Setting a speed does not guarantee the object is capable of attaining that speed.
- ◆ Set **altitude** at which an aircraft will fly to its waypoint. Note that setting an altitude does not guarantee the aircraft is capable of flying at that altitude.



ASSIGNMENT

BARCAP (no assigned target) until
waypoint is reached.

- ◆ Give the object an **assignment** to carry out at the waypoint:
NORMAL FLIGHT Attack, defend, ignore or evade objects according to the text boxes below.
MIGCAP (MiG Combat Air Patrol) Seek and destroy enemy aircraft near waypoint
BARCAP (Barrier Combat Air Patrol) Engage aircraft attempting to cross patrol zone.
WILD WEASEL Attack enemy air defenses (SAM sites, AAA, etc.).
CAS Provide Close Air Support for ground troops by engaging enemy ground targets.
ANTI-SHIP Seek and destroy enemy naval craft.
HI/LO SWEEP Come in at high altitude and sweep low to engage enemy ground targets.
- ◆ Assign the object an enemy **target** or a friendly to protect at this waypoint. Click on the text button, then click on an enemy target or friendly object.
- ◆ Specify the **duration** of this assignment: until THE WAYPOINT IS REACHED, THE TARGET IS ATTACKED OR THE TARGET IS DESTROYED



Fighter	Attack
Bomber	Attack
Ship	Ignore

- ◆ These boxes specify the object's **reaction** to different classes of objects at this waypoint only. These settings supersede the object's default reactions (those specified in the text to the right when the object, and not the waypoint, is selected), but only at this waypoint.

Possible reactions are as follows:

- ATTACK** Search for enemy targets of this class and attack them.
- DEFEND** Defend if under attack from this class of enemy.
- IGNORE** Ignore enemies of this class.
- EVADE** Attempt to gain separation between you and any object of this class.



Search for targets within 25 miles .

- ◆ Establish a **search range** — how far from the waypoint the object searches for enemies. Note that an object is still limited by the range of its detection device.

React to threats with Maximum force.

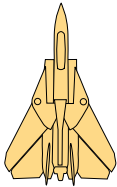
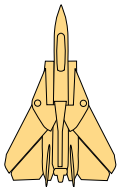
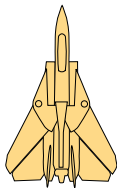
- ◆ Specify the **level of force** (DOUBLE/EQUAL/MAXIMUM) with which the object attacks its enemies.

Other objects can attack us.

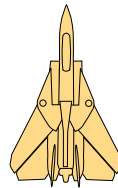
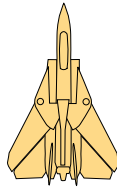
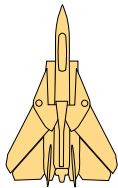
- ◆ Establish the object's **vulnerability** — whether it can be attacked or will be ignored at this waypoint.



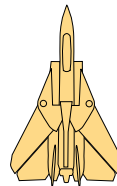
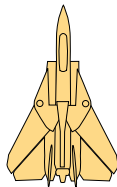
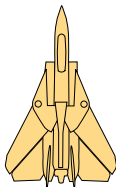
FORMATION DIAGRAMS



Line Astern



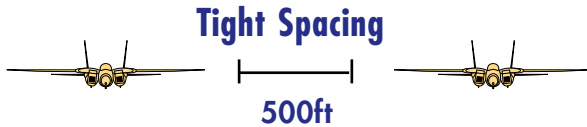
Line Abreast



Echelon



SPACING DIAGRAMS



STACKING DIAGRAMS



High Stacking



WINGLEADER



Low Stacking



WINGLEADER



Level Stacking

