

## TacOps Errata - 6 July 95.

1. The purpose of this document is to explain the more significant new features and changes added to the TacOps game by updates 0.0.1 through 0.1.2 and to correct errors and omissions in the TacOps User's Guide. A detailed listing of the updates' user requested enhancements, bug fixes and cosmetic changes may be found in the Read Me file that accompanies the update installers.

### 2. User's Guide Errata.

#### A. Chapter Two, Installation.

TacOps works fastest if the terrain or map files are kept at the same folder level as the TacOps program. Do not rename any of the factory provided files.

#### B. Chapter Three, Starting the Game.

You may choose to ignore startup area limits by selecting the File: Options: Ignore Unit Setup Limits menu item.

Shortcut - To make slight changes in the position of a unit during the setup turn, open the unit's orders window and hold down the shift key while pressing an arrow key. The unit will shift one pixel in the direction of the arrow key.

During the setup phase (the first turn) some scenarios offer some entrenchments to the defender. Entrenchments are also often available as "optional units". They aren't really units, but it was a convenient area to put them in. During the setup phase you place the entrenchment markers on the map where you want them just like units and you can reposition them if needed. At the beginning of the first combat phase the entrenchment markers are converted to terrain and become an immovable part of the battle map.

#### C. Chapter Five, Map and Unit Symbols

The Map: Line Of Sight Check and Map: Thermal LOS Check menu items allow you to quickly check the range and the normal eyesight and thermal lines-of-sight between two points. When checking the line of sight of a unit, make your start point the center of the unit symbol.

Select the Map: Line of Sight Check menu item. A cross hair will appear on the map. While holding down the mouse button, click on the map and drag the cross hair around the screen. If the cross hair remains clear then the line of sight is clear. If the cross hair turns black then the line of sight is blocked. If the cross hair turns gray then there is a clear line of sight to a target point but the point is beyond the scenario's maximum visibility limit. Release the mouse button to quit. To view the special line of sight of a unit equipped with a thermal imaging device, select the Map: Thermal LOS Check menu item. The line of sight routine can also be pinned to a selected unit. To use this feature, select a unit, then select the Line of Sight menu item. Move the mouse to check line of sight but do not press the mouse button until ready to turn off the pinned line of sight check. If the selected unit has thermal sights the routine will automatically show the unit's thermal line of sight.

When the line of sight tool is in use, the range between the two points will be displayed in the information window at the bottom of the screen as well as the UTM grid coordinates of the end point.

Shortcut - if the command key is held down instead of the option key while clicking on a unit, the unit's information window will be displayed instead of the unit's photo.

#### D. Chapter Six, Giving Orders To Units.

The entrenchment button in the unit orders window does not give an order unless the center point of a unit is over an entrenchment symbol. To get the benefit of the entrenchment, the center point of a unit must be somewhere within the entrenchment symbol and you must have ordered the unit to "enter" the entrenchment with a button press. It is not enough to just be on top of it.

Pressing the "X" key when a Unit Orders Window is open will delete all orders for that unit. Pressing the "-" key when a Unit Orders Window is open will delete the last order for that unit.

Unit orders are copied and pasted per the typical Macintosh copy/paste interface. To copy orders, first select a unit on the map either by opening its Orders Window or by "shift clicking" on its marker or by dragging a selection rectangle around it. Once the unit is selected, you copy its orders into memory by selecting the Copy Orders menu item or by pressing the customary "Command C" key combination. The unit will blink as its orders are copied. Next select one or more units on the map to paste the orders into, by shift clicking" on unit markers or by dragging a selection rectangle around them. You can then paste the orders from memory into the selected units by selecting the Paste Orders menu item or by pressing the customary "Command V" key combination. Each selected unit will blink as it receives the pasted orders. You may also paste orders into a unit with an open Orders Window.

Shortcut: If you select the Copy Orders menu item without any unit selected on the map, you will be prompted to click on a unit to copy from. If you select the Paste Orders menu item without any unit selected on the map, you will be prompted to click on a unit to paste orders into.

Shortcut: Normally when orders are pasted into a unit, they replace any orders currently held by that unit. Hold down the option key while pasting if you wish to preserve the unit's current orders while adding the new orders to the end of its list.

The "Get Add Orders" button in the Unit Orders Window gets the orders list from another unit on the map and appends its orders to the end of the orders list for the unit with the open Unit Orders Window. This is very useful for organizing a group of units to move in column down a road. To use, click on the button. The orders window will disappear and a cross hair cursor will appear. Click the cross hair cursor on another unit on the map. The orders window will reappear and the orders of the clicked on unit will be appended to the end of the original unit's orders list.

Unit SOP settings may also be copied and pasted in the same manner as unit orders. To copy SOP settings, first select a unit on the map either by opening its Orders Window or by "shift clicking" on its marker or by dragging a selection rectangle around it. Once the unit is selected, you copy its SOP setting into memory by selecting the Copy SOP menu item. The unit will blink as its SOP settings are copied. Next select one or more units on the map to paste the SOP into, by shift clicking" on unit markers or by dragging a selection rectangle around them. You can then paste the SOP settings from memory into the selected units by selecting the Paste SOP menu item. Each selected unit will blink as it receives the pasted SOP. You may also paste SOP settings into a unit with an open Orders Window.

You may have both orders and SOP settings in memory at the same time.

The Unit SOP (Standard Operating Procedures) Window allows you to specify default behavior for a unit. This window is summoned by clicking on the SOP button in a Unit Orders Window. Clicking on most buttons in the window will mark SOP settings to be observed by the selected unit. The SOP settings are not final for the selected unit until the window is closed.

**Allow Fire Support On Own Position.** Normally your artillery and air support will not strike a point on or very near friendly units. This can make it difficult to engage adjacent enemy units. If this item is checked, a unit may even be shelled by its own artillery or bombed by its own aircraft.

**Cross Minefields.** A unit will normally try to go around a known mine field unless there is a cleared lane through it. If you want a unit to cross an uncleared minefield (marking or clearing a lane as it goes) check this item.

**Stop If Fired On.** If checked, a moving unit will stop in place if fired on. The unit will also attempt to adopt a defilade mode. Helicopters will drop to nap-of-the-earth altitude and will hover.

**Stop If Fired On & Pop Smoke.** If checked, a moving unit will stop in place if fired on. If suitably equipped, the unit will instantly produce a local smoke screen. The unit will also attempt to adopt a defilade mode. Helicopters will drop to nap-of-the-earth altitude and will hover.

**Reverse If Fired On.** If checked, a moving unit will instantly begin to back up if fired on. Helicopters will drop to nap-of-the-earth altitude. The unit will continue moving in reverse until it traverses the number of meters specified in the distance box.

**Reverse If Fired On & Pop Smoke.** If checked, a moving unit will instantly begin to back up if fired on. If suitably equipped, the unit will instantly produce a local smoke screen. Helicopters will drop to nap-of-the-earth altitude. The unit will continue moving in reverse until it traverses the number of meters specified in the distance box.

**Unload If Fired On.** If checked, a unit will unload any troops onboard if fired on.

**Stop After Firing.** If checked, a moving unit will stop in place if it fires any of its weapons. The unit will also attempt to adopt a defilade mode. Helicopters will drop to nap-of-the-earth altitude and will hover.

**Stop After Firing & Pop Smoke** If checked, a moving unit will stop in place if it fires any of its weapons. If suitably equipped, the unit will instantly produce a local smoke screen. The unit will also attempt to adopt a defilade mode. Helicopters will drop to nap-of-the-earth altitude and will hover.

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continue moving in reverse until it traverses the number of meters specified in the distance box.

**Unload After Firing.** If checked, a unit will unload any troops onboard if it fires any of its weapons.

**Take Evasive Action When Fired On.** Helicopter units (only) can be instructed to automatically move away from enemy fire by checking this item. If fired upon, the helicopter unit will usually assume a nap-of-the-earth flight profile and will move directly away from the source of the fire.

**Set All Ground Units.** Clicking on this button will instantly paste the settings in the SOP Window into every one of your other ground units.

**Clear.** Clicking on this button will clear all settings in the SOP Window.

**Copy.** Clicking on this button will copy all settings in the SOP Window into scrap memory. The Orders: Paste SOP menu item can then be used to later paste these settings into other units.

**Note 1:** These routines are meant to be used on an exceptional basis. Most were added primarily to address critical realism problems related to units continuing to foolishly advance into surprise enemy fire for too long a period of time before the next orders phase occurs. The program does not analyze the situation before acting on SOP settings, it just executes them as you ordered.

**Note 2:** SOP options that include smoke, stop, unload, or reverse are one-time-only settings. These SOP settings are cleared each time that they are acted on.

**Note 3:** If an SOP option includes smoke and it is acted on, smoke will not be fired if a unit is out of smoke ammunition or is still in the process of reloading its smoke devices from a previous firing.

When a Unit Orders Window is open, detailed information about the unit may be obtained by clicking on the Unit Info button. This will produce an Information Window. The title of the Information Window shows the units type, its optional text name if any, and its map location in UTM coordinates.

#### E. Chapter Ten, Artillery and Air Support

On map artillery and mortar units can set and use artillery style target reference points (TRPs). However, on map units can not use target reference points set by off map units and vice versa.

All buttons and controls for setting off map artillery and air support missions are now visible at one time in two redesigned support windows. The functions of the controls that were formerly contained in popup menus remain the same, only their appearance has changed.

All buttons and controls for setting on map artillery and mortar support missions are visible at one time in a redesigned Unit Orders Window. The functions of the controls that were formerly contained in a popup menu remain the same, only their appearance has changed. Additional controls have been provided to allow on map artillery and mortars to

set and use indirect fire target reference points. They function the same as similar buttons in the Off Map Artillery Support Window.

Target symbols are displayed on the map for all ongoing fire support missions when the following windows are open: Off Map Artillery Support Window, Air Support Window, or the Orders Window of an on map artillery or mortar unit.

Shortcut: Hold down the option key while clicking on the target marker for an off map artillery or air support mission and the control window for that mission will open automatically.

Shortcut: Hold down the option key while clicking on the target marker for an on map artillery or mortar unit and the orders window for the firing unit will open automatically.

The program temporarily hides all fire support mission markers when marking or shifting "on map" artillery or mortar targets. If you do not want the markers to be temporarily hidden, you can prevent this by holding down the option key as you click on the Mark or Shift Target buttons.

When an off map or an on map artillery/mortar unit has fired enough adjusting rounds for its accuracy level to reach level 5, additional adjusting impacts will not be displayed on the map.

Adjusting fire costs on map artillery and mortars one round per impact. When an on map artillery/mortar unit has fired enough adjusting rounds for its accuracy level to reach level 5, additional adjusting impacts will not be displayed on the map.

#### F. Chapter Twelve, Unit Disposition.

All entrenched units are significantly harder to spot. All entrenched units are significantly harder to hit with direct fire. Entrenched infantry units suffer less personnel casualties when they are hit. Entrenchments can hold an infinite number of units. [There is no need to have the game enforce stacking limits. Your opponent's artillery will generally drive the lesson home about not bunching up.]

#### G. Chapter Fourteen, Options and Preferences.

TacOps allows the user to modify many aspects of the game system. The File: Options and the File: Preferences menu items lead to many user selectable options. Judicious use of these items will allow you to tailor the TacOps game engine as well as most scenarios to better support your personal gaming interests and your view of reality in some controversial areas.

Game options are selected through the Options submenu of the File menu. Game options are used to modify a currently loaded scenario. Options "stick" to saved games but do not affect future new games of the same scenario. Most options can only be applied during the setup or first orders phase of a new game.

Add Optional Units. Some scenarios allow you to increase the size of friendly and or enemy forces through the addition of optional units. Often such optional units will consist of multiple markers - platoon through regiment. Most optional units are merely reinforcements. Others are armed with near-future weapon systems such as the USMC LAV assault gun and LAV air defense variants. Minefields and entrenchments may also be

available as optional units. To use, select the File: Options: Add Optional US Units or the File: Options: Add Optional OPFOR Units menu item and then select the specific unit or units to be added from the list of available forces. Selected optional units may appear instantly or they may not appear until later in the game. If needed, the computer will provide instructions on how to select a setup or entry point for the optional forces on the map. This option is only available during the first orders phase. OPFOR units added to solitaire games through this feature will be properly controlled by the computer opponent.

**Add One Unit.** Select the File: Add One Unit menu item to display a window that will allow you to add one unit marker at a time. Set the number of elements that you want to be in the marker by filling in the box labeled "Quantity to Add:" and then double click on the desired unit in either the US & Canada list or in the OPFOR list. The Add Unit Window will disappear and a cross hair cursor will appear. Click the cursor on the map where you want the unit to be placed. The appropriate unit marker will then appear on the map and the Add Unit Window will reappear. This option is only available during the first orders phase. This feature is provided mainly to allow additional force tailoring for two player games. OPFOR units added to solitaire games through this feature will often not be properly controlled by the computer opponent.

**Ignore Unit Setup Limits.** Selecting the File: Ignore Unit Setup Limits menu item allows you to setup your units without regard to any normal scenario unit placement restrictions. Once this menu item is selected, a check mark will appear beside it. In two player games, a note will be automatically sent to your opponent indicating that you have used this feature. This option is only available during the first orders phase.

**Delete Units.** Selecting File: Delete Units menu item allows you to delete units without penalty. Selecting this menu item produces a cross hair cursor. Click the cross hair on the unit in the setup window or on the map that you wish to delete. This option is only available during the first orders phase. Useful when only a part of startup or optional units is wanted or for recovering from mistakes such as adding the wrong optional units.

**Change Entry Time.** Select the File: Options: Change US Entry Time or the File: Options: Change OPFOR Entry Time menu item to display a window that will allow you to alter the arrival times of units that start a scenario from off map positions. Once the window appears, enter the new time that you wish the leading unit marker in a given group to appear on the map and click on the Set It button. The impact, if any, of that change on other markers in the unit will be instantly shown underneath each marker. If you don't wish to change a particular group, click on the Next button. This option is only available during the first orders phase.

**Change Combat Speed.** Select the File: Change Combat Speed menu item to alter the speed with which messages are displayed in the information window during the combat phase. Slowing or increasing the speed of message display has the useful side effect of slowing or increasing the overall speed of combat execution. The number in brackets, beside the menu item, indicates the current setting. Higher numbers are slower than lower. A setting of zero provides the fastest display of action in the combat phase. This option is always available.

**Change Artillery Support.** Select the File: Change Artillery Support menu item to set the type of artillery support available in a scenario, to change the number of available artillery fire missions, to change artillery mission ammunition available for those missions at the beginning of any scenario, and to change the percentage chance of the US and or OPFOR receiving additional artillery ammunition during a game. This option is only available during the first orders phase.

**Change Air Support.** Select the File: Change Air Support menu item to change the number of air support sorties available at the beginning of any scenario and to change the percentage chance of the US and or OPFOR receiving additional air missions during a game. This option is only available during the first orders phase.

**Change Units & Weapons.** Select the File: Change Units & Weapons menu item to present a window with menu lists of weapons or unit modifications and exchanges. By using this window you can change some weapons into older versions. For example, changing the future Javelin ATGM into the current Dragon ATGM, or change older versions into new. You can also exchange certain units or vehicles for other units of a similar type. For example, exchanging US M2 Bradley APCs for the M113 APCs more appropriate to Canadian forces. Caution: save frequently when using this feature as there is no Undo command. To change just one unit that is located on the map, shift select or drag select the desired unit before selecting this menu item. To change just a few units of a like kind that are located on the map, shift select or drag select the desired units before selecting this menu item. To change all units of a like kind, on or off the map, just select the menu item - don't shift or drag select any units on the map beforehand. This option is only available during the first orders phase.

**Note to Canadian users.** This menu item is the primary gateway to converting US oriented scenarios to Canadian units and equipment. Units and equipment unique to Canada will be preceded in the window lists by a "•". Use the Canada Tables of Organization in Appendix B TO&E as a guide for the appropriate exchanges. The exchange process will not automatically produce perfect representations of real world Canadian organization. The weapons and equipment characteristics will be correct, but the quantities of a given weapon system or a given vehicle in a platoon or company marker will be those of the original US unit.

**Change Game Length.** Select the File: Change Game Length menu item to increase or decrease the number of minutes before the game ends. This option is only available during the first orders phase. If this option is used in a play by mail game or in a network game and the program discovers during an orders exchange that the player's have different time limit settings, the computer will automatically change the OPFOR setting to match that used by the US player.

**Change Exit Goal.** Select the File: Change Exit Goal menu item to increase or decrease the percentage of units that must be exited off the map for victory. This option is only available in scenarios that feature exiting as a victory condition and then only during the first orders phase.

**Change Supply.** Select the File: Change Supply menu item to increase or decrease the resupply points available during a scenario to a given force. This option is only available during the first orders phase.

**Change Orders Time Limit.** Select the File: Change Orders Time Limit menu item to limit the time permitted to give orders to units during each orders phase. When the timer expires the next combat phase starts automatically. This option is available at any time.

**Change Fog-Of-War.** Select the File: Change Fog-Of-War menu item to control the display of unspotted units on the enemy screen. You may choose to have units displayed at all times or only when legally spotted. The fog of war setting does not effect program game logic or combat results in any way. The only thing that is changed is the visual display of unspotted units. For example, the likelihood of combat occurring between units is not

changed, nor is the accuracy or effectiveness of fire any different regardless of the fog of war setting. In solitaire games the computer opponent does not take advantage of this setting. The computer opponent always plays as if your unspotted units are not displayed, regardless of the fog of war setting. This option is available at any time.

**Change Password.** Select the File: Change Password menu item to add or change an orders and unit visibility security password. This feature is only relevant to games played between two human opponents. Warning: if you forget your password you will not be able to reload any saved game that uses it. This option is available at any time.

**Firing Units Are Always Spotted.** Controls the automatic spotting of firing units. If this item is checked, the position of hidden units (other than snipers) will almost always be revealed the first time they fire. If this item is not checked, a hidden unit may or may not be revealed the first time it fires. Checking this preference adds significant realism to TacOps play, but it may be disconcerting to many players.

**Max Normal Visibility In Meters.** Controls the distance at which units may be spotted without special thermal or radar imaging equipment.

**Max Thermal Visibility In Meters.** Controls the distance at which units may be spotted with special thermal or radar imaging equipment.

#### H. Chapter Fifteen, Play On Appletalk Network.

A number of users have reported successfully playing TacOps in AppleTalk network mode over modems while using the program Apple Remote Access. Although no problems have been reported to date with this mode of play, it is not considered to be an officially supported option.

#### I. Chapter Seventeen, Menus.

**Options Menu: Change Artillery Support.** You may now edit, during the setup turn, the percentage chance of the US and OPFOR receiving additional artillery ammunition by changing the number in the box labeled "Chance of New Ammo"

**Options Menu: Change Air Support.** You may now edit, during the setup turn, the percentage chance of the US and OPFOR receiving additional air support missions by changing the number in the box labeled "Enter percent chance of unplanned air support".

**Options Menu: Change Weapons.** Additional weapons exchanges and procedures have been added. Exchanges can now also be for all units or weapons of a given type or just for some or just one. Selecting one unit on the map (by opening its Orders Window or by using shift click or by dragging a selection rectangle) and then selecting the Change Weapons menu item will change just that one unit. Selecting several units on the map and then selecting the Change Weapons menu item will change just the selected units. Selecting the Change Weapons menu item with no units selected on the map will change all units of the same type. The Change Weapons menu item can be selected with a "Command +" key combination.

**Options Menu: Change Supply.** You may now edit US and OPFOR supply points during the setup turn, by adjusting the numbers (0 to 100) in the boxes labeled "Enter new supply percentages".



Map Menu: Hide All Units. temporarily hides all US and OPFOR unit markers from view . Useful for quickly inspecting the terrain underneath units.

Map Menu: View Terrain. Removes all unit markers in addition to removing all smoke and wreck markers from view . Useful for inspecting the terrain underneath smoke and wrecks.

Map Menu: Line Of Sight Check allows you to check the normal eyesight line-of-sight and the range in meters between two points and displays the UTM coordinates of the end point. When checking the line of sight of a unit, make your start point the center of the unit symbol. The line of sight routine can also be pinned to a selected unit. To use, select a unit, then select the Line of Sight menu item. Move the mouse to check line of sight but do not press the mouse button until ready to turn off the pinned line of sight check. If the selected unit has thermal sights the routine will automatically show the unit's thermal line of sight.

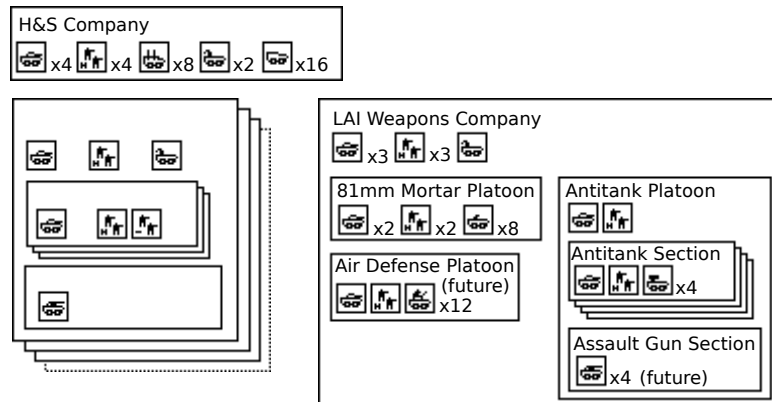
Map Menu: Thermal LOS Check allows you to check the thermal imaging line-of-sight and the range between two points and displays the UTM coordinates of the end point.

Map Menu: Plot Wrecks controls whether wrecks are drawn on the map. If unchecked, wreck markers are temporarily not plotted.

Map Menu: Clear Wrecks permanently deletes all existing wreck markers.

#### J. Appendix B, Tables of Organization and Equipment.

The illustration for the USMC Light Armored Infantry Battalion incorrectly repeats the chart for the USMC Rifle Battalion (Mech). The correct illustration follows. Note that Light Armored Infantry Battalion organization changes frequently in the USMC and often varies between divisions.



- USMC Light Armored Infantry Battalion:
- Battalion Headquarters, consisting of:
    - 4 x LAV25 and 4 x Infantry Team
  - Three or Four LAI Companies each consisting of:
    - Company Headquarters consisting of:
      - 2 x LAV25 and 2 x Infantry Team
    - Three LAI Platoons, each consisting of:
      - 4 x LAV25 and 4 x Infantry Team.

(Future) One Assault Gun Platoon, consisting of:  
9 x LAVAG.  
One LAI Weapons Company consisting of:  
Company Headquarters consisting of:  
3 x LAV25 and 3 x Infantry Team  
One 81mm Mortar Platoon, consisting of:  
2 x LAV25 and 2 x Infantry Team.  
8 x LAVM, 81mm Mortar Carrier.  
One Antitank Platoon, consisting of:  
Plt Hq - 1 x LAV25 and 1 x Infantry Team.  
Four Antitank Sections, each consisting of:  
1 x LAV25 and 1 x Infantry Team.  
4 x LAVAT.  
(Future) Assault Gun Section consisting of:  
4 x LAVAG..  
(Future) One Air Defense Platoon consisting of:  
1 x LAV25 and 1 x Infantry Team.  
12 x LAVAD.

3. Significant changes to game play, unit data base, and weapons data base.

Quite a few new units and weapons have been added to the program's data bases.

The program assess suppression to any like unit located within 30 meters (3 pixels) of the center point of a newly suppressed unit.

Attack helicopters check for friendly units within 200 meters of rocket attack targets. Unless friendly units within 200 meters have their SOPs set for fire support on their own position the rockets will not usually be fired.

During game setup, you may change OPFOR's level of tank gun armor penetration technology. You may optionally use the Change Weapons menu item to select steel, tungsten, or depleted uranium penetrators.

The data base contains a model of T72M tank appropriate to 1991 Iraqi forces. You may optionally use the Change Weapons menu item to change the OPFOR tanks to this model. Its data base name is "T72M Tank (IQ91)".

The US OH-58 helicopter now has a thermal imaging capability.

The benefits of entrenchment have been increased.

The salvo radius of helicopter fired rocket pods is now 75 meters.

The probability of an attack helicopter successfully executing a 15 second popup fire maneuver has been greatly increased.

The frequency of units firing at already dead targets has been reduced.

The program now ignores minimum range for Stinger and SA16 SAMs versus incoming fixed wing air strikes.

Special capability recon and sniper units and weapons have been added to the data base to support future new scenarios. These units are now visible in the data base information windows, but they are not currently present in any of the original 60 scenarios.