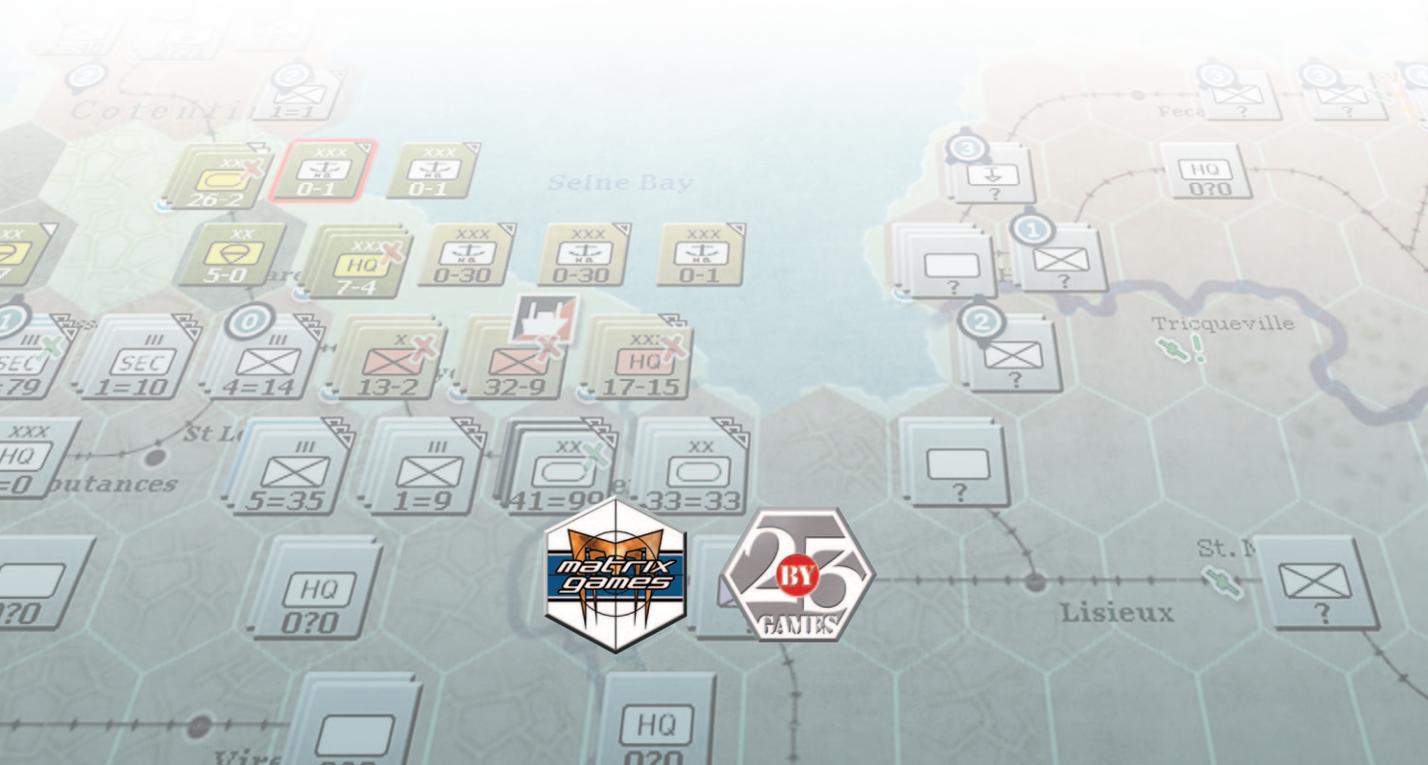


Gary Grigsby's

WAR IN THE WEST

PLAYER'S HANDBOOK



EPILEPSY WARNING

PLEASE READ THIS NOTICE BEFORE PLAYING THIS GAME OR BEFORE ALLOWING YOUR CHILDREN TO PLAY.

Certain individuals may experience epileptic seizures or loss of consciousness when subjected to strong, flashing lights for long periods of time. Such individuals may therefore experience a seizure while operating computer or video games. This can also affect individuals who have no prior medical record of epilepsy or have never previously experienced a seizure.

If you or any family member has ever experienced epilepsy symptoms (seizures or loss of consciousness) after exposure to flashing lights, please consult your doctor before playing this game.

Parental guidance is always suggested when children are using a computer and video games. Should you or your child experience dizziness, poor eyesight, eye or muscle twitching, loss of consciousness, feelings of disorientation or any type of involuntary movements or cramps while playing this game, turn it off immediately and consult your doctor before playing again.

PRECAUTIONS DURING USE:

- Do not sit too close to the monitor.
- Sit as far as comfortably possible.
- Use as small a monitor as possible.
- Do not play when tired or short on sleep.
- Take care that there is sufficient lighting in the room.
- Be sure to take a break of 10-15 minutes every hour.

USE OF THIS PRODUCT IS SUBJECT TO ACCEPTANCE OF THE SINGLE USE SOFTWARE LICENSE AGREEMENT

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AIM

The aim of the Player's Handbook is to explain as quickly as possible how to get the most enjoyment from WitW. Whilst the WitW Game Manual is focused on describing how everything works in intricate detail the Player's Handbook is all about how to understand the Game as a Player and providing some helpful advice. Not all aspects of gameplay are covered. In terms of learning a new language the Player's Handbook is the Phrase Book – the Game Manual is the Dictionary.

FORMAT

Printing. As the Player's Handbook is primarily for Players learning to play WitW it has been designed with an expectation of being printed at home. It is only 32 pages long including the front and back covers. With the exception of the One Page Guides (Pages 24 – 29) there are no screenshots in order to reduce ink usage.

Structure. The Player's Handbook consists of stand alone pages; each concentrates on a broad topic e.g. Basic Movement and Combat. The topics have been grouped into two levels of competency. The first level is for Beginners as they tackle the Operation Husky Introductory Scenario. As you encounter each stage of Op Husky you should find that the next Topic roughly corresponds to the situation you are in. Only the

information that is required to complete the Introductory scenario with reasonable success on difficulty level 'Easy' has been included. For example the first topic helps you start the game and the next two explain the Player Interface, Map and Units. The Topics are not always precise instructions on what to do – you need to play and explore. The second group of topics are for Competent Players and explores further those skills which are fundamental to successful play. There are also eleven One Page Guides which are simple graphic aide memoires. If you print nothing else – print these. The One Page Guides tell you what to do and the Handbook gives you the supporting information. The last four One Page Guides provide a number of 'Ready Reckoners' to help simplify decision making for this complex game.

Style. To maximise limited space the Player's Handbook has been written concisely. To help those who are not native English speakers simple words and grammar are used. Like the Manual the numbers in brackets e.g. (5.4.12) are references to the related section of the Game Manual. In most cases the Player's Handbook will not explain any calculations, how or why a function works. To get that detail you must read the Manual. At least you know where to look!

Previous Experience. Although it is expected that many Players will have experience of Gary Grigsby's War in the East the Player's Handbook has not been written as a WitE to WitW Conversion Guide.

1. STARTING THE GAME

(REFER TO ONE PAGE GUIDE #1)

Aim. This Topic provides an overview of WitW and explains how to start the Game's Introductory scenario Scenario.

Overview. (2.2) WitW is a turn based simulation of the Western Front in WW2 from July 1943 to August 1945. A player represents either the High Command of the Allied or the Axis Forces. Players can either play against the Computer AI or another Human opponent. The Game is played on a hex based map. Each hex is 10 miles across. The precise area covered by the map depends on the scenario chosen. Each Turn lasts one week. WitW is an IGO-UGO game with the players taking turns to make their moves (like Chess or Backgammon). Each Turn is further subdivided into a number of phases where either the Player is able to make a move or effect a change or the Computer carries out relevant calculations impacting gameplay.

Air and Ground Phases. Each Player's turn in WitW is split into two distinct phases. The first is the Air Planning Phase. The second is the Ground Movement Phase. At the end of the Air Planning Phase the Player presses F12 to complete the Phase. The computer will then resolve all aspects of the Air Phase (less Ground Support). Once the Air Phase has completed the Player then conducts the Ground Phase.

Starting the Game. (3.3) When you first launch WitW you begin at the main game display; from here you can select:

- **Players** (3.3.1): Who controls the Axis or Allied player (human or computer)
- **Difficulty Level** (3.3.2) : (Easy, Normal, Challenging, Hard, or Impossible)
- **Game Options** (3.3.3): (Computer Controlled, Fog of War, Lock HQ Support, Random Weather and further fine tuning of aspects of the difficulty levels such as Morale, Fort Build, Logistics, Transport and Admin Levels). Options affect both you and your opponent.
- **User Preferences** (3.3.4): Preferences which fine tune your display and environment only.

STARTING THE INTRODUCTORY SCENARIO.

Player Control. (3.3.1) Set the Player controls on the main game display as follows for your first scenario (you do so by clicking on the Player Control buttons name and the game will cycle through the various available options):

- **Axis:** Computer
- **Allied:** Human
- **Difficulty:** Easy
- **Game Options.** (3.3.3) Now click the Game Options button, this will take you to the Game Options screen. Make sure that the following are set (once again simply click the check box items):

Computer Controlled: Axis checked, Allied unchecked;

- **Fog of War:** unchecked for both sides;
- **EF Box:** unchecked for Axis side;
- **Difficulty Levels:** Leave the General Difficulty Level and the other items as they were already set by the set Game Difficulty button.

Preferences. (3.3.4) Now click the Preferences button, you can set these to whatever you wish but for this introductory scenario it is recommended that Default is checked. When ready click the check mark in the upper right hand corner to save your changes and return to the main display.

Loading the Scenario. (3.3.6) Now that the settings are correct we can now click the button labelled Pick Scenario to select the introductory scenario. When the Load Scenario display appears you will see a list of available scenarios to choose from, please select the Operation Husky Introductory scenario. Once you have done so you will see in the right hand window a brief historical overview providing background information. Once you are content and are ready to start then click the floppy disk symbol in the bottom left to select the load the scenario.

Save Folders. (3.3.6) WitW provides the ability to save game turns in separate folders with a name of your choice (the default is the scenario name). Either rename the suggested folder name or just click the check box immediately to start.

2. GAME INTERFACE AND THE MAP

(REFER TO ONE PAGE GUIDES #1 & #7)

Aim. This Topic provides a basic overview of the Player Interface and the Map.

CONTROLS (3.2)

The game is controlled primarily by the mouse, normally with left click being used to select and right click or shift-right click being used to conduct actions. The Y or N keys can be used to answer the request for Yes or No acknowledgements that appear in small pop-up windows such as ending a phase. Many functions are accessible through the keyboard using hotkeys. When you hover the mouse over a button a pop up will tell you what function the button performs and also the relevant hotkey (See One Page Guide #7).

PLAYER INTERFACE

Most of the Interface is accessible using the toolbars at the top of the screen. There are four broad areas:

- **Menu Tabs.** (5.1.2) Three tabbed toolbars that provide access to map information, additional information screens and administrative tools. These toolbars provide you access to information and support.
- **Mode Toolbars** (F1 – F12). (5.1.4) The Air Planning Phase and the Ground Movement Phase have different Toolbars. These toolbars are the most important as they allow you to select the different modes with which to play the game.
- **General Information Box.** (5.1.5) This is on the top right hand side and shows key information such as the Date, Turn Number, City Name (if applicable), Admin and Victory Points. The City Name Box is particularly important as clicking on the name accesses the City Information Screen. At the left side of the Info Box is the Soft Factors Tab (5.1.3). This toggles various Soft Factors which indicate information about on map units by a colour coded tab on the top left corner of a unit counter. A good example is a red tab with the supply soft factor on shows a unit with less than 41% of supply need.
- **Unit Bar.** (5.2.3) Selecting on Map Units or some functional modes will result in a bar appearing on the right hand side of the map which shows basic unit information.

The Map (In the introductory scenario close the Auto AD Creation screen to see the Map).

Overview. The WitW Map shows five fundamental elements in five zoom levels based upon a 10 mile hexagonal grid:

- **Geographical Terrain.** (6.2) Each Hex has a specific Terrain Type. The terrain impacts directly on the movement and combat that occurs in or through the hex. Some elements are obvious – you need to be on a ship to cross sea hexes. Other elements are less so – Armd Units are better at attacking in Open terrain. Infantry Units defend better in close terrain like heavy woods. Some terrain hexes cause significant losses to landing Airborne Units. Additionally hex sides can represent terrain features such as rivers which also impact on movement and combat or may even be impassible.
- **Weather.** (22.0) WitW models both air and ground weather conditions. These weather conditions can be seen on the map by toggling the Show Weather Button (Hotkey-W). Weather has an impact on combat and movement. (See Topic 21).
- **Facilities.** (6.2.2/20.1) Man made facilities can be seen on the Map. Some are always visible like Ports, Airbases and Rail lines. Others can be toggled on/off using the Show Industry, Fortifications or Logistics Info Buttons. Facilities are important as facilities are an integral element of the logistic model. There are no roads shown in WitW but each hex has a road value.
- **Unit Counters.** (7.0) Units are shown on the map as square counters. See the Topic 4.
- **Hex Control.** (6.3) Hexes are either friendly, enemy or pending friendly, which are hexes that have been taken during the current turn and will switch ownership at the end of the player's turn. The ownership of a hex has an impact on movement and logistics. Knowing the hex ownership is important. Press Hotkey-E to see hex ownership.

Hex Pop Up. (5.2.1) It does not take long to learn what the map shows but to help there is always the hex pop up. If you hover the mouse over a hex the pop up will show you considerable additional information. Take time to understand this information as you play, as it can be a game changer. Be aware that the hex pop up info changes depending on some of the toggled info buttons e.g. you cannot see the % loading of an airbase when industry is toggled on.

3. UNDERSTANDING UNITS

[REFER TO ONE PAGE GUIDES #1 & #2]

Aim. This Topic provides a basic overview of the various game units and how to see information about them.

Unit Structure. (7.2.1) Units are organised groupings of various Ground Elements (e.g. Tanks, Inf Squads & Guns). The precise makeup of a Unit is based on its TOE. A unit at 100% TOE has all its required combat elements. Units can lose Combat Elements due to various reasons including Combat and Movement. This will cause a unit's TOE% to fall. New Gnd Elements which are produced by factories can be received by the Unit as replacements to maintain TOE level. The number of Gnd Elements, their Morale, Experience and Fatigue all impact on the ability to Fight. Managing Units is a key skill in WitW.

Unit Types. There are four types of Unit (not including Air Groups & Airbases):

- **Combat Units.** (7.5) CUs are units that appear on the Map as counters and can fight. e.g. Infantry Division. Many CUs can breakdown into three smaller units (Hotkey-B) to cover more ground (7.5.3).
- **HQ Units.** (7.7) HQs appear on the Map as counters. They cannot fight. Most HQs provide comd and control for either air or ground units. Some HQs provide skills like Rail Repair or Amphib ability.
- **Support Units.** (7.4) SUs are smaller units inc arty, ATK, AA, engineer, TD, and construction units. Most SUs do not appear on the map. They are attached to HQs & CUs and their 'support' is provided automatically. SUs can be moved between parent units as required. Engr & Construction SUs can appear on map when they are automatically detached to repair Facilities.
- **Multi Role Units.** (7.6) MR Units are mostly Brigades. MRUs are CUs that can be converted to SUs to save on stacking space or back again to occupy a hex. To convert a MRU to a SU it must be in the same hex as its HQ. On the Unit Detail Screen click "CONVERT". Many MR Units are then split into three SUs. They can then be assigned like any other SU. To convert back all elements must be attached to the same HQ and there must be a space in the HQ's hex for the MR Unit to reappear on the map.

Unit Information. To help you manage your Units WitW provides significant detail. For ease of understanding this can be considered in three levels – On Map, the Unit Bar and the Unit Detail Screen.

- **On Map.** (26.1) The nature of the On Map Counter provides the first level of detail. The colour of a Unit Counter shows Nationality. The symbol on the Counter shows the Type of Unit and its designated Size. Numbers at the bottom of

the Counter show the Combat Value, Movement Points or Defensive CV. If Soft Factors are selected then you may see info on Supply, Fuel, Morale etc.

- **Unit Bar.** (5.2.3) Selecting an On Map Counter with a left mouse click will activate the Unit Bar on the left hand side. The Unit Bar reproduces the same information as the On Map Counter and provides more detail. For CUs this includes the Parent HQ, Supply Details, Strategic Movement Points, Mode and Unit Strength in Manpower, AFVs and Guns. HQ detail is slightly different. Amphibious and Airborne Units also show targeting information which will be covered in Topics 6 & 7.
- **Unit Detail.** (26.3.14) Selecting a Unit's Name in the Unit Bar with a left mouse click, or a right click anywhere within the Unit Box, will activate the Unit Detail Screen. Once again the Unit Detail Screen reproduces the same information as the On Map Counter and Unit Bar and provides yet more detail. Here you can begin to see information on the Ground Elements, access detail on the TOE or change the Unit's HQ. All these functions will be covered in later Topics. Much of the detail is in three tabbed elements.

Unit Relationships. (5.2.2) Although Command and Control will be covered in more detail in Topic 13 it is worth at this stage highlighting the display functionality of Unit Counter Border Colour which shows Unit Relationships. This functionality appears when a Unit is selected on the map. The different border colours are: PURPLE=Unit that you have selected; ORANGE=Selected Unit's HQ (Think Father); YELLOW=Other Unit belonging to same HQ (Think Brother); BLUE=Subordinate Unit in Range (Think Safe Son) RED= Subordinate Unit out of Range (Think Lost Son) If you select more than one unit then more borders appear which can be confusing. If you have selected a subunit from a broken down CU then BLUE=Other Breakdown Sub Unit (Think Twin). If you press Hotkey-Shift-Z you will also see Comd Links which connect related units.

Unit Mode. (20.6.7 / 15.5 / 10.2.1) Units can be set in a number of modes. The default is READY. REFIT provides a greater chance at receiving replacements. RESERVE allows units to be committed automatically in support of combat even if they weren't selected. Placing a unit in STATIC Mode saves on vehicles but reduces mobility and provides a fort building bonus. You can see which modes Units are in by selecting Hotkey-Shift-R: PURPLE=Reserve , BLUE=Refit, WHITE = Static, ORANGE=Withdraw. RED Units are Isolated and not receiving supply.

4. INTRODUCTION TO THE AIR PLANNING PHASE AND USING AUTO AIR DIRECTIVE CREATION

(REFER TO ONE PAGE GUIDES #2 & #9)

Aim. This Topic provides an overview of the Air Phase and explains the Auto Air Directive Creation function. The Air Phase is the first part of the Player's Turn.

- **Air Units.** There are three elements to each Player's Air Forces:
- **Air Groups.** (8.1) Air Groups are the Squadrons and Groups of Aircraft that fly air missions.
- **Airbases.** (8.3) These are fixed locations on the map where Air Groups can be based.

Air Commands. (8.4) Air Comds are the HQ Units that command Air Groups and Airbases.

Controlling Air Groups. (5.3) Air Groups are controlled in WitW by giving an Air Directive (AD) to an Air Comd. The Air Comd will meet the requirement of the AD by instructing Air Groups to fly air missions. There can be more than one mission flown to deliver an AD. The Air Groups that fly on each mission may vary. Air Directives can either be set Automatically or Manually (See Topic 13 & One Page Guide #6).

Air Directives. (5.3.5 - 11) There are 6 different types of Air Directive.

- **F2 - Ground Support** – Provides ground units with direct air support during ground attacks. Unlike the other ADs Air Groups will fly during the ground movement phase.
- **F3 - Ground Attack** – This AD focuses on a map area and slows & interdicts enemy ground units.
- **F4 - Strategic Bombing / Bomb City** – Used to bomb production facilities & manpower in cities.
- **F5 - Air Recon** – Used to increase the detection level of enemy ground units in the target area.
- **F6 - Air Superiority** – Fighter units fly to an area and try to disrupt enemy missions in that area.
- **F7 - Naval Patrol** – The units will attempt to create naval interdiction points in the target area.
- **Defensive Interception of Enemy ADs and Naval Patrol** are automatic and do not require an AD to be set as they fly both in your Air Phase and your opponent's Air Phase.

Auto AD Creation. (5.3.1) The Auto Air Directive Creation Screen appears as a default preference at the start of the Air Phase or using Hotkey-A. It allows the player to set the relative priority of tasks for the Air Comds (N=None, L=Low, M=Medium, H=High) by left clicking on the radio buttons. The computer will assign ADs in line with those priorities when you click SET AIR DIRECTIVES. The Auto AD Screen

is divided into Tactical Objectives for the air forces in N Europe and Mediterranean and Strategic Air (Day or Night). Air Transport and Coastal Air Forces (which automatically fly naval patrol) are not impacted by this screen. A tick mark next to the Air Directive Heading allows you to select whether you wish an AD to be changed or more importantly not changed. One Page Guide #9 shows the linkages between HQs & Objectives.

Tactical. You need to set the relative priorities for Ground Support, Air Superiority and Ground Attack (by ground attack target type). The exact target locations for the Air Superiority and Ground Attack Directives will be selected by evaluating the frontline (or the invasion target hex) and determining the key area to be supported. Recon directives will also be set up to support these Operations.

Strategic. You need to set priorities based upon the industrial target types located within Cities. The player may also instruct either the Northern or Southern forces to create ground attack directives by setting Ground Attack North or South to something other than None. If this is done, a ground attack types menu appears which allows the player to set ground attack target types for the strategic air forces.

Amphibious Support. Allied players who plan to issue orders to amphibiously invade during the turn are advised to toggle on the appropriate Amphib Support toggle (North and/or South) as this will set ADs recommended to support an invasion. These can be amended if you wish. At the bottom of the screen there is also an option to reset all objectives to none. This will also toggle Amphibious Support off.

Executing Air Directives. (17.0) Once you have set the objectives, you click "SET AIR DIRECTIVES" and the AI will create a set of air directives. You can then press "SUMMARY" to view these directives in the Air Summary screen, press "EXECUTE" to exit the air planning phase and resolve air action, or press the X (exit) button to be taken to the map. From the map you may view the ADs set using Hotkey-Shift-Y. Once happy select F1 mode then press the Execute AD button (F12) to begin the air phase resolution. An Info Box appears in the bottom left hand corner of the screen and you can track the progress of your air missions as they fly a day at a time over the one week's duration of the turn. Once complete you are ready for the Ground Phase.

5. BASIC MOVEMENT AND COMBAT

(REFER TO ONE PAGE GUIDES #2 & #10)

Aim. This Topic provides an overview of ground movement and combat: the decisive activities in WitW.

Movement Overview. (14.*) There are two broad types of movement for ground units: tactical and strategic. Tactical movement (conducted in F1- Ground Movement) is from ground hex to ground hex and costs Movement Points (MP). Combat also costs MPs. Strategic movement is movement from hex to hex by rail (F2-Rail Mode) or ship (F3/F4-Sea/Amphibious Movement) and costs strategic movement points (SMP). Units using strategic movement have their Tactical MPs reduced proportionally to the expenditure of SMP.

Tactical Movement. (14.1) At the start of each turn your units are allocated MPs. The number of MPs allocated is variable but the key factors involved are:

- **Unit Type.** (14.1.1) Motorized and HQ Units receive more MPs than Infantry Units.
- **Leader Checks.** (14.1.2) Failed morale and admin checks reduce MPs.
- **Fatigue & Fuel.** Units with fatigue & shortages of Fuel(motorized) & Supply(non-motorized) lose MPs.
- **Motorisation.** (14.1.3) You can increase MPs if trucks are available by motorising a unit.

As Units move and fight they consume MPs. (14.6.1) The MPs consumed depend on a number of factors:

- **Terrain & Weather.** It costs more to move through arduous terrain and cross rivers.
- **Zones of Control.** ZOCs represent the ability of CUs to exert control over the map area in their vicinity. Moving in/out of a ZOC costs additional MPs.
- **Combat Movement Delay.** (14.5.1) When an attack occurs in a hex a cost maybe placed on the hex to slow further movement through that hex during the turn.

Strategic Movement. (14.2 / 16.3) At the start of each turn units are allocated 200 SMPs. Although Sea and Rail Movement are of course different a number of common factors apply:

- **Availability of Strategic Movement Assets.** To move by Rail or Sea you require Trains or Ships. Larger Units need more assets. The availability of the assets is shown in the General Information Box
- **Load/Unload Cost.** It costs SMPs to 'transfer' to/from strat movement. This cost represents the time taken to load/unload. It is less in larger ports/railyards but more for rail when further from a railyard. Loading/unloading

also consumes Port/Rail Capacity increasing later costs and reducing freight flow.

- **Rail Movement Cost.** As units transit rails they consume rail capacity resulting in congestion which can cause additional SMP cost for other transiting units.

Interdiction. (17.3.3) Gnd Attack and Naval Patrol ADs result in an Interdiction Value being placed on hexes. The higher the value the greater the movement cost through the hex and the more likely a Unit will take damage. Rail movement through heavily interdicted hexes is particularly costly.

Combat Overview. (15.2) Combat costs MPs. There are two types of combat: Hasty and Deliberate. Hasty Attacks cost less MPs but you can only attack from a single stack with reduced CV and offensive fire. Deliberate Attacks cost more MPs but allow you to select multiple stacks to participate in the attack.

CV (Combat Value). (7.1) Choosing where, when and with whom to Attack is a key skill. To help you understand the relative strength of Units their Counters display the Unit CV. Comparing the Attacking CV with the Defensive CV provides an indication of whether you will win. When you mouse over the unit you plan to attack, the hex pop up shows you a better indication of the adjusted CV values for both sides. Be warned: when combat occurs other factors such as terrain, reserves and leader checks occur that cannot be predicted so the CV is only one indicator of possible success.

Support Units. (15.4) Whilst it is obvious which Combat Units participate in Combat it is less clear for Support Units. Support units that are directly attached to Combat Units will automatically be added to the battle. Support units attached to the HQs of Combat Units participating in the battle must pass a series of checks in order to take part. Allied forces can have more artillery participating in combat (15.4.2)

Resolving Combat. (15.1) When an attack occurs the combat engine resolves the combat as individual ground elements of the Units participate in the Combat. The detail that you can see depends on the message level which you have set. Pressing keys 0 (off), 1(least detail) – 7 (highest detail) allows you to watch how each battle is fought. Results can be seen using the F11 key. If you win then the enemy will retreat from the hex allowing you to move into the hex if you have sufficient MPs remaining.

6. INTRODUCTION TO INVASIONS AND AMPHIBIOUS OPERATIONS

(REFER TO ONE PAGE GUIDE #3)

Aim. This Topic provides an overview of Invasions and using Amphibious Functionality (F4 Mode).

Overview. (16.6) As an Allied player the ability to launch a successful invasion is an important skill to master. The ability to conduct an invasion is based upon two different counters – Amphibious HQs and Airborne/Parachute Units. Each of these Counters has the ability to Target a hex and then accumulate preparation points which reflect planning and training (and regulate the number of assaults that can be made.) In the Introductory Scenario much of the setup has already occurred and all you need to do is launch the Invasion.

Amphibious HQs. (7.7.1/16.6.2) Amphibious Capability is based upon the Amphibious HQ Counter. The Amphib HQ provides the capability to launch an Invasion by Sea. It provides the mechanism that allows a hex to be targeted for invasion. Amphib HQs are the only HQ type that can command Naval Support Groups which represent Ships providing Naval Gunfire Support. Commando or Ranger Units attached directly to an Amphibious HQ can provide a special bonus during the initial landing. After an Invasion the Amphib HQ provides the functionality of a Temporary Port which only exists whilst an Amphib HQ is in the same or adjacent hex. When placed in a Ferry Hex it provides the ability for a CU to attack the far bank of Ferry Hex (without the need to accumulate prep pts) by acting as a stepping stone for the CU.

Targeting. (5.4.4/16.6.1) An Amphib HQ, located in a Port Hex, can be targeted for an Invasion. Re-targeting an Amphib HQ loses 2/3 of accumulated Prep Points. At the start of some scenarios special rules for retaining Prep Pts when re-targeting apply in order to allow game variation. To target left click the TARGET bar below the Counter Icon in the Unit Bar. Eligible Target Hexes will be shaded yellow (you can only land in a clear, wood, bocage or city hexes). Right click on the Hex to target. Over the following turns Prep Pts will accumulate. Although Amphib HQs provide the amphib capability the invasion force is provided by a CU stacked with the Amphib HQ. When stacked together the CU gains prep pts too: Regts/Bdes gain points faster than Divs. The less you have stacked with the amphib HQ and the larger the port the more prep points you gain per turn. E.g. 1 Regt in a Port 6 will take 3 turns (63 prep). 1 Div in the same port will take 6 turns (54 prep). 2 Divs in the same port will take 9 turns (54 prep). You need at least 50 pts to allow an invasion and the max level is 90. CUs

require at least 30 Pts to participate. The more prep points you have the less attrition is suffered during the invasion. Attaching a SU to a targeted CU results in a loss of 10 prep pts. HQs and Armd Divs cannot be part of an initial landing.

Launching the Invasion. (16.7) When you are content that you have prepared your forces sufficiently you can launch your invasion by clicking the INVADE button. Be warned that bad weather is a factor during Invasions. At this point the game calculates how many ships you need and will draw from the pool enough Troop ships to lift the invasion force and an equivalent number of Cargo ships. The Invasion Stack will move to the sea hex adjacent to the landing hex although the invasion itself does not take place until the enemy player's next logistic phase. At this point launch any airborne assaults or move any follow on forces by Sea Movement ready to land after the first units are ashore.

The Invasion. (16.7.1-3) Although you have no further control as the initial landing occurs during the enemy turn it is worth highlighting some of the activities occur. If you have attached Commando/Ranger Units to the Amphib HQ they will look to occupy empty coastal hexes adjacent to the target hex (provided they are themselves not target hexes). If the target hex is empty then the landing force will land with no combat but if occupied the landing force will have to fight ashore. In this instance there is a bonus for any hex adjacent to the invasion hex occupied by friendly units (e.g. commando or airborne). SUs attached to the HQ of the CUs will not take part in the combat that occurs but the Naval Support Groups do.

After the Landing. (16.7.4 - 16.8) If the landing is successful then a number of actions occur. Firstly a Level 2 Temporary Port is created in the target hex together with a Priority 4 Level 2 Port Depot and a Size 2 Airbase. Each Cargo Ship will deposit 1000T of Freight in the Depot. From May 44 onwards the option to build, via the City Detail Window, 2 x MULBERRY Harbours exists. A MULBERRY is equivalent to a Level 4 Port. They may only be built if the Air Weather is Clear and they may be destroyed by poor weather. Temporary ports may be used for strategic naval movement. There is also attrition for freight moving through a Temporary Port based on the air weather. However they will be removed from play during any supply phase where they are not adjacent to an amphibious HQ (the airbase and depot will remain). Temporary Ports also provide a defensive 'hold at all costs' bonus if they are attacked.

7. AIRBORNE OPERATIONS

[REFER TO ONE PAGE GUIDE #3]

Aim. This Topic provides an overview of using Airborne Functionality (F9 Mode).

Overview. (17.3.9) Airborne Functionality is similar to Amphibious functionality in that you target, allow prep points to accumulate and then launch (drop) but there are a number of subtle differences.

Airborne Op Types. Two separate conditions govern Airborne units targeting and drops:

- **Invasion Support.** Airborne Ops can be targeted/launched to a hex adjacent to an amphib invasion hex (i.e. always target/launch Amphib HQs first). Airborne Ops targeted in this circumstance take place prior to the landing phase of an amphibious invasion. In this case they may provide the adjacent friendly unit bonus to the landing. They are also automatically night drops. So in this setup your opponent has a chance to encircle your Airborne Forces as their turn happens after the drop occurs.
- **In Turn Support.** Airborne Units can also be targeted within 8 hexes of a supplied land unit (there must be a trace across land hexes). In this circumstance the drop takes place immediately. Hotkey-Shift-N toggles whether it is a Day or Night drop. In this setup you have the chance to relieve your Airborne Forces as your turn continues after the drop happens.

Targeting. (5.4.5.3) An Airborne Unit (not Airlanding), located in a hex with an Airbase can be targeted for an Airborne Operation. Drops are not allowed in impassable or mountain hexes. They are allowed in all other terrain, although air dropped units will take more losses during a drop into more congested terrain. You may also re-target an Airborne Unit with a loss of ½ of any previously accumulated Prep Points. To target left click the TARGET bar below the Counter Icon in the Unit Bar. Right click on the Hex to target. Over the following turns prep pts will accumulate at a minimum of 20 per turn. You need at least 50 pts to allow a drop and the max level is 95. The more prep points you have the less attrition is suffered during the drop. When you have at least 50 pts then DROP appears on the Unit Counter in the Unit Box when in F9 mode. Airborne, Para or Air-Landing Units attached to an HQ containing the name Airborne or Fallschirm are considered 1 hex from their HQ and all higher level HQs in the chain when completing leader checks. So attach Units to an Airborne HQ when conducting drops

Airborne Planning Screen (Hotkey Ctrl-A) (26.3.8) . This summary screen shows available airborne force and available air transport to allow you to calculate how many units you are able to drop in a Turn.

Launching the Drop. (26.3.30) When you are content that the circumstances are correct then you can launch your Airborne Op by clicking the DROP button. At this point the 'Pick Air Groups for Mission' window appears allowing you to select the aircraft required to support the operation. Select or deselect air group units as desired and select the 'Launch' button to conduct the airdrop airborne combat unit mission. Note that the number of 'Max Sorties' must at least equal the number of 'Required Sorties' for the air group units selected to conduct the mission as displayed in the 'Pick Air Groups for Mission' window. The computer does not account for possible combat and operational losses when figuring the number of sorties required.

The Drop. (5.4.5.3 / 15.7) There are special rules which govern the conduct of Airborne Drops. First the unit takes losses from air transport attrition so watch out for Flak. Next, there is a chance an element not yet damaged will be damaged on the drop based just on the terrain: Clear, Desert, Sand, Bogage and Tundra have a low impact. Light Woods, Rough, Swamp and Forest cause Medium damage. City, Urban and Heavy Urban high damage. Then units that are not yet damaged may be damaged based upon their prep point level and if there is an enemy unit in the hex they must fight and may retreat. Airdrops on HQs may also result in the attacking airborne unit being forced to retreat. A normal battle with casualties is not fought, but there is an odds calculation and retreat losses. If forced to retreat and there is no empty hex to retreat to, the airborne unit is destroyed. So there are many ways that airborne units can take damage. You need to watch out for Flak, poor terrain and the enemy if your airborne operations are not going to result in disaster.

Air Transporting Units. (5.4.5.2) Non-motorized units, without attached motorized support units, that are on an airbase, can be transferred in F9 - Air Transport Unit Mode from one friendly Airbase to another friendly airbase by selecting the Unit in the Unit Box and Shift-Right Click on the destination airbase. At this point, like with an Airborne Drop, the 'Pick Air Groups for Mission Box' will appear.

Air Resupply. (5.4.5.1) If you click F9 a second time then you enter Air Transport Freight Mode you will be given the option to Air Transport Freight.

8. AIRBASES AND MOVING AIR GROUPS

(REFER TO ONE PAGE GUIDE #4)

Aim. This Topic provides an overview of Airbases and using Air Transfer Functionality (F10 Mode).

Airbases. (8.3) Airbases are fixed installations on the Map of three different sizes – 1, 2 & 3 (which is the largest). As only one airbase is permitted in a hex some airbases may represent a number of historic airbases and the size is adjusted accordingly. Whilst most airbases are set by the Scenario Designer you can build a Lvl 1 Airbase in a named hex and Lvl 2 airbases are created by Amphib HQs during an Invasion. Lvl 1 and 2 airbases can be expanded in size via the City Detail Window. Expansion is slower in bad weather and terrain.

Airbase TOE. (8.3.1) Although Airbases are fixed they are still Units. They have a TOE representing the ground crew that provide support and defence. When an airbase is captured the TOE changes to the captor's airbase TOE with a 0% TOE. Airbases can have a 0%TOE. This represents the airbase buildings and runway but with no-one there. You can see the Airbase Detail Screen by clicking the Airbase symbol in the Gen Info Box. By default the Max TOE level is set to AUTO. If you assign an Air Gp to the Airbase the game will try to send sufficient Gnd Elements to the airbase to provide the support that is required. If logistics are constrained this build up may take time. An Airbase with TOE 1 will send all elements back to the pool. If an in-supply airbase contains no air groups, and the TOE of the airbase is set to AUTO, then in the logistics phase the airbase will change to match the nationality of the HHQ that controls the base.

Airbase Support, Supply & Capacity. (8.3.5) The number of aircraft available to fly from an airbase depends on both the level of support (i.e. sufficient ground crew) and sufficient supply. There are penalties for having too many aircraft at an airbase. An over capacity airbase is shown by ! next to the map symbol. The % capacity is shown in the hex pop up. A full table showing the capacity limits and calculations are in the Manual. A lack of space, support or supplies will result in less aircraft being available. The logistic priority of airbases can be set individually (unlike ground other units). Airbases with supply priority 0 receive no supply. Setting Supply to 0 and Max TOE to 1 de-activates the airbase.

Bombing Damage to Airbases and Airbase Repair. (8.3.3) Air Gps at damaged Airbases suffer more op losses and fly less sorties. It is harder to damage and repair a larger base. As airbases get more crowded then the easier it is for aircraft on the base to be hit. In addition to auto repair that happens each day during the air phase,

expanding airbases that have construction units will use them to repair damage as all damage must be repaired before expansion work can continue.

Air Transfer (F10). (5.3.12) This Mode is available both in the Air Planning and the Ground Movement Phases. As the range of aircraft is limited it is important to have them located where they can best deliver their missions. WitW takes range into account in the allocation and effectiveness of aircraft assigned to an AD. Selecting F10 Mode will show where your Air Groups are located. Aircraft symbols appear and the number indicates the number of Air Groups in a base but not how many aircraft are in each group. An Air Gp transferred before the end of the Air Planning Phase may not have enough mileage left to support an AD. Leaving a transfer until the Ground Movement Phase may mean that it is no longer possible. One Page Guide #4 shows you how to move your Air Groups around the map. You can filter the Air Groups shown on the Map by Air HQ to simplify the process. You may be told that an Air Group has insufficient mileage remaining in order to make the transfer. (The functionality also exists to transfer aircraft within the manual AD setting process.) Players cannot manually change the HQ of air groups set to always fly Naval Patrol. Those units will automatically change their HHQ to the same as the airbase they are stationed in during each logistics phase. Air Gps attached to one HQ at the airbase of another HQ suffer a maintenance penalty.

Air Transfer in the Introductory scenario. Your first experience of Air Transfer will probably be transferring Air Groups to the new Level 2 Airbases created by the Amphib HQs on the SE Coast of Sicily. As you transfer Air Groups think carefully – firstly shorter ranged aircraft are best close to where they are used, secondly any aircraft you do move to the Invasion area will compete for supplies with your ground units. Large Bomber Aircraft require more supplies.

AI Move/Manage Air Units/Bases. (17.3.11) This functionality (Hotkey-Shift-A) automatically moves units to different airbases based on the situation. It can change the HQ attachment of some airbases and attempt to expand some airbases. It also changes the fighter/bomber setting for some Fighter Bomber groups. It is strongly advised that this only be used by players that don't want to control the details of their air forces. Once it is used, it is advisable to continue using it every turn (or at least every few turns). Don't rely on the AI evacuating aircraft from airbases likely to be captured.

9. INTRODUCTION TO LOGISTICS

(REFER TO ONE PAGE GUIDE #5)

Aim. This Topic provides a basic overview of the logistics system in WitW.

Overview. (20.*) The logistics system in WitW can seem deceptively simple but the more you explore the more detail can be seen. It consists of 4 key elements: Production, Unit Demand, Freight and Distribution.

Production. (21.*) Raw Materials are converted by factories into four supply items:

- Supplies
 - Fuel
 - Ammo
 - Replacements (consisting of Aircraft and Ground Elements)
- These items are then stored in Production Pools until required. (See Topic 22 for more detail)

Unit Demand. (20.3) Units need the four different supply items as they move and fight. The demand for each item varies depending on the type of unit and how it has been used in the preceding turn(s). You can see detail on the supply state of each unit using the Supply Info Window.

Freight. (20.1.3) All four supply items are moved around the map from Production to Units as Freight. Freight is displayed in Tons. Freight is produced at National Supply Sources / Level 4 Depots and is converted into a Supply Item when it arrives at the Unit providing that item exists in the Production Pool.

Distribution Grid. (20.1.4-7) Freight moves by train, ship and truck within a network of Depots. Depots send, receive and store Freight. They also hold Trucks to supply Units. There are four Depot types:

- Level 4 (National Supply Source). These produce Freight. They cannot be built in game.
- Level 3 (Port Supply Source). These ship freight to Level 2 Depots. Not built in game.
- Level 2 (Port Depot). These receive freight from Level 3 Depots by Ship. They are created if a player builds a Depot in a Port. They are automatically created by Amphibious HQs when invading.
- Level 1 (Rail Depot). These receive freight from Level 2-4 Depots by Rail. They are created if a player builds a Depot in a Railyard hex or a named place connected to a working rail line. If a named place has no railyard then a Level 1 Railyard is created with 100% Damage.

Level 1 & 2 Depots can be built or disbanded through the City Information Window accessed by clicking the City Name in the Unit in the General Information Box.

Depot capacity is a product of the collocated Port and Railyard size and not the Depot Type. The larger the Port + Railyard the more Freight can be handled by the Depot. (See Topic 16 for more detail). The movement of Freight between Depots by Sea or Rail is finite. There are two costs for moving freight: firstly the capacity of the Port or Railyard to handle the freight and secondly the capacity of the network in between. These costs are the same as those for units moving by Strat Movement. As Strat Movement happens before freight movement in a turn so excessive Unit Strat Movement may constrain Freight. The final link is between Depots and Units. Units will seek to draw freight from the nearest Depot. This is done by Truck or in some cases horses. Trucks can carry 2.5 tons each. (20.4.1.1.)

Priority. (20.4.2) To help distribute freight in support of your Ops you are able to set Supply Priorities. Priorities can be set to individual Depots and HQs (Units attached to the HQ have the same Priority). 0 is the lowest level and 4 the highest. Depot Priority is shown on the Depot, there is a Priority Soft Factor for Units.

Logistics Display. (5.1.2.1) The Logistics Display allows you to see some key logistic information. Press hotkey-N. Depots are shown as Inverted Triangles. Above the Triangle are four coloured bars. These show the Freight received (green), stored (blue), sent (red) and maximum capacity (black). Using the ',' & '.' Keys whilst hovering the mouse over a depot changes the priority. Rail Lines are coloured to show usage indicating areas of increased movement cost due to congestion. Soft Factors can be toggled to show the Fuel, Ammo, Supplies and Supply Priority of On Map Units. Airbase Colour shows their lowest supply status.

Hotkey-8 displays a network of lines which show the best Depot to have supplied a unit (red line) and last Depot - Depot (white or blue line) during the last turn so you can see who is getting freight from where.

Managing Logistics. In terms of functions managing logistics only requires the player to adjust priorities and build or disband depots. Of course those actions are just the tip of the iceberg. Understanding how logistics impacts on your gameplay and what is logistically supportable governs what can be achieved. Topic 16 will look at these inter-relationships in more detail.

10. WEATHER

Aim. This Topic focuses on the WitW Weather model and the impact of Weather on gameplay.

Overview. (22.*) The WitW weather system models both ground and air weather conditions, in addition water in rivers and lakes can freeze allowing easier movement. The ground condition is what determines MP costs for movement and the impact on attacking CV values in ground combat. The air condition impacts air missions. Unlike most other functions the Weather changes before the Allied phase. This reflects the Allies better weather forecasting capability and allows the allies to exploit weather changes more effectively.

Weather Fronts. (22.1) The WitW system is dynamic and not completely tied to a set calendar. There are 5 different types of weather fronts that can enter the map and alter the base air condition in a hex depending on the time of year, the base weather and the climate zone. Falling rain or snow in hexes creates mud and snow levels.

Air Conditions. (22.2) There are 6 Air Weather Conditions: Clear, Rain (light rains - summer rains, no more than 2-3 days a week), Heavy Rain, Cold (light snow, clear sky most of the time), Snowfall (more regular snowfall with more cloud cover) & Blizzards (snow storms + very low temp)

Ground Conditions. (22.3) There are 6 ground conditions: Clear, Lt Mud, Hvy Mud, Lt Snow, Snow & Hvy Snow. Each condition adds an additional penalty for movement through a hex. Although the map has no roads each hex is rated for the quality of its road system: Good, Average or Poor. The quality of the road system impacts how the ground weather condition impacts movement and combat. The better the road system, the less impact weather has on movement and ground combat.

Checking the Weather. (22.5) There are three methods by which you can visualise weather:

- **Hex Rollover.** The weather condition in each hex can be found in the hex rollover text – this also shows the amount of snow or water on the ground.

- **Weather Screen.** Information can also be found on the Weather Screen. (Hotkey-W) The Weather Screen allows the player to toggle on information for either the Climate Zones, the Ground Weather conditions, the Air weather conditions or the Road Systems.

- **Weather Graphics.** The weather can be seen on the map by toggling the Weather button on the Map Info Bar or by using Hotkey-Shift-w. You can toggle between showing both Air and Ground conditions, Ground only, Air only, or no weather art at all.

Impact of Weather on Air Operations. (22.2.1) Air mission weather is classified as very poor, poor, fair, good, or excellent, and is determined by the aggregate cloud cover over a particular air mission's entire flight path so there is no immediate link between weather in a hex and flight operations. You specify the minimum conditions to fly in the Air Directive (or globally in the Air Doctrine). The determination of the percentage of cloud cover in a particular hex is influenced by the current air weather condition, with heavy rain, snowfall, and blizzards normally resulting in worse weather. The air weather condition in each hex sets a percentage of cloud cover for the hex. There is some randomness in this setting, but the worse the air weather condition, the more the cloud cover effect. Weather value is scaled from 0 to 100, with the higher the worse and the better chance of adverse effects, to include mission cancellation (26.3.34). Once the mission flies, the weather in the target area is going to greatly impact the effectiveness of the airstrike (bombing or recon). Ground Support missions in particular will be significantly reduced during bad weather such as heavy rain, snowfall, and blizzard. In addition to decreasing the effectiveness of air missions, bad weather can result in scrubbing of individual aircraft from missions and even entire air missions (16.1.5). Flying in bad weather results in more aircraft losses.

11. MANUAL AIR DIRECTIVE CREATION

(REFER TO ONE PAGE GUIDE #6)

Aim. This Topic explains how to set your Air Directives manually.

Introduction. (5.3.3) Topic 4 examined how to set ADs using the Auto AD Creation Screen. Using Hotkey-Shift-Y you can see those ADs superimposed on the Map. (One way to learn to use Manual ADs is to modify those created automatically.) To begin setting a Manual AD select any of the AD Modes (F2-F7). This will then list your Air HQs in the Unit Box (they 'own' the ADs). In the Unit Box you can see a very brief summary of the aircraft in each HQs and the ADs that may be already set in Pink writing. Now select an HQ to setup the AD as you wish. The number of ADs an HQ can have is based upon relative ability of the Air HQ Commander.

MANUAL AD FUNDAMENTALS

Targeting. (5.3.*) With the exception of a Ground Support AD, where you set a supported HQ, all other ADs are set by defining a geographic TARGET. Step 1 is to define a TARGET by clicking on the map. The TARGET can either be a single hex (AREA=0) or a square of hexes whose size is defined by AREA. The larger the area the more aircraft missions will fly. The maximum AREA is 10. Within the TARGET AREA you are also able to set which elements to attack: TGT PRI. Clicking on TGT PRI displays a set of radio buttons (similar to those you used in Auto AD Creation).

Staging & Routes. The next part of an AD to set is the Staging Base (if required as this happens automatically). This is any friendly airbase where the Air Groups assigned to the AD meet up before travelling to the target. It is best to set the Staging Base between the assigned Air Groups' airbases and the Target so that Air Groups don't 'waste' mileage getting to the Staging Base. Similarly a direct route is best but routing the aircraft away from Flak centres and known fighter bases will help reduce losses.

AD Doctrine. (5.3.2) You are able to specify whether the AD should be flown at Day or Night, Altitude, Intensity, Schedule and relative Priority of the Air Missions that make up the AD. High Intensity ADs will wear out Air Groups much faster and will cause a drop in Aircraft availability. Whilst you can set the AD Doctrine for each AD individually the Air Doctrine screen allows you to set generic values.

Air Group Selection. There are a number of options in this Area.

AUTO. Setting GROUPS to AUTO lets the Computer assign the most suitable Air Groups to the AD in line with the defined Doctrine and other ADs.

Escorts. Fighter aircraft can escort AD missions. As fighters are usually shorter ranged you will see shaded hexes on the map which show when the mission is escorted (green) or unescorted (purple). If a mission is unescorted then reducing the target area or assigning units closer to the target may help.

Manual Air Group Selection. You are able to choose your own Air Groups manually. Clicking GROUPS: AUTO will toggle to Manual Air Gp selection and display the available Air Groups assigned to the Air HQ whose AD you are creating. Clicking ++ on the left column will assign an Air Gp to the AD and move it in the list from AVAILABLE to ASSIGNED. * indicates Gps already assigned to another AD.

Type. This shows the type of aircraft to help you select the right aircraft for a mission. Some aircraft types cannot fly specific missions - Recon aircraft can only fly Recon Missions.

Fighter Bombers. (5.3.4.1) Fighter Bombers are versatile aircraft. For an AD they can be used as either Fighters (FB-F) or Bombers (FB). The TYPE column shows this setting and allows you to toggle their role. The * shows a Fighter trained Air Gp used as a Bomber and Vice Versa.

Day/Night. Air Gps can be set to either fly by DAY, NIGHT or BOTH. This can be toggled in the right hand column.

Incompatible Types. (5.3.4.4/5) If an Air Group is 'greyed out' then it is unable to participate in the AD for some reason. Checking the NO FLY INFO box will give you a brief description of what is preventing the Air Group joining in. There are 12 different reasons and up to five can be shown per group. If no aircraft are available for an AD the hexes on the map will shade red.

Quick Air Transfer Functionality. (5.3.4.2) Once a Gp is selected in the manual selection list (name displayed in red), holding down the ctrl key will put you into air transfer mode on the map. Right-clicking on an airbase will move the Gp to the airbase. This feature is also available when the Gps are set to Auto selection by clicking on the Gp's name in the far right of the display and using the same steps.

Confirming your AD. Once you have set up your AD you must 'CONFIRM' it. A new Air Directive template won't be created if another unconfirmed AD exists for the same Air HQ.

Changing your AD Type. If you choose to change your AD Type (e.g. Air Support to Ground Attack) then manually selected air groups will not be cleared. They will remain selected for this new AD (although you will have to set up the AD with basic info like target, etc. before you will see the air groups listed as being selected).

12. MANAGING COMMANDERS AND THE ORDER OF BATTLE

Aim. This Topic explains why you should manage your Command and Control in WitW and how to do it.

Leaders. (11.*) Every HQ Unit (less rail repair units) has an assigned leader that commands and influences all units attached to that HQ, including those down through attached HQ's and their units. Leaders have ranks and designations that determine what level and type HQ units they can command. More importantly they have leadership ratings that affect a wide range of functions.

Leader Ratings. (11.2) There are eight leadership ratings, Political, Morale, Initiative, Admin, Mech, Infantry, Air and Naval, with the last four collectively referred to as combat ratings.

- **Political.** This affects the cost to replace the leader & the probability of promotion/dismissal.
- **Morale.** This affects unit combat value in battle, determining win/loss credit, adding or recovering fatigue in the unit's ground elements, and rallying routed units.
- **Initiative.** Affects the MPs a unit will have during the turn, the ability of ground elements to fire and hit during combat, the ability of units in reserve status to commit to a battle, and the ability to reduce casualties by turning a low odds hasty attack into a reconnaissance in force.
- **Administrative.** Affects the MPs a unit will have during its turn, checking for repair of damaged aircraft and ground elements and determining wastage and resupply. Admin checks are affected by the actual number of support squad ground elements in the leader's HQ unit as compared to the HQ unit TOE
- **Combat.** These are part of the combat system and are used to determine the overall combat value as well as the ability of the ground elements in the units under their command to be able to fire and to hit opposing ground elements. Successful rating checks will increase combat value and improve the chance of ground elements to both fire and to hit.
- **Mech and Infantry.** These ratings are part of the ground combat system and are used to determine the overall combat value as well as the ability of the ground elements in the units under their command to be able to fire and to hit opposing ground elements. Successful rating checks will increase combat value and improve the chance of ground elements to both fire and to hit.
- **Air.** For air leaders, a successful air combat skill check will result in more ready aircraft from an air group unit participating in a particular air mission.

Changing Leaders. (26.3.23) You can change a Leader by clicking on the Leader's name in the Unit Detail Screen. There is a dismissal cost in APs that you must pay. You are offered a choice of new Leaders shown with their ratings so you can select the most suitable.

Leader Rating Checks. (11.3) Leader ratings can have an impact on almost all actions taken by units. It is therefore important to select the best Leaders that you can afford with your APs and ensure that they are commanding units in the optimal structure – both in terms of size and deployment. Each leader rating check is essentially the computer generating a Random(x) value where if the result is less than the leader rating then the check is passed, but if the result is greater than the rating, the check fails.

Order of Battle. (7.7.2) The OOB is the hierarchy of units. You can view the OOB using the OOB Screen (Hotkey-O). The OOB impacts on your play in three key ways:

- **Commanding HQ.** (15.6.2.2) In Combat each side has a commanding HQ (normally the HQ with most CVs directly reporting to it in the battle). Units not reporting directly to this HQ suffer modifiers that reduce their CV for the battle. The greater the number of HQ's that the unit must trace through to reach the commanding HQ, the greater the modifier. Try to attack with units in a single Corps.
- **Command Capacity.** (7.7.2.2) There is no limit to the number of units that can be attached to an eligible HQ unit. However HQ Units have a Command Capacity (CC) expressed in Command Points (CP). CPs are set by the size of the attached unit. The CC is the sum of all units attached to an HQ. HQ units whose CPs exceed their CC rating will become less effective. So try not to overload HQs.
- **Command Range Modifier.** (11.3.2) When leader rating checks are conducted the range to the HQ is important. Keep your Units within Comd Ranges of their HQs.
- **Changing HQs.** (7.7.2) You are able to change the HQ of a Unit once per turn by clicking the HHQ in the Unit Detail Screen. When it has changed it will be shown with a *. Changing HQs has no Admin Point Costs.

13. OTHER FACTORS IN COMBAT

Aim. This Topic explains some of the other factors involved in Combat and how to use them to advantage.

Detection Level. (13.1/2) The Detection Level is a measure of how much you know about your enemy. This is most readily apparent when you are playing with Fog of War On – in that Units with a DL 1 will be shown as a Counter on the map but with no further information. Be aware that even if you are playing with Fog of War off and you can see all of your opponent's counters the DL still has an effect. The more you know about an enemy the more effective your attacks will be.

Fortifications. (15.3) A key element of any defensive operation is the use of fortifications to protect your position. Fort Levels provide a significant bonus in defensive combat. Almost all units in WitW have the ability to establish fortification levels although it is much more difficult to reach the highest levels. There are rules which govern the max fort level a hex can reach. The building of fort levels is automatic but there must be a combat unit in the hex. Both sides can build Fort Units (hotkey-shift-F) to help in this process. Each combat unit has a construction value (displayed in the unit detail window) which provides an indication of how quickly they can dig – although modifiers for the proximity of the enemy, supply and prior movement apply. Once a fort level is constructed, in most cases, it will start to decay if the hex is not occupied by a combat unit. In Defensive Ops plan and build Fortifications, remembering to use terrain as part of your strategy.

Morale & Experience. (9.1-4) All units have ratings for Morale & Experience which represent a Unit's Capability and Training. In simple terms the higher a Unit's Morale and Experience the better. They influence both movement and combat. It is well worth taking the time to read in detail the impact of these factors in the Manual as their influence is significant. Don't ignore Morale and Experience.

Fatigue. (9.5) As Units conduct operations they gain Fatigue. The rate of gain for Fatigue is influenced by morale and supply. Fatigue impacts the Combat Value of a ground element with the CV of a ground element reduced by 1/3 of the fatigue level. Fatigue also impacts movement point allowance. Try and rest your Units before fatigue gets too high.

Reserve Mode. (15.5) Any READY combat unit with at least 3 MPs may be placed into RESERVE mode by selecting

the Ready/Refit/Reserve toggle on the unit bar. Combat units in RESERVE mode may be automatically committed to a nearby battle, both offensively (must be within 3 hexes) and defensively (must be within 6 hexes). Reserve units that are committed to combat do not move, but they must have the MPs required to be expended in order to commit to the battle. Units that move, retreat or rout are taken out of reserve mode.

Attrition. (9.6) Attrition represents the effect of wear and tear on units. Normal attrition occurs during the phasing players logistics phase. In addition, units can suffer retreat attrition as a result of losing a battle. Combat attrition losses are dependent on unit morale, the number of ground elements of a certain type in a unit, and the experience level of each type of ground element. The higher unit morale and ground element experience level, the fewer combat attrition losses. Units that begin their turn adjacent to enemy units during their logistics phase will suffer additional attrition losses representing low intensity combat with Isolated Units suffering more. When Units move a percentage of a unit's organic vehicles will be destroyed and damaged during its side's logistics phase based on the number of movement points the unit expended during the previous turn.

Interdiction. (17.3.3) Primarily a tool for the Allied forces with their inherent air superiority, interdiction is a very important factor. Imposing high interdiction levels on a hex by careful use of Ground Attack ADs imposes considerable penalties on your opponent. Not only will they find movement costly both in terms of casualties and movement point cost but also they will find resupply difficult. Over a number of turns in a high interdiction area units can be seen to degrade. In the scenarios covering the Normandy Campaign the use of air interdiction by the Allies is a principle tool to overcome the strength of the German forces and the benefits derived from the Bocage terrain. Ports also exert Naval Interdiction. Every port projects naval interdiction points based on the port level, damage level, and weather. It generally goes out about 5-7 hexes from the port. Allied ports project twice the level of interdiction. It is very important to damage ports that are near to invasion hexes although some ports near imminent invasions start damaged at the beginning of scenarios.

14. GARRISONS AND THE EAST FRONT BOX

Aim. This Topic provides a basic overview of additional functionality for the Axis player as a part of Campaign Games (but not shorter scenarios.)

GARRISONS

Overview. (18.2) As a WW2 occupying power Germany found it necessary to maintain Garrisons in Occupied Countries to prevent partisan activity. This requirement is factored both as a need to maintain sufficient forces in specific city hexes and across specific areas. Required Axis garrison levels not only reflect the need to fight Partisans, but also strategic/political instructions from Axis High Command (based at least partially on poor information regarding Allied amphibious capabilities). Although Partisans are not modelled in WitW as individual counters they do impact rail movement, factories and Victory Points. The Axis AI does not have to meet Garrison rules, although it does not intentionally abuse this allowance.

Garrison Requirements. (18.2.1) Garrison Requirements vary by time and are also influenced by an invasion of Western Europe. The easiest way to see the requirement is to access the Garrison Summary screen (Hotkey-Shift-J) This screen shows the Garrison Areas and the specific Cities within those areas which need to be garrisoned. On the Map you can see Borders between the areas and Hotkey-Shift-K highlights the Cities requiring Garrisons, with the hex colour showing when the correct level is met (blue=good). Garrison requirements are based upon CV levels. You can see the Garrison CV on counters by toggling Hotkey-Z until the figures with a G are shown. The City limits are based on both CV Level and the requirement to have a Security Unit located there too. Before a Western Europe Invasion some Cities require at least 10 CV Points. Once the Allies occupy at least one hex in a garrison area there is no longer a requirement to maintain the garrison limits in that area.

Partisan Activity Points (PAPs). (18.3) In the Garrison Screen you can see the relative level of Partisan activity which is recorded as PAPs. This manifests itself as increasing the rail usage on the rail line in a hex or damage to factories. In addition PAPs contribute to Allied VPs. If the Axis player exceeds Garrison limits enough then negative points can be generated.

EAST FRONT BOX

Overview. (23.*) The EF Box provides the game with the ability to simulate the influence of the Eastern Front. It can either be 'On' or 'Off'. When 'Off' the Soviet/Axis frontline will automatically move toward Berlin on a roughly historical schedule: Berlin will fall on the first May 45 turn and the game will end. When 'On' you have control over ground and air forces and you can bring them West if wanted but doing so is likely to speed up the Soviet advance.

East Front Units. (23.1.2) Hotkey-Ctrl-E shows the EF Box. Each unit is listed with basic details: CV (motorized units are worth double CV in the EF box), as well as its morale (Mo), men, guns and AFVs. Coloured text signifies status: Purple=Refit, Orange=unready and Red=depleted. Pressing the W next to a unit will send the unit West (Costs APs) and will arrive as a reinforcement in one turn. F indicates the unit is in the front line. Pressing F will toggle to R which indicates the unit is in refit mode. Depleted units may be disbanded by pressing the X.

Moving Units East. (23.1.3) To move a unit put the counter in any depot hex either east of hex column 160 or within 50 hexes (by x coordinate) of the eastern front line. Once in an appropriate hex, a button will appear on the unit in the unit bar to the right of the remaining Strategic Movement points. If you click on this "Send East" button, at the cost of 1 AP, the unit will immediately be moved to the East Front box and be counted in the East Front CV totals. Air Groups may be transferred to the eastern front using the air transfer mode. Select the units you want to transfer as you would normally to conduct an air transfer and then right click on any hex in the Soviet Union (instead of on an airbase). Air Groups may be transferred from the East Front to the West at a cost of 1AP where they will appear in 1 turn in the national reserve.

EF Box Fighting. (23.1.5) During the Axis logistics phase, combat on the Eastern Front is resolved. The extent of the fighting is based on the Soviet Potential and the amount of Total Combat Value of German Units. If Stable, the front line will move no more than 1 hex column per turn. If the front is Fluid, a multi-hex advance is possible and greater German casualties will occur. When the situation is Critical, the chance of a large advance is greatly increased, as are German losses.

15. VICTORY POINTS

Aim. This Topic provides a basic overview of Victory Points and Victory Conditions.

Overview. (25.*) Earning VPs and Victory Conditions allow you to win a game even if you have lost the war – by achieving a better result than History. Victory Points can be seen in the VP Screen (Hotkey-V). The calculation of Victory Points and Victory Conditions is different for Short scenarios and Campaign Games.

CAMPAIGN SCENARIOS

Overview. (25.1) Campaign Scenarios start at different points during the war but the game will always end at the latest on the first turn in August 1945. The Allied player receives victory points (VPs) for controlling cities, for damaging Axis industry/manpower and for partisan activity in Axis controlled areas. The Allied player may lose VPs for undamaged U-Boat factories, for undamaged V-Weapon launchers/V-Weapon factories, for Allied casualties, and for not meeting certain beachhead goals. Victory will be decided based on the net Allied points scored during the campaign.

Allied City Control Victory Points. During each Allied Supply Phase the Allied player will receive VPs for controlling cities in Germany, Italy, Denmark, Netherlands, Belgium and France. The VPs received are a product of the points allocated for Cities held (the larger the better) and the date (earlier the better).

Allied Strategic Bombing Victory Points (SBPs). SBPs are calculated based on damage to German strategic industries/manpower. The following types are considered to be strategic: German Manpower & Heavy Industry and German Controlled Oil, Fuel & Synthetic Fuel. If the Allied player captures cities in Germany (or for oil/fuel/synthetic fuel, cities in areas controlled by the Germans at start), then SBPs will be scored as if the industry in that city were at 100% damage. The VPs received are a product of the points allocated for Industry damaged (the more the better) and the date (earlier the better).

Partisan Activity Points (PAPs). PAPs are calculated by adding the partisan activity levels of all Axis occupied areas. During each Allied Supply Phase the Allied player will gain/lose Partisan VPs as a product of the PAPs.

Allied Casualty Penalty Points. The Allied player loses VPs for men killed or wounded with non US casualties losing 1.5x points than US casualties. On 1 Feb 44 if the Allies do not control at least 10 hexes in mainland France or mainland Italy, the Allies lose 400 victory points. On 1 Jul 44, if the Allies do not control at least 10 hexes in mainland France or northern Europe the Allies lose 1000 victory points. Northern Europe is defined as the continent north of hex row 215.

U-Boat Points (UPs). UPs are calculated by adding the sizes of all undamaged (less than 1%) U-Boat factories. During the year 1943 the Allied player may lose VPs each turn equal to the UP total.

V-Weapon Points (VWPs). During the years 1944 and 1945, the Allied player will lose VPs each turn equal to the VWP total. After invading N Europe the Allies will lose each turn VPs equal to double the VWP total.

SHORT SCENARIOS

Victory conditions for non-campaign scenarios are based on control of victory locations set by the designer and cumulative losses in men, guns, AFVs and aircraft. (25.2) Victory points for control of victory locations are awarded each player-turn as well as separate victory points awarded for controlling victory locations at the end of the scenario. Victory locations can be applicable to both sides or be specific to one side only. Victory point locations can be displayed by selecting the Toggle Victory Locations button in the map information menu tab (Hotkey-shift-V). Losses are based on the number of men, guns, AFV or aircraft that must be destroyed for the opposing side to gain one victory point. This base number for losses can be further modified for each side by a certain percentage. At the end of the game the total points for each side are compared as a ratio and the result is determined by the following rules:

- Decisive Victory - ratio greater than or equal to 5.0
- Major Victory - ratio less than 5.0 but greater than or equal to 2.0
- Minor Victory - ratio less than 2.0 but greater than or equal to 1.1
- Draw - ratio less than 1.1

16. MANAGING LOGISTICS

(REFER TO ONE PAGE GUIDE #11)

Aim. This Topic provides some thoughts on managing logistics in WitW to help improve your game play.

Priority and Eligibility for Resupply. (20.4.2/20.5.1) Setting all Units and Depots to Priority Level 4 will not make your logistical challenge simpler as there is never going to be enough for everyone to get everything. The system is organised to allow units and rail depots to get something; especially those units with the lowest supply. For depots the system is set up to allow those depots of a higher priority first look at available freight; although all Rail Depots will look to get a quarter of their capacity first so that one greedy depot doesn't get everything. Depots set to Priority 0 get nothing. For units the system is more complex and runs in a series of 5 resupply phases which assess need and priority in order to determine eligibility prior to attempting resupply. Lower priority units will receive less of their need (see table in One Page Guide #11).

Getting Resupplied. (11.3.1 / 20.4) When a unit is eligible to get resupplied it must first pass a leader admin check. If successful it may get up to 20% of the need of the item (Motorized units seeking fuel or Artillery Units seeking Ammo get up to 40%) subject to availability and loss during the delivery. Once the unit hits four admin failures, no further attempts will be made. Units look to draw freight from the nearest depot, which can be up to 50 hexes away. The further the depot, the greater usage of vehicles and fuel to move the supplies. German and non-motorized Allied units can get freight from a depot up to 3 hexes away without vehicles by using horses but this costs double due to fodder consumption. Western Allies units within one hex of a depot get deliveries 'free' using their own vehicles. (20.4.1.1). Once the closest depot is depleted of freight, a unit will try to get its remaining needs from the next closest depot up to a max of five but normally only two. Airbases air base units will tend to be more willing to go to ports in the rear for resupply.

Unit Supply Window. (26.3.27) The Unit Supply Window shows the detail of the Supply received. Importantly at the bottom you can see when a Unit failed to meet an eligibility check that failed to deliver an item. The first time a unit does not receive freight a number is placed next to the item. The number is the supply sub-segment in which the lack of the item first happened. So if in a 30 sub-segment (unit must have less than 30% of the needed item) the unit does not get anything because there was a lack of Freight at available depots, then a 30 will be next to No Freight

Replacements & Refit. (20.6.3/7) For the unit to get replacements, it must pass both admin and support checks or be in refit mode. Normally the unit will then get 20% of need. However if the unit is in refit mode, the ground element is <81% of need, and it passes both admin and support checks then it will get 40% of the need (but will never receive replacements that would have the unit exceed 100% of need). Units in refit on any depot will attempt to get to 100% TOE irrespective of the supply priority (20.5.1), drawing from other depots as well. Units in refit located in the same hex as a national supply source depot (type 4) will have access to virtually unlimited freight. Be warned units on depots set to refit but with a low supply priority will get replacements but supply will be capped at the priority level.

Depot Storage. (20.1.6) A Depot's max capacity store freight depends on the Size of the Port + Railyard in the hex (See Logistics Yardsticks). Tip: Build Depots in hexes with larger Ports and Railyards. Relative Depot capacity is shown by the height of the black bar.

Strategic Movement. (20.1.4-5) The Depot's ability to receive freight is set by the Railyard & Port Capacity Pts remaining at the end of a turn. Strategic Movement also consumes Railyard & Port Capacity Pts so you must balance carefully how much strategic movement you use. Tip: If your Depots are not receiving enough Freight then don't use Strategic Movement. In addition Ports with 5% or more damage will only operate at ½ normal capacity. Whereas rail depots will seek capacity from nearby railyards, Type 2 port depots can only receive freight using the port capacity remaining at the end of the turn.

Rail Usage. (20.1.5 / 5.1.2.1) Rails are colour coded to show Rail Usage. (0T = bright green, 1-9,999T = dark green, 10,000-19999T = yellow, 20000-29999T = orange, 30k+T = red.) Rail Usage is incurred by Interdiction, Partisans, Strategic Movement and Freight Movement. As Rail is used it becomes congested and movement costs more SMPs (Green = no penalty, Red = Max Penalty). Congestion is maximised at 30k but movement is still possible at the highest cost in SMPs for Units and Railyard Points. Tip: If possible have separate Lines of Communication for Logistics and Units.

Air Supply. (5.4.5.1) You can use air tpt to supply to forward units. Air Tpt to an air base hex is more efficient. If the destination hex does not contain an airbase only ammo and supplies will be dropped.

17. REINFORCEMENTS, PRODUCTION & REPLACEMENTS

(REFER TO ONE PAGE GUIDE #8)

Aim. This Topic provides information on the Reinforcements, Production & Replacements System in WitW.

Reinforcements. (19.1) Reinforcements are 'complete' Units that arrive in game at a specified time set by the scenario designer. In this respect they are different from ground elements that arrive as replacements in that the ground elements that are part of them are in addition to planned production. You can see scheduled Reinforcements using Hotkey-I. On the downside some Units also Withdraw with rules which mean they must be at >75% TOE when they do so.

Production. (21.*) As a player you have no direct control over the production system in WitW. Some of your gameplay will impact on production (e.g. loss of raw materiel production areas or damage to factories) but you are unable to change either what or how much a factory produces or the TOE of units. (This can be done in the Editor). One Page Guide #8 shows the structure of the Production Model. It should be self explanatory but it is worth mentioning that modifiers change the relative production amounts in each year to reflect history. In addition the production of ground elements created from Armament Points is based primarily on Demand and not a specified Factory Rate.

Production Screen. (26.3.3) The production screen (Hotkey-P) provides a summary of production showing how much is being built and how much is being held in production pools. Elements annotated with #- are no longer produced and those annotated ** have yet to begin production.

EF Box. (21.3) As an Axis Player if you have the EF Box activated you will receive 100% of all items produced. If the EF Box Option is not being used you receive 66% of all Axis aircraft, fuel and synthetic fuel production and 40% of all non-aircraft/fuel/synthetic fuel production to reflect the supplies and reinforcements required in the East.

Production vs Replacements. (20.6) Although Factories produce Aircraft, AFVs and other equipments they do not become 'complete' until they receive manpower as part of

the replacement segment. Several things occur during the replacement part of the supply and replacement segment, to include the return of damaged ground elements, return of excess support squads, refit, and normal replacement. Units must be in supply to receive replacements. Routed units will not receive replacements. First, 25 percent of all damaged ground elements less AFVs (20.6.6) from units are returned to the transit production and manpower pools to be made available to return as replacements. However, only sixty percent of the manpower from the damaged ground elements goes to the transit pool; the other forty percent being placed in the disabled pool. All other things being equal, returning ground elements have a better chance of going back to their original units. Damaged equipment and manpower returned to the pool during the logistics phase are not available immediately to be used as replacements. Although they appear in the pool on the production screen, they actually are put in a transit pool (26.3.3). At the start of each friendly logistics phase, 25 percent of the amount in the transit pool is moved to the available pool. This represents the lost time from the front of lightly wounded soldiers and damaged equipment. Next, excess support squads may be converted into rifle squads (20.6.1). Replacements are sent as freight from depots along with supplies, ammo and fuel based on the priority set by the HQ unit that they are assigned and percentage of need (20.5.1). Units in refit mode will have advantages over other like units when receiving replacements (20.6.7). When damaged ground elements Replacements coming into units will bring down the average experience for that type of ground element by a small amount. In the Unit Supply Detail window replacements are listed as a number of men - so if you receive only 1 x Sherman Tank it would be shown as 5 men which is the size of the crew.

Losses Screen. (26.3.2) You are able to see your losses via the Losses Screen (Hotkey-L). This keeps a record of both turn and cumulative losses for all equipments and manpower. In addition it shows complete units that have been destroyed or disbanded.

18. USING THE COMMANDER'S REPORT

Aim. This Topic provides a basic overview of the Comd's Report feature included in WitW.

Introduction. (26.2 Appx B) Learning to use the Comd's Report is an art all in itself. You can actually play WitW without ever accessing the Comd's Report however good players quickly learn to use it to provide themselves with vital information and 'industrialise' some functions. There is no right or wrong way to use the functionality offered by the Comd's Report – after all it's your Report. Take time to explore the Comd's Report.

Comd's Report Overview. The Comd's Report consists of filterable lists of data in 7 groups: UNITS, HQs, AIR GROUPS, LEADERS, BATTLES, LOCATIONS & EQUIPMENT. Each List appears on a separate tab. Each List provides relevant data in column format. At the top of the page the column headings can be used to order the data by that heading type. At the bottom of the page there is the functionality to filter the relevant data. If a filter is set the text turns PINK. By manipulating the filters

you can with practise quickly find information and sort data into groups.

Comd's Report Functions. (26.2.1) Once you have sorted your data into a group that you want e.g. in the UNITS tab filtering to all British (Nation- Bri) – Armoured (Unit – Arm) – Divisions (Unit Size – Div) that are Unready (Combat Ready – UnReady) the Comd's Report allows you to apply global functions to the list that you have selected using the Functions listed at the top right hand side of the screen. Examples are setting the Max TOE or setting Units to Refit.

Comd's Report Hyperlinks. In the displayed data some elements are coloured pale blue – this indicates a further step. Selecting the location of an item in Comd's Report will take you to that item at its location hex on the map. Selecting a HHQ will filter it's subordinates and a Leader will take you to that detail.

Show Subordinates (CR). The Show Subordinates link on a HQ's Unit Detail Screen will open the Comd's Report with all the Units of that HQ already filtered.

19. EVENT LOG & METRICS

Aim. This Topic provides a basic overview of the Logistics Phase Event Log & Metrics feature included in WitW.

Logistics Phase Event Log Overview. (26.3.13) During the Logistics Phase the game performs thousands of calculations on your behalf in 76 different phases from building forts to training pilots. The Event Log (Hotkey-Shift-E) provides a summary of that process so that you can see what has happened. Checking through the Event Log should become a habit at the start of every turn. The list on the right hand side allows you to filter out those elements

that may not interest you but even a new player is probably interested in the detail of arriving units. As you learn all the game aspects in more detail the information provided in the Event Log will become more valuable.

Metrics. (26.3.32) The Metrics Screen (Hotkey-Shift-M) provides the player with a number of graphs so that you can track the progress of some key variables such as Production, Troop Strengths and Victory Points over time. The ability to identify trends in the data will allow you to modify your game play accordingly.

CREDITS

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WitW One Page Guide # 1 – Introduction, Getting Started, the Player Interface and the Map

1 Read this First!

The WitW One Page Guides were developed during WitW Testing to help quickly orientate new players to the Game. They have been included in the Player's Handbook as handy aide memoires. They should be read alongside the Player's Guide & Manual; they don't replace them.

4 Preparing for Battle

On starting the Game this is the first screen you will see



For the Tutorial use these settings. Clicking the boxes toggles them

If you set EASY these values will AUTO set

2 Using a One Page Guide

The Guides are designed to be read as a Comic Strip. Each Box is clearly numbered and you should follow them as you go along. The Boxes broadly correspond to the processes that you should be following in Game. Screenshots are provided to add clarity along with a brief description of what is what. Don't expect lots of detail – that is either in the Player's Guide or in the many pages of the Manual. BLUE TEXT and ARROWS correspond to LEFT MOUSE CLICKS. RED TEXT and ARROWS correspond to RIGHT MOUSE CLICKS. Other Colours are used to connect areas in a simple manner. Look at Boxes 4, 5 & 6 in this Guide.

5 Choosing Options



For the Tutorial use these setting. Clicking the boxes toggles them

If you set EASY these values will AUTO set

3 What Guides are there?

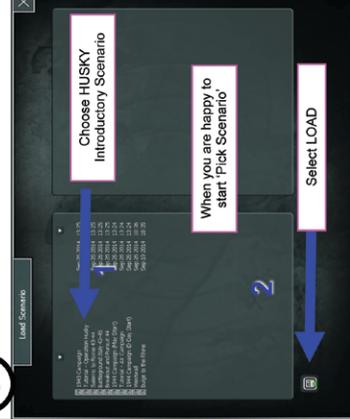
- There are 11 Guides.
- 1 – Intro, Getting Started, Player Interface & Map
- 2 – Basic of Combat & Movement
- 3 – Invasions
- 4 – Logistics
- 5 – Setting Manual Air Directives
- 6 – Air Bases, Air Groups & Air Transfers
- 7 – Hot Keys
- 8 – Production & Supply
- 9 – Air Planning Ready Reckoner
- 10 – Ground Movement Ready Reckoner
- 11 – Logistics Ready Reckoner

6 Choosing Preferences



At the start there is probably no need to reset the Preferences

7 Starting your Game

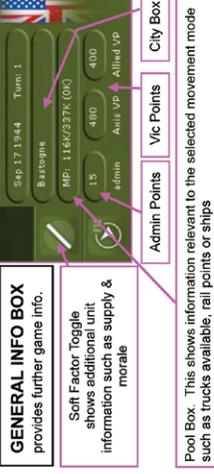


When you are happy to start 'Pick Scenario'

8 The Top Toolbars

At the top of the screen are the toolbars that provide part of the User Interface. There are layered tab toolbars accessed by clicking the tab. The other element allows access to air directive planning or movement modes depending upon which Phase you are in.

LAYERED



GENERAL INFO BOX provides further game info.

Soft Factor Toggle shows additional unit information such as supply & morale

Admin Points

Vic Points

City Box

Pool Box. This shows information relevant to the selected movement mode such as trucks available, rail points or ships



GROUND MOVEMENT PHASE MODE TOOLBAR

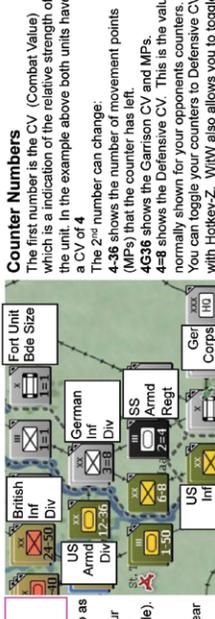
Shows buttons which set the modes that allow the player to control the movement of his counters across the map. F1 (Shown selected) is ground movement, F2 = Rail Movement (must be in a hex with working rail), F3 = Sea Movement, F4 = Amphib Movement (F3+4 require unit to be in a port), F9 = Air Transport options, F10 = Air Transfer (see Guide #3). F11 shows previous battle locations and F12 end the turn.

9 The Map

The Map consists of 10 mile hexes. There are 5 zoom levels. You can zoom in or out using the mouse wheel or Different information can be seen at some zoom levels

10 On Map Unit Counters

Combat & HQ Units appear on the Map as Counters. Only three counters are allowed in each hex. The counter colour shows nationality, the symbol show the type of unit and unit size (e.g. Div or Bde). The colour in the symbol shows units belonging to the same Army (if set as a preference). Support Units do not appear on Map as they are attached to HQ or Combat Units. Fort Units cannot move.



Counter Numbers

The first number is the CV (Combat Value) which is an indication of the relative strength of the unit. In the example above both units have a CV of 4
The 2nd number can change:
4-36 shows the number of movement points (MPs) that the counter has left.
4G36 shows the Garrison CV and MPs.
4-8 shows the Defensive CV. This is the value normally shown for your opponents counters. You can toggle your counters to Defensive CV with HotKey-Z. With you also allows you to toggle to Unit names – Hockey-Y

WitW One Page Guide # 2 Basics of Combat & Movement

1 Guide Overview

This guide aims to allow you to easily understand the very basic elements of Air Planning, Movement & Ground Combat

2 Air Planning Phase

When a human is playing one of the sides in WitW there are two phases which require input. The first is the Air Planning Phase. The second is the Ground Movement Phase (see One Page Guide #4).

The Air Planning Phase is where a player gives orders to his HQs via Air Directives. There are two methods of doing this. The first is by the far the simplest and is where the player allocates the relative air mission priorities. After which the AI automatically creates Air Directives in line with those priorities (see below). The second is where the Human player creates their own Air Directives (see One Page Guide #2).

As the simplest approach the Air Mission Priorities screen automatically appears at the very start of the Game. ROWS show Type of Air Msn and the COLUMNS show Priority (N=None, L=Low, M=Medium & H=High). You can set one priority for each Man but you can differentiate between Geographic Areas for Tactical Air Support and Strategic Day/Night. Simply click on the Radio Buttons. If you don't want to change an AD area uncheck the tick box by the title

You can set the following Mission Priorities:

Ground Support – Provides ground units with direct air support during ground attacks. Forces will fly during combat in the Ground Movement Phase.

Air Superiority – Fighter units fly to disrupt enemy air missions.

Ground Attack – Slows & interdicts enemy ground units. You specify the Target Priority Strategic – Used to bomb production facilities and manpower in cities. You specify the Target Priority

Once you are happy with your choices then **CLICK** – SET AIR DIRECTIVES. EXECUTE will appear which you then click to END YOUR TURN.

If you wish to explore further then close the window using the X in the Top Right Corner and end your turn by pressing F12. Hotkey-a or **Alt** opens this window again)

On an Invasion turn setting to ON automatically set optimum support

3 Ground Movement

Movement and Combat is the decisive act in WitW. The basics are very simple.

To move your units select them with a L-Click on the map. If units are co-stacked the game functionality allows you to scroll through the units by repeated clicks. Those selected will be highlighted in the Unit Bar on the Right.

Now move the cursor to where you want them to move to. The 'star' trail will show you the best route and how many movement points are being expended. Some terrain costs more points to move through so does crossing rivers. Once you are happy on your destination then R-Click and your counter will move to your desired location.

4 Strategic Movement

Rail & Sea Movement is very similar to Gnd Movement but you expend strategic move points (SMPs) and must choose your mode by pressing F2, F3 etc. You can move further with Strat Movement.

To move your units ensure you are in the correct movement mode. To be able to commence movement in F2 Rail Mode the units must be on a valid rail hex (i.e. the track is working) or F3/F4 Sea/Amphib Mode in a working Port Hex. Select them with a L-Click on the map.

When you start to move the unit is automatically loaded onto a train or ship (if sufficient trans/ships exist) and if you have sufficient SMPs. The 'star' trail will show you the best route and how many movement points are being expended. Once you are happy on your destination then R-Click and your counter will move to your desired location.

Once you have arrived at your destination you need to expend SMPs to unload from the transport. (You can only unload in F3 Mode in a Port.) The larger the Port or Railway the less the cost to unload. The sizes are shown in the Anchor/Rail Symbols. You may find you have sufficient SMPs to load, move and unload in a single turn.

5 Rail Repair

There is one other important 'on map' unit that is neither a HQ nor a Combat Unit and that is a Rail Repair unit. Rail Repair Units can repair rails by being placed in a hex with damaged rail and then L-Click on the RRV button. The rules are a bit more complicated so check the Manual

If you want Strategic Air to fly God Attack then you need to provide additional information

6 Combat

There are two types of ground combat. A Hasty Attack (shown) is launched from a single hex. It uses less MPs. To launch a Hasty Attack L-Click to select the units (as per movement). Place your cursor over the enemy unit you wish to attack. The Hasty Attack Symbol will appear. R-Click to launch the attack.

A Deliberate Attack (not shown) is launched from one or more hexes. It uses more MPs and is more likely to succeed. To launch a Deliberate Attack Shift L-Click to select the units – doing this allows you to add in units from other hexes. Place your cursor over the enemy unit you wish to attack. The Deliberate Attack Symbol will appear. Shift R-Click to launch the attack.

Depending on the relative strengths of units a victory will force your enemy to retreat.

7 HQ Units & Command and Control

Your chances of a successful attack are greatly improved if the units that you commit to battle are part of the same HQ formation. The rules are too complex for this guide but aim to have Combat Units attached to the same HQ. Support Units either attached directly to the Units committed or the higher HQ can help by taking part too. To make sure that Support Units attached to an HQ may take part position the Cbt Units' HQ within 5 hexes of the battle location.

HQ Units have Leaders that you change for a cost in APs by clicking on the Leader's name. In addition the proximity of a HQ and the quality of the HQ leader passes benefits to your units so as the Campaign progresses you will probably need to switch Units between HQs to maximise those benefits. You do this from the Unit Detail Screen by L-Click on the HHQ's Name. This will then show possible new HQs for you to choose.

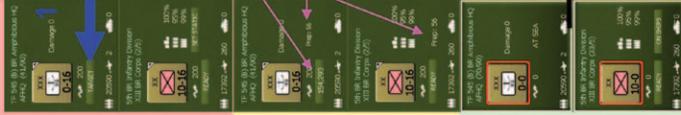
1 There are 6 stages to conducting a successful Invasion

- Stage 1 – Setting Up Air Support
- Stage 2 – Setting Up Amphibious Forces
- Stage 3 – Setting Up Airborne Forces
- Stage 4 – Setting Up Follow on Forces
- Stage 5 – Launching the Invasion
- Stage 6 – Following Up the Invasion

2 Setting Up Amphibious Forces

The heart of your amphibious capability is the AMPHIB TF. You can only attach Naval TFs and Commandos directly as SUs. However CUs stacked with the AMPHIB TF in a Port Hex will prepare for invasion (but not Arm'd Divs). Don't forget to allocate Support Units (inc Multi Role Units) to the HHQ as they can assist in Combat.

Once you have put your AMPHIB HQ in a Port Hex and stacked a Cbt Unit with it you are ready to TARGET your invasion. To do this **Left Click** on TARGET in the AMPHIB HQ Box. Then on the map **Left Click** on a possible target hex shown in **YELLOW**. (The GREEN hexes are already yours.) The invasion hex will shade **ORANGE** and the hex where the Amph HQ will be located will shade **BLUE** and a redline will appear connecting the Port to the Target hex. Co-stacked Cbt Units will automatically follow the AMPHIB HQ Target.



2 Setting Up Air Sp

Air Cover is vital

By far the simplest method is to set AMPHIB SUPPORT to ON in the Auto AD Creation Box – BUT ONLY ON THE TURN YOU CHOSE TO INVADE. This will set suitable AD priorities to support your invasion but you can always amend the precise settings to your individual preferences.



For those who want to set their own ADs the tasks that ought to be considered are:

- Recon
- Ground Attack
- Attack Enemy Air Bases
- Damage Enemy Airports behind the Invasion Area

- Interdiction is very important. (i.e. delay enemy reinforcements and supplies) Air Superiority to and over the Invasion Area
- Naval Patrol between home ports and the beaches (i.e. protect your own forces)
- Ground Support to Landing Forces



Drops in Urban, & Forest Terrain inflict more losses

Red Line connects Amph HQ to Invasion Hex

Light Blue Hexes are those already targeted by Ab Forces

3 Setting Up Follow on Forces

Whilst you are waiting for Prep Pts to build up you can use those turns to position your Follow on Forces such as Arm'd Dvs, Higher HQs and Rail Repair units. These are best positioned in empty ports or close to them so that you can move them by Ship on the turn on which you launch the invasion. Also consider placing any Airlanding Dvs in Air Base hexes if you want to fly them in. Plan which Air Units you are going to fly in to occupy the new Level 2 Airbases when you arrive.



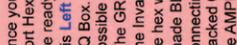
There are specific rules governing the attention caused during both amphibious and airborne landings.

1

There are 6 stages to conducting a successful Invasion

2

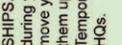
Setting Up Amphibious Forces



3

Setting Up Follow on Forces

Launch Invasion



4

Following Up the Invasion

WitW One Page Guide # 3 - Invasions

The guide has a Traffic Light System
RED = Target, YELLOW = Prepare, GREEN = Got & BLUE = Follow Up

4 Setting Up Airborne Forces

Airborne Forces are permitted to DROP in a hex adjacent to a hex targeted by an AMPHIB HQ so it is important to set Amphibious Forces first. In this mode the DROP does not occur 'in turn'. This is different to using the normal F9 functionality which permits the DROP of Airborne Forces 'in turn' to a hex within 8 hexes of a friendly supplied hex.

Once you have put your Airborne Unit in a Hex with an Air Base you are ready to TARGET your DROP in F9 mode. To do this **Left Click** on TARGET in the Unit Box. Then on the map **Right Click** on a possible target hex if the hex is a viable target then it will shade light blue with a Para Symbol



PREPARE

Airborne Units have Prep Pts too although they build up quicker. 50 Prep Points are required to DROP



INVADE

Select F9 Mode. When you will show a screen where you choose the aircraft you need to transport your Paratroops. Select what you need and press Launch. The Unit will be shown as assigned to 'drop'. As with Amphib Invasion this won't happen in your turn.

6b



FOLLOW

A Level 2 Air Base is automatically created in the Invasion Hexes. Don't forget to Air Transfer some Fighters in for Air Superiority or some short range FBs to provide Gnd Sp. You can also fly in Airlanding, Airborne or Infantry Units using F9 Mode. Select the Unit and **Shift-Right Click** on a friendly airbase in your turn.

7b

Once ashore you should see this. Each AMPHIB HQ provides a Level 2 temporary port, Level 2 Airbase and Type 2 Depot

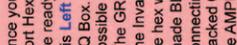


1

There are 6 stages to conducting a successful Invasion

2

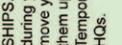
Setting Up Amphibious Forces



3

Setting Up Follow on Forces

Launch Invasion



4

Following Up the Invasion

2

Setting Up Air Sp



3

Setting Up Follow on Forces

Launch Invasion



4

Following Up the Invasion

For those who want to set their own ADs the tasks that ought to be considered are:

- Recon
- Ground Attack
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There are specific rules governing the attention caused during both amphibious and airborne landings.



7b

Once ashore you should see this. Each AMPHIB HQ provides a Level 2 temporary port, Level 2 Airbase and Type 2 Depot

Once you are ashore then your task is only half done. It is important to land your off shore Follow on Forces and then prepare to bring in more forces if space is available. There is no cost to do so using a Temp Port. After May 44 you can create up to two Mulberry Harbours by converting a temporary port – click on the temporary port name in the top right hand corner and on the pop up window select **BUILD MULBERRY**. A Mulberry Harbour is a Level 4 Port so many more supplies can be shipped in. Seek to capture Ports and where possible set priority repairs for any Ports and Railyards.

1 Air Bases (AB)

Size 1
Size 2
Size 3

Basic Air Base Colours
GREEN = AB with aircraft owned by another Air HQ
RED = AB with NO aircraft owned by another Air HQ
ORANGE = non-empty AB but max TOE set to 1 (Shutdown AF)/i.e. Bad Player Set Up)
BLACK = No Air Unit attached (Bad Scenario Setup)

Hotkey Ctrl-2
 This shows Bar Charts for each airfield
GREEN = Ready AC
RED = Damaged AC
BLUE = Reserve AC

Click AB symbol to show AB Detail Screen for AB in selected hex

2

Total Aircraft @ Base by Air Group & AC Category

Click to Access Air Gp Detail

Ready Aircraft @ Base

Supply Info

Ready Aircraft @ Base by Air Group & AC Model

Click to Change Max TOE

Click to Change Air HQ

Click to Change Priority

Distance Travelled

Assigned (G)	Air Support	Travelled
RAF Bomber Command		Aircraft
No. 115 RAF LF 50p	12x Mosquito NF.XI	0%
No. 115 RAF LF 50p	21x Lancaster B.I	0%
No. 180 RAF LB 50p	16x Mitchell II	0%
No. 195 RAF LB 50p	16x Hurricane IV	0%
	50png III	0%

3

Click to Change Max TOE

Click to Change Air HQ

Click to Change Priority

Distance Travelled

Assigned (G)	Air Support	Travelled
RAF Bomber Command		Aircraft
No. 115 RAF LF 50p	12x Mosquito NF.XI	0%
No. 115 RAF LF 50p	21x Lancaster B.I	0%
No. 180 RAF LB 50p	16x Mitchell II	0%
No. 195 RAF LB 50p	16x Hurricane IV	0%
	50png III	0%

5

Air Transfer Mode
 When you select F10 - Air Transfer Mode this screen appears. Selecting SET AIR HQ FILTER at the Bottom RHS brings up the available Air HQs here:

1 Air Group

No Air Groups (so RED Air Base)

3 Air Groups

Selecting Air Group for Transfer
 The Air Filter allows you to differentiate between Air Gps attached to different Air HQs

Air Base Selected (GREEN Hex)

Air Bases in same Air HQ (BLUE Hex)

Other Air Bases with Ac (Filtered Out) (YELLOW Hex)

Transfer Range in Hexes

Air Gps at selected AB

Air Transfer Range Circle (BLACK)

Command	Count
Transport Command	14
RAF Fighter Command	31
RAF Bomber Command	76
RAF Coastal Command	36
2nd RAF Tactical Air Force	99
8th US Air Force	59
	2118

6

Making the Transfer

Once you have selected an Air Group you can see Range circles. To transfer the Air Group just click on the Destination Air Base Hex. You can transfer multiple Air Gps if the Start and Finish locations are the same.

AI Move/Manage Air Units/Bases - This button (Shift-A) should be used carefully. It is strongly advised that this only be used by players that don't want to control the details of their air forces. Once it is used, it is advisable to continue using it every turn (or at least every few turns). It is not advisable to attempt to use this while also making manual adjustments to the ABs or Air Gps. The AI will move units to different ABs based on the situation. It will also change the HQ attachment of some ABs and attempt to expand some ABs. It will also change the fighter/bomber setting for some FB Gps.

Escort Range Circle (CYAN)

Operational Range Circle (PURPLE)

7

Air Base Constraints

Airbase Capacity. There are 3 sizes of AB - Level 1, 2 & 3. Each has a Aircraft Capacity: Level 1 = 90, 2 = 180 and 3 = 270. Each aircraft, regardless of its state (ready, damaged, reserve) generates a number of plane maintenance points. The number of maintenance points depends on the number of engines the aircraft has and AB size. This means that a 4 engine AC at a Lv1 airfield it is four times as much challenge as a single engine aircraft - but a Lv1 airfield it is four times as much effort. When an ABs capacity is exceeded a Bar appears under the symbol. Penalties apply which impact on aircraft support and will decrease availability.

Airbase Damage. The more damage to an AB, the more Op losses suffered by units there and the less sorties that can be flown. It's harder to damage a larger base, but also harder to repair it once damaged. As an airfield gets more crowded with aircraft, it gets easier to hit aircraft on the AB. In addition to auto repair that happens each day during the air phase, ABs that have Constr Units expanding ABs will use the unit to repair damage during the logistics phase (all damage must be repaired before expansion work can continue)

AB Expansion. ABs can be set to expand via the City Detail Screen. The rate is based on number of Engins and labor squads in the assigned Constr Unit. It is slower in worse terrain and bad weather.

AB Nationality Switch. If an in-supply AB contains no Air Gps, the TOE is set to AUTO, then in the log phase the nationality will change to match of the HQ that controls the base. This will disband the old AB (putting the manpower and equipment back in the pool, and create a new airbase with the new nationality.)

With One Page Guide #4
Air Bases & Air Group Transfers

WitW One Page Guide #5 - Logistics

1 Understanding the Basics of WitW Logistics

- **Production.** Raw Materials (Oil & Resources) are converted by factories into **Ammo, Fuel, Supplies & Replacements** (Aircraft and Ground Elements). Produced items are then stored in Production Pools until required.
- **Freight.** Fuel, Supplies etc are moved around the map as Freight. Once Freight arrives at its destination it is converted into the item needed (such as Fuel) – provided that sufficient exists in the Production Pool. Replacements are also moved as Freight.
- **Depots.** Freight is moved between and stored at Depots. There are four different types:

- **Level 4** – National Supply Source
- **Level 3** – Port Supply Source
- **Level 2** – Port Depot
- **Level 1** – Rail Depot

- **Players can create Level 1 & 2 Depots only** (see Box 3)
- **Movement.** Freight can be moved by Sea, Rail or by Trucks from Depots. The capacity of each movement type is variable dependent on factors.

3 Creating a Depot

You need to build depots close to your units to ensure their supply.

1. Select Hex (Blue Arrow)
2. Click Place Name (Blue Arrow)
3. In new window click **CREATE DEPOT**
4. In a Port you will get a Lvl 2 Depot & elsewhere a Lvl 1 Depot. A railway will be created if not there already.

Depot Capacity is a product of the size of Port and Railway in the same hex. The larger the port and railway the more freight can be moved and stored.

Don't confuse Depot Type with Capacity

Le Mans

Nation: France
Player: W Allies
Population: 6

NUM DAM DEL FACTORY TYPE

NUM RAILYARD

1 21* 0
6 0 0

Manpower

Supply: Fuel: Oil:

REPAIRS FOR DAMAGED RAILYARDS (OR PORTS)

Click Here to set Priority

Click Here to set Priority

Repairs for damaged Railyards (or Ports) inhibit effective Supply. This will cost 1 x AP.

- Shows Priority Repair

2

Logistics Display – Hotkey-N (& Hotkey-Shift-L)
This display provides an overview of your logistics and is vital information to a good player

Industry

Depot Level 1 (Rail Line) Priority 2

Depot Level 4 (Star) Priority 3

Railyard

Port

Depot Level 3 (Ships Wheel) Priority 4

The Bars on top of each Depot show Freight moved:
GREEN = Received
BLUE = Stored
RED = Shipped
BLACK = Capacity
 Hover the cursor over Depot hexes for precise detail in the popup

Port & Railyard Capacity (F2 Mode / Logistic Display On)

Ports and Railyards create capacity points proportional to their size (limited by damage). Handling units and freight consumes these Pts – so too much strategic movement will reduce freight movement. Respective Capacity Pts shown in F2/F3 Modes. (Rail in this example)

Damaged Rail BLACK

Congested Rail

5 Railyard Capacity Pts remaining

Rail Usage

Each rail hex has the same capacity & this is tracked with usage points. The more congested the greater cost in SMPs to move units. Usage can be increased by air interdiction. Usage is shown in the hex pop-up rollover text and by the rail colour.

0 = bright green, 1-4,999 = dark green, 5,000-14,999 = yellow, 15,000-29,999 = orange, 30,000+ = red.

4

Supply Priority

XVIII Airborne US Corps
Patrick B. Ridgway

Supply Priority (2)
Assigned (12)

SHOW SUBROUTINES (PQ)
RELOCATE UNIT

Elements: 1st Airborne US Army

ASSIGN SUPPORT UNITS

100/100
100

100/100
100

You can set the **Priority of Depots and HQs.**

- Higher Priority HQs/Depots get first call on available freight.
- There are 0-4 levels with 4 being the highest Priority.
- Depot Priority is shown as a number in the Depot Triangle Symbol. Units show it as a toggled Soft Factor.
- To change Priority for a HQ bring up the Unit Detail Screen and click on **PRIORITY.**
- To change Priority for a Depot use the '., & .' keys in Log Display when the mouse is over a Depot

5

Supply Reports

Hotkey-8 shows the spider web which shows which depots are providing supply to units (red lines) and Depot to Depot (blue over sea and white by rail)

Unit Supply Detail can be accessed from the Unit Detail Screen and gives full info on supply for each unit including need, the depots involved and what has been received by the unit.

There is a list of Depots in the Commander's Report – Locations – Depot Area. This shows info on vehicles & freight.

The Logistic Phase Event Log Report provides information on the freight being received by units and handled by the Depots during the logistics phase.

UNIT SUPPLY DETAIL

4th CA Armoured Division
Current Status
Priority: 2

Item	Count	Reqd	Diff	Prct	Vehicle
supplies	101	101	0	100%	0
fuel	220	220	0	100%	0
oil	948	948	0	100%	0
ammo	1080	1080	0	100%	0
vehicles	317	317	0	100%	0
support	629	629	0	100%	0

Turn 2 Supply Detail

Depots	Range	HP	Prct	Vehicle
3	3	30	22%	0
5	5	10	22%	0

Received

Item	Count	Reqd	Diff	Prct	Vehicle
supplies	0	101	101	0%	0
fuel	197	220	23	90%	0
oil	183	948	765	19%	0
ammo	0	1080	1080	0%	0
vehicles from pool	0	0	0	0%	0
replacements	-669	0	669	223 (freight)	0
supplies consumed	4	0	4	0%	0
admin failures	30	0	30	0%	0
no freight	50	0	50	0%	0
no fuel	0	0	0	0%	0
no supply	0	0	0	0%	0
no manpower	0	0	0	0%	0

1 INFO SCREENS

There are 6 different Air Directives (ADs)

- F2 - Ground Support – Provides ground forces with direct air support during ground attacks. Forces will fly during ground combat. You select HQ to support not Tgt Hex.
- F3 - Ground Attack – Slows & interdicts enemy ground units.
- F4 - Strategic Bombing / Bomb City – Used to bomb production facilities and manpower in cities.
- F5 - Air Recon – Used to increase the detection level of enemy ground units in the target area.
- F6 - Air Superiority – Fighter units fly to an area and try to disrupt enemy missions flown in that area.
- F7 - Naval Patrol – The units will attempt to create naval interdiction points in the tgt area. These naval interdiction points help to take control of sea hexes.

2 INFO SCREENS

Selecting an AD will bring up on the RHS a list available Air HQs

HQ Name
Fighters
Bombers
Utility AC

2/3 ADs = 2 ADs Set for HQ of the AD Type selected / Total ADs set for this HQ

3 INFO SCREENS

Selecting an Air HQ will bring up a summary of that HQ

ADs that are Set
Active AD

Air Units
Airbases
Aircraft

Ac Assigned to HQ by Type (Click [+]) to show Group Names
+ = Gp has AD
++ = Gp this AD

To activate the full AD Setting functionality first select a target hex

4 This area controls most AD options inc Tgt Loc & Type, Air Units & Routes.

STAGING BASE (must be own AF)

HEX SHADING
Green Hex = Fighter Escort
Purple Hex = No Escorts
Red Hex = No Aircraft available

Hotkey Shift-O shows Flak

Route Out
Left Click / Left Click to move

Route Back
Right Click / Left Click to move

TARGET

[X] = Delete AD
* = AD being set
(Note Hex same as Tgt in Set Up)

AREA - Set as radius from TGT (Shaded Hexes) Allows wider AD effect

3a

1st Click on Air Unit Name to take you to location
2nd Click to show Air Group Detail

<TGT PRI>
Sets what to attack in Tgt Hex / Area

4a Manual Air Unit Selection

3b

Selecting DOCTRINE will show the settings that govern ADs

Do not forget to CONFIRM when complete or changes will be lost

AIR DOCTRINE auto populates AD settings that can be overridden in the AD itself or vice versa

WitW One Page Guide #7 Hotkeys

Key	Air Planning Phase	Ground Movement Phase
F1	No Air Directive Selected	Move Mode
F2	Ground Support Air Directive	Rail Mode
F3	Ground Attack Air Directive	Naval Transport Mode
F4	Strategic Bombing Air Directive	Amphibious Transport Mode
F5	Air Recon Air Directive	
F6	Air Superiority Air Directive	
F7	Naval Patrol Air Directive	
F9		Air Transport Mode – Unit / Freight
F10	Air Transfer Mode	
F11	Toggle Show Battle Sites	
F12	End Air Planning Phase and Execute Air Directives	End this turn

Key	-	+ Shift	+ Ctrl
0	Combat resolution Off		
1	Combat resolution Lvl 1		Highlight HQ's (Colour Coded)
2	Combat resolution Lvl 2		Highlight Airbases
3	Combat resolution Lvl 3		Highlight Armd/Motor/Mech Units
4	Combat resolution Lvl 4		Highlight Cavalry Combat Units
5	Combat resolution Lvl 5		Highlight Non-Mech Infantry Units
6	Combat resolution Lvl 6		Highlight Security Combat Units
7	Combat resolution Lvl 7		Highlight Artillery and AT Units
8	Show Freight Movements		Highlight Fortified Region Units
9			Highlight Rail Repair Units
A	Show Auto AD Creation screen	Use AI to position air units	Airborne Planning Screen
B	Build-up/breakdown combat units		
C	Show Comd's Report screen	Center map on selected hex	
D	Show Air Doctrine screen	Show AD Summary	Toggle Combat Delay on/off
E	Toggle enemy hexes on/off	Show Log Phase Event Log	Display EF Display
F	Toggle fort levels on/off	Create fortified unit in hex	
G	Auto assign unit(s) to HQ	Show Game Options screen	Toggle Hex Grid on/off
H	Show help locate function	Show Hotkey list	
I	Show Reinforcement/Withdrawals	Toggle AD Execution Detail	
J	Selected units to reserve mode	Axis Garrison Status Screen	Toggle Jump map on/off
K	Selected units to refit mode	Show Garrison reqt on map	
L	Show Losses screen	Toggle factory locs on/off	
M	Selected units to ready mode	Show Metrics Screen	
N	Toggle Logistics Info on/off	Toggle day/night on/off	
O	Show Order of Battle screen	Toggle Flak values on/off	
P	Show Production screen	Show Preferences screen	
Q	Quick save	Quit and exit to main menu.	
R	Toggle rail damage info on/off	Toggle Unit Modes	
S	Toggle soft factors	Show Save Game screen	
T	Toggle counters on map on/off	Toggle Air Recon values	
U	Undo last move (if eligible)	Toggle Air Interdict values	
V	Show Victory screen	Toggle Victory locs on/off	
W	Show weather conditions screen.	Toggles on map weather	
X	Toggle ground support on/off	Exit from continuous play (for AI vs. AI games)	
Y	Toggle unit values display type	Show Air Directive targets	
Z	Toggle unit counter info	Toggle Command links	
SPACE	Speed up move in progress or toggle message pause on/off. The Space bar can be used to select all units in hex with multiple units (stack).		
TAB	Show weapons/aircraft icons		

MANPOWER CENTRE
1Pt = 50,000 popln

Manpower Prod Multiplier

	43	44	45
Germany	6	3	1
Axis Allies	1	1	1
USA	3	2	2
Britain	1.5	1	1
Canada	3	2	2
W Allies	3	2	2
France	3	2	2

RESOURCES
RESOURCE FACTORY
1Pt = 1000T

Resource Production

	43	44	45
Germany	1.0	1.0	1.0
Axis Allies	1.0	1.0	1.0
W Allies	3.0	4.0	4.5

Oil Production

	43	44	45
Axis	1.0	1.0	1.0
W Allies	2.0	3.5	3.0

OIL
OIL FIELD
1Pt = 1000T

DISABLED MANPOWER POOL → **MANPOWER POOL**

RESOURCE STORAGE ↔ **RESOURCE POOL**

OIL POOL ↔ **OIL STORAGE**

SYNTHETIC FUEL FACTORY
1Pt = 2500T → 500T

REFINERY
1Pt = 500T → 250T

Disabled Manpower Split - 1% Pool/Turn

Poland	6%	Germany	98%
India	6%	Italy	2%
Free French	20%	After Italy surrender 100% GE	
Canada	25%		
Britain	Rest		
USA (Own Pool)	100%		

V-WEAPON FACTORY

HVY INDUSTRY FACTORY
1Pt = 500T → 500T

Hvy Ind Production % Modifier

	43	44	45
Germany	2.2	2.7	2.2
Axis Allies	1.0	1.0	1.0
W Allies	3.0	4.0	4.5

AIRCRAFT FACTORIES
1 Pt = N T → 1 Ac
(N = Build Cost /20)

AFV FACTORIES
1 Pt = N T → 1 AFV
(N = Build Cost /10)

ARMAMENTS FACTORY
1Pt = 50T → 250APs

VEHICLE FACTORY
1Pt = 50T → 10 Vehs

Synth Fuel Modifier

	43	44	45
Germany	1.35	1.35	1.35
Axis Allies	1.0	1.0	1.0

Fuel Modifier

	43	44	45
Axis	1.0	1.0	1.0
W Allies	2.0	3.5	3.0

FUEL

AIRCRAFT POOLS
(Limited Detail Shown)

AFV & EQPT POOLS

AP Production % Modifier

	43	44	45
Germany	3.5	5.0	5.0
Axis Allies	1.0	1.0	1.0
W Allies	2.0	3.0	3.0

Veh Production % Modifier

	43	44	45
Germany	1.0	1.0	1.0
Axis Allies	1.0	1.0	1.0
W Allies	1.0	1.0	1.0

SUPPLIES STORAGE

FUEL STORAGE

Storage occurs at the Point of Production. Pools are Virtual. Movement from Storage to Pools costs Rail Usage Points. 50% of Fuel & Oil movement is 'free' as it is assumed to move by pipeline

Veh Repair/Turn

USSR	20%
Axis	10%
W Allies	33%

ARMAMENTS PTS POOL

VEHICLE POOL

SUPPLIES POOL

FUEL POOL

DAMAGED VEH POOL

UPGRADE CONVERSIONS

GROUND ELEMENTS

Axis Production
60% → East (Aircraft & Fuel 40%)
40% → West

DEPOT & DISTRIBUTION NETWORK

National Supply Sources produce 2.5M Tons Freight/Turn (Co-located Railyard Capacity x3/Level)

Ports produce Port Capacity Tonnage 1 Port = 15,000 Tons
Ships carry 250 Tons each

Railyards produce Railyard Cap Tonnage 1 Railyard = 5,000 Tons

FREIGHT

Items notionally move through the Depot & Distribution Network as Freight. When Freight arrives at a Unit it is 'cashed in' and Items are 'transferred' from the Pools

PORT CAPACITY

On Map (F3) 1 Port Pts = 1000 Tons

RAILYARD CAPACITY

On Map (F2) 1 Rail Pt = 1000 Tons

VEHICLES IN DEPOTS

Ports, Railyards, Depots and Trucks have a finite ability to handle Freight Tons equivalent to the Port Capacity and Rail Tons they produce. Production of this Tonnage is based on size. In addition Rail Usage Tons (not shown) track movement over rail. Movement over congested rail costs additional Strategic Movement Points.

UNITS

GROUND ELEMENTS

VEHICLES IN UNITS

SUPPLIES IN UNITS

FUEL IN UNITS

AMMO IN UNITS

40% Manpower to Disabled Pool, 60% direct to Manpower Pool

25% Damaged Elements Return to Pools in next log phase to reflect repaired men & eqpt. Rest via TRANSIT Pools

DAMAGED EQUIPMENT

DAMAGED VEHICLES

WitW One Page Guide #9 Air Planning Ready Reckoner

AUTO AD ASSIGNMENTS

The table shows those Air HQs affected by the relevant areas of the Automatic Air Directive Creation Screen

ALLIED AIR DIRECTIVES			AXIS AIR DIRECTIVES	
Tactical Air North Europe	Strategic Air Day	None	Tactical Air North Europe	None
<ul style="list-style-type: none"> • RAF Fighter Comd • 2nd RAF Tac Air Force • 9th US Air Force 	<ul style="list-style-type: none"> • 8th US Air Force • Strategic Air Force • 15th US Air Force 	<ul style="list-style-type: none"> • Coastal Air Force • RAF Transport Comd • RAF Coastal Comd • IX Troop Carrier Comd 	<ul style="list-style-type: none"> • Luftflotte 3 	<ul style="list-style-type: none"> • Luftflotte Reich
Tactical Air South Europe	Strategic Air Night		Tactical Air Mediterranean	
<ul style="list-style-type: none"> • Tactical Air Force • Malta Air Comd 	<ul style="list-style-type: none"> • RAF Bomber Comd 		<ul style="list-style-type: none"> • Luftflotte 2 • Italian Luftwaffe Comd • All Italian Air Fleets 	

AIRCRAFT – WHICH, WHERE & WHEN?

Here are some rough hints and tips on selecting the right aircraft for the right job. All aircraft have a range of LOADOUTS. Although the system will auto select a load out with no drop tanks or with maximum bomb effect if possible, as with most elements of WitW the informed human player's choices will always trump the electronic brain.

FLAK. Flak needs to be considered when planning any air mission. Remember Hotkey-Shift-O toggles the On Map flak values. Numbers displayed are between 0 and 9 to indicate intensity of flak, with the left number being low/mid (below 20K altitude) and right number being high (above 20K). AA units in **cities/airfields** will fire at aircraft flying in adjacent hexes if they are 15K or higher, while **units** will fire into adjacent hexes if the enemy aircraft is 10K or higher. All ports are assumed to have barrage balloons. Aircraft bombing under 3000 feet have a chance of being destroyed by the barrage balloon equal to two times the size of the port (Port 3 = 6% chance that aircraft will be destroyed). For night missions, the percentage chance is tripled.

RECON. Obviously only Recon aircraft and their escorts can be used for Recon ADs. Recon is important as the detection level improves bombing accuracy. Strategic recon only impact the factories in the hexes reconnoitered while normal air recon can target any land hex based on the AD priorities. Being above 10K triggers wider recon area – the ability to see into adjacent hexes, but it also absorbs more flak fire from adjacent hexes. Recon Aircraft have two types of Camera: High Level and Low Level. The Low Level camera max altitude is 16K; its 100% effective altitude is 12K – as you go higher it gets less effective. The High Level max altitude is 50K which means it works at all heights; its 100% effective altitude is 25K but also reduces as you get higher.

LEVEL BOMBERS (STRATEGIC BOMBING). Range and Payload are the key factors for LBs. For targeting cities, heavier bombs are more effective. Flying below 5K leads to increased op losses. Targeting Manpower can cause damage to other industry in a city. If a LB has no navigation device like OBOE then night bombing accuracy will be reduced.

TACTICAL & FIGHTER BOMBERS (GROUND ATTACK). Tactical bombers and fighter bombers with a mission altitude of 5000 feet or greater will fly to and from the target at their mission altitude and dive down and conduct air to ground combat at an altitude of 1000 feet. Aircraft conducting air to ground combat in this manner will be subject to additional anti-aircraft fire at 1000 feet altitude. Fighter bomber air groups trained as fighters will bomb at 80% net effectiveness. A player can retrain an air group unit by selecting the air group detail screen training type. This will take the unit off the map for 8 turns and when it returns, it will be switched from fighter to bomber or vice versa

FIGHTER & FIGHTER BOMBERS (INTERCEPTION/SUPERIORITY/ESCORT). The key factors impacting on successful dogfights are manoeuvre rating and the power of the weapons (i.e. effect). It is better if you fly without drop tanks but of course for longer range escort missions having drop tanks is better than not being there at all. For auto interception get powerful fighters with good manoeuvre ratings close to the frontline. Fighter bomber air groups trained as bombers will dogfight with opposing fighters (and fighter-bombers without bombs) as if they had only 80% of their normal experience.

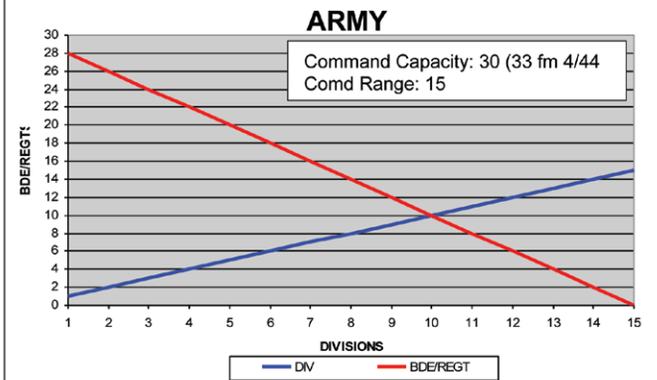
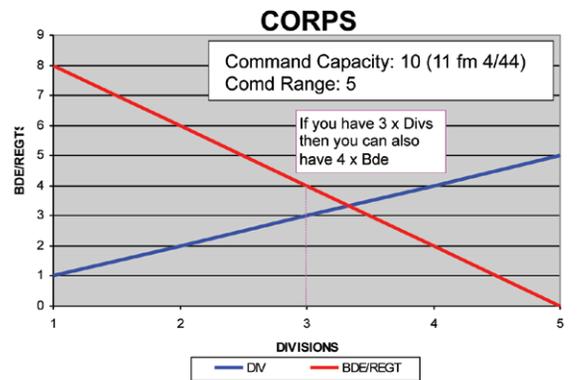
TIMING OF AIR MISSIONS. The game flies ADs in the order they are listed so those at the top go first. It is recommended that:

- ALWAYS perform Recon missions towards the top (if not the very top) of the list. This tends to give the latter air missions better results because the Recon missions have begun to report back in. Another reason to give many of the Air Directives the first day off while the Recon Air Directive flies all seven days.
- Assign long range missions first with the shorter range missions later in the list. The game will send the longer ranged aircraft on the longer distance one while the shorter ranged aircraft are used on the shorter ranged ones. If you do this in reverse, the longer ranged aircraft could be used up for the shorter ranged missions.
- Assign the Ground Attack and Bomb City Air Directives to different days. This works particularly well in the Bomb City missions. The first Air Directive takes place on days 2 and 5 while the second Air Directive takes place on days 3 and 6 and the third Air Directive will take place on days 4 and 7. (Leave day 1 empty and let them enjoy their Sundays off!)
- Be careful assigning multiple or overlapping mission areas. Things can become quite hectic and interference between the different missions can mess up their effectiveness.
- You can set Naval Patrol and Superiority ADs to fly 7 days a week.

WitW One Page Guide #10 Ground Movement Phase Ready Reckoner

COMMAND POINTS & CAPACITY

These graphs show the maximum ratio of Divisions to Bde/ Regt in order to not exceed Command Capacity



MP COSTS

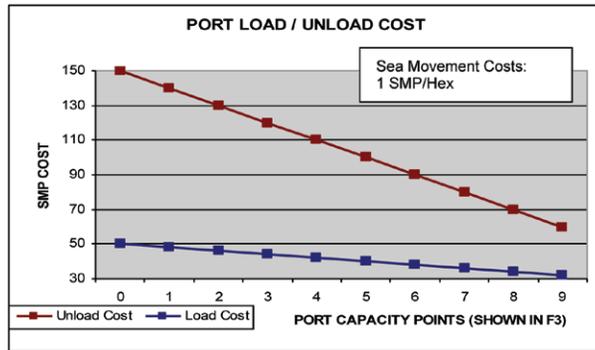
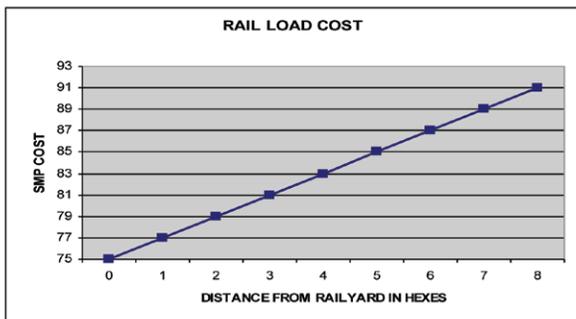
MOVEMENT	Motorized MP	Standard MP
Clear	1	1
City	1	1
Light Urban	1	1
Heavy Urban	1	1
Bocage	1	1
Light Woods	2	1
Heavy Woods	4	2
Rough	3	2
Desert	2	2
Sand	8	4
Tundra	3	2
Swamp (Ice 4 or less)	6	2
Swamp (Ice > 4)	4	2
Mountain (Mt Inf=3 MP)	40	10
Mountain Pass (Rail)	4	4
Ferry	12	6

ATTACK	Motorized MP	Standard MP
Hasty Attack	+3	+2
Deliberate Attack	+16	+6
Attack over minor river (in addition to attack cost)	+3	+1
Attack over major river (in addition to attack cost)	+12	+3

Impact of Combat	Additional MP
Deliberate attack with final odds < 5 to 1	+3
Deliberate attack with final odds >= 5 to 1 and < 10 to 1	+2
Deliberate attack with final odds >= 10 to 1	+1
Hasty attack with final odds < 10 to 1.	+1

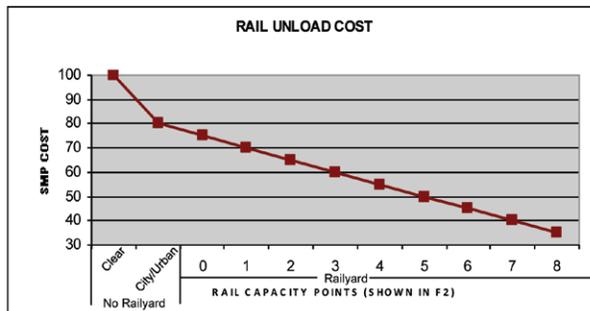
Costs for enemy hexes and EZOC	Motorized MP	Non-Motorized MP
Leave enemy ZOC	+1	+1
Enter enemy hex	+((120-morale)/20))	+((120-unit morale)/20))
Enter enemy ZOC (only if already in enemy ZOC, i.e. ZOC to ZOC) Note 4	+4 + same cost as for entering an enemy hex	+4 + same cost as for entering an enemy hex
Bde/Regt entering enemy hex and ZOC to ZOC	additional +1	additional +1
Western Allies Motor Infantry Units entering enemy hex	additional +1	N/A
Air Interdiction per hex	Maximum of +3	Maximum of +1

UNIT STRATEGIC MOVEMENT



RAIL TRANSIT COST

Rail Usage Tons	SMPs/Hex
30000+	7
<29999	6
<24999	5
<19999	4
<14999	3
<9999	2
<4999	1



WitW One Page Guide #11 Logistics Ready Reckoner

This Ready Reckoner is aimed at allowing you to quickly and roughly estimate the logistic implications of your decisions. To simplify matters the figures are mostly quoted as a Equivalent Capacity Factor. 1 x EqC = 1000T which is the value shown by Ports and Railyards in Strategic Movement Modes.
 From the tables you can see that a full strength BR Armd Div with approx 50% supplies (Yellow) requires 1.3 EqC (1300 tons) of freight to meet its full need. Moving that same Unit will consume 6.2 EqC of capacity. A Level 1 Railyard can only handle a maximum of 5 EqC of freight.

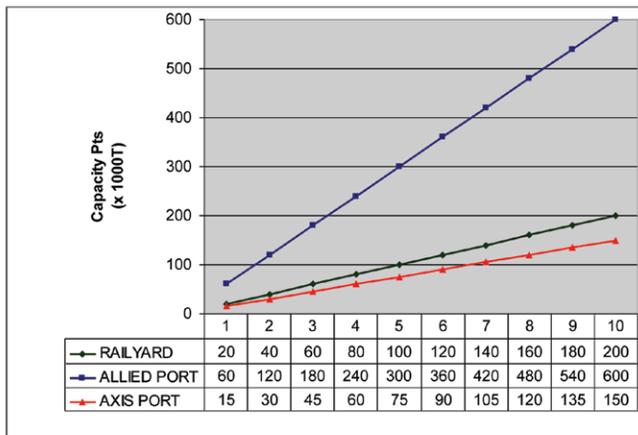
GROUND UNIT CONSUMPTION

Consumption data is an average of 2 x 100% TOEs/Year in 43, 44 & 45

EqC TOTAL RESUPPLY	Need <15%	Need <30%	Need <55%	Need <60%	Need 100%
BR Armd Div	0.4	0.8	1.3	1.7	2.8
BR Inf Div	0.2	0.4	0.6	0.9	1.4
BR Ab Div	0.1	0.2	0.3	0.4	0.7
CA Armd Div	0.5	1.0	1.4	1.9	3.2
CA Inf Div	0.2	0.4	0.6	0.9	1.4
US Armd Div	0.4	0.8	1.3	1.7	2.8
US Inf Div	0.2	0.4	0.6	0.8	1.3
US Ab Div	0.1	0.2	0.3	0.4	0.6
FF Armd Div	0.4	0.9	1.3	1.8	3.0
FF Inf Div	0.2	0.4	0.6	0.8	1.3
GE Pz Div	0.3	0.7	1.0	1.3	2.2
GE PzG Div	0.2	0.5	0.7	0.9	1.6
GE Inf Div	0.1	0.2	0.4	0.5	0.8
GE FJ Div	0.2	0.4	0.6	0.8	1.3

VEH HOLDINGS	Need <15%	Need <30%	Need <55%	Need <60%	Need 100%
BR Armd Div	503	1006	1508	2011	3352
BR Inf Div	534	1069	1603	2137	3562
BR Ab Div	206	413	619	825	1375
CA Armd Div	533	1066	1598	2131	3552
CA Inf Div	325	651	976	1301	2169
US Armd Div	420	841	1261	1681	2802
US Inf Div	274	547	821	1094	1823
US Ab Div	336	672	1009	1345	2241
FF Armd Div	465	931	1396	1862	3103
FF Inf Div	167	334	502	669	1115
GE Pz Div	432	864	1296	1729	2881
GE PzG Div	406	811	1217	1622	2703
GE Inf Div	39	78	118	157	261
GE FJ Div	307	613	920	1226	2044

DEPOT CAPACITY (Max based upon Port / Rail Size)



RAIL MOVEMENT PENALTIES

Tons by Rail	EqC	Addl SMP Penalty
30000+	30+	6
<29999	<30	5
<24999	<25	4
<19999	<20	3
<14999	<15	2
<9999	<10	1
<4999	<5	0
0	0	0

UNIT STRAT MOVEMENT

Tpt Cost data is an average of 2 TOEs/Year in 43, 44 & 45

EqC TPT COST	TOE 100%	TOE 85%	TOE 70%	TOE 55%	TOE 40%
BR Armd Div	6.2	5.3	4.3	3.4	2.1
BR Inf Div	2.7	2.3	1.9	1.5	0.9
BR Ab Div	1.5	1.3	1.0	0.8	0.5
CA Armd Div	6.4	5.4	4.5	3.5	2.2
CA Inf Div	2.7	2.3	1.9	1.5	0.9
US Armd Div	5.6	4.7	3.9	3.1	1.9
US Inf Div	2.0	1.7	1.4	1.1	0.7
US Ab Div	1.1	0.9	0.8	0.6	0.4
FF Armd Div	6.1	5.1	4.2	3.3	2.1
FF Inf Div	1.8	1.6	1.3	1.0	0.6
GE Pz Div	4.8	4.1	3.4	2.7	1.6
GE PzG Div	3.4	2.9	2.4	1.9	1.1
GE Inf Div	0.9	0.8	0.6	0.5	0.3
GE FJ Div	2.4	2.0	1.7	1.3	0.8

PRIORITY What you can get

Unit Priority	Percentage of Need
4	< 90% (110% if no move)
3	< 90%
2	<70%
1	<50%
0	<30% (0% for Air Base)

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