

***Design Note:** With two more years of experience playtesting *Air & Armor*, we are pleased to present a much-improved set of rules for PBEM play:*

[46.9] VASSAL PLAY AND PBEM

Air & Armor: Würzburg is supported by a free Vassal Module. Vassal is a surprisingly easy way to play a board game on a computer. It supports both solitaire play and online play against an opponent anywhere in the world. Players can play in real time or asynchronously via Play By E-Mail (PBEM). Playing **Air & Armor** on Vassal permits players to save and resume games at will without consuming a dining room table for days at a time. Vassal also provides automated gaming support features that substantially speed play. All you need is a computer, the Rule Book, the Play Book, and the Charts & Tables Booklets. All other components are included in the Vassal Module. When playing in real time against a live opponent, players will want to use a separate voice chat service to talk.

[46.9.1] Installing Vassal. Vassal is free to use and will run on a Windows machine, a Mac, and on Linux. The application can be downloaded from here:

<https://vassalengine.org/>

Once you have installed the application, download the **Air & Armor: Würzburg** Vassal Module, which contains all the specific game files. You can find the module here:

https://vassalengine.org/wiki/Module:Air_%26_Armor:_W%C3%BCrzburg,_Tactical_Armored_Warfare_in_Europe_%E2%80%93_Designer_Signature_Edition

After you have downloaded the module, launch Vassal. In the Module Library window that appears, select **File** from the Top Menu and then **Open Module** in the drop-down menu and navigate to the **Air & Armor: Würzburg** Module file you just downloaded. Select the file and then hit the Open Button to open the module. Thereafter, the Module will appear directly in the Module Library window that opens every time Vassal is launched. When you first launch the **Air & Armor: Würzburg** Module, it is critical that you follow this procedure to modify certain default settings:

Select **File** and then **New Game**.

Join the game as any side and hit the **Finish** Button.

Say No to Start new logfile?

Select **File** and then **Preferences** (or **Settings** on a Mac).

In the **General Tab** that opens:

Check the box that says Ask “Wizard” questions at startup.

Uncheck the box that says **Center on opponent’s moves**.

Click the **OK** button to save.

[46.9.2] Creating the Game. A player sets up a game as follows:

1. Launch the Vassal program (vassal.exe on a Windows machine and vassal.app on a Mac).
2. When the Module Library window opens, select the Vassal Module for **Air & Armor: Würzburg**.
3. When the Module opens, you are presented with three options: A) **Start new game offline**, B) **Look for a game online**, or C) **Load saved game**.

[46.9.2.1] Start New Game Offline. When you select **Start new game offline**, you must first choose your **role** (you can change it at any time) and then hit the **Finish** button at the bottom of the window. **Air & Armor: Würzburg** can be played by up to four players on Vassal. Roles include:

1. **Observer** (allows you to watch the game, but you cannot interact with the game pieces)

2. **Warsaw Pact** (first WP player)
3. **Warsaw Pact 2** (second WP player when two people are playing the WP side)
4. **NATO** (first NATO player)
5. **NATO 2** (second NATO player when two people are playing the NATO side)
6. **Solo** (best for playing the game solitaire)

You will be asked if you want to start a new Logfile (used for PBEM) and then the game map will appear, after which a new game can be set up and played.

[46.9.2.2] Find Game Online. When you select **Look for a game online**, you must click on the **Finish Button** at the bottom of the window. You will appear in the **Main Room** for the **Air & Armor: Würzburg** Vassal Server. In the **Active Game Rooms** window, you can see all **Game Rooms** that have been created already (your opponent might be in one). You can join a **Game Room** by clicking on its name in the **Active Game Rooms Window**. If you are the first to arrive, then you can create your own **Game Room** by typing a name in the **New Room** entry line and then hitting the **Create Button**. Create or load your **Air & Armor: Würzburg** game using the Vassal **File** menu, and your opponent will see the game map appear as soon as he has joined the **Game Room**. If for any reason a player does not see the game up when he joins a **Game Room**, he should **right click** on his opponent's name and then choose the **Synchronize** option.

[46.9.2.3] Load Saved Game. When you select **Load saved game**, you can load a saved game or, if you are playing a PBEM game (see 46.9.4), you can load a logfile containing your opponent's latest moves. Follow these steps:

1. Click on the **Next** button.
2. Click on the **Select** button at the top of the next window that appears. This opens a navigation window.
3. Navigate to where you have stored the saved game or logfile on your computer or cloud storage, click on the game filename, and then hit the **Open** button at the bottom of the navigation window.
4. Click on the **Finish** button at the bottom of the **Load Saved Game Window**.
5. Select your player role if asked.
6. Select whether you wish to start a new logfile or not (you will not be asked this question when loading a logfile).
7. Your saved game or your PBEM opponent's latest logfile is now ready for play.

[46.9.3] Playing with Vassal. A Vassal game is played on the screen just like the physical board game, except that you use your mouse in place of your fingers. There is a button in the Menu Bar running along the top of the Vassal Window named "Vassal." When you click that button, a display window will open a document that explains the function of each of the Vassal Buttons and unit menus and provides tips on how to manipulate units and markers.

[46.9.4] Play By E-Mail. For such an interactive game, the **Air & Armor** system is reasonably easy to play asynchronously by e-mail using Vassal. **Player one** starts a logfile which records his actions as he plays until he reaches a point where he needs **player two** to take an action, whereupon he closes the logfile (**File/End Logfile**) and sends it to **player two**. **Player two** loads the logfile into the **Air & Armor: Würzburg** Mod exactly as he would load a saved game and then uses the **Logfile Button** in Vassal to step through each of **player one's** actions, one action at a time. Hitting the **Undo Button** reverses an action. At the end of that logfile, **player two** is up to date and can start the next logfile of his own actions to send back to **player one**. Players must always make sure to create a new logfile for each play session. Vassal presents the option to create a logfile when a game is first started and also when the current logfile has been entirely stepped through to the end. As he plays, a player can watch the logfile being created line-by-line in the **Logfile Window** just below the **Menu Bar**. Three tools make communicating your actions to your opponent quite easy. You can use a **Flare** (**Alt+left-click** on Windows and **Option+left-click** on a Mac) to draw temporary attention to a hex, or you can right-click on any unit and select "Target" to make a Target Marker appear. Target Markers can be dragged to any hex and their number can be

changed using the open and close bracket keys. Under the **Markers Folder**, there is an option for **Notes**, which can be dragged onto the map and then annotated to send a note that refers to the hexes marked with Target Markers. Finally, comments can be typed directly into the **Comment Line** (the line just above the map and just below the log entries), and these notes will appear in the logfile at exactly the point when they were typed. Note that there are two types of Step Markers available in the game. The normal type cannot be seen by the opponent when they have been made invisible. The PBEM type can be revealed by the opponent during his play session by clicking on the Step Marker and selecting the “Hide/Show Strength” menu option. Find general instructions for PBEM using Vassal here:

<https://obj.vassalengine.org/images/8/8c/Userguide.pdf>.

The following Cases offer specific suggestions for facilitating PBEM play.

Design Note: These suggestions were developed by experienced PBEM players who playtested this game. They are simply recommendations and are not intended to be binding. Players can choose to play PBEM however they wish.

[46.9.4.1] Hidden Intelligence. To speed PBEM play, the **Air & Armor: Würzburg** Vassal Mod includes special PBEM Step Markers that can be made invisible by the owning player but, unlike regular Step Markers, can also be revealed by his opponent when he would normally be eligible to examine a stack. If players wish to PBEM in Open Mode, we recommend that they use the PBEM Step Markers and ensure that they are invisible (right click on a PBEM Step Marker and select the “Hide/Show” menu option). When the active player moves adjacent to an enemy unit or acquires it, he can reveal its PBEM Step Marker for himself without having to exchange a file. If players wish to PBEM in Hidden Mode, when the active player acquires or moves adjacent to an unrevealed enemy unit, he immediately rolls for the revelation of that unit and places the resulting Step Marker underneath it (use a PBEM Step Marker from the **opponent’s** Strength Markers folder so that he can make it invisible later on). The active player should also decrement the number of steps revealed from the appropriate step pool on his opponent's Pool Card. Note that Step Markers on the Pool Cards are always visible to both players because they are public information per Case 11.2.4. The WP player should make his Main Effort and Operation Markers invisible (right click on the marker to see this menu option). A player on Vassal is always allowed to examine his opponent’s stacks (but this will give him no more information that he could glean in the physical game, since the Step Markers underneath his opponent’s maneuver units remain invisible). Always deploy any Minefield Markers placed before the start of play on their Hidden side (the side showing a “?”). Players can lock any Minefield Markers they place if they don’t want their opponent to be able to see if they are real (right click on the marker to see this menu option), but locking is not recommended for PBEM play.

[46.9.4.2] Reconnaissance Attempts. Right click on an enemy unit in each hex you wish to acquire to place a Target Marker in that hex and increase the number in each Target Marker sequentially to show each separate attempt (Target Marker 1, Target Marker 2, etc.). Mark the spotting maneuver unit and the HQ expending the RP with Target Markers set to the **same** number as the Target Marker designating the attempt they are committed to. Type into the Comment Line the Target Marker number you are resolving and then roll the die and place an Acquired Marker if the target hex is acquired. If playing in Open Mode, right click the PBEM Step Markers under any units so acquired and select “Hide/Show” to reveal their values. If playing in Hidden Mode, roll on the Revelation Table for each enemy maneuver unit acquired and then place the appropriate PBEM Step Marker from the **opponent’s** Strength Markers folder so that he can make it invisible later on. Remove all Target Markers once the Reconnaissance Segment has ended. Note that Target Markers exist only in Vassal.

[46.9.4.3] Strikes. Place new Target Markers on each hex you would like to strike and increase the number in each Target Marker sequentially to show each separate strike. Also place a Target Marker on each artillery unit that will participate in each strike. Match the Target Marker numbers on the artillery units to the number on the Target Marker in the target hex they will strike. Then proceed to execute each strike in sequence. Use the **Comment Line** to note in the log the Target Marker Number in the hex being struck. Enter any striking aircraft or helicopters and fly them to their firing positions (air units can be placed directly into their firing position, but helicopters must be moved one hex at a time to show the path from a friendly map edge to their firing positions). Send the logfile to your opponent to resolve any anti-aircraft fire if there is doubt about his Flak Strength, but otherwise the active player can execute any Flak Fire himself. After the strike is resolved, enter a comment indicating the number of Hits inflicted and the number of steps removed from each unit struck. Adjust Step Markers and place Fired Markers

as necessary. If Counter-Battery Fire is possible, remove Target Markers from all strike targets **but leave them on your own artillery units**. Send the logfile to your opponent to consider. If no Counter-Battery Fire is possible, then, at the end of the Strike Segment remove all Target Markers from the map.

[46.9.4.4] Counter-Battery Fire. When a player has stepped through his opponent's logfile, he can execute **one** Counter-Battery Fire Strike against an enemy artillery unit underneath a Target Marker. He notes in the **Comment Line** the Target Marker number and target (there may be multiple enemy artillery units under a single Target Marker) for the strike. He rolls the die to make the Counter-Battery Acquisition Attempt and then enters a comment for the result. If the target is acquired, he executes his Counter-Battery Fire Strike and then indicates the total number of Hits inflicted by entering a comment after the die roll. He then removes the Target Marker on the enemy artillery unit he just fired at and places a Fired Marker and a Target Marker with a unique number on his **own** artillery unit that just fired. Finally, he returns the logfile to his opponent to continue the Counter-Battery Fire Cycle.

[46.9.4.5] Operations. When conducting operations, a player enters a comment into the log indicating the type of operation he is conducting, places a Lead Unit Marker if NATO, and then starts to conduct his operation. Note that Movement Point Markers are provided in the Map Markers Folder (WP Move Counter, NATO Move Counter) for each player to indicate the number of MPs a unit spends along its path of movement if this level of information is deemed necessary. Any offensive operation should be conducted through the Jamming Step, which means that the **active player** executes any Infiltration Fire his opponent is allowed. Enter comments in the logfile before and after the dice roll to indicate the Effective Strength of the units conducting Infiltration Fire and the Hits inflicted. Pass the logfile to the opponent to react, if possible, and to conduct Defensive Fire. Again, the opponent should comment before and after the dice roll to indicate the Effective Strength of the units conducting Defensive Fire, and the Hits inflicted. Use uniquely numbered Target Markers to indicate the hexes fired at and to mark any participating artillery or attack helicopter units. Then return the logfile to the active player to execute his Offensive Fire and any Counter-Battery Fire. If a retreat is possible and the inactive player has not indicated his retreat preference, then the file must be exchanged again to enable the defending player to absorb the Hits inflicted. If an advance is possible, and the attacking player has not noted his preference for advancing, then one more logfile exchange must be made. If either player enters a helicopter unit, the logfile might need to be exchanged at that point to execute any Flak Fire. Always exchange the logfile after any fire in which artillery units have been used (mark them with Target Markers) to enable any possible Counter-Battery Fire. Once an operation and any Counter-Battery Fire associated with it has been completed, remove all Target Markers, and continue to the next operation.