

RULES

1.0 Introduction:

Hell Over the Horizon is a game that models military installation defense against multiple, coordinated drone attacks. As technology and affordability of these systems increase, we can expect to see greater use of drones in future conflicts with our adversaries. As a result, this concern has prompted the Department of Defense to investigate several DOTMLPF-P approaches to solving this unique problem. This game aims to immerse players in a simulated environment that is both dynamic and competitive, forcing them to make decisions on how to use current technologies to counter drone threats most effectively. This game models technology development all the way through system fielding and usage. Players will also explore several different combinations of DOTMLPF-P approaches, active measures, passive measures, kinetic solutions, and non-kinetic solutions throughout the game. Players will find that in the counter-drone fight, there is no single silver-bullet solution; rather, the best method is a combination of multiple efforts.

1.1 Object of the Game

1.1.1 For the Base Defense Player to win, they must survive 5 rounds of drone attacks without the Information Security, Military Assets, or Economic Health Tracks reaching zero.

1.1.2 For the Drone Player to win, they must reduce any 1 Health Track down to zero.

2.0 Game Setup

2.1 Players begin by selecting a side (either Base Defense or Drone CDR) see image below

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2.2 Next, the Base Defense Player places their Military Asset Tokens in the 6 areas on the main game board, hiding them from the Drone Player's view by right-clicking and selecting "Face Down" on each asset tile and then dragging and dropping the tile from the player hand window onto the main game board. The Base Defense Player must also be careful not to place more than 2 tokens with a black star in the same area. A completed setup is shown below.



*Note that the Drone CDR player will only see the blue tiles when tiles are hidden (See below)



3.0 Gameplay

3.1 Beginning a Round: Within each round, there are several phases. Players proceed through each round in the phase order shown below.

3.1.1 Technology Phase

3.1.1.1 Each player opens their TECH chart in the upper left corner and locates their respective "technology focus effort" cubes (There are 6 red cubes for the Drone CDR and 8 blue cubes for the Base Defense Player).

3.1.1.2 Next, both players turn all of their respective "technology focus effort" cubes invisible by dragging a box over the cubes an then right-clicking the group and selecting "Invisible."



Next, players allocate their cubes to technologies or counter-measures on the TECH Chart that they would like to advance by individually dragging and dropping the invisible cubes onto technologies (Blue Tracks for Base Defense and Red Tracks for Drone CDR). Note: these cubes do not automatically advance the TECH Chart Levels (indicated by a yellow highlighted box).



At the start of the Tactical Attack Phase, the TECH Chart will be adjusted with the <u>net value</u> of efforts in each technology area, taking into consideration positive efforts and negative countermeasures. In the example above, Radar Level would eventually advance 2 spaces to the right and Electronic Warfare Level would advance 1 space to the right as a result of technology counter-measures by the Drone CDR.

3.1.2 Acquisition Phase

3.1.2.1 During this phase, each player selects cards from their deck to put into their hand. Each player selects any combination of cards which have values adding up to 10. (Card values are in the card's lower right-hand corner). For example, the Base Defense Player may decide to acquire 1 Radar (3), 1 Missile (3), 1 Directed Energy (3) and 1 Person Carried platform card (1) for their starting hand. 3.1.2.2 During Round 1 only, the Base Defense Player may draw an additional Radar card to start the game.

3.1.2.3 During subsequent rounds in the game, players maintain their cards from the previous acquisition phase(s), unless an action causes a card to be discarded. Thus, each player's hand grows as the game progresses.



3.1.3 Deployment Phase

3.1.3.1 Now that both players have drawn cards for their hand, they begin assembling their systems. To assemble a system, each player attaches a weapon to a platform card. A platform card is indicated by a dotted-line +1 card spot, and a weapon card is every other card (with the exception of Radar, Camouflage/OPSEC, and Advanced Targeting). Platform cards with two +1 card spots may be equipped with 2 weapon systems or 1 large weapon system that requires two spots (as indicated on a large weapon card). The Base Defense Player then draws a corresponding Platform Tile from the draw pile and identifies it with the equipped weapon system by right-clicking and selecting the weapon system. See example below.



Once the Base Defense Player has equipped their Platform Tile with a weapon system, they must return the corresponding cards back to the draw pile by right clicking the cards and selecting "Return to Deck."

3.1.3.2 The Base Defense Player may also decide not to attach a weapon system to a platform card, and instead, deploy it to the main game board as a static system. Once it is deployed as a static system, it follows the same rules for a static asset and may not move locations for the remainder of the game (Note: This is also the only way to deploy a Radar).



3.1.3.3 Now the Base Defense Player begins fielding their systems and deploying their people to the main game board. To do this, the Base Defense Player "Hides" their Platform Tiles by right clicking each tile and selecting "Flip." They then drag and drop the hidden Platform Tiles to the main game board.



In the below example, the Base Defense Player has deployed a person equipped with a kinetic projectile (bullet) to the center area of the main game board.



3.1.3.4 Once the Base Defense Payer assembles a system by attaching cards to it, it is considered built, and cards cannot be un-attached from it. Conversely, to simulate a more agile acquisition process and the ability to buy interchangeable parts, the Drone Player may decide to re-arrange their attachments at the end of the round.

3.1.4 Tactical Attack Phase

3.1.4.1 After the Base Defense Player has fielded and deployed all systems and personnel to the main game board, the Tactical Attack Phase begins.

3.1.4.2 Next, both players adjust the TECH Chart by "Un-Hiding" their TECH cubes and advancing the yellow highlighted boxes of each technology by the <u>net value</u> of efforts from each side. The net value is the absolute value of the difference between both players' efforts

(Base Defense Player efforts-Drone Player efforts) and the yellow box advances this value in the direction of the player with greater efforts. For example, if the Base Defense Player allocates 4 effort cubes to the Radar, while the Drone Player allocates 2 cubes to the Radar (aka Radar countermeasures) the net value is 2 and the yellow box advances 2 spaces on the TECH Chart in a favorable direction for the Base Defense Player. Thus, the Base Defense Player has gained 2 in Net Relative Advantage for the Radar Technology.



3.1.4.3 Any technologies that have a tie in effort cubes will not be advanced.

3.1.4.4 Players continue this process until all technology focus efforts have been accounted for.

3.1.4.5 Next, the Drone Player begins their attack in a series of waves and turns.

3.1.4.5.1 <u>Wave:</u> The Drone Player may decide to deploy any number of drones to the main game board by placing them in an area on the map (not initially the center area).

3.1.4.5.2 Depending on the relative advantage for Radar technology, the Drone Player will be required to deploy certain cards face up. If the Radar is below level 1, all drones may be deployed face down. If the Radar is level 1, only the Large Drone and its weapon system(s) must be deployed face up. At Radar Level 2, the small drone (but not its weapons) are also turned face up. Finally, at Radar Level 3, all Drone Player cards must be deployed face up. See example below.





(*Hint: If you hover a cursor over the stack of cards, it will temporarily enlarge the stack).

3.1.4.5.3 After the Drone Player has deployed all the drones they wish to deploy in this wave, the turn order begins with the Base Defense Player.

3.1.4.5.3.1 <u>Turn</u>: A turn is a series of actions that occur within each wave. Each player has 1 turn per wave.

3.1.4.5.3.2 The Base Defense Player takes their turn first. Base Defense Player actions in a turn occur in the following order:

3.1.4.5.3.2.1 Visual Detection and Identification: The Base Defense Player has an opportunity to visually Detect and Identify any drones currently not visible if they have people or vehicles in an area with an un-revealed drone threat. The Base Defense Player then roles a d6 and refers to the Visual Detection and Identification Combat Results Table for this action. If the player is successful in detection and identification, they may choose the threat to reveal.

3.1.4.5.3.2.2 Friendly Drone Movement to a threat: If the Base Defense Player has a Friendly Drone deployed in any area, they may choose to move it to a different area on the main game board. This may only be done once per round.

3.1.4.5.3.2.3 Attacking the threat: The Base Defense Player may attack any visible drones using systems that are currently in the area under attack. Each system my only fire once per wave of drones.

3.1.4.5.3.2.4 To resolve the attack, the Base Defense Player references the Weapons Effect Chart and roles the number of dice required. Every system uses 1 d6 die to attack unless the system is capable of hitting multiple targets. If a system can attack multiple targets, the Base Defense Player will identify 3 targets ahead of time and roll a die for each target.

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3.1.4.5.3.2.5 If the Base Defense Player is attacking a Swarm, they must role a 4 on a d4 to even enable an attack against a Swarm. After the Base Defense Player roles a 4 on the d4, they must still role for their weapon effect. Systems that can engage multiple targets will allow the Base Defense Player to role 3 d4 dice per attack on a Swarm. Only 1 of the d4s must be a 4 to enable the attack.

3.1.4.5.3.2.6 After the Base Defense Player has activated all their systems, or cannot activate a system because there are no visible drones in the area, the turn order moves to the Drone Player.

3.1.4.5.3.3 Drone Player actions in a turn occur in the following order:

3.1.4.5.3.3.1 The Drone Player may decide to move or attack an asset. If the Drone Player decides to move, it may move to any adjacent area, but cannot perform any further actions until the next wave of drones.

3.1.4.5.3.3.2 If the Drone Player decides to attack an asset, they choose the asset they want to target in their immediate area (unless they use a guided bomb which can range adjacent areas).

3.1.4.5.3.3.3 To resolve a bomb attack, the Drone Player refers to the Drone Player Bomb Success table in the Weapons Effect Chart. If the attack is successful, the Drone Player removes the targeted asset and reduces the Military Assets Health Track by the value indicated on the destroyed asset.

3.1.4.5.3.3.4 To resolve a camera attack, the Drone Player merely identifies an asset in their area (by pointing) that they wish to reveal. The Base Defense Player then has the option to negate this surveillance effort by playing and discarding a Camouflage/OPSEC card if they have one available. At Drone Camera Technology Level 2, two Camouflage/OPSEC

cards are required to negate this action. If the camera action is successful, the Drone Player reduces the Information Security Health Track by 1.

3.1.4.5.3.3.5 The Drone Player keeps performing actions until all remaining drones have performed all their actions. <u>Once a drone has performed all its actions, it returns home</u> <u>safely to the Drone Player's hand</u> (unless it is currently being engaged with Directed energy). Drones that are engaged with Directed Energy Level 1 are destroyed after performing 1 action. To return cards to the Drone Player's hand, the Drone Player rightclicks and selects "Return to HAND."



3.1.4.5.3.3.6 Once a drone returns to the Drone Player's hand, it cannot be used the remainder of the round, but it can be used subsequent rounds.

3.1.4.5.3.3.7 After all remaining drones perform all their actions, the Drone Player's turn ends, and a new drone wave can begin.

3.1.4.5.4 The Drone Player continues to deploy drone waves until they no longer have drones available to deploy. During each subsequent wave of drones, the turn sequence is the same as above.

3.2 Ending a Round: Once all drones waves have completed and there are no more drones left to deploy, the round ends. In preparation for the next round, the Base Defense Player may then un-reveal any revealed mobile assets by right-clicking a tile and selecting "Face Down." Next, the Base Defense Player may move any mobile assets or mobile systems (person, vehicle, or friendly drone) to another area on the main game board. The Base Defense Player then moves the yellow box round tracker on the round track to the next round, and a new round begins. All subsequent rounds follow the same sequence of play through phases and waves as described above.

4.0 <u>Ending the Game:</u> The game ends when one of the following conditions has been met
4.1 Any Health Track reaches zero. This scenario results in the Drone Player's victory.
4.2 Five rounds have been completed, with none of the Health Tracks reaching zero. This scenario results in the Base Defense Player's victory.