SKYHAWK
ROLLING THUNDER, 1966

RULE BOOK

A U.S. Navy Douglas A-4E Skyhawk (BuNo 151187) of Attack Squadron 94 (VA-94) "Shrikes" in flight over the aircraft carrier USS Bon Homme Richard (CVA-31) in the Gulf of Tonkin on 20 August 1969

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Cover painting "**Skyhawk Tribute**" by Roy Grinnell, used by permission, Roy Grinnell Studio.

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1.0 Introduction

The events covered in this game occurred 55 years ago in an age that was vastly different from the wars we have seen since 1966. Many of us lived through these events while many others have just a hazy knowledge of the political conditions these brave aviators fought under. Lyndon Johnson was President, and the Anti-War sentiment was building in America. President Johnson distrusted the military leaders. He was afraid they would start a third world war or provoke China or Russian to intervene with reckless air strikes against North Vietnam. Instead, he took the ability to prosecute the air war out of the Air Force and Navy's hands. Johnson and his civilian cabinet members met weekly on Tuesdays. These meetings quickly became known as "Targeting Tuesdays". The President and his civilian advisors picked all military air targets; planned all target routes flown by the aircraft to include time on target and approach routes and even specified ordnance loadings. None of the civilian members had any air operational planning experience. No military personnel were regularly invited to attend the meetings. The USAF and the Navy executed the missions without a say in their planning. Johnson told his Generals and Admirals that "...they could not bomb an outhouse in North Vietnam without his approval." Johnson's stated objective was to "send a message" to North Vietnamese leaders to stop trying to overthrow South Vietnam's government. By applying gradual pressure with airpower, Johnson thought he could bring the North Vietnamese to the bargaining table and gain a negotiated peace.

Russia and China were also competing to see who would become the leader of the communist world. Each country supplied war material along with advisors and support personnel to Ho Chi Minh's North Vietnam even while they battled each other in a "cold war" of their own.

Ho Chi Minh, the leader of the North Vietnamese people used Johnson's on again, off again bombing tactic to his benefit. He never allowed the North Vietnamese military to attack the US Navy aircraft carriers and ships circling a few miles off the North Vietnamese coastline at Yankee Station, or attack the ECM and Tanker aircraft also circling outside of North Vietnamese airspace. MiG aircraft did not chase Navy or USAF aircraft outside of North Vietnamese airspace.

Ho Chi Minh wanted favorable world opinion to support his war against the United States. He accepted military aid and support from anyone willing to give it to him. He used Johnson's "frequent bombing pauses" to re-arrange, repair and reinforce his air defense network.

By the last half of 1966, North Vietnam had acquired massive aid from Russia and China that included advisors and support personnel along with large quantities of Anti-Aircraft weapons. Three Regiments of the Russian's latest SA-2 Surface to Air Missile batteries were also deployed in the North. Ho had also assembled two MiG fighter Regiments flying MiG-17 and MiG-21 fighters to deploy against the American air strikes. North Vietnam had truly become the most heavily defended air space in history.

That is the setting you, as the player, are flying in. Good Luck!

SKYHAWK: Rolling Thunder is a game which puts the player in the cockpit of an A-4E Skyhawk of VA-72 flying missions during the last five months of 1966 when the Rolling Thunder air operations became very intense. Your base of operations is the USS Franklin D. Roosevelt on duty at Yankee Station.

You play as a Navy pilot flying strike missions against targets in North Vietnam. Your goal will be to survive a mission or a campaign.

The Skyhawk was a nimble aircraft and was capable of carrying slightly over four tons of ordnance. Depending on your target, the player has the opportunity to load out his aircraft to meet the mission requirements. The missions will not be easy. President Johnson and his civilian advisors may even change your target or ordnance loading depending upon the political situation in the USA.

Facing you will be a determined North Vietnamese force. It is possible you will face small arms fire, AAA, SAM launches, and encounters with MiGs.

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You will have help. US Support Forces allow the player to attack NV defense forces before you attack your target. Their success could make your job easier.

The player may fly a single mission or play one of the three campaigns included in the game.

- First Tour of Duty: Yankee Station: 10 August 1966 – 10 September 1966

- Second Tour of Duty: Yankee Station 20 October 1966 – 27 December 1966

- The third campaign combines the two campaigns above with additional rules.

The game is not meant to be a detailed simulation of the Rolling Thunder campaign. It is a simple yet engaging, quick game for the player. Concepts for the game come from B-29 Superfortress, Target for Today, Target for Tonight, and Kenney's Boys as well as Able Dog, a free print and play game by Patrick Millin. Some of the concepts used in Skyhawk will be expanded upon in the upcoming Operation Linebacker II game by myself and Bob Best.

2.0 Game Components

A complete game of SKYHAWK consists of the following components:

- 1 Rule Book
- 1 Map (11" X 17" mounted)
- 1 Target Listing Gazetteer – JCS 94
- 1 Charts and Tables Book
- 1 Skyhawk Mission Record Card
- 1 Skyhawk Ordnance Card
- 1 Skyhawk Pilot Roster
- 1 Division Record Sheet
- 1 Campaign Record Sheet
- 1 Campaign Calendar
- 1 Awards Record Sheet
- 1 Turn Sequence Guide
- 1 Division/Squadron Assignment Card
- 2 Counter Sheets
- 2 Ten-Sided Dice

Counters and Markers
Samples of counters and markers used in the game.

The Skyhawk marker is used to move your aircraft from one box to the next while on the map. Others are provided for division play.

Pilot Counter. There are 25 provided for the player.
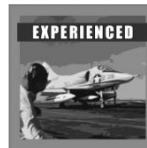
Pilot experience markers are placed on the Skyhawk Mission Record Card. There are three levels: Green, Experienced and Veteran. (See 3.2)

Altitude markers represent the altitude level the Skyhawk is flying at prior to attack. Each level has its advantages and disadvantages.

Support units try to suppress or knockout North Vietnamese defenses. Support units include F-4 Phantom II's, A-6 Intruders, EA-3 Skywarriors and F-8 Crusaders. (See 4.3)

Maintenance Skill Level marker.

A Target Type marker is placed in the Target Attack Box on the map when the target is determined. There are seven (7) types.

The MiG counter is placed on player's Skyhawk when called for in the rules.

Suppressed, Knocked Out or Disengaged markers are placed on NV defense boxes on the map to show the results of each support aircraft attack.

The SAM Radar ON marker is placed on the map to remind the player of the SAM's Radar Status during attacks.

The SAM Radar OFF marker is placed on the map to remind the player of the SAM's Radar Status during attacks.

Downed pilot marker that is used with Optional Rule 15.3.

HH-53 Rescue Helicopter used with Optional Rule 15.3.

Skyraider marker used with Optional Rule 15.3.

Optional Rule marker that is used when flying missions as part of a four plane flight or as a squadron. Four are provided.

The Snake Eye bomb is an example of a munitions counter. Each ordnance type is used on a specific type of target – See 3.3 and 4.2.

Medals are awarded to the player based on his performance. Medals included are the Purple Heart, Navy Cross, Silver Star, Bronze Star, Air Medal, Distinguished Flying Cross, and Medal of Honor.

Unit awards are issued at the end of a campaign. US and South Vietnamese awards may be issued to the player.

2.1 Dice Rolling

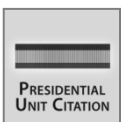1D10 Die Rolls - If a table calls for a 1D10 die roll, the player rolls a single 1D10. The die roll will give results from "0" to "9" with the "0" result = Zero. DR Modifiers are applied to the die roll result.

2D10 Die Rolls - Select one die to represent the "10s" and the other for "ones". (00 is treated as 100 to get a result between 1 and 100). As an example, a roll of a 4 and 6 would be 46.

3D10 Die Rolls - Select a die and roll it 3 times. Add the results of each roll together to get a total value. Zero = "0", not "10". (Table 16 only)

3.0 Phases

There are seven (7) basic phases of play. Each phase may consist of one or more sub-phases.

1. Set Up
2. Planning
3. Movement/Attacks (Inbound) to Target
4. Attacking the Target
5. Movement (Outbound) to Carrier
6. Landing on the Carrier
7. End of Mission

3.1 Set-Up Phase

Set up the map, Skyhawk Mission Record Card, and the Skyhawk Ordnance Card next to each other on a table of your choice. Place the Skyhawk movement marker (#1) on the box marked "Launch" on the aircraft carrier located on the map.

Separate the munitions counters from the others into a separate pile. Do the same with the Support Counters, Medal markers, and Suppressed/Knocked Out markers. Put the altitude markers near the Skyhawk Mission Record Card.

3.2 Skyhawk Mission Record Card

This card is used by the player to record damage to his Skyhawk, current altitude, and wound status of the pilot, and the remaining 20mm cannon ammunition. As the player flies a mission, key points of the mission and what ordnance the player expends is noted in the Notes Box.

At the bottom, the player records his pilot's name, rank and date of mission, and other information as needed.

To determine the pilot's experience level for both the single mission and the campaign games, the player rolls 1D10 on Table 1 to determine his experience rating. Also place an experience counter that matches the rating you determined in the space provided on the Skyhawk Mission Record card, labeled Pilot Rating.

If playing a campaign, the player records the number of the campaign he is playing (see Campaigns).

For the mission number, the player records the number of the mission he is flying. As an example, if he is flying his first mission, he would write "1" in the space provided. If it is his third mission, he would write "3" in the space provided.

Next to Target, write the Target's Location as determined by the JCS 94 Target Listing Gazetteer.

Next to Type, write in the type of target. Place a target counter matching the type determined in the Target Attack Box on the map.

Once you know the result of your mission, check off the box which corresponds to your result. Then, write in the percentage of your results, as well as points earned. (See Rules Sections 6.2.2 and 14.0.1).

To the right and left of the Skyhawk are boxes representing key systems of the aircraft. For each hit a system suffers, a box is marked off. (See Rule 5.5, Damage to the Skyhawk).

The 20MM ammo section to the right of the cockpit keeps track of ammo that is fired.

The Altitude Box is where the player places his altitude marker when he decides at what altitude he will be flying at in each box.

The Wound Box to the left of the cockpit area is where the player keeps track of hits to the pilot. Upon suffering his third hit, the pilot is considered Killed in Action (KIA).

The External Fuel Tanks (or Ex. Tanks) box shows the pylon location of external fuel tanks. Mark them off as they receive damage or if they are not installed.

3.3 Skyhawk Ordnance Card

The Skyhawk has 5 ordnance stations marked Station 1 thru Station 5. The player places the ordnance markers he carries for his mission in these boxes.

Each pylon has a list of ordnance that can be carried on that pylon. Some bomb types have either "1 or 3" before the bomb type.

The Skyhawk could be equipped with "Multiple Ejector Racks" (MER) that allowed two (2) 3- bomb clusters of the type noted to be carried in lieu of just a single bomb of that type. There are die roll modifiers added to Table 16 die rolls when determining hit percentages for bombs dropped using a 3-bomb cluster MER rack. (More bombs hitting the target equal more damage to the target) (See 6.2.1)

The total weight of the combination of munitions and/or external fuel tanks that you carry may not exceed 8,700 pounds. Each ordnance and/or fuel tank counter has its weight printed on its counter. The Skyhawk Ordnance Card lists what ordnance or external fuel tanks may be carried on each pylon. The player cannot exceed the individual weight limit of each pylon as shown on the Skyhawk Ordnance Card.

Generally, the player may use any ordnance he wishes to strike a target. However, there are exceptions (See Rule 4.1, Table 4 and Table 5).

External fuel tanks extend the Skyhawk's range and are added as called for depending upon the Route Package your target is located in. External Fuel Tanks may only be carried in the centerline position and the left and right inboard pylon positions. Tanks may be used in the following combinations from right inboard-centerline-left inboard: Right-Center-Left, or Right and Left, or Center only. The 400 gallon external tank can only be used in the centerline position. The 150 or 300 gallon external tanks may be used in either the inboard or centerline positions. Tanks are added when the player selects his ordnance for the mission.

The AGM-45 Shrike (radar guided missile) may **only** be used on SAM Sites, and the Hanoi Civilian Receiver and Transmitting Stations (HCRT). If SAM fire control radar sites shut off their radars, the Shrike cannot track to the target, and SAMs have to fire with manual tracking. (See Rule 5.4.1.1) *The pilot had to lock on to the transmitting signal from HCRT or the NV SAM missile fire control radars before he could launch the Shrike.*

The LAU-3/A rocket launcher pod holds nineteen 2.75 inch rockets used for ground attack. The LAU=10 rocket launcher pod holds four Zuni 5 inch rockets used for ground attack. If the player is using the LAU-3/A or LAU-10 Rocket Launchers, he must be at low altitude in order for these to be fired.

The Skyhawk can carry and drop the Mk81 250 lb. bomb; the Mk82 500 lb. bomb; the Mk83 1000 lb. bomb and the Mk84 2000 lb. bomb. These bombs can be dropped from all altitude levels.

The Skyhawk can also carry and drop Mk81 250Lb and Mk82 500lb "Snake Eye" bombs. The Snake Eye bombs have a "Slick" mode and a "Drag" mode. In Slick mode, the retarding fins do not deploy and the bombs act like a regular MK82 bomb. In Drag mode the retarding fins deploy. In order to be effective, the Snake Eyes in drag mode must be dropped at low altitude. Snake Eye bombs dropped at low altitude give a +1 Die Roll Modifier on the On/Off Target Tables 15.10 and 15.11 as they are more accurate at low level. Bombs in slick mode may be dropped at any altitude and receive no die roll modifier on the On/Off Target Tables.

The MK-36 mine is only used in minelaying missions. (See 6.2.4)

The Skyhawk could carry either the AGM-12B with its 250 pound warhead or its big brother, the AGM-12C that was semi armor piercing and carried a 970 pound warhead. Both the AGM-12B and C Bullpup missiles must be launched from either high or medium altitude. These missiles were the first guided bombs with the pilot maneuvering the bomb to the target via a TV monitor in the cockpit. At the same time, the pilot also had to fly the plane. Because of this, it exposed the aircraft to more enemy anti-aircraft fire; SAMs (with radars on), AAA, and MiGs add +1 to their attack rolls on Table 12. Note that the AGM 12C is only used during the second campaign (See Rule 14.3). The AGM 12B is available in any mission or campaign.

The Skyhawk's internal 20MM cannons may only be fired at low altitude when attacking a ground target. Each time the cannons are fired, check off one ammunition box for the left cannon and one ammunition box for the right cannon. Two boxes are checked off in total on each attack run as both cannons will fire.

The Skyhawk may only make two strafing attack runs with its guns. After the second attack run the player is considered out of ammo.

When carrying ordnance, whatever is carried on one wing must be carried on the other wing for proper weight distribution: what is carried in the right outboard position must be carried in the left outboard position, and what is carried in the right inboard position must be carried in the left inboard position. When ordnance is expended, the markers are removed from the Skyhawk Ordnance Card.

As an example, when striking a SAM Site, the Skyhawk could carry one of the following combinations. Weapons are listed from right outboard to left outboard:

AGM-45 – AGM-12 – Fuel Tank – AGM 12 – AGM-45

When bombing Ground Targets in any Route Pack (See 3.5) the Skyhawk could be configured like this:

LAU-3/A – 3 MK82 (500 lbs.) – 3 MK82 (500 lbs.) - 3 MK82 (500 lbs.) – LAU-3/A

Or LAU-3/A – LAU-3/A - 3 MK82 (500 lbs.) - LAU-3/A – LAU-3/A

NOTE: When playing the "Four Aircraft Division" Optional Rule (See 15.1) the other three aircraft in the four aircraft division carry the <u>same</u> ordnance/stores loading as the player's Skyhawk. Note that loading on the Skyhawk Division Record Card.

3.4 Map

The map consists of several rectangular boxes representing movement areas as you make your way to the target and back to your carrier. In each box certain functions are performed before advancing to the next box. Blue spaces within a box represent areas over water and green spaces within a box represent areas over land (North Vietnam). Note that the Support Attacks, Target Approach, Target Attack, Target Exit, and Outbound to Carrier boxes are both blue and green.

The blue (water) section is used for minelaying. During minelaying missions, the Skyhawk makes one individual attack run for each mine that is carried.

The carrier will be where you start, and if all goes well, finish your mission.

After the player completes all required steps in a map box, he moves his Skyhawk on to the next map box.

On the mid-right side are several boxes representing the repair section of the aircraft carrier (see Optional Rule 14.0.2).

An explanation of each map box is found in Section 5.0 Movement.

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3.5 JCS-94 Target Listing Gazetteer

Historically, the Joint Chiefs of Staff divided Vietnam up into seven "zones" of responsibility after the USAF and the Navy found it difficult to conduct joint operations, and instead competed for resources and targets.

The zones were given the name "Route Packages" and were designated as 1, 2, 3, 4, 5, 6A and 6B. The Navy's Carrier Task Force 77 handled operations in RPs 2, 3, 4, and 6B, as these bordered on the Gulf of Tonkin. The USAF was given RP 1, RP 5, and 6A.

The JCS-94 Target list Gazetteer contains the Target Listings recommended to President Johnson for the Rolling Thunder bombing campaign. The Target Listing is broken down by Route packages.

If the player wants to play a historical game, then select targets from the US Navy Target List portion of the Gazetteer Tables. If the player wants to play a "what If" type of game, he is encouraged to use the full JCS-94 target listing and select targets from The US Air Force and Military Assistance Command (MACV) portions of the Target List as he sees fit for any games they wish to play.

A map of North Vietnam divided up by route packages is shown in the Target Listing. Yankee Station is also shown to give the player a feel for what the battlefield looks like.

To select a Mission Target from the US Navy Target List or the US Air Force Target List, roll 2D10 to get a result between 1 and 100. Select one die to represent the "tens" and the other for "ones" (00 is treated as 100).

Example, a roll of 4 on the "tens" die, and 6 on the "ones" die would be 46.

To select a Mission Target from the Military Assistance Command, roll 1D10.

Find the number rolled in the "Roll (Target Number) column" and the target information located in the row to the right. Place the appropriate target counter in the Target Attack box on the map.

Example, 46 is an "Iron Hand" Mission in the Hanoi Area on the US Navy Target List and a SAM target counter is placed in the Target Attack box. If the player is using the US Air Force Target List "46" is Military Barracks in the Hanoi (N) area and a Building target counter would be placed in the Target Attack box.

In some cases, targets offer multiple types. When this occurs, the player rolls 1D10 to determine which type of target is being hit.

3.6 Skyhawk Fuel Management

In real life, determining the range an aircraft can travel depends on a number of different factors that include the weight of the bomb load, the pilots flying skills and the weather conditions. There are tables prepared in the Aircraft's flight manuals to calculate the average radius of action with various weapon and weight configurations measured in total mission time, loiter time over the target and radius of action. We are going to simplify the process for our game.

The Skyhawk is a relatively short range aircraft that can extend its range (Total Mission Time to include Target Loiter Time) by using External Fuel Tanks.

For game purposes, the player's Skyhawk MUST have either a 300, or 400 gallon centerline External fuel Tank or two (2) 150 gallon External Fuel Tanks installed for any mission in Route Package 6B.

Flights to targets in the US Air Force Route Package 5 and 6A require a 400 gallon centerline tank AND two 150 gallon external fuel tanks.

For missions into Route Package 3 and 4, the Skyhawk MUST have at least 300 gallons of fuel in whatever configuration of external fuel tanks the player desires installed on the Skyhawk.

For missions into Route Package 2, the Skyhawk MUST have at least 150 gallons of fuel in whatever configuration of external fuel tanks the player desires installed on the Skyhawk.

For missions into Military Assistance Command - Vietnam's Route Package 1, the Skyhawk does not need any external fuel tanks installed.

NOTE: The player should consider that fuel checks are made in various map boxes and that Pilot Quality, weather and the condition of the Skyhawk will affect the Skyhawk's "Bingo Fuel" state. (See Rule 5.3)

Definition: "Bingo Fuel" is defined as that point in the mission where the Aircraft has just enough fuel to return to the carrier.

4.0 Planning Phase

The player rolls for his target in the JCS-94 Target listing.

Next, the player rolls on Table 2 – "Weather" to determine the weather over the target, and for the recovery of your aircraft.

There is no weather roll on Table 2 to determine the weather for launch. *(Weather at launch can deteriorate as a result of a roll on Table 4, but no weather roll is made for it).* The weather result is also in effect for support attacks. Note the weather (WX) results on the Skyhawk Mission Record Card.

4.1 Planning Events

If this is a Single Mission game, the player rolls on Table 4 "Single Mission Planning Events" and determines any Government Intrusions or other events that will affect the mission. If this is a mission in a Campaign Game, roll on Table 28 "Campaign Game Government Intrusion Events Table" (see 14.1.2).

There are four possible outcomes on Table 4:

- **No Event** - play proceeds to the next step, 4.2 Determining Ordnance Load.
- **Bomb Shortage** - there are no 500 pound MK. 82 bombs available (both Standard and Snake Eye) for this mission.
- **Government Intrusion** - follow the directions in Table 4 and the notes section.
- **Weather deteriorates at Yankee Station** - follow Note B in the table and apply a -5 die roll modifier when launching the Skyhawk on Table 3.

The player now selects the ordnance for the mission. (See 4.2).

4.2 Determining Ordnance Load

Different target types will require different loads in order to increase the effectiveness of your attack. Consult Table 5 to see which munitions you may carry depending on type of target. Look on the Skyhawk Ordnance Card to see what each pylon station can carry and equip your Skyhawk with the proper weapons for your mission. Die roll modifiers in the results section on Table 5 are used to show the effectiveness of different ordnance types on various targets.

Most of the munitions have altitude restrictions for their use. The restrictions are listed in each munitions description and in Tables 15.1 through 15.12).

The LAU 3/A and LAU-10 (rocket pods) may only be used at Low Altitude.

The AGM 12 and AGM 45 (air to ground missiles) may only be used at Medium or High Altitude.

The Mark 81 and 82 Snake Eyes (bombs) may only be used at Low Altitude if retarding fins are to be deployed (drag mode). Otherwise, they may be dropped from any altitude and are considered standard MK 81 and 82 bombs.

Once the player has decided what to carry, he places the ordnance markers in the station boxes located on the Skyhawk Ordnance Card. He places one marker for each bomb and or unit he is using.

As an example, if the player is to carry three 500 pound MK 82 bombs on the centerline pylon MER* rack, he places one MK 82 500 pound marker (showing three bombs) on the center line pylon box. The player can place a second 3-bomb cluster on the rear station of the MER rack if he has the weight allowance to carry both sets of 3-bomb clusters.

*Multiple Ejector Rack (MER) is an attachment that allows the Skyhawk's weapons pylon to carry additional bombs. Since a MER can carry from 1 to 3 bombs multiple bomb counters are considered on MER racks.

The player also decides if he will carry external fuel tanks based upon the route package his target is located in and places them in the appropriate pylon box(es) below the correct pylon(s).

When loading out your Skyhawk, no more than 8,700 pounds (fuel tanks and selected ordnance) may be carried by the Skyhawk. (NOTE: If playing the four aircraft division optional rules (See 15.1), also note the ordnance loading on the Skyhawk Division Record Card).

4.3 Support Units

US Support units allow the player to attack NV defense forces as the Player's Skyhawk attacks the assigned target. There are five different types of US support unit aircraft. The Phantom II (the Phantom II comes in two varieties: USN (silver) and USAF (camouflaged). Navy support aircraft units include the A6 Intruder, the F-8 Crusader and the EA-3 Skywarrior. The USAF's F-105 Thunderchief was used to attack SAM sites.

NOTE: Any of the above support aircraft types and service branches (USN or USAF) may be used by the player as the USAF did assist with Navy Support Missions.

Notations in the upper right corner of each support unit counter let the player know what NV defense box types can be attacked by that unit. NV defense box type targets are: SA = Small Arms; AAA=Anti-Aircraft Artillery; SAM=Surface to Air Missile; and MiGs.

Support unit aircraft placed in the ECM Box provide electronic countermeasures when AAA and SAM sites attempt to fire on to your aircraft. The ECM support is in the form of die roll modifiers on various tables.

Each support unit aircraft may only attack one of the listed target types on the counter during each support unit attack turn. Aircraft assigned to the ECM box do not get to directly attack NV defense boxes (See 5.4.1).

Roll on Table 4.1 "Support Units" to determine the number of support unit aircraft that will be supporting you for the mission.

Choose which support unit aircraft counters you want equal to the result rolled on Table 4.1. Place the selected aircraft counters on the map in the box labeled "US Support Units" before beginning game play.

5.0 Movement and Attacks

The player places the Skyhawk counter on the aircraft carrier to begin the game. The Skyhawk will launch from the carrier and move one box at a time, completing various actions in each box and then moving on to the next box doing the same in each until he returns back to the carrier.

Each time the player moves into a new box on the map board he must determine at which altitude level the Skyhawk is flying. The altitude levels are Low, Medium, and High. They determine what weapons the Skyhawk may use in the Target Attack Box and also what NV defense box weapons may be able to target the Skyhawk during the NV defense box firing phase.

NOTE: The Map boxes represent large areas that are crossed by the Skyhawk. Each box is large enough that the Skyhawk can be at ANY altitude when it enters the next box and it does NOT have to pass thru altitude levels in order. (Low to Medium to high or reverse to change altitude in the next box to be entered).

Example: The Skyhawk can leave Aerial Refueling Box at High Altitude and immediately enter the Support Attack box at Low Altitude. The Skyhawk does NOT have to go to medium altitude to enter the Support attack box. Climbing works the same way.

The NV defense boxes can ONLY fire at the Skyhawk in the Support Attacks, Target Approach, Target Attack and Target Exit boxes.

5.1 Launch

To launch the Skyhawk from the carrier, the player rolls 2D10 dice on Table 3. Apply any die roll modifiers and determine the result.

Cross index your roll with the result column to determine the success or failure of your launch. If a "Possible Incident" occurs, roll on Table 3.1 and follow the directions on the table.

If the launch is "Good" (successful), move the Skyhawk Counter to the Inbound Random Event Box.

5.2 Inbound Random Event Box

Definition: The inbound leg of the mission is flying from your aircraft carrier **toward** the Target Attack box. After leaving the Target Attack box, the outbound leg of the mission is the reverse flight direction. The Skyhawk is flying **away** from the Target Attack box and **toward** aircraft carrier.

When the Skyhawk enters the IREB the player determines the Skyhawk's altitude and places the correct altitude counter on the Skyhawk Mission Record Card.

Once the player moves into the IREB, roll on Table 6. Six results are possible: No Event, Support Units reduced or eliminated, Sub-System Malfunction, You are an "Ace Bomber" today, Lady Luck Smiles on You!, and Weather Deterioration over Target.

If "No Event" is rolled, the player moves his Skyhawk counter to the Aerial Refueling Box (see Rule 5.3).

If the "Support Units Redirected" event is rolled, see Note C below the Table 6 and roll 1D10 again to determine how many support aircraft are "redirected". Once the Support Units have been removed, move the Skyhawk counter to the Aerial Refueling Box.

If the "Weather over Target Changes" event is rolled, the following effect occurs: if weather over target is good, it now becomes poor. If the weather was poor, it now becomes bad. If the weather was originally bad, it becomes good weather. Apply a die roll modifier of -1 for poor weather and -2 for bad weather when the player attacks in the Target Attacks box.

The player now moves his Skyhawk counter to the Aerial Refuel Box.

If the "Sub-Systems Malfunction" event occurs, the player rolls 1D10 to determine which sub-system is affected. Mark off one "Hit Damage" box from the affected sub-system on the Skyhawk Mission Record Card. Once completed, move the Skyhawk counter to the Aerial Refuel Box on the Map.

If the "You are an "Ace Bomber" today" event occurs, add +1 to your On/Off target Roll for each attack run. (The player's roll, with the +1 add applies to any non-player Skyhawk flying on today's mission.)

If the "Lady Luck Smiles on you!" event occurs the player may reroll one die or dice roll. You may save it until needed in this or any future mission. When it is used, it is gone.

5.3 Aerial Refuel Box

The Skyhawk had a short combat range, and this varied according to the load it had to carry. To simplify things, an abstract fuel check system is used. (See 3.6)

NOTE: For game purposes the Skyhawk is considered to be refueling over <u>LAND</u> inside Vietnam if the refueling roll occurred in the Support Attacks, Re-Attacks or Outbound to Carrier boxes. The Skyhawk is considered to be over <u>WATER</u> in any of these boxes if this is a mine laying mission. The Skyhawk is considered to be refueling over <u>WATER</u> if the refueling occurs in the Aerial Refueling box or the Carrier Approach box for any mission type.

Design NOTE: Contrary to popular belief, the external fuel tanks were not jettisoned after use. The empty tanks usually provided a cushion when having to belly land when landing gear could not be lowered.

When the player enters the Air Refuel Box, he determines the Skyhawk's altitude. The Skyhawk has to be at the high altitude level to rendezvous with the Tanker.

Next, the player checks to see if he has successfully refueled from the aerial tanker. Roll on Table 9 to determine the outcome of the refueling attempt.

If the "Incident Occurs" event is rolled on Table 9, follow the directions in note (A) to determine the fate of the player's Skyhawk and pilot. Make a second 1D10 die roll, apply the appropriate die roll modifiers (they are cumulative) to this roll and determine the fate of the Skyhawk and Pilot. There are no die roll modifiers added to any additional die rolls in Note A.

If refueling is successful, the player continues the mission.

The player now moves his Skyhawk counter into the Support Attack box.

5.3.1 Boxes Calling for a Fuel Check

Fuel checks are required in the Support Attacks, Target Re-Attack, Outbound to Carrier and the Carrier Approach boxes on the Map. These boxes are marked "Fuel Check".

As was noted in the Skyhawk fuel management section (Rule 3.6), the Skyhawk has a short combat radius of action and many factors affect how long the pilot will have to "loiter over the target" and make his attack.

For game purposes "loitering over the target" equates to how many attack runs the Skyhawk can make against the target before going "Bingo Fuel" and having to return to the carrier.

The Support Attack and Target Re-attack boxes require fuel checks because the Skyhawk is doing more fuel consuming maneuvers, avoiding AAA fire, SAM missiles and MiG fighters and setting up for attacks in each of these boxes. The fuel checks in the Outbound to Carrier and Carrier Approach box are made because the Skyhawk again is using more fuel consuming maneuvers to egress from North Vietnam and to make his approach to land on the carrier.

To make a fuel check, the player rolls 1D10 on Table 7 using the appropriate column heading and cross indexing the die roll to get the result.

If the player rolls "Fuel Ok" he can continue the mission. (NOTE: A row 10> result requires the player to have a +1 positive DRM to get a "Bingo Fuel" result on that row.)

If the player gets a "Bingo Fuel" result in either the Support Attacks or Target Re-Attack box, the Skyhawk automatically jettisons its remaining bombs, and the player moves the Skyhawk to the Transit to Carrier box and continues the mission. The player will roll for any fuel checks in upcoming Map boxes as usual.

If the player gets a "Bingo Fuel - Divert to tanker" result in either the Outbound to Carrier or the Carrier Approach boxes on Table 7 he will roll 1D10 on Table 9 and follow the results.

If the player rolls a "0", "Incident Occurs", follow the Table 9 Note A) instructions. Roll 1D10. If the player rolls **≤ 0 to 7**, "Problem corrected", the Skyhawk can transfer fuel. Continue the mission as normal.

If the player rolls an **8**, "Skyhawk unable to transfer fuel", move the Skyhawk directly to the Transit to Carrier box and complete the sequence of play from that point to landing on the carrier (See Rule 6.5, 6.6);

If the player rolls a **9+**, "Skyhawk collides with the tanker", the Skyhawk is lost.

NOTE: In the single mission game a roll of 9+ means the game is over. In the campaign game, a roll of 9+ means the Player's Skyhawk is lost but the Tanker is OK and can continue to refuel other Skyhawks. Apply all appropriate die roll modifiers.

If the player rolls a **9+** (above), then roll a second time to determine the fate of the pilot. Roll 1D10: **0-5** - Pilot bails out (See Rule 12); **6-9** the pilot is killed. There are no die roll modifiers for this roll.

Any other result is a successful refueling and the Skyhawk continues the mission in the Map box where it made the fuel check. (Also see Rule 6.5)

5.3.2 Damage to the Skyhawk that Precludes Aerial Refueling

If the Skyhawk cannot transfer fuel or has "Major Section" Nose damage boxes "N1" and "N2" checked off on the Skyhawk Mission Record Card, the Skyhawk's refueling probe has been damaged and the Skyhawk is unable to transfer fuel. Do not roll on Table 9, instead, move the Skyhawk directly to the Transit to Carrier box and complete the sequence of play instructions from that point to landing on the carrier. (See 6.5)

5.4 Support Attacks Box

The player determines what altitude the Skyhawk is going to fly at in the Support Attack Box and place the correct altitude marker on his Skyhawk Mission Record Card.

The sequence of play in the Support Attack box is as follows:

When the player moves the Skyhawk into the SAB, a fuel check on Table 7 is made. If the result is "Bingo Fuel", the Skyhawk jettisons any remaining ordnance and immediately moves to the Transit to Carrier Box and continues the mission.

Once the Fuel Check is complete, the player then moves his available support units from the US Support Units box and places them in one of the four NV defense boxes (SA, AAA, SAM or MiG). The US support aircraft counter must have the matching target type listed on its counter to be able to attack the target type in the box they are placed in.

The ECM box for game purposes is a track off the coast of Vietnam where the ECM aircraft orbited and projected their electronic counter measures into the interior. The ECM box may *not* be attacked by the NV defense boxes as it is outside of North Vietnamese borders. (See 5.4.3)

US Support Unit aircraft that have ECM capability *on their counter* can be placed in the ECM Box. A maximum of 2 ECM aircraft may be placed in the ECM box. The EA-3 Skywarrior can only be placed in the ECM box.

Other Support Aircraft that have the ECM capability _and_ have other attack options *may* also be placed in the ECM Box *or* in an NV defense box that they can be attacked at the player's discretion.

No more than two (2) US Support Unit aircraft may be placed in any one NV Defense Box, except the MIGs defense box where only ONE support unit aircraft may be placed (See 5.4.2).

The player now resolves the US combat phase on Table 11. (The NV defense box combat phase will be resolved using Table 10).

This "Support Attack" combat cycle will be completed by the player each time the player's Skyhawk is moved to a new box on the Map as listed below.

The "Support Attacks" cycle begins when the Skyhawk enters the "Support Attacks" box. The cycle is repeated in the Target Approach, Target Attack and Target Exit boxes only.

If the player decides to re-attack, then No "Support Attack" combat cycle is performed in the Target Re-Attack box but begins again when the Skyhawk enters the Target Approach box for its second (and any subsequent) re-attack(s). (See 5.4.1)

The Skyhawk only passes through the Support Attack box on the Map once as it makes its way to the Target Approach box. Skyhawk Re-Attacks return to the Target Approach box *not* the Support Attacks box.

After the player places the Skyhawk in the Support Attacks box, perform the fuel check, then place the US support unit aircraft, and conduct the support attack combat round per rule 5.4.1. Mark any damage sustained by the Skyhawk, then the Skyhawk is ready to be moved into the Target Approach box. (See 6.0).

5.4.1 Performing Support Attacks Cycle

The player will perform the Support Attack cycle each time the Skyhawk is moved into the Support Attacks, Target Approach, Target Attack and Target Exit boxes.

5.4.1.1 Support Attack Cycle

First, the Player places his support unit aircraft.

If _no_ US support unit aircraft attack the NV SAM defense box, then the player skips the radar on/off determination phase below. The radar _stays "ON"_ if no support aircraft unit attacks it.

Next, determine if the Radar is ON or OFF _if_ the player has placed a US Support Unit aircraft to attack the NV SAM defense box.

After the US support aircraft have committed to the attack, the SAM sites would sometimes turn off their SAM's Fan Song targeting radar to avoid becoming a target for "radar-beam-riding" anti-radiation missiles that were often carried by "Iron Hand" SAM Suppression US Support aircraft.

To simulate this, after placing his support units, the player determines if the NV SAM fire control radar is turned off.

Roll 1D10. On a roll of 0-3, the NV SAM defense box turns its Fan Song radars off and fire manually. On results of 4 or greater, the SAM's Fan Song radar is on and fires per the rules. Place either a "Radar On" or "Off" marker (depending on above roll) in the NV SAM Radar Box on the map as a reminder for upcoming attack rounds.

When the NV SAM defense box is firing manually (radar off) at a US support unit aircraft that is attacking it, there is a -3 die roll modifier on Table 10.

When the NV SAM defense box is fired manually (radar off) _at the Skyhawk_, the player rolls 1D10. On a roll of 0-8 the attack on the Skyhawk is a Miss; On a roll of 9, a Hit is scored on the Skyhawk and causes 2 hits of damage. Roll twice (once for each hit) directly on Table 12.1 for the Skyhawk's damage if a "9" was rolled on the above 1D10 roll.

- Do not roll on NVA Attack Table 12 to determine if a hit is made on the Skyhawk when the SAM radar is off.

- Do not roll on Table 10 as it is only for the NV SAM defense box's fire on US Support Aircraft.

- There are No modifiers used on the above die rolls for SAM firing when the radar is off.

IF the radar on/off roll turned the radar off, then the SAMs fire manually throughout the current attack phase only.

Determination of Radar On/Off Status is determined after the placing of the US support unit aircraft in _every attack cycle_ that calls for the SAM site to fire on the US support unit aircraft or the Skyhawk.

If the SAM Radar is turned off, the player does **not** receive the benefit of the +1 ECM die roll modifier for US support aircraft when in the ECM Support Box.

The Hanoi Civilian Receiver and Transmitting Stations did not turn off if attacked. No Radar On/Off check is made by the player if using an AGM-45 to attack the HCRT.

After placing the attacking US support unit aircraft and determining Radar On/Off Status. the US fires first, followed by NV in their combat phase. Results of all attacks are applied as they occur.

The weather is considered the same as the current target weather condition that was rolled for on Table 2 during setup. (The weather condition is a die roll modifier on Tables 10 and 11.)

For US attacks, roll on Table 11 to determine any hits on NV defenders. The US player rolls once for each US support unit aircraft assigned to attack a NV defense box.

For each Suppressed, Knocked Out or Disengaged hit that occurs, place the correct marker in the NV defense box that is attacked. Boxes with Knocked Out or Disengaged markers cannot attack in the NV attack phase.

When a NV defense box is "Knocked Out", any US Support unit assigned to attack it that has not yet fired may be placed in another NV defense Box to attack this new NV defense box this same turn provided it has the capability to do so.

For EACH Suppressed marker in an NV box apply a -1 Die Roll Modifier on Table 10 when the NV defense box fires on US aircraft.

Once all US attacks have concluded, the player then resolves NV combat fire against Support Unit aircraft using Table 10. NV defense box attacks against the Skyhawk are resolved on Table 12. Resolve each NV defense box attack one at a time.

Exception: NV SAM defense box attacks _that have their radar turned off_ against the Skyhawk are resolved by the die roll explained above rather than by rolling on Table 12.

The "Migs" defense box is a special case and is handled differently (See Rule 5.4.2).

Each SA, SAM and AAA NV defense box that has _not_ received a "Knocked Out" result will fire on the Skyhawk _and_ fire on the US Support Unit aircraft attacking their specific NV defense box in this turn.

Exceptions: Small Arms may only fire at the Skyhawk if it is flying at Low Altitude in the Support Attacks, Target Approach, Target Attack or Target Exit boxes.

NV SAM defense boxes may not be fired at your Skyhawk if the Skyhawk flying at Low Altitude in the Support Attacks, Target Approach, Target Attack or Target Exit boxes.

Exception: see Rule 6.2.3 Special Missions.

(Design NOTE: Accounts by some Skyhawk pilots at the time indicate they did not seem concerned due to the poor turning radius of the SAM missile and the Skyhawk's ability to outturn it if necessary.)

All US Support unit aircraft are considered to be in range of all NV defense box weapons including Small Arms (SA).

NV defense boxes fire at your Skyhawk when the Skyhawk is in the Support Attacks, Target Approach, Target Attack and Target Exit Boxes per the conditions set forth below.

Roll on Table 12 to determine if NV defense box Weapons hit your Skyhawk. Use the column that matches the weapon and altitude of your Skyhawk. For each hit sustained, roll once on Table 12.1 to determine which major section(s) of the Skyhawk are hit and any sub-systems which could be hit (See Rule 5.5).

NV Defense boxes may _not_ fire at US Support Units attacking other types of NV Defense Boxes.

NV Defense boxes that are _not_ attacked by a Support Unit can _only_ fire at the Skyhawk if their weapons can reach the altitude the Skyhawk is flying at.

The NV defense box rolls once for each Support Unit attacking its own box, _and_ once for the Skyhawk.

If the NV defense box is suppressed, a -1 is applied to the dice roll(s) for EACH suppressed marker in the box when making attacks against US support unit aircraft on Table 10 and against the Skyhawk on Table 12 in addition to other modifiers listed under the table notes.

US Support Units hit by NV defense box fire are immediately placed off map in the support unit "dead" pile. They cannot be used again in this mission.

Once all NV defense box attacks are completed for this turn, remove all surviving US Support Unit aircraft (including the ECM support box aircraft) and place them in the US Support Unit box. These are the aircraft you will have available to place for the next Support Attacks Cycle.

Next, replace any NV defense boxes that have _two_ "suppressed" counters with a single "knocked out" counter. (See 5.4.1.2)

Now turn the radar for the NV SAM defense box back to "On" if it was turned off during the turn by placing the "On" counter back in the radar box (See 5.4.1.1).

Leave all remaining single "Suppressed" markers and all "Knocked Out" and "Disengaged" markers in place. This is how the NV defense boxes will start the next Support Attacks Cycle.

NOTE: When playing the "Four Aircraft Division" Optional Rule (See 15.1) the player must keep track of the number of NV defense boxes that fired on the player's Skyhawk in _each_ Map Box the Skyhawk is fired upon by the NV defense boxes (Support Attacks, Target Approach, Target Attack and Target Exit boxes). This number will be used to fire on "the other three Skyhawks" in your four aircraft division as explained in Rule 15.1. Note the number of attacks on the Division Record Sheet.

The player now moves his Skyhawk counter to the Target Approach Box and repeats the Support Attacks Cycle.

5.4.1.2 Two Suppressed Results in US Attack

If two US Support Units are assigned to attack a SA, AAA or SAM NV defense box in the US attack phase and both support unit aircraft score a "Suppressed" result, place both suppressed markers in the box as a reminder that the NV Defense Box will have a -2 die roll modifier when firing on US aircraft.

AFTER the NV fire phase remove the _two_ "Suppressed" markers and exchange them for a "Knocked Out" counter. Firing is considered simultaneous for two suppressed results and the "Knocked Out" result is applied AFTER the NV defense box fires at the US player's aircraft.

Example: Let's assume the US player has placed two Support Unit aircraft attacking a NV defense box. The US player will roll twice on Table 11: once for each support unit.

The first unit rolls a 6. Place a Suppressed marker. Roll for the second support unit. A 7 is rolled which is also a Suppressed result. Place the second Suppressed marker.

During the NA defense box return fire phase a -2 die roll modifier is used on Table 10 and Table 12 for this NV defense box's attacks against the support unit aircraft (Table 10) and the Skyhawk (Table 12).

After the conclusion of both the US and the NV combat fire phases remove both suppressed markers and exchange them for a Knocked Out marker. The NV defense box is now "knocked out" for the remainder of this mission. Both attacks are simultaneous, so the "Knocked Out" result is applied _after_ the end of the NV combat phase.

EXCEPTION: If a "Knocked Out" result is rolled on Table 11 _at any point_ in the US Support Unit Attack Phase then there is NO simultaneous return fire by the NV defense box. This return fire rule only applies if "Two Suppressed Results" are received by the same NV defense box.

5.4.2 MiGs

MiGs attack differently than SA, SAMs or AAA. Their mission was to force the attacking US bombers to jettison their bomb load or shoot them down if they could.

The MiGs _only_ attack the Skyhawk counter if **NO** US Support Aircraft is attacking the NV MiGs defense box. If a US Support unit aircraft _is_ attacking the NV MiGs defense box then the MiGs can _only_ attack the US support unit aircraft attacking it and _CANNOT_ attack the Skyhawk.

If the MiGs are attacking the Skyhawk, combat is resolved using Table 12.

Place the MiGs counter in the same Map Box the Skyhawk occupies. The MiGs counter is removed when a "Disengaged" result is rolled on Table 11 by US Support aircraft, or if the player assigns a US support aircraft to attack the NV MiGs defense box in the current Support Attack round, forcing the MiGs to attack the support unit aircraft.

Move the MiGs counter to the same box the Skyhawk moves into in the upcoming turns as a reminder that if the NV MiGs defense box is not attacked in the new support cycle combat round the MiGs will attack the Skyhawk.

The MiGs counter does not follow the Skyhawk into the Re-Attack box or the Outbound to Carrier box.

When the Skyhawk exits the Target Exit box the NV MiGs defense box attack ends and the MiGs counter is removed to await another round of Support Attacks combat if the player decides to re-attack with the Skyhawk.

In any turn the MiGs NV defense box is attacked by US support aircraft remove the MiGs counter. It is only placed when the NV MiGs defense box is not attacked by US support aircraft.

When the MiGs defense box attacks the Skyhawk, roll on Table 12 in the MiGs column. Apply any damage result to the Skyhawk (See Rule 5.5).

If an asterisk "*" result is obtained, then the player has the choice of jettisoning the Skyhawk's bomb load and diving away to safety or taking the hit(s) and continuing the mission with its ordnance still in place. If the player jettisons the bomb load move the Skyhawk directly to the "Outbound to Carrier" box and continue the mission. No further points are scored (the player keeps what he as accrued so far) but you may have saved the pilot and Skyhawk to fight another day.

If the Skyhawk dives away to safety remove the MiG counter and only place it again if the NV MiG defense box remains un-attacked by US Support aircraft in the support attack play sequence.

The player may place ONLY ONE US Support Unit aircraft attacking the NV MiGs defense box each turn. The NV MiGs defense box MUST attack the US support unit aircraft attacking it and _cannot_ attack the Skyhawk that turn. (This represents US Escorts defending the bombers from the MiGs.)

A single "Suppressed" result in the MiGs defense box means the MiGs suffer a -1 die roll modifier when they attack your Skyhawk or your support unit aircraft.

If there is a second "Suppressed" result suffered in a later Support Combat turn by the NV MiGs defense box, use a -2 die roll modifier in the turn it is received when the MiGs attack. At the conclusion of that turn's attack phase remove the two "Suppressed Markers and replace them with a "Disengaged" marker. Remove the MiGs counter and place it in the "Dead" pile. No more MiGs Attack for the remainder of the mission. (Exception: The MiGs Attack Event on Table 14 can still be rolled and is a separate MiGs encounter not related to the Support Attacks box combat cycle.)

MiGs may attack the Skyhawk in the Support Attacks, Target Approach, Target Attack or Target Exit boxes only. Exception: The MiGs Attack Event on Table 14 can still be rolled and is a separate MiGs encounter not related to the Support Attacks box combat cycle.)

If the player elects to re-attack the target, and the Migs NV defense box is currently "Suppressed" or "Disengaged" they remain "Suppressed" or "Disengaged" no matter how many re-attacks the Skyhawk makes on the target.

The "MiGs attack..." result on Table 14 - "Re-Attack Random Event" is considered a separate group of MiGs attacking the Skyhawk and is *not* related to the MiGs counter or the support attacks made by the NV MiGs defense box as listed above. Follow the instructions on Table 14 if this event is rolled.

Move any US support unit aircraft to the US Support Units box at the end of the turn.

5.4.3 ECM Box

The ECM Box is a US Support Box. The Player may place up to two ECM Support Units (both have to have ECM on their aircraft counter) in this box. Support Units in this box aid the US player when he makes his way to the target. The ECM unit provides a -1 die roll modifier on Table 10 and Table 12 for each ECM aircraft unit in the ECM Box *when SAM or AAA NV* defense boxes attempt to fire. *The exception is that if SAM radars are turned off, the modifier does not apply when being attacked by SAMs.* No more than two ECM counters may be placed in the box.

At the end of the support attack phase move the ECM aircraft to the US Support Units box for redistribution in the next turn's attack Phase.

5.5 Damage to the Skyhawk

Most damage to the Skyhawk is recorded on the Skyhawk Mission Record Card. Pylon damage is recorded on the Skyhawk Ordnance Card. After receiving one (or more) hit(s) on Table 12, (See 5.4.1.1) the player rolls once on Table 12.1 for **each hit** received to determine the area of the Skyhawk that is hit.

EXCEPTION: The Skyhawk may also receive damage from the "to hit" die roll that is made when a SAM is firing manually. This die roll does not use Table 12 to determine hits. (See 5.4.1.1)

The Skyhawk has a two-tier damage system, the "Major Section" Damage boxes and the "Sub-System" damage boxes. See Skyhawk Mission Record Card and Table 12.1, and the Skyhawk Ordnance Card for the layout of the "Major Section" and "Sub-System" damage boxes. Both "Major Sections" and "Sub-Systems" have die roll modifiers that apply to various tables when all their hit damage boxes have been checked. (If a die roll is applicable the modifiers are listed in each table's notes section.)

Table 12.1's "Area Hit" column lists the "Major Section" shown on the Skyhawk Mission Record Card that receives a hit. The player crosses off a damage box for each hit received by the "Major Section". If the result is Superficial Damage no boxes are checked off.

Example: Assume the Skyhawk takes two hits from the roll on Table 12. The player then rolls a "3" and a "6" on Table 12.1. Cross index with the "Area Hit" column the results are: "Fuselage" and "Nose". Mark off one Fuselage (F1) and one Nose (N1) damage box on the Skyhawk Mission Record Card for these hits.

If a hit is sustained in the "Wings" the player makes a 2nd die roll on Table 12.5 to determine which wing is hit. Roll on Table 12.5A (left wing) or Table 12.5B (right wing) to determine the damage.

When all the damage boxes in a "Major Section" are crossed off any additional hits to that "Major Section" is considered "Superficial Damage".

Even though the damage in the "Major Section" box is now considered "Superficial", the player still makes a damage roll on the Table as stated in the results to determine if a subsystem is hit. These tables are labeled 12.2 through 12.7.

Continuing the example – Next the player makes a roll on the appropriate Sub-System damage Table (12.2 thru 12.7)

If a hit occurs, mark off one box in the affected subsystem. If that "Sub-System's" damage boxes are all checked off, the sub-system is destroyed. Future hits in a destroyed sub-system become Superficial damage (See 5.7).

"Superficial Damage" is not tracked and does not affect the Skyhawk.

5.6 Major Section Damage Boxes

On the Skyhawk's body (shown on the Skyhawk Mission Record Card) are damage boxes covering several areas of the aircraft. These "damage" boxes are "Major Section" damage boxes. The "Major Section" areas represented are the Nose (N), the Cockpit (C), the Fuselage (F), the Wings, both Left Wing (L) and the Right Wing (R), the Engine (E) and the Tail (T).

When **ALL** of the Major Section damage boxes in these four (4) Major Sections; **Fuselage (F1 thru F4), Engine (E1 thru E3), Wing (L1 thru L3 and R1 thru R3) and Tail (T1 thru T3)** have had **All** of their "Major Section" damage boxes checked off, the Skyhawk is considered shot down and the pilot may attempt to bail out. (See 12.0).

The Skyhawk is **not** shot down if all of the Major Section damage boxes in the Nose (N1, N2) and Cockpit (C1, C2) are checked off. These two sections do NOT count toward the four sections needed to shoot down the Skyhawk.

When **ALL** of the Major Section damage boxes in the Nose (N1, N2) are checked off, there is a Negative die roll modifier when the Skyhawk attacks its target in the Target Attack Box. (See specific Attack Box Tables for details). Also, the skyhawk cannot perform aerial refueling as the refueling probe is in the nose.

When **ALL** of the Major Section damage boxes in the Cockpit (C1, C2) are checked off, there is a -10 die roll modifier on Table 18 when the Skyhawk is attempting a landing.

When all cockpit (C1&C2) hit damage boxes are checked off, *the Skyhawk can only fly at Low Altitude.*

The Pylon Stations on the Skyhawk Mission Record Card are considered "Sub-Systems" damage, not "Major Section" damage. (See 5.11)

5.7 Sub-System Damage Boxes

The boxes to the left and right of the Skyhawk on the Skyhawk Mission Record Card diagram labeled Avionics, Electrical System, Com/Nav, Landing Gear, Fuel System, Ordnance System, Oxygen System, and the Hydraulics System are considered Sub-System damage boxes. The Pylon Ordnance Stations shown on the Skyhawk top view and on the Skyhawk Ordnance Card are also Sub-Systems

The Sub-System boxes, when all are checked off in a particular sub-system sections have negative die roll modifiers on various tables. (If applicable to the Table, the die roll modifiers will be found in a Table's Notes: section.)

When all oxygen sub-system hit damage boxes are checked off, *the Skyhawk can only fly at Low Altitude.*

When all the damage boxes in a particular "sub-system" box are checked off that sub-system is considered destroyed. Any additional hits to that "sub-system" are considered "Superficial Damage".

If five or more "sub-systems" are destroyed, the Skyhawk is considered shot down (no matter how many of the 4 Major Section boxes needed to shoot down the Skyhawk have been destroyed). The player then attempts to bail out (See 12.0).

Your aircraft is not considered shot down if four or less sub-systems are destroyed.

If all five pylons in the Pylon sub-system are destroyed, the pylon sub-system does NOT count toward the "five sub-systems destroyed" requirement to cause the Skyhawk to be shot down (see Rule 5.11).

5.8 Cannon Damage Boxes

At the forward section of each wing, near the fuselage, are the hit damage boxes for the two 20MM cannons the Skyhawk carries – one in each wing. If the cannon damage box is checked that cannon may no longer fire and the ammunition boxes remaining for it are lost. Cross them off. Each of the cannons has two ammunition boxes per cannon, for a total of four ammunition boxes.

The Cannon Boxes do not count towards damage needed to shoot down the Skyhawk).

5.9 Major Section Sub-Systems

Each of the major sections has one or more sub systems attached to it. These are:

Major Section	Sub-System
Nose	Avionics, Landing Gear
Cockpit	Avionics, Com/Nav, Oxygen, Electrical
Fuselage	Electrical, Fuel, Hydraulics, Ordnance
Wings	Electrical, Ordnance, 20 MM Gun Fuel, Hydraulics, Landing Gear
Engine	Fuel
Tail	Hydraulics, Electrical

5.10 Pilot's Wound Status

The pilot may take up to three wounds in a single mission. The first and second wounds received by the Skyhawk pilot are considered to be light wounds and do not have any incapacitating effects.

When the Skyhawk's Pilot receives a third wound, the pilot is considered KIA, and the Skyhawk is lost. When the Skyhawk is lost either through damage or the pilot being KIA, the mission immediately ends.

The number of wounds a pilot receives plays a factor in the three campaign games (see Rule 14.1.3).

5.11 Pylon Hit Damage

The pylon stations are labeled as LO (Left Outboard), LI (Left Inboard), CL (Centerline), RI (right Inboard) and RO (Right Outboard). These pylons correspond to the Ordnance Boxes on the Skyhawk Ordnance Card. If a pylon becomes damaged (takes a hit), the ordnance carried by that destroyed pylon is removed from the Skyhawk Ordnance Card.

If a pylon is destroyed, its hit damage box on the Skyhawk Ordnance Card and the Skyhawk Mission Recore Card is checked off. If the pylon is carrying an external fuel tank, make an immediate "Fuel Check" roll on Table 7. Use the Support Attack column if the Skyhawk is in the Support Attack box or use the Target Re-attack box column if the Skyhawk is in the Target Approach, Target Attack, or Target Exit box. If "Bingo Fuel" is rolled then follow the Table directions. Leave the external tank in place on the Skyhawk Ordnance Card.

There is a -1 die roll modifier on Table 16 if a wing pylon is destroyed.

6.0 Attacking the Target

Attacking your assigned target consists of several steps: Approach – Attack – Exit then either a move to the Outbound to Carrier Box or go in for another attack in which case the player moves to the Re-Attack Box. It is the player's choice.

The Player may make as many attacks as he likes as long as he has the munitions to do so.

6.1 Target Approach Box

The player determines what altitude he is going to fly at in the Target Approach Box and places the correct altitude marker on his Skyhawk Mission Record Card.

If any US support unit aircraft remain in US Support Units box, place them according to the Support Attacks box rules. (See 5.4). Resolve these attacks first following the procedures outlined in section 5.4.1 thru 5.4.3. Once US support fire is resolved or if no US Support aircraft remain in the NV defense boxes, the NV defense boxes in the "Support Attacks" box attack your Skyhawk using Table 12. There must be "undamaged" or "suppressed" NV defense boxes available to fire. "Knocked Out" and "Disengaged" NV defense boxes may not fire. Mark any damage to the Skyhawk. Resolve these attacks just as was done against the Skyhawk in the Support Attacks box.

If the NV MiGs defense box is undamaged or suppressed and *No* support unit aircraft is attacking the NV MiGs defense box, move the MiGs counter along with the Skyhawk into the Target Approach Box on the Map (see 5.4.2).

6.2. Target Attack Box

Once combat in the Target Approach Box has been completed, the player then moves his Skyhawk into the Target Attack Box along with the MiGs counter if the NV MiGs defense box is not "disengaged" or being attacked by a US Support Unit aircraft.

If any US support unit aircraft remain in US Support Units box, place them according to the Support Attacks box rules. (See 5.4). Resolve these support unit attacks first following the procedures outlined in section 5.4.1 through 5.4.3. Once support fire is resolved or if no US Support aircraft remain in the NV defense boxes, the NV defense boxes in the "Support Attacks" box attack your Skyhawk in the Target Attack Box on the Map. There must be "undamaged" or "suppressed" NV defense boxes available to fire. "Knocked Out" and "Disengaged" NV defense boxes may not fire. Mark any damage to the Skyhawk. Resolve these attacks just as was done in the Support Attacks and the Target Approach boxes.

NOTE: If the Skyhawk's bombing mission from the JCS-94 Target Listing is "SAM Suppression" conduct the Target Attacks box SAM site's fire on the Skyhawk now (see 6.2.3).

The Skyhawk is now ready to attack the Target. The Skyhawk makes its attack first. Use the US Attack Tables for the weapon(s) it is firing, dropping, or using against the target in the Target Attacks box. (Tables 15.1 thru 15.12)

Determining On/Off Target results:

IMPORTANT NOTE: The player only rolls _ONCE_ on US Attack Tables (Tables 15.1 thru 15.12) for _EACH_ attack run it makes over the target to determine if the ordnance dropped or used is on or off target.

Example: The Skyhawk may drop multiple bombs on a single attack run but rolls only once on the attack table.

Once the attack phase is complete, the player moves the Skyhawk counter to the Target Exit Box.

6.2.1 Dropping Ordnance on the Target

Determining Percentage of Damage on Table 16:

IMPORTANT NOTE: The player only rolls _ONCE_ on Table 16 - "US Attack Tables Percentage/Points" for _EACH_ attack run it makes over the target to determine the percentage of damage and Victory Points for the attack run.

Example: Just like rolling once on tables 15.1 thru 15.12 for each attack run, roll only once on table 16 to determine percentage and points for each attack run.

For gaming purposes, all bombs and ordnance pods carried on one wing must also carried on the other wing (See 3.3).

Snake Eye bombs in _standard_ mode/weight are dropped in a separate single attack run. Snake Eye bombs in _drag_ mode/weight are dropped in a separate single attack run. (Snake Eye bombs in drag mode can only be dropped from low altitude.

When dropping a 3-bomb MER cluster add a +1 DRM on Table 16 for _each_ 3-bomb MER Cluster dropped. (Dropping the 3-bomb MER cluster means more bombs are dropped on the target and damage is greater). If 3-bomb MER rack clusters are carried on the Center Line Pylon, they must be dropped at the same time as the wing mounted 3-bomb MER rack clusters.

All single bombs of the same weight and type being carried on each wing must be dropped from each wing on the same attack run. There is no DRM for this on Table 16.

If a single bomb of the same weight and type is being carried on the Center Line Pylon it must also be dropped on the same attack run as the wing mounted bombs. It is possible to drop five single bombs (one single bomb of the same weight and type mounted on each of the Skyhawk's 5 pylons). If the Skyhawk drops five single bombs in the same attack run add a +1 DRM on the roll on Table 16.

All rocket pods of the same type (LAU-3/A or LAU-10) on both wings are fired in a single attack run.

If a pylon is destroyed on one wing leaving the same type of ordnance only on the other wing, then a -1 die roll modifier is added to the die roll on Table 16.

Example: A 3-bomb MER rack with three (3) 500lb bombs is carried on the LI and RI pylons. The LI pylon is hit and checked off, and the 3-bomb MER counter is removed from below it on the Skyhawk Ordnance Card. When the remaining 3-bomb MER rack drops its 3-bomb load in an attack run, a -1 die roll modifier applies to the roll on Table 16 because the bombs on the LI pylon are considered unavailable to drop.

There is no penalty if the centerline (CL) pylon is hit.

Only one AGM-45 or AGM-12B or C is fired in a _single attack run_. The AGM-45 Shrike and the AGM-12B/C Missiles are fired individually and if the player has one on each wing it requires two separate attacks to fire them both.

Only one mine can be dropped in a single attack run, and the Skyhawk must be at low altitude.

The player can make two attack runs with his 20MM cannons, using two ammo boxes each time. (One box for each wing cannon fired). If one cannon has been damaged the Skyhawk can make up to two attack runs firing only one cannon. There is a -1 die roll modifier for firing only one cannon on an attack run on Table 16. The Skyhawk can only strafe the Target from Low Altitude and only if he has the ammunition to do so.

The player may continue to make attacks run on the target as long as he has enough munitions to do so.

An Example: Let's assume the player has two 500 pound bombs, and two LAU 3/A Rocket launchers. On his first attack run he drops his two 500lb bombs. On the second attack run he fires his two LAU-3/A rocket pods, and on his third and fourth attack run he fires his 20MM cannons.

Each attack run requires the Skyhawk to traverse the Target Approach, Target Attack and Target Exit boxes.

Various types of ordnance are more effective against certain target types and less effective against others. This is reflected in the rules with positive and negative die roll modifiers. These modifiers are listed in Table 5 - Munitions Guide.

The player uses the modifiers from Table 5 when resolving damage rolls on Table 16 - US Attack Tables Percentage/Points.

Example: Snake Eye bombs in drag mode were very effective in "cratering" Airfields, while 1000 and 2000 lb. bombs are not as effective (one big hole vs several smaller holes). One big hole is easier to repair and to avoid by aircraft while taking off and landing.

The player decides which ordnance type to drop/use for each attack. Each munitions type has its own attack table and can be found using Tables 15.1 – 15.12. Roll 1D10 (0=zero) and cross-reference the die result under the result column.

Once the result is known (either On Target or Off target), consult Table 16 to determine the percentage of damage as well as points earned for the attack. Note the Percentage and Points on your Skyhawk Mission Card.

6.2.2 Scoring Target Damage Results

The Skyhawk can make multiple attack runs on the target while firing or dropping different ordnance on each attack run. The Skyhawk will receive a percentage value from Table 16 of the damage done to the target for each attack run.

Two scores will be calculated. The first score is a percentage value to tell the player what percentage of damage the target sustained in the attack. It is calculated as follows:

The player records the percentage of damage for each run in the notes section of the Skyhawk Mission Record Card. After the completion of the last attack run the player totals the percentages for the overall percent of damage to the target. Any result that totals over 100% is rounded down to 100% and the target is considered totally destroyed.

The second score is a point total. After the completion of the last attack run the player totals the percentages for the overall percent of damage to the target as above. (The player _DOES NOT_ round the result down to 100% but instead keeps the full total value). Each percentage point of value (1%) equals one victory point (VP) for scoring purposes.

Example: The Skyhawk makes four attack runs on the target. It drops two 500lb bombs on the first attack run scoring 55%. On the second attack run it fires 2 LAU-3/A rocket pods, scoring 45%. The Skyhawk then makes two strafing runs with its 20mm cannon, scoring 5% on one attack run and 30% on the other. The percentages total 135%. Rounding down to 100%, the player destroyed the target with 100% damage.

For the victory point total, the player receives 135 points (The percentage value is NOT rounded down). Both the percentage and the point values are recorded on the Skyhawk Mission Record Card.

When making multiple attack runs while dropping different munitions, add the results together. This figure is the total percentage and points earned for the mission.

6.2.3 Special Mission Types - SAM Suppression

In the Gazetteer Target Listing, there are missions listed as SAM Suppression for the Skyhawk. These missions assume that the player's Skyhawk has been tasked with performing an "Iron Hand" SAM suppression mission. The "Iron Hand" mission is normally a Support Mission, but since the Skyhawk is tasked with it as the player's primary mission, it is carried out differently.

To start, the player places the SAM target counter in the Target Attack box.

The Skyhawk is NOT part of the US support unit Aircraft. The US Support Unit Aircraft are placed and perform their attacks _exactly_ as they normally do in the Support Attacks box, including the attack on the NV SAM defense box by US support aircraft and the return fire phase by the NV SAM defense box.

All of the NV defense boxes in the Support Attacks box fire on the Skyhawk _exactly_ as they normally would in any other mission. This includes the NV SAM defense box.

The differences between the normal Target Attack sequence for the Skyhawk and this "Iron Hand" mission are:

1) The Target SAM site in the Target Attack box gets to fire at the Skyhawk in each box as the Skyhawk flies the normal target attack route sequence. The Target Attack box SAM site gets to fire at the Skyhawk in Target Approach, Target Attacks, and Target Exit boxes, but NOT in the Support Attacks box.

2) Before the Skyhawk enters the Target Approach box, the player will make a separate Radar On/Off determination roll for the radar controlling this SAM site in the Target Attack box. This roll is made once for each attack run thru the Target Approach, Target Attack and Target Exit boxes made by the Skyhawk. If the Skyhawk re-attacks the SAM site, the Radar On/Off roll will be made again before the Skyhawk enters the Target Approach box for the second (and any subsequent) attack runs.

This Special Mission Radar "On/Off" roll is made on Table 13. The Radar On/Off Determination Column is used to determine if the SAM site's Firing Radar is on or off. Place either a "Radar On" or "Off" marker (depending on above roll) in the Target Attacks box next to the SAM counter on the map as a reminder for upcoming attack rounds.

If the radar is OFF and the SAM site is firing manually, roll a second time on Table 13 (Radar OFF - SAM Manually Firing Column) for all attacks on the Skyhawk until another radar determination roll is called for.

If the radar is On use the "Radar On" column with the appropriate altitude.

NOTE: The radar On/Off roll for the US support units attacking the NV SAM defense box in the support unit attack phase has _no bearing_ on this attack or on this Radar On/Off roll. They are different radars, and they can be on or off independent of each other.

The Target Attacks box SAM site <u>CAN</u> fire at the Skyhawk when the Skyhawk is flying at LOW ALTITUDE.

NOTE: This is an exception to the rule that SAM's may not fire on the Skyhawk at low altitude in the Support Attacks section rules. The NV SAM defense box _still_ <u>CANNOT</u> fire on the Skyhawk AT LOW ALTITUDE when it fires at the Skyhawk in its Support Attack fire phase. The NV SAM defense box still can only fire at the Skyhawk if the Skyhawk is flying in the Medium or High Altitude levels.

The reason for this exception is that the Skyhawk is directly engaging the Target Attacks box SAM site and it is very close to the SAM site making it easier for the SAM site to engage at any altitude.

When the skyhawk is flying at LOW altitude in the Target Approach, Target Attack and Target Exit boxes, the Target box SAM site <u>**CAN**</u> fire at the Skyhawk. Roll on Table 13 (Low Altitude Attack Column) for these low altitude attacks.

Use the Medium and High Altitude columns on Table 13 if the Skyhawk is attacking the target box SAM site from Medium or High Altitude.

In these "Iron Hand" missions, the Skyhawk performs normally from Carrier Launch thru the Support Attack boxes.

When the Skyhawk enters the Target Approach box after checking the SAM site's radar status the Skyhawk receives any fire from the SAM site located in the Target Attack box (The Skyhawk _also_ receives any fire from the NV defense boxes in the Support Attack box as normal)

The Skyhawk then moves into the Target Attacks box and makes its attack _first._ Use the US Attack Tables for the weapons it is firing, dropping or using against the SAM site in the Target Attacks box. (Tables 15.1 thru 15.12) The Skyhawk can re-attack just as outlined in the rules for attacks on other targets.

If the Skyhawk is attacking a SAM site as its primary target and the SAM site's radar is "Off", any AGM-45 fired by the Skyhawk will automatically Miss the target.

The Target box SAM site fires _after_ the Skyhawk attacks and uses the "SAM" low, medium or high altitude Columns on Table 13 to fire on the attacking Skyhawk.

The Target Attack box SAM site fires on the Skyhawk each time the Skyhawk enters the Target Approach, the Target Attack and the Target Exit boxes.

If the ECM box is occupied by US ECM support aircraft when the Skyhawk attacks the SAM site in the Target Attack box, apply a -1 die roll modifier on Table 13 if Radar is "On" when the Target Attack box SAM site fires on the Skyhawk. This is all the player gets even if there are two US ECM support unit aircraft in the ECM Box.

When the SAM site receives 30% damage from the Skyhawk's attacks on Table 16 the SAM site is suppressed. Place a "Suppressed" marker on it.

There is now a -1 die roll modifier when the SAM site fires on the Skyhawk at all altitude levels. When the damage percentage reaches 100% the SAM site is "Knocked Out" and can no longer fire at the Skyhawk when it attacks. This may take several re-attack runs for the player to accomplish.

The player can use any ordnance type approved for use on Table 5 against SAM type targets in the Target Attack box.

If the SAM site is "Suppressed" the radar is offline (Do NOT make a radar On/Off check roll) and the SAM site can only fire manually. (Use the SAM site firing manually column on Table 13).

To determine Target Attack Box SAM site's destruction, the Skyhawk uses the normal attack procedures outlined in Rules 6.2.1 & 6.2.2.

6.2.4 Special Mission Types - Minelaying

The M-36 aerial mine is used for Minelaying missions. The Skyhawk drops the mines in rivers, harbors, and other waterways. Use the Blue portion of the Support Attack, Target Approach, Target Attack and Target Exit boxes to simulate over-water missions. During game set up place the "Water/Mine" target counter in the blue portion of the Target Attack box.

Each Pylon on the Skyhawk can carry one 500lb M-36 mine. Each mine carried is dropped individually during a single attack run. The Skyhawk must be at low altitude to drop a mine.

The player rolls for each mine dropped on Table 15.9 to determine if the mine is on or off target.

The player then rolls on Table 16 under the appropriate On/Off Target column to determine the number of points earned for each mine.

Determine the points earned for each mine attack run per the rules in section 6.2.2. Total the points for each attack run and that value gives the total points earned for the mission. Disregard any calculation for percentage of damage to the target.

During minelaying missions NV Defense Boxes use the same attack procedures against the Skyhawk as outlined in Rules 6.2.1 & 6.2.2.

The NV SA Defense Boxes fire against the Skyhawk when laying mines for the following two Minelaying mission targets because they are inland waterways and rivers: Quang Khe and Ben Thuy.

For any other minelaying mission targets, it is assumed the mines are being laid beyond the range of NV SA Defense Box fires.

6.3 Target Exit Box

The player determines what altitude he is going to fly at in the Target Exit Box and places the correct altitude marker on his Skyhawk Mission Record Card.

If any US support unit aircraft remain in US Support Units box, place them according to the Support Attacks box rules. (See 5.4). Resolve these attacks first following the procedures outlined in section 5.4.1 thru 5.4.3. Once US support fire is resolved or if no US Support aircraft remain in the NV defense boxes, the NV defense boxes in the "Support Attacks" box attack your Skyhawk using Table 12.

There must be "undamaged" or "suppressed" NV defense boxes available to fire. "Knocked Out" and "Disengaged" NV defense boxes may not fire. Mark any damage to the Skyhawk. Resolve these attacks just as was done in the Support Attacks box, the Target Approach box and the Target Attacks box.

If the Skyhawk's bombing mission from the JCS-94 Target Listing is "SAM Suppression" conduct the Target SAM sites fire on the Skyhawk now if it is still able to fire. (See 6.2.3)

Once all of the NV attacks on the Skyhawk have been resolved, the player may either move his aircraft to the Target Re-Attack Box or the Outbound to Carrier Box.

After the completion of the Migs attack in the Target Exit box, move the MiGs counter back to the Target Approach box if the player decides to re-attack the target. The Migs will reengage the Skyhawk in the Target Approach box along with the other NV defense boxes if the player decides to re-attack.

If the player decides not to re-attack, then remove the Migs as there will be no further MiG attacks from the NV MiGs defense box.

If the player decides to move to the Outbound to Carrier Box before he has expended all his munitions, he ejects all remaining external ordnance the aircraft may be carrying. This is done by removing all remaining ordnance on the Skyhawk Ordnance Card.

If moving to the Outbound to Carrier box, US Support units are removed from the map.

6.3.1 Target Re-Attack Box

If the player moves to the Target Re-Attack Box, he must first conduct a fuel check (See 5.3.1 and Table 7).

Once the fuel check is completed (Fuel is OK), the player rolls on Table 14, the Target Re-Attack Random Results Table and apply the results. Once complete, he moves his Skyhawk to the Target Approach Box, repeating sections 5.4 through 6.3 for each re-attack.

If the player's Skyhawk decides to attack the MiGs as a result of a Random Event Result on Table 14, the Skyhawk ejects any remaining ordnance before rolling the die for the attack. The ejection is automatic – no roll is necessary. Once combat with the MiG is complete, he moves directly to the Outbound to Carrier Box. (See Notes C on Table 14).

6.4 Outbound to Carrier Box

Upon entering the Outbound to Carrier Box, the player determines the Skyhawk's altitude and makes a fuel check (See 5.3.1).

If either Table 7 or Table 9 notes directed the player to "Move the Skyhawk directly to the Transit to Carrier box and complete the sequence of play from that point to landing on the carrier" the player will move the Skyhawk directly to the Transit to Carrier box and complete the remaining trip to the carrier as normal.

Once complete, the player moves to the Transit to Carrier Box providing he did not have to ditch or bail out.

6.5 Transit to Carrier Box

Select an altitude for the Skyhawk.

If the Skyhawk is entering the Transit to Carrier Box because it cannot receive aerial refueling then the Skyhawk is trying to make it back to the carrier with what fuel remains in its internal tanks.

If the Skyhawk cannot receive aerial refueling, then the player will make a "Fuel Check" roll in this box and in the Carrier Approach box. Do not roll on Table 7, instead use the procedure below.

The player will determine his fuel state in this box and the Carrier Approach box by rolling 1D10 in each box.

On a result of:

- **0 to 2** the Skyhawk "flames out" from lack of fuel. The pilot bails out (See Rule 12).
- **3 to 9** the Skyhawk has sufficient fuel to enter the next box.

Apply the following Die Roll Modifiers (cumulative):

- **+1** If the pilot is Veteran
- **-1** If the pilot is Green
- **-1** If both Fuel Sub-system boxes are checked off (**-1** if using Optional Rule 15.4, and one box is checked off).

Next, the player rolls on Table 17 to determine if a Random Event Occurs. If no event occurs, move to the Carrier Approach Box.

If an Event does occur, follow the instructions for the event that was rolled. If the aircraft does not crash, proceed to the Carrier Approach Box.

6.6 Carrier Approach Box

Determine the Skyhawk's altitude. Upon entering the box, the player makes his last fuel check. Make the fuel check normally if the Skyhawk can receive aerial refueling.

If the Skyhawk **cannot** receive aerial refueling, the player will ignore the Table 7 "Fuel Check" roll normally made in the Carrier Approach box. Instead, the player will conduct a 1D10 "fuel state" die roll. On a result of:

- **0 to 2** the Skyhawk "flames out" from lack of fuel. The pilot bails out (See Rule 12).
- **3 to 9** the Skyhawk has sufficient fuel to enter the trap box.

Apply the following Die Roll Modifiers (cumulative):

- **+1** If the pilot is Veteran
- **-1** If the pilot is Green
- **-1** If both Fuel Sub-system boxes are checked off (**-1** if using Optional Rule 15.4, and one box is checked off).

If the Skyhawk has any external ordnance remaining, it must be ejected. There is no roll to do this, it is automatic. External fuel tanks are not ejected.

Upon successful completion of the fuel check or the "fuel state" die roll the player moves his Skyhawk counter to the trap box on the carrier.

7.0 Landing

Before the landing attempt, adjust the Skyhawk's altitude. To land on the carrier, the player must be at low altitude. Place the Skyhawk counter in the Trap Box on the carrier.

Once in the Trap Box, the player attempts to make the landing by rolling 2D10 on Table 18 – Landing. (Apply any die roll modifiers listed for the table. Die Roll modifiers are cumulative.)

If the landing roll on Table 18 is "Landing Mishap" then follow the directions in Note A below Table 18.

If the result is "Wave Off", follow the direction in Note B below Table 18.

In the Single Mission Game, if the landing is successful or if the pilot survives a bad landing, place the Skyhawk marker on the recovery box located on the carrier. This ends the mission. The player completes the post-mission scoring and determines a winner. (See Rule 8.0)

In the Campaign Game, if the landing is successful or if the pilot survives a bad landing, place the Skyhawk marker on the recovery box located on the carrier. The player completes the post-mission record keeping and prepares for the next day's mission. (see Rule 14.0)

In the Squadron Game, if the landing is successful or if the pilot survives a bad landing, place the Skyhawk marker on the recovery box located on the carrier. Next complete the landing sequence for each of "the other 3 aircraft" flying with your 4-plane Division on this mission. If the player has more than one 4-plane division on the mission, make the landing rolls for each Skyhawk in each division until all have landed. The player completes the post-mission record keeping and prepares for the next day's mission if the player is playing the 4-plane Division Game as part of a campaign game (see Rule 15.0).

8.0 Determining a Single Mission Winner

For a single mission, the North Vietnamese win if your aircraft is lost for any reason and the pilot is either killed or becomes a POW.

The player wins by satisfying these three requirements:

1. The pilot survived the mission and returns to the carrier.

2. The target was successfully bombed. (An "On" or "Off" Target" percentage die roll result (Table 16) was made on the target in the Target Attacks box that is GREATER THAN ZERO).

3. The Skyhawk lands on the carrier. (The player makes a "Successful" roll on Table 18)

Any other result is a Draw.

To determine individual Mission Point Totals for target damage see 6.2.2.

To determine a winner for a campaign, see 14.0.1.

9.0 The "Tonkin Gulf Yacht Club"

Much like naval traditions of line-crossing ceremonies and plank owner certificates, the "**Tonkin Gulf Yacht Club**" commemorated a sailor's or airman's participation in the Air War over North Vietnam.

To be a member you had to have been assigned to a 7th Fleet ship that served on "Yankee Station" in the Gulf of Tonkin. Although unofficial, the term became popular enough to be found in a declassified 1966 command history of the USS Enterprise, one of the vessels of Seventh Fleet. While not official, the Gulf of Tonkin Yacht Club patch has been observed on many pilot and aircrew flight suits and the patch and certificate now hangs proudly on the wall of many naval service veterans.

After the first mission over the North, the player can add the Tonkin Gulf Yacht Club counter to the Pilot's Award Card.

10.0 Individual Medal Awards
- Single Mission Game

Medal awards for the player are determined once the player has completed the mission and is back on the carrier.

The Purple Heart is awarded to the player's pilot if the pilot was wounded or killed during a mission.

The Player is awarded a "Silver Star" medal if he manages to shoot down a MiG fighter. This was an automatic award to any pilot shooting down a MiG in any branch of the military. This is separate from any other award of the Silver Star for Bravery and requires no approval roll on Table 22.

For the Bronze Star (BS) and Distinguished Flying Cross (DFC) medals, roll on Table 22 to determine if an award is authorized.

- North Vietnamese Victory – no roll
- Draw - roll once
- US Victory - roll twice

Note: The pilot can only receive a specific medal once per mission. Any duplicate award is considered to not be approved.

If the player meets the victory criteria above, he then determines the point total for their Skyhawk's attack runs that were ON TARGET. (See Rule 8 and Rule 6.2.2) This can total more than 100 points. Next select the appropriate column on Table 22 and roll 1D10 and cross index to determine the results. Roll as many times as called for in the criteria above.

11.0 Individual Medal Awards
    - Campaign Game

Medal Awards for the player are determined once the player has completed the campaign and is back on board the carrier after the last mission with the following exceptions:

The Purple Heart is awarded to the player's pilot If the pilot was wounded or killed during a mission. Make the award at the end of the mission the award was earned in. The pilot may earn more than one Purple Heart but only one per mission.

After the completion of ten (10) missions, the player is awarded the Air Medal. He may be awarded more than one but must complete 10 missions for each one earned. The player receives the award at the end of the mission it was earned in.

The Player is awarded a "Silver Star" medal if he manages to shoot down a MiG fighter. This was an automatic award to any pilot shooting down a MiG in any branch of the military. This is separate from any other award of the Silver Star for Bravery and requires no approval roll on Table 22. Make the award at the end of the mission the medal was earned in.

For other individual medal awards, roll on Table 22.1 or Table 22.2 at the end of the campaign being played to determine if an award is authorized.

If the player is playing Campaign Game 1, the player rolls on Table 22.1 to determine any awards.

If the player is playing Campaign Game 2 or Campaign Game 3, the player rolls on Table 22.2 to determine any awards.

Use the point total earned for the campaign you are playing to determine the correct point total column to use on the table. Roll 1D10 and cross index the die roll with the correct point total column to see if any medal award is received by the pilot.

Only one Medal of Honor was awarded to a Navy Pilot during the Vietnam War. To be awarded the MoH the player must have scored more than 450 points in Campaign Game 1 or more than 1000 points in Campaign Games 2 and 3. If the player scores less than these totals the award reverts to a Navy Cross.

In the campaign games, if a medal is authorized, place the medal marker that matches the one authorized on the appropriate space on the player's Award Card.

Medals may be earned more than once during the Campaign Games, subject to the "Once per mission" limit. Exception: The Medal of Honor may only be awarded once per Campaign. If the MoH is rolled after the player has earned his first MoH, the result is a Navy Cross.

Individual medals have no effect on game play, but you do earn bragging rights!

11.1 Unit Awards – Campaign Mission Game

At the conclusion of a campaign, the player determines if his unit earns a Unit Medal Award by rolling 1D10 on Table 23. No Rolls are made if the player lost the Campaign Game.

A unit award earned has no effect on game play.

Unit awards are not determined if the player is playing a single mission game.

12.0 Bailing Out

If the player must bail out of his aircraft, he first places his pilot maker in either the Search and Rescue Bail Out Over Land or Water Box depending on where the aircraft was located on the map when the bailout was initiated (land or water). He then rolls on Table 20 to determine if he does so successfully. If it is successful, he then rolls on Table 21 to see if he is rescued. Use the land column if bail out was over land, and the water column if bail out was over water.

When a pilot is successfully rescued either from bailing out or ditching, he is brought back to his carrier and is ready for the next mission if playing a campaign game.

13.0 Ditching

If the player must ditch his aircraft, he first places his aircraft marker in the Search and Rescue Ditch Box on the map. Next, he rolls on Table 19 to determine if he does so successfully. If the roll is successful, he then rolls on Table 21 using the water column to determine if he is rescued.

When a pilot is successfully rescued either from bailing out or ditching, he is brought back to his carrier and is ready for the next mission if playing a campaign game.

14.0 Campaigns

The Campaign games are a series of single missions flown individually by the player over a specified period of time. The time period is the number of days the USS Franklin D. Roosevelt was assigned to Yankee Station off the coast of North Vietnam.

The FDR conducted flight operations on Yankee Station from 10 August 1966 to 10 September 1966 (Campaign #1 - (See Rule 14.2)) and from 20 October 1966 to 27 December 1966 (Campaign #2 (See Rule 14.3)). The FDR conducted replenishment and R&R in Hong Kong from 11 Sep 1966 to 19 Oct 1966. This was FDR's and VA-72's full tour of duty (10 Aug 1966 to 27 Dec 1966) for this "cruise". (Campaign #3 (See Rule 14.4))

Navy Attack Squadron VA-72 is assigned to the USS Franklin D. Roosevelt for this "Cruise" or tour of duty. Each pilot in the squadron will rotate through the squadron's flight schedule.

VA-72 has 24 pilots assigned. For game purposes, assume that 12 aircraft per day are assigned to strike missions. With 24 pilots assigned to the rotation, at the maximum, the player's pilot <u>can only fly every other day</u> in the campaign games. This gives a campaign length of 16 missions for the first campaign game (also See Optional Pilot Rotation Rule 14.0.3).

Example: Campaign #1 has 31 days on station. Flying every other day, the maximum number of missions the player's pilot can fly in Campaign number 1 is 16 missions if the player starts flying on 10 August 1966. So, the campaign game length is 16 Missions.

14.0.1. How to Win the Campaign Games

The winner of the campaign game is determined by a point total. Each percentage point of damage earned on each individual mission from Table 16 equals 1 victory point for the US player.

The point total earned for each mission is added together for all the individual missions flown in the campaign and this grand total is used to determine the winner of the campaign game. (See Rule 6.2.2)

Each of the three campaigns has its own victory point table to determine a winner. (See each individual campaign for specific table details.)

At the conclusion of the last mission of the campaign, total the number of points earned in the campaign. Cross reference that total on the "Campaign Victor" table for the campaign you are playing (Tables 24, 24.1 or 25).

The specific table to use is listed in the campaign game details below. This will reveal the player's level of victory for the campaign. You can win the majority of the missions but still lose the campaign. Think of it as winning the battle but losing the war.

For each individual mission flown in any of the campaign games, determine a mission winner per Rules Section 8.0. Note the winner of the mission and the percentage of "On" and "Off" Target bombing results from Table 16 for each mission on the Campaign Record Sheet.

14.0.2 (Optional Rule) - Skyhawk Repairs

This rule will increase the recording difficulty of the game, but for those "grognard" gamers who want a more realistic game experience use this Skyhawk repair rule to keep your Skyhawks flying. Damaged Skyhawks have to be repaired so they can go back into the rotation for the player's flying schedule, just as the pilots are rotated in the flying schedule. (See Rule 14.0.3 for pilot rotation.)

The repair department aboard a US Navy Carrier is organized so that damaged aircraft rotate through different repair stations, with each repair station responsible for a different type of repair work. Example: The electronics station only repairs faulty or damaged electronics, while the engine station repairs jet engine damage, etc. There is no single ground crew that is responsible for making all repairs on an individual Skyhawk.

For game purposes, the experience level of the individual repair staff, along with their supervisors and the workload (How many Skyhawks need some kind of service or repair) determine how much damage can be repaired between missions.

There are three skill levels for the Maintenance Personnel aboard the carrier. Each skill level (1, 2 or 3) has a counter. Skill Level 1 equates to an inexperienced or "Green" crew, while Skill Level 2 is "Average" and Skill Level 3 is a well-trained "Veteran" crew. (This Skill Level is a modifier on Table 8.)

Roll 1D10 on Table 1.2 to determine the Maintenance Personnel's skill level. Place the Correct Skill Level Counter in the "Maintenance Skill Level" box next to the repair track on the Map.

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In the Campaign Game Maintenance Personnel gain experience as daily mission repairs are made. At the conclusion of every fifth calendar day, roll once on Table 1.3 to see if the Maintenance Personnel advance their skill level. If the roll is "Successful", change the Maintenance Personnel experience level counter to the next skill level on the Map Board. If the roll is "Unsuccessful" then the Maintenance Personnel keep their same skill level they had. When the Maintenance crew reaches Veteran level discontinue making skill advancement rolls.

The Map Board Repair Track has boxes labeled "Ready Now", "Ready in 1 Day" and "Ready in 2 Days."

There are 16 "single Skyhawk" counters with a number from 1 to 16 that are used in the game. On the first mission day place all of the Skyhawk counters in the "Ready Now" box.

Now, roll once for the mission day's "pilot and Skyhawks" need for the Squadron on Table 27. (This will be 4, 8, 12 or 16 pilots and Skyhawks)

Next the player decides how many Skyhawks will accompany him on his mission today. This is strictly a player choice. The number has to be in 4-plane divisions (4, 8, 12, 16). Example of play: Let's assume the player has decided to use one "4-Plane Division" on today's mission. It will include the player's Skyhawk and the "Other 3 Skyhawks" as explained in Rule 15.1.

Assume the player has completed all the other mission preparation for the game. Now, the player will remove Skyhawk counters number 1-4 from the "Ready Now" box and place them on the carrier. Leave the other 12 Skyhawk counters in the "Ready Now" box as they will not be used in this Campaign Mission Day. (The player can substitute the four single Skyhawk counters for the "4-plane" Skyhawk counter if he so chooses.)

NOTE: At this point if there were Skyhawks occupying the "Ready in 1 Day" or the "Ready in 2 Day" boxes, move them to the next lower repair day box. "Ready in 1Day" Skyhawks would move to the "Ready Now" box and the Ready in 2 Days" Skyhawks would move to the "Ready in 1 Day" box.

Next, the player completes the mission with his 4-plane division. Assume some of the returning Skyhawks have battle damage. For each Skyhawk (including the player's) that returns to the carrier with battle damage, roll once on Table 8 to determine how long that damaged Skyhawk will be "down for repairs".

Place the "damaged" Skyhawk counter with the correct number (1 to 16) on the Repair Track box that corresponds with the Table 8 die roll result. Do this for all of the Skyhawks that flew on the mission.

Skyhawks that have a Landing Mishap from Table 18 may add to their repair days for combat battle damage rolled on Table 8.

NOTE: The maximum number of repair days for _ANY_ Skyhawk with **both** landing and battle damage is 2 days.

NOTE: It is assumed that the 12 Skyhawks that did not accompany the player on his mission flew in some other mission(s) assigned to the Player's Squadron. Some of these Skyhawks would have returned with battled damage but we are not playing them. Their battle damage repairs are represented by Die Roll Modifiers on Table 8 that will increase the workload for the maintenance Personnel and create longer repair times. Daily flight operations can be canceled for lack of aircraft. Simply advance the calendar until enough Skyhawks have been repaired to start flight operations again.

14.0.3 (Optional Rule) - Rotation Scheduling

This rule will increase the recording difficulty of the game, but for those "grognard" gamers who want a more realistic flight schedule for their pilot use this rotation scheduling rule.

Rather than assuming that VA-72 will assign 12 pilots to fly missions each day and the player's pilot will fly every other day, use the Skyhawk Pilot Roster as your flight scheduling tool. Assign your pilot, along with 23 other named pilots that the player creates to the Squadron's Skyhawk Pilot Roster. This will be the flying rotation for mission assignments each campaign game day.

For each day that combat missions will be flown in the Campaign game, the player rolls 1D10 on Table 27, (or uses the result already obtained if using Rule 14.0.2 Skyhawk repairs die roll on Table 27 for this campaign game day). The result will be the number of pilots and Skyhawks needed for the missions assigned to your Squadron on this campaign day. Results range from a minimum of 4 to a maximum of 16 pilots and Skyhawks.

Start with the first pilot on the list and work down the Skyhawk Pilot Roster assigning pilots to fill the number of pilots needed for that day. On the next campaign game day, roll again to determine the number of pilots needed to fill the needs for this new day.

Start with the next pilot that did not fly on the previous day's assignments and begin assigning them. When the player reaches the end of the list (pilot 24) move back to the top of the Skyhawk Pilot Roster list and continue down it until all the pilot assignments are filled for the day. Continue this process for each day of the campaign that calls for missions to be flown.

As pilots are wounded or lost remove them from the roster. A wounded pilot that is unable to fly for a mission or two to recover from his wounds is added back into the roster after he has recovered. If the player is playing campaign 3, at the replenishment break between Campaign 1 and Campaign 2 the squadron will receive replacement pilots to fill the roster back to 24 pilots. Roll for the new pilot's skills just as you would if starting a new game. (See 3.2 and 14.1.1)

If, through Skyhawk losses, the player does not have enough Skyhawks remaining in the Squadron to fly the daily missions called for by the roll on Table 27. Reduce the number of missions rolled to the number of Skyhawks on hand. Skyhawks are replaced during the replenishment cycle just as pilots are.

Example: The player assigns his pilot as number 1 on the Skyhawk Pilot Roster. Pilot assignments start on the first day of the campaign. The player rolls for 16 pilots and Skyhawks needed to fill the mission requirements for the squadron. The player assigns the first 16 pilots to fly them. Pilot 3 is lost on the mission. On day 2 of the campaign the player rolls for 12 pilot and Skyhawk assignments needed to fly today's missions. On Day 2, the player starts with pilot 17 and assigns 12 pilots to fly. The player reaches the bottom of the roster (Pilot 24) but still needs 4 more pilots. The player goes to the top of the roster and assigns pilots 1, 2, 4 and 5 to fill the missions for Day 2 (Pilot 3 was lost on Day 1). On Day 3 the player rolls for 8 pilot assignments to fly that day. The player begins with Pilot 6 and assigns pilots to fill the 8 assignments ending with Pilot 13. Continue this cycle through the remainder of the campaign. Daily flight operations can be canceled for lack of pilots. Simply advance the calendar until enough pilots have recovered from wounds to start flight operations again.

14.0.4 Losing the Player's Pilot in Campaign Games

If the player's pilot is lost, the player may continue playing with another pilot or end the campaign.

Any random event table or combat result that causes the player to lose their Skyhawk is ignored by "the other 3 Skyhawks". (See 15.1)

If the player's Skyhawk is lost, then "the other 3 Skyhawks" move directly to the Transit to Carrier box and complete the remainder of the mission by returning to the carrier.

PLAYER OPTION: If the player loses their "player Skyhawk" due to combat or accident and wants to continue the mission with the "other 3 Skyhawks", they can do that. To resolve combat, determine the number of NV defense boxes that "*could have*" fired upon the player's Skyhawk if it were present and use that number to resolve combats on Table 26 for the "other 3 Skyhawks". Play the remaining "other 3 Skyhawks" per their normal rules. (See 15.1)

14.1 Campaign Game Rules

The following rules apply to all the campaign games. If a rules conflict occurs between the single mission game and the Campaign Game rules, the Campaign Game rules take precedence over the single mission rules.

14.1.1 Determining Pilot's Experience Level

In all three campaign games determine the pilot's experience level by rolling on Table 1, just as it was done for the individual mission game. (Rule 3.2).

The pilot gains experience as missions are flown. At the conclusion of every fifth mission that the player's pilot flies, roll once on Table 1.1 to see if the pilot advances his skill level. If the roll is "Successful", change the pilot's experience level counter to the next skill level on the Skyhawk Mission Record Card. If the roll is "Unsuccessful", then the pilot keeps the same skill level he had. Rolls to advance the pilot's skill level are only made every 5 missions flown. When the pilot reaches Veteran level discontinue making skill advancement rolls. If the pilot is killed or captured and the player continues the campaign with a new pilot, that new pilot's experience level is determined by rolling on Table 1.

Example: The pilot is "Green". On the 5th mission the player rolls to see if the pilot's skill level advances. The roll is successful. Change the skill level counter to "Experienced". On the 10th mission the player rolls again to see if the skill level advances. This time the roll is "Unsuccessful". The pilot's skill level remains at "Experienced". On mission 15 the player again rolls for a skill level advancement. This time the roll is successful. Change the counter to Veteran. The player no longer makes rolls every 5 missions at the veteran level as the pilot has reached the highest skill level.

14.1.2 Government Intrusion and JCS-94 Target List Restrictions

President Johnson wanted to use the Rolling Thunder bombing campaign to "send a political message to Ho Chi Minh to come to the bargaining table". If Ho Chi Minh responded favorably to starting peace talks, then Johnson would stop or reduce bombing of the north. At the same time Anti-war protestors in American were putting their own pressure on President Johnson to stop the bombing. This created considerable change in bombing policy almost weekly with the ebb and flow of political pressure being applied to President Johnson.

To simulate the politics of the bombing campaign, every fourth Calendar Day in the campaign games the player rolls once on Table 28 to see if targets are removed from or added back to the JCS-94 bombing list or if the President calls a bombing halt amid pressure from the Anti-War protestors at home. The player rolls on Table 28 at the beginning of the designated campaign game day before mission planning. Follow the directions found for each event in the notes section for Table 28.

Harbor Mining was a particularly controversial topic among President Johnson's civilian advisors and the military. Johnson vacillated over whether to allow mines to be laid by the Navy in the harbors and rivers around Hanoi and Haiphong. They were afraid that Neutral Countries like China and Russia might have ships sunk and citizens killed from the minelaying which would cause an international incident.

The 500 lb bomb shortage was also a very real problem for the Navy and Secretary of Defense McNamara. The supply of bombs dated back to the Korean War and The Defense Department wanted to use up all the old bombs before ordering new stock. Production of new bombs lagged behind usage of old bombs and created a shortage that did not get solved quickly.

At the start of any of the 3 campaigns, there is no 500lb bomb shortage. The "Bomb Shortage" event must be rolled for on Table 28 (See Note A).

At the start of any of the 3 campaigns, the bombing of "port facilities and mine laying Missions remain _on_ the JCS-94 Mission listing (See Table 28, Note B).

The "Famous Actress and Anti-War Protestor goes to Hanoi ..." event removes all Hanoi Mission Targets to avoid inciting anti-war protestors at home. Remove mission targets listed in Table 28, Note C. They remain off the target list until the next "Government Intrusion roll is made in 4 Campaign Calendar Days. Event may only be rolled once. Disregard if rolled a 2nd time.

The "President Johnson decided to call a one week bombing halt..." event calls for a five day bombing halt. Mark off 5 calendar days beginning with the current date and then restart bombing missions. This event may be rolled multiple times.

If the "No Event" event is rolled then the bombing campaign proceeds normally.

For any event rolled for on the Political Intrusion table, follow the directions in the Table notes.

14.1.3 (Optional Rule) Effects of Wounds on Pilot

If the player's pilot receives one wound (one wound box checked off) during a mission, the pilot is ready to fly the next assigned mission.

NOTE: (Optional Rule - NPC pilots when flying multi-aircraft missions can also receive wounds. Use the same wound procedure for both the player and NPC pilots as listed below. See Rule 15.1)

If the pilot receives two wounds (two wound boxes checked off) roll 1D10. **0-4**, the pilot can fly the next mission; **5-9** the pilot _cannot_ fly the next mission(s). Roll 1D10 again. **0-4,** the pilot misses the next mission. **5-9,** the pilot misses the next two missions. Apply this die roll procedure at the end of the mission, when a pilot returns with wounds. Adjust the pilot rotation schedule and game calendar accordingly.

NOTE: The effect of this rule potentially reduces the length of the campaign game by one or two missions when the pilot is wounded during a mission. This raises the difficulty level for the game as the player may fly fewer missions during the campaign and scoring potential is reduced.

14.1.4 (Optional Rule) – Scoring Lost Skyhawks & Pilots in Campaign Games

When playing any of the campaign games using the 4-plane division rules, subtract 15 points for each Skyhawk lost from any of the 4-plane divisions that were lost on missions from the game point total. Also subtract 10 points for each pilot that is Killed in Action (KIA) or taken prisoner POW.

14.2 Campaign One

All rules are in effect as well as those noted below.

Campaign 1 begins on 10 August and ends on 10 September (the campaign is 31 days long). If the Campaign runs its full course the Player's pilot will fly 16 missions using the "Fly every other day" rule. (Disregard this rule if using the Optional Pilot rotation rule (see Rule 14.0.3).

The player may use any of the munitions available *except* the AGM-12C.

For each mission flown in the campaign, the winner of the mission is determined per rules in Rule Section 8.0. Be sure to include the points earned on the Campaign Record Sheet.

Total all points earned on each mission flown in the campaign and use Table 24 to determine the Campaign Game winner (See 14.0.1)

If the player's pilot is lost, see rule 14.0.4 for options on how to continue if the player chooses to.

Individual medal awards are determined per Rule 11.0. Unit Awards are determined per Rule 11.1.

14.3 Campaign Two

Campaign 2 is played the same way as campaign One, except the start date for the campaign is 20 October and the end date is 27 December.

This campaign is 68 days long and your pilot flies every other day so the Campaign Two Game can be as long as 34 missions. (Disregard this rule if using the Optional Pilot rotation rule. (See 14.0.3)

The AGM-12C now becomes available for use by the player at the start of this campaign.

For each mission flown in the campaign, the mission winner is determined per Rules Section 8.0. Be sure to include the points earned on the Campaign Record Sheet.

Total all points earned on each mission flown in the campaign and use Table 24.1 to determine the Campaign Game winner (See 14.0.1).

If the player's pilot is lost, see rule 14.0.4 for options on how to continue if the player chooses to.

Individual medal awards are determined per Rule 11.0. Unit Awards are determined per Rule 11.1.

14.4 Campaign Three

Campaign 3 combines campaigns 1 and 2 for a full tour of duty on the Roosevelt. From the period of 11 September to 19 October, no missions are flown. The Roosevelt was released from duty at Yankee Station for replenishment. (The Roosevelt and your pilot get R&R in Hong Kong during the replenishment period).

The campaign start date is 10 August and ends on 27 December (unless pilot wounds and/or political events call for a shorter length).

The player plays out Campaign Game 1 and totals his victory points. Record them on the Campaign Record Sheet and determine the winner.

The player then takes the replenishment break and brings his squadron back to full strength in pilots (24) and Skyhawks (16).

Now play the 2nd campaign game to completion. Record the point total for the 2nd campaign game on the Campaign Record Sheet and determine the 2nd campaign game winner. The player then uses Table 25 to determine the Full 3rd Campaign Game winner. Find the row on Table 25 that corresponds to the winner of the 1st campaign and the 2nd campaign. The full 3rd campaign game winner is listed in the Final Victor at the End of Campaign 3 column.

If the player's pilot is lost, see rule 14.0.4 for options on how to continue if the player chooses to.

Individual medal awards are determined per Rule 11.0. Unit Awards are determined per Rule 11.1.

The player checks Individual medals and unit awards at the conclusion of Campaign 1 before going on R&R and then again at the end of Campaign 2 per the rules.

The AGM-12C becomes available for use starting on 20 October.

15.0 Optional Rules

The following Optional Rules add detail to the game as well as increasing the time it takes to play a single mission (15.1 through 15.4.2).

15.1 The 4-Plane Division

This rule will add more difficulty and record keeping to the game.

When playing with a single division or multiple divisions up to four, players may place their Skyhawks, Pilots, and Experience Markers on the provided Divisions/Squadron Assignment Board.

The Player uses all of the Standard Game Rules (Sections 1 thru 14) to resolve all things involving the player's Skyhawk as normal.

The 4-plane Division rules explain how to control "the other 3 Skyhawks" that are flying with the player's Skyhawk in the 4-plane Division. Use the rules laid out below to control the "other 3 Skyhawks" when flying with a 4-plane division.

The 4-plane Division was also called a "Flight". Missions were usually flown by a division comprised of 4 A-4E Skyhawks, in two 2 plane sections. (1st Section & 2nd Section)

The Division Leader, who is also the 1st Section Leader, flies in Position 1. His wingman flies in position 2. The 2nd Section Leader flies in position 3. His wingman flies in position 4.

This is the 4-plane Division Formation:
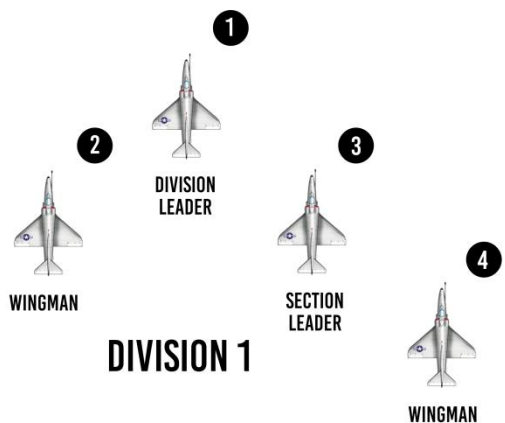
The squadron had in its inventory 16 Skyhawks and 24 pilots. Usually no more than 12 Skyhawks (or three flights of 4) were launched for combat missions each campaign game day.

The player's Skyhawk can fly in any of the 4 positions in the flight the player wishes. The player may pick his Skyhawk's position in the flight to go with any Campaign game story that he is flying, or the player can roll on 1D10: **0-1 =** Position 1 (Flight Leader); **2-4 =** Position 2; **5-6 =** Position 3 (2nd Section Leader); **7-9 =** Position 4.

After determining the player's Skyhawk position in the "flight", the player fills "the other 3 Skyhawks" positions with the next pilots on the flight Duty Roster (Skyhawk Pilots Roster). Enter the pilot's names and experience levels on the Skyhawk Division Work Sheet for each pilot in the flight.

Each of "the other 3 Skyhawks" in the player's flight of 4 Skyhawks will carry the *exact same* ordnance and external fuel tank(s) as the player's Skyhawk. (The player might wish to record the loading of his Skyhawk on the Skyhawk Division Work Sheet).

"The other 3 Skyhawks" will also fly at the same altitude level as the player's Skyhawk in each map box they enter.

Each of "the other 3 Skyhawks" in the "flight of 4" will perform the same sequence of play events as the Player's Skyhawk with certain exceptions:

Any random event table result that causes the player to lose their Skyhawk is ignored by "the other 3 Skyhawks". If the player's Skyhawk is lost, then "the other 3 Skyhawks" move to the Transit to Carrier box and complete the remainder of the mission by returning to the carrier, or the player may continue the mission with the remaining Skyhawks at their discretion. (See Rule 14.0.4 for other options)

"The other 3 Skyhawks" do not make any "Random Event Table" die rolls that are called for by the player's Skyhawk. "The other 3 Skyhawks" just accompany the player's skyhawk as it moves thru the various boxes on the map.

"The other 3 Skyhawks" will launch and land individually. Roll for each of "the other 3 Skyhawks" on the launch and landing tables. Apply any negative results as per the Notes Section under the Table(s).

"The other 3 Skyhawks" will refuel with the player's Skyhawk in the Aerial Refuel box. Roll on Table 9 for *each* of "the other 3 Skyhawks" and apply any adverse results.

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Damage to "the other 3 Skyhawks" in the division, if targeted, is accounted for on the Skyhawk Division Work Sheet. A hit box below the attacked Skyhawk is marked off for each hit any one of "the other 3 Skyhawks" sustains as the mission progresses. Each of "the other 3 Skyhawks" can take six hits before being shot down.

Each time one of "the other 3 Skyhawks" takes a hit, the player rolls 1D10 to determine the pilot's wound status. 1D10: 0 - Hit; 1-9, Pilot OK. Mark off each hit for the pilot on the Division Record Sheet (See Rule 14.1.3).

Anytime the player's Skyhawk is attacked by any of the NV defense boxes (SA, AAA, SAM or Migs) in the Support Attacks, Target Approach, Target Attacks or Target Exit boxes, each of "the other 3 Skyhawks" will individually also receive an attack. The attacks against "the other 3 Skyhawks" are resolved differently than the attack on the Player's Skyhawk.

After resolving the attack on the player's Skyhawk using the standard game rules, record the *number* of NV defense boxes that fired upon the player's Skyhawk.

Example: If the player's Skyhawk received fire from the NV AAA defense box and the NV SAM defense box in the current turn, this would total "2" NV defense boxes that fired.

For *each* of "the other 3 Skyhawks", the player will roll *once* on Table 26 to see if any hits are made.

To do this, the player rolls 1D10 on Table 26 and cross-indexes the roll result with the column containing the number of NV defense boxes that fired on the player's Skyhawk. It the case of our example above this would be column "2". Check off 1 or 2 hit boxes on the specific Skyhawk being fired upon if a hit is called for. Otherwise, the result is a miss, and that Skyhawk receives no damage. If a Skyhawk has all 6 boxes checked, it is shot down. Do this for each one of "the other 3 Skyhawks".

When the non-player Skyhawks attack a SAM Battery in the "Iron Hand" special mission in the Target Attack box, use the attack procedure as outlined above for a regular target. The SAM will roll on Table 26 to resolve the SAM's attack on the non-player Skyhawk. That SAM Battery's attacks on the non-player skyhawk are resolved using the above procedure except that the target site SAM uses the "2" column on Table 26 to resolve the combat.

etermine the fate of any of "the other 3 Skyhawks" pilot's that are shot down by rolling on Table 20 just as you would if the player's Skyhawk were shot down. (See Rules 12 & 13)

When the player's Skyhawk attacks the Target in the Target Attack box on the Map, each of "the other 3 Skyhawks" are assumed to make the same attack run and drop or use the same ordnance as the player's Skyhawk with the following exceptions:

"The other 3 Skyhawks" use the same On/Off Target result that was obtained by the player's Skyhawk. "The other 3 Skyhawks" *all attack together* as a group at the same time.

Only *ROLL ONCE* on Table 26.1 for all of "the other 3 Skyhawks" as a group. This gives their percentage of hits on the Target for "the other 3 Skyhawks".

NOTE: Do NOT add "the other 3 Skyhawks" bombing percentage to the player's bombing percentage. (The player may record their result in the Load Section of the Division Record Sheet if he wants to keep a record of how his division did on bombing the target.)

Now convert the percentage result for the "other 3 Skyhawks" to points. Divide the point result by 2. This gives the number of points earned by "the other 3 Skyhawks".

Add this result to the point total obtained by the player's Skyhawk for its attack on the target. This gives a grand total for the player's Skyhawk and "the other 3 Skyhawks" for the mission.

If the player's Skyhawk makes multiple attack runs on the Target, so do "the other 3 Skyhawks". If multiple attack runs were made by the Player's Skyhawk follow the same procedure for each run just as you would with the player's Skyhawk when determining the player's total points for multiple attacks on the target. (Remember that one percentage point of damage equals one victory point)

For "the other 3 Skyhawks", when rolling on Tables 26 and 26.1, use the modifiers listed in the Table Notes.

To determine the die roll modifier for pilots with different experience levels use Table 26.2 Determining Die Roll Modifiers based on other 3 Skyhawks Pilot Experience Level. (Also See 14.1.1)

If a non-player Skyhawk is lost from the "other 3 Skyhawks" leaving only 2 non-player Skyhawks in the group us the highest level of experience of the 2 remaining pilots to determine the experience level of the group.

15.2 Using Multiple Flights of 4 Aircraft

If the player decides to have more than one flight of 4 aircraft flying against his target use these rules for the 2nd and any subsequent "flights of 4 aircraft".

If the player is flying multiple flights of 4-planes against his target, then complete additional "flights of 4 aircraft" on the Division Record Sheet and assign pilots from the flight roster to fly them just as the player did for his own flight of four Skyhawks.

All additional "flights of 4 aircraft" follow the same rules in Rule Section 15.1 as the Player's Flight of 4 Aircraft with the following exception:

All four aircraft in "the flight of 4" are non-player aircraft. Do not roll for the player's aircraft position.

The "flight of 4 aircraft" uses the *same* On/Off Target result that was obtained by the player's Skyhawk to determine which column to use on Table 26.1.

"The flight of 4 aircraft" *all attack together* as a group at the same time.

Only *ROLL ONCE* on Table 26.1 for all of "the flight of 4 aircraft" as a group for *each* attack run made on the target.

This roll gives their percentage of hits on the Target. Convert the result to points. Divide the point result by 2. This gives the number of points earned by this "flight of 4 aircraft" for this attack run. (Remember that one percentage point of damage equals one victory point).

If the player's Skyhawk made multiple attack runs on the Target, so does this "flight of 4 aircraft". Follow the above procedure to determine the number of points earned on each attack run by the "flight of 4 aircraft". Add all of the points earned on each attack run together to get the total points earned for this "flight of 4 aircraft".

Add this "flight of 4 aircraft's" total points result to the point total obtained by the player's "Flight of 4 aircraft" to give a Grand total for both "Flights of 4 aircraft" in the mission.

Use this same process if there is a third (or more) "Flight of 4 aircraft".

Anytime the player's "flight of 4 Skyhawks" are attacked by any of the NV defense boxes (SA, AAA, SAM or Migs), in the Support Attacks, Target Approach, Target Attacks or Target Exit boxes, each additional "flight of 4 aircraft" assigned to the mission will receive the same attack.

Resolve the attack against *each* Skyhawk in the additional "flight of 4 Aircraft" just as you did for the player's "flight of four Skyhawks". Use the "Number of attacks" made on the player's Skyhawk to determine the attack column to be used on Table 26. Then roll to resolve the attacks individually on Table 26, just as was done in Rule 15.1.

For "flights of 4 aircraft", when rolling on Tables 26 and 26.1, the player only uses the modifiers listed in the Table Notes.

All additional "flights of four aircraft" assigned to the mission fly at the same altitude as the player's Skyhawk and in the same map box as the Skyhawk.

Any additional flights of 4 aircraft will also carry the same ordnance and external fuel tank loading as the player's Skyhawk.

Medals can be earned for each pilot. Any medals earned for pilots are tracked in the notes section of the Skyhawk Pilot Roster.

15.2.1 Target Selection Using Multiple Flights of 4 Aircraft

If the player has multiple flights of 4 aircraft in play on the same mission, the player can choose to assign different Targets for each flight of 4 aircraft. To do this the player will assign targets to each flight of 4 aircraft as was done for a single mission or flight of 4 aircraft. The player will have to keep track of the point counts for each of the targets as the action is happening at different locations within the Target Attack Box. As a flight of four finishes bombing its target and the next flight of four is ready to start its attack, change the target counter to represent the correct type of target being attacked. If the player wishes he can change attack altitudes for this second or later flight of 4 aircraft. This optional rule gives the player flexibility and allows for a more realistic targeting options within a target complex. Some rules may need to be adjusted to make this optional rule work for the player.

15.3 Rescuing Downed Pilots

This rule will give more "flavor" to the game for those looking to add to their gaming experience. This optional rule explores the rescue and recovery of downed pilots in greater detail than is simulated by Rule 12 in the standard game.

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In real life, the US Air Force and US Navy had a shot down pilot recovery system in place to recover as many downed airmen as possible in Vietnam. This system was called Rescue Combat Air Patrol or "RESCAP".

RESCAP is a dedicated mission flown by the Air Force and Navy. The mission involved sending a HH-53 Helicopter along with two A1 Skyraider aircraft from bases in Laos into North Vietnam to provide Close Air Support (CAS) while the helicopter attempted to recover the downed pilot.

In the standard game this is done with a die roll, but in this optional rule it is done by RESCAP aircraft on the map board and may involve the player's Skyhawk as well. RESCAP missions are only conducted over LAND. Any ditching or bailouts over water are performed as called for in the standard game. (See rules 12 & 13).

When a pilot bailed out of a US aircraft in Vietnam, an emergency radio beacon was activated and broadcast on what was known as the "Guard Channel". This signal is broadcast to all units in the mission and had a characteristic "Whoop! Whoop! Whoop!" alert tone. This signaled that a US pilot had bailed out.

This optional rule is used in conjunction with the 4-plane Division (See 15.1), or with the multiple flights of 4 aircraft rules (See 15.2).

At the start of the mission the player places the two A1 Skyraider aircraft and the HH-53 Helicopter counter in the "RESCAP Units" box just as the player placed the US support unit aircraft in the US Support Units box. (See Rule 4.3) There is _no_ roll for loss of RESCAP aircraft on Table 4.1. For game purposes The RESCAP aircraft are always available.

This procedure is used when either the player's or a non-player Skyhawk participating in the mission is shot down in the Support Attack, Target Approach, Target Attacks, or Target Exit boxes.

When a Skyhawk is shot down, place the pilot counter in the "Search and Rescue Bail Out Over Land" box on the Map.

There are two NVA Patrol defense boxes located on the Map with an arrow pointing to the "Search and Rescue Bail Out Over Land" box. These two NVA Patrol defense boxes represent Local North Vietnamese ground troops trying to locate and capture the pilot.

The player rolls 1D10 to determine if there is one (1) NVA Patrol defense box (Lower threat level) or Two (2) NVA Patrol defense boxes (high threat level) attempting to capture the pilot. (1D10= **0-4,** one NVA Patrol defense box, **5-9,** two NVA Patrol defense boxes)

The player has four (4) rounds of combat to rescue the downed pilot.

If the player is also going to involve the player's Skyhawk or a non-player Skyhawk in support of the downed pilot (Explained later) decide now _before making the next die roll._

NOTE: The Player's Skyhawk or any non-player Skyhawk must be in the same Map Box as the Skyhawk that is shot down to be able to assist in the rescue.

If a player or non-player Skyhawk is escorting another Skyhawk that has mechanical or fuel issues and the pilot bails out, the remaining Skyhawk may assist in the Rescue as long as it was in the same map box as the Skyhawk that crashed.

Next the player rolls 1D10 to determine how many turns it will take for the RESCAP aircraft (the two A-1 Skyraiders and the HH-53 Helicopter) to fly from their RESCAP Units staging site to the location of the rescue attempt. Roll 1D10 to determine what round of combat the RESCAP aircraft will arrive at the site; **0,** round 1, **1-3,** round 2, **4-6,** round 3, **7-9,** round 4.

Each Combat Round is handled similarly to the combat cycle described for support unit aircraft attacking NV defense boxes in Rule 5.4.

For each round of combat, the player will place any RESCAP aircraft marked SA on any NVA Patrol defense box that is active.

Note: The HH-53 can be placed on an NVA Patrol defense box for an attack if the player desires. Or, the HH-53 Helicopter can also be placed in the Search and Rescue Bail Out Over Land box with the pilot. It may not be shot at by any active NVA Patrol defense box as it is considered to be hovering out of range waiting for the NVA defenders to be put out of action before attempting the rescue.

The HH-53 can make a "contested" attempt to rescue the pilot by hovering over a NVA Patrol Defense box as it attacks that box in any combat round. (Add +1 to the die roll for the NVA Patrol defense box fire on Table 10).

If the Helicopter survives the combat with the NVA Patrol defense box, the pilot is considered to have been "snatched from the hands" of advancing ground troops while under fire. The pilot is rescued, and the combat round ends. However, if it is "shot down" and removed from play the rescue attempt is over and the pilot is considered captured (POW).

For RESCAP aircraft attacking NVA patrol defense box(es) follow the same procedure as used by US Support Aircraft attacking NV defense boxes in the Support Attack box combats and the NV defense boxes returning fire. (See 5.4.1.1)

Each NVA Patrol defense box can _ONLY_ fire on the RESCAP or Skyhawk aircraft that are attacking it. (If the helicopter is attacking a NVA Patrol defense box it can be attacked in the NVA defense fire phase just as any other RESCAP aircraft.)

After placing the attacking RESCAP aircraft with a maximum of two aircraft per NVA Patrol defense box, the US aircraft will fire first. Roll on Table 11 using the Small Arms column to resolve the attack. The US player rolls once for each US RESCAP aircraft assigned to attack a NVA Patrol defense box. Use all appropriate die roll modifiers listed for Table 11.

For each "Suppressed" or "Knocked Out" hit that occurs, place the correct marker in the NVA Patrol defense box that is attacked. Boxes with "Knocked Out" markers cannot attack in the NVA attack phase. Results of all attacks are applied as they occur. If all active NVA Patrol defense boxes are "Knocked Out", the pilot is considered rescued.

The weather is considered to be the same as the current target weather condition that was rolled for on Table 2 during setup.

When a NVA Patrol defense box is "Knocked Out", any RESCAP aircraft assigned to attack it that has not yet fired may be placed in the other NVA Patrol Defense Box (if there are two boxes active). This attack occurs during this same combat round turn.

Once all US attacks have concluded, the player then resolves NVA Patrol defense box combat fire against RESCAP aircraft using Table 10. Resolve each NVA Patrol defense box attack one at a time.

Us all appropriate die roll modifiers listed for Table 10.

For EACH Suppressed marker in an NVA Patrol defense box apply a -1 Die Roll Modifier on Table 10 when the NVA Patrol defense box fires on US aircraft.

US RESCAP aircraft hit by NVA Patrol defense box fire are immediately placed off map in the support unit "dead" pile. They cannot be used again in this mission.

Once all NVA Patrol defense box attacks are completed for this combat round, and there is at least one active or "suppressed NVA Patrol defense box remaining, the player rolls 1D10 on the "Pilot Status" table to determine if the pilot is captured or killed.

Pilot Status Table (Roll 1D10)

Die Roll	Pilot Status
$\leq$0-6	Pilot successfully evades Capture
7-8	Pilot is Captured (POW)
9$\geq$	Pilot is Killed (KIA)

Table Notes: If all active NVA Patrol defense boxes are "Knocked Out" _No_ die roll is made. The pilot is considered rescued.

Die Roll Modifiers (Cumulative)

-1 for a "Knocked Out" NVA Patrol defense Box.

-1 if one or more NVA Patrol defense boxes is "suppressed"

+1 if two NVA Patrol Defense boxes are active and neither one is "Suppressed".

-1 if the pilot is a Veteran

+1 if the pilot is "Green"

+1 if the pilot has 2 "wounds"

+1 if the weather is "Bad" (no DRM for poor or good WX) (Poor flying weather makes it harder to rescue the pilot)

If the pilot successfully evades, remove all surviving RESCAP aircraft (including the HH-53 Helicopter and the Player and Non-player Skyhawks if present) back to the RESCAP box. These are the aircraft you will have available to place for the next Combat Round.

The player begins the next combat round, and follows the same procedure until:

If at any time the HH-53 makes a "contested" rescue the round stops and the pilot is considered rescued.

If at any time all active NVA Patrol defense boxes are "knocked Out" the round stops, and the pilot is considered rescued.

If at any time the player rolls that the pilot is captured or killed on the Pilot Status Table, then the round stops, and the pilot is considered captured or killed.

If the end of round four is reached and the pilot has not been rescued the round stops and the pilot is considered captured.

If the player elected to support the RESCAP mission with the player's Skyhawk and/or any non-player Skyhawk, the following rules apply.

When a Skyhawk assigned to the mission is shot down (Including the player's Skyhawk), one or two, (player's choice) of the remaining Skyhawks can stay with the downed pilot until RESCAP aircraft arrive.

These Skyhawks assume the role of RESCAP aircraft and provide support fire against the active NVA Patrol defense boxes. The following rules apply to these Skyhawks:

Only Skyhawks in the same Map Box can provide RESCAP for a downed pilot.

For each Skyhawk that stays, roll 1D10 at the beginning of *each* combat round to determine the fuel state of that Skyhawk. On a result of **≤0 to 4** the Skyhawk reaches "Bingo Fuel". On a result of **5 to 9+** the Skyhawk has sufficient fuel for this round. If the pilot is a Veteran apply a +1 to this "fuel state" die roll. If the pilot is Green, subtract -1 from the die roll.

Any Skyhawk that fails the "Bingo Fuel" die roll returns to the Transit To Carrier box and completes the mission from there.

The player places any remaining Skyhawks just as RESCAP aircraft are placed and carries out attacks against the NVA Patrol defense boxes as outlined below.

Any of the Skyhawks can use the LAU 3/A or LAU 10 rocket pods and the 20mm cannon against the NVA Patrol defense boxes. (Any bombs or other missile ordnance is automatically jettisoned before arrival at the rescue site). The Skyhawk can make one attack run on an active NVA Patrol Defense box for each group of weapons it has remaining but can *only* attack once per combat round.

Example: If the Skyhawk is carrying 2 LAU-3/A pods (one on each wing) and has 4 remaining 20mm cannon ammunition boxes, the Skyhawk can attack in three of the four Combat Rounds in the Pilot Rescue attempt. One attack run for the LAU-3/A rockets and two attack runs for the 20mm cannon.

Each attack run made by a Skyhawk is resolved with a single die roll on Table 11 just like the RESCAP aircraft.

Use all applicable table die roll modifiers.

The NVA Patrol defense boxes firing on "Non-player Skyhawks" use the following attack procedure:

For *each* "Non-player Skyhawk" fired upon by a NVA Patrol defense box, the player will roll *once* on Table 26 to see if any hits are made.

To do this, the player rolls 1D10 on Table 26 and cross-indexes the roll result with the number "3" column.

NOTE: Why the number 3 column you ask? Strafing real life ground targets that are firing at you with light anti-aircraft weapons is considered the most dangerous attack mission for a pilot.

If a hit is called for, check off 1 or 2 hit boxes on the specific Skyhawk being fired upon and mark them on the Skyhawk Division Work Sheet. Otherwise, the result is a miss, and that Skyhawk receives no damage. If a Non-player Skyhawk has all 6 boxes checked, it is shot down. Do this for each non-player Skyhawk that is attacking a NVA Patrol defense box.

If the player's Skyhawk is supporting the rescue attempt and is being fired upon, resolve the attacks just as in the single game mission.

Resolve this attack on the player's Skyhawk by the NVA Patrol defense box by rolling on Table 12 and using the "Small Arms" column. Resolve hits against the player's Skyhawk just as you would in a regular mission.

All Skyhawks are considered to be at Low Altitude.

At the conclusion of the rescue attempt all surviving Skyhawks move to the Transit to Carrier box and complete the mission.

15.4 Damage Rule

Per rule 5.6 and 5.7, loss of major sections and sub-systems does not lead to an immediate loss of your aircraft. This was done to help the player have a better chance to survive a mission. For those that seek a more realistic approach, you may use these rules as a substitute. This only affects the player's aircraft. Rules for non-player Skyhawks remain the same.

Note: This rule, 15.41 and 15.4.2 have not been play tested.

When all damage boxes of any one major section are checked off (excluding the nose and cockpit), the plane is considered shot down. Major sections affected by this rule are fuselage, both wings, engine, and tail.

When all boxes of the following sub-systems are checked off, the player's Skyhawk is considered shot down. These sub-systems are: Electrical, Fuel, and Hydraulics.

On Table 18, ignore the negative modifiers for the Tail Section and Electrical Sub-System since your aircraft is now considered shot down. Instead, if the two sections have at least one box checked off, it is considered damaged, and the negative modifier applies.

15.4.1 Engine Hits and Fire

Each time the engine has a damage box marked off, there is the possibility of a fire. After the box is checked off, roll 1D10. If the roll is 0 "zero", a fire occurs. If a fire results, roll 1D10 again. If the result is 0, the fire is uncontrollable, and the player must bail out. If the roll is 1-9, the fire is extinguished, and the player resumes normal play.

Use this rule in conjunction with optional rule 15.4.

15.4.2 Altitude and Bombing

Currently the player is free to attack his target at any altitude, with no penalty for altitude. The following optional rule adds an additional step during mission preparation. After selecting your target and before selecting munitions, roll 1D10 to determine at what altitude your Skyhawk and Non-player Skyhawks will be attacking your target: **0-3** = Low altitude; **4-6** = Medium altitude; **7-9**=High altitude. Once altitude is determined, the following die roll modifiers are applied in addition to those listed on US Attack Tables: Low Altitude: **+1**; Medium Altitude: **None**; High Altitude: **-1**.

The player must select at least one type of ordnance for the Skyhawk that can be used at the altitude rolled for in the paragraph above.

If the mission is minelaying, do not roll for altitude. Mines are always dropped at Low Altitude.

Any pre-determined first attack altitude level does not apply to any Skyhawk(s) assigned to a pilot RESCAP. The Skyhawk(s) uses the attack altitude for the type of ordnance being proscribed in the RESCAP mission.

16.0 Sources

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Douglas A-4E/F NATOPS Flight Manual

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The JCS – 94 Target List, Aerospace Power Journal, Spring 2001.

Air Over North Vietnam, Operation Rolling Thunder, 1965 – 1968, by Stephen Emerson.

A-4 Skyhawk vs. North Vietnam AAA, 1964 – 1972 by Peter E. Davies.

US Navy and Marine Corps A-4 Skyhawk Units of the Vietnam War by Peter Mersky.

Rolling Thunder 1965-1968: Johnson's Air War over Vietnam, by Richard P. Hallion.

Scooter, The Douglas A-4 Skyhawk Story by Tommy Thomason.

17.0 Credits

Game Design: Steve Dixon

Development: Bob Best and Steve Dixon

Graphics: Steve Dixon and Knut Grünitz

Play Testers: Bob "Wizard" Best, Steve "Frenchy" Dixon, Mark "Yankee" Gutis, Tom "Killer" Konczal, Brett "Grandslam" Grimmond, Neil "Excalibur" Amoore, Mike "Prangs" Peccolo, Ed "Hedgewood" Brown, "Psycho" Jurine, Tommaso "Chef" Gollini, Nolan "Gumbo" Bryant, Markus "Bull" Aldrian, Tony "Shadow" Dodds, Trevor "Ivanhoe" Henderson, James "Fox" Tennison, and Greg "Teufelhunde" Amos.

Send all rule questions via the form at
https://www.stevenkdixon.com

Skyhawk Tribute (painting by Roy Grinnell)

The painting was specially commissioned to honor some of the top Naval and Marine aviators who flew the A-4 Skyhawk in peace and in wartime. The A-4 shown was honored with the 7th Fleet markings of Captain Charles "Pete" Conrad from the Vietnam War era.

18.0 Design Notes

Steve: The design for this game came to me in the middle of the night. I had finished reading several books on Rolling Thunder and the A-4 Skyhawk. I thought it would be pretty cool to fly missions using the "Scooter".

The game is not meant to be a detailed simulation and thus many of the elements are abstracted and simplified. This is especially true with damage results. It is also a test bed for items that will be included in Linebacker II. Of course, they will be refined, and Linebacker II will be a much more detailed game.

The Skyhawk did not have great range, but it packed a punch. In real life, A-4 pilots spent the first leg of the Mission to the target approach point climbing to high altitude. This burned up a lot of fuel, thus the need for tankers to top off the fuel cells of the Skyhawk.

It will be a challenge to fly since the Skyhawk was not well-armored – it could not take a lot of punishment. Players will see damage accumulate, affecting certain player actions during the course of play. Optional rules have been provided if the player seeks a more realistic approach.

The target list came for the JCS-94 target list. This list was the basis of Rolling Thunder targets and remained unchanged with a few additions as time progressed during the Rolling Thunder campaign.

Through the play testing process, several sections underwent many changes – primarily the takeoff and landing tables. We finally settled on using a D10xD10 result table to reflect loss rates more accurately. It's not perfect, but it does work.

Much of the Division play rules was done by Bob and adds more of the narrative feel for the game.

The Skyhawk Ordnance Card underwent several changes. Astute players will note that the A-4E load limits for inboard and outboard stations are higher than they should be. These stations could carry more weight than intended, and often did in combat situations. So, based on the NATOPS manual for the A-4E (Section XI, Part 1, page 11-6, Note 1), we increased the load limits.

When it comes to ordnance and altitude, we opted not to have separate ordnance tables for each altitude level. This would have added many more tables to an already large list of tables. Nor did we add modifiers for altitude levels.

The Skyhawks were equipped with a rudimentary bombing system, the AJB-3, which was used primarily to release nuclear weapons using the toss or loft method, not conventional munitions. It could be used to drop conventional weapons "by pilots whenever it is not desirable to overfly the target with the aircraft at an altitude sufficient for dive-bombing or level bombing. Such cases include heavy anti-air defenses such as AAA and SAMs, when deploying powerful weapons such as 2,000 lb. (910 kg) "iron bombs" or even tactical nuclear bombs, and the use of limited-aspect targeting devices for guided munitions." To work up such rules for this would have been beyond the intention we wanted to accomplish: keep it simple for a _new player_.

Once the player gets a handle on the single mission game play using the basic rules, the player will find the game will go quickly as he plays more. Once the player feels comfortable, add the optional rules at your leisure. It will increase game time but offer a more "realistic" feel to the operations. We hope you enjoy the game, and good luck!

And now a word from Bob: There are several areas in the rules that tell the player about how "real life" air operations practices work. I would like to thank my many USAF and Navy friends (you know who you are) who provided insight and "oral histories" on how "things really work" when flying combat operations. Many of them flew in Vietnam and the Gulf War. Some are members of the "Tonkin Gulf Yacht Club".

I would like to give a "Special Thank You" to another of my USAF friends who flew combat in the Gulf War, was a Fighter Squadron Commander and former Operations/Plans Director of the USAF Warfare Center at Nellis AFB. (The Warfare Center ran "Red Flag" operations which are similar to the Navy's Top Gun school). Thank you for explaining "more than once" the relationship between weapons loads and fuel usage as it relates to combat range, and how suppressing "ground to air" weapons systems really work when bombing targets. I hope you have fun with your "Personalized Pilot Counter" for VA-72, even if it is a "Navy" outfit!

And now, for all of you who have been or currently are subject to the rules of "The Trade", here is the required disclosure: "NO CLASSIFIED MATERIAL was used in the design and/or preparation of any of the tables, processes or procedures used in this game."
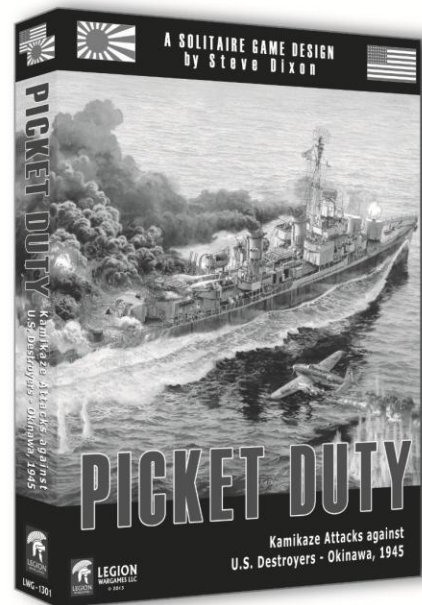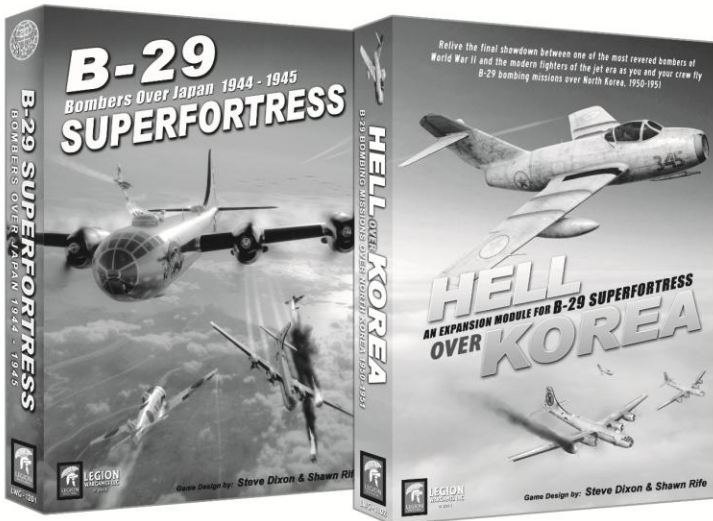
PERSONAL NOTES