Rule 18: Indirect Fire

A. General Explanation: Indirect fire represents the firepower of rockets, mortars and artillery, which deliver high trajectory plunging fire. Indirect fire units are all units which are included on the indirect fire data charts. Artillery forward observers and FISTs call fire missions back to indirect fire units, which in turn fire on the requested target. The process of requesting fire takes time as the following rules indicate. During the pre-game cross-attachment segment, artillery units may be designated as Direct Support or General Support.

B. Requesting Fire: Indirect fire is requested at the beginning of each friendly Artillery Plot Phase. The player secretly writes down his fire missions on his fire mission record. The left side of the record lists the turns of the game in order. Fire missions arrive in the Indirect Fire portion of the Fire Phase.

1. Writing Fire Orders: Fire orders are written on the right side of the fire mission record. The turn of arrival and the unit firing are repeated. In addition, the player must specify the target hex number, the ammunition being fired, and whether the mission will use maximum ROF/ICM/Un-observed Fire (see below). . Fire missions are written on the line of the turn in which they will arrive; record each firing unit's ID; for example the 9th Battalion would be 9. B battery of the battalion would be 9B, and the first platoon would be 1B9.

2. Observing Fire: A hex must be under observation by a unit capable of calling fire in order for a fire mission to be written for the hex. All NATO units are capable of calling fire as are all WP HQs, Ops, drones and FISTs. An indirect fire unit may also observe for itself. For a hex to be under observation, an unblocked line of sight must be traced from the observing unit to the target hex. Procedures for tracing LOS are explained in Rule 9. Special Forces Units function as FOs and may be cross-attached with any indirect fire unit.

a. Direct Support – Artillery units designated as Direct Support may only fire missions that are observed fire. Direct Fire units may fire Counterbattery Fire if the impacting enemy indirect fire is observed by the FIST or OP to which it is assigned (see Section J Counter-battery Fire. Artillery units belonging to the same Brigade/Battalion as the spotting unit are always considered Direct Support unless otherwise designated during the cross-attachment segment during pre-game setup. Warsaw Pact OP/FIST organic to Regimental Artillery Groups may only spot for their respective Battery as direct support, any other artillery unit must be treated by RAG OPs as General Support, even artillery units belonging to other batteries of the same battalion.

b. General Support – Artillery units designated as General Support during the pre-game cross-attachment segment, may fire indirect fire missions only for FISTs or Ops. The target hex must be under observation by the calling FIST/OP for at least 1 Artillery Plot phase prior to arrival. General Support units only may also fire during pre-game artillery Un-observed Fire.

3. Canceling Missions: A fire mission may be canceled at the beginning of any artillery fire portion of the Friendly Fire Phase. Another order may be written for the unit at that time, but it is subject to delay starting in that artillery phase; it may not be simply substituted for the canceled fire order.

C. Indirect Fire Procedures: Fire missions due to arrive in the current turn are resolved in the Artillery Fire portion of the Friendly Fire Phase. All artillery firing at a hex is added together and attacks all units (enemy and friendly) in the hex.

1. Fire Mission Markers: When a fire mission arrives on the board, take a numbered fire mission marker and place it in the target hex. This marker will remain in place until the next Artillery Plot phase. Write the number of the marker in the proper space on the fire mission record.

2. Fire Value: The indirect fire data chart lists the fire value for each indirect fire unit in the game. The value listed is per step. Each full-strength counter has two steps and each half-strength counter has one. Since the fire value is per step, multiple it by two for full-strength units. Write the total fire value (after modification by D1 and D2 below) on the fire mission record.

3. Target Defense Value: The indirect fire defense chart lists the defense values of various units in various terrains.

4. Resolution: The fire values of all artillery units firing at a hex are added together. This is then compared to the defense value of the top unit in the stack and expressed as a simple odds ratio as found on the conventional fire combat results table. If rounding is necessary, always round in favor of the target unit. After locating the correct column of the combat results table, roll a die and implement the result.

Repeat this procedure for each unit in the target hex. Note that the fire strength will be the same each time, but the defense value may change.

5. Results: Results are explained in Rule 10.

D. Special Cases:

1. Max ROF: Each indirect fire weapon may fire at its maximum rate of fire for one turn without being re-supplied. In that turn the fire value is modified by the *max ROF* multiplier on the indirect fire chart. The firing unit suffers no adverse effect from firing at its max ROF.

For example, the WP D-30 howitzer has a value of 4 when firing HE ammunition. Since its max ROF multiplier is 6, its total value for that turn would be 24. The firing unit must be resupplied before being able to fire another MAX ROF mission again.

2. ICM: With some weapons, the NATO player has a choice of firing either HE or ICM (Improved Conventional Munitions). ICM may not be fired at town, urban strip, woods, full lake or swamp hexes. When firing ICM the fire value is modified by the ICM multiplier on the indirect fire chart. If the max ROF option is taken with ICM, multiply the fire value both by the max ROF and ICM modifiers. Unlike MAX ROF modifiers, the ICM modifier can be used as long as the firing unit has ICM rounds.

3. Smoke: An indirect fire unit may fire smoke instead of HE or ICM. Smoke missions are plotted using the same procedure as any other fire mission, except that units capable of laying more than one smoke screen may plot as many target hexes as smoke screens. The indirect chart indicates what type of smoke may be fired (chemical or incendiary) and how many smoke screens may be fired per step per turn. Incendiary screens last one turn; chemical screens last two turns. Screens are removed at the start of the artillery phase. The effects of smoke are detailed in rule 19.

For example, a U. S. M-125 mortar is plotted to fire an incendiary smoke mission. Since it may fire four incendiary screens per turn, the U. S. player writes down up to four target hexes.

If there are units in the target hex the turn smoke arrives, they may be subject to an attack. Chemical smoke missions do not attack units in the target hex but incendiary smoke missions do. Resolve the attack as if it were an HE fire mission but with a value of 10 per incendiary smoke screen targeted on the hex. For example, a U.S. M-106 mortar can fire up to

three incendiary smoke screens per turn per step, or a total of 6 per turn if a two-step unit. If all six were fired at a single hex, each unit in the hex would be attacked with a fire value of 60.

        4. Pass-Through Fire: Indirect fire is assumed to be taking place over the course of the turn. Thus, the fire mission marker is left in place until the next Friendly Artillery Fire Plot Phase and any unit moving into the hex during a movement phase is attacked by the fire mission as well. Units mounting or dismounting from transport units and units deploying or un-deploying also suffer pass-through fire.

    All units suffering pass-through fire are fired at as if in clear terrain. However, the total artillery fire value is halved, rounding fractions down, before the fire is resolved.

    E. Deployment: In order to conduct indirect fire, or to be given a fire mission, units must be deployed. After all indirect fire in the friendly artillery phase has been resolved, the player my have any indirect fire units deploy. This is done by placing a deployed marker under the unit. A unit must be in combat formation when it deploys. When off-board artillery deploys, this fact, plus its distance off-board, should be noted under current turn number on the fire mission record.

    Indirect fire units which are deployed may not move. They may not enter cover, entrench, mount or dismount, or change formation or facing. (However, a unit which is already under cover or entrenched may deploy, in which case it remains under cover or entrenched). A deployed unit may fire in the direct fire phase of a player-turn only if it was not performing a fire mission in the preceding artillery phase (if no fire mission marker is on the board for it).

    Indirect fire units may leave deployment during a friendly movement phase, paying their entire movement allowance to do so. Self-propelled artillery units may do so in either friendly movement phase; towed units may do so only in the second movement phase. Units may not leave during a turn in which they conducted a fire mission.

    Deploying or un-deploying count as movement for purposes of spotting, opportunity fire, pass through fire, and operations point expenditure.

1. **Enhanced SPG Artillery:** Modern SPA (self-propelled artillery) are equipped with sophisticated fire control systems that negate the requirement that the unit be deployed. These units have the capability to go from movement, to firing a mission in less than a minute, then back to moving on completion of the fire mission; well within the 5 minutes per game turn. The units are identified on the Unit Data Cards. The NATO SPAs do not have to be deployed to fire a mission on or off board; and may move in any movement phase regardless. These units may fire any indirect fire mission (including counter-battery fire) in the direct fire phase provided the target hex is under observation by a FIST, or OP.

2. **Precision Guided Munitions:** PGM guided munitions are vastly improved since the laser guided M712 Copperhead round. The M985 Excalibur, M395 PGMM (mortar), M1156 (PGM kit to upgrade standard artillery rounds), JDAM and guided MLRS/HIMARS rockets rely on GPS guidance to hit their target. As such, PGM do not require a FIST/OP to spot the target hex. The munition always strikes the hex being targeted. The Swedish m/41 mortar round does not require spotting or designating. This round may conduct an attack versus an afv/aifv/vehicle within one hex of the target hex. If the target hex is under observation by a FIST or OP, a -1 modifier is made to the die roll.

3. **Rocket Assisted Projectiles (RAP):** RAPs are regular artillery rounds that incorporate a rocket motor for independent propulsion. These are identified on the Indirect Fire Charts where available. Any artillery round available to a specific weapon system may be enhanced by the RAP. Weapon systems may not fire Max ROF using RAP but may utilize ICM. On the indirect fire charts in the RAP column are two values. The first value is the number of RAP rounds available. The second number is the max range of the extended round. The RAP round is recorded and expended as a regular round of ammunition with the extra range. When utilizing the RAP round, note on the Ammunition Expenditure Record the use of the RAP and the type of artillery round that is being fired; for example a HE attack using the RAP would require the expenditure of one HE round and one RAP round.

F. Range: Indirect fire is limited by the range of the firing unit. The indirect fire data chart lists the range of the various firing units in hexes. Artillery may not fire beyond its maximum range.

G. Off-Board Artillery: In some scenarios, players receive off-board artillery. The scenario description states what units are received, how far off-board it starts, and whether it is deployed. No counters are received for off-board artillery; it exists only on the fire mission record.

Off-board artillery performs all its activity, including movement, the same as an on-board artillery unit. Off-board artillery may do one of four things: deploy, un-deploy, perform a fire mission or wait for an assigned mission (if deployed), or move (if un-deployed). Fire missions are recorded as for other artillery. Deploying or un-deploying are recorded in the left side of the fire mission record: instead of a fire mission, write _D_ or _U_. movement is also recorded on the fire mission record; instead of a fire mission, write _M_ followed by the number of hexes off-board the unit will be after its movement. Each unit starts at a particular distance off-board. Each turn's movement may change this distance by up to 5 hexes; however, off-board artillery must always remain at least 5 hexes off-board.

The range from off-board artillery to a target is equal to the artillery's distance off-board plus the distance from the target to any hex on the owning player's board edge (East or West).

H. FIST: FIST are fire support teams that operate out of a FIST-V of some type. The U.S. utilizes the M-7 Bradley FIST-V known as B-FIST and the M-113 based vehicle known as the M-981 and the M-1131 Stryker FSV. The Soviet Ka-52 helicopter functions as a FIST and is equipped with laser designators. These units are equipped with sophisticated G/VLLD (Ground/Vehicular Laser Locater Designator) and a GPS system for pinpointing target locations. FIST-V crews are in direct contact with Fire Direction Centers (FDC) and significantly speed up the process of call for fire. Some FIST also carry a standard OP unit, such as the B-FIST does, to supplement the vehicle's observation operations. FIST units are identified as such on the unit counter and/or on the Unit Data Cards. Artillery units are considered subordinate to the parent unit FIST. For example, any U.S. 17th Field Artillery Brigade artillery unit is subordinate to the COLT1 1C22 BFIST and considered a Direct Support artillery unit for the COLT 1 unit.

a. FIST On-call Fire Missions: A FIST unit can have up to 2 batteries; in addition to those batteries that are subordinate to the FIST; assigned as Direct Support batteries. Record these Direct Support batteries on the cross-attached unit record. These Direct Support batteries are available for on-call fire mission only if they are not conducting a fire mission in the current turn or scheduled to conduct a fire mission in the next turn. In order to conduct an on-call

fire mission, the battery or batteries must be deployed if required. The FIST unit requesting the mission must be in combat formation and capable of observing the target hex.

1. Mission: The fire mission is recorded in the First Movement Phase, (after spotting attempts), on the fire mission record. Only HE and PGM fire missions may be fired. No ICM, mines, smoke, or rocket missions may be fired (i.e. NATO MLRS or WP BM-21 or BM-27). The mission is recorded on the fire mission record as OC. On-call missions in the Second Movement Phase are recorded in the same manner.

2. Fire: The fire arrives in the Fire Phase of the same turn for missions requested in the First Movement Phase. Missions requested in the Second Movement Phase arrive in the Resolve Indirect Fire segment of the very next Artillery Plot phase (regardless of player turn).

3. Fire Value: Max ROFs missions may never be used for this On-Call quick fire mission. Standard fire values are used.

4. Pass-through fire: There is no pass through fire for On-call fire missions. These fire missions are directed against a specific target at a specific time.

b. FIST Fire Missions: FIST may call for fire as standard OP units with one change. The FIST unit will reduce delay by 1 turn for non-dedicated batteries. Delay for non-dedicated batteries may never be below 1.

c. Target List: Prior to the beginning of the game, each player may select 2 types of targets that are designated "High Value". If a deployed FIST unit spots a high value target, the player may conduct IDF against this target by deployed artillery units that are subordinate to the spotting FIST in the next Artillery Phase or the next fire phase if using enhanced SPG weapons system (PzH 2000 or M109A6 for example). *For example,* during pre-game activities the NATO player selects Air Defense units and Artillery units as high value target types. During the game the NATO player has deployed enhanced M109A6 battery and a deployed M-7 B-FIST. In the second movement phase the NATO player's M-7 spots a Warsaw Pact 2S6 (ZSU-30) and decides to attack that unit in the second fire phase with a CLGP from the M109A6 battery.

d. Pre-Plot: At the beginning of a scenario, each available FIST may pre-plot 3 target reference point hexes. At any time during the game, the FIST may call for a fire mission on the pre-plotted hex with any available dedicated or direct support artillery unit. The FIST may adjust the fire into any of the adjacent hexes. This pre-plotted fire may be conducted in any fire phase. The fire may be observed by the requesting FIST if the hex is within the LOS of the FIST. The fire may also be conducted as Un-observed Artillery Fire (see below) if the hex is not under observation.

I. Un-observed Artillery Fire: Un-observed artillery fire occurs when an area needs "softening" up prior to a major attack or a player wants to provide harassing fire in a general area. Un-observed missions are not an accurate way to conduct an artillery strike. Normally, these attacks would occur at the very beginning of a defense or attack scenario and not in a movement to contact. The location of the defense is generally known, specific locations of enemy units are not.

a. Pre-game Procedure:

1. Before Set-up: Players determine the wind direction for the game if not already indicated by scenario rules. Both players record fire missions for the hexes that are believed to be most likely to contain enemy units. These fire missions are noted by UA on the fire mission record. Players are not required to conduct Pre-game artillery combat. Only artillery units designated as General Support may conduct Pre-game Artillery strikes.

2. Set-up: Both sides set-up units and engineering construction takes place.

3. Fire: HE fire missions only are conducted. Fire Drift is calculated for final target hex. Resolve artillery fire is for each hex as required. Remove target mission markers at conclusion of fire. No pass-through fire for pre-game missions. Units may use Max ROF in pre-game fires and in the game itself (regular restrictions apply once the game starts).

b. In-game Procedure: Conduct Un-observed Artillery Fire Mission as a standard fire mission with no unit observing fire using HE or Smoke missions only. Fire drift will affect these missions also. For Chemical smoke missions only, a 1 turn Smoke marker is placed.

c. Fire Drift: With no one available to observe the strike of rounds and adjust fire, a fire mission will probably drift from the intended target hex to multiple impact hex locations. The fire mission will drift from the intended target in the direction of the wind as determined in pre-game set-up. Roll die once. Divide the result by 2 to determine the number of hexes the fire drifts. Round up. This is the new impact hex. Place the fire mission marker in this hex. Conduct artillery fire versus units in this hex. Reduce the total fire value of artillery units firing into this hex by 1/3 rounding down. An unobserved mission also affects each adjacent hex. Any units in the adjacent hexes are attacked by the firing artillery units but reduce the fire values by 2/3 rounding down. For example, the WP is the attacking player and conducts unobserved artillery mission with a full strength S-152 152mm Howitzer Battery (4 steps of S-152). After the final impact hex is determined the fire value of the battery, 20 HE, is reduced by 1/3 rounding down for a fire value of 13 in the impact hex and 6 for the adjacent hexes.

J. Counter-battery Fire: Counter-batter artillery fire is designed to disrupt or destroy enemy artillery units. Any time an artillery unit fires indirect artillery it may be subject to counter-battery fire.

a. Procedure: For an artillery unit to be subject to counter-battery fire, it must have conducted fire in the Artillery Fire Phase. The target hex that was attacked by the enemy artillery unit must be in-view of an un-suppressed OP or FIST unit in combat formation. The OP or FIST unit may then immediately record a CB fire mission on the Indirect Fire log.

    i.   Record the target hex and turn number that the enemy artillery unit attacked.

    ii.   Record the turn number of the counterbattery fire

    iii.   On arrival of the counter-battery fire; announce the attack against the artillery unit that fired as recorded in **step i.**

    iv.   The defending player must announce the hex that the defending artillery units had fired from. Indirect fire is conducted against that hex and results applied. CB fire missions can be conducted against either on-board or off-board artillery units.

1. Counter-battery artillery units: Any artillery unit can fire a CB fire mission. The selected units may not have conducted On-call Fire in the previous game turn, conducted a fire mission in the current game turn, or scheduled to conduct a fire mission in the next game turn. Enhanced SPGs may fire counter-battery regardless of previous fire or fire phase. A counter-battery fire mission does not require placement of a fire mission marker. The fire is directed against specific units, not a hex.

2. Counter-battery Fire value: A counter-battery fire mission may only be conducted using HE ammunition but it may be conducted at Max ROF (but only once per game unless the unit is resupplied using the Logistics Rules).

3. Counter-battery Fire Resolution: Counter-battery fire units apply the counter-battery modifier to the Conventional Fire Combat Results die roll. Apply all modifiers that are applicable on the Conventional Fire Modifier table. Apply the results as per rules. Off-board artillery units are treated as if they are a full strength unit occupying a clear hex under cover.