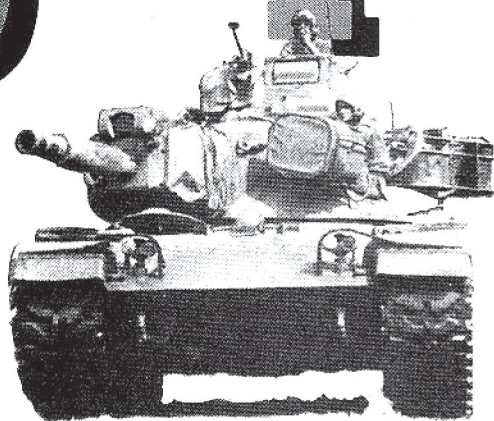


OPERATIONAL ANALYSIS

Fifth Corps



by Anthony G. Curtis

If you'll think back to last issue, I lamented that I didn't have this article in time to go to press with it. It arrived the day after I wrote that column (closing the issue). We have the Express Mail Service to thank for the delay (even though they promise overnight delivery, sometimes the "night" is arctic in duration). Mr. Curtis assisted in the development of the game and, herein, gives you the results of that experience. —RAS

Fifth Corps/Central Front breaks a great deal of new ground in its treatment of warfare in Germany in the 1980's. With several new concepts in the game, there are bound to be questions not only about the "hows" of playing the game, but also the "whys" behind some of the new concepts. As one of the *Central Front* playtesters, I feel fortunate not only to have a good working

knowledge of how the scenarios should be played, but also to have been included in much of the give-and-take which went into the finalization of the game mechanics. Before moving on to the scenarios, I'd like to provide some of the reasoning behind the Friction Point concept as well as the innovative method of overruns.

Friction Point Gain

Units basically gain Friction Points either for combat (including artillery support missions) or movement. Taking losses for combat-related causes is understandable. Gaining Friction Points for movement is a new concept, and those without any military service may well wonder why a unit should have to take losses without firing a shot in anger. Basically, fatigue and mechanical failure are the prime reasons for Friction Point gain. Both occur whenever units move.

First there is fatigue. Warsaw Pact forces are trained to conduct a non-stop offensive. NATO forces will have to react to Warsaw Pact moves. Many units on both

sides will be constantly on the move. Under such conditions, physical and mental performance will be degraded, and non-battle casualties will increase.

Second, and perhaps more serious, is the maintenance problem. After nine years of service as a commissioned officer, I know from personal experience that it is difficult in the extreme to keep units functioning at anything close to 100% in terms of operational equipment. When subjected to daily usage or training, equipment breaks down. It is only reasonable to assume that equipment breakdowns will not only continue to occur during wartime, but would probably increase.

Both sides have built in a vulnerability to loss through mechanical failure by equipping combat units wherever possible with tracked vehicles. Their advantages in firepower, crew protection, and cross-country mobility are offset by their mechanical shortcomings. Tracked vehicles are complex and hard to maintain. They break down frequently and often require considerable time and effort to repair. The Warsaw Pact forces are organized to operate in spite of the problem. Maintenance support for their units is minimal. Sheer numbers are expected to insure that enough vehicles reach the fighting regardless of the breakdown rate. Although NATO units have a far greater maintenance capability than their Warsaw Pact counterparts, time and the confusion of any modern European battlefield will insure that much of the equipment lost for mechanical reasons will not be repaired and returned to the units where it is needed.

Another aspect of Friction Point use likely to raise questions revolves around attack and defense strengths which remain constant when Friction Points representing losses are gained by the unit. Normally units which suffer losses have these losses reflected in reduced Attack and Defense Strengths. This apparent inconsistency makes sense only when you look at the current and projected methods of employing offensive and defensive formations in a European conflict. There are two key concepts: reserves and depth. Units do not stand shoulder to shoulder with 100% of their firepower on the line. Both sides emphasize depth.

There was a time that Army units from the platoon on up would establish defensive positions using the old "two up and one back" principle. Given the lethality and extended range of weaponry today, standard procedure in the Army and throughout NATO now is only "one up and two or three back." The combat factors on each unit represent that portion of the unit, its cutting edge, which is deployed up front. The units possess a certain amount of depth and this depth is depleted as Friction Points are gained. For example, a unit with no Friction Points accrued could defend a sector with a forward line of defense, plus maintain numerous backup positions with reserve forces. As this unit gains FP's this ability to provide reserves decreases.

FP gains for a defending unit mean that more of its remaining assets are required on

line with a much smaller percentage in reserve. The unit becomes, in effect, a brittle, hollow shell, able to project a respectable amount of firepower but subject to complete disintegration if it suffers further loss. The same disintegration effect occurs in attacking units where losses have forced almost all remaining units assets to be employed in the assault role with little or nothing left for back-up or exploitation.

Some may question why Overrun Strengths are biased so much in favor of the Warsaw Pact forces and why Overrun Strengths are greater than the Attack Strengths of units attacking normally. In almost all cases in the game, as well as in actual conflict, the Warsaw Pact forces will be doing the attacking. Warsaw Pact doctrine stresses the overrun concept heavily. Warsaw Pact forces are trained to utilize overruns whenever possible, and are considered to be very proficient at making such attacks.

Because an overrun is designed to place an overwhelming amount of offensive strength against a small portion of a defender's lines to open a hole for succeeding elements, the disparity between Warsaw Pact and NATO overrun strengths represents more of a ratio between Attack and Defense Strength at a certain point in the defender's line than overall attack or defense strengths. The reduction of the defender's loss by one FP also shows that only part of the unit is involved. Requiring the defending unit to stand in place is one more way of simulating the Warsaw Pact technique of attacking to open holes for further advance while largely ignoring other defending units in the area. The defender is not allowed to retreat because successful overruns would be over, with the attacking force moving through the gap created, before the defending unit had time to react.

The Map Terrain

Because the game's victory conditions require the Warsaw Pact forces to advance great distances to secure objectives, the focus of the game for the Warsaw Pact player becomes how to move his forces most efficiently. For the NATO player, the main objective is to halt Warsaw Pact advances.

The *Fifth Corps* map offers both players the opportunity to succeed. The Warsaw Pact player has available to him two major east-west autobahns, several good primary roads, and innumerable access hexsides. These access hexsides represent the extensive secondary road network of forest trails and farm roads which criss-cross Germany. On the other hand, abundant defensive terrain blocks almost all avenues of advance at one or more points.

Because of the extremely favorable movement considerations, the Warsaw Pact player will almost always commit most of his forces to drives along the major autobahns. The NATO player will defend the autobahns most heavily. If this was all both sides had to do, the game would get stale pretty quickly. Access hexsides make the difference, especially on the first Movement Phase.

These hexsides offer the alert Warsaw Pact player the opportunity to slide strong forces around even the strongest NATO positions. The NATO player will have difficulty defending against these moves because there are so many hexsides available. Because the Warsaw Pact forces are so much more powerful than the NATO units, any mistakes in defensive placement by the NATO player will almost always mean the loss of the position being defended, and perhaps loss of the units as well.

Things are not in the Warsaw Pact's favor by any means. The adept NATO player will use the access hexsides to shift reserves laterally behind his lines. Also, the careless Warsaw Pact player will find NATO units slipping around his units to pin them from the rear or to set up blocking positions to delay incoming Warsaw Pact reinforcements. Worse yet, the Warsaw Pact player who does not plan ahead by at least one turn for his units' movement will find that he has powerful forces road-bound when the lead elements become blocked, and the follow-up units cannot maneuver through the surrounding hexsides because there are no access hexsides, or the access hexsides do not allow travel in the proper direction.

To win in every scenario, the Warsaw Pact player must move as far and as fast as possible. I cannot emphasize this point too strongly. As strong as the Warsaw Pact forces are, their chances for victory are increased each time they force NATO units to surrender territory by out-maneuvering them instead of fighting for it. Getting the most mileage out of each Friction Point becomes critical to the Warsaw Pact player. As a general rule, if the Warsaw Pact player finds that many of his units are gaining Friction Points for advances of two or three hexes, he should take a hard look at his movement planning. Lots of small advances will lose him the game.

One type of defensive terrain deserves special mention here. Cities are extremely important to the NATO player, because they are the one type of terrain where the Warsaw Pact may never utilize overruns. For obvious reasons, the Warsaw Pact player should avoid attacking cities whenever possible. In multi-hex cities, the Warsaw Pact player must always remember that Zones of Control do not extend through adjacent city hexsides. Unless all adjacent city hexsides are occupied by Warsaw Pact units, the defending unit is not surrounded and always has an open route of retreat. The NATO player must always remember that a mis-placement of his units will allow Warsaw Pact units to enter city hexes and move between and past defending NATO units, again because of the absence of Zones of Control between city hexes. That one feature of city hexes is definitely double-edged.

The Opposing Forces

First, a look at the Warsaw Pact forces. Awesome is a very good word to describe the forces available to hurl at NATO. In any terrain other than city hexes, there is no way for the NATO player to deny the terrain to the

Warsaw Pact forces if the Warsaw Pact support is willing to take the necessary losses. The striking power is provided by the mechanized and tank divisions. On balance, the mechanized division is stronger, when attacking, defending or overrunning, than the tank division.

However, given non-divisional artillery support, the tank division is nearly the equal of the mechanized division in non-city terrain, and better suited to attacks on city hexes. Both types of divisions are compact, powerful formations which are capable of attacking or defending any objective the Warsaw Pact player chooses. These divisions do have limitations. Because multi-hex attacks must be carried out by units of only one division (with non-divisional support) divisions cannot be split up to cover wide areas. Multi-hex attacks are often necessary, usually because a NATO unit has become engaged with part of a division and is strong enough that most or all of the division's strength is required to remove it. If a division is widely separated, time will be lost and Friction Points will be gained in order to reunite the division.

Another shortcoming is the caveat which restricts all Warsaw Pact units to movement in west, southwest or northwest directions only. The restriction imposes a burden on the Warsaw Pact player to insure that his divisions do not get into situations where substantial portions of a division are pinned to the *east* of the land elements. If the pinned elements cannot disengage or attack over the NATO unit, and if it is not possible to bring sufficient forces to bear from other divisions, the Warsaw Pact player will have permanently lost the striking power of the entire division. As powerful as the individual regiments are, the really tough NATO positions can only be taken using the high attack strengths and column shifts the combined attacks provide.

Another problem with individual regiments is their vulnerability to NATO surprise attacks. Three or four NATO battalions utilizing a prepared, multi-hex, surrounding attack with two battalions to the east of the regiment will generate a five column shift in their favor. At odds of between 4-1 and 6-1 there is a 66% chance of inflicting a one FP loss even in the best defensive terrain. Thus, even these strong regiments can be destroyed.

The tank battalions in the mechanized divisions are an exception to my advice against splitting up Warsaw Pact divisions. Their relatively low strength will not be missed in any multi-hex attack. They have value all out of proportion to their size as blocking the pinning units or as end-run units to distract and worry the NATO player.

Warsaw Pact artillery, both divisional and non-divisional, will often be the margin of difference between victory and defeat for the Warsaw Pact player. These units are numerous — more powerful than their NATO counterparts — highly mobile and able to fire a variety of missions. They provide the only chemical delivery means when air superiority is missing. Because Warsaw

Pact units can stack three to a hex, the artillery provides the doubled direct-fire capability in sufficient strength to make attacks on city hexes possible.

The non-division artillery is especially valuable, because it can be used to support numerous attacks in any Phase regardless of division. The artillery also has its weaknesses. It can be over-utilized and destroyed prematurely by the harmful practice of using it in a direct fire role while simultaneously having it dispense chemicals. If such a unit had to move prior to an attack and suffered a combat loss, it would gain four Friction Points in one Phase alone. Such attacks are often necessary, but the Warsaw Pact player is foolish if he uses artillery in such a manner when not absolutely necessary. If too much artillery is lost early, the Warsaw Pact forces will not have enough strength to take the important city hexes encountered later in the scenarios.

Non-stacked artillery is vulnerable to NATO units which have been by-passed in the advance or have been slipped through the lines. Most Warsaw Pact artillery is soft and defends with a strength of one when caught alone. Warsaw Pact artillery units caught when immobilized by Friction Point gain are often destroyed by single NATO battalions. None of the artillery units exerts a zone of control. This is often forgotten during the heat of battle with the result that artillery units end up in positions they cannot hold.

Warsaw Pact helicopters are especially useful during the first turn of any scenario when the artillery has not yet caught up with the mech and tank regiments. They are also good for supporting attacks where sufficient divisional artillery is not available.

The engineers included in two of the scenarios are vital to any attacks being made against cities, because they can provide a reduction of the defensive benefit of a city hex to that of a rough hex. These units are weak and tend to get in the way of the larger units, but the Warsaw Pact player should never yield to the temptation to leave them out of play or use them to garrison captured objectives.

The airborne troops provide the Warsaw Pact with one of its most potent offensive weapons. When dropped by regiment or division they allow the Warsaw Pact player to isolate a portion of the battlefield of his own choosing. Airborne units can also be used to secure objectives or attack and destroy weak NATO units. They are the only units which are not affected by the NATO surprise rule, and they can share this benefit with any other unit stacked with them. When used to capture objectives, the ability to provide all-round defense will make many objectives immune to NATO counterattack once tank or mech regiments also stack on the objectives. The airborne units can be destroyed easily if dropped in areas containing other than flat or broken terrain. They emerge from drops into rough terrain with two to four FP's gained after moving. NATO players willing to trade FP losses can then destroy them. Also, because their Combat Strength is not high,

they will usually be weakened by attacking NATO units to such an extent that the NATO player can easily destroy them.

Chemicals

The Warsaw Pact forces have a significant advantage over NATO in all scenarios because of their superior chemical warfare capability. When the column shift for chemicals is at its highest early in the second and third scenarios, the Warsaw Pact player should not miss any opportunity to use them when they would increase the odds of any attack. When the column shifts lessen, it may be more beneficial not to fire chemicals if airpower is not available and artillery strength is low. *Always* use the air superiority points only for chemical attacks to help conserve artillery.

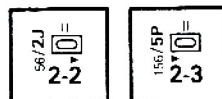
NATO Forces

By contrast, when NATO strengths are compared to Warsaw Pact strengths, the contest appears hopeless at first. Actually, terrain, time, distance and a combat results table requiring high odds to inflict damage are all equalizers for the NATO forces. The defensive quality of many units when placed in the right terrain will be sufficient to slow down Warsaw Pact forces enough to win. Some capsule summaries of NATO unit strengths and weaknesses follow.



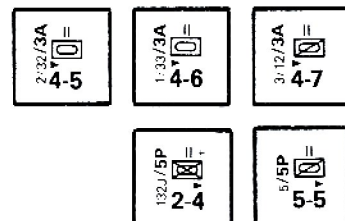
US Armored Cavalry Companies.

Too weak to survive long, especially in the open. All have overrun strengths of one, making them useful for only short delays before being destroyed by overruns. If the cavalry must defend in the open, use the 1-1 tank companies. Save the 1-2 companies for cities and unbridged rivers where their normal defense strength of 2 will allow them to hold longer. Properly positioned, cavalry units are the most economical forces to use in delaying operations while new lines are being constructed, or use them in pinning Warsaw Pact units from the rear to cause delay.

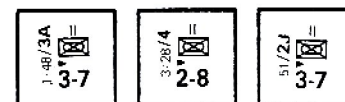


German 2-2 and 2-3 Panzer Battalions. Basically unsatisfactory units. Their low Attack Strength makes them only marginal in counterattack roles. With an overrun strength of two, they are destroyed fairly quickly in non-city hexes. When stacked with other units, they are useful in city defense. Their best use appears to be as units left behind in city hexes along the Warsaw Pact route of advance. They can delay the capture of a city hex for the better part of a player turn if fresh.

US 4-5 and 4-6 Armored Battalions; 4-7 US Armored Cavalry Battalion; 2-4 German Jager Battalions, 5-5 German Armored Cavalry Battalion. All of these units are the best units to use for holding non-city hexes because of their higher Over-



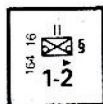
run Strengths. The Jager battalions are almost solely suited to the task because of low Attack Strength and a moderate Defense Strength. The German armored cavalry battalion is the single most effective battalion for defending against the overrun. Although it can defend well in cities, it can always be put to better use defending in open terrain between cities. The 4-5 armored battalions should definitely hold in non-city terrain. The 4-6 armored battalions and the 4-7 armored cavalry are suited to either city or non-city defense, but if mechanized battalions are available for city defense, these units should be used in non-city terrain. These units are also the most suitable for surrounding and destroying isolated Warsaw Pact units.



US 3-7 and 2-8 Mechanized Battalions; German 3-7 Panzer Grenadier Battalions;

High Defense Strength makes these battalions the best possible choice to defend in urban areas. One such battalion in a city hex has the ability to hold off a Warsaw Pact division-sized assault when unsupported, and to cripple or destroy numerous attacking Warsaw Pact units when supported by artillery, helicopters or Air Points. Low Attack and Overrun Strengths place these units at a disadvantage when defending in non-city hexes. Only as a last resort should these units be positioned in non-city terrain. They would probably be destroyed without inflicting any type of equal loss on the attacking Warsaw Pact Units.

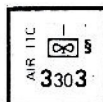
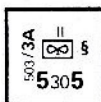
The NATO artillery units are neither as numerous nor as powerful as the Warsaw Pact artillery; however, most are 155SP battalions which qualify as hard targets, affording them somewhat more protection than the Warsaw Pact artillery. NATO artillery is most useful providing indirect support against normal Warsaw Pact attacks. They are not nearly so effective against overruns, and the expenditure of one FP to provide only one additional point of Defense Strength should have a high probability of inflicting an FP loss on the overrunning Warsaw Pact unit before such support is given. These units are not well suited for any type of direct combat. Additionally, presence of Warsaw Pact units adjacent to unstacked artillery units precludes any type of indirect fire support from those units. One of the best places to stack NATO artillery units is with non-artillery units of the same nationality in a city hex. As with the Warsaw Pact artillery, the NATO artillery units have no Zone of Control. The same precautions for placement apply.



Motorized Territorial Battalions.

These units are as unsatisfactory as the German Panzer Battalions. Although they have an Overrun Strength of two, their chance of surviving in non-city hexes against strong Warsaw Pact overruns is very low. Being a soft target, each battalion is obliged to suffer a loss of up to two FP's before being able to retreat as a result of a normal attack. The best place for these battalions is in city hexes in parts of the front away from the main Warsaw Pact advances. As with the armored cavalry companies, these units exert only a semi-active Zone of Control.

Static Territorial Units. When alone in a city hex, they are only strong enough to delay Warsaw Pact forces for perhaps one phase since they have a four FP gain limit instead of the normal five. When alone, they cannot receive any type of indirect support. One benefit is that units of any nationality may stack with them. They should be placed along the east-west autobahns where their presence will come as no surprise to the Warsaw Pact player, but their Defense Strength will help in a small way to slow the Warsaw Pact advance.



Helicopters. With a 30-hex range, they are the most flexible NATO support units. They should be used exclusively and selectively for support against normal attacks. Whenever possible, commit them only against Warsaw Pact attacks being made by at least one-half a division (two regiments plus artillery) or more where there is a certainty of reducing the odds to a level where there is at least 33% chance for Warsaw Pact loss. Sometimes this is not possible, but the primary goal should always be to inflict the greatest amount of damage before the helicopters are destroyed.

Airpower. When available, they should be used as suggested for helicopters with one very important difference. More than one air point may be applied in support of defense against overruns. Therefore, multi-hex overruns are also fair game. Overall, airpower is the best support NATO can receive.

How to Win

Some hints have already been given. What I will do now is present a list of "how to's" for each side which apply to all three scenarios. This will save a great deal of repetition later.

Warsaw Pact/1. Study the victory conditions very carefully to determine whether the bulk of the VP's to be earned will come from exiting units, destroying NATO units or occupying terrain objectives. Once the objectives are clear to you, pursue them to the exclusion of everything else. If the objectives are to exit units or occupy terrain, do not squander strength going after NATO units that aren't barring the way.

Warsaw Pact/2. Do not attack needlessly or with insufficient forces. Remember the Combat Results Table. In this game, odds of 6-1 or 7-1 are not good odds. By attacking in the first place you guarantee that each attacking unit will receive one FP for the expenditure of Movement Points. Attacking at lower odds dramatically increases the odds that a second FP for combat losses will be gained. An average Warsaw Pact unit will gain at least three FP's, and often more, for movement alone as it makes its way from the east edge west. Distance is a NATO ally. Do not aid NATO by ruining your units making unnecessary low odds attacks.

The Warsaw Pact player should act like a Russian. *Mass!* The Combat Results Table rewards it because mass produces the high-odds attacks. Don't do a half-hearted job when massing for multi-hex attacks. Ideally, each attack should go in with enough strength to make the addition of any NATO support points a waste of time. Also, in a multi-hex attack, only one stack is going to be able to expend the remainder of its Movement Points after the prepared attack has been resolved. This amounts to a gain of at least one FP for no movement (except advancing after combat) during an entire phase for some of the units participating in the attack. Make the first attack a good one. There is no good reason to suffer the same movement penalty during the next phase because the first attack wasn't strong enough. Better yet, by-pass NATO units whenever possible. It is always less costly to force NATO to surrender ground rather than having to fight for it.

Warsaw Pact/3. Continuing with the idea of movement, always remember that NATO does not have enough units to adequately cover all routes of advance. The Warsaw Pact player must also be a very proficient movement coordinator for several important reasons. Because of the Soviet doctrine rule requiring movement in only westerly directions, Warsaw Pact forces can no longer surround NATO forces using the time-honored method of running past NATO units to the west and then doubling back to the east to pin them from the rear. Surround situations will have to be set up by units "angling in" from the southeast or northeast. Carelessly moving units too far to the west will insure they will not be able either to surround or attack the NATO units in question.

When moving each Warsaw Pact unit, always visually map out its next move. Have each unit end its movement in position to begin the next Movement Phase with the lowest possible expenditure of Movement Points. Additionally, insure that the first units to move in the following Phase do not have to move through other friendly units. This is particularly important for units moving through access hexsides. If any move through friendly units, they must pay the basic terrain cost for the hex. That becomes expensive when the terrain is rough or rough-wooded.

During advances to contact, the lead unit in a column will not be stacked with any

direct support artillery. Prior to making contact with NATO units, move the lead units out of the way to allow the heavier units to pass by without losing Movement Points for travelling through friendly units. Again, keep Warsaw Pact division elements deployed close together.

Warsaw Pact/4. Always make sure Electronic Warfare Points are saved for the large scale attacks where NATO support units are almost certain to intervene.

Warsaw Pact/5. City hexes. Avoid them whenever possible. The amount of strength needed to gain respectable odds against a single 3-7 mech battalion is staggering. Make absolutely sure the reasons for attacking are so compelling that they will justify the inevitable losses and delay. If an attack must be made, make sure an engineer unit is part of the assault. Surround the city hex if possible. Try to obtain at least a two or three column shift for a multi-hex attack. Use chemicals. Allocate four EW points. Use mass.

NATO/1. Defend in city hexes whenever possible. This maximizes NATO defensive strength and deprives the Warsaw Pact of the chance to overrun. Resolving combat on the city column of the Combat Results Table offers the best chance of inflicting loss on Warsaw Pact units as well as minimizing NATO losses.

NATO/2. Insure that each unit occupies the best possible defensive terrain, and that there are no gaps in the main line of resistance which the Warsaw Pact player could use for a long distance advance. Faulty placement against a competent Warsaw Pact player often results in disaster for the NATO forces.

NATO/3. Always maintain uncommitted units to plug the holes that the Warsaw Pact forces will make.

NATO/4. On the first Movement Phase of each turn, flip NATO units which are not moving in that Phase. If they are not flipped, they will not be able to move for the remainder of the turn. The NATO player cannot allow a situation to develop where his defense disintegrates because the units needed to bolster the line could not move. There are exceptions. Those units holding blocking positions the Warsaw Pact player must go through and cannot avoid may be left unflipped to provide a stronger unit defensively. Also, in longer scenarios, some NATO units hit by the pre-emptive air strike may remain unflipped to help rebuild strength.

NATO/5. Avoid attacking Warsaw Pact units too early. They are even stronger defensively than they are on offense. It is only human nature for the NATO player to want to attack and destroy any Warsaw Pact unit he can get a hold of after passively defending against repeated Warsaw Pact attacks. Attacking requires several NATO units to gain favorable odds, and almost always results in heavy loss to attacking NATO units. Usually the attacking NATO units are actually needed far more to bolster NATO defenses. When they become irrevocably committed to their attacks, the Warsaw Pact forces often

accrue Victory Points for exiting units which could have been held on the map by a good defense in depth. Only when the Warsaw Pact forces are no longer strong enough to break through and exit should the NATO player initiate surround and destroy operations.

NATO/6. With an abundance of defensive terrain, never defend too far forward. Make the Warsaw Pact units come to you. Remember that combat is a function of movement. In each phase, the more movement points that must be expended to reach your units, the fewer will be available for attacks. This forces the Warsaw Pact player to attack under less than ideal conditions (for example, one attack instead of two, or an attack on the March or Hasty column instead of the Prepared column) or to delay the attacks until the following Phase.

The Scenarios

The Rhein-Main Raid. In this scenario, both sides are going to be pushed to the limit. The Warsaw Pact must contend with time, distance, and NATO. The NATO forces are hopelessly outclassed and must try to protect three widely separated objectives.

For the Warsaw Pact to win at least a marginal victory, two of the three objectives must be captured, and significant losses will have to be inflicted upon the NATO forces *without* losing any Warsaw Pact units in the process. The best Warsaw Pact strategy evolved during playtesting was to commit one Soviet mechanized division to each of the two east-west autobahns in order to cover a lot of ground quickly. The two key Warsaw Pact objectives were Giessen and the Wiesbaden airfield. Both were chosen because they are indefensible against the forces the Warsaw Pact possesses. Giessen, when properly garrisoned, will require almost an entire mechanized division to attack at favorable odds. Nevertheless, it can be isolated, surrounded, and stormed.

The NATO forces were most successful when they defended only two objectives. Wiesbaden airfield, because of its location, is almost totally indefensible, so it is not defended at all. Giessen is given a strong enough garrison to draw an entire Warsaw Pact division to it if the Warsaw Pact player chooses to attack it. The remainder of the 11th ACR and the Germans are used to defend the Rhein-Main airfield utilizing the numerous city hexes to form a strong defensive perimeter.

There are some moves and unit dispositions both sides can make on the first turn which will allow either side a reasonable chance for victory.

For the Warsaw Pact, chemical interdiction markers are placed on hexes 3821, 3317, 3216, and 2609. Because of this placement:

1. Units cannot reach Alsfeld (hex 2632) to block the autobahn.
2. Any units garrisoning Giessen will receive one additional FP, because it now takes two Movement Phases to reach Giessen. This means that the defenders will only be able to absorb three FP's to be destroyed if they are surrounded and out of supply at the end of the first turn.

This increases the probability of outright destruction in one Phase instead of two.

3. Any cavalry units attempting to reach Gelnhausen (hex 1125) would be caught in the open terrain south and east of Giessen by Soviet units advancing to encircle Giessen. Their destruction in such terrain would be a certainty.

One Soviet division would enter in columns using hexes 2650 and 2247. The bulk of the division would proceed west toward Giessen on the autobahn, with a portion taking an alternate route through Marburg (hex 3225) to aid in surrounding any NATO units in Giessen. If NATO defends Giessen, it will be entirely surrounded by the end of the first Player-Turn. The organic tank battalion and perhaps one rifle regiment should be sent further west to try to block or delay the second-turn reinforcements. The other mechanized division should be entered in hexes 1149 and 0951. After three Phases, the division should be closing on Gelnhausen from the east. The tank battalion should advance into Gelnhausen to prevent occupation by cavalry units from the Frankfurt area. At the close of the first turn, only the tank battalions and perhaps one rifle regiment should have gained more than three FP's.

The NATO forces have to key their defense to the city hexes if for no other reason than sheer survival. Single companies in non-city terrain will be overrun and destroyed, usually in a single Phase, and without significantly slowing the Soviets or causing loss. Five cavalry companies enter at hex 3914. Within two Movement Phases they take the following positions:

Hex 2621: two 1-2 companies

Hex 2718: one 1-2 company

Hex 2622: one 1-1 company

Hex 1920: one 1-1 company

The remaining seven companies plus artillery and helicopters enter at hex 3901, proceed to the Rhein-Main area and establish a defensive screen:

One 1-1 company: hex 0613

Artillery & Helicopters: hex 1114

One 1-2 company in each of the following hexes: 0915, 1015, 1117, 1217, 1416, 1616

The cavalry companies in hexes 2718 and 1920 will force any detached Soviet units to fight if the Warsaw Pact player wants to quickly reach blocking positions on the north-south lateral roads leading to Frankfurt.

On the second turn, in previous games, Giessen falls in one or two Phases. The mechanized division redeploy to approach Frankfurt generally from the north and west. The mechanized division around Gelnhausen should begin to threaten the cavalry screen to force it to begin to fall back toward Rhein-Main. If serious attacks are launched, they should be made in force around hexes 0613 or 1616, since both units are just outside the limits of the artillery battalion's support. For NATO, the German units arrive at the end of Phase two. The cavalry screen retires to the north side of the Main River to defend hexes 1313, 1314, 1315. On the south of the river, cavalry companies defend 1116, 0915, 0914. The German units defend 0912, 1111, 1312.

On turn three, the outcome depends on how well the Warsaw Pact player manages his attacks and how much strength his units have left. All points along the perimeter are critical. A breakthrough in any spot will allow Warsaw Pact units to move adjacent to 1114, nullifying any US support capability. If this happens, the Warsaw Pact will usually take all three objectives and win a decisive victory. Without any support, the cavalry companies will not hold the Soviets even defending in city hexes.

Perhaps the weakest part of the perimeter is the sector held by the Germans. While their units are stronger, because they cannot receive US support, their overall Defense Strength would be less than a cavalry company with six points of helicopter and artillery support. The player who is satisfied with a marginal Warsaw Pact victory can sometimes get one by eliminating two or three units on turn three. Often, however, this cautious strategy backfires when one or two Warsaw Pact units take losses in the exchange and are eliminated also. The player who decides to make a determined effort to take Rhein-Main should realize before he tries that whether or not he succeeds, he will lose from four to eight of his units.

The NATO player should remember the perils of defending in a multi-hex city. Also, he should be very sure on turns two and three that he will not need to move units before he decides against turning them over to their Friction Point side. The temptation to let the cavalry companies lose a Friction Point by remaining immobile in city hexes for a turn is certainly a strong one. Most big Warsaw Pact victories came from a combination of unintentional gaps in city hex lines compounded by immobile defending units unable to move in response to the breakthrough.

The Warsaw Pact player has worries also. If not eliminated, the cavalry companies in hexes 2622, 2718, and 1920 could slip into Frankfurt to strengthen the defense there, pin and delay troops needed to assault Rhein-Main, or even launch counterattacks against Giessen or Wiesbaden airfield if they have been garrisoned through oversight by artillery units.

The Fulda Scenario. NATO finally has enough good units — if they arrive in time — to stop the Warsaw Pact drive. The NATO player must hang on desperately in this one to prevent Warsaw Pact units from exiting before NATO reinforcements enter. The Warsaw Pact player must drive his units hard during the first turn, accepting the complete destruction of some in exchange for an advance as close as possible to the scenario mapedge.

The NATO line has a strong side and a weak side. Ignore the panzer grenadier brigade and concentrate on the cavalry and territorials with both first wave divisions. Because of the gap between the first and second squadrons, several territorial battalions must be positioned in the line, and cannot move voluntarily on turn one. The Warsaw Pact player should use his pre-emptive strike to hit both helicopter units,

the US howitzer battalion, and the territorial units in the line. The Warsaw Pact player could launch both divisions against the 5th PG Brigade and could probably destroy most of it. However, Warsaw Pact losses are so high and the amount of ground gained are so small that NATO second-turn reinforcements can enter and re-establish a new line. Hitting the south actually destroys the line, gains a significant amount of ground, and forces the NATO player to send the greater part of the PG brigade south, leaving a few units to block the roads in the north — an inviting target for second-turn Warsaw Pact divisions.

The NATO player should expect to see the southern half of his line dissolve. The best he can hope to do is minimize the disaster. When positioning units, he should place one mobile territorial battalion each in Bad Neustadt (hex 0643) and Lohr (hex 0129). On his first Movement Phase, he should move two 1-2 cavalry companies into hexes 0132 and 0231, and attempt to blow the bridge at hex 0231. He should not withdraw from either Bad Neustadt or Bad Kissingen. These moves will deny the Soviets the chance to exit units from the extreme southern edge of the map. The panzer grenadier brigade, less the two panzer battalions, should be moved south immediately. One 3-7 PG battalion each should be placed in hexes 1232 and 1435. The Jager battalion and artillery should be used to defend Fulda. The artillery should go to hex 1735. The NATO player should sacrifice whatever cavalry and territorial units are necessary to insure that the Germans have time to set up. If the NATO commander is successful, the Warsaw Pact forces must either attack through heavily defended cities or filter between them.

An initial attack as described will often yield at least a marginal Warsaw Pact victory. Significant numbers of Warsaw Pact units are going to be able to exit and gather the second-turn level Victory Points. Whether the Warsaw Pact commander emerges with a victory at the end of turn four depends almost entirely upon how he manages the troops who *do not* exit the map. Assuming that a significant part of the Warsaw Pact forces have exited, by turn three the balance of power shifts to NATO with the arrival of the bulk of the 5th Panzer Division. Most of the Warsaw Pact units remaining on the map have been pinned. It now remains to start the surround and destroy operations.

It is crucial for the Warsaw Pact player to assess each unit's chances to exit the map at some time during turn two. Those units which have no chance of exiting should be halted immediately in the best defensive terrain possible. They should not be moved at all for the remainder of the game in order to benefit defensively from the loss of Friction Points. Some Warsaw Pact units will always be destroyed during the final two turns, but many will survive if stopped in time in good defensive terrain. The Warsaw Pact player is working for the NATO player if he allows his units to accumulate five FP's and come to a halt in poor defensive terrain.

The Fifth Corps Scenario. If you have the time to play it, this scenario is the most challenging of them all. The NATO player commands some very powerful American battalions for a change. The Warsaw Pact player can now isolate any portion of the battlefield with an entire airborne division. The ultimate Warsaw Pact weapon has to be the pre-emptive air strike which can incapacitate up to seven units per strike.

True to actual deployment, the American units are clustered together — prime targets. Out of nine possible targets, the four American brigades should come at the top of the list, followed by the three helicopter units. The remaining two should be used on units on the front line which are targets of first turn break-through attacks. Immediately following the strike, the Warsaw Pact player has one of the few opportunities available to plot nuclear strikes on American units which will still be there on turn two.

The other big weapon, the airborne division, should be withheld until turns five through seven. If dropped too soon, many NATO units will still be in the rear areas, and aid from Soviet ground forces would be a long time in coming. Later in the game, losses will have forced the NATO player to put most of his maneuver battalions into the line. With the safety of the airborne units assured, the Warsaw Pact player then has to decide if the division will drop in the Frankfurt area to secure Victory Points for controlling the airfields, or if it will drop to block roads and act as a barrier to NATO reinforcements so that the Soviet ground forces can break through and exit to earn VP's. The mechanics of play are no different than for the other scenarios, but the length of the scenario introduces some new considerations.

Because the NATO player can commit the 5th Pz division to the fighting faster than in the Fulda scenario, there will be no decisive initial breakthrough anywhere on the line. The Soviet player should not become anxious about his lack of progress. He should continue to operate his divisions in pairs and work to achieve as many high odds attacks as possible. There is a limit to NATO strength, and the attrition caused by large losses from high odds attacks cannot go on indefinitely. On turn four, the Soviets receive two fresh divisions. Two of the four original divisions should be withdrawn and placed in city hexes for at least three turns to lose FP's. This provides one final surge of nearly fresh units which will be needed by then. Although there is no VP penalty for lost Warsaw Pact units, the loss of combat power will be penalty enough late in the game when more fresh units are needed.

The NATO player must also rest and rebuild units at every opportunity. During turns four to six, the NATO player will have unengaged units. He should place these units in cities where they can remain immobile to lose FP's and be in place later in the game to block Warsaw Pact advances while remaining stationary.

In a large scenario such as this, single mistakes may be costly, but not fatal. The winner will be the player who manages his units so that he receives the greatest amount of performance coupled with the least attrition in FP's.

Game Development

Many of you would be surprised, looking at the obvious strength of the Warsaw Pact forces, to learn that this game's development process was a constant struggle to balance the game so that the Warsaw Pact had a chance of winning. The process was repeated in all three scenarios, but, as an example, here is how the testing on the Rhein-Main Raid scenario progressed.

When I entered Friday night playtesting in New York, the scenario was very biased in favor of the NATO forces. Soviet forces were being blocked by cavalry units as far east of Giessen as Alsfeld. The same was true on the autobahn to the south. There were only two objectives, Giessen and Rhein-Main, and the Germans had a fourth battalion, a 3-8 mech, in the second-turn reinforcements. NATO was coming on too quick. Jim suggested chemical interdiction, since the Warsaw Pact had the capability to do it in real life. The German 3-8 mech battalion was eliminated and the objectives were increased to three with the addition of the Wiesbaden Airfield. Further testing showed that both Soviet divisions were still delayed far too effectively by the cavalry companies. Single companies could pin regiments. Overruns were, at that time, basically conventional attacks using the Overrun Strengths. Cavalry companies being overrun were allowed to retreat with their Zones of Control intact after taking a mandatory one FP loss. Warsaw Pact units were beating their heads against a wall and getting FP'ed to death trying to move these companies out of the way.

After one Friday night's playtesting, we (the playtesters, John, and Jim) agreed that something had to be done about overruns. At next Friday's session, the overrun rule and limited Zones of Control for cavalry companies was waiting for us. We were convinced we had the balance problem solved. We were wrong. I was responsible for the next problem, because I started working on NATO's defensive set-up now that standing against overruns was clearly suicidal. My dual strategy of defending far back in the Frankfurt city hex area while letting the Warsaw Pact units burn themselves up getting there worked all too well. Both divisions arrived at their initial objectives of Frankfurt and Giessen without any combat along the way, but both were still too weak in terms of FP's gained to take either. The cavalry companies always seemed to have one Friction Point to spare when their Warsaw Pact attackers were at the limit.

We had decreased NATO strength once, but we decided to do it again. After all, according to the scenario, the 11th ACR had been deployed out of zone and had seen combat. John decided that having the 11th ACR units come back with one FP already gained

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might provide the balance needed. It did, but only partially. The Warsaw Pact could now capture Giessen, but the division doing it was repeatedly mangled so badly as to be of little further use in the scenario.

We tried to have the division in the south try first for Rhein-Main, and then for Wiesbaden. For a change, NATO units were lost, but so were Warsaw Pact units. Neither objective fell. We were beginning to have some doubts about the viability of the scenario, but two further alterations changed the balance to a point where NATO, finally, needed some help. First, Chuck Kamps sent new information about increased Warsaw Pact mechanized rifle regiment strengths. The present strengths of 10-14 resulted from this information. The old strengths, by the way, were either 7-9 or 8-12. John had done some more homework on movement rates and found that a second and subsequent Phase cost of one Operation Point per autobahn hex was both attainable and realistic for gaming purposes. Testings at this stage showed that the Warsaw Pact forces were too powerful insofar as their performance in terms of Victory Points was concerned. A marginal victory used to occur at 14. The Warsaw Pact units achieved that much repeatedly without having to try to take Rhein-Main. We agreed that the scenario definitely had the proper "backs to the wall" atmosphere with strong, fast Soviet units smashing away at the smaller NATO types hanging on for dear life. The last refinement was fairly simple. We raised the VP levels by two points to force the Warsaw Pact to try for Rhein-Main.

Conclusions

Fifth Corps is a very good simulation of what a conflict in Europe will probably be like. I feel instinctively, based on prior service, that the Friction Point gain system for movement is as true to life as you can get. I can still recall too many convoys where vehicles had to drop out due to maintenance problems. I can also recall my mechanics patching them together somehow so they could re-join — a Friction Point loss.

The tremendous advantages for the defender are mirrored in the Combat Results Table. A glance at the counters drives home the point that the Warsaw Pact possesses a significant numerical superiority. The NATO player cannot escape feeling how it is to fight outnumbered. There are some rough spots. The nuclear weapons rules, for example, are not very workable. However, improved rules, applicable to *Fifth Corps*, are included in the next game of the series (*Hof Gap*).

This game is the first in what I hope will be a long series. Improvements are already being factored into the second game. There is always room for further improvement, however. One of the primary goals in this hobby should be to make the new games better than the ones that came before. Any of you out there with thoughts on how to make this game series better should send them to John Butterfield. Your suggestion could become the next improvement. ■ ■