Barbarossa uses a BASIC loader to allow disk player to correctly set graphics tones. The swastika on the title page should be red, not blue. If not, player may RESET, turn off machine and start over. Cassette owner is advised to just let things stand as the process for RESETing would require he reload everything all over again. A long wait for very little, since, as far as play is concerned, none of this makes any difference, and all players may ignore this paragraph.

Both Disk and Tape versions provide Game Save. To start a new game press "N".

You will be greeted with the Start (and turn-ending) Screen allowing for PLAY, QUIT, SAVE or SCROLL, and the map. Select <P>.

If player corrected the colors (above), then water areas, like the swamp directly above Brest, are blue; the mountain and rough terrain areas, as in Rumania, should be bronze. If colors aren't corrected, these are reversed. The area to the 'northwest' of Brest depicts woods. White is clear terrain. Boarders (and the Bug River - the only one shown on the map) surround Poland, Hungary and Rumania.

PLAY

Command Box

At start, and at the bottom of the screen, player sees:

1 (swastika) PANZER 16 ARMY WX CLEAR
STR 25 MOVES 5
SUP 2200 GRP N 6/41

This means that unit #1, the flashing tank graphic at the lower left of the mapscreen, is a panzer unit, 16th Army. Its strength is 25, its movement is 4, and available supply to all German forces is 2200. Unit #1 belongs to Army Group North (GRP N) and the date is June 1941. To see unit #2 press any non-command key. Spacebar or right arrow may be the most convenient. Player may toggle from group to group by entering the initial: N-north, C-central, or S-south. Army Group South will not appear until sometime in July, 1941. Units that have moved or been eliminated will not be displayed.

"SS", where applicable, appears after unit type in title, Ex: 9 PANZER SS 04 ARMY.
Playing Barbarossa is not at all difficult, (though winning may be). Players familiar with our programs will recognize some similarities. Basically there are two types of commands: General and Unit commands, and subcommands of each. The General commands are entered from the Play screen and are discussed first:

Intelligence: Enter <I> Actually a record-keeping procedure, Intelligence cites losses and victory points. To win, player, managing the German forces, must capture all 16 Russian cities—Thirteen minor cities and Moscow, Leningrad and Stalingrad—worth 38 victory points.

Along with victory points, player is awarded supply points—absolutely crucial to the German side.

Scroll: Enter <L> Use the up or down arrow keys to scroll the screen. An <S> stops scrolling. It is imperative that player does not stop scrolling at a location where there are no MOVEABLE German units. Doing so will end the turn. While in the scrolling mode, however, player may Enter <D> to see what units are there. It is up to the player to know if any units are capable of moving. Player must remember this during the game when some of his units advance farther than others. Note that scrolling may be done from both the Start Screen and also the Play Screen.

Cities: Enter <T> To see abbreviated city names along with the German swastika or the Russian hammer and sickle, depending on which side has custody. Below are city abbreviations and in parenthesis are victory and supply points.

| KUA - Kaunas(1/300) | BRE - Brest(1/300) | MIN - Minsk(2/400) |
| LWO - Lwow(1/150)  | RIG - Riga(1/300)  | ODE - Odessa(1/350) |
| KIE - Kiev(2/400)   | DNE - Dnepropetrovsk(1/350) | |
| KUR - Kursk(2/450) | VIT - Vitebsk(1/300) | SMO - Smolensk(3/500) |
| STA - Stalin/Rostov(1/300) | KAR - Karkov(2/450) | MOS - Moscow(7/600) |
| LEN - Leningrad(5/550) | STG - Stalingrad(7/600) | |

2nd Movement: Enter <2> Panzer units are awarded a 2nd move consisting of 2 advance moves during Clear weather months. This phase of operation will automatically occur when all units DISPLAYED have ended movement. (In clear weather). Once in this phase player may execute any Unit Command listed below except Air Power.

Enter <E> to end turn.

Use the <ENTER> key to toggle out of special displays, like City, Intelligence, etc.

Unit Commands

These commands are executed at the unit level and usually occur during or in place of movement.

Enter <M> to move displayed unit. Armor, airflottes, mechanized and
grenadier infantry have 4 moves, regular infantry 3. Use the arrow keys for direction.

BLITZ <B> does the same thing as <M> above but also calls for an all-out attack when a Russian unit is contacted (and often an all-out victory). BLITZ also uses twice the supply of normal movement and about 4-6 times the supply for normal attack. (See Supply)

Enter <E> to End movement.

Any terrain other than clear (white) ends movement for panzer and motorized units. Combat ends all movement. Some cities will end movement for motorized units while others will not. Capturing a city always ends movement for all units. Panzer Grenadiers are considered motorized. Units of one Army Group may not move into another Army Group's jurisdiction or off the top of the screen. Player will be told at the right of the command box when unit has reached limit, right or left.

Units having a strength greater than 5 will use supply to move.

Enter <X> to change a unit from one Army Group to another. More on this later.

**AIR POWER**

Airpower plays a simplified but powerful role in Barbarossa. Rather than complicate things with tedious options, we assumed that all smart players would do things like destroy Russian airpower right away and decided to use airpower only in assisting attack.

There are three air squadrons--Airflotten--in the game; one belonging to each Army Group. Airstrikes support other moving or blitzing units. Enter <A> AFTER Entering <M> or <B> above. The Airflotte will assist the "calling unit". Stipulations:

1) The Airflotte being called must belong to the same group as the unit calling it.
2) The distance between the two may be no more than 10 moves.
3) Units calling the Airflotten must have at least (2) moves remaining.

Therefore, in Mud months, infantry may call air; in snow months, only motorized units may call them. (See weather.) During turns in which supply is gone, airflotten may only be called by units with a movement of 2. Also note that motorized units in rough terrain only have one move.

4) The Airflotte may be called as often as desired each turn.
5) The Airflotte may lose strength points while supporting units.
6) Airflotten do not receive reinforcements or replacements. When they're gone they're gone.
An Airflotte that hasn't been called to strike may move (stage), capture cities, or have combat like any other unit. Its normal movement is 4.

**COMBAT**

Combat occurs when a German unit is moved next to or on a Russian unit. A faint bar appears on the Russian unit attacking. Since stacking is allowed units may consequently "shield" a second or third unit, and the Russian unit actually attacking may not be the one appearing on the screen. If more than one Russian unit is present there may be counterattack(s). The German unit may receive a modifier during counterattack.

Unless the Russian unit(s) is eliminated, the German unit will be forced to retreat back in the direction it came from.

Russian units tend to fight better and receive more reinforcements in winter. (Russian reinforcements arrive in cities between turns. Russians can not reinforce a city that has been captured by the Germans.)

A quick screen will appear in the command box to relay battle casualty information.

Supply, terrain, weather, Air Power and Blitz affect combat. In addition, Germans attacking from above the target receive a weighted modifier.

**SUPPLY**

Much has been said about the failure of the German Wehrmacht in Russia. Blame has been placed on weather, American aid, Hitler's intervention and his subsequent decisions. Yet anyone studying the campaign, even briefly, cannot fail to note that in spite of all the blunders and snow and Ford trucks, the Germans did, when properly supplied, often win against the odds. It was obvious in designing Barbarossa that Supply had to play a major role.

Player starts the game with 2200 Supply points. He gains supply by a) capturing Russian cities, b) surviving until the spring of a new year. The latter starts in March, 1942. The amount of supply received in (a) is fixed (see cities) and is based upon victory points achieved up to that point in (b).

Player looses supply in 1) Movement, 2) Combat, 3) calling Airstrikes, 4) Transferring to other Army Groups, 5) Allowing Russian units to remain 'behind' his lines. The amount of supply lost is determined by unit strength and the use of Blitz movement in options 1, 2 and 3; and by a fixed amount in options 4 and 5. Loss of supply occurs immediately in options 1-4, and during turn change with option 5.

Total loss of supply (supply may run negative) reduces all movement to one (1) or (2). Remember, units with (1) move may not call air strikes. Loss of supply precludes Blitz, Replacements and 2nd Move; and adds a terrible negative modifier during combat. Combat, 2nd movement and Blitz penalties occur the turn in which supply lost; the others the turn after. Likewise, when supply is regained, penalties are removed using the same criteria.
Units with a strength less than 3 do not lose supply when attacking.

Replacements

German units not at full strength may receive 1 strength point during turn change. This occurs with greater frequency in the early going.

Reinforcements

Army Group South does not appear until sometime during the July 1941 turn. Army Group South's Panzer units will be allowed to move during 2nd Move, others not until the August turn. Units 31 and 32 are Rumanian mechanized infantry. Rumanian units may do anything a German unit may do except call airstrikes.

Army Groups

As has been mentioned, each unit (division) belongs to a specific Army, and each Army belongs to a Group. We did not, as occurred in the war, assign Panzergruppe by name though we did assign panzer units in proportion to those used in WWII. (Army Groups North and South have fewer panzer divisions than Army Group Central; Army Group South contains two armies while the others actually have one.) We strived, however, to keep the integrity of the Army Groups in tact. Units belonging to one Group may not venture into the jurisdiction of another Group without transferring to that group.

To transfer a unit to a different army group, move the unit as far toward the other group as possible and end its movement. On the next movement turn, before moving, Enter <X>, then the initial of the name of the Group it is entering. Only the unit's group name will change. Its number and location in the order of call will not. Obviously a unit shouldn't be moved to a group it isn't next to.

A unit may be transferred as many times as desired, even when out of supply.

The cost for transfer is 100 Supply points.

Example: During turn 4 you decide to transfer the 1st Panzer, 16th Army, Group North, to Group Central. Avoiding combat, you move Unit #1 as far to the right (limit) as allowed and end its turn. When able to move unit #1 again, Enter <X> then <C>. Unit #1's turn will end. In the next movement turn unit #1 will belong to GRP C but will still be unit #1 for calling purposes. Had you placed Unit #1 in Group South, you would have had to correct it next turn with another transfer and pay another 100 supply points.

Weather

From March to August will always be Clear weather months; September to December either clear or mud or snow; January and February always snow. During mud months, infantry has a movement rate of (2); motorized (1). Dur-
ing snow months these are reversed. (Airflottes, when staging, are considéréd motorized for movement purposes.)

Saving a Game

Enter <S> from the End of Turn Screen. Prepare disk or tape and enter any keyboard character. Three files will result: C/0/DAT, R/0/DAT, GAME/0/DAT, where the '0' signifies the character entered. To load a file game, enter <F> at start and then the code character.

Victory or Defeat

The game ends when player A) captures all Russian cities, B) total strength of his units falls below 75, C) game reaches the January, 1944 turn. Only in (A) will player achieve victory.

Strategy, Tactics, Hints & Design

The challenge of creating a 'war in Russia' game is in rivaling the astonishing speed with which the Germans moved through the Soviet Union during the early months of the invasion. This design is not difficult, but the result is a game that is heavily weighted to the Germans side, especially since most wargamers will resist the temptations which forced Hitler's mistakes; would go ahead and capture Moscow, cut off Leningrad in lieu of siege, or wait to attack Stalingrad at a much more hospitable time of year. It was decided, then, to design a game that 'flavored' the Russian campaign rather than mimic it, and to let events take place as if the historical event never did; and, if parallels arise, good. If not, then the player has created new history.

There are, however, certain flavors that must mimic. Neither the historical Germans nor the wargamer has the resources to carry out a long war in Russia. Obviously, the farther and faster the German advance in the early going, the better the chances of victory. To carry out that advance, the player must destroy Russian units, capture objectives and eliminate overrun Russians. Speed is important but not nearly as important as remaining supplied. Supply is everything in Barbarossa.

Supply becomes the biggest concern even over the tactics of combat. The normal attack doesn't bring lightning victories, but in terms of supply is far cheaper than the Blitz attack. Losses, though heavier in regular attacks, can be replaced. While out of supply nothing is ever replaced. Other favorable attack criteria: attacking from 'above' the Russian unit and the use of airpower is far cheaper than Blitzing and will often do the job.

This is not to say don't ever Blitz. The design of the game forces you to Blitz, (adding more painful decisions). Among the good times to Blitz are before the onset of bad weather, just before the start of a new spring, or when forced to attack with a weaker unit.

DON'T LET UNITS GET DESTROYED. Damaged units have a chance of recovery; eliminated units are gone for good.
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Russian units behind the lines are measured from the most advanced German unit on the screen, not the most advanced unit in the Russian unit's sector. Keeping all armies fairly even in their advances is not always the solution, especially with the slow-starting Southern Group, but neither may it be a good idea to send one group flying while the others are bogged down.

There are good and bad times to transfer units from group to group. We'll let you figure these out. Just remember, transfers gobble supply. Use infantry in rough terrain since they face no movement restrictions. Use them and motorized infantry or grenadiers to mop up stragglers. DON'T IGNORE STRAGGLERS! They won't ignore you.

There are also good times to end the turn early. A deceptive criteria in the victory conditions is the one ending the game after the December, 1943 turn. Player has more than enough turns to do the job and even has them to waste. Consider this:

Player has just eliminated all of the Russian units in a town but is unable to bring up a unit to capture the town until 2nd Move. He is low on supply and also has many units with movement remaining. What to do? Call for 2nd Move right away. Completing the 1st move will probably force supply into the red and thereby preclude 2nd move (and capture) that turn. Next turn the Russian have a great chance of reinforcing the town, forcing you to attack at terrible odds. Always make the capture. A bird in the hand, you know.

There are also good times to completely end the turn... You'll figure them out, of course, just as you'll figure out a myriad of tactics and strategy. Barbarossa is a game that will require exceptional skill to win, and the smart player will pay attention to all the rules and advice given.

A few more hints discovered in playtest...

Save air strikes. Because of their locations, Moscow and Leningrad almost have to be taken in a frontal or flank assault. By the time player reaches these two objective, the Russians will have fortified and reinforced them to the hilt, and the only modifiers available under these terms are Blitz and Airstrikes. Stalingrad, too, has its difficulties, but these deal with the certain attrition of Army Group South after its extremely difficult trek across the Soviet Union. In playtest we found that this group more than any other usually ran out of manpower before Army Groups North or Central.

The Russians may inexplicably and almost supernaturally defend a minor city like Vitebsk or Stalin/Rostok, though odds are it will occur in the South, which seems to have become in Barbarossa, as in the historical event with the same name, the truly key sector of the campaign. We found that victory hardly ever occurred when the southern group faired poorly.

Planning. Military experts call it operational planning. In none of our programs, with the possible exception of Bomber Command, is planning so important. Players with a good understanding of the operational plan will
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fare far better than those who do not plan. Making plans in the middle of movement probably won't get the job done. And why should they? Objectives should be set several months in advance, with weather a prime consideration. Player then should attempt to reach his goals if at all possible. After all, he set them with good reason.

Some goals:

During 1941 try to take Kuanas, Lwow, Brest and Kiev. This will add 1150 supply points to the pot and should put you in good shape to withstand the Russian winter, providing your southern group doesn't get too bogged down. Naturally, taking an additional city like Minsk or Riga or Odessa won't hurt, but don't stretch things out too far. (By the way, if you don't take more than 4 cities in 1941 don't feel badly. Our record is 6 and it only happened one time!).

It's not a bad idea to send some central armor to assist northern and/or southern groups, and then plan your spring offensive to coincide with supply bonuses and the return of normal movement. Also, don't forget that the Russian fight with a vengeance in winter; less so in spring and summer.

1942 is usually spent regrouping and fighting to keep supply in the black. The longer supply remains above zero, the better your chances of winning. Remember the emphasis on the southern group and try hard to take Kursk, Karkov and Dnepropetrovsk (and any of those earlier mentions that you didn't take in 1941.)

1942 is also the key year. It will determine how you fare when the going gets tough against those major cities in 1943. Leningrad is usually not defended as strongly as Moscow or Stalingrad, but it is not going to be a pushover.

Finally, when playing the game and considering how great we wargamers are, remember that the Germans were well on their way to Smolensk in July, 1941! Less than a month after the historical Barbarossa began. Try as we might, no playtester ever managed to come close to that accomplishment.

Phil Keller

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