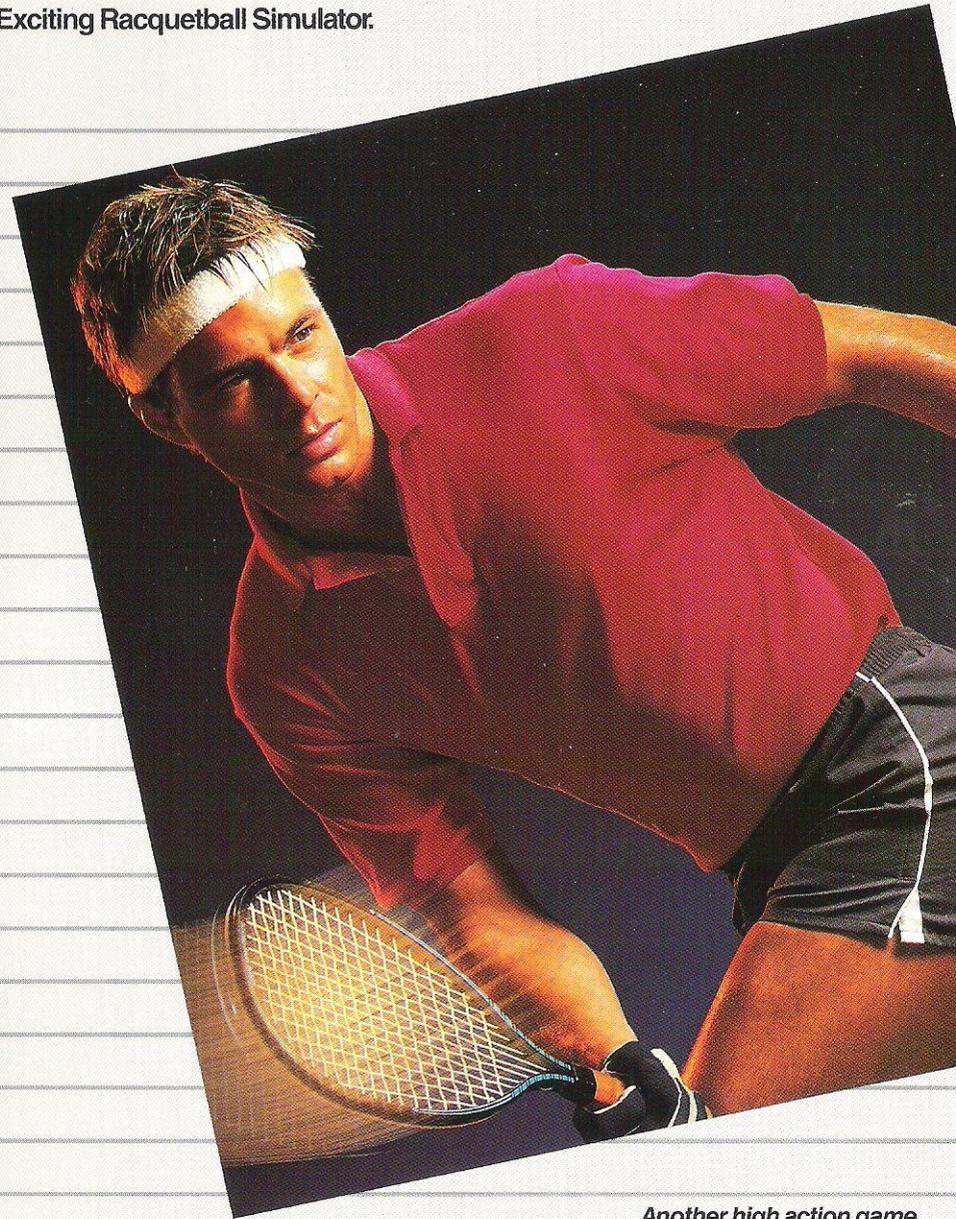# MacRacquetball™

The Exciting Racquetball Simulator.

For the Macintosh™ Plus and SE.

*Another high action game
from the team that brought you MacGolf.™*

Table of Contents

Hardware Requirements

MacRacquetball comes on an 800K disk, and works only on Macintosh Plus or Macintosh SE. MacRacquetball will not work on a Macintosh 128K, 512K or 512K Enhanced because of the memory required. It also will not operate from a Hard Disk.

Software Registration/ Support

Please fill out your registration card and send it in. Your registration card will be used for warranty replacement and to inform you of future updates. We will not support customers whose registration cards have not been received. MacRacquetball and this documentation are Version 1.0. Updates to future versions will be available for the cost of shipping and handling only.

Backup Policy

MacRacquetball is copy-protected, which prevents the ability to make working backup copies of the original disk. Should the original MacRacquetball disk's media fail, we will replace the disk at no charge provided the original diskette and label are unaltered. Send the original MacRacquetball disk and your purchase receipt to the following address. A replacement program will be sent to you.

Practical Computer Applications, Inc.
Program Replacement Dept.
1305 Jefferson Hwy.
Champlin, MN 55316
(612) 427-4789

Before Inserting Disk

Follow these steps before you insert your MacRacquetball disk:

- Eject any disks remaining in the drives.
- Turn the computer off, wait 5 seconds to clear all memory.
- Insert MacRacquetball in the internal disk drive of your Macintosh.
- Turn the computer back on again.

Note: You must boot your Macintosh from the MacRacquetball disk.

If You Have Startup Problems

After you insert the disk, the configuration screen should be displayed first. If it isn't, or if you get an error message:

- Eject the disk.
- Check to see that your Macintosh meets the hardware requirements on page 4.
- Turn off your computer.
- Reinsert MacRacquetball in your internal disk drive and turn it back on. If the problem still persists, call PCAI.

Introduction

There are several ways of playing MacRacquetball 1.0:

- A game in which you play against the computer.
- A game in which you play against an opponent via modem or Imagewriter II cable.
- A "Warmup" mode for your own individual practice
- A "Demo" mode to demonstrate the game and learn techniques and strategies.

The option to play against an opponent over AppleTalk will be implemented in Version 2.0.

It is recommended that you first learn to play against the computer. For instructions on how to set up for opponents via modem or connected with another Macintosh by Imagewriter II cable, please turn to pages 28-31.

Note: If you are unfamiliar with the game of racquetball, please read the section entitled "How Racquetball Is Played" on page 17 before continuing.

The Configuration Screen

At any time during play, pressing the "Shift" key will bring up the configuration screen to allow rest from the game or to readjust settings. Hold the "Shift" key down until the screen is displayed.

Shift

Fig. 1

To resume play, click the "Resume" button on the screen.

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The Configuration Screen (cont.)

On the configuration screen (Figure 2) is a sequence of vertical scroll bar adjustments. These each represent the degree of ability or preference each player displays for a specific physical characteristic, strategy, or technique. The corresponding designations for the scroll bars appear alternatively below and above them.
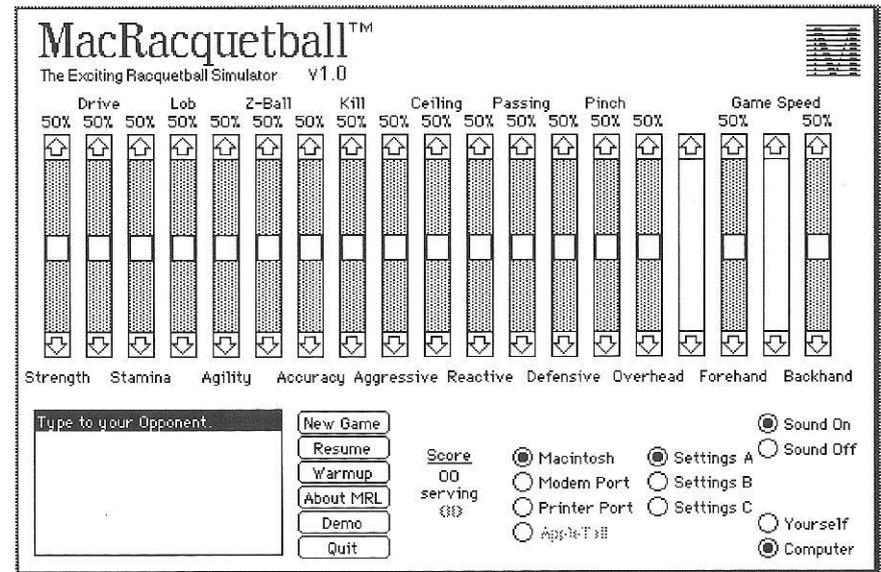
Fig. 2

To set configurations for yourself or for your computer opponent, simply click either the button for "Yourself" or for "Computer" in the bottom right-hand corner of the screen, before adjusting the scroll bars.

Saving A Configuration

There are also three "Settings" buttons, which can be used to store 3 sets of scroll bar configurations for yourself and your opponent. These can be continually modified as desired and are saved to the disk when quitting MacRacquetball.

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Scroll Bar Settings

Scroll bars 1, 3, 5 and 7, labeled beneath as "Strength", "Stamina", "Agility", and "Accuracy", respectively, refer to a player's *general athletic abilities* in the game. Scroll bars 2, 4 and 6, designated above each bar as "Drive", "Lob", and "Z-Ball", respectively, are types of *serves,* while those labeled "Kill", "Ceiling", "Passing" and "Pinch" are *volley shots.* "Overhead", "Forehand", and "Backhand" scroll bars control preferences for the three *hitting motions,* and a player's overall *playing style or strategy* are designated by adjusting the settings labeled "Aggressive", "Reactive" and "Defensive".

While the game is in progress, MacRacquetball will pick an appropriate shot for the computer opponent in each situation, taking into account the configuration screen settings you have chosen.

"Strength" determines the power available to use on serves and volley shots. The amount of available strength actually used in play depends on your mouse movement when you hit the ball. The way to control the power of your serves and shots is described in the section entitled "Serving The Racquetball".

"Stamina" indicates endurance level as the game progresses - as it decreases, a player's strength, agility, and accuracy diminish.

"Agility" is the ability to get into position to hit the ball and a player's reflexes and timing.

Scroll Bar Settings (cont.)

"Accuracy" affects how close the shot will be to the "aiming spot" - how well the player can aim the ball where it is intended to go.

As you play, your computer opponent will prefer the various types of serves, volley shots, strategies and hitting motions according to the scroll bar settings. In a play situation that would allow any number of actions, the actual percentage of the time that a technique or strategy is used depends on the settings of the others in that catagory, not on the percentage shown on the scroll bar. In other words, settings of the same catagory affect each other proportionately. For example (on volley shots), you set your opponent's "Kill" and "Ceiling" shots each at 100% while setting "Passing" and "Pinch" at 1%. Your opponent would choose "Kill" and "Ceiling" approximately 50% of the time each, in situations where either shot could be used. If you were then to also set both "Passing" and "Pinch" to 100% like the other two, all four shots would have a net effect on your opponent's preferences of 25% each. With these settings - all 4 set equally - the computer would not prefer one type of shot over another in an opportunity where any shot could be used.

Scroll Bar Settings (cont.)

While all of the above-mentioned scroll bar adjustments can be made for your computer opponent, many are not applicable to you. Since decisions as to serves, volley shots, and style are made by you during actual play, these are not configurable for you in advance (see Figure 3). This allows you a realistic game challenge, as well as the opportunity to alter and experiment with your in-game play in as many ways, and as frequently, as you desire.
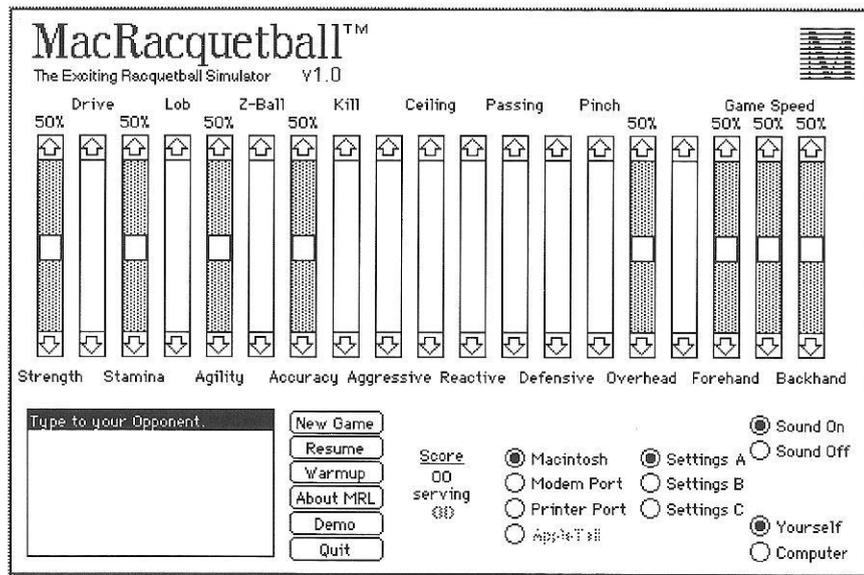
Fig. 3

Game Speed

The scroll bar second from the right is for adjusting "Game Speed", which can be set only while you are configuring your own player (Figure 3). This controls only the speed of the ball as it travels and has no effect on your own or your opponent's abilities or responses. A setting of 50% is considered appropriate to correspond to natural playing speed and the laws of physics.

Game Speed (cont.)

It is recommended that you adjust this to a lower setting, perhaps 20% or 30%, until you have a good feel for playing MacRacquetball. A higher setting can be useful as you improve, to aid you in fine-tuning your skills and increasing your game response-time.

For suggestions on where and how to set the scroll bar adjustments to suit you, turn to the section entitled "Ideal Configuration Settings" on page 31.

The communications window in the lower left-hand corner is used for typing to other human opponents you are playing against. This is covered on pages 28-31.

To Enter The Court

When you are ready to enter the MacRacquetball court, just click on "New Game", "Resume", "Warmup", or "Demo".

- "New Game" begins a game, played according to the current configuration settings.
- "Resume" takes you back into a game in progress. You cannot "Resume" to a "Warmup" or "Demo".
- "Warmup" mode allows you to practice without an opponent. As in the regular 2-player game, you cannot hit the ball after the second bounce.
- In "Demo" mode the computer controls both your player and the computer player, using the configuration settings you have specified for them.

Which Player?

On the MacRacquetball court, your player is the lighter-colored one; the darker one is controlled by your opponent, either the computer or the other human opponent over modem. If you are playing against a human opponent, on the other person's screen his/her player appears as the lighter one, with yours as the darker one.

Positioning Point

Fig. 4

12
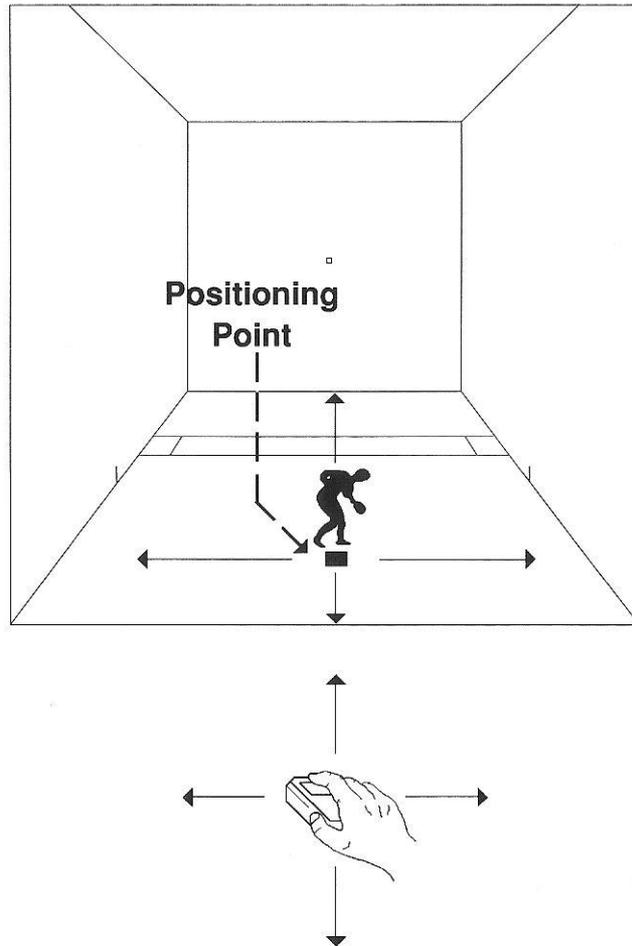
3-D Effects

You are viewing the game from behind the transparent back wall. The 3-dimensional effects on the court hold true, in that, when the ball and players are closer to the front they appear smaller and seem to move slower across your Macintosh screen, because they are farther away from you. As you play MacRacquetball, you will become more proficient at judging speeds and distances on the court.

Positioning Your Player

You control your player on the MacRacquetball court by using your mouse. Any movement of the mouse moves your player's "positioning point" (the small black square on the floor) on the court in the same direction (see Figure 4). Your player automatically runs to the location of the "positioning point" when you move it. If you move the "positioning point" rapidly across the court, faster than a player could run, it is ahead of your player as he/she is running to its new location (see Figure 4 on opposing page).

The Aiming Spot

The "aiming spot" is the position you want your racquetball will go to when you hit it. (However, there are more factors involved than just *aiming* the racquetball) You gain control of the "aiming spot" when you press and hold down the "Command" (⌘) key. While the "Command" key is depressed, you can move the spot anywhere by moving your mouse (see Figure 5 on the following page).

The Aiming Spot (cont.)

The "aiming spot" can be positioned anywhere on the court's walls or ceiling. When the "aiming spot" is on the front wall it is the shape of a small square, on the back wall (your Macintosh screen) it is also a square, but with bolder lines. When the "aiming spot" is on the right wall, left wall, and ceiling it is in the shape of a diamond. The "aiming spot" can be moved at anytime during play.
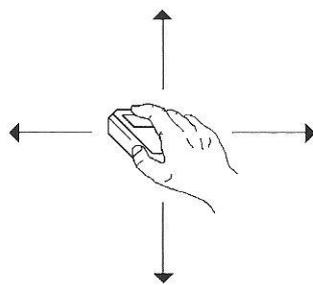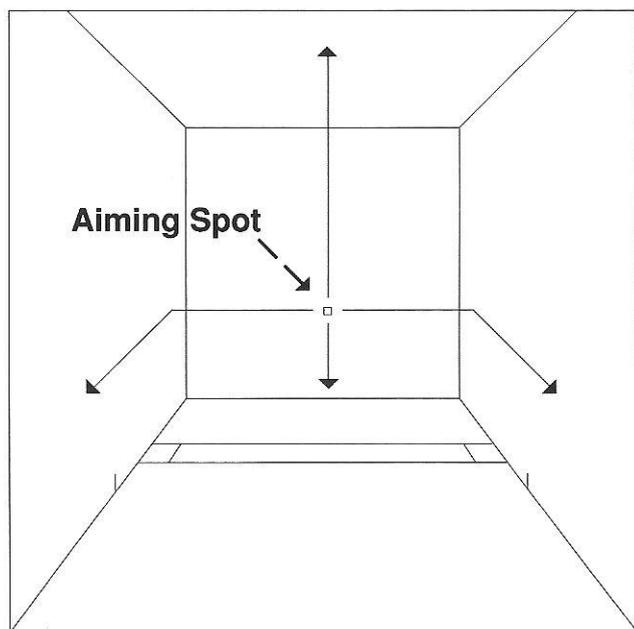
Fig. 5

The Aiming Spot (cont.)

To get the "aiming spot" onto the back wall, keep moving it back along the left or right wall toward you, as far as it can go (a little beyond the edge of your Macintosh screen). Then reverse the mouse's direction in a sweeping motion until you get the aiming spot to "wrap around" onto the rear of your Macintosh screen. To get it back to the side walls or front, reverse the actions. This procedure is a little bit tricky and may need some practice to perfect.

When you release the "Command" key, the aiming spot will be locked on the location where you set it. Whenever the "Command" key is *not* depressed, the mouse controls your player again.

Serving The Racquetball

When it is your turn to serve, your player will automatically be positioned within the serving zone. The only direction you can move your player while serving is right or left. To serve the ball, position your player on the service line and position your "aiming spot" on the front wall. The ball must hit the front wall before hitting any other wall to be a legal serve. In one movement, press the mouse button, push the mouse forward and release the mouse button. The quicker you push the mouse and release, the faster the ball will travel toward the "aiming spot". The ball will drop from about waist height, bounce once on the floor and be hit by your player.

Returning An Opponent's Shot

To return an opponent's shot, position your player into the path of the ball. When ball is close · enough to hit, press down on the mouse button and quickly push the mouse forward once again.
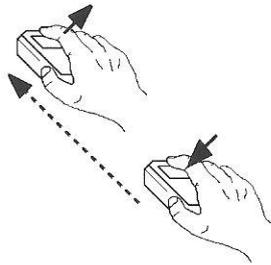
Fig. 6

Note: Your player cannot be running and hitting the ball simultaneously. Get your player into position before trying to swing at the racquetball.

Accuracy Of The Hit

Whether or not the racquetball will accurately hit the "aiming spot" is determined by the speed of the mouse push, the timing of the hit, the left and right movement of the mouse, and the level of accuracy set in the configuration screen. For example, you will probably encounter the following situations as you learn to play:

• A very quick mouse push will send a shot higher than the "aiming spot".
• A slow mouse push will cause the shot to hit lower than the "aiming spot".

With practice, consistently getting the ball to the "aiming spot" will not be difficult.

How Racquetball Is Played

Racquetball is a game of alternate hits, played in an enclosed court which is 40 feet long, 20 feet wide and 20 feet high.

The object of each player's turn is to return each shot to the front wall before the ball has bounced on the floor more than once.

One player stands in a serving zone and serves by bouncing the ball once and hitting it toward the front wall. The serving zone is the area between the service line and the short line (See Figure 7). The serve must hit the front wall first, then rebound far enough in the air to pass the short line before hitting the floor - but not so far as to hit the back wall before it hits the floor.

Fig. 7

How Racquetball Is Played (cont.)

After hitting the front wall, the ball may bounce off one side wall on its way to the floor and still be a legal serve. If it hits a second side wall, the ceiling, or the back wall before the floor, it is a "fault." T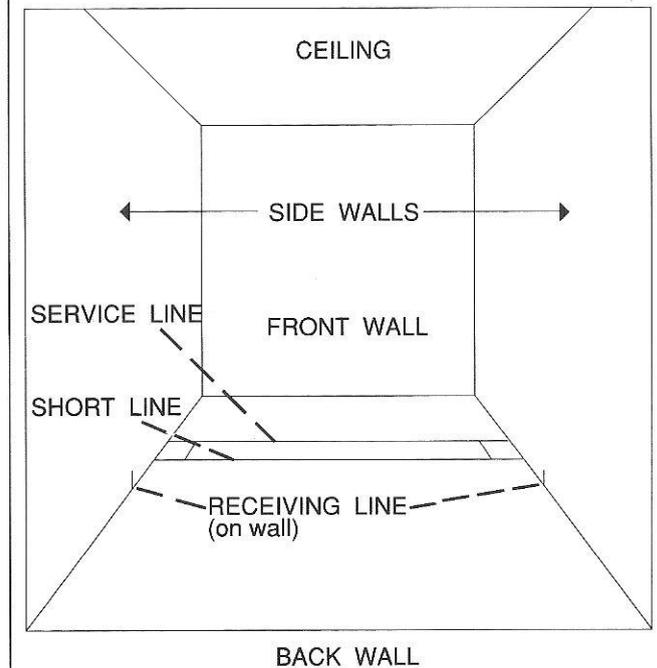he server is given a second chance without penalty. If two consecutive faults are served, the player loses the serve ("Side-out") and no point is given to either player.

Fault Serves

Any two fault serves in succession result in surrendering the serve to the opponent ("Side-out"). The following serves are faults:

The Short Serve Fault

A short serve is any served ball that first hits the front wall and on the rebound hits the floor on, or in front of, the short line either with or without touching one side wall.

The Long Serve Fault

A long serve is any served ball that first hits the front wall and rebounds to the back wall before touching the floor.

The Three-Wall Serve Fault

Any ball served that first hits the front wall and, on the rebound, hits two side walls on the fly is called a three-wall serve.

The Ceiling Serve Fault

A ceiling serve is any served ball that touches the ceiling after hitting the front wall either with or without touching one side wall.

Return Of The Serve

The receiver is forced to stand at least 5 feet behind the short line, as indicated by the vertical line on each side wall, but it is advantageous to be 10-15 feet back. He/she cannot enter into this safety zone until the ball has been served and passes the short line. After the ball is legally served, the receiver may enter the safety zone to return the serve.

Legal Returns

The player on the receiving side must strike the ball with the racquet either on the fly, or after the first bounce, but before the ball touches the floor the second time to return the ball to the front wall. The receiver's shot may then go directly to the front wall or ricochet against one or both side walls, the back wall or the ceiling, or any combination of those surfaces on its way, as long as it hits the front wall before it hits the floor.

The server then has the same challenge, and the rally is on. Each series of legal returns after the serve is called a rally. If a player swings at, but misses the ball in play, he/she may repeat those attempts to return the ball until it touches the floor for the second time. The first to fail loses the exchange, which determines the end of the rally.

Scoring Points

Points may be scored only by the server. If the server loses the exchange, he/she loses the serve (side out) but loses no points. The other player then has a chance to score points on his/her own serve. The server keeps the serve so long as he/she wins the rallies.

Object Of The Game

The object of the game is to win each rally by serving or returning the ball so the opponent is unable to keep the ball in play. A game is won by the side which first scores 21 points.

The Sport Vs. Mac-Racquetball (A Comparison)

MacRacquetball is similar to the sport of racquetball in the following ways:

- The ball dynamics are the same as a real racquetball in motion.
- You can execute any racquetball shot that is possible in the real game.
- The player can move to hit a ball anywhere on the court.
- Players can be struck by a ball.
- The "aiming spot" coincides with the point your eyes focus on before you swing the racquet.
- The "aiming spot" can be positioned anywhere inside the court (except on the floor).
- The players will tire as the match progresses.

Some of the differences are as follows:

- You have complete control of you opponent's abilities (when you play against the computer).
- Players cannot interfere with each other, therefore hinders will not be called.
- The players cannot dive or jump for a ball, or hit the ball while running.
- Players cannot run into walls. They will stop just far enough away to execute a swing that extends to the wall.
- You can not aim a shot for the floor.

Serving Techniques

Bounce 1

Bounce 2
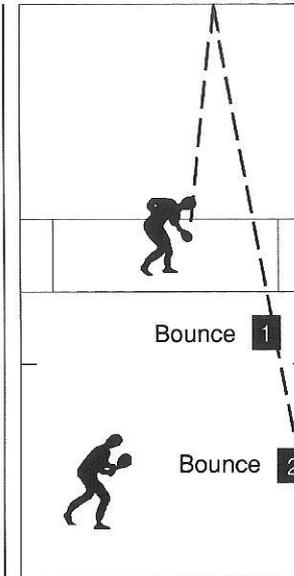
Fig. 8

The Low-Drive Serve

This is the bread-and-butter serve of most racquetball players, especially power players (see Figure 8). It can keep your opponent leaning in anticipation, and set him/her up for changes of pace or serves to the opposite corner. Serve from the center of the court. Aim for a spot left of the center on the front wall about knee-high. Try to keep the ball from traveling all the way to the back wall. The ideal low-drive serve dies or rolls out off the side wall.

The Half-Lob Serve

The half-lob, illustrated in Figure 9 on the next page, is served from the center of the service zone or from either side. The ball should strike the front wall, carry just over the short line and die in the corner without hitting the side wall.

The Half-Lob Serve (cont.)

Fig. 9
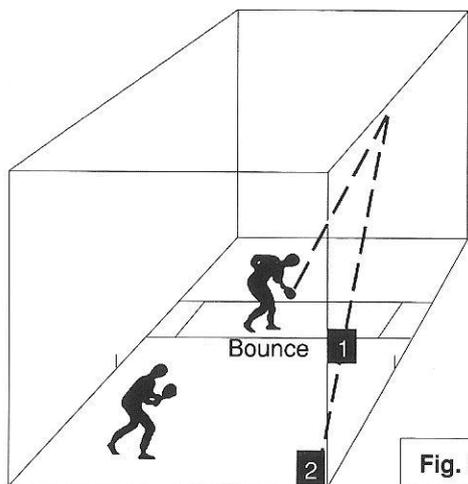
The Z-ball Serve

The Z-ball serve is served from either the extreme right or the extreme left of the service zone. A good wrist snap gives the Z characteristics which seem to defy the laws of physics. Properly executed, the Z-serve strikes the front wall, then the side wall in a flight pattern parallel to the back wall (Figure 10).

Bounce 1

2

3 →

Fig. 10

The High-Lob Serve

1 — Grazes Wall

2 — Bounce

3 — Dies In Corner

Fig. 11

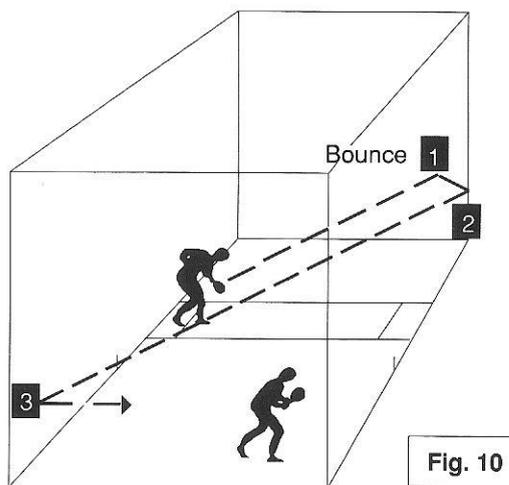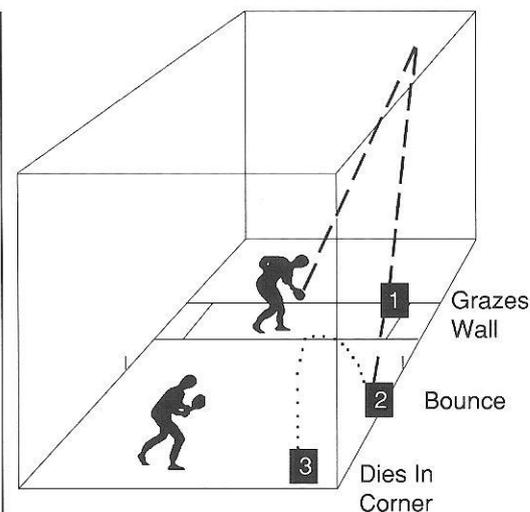The high-lob, shown in Figure 11, hits the front wall near the ceiling and rebounds into the back corner, brushing the side wall before hitting the floor and dying. A high-lob that bounces off the back wall usually means trouble for the server. It gives the receiver the two things a player wants most: time to set up and a soft bounce.

Serving Strategies

Avoid predictability in your serve selection and direction. Mix up your serves so that your opponent doesn't gain an important edge in anticipation, where he/she is "seeing" the ball coming before you even hit it.

If one serve isn't working, move to a new spot and try the same serve but from a different angle. In doing this yourself, however, remember: You must have a good feel for your target areas, for they will be constantly changing in relation to where you contact the ball.

Return Techniques

Bounce 1
2 **Rolls Out & Dies**

Fig. 12
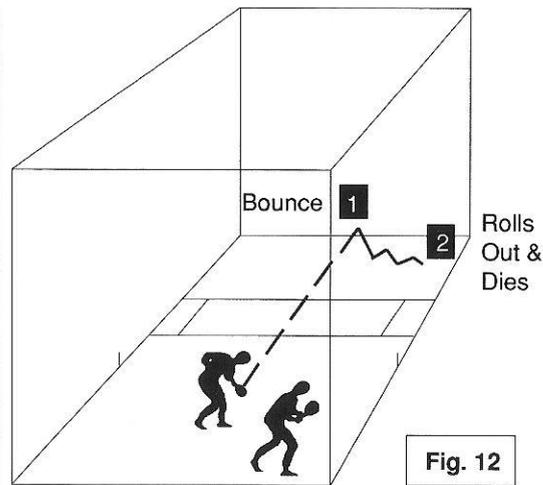
The Kill Shot

Use the kill shot only when the server sets you up for it, and you have a reasonable chance of success. The server has better court position. The ideal kill shot strikes very low on the front wall and either rolls out or bounces its second time before the service zone (Figure 12). If the return doesn't roll out, it can become an easy set up for your opponent.

The Pinch Shot

This shot, shown in Figure 13 at the top of the next page, forces your opponent to respect the front part of the court. The best pinch is hit tightly into the corner, catching the nearest side wall within several feet of the front wall and low enough to make the ball bounce twice before the service zone or the opposite side wall.

The Pinch Shot (cont.)

Bounce
Bounce 1 2
3 **Rolls Out & Dies**

Fig. 13
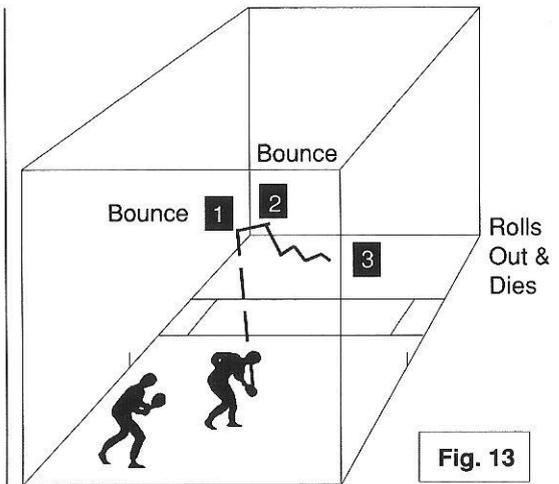
The Cross-Court Pass

This return, if properly executed, puts the server on the defensive by driving him/her into the back court for a retrieve. The alert service returner can move forward into position and take the offensive. Cross-court passes that are low, hard and behind your opponent's reach are almost impossible to handle (See Figure 14).

Bounce 1
Bounce 2

Fig. 14
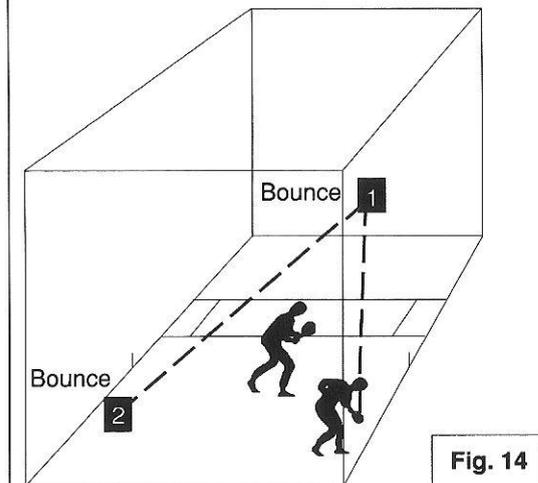
The Ceiling Ball

The fore and backhand ceiling ball is a difficult shot to master, but is essential for effective service return. Without it, you'll never be able to follow one of the game's basic rules: When in doubt, go for the ceiling (Figure 15).

Bounce Off Ceiling

Off Front Wall

Off The Floor

Off Back Wall

Fig. 15

Return Strategies

Covering The Low-Drive Serve

For successful returns off the low-drive, you must move as quickly as possible to the get to the corner the ball is going. When the serve has been hit crisply and is going to stay tight along the side wall without coming off the back wall, you must learn to move without hesitation and take the ball up to the ceiling, pushing your opponent back while preventing the ace or the weak return.
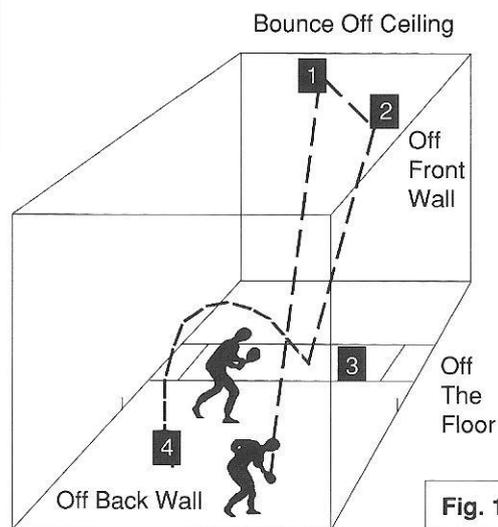
Covering The Z-Serve

In order for the Z-serve to be good (contacting the front wall and side wall at the correct angle and height), you must either (1) move over and cut the ball off after it bounces and before it hits the side wall, or (2) let it come off the side wall. If you hesitate against the perfect "Z", the ball may get too tight into the the back corner or along the back wall and prevent you from getting a shot.

If the Z-serve has been hit at the proper angle into the front wall, but too low, it will carom off the side wall and come in short of the back wall. So move over, let the ball kick off the side wall, then be ready to go for an offensive return.

If the Z-serve is long, it will carom off the side wall and back wall, then come to you as an offensive setup. Just make sure you're ready to go for the winner off this shot.

Covering Lob Serves

Since many low-drive first serves land short, you may be seeing plenty of lob serves during a match. If your opponent's lob is accurate, just move to the corner and take the ball up to the ceiling as it approaches the back wall. If the lob is inaccurate, take advantage of your scoring opportunities off the walls.

Rally Techniques

The best place to be in any rallying situation is center court. Chances are you'll find yourself out of center court a good deal of the time. This is when shot selection becomes critical.

Deep In The Backcourt

The closer you are to the back wall, the more remote your possibility of a successful kill or a cross-court passing shot. If you find yourself deep in the backcourt, behind your opponent, your best tactic for success is a ceiling shot. Try to get the ball into either of the back corners.

Mid-Backcourt

From this position, even if you're behind your opponent, you have a reasonable chance of passing him/her. Go down the wall or cross-court, depending on your position. Choose the shot that puts the ball as far from your opponent as possible. Use the entire court. Even if you don't pass successfully, you can gain an advantage by getting your opponent out of position and off balance.

Near The Short Line

If you're near the short line and your opponent is farther back, go for the kill. If your shot doesn't roll out, you might still pass and win the rally. After each shot, strive to regain the crucial center court position. That's where you're least vulnerable to your opponent's next shot.

Facing An Opponent Over Modem

You and your opponent will each need a 1200 baud modem with cable (preferably Hayes-compatible), a Macintosh as described in the "Hardware Requirements" section on page 4, and MacRacquetball. Each player must connect the modem to either the modem or printer port. Then, making sure a phone line is connected, plug the modem into its power source to reset it. Start up with MacRacquetball as described on page 5. If the configuration screen is not displayed press the "Shift" key once.

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Facing An Opponent Over Modem (cont.)

Select either "Modem Port" or "Printer Port" depending on which port the modem is connected to. In the lower left-hand corner of the configuration screen is the communications window. This is the place you will be able to communicate with your modem and your opponent. After pushing your [Caps Lock] key down type the command "ATZ" and press [Return]. While typing you should see either "ATZ" or "AATTZZ" displayed in this window. After pressing "Return" the modem should respond by sending you "OK". At this time one player will wait to receive a call and the other will continue to dial his/her opponent's modem phone number. If you are the one calling, type in "ATD" and your opponent's phone number, and press [Return] (Example: "ATD5551234 [Return]"). The modem will dial the number and wait for your opponent's modem to answer the phone. Your modem and your opponent's modem will probably respond with something like "CONNECT" when connected. Continue reading the section "After Connection" on page 30.

Between Macintoshes At The Same Location

When two players want to compete against each another at the same location, two Macintoshes can be connected with an ImageWriter II cable. You and your opponent will each need MacRacquetball and a Macintosh as described in the "Hardware Requirements" section on page 4. One ImageWriter II-to-Macintosh Plus/SE cable is needed to connect the two computers together. Set the Macintoshes back-to-back so your opponent can not see your screen.

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Between Macintoshes At The Same Location (cont.)

With both computers turned off connect one end of the cable to either the modem or printer port of one machine and the other end of the cable to the other machine's modem or printer port. Start up with MacRacquetball as described on page 5. If the configuration screen is not displayed press the "Shift" key once. Select either modem port or printer port depending where the cable is connected.

After Connection

In the lower left-hand corner of the configuration screen is the communications window. This is the place you will be able to communicate with your opponent. You can now type any messages to your opponent which will be seen in his/her communications window and visa versa. After communicating back and forth to assure proper connection you can begin play. One player must set the speed of the game (with the "Game Speed" scroll bar) and select the "New Game" button. The player selecting "New Game" will be the first to serve. At this time both Macintoshes will display the court simultaneously. Each player always controls the lighter colored player and the opponent is the darker one on the screen. Neither you or your opponent can see the other player's "aiming spot". Either player may press the [Shift] key at any time to display the configuration screens for both players and type messages or change the configuration. The "Resume" button will continue play where it was left off. To quit the game, both players simply return to the configuration screen and each selects "Quit".

Communications Error

If an error occurs while connected to another player via modem or ImageWriter II cable, an alert box will be displayed. At this time you will have two options. You can try to continue by clicking the "Yes" button or return to the configure screen by clicking the "No" button. You should always try the "Yes" button first. If the error reoccurs, click the "No" button and try typing to your opponent on the communications window. If no communication is established then restart the connecting procedure.

Ideal Configuration Settings

To find ideal settings for yourself and/or a specific opponent's style, it is recommended that you initially set all the scroll bar adjustments (on the configuration screen) at 50%, modifying them gradually until the player's performance is where you want it to be. Get familiar and experiment with the settings until they are adjusted to the desired effect. You can make changes during a game, or while running in the "Warmup" or "Demo" modes. During a game or in any other playing mode, when you wish to temporarily stop the action to readjust the configuration settings before continuing, simply hit the "Shift" key. Click the "Resume" button on the configuration screen, when active, to return to the court to continue playing. This can be done as often as you like, to make adjustments for yourself or your computer opponent.

For The Competition Racquetball Player

The racquetball figures in this program are taken from video of actual professional players. This feature, along with the fact that you can infinitely control the computer player's level of ability, gives you a definite advantage when you get back out on the real court.

Playing Your Best Opponent

MacRacquetball makes it possible for you to configure the computer player to emulate the play of any opponent you have ever faced. Once you do this, you will be able to play this opponent time and time again. You will have the opportunity to pick up on what he/she does when you do a Z-serve or when you execute a cross-court pass (for example).

Playing An Opponent With Your Abilities

Perhaps the best player in your area is you. If this happens to be the case, or if you just want to improve your game by playing someone with all your characteristics, MacRacquetball allows you to configure the computer player to play just like you do.

Tips From The Team At PCAI

- Watch the shadow of the ball for greater depth perception during rallies.
- Move your player's positioning point, then press the "Command" key and aim your shot while your player is running into position.
- Work on increasing your "Game Speed" setting gradually. Practice at higher settings as you improve, to get an edge on your opponents when playing at lower speeds.