

**1991 Catalog**



**Mad River Canoe**

# E XCELLENCE

Three unequaled values found in Mad River Canoes:

Excellence in design ...from all-around canoes to specialty craft.

Excellence in materials ...advanced, state-of-the-art systems.

Excellence in craftsmanship ...handmade in Vermont.



Photo: Clyde Smith  
Enjoying an afternoon of fishing.

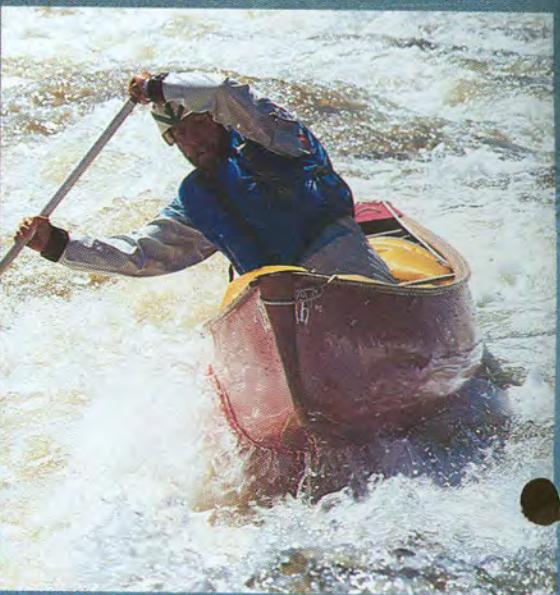


Photo: B. & C. Beck  
Bob Foote playing in the Black Chute,  
Ottawa River, Canada.

Photo: Henry George

## COME PADDLE WITH US

We began building canoes for ourselves over 20 years ago because we had some very specific ideas about what we thought a canoe should be able to do and how it should handle. We wanted to make boats that were absolutely reliable, that were easy to paddle, and that worked in our real world of rivers, streams and lakes. Right from the beginning our canoes were recognized for their state-of-the-art designs, advanced materials and painstaking craftsmanship. We've never looked back.

Over the years we've developed some extraordinary canoes with extremely broad performance ranges. We've also developed specific boats for specific water conditions, for paddlers who demand specialized performance from their canoes. We've married space-age composite systems with traditional wooden boat craftsmanship, adapting different construction methods and materials to different usages.

This year we are proud to build upon our canoe tripping heritage with two new Jim Henry shallow V hull designs. The Independence is an eye-catching 15' 10" solo; the Sundance is a quick 17' 6" tandem for adventuring into canoe country. Mad River Canoes continue to play the leading role in the exciting world of whitewater. Our newest Royalex model, the Howler, is an exciting solo/tandem whitewater performance design.

Mad River Canoe delivers unequaled value for the money. Excellence in design, materials and craftsmanship, means excellence on the water. There are no short cuts. There are no substitutes. The message is value. It's been like that for discriminating paddlers for 20 years now.

Our continuous attention to detail is reflected in numerous new ways this year:

- ◆ Internal graphite reinforcements in the bow and stern of every fiberglass, Kevlar and Hybrid canoe for increased abrasion resistance.

- ◆ Sculpted carry handles in all Kevlar and Hybrid models.
- ◆ Ash portage yokes in all tandem models.
- ◆ A unique, patented, contoured cane seat in our solo and Special Edition canoes.
- ◆ Slotted gunwales now optional on most Hybrid canoes.
- ◆ Stunning two color interior hull presentation in Fiberglass models.

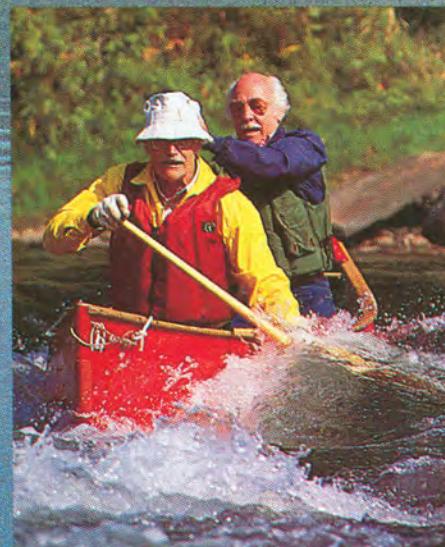
### CONTENTS

<b>4</b>	Quality in Craftsmanship
<b>5-6</b>	Engineered for Excitement
<b>7-8</b>	The Material Difference
<b>9</b>	How to Choose Your Canoe
<b>10-14</b>	Versatile Series Canoes
<b>14-17</b>	Focused Series Canoes
<b>18-23</b>	Specialty Series Canoes
<b>25</b>	Handling Characteristics
	Canoesport Equipment
<b>16</b>	Packing
<b>21</b>	Portaging
<b>23</b>	Whitewater
<b>26-27</b>	Paddles, Canoe Care, Finishing Touches, PFD's, Transport, Sport .



Kay Henry out product testing.

Photo: Jim Henry.



Everyday can be a canoe day.

Photo: Jim Henry.



# Quality in Craftsmanship

## HANDMADE CANOES

**E**xtraordinary value is the result of extraordinary efforts to create something uniquely suited to its purpose. In the world of canoes, the benchmark of such quality is Mad River. The exceptional value represented in each Mad River Canoe is no accident. It is the result of concerted quality efforts in craftsmanship, design and materials. All three are of the utmost importance. Yet, it is the craftsmanship of the builder that ultimately determines if the dreams of the designer and the best attributes of the chosen materials are realized. The craftsman's artful blending of design and materials creates craft capable of meeting a diversity of demands—with reliability, style and grace.

All Mad River hulls are hand-made by builders who draw on years of experience and personal pride. It is the task of these craftsmen to work the finest materials in such a way as to maximize their inherent properties in making the finest canoes humanly possible.

Before we even start to build a boat, hundreds of hours are invested in researching the best and most efficient design and materials. Aerospace technology and hand-made craftsmanship meet in each Mad River Canoe in a marriage that clearly represents the best of both worlds.

Our laminate hulls are built using a carefully formulated pattern of reinforcing fabric. Not only are these layers selectively laid in, but we carefully position the weaves to assure that strength and stiffness are maximized.

Our mirror-smooth gel coats demonstrate our concern that our canoes are cosmetically as well as structurally impeccable.

The same pride and attention to detail characterizes our woodwork. The ash

gunwales are perfectly matched with grain structures uniquely paired for maximum strength. Our butternut decks are hand built and hand fitted to each canoe, the joinery tight and flawless.

Craftsmanship is a commitment integral to Mad River Canoe since our founding twenty years ago. It is the desire and willingness to make it right or, actually better than right, to excel. It is the willingness to take the extra step, to spend the extra time, to ensure that each canoe is built without compromise.

What is the result of this commitment to craftsmanship? Simply put, pride and satisfaction—both ours and yours. Our pride in building the finest canoes, your pride in owning and using the best. Our satisfaction in a job well done, your satisfaction in realizing your dream. At Mad River Canoe we're proud to create the canoes that make it all possible.

## NATURAL WOOD FINISH TRIM

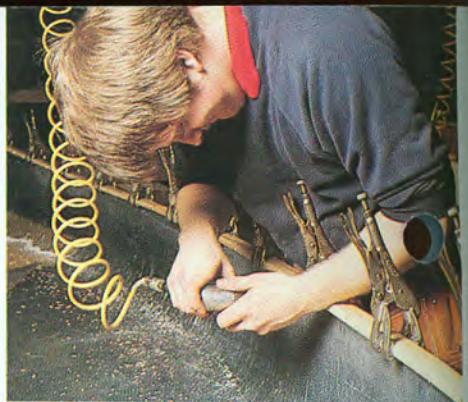
**M**ad River Canoes are renowned for their fusion of modern materials and designs with the beauty and practicality of wood. For our finish trim, we use only Northern White Ash, known for its strength, resilience and distinctive appearance.

We mill all our own wood at Mad River, cutting the clear, quality stock cleanly along the grain to preserve the naturally elongated grain structure, so that when one of our canoes flexes, the wood absorbs the stress over the length of the hull, providing the strength and resilience we demand of our finish trim. Each set of gunwales is grain matched, pre-oiled and designated for a particular canoe model.

Once in place on the hull, the ash gunwales are impregnated with additional applications of Watco exterior wood finish, a deep-penetrating oil and resin coat which protects the wood from the inside by polymerization. This process yields a long-lasting barrier to water and weather. Periodic re-oiling will create a rich surface sheen that will highlight and preserve the beautiful grain structure.

Another distinctive feature of Mad River Canoes is our lightweight, long-lasting ash-framed cane seats. Unlike solid seats, these cane seats are cool, comfortable, quick-drying and don't pool water.

We join our ash rails, carry handles, thwart and cane seats to our canoes with high-quality stainless steel fasteners rather than brass, for better strength and superior resistance to corrosion.



Butternut deck with sculpted carry handle.



Contoured Cane Seat.

## SYNTHETIC GUNWALE SYSTEM

**E**ngineered for our Royalex Canoes, this innovative and tough trim package features an aluminum-reinforced vinyl rail and rotomolded decks as an alternative to the beautiful ash woodwork and cane seats that characterize most Mad River Canoes.

The handsome rotomolded decks include a built-in carry handle for easy lifting. Accented with Mad River's Confident Rabbit, the decks completely encapsulate the ends of the canoe, merging with the carefully engineered vinyl rails. Expressly formulated for strength in cold weather, the rails are reinforced with a 6063-T6 aluminum insert.

This option is available in 16' and 17' Royalex Explorers, Quest, Courier, Fantasy and ME models. This system adds an average of two pounds to the canoe's weight.



# Engineered for Excitement

The fundamental theories employed in the art of canoe building are expressed in design. At Mad River, the goal of design is to integrate the finest materials and workmanship in beautiful forms that address well-defined functions. We strive to create canoes that will ably meet all the conditions you plan to encounter on the water, and some you don't.

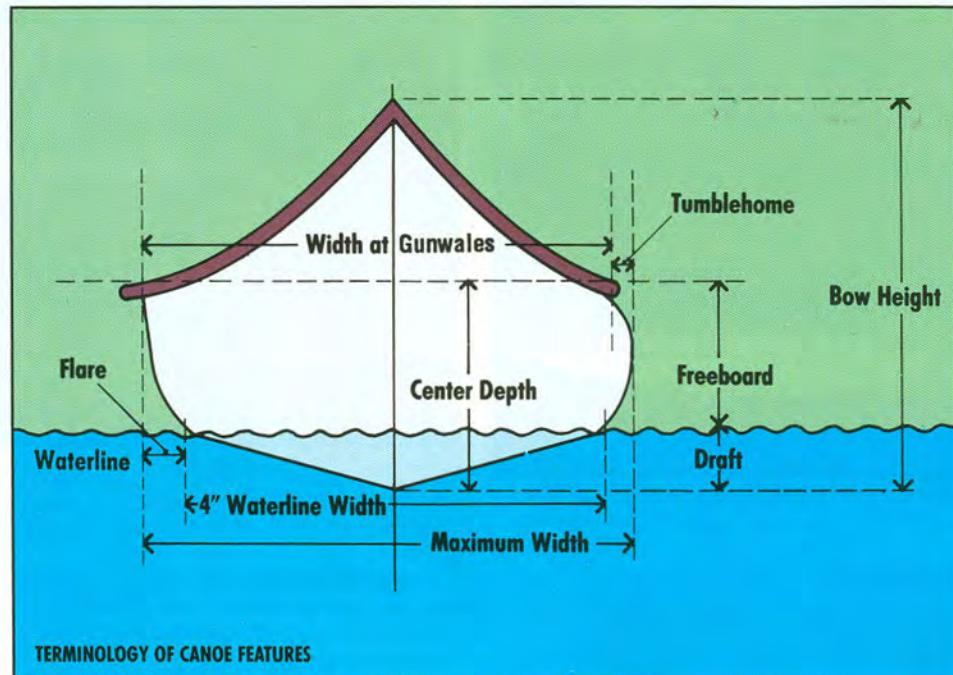
Mad River designs canoes for all levels of paddlers and all moods of water—clear, glassy water...strong, flowing water...white foaming water...roiling, twisting, boulder-strewn water...slow, easy-going, meandering water.

The design features of your canoe will determine its specific performance and handling characteristics. Understanding canoe design will help you to pick the Mad River Canoe that most precisely fits your needs.

## ELEMENTS OF CANOE DESIGN

A ny canoe is a compromise of many design elements, each addressing a particular performance need. Varying these elements allows the designer to put more or less emphasis on speed or paddling efficiency or stability or maneuverability or cargo-carrying capacity.

Canoes are displacement craft which travel through water, pushing it aside from the bow while allowing the water's replacement near the stern. The shape of



the hull can minimize water resistance, making the canoe easier to paddle. The two basic dimensional measurements—length and width—most affect a canoe's performance.

The length of a canoe governs its potential speed. Given two hulls of equal width, the longer canoe will be faster and easier to paddle; the shorter hull will be slower, but easier to turn. A wider hull, especially at the 4" waterline, will generally be more stable than a narrower hull.

Length and width, combined with depth, determine the weight a canoe can carry and the size of the waves it can deflect successfully.

Differences in hull shapes greatly affect handling characteristics. Consideration of a canoe's keel-line shape, degree of symmetry, cross-sectional shape and above-waterline design all play a part in the way a canoe performs.

## HULL CONFIGURATIONS

**KEEL LINE** • A canoe's keel line is the shape of the hull bottom running from bow to stern. A "straight" keel line has minimal curvature from end to end; it cuts easily through the water, maximizing waterline length to emphasize forward speed.

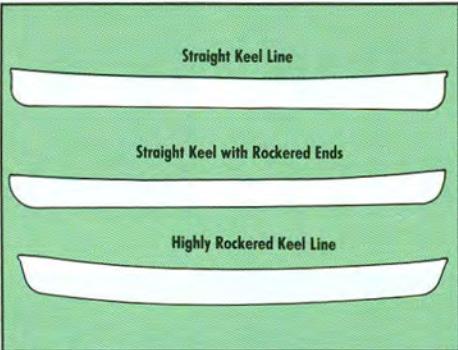
"Rocker" is the curvature at the ends of the canoe's keel line, allowing it to pivot more easily because the ends lift out of the water. A straight keel line combined with moderate rocker in the ends makes for excellent turning ability and results in a superbly versatile canoe.

The design of canoe's hull, not the presence of a keel, determines how well a canoe will "track". Mad River Canoes do not have external keels because an external keel is not an integral part of a smooth hull design and can get hung up on obstacles and cause capsizing; it's also subject to tremendous wear. Most Mad River designs have shallow V shaped hulls to create good tracking ability. This,

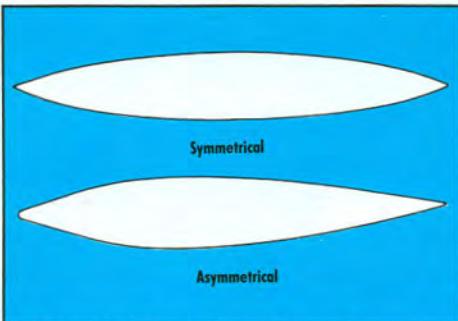


Designed for comfortable, easy paddling.

Photo: David Brownell

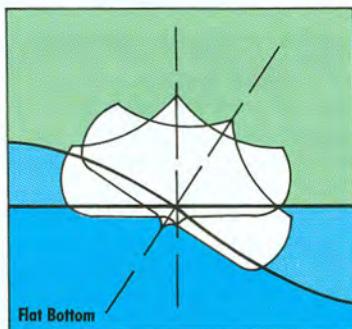
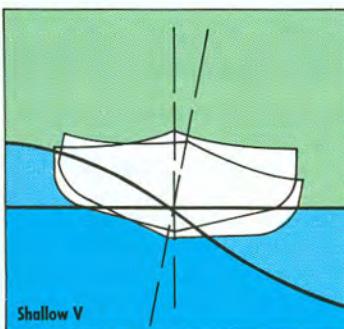


## Keel Line

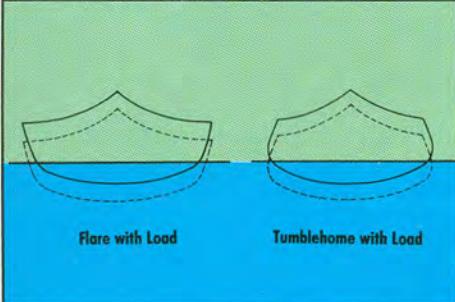


## Examples of Symmetry

## Stability



## Hull Shape



Canoes built for maximum performance and fun.

Photo: Ron Sauter

combined with varying amounts of rocker, also allows a canoe to maneuver adequately.

**SYMMETRY** • The hull of a symmetrical canoe has identically-shaped halves (fore and aft) with the wide point in the center, which makes for predictable behavior. An asymmetrical canoe usually has its widest point a foot or so behind the center; in a straight-keeled canoe this enhances forward speed, especially in shallow water.

**HULL CROSS SECTION** • Mad River Canoes have traditionally been designed with a shallow V shaped into the hull. This shallow V bottom yields the best balance between tracking ability, maneuverability and stability in recreational all-around canoeing. In moving water, the V hull's stability is unsurpassed. Water is a fluid medium in motion with waves and currents. The shallow V offers two stability planes; in fact, this design becomes comparatively more stable the rougher the water. Flat-bottom canoes are stable only in the static upright position. Once tipped, there is no stability shoulder to arrest the shifting forces and—like round-bottom boats—they reach stability only when upside down!

Another shape between the flat and round bottom extremes is called a shallow arch. Again, the degree of arch designed into a hull may vary as the degree of shallow V varies according to the canoe's use (deeper for lake use where good tracking is desired, shallower for river canoeing where more maneuverability is required). While not offering quite the degree of stability in shifting water conditions or the tracking benefit of the V, a shallow arch can offer greater performance because it has less wetted surface. As canoesport has grown, Mad

River has incorporated several shallow arch designs into its model offerings, each carefully tailored to the use and the needs for more specific types of paddling.

**ABOVE WATERLINE** • The hull shape above the water is also an important aspect in how a canoe performs. Where there is flare, the sides extend outward above the waterline deflecting water and giving greater stability in head waves—a good feature in a whitewater canoe. Tumblehome (the opposite of flare) brings the sides of the hull in at the gunwale line; this allows the paddle to be more parallel to the keel making for a more efficient vertical stroke letting the canoe track straighter—a desirable characteristic for flatwater cruising.

A combination of these features is common in the design of a modern canoe. For instance, our Slipper has flare above the waterline in the bow and stern quarters to shed water and keep the canoe dry in waves; however, it also has tumblehome at the center so the canoeist does not have to reach as far out over the side to paddle efficiently.

**6" FREEBOARD CAPACITY** • We do not recommend a safe load capacity for our canoes because of several factors: the stability and handling characteristics of the canoe; the experience, ability and judgment of the paddler; and the conditions of water and weather. Instead, to give a volume comparison between models, we calculate an objective load displacement rating—the amount of stationary weight a canoe can hold and still retain six inches of freeboard at the canoe's center. The resultant displacement figures are just that—volume comparisons, not recommended paddling capacities.



# The Material Difference

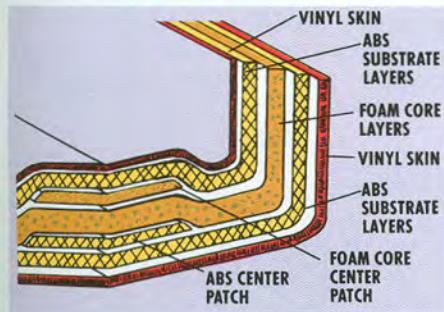
A canoe must be the most versatile of watercraft. More may be asked of it than any other vessel. It might be paddled, poled, sailed or motored. It must be light enough to be lifted, carried or portaged. It must be durable enough to withstand abrasion, impact and considerable stress. It must be able to transport some twenty times its own weight, or more, and yet it has to be fun and stimulating to use. Rarely have we seen such a balance of form and function as in the canoe.

Mad River has always been dedicated to building canoes that offer the perfect balance of lightweight performance and rugged strength. No other canoe is built to Mad River's extraordinary standards of craftsmanship and material excellence.

Our Royalex models are strong enough to take direct impact from boulders and sharp rocks. Our Fiberglass and Kevlar canoes are made to withstand greater abrasion and flexural fatigue than most paddlers will ever need. These are no flimsy, thin-skinned canoes; they're built for the active user and the real world.

Mad River Canoe uses more selective material reinforcement than any other canoe manufacturer. We use top quality, high technology resin systems, carefully matched with each specific fabric to obtain the optimum laminate performance. We use all cloth lay-ups for extra strength in our Fiberglass canoes. We use additional thicknesses of ABS in our Royalex canoes. We use an exotic, "forgiving" foam in our Kevlar/Airex canoes. And we use more Kevlar in our Kevlar canoes.

## ROYALEX CANOES



Royalex has been the material of choice for Mad River whitewater canoes since 1974. More than 20,000 of these resilient craft have been chosen for their incredible durability withstanding the most

abusive conditions. Impacts and scrapes that would harm the finish of other canoes are absorbed by a Royalex boat. Repair is infrequent and easy to accomplish if necessary. Although we can't guarantee you won't wrap our canoes around rocks or drop them off cars, Royalex—with its inherent flexibility—is the most damage-resistant material you can have in these situations. Plus, it's an excellent insulator against extreme heat or cold and very quiet to paddle.

Royalex is a sandwich lay-up composed of three component layers which are built in various thicknesses and locations as specified by each Royalex canoe manufacturer: 1) a rugged cross-linked vinyl skin that forms the interior and exterior surfaces of the hull and is specifically formulated for abrasion resistance and protection against ultraviolet light; 2) ABS substrate layers underneath the skin that provide the canoe's hard armor and strength; 3) a unicellular foam core which gives the canoe its flotation and maintains its rigidity.

Keep in mind that not all Royalex canoes are alike in strength. Differences in price of Royalex canoes directly reflect differences in material construction. Our precise specifications call for extra ABS and foam for increased strength, rigidity and abrasion resistance in the ends and bottom of the canoe, while side areas are built lighter to achieve a perfect balance between durability and overall weight.

At Mad River, each custom-tailored sheet is heated and vacuum-formed into a seamless canoe hull. Again, care is taken not to "thin out" the Royalex by overstretching in the molding process; rather, our unique molding process builds extra thickness into the bow, stern and keel areas where you need it most. If you look closely you may even see these extra thicknesses in the ends which resemble a "smile" appearance. This reinforcing, combined with the inherent structural rigidity of the shallow V hull design, results in a tough, more rigid Royalex canoe. A most utilitarian and versatile canoe construction.

## COMPOSITE CANOE CONSTRUCTION

Fiberglass, Kevlar and Hybrid canoes are constructed of laminates of various reinforcing fabrics bonded with specific resin systems. The dramatic development of advanced resins from the aerospace industry over the past few

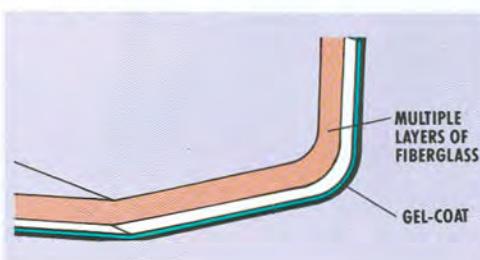


Lightweight for easy portaging.

Photo: Sam McVicker

years is one of the least understood and most invisible changes in superior canoe construction. At Mad River, several different resin systems are utilized. Each is designed with specific elongation, abrasion and flexural properties to blend with the specific characteristics of the chosen reinforcing fabric to yield the ideal strength, stiffness and high impact resistance. This optimizes the total performance of the material in its designated usage.

## FIBERGLASS CANOES



Since 1971 Mad River has been building hand laminated, all fabric durable Fiberglass canoes. Lighter and sleeker in design than the Royalex canoe, this construction is the right choice for paddlers who want an exceptional quality recreational or cruising craft without continual whitewater use. Fiberglass canoes have sharper entry and exit lines and are more rigid still than Royalex canoes. This makes them significantly easier to paddle, even in a comparable hull design.

Construction of a Mad River Fiberglass canoe begins with the application of a skin of abrasion-resistant, flexible gel coat to the inside of the mold which becomes the outside of the canoe. This will give the canoe a beautiful high-gloss finish that will protect the underlying cloth. Look closely and you can see the pattern of this cloth through the thin, shiny gel

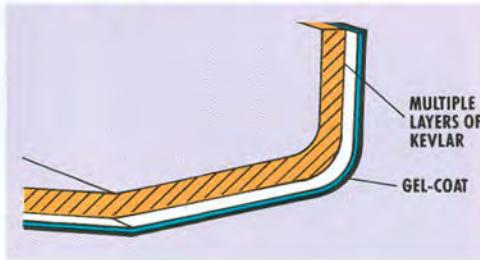
coat. This is the hallmark of a lighter weight, flexible craft and is the sign of a well-made canoe.

Each hull is carefully laid up by hand, according to the specific requirements of each design. Full layers of high-strength, custom-woven fabric are used with additional reinforcements placed at precise angles in specific locations for optimum strength and stiffness in all highwear and impact areas of the bow, stern and belly of the canoe. For example, we selectively reinforce our fiberglass laminates with Kevlar to produce the most durable, impact-resistant Fiberglass canoe on the market.

Up to fourteen individual layers are then bonded with exactly the right amount of high performance, flexible polyester resin to keep weight to a minimum. An extremely important factor in determining the impact resistance and durability of a fiberglass canoe is the resin system used to bond the layers of fabric. Canoes flex and rebound from impact countless times throughout their life span. Mad River Canoe matches its resin systems to the specific characteristics of each type of fabric. In this case the custom woven fiberglass cloth is matched to the highest quality isophthalic polyester resin available, which means much greater resistance to hard impact, wear and abrasion...and a long life for your Fiberglass canoe.

The final result is a precisely engineered Fiberglass canoe of exceptional quality. A step up in performance and a terrific paddling value.

## KEVLAR CANOES



Mad River first introduced Kevlar (an aramid fiber) to the canoe industry back in 1974, so we are highly experienced at designing and building these long-lasting, extra-durable hulls using this aerospace developed material.

Kevlar 49 fabric is, pound-for-pound, five times stronger than steel, yet its low density makes it lighter than most other reinforcing fibers.

Mad River Kevlar canoes, like our Fiberglass canoes, have a shiny, abrasion-resistant gel-coated skin and are carefully laid up by hand. The Kevlar laminate itself varies from 3 to 14 layers thick, carefully tailored, positioned and reinforced to concentrate the greatest strength where most needed, while keeping the overall hull extremely light.

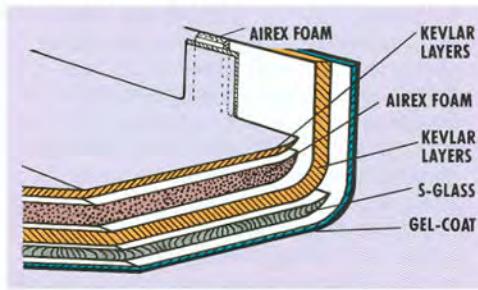
The strength of a Kevlar canoe is

directly related to how well the resin is bonded to the reinforcing fiber. Rather than use "off the shelf" Kevlar fabric like most other manufacturers, we specify both the weave and the surface finish of our exclusively prepared Kevlar to assure a superior bond matched precisely with our vinylester resin system to take advantage of the more elastic properties of the Kevlar. This is the secret to Mad River's superior Kevlar construction and translates to great flexibility and increased strength in impact situations.

The advantages of Kevlar over fiberglass are superior fiber tensile strength and a 20% weight reduction. The greater tensile strength means increased tear and puncture resistance instilling paddler trust for remote back country tripping. The weight reduction means easier handling and portage.

Meticulously engineered for high performance and high durability, a Mad River Kevlar canoe is a rewarding long-term investment for the discerning paddler.

## HYBRID CANOES



To create a canoe that is more efficient to paddle and weighs still less than one made entirely of Kevlar, Mad River selects and combines the advantages of Kevlar, a new fabric called Spectra, S-Glass and a structural foam core in a process called hybridization.

Here, we tailor our canoe construction by strategically merging the superior characteristics of various materials in a more efficient laminate in which the final product is stronger than the sum of its components. By blending the advantages of fibers that cross check each other's handicaps with a foam core stiffener, the resulting composite can have performance characteristics that surpass single fiber-reinforced systems.

In 1989, we introduced a new, high

technology fiber called Spectra in both our Cyclone and Twister whitewater playboats. Spectra is lighter than Kevlar, with a specific gravity less than one (it floats) and has increased impact absorption. Mad River has developed the laminate and resin system able to utilize this new tough fabric construction.

The Hybrid hull laminate is constructed using a vacuum-bagging technique, which assures a complete bond of core and reinforcing fabric with a minimum amount of resin. All materials have been chosen for their compatibility with an even more highly elastic vinylester resin to produce a durable, lightweight laminate. These hulls contain fewer layers of cloth than our all Kevlar canoes. An outer layer of S-Glass provides abrasion resistance for the hull while between ribs and above waterline the laminate is substantially thinner. This provides the weight savings in areas which are rarely impacted while not compromising much impact resistance in the hull bottom.

The fabric layers are engineered for strength; the structural foam core in the ribs and floor adds stiffness to the hull. In contrast to all other manufacturers Mad River chooses Airex foam for all its whitewater and tripping Hybrid canoes. Unlike other PVC foams, Airex is the only rigid elastic sandwich core material that does not delaminate or crumble on impact, a critical feature to any canoeist likely to encounter rocks or other obstructions. Unlike other foams, Airex also has excellent long-term resilience properties that combat hull fatigue throughout the lifetime of the canoe.

Where impact situations are not generally encountered and price is a more important consideration, a lighter PVC structural foam is selectively utilized. This is seen in the floors of the Quest, Minstrel, Independence and Sundance Hybrid laminates. However, Airex is utilized for all ribs in every Mad River Canoe to absorb flexing in the sidewall construction.

Although Mad River's all-Kevlar canoes offer the greatest durability and flexibility because of the larger number of Kevlar layers, Hybrid canoes are lighter and more rigid, which increases paddling efficiency. The construction preference between these superb quality, meticulously engineered laminates depends on long-term paddling demands and performance expectations.

## COMPARATIVE CHARACTERISTICS OF STRUCTURAL MATERIALS

PERFORMANCE	STIFFNESS WEIGHT SAVINGS EASE OF PADDLING COST	PO RX AL KV FC HY						ABRASION RESISTANCE (OUTER SURFACE) IMPACT RESISTANCE (ENTIRE LAMINATE) FLEXIBILITY REPAIRABILITY	PO RX FC HY KV AL FC AL HY KV PO RX HY AL FC KV RX PO PO AL HY KV RX FC					
		PO	RX	AL	KV	FC	HY		PO	RX	FC	HY	KV	AL
	LEAST ← → MOST													
	KV - FC - FIBERGLASS CLOTH													
	RX - AL -													
	ROYALEX ALUMINUM													
	HY - PO - POLYETHYLENE													



# How to Choose Your Mad River Canoe

**I**t's easy! Like any new sport, canoeing becomes more comfortable and familiar the more you do it, and Mad River makes it easy.

Mad River Canoes are lightweight, ruggedly built and easy to paddle, and we've got a model designed for exactly the kind of paddling that you want to do. Our contemporary hull shapes will deliver exceptional performance, whatever your skill level, wherever you paddle.

It's easy to choose the right canoe. Begin by asking yourself a few basic questions.

## How will I paddle?

Do I paddle alone or with a partner?

## Where will I canoe most often?

On a lake for the day?...Into the wilderness for a week or more?...Do I want to challenge whitewater?...Do I want to fish or hunt from my canoe?...Do I want to cruise for the pure joy of paddling?...Do I want to compete?

## What do I want most?

A durable canoe at the expense of less weight?..A light-weight performance canoe at the expense of longevity?...A reasonable combination of the two?

## Which Canoe Best Fits Your Needs ?

Nearly all canoes are paddled in a variety of ways. Mad River Canoes are classified into three groupings to help you select the canoe closest to your needs. Canoe usage charts accompany each series, further defining each model's preferred use.

### Versatile Series

If you're looking for a single model that will do everything, these canoes are true compromise craft, combining many design characteristics for great versatility.



### RECREATION:

The recreational canoe is designed for the greatest versatility, safety and comfort. These canoes are perfect for family and entry-level paddling in a variety of water conditions. The emphasis is on stability and low-maintenance features.

### TRIPPING:

These are high-volume canoes, designed with plenty of capacity for heavy loads on extended trips. They paddle easily and are ruggedly built for confidence in remote paddling areas.

### CRUISING:

These canoes emphasize lightness and speed. They're designed to cover distance with minimal effort on milder waters. Streamlined hulls that are exciting to paddle, cruisers are good touring boats with enough capacity to carry weekend camping gear.

### Focused Series

The design emphasis here is placed on efficient paddling canoes rather than on quick maneuverability.

### Specialty Series

If you're looking for a single-purpose design, these are very sophisticated canoes built for specific uses.

## Where Will You Paddle ?

### WHITE WATER:

Whitewater canoes are built with an emphasis on durability, maneuverability and paddler dryness. The hulls favor either an extremely rockered design for playing in rapids or a straighter keel with flared and full ends for downriver use.



### SPORT:

Especially designed for hunting and fishing, sport canoes are built for durability with an emphasis on stability and gear-carrying capacity.

### COMPETITION:

By necessity, competition canoes are designed to excel in a specific type of water condition, be it flat or white water. There is an added emphasis here on lightweight construction to maximize performance. Generally, these canoes are built to meet the specifications of a particular racing class.



Photo: David Stoecklein

## V E R S A T I L E S E R I E S

If you're looking for one boat that will let you do a little of everything, Mad River Versatile Series Canoes provide all-round performance with no compromise in quality. Each of these craft incorporates and blends a variety of canoe friendly design characteristics that address a broad spectrum of paddling conditions and uses.



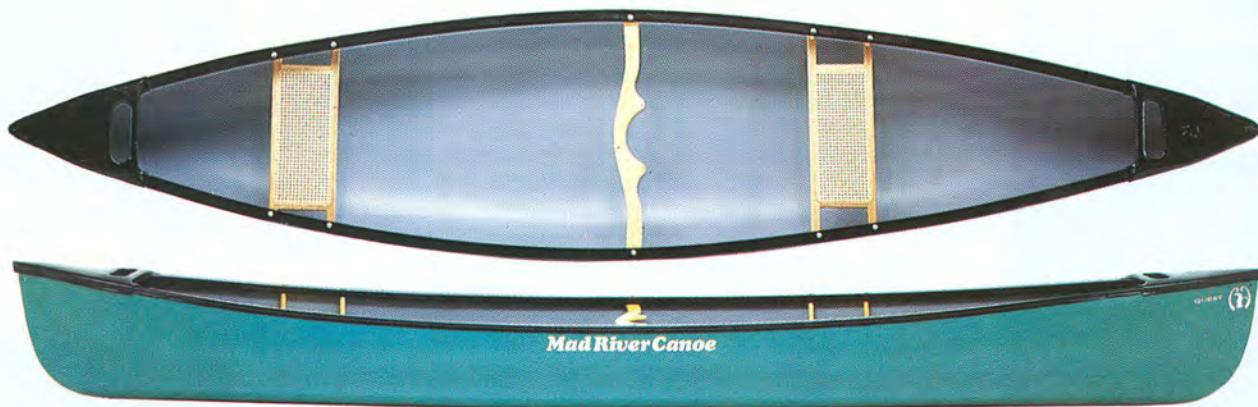
RECREATION	CRUISING	TRIPPING	WHITEWATER
			ROYALEX QUEST
			FIBERGLASS/KEVLAR QUEST
			16' ROYALEX EXPLORER
			17' ROYALEX EXPLORER
			FIBERGLASS EXPLORER
			KEVLAR EXPLORER
			KEVLAR/AIREX EXPLORER
			ROYALEX COURIER
			KEVLAR COURIER

Excellent

Very Good

Good

Adequate



Mad River Canoe

Pictured in Teal with optional synthetic gunwales

### QUEST

DESIGNER: JIM HENRY  
HULL CONFIGURATION:  
SLIGHT ROCKER  
ASYMMETRICAL  
SHALLOW ARCH WITH FLARE  
6° FREEBOARD CAPACITY: 640 LBS.  
MATERIALS: ROYALEX  
FIBERGLASS  
KEVLAR HYBRID  
AVERAGE WEIGHT: ROYALEX-56 LBS.  
FIBERGLASS-59 LBS.  
HYBRID-48 LBS.  
LENGTH: ROYALEX-14'7"  
FIBERGLASS, HYBRID-14'10"

GUNWALE WIDTH: 35"  
4' WATERLINE WIDTH: 31 1/2"  
DEPTH AT CENTER: ROYALEX-13"  
FIBERGLASS, HYBRID-12 1/2"  
BOW HEIGHT: 20"  
STERN HEIGHT: 20"  
COLORS:  
FIBERGLASS, HYBRID:DARK GREEN, JADE,  
RED, BURGUNDY, SAND, INDIAN BROWN,  
NAVY, WHITE  
ROYALEX: TEAL, BURGUNDY

Bring your family into canoeing with our stable, lightweight Quest. An exciting, affordable canoe designed for easy paddling on ponds, lakes and smooth flowing rivers. This comfortable canoe has a contemporary asymmetrical hull shape that is increasingly flared for added seaworthiness. It will keep your family feeling secure whether on casual day outings or weekend camping trips. The V entry, designed for easy tracking, gives way to a shallow arch bottom, providing performance unmatched by other canoes in this category. Highly maneuverable, the Quest can also be paddled solo by installing a center cane seat or kneeling thwart. The durable Royalex hull quietly glides through the water, slips over rocks that would snare aluminum canoes and is lighter in weight than plastic boats. The Quest is also available in more rigid Fiberglass and Hybrid constructions.



Photo: Todd Buchanan



*Mad River Canoe*

*Pictured in Sand*

## 16' ROYALEX EXPLORER

DESIGNER: JIM HENRY

HULL CONFIGURATION:

SLIGHT ROCKER  
SYMMETRICAL  
SHALLOW V

6" FREEBOARD CAPACITY: 1100 LBS.

MATERIALS: ROYALEX

AVERAGE WEIGHT: 70 LBS.

LENGTH: 16'

GUNWALE WIDTH: 35"

4" WATERLINE WIDTH: 33"

DEPTH AT CENTER: 15"

BOW HEIGHT: 22"

STERN HEIGHT: 22"

COLORS: DARK GREEN, RED,  
YELLOW, SAND

From day outings to wilderness trips, from tandem performance to occasional solo use, from whitewater rivers to placid lakes, if you can only own one canoe, the 16' Royalex Explorer is your choice. With a slight V bottom and gently rockered ends, this design tracks well in flat water and maneuvers easily in swift currents. And, with only a slight lean, the high volume hull can spin to catch even the smallest eddy. The Explorer's renowned secondary stability is unmatched when encountering rough water conditions. This sixteen footer's glide and load capacity compare favorably to most other 17' canoes. Built of durable Royalex, with extra material reinforcing critical wear points for years of hard use with minimum care, the Explorer is the standard for beginners and experts alike.

### 20th Anniversary Special Edition (not pictured)

A limited number of 16' Royalex Explorers with Special Edition features are available from our authorized dealers in teal. These specially crafted classics include cherry stained and slotted ash gunwales, portage yoke and tripping thwart, contoured cane seats, sculpted carry handles, walnut decks, a 20th Anniversary bronze medallion and attractive blue and magenta pin striping.



*Mad River Canoe*

*Pictured in Red*

## 17' ROYALEX EXPLORER

The 17' Royalex Explorer is the choice of those who need a canoe with a large load-carrying capacity and maximum durability. Its longer length delivers greater speed and tracking ability while its increased width offers more stability in big water. There is ample rocker built into the ends for maneuverability making the 17' Explorer ideal for long distance whitewater tripping. This canoe comes equipped with a portage yoke installed to facilitate easy carrying. This is the canoe of choice for a family of four who want an easy maintenance recreational craft, or for the demanding wilderness tripper.

DESIGNER: JIM HENRY

HULL CONFIGURATION:

SLIGHT ROCKER  
SYMMETRICAL  
SHALLOW V

6" FREEBOARD CAPACITY: 1200 LBS.

MATERIALS: ROYALEX

AVERAGE WEIGHT: 72 LBS.

LENGTH: 17'2"

GUNWALE WIDTH: 37"

4" WATERLINE WIDTH: 34"

DEPTH AT CENTER: 15"

BOW HEIGHT: 22"

STERN HEIGHT: 22"

COLORS: DARK GREEN, RED, SAND



Photo: Jose Azel



Pictured in Navy

## FIBERGLASS EXPLORER

DESIGNER: JIM HENRY  
HULL CONFIGURATION:  
SLIGHT ROCKER  
SYMMETRICAL  
SHALLOW V  
6" FREEBOARD CAPACITY: 1100 LBS.  
MATERIALS: FIBERGLASS WITH KEVLAR  
AVERAGE WEIGHT: 70 LBS.

LENGTH: 16'4"  
GUNWALE WIDTH: 34 1/2"  
4" WATERLINE WIDTH: 33"  
DEPTH AT CENTER: 14 1/2"  
BOW HEIGHT: 22"  
STERN HEIGHT: 20"  
COLORS: DARK GREEN, JADE, RED,  
BURGUNDY, SAND, INDIAN BROWN,  
NAVY, WHITE, CAMOUFLAGE

Where a whitewater material is not necessary, the Fiberglass Explorer combines a more affordable material with all the excellent paddling performance characteristics of the Explorer design. Constructed of Mad River's custom woven fiberglass cloth, the hull is laminated with selective Kevlar reinforcing to minimize weight while increasing strength. This Explorer has sharper bow and stern profiles than its Royalex counterpart for a better glide, making it ideal for paddling on lakes and gentle rivers. Stable and secure, the high volume Explorer carries family and gear with ease on afternoon picnics or extended outings.



## KEVLAR EXPLORER

The all Kevlar Explorer is a lightweight canoe with tremendous structural strength. It combines the well-known maneuverability, stability and paddling ease of the Explorer design with an expedition-tough lay-up utilizing as many as 12 individual layers of Kevlar cloth in high-wear areas. For the discriminating canoeist searching for maximum performance, high durability and minimum weight, the Kevlar Explorer is the unsurpassed standard of excellence in contemporary canoe design.

### 20th Anniversary Special Edition (pictured)

A limited number of Kevlar Explorers with Special Edition features are available from our authorized dealers in jade. These specially crafted classics include cherry stained and slotted ash gunwales, portage yoke and tripping thwart, contoured cane seats, sculpted carry handles, walnut decks, a 20th Anniversary bronze medallion and attractive blue and magenta pin striping.

DESIGNER: JIM HENRY  
HULL CONFIGURATION:  
SLIGHT ROCKER  
SYMMETRICAL  
SHALLOW V  
6" FREEBOARD CAPACITY: 1100 LBS.  
MATERIALS: KEVLAR  
AVERAGE WEIGHT: 54 LBS.

LENGTH: 16'4"  
GUNWALE WIDTH: 34 1/2"  
4" WATERLINE WIDTH: 33"  
DEPTH AT CENTER: 14 1/2"  
BOW HEIGHT: 22"  
STERN HEIGHT: 20"  
COLORS: DARK GREEN, JADE, RED,  
BURGUNDY, SAND, INDIAN BROWN,  
NAVY, WHITE, CAMOUFLAGE

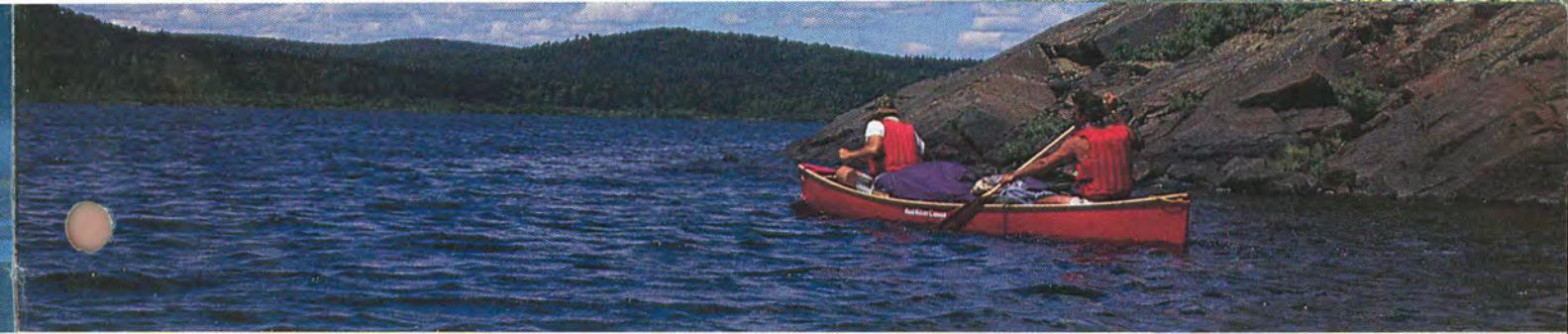


Photo: Mike Kahn



Pictured in Dark Green

## KEVLAR/AIREX EXPLORER

DESIGNER: JIM HENRY  
 HULL CONFIGURATION:  
 SLIGHT ROCKER  
 SYMMETRICAL  
 SHALLOW V  
 6" FREEBOARD CAPACITY: 1100 LBS.  
 MATERIALS: KEVLAR/AIREX  
 AVERAGE WEIGHT: 54 LBS.

LENGTH: 16'4"  
 GUNWALE WIDTH: 34 1/2"  
 4" WATERLINE WIDTH: 33"  
 DEPTH AT CENTER: 14 1/2"  
 BOW HEIGHT: 22"  
 STERN HEIGHT: 20"  
 COLORS: DARK GREEN, JADE, RED,  
 BURGUNDY, SAND, INDIAN BROWN,  
 NAVY, WHITE, CAMOUFLAGE

Awarded the Society of Plastics industry top technical prize in Marine Construction for the combination of Kevlar cloth and Airex foam. This versatile Explorer design, leads the way in lightweight, durable canoe construction. This construction creates a hull with incredible stiffness, allowing for maximum paddling efficiency. With an outer layer of S-Glass for abrasion resistance, the Kevlar/Airex lay-up provides remarkable hull durability while keeping weight to a minimum, especially in the sides of the canoe above the waterline. The vacuum-bagged hull, bonded with a special vinyl ester resin, can absorb impacts without the delamination often found in other PVC foam-cored canoes. For pleasure paddling close to home or on a weekend trip, the Kevlar/Airex Explorer is the versatile choice for paddlers who want maximum performance.



Pictured in Burgundy

## COURIER

DESIGNER: JIM HENRY  
 HULL CONFIGURATION:  
 SLIGHT ROCKER  
 SYMMETRICAL  
 SHALLOW V  
 FREEBOARD CAPACITY: 900 LBS.  
 MATERIALS: ROYALEX (RX)  
 KEVLAR (K)  
 AVERAGE WEIGHT: (RX) 58 LBS.  
 (K) 43 LBS.

LENGTH: (RX) 14'7", (K) 14'9"  
 GUNWALE WIDTH: 32"  
 4" WATERLINE WIDTH: (RX) 29", (K) 28"  
 DEPTH AT CENTER: 15"  
 BOW HEIGHT: 22"  
 STERN HEIGHT: 22"  
 COLORS: KEVLAR: DARK GREEN, TEAL,  
 RED, BURGUNDY, SAND, INDIAN BROWN,  
 NAVY, WHITE  
 ROYALEX: BURGUNDY

Similar in the range of use to our tandem 16' Royalex Explorer, the Courier excels as an all-around solo performer. The Courier blends the desirable design features that are perfect for versatile whitewater enjoyment—an efficient, shallow V hull for flatwater tracking, full flared ends enabling the bow to rise in waves, sufficient rocker for maneuverability, and excellent load capacity for carrying gear. Unsurpassed for solo touring in conditions ranging from moving water to Class IV rapids, the Courier is available in both Royalex for whitewater toughness or Kevlar for that extra lightweight performance in long distance travel.

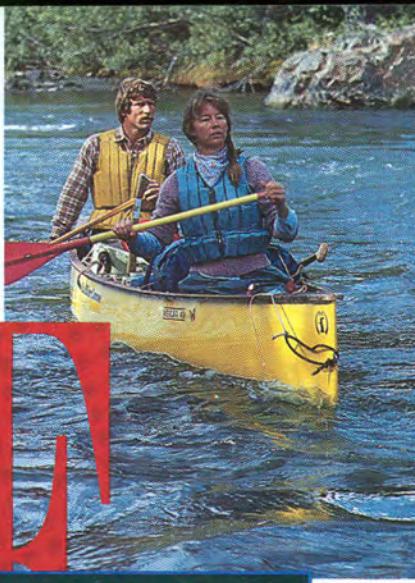


Photo: Jim Henry



RECREATION		CRUISING		TRIPPING		WHITEWATER	
<input checked="" type="checkbox"/>	MALECITE						
<input checked="" type="checkbox"/>	MINSTREL						
<input checked="" type="checkbox"/>	SUNDANCE						
<input checked="" type="checkbox"/>	LAMOILLE						
<input checked="" type="checkbox"/>	SLIPPER						
<input checked="" type="checkbox"/>	INDEPENDENCE						
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/>	<input checked						

**F**or paddlers who have focused their needs towards more efficient paddling rather than quick maneuverability, Mad River has created the Focused Series. These are the cruising and long range tripping canoes, sleek and fast, which still offer exceptional stability in a range of water surfaces and activities.



*Mad River Canoe*

*Pictured in Burgundy with optional center seat*

MALECITE

Available in either Fiberglass or Kevlar versions, the Malecite is a classic: An ideal canoe for two-person day use or for short camping trips. With an optional center seat, the Malecite has the unique capability to double in use as an efficient, responsive solo canoe. Its easy-paddling V-shaped hull allows for exceptional secondary stability while maintaining the speed and tracking ability that has become the Mad River Canoe trademark. The Malecite profile is kept low at both ends, minimizing the effects of wind. The flared bow allows the canoe to rise over waves rather than dive through them; the buoyant stern handles mixed water conditions with ease, maintaining hull maneuverability.

DESIGNER: JIM HENRY  
HULL CONFIGURATION:  
SLIGHT ROCKER  
ASYMMETRICAL  
SHALLOW V  
6' FREEBOARD CAPACITY: 850 LBS.  
MATERIALS: FIBERGLASS, KEVLAR  
AVERAGE WEIGHT:  
FIBERGLASS-62 LBS.  
KEVLAR-47 LBS.

LENGTH: 16' 6"  
GUNWALE WIDTH: 33"  
4" WATERLINE WIDTH: 31"  
DEPTH AT CENTER: 13"  
BOW HEIGHT: 20"  
STERN HEIGHT: 19"  
COLORS: DARK GREEN, JADE, RED,  
BURGUNDY, SAND, INDIAN BROWN,  
NAVY, WHITE