



## Japan's first America's Cupper completed

1992, in San Diego. These are the long awaited answers to the two biggest questions recently in the world of Yacht racing: When and where will be the next holding of that grand spectacle of match-race yachting, the America's Cup. This news roughly coincided with the launch of one of the contenders for the upcoming Cup races, the "Nippon", on April 22. Her Imperial Highness the Princess Tomohito of Mikasa was on hand to help unveil this first Japanese challenger to the America's Cup built by Yamaha Motor at a special facility at its Arai Factory on behalf of the "Nippon Challenge America's Cup 1991 Committee" (NCAC). Over 5,000 America's Cup Challenge supporters — celebrities, official sponsors, official suppliers, boat fund donors and general public — gathered to celebrate the launching of the "Nippon".

Designed to meet the specifications of the new America's Cup class regulations set for the 1992 holding, the "Nippon" has an overall length of 24m, a maximum width of 5.5m, a mast length of 32.5m and a displacement of 24 tons. The "Nippon" has been built with the latest in materials and construction methods, such as one of the first marine applications of pre-pregged carbon fiber technology, in the quest to build a lighter, stronger and faster yacht. On the transom the new challenge boat bears its name, "Nippon", in characters written especially for the occasion by the Japanese Prime Minister, Toshiki Kaifu, himself. Following boats from Italy and France, the recent launching of the "Nippon" attracted worldwide attention as the third America's Cup challenger to enter the water.



A big crowd gathers to watch the launching of the "Nippon".

## Big Expectations Ride On New Scooters For Spain

—Spanish Motorcycle Dealers Meeting



At the test-rides the Spanish-manufactured Jogs got great reviews.

Yamaha Motor España held its national Motorcycle Dealers Meeting this year on the Mediterranean island of Menorca over the three-day period from May 9 to 11. This year's meeting centered around an introduction of the two new scooters it will release on the Spanish market. The first day was devoted to a press presentation for TV, newspaper and motorcycle magazine journalists, and the second and third days to a presentation for all Spanish Yamaha dealers and some sub-dealers of the Yamaha Jog and the Active (manufactured by MBK), along with an introduction of the company's new sales policies. The dealers were divided into two groups; one got the opportunity to test-ride the new scooters on a circuit specially reserved for the occasion, while the other group went off for some sightseeing around the scenic island. The next day the two groups reversed roles.

The presentation was a great success for YMES, and the addition of the Jog, the first Yamaha scooter to be manufactured in Spain, will give new breadth to the company's existing line-up of 9 models such as the RD350, TZR80/125 and the DT80. YMES is launching the Jog and Active with great expectations that these two new models will prompt another surge in the already dynamic and important 75cc scooter market in Spain.

## Energy Is High At YMT As Business Grows

—Taiwan Motorcycle Dealers Meeting

Yamaha Motor Taiwan held its annual Motorcycle Dealers Meeting this April 26 and 27, at the Asian-world Hotel in Taipei.

Along with YMT's Chairman, Mr. Warren Hsieh, YMC's President, Mr. Eguchi, was on hand to receive and speak with the 1,100 dealers who gathered over the two-day period. The meetings offered the dealers a presentation of the new 1990 models, including the CT50S and CR50Z scooters and the FZR150 sports bike, and an introduction to this year's business policies.

Beginning last year, YMT has been exporting its scooters to Portugal and Greece. This year the company's export list will grow to include the CT50S for Italy and the CR90 for Japan, as international recognition of the technological excellence of YMT's products continues to grow. Couple this with the continued growth in the domestic market, and it is not hard to understand why there was energy in the air at this year's Motorcycle Dealers Meeting.



The dealers enjoy a presentation of the new 1990 models.

## Setting Sights Ever Higher in Sales, Service, Spare parts

—Indonesian Motorcycle Dealers Meeting

Indonesia's new Yamaha Sales Company, P.T. Yamaha Motor Kencana Indonesia (YMKI) held its Second Annual 3-S (Sales, Service, Spare parts) Meeting on May 10, at the Horizon Hotel in Jakarta. Attending the meeting were about 500 dealers and Benkels (service shops) from around the country. Also present on behalf of YMC were President Eguchi and his wife, and Directors, Mr. Arai and Mr. Nomura. After introductions of 1990 new models like the Champ, RZ-R and YT115, a presentation explained the company's marketing policies for the coming year. Adopting the theme of a "More Powerful and Dynamic Yamaha 1990", the meeting set higher goals than ever in terms of unit sales and market share. The enthusiasm of the dealer representatives reflected the consensus to strive for new heights.



The theme of the meeting was a "More Powerful and Dynamic Yamaha 1990"



# Ténéré is their key to fun and relaxation

Every May the German city of Worms serves as the gathering point for the International Ténéré Owners Meeting. Its 4th holding on May 19 this year brought together Ténéré owners from Germany, the Netherlands, Switzerland and Britain. More than doubling last year's attendance with some 300 owners, everyone enjoyed a variety of outdoor sports in an atmosphere of relaxed fun and companionship. In Europe the Ténéré models have established a unique following that grows steadily every year and led to the formation of user clubs beginning in Switzerland several

years ago. The German Yamaha importer Mitsui Maschinen GmbH supports this popular annual event to help promote customer enjoyment of motorcycle sports. This year, Yamaha is celebrating its 25th year in Germany, and pictured here is a book "PROFIL EINER MARKE YAMAHA" (A Profile of the Yamaha Motor) put out by the local publishing house, Verlag Schneider Textsystem to commemorate these 25 years. The book traces the development of Yamaha since 1955 and the history of Yamaha motorcycles in Germany.



GERMANY

## Top Dealers From Malaysia Tour New Zealand

"Haerameat!" - Welcome to New Zealand! A group of top motorcycle and parts dealers from Malaysia were in New Zealand from April 11 to 17, on a tour presented to them in recognition of their outstanding contribution in sales. The tour was for 52 motorcycle and 5 parts dealers and their spouses. In attendance from YMC were Mr. H. Deguchi, General Manager, Asian Sales, Mr. T. Itoyama, Deputy General Manager, Parts Division and Mr. M. Ohmichi, Manager, Service Division. The Yamaha distributor in New Zealand, Moller Yamaha, was represented by Mr. R. Moller, Chairman, and Mr. M. Sharp, its General Manager. Mr. Lim How Soon,

Managing Director of Hong Leong Industries, also graced the occasion. The highlight of the tour was the Top Dealer Awards Presentation Dinner held at a leading Chinese restaurant in Christchurch. In conjunction with Hong Leong Yamaha's tenth anniversary, a special plaque was given to seven dealers who have achieved top dealer ranking for 10 consecutive years. Dealers who participated in the YBS (Yamaha Before-Service) program were also recognized. The dealers really appreciated the tour, which took in the scenic beauty of New Zealand's Southern Island, and many are already asking what the destination of next year's tour will be.



NEW ZEALAND

## XT600s Rolling Strong on 120,000km Trip

The couple, Akira and Noriko Saito, who left Japan in 1987 on an around-the-world journey, sent us a message from Singapore on May 9. Starting in the U.S., the pair have wheeled their way 96,000 kilometers through Canada, Mexico, Colombia, Chile, Argentina, Uruguay, Brazil, Britain, Scandinavia, Germany, Austria, Yugoslavia, Greece, Turkey, Iran, Pakistan, India, Nepal, Thailand, and Malaysia to reach their present location. Their journeys have brought them in contact with a wide spectrum of peoples and cultures in the countries they have crossed. They also found time to watch the famous TT Race on the Isle of Man and ride along with the ranks of the Paris-Dakar. As they rest in Singapore preparing for the next leg of their journey, they write: "Our XT600 Ténérés are still running strong. By the time you read this we will be on a boat to Australia. From Sydney we will travel to Brisbane, Melbourne, Tasmania and Perth. We will follow the coast to Darwin and head inland to Alice Spring near the center of the continent before returning to Sydney. From there we'll cross over to New Zealand where our journey will end this summer. By that time the odometers on our Ténérés should be reading about 120,000km. We'll write again soon!"



In Kapadokya, Turkey

## Service Managers Gather From 8 Asian Countries THAILAND

At the "1990 Yamaha Service Managers Meeting" held at the Siam Yamaha Head Office in Bangkok last April, the opening ceremony was presided over by the company's president, Mr. Kasem Narongdej. This, the sixth holding of the Service Managers Meeting, was attended by representatives of Yamaha motorcycle manufacturers and distributors from the 8 Asian countries of India, Indonesia, Malaysia, the Philippines, Singapore, Tai-

wan, Japan and the host country Thailand. Incidentally, about the same time this meeting was being held, Siam Yamaha's top performing dealers were enjoying a bonus tour of Taiwan and Hong Kong. In other recent news we learn that President Narongdej received an Honorable Plaque from Thailand's Ministry of Commerce designating him "1990 The Best Businessman". Congratulations!



### JAPAN

## Yamaha and Brabham Sign Basic Agreement

For participation in F-1 World Championship

On April 26, Yamaha Motor and Motor Racing Developments Production Limited, the parent company of the "Brabham" racing team, sat down to sign a basic agreement concerning participation in the Formula 1 (F-1) World Championship series. The agreement says that Yamaha Motor and Motor Racing Developments Production will undertake the joint development of an F-1 vehicle package for participation in the F-1 World Championship. As of yet the sponsors, drivers and make-up of the new team are undecided.

## Yamaha Duo Seeks To Complete Ténéré Trek HOLLAND

In this year's YMN No. 1, we reported about a Dutch Duo who set out last October on specially prepared Yamaha Ténérés to journey through 19 African countries. On December 5, Piet Van Wijngaarden and Paul Leeftang reached their first mechanical checkpoint of the trek, in Dakar. Piet, an experienced mechanic from Yamaha Motor Nederland B.V., was surprised at how little work was necessary, especially considering that the bikes had been worked hard through soft sand in high temperatures, carrying a heavy load and running on poor quality petrol. Unfortunately, in February Piet was forced to return to Holland due to increasingly severe malaria attacks. But this is not the end of their trip! Piet and Paul are determined to return to their bikes in Cameroon after the rainy season and complete their 40,000km trek through Africa.



Thanks for all your letters. We're receiving wonderful letters with interesting topics for Yamaha Motor News from all over the world and every letter we get helps us bring you a more informative and more useful Yamaha Motor News.

So, please keep the letters coming.



# Three Britons Ride To Save the Rhino

Three Young men from Britain set off from Nairobi, Kenya on March 20, 1990, on a venture they have dubbed the "Rhino Scramble" which will take them through 13 African countries, Italy, France and finally to London, in an effort to raise money to help save the threatened rhinoceros.

Riding second-hand Yamaha motorcycles acquired in Kenya, Jim Stephens (22), David Stirling (23) and Johnny Roberts (24), aim to raise UK 25,000 for the Rhino Ark, the David Sheldrick Wildlife trust and the Garamba National Park in northern Zaire.

The 15,000km trip, expected to take about four months, is being financed and organized entirely by the trio, and the Kenyan Yamaha importer, a newly formed division of Motor Mart Group Ltd., has already made a substantial pledge toward the project.

As for the three Yamaha bikes, which had a total of 128,000km on them before the start, the engines were overhauled and long

range fuel tanks and luggage racks for carrying water, extra fuel, camping equipment and spare parts, were added.

Starting from Nairobi, the Rhino Scramble will travel through Uganda into Zaire, where they plan to visit the Garamba National Park, home of the last remaining northern white rhino, then across the Central African Republic and Cameroon. Their route will then follow the coast north to Lagos, Nigeria, where the bikes will be overhauled again in preparation for the gruelling Saharan crossing to Tunisia and the end of the 12,000km African leg of their journey.

During the European leg, the Rhino Scramblers will be actively engaged in fund raising and spreading the valuable information they have gathered about the remaining rhino populations in the different countries. The dedicated young adventurers know they face a rough road through the rainy season in Central Africa and the summer sand storms of the Sahara. Let's wish them the best of luck.



**KENYA**

## First Learn-To-Ride School Held

From March 7 to 11, a successful first Yamaha Learn-to-Ride School took place in the West African country of Burkina Faso. Including mopeds, this country is the largest motorcycle market on the African continent. This riding instruction course was organized under the auspices of the traffic authority in Burkina Faso, which is anxious to bring the country's growing traffic accident rate to a halt. Cooperating in the event were the CODIAM (President, Mr. Zervo), importers of the market's leading brand, Yamaha, the SIFA that assembles Yamaha V80 and YB100 models locally, and Moto Club, a local motocross club. YMC's special instructor, Mr. Kazutoshi Iwao, made the trip to the country's capital, Ouagadougou, and the second largest city, Bobo Dioulasso, to help teach some 250 principally young riders in 11 classes over a 5-day period. These general users received first-hand instruction in the techniques of proper

motorcycle riding. With the great cooperation of four assistant instructors chosen from Moto Club, all of the classes went off well, giving not only the participants but also the several thousand observers valuable knowledge of the fundamentals of proper riding. The recent school events also served as an opportunity to unveil the new YB100 model, which just entered production this February at SIFA. The sight of Mr. Iwao astride this new flagship model developed especially for the African market, drew the attention of the crowds and undoubtedly had an excellent promotional effect in itself.



**BURKINA FASO**



## Scandinavian Yamaha Dealers on Holiday in Japan

Thirty-five Scandinavian Yamaha snowmobile dealers, 20 from Sweden and 15 from Finland, enjoyed holidays in Japan at the height of the spring season from April 19 to 26, accompanied by 4 representatives from Isaksons Motor AB, 2 from OY Arwidson & Company AB and 2 staff members from YMENV. These dealers, most of whom are handling only Yamaha products, were awarded this trip for their excellent sales results.

After visiting the Main Iwata Factory, the group was invited to a reception party at Tsumagoi on April 21. YMC's President, Mr. Eguchi, Senior Managing Directors Mr. Hasegawa and Mr. Arata, and Managing Director Mr. Komiya were all on hand to join in the celebration. In his welcoming address, Mr. Eguchi emphasized the increasing importance of Yamaha's corporate attitude in these



rapidly-changing times with their ever-changing business environment. He also thanked the dealers for their important cooperation in the development of the new model "Venture". The group was delighted, by the way, to see actual assembly work being done on this model scheduled for release in the '91 season. The tour was also highlighted by sight-seeing around Tokyo, Kyoto and Okinawa.

## Instruction and Racing: A Great Water Vehicle Formula

The first "Minolta Cup Yamaha Water Vehicle Race '90", organized by Siam Yamaha, was held at Pataya Beach on March 18 of this year.

After instruction in proper riding by the Siam Yamaha staff and some demonstration riding, the races got under way. Competing in three classes for one-person, two-person slalom and a 20-minute endurance race, the contestants included WaveRunner, WaveRunner LX and WaveJammer riders. Some 2,500 spectators thrilled to the hot racing out on the water.

The popularity of Water Vehicles like these is presently booming in places like North America and Southeast Asia, and a surging business in resort rentals has also taken root.

The comprehensive riding instruction and the sporty racing with its sharp maneuvering were both shown later on nationwide TV, adding yet another stimulus to Thailand's already hot Water Vehicle fever.



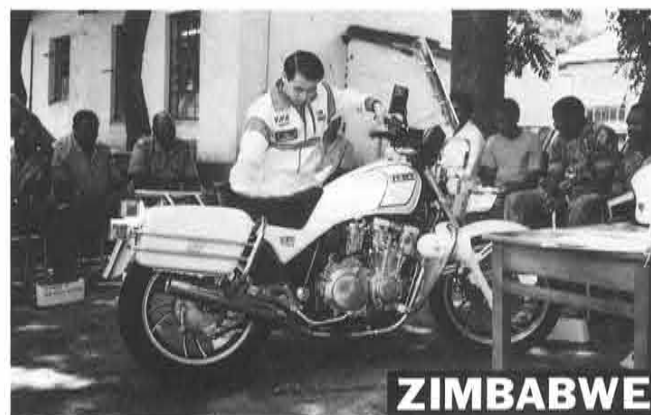
**THAILAND**

## Advanced Course for Motorcycle Instructors

Mr. Kazutoshi Iwao also served as special instructor in Zimbabwe's capital city, Harare, offering direct technical training to local motorcycle instructors in the form of an advanced seminar held from February 20 to 23.

This event resulted from a plan by Mr. Colin Dixon of the local Yamaha importer, M. H. Goldschmidt (Pvt) Ltd., and Mr. George Mazz of the Yamaha Center. In Zimbabwe, motorcycles are used heavily by government agencies, national companies and the military, and improv-

ing the technical skills of the motorcycle instructors of these various agencies is viewed as a meaningful way to address the problem of traffic control. All of the 19 instructors from 7 regional departments applied themselves diligently throughout the 4-day course despite rainy weather on the last day.



**ZIMBABWE**



# FIRST HELP THEM DISCOVER THE FUN

## CLUB WAVE ACTIVITIES IN THE U.S.A.

When Yamaha Motor Corp U.S. introduced the one-person WaveJammer and two-person WaveRunner in 1986, an owners' club was part of their long-range plans. But with the interest they have seen in the Water Vehicles, plus the tremendous selling success, it was appropriate to accelerate their plans concerning "Club Wave".

The purpose of Club Wave was to provide a structured organization for owners to participate in Waterfests, riding trips, contests, and also to exchange ideas about favorite riding spots, product information and customization. Club Wave can easily be compared to the Yamaha snowmobile clubs which we introduced in our issue No. 2. Both clubs provide an opportunity for Yamaha owners to get together and enjoy their vehicles in a group setting. Club Wave is open to all individuals or families owning a Yamaha Water Vehicle. When a person purchases a vehicle his or her name is automatically added to the Club Wave mailing list. The owner then receives a quarterly newsletter, a Club Wave decal and a welcome letter from the club's president, Major Wave.

The newsletter is full of interesting topics about Yamaha Water Vehicles like correct riding information, product questions, maintenance tips, new accessory items and letters from owners. Major Wave receives a stack of letters each quarter asking a variety of questions that may range from Waterfest dates to proper technique for flushing an engine.

### Offering fun and group environment through club organization

Yamaha Water Vehicle dealers everywhere are establishing local chapters and organizing Club Wave Waterfests for their owners. Waterfests can include barbecue cook-outs, demonstration rides for non-owners, water games on the Water Vehicles, beach activities and a chance for owners to get together for a fun, exciting, family-oriented event. "The newsletter and Club Wave Waterfests provide us the opportunity to stress proper boating procedures to our owners", said Mr. Tony Harkey, Product Manager for Yamaha Water Vehicles. "We hold a riders' meeting at every Club Wave Waterfest to review all rules and regulations for the day. We want to make sure that everyone knows how to properly operate their Water Vehicles before they get into the water. Trouble-free organization takes priority at every event". According to Mr. Harkey, "By forming Club Wave, Yamaha is offering a fun, group environment for all Yamaha Water Vehicle owners".

### Profile of a Waterfest

**What is a Waterfest, the main event of Club Wave?**

- 1.) A Club Wave Waterfest can be a small gathering for owners and friends or a large event with a structured game and activity schedule.
- 2.) The size of the Waterfest depends on

each dealership and the amount of planning and organization they put into it.

### Why should a dealer host a Club Wave Waterfest?

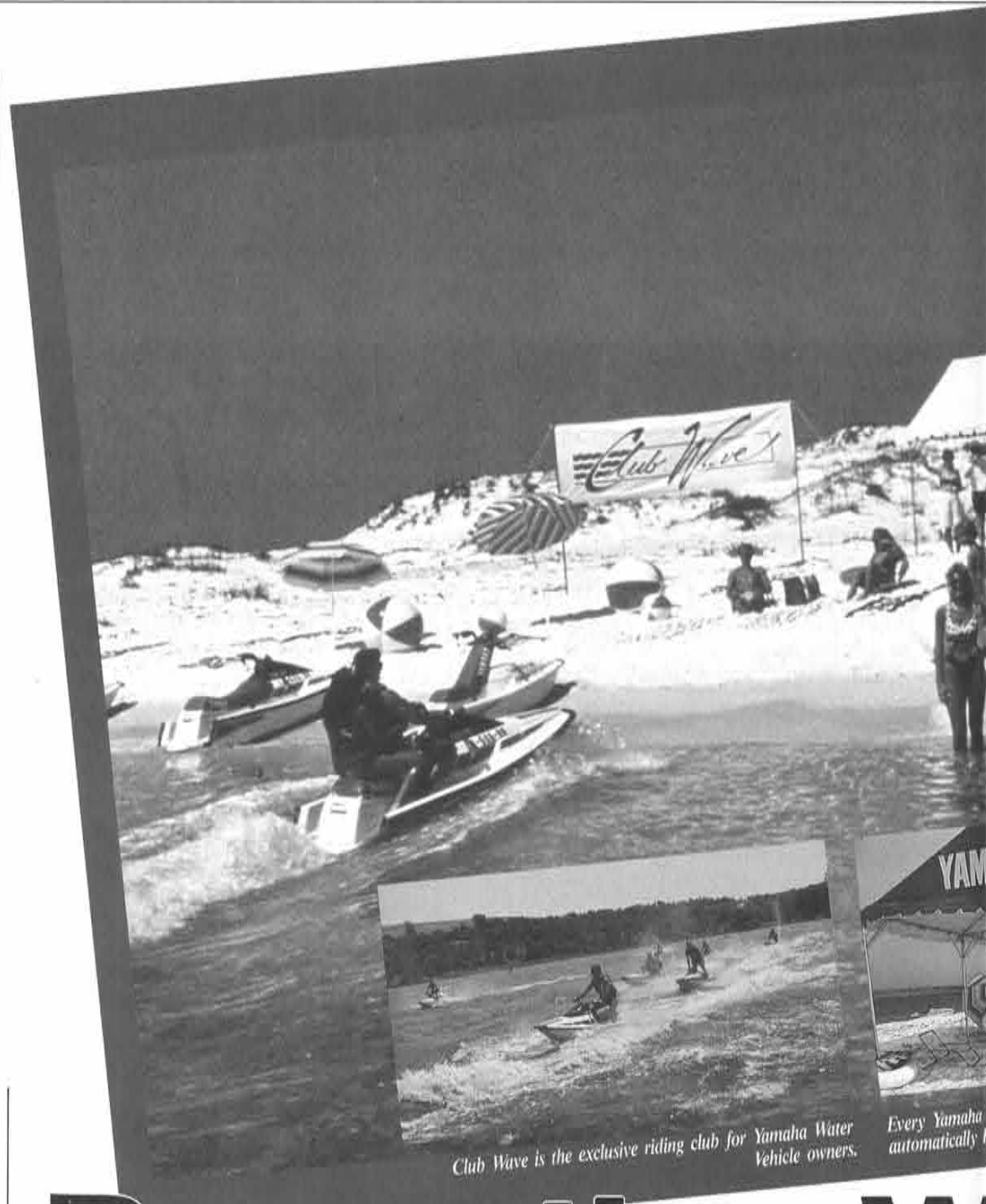
- 1.) To demonstrate the products to new potential buyers in an exciting way.
- 2.) To keep existing customers exposed to the dealership.
- 3.) To associate the dealership with fun, family-oriented events.

### How will Club Wave benefit the dealership?

- 1.) By increasing sales of Water Vehicles and accessories.
- 2.) By promoting the sport and increasing the popularity of Yamaha Water Vehicles.
- 3.) By promoting correct riding and maintaining a fun, "family" image for Yamaha Water Vehicles.

### Advertising and Promotion

In order to advertise their local Club Wave chapter, the dealers undertake such activities as sending out direct mailings, posting ads in newspapers and on the radio, and inviting the press to events. For these purposes, promotional tools such as Club Wave letterhead and envelopes, Club Wave posters and color slides of Waterfest events have been prepared. To help in the actual organizing of an event, a booklet "How to Host a Yamaha Club Wave



# Promoting W through the u

Waterfest", full of water activity and game suggestions that are sure to please the dealer and the customer, like Ring Toss Pick-up, Poker Run, Scavenger Hunts, Ball-in-Jar, Club Wave Hat Patrol, 60-Second Finish, Slalom Course and Freestyle Competition, along with tips about how to run an event. After the finish of a well-organized Waterfest event, the dealers follow up by sending thank-you notes to the participants and the local press, putting up photos of the event in their showroom and sending a detailed report and photos to the editors of the Club Wave newsletter.

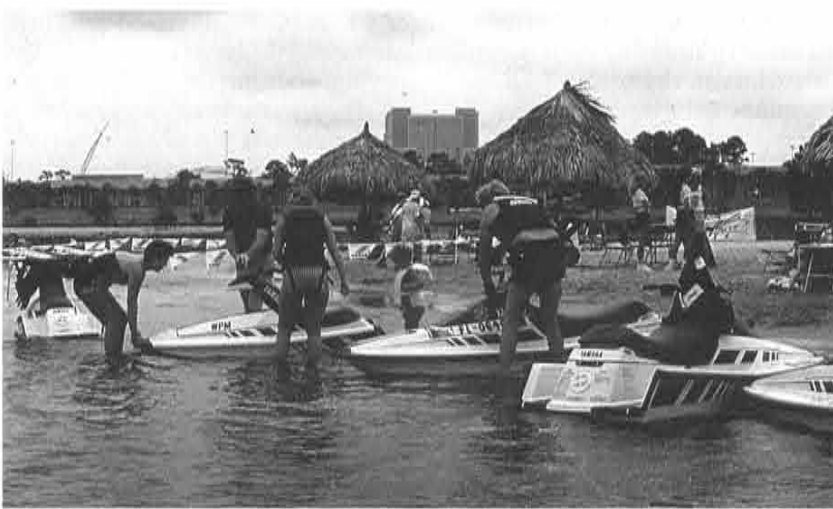
Waterfest activities are now being pursued

wholeheartedly by dealers around the country, and presentations concerning particularly successful events are made at the annual US Dealers Meeting.

### A 60 Day Checklist for Smooth Event Organization

YMUS is supporting the dealers' Club Wave activities with a variety of tools, like the booklet "How to Host a Yamaha Club Wave Waterfest", to help them organize more successful Waterfest events. For example, when the dealers hold a meeting at the planning and organizational stage to make staff assignments and decide on a date and place, they are provided with a "Club Wave Video Tape" that offers valuable suggestions, and representatives from Yamaha Marine Marketing or the Yamaha Water Vehicle Marketing Department make themselves available for consultation.

Also made available to the dealers is a "60 Day Checklist". In a single-sheet calendar form, this Checklist tells the dealer everything that should be done on an organized 60-day schedule leading up to the planned Waterfest date. The Checklist tells the dealer, for example, when to obtain event insurance, when to design and order event shirts and other tools, when to secure medical staff and ambulance services, when to mail out invitations, and all the other necessary details for putting on a smooth-running event.



Waterfests aim to attract new customers and keep existing ones coming back to the dealership by offering fun for the whole family both on and off the water.







Water Vehicle owner and his family become members of Club Wave.



# Water Vehicle sports unique Waterfest program

## Super Jet Instructors Team is Launched

As the newest part of an ongoing commitment to correct riding and education, Yamaha Motor has formed the Super Jet Pro Staff. This new team of knowledgeable and experienced Super Jet riders have embarked on their mission of personal watercraft education and responsible riding. The team was introduced to the marine press recently at the Miami Boat Show.

The Super Jet Pro Staff demonstrates correct riding procedures and provides detailed riding instruction at Yamaha-sponsored water events and Club Wave Waterfests throughout the nation. Personal watercraft operators and potential owners are invited to attend product demonstrations, riding instruction semi-

nars and to test-ride Yamaha Water Vehicles.

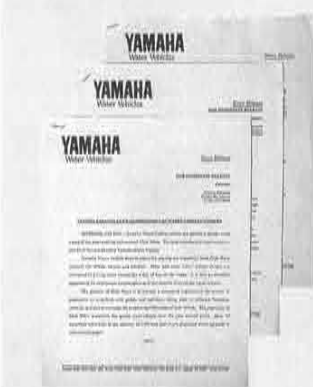
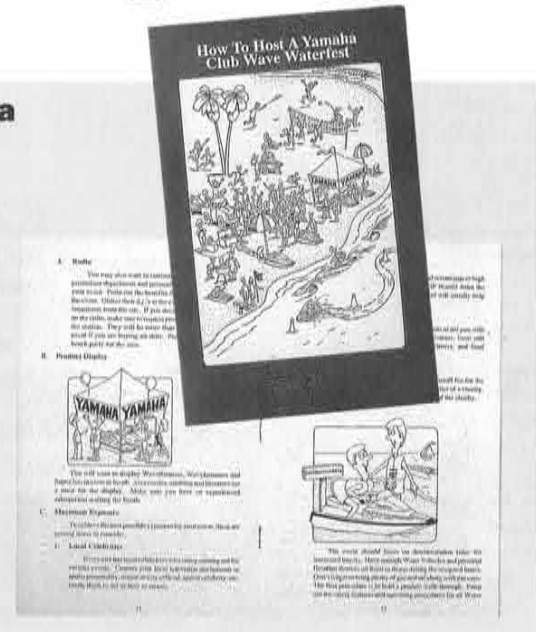
The popularity of Club Wave Waterfests has grown tremendously over the past several years. Over 80 Waterfests were held in the summer of 1989, and this year's projected event schedule is substantially larger.



The Yamaha Super Jet Pro Staff will travel to events nationwide in the cause of responsible riding and operator education.

## The "How to Host a Yamaha Club Wave Waterfest" booklet

This booklet divides its advice on event organization into five chapters; Planning and Promotion, Event Description, Services and Awards, and Overview. Detailed explanations complete with illustrations tell how to run a smooth and trouble-free event, how to advertise through the various media, promotion through product display, how to appeal to the local community, jobs to be done at the event site, games to play, etc.



Club Wave Press Releases.



Club Wave Advertisement.



Club Wave Newsletters.



Club Wave Poster.



Club Wave Welcome letter and envelope.



60 Day Checklist.

## Yamaha IM Division: The growing series

# Positioning itself in the industrial field

Yamaha Motor of today, as it works to strengthen its mainstay businesses in motorcycle, marine product, power product and automobile engine manufacturing, is also striving to expand and develop new fields of business under a policy of sound corporate diversification. The GHP (Gas Heat Pump Air Conditioners) we introduced in our last issue and the IM (Industrial Machinery) we will introduce in this issue, are excellent examples of Yamaha's promising new fields of business.

In concept, industrial machinery is developed for the purpose of freeing man from, dangerous, stressful or monotonous work, and in doing so, enable each individual worker greater opportunity to develop his innate talents.

With the goal of reducing labor, raising efficiency and improving work conditions on its own motorcycle assembly lines, YMC began research and development efforts in the industrial machinery field in 1974. Then, as early as September of 1976, the first Yamaha-built multi-joint assembly robot, CAME, went to work on the company's assembly lines. Released publicly for the first time in 1981, Yamaha industrial robots began to be sold on a commercial

basis outside the company in September of 1983, thus marking the birth of a new division of Yamaha Motor.

Today, YMC deals in a range of robotic machinery that includes its SCARA Robots, MXY Series, SXY Series, FLIP Series and FROP Series, as well as Surface Mounters and the unique Yamaha Rapid Plating System (YRPS). These machines are now being exported to numerous countries in North America, Europe, Oceania and Asia, and this year they will be seen on exhibit at a number of industrial fairs both in Japan and overseas. In recent years IM orders are pouring in, with sales roughly doubling each year since 1987. This autumn our IM production will move to a new factory with an increased production capacity.

**SURFACE MOUNTERS:** These devices position and fasten various sized electronic components to the surfaces of printed circuit boards of the kind used in such electrical appliances as Video components, cameras, compact disc players, computers, etc.

**SCARA** (Selective Compliance Assembly Robot Arm) Robot, MXY (Module type XY Robot) Series, SXY (Smaller type MXY robot) Series, FLIP (Flexible Linear Positioner) Series, FROP (Flexible Rotary Positioner) Series: These industrial robots perform such vital jobs in the assembly shop as fastening bolts, applying sealants, attaching and removing parts, and inserting bearings and pins, etc.

The job of the Surface Mounter is to attach dozens of different types of semiconductor chips and other components to a printed circuit board. These circuit boards then go into all kinds of electrical appliances that are part of our lives, from TVs and air conditioners to compact disc players.



**YM100VP:** Released this June for the Japanese market, here is one of our newest Surface Mounters. For today's electronic equipment, the trend is to mount in addition to the conventional resistors, condensers and semiconductor chips, an increasing number of odd-shaped components like coils, transformers and connectors directly to the printed circuit board. This Surface Mounter has the capability to mount such varied components to circuit boards with speed and precision.

### HEAD

The head sucks up the parts and fits them to the circuit board.

### CRT (Cathode Ray Tube) MONITOR

The monitor shows work progress and informs the operator of malfunction.

### ERROR SIGNAL LAMPS

### VISION SYSTEM (CAMERA)

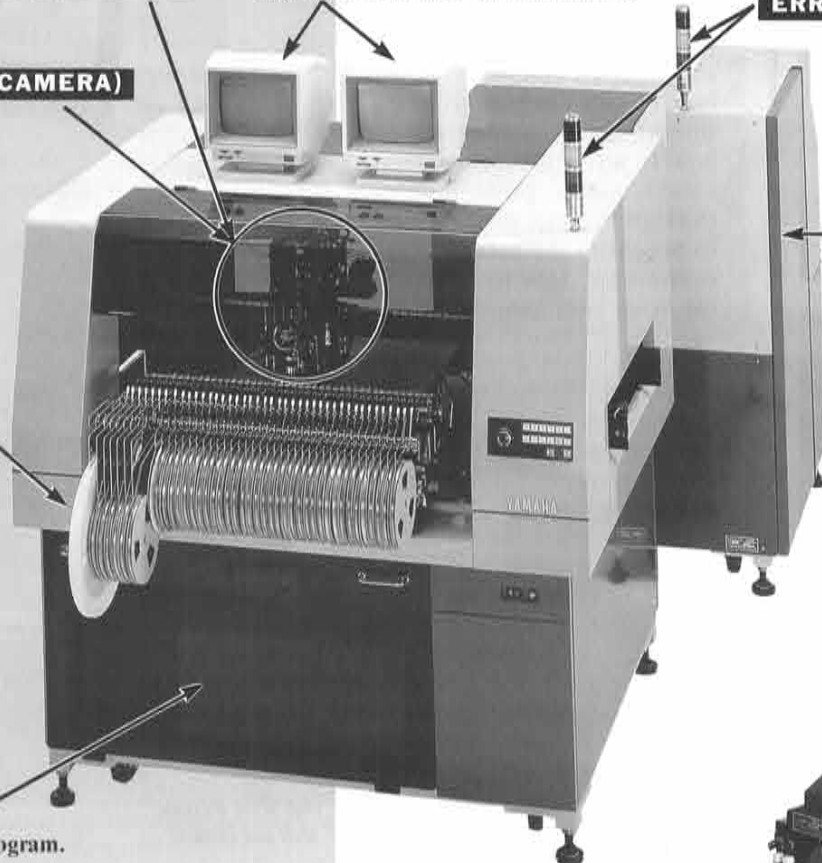
A camera verifies the positioning of the component on the circuit board for increased accuracy.

### TAPE FEEDER

Rolls of tape holding the electronic components feed them to the mounter. A maximum of 106 different types of components can be handled by the YM100VP.

### CONTROLLER

Contains a built-in program.

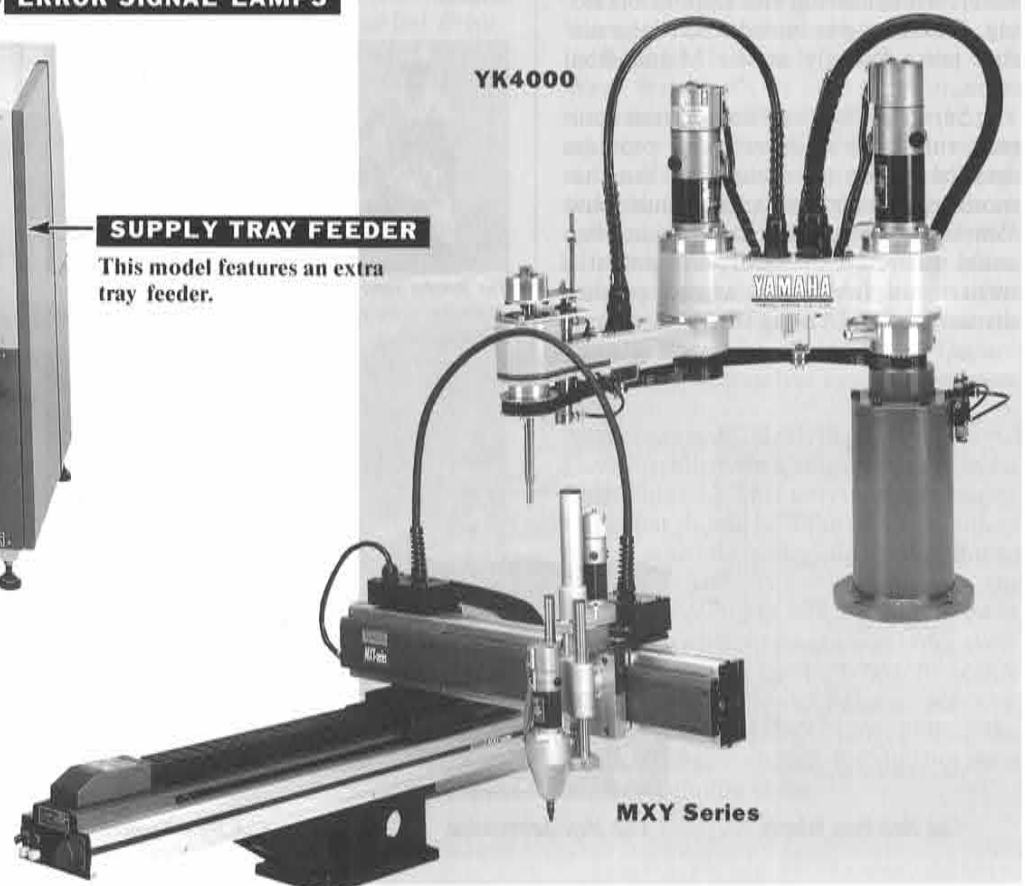


**SCARA Robots/MXY Series** Used for parts transfer, screw and bolt fastening, etc., in assembly shops and machining shops for motorcycles, electrical appliances and the like.

### YK4000

### SUPPLY TRAY FEEDER

This model features an extra tray feeder.





## 1990 WORLD CHAMPIONSHIP ROAD RACING

# Rainey and Kocinski racing in the lead



Wayne Rainey (Italian GP)

Since the opening round of this year's World GP series, Yamaha riders have been in fine form, leading the rankings in both the 500cc and 250cc classes. After the seventh round, Wayne Rainey stands at the top of the 500cc class with 131 points, 27 points ahead of second place Schwantz, while in the 250cc class Kocinski and Cadalora lead the ranking with 109 and 93 points respectively.

In round 4 on May 20, the Italian GP at the Misano Circuit, Rainey and Kocinski treated Yamaha fans to a double win. Due to rain, the final of the 500cc class was stopped after 24 laps and a second race of 12 laps was added to complete the competition. Winning the pole position, Rainey took off in race one to build a 2.5-second lead over the closest follower, Schwantz, before the race was called. In race two Rainey finished a close second behind Schwantz to clinch the overall win on the basis of time margin.

In the 250cc class, Kocinski ran away with the race once again, continuing his recent domination of the class with an impressive pole-to-finish victory.

At round 6, the German GP on May 27 at Nurburgring, Rainey raced to a safe second behind Schwantz, despite a dislocated finger sustained in Saturday's prac-

tice. Sonauto Yamaha's Christian Sarron also overcame a shoulder injury suffered at the Italian GP, to finish a commendable 4th after running 3rd much of the race. Yamaha riders Jean-Philippe Ruggia, Sarron's teammate, and Ducados Yamaha's Juan Garriga finished in 6th and 7th. In the 250cc class, Kocinski over-



Kocinski (left) and Cadalora (Spanish GP)

came an early lead by Jochen Schmid to take command of the pace on lap 4. But he was joined by Wilco Zeelenberg, Carlos Cardus and Helmut Bradl. The ensuing dogfight lasted right down to the last lap where Kocinski unfortunately lost the final dash to Zeelenberg and Cardus to finish a close 3rd. Luck was not with Yamaha's other series leader, Luca Cadalora, as he suffered a broken rear break on lap 3. Rejoining the race in 30th place, however, he

fought back valiantly to finish in the points at 10th position. The 6th round took place at Austria's Salzburgring on June 10.

Once again the 500cc race was a nip and tuck battle between rivals Rainey and Schwantz, with Rainey finishing a tough 2nd by just half a second. In this race three other Yamaha riders, Sarron, Ruggia and Garriga filled out the top ten in 7th, 8th and 9th positions. The 250cc race of the Austrian GP turned out to be most exciting race yet this season. From lap one a tight group of leaders traded the lead as many as 5 times per lap, often with a rider coming from the 5th to 1st on one corner. The early pack included, Kocinski, Bradl, Dominique Sarron, Wimmer, Reggiani, Cardus and Roth. Cadalora was meanwhile working his way up from a late start. Joining the leaders on lap 5, he formed a lead group with Zeelenberg, Wimmer,

Cardus and Kocinski that kept things hot right down to the last lap. Finally, Cadalora waited for the right moment to use his Yamaha's advantage on the uphill section of the last lap to shoot into the lead past Wimmer and take the checkered flag. Wimmer and Kocinski were a fraction of a second back in 2nd and 3rd. At the 7th round in Yugoslavia on June 17, Rainey won a pole-to-finish victory while Kocinski placed 2nd.

## Ténére conquers 16,000km course in South American Rally

Refueling in the mountains of Bolivia. A real crowd of onlooker gathers.



The first "Esso South American Rally" was run over a 24-day period from April 15 to May 8 this spring. In terms of participants the new rally was still small, with 6 Japanese, 3 American, one Peruvian and one Chilean entry. But in terms of scale it was second to none, exceeding even the Paris-Dakar with a diverse 16,000km course starting in Peru and working south through Chile and Argentina and then north through Bolivia to return to Lima, Peru.

From the deserts of the Pacific side, the course climbs to points over 5,000m in the Andes before dipping into the great Amazon basin to take in the full breadth of the South American experience.

In this inaugural race, first and second places went to a pair of Japanese riders on XT600Z Ténéres, Mr. K. Ijuin and Mr. H. Kashiwa. Once again the Ténére proved its credentials as a tough and durable rally competitor.



## RESULTS

### '90 WORLD CHAMPIONSHIP ROAD RACING

#### 3rd round - Spain - May 6

##### 500cc class

1. W. Gardner ..... Honda
2. W. Rainey ..... Yamaha
3. K. Schwantz ..... Suzuki
4. M. Doohan ..... Honda
5. P. F. Chili ..... Honda

##### 250cc class

1. J. Kocinski ..... Yamaha
2. L. Cadalora ..... Yamaha
3. H. Bradl ..... Honda
4. C. Cardus ..... Honda
5. M. Wimmer ..... Aprilia

#### 4th round - Italy - May 20

##### 500cc class

1. W. Rainey ..... Yamaha
2. K. Schwantz ..... Suzuki
3. M. Doohan ..... Honda
4. W. Gardner ..... Honda
5. N. McKenzie ..... Suzuki

##### 250cc class

1. J. Kocinski ..... Yamaha
2. H. Bradl ..... Honda
3. W. Zeelenberg ..... Honda
4. C. Cardus ..... Honda
5. J. Schmid ..... Honda

#### 5th round - Germany - May 27

##### 500cc class

1. K. Schwantz ..... Suzuki
2. W. Rainey ..... Yamaha
3. N. McKenzie ..... Suzuki
4. C. Sarron ..... Yamaha
5. S. Pons ..... Honda

##### 250cc class

1. W. Zeelenberg ..... Honda
2. C. Cardus ..... Honda
3. J. Kocinski ..... Yamaha
4. H. Bradl ..... Honda
5. J. Schmid ..... Honda

#### 6th round - Austria - June 10

##### 500cc class

1. K. Schwantz ..... Suzuki
2. W. Rainey ..... Yamaha
3. M. Doohan ..... Honda
4. P. F. Chili ..... Honda
5. N. McKenzie ..... Suzuki

##### 250cc class

1. L. Cadalora ..... Yamaha
2. M. Wimmer ..... Aprilia
3. J. Kocinski ..... Yamaha
4. W. Zeelenberg ..... Honda
5. R. Roth ..... Honda

### CHAMPIONSHIP POSITIONS AFTER 6 ROUNDS

#### 500cc class

1. W. Rainey ..... Yamaha ..111 pts.
2. K. Schwantz ..... Suzuki ..87 pts.
3. M. Doohan ..... Honda ..60 pts.
4. S. Pons ..... Honda ..52 pts.
5. W. Gardner ..... Honda ..50 pts.

#### 250cc class

1. J. Kocinski ..... Yamaha ..92 pts.
2. L. Cadalora ..... Yamaha ..80 pts.
3. W. Zeelenberg ..... Honda ..78 pts.
4. C. Cardus ..... Honda ..70 pts.
5. H. Bradl ..... Honda ..64 pts.

### WORLD CHAMPIONSHIP MOTOCROSS

#### 500cc class

##### 2nd round - Switzerland - April 29

##### 1st race

1. J. Leisk ..... Honda
2. D. Thorpe ..... Kawasaki
3. M. Anstie ..... Honda
4. B. Liles ..... Kawasaki
5. E. Geboers ..... Honda

##### 2nd race

1. B. Liles ..... Kawasaki
2. K. Nicoll ..... KTM
3. E. Geboers ..... Honda
4. L. Persson ..... Honda
5. M. Anstie ..... Honda

##### 3rd round - Austria - May 6

##### 1st race

1. D. Thorpe ..... Kawasaki
2. E. Geboers ..... Honda
3. K. Nicoll ..... KTM
4. B. Liles ..... Kawasaki
5. J. Leisk ..... Honda

##### 2nd race

1. D. Thorpe ..... Kawasaki
2. Jacky Martens ..... KTM
3. F. Rossi ..... KTM
4. E. Geboers ..... Honda
5. D. Geukens ..... Honda

##### 4th round - France - May 13

##### 1st race

1. E. Geboers ..... Honda

2. J. Leisk ..... Honda
3. Jacky Martens ..... KTM
4. D. Thorpe ..... Kawasaki
5. M. Anstie ..... Honda

##### 2nd race

1. B. Liles ..... Kawasaki
2. F. Rossi ..... KTM
3. J. Leisk ..... Honda
4. K. Nicoll ..... KTM
5. E. Geboers ..... Honda

### CHAMPIONSHIP POSITIONS AFTER 4 ROUNDS

1. B. Liles ..... Kawasaki ..124 pts.
2. E. Geboers ..... Honda ..109 pts.
3. D. Thorpe ..... Kawasaki ..87 pts.
4. K. Nicoll ..... KTM ..83 pts.
5. D. Geukens ..... Honda ..80 pts.

#### 250cc class

##### 1st round - Austria - April 22

##### 1st race

1. A. Puzar ..... Suzuki
2. T. Parker ..... KTM
3. D. Stribos ..... Kawasaki
4. M. Fanton ..... Suzuki
5. R. Diepold ..... Kawasaki

##### 2nd race

1. A. Puzar ..... Suzuki
2. M. Fanton ..... Suzuki
3. T. Parker ..... KTM
4. D. Stribos ..... Kawasaki
5. P. Johansson ..... Yamaha

##### 2nd round - Italy - April 29

##### 1st race

1. T. Parker ..... KTM
2. P. Johansson ..... Yamaha
3. M. Fanton ..... Suzuki
4. A. Puzar ..... Suzuki
5. R. Herring ..... Suzuki

##### 2nd race

1. A. Puzar ..... Suzuki
2. J. Van Den Berk ..... Suzuki
3. R. Diepold ..... Kawasaki
4. R. Herring ..... Suzuki
5. T. Parker ..... KTM

##### 3rd round - Sweden - May 13

##### 1st race

1. A. Puzar ..... Suzuki
2. J. Van Den Berk ..... Suzuki
3. T. Parker ..... KTM
4. G. Van Doorn ..... KTM
5. M. Fanton ..... Suzuki

##### 2nd race

1. A. Puzar ..... Suzuki
2. R. Herring ..... Suzuki
3. J. Van Den Berk ..... Suzuki
4. D. Stribos ..... Kawasaki
5. G. Van Doorn ..... KTM

### CHAMPIONSHIP POSITIONS AFTER 3 ROUNDS

1. A. Puzar ..... Suzuki ..113 pts.
2. T. Parker ..... KTM ..86 pts.
3. M. Fanton ..... Suzuki ..76 pts.
4. J. Van Den Berk ..... Suzuki ..71 pts.
5. R. Herring ..... Suzuki ..54 pts.

#### 125cc class

##### 1st round and 2nd round were cancelled

##### 3rd round - Italy - April 22

##### 1st race

1. D. Schmit ..... Suzuki
2. A. Bartolini ..... Honda
3. T. Vohland ..... Suzuki
4. S. Everts ..... Suzuki
5. P. Tragter ..... Suzuki

##### 2nd race

1. D. Schmit ..... Suzuki
2. B. Moore ..... KTM
3. M. Healey ..... KTM
4. Y. Demaria ..... Yamaha
5. P. Tragter ..... Suzuki

##### 4th round - Holland - May 6

##### 1st race

1. P. Tragter ..... Suzuki
2. T. Vohland ..... Suzuki
3. D. Schmit ..... Suzuki
4. B. Moore ..... KTM
5. G. Albertija ..... Kawasaki

##### 2nd race

1. M. Healey ..... KTM
2. P. Tragter ..... Suzuki
3. T. Vohland ..... Suzuki
4. B. Moore ..... KTM
5. G. Albertija ..... Kawasaki

### CHAMPIONSHIP POSITIONS AFTER 4 ROUNDS

1. D. Schmit ..... Suzuki ..65 pts.
2. P. Tragter ..... Suzuki ..59 pts.
3. M. Healey ..... KTM ..42 pts.
4. T. Vohland ..... Suzuki ..41 pts.
5. B. Moore ..... KTM ..38 pts.





RESULTS	
1. Kenichiro Iwahashi	Honda
2. Shoji Miyazaki	Honda
3. Peter Goddard	Yamaha
4. Yasutomo Nagai	Yamaha
5. Carl Fogarty	Honda

## 1990 SUGO TT FORMULA FIM CUP RACE

Once again this year, from May 11 to 13, Sportsland Sugo was the site of the first round of the TT Formula FIM Cup Race Series. Now in its 4th holding, this year's Sugo race drew star riders from Australia, Britain, New Zealand, the U.S., Germany and Japan, along with a gallery of some 25,500 spectators. In the race, local stars Kenichiro Iwahashi (Honda) and Shoji Miyazaki (Honda) took first and second places respectively, with Peter Goddard (Yamaha) 3rd. Pre-start engine trouble by one of the machines caused a restart of the Sunday final and a shortening of the race by one lap. In the early going, Yamaha YZF750R rider Y. Nagai, chased Iwahashi, who took



P. Goddard



Y. Nagai



YESS station

the lead on lap 3, along with Miyazaki, M. Dowson (Kawasaki), D. Polen (Suzuki) and C. Fogarty (Honda). When Iwahashi left the course to refuel near mid-race, Miyazaki took the lead, with another Yamaha FZR750R ace, P. Goddard, in hot pursuit and Nagai holding 4th. When it was Miyazaki's turn to refuel Iwahashi retook the lead and a hot pursuit of second by the two FZR men fell just short, giving Yamaha a respectable 3, 4 finish.

After the race Goddard commented, "To finish this high against works machines on the FZR750R is really an accomplishment. I want to thank the team, the mechanics and the machine for a great job!"



### —Yamaha Marine Carnival '90 at "Haimurubushi"



## Southern Isle Hosts Festival of Marine Sports

Over an 8-day period from May 13 to 20, the Yamaha Marine Carnival '90 took place at the Yamaha Recreation-managed "Haimurubushi" resort on Okinawa's Kohama Island, a semi-tropical paradise on latitude with Hawaii in the East China Sea. In this event organized by Yamaha Recreation, marine sports lovers gathered to participate in fishing, Water Vehicle and diving events. For three days beginning on the 16th, the Water Vehicle event offered the 50 participants test-rides of the Yamaha new models, games and an all-day

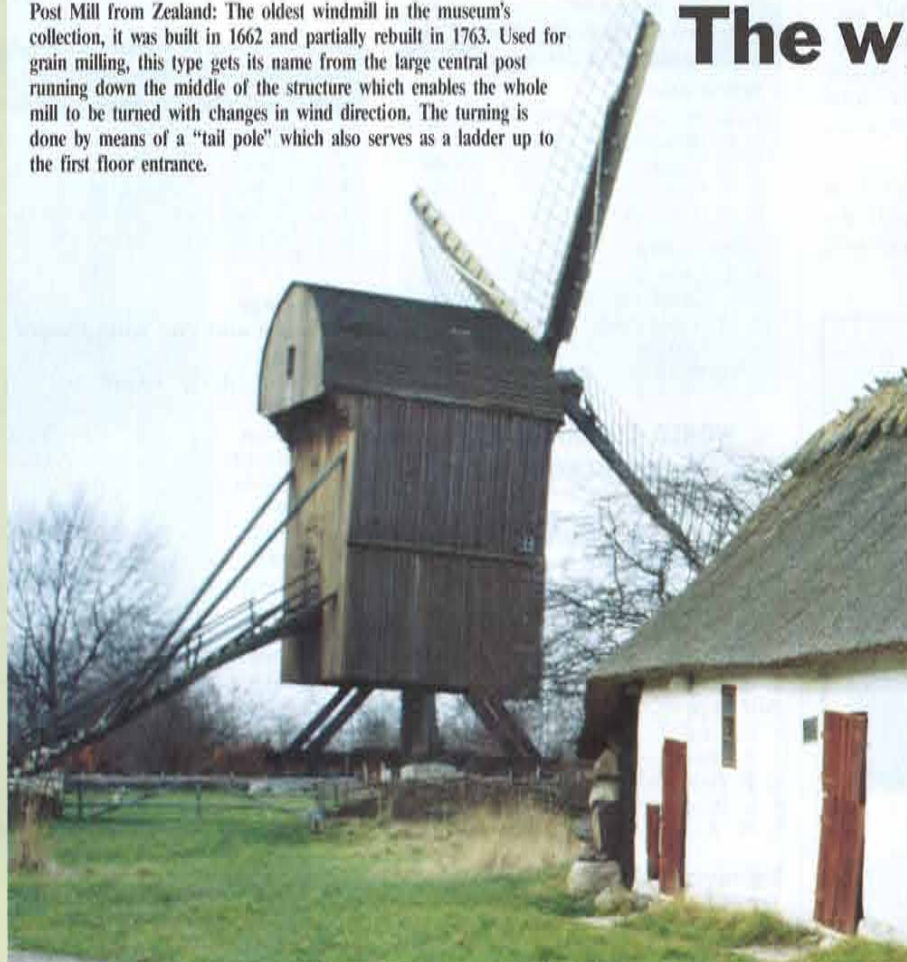
group tour, giving everyone plenty of opportunity to put their riding skills to the test.

Another popular event was the Fishing Tournament which drew 24 teams with a total of 64 participants. These sport fishermen had a satisfying 3 days of comparing their catches and exchanging information about their sport.

All in all it was a full and satisfying 8 days for everyone, sharing in the joys of summer marine sports to their hearts' content.

### IN SEARCH OF THE INVENTION

Post Mill from Zealand: The oldest windmill in the museum's collection, it was built in 1662 and partially rebuilt in 1763. Used for grain milling, this type gets its name from the large central post running down the middle of the structure which enables the whole mill to be turned with changes in wind direction. The turning is done by means of a "tail pole" which also serves as a ladder up to the first floor entrance.



Little is really known about when windmills first began to serve mankind. History tells us that the Alexandrian scholar Heron used a windmill to pump an organ in the 1st century B.C. By the 13th century windmills were in use in many parts of world helping man with tasks like milling grain, pumping well water or drainage water, etc. Use of windmills reached its height in the first half of the 19th century when the invention of the steam engine began to make it a tool of the past.

## The windmill: an old tool serving man once again

However, as we entered the last quarter of the 20th century, two successive oil shocks in 1973 and 1978 turned the eyes of the world toward alternative forms of energy to replace fossil fuels, and the windmill began a comeback of its own.

Yamaha began development of wind-turbine generators in 1981. The first results of these efforts were allotted to experimental or exhibition roles or as monuments in parks and the like. Last year, however, Yamaha succeeded in installing the first practical-use wind-turbine generator in Japan, providing energy for the heating system of a school in Hokkaido. Statistics elsewhere speak of some 17,000 such turbines presently in use in the U.S.A., 1,500 in Denmark, and substantial use in other countries such as Germany, Holland, Belgium and Britain.

In this issue let us share with you material we received about three historic windmills in the collection of Denmark's Frilandsmuseet (Open-Air Museum). Inaugurated

in 1897 largely through the work of a man named Bernhard Olsen, the Frilandsmuseet was an outgrowth of the "folk museum" concept emerging in Europe at the time from people's desire to preserve the rural culture of their countries. In the museum's collection are Danish farmstead buildings of all types, including the windmills pictured here.

Photos courtesy of Denmark's Frilandsmuseet (Open-Air Museum)



The Fuglevad Windmill: This is a fine example of a "Dutch mill". Built in 1832, around the time this new type began to replace the traditional post mill, it was used for milling grains at a time when Danish farming centered mainly on cereals. In this type only the "cap" turns to wind direction. When in actual use the sails would be covered with canvas.



A Post Mill from Laeso built in the middle of the 18th century. This mill ground corn from a single farmstead into meal. Small mills like this proliferated in this part of Denmark in the mid-1700s.