YAMAHA MOTOR CO., LTD.

Interview of the second of the

Manufacturing Strategy Goes Global!

With 60 Yamaha manufacturing bases around the world building products for both domestic and export markes, the growing cross-trading within the Yamaha group is leading to new global manufacturing strategies.





Cross-trading in the Worldwide Yamaha Group Supplying world-class products that fit the actual needs of the people who use them ... this has been the essence of the global spirit Yamaha Motor has embraced ever since its founding. Today, we have manufacturing bases, sales companies and R&D facilities all over the world that are working to develop and manufacture products that from their conception are designed to fit the unique cultural and social values of each region of the world. And, with recent advances in distribution, logistics and magnifacturing technologies, we have truly entered an era in which global-scale manufacturing and sales strategies are answering the needs of the times and logal markets the world over.

Various types of Yamaha scooters manufactured by Yamaha Group companies were presented during the 5th Cross Trade Forum held at YMC



Representatives of the overseas Yamaha manufacturing bases promoted their products in the "5th CT Forum" held at YMC

Yamaha Group Products for the Global Market

Today, Yamaha brand products are manufactured in some 60 factories in 35 countries around the world. And, as many of these bases have begun to export their products to third countries, an extensive amount of "cross trade" is developing within the Yamaha Group.

For example, The "Grand Axis 100" scooter

manufactured by Yamaha Motor Taiwan (YMT) is now marketed in Japan and the 4stroke moped "Crypton" produced by Yamaha Indonesia Motor Manufacturing (YIMM) is sold in Latin American markets like Mexico and Brazil.

The number of Yamaha brand models involved in this kind of cross trade during the past two years alone exceeds 170 different models and total unit sales of about 300,000.

5th CT Forum opens new doors

Now working to promote cooperation between manufacturing side and marketing side companies involved in this growing "export business" within the Yamaha Group is the Cross Trade Division that was established in the motorcycle headquarters of Yamaha Motor Company (YMC) two years ago.

It was this Cross Trade Div. that sponsored the "5th CT (Cross Trade) Forum on April 26 and 27 at the Communication Plaza at YMC's headquarters in Iwata, Japan. In effect, this forum became an "in-house preview" in which the gathered representatives of the overseas Yamaha manufacturing bases promoted their products before overseas marketing representatives from YMC and other Yamaha Group companies.

Now in its 5th holding, this forum began with presentations concerning the present status of cross trade within the Yamaha Group and reports from the various participants. This was followed by presentations from the YMC product planning representatives of the motorcycles, scooters and moped models produced by the various manufacturing bases. In the afternoon the forum moved to the Yamaha technical center in Kakegawa for test rides of the models introduced in the morning session. This gave all the marketing people involved a chance to actually ride the different models and experience their performance firsthand.

Getting to the heart of cross trade business

"When you look at things from the standpoint of the customers in the marketplace, the essential goal of cross trade business is to supply quality products at the right price to people in different parts of the world," says Mr. Naoki "Nick" Ohmura, General Manager of the Cross Trade Division.

"We are now in an age where it is easy for anyone to get the information they want via the Internet from anywhere around the globe. In other words, it is fast becoming a truly borderless world. At the same time, customers are only able to buy the products that are available in their own country's market. But, because of the information available to them, they can't help but want better products at a more reasonable price," he adds.

The idea behind cross trade business is also to look at product supply from a more global perspective to find ways to offer a wider range of affordable, quality products that is not limited to the products that happen to be manufactured in any given country.

Meanwhile, in this age of intensified global competition, it is becoming increasingly hard for companies to survive by focusing only on their own country's market. It is necessary to build competitiveness in the global marketplace. This active participation is another factor in cross-trading.

For example, consider a case where you want to sell mopeds manufactured in Indonesia to customers in the cold regions of northern China. If you simply tried to export the same models developed for Indonesia's tropical climate, you would run into prob-

lems in the engine settings that would, for example, make it hard to start the engine in cold weather. In a

Mr. Naoki Ohmura, General Manager of the Cross Trade Division (top) and his





There are not many opportunities to ride so many of models in the one place and the participants made good use of this chance to form their own impressions



case like this, the Cross Trade Division would gather information about the Chinese market conditions and feed it to the manufacturing in Indonesia so they could make the various modifications necessary to fit the Chinese market needs. And, there are other details, such as the fact that you can't expect the same service manual printed in Indonesian to be used in China. This is another type of situation where the Cross Trade Div. steps in to offer advice and take the necessary measures to satisfy the needs of both the marketing side and the manufacturing side.

"Besides these factors such as differing product specifications and language, cross-trade business also involves the problem of dealing in different currencies. In addition to offering sound advice and taking measures with regard to these kinds of issues, if necessary we enlist the assistance of the various divisions of YMC, like the Service Division and Product Development, in order to find the best solution possible," says Mr. Ohmura.

Increasing importance of cross trade

Last year there were 102 business agreements concluded through the Cross Trade Div. for introduction of new models on a cross-trade basis in the Yamaha Group. And, eleven new countries became involved in these cross-trade agreements last year. The total number of units involved in the new cross-trade product launches for the year was about 47,000.

Some of the important results achieved by the Cross Trade Div. recently were improvements now being made in the specifications of YMT's "BW'S 50" scooter for export to the U.S. market and development of modifications now in progress for the 4-stroke moped "Vega" manufactured by YIMM so that it can meet regulations for import into the Greek market. Another big result was the start of production of a new high-elevation specification of the 4-stroke motorcycle "YBR 125E" manufactured by Yamaha Motor Brasil so it can be exported to Mexico.



Brazil's "YBR125E" is now ready to be exported to the Mexican market

Meanwhile, the increasing competitiveness of motorcycles manufactured by Chinese makers with their advantages of low production cost resulting from lower development and labor costs, has re-emphasized the importance of cross trade. But Mr. Ohmura insists that, "Our aim is merely to answer the needs of the markets."

He adds, "As I mentioned before, what the customers really want is to be able to buy good products from all over the world. So we are undertaking this cross-trade business with the aim of helping customers to get the products they want on a global scale and with speedy supply. And by getting them the products they want we hope to help give customers everywhere the special excitement and satisfaction we at Yamaha call "Kando." At the same time, we personally hope to share more and more in our own kind of "Kando," when we are able to take back news from the export markets to the manufacturing bases that their products are selling well in the overseas markets."

Yamaha brand products are now manufactured and exported to the worldwide market (photo taken at the factory of Thai aha Motor Co., Ltd.)



Building globally on Customer Satisfaction

💻 Yamaha Indonesia Motor Manufacturing (YIMM) 💻 Founded: 1974 💻 Location: Jakarta, Indonesia 💻 Employees: 3,500

Indonesia is a tropical island nation known for its natural beauty and abundant resources. With a total of nearly 16,000 islands spread out over some 5,100 km from east to west and boasting a total land area of 1.92 million square kilometers; Indonesia is also the world's largest archipelago nation. With a population of over 200 million people, it is the world's fourth most populous nation.

In contrast to the news we see coming out of Indonesia in recent years about the lingering economic crisis, political instability and communal strife, it is a country that has long enjoyed a reputation for the beauty of its

The "F1Z" cast-wheel model (top) and the "VEGA" are some of the most popular mopeds produced by YIMM for

the Indonesian market

islands and the gentle civility of its people. Economically as well, it has long been a leading force in the growth of the ASEAN region.

While Indonesian destinations like Bali and Borobudur are familiar to tourists the world over, the headquarters of our company, Yamaha Indonesia Motor Manufacturing (YIMM) are located in the nation's capital of Jakarta, a metropolis of 10 million people.

YIMM

YIMM was established on July 6, 1974, and will soon be celebrating the 27th anniversary of its founding. Presently we have more than 3,500 employees and the products we manufacture include small displacement motorcycles of the 100 to 135cc class, as well as varied products like water purification devices, parts for golf cars and, in a tie-up with Yamaha Corporation, structural parts for drums. Our motorcycle manufacturing capacity has reached a level of 1,500 units per day. While our CBU motorcycle production supplies the domestic Indonesian market, we also export a growing number of CBU and CKD motorcycles for overseas markets along with





Yamaha Indonesia Motor Manufacturing (YIMM) Head Office

products that we develop and manufacture and the high level of satisfaction they enjoy among our customers.

The domestic economy, recovering from crisis

Since the devastating devaluation of the Indonesian Rupia on the money markets in 1997 and the ensuing civil unrest in Jakarta, the ouster of the Suharto regime and the struggle to implement a truly democratic system in 1998, Indonesia has begun to rebuild itself politically, economically and socially. Although in many areas there is still a long struggle ahead, vital sectors of the economy such as motorcycles, automobiles and electrical appliances and other commodities have already begun to show dramatic recovery.

In the motorcycle industry, domestic demand has rebounded from 453,000 units in 1999 to 942,000 last year and an estimated 1,454,000 units for this year. This is a clear indication not only of the vast market potential of this country but also the degree to which motorcycles have become an integral part of the lives of its people.

Important factors in the rapid growth in motorcycle demand is the active implementation of credit buying programs and the full-scale introduction of Chinese-manufactured copies of the leading motorcycle models. The importance of credit-plan sales is due to the fact that motorcycles still represent a major investment for most Indonesians, equivalent to anywhere from 1.5 to 2 times their annual incomes. For such customers credit sales make it possible for them to buy a motorcycle on manageable terms, which explains why some 50% of all motorcycles sold in Indonesia today are purchased on

credit plans.

Sales and marketing of our motorcycles and parts in Indonesia are handled by YIMM's subsidiary, Yamaha Motor Kenkana Indonesia (YMKI), established in 1990. Last year, YMKI recorded a total of 189,000 motorcycles sales, an increase of 188% compared to the previous year.

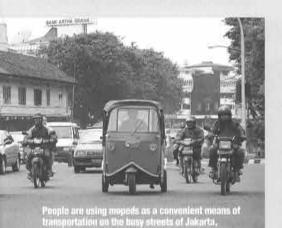
Presently YMKI is working under the motto of "Maintaining market leadership in the face of stiff competition in a globalizing business environment." To achieve this goal, we are promoting Yamaha's "3S" program (Sales, Service, Spare Parts) aimed at bringing "Kando" (excitement and satisfaction) to our customers. This involves the aggressive promotion of CCS (Customer and Community Satisfaction) activities throughout the nation-wide sales and service networks.

Becoming a exporting base for smaller class motorcycles

YIMM began exporting its products in 1992 and is now supplying CBU (complete built-up) and CKD (complete knock-down) units to 35 countries around the world, with demand centering primarily in the markets of South America. Last year these exports totaled about 75,000 units, mainly of smaller displacement (100cc class) 4-stroke mopeds. At the start of export activities, we were only supplying our products as CBU units, but in 1997 we also began on a CKD basis in response to requests from various CKD factories around the world. Now these CKD exports make up 50% of our total export sales.

Also, in recent years exports of parts are increasing as part of cooperative efforts between Yamaha manufacturing bases in the ASEAN countries in mutual parts supply.

YIMM also manufactures and exports products other than motorcycles. For example, we are now supplying parts for Yamaha golf cars being manufactured at YMMC in the



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Sentral Yamaha is a Yamaha dealers in Indonesia. The shop and service facility are well placed to meet the needs of customers







USA, and we supply parts for drums to Yamaha Corp. in Japan. We also export products like air tools to companies outside the Yamaha Group.

Looking forward, we at YIMM are dedicated to further expanding our export business by continuing to refine our product quality, developmental know-how and cost effectiveness in ways that enable us to develop and supply products that better fit the needs of each market. At the same time we intend to focus on creating new demand by building products that offer new value.

Yamaha water purifiers contributing to a better life

Another area besides motorcycles where we are actively developing business is with Yamaha brand water purification systems manufactured by YIMM and marketed through our subsidiary Yamaha Motor Nuansa Indonesia (YMNI). Based on survey results showing that 90% of the higher income citizens living in the Jakarta area had either fears or dissatisfaction concerning the quality of the household-use water supply, we introduced on the market the Yamaha OH300 home-use water

purification system. Furthermore, to ensure that our

The Yamaha OH300 home-use water purification system was introduced for better quality water supply



customers enjoyed continuing supply of clean water from these devices we implemented a service program that included preuse water quality testing and a strictly kept schedule of maintenance every four months. These service efforts quickly won us customer trust.

In the ten years since we introduced these water purification systems we have supplied units to over 10,000 households, factories, restaurants and hospitals. From now on we hope to use this know-how we have gained here in the Indonesian market to contribute to people's health and quality of life by bringing cleaner water to other regions of Asia and around the world where obtaining quality drinking water is a problem.

Message from YIMM

As members of the Yamaha group, we at YIMM are dedicated to continuing in these ways to expand our corporate activities beyond just the manufacturing of motorcycles and establish our own unique fields of business. Besides the manufacture and sales of complete motorcycles in the smaller displacement classes, we will continue to grow our export business for CBU and CKD motorcycles and parts with a global perspective while at the same time securing a strong base of customer satisfaction here in Indonesia. And, in doing so we hope to grow with stability as a company that contributes to the society, culture and economy of Indonesia.

From Michifumi Matoba of YIMM, Indonesia

CHINA Clean gas engine products on display

General



Yamaha displayed a number of products modified to run with clean gas technologies to the interest of many exhibition-goers

The 3rd Clean Energy Vehicle Exhibition was held in Beijing, China from April 16 to 19 this year, bringing together industry and research

people from across China and overseas.

> Yamaha displayed a number of products to the interest of many exhibitiongoers, including an Electronic Control System to

facilitate the use of gas engines in vehicles in place of diesel engines, and an experimental bus mounting the system, along with a scooter and an outboard engine fuelled by liquefied petroleum gas (LPG), and natural gas generators.

China is the largest producer of clean-energy natural gas, and in its energy policies and in the interests of environmental protection China is moving towards alternatives to gaso-

YMCA launches G-FAST system CANADA

General

On April 2, 2001, Yamaha Motor Canada Ltd. (YMCA) successfully launched a new parts system. The G-FAST system is a total inventory control and distribution system developed by Yamaha and it is a key component in the establishment of a Global Distribution Network. This event represents an important milestone in the development of YMCA. By using the latest in technology, we will be able to improve the service we provide our dealers and customers and the way in which we manage our parts and accessories business.

The project began in August 1999 when YMCA staff first visited Japan to learn about the G-FAST system. From there, a project team which included YMCA staff, YMC staff and employees from CSK Corporation of Japan was assembled.

This project provided the opportunity for employees from both Canada and Japan to travel to each other's country. Over the many months the project took to complete, a strong commitment to the team evolved. Thanks to this commitment and the effort and dedication of all involved, the new system was successfully launched on time. We wish to extend our appreciation to the many individuals who made this project a success!

From Peter Hastings of YMCA, Canada



Staff from the YMCA Toronto Office who participated in the opening ceremony

Webmasters meet in L.A.

The 4th World Wide Webmaster Meeting was held this year on March 13 and 14 in Los Angeles, U.S.A. Representatives from the Yamaha Motor Co., Ltd.(YMC)'s eCRM Strategy Team joined 40 website developers from 11 companies in eight countries at the meeting to exchange experiences and opinions.

This year's theme was the Internet "Yesterday, Today and Tomorrow"-learning from mistakes of the past to build the future. Discussions were focussed on eCRM (Electric Customer Relationship Management) strategies and e-commerce development, and the two days facilitated sharing of information at a high level.

From Yoshiki Suzuki of YMC, Japan

The Yamaha eCRM Strategy Team joined their Webmaster peers from around the world to discuss future development



TAIWAN

1st Global Service Managers Meeting



42 representatives from 33 countries gathered at Yamaha's 1st Global Service Managers Meeting

On March 14 and 15, 2001, 42 representatives from Yamaha distributors in 33 countries of North America, Europe, Oceania, Japan, Asia and Latin America gathered in Taipei, for Yamaha's 1st Global Service Managers Meeting. In attendance from YMC were Senior Managing Director Mr. Shibuya and the Service Division's Director Mr. Suzuki.

In years past, separate meetings were held in each region, but as a first step toward a more global approach for the 21st century, this first global meeting was held with the aim of strengthening consensus for aggressive service

strategies and initiating global service activities designed to make Yamaha "No. 1 in Customer Satisfaction."

At the meeting there were presentations of the service vision and mid-term action plan as well as activity reports from the various distributors and confirmation of policies concerning educational systems, the information network and CS promotion. All these brought active exchange of opinions in a positive atmosphere, signalling a successful start to the new programs.

CRUX donations to Police

On March 20, 2001, ten Yamaha CRUX units

were donated to the Traffic Police Dept. of

Chennai (formerly Madras) on India's east

coast by Yamaha Motor Escorts Ltd. (YMEL).

Following the launch of the CRUX in India last

year, a CRUX Caravan was run in Chennai late

last year over more than 6,000km to introduce

the bike to the region. As a final event for the

CRUX debut, YMEL held a ceremony on this day to formally present the bikes to City of

The incidence of traffic accidents in Chennai is

high due to the chronic traffic congestion,

requiring prompt response and quick access to accident sites by Traffic Police. YMEL made the decision to donate the CRUX bikes, hoping

traffic for the city.

From now on, the CRUX will become a part of the city landscape.

that their use will assist in smoother flowing

From Satoshi Ito of YMEL, India

Traffic Police in the city of Chennai (formerly Madras) will use their YMEL-donated CRUX bikes to navigate their way through congested traffic in the city



MALAYSIA

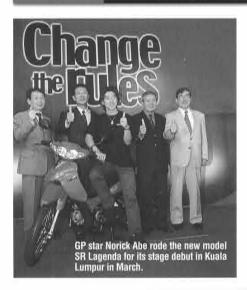
Chennai.

INDIA

Launch of Yamaha's new 4-stroke Moped

Motorcycle

Motorcycle



Hong Leong Yamaha Distributors Sdn. Bhd. (HLYD) recently introduced its latest 4-stroke moped, the Yamaha SR Lagenda through a Press and Dealers launch on March 28, 2001 in Malaysia.

Present at the launch were Mr. Kwek Leng San, President & CEO of Hong Leong Industries, Mr. Toshikatsu Nozaki, General Manager, CV 2nd Engineering, Yamaha Motor Co., and Mr. Ron Lim, GMD, HLI (Automotive Division). The new model was unveiled and given the thumbs up by motorsports ace, Yamaha's World Grand Prix 500cc rider, Norick Abe.

The Yamaha SR Lagenda is a new generation 4-stroke moped, that adopts state-of-the-art technologies in its various components. It combines performance with convenience bundled in a stylish design. The new model is expected to enhance Yamaha's positioning and market share in the 4-stroke moped market segment.

The sporty and yet practical Yamaha SR Lagenda also boasts a host of other features including an air-cooled 4-stroke engine with improvements for even greater reliability, a high rigidity frame that ensures good handling performance and stability, a sporty aerodynamic body, multireflector combination head lights and tail lights and a large capacity storage space.

HLYD also took the opportunity to hold on Awards Presentation, an annual affair to honor and show appreciation to their Top 50 dealers as well as top spare parts dealer for their sales support in the year 2000.

From Eiji Tada of YMC, Japan

THE NETHERLANDS European Police assess FJR1300

Motorcycle

Since its debut at the Intermot show in September 2000, the all-new Yamaha FJR1300 has been generating a great deal of interest amongst riders all over Europe. With a powerful four cylinder engine, a lightweight aluminium chassis and wind-beating bodywork, the FJR1300 delivers sports bike performance with tourer comfort. In addition to its high engine and chassis specification, the bike also benefits from shaft drive, a must-have feature for many long-distance riders.

Recognising the suitability of the new FJR1300 for Police use, Yamaha Motor Europe (YMENV) invited Police riders and representatives to an evaluation day at Lelystad in the Netherlands on March 22,

The Lelystad track outside Amsterdam is operated by the Netherlands Police. It consists of a 2700m circuit with a 700m straight, and many other test areas which allow the Police to practice riding on everything from uneven

cobbled surfaces to slippery tramlines.

On standard FJR1300 bikes, Police riders from The Netherlands, Austria, Belgium, France, Germany, Greece, Norway, Spain and the UK participated in a comprehensive test session that allowed them to experience the new machine in a wide range of conditions.

The riders were able to take the bikes for a 100km high-speed highway ride, followed by a session on the Lelystad track, which allowed riders to sample performance in simulated Police usage situations.

Following the test sessions each group discussed their impressions of the machine with

Yamaha Product Planners, and riders were asked to complete a questionnaire regarding the specific requirements of their



respective Police forces.

The information gathered at this event will be used by Yamaha to develop a prototype, which will be followed by a production Police-specification FJR1300 tailored for European Police forces, known to replace up to 2,000 of their existing fleet each year with new machinery.

From YMENV, The Netherlands



GERMANY Great day of 'Yamaha Live' test rides

On Saturday, March 31, 395 Yamaha motorcycle dealers across Germany simultaneously treated customers to test rides on a range of Yamaha bikes. The nation-wide promotion, called Yamaha Live, was promoted on German FM radio.

In the lead-up to the big day, the cloudy, cold weather was cause for concern, but on event day it turned spring-like for the first time this year, with some areas in the south enjoying more than 20°C.

The pleasant weather helped attract more than

400,000 people to the Yamaha Live events, so that each dealer's staff could barely keep up with the demand for test rides.

The dealers gave customers a taste of a range of Yamaha motorcycles, from the FJR1300, named Bike of the Year in the 2001 Sports Touring Model Category by *Motorad* magazine, the Fazer 1000, the YZF-R6 sports model, and various scooters including the TMAX.

The dealers even provided soft drinks and light snacks, and mini-bikes and trampolines for those customers who brought their kids along to join the fun. In the evening, live music made an appropriate finale for Yamaha Live, and a great day for bike-lovers across Germany.

From Hiromi Kuroi of YMG, Germany



Bike-lovers across Germany were treated to a spring day of test rides on Yamaha bikes, from the award-winning FJR1300 to various scooters

Motorcycle

Motorcuch

NEW ZEALAND Yamaha Rider Wins Top Road Race Title

Yamaha YZF-R1 rider Tony Rees is the toast of the New Zealand motorcycle racing fraternity after beating his rivals at the 2001 New

Yamaha YZF-R1 rider Tony Rees (11) on his way to winning the 2001 New Zealand Superbike Championship

Zealand Superbike championship.

Fought out over four rounds at circuits from south to north, the championship attracted a top-notch field of the country's best road racers, and battle for supremacy in the blue riband Superbike class went right down to the wire. Rees finished a title-clinching third in the final held at Pukekohe Park Raceway (near Auckland) on Sunday April 8.

"It's definitely the title Yamaha and I wanted to win this year," said the 33-year-old, now the country's top resident road racer and a devoted family man who runs a thriving Yamaha dealership in his hometown.

With the title now his, Yamaha rider Rees

turns his attention to the Australia Formula Superbike championship. Last year he rode a Yamaha YZF-R1 to third place in the Australia Formula Xtreme series and this year he is riding one in both the Formula Xtreme series and Superbike series.

Rees was not the only Yamaha rider to win a New Zealand Road Race championship title this year, either. Sidecar racers Colin Buckley and Darren Abrahams clinched the New Zealand Sidecar championship at the final round at Pukekohe riding a Yamaha- powered outfit.

From Perry Francis, Yamaha Motor New Zealand (YMNZ), New Zealand

THAILAND Touring with "SPEED'

From March 15 to 21, a "Mainichi-Yamaha Motorcycle Touring in Thailand" event took place. This was the 12th holding of this series of touring events and the 3rd in Thailand. In it 12 Japanese riders enjoyed a 1,150 km tour through Eastern and Northern Thailand from the capital of Bangkok to the Laos border.

Starting from Bangkok, the group first passed through the famous beach resort area of Pattaya and traveled north along the "Asia Highway" Rt. 12. Enjoying numerous exchanges with the local people along the way, the tour visited famous Khmer ruins and finally reached Nong

Khai on the border of Laos. To ensure the success of the event, a veteran instructor joined the tour from YMC. Also cooperating by supplying the "Speed" motorcycles used and four support riders was Thai Yamaha Motor Co., Ltd. (TYM). In addition, many company staff were on hand to offer support at the different locations visited by the tour, something greatly appreciated by all the riders.

The TYM-built "Speed" used on this tour is a new air-cooled 2-stroke, 119cc, 6-speed model that was just launched on the Thai market this January. It took everyone through the tour with no mechanical problems whatsoever and plenty of praise for its great performance from the riders.



Riders enjoyed a 1,150 km tour through Eastern and Northern Thailand

JAPAN Rob and Dafne arrive at YMC!

Motorcycle

Motorcycle

We have reported several times already in Yamaha News about the progress of the amazing 200,000-km world tour of Rob and Dafne de Jong and their sidecar-mounted Yamaha XJ900, that began from Rotterdam, the Netherlands in November 1996. Now the couple has arrived in Japan, the 50th country on their tour so far. On April 27 they arrived at the birthplace of their beloved XJ900, YMC, where they were greeted enthusiastically by Yamaha employees, including engineers who worked on the XJ900's development.

The couple reported that they had experienced

almost no trouble at all with their machine, and were clearly proud to celebrate its glorious "homecoming." One of the purposes of their journey around the world is to bring children together through drawings, a project named "World on a Child's Drawing," and they will be visiting several schools while here in Japan for exchanges with children. Then, they will cross over to Russia and continue their journey through Siberia headed back to the Netherlands.

When asked about the prospect of finally returning to Holland in a newspaper interview,

however, Rob said they may just pass through and keep right on going. Adding with a laugh, "We never make the decision whether to turn right or left until we reach that corner!"



JAPAN Yamaha recognised for superior packaging

Marine

Yamaha Outboard Motor's corrugated board packaging has won a distinguished international Worldstar award in the 2000 Worldstar Contest, in the Industrial - Durable Goods and Appliances Category. The Worldstar award



was presented to Yamaha in England on April 2, 2001. Worldstar awards are presented to superior packaging which, having already won recognition in a national competition, are compared to similar packaging from around the world by an expert panel of judges. The judges reach a consensus that a packaging is superior in its own right, and better in its class in execution or innovation by comparison.

The corrugated board packaging was produced for the first time in the industry for outboard motors, and eliminates the use of polystyrene foam for complicated, irregular 70kg products. The initial objectives of the development, to improve safety during transportation, workability, recycling and disposal, were realized.

In Europe in particular, awareness of environmental protection is keen. Until now, packaging meeting environmental standards had been developed for smaller engines, and now this packaging has been achieved for 25/30 horse-power engines. This is another step forward for Yamaha in environment-friendly packaging for the sophisticated European market.

From Shoji Tamiya of Sanshin Industries, Japan

AUSTRALIA Comps lure anglers on the Murray

Marine

Two fishing tournaments were held recently on the beautiful Murray River in the Australian state of Victoria, with Yamaha Motor Australia (YMA) in Victoria and the local Yamaha dealer being the major sponsors.

The first was at Tocumwal, with 600 competitors making some excellent catches, including a large number of Murray Cod as well as Trout Cod and Silver Perch, which were all released immediately.

The second tournament was at Mathoura, with 636 competitors enjoying perfect weather to complement the picturesque backdrop of huge red gum forests, wetlands full of native birds and animals, and the unique Murray flood plains. Prizes were awarded for catch and release of the largest Murray Cod, Redfin and Yellowbelly in Men's, Ladies and Juniors categories. Both weekends were a great promotion for Yamaha Marine, and all proceeds raised will be used to restock the Murray River with fingerlings to ensure the future of this wonderful fishery.

Many happy Yamaha owners attended and were very impressed with the range of Yamaha marine engines on display. Yamaha has offered its continued sponsorship for the 2002 competitions to provide encouragement to all anglers and to help restock this majestic river for future generations.

From John Thompson of YMA, Australia



Two fishing competition weekends on the Murray River in Victoria saw plenty of catching and releasing, with prizes for winners of the various categories

WaveRunner still dominates!

Marine

For the third time, a Yamaha WaveRunner has been named the high-performance leader in the U.S. personal watercraft industry. The Yamaha WaveRunner GP1200R was named "Musclecraft of the Year" in the April 2001 issue of Ehlert Publishing's Watercraft World magazine, which cited the GP1200R's indus-



try-leading performance, comfort and overall fun factor.

Watercraft World wrote: "It combines the best handling abilities and power, and is capable of delivering them in all conditions without sacrifice. The craft is virtually alone in its ability to excel in all conditions." The magazine also noted the machine's styling and comfort: "This year the test riders gave the nod for the best looking watercraft to Yamaha GP1200R...Yamaha's hull and deck styling were deemed futuristic and aggressive. The seat is sculpted to hold you in place, and angled footwells enable the driver to lock into position."

Meanwhile, with confidence that the personal

watercraft market is stabilizing and sales growth of Yamaha WaveRunners and sports boats will continue, Yamaha Motor Corporation, U.S.A (YMUS) announced that its WaterCraft Group would be elevated from a division to group company status to now function as a Yamaha group operating company.

The new Yamaha WaterCraft Group Company is responsible for the sales, marketing and distribution of Yamaha WaveRunners and sports boats in the United States, where the brand is already the most popular in the country. The new subsidiary is located at Yamaha's regional corporate headquarters in Kennesaw, Georgia.

From Steve Lawler of Yamaha WaterCraft Group Company, U.S.A.

TAIWAN First time at cycle show

'bicycle business show'.

The Taipei International Cycle Show 2001 was held at the Taipei World Trade Centre from March 31 to April 3 in Taiwan. Since the inaugural show in 1988, it has been held 14 times, and this year saw 629 companies from 27 countries participate. Over 19,000 people were delighted over the four days by an array of bicycles, electric hybrid bicycles, parts and accessories. This show is where new product information is shared and business deals discussed before the final touches are made to the 2002 models specs, making it Asia's largest

Yamaha exhibited at the show for the first time this year. A pioneer in electric hybrid cycles, Yamaha exhibited its brand-new "PAS Smile," introduced in Japan this January, with its Hub-in Motor Unit and Control Unit, and parts range. Electric hybrid bicycle "PAS Smile" test rides were also held, allowing kids and adults alike to experience an exhilarating ride for themselves.

Taiwan, at the forefront of world cycle trends, is the place to watch for trends in the electric hybrid bicycle market.



The brand new "PAS Smile" was exhibited for the first time outside of Japan

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Power products



Scooter Manufacturing Shifted to Taiwan

As a move to increase the international competitiveness of its motorcycles, Yamaha Motor Co., Ltd. (YMC) has decided to shift the development and manufacture of scooters for the Japanese market to its joint venture companies in Taiwan, while at the same time strengthening these companies to serve as a base for the development and manufacture of scooters for the world market.

The production involved in this shift will be the 50cc models that make up about 90% of YMC's scooter production, and this will make Taiwan the manufacturing base for scooters for the Japanese market ranging from 50cc up to 125cc. The shift will begin in December 2002 and be completed within the space of two years and involve a total production of about 150,000 units annually. The new manufacturing base will be Yamaha Motor Taiwan Co., Ltd. (YMT). At the same time YMC will work to strengthen the marketing capabilities of Yamaha Motor Taiwan Trading Co., Ltd. (YMTT), which will primarily handle the export business.

As for the space this shift will leave open in our manufacturing bases in Japan, it will be used for the improvement of manufacturing processes and concentrating production of larger displacement, higher value-added motorcycles. In order to increase international competitiveness in its motorcycles, YMC is promoting a "Revolution in Product Creation" aimed at building quality products inexpensively and quickly. As an important step in this restructuring, the shift of development and manufacture of scooters to Taiwan will help supply quality scooters at a lower cost to the Japanese market.



Dealers visit YMC

A trip for South African dealers to visit YMC, Yamaha Motor's head office in Japan, is planned on the same interval as the Olympics - every four years. Dealers who win the South African national competition are the lucky travellers, and this year 21 persons made up from nine Marine dealers and 11 Motorcycle dealers travelled to Japan from April 17 to 22.

The dealers first toured the ancient Japanese capital of Kyoto, then moved east to Yamaha's head office in Iwata, where they were welcomed by Yamaha Motor employees, and toured the Communications Plaza and head office factories.

They then saw SOQI Inc.'s ATV factory, and Sanshin Industires Co., Ltd.'s outboard motor factory. They finished off their trip in Kamakura, another ancient capital of Japan where many historic spots and cultural treasures are still preserved, before flying back to South Africa.

This group was hosted by Yamaha's Overseas Market Development Operations (OMDO), who asked the dealers to fill out a questionnaire on their last day about the trip. And they were surprised by the results of the survey; almost all the dealers agreed that "We should have spent more time at the factories!"



Electro-hybrid bicycle system started

Shimonoseki City in Yamaguchi prefecture, famous as a city where several peace treaties were concluded in modern Japanese history, officially opened a new Energy Self-sufficient Electro-hybrid Bicycle Parking Facility in the municipal government's compound on April 16, 2001.

The facility completed by Yamaha Motor Co., Ltd. (YMC) utilizes solar cell-generated electricity from 22 sections of multi-crystal silicon solar cell modules with a combined generating capacity of 3.19kw. The facility also has an unmanned operation system IC key cards that enable the system users to make use of a total of 30 units of the Yamaha electric hybrid bicycles "PAS Royal" and "PAS Superlight" models.

The Japanese Ministry of Environment (the agency in charge of the Kyoto Conference held in 1997 to aim at prevention of global warming) selected the facility as a "Model Project" and granted a subsidy to the City for its construction. By enabling citizens to use exhaust-free electrohybrid bicycles charged at the facility by clean solar energy, the city is helping promote the use of vehicles with low environmental impact and increase awareness in general about the environment.

For this revolutionary facility YMC used its IFES (Intelligent and Flexible Energy System) battery management system, and developed a fire-resistant facility building with self-cleaning materials and an energy-saving automatic lighting system.







Yamaha's history is one of technological innovation, and our tradition of developing original technology and outstanding products continues as we enter the new century. In this "High-tech Expo" section, we will introduce examples of the remarkable technologies that are the common heritage of today's Yamaha products.

Yamaha Aero Robot RMAX

World's First Autonomous-Flight Unmanned Helicopter

Into skies where only an unmanned helicopter can go

Approximately 4,000 people are now struggling to make new lives for themselves in Tokyo after the entire population of Miyake Island, located 180 km south of Tokyo, was forced to evacuate in September last year due to the eruption of the island's Mt. Oyama. Continued volcanic activity since then, including the release of toxic volcanic gases has limited access to the island even by disaster prevention specialists. In response to a request by the Tokyo Metropolitan Government Office, Aeronautic Operations of Yamaha Motors Co., LTD. (YMC) deployed a GPS-based autonomousflight unmanned helicopter for observation flights in the vicinity of the volcano between February 13 and 15, 2001.

The use of an unmanned helicopter has enabled the gathering of previously unavailable data, such as low-flight observation images in the high-danger areas near the volcano that only a helicopter could provide. The Yamaha RMAX helicopter used for this mission is powered by a liquid-cooled 2-stroke, 246cc horizontal engine rated at 21hp and is capable of covering a distance of about 10 kilometers or a flight time of 90 minutes with a 30kg effective load capacity.

YACS: the key to flight control

One of the crucial functions that made it possible to control this revolutionary autonomous-flight helicopter was the "YACS" (Yamaha Attitude Control System) developed by our engineers. The YACS mounted on the latest model RMAX improves flight stability and ease of operation tremendously through the use of flight pattern control models based on extensive flight analysis.

The YACS has three fiber-optic rate gyros and three accelerome-

ters. Rudder and elevation are subject to computer control that provides constant adjustments according to the parameters of three different flight modes the operator can select depending on the type of use. The resulting stability makes it possible for new operators to master helicopter operation with only a short period of training.



Packed with high-tech systems

YACS gives the RMAX an autonomous-flight control system configuration as illustrated below. Mounted on the helicopter itself are an attitude sensor, a GPS (Global Positioning System) sensor and a communications modem. The attitude sensor consists of a geomagnetic azimuth sensor, three rate gyros and accelerometers to detect the helicopter's attitude angles and azimuth angle. Detection of position and velocity is achieved by means of the GPS sensor, and in order to ensure the necessary accuracy a kinematics type differential GPS is adopted.

The communications modern receives the GPS flight-correction data and navigation commands from the operator based on visual verification of the images sent back to the ground monitor, and sends information regarding the position and attitude angles of the helicopter to the ground station. As observation equipment, a digital





Destroyed houses and a crater taken by RMAX's camera

camera and a digital still camera are mounted along with three miniature video cameras for navigation purposes. Images from these cameras are sent from the helicopter to the ground station on a realtime basis, where they are viewed on a four-window split screen

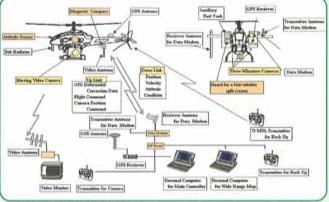
On the ground, the base station is set up with a GPS receiver, two personal computers and a communications modern for sending the flight-correction data to the GPS on the helicopter. One personal computer displays the information regarding the helicopter's flight conditions (transmitted from the helicopter side), and is also used to send the navigation commands from the groundside to the helicopter. The other personal computer displays a wide-range map database to enable verification of the helicopter's position. There is also a movable camera mount that can adjust the angle of the camera on the helicopter to the desired observation views. Furthermore, in order to ensure the safety of the system, YMC developed a back-up system so that when necessary the operator can switch to a normal radio transmitter and the transmitter of the communications modern. In this way, the RMAX is outfitted to operate under fully automated flight utilizing a computer map dictating the entire flight program, including lift-off, landing and round-trip navigation beyond visual range. Up until now YMC has sold some 1,200 unmanned helicopter units in Japan, and in 2000 NASA (US National Aeronautics & Space Administration) purchased two RMAX units for its own use.

Yamaha spirits of challenge given birth to RMAX, an innovative

blend of its state-ofthe-art technologies and IT revolution, which will open the way to wider practical use in all kinds of disaster conditions ranging from earthquakes nuclear accidents.



Personal Computer Display for Main Controller



Autonomous-Flight Control System

Fonseca and YZ250F win the title

Yamaha of Troy rider Ernesto Fonseca clinched the Number 1 Plate in the AMA 125 West Supercross series held on April 28 in Salt Lake City, Utah. Fonseca powered his way to victory before 45,000 fans in convincing style, taking first place in his heat race, then leading from the first turn to first place in the main event. Fonseca rode an incredible series, claiming five main event wins on a YZ250F, making it the first four-stroke machine to win a 125 Supercross title.

Fonseca was all smiles after clinching his second championship. "Tonight was my best race of the season. Now that it's over I can enjoy this moment. The team,

my mechanic, and of course my thumper YZ250F deserve this Number 1 plate as well."

Fonseca captured his second SX125 Championship aboard the revolutionary YZ250F four-stoke motocross

Stefan scores third victory with YZ500FM

Yamaha Motocross Team's Stefan Everts and the Yamaha YZ500FM continue to dominate the 500 class with three wins out of four GP's. The 28-year-old Belgian increased his lead in the championship with a total of 95 points at Round 4 of the Motocross World Championship series held on April 29 in Genk, Belgium, while his teammate Marnicq Bervoets took third in both the race and the ranking.

Stefan's victory was extra sweet as he won in front of a 25,000strong home crowd, many of whom cheered him to the line. It was a good day for Bervoets as well. He joined Everts on the podium as a reward for a strong and determined ride through the pack, despite being hampered by physical difficulties.





Everts (left) and his teammate Bervoets on the podium

Road Racing World Championship

machine

Yamaha GP riders whitewash

The Marlboro Yamaha Team scored a perfect one/two performance in Le Mans, France – round four of the 500cc class of the 2001 Moto GP World Championship, held May 18-20. After a textbook start, Max Biaggi and Carlos Checa, the Marlboro Yamaha teammates, went on to leave the field in their wake, finishing first and second respectively, nearly five seconds ahead of the competition.

When Yamaha riders swept the 2nd to 5th





in the first round of the series in the 500cc class, held in Suzuka, Japan on April 8, it was a tremendous opening for the year 2001 season. Then, at the Spanish Moto GP held in Jerez on May 6, Japanese Yamaha rider, Norick Abe of Antenna 3



Max (right) and Carlos celebrate the perfect finish with their YZR500s

Yamaha d'Antin showed he's in impressive 2001 form by finishing 2nd.

These results have secured second in the championship point standings for Abe with 57 points, and third with 54 points for the hot Biaggi.

