

YAMAHA MOTOR CO., LTD.

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Yamaha remote control technologies began with unmanned helicopters for crop dusting and developed into sophisticated GPS-based autonomous flight systems.



Today, Yamaha engineers are putting these systems to use on the land, sea and in the air, for a wide range of uses, from environmental surveys to civil projects.



Unmanned Vehicles: Contributing to society in new realms

It was 24 years ago that Yamaha Motor first undertook research and development efforts for a remote-control unmanned helicopter capable of performing crop dusting in the Japanese rice industry. Today, after more than two decades of ongoing development of our core technologies, these industrial-use Yamaha unmanned helicopters have evolved with sophisticated autonomous-flight capabilities that are contributing to society through new applications in fields like disaster relief, meteorological data gathering and environmental surveys. And, they are winning international acclaim in the process. At the Yamaha Motor booth at the August 2004 AUVSI Show in the USA, the now proven Yamaha UAV (Unmanned Aerial Vehicle) was joined by our recently developed UGV (Unmanned Ground Vehicle) and UMV-H (Unmanned Marine Vehicle) and a cutting-edge concept of an integrated air, land and water observation system that takes Yamaha's core technologies into exciting new realms. For this issue of *Yamaha News* we spoke to the engineers involved in the development of these ground-breaking new models.

Developing an Unmanned Marine Vehicle

Yamaha Motor first made a name for itself in the field of unmanned marine vehicles with the development of an autonomous navigation boat named *Kan-chan* that has been in service since 2001 carrying observational equipment from the Oceanography Department of Japan's Tokai University with the mission of gathering and transmitting back data primarily about aerosol content over the Pacific Ocean.

Since its atmospheric data-gathering mission demanded remaining in one position on the ocean, the *Kan-chan's* hull was

based on a sailboat design. However, the new UMV-H displayed recently in the USA is a completely different type, adopting a high-speed powerboat hull to make it suited for mobile observation applications. Powered by a water jet, this model has an overall length of 4.44 m and boasts a top speed of 40 knots. Its navigation system can be programmed with mapping that enables the boat to cruise over a prescribed course by means of GPS (Global Positioning System) technology.

The UMV-H is capable of three types of navigation: (1) it can be manually operated with a two-person crew, (2) it can cruise autonomously over a course with up to 100 navigational coordinates, or (3) it can cruise while observing and gathering information by means of an extendable underwater camera and sonar. It also has a teaching function that enables it to program itself to repeatedly follow a course that has been run once by manual navigation.

Being a completely new type of autonomous navigation craft, the development process was one of repeated trial and error. For example, you can't make a boat traveling at 40 knots reach a precise location simply by cutting off throttle when it reaches that point. The momentum would carry the boat on another 80 meters or so. According to Mr. Tsuide Yanagihara of Yamaha's domestic marine division who worked on the development project, "Our guidance system consisted of GPS and gyros and we did repeated tests to determine the right deceleration timing to get the boat to stop exactly on the desired point." He also recalls, "It was difficult to get



Tsuide Yanagihara: "These vehicles we have developed represent a proposal from Yamaha to the market. To make vehicles that will truly be useful will require a dialogue with the customers from now on."

the boat to maintain a specific speed in different wave and wind conditions. In conditions where waves or wind cause the boat to slow down, you can't rely on a single speed command from the control system, because it will react to even small wave and wind action. So, what we did was to develop a program capable of creating accurate control adjustments based on a sufficient accumulation of data compiled on calculations of the difference between the set target speed and the actual traveling speed."

Considerable development efforts also went into perfecting the steering characteristics. A jet propulsion craft experiences significantly more lateral slide than a propeller



driven craft when the boat is steered. "There is an over-steering tendency in this kind of craft. When the actual angle of turn of the boat is different from the target direction, the system tries to correct for it and this leads to a weaving phenomenon," adds Mr. Yanagihara. "This is something that occurs in all autonomous navigation systems, but we found we could keep this tendency to a minimum by attaching a separate fin beside the jet propulsion outlet."

He goes on to explain about the additional development efforts that went into getting the right running characteristics. "When a craft is weighted down with lots of equipment, it changes the boat's running characteristics. The stern can get too

heavy, causing longitudinal rocking that makes the boat unstable. In our tests we also experienced a bobbing phenomenon in the bow. But we were able to solve this problem by outfitting the boat with a stabilizer."

In all, the UMV was developed in a short and quite intense period of just over a year. The project leader, Mr. Yutaka Masuda, describes the UMV project as a typically Yamaha one for a number of reasons. "We made direct use of technologies developed for our Yamaha unmanned helicopters in the intelligence systems in the control unit dealing with functions like attitude control, the navigation system and gyros, the acceleration sensor and the directional sensor system,"



Yutaka Masuda: "These technologies we are developing can also be used eventually in other products like snowmobiles, wheelchairs and motorcycles, I believe. Although this is still a dream of the future, imagine the potential of an autonomous-navigation motorcycle. It could get through narrow places no other vehicle could negotiate."

he notes. "Also, the actuator units adopt servo functions developed for our Yamaha industrial robots. Even though they are used at different voltages, the units are the same. In other words, we used original Yamaha technologies for everything from the microcomputer intelligence functions to the sensors and actuators. This helped reduce development time and made the project go much more smoothly."



At the 2004 AUVSI Show in the USA



Hirohisa Imai: "The UGV is especially well suited for reaching one point and staying there, which is exactly what is needed in jobs like meteorological data gathering. So there should be a lot of uses for it."

Development of the Unmanned Ground Vehicle

Meanwhile, Yamaha's Unmanned Ground Vehicle (UGV) development was based on the concept of a security-use vehicle. A 4WD type ATV body of the Yamaha YFM660 "Grizzly" was used as the base vehicle. This ATV has a top speed of 20 km/h and on a flat surface it can make a 4-meter radius turn at 10

km/h. This was developed into a UGV featuring (1) autonomous running with obstacle avoidance function incorporating two laser scanners, (2) long-distance remote control operation based on forward and rear cameras and 360-degree revolving camera images and (3) a teaching function that enables self-programming to follow a course that has been run once by manual navigation.

Developing an unmanned land vehicle had its own unique challenges. "Developing an unmanned vehicle to run on land is probably the most difficult task of all," says Mr. Hirohisa Imai, who worked on the UGV project. "There are no obstacles in the air, which makes the task easier in that sense. And a boat is nearly the same. In the case of an aircraft or a boat, all you need to do is basically run a straight line from point A to point B. But on land you have obstacles, bumps and potholes in the road and all kinds of things to avoid, from people to buildings. In short, the "eye" function is a critical element. For example, you won't get GPS reception when you are in between buildings. The weather is also a factor."

The problems that needed to be overcome soon became apparent with the early prototypes.

"The first problem we encountered was achieving a good running speed," continues Mr. Imai. "One of the reasons was a matter of dimensions, things like the center of gravity and the limits of the physical size of the vehicle itself. The second reason had to do with the visual recognition function, the vehicle's eyes and the speed with which they can recognize obstacles. You cannot duplicate the human eye function, where instantaneous decisions can be made on the basis of the images that we receive on our retina. Even using lasers it takes time to cover a broad area, and then it takes more time to generate decisions based on that data." Even running the vehicle slowly had its problems. "ATVs are originally built to be run at a certain amount of speed, so it was difficult to get the vehicle to run at speeds of less than one km/h. It took a lot of trial and error to set appropriate parameters that we could work with to work out and refine the operating systems." Still, the UGV team was able to complete the development project in just a year and a few months.

We asked Mr. Seiji Kitamura of YMC's UV Marketing Dept. how it was possible to develop such sophisticated vehicles in such a short period. "In fact, we were able to make use of technologies developed for our electromagnetic guidance system golf cars. Because these golf cars carry passengers, they need to have a very comfortable ride. A lot of know-how has been gained from making these vehicles turn smoothly and controlling their speed on downhills, for instance."

The Outlook for Unmanned Vehicles

So, what kind of future does Yamaha envision for unmanned vehicles like these? Mr. Yanagihara states it clearly, "It is possible to imagine a wide range of uses. For example, inspecting the



The ABCs of Yamaha Unmanned Vehicles



Kan-chan

This boat has a sailboat hull with an overall length of 7.99 meters. It has a diesel engine that drives a DC24V generator and an AC100V generator. It has a fuel capacity of 1,400 liters which gives the boat a continuous cruising capability of 700 hours. It is used for gathering data about atmospheric conditions and water qualities on the ocean.

Yamaha industrial-use unmanned helicopters

About 2,000 units of these helicopters are used for crop dusting in Japan. They have also been used for observation over erupting volcanoes and for environmental observation in places like tidal marshlands. They are also being used in various research projects in Europe, North America and some Asian countries.



Seiji Kitamura: "Yamaha is a manufacturer of vehicles. There are plenty of system manufacturers around the world that are making unmanned vehicles, but Yamaha is the only vehicle manufacturer in this field. That will be Yamaha's strength."



underwater structures of bridges. In places like the U.S. this is usually done by divers with cameras, and it can be very hazardous work if the current is strong. With our underwater camera-fitted UMV this work can be done safely by remote control." Both the navigation to the observation position and the movement of the underwater camera can be done by remote control.

The UMV can also be used for inspecting ship bottoms. "The inspection of hulls of large ships for damage is usually done by divers with underwater cameras. This process leaves the filming judgments up to one diver. If the same process is done by remote control using the UMV's underwater camera, a number of people can examine the monitor at the same time for a surer inspection," adds Mr. Yanagihara.

Another possible use is monitoring silt build-up in dam reservoirs. According to Mr. Masuda, "Silt build-up is a very important factor in dams. As silt inevitably builds up behind the dam it deceases the dam's function as a water reservoir. Some of the newer dams have automated systems for removing silt build-up but the older ones don't. The common practice today in Japan for measuring silt build-up is to use a plumb line to measure the depth at various points. However, if you used the UMV with a sonar system it would immediately give

you a 3-D map of the reservoir bottom and you can use that data for determining when and how much silt needs to be removed." At times like these when the necessity of building dams is being debated for environmental reasons, it is being said that the best policy for electric companies is to try to get the longest possible use of their presently existing hydroelectric dam facilities. This is another area where there is a possible role for the UMV.

What about the UGV? Mr. Imai says, "It could surely be used for observation of wildlife in large wildlife preserves. It could also be used for patrolling along national borders. If a UGV is fitted with a camera and an audio system with microphone it could be used for communicating with people by long-distance remote control." He goes on to stress that such a capacity would make it useful in relief operations during natural disasters. Another unique type of use might be for measuring the flatness of large areas of land. "When an airport is being built on landfill, it is very important that the land be flat. Presently a system is in use where people ride for long hours over a plot of land on a GPS-fitted ATV to create a 3-D map of the topography. This is the type of menial labor that could easily be automated with a UGV," insists Mr. Imai.

What is unique about Yamaha's technologies in this field? Again, Mr. Imai explains: "Yamaha is the only single company worldwide in the field of autonomous-navigation vehicles with prototypes now operating on the land, the sea and in the air. This fact makes it easy for Yamaha to put together programs where land, water and air craft could

function together in mutual-support teams. For example, a person could man one craft and be supported by another automated one or, you could imagine scenarios like an unmanned helicopter being used to scout ahead in the survey area and send back information that would enable an unmanned land vehicle to find a route around the danger points." He goes on to say, "At this point we are still at the prototype level, and we do not plan to market these vehicles in their present state. We have only just made suggestions to potential customers about what kinds of UVs are possible. From now on we will be listening to the voices of the customers and identifying the real market needs so that we can begin to define our directions and develop products with the features they will want." Unmanned vehicles are a field with great potential to contribute to society. In this sense, and also from the standpoint of our core technologies, probably no company is more motivated or better equipped than Yamaha to take the lead in this exciting new field.



A Yamaha UMV sticker

Autonomous navigation/flight systems

These systems use communications signals from the land base to the vehicle and have the capability to guide the vehicle autonomously through the points of a programmed course. The cameras fitted on the vehicles also make it possible for the land base operator to follow the progress of the vehicle visually or view the observation object on a computer monitor.

Teaching function

With this system the vehicle has the capacity to store data about a course it is taken through once either manually or by remote control so that the second time the vehicle can travel the same course autonomously.



Yamaha electromagnetic guidance golf cars

These are products sold mainly for the Japanese market. They are capable of automated operation using guidance signals from electromagnetic wires buried in the lawns of golf courses. This system also enables the golfers to move the car ahead independently when they must follow a ball hit into the rough or a neighboring fairway.

Zhuzhou Jianshe Yamaha Motor Co., Ltd.

Location: Zhuzhou City, Hunan, China
President: Hiroyoshi Kurisaki
Employees: 1,300 approx.

Providing Society with



The company headquarters building



Our reporters: Mr. Shen Junqiao (left), Vice Division Manager, Corporate Planning Division, Mrs. Wang Zhi (right), chief editor of the company magazine *Ling Feng*.

About Zhuzhou Jianshe Yamaha

Zhuzhou Jianshe Yamaha Motor Co., Ltd. (former Zhuzhou Nanfang Yamaha Motor Co., Ltd.) was born on December 25, 1993 as a manufacturing base for supplying motorcycles to the Chinese market. Located in Hunan Province of the People's Republic of China, the company was jointly capitalized by Japan's Yamaha Motor Co., Ltd. (YMC) and China's Jianshe Industry (Group) Co., Ltd. Through ongoing efforts to achieve constantly higher levels of manufacturing and managerial quality, the company won certification under the ISO 9001 Quality Management System on April 26, 2002, and on May 27, 2003 we acquired China's compulsory "sales passport" certification.



Every April cherry trees bloom in the company's "Sakura Garden"

Our products have also passed the National Production Permit Regulation. We now have about 1,300 employees, among which 9 are specialized resident representatives from YMC in Japan.

In the 11 years since the company was born, it has made great contributions to local economic development. The company has won official recognition as an "Excellent Tri-venture Enterprise" and "Excellent Foreign Capital Enterprise" from the People's Government of Zhuzhou City. We also develop public welfare activities to contribute to the local community and society at large. In August 1998, for example, the company donated 700,000 yuan to areas suffering disastrous flooding at the time. The YMC staff at Zhuzhou Jianshe Yamaha also make great contributions to the development of the company. The first Japanese President, Mr. Ikuo Murai, has won the 1998 Chinese government "Friendship Prize" and the "Aviation Friendship Prize" awarded by the Chinese aviation industry parent company. Also, our first Japanese Vice President, Mr. Noboru Nagata, has won the title of Honorary Citizen of Zhuzhou City.

Giving priority to scooters and ongoing development of new products

To provide products that truly satisfy the needs of the Chinese market, Zhuzhou Jianshe Yamaha dedicates itself to the



The "Li Ying" is becoming a part of new Chinese lifestyles

continuous development of new products. Today, the company manufactures four main motorcycle model types in over 20 variations. Since the first "Ling Ying" (Future) model came off our production line on December 28, 1995, over 400,000 customers have purchased "Ling Ying" scooters. In China's motorcycle industry today, Yamaha "Ling Ying" scooters have become synonymous with the very highest quality and most advanced level of technology.

Zhuzhou Jianshe Yamaha makes scooters its leading products, and in recent years it has worked incessantly to develop new models that meet the needs of the Chinese people. The 100cc "Qiao Ge" (JOG) and "Fu Xi" (FORCE), which appeared on the stage in September 2003, are becoming more and more popular in the market; and in May 2004, Zhuzhou Jianshe Yamaha launched the brand new "Li Ying" (Magnificent Eagle) on the Chinese market. The brand new look and design of its engine as well as its motorcycle-type



Zhangjiajie, famous for its rare mountains and beautiful rivers, is one of the most popular scenic spots in Hunan

Hunan (China)

Hunan Province, China
Capital city: Changsha
Area: 210,000 km²
Population: 65.02 million

Geography: Hunan lies along the middle reaches of the Changjiang River, with Dongting Lake in the north and the Central Xiang Hills in the central region (Xiang is the shortened form of Hunan province), with the rest of the province being mostly mountainous.

Typical Cuisine: Hunan cuisine is one of the eight famous cuisines of China. It is characterized by abundant use of oils, dark color and sour and peppery seasonings. The famous dishes are Dong An chicken (Dong An is a placename), La Jiao Zi Ji (peppery chicken), Niu Zhong San Jie (a dish consisting of beef tripe, soy sauced beef tendons and brain), Cha Shao Gui Yu (barbecued pork and Gui fish) and Yi Ya Si Chi (one duck eaten in four different ways), etc. Specialty restaurants are famous for Chou Doufu (fried bean curd with fragrance) in Changsha.

Regional literature: Drum drama with its harmonious melodies, lively forms and conversational speech has become popular throughout the province. And because drum drama reflects the realities of everyday life, it is deeply loved by the people.

Hunan celebrities: There is a saying that talents flourish in Hunan, and indeed many of modern China's leaders, from Mao Zedong, Liu Shaoqi and Hu Yaobang to Zhu Rongji are all from Hunan.

Unique Quality Products

styling express Yamaha's innovative concepts in small displacement motorcycle design.

The ultimate aim is customer joy and satisfaction

Zhuzhou Jianshe Yamaha dedicates itself to efforts aimed at providing customers with products of high quality, and at a reasonable price. In our current three-year plan, we are taking "Full of dreams and experience of *Kando*, based on standards and practices that reflect who our customers are" as our corporate principle.

By the year 2006, the company is determined to reach a production goal of 200,000 units per year, while joining the wisdom and potential of both the



Product quality is ensured by skilled, professional workmanship on the assembly line

Japanese and Chinese sides to extend product life and quality so that we can "Provide society with outstanding and unique products manufactured by Zhuzhou Jianshe Yamaha." In this way, the company will continue to pursue its mission of bringing



The "Yamaha new-product traveling show" has visited over 20 provinces and cities around China

the people of China lifestyles that are full of new joys and true satisfaction.

The Yamaha brand is a symbol of "high quality" in the consumers' hearts, but the price of Yamaha products have remained relatively high compared with other brands. Therefore, Yamaha products carry an impression that might be

likened to "highbrow art and literature." In order to enable more consumers to experience the convenience and pleasure Yamaha products can bring to their lives, Zhuzhou Jianshe Yamaha has develop large-scale promotional activities that travel around the

A Yamaha "Ling Ji" to circle the globe

On August 7, 2003, Mr. Chen Liangquan, a citizen of Suzhou city, set off from the central Chinese city of Suzhou on a journey around the world. He is riding the "Ling Ji" cruising motorcycle produced by Zhuzhou Jianshe Yamaha. Since then he has passed through Nepal, Pakistan, Afghanistan, Iran and the UAE. Chen Liangquan said before his departure that when he was choosing what vehicle to use, friends in Suzhou recommended the "Ling Ji" cruiser. So far his trip is going well. When the road conditions are smooth, he travels 1,000km per day and when the conditions are not so kind, he still travels 500km daily.

41-year-old Chen Liangquan has had the dream of traveling around the world by motorcycle since he was a child. In 2003, after the

Red Cross in Suzhou employed him as their "Humanitarian and Peace Emissary," the idea of spreading humanism and peace throughout the world by motorcycle came to his mind. He plans to spend 10 years completing this great journey through 160 countries. The starting point and the end point of his trip are Suzhou, China and Chinese Taipei respectively. In addition to his humanitarian mission, this trip is also sure to show the quality and durability of the Yamaha "Ling Ji."



Mr. Chen Liangquan in Afghanistan on his world tour on a Yamaha "Ling Ji"

country. Since October 2002, we have held our "Yamaha new-product traveling show" in more than 20 provinces and cities around China. Such large-scale activities bring the world-famous brand Yamaha into ordinary people's family life and boost sales of Yamaha products. At the same time, they have served to build the Yamaha brand image in more customers' hearts.

Another aspect of promotional activities at Zhuzhou Jianshe Yamaha are our rich and colorful annual programs of recreational and sports activities, such as soccer, basketball and volleyball matches, Chinese chess competitions, performance, outings, art works shows and more. Such activities enhance the sense of team unity, improve employees' motivation and cultivate their devotion to the company through active and passionate participation. All of these activities are helping us build a corporate culture that is uniquely local but also in line with the worldwide Yamaha Motor group's philosophy expressed by YMC's corporate mission of "We Create *Kando* – Touching Your Heart."



Employees participate avidly in company-sponsored sports activities like basketball

WORLD TOPICS

We always welcome your contributions.
Write to Chief Editor Rika Niwa of the PR Division,
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From left: YMCUS President Kato, Chad Reed, President Hasegawa



YMC President Hasegawa addresses the European distributors and dealers

Greece

Grand scale “European Convention 2004” launches new European brand policy plus new models

This year’s annual Yamaha European distributor meeting was held on the Greek island of Rhodes over three days from July 12 to 14. The event was held on a completely different scale from previous years, as 505 representatives from 475 key dealerships across Europe joined 165 reps from distributors in 30 European countries. The drive behind the joint distributor-dealer convention was the induction of a new marketing program in Europe that seeks to make every dealer a “Yamaha Brand Ambassador.” This first pan-European dealer incentive meeting aimed at communicating vital program information and the shared goals for the coming season at an early stage. Last September’s meeting and new model launch for key European dealers at the Paul Ricard circuit in France was a big success, but thanks to the cooperation of the host nation’s distributor, Motodynamics, as well as the other distributors from each European country and the Yamaha Motor Europe N. V. (YMENV) staff, this year’s convention surpassed expectations, reaching a larger scale and with an even more extensive agenda. For the distributors the agenda included introductions of

the new business vision and long-term goals, marketing seminars for each model and the spectacular launch of the new MT-01 model. For the dealers it covered dealer education, early information transfer, prior even to any information transfer to the European press, and the introduction of the new Yamaha brand strategy and marketing vision in which they will now play a key role. A magnificent launch was held for this year’s anxiously awaited new model, the MT-01, beating to the rhythm of a Japanese drum performance that stressed the “Kodo” (pulse) concept behind its big V-twin engine.

“This event is a tangible result of YMENV’s new marketing directions for enhancing Yamaha’s brand values and strengthening relationships with our key European dealers, who are the true ambassadors of our brand with regards to our customers. Its concept proved to be successful and gave us the confidence to further develop the overall PTW marketing strategy” said Mr. Robert Landman, Div. Manager, Powered Two-Wheeler (PTW) Marketing & Sales at YMENV

From Catherine Hauet, PTW MKT Communication, YMENV



The “European Convention 2004” gathered 505 dealers and 165 distributor reps from 30 European countries



A Japanese drum performance accompanied the MT-01 introduction, accentuating its “Kodo” (pulse) concept



The MT-01 with its big V-twin engine is the hot new model for 2005



YMUS Business Meeting Report

The kick-off for the 2005 model year was held on June 15 as nearly 3,000 people representing over 1,000 Yamaha U.S. dealerships, filled an image-enriched ballroom. The audience was welcomed with dramatic, 2-story high images projected around the room and a video presentation featuring Yamaha customers enjoying the “lifestyles” our wide range of motorcycles and ATV’s provide.

YMC President Toru Hasegawa expressed his heartfelt appreciation for another successful year, and stressed the overall importance and impact of the U.S. business contribution to Yamaha worldwide. President Hasegawa thanked each dealership for their “brand building” efforts and the resulting impact on so many customers’ lives.

Following Mr. Hasegawa’s welcome, YMUS President Steve Kato introduced YMUS’s new business directions and welcomed the new team operational leader, Mr. Dennis McNeal for the motorcycle group, and Mr. Mike Martinez for the ATV group.

Dennis and Mike then presented a variety of new models and product improvements throughout each segment. As the presentation concluded, dealers entered a dramatic new display area featuring giant murals depicting customers’ favorite places to ride, bringing each product to life.

The following day, dealers attended Star Marketing seminars, determined to grow their cruiser business.

From YMUS Motorsport Group

“Truly, Yamaha” theme of new brand-building campaign



The attending dealers with YMI’s President Yanagi (forth from right)



At the Dealer Meeting

With a population of over a billion people and a steadily growing economy, India is one of the world’s largest potential motorcycle markets, with annual demand already exceeding five million units. In order to win a larger share in this market, Yamaha Motor India (YMI) has recently launched an ambitious campaign aimed at uniting everyone from the factory workers who build the Yamaha brand motorcycles at YMI’s factories to the dealers and service people, who sell and service them, under the same brand philosophy and goals. Adopting the slogan “Truly, Yamaha,” the campaign stresses the unique quality that the Yamaha brand can offer the people of India. The campaign’s start corresponds with the launch of YMI’s new “Fazer,” a stylish 125cc 4-stroke model conceived and developed specifically to answer the needs of the Indian customers who are ready to move up to a higher quality machine. This model joins the already popular Indian market models “Libero” and “Crux” to give YMI a strong lineup for its nationwide dealers to rally around. Following the company-wide launch of the “Truly, Yamaha” campaign at the end of May, YMI organized national dealer and press meetings on July 4 and 5, followed immediately by the Fazer release on July 7. Expectations are high that these efforts and a stronger consciousness of the Yamaha corporate mission of “We Create Kando – Touching Your Heart” will differentiate Yamaha from the competition and raise its brand image in this competitive market.

From Noriaki Miyaji, Sales and Marketing Operations, YMI



YMI Deputy General Manager, Mr. Rajiv Pruthi



President Yanagi introduces “Fazer” at the press conference



The stylishness of the new “Fazer” was accentuated with a post-meeting fashion show

Indonesia

Dealer workshop builds commitment to Yamaha water purifiers

From June 27 to 29, Yamaha Motor Nuansa Indonesia (YMNI), a company specializing in the manufacture and marketing of water purifiers, held its 2004 dealer workshop meeting at Jogjakarta, a famous ancient city in Borbodule. Eleven dealers and twenty-five staff participated in this workshop, where YMNI explained its Yamaha water purifier sales promotion plan for the second half of 2004 and introduced a new model, the OH-200.

As part of the promotions for this new model, it is featured on a huge billboard in central Jakarta along with Yamaha's corporate slogan for Indonesia, "Selau Terdepan" (Always One Step Ahead). All in all the workshop was a great success in terms of promoting mutual understanding and ensuring stronger dealer commitment to these important water purification systems that can bring clean and healthy water where it is needed in Indonesia.

From Satoshi Hoshino, Water Purifier Division, YMC



All the dealers made a commitment to expand water purifier sales



The new OH-200 model is featured on a big billboard in central Jakarta

Indonesia

First Yamaha Flagship Shop opened



The new Flagship Shop opened in Semarang will be a model of Yamaha "3S" and CCS activities in Indonesia

P.T. Yamaha Motor Kencana Indonesia (YMKI), the marketer of Yamaha motorcycles in Indonesia, held a grand opening for the first of a series of Yamaha Flagship Shops being built across Indonesia. Located in the central Java city of Semarang, this shop will be a prominent and

functional symbol of YMKI's efforts to further strengthen its motorcycle sales network based on Yamaha's "3S" (Sales, Service and Spare Parts) policy. Some 400 guests including the mayor of Semarang, representatives of the police and a large number of Yamaha dealers gathered on July 8 to celebrate the opening. The shop boasts a large 800 sq. m showroom to display all the Indonesian market models in all their color variations, as well as import models like the YZF-R1 and customized bikes. The same facility also features a large-capacity service center and a regional office of YMKI. Besides the showroom function, this facility will also be used as a center for dealer education and CCS activities. In 2005 two more flagship shops will open in Jakarta and Bandung.

From Toshifumi Kubota, Regional Affairs Center, YMC



Indonesia

YIMM celebrates 30th anniversary

On July 17, a grand ceremony was held to celebrate the 30th anniversary of the founding of P.T. Yamaha Indonesia Motor Manufacturing (YIMM) as a manufacturer and distributor of Yamaha motorcycles in Indonesia. The venue was the Shangri la Hotel in the capital, Jakarta, and in attendance were some 350 guests, including YMC's President Hasegawa, YMAC's President Iio, YMAP's President Yokota, President Quisumbing of the Philippine distributor Norkis and Division Manager Hoe Boon Meng of Hong Leong Singapore. Joining them were main dealers and suppliers from around Indonesia, related bank representatives, members of the press and managers from YIMM and YMKI.

In his congratulatory address, President Hasegawa stressed the importance of Indonesia for the Yamaha Motor group and promised YMC's full support toward further development of business. This was followed by a speech in which YIMM's President Takahashi explained Yamaha's middle term directions for the Indonesian market and promised to work together with the dealers and vendors to make the Yamaha family in Indonesia an outstanding business group that will achieve new growth moving forward.

After this, the participants enjoyed a video tracing the three decades of YIMM with many nostalgic scenes of the company's growth over the years.

From Eiji Tada, Sales & Marketing Division 2, YMC



YIMM's President Takahashi pledged to grow Yamaha business in Indonesia



At the finale of YIMM's gala 30th anniversary celebration

First Yamaha multi-brand service shop opens in Ho Chi Minh City

Yamaha Motor Vietnam Co., Ltd. (YMVN) has launched a new service program aimed at winning customer trust in Yamaha as No. 1 in reliable service and quick parts supply in the competitive Vietnamese market. Called "Yamaha Factory Service" (YFS), this direct YMVN-managed service shop program is designed to convince customers that if they visit a Yamaha authorized service shop like the new YMVN-managed Yamaha Factory Service shop opened on June 3 in Ho Chi Minh City, they will get the same competent service and technical expertise as at



The first Yamaha Factory Service shop opened in Ho Chi Minh City in June

the factory where their Yamaha mopeds are originally built. The shops themselves will have a quality image with high-quality furnishings and professional staff trained not only in the theoretical and practical skills required for top-level service but also in proper customer handling, so they are ready to give quick reliable service at a reasonable price and in a friendly atmosphere that inspires trust.

This program is already attracting a lot of attention in the industry and among the customers because Yamaha is the first motorcycle manufacturer to open specialized service outlets like these in Vietnam. This fact will surely help differentiate Yamaha and its brand image from the other makers. Also, the shops will accept motorcycles of other manufacturers for repair work, in order to further build the integrity of Yamaha as the professional service choice. Of course, all this fits in with YMVN's policy of promoting CCS (Customer and Community Satisfaction). At the same time it will serve to



increase consciousness of Yamaha V.I. (Visual Identity) both among the sales and service network in Vietnam and among the customers.

Plans call for a network of ten more YFS shops to be opened across the country by the end of the year.

From Amane Kojima, Marketing Division, YMVN, Vietnam

First Yamaha marine dealer meeting held

On June 30, the Yamaha distributor for Ukraine, DC Panavto, organized the country's first Yamaha marine dealer meeting ever. Held in the capital, Kiev, the meeting was attended by representatives of 30 dealerships from around the country. The enthusiasm of the dealers to get the latest Yamaha outboard motor and WaveRunner models to their customers was clear from the start. The meeting offered an opportunity for representatives from Yamaha Motor Europe N.V. (YMENV) to introduce the Yamaha "3S" policy that is the foundation of the marine sales network policy and promotional efforts. It was also the chance for the distributor DC Panavto to explain its market strategy. With extensive river systems like the Dnepr and a long coastline along the Black Sea, Ukraine is a market with large potential demand, and the dealers showed their desire to expand Yamaha product sales.

From Yuichi Oshige, Marine Marketing & Sales Division, YMENV



Besides outboard motors and WaveRunners, Yamaha motorcycles and ATVs were also displayed at the meeting venue in Kiev

YMA introduces Platinum Dealer Program

Yamaha Motor Australia Pty. Ltd. (YMA) has recently launched an initiative to raise the level of customer service in the Australian marine and motorcycle industries. Called the Platinum Dealer Program, this initiative has been developed to highlight dealers who show exceptional levels of customer service for sales and service. Wherever customers see the Platinum Dealer logo, they will be sure they are receiving the highest level of service offered within the marine and motorcycle industries. To qualify for Platinum Dealer status, YMA dealers must undergo extensive scrutiny. This includes being rated by both Yamaha and the customers alike. The applying dealership must also have available the required number of special tools for the Yamaha product range, staff must attend all training courses and will be tested for knowledge of the Yamaha product, technical service and spare parts operations. Dealers that meet all the requirements receive Platinum status, but this status can be removed should dealer standards drop. In which case the dealer has three months to rectify all shortcomings or face losing Platinum status.

Says YMA spokesman Sean Hawker: "Many customers feel apprehensive when they enter dealerships. The Platinum program has been developed to ease those concerns." Customers will know a Platinum dealer by its outdoor sign, promotional activity and website listings. Technicians are also supplied with special Platinum dealer caps and badges to further reinforce elite status.

From Sean Hawker, Advertising and PR co-ordinator, YMA



Dealerships winning Platinum Dealer status will post this sign outside their shop to show they offer the best service available

Netherlands

Rossi talks track with Yamaha Europe group employees

In the Netherlands for the June 23 Dutch GP, Yamaha's MotoGP ace Valentino Rossi stopped in for a visit at the Yamaha Motor Europe N.V. (YMENV) headquarters. Some 300 employees from YMENV, Yamaha Motor Distribution, Yamaha Motor Netherlands, Yamaha Motor Finance Europe and Yamaha Motor Racing turned out to hear Rossi talk about the 2004 MotoGP. Ten people had been chosen from among applicants to put questions to Valentino at the meeting, and everyone was delighted in his informative and often humorous answers to their queries about the things everyone at Yamaha headquarters were anxious to know: what is it like riding for Yamaha and on the YZR-M1 machine, why Rossi chose the number 46 for his race machine, and what his expectations are for the remainder of the season. The event also included a sweepstakes where the winner received a signed Rossi helmet and commemorative photos of Valentino with the different Yamaha group divisions grouped around the M1 in the NV headquarters lobby. And plenty of happy employees got personal autographs and photos with the Yamaha ace.

From Kazuhiro Nonaka, YMENV, Netherlands



Rossi delighted the employees with his wit at the question session



Rossi astride the M1 with Yamaha group staff

Russia

Dutch adventurers "Ice Ride" Lake Baikal on XT600



On thin ice? The de Jongs' "Ice Ride" was the first single-bike crossing of Lake Baikal

In past issues of Yamaha News we have followed the adventures of Dutch couple Rob and Dafne de Jong on their five year long around-the-world tour on a sidecar-fitted XJ900. Passing by Siberia's great Lake Baikal on that trip, they were told that winter was the season to travel in Siberia because you could drive right across the frozen rivers and lakes. Those words inspired Rob and Dafne to enlist the help of Yamaha Motor Netherlands to prepare a pair of XT600s for a winter crossing of Baikal. The modifications included a heating system for the carburetors to prevent fuel system freeze-up at temperatures that fall to 40 degrees below zero, spiked tires for riding on ice and a sidecar for one of the bikes to carry their gear. They also fitted larger windshields and heated handgrips and obtained helmets with heated visors, heated gloves and socks. Boarding a train in Moscow, Rob and Dafne traveled 5,000 km to Irkutsk on the shores of Baikal. From there, they traversed the river Chita before venturing onto Baikal, which local rangers had determined had a strong enough ice cover to cross. Camping on the frozen lake was an unforgettable experience for the couple with the constant "singing" of cracking in the shifting ice. Greeted by local television in the town of Severobaikalsk, Rob and Dafne were told that they were the first known crossers of the lake on solo motorcycle.

From Dyonne van Es, YMENV, Netherlands

Nigeria

Yamaha demonstrates commitment to rider education

The Yamaha motorcycle distributor for the West African nation of Nigeria, John Holt & Company, recently held six days of Yamaha Riding Academy (YRA) rider instruction courses in which a total of 130 users were educated in proper riding technique and daily bike inspection and maintenance practices. Most of the participants in the city of Enugu were licensed taxi bike operators of the local Mototaxi federation. The city is presently involved in a campaign to reduce traffic accidents and the YRA training courses were very well received. In addition to prominent coverage on local television and newspapers, the state governor presented John Holt with a special certificate of appreciation for its contribution to traffic safety. Equally well-received YRA courses were taught in the capital Lagos by YMC's instructors, Mr. Toh and former race rider, Mr. Kato. In addition to boosting the Yamaha brand in Nigeria, John Holt is also confident that these educational activities will lead to favorable consideration for the Yamaha motorcycle for public sector procurement.

From Ryosuke Nishijima, OMDO, YMC



Participants listen intently to the instructor

Caribbean friendship crossing on FX140 WaveRunner

Over an adventure-filled eight days in May, Guatemalan national Francisco "Franny" Arredondo made a successful crossing of the Caribbean Sea from Guatemala to Cuba on a Yamaha FX140 WaveRunner. At times braving bad weather and high seas, Franny completed the cross on his FX140 flying a Guatemalan flag from his flag pole to present as a friendship gesture to authorities who greeted him on arrival at the Marina Hemingway of the Cuban capital, Havana. At the same time, Franny was undertaking an athletic feat of endurance that his supporters hope will be registered in the Guinness Book of Records. Starting by motorcycle on May 15 from the Guatemalan capital, Guatemala City, Franny first traveled to the city of Coban, where he ran the 30th Coban International Half Marathon before continuing on to the Dulce River to mount his WaveRunner and head out to sea. With an air mattress strapped to his FX140 and shark-deterrent sonar, his plan was to eat and sleep on the 2.5 x 1 meter watercraft all the way up the coast to Mexico and across the Yucatan Straits to Cuba without setting foot on land once. In fact, bad weather and high seas caused several delays in his start across the Yucatan Straits. Still, the dauntless Franny reached Cuba on May 25. Mission complete! Francisco "Franny" Arredondo also competed in the last Dakar Rally and he completed the race!

From Eddy Bregni, Canella, S. A., Guatemala



Franny and his Yamaha FX 140 WaveRunner

Line-off of export model TT-R125 in Brazil

A ribbon-cutting ceremony was held on June 3, 2004, for the export model Yamaha TT-R125 produced in Brazil and destined for markets in the United States, Canada, Europe, Japan, Oceania and South Africa. Attending the ceremony in Manaus were State Secretary of Finance Iper Abraham, the superintendent of planning for Manaus, Mr. Oldemar Lanck, President Jim Gentz of Yamaha Motors Sports U.S., as well as journalists, business associates, employees and guests. The current percentage of local part supply for the TT-R125 is 47 to 55 percent and will rise to 76 to 80 percent in 2006. Some 21 thousand units will be marketed by the end of this year.

The managing president of Yamaha Motor do Brasil Ltda (YMDB), Mr. Tetsuo Uchiyama, gave a speech at the ceremony in which he thanked Yamaha Motor Corp., USA for the opportunity it gave them the main export market for the model. "With this release we are moving another step toward increasing the manufacturing capacity of Yamaha and inside of a little time, Brazil will be a production and supply center of motorcycles for the world market. The quality and cost are in agreement with international standards of competitiveness," said Mr. Uchiyama.

YMDB has ISO 9001: 2000 certification and plans to be ISO 14001 certified by the end of 2004.

From Marcel Mano, Brazilian Yamaha Motor Group, Brazil



A Yamaha TT-R 125 goes through the final line test before being created



Presidents Gentz and Uchiyama toast the new Yamaha TT-R 125

Caribbean distributor meeting embraces "Creation & Challenge"

On May 24 and 25, representatives from 36 Yamaha distributors across the Caribbean region gathered in the Puerto Rican capital, San Juan, for the Yamaha Caribbean Regional Meeting 2004. The market conditions have changed a lot in the eight years since the last regional meeting had taken place, which meant plenty to discuss and a number of new programs to be introduced.

The Yamaha representatives came with measures to tackle the new challenges of recent years, like the influx of low-priced products from China and other countries, and the growing range of Yamaha products now being manufactured at overseas bases with the potential for more competitive pricing. Mid-term sales strategies and goals for outboard motors, motorcycles, ATVs and generators were also discussed.

The second day of the conference included test rides for the overseas-manufactured motorcycles and boats with Yamaha outboard engines, enabling the distributors to experience their uncompromising Yamaha quality.

Everyone left the meeting with renewed confidence that Yamaha is ready to meet the challenges of the new market conditions and maintain its position as the quality brand it has always been in the Caribbean.

From Harumi Yamashita, OMDO, YMC



The Caribbean distributors showed their satisfaction after a productive meeting

Postal service likes BW's scooters for letter delivery

Yamaha distributor for Finland, Yamaha Arwidson (Konekesko Oy) has found a happy new customer in the Finnish Postal Service. The postal service had used scooters since the beginning of the sixties, but gradually their use declined with the introduction of cars as mail service vehicles. Later, entering the 90s, scooters were introduced again to see how they would be received by the letter carriers. Recently they chose to use a specially equipped version of the Yamaha BW's Next Generation with new plastic body additions injection molded by a local company to carry front and side postal bags. The original BW's blue color fits the Postal Service perfectly, and the exact same color was used with the new plastic moldings as well. For winter use the scooters are also equipped with studded tires to ensure good traction. The scooter is perfect for suburban neighborhoods. From the moment of delivery the Finnish postal services is very satisfied with the BW's. A promise has been made already to purchase more units in the near future.



Finnish mail carriers are pleased with their new BW's scooters

From Melvin Weel, Powered Two Wheeler Marketing & Sales, YMENV

Royal Bahamas Police Force step up to the XJ900P



Royal Bahamas Police Inspector Laroda and the new fleet



Police representatives accepting delivery of the XJ900P fleet. (left to right) Officer Ferguson, Inspector Laroda, HBS Vice-president Nick Rademaker, Sergeant Pinder

The Royal Bahamas Police Force have taken delivery of 40 XJ900P police bikes on June 2, 2004, and it was the first time to introduce Yamaha police bikes in the Commonwealth of the Bahamas. The credit goes to aggressive marketing efforts of Harbourside Marine Limited located in Nassau on the island of New Providence. The primary business focus of this Yamaha distributorship, which was established in 2001 by the current president, Mr. Ian Rademaker, has been the outboard motor market. They sell over 600 units annually in a full range of models—such as the Enduro series designed for commercial applications and all the way up to high-performance motors for pleasure use.

In addition to marketing, they have put a great deal of effort into after-sales service and strengthened their parts supply capabilities, moves that have firmly established the high quality of Yamaha's brand image in the Bahamas and have helped it achieve No. 1 position in market share for outboard motors.

The police in the Bahamas had purchased police bikes from a Yamaha competitor, but decided to switch over to the XJ900P police bike in consideration of Harbourside Marine's attention to detail in their after-sales service and their all-around system of customer support. These acclaimed service and parts supply activities have also led other government agencies to Yamaha products as well.

From Harumi Yamashita, OMDO, YMC

WaveRunner Riding Academy popular success in Dubai



The WaveRunner Riding Academy participants with their course completion certificates



Over the two days of May 30 and 31, DIMC (Dubai International Marine Club) in Dubai, UAE, was the venue for WaveRunner Riding Academy courses with two important purposes that impressed on local authorities and marina staff the seriousness of Yamaha's dedication to educating customers in the proper use of personal watercraft. On the first day, representatives of the press were invited to participate as instructors from YMC, Mr. Shibata and Mr. Itakura trained staff of the local Yamaha distributor, AL YOUSUF MOTORS (ALY), to become certified YRA instructors. On the second day, the ALY staff instructed beginner and experienced users in the fundamentals of safe riding, proper use and maintenance of the PWC and proper manners and precautions for responsible PWC riding. The curriculum included two hours of classroom instruction and two hours of actual practice on the water. Timed trial runs on a slalom course also added to the fun and interest of the event.

The importance of CSR activities like this will be further stressed at the upcoming regional dealer meeting in August.

From Hirotaka Itakura, ME Company, Japan

YAMAHA Summer Festival 2004 in Oschersleben



Almost 10,000 bike enthusiasts gathered for YAMAHA Summer Festival 2004 in Germany

Over the weekend of July 3 and 4, almost 10,000 motorcycle enthusiasts gathered at the Oschersleben circuit in the eastern part of Germany for the YAMAHA Summer Festival 2004. This summer festival is a big customer

event as well as a big promotional event for Yamaha Motor Deutschland GmbH (YMG) where the visitors are given the chance to test the full line of Yamaha 2-wheelers and also the ATVs. Also, many dealers from around the country participate in order to get closer to their customers.

The test ride sessions began on Saturday morning in the different test sections: the R series models, the FJR's, TDMs, Fazers, FZs and XJR's were

available on the circuit, while all other Yamaha models were available for test rides on public roads. In addition, YMG had a test parcourse for the XT660X, scooters, ATVs and a special PW50 area for the kids. All in all, YMG prepared about 100 test machines and the visitors made around 3,000 test rides. These rides were arranged in groups of a maximum of 10 riders headed by professional guide riders.

Another focus of the Summer Festival, of course, is the entertaining of the guests. On the paddock there was a stunt rider who made a impressive show on a R1 and on a Slider, while another R1 rider made an even more exciting show on the track. There was also a free-style MX and Quad show. On Saturday night there was a live concert with the cover band

"Fishermen's Friends," which ended up with a 15-minute long fireworks display.

On Sunday there were more test-ride sessions, with the festival ending in the afternoon. Although the weather was not always nice, the event was a great success with many happy smiles on the faces of the visitors and prospective Yamaha owners. For YMG, however, the bottom line is that this kind of event is very important for customer relations.

From Karlheinz Vetter, YMG, Germany



In addition to test rides for the adults, there was a special PW50 area for the kids

WORLD TOPICS

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- 1) Send us your text or an outline of the contents, making sure to specify who, what, when, where, why and how details.
- 2) Also send 1 or 2 high-resolution photos with explanations.
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Notice of when your article will appear in YN will be made after the editing process.

Send your articles to me, (Ms.) Rika Niwa, at the address below.

Address: 2500 Shingai Iwata Shizuoka Japan E-mail: yamahanews@yamaha-motor.co.jp

Energy-efficient cogeneration cuts energy consumption and CO₂ output at YMC facilities



To find out more about these systems we spoke to Mr. Kohji Suzuki (left) and Mr. Kiyoshi Nakazaki of the Environmental Facility Office of YMC's Motorcycle Operations Headquarters

Under its "Keep Minimum" campaign slogan, Yamaha Motor is committed to conserving energy and reducing the company's overall output of carbon dioxide (CO₂) as a greenhouse gas. Now, with the adoption of energy-saving cogeneration systems at its Nakaze factory in April, the office buildings at the corporate headquarters in Iwata in July and the headquarters factories in October of this year, it has been possible to achieve big reductions in energy consumption and CO₂ emissions. The combined energy savings from these three sites will be the equivalent of a roughly 6% reduction compared to their 2002 consumption, and in terms of CO₂ output this will result in an approximately 10% reduction.

Cogeneration systems reclaim the heat produced from generating electricity by burning natural gas, fuel oil or other fuels and use that heat effectively for other purposes such as building air-conditioning and heating or water boilers. The new cogeneration installations employ three diesel-burning generators (each 515 kW) at YMC's Nakaze factory, a single 800 kW diesel generator at the headquarters office buildings and two 5,820 kW gas-engine generators at the headquarters factories. The reclaimed heat energy from these genera-

tors is used for air-conditioning and heating at the factories and office buildings and for the cleaning equipment at the painting factory.

YN: How is use made of the heat produced by generators?

Besides using it directly in the buildings' air-conditioning and heating, it can also be used in various manufacturing processes in the factories. At nuclear power plants, for example, sea or river water is used to cool the reactors and generators and that heat energy is lost. But with cogeneration we make use of that heat energy.

YN: Are there cost advantages to cogeneration as well?

Because the tax rates on electricity and gas are different in each country, it is hard to make generalizations about cost advantages, but it is important to consider the fact that only about 35% of the initial energy contained in the fuel burned at a conventional power plant is converted into useful electricity by the time it reaches the user, including the loss that occurs in the electricity supply grid. However, if you generate the electricity at the place where it is being used you can achieve a much higher energy conversion rate of 70 to 80%. By making effective use of the heat from the generators at our three new cogeneration sites we have gotten a clear cost benefit.

YN: This year three cogeneration systems have been installed. How were they chosen?

In order for these systems to be beneficial you have to have uses for the heat produced. We chose these three sites because

there were immediate uses, like in the painting and pre-painting processes at the Nakaze factory and air-conditioning and heating at the headquarters office buildings.

YN: Are there any unique Yamaha qualities to these systems?

The generators we have installed are among the world's most energy-efficient. And the generators for the headquarters factories have been installed next to our Ace Plant incineration facility to enable an integrated energy management system.

YN: What are your plans going forward?

In the future we definitely want to install cogeneration systems at our other facilities, so we have to find ways for the reclaimed heat to be used effectively in the different manufacturing processes. For example, to melt aluminum for the casting process, the 400 C heat that you can get from a cogeneration system is not really useful. But we are going to try to find solutions. Our mission is to find ways to reduce energy consumption and CO₂ emissions throughout our corporate activities, and we are also asking all our employees to find ways to do the same at home in their daily lives.



The generator installed at the headquarters factories is run by a V-18 engine with a displacement of 360 liters and cylinder bores of 30 cm. This generator supplies roughly half of the factories' electricity

EXPRESS

Yamaha GMT94 team grabs World Endurance title



This was the first World Endurance series title for the YZF-R1



(From left) the Yamaha GMT94 team riders: William Costes, David Checa and Sebastien Gimbert (from the Suzuki 8-hour)

At the Oschersleben 24-hour Endurance Race, 5th round of the World Endurance Championship series held in Germany on Aug. 14 to 15, the Yamaha GMT94 team completed 883 laps on their YZF-R1 to win the race and clinch the season title. The race was a head-to-head battle with the Suzuki Endurance Team that saw the lead change hands time and again until the Suzuki team was forced to drop out with mechanical problems around midnight. From there GMT94 coasted home to victory and a double helping of series points due to the fact that this is the only 24-hour race in the series. That was enough to give them the season title with one round remaining.

25 ft. Flying Bridge Salon Cruiser "LUXAIR"



The new "LUXAIR" launched on the Japanese market in April 2004 was developed by Yamaha as the only 25 ft. Japanese market model salon cruiser to feature a flying bridge. Usually a prestigious feature of larger yachts, the flying bridge lets the captain operate the boat from a bridge above the cabin. But on a boat of the 25 ft. class, a flying bridge is rarely seen because it raises the boat's center of gravity and can thus decrease running stability. With the LUXAIR, however, long years of accumulated boat design data and the latest analysis technologies were used to create the widest hull in the 25 ft. class. In addition, the position of the cabin and flying bridge were lowered to produce a lower center of gravity and thereby further contribute to running stability.

In response to the trend toward larger engines in today's yachts, the LUXAIR has been designed to mount combinations of reliable, environment-friendly Yamaha 4-stroke outboards, like a single F225A (225 hp) or twin F150A (150 hp x 2), to meet diversifying needs of users' marine life. And, because it is designed for outboard power, a larger deck space is available. The hull also features with a sculptural chine (S-CHINE) that enables an optimum combination of great stability despite being topped with a flying bridge and natural steering characteristics. The S-CHINE is thicker at the central area of the hull for better stability while the water-cutting stern chine is shaved down to a shape that ensures a good forward-aft lift balance and natural heeling angle. In order to make the best possible use of the limited onboard space, the second helm seat usually located in the cabin has been eliminated in favor of a single

upper helm on the flying bridge, allowing a one-room cabin design with an oval table and a multiple-variation layout design to accommodate different numbers of passengers or situations. This includes the options of a flat seat only along the bow side or all the way around the cabin to enable over-nights on board. The interior is coordinated in warm colors to make it a nicer place for gathering and relaxing. Also, a large front window with distinctive lines makes for a brighter cabin interior in the daytime and beautiful views of the starry sky at night. The flying bridge has seating for three adults, while the bright, spacious cabin has room for six adults to relax. The new LUXAIR is a salon cruiser designed for comfortable living space and pleasurable piloting in a refreshing atmosphere. And in it is born a boat that exemplifies Yamaha's concern for quality and beauty of design right down to the smallest details.