

MCEA's State-of-the-Art Engineering Center

Historically, the Engineering Center for MCEA's North American and worldwide operations has been located at Kyoto, Japan. Beginning July 1, 1995, the North American market will have its own center located in Costa Mesa, California.

This state-of-the-art, \$10+ million facility will not only be responsible for the design of projection televisions, but also coordinate the design for tube televisions which are currently built at the Braselton, Georgia plant, and future design directions through its ATV Lab in Somerset, NJ.

By the end of 1995, there will be approximately 80 engineers plus support personnel in Costa Mesa. This number is scheduled to reach 106 engineers in the next four years. The CEEG will house software, hardware, electrical and mechanical engineers, CAD operations, and support functions, such as translators, technical support, administration, Human Resources and Quality Assurance.

The Hiring Process

MCEA started recruiting in mid-December 1994 for the Engineering Center. It is a very selective, in-depth screening process, involving a team approach which includes representatives from Kyoto and U.S. engineering and manufacturing.

Once hired, the engineers undergo a 5-day orientation. According to Hugh Sutherland, one of the new Electrical Engineers training in Kyoto, the orientation process was extremely helpful. "I can't believe Mitsubishi spent so much



Hugh Sutherland, one of the new engineers at the Center.

time orientating us." The Japanese cultural training, he noted, was very valuable and "right on the money." The orientation process includes:

- One half-day Human Resources overview
- One half-day product training
- One full-day orientation to the company by senior management
- One day of cultural training in the nuances of Japanese business and social conduct, and
- One full-day in the field with an Account Executive or Retail Specialist.

Once the orientation process is complete, the new engineer is sent to Kyoto to begin his training.

The Buddy System

MCEA has developed a Buddy System which creates a personal tie to "home" for the engineers. This is important as many of the engineers will be in Japan for at least two months, perhaps longer, depending upon their assigned project. Each engineer has a North American "buddy" within MCEA. Their buddy communicates regularly with their assigned engineer, providing them with information and materials to keep them connected to America and MCEA. This can range from sending them *The Wall Street Journal*, MCEA literature and staff meeting minutes, to videotapes of "Forrest Gump," Snickers candy bars and entertainment magazines.

Depending upon their project and its transition to the new Engineering Center, the engineers' stay in Japan may vary. Hugh Sutherland has been in Kyoto since February 20 and anticipates his return in August. It has helped, he mentioned, that there are people around who have been in Japan longer to assist the new arrivals with their acclimation. Their day begins with a morning of classes on the Japanese system on how the televisions work, Japanese standards and specifications, with the balance of the day spent working on their projects.

What is the most frustrating part of being away from home? "Being illiterate — it is difficult walking through a city and not being able to read anything." The engineers are taking Japanese classes to help, however. And a piece of advice to all new transfers, "make sure you like rice."

Focus on 40

Julie Yamamoto
Merchandising Analyst

In October 1992, Mitsubishi unveiled the first 40-inch television, the 40FX1, to the theme of "The Legend Gets Larger". Media response was phenomenal as some of the following quotes exemplify:

"An axiom in TV manufacturing is that as the size of the screen increases, the quality of the picture decreases, with fading color and 'ghosts' around the edges of figures. In a demonstration, though, the Mitsubishi CS-40FX1 offered a remarkably sharp picture. Even around the edges of the screen, the picture and color were still very clear."

—Los Angeles Times, Nov. 13, 1992

"And consumers this week get their first look at the new wonder set."

—Money, Nov. 8, 1992

"It's a television set with a 40-inch picture tube that almost makes their 35-inch direct-view sets look diminutive."

—San Francisco Chronicle, Nov. 18, 1992

"Depending on your point of view, dramatic advances in home-entertainment technology come along either too often or not often enough. Talking TV's, the last 5 years have witnessed incredible action on the projection TV front but few breakthroughs in conventional, 'direct view' tubes. Well, Bubba, it's breakthrough time...Mitsubishi has upped the ante with the CS-40FX1, the world's first 40-inch direct-view TV."

—Sound and Image, Winter 1993

It goes without saying that internal focus on this new unique product was also very high at time of introduction. In the first four months of sales for the 40FX1, actual sales exceeded forecast by approximately 70%, an exceptional result for a television retailing at close to \$5000. At the end of the product cycle, 4,640 units had been sold, achieving 105% of the plan. As of May '95, the volume achieved for the CS-40503 is 81% of plan at 31,722 units sold—an

...what is really impressive is the sheer spectacle of its picture, which has the room-dominating effect of a rear-projection set ... Jim Carrey's canary-yellow suit in 'The Mask' was dazzling."

—New York Times, May 7, 1995

astonishing result. One can only imagine what the achievement would be if the internal excitement continues to be as strong as when the first 40-inch was released. Has the excitement died down for a TV that is still one of the most extraordinary products in the industry? Not externally at least:

"Beside this 27-inch model—indeed, next to any other table-top television—the 40-inch Mitsubishi CS-40503 seems gargantuan, even before you turn it on. But what is really impressive is the sheer spectacle of its picture, which has the room-dominating effect of a rear-projection set ... Jim Carrey's canary-yellow suit in 'The Mask' was dazzling."

—New York Times, May 7, 1995

The 40-inch television is still one of the most unique televisions on the market, and it should be associated with the Mitsubishi name as the cellular telephone is with the Motorola name or the Walkman® is with the Sony name. This is especially crucial with a whole 40-inch line-up rollout this fall.

I have received many suggestions and valuable input on increasing the focus both internally and externally on the 40-inch, but would appreciate any feedback that you may have for effectively increasing the focus on this, our most unique product. Please feel free contact me through Quickmail — Voicemail (Extension 5424) with any suggestions on "Focusing on 40". ▲

1996 Training Materials Update

James Griffiths
Manager, Sales and Product Training

Training is the key to a successful sell through at retail. We have new Power Point presentations being completed for the 1996 model year and we will be providing these to you on the Outside Sales Folder. The Training Department has provided computer scan converters for your use when presenting training programs. When you need one, contact your Divisional Business Managers.

The 1996 Certification Programs are ready for your dealers. These advanced programs have extensive product information and hands-on instruction at work stations. The presentation includes a test of the information and a framed certificate of completion, for those passing the tests, at the end of the meeting. We are also ready with updated delivery programs. These are for the drivers that set up the product. These programs answer the questions the drivers have about PIP, cable boxes, StarSight and menu operations.

The 1996 Pocket Sales Guide is in production. We have begun to edit information and create the new format. This year's version will be easier to and will provide faster access to the information needed by salespeople.

Please forward any suggestions for improving the Pocket Sales Guide to James Griffiths at (404) 734-5430. ▲

THE MITSUBISHI VIEWPOINT™

President Kitaoka
Translation
Opening Address
Audio Visual System Business
Division Family Training
July 7, 1995

I would like to thank you for this great opportunity to meet with all the senior committee and talk about the direction of Audio Visual Division's management. I believe this is a significant meeting for all of us to strengthen the base of our business and I would like to share a few words with you in this opening address.

The current Audio Visual business in general, not only for our company but also in many other companies, is in a very severe situation but also has a big potential for the future. This is why I decided to reorganize our Audio Visual System Business Division to challenge this potentiality and to realize the "Dream Business".

Integrating laboratories, manufacturing and sales, uniting domestic and overseas markets, this whole organization is multi-functional, with development, production and sales all united on the global scale. We must be a very aggressive and ambitious organization in order to re-establish our AV Business and anticipate the Multi Media Age.

Because it is our employees who will revive our organization, I would like all of you to understand this vision of reorganization beyond the boundary of conventional divisions and I am expecting you to bring your ability into full play with this challenging environment.

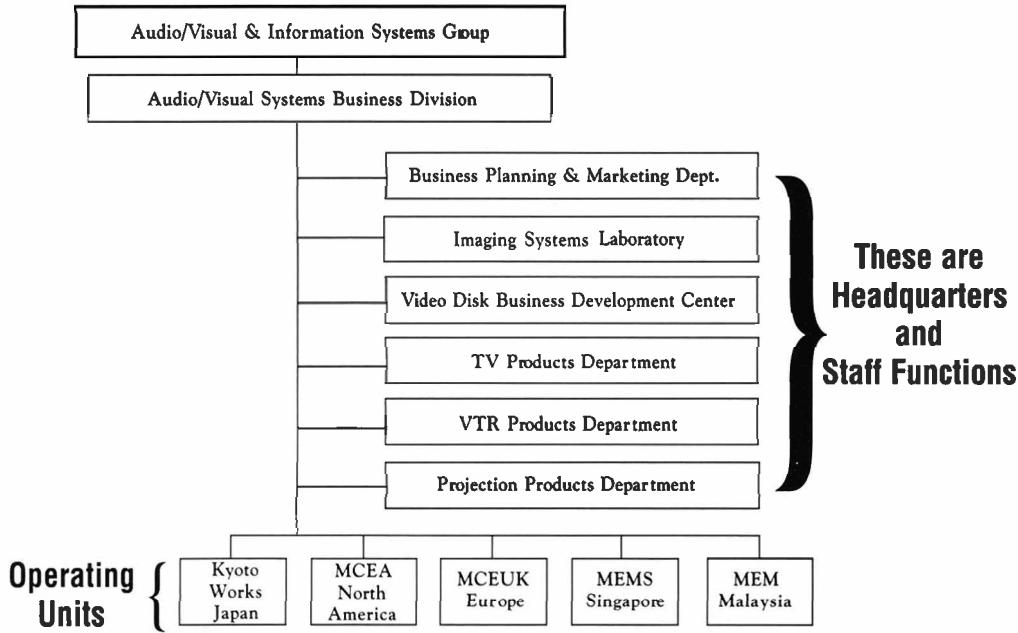
The AV industry is now rapidly changing from Analog to Digital toward the Multi Media Age. Today is only a point in a line from yesterday. The key words to be noted are "Speed and challenge". I would like you to take this organizational change as an opportunity to anticipate the future and to establish a firm base for our company tomorrow. ♣

The Employee Newsletter for
Mitsubishi Consumer Electronics America, Inc.

Volume 1, Number 5
September 1995

MELCO Reorganizes Audio/Video Business

A/V Systems Worldwide Organization
As of June 29, 1995



Jack Osborn
President & Chief Operating Officer
MCEA, MELA CEG

June 29, 1995 marked the date MELCO reorganized its worldwide audio/video business. The organization chart shows the complete area of responsibility held by Mr. Tadao Tanji. Mr. Tanji is head of the business unit referred to as the Worldwide Organization and is also wearing an extra hat as general manager of the Audio Visual Systems Business Division.

The six rectangles underneath the Audio Visual Systems Business division represent staff or headquarters type functions and are, without exception, located at Kyoto. These are the business division staff or headquarters functions, whereas Kyoto Works-Japan is the manufacturing, applied engineering and the marketing for the Japan market.

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Mitsubishi's New "Hang-on-the-Wall" Television

Mark Koenig
Strategic Technology Manager

At the 1995 Dealer Line Show, MCEA previewed the technology for the television of the future. The "hang-on-the-wall" TV will be here soon and Mitsubishi is one of a very few companies leading the way. Commonly known in technical circles as "Flat Panel" display technology, TV manufacturers have waited decades for the means to produce such a product.

Our 20-inch prototype displayed at the Dealer Line Show received praise for the concept and the level of video quality. Although the unit shown was designed for use as a computer monitor, the point was made and the direction was clear to all who witnessed the demonstration.

"It's hard to believe that this screen is only 2-inches thick," was a comment repeated during the show.

Mitsubishi has chosen "plasma" technology as the basis for our flat panel display. The term plasma has been used in electronics fields for many years. It denotes electricity illuminating a gas, similar to the way in which a fluorescent or neon light works. But what about other technologies for flat panels?

You may be familiar with the flat panel display used in most laptop computers. They use a technology called Liquid Crystal Display or LCD. Although LCD's have improved from the first dim monochrome to today's brighter color displays, they still have many drawbacks when used in video applications. These drawbacks include

poor off-angle viewing, motion artifacts and the inability to make screens sizes 20-inches or larger.

One other method is the Field Emissions Display, or FED. Basically, it is a horizontal and vertical array of many small conventional CRTs, all in one glass enclosure. The front area is the sum of all of the miniature CRTs, but the depth is only that of each element.

Unlike LCDs, plasma displays have a full 170 degrees of viewing angle, millions of colors and can be made in very large sizes. They are also much easier and less expensive to manufacture than FEDs. The result is a technology that could lead the race to "hang-on-the-wall" TV.

Stay tuned for more information in the future.... 

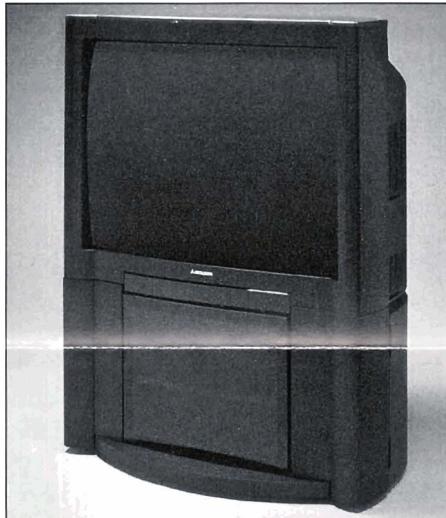
Benefits of the "Dazzling" Design for the 40"

Julie Yamamoto
Merchandising Analyst

Mitsubishi developments in smaller, slimmer cabinet designs have enabled more people to fit big screen televisions into their lifestyles. Now, the 40-inch CRT is another breakthrough that enables consumers to enjoy high quality large screen televisions in a traditional tube design.

The new design of this 40-inch television is designed for today's consumer. Nearly half of 40" owners place their TV in a corner, thus the rounded design makes for easier placement in a corner. A large percentage of consumers also place their 40-inch freestanding, against a wall, and, since the rounded back reduces the depth perception of the set, the overall room appearance is enhanced by the new design.

Nobody likes looking at cords hanging down the back of the TV, so we've engineered a way to hide the cords in the back of the base. Besides improving the appearance, the hidden cord feature also adds safety by reducing the potential for children or pets to pull on or bite the cords.



CS-40507 on matching base MB-4080

The new design and integrated base provide abundant storage for equipment and software. Nearly 75% of 40-inch owners have cable boxes connected to the set, and more than half have stereo systems connected.

The addition of a Corian® top in these models is a first in the TV industry. Glossy materials give the perception of higher value. Corian provides an attractive, unique look to the set in a high-quality material that is well-respected by

consumers. Corian provides a durable surface that will stay beautiful throughout the years, and the attractiveness will not diminish over time due to the resistance to scratches and stains and the resistance to fading and discoloration.

- Benefits of the new "dazzling" design for the dealers

Product differentiation, high perceived value, and name recognition are characteristics that lead to sales, profit and success. Both the Mitsubishi name and the Corian name have high perceived value and name recognition. Corian is associated with quality and value, which is evidenced by the fact that ninety-eight percent of people who have Corian surfaces in their homes today say they'd buy it again.

The high level of awareness and satisfaction among upscale homeowners with Corian may reduce any hesitancy potential customers or spouses may have in considering a 40-inch set for their home. Whether its the unique size, design features or brand reputation, the 40-inch, with the new design, is a highly appealing unique product to own. 

Corian® is a registered DuPont Company trademark.



The Employee Newsletter for
Mitsubishi Consumer Electronics America, Inc.

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May 1996

Diamond Web™ Television: Connecting TV to The World

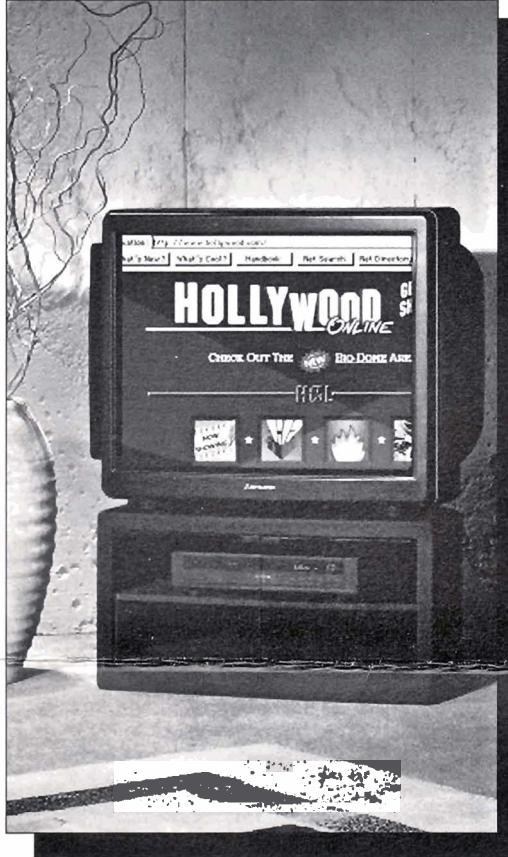
Julie Yamamoto
Merchandising Analyst

The Internet and World Wide Web are forces that will dramatically change the television and computer industries, and Mitsubishi is once again leading the way with Diamond Web™. As television and computer manufacturers struggle to find the right convergence approach, DiamondWeb™ will focus on the consumer's needs rather than manufacturing traditions.

Since Mitsubishi follows the principle of the network being the computer, DiamondWeb™ is based on offering simple connectivity to the user. Through a "PC-Lite" approach, Mitsubishi will offer high quality television products that are not only less expensive than the "PC-Heavy" products that many other manufacturers will introduce, but also more focused on the user's needs.

Consumers prefer simplicity when adapting to new and revolutionary technologies. DiamondWeb™ will revolutionize the industry by offering easy-to-use, Big Screen web browsing to consumers. DiamondWeb™ offers ease-of-use to the user through one-handed, one remote Web access from their easy chair.

Consumers also prefer all-in-one solutions, as evidenced by the growth of TV/VCR combinations, all-in-one multimedia computers, and so on. MCEA's DiamondWeb™ is an all-in-one solution that will outperform computer and set-top box products through proprietary RGB circuitry within the television.



This innovation not only allows better graphic performance; it also maintains high NTSC video performance and enables mixing and overlaying. This kind of integration, offering the best of both the television and computer worlds, will not be possible on computer-based or set top-based products. The tight integration between television and graphic functions will also be enhanced by one remote, one button control, with no need to switch inputs.

Upgradeability, a key to survival in the Internet Revolution, will also be available in DiamondWeb™ through a modular approach. MCEA will support both hardware and software upgrades for DiamondWeb™ televisions, with certain key components, such as the modem, being modular to the point of "plug and play" upgrades.

Preliminary product plans, which are still under evaluation and subject to change, focus on the large-screen direct-view category, from 32-inch to the 40 inch. This category, unique to Mitsubishi as the world's only 40-inch direct-view television, will now also be the world's only 40-inch direct-view television with a Web access feature. Initial introduction is targeted for Summer 1997.

Mitsubishi is unique among the Japanese consumer electronics manufacturers with both the resources of a \$36 billion parent company and the resources of a U.S.-based engineering design center focusing on this convergence phenomenon, which is emerging first in the U.S. market. Mitsubishi's engineering design center, located in Costa Mesa, California, has a high percentage of U.S.-trained engineers with computer and software expertise, an asset unique to Mitsubishi among the Japanese A/V manufacturers.

This expertise, combined with MCEA's strong focus on the consumers' needs will ensure that DiamondWeb™ will be the Internet Home Theater of choice in the future. ♣

Diamond Web™: The Market Approach

Julie Yamamoto
Merchandising Analyst

Although the Internet has been around for more than twenty-five years, it has only recently exploded into the public attention as the multimedia-rich interface of the World Wide Web, enabling ordinary people to traverse vast frontiers of information. It is now being touted as the "next major broadcasting medium," after the advent of radio and television, and, with technologies such as real-time audio and video-streaming, three-dimensional virtual worlds, video conferencing and telephony emerging daily on the World Wide Web, it could become the first major interactive broadcasting medium where there is true user control over content.

However, to quote Bill Little, Trainer, "At present, 'surfing the Net' is a part of the personal computer experience, and therefore limited to a small subset of the people in this country". That subset can be broken down into market statistics as follows: PC households account for 30% of all US households. PC households with modems account for 22% of all US households. Internet user households account for 10% of all US households. Lastly, Web user households account for only 1.5% of all US households*. Furthermore, the majority of Internet users started using the Internet in 1995*. Needless to say, experience of the Internet and World Wide Web is still rather limited among average consumers. The bulk of the consumer market can be summed up as "non-PC, non-Internet user, non-Web user" households.

Experience is limited but awareness is high. In a recent consumer test for DiamondWeb™ product planning, consumers were asked to rate their familiarity with a variety of emerging technologies, including DBS/DSS, DVD, Internet/WWW, Online Services, and Flat Panel TV. No definitions were provided, and, in all cases, only the categories of Internet/ WWW and Online Services rated highly on awareness. When asked to rate their level of interest in purchasing the technologies after a description was provided, consumers were most interested in purchasing Internet/ WWW technology.

Pair these facts with the known market penetration of televisions at approximately 98% of US households, and the advantage of the DiamondWeb™ market approach becomes clear. Mitsubishi is focusing on easy-to-use, Big Screen web-browsing targeted to consumers who are highly aware of and interested in the Internet but probably have no "Web-surfing" experience. By following the principle of the network being the computer, the consumer investment is limited to an elegant single-task connection system that is easily upgraded when appropriate. Moreover, under this approach, the ease-of-use becomes the key feature so that switching to the Web must appear as easy as switching to another television channel.

By putting the consumers' needs first and focusing on what the market needs (and does not need) in a TV/PC product, Mitsubishi's Diamond Web™ will be the Internet Home Theater of choice in the US consumer household. ▲

*Sources=USA Today, Jupiter Home PC Projections, Find / SVP, Philips IMN

Consumer Relations

Jack Osborn was the keynote speaker at the recent Society of Consumer Affairs Professionals in Business (SOCAP), 1996 Spring Conference in Boston. SOCAP is a worldwide professional membership organization dedicated to promoting the development of the professional consumer affairs function as a vital and integral resource.

The conference was attended by over 1,000 customer service personnel and executives from Fortune 100 and 500 companies, as well as other major corporations from as far away as Australia and Brazil.

Mr. Osborn spoke to the group regarding, "The Ultimate Value of Consumer Relations." He shared his perspective on the critical need for stronger consumer relations and customer service programs throughout any company that intends to survive. His advice on how to ensure that senior management understands the goals and opportunities that can benefit the organization by excellent customer service was well received by all attendees. ▲

Aurora Diamond Project Update

From Page 1

Sales and Distribution (SD) workshops that have been completed: Customer Master file, Material Master file, Sales Order Processing. SD planned workshop areas: Credit Management Workshop and Allocations Workshop.

Human Resources (HR) workshops that have been completed: Personnel Administration, Benefits, Recruitment, Time Management. The HR team during the months of June and July will be configuring the Information types to be implemented on 2/1/97. The ABAP/4 programming team is currently converting the HR data and working on an interface to PC payroll for 2/1/97.

Manufacturing, Inventory and Purchasing (MM/PP) workshops that have been completed: Valuation and account assignment, Inventory Management for Finished Goods at Plant and Distribution Center, Purchasing-Service Parts, Inventory Management-Service Parts, MM/PP planned workshops: Master Planning (MPS & DM) & Material Requirements Planning (MRP), Production Orders, Product Costing, Production Planning Basic Data, Sales & Operations Planning, Inventory Management Refurbishment, Purchasing - Production, Purchasing - OEM, Purchasing - MRO & Tool Crib, Vendor Master Review, Return to Vendor, Purchasing - Consolidated Design Review.

The training and education team, headed by Pieter Bouwkamp and Merlin Chong, is tasked with developing a training plan that will incorporate the detailed requirements for everything from SAP to Windows '95. Please call us at 770-734-5497 or E-mail the team at AURORA or check the MCEA internal web site for the SAP group. ▲

THE VIEWPOINT

Deadline for Sept. Issue: August 8th

Please submit articles to Valerie Stiller, Marketing Communications Dept., MCEA, Norcross, Ext. 5301. Visit the newsletter on the MCEA internal web site: <http://www.mcea.com>

Look under Departments for Marketing & Communications.



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