

intercom

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HP Intercontinental Operations News

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Far East Asia Issue

It's no mystery: sales volume gets better all the time in FEA region

To most people in the Western world, Far East Asia or the Orient is the distant land of exotic beauty, mystery, and surprises. But not for HP.

Our company has been active in that region since the early 1960s and in recent years it has proved to be one of the fastest growing markets within HP. FY75 will end with total sales in the region of better than 16 million—up from 3.5 million only four years ago.

The region is very distinct from all other HP sales regions in that it has a major share of its sales coming from

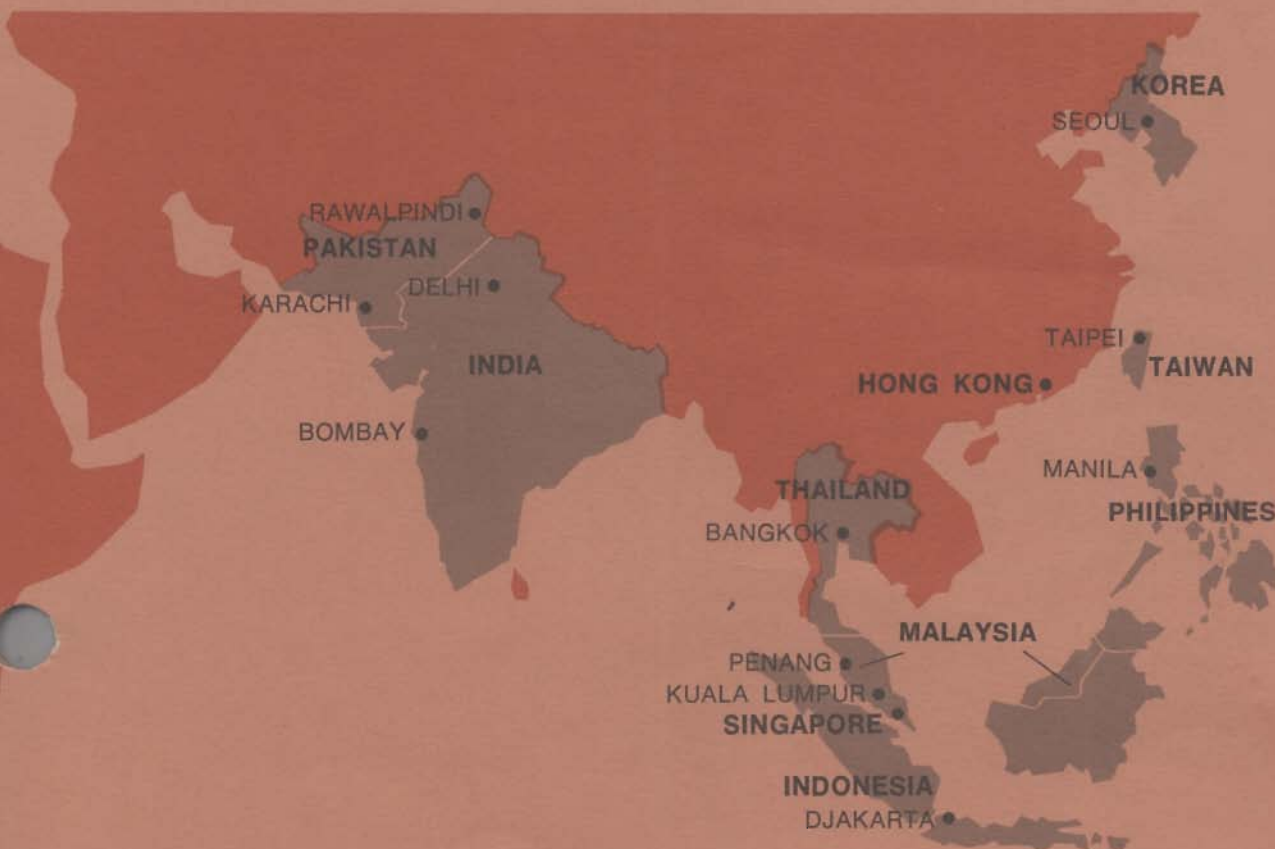
countries represented by distributors rather than HP subsidiaries. This unique arrangement results in the need to provide special support to the distributors and their customers from ICON headquarters and divisions and groups as well.

Orders originating from most countries are normally "indent orders," orders which the customers place directly with HP in U.S. dollars. Therefore it is not surprising that we have a relatively large group of competent order coordinators at ICON headquarters to serve the region—as the "indent orders" must be processed, shipped, invoiced, and payment negotiated with the banks on an individual order basis, whether that

Continued on page 2



FEA Manager Lee Ting visits Hong Kong



Sales region (Cont. from page 1)

order is for one hundred dollars or one million.

Don Andrushko, who has overall responsibility for most of our distributors in the region, works closely with discipline sales, service, order processing, credit and collection, and field to insure that maximum sales are generated in those countries within the framework of the HP objectives.

A major event in FY75 was the establishment of our own sales organization in Singapore to handle all product lines. This is the second sales subsidiary in the region, following establishment of HP Taiwan in 1970, and an important step toward achieving our commitment to better serve HP customers in this part of the world.

Another milestone is the addition of Korea to our million-dollar-a-year sales club which also includes India and Hong Kong in addition to our two subsidiaries.

Looking back, I would say that our success in the past has been due to the ability to understand and adapt to the local business and cultural environment while fulfilling our customer's technological needs; we were able to overcome the barriers imposed by the distances, languages, and cultural differences.

Looking at the future I feel confident that we will be able to achieve the corporate and regional objectives we set for FY76. It certainly will not come easily but "challenge" is not a new word to the HP team.



Don Andrushko shops in Manila with the Faustinos (see page 5).



Herb Rost (right) of sales shares coffee and Redhill plant space with Dick Chang (left) and "Eddie" Yang Chi-Chii of SEA manufacturing.

Singapore

HP's new sales operation reaches the half-year mark

In Singapore, one of the world's busiest ports, HP's newest marketing operation in the Far East has an average employee age of 26. Half of the 21 people in the HP Singapore sales organization are newcomers to the company.

Not surprisingly, Herb Rost, general manager (sales), put training at the top of his list of priorities when he initiated operations in Singapore during May of this year. An 11-year HP veteran, he came from a post as instrument sales manager in West Germany.

Since two Hewlett Packard factory operations already were located in Singapore, the new sales office was housed in the Redhill plant—the first sales operation physically located in an HP factory.

The arrangement has the temporary disadvantage of limited space, since the marketing staff is working in tight quarters. However, factory resources in administration, personnel, computer and communications facilities were an advantage in getting underway quickly.

While sharing the same roof, sales and manufacturing operate independently to serve their distinct objectives.

For several years, HP Singapore has had a successful direct sales activity in pocket and programmable calculators under the current sales manager, Loh Ah Sze, while other product lines were sold by a local distributor.

Other key members of the new sales team in Singapore are Administrative Manager Leslie Lay, an experienced manager new to HP, and Service Manager Bernard Bruand, who worked for HP in Boeblingen for three years and has a broad knowledge of computer and instrument service.

The Singapore sales company also has responsibility for HP's distributor in nearby Malaysia. This is a unique situation within HP where staff members of one country have the commitment to provide direct support in another country, both to a distributor and to customers.

With startup staffing virtually complete, HP Singapore sales will enter a phase of consolidation for the next year. Continued attention will be given to all phases of training, getting to know customers, market assessment, and building team spirit.

By the time the new marketing team gets into permanent quarters early in 1977 it will have a firm grasp of HP's role within the growing economy of this thriving city state.



(L. to r.) Bernard Bruand, Loh Ah Sze, Lee Chin Hong and Kan Kam Kee.



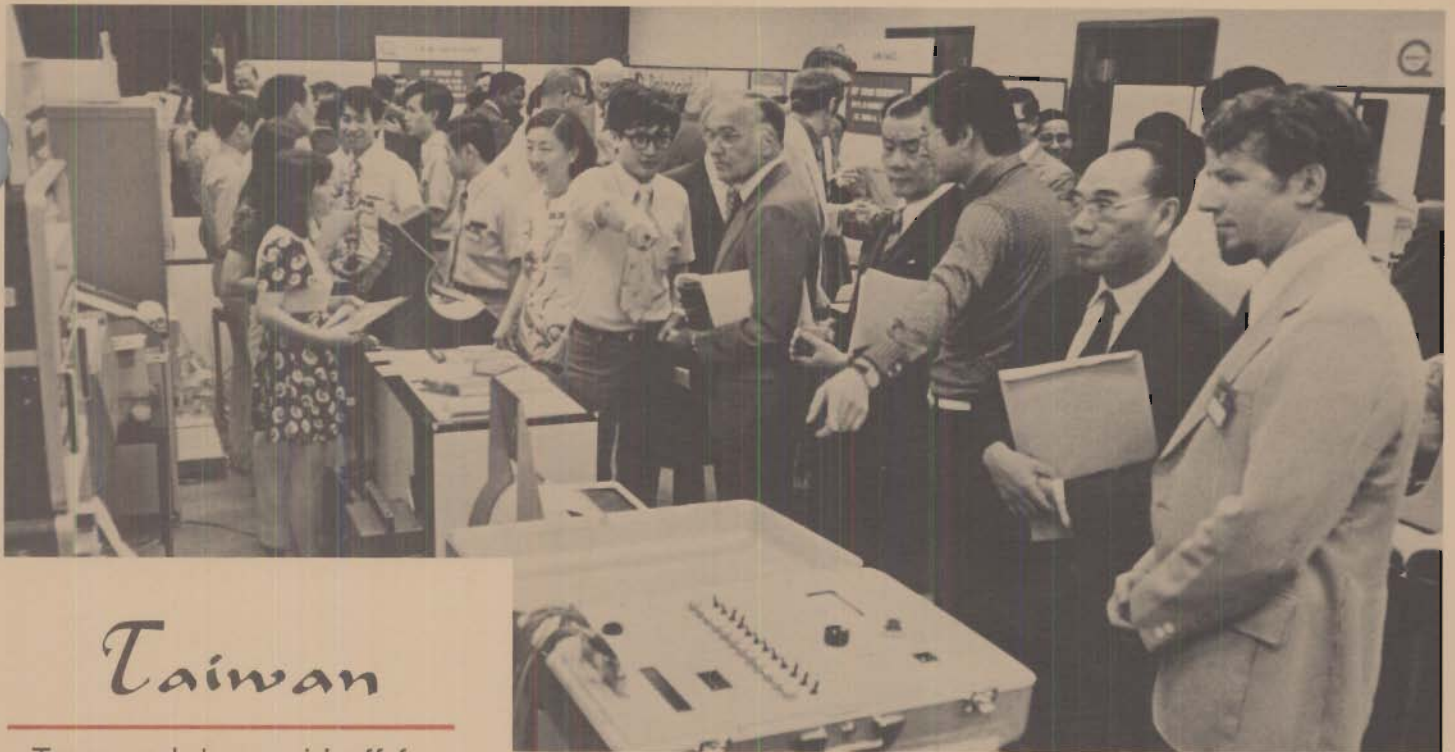
Joanna Foo



Cheong Aik Beng

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.



Taiwan

Teamwork has paid off for pioneer HP subsidiary

The three-man team which Hewlett Packard assembled in 1970 to start a subsidiary in Taiwan knew it had a pioneering assignment that would set a mode for future company subsidiaries in the Far East.

Lok Lin, general manager of HP Taiwan, was one of the original team involved in the startup. (The others were Lee Ting, now Far East Area manager, and Dick Hornor, now service manager for Middle East activities based in Athens.) The subsidiary formally opened its doors in November of that year with a total staff of seven people.

Today Lok heads an organization of 37 employees with a headquarters office in Taipei and a liaison office in Kaohsiung. Noel Hsin-Jao Wu serves as administration manager. Except for language differences, the working and management style could be mistaken for a domestic sales region office.

Teamwork is stressed, especially the

When HP scooped other U.S. exhibitors at Taiwan's largest computer show ("Computech '75" in August) by demonstrating distributed systems capability, some distinguished visitors stopped by the booth. (Reading from right) Barry Klaas from Computer Systems with Shu Shien-Siu, Chairman of the National Science Council; Lok Lin with Minister Sun Yun-Suan of the Ministry of Economic Affairs; American Ambassador Leonard Unger with Robert Liu; Ellen Tchou, Noel Wu, Wanli Tseng, Alice Chen.

need to work together to present the best technical solution to a customer who may be called upon by various discipline people. Supplementing the HP marketing capability are two highly qualified local distributors: San Kwang for analytical products and China Scientific for civil engineering products. Both work under the direction of I. K. Huang, discipline sales manager.

Another move to improve customer service was the establishment in 1972 of a small sales office under the management of Bruce Lan in Kaohsiung, Taiwan's best harbor lying 350 miles south of Taipei. HP has a number of customers in two Export Processing zones set aside by the government to attract export oriented industries. Other major market segments are universities, local industries, hospitals and government agencies.

HP Taiwan has already chalked up a strong sales performance despite a recession from which the country is slowly recovering. On a long-term basis, the economic future of Taiwan looks bright. The government has underway ten major construction projects, including a large steel mill, shipbuilding facilities, two new harbors, five nuclear power plants, a new international airport, railroad electrification and a north-south freeway. Natural gas discovered offshore is expected to fill the total industrial needs of Taiwan within three years.

Taiwan is fast moving into the status of a developed nation. It has proved an excellent territory for HP to pioneer.



Bruce Lan, Latitia Hung in Kaohsiung



(L. to r.) Andy Peet from Waltham, Rayene Young, C. S. Lin, Ted Ogrey of HPIC.



I. K. Huang (left), Lok Lin
P. H. Fang, Chuan Cheng Wu



Hong Kong: Guenther Buchholtz (left), with B. Y. Lee



(L. to r.) Gunjik Lee, Kisok Sim and Yongse Song of AMTRACO.



Horst Vinke

Hong Kong

A 75-year-old trading firm keeps step with the times

In the shopper's paradise of Hong Kong, you can stop in a number of shops selling photographic equipment and buy an HP calculator. Schmidt and Co. Hong Kong Ltd., HP's versatile local distributor, sells camera equipment through a number of outlets and has found it easy to add calculators to its line of products.

Schmidt and Co. was established 75 years ago in Shanghai as a trading company with sales and service capability. The company first imported German-made microscopes and other scientific equipment for sale to hospitals and schools.

When the Peoples Republic of China came to power in 1949, employees of

the original Schmidt and Co. left to set up independent firms throughout the Far East—all bearing the same name and operating in the same field of business. Over the years Schmidt and Co. of Hong Kong has acquired all the other operations in Singapore, Malaysia, Taiwan and Korea. (A company in Japan remains independent.)

The company has long since branched beyond importing German goods; it now represents manufacturers from all over the world as well as exporting locally made electronic equipment. The firm became Hewlett Packard's Hong Kong distributor ten years ago and handles all product lines. Guenther Buchholtz is managing director and Sigfried Scholz, director.

While Hong Kong has always been a favorite of tourists for duty-free shopping and access to the Orient, the British colony has now emerged as a major manufacturing center for electronic products. It is also the world's largest exporter of textiles and toys. Schmidt finds a ready market for HP electronic test equipment and sells a heavy volume of LEDs to makers of electronic calculators and digital watches and clocks.

After three-quarters of a century, Schmidt and Co. is very much at home trading in the Far East marketplace.



That's not a mural behind Sigfried Scholz but Hong Kong's harbor seen through one of the round windows of building (shown in exterior photograph at left).

Korea

A company which built the country's first railroad now sells electronics

In a country where business is conducted on a personal basis as a matter of trust between old associates, the American Trading Company Korea, Ltd. (AMTRACO) is the oldest Western firm doing business in the Republic of Korea. Its parent firm, the American Trading Company of New York with offices in Yokohama and Shanghai, sent its first representative to Korea in 1884 and later built the country's first railroad.

Horst Vinke is managing director of AMTRACO, Korea, which established an electronics equipment department when it acquired the HP instrument line in 1968. Kisok Sim, sales manager, has attended a number of HP seminars in Singapore as well as receiving training in the United States. (Editor's Note: Kisok's some hiker, too! We remember a day-long Grand Canyon outing when he breezed from top to bottom to top in record time.)

Although instrument sales continue to make up the major portion of its HP sales, AMTRACO is now getting into computer systems while continuing to expand its activities into other HP product lines.

The country's rapidly growing industrial base has received a hearty boost from the government of South Korea, which began in the 1960s to develop new institutions to support science-based industry.

Located in Seoul's Science Park are a center for technology transfer, a non-profit institute for scientific research and development (Korea Institute of Science and Technology), another institute for policy-oriented research on the Korean economy, an agency which coordinates defense-oriented R & D, and an institute for



(From right) Benjie Faustino and Joey Yujuico of Online Systems visit Lake Tagatay with Joey's friend Joji, Benjie's wife Babe and children.



Wellington Yu (seated) with staff of Manila's ESP: Lim Chi Ko, Josephine de Los Trinos, Emily Lang, Lourdes Ong.

graduate study in the sciences (see story, page 13).

The United States government has provided assistance to the South Korean government in this far-sighted effort to support industrial development. Good results are already being seen in Korea's increasing importance as a market for products such as those made by Hewlett Packard.

Thailand

In manufacturing or sales, the family emphasis is on quality

"Parent company" has more than one meaning for UNIMESA, HP's distributor in Thailand. The firm is a subsidiary of G. Simon Radio, founded in 1946 by engineer-entrepreneur Jonas Eddy, and two of Eddy's sons play key roles in UNIMESA's activities.

Suweera and Gowit Jira have ties to California as well, since both are graduates of the University of California system. Suweera Jira, general manager of UNIMESA, has a bachelor's degree in electrical engineering from UC Berkeley and received his M.B.A. from UCLA in 1973. Gowit Jira was awarded his master's degree in electrical engineering from UC

Berkeley in 1972 and now heads UNIMESA's service activity as well as managing another G. Simon Radio subsidiary, Elcom Research.

Looking at UNIMESA's affiliations, it is clear why the product reliability and after-sales service which HP emphasizes is appreciated by the Thailand distributor. G. Simon Radio began as an importer of radio transceivers but moved into manufacturing its own transceivers. Elcom Research was started in 1963 to design and manufacture high-quality communication equipment.

UNIMESA was formed in 1972 to market Hewlett Packard equipment, primarily instruments and medical products. It has proved a good match in company philosophy.

HP's market in Thailand has been relatively limited since the country is basically agricultural, but the industrial sector of the economy is becoming increasingly more important. UNIMESA promises to be a sturdy offspring of its well-known parent company.

Philippines

Manila is the business center but keep an eye on Zamboanga

The two distributors representing Hewlett Packard in the Philippines are headed by managers typical of the ambitious young entrepreneurs who flourish in these hospitable islands.

A newly appointed distributor, Online Advanced Systems Corporation, is handling computer systems and industrial calculators and will take on the electronic instruments, medical electronics and analytical product lines as of January 1, 1976. (These product lines were formerly handled by another distributor, Electromex.) Joey Yujuico, who received his M.B.A. from UC Berkeley, is president of the corporation while Benjie Faustino, formerly in sales management with IBM in the Philippines for many years, serves as vice-president and general manager.

Electronic Specialists and Proponents was recently appointed distributor for consumer calculators. Wellington Yu, part owner and manager of the firm, also serves as Dean of the Business School at De la Salle University in Manila.

While the city of Manila dominates business and industrial activity in the Philippines, other centers of commercial activity are Cebu City, Iloilo, Davao and Zamboanga in the southern islands. ESP has started to name dealers to serve some of the thousands of islands which make up the archipelago.

The Philippines has shown a great deal of economic stability and is a fast-growing market for all HP product lines. English is widely spoken, of course, due to the long cultural relationship between the Philippines and the United States. Local businessmen are eager to get ahead but still find time to enjoy life.

It's a pleasant way to conduct serious business.



Above, the Jira brothers of UNIMESA—Gowit (left) and Suweera (right)—with their uncle Athivas Jira, administrative manager. Right, these lovely Thai dancers have no connection with HP but we couldn't resist using their picture.



BERNIE BELKIN

Pakistan

Now independent, this Muslim nation is making economic progress

The independent nation of Pakistan was a year old in 1948 when Mushtaq Ali brought his family from India and founded Mushko and Co. in Karachi.

Today his son, Afsar Ali, heads the firm as managing director, a position he has held since his father's death in 1968. Mushko and Co. has represented Hewlett Packard in Pakistan for more than seven years, handling all product lines except computer systems.

Heavy purchases by the Pakistan government prompted establishment of a second office in Rawalpindi, which is the twin city of Islamabad, the capital. Ali Jafari, who became Mushko's sales manager for HP five years ago, makes his headquarters in Rawalpindi. Many headquarters people remember meeting Ali (minus beard) during his extensive training program in Palo Alto in 1970 and 1973.

Pakistan was originally founded as a Muslim nation (97% of the present population is Muslim) within the British Commonwealth. Although Pakistan withdrew from the Commonwealth in 1972, traces of British conservatism and formality still mark the business style of the country.

Already one of the world's leading exporters of cotton yarn and cloth, Pakistan is making real progress in diversifying its manufacturing sector. In recent years the country has overcome such headline producing events as the civil war of 1971 and a severe flood to put in an economic performance that compares favorably with the record of other developing countries.



Afsar Ali

Ali Jafari (left), Nargaz Ali (Afsar's sister), and Shafiq Ahmed of Mushko.



Indonesia

This island sales territory is anything but languorous

Imagine a sales territory chopped into more than 3,000 mountainous islands which are spread across an area of the ocean wider than the continental United States.

Imagine a great diversity of people, languages and cultures.

That is Indonesia, the fabled "Indies" which Christopher Columbus was attempting to reach from the west when he accidentally discovered America.

Through the centuries Indonesia has attracted traders from many countries who have set up thriving commercial outposts on the islands. Today the country has a booming economy of its

own, with oil reserves providing the money to finance rapid growth.

The dynamic atmosphere of modern Indonesia industry suits HP's local distributor just fine. Headed by an aggressive young management, Berca Indonesia P.T. is growing rapidly itself. The firm is located in the capital city of Djakarta, on the island of Java, which is the center of commerce for the country.

Berca handles all HP product lines (with the exception of computer systems), and many of the firm's personnel have been to training programs both in the United States and in Singapore since it became HP's distributor last year. President Benny Gunawan received his own education as an electrical engineer in the states. Agus Hendrosusanto, general manager, spent many years working for high technology firms in Australia prior to returning to Indonesia.

Berca participated jointly with HP in the ASEAN Congress of Cardiology held on the island of Bali in October.

Too bad about Columbus. He should have kept on going!



Indonesia: Agus Hendrosusanto, general manager of Berca.



President Benny Gunawan



Tan Tek Houw (left) and Lucia Damayanti are calculator field engineers for Berca.



The Bangalore staff poses in the yard of Blue Star's vine-covered building.



B. L. (Reni) Renavikar, Delhi office manager, at the blackboard with sales staff: (l. to r.) V. V. Ramanan, Dilip K. Mitra, Dayal S. Duggal, Mohan Miglani, Ashok K. Verma, Sharad C. Agarawal.

India

It all began with popsicle machines for Blue Star

When Blue Star Limited celebrated its 30th anniversary in 1973, founder Mohan T. Advani was interviewed about the company's early days.

Yes, Chairman Advani reflected, it was an achievement for Blue Star to grow from a two-man, hole-in-the-wall operation in a leaky shed on the Bombay docks to a 2,000-man, all-India enterprise.

"But I'm more proud of our intangible assets," he said. "We are a thoroughly professional organization; what we do, we do well. We are dedicated to excellence. And most important, we have maintained the personal touch, the intimacy of a small company, the sense of belonging."

When M. T. Advani passed away in 1974, his brother and early associate in Blue Star, B. T. Advani, became

Chief Executive.

The firm began by reconditioning refrigerators but soon switched to manufacturing commercial refrigeration equipment, first producing popsicle machines and then adding other products. It is now India's leading exporter of water coolers.

In 1946, as foreign trade conditions

eased, Blue Star began securing selling rights in India for leading American manufacturers of air conditioning and refrigeration equipment and through the years added other fields: power plant equipment, tooling and testing machinery, business machines, instruments. It now has 10 offices located throughout India.

Air conditioning and refrigeration remain the company's main line of business; Blue Star installs systems in major commercial and industrial facilities throughout India and exports complete central air conditioning plants to locations as far away as Penang.

The Hewlett Packard Department started in 1970 has had phenomenal sales growth. It is headed by Gulab Ramchandani, who was the moving force in adding HP to some three dozen companies represented by Blue Star. Ani Ghosh is sales manager for HP electronics. (IPG Staff Engineering Manager Wes Wickham serves as ICON's India representative.)

What Blue Star does, it does very well indeed.



Executive Director Gulab Ramchandani



Part of Calcutta's HP section: (l. to r.) S. Rodrigues, V. K. Jain, G. Jayanty and R. V. Sashikala.



H.N. "Sethu" Sethuramaiah (right), service manager for India, at his desk in Bombay.



C. S. Anandaram (right), medical sales manager for Blue Star, talks with Sy Corenson at Bombay headquarters.

HP Singapore and HP Malaysia now employ more than 2,300 people in three factory locations

The management structure of HP in Southeast Asia has been evolving since the company first made its decision to establish a manufacturing operation in Singapore in 1969.

Today Hewlett Packard has two legal entities—HP Singapore and HP Malaysia—and three manufacturing plants in Southeast Asia. Tom Lauhon, managing director of Southeast Asia Operations, serves as general manager of both subsidiaries as well as wearing the corporate hat of "Mr. HP" in the area.

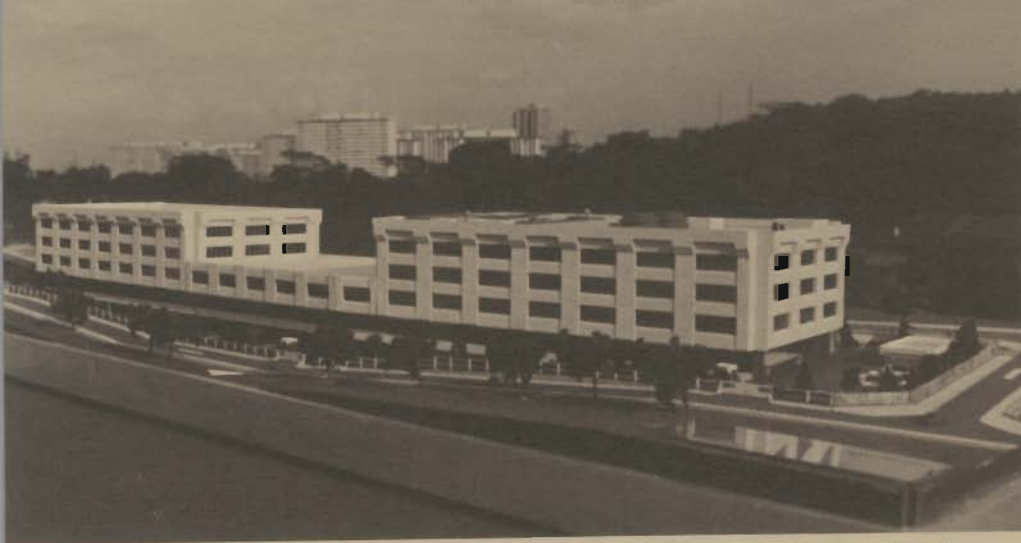
Tom's days are centered on financial, legal, personnel, government relations, and similar administrative matters involved in running an operation employing more than 2,300 people in Southeast Asia. HP now leases two manufacturing facilities in Singapore which will be phased out when HP Singapore's own building (now under construction) is occupied in early 1977; Tom is concerned with all stages of planning and changeover. (HP Malaysia already owns its own building in Penang.)

Key members of the SEA Operations staff are: Dennis Raney, administrative manager; George Gaspar, personnel manager; Bill McMahon, construction manager; Koh Loke Seng, Singapore facilities manager; and Teng Ong Keok, Penang plant manager. Manufacturing operations have been verticalized as listed in the box on the opposite page.

Embodying the corporate image of Hewlett Packard involves Tom in a variety of other activities. It is not unusual for his calendar to include an appointment to award a HP55 to the top engineering student at Singapore University . . . a board of directors meeting of the American Business Council, an unofficial group which acts as a sounding board to the Singapore government on matters affecting the 450 American companies there . . . judging a design competition for a local university.

Tom also serves on the board of directors of the Applied Research Corporation, a non-profit government research firm modeled after Stanford Research Institute.

How does Hewlett Packard fit into Southeast Asia?



Superimposed on a photo of the Singapore skyline is a model of the complete HP facility proposed for the city's Telok Blanga section. The four-story section at right will be constructed as soon as contract is signed (the first phase of preliminary grading work is underway, see page 11). Initial building will have about 190,000 square feet, house both manufacturing and sales activity.



Tom Lauhon (center) is managing director of Southeast Asia Operations and "Mr. HP" in the area. At left is Teng Ong Keok, HP Malaysia plant manager in Penang; Dennis Raney, SEA administrative manager, has his back to the camera.



Singapore manufacturing.



George Gaspar discusses personnel matters with Maria Malik visiting from Penang.

Southeast Asia Operations

Singapore

When new companies are considering settling in Singapore, government officials are likely to suggest a visit to look over Hewlett Packard's two manufacturing facilities in the area.

HP is considered a model neighbor by the Singapore government, which is encouraging the establishment of high-technology firms in order to upgrade employment opportunities for the large pool of available labor. More sophisticated manufacturing processes of course mean more training and development of employees.

One concern of the government is the large number of employees laid off by the local electronics industry as a result of the 1974-75 business slowdown. In addition, some 30,000 young people leave school each year, swelling the numbers of unemployed. HP's commitment to retain employees and, if necessary, reduce work hours temporarily, has therefore been noted with approval.

Hewlett Packard in turn has found Singapore an accommodating place in which to do business. The government has thrown doors open to capital and technology from abroad, passing crucial laws to attract and retain manufacturing establishments. A recent "Clean and Green" campaign is typical of governmental emphasis on raising the standard of living—Singapore is already a healthy place in which to live and has a high level of education. A global city, it is the major banking, shipping, and oil refining center for the Far East.

Penang, Malaysia

The Penang government cordially welcomed Hewlett Packard when the decision was made to establish a subsidiary there in October 1972. It provided space for a training and manufacturing center until the company could set up its own quarters.

Within a few months, construction was completed on the present 40,000 sq. ft. facility in the Bayan Lepas free trade zone located ten miles out of town. This complex is considered a first step toward the urbanization of the fringe rural areas of the island. (Penang, which is one of 11 states in peninsular Malaysia, includes both the island where the HP plant is located and mainland territory.)

Since the plant is more than a bike ride from Georgetown where most workers live, HP provides a fleet of free buses. Hewlett Packard is considered a model company in Bayan Lepas.



In Penang: blue uniforms and free HP buses (below).



WHO RUNS SEA MANUFACTURING OPERATIONS:

HPA Manufacturing Manager: Dick Chang

Reports to: Bob Zettler, Optoelectronics General Manager (HPA)

Products made in SEA: Optoelectronic components, hot carrier diodes

Sites: Redhill Plant (Singapore) and Malaysia Plant (Penang)

APD Manufacturing Manager: Lew Cantwell

Reports to: Ray King, APD General Manager
Products made in SEA: Consumer calculators, integrated circuits, battery chargers, plastic molded parts

Site: Lower Delta Plant (Singapore)

HP Malaysia Plant Manager: Teng Ong Keok

Reports to: Tom Lauhon, General Manager, SEA
Products: Optoelectronic components, hot carrier diodes, computer core memories
Site: Bayan Lepas Free Trade Zone (Penang)



A message from the director:

PROGRESS • PROGRESSO • PROGRESO • VOORUIT

Everyone throughout Intercon can take a great deal of pride in the recent completion of our first production of HP 21 calculators at HP's new manufacturing facility in Campinas, Brazil.

The decision to establish a manufacturing facility in Brazil started over two years ago with Carl Cottrell's almost single-handed efforts to focus HP's attention on Latin America as the next suitable international manufacturing location. Today, we have a full manufacturing operation capable of meeting the Latin American market's requirements for hand-held calculators and selected medical products.

The management team in Campinas is headed by Guenter Warmbold, with

In Campinas, Brazil, the first hand-held calculators have come off the line. Below, Solange Jaquis.

Joe Conrad (Manufacturing Manager), Stan Whitten (Administrative Manager), Odmar Almeida (Factory Marketing Manager), Earle Ellis (APD Production Engineer), Harry McLean (Medical Products Production Engi-

neer) and Maria Kapez (APD Product line lead). All of them deserve a "well done" for an outstanding performance in converting, with remarkable smoothness, a rather nondescript warehouse into a typical HP facility. The first



GANG • KEMAJUAN • 進步

shipment from Brazil to Venezuela was made the week of September 8th, marking the factory's first official shipment and the real beginning of their business life.

While I was in Brazil recently to witness the first calculators come off the Campinas line, I also had the honor of participating in the groundbreaking ceremony for our new sales headquarters located outside of Sao Paulo in a new commercial/residential community called Alphaville. Here again, the event was the culmination of over two years of effort on the part of Intercon and HP do Brasil management to insure that we continue to keep pace with the booming Brazilian economy. I would specifically like to single out the activities of Skip Law (Corporate Construction), who has made several visits to Brazil to help with the project. Skip will be supervising the construction project which has been awarded to the Austin Company. When completed in August 1976, the new facility will provide 60,000 square feet of office space.

Joining me for the August 22 groundbreaking were Luiz Barata (general manager of our Brazilian sales company), Ary Santos (Instrument Group sales manager), Guilherme P. Guglielmo (mayor of the township of Barueri), and Pablo Lorenzo (president of Austin do Brasil).



Groundbreaking outside Sao Paulo, Brazil, for new sales headquarters in Alphaville. Guilherme P. Guglielmo, mayor of the township of Barueri, wields shovel under watchful eyes of (l. to r.) Pablo Lorenzo of contractor's firm, Alan Bickell, Luiz Barata. Skip Law (photo at left) of Corporate Construction helped plan the residential/industrial park.

Alphaville is an exciting project in itself. It is an entirely new development on the outskirts of Sao Paulo and has been patterned after the Stanford Industrial Park with the assistance of Skip Law and HP. An architectural review committee will carefully control construction there, and the result should be an extremely attractive commercial community. HP is the first to build there, although many other sites have now been sold.

From Brazil, I went to South Africa in order to review our plans for the coming fiscal year. During my visit, the subject of growth again came up as we reviewed the recent acquisition of land for the future development of a South African Sales Headquarters. The 12-acre site is at an excellent location on the main highway between our two biggest markets, Johannesburg and Pretoria. Our plans are to develop the site in FY77 to meet South Africa's space requirements in 1978.

Not to be outdone by any of their Latin American or South African colleagues, our Singapore management team has moved ahead to implement approved plans to construct a 190,000-square-foot manufacturing facility in Singapore. When completed, this facility will replace the two leased buildings which presently house our manufacturing activities there. We anticipate completion of the project by January 1977, when we will then be able to consolidate all our manufacturing and sales activities at one location.

All of these projects are visible proof that Intercon is on the move and that we are aggressively matching HP's growing market demands with new facilities as well as talented people.

LANGUAGES IN ORDER OF APPEARANCE IN HEADLINE: ENGLISH, PORTUGUESE, SPANISH, AFRIKAANS, MALAY, CHINESE.

First phase of construction in Singapore. (Buildings seen at left are apartments.)



NEWS from around ICON . . .



Les Lawrence of HP Australia makes a point with a visitor to the HP booth at Congress of Medicine exhibit in Singapore.

Congress of Medicine Exhibit

Singapore should seize the opportunity created by the jet travel age to become a regional center for specialist medical treatment, Prime Minister Lee Kuan Yew said in his opening address to the 10th Annual Singapore-Malaysia Congress of Medicine.

He pointed out that this could happen only if equipment and personnel were available to back up efforts of resident and visiting medical specialists.

The Congress was held August 21 to 24 in Singapore under auspices of the Academy of Medicine of that city. Hewlett Packard Singapore exhibited a full line of medical products in the accompanying trade show.

The booth itself was constructed locally under the direction of Robert Tang, field engineer of HP Singapore, who manned the HP medical exhibit with help from personnel drawn from HP Australia, Korea, and HPIC.



F. T. Lu of HP Taiwan gets a handshake from Bob Brunner, IPG marketing manager.

IPG/Components Sales Meeting

This year for the first time the HPIC IPG/Components Sales Management Meeting and Quota Setting Session included a visit to the major divisions in the Instruments Group for discussion of sales plans and a chance to see some of the products in the development stage.

The schedule from July 28 to August 15 was packed with a succession of visits with factory marketing people at Colorado Springs, Loveland, San Diego, Stanford Park, HPA, Santa Clara and Santa Rosa along with presentations on behalf of six other divisions.

The final week in Palo Alto concentrated upon arriving at 1976 quotas.

Attendees included Tony Cookes, Australia; Ary Santos, Brazil; Ani Ghosh, India; Yehuda Kapelner, Israel; Toshimitsu Suwa and Masao Terazawa, Japan; Wayne Squires, New Zealand; Chuck Bonza, South Africa; F. T. Lu, Taiwan; Augusto Cabana, Venezuela; and Antonio Castro, Mexico.



(From l. to r.) Hudiono Prasetyo, Phee Swee Hong, Loh Ah Sze, Thomas Ong, Shafiq Ahmed.

FEA Medical Sales Seminar

Product training, including working labs, was featured at the 1975 Far East Area Medical Sales Seminar held in Singapore from August 26 through 30.

Since Ed McDonald, marketing manager at the Waltham Division, was visiting the Far East Area, he instructed part of the seminar. It was a completion of last year's program on physiology applications and sales techniques.

Other instructors were Andy Peet, training manager from Waltham, and Ted Ogrey of HPIC's Medical Products Group.

Representing distributors were Kisok Sim, Korea; Irwan Santoso and Hudiono Prasetyo, Indonesia; D. Jarvis and B. Y. Lee, Hong Kong; Viboon Sriprasert and Soontorn Watanayon, Thailand; Shafiq Ahmed, Pakistan; and Thomas Ong, Malaysia.

Also attending the sessions were Leif Karlsson and Les Lawrence from HP Australia; Robert Tang, Loh Ah Sze and Phee Swee Hong from HP Singapore; and Rayene Young from HP Taiwan.



Computer
 Dr. Terman (middle left) in main KAIS electrical science teaching lab with Dr. S. B. Park and Dr. J. W. Ra, department chairman; (photo below) he shows Professor Shun-Chiu Lee from Taiwan through Stanford's television studios.



SPOT
 LIGHT

TERMAN

Dr. Frederick Terman of Stanford helps build another "community of technical scholars" in South Korea

When an American survey team headed by Stanford's Dr. Frederick E. Terman visited the Republic of Korea in 1970 to study the proposed establishment of a new institution for graduate education in applied science and engineering, the final paragraph of the survey report looked toward the future.

"One can have big dreams," the report stated, envisioning that the first degrees would be awarded by the institution in 1975 and the concept of a purely graduate school emphasizing the solution of real-life engineering problems would become a model for similar institutions in other countries.

This August, on schedule, the first class of 93 graduates filed across the stage to receive master's degrees from the Korean Advanced Institute of Science (KAIS).

The Korean government, which has been developing new institutions to support the country's science-based industries, had pushed the KAIS project vigorously. A six million dollar loan was obtained from the U.S. Agency for International Development, ground broken in 1971 for a new campus in Seoul's Science Park, and the first class admitted in March of 1973. KAIS has set high standards for its faculty and is attracting the country's ablest students who have received bachelor's degrees in engineering and science.

Fred Terman, now 75 and semi-retired after a distinguished career as an educator and administrator at Stanford University, has continued to serve as an advisor to the new school.

As a member of the KAIS Board of Trustees he visits Korea at regular intervals.

A block away from Terman's office at Stanford is the U.S. Coordinating Office which backs up KAIS by arranging for equipment procurement and visiting faculty. (A great hit was made by a Stanford mechanical engineering professor who began his class by having the Korean students take apart a bicycle to understand the mechanism.) Professor Grant Ireson, immediate past chairman of Stanford's Industrial Engineering Department, serves as Deputy Project Director.

With the U.S. coordinating activity of KAIS located on the Stanford campus, visitors from Korea are frequent. Last year the twelve top engineering and science educators in Korea—including the Korean Minister of Science and Technology, Dr. Hyung Sup Choi, and the President of KAIS, Dr. Soon Tahk Choh—attended a seminar at Stanford as part of a U.S. swing sponsored by the National Academy of Science.

Helping make big dreams come true is a familiar story to Fred Terman. He has been a prime mover in developing Stanford as the geographic center of some 800 high-technology firms located on the peninsula below San Francisco.

Stanford wasn't always in such an enviable situation, however. When Dr. Terman introduced instruction in electronics at Stanford with a course in "radio" during his first year of teaching in 1926, the electrical engineering department's brightest graduates went

east to find jobs since few opportunities existed on the West Coast. By 1937 Terman was department head and encouraging members of his faculty and young graduates to strike out on their own as entrepreneurs in the agreeable California setting.

Bill Hewlett and Dave Packard were among those who followed the advice to start their own company. Both had received undergraduate engineering degrees from Stanford in 1934. Bill stayed in the academic world, interrupting work toward an advanced degree at Stanford to get a master's degree from M.I.T. After returning to Stanford he developed HP's first product, a laboratory oscillator, as a project for his Engineer's Degree in a graduate seminar under Terman.

Dave, already established in a promising career with General Electric in New York state, was offered a stipend of \$55 a month by Terman to resume his own studies at Stanford as a half-time research assistant in order to work on the side with Bill exploring commercial development of new instruments.

From their modest start in 1939 with a manufacturing operation in a garage behind the Packard home in Palo Alto has grown a worldwide company.

Fred Terman, busy with a career that led him to become Dean of Engineering and then Provost and Vice President of Stanford, continued his close association with HP. In 1957 he was among the first outside directors named to the company's

Continued on page 14

board, becoming director emeritus in 1973. (This fall, ground will be broken at Stanford for a new Frederick Terman Engineering Center—a gift from Mr. and Mrs. William R. Hewlett and Mr. and Mrs. David Packard.)

The first expansion of new companies in the vicinity of Stanford took place in the late 1940s. It was a period when Terman, who had been named dean of the Engineering School in 1946, was initiating a vigorous program of graduate work in engineering built around sponsored research directed by a top-flight faculty. The 1960s brought an explosion of new ventures and today the area has become the nation's most conspicuous gathering of scientific frontiersmen.

The sophistication of the work going on in these mid-Peninsula laboratories bears out Fred Terman's view that engineers today must continue their studies beyond the bachelor's degree in order to be effective in technologically oriented careers.

"An engineer must be the master of a much greater fund of technical knowledge than was true fifty years ago if he is to work on the more interesting and significant contemporary problems," Terman has said. At the present time, nearly half of the engineers who graduate with a bachelor's degree from U.S. colleges do go on to get a master's degree.

To meet the needs of local engineers who wanted to continue their studies while holding down a job, several mid-Peninsula universities set up programs for part-time advanced study. Stanford's School of Engineering started an Honors Cooperative Program in 1954 which has awarded more than 1500 graduate degrees in engineering to part-time students from local industry.

Stanford has since broadened participation in the program by adding live broadcasts of instruction to 120 classrooms in 33 nearby locations (including HP facilities in Sunnyvale, Santa Clara, Cupertino and Palo Alto), using talk-back by radio or telephone to answer students' questions.

More remote locations outside the transmission area are served by videotapes, supplemented by a local tutor familiar with the course. One popular feature is "instant replay" of any portion of the videotape which isn't clearly understood. Stanford chose HP's Santa Rosa plant to pilot videotape instruction, which is now available at the company's San Diego and Boise facilities as well.

The easy give-and-take which exists between industry and Stanford's research-minded engineering faculty and students takes other forms:

- Seminars at Stanford are open to

the general scientific community and often feature guest speakers who are doing interesting work in local industry. Scientists from nearby firms also teach occasional classes at the university or serve as summer school faculty members.

- Stanford professors provide a local panel of technical experts, serving as consultants or board members for numerous Peninsula high-technology companies.
- Affiliate groups of firms in the fields of aeronautics and solid state physics help underwrite the salaries of additional faculty members and provide industrial fellowships for graduate students.
- Highly trained young scientists move in a steady stream from campus laboratories into jobs in nearby industrial firms already familiarized with their work.

The result is a new counterpart of the medieval communities of scholars which grew up around centers of learning, or *universitas*. Fred Terman uses the term "community of technical scholars" to describe this modern combination of a university with a strong program in engineering and science surrounded by companies emphasizing research and development with continual interaction among all of the components—some formal, some informal, some organized, others unorganized.

Having seen this concept work brilliantly in the vicinity of Stanford, Dr. Terman is helping foster similar interaction between the academic and industrial worlds in Korea. The first graduates of KAIS all had jobs waiting for them as they stepped off the stage with their master's degrees in hand. Their future contribution to Korea's technological development will of course be watched with great interest.

That "big dream" is making distinct progress in Korea.

INTERCOM

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What originally began as an idea to hold a working session on HP instruments for the telecommunications industry in Brazil turned into a major production by the time the Telecommunications Semina was actually held in July.

Telebras, a government-owned holding company which controls the 26 individual state telephone companies in Brazil, was interested in making information on new equipment widely available. The Brazilian government has made a major commitment to develop the country's communications network in this emerging country and Telebras forecasts an investment of about 10 billion dollars in the next five years. (Embratel, the long-distance arm of Telebras, now operates 11,500 Kms of high capacity line microwave links, 5,100 Kms of 120 channel troposcatter systems, and 600 Kms of low capacity UHF system. It plans by 1980 to operate over 55 million Kms of voice channels, an increase of more than 3.4 times the present 16 million Kms.)

HP Brazil therefore decided to repeat the same five-day seminar in each of three important centers—the cities of Brasilia, Rio de Janeiro, and Sao Paulo—and expand the invitation list. The three seminars drew a total of more than 230 participants from public telephone companies, laboratories and universities doing communications research, and industrial firms related to the communications market.

Among the dignitaries involved were Brazil's Minister of Communications and the Secretary of that ministry; the presidents of Telebras and Embratel; and the president of each city's state telephone company (Telebrasilia, CTB, and Telesp).

Bill Terry, vice president and general manager for the Instrument Group, headed the 11 HP people from the United States and U.K. who took part. The six IPG divisions represented were Stanford Park, Loveland, Santa Clara, Santa Rosa, Colorado Springs and HP Ltd. (Scotland).

Instrument Group Sales Manager Ary Santos and IPG District Managers Sergio Mendez (Rio) and Odmir Almeida (Sao Paulo, now transferred to HP Campinas) handled logistics on the Brazilian end. Jose (Pepe) Grapa, Latin America regional sales manager for IPG at ICON in Palo Alto, was responsible for seeing that 67 boxes of instruments and 20 boxes of literature were shipped from the United States on schedule. After each of the first weeklong seminars, the equipment was re-boxed and sent by air to the new location to be set up over the weekend.

The combined effort which went

into the seminar—Brazil's IPG group were involved with it for seven months—was noted appreciatively by the president of Telebras in addressing the seminar's opening session.

"It is the first time," he said, "that a Brazilian subsidiary of a multi-national company has been able to obtain such impressive support from their headquarters, local divisions and foreign affiliate in order to render this service to Brazilian customers—an example that we hope will be imitated."



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1. Gen. Jose Antonio de Alencastro e Silva (right), president of Telebras, addresses opening session. With him at podium are Bill Terry (center), Luiz Barata. 2. HP participants hold final planning session. 3. Minister Euclides Quandt de Oliveira (center) of the Communications Ministry visits Brazilia seminar. To his right, Odmar Almeida and Dr. Areno Pires, president of Telebrasilia. 4. Secretary Romulo Vilar Furtado (right) of Communications Ministry talks with Odmar. 5. Telebras cocktail party, Brazilia. 6. Haroldo Correia de Matos, president of Embratel, welcomes Bill Terry. At rear, Sergio Mendez (left), Pepe Grapa. 7. Bill Terry addresses Rio seminar. At right, Eng. Jose Nunes Camargo, president of CTB. 8. Larry Johnson of SACL conducts session. 9. Renato Terada of Sao Paulo office servicing the seminar equipment. 10. John Fischer (left) of LTD and Fernando Guimares (right) of HP Rio demonstrate HP equipment to Ney Wolkner of SESA. 11. Telesp's president, Dr. Antonio Salles Leite (second from right) and Helio Jose da Costa Lanna (right), administrative director, visit Sao Paulo seminar. 12. (From left) Blake Peterson and Peter Linden of Santa Rosa, Ceferino Rodrigues of HP Rio and seminar attendees. 13. Rex Berg, Colorado Springs, on guitar. 14. Ary Santos awards final diplomas.

**DESIGN
for a
seminar:**



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Edited . . .
by the Editor



The major problem we encounter when attempting area coverage (previously done with Latin America and now the Far East) is selecting and reducing the volume of data and photos collected for that purpose. We could easily devote an entire issue of INTERCOM to each country without telling the whole story.

Our compliments and appreciation go out to everyone who made such gallant efforts to provide us with sufficient insight and visibility into their home ground. Conversely, we apologize for not having more space to devote to each contributor. The unused information and photos will be carefully tucked away in the INTERCOM morgue for future reference.

The warmth one feels when visiting these now not-so-distant places comes in unexpected ways—frequently via those unanticipated problem situations that our good friend Reni Renavikar (the Delhi office manager for Blue Star) chooses to call “a fortuitous adventure.” Traveling from Delhi to Agra in order to pay homage to what



Taj Mahal

BY CORENSON

has to be this world's most beautiful structure, the Taj Mahal, my vehicle was inundated by a late season monsoon. It gave me a great opportunity for undisturbed conversation with the proprietor of a struggling cafe. Many cups of coffee and cheese sandwiches later I was cordially sent on my way, when the ignition system dried out, with an absolute refusal to accept payment for my refreshments.

The return trip was equally eventful. The fuel line sprung a leak forcing me into a new “adventure” of being stranded on a narrow, busy road for 2½ hours as a conspicuous but seldom lonesome westerner. I felt very “Indian” trying to talk with travelers using less sophisticated but more reliable vehicles such as bicycles, three-wheeled pedicycles and even camels. Long-lost Hindu terms began to return from the depths of my memory but they were hardly necessary. I found that friendly communications are possible and in some ways more meaningful without speaking. Covies of Kelly green parakeets in flight and a peacock which seemed to display his bouquet of tail feathers for me made the time pass much too fast.

May all our visitors to the United States experience the same warm sense of being welcome in a new environment.

SEEING TO IT . . .

. . . that sales orders from the Far East are turned into shipments is the responsibility of these Palo Alto order processors.



Row 1. Far East Area Manager Ingrid Powell (currently on maternity leave; vital statistic: Courtland Ellis Powell, born September 26, 1975, 6 pounds 9 ounces). Row 2. Nancy Holloway (FEA Parts Supervisor), Sue Gibbs, Maria Bunce, Helena Leonard, Diane Medgin. Row 3. Marsha Helland, Rita Butler, Jonny Ince, Louis Costanza, June Bye (FEA Instruments Supervisor). Row 4. Wil Dach, Biki Sharma, Anna McRae, Sue Hief, Lily Smith (Group Lead).

ICON Quarterly Calendar

November 1975 through January 1976

Computer Systems Senior Sales Seminar
Cupertino, U.S.A.
November 3-6

Computer Systems Level II Neophyte
Sales Seminar
Cupertino, U.S.A.
November 12-23

Corporate Neophyte Seminar
Palo Alto, U.S.A.
November 26-30

First Chemical Congress of the
North American Continent
Mexico City
November 30 - December 5

ICON Expanded Operations Council Meeting
Palo Alto, U.S.A.
December 1-12

ICON Sales Region Annual Review
Palo Alto, U.S.A.
December 2

ICON Calculator Application Engineers Seminar,
Part II
Palo Alto and Loveland, U.S.A.
January 5-23

Health Industry Exposition
San Juan, Puerto Rico
January 28 - February 2