

Bruce Crockett Named President, Chief Operating Officer

COMSAT Chairman and CEO Irving Goldstein announced April 19 Bruce Crockett was named President and Chief Operating Officer of the corporation and the appointment was effective immediately. Crockett will report to Goldstein.

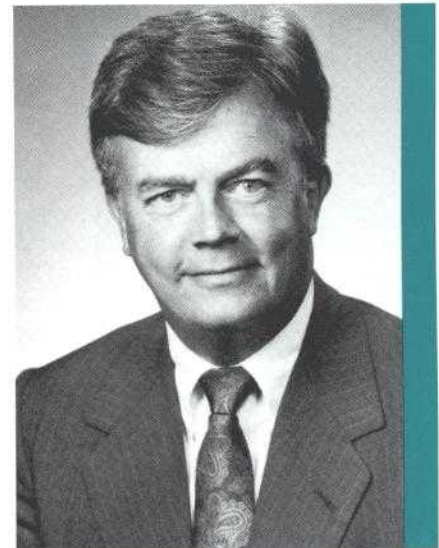
All of COMSAT's operating units, COMSAT Systems Division, COMSAT Video Enterprises, Inc., COMSAT World Systems Division and COMSAT Laboratories, will report to Crockett in his new position. The corporate staff will continue to report to Goldstein.

"As our businesses have grown and become more complex and competitive, we face a host of domestic and international regulatory issues, marketing opportunities and strategic decisions," said Goldstein. "Bruce's track record, experience and abilities will be a tremendous asset to me and the entire corporation."

The position had been vacant since 1987 when Goldstein assumed the post of Chairman and CEO upon the retirement of Dr. Joseph Charyk. Goldstein had assumed the duties of President and Chief Operating Officer since then. Crockett had been the President of COMSAT's largest business unit, the World Systems Division, since February 1987.

In 1980 he joined COMSAT as Vice President, Finance and Treasurer of COMSAT General. In 1981 he became Vice President and Treasurer of COMSAT, and in 1983 Vice President and Chief Financial Officer. From 1986 to February, 1987 he was Vice President and General Manager of Intelsat Satellite Services.

In June 1990, he was elected Chairman of the Board of Governors of



Bruce Crockett

INTELSAT. His term ends next month.

Before coming to COMSAT, Crockett held several financial management posts with Martin Marietta, including Treasurer of Martin Marietta Aluminum, Assistant Treasurer of Martin Marietta and Director of Financial Planning.

He received an AB in Economics and Geography from the University of Rochester in 1966 and an MBA in Finance from Columbia University in 1971. He also holds a BS in accounting from the University of Maryland.

A Trustee of the CIGNA Funds Group and CIGNA Annuity Funds Group he also serves as a member of the Board of Directors of INA Investment Securities and CIGNA High Income Shares.

His wife Gail, and their two sons live in McLean, Virginia.

FINANCIAL RESULTS

Revenues Rise 15 Percent, Net Income off Slightly From First Quarter 1990

The corporation announced April 22 consolidated net income for the quarter ended March 31, 1991, was \$18.5 million or 98 cents per primary share, a decrease of \$.4 million or 3 cents per primary share compared to the first quarter of 1990.

Revenues for the first quarter of 1991 were \$126.9 million, an increase of \$16.1 million (15%) from the first quarter of 1990. Operating income was \$33.3 million, an increase of \$9.2 million from the same period in 1990.

The increase in revenues came primarily from the World Systems Division, but all segments showed growth from the first quarter of 1990. All segments also saw improvement in operating income from the first quarter of 1990. The operating income growth was largely due to increased revenue in the World Systems Division, reduced depreciation and other expenses at COMSAT Video Enterprises as a result of the restructuring of the hotel

business in the fourth quarter of 1990.

As anticipated, the increase in operating income was offset by increased interest expense (as the corporation is capitalizing a lesser amount of interest cost) and a reduction in interest and other income.

"Significantly," said Irving Goldstein, Chairman and CEO, "we appear to have turned the corner on COMSAT Video Enterprises. Clearly the decision we made last quarter to restructure the business was the right one and we are pleased with this one quarter performance," he added.

The corporation also announced the declaration of a regular quarterly dividend of 33 cents per share, payable Monday, June 10, 1991, to shareholders of record Friday, May 10, 1991. The dividend is the 83rd consecutive quarterly dividend declared by the corporation to its shareholders.

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CSD Unit Forms Turkish Venture To Provide IBS Services

COMSAT Systems Division (CSD) announced in March it signed an agreement, through a subsidiary, with the Turkish General Directorate of Posts, Telegraph and Telephone (TPTT) to launch a new telecommunications service venture in Turkey.

Also party to the agreement, and CSD's partner in this venture, is the Turkish telecommunications marketing firm, YELPRO Project Development Investment Electronics Industry and Trade, Inc. (YELPRO).

The new joint venture corporation will enable the TPTT to introduce digital satellite-based business communications services to connect multinational corporations in Turkey with their offices abroad. The service, known as IBS — International Business Service — is designed to meet a broad range of business telecommunications needs including high-speed data transfer, facsimile, videoconferencing, and private voice communications.

In recent years, Turkish business communications needs have increased substantially in volume and in the speed and accuracy with which business information must be transferred. IBS will enable international companies and institutions in Turkey to meet these new demands. Services are expected to begin in the third quarter of 1991.

"In today's competitive and global marketplace, businesses require high quality, cost effective communications services to survive," said Joel Alper, president, CSD. "This venture was formed to specifically address that need by joining with the TPTT and COMSAT to bring market experience and proven satellite communications technology to Turkey."

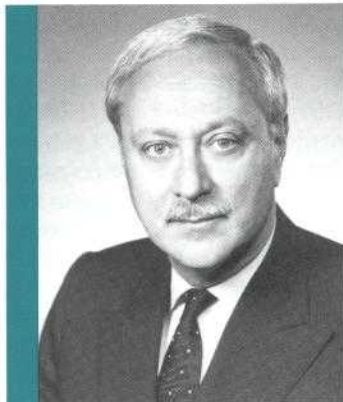
During the past two years, COMSAT has developed similar joint ventures offering digital satellite services in Chile and Argentina. SATEL, a joint venture with ENTEL/Chile, offered the first IBS gateway out of South America. SATELITAL, a joint venture with IATA/ALCATEL offers domestic private line services via digital satellite links in Argentina.

HONORS

Queens College Honors Goldstein With Prestigious 'Q' Award

COMSAT Chairman and CEO Irving Goldstein will be presented with the second annual 'Q' award from his alma mater, Queens College to honor him for his commitment to improve public education and public service. The college cited Goldstein for the COMSAT-funded, \$1.1 million alliance to create a "School of Distinction" in math and science at Jefferson Junior High School.

"Corporate America has a rather hollow role to play in society without a vigorous commitment to public service. Support for education is a vital part of what COMSAT stands for and it's an honor to be recognized for it," Goldstein said.



Irving Goldstein

The award will be presented to Goldstein at the Second Annual Q Award Benefit Gala, June, 6 at the Marriott Marquis Hotel in Manhattan. Proceeds from the gala will be used to provide scholarships, purchase laboratory equipment and provide

research support for the students and faculty of the school.

Honored with Goldstein will be James Preston, Chairman and CEO of Avon Products, Inc. Preston, known for his contributions as a director and member of several national boards as well as a career business executive, is



being recognized for his initiative in promoting the cause of diversity in American business.

The Q Award was created in 1990 to honor individuals who "reflect the qualities that Queens College wishes to nurture in its students." Last year, Warren Phillips, chairman of Dow Jones & Co., received the award.

COMSAT Joins Maryland Space Business Roundtable

Founded in September, 1990, the Maryland Space Business Roundtable was created to foster the continued growth and development of the space industry in the state. COMSAT, with its facility in Clarksburg, is one of the major players in the space business of the state and serves on the organization's board of directors.

Space and space related industries are a booming business. Total revenue for the industry was about \$2.7 billion in 1990. While other federal budgets are cut, government spending for space continues to grow with the NASA budget projected at \$14 billion, and the Department of Defense spending \$19 billion on space in 1991.

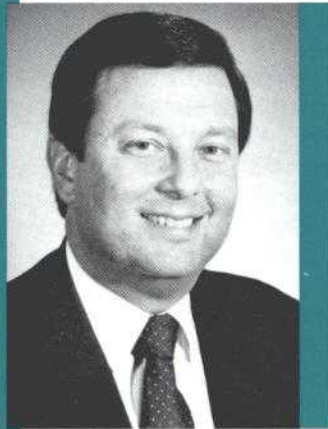
Maryland has rapidly developed into a leader in the commercial space industry. More than 750 space related industry and service companies call the state home, which also hosts more than a few government space-related facilities including the Goddard Space Flight Center. Info on upcoming events sponsored by the group will appear in News Update.



An Interview With COMSAT's Ron Mario

Following the launch of the second Inmarsat-2 satellite, COMSAT Vice President and General Manager, Mobile Communication Ron Mario was interviewed by Satellite News Assistant Editor Angela Duff. An excerpted version of that interview follows:

"I think the designers of the system created a document that gives you flexibility" says Mario about Inmarsat. "We haven't had a problem accomplishing anything."



Ron Mario

Satellite News (SN): What effect will the Delta 2 (Inmarsat-2) launch have on COMSAT/Inmarsat mobile satellite services capacity?

Ron Mario: The satellites that are going to be launched over the next year will carry about 250 channels of capacity. We are operating a

satellite in the Atlantic east region that has 48-50 channels. We are going to end up with 4-5 times the capacity we currently have. We have reached a point in the Atlantic Ocean Region where it really is crucial to get this particular satellite up.

SN: Do you think the mobile satellite services marketplace is a competitive arena?

Mario: Absolutely. It's been competitive for a long time. Within the Inmarsat system, it is designed so while everyone uses the same space segment, we all compete for end-user service. Anyone who can see the satellite and has a ground station can be a competitor. The system was designed to be intra-competitive. Secondly, there are several forms of communication that can be used—communicating via HF radio, cellular, etc. The marketplace is more competitive.

SN: What challenges and opportunities does COMSAT envision

for the mobile satellite services market?

Mario: Two major challenges—first, this is a highly capital-intensive business. You put a great deal of money in upfront. Between the second-generation satellites that are going up as we speak and the third-generation that have been contracted with (GE Astro-Space division), we are talking approximately \$1 billion to \$1.2 billion between the two systems. COMSAT's share of that will be 25%. So it is a very large investment for the company. The other challenge is to grow. We have to grow somewhere in the 25-30% range to recover that investment. We have to increase our market share.

SN: Is Inmarsat a dinosaur—one that needs to step aside for privatization?

Mario: No, in fact I look at the Inmarsat convention and operating agreement much the same way I view the U.S. Constitution. I think the designers of the system created a document that gives you flexibility. We haven't had a problem accomplishing anything. I think (Inmarsat Director General) Olof Lundberg has done a good job to get the organization to be faster, more dynamic, more interested in satisfying customer's needs. Should we privatize Inmarsat? No, I don't think that's the right answer. Inmarsat gives us worldwide access to countries that a private company wouldn't have. We have special international working relationships through Inmarsat that are important to the mobile marketplace.

SN: How does COMSAT view the upcoming World Administrative Radio Conference (WARC)?

Mario: We have two primary issues in the WARC. I think there is a general agreement among all suppliers of MSS (Mobile Satellite Services), that there needs to be a substantial allocation in L-band for MSS. We are looking for an

COMMUNICATIONS

allocation in the 100 MHz arena. (This is) absolutely essential if we are going to satisfy customer's demand.

Issue number two centers on generic allocation. We have no difficulty allocating any incremental L-band that goes into the system on a generic basis. But, there are systems in place now, such as Inmarsat, that make it difficult to accommodate a general satellite service. You end up having the potential situation of having a conflict between an omni-direction antenna and a directional antenna that could be in use for maritime or aeronautical safety needs.

SN: What effects has the recession had on COMSAT's mobile business?

Mario: It's actually gotten better. One of the nice things about this business is that it's really not influenced by a recession. People still need to

communicate. There is no one sector in our business that counts for such a large portion that you have to worry about a general recession. If there were some kind of worldwide crash, of course we'd all be affected, but right now I don't see any major effects from this recession.

SN: Does COMSAT have any plans to enter the digital audio broadcasting (DAB) market?

Mario: We're doing it. We're providing 56 kilobit right now for audio broadcasting. We're providing (service for) the Paris to Dakar road rally. We provided DAB (by) using a mobile terminal from points in that race. This is a service I think has a lot of potential. There has been a lot of talk about building satellites for this service. I don't think you need to. We've been able to provide some very good quality service through the first generation of Inmarsat satellites. The second generation is going to be digital-based satellite communications all the way so we should be able to give even better quality.

SN: What is COMSAT's strongest MSS market segment?

Mario: Well, right now maritime provides the lion's share of the business. The majority of the growth we expect to come from the aeronautical market over the next 10 years. We started without (service) — we're in the business (now), we're providing some service to a few planes. We've had some slowness in terms of getting terminals and the avionics manufacturers to get (it) on the planes. For the first few years it'll be slow, steady growth and then it's going to take off. I expect aeronautical to provide the lion's share of our growth. The maritime business has not shown any sign of slowing up.



The Inmarsat-3, to be built by GE Astrospace, will be 20 times as powerful as the first generation Inmarsat satellites, and eight times more powerful than the second. This will allow smaller and less expensive mobile terminals to be used, fueling the continuing boom in mobile communications.



The latest Inmarsat-2 (F-2) streaks toward orbit aboard a Delta II rocket March 8. The new satellite entered commercial service April 13.

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CVE Helps Return Major Leagues to RFK for a 'Classic' Weekend

The weather was warm, the beer cold, and if for only one weekend, baseball magic was back in the nation's capital courtesy of COMSAT Video Enterprises.

The Boston Red Sox swept the two game set from the Baltimore Orioles at the "COMSAT Baseball Classic", but it seemed that it was the fans of Washington who were swept up in the possibility that major league baseball might return permanently to RFK Stadium.

Unlike last year, when one game was dropped due to the owner's lockout, the Classic was blessed with good weather and even better attendance. Over 80,000 fans total filled RFK over the weekend, with Sunday's attendance setting a new record for a Washington-area exhibition game.

Both crowds showed deeply divided

loyalties. They were split equally between Orioles fans and thousands of expatriate New Englanders pulling for their long-suffering Red Sox. The odd Senators cap wasn't an uncommon sight either.

The Boston fans went home happy (if only for one weekend) as the Red Sox won behind strong pitching Saturday, and some comeback heroics on Sunday.

One of the newest Red Sox, Danny Darwin, pitched six scoreless innings, retiring 12 Orioles in a row at one point, en route to a 4-1 victory. Another new player, Jack Clark, slugged a line drive homer in support of the cause. Orioles centerfielder Mike Deveraux accounted for the Orioles only run with a home run of his own.

Sunday's game saw the Orioles take a 5-2 lead into the top of the eighth inning, only to watch the victory

slip away. The Red Sox scored three to tie it in the eighth, and won it in the ninth when Randy Kutcher drove home John Marzano for the go-ahead run and the win, 6-5.

Although the weekend set marked the sixth and seventh exhibition games played at RFK since the Senators, it was the first time the stadium had been reconfigured for baseball since the hapless Senators left in 1971. For previous years, the left field fence only measured 265 feet, resulting in scads of cheap home runs.

Sunday's game marked the end of COMSAT's sponsorship of the Classic. Over the two year period the event has generated positive media attention for the corporation, and served as a valuable public relations tool in dealing with the corporation's contacts in industry and government.

Holyfield vs. Foreman a Big Winner For CVE

Evanter Holyfield might not have been able to manage a knockout of George Foreman in their title bout April 19, but COMSAT Video Enterprises' (CVE) broadcast of the bout certainly did.

CVE broke its own record for number of buys for a hotel pay-per-view event when guests in more than 14,000 hotel rooms paid \$35.95 each to watch Holyfield and Foreman vie for the heavyweight title.

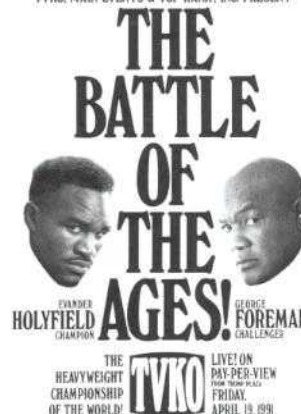
"This type of blockbuster event will continue to do well on our hotel pay-per-view service," said CVE President and CEO Robert Wussler. "Our satellite delivery of live events allows our hotels to offer their guests the opportunity to see high profile events in the privacy of their own rooms. It's a win-win situation

for the hotel and the guest."

Prior to CVE's presentation of the "Battle of the Ages", the highest rated event was the October 25, 1990 championship bout between Holyfield and former champ James "Buster" Douglas, which garnered 12,718 in-room buys.

Despite slightly lower occupancy in hotels on Friday night, than on heavily traveled weekdays, the event was a tremendous success. "The event was so heavily and broadly promoted" said Steve Schupak, manager, program development, CVE "that it drew a wider audience than traditional boxing contests." The buy rate was also aided by special packages hotels offered enticing customers to throw parties centered around the fight in hotel

TVKO, MAIN EVENTS & TOP RANK, INC. PRESENT



rooms.

As a source of extra revenue, CVE rented B-Mac decoders to TVKO, Time-Warner's new company

that produced the fight.

CVE is obtaining rights to more major sporting events all the time. In March CVE carried the Mike Tyson-Razor Ruddock match, and plans to carry the June 28 rematch.

NEW TECHNOLOGY

HDTV Research Has Long History at COMSAT Labs

One of the most anticipated technological advances in communications is High Definition Television (HDTV). Possessing five times the amount of information contained in a standard NTSC TV signal, HDTV picture quality promises to be a significant improvement, to current picture quality.

Keeping an eye on the technical development of HDTV at COMSAT Labs is Principal Scientist Lin-Nan Lee. The Labs have been involved with HDTV research since the early 80s. COMSAT research naturally is focused on making the various emerging HDTV services based on different technical standards compatible with INTELSAT satellites.

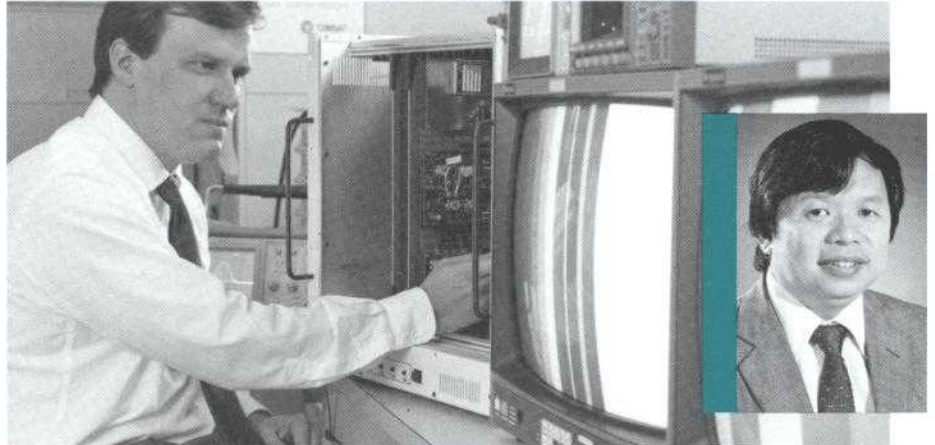
The Labs efforts in research are focused in two areas. First, under funding from COMSAT INTELSAT Satellite Services (ISS), the Labs are watching very carefully the development of the HDTV standards around the world. The Federal Communications Commission is scheduled to make a decision on a U.S. standard in 1993.

ISS also has funded Labs projects to develop equipment such as the 140 megabit modem and codec capable of compressing this wide bandwidth service to allow it to fit into a single 72 megahertz satellite transponder.

The second element of the Labs efforts comes under a research program funded by NASA. Under the project, Labs' scientists are devising a system to convert an analog HDTV signal so it can be compressed and transmitted digitally by satellite and converted back to analog for reception.

Currently the experiment is still in its initial phase. After getting approval from NASA the Labs will begin to build a prototype system. Completion of the prototype and testing will take place in stage three.

"HDTV transmissions will eventually be as important to the satellite industry as video transmissions



are now," says Lee. As is the case with any product or service, the real trick will be developing a system that delivers the kind of high quality signal broadcasters expect, while keeping costs low.

Dr Lin-Nan Lee, COMSAT Labs Principal Scientist (at inset), has been involved with HDTV research since 1983. Don Power, Labs Associate Staff Member, makes an adjustment in the facility's HDTV lab.

What's Next? Would You Believe Your Own Personal Telephone Number?

Setting standards in satellite communications means carefully monitoring the development of new technologies from their inception. According to Ivor Knight, COMSAT's Vice President Business Standards and Technology, the next big leap in the communications business will ensure individuals will never be out of touch.

Knight calls the concept Universal Personal Telecommunications, and it will work something like this:

Instead of having several different phone numbers where one could be reached (home, office, car, etc.), individuals will be assigned a "personal" phone number where they can be reached all the time anywhere in the world. One would of

course carry a portable phone.

In addition if you didn't answer, or decided you didn't want to be reached one would have the option of transferring the call to another person.

"It's not here yet - not for a little while yet, but we're looking at it very carefully," says Knight.

Why is COMSAT interested? "By its very design it must have a radio link," and "we want to make sure it works on satellites." Knight said. Satellites provide "the easiest way to track you down." In a playful jab at satellites' competition, fiber optic cables, Knight says it certainly "would be difficult to tie a cable around you long enough to do the job."

Goldstein Helps COMSAT Celebrate Secretaries Week

In celebration of National Secretaries Week, April 22-26, COMSAT Chairman and CEO Irving Goldstein hosted two breakfasts to honor COMSAT's own dedicated group. At the Clarksburg breakfast on April 26, Goldstein congratulates Caron Stewart, the winner of the door prize. Later, he took some time to talk business with them.



Jefferson Wins Major Award From Apple Computer

Jefferson Junior High School has won Apple Computer equipment and software valued at some \$37,000 after proposing to conduct a study of the past, present and future of Washington, D.C.'s Southwest community. The award is part of Apple Computer's Education Grants program.

Jefferson Special Assistant Debbie Holmes, Dr. Louise Taylor and Principal Vera White authored the award-winning proposal.

With the new equipment, which includes seven Macintosh LC computers, two printers, a scanner, modem and fileserver, Jefferson will create a Southwest Washington, D.C. School and Community Writing Center.

"We're delighted," said Principal Vera White, after winning the grant. "The center we will create at the school and the project being studied offer such a range of learning opportunities. Our children will learn first hand how their community came to be as it is today."

"They'll also begin to think about how it might change in the future. All the while, they'll be learning writing, research, and presentation skills as well as becoming more and more comfortable with computers in real life situations. The Apple grant gives us another excellent chance to integrate our teaching across disciplines," White said.

A mix of 120 Jefferson students and 30 sixth grade students from nearby Amidon Elementary, Jefferson's main feeder school, will staff the center. Work will begin immediately. The mezzanine level of the Jefferson Library will house the center.

Southwest D.C., home of the school and many of its students, will provide an intriguing study. In the 1950's and 60's, Southwest was regarded by some as "a disgrace in the shadow of the nation's capital" because of the area's poverty — fire, safety and health hazards, unpaved streets and outdoor plumbing.

That reputation led the U.S. Government to make Southwest the nation's first urban renewal area.

Students will examine the impact of urban renewal on the community — looking at the improvements it brought and the strains it created among racial and ethnic groups. In addition, they will examine what the future might look like in the neighborhood.

Over three years students will produce a movie and publish a book on their findings.

The program will provide a fertile ground for cultivating a wide range of skills while learning to use Apple computers and software to write, conduct research, lead interviews and find and use historical documents.

In addition, Jefferson students will develop tutoring skills as they work with Amidon sixth graders — and the Amidon students will hone study skills they will need to be promoted to Jefferson.