COMSAT NEWS
COMMUNICATIONS SATELLITE CORPORATION
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The Plenipotentiary Conference on Definitive Arrangements for INTELSAT opened on February 24 in the International Conference Hall of the Department of State. Approximately 400 delegates from 63 of the 68 INTELSAT nations and 28 non-member observers attended the conference which closed March 21.

About 400 Delegates, Observers Attend INTELSAT Conference

Approximately 400 delegates from 63 of the 68 countries comprising INTELSAT, and 28 non-member observers, including the United Nations and the International Telecommunication Union assembled on February 24 in the International Conference Hall of the United States Department of State to open the INTELSAT Conference.

Officially designated as the Plenipotentiary Conference on Definitive Arrangements for the International Telecommunications Satellite Consortium (INTELSAT), the Conference closed March 21.

The Conference on Definitive Arrangements was convened in accordance with provisions of the International Agreements for Interim Arrangements opened for signature in Washington, D.C. on August 20, 1964.

Among the 22 observer nations are: Afghanistan, Bulgaria, Cameroon, Czechoslovakia, Finland, Hungary, Liberia, Maldive Islands, Mauritania, Paraguay, Poland, Senegal, the Soviet Union, Yugoslavia and Zambia.

The Conference was opened by Elliot L. Richardson, Acting Secretary of State, who served as pro tem chairman of the Conference.

In concluding his introductory remarks, Mr. Richardson said:

"On behalf of President Nixon (who is in Europe), Secretary of State Rogers and the American people, I wish you a most successful and productive conference. We shall be watching your work with deep interest, and you can count on our full cooperation and support."

Election of Officers

Leonard H. Marks, U.S. Ambassador to the INTELSAT Conference, was then elected chairman of the Conference by acclamation.

This was followed by the election of four vice chairmen:

Venezuela: Jose Soriano, Ministry of Communications, Vice Chairman for the South American Region.

The Netherlands: A. F. K. Hartogh, Director General for European Affairs, Department of Foreign Affairs, Vice Chairman for the European Region.

Algeria: Abdul Kader Biairi, Ministry of Posts, Telephones and Telegraphs, Vice Chairman for the African Mideast Region.

India: L. C. Jain, Secretary, Ministry of Communications, Vice

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Launch Planned for April

The fourth satellite in the INTELSAT III series is now planned for launch some-time in April. It is intended for positioning over the Atlantic Ocean where it will augment the first Atlantic INTELSAT III.

Leonard H. Marks, U.S. Ambassador to the INTELSAT Conference, was elected chairman of the Conference by acclamation.

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Conference

Chairman for the Asia-Pacific Region.

The Credentials Committee consists of the delegates from Ireland, Norway, Panama, The Philippines and Turkey.

The Editorial Committee consists of the delegates from Colombia, France, Belgium, Spain, the United Kingdom and the United States.

On Tuesday, February 25, the conference divided into four working committees, each of which elected its own chairman and vice chairman. These committees meet in virtually daily sessions, convening in plenary (full or general) sessions as needed.

The Conference Chairman, the four Vice Chairmen and the chairmen of all conference committees comprise the Conference Steering Committee.

The International Agreements

INTELSAT was brought into being on August 20, 1964, when two interrelated agreements were signed by 14 countries, and their designated entities. Since that time, INTELSAT membership has grown to include 68 nations of the world.

The first of the two interrelated INTELSAT agreements is an agreement among governments expressing objectives to which all of the signatories are committed, as well as defining the structural framework of the organization. It states the goal of creating a single global commercial communications satellite system, establishes a governing body, the Interim Communications Satellite Committee, and designates the Communications Satellite Corporation as the manager for INTELSAT.

The second agreement, the Special Agreement, deals with the financial and operating aspects of INTELSAT, including such matters as the sharing of costs and revenues, establishment of charges for the use of INTELSAT satellites, procurement policies and procedures, rights and inventions and technical data, and numerous provisions spelling out particular functions and duties of the governing body and the manager.

The special agreement may be signed either by a government which is a party to the inter-governmental agreement or, in recognition of the diversity of national economic systems, by a public or private telecommunications entity designated by such a government.

The United States Government signed the inter-governmental agreement with other governments.

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United States Delegation

The Chairman of the INTELSAT Conference is the Honorable Leonard H. Marks U.S. Ambassador to the Conference.

Mr. Marks is also Chairman of the U.S. Delegation to the Conference which is comprised of the following alternate representatives:

Frank E. Loy (Vice Chairman), Deputy Assistant Secretary of State for Economic Affairs, Department of State.

James McCormack (Vice Chairman), Chairman and Chief Executive Officer, the Communications Satellite Corporation.

Ward P. Allen, Deputy Assistant Secretary of State for International Organization Affairs, Department of State.

John A. Johnson, Vice President, International, the Communications Satellite Corporation.

The Honorable Rosel H. Hyde, Chairman, Federal Communications Commission.

William K. Miller, Director, Office of Telecommunications, Bureau of Economic Affairs, Department of State.

James D. O'Connell, Director of Telecommunications Management, Executive Office of the President.

Listening to the opening day remarks at the INTELSAT Conference Dr. Joseph V. Claryk, COMSAT President, right, and George P. Samps Vice President—Operations. Other COMSAT executives also atten this and other sessions.

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Director of Information: Matthew Gordon

Acting Editor: James L. McKenna

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INTELSAT

COMSAT serves as the designated entity of the United States, and thus represents the United States in INTELSAT under the Special Agreement.

Definitive Arrangements

The name of the governing body of INTELSAT, the Interim Communications Satellite Committee, reflects the interim character of the International Agreements which were negotiated in 1964.

Given the rapidity with which space communications technology was developing, and recognizing the impossibility of foreseeing all of the factors which ought to be taken into account in establishing long term arrangements in such an unprecedented field, it was thought best to establish a set of international agreements which would be renegotiated in approximately five years.

The inter-governmental agreement accordingly provides that not later than January 1, 1969, the Interim Communications Satellite Committee shall render a report containing recommendations concerning the Definitive Arrangements for an international global system which shall supersede the interim arrangements now in being.

The Committee distributed such a report to the members of INTELSAT on December 31, 1968.

It was further stated in the inter-governmental agreement, that within three months following submission of the Committee's report on Definitive Arrangements, the Government of the United States of America must convene an international conference for the purpose of considering the report.

The INTELSAT Conference which began February 24 fulfills this commitment.

The present agreement provides also that each of its parties "shall seek to ensure that the Definitive Arrangements will be established at the earliest practicable date, with a view toward entry into force by January 1, 1970."

The present International Agreements for Interim Arrangements, however, remain in effect until superseded by Definitive Arrange-

Working Committees

COMMITTEE I

Chairman: His Excellency Eduardo Alejandro Roca, Argentina.

Vice Chairman: O. H. Mohammad, Pakistan.

Structure and functions of INTELSAT consortium, with particular regard to questions of membership, scope of services, organizational structure including structure of major organs, their functions and voting.

COMMITTEE II

Chairman: Motoo Ogiso, Japan.

Vice Chairman: Prof. Carlos Alberto Dunshee de Abranches, Brazil.

Legal and procedural questions, including definitions, legal status, entry into force, duration, amendment, withdrawal, settlement of disputes.

COMMITTEE III

Chairman: Harold White, Australia.

Vice Chairman: A. R. K. al-Ghuneim, Kuwait.

Financial Arrangements.

COMMITTEE IV

Chairman: His Excellency Adolfo Alessandrini, Italy.

Vice Chairman: A. A. Bodede, Nigeria.

Other operational arrangements, including procurement, policy, inventions and data, technical and operational matters.

Actions of the Interim Committee

The Interim Communications Satellite Committee (ICSC) held its thirty-seventh meeting from January 27 to January 31 in Washington, D.C., with John A. Johnson of the United States as Chairman and Carlos Nunez of Mexico as Vice-Chairman.

At the time of the thirty-seventh meeting, INTELSAT membership remained at sixty-three. Jamaica, Nicaragua, South Vietnam and Luxembourg acceded to the Agreements in February after the thirty-seventh meeting, followed by Guatamala in early March.

• The Committee authorized COSMAT, as Manager, to executive, on behalf of INTELSAT, a contractual arrangement with TRW Systems, Inc., for procurement of an additional spacecraft in the INTELSAT III series, the F-7, at a price of $3,800,000.

• At its thirty-sixth meeting, the Committee authorized COMSAT to proceed with a study contract concerning the possible use of the Titan IIIB/Agena to launch INTELSAT IV satellites from the Eastern Test Range. As a result of this decision, COMSAT requested the United States' National Aeronautics and Space Administration (NASA) to move ahead with the study at a cost to INTELSAT of about $400,000.

During the thirty-seventh meeting, COMSAT presented the results of its analysis with respect to the choice of the Atlas Centaur or Titan IIIB/Agena launch vehicles for the INTELSAT IV program. Following discussion of this analysis, the Committee authorized COMSAT, as Manager, to commence negotiations with NASA for

Atlas Centaur vehicles for the INTELSAT IV program.

• The Committee authorized COMSAT to amend the allotment agreements with the United Kingdom Postmaster General, the Overseas Telecommunications Commission (Australia), the Spanish Government, and with COMSAT, as the U.S. signatory, for the communication requirements of NASA to permit the use of the INTELSAT III satellites for the NASCOM service.

• During previous meetings, the Committee had authorized COMSAT, as Manager, to pay the sum of $1,015,650 to TRW Systems, Inc., in connection with certain engineering changes in the INTELSAT III spacecraft. At its thirty-seventh meeting, the Committee authorized COMSAT to pay TRW the additional sum of $191,198 in connection with these changes.

• The Committee approved applications from India, Iran, and Peru for access by a standard earth

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ICSC Meeting

station in each country to the INTELSAT I, II, and III satellites. The Indian station will be located at Arvi, India; the Iranian station at Asadabad, Iran; and the Peruvian station at Lurin, Peru.

The Committee also approved applications from Australia, Spain, the United Kingdom, and the United States for access by the non-standard stations involved in the NASCOM service to the INTELSAT III satellites, with the understanding that, if it should appear that additional requirements of standard stations cannot be satisfied because of the use of satellite capacity by the non-standard antennas, the Committee will be advised promptly.

Another non-standard station, to be located aboard a ship in the Atlantic Ocean, was approved by the Committee for access to the INTELSAT III (F-2) satellite, upon the request of COMSAT, as the United States signatory, on the condition that it will be used only for television video and audio transmission of the Apollo 9 mission.

• The Committee adopted a procedure for the distribution of INTELSAT technical data to signatories to the Special Agreement. COMSAT, as Manager, is preparing a Data Handbook which will cumulatively list documents containing technical data which have arisen directly out of or have been used in work performed at INTELSAT expense. COMSAT will distribute copies of the Data Handbook and its quarterly supplements to all signatories. Procedures are provided for distribution of various categories of data listed, upon request by individual signatories.

• The Committee decided to approve extensions of the assignments of Messrs. Shimasaki and Kawakami of Japan, Mr. Mathiesen of Denmark, and Mr. Blachier of France to the COMSAT Technical staff. The Committee also approved a one-year assignment for Mr. Kappelin of Sweden to the COMSAT Operations staff, and for Mr. Bos of The Netherlands to the COMSAT Technical staff. These actions by the Committee bring to 25 the number of signatories' nominees who are working or have worked, with the Committee's approval, on the staff of COMSAT as Manager.

• The thirty-eighth meeting of the Committee is scheduled to begin on April 16, 1969, in Washington, D.C. The thirty-ninth meeting is scheduled to begin on June 25 in Rio de Janeiro, Brazil.

Represented at this meeting were: The Arab Group; Argentina; Asia/Pacific Group; Australia; Belgium/Netherlands; Brazil; Canada; Denmark/Norway/Sweden; France/Monaco; Germany; Italy/Vatican City; Japan; Mexico; Spain/Portugal; Switzerland/Austria/Liechtenstein; United Kingdom/Ireland; United States; and Venezuela/Colombia/Chile.

Approximately 70 delegates from the INTELSAT Conference visited t Delta and Apollo launch facilities at Cape Kennedy. Above, in the laun control room, the delegates are given a briefing by NASA's John F about the steps involved in a typical launch.

Other Delegates Visit Goddard

Delegates to INTELSAT Conference Visit Launch Facilities at Kennedy

More than 70 delegates from the INTELSAT nations, and representatives from observer nations to the INTELSAT Conference on Definitive Arrangements in Washington, D.C. visited the Delta and Saturn launch facilities at Cape Kennedy, Florida, on February 28, and were briefed by NASA and COMSAT officials.

The Long Tank Delta that will be used to launch the second Atlantic INTELSAT III satellite on or after March 19 was in place, as was the Saturn vehicle which launched the Apollo 9 spacecraft on March 3.

The delegates flew to the Cape by charter plane on February 27 as guests of the United State Department of State, NASA and COMSAT. They returned to Washington the following evening.

On the same day, more th 150 other delegates and observe visited the Goddard Space Flig Center in Greenbelt, Maryland, a tour and briefing on this facil which coordinates NASA's wor wide tracking and communicatio system in support of the Appo program.

The INTELSAT satellites a playing an important role in t NASA communications system support of the Apollo mission, a in distributing telecasts from t spacecraft and the splashdo areas to countries around t world.

Communications Support

The INTELSAT III satellite synchronous equatorial orbit ov the Pacific (launched February and the INTELSAT II over t Atlantic (launched March 22, 196 play a key role in the communic tions system established in suppo of the Apollo program.

As the Apollo 9 spacecra orbited the earth, voice and da communications were transmitt to earth stations or ships at se In the Pacific area, earth statio at Carnarvon and Canberra, Au tralia, or two ships in the Paci Ocean received communicatio from the spacecraft and relay them via the Pacific INTELSA III satellite through the COMSA operated earth station at Jame burg, California, to NASA's Go dard Space Flight Center in Gree belt, Maryland and then to Missi Control at Houston.

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Visit Facilities

In the Atlantic area, voice and data communications from the spacecraft were received by earth stations on Ascension and Grand Canary Islands or a ship in the Atlantic Ocean and relayed via the Atlantic INTELSAT II satellite through the COMSAT-operated earth station facilities at Andover, Maine, to Goddard and then Mission Control in Houston.

TV from Apollo 9 Spacecraft

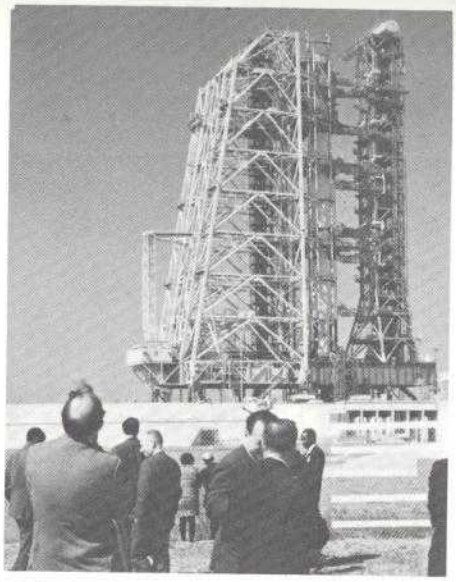
There were two telecasts from the spacecraft during the Apollo 9 mission. A seven minute transmission took place during a pass over a Merritt Island, Florida, station and a 10 minute telecast took place during a pass over Goldstone, California, and Merritt Island stations. These telecasts went from the capsule through these stations to Goddard and then to Mission Control in Houston.

The telecasts were also distributed to home television viewers in the Pacific area through the COMSAT-operated earth station at Jamesburg, California and the Pacific INTELSAT III satellite; and to countries in the Atlantic area through the COMSAT-operated earth station at Etam, West Virginia, via the Atlantic INTELSAT III satellite.

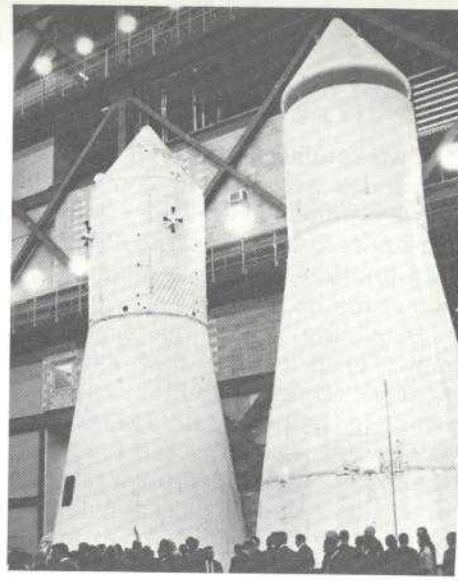
TV of Splashdown

The splashdown of the Apollo 9 in the Atlantic was also televised widely. An antenna on board the carrier Guadalcanal transmitted video of the splashdown via the NASA ATS-3 satellite through the Rosman, North Carolina station to New York City. From there, the telecast was distributed throughout the United States and transmitted through the Etam, West Virginia station via the Atlantic INTELSAT III satellite to countries in the Atlantic area. The splashdown also was transmitted through the Jamesburg, California station via the Pacific INTELSAT III satellite to countries in the Pacific area.

The satellites in the evolving global communications satellite system are owned by INTELSAT. COMSAT represents the United States in INTELSAT, and acts as manager for the consortium. NASA launches the INTELSAT satellites for COMSAT on behalf of INTELSAT.



Delegates view the Apollo 9 as it stands beside its gantry for the March 3 launch from Pad 39A.



In the Vertical Assembly Building INTELSAT delegates are briefed on the Apollo 10 and 11 spacecrafts.

Dr. Charyk briefs the delegates on the INTELSAT III satellites. Standing next to him is a prototype of the satellite.

Delegates walk past Rascal rocket in the Aerospace Museum at Cape Kennedy.

Next Launch Planned for April; Pacific INTELSAT III Begins Service

Two satellites in the INTELSAT III series are now in commercial service—one over the Atlantic Ocean and one over the Pacific—and another launch is planned for sometime in April.

Providing 1,200 telephone circuits, each of the new satellites nearly triples satellite capacity over the Atlantic and Pacific.

The next satellite, the fourth in the series, is intended for a position over the Atlantic Ocean where it will augment the first Atlantic INTELSAT III which was launched on December 18 and which began commercial service on Christmas Eve.

The INTELSAT III which was launched on February 5 began commercial service over the Pacific Ocean on February 24.

A fifth satellite in the series is planned for launch later this spring for a position over the Indian Ocean where it will work with earth stations in that region, establishing the full global coverage contemplated for the past several years.

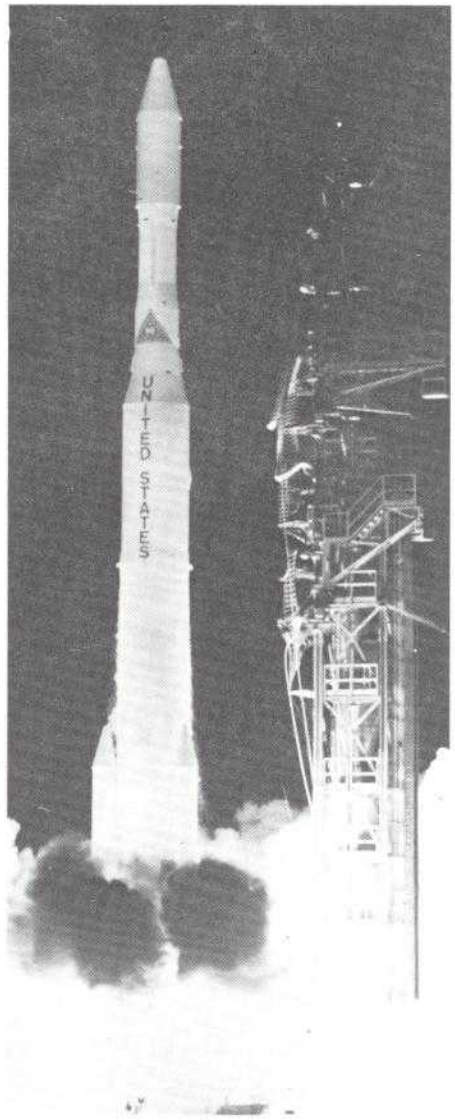
The first satellite in the INTELSAT III series was lost when the launch failed last September 18. After a review of the launch failure and corrective efforts on the Long Tank Delta vehicles, NASA released the vehicles for further launches.

NASA is being reimbursed about $5 million for each of the INTELSAT III launches by COMSAT, as manager for the international consortium. The satellites themselves cost approximately $6.7 million each.

Satellite Characteristics

The INTELSAT III satellites are designed to receive transmissions in the 5,920 to 6,420 megahertz band (up-link) and to transmit back to earth in the 3,695 to 4,195 megahertz band (down-link). (Megahertz means millions of cycles per second.)

A satellite command subsystem is used to signal ignition of the apogee motor and to control the satellite during its lifetime. Each satellite has two command and telemetry sets, one for each communications repeater. The telemetry sends information through the omni-directional or



The INTELSAT III (Pacific) was successfully launched from Cape Kennedy's Complex 17 on February 5.

mechanically despun antenna to the earth stations equipped with telemetry and command ground equipment. Information concerning spin rate of the satellite, the spin rate of its antenna and whether the spacecraft is properly oriented toward the earth is received by the earth station and transmitted to the Control Center in Washington, where engineers evaluate the data with the aid of computers and relay necessary commands back to the satellite through the telemetry and command earth station.

Each INTELSAT III satellite has been designed for a minimum life of five years in orbit, 22,300 miles over the equator. At launch, each satellite weighs 632 pounds. In orbit, after the apogee motor fuel has been expended, t weight is 322 pounds.

The body of the INTELSAT I satellite is a cylinder 41 inches t and 56 inches in diameter. On t of this cylinder is the antenna sy tem which, combined with t height of the body, gives the spac craft an overall height of 78 inch

Major subsystems or operati components in the INTELSAT I are:

Antennas—A directional co munications/omnidirectional te metry and command antenn mounted on top of the structu enables the satellite to receive a transmit signals. The antenna mechanically despun. As the sat lite spins clockwise, the anten spins counter-clockwise at precise the same speed. This keeps the a tenna always pointed toward t earth in the proper communicatio position.

Communications—Two repeate (transponders) receive, process a transmit many different kinds signals simultaneously. The effe tive radiated power from the sat lite is more than 22 dbW. Ea INTELSAT III has a design c pacity of 1,200 two-way voice cha nels or four television channe They provide expanded capabili for simultaneous communicatio between several earth stations.

Orientation—Earth sensors a electronic equipment are used measure the attitude, and the co trol station fires small thrusters keep the satellite properly align with the earth.

Electric Power—10,720 sola cells, mounted on the outside of t satellite, convert sunlight into ele trical energy for operating t equipment. More than 130 watts power are supplied to the satell for operating the various electri and electronic components. synchronous altitude, the satell is in sunlight most of t time. During the spring and fa however, there are 45-day perio during which each satellite is and out of the earth's shadow. Du ing these periods, the required ele trical energy is provided by a ba tery which is recharged by t solar cells when the satellite enters the sunlight.

Apogee Motor—A large, centr ly mounted solid propellant mot supplies additional velocity need (6,060 feet per second) to thru the satellite into synchronous c cular orbit.

Peterson Elected COMSAT Director

Rudolph A. Peterson, President of Bank of America, has been elected to the Board of Directors of COMSAT to fill the vacancy created when David M. Kennedy resigned to become Secretary of the Treasury.

Mr. Peterson was elected to the vacancy by the Series I (public) Directors of COMSAT to serve until the Annual Shareholders Meeting on May 13, at which time he will be proposed for election to a full one-year term with other Directors of COMSAT.

With the election of Mr. Peterson, COMSAT has two Series I Directors from the West Coast. The other is George L. Killion of San Francisco, Vice-Chairman of Metro-Goldwyn-Mayer, who has served on the COMSAT Board since 1963 and was one of the Incorporators of the Corporation.

Mr. Peterson, 64, was born in Svenljunga, Sweden, and came to the United States as a child. He graduated from the University of California in 1925.

Financial Background

He joined the Commercial Credit Corporation in 1925, as a field representative, advancing to Division Operations Manager in Chicago. In 1936 he joined Bank of America as District Manager in Fresno, California. From 1946 until 1952 he served as President of Allied Building Credits, then joined Transamerica Corporation as a Vice President in charge of all its banking interests in five Western states.

He served as Executive Vice President and then as President of the Bank of Hawaii from 1955-61. In 1961, he was elected Vice-Chairman of the Board of Bank of America, advancing to President in 1963.

Mr. Peterson also serves as a Director of Bank of America, as well as of the following: Association of Reserve City Bankers, Banca d'America e d'Italia, Bank of America (International), Bamerical International Financial Corporation, Societe Financiere Europeene, California State Chamber of Commerce, Dillingham Corporation, Fireman's Fund Insurance Company, F. A. Liquidating Corp. (formerly The Fund American Companies), International Executive Service Corporations, San Francisco Opera Association, Stock Exchange Club and the National Park Foundation.

Mr. Peterson

He is President of the San Francisco Clearing House Association, and is a Trustee of California Alumni Foundation, California Institute of Technology, Committee for Economic Development, Council for Latin America, National Industrial Conference Board (Finance Committee), San Francisco Museum of Art, Asia Foundation, and the International Chamber of Commerce (Vice Chairman).

Alumnus of the Year

He also serves on numerous advisory committees, including the President's General Advisory Committee on Foreign Assistance Program.

He holds honorary degrees from the University of Redlands and the University of California. In 1965 he was named "Swedish-American of the Year" and in 1968 he was named "Man of the Year" by the California Consulting Engineers Association of California and University of California "Alumnus of the Year."

Credit Union Meeting

The annual meeting of shareholders of the COMSAT Federal Credit Union will be held on Thursday, March 27, beginning at 5:00 p.m. in the Auditorium, on the fourth floor of the COMSAT Building. The agenda includes a report on operations during 1968 and the elections of Board of Directors, Supervisory Committee, and a Credit Committee.

Lions Club Visits Paumalu Station

By Liz Coleman

The Paumalu station hosted the Koolauloa Lions Club recently. The Club is composed of civic-minded businessmen, professional people, and others from the neighboring Sunset Beach Kahuku area, who are interested in serving the community. The 20 members were taken on a tour of the station by Dan Geer, Assistant Station Manager, and John Gray, Electronics Engineer. Gleen Vinquist, Station Manager, presented a short talk on the function of the Paumalu Station.

Dennis Cooper, Senior Technician, and a member of the Lions Club, was the unofficial host for the evening, and he saw to it that coffee and doughnuts were served to his fellow club members.

New Staffers

The latest personnel addition to the Paumalu Facilities team is Castor Corpuz, who joined the station on January 27 as Painter-Utilityman. Castor, a native of the islands, recently retired from the Army after 22 years.

We offer congratulations to Ken Elder, Dick Coleman and Freeman Pryor who have recently obtained their second class radio licenses.

Because everyone at Paumalu is recovering from hospital stays, or the flu, or "Polynesian Paralysis," the past month produced very few social functions.

Delegates from 20 countries attended an Operations Representatives Conference in Washington, D.C., to discuss plans for handling the increasing amount satellite communications in the Atlantic region.

News of People At Headquarters

By Judy Tomlin

Now that Valentine's Day is over and all the women have gained an extra 5 pounds, we can all get back to the old routine of cottage cheese and crackers, skim milk and apples for lunch.

Ed Istvan, special assistant to the Chairman and the President, was the donor of a lovely box of Valentine candy for all the secretaries on the eighth floor.

Judy Coffee, Technical Library, participated in a remedial reading program for the Committee on Community Improvement Sunday, February 16, on Radio WOL. This was sponsored by the United Planning Organization, Volunteers Against Poverty.

Congratulations to Mr. and Mrs. John F. Welch who are parents of a baby girl, Margaret Taylor Welch, born January 21 at Alexandria Hospital. She weighed 7 pounds, 4½ ounces.

Joan Wright, Travel Office, is coach for a midget girls basketball team of fourth and fifth graders at Saint Bartholomew Parish. She serves on a voluntary basis, with practice twice a week and games each Saturday.

Mimi Lavery was married to Arthur Smith on Saturday, February 8. They were headed for a New England honeymoon, but due to excessive snow were unable to go further than New York City. Well, here is one consolation: they could have gone to Florida and had rain for a week.

Speaking of going South, Frances Baxter is planning a trip to Puerto Rico in the near future. Beautiful weather there is almost a certainty.

Earth Station Representatives Conf On Satellite Communications Plans

Delegates representing 20 countries met in Washington, D.C., at a Operations Representatives Conference on Feb. 18 to 21 to discuss plans for handling the growing volume of satellite communications in the Atlantic region.

The conference was attended by Operations Representatives from countries in Africa, Europe, Latin America, the Mid-East and North America. Delegates were present from 11 countries which now have earth stations operating through commercial satellites serving Atlantic area, and nine count where stations either are acti under construction or will be b soon. A new station in Brazil w into operation during the week the conference.

The purpose of the meeting to resolve operational matters a ing with the advent of the INTELSAT III satellites, and overall rapid growth of inter tional satellite communicati Discussions centered on ag ments to insure continuity of s ice in the event of a satellite age; methods of coordinating in national television; demand assi ment systems; considerations the next generation of INTELS IV satellites, which are expec to be operational in early 1971; planning relating to insuring ef tive management of the glo communications satellite systen

Represented at the meeting w Argentina, Ascension Island (Ca & Wireless, Ltd.), Brazil, Cana Chile, Colombia, France, Germa Greece, Italy, Lebanon, and Mo co. Also, Nigeria, Panama/In Peru, Saudi Arabia, Spain, Uni Kingdom, and the United States

News and Notes From Etam

By Deloris Goodwin & Dolores Buckley

The Etam Employees Association started the new year with an Old Fashioned Homemade Ice Cream Party on Sunday, February 16. It was a very successful event, with a great many staffers attending.

John DeCaro, Headquarters, was at the station on Friday, February 14, to instruct the administrative personnel in the new procedure for sending time sheet information on the teletype to the payroll office in Washington.

Safety Engineer

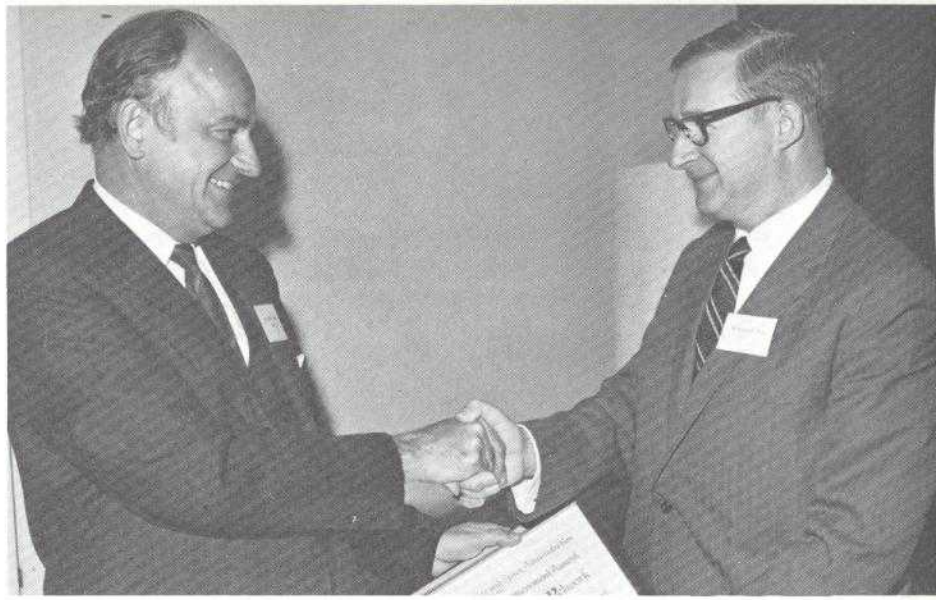
The Corporation's new Safety Engineer, Robert Mowery, visited the station on Wednesday and Thursday, February 12 and 13. It was his first visit to an earth station. The employees at Etam are very happy that the Corporation has gotten a person qualified to help us with safety problems.

Some changes in personnel have occurred during this month. Congratulations are due William Adams and Phil Harris. William Adams has been promoted from Utility Mechanic to Facilities Mechanic and Phil Harris has been transferred from this station to an exempt position at the Field Support Depot in Washington.

We had the pleasure of having at the station for a short time Jose Negron, a Puerto Rican technician from Cayey, and J. P. LaGadec of the Pleumeur Bodou earth station. Negron and LaGadec acted as interpreters during lineups with the Spanish and French earth stations.

Pakistanian Visitors

Visitors from Pakistan recently were Messrs. Shaikh and Husain, accompanied by Carl Johnson of Headquarters. Also, John Glenn (not the astronaut) and John Nelson, Charleston District AT&T; P. F. Faris and Jim Monigle, AT&T Washington; Ted Garrett, WECO Engineer, Cocklivilles, and Mrs. Mellings (C&P Telephone Co. photographer from Charleston) also visited in January. Mrs. Mellings took some photographs of Etam and wrote a very interesting pictorial article "A Visit to Etam," which appeared in the February 7 issue of the Mountain Lines, the C&P Telephone Co. newspaper.



Dr. Charyk receives the Pacific Service Group Achievement Award presented by NASA's Dr. Thomas O. Paine. The award was "in recognition of the exceptional support given by communications organizations all around the world to the Apollo 8 mission."

COMSAT Reports Gain In Earnings During 1968

COMSAT's net income for 1968 increased to $6,841,000 or 68 cents per share from $4,638,000 or 46 cents per share for 1967. The improvement resulted primarily from a net operating income of $988,000 realized in 1968 in contrast with a net operating loss of $642,000 incurred in 1967 after transfers to Satellite System Development Costs.

The 10 percent Federal income tax surcharge which became effective January 1, 1968, reduced earnings for the year by $514,000, the equivalent of 5 cents per share.

As a result of the continually growing use of the system and the availability of four satellites throughout 1968, operating revenues of $30,495,000 for the year were $12,031,000 more than the $18,464,000 for 1967 when only one satellite was in operation throughout the year, the other three having commenced commercial operation at intervals during 1967. At December 31, 1968, COMSAT was leasing on a full-time basis the equivalent of 941 half circuits or 224 more than the 717 that were being leased a year earlier. The INTELSAT III satellite that was launched over the Atlantic on December 18, 1968, as a replacement for Early Bird did not commence regular commercial service until January 1969.

Operating expenses for 1968 were $29,507,000 compared to $19,106,000 for 1967 after the capitalization of $2,293,000 as Satellite System Development Costs. With the commencement of full commercial operations on May 1, 1967, the Corporation discontinued the practice of capitalizing such costs and began amortizing them. Depreciation charges were temporarily lower in 1968 primarily because the Early Bird satellite which was still in service became fully depreciated during 1967.

Other income, consisting of interest from temporary cash investments (net of Federal income taxes) and interest during construction, was $5,853,000 in 1968 compared to $5,280,000 in 1967. The increase of $573,000 is attributable to interest during construction, which resulted from a substantial increase in property additions during 1968.

At December 31, 1968, the Corporation held approximately $133,000,000 in investments with an effective annual yield of approximately 6.0 percent. The portfolio was composed primarily of Federal agency obligations, negotiable certificates of deposit and commercial paper.

The Cayey Dedication

Here are photos of the Cayey, Puerto Rico, earth station dedication held in late January. The dedication story was in the February issue of COMSAT NEWS. A summary of that story follows:

The station complex, dominated by a 97-foot diameter antenna standing taller than a 10-story building, is located about 35 miles south of San Juan. Making the trip to the station for the ceremonies were representatives from all of the island's major newspapers, television and radio commentators, and 200 invited guests and 800 visitors from the San Juan, Caguas, Cayey area.

Among those attending the ceremonies were James McCormack, COMSAT Chairman and Chief Executive Officer; Joseph V. Charyk, President; Bertram B. Tower, Vice-Chairman of ITT—All America Cables and Radio Inc.; Howard R. Hawkins, President of RCA Global Communications, Inc.; Robert Conn, Vice President of Western Union International Inc.; House Speaker Angel Viera Martinez and Asher Ende of the FCC.

Significant Step

Gov. Luis A. Ferre, in his dedication address, hailed the Cayey station as a significant step in the swift progress under which Puerto Ricans are living today.

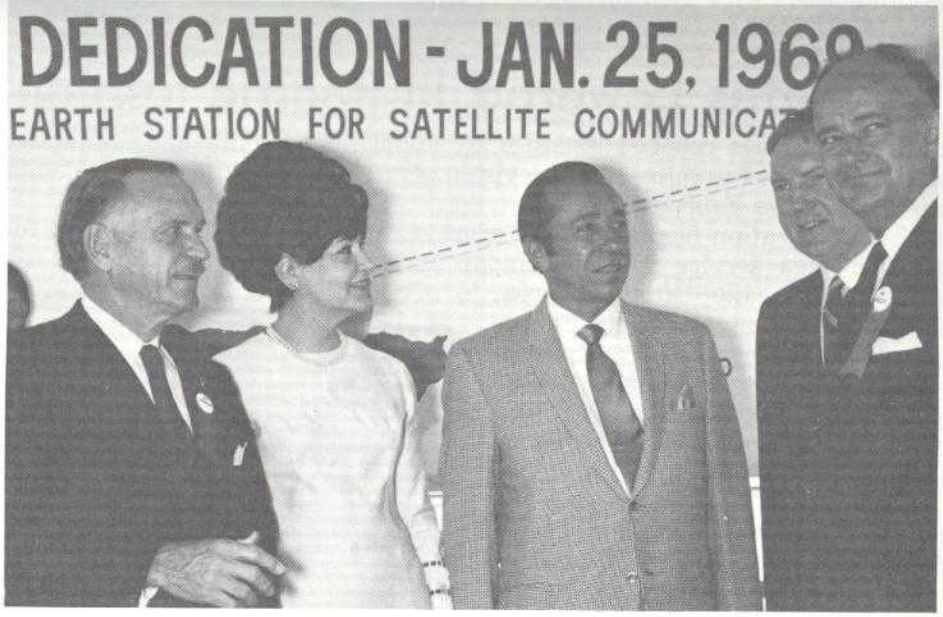
The Governor said the new Cayey state and the Cornell University radio-telescope in Arecibo places Puerto Rico in a "unique position in the communications and astronomy fields."

"It is an adventure that we are living today. This station is also the symbol of the world of tomorrow, a world of peace," Gov. Ferre said.

Larry Covert, station manager, served as master of ceremonies.

Gov. Luis A. Ferre places a phone call to Washington.

Larry Covert, station manager.

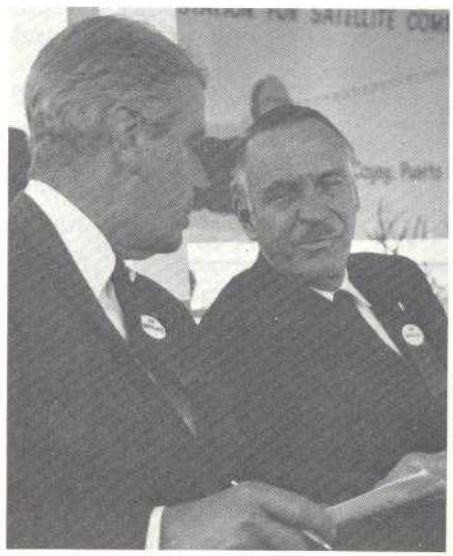


Discussing what the new earth station means to Puerto Rico, from left: Gov. Ferre; Mrs. Angel Viera Martinez; Mr. Martinez, Puerto Rico House Speaker; Howard Hawkins, President, RCA Global Communications, and Dr. Joseph Charyk, COMSAT President.

Communications' officials attending included, from left: Chairman James McCormack, COMSAT; Howard Hawkins, President, RCA Global Communications; Robert Conn, Vice President, Western Union International; Bertram Tower, Vice Chairman, ITT-All America Cables and Radio, and Dr. Joseph Charyk, President, COMSAT.

Souvenirs for the visitors include balloons and pins.

A Puerto Rico high school band, in native dress and playing traditional Puerto Rican instruments, provides entertainment.



A business conversation between COMSAT's Chairman and the Gov-

40 Percent Reduction

TV Rates Lowered In Pacific Region

COMSAT has reduced its rates by about 40 percent—and eliminated extra charges for color—for television service via satellites in the Pacific area, effective February 24.

The application filed with the Federal Communications Commission for Pacific area service follows comparable rate cuts for TV service via satellites in the Atlantic area, which were put into effect February 1. Transoceanic TV programming is expected to about double as a result of the lower rates, and provide at least the same revenue as was produced under previous rates.

The successful orbital emplacement of advanced INTELSAT III series satellites over the Atlantic and Pacific made the substantial rate reductions possible at this time. One INTELSAT III satellite, launched December 18, is now in full commercial service over the Atlantic. A second INTELSAT III, launched February 5, was placed in full commercial service February 24 over the Pacific.

The lower rates apply for TV programs between the United States mainland and Hawaii, and between these two U.S. points and abroad to Australia, Japan, The Philippines and Thailand. They cover COMSAT's charges to other communications carrier companies for a television service channel furnished from a United States earth station to a satellite.

The following is a comparison of the new and old COMSAT TV rates, including video and audio:

U.S. Mainland to Australia, Japan, Philippines and Thailand:

—New: $725 for first 10 minutes and $20.50 for each additional minute, same for color or black-and-white.

—Old: $1,200 for black-and-white and $1,500 for color for first 10 minutes, and $36 for black-and-white and $45 for color for each additional minute.

U.S. Mainland to Hawaii:

—New: $440 for first 10 minutes and $12.50 for each additional minute, same for color or black-and-white.

—Old: $750 for black-and-white and $937.50 for color, and $21 or $26.25 for each additional minute.

Hawaii to Australia, Japan, The Philippines and Thailand:

—New: $650 for first 10 minutes and $17 for each additional minute, same for color and black-and-white.

—Old: $1,100 and $30 for black-and-white, and $1,375 and $37.50 for color.

The filing modified and expanded COMSAT's existing TV service by setting conditions and rates for a television service package consisting of a one-way video channel, a choice of audio channels and, if desired, two-way voice coordination channels. The additional audio channels would be of particular benefit for multi-lingual program needs.

COMSAT received certain assurances from broadcasters that usage of satellites for international TV would approximately double with the lower rates, indicating that the Corporation would realize in the overall at least the same amount of revenues as under old rates.

Periodic Review

A. Bruce Matthews, COMSAT Financial Vice President, emphasized in the application to the FCC that, "the Corporation will make a periodic review to determine whether the rate reductions should be continued. In the event that television usage does not come up to expectations within a reasonable period of time, the Corporation will consider whether a subsequent rate increase should be initiated."

The new INTELSAT III satellites, each with a capacity about five times that of predecessor commercial satellites, can handle for the first time television transmissions without interrupting, or requiring the surrender of other traffic through the spacecraft, such as full-time telephone or record circuits.

At the same time it applied for the Pacific TV rate reductions, COMSAT filed to establish rates for the first time for leased voice grade channels between the United States mainland and The Philippines and Thailand. The monthly rate of $4,900 between a United States earth station and a satellite is the same as rates presently in effect for comparable service between the United States mainland and Australia and Japan.

Mr. Breslow

Assistant Secretary

Breslow Elected To New Positio

The Board of Directors of CO SAT recently elected Jerome Breslow an Assistant Secretary the Corporation.

Mr. Breslow, 35, has been sistant to the Secretary since jo ing COMSAT in November, 19 and recently was also designate General Attorney of the Corpo tion.

Prior to 1966, he served as Co sel to the Committee on the diciary, U.S. House of Represen tives.

A native of Bloomfield, New J sey, Mr. Breslow received an A degree from Columbia Univers and was awarded the L.L.B. gree from Harvard Law School 1959.

An accomplished popular pian Mr. Breslow has composed musi material for numerous Hexag Club benefits and other satiri reviews. He has performed in, a conducted, shows for the Americ Light Opera Company, Hexag Club and other groups and has pe formed, among other places, at t White House on several occasio

In addition, Mr. Breslow is Se retary and a member of the Boa of Directors of Temple Micah southwest Washington, D.C. whe he has also conducted the choir.

Mr. Breslow lives in Potoma Maryland, with his wife, the form Harriet Kaufman of Wheelin West Virginia, and a daughte Aimee, and son, Jeffrey.

A group of 34 senior executives of Western Union International visited the Jamesburg station recently as part of a Conference they were holding in Carmel Highlands.

Heavy Rains Temporarily Block Roads Into Jamesburg; Service Continues

The biggest news from "sunny California" has been rain—more in the month of January than has been received in any month in 17 years. We have seen the Carmel River change from a dry river bed to a raging torrent washing out bridges and so erroding its banks that the main Valley highway was nearly washed away.

The Cachagua Creek near our station overran its banks and badly damaged the Cachagua Road. On one occasion both roads leading to our station were blocked—one by slides and one by fallen trees. Mel Stauffer's team got to work in the middle of the night by walking around the slides where they were met by the Station Security Guard with the station pick-up and were taken to work. One night three men on Marv Bowser's team could not get back to their homes in Salinas because all roads were blocked. Needless to say our station diesel generator has had several good workouts during this period due to frequent and lengthy power failures.

Western Union

Despite the weather, and before the worst of the downpour hit us, we were pleased to have a group of 34 senior executives of Western Union visit our station. The beautiful Monterey Peninsula had been chosen by Western Union to hold a conference at the Highlands Inn in Carmel Highlands. Earl D. Hilburn, Executive Vice President of Western Union, had made arrangements to bring this group to our station at the conclusion of the conference. A bus was chartered by Western Union and on the afternoon of Thursday, January 16, the visitors arrived at the station.

After a brief introduction to the Station in the Training Room, the visitors were divided into three groups and escorted through the station. Personnel on duty explained the various equipment and its functions.

After visiting the entire station, including a climb up to the Elevator Equipment Room, the visitors again gathered in the Training Room for coffee and an informal discussion. Mr. Hilburn expressed his appreciation for the tour. He said it was the "high point" of their experiences during their conference. In addition to Mr. Hilburn, Del Harmon, Vice President, Technical Facilities; Robert Hodgers, Vice President, Planning & Engineering; Pete Scherk, Vice President, Government Communications Service; Herb Salter, Vice President, Material Management, and Ralph Saylor, Vice President, Marketing.

Other Visitors

We have had several COMSAT visitors to our station in January —Paul Winchester and Forrest Bolinger to conduct Master Equipment List inventories; E. W. Hall to introduce new accounting procedures, and Joseph Giafaglione to observe station operation and discuss training. Also we experienced our first station audit by a representative from Haskins & Sell's San Jose office.

Larry Cisneros was promoted from Senior Technician to Operations Supervisor and has taken over supervision of Team D, the position vacated by Ray Hill when he was transferred to Washington, D.C.

Congratulations also go to Harold Ford who has been the second of our new Technicians to successfully take the FCC examination for a second class radio license. Larry Baley was first to achieve this success which he accomplished in mid-November while attending the teletype school in Chicago.

Blood Bank

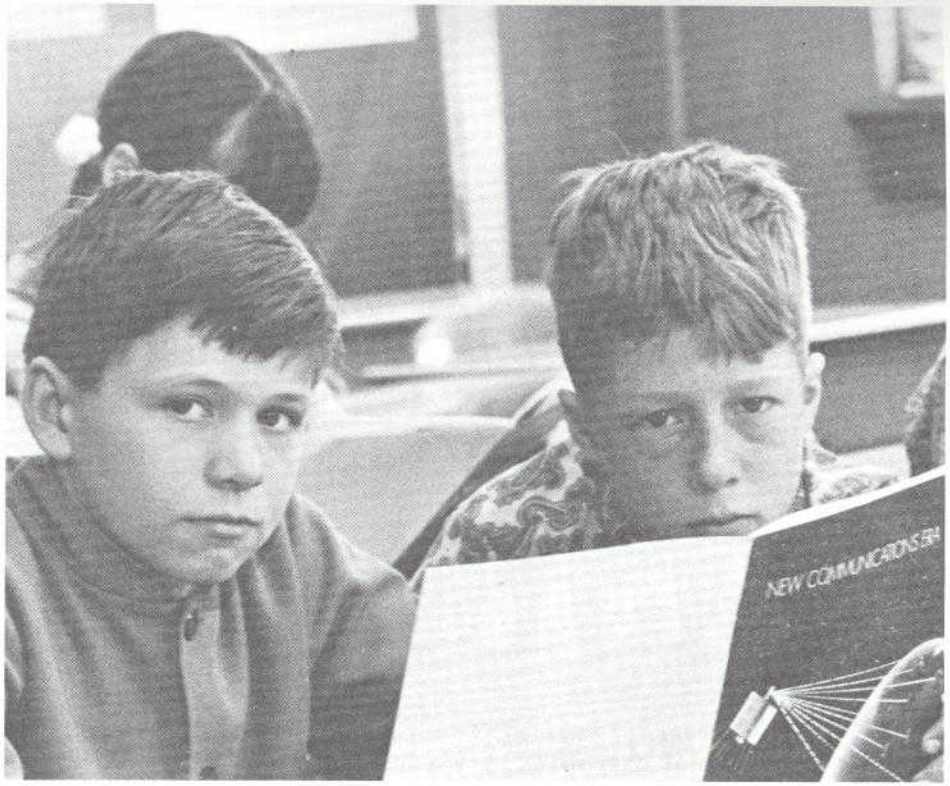
An employee blood bank program for Plaza and Laboratory personnel will be carried out the first week of April, Miss Maye Callahan, Health unit nurse reports.

She urges all employees to participate because COMSAT is far below its minimum quota of 152 pints which it must maintain to remain in good standing with the Washington metropolitan area bank.

When the minimum is maintained, Miss Callahan said all COMSAT employees have a right to use the bank.

She said "the pint you give may be the best life-saving investment you'll ever make for you and your family."

In another change from previous COMSAT blood bank donations, the program will be carried out this time in the COMSAT Building



The Shareholders of

Why are the seventh graders of Pine Bush Central School in Pine Bush, N.Y., different from all other seventh graders elsewhere in the country?

Because 111 seventh graders (each of whom brought in between 25 cents and $1) collectively now own one share of COMSAT stock, registered in their teacher's—Mrs. Doris Fonda Hambly's—name. The students study the Corporation and chart the stock—purchased last fall at $54 plus commission to their broker—and then in June will decide whether to sell or hold through the next school year.

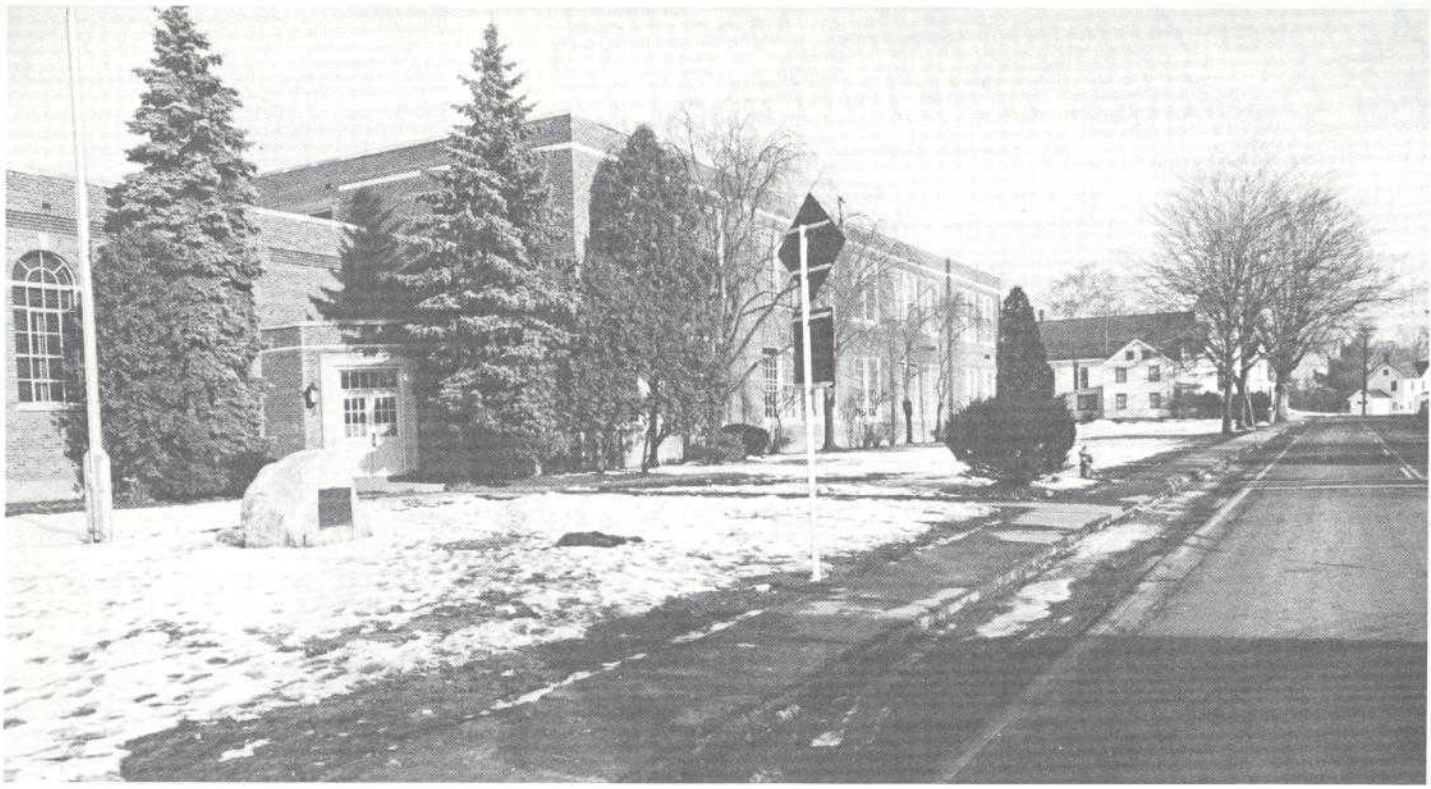
Mrs. Hambly, a pert, attractive teacher, who has four children of her own and who has just earned her Master's Degree in education, said she suggested the social studies class exercise because she wanted her students to have a better understanding of private industry by investing in a corporation. She chose COMSAT, she said, for two reasons. First, COMSAT is a "space-age corporation" involved in satellite communications, and her seventh graders are "space-age children." Secondly, COMSAT has an interest in an earth station in Puerto Rico, which would give her an opportunity to program into her history curriculum a study of Puerto Rico's status as a commonwealth.

Mrs. Hambly has also enlisted the help of the math teacher who, once a week with the students' help, charts the progress of the stocks, using New York Stock Exchange quotations from a local paper. The day Karen R. Jordan, COMSAT's Assistant for Shareholder Relations, and Stephen A. Jacobs, Information, visited the school, COMSAT stock was at 42½. This didn't seem to disappoint either Mrs. Hambly or her students, because "it makes the curve on the chart" more interesting. It was also the day that Mrs. Hambly administered a "Space-Age Vocabulary Test," with words drawn from COMSAT publications and the COMSAT slide presentation unit.

COMSAT first heard of the Pine Bush seventh grade investors when Anna Ursula Rogge, top left page 14, wrote a letter to COMSAT's "Stockholders Department" to ask for some informational materials in behalf of her class.

Anna is a bright 12-year-old with an engaging smile. Like many other students at Pine Bush, she is a first-generation American. Pine Bush is a quiet, pretty rural community at the base of the Catskills, and Pine Bush Central School is a consolidated school with an enrollment of 2,675.

(Continued on Page 15)

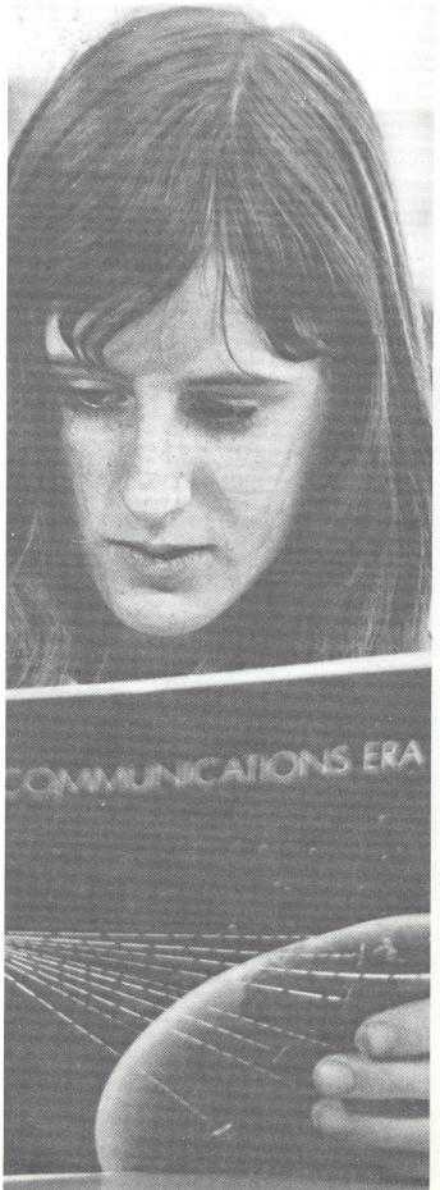


Pine Bush Central School

(Continued from Page 14)

This past week, Mrs. Hambly wrote to Mrs. Jordan: "Thank you so much for the fascinating experience of being a part of your interesting Corporation. This will be an experience that the children will never forget. They really feel special—and my other, older classes have come up to me (to ask) 'Why didn't you do this when I was in your class!'. . . but each year I do something different and it was so fortunate that this year I chose to invest in your stock . . . . It was such an exciting experience to know that a corporation as large as yours is interested in its young shareholders."

COMSAT thinks shareholders like Mrs. Hambly and her students—the only class like it in the country—are special, too.



Andover Antenna Being Modified For Operation With INTELSAT III

By Joanne Witas

The big horn antenna at Andover was out of service during parts of February and March while extensive modifications were made to equip the station to handle communications via the INTELSAT III series Atlantic satellites. The transportable antenna on site was used to carry the burden temporarily of NASCOM service.

Robert Hess, from Headquarters, and five technicians from Brewster—Pete Vaughn, Tom Schultz, Dave Morgan, Jim Adams and Wayne Colpitts—arrived at Andover on February 3 to assist in wideband ground communications equipment (GCE) modifications. Target date for completion of this work is the latter part of March, at which time the big antenna is scheduled to resume operations for approximately three weeks.

One wideband high power amplifier will be installed and serve GCE systems modified during the period of February 17 to March 10. This will provide wideband communications facilities enabling Andover to operate with INTELSAT III F-4.

A team from Nippon Electric Company of Japan arrived in mid-February to install new "MUX" equipment. This will be NEC's second "MUX" team at Andover. The new multiplex equipment will allow Andover to utilize more circuit capacity through INTELSAT III satellites.

"Generation Gap"

The Andover COMSAT Employees Association's winter party was held at the Andover Town Hall on Friday, January 31. Music was furnished by the "Generation Gap." K. J. Day of FIA was the guest of the Andover CEA. A good time was had by all 85 in attendance.

Andover is a Winter Wonderland. A total of 146 inches of snow had fallen in the Andover area by mid-March, an all-time record.

Skiing

Gerry Michaud hasn't been doing as much skiing as he did last year, it seems he just doesn't have the time. But all the snow we have isn't going to waste for COMSAT personnel. We have Shaun Arness, Larry Wood, Dick Plantier, Don Bachelder, Bill Hamilton and Don Auger who are taking ski lessons at the Chisholm Winter Park. They started taking lessons the first of the year, and I am told that by the end of March they will be ready to try out for the "Winter Olympics!" The technicians from Brewster are trying to give Andover "Techs" some competition in skiing; they too are taking lessons.

Andover technician Jack Conne installs new equipment.

Robert Hess, Technical Grou Washington, inspects modification

Scholarship Program Available to Students

For the second year, the Corporation is sponsoring scholarships for children of employees through the annual nation-wide scholarship competition conducted by the National Merit Scholarship Corporation.

COMSAT scholarship recipients will be chosen by the National Merit Scholarship Corporation on the basis of scholastic aptitude, leadership, and good citizenship as determined by testing and other procedures established by the National Merit Scholarship Corporation. In no instance will any COMSAT officer or employee play any part in the selection of scholars.

Each COMSAT Scholarship will be a four-year award, covering the undergraduate years. The amount of the scholarship will be based upon the individual winner's financial needs in order to attend the college of his or her choice. The maximum amount that may be awarded to any one student is $1,500 a year for four years. The minimum will be $250 a year.

Any Accredited College

The COMSAT Scholarship will be awarded toward the end of April each year to a secondary school senior attending a private, public, or parochial school in the United States who is selected by NMSC. The scholarship may be used at any accredited college or university in the United States.

All children of regular COMSAT employees are eligible to compete for these scholarships. Both boys and girls are eligible. Children of retired and deceased company employees are also eligible. In 1970 competition for COMSAT scholarships will be limited to students who will complete secondary school in 1970 and who will enter college in 1970.

Eligible students must take the National Merit Scholarship Qualifying Test when they are either second-semester juniors or first-semester seniors. This test is made available by the NMSC to high school principals throughout the country.

Candidates should make arrangements with high school principals during the fall semester of their junior year to take the test. The test is ordinarily given in high schools in late February or early March of each year.

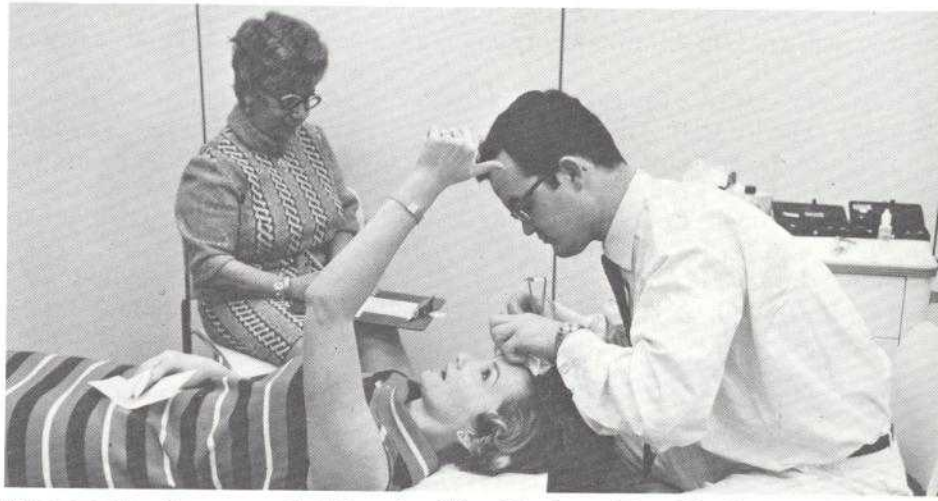
COMSAT Glaucoma Test

Volunteer glaucoma tests were given to 119 COMSAT employees in lat February in a program arranged between the Corporation's Health uni and the Prevention of Blindness Society.

The tests included normal eye exams and tonometry checks whic measure the intraoccular tensions of the eye.

Miss Maye Callahan, Health unit nurse, said those with questionabl readings will be re-examined, then a determination made if treatment b their own doctor should be recommended.

Drops are put in the eyes of Lilo Granville of the Labs by Mrs. Joan Cole extra duty nurse.



The eye tension exam is taken by Mrs. Barbara Bracht, Systems Management secretary. Dr. Arnull Ehmur gives the test; Mrs. Dorothy Marschand records his remarks.

Dr. Peter Varadi of the Labs receives a report of his test. Center is Miss Maye Callahan, COMSAT Health Unit nurse.

SPADE Equipment Demonstrated At Etam Earth Station by COMSAT

Representatives from the United States and several foreign countries participated in a demonstration of the SPADE system at the Etam earth station on Thursday, February 27.

The guests and their COMSAT hosts left Washington on an early morning charter aircraft and flew to Clarksburg, West Virginia, where a bus met the party and drove through snow flurries to Etam over twisting mountain roads.

After greetings by Station Manager William B. Carroll, the visitors were briefed on the SPADE system by Dr. B. I. Edelson, Assistant to the Director, COMSAT Labs, and Andrew Werth, Eugene Cacciamani, and Nobuhiko Shimasaki of the Communications Processing Laboratory. Using the SPADE equipment, the guests were able to converse with personnel at the United Kingdom Goonhilly Downs earth station through the INTELSAT III satellite over the Atlantic.

SPADE is a demand-assigned, frequency-division multiple access system developed and tested by COMSAT Laboratories as part of INTELSATs' broad R&D program in satellite communications technology. In a frequency-division system, traffic between any two earth stations in the network is automatically switched into available frequencies. Particular frequencies are not permanently assigned between pairs of stations, but are retained in a pool and assigned on demand. Such a system can effect the efficiency of satellite utilization by allowing occasional users to share a common bandwidth.

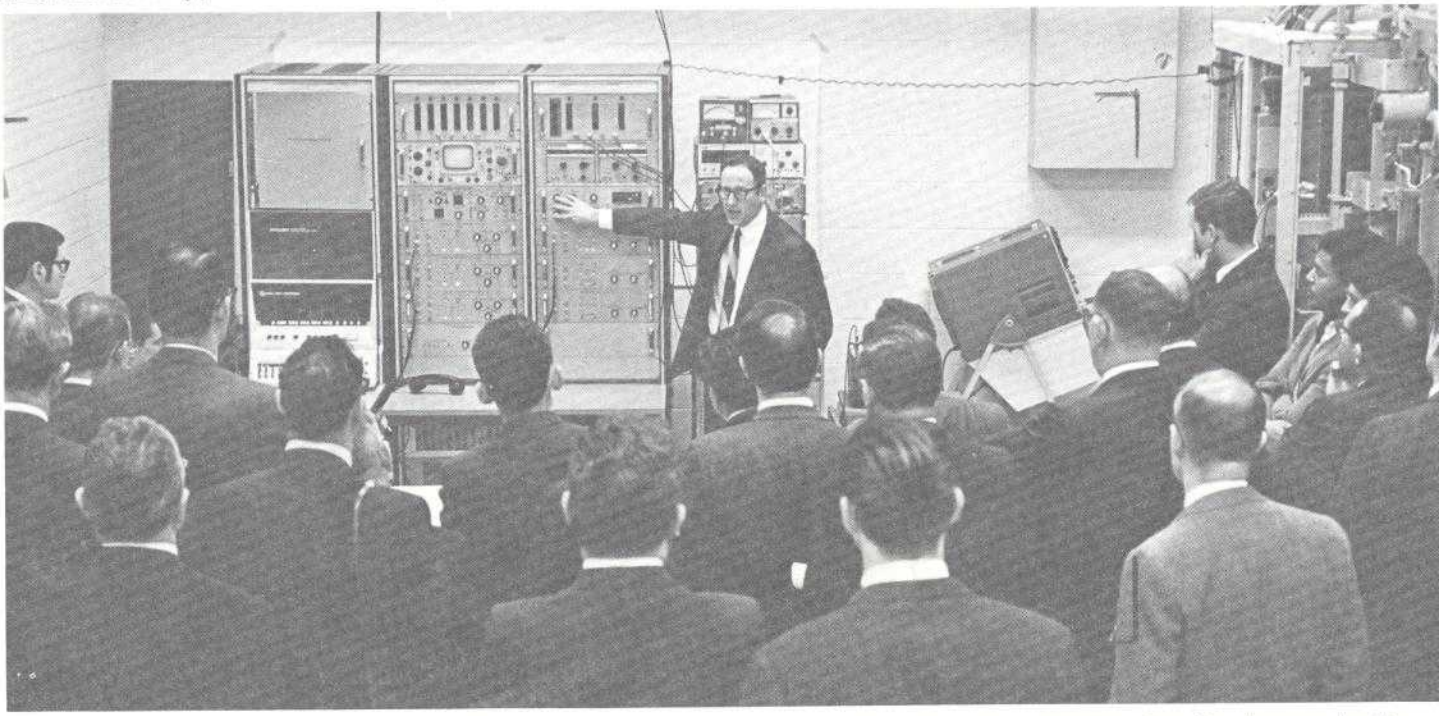
Reaction among the visitors was favorable. Several guests expressed surprise at the ease of operation of the SPADE equipment.

Following the demonstration, the visitors divided into small groups for tours of the Etam station facilities and lunch. The party boarded the bus for the return trip in mid-afternoon and arrived at National Airport before 6:00 p.m.

Guests of COMSAT for the demonstration were: Eric Ackerman, British Embassy; David Ball, United Kingdom; Dr. Bertram Blevis, Canadian Embassy; O. L. Britney, Canada; Miguel Colina, Peru; Dr. Peter Creola, Switzerland; Jerry Freibaum, NASA; R. G. Gould, OTM; W. Jost, Switzerland; Milton Jones, Communications & Systems, Inc.; Noboru Ohyama, Japan; Lt. Col. E. R. Shoemate, DCA; and H. D. Steele, DCA.

Among the COMSAT personnel present were: William W. Alvis, Dr. Pier L. Bargellini, A. Champeau, J. P. DeMontlivaut, William Fallon, Michael Onufry, Peter H. Schultze, Edward N. Wright, and Jerry Bidlack.

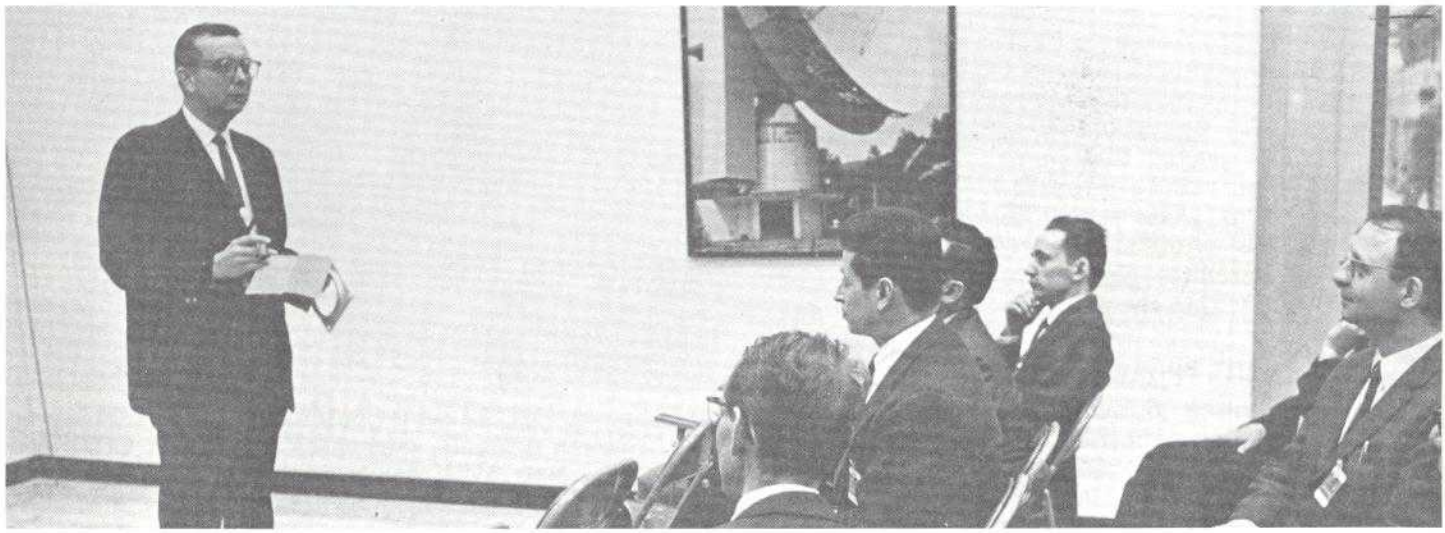
O. L. Britney of Canada talks to a staffer at Goonhilly Downs via the SPADE equipment and the INTELSAT III Atlantic satellite.



Dr. Bargellini explains the SPADE equipment to the guests visiting the Etam Station for the demonstration.

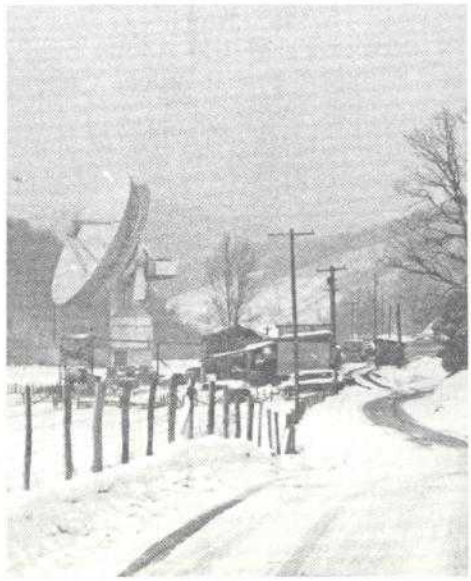
Dr. Edelson, Assistant to Director, COMSAT Labs, opens the SPADE system briefing.

Edward Wright (center) talks with (clockwise) Peter Schultze, Andrew Werth and Dr. Pier L. Bargellini.



William Carroll, Station Manager, formally greets the station visitors.

David Ball (front) of the United Kingdom and Miguel Colina of Peru chat through the SPADE equipment to a Goonhilly staffer.



The earth station is in a rural mountain valley.

Apollo 9 Mission Televised Widely

Television coverage of the Apollo 9 mission was transmitted via commercial satellites to millions of TV viewers in Europe, Latin America, the Carribbean and the Pacific area.

Broadcasters booked more than 10 hours of overseas transmissions in advance of the flight and added more during the 10-day mission.

Coverage of the Apollo 9 liftoff represented the first live commercial transmission of television direct to Brazil. The new earth station at Tangua, near Rio de Janeiro, was dedicated on February 28 with special telecasts from the United States and Italy. The program from Italy included a message from Pope Paul VI, at the Vatican City.

The Brazilian station is the 23rd in a growing international network of earth stations in 15 different countries. Many other stations are either under construction or planned. It is expected that more than 40 of them will be in operation by 1970 to work with the global series of 1,200-circuit INTELSAT III satellites planned to be in operation within the next few months.

The European Broadcasting Union, representing broadcasters in Western Europe countries and the United Kingdom, booked more than eight hours for television coverage of the Apollo 9 mission via satellite.

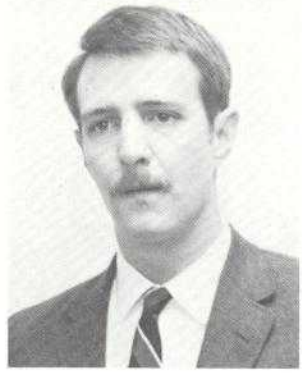
Other areas which received TV broadcasts of the Apollo mission included Puerto Rico, Chile, Hawaii and Japan.

In the Atlantic, the TV signals were transmitted from New York through the COMSAT-operated earth station at Etam, West Virginia, via the new INTELSAT III satellite in synchronous equatorial orbit 22,300 miles over the Atlantic and thence to receiving stations in Europe, Puerto Rico, Brazil and Chile.

In the Pacific, signals were processed through the earth station operated by COMSAT at Jamesburg, California, then relayed by the new INTELSAT III satellite over the Pacific to earth stations located in Hawaii and Japan.

Their First Five Years

Robert Briskman



Frank Mann

Dick Smith

These three employees recently received five-year service pins. They are the 10th group to receive the awards since COMSAT marked its fifth anniversary of incorporation, February, 1968.

As a memento of attending the INTELSAT Conference, Joao A. Wiltgen, third from left, chief Brazilian delegate, purchases a share of COMSAT stock, and then watches the New York Stock Exchange transaction on the broker's stock board. Others, from left: Hamilton Whitelaw of Merrill Lynch, Pierce, Fenner & Smith, Inc., Washington; Carlos A. Coelho, a Brazilian INTELSAT representative, and Jerome Breslow, an Assistant Corporate Secretary of COMSAT.

President Nixon Signs Amendment

An amendment to the Communications Satellite Act of 1962, governing the election of COMSAT directors, was passed by the Congress in February and signed into law by President Nixon in March.

Under the new law the number of Series I (public) Directors and Series II (carrier) Directors will be approximately proportionate to their shareholdings. The Act originally provided that the carriers and public each elect six Directors. In addition, three Directors are appointed by the President of the U.S. with the advice and consent of the Senate.

In the past several years the carrier's holdings have declined from 50 percent of the outstanding shares to approximately 38 percent. Thus, under a formula provided in the amendment, the carrier shareholders will be eligible to elect four Directors at the 1969 annual meeting and the public shareholders will elect eight.