

John Hewitt (7/15/23)

One of 52 Earth Station Staff hired in May of 1966. Attended four months of specialized satellite ground equipment at numerous industry facilities. Assign to the Brewster Flat Earth Station, transferred to COMSAT Headquarters 1970, and completed 10 years of service as a system engineer for satellite tracking systems in 1977.

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I will focus on the special events over the years that I know of, or participated in, and not on my career per se, but I was fortunate to be part of some special events that will allow me to provide more details of those events.

1966. Accepted position with COMSAT as a Junior engineer/Technical Rep assigned to the Brewster Flat Earth Station under construction near the city of Brewster Washington, about 60 miles North of Wenatchee WA, along the Columbia river. Attended special technical training at various Companies (ITT Federal Labs, ADL, Dec Computer, GTE, Rohr Industries).

1970. Accepted a position as Senior Controller at the Intelsat Operations Center (IOC) at COMSAT Headquarters in Washington D.C.

1971 Accepted a promotion to Staff Engineer in the U.S. Plant Support Department at COMSAT Headquarters in Washington D.C.

1973. Accepted a promotion to Staff Engineer in the RF System Engineering and Integration Department at COMSAT Headquarters in Washington D.C., which also included work at the COMSAT Labs in Maryland.

1976. Awarded my Ten Year Anniversary with COMSAT by the Chairman of the Board.

1978. COMSAT formed a new company with IBM and the Aetna Insurance Group named Satellite Business Systems (SBS). In that process various employees of all three Companies were assigned to this new venture to establish a Ku-band direct point to point telephone, fax, digital, and video processing using new modem and satellite technology. I was assigned to the IBM Research Facility in Los Gatos, California to establish pre-operational beta testing of the newly designed system.

1979. Assigned to SBS Headquarters in Virginia to support the two new TT&C stations located next to the COMSAT Labs in Maryland and in Castle Rock, Colorado.

1980. Assignment to the Castle Rock TT&C facility as site Manager and Engineer (site was under construction at that time).

1990. Transferred to Intelsat Engineering at their headquarters in Washington D.C.

1998. Accepted new position with Loral Space and Communications at the Three Peaks Satellite Control Center in Northern California.

2005. Retired and began consulting work for various companies, including Intelsat, XM Radio, GDSATCOM, Protostar, and Loral.

COMSAT:

1962. The Communication Act was approved by Congress and signed into law by President John F. Kennedy. \$200 Million US Dollars was provided as “startup” funding, and “shares” of COMSAT stock were issued, first to the major Telecommunications Companies then to Industries associated with communications and space technologies. Initially COMSAT set up offices on K Street in downtown Washington D.C. A few years later COMSAT moved into their new facility in L’Enfant Plaza in Washington D.C.

1962 - 1965. COMSAT management begun hiring selected Engineers and Astrophysicists to begin the process of developing RFPs to industry for the initial satellite procurement, launch service, ground stations to include a Telemetry, Tracking and Command (control) subsystem (Paumalu) and a NASA Communications subsystem (Brewster). In addition, an existing ground station (Earth Station) built by AT&T in Andover Main for the early Telstar satellite demonstration system was purchased (connecting with the Goonhilly England and the Plumeur Bodou France earth stations).

1963 - 1980. COMSAT, by agreement per the 1962 Communication Act, began the process of including Foreign Communication Entities into a Global Consortium designated “INTELSAT” whereby those organizations would submit a fee to Intelsat for a designated amount of revenue generated by the consortium. COMSAT would “operate” the Intelsat business until Intelsat formed their own company with a Board of Directors, with COMSAT being a founding member of the board.

1965 - 1966. A team of COMSAT staff placed Employment adds in select cities across the U.S. including Alaska and Hawaii. That team set up interviews and a testing process to select 24 technical staff for each of the two new earth stations, Brewster Flat and Paumalu. An additional five staff were hired to add to the existing staff at the Andover earth station. All “students” would attend training at selected companies on the East Coast between 01 June and 10 September. A Milestone . . . the first ever satellite equipment training by a commercial company.

1966. November, the two new stations were activated after equipment testing in preparation for the first satellite launch- Intelsat 1. Unfortunately the satellite did not reach geosynchronous orbit which limited four hours of continuous “coverage “ between the Brewster and Paumalu stations. Milestone: The first ever “live” television coverage of a sports program between the U.S. Mainland and Hawaii was conducted on January 3, 1967 by the televised Rose Bowl football game.

1967. Intelsat II satellite was successfully launched later that year with formal communications

established between Brewster and earth stations at Paumalu, Ibarocki Japan, Sydney Australia, Canarvan Australia (NASA station), and a few months later Hong Gong . . .this started the TV viewing to show a “vis Satellite “ sign at the bottom of TV sets around the world.

Note: The tragic horrors of the Viet Nam war unfolded in same day television coverage being transmitted by the Pacific satellite system to millions of viewers around the world (the Andover station provided coverage to Europe).

A Milestone: War time same day televised coverage.

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[In response to Maury Mechanick’s question about the name of the diversity Ku-band site near Etam]

Ok, so as I remember the adding the first Ku-band antenna in the COMSAT system was in fact at Etam and a “diversity” site to provide signal reliability due to weather, specifically rain or heavy moisture clouds that affect the Ku spectrum.

So, my last project before I was asked to join the SBS team was the addition of a new C-band antenna system at Etam and Andover (Maine). That effort was 1976-1978, and was involved with the Etam site selection location for a new Ku antenna. I moved on to SBS before the Ku antenna project was implemented. However, we had discussed the need for a second Ku antenna for diversity, and Later I heard from some of my COMSAT colleagues that in fact that second antenna was installed not far from the Etam site. Generally you want a diversity site in a different weather pattern, but COMSAT wanted to use the Etam staff to maintain the Ku facility, therefore not too far from Etam.

I recall a site name of King . . . something. A WV map shows a Kingwood about 25 miles North from Etam, which would fit the info I remember . . . but I could be wrong.

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This was sent to me by an old friend and another COMSAT engineer [Ken Yamashita] that went to the industry schools with me and deployed to the new Paumalu Earth Station in Hawaii, built the same time as the Brewster Flat station in Eastern Washington State. . . 1966. I’m not sure if Ken is still with us but I will check and if he is agreeable I can get him in touch with you . . . he was in charge of the TT&C system at Paumalu (Oahu, North Shore).

Subject: SatCom Frontier blog - Satellite Pioneer Dr. Charyk

Skeptics abounded in 1963 when Joseph Charyk went looking for investors and customers for the new, quasi-private Communications Satellite Corp. (COMSAT). The company came into being when President Kennedy signed legislation designating COMSAT to represent the United States in the nascent international satellite realm.

With Sputnik having launched just six years earlier, satellite technology was in its infancy. U.S. military and communications industry leaders thought low- or medium earth-orbit constellations could meet their needs. But Charyk advocated placing a few platforms in geosynchronous orbit that could relay signals over wider areas and provide global service.

In August of 1964, with Charyk as its founding president, COMSAT helped create, and was the majority owner of, the International Telecommunications Satellite Consortium, known as Intelsat. Eight months later, Intelsat launched its first satellite, Intelsat I, colloquially known as Early Bird. This first satellite communications platform relaying signals from 22,300 miles up verified Charyk's belief in geosynchronous orbit for SATCOM . . .