

Sept 76

Vol 76-2

SPR



WILD GOOSE ASSOCIATION

NEWSLETTER

SEPTEMBER 1976

IN MEMORIAM. Claude Pasquier passed away in July of a heart attack. Claude was one of the co-founders of the Wild Goose Association and was its' first Vice President. The absence of his WGA activity will certainly be felt, and those of us who knew him well have lost a friend. Our deepest sympathy goes to his wife and children.

ITEM. Northeast Chapter WGA. The Northeast Chapter of the WGA held its annual picnic at Natick Laboratories on the 22nd of August. A total of 117 people attended and a good time was had by all. Thanks to Mel Chaskin, President, and Jim Henderson, Secretary, for this very enjoyable day. A meeting of the chapter was held at the Hanscom AFB Officers Club on 13 September, and a new slate of officers was elected. Ed McGann (Megapulse) is President, Bahar Uttam (TASC) is Vice President, Frank Skestone (LSI) is Secretary and Randy Gressang (USAF) is Treasurer. Good luck to the NE Chapter and its officers for the coming year.

"ITEM. - 1977 Offshore Technology Conference.

The 1977 OTC is interested in receiving abstracts for papers to be considered for presentation at the next conference, May, 1977, in Houston. Abstract forms can be obtained by writing or phoning

J.G. Morgan
Chevron Oil Company
P.O. Box 36487
Houston, Texas 77036
Phone: (713) 781-3030 x 462

The 1975 and 1976 OTC's in Houston each had two technical sessions devoted to navigation, and each year one of the sessions was entirely devoted to LORAN-C. Though it is too early to tell if the 1977 OTC will have a session dedicated to LORAN-C, all papers will be given careful consideration. It is also interesting to note that the 1976 OTC drew over 60,000 attendees."

ITEM. FULL TESTS BEGIN ON ST. MARYS RIVER MINICHAIN

On April 7, 1976 full operation of the experimental short baseline LORAN-C chain in the St. Mary's River (connecting Lake Superior and Lake Huron) was turned over to the Ninth Coast Guard District. This chain, consisting of four low-power Megapulse Accufix transmitters and timers controlled by Decca

Sept 76
receivers and a Hewlit Packard calculator, has transmitter sites spaced about 30 miles apart in both Canada (Gordon Lake and Dennis) and Michigan (Pickford and Drummand Island). The control/monitor station is in Sault Ste. Marie, Michigan. Time difference errors of the transmitted time differences are 15 nanoseconds or less, permitting fix accuracies in the river of 25 to 50 feet.

Although the end purpose of the experiment is to demonstrate the feasibility of extending the navigation season for commercial ore carriers that transit the Great Lakes, initial experiments have been carried out using Coast Guard vessels to perfect suitable user equipment. Presently systems developed by the Applied Physics Laboratory and Teledyne Systems Company are being evaluated by the Coast Guard Research and Development Center.

ITEM. WEST COAST LORAN-C EXPANSION NEARS COMPLETION

The new West Coast - Gulf of Alaska LORAN-C chains are in the final stages of construction, installation and testing. There are three chains that provide continuous Coastal Confluence Zone (CCZ) coverage from the U.S. - Mexico border to Kodiak Island, Alaska. Major electronic equipments include ITT transmitters, Coast Guard timing and control units, Austron monitor receivers, and a mixture of monopole and multi-tower array antennas. The chains will be operated with greatly reduced crews using data from automated transmitting station sensors and data from remote, unmanned, spacially separated monitor sites. With the exception of antennas and some monitor and control hardware, full redundancy is provided including the control communications system which uses both LORAN-C pulses and landlines.

The U.S. West Coast chain (Fallon, Nevada; Searchlight, Nevada; Middletown, California; George, Washington) is scheduled to begin transmitting about October 15, 1976. Calibration, test, and training will take place during the three months that follow. January 1, 1977 is the planned date for full operational status. The Gulf of Alaska chain (Tok, Alaska; Narrow Cape, Alaska; Shoal Cove, Alaska) is scheduled to begin transmitting by 1 January 1977. Start-up dates for the Western Canada chain (Williams Lake, British Columbia; Shoal Cove, Alaska; George, Washington) are indefinite due to a protracted general strike at Williams Lake that has curtailed construction.

Although planned coverage is adequate for CCZ applications, engineering investigations to increase output power for optional harbor and harbor entrance applications will explore the use of more efficient radiating panels for multi-tower array antennas and the feasibility of operating transmitters in parallel.

ITEM. MORE ON THE COAST GUARD PURCHASE OF NEW LOW-COST LORAN-C RECEIVERS AS REPORTED IN THE JUNE NEWSLETTER

On June 3, 1976 the Coast Guard awarded a contract for the purchase of 230 low-cost Marine Micro Locator LORAN-C receivers to Teledyne Systems

Company, Northridge, California. Delivery will begin in November 1976 and extend through August 1977. Installation is scheduled for most Coast Guard vessels 82 feet or longer. Because no on-board maintenance is planned, spare receivers will be stocked by Coast Guard Districts for direct substitution of defective units. High and medium endurance cutters whose missions include law enforcement and search and rescue in the Coastal Confluence Zone will carry an on-board spare for full capability on extended missions. The Coast Guard Electronics Engineering Center, Wildwood, New Jersey will repair and maintain these new receivers.

ITEM. AIR FORCE TESTS NEW LORAN C/D TRANSMITTER

The Air Force has developed a new LORAN C/D transmitter through the Sperry Gyroscope Company of Great Neck, NY. Three transmitters were operated in parallel at the USCG site at Wildwood, NJ during June and July. The combination equipment radiated in excess of 300KW during this test. The solid state system is computer controlled and can vary pulse rise time and control the ECD over a 5 microsecond range in steps of 0.25 microseconds. It is also capable of transmitting LORAN C or LORAN D or any combination of the two in a dual rate mode. The Air Force intends to continue testing the equipment in a 3 station configuration for the remainder of the year. The stations will be located with the Master at Ft. McClellan, Alabama and the slaves will be located at Stark, Florida and Kisatchie National Forest, Louisiana (near Alexandria).

ITEM. USCG EXPERIMENTAL STATION

This fall, the U.S. Coast Guard LORAN C test facility at Caribou, Maine plans to test the Automatic LORAN C chain control system described at last year's WGA convention. The test will be conducted with the computer at Caribou monitoring and controlling the Nantucket - Caribou baseline. Results of these tests will aid in the development of future automatic LORAN C chain control equipment - so reports fellow honker LCDR Steve Plusch.

ITEM. A technical report entitled "LORAN C Conceptual Analysis" was recently issued by the NY state Department of Motor Vehicles. The report covers terrestrial applications of LORAN C including operational, technical, economic and social factors. The analysis concludes that LORAN C can provide position location with the required accuracy and satisfy the objectives of the above factors. The document is available through MTIS, Springfield, VA 22161 and is identified as report no. DOT-HS-801952.

ITEM. Election Results: John Beukers has been elected as our President for 1977. Directors elected to serve are Lloyd Higginbotham, Jim Culbertson, Bill Polkemus, Dave Haislip and Bahar Uttam. John Beukers will be installed at the convention and has selected Jim Culbertson as VP, Bill Polkemus, secretary and Bill Roland will continue as the Treasurer.

Sept 76

ITEM. New Chapter formed. At the WGA Board meeting held in Washington, D.C., Quality Inn, Pentagon City, the Charter for the Southeastern Chapter (located in Oskaloosa County, FL) of the WGA was approved. Officers of the new chapter are Bill Keating, President; Jim Graydon, VP; Joe Howard, Secretary; and Ralph Livingston, Treasurer. Other Board members are Roy Godwin and Bob LeMieux. Congratulations! NOTE: As of 18 October, Bill Keating is leaving the USAF and will be employed by Lear Siegler, Inc., at Grand Rapids, Mich. Good Luck, Bill!

ITEM. The Commander, 9th Coast Guard District, has announced through the Commerce Business Daily, that an RFP for a 700' LORAN C tower to be installed at Seneca, NY and will be released in December 1976. The station will eventually be a part of the reconfiguration of the East Coast chain.

ITEM. Honkers form Company. Fellow honkers Ralph Johler, Bob Doherty and Lloyd Burch have ended their association with the Institute for Telecommunication Sciences and have incorporated in the state of Colorado with offices at 1898 So. Flatiron Ct, Boulder, Colorado 80301. Their company is called Colorado Research and Prediction Laboratory (CRPL). Area of work is Navigation, Radio Wave Propagation and Computer Simulation. Good Luck, fellows!

ITEM. WGA Tie Tack/Lapel Pins. Leo Fehlner and his awards committee have had subject pins designed and manufactured. They are the official emblem with blue enamel background and the etching is in either gold or silver. They will be available at the Convention for \$3.00 each (our cost). If you would like to order one by mail, please send \$3.35 to cover mailing costs to Mr. Keith Bruhl, 3110 Saber Drive, Falls Church, VA 22044.

ITEM. Medal Of Merit. The WGA will award the Medal of Merit to Gen John D. Lavelle, USAF retired for his outstanding contributions to the operational use of LORAN. Since Gen Lavelle will be out of the country during the convention, Gen W.J. Evans, Commander of the Air Force Systems Command, has agreed to accept the award in his name.

ITEM. Convention News:

The following has appeared in 15 newspapers and at least 12 of the trade magazines: (per Ed McGann)

"WASHINGTON, D.C. "LORAN-C and the Law of the Sea" will be the major conference theme as the Wild Goose Association - WGA - holds its Fifth Annual Conference at the Quality Inn at Pentagon City in Arlington, Virginia on October 27 thru 29. The WGA, the professional society of those individuals concerned with the effective use of the LORAN radio-aid-to-navigation systems, has solicited papers for this conference which will address the relationship between LORAN-C, which is the official National Navigation System for the U.S. Coastal Confluence Region, and legal and operational aspects involved with enforcing of the 200 mile statutory limit. It is expected that representatives from many countries will be in attendance since questions concerning offshore resource regulations are of very current interest to all nations which have Coastal areas. All correspondence concerning this Conference should be addressed to W.F. Reveille, Chairman, Wild Goose Convention, c/o Post Office Box 449, College Park, Maryland 20704."

The convention Chairman requests that reservations be made early so that he can finalize his plans. The Golf Tournament will be held at the Ft. Belvoir, VA Golf Club. Details are being handled by Murray Block, c/o ITT, 1707 L St S.W., Washington, D.C. 20036. Bill also advises display arrangements have been made with the Quality Inn to provide space for hardware displays adjacent to the meeting room, set aside for technical papers. Please forward your space and power requirements to Bill Reveille, Convention Chairman, P.O. Box 449, College Park, MD 20740. The technical papers to be presented include the following:

"LORAN-C AND THE 200-MILE LIMIT"	Bahar Uttam TASC
"COASTAL SURVEY IN AFRICA USING LORAN-C"	Rick Bryant Canadian Hydrog. Service
"LORAN-C CHAIN CONTROL"	Ron Frazier USCG
"U.S. LORAN-C IMPLEMENTATION - STATUS REPORT"	Jim Walker, LCDR USCG
"LORAN-C CONCEPTUAL ANALYSIS"	C. Mosher NYS DMV & Polhemus
"FOREST SERVICE NEEDS FOR PRECISE NAVIGATION SYSTEM FOR SPRAY AIRCRAFT"	Tony Jasumback U.S. Forrestry Service
"AIRBORNE NAVIGATION NEEDS FOR INSECT CONTROL"	Arthur Geiser U.S. Dept. of Agriculture
"LORAN-C USER EQUIPMENT"	Fritz Chambers Eledyne
"LOW COST AIRBORNE NAVIGATOR"	Bob Cassis, Cdr USCG

PANEL DISCUSSION: "A DAY IN COURT"

The panel discussion will begin with a skit by Bill Roland, Bahar Uttam, et al - a skit designed to dramatize actual and potential pitfalls in presenting LORAN fixes as evidence in a court of law. This skit is intended to stimulate an open discussion on position-fixing procedures to be used to insure acceptance as evidence, LORAN readings used to prove the position at which a violation has occurred. The presentation of this skit will be followed by discussion of the significance of position fixing at sea.

LLOYD D. HIGGINBOTHAM
WGA NEWSLETTER EDITOR