



# WILD GOOSE ASSOCIATION

## NEWSLETTER

DECEMBER 1976

*mailed, 12/18/76*

SEASON'S GREETINGS: Your President and Board of Directors join me in wishing you and yours much happiness for this Holiday Season and the New Year ahead. There really is a Santa Claus. I hope your vision will allow you to see him. For the year 1977, may your "lines of position" be pronounced and without perturbations. Our personal associations have been most pleasant and productive under the guidance of past President, Jim Van Etten. May it continue so under the leadership of our new President, John Beukers. MERRY CHRISTMAS and HAPPY NEW YEAR!

### ITEM. 1976 Annual Convention Attracts New Members

An excellent turnout was seen at the 1976 Annual Convention held at the Quality Inn, Pentagon City in Washington, D.C. Many new faces were around and our membership rose by 10%. The general consensus of those attending was that the two day meet was both enjoyable and interesting.

While the theme of the technical sessions, chaired by Norm Dickerson, was Loran-C and the Law of the Sea, the technical papers covered broad areas of Loran-C technology and applications. Proceedings of the sessions will be mailed to attendees.

If there was any complacency amongst members this was dispelled by a challenging presentation given by Cdr. Bill Mohin as our luncheon speaker. Bill was emphatic that we, the WGA, become more involved with the user community and look to see what is happening with Loran-C coverage of the interior.

Close to 250 people were present at the banquet to witness the presentation of awards, the changing of Chief Gooses (Geese?) and the recognition of new and ongoing directors. The banquet speaker was Capt Young of the U.S. Coast Guard who spoke of the complex international challenge of the "Law of the Sea." Capt Young represents the State Department at the Law of the Sea Conferences; his first-hand experience with the problems involved was clearly apparent in his talk.

To round off the meeting a panel discussion took place chaired by Cdr. Bill Roland - the theme "a day in court." With active participation from the floor, the panel highlighted many of the difficulties involved in the enforcement of the 200 mile limit to become law in March of 1977.

We have to thank Bill Reveille for his dedicated efforts, as Convention Chairman, in making the convention a success.

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ITEM. 1977 Convention on the West Coast.

We are planning to hold the next convention in Seattle, Washington in conjunction with Fish Expo 1977. Keith Bruhl and Red Frederick are to co-chair the function with assistance from Dan Panshin and Bob Dugan on the West Coast.

Item. LORAN-C Operational with Norwegian Met Service.

November saw delivery of a Beukers Laboratories, Incorporated LO-CATE WL-2DF atmospheric sounding equipment to be installed on a new Norwegian Ocean Weather Ship. Consisting of a Loran-C processor and minicomputer/dual flexible disc, the data acquisition system will be employed for routine determination of pressure, temperature, humidity, wind speed and direction of the atmosphere from the surface to 30,000M. Wind information is derived from retransmitted Loran-C signals from an expendable radiosonde to an accuracy of 0.2 meters/second.

ITEM. President's Corner - John M. Beukers

First, an appreciation for the great job performed by an outgoing President, Jim Van Etten. It was an honor and pleasure to present Jim with a WGA Service Award at the Banquet. Second, my appreciation to the membership for the privilege of serving a term as President of our Association.

At the banquet, I presented the newly elected directors and presented those in attendance. I also announced the officers; here they are:

- John M. Beukers, President
- Capt James Culbertson, Vice President
- William Polhemus, Secretary
- Capt William Roland, Treasurer

I also announced the committees to be active during the year together with the appointed chairmen:

<u>Standing Committees</u>	<u>Chairman</u>
Awards	Leo Fehlner
Constitution	Vernon Johnson
Convention	Keith Bruhl/Red Frederick
Executive	Capt Jim Culbertson
	Capt William Roland
	Bill Polhemus
Historical	To be assigned
Membership	Lloyd Higginbotham
Nominating & Election	Walt Dean

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Special Committees

Congressional & DOT Liaison  
Radionavigation Journal  
Loran Spectrum Clearance  
Publicity  
Loran-C Characterization  
& Specification  
FAA Loran-C Certification  
Committee

Chairman

Ed McGann  
Bill Roland  
Leo Fehlner  
Samuel Goldstein  
Jim Van Etten  
  
Dick Pasciuti

Our Board of Directors, Committees and members interested and willing to participate have a full year ahead of them. We have stated that WGA initiatives started will continue, and new ones started - we need your help in these endeavors. Please contact those who have undertaken to take the lead as noted above.

Let me take this opportunity to wish you a happy holiday season and the best for 1977.

JOHN M. BEUKERS  
President

Item. New England Chapter Program.

At a recent executive meeting, the New England WGA Chapter announced its program for the coming year. President Ed McGann informs us that a luncheon meeting will be held on the 2nd Tuesday of every other month. The first meeting will be on January 11th and held at the Analytical Systems Engineering Corporation (ASEC). The format calls for a catered lunch (sandwiches?) and a tour of the facilities. It is Ed's plan to rotate the meeting place amongst local industry which has an active roll in Loran affairs. Best of luck, N.E. Chapter! Ed says "that in keeping with the Charter, the N.E. Chapter will try to extend our cooperation and acquaintances with the user community in the New England area.

Item. WGA AWARDS.

The WGA has an active awards program. Awards are normally made at the Annual Convention, but may be made at any time. The 1976-77 Awards Committee members are Calvin Culver, Leo Fehlner, Jim Graydon, Bill McNeil, and Steve Ryan. Leo is Chairman. The Committee is anxious to hear from members regarding the awards program and recommendations for awards. Call or write any member. In particular, please send a bibliography of all your reports pertinent to Loran to the Chairman.

At the WGA Convention Banquet in October, WGA Service Awards were presented to 7 members:

Claude Pasquier, for his many years of service as Vice-President, Director, Goose Gazette Editor and Awards Chairman. Claude's award was accepted by Norm Dickerson.

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Willie Vogeler for his unselfish loyalty and generous contributions to the technical sessions. Willie's award was accepted by his wife, Pat.

Murray Bolck, for many years of chairing the golf tournament.

Mel Chaskin, for his efforts on behalf of regional clubs and his contributions as first President of the Northeast Chapter.

Jim Van Etten, for his dedicated efforts as President 1975 and 1976.

Bill Reveille, for chairing the last two conventions.

Norm Dickerson, for chairing the last two annual technical sessions.

The 1976 Paper Award was given to Roger Hassard for his paper "The Globtik Sun Incident." The WGA published reprints of this paper which were very useful in justifying expenditures for the Gulf of Mexico Loran-C Chain.

For the first time this year, the WGA Medal of Merit was awarded. It was awarded to Gen John D. Lavelle, in recognition of his outstanding and long lasting contributions to the operational use of Loran. Gen Lavelle was out of the country at the time of the convention. The medal was accepted on his behalf by Gen William J. Evans.

Please file the following addresses so that you can contact the Awards Committee:

Calvin Culver  
9436 Irondale Avenue  
Chatsworth, CA 0131

Leo Fehlner  
118 Quaint Acres Drive  
Silver Spring, MD 20904

James Graydon  
741 Revere Avenue  
Fort Walton Beach, FL 32548

William McNeil  
1900 S. Eads Street  
Arlington, VA 22202

Stephen Ryan  
4141 Eastern Avenue, S.E.  
Grand Rapids, Michigan 49508

Item. New Regional Club.

A charter for the Southeast Chapter, whose formation was announced in the last newsletter, was granted by the Board of Directors and the charter was presented to James A. Graydon, President of the Chapter. Jim recently became president because of the resignation of Bill Keating, who has moved from the southeast area. Jim had been Vice-President of the Chapter.

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Item. INITIAL PHASE OF ST. MARY RIVER LORAN-C TESTING COMPLETED.

Thanks to Don Naples, we are being kept abreast of the St. Mary's project. The initial phase of the evaluation of the feasibility of using Loran-C for all-weather precision navigation in restricted waters was completed on 8 October 1976. The operation of the St. Marys River Loran-C mini-chain (four unmanned low-power transmitting stations and one monitor station) has improved steadily since its installation in January of this year. Two sets of user equipment, designated User I and User II, were tested along selected portions of the River and were demonstrated onboard the CGC NAUGATUCK to several prospective commercial users. Although much work remains to be done, the response to date has been extremely favorable. Repeatable position-fix accuracies of 50 feet or better now appear achievable over most, if not all, of the River.

Item. News from Loran-D Europe.

I received the following from fellow Honker, Don Johnston, Ramstein, Germany. I thought you might like to hear his experience in his own words:

"The LORAN-D Chain was deployed to West Germany in January, 1975. Antenna construction was accomplished in February and March, and on 8 April 1975, the Chain began preliminary operations. Problems peculiar to the European theater were not long in materializing.

First, the Bundesministerium fur das Post und Fernmeldewesen (equivalent to our FCC) informed the Chain Commander, Major Don Johnston, the Bremerhaven Station was interfering with the 500 KHZ International Maritime Distress Frequency, and that the interference must cease within 72 hours, one way or the other. Almost at the same time, it was learned that the Munich Station was interfering with a number of frequencies of interest to a Radio Free Europe monitor station in the vicinity. Sperry Systems Engineers were scrambled to tackle the task with cooperation from the Deutches Bundespost (DBP). The fix that did the job is referred to as "shorting the Quencher", i.e., defeating the circuitry which squelches the trailing edge of the pulses. This causes the pulses to ring out in a more relaxed manner and gets rid of almost all of the harmonics. But the solution to this one problem caused problems in another area.

The increased duty cycle of the transmitter caused several components to operate beyond their design rating. In particular, a power supply transformer in the final RF Amp stages (referred to as T-1) began to fail at an alarming rate. "We had only two spare T-1's on hand, and we scared up a couple more out of depot channels, but at one point all three transmitters were operating with the minimum of nine RE Amps on line," says Don. "One more failure and we would have been flat on our backs, just when grid calibration was in full swing. Sperry came through with an emergency spares shipment just in time to keep us alive. We now have an adequate spares level and reorder rate for an improved T-1. I don't think T-1 will ever get us backed in the corner like that again." "Toward the end of CY 75, we were beginning to think we had it made. Then on 3 Jan 76, all Hell fell in" - the top seventy feet of the Hohes Moor tower was blown off by once-in-a-century winds. Due to unprecedented foul weather conditions, it required two and a half months to restore the tower. Spare

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tower sections were obtained from Nellis AFB, and new pins, bolts, and other minor hardware were obtained from vendors. The Hohes Moor tower was completely lowered, overhauled, and reinstalled by mid-March. "That thing ain't coming down this time," says SSgt Steve Turbin, one of the two antenna maintenance troops in the chain.

Many other improvements have been made in the eighteen months that the TRN-21/32 LORAN D chain has been in Europe. The original tactical power has been replaced by commercial power, local modifications have been made by both Air Force technicians and on-site Sperry Field Engineers, all three of the towers have been overhauled, and the electronic equipment has been gradually overhauled as mission times permit.

The most dramatic achievement can be seen in a graph of the chain OR rate. In the beginning, each station's OR rate jumped around a lot, but the chain trend has always been up.

"If we continue to perform as we have for the past three months, we could theoretically achieve a 99.85% OR rate", says Don. "There's no way I expect to go above that figure due to lack of no-break power, the fact that the TRN-21 is not automatically switched to recover from failures, the severe electrical environment over here coupled with our low power, etc. But I do know we can reach 99.75% over a four month average, and I'll be happy if we can maintain that with no more spooks jumping out at us anymore. Considering the age of this prototype system, the state-of-the-art when it was put together, and the tactical environment in which it operates, I'm very pleased with the performance we've been able to get out of it. We can't compete with the Coast Guard's OR rate yet, but maybe, when we get the TRN-38 - - - -."

Editor's Note: Thanks, Don.

Item. Wildwood News. The preproduction model of Teledynes low cost receiver was delivered to the USCG Engineering Center at Wildwood, NJ on the 13th of December where it will undergo extensive testing says Commandant Capt Bill Roland. The Megapulse solid state transmitter has also been installed at Wildwood where Bill says it will undergo many months of test and evaluation.

Item. New Commercial Receiver hits Market.

Digital Marine Electronics Corporation announces the availability of their new NorthStar 6000 Automatic Loran C receiver. Using an INTEL 8080 microprocessor and a new envelope processor and new cycle selection capability (patent's applied for) it acquires and tracks the Master and two slaves in less than 30 seconds at Bedford, MA, so states Mr. Charlie Malaquais, President of DMEC. It also tracks up to five slaves and allows the operator to select the switch position of the slaves. It employs two internal and two external notches and the interference detector reads out on a 6 LED instead of a mechanical meter. It also employs a visula bar on the display to provide steering along an LOP.

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Item. Status Report for West Coast/Gulf of Alaska, LORAN C Stations:

- SEARCHLIGHT, NEVADA - in commission.
- MIDDLETOWN, CALIFORNIA - ready for operation.
- FALLON, NEVADA - on air for test.
- GEORGE, WASHINGTON - in commission.
- POINT PINOS MONITOR - under evaluation.
- NORTH BEND MONITOR - ready for operation.
- US WEST COAST CHAIN - certification inspection 3 through 15 Jan 77; calibration 17 Jan through 1 Mar 77. Operational 25 Mar 77.
- WILLIAMS LAKE, BRITISH COLUMBIA - basic equipment installed; crew on site 3 Jan 77; complete operation by 7 Feb 77.
- COMOX MONITOR SITE - ready for operation.
- CANADIAN WEST COAST CHAIN - certification 1 through 8 Mar 77; calibration 15 Mar through 7 Apr 77; operational 30 Apr 77.
- SHOAL COVE, ALASKA - electronics installed 4 through 25 Jan 77; high power modification 28 Feb through 7 Mar 77.
- TOK, ALASKA - first signal on air week of 20 Dec 76; high power modification 24 Jan through 1 Feb 77.
- NARROW CAPE, ALASKA - ready for operation 20 Dec 76.
- JUNEAU MONITOR SITE - ready for operation.
- LORMONSTA KODIAK - ready for operation 20 Dec 76.
- GULF OF ALASKA CHAIN - certification 21 Feb through 14 Mar 77; calibration 1 through 25 Apr 77; operational 15 May 77.

*Lloyd*

LLOYD D. HIGGINBOTHAM  
WGA Newsletter Editor