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WILD GOOSE ASSOCIATION

QUARTERLY NEWSBULLETIN

Spring 1986

INTRODUCTION

(Editor)

The latest volunteer to serve as Editor for this publication is Bob Miller of the Kaman Tempo field office in Albuquerque, New Mexico. While we will press to include the latest and most pertinent worldwide information to the Association members in this publication, your input is solicited and drastically needed. The address for forwarding any such material is: Kaman Tempo, 1613 University Boulevard NE, Albuquerque, NM, 87102, Phone: (505)242-0508.

The Wild Goose Association Quarterly Newabulletin is currently scheduled for release during the months of March, June, September, and November. Until such time that a flood of input material dictates a cut-off date, we will accept all contributions arriving before the document goes to the printer.

PRESIDENT'S COLUMN

(Walt Dean)

It just seems like a good idea - a few words from the President of the organization, just some observations about the state of Loran and the WGA.

A lot of things have started to go our way. The new attitude of the FAA, coming directly from the Administrator, reflects the enthusiaam of the general aviation community for Loran and what it can do. The proposed mid-continent chain seems to be surviving the budget battle without fatal injury. The FAA and the Coast Guard have almost agreed on how to cooperate in that venture.

The GPS program schedule is in turmoil. The best guess at the JPO seems to be that the shuttle accident has set the GPS launch schedule back about a year. It's hard to predict what will happen in detail, but the need for Loran should become more and more obvious.

I sent a letter to RADM Ted Wojnar, USCG, suggesting that some of Loran transmitter maintenance, requiring off-air time, be done at times less convenient to the Coast Guard, such as at night, when the service interruption would affect fewer users. I'll let you know what happens.

Elsewhere in this Newsletter are some words from Bill Mooney, Technical Chairman for the Convention in New Orleans. He will have a tough time putting on as good a program as Jim Culbertson did in Santa Barbara, so start preparing those papers, and give him all the support you can.

TREASURER'S REPORT

(Dave Carter)

Beginning Balance (11 Dec. 85).....\$14,139.16
 Cash Flow..... 1,512.00
 Ending Balance (20 Jan. 86).....\$15,651.16

RECEIPTS:

Dues.....\$2,429.00
 Journal sales..... 10.00
 \$2,349.00

EXPENDITURES:

Returned dues check.....\$ 17.00
 Secretary expenses advance... 400.00
 Corporation filing fee..... 10.00
 Membership Committee advance. 500.00

MEMBERSHIP FEES

(Leo Fehlner)

Check the mailing label on your newsletter. If the date on the label is a number less than 1986, you owe your dues as of this mailing. You received a letter in December stating the amount you owe. If your dues date reads 1983 and remains so after 1 April 1986, your name will be dropped from our mailing list.

MARINE AND LAND RADIONAVIGATION SYSTEM USERS

(Editor)

The U.S. Department of Transportation will be holding open meetings for surface marine and land users of U.S. Government provided Radionavigation Systems on Government policy and future plans for these systems. These meetings allow surface users of Federally provided radionavigation services the opportunity to comment on current Government radionavigation policy and plans. Systems directly covered include the LORAN-C, OMEGA, RADIOBEACONS, TRANSIT, and GPS. The San Francisco meeting was completed in January and a supplemental meeting was held in Long Beach, CA coincident with the ION Convention; the three remaining meetings scheduled are:

New Orleans	March 26, 1986	Crowne Plaza Holiday Inn Hotel
Chicago	April 17, 1986	Midland Hotel
Washington	May 22, 1986	Rosslyn Westpark (Arlington, VA)

To receive more information write to:

Transportation Systems
 Center Center for Navigation DTS-52
 Attention: Nav. Conf.
 Kendall Square
 Cambridge, MA 02142

or call:
 J.A. LoVecchio
 (617)494-2131

WGA PRESS RELEASE - OCTOBER 24, 1985

(Bob Frank)

The Wild Goose Association, a professional organization of individuals and organizations having a common interest in Loran (LONG RANGE Navigation) made awards at its Fourteenth Annual Convention in Santa Barbara, California, today, as follows:

Medal of Merit to James I. Meranda, Consultant, Temecula, California, for pioneering work on microcircuit digital Loran-C receivers and hard limiting signal processing which reduced costs of commercial Loran-C receivers.

Best Loran Paper to Lt. Richard J. Hartnett and Lt. Ronald T. Hewitt, U. S. Coast Guard, for "The U. S. Coast Guard's Loran-C Remote Operating System" in the Proceedings of the Thirteenth Annual Technical Symposium of the WGA.

Service Awards to Carl Andren, Megapulse Inc., Washington D.C., for President of the Wild Goose Association from October 1982 to October 1985; Larry Sartin, A.S.E.C., Burlington MA, for Chairman 1984 Convention; Roger Hassard, Vitro Corporation, New London CT, for Chairman 1984 Technical

Vol 86-1

Symposium; Bernard Ambroseno, Epsco Inc., Westwood MA for Editor of the Radionavigation Journal 1980 to 1984; Frank Radin, Epsco Inc., for Art Director and Mechanical Designer of the Radionavigation Journal 1982 to 1984.

MINTAIN AND OPERATE US COAST GUARD LORAN-C AND OMEGA INSTALLATIONS (Editor)

Commerce Business Daily (CBD), 16 January 1986, published an announcement contemplating a firm fixed price for contract services that include: staffing, support, and maintaining electronic systems, electrical systems, mechanical systems, facilities, structures, grounds and utilities at 33 Loran-C transmitting stations plus 2 Omega stations. In addition, similar services, excluding staffing, are to be provided at 22 Loran-C unmanned remote monitor sites. The detailed list of sites involved is contained in the CBD item. Services do not include operational chain control of the Loran system. The published item was not a solicitation for bids. Furthermore, it was the second of three possible notices concerning the requirement. A prebid conference is expected to be held on a date to be announced in the third notice.

DAVID SCULL ELECTED PRESIDENT OF IAIN (Editor)

David C. Scull, fellow member of the Wild Goose Association, was elected to a three year term as President of the International Association of Institutes of Navigation. IAIN representation includes America, Arabia, Australia, Canada, Germany, France, Italy, Japan, and Great Britain.

1986 WGA CONVENTION REPORT (Bill Mooney)

Our 1986 Convention, "1986 - The Quiet Expansion", will be held in New Orleans at the International Hotel, a luxury hotel of an international chain. For geography buffs, the International is located at the intersection of Poydras and St. Charles, 4 blocks from the Mississippi and the French Quarter. The technical sessions will start on the afternoon of 22 October continuing through 24 October. Mark your calendar now!!!

Bill Marchal, from Offshore Navigation Inc., is our Convention Chairman and Bill Mooney, from Transportation Systems Center, is the Technical Chairman. New Orleans is short on local WGA members, so Bill Marchal is looking for help in the following areas:

- * Publicity - External to New Orleans
- * Speaker Chairman - Help to lineup a notable individual for the banquet
- * Exhibits - Coordinator to help get contributions
- * Live-In-Help - Hospitality Room, etc. (Any volunteer)

Loran-C is on a roll, expanding worldwide, but without much fanfare. So, our theme for 1986 is "The Quiet Expansion." The call for papers will come out soon - so start thinking!! Papers addressing system status in Europe, Canada, Saudi Arabia, and China are needed. A full session about the U.S. airspace status is planned; i.e., expansion plans, status of the FAA monitor program, status on interim approach evaluations, etc. For the marine side, papers addressing receiver developments, survey and chart status (Heard of NAD-? or WGS-84 lately??), ASF resolution, etc. are equally needed. We also need an update on terrestrial applications (the ION had the first paper on a relatively new terrestrial application - the WGA should do better). Technical papers addressing status of the station automation, manning changes, and

operational records are also wanted. Everyone has a chance to participate, so don't let your opportunity slide by!!

Under John Illgen, the entire 1985 committee did such a good job to include getting papers in on time and pre-printed for attendees that the WGA Board of Directors wants to insure continuance of the methods. By issuing the proceedings at the conference, following up with an addendum of awards, pictures, and other requirements, everyone will have the necessary technical articles on hand when needed - during and immediately following the convention proceedings. This means we'll need papers by early-September which gives you a half year to meet the goal.

RECAP -----

* Convention Dates	October 22-24, 1986
* Location	International Hotel, New Orleans, LA
* Theme	"1986 - The Quiet Expansion"
* Papers	Due by early September
* Contacts	General: Bill Marchal (504)733-6790/865-7881 Technical: Bill Mooney (617)494-2122

WGA AWARDS NOMINATIONS NEEDED FOR 1986

(Bob Frank)

It is not too early to start thinking of nominations for this year; the awards will be presented at the 1986 Convention, but to give the committee, chaired by Bob Frank, time to review the information submitted, a deadline for nominations is 15 July 1986. In the past, very few nominations have come from the general membership -- most input has been from the committee. Let's get the membership's thoughts!!

Nominations are needed for the following awards:

Medal of Merit A Medallion and a framed Citation for contributions of outstanding value to the development and fostering of Loran.

Paper Award A Trophy with the Wild Goose for the outstanding paper published prior to 1 July 1986. Usually, primary consideration is given to papers published in the year ending on that date.

President's Award An inscribed Plaque for significant achievements, selected by the President assisted with input from the membership.

Service Award An inscribed Plaque for outstanding service to the WGA.

Honorary Membership A framed Certificate with citation for outstanding contributions to Loran. Usually restricted, informally, to those whose present professional activity is not in the Loran area.

The WGA By-Laws in the RADIONAVIGATION JOURNAL contain more details on the awards and the criteria. Several changes in the By-Laws were made by the Board of Directors at their April 1985 meeting. The previous restriction of the Paper Award to WGA members was removed insofar as papers in WGA publications is concerned; the restriction of Service Awards to members was completely removed.

Send your nominations with supporting information to:

Robert L. Frank
30795 River Crossing
Birmingham, MI 48010 Phone: (313)645-9848

GPS NOTICE

(Editor)

The Department of Defense has placed a research and development (R&D) constellation of navigation satellites in orbit that are the forerunners of an operational Global Positioning System (GPS) constellation of 18 satellites plus three on-orbit spares. The R&D constellation is essential to the development of the satellites, military user equipment and ground control facilities. During the development phase of the GPS, the R&D satellites will transmit signals which are intended only for military testing purposes.

When the GPS is declared fully operational, an event that is scheduled to occur in late 1988 - early 1989, the DoD intends to provide GPS Standard Positioning Service (SPS) to any user, worldwide, at an accuracy within the limits of national security considerations. The current accuracy that is planned for the SPS is 100 meters, Two Distance Root Mean Square (2 DRMS). There is no plan to charge users for this service.

In the meantime, the signals from the R&D satellites are subject to change without advance warning, may transmit non-useable altered signals for government testing, and may be turned on and off at any time. Therefore, any use of the GPS R&D satellite signals for positioning, navigation, time transfer, or any other purpose (which may be considered or which might be ruled by law as operational, or relied upon as such), is not authorized by the U. S. Government and will be at the risk of the user.

(Editor's Note: The above was published in the Federal Register (50 FR40991). GPS satellite information is available on a recording at (805)866-5948; the information is updated daily before 9 am PST, Monday through Friday.)

PHASE LAG POLYNOMIALS

(Jim Culbertson)

The 1984 Radionavigation Journal contained an article on Polynomials for Loran Total Phase Lag (primary and secondary factors) but, unfortunately, the Table of Constants for the polynomials was omitted. The polynomials were developed by Mr. Paul Brunavs, a retired geodesist/mathematician, under contract to the Canadian Hydrographic Service. The constants and the full report are available without charge from:

Canadian Hydrographic Service
615 Booth Street
Ottawa, Ontario
Canada K1A OE6

LORAN IN AVIATION

(Editor)

According to the FAA General Aviation Activity and Avionics Survey, October 1985, 18,900 aircraft in the general aviation fleet of 220,943,000 are equipped with Loran receivers.

8 1/2 % Loran

NEW REPORTS

(Editor)

"Test Results for Developing Revised Loran-C Protection Criteria"

Presents the results obtained from a series of tests and related analyses studying the effect of harmful RF interference on Loran-C receivers. The effects of interference in the 70 to 130 kHz band on typical Loran-C receivers was assessed. Recommendations were developed for signal-to-interference ratios and protection boundaries that would permit proper receiver operation during conditions of interference.

CHALLENGER SPACE SHUTTLE

(John Illgen / Editor)

All America, if not all the world, mourned the fate of the Challenger's crew when the shuttle exploded above Florida recently. Goleta, California, scientist, Lodewijk van den Berg, who rode on the same shuttle last spring and who was our guest speaker at the 1985 Convention Banquet, said he believes the space program should go on.

Van den Berg was involved with several hundred children at a California school who had gathered to watch the shuttle launch then to hear him speak. His presentation was to have included the transmission from space of the lessons by astronaut-teacher Christa McAuliffe. When the disaster occurred, he thought of calling off the speech, but then decided to carry on his program removing only a movie showing a successful launch.

At the 1985 Convention banquet, Van den Berg described his own launch as "very smooth, very quiet. They really train you for almost the worst possible case. So when things go normal, you expect more vibration than you really get. They want you to be frightened. They want you to be a little apprehensive, because that makes you more alert."

Van den Berg did not try to explain to the school children why the explosion occurred. "If there's anybody putting up a big front here, it's me," he said. As he did at the WGA Convention banquet, he talked about his own flight. He made humorous comments about weightlessness and the children laughed -- we adults at the banquet also laughed along with him.

MEETINGS OF INTEREST

(Editor)

U.S. DEPARTMENT OF TRANSPORTATION

Marine and Land Radionavigation Systems Users Conferences		
New Orleans	March 26, 1986	Crowne Plaza Holiday Inn
Chicago	April 17, 1986	Midland Hotel
Washington	May 22, 1986	Rosalyn Westpark

Contact: DOT/TSC, DTS-52
Attn: Nav. Conference
Kendall Square
Cambridge, MA 02142

Joe A. Lovachio 617-494-2131

INTERNATIONAL SYMPOSIUM ON MARINE POSITIONING (INSMAP '86)

Marine Technology Society's Marine Geodesy Committee
USCG National Center Auditorium, Reston, VA, 14-17 October 1986

Contact: CDR Mark Ethridge
NCG1X1, NGS/NOAA
6001 Executive Blvd.
Rockville, MD 20852

SIXTH CANADIAN SYMPOSIUM ON NAVIGATION

Theme: Traffic Control
Vancouver, British Columbia, 12-13 May 1986

Contact: Mr. M. Walker, Chairman
Canadian Navigation Society
601-222 Somerset St., W.
Ottawa, Ontario, Canada K2P 0J1

FORTY-SECOND ION ANNUAL MEETING

Theme: Air, Land, Sea, and Space: The Navigation Cosmos
Westin Hotel, Seattle, Washington, 24-26 June 1986

Contact: The Institute of Navigation
815 15th Street NW, Suite 832
Washington, DC 20005