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WILD GOOSE ASSOCIATION

NEWSLETTER
June 1985

Here we go again - the editorship of the Newsletter has changed. John Illgen being very busy with (among other things) Chairmanship of the 1985 Convention, Walt Dean has taken over. So here's the news!

ITEM - 14th Annual WGA Convention, Santa Barbara, California

Attached are hotel and convention registration forms for the WGA 14th Annual Convention to be held at the Sheraton Santa Barbara Hotel and Spa, 1111 East Cabrillo Boulevard, Santa Barbara, CA 93101. Please remove these forms from your newsletter and make your reservations today. Follow mailing instructions on each form. Santa Barbara is a very attractive, year-around tourist area and reservations are important. Additionally, early registration assists your convention committee in the planning process.

A great deal of ground has been covered with the FAA's initiative for Loran-C in the National Air Space since the last Wild Goose meeting in October 1984. Among other events, the workshop meetings, which have included FAA staff and the State Directors of Aeronautics, have explored numerous avenues directed toward non precision approaches and the timely closure of the "mid-continent gap". Efforts are underway to certify aerodromes in five states for non precision approaches. This rapid pace of events, taking Loran-C into yet another "rebirth", will certainly precipitate a large attendance at the WGA symposium.

A high interest in Loran-C for the marine and overland applications continue. International expansion of Loran-C is occurring rapidly. Loran-C, A System for the 21st Century is the theme for the 14th WGA Convention and as highlighted above, this year's theme is being supported by real growth and expansions that will indeed cause Loran-C to be an important location system into the 21st century. REGISTER TODAY

NOTE : Due to recent problems DOD (Department of Defense) has encountered in sponsoring classified symposiums, a decision has been made not to sponsor a classified session for the 14th Annual Convention. All unclassified sessions and panel discussions will be conducted as planned.

ITEM - 1985 WGA Convention - Papers

Although the June 1, 1985 cut-off date for Abstracts of papers for the convention has passed, we still need additional papers in all areas. The Technical Sessions are titled: Plans, Programs and Politics; Maritime; Technical; and Aviation. There should be lots to report since the last WGA meeting. The FAA's efforts to move Loran-C into the National Air Space is mentioned above. There are reported problems with coordinate converters - particularly from maritime users who view poor converter results as degraded performance of the Loran-C System. Skywave problems in the Labrador Sea Chain are undergoing considerable analysis by both the Canadians and the U.S. Coast Guard. How about the world-wide expansion of Loran-C into Asia and Europe? Pass the word around to those you know have something to say. Jim Culbertson will accept late Abstracts but the September 1, 1985 final paper submission date is firm so that we can have paper reprints at registration for the convention. Submit Abstracts to Jim at Kaman Tempo, 17195 Newhope Street, Suite 206, Fountain Valley, CA 92708. Phone (714) 432-0516.

ITEM - 1985 WGA Convention - Panel Session

On the last afternoon of the convention Friday, October 25th, there will be a distinguished Panel moderated by RADM Al Manning, who by that time will be the Commander of the 14th Coast Guard District in Honolulu. We are preparing a list of "issues" to be considered by the Panel. This list will be made available to conference attendees before the Panel meets. Each panelist will be asked to comment on each issue. The Panel will consider all aspects of Loran-C and we can always use additional thoughts from the membership on what "issues" should be addressed in this forum. Anyone with thoughts on this please contact Jim Culbertson or Al Manning.

ITEM - Loran-C in France

The French two-station chain, on GRI 8940, is now operational, providing RHO-RHO navigation for the French Navy. The U.S. Coast Guard is reported to be planning to dual rate Sylt, Germany station (7970-W) to this new two-station chain. (This is illustrated on Page 71 of the 1983 WGA Radionavigation Journal.) Marine operations in the Straits of Dover and southern North Sea should be good. The best coverage will be over most of France, the Benelux countries, West Germany and Switzerland. If all goes according to schedule, this chain could be operating by the fall of this year.

ITEM - Flying Geese

The Coast Guard is into its annual game of musical chairs. A number of Wild Geese are flying this year.

RADM Al Manning is leaving his Headquarters post to head the 14th District in Honolulu. There he will have CAPT Bill Boland as Chief of Staff.

CDR Bill Schorr is moving from Governors Island to head the Loran Systems Branch at Headquarters. G-TES-4 (Belgones Base)

CDR Bob Wenzel and LCDR Bill Thrall are both leaving Washington for London and the Loran Branch at ACTEUR. The Navigation Branch at Headquarters will be headed by LCDR Bob Weaver.

CDR Dave Clements is retiring from his San Francisco PACAREA post, to be replaced by CDR Hal Millan.

The Groton R&D Center is losing CDR Roger Hazzard to retirement and LT Doug Taggart to be COCO of Mediterranean Section. Capt Richard Wright is left in charge

ITEM - Move of YAP

The move of LORSTA YAP (9970-Z) to Guam is reported to have been approved. Although this may slightly degrade the overall Loran coverage in the Western Pacific, it is being done as an economy move. Operating on Guam will relieve the supply problem, reduce the manpower required to operate the station, and make substantial savings in fuel, since commercial power will be available. The schedule is not known at this time.

ITEM - Labrador Sea Chain Problems

The Canadians are reporting problems with the Labrador Sea Chain (7930) off the coast of Newfoundland, apparently due to skywave contamination of the Angissoq signals. The 800nm path at high latitude results in strong skywaves with short delay, and narrow bandwidth receivers are apparently experiencing cycle errors. The U.S. Coast Guard has sent an expedition to Angissoz consisting of Marty Letts (EECEN) and Pete Henry (formerly senior scientist for CG Electronics Engineering) who reportedly have successfully measured something in the order of 835kW being radiated. We note that Pete has returned to carry out recommendations he made some years ago after a previous expedition!

ITEM - States Moving Ahead With Non-Precision Approaches

NASAO, The National Association of State Aeronautics Officials, has been pushing the FAA for approval of Loran-C for non-precision approaches. In response, the FAA has started a pilot program in four states - Ohio, Oregon, Massachusetts and Texas. The FAA, through TSC, is procuring monitor receivers to be located at key airports to evaluate the stability of the signals and establish procedures for corrections if these are found necessary.

ITEM - Moscow Meeting

A U.S. Coast Guard delegation recently visited Moscow to discuss, among other things, Loran. The group was headed by RADM Ted Wojnar and included CAPT Jim Walker from ACTEUR, CDR Bob Wenzel, CDR Bill Schorr, and Walt Pappas from CGHQ. No official report on the trip is yet available - we hope it will be discussed at the WGA Convention in October.

ITEM - Mid-Continent Gap

Funds to provide additional stations to fill the "mid-continent gap" are now in the FAA's 1987 budget request. In the meantime, it is reported that 'seed money' for planning the expansion is in the works. We can hope that, if the program proceeds smoothly, DOT will be in a position to move quickly once the money for the stations becomes available.

ITEM - Coast Guard Radionavigation Books

A new ~~set~~ of Coast Guard Radionavigation Systems books is now available. The publication is divided into four parts. Part 1 contains a list of Coast Guard operated marine radiobeacons. Part 2 contains coverage diagrams and data sheets on all Coast Guard operated or controlled Loran-C chains. Part 3 contains a brief description of the Omega radionavigation system and a composite coverage diagram. Part 4 is a listing of Coast Guard maintained radarbeacons (RACONS). To obtain a ^{book} ~~set~~ or individual copy of any of these books write to: Commandant (G-NRN-3), U.S. Coast Guard Headquarters, 2100 Second Street., S.W., Washington, DC 20593. Telephone (202) 472-5857

Reg. 7/30/85

ITEM - Dual Rating of Port Clarence

Funds for dual rating of LORSTA Port Clarence, Alaska, to the Gulf of Alaska Chain (7960) is in the 1986 FAA budget, which means work could start this fall. Letters from Senator Ted Stevens to DOT were probably influential in obtaining quick action. The FAA and Coast Guard are planning flight tests to assure that the new Z secondary will fill in the "mid-Alaska gap" in the Anchorage-Fairbanks area.

ITEM - Fort Hood Chain

The Fort Hood Loran chain has been converted to Loran-C format. This chain is used to support positioning instrumentation for test programs by the U.S. Army TRADOC Combined Arms Test Activity (TCATA). Operating hours are variable, depending on local test requirements. Although continuous operation is generally practiced, the chain may be shut down for extended periods if not required for Army testing. This is a local chain and its operation is entirely funded by the Army. The chain is not for navigational use.

The GRI (4990) will not be changed without prior coordination with the Coast Guard. Transmitting stations use Megapulse Accufix 3500 solid state transmitters with 150-ft top loaded monopole antennas. Peak radiated power is approximately 100W. Station location and assignments are as follows:

<u>Station Name</u>	<u>Function</u>	<u>Emission Delay</u>	<u>Location</u>
Somerville	M	-----	30.33665 deg N 96.54250 deg W
Canyon Lake	X	10933.7	29.90625 deg N 98.22795 deg W
Navarro Mills	Y	22996.1	31.96027 deg N 96.68833 deg W

Controlling standard time difference tolerances are approximately +/- 70 nanoseconds. Queries on the chain should be directed to U.S. Army TCATA, Fort Hood, TX (817) 288-1327.

ITEM - Solid-State Conversion

The solid-state conversion of the Eastern U.S. stations is proceeding, sort of on schedule. In July, Baudette(8970-Y) is scheduled to get a new 56-HCG, AN/FPN-64, which will double its power output. In November, Nantucket is scheduled, followed by Jupiter in February '86 and Caribou in April. In October, Carolina Beach is scheduled for conversion to FPN-64. All these will result in about double the power output.

ITEM - East Coast Problems

Between 6 and 10 June, there were numerous reports of problems with Loran-C operations along the East Coast from Massachusetts to Florida. Interference was measured by the Coast Guard at 89 kHz and eventually traced to the Navy transmitter at Annapolis, MD. Reliable sources report that the special filter, which prevents spillover into the loran band, had been inadvertently removed from the circuit. The problem was recognized by the Navy and corrected at 2000Z on 10 June 1985, four days after the problem started!

ITEM - Coast Guard Messages

The following are extracts from messages substantially as received from the Coast Guard.

R 212338Z
FM COMLANTAREA COGARD NEW YORK NY//AO//
SUBJ: LORAN-C, OMEGA, NAVSAT, AND GPS USER INFORMATION
A. LANTOP 1/84

COCO'S

1. REF A IS CANCELLED
2. ATLANTIC AREA LORAN-C INFO: THE CURRENT OPERATIONAL STATUS OF ALL ATLANTIC AREA LORAN-C STATIONS IS AVAILABLE FROM THE FIVE COORDINATORS OF CHAIN OPERATIONS (COCOS). THE COCO MONITORS THE DAY-TO-DAY OPERATIONS OF THE LORAN-C CHAIN AND PROVIDES INFORMATION WITH A RECORDED TELEPHONE ANNOUNCEMENT OR RESPONDS TO QUERIES DIRECTED TO THE COCO PERSONALLY. PERTINENT TELEPHONE NUMBERS FOLLOW:

A. COCO GREAT LAKES (8970) AND NORTHEAST (9960) CHAINS IS LOCATED AT LORAN STATION SENECA, NY. RECORDED ANNOUNCEMENT: (607) 869-5395. COCO (607) 869-1334, FTS 957-5334.

B. COCO SOUTHEAST (7980) CHAIN IS LOCATED AT LORAN STATION MALONE, FL. RECORDED ANNOUNCEMENT (904) 569-5241. COCO: (904) 569-2223.

C. COCO CANADIAN EASTCOAST (5930) AND LABRADOR SEA (7930) CHAINS IS LOCATED AT LORAN MONITOR STATION ST ANTHONY NFLD CANADA. RECORDED ANNOUNCEMENT: (709) 454-3261. COCO: (709) 454-2392.

D. IF ADDITIONAL INFORMATION IS REQUIRED AFTER CONTACTING COCO'S, CONTACT THE CHAIN MANAGER AT GOVERNORS ISLAND, NY: (212) 668-7880 OR FTS 664-7880.

E. SCHEDULED LORAN-C OFF AIR TIMES ARE PUBLISHED BY NOTIFICATIONS OR ANNOUNCEMENTS IN LOCAL NOTICES TO MARINERS, CANADIAN COAST GUARD NOTICES TO SHIPPING (NOTSHIP'S), AND ON THE PRERECORDED SERVICE FOR THE PERTINENT CHAIN. IN MANY CASES SCHEDULED OUTAGES ARE PRECEDED BY A COAST GUARD MARINE RADIO BROADCAST IN THE AREA WHERE THE COVERAGE WILL BE AFFECTED.

F. FOR BETTER SERVICE OF ANY REQUEST FOR OPERATIONS DATA (E.G., TO CHECK ON A SUSPECTED LORAN-C SYSTEM ABNORMALITY), PLEASE SUPPLY THE RATE AND DATE/TIME OF THE EVENT YOU WISH TO REPORT. THIS WILL ENABLE COORDINATORS OF CHAIN OPERATIONS (COCO) TO QUICKLY CHECK THE RECORDS FOR THE PERIOD IN QUESTION AND GIVE A MORE EXACT ANSWER.

3. PACIFIC AREA LORAN-C INFO: INFORMATION CONCERNING CENTRAL PACIFIC (4990), CANADIAN WEST COAST (9940), NORTHWEST PACIFIC (9970), AND NORTH PACIFIC CHAINS MAY BE OBTAINED FROM THE REGIONAL MANAGER IN SAN FRANCISCO, CA AT (415) 437-3224.

4. EUROPEAN LORAN-C INFO: INFORMATION CONCERNING THE ICELANDIC (9980), NORWEGIAN SEA (7970), AND THE MEDITERRANEAN SEA (7990) CHAINS MAY BE OBTAINED FROM THE CHAIN MANAGER AT U.S. COAST GUARD ACTIVITIES EUROPE, LONDON, UK AT 011-44-1-409-4758.

5. OMEGA: SUMMARY STATUS AND PROPAGATION ANOMOLY NOTIFICATIONS ARE BROADCAST FROM WWV, FORT COLLINS, CO AT 16 MINUTES AFTER EACH HOUR. OTHER INFORMATION SOURCES ARE LISTED BELOW.

A. COAST GUARD ONSOD, WASHINGTON, DC (RECORDED ANNOUNCEMENT): (202) 245-0298 OR FTS 245-0298.

B. U.S. NAVAL OBSERVATORY (USNO/AUTOMATED DATA SERVICE): (202) 653-1079 OR FTS 653-1079. FULL DUPLEX, EVEN PARITY, 300 OR 1200 BAUD, ASCII.

C. IF ADDITIONAL INFORMATION IS REQUIRED, CONTACT OMEGA WATCHSTANDER AT ONSOD WASHINGTON, DC: (202) 245-0228 OR FTS 245-0228.

6. NAVSAT INFO: ORBITAL DATA AND OPERATIONAL STATUS IS AVAILABLE FROM THE DEFENSE MAPPING AGENCY (202) 227-3173 OR AUTOVON 287-3173. THE INFORMATION SUPPLIED BY THE NAVY ASTRONAUTICS GROUP, CAN BE OBTAINED BY WRITING DEFENSE MAPPING AGENCY, HYDROGRAPHIC/TOPOGRAPHIC CENTER, ATTEN: NVE (ELECTRONIC NAVIGATION DIVISION), 6500 BROOKS LANE, WASHINGTON D.C. 20315 OR DEFENSE MAPPING AGENCY, OFFICE OF DISTRIBUTION SERVICES, ATTEN: IMA, WASHINGTON D.C. 20315.

7. GLOBAL POSITIONING SYSTEM (GPS) INFO: RECORDED ANNOUNCEMENT (805) 866-5948. ADDITIONAL INFORMATION CONCERNING GPS MAY BE OBTAINED BY CALLING COMMANDANT

(G-NRN-2), WASHINGTON D.C. AT (202) 426-0990 (FTS 426-0990) OR FROM THE COAST GUARD LIAISON OFFICER AT THE GPS JOINT PROGRAM OFFICE, LOS ANGELES AT (213) 643-0355.

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FM COCO GOA AND NORPAC CHAINS KODIAK AK

SUBJ: LORAN-C, OMEGA, AND NAVSAT USER INFORMATION

1. LORAN-C INFORMATION CONCERNING CURRENT OPERATIONAL STATUS OF ALL PACIFIC AREA LORAN-C CHAINS IS AVAILABLE FROM THE COORDINATOR'S OF CHAIN OPERATIONS. THE COCO MONITORS THE DAILY OPERATIONS OF HIS LORAN-C CHAIN. FOR INFORMATION CONCERNING A CHAIN'S OPERATIONS CONTACT:

A. COCO U.S. WEST COAST (9940) AND CANADIAN WEST COAST (5990) IS LOCATED AT LORAN STATION MIDDLETOWN, CA. PHONE: (707)987-2911.

B. COCO GULF OF ALASKA (7960) AND NORTH PACIFIC (9990) IS LOCATED AT LORMONSTA SPRUCE CAPE, AK. PHONE: (907)487-5583.

C. COCO CENTRAL PACIFIC (4990) IS LOCATED AT OMEGA STATION HAWAII. PHONE: (808)247-5591.

D. COCO NORTHWEST PACIFIC (9970) AND COMMANDO LION (5970) IS LOCATED AT YAKOTA AFB, JA. PHONE: AUTOVON 315-225-8405, COMMERCIAL 0425-52-2511-8405.

E. ADDITIONAL PACIFIC AREA INFORMATION MAY BE OBTAINED FROM THE REGIONAL MANAGER AT ALAMEDA, CA. PHONE: (415)437-3224 OR FTS 536-3224.

EDITORS NOTE

Any comments or news items? Write Walt Dean at 8060 Sacajawea Way, Wilsonville, OR 97070, or call during business hours 800-547-0254.

PUBLISHERS NOTE

We are trying to publish a Newsletter which reads easily and imparts the high degree of professionalism that exists within the membership of WGA. We are still doing it ourselves so please excuse minor typos. We welcome any suggestions on the format, printing and distribution. Send your editorial complaints to Walt.

Jim Culbertson, publisher