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WILD GOOSE ASSOCIATION

NEWSLETTER
January 7, 1985

ITEM 13th Annual Technical Symposium

On behalf of the entire WGA membership, congratulations is extended to Larry Sartin (1984 Chairman), Roger Hassard (Technical Chairman), Bob McKeoun (Hospitality Chairman), Bill Emmett/Jim Arnold (Hardware Exhibits), Bill Rice (Golf Tournament Chairman), Lillian and Marie Campbell (Registrars) for a professional job well done.

The guest speakers were outstanding and special thanks is extended to Mr. Walter Cronkite (CBS News Special Correspondent and a notable Loran-C user). Mr. Cronkite's presentation was very entertaining, reflected his great knowledge and interest in technology. Your editor feels Mr. Cronkite is the most outstanding banquet speaker heard at any symposium I have attended to date.

The luncheon and guest speakers included RADM Alfred P. Manning, Jr., USCG, Chief of the Office of C³, RADM Theodore J. Wojnar, USCG, Chief of the Office of Navigation, and Mr. Neal Blake, Deputy Associate Administrator for Engineering FAA. Presentations from each of the above guest speakers was also outstanding.

Finally, our gratitude is extended to all session chairmen, authors, and panel members who provided an outstanding technical symposium. The theme "The Expanding World of Loran-C" was definitely supported by the exceptional technical contributions. Larry Sartin stated in his 1984 General Announcement, "This Symposium offers an excellent opportunity for manufacturers, users, and government personnel to compare notes and gain up-to-date knowledge of state-of-the-art improvements and to discuss any user problems." Larry - your 1984 symposium met your goals and all of us must continue with the momentum established in the world of Loran and your symposium this past year.

ITEM WGA Selects Santa Barbara, California, as the site for the 1985 WGA Technical Symposium on October 23, 24, and 25, 1985

Convention Headquarters for the 1985 14th annual technical symposium will be the Sheraton Santa Barbara Hotel and Spa, 1111 East Cabrillo Blvd. (on

the beach), Santa Barbara, CA 93103 (phone 805-963-0744 and ask for Antonitte Chartier if you have hotel-related questions). Rates will be as follows:

Single \$65.00/night
Double \$70.00/night

Please register at the hotel using the attached Sheraton form as soon as possible.

Very special luncheon and banquet speakers are being planned. Jim Culbertson (Kaman Tempo executive and retired CG Captain) is the technical chairman. The theme for the 1985 convention is: "Loran-C, A System for the 21st Century." A call for papers will be sent out during April 1985 asking for abstracts to be submitted not later than June 1, 1985. Start considering your topics for paper submittals soon.

The 1985 conference will include a classified session (SECRET) for the first time and appropriate papers are solicited. The classified session will be concurrent with an unclassified session to accommodate those members without security clearances. Please fill out the attached security form and mail to the address indicated on the form 3 months prior to the symposium. Better yet - take the time now to fill out the form and mail today.

The unclassified session will be video taped to permit viewing by those with clearances at a time to be specified. Papers will be solicited covering aviation, ground and marine users, natural science studies related to radionavigation systems, developing technology, and very important, the recent FAA decision on the use of Loran-C.

Your 1985 WGA Technical Symposium Committee is listed below with phone numbers. If you have a question or suggestion scan the committee list and call the appropriate individual:

John D. Illgen	Symposium Chairman	(805)963-6458
James Culbertson	Technical Chairman	(714)432-0516
David Gledhill	Financial Chairman	(805)963-6487
Jim Alexander	Hardware Exhibits	(714)432-0516
Burt Gambill	Golf Tournament	(805)963-6430
David Gledhill	Tennis Tournament	(805)963-6487
Larry Courtland	Hospitality	(818)886-2211
David Foxwell	Speakers	(805)963-6411
Susanne Illgen	Events for Ladies	(805)968-3995
Roberta Young	Security	(805)963-6405

Golf and tennis tournaments will be conducted on Tuesday, October 22, 1985.

ITEM WGA Membership

Applications for membership is attached. With the expansion of Loran-C a reality each of us should strive to increase our membership by promoting the objectives of the WGA to prospective members. Tear off the application form from the newsletter and give it to a person in the Loran-C navigation community who is not yet a member.

ITEM Loran-C Interference Alert (Radionavigation Bulletin May 1984/published by USCG)

In early February 1984, the Coast Guard Atlantic Area office (LANTAREA) received several reports of interfering signals which were causing difficulty in locking-on and tracking Loran-C signals along the U.S. east coast from Mayport, FL, to Portland, ME. The two Loran-C chains affected by this interference were the Northeast U.S. chain (GRI 9960) and the Southeast U.S. chain (GRI 7980).

After inquiring into the matter, the source was found to be a U.S. Navy transmitter near Norfolk, VA. This new interference is located on a frequency of 77 kHz at a power level of approximately 100 kw peak envelope power (PEP). While this transmitter is not new, only recently has it been operating at this frequency. The Navy is expected to continue using this frequency for an indefinite period of time. Users experiencing problems locking onto the Loran-C system are suspecting interference are urged to have their receiver's notch filters adjusted to reduce this level of interference.

ITEM Loran-C Timing (Radionavigation Bulletin May 1984)

The Labrador Sea Chain (GRI 7930) was declared operational for timing purposes on 1 January 1984. The chain timing will be maintained within ± 2.5 microseconds of Universal Time Coordinated (UTC). The frequency offset with respect to UTC will generally be held to less than 10.0 parts in 10 to the 13th. The Naval Observatory has begun including Labrador Sea Chain UTC offsets in their Series 4 and Series 5 reports.

ITEM Loran-C Operational (Radionavigation Bulletin May 1984)

As of 1 January 1984 the following Loran-C Chains and stations became operational as previously scheduled:

- a. Labrador Sea Chain (GRI 7980): Consisting of Master at Fox Harbour, Labrador, Canada; Whiskey secondary at Cape Race, Newfoundland, Canada; and Xray secondary at Angissoq, Greenland.
- b. Canadian East Coast Chain (GRI 5930): Consisting of Master at Caribou, Maine; Xray secondary at Nantucket, Massachusetts; Yankee secondary at Cape Race, Newfoundland, Canada; and Zulu secondary at Fox Harbour, Labrador, Canada.

The approximate Loran-C coverage provided by these chains includes the area from the southeastern Grand Banks up to the southern tip of Greenland and westward to Hamilton Banks. These chains also provide coverage at the mouth of the St. Lawrence River.

The Canadian Hydrographic Service has prepared thirty-nine (39) small scale charts (1:350,000 and smaller) with theoretical Loran-C lines of position (LOPs) for these two new chains. Approximately twenty-five (25) additional charts of larger scale (1:75,000 to 1:150,000) will be prepared for distribution once the chains have been calibrated. The Canadians estimate that these larger scale charts will be available in late 1985. The small scale charts and additional information on the Canadian efforts may be obtained through the following address:

Hydrographic Chart Distribution Office
Department of Fisheries and Oceans
1675 Russel Road
P.O. Box 8080
Ottawa, Ontario, Canada K1G 3H6
Telephone: (613)998-4931

U.S. charting efforts fall under the responsibility of the Defense Mapping Agency Hydrographic/Topographic Center (DMAHTC). Three small scale Loran-C Plotting charts (1:2,188,800) have been reprinted with LOP's for the area covered by the two new chains. The chart numbers are: 7812, 7822 and 7823. Copies may be obtained through any local DMAHTC chart sales agent or through their main office at the following address:

DMA Office of Distribution Services
Attn: DDCP
Washington, DC 20315
Telephone: (202)227-2495

ITEM Remote Operating System Update (Radionavigation Bulletin, May 1984)

In Radionavigation Bulletin No. 12 (March 1983), the Coast Guard developed Remote Operating System (ROS) was introduced. As explained in the article, the primary goal of ROS is to reduce the personnel required to operate a Loran-C transmitting station. In this same article, a schedule for ROS installation was presented. Loran-C stations located in Raymondville, Texas, and Searchlight, Nevada, have had ROS installed and are under evaluation. Due to a change in equipment design, all other dates in the previously published schedule have been altered.

Below is an updated schedule for ROS installation at various Loran-C station

Estimated Operational Date	Transmitting Station	Remote (control) Station
April 1984	Fallon, NV	Middletown, CA
August 1984	Fox Harbour, NFLD, Canada	St. Anthony, NFLD, Canada
November 1984	George, WA	Middletown, CA
February 1985	Grangeville, LA	Malone, FL
April 1985	Baudette, MN	Seneca, NY
June 1985	Nantucket, MA	Seneca, NY
August 1985	Tok, AK	Kodiak, AK
October 1985	Jupiter, FL	Malone, FL
January 1986	Dana, IN	Seneca, NY
April 1986	Caribou, ME	Seneca, NY
September 1986	Carolina Beach, NC	Malone, FL
October 1986	St. Paul, AK	Kodiak, AK

ITEM Using Loran-C Skywave Signals

Many of you may have noticed something like this on a few of your charts:

7980 X +04D GS-38D
 7980 Y -20D GS+36D
 7980 Y -04N GS+54N

Have you ever wondered what this information is used for? Well, they are used for correcting Loran-C time difference readings derived from skywave signals. These numbers appear on charts where you will most likely receive skywave signals. When using skywave signals, the appropriate correction factor listed on the chart should be applied to your receiver reading before you plot your fix.

ITEM Atlantic Area Loran-C System Momentaries

Delineations for the attached chart are rather squishy because the definitions have never been refined. The Coast Guard continues to collect momentary data because the derived information is of value in managing the Loran-C system. There is no USCG requirement for such information.

ITEM Racal Megapulse Introduces Accufix 500

The Accufix 500 features tracking loop and signal-to-noise processing software by the same people who make the transmitted signals. The Accufix 500 interfaces easily into any computerized application from precision tract surveying or rig positioning to data communications network synchronization. It's ready to be remotely polled or controlled via a 2-way comm port with integral modem, and its RS-232 output lets it provide direct

data logging. Navigation computation capability is expected to be introduced as a companion for the Accufix 500.

ITEM ION National Technical Meeting

Headquarters: Vacation Village Hotel in San Diego, CA

Time: 15 through 17 January 1985

For details call (202)783-4121.

Several Loran-C papers are being presented at the above mentioned ION meeting.

ITEM Press Release

The Wild Goose Association, a professional organization of individuals and organizations having a common interest in Loran (long-range navigation) made awards at its thirteenth annual convention in Boston, MA, as follows:

Medal of Merit to John M. Beukers, Beukers Laboratories, Inc., St. James, NY, for pioneering work in location of objects by retransmission and remote reception of Loran signals, and other activities fostering Loran.

President's Award to Richard L. Beam (Department of Transportation-Research and Special Projects Administration), William C. Hoffman (Flight Transportation Associates, formerly DOT-Transportation Systems Center), Carroll D. Lytle (NASA Langley Research Center), Franklin D. MacKenzie (DOT-TSC), William B. Mohin (Applied System Technology, formerly DOT), Charles R. Miel (posthumously), William L. Polhemus (Polhemus Associates), for personal dedication and successful efforts in promotion of Loran-C for civil aviation use (in connection with first FAA certification, in Vermont).

Best Loran Paper to Robert L. Frank (Consultant, Birmingham, MI) for "Current Developments in Loran-C," Proceedings of IEEE, October 1983.

Service Award to Bernard Ambroseno (Epsco, Inc., Westwood, MA) for Editor of the Radionavigation Journal 1980 to 1983, Frank Radin (Epsco, Inc.) for Art Director and Mechanical designer of Radionavigation Journal 1983-84, Robert Schellhase (USCG, Washington, DC) for Chairman of the 1983 Convention, and Harold T. Sherman (ITT Avionics, Nutley, NJ) for Technical Chairman of 1983 Symposium.

Honorary Membership to Walter Cronkite, CBS News Special Correspondent, who spoke at the Banquet, for his long-time interest and use of Loran-C.

WGA Awards Committee

ITEM WGA Forms European Branch

Johann Bottcher is in the process of forming a European Branch of the WGA. The working group plans to meet in Copenhagen, Denmark, January 21 through

23, 1985 and at Sylt, Germany, January 24 through 26, 1985. For further information contact Johann Bottcher, Schifferucke 27, Flensburg, Germany.

ITEM Editorial

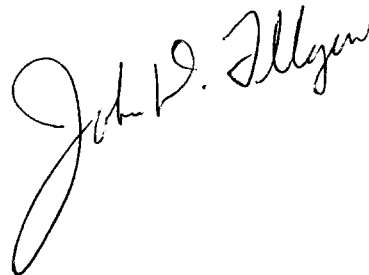
With the selection of Santa Barbara for the 1985 WGA convention and your present newsletter editor as 1985 Convention Chairman, I have decided to devote all spare time to the success of the convention. In order to provide proper attention to the WGA 1985 Convention, I have requested the WGA Board of Directors appoint a new WGA newsletter editor. This has been approved starting in CY 1985.

Over the 8-1/2 years I have been preparing the newsletter (and my secretary, Sharon Garland, has been providing a very professional job in typing and taking information for the newsletter over the phone) we have produced 3 to 5 newsletters a year. I want to thank the WGA membership for your timely inputs. It is your contributions that cause the newsletter to be a success. The recent government interest and Loran-C expansion potential (domestic and international) causes the WGA newsletter to be a vital means to communicate information in a timely manner.

more like 5 years

In the future please direct all your inputs for the newsletter to your 1985 WGA newsletter editor: Mr. Larry Sartin, Analytic Systems Engineering Corporation, 5 Old Concord Road, Burlington, MA 01803. Effective today if you have any written inputs for the newsletter please forward them to Larry or if you have a one-linear call Larry at (617)272-7910. We all wish Larry the very best as your editor.

It has been a rewarding experience being your WGA Newsletter Editor and I thank you for what I have learned in that position.



John D. Illgen
Kaman Tempo
816 State Street
Santa Barbara, CA 93102

HOTEL RESERVATIONS

Group Name:

Date:

THE WILD GOOSE ASSOCIATION

October 23-25, 1985

The Sheraton Santa Barbara Hotel & Spa is the first new Oceanfront Hotel in Santa Barbara in over two decades. A block of rooms is being held for your convention at the following special rate:

\$ 65.00 Single Occupancy/King or Queen Bed
\$ 70.00 Double Occupancy/King or Queen Bed
\$ 75.00 Double Occupancy/Double Queen Beds
\$ 10.00 Extra Person in Room

Please observe the following:

(1) **GUARANTEE** your reservation at least 30 days before arrival by either of the following:

- a. Send a check for the first night's room rental plus 10% bed tax.
- b. Supply your American Express, VISA or Master Charge credit card number with expiration date.

(2) **NO** cancellation may be made within 7 days of reservation date.

Please return the form below to the hotel with check or credit card number. If you reserve by phone, be sure to immediately identify yourself as being part of this convention, giving your group name.

RESERVATION REQUEST

Name _____ Date of Arrival _____
Address _____ Date of Departure _____
_____ Zip _____
Phone (____) _____

Type of Accommodations Requested:

King/Queen _____ No. of Rooms Double Queen _____ No. of Rooms

No. of Persons _____ Amount of Deposit Enclosed \$ _____

Credit Card: American Express Master Charge VISA

No. _____ Exp. Date _____

Group or Convention Name _____

Please return to: **Sheraton Santa Barbara Hotel & Spa**
1111 East Cabrillo Boulevard
Santa Barbara, California 93103
Phone: (805) 963-0744 or (213) 278-8014



RETURN IMMEDIATELY

SANTA BARBARA, CALIFORNIA

23-25 OCTOBER 1985

1985 Wild Goose Association Special Classified
Session Concurrent with Unclassified Session

SECURITY CLEARANCE FORM

Attendance at the classified session of this conference is restricted to attendees who have a current SECRET personal security clearance certified by appropriate officials in accordance with the requirements of the Department of Defense Industrial Security Manual for Safeguarding Classified Information (DoD 5220.22-M) and the DoD Industrial Security Regulation (DoD 5220.22-R). Mail clearance to: Kaman Tempo, 816 State Street, ATTN: Security Department, Santa Barbara, California 93101

ALL PARTS OF THIS FORM MUST BE COMPLETED IN TYPE OR PRINT AND SIGNED WHERE INDICATED

PART I TO BE COMPLETED BY ATTENDEE

NAME _____ SIGNATURE _____
Last First Middle

CITIZENSHIP _____ DATE OF BIRTH _____ PLACE OF BIRTH _____

TITLE/POSITION _____

AFFILIATION/ORGANIZATION _____

ADDRESS _____ TELEPHONE NO. _____

SOCIAL SECURITY/SERVICE NUMBER _____

PART II TO BE COMPLETED BY ATTENDEE'S AFFILIATION OR ORGANIZATION SECURITY OFFICIAL

PERSONNEL SECURITY CLEARANCE OF ATTENDEE: Level _____ Date _____ Agency _____

FACILITY SECURITY CLEARANCE OF ORGANIZATION (Contractor personnel only) Level _____

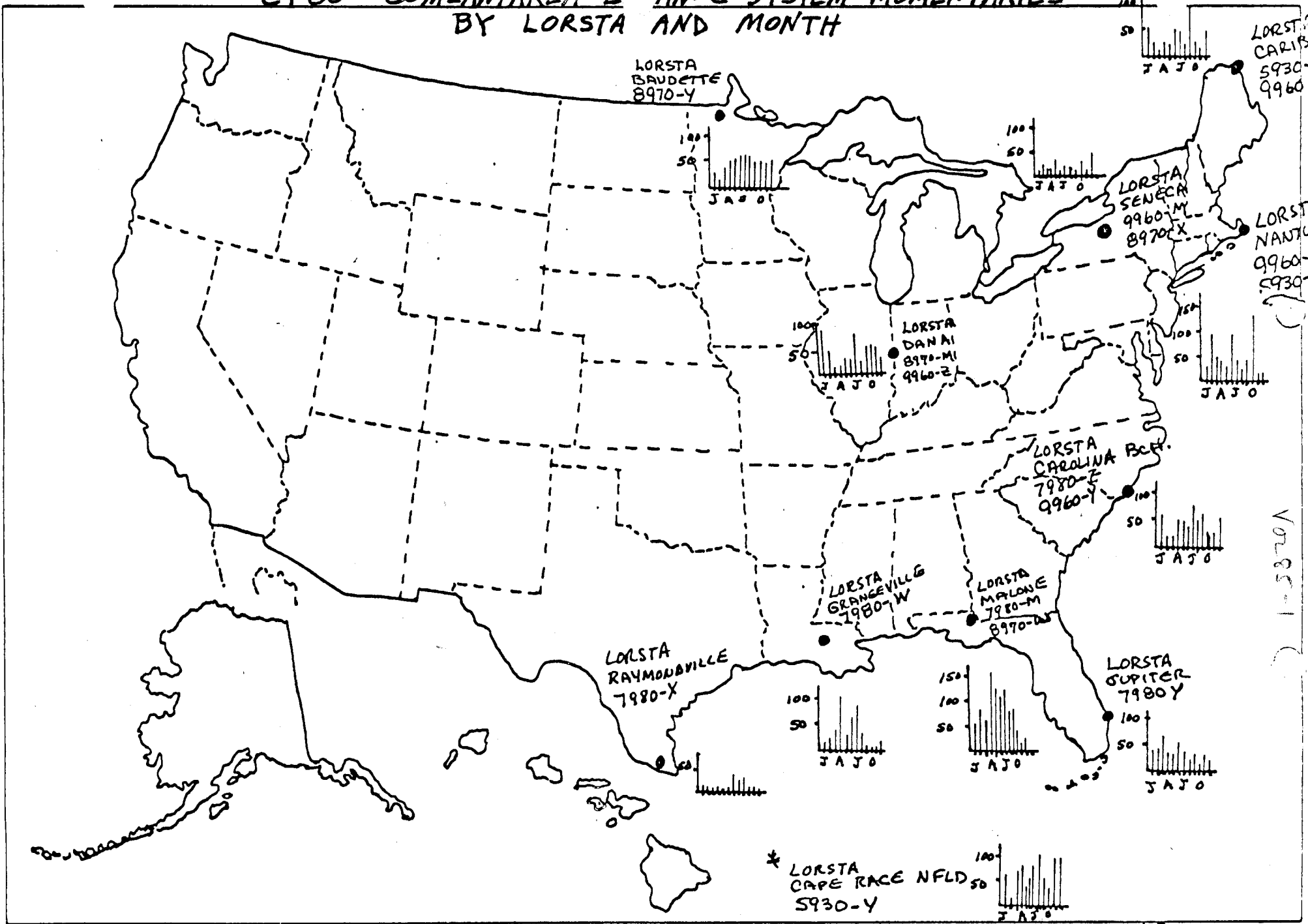
FSC # _____ CLEARED FACILITY'S NAME AND ADDRESS _____

FACILITY'S COGNIZANT SECURITY OFFICE (Contractor personnel only) Agency/Location _____

CERTIFY THAT THE ABOVE INFORMATION IS CORRECT: Signature _____ Date _____

SECURITY OFFICIAL: Name _____ Title _____ Telephone Number _____

CY'80 COMLANTAREA L 'AN-C SYSTEM MOMENTARIES BY LORSTA AND MONTH



United States

10285-1-5870

* LOCATION NOT SHOWN

W Graves
LTCG, USCG
6-8-81

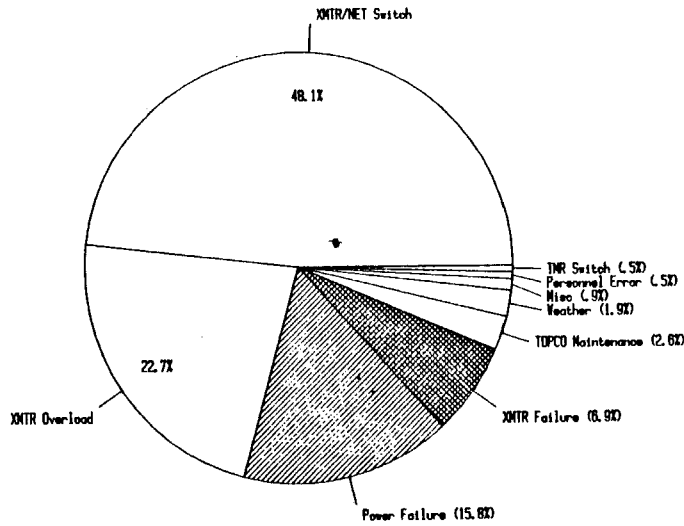
FY '81 and FY '82

COMLANTAREA LORAN-C SYSTEM MOMENTARIES

BY LORSTA AND CAUSE

CAA LORSTA Momentaries FY81 + FY82

Total Momentaries 8,327

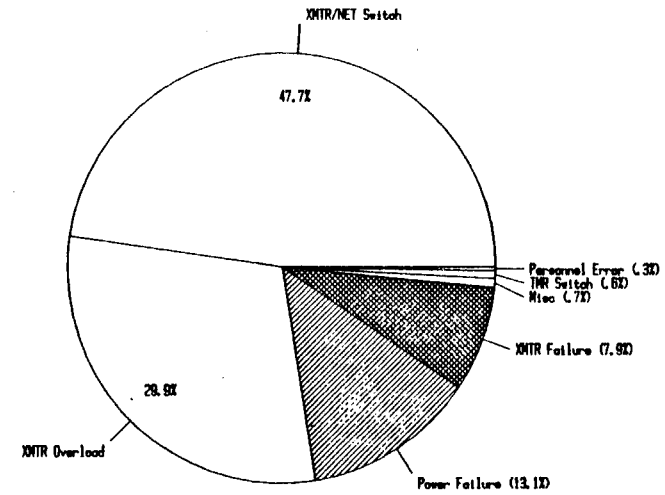


Annual COMLANTAREA LORSTA Momentaries (REV 11 MAY 83/WJG/DG20)

LORSTA	FY81 Total (avg/month)	FY82 Total (avg/month)	FY81 + FY82 Total (avg/month)
Baudette	510 (43)	514 (43)	1,024 (43)
Cape Race	724 (60)	525 (44)	1,249 (52)
Caribou	502 (42)	290 (24)	792 (33)
Carolina Beach	569 (47)	670 (56)	1,239 (52)
Dana	525 (44)	457 (38)	982 (41)
Grangeville	267 (22)	218 (18)	485 (20)
Jupiter	317 (26)	270 (23)	587 (24)
Malone	606 (51)	418 (35)	1,024 (43)
Nantucket	543 (45)	316 (26)	859 (36)
Seneca	429 (36)	314 (26)	743 (31)
Raymondville	188 (16)	175 (15)	363 (16)
Mean SSX	368 (31)	281 (23)	649 (27)
Mean FPN-42	488 (41)	412 (34)	900 (38)
Mean FPN-44/45	625 (52)	491 (41)	1,116 (47)
Mean tube-type	527 (44)	435 (36)	962 (40)
Mean all types	469 (39)	379 (32)	848 (35)

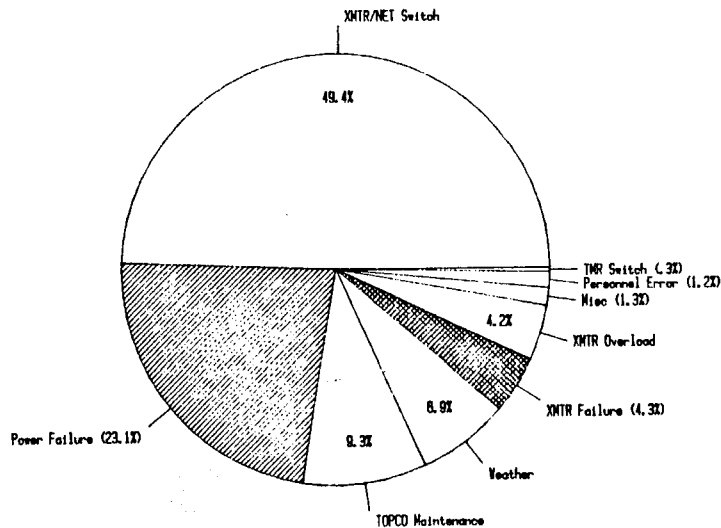
CAA Tube-type Momentaries FY81 + FY82

Total Momentaries 6,732



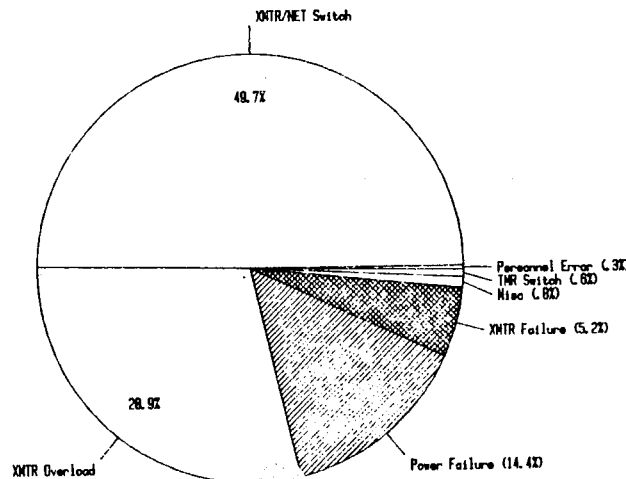
CAA SSX Momentaries FY81 + FY82

Total Momentaries 2,595



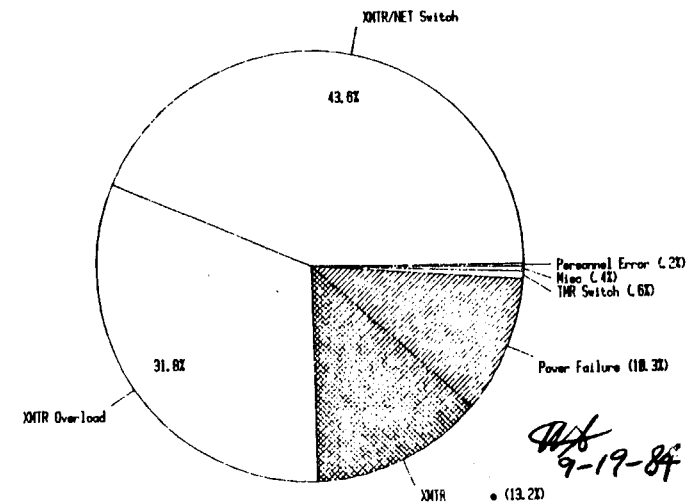
CAA FPN-42 Momentaries FY81 + FY82

Total Momentaries 4,581



CAA FPN-44/45 Momentaries FY81 + FY82

Total Momentaries 2,231



WJG
9-19-84