PROGRAMME NOTES

Background

The decision to hold ILA 30 in Europe was made well over a year ago for the specific purpose of creating a forum for the exchange of experience, developments and ideas amongst nations of a revitalized loran to serve for years to come. We had no idea of the events that would take place during the intervening months since the decision was made. Today as participants convene they do so with emotions of disappointment and horror balanced with optimism, opportunity and new challenges. Not at any one of the 29 previous ILA Conventions has there been so many important, even critical, issues to address. It is our hope that the program and its format will enable profitable discussions to be held resulting in a proactive closing Convention Resolution.

Registration

The registration desk will be open on Sunday afternoon and throughout the Convention. The registration fee for all participants not previously registered is $520. A one day registration fee is $200. Membership dues may be paid at the registration desk. Orders for CDs of the past two Technical Symposiums or hard copy of any of the previous Symposiums may be made.

Technical Program

There are no parallel sessions and speakers are encouraged to allow time for questions and discussion. Time limits have been placed on the sessions but not individual papers to permit session chairs some flexibility. Catering for breaks and lunches requires that we adhere to the scheduled time for the end of sessions. Note that the names listed in the program are the presenters, many of the papers have two or more authors.

Speakers' Breakfasts – 7:30 am

On the day that speakers are scheduled to make their presentations there will be a speakers' breakfast in the Salon Historique.

Hospitality Room

The Salon Historique will be available during the day following the speakers breakfast for use of those accompanying Convention participants. In the evenings this same room will be used for drinks and light refreshments for all those attending the Conference.

Social Program

No formal social program has been prearranged because of the variety of tours and visits available. If group visits are desired, it is suggested those interested meet in the Salon Historique on Monday morning at 09:00.

Gauss Meeting

There will be a meeting of the Gauss Group at IALA headquarters on Thursday and a half day Friday. See adjacent column.

Board of Directors' Meetings

There will be a Board of Directors' meeting on Sunday at 15:00 in the Salon Historique and a second meeting of the new Board in the same room after the close of the Convention.

GAUSS GROUP MEETING

Background

The Gauss Standardisation Group, abbreviated to GROUP in the following, was originally convened as a result of an initiative of the Northwest Europe Loran System consortium of States[1] to provide a revision to document Recommendation ITU-R M.589-2[2] to include data transmission using Loran-C/Chayka type transmitting facilities. The GROUP generated the necessary revision and was successful in having the revised standard being accepted by the International Telecommunications Union providing a world-wide standard for the technology.

The task to revise Recommendation ITU-R M.589-2 having been completed the group identified new work associated with integrated radio navigation systems utilising Loran-C/Chayka and capable of data communications in regions of the world outside the area of coverage and political jurisdiction of the NELS consortium.

To overcome the territorial limitation of NELS the GROUP sought an independent international organisation to act as host in order that the essential standardisation work could continue with participation of states world-wide. The International Loran Association (ILA) with specific interest in the provision and use of Loran-C/Chayka services for land, sea and air throughout the world was approached and agreed to host the GROUP endorsing its expanded mandate.

Next Meeting

The next meeting of the Gauss Group will follow the ILA Convention and will take place at AISM/IALA Headquarters here in St Germain en Laye.

The International Loran Association is grateful to Mr. Torsten Kruuse, Secretary General of AISM/IALA (the International Association of Lighthouse Authorities), for providing the assistance of IALA office staff and facilities in the planning and execution of this conference and the follow-on Gauss meeting.

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[1] The Northwest Europe Loran System (NELS) is an intergovernmental treaty organisation comprised of Denmark, Ireland, France, Germany, Norway and The Netherlands. It is operated from a co-ordinating office in Oslo, Norway.

[2] The title of this Recommendation ITU-R M.589 is "Technical Characteristics Of Methods Of Data Transmission And Interference Protection For Radionavigation Services In The Frequency Bands Between 70 And 130 kHz"

International Loran Association
30th Annual Convention
and Technical Symposium

Provision and Use of Loran-C and Chayka Services

October 7-10, 2001
Pavillon Henry IV
19-21, rue Thiers
Saint Germain-en-Laye
Paris, France

Programme of Events

Ice-Breaker
Pavillon Henry IV
Sunday, October 7, 19:00

ILA Operations Center
741 Cathedral Pointe Lane
Santa Barbara, CA 93111 USA
www.loran.org
e-mail: ila@loran.org
Phone: 1-805 967 8649
Fax: 1-805 967 8471

Day 1 – Monday, October 8

09:00-10:30 Session 1: Updating Radionavigation Policy
Session Chair: Jim Doherty, Co-Chair: Christian Forst

Welcome and Introductory Remarks
John Beukers, President,International Loran Association
Keynote Address
Torsten Kruuse, Secretary General, AISM/IALA
The Volpe Center Report: Loran Goes Up the DOT Flag Pole
Langhorne Bond, Past US Federal Aviation Administrator
An Overview of the US Loran Evaluation Program
Mitch Narins, US Federal Aviation Administration
National Plans for Positioning Navigation and Time Keeping
Robert Lilley, Illgen Simulation Technologies

10:30-11:00   Coffee Break

11:00-13:00 Session 2: Providers of Loran-C Services
Session Chair: Bill Roland, Co-Chair: Bob Lilley

Loran-C in Europe: Not the End – a New Beginning
Terje Jorgensen, NELS Co-Ordinating Office
Operational Status of Loran Equipment Modernizations
Tom Rice, US Coast Guard
**Keeping the Pulse Alive Through Heart Transplants
and Face Lifts**   Jay Boyer, US Coast Guard
**Service Life Extension & Modernizationof the
AN-FPN/64 Transmitter**   Eric Johannessen, Megapulse, Inc.

13:00-14:00   Lunch

14:00-16:00 Session 3: Multimodal Loran-C Use
Session Chair: Gunn Marit Hernes, Co-Chair:Curt Dubay

**Developments in the Use of Radionav. Services by Met.
Observation Systems**   John Nash, UK Met Office
Loran-C Based Systems in Meteorology
Pekka Kostamo, Vaisala, Oy
The LOREG Program   Stephan Baumann, Telematica
Does Integration of GPS and Loran-C Meet User Needs
Durk van Willigen, Reelektronika b.v.
Why 3G Networks Need Loran-C

Mark Searle, INSIG ltd

16:00-16:30   Coffee Break

16:30-18:00 Session 4: Loran-C Data Communications
Session Chair: Mitch Narins, Co-Chair: Durk van Willigen

Wagging the Tail & Flying with Loran-C Data Comms
Ben Peterson, Peterson Integrated Geopositioning, LLC
Intra Pulse FM and the AN-FPN/64 Transmitter
Andre Grebnev, Megapulse, Inc.
Eurofix Installation & Checkout On FERNS Korean Tx
Gerard Offermans, Reelektronika b.v.

19:00   Reception

Day 2 – Tuesday, October 9

08:30-09:00 Membership Meeting
**09:00-10:45 Session 5: New Developments and
                              User Requirements**
Session Chair: Terje Jorgensen, Co-Chair: Gerard Offermans

Integrating GPS & Loran-C
Gunther Abwerzger, Teleconsult Hoffmann-Wellenhof & Partner
**Development & Status of H-Field Antenna & DSP Loran
Receiver for FAA Loran Program**   Linn Roth, Locus, Inc.
**Measuring and Comparing GPS and Loran-C/Eurofix
Performance**   Arthur Helwig, Reelektronika b.v.
Migration of Loran-C for Land Navigation GLORIA Project
Jörg Pfister, ZIV Institute

10:45-11:15 Coffee Break

11:15-13:30 Session 6: Tests and Trials
Session Chair: Linn Roth, Co-Chair: Jim Nagle

**Ohio University Flight Test Support to the FAA
Loran-C Program**   David Diggle, University of Ohio
Status of Loran-C Evaluations
Mitch Narins, US Federal Aviation Administration
**Flight Trials Comparing SatMate DSP Receiver, GPS
and Legacy Loran Receivers**   Jim Schliem, Locus, Inc.
PC-104 & DDC H-Field Loran-C Navigation Receivers
Richard Hartnett, US Coast Guard Academy
European Sea Trials of Kalman-Filtered Loran-C System
Carsten Collrep, STN Atlas
Loran Coverage Round Ireland
Nick Ward, Trinity House Lighthouse Service

Lunch on your own, followed by free afternoon.

19:00 Cocktail Hour
20:00 Banquet and Annual Award Ceremony

The traditional Banquet, during which the ILA presents
its annual awards to individuals and organizations that
have made a significant contribution to loran or the
Association, will be held at the Pavillon Henry IV in
the Salon Grande Arche.

Black tie and formal dress is optional.

Day 3 – Wednesday, October 10

09:00-10:30 Session 7: Reports and Studies
Session Chair: Tom Rice, Co-Chair: Jacques Manchard

Loran-C for European Non Precision Approaches
David Last, University of Wales
**Loran-C User Position Software Navigation Performance with
PC-104 & DDC Rx Flight Test Data in the New Jersey Area**
John Kirk, Illgen Simulation Technologies
GPS Vulnerability Study,
Jim Carroll, Volpe National Transportation Systems Center

10:30-11:00 Coffee Break

11:00-13:00 Session 8: Propagation and Calibration
Session Chair: David Last,   Co-Chair, David Diggle

Vital Statistics of Solar Activity during Sun Spot Cycle 23
Robert Lilley for Joe Kunches, Space Environmental Center
**Loran-C Signal Propagation, Reception and Processing Aspects
in Urban Areas**   Wouter Pelgrum, Delft University
Loran Tomography

Nobuyoshi Kouguchi, Kobe University
**Unusable GPS PRN30 Illustrates Requirement for
Low Mask Angles, Loran-C and Galileo**   John Beukers

13:00-14:00   Lunch

14:00-14:15

**The ILA Web Page -Time to Update
our On-Line Presence**   Robert Lilley ILA Secretary

14:15- 15:30 Session 9: Panel Discussion

The Future Role of Worldwide Loran-C
Moderator: Langhorne Bond
Panelists:
Sally Basker, Olivier Carel, Curt Dubay, Terje Jørgensen,
Wolfgang Lechner, John Nash, Alex Steciw

15:30-16:00 Coffee Break

16:00-17:00 Convention Resolution

**Discussion and adoption of the Conference Resolution
Closing Remarks**

17:30-18:30 ILA Board of Directors Meeting