

The Board of Directors and the Officers of the International Loran Association welcome you to the 34th Annual Convention and Technical Symposium of the organization! This meeting marks our return to beautiful Santa Barbara, California after twenty years in other locations. We know you will enjoy not only the meeting, but your stay in our 2005 convention city. Thank you for your interest in Loran and your support of the ILA.

Registration and Fees: If you have not yet paid your registration fees for the Convention, the GAUSS meeting or guests attendance, please check in at the registration desk to complete these transactions.

Meeting Proceedings: ILA-34 Proceedings will be published on Compact Disk media only. Cost for the proceedings are included with the full registration to ILA-34, and additional copies may be purchased separately. Check with the Registration Desk or the ILA Operations Center.

ILA-34 Sponsors: The Association gratefully acknowledges the sponsoring organizations and the individuals who contributed time and money toward this meeting.

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Cover watercolor by Santa Barbara artist Peter Worsley
see <http://www.PeterWorsley.com>

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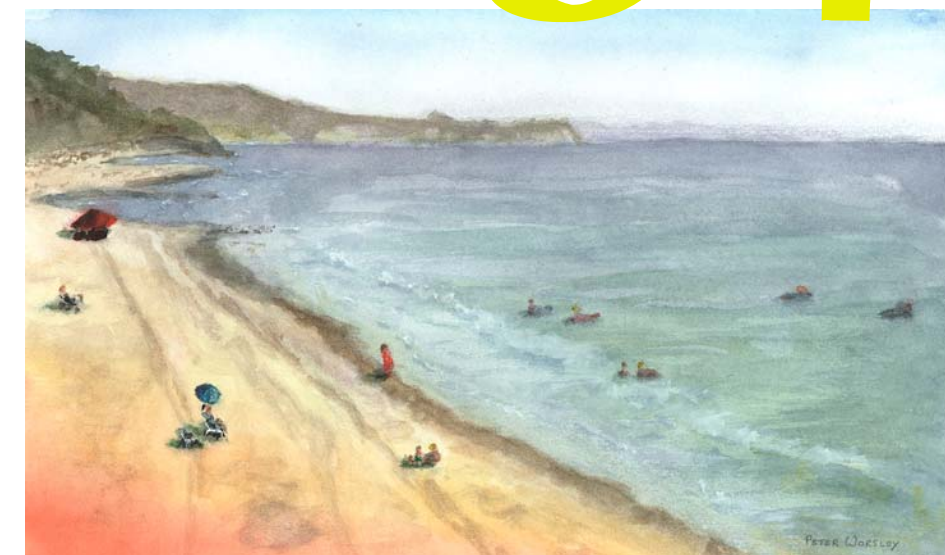
International Loran Association 34th Annual Convention and Technical Symposium

October 17-19, 2005

Fess Parker's DoubleTree Resort
Santa Barbara, California USA

*"Loran-C and e-Loran:
When Sole Means is Not an Option"*

ILA
34



34th Annual Convention and Technical Symposium
Fess Parker's DoubleTree Resort, Santa Barbara, CA

Sunday, October 16, 2005

5:00 -7:00 pm **Early-Arrival Reception**

at the Lilleys' home, 741 Cathedral Pointe Lane

Turn right out of Fess Parker's DoubleTree Resort. When you reach Cabrillo Blvd., turn right, and then right again on Garden Street. Follow the signs to US 101 North. Travel 8 miles on 101 to the Patterson Avenue exit. Turn right on Patterson Avenue Drive about ½ mile. Turn left into Cathedral Pointe, and turn right on Cathedral Pointe Lane after the stop sign. Number 741 is on the right. Lost? Call 805-967-9394.

Monday, October 17, 2005

9:00 am **GAUSS Standardization Committee Meeting**

Vineyard Board Room

2:00 pm **134th ILA Board of Directors Meeting** - *Vineyard Board Room*

4:00 – 5:30 pm* Registration/Information desk open – *outside Vineyard Board Room*

6:00 – 8:00 pm **Icebreaker Reception** – *Rotunda, 3rd floor*

Note: part of the reception event is out-of-doors; wear layers for comfort. Temperatures in the mid-50s are expected. The view is well worth it! (If it's clear, a full moon rise at about 6:30 PM can be seen.)

Tuesday, October 18 – General Sessions

All general sessions are in the San Rafael Ballroom

7:30 am Informal Continental Breakfast – *outside the meeting room*

7:30 – 10:30 am* Registration/Information desk open - *Outside San Rafael Ballroom*

8:00 - 8:30 am **Welcome Remarks and Keynote Address**

Robert Lilley, Conference Chairman
Gregory Johnson, Technical Chairman
Langhorne Bond, ILA Vice-President and President-Elect
Keynote Address: **"The Age of Loran"**

8:30 -10:00 am **Session 1 – Status Reports and Updates**

Chair: Robert Lilley, Northrop-Grumman

2005 RTCM Conference: Loran summary, Erik Johannessen, Megapulse

The National Boating Federation: Loran Update, Margot Brown, Executive Director, NBF (presented by Robert Lilley)

The Institute of Navigation, James Doherty, incoming President, ION

The European Navigation Plan, and UK News, Paul Williams, Trinity House

Loran and The Royal Institute of Navigation, Prof. David Last, incoming RIN President

The US Loran Decision Process, CDR John Merrill, Chief, Radionavigation Division, Policy & Programs, US Coast Guard Headquarters

The US Coast Guard LSU: Our World of Work, CDR Christopher Nichols, Commanding Officer

The US FAA e- Loran program: A Quick-Look, Mitchell Narins, US Federal Aviation Administration

10:00 - 10:30 am **Morning Break**

10:30 - 12:00 n **Session 2 – Programs and Plans**

Chair: William Roland, PVT Associates

Status of FERNS, Seung-Gi Gug, Korea Maritime University

Status of Loran in Europe and France, Jacques Manchard, Dir. Lighthouses and Buoys Div., Directorate for Maritime Affairs and Seafarers, Ministry of Infrastructures, Transport, Housing, Tourism and the Sea, France

Road to a Stronger Business Case for eLoran, Durk van Willigen, Reelektronika

The US FAA e-Loran Program, Mitchell Narins, US Federal Aviation Administration

12:00 - 1:30 pm **Lunch** – *Sierra Madre North*

Speaker: Michael Edwards, Vice President, Venoco, Inc.

1:30 - 3:00 pm **Session 3 – Loran System Management**

Chair: LT Anthony Hawes, USCG

U.S. Loran Operations FY 2005, LT James Bailey, USCG Navigation Center

Introduction to the Loran Integrated Command and Operations (LICOS) Project, LT Ronald Wright, USCG Loran Support Unit

Tools to Effectively Manage Loran System Equipment, LCDR James Betz, USCG Loran Support Unit

Introduction to the Loran Enhanced Monitor System (LEMS) Project, Wayne Wawrzyniak, USCG Loran Support Unit

3:00 – 3:30 pm **Afternoon Break**

3:30 – 5:00 pm **Session 4 – Timing, Differential Loran**

Chair: Durk van Willigen, Reelektronika

Modernized LORAN-C Timing Test Bed Status and Results, LTJG Kevin Shmihluk, USCG LSU, Thomas Celano, Casey Biggs, Timing Solutions Corp.; Benjamin Peterson, Peterson Integrated Geopositioning (PIG)

The Potential Role of Enhanced LORAN-C in the National Time and Frequency Infrastructure, Michael A. Lombardi, NIST; Thomas Celano, Timing Solutions Corp.; Edward D. Powers, US Naval Observatory

Implementation of a UTC Service on the NELS Eurofix Transmitters, Arthur Helwig, Gerard Offermans, Rene Kellenbach and Durk van Willigen, Reelektronika

eLoran for Time and Frequency Applications, Linn Roth, Paul Schick, Dean Gervasi, Eric Wiley, and Chad Schweitzer; Locus Inc. (presented by Thomas Celano)

6:00 -8:00 pm - **Santa Barbara Tours de Arte Reception**

Carpool Transport; maps will be provided

Wednesday, October 19 – General Sessions

7:30 am Informal Continental Breakfast – *outside the meeting room*

8:30 – 10:30 am* Registration/Information desk open - *Outside San Rafael Ballroom*

8:30 -10:00 am **Session 5 – Signals, Propagation**

Chair: Paul Williams, Trinity House, UK

Early Skywave Detection Network: Preliminary Design and Analysis, Sherman Lo, Per Enge, Stanford University; Peter Morris, Raytheon, Inc.

Loran-C Additional Secondary Factors: Implications for Meeting Required Navigation Performance (RNP) 0.3, David W. Diggle, Curtis Cutright, Ohio University; G. Linn Roth, Chad Schweitzer, Locus Inc.;

Mitchell Narins, US Federal Aviation Administration

Airport ASF Mapping Methodology, Gregory Johnson, Alion Science & Technology; Peter Swaszek, Univ. Rhode Island; CAPT Richard Hartnett, USCG Academy

Altitude Effect on ASFs, Gregory Johnson, Alion Science & Technology; Peter Swaszek, Univ. Rhode Island; CAPT Richard Hartnett, USCG Academy

10:00 - 10:30 am **Morning Break**

10:30 - 12:00 n **Session 6 – Interference, Noise**

Chair: David Diggle, Ohio University

Analysis of the Effects of Atmospheric Noise on Loran-C

Curtis Cutright, Jonathon Sayre, Frank van Graas; Ohio University

Significant Space Weather in 2005 - Joe Kunches, WilliamMurtagh, NOAA Space Environment Center (presented by Robert Lilley)

Atmospheric Noise Measurement and Mitigation - Lee Boyce, Sherman Lo, J. David Powell, Per Enge; Stanford University

Noise – From a Receiver Perspective - Wouter Pelgrum, Reelektronika

12:00 - 1:30 pm **Lunch** – *Sierra Madre North*

ILA Annual Membership Meeting – Langhorne Bond

Remarks - from former ILA President John D. Ilgen, representing Northrop-Grumman Simulation

ILA Service and Best-Papers awards from ILA-33, Tokyo, Japan, October, 2004

1:30 - 3:00 pm **Session 7: eLoran Applications**

Chair: John Kirk, Northrop-Grumman

The Saudi Positioning System - Measurement Results,

Arthur Helwig, Gerard Offermans, Reelektronika; Brian Goodsir, Saudi Ports Authority

Performance Analysis of an Integrated GPS/Loran-C Tracking System, James Carroll, Henry Wychorski, and David Phinney, Volpe National Transportation Systems Center

Loran-C Trials in the United Kingdom, Paul Williams, Trinity House; Dean Furber, General Lighthouse Authorities

System Integration for Enhanced Loran, LT Anthony Hawes, USCG; Benjamin Peterson, and Kenneth Dykstra, Peterson Integrated Geopositioning (PIG)

3:00 – 3:30 pm **Afternoon Break**

3:30 - 5:00 pm **Session 8: Receiver Development**

Chair: Gregory Johnson, Alion Science & Technology

Getting aHead(ing) with eLoran, Erik Johannessen, Megapulse

GPS/WAAS/Loran Prototype System, Chad Schweitzer, Paul Schick, Dean Gervasi, Eric Wiley, and Linn Roth, Locus, Inc. (presented by David Last)

Integrated GPS/eLoran Receiver, James Davis, Free Flight Systems

5:00 – 5:30 pm **135th ILA Board of Directors Meeting** – *Vineyard Board Room*

6:30 - 7:00 pm **Reception** – *The Reagan Patio*

7:00 - **Banquet** – *The Reagan Room*

Music by Steve Woods

ILA Presidential, Innovation, and Medal of Merit Awards Presentation

Inauguration of Langhorne Bond as ILA President for 2006

Speaker: Neal Graffy, Santa Barbara History Consortium, "Why Santa Barbara?"

*The registration and Information desk will be open at the times indicated above. The desk may be open at other times also.