

ILA 38 Annual Convention & Technical Symposium

Far East Radio-navigation Service (FERNS) Update

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Far
East
Radio
Navigation
Service



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1. Overview

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- **The latest issues and annual activities for Loran/Chayka in the Far East**
 - **17th FRENS council meeting**
 - **3rd TWG meeting**
 - **Next meetings (18th Council meeting, 4th TWG)**
- **R&D Plan for AIDS to Navigation in S. Korea**
- **Conclusions**



2. Latest & Next Meetings

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Technical Working Group

- Improvement program for FERNS Co-operating Chains (Task 1)
- Mutual interference between DGNSS stations (Task 2)
- Information exchange on future plan of DGNSS in FERNS members (Task 3)
- Information of the type of Loran-C/Chayka and other integrated user equipment (Task 4)
- Practical use of AIS in the AtoN field (Task 5)
- Program, policy and technical issues developed by the USCG (Task 6)
- Technical matters on eLoran and e-Navigation (Task7)



17th Council Meeting

- Moscow, Russian Federation on 11th – 14th Nov. 2008 ⁶

1. Presentation of a Report by Each Country on the Loran-C/Chayka Programme

- Japan informed that JCG had decided to decommission the Minamitori-shima Loran-C Station and to terminate its operation at 0000UTC on the first day of December 2009.
- IALA reported on recent developments that had taken place within the Association and at IMO.

2. Operational matters for FERNS cooperating chains

- off air Schedule 2009, Revision of FERNS Operation Guidelines, other operational matters

3. Technical matters for FERNS cooperating chains

- K-R-J Chain



17th Council Meeting

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4. **Coordination of other radionavigation services in the Far East**
 - DGPS, AIS and VTS, Radionavigation Monitoring, NDGPS, etc
 - U.S. provided information on the U.S. Loran System Status and performance of the Loran-C service

5. - **IALA made a presentation on the IALA-NET Project**
 - Norway provided information on the status of Loran-C in NW Europe after the end of the NELS Agreement and a brief overview on the Norwegian Government's High North Strategy
 - United Kingdom made a presentation on its eLoran strategy in a European and International context and the GLAs' strategy and on the European partners, including the role of the European Commission



6. Report of FERNS Technical Working Group (FERNS TWG)

- **User Requirements and Policy**
- **Confirmation of the Accuracy Performance of the FERNS chains**
- **System Requirements for the new system**
- **Necessity of new station(s) and Allotment of GRI**
- **Business Case – Funding**
- **International Agreements**
(FERNS Agreement and Operating Guidelines)

18th Council Meeting

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- **Seoul, S. Korea on 2nd – 6th November 2009**

Including 1 day of TWG (on 2nd Nov.)

1. Opening of the session.
2. Adoption of the agenda.
3. Presentation of reports by each country on the Loran-C/Chayka programme.
4. Operational matters for FERNS co-operating chains.
5. Technical matters for FERNS co-operating chains.
6. Co-ordination of other radionavigation services in the Far East.
7. Any other business.
8. Date and venue of the next session.
9. Closing of the session.

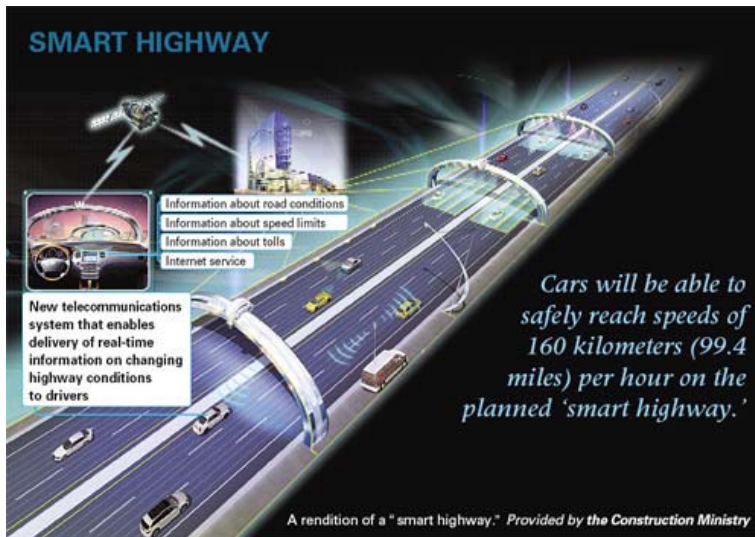


3. R&D Plan for AtoNs in S. Korea

Blue Highway Project of key HEAs in S. Korea

- Intelligent Integrated Navigation System
- 3-D Real Time Presentation (AtoNs, Safety Information)
- Real Time Monitoring
- e-Route, E-AtoN, AIS, VTS,...

Non-Accident _Non-Stop _Non-Fault



R&D for AtoNs ('10 – '13)

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Yr	2010	2011	2012	2013
Amounts (\$M)	3.0	5.5	5.7	6.6

How much for eLoran?



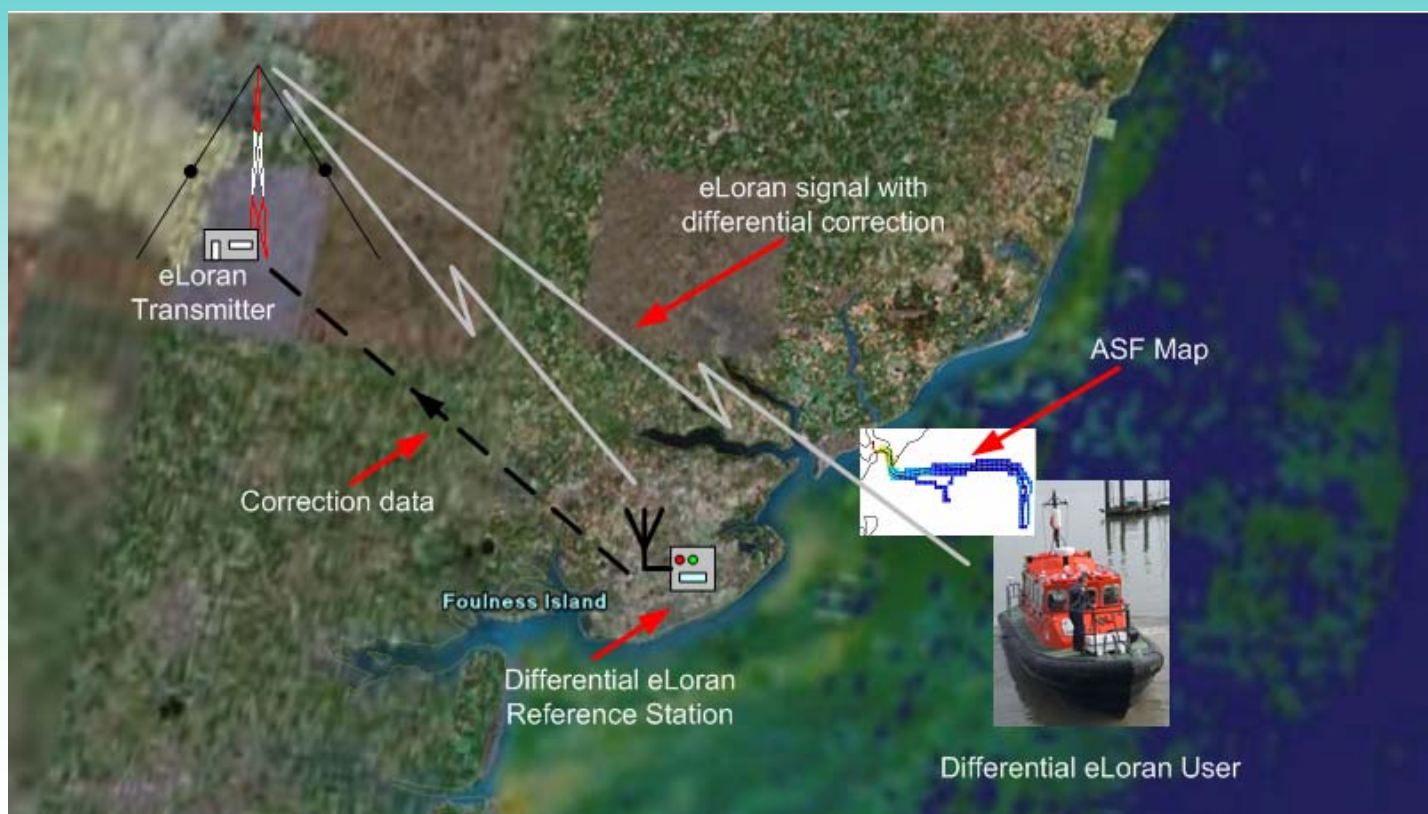
Technical Considerations for Policy Decision

- to assess Cost – Effectiveness of Investment for eLoran Infrastructure
- to show the Reliability for eLoran Technology
- to assist the High Level Decision for construction of eLoran Infrastructure

for eLORAN Infrastructure

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Test Bed Foundation for technical Verification - in BUSAN HARBOUR



4. Conclusions

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Far East Radio-navigation Service (FERNS) Update

VIKING LAWS

- 1 BE BRAVE AND AGGRESSIVE
- 2 BE PREPARED
- 3 BE A GOOD MERCHANT
- 4 KEEP THE CAMP IN ORDER

Start Today!!!

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for **Changes** and **Innovation**



<http://blog.naver.com/kjhdmoon>



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Thanks for your kind attention!

