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Corresponding members:

Pekka Eskelinen
Vivianne Jodalén

Helsinki University of Technology, Finland
Norwegian Defence Research Establishment, Norway

REGISTRATION

Please register not later than 18 May. The Conference fee is SEK 11600 and for students SEK 5800 (excl VAT), which includes full board and lodging from arrival on Monday to departure on Friday. Shared quarters cannot be avoided due to the limited number of rooms. Family quarters are available. Participants using their caravans as lodging will get a discount of SEK 2000. Please see the enclosed HF 07 Information sheet and Registration form for details.

In your own interest, please apply early. Invoice and detailed information will be sent upon receipt of registration. Register on our website or for credit card payment by fax or letter to:

HF 07
Saab Communication
SE-351 80 VÄXJÖ, Sweden
Fax: +46 470 420 42

Please visit our web site www.nordichf.org for further information, or contact Olov Carlsson (+46 470 421 49) or Winnie Svensson (+46 470 421 19, winnie.svensson@saabgroup.com).

The camp will be open on adjoining weekends for private use and for business meetings.

The Nordic Radio Society welcomes authors, participants, exhibitors and family members to Fårö and HF 07. We will meet in an excellent conference theatre, in an interesting exhibition, in the internet café and in a camp near Mother Nature, well suited to you and your family. We look forward to seeing you at the HF 07 Conference on Fårö in August 2007.

Åke Blomquist
SNRV
Chairman of NRS

Carl-Henrik Walde
SNRV
Chairman of the Organising Committee



14-16 AUGUST 2007

FÅRÖ

Nordic HF Conference with Longwave Symposium LW 07

14-16 August 2007
Fårö Kursgård, Fårö

Invitation and provisional programme

The 8th Nordic HF conference, HF 07, will be held on Fårö in the Baltic Sea. The previous conferences have all gathered a large number of international participants. Industry will have the opportunity to display their products in the exhibition area.

We invite participants to yet another successful conference. Send registrations not later than **18 May, 2007** to HF 07, Saab Communication, SE-351 80 Växjö, Sweden, or register at www.nordichf.org. Early registrations will guarantee your participation.

In connection with your trip to Sweden you may also take the opportunity to visit the rest of Gotland. Travel information will be available on the HF 07 website.



Nordic Radio Society



14-16 AUGUST 2007

FÄRÖ

HF, LF and VLF systems - fields of increasing importance

NRS, the Nordic Radio Society (a foundation cooperating with SNRV, the Swedish National Committee of URSI) sponsors the 8th Nordic HF Conference, this time combined with a long-wave symposium LW 07. Since the first conference in 1986, each Nordic HF conference has gathered around 150 participants, who have enjoyed the relaxed atmosphere and stimulating company of colleagues in the informal setting provided by the unique nature of Fårö and the Fårö Training Camp.

VLF, LF and HF communications technology has advanced significantly over the last few years, with significant trends towards a higher degree of automation and signal processing that now can be cost-effectively implemented to achieve affordable performance even in small systems. Mobile Internet is pervasive, however the radio environment and especially HF does not provide the distortion-free high bandwidth channel of an optical fibre. There is a significant challenge to meet users' expectations of affordable communications anywhere, anytime. High capacity multi-media networks carry not only analogue voice and data messages in a store-and-forward manner, but also digitised high quality voice, streaming data and even streaming video. Integration with VLF, LF and HF with these networks requires developments in modulation and coding, link management and network management to be able to provide a service level acceptable by the network users. Automatic networking aspects and information transparency play an increasing role to achieve full subscriber connectivity, area coverage and highly reliable communications with longwave and shortwave systems possibly being only one of several available communications alternatives.

We are happy to announce three invited speakers:

Eric Koski from Harris will give an overview of the concept of software defined radio with emphasis on the US JTRS programme. Technical aspects and programme aspects will be described.

Bob Nash, well-known consultant in the longwave field, will be the keynote speaker on longwave issues giving a historical background as well as state-of-the-art technology.

Samuel Ritchie from The Commission of Communications Regulation of Ireland will talk about the status and trends in HF spectrum management and spectrum usage.

Provisional programme

Marcel Scholz	Characterisation and Cluster Analysis of Narrowband HF Channels at Low and Mid Latitudes in the Australian Region
Klaus Wuerde	STANAG 4444 – NATO's HF-EPM Communication Standard (now ready to leverage the forces)
Roald Otnes	Predicting the increase in HF noise floor due to cumulative effects from power line telecommunications (PLT)

Roald Otnes	Measurements and modelling of scattering effects from wind farms at HF frequencies
Arnstein Johansen	An Extended ALE protocol for higher-density traffic requirements
Arnstein Johansen	Advanced Receive Chain Dynamic Range Management
David C. Wright	Comprehensive Demography of HF Non-Broadcast Communications - The Continued Digitization of HF
Haris Haralambous	Neural network prediction of HF spectral occupancy
Juergen Escher	Upgrade of Existing HF Equipment to a Third Generation (3G) HF System with Automatic and Optimized Frequency Management
Sharadha Kariyawasam	Internet for HF
Olov Carlsson	Frequency Management for Geographically Dispersed HF Networks
Ian Taylor	Single rack 400W/1kW HF Multi-Transceiver System
Ralph Persson	Standardized Software Defined Radio from an International Perspective
George Dekoullis	A Novel Reconfigurable GPS-Based Computer Architecture Synchronisation System for Space Physics Passive HF/L-VHF Radars
Michael Warrington	Experimental observations of HF propagation on two paths aligned along the mid-latitude trough
Nikolay Zaalov	Effect of geomagnetic activity on HF channel scattering functions for signals propagating in the northernly ionosphere
Stefan Hawlitschka	The use of a super-resolution DF system for gathering information about ionospheric waves
Siegfried Grob	NATO Tactical Data Link 22 – Upgrade Potential of HF media waveforms and implication on networking
Nigel Arthur	HF Spectrum Management
Eric Koski	Empirically characterizing channel quality variation on HF ionospheric channels
John Nieto	A Performance Comparison of Uncoded and Coded OFDM and OFDM-CDMA Waveforms on HF Multipath Fading Channels
Eric Koski	Software-Defined Radio, the JTRS Initiative, and their Implications for HF Communications
Håkan Bergzén	Results and experiences from using the HF 2000 system over-air
Vivianne Jodalén	Comparison of the capabilities of 2G and 3G HF
Bertalan Eged	Receiver System Components for Reconnaissance and Monitoring Operations
Arne Lindblad	Some practical aspects on LF submarine communications
Roger Karlsson	In-flight calibration of the Cassini Radio and Plasma Wave Science (RPWS) antennas after the Huygens probe release
Kia Wiklundh	A study on some modulation methods and forward error correction codes in an interference environment typical for the LF band and communication with submarines
Jan Bergman	Radio receiver on a chip for space applications
Samuel Ritchie	Status and Trends in HF Spectrum Management and Spectrum Usage
Robert Nash	LF Transmitter Applications - Management of Energy, Power, Bandwidth, Stresses, and Materials
Dave Kelleher	The design, build, installation and commissioning of the new 60kHz Time and Frequency Service for the UK NPL
Dave Kelleher	UK Defence High Frequency Communications Service from a service provider's perspective covering LF and HF services