

The conference will be held at the Fårö Training Camp, [www.farokursgard.se/start\\_eng.html](http://www.farokursgard.se/start_eng.html). Quarters are comfortable, but spartan, and shared rooms will allow participants to meet new friends. The conference fee is SEK 12 600 + VAT 3 150 (SEK 4 200 + VAT 1 050 for seniors paying out of their own pockets and for students). It will include full board and lodging from Sunday afternoon 11 August to Wednesday afternoon 14 August. Postgraduate students submitting papers may apply for a scholarship. Companions are welcome; a nominal charge will be made for these and for stays on adjoining days to be paid directly on location on Fårö.

Organising Committee:

Olov Carlsson	WRAP International AB	(HF 19 chairman)
Rickard Berg	FMV	
Mats Nilson	SNRV and NRS	
Karl-Arne Markström	ÅF Technology AB	
Marie Lindersjö	Head conference hostess	

Programme Committee:

Rickard Berg	FMV	(committee chairman)
Håkan Bergzén	Combitech AB	(secretary)
Karl-Arne Markström	ÅF Technology AB	
Kjell Brethack	FMV	
Emelie Agnedal	FMV	
Rolf Gustavsson	FOI	
Peter Johansson	FOI	
Dag Stranneby	Örebro University	

Conference Secretariat:

WRAP International AB	Office, Mobile phone:	+46-70-5159467
HF 19		
Ljungadalsgatan 2A		
SE-35246 Växjö	E-mail:	<a href="mailto:info@nordichf.org">info@nordichf.org</a>
Sweden		

We hope to meet you on Fårö near Mother Nature with the large conference theatre, an interesting exhibition, amateur radio station SLIHF and free WiFi coverage all over the camp.

Participants are registered in the order of fee payment (to open 1 April 2019); please be early. Our website will give you up to date and detailed information and it is also the means of submissions and registration.

Mats Nilson  
SNRV, NRS



Olov Carlsson  
HF 19 chairman



# Nordic HF Conference

## with Longwave Symposium LW 19

12-14 August 2019, Fårö, Sweden

### First Invitation and Call for Papers

The 12th Nordic HF conference HF 19, sponsored by the Nordic Radio Society NRS, will be held on the island of Fårö in the Baltic Sea north of Gotland in week 33, i.e. the week subsequent to the Gotland Medieval Week ([www.medeltidsveckan.se](http://www.medeltidsveckan.se)).

You are recommended to arrive at Fårö not later than Sunday afternoon 11 August, e.g. by HF 19 courtesy buses from Visby airport and harbour ferry terminal. In the evening, you will be served a meal (sponsorship to be defined).

On Wednesday afternoon 14 August, there will be return transports. For details on public buses and taxi services please see our website and/or newsletters.

The Programme Committee welcomes authors and speakers to submit abstracts not later than **15 March 2019**. The Organising Committee welcomes other participants and exhibitors (space is free if you register at least one participant and give contribution to the exhibition party) as well as sponsors.

You may access "My pages" on our website [www.nordichf.org](http://www.nordichf.org) and create a personal page to show your interest to take part in HF 19, to submit your abstracts and full papers, to apply for exhibition area and to register for the conference. Abstract submissions can be made starting in November 2018. Registration for participation and payment will be opened 1 April 2019.

[www.nordichf.org](http://www.nordichf.org)



NRS, the Nordic Radio Society is a foundation co-operating with SNRV, the Swedish National Committee of URSI (Union Radio-Scientifique Internationale). Assisted by WRAP International AB and the Swedish Defence Materiel Administration (FMV), NRS invites authors, participants and exhibitors to the 12th Nordic HF conference. As before, topics focus on communications beyond the horizon with emphasis on HF, LF and VLF radio communication, radio location and radio navigation technology, but they may also include long-haul VHF/UHF.

Conferences are important venues where users, scientists, engineers and manufacturers meet and have the opportunity to discuss both needs and solutions. Since the first conference in 1986, each Nordic HF conference has gathered over 100 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.

As at earlier HF conferences, VLF, LF and HF communications technology has advanced significantly over the last years, with significant trends towards a high degree of automation and signal processing that can be cost-effectively implemented to achieve performance even in small systems. There is a significant challenge to meet user expectations of affordable communications anywhere, anytime. High capacity multimedia 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 as well as VHF and UHF with these networks requires developments in modulation and coding, link management and network management to be able to provide a sufficient service level to the network users. Wideband HF and staring receivers will be used. Automatic networking and information transparency play an increasing role to achieve full subscriber connectivity, area coverage and highly reliable communications, longwave and shortwave being only one of several alternatives.

Defence forces are the major professional users and defence applications are the foremost technology driver. In many cases HF, LF and VLF are the primary and sometimes the only way of providing communications. Modern military radio communication systems are becoming more integrated in capabilities where the same software defined radio, or the C3I system, may employ use of HF, VHF and UHF in the same multiband equipment. In our modern days of advanced communication systems HF radio is even more than before important for users having needs of control of the messaging paths – no intermediate nodes or functions out of your control are required.

## SNRV

SVENSKA NATIONALKOMMITTÉN FÖR RADIOVETENSKAP  
THE SWEDISH NATIONAL COMMITTEE OF URSI

Topics of interest include:

- User requirements and experience
- Management and administration of networks
- VLF, LF and HF role in warfare, interoperability issues
- Interference and noise
- Spectrum regulation and usage
- Propagation studies and modelling
- Frequency management
- Network architectures
- Modulation, coding and link control
- Simulation, modelling and evaluation
- Equipment and systems for VLF/LF/HF/VHF/UHF
- Software radio concepts for VLF/LF/HF/VHF/UHF
- Wideband HF
- Staring receiver technology
- Multimedia access and applications
- Meteor scatter technology
- HF radar technology
- HF digital broadcast
- VLF, LF and HF navigation systems
- VLF, LF and HF electronic warfare
- VLF, LF and HF antenna systems
- Infrastructure: Antenna masts, shelters, platforms, cables
- Energy efficiency, power-saving methods
- Amateur radio techniques and systems

We emphasise the importance of contributions from users, either as experience from the operation of existing systems or as requirements for new systems. Technology is not self-sufficient – there has to be a demand from those that will operate the technology.

On our website [www.nordichf.org](http://www.nordichf.org), authors are invited to **submit abstracts** for papers **not later than 15 March 2019**. Notice of acceptance will be given on 1 April 2019. Print-quality papers shall be submitted on 3 May 2019. Presentation time is 20-30 minutes; please indicate the estimated length of your presentation excluding time for questions and discussions. All papers will be printed in the Conference Proceedings. Please note that the web site is the means of information, submissions and registration.

Proceedings of HF 19/LW 19 and earlier conferences will be available on electronic media and also provided as a paperback volume for those who select this option when registering. Our website will list titles and authors of all papers for efficient Internet search and access to the topics.

