

**Announcement
CALL FOR PAPERS**

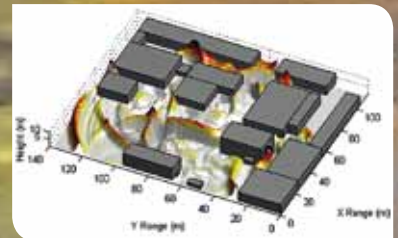
Fourth Workshop on



Battlefield Acoustics

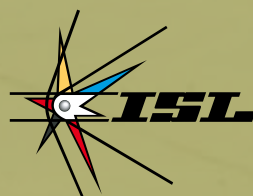
Battlefield Acoustics

September 23-24, 2014



Organized by:

ISL • French-German Research Institute of Saint-Louis • 5 rue du Général Cassagnou • 68301 SAINT-LOUIS, FRANCE



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ANNOUNCEMENT – CALL FOR PAPERS

The acoustic environment of the battlefield is of major importance for military operations. Military equipment like air and ground vehicles, electric generators, etc., is often a significant source of continuous noise, whereas weapons like artillery guns, mortars or small-caliber weapons such as those used by snipers are important sources of impulse noise.

These sources generate sound loud enough to be detectable at long range. Sensor systems for early warning, surveillance and tracking of targets have been developed in the last 10 years for battlefield and peacekeeping operations. Acoustics offers non-line-of-sight and full-space coverage (360°) which are ideal complements to other detection technologies. Presently, one of the most challenging tasks is to develop new systems offering capabilities for urban operations, and models taking into account environmental (meteorological) parameters.

For personnel exposed to extreme noise levels, like aircraft crews, artillery crews or dismounted soldiers, hearing protection is an important issue. The first priority is to limit noise exposure to an acceptable level while not impeding the perception of the acoustic environment. The control of noise emissions at the source and the development of adapted hearing protectors are two concurrent fields of work.

Beyond the simple need for protection, the design of earplugs or earmuffs has to provide operational forces with an enhanced intelligibility of the speech transmitted by radio communication devices in military vehicles, airplanes, etc.

The "Direction Générale de l'Armement" (DGA) and the "Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr" (BAAINBw), associated with the French-German Research Institute of Saint-Louis (ISL)*, organize a workshop on the topic: **"Battlefield Acoustics"**

The following topics are of major interest for this Workshop:

- Acoustic environment on the battlefield: vehicle, helicopter and weapon noise, IED and blast events (characteristics, metrology, etc.)
- Hearing protection devices (earplugs, earmuffs, etc.)
- Auditory hazard and damage risk criteria
- Noise regulation and application to the military context
- Noise control and audio communication (advanced active personal protection devices)
- Advanced techniques in signal processing, 3D audio display, etc.
- Acoustic sensors for counter-sniping, for ISR (Intelligence, Surveillance and Reconnaissance) applications, for acoustic locators and for sensor networks
- Performance of acoustic systems for detection and localization including the influence of the environmental conditions (acoustic propagation)
- National or international actions in these fields (DGA, BAAINBw, EDA, etc.)

The workshop starts on September 23 at 14:00 and closes on September 24 in the afternoon.



The workshop is open to the interested public (EU and NATO members). Participants are invited to give an oral presentation of their studies. Participants proposing a contribution are invited to submit a title and to register before May 20, 2014.

The technical program of the workshop will be transmitted in May. You are invited to book these dates and return the following registration form by post, fax or e-mail.

Information:

Organizing committee:

TRDir T. WESSLING (BAAINBw/WTD 91)
ASC HC J.-Y. RUISSEAU (DGA/Techniques Terrestres)
Dr. K. BUCK (ISL)
P. NAZ (ISL)
M. KAUFMANN (ISL)

Dates: Registration September 5, 2014
May 20, 2014 for contributing participants
Workshop September 23 - 24, 2014

Location: French-German Research Institute of Saint-Louis, Saint-Louis (France).
Access can only be granted upon presentation of an identity card or passport.

Language: English

Fees: The registration fees of 60 € include lunch on September 24, coffee breaks, the CD-Rom of available presentations and dinner in a local restaurant on September 23.

Accommodation:

A list of nearby hotels is available on the ISL Website (www.isl.eu/index.php/en/visitor-information). Please book your room directly with the hotel. Some hotels have special rates for ISL visitors. Please mention this when booking.

Presentations:

Participants wishing to contribute with an oral presentation are invited to complete the title and list of authors within the registration form before May 20, 2014. The presentation time of 20 mn includes the time for discussion.

Exhibition:

The exhibition of protective equipment and acoustic systems is welcome: audio protection and communication devices, earplugs, earmuffs, protective equipment and vests against blast waves, sensors, measurement systems, software, etc. The exhibition will be located in the lobby in front of the conference room and will be accessible to the public during the breaks and at the end of the meeting, prior to a tour of our laboratories. (The exact schedule will depend on the end of the oral presentations). The lobby will not be closed during the conference. Thus the exhibition will remain accessible to the interested participants.

An exhibition space is available at the cost of 150 €.

If you have specific needs or questions please do not hesitate to contact the secretariat.

**The French-German Research Institute of Saint-Louis (ISL) is a binational institution established by the Federal Republic of Germany and the French Republic on the basis of a treaty signed in 1958. Additionally to its original mission "Research, scientific studies and basic predevelopment in the armament domain", ISL has reinforced its activities on problems of civil security and countermeasures against terrorism encountered at home and during overseas military operations. More details can be found on <http://www.isl.eu>.*