



Bundesamt für Wehrtechnik
und Beschaffung

Workshop on

Battlefield Acoustics

8–9 June 2010



www.isl.eu

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

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. are often significant sources of continuous noises whereas weapons like artillery guns, mortars or small caliber weapons as used by snipers are important sources of impulse noise.

These sources create sound, loud enough to be detectable at a long range. Sensor systems for early warning, surveillance and tracking targets have been developed during the last years for battlefield and peacekeeping operations. The Non Line of Sight and the full space coverage (360°) of acoustics offer an ideal complement to other detection technologies. Presently, one of the most challenging tasks is to develop new systems offering capabilities for urban operations, and models that take into account the environmental (meteorological) parameters.

For personnel exposed to these extreme sources, like aircraft crews or dismounted soldiers, hearing protection is an important issue. The first priority is to limit their exposure at an acceptable noise level while not impeding the ability of the soldier to be alerted by low level surrounding noises. The control of the noise emission at the source and the development of adapted hearing protectors are two concomitant scopes of work.

Beyond the simple need for protection, the design of ear-plugs or earmuffs has to offer to operational forces an improved intelligibility of the speech transmitted by the radio-communication devices in military vehicles, airplanes...

The "Direction Générale de l'Armement" (DGA) and the "Bundesamt für Wehrtechnik und Beschaffung" (BWB), 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: vehicles, helicopters, ... and weapon noises (characteristics, metrology, ...)
- 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)
- Noise control and audio communication (talk through devices, active noise reduction, ...)
- New technologies: advanced techniques in signal processing, 3D audio display ...
- National or international actions in these field (DGA, BWB, EDA, ...)

The meeting starts on June 8 at 14:00 and closes on June 9 at 13:00. The afternoon of June 9, will be dedicated to a visit of ISL laboratories or a field demonstration.

The Workshop is open to the interested public (Members of EU and NATO). Participants are strongly encouraged to express their interest in the subject by giving an oral presentation of their studies.

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

Informations:

Organizing committee:

RDir'in Dr C. KORFF (*BWB/WTD 91*)

ASC HC J.-Y. RUISSEAU (*DGA/Techniques Terrestres*)

Dr. K. BUCK (*ISL*)

P. NAZ (*ISL*)

M. KAUFMANN (*ISL*)

Dates: Registration 8 May 2010
Workshop 8-9 June 2010

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: Registration fees are 60 € and include lunch of June 9, coffee breaks, the CD-Rom of available presentations and the dinner in a local restaurant on June 8.

Accommodation: A list of nearby hotels is available on the ISL Web site (www.isl.eu). Please book your room directly with the hotel. Some hotels give special ISL fees.

Presentations: Participants wishing to give an oral presentation are invited to send the corresponding title and list of authors within the registration form. The presentation time is fixed to 20 mn including time for discussion.

Exhibition: Place for exhibition is available. Please 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 both at home and during overseas military operations. More details can be found on <http://www.isl.eu>.

