WORKSHOP LOCATION

The workshop will be held at the "House of Science" (www.hausderwissenschaft.org/hdw_eng) on the campus of the Technische Universität Braunschweig. Braunschweig's city center is conveniently reachable via Hanover or Berlin airport(s) with about 1 hour (Hanover) or 1.5 hours (Berlin) or 1.5 hours (Hamburg) train ride. Braunschweig has a nice historic town center with many restaurants and bars.

PUBLICATION

After the workshop the scientific committee will recommend the submission of full paper versions of appropriate presentations for a peer-reviewed publication in a special issue of the International Journal of Aeroacoustics IJA.

REGISTRATION

The registration fee is:

Before August 15: 200 Euros, Students: 75 Euros

After August 15: 300 Euros, Students: 100 Euros

This includes the documentation (DVD of abstracts and presentations), the lunch and coffee breaks, as well as the workshop dinner. Upon request X-Noise EV will cover the registration cost for members participating in X-Noise EV meetings in Berlin prior to the workshop.

For workshop registration and hotel reservation you are kindly asked to refer to the workshop's web site.

IMPORTANT DATES

June 17	Submission of abstracts
July 15	Notification of acceptance

WORKSHOP SECRETARIAT

Address:	Collaboratory Research Centre 880 Technische Universität Braunschweig, Germany
Tel:	+49 531 391 2979
Fax:	+49 531 295 5952
E-mail:	w.wiesemann@tu-braunschweig.de
Web Site:	www.sfb880.tu-braunschweig.de/index.php/16-CEAS-ASC-WS

CEAS COUNCIL OF EUROPEAN AEROSPACE SOCIETIES

16th workshop of the Aeroacoustics Specialist Committee of **CEAS**, simultaneously 2nd scientific workshop of the European **X-Noise EV** network:

AEROACOUSTIC INSTALLATION EFFECTS & NOVEL AIRCRAFT ARCHITECTURES

OCTOBER 11+12, 2012

TECHNISCHE UNIVERSITÄT BRAUNSCHWEIG, GERMANY

Technical Chair	J. Delfs, DLR / CEAS-ASC
Administrative Chair	R. Radespiel / TU Braunschweig

Supported by:

X-Noise EV

Co-sponsored by:

Technische Universität Braunschweig

DLR

AIAA

IJA

WORKSHOP ANNOUNCEMENT

The Aeroacoustics Specialists' Committee (ASC) of the Council of European Aerospace Societies (CEAS) announces its 16th international workshop representing at the same time the 2nd workshop of the EU-Network "X-Noise EV", to be held at the Technische Universität Braunschweig, Germany. Its subject is acoustic installation effects and novel aircraft configurations in view of low noise. The objective is to bring together the aeroacoustics community with the technical and scientific disciplines classically involved in aircraft design. The workshop welcomes contributors from industry, research establishments and academia.

SCOPE OF THE WORKSHOP

Today's aircraft are optimized for efficiency subject to a multitude of complex technical and economic boundary conditions. In view of the prospective growth of air traffic, new requirements arise among which aircraft noise will become one of the key issues. One of the great challenges here is the solution of the conflict between growth of the air transport system and the required reduction of the noise impact. While in the past improvements in efficiency and noise went hand in hand, e.g. by ever increasing bypass ratios of aero engines, today further progress is much harder to achieve. The "component-wise" consideration of sound sources is becoming more and more inappropriate as these components get ever closer coupled. For instance, the size related closer coupling of turbofan engines with the wing will increase jet flap interaction noise, which may annihilate reduction successes on the generic jet noise. Also ultra-efficient propulsion concepts like counter rotating open rotors pose complex noise issues, especially since the installation at the aircraft determines largely the source and radiation characteristics. Installation effects may, on the other hand, be beneficial and exploited in more radical future aircraft concepts, e.g. with partially buried engine intakes to provoke acoustic shielding. Some special purpose aircraft (UAVs) already exploit these effects. One of the key enablers (and challenges) is sufficiently reliable noise prediction, which would be able to take into account all of the complex installation effects at a complete aircraft. The workshop is meant to contribute to the development and discussion of new ideas, solutions, methods and tools for the inclusion of installation effects, and the design of future silent transport aircraft and special purpose aircraft.

TOPICS

- source noise related to a/c installation-induced flow distortion
  - propulsion noise generation: Propeller, CROR, turbofan, jet/flap
  - airframe noise generation: spoiler or jet influence on HLD noise,
  - HL wing influence on landing gear noise
- sound radiation under the influence of the a/c geometry
  - reflection & shielding effects
  - installation induced scattering of nearfield into propagating sound
- prediction tools for installation effects and low noise aircraft design
- installation noise reduction technologies (e.g. low noise airframe engine integration)
- very low noise aircraft concepts (e.g. QSTOL) including UAVs
- technologies enabling low noise procedures
- preliminary design noise estimation tools

FORMAT

The workshop will be informal with ample time for discussion. There will be no parallel sessions. The time for each presentation will depend on the number of speakers.

ABSTRACTS

The language of the workshop will be English. The interested speakers are invited to submit their abstracts on no more than 2 pages including authors' names and affiliations in electronic form. The speakers are also encouraged to provide their manuscripts or their presentation in advance to facilitate the preparation of copies for the attendees.

Abstracts should be uploaded to the workshop website (see below).

KEYNOTE SPEAKERS

Dr. Pierre Spiegel (Airbus)
Dr. Fayette Collier (NASA) t.b.c.
Dr. Denis Gely (ONERA)

SCIENTIFIC COMMITTEE

Jan Delfs	Chairman, DLR, Germany
Harry Brouwer	NLR, The Netherlands
Fayette Collier	NASA LaRC, U.S.A.
Gérard Fournier	GFIC, France
Umberto Iemma	Uni Roma Tre, Italy
Stéphane Lemaire	Dassault, France
Stéphane Lidoine	Airbus France (t.b.c.)
Eric Manoha	ONERA, France
Rodney Self	ISVR, Southampton, UK (t.b.c)
Zoltan Spakovsky	Massachusetts Institute of Technology, U.S.A. (t.b.c.)