



The World Organisation for NDT

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CHAIRMAN'S MESSAGE

ICNDT must take a leadership role

Will we ever see one internationally accepted NDT Certification?

A few years ago, the international non-destructive testing community was closing in on one standard for NDT Qualification and Certification that would meet the requirement of the majority of our ICNDT members. The recently revised and approved International Standard ISO 9712:2005 has appeared to have broadened the gap with other standards rather than bridging the gap. It was the goal of the ISO/TC 135, Nondestructive Testing, Subcommittee SC7, Personnel Qualification, to technically revise ISO 9712:2000 to stay within the acceptable boundaries of EN 473:2000 and at the same time meet the 5 year review directive of ISO/IEC.

The revisions of the ISO 9712:2005 were approved by the required 75% of ISO member's casting votes but not without disapproval by a few ISO voting members.

The primary concern of the disapproval was with respect to the recertification procedure in the revised ISO9712 standard. The fall out was the decision by CEN/TC 138 Committee to prepare an amendment for recertification to EN 473, submission to CEN enquiry, formal vote and ratification. A special meeting was held in April 2007 by the CEN TC138 to review the technical/editorial comments on the proposed revisions in order to prepare a revised draft. The Chairmen of ICNDT, ISO TC 135 and ISO TC 135 SC7 were invited to participate at this important meeting. It was vital that ICNDT participate at the meeting and given an opportunity by the CEN Committee to voice an opinion on the change in direction with respect to harmonisation of EN 473 and ISO 9712 Standard as harmonisation is one of our primary objectives. Although there are differences between the two NDT documents, the standards themselves are

not at a point that a compromise and/or change on the Standards couldn't achieve harmonisation.

The primary downfall to harmonisation of the two documents is the allowance for modification of ISO9712 and an alternate route for recertification. The European Union requires that an approved standard must be accepted by all members without modification while ISO allow the document (ISO 9712) to be modified. The second



'We will one day have one harmonised NDT Certification Standard'

point from above with respect to an alternate route for recertification is a workable issue for harmonisation. ICNDT must take a leadership role and this can be done by facilitating a workshop for the two committees, ISO and CEN. The objective would be to empower attendees for both committees with an objective to address ways and means to achieve one harmonised standard. Should this happen, ICNDT will have achieved a major objective.

The experience of participating at the meeting only re-enforced my faith that we will one day have one harmonised NDT Certification Standard.

Douglas J Marshall

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CEN TC 138

Douglas Marshall writes . . .

On 2 April 2007 I was invited as the ICNDT Chairman to attend the CEN TC 138, NDT Qualification and Certification meeting in Paris, France as an Observer. The importance of my attendance was to show the CEN Committee that ICNDT was dedicated to one harmonised standard, in particular ISO 9712. The Chairman of ISO TC 135 and Chairman of ISO TC 135/SC7 were also invited to observe at the meeting. The Chairmen of the two ISO committees were at times asked to comment on the revisions. My only participation was to say a few words of encouragement for one NDT Standard. ICNDT offered to host and facilitate a workshop for the two committees, ISO and CEN, with empowered attendances to address ways and means to achieve one harmonised standard.

A draft of a revised EN 473 had been submitted to members for a vote to move forward with a revised standard or address acceptance of ISO 9712. It was concluded before the meeting that CEN 138 would move forward with a revised EN 473 document.

Although there are differences between the two NDT standards, they are not at a point that a compromise and/or a change by one of the Standards couldn't achieve harmonisation. **The primary downfall to harmonisation is the allowance for modification of ISO 9712.** The European Union requires that an approved standard is approved and it must be accepted by all members without modification. Also, the directives of ISO allow the document to be modified without complete approval by the CEN committee. The directives of ISO and CEN must be addressed to ensure mutual agreement before changes can be addressed.

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CEN TC 138

Continued from page 1

I personally discussed why CEN felt that we could not meet an agreement and a few examples were provided:

AISI CP 106, ASNT attempt to harmonise does not meet the minimum training requirements with justification.

Canada's recent comment on statistical analysis to prove there may not be justifiable reason not to implement recertification. EU looked at this as a modification to the ISO 9712 Standard.

I believe that there is potential to obtain one harmonised NDT certification standard but it is still many years away and will not happen until the ISO and CEN directives are changed.

CEN TC 138 Chairman, Albert Kozłowski, invited ICNDT to participate as an Information/Observer to all future CEN TC 138 meetings to include all documentation for review.

*Douglas J Marshall
Chairman, ICNDT*

Future ICNDT Committee Meetings

PANNDT - Buenos Aires, Argentina - Executive Committee & GGP Committee, October 2007
17th WCNDT - Shanghai, China - Executive Committee, PGP Committee, ICNDT General Assembly, August 2008
10th APCNDT - Moscow, Russia - Executive Committee, PGP Committee, ICNDT General Assembly, June 2010

New symbol launched to warn public about radiation dangers

With radiating waves, a skull and crossbones and a running person, a new ionizing radiation warning symbol is being introduced to supplement the traditional international symbol for radiation, the three cornered trefoil.

The new symbol is being launched by the IAEA and the International Organisation for Standardization (ISO) to help reduce needless deaths and serious injuries from accidental exposure to large radioactive sources. It will serve as a supplementary warning to the trefoil, which has no intuitive meaning and little recognition beyond those educated in its significance.

"I believe the international recognition of the specific expertise of both organisations will ensure that the new standard will be accepted and applied by governments and industry to improve the safety of nuclear applications, protection of people and the environment," said Ms Eliana Amaral, Director, Division of Radiation, Transport and Waste Safety, IAEA.

The new symbol is aimed at alerting anyone, anywhere, to the potential dangers of being close to a large source of ionizing radiation, the result of a five-year project

conducted in 11 countries around the world. The symbol was tested with different population groups – mixed ages, varying educational backgrounds, male and female – to ensure that its message of 'danger – stay away' was crystal clear and understood by all.

"We can't teach the world about radiation," said Carolyn Mac Kenzie, an IAEA radiation specialist who helped develop the symbol, "but we can warn people about dangerous sources for the price of sticker."

The new symbol, developed by human factor experts, graphic artists, and radiation protection experts, was tested by the Gallup Institute on a total of 1650 individuals in Brazil, Mexico, Morocco, Kenya, Saudi Arabia, China, India, Thailand, Poland, Ukraine and the United States.

The symbol is intended for IAEA Category 1, 2 and 3 sources defined as dangerous sources capable of death or serious



injury, including food irradiators, teletherapy machines for cancer treatment and industrial radiography units. The symbol is to be placed on the device housing the source, as a warning not to dismantle the device or to get any closer. It will not be visible under

normal use, only if someone attempts to disassemble the device. The symbol will not be located on building access doors, transportation packages or containers.

"The new ionizing radiation warning symbol (ISO 21482) is the latest successful result of long-standing cooperation between the IAEA and ISO. We encourage the symbol's rapid adoption by the international community," said ISO Secretary-General Alan Bryden.

Many source manufacturers plan to use the symbol on new large sources. Strategies to apply the symbol on existing large sources are being developed by the IAEA.

An invitation to the 17th WCNDT, Shanghai, China, 2008

“As the Deputy President of ChSNDT and President of the 17th WCNDT, I am pleased to invite you all to participate in the 17th World Conference on Non-Destructive Testing in Shanghai, China, from 27-31 August 2008.”

So says Dr Rong S Geng, who knows very well the importance of NDT through his aircraft safety work at the Beijing Aeronautical Technology Research Centre.

“NDT is undoubtedly one of the most rapidly developing and progressive professions in China,” says Dr Geng, “and thanks to its open-door policy and free market-oriented economy, China has a rapidly developing economy too.”

“We realise,” continues Dr Geng, “that an international conference on non-destructive testing can bring us together and give us an opportunity to meet old friends and make new ones. Most importantly, the conference provides a good chance for us to exchange ideas that help all of us do our job better in the future and to improve international relations between different NDT societies and communities.”



Preparations for the 17th WCNDT are well underway. Chairman of the Organising Committee Professor Cai An Ding says: “The Organising Committee of the 17th WCNDT will further strengthen the cooperation with the International Committee of NDT (ICNDT) and other NDT societies to prepare well and complete every task properly.”

The Conference and Exhibition venue has been carefully chosen and the conference website (www.17wcndt.com) has been set up.

The 17th WCNDT and exhibition will be held in Shanghai Exhibition Center (SEC), a centre designed to facilitate important

political, economic, science and technology and cultural activities.

SEC is situated in the centre of Shanghai, with easy access to transport facilities and nearby hotels.

As both the conference and the exhibition will be held in the same location, it will be very convenient for the delegates to attend the conference as well as visit the exhibition.



The technical programme is also progressing well, and the Technical Committee, under the Chairmanship of Dr Shen Gong Tian, has already received abstracts from all over the world. The deadline for submission of abstracts is 31 October 2007. Here is the full calendar of important dates:

Abstract submission:	31 October 2007
Notification of acceptance:	by 31 December 2007
Full paper submission:	29 February 2008
Notification of paper acceptance:	30 April 2008

Registration for participants is now open. All fees are in US \$ and the registration fee includes access to the entire conference programme, access to the exhibition, coffee, welcome dinner, abstracts booklet and proceedings CD-ROM and travel on the Huangpu River. The accompanying person fee includes participation in the opening ceremony, welcome dinner and travel on the Huangpu River.

	Receipt of payment until 26 Aug 2007	Receipt of payment until 26 Feb 2008	On-site or after 26 Feb 2008
Participant	US \$670	US \$710	US \$750
Student	US \$330	US \$350	US \$380
Accompanying person	US \$180	US \$180	US \$180

The considerable areas devoted to the exhibition are spread over four halls and two levels, with separate international and national sections. At the time of writing there are still some booths available, but space is selling fast so it is recommended that companies act quickly. Full details are available at www.17wcndt.com or by contacting Mr Xu Yongchang, Mrs Zhu Yaqing and Ms Wang Yingyun. Tel/Fax: +86 21 65550277; E-mail: chsndt2008@163.com, chsndt@public2.sta.net.cn

AFRICA

NDT in Africa

The industrial development which began in the African region in the sixties initiated the need for non-destructive testing techniques; there were various industries using NDT techniques as part of their operations, namely petroleum industries, airlines, oil refineries, constructions and manufacturing of pressure equipments.

In fact, NDT plays an important role in quality control of products and safety of goods and persons which represent one of the main challenges facing African countries.

Aware of the importance of the NDT, some African countries have started since 1970 the implementation of programmes aiming the dissemination and vulgarisation of these techniques and the training of manpower.

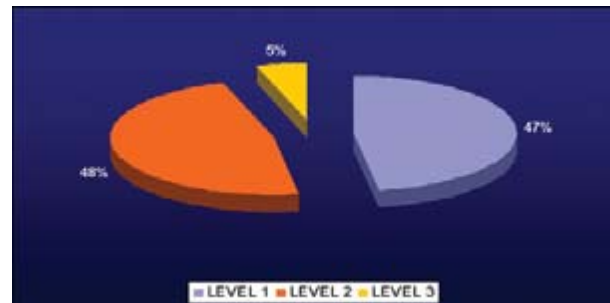
These efforts were consolidated by the support of the International Atomic Energy Agency (IAEA) through its various programmes such as national and regional Technical Cooperation projects (TC), as well as Coordinated research projects (CRPs), technical publication and cooperation with international organisations including the ICNDT. Through this support many achievements were made such as:

- ❑ Availability of basic infrastructure and equipment in majority of the countries;
- ❑ Availability of trained and qualified persons in Levels II and III according to IAEA TECDOC 628 and ISO 9712 standard;
- ❑ Provision of NDT services;
- ❑ Adoption of ISO 9712;
- ❑ Establishment of a network of national Project Coordinators;
- ❑ Establishment of two Regional Designated Centres: Southern African Institute of Welding (SAIW, South Africa) and Centre Technique des Industries Mecanique et Electriques (CETIME, Tunisia);
- ❑ Establishment of a programme of regular regional training workshops and African NDT Conferences;
- ❑ Participation in Coordinated Research Programme (CRP);
- ❑ Availability of training materials as per ISO 9712 requirements;
- ❑ Availability of core group of NDT experts in the region;
- ❑ Funding of the African Federation of Non Destructive Testing;
- ❑ Incorporation of NDT methods in higher education in some countries.

In addition, the following achievements have been made in promoting good managerial practices:

- ❑ Widespread use of strategic planning tools such as SWOT analysis;
- ❑ Awareness of the importance of marketing and communication;
- ❑ QC/QM;
- ❑ The need for developing business plans.

The total number of certified personnel in the four basic methods had reached 2220, distributed as follows:



The African countries with the help of IAEA under the AFRA new programme, from 2007 to 2010, continues the improvement of their capabilities and the establishment and optimisation of the utilisation of Non-Destructive Testing (NDT) facilities in their region, they have opted for a regional approach to maximise scarce resources and avoid proliferating facilities with low national demand.

Currently the majority rely on training and certification of NDT personnel at Regional Designated Centres (RDCs), as recognised by all Member States of AFRA – Southern African Institute of Welding (SAIW, South Africa) and Centre Technique des Industries Mecanique et Electriques (CETIME, Tunisia).

In 2005, the African Federation for Non-Destructive Evaluation (AFNDT) was formally accepted as the member of ICNDT at the 4th African Conference.

This African conference was held in Cairo, Egypt, in February 2006 and was attended by more than 200 participants. Until now four African Conferences on NDT have been organised; the fifth conference will be held in 2009 in Tunisia. During this conference a collaboration agreement was signed between AFNDT and ECNDT aiming to promote mutual recognition of certification schemes.

Many technical and scientific publications have been presented in the different regional and international NDT conference mainly from Algeria.

During the 9th ECNDT, in Berlin, another country from the African region, the Sudan, was accepted as a full member in ICNDT.

The African Federation for Non-Destructive Evaluation will be present at 17th WCNDT, in Shanghai in China in 2008.

Mohamed Férid Herelli
African Federation for Non-Destructive Evaluation Chairman

18th World Conference on Non-Destructive Testing

2012

Durban, South Africa

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ASIA-PACIFIC

News from the Malaysian Society for Non-Destructive Testing

EHP NDT team in Sudan

As a preparation for the implementation of the Malaysian-Sudan OIC-EHP project on non-destructive testing, a team of four experts from Nuclear Malaysia were despatched to Khartoum on 3 March 2007. The team comprised the Director General of Nuclear Malaysia, the President and the Treasurer of MSNT, and a liaison officer from Nuclear Malaysia. During this mission, all members of the team presented special lectures at the 'National Workshop on Qualification and Certification of NDT Personnel, 3-4 March 2007'. The rest of the week was spent with Sudanese counterparts to formulate a project paper to be tabled to the Islamic Development Bank for possible source of finance for this project.



The Director General of Nuclear Malaysia with Sudanese counterpart during the National Workshop on Qualification and Certification of Personnel in Khartoum



MSNT President presenting a memento to the President of the Sudanese Society for NDT at the end of the workshop

Revision of Safety Code of Practice for Industrial Radiography

The Atomic Energy Licensing Board (AELB) has invited several members of MSNT to be members of a Special Committee to revise the existing Codes. The first meeting of the Committee was held on 21 March 2007 at AELB in Bangi and chaired by the President of MSNT. During this one-day meeting a significant amount of progress was made on this revision. The Committee was given two months to complete the review to allow this document to be launched on time.



The headquarters of AELB

Meeting on agreement of mutual recognition of NDT certificate within RCA member states

The National Certifying Body for NDT, Department of Skill Development-DVD (formerly known as MLVK) has invited the MSNT President to discuss the Malaysian position to be a party to this agreement (that is promoted by the IAEA). The discussion was made with the presence of the Ministry's Legal Advisors.

At the end of this meeting, which took place on 15 March 2007, all members agreed that Malaysia should support this move and agree to work towards qualifying this country to be a party to this agreement. A letter of intention to be a party to this agreement was later sent by the DVD to the RCA counterpart to be transmitted to the IAEA.



MSNT President with Mr Pang of the Department of Skills Development and Legal Advisors from the Ministry of Human Resources

Board of Directors meeting

MSNT Board of Directors met again on 22 March 2007 to discuss various matters related to activities of the Society. The meeting was held at Nuclear Malaysia and was attended by a majority of Board members. Matters discussed during this meeting included the preparation of the Annual General Meeting, changing the status of the MSNT Newsletter to technical journal, preparation of NDT and Corrosion Management Asian Conference and proposal of amendment to constitution related to the election of Board members.



MSNT Board of Directors during the meeting

Expert mission by President, Korean Society for Non-Destructive Testing

Upon request by Nuclear Malaysia, the IAEA has despatched a Korean expert to assist Nuclear Malaysia in strengthening its technical capability of advanced ultrasonics. Mr Jong Po Lee, who is also the President of the Korean Society for NDT, has spent a week of his time to assist researchers in Nuclear Malaysia. The impact of his presence in this country has been maximised by giving him the opportunity to present a lecture to the Society's members. This lecture, entitled 'Robotic NDT – Korean Experience', was held on 29 March and attended by some 40 NDT specialists from various organisations.

NDT in MTE 2007 – Malaysian Technology Expo

At least three research products were exhibited during this expo, which was held 29-31 March 2007. Two of these products, automatic gamma projector winder cable and eddy current probes, were presented by groups of researchers from Nuclear Malaysia, whereas another on cable inspection based on magnetic flux system was exhibited by Universiti Putra Malaysia (UPM). Both products displayed by Nuclear Malaysia won silver medals, whereas the product exhibited by UPM won a bronze.

Extracted from MSNT e-newsletter, edited by Mr Suhairy and Mr Amry. E-mail: suhairy@nuclearmalaysia.gov.my/amry@nuclearmalaysia.gov.my

EFNDT WG5 – PS&SndtT in service of Public Security and Safety NDT Technology

General knowledge of the role of NDT in everyday needs for safety and in safety precautions is not very prevalent, and the subject is not well-understood, even by many supposedly well-informed professionals. This is very often the reason why valuable results in NDT research and development have not been used to good effect for the benefit of safety and quality. This article about EFNDT WG5 is intended to inform the NDT community and beyond about some of the work carried out by EFNDT WG5 – PS&SndtT: Public Security and Safety NDT Technology.

For more than 50 years, the NDT community has demonstrated the capability of application of NDT techniques in wide range of human activities by detecting defects that may be regarded as potential causes of damage. Conventional areas of NDT application where NDT is implemented with reliable results are pipelines, containers and pressure vessels, oil refineries, transportation, railways, ships, airplanes, satellites, roads, bridges, water-gates, energy plants, nuclear plants and objects of art. So there is a very significant influence of NDT in the protection and conservation of the environment.

Specific fields where NDT has to be applied, and with the requirements of even higher reliability, emerged at the end of twentieth century. Around 80 million antipersonnel land mines are left in more than 80 countries worldwide (today 91). The international community faces a huge challenge in de-mining and overcoming of the problem of mine-polluted countries. It was planned (at the Ottawa convention) to begin a process of deactivation of mines, unexploded objects and hidden dangerous objects until year 2010. It was declared by most of the official documents. Unfortunately it was more like wishful thinking than realistic option and possibility. With current knowledge and dynamic that is in everyday practice, our quest for a 'mines-free world' would require many more years, huge funding and no more mines laid.

NDT can be a powerful source of methods for mine detection. The potential technologies include but are not limited to acoustic, electromagnetic induction, infrared imaging, nuclear and radar. It is possible to apply many NDT methods to locate mines or other unexploded objects but with due concern about the consequences in their capability, efficiency and reliability.

Key issues in achieving goals are to support planning and investment in the development of methods and expertise for solving the problem of mine detection.

EFNDT founded the Working Group for Antipersonnel Landmines Detection, WG5, at the Meeting of EFNDT Board of Directors in Berlin, March 1999. This was later renamed into WG 5 for Anti-Personnel Mine Detection (EFNDT WG5 APMD) since anti-personnel mines also have been encountered in waters.

The mandatory goal was to contribute the improvement of humanitarian de-mining through several ways:

- motivate R&D on mine detection methods and techniques to achieve better efficiency in humanitarian de-mining
- raise awareness and co-operation regarding the improvement of humanitarian de-mining among the scientific and expert community, in particular in the NDT field
- promote European NDT research competitiveness and address specific global or regional issues where there is a mutual interest and benefit
- support cooperation between NDT societies in relation to universities, industry, research centres and public authorities across the Europe as well as the rest of the world

The significant contribution from NDT is expected primarily for validation of methods in use and work on R&D for advanced technology which can accelerate the procedure and improve

significantly the overall quality of detection with reliable results and lower cost.

EFNDT WG5-APMD, in accordance with its mission, continuously induces discussions and other efforts regarding collecting and disseminating the results within the field of mine detection, among the interested scientists and experts.

WG5 contributed to introduce the sections devoted to mine detection methods and technologies into the programme of NDT conferences:

- 15th WCNDT, Rome 2000, (first approach)
- 8th ECNDT, Barcelona 2002
- ITEP Workshop, BAM – Berlin, 2003
- 16th WCNDT, Montreal 2004
- MATEST, always included sessions from 2000
- 9th ECNDT, Berlin 2006 (three sessions)

The extension of the WG5 scope has been carried out in spite of the fact that the mine problem has not been solved. It is a response to the rapidly growing threats that include increasing terrorist and crime activities that may hit any country any time. The main reasons for an extended scope is that a new value will be added to wider civil environment.

We can offer and apply powerful NDT methods in detection and diagnostics of all kinds of threats in the civil environment. It will be even of benefit to the humanitarian de-mining community since the new scope demands sharing of interdisciplinary knowledge and participation of a wider group of experts in WG5.

After many discussions, the univocal resolutions of WG5 meetings in 2005 were a substantial need in broadening of the scope. This was approved by the EFNDT General Assembly in Vienna on 11 November 2005.

The extended scope and the new name of WG5 is:

PS&SndtT – Public Security and Safety NDT Technology

The name includes detection and protection technology and various kinds of threats in the civil environment.

At the first meeting of WG5 – PS&SndtT (11 of WG5 at all) in Zagreb and the Workshop held in Mine Action Academy, Polytechnic College, Velika Gorica, it was acknowledged together with the new members from the wider scope that:

- The knowledge on explosives may be applicable to both de-mining and diagnostics of other explosive devices so the activities of scientists/experts devoted to those areas could be rationalised.
- Harmonisation of education and certification of personnel in humanitarian de-mining as well as in the detection of other explosive devices is of growing interest, since more and more agencies and organisations may be getting involved in this area. An implementation of NDT experience in certification and accreditation system (ISO, EN standards) is possible and would be helpful in this context.
- The concomitant research programmes may be funded from more financial resources.

The permanent initiative in WG5 is to meet the global demand for safety and to acknowledge the importance of ICNDT in supporting the NDT community. WG5 is open to the affiliated members of ICNDT to join us in the quest for a safer and better world for present and future generations.

All comments, questions and particularly new members are very welcome. For further information please visit our website at: www.efndt.org/wg5

*EFNDT WG5 PS&SndtT Convenor
Prof dr Vjera Krstelj
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Hellenic Society's international conference

The 4th International Conference on Non-Destructive Testing, organised by the Hellenic Society of Non-Destructive Testing, is to be held 11-14 October 2007 in Chania, Crete.

Chania is located in the northwestern side of Crete Island, the place where the famous Minoan civilisation was developed before 45 centuries and is a lively, exciting and fascinating city.

The conference venue is the Center of Mediterranean Architecture (CAM), an historical and wonderful Venetian building situated in the old port of the city of Chania.

The conference organising committee, with its chairman Dr Ioannis Prassianakis, invites readers to present papers and posters in all relevant fields of NDT and also to participate in the exhibition of new NDT products, which will take place during the conference.

The themes of the conference are: skills; applications; innovations; industrial manufacturing; aerospace; marine.

The aim of the conference is to bring together scientists and engineers in order to exchange recent experiences in the research and development activities in the field of NDT.



The picturesque harbour in Chania, Crete

The topics to be covered by the conference include all thematic areas of current research and industrial use of NDT. Main topics of the conference are:

- Applications and innovations of NDT methods
- Inspection, training and certification
- Composite materials, welding and adhesion
- Digital radiography
- NDT technology transfer
- NDT for the diagnostics and refurbishment of cultural heritage monuments

- Applications for the shipping and aerospace industries
- Applications for power generation (including nuclear technologies)
- Theoretical modelling
- NDT applications in the civil structures industry
- Non-contact NDT methods
- Industrial manufacturing
- Aerospace and marine

The deadline for submission of abstracts has passed. Other important dates are as follows:

Full paper and poster submission:	10 July 2007
Advertisement submission by exhibitors and sponsors:	10 July 2007
Late participation deadline:	10 September 2007
Final programme:	30 September 2007

A preliminary programme has been released:

11/10/07, 08.30-09.00:	Conference registration
11/10/07, 09.00:	Opening ceremony
11/10/07, 11.00:	Exhibition and poster session opening
12/10/07, 20.00:	Formal dinner
12/10/07, 08.30-09.00:	Conference registration
13/10/07, 09.00-14.00:	EFNDT BoD meeting
13/10/07, 17.00:	Closing remarks and conference end
14/10/07, 08.30-17.00:	Excursion to Heraclion-Knossos

Conference fees:

Students	150 Euro
Attendees	400 Euro
Exhibitors	800 Euro
Sponsors	1500 Euro
Grand sponsors: more than	2000 Euro

Accompanying persons for the formal dinner will be charged 40 Euro each

The main sponsors of the Conference are:

- National Technical University of Athens (NTUA)
- School of Applied Mathematical and Physical Sciences NTUA
- Technical University of Crete
- FILMFREE Industrial Radiography EU 6-Collective Research Project, 2002-2006
- Olympic Airlines

For further information contact: HSNT, PO Box 64066, Zographou 157 10, Athens, Greece. Tel/Fax: +30210 7723759; E-mail: hsnt@hsnt.gr

NDT and Diagnostics for

EF NDT 1TH SAFETY ECNDT

Moscow 2010, June 7 - 11



EF European Federation for
Non-Destructive Testing
NDT

Czech Society for NDT in co-operation with DGZfP and EFNDT organizes on one place a multiple NDT/NDE event entitled

European NDT Days in Prague 07

November 5–9, 2007 • TOP HOTEL PRAHA, Prague, Czech Republic



4th Int. workshop, meeting of NDT experts
“NDT IN PROGRESS”
November 5–7, 2007

International conference
“NDE FOR SAFETY”
November 7–9, 2007

37th annual CNDT int. conference
“DEFEKOSKOPIE 2007”
November 7–9, 2007

“NDT EXPO”
exhibition of NDT technique and services
November 6–8, 2007

Four NDT Events in One Week in the Middle of Europe

NDE for Safety – The conference aim is to support the expanding role of NDE methods in manufacturing, power, construction, maintenance, and other industries, as well as in research and development. Non traditional possibilities of NDT/NDE utilisation will be discussed too.

NDT in Progress – The basic aim of this traditional workshop is the meeting of NDT world experts and discussion of the latest state-of-the-art of the NDT research and development in selected areas. The workshop is organized commonly by Czech and German NDT Societies.

Defektoskopie 2007 – 37th int. conference will be organized as an annual meeting of the Czech Society for NDT.

NDT Expo – The exhibition of NDT/NDE instruments and services for participants of all events of European NDT Days in Prague 07.

For more info see: <http://www.cndt.cz/endtd07/>



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PAN-AMERICA

Spring 2007 highlighted by new publications and a successful Research Symposium for ASNT

Publication News – On the shelf this spring is the fifth in the series of method Classroom Training Books; the recently published ultrasonic testing (UT) book is one of the ASNT Personnel Training Publications. This volume covers Level I and Level II material. It features: a fundamental introduction to UT, qualification and certification information, basic principles of acoustics and ultrasonics, transducer operation and theory, testing techniques, calibrating transducers, ultrasonic testing applications and evaluation standards. As with liquid penetrant (PT) and magnetic particle (MT) testing methods, this Classroom Training Book will provide the building block for the new multimedia Instructor and Student packages which will be published this summer.

Also publishing early this summer is the *Nondestructive Testing Handbook, third edition: Volume 7, Ultrasonic Testing*. With an editorial emphasis on practicality, the 600 page volume represents a collaborative effort of 100 experts in the field. Information is included that is useful to Level II and Level III inspectors. Chapters correspond to ASNT's industrial committees: Aerospace, Chemical-Petroleum, Electric Power, Infrastructure, and Metals. Other chapters cover applications in material characterisation and advanced materials. Metric units are provided throughout and all alloys are identified in the Unified Numbering System. The *UT Handbook* which has 467 Figures, includes hundreds of pages on twenty-first century applications. In addition to the hardbound volume, the publication will be available on CD-ROM. The CD-ROM will feature these enhancements: QuickTime video, a powerful search function with every word electronically indexed, and extensive linking to all points within the text.

Visit ASNT's online bookstore, ShopASNT, for more details and purchasing information.

Another highlight for ASNT this spring was the 16th Annual Research Symposium that was held at the Wyndham Orlando Resort in Florida. The March conference brought together almost 400 attendees, offered 72 papers in 16 sessions, and featured 28 exhibitors. The symposium provided attendees with a variety of activities, including the impressive research programme, informative exhibits, special lectures and important committee meetings.

The Keynote Address, 'Transformation of Air Power through Nondestructive Testing and Evaluation' was presented by Thomas Prete, Programme Chief Engineer and Engineering Director for operational military engines at Pratt and Whitney. He spoke on the ways in which non-destructive testing and structural health monitoring have advanced in tandem with innovations in engine technology and design. Prete traced the parallel development of NDT technologies alongside the histories of some of the most prominent military aircraft of recent years, including the F-15, F-16, EA6B, B52, C17 and, most recently, the F-22 Raptor.

The symposium programme covered an array of research fields, including manufacturing NDT issues, NDT of infrastructure, MT/PT, pipeline testing, NDT within the electric power generation industry, aerospace NDT, thermal methods and a number of others.

Joseph Rose, of the Pennsylvania State University, was honoured with the Research Award for Innovation in recognition of his work with ultrasonic guided waves. His address, 'The Imminent Ultrasonic Guided Wave Revolution in NDE', described the current work being accomplished in this field and the effects it will have on the NDT industry in general. The Research Award for Sustained Excellence was presented to R Bruce Thompson, of the Iowa State University, for his work in the area of ultrasonic non-destructive testing. He spoke on the 'Effects of Grain Boundary Scattering on UT Propagation as Applied to NDE', explaining



ASNT Research Council and National Programme Chair Glenn Light, of the Southwest Research Institute, is shown on the right, congratulating Research Programme Committee Chair Lisa Brasche of Iowa State University for developing the symposium's professional programme

the potential difficulties encountered due to this condition when conducting ultrasonic NDT.

Special recognition goes to ASNT Research Programme Committee Chair Lisa Brasche, of Iowa State University, and to the members of the Organising Committee Research Council for the successful symposium.

Fine tuning of the Constitution

On 26 March 2007, members of the draft committee for the ICNDT Constitution met in Orlando, Florida prior to the start of the ASNT Spring Conference to finalise the details of the Constitution. Although not all members could be present, the comments received by membership were reviewed by the attendees and where applicable to legalisation changes were made. The revised draft will be sent to all ICNDT Members in December for a final review. The mandate for acceptance will be at the General Assembly Meeting to take place during the 17th World Conference on NDT in Shanghai, China, at which time ICNDT will become a legalised organisation.

Thanks are due to ASNT, for their hospitality in hosting the Constitution Revision Meeting, participants and contributors.

13th Asia-Pacific Conference on
Non-Destructive Testing 2009

CALL FOR PAPERS

November 8 - 13, 2009
Yokohama, Japan

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APCNDT
YOKOHAMA

The 13th Asia-Pacific Conference
on Non-Destructive Testing
Japan, 2009

JSNDI
The Japanese Society for
Non-Destructive Inspection

URL: <http://www.apcndt2009.com>
Email: apcndt2009@jsndi.or.jp

Brazil hosts ISO Secretariat

The Brazilian Association of Technical Standards (ABNT) has just won the Secretariat of an ISO (International Organisation for Standardisation) technical committee. ISO is a not-for-profit international organisation that elaborates technical standards adopted by modern countries. It is the sub-committee (SC-09)/Acoustic Emission, of the Technical Committee (TC 135), dealing with the development of international standards for NDT. ABENDE, accredited by ABNT as a Sector Standardization Organism (ONS 58), will be its partner on this new challenge, providing all its technical expertise in the development of activities, including the support to host the secretariat.

ABENDE now is OSCIP

ABENDE has been recognised as a Civil Society Organisation of Public Interest (OSCIP) by the Justice Department. OSCIP is a special qualification title for the Third Sector that allows some advantages and benefits to the entity; among others is the possibility of receiving donations from companies that are deductible from the operational profit, development of projects of interest of the public sector towards actions for people training.

Aeronautics Sector Committee is reactivated

A meeting at the General Command of Aerospace Technology (CTA) in the city of São José dos Campos, at Vale do Paraíba, resumed the work of the Aeronautics Sector Committee. The key topic was the decision to revise the NAS 410 Standard that establishes the minimum requirements for the qualification and certification of staff involved in NDT in the sector. The meeting also had the participation of representatives from several companies such as Metal-Chek, EndCheck, Ideal, TAM, VEM, Revisa and Rolls-Royce.

INMETRO promotes international forum with ABENDE's support

To foster a wide discussion on staff training, qualification and certification, INMETRO will promote the International Forum on Staff Certification, on 25 and 26 September 2007, in São Paulo. ABENDE, as the Secretariat of the Staff Technical Commission of INMETRO, supports the event with other members of the Commissions. For more information visit: www.inmetro.gov.br

SNQC/ABENDE recognises dimensional control professionals

ABENDE, through its National System of Staff Qualification and Certification in NDT (SNQC/ABENDE), is recognising Dimensional Control professionals qualified by SEQUI/PETROBRAS. The decision brings benefits to candidates that will not have a document to prove their professional capacity and experience and will be able to improve their scope of work. For more information, contact the Certification Sector by telephone (011) 5586-3191, or e-mail: qualificacao@abende.org.br

Level 2 professionals can now keep the certification for 5 years through the structured credit

At the last meeting of the Certification Counsel, held on 28 November 2006, it was approved the change in the rule that made compulsory the re-certification exam after the first five years of certification. Therefore, professionals who are completing the first five years of certification can request the renewal provided they meet the DC-013 requirements.

In this same meeting, the Certification Counsel approved the review of the DC-013 document. The objective of the review was to give more flexible ways to obtain the scores. This change will make the certification renewal possible for many level 2 professionals in 2007. The Certification Counsel made this decision after analysing

the criteria for renewal, described on ISO 9712 and due to the lack of level 3 professionals in the market. The DC-013 document in its first revision is available for reference at ABENDE's website.

New qualification at ABENDE

The Civil Construction Sector Committee has just been established at ABENDE. This is the first step to put into practice a partnership to qualify and certify professionals in the concrete technology area signed between ABENDE and the Brazilian Association of Companies in Construction Technology (ABRATEC). The companies' members of this committee are PETROBRAS, SENAI, L A Falcão Bauer, Fatec, Sabesp, Metrô, EPT Engenharia e Pesquisas, Concremat and Alphas Tecnologia Aplicada.

Mercosur standard for staff certification

Project 24:03-00001 – Non-Destructive Testing – Staff Qualification and Certification (ISO 9712:2005) is already available for national reference. The analysis can be performed at the website of the Brazilian Association of Technical Standards (ABNT). It is important to highlight that the analysis is carried out by members of all countries members of the Mercosur Committee.

ABNT publishes Q&C standards for access by rope

The Brazilian Association of Technical Standards (ABNT) has just published the standard NBR 15475 – Qualification and Certification of Professionals of Access by Rope that established the methodology to qualify and certificate professionals of access by rope. The standard was developed by the ABNT's Temporary Commission of Special Studies, supported by the NDT Sector Standardisation Organism (ONS 58) of ABENDE that actively worked on this work. ABENDE, through the Certification Sector within ABENDE's Certification System will prepare the methodology to qualify and certify these professionals. Other information is available at: www.abnt.org.br

ABENDE launches multi-customer project on technical reliability of ultrasound

Non-destructive testing techniques are more and more researched and used as an evaluation method of structures and engineering systems, both in the project and in its lifespan. In industry, in general, these researches have been on the spot due to the great consequences of an equipment failure that can go from environmental disasters to the loss of human lives. However, one parameter that should be recognised for a more adequate selection of the non-destructive testing technique to be used is its reliability that should be assessed by means of probability of detection curves (PoD), which represents the probability of that specific technique to detect a defect of a particular dimension

Taking this into consideration, ABENDE in partnership with the Federal University of Rio de Janeiro (UFRJ), launched a new multi-customer project in order to assess the reliability of non-destructive testing techniques, first for the manual ultrasound technique, and later on to be rolled out to other techniques.

As a result, the project tries to establish the probability of detection curve (PoD) for ultrasound testing in the inspection of carbon steel welding applied in the oil and gas industry in order to:

- Improve the integrity conditions of the equipment installed by the correct definition of discontinuity detection levels;
- Obtain the necessary tools for risk-based inspection using detection indexes applied in the national market;
- Improve equipment projects through the correct use of the detection levels for the ultrasound method;
- Establish the best inspection interval between operation campaigns;
- Select the best ultrasound inspection method through a cost-benefit analysis.

The project will last for 20 months and has nine participant companies.



**IV Pan-American Conference for Non Destructive Testing
IV Conferencia Panamericana de Ensayos No Destructivos:
Buenos Aires, Argentina**

October 22 to 26, 2007 - 22 al 26 de Octubre de 2007

The 4th Pan-American Conference for Non-Destructive Testing will be held at the Panamericano Buenos Aires Hotel and Resort on 22-26 October 2007.

Abstracts have been submitted. The Scientific Committee has issued the list of papers accepted. The final submission date was 1 June 2007.

Fifty-three abstracts have been received up to the present time from countries such as Brazil, the Czech Republic, Germany, Korea, the US, apart from Argentina.

Papers may dwell on any of the following:

- Personnel training and certification
- Art and cultural heritage preservation
- Service companies
- NDT in labs and R&D centres
- Power generation
- Car industry
- Oil and gas industry
- Paper and pulp industry
- Electronics
- Railway industry
- Manufacturing industries
- Naval industry
- Nuclear industry
- Petrochemical industry
- Space industry
- Steel industry
- Building and civil construction
- Plant maintenance and inspection
- Smart materials and structures
- Aircraft engines, fuselage and helicopter propeller blades
- Welding

Guest Speakers

Yoseph Bar-Cohen – NASA – Jet Propulsion Laboratory
'Human-like robotic inspectors – science fiction and engineering reality'.

Iris Altpeter – Non-Destructive Essays Fraunhofer Institute – Germany
'Detection of material ageing by using micromagnetic methods'.

Laura Obrutsky – Researcher on induced current – Atomic Energy of Canada – Canada
'Steam generator inspection: faster, cheaper and better. Are we there yet?'.

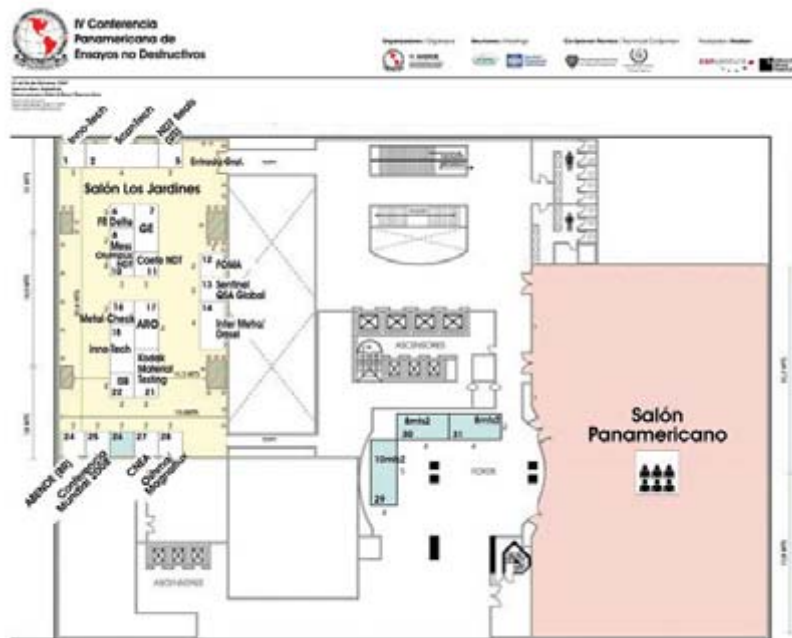
Massimiliano Pieraccini – University of Florence – Italy
'Survey and testing through interferometric radar: applications to cultural heritage and public utilities'.

Sergio Damasceno Soares – Tecnologia de Materiais, Equipamentos e Corrosão
Centro de Pesquisas da PETROBRAS – CENPES
'PETROBRAS Technological System – from wheel to gas station'.

Daniel L Balageas – Scientific Advisor Emeritus – ONERA – Cedex, France

'Infrared thermography: a multifaceted technique for non-destructive evaluation'.

There will be an exhibition floor where companies will show their products and services. Visitors will be able to access the most recent technologies, make new contacts, meet industry colleagues, get updated and see demos. As companies have already booked



the foreseen area 'Salon Los Jardines', only special places are available close to the lecturer room 'Salon Panamericano'.

The Conference is organised by the Pan-American Committee for Non-Destructive Testing, which gathers NDT organisations from all over the Americas, in cooperation with the International Atomic Energy Agency (IAEA) and the International Society for Optical Engineering (SPIE). Three events will take place in parallel: The 6th Regional Congress of Non-Destructive and Structural Testing (CORENDE), the meeting of the ISO TC-135 (Technical Committee No 135 of the International Standardization Organization – NDT) and the meeting of the Policy and General Purposes Committee of the International Committee for Non-Destructive Testing (PGP – ICNDT). Efforts will continue the week after that, with a Standardization MERCOSUR Meeting to be held 29- 30 October.

More information: http://www.aeende.org.ar/aeende_end/index_ing.asp

CALENDAR OF NDT EVENTS

Month	Date	Venue	Event	Contact
June 2007	11-14	Harrogate UK	Second World Congress on Engineering Asset Management and Fourth International Conference on Condition Monitoring	daniel.grove@bindt.org www.wceam-cm2007.org
	20-23	Houston, Texas USA	International Chemical and Petroleum Industry Inspection Technology (ICPIIT) X Conference	jgiunta@asnt.org www.asnt.org/events/events.htm
	25-27	Lyon France	International Symposium on Digital Industrial Radiology and Computed Tomography	valerie.kaftandjian@insa-lyon.fr www.dir2007.com
September 2007	4-5	Kuala Lumpur Malaysia	3rd NDT & Corrosion Management Asia Conference & Exhibition	zaman@safan.com www.safan.com
	17-20	Glasgow Scotland	NDT 2007 Conference and Materials Testing 2007 Exhibition	conf@bindt.org www.bindt.org
	26-27	Berlin Germany	5th International Conference on Certification and Standardisation in NDT	tagungen@dgzfp.de www.certification2007.info
October 2007	1-5	Yalta Ukraine	15th International Conference and Exhibition 'Modern Methods and Means of NDT and Technical Diagnostics'	office@conference.kiev.ua www.conference.kiev.ua
	8-10	Budapest Hungary	6th International Conference on NDE in Relation to Structural Integrity for Nuclear and Pressurised Components	marovisz@marovisz.hu www.6thnde.com
	11-13	Milan Italy	Italian National Conference on NDT	aipnd@numerica.it
	11-14	Chania Crete	4th International Conference of the Hellenic Society for NDT	hsnt@hsnt.gr www.hsnt.gr
	22-26	Buenos Aires Argentina	4th Pan-American Conference on Non-Destructive Testing (PANNDT)	info@aaende.org.ar www.aaende.org.ar
November 2007	5-9	Prague Czech Republic	4th Workshop 'NDT in Progress', International Conference 'NDE for Safety', 'Defektoskopie 2007' and NDT Expo	www.cndt.cz/endtd07/
	12-16	Las Vegas USA	ASNT Fall Conference and Quality Testing Show	www.asnt.org
	27-30	Kiev Ukraine	Exhibition 'Patterns, Standards and Instruments'	silova@iec-expo.com.ua www.tech-expo.com.ua/eng/pz
May 2008	25-30	Jerusalem Israel	Art2008 – 9th International Conference on NDT, Microanalysis and Preservation in the Conservation of Cultural and Environmental Heritage	meetings@isas.co.il www.isas.co.il/art2008
August 2008	26-30	Shanghai China	17th World Conference on NDT	chsndt@public2.sta.net.cn chsndt2008@163.com www.17wcndt.com
November 2009	8-13	Yokohama Japan	13th Asia-Pacific Conference on Non-Destructive Testing 2009	apcndt2009@jsndi.or.jp www.apcndt2009.com
June 2010	7-11	Moscow Russia	10th European Conference on NDT	spektr@co.ru www.rsnttd.ru
2012		Durban South Africa	18th World Conference on NDT	amanda.vdwesthuizen@andtc.com