

The World Organisation for NDT

Volume 7 Issue No 6

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CHAIRMAN'S MESSAGE

Our next challenge is to sell our profession to the young

A nother year has just passed and what a hectic year it has been for the International Committee for Non-Destructive Testing. 2006 saw three successful regional conferences take place at which ICNDT meetings were organised by the hosting countries. Our thanks go out from the Executive Members, Policy and General Purpose Committees and the General Assembly for the time and effort given by the AFNDT, EFNDT and APNDT to ensure the success of the International Committee for Non-Destructive Testing.

2006 brought many changes and challenges for the international NDT community. The legalisation of our Committee and the related work to accomplish this has been ongoing and a mandate for the first meeting of a legalised organisation is still within the critical path of the 17th WCNDT in Shanghai, China, August 2008.



March 2007

One of the most notable challenges for ICNDT over the last year has been the approval of the revised ISO 9712 Standard with respect to world harmonisation. The revised document, which contains many

changes – some say 'radical' changes – has impacted on the path to one harmonised standard. However, that is not to say that our vision of one world standard has come to a standstill. In fact, the changes provide us with opportunities for the international NDT community to meet once again and table our views. Letters have been written by ICNDT, EFNDT and APNDT to the heads of ISO/TC 135 and CEN/TC 138 indicating the importance of world harmonisation of non-destructive testing. However, we must move forward with what we believe and promote the International Standard, ISO 9712, as it is one of our primary objectives of ICNDT.

Countries entering into the field of non-destructive testing certification have to some degree an advantage over already developed programmes. The concept of starting fresh with no history or baggage to contend with provides a perfectly level playing field. The challenges that countries face with established certification programmes is in the adjustment to make the programme align with requirements of standard. Thus, whether we are establishing a new programme or aligning an existing one, we have changes and challenges to meet. To harmonise together will address these challenges and our vision will be met.

Recently, I had the opportunity to present a paper on ISO 9712 with respect to 'assumptions' in the development of the original standard and 'assumptions' that we should consider today. If we take a step backwards and look at how NDT has changed in the demand and the supply of NDT practitioners, I believe that we have an opportunity to raise the bar for the NDT profession.

Non-destructive testing is no longer an added cost, an inconvenience or black art. We have built NDT into our quality assurance, equipment reliability and public safety. Our downfall is not selling the profession to our youth. This is our next challenge!

Douglas J Marshall



ICNDT Chairman Doug Marshall visited Sri Lanka to aid in the establishment of a training and certification system in accordance with ISO 9712

The Official Journal of the International Committee for Non-Destructive Testing



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The next ICNDT Journal will be published in June 2007

Material should be sent to the Publisher at the above address by 20 April

- **Future ICNDT Committee Meetings**
- PANNDT Buenos Aires, Argentina Executive Committee & PGP 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

Mutual cooperation agreement signed between Ukrainian and Bulgarian societies

n Agreement on professional cooperation has been signed between the Ukrainian Society for Non-Destructive Testing and the Bulgarian Society for Non-Destructive Testing under which the parties have agreed, in particular, to do the following:

- periodicals • exchange their and information materials;
- notify each other about conferences, seminars, exhibitions, meetings, and

exchange news on mutually interesting problems;

- □ exchange materials training for improvement of the quality of training NDT specialists in both countries;
- publish their materials in the publications of the other Society under preferential terms;
- ensure preferential terms for each other for participation in conference, seminars and training programmes;

□ invite the other Party representatives to participate in meetings which are of mutual interest.

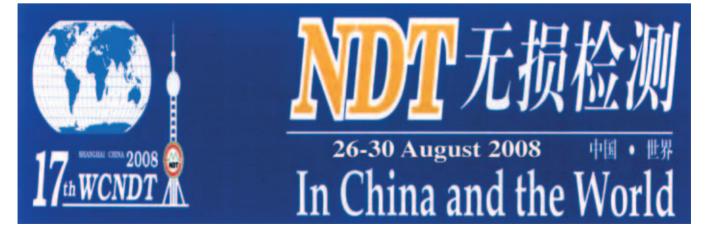
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(JSNDI)

The Agreement signed was for the fifth vear period by Professor V Troitskiy, President of the Ukrainian Society for Non-Destructive Testing, and Professor M Mikhovkii, President of the Bulgarian Society for Non-Destructive Testing.



Contact: L Dick – ljdick@ndt.co.nz O-Y Kwon – okwon@inha.ac.kr

ASIA-PACIFIC

Report on 2006 APCNDT

he 12th APCNDT Conference is now just a fond memory, of good times, old friends and now lots of new ones.

We certainly enjoyed hosting the Conference and we trust that those who attended gained as much out of the event as we did. The Conference delegate list shows some 29 countries in attendance and this in itself has us amazed.

The website continues to be alive for now, where you can find a link to www.ndt.net where you can obtain the CD of the proceedings. We must once again thank Rolf for his amazing support with this item.

We are again very thankful to all our sponsors, especially to that of 'SGS Group Ltd' who stepped up to become our premier sponsor.

Our keynote speakers, Dr Baldev Raj of India and Dr Shiro Kubo of Japan, gave excellent speeches on a world stage and we thank them for making the effort to come all this way!



The 'Pre-Conference' meetings of IAEA (2-4 November) followed bv the ICNDT's Policy and General Purposes Committee meeting, held on the Sunday 5th, produced some really excellent opportunities for the world leaders in the NDT profession to be here and provide

Dr Norikazu Ooka, Chairman 13th APCNDT

the wealth of knowledge to the developing countries and the conference as a whole.

At this conference the Asia Pacific Group grew in numbers, with the addition of Sri Lanka, Bangladesh and Pakistan as full members, plus the invitation to join as supporting members being made to The Philippines, Mongolia, Indonesia, Myanmar, Thailand and Vietnam. This must now surely make the APCNDT the single largest representative body within the ICNDT!

The APCNDT also formed a working group at the Conference Meetings, to review how the group can assist our new developing

members within RCA the Mutual Recognition Agreement. This WG is chaired by myself (Mr Les Dick, NZ) with Doug Marshall (Canada), Wayne Holliday (USA) and Balasubramaniam Venkatraman (India). The lapanese



delegation, who will Les Dick (left) with keynote speaker be hosting the 13th Dr Baldev Raj APCNDT in 2009,

turned on an excellent information service on the next event and certainly moved to attract delegates as best they could.

So visit the website: www.apcndt2009.com, where you will also find any and all information, contact details and sponsorship packages etc.



IAEA Ask the Experts Workshop Participants

Let's all get involved in 2009 and make this yet another fantastic moment for the APCNDT as a whole and thank you one and all for making my time as APCNDT President the memorable time it was. Les Dick

Past President APCNDT



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EUROPE

EFNDT Society Workshop

t the meeting of the EFNDT General Assembly in Vienna on 12th November 2005 it was proposed to hold a series of workshops to help member societies share ideas about the way they work – for example society administration, the content and organisation of conferences, seminars, publications, membership benefits and certification. Members considered all societies, new or long-established, can learn from the experience of other societies.

The Board of Directors decided that the venue for its next meeting, Budapest, would be an excellent place to hold the first society workshop, which would be especially focused on societies in the region around Hungary. Consequently, the neighbouring societies were invited to send representatives to the Budapest workshop.

The workshop took place on Sunday 21st May 2006, hosted by MAROVISZ, the Hungarian Society for NDT (President Dr Peter Trampus). Austria, Croatia, Hungary, Slovakia and the Czech Republic attended along with six members of the EFNDT Board.

PowerPoint presentations – posted on the EFNDT website – were given by the societies of Hungary, Czech Republic and Croatia. All present were impressed by the enthusiasm and professional approach of these NDT Societies and learned a lot from each other.

The President facilitated a discussion of the 'needs' of the newer societies and a list of action items was drawn up for the EFNDT Task Groups, including:

- Further consideration of how to integrate certification training guidelines, question banks, training durations and teaching materials;
- □ How to give more recognition to the voluntary effort of members;
- A series of articles about NDT Societies in Insight;
- $\hfill\square$ Stronger interface with Accreditation Bodies;
- Material to use to improve awareness of NDT in university courses;
- More Workshops of this type but with broader local attendance. Workshops could be held in conjunction with regional or national conferences.

The meeting was closed with thanks to Peter Trampus and MAROVISZ – The Hungarian NDT Society – for their excellent arrangements and hospitality in the beautiful city of Budapest.

AINDT signs mutual recognition with Russian NDT Society

Russia has been added to the list of countries with which the AINDT has mutual recognition agreements. The others are New Zealand and Japan. Tony Sonneveld signed the Mutual Co-operation Agreement on behalf of Brett Butler, Federal President of AINDT, on Monday 18 September 2006 in Moscow, prior to attending the EFNDT conference in Berlin.



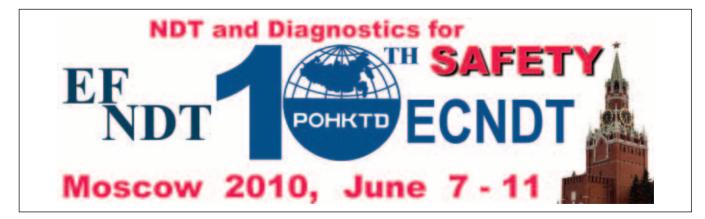
The signing took place at the Spectrum facility, the home of the Russian Society for NDT and Technical Diagnostics. The Russian Society was represented by Dr Vladimir Klyuev, who has a long involvement with NDT, interrupted in the eighties for two

years while he chaired the Communist Party in a district covering one twelfth of Moscow. As the photo shows, coincidentally, Vladimir and Tony both wore a 9th WCNDT tie, which they received at the World Conference on NDT, in Melbourne in 1979.

The mutual recognition agreement means that the two Institutes agree to establish a strong cooperative relationship in the field of



non-destructive testing including the exchange of information and knowledge in their respective areas, and publication of material relating to NDT in each other's journal. Members of each Institute or Society are permitted to attend or participate in conferences, educational programmes or general meetings of each other and also receive the other's journal.



News from the Ukrainian Society for NDT

The 14th International Conference and Exhibition 'Modern Methods and Means of Non-Destructive Testing and Technical Diagnostics' was held in Yalta (Ukraine) from 16-20 October 2006. The Conference was organised with the support of Ukrainian, Russian and Byelorussian NDT Societies.

132 specialists from Ukraine, Russia, Belarus Republic, Lithuania, Czech Republic and Germany participated in the Conference. 10 plenary, 26 session and 21 poster presentations were made in the Conference, the authors of which reported on the results of their investigations and developments in a broad range of NDT techniques, methods of diagnostics and prediction of the residual life of structures; evaluation of the physico-mechanical characteristics of materials and some other areas related to NDT and TD.

A Mozgovoj, Vice-Chairman of USNDT reported on the main results of activity in 2006 and main goals of the Ukrainian NDT Society in 2007. The year was highly saturated: organising and conducting the 5th National Conference 'Non-Destructive Testing and Technical Diagnostics' and participation of a large delegation of Ukrainian specialists in the 9th European Conference on NDT, regional seminars, numerous exhibitions and many other interesting events.



Participants of the Conference on NDT in Yalta (Ukraine)

Conference participants warmly greeted the foreign guests. Interesting presentations about the most recent achievements of organisations represented by them were made by:

- Prof M Krening (Germany) spoke about the new developments of Fraunhofer IZFP, which, in his opinion, are of indubitable interest for the Ukrainian enterprises, and expressed his interest in cooperation also in other areas, namely conducting joint research, sending over students and post-graduates for doing research projects, and specialist exchange.
- A detailed report by R Gize (Germany) was devoted to the issues related to X-ray testing method and the success achieved by 'GE Inspection Technologies' Company, USA in this area.
- I Shimkunas, Director-General of Engineering Supervision Body of Lithuania, shared the experience of conducting NDT&E in EC environment, and as an organisation accredited in the respective EC bodies, suggested his services to Ukrainian enterprises making products under contracts with European countries.
- □ N Medvedevskykh (Belarus) shared the experience of activity of their examination centre in the structure of the Slovak Industrial Institute of Welding and NDT Personnel Certification Body and insisted that Ukrainian Certification Centres follow their example, as this is the fastest and the most cost-effective method for our specialists to obtain certificates recognised in Europe.



Exhibition of NDT means

An exhibition was organised as part of the Conference, with more than 20 companies participating.

Despite the fact that the Conference dates were somewhat shifted compared to the traditional ones, as well as the unexpected cold spell, all the participants were of the common opinion that the Conference turned out to be interesting, representative and highly useful both in terms of science and business.

The 15th Conference will take place in Yalta from 1-5 October 2007.

The Scientific-Practical Seminar on 'Modern Technologies of NDT of Critical Industrial Objects' was conducted as part of the 5th International Industrial Forum which was held in Kiev (Ukraine) at the site of the International Exhibition Center on 28 November –

1 December 2006.

The Seminar was organised by the Ukrainian Society for NDT (USNDT). 13 papers were presented on the following subjects: Long-range

ultrasonic testing of extended objects with limited access to the surface.

□ Features of EMAtechnologies and equipment for ultrasonic testing of welded joints.

- □ Application of filmfree digital technologies and equipment in radiography.
- A d v a n c e d materials for magnetic and liquid penetrant testing.



Industrial Forum in Kiev (Ukraine)



tic and **Prof V Troitskiy made a presentation of the** penetrant **advanced methods and technologies of NDT**

Metrological support of the means and advanced technologies of NDT.

More than 80 specialists from Ukraine, Russia, Kazakhstan, Uzbekistan and Armenia, Great Britain and Germany participated in the seminar.

9th ECNDT, Berlin, 25-29 September 2006

early 1700 participants, approximately 300 additional visitors to the exhibition, some 500 lectures in eight parallel sessions, more than 200 poster presentations and 100 specialised exhibitors.

These numbers, coupled with an excellent organisation, speak for themselves. With the 9th ECNDT in Berlin, DGZfP managed to stage an extraordinary event, which they prepared for intensively for four years.

In his capacity as the ECNDT-Secretary, Dr Rainer Link, who chaired the ceremonious opening, welcomed the unexpectedly large number of participants from all over the world. Approximately 650 conference participants came from Germany, some 850 from



other European countries and about 200 arrived from overseas.

Volkmar Strauch, Permanent Secretary for the Economy, the Environment and Gender Issues the Berlin of Senate. conveved the greetings of the patron of the conference, the Lord Mayor of Berlin Klaus Wowereit. He praised the DGZfP , for their contribution strengthening to the good reputation of the economic, scientific and media location of Berlinthrough Adlershof

Estrel Hotel, venue for the 9th ECNDT

their presence and work. Furthermore, he was convinced that this conference, with all its many presentations and discussions, would have a positive impact on the economic and scientific landscape of Berlin.

Jörg Völker, DGZfP-Chairman and acting ECNDT-President, was also happy about the large number of guests and welcomed, in particular, the presidents of 30 national NDT societies.

This ceremonious opening was an excellent forum, Jörg Völker said, to honour NDT colleagues of outstanding merit. He awarded the DGZfP Pin of Honour to Hans Aisenbrey and Dr Mike Farley. Hans Aisenbrey received his for his work as a member of the Board and, since the death of Prof Dierk Schnitger in October 1999, as



Douglas Marshall conveyed the greetings of ICNDT

the Speaker of the Board. Dr Mike Farley, a brilliant engineer with a great career in the industry, as Jörg Völker introduced him, received the Pin for his extraordinary voluntary work in the EFNDT and the ICNDT. Thanks to his influence, the cooperation between the two bodies had improved more and more, the DGZfP Chairman pointed out.

President Mike Farley conveyed the greetings of the EFNDT, the Association of national NDT societies from the whole of Europe 'from the West Coast to the Urals', with 22 ordinary and seven associated members. Mike Farley called on all those who wanted to learn more about the EFNDT to use the opportunity and visit the EFNDT stall at the conference or the internet page www.efndt.org

After that, Mike Farley presented three EFNDT Awards. John Thompson received one for his worldwide work in the area of staff certification. Giuseppe Nardoni was honoured for his commitment



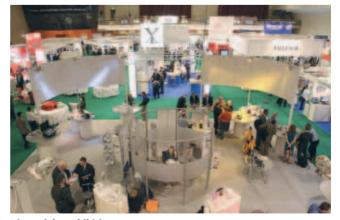
Award winners left to right: John Thompson, Giuseppe Nardoni, Mike Farley and Roger Roche

to the cooperation between the NDT societies all over the world, which he had displayed for a long period of time. The third EFNDT Award went to Roger Roche for his many years of excellent work in the area of NDT standardisation.

ICNDT President Douglas Marshall



EFNDT General Assembly on 29 September 2006



View of the exhibition

Centre,

festive

1920s in Berlin.

On the evening of

a festive concert with

was



Gala Dinner at the Estrel

was the next speaker. He expressed his appreciation for the work of the NDT community in Europe and acknowledged that it provided valuable impulses for the four other ICNDT regions time and again, thus determining the pace.

The festive presentation, delivered by Dr Christian-Heinrich Wunderlich of the Saxon-Anhalt Office for Monument Preservation and Archaeology, told the audience about how the 'Sky Disc of Nebre' was tracked

down by

Telgkamp,

Hamburg,

ceremony.

treasure hunters and how it ended up in its rightful place. And the keynote speech, delivered by Dr Jens

on the 'Development of aircraft structures under the aspect of NDT'; both speeches formed a splendid

ending to the opening

illegal

Airbus

focused



Douglas J Marshall, ICNDT Chairman, Sharon Bond, ICNDT Secretariat

Some 100 specialised exhibitors had set up their stalls on an area of more than 1500 square metres and were all very happy with the course of the exhibition.

Apart from the specialised exhibitors, 22 NDT societies as well as the EFNDT and ICNDT had set up information stands. At the suggestion of Prof Vjera Krstelj from Croatia and under his leadership, a jury, consisting of Prof Vladimir Klyuev (Russia), Gérard Hennaut (Belgium), Anthony Sonneveld (Australia) and Jörg Völker selected four information stalls, who received a certificate at the closing ceremony for the best design. This was Denmark, as a representative of the smaller countries, Spain for the mediumsized countries and Italy for the larger countries. The ASNT stall was selected as a representative of the participants from overseas.

The organisation of the gala evening, staged in two large halls of



Giuseppe Nardoni received the EFNDT Award for his contribution to the cooperation of the NDT societies



Tony Wooldridge presented to Dr Rainer Link the certificate of honorary BINDT membership



Permanent Secretary Volkmar Strauch (right) conveyed the greetings of the patron, the Lord Mayor of Berlin. With him are Jörg the last but one day Völker (left), DGZfP Chairman and acting of the congress, the ECNDT President and Rainer Link, ECNDT Secretary programme featured

sacred music at the Berliner Cathedral.



Concert at the Berliner Cathedral

In his closing address, Jörg Völker, in his capacity of the President of the Congress, struck a positive balance. He believed that this week in Berlin, with all the presentations and discussions and many consultations of various international bodies as well as the forging of many new contacts amongst one another, would add a new dimension to the NDT community in the whole world.

EFNDT President Mike Farley said in his closing remarks that his already high expectations had actually been exceeded and summed up his impressions in one single world: 'perfect'.

Dr Rainer Link received an especially prestigious distinction when Tony Wooldridge, President of the British NDT Society (BINDT), bestowed on him the honorary BINDT membership.



Hans Aisenbrey (left) and Mike Farley (right) received the DGZfP Pin of Honour from Jörg Völker





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

37th annual CNDT int. conference "**DEFEKTOSKOPIE 2007**" November 7–9, 2007 "NDE FOR SAFETY" November 7–9, 2007

International conference

"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/



PAN-AMERICA

ASNT's 2006 Fall Conference and Quality Testing Show in Houston, Texas, USA – 23-27 October

Which nearly 1600 participants from around the globe, a professional programme featuring 112 papers presented in 28 sessions, 4 short courses and 122 exhibiting companies, ASNT's 2006 Fall Conference and Quality Testing Show had more overall attendance than any ASNT conference since 1999. The 2006 event provided the forum for networking, learning, and exchanging NDT applications and techniques.

The conference took place in Houston, Texas which is home to the largest ASNT Section. Members of the Houston Section hosted a special session for career counsellors from area schools to provide information and support for introducing young people to non-destructive testing as a career choice. The unique event welcomed representatives from 16 school districts.

A short course, 'ASME Section IX – Welding Procedure, Welder and Welding Operator Qualification', taught by Benito Juarez, began the conference. Two more short courses took place during the week: 'Eddy Current Modelling: Foundations and Applications', taught by Harold Sabbagh, and 'National Board Inspection Code, Inspections, Repairs and Alterations Requirements', facilitated by Robert Schueler. The week's final short course was a post conference seminar taught by Hussein Sadek, entitled 'Electromagnetic Testing Technologies'.

Frank Iddings presented the Lester Honor Lecture Keynote Address, 'The ASNT Silver Bullet'. Iddings focused on the various contributions made by people to ASNT and to NDT in general. He discussed the need for active members and volunteers in the Society and thanked all members who help ASNT be the vital organisation it is. His well received presentation marked the beginning of a strong professional programme.



The Quality Testing Show 2006 included 122 NDT product and service providers demonstrating the latest in equipment and applications

The professional programme sessions focused on topics including digital radiography, aerospace testing, ground penetrating radar, magnetic particle and liquid penetrant testing, manufacturing, personnel and training issues. petrochemical applications, laser methods, ultrasonics and many others. Among the notable events was the

workshop on NDT of aerospace ceramics and ceramic composites. Much credit for the outstanding programme goes to ASNT National Conference General Chair and Professional Programme Chair Claudia Kropas-Hughes.

With 122 vendors, the Quality Testing Show displayed a wide array of technologies with knowledgeable vendors on hand tackling a variety of questions. And, a special thank you to ASNT's conference programme sponsors, Eastman Kodak Company, Olympus Industrial America, Olympus NDT and KJTD (USA) Company.

The tradeshow was also the location of a poster competition held by ASNT to encourage participation by students enrolled in NDT programmes. The first place winner was Kyle Smith, of Southeast Community College, for 'ET Fastener Hole Crack Detection'. Smith received a plaque and a cash prize. Second and



ASNT President 2006-2007 Marvin Trimm addresses the banquet audience

third place went to Blake Hansen and Preston Hardin, respectively, both of whom are also with Southeast Community College. They received plaques and cash awards as well.

During ASNT's Annual Business Meeting, the membership was appraised of the current state of the Society's activities and accomplishments. It was reported that ASNT membership includes over 9000 individual members and more than 430 Corporate Partners – the largest number of Corporate Partners in the Society's history. Membership is active around the world, with 70 domestic sections and 14 located outside the United States. ASNT is increasingly international in composition, with 29% of total membership residing outside the US.

A highlight of the week was the Annual Awards Banquet which was the occasion recognising outstanding contributions made by members of the NDT community either to the science of NDT or to the Society itself. Award recipients were granted the Society's highest honours. The banquet programme was topped off by the ceremonial changing of the presidential collar with the installation of 2006-2007 ASNT President Marvin Trimm.



The 2006 class of ASNT Fellows: (from left to right) Michael McDaniel, Eric Lindgren, Roger Chen, George Henke (receiving the honour for Douglas Henry), Michael Daehling, John Ellegood and Emery Roberts (Douglas Henry and Donald Roth were unable to attend)

PAN-AMERICA



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

he 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 are welcome until 15 March 2007. On 1 April the Scientific Committee will issue the list of papers accepted. The final submission date will be 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 nondestructive 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 Standarization MERCOSUR Meeting to be held 29- 30 October.

> More information: http://www.aaende.org.ar/aaende_end/index_ing.asp

CERTIFICATION

The Performance-based Initiative: Will Your Experience Count? by Stephen P Black*

American National Standard that may affect you and certification in a profound way. As responsible practitioners, we are on a continuous search for better results.

This quest has proven to be difficult for the industry, as human factors can offset the gains made by technological advances. Each newly introduced certification scheme has promised a safer world through improved probability of detection (POD). Despite the many attempts at improved performance, results indicate that our current capability is typically no better than 58%.

In the world of certification, separating the competent from the incompetent can never be based on blind speculation. The success of any new programme is always dependent on the effectiveness of the criteria used. New programmes should use psychometrics to validate the targeted expectations of the examination. Without corroborative evidence, a new programme may add cost without adding value to the testing process.

Performance-based testing is based on the premise that the examination that leads to qualification and certification simulates a real-world environment.

The applicant uses proven hardware to do critical parts of the testing job and performance is measured by the success rate in finding a multitude of discontinuities.

No self-respecting NDT practitioner could argue against increased probability of detection. It would be overly hasty, however, to link increased POD with performance-based testing.

One of the primary features of the newly proposed performancebased testing draft is that it is a stand-alone document. Of primary concern is the user's right to eliminate past experience as a prerequisite for NDT qualification and certification. The theory goes that if individuals with or without experience pass a valid performance-based examination with a multitude of samples, they will then be qualified to perform NDT within the parameters tested, regardless of anomalies that may occur. In my view, this shift in philosophy is premature and dangerous in scope.

It is easy to fall in love with the next idea when it is sold on the basis that it is the one that will deliver us from mediocrity to increased POD. As technically-minded people, we seem to be willing to accept the upside without first considering the possible risks to our profession. For nearly 40 years, experience has been a primary consideration in our profession and most others. Can we really afford to regard experience as non-essential?

While performance-based testing has been successful in some highly controlled environments, it has also had its share of disappointments in others. One example of this was a two-part test prepared for calculus as taught at the University of California, Santa Barbara. In this study, the objective was to test for skills in solving multiple-level tasks and to provide for pre-calculus assessment. The performance-based test developed was a fourcategory examination testing algebra, function, proportion and geometry. Qualitative and quantitative analyses were conducted to find relationships between test scores and subsequent grades in algebra and calculus. The performance-based test had an acceptable correlation level, but what is notable here is that the multiple-choice test had a higher correlation than the performancebased one. This example only underscores the fact that some performance-based testing initiatives don't turn out with results that validate the advertised benefits.

It is my opinion that the performance-based initiative has been mobilised by delineating many untested assumptions while ignoring potential weaknesses and limitations. A closer look at the proposed initiative discloses the following concerns.

Quantifiable detection results must be based on critical discontinuity sizes definable by a sound engineering practice

or fracture mechanics, or as established by code precedent. Touting the likelihood of improved POD rates without first identifying critical discontinuity size makes performance-based testing a façade at best.

- □ Requirements for grading performance-based exams must be carefully considered. The primary reason why most national examinations are structured as multiple-choice is to objectively approach the grading process. Performance-based exams are often scored on a subjective rather than objective basis, resulting in inconsistent pass/fail criteria. The many changing variables within a performance-based exam makes the psychometric approach difficult to apply. Without psychometrics, exam validation is in doubt.
- □ Creating a test environment that simulates all possible failure mechanisms is formidably difficult when eliminating the need for real-world experience. Any performance-based exam that effectively reduces the need for experience may likely be cost-prohibitive in an open-market economy. Varying levels of confidence based on specific industry-sector tolerance for accuracy may require as many as 200 discontinuities and anywhere from 20 to 60 samples from a variety of product forms. If there is an increase in detection capability, there will be a substantial cost increase to the end-user. Funding for such a venture could run in the millions of dollars for each industry sector. In a free-market economy, any new product must have the advantage of cost or benefit to sustain market acceptance. If the questions of cost and benefit are not addressed in advance, programme failure is assured.
- □ Allowable examination time and the volume of material analysed must be consistent with industrial productivity norms to constitute a real performance-based environment. NDT field testing production demands don't always match up with current performance-based examinations already in practice. The benefits of performance-based testing become highly suspect when this occurs. In conclusion, common sense tells us that a performance-based programme that is devoid of an experience prerequisite has the likelihood of making POD results worse, not better, unless it is an add-on to programmes like ISO 9712, ACCP or the CWI. If we are truly interested in increased POD, experience should be incorporated into the draft until real evidence confirms alternative approaches.
- Realistic industry-established exam times and pre-established discontinuity sizes must be innate parts of any performance-based examination. With the many programmes already implemented throughout the world, it would be irresponsible to the NDT community and the public to introduce yet another new certification option based on a false premise. Prudent action would dictate that before any future programmes emerge, a psychometric based validation process should be independently administered and satisfactorily proven. Additionally, a cost/benefit analysis must be done if industry is to be properly served.

Each of us has a responsibility to be vigilant and vocal when various certification proposals begin to evolve. I encourage each of you to become active in your Society, sections and committees. Whether you are for or against the new performance-based testing initiative, your active review and input is vital to your career and the public that you protect.

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CALENDAR OF NDT EVENTS

Month	Date	Venue	Event	Contact
March 2007	26-30	Orlando, Florida USA	16th ASNT Annual Research Symposium	www.asnt.org
April 2007	2-4	Stuttgart Germany	4th International Conference: Emerging Technologies in Non-Destructive Testing and Technology Transfer and Business Partnership Event (ETNDT 4)	mbourlau@vub.ac.be www.etech-ndt.eu.org
May 2007	14-16	Fürth Germany	2007 Annual Conference of the German Society for NDT (DGZfP)	sk@dgzfp.de www.dgzfp/de
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	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
	11-14	Charia 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
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
2012		Durban, South Africa	18th World Conference on NDT	amanda.vdwesthuizen@andtc.com