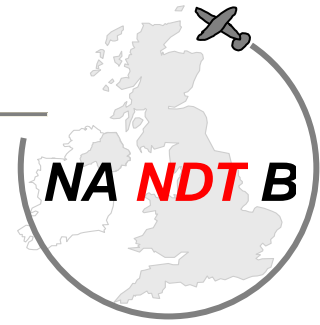


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## **CONFIRMED MINUTES OF THE 30<sup>TH</sup> MEETING OF THE UK NATIONAL AEROSPACE NDT BOARD**

Meeting Date: 4<sup>th</sup> May 2011

Location: CAA Safety Regulation Group, Aviation House,  
[Gatwick Airport South Area](#), West Sussex, RH6 0YR

**NANDTB/2011/M2 confirmed 2011-06-16**

### 1. Confirmation of the agenda (and any other business)

The draft agenda was amended to reflect the needs of the meeting, and the Board's agenda template was amended to ensure that future meetings covered input from TEC and Outside Agencies.

### 2. Attendance

- a. Apologies for absence were noted for Messrs. Thomas and Griffin
- b. The meeting was attended by those listed at Annex A

### 3. Unconfirmed minutes of the last meeting

- a. The draft minutes of the 29<sup>th</sup> meeting were confirmed and approved for upload to the Board's website.
- b. The Board established a policy that, for these and future minutes, unconfirmed minutes would be cleared for upload after making available for one week for comment by members attending the meeting.
- c. Actions from the 29<sup>th</sup> meeting, with notes on progress, are listed at Annex B, and matters arising discussed at this point in the meeting, were as follows:
  - i Outside Agency certificate and schedule of accredited scope.
    - ◆ The BINDT certificate of accreditation for OA was accepted as tabled.
    - ◆ The OAs had queried which standard, EN 4179 or AIA-NAS-410, should be stated on the certificate; the Board agreed that only EN 4179 be stated on the OA certificate, but it was accepted that OAs could issue certificates of training and examination stating in compliance with NAS-410 if their clients preferred (the two standards being technically identical).
    - ◆ Agreed that the schedule of accredited scope would list methods, techniques and product forms (metallic and/or composite) for which training and qualification examinations were provided. The content was understood by the Secretary, and the Chairman agreed to send the model shown in his PowerPoint presentation on this topic for format purposes, then the secretary would request BINDT to update the OA certificates and schedules, and re-issue these in the agreed format
      - ◇ **Action 2011/18:** Chairman to send PPP showing format of schedule; Secretary to advise BINDT regarding amendment and re-issue of certificates and schedules.
    - ◆ The FAQ file was approved for upload.

- ◇ **Action 2011/19:** Secretary to upload FAQ file;
  - ◇ **Action 2011/20:** GMcC to contact Mr. Manson of AIT apologising for the delay in responding to his questions, providing the FAQ file for reference (*Secretary's Afternote: this action was discharged prior to issue of the minutes*).
  - ◆ TB reported that EASA had agreed that qualification and certification for personnel applying Infrared Thermographic techniques should be under EN 4179.
  - ◆ The Chairman recalled that, since the last meeting, the Board had received the sad news from its Bombardier member of the death of Mr. Eric McIlroy, who passed away on 2<sup>nd</sup> March 2011. Eric was a very well known and admired character within the UK NDT community and beyond. He was involved in NDT for over 40 years and was passionate about his profession. Eric served as a member of the Board, representing Bombardier, from its very inception. The Chairman had represented the Board at the funeral in Belfast, and all agreed that while Eric will be sadly missed, he will be remembered with affection.
- d. Other matters arising were covered by agenda items.
4. Membership
- a. Referring to [NAndtB/06](#), the Board noted the status of members and changes in representation and contact information.
  - b. The Board noted that BINDT, which was now a full member of the Board (the constitution having been amended to make this possible) had not yet formally nominated its representative to attend meetings. The Board had indicated through its secretary that it assumed BINDT would nominate John Thompson (Director, BINDT International Affairs), the present secretary of the Board, to be nominated, although it was recognised that at some future time, i.e., upon the retirement of Mr. Thompson, that BINDT would need to nominate a different representative.
5. BINDT Aerospace Group aims and objectives
- a. Dr. Robert Smith, chairman of the BINDT Aerospace Group, attended & presented on this topic (a copy of the PowerPoint file is distributed with these minutes), during which he pointed out that there are three UK organisations concerned with similar and, in some cases, slightly overlapping areas of interest within the UK Aerospace Industry:
    - ◆ UK NANDTB
    - ◆ ADS NDT Special Interest Group
    - ◆ BINDT Aerospace Group
  - b. The object of his attendance and presentation was to establish a liaison and to explore what actions could be taken by his Group to benefit the UK aerospace industry, and there was an extensive discussion concerning the areas where there could be some synergy between the aims and objectives of the BINDT Aero-NDT Group and the UK NANDTB.
  - c. On automated NDT, and automated decision making (ADM) during NDT, Dr. Smith offered to attend a future meeting of the Board to make a presentation on this topic, including on the controls that needed to be built into such systems. He reported that Qinetiq had discussed with the FAA the qualification of inspections embodying ADM.
  - d. The meeting discussed the need for an update course (not a qualification) on NDT of composites, and it was suggested that an individual qualified to L3 in a particular NDT method which was routinely applied to metallic materials, should be trained in applying that same NDT method to composite materials before conducting tests, and flowing down that training to subordinates. Dr. Smith suggested that it would be necessary to develop a syllabus in order to ensure that training providers were delivering a similar course. JP spoke of the difficulty of getting new NDT technology accepted within the MOD, citing the 'regimented' process adopted to get Engineering Authority or OEM approval for the proposed new technology.
  - e. The lack of industry participation in standards development was discussed, and the lack of funding for such activity resulted in the UK failing to make an adequate input to such work at the European level. It was suggested that the Chairmen and Vice Chairman of the three aerospace groups meet to discuss the problem and potential solutions.

- f. Dr. Smith also spoke of the lack of a formal procedure to be adopted for the BINDT nomination of a representative to attend Board meetings. He recognised that JRT, as Secretary, was the obvious choice of representative at this time, but that BINDT would need to nominate another representative should JRT retire.
  - g. Finally, the meeting discussed the lack of an up to date mailing list for Responsible or Nominated Level 3 NDT personnel, and how the shortfall might be overcome. It was recognised that the acquisition and use of such data required individual permissions be obtained. TB said that data on Nominated Level 3s was available on EASA website; in reply to a question, he said that the CAA was, so far as he knew, the only national authority that required the (form 4) nomination of the responsible Level 3 within the approved company.
  - h. The Chairman thanks Dr. Smith for attending the meeting to give details of the BINDT Aerospace Group.
6. Sub group reports
- a. Outside Agency audit [checklist](#)
    - i. The Sub-Group had produced a first draft, and the meeting agreed that the draft was heading in the right direction. The sub-group were asked to continue their work and, when complete, to forward the checklist to the Secretary, who would document a gap analysis between the checklist and the BINDT ATO criteria. This would be used to either revise the ATO accreditation criteria (preferred, but recognising that the NANDTB have no control over the ATO criteria), thereby achieving harmonisation between OA and ATO requirements, or draft a revision to the NANDTB OA criteria.
    - ii. There was further discussion regarding harmonisation of ATO and OA requirements in terms of frequency of assessment and surveillance (recorded here for contextual relevance only). The Board were advised that, for PCN AQB, the frequency of assessment/surveillance was related to the quality performance of the AQB concerned, and the audit findings of the BINDT assessments. An organisation that has no major findings against it over time will have its assessment frequency reduced from annual to biennial. The Board saw this as the way forward for Outside Agencies, and asked that the BINDT accreditation panel consider adopting a similar policy for assessment frequency of its ATOs.
      - ◇ **Action 2011/21:** Secretary to request that BINDT MQ&E/AP consider the NANDTB recommendation for harmonisation of requirements and assessment frequencies for BINDT Accredited Training Organisations and Outside Agencies.
  - b. Aerospace NDT standards
    - i. Messrs. Colin Thomas, Graham McCully and John Thompson had been tasked with identifying standards for reference as essential reading in PCN/Aero appendices, from which the specific examination question database could be developed and extended. A list of [standards](#) had been prepared by CT, who identified a shortfall in Eddy Current method and application standards. It was agreed that the list of standards be sent to BINDT CSD with a request that the Aerospace specific examination question bank be expanded/developed to ensure that it included questions relating to the new list of application standards. Once that had been accomplished, the PCN/Aero appendices would be amended to reflect the new list of essential reading/standards.
      - ◇ **Action 2011/22:** Secretary to forward list of standards to BINDT CSD with a request that the examination question bank be developed to include questions addressing these standards. Thereafter, amending the essential reading references in PCN/Aero appendices.
    - ii. GMcC suggested that the ET shortfall be addressed by the group drafting a standard for the application of Eddy Current Testing of Aerospace Products. This was discussed and well received by the meeting, which asked the Sub-Group to proceed. It was noted that a similar approach might subsequently be taken with respect to IRT and Shearography, but this required some market research before embarking on such a project
      - ◇ **Action 2011/23:** GMcC, JRT and CT to Draft ET of Aerospace Products application standard.
  - c. NANDTB Website

A meeting had taken place between the sub-group and the BINDT media department at which the format and content of the proposed NANDTB micro-site had been discussed and agreed. JB gave a PowerPoint presentation, which is distributed with these minutes for reference.

- ◇ **Action 2011/24:** Secretary to request report from Mr. Gilbert on NANDTB micro site development progress in time for the next (31<sup>st</sup>) meeting and, at the same time, provide NANDTB web space visit statistical reports for each Board meeting until further notice.

## 7. Documents for discussion and/or approval

- a. [NANDTB/01](#) was consulted to determine whether any NAndtB documents reviews were imminent, and it was noted that a review of NAndtB/02 was due by 24<sup>th</sup> August 2011.
    - ◇ **Action 2011/25:** Members were asked to review NAndtB/02 issue 2 and, if of the opinion that amendment was necessary, propose change(s) to the Secretary by 31<sup>st</sup> May 2011.
  - b. The [2010 Annual Report](#) of the Board was approved. It was noted that there was no report for the year 2008, but it was agreed that it was not worth retrospectively drafting a report for that year. The logo was to be updated in all new and revised documents, using that version developed by BINDT media department.
  - c. Draft [Advisory 005](#) was approved as issue 1 revision B.
    - ◇ **Action 2011/26:** Secretary to upload 29<sup>th</sup> Minutes, 2010 annual report and AD-005 issue 1 rev B (the latter to be reproduced in the next appropriate edition of NDT News).
    - ii It was agreed that all UK NANDTB Advisories would be reviewed by Board members for suitability as proposed amendment to EN 4179, and members were given until 31<sup>st</sup> May to forward to the Secretary their proposals for amendment of EN 4179, which would be taken/sent by the Chairman to the ANDTBF EN 4179 review WG (which should report their work to the Forum on 16<sup>th</sup> June 2011).
      - ◇ **Action 2011/27:** All members to review EN 4179:2008 and UN NAndtB Advisory notices, and forward to the Secretary by 31<sup>st</sup> May 2011 their proposals for revision of the EN. The Secretary to provide the resulting proposals to the Chairman for submission to the ANDTBF EN Review WG.
    - iii Turning to the subject of the present review and revision of the harmonised EN/AIA standards, it was stated that the AIA interpretations were not publicly available, and that gaining access to these might prove difficult. There seemed to be little doubt that the North American review process would take such interpretations into account during their revision process, and that the European standard revision would have different interpretations (including the UK NANDTB Advisory notices) to consider.
    - iv Whilst discussing the fact that separate reviews of EN 4179 and AIA NAS-410 were being conducted on each side of the Atlantic, TB highlighted the fact that cultural differences between Europe and North America often resulted in different interpretations of the requirements, which might in turn be reflected in different focuses in training schemes. It was conceivable, therefore, that the draft AIA and EN standards *could* have some quite substantial differences in interpretation.
- ## 8. Control of Qualifying Agencies
- a. The meeting reviewed:
    - i [Audit Programmes](#), noting dates and locations of upcoming Aerospace AQB and OA audits, and inviting members to take part in relevant assessments with observer status.
      - ◇ **Action 2011/28:** Secretary to request definitive list of OA and Aero AQB audit dates for circulation to the Board.
    - ii A [Proposal](#) on assessment of Outside Agencies using client facilities to deliver their services had been received from Mr. Milligan of BINDT CSD. This was introduced by the Secretary and discussed at length by the Board. Although no formal conclusions were reached, discussion covered the following:

- ◆ The need to confirm that the OA concerned controlled the resources as required by the OA criteria. This control is to be confirmed by BINDT during audit.
  - ◆ Where an OA provided training and examination services only at the clients premises, and the OA has more than one client, each successive BINDT audit of the OA should include a randomly selected accompanied audit of the client's facilities used by the OA, which assures adequate control of all associated resources.
- iii A [Letter](#) to the Chairman had been written by TEG Chairman John Moody in which he posed two questions:
- ◆ Where an Organisation seeking Outside Agency accreditation is not an AQB, then they will not necessarily be a BINDT Accredited Training Organisation (ATO). In the interests of maintaining a uniform standard with the provision of training services, does the Board consider that being a BINDT ATO would be a beneficial requirement as part of the Outside Agency approval?
    - ◇ **Action 2011/29:** Secretary to convey to TEG that it will be seeking to harmonise the BINDT ATO and OA criteria and assessment frequency.
  - ◆ From the list of approved organisations it appears that an external organisation said to be working for just one client can be classed as an Internal Agency. However this is not consistent with the definition of an Outside Agency given in [BS EN 4179](#) which states "an independent company or organisation outside the employer who provides services to implement the requirements of this standard, such as training and examination of personnel. Consultants and self-employed individuals are included in this definition".
    - ◇ **Action 2011/30:** Secretary to draw attention of TEG to the definitions from NANDTB/12 for Outside Agency and Internal Agency, which will serve to remove any confusion.

#### 9. Liaison and contact with other NANDTB

It was noted that the next European Forum (in Vienna) is postponed to 28<sup>th</sup> June 2011.

#### 10. Outside Agency questions

- i Mr. Griffin had asked whether exemptions could be allowed for level 2 questions in level 3 examination when the candidate holds level 2 certification. The Board noted that EN 4179 does not permit exemptions, and that it considers the NADCAP finding to be justified.
- ii A further question had been raised on colour vision testing: can the Responsible L3 train and authorise other personnel to conduct this test? The Board confirmed that this was allowed.
  - ◇ **Action 2011/31:** Secretary to add the above to the NANDTB FAQ file.

#### 11. Any other business

- a. An email with EASA Questions and proposed responses had been distributed by the ANDTBF Secretary with a request for support for the proposed responses: The Board agreed the proposed responses offered by ANDTBF Chair.
  - ◇ **Action 2011/32:** Secretary to convey support of UK Board for proposed responses to EASA questions.
- b. Affiliations
  - i The [Latvian](#) Authority was accepted as an affiliate.
    - ◇ **Action 2011/33:** Secretary to send standard letter of acceptance to Latvian Authority and update register of affiliations.
- c. Date/location for the 31<sup>st</sup> meeting of the UK NAndtB: 16<sup>th</sup> June 2011 at Bombardier, Belfast.

**ANNEX A - attendance at the UK NANDTB 30<sup>th</sup> meeting, Wednesday 4<sup>th</sup> May 2011**

<b>Name</b>	<b>Representing</b>
Alun Williams	Airbus UK
Bobby Scott	Aero Bombardier
Carl Sheppard	British Airways NDT Department
Chris Dootson	BAE systems
Chris Durrant	Messier-Dowty
Christopher Lawrence (observer)	CAA
Clive Worrall	British Airways NDT Department
Graham McCully	Caparo Testing
John Purcell	MoD
John Thompson	BINDT
Jon Biddulph	Rolls Royce
Keith Phillips	Airbus UK
Phil Berkley	Agusta Westland
Stan Gane	Honeywell
Ted Blacklay (observer)	CAA
Robert Smith (guest)	BINDT Aerospace Group

## ANNEX B – actions, with notes on progress, from the 29<sup>th</sup> UK NANDTB meeting

Ref	Agreed action	Remarks
2011/01	<b>JRT</b> to update and upload the revised <a href="#">NAndtB/06</a> (Board members and appointed representatives)	Updated 2011-03-01
2011/02	<b>JB</b> to provide corrections (from his notes taken at the last meeting); <b>JRT</b> to incorporate and correct typographical errors to existing draft minutes, then circulate for approval by those that attended the meeting concerned.	Completed and distributed 2011-02-28
2011/03	<b>JRT</b> to formally advise BINDT CSD that reviewed/revised papers are authorised for immediate use.	Completed with e-mail to NLS 2011-03-01. Afternote: aerospace papers & questions now undergoing further internal review.
2011/04	<b>JRT</b> to convey the wishes of the Board, that site visit and chart download counters be established, to David Gilbert.	Completed with e-mail to DJG 2011-03-01; received response with <a href="#">attached statistics</a> ; relayed to Board
2011/05	<b>JB</b> to draft a new NAndtB <a href="#">Advisory #5</a> and send to AIA for comment within defined timescale.	new NAndtB <a href="#">Advisory #5</a> distributed for comments April 2011 (see 30 <sup>th</sup> agenda item)
2011/06	<b>JB</b> to draft a summary of new issue 1 advisory #5 for insertion into NDT News.	Secretary's note: since Advisory #5 is only one page, a summary is not thought necessary. Suggest insert whole advisory.
2011/07	<b>BINDT</b> to nominate JRT as its representative to attend meetings of the Board; <b>JRT</b> to amend <a href="#">NANDTB/03</a> and /06	NANDTB/03 and /06 updated 2011-03-01 to reflect wishes of the Board.
2011/08	<b>JRT</b> to finalise changes to <a href="#">OA/IA certificate</a> and <a href="#">schedule</a> , and to circulate the resulting draft to the Board for comment and approval (see also <a href="#">Excel version</a> ).	Distributed drafts by email 2011-03-07; <a href="#">comments received</a> 2011-05-03 from David Griffin.
2011/09	<b>BS</b> to submit completed <a href="#">checklist</a> to JRT for circulation to members and comment within 4 weeks. <b>JRT</b> to compile comments and present at next meeting (standard to be generated after checklist approved).	Draft circulated. No comments received as at 2011-05-03. Agenda item at 30 <sup>th</sup> meeting.
2011/10	<b>CT</b> to work with <b>GMcC</b> and <b>JRT</b> to complete list of applicable standards for use in drafting PCN aerospace specific questions.	Sent e-mail with <a href="#">list of standards</a> 2011-03-01; received <a href="#">alternative (improved) list</a> by return
2011/11	<b>JRT</b> to review NANDTB/12 and correct as appropriate to embody the requirement for ISO 9001 QMS at OA/IA.	Revised <a href="#">NAndtB/12</a> on 2011-03-07 ready for upload.
2011/12	<b>JRT</b> to include in the minutes the PCN (aerospace) AQB audit schedule for 2011.	Completed. See secretary's note: Annex C
2011/13	<b>BINDT CSD</b> to provide a situation report on the number of applicant GR23 Part 21 organisations be provided with (or soon after the distribution of) these minutes.	e-mail request to Amy 2011-03-07 and 2011-04-01 (covered by 30 <sup>th</sup> agenda item)
2011/14	<b>JB, KP</b> and <b>TB</b> to meet with <b>DJG</b> to finalise new domain design and content; DJG to offer selection of dates for ½ day meeting at BINDT, Northampton	e-mail reminder 2011-03-01. DJG reported to JRT that a productive meeting had taken place early April.
2011/15	<b>JB</b> to deal with questions from TEG, inform the Board of the proposed responses, and respond directly to questioners.	<a href="#">Draft FAQ</a> provided by JB and distributed by JRT 2011-04-19 for review and comment by members. None received as at 2011-05-03.
2011/16	<b>JB</b> to provide for upload to the Board's website a PowerPoint training presentation on use of 'Tumbling E' vision tests.	Carried forward
2011/17	<b>JRT</b> to notify the Slovenian NAA that affiliation to the UK NANDTB was granted in accordance with NANDTB/21, the conditions of which are to be conveyed to the applicant.	Completed 2011-03-07.

## ANNEX C – actions, with notes on progress, from the 30<sup>th</sup> UK NANDTB meeting

Ref	Agreed action	Remarks
2011/16	JB to provide for upload to the Board's website a PowerPoint training presentation on use of 'Tumbling E' vision tests.	Brought forward from 29 <sup>th</sup> Meeting actions
2011/18	Chairman to send PPP showing format of schedule; Secretary to advise BINDT regarding amendment and re-issue of certificates and schedules.	
2011/19	Secretary to upload FAQ file.	Action initiated 2011-05-24 with email and attached FAQ sent to JB for review prior to upload
2011/20	GMcC to contact Mr. Manson of AIT apologising for the delay in responding to his questions, providing the FAQ file for reference.	<i>(Secretary's Afternote: this action was discharged prior to issue of the minutes)</i>
2011/21	Secretary to request that BINDT MQ&E/AP consider the NANDTB recommendation for harmonisation of requirements and assessment frequencies for BINDT Accredited Training Organisations and Outside Agencies.	Action completed with email to Gary Elliot 2011-05-24
2011/22	Secretary to forward list of standards to BINDT CSD with a request that the examination question bank be developed to include questions addressing these standards. Thereafter, amending the essential reading references in PCN/Aero appendices.	Action completed 2011-05-24
2011/23	GMcC, JRT and CT to Draft ET of Aerospace Products application standard.	Action initiated 2011-05-24 with email to GMcC and CT
2011/24	Secretary to request report from Mr. Gilbert on NANDTB micro site development progress in time for the next (31 <sup>st</sup> ) meeting and, at the same time, provide NANDTB web space visit statistical reports for each Board meeting until further notice.	Action initiated with email to DJG 2011-05-24
2011/25	Members were asked to review NAndTB/02 issue 2 and, if of the opinion that amendment was necessary, propose change(s) to the Secretary by 31 <sup>st</sup> May 2011.	Action initiated 2011-05-24 with email from Secretary to members
2011/26	Secretary to upload 29 <sup>th</sup> Minutes, 2010 annual report and AD-005 issue 1 rev B (the latter to be reproduced in the next appropriate edition of NDT News).	Action completed 2011-05-24.
2011/27	All members to review EN 4179:2008 and UN NAndTB Advisory notices, and forward to the Secretary by 31 <sup>st</sup> May 2011 their proposals for revision of the EN. The Secretary to provide the resulting proposals to the Chairman for submission to the ANDTBF EN Review WG.	Requested inputs 2011-05-24
2011/28	Secretary to request definitive list of OA and Aero AQB audit dates for circulation to the Board.	Requested file(s) 2011-05-24
2011/29	Secretary to convey to TEG that it will be seeking to harmonise the BINDT ATO and OA criteria and assessment frequency.	Action completed 2011-05-24
2011/30	Secretary to draw attention of TEG to the definitions from NANDTB/12 for Outside Agency and Internal Agency, which will serve to remove any confusion.	Action completed 2011-05-24
2011/31	Secretary to add the above to the NANDTB FAQ file	Sent 2011-05-24 to JB for review prior to upload



2011/32	Secretary to convey support of UK Board for proposed responses to EASA questions.	Completed 2011-05-24
2011/33	Secretary to send standard letter of acceptance to Latvian Authority and update register of affiliations.	Action completed 2011-05-24.