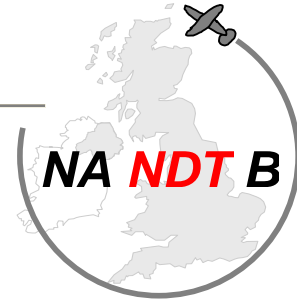


UK National Aerospace **NDT** Board



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CONFIRMED MINUTES OF THE 16TH MEETING OF THE UK NATIONAL AEROSPACE NDT BOARD

Meeting Date: 22nd May 2008

Location: SWS of NDT, Pentwyn, Cardiff

NANDTB/2008/M2

1. The agenda was confirmed with one addition under 'any other business'. On behalf of The Board, the Chairman thanked the South West School of NDT for the provision of facilities for the present meeting.
2. Attendance & apologies for absence
 - a. Apologies were recorded for John Hewitt
 - b. Attendance at the meeting was as follows:

Organisation	Representative
Agusta Westland	Berkley, Phil
Rolls Royce	Biddulph, Jon (Chairman)
CAA observer	Chapman, Ian (observer)
BAE Systems	Dootson, Chris
Honeywell	Gane, Stanley
British Airways	Hogarth, Roger
Outside Agencies	McCully, Graham (co-opted)
Airbus UK	Phillips, Keith / Hiscox, Trevor
Messier Dowty	Rossiter, Brian
Bombardier	Scott, Bobby
UK TEG	Thomas, Colin (co-opted)
BINDT	Thompson, John (Secretary/co-opted)

3. Minutes of the last meeting
 - a. The minutes of the last meeting were confirmed with one amendment to item 5a.
 - b. Actions and matters arising from the last meeting were reviewed and all actions were either discharged or covered by the present agenda – see table of actions in NANDTC/2008/M1.
4. Membership. NANDTB/06 was reviewed and revised for Messier Dowty nominations. The revised document was approved for uploading to the Board's web page (**Action 2008/09: Secretary**).

5. Member's Questions and Questions for EASA

- a. Roger Hogarth had posed two queries for discussion and resolution:
 - i. EN 4179 requirements for re-examination of failed examinations. RH was unsure whether failure in one specimen during the practical examination would require retesting of that specimen category, or of the whole of the practical examination. The Board discussed this and unanimously agreed that the re-examination would require the candidate to be re-examined in the *whole* of the failed part. It was agreed that this interpretation and any policy judgements would be published in a prominent manner on the Board's web pages (**action 2008/10: Secretary**).
 - ii. RH queried whether it would be possible for the reasons for failure in a PCN examination to be more helpful. The Board discussed this at length, and recognised that the reasons for failure given on the PCN examination results would have to be restricted for reasons of security of examination material. However, it was noted that PCN Authorised Qualifying Bodies (AQB) may be in a position to guide candidates on areas for improvement in their knowledge or skills prior to re-examination and, in fact, the requirements placed upon AQB in the PCN specification CP9 states at clause 4.8.5 "*in the case of failure in the examination, [the result notification] should include an indication of the reason for failure which is useful to the candidate in preparing for re-examination*".
- b. The Board went on to discuss the monitoring of PCN candidates during practical examinations, and the award of marks against the PCN CP22 practical examination checklist. It was pointed out that, unlike employer conducted examinations where it was often possible for the examiner to monitor candidates on a one to one ratio, a commercial examination centre would assign one invigilator, under the control of an examiner, to monitor a number of candidates simultaneously. The assignment of marks against the CP22 checklist would, for some elements, be undertaken by the examiner reviewing the candidates own written NDT instruction and detailed report of the test. This had been standard practice in the PCN scheme (and similar schemes) for many years, and was deemed to satisfy the applicable standards by scheme committees and accreditation assessors. Mr Chapman indicated that EASA could choose to scrutinise qualification examinations recognised by an NAA, and Mr. Thompson indicated that EASA would be welcome to do so. Indeed, he expected that the Board would have an opportunity to ensure compliance with the new standard(s) when implemented in the PCN Scheme and, if the Board determined that it was necessary or desirable to make changes to the way PCN Aerospace examinations are conducted, this can be referred to the relevant PCN committee for consideration.
- c. Ian Chapman, CAA, had written to the Chairman suggested a number of future initiatives and matters for consideration by the Board:
 - i. Policy guidance beyond the generic level in AMC 145.A.30:
 1. It would be helpful to define the difference between NDT and Inspection, which often determines whether there is a need to contract work to an NDT service company using qualified testing personnel, or to carry out inspections using the company's own unqualified employees.
 2. Develop and publish qualification standards for inspections *that are not tests* for inclusion in the maintenance organisation's exposition.
 3. (f) (6) Emerging and new technologies; define qualification standards for Level 3 managers and Level 2 operators as guidance for NAA surveyors (for all methods not covered by EN 4179).
 4. Composite materials; the need for NDT of composites is expanding in line with the increase in use of these materials, and it is questioned whether a UT operative who qualified on metallic materials is sufficiently knowledgeable about composite materials, components and structures to be competent in testing them. The Board should

therefore consider defining the way forward for training and qualifying NDT personnel testing composite materials.

5. The CAA did not wish to develop GR23 much further, because it considered that we should not introduce additional burdens through enhancement of AMC 145.A.30 in the UK only, thus these matters should also be referred to the European Forum of ANDTB for consideration and, if agreed, make recommendations to EASA, which should accept the authority of the Forum in this respect.
 6. Use the auspices of the Forum to update EN 4179 (noting that the regulation refers to a defunct standard!) in a more expeditious manner, in order that this might become the defining document for use by maintenance organisations and EASA inspectors.
 - ii. Although discussed in brief, none of the above, which the Board recognised as important areas for future work, either at the national level or through the Forum, could be resolved without some further discussion and work, and it was agreed that they should be addressed by future UK NANDTB and NANDTB Forum agenda (**Action 2008/11: Secretary**), though, at this point, it was not at all certain that EASA would be represented at the 6th June meeting of the Forum.
 - iii. It was reported that Mr. Ted Blackley, who was to succeed Mark Barker at the CAA, had the ear of certain EASA officers, and would provide a useful conduit for communications with the Agency. It was stated that EASA, like many similar bodies, preferred to be offered solutions to the problems that are brought to its attention.
 - d. The Board was presented with a list of questions that had been submitted to EASA, and which it was hoped would be responded to by an EASA representative at the forthcoming (6th June 2008) Forum for NANDT Boards. There followed a lengthy discussion concerning the ability of EASA to consistently attend meetings of the Forum and to respond to the concerns of the Forum members because of human resource shortages within the Agency. The UK Board was concerned that the lack of attendance by EASA at the Forum limited the effectiveness of this grouping. It was considered that stronger leadership of the Forum might be needed in order that it might be effective in its dealings with the Agency, and the CAA was supportive of a strengthening of the UK Board's role in the Forum, which might include offering to chair the forum when the present chairman stepped down (at the end of this year).
 - e. Concern was expressed that some of the members of the Forum (the national boards) were being represented at the Forum by their National Airworthiness Authorities (NAA), bodies that were actually *members* of EASA. This was not considered to be a satisfactory situation since Boards were supposedly constituted of representatives of participating prime contractors, and were only to be *recognised* by NAA.
 - f. It was agreed that the above concerns be raised at the 6th June Forum meeting (**Action 2008/12: Secretary**)
6. NANDTB documents due review this calendar year ([NANDTB/01](#))
- a. The Board noted that its constitutional documents, NANDTB/02 to 05 inclusive, were due review by October. Members agreed to review and comment on these documents before the next meeting in order that they might be revised and/or reconfirmed. (**Action 2008/13: members**).
7. Documents for further development or approval
- a. PCN/Aero draft [Appendix A7](#) (NDT of composites) had been circulated 21 days in advance of the present meeting, but members in general had not had the opportunity to thoroughly review and comment on the draft, which it was considered had sufficient value to continue with development (reservations having been expressed by Mr. Hogarth). It was agreed that members should review and comment upon the draft within three weeks of the present meeting (**Action 2008/14: members**).

8. Changes to external regulations, standards or specifications
- a. The Board noted that there were significant changes in the pipeline with the imminent publication of revised EN 473 and EN 4179, though the status of the latter was presently unclear. It was noted that AIA NAS 410 revision had already been published.
 - b. The Board noted the loss of parity between NAS 410 and EN 4179 because of a lag in the CEN ballot and approval process, and agreed that the standard to be applied in the UK was EN 4179:2005 until such time as EN 4179:2008 was formally issued. This was an agreed policy statement that was to be published in a prominent manner on the Board's web pages **(Action 2008/15: Secretary)**.
 - c. JRT advised that he had held back from a public circulation under action 2008/03 of information to CAA approved NDT laboratories in case such issues were discussed at the present meeting, and it was intended to use the circulation to publicise the latest developments. **(Action 2008/16: Secretary)**.
9. Control of Qualifying Agencies
- a. The PCN [AQB](#) Audit Programme was reviewed and noted. There had been no aerospace AQB audit witnessed by the Board so far this calendar year.
 - b. The BINDT [OA Audit Programme](#) was reviewed. It was noted that one witnessed assessment was scheduled for 2008 (NDT Sheffield, August, to be witnessed by SG), and it was agreed that a second (GKN, IOW, 11 September 2008, subject to confirmation, would be witnessed by TH and IC) **(Action 2008/17: TH and IC to confirm; Secretary to inform GKN)**
10. Any other business
- a. A presentation on Barkhausen Noise techniques was given by Dr. David Lovejoy of the SWS of NDT.
 - b. A discussion on aerospace accredited training was led by Colin Thomas, who felt that Outside Agency accreditation did not provide the same level of assessment rigour as the traditional BINDT accreditation against Acc Doc V6. Colin was concerned that the possibility of a two level system might result in unfair competition. Mr. Thompson reminded the Board that its own specification, NANDTB/12, included the following requirement:
 - i. Part II of the BINDT criteria for accreditation of training establishments (Minimum Requirements for the Structured Training of Non-Destructive Testing Practitioners), [are applicable] with the following clarifications:
 1. Where the applicant organization is an internal agency, any reference to course fees, e.g., BINDT accreditation criteria clause 4.9, is not considered relevant.
 2. End of course examinations may be set, invigilated and/or marked by the instructor responsible for the course in which the student is enrolled.
 3. Qualification examinations, on which the employer will base his decision to certify, shall not use question papers or practical specimens that have been used during training.

During discussion of the above, it was noted that the defined scopes used on the outside agency accreditation certificates needed to be standardised **(Action 2008/18: Secretary)**.
 - c. A discussion on the introduction of new technology – 'MAPS' – to assess strain in major components such as landing gear was led by Colin Thomas, who tabled a document and sought guidance on the levels of qualification to be applied. The Chairman suggested the development of a matrix of qualifications into which 'fringe' techniques might be fitted to assist employers to determine such things. This was to be discussed at the next meeting, and the Secretary was asked to create an appropriate agenda item. **(Action 2008/19: Secretary)**.

- d. A proposal for the use of qualification to limited Level 2 for RT and UT was led by Colin Thomas on behalf of a client of the SWS of NDT, which provides Level 3 services to the client concerned. It was proposed to develop a 'Limited Level 2' qualification for restricted applications of RT and UT to propellers; the training and experience would fully satisfy level 1 criteria, but the holders of these qualifications would not be able to make accept/reject decisions. Mr. Chapman reminded the meeting that only Level 2 and 3 NDT personnel can sign a Certificate of Release to Service (CRS) – as referred to in an email on the subject dated 15th April 2008. It was agreed that Mr. Chapman would consider the matter further and respond in writing **(Action 2008/20: Ian Chapman)**.
 - e. Items proposed for 6th June ANDTBF:
 - i. The Board had concerns surrounding NAA reps attending Forum to represent NANDTB **(Action 2008/21: Secretary)**.
 - f. Numbers of specific questions related to prime's specifications in OA provided examinations. It was noted that there shall be a minimum 30 in the specific examination paper, but that there can [should?] be more.
11. Date and location of the 17th meeting of the UK NAndtB
- a. Thursday 14th August 2008 @ BINDT Northampton
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Summary of agreed actions

Reference	Agreed action	Assignment	Remarks
2008/09	NANDTB/06 (revised) was approved for uploading to the Board's web page	Secretary	Also upload NANDTB/14 (revised) and check upload status of all NANDTB documents. Discharged
2008/10	The EN 4179:2005 defined re-examination would require the candidate to be re-examined in the <i>whole</i> of the failed part.	Secretary	It was agreed that this interpretation and any policy judgements would be published in a prominent manner on the Board's web pages. Discharged
2008/11	Revision of AMC 145.A.30 to be addressed by future UK NANDTB and NANDTB Forum agenda	Secretary	2008/A3
2008/12	Raise the concerns of the Board at the 6 th June Forum meeting	Secretary	See minutes of ANDTBF
2008/13	review and comment on NANDTB/02 to 05 inclusive	All members	before the next meeting in order that they might be revised or reconfirmed
2008/14	Review and comment upon the draft PCN/Aero Appendix A7	All members	within three weeks of the circulation of the unconfirmed notes of the present meeting
2008/15	The applicable qualification standard for the UK would remain as EN 4179:2005. This policy to be published in a prominent manner on the Board's web pages	Secretary	(until such time as this was superseded by the next edition) Discharged
2008/16	use CAA provided data to publicise to CAA D rated Labs the latest developments in standards, etc.	Secretary	(as well as for the purposes defined under the original action 2008/03). Not yet used, request Board to define detail of circulation
2008/17	The follow-up assessment of GKN, IOW, 11 September 2008 to be witnessed by TH and IC	TH, IC and the Secretary	(subject to confirmation by Trevor Hiscox and Ian Chapman)
2008/18	scopes used on the outside agency accreditation certificates needed to be standardised	Secretary	See 2008/A3
2008/19	create an appropriate agenda item for the next meeting that would allow discussion of a possible matrix of fringe techniques within the main methods for the purpose of defining qualification criteria	Secretary	2008/A3
2008/20	CAA observer to consider the further the use of Limited capability level 2 personnel and respond in writing to the proposal from SWS of NDT on behalf of its client.	Ian Chapman	2008/A3

End