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**CONFIRMED NOTES OF THE 46<sup>th</sup> MEETING OF THE  
UK NATIONAL AEROSPACE NDT BOARD**

Meeting Date: Wednesday 5<sup>th</sup> March 2014, 09:30  
Location: Reigate Manor Hotel, Reigate Hill, Reigate, Surrey, RH2 9PF

**NANDTB/2014/M1**

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

Due to the Acting Chair submitting his apologies, J Biddulph circulated an email to members prior to the meeting advising that as per 44<sup>th</sup> meeting minutes he would be willing to return as Chairman for meeting 46 and requested member votes for this interim election. 7 votes in favour were received. None against, no abstentions.

J Biddulph welcomed all members and thanked G McCully for hosting the meeting. It was noted for the minutes that observer members, Mandy Cox – MAA and Geoff Brett – MoD, were in attendance.

**2. Attendance & apologies for absence (Annex A)**

As per attached attendance sheet.

**3. Notes of the 45<sup>th</sup> meeting (distributed earlier)**

**a. Confirmation**

The minutes of the last meeting were confirmed with no amendments required.

**b. Review of allocated actions below with special mention to the following;**

Ref	Actions brought forward	Remarks
06/2013	C Worrall (LEAD), G McCully, C Thomas, T Blacklay, S Algar to review NANDTB-18. Comments to be submitted to J Cook by close of business 5th April 2013 for implementation with approval at the next meeting.	<b>ON HOLD</b> Document update to be postponed until publication of new issue EN 4179
08/2013 amended	B Scott (LEAD), C Worrall, D Griffin to create a new document, NANDTB-27, on policy. Comments to be submitted to J Cook by close of business 5th April 2013.  C Worrall to draft document and circulate to WG members (incl. K Phillips) for comment. To be distributed to all UK NANDTB members prior to next meeting <b>9<sup>th</sup> December</b> (EGM). Document to be submitted to J Cook for implementation post meeting.	<b>Agenda item 6</b>

13/2013 Amended	K Phillips (LEAD), B Scott, N Scutt, C Durrant, C Dootson, S Algar P Berkley, A Williams, K Griffiths to review and amend NANDTB-21 document.  NANDTB-21 revised and published. UK NANDTB members to completely revise the document (to include checks and balances) at the next WG meeting to be held at BINDT <b>11<sup>th</sup> November</b> 10am. Comments from WG meeting to then be reviewed at <b>9<sup>th</sup> December</b> (EGM). Noted that WG members should bring ideas.	<b>Agenda item 7</b>
24/2013	<b>All</b> members to send suggestions to <b>K Phillips</b> for collation, on 'what the UK NANDTB wants the forum to achieve'. Suggestions to be put to T Blacklay at a meeting between UK NANDTB and CAA at Aviation House TBC. (action re-allocated to KP from JB)	<b>ON HOLD</b> No suggestions received from members
29/2013	K Phillips to draft letter to EASA informing them of the Board's decision to no longer accept future, overseas affiliations. <b>(relates to 13/2013)</b>	<b>OVERDUE</b> Pending amendment to NANDTB-21
32/2013	<b>All</b> members - comments to T Blacklay for changes to Part 145.	<b>OVERDUE</b> No comments received to date.
33/2013	T Blacklay to contact Paul Marshall/Wg Cdr Mark Stubbs to clarify the Boards requirements of MAA observing members.	<b>COMPLETE</b>
35/2013	N Scutt to email Board members for volunteers for the Eddy Current specific, questions review to be held 3 <sup>rd</sup> December.	<b>ON HOLD</b> Pending EGM
37/2013	J Biddulph to issue a letter to N Scutt, formally nominating G McCully as the GTC representative of the Aerospace industry & UK NANDTB.	<b>OVERDUE</b> GMC advised the Board that he was elected as Vice Chairman on the GTC committee and would be reviewing PCN Aero syllabus as well as specific questions against EN 4179.
38/2013	N Scutt to ensure the PCN Aerospace Z1 is added to the first GTC agenda, G McCully to lead the review of this document on the GTC.	<b>COMPLETE</b>
39/2013	T Blacklay to formally correspond with Primes' employers advising why it is important that members of UK NANDTB attend and witness audits of Aerospace agencies/training & examination centres.	<b>OVERDUE</b>
40/2013	J Cook to upload and distribute documents NANDTB_21 and AD008 and to distribute working group minutes from March to the Board members.	<b>COMPLETE</b>
41/2013	K Phillips to formally respond to Jes Dugard ref Board's decision on the re-nomination of G Brett on the Board, incl. Clarification of K Phillips observer role on the Board	<b>COMPLETE</b>

**c. Other matters arising (not covered by the agenda)**

None were raised

**4. Presentation/Q&A on BINDT response to NANDTB EGM issues raised (Tony Dunhill BINDT President/Robert Smith BINDT President Elect)**

It was noted for the minutes that on behalf of BINDT Tony Dunhill and Robert Smith were invited to attend the meeting for this agenda item only, in order to provide the Board with a formal response to their EGM comments.

Tony Dunhill presented to the Board, a previously circulated PowerPoint presentation which contained comments resulting from the Board's EGM meeting (Dec 2013) and BINDT's responses to these comments.

The matters raised from the Board were mainly focussed the Board's negative opinion of BINDT's audit process as well as the issues with the link between ISO 9712 and EN 4179 certification/qualification routes.

The Board raised issues with the requirements of Specific Examinations within the PCN/AERO GEN document a note under § 7.3.2 states "*At Level 2, 20 of the 30 specific written questions will cover application of the NDT method (and no reference material will be provided), the remaining 10 questions will cover aerospace product technology, standards and specifications*" which does not meet the same requirements of EN 4179 which states that all specific written questions shall have reference material.

The Board continued to dispute that they had no control of PCN and that the scheme did not meet the requirements of 4179, Tony Dunhill referred the Board to a slide containing equivalencies between PCN (incorporating GR23) and EN 4179. Robert Smith asked the Board to clarify what the issue was, this was not made clear during the Boards discussions. The Board did not respond but did continue to question the oversight of PCN/AERO, specifically on how the Board has oversight on the additional specific training and examinations carried out by the nominated Level 3 in individual companies after PCN AERO was awarded. Some members felt the role of the responsible level 3 was enough. C Thomas suggested that it may be possible to include specific exam questions relating to a company's written practice, in place of the PCN specific examination questions. It was advised that as part of G McCully role (VC) on the GTC, an official action has been raised to write questions for the bank which will comply with policy and these questions would be put to the UK NANDTB for review, as well as the review of PCN/AERO GEN and the PCN AERO syllabus.

The CAA was invited to comment on the issue, T Blacklay advised that the CAA could more explicitly define within GR23 what is required by an organisation using PCN/AERO, although the Board would need to confirm that the individuals undertaking the PCN/AERO certification or the EN 4179 qualification would be competent at the end of each process, the CAA could then change GR23 accordingly. T Blacklay also advised the Board that they should continue to engage PCN in order to remain influential. It was felt by the Board that amending GR23 to remove the requirement for a NANDTB to be in control of training would discharge the Boards obligations. The CAA agreed.

**Action – T Blacklay to visit the potential changes to GR23 defining what is required by an organisation using PCN/AERO.**

The Board also requested that they be involved in the interview process for the auditors selected for the BINDT auditor 'Pool of level 3s' who will form part of the Outside Agency/Inside Agency audit team. Robert Smith responded BINDT will need to confirm where the Board stands on having an input into the approval of auditors.

**Action – J Cook to circulate the BINDT auditor training criteria.**

The Board felt that they needed to reflect on BINDT's response to Board comments, Tony Dunhill requested a formal response from the Board on this presentation in order to formally present back to BINDT.

**Action – On behalf of the UK NANDTB, J Biddulph to formally respond, via PowerPoint, to BINDT's response to EGM comments, circulation to UK NANDTB members, Tony Dunhill, Robert Smith, Jennifer Cook preferably before 24<sup>th</sup> March.**

Based on the outcome of this discussion the Board agreed that it needed to re-visit and formally issue its strategy.

Robert Smith confirmed to the Board that he would need to provide BINDT with a summary on the outcome of the meeting and would be advising BINDT that; the Board stepped back and looked at the bigger picture on the issues of equivalency and that the CAA are to make a decision the proposed changes to GR23. The Board agreed with this summary and advised that overall they felt more comfortable with BINDT based on the response received.

## **5. Membership (current list)**

### **a. To note status and confirm contact details**

New observers Mandy Cox – MAA and Geoff Brett – MoD were added to the member list. K Phillips membership was extended upon receipt of confirmation letter from Airbus.

It was noted that B Scott requires confirmation letter from Bombardier to validate membership as this had now expired.

**Action – B Scott to chase nomination letter from Bombardier ref role on the Board**

#### **b. Election of Chairman**

B Scott proposed J Biddulph to be Chairman

J Biddulph advised the Board that he had held the position of Chairman for 10 years and felt it time for somebody else to take on the role. When asked if he would be willing to take on the role of Vice Chairman J Biddulph indicated he was willing.

It was suggested that consideration be given to opening up voting status membership to other prime organisations, it was felt that having additional members would alleviate the Board workload. This was not agreed as it set a dangerous precedent.

The Board were asked to nominate a Chairman. There were no nominations made and no volunteers.

J Cook suggested a secret ballot, but this was not agreed as no members wanted to take the role on.

J Biddulph offered to continue as Chairman for a term of 12 months giving the Board 12 months' notice that it needed to find itself a new Chair. B Scott proposed, C Dootson seconded – all in favour.

C Dootson was nominated as Vice Chairman for a term of 12 months. B Scott proposed, C Worrall seconded – all in favour.

### **6. Documents for discussion and/or approval -**

#### **a. See table of documents NANDTB \_01**

NANDTB-01 was shown and it was advised that document NANDTB-05 was due for review.

The following members agreed to be part of a working group to review the document for any required change. C Dootson, R Bright, A Williams

**Action – C Dootson, R Bright, A Williams to review NANDTB-05. To provide J Cook with changes if any to update the document.**

NANDTB-27 was created by C Worrall and was circulated to the Board for review for approval at the meeting. The document also had a supporting PowerPoint presentation, it was agreed that C Worrall should combine the documents. The document was approved based on the agreed action.

**Action – C Worrall to combine the NANDTB 27 information document with the PowerPoint presentation to create 1 information document.**

P Berkley requested clarification on NANDTB-23 whether someone seeking recertification had to use the same Outside Agency they gained their original certification. The Board confirmed that it was not a requirement to use the same Outside Agency.

### **7. Overseas Affiliations - Working Group update (KP)**

In the absence of K Phillips, S Algar explained that the working group for overseas affiliations (action 13/2013), got to a point where the NANDTB-21 document was amended and now included an application form for existing affiliates to complete within a 3 month time frame of writing to them, and if the Board decides, any future affiliate. The application form would test the compliance of the existing affiliates, giving the Board a better idea of the situation with these companies and affiliations.

The notes from the working group and the amended NANDTB-21 document were presented to the Board and the members were in agreement for this to be actioned.

**Action – J Cook to correspond with all existing affiliates requesting completion of the NANDTB-21 application form to be submitted with supporting documentation within 3 months. The action 13/2013 working group are then to review the applications (on the member area of the website) for approval.**

## 8. Qualifying Agencies

### a. Oversight Matrix - Update

The matrix was presented.

It was noted that only 3 audits had been witnessed in 2013. The Board agreed that this was not acceptable and that they should all take the time to witness audits.

2014; J Biddulph, P Berkley, C Durrant and R Bright volunteered to witness audits.

**Action – J Cook to circulate the updated oversight matrix to NANDTB members**

J Cook explained the issues with getting approval for OA/IA audits, the Board agreed that it was not pro-active enough for this task and agreed that 4 members should be selected to conduct the review of audits with 3 being the minimum required for approval.

A Williams, C Worrall, R Bright and J Biddulph volunteered to conduct audit reviews for a period of 6 months or until meeting number 48 whichever is first, at this point 4 new members will be selected.

**Action - 4 new members to be selected for review of audit reports (previously JB, AW, RB, CW)**

### b. Audit Comments

J Cook advised the Board that John Thompson had recently conducted an IA audit which identified that the OAQS-7 audit checklist to be unsuitable to IA audits.

Comments submitted by John Thompson were presented and the Board agreed that this checklist should be reviewed. G McCully (Lead), P Berkley and J Biddulph volunteered to be part of a working group that reviews the checklists.

**Action – G McCully (Lead), P Berkley and J Biddulph WG to review OAQS-7 for IA audits. J Cook to circulate auditor comments.**

## 9. ANDTBF including NAS410/EN4179 update - (KP)

J Biddulph presented to members, a summary of the significant changes incorporated into the latest draft of EN 4179/NAS 410 following the face to face meeting of the international harmonisation team in Rome during January 2014. The PowerPoint presentation could not be forwarded or included with the meeting minutes, however it was noted that:

Jaeger 1 has been re-instated and ISO 18490 is to replace the reference to NANDTB-24, a draft of ISO 18490 (13/30275166 dc) is now available.

under § 4.4.2 the responsibilities of an NANDTB have been more clearly defined and references to NANDTB within the body of the standard have, in most instances, been removed.

## 10. Pt. 145 Orgs, QAs and SIG members Update - (GMc)

A question was received from an OA and presented to the Board for comment.

“EN4179 7.1.3.5 states a procedure or work instruction developed within the previous three months by the candidate may be used with the approval of the responsible Level 3 or NANDTB. What are these procedures marked in accordance with as far as EN4179 examinations, the PCN requirements or is there a specific laid out document? Or is it left with the examiner to decide on what they see as acceptable? In previous years / months I have sent out set format procedures that are fully approved by Primes and NADCAP and each time I get conflicting marks from different approved BINDT Outside Agencies.”

The Board discussed this issue and agreed that a checklist or work instruction for procedure marking should be created as per the PCN document CP25.

**Action – G Brett to create this checklist/work instruction as a NANDTB document, to TEG for review/approval, to NANDTB for ratification. This checklist should be linked with the audit checklists OA/IA.**

It was also noted that in the latest draft of EN4179/NAS410 a procedure or work instruction has to be developed in conjunction with the general and specific examinations, i.e. may no longer submit a procedure or working instruction created in the previous 3 months.

## 11. Regulators Update – (TB)

It was advised that the update to part 145 was on hold due to workload commitments. Received comments for this update are to be put forward to the forum 13<sup>th</sup> May 2014 by T Blacklay.

T Blacklay also updated the Board on the type of queries the CAA are receiving from companies based in the Far East, one of which asks for clarification on whether Level 3 ASNT certificate holders are required to be qualified by an EU Board under EN 4179.

## 12. TEG Update – (CT)

It was reported that TEG have raised an issue that examiners are having to write questions for (EN 4179) specific examinations but require clarity on the number of questions to be compiled for large specifications. The standard states 30 questions but it is sometimes impossible to cover all the specification plus cover other necessary requirements with only 30 questions.

J Biddulph advised that the standard states 'minimum of 30 questions' so more questions can and should be used. Questions that need to be asked and where providing reference material is not appropriate could and should be used over and above the minimum 30 questions. The general recommendation is to always use more than 30 questions

It was also asked, what reference material can be provided for specific questions where reference material is not available.

The Board discussed this issue and it was agreed that with these interpretive questions, the procedures should be issued as reference material. Where it related to PCN AERO AIA do not have any influence.

## 13. Clarification and interpretation of Inside Agency status with regard to the MoD and use of NDT contractors within the Military Aviation Environment – (GBrett)

G Brett gave some background regarding this agenda item. It was advised that MoD Aviation NDT pursued EN 4179 and standardised MIL-410. MoD declared Tri-Service School as their EN 4179 IA although they are technically using contractors for NDT.

It was noted that these contractors are certified EN 4179 by the Tri-Service School and they are incorporated into the Tri-Service QMS and system documentation, although they may be paid by other companies on a contracting basis similar to that of an employment agency. The MOD would like the Board to confirm that they accept that the Tri-Service School train the MoD contractors for Military Aircraft only.

The Board agreed with this practice providing that any sub-contractor using the Tri-Service School for training and examinations would be working within the MOD operational framework/QMS system and granted authority to work by the MOD.

## 14. Any other business

No other business

## 15. Date and location of the next meeting

47<sup>th</sup> meeting – Thursday 15<sup>th</sup> May - BINDT

48<sup>th</sup> meeting – Wednesday 3<sup>rd</sup> September - Flybe

49<sup>th</sup> meeting – Wednesday 5<sup>th</sup> November – Minton

50<sup>th</sup> meeting – Wednesday 10<sup>th</sup> December – Airbus

**Annex A – attendance and apologies for absence at the 2014 NANDTB meeting no. 46**

Name	Representing	In attendance	Apologies for absence
Alun Williams	(Airbus UK)	1	
Bobby Scott	(Bombardier)	1	
Carl Sheppard	(British Airways)		1
Chris Dootson	(BAE Systems)	1	
Chris Durrant	(Messier-Bugatti-Dowty)	1	
Clive Worrall	(British Airways)	1	
Colin Thomas	(Training & Examination Group)	1	
Dave Griffin	(Training & Examination Group Deputy)		1
Geoff Brett	(MoD)	1	
Graham Mcleod	(Honeywell)		1
Graham McCully	(Pt. 145 Orgs, QAs and SIG members)	1	
Jennifer Cook ( <a href="#">Secretary</a> )	(BINDT)	1	
Jon Biddulph	(Rolls Royce)	1	
Keith Griffiths	(Rolls Royce)		1
Keith Phillips	(Airbus UK)		1
Kevin Pickup	(BAE Systems)		1
Mandy Cox	(MAA)	1	
Nicole Scutt	(BINDT)		1
Phil Berkley	(Agusta Westland)	1	
Rob Bright	(Flybe)	1	
Ted Blacklay	(Civil Aviation Authority)	1	
Stuart Algar	(Civil Aviation Authority)	1	
	<b>Totals</b>	<b>15</b>	<b>7</b>

**Actions allocated and carried over from meeting 46, 5<sup>th</sup> March 2014.**

<b>Ref</b>	<b>Actions brought forward</b>	<b>Remarks</b>
06/2013	C Worrall (LEAD), G McCully, C Thomas, T Blacklay, S Algar to review NANDTB-18. Comments to be submitted to J Cook by close of business 5th April 2013 for implementation with approval at the next meeting.	<b>ON HOLD</b> Document update to be postponed until publication of new issue EN 4179
08/2013 amended	C Worrall to combine NANDTB-27 and supporting PowerPoint. Once complete send to J Cook for upload and addition to the NANDTB-01	
13/2013 Amended	K Phillips (LEAD), B Scott, N Scutt, C Durrant, C Dootson, S Algar P Berkley, A Williams, K Griffiths to review and amend NANDTB-21 document.  NANDTB-21 revised and published. UK NANDTB members to completely revise the document (to include checks and balances) at the next WG meeting to be held at BINDT <b>11<sup>th</sup> November</b> 10am. Comments from WG meeting to then be reviewed at <b>9<sup>th</sup> December</b> (EGM). Noted that WG members should bring ideas.	<b>OVERDUE</b>
24/2013	<b>All</b> members to send suggestions to <b>K Phillips</b> for collation, on 'what the UK NANDTB wants the forum to achieve'. Suggestions to be put to T Blacklay at a meeting between UK NANDTB and CAA at Aviation House TBC. (action re-allocated to KP from JB)	<b>ON HOLD</b> No suggestions received from members
29/2013	K Phillips to draft letter to EASA informing them of the Board's decision to no longer accept future, overseas affiliations. <b>(relates to 13/2013)</b>	<b>OVERDUE</b> Pending amendment to NANDTB-21
32/2013	<b>All</b> members - comments to T Blacklay for changes to Part 145.	<b>OVERDUE</b> No comments received to date.
35/2013	N Scutt to email Board members for volunteers for the Eddy Current specific, questions review to be held 3 <sup>rd</sup> December.	<b>ON HOLD</b> Pending resolution between BINDT/UK NANDTB
37/2013	J Biddulph to issue a letter to N Scutt, formally nominating G McCully as the GTC representative of the Aerospace industry & UK NANDTB.	<b>OVERDUE</b> GMC advised the Board that he was elected as Vice Chairman on the GTC committee and would be reviewing PCN Aero syllabus as well as specific questions against EN 4179.
39/2013	T Blacklay to formally correspond with Primes' employers advising why it is important that members of UK NANDTB attend and witness audits of Aerospace agencies/training & examination centres.	<b>OVERDUE</b>
01/2014	T Blacklay to visit the potential changes to GR23 defining what is required by an organisation using PCN/AERO.	
02/2014	J Cook to circulate the BINDT auditor training criteria	
03/2014	On behalf of the UK NANDTB, J Biddulph to formally respond, via PowerPoint, to BINDT's response to EGM comments, circulation to UK NANDTB members, Tony Dunhill, Robert Smith, Jennifer Cook	<b>BY 24<sup>TH</sup> MARCH</b>
04/2014	B Scott to chase nomination letter from Bombardier ref role on the Board	<b>ASAP</b>



05/2014	C Dootson, R Bright, A Williams to review NANDTB-05. To provide J Cook with changes if any to update the document.	
06/2014	C Worrall to combine the NANDTB 27 information document with the PowerPoint presentation to create 1 information document.	<b>COMPLETE</b>
07/2014	J Cook to correspond with all existing affiliates requesting completion of the NANDTB-21 application form to be submitted with supporting documentation within 3 months. The action 13/2013 working group are then to review the applications (on the member area of the website) for approval	
08/2014	J Cook to circulate the updated oversight matrix to NANDTB members	<b>COMPLETE</b>
09/2014	4 new members to be selected for review of audit reports (previously JB, AW, RB, CW)	<b>ACTION DUE MEETING 48, 3<sup>RD</sup> SEPTEMBER</b>
10/2014	G McCully (Lead), P Berkley and J Biddulph WG to review OAQS-7 for IA audits. J Cook to circulate auditor comments.	
11/2014	G Brett to create this checklist/work instruction as a NANDTB document, to TEG for review/approval, to NANDTB for ratification. This checklist should be linked with the audit checklists OA/IA.	