

The British Caving Association
Minutes of the Equipment and Techniques Committee

Date: 12th March 2011

Location: The Red Lion, Alvechurch

Attendees: Nick Williams; Chairman (NW)
Glenn Jones (GJ) (minutes, CNCC representative)
Les Sykes (LS) (co-opted member),
Bob Dearman (RD) (DCA representative),
Roger King (RK) DCUC representative,
Faye Litherland (FL) (CSCC representative),
Bob Mehew (RM) (co-opted member),
Andy Lewington (AL) (CCC representative),
David Cooke (DC) (CSCC observer)

1.0 Apologies:

Jules Barrett, Andy Pryke

2.0 Chairman's Opening Remarks:

NW said that he was aware that while there were some contentious issues in today's meeting (and he requested that people should keep the conversation civil and respect other peoples' points of view) he would prefer to concentrate on the more technical issues that we need to discuss if we are to make any real progress.

3.0 Agree minutes of previous meeting:

The minutes of the September 11th 2010 meeting were agreed.

3.01 Actions Update:

4.1.1: RD & LS to confirm current stock of "spare" anchors

Update: RD has 24 and LS has none.

8.1.1: NW to draft process for substrates other than Limestone

Update: Initial draft to be discussed at this meeting

8.1.2: Action completed & closed

8.1.3: Action completed & closed

13.1.1: Action completed & closed

13.1.2: Closed with no result

13.1.3: RD & LS to produce audit process for section 9.5

Update: Ongoing

13.1.4: RD & LS to re-write 10.5 (Validation)

Update: Ongoing

AOB1: Action completed & closed

AOB2: Action completed & closed

AOB3: Action completed & closed

3.02 Matters Arising from previous minutes

**The British Caving Association
Minutes of the Equipment and Techniques Committee**

RM queried the second sentence of section 7 of the previous minutes. Following some discussion it was agreed that the correct statement (in the IPTD) should be:

"The installation procedure described in this document has been proven to provide an acceptable risk of failure in those rocks where tests were undertaken. The procedure may be applicable in other substrates, and the lack of test data should not be taken to imply that the BCA Anchor Placement Scheme only includes rock types which have been tested. Nevertheless, in substrates other Carboniferous and Devonian limestone, tests should be undertaken taken to ensure that the rock in which the anchor is being placed has characteristics which allow the anchor to be acceptably safe. "

Following the request for clarification of the voting structure of the Committee, NW conformed that the constitutional position is that the Committee is free to organise its own business. E+T's arrangements are that each region had a voting representative, but co-opted members could also vote.

4.0 *Rope Test Officers Report:*

RM's report is appended to these minutes.

5.0 *CSCC Response to request for return of anchors and equipment*

NW reported that the CSCC Secretary has replied to the request to return E&T equipment to the effect that they (CSCC) would only return E&T equipment if instructed to do so by BCA National Council.

No	Action	Owner	Action Date	Status
5.1.1	NW to refer to National Council at next meeting (March26th)	NW	March 26th	Ongoing
5.1.2	FL to provide detail of CSCC position to NW before next National Council meeting	FL	Before March 24th	Ongoing
5.1.3	GJ to provide detail of May 2 nd 2006 CSCC payment to CNCC and check previous E&T minutes re anchors given to CSCC	GJ	Before March 24th	Ongoing

6.0 *CSCC Participation in E&T activities*

NW explained that this item had been tabled following a request from CNCC and DCA. On behalf of CNCC, GJ explained that they had requested this to be added to the agenda because the response which CSCC had made to the letter requesting return of the E+T equipment had left them wondering what CSCC's relationship with the Committee is. In the view of RD, GJ and LS, CSCC should withdraw from the committee completely if it was not going to recognise the authority of the Committee to control the equipment held in its name.

The British Caving Association
Minutes of the Equipment and Techniques Committee

FL explained that CSCC has voluntarily withdrawn from the Anchor Replacement Scheme but not from the Committee as a whole. CSCC were of the view that the equipment belongs to BCA as a whole and that therefore only BCA Council should have the right to request its return.

RK said that he did not feel sufficiently well briefed to comment on the issue between CSCC and the other representatives but that he viewed that it would be a shame if CSCC were forced to withdraw from the committee, a view which was echoed by AL and BM.

NW said that he found it odd that CSCC should withdraw from the bolting programme but that it should still seek to influence the content of the policy in areas other than those which are the contentious ones which CSCC have problems with. The policy is a political as well as a technical document and although there may be sound technical contributions which CSCC could make, in the current circumstances the political considerations outweigh the technical ones and it might be better if CSCC refrained from any comment on the policy in this forum.

Following further discussion, GJ proposed the following motion:

“Until CSCC formally agree to participate fully in E+T activities, they should withdraw from attending E+T meetings”.

BM suggested a compromise might be to restrict CSCC’s right to vote on matters relating to the policy. GJ said this had been considered but in view of the fact that CSCC seemed to be determined to ignore the will of the Committee, this option was not considered to be a viable alternative.

A vote was then taken, the result being three for and three against the motion. The Chairman therefore used his casting vote in favour of the status quo, and the motion was defeated.

7.0 ***Anchor scheme admin report:***

GJ provided a brief verbal report stating that a new route in Rowton Pot (the Big Gulley Route) was completed in 2010 (33 PECO anchors) and the entrance pitches in Shuttleworth Pot have been equipped with 10 ECO anchors. There are now no more anchors available until E&T take delivery of the next batch of anchors and complete final testing.

8.0 ***Update on PECO anchors***

NW reported that 200 PECO anchors are expected to arrive within the next 7 days with the remainder arriving mid April. BD and LS will undertake testing (of 32 anchors) in Derbyshire as soon after delivery of the 200 as possible. The testing (to extraction) is to confirm the distribution curve. FL queried why E&T wish to remain with the ECO/PECO anchor given the delays in delivery of new stock. The brief history of the anchor (going back to the early ‘90’s) was provided together with the fact that E&T wish to stay with an anchor design that is unique to UK caving, so that the provenance of the anchor

The British Caving Association
Minutes of the Equipment and Techniques Committee

scheme is maintained. FL then asked if CSCC can approach Jonathon Sims (JS) to supply CSCC with PECO anchors. The meeting agreed that E&T would not supply CSCC with PECO anchors and that they would prefer if JS did not supply CSCC with PECO anchors but also recognised that E&T cannot control who JS sells the anchors to.

No	Action	Owner	Action Date	Status
8.1.1	NW to confirm heat treatment of the very first batch of PECO anchors that have now been deployed	NW	March 24th	Ongoing
8.1.2	GJ to send pdf of initial Hilti/PECO test results to NW	GJ	Before March 24th	Ongoing
8.1.3	GJ to provide detail of May 2 nd 2006 CSCC payment to CNCC and check previous E&T minutes re anchors given to CSCC	GJ	Before March 24th	Ongoing

9.00 Update on anchor tester:

RM's report is appended to these minutes.

10.00 Installation of anchors in substrates other than limestone

NW tabled a draft of a document (also previously circulated) which was intended to provide a basis for demonstrating that the eco anchor is suitable for use in rock other than limestone. Considerable discussion ensued, and some useful conclusions were reached. These included a realisation that in fact a procedure/standard for confirming the performance of the anchor in any rock type (including limestones where we are already using them) was desirable since this was required as part of the process of confirming the suitability of the Chinese sourced anchors.

BM volunteered to produce a further draft of the document, to be cross referred with and structured similarly to the BS and BS EN standards for anchors. Key points to be noted were:

- The failure performance (i.e. the force at which the anchor releases the load) should be reduced from 40kN to 25kN.
- A decision to use the anchor in some rock types (e.g. hard, small grained homogenous rocks of known physical performance) could be made by inference from performance in limestone, but for other rocks suitability could only be demonstrated by testing.
- The anchors may be unsuitable for use in some rock types and this fact should be decided by an objective measure or performance
- The testing process should be based on known good engineering and statistical analysis techniques

**The British Caving Association
Minutes of the Equipment and Techniques Committee**

NW expressed the view that the reduction in failure force to 25kN was desirable, but that we should ensure that the justification for this change is carefully documented. This met with general agreement and LS said that he would provide RM with data to demonstrate that the failure value for all other parts of the SRT system was less than or equal to 25kN.

No	Action	Owner	Action Date	Status
10.1.1	RM to create second draft of the document, in consultation with NW	NW/RM	Before next meeting	Ongoing
10.1.2	LS to send NW loading stats on other parts of SRT "system"	LS	Before next meeting	Ongoing
10.1.3	RD/RM to document 32 standard deviation requirements for result analysis for next test phase	BD/BM	By next meeting	Ongoing

11.00 Updates to anchor scheme
Nothing to report

12.00 Development of policy for fixed aids

No	Action	Owner	Action Date	Status
12.1	All to provide a list of potential fixed aids to NW	ALL	By next meeting	Ongoing

13.00 Budget for E&T activities for 2011

The meeting agreed to purchase new drills for DCUC and CCC together with a number of 18mm drill bits for general distribution – depending on availability of funds. FL commented that she had received positive feedback of a new Hitachi drill.

No	Action	Owner	Action Date	Status
13.1	FL to send details of Hitachi drill to NW/DC	FL	By end of March	Ongoing

14.00 Nomination of E&T Convenor for the next 3 year term

The meeting agreed that NW should stand for the next 3 year term

15.00 Date and location of next meeting:

Date: 8th October 2011

Location: The Windmill, Dudley

16.00 Any other business

AOB 1: LS queried the process for re-validation of anchor installers.

No	Action	Owner	Action	Status
----	--------	-------	--------	--------

The British Caving Association
Minutes of the Equipment and Techniques Committee

				Date
AOB 1	RD & LS to produce a validation process to NW by no later than end of May	BD & LS	By end of May	Ongoing

AOB 2: Copyright of IPTD: RD & LS produced a signed letter providing conditional transfer of copyright to BCA

AOB 3: BM requested E&T to endorse his request to BCRA for funding to purchase a new data logger. FL proposal that E&T support BM's request was passed unanimously.

The meeting closed at 15.16 pm

Minutes recorded by GJ, except for sections 6 + 10 recorded by NW

Rope Test report

I have cleared all 2010 submitted samples (34) bar ICCC set (program on set of expedition ropes left in Austrian pot holes over several years 42 samples for testing).

Avalanche Pot Inlet rope:

Obtained rope kept above ground and testing around 3/4 complete. (Need to do 4 more BPC drops to get peak force plus set of bounces on BPC rig to compare to new rope.)

LTRT:

Rope yet to be purchased, volunteers yet to be organised.

BPC work:

- Poster produced for last year's BCRA Technology meeting put up on web site.
- Paper printed in latest issue of CREG on development work.
- Paper printed in latest issue of Speleology on hawser laid rope work.
- Battery use not yet further pursued.
- Yet to follow up > 1.5m sample length.
- Confident seeing real forces but have found differences between forces seen at bottom and top of rope due to rope's spring like behaviour and also due to it absorbing energy
- Looking at adequacy of logger, considering going to BCRA for grant to upgrade from 8 to 12 bit.

Anchor tester:

Spent £1030 so far on load cell & reader (£660), hydraulics (£130) and shackles (£240). Probably need another £200 + to cover Jopo's costs (quote was £115 but know has spent at least extra £50 on materials and has had to machine parts).

Need some resin and anchors to do some delivery checks.

The British Caving Association
Minutes of the Equipment and Techniques Committee

I have 5 ton chain and block plus 18kN load set up to do radial pull tests if required
(but not chain or wire)

Bob Mehew