

SOCIETY OF MODEL AERONAUTICAL ENGINEERS LTD.

(T/A British Model Flying Association)

Minutes of the Technical Council Meeting held on the 20th October 2007 at Chacksfield House, 31 St Andrew's Road, Leicester LE2 8RE.

Provisional until confirmed at the next Technical Council Meeting.

PRESENT

Jo Halman FSMAE	Chairman of the Meeting / Comp Sec
Mike Goldby	Vice Chairman of the Meeting / Scale TC Representative
Jim Andrews	FAI Delegate
John French	Records Officer
Mike Proctor FSMAE	R/C Silent Flight TC Representative
Mike Colling FSMAE	Indoor TC Representative / Education Co-ordinator
Nick Aikman	Indoor TC Member
Steve Ogden	R/C Power TC Representative
Peter Christy	R/C Power TC Member / AHA Rep
Mike Francies	FAIR Representative
Peter Halman FSMAE	Control Line TC Member / SpeedCom Rep

In Attendance

Linda Harding	Minute Taker / Office Manager
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AGENDA

- 1 Apologies for Absence.
- 2 Request for permission to be absent.
- 3 To verify the voting strength of the meeting.
- 4 Correction and adoption of the Minutes of the Technical Council Meeting held on 3rd March 2007.
- 5 Matters/Actions Arising from the meeting on 3rd March 2007 that are not included elsewhere on this Agenda.
- 6 To review the set agenda for the first meeting of a Technical Committee each year (Current issue appended).
- 7 Tech Sec reminder to Technical Committees of their responsibility to send in the Technical Committee's Annual Return immediately after their first Committee meeting after the BMFA AGM.
- 8 To receive proposals for FAI Rule changes: (Full proposals appended)
 - a Scale Technical Committee – Volume F4 Annex C Para V of the FAI Sporting Code – Lazy Eight.

- b Silent Flight Technical Committee – Para 5.K.6.2 of the current provisional FAI F3K Rules.
- c From BMFA Competition Secretary, on behalf of SpaceCom –
 - i) SM Space Models General Rules
 - ii) S4 – 8.1 Definition/Description
 - iii) S8E/P Rocket Glider – 11.7.1 Purpose
 - iv) S8E/P Rocket Glider – 11.7.3 Landing Area
 - v) S8E/P Rocket Glider – 11.7.4.6 Additional points will be awarded for landing
 - vi) S8E/P Rocket Glider – 11.7.5.4 S8E/P Landing Area diagram

9 To ratify the following British Record Claims:

- a Name Matthew Hart BMFA No 30844
 Class Record No 30 Control Line FAI Reaction Motor
 Site Barkston Heath Date 25th August 2007
 Speed 197.71 MPH
- b Name Peter Halman FSMAE BMFA No 50198
 Class Record No tba Control Line F2A (Speed) in WCH/ECH
 Site Batajnica, Belgrade, Serbia Date 12th July 2007
 Speed 298.4 KPH

10 To receive **FAI/CIAM Technical Sub-Committee List** recommendations from Technical Committees.

R/C Power

John Mee (072383) F3A
John Benyon (120098) F3C
John Barker (057229) F3D

Scale

Chris Allen (000377) F4

Free Flight

Ian Kaynes (021003) F1ABCD

Control Line

Peter Halman (050198) F2A
John Bonner (106589) F2B
Chris Barker (051784) F2C
John James (058506) F2D
Mike Whillance (088347) F2D

R/C Silent

George Shering (026644) F5B
Clive Needham (002566) F3B/J

Indoor

Not provided for the Agenda. This information must be provided at Technical Council Meeting 20th October 2007.

Space Modelling

Mike Francies (039222) Space Modelling

11 To receive **FAI/CIAM Judges List** recommendations from Technical Committees:

R/C Power

<i>Pete Cappleman (004379)</i>	<i>F3A</i>
<i>Dave Scoles (055768)</i>	<i>F3A</i>
<i>Robert Ailles (012721)</i>	<i>F3A</i>
<i>David Tappin (043764)</i>	<i>F3A</i>

Scale

<i>Chris Allen (000377)</i>	<i>F4C static and flying</i>
<i>John Miller (062736)</i>	<i>F4B/F4C flying only</i>
<i>Bill Dennis (062686)</i>	<i>F4BF4/C static only</i>
<i>Graham Kennedy (111140)</i>	<i>F4C static and flying</i>

Control Line

<i>Peter Halman (050198)</i>	<i>F2A</i>
<i>Jo Halman (001102)</i>	<i>F2A</i>
<i>David Brewin (058722)</i>	<i>F2A</i>
<i>Roger Ladds (000626)</i>	<i>F2B</i>
<i>John Bonner (106589)</i>	<i>F2B</i>
<i>Peter Jackson (051717)</i>	<i>F2B</i>
<i>Chris Barker (051784)</i>	<i>F2C</i>
<i>Dave Rudd (002417)</i>	<i>F2C</i>
<i>Bernie Langworth (040335)</i>	<i>F2C</i>
<i>Vernon Hunt (002234)</i>	<i>F2D</i>
<i>John James (058506)</i>	<i>F2D</i>
<i>Richard Evans (001629)</i>	<i>F2D</i>

Space Modelling

<i>Stuart Lodge (079141)</i>	<i>S</i>
<i>Ian Dowsett (056513)</i>	<i>S</i>
<i>Mike Francies (039222)</i>	<i>S</i>
<i>Nigel Bathe (063592)</i>	<i>S</i>
<i>Geoff Seabrook (118328)</i>	<i>S</i>

- 12 To receive de-briefing reports on this year's National Championships from Technical Committees & the Power Nationals Co-ordinator. (Reports should be brief, preferably in writing & in advance.)
- 13 To receive any reports from Technical Committees. (Reports should be brief, preferably in writing & in advance and not concerning Agenda Items.)
- 14 To receive a report from the Competition Secretary to include:
- a Receipt and ratification of any contests for next year's FAI Calendar.
- 15 To receive any reports from Council, Sub-committees or Elected Officers. (Reports should be brief, preferably in writing & in advance and not concerning Agenda Items.)
- 16 To receive nominations for re-presentation of International Awards at the BMFA annual prize giving dinner. Invitations will only be to nominees from this meeting and are at the discretion of the Society Vice-Chairman. Depending on the numbers, not all nominees may be successful.

17 To receive the dates of the 2008 Technical Council Meetings:

1st Technical Council – 1st March 2008

2nd Technical Council – 18th October 2008

18 Any Other Business.

19 Date of next meeting.

MINUTES

Jo Halman, Comp Sec explained Chris Bromley, Tech Sec was still in hospital. He sent his best wishes to everyone and apologies for his absence. This Council passed on their best wishes to Tech Sec. As standing Vice-Chairman of the Technical Council, the Competition Secretary chaired the meeting.

A Vice-Chairman for the meeting was appointed at this point.

The Records Officer proposed that Mike Goldby, Scale TC Representative be Vice-Chairman of the meeting.

Seconded by FAI Delegate

Carried unanimously.

A warm welcome was extended to Mike Francies, Representative from FAIR Specialist Body, who was present today for the first time.

TC548/10/07 (1) Apologies for Absence.

Apologies were received from Chris Bromley FSMAE, Tech Sec.

TC549/10/07 (2) Request for permission to be absent.

There were no requests.

TC550/10/07 (3) To verify the voting strength of the meeting.

There were 10 members eligible to vote at this meeting.

TC551/10/07 (4) Correction and adoption of the Minutes of the Technical Council Meeting held on 3rd March 2007.

Page 3

- **Final paragraph, third line** - Delete "interest", insert "responsibility".

Page 4

- **Second paragraph, sixth line** - Replace "As a" with "Any". Delete "you"; replace "your" with "the". **Seventh line** - Replace "being involved" with "involvement".

Page 6

- **Third paragraph, first line** - After "the" add "Team Race".

- **Fourth paragraph, first line** - After "erect" add "the Team Race".

Page 8

- **Second paragraph, first line** - After "use" insert "of". **Third line** - After "using" insert "an".

Page 9

- **Fourth paragraph from the bottom, second line** - After "Books" insert "that".

- **Final paragraph, final line** - Delete "s" from the end of "seasons".

FAI Delegate proposed that the Minutes of the Technical Council Meeting held on 3rd March 2007 be accepted as a true record of the meeting.

Seconded by Control Line TC Representative.

Vote: For: 8

Ags: 0

Abs: 2

Carried by a majority vote.

TC552/10/07 (5) Matters/Actions arising from the 3rd March 2007 that are not included elsewhere on this Agenda.

ACTIONS / NOTES

Page 3

- **First paragraph, 'After the Dart' booklet** – The Chairman advised that the booklet, now called "Why not Compete", has been completed and is available from the office.

Congratulations on the successful completion of the project were extended to Mike Colling, Education Co-ordinator.

- **Second paragraph, Team Selection Dates** – The Chairman asked if any of the Tech Committees had implemented any changes to their Team Selection Trials dates.

The Chairman pointed out that the reason this was discussed as a possibility at the last meeting was in order to try to ensure that the very best team was selected for a Championship.

Because the date of the Championship was not yet known, Silent Flight advised that for 2008 only, they would select from the first three meetings of 2008. However they hope to appoint a Team Manager before that.

Indoor Representative advised that **due to** circumstances beyond their control meant that the completion of Team Trials will be taking place in the Spring of 2008. Normally Team Trials would have been completed by now and they hope to resume normal circumstances as soon as possible.

The Chairman reminded the meeting that team managers need to be ratified by Council at the January Council Meeting.

- Third paragraph, heading Page 6, 2.4 GHz – RCPTC
(Peter Christy) expressed concerns regarding what seems to be a 'grey' area in the 2.4GHz regulations issued by Ofcom.

Table 3.1 on page six of the Ofcom regulations document seems to imply that systems that do not use frequency hopping are limited to 10mW, not the 100mW we had assumed.

Although the Spektrum sets hop between two channels, this is not normally "frequency hopping" in the accepted sense of the phrase. He believes we should take up the issue with Ofcom to find out exactly what the position is.

Control Line pointed out the Spektrum system was withdrawn from sale in Germany a few weeks ago by Graupner. It is also not allowed to be sold in Belgium and Sweden has withdrawn it from sale. It is back on sale in Germany but it has been self-certified (itself a grey area) by Graupner. He was not sure whether it had gone back on sale in Sweden nor what was likely to happen in the future.

Peter Christy advised that Belgium is banning all 2.4GHz equipment on the grounds that they do not believe it is a wide band transmission system. He believes they have come under pressure from the Computer Wireless LAN people to ban it.

He also pointed out that Ofcom are also discussing the possibility of increasing the power output available on 2.4GHz for all users up to 10W. The original proposal was to raise it to 4W.

The Meeting concurred that the matter should be referred to Graham Lynn, UKRCC Representative to seek clarification from Ofcom. Peter Christy would provide a copy of the relevant document, to be passed on to Graham Lynn.

**GRAHAM LYNN,
UKRCC REP
RCPT (PETER
CHRISTY)**

Page 4

- Second paragraph, modules imported from Taiwan -

Control Line commented that we should not single out Taiwan as a grey importer of 2.4GHz modules. There are many other countries that grey import into the UK.

- Fourth paragraph, Record Claims ratification -

Records Officer informed the meeting that at the **September** Council meeting, Full Council in September agreed that this Council is competent to approve Record Claims. This was welcome news.

- Penultimate paragraph, action SFTC to look at rules for Electric Power Assisted Glider record class - Silent Flight advised that they are still investigating this.

The Chairman requested that this item is no longer brought up as 'Matters Arising' and that when the matter is resolved, Silent Flight include it as an Agenda item for this Council.

SILENT FLIGHT

- **Final paragraph, review of Records Book** - Records Officer advised that a meeting was held between himself, Tech Sec and Comp Sec.

The Chairman, in her capacity as Comp Sec explained further that the main outcome of the meeting was an agreement that the Records Book as it is at the moment is split into two and becomes a Records Book with all the information in it plus a Records Index with all the Records in it. Those Records may even eventually be put into a database that will be accessible on the website.

The Records previously ratified had been updated by the Records Officer and put on the website soon after the May Council meeting.

The "splitting" of the Records Book into (i) Records Information and (ii) Records Index is in the hands of the Tech Sec so there is likely to be an unfortunate delay because of his health situation.

Comments were made that the website is not up-to-date with the latest Records ratified at the September 2007 Council Meeting. It transpired that the Records Officer had not passed on the information to the Tech Sec for updating the Records Book because he knew Tech Sec was unable to work on it.

The Chairman commented that a procedure must be put in place to allow faster updating of records ratified by either this Council or Full Council. As soon as the Records have been ratified at Council, the Records Officer should advise the details to whoever is in charge of the updating at that time (in the absence of the Tech Sec this would be the Comp Sec) so that person could update the records and get the updated file onto the website.

The Chairman asked Records Officer to pass the details of the ratifications at September Full Council on to her as soon as possible. She would then do the necessary update and get the information on the website.

**RECORDS
OFFICER /
COMP SEC**

Page 6

- **Third paragraph from the bottom, marshals at Scale Free Flight to prevent nuisance of R/C cars** – The Chairman asked if marshals had been made available this year and Scale advised that they had and there had been no problems this year.

Page 7

- **Second paragraph, Nationals results** – The Chairman made a request for Tech Committees to let her, in the Tech Sec's absence, have the full Nationals results so that she could get them onto the website. Normally they would send them to Tech Sec for publication on the website; however she had noticed that some are still missing, which is probably because of the Tech Sec's illness. The specific ones still needed are Scale, Helicopter, Aerobatics, IMAC, Silent Flight and Free Flight.

TECH COMMS

This is something that needs to be looked at in the future. It would be quicker for the Tech Committees to post their results themselves and the new website will likely allow this.

Seventh paragraph, licence for Cottesmore - Comp Sec reminded Tech Committees to make sure they remind Specialist Bodies, namely Pylon and Aerobatics, to liaise with her when arranging use of Cottesmore for events for 2008. Also if they have any problems with dates they should liaise with her.

**COMP SEC
TECH COMMS**

She requires the dates by end of the year. Peter Christy RCPTC advised Pylon had already arranged dates for 2007 but they are aware of the procedure for the future.

- **Ninth paragraph, multiple uses of airfields** - Comp Sec advised that she had not heard anything from anybody about site sharing. She made a plea that if there is any opportunity where you can share your site with an appropriate discipline, to contact her initially, as she is acting as co-ordinator.

- **Final paragraph, discussion on excessive smoke output from ic model engines** - Peter Christy RCPTC advised that he had read an article in Pilot magazine (full size aviation) about a new oil by Shell for smoke generation at displays, which apparently was food-stuff based. Shell have been promoting it for Full Size display pilots who have reported that it is a cheaper and more environmentally friendly product that did not damage the paint on the aircraft.

He had circulated the article to members of RCPTC. The turbine fliers seemed to receive the information enthusiastically and the Chairman of RCPTC is trying to get hold of samples to see it if is suitable for use in models.

Peter Halman had provided copies of a document he had produced on the subject of health and safety issues relating to model aircraft fuel and the use of liquids to generate additional smoke. **(APPENDIX A)**

Cont'd.....

The document was very well received. It was agreed that the statement under the 'Conclusion' heading should be referred to the CEO to be considered for inclusion in the Member's Handbook, with a short explanation note, and should also be included as Pilot briefing notes in the Public Display section of the Handbook.

CEO

Peter Halman would provide the CEO with suitable wording for the explanatory and briefing notes.

**PETER HALMAN
(CL)**

It would also be advantageous, to publicise this more widely and the Development Officer could include an article in 'Chacksfield Chat' in the BMFA News.

**DEVELOPMENT
OFFICER**

Peter Halman agreed that Peter Christy could circulate the document at the next RCPTC meeting and he would email the .pdf to Peter Christy.

**PETER HALMAN
(CL)**

Peter Halman explained that as far as he was aware, no evaluation had been undertaken of the harmful effects of the oils and fuels used in model flying. He hoped that this document highlighted some of the effects particularly with reference to the use of big ic petrol engines.

The Records Officer asked the question whether we should consider a ban on the use of additional smoke at Displays but the general consensus was that that we should not.

Peter Halman raised the concerns regarding the amount of smoke generated from F3C helicopters and said that we should be looking for ideas of how that could be reduced. Peter Christy strongly supported this statement.

Reducing the exhaust smoke from the engines would involve fundamental changes to the way the engines are designed and it would require a considerable amount of international pressure to be brought to bear on the manufacturers. Peter Halman suggested that if the FAI were to impose a timescale, say six or seven years, for a gradual reduction in the fuel allowed in F3C and to have an explicit fuel mix which could be verified by specific gravity, it would be possible for the engine manufacturers to change the engine design and production.

**PETER
HALMAN/PETER
CHRISTY /
CHAIRMAN**

The Chairman asked Peter Halman to provide a short paper outlining his suggestions and to liaise with Peter Christy. In her capacity as CIAM Technical Secretary she would ensure that the topic is included on the CIAM Bureau Agenda for progression that way.

Page 8

- **Fifth paragraph from the bottom, details of RAF Swinderby for Comp Sec from Silent Flight** - Silent Flight advised that they had not progressed looking in to use of Swinderby so did not have any contact details to pass on. Comp Sec asked Control Line to email her to remind her to try and organise Swinderby.

CLTC

Page 9

- **Fourth paragraph from the bottom, Team Selection procedures in Rule Books** – The Comp Sec asked all Tech Committees to check if their Rule Books contained their Team Selection procedures and if they did not then she strongly recommended that the Technical Committees rectify this sooner rather than later.

TECH COMMS

This concluded matters arising.

TC553/10/07 (6) To review the set agenda for the first meeting of a Technical Committee each year.

At the March 2007 Technical Council Meeting, the Chairman thought that the addition of “meeting voting strength” had been agreed to be a separate item for emphasis and not part of item 1 d). After discussion the following changes were agreed to item 2 “Election of Officers, Co-options and Acceptance of Specialist Body Representatives.”

- The second line currently under item 1 d) "The final voting strength of the meeting can now be noted", to become (e).
- The second and third paragraphs following on after the new (e) to become (e) i) and (e) ii) respectively. All subsequent bracketed paragraphs to be amended accordingly to follow on alphabetically.
- Item 9, third paragraph is a helpful hint and should be in italics.
- Item 11, insert an additional helpful hint as follows: *“Entry fees may carry a supplement to cover site fees. If they do so then this should be noted, in brackets after the entry fee, in the information that is sent to the office for inclusion in the January Agenda.”*

Office Manager would make the changes in the absence of Tech Sec to enable her to send out the notice to Tech Committees to call their first meeting. The amended document would be copied to Tech Sec and Comp Sec.

OFFICE MGR

TC554/10/07 (7) Tech Sec reminder to Technical Committees of their responsibility to send in the Technical Committee's Annual Return immediately after their first Committee meeting after the BMFA AGM.

Cont'd.....

The Chairman, in the absence of the Tech Sec, reminded Tech Committees to send in their Annual Returns after their first Committee meeting.

TECH COMMS

She also reminded Tech Committees that there is only a short space of time this year – two week-ends - in which to organise their meeting, following the Society AGM and before the January Agenda deadline. RCPTC had somehow mixed up their dates and had already scheduled their meeting for 15th December which would be too late to meet the January Council agenda deadline. The Chairman suggested that they needed to do something about this.

RCPT

TC555/10/07 (8) To receive proposals for FAI Rule changes:

a) Scale Lazy Eight - **AMENDED DESCRIPTION (APPENDIX B)** Scale commented that if anybody objects post this meeting, to the amendments, they would withdraw the proposal.

It was also pointed out that the drawing shows the Judges centreline on the ground, making the manoeuvre look like a “touch-and-go”. The Scale Representative agreed that the relevant change would be made and new copy forwarded to the office.

Scale proposed the above FAI Rule Change for ratification.

Seconded by Comp Sec
Carried unanimously.

**FAI DELEGATE
TECH SEC
OFFICE MGR**

b) The Silent Flight rule change proposal was withdrawn.

The Chairman had pointed out that this proposal referred to rules only agreed at the 2007 March Plenary and which did not become effective until January 2008. CIAM does not permit changes to rules that are not yet effective.

The Chairman advised Silent Flight to put them forward next year if it was still felt necessary.

c) FAIR Representative presented the Space Rule Changes.

A minor change was required to the rule proposal “Space - Class S4 dealing with page 19 of the SM Sporting Code. Change as follows:

Fifth line "space" should be bold and underlined. Comp Sec would make the change.

COMP SEC

Competition Secretary proposed the six FAI Rule changes for ratification.

Seconded by Control Line TC
Carried unanimously.

**FAI DELEGATE
TECH SEC
OFFICE MGR**

TC/556/10/07 (9) To ratify the following British Record Claims.

- a) Name Matthew Hart BMFA No 30844
Class Record no 30 Control Line FAI Reaction Motor
Site Barkston Heath Date 25th August 2007
Speed 197.71 MPH
- b) Name Peter Halman FSMAE BMFA No 50198
Class Record No tba Control Line F2A (Speed) in
WCH/ECH
Site Batajnica, Belgrade, Serbia Date 12th July 2007
Speed 298.4 KPH

Comp Sec advised that the F2A (Speed) in World and European Championship classification is not listed at the moment in the BMFA Record Book, which is why it does not have a number.

It has never been claimed before, which is why it does not appear at the moment as a classification in the list. The Records Officer will allocate the next available number and then it will be added to the Record Claim list or Record Index as it will now be known.

**RECORDS
OFFICER**

Records Officer commended the above Record Claims for ratification.

Seconded by FAI Delegate.
Carried unanimously.

**RECORDS
OFFICER
OFFICE MGR**

These will be on the website shortly.

TC557/10/07 (10) To receive FAI/CIAM Technical Sub-Committee List recommendations from Technical Committees:

R/C Power

<i>John Mee (072383)</i>	<i>F3A</i>
<i>John Beynon (120098)</i>	<i>F3C</i>
<i>John Barker (057229)</i>	<i>F3D</i>

Scale

<i>Chris Allen (000377)</i>	<i>F4</i>
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Free Flight

<i>Ian Kaynes (021003)</i>	<i>F1ABCD</i>
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Control Line

<i>Peter Halman (050198)</i>	<i>F2A</i>
<i>John Bonner (106589)</i>	<i>F2B</i>
<i>Chris Barker (051784)</i>	<i>F2C</i>
<i>John James (058506)</i>	<i>F2D</i>
<i>Mike Whillance (088347)</i>	<i>F2D</i>

R/C Silent

George Shering (026644) F5B
 Clive Needham (002566) F3B/J

Space Modelling

Mike Francies (039222) Space Modelling

Indoor had been included on the Agenda however Indoor TC Representative pointed out that Indoor does not have a separate FAI/CIAM Technical Sub-Committee.

Comp Sec expressed her sincere apologies to Indoor TC for this mistake. It would be removed from the Standard Agenda. **OFFICE MGR**

Indoor TC Representative also pointed out that the Free Flight listing should only state F1 category, not F1ABCD. The Standard Agenda would be amended accordingly. **OFFICE MGR**

TC558/10/07 (11) To receive FAI/CIAM Judges List recommendations from Technical Committees:

R/C Power

Pete Cappleman (004379) F3A
 Dave Scoles (055768) F3A
 Robert Ailles (012721) F3A
 David Tappin (043764) F3A

Scale

Chris Allen (000377) F4C static and flying
 John Miller (062736) F4B/F4C flying only
 Bill Dennis (062686) F4BF4/C static only
 Graham Kennedy (111140) F4C static and flying

Control Line

Peter Halman (050198) F2A
 Jo Halman (001102) F2A
 David Brewin (058722) F2A
 Roger Ladds (000626) F2B
 John Bonner (106589) F2B
 Peter Jackson (051717) F2B
 Chris Barker (051784) F2C
 Dave Rudd (002417) F2C
 Bernie Langworth (040335) F2C
 Vernon Hunt (002234) F2D
 John James (058506) F2D
 Richard Evans (001629) F2D

Space Modelling

Stuart Lodge (079141) S
 Ian Dowsett (056513) S
 Mike Francies (039222) S
 Nigel Bathe (063592) S
 Geoff Seabrook (118328) S

There was some discussion whether or not the numeric designation of the Space Modelling categories should be listed as the aeromodelling disciplines do. It was agreed this should be looked at again in a couple of years time.

TC559/10/07 (12) To receive de-briefing reports on this year's National Championships from Technical Committees & the Power Nationals Co-ordinator.

***** **Scale - WRITTEN REPORT (APPENDIX C)**

Scale highlighted one of the points in his report because of the safety aspect. The major concern this year was the low level jet flying by Show line pilots over the Scale area. Many of those pilots were also turning towards the crowd line instead of away from it.

R/CPTC Delegate, in his capacity as Show line co-ordinator, commented that the persons responsible were grounded at one point. He added that the flight line marshal was a little lax and should have grounded them earlier.

Scale also raised the issue of the use of RC cars near Free Flight Scale. This had been a problem in the past and the Tech Sec had said that this year he would stop this right from the word go and that he would allocate a separate area for people to play with these model cars.

Scale asked Peter Christy, AHA Rep, that if the people concerned were from the Helicopter fraternity, could he respectfully remind them not to continue doing it. Peter Christy said he would mention it to them.

***** **R/C Power - WRITTEN REPORT (APPENDIX D)**

Several remarks were made on the spectacular Battle of Britain flight displays over the three days.

FAI Delegate commented that it was very enjoyable; however it did incur quite a lot of down time.

R/CPTC Representative said that he had commented to the BMFA Chairman that it did seem a little pointless on the Monday at Show line because he was the only person there to enjoy it.

Chairman, in her capacity as Control Line Nats Co-ordinator, commented that it would have been useful if Control Line had been informed that the flypasts would be taking place, because she was sure that the people who were flying at the time would have liked to have seen them.

Cont'd.....

In future we need to make sure that all the flight lines are notified. Control Line are allocated their own radio channel therefore they do not receive general announcements and requested that measures be put in hand so that announcements of this sort are duplicated on the dedicated Control Line channel.

CLTC

R/CPTC Representative advised that a notification to the Flight Line Controller would suffice.

Silent Flight

Silent Flight reported that this year as with the Power Nats the weather was superb. The extremely bad ground – deep holes and ridged – was the only problem with an otherwise excellent site at Spitalgate. Whilst it is very convenient being so close to Barkston Heath the SFTC has to look for an alternative venue, hopefully still close by. They would even consider a suitable field if there are any.

Silent Flight asked the Scale Representative if he knew of anywhere in Lincolnshire that would be suitable. Possibly RAF Digby?

Scale commented that the problem in Lincolnshire is that the farmers are beginning to take notice of the fact that our wildlife is disappearing and so many of them are growing grass **on** otherwise fallow land and letting the grass grow very high to encourage wildlife. This might apply to Digby too, but Silent Flight was advised to contact Ian Pallister for information regarding Digby and Len Sheldon, of the Grantham club for contact details of the farm close to Barkston Heath.

SILENT FLIGHT

With reference to previous comments that Silent Flight had not contributed registration fees to the BMFA for each Nationals entrant, Silent Flight pointed out that in recent years the fee had been incorporated within the overall competition fee.

Space Modelling

This year was the first joint Space Modelling/Free Flight Nationals. Everybody was very pleased how it went. The weather however was appalling with two-and-a-half days of solid rain.

Indoor

The first two days were fine; however the third day was a wash-out because of inclement weather conditions. Cardington has many gaps and it is unusable if there is rain or high wind from certain directions. Apart from that there were no particular problems. The turnout was on a par with the past couple of years.

Control Line

From the weather point of view it was the best Nationals for many years and flying took place on all three days, which is unheard of in recent history. The many pulse jet flights were immensely enjoyed by the very large number of spectators at the Speed Circle.

The Speed CD had again organised a comprehensive publicity display and gave a splendid commentary throughout the flying that was thoroughly enjoyed by the spectators.

Everyone was fully informed of what was going on and the results were announced even before the fliers left the circle. A CL Nationals de-brief was held recently at the CLTC meeting and some new ideas will be progressed at the CLTC Nationals Planning Meeting in February.

IMAC

The Records Officer informed the meeting that IMAC presentations were disrupted because they were asked to leave the show line area and move down to the hangar. The Records Officer did not know who had given the instruction but he said it was so that the marquees could begin to be dismantled. As a result of the delay at IMAC, the Pylon presentations began later than scheduled. The meeting noted the flight line presentations take precedence over the clearing away of a flight line. It was suggested that the Records Officer raise the issue at the Nationals Planning meeting in 2008.

TC560/10/07 (13) To receive any reports from Technical Committees.

***** **Scale - SEE WRITTEN REPORT (APPENDIX C)**

***** **R/C Power - WRITTEN REPORT (APPENDIX E)**

R/CPTC Representative reported that the GTBA/JMA Joint Code of Practice was now complete. The finished document would be included on the agenda for January Full Council for adoption by the Society. RCPTC were asked to submit a formal proposal for January Full Council Agenda. The Chairman thanked everyone who had been involved in putting the comprehensive document together.

R/CPTC

Peter Christy, speaking as a member of AHA, raised an issue regarding the Helicopter 'B' Certificate test and the last Areas Council meeting.

The Office Manager, who was present at the last Areas Council meeting, clarified certain points relating to the recent action taken by the ASRC at that meeting. On an instruction from Areas Council, the "Hovering M" manoeuvre had been removed from the Helicopter 'B' Certificate.

Cont'd.....

It had been replaced with a new manoeuvre the "4-point pirouette" without reference to the RCPTC or the AHA.

Peter Christy, on behalf of the AHA, read out the following statement:

"The Aerobatic Helicopter Association is disappointed to learn of the recent decision by the BMFA Achievement Scheme Review Committee to remove the "Hovering M" manoeuvre from the helicopter "B" certificate flying test.

It is the AHA's opinion that the 4-point pirouette is a wholly inadequate substitute for the "Hovering M".

Accordingly, the AHA will no longer consider "B" certificates issued by the BMFA after the 6th of October, 2007, to be an adequate assurance of a pilot's capabilities.

Any pilot issued with a "B" certificate after the 6th October, 2007, who wishes to fly at AHA public events, or enter AHA F3C contests, should contact the AHA at www.aha-online.org.uk to arrange a suitable flying test to take place. (It may be possible to do this at a contest, prior to the start of the competition)."

The AHA has two proposals that they intend to put to the ASRC.

Peter Christy was asked to give some background to the "Hovering M" and any alleged safety issues surrounding it.

He said that the manoeuvre had been in use for over thirty years and to his knowledge there has never been an incident associated with it. However a few years ago concerns were expressed that, in view of the increasing size and power of the model helicopters, the manoeuvre brought the helicopter too close to the pilot.

As a result of that an amendment was made to the distances in the manoeuvre to give adequate clearance between the model helicopter and the pilot. However, there was still disagreement over various elements of the manoeuvre.

About a year ago, the issue was raised yet again and Peter Christy was invited to an ASRC meeting to discuss the manoeuvre. As a result of that discussion, the AHA generated what they felt was a suitable substitute manoeuvre for the Hovering M, which tested the same skills, but without requiring the helicopter to move around so much.

That proposal was put forward formally to Areas Council but after a lot of discussion Areas Council decided to stay with the existing, modified "Hovering M". The AHA thought this was the end of the matter.

Cont'd.....

Unfortunately Peter Christy could not attend Areas Council two weeks ago and he was dismayed to discover that the issue had been raised yet again. It appears that the issue was raised as a *safety* issue and as such Areas Council felt that immediate action had to be taken.

The AHA has no problem with the "Hovering M" being replaced as long as the replacement manoeuvre tests the same flying skills. The recent replacement manoeuvre does not.

Peter Christy added that it seemed strange that the ASRC chose to disregard the substitute manoeuvre of a year ago, that had been accepted by both supporters and opponents of the "Hovering M", and put forward instead the "4-point pirouette", a manoeuvre that had been rejected as wholly inappropriate by the AHA.

The Chairman expressed concerns that the ASRC did not consult with the relevant Technical Committee or Specialist Body before deciding on an alternative manoeuvre. The ASRC had made a technical decision without any reference to the Technical experts. This highlights a significant loophole in the Achievement Scheme processes. This Council wholeheartedly agreed with these sentiments.

As a result of the above discussion the following proposals were generated:

Control Line Technical Committee proposed the following recommendations:

Seconded by Scale Tech Committee
Carried unanimously

Proposal 1

On grounds of safety, all Helicopter 'B' Certificate tests, and associated tests for examiners and instructors, shall be suspended until a manoeuvre can be introduced that tests the same skills as the Hovering M does. Further, the Achievement Scheme Review Committee (ASRC) shall consult fully with the Radio Control Power Technical Committee (RCPT) to find a suitable substitution manoeuvre for the Hovering M. The suspension is effective from the 20th October 2007, the date of the Technical Council meeting.

Any successful candidates who took the Helicopter B test between 12th October 2007 and the date on which the technically approved replacement manoeuvre is implemented must re-take the flying element of that test.

Proposal 2

The Achievement Scheme Review Committee shall always seek technical expertise and approval from the appropriate Technical Committees regarding any changes to the technical elements of the Achievement Scheme tests. *Cont'd...*

The Chairman and Office Manager would consult outside of the meeting to decide on the final circulation and mailing of the above notices.

**CHAIRMAN /
OFFICE MGR**

Peter Christy thanked this Council for their support.

Control Line

It had been a mixed season this year which had begun with some excellent weather and flying had taken place earlier than in other years. However, the weather then deteriorated with high winds badly affecting the competitions so that four were lost. The team selection events had been completed and the Teams will be nominated in due course.

The Records Officer raised a point concerning the "provisional" Goodyear Team Race rules that had been published in the August BMFA News.

Control Line explained that they were perfectly valid rules. The CLTC had been discussing Goodyear Team Racing for some while as it had been poorly supported for some time. The CLTC were looking towards a Goodyear class that might have more competitors. The "Provisional Goodyear" rules take elements from both Open and British Goodyear and were published so that the class could be held at the Power Nationals to establish if it was worth pursuing. The Records Officer said there were fourteen fliers, at the Nationals who ran their own Open Goodyear ad hoc event and he was forbidden to mention it in the results of the Nationals. He felt that there had been fourteen very aggrieved flyers that left after the Nationals week-end. The Chairman advised that those seven aggrieved teams had not asked either CLTC, the Control Line Nationals Co-ordinator or the Competition Secretary, if they could hold this unauthorised event and any results for an unauthorised event of this nature certainly should not be published with the official Nationals results.

Silent Flight

Everything had mostly gone quite well. The league events had been completed last weekend.

The F5B models using lipo packs up to 200amps had worked well. There have been some very interesting results, which seem to indicate that the short bursts will last better than smaller packs, despite what some people thought at first. Energy limiters are now used with them, which allows the model a certain amount of energy per flight. For F5B it is **1750** watt minutes and it is hoped that this can be moved onto the 200-watts E Soaring event.

Indoor

The Indoor Representative reported that this year had been a very difficult year. The Use of Cardington had been somewhat erratic. *Cont'd.....*

The best thing to happen this year was the success of F1D Eurochamps Team who brought back an Individual Silver and a Team Silver. This was an excellent achievement taking into account the very difficult circumstances leading up to the event.

The Chairman commented that perhaps high ceiling Indoor venues are not as necessary as has been thought if our teams can train in low ceiling venues and still go to a high ceiling venue for the Championship and come back with individual and team medals.

Nick Aikman, Indoor TC advised that the UK is the only country in Europe with a category four ceiling height building. There are only three left in the USA of which two are only used once a year and one is not used at all for duration flying.

Most competition flying whether F1D or the other F1 Indoor classes or even fun flying, is done in Sports Halls, that is in category two ceiling buildings. That is all there is available these days. It was felt that high ceiling sites are not necessary to judge model duration or model characteristics.

The Indoor TC Representative commented that it must be remembered that flying in a high ceiling site requires some steering with balloons and that is very difficult to replicate in low ceiling sites.

The Chairman congratulated the Indoor Team on their splendid achievement especially given the difficult circumstances during the whole of this year.

Space

Events have fallen foul of the weather this year, which has been the same for everyone. All the Team Trial events had been completed and it was hoped to put forward a Team for the 2008 World Championships in Spain.

The weather had been poor for the European Championships this year, but it was good experience.

FAIR are very much looking forward to working with the Free Flight Technical Committee.

TC561/10/07 (14) To receive a report from the Competition

Secretary to include:

a) Receipt and ratification of any contests for next year's FAI Calendar.

Comp Sec has received the following requests:

F3K Open International Contest in Hadley, Suffolk 10th/11th
May 2008. *cont'd.....*

**OFFICE MGR
ACCOUNTS MGR**

UK Interglide 19th/20th July 2008, alternate date 12th/13th July 2008 in Marsh Gibbon, Nr Oxford.

OFFICE MGR
ACCOUNTS MGR

TC/562/10/07 (15) To receive any reports from Council, Sub-Committees or Elected Officers.

Records Officer

He was currently awaiting results to allocate thirteen Free Flight trophies. He had contacted FFTC who had explained that it was in hand.

FFTC

He was also waiting to allocate three Control Line trophies. The Chairman, in her capacity as CLTC Secretary explained that she would advise the Records Officer as soon as she could.

CLTC

The Records Officer thanked all the Technical Committees for their help in providing the 1-2-3 results at the R/C, CL & Scale Nationals this year.

Comp Sec

Comp Sec reported only to say that she has been, and still is, extraordinarily busy.

FAI Delegate

FAI Delegate reiterated what he had already included in his annual reminder to Tech Committees ie to ensure that as soon as they receive the 2008 CIAM Plenary Agenda, they let him have their comments on how they would like him to vote.

TECH COMMS

FAI Delegate pleaded with Tech Committees to try to encourage more people to attempt World Records and to put more nominations forward for FAI Awards/Medals. The Chairman commented that of the five FAI CL Speed World Records, three were held by British fliers. The CL Representative added that there is a likelihood of an attempt being made in the next year or two on the "1.0cc or less" Speed World Record.

TC563/10/07 (16) To receive nominations for re-presentation of International Awards at the BMFA Annual Prize giving Dinner.

The following nominations were put forward for consideration.

BMFA CHAIRMAN

Indoor - F1D Individual Silver medal.
Team Silver medals.

Control Line - F2A Individual Silver medal.
F2A Team Gold medals.

Bob Bailey - RAeC Bronze Medal.
Peter Grange - RAeC Silver Medal.

TC564/10/07 (17) To receive the dates of the 2008 Technical Council Meetings:

The following dates were confirmed for 2008.

1st March 2008
18th October 2008

TC565/10/07 (18) Any Other Business.

Copies of the revised British Record Claim Forms were provided. The Records Officer advised that a great deal of thought was put into the layout and presentation of the four new forms and he thanked Comp Sec for her help with these.

He commended them to the meeting and advised that they are effective as of this meeting.

Chairman closed the meeting at 5.05pm.

Linda Harding
Office Manager
25th October 2007

Circulation:

Authorised to attend:
The Chairman of the Meeting - Tech Sec
The Vice Chairman of the Meeting - Comp Sec
FAI Delegate / Records Officer
All Individual members of each Tech Committee
One representative from each Specialist Body

Note - Those having voting rights are the Chairman and Vice Chairman of the meeting, the FAI Delegate, Records Officer and two members from each of the six Technical Committees.

The voting representatives of the Technical Committees can be any two members of the Committee; elected, co-opted or Specialist Body representative.

Copies to:

All Council Members
All Area Chairmen
All Area Secretaries
Fellows (Selected)
Club Bulletin
RNMAA Chairman
Roger Bellingham - Flying Site Adviser
R/CP / SF Achievement Scheme Controllers

BMFA News Editor
NW Area Treasurer
Geoff Seabrook - SpaceCom
Development Officer / Chief Executive
Office Manager
Accounts Manager

Model Aircraft & Additional Smoke Generation

Health and safety issues relating to model aircraft fuel and the use of liquids to generate additional smoke.

We all know that the smoke from our model engines can be irritating; the question is how dangerous is it? The first thing to look at is the composition of the smoke.

The emission for a typical 2 stroke engine is 40% unburnt or part burnt fuel/oil consisting of:

1. Raw alcohol methanol / Nitro methane.
2. Un burnt/part burnt oil as vapour/Aerosol (smoke).
3. Some carbon precursors varnish.

The remaining 60% is a mixture of gases some will be harmless, other may be toxic. These gases will include carbon dioxide, carbon monoxide, plus Nitric acid if nitro methane is in the fuel. The smoke will also carry particulate matter (PM) which will irritate the lungs.

As far as I know the combustion effects of the oils we use have not been studied.

- The synthetic oils based on poly ether structures will almost certainly form low molecular pyrolysis products cracked and highly oxidised with characteristic odour. They could well be irritating
- Castor oil is quite different it breaks up differently (higher mwt compounds) due to the hydrocarbon / ester structure.

Castor oil is in itself fairly safe, but it contains highly toxic alkaloids that are carefully removed for the medicinal grade.

Synthetics oils are very biodegradable in soil water due to their low mwt species.

The smoke from synthetic oil is far more noxious than smoke from castor oil and it causes irritation to the eyes, the inhaled smoke will probably also irritate the lungs.

When Nitro methane burns it produces Nitric Acid which will damage almost anything it comes in contact with.

It should also be noted that up to 40% of the methanol in the fuel is in the emissions. Methanol is easily absorbed through the skin, it is [toxic](#) by its breakdown in the [liver](#) by the [enzyme](#) alcohol dehydrogenase forming formic acid and formaldehyde which cause [blindness](#) by destruction of the optic nerve.

One of the largest emissions from all IC engines is carbon monoxide. Extra care must be taken with large petrol engines as they produce much more, less visible gas than our familiar glow engines, but due to their larger capacity, more carbon monoxide.

Diesel oil smoke.

Diesel oil smoke is heavily laden with sooty particulate matter particularly when partially burnt to produce smoke. Several epidemiologic studies have demonstrated a consistent association between levels of particulate matter (PM) in the ambient air with increases in cardiovascular and respiratory mortality and morbidity.

Conclusion

There is no such thing as safe smoke; all smoke will irritate the lungs. The smoky exhaust gasses from our glow engines will contain a percentage of raw fuel plus many acidic compounds along with carbon monoxide. Castor based fuels are less irritating than fuels using synthetic oil. The exhaust gasses from model petrol engines are nowhere near as clean as from our car exhausts and they contain large quantities of carbon monoxide, so extra care must be taken practically when testing these engines. It is therefore important that steps are taken to minimise exposure to smoke from model aircraft. Smoke generation by any means should only be done in areas where the smoke can be easily and quickly cleared.

Peter Halman FSMAE
19th October 2007

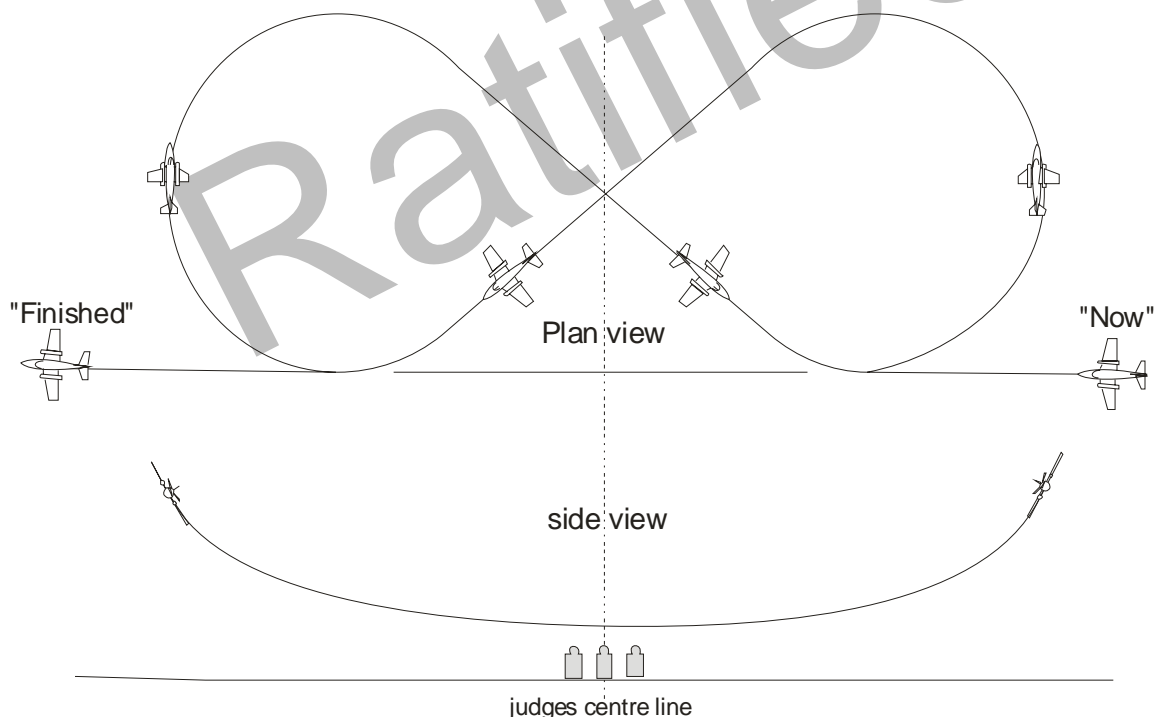
Scale Proposal to amend the F4C Lazy Eight Manoeuvre

Deletions shown as ~~strike-through~~ and additions as **bold underlined**

V Lazy Eight

The model approaches in straight and level flight on a line parallel with the Judges' line. ~~After passing the judges' position~~ **When the model is in line with the judges (the centre) a smooth curving climb is commenced which progresses to** a smooth climbing turn **of constant radius** ~~is commenced~~ away from the judges. At the apex of the turn the bank should be at least 60 deg **and the model shall be on a heading of 90 degrees to the judges' line.** The nose of the model then lowers and the bank comes off at the same rate as it went on. The turn is then continued beyond 180 deg to cross in front of the judges with **intercept the centre** with the wings level **and at the same height as the entry height into the manoeuvre.** ~~before joining and turning on to the reciprocal of the original approach track. This completes half of the figure, which is then repeated in the opposite sense to give the full manoeuvre.~~ **At the centre another smooth climbing turn is immediately commenced away from the judges, the shape of which should be the same as the first turn. The second turn is then continued beyond 180 deg to cross the centre with wings level and at the same height as the entry height into the manoeuvre.** The Lazy Eight is completed by **maintaining this height and heading with wings level before turning to intercept** ~~intercepting~~ the original approach track **to exit the manoeuvre** parallel with ~~to~~ the judges' line **in straight and level flight.** A low powered aircraft would be expected to execute a shallow dive at full throttle in order to pick up speed before commencing the manoeuvre. The figure should be symmetrical each side of the judges' position.

This manoeuvre is essentially two wingovers in opposite directions.



Errors

- (4) Climb and descent angles **curves** not equal throughout manoeuvre.
(11) Apexes of turns not coincident with a model heading of 90 degrees.

REASON

The existing diagram and description is ambiguous and unclear.

End of document

Scale Technical Committee Report for the Technical Council Meeting
On the 20 October 2007

General Report

The 2006/7 Scale Technical Committee reformed under the chairmanship of Gordon Warburton, Fellow, following in the footsteps of Dave Kerswell, Fellow, who resigned from the Committee for health reasons. Dave had served on the Committee for a number of years and our grateful thanks go to him for all the hard work he undertook to ensure that Scale model building and flying in the UK was a success.

After a poor start to the season caused by the appalling weather, Scale RC continued to attract a healthy number of entries at all centralised competitions. The Scale Indoor National Championships were also a great success with the introduction of a new class, "Kit Scale". This class deducts points if the model deviates from the original design, other than fitting an alternative power source. This concept means that the class cannot be "hijacked" by the experts with complicated models, as has happened in other classes, making it very appealing to newcomers.

The Scale European Championships 2007 due to be held in Ukraine were cancelled due to lack of entries.

R/C, C/L and Scale F/F Nationals Report

We had a very successful National Championship with a high number of entries in all classes. We could not have catered for any more in the R/C classes as the full 3 days plus an early start on all days was required to complete all of the flights. Scale F/F was the best in living memory with the standard of flying being exceptional.

Concerns:

- a. We had no problems with the vicinity of the helicopter line, but one or two jets from the show line flew through the Scale line at very low levels at high speed. Many pilots were also turning towards the crowdline instead of away from it to set up for high-speed low level runs. **This is of major concern.**
- b. F/F Scale was again marred by IC powered model cars being driven in the area of the helicopter line, very near to our flight area.
- c. The toilets near the Scale Line were insufficient resulting in long queues and the frustrating delays incurred in our busy schedule when our judges needed a natural break. Can Scale have dedicated toilet(s) please?
- d. The dogleg in the rope line was again not started early enough to enable a safe, angled, into wind approach. Although this would shorten the frontage of the crowd line by some 20 metres it has other overriding benefits.

Mike Goldby
Scale Delegate

RCPTC Report on the 2007 National Championships.

By general consensus, this year's Nationals was one of the most successful ever. The good weather, after an appalling summer, was most welcome, and generated a feeling of well-being amongst all present.

The introduction of 2.4 GHz radio equipment went smoothly, and no problems were experienced with its operation.

However, a few issues still remain.

Over-flying by adjacent flight-lines remains a problem. Although there were fewer incidents reported this year, overcrowding of the air-space remains a concern.

The full size display was a welcome diversion, but it was felt by many that the excessive down time on Saturday could have been avoided by better communications between the display pilot and the Nationals organisers. Some disciplines found it difficult to make up the time lost.

The RCPTC was also concerned to hear that the Safety Officers had resigned during the course of the event, and looks forward to hearing an explanation for this unexpected development.

Ratified

RCPTC Report October, 2007

The RC Power Technical Committee continues to meet regularly, and attendance by specialist bodies is extremely good.

Discussions are frequently wide ranging, and members have been able to offer each other advice and assistance in a number of fields.

This year has seen the introduction of 2.4 GHz radio equipment, and at least two members of the committee have been active in disseminating advice about its operation, and carrying out practical experiments to discover its limitations.

A major task this year has been the unification of the JMA and GTBA rules for the operation of gas-turbine powered models. Both specialist bodies have worked hard to achieve this, and the RCPTC is pleased to have been able to assist and encourage the process.

Ratified

NOTES

Ratified