INTERNATIONAL ASSOCIATION OF FIRE AND RESCUE SERVICES
INTERNATIONALE VEREINIGUNG DES FEUERWEHR- UND RETTUNGSWESEN
L'ASSOCIATION INTERNATIONALE DES SERVICES D'INCENDIE ET DE SECOURS

CTIF

COMMISSION
"RESCUE AND FIRE FIGHTING AT AIRPORTS"

Date	08.05.2008
CHAIRMAN	Ole J. HANSEN
PHONE:	(+47)64 81 21 10
Mobile:	(+47)906 19 465
FAX:	(+47)64 81 22 01
E-MAIL:	ole-jakob.hansen@osl.no
ADDRESS:	Lysaker Brygge 10 1366 Lysaker NORWAY

CTIF Commission
"Rescue and Fire Fighting at Airports"

Minutes of Meeting

Luxembourg Airport – June 10th and June 11th 2009.

Subject: CTIF Airport Commission Meeting, Luxembourg Airport.

Participants:

- Hansen, Ole J., Fire Chief Oslo Airport, Norway.
- Kohl, Patrick, Fire Brigade Luxembourg Airport, Luxembourg.
- Manderscheid, Rene, Fire Brigade Luxembourg Airport, Luxembourg
- Schmid, Bernard, Ziegler GmbH & Co, Germany.
- Kadlec, Josef, Fire Brigade Prague Airport, Czech Republic.
- Moravec, Karel, Fire Brigade Prague Airport, Czech Republic.
- Voraberger, Wolfgang, Rosenbauer International AG, Austria.
- Hitzler, Joerg, Ziegler GmbH & Co, Germany.

- Saaskilahti, Veli-Matti, Finavia, Finland
- Valois, Bernard, Transport Canada Civil Aviation.
- Hartmann, Claude, Fire Brigade Colmar, France.
- Johansson, Lars, Fire Chief Stockholm Airport, Sweden.
- Rudolf Jambrik, Fire Brigade Budapest Airport, Hungary.
- Zoltan Hozbor, Fire Brigade Budapest Airport, Hungary.
- Tim Oakes, Serco Interantional Fire Training, England.

1. Welcoming chairman of CTIF commission "Rescue and Fire Fighting at Airports" – Ole J. Hansen.

The Chairman welcomed the members of the CTIF Airport Commission to This years meeting at Luxembourg Airport. He thanked Luxembourg Airport for the hospitality and for hosting this years meeting.

The chairman explained the goals of the meeting. The main issue was to attend the presentations, to discuss the different items and to exchange ideas. The commission would like to continue to work together with ICAO RFF working group and GASR group – where the commission have members.

2. Welcoming Director Ender Ulcun Luxembourg Airport.

Mr. Ender Ulcun, director luxembourg Airport welcomed CTIF Airport Commission to Luxembourg and Luxembourg Airport. He presented Luxembourg Airport and the history of the airport.

3. Presentation the Fire Brigade at Luxembourg Airport.

Luxembourg Airport Rescue and Fire Fighting Department was presented by Patrick Kohl. He also presented how the airport worked together with the municipalities and their fire brigades.

4. Approval of the minutes from Teeside 2008 and the agenda.

The minutes from the commission's latest meeting in Teeside, England June 12th and 13th 2008 were approved.

The agenda was reviewed and agreed upon.

5. New members – regrets.

The commission has not got any new members the last year. But Solberg Scandinavian, Falck Nutec and Iceland are interested. Denmark will appoint a new member for the airport commission in September this year.

Peter Tschumperlin, Federal Office for Civil Aviation, Switzerland had informed the commission that he was unable to participate at the meeting.

Kidde Fire Trainers had also informed that they could not come to the meeting this year. But they will come to the meeting next year.

6. News from ICAO. Mr. Bernard Valois.

This report reflects the summary of work carried out by the RFFWG subsequent to the first meeting of the Aerodromes Panel (AP/1) in December 2006. Since the AP, three formal meeting were held with the majority of members. To deal with specific tasks using the expertise available, Sub-Working Groups were formed in the areas of Heliport RFF provision, fire fighting performance level “C” foam and RFF vehicle specifications. The first two Sub-Working Groups generated some results for this meeting, however, no real progress was made in the area of RFF vehicle specifications as this work item is not seen being very high on the list of priorities and members of the Sub-Working Group did not have time to carry out the work.

The RFFWG was briefed on the Air Navigation Commission decision to not proceed with the recommended proposal of removing the remission factor in Annex 14 Vol I, paragraph 9.2.3. In light of this decision and associated requests from the ANC,the RFFWG will require some further guidance from the AP on what direction to proceed to achieve the ultimate desired result of looking at the RFF in a more comprehensive way with a higher consideration for budgets and risk assessments.

Other continuing work program will generate additional amendments to the Annex and revisions to the guidance material as they become mature.

Since AP/1, the RFFWG focused its work program in the following areas:.

6.1 Principal extinguishing agent;

6.2 Aerodrome emergency planning;

6.3 RFF provisions for heliports;

6.4 Response times in areas beyond movement areas; and

6.5 Staffing levels and training requirements

6.1 Principal extinguishing agents

- With respect to quantities of reserve principal extinguishing agents currently specified in Annex 14, Vol I, paragraph 9.2.19, the RFFWG felt that if an aerodrome had a significant quantity of extra foam concentrate with the right number of fire vehicles to meet the category and due to fire vehicle size they should not needed to have 200% of that being carried on those vehicles but rather 200% of what was required for that category as per Table 9-2.

- The RFFWG took into account that reserve stock were not required for initial fire fighting actions but were aligned to bringing the aerodrome back to an operational status following a total discharge. In other words, the need for, as well as the quantities of, reserve agents could be seen as a business, rather than, a safety risk. The RFFWG also considered the cost implications and the ability to store such quantities and retain them in a useable conditions for many years through many different climatic conditions, besides the concern for the impact these agents might have on the environment. Accordingly, in order not to “penalize” aerodrome operators from providing and maintaining extra RFF
- Vehicles it was agreed to revise the figure downwards based the amounts in Table 9-2 of Annex 14, Vol I.

- The texts of the proposed SARPs in Annex 14, Vol I, regarding this item is at Appendix B.

6.2 Aerodrome emergency planning.

- The RFFWG developed a proposal to consider Modular Approach to Aerodrome Emergency Planning and Exercises to allow alternative methods of testing aerodrome emergency plans by conducting a series of modular tests. As an option to the existing method specified in Annex 14, Vol I, paragraph 9.1.13 (full scale and table top), it is felt that the successful management of a modular testing process which would generate testing of each component of the plan at much reduced intervals would be more proactive and therefore allowing an extension of the intervals between full scale exercises to three years instead of the two currently required.

- The texts of the proposed SARPs in Annex 14, Vol I, regarding this item is at Appendix B.

6.3 Response time for heliports, Annex 14, Vol I and Vol II

- Currently, Annex 14, Vol II, paragraph 6.1.9 specifies, as a recommendation, that for surface level heliport, the operational objective of the RFF service should be to achieve response times not exceeding two minutes in optimum conditions of visibility and surface conditions. The meeting interpreted that this response time was applicable to stand-alone/dedicated surface level heliports (not co-located at an aerodrome) on the premise that these heliports were small enough for the RFF service to be able to achieve such stipulated response times.

- The revised texts of the proposed SARPs in Annex 14, Vol II, concerning response time for stand alone heliports are included in Appendix C.

- However, for the response times of RFF service for heliports co-located on aerodromes, the RFFWG is in agreement that due to the vast expanse of area in an aerodrome, it was perhaps not plausible to achieve the two minutes response time, particularly at larger aerodromes where the heliport might be located remotely. The consensus was to explain the difference with a Note in Volume I referring to the Volume II for the issue of joint fixed wing rotary wing operations.

- The revised texts of the proposed SARPs in Annex 14, Vol I, concerning response time for heliports co-located on an aerodrome are included in Appendix B.

6.4 Staffing levels and training requirements

- Proposed amendments to the SARPs concerning personnel had been recommended by the RFFWG in Annex 14, Vol I, paragraphs 9.2.36 and 9.2.37. Concerning the development of guidance material, the RFFWG included human factor elements in support of the Task Resource Analysis (TRA) methodology in line with proposed revision to 9.2.36 and 9.2.37. The texts of the proposed SARPs in Annex 14, Vol I, regarding this item is at Appendix B.

Work in progress

Performance level C foams

- Results of tests conducted in September 2008 at CNPP laboratories in France on samples submitted by manufacturers showed that the new level “C” foam test, which was based on specifications developed by the ICAO RFF Sub-WG meeting (2 October 2006, Dublin), was indeed achievable.

- Specification options have been discussed with the foam manufacturers and stakeholders to seek their views in a meeting with the foam manufacturers held in the UK on 6 January 2009.

- The results of the tests had been presented to conferences and seminars with RFF professionals in the UK and Warsaw, Poland and there had been no objections or adverse comments on the proposal to introduce the new level “C” test specifications. It is felt that the original proposal agreed by the ICAO RFFS Sub Working Group in Dublin on 2 October 2006 (Performance C Media Requirements) for full-scale tests can now progress and the agreement of the meeting was sought. The level “C” foam is expected to achieve 20– 25% efficiency compared to existing foams, with comparable costs to existing generation of foams.

- The introduction of this foam might, in the long term; result in a reduction in the size of fire vehicles, by the same corollary, retaining the same fire vehicle sizes might result in an increase in fire fighting capabilities. In view of the above, it will be considered necessary to review and update vehicle guidance in consultation with users and manufacturers of fire vehicles to generate the required efficiency given by introducing the level “C” foam on future RFF vehicle design and performance requirements.

- *(Note: Funding for the development of the test protocols and the testing was obtained from the UK CAA and Transport Canada. It is now expected that with the potential benefit in mind, that users assist us in validating the product on large scale fires as it was agreed in consultation in Dublin. Additional work is also required to complete the specifications in the area of chemical properties and environmental protection. We already have input from manufacturers in this area.)*

FAA Agent quantities Research (Replacement Update of TCA/PCA)

In order to improve the effectiveness of RFF resources, the RFFWG is following the FAA current review of the actual **TCA/PCA** methodology for calculating the total amount of firefighting agent required to combat aircraft fires. The purpose of this study is to determine whether the current concept of a “critical area” rectangular box is still a valid basis for a formula to determine firefighting agent quantities. The trends identified in earlier studies related to the size of airport accident fires and associated agent use was observed in an updated accident review. Some fire hazard analysis will be performed to assess these attributes with respect to current protection approaches.

FAA Study on the effects of fuselage geometry

The RFFWG is also following the FAA study to determine the **effects of fuselage geometry** on post crash fire behavior. The purpose of the research is to determine whether the airframe geometries of the FAA Index E (NFPA Category 10) aircraft (B777-200 & A380) would significantly change fire behavior and intensity when compared to the Boeing B707 baseline.

FAA Fuel release predictions

The RFFWG was briefed on a project concerning **crash simulation of transport aircraft for predicting fuel release**. The objective of this project is to provide a science-based methodology to evaluate the quantity of fuel dispersed during various types of survivable aircraft accidents. The results of this work may provide an alternative to the TCA/PCA methods used for nearly 40 years to determine RFF requirements at commercial airports throughout the world.

Aviation Safety Review 2008

The RFF Working Group is cognizant of the recent work conducted by the UK CAA regarding a literature review of worldwide aviation safety studies and statistics which was conducted in the autumn of 2007. The major safety concerns of aviation regulators, aviation safety organisations, aircraft manufacturers and trade organizations were summarized and the most prevalent risk areas identified were:

- Controlled flight into terrain;
- Approach and landing accidents;
- Loss of control in flight;
- In-flight fire;
- Runway excursions; and
- Runway incursions.

The in-flight fire information provided may assist the group in future work whilst maintaining/improving RFF Standards, Recommended Practice and Guidance material.

Response times to difficult environments

Proposed revision to SARPs on RFF response to difficult environments in areas 1000m beyond runway threshold is being finalized to be discussed at the next RFFWG/7 with plans to present at AP-WH/WHL-6.

Categorization of heliports/helicopters

The RFFWG is finalizing a revised methodology to categorize heliports & level of protection and introduction of passive firefighting protection technology.

Categorization of aircraft

Subsequent to the revision of their first paper by the RFFWG (Cairo) and the discussion on ways forward, the ICCAIA is in the process of providing a revised methodology for grouping aircraft

Updates to ASM Part I

The RFFWG and Sub WG have achieved significant progress on updating ASM Part 1. (possible completion 2010) The areas where changes to guidance are suggested are as follows: Ancillary equipment with the use of a safety case specific to each location, respiratory equipment, storage of extinguishing agents, fire stations, ambulance support and many improvements to emergency planning elements. The recommended changes can be viewed in Appendices 6 and 8 of the RFFWG/6 report.

7. News from NFPA. Mr. Bernard Valois.

The ARFF Technical Committee met in San Diego early March to begin work on addressing the comments for the documents in cycle at this time. The first document that was addressed by the TC was 405. Two comments were submitted and addressed by the TC on this document.

The committee then reviewed all the committee generated proposed changes that passed ballot and did not generate any committee comments on NFPA 405.
The committee then addressed NFPA 422, which had no public comments submitted and felt that there was no need for any committee generated comments on this document.

The committee also began working on NFPA 408 and the public comments that
were submitted for this document. There were 12 public comments submitted and acted on by the committee at this meeting. The committee, after reviewing the document, did not generate any comments of their own.

At the conclusion of handling all comments on the documents in cycle the committee began to discuss the next document in cycle which is NFPA 414. The document was broken down into sections and assigned to task groups to begin work on the revision process for the ROP meeting of that document. The assigned task groups will have their own sites up on the e-committee page for their work to be conducted and reviewed.

The AC fuelling Technical Committee had a number of conference call to produce a tentative interim amendment (TIA) dealing with new generation Diesel engines equipped with regeneration particulate filters that will produce the following amendments in Standard 407.

4.3.6.4.1 Diesel Particulate Filter (DPF) regeneration equipped vehicles shall have a lockout mode, which would prevent automatic

regeneration while operating these vehicles within 30 m (100 ft) of aircraft parking areas.
4.3.6.3.1 DPF regeneration system piping shall be shielded from engine discharge manifold to the outlet at the tailpipe.
4.3.6.3.2 DPF regeneration equipped vehicles shall have a listed diffuser installed at the outlet of the exhaust tailpipe.

The Heliport Tecnical Committee will meet in July to review public comments, it is expected that many issues in trhe standard 418 will be looked at following the crash of an helicoper at a US hospital.

The following items were presented and a CD of the presentations were given to the participants at the end of the meeting.

8. News from GASR/EASA was presented by Ole J. Hansen on behalf of Peter Tscumperlin.

9. News from Rosenbauer International AG was presented by Wolfgang Voraberger.

10. Crisis Management Exercises in Norway was presented by Ole J. Hansen.

11. News from Ziegler GmbH was presented by Joerg Hitzler.

12. News from CTIF.

CTIF had sent the commission an invitation to praticipate in a seminar in a German Fire School. CTIF also wanted the Airport Commission to have an opinion about the new European Regulations. CTIF also had a proposal for new names for the commissions.

13. ICAO ARFF Exercise at Luxembourg Airport.

Patrick Kohl presented the ICAO ARFF Exercise at Luxembourg Airport in May 2009.

14. Visits.

There was a visit to the fire station at Luxembourg Airport on June 10th and a visit at the airport and the new terminal + Cargolux Maintenance hangar on June 11th.

15. June 11th 14.00 Farewell – Departure. Next meeting might be in Germany. Ziegler GmbH will give an answer in some weeks if they will be the host for next years meeting.