



## Chairman's Conference Report

### Introduction

The Third Tangent Link European based Aerial Firefighting Conference was held in Malaga where the enthusiasm of Delegates and Exhibitors alike was clearly not dampened by prevailing fiscal pressures. The venue change at relatively short notice from Istanbul (with some inconvenience to the GFMC Workshop planned for November in St. Petersburg, Russia), reflected the significantly greater commitment of the Spanish Government with generous Welcome and Keynote addresses from the Deputy General Director of Forest Policy and Desertification and the Head of the Spanish Forest Fire Service (Ministry of the Environment, Rural and Maritime Affairs) respectively. Unusually for such key individuals, they attended the full first day, their visit only curtailed for day two by their presence, required along with Colonel Fernando Horcada Rubia (Spanish Air Force), Commander of the 43<sup>rd</sup> Group, to respond to the Wildfire raging in Israel. Four Water bombers were dispatched in short order from Spain; twenty nations in all responded, underlining the philosophies aired at the Conference of mutual support and the sharing of fire fighting assets.<sup>1</sup>

### Background

The year 2010 has been officially recognized as having had extremes of temperature with months of searing heat and biting cold. The strong jet stream winds which dictate weather patterns in the Northern Hemisphere normally blow from West to East and dictate, for example, the high pressure system over Pakistan which in normal years stifles the rain making processes of the south westerly monsoon. This year the jet stream has been weak and has meandered widely giving Spain and North Africa the wettest January and February for 60 years, UK the coldest winter in over 30 years and the spring drought, flooding in Central and Eastern Europe in May/June, the intensely cold wave in South America in July, the floods in Pakistan and China and crucially the heat wave in Russia. It is this latter which preoccupies firefighters with the highest recorded temperatures in 130 years of record keeping; the most widespread drought in three decades; and massive wildfires that have stretched across seven regions, including Moscow where deaths due to respiratory problems were doubled. No representatives qualified to comment were available at the Conference, but great detail is available in the Director of the Global Fire Monitoring Center's Preliminary Assessment of the Fire Situation in Western Russia dated 15 August 2010 and available on the GFMC web site.<sup>2</sup>



<sup>1</sup> Similarly to the Russia Fires Situation assessment (see footnote below) the GFMC will publish an Israel Fire Assessment by end of 2010 – please consult the following GFMC web page: <http://www.fire.uni-freiburg.de/current/globalfire.htm>

<sup>2</sup> GFMC Preliminary Assessment of the Fire Situation in Western Russia: [http://www.fire.uni-freiburg.de/intro/about4\\_2010-Dateien/GFMC-RUS-State-DUMA-18-September-2010-Fire-Report.pdf](http://www.fire.uni-freiburg.de/intro/about4_2010-Dateien/GFMC-RUS-State-DUMA-18-September-2010-Fire-Report.pdf); for daily updates of the fires situation in Russia during 2010 see: [http://www.fire.uni-freiburg.de/GlobalNetworks/BalticRegion/BalticRegion\\_3\\_a\\_2010.html](http://www.fire.uni-freiburg.de/GlobalNetworks/BalticRegion/BalticRegion_3_a_2010.html)

## **Spain**

A significant proportion of Aerial Firefighting assets in Spain are devolved by the Central Government to the 17 powerful autonomous regions. As reflected in other parts of the world, such division of labour can prove more costly and less effective, however, coordination in Spain is achieved through the National Action Plan for Prevention and Firefighting. While Heli-Tankers are devolved, larger assets such as the Canadair CL 215Ts and CL 415 Water bombers are deployed centrally from the 43<sup>rd</sup> Group. Colonel Horcada highlighted the flight safety aspects of Aerial Firefighting (a focus for the Conference) in which the already commendably low accident rate is addressed further through the analysis of risk in Aerial Firefighting Missions. Training, higher maintenance standards and increased awareness all contribute, but fatigue can be a real factor when crews conduct up to 40 water scoops and bombing runs a day.

The trend in Spain is for increased fires in the north and west and there was a welcome attendance by enthusiastic firefighters from Catalunya. Given that it is estimated that in Europe, 97% of fires have a human element in their start, Spain devotes 45% of resources to education and prevention and 55% to suppression.

## **General**

The maxim that the cost of damage caused by wildfires outweighs the combined cost of fire prevention and the provision of aerial firefighting assets to fight fires, is a valid one. However, the fiscal deficits besetting the European nations generally, and those bordering the Mediterranean in particular, is a significant concern. While no reports were received of actual cuts, many budgets are frozen and the future for funding is looking bleak. Given the extremes of weather being experienced, every effort is required to seek economies. Previous conferences have identified the need to control the burgeoning cost of air assets, with investment in Research and Development to increase effectiveness at the same or lesser cost, identified as a viable way forward. The financial climate hardly looks encouraging in this regard. Mutual support and the pooling of assets would appear at least as promising, although this too may prove challenging where Host Nation Support has already been pared back. These related issues should be monitored for adverse trends

## **Specific Conference Issues**

The focus on Flight Safety launched by Colonel Horcada continued with Captain Jaume Bosch, the Spanish helicopter representative in the European Helicopter Safety Team (EHEST – launched in 2006) and a member of the Technical and Safety Department of SEPLA (Spanish ALPA). From 2000 – 2005 in Spain, Firefighting helicopter accidents represented 48% of all accidents and 31% of total helicopter accidents. Aerial Firefighting operations are inherently hazardous and the risks increase as the boundaries of operations are pushed out and safety margins eroded. Pressure from the public, the media and politicians must not be allowed to become a contributing factor. The goal of EHEST is to reduce the helicopter accident rate (worldwide) by 80% by 2016. Captain Bosch's comprehensive presentation should be compulsory reading for all those involved in helicopter operations. Spain's attention to this issue was further reflected in the presentation by Jaime Arque Gibernau, the Managing Director of INAER, the major contractor of helicopters to the Government, which promotes a culture of Flight Safety while looking ahead to technology to best manage air assets in Aerial Firefighting. In addition to the beneficial contribution of simulators to train not just pilots but the full firefighting team (presented by Indra – Spain), Jaime Arque postulated other developments to allow night water bombing using helicopters with high resolution night devices and new methodologies to produce topographical charts allowing precision approaches. It is such exchanges of ideas which lie at the heart of these conferences, improving aerial firefighting across the globe.

Existing technical contributions were highlighted in the use of Satellites (as a support to decision making) through the monitoring of active fires in Brazil and the REMFIRESAT, the Real Time Emergency Management via Satellite, a demonstration funded by the European Space Agency already being used by the Spanish Forest Service. Various air platforms were highlighted, from the French Bouches-du-Rhone Fire Department's real time air surveillance and monitoring system through Hungary's UAV applications to Lockheed Martin's Laser Detection and Ranging with its potential to contribute to the data fusion required for the 'holy grail' of an integrated command system for Aerial Firefighting. Meanwhile Renaud Vidal, a research engineer from the University of Aix-Marseille and the

UC Berkeley Centre for Catastrophic Risk Management, postulated that while new technologies can increase situational awareness and improve decision making in Organizations demanding High Reliability (HROs), appreciation of the complex Human/Machine interface in data integration in the decision making process requires an international sharing of lessons learned and simulation exercises – another example of the benefit of exchanges across firefighting communities provided by these gatherings.

The Conference would not be complete without a presentation from a seasoned Aerial Firefighter on air to ground coordination, provided on this occasion by the hugely experienced Marc Castellnou, the Firefighter High Commander of the Catalonian Government and the Chief Analyst of their Fire Service. His focus was on getting the most out of costly air assets through the double aerial coordination required, firstly between air assets and tactically between the air assets and the ground firefighters. His video of live aerial firefighting operations provoked a lively debate on the correct use of suppressants/retardants where water, foam and chemicals are all expensive if incorrectly delivered, but cost effective where used correctly and achieving the desired effect. This neatly complemented the presentation by Elsa Pastor, Research scientist at the Technical University of Catalonia on the Quantitative Assessment of Aerial Suppression drops to achieve maximum effectiveness.

A new innovation for the Conference was the 'Exhibitors Showcase', a brief introduction to those companies presenting in the hall. The initiative for this came from feedback at previous meetings and resulted in a more focused interest from delegates. Beriev, Bombardier and Indra were most welcome Associate Sponsors and Dina Krivonosova presented the BE-200 as one element of the Amphibian triumvirate along with the CL 415 and ShinMaywa's US-2. In keeping with Tangent-Link's philosophy of 'Connecting Business', the active promotion by the team of "Capability Matching" proved its worth in bringing together those with mutual interests.

The Conference wound up with a key presentation by David Cant from the South Australia Country Fire Service (CFS) posing an all encompassing question – 'Can an Integrated Approach to Aerial Firefighting Improve Safety'. With his association in the business from Ranger, through Principal Advisor Prevention Safety and Awareness and Chairman of the Technical Evaluation Committee of the National Aerial Firefighting Centre, to the new position of Manager Aviation Services, David Cant was well placed to articulate the case for the CFS system of operation for aerial firefighting which combines aerial and ground based roles so that both elements become critical for operational success in fire suppression. In recognition of the devastating fires of last year in Australia, Tangent-Link will hold a Conference in South Australia in 2011 in late August, early September – details to be confirmed.

Planning is well advanced for an earlier Conference in Washington DC 23/24 March 2011 and proposals for papers and expressions of interest are invited to **Rebecca Covey**, Event Co-Coordinator Tel: +44 (0)1628 550047 e-mail: [rcovey@tangentlink.com](mailto:rcovey@tangentlink.com). It is not presently intended to hold a European event in 2011, however, delegate feedback is invited on aspirations for the next European Aerial Firefighting Conference in 2012.

In acknowledging that the 4<sup>th</sup> International Wildland Fire Conference was hosted in Spain in 2007, attention was drawn to the 5<sup>th</sup> Conference in this series to be held in South Africa 9-13 May 2011 under the auspices, as ever, of the United Nations International Strategy for Disaster Reduction (UNISDR) as well as the Food and Agriculture Organisation (FAO). It is convened by the regional Sub-Saharan Wildland Fire Network, AfriFireNet – register on-line at [www.wildfire2011.org](http://www.wildfire2011.org)

Although not represented at the Malaga Conference, the 'Fire Aviation Working Group', a 'virtual' Advisory Committee agreeing and setting consistent operating practices and standards to assist in safety and the sharing of resources, continues to function under the direction of Professor Dr Johann Georg Goldammer, Director of the Global Fire Monitoring Center (GFMC) at Freiburg in Germany e-mail: [fire@fire.uni-freiburg.de](mailto:fire@fire.uni-freiburg.de), and Richard Alder, General Manager of Australia's National Aerial Firefighting Centre. Interest continues however, in the Tangent Link Web Portal trailed in Vancouver and intended as a more general 'virtual' meeting place for Government, Industry and Operators between Conferences. It will provide a forum for international aerial firefighters to discuss relevant issues, a valuable facility between conferences and for those unable to physically attend every gathering. Tangent Link is looking to industry to sponsor or support this facility through advertising. If you support this initiative, either as a sponsor or through an Aerial Firefighting interest, please register your interest with the Tangent Link Commercial Director Phil Guy +44 (0)1628-660-400 e-mail: [pguy@tangentlink.com](mailto:pguy@tangentlink.com)

The high level of Networking for which these conferences are renowned were raised to the new height of 'Bonding in Adversity' when many delegates were stranded on completion of the Conference by the lightning strike of Spanish Air Traffic Controllers. Every cloud has a silver lining – Viva Espana!

10 December 2010

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International Aerial Firefighting Conferences

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## **Web Addresses of the International Aerial Firefighting Conferences:**

At GFMC Archive (<http://www.fire.uni-freiburg.de/>)

Athens Conference (2008): [http://www.fire.uni-freiburg.de/course/meeting/2008/meet2008\\_09.htm](http://www.fire.uni-freiburg.de/course/meeting/2008/meet2008_09.htm)

Athens speakers booklet direct: <http://www.fire.uni-freiburg.de/course/meeting/2008/AFFC-Athens-2008-Speaker-Booklet.pdf>

Athens report direct: <http://www.fire.uni-freiburg.de/course/meeting/2008/AFFC-Europe-2008-Summary.pdf>

Anaheim Conference (2009): [http://www.fire.uni-freiburg.de/course/meeting/2009/meet2009\\_09.htm](http://www.fire.uni-freiburg.de/course/meeting/2009/meet2009_09.htm)

Anaheim report direct: <http://www.fire.uni-freiburg.de/course/meeting/2009/AFFC-Anaheim-2009-Report.pdf>

Rome Conference (2009): [http://www.fire.uni-freiburg.de/course/meeting/2009/meet2009\\_17.htm](http://www.fire.uni-freiburg.de/course/meeting/2009/meet2009_17.htm)

Rome report direct: <http://www.fire.uni-freiburg.de/course/meeting/2009/AFFC-Italy-2009-Report.pdf>

Vancouver Conference (2010): [http://www.fire.uni-freiburg.de/course/meeting/2010/meet2010\\_06.htm](http://www.fire.uni-freiburg.de/course/meeting/2010/meet2010_06.htm)

Vancouver report direct: [http://www.fire.uni-freiburg.de/course/meeting/2010/meet2010\\_06.htm](http://www.fire.uni-freiburg.de/course/meeting/2010/meet2010_06.htm)