

15 years of the IWMA



Bettina McDowell

International Water
Mist Association

The beginning of the IWMA – the International Water Mist Association – was what might be called rather provisional and informal. In the early days of the Association there was neither a proper office nor any employees – let alone any major activities. However, there was a target.

Looking back, Dirk Sprakel, chief executive officer of Cologne-based Fogtec and current deputy chairman of the IWMA board, today puts it like this: “Against the background of the then developments, which had some of their roots in Eastern Germany, the founding members of the IWMA wanted to aim at bundling what was happening on an international level and communicating matters of common interest.” These intentions eventually led to the founding of the IWMA, which took place just over 15 years ago in April 1998.

The two following years were a phase of initiation during which the few members – most of them German – merely worked together on joint research projects and established the first working group, the aim of which was to collect existing guidelines for standardisation worldwide. Dirk Sprakel says: “The first two years were a time of casual exchange of thoughts and ideas, but as time went on our plans became more palpable.”

Then, in 2000, things really started moving. The IWMA became much more international and in April of the following year the first International Water Mist Conference was organised in coopera-

tion with Factory Mutual Research from the USA, the Norwegian fire research laboratory SINTEF, the Swedish testing and research Institute SP, and the Finnish institute VTT. Karl Sprakel, the first chairman of the board and, today, still honorary member of the IWMA, welcomed more than 70 delegates from 20 countries to Vienna to exchange views and information on fire protection with water mist.

The purpose of this conference was to introduce the IWMA and to put it on the firefighting world stage. The aim was also to assert that water mist is not only an auxiliary technology, but a very significant method of extinguishing fires; one that is completely independent from traditional sprinkler systems.

Back then, water mist – and consequently the IWMA – was met with scepticism and open opposition. Dirk Sprakel remarks: “In those days we may not have been very professional about running an association, but we were extremely enthusiastic.” He adds: “At the beginning some of the water mist manufacturers were ridiculed mainly because they came from water hydraulics or other industries and were more or less new to the firefighting industry.”

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Much has changed since then, mainly due to the natural learning processes, some important turning points and even to the odd moment of glory. The enthusiasm lingers on, though.

Turning Points and Moments of Glory

The first giant leap was the invention of the technology itself through F.E. Myers. The US company had developed a back-pack system that produced small water droplets in 1880. After that many years passed without that much happening. However, the banning of Halon in the late 1980s via the Montreal Protocol and a devastating fire that broke out on the passenger ferry "Scandinavian Star" in 1990 killing 158 people initiated major changes.

Both events called for alternative firefighting methods and triggered the rediscovery and advancement of water mist as a fire extinguishing agent. Consequently companies were launched or expanded their production. Among the first were the Swedish company, UltraFog, which was newly founded, and Marioff from Finland, which had a water hydraulics background and turned to water mist in 1991 as a new business opportunity.

The initial developments within Sweden, Finland but also Denmark – through Semco and Novenco – had their effects on the firefighting market and, in the late 1990s, it was high time to establish an association that supported research and development as well as applications, brought together those who were active in that business and tackled one major problem – the establishment of international guidelines for the approval of water mist systems.

"Since then the IWMA has become the world leading forum for manufacturers, laboratories, classification institutions, academic institutions and users of water mist firefighting systems", says Ragnar Wighus, chief scientist at SINTEF and chairman of the IWMA board.

In order to reach that position there was work to be done and opportunities to be seized. In that respect a research project sponsored and organised by the IWMA on "scaling of fire suppression characteristics in machinery spaces" carried out by SINTEF on behalf of the International Maritime Organization (IMO) was one of the major milestones. The presentation of the project's findings at the IMO in London in February 2009 was a key event for the Association. Another important milestone for the IWMA was the opportunity to support the European Committee for Standardisation, and contribute to the CEN-guidelines.

Apart from that, the US National Fire Protection Association (NFPA) has relied on the expertise of the IWMA on several occasions and has asked the Association to organise seminars on fire protection with water mist to be held during the annual NFPA Conference and Expo. Most important though may be the fact that most of the opposition has petered out and scepticism along with it. "Some of our opponents in the initial phase – even the very severe ones – are indeed heavily involved in the water mist industry themselves these days. And most of them are nowadays members of the IWMA", says Dirk Sprakel.

Annual Conferences and Seminars Worldwide

Since 2001, the IWMA conference has been held annually in a number of major European cities including Amsterdam, Rome, Budapest and Copenhagen. The conference in 2009, which was held in London, saw the introduction of the water mist anthem – words by Ragnar Wighus – which the members sing when they gather for the annual members' meeting and which the delegates from outside the IWMA have had the chance to listen to at the opening of every conference since then. And they will have the opportunity to listen to the anthem again on 16th October this year, which is the first day of the 13th IWMC to be held in Paris.

The conference is a two-day event and to make sure that all presentations reach a certain level of information the scientific council – which has been a body within the IWMA from the start – views all proposed lectures.

The speakers are experts on firefighting; they come from within the water mist industry and the IWMA, but also from other disciplines such as architecture and construction engineering, and from universities, colleges and institutes. Topics are fire protection with water mist in trains, tunnels, maritime vessels, data centres and hotels. Other topics include research, testing and applications.

Picture courtesy of Fogtec



The IWMA seminars are rather more educational and challenge the participants as far as knowledge is concerned at a completely different level than the conferences. They provide the listeners with a general overview about water mist technology and the typical attendee is somebody who would like to learn more about the physics behind and the characterisation of water mist.

So far the IWMA has held its seminars in Orlando, Dallas and Mobile in the USA, various countries throughout Europe such as Italy, Britain, France, Denmark, The Netherlands and Germany and on two occasions in Dubai in the United Arab Emirates.

Future Prospects

As far as future plans are concerned there is a strategic as well as an operational focus.

On the strategic front is the wish to extend cooperation with other national and international associations. Additionally, the IWMA would like to strengthen and advance research and development. "In fact the Scientific Council of the IWMA is currently preparing a new project, which will be launched during the course of this year", says Dirk Sprakel. There are also plans to set up more local events. So far there have been two seminars this year, one in Dubai and another in Paris, France. There will be two more seminars in 2013; one in Denmark and one in Italy. On top of that the IWMA has booked a booth for this year's NFPA Expo in Chicago, USA.

Together with this comes the wish to make the IWMA even more international and expand the Association into Asia and the Middle East. The first steps have already been taken.

For 2014, there are plans to hold seminars in Germany, Poland, Britain and possibly in China or again in Dubai. As far as the operational focus is concerned, the newly established marketing group has taken over responsibility. Within that group there will be talks about the possibility of social networking and a re-launch of the IWMA's homepage; so a complete new look as well as new areas and a wider choice of opportunities for members as well as non-members may be the outcome of that working process.

In addition there are still some very basic tasks to tackle. As the IWMA chairman puts it: "One of the most pronounced misconceptions was, and still is, that water mist tested for the marine sector (according to IMO standards) cannot be used in land-based applications. The second is that water mist can replace all other firefighting systems and is some sort of "magic" system."

The approach that IWMA and the member manufacturers have chosen, to base all applications on real scale fire testing of the different systems, has been successful when it comes to convincing the authorities having jurisdiction that the systems can be trusted and are safe. However, the battle is not over in all parts of the world or with all applications. There are still myths about what water mist can and cannot do.

And there are challenges. One of which is to get acceptance for a European standard for water mist systems and to enter the market for industrial fire protection. Another challenge is to meet the requirements of insurance companies for inspection and maintenance systems.

So again there is work to do and chances to be seized.



Bettina McDowell is Association Secretary at the International Water Mist Association

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