

## EWWI-2010: A Big Success

Association Old Crows (AOC) India Chapter, Bangalore recently organized its first national level workshop in Electronic Warfare during 24-25 November 2010 at Hotel Lalit Ashok, Bangalore, India. About 200 delegates from Indian Defence Research and Development Organization (DRDO), Indian defence public sector units like Bharath Electronics Limited (BEL), Indian Armed Services and Private Industry participated in the Workshop. The topics covered during the workshop were all from the emerging technological areas in the field of Electronic Warfare. The international speakers conducting the workshop were all of great repute and international eminence.



The Workshop started with befitting Inaugural function including an invocation song and lighting of a decorated lamp in Indian traditional way. Dr Prahlada, Distinguished Scientist from Defence R&D Organization, India, presided over the function. Dr U K Revankar, President, AOC India Chapter and Director, Defence Avionics Research Establishment (DARE), DRDO, outlined the vision and aims of AOC India Chapter and rationale behind conducting the EWWI-2010 Workshop. A souvenir containing details of the event was released on this occasion.



In his Inaugural Address, Dr Prahlada highlighted the importance of Electronic Warfare at Indian and global level and suggested a roadmap to proceed further in the development of EW Systems in India. Delivering the keynote address, Dr Robert S Andrews, President, AOC International Region 1, explained the professional activities of The AOC International Region 1. As a special invitee to the workshop Wg Cdr John Clifford OBE, President, AOC UK Chapter, in his address, while tracing the developments in war fighting, highlighted the EW Doctrine as viewed by UK and NATO Countries. Mr H V Harish, CEO, Aidin Technologies Pvt Ltd., and Secretary, AOC India Chapter, thanked speakers and organizers of the workshop for realizing it in such a short period of time. The workshop covered eight important areas in as many sessions in the field of Electronic Warfare:

**1. EW Innovations, Challenges and Solutions in 2000 and 2010 Years**

Dr Filippo Neri, President, VirtuaLabs, Rome, Italy

**2. Information Warfare and Net Centric EW**

Mr Roberto Scotto Di Vettimo, Elettronica, Rome, Italy

**3. Passive EW Surveillance**

Dr Dario Benvenuti, Elettronica, Rome, Italy

**4. EW and Radar System Test and Evaluation Techniques and Systems**

Dr Robert S Andrews, EWST, UK

**5. New Generation Airborne Integrated EW Systems (AIEWS)**

Dr Andrea De Martino, Elettronica, Roma, Italy

**6. Mini TWTs and MPM Technologies for EW**

Mr Anthony J Challis, e2v, UK

**7. Modern Trends in SIGINT and ELINT**

Mr Jose Miguel Pascual Ruiz, INDRA, Spain

**8. EO/IR Sensors, DIRCM and Towed RF Decoy**

Mr Erich Wagenbauer and Dr Colin Hamilton, EADS, Germany



The Workshop topics were dealt with comprehensively by the speakers by presenting in-depth technical information and the usage of the technologies in the state-of-the-art EW Products. This incited huge interest in delegates prompting them to be highly interactive. The technical material covered during workshop was provided to delegates both as a CD and as two volume handbooks. Majority of the delegates opine that the workshop was extremely useful in their regular developmental activities and would like to have such workshops more frequently.



The AOC India Chapter and the EWWI-2010 workshop received very good support from the Indian EW Industry as evident from the whole hearted support to the workshop by sponsorships and also displaying their products at the accompanying technical exposition. The exhibition participated by 10 organisations was inaugurated by the Chief Guest on the occasion, Dr Prahlada. The exhibition was comprehensive with the latest products on display.

The huge positive response received firstly during EWCI-2010 (February 2010) and now at EWWI-2010 by all concerned at the international level highlighted the importance of EW in the current global scenario. These events helped in understanding the technological challenges and forging business collaboration at the global level indicating that the inception of AOC India Chapter couldn't have come at better time. The India Chapter is just 9 months old, had already enrolled about 130 members and two industry members before the event and would increase to more than 200, post event, thanks to complimentary membership offered for EWWI-2010 delegates.



The EWWI-2010 Workshop came to an end with a closing function during which chair of the workshop, Dr U K Revanakar summarized the two days workshop's proceedings and sought opinion and feedback from the participants. Representatives from the Sponsors, Industry, Speakers and Delegates shared their thoughts on the Workshop's usefulness and organization. All were unanimous in declaring that more events of this kind should be organized with greater frequency. The Workshop received good media coverage in India. All delegates were issued a participation certificate.



The enthusiastic and active President of AOC India Chapter has provided an excellent leadership, set a high standard towards the way knowledge to be shared through events like EWCI-2010 and EWWI-2010. These events were organized in an elegant way, both enjoyable and technically enriching at the same time.

The Closing Function of the EWWI-2010 provided an opportunity to plan for the future activities of EW community. Some of the opinions expressed during the closing function which AOC India Chapter would like to pursue further are

1. **Promotion of membership:** Dr U K Revankar, President AOC India Chapter, stated that the Chapter would work to achieve a target of more than 200 membership by January 2010. He sought the EW Professionals from Indian Armed Services and Private Industry to come forth and become AOC India Chapter members.

2. **Quality of workshop:** Dr Robert S Andrews was of the opinion that the workshop was of world class and pledged his support, as AOC International region 1 Director, to organise more such events.

3. **International Collaboration:** Mr Candidoro G from Elettronica, Italy mentioned that his organisation is looking for more collaborative developments of EW Products rather than business like approach.

4. **Expectation of Indian Private Industry from AOC India Chapter:** Wg Cdr VB Atmaram spoke on behalf of Indian Industry in the field of EW and brought out following points:

- a. The Indian EW industry is nascent and the EW Products life cycle is shrinking to not more than 5 years, though the target platforms have life span of 30 years. Since the users want latest products, it is difficult for private industry to absorb technology, train manpower, set up production lines and exploit the infrastructure created in meaningful way in such a short span of time. The suggestion was to forecast the future products sufficiently in advance and assist in creating knowledge base so that one would be able to proceed to go for development quickly.
- b. A collaborative infrastructure should be created with the help of global knowledge base and should be made available to all industry partners since each organisation can not create such an infrastructure on their own as it is very expensive and technologically intensive. The AOC would be ideal mediator and facilitator for creating such an infrastructure.
- c. Since current Indian EW industry are largely based on sub projects by Defence PSUs and not having sufficient knowledge base and insight as to what products would be needed in future, it is desirable to have technology road map for the long term products development. The roadmap should forecast not only the products development, but also the work share and revenue share of the private industry. The AOC may articulate a policy in this aspect as well as in international interactions and facilitate for collaborations in the EW products development.
- d. The workshops like EWWI-2010 are necessary and should be held more frequently so that it enables the interactions amongst global EW Organisations as well as increase the knowledge base in the field.
- e. AOC India Chapter may create a database of all the organisations involved in the development of EW products in the field and provide platform for interactions across them.

5. **General Feedback:** While appreciating the technical and organisational aspects of the Workshop, some of the points put forth by the delegates were:

- a. Need of more frequent organisation of such workshops
- b. Need to include speakers from Indian EW field to share their experience in EW products developments
- c. Youngsters to have opportunities to participate in such workshops and more frequently. Also practical aspects of EW products development and more case studies of EW technologies could be included in future Workshops.

6. **Coming Up Conference/AOC Workshop:** Mr DS Sarveswara Rao from DLRL, Hyderabad announced that the EWCI-2012 would be held in Hyderabad in the year 2012. He wanted more workshops to be held in Hyderabad in order to coincide with the celebration of DLRL's Golden Jubilee year.