

**PROCEEDING OF THE INDIA INTERNATIONAL SUPPLY CHAIN CONFERENCE HELD ON
17TH & 18TH JAN 2020 AT Dr VM GHATAGE CONVENTION CENTRE, BANGALORE
CONDUCTED JOINTLY BY SIATI AND NSIC**

FIRST DAY - 17-1-2020

Society of Indian Aerospace Technologies and Industries (SIATI) with the support of Indian Aerospace Industries and R&D organizations and Foreign OEMs who have their establishment in India conducted a Two Day “India International Supply Chain Conference” on 17th and 18th January 2020 at Dr VM Ghatage Convention Center, HAL Airport Road, Bangalore. There was an Exhibition by the companies showcasing their capabilities. The list of Exhibitors and the list of participants are palced as Appendix. The copy of the programme is also attached.

Due to certain exigencies, Dr Satheesh Reddy, Chairman DRDO, Dr K Sivan, Chairman ISRO, Shri Vijayendra IAS, Chairman NSIC could not participate in the seminar.

INAUGURAL SESSION

Lt General SK Upadhyay, AVSM, SM, VSM, Master General of Ordnance (MGO), Army was the Chief Guest. Shri GVS Bhaskar, CEO, Helicopter Complex, HAL and Air Marshal DS Khajuria, AVSM,SC (Retd) former AOM IAF were the Guests of Honour. Shri KV Subramanian, MD, Systems Aids, welcomed the gathering and invited the dignitaries along with Dr CG Krishnadas Nair, President and Wg Cdr Venugopal Menon (Retd), Secretary, SIATI to the Diaz.



The Invocation song was played along with the lighting of the lamp by the Guests.



Dr CG Krishnadas Nair welcomed the Chief Guest and other Guests and out lined the purpose and importance of holding this two day’s Supply Chain Conference. He stressed the requirement for synergising the effect of various supply chains in India to a strong sustainable one which can be used by Foreign and Indian OEMs together. This will give the Indian Aerospace Industries including SMEs a greater chance to get into the bigger supply Chain. He gave the example of “benefits the birds derive by flying in

formation” urged the industries and organisations to work together.

Shri GVS Bhaskar, CEO Helicopter Complex HAL spoke about the need for the private industry particularly the SMEs to partner with HAL for manufacturing of Helicopter parts. He informed that HAL would like to be only an integrator and manufacturing to be taken over by the industry to produce the large number of helicopters required. He requested the private industry to grab this opportunity and set up manufacturing facilities and that HAL will help in all stages.





Lt Gen Upadhyay in his address informed the industries regarding large requirement of Army to maintain its mammoth inventory. They are facing challenges to maintain the equipment of foreign OEMs, where the Indian industry could step in. Participation of Private sector is welcome in some categories of Capital Expenditure and they should help the OFBs and DPSUs to maintain these equipment. He congratulated SIATI for holding this conference and intimated that this is essential in India to facilitate synergy and networking among all stakeholders.

INAUGURATION OF EXHIBITION

After the Inaugural Session, the Exhibition stalls were inaugurated by Lt Gen Upadhyay and GVS Bhaskar and visited and interacted with the exhibitors in all stalls.



TECHNICAL SESSION - 1

The Technical Session “**New Aircraft & Engine Projects** “ was chaired by Shri Sanjiv Shukla, Executive Director (Planning), HAL.



The session started with Dr Pashilkar, Scientist, NAL giving presentation on ‘NAL’s vision for the future development of SARAS aircraft and the new Regional Jet aircraft and participation of the “Private Public Sector industries” After giving the various requirements and road maps to achieve them, he concluded by emphasising for the Value Engineering, Large scale indigenisation and required vendor development for the same.

Shri PG Yogindra, ED LCA made a presentation on “New manufacturing technologies to improve quality and productivity of LCA manufacture and partnership with private industries” After discussing the Technical features of LCA and Program details, he described the challenges faced for ramping up production rate to meet the customer yearly requirements. He requested for private participation for this purpose. He elaborated the way forward to



meet the expectation of IAF and India in LCA production and its maintenance.



Shri Balaji Scientist ADA spoke about the “ADA’s Mission to develop Supply Chain for Advanced Technology Mfg of components, structures for LCA -Mk-II and AMCA projects’ He elaborated various ways private industry can support the production of LCA and AMCA projects.

TECHNICAL SESSION -2

The session on “**Supply Chain Development**” started with the presentation by Shri Koodli Subramanya, Director Dassault Systems on “IT Tools and Technologies for increasing efficiency & Capability”. He dwelt upon the importance of simulation tools to achieve rapid prototyping and cutting short the production time. He informed how the 3D experience has revolutionised the manufacturing scenario in the industry.



Col HS Shankar (Retd) Chairman and Managing Director, Alpha Design Technologies spoke about the growth of SMEs in aerospace segment in India. He took the example of ADTL success story which rose from a 10 man establishment to 1200 man company reaching a sale of over Rupees 400 Crore both in a span of 15 years. He gave few points for thought for SMEs for success, such as the ethical work culture, timely delivery, consortium approach and highest quality. He rounded up his presentation by telling that one will achieve the fruit at the end of the day if ones actions and intentions are pure.



Dr Suresh Nair, COO SFO group, spoke on Manufacturing and Design capabilities for being innovative supply Chain Partners. He spoke about Build to Print and Built to Spec capabilities of SFO tech. He informed about the working of the Centres of Excellence in Power Electronics, Photonics and RF and Microwave at SFO tech.

TECHNICAL SESSION -3 - Space Projects and opportunities

Dr Sudheer Kumar, Associate Director, CBPO, ISRO spoke about the various areas of opportunities to work with ISRO in their different projects like PSLV, SSLV, Gaganyaan etc. Another area is transfer of technology from ISRO for manufacturing. He informed that so far ISRO transferred 350 technologies to about 225 industries including 25 Government institutions.



TECHNICAL SESSION -4

The fourth Technical Session was in the form of Panel Discussion on **Supply Chain Development for Armed Forces**. The session was chaired by Air Marshal DS Khajuria AVSM, SC former AOM, IAF



Brigadier Malik, Brig (Indigenisation) Army, with Gp Capt Manoj Kumar, CLMO, HQ Training Command IAF and Cdr Suresh Nair, Naval Aviation, Indian Navy took part in the presentation and panel discussion.

Brigadier Malik in his presentation enumerated various methods adopted for Supply Chain Management of Army. He also explained about the recent initiatives of Indian Army in the supply chain management like Automated identification and Data capture (AIDC) for quick inventory tracking etc. He also elaborated various opportunities for the industry.



Gp Capt Manoj Kumar narrated various opportunities for industry in working with Indian Air Force. He explained the expectations and challenges in the supply chain.

Cdr Suresh Kumar narrated the naval Indigenisation and opportunities for the private industries. There were good interactions from the audience.

TECHNICAL SESSION - 5

The Session - **Supply Chain development for Defence Equipment- Electrical & Electronics eqpt, Ship and land vehicles**” was chaired by Smt V Latha, GM (OP & D&E), Bharat Dynamics Limited. She in her presentation regarding “Developing Advanced Technology Missiles and systems and supply Chain Development, spoke about the advance development of strategic weapons and requirement of partners for their development and manufacture. She mentioned that BDL has achieved outsourcing of about 63% of the value of production to private industries.



Rear Admiral JS Mann, NM, VSM (Retd), VP & Head, L&T Shipbuilding Ltd, Chennai, spoke about L&T’s ship building success story in developing equipment for the Armed Forces and Supply Chain Development through SMEs and other Private Public Sector Industries. He mentioned about the various Ships and High Speed Boats designs and manufacture by L&T. He informed that deliveries before the due date have been the main strength of L&T Shipbuilding’s success.

Shri RV Suresh Kumar, GM, Tech Plg, Bharat Electronics Limited, spoke about the Supply Chain Development for Advanced Electronic Equipment and Systems for Defence at BEL. He enumerated various Make In India Initiatives of BEL and invited private companies to be collaborative partners in R&D and manufacturing with BEL. He explained the indigenisation road map of BEL and the opportunities therein.



SECOND DAY - 18 JAN 2020

Shri Valpari, Director (ops), Hindustan Aeronautics Limited was the Chief Guest for the day. He along with Mr Amitabh Bhat, Executive Director visited the exhibition and interacted with the companies in each of the stalls.



TECHNICAL SESSION - 6 - **Supply Chain Development for Indian & Overseas OEMs**

The session was chaired by Shri Valpari.

The session started with a presentation by Shri GVS Bhaskar, CEO Helicopter Complex HAL. He enumerated various structural modules of ALH which HAL is outsourcing for the supply. He also discussed various opportunities for the industry to partner with HAL.

After the presentation, following representatives of OEM were participated in the Discussions:

Shri Srinivas Duvvuri, Director Strategy, International Cooperation & Offsets India & South Asia Region represented M/s Air bus.

Shri Vijayan Dasarathan, Industrialisation Manager, Safran Helicopter Engines, India Pvt Ltd.

Shri Rob Bosgraaf, General Manager, GKN Aerospace Engine Systems

Shri Deepak Govindraj, Textron India.



Shri Srinivas Duvvuri presented Air bus expectations regarding capability and performance and strategies to achieve the desired results from Indian suppliers especially since Air bus considers India as a Strategic Country. He also enumerated various opportunities under Make In India program.

Shri Rob Bosgraaf after giving an overview about GKN Aerospace and its functions, informed that they are the only Tier 1 supplier with a Global footprint and up to date Technologies. He informed that GKN is looking for suitable partners from India.



Shri Vijayan Dasarathan, welcomed the event and said that Safran Helicopter Engines are looking for future partners from India with quality and capability specially in the field of Castings & Forgings, Close Tolerance Machining, Special processes, Tooling with on time deliveries and quality in line with Aerospace Industry standards and expectations.

After the presentations the discussion was opened to audience. There were good interactions from the participants and were replied well by the OEM representatives. Mr Valpari summarised the discussion with a request to Indian Companies to grab the opportunities mentioned by foreign OEMs.

Shri.Venkata Nagesh, Chief Mgr, AERDC, HAL gave presentation regarding HtFE-25 and HTSE-1200 Engines and their development. He explained various stages of design and the challenges faced. He emphasised that India is very much capable of producing aircraft engines and will be making them in the near future.



Shri Kallol Bhattacharya, AGM HAL Koraput, presented various "Development of Advanced Technology process & eqpt by Private Industries jointly with HAL" He along with Shri Sahoo presented each items developed by HAL along with private industries.

Shri K. Chamarajendra MD Jai Chamundi Tech Pvt Ltd spoke the success story of his company which is specialised in development and manufacturing of Hydraulic Systems and components. He is presently manufacturing few hydraulic pumps he developed for Defence uses in AN-32 aircraft.



TECHNICAL SESSION - 7 - PANAL DISCUSSION - SKILL DEVELOPMENT AND JOB OPPORTUNITIES

Following were the participants



Chair : Wg Cdr Peter Immanuel(Retd), CEO, BridgeNow Academy, Wg Cdr S Bhatnagar (Retd), CEO AASSC, Shri Koodli Subramanya, Director, Dassault Systems, Ms.Ruchika Sahni, TATA Strive, Bangalore, Shri.Dr.Sumeet Suseelan, Chairman, International Institute of Aviation, Shri.Anand.B, General Manager, Business Dev., NTTF

The panel discussed the present day requirements of Skill for having more job opportunities. The Aviation & Aerospace Skill Council has already short listed and approved more than 90 job roles and there are few skilling partners have taken up the skilling. They briefed the necessity of students undergoing training on various skill along with their curriculum for engineering etc.

The panel opened the discussion to audience and there were very many interactions specially from students present in the conference.



PANELISTS

EXHIBITION

An exhibition was organised along with the seminar showcasing the capabilities of SMEs in aerospace and defence.

Following companies took part in the exhibition:

1. Royal Hardware Mart
2. Madras hard Tools Pvt Ltd
3. ADI Electronic Mfg Technologies Pvt Ltd
4. Elico Marketing Pvt Ltd
5. SLN Technologies Pvt Ltd
6. Magod laser Machining Pvt Ltd

7. Indian Telephone Industries
8. Jupiter Design Technologies Pvt Ltd
9. Micronel Global Engineers Pvt Ltd
10. Mt and t Limited
11. Investment & Precision Castings Ltd
12. Jai Chamundi Tech Pvt Ltd
13. Monotech Systems Limited
14. SFO Technologies Pvt Ltd
15. Hical Technologies Pvt Ltd
16. Pushpak Trademech Ltd
17. Surface Finishing Equipment Co
18. Genser Aerospace & IT solutions Ltd.
19. Bevel Gears India Pvt Ltd
20. Aerospace Aviation Skill Council
21. System Controls & IT solutions Ltd
22. Alpha Design Technologies Pvt Ltd
23. Dassault Systems Pvt Ltd
24. Systems Aids
25. Sika Interplants Pvt Ltd
26. Merlin hawk Ltd.

MEETINGS

Meetings were arranged for the industries with foreign OEMs and there were good interaction between them.

CONCLUSION

The India International Supply Chain Conference was a great success with participation of more than 350 delegates, 34 Speakers and Panellists with 26 Exhibitors.

There were lot of interactions between the stakeholders as expected and there were positive notes between the OEMs and SMEs.