


Scope of the Seminar

- **Opportunities & Challenges in the Maintenance of Land Systems for the Indian Army**

  Panelists will focus on the challenges being faced in the present system of maintenance of war fighting equipment and systems and the opportunities available to evolve an MRO model based on new technology, processes with the enhanced participation of the private sector.

- **Role of MRO in Enhancing Operational Capability and Mission Readiness**

  This session will give an opportunity to various stake holders from the services and industry to deliberate on the contemporary trends in various armies across the world where MRO is being used as a potent force multiplier to enhance operational capability and mission readiness. The session would also provide an opportunity to the industry to showcase their capabilities in taking a lead role in adapting these MRO models to meet the requirements of the Indian Army.

- **Multi-dimensional Industrial Base Integration and Cooperation-Perspectives in Public Private Partnership**

  There is a large inventory of equipment and systems of Mechanised Forces, Artillery, Air-Defence, Army Aviation, Engineers, Information and Communication Technology (ICT) based Intelligence, Surveillance and Reconnaissance Systems and Command and Control Systems that need to be sustained through their lifecycle through a strong MRO process. To keep these equipment and systems current a large number of up gradation projects are underway and planned. There is, therefore a need to integrate the multi dimensional industrial base to evolve an MRO model through forging strong public private partnerships. This session will give an insight into the major overhaul and up gradation projects and aim at developing an MRO model which increases reliability and availability of war fighting equipment and systems.

- **Enabling Maintenance in a Net-centric Environment through MRO**

  The bedrock of an MRO model is the software solutions that drive it. This session will give an opportunity to software solution providers to showcase their capabilities in developing solutions to support MRO.

- **MRO as Backbone for Equipment Life Cycle Sustainment**

  'Equipment Lifecycle Sustainment', is vital to ensure that the operational preparedness is maintained at optimum levels at all times, and no degradation of the combat potential is permitted. This would involve repair of modules at forward bases, planned interventions in the form of medium reset and recapitalization of equipment at specified levels of usage/ vintage. Equipment also needs to be kept 'current' through planned technology insertion and upgrades. The focus will be on how the MRO model evolved through forging strong public private partnership can be utilised to form the backbone of 'Equipment Lifecycle Sustainment'.

- **MRO: The Road ahead**

  A time bound action plan is required in evolving and implementing an MRO model which would act as a force multiplier and enhance the operational capability of the Army.

Federation of Indian Chambers of Commerce and Industry

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies. FICCI has contributed to this historical process by encouraging debate, articulating the private sector's views and influencing policy. A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. FICCI draws its membership from the corporate sector, both private and public, including SMEs and MNCs; FICCI enjoys an indirect membership of over 250,000 companies from various regional chambers of commerce. FICCI provides a platform for sector specific consensus building and networking and as the first port of call for Indian industry and the international business community.

For Participation & Sponsorship, Contact

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MRO in Land Systems

A 21st Century Perspective for the Army

03 - 04 December 2012 : New Delhi, India

Jointly Organised by

Corps of EME

FICCI

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Messages

MESSAGE FROM CHIEF OF THE ARMY STAFF

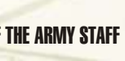
A modern Army's equipment readiness has to be sustained at high levels, in order to meet the demands of a complex and uncertain operating environment. This becomes crucial since the Army is looking at capabilities for quick deployment. Our modernisation strategy is focused on acquiring capabilities that will enable us to succeed in any operation, today or in the future. Operational sustainment of weapon systems aims to retain these capabilities throughout its lifecycle.

Equipment sustainment aims to reset and restore equipment capability, aligning it to the mission requirements of formations and units. A reliability centred approach that looks at minimising downtimes, prognostic techniques to anticipate failures and use of analytical software tools to model wartime availabilities are the emerging best practices of in-service systems engineering.

This International Seminar on ***MRO in Land Systems: A 21st Century Perspective for the Army*** organised by the Corps of EME and Federation of Indian Chambers of Commerce and Industry (FICCI) is definitely a stepping stone in evolving an operational availability oriented solution with high levels of task reliability. I foresee the effective implementation and integration of MRO best practices for Land Systems and strengthening of jointness within the Military Industrial Complex, as an outcome of this seminar.

I wish the event a grand success!

New Delhi
Sep 2012



(Bikram Singh)
General
Chief of the Army Staff

MESSAGE FROM MGO

Technology has witnessed exponential growth and made rapid strides during the last three decades. Weapon systems of today are highly sophisticated and complex and require considerable efforts for their maintenance and upkeep. With sophistication, the task of the operator has become comparatively easier. However, the repairs entail greater expertise, efforts and infrastructure. Consequently, the need for optimally retaining equipment capabilities through a holistic eco-system has become inescapable.

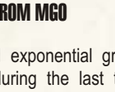
The proliferation of Land Weapon System across the complete spectrum in the military, necessitates effective implementation and integration of Maintenance, Repair and Overhaul environment. Participative interaction of all stakeholders and MRO domain experts will definitely work wonders in addressing this need.

I congratulate Corps of EME and Federation of Indian Chambers of Commerce and Industry (FICCI) for organizing this International Seminar to revolutionise the adoption of the concept of MRO in Land Systems of Army.

This will definitely help to institutionalise measures for adoption of MRO for Land Systems in Army so as to ensure that military equipment meets operational requirements in a cost-effective manner over its intended useful life.

I wish the organisers all the success in their endeavours!

New Delhi
Sep 2012



(Rajinder Singh)
Lt Gen
MGO

MESSAGE FROM THE DG EME

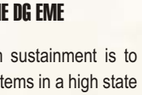
The aim of weapon system sustainment is to keep the Army's weapon systems in a high state of readiness. The Corps of EME over the years has created skills and competencies for this task, having restored thousands of tanks, guns, radars etc to a high state of operational readiness. The Maintenance, Repair and Overhaul (MRO) infrastructure with Army Base Workshop is progressively being upscaled and modernised to meet the requirements of this century.

Reliability Centred Maintenance, Predictive Maintenance and Failure Rate Analysis are some new initiatives that the Corps of EME has taken. We are building up our knowledge base for these.

It is heartening to see that MRO is being given the right focus for support of Land Systems. It is essential to keep our inventory of weapons and equipment in an operationally fit state by a think different approach. I am sanguine that this seminar will go a long way in crafting out the 'next practices' for supportability engineering of Land Systems.

I wish the event great success!

New Delhi
Sep 2012



(N B Singh)
Lt Gen
DG EME

Background

Operational sustainment of weapons and equipment attempts to retain systems in mission capable state 24x7, 360 degrees. In general terms it is aimed at keeping the Army in a high equipment readiness state. 'Maintenance Repair and Overhaul' (MRO), an indispensable activity in ensuring capability restoration and retention, has become a 'Key Performance Parameters' (KPP) , of supportability of air assets in the aviation industry. The concept now needs to be extended to land systems, to include Tanks, Artillery Guns, Air Defence Systems, Vehicles, Tele Communication equipment, Radars, Missiles and Army Aviation assets so as to keep these in a ready to fight state. MRO may be defined as, "All actions which have the objective of retaining or restoring an item in or to a state in which it can perform its required mission. The terminal objective of equipment sustainment is to 'Maximise the Combat Power of the Indian Army'. This translates to achieving the objectives of High Operational Availability, High Pre-mission Reliability, Combat Force Self-sufficiency & Quick Recycling of Systems and Optimizing Lifecycle Sustainment Costs, through a well conceived MRO programme over the life cycle.

Seminar Overview

In the current operational environment there is an inescapable need to keep war fighting equipment and systems in a mission ready state at all times. Given the vast expanse of the theatre of operations and varied terrain, this is a daunting challenge. To overcome this, there is a need to evolve a strategy to integrate the multi dimensional industrial base and derive a service oriented solution aimed at reducing repair cycle time, inventory overhang and repair costs. This would ensure low lifecycle sustainment costs without compromising on a high mission reliability of equipment and systems.

New technologies, tools, processes and metrics need to be explored to evolve a new MRO model through forging strong public private partnership so as to ensure high mission readiness and reliability of equipment and systems. These supported by the desired software solutions will enable MRO to become a potent force multiplier

The seminar aims at bringing together MRO domain experts, IT solution providers, stake holders from industry including policymakers, regulators and manufacturers to deliberate and help evolve the MRO policy for land systems that will achieve the stated objectives of mission readiness.