ANNUAL REPORT 2014-2015

सत्यमेव जयते

Ministry of Defence
Government of India

Helicopter based small team operation

Armour Fire Power

Front Cover :
(Clockwise)

LCA Tejas taking off at an Air Base
Long Range Cruise Missile "Nirbhay" being launched
KASHIN Class Destroyer "INS RAJPUT"
Guns in action in High Altitude Area

Annual Report
2014-15

Ministry of Defence
Government of India

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1

Security Environment

India's defence strategy and policies aim at providing a peaceful environment by addressing the wide spectrum of conventional and non-conventional security challenges faced by the country.

1.1 India's security environment is defined by a complex interplay of regional and global imperatives and challenges. The size and the strategic location of the country places us at the centre of a security dynamic impacted concurrently by the positive forces of regional and global connectivity on the one side and also by adverse consequences arising from unpredictability, instability and volatility in parts of the immediate and extended neighbourhood.

1.2 As India seeks to achieve transformative national growth and development at home, India's defence strategy and policies aim at providing a peaceful environment by addressing the wide spectrum of conventional and non-conventional security challenges faced by the country. Guided by the principle of building strength through the principles of strategic autonomy and self reliance, India seeks to enhance her own capabilities and also to pursue a constructive engagement with neighbours and partner countries in the regional and global community to promote peace and stability.

Global Security Environment

1.3 India's geo-strategic location makes it sensitive to developments beyond its immediate neighbourhood, in West Asia, Central Asia, in the Indian Ocean Region and the Asia Pacific region. Major geo-political and geo-economic developments are currently transforming the global security scenario into one of uncertainty and volatility.

1.4 Since the end of the Cold War, the global security environment has seen major changes. On the one hand, the world has witnessed a spurt of globalisation and deepening economic interdependence, which has enhanced the growth of countries like India, China, Brazil and South Africa. On the other, large parts of the world continue to be affected by conflict and violence. The global balance of power has witnessed new adjustments and dynamics, with increased multi-polarity generating new strategic uncertainties, reflected often in competition and contestation. The continuing economic crisis in the West has been a major cause of worry for the global economy and has had consequent effects on the economies of other regions.

1.5 Even as the probability of a full scale conventional war is thought to have receded since the end of the Cold War, a number of drivers have catalysed new challenges in the regional and global security landscape. The intensifying competition for natural resources adds an overlay of volatility to existing fault lines of territorial disputes between nations and poses a challenge to the norms of international law and accepted standards of international behaviour.

1.6 The transnational threats posed by the activities of terrorist organizations have

been exacerbated by the dynamics of intra and inter State conflicts and pose a danger to regions beyond the primary theatres. The transnational mobilization of foot soldiers and logistics support for terrorist activities poses a serious internal security challenge for countries around the world. Technological advances in telecommunications and the cyber domain have provided force multipliers to boost the capabilities and impact of terrorist activities. There is continuing concern over terrorist threats emanating from India's neighbourhood and the transnational linkages through which such groups are being sustained.

1.7 The prospects of peace and stability in various regions of the world are marred by the proliferation of weapons of mass destruction. Piracy and other challenges to maritime security also pose major threat to regional and global peace and security. In particular, the proliferation of WMD and the threat of nuclear terrorism continue to be major international security concerns, notwithstanding international efforts to strengthen nuclear security and to prevent non-State actors from acquiring nuclear materials.

1.8 The shift of the global balance of power from the Euro-Atlantic region to the Asia-Pacific region has brought a complex and dynamic interplay of economic, military and diplomatic factors, evidenced in the escalation of maritime territorial disputes, military postures and power rivalries, all of which have added to the uncertainties in the security situation in the region. The contestations over island territories in the Asia Pacific have created tensions in the region and threaten to polarise the Asia Pacific community. The situation on the Korean peninsula is also fraught with tension due to relation between North and South Korea and with North Korea conducting its third nuclear test. These developments have affected the military balance and impacted economic cooperation in the region. Non-traditional challenges such as trans-national crime, terrorism, natural disasters, pandemics, cyber security and food and energy security also pose serious challenges to the region.

1.9 India has important political, economic, commercial and social interests in the Asia Pacific and has a stake in continued peace and stability in the region. India supports freedom of navigation in international waters and the right of passage, in accordance with International law. India's view is that all countries must exercise restraint and resolve bilateral issues diplomatically, according to principles of International law and without recourse to the use or threat of use of force. India is of the view that in the current regional security landscape, there is a need to promote a cooperative approach. Hence, we remain actively engaged with the Asia Pacific community through a web of bilateral as well as multilateral fora like the East Asia Summit, ADMM – Plus and ASEAN Regional Forum (ARF), so as to contribute to peace and stability in the region.

1.10 The Central Asian Region due its location and resources, and in view of recent developments in the Eurasia and West Asia, continues to be of strategic significance. India has been developing strong politico-economic and security partnerships with all the Central Asian Republics, due to its strategic significance. The region is also

considered as a potential source for India's energy requirements and a key market for our exports in the backdrop of efforts at consolidation of Eurasian economic space under EEU. The opening of new connectivity corridors would create avenues for India to access wide range of natural resources in the region.

1.11 The situation in Ukraine has brought to the forefront a fresh challenge to peace and stability in the region and a prolonged stand-off could have an adverse impact on international security and the global economy. India believes that there is scope for a political and diplomatic solution to the current problem.

1.12 Parts of the West Asian region continue to face volatility and instability in the wake of the changes brought about by the Arab Spring. These changes have ushered in fundamental political and socio-economic transformation, in many parts of the region. On the other side of the ledger, a number of malevolent non-state actors have mushroomed in the region. Sectarian fault-lines have also deepened, thereby disturbing the stability and internal cohesion of various countries in the region. India has not only vital stakes, but also has long standing relations with the countries and people of this region. Continuing unrest and uncertainty in West Asia and Gulf region, which is part of India's extended neighborhood, has a major impact on India's diverse interests in the region in terms of diaspora, trade, remittances, energy and security. India remains engaged with the countries in the region on defence and security issues of common concern.

1.13 The evolving situation in Syria and Iraq is of growing concern in terms of the impact of ongoing developments on the stability of these countries and repercussions for other countries within and beyond the region. The extension of the Syrian conflict into Iraq has serious ramifications for the region, with heightened extremist and sectarian overtones. India has expressed deep concern at the violence and loss of human lives in Syria and has consistently called for an inclusive and comprehensive political solution which will take into account the legitimate aspirations of the Syrian people. India has also expressed firm support to Iraq in its fight against international terrorism and in its efforts to preserve its unity and territorial integrity.

1.14 The tensions between Israel and Palestine is also a matter of concern as it threatens regional peace and security. India supports a negotiated solution resulting in a sovereign, independent, viable and united State of Palestine, with East Jerusalem as its capital, living within secure and recognized borders, side by side at peace with Israel as endorsed in the Quartet Roadmap and relevant UNSC Resolutions.

1.15 Iran occupies an important place in the economic and security calculus of India. India has welcomed the interim nuclear agreement between the E3+3 and Iran and supports resolving all issues related to Iran's nuclear programme through a comprehensive dialogue between the parties.

1.16 Many regions in Africa are witnessing upheaval, as uprisings and insurgencies have been sweeping across a number of North and West African countries. Of particular concern is the growing influence of terrorist organizations in the region. While, the threat from piracy in the Western Indian Ocean has

diminished, the same has assumed serious proportions in the Gulf of Guinea. A number of Indian seafarers have been affected in acts of piracy in the Gulf of Guinea. The activities of terrorist outfits in Nigeria and other countries is a threat to the internal stability of these countries and the linkages between these and other terrorist organisations outside the region are a matter of serious concern. India has historic ties with several African nations and seeks to deepen its bonds with them through the strategic initiative of the India-Africa Forum Summit (IAFS) mechanism that seeks to promote bilateral, regional and continent-level political, economic and strategic cooperation with African countries.

1.17 The Indian Ocean Region (IOR) is vital to India's security and prosperity. As a maritime nation historically and by virtue of its geo-physical configuration and geo-political circumstances, India is dependent on the oceans surrounding it. India's peninsular dimension in the Indian Ocean Region, places it adjacent to the most vital sea-lanes of the world, stretching from the Suez Canal and the Persian Gulf to the Malacca Straits. India's security and prosperity is dependent on these sea lanes and its ability to engage freely in maritime trade and commerce.

The Regional Security Environment

1.18 A secure, stable, peaceful and prosperous neighbourhood is central to India's security calculus. The regional security environment in South Asia continues to be dynamic, with terrorism, insurgency and sectarian conflict from our West and North, increasingly threatening the stability of our region. Amidst the ongoing efforts to impart fresh vigour and dynamism to strengthening

relations with neighbours in a comprehensive manner, the need for a cooperative security construct is of immediate relevance in this period of strategic uncertainty. India is committed to build an open and dialogue-based security co-operation with all partners in the neighbourhood on the basis of equality, mutual benefit and mutual respect.

1.19 As the international military forces in Afghanistan approach the phase of drawdown, the security situation in Afghanistan requires close monitoring. With the Afghan National Security Forces(ANSF) taking full responsibility for the security of the country, the international community must ensure sustained support to the equipping and capability building requirements of the ANSF, to enable them to deal with the entire spectrum of security challenges that they may be required to face. The present political transition in the country is a significant milestone for Afghanistan with renewed opportunities for an Afghan-led and Afghan-owned national reconciliation process. The Strategic Partnership Agreement between India and Afghanistan provides the framework for the commitment of both countries to build the bilateral relationship in all spheres, including through defence and

security cooperation aimed at enhancing mutual capacity in the fight against terrorism and other security challenges.

1.20 Pakistan continues to remain home to several Non-State actors with North Western Frontier Province (NWFP) serving as the fountainhead for terrorist activity in the region. Pakistan's quest for strategic depth in Afghanistan continues to drive its policy to support Taliban and its affiliates in Afghanistan. The expanding footprints of extremist and terrorist organisations in Pakistan and their linkages with terrorist activities in J&K and rest of India poses a major security challenge to India, with severe ramifications on bilateral relations, as well as to the peace and security of the region. The use of terrorism as an instrument of state policy has deep roots in Pakistani military establishment. Ceasefire violations and infiltration from across the border also continues unabated. India desires peaceful and cooperative ties with Pakistan. However, continued activities of terrorist organizations operating from Pakistani territory and territories under Pakistan's control are major obstacle and source of concern. India remains committed to resolving all outstanding issues with Pakistan through a peaceful, bilateral dialogue on the basis of the Simla Agreement and Lahore Declaration. A meaningful dialogue requires an environment free from terror and violence. During the meeting of the DGMOs of both countries at Wagah in December 2013, India reiterated the need for Pakistan to uphold the sanctity of the Line of Control (LoC) and International Boundary in Jammu and Kashmir by stopping ceasefire violations and cross IB and cross LoC transgressions. However, the continued existence of terrorist camps across the international border and Line of Control and continuing instances of ceasefire violations, attempted infiltrations and transgressions demonstrate the challenges faced by India in this regard. Pakistan has continued with its policy of selective approach to tackling terrorist groups operating from its territory and areas under its control which do not serve the interests of regional peace and security.

1.21 Although the unresolved boundary dispute between India and China is a major factor in India's security calculus, India has engaged with China on the principle of mutual respect and sensitivity for each other's interests, concerns and aspiration and mutual and equal security. A number of measures are being pursued to promote interactions and confidence building measures between the Armed Forces of both sides. Both countries have agreed on the need to maintain peace and tranquility on the border which is an important guarantor for the development and continued growth of bilateral relations. India remains conscious and watchful of the implication of China's increasing military profile in our immediate and extended neighbourhood, as well as the development of strategic infrastructure by China in the border areas. India is also taking necessary measures to develop the requisite capabilities to counter any adverse impact on our own security.

1.22 India and Bhutan have a traditional and unique bilateral relationship, characterized by utmost trust and deep mutual understanding which has matured over the years. India has been the privileged socio-economic partner of Bhutan since 1961.Today, there is extensive cooperation between the two countries in all areas including in the area of trade and economy including hydropower, defence

and security, as also people-to-people level linkages.

1.23 India and Nepal have a unique relationship. There are a large number of Gorkha soldiers serving in the Indian Army. Nepal continues to be embattled with political uncertainty. As a stable and prosperous Nepal is in India's interest, India is carefully monitoring the political developments in Nepal. External influence on Nepal, the demography along the India-Nepal border and possible exploitation of porosity of the India-Nepal border by terrorists sponsored by our adversaries, are some of the issues that India is concerned about and will have to monitor closely. At the same time, it will have to be kept in mind that the 1950 Treaty provides for an open border and is a major asset that is a cornerstone of India-Nepal friendship. Security cooperation between India and Nepal is proceeding well, owing to enhanced assistance in the form of training and equipment supply. Nepal has handed over several high-value terrorists/militants. Any new measures at the border would need to be undertaken within the framework of the 1950 Treaty, without affecting the daily lives and friendly exchanges of hundreds of thousands of daily travellers.

1.24 India shares a long land border with Bangladesh and bilateral cooperation is a positive factor in the current security scenario. The ties between our two countries in the areas of security cooperation are unparalleled.

1.25 India continues to emphasize its security concerns to Bangladesh, especially the use of Bangladeshi territory by Indigenous Insurgent Groups (IIGs) and terrorists of other nationalities. A Coordinated Border Management Plan (CBMP), signed between the two countries in July 2011, synergizes the efforts of the Border Guarding Forces of both countries for more effective control over cross border illegal activities and crimes as well as for maintenance of peace and harmony along the India-Bangladesh border. A system of institutionalized interaction for discussions on border management through meetings at all levels addresses all such concerns.

1.26 Myanmar is located on crossroads of South and Southeast Asia and is India's land bridge to the South East Asian countries. A stable, peaceful and democratic Myanmar is in India's interest. India's engagement of Myanmar continues to be driven by shared economic and security interest which include enhancing bilateral trade, strengthening democratic institutions in Myanmar and eliminating threats from insurgent groups exploiting the porous borders with our North Eastern states. India is keen that the government of Myanmar acts against the Indian Insurgent Groups that are operating from its soil. A MOU on Border Cooperation, concluded between both countries in May 2014, provides a strong framework for security cooperation and intelligence exchange between India and Myanmar security agencies in areas of coordinated patrolling, intelligence sharing, counter-insurgency, arms-smuggling, drug, human and wildlife trafficking. Under an MOU on Border Area Development concluded in 2012, projects on schools, hospitals and bridge construction in Chin State and Naga Self Administered Zones in Myanmar are being supported by the Government.

1.27 Relations between India and Sri Lanka are based on a shared cultural, religious,

linguistic and historical ties and remain cooperative and constructive. Maritime security challenges and the maintenance of peace and stability in the Indian Ocean region are common concerns which provide for a convergence of strategic interests between both countries and the underpinning to ongoing cooperation in the field of defence. India has been supportive of the process of reconciliation in Sri Lanka and supports a lasting political settlement within the framework of a united Sri Lanka which would meet the aspirations of the Tamil community for equality, justice, peace and dignity.

1.28 Security cooperation between India and Maldives is a highly significant dimension of bilateral cooperation, as the security interests of both countries are interlinked. Bilateral relations are being nurtured and strengthened through regular contacts at the highest levels and at various levels of the defence forces of both countries.

1.29 The commonality of regional maritime security challenges is the foundation for the trilateral defence and security cooperation framework through which India, Sri Lanka and Maldives are working to develop joint capabilities to respond to a variety of maritime challenges. The initiative enables the defence and security establishments and the Armed Forces of all three countries to pursue practical cooperation on a regular basis. It is expected that the initiative which acknowledges India's role as the net provider of security in the Indian Ocean neighbourhood will contribute to the development of a cooperative vision of security in the region.

1.30 The challenge posed by non-traditional threats such as WMD proliferation, terrorism, drugs, human trafficking, etc continue to remain high on India's security agenda. New challenges have additionally emerged in the domains of Cyber and Space, with the demonstration of offensive and capabilities by certain countries. These capabilities will shape the security situation in the future. The advent of asymmetric warfare capabilities adds an additional layer of challenge in an environment where technological obsolescence is already a continuing challenge in terms of conventional warfare capabilities. These challenges are being addressed through an across-Government, multi-agency long-term approach, of which the Armed Forces are an important and intrinsic part.

Internal Security Environment

1.31 India faces multifaceted internal security challenges which include left wing extremism, an ongoing proxy war in Jammu and Kashmir, insurgencies in some states in the North East and organised crime.

1.32 The separatists and anti-national elements continue in their efforts to disrupt the prevailing calm in J&K. The North-East Region, however, has seen a reduction in violence levels. Public resentment against extortions by various extremist groups in the

North-East indicates that the civil society is supportive of improving the security situation. Left Wing extremism remains an important challenge and is also sapping the national resources.

1.33 In a global and regional security environment characterized by unpredictability and volatility, India's defence forces remain prepared to tackle the full spectrum of security challenges. Concurrently, India remains engaged with the regional and global community through a network of cooperative, constructive and mutually beneficial relationships, in a manner which would serve national interests and also contribute to the larger interests of global peace and stability.

2

ORGANISATION AND FUNCTIONS OF THE MINISTRY OF DEFENCE

Three Service Chiefs and the Raksha Manrtri with the Prime Minister during Combined Commanders Conference-2014

The principal task of the Ministry is to frame policy directions on defence and security related matters and communicate them for implementation to the Services Headquarters, Inter-Service Organisations, Production Establishments and Research & Development Organisations.

ORGANISATIONAL SET-UP AND FUNCTIONS

2.1 After Independence, Ministry of Defence was created under the charge of a Cabinet Minister and each Service was placed under its own Commander-in-Chief. In 1955, the Commanders-in-Chief were renamed as the Chief of the Army Staff, the Chief of the Naval Staff and the Chief of the Air Staff. In November 1962, the Department of Defence Production was set up to deal with research, development and production of defence equipment. In November, 1965, the Department of Defence Supplies was created for planning and execution of schemes for import substitution of defence requirements. These two Departments were later merged to form the Department of Defence Production and Supplies. In 2004, the name of Department of Defence Production and Supplies was changed to Department of Defence Production. In 1980, the Department of Defence Research and Development was created. In 2004, the Department of Ex-Servicemen Welfare was set up.

2.2 The Defence Secretary functions as head of the Department of Defence and is additionally responsible for co-ordinating the activities of the four Departments in the Ministry.

THE MINISTRY AND ITS DEPARTMENTS

2.3 The principal task of the Ministry is to frame policy directions on defence and security related matters and communicate them for implementation to the Services Headquarters, Inter-Service Organisations, Production Establishments and Research & Development Organisations. It is required to ensure effective implementation of the Government's policy directions and the execution of approved programmes within the allocated resources.

2.4 The principal functions of the Departments are as follows:

(i) The Department of Defence deals with the Integrated Defence Staff (IDS) and three Services and various Inter Service Organisations. It is also responsible for the Defence Budget, establishment matters, defence policy, matters relating to Parliament, defence co-operation with foreign countries and co-ordination of all defence related activities.

(ii) The Department of Defence Production is headed by a Secretary and deals with matters pertaining to defence production, indigenisation of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and Defence Public Sector Undertakings (DPSUs).

(iii) The Department of Defence Research and Development is headed by a Secretary, who is the Scientific Adviser to the Raksha Mantri. Its function is to advise the Government on scientific

aspects of military equipment and logistics and the formulation of research, design and development plans for equipment required by the Services.

(iv) The Department of Ex-Servicemen Welfare is headed by a Secretary and deals with all resettlement, welfare and pensionary matters of Ex-Servicemen.

2.5 A list of subjects dealt with by various Departments and Finance Division of the Ministry of Defence is given in **Appendix-I** to this report.

2.6 Information regarding the Ministers in the Ministry of Defence, the Chiefs of Staff, the Secretaries in the Departments of the Ministry and the Secretary (Defence Finance)/ Financial Advisor (Defence Services) who held positions during the period of this report is given in **Appendix- II** to this report.

HEADQUARTERS INTEGRATED DEFENCE STAFF (HQ IDS)

2.7 HQ IDS was raised on October 1, 2001 based on the recommendations of Group of Ministers on the Kargil Review Committee (KRC) report. The HQ was raised under the overall Command and Control of Chairman Chiefs of Staff Committee (COSC) to foster jointness and synergy amongst the three Services. Since its inception, this HQ has achieved several milestones in joint and integrated planning, coordination of intelligence, joint conduct of Human Assistance and Disaster Relief (HADR) operations through Defence Crisis Management Group (DCMG) and prioritising/ streamlining procurements.

2.8 **Human Assistance and Disaster Relief (HADR) Operations:** Effective and coordinated action of the DCMG at HQ IDS has enhanced the Armed Forces' response and reduced the reaction time for HADR operations.

2.9 Major HADR operations conducted under DCMG during the year are Operation Sarayu in the Floods affected areas in UP and Bihar in August 2014, Operation Rahat in J & K in September, 2014, Operation Lehar in Cyclone Hudhud affected areas of Andhra Pradesh and Odisha in October, 2014.

2.10 **Male Water Crisis:** In addition to HADR operations within the country, assistance was also rendered to provide succour to the distressed populations in friendly foreign countries. Recently, a Water Desalination Plant at Male caught fire on December 4, 2014. On request for assistance, 'Operation Neer' was launched wherein 374 Tons of water was provided by air and another 2086 Tons of water was delivered by Naval Ships. The operation was executed at short notice and in a swift manner to provide timely assistance to our SAARC neighbour.

2.11 **Coordinated Patrol (Corpat):** Indian Navy undertakes coordinated Patrols

'CORPAT' along with Navies of Indonesia, Thailand and Myanmar. The aim is to enhance mutual understanding and inter-operability between the Navies and prosecute vessels engaged in unlawful activities by undertaking joint patrolling. The Ships and Aircraft of Andaman and Nicobar Command participated in these exercises with the Navies of Thailand and Indonesia.

2.12 **President Visit to Port Blair:** The Honourable President undertook a visit to A&N Islands from January 11-13, 2014. On that occasion Indian Naval Ships, Coast Guard Ships and Merchant Vessels were decked in full ceremonials.

Armed Forces Tri-Services Institutions

2.13. HQ IDS has been constantly reviewing the joint training at nascent, intermediatory and higher levels to foster greater jointness amongst the Services. At the nascent level, to address the shortage of officers in the Armed Forces, the capacity of National Defence Academy (NDA) has been enhanced from 1800 to 1920. In-principle approval of RM has also been granted to further increase the capacity of the Academy to 2400, which will be addressed by raising of 5th Battalion at NDA.

2.14 Similarly, at the intermediate level, the capacity of Defence Services Staff College is being increased to 500 and at higher level, capacity of HDM courses at CDM has been increased to 150 with tailor made capsule courses/ Management Development Programmes (MDPs) for management education at all levels in the Indian Armed Forces.

2.15 **Tri –Services SF Camp:** A Tri-Services Special Forces Camp was conducted at Andaman & Nicobar locations of Carnic and Camp Bell Bay from November 18 to 30, 2014. The Joint Special Forces Training Camp was attended by tri-Services SF personnel. The tactical phase of the exercises was held during the last phase of the camp near Camp Bell Bay from November 26-29, 2014. During the camp, strategic & operational synergy and interoperability was practiced among the Services Special Forces elements.

2.16 **First Tri-Services 'Non Conventional & Renewable Energy' (NC & RE) Training Capsule at National Institute of Solar Energy (NISE):** The maiden tri-Services capsule on Non Conventional and Renewable Energy (NC & RE) domain for tri-Services Armed Forces personnel was conducted from December 8-12, 2014 at the National Institute of Solar Energy (NISE), an institute affiliated under the Ministry of New and Renewable Energy (MNRE). A total of 35 officers from all Services Headquarters (SHQs) attended the course. The course will facilitate SHQs and tri-Services units to address their Renewable Energy requirements and assist in addressing energy conservation and regeneration initiative in the Armed Forces.

2.17 **Cyber Security Training for Mongolian Armed Forces:** As part of Indo-Mongolian Defence cooperation in IT Security, Project Defence Information Assurance and Research

Agency (DIARA), HQ IDS conducted training for officials of MoD, Mongolia and officers of Mongolian Armed Forces in IT Security. As a follow up to the training conducted in year 2013, on request from Mongolia, an advanced level training programme on IT Security was conducted during the current year.

Defence Cooperation Activities: 2014-15

2.18 **China:** As part of defence cooperation plan agreed during 6th India-China Annual Defence Dialogue (ADD), Exchange of Young Officers and Intermediate officers of China and India were conducted during the year fostering better understanding and coordination between the two countries.

2.19 **Nigeria:** As part of defence cooperation plan agreed during the Second Meeting of India-Nigeria Joint Defence Cooperation Committee for 2014, Cadet and Instructor exchange programme was conducted between two countries for cooperation and understanding in the field of Military Training.

Initiatives in the Medical Field

2.20 The medical branch of HQ IDS has made significant achievements during the period of report in the field of automation of medical stores and supply chain management, telemedicine and standardisation of Joint medical training. Projects at hand include, resurrection of Armed Forces Sports Medicine Centre, Accreditation of Military Hospital and Health Smart Card.

Centre for Joint Warfare Studies (CENJOWS)

2.21 CENJOWS, a Tri Service Think Tank, has conducted a number of seminars, round table discussions and published Study Reports to encourage thinking for fostering further jointness. Some of the milestones are study Report on Public Private Partnership, Synergy Journal on the theme of harnessing Military Technology in India and a CENJOWS debate on Jointness.

ARMED FORCES TRIBUNAL

2.22 The Government has established an Armed Forces Tribunal (AFT) for the adjudication of complaints and disputes regarding service matters and appeals arising out of the verdicts of the Courts Martial of the members of the three Services (Army, Navy and Air Force) to provide for speedy justice to the members of the Armed Forces.

2.23 At present, the Principal Bench at Delhi and Regional Benches at Chennai, Jaipur, Lucknow, Chandigarh, Kolkata, Kochi, Guwahati and Mumbai are functional. As approved by the Cabinet permanent regional benches of AFT with single court each at Srinagar and Jabalpur, are being set up.

DEFENCE (FINANCE)

2.24 Finance Division in the Ministry of Defence deals with all matters having a financial implication. This Division is headed by Secretary (Defence Finance)/ Financial Advisor (Defence Services) and is fully integrated with the Ministry. It performs an advisory role.

2.25 The Ministry of Defence enjoys enhanced delegated financial powers to

facilitate quicker decision making. These powers are exercised with the concurrence of the Finance Division. With a view to ensuring transparency in exercise of these powers in respect of defence procurement matters and compliance with the laid down policy guidelines, the Defence Procurement Procedure and Defence Procurement Manual are updated from time to time.

2.26 Finance Division prepares and monitors Defence Services Estimates, Civil Estimates of the Ministry of Defence and the Estimates in respect of Defence Pensions. Break-up of the actual expenditure for the years 2012-13 and 2013-14, as also the Revised Estimates for 2014-15 and Budget Estimates for 2015-16 in respect of Defence Services Estimates are given in Table No. 2.1 and the relevant graph/ chart at the end of this Chapter.

2.27 A summary of the latest report of the Comptroller & Auditor General of India on the working of the Ministry of Defence, as furnished by the C&AG, is given in **Appendix-III** to this Annual Report.

2.28 The position of Action Taken Notes (ATNs) as on 31.12.2014 in respect of observations made in the C&AG Reports/ PAC Reports is given as **Appendix IV** to this Annual Report.

Table 2.1

Service/ Department-wise break up of Defence Expenditure/ Estimates

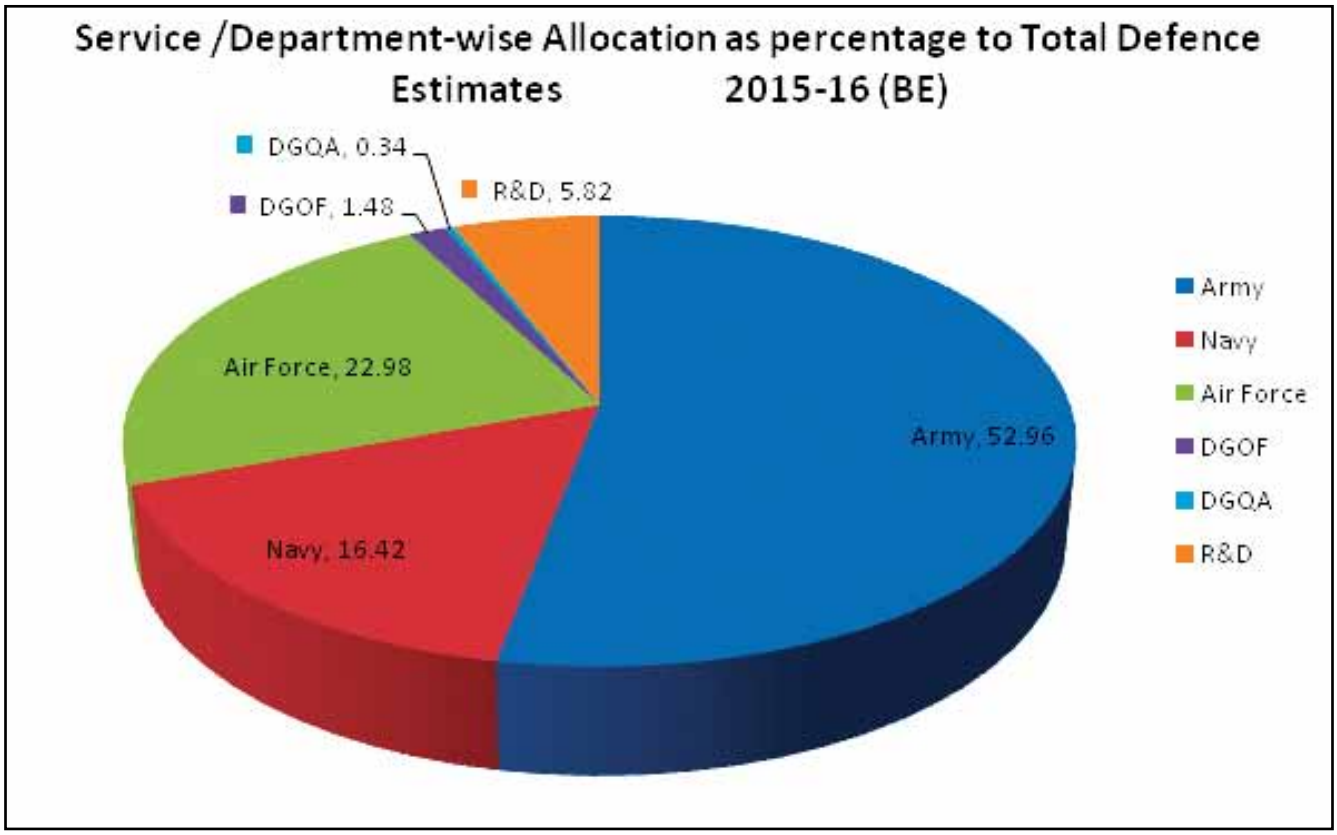
(₹ in crore)

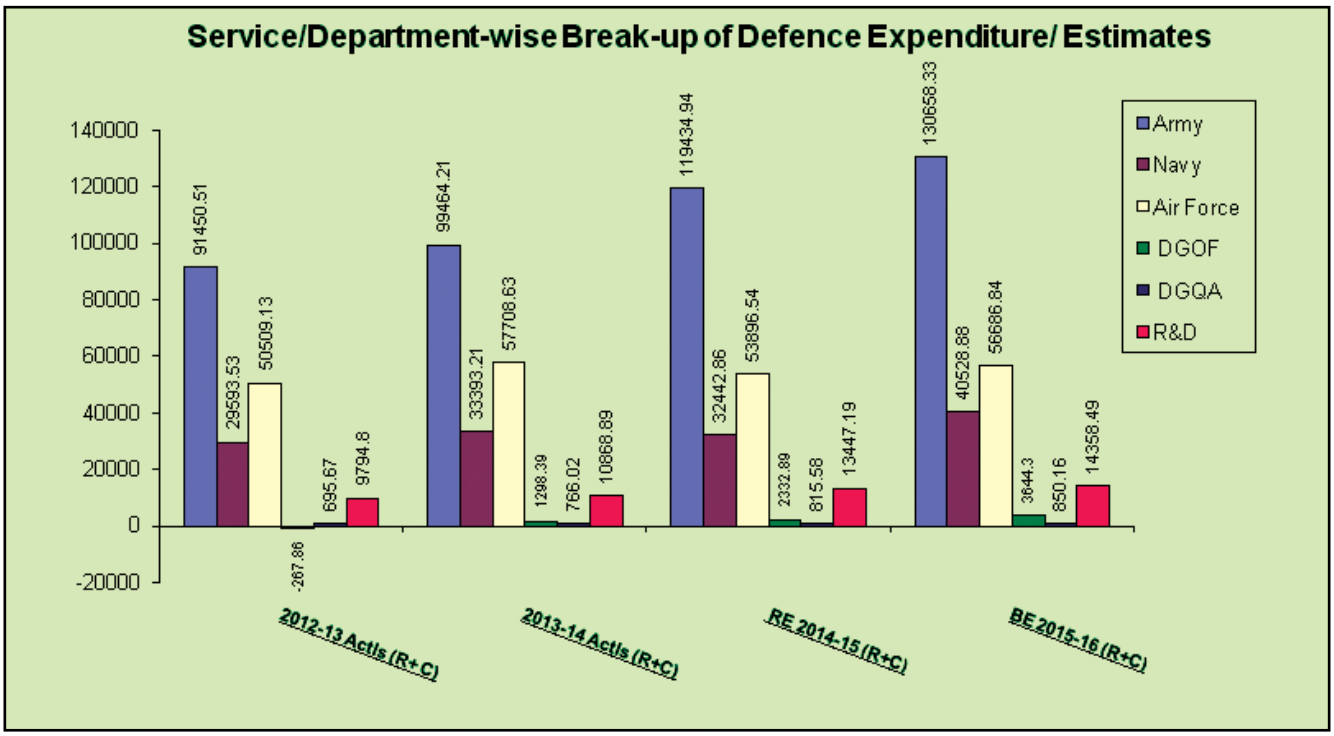
	2012-13 Actuals (Rev+ Cap)	**2013-14 Actuals (Rev+Cap)**	**RE 2014-15 (Rev+Cap)**	**BE 2015-16 (Rev+Cap)**
Army	91450.51	99464.21	119434.94	130658.33
Navy	29593.53	33393.21	32442.86	40528.88
Air Force	50509.13	57708.63	53896.54	56686.84
DGOF	(-) 267.86	1298.39	2332.89	3644.30
DGQA	695.67	766.02	815.58	850.16
R&D	9794.80	10868.89	13447.19	14358.49
Total	181775.78	203499.35	222370.00	246727.00

DGOF – Directorate General of Ordnance Factories

DGQA- Director General of Quality Assurance

R&D- Research & Development


Service /Department-wise Allocation as percentage to Total Defence Estimates 2015-16 (BE)
DGQA, 0.34
R&D, 5.82
DGOF, 1.48
Air Force, 22.98
Army, 52.96
Navy, 16.42
Army
Navy
Air Force
DGOF
DGQA
R&D


Service/Department-wise Break-up of Defence Expenditure/ Estimates
140000
120000
100000
80000
60000
40000
20000
0
-20000
91450.51
29593.53
50509.13
-267.86
695.67
9794.8
99464.21
33393.21
57708.63
1298.39
766.02
10868.89
119434.94
32442.86
53896.54
2332.89
815.58
13447.19
130658.33
40528.88
56686.84
3644.3
850.16
14358.49
2012-13 Actls (R+C)
2013-14 Actls (R+C)
RE 2014-15 (R+C)
BE 2015-16 (R+C)
Army
Navy
Air Force
DGOF
DGQA
R&D

3

INDIAN ARMY

Shoulder fired Anti Aircraft Missile System

The Indian Army is committed to the defence of the country from external and internal threats across the entire spectrum of warfare.

SECURITY OVERVIEW

3.1 The changing global geo-political dynamics presents the Nation with multiple security challenges. While constantly reviewing its operational preparedness/ postures to meet the perceived security challenges, the Indian Army (IA) is committed to the defence of the country from external and internal threats across the entire spectrum of warfare. Also, in times of disaster/ natural calamities, the Indian Army is in the forefront, providing aid and succour to the affected populace.

JAMMU AND KASHMIR

3.2 The security situation in Jammu and Kashmir(J&K) is at a very critical stage. Relentless and successful Counter Infiltration and Counter Terrorism operations have led to Parliamentary and Assembly elections being conducted successfully with high voter turnout

3.3 Pakistan on the other hand, stepped up its efforts both to internationalise the Kashmir issue and to engineer violence in the state. The terrorist infrastructure across the border remains intact and Pakistan's frustration manifested itself in Cease Fire Violations (CFVs) and high visibility, audacious attacks by foreign terrorists.

Situation Along the Borders

3.4 **Ceasefire Violations (CFVs):** The ceasefire along the Actual Ground Position Line (AGPL), Line of Control (LC) and International Border (IB) Sectors in Jammu and Kashmir has generally held. However, there has been an increase in CFVs in the last two years. To address the issue of CFVs established mechanisms such as DGsMO talks, local level flag meetings and hotlines are being used. Appropriate retaliatory action as required, has been taken by our troops.

3.5 **Infiltration:** Strict vigil is being maintained along the border and counter infiltration measures adopted by the Army have been further strengthened. During this year 23 infiltration bids were foiled in which 36 terrorists were killed.

Situation in the Hinterland

3.6 **Counter Terrorism Operations:** Sustained counter terrorism operations by the Army has resulted in elimination of 68 terrorists in the hinterland in the year 2014. In the previous year, the Army had eliminated 37 terrorists in the hinterland in J&K.

NORTH EAST

3.7 The overall security situation in the North East is stable and under control. The violence levels registered a marginal increase but the Security Forces continue to maintain ascendancy over the insurgent groups. A total of 2406 insurgents have been neutralized (Killed - 181, Apprehended - 1934 & Surrendered - 157) by Army/ Assam Rifles in 2014 and 1104 weapons have been recovered. Five insurgent groups are observing Ceasefire whereas Suspension of Operations is in force with 42 insurgent groups.

3.8 **Assam:** The security situation in the State remained largely peaceful and under control. Calibrated and synergised operations by Security Forces significantly reduced the operational space for insurgent groups. Tripartite talks are underway with three major groups viz ULFA (Pro Talk), NDFB (Progressive) and NDFB (Ranjan Daimary). ULFA (Independent) led by Paresh Baruah and NDFB (Songbijit) led by IK Songbijit, however, continued with their violent activities.

3.9 **Nagaland:** The situation in the State remained peaceful with no major violent incident in 2014. Ceasefire continues to be in force with three Naga factions. The Army and Assam Rifles carried out extensive operations to keep the NSCN groups under check and ensure adherence to Ceasefire Ground Rules by them. Peace talks to find a permanent and an acceptable solution to the Naga issue have continued with NSCN (IM)

3.10 **Manipur:** Meitei groups have perpetrated most of the violence in the State. The State also continued to witness the politics of blockades and bandhs which led to increasing fissures amongst the three major communities namely; Meiteis, Nagas and Kukis. Inter tribal rivalry and insider - outsider divide were prominently visible during 2014 and were the main reasons for violence in Manipur.

3.11 **Security Situation in Arunachal Pradesh:** Tirap, Longding and Changlang districts witnessed a spillover of Naga insurgency as the ceasefire with NSCN factions is not applicable in these three districts. Synergised operations by Security Forces have however, reduced the operational space of insurgents.

3.12 **Tripura and Mizoram:** The security situation in these two states remained under control. Minor incidents of kidnapping/ extortion were however, carried out by the insurgents.

3.13 **Meghalaya:** Violence remained largely confined to the Garo hills and was mostly perpetrated by the GNLA and UALA. Neighboring districts of Goalpara and Dhubri in Assam however witnessed a spillover of the activities of these groups . Two outfits namely ANVC and ANVC (B) , signed a Memorandum of Understanding with Government of India and were disbanded on December 15, 2014.

Situation Along the Border

3.14 **Bilateral Relations with China:** Relations between India and China have improved over the past few years. Constructive engagement at the political, diplomatic and military level is continuing . The year 2014 marked the 60th Anniversary of the Five Principles of Peaceful Coexistence (Panchsheel) and to commemorate the same, the year was declared as the Year of India China Friendly Exchanges. The visit of Chinese President Xi Jinping to India in September 2014 has further strengthened the bonds of friendship and enhanced bilateral cooperation between both the countries.

3.15 China is engaged in creating a favourable environment aimed at achieving its core objectives. China is extending its lines of access towards the Indian Ocean through Myanmar and Pakistan. Its footprint in India's immediate neighbourhood has also been increasing as a result of its proactive diplomacy through political, military and economic cooperation and engagement.

3.16 Indian Army is fully committed to meeting the security needs of the country and the requirement of development of infrastructure in the border areas. All necessary steps have therefore been initiated for the upgrading infrastructure and for force accretions needed for securing national security objectives along the Northern borders.

3.17 **Situation Along the Line of Actual Control (LAC):** The situation along India-China border continues to be peaceful. There are few areas along the border where India and China have differing perception of the LAC. Both sides patrol upto their respective perceptions of LAC. Specific cases of transgression by Chinese patrols into such areas across LAC are taken up with Chinese authorities through the established mechanism of Hot Lines, Flag Meetings and Border Personnel Meetings.

3.18 **Implementation of Border Defence Cooperation Agreement (BDCA):** During this year both countries have had wide ranging discussions on implementation of BDCA. Towards this, the scope of the Border Personnel Meetings has been increased to include conduct of non contact games and joint celebration of festivals.

3.19 **Fourth Joint Training Exercise:** The Fourth Joint Training Exercise was successfully conducted in India (Pune) in November, 2014 aimed at building and promoting positive military relations, inter operability and undertaking joint operations in CT environment. These exercises provided valuable opportunity for greater professional military interaction and for enhancing confidence in each other.

CAPABILITY DEVELOPMENT ALONG NORTHERN BORDERS

3.20 With the growing capability of our adversary on the Northern Borders, a review of capability of our security forces was carried out. Based on the review the Government sanctioned the Capability Development Plan along Northern Borders aimed at enhancing our combat capabilities. This plan ensures that voids are reduced/ eliminated, the offensive capability of the Army is enhanced through induction of force multipliers and necessary combat and logistic elements. Accretions have since commenced with effect from December 1, 2013 as per approved timelines.

DEFENCE COOPERATION WITH NEIGHBOURING AND OTHER SELECTED COUNTRIES

3.21 **Nepal:** With a focus on enhancing military to military relations, defence cooperation between India and Nepal has been further strengthened in various fields. A battalion level exercise was conducted in India from August 18-31, 2014. Regular visits by medical and trekking teams , visits of senior officers and capability enhancement have been undertaken.

3.22 The 11th Nepal India Bilateral Consultative Group on Security (NIBCGS) meeting was held in Kathmandu, Nepal from July 5-7, 2014 wherein defence and security issues of mutual interest were discussed.

3.23 As part of bilateral cooperation, assistance for capacity building, besides one helicopter has been supplied to Nepal Army in the month of November, 2014.

3.24 **Bhutan:** In keeping with the traditional close ties with Bhutan, we are providing assistance for capacity building of the Royal Bhutan Army and Royal Body Guards.

3.25 **Maldives:** As part of ongoing defence cooperation between India and Maldives, some assistance for capacity building has been provided to Maldives in 2014. The 5th Indo Maldives Platoon Level Combined Training/ Exercise (Exercise Ekuverin 2014) was conducted from November 17 to 30, 2014 in Maldives.

3.26 **Myanmar:** To further enhance military to military relations between India and Myanmar assistance for capacity building has been provided to Myanmar in 2014.

Combined Exercises with Friendly Foreign Countries (FFCs)

3.27 Combined Military exercises with FFCs are an important part of defence cooperation. These involve sharing of experiences, understanding the changing dynamics of military operations, developing inter-operability and streamlining the procedures for combined operations including Humanitarian Assistance and Disaster Relief.

3.28 Indian Army is continuously engaging in combined Training/Exercise with friendly foreign countries. The following combined training/exercises have been conducted since January 2014:

(a) The 7th Indo - Nepal Battalion Level Combined Training/ Exercise (Exercise Surya Kiran VII) at Pithoragarh from August 18 to 31, 2014.

(b) The 5th Indo - Maldives Platoon Level Combined Training/ Exercise (Exercise Ekuverin 2014) in Maldives from November 17 to 30, 2014.

3.29 **India - US Joint Exercise YudhAbhyas -2014:** A combined exercise by Indian and US Army was conducted from 17 - 30 September 2014 at Chaubattia, Ranikhet. An Indian Army Special Forces delegation comprising 30 members also attended the exercise along with a nine member US Special Forces team from 1st Special Forces Group.

3.30 **India - Bangladesh Combined Special Forces Exercise Sampriti-IV:** The combined exercise was the fourth in the series of ongoing reciprocal exercise between Indian and Bangladesh Special Forces. The exercise is conducted alternatively in India

and Bangladesh. This year the exercise was conducted in Jalalabad Cantonment, Shylet, Bangladesh from October 19 to 30, 2014. Thirty members of Indian Army Special Forces participated in the exercise.

3.31 **Special Forces Course for Afghan Special Forces:** A tailor made course was conducted for Afghan Special Forces under the aegis of Special Forces Training School, Nahan from October 27 to November 22, 2014. The course was attended by 2 Officers and 18 Other Ranks of Afghanistan Special Forces.

3.32 **India - Sri Lanka Combined Special Forces Exercise Mitra Shakti-II:** The exercise was the second in the series of ongoing reciprocal exercise by India and Sri Lanka. The exercise is held alternatively in India and Sri Lanka. This year the exercise was held from November 3 to 23, 2014 at UdaWalawe, Sri Lanka. 45 members of Indian Army Special Forces participated in the exercise.

3.33 **Training Course for Palestinian Security Forces:** A special course for Palestinian Security Forces was conducted from December 22 , 2014 to January 17, 2015 under the aegis of 50 (I) Para Brigade at Agra. The course was attended by 5 Officers and 15 Other Ranks of the Palestinian Security Forces.

3.34 **Visit of Foreign Delegations:** The following delegations visited various Special Forces institutions:

Sl. No.	Delegation	Location	Duration
(i)	German Army Paratrooper Delegation	50 (I) Para Brigade, Agra & Para Training School, Agra	June 16-20, 2014
(ii)	Egyptian Army Special Forces Delegation	50 (I) Para Brigade, Agra	September 16-17, 2014
		Special Forces Training School, Nahan	Septemer 18-19, 2014

MODERNISATION AND EQUIPMENT

3.35 Modernisation of the Indian Army remains one of its key focus areas. In light of the same impetus is being accorded to the following aspects:

(a) **Lethality:** A Sub Machine Gun has been delivered to the troops of the Infantry. The procurement process for Close Quarter Battle Carbine, Assault Rifle and Light Machine Gun is in advanced stage. Besides, plans are in place for equipping the Infantry with state of the art Sniper, Anti Tank weapons, Missiles, Grenade launchers and its associated ammunition.

(b) **Target Acquisition and Situational Awareness:** Units in the Indian Army

need to be effectively night enabled. Due importance is, therefore, given to equip the weapons with a mix of Image Intensifier and Thermal Imaging based night sights. The procurement of Image Intensifier sight for carbine is being progressed. Also, to enhance situational awareness of the Infantry in all types of weather conditions and during both day and night, schemes for procurement of Mini Unmanned Aerial Vehicles and Flexible Surveillance Devices have been initiated.

(c) **Body Armour:** The procurement of Ballistic Helmet is in an advanced stage and Bullet Proof Jackets are being procured on priority.

(d) **Mobility:** Procurement of a state-of-art vehicle for the Infantry with adequate protection as well as provision for mounting support weapons is under progress. This would enhance the mobility of infantry in all types of terrain.

Modernisation of Field Artillery

3.36 **Guns:** Modernization of Artillery has been on since 2012 and both global and indigenous routes are being adopted to hasten the progress of modernization.

Electronically upgraded Gun System "Dhanush"

Government has recently given a go ahead for the procurement of Mounted Gun System. Upgunning of the existing Guns is also currently under progress as 'Buy & Make Indian'.

3.37 **Nishant UAV**: Nishant UAV system is being inducted into the Army by Aeronautical Development Establishment, Banglore.

3.38 **Manufacture of Indigenous T-90 Tanks:** Indigenously manufactured T-90 tanks are being delivered to the Indian Army from HVF, Avadi.

3.39 **FMBT:** A new futuristic Main Battle Tank is being conceptualised to arm the Mechanised Forces with an Armoured Fighting Vehicle which has advanced technology in terms of enhanced lethality, increased armour protection and mobility. Introduction of FMBT is certain to provide decisive strength and enhance the operational capability of the Mechanised fleet.

3.40 **FICV:** Mechanised Infantry Battalions are equipped with ICV BMP-2/ 2K which is of 1980's vintage. FICV are planned to be inducted into service to replace these. An integrated project management team has been constituted to co-ordinate development and production of FICVs in an acceptable time frame.

3.41 **BMP-II:** BMP-II is a state-of-the-art weapon system and ever since its induction in the year 1986 has undergone various modernization/ upgrades so as to keep pace with the technological development on the battle front. BMP-II has over the years emerged as a powerful weapon system and has enhanced the confidence and morale of the troops using this weapon system. The equipment is being suitably upgraded in terms of both mobility and firepower aspects.

3.42 A continuous upgradation process of BMP-II is on wherin the excellent chassis/ hull of this vehicle has been used to design and induct multiple variants, which would enhance the fighting potential of our Mechanised Forces on the battle field. Armoured Tracked ambulance, Carrier Mortar Tracked (CMT) and Carrier Command Post Tracked (CCPT) are some of the variants of BMP-II which will provide a cutting edge to the Mechanised Forces fleet.

RASHTRIYA RIFLES

3.43 Rashtriya Rifles was raised to tackle the menace of terrorism in the state of Jammu and Kashmir. Since its raising, it has also rendered invaluable assistance towards the security as well as socio-economic development of the state.

3.44 Rashtriya Rifles has left no stone unturned in successfully dominating their area through relentless operations. The Force took on the arduous task of assisting the people

of Jammu and Kashmir severely affected by the devastating floods of September 2014, in spite of suffering damages to own life and property. In addition, maintenance of a comprehensive Counter Insurgency grid during operation MEGH RAHAT has put the terrorist organisations under pressure. Effective sanitization of areas of responsibility by the Force led to successful conduct of Lok Sabha elections and State Assembly polls. The continued presence of Rashtriya Rifles has given people of Jammu and Kashmir much needed assurance to vote without fear or intimidation and the resultant effect is clearly visible in the hither to fore unprecedented high voter turnouts, not seen in the last 25 years. The assiduous efforts of the Force in both operations and disaster relief have been extensively covered in print and electronic media across the country thereby projecting a positive image of the Army in the national as well as international community.

3.45 Utmost patience and perseverance yet urgency were maintained for conversion of untiring efforts into successful operations. During the complete period, units of Rashtriya Rifles were able to exert unrelenting pressure on the terrorists and their sympathizers. The efforts of the Force have ensured peace and near normalcy in the area with unyielding operations against the forces of terror.

3.46 **Conduct of Elections:** An action plan for security during conduct of National and State Assembly elections was prepared to include domination of the line of control, hinterland and of Pir Panjal range. Sensitive and hyper sensitive poll booths were dominated and Para Military Forces were assisted ensuring peaceful conduct of the Elections. This instilled a sense of confidence in the people and the upbeat mood of the people can be gauged by the highest voter turnout in the last 25 years in the State Assembly elections.

3.47 **Perception Management:** A large number of people friendly activities were undertaken to shape the people's perception about the Army and government and this has made a visible change in the way people perceive the Army, besides increasing the comfort levels between 'Awaam' and 'Jawan'. A number of theme based tours for different population groups like school children, unemployed youth and village elders were conducted with an aim to integrate the local population with the national mainstream while also providing an opportunity to experience the nation's historical and cultural heritage. Youth Employment and Guidance Nodes (YEGN), conducted by Rashtriya Rifles effectively targeted the unemployed youth of the State and helped them explore avenues of higher education and employment, thus guiding them away from the lure of easy money and a misplaced sense of power through terrorism.

TERRITORIAL ARMY

3.48 The Territorial Army Act was enacted in 1948. The concept of the TA is to provide part time military training to gainfully employed citizens who become competent soldiers as a result of the military training imparted to them.

3.49 **Prime Minister's TA Day Parade:** On the occasion of Territorial Army Day, Prime Minister's Territorial Army Day Parade held at Army Parade Ground, Delhi Cantt on October 9, 2014 was reviewed by Chief

of Army Staff. Ten marching contingents comprising of Inf (TA) units and Home & Hearth (TA) units, ten Inf Bn (TA) unit Pipe Bands and three tableaus of Dept (TA) units participated in the parade.

Chief of Army Staff reviews PM's TA Day Parade October 9, 2014

3.50 **Contribution of Territorial Army Units in CI/CT and Internal Security:** Presently approx 75 percent of TA units are deployed in the Counter Insurgency/ Counter Terrorism environment in Jammu & Kashmir and North-East and are playing an important role as an adjunct to the Regular Army for carrying out assigned tasks in a professional manner.

3.51 **Indira Gandhi Parayavaran Puraskar:** Ministry of Environment, Forest & Climate Change (MoEFCC), Government of India has confirmed the award of Indira Gandhi Paryavaran Purskar (IGPP) for the year 2011 to 128 Infantry Battalion (TA) Ecological, RAJRIF for their significant contribution made in the field of ecology.

3.52 **Ecological Plantation:** The ecological Battalions of Territorial Army are doing excellent work in afforestation and environment upgradation in various parts of the country. These units have planted approx 6 crore trees in approximately 60,000 hectares of area till date.

UN MISSIONS

3.53 India has been the founder member of United Nations and has been a prolific contributor to UN Peacekeeping Operations since 1950, when 60 Field Ambulance consisting of 346 personnel was deployed in Korea. India has till date participated in 50 UN missions across the globe and has contributed more than 2,15,000 Indian troops to various UN Missions. The most significant contribution of the Indian Army has been to ensure peace and stability in Africa and parts of Asia. Towards the fulfillment of India's commitment to the UN and peace, 157 Indian peacekeepers (Military and Police) have made the supreme sacrifice so far.

3.54 **Leadership in UNPKO:** India has so far provided 16 Force Commanders in various UN Missions. Presently, a Lieutenant General is serving as the Force Commander in UNDOF (Golan Heights). In addition, a Brigadier is serving as Deputy Force Commander in UNIFIL since April 2014 and another Brigadier as Sector Commander in UNMISS since October 2014. Besides the Force Commanders, India also had the honour of providing two Military Advisors and one Deputy Military Advisor to the Secretary General of the United Nations.

3.55 **Our Present Contribution:** India at present is the third largest troop contributor in UN PKO. Presently Indian Army has 7,159 persons deployed in eight UN peacekeeping missions. Our present contributions and achievements in UN missions are as follows:

(a) **MONUSCO (Democratic Republic of Congo) (1999 – till date):** India's contribution to MONUSCO commenced with the deputation of military Observers in 1999. With increased demands for troop contribution, India had deployed an Infantry Brigade Group with four Infantry Battalion Groups, Brigade Signal Company and a Level III Hospital in Congo since November 2004. An Army Aviation Flight was also deployed in the mission area w.e.f. 2009. Democratic Republic of Congo (DRC) is the second largest country in the African Continent and has faced protracted period of unrest and instability since its independence in 1960; a period characterized by two civil wars and ethnic conflicts. The operating conditions for the Indian Brigade in Congo are challenging, replete with inhospitable terrain and adverse climatic conditions. The Brigade is mandated to carry out protection of civilians which is the primary role. The Brigade has contributed significantly towards implementation of the MONUSCO mandate and is regarded extremely favorable by the international community. The efforts of the Indian Brigade have helped in bringing normalcy in North Kivu Province. In a joint offensive with Force Intervention Brigade (FIB) and Congolese Government Forces, M-23 (rebel group) was decimated in April/ May 2014. Presently, the Brigade is assisting in the operations (OP SUKOLA-I and II) against minor rebel groups existing in the territory. The Brigade facilitated surrender of armed cadres including child soldiers and dependents through its bases, thereby encouraging restoration of normalcy in the region. The North Kivu Brigade also undertakes great initiatives for alleviating the suffering of the local Congolese by launching various humanitarian activities. In order to further strengthen Indian contingent's operational capability, 40 Tonnes of critical ammunition was inducted in IAF Globe Master to the mission area on November 15 to 17, 2013. In addition, Indian Army is under process of replacing the entire equipment of the contingents costing Rs 418 Crore. Due to sustained effort of the Indian Brigade deployed in DRC, the security situation in North Kivu has improved and there are realistic chances of laying the foundation for lasting peace in DRC.

(b) UNMISS (South Sudan) (Jul 2011 – till date): The UN Mission in Sudan (UNMIS) was closed down on July 9, 2011 and the UN HQ opened a new mission viz UNMISS (South Sudan). Government of India approved moving the Indian Army contingents which were deployed in UNMIS (Sudan) to UNMISS (South Sudan). On July 9, 2011, the independent state of Republic of South Sudan was formed in a complex and fragile regional environment. India has deployed two Infantry Battalion Groups, a Level II Hospital, Horizontal Military Engineering Company, Petroleum Platoon and a Signal Company in UNMISS. A civil war started in South Sudan in December 2013 due to the ethnic divide in the society. Timely intervention of Indian contingents resulted in saving lives of approximately 40,000 Internally Displaced People (IDP) during the inter tribal clashes. In the last one year, Indian Army has bolstered the operational capability of its contingents in the mission area by inducting four Mine Protected Vehicles (MPVs) in the IAF aircraft on May 19 and 21, 2013. In addition, the entire equipment of the contingents is being replaced and more than half of the equipment has been inducted to the mission area.

(c) UNIFIL (Lebanon) (1998 – till date): The Indian Army's contribution to UNIFIL includes one Infantry Battalion Group, Level I Hospital and Staff Officers. The battalion is deployed in mountainous terrain and has an area of responsibility of approximately 100 square kilometers. The contingent has been successful in maintaining peace and stability in its area of responsibility in spite of the unrest in Syria and Gaza, through relentless patrolling activities in close coordination with Lebanese Armed Forces. The Contingent regularly organises large number of humanitarian activities to include medical, dental and veterinary camps, so as to provide succor and solace to the local population. As a result close contact and special support has been achieved with the local population which further assists in achievement of operational tasks.

(d) UNDOF (Golan Heights) (2006 – till date): India has deployed a logistic Contingent as part of UNDOF in Golan Heights. The contingent is responsible for providing second line logistics support to the mission. The contingent has done a commendable job in spite of the withdrawal of Japanese, Croatian and Austrian contingents from the mission and more recently withdrawal of Philippines Battalion in September 2014.

Human Rights Protection Record

3.56 India has a policy of zero tolerance with regard to conduct and discipline of troops including, Sexual Exploitation and Abuse (SEA). India favours induction of more female peacekeepers and encourages DPKO to be more proactive in this process. The officers and men of the Indian Army are proud of their heritage and have an unmatched reputation to live up to. Their sense of commitment to duty inspires them to give sacrifice of the highest order to uphold the glorious traditions of the Army. As in numerous and complex UN missions over the past five decades, the Indian Army can be trusted, when called upon, to participate in future UN peacekeeping endeavors with professional elan.

3.57 All Indian soldiers leaving the shores to participate in a UN mission take an oath administered on behalf of the President of India. Neutrality, fairness and respect for human rights have to be an essential component of their training and at all times they have to also provide an element of reassurance by their very presence. India has had one of the best records in the arena of human rights amongst peacekeepers. Despite being one of the largest troop contributors till date, our HR records are immaculate and best in comparison to all other countries.

4

INDIAN NAVY

Commissioning of INS Kolkata

The Indian Navy is the prime enabler and guarantor of the country's maritime sovereignty and myriad use-of-sea activities.

4.1 The Indian Navy (IN) is the prime enabler and guarantor of the country's maritime sovereignty and myriad use-of-sea activities. This is discharged by the Indian Navy through its four roles – military, diplomatic, constabulary and benign. The objective of the Navy's military role is deterrence/ dissuasion against any intervention or act which is against our National interests, and the ability to inflict a crushing defeat on the adversary in the event of hostilities. A major objective of the Navy's Constabulary role is to ensure coastal security and implement anti-piracy measures.

4.2 The Maritime Military Strategy recognises that one of the major tasks of the Indian Navy during the 21st Century is to use maritime power in support of the national foreign policy. To achieve this, the Indian Navy needs to project power and show presence in our primary and secondary areas of interest; catalyse partnerships through maritime capability; build trust and create interoperability through joint/ combined exercises and international maritime assistance. The strategy also highlights Indian Navy's role in maintaining peace and tranquillity in the Indian Ocean Region (IOR) and in meeting the expectations of our friends.

4.3 India is a maritime nation and the country sits astride a very large number of busy International Shipping Lanes that criss-cross the Indian Ocean. More than 90% of our trade by volume and 77% by value is transported over the seas. For a rapidly growing economy seeking new markets worldwide, these figures will only increase in the future.The IOR is also beset by a number of security-related challenges. These include natural and man-made disasters, sea-borne trafficking in drugs, arms, human beings, piracy and terrorism. As most of these challenges have trans-national/ trans-regional footprint, it becomes imperative to seek collective solutions to these issues. The Indian Navy does so by a process of 'Constructive Engagement' with our maritime partners.

4.4 The Indian Navy has been actively pursuing activities towards capability building and capacity enhancement of Navies of friendly countries in the IOR. Towards this end, India has been providing hardware and platforms, which includes ships and aircraft for Exclusive Economic Zone (EEZ) surveillance. Indian Navy has also been instrumental in maritime infrastructure development of friendly nations. Its initiatives are also geared to contributing towards developing operational and technical skills of maritime practitioners. Material assistance in terms of providing spares, AIS equipment, Ship Handling Simulators, ammunition, communication equipment, coastal surveillance radars, boats, etc to the navies/ maritime forces in the region. This has gone a long way in strengthening India's stature and bilateral ties.

4.5 A frontline Fleet ship has been continuously deployed in the Gulf of Aden

region since October 2008 on a rotational basis to prevent piracy attacks and safely escort merchant ships of Indian and foreign nationalities.

4.6 Protection to offshore assets including Offshore Development Areas (ODAs) has been augmented with deployments of the newly inducted Immediate Support Vessels (ISVs). Regular exercises have been conducted at ODAs to validate the safety and security of ODA platforms which are vital to India's energy security.

OVERSEAS OPERATIONS

4.7 **Search and Rescue Operation of Missing Malaysian Aircraft:** Malaysian Airlines Aircraft MH 370 was reported to be missing on the night of March 7/8, 2014, during flight from Kuala Lumpur to Beijing. A search and rescue operation was undertaken (Operation Sahayata) by the Indian Navy from April 13-17, 2014 by INS Kumbhir, Kesari and Saryu. Operation Haystack for the same incident was undertaken by INS Saryu, Bangaram and Battimalv from April 19-26, 2014. P-8I maritime surveillance aircraft of the Indian Navy were also deployed for search operations.

4.8 **Operation Capella:** INS Mysore was deployed in the Persian Gulf from end June to July 2014 and was standby to undertake evacuation of personnel from Iraq.

4.9 **Eastern Fleet Overseas Deployment (OSD):** Indian Navy ships Shakti, Ranvijay and Shivalik were deployed in the South China Sea, Sea of Japan and Western Pacific Ocean in July-August 2014. The Indian Navy ships undertook two major exercises viz. INDRA 14 with the Russian Navy and Malabar 2014 with the US Navy.

4.10 **Western Fleet OSD:** Indian Navy ships Deepak, Mumbai, Talwar and Teg were deployed in the Southern Indian Ocean in October-November 2014 and visited Antisiranana, Mombasa, Dar–es–Salem, Simon's Town, Cape Town, Port Louis, St Denis, Port Victoria and Nacala during the OSD.

4.11 **OSD of Training Squadron:** Indian Navy ships of 1st Training Squadron visited Abu Dhabi and Muscat as part of training for sea cadets.

MAJOR EXERCISES

4.12 **Jal Prahar 14:** An amphibious training exercise (Jal Prahar 14) was conducted in the A&N Islands from October 27 to November 7, 2014. The exercise had representation from all the three Services.

4.13 **TROPEX 14:** The Indian Navy's annual Theatre Level Operational Readiness Exercise (TROPEX) was conducted from end January to February 2014. A total of 55 ships, 60 aircrafts and 3 submarines, including the newly acquired P8I Long Range Maritime Patrol aircraft and INS Chakra participated in the exercise. The exercise was conducted over an area of 36 lakh square miles with units deployed at extended ranges of over 3,500 km from their bases.

4.14 **Defence of Gujarat Exercise 14 (DGX 14)**: Defence of Gujarat Exercise was conducted from 18 to 28 November 2014, on the Western Seaboard, with participation from Indian Air Force and Indian Coast Guard units. The aim was to validate the defence of coastal areas and offshore assets against threats in less than war scenario and also prepare for coastal security situations escalating into full fledged hostilities.

EXERCISES WITH FOREIGN NAVIES

4.15 **MALABAR–14:** Indian Navy and United States Navy have been regularly participating in bilateral exercise 'MALABAR' since 1992. The 18th edition of MALABAR was held off the coast of Japan in July 2014, which also included participation by the Japanese Maritime Self Defence Force (JMSDF).

4.16 **SIMBEX–14:** Singapore India Maritime Bilateral Exercise (SIMBEX) is held in March-April each year, alternately in the Bay of Bengal and the South China Sea. SIMBEX-14 was held in the Andaman Sea in May 2014 with the Singapore Navy.

4.17 **Exercise KOMODO:** Indian Navy participated in the Multilateral Humanitarian Assistance and Disaster Relief Exercise, 'KOMODO', held from March 28 to April 3, 2014 at Batam, Indonesia. The exercise included Land and Ship Medical Evacuation Exercise (MEDEVAC) and Engineering Civic Action Programme (ENCAP) during the Civic Mission Phase.

4.18 **RIMPAC–14:** RIMPAC is the largest multilateral naval exercise in the world. RIMPAC 2014, the 24th edition of the exercise, was conducted from June 27 to August 1, 2014 off Hawaii. The Indian Navy was represented by INS Sahyadri and a two-member delegation as Exercise staff.

4.19 **INDRA–14:** India-Russia naval exercise 'INDRA' is being conducted since 2003. The INDRA 14 was conducted in the Sea of Japan in July 2014.

4.20 **IBSAMAR–14:** Indian Navy participates in the biennial exercise India Brazil South Africa Maritime Exercise (IBSAMAR) with the Brazilian Navy and South African Navy. IBSAMAR IV was conducted off South Africa in November 2014.

Coordinated Patrol (CORPAT) with Indian Ocean Region Littoral Navies

4.21 **Indian Navy - Malaysian Navy CORPAT:** The maiden Indian Navy-Malaysian Navy CORPAT was conducted in March 2013 off the A&N Islands. The 2nd CORPAT was conducted from February 13-20, 2014, with an opening ceremony at Port Blair, in conjunction with MILAN-14, and closing ceremony at Yangon.

4.22 **IND-INDO CORPAT:** The signing of a Defence agreement between India and Indonesia in January 2001 has resulted in considerable enhancement of interaction between the navies of the two countries in the form of a periodic coordinated patrol. This coordinated patrol called "IND-INDO CORPAT" is conducted every year in March/ April and September/ October, along the International Maritime Boundry Line (IMBL). A total of 24 CORPATs have been undertaken till date. In 2014, CORPATs were conducted in April and September 2014.

4.23 **INDO - THAI CORPAT:** Indo-Thai Coordinated Patrols (CORPAT) are being conducted regularly since 2005. Two CORPATs are held each year and a total of 19 CORPATs have been conducted till date. The 18th CORPAT was conducted in April 2014, and the 19th edition in November 2014.

Anti-Piracy

4.24 Indian Navy ships have undertaken 47 deployments in the Gulf of Aden since

October 2008. During these deployments, 3,033 merchant ships have been escorted till December 31, 2014, which includes 345 Indian flagged vessels. Consequent to operations by the Indian Navy and Indian Coast Guard, there has been no piratical activity in the Indian Exclusive Zone (EEZ) since April 2012. Towards streamlining response mechanisms to piratical situations, standard procedures have been formulated which are being deliberated and reviewed regularly.

4.25 Indian Navy has been an active member of anti-piracy forums through the Shared Awareness and Deconfliction (SHADE) forum for coordination of naval effort and the Contact Group of Piracy off the Coast of Somalia (CGPCS) and has been constantly striving towards generating discussion on emerging issues including proliferation of arms and ammunition in the maritime domain.

4.26 Indian Navy ships and aircrafts are also being regularly deployed for surveillance of the EEZ of Maldives, Mauritius and Seychelles at the request of host governments.

COASTAL SECURITY

4.27 The National Command Control Communication Intelligence (NC3I) Network was operationalised on November 23, 2014. The NC3I Network, integrating 51 nodes of the Indian Navy and Coast Guard, has been established to develop a Common Operational Picture (COP). The network will integrate inputs from the Chain of Static Sensors, 74 stations of the National Automatic Identification System (NAIS) Chain, Long Range Identification and Tracking (LRIT) and information from open sources.

Operationalisation of National Command Control Communication Intelligence

4.28 16 Fast Interceptor Craft (FIC) have been inducted into the Sagar Prahari Bal in 2014. With this induction, the Indian Navy has inducted 47 out of 95 FICs being planned. Balance FICs are planned to be inducted in a phased manner by 2017. Towards enhancing offshore security, 10 out of 23 Immediate Support Vessels (ISVs) being inducted into the Indian Navy have been commissioned in 2014. Another 10 ISVs are planned to be commissioned by early 2015.

4.29 Coastal Security exercises are contributing towards improving inter-agency coordination and strengthening maritime, coastal and offshore security. Being the national authority responsible for overall maritime security, which includes coastal and offshore security, efforts are being made to strengthen existing mechanisms and increasing the complexity of such exercises. The Indian Navy has actively engaged with all stakeholders by assisting them in training as well as by providing inputs on various issues that impinge on maritime security. These issues include trials on biometric card, trials of tracking systems for fishing vessels, and specialised inputs on procurement of boats by various agencies. In view of the importance of fishermen and coastal communities,

the Indian Navy continues to engage with fishermen and coastal communities through community interaction programmes.

FOREIGN COOPERATION

4.30 **MILAN – 2014:** A biennial congregation of littoral Navies of the Asia-Pacific Region was conducted at Port Blair from February 2-10, 2014. MILAN-14 saw the largest participation till date. A total of 14 foreign countries viz Australia, Bangladesh, Indonesia, Kenya, Cambodia, Malaysia, Maldives, Mauritius, Myanmar, New Zealand, Philippines, Seychelles, Singapore, Tanzania, Sri Lanka and Thailand participated. The event was professionally conducted and well appreciated by the visiting Navies.

4.31 **Deputation of Hydrography Team:** India is assisting the Government of Mauritius in setting up their hydrography department. Consequently, one officer and two sailors have been deputed to the Ministry of Land and Housing, Mauritius for one year.

4.32 **Hydrographic Survey at Kenya and Tanzania:** The survey of the port of Mombasa was undertaken by Indian Navy survey ship Jamuna from November 25 to December 25, 2013 and Joint Operational Survey with Tanzania of Dar–es–Salem harbour from December 26, 2013 to January 25, 2014. On a special request, a joint survey was undertaken off Manda Bay and Mkokoni off Mombassa from September 15 to October 15, 2014 and off Dar-es-Salam from October 15 to November 15, 2014.

NAVY-TO-NAVY INTERACTION

4.33 **UN Mission:** The Staff Officer MOVCON for the UN Mission to Sudan (UNMIS) is a standing vacancy to be filled-in by Government of India. Within the three Services, the vacancy has been allotted to the Indian Navy and officers are being deputed since January 30, 2006.

4.34 **IONS (Indian Ocean Naval Symposium) 2014:** IONS Symposium and Conclave of Chiefs was held from 25 to 28 March 2014 at Perth, Australia. The draft Charter of Business (CoB) was accepted by consensus and was brought into effect. All permanent members were requested to confirm their acceptance formally of the CoB within 12 months, and also their acceptance to be permanent members. Further, the applications of China and Japan were accepted for granting Observer status.

GIFTING OF ASSETS TO FOREIGN COUNTRIES

4.35 **Gifting of INS Tarasa to Seychelles:** INS Tarasa was gifted to Seychelles on November 7, 2014 by the Chief of the Naval Staff on behalf of the Government of India.

4.36 **Construction of MOPV 'Barracuda' for Mauritius at Garden Reach Shipbuiders & Engineers (GRSE):** The Mauritius OPV, 'Barracuda', was launched on August 2, 2013 at GRSE by Mrs K O Fong Weng-Poorun, the Senior Chief Executive, PMO Mauritius. The vessel is the first foreign order warship under construction in India and was delivered to Mauritius on December 20, 2014. Two Indian Navy officers have been appointed as the Commanding Officer and Engineer Officer respectively.

4.37 **Supply of Landing Craft to Maldives:** One Landing Craft Auxiliary (LCA) was handed over to the Maldivian Navy in February 2014 by the External Affairs Minister.

COMMISSIONING AND DECOMMISIONING

4.38 **Commissioning of INS Sumedha:** INS Sumedha, a Naval Offshore Patrol Vessel (NOPV), built at Goa Shipyard Limited (GSL), Goa, was commissioned on March 7, 2014 at Goa.

4.39 **Commissioning of INS Kolkata:** INS Kolkata, the lead ship of the Kolkata-class guided missile destroyers, was commissioned in the Indian Navy by the Prime Minister on August 16, 2014. Designed by the Indian Navy's in-house organization, Directorate of Naval Design, and constructed by Mazagon Dock Limited, Mumbai, the ship has advanced weapons and sensors. In consonance with the national vision of achieving maritime security through self-reliance, the Kolkata class ships have significantly higher level of indigenization as compared to the Delhi class.

4.40 **Commissioning of INS Kamorta:** INS Kamorta, the first ship of the Kamorta class stealth ASW Corvettes, was commissioned by the Raksha Mantri on August 23, 2014 at Visakhapatnam. INS Kamorta is the first warship built in the country with 90% indigenous content including special grade high tensile steel produced by Steel Authority of India. The majority of the sensors and weapon system fitted onboard are also of indigenous make.

4.41 **Commissioning of INS Sumitra:** INS Sumitra, a Naval Offshore Patrol Vessel (NOPV), built at GSL, Goa, was commissioned by the Chief of the Naval Staff on September 4, 2014 at Chennai.

4.42 **Commissioning of 84th Immediate Support Vessel (ISV) Squadron at Visakhapatnam:** On June 4, 2014, three ISVs were commissioned at Visakhapatnam for patrolling the Offshore Development Area (ODA) on the East Coast.

4.43 **Decommissioning of INS Tarasa:** INS Tarasa, a Fast Attack Craft, was decommissioned on November 11, 2014 and transferred to the Government of Seychelles.

4.44 Decommissioning of INS Nirdeshak: INS Nirdeshak, a survey ship, was de-commissioned on December 19, 2014.

GROWTH OF NAVAL AVIATION

4.45 Naval Aviation is poised at a crucial juncture on its path towards modernisation. The significant expansion of Naval Aviation requires concomitant attention to various aspects of perspective planning, operations, HR, training and flight safety, as also augmentation of infrastructure at our existing and planned Naval Air Stations and Naval Air Enclaves. Numerous initiatives have been undertaken in the Indian Navy's quest towards ensuring a potent, professionally competent and operationally ready Air Arm of the future. Towards this, induction of state-of-the-art aircraft like P-8I, AJTs and MiG-29 K fighters is in progress.

4.46 **Rebasing of INAS 551:** INAS 551 with Kiran aircraft was based at INS Hansa, Goa. With the induction of Hawk AJT, INAS 551 was rebased at INS Dega, Visakhapatnam w.e.f. January 1, 2014. The Squadron is operating the Hawk aircraft and is conducting training of fighter pilots.

4.47 **MiG 29K Fighters:** MiG 29K is a multipurpose, ship-based fighter aircraft designed for destroying aerial targets as well

as surface ships and shore objects of the enemy. One operational squadron (INAS 303) has been commissioned in May 2013 at Goa. A training squadron is scheduled to be commissioned in early 2015.

IMPORTANT EVENTS OF INTEREST

4.48 **Raksha Mantri's Visit:** Raksha Mantri visited INS Viraat on June 7, 2014. He was presented with a 50 man guard of honour and was, thereafter, briefed on operations in Western Naval Command on the flight deck. Admiral, the Chief of Naval Staff and Vice Admiral, Flag Officer Commanding-in-Chief (West) were also present onboard on the occasion.

4.49 **Prime Minister's Day at Sea:** Prime Minister of India embarked INS Vikramaditya at sea on June 14, 2014. He was accompanied by the Chief Minister of Goa, the National Security Advisor, MoS (IC), Culture and Tourism, CNS, FOC-in-C (West), Defence Secretary and other MoD/ GoI officials off Goa. He witnessed a variety of naval operations. On that day, the PM in his speech, dedicated the Ship to the service of the nation.

4.50 **Visit of the Vice-President of India:** The Vice-President of India (along with his spouse) visited INS Vikramaditya on September 22, 2014. Ships of the Western Fleet were at anchorage off Karwar during this period. During the visit, the Vice-President had a glimpse of the might of the air wing of the carrier.

4.51 **Standing Committee on Defence:** The Standing Committee on Defence visited Mumbai on October 31, 2014 and was briefed on the operational preparedness of the Command and issues related to the Ex-servicemen and the Canteen Stores Department. They also visited INS Kolkata on completion of the briefing.

4.52 **Golden Jubilee (1964 2014) of Indigenous Design and Construction of Warship by Indian Navy:** The Directorate of Naval Design (Surface Ship Group) celebrated 50 years of Indigenous Design and Construction of Warship by Indian Navy on September 25, 2014. The event was marked by a one day seminar which was attended by renowned speakers from across the globe related to Ship Design and construction. In the last five decades of indigenous design and warship building, the Design Organization has made several strides to meet the growing aspirations of the Navy for timely production of state-of-the-art warships embodying latest technologies.

4.53 **24 Hours Operations at INS Dega for Civil Flights:** Visakhapatnam is one of the three 'joint-user aerodromes', controlled by the Indian Navy (in addition to Goa and Port Blair). Towards facilitating unhindered civil flight operations, the Indian Navy has been providing complete support for 24 hour flight operations for civil and military aircraft w.e.f January 1, 2014. This includes provision of the airfield, safety services, air traffic control and other associated facilities.

5

INDIAN AIR FORCE

MI-17 V5 helicopter of IAF during Humanitarian Assistance and Disaster Relief (HADR) operation

The IAF's Doctrine is to acquire strategic reach and capabilities across the spectrum of conflict that serve the ends of military diplomacy, nation building and enable force projection within India's strategic area of influence.

5.1 On October 8, 2014, Indian Air Force (IAF) celebrated the 82nd anniversary of its service to the nation. Its journey to this point has been shaped by committed professionalism, steadfast duty and a consistent vision for the future. The IAF's Doctrine articulates this vision as, "To acquire strategic reach and capabilities across the spectrum of conflict that serve the ends of military diplomacy, nation building and enable force projection within India's strategic area of influence."

5.2 Continuing its story of evolution to become an aerospace power, IAF has acquired assets and expanded operations to span a wide spectrum of capability. Additional Su-30 MKI aircraft are joining the existing fleet, C-17 Globemaster III aircraft have imparted strategic dimension to airlift, while the C-130 J30 aircraft augment the medium airlift and Special Operations role. Medium lift helicopters have provided a surge towards modernisation with the Mi-17 V5. Air Defence Radars have been inducted to improve coverage of Indian airspace and Surface to Air Missile capability is receiving a fillip with the Akash missile system being made operational.

5.3 Consequent to this expansion is a requirement for infrastructure to cater for modern systems, which often require very specific conditions for operations, maintenance and storage. In 2014-15, the IAF consolidated its inductions, and laid emphasis on the supporting environment for its enhanced inventory. This included a careful look at training programmes that would prepare its air warriors – officers and airmen – to optimally understand and exploit these systems.

5.4 Humanitarian Assistance and Disaster Relief (HADR) is one of the key tasks of the IAF, and it has risen to the challenge whenever called upon to do so. The calamitous floods in Kashmir Valley this year saw the IAF undertake Operation Megh Rahat. Approximately 70 IAF aircraft were deployed in HADR missions. In coordination with the Indian Army, National Disaster Response Force (NDRF) and civil agencies, over 96,000 people were rescued and over 3500 tonnes of relief material airlifted. Air effort during Cyclone Hudhud in Orissa was another sterling contribution by the IAF. Also, air support provided during the 2014 General Elections, search and rescue operations, air maintenance missions flown towards Operation Triveni as well as sustained air maintenance for Indian Army were notable achievements during the year.

5.5 Fulfilling its mandate as the Air Force of a proud nation, the IAF re-dedicated itself to the belief that it will continue to be exclusive for its exceptional professional standards, while remaining inclusive in its service to the people of India.

OPERATIONS

Key Acquisitions and Upgrades

5.6 **Su-30 MKI:** Delivery of additional Su-30 MKI aircraft contracted with Hindustan

Aeronautics Limited (HAL) continued this year, and is planned to be completed by 2016-17. Modification work on Su-30MKI for integration of BrahMos missile on the aircraft has been completed. Meanwhile, indigenously developed Astra 'Beyond Visual Range' Air-to-Air Missile was successfully test fired from Su-30 MKI aircraft.

Astra Firing from Su 30MKI

5.7 **Mirage 2000 Upgrade:** The project for upgrade of Mirage 2000 aircraft is under implementation. Post upgrade, the aircraft would have a new radar with multiple aerial target engagement and enhanced air-to-ground capabilities.

Mirage 2000 Upgrade Aircraft

5.8 **MiG-29 Upgrade:** After completing the final stages of flight tests, Series Upgrade for the MiG-29 fleet has commenced at a Base Repair Depot of the IAF.

MiG-29 Upgrade Aircraft

5.9 **Jaguar DARIN-III Upgrade:** Jaguar aircraft has flown with its enhanced navigation and weapon delivery capabilities. Upgrade of the engine alongside will provide extended operational relevance for this aircraft.

5.10 **Tejas Light Combat Aircraft:** With HAL having commenced series production of Light Combat Aircraft, its operational induction is anticipated in 2015.

5.11 **Helicopters:** Rotary wing capabilities of the IAF have already seen a major boost with induction of Mi-17 V5, which has better avionics, weapon systems and improved performance. The existing Mi-17 and Mi-17 1V helicopters are also proposed to be upgraded. Mark III variant of Advanced Light Helicopters (ALH) is already in the process of induction; the Weapon System Integrated (WSI) version, ALH Mark IV, is also planned to be inducted after certification.

Mi-17 V5 Helicopter

Milestones

5.12 **C-17 Globemaster III:** A contract for supply of C-17 aircraft was signed with United States Government in June 2011. C-17 aircraft is a heavy military cargo aircraft capable of operating from high altitude airfields in hot conditions and conveys combat units over thousands of kilometers with in-flight refueling capability, thereby reducing re-deployment

time within India and abroad. Its induction has given a significant strategic reach to the IAF. During recent floods in Kashmir and devastation caused by cyclone 'Hudhud' in the coastal regions of Odisha and Andhra Pradesh, C-17 aircraft were pressed into operation, providing enhanced effectiveness of aid to the civilian population. The fleet is being operationalised in a graduated manner. In addition to routine air transport roles, the fleet has also been utilised to airlift critical load for missions abroad.

C-17 Globemaster III

5.13 **Pilatus PC -7 Mk-II Basic Trainer Aircraft:** IAF has inducted the PC-7 MK II Basic Trainer Aircraft (BTA) from M/s Pilatus, Switzerland. Since first delivery of BTA in February 2013, this highly reliable fleet has flown more than 22,000 flying hours. Delivery of all contracted aircraft is expected to be completed by August 2015.

5.14 **Additional C-130 J30:** The first C-130 J30 sqn has been made fully operational. More aircraft are planned for procurement that would give a boost to Special Operations and air mobility potential of the IAF. The platform is also extremely versatile in HADR response situations.

5.15 **Indigenous Procurement:** Of late, a conscious decision has been taken to promote indigenous development and procurement of military hardware. The Light Combat Helicopter (LCH) and the Light Utility Helicopter (LUH) are both at a fairly advanced stage of Design and Development. Induction of these helicopters is projected by 2020.

Air Defence Network

5.16 **Akash Missile System:** Akash Air Defence Weapon System is an all-weather Air Defence weapon system for defending vital assets against targets penetrating from low, medium and high altitudes. A contract for Akash Squadrons was signed with M/s Bharat Electronics Limited (BEL), Bangalore. Some Squadrons have been made operational and equipment for some others has been delivered.

5.17 **SPYDER Missile System:** IAF is procuring SPYDER Missile System from M/s Rafael, Israel to provide quick response against aerial threats at low altitude, for the protection of High Value Assets (HVAs).

5.18 **Control and Reporting:** In order to augment its surveillance capabilities, IAF is continuing to modernise its radar network. To that end, radars incorporating new frontline technology are being inducted

and made operational. These include Rohini Radars, Medium Powered Radars, and radars to augment Low Level coverage.

5.19 **Release of Vayusenix 3.0:** IAF uses a customised Operating System called Vayusenix to secure the computers of IAF connected on the Internet from persistent cyber attacks. Major highlights of the new updated Vayusenix Version 3.0 are:

(a) More user friendly with look and feel of windows.

(b) All users are able to customise their desktop.

(c) Browser is customised to block malicious and inappropriate websites.

5.20 **Captive Communication for Operations:** Keeping pace with its modernisation needs, IAF has taken a giant leap towards Net-Centric Warfare (NCW) with convergence of voice and data systems with an IP based network called AFNET. AFNET is based on OFC backbone with Satcom fallback for vital communications.

5.21 The Tropo Communication network has been the mainstay of the Air Defence communication network of the IAF for the past four decades. This network with point-to-point telephone lines between the Air Defence Direction Centres (ADDCs), Ground Control Interception (GCI) Radars and Air Bases provided instantaneous voice, facsimile and data communication facilities to update Air Situation Picture (ASP) at ADDCs.

5.22 The existing Tropo communication network is being upgraded to provide an overlay to AFNET. The upgraded Tropo Communication system will provide IAF a captive, reliable and secure IP based tele-communication network necessary for modern Air Defence Communications with an expected availability of 99.9%.

Exercises with Foreign Air Forces

5.23 **Exercise Garuda-V:** The fifth Indo-French exercise Garuda-V was successfully conducted at Air Force Stations Jodhpur and Agra from June 2 to 13, 2014. The French Air Force (FAF) participated with four of its Rafale multi-role fighters, one KC-135 Flight Refuelling Aircraft and a contingent of 94 FAF personnel. The exercise provided an excellent opportunity for both air forces to gain an understanding of each other's operational philosophies.

5.24 **Indo-Russian Exercise:** The first Indo-Russian exercise AVIA INDRA-14 was conducted in two phases. The theme of the exercise was to prepare and conduct combat activities by mixed (Indo-Russian) fighter, helicopter and Air Defence crew. Phase-I of the exercise was conducted successfully in Russia from August 25 to September 5, 2014, in which a 20 member IAF contingent participated. Phase-II of the exercise was conducted from November 17 to 28, 2014 at Air Force Station Halwara. 18 Russian Federation Air Force personnel participated in this exercise. The flying exercise was conducted on IAF Su-30 MKI fighter aircraft as well as on Mi-35 and Mi-17 helicopters.

5.25 **India-Singapore Ex JMT-14:** A joint India-Singapore flying exercise JMT-14 was conducted at Air Force Station Kalaikunda from October 13 to November 20, 2014. Six F-16 aircraft and 108 personnel of Republic of Singapore Air Force (RSAF) participated in this exercise.

IAF and RSAF aircraft in formation during Ex JMT-14

5.26 **Other Exercises:** Indo-Sri Lanka Special Forces Ex 'Mitra Shakti-II' and Indo-China Joint Training/Ex 'Hand in Hand 2014' were conducted in October and November 2014 respectively.

5.27 **Aerospace Safety:** For reducing the number of aircraft incidents/ accidents, Government had instituted an Expert Committee on Aircraft Accidents (EXCOM) in 2005. The committee brought out the need for undertaking Joint Quality Audit (JQA) of HAL divisions and IAF operating units, with members from both HAL and IAF for transparent sharing of problems and resolving these with mutual help. Joint Quality Audit of HAL manufacturing divisions and IAF operating units was thus initiated once in two years. JQA team would critically examine the production and maintenance practices, documentation and Quality assurance at the HAL production facilities as well as IAF operational units and recommend measures to improve efficiency, reliability and safety.

5.28 **Development of Infrastructure in North-East:** The decision to go ahead with the development of infrastructure in Eastern Air Command Area of Responsibility (AOR) was taken in 2008. Consequently, an empowered committee to oversee the progress of works was constituted and detailed project reports for various infrastructure development works including development of ALGs in Arunachal Pradesh were accorded approval. The works at ALGs and a few other Air Force Stations in EAC AOR are under progress. This would enhance the operational capabilities of Indian Air Force and will definitely give a boost to civil aviation and Tourism in the state of Arunachal Pradesh.

6

INDIAN COAST GUARD

Coast Guard Flag Flying High; Multi Dimensional and Coordinated Operation

Indian Coast Guard has been designated as the authority responsible for Coastal Security in territorial waters including waters to be patrolled by Coastal Police.

6.1 Indian Coast Guard (ICG) came into being on February 1, 1977 on approval of the Cabinet Committee on Political Affairs to set up an interim Coast Guard Organization. The service was formally established as an independent organization on August 19, 1978 with the enactment of Coast Guard Act, 1978. The Coast Guard began in 1978 with two frigates taken from the Indian Navy and five patrol boats from the Department of Customs. Since inception, the service has acquired a wide range of capabilities both surface and airborne to undertake the assigned tasks during peace time and to supplement the efforts of Indian Navy during war.

6.2 **Organisation:** The Command and Control of the Coast Guard lies with the Director General of Indian Coast Guard, New Delhi. The Organisation has five Regional Headquarters located at Gandhinagar, Mumbai, Chennai, Kolkata and Port Blair. These Regional Headquarters exercise command and control in the waters adjoining the entire coastline of India through fourteen Coast Guard District Headquarters located along the coastal states of India. In addition, there are 42 Stations, 2 Air Stations, 6 Air Enclaves and 1 independent Air Squadron at various strategic locations for undertaking effective deployment of ships and aircraft for Search & Rescue and maritime surveillance.

6.3 **Duties and Functions:** The duties of Coast Guard are as follows:

(a) Ensuring the safety and protection of artificial islands, offshore terminals, installations and other structures and devices in Maritime Zone.

(b) Providing protection to fishermen including assistance to them at sea while in distress.

(c) Taking such measures as are necessary to preserve and protect the maritime environment and to prevent and control marine pollution.

(d) Assisting the customs and other authorities in anti-smuggling operations.

(e) Enforcing the provisions of such enactments as are for the time being in force in the maritime zone.

(f) Such other matters, including measures for the safety of life and property at sea and collection of scientific data, as may be prescribed.

6.4 During the course of time the following additional duties have been assigned to the Indian Coast Guard:

(a) National Maritime Search and Rescue Coordination Authority.

(b) Coordinating Authority for National Oil Spill Disasters.

(c) Coordination for security in the offshore oil-fields.

(d) Focal point in India for information sharing under the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia.

(e) Lead Intelligence Agency for maritime borders.

COASTAL SECURITY

6.5 Indian Coast Guard has been designated as the authority responsible for Coastal Security in territorial waters including waters to be patrolled by Coastal Police. The Director General, Indian Coast Guard has also been designated as Commander, Coastal Command and is responsible for overall coordination between Central and State agencies in all matters relating to Coastal security.

6.6 **Coastal Security Exercises:** Indian Coast Guard, in coordination with Navy, has been undertaking patrolling and surveillance of the entire coastline. Since 2009, a total of 108 Coastal Security exercises have been conducted for ensuring effectiveness of the coordinated patrolling and validation of Standard Operating Procedure.

6.7 **Coastal Security Operations:** The deployment of the Coast Guard Ships and Aircraft has been increased for Coastal Security in addition to patrolling in the Exclusive Economic Zone. A total of 150 Coastal Security operations have been conducted since 2009, in coordination with all stake holders.

6.8 **Community Interaction Programmes:** Indian Coast Guard conducts regular interaction with fisher folks through Community Interaction Programmes. Since 2009, a total of 3179 Community Interaction Programmes have been conducted to sanitize fishermen on safety and security issues and to create awareness about usage of life saving equipment like Distress Alert Transmitters, lifebuoys and life jackets etc.

SIGNIFICANT MILESTONES AND ACHIEVEMENTS

6.9 **Establishment of Coast Guard District Headquarters No. 13 at Puducherry:** Coast Guard District Headquarters No. 13 at Puducherry has been established on May 15, 2014.

6.10 **Commissioning of Coast Guard Stations:** Two Indian Coast Guard Stations at Frazerganj (West Bengal) and Nizampatnam (Andhra Pradesh) have been commissioned on April 14, 2014 and November 25, 2014 respectively.

6.11 **Commissioning of Fast Patrol Vessels (FPVs):** Five Fast Patrol Vessles, namely ICGS Abhiraj, ICGS Achook, ICGS Agrim, ICGS Amal and ICGS Amartya have been commissioned on September 2, 2014, June 7, 2014, June 7, 2014, November 5, 2014 and November 5, 2014 respectively.

6.12 **Induction of Fast Patrol Vessel (FPV):** One Fast Patrol Vessel namely Indian Coast Guard Ship Ameya has been inducted on November 20, 2014 and is due to be commissioned shortly.

6.13 **Commissioning of Air Cushion Vehicles (ACVs):** Four Air Cushion Vehicles, namely H-195, H-196, H-197 and H-198 have been commissioned on May 13, 2014, November 10, 2014, October 11, 2014 and November 10, 2014 respectively.

6.14 **Commissioning of Interceptor Boats (IBs):** Nine Interceptor Boats (IBs) namely, C-427, C-408, C-407, C-409, C-410, C-428, C-429, C-411 and C-412 have been commissioned on November 6, 2014, May 21, 2014, May 30, 2014, November 15, 2014, November 5, 2014, November 6, 2014, November 6, 2014, November 15, 2014 and November 15, 2014 respectively.

6.15 **Induction of Interceptor Boat (IB):** One Interceptor Boat, namely Indian Coast Guard Ship C-413 has been inducted on December 15, 2014 and is due to be commissioned shortly.

6.16 **Commissioning of Coast Guard Air Enclave:** One Coast Guard Air Enclave at Bhubaneswar has been commissioned on December 15, 2014.

6.17 **Commissioning of Coast Guard Air Squadron:** 743 Squadron (CG) at Bhubaneswar has been commissioned on December 15, 2014.

INTERNATIONAL COOPERATION

6.18 **Eighth Annual Meeting of Governing Council of ReCAAP:** Indian Coast Guard continued to support and actively participates in the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) organization. Director General Indian Coast Guard (DGICG) attended the Eighth Annual Meeting of Governing Council of ReCAAP from March 3-7, 2014 at Singapore

Eighth Annual Meeting of Governing Council of ReCAAP

6.19 **High Level Meeting and OSD of ICG Ship to Brunei:** Additional Director General (ADG), Indian Coast Guard visited Maura, Brunei from March 9-12, 2014 to oversee the overseas deployment of Indian Coast Guard ship Sagar. The ADG co-chaired a joint meeting with Director of Operations on Role and Functions of Royal Brunei Marine Police. Officers from Royal Brunei Marine Police were demonstrated Pollution Response capabilities of ICG onboard ICG Ship Sagar.

6.20 **High Level Meeting (HLM) between Indian Coast Guard (ICG) and Sri Lankan Coast Guard (SLCG):** The high level delegation meeting between Indian Coast Guard (ICG) and Sri Lankan Coast Guard (SLCG) was held on June 25, 2014 at Conference hall, Coast Guard Headquarters, New Delhi.

6.21 **High Level Meeting between Indian Coast Guard (ICG) and Vietnam Coast Guard (VCG):** An Indian Coast Guard delegation headed by Deputy Director General (Operations & Coastal Security), Indian Coast Guard visited Vietnam from September 8-10, 2014, for interaction with Vietnam Coast Guard. The visit by the ICG delegation was undertaken for the first time to Vietnam for interaction with the VCG as follow up of the 2nd Joint Working Group Meeting with Vietnam with an aim to identify the areas and preparing roadmap for mutual cooperation between both Coast Guards.

6.22 **Xth Heads of Asian Coast Guard Agencies Meeting (HACGAM):** Xth Heads of Asian Coast Guard Agencies Meeting (HACGAM) was held at Yokohama, Japan from September 29 to October 3, 2014. The meeting was attended by heads of 19 Coast Guard Agencies of Asian Region.

6.23 **Indo-Japan Coast Guard Joint Exercise 'Shahyog-Kayjin'-2014:** Indo-Japan Coast Guard Joint Exercise 'SAHYOG-KAIJIN – 2014" was conducted at Yokohama, Japan

ICG-JCG Joint Exercise 'Shahyog-Kayjin'-2014 at Yakohama, Japan

on October 1, 2014. Indian Coast Guard Ship (ICGS) Samudra Paheredar participated in the exercise.

6.24 **High Level Meeting between Indian Coast Guard (ICG) and Japan Coast Guard (JCG):** Bilateral ICG-JCG High Level meeting was held at Yokohama, Japan on October 02, 2014. The high level Indian Coast Guard delegation was led by DGICG.

6.25 **Biennal Trilateral Exercise 'Dosti-XII:** The Indian Coast Guard conducted twelfth edition of the joint exercise named "DOSTI-XII" with the Maldives National Defence Force (MNDF) and the Sri Lankan Coast Guard at Male, Maldives from October 28-31, 2014. A total of five ships and two aircraft participated in the exercise. Two ships from Indian Coast Guard, ICGS Samar (with integral helo) and ICGS Rajdoot, a Dornier aircraft, one ship from Sri Lankan CG, SLCG Samudura and two ships from MNDF CG, MCGS Huravee and Shaheed Ali participated in the exercise. The exercise at sea included evolutions responding to actual emergencies of Search and Rescue, Medical Evacuation, Anti-Piracy and Pollution Control response at Sea to further enhance the ability of each Coast Guard to attend the real emergencies at sea.

Biennal Trilateral Exercise 'Dosti-XII at Male, Maldives

6.26 **High Level Bilateral Meeting between DGICG and DG Pak MSA:** A high level delegation led by Rear Admiral Ather Mukthar, SI (M), Director General, Pakistan Maritime Security Agency (PMSA) visited India from December 18-20, 2014. The DG PMSA visited CGHQ, New Delhi on December 19, 2014 to participate in the High Level Meeting with Director General Indian Coast Guard.

Coast Guard Achievements

6.27 Some of the important achievements of the Coast Guard which demonstrate the role played by ICG in service of the nation are given below:

Sl. No.	Achievements during the period April 1 to December 31, 2014	
(i)	Contraband Seized	9.0 Crore
(ii)	Poaching Trawler Apprehension	55 Boats 419 Crew
(iii)	Smuggling vessel apprehension	3 Boats 20 Crew
(iv)	Total Search and Rescue (SAR) Mission	115
(v)	Search and Rescue (SAR) Sortie	202
(vi)	Lives Saved	243
(vii)	Medical Evacuation	24
(viii)	Oil Spills Incidents Responded	3

6.28 Search & Rescue

(a) **XIIIth National Maritime Search and Rescue (NMSAR) Board Meeting:** The XIII Meeting of the National Maritime Search and Rescue (NMSAR) Board was held at Coast Guard Regional Headquarters (West), Mumbai on August 12, 2014. Various issues related with improvement of Search and Rescue (SAR) system in Indian Search and Rescue Region (SRR) were discussed.

(b) **Rescue of Persons from Lotus Business Park:** On July 18, 2014, information was received from Disaster Management Cell Bombay Municipal Corporation (BMC) regarding urgent requirement of immediate evacuation of 15-20 firemen, stranded on roof top of high rise building Lotus Business Park, Andheri West.

Rescue of Persons from Lotus Business Park, Andheri West

(c) **Assistance to Grounded/ Partially Sunk IFB Suvarna Raj:** On September 9, 2014, Indian Coast Guard Station Okha received an information from fishing association regarding flooding and dangerous tilting of fishing boat Suvarna Raj North of Okha. After initial assessment by ICG, 2 Air Cushion Vessels alongwith Marine Police boat with 7 CG divers were diverted for rescue of fishermen despite unfavorable sea/ weather conditions. All 7 fishermen were safely rescued from the sinking boat.

MEDICAL EVACUATION

6.29 ICG Dornier on surveillance on April 11, 2014, received a distress call from MV Emma Victory, positioned 156 nautical miles west of Mumbai, for medical evacuation of its crew who had suffered head injury. At midnight on April 12, 2014, the injured crew was evacuated by ICGS SK Chauhan. On April 18, 2014, Maritime Rescue Coordination Centre (MRCC), Mumbai received a distress call from MV Al-Hilal which was positioned 200 nautical miles south-west of Mumbai for medical evacuation of its Master who was

suffering from acute chest pain. The patient was rescued by ICGS Amrit Kaur and C-154. MRCC, Port Blair received a distress call from Master of 'MV Asiatic Dawn' on May 13, 2014 for rescuing a crew who sustained head injury and he was rescued by ICGS Rajshree. MRCC Mumbai received an e-mail on December 27, 2014 from MRCC France for immediate medical evacuation of one crew who was suffering from heart problem onboard MV ILE De Batz. ICGS Samrat on patrol evacuated the patient and transferred him ashore by CG helicopter on December 28, 2014.

नटराज
COAST GUARD

7

DEFENCE PRODUCTION

First Anti Submarine Warfare Stealth Corvette (INS Kamorta) built in the country

With the objective of achieving self-reliance in defence production, the Ordnance Factories and DPSUs have been continuously modernizing and upgrading their capabilities and widening their product range.

7.1 Department of Defence Production (DDP) was set up in November 1962 with the objective of developing a comprehensive production infrastructure to produce the weapons/ systems/ platforms/ equipments required for defence. Over the years, the Department has established wide ranging production facilities for various defence equipments through the Ordnance Factories and Defence Public Sector Undertakings (DPSUs). The products manufactured include arms and ammunition, tanks, armoured vehicles, heavy vehicles, fighter aircraft and helicopters, warships, submarines, missiles, ammunition, electronic equipment, earth moving equipment, special alloys and special purpose steels.

7.2 The organizations under the Department of Defence Production are as follows:

- Ordnance Factory Board (OFB)
- Hindustan Aeronautics Limited (HAL)
- Bharat Electronics Limited (BEL)
- Bharat Dynamics Limited (BDL)
- BEML Limited (BEML)
- Mishra Dhatu Nigam Limited (MIDHANI)
- Mazagon Dock Limited (MDL)
- Garden Reach Shipbuilders & Engineers Limited (GRSE)
- Goa Shipyard Limited (GSL)
- Hindustan Shipyard Limited (HSL)
- Directorate General of Quality Assurance (DGQA)
- Directorate General of Aeronautical Quality Assurance (DGAQA)
- Directorate of Standardisation (DOS)
- Directorate of Planning & Coordination (Dte. of P&C)
- Defence Exhibition Organisation (DEO)
- National Institute for Research & Development in Defence Shipbuilding (NIRDESH).

7.3 With the objective of achieving self-reliance in defence production, the Ordnance Factories and DPSUs have been continuously modernizing and upgrading their capabilities and widening their product range. A large number of major products have been developed through in-house research and development initiatives in addition to a number of products and equipment produced through transfer of technology.

7.4 The value of production of Defence PSUs & Ordnance Factories and figures of Profit after Tax of DPSUs are indicated in the Table No. 7.1 and Table No. 7.2 respectively.

7.5 DPSUs and Ordnance Factories have, as a policy, been outsourcing many of their requirements and have over the years developed a wide vendor base which includes a large number of medium and small scale enterprises apart from large scale industries. In addition, the DPSUs and OFB are also striving to increase the indigenous content in equipment and products, manufactured by them.

PRIVATE SECTOR PARTICIPATION

7.6 To achieve the goal of self-reliance in the Defence sector, continuous efforts are being made to increase indigenization, wherever technologically feasible and economically viable.

7.7 In May, 2001, the Defence Industry sector, which was hitherto reserved for the public sector, was opened up to 100% for Indian private sector participation, with Foreign Direct Investment (FDI) up to 26% both subject to licensing. Recently the Department of Industrial Policy & Promotion, Ministry of Commerce & Industry has raised the FDI limit from Government route up to 49% and above 49% through Cabinet Committee on Security (CCS) on case to case

Table No. 7.1

Working Results

Value of Production of Defence PSUs and OFB

(₹in Crore)

Name of DPSU	2011-12	2012-13	2013-14	2014-15 (up to Dec, 2014)
HAL	12693	14202	15867	9915
BEL	5794	6290	6127	4026
BEML	4077	3360	3165	1671
BDL	993	1177	1804	1298
GRSE	1294	1529	1611	863
GSL	676	507	509	387
HSL	564	484	453	160
MDL	2524	2291	2865	2028
MIDHANI	496	537	572	403
OFB	12391	11975	11123	7138
Total	**41502**	**42352**	**44096**	**27889**

Table No. 7.2

Profit after Tax of DPSUs

(₹in Crore)

Name of DPSU	2011-12	2012-13	2013-14	2014-15 (up to Dec, 2014)
HAL	2539	2997	2693	1238
BEL	830	890	932	440
BEML	57	-80	5	-178
BDL	235	288	346	244
GRSE	108	132	121	24
GSL	83	16	-61	6
HSL	-86	-55	-46	-96
MDL	494	413	398	226
MIDHANI	68	83	83	42
Total	**4328**	**4684**	**4471**	**1946**

basis, wherever it is likely to result in access to modern and 'state-of-art' technology in the country. FDI limit of 49% is composite and includes all kinds of foreign investments i.e. Foreign Direct Investment (FDI), Foreign Institutional Investors (FIIs), Foreign Portfolio Investors (FPIs), Non Resident Indians (NRIs), Foreign Venture Capital Investors (FVCI) and Qualified Foreign Investors (QFIs) regardless of whether the said investments have been made under Schedule 8 of FEMA (Foreign Exchange Management Act) (Transfer of Issue of Security by Persons Resident Outside India) Regulations. Portfolio investment by FPIs/ FIIs/ NRIs/ QFIs and investment by FVCIs together will not exceed 24% of the total equity of the investment/ joint venture company. Portfolio investments will be under automatic route.

7.8 The Department of Industrial Policy & Promotion (DIPP) has notified Press Note No. 2 (2002 Series) dated January 4, 2002 for licensing production of Arms and Ammunition. Consequently, the role of Private Sector has shifted from that of supplier of raw material, components, sub-systems to that of being partners in the manufacture of complete advanced equipment / systems.

7.9 A Standing Committee has been constituted in the Department of Defence Production to consider all applications received from Department of Industrial Policy & Promotion (DIPP) for grant of Industrial Licenses and FDI Proposals from FIPB Unit, Department of Economic Affairs (DEA) respectively, for the manufacture of licensable defence items and to communicate the recommendation of the Ministry of Defence to the respective Departments. The Joint Secretary (DIP) is presently Chairman of Standing Committee with members from diverse fields viz. Naval HQrs, Air HQrs, Army HQrs, DGQA, DGAQA, DoD, DG (Acq), OFB, DRDO and BEL.

7.10 Department of Industrial Policy and Promotion (DIPP) has issued 240 Letters of Intents (LOIs)/ Industrial Licenses (ILs) covering 144 companies till December, 2014 for manufacture of a wide range of defence items to private companies. 49 licensed companies have so far reported commencement of production.

7.11 After opening up of the Defence Industry Sector for Indian Private Sector Participation, so far 33 FDI proposals / Joint Ventures have been approved in defence sector for manufacture of various defence equipments, both in public and private sector. FDI amounting to ₹24.36 crore (US$ 4.94 Millions) has been received in the Defence Industry Sector from April 2000 to November 2014 (Source: FDI Statistics on htpp://www.dipp.nic.in).

7.12 The Department of Defence Production has finalized the Defence Products List for licensing purpose under Industries (Development & Regulation) Act, 1951. DIPP, vide Press Note No. 3 (2014 Series), has uploaded the Defence Products List on their website and the same can be accessed at www.dipp.nic.in.

7.13 The Department has finalized a Security Manual for private sector defence industries. The security manual provides for physical documentation and IT security for the companies. The Security Manual is available on DDP's website (www.ddpmod.gov.in) under Publication / Reports. For the purpose of compliance, the security manual

has been divided into three parts; Category A, B & C. Depending on the products / weapons / equipments, the companies will be required to comply with the security protocol. This is also available on DDP's website. Brief descriptions of Categories are as follows:

Category-A: The products under this category would be highly classified and sensitive from the security angle and the manufacturing of these items would require the highest level of security.

Category-B: The products under this category would include semi-finished products, sub-assemblies, sub-systems of main weapons/ equipments/ platforms and some finished products of lesser degree of sensitivity.

Category-C: The products under this category would include products which do not involve use of any classified/ secret information and are very generic in nature. The products in this category would normally be not specifically designed or modified for military use and therefore would require only a very minimal level of security.

Export Profile of Indian Defence Industry

7.14 As per No Objection Certificate issued by DDP, the value of exports of Indian Defence industry including the 9 DPSUs and OFB for the year 2013-14 was ₹686.27 crore as compared to ₹460.97 crore in the year 2012-13. The trend in exports shows phenomenal growth by the industry. The exports by private defence industry has shown accelerated growth. About 12-14 companies in the private sector have contributed to defence exports.

7.15 Some of the major export destinations for defence products have been Italy, Israel, Ecuador, Russia, USA, UAE, Namibia, Srilanka, Malaysia, Romania, UK, Indonesia, Mauritius, Netherlands, Kenya, Nepal, Botswana, Tajikistan, Oman, Belgium, Singapore, Bangladesh, Vietnam, Ireland, Myanmar, Switzerland and Czech. The defence items exported were Test Equipment for Radar, ULSP etc. for radar, High Speed Patrol Vessels, Turret upgrade, Light Engineering Parts, Components for Acoustic head of heavy weight Torpedo, Battery proof vest, Helmet, Fuze Harness, Stallion 4X4, Naval Safe & Arm Device (Modified), Turbo Charger, Vehicle Mounted Launching Bride & Offshore Patrol Vessels.

7.16 The Standard Operating Procedure (SOP) for issue of NOC for export of Military Stores has been revised and has been put in the public domain.

ORDNANCE FACTORIES ORGANISATION

7.17 Indian Ordnance Factories is the oldest and largest industrial setup which functions under Ordnance Factory Board (OFB) with the primary objective of achieving self reliance in equipping the armed forces with state of the art battlefield equipment. OFB has 39 existing factories. Two new ordnance factories are coming up at Nalanda in Bihar and Korwa in UP.

7.18 **Core competence of Ordnance Factories:**

Weapons	Small, Medium and Large Calibre Weapons & Mortar Equipment
Ammunition, Explosives & Propellants	Small, Medium and Large Calibre Ammunition, Mortar Bombs, Signalling and related stores, Rockets & Aerial Bombs, Fuzes, Explosives, Chemicals & Propellants
Military Vehicles	Trucks, Mine protected and Special Security Vehicles
Armoured Vehicles	Tanks & its variants, Armoured Personnel Carrier(APCs) & Engines
Instruments & Optical Devices	Night & Day Vision Sights & Instruments
Parachutes	Brake Parachutes, Man dropping & Supply dropping Parachutes
Troop comfort & General Stores	Tentage, Clothings, Personal equipment, Bridges, Boats, Cables etc.

7.19 **Production achievement:** The turnover during the financial year 2013-14 was ₹11,123 crore. The projected turnover for 2014-15 is ₹11,900 crore. Nearly 77% of the supplies of OFB are for Indian Army.

7.20 **Modernisation:** OFB has put in place a comprehensive modernisation programme aimed at upgradation/augmentation of their existing facilities, diversification into new areas, replacement of obsolete machinery and technology. The expenditure on modernisation has nearly doubled from ₹564 crore in 2011-12 to ₹1156 crore in 2013-14. The expenditure on modernisation till December, 2014 is ₹685 crore (Provisional).

7.21 **Quality Management:** The process has been strengthened by taking following initiatives:

- Formation of Quality Audit Group (QAG), Quality Council & Failure Review Board (FRB).
- Audit of manufacturing process.
- Introduction of NQDBMS (Network Quality Data Base Management System).
- System of Customer feedback.

7.22 Awards:

(i) In a Indo European research initiative, Ordnance Factory Ambajhari has been selected for implementing the water management system by Natural Water Systems and Treatment Technologies.

(ii) Ammunition Factory Khadki (AFK) was given the Award of Excellence for "Energy Conservation and Management" by Maharashtra state

7.23 **Safety & Environmental Protection:** Safety management of Factories have been strengthened through formation of 4-grade management structure. To encourage Green Energy, OFB has taken up program for assessing solar potential through Solar Energy Corporation of India.

DEFENCE PUBLIC SECTOR UNDERTAKINGS (DPSUs)

Hindustan Aeronautics Limited (HAL)

7.24 Hindustan Aeronautics Limited (HAL) is the largest DPSU under the Department of Defence Production. It has 20 Production Divisions, 10 R&D Centres and one Facility Management Division spread across the country. It has so far produced 15 types of aircraft from in-house R&D and 14 types under license. Major aircraft/ helicopters in the current production range are SU-30MKI multirole fighter, Hawk – Advanced Jet Trainer, Light Combat Aircraft (LCA), Intermediate Jet Trainer (IJT), Dornier 228 – Light Transport Aircraft, Dhruv (Advanced Light Helicopter), Chetak, Cheetah and Cheetal helicopters.

7.25 Important Events/ Achievements in 2014-15 :

(i) Advanced Light Helicopter- Dhruv was handed over by the Prime Minister of India to the Prime Minister of Nepal on November 25, 2014.

(ii) HAL got a contract for supply of DO-228 aircraft to Mauritius.

(iii) The indigenously designed and developed Light Combat Aircraft (LCA), Tejas, made by HAL under series production was handed over to the Indian Air Force by the Raksha Mantri on January 27, 2015.

(iv) The first overhauled Su- 30 MKI aircraft was handed over to the Indian Air Force by the Raksha Mantri.

(v) The first flight of Light Combat Helicopter (LCH) was carried out in November, 2014.

(vi) The Facility for Integrated Cryogenic Engine Manufacturing (ICEM) was created.

7.26 **Patents:** 773 patent applications have been filed from April, 2014 to December 2014.

7.27 **Export Performance:** HAL has achieved Export Sales of ₹257 crore up to end December 2014.

7.28 **Awards Received During 2014-15:**

(i) PSE Excellence Award 2014 for 'Corporate Governance & Innovation in Business' by the Indian Chamber of Commerce (ICC).

(ii) Quality Circle team "Leading Edge" from Foundry and Forge Division, won Gold category award in the 38th International Convention on Quality Control Circles held at Colombo, Srilanka.

7.29 **Environment protection:** All the norms of Pollution Control Board are being followed meticulously. State Pollution Control Board has given consent to the Divisions of HAL to carry out the operations. Effluent Treatment Plants (ETPs) are being used for treating industrial effluents.

7.30 The company has implemented several energy conservation measures as a follow up to the energy audits which has resulted in a reduction in consumption of around 10 Lakh units of electrical energy during 2013-14.

Bharat Electronics Limited (BEL)

7.31 Bharat Electronics Limited (BEL) is a Navratna Company established in 1964 under the Ministry of Defence with 9 Strategic Business Units (SBUs) spread all over the country. The company has core competencies in defence sector in areas of Radars & Weapon Systems, Sonars, Communication, Electronic Warfare Systems, Electro-Optics and Tank Electronics, etc. In the Non-Defence sector, BEL's product range includes Hybrid Microcircuits, semiconductor devices, solar cells etc.

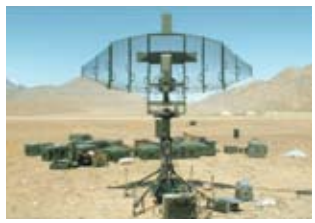
7.32 **Research & Development:** The company has prepared Technology road map and a three year R&D plan to set goals for all R&D divisions to meet the future requirements of customers. Also, a number of in-house and joint development programs with DRDO labs have been initiated.

7.33 **Exports:** A range of products are exported by the company viz Hull Mounted Sonar (HMS X), Coastal Surveillance Radar System, Radar Finger Printing System, RAC Tarang, Automated Test Equipment (ATE), Shelters, Electronic Voting Machines (EVM) etc. The export turnover for the year 2014-15 (up to December 2014) is 30.44 Million US$.

7.34 **Awards Received during the year:** BEL was awarded the prestigious SCOPE Meritorious Award (2012-13) for Best Practices in Human Resources Management from the Hon'ble President of India on November 5, 2014.

7.35 **Future Challenges:** With the opening of the Defence Electronics market to private participation, the competition in the sector has further intensified. The customer requirements have also changed from mere standalone products to Systems/ Mobile Platforms. To face this challenge, the Company has taken steps to protect its market share by giving thrust to New Product Development, Diversification, Formation of Joint Ventures, Improvement of Processes etc.

7.36 **Indigenization:** The indigenisation level of the products of the company is about 85% of its turnover. The major indigenous products developed by the Company are Sub-system for Main Battle Tank (MBT Arjun) & T90, Missile Approach Warning System (MAWS), Upgraded Schilka, Akash Missile System, Bharani Radar, CMS 17 integration onboard, IP Encryptors, NC³I, Laser Range Finder (LRF) and EVM Upgraded version etc.



Bharani Radar

30-TCR

New design EVM

7.37 **Modernization:** BEL is involved in the manufacture of sophisticated Strategic Electronic equipment wherein the technology

of not only products, but also processes changes rapidly. Modernization activity in BEL is a continuous and on-going process and the company spends around ₹250-300 crore every year on modernization. Some of the major modernization programs include state-of-the-art manufacturing facility for RF/Microwave Super-components for modern radars, Test Set up for Missile System, Integration Test Facility for Coastal Surveillance System etc.

RF/Microwave Super-components Facility

Test Set up for Missile Systems

Bharat Dynamics Ltd. (BDL)

7.38 Bharat Dynamics Ltd. (BDL), a Miniratna Category-1 Company, was incorporated in the year 1970 under the Ministry of Defence. A pioneer in the manufacture of Anti Tank Guided Missiles (ATGMs), over a period of time, it has evolved itself as a conglomerate manufacturing newest generation ATGMs, Surface-to–Air Weapon systems, strategic weapons, launchers, underwater weapons, decoys and test equipment. BDL has also acquired land at Amravati, Maharashtra and Ibrahimpatnam, Andhra Pradesh for production of variety of Surface to Air Missiles (SAMs). The Company is set to achieve a sales turnover of ₹2500 crore during the current year i.e. 2014-15. At present, BDL has a healthy order book position of around ₹18,000 crore. Total dividend paid for the year 2013-14 is ₹69.1 crore.

7.39 BDL has been nominated as the Lead Integrator for the MRSAM and Akash SAM for the Indian Army. Also, BDL has been nominated as the LRSAM Missile Integrator for the Indian Navy which is being developed jointly by DRDO and M/s. IAI, Israel.

AKASH SAM

7.40 Besides increasing the existing capacities, BDL is also establishing new manufacturing facilities to meet the growing

demands of ATGMs and SAMs. The foundation stone for 50 Ton Rocket Motor Static Test Facility at BDL, Ibrahimpatnam has been laid to cater to Test Firing of SAM class Rocket Motors of Akash and MRSAM.

7.41 BDL has taken steps for indigenization of ATGMs being manufactured by it with the objective of increasing self-reliance, reduction of foreign exchange and reduction in cost. Indigenization of products like Konkurs-M, Invar ATGM and Milan-2T is up to 90%, 80% and 71% respectively.

INVAR (3UBK-20)

KONKURS-M ATGM

MILAN-2T ATGM

7.42 **Modernisation:** ₹100 crore has been earmarked for the year 2014-15 on modernisation. Some of the technologies being introduced under the modernisation programme are Flow Forming in place of Deep drawing process, Hybrid Micro circuits, latest thin Film Hybrid Technology, Automated Tension Controls introduced in Winding process of wire spool, etc.

BEML Limited

7.43 BEML, established in 1964, is a Mini-Ratna (Category – I) Company having 4 manufacturing complexes with 9 production units located in Bangalore, Mysore, Kolar Gold Fields and Palakkad engaged in the design, manufacturing, marketing and after sales service of a wide range of Mining & Construction equipment, Defence & Aerospace products and Rail & Metro products.

7.44 **Production Achievements:** BEML's products are exported to more than 58 countries including Syria, Tunisia, UAE, Suriname, South Africa, Sri Lanka, Bangladesh etc. The value of production in 2013-14 was ₹3165 crore and for 2014-15 (up to December 2014) was ₹1671 crore (provisional)

Modernisation and R & D initiatives

7.45 The Company has a focused approach on in-house R&D, spending around 2.5% to 3% of its turnover towards R&D. The major activities of R&D include design and development of new products and aggregates for products such as Dozers, Dumpers, Excavators, Loaders, Graders & other Defence and Railway Products etc.

7.46 The Modernization Programme is aimed towards enhancement in productivity by up-gradation of technology, quality, reduction in cost, reduction in rework by improvement in processes, expansion of manufacturing capacity and removal of bottleneck to ensure continuous production. Some of the new Products launched by in-house R&D are BH205E (DUMP TRUCK), BE1800 E EXCAVATOR, BEML HMV 8X8

INDIGENSIED TRUCK and Diesel Electrical Multiple Units (DEMU) etc.

7.47 The indigenization level in respect of Mining & Construction products and Rail & Metro products is over 90%. For Metro Cars, all inputs required for Metro projects are indigenised by BEML and there are no supplies from Collaborator. The indigenization level in case of Defence products, viz., PMS Bridge, ATT, Aircraft weapon loader, 50T trailer, etc. is 100% and for High Mobility Vehicle it is over 90%.

7.48 **Environment protection:** 5MW Windmill at Gadag district in Karnataka towards clean green energy and tree plantation in all the premises of the Company has mitigated 20000 (approx) Tons of Carbon up to end December, 2014.

7.49 **Awards:** BEML bagged two awards for its Equipment under the categories of "Best Seller-Rigid Dump Trucks" and "Best Seller-Crawler Dozers" in the 'Equipment India Awards – 2014'.

Mishra Dhatu Nigam Limited (MIDHANI)

7.50 MIDHANI, a "Mini Ratna Category Company was established in 1973 as a Public Sector Undertaking under the administrative control of Department of Defence Production & Supplies, Ministry of Defence to achieve self reliance in the manufacture of a wide range of Superalloys, Titanium alloys, Special Purpose Steels etc. for the critical sectors, with technical knowhow from foreign collaborators. MIDHANI has so far developed, manufactured and supplied more than 105 grades of high performance alloys in different shapes, sizes, forms towards programmes of national importance in the Defence, Space and Atomic Energy sectors.

7.51 MIDHANI organized 11th Customer Meet on November 3, 2014, wherein about 128 customers from various strategic sectors viz. Defence, Atomic Energy, Space, other PSUs and Private sector organizations participated. The theme of the meet was "Shaping Vision into Action – Make in India". MIDHANI also organized 6th Vendor meet on December 5, 2014. The theme of the vendor meet was "Together towards tomorrow".

7.52 **Energy Conservation:** Energy conservation measures have been given due importance and have been continued as before during the year. Internal bench marks and specific norms were developed. Revamping of furnaces, continuous operation of Plant & Equipment, regular maintenance of furnaces, refractory lining, regular calibrations, developing a common heat treatment cycle for similar products, introducing solar water heaters at appropriate places are some of the measures introduced to save energy during the year.

Mazagon Dock Limited (MDL)

7.53 Mazagon Dock Limited is a leading Shipyard amongst all Defence PSU Shipyards engaged in construction of Warships and Submarines. The yard is presently constructing Missile Destroyers and Scorpene Submarines and is thus helping the nation to achieve self-reliance in warship construction for the Indian Navy.

7.54 MDL has also been shortlisted to build Frigates of P17A Class which are follow-

on ships of Shivalik Class Stealth Ships. MDL has also been earmarked to build future Submarines under Project 75-I. Pre-production activities for second ship of P15B class (Y-12705) have commenced on May 19, 2014. The Company has delivered two ships during the current financial year viz Y-701 of P15A & MSV-II.

7.55 In order to enhance its R&D activities , MDL has tied up with premier institutions like IIT Kharagpur, IIT Madras, for Naval Architectural Projects, NID Ahmedabad for Ergonomics in Ship Detailed Design, Welding Research Institute Trichy for Research activities in welding, NIRDESH for R&D work in warship building projects etc. The benchmarking is done primarily with global shipyards producing similar types of goods.

7.56 MDL had successfully completed the augmentation of its infrastructure through Mazdock Modernization Project (MMP) which comprises a new Wet Basin, a Heavy Duty 300 T Goliath Crane, Module Workshop, a Cradle Assembly Shop, Store Building and associated ancillary structures. This Project was formally inaugurated by Raksha Mantri on August 27, 2014.

7.57 To realize the vision of Make in India, indigenization in war shipbuilding has taken place for a number of auxiliary equipment and key equipment fitments. Import substitution has already taken place for quality steel used for warship building with development of DMR249A grade steel.

7.58 **Awards & Achievements:** Two Quality Circle Teams participated in International Convention on Quality Control Circles (ICQCC-2014) during October 12-15, 2014 at Colombo, Sri Lanka and both QC Teams won the Silver Awards.

GARDEN REACH SHIPBUILDERS AND ENGINEERS LTD. (GRSE)

7.59 Garden Reach Shipbuilders and Engineers Ltd (GRSE), a Mini Ratna Category I Public Sector Company since September, 2006 has kept pace with India's expanding maritime interests and is recognised as a leading Shipbuilding yard. GRSE is building Anti-Submarine Warfare (ASW) Corvettes for the Indian Navy. The First of Class ASW Stealth Corvette (INS Kamorta) was delivered by GRSE in July 2014 and commissioned by the Raksha Mantri on August 23, 2014.

7.60 The first ever Warship exported by India is an Offshore Patrol Vessel built by GRSE,

First Warship exported by India – Offshore Patrol Vessel built for Mauritius

Kolkata for the Government of Mauritius. The vessel named as 'CGS Barracuda' was handed over to the Government of Mauritius at Kolkata on December 20, 2014.

7.61 GRSE has 'Launched' one Warship Landing Craft Utility on September 22, 2014. 'Keel Laying' of four (04) Warships has been undertaken in GRSE till December 31, 2014.

7.62 **Modernization:** The Phase-2 Modernisation project of GRSE was completed

and the new Integrated Shipbuilding Facility was inaugurated in June, 2013. The new facility has been put to use for construction of OPV for Mauritius and LCUs for Indian navy. The facility provides the infrastructure for Integrated Construction of warships using Modular Shipbuilding technology, which will be fully implemented during construction of large warships like P-17A.

Goa Shipyard Ltd.(GSL)

7.63 From a humble beginning as a small barge repair and construction yard in 1957, GSL has grown to a competitive Shipyard capable of indigenously designing and building sophisticated high technology ships for the Indian Navy and Coast Guard. The yard prides itself in 'timely' delivery of ships at 'fixed cost' and has won the appreciation of both Indian Navy and Coast Guard for OPVs and other advanced vessels.

7.64 During the financial year, GSL has delivered one Naval Offshore Patrol Vessel

105M NOPV

to Indian Navy (NOPV), one 13.5 M Fishing Research Vessel to CMFRI, Kochi and one GRP High Speed Patrol Boat for Directorate of Fisheries, Government of Goa.

7.65 GSL undertakes R&D of its product range and new shipbuilding projects are based on in-house design. GSL's indigenously developed designs of Patrol Vessels have saved the country considerable amount of foreign exchange by avoiding import of ship designs.

7.66 To further scale up the R&D activity, GSL have recently upgraded the design software to 'AVEVA Marine' with adequate number of licenses and workstations. GSL is consistently investing in R&D activities and developing new generation platforms with improved features like better fuel efficiency, endurance and higher speeds for varied operational roles and stealth features.

Hindustan Shipyard Ltd. (HSL)

7.67 Hindustan Shipyard Ltd is the largest shipyard under the Department of Defence Production. It is strategically located and was brought under MoD in February, 2010 to construct strategic assets and warships. Till date, the yard has built 173 vessels for Defence and Maritime Sector and repaired 1925 vessels.

7.68 **Major Achievements:** HSL has achieved the targeted milestone with the successful undocking of INS Sindhukirti, a submarine for Indian Navy on November 4, 2014.

7.69 **Proactive Action to Improve R & D:** HSL is making efforts to develop concept and basic design of ships & Tugs. In order to sustain continuous growth, the yard is upgrading its design infrastructure. A team of nine Engineers is deployed for development of concept and basic designs.

7.70 **Modernisation:** ₹457.36 crore has been allotted by the Government to undertake (Refurbishment & Replacement of Machinery & Infrastructure (RRMI) to prepare the yard for LPD project.

7.71 **Benchmarking:** A common study to benchmark all DPSU shipyards is being undertaken by M/s Pricewaterhousecoopers. M/s PWC has conducted detailed study of all the DPSUs and has submitted a report on benchmarking in July, 2014 to bring all the yards on a common platform and also imbibe best practices followed by leading shipyards of the world.

DIRECTORATE GENERAL OF QUALITY ASSURANCE (DGQA)

7.72 Directorate General of Quality Assurance (DGQA) is an Inter-Service Organisation functioning under the Department of Defence Production in the Ministry of Defence. DGQA is responsible for Quality Assurance of all defence stores and equipment, both imported as well as indigenous for the Army, Navy (excluding Naval Armaments) and common user items for the Air Force procured from Private Sector, Public Sector Undertakings and Ordnance Factories.

7.73 Organisational Structure and Functions: DGQA Organisation is divided into eleven Technical Directorates, each responsible for a distinct range of equipment. The Technical Directorates are structured in two tiers for functional purposes, comprising Controllerates and Field Quality Assurance Establishments. In addition, there are Proof Establishments in Armament Discipline for carrying out proof of weapons and ammunition.

7.74 Achievements:

(i) **Quality Assurance of Stores:** On average DGQA Organisation carries out 18,765 inspections per month. The value of stores whose Quality was assured during the year 2014-15 up to November, 2014 was 12215 crore.

(ii) **DGQA Technical Evaluation:** During the period from January 1, 2013 to March 31, 2014, DGQA has carried out a total of 40 Technical evaluations of various stores, ammunition and equipment, comprising of a number of complex sub systems.

155MM/ 45 Cal EUI FH GUN System 'Dhanush': Turning Circle Diameter (TCD) check in Towed Mode

7.75 **Future Challenges:** In order to maintain a uniform standard of Quality, the concept of Configuration Management (CM) is being adopted. The objective of CM will be to ensure technical integrity control of material throughout its life, while allowing suppliers sufficient flexibility to develop cost effective designs that meet Defence's stated requirements.

7.76 **Modernisation:** 39 labs have been awarded NABL accreditation. DGQA is also establishing Zonal Test Labs with State of the Art Test Equipment for modernisation of test facility of Proof Ranges & Test Labs.

7.77 **Benchmarking with the best in the World:** DGQA strives to bench mark Quality norms in line with Global standards. A continuous exercise to update production drawings and specifications is carried out. DGQA also plays a pivotal role in formulation of BIS standards and Joint Service Specifications besides Departmental specifications.

Directorate General of Aeronautical Quality Assurance (DGAQA)

7.78 The Directorate General of Aeronautical Quality Assurance is the Regulatory authority under Department of Defence Production, Ministry of Defence, for Quality Assurance and final acceptance of military aircraft, associated accessories/ stores including Air Armament & Unmanned Aerial Vehicle (UAV). DGAQA functions from its HQ at New Delhi through a network of 34 Field Establishments / Detachments spread across the country. DGAQA is also the nodal agency for Missile Systems Quality Assurance Agency (MSQAA) and Strategic Systems Quality Assurance Group (SSQAG).

7.79 **Value of stores cleared:** Value of stores provided with QA coverage by DGAQA during the current year and previous three years is given below:

₹in crore

2011-12	2012-13	2013-14	2014-15	
14898/-	14022/-	21803/-	8669/-*	15900/-**

* Up to December 31, 2014
** Anticipated (from January to March 31, 2015)

7.80 Major projects under QA coverage of DGAQA

(A) Development/ Manufacture Projects

(i) SU-30 (MKI) & Advanced Jet Trainer (Hawk Mk-132) : Manufacture under licence from Original Equipment Manufacturer (OEM).

(ii) Integration of BrahMos missile on SU-30 MKI aircraft (SB-200) found satisfactory during structural modification and subsequent qualification tests.

(iii) Phase-II trials of ASTRA missile on SU-30 MKI successfully completed.

(iv) Advanced Light Helicopter (ALH): Manufacture

(v) Light Combat Helicopter (LCH): Development

(vi) Light Combat Aircraft(LCA): Manufacture

(vii) Intermediate Jet Trainer(IJT) & Light Combat Helicopter (LCH): Development/Manufacture

(viii) Saras Transport Aircraft (Military Version) : Development

(ix) Pilotless Target Aircraft (PTA-Lakshya) : Manufacture

(x) Dornier (DO-228) aircraft : Manufacture

(xi) Parachutes (Brake, Pilot, Drogue, Anti Spin, Recovery etc): Development/ Manufacture

(xii) Air Armament Stores : Manufacture

(xiii) Indigenous Missiles : Development/ Manufacture

(xiv) Airborne Early Warning Radar & Control System (AEW&C): Development

(xv) Ground Radar Systems for Airborne applications: Development/ Manufacture

(xvi) Arrester Barrier Systems for aircraft : Manufacture

(xvii) Flying Clothing for Air Crew: Development/Manufacture

(xviii) Tyres/Tubes for use in Military Aircraft: Development/Manufacture

(xix) Batteries for use in Military Aircraft: Development/Manufacture

(B) Repair & Overhaul (ROH) Projects

(i) SU-30 MKI / MIG-21 BISON aircraft

(ii) Jaguar / Kiran Jet Trainer/ Mirage-2000 aircraft

(iii) Dornier (DO-228)/ Avro (HS-748) aircraft

7.81 Important decisions:

(i) With effect from August 1, 2014 DGAQA has set up a Cell at OPF (Ordnance Parachute Factory) Kanpur to provide QA coverage of parachutes.

(ii) Approved Firm Quality Management System (AFQMS) is under process of implementation at Ordnance Factories.

Directorate of Standardisation (DoS)

7.82 Directorate of Standardisation (DoS) was established in 1962 with an aim to control proliferation of items within Defence Services. Foremost objective of DoS is towards establishing commonality in equipment and components among the three Services so that the overall inventory of the Defence Services is reduced to the minimum and is being progressively realised through:

(a) Preparation of various Standardisation documents.

(b) Codification of Defence Inventory.

(c) Entry Control.

7.83 As per Roll on Plan 2014-15, 65 new documents and 469 Revised documents have been completed up to December, 2014. Approximately 5,000 Standardisation documents have been circulated till December 31, 2014.

7.84 46,499 items have been codified (5,841 New and 40,658 NSNs) till December 31, 2014, thereby making the total number of items codified till date to 6,13,974.

7.85 In view of increased cyber threat a Cyber Security Group was created with the aim of sensitizing the defence production agencies about the importance of Cyber Security.

Directorate of Planning & Coordination

7.86 The Directorate of Planning & Coordination established in 1964 is an attached office of DDP having the status of Inter-Service Office(ISO) and is entrusted with the responsibility of all planning and coordination work among different establishments of DDP. The activities of the Directorate of Planning & Coordination are undertaken in close liaison with the Users keeping in view overall objectives of the DDP i.e. to achieve substantive self-reliance in indigenous defence requirements and to optimize the utilization of available capacities for indigenous production in the country.

Defence Exhibition Organization (DEO)

7.87 The main function of DEO is to organise and co-ordinate Defence exhibitions in India and abroad, primarily with a view to promote the export potential of defence oriented products and services, developed and manufactured by the Indian Defence Industry. DEO maintains a permanent

Defence Exhibition at the Defence Pavilion, Pragati Maidan, New Delhi. The DPSUs, OFB, DRDO, DGQA and DGAQA display their products / innovations in this Exhibition.

7.88 **India International Trade Fair(IITF):** The Defence Pavilion participates in IITF held every year in Pragati Maidan, New Delhi from November 14 to 27. In IITF, Defence Pavilion has been awarded 8 Gold, 4 Silver, 3 Bronze and one special Appreciation during the last 28 years.

7.89 **Aero India:** The 10th edition of Aero India -2015 was held from Feb 18-22, 2015. This edition's theme was "Make in India" in Aerospace, Defence, Civil Aviation, Airport Infrastructure and Defence Engineering.

7.90 **Defexpo India:** Conceived as a complementary exposition to Aero India, Defexpo India was launched in 1999. The 8th edition of Defexpo India was held in 2014 and the next edition will be held in February, 2016.

7.91 **International Exhibition Abroad:** With a view to provide an impetus to export potential of Indian Defence Industry, DEO organizes "India Pavilion" in major defence international exhibitions abroad to develop market for defence products being manufactured by them. During the period India participated in Eurosatory- 2014, Farnborough International Air Show (FIA), Africa Aerospace and Defence Exhibition (AAD)-2014, Euronaval-2014 and Indo Defence Expo & Forum -2014.

National Institute for Research and Development in Defence Shipbuilding (NIRDESH)

7.92 NIRDESH Institute has been set up with the objective of achieving self-reliance in Ship building. The Institute has been envisaged as the nerve centre for India's futuristic Ship Building programmes. NIRDESH as a registered society is harbinger to an era where the dispersed and isolated technologies in the country will get consolidated. Commencement of this evolutionary domain will take the national potential to a level of Global Standards in shipbuilding. Presently, NIRDESH is at its nascent stage with training programmes in related fields in accordance with its Memorandum of Association. So far about 450 personnel have been trained. An amount of ₹ 11 crore has been contributed by Defence Public Sector Shipyards for progressive development of the Institute.

8

DEFENCE RESEARCH AND DEVELOPMENT

Defence Research and Development Organisation Airborne Early Warning & Control System on an Embraer

DRDO's mandate is to provide assessment and advice on scientific aspects of weapons, platforms and surveillance sensors; to carry out research and to develop cutting edge technologies leading to production of state-of-the-art sensors, weapon systems, platforms and allied equipment for our defence Services.

BACKGROUND

8.1 Defence Research and Development Organization (DRDO) is the Research and Development arm of the Ministry of Defence. It was created in 1958 by merging the units of Defence Science Organisation, which was set up in 1948 to advise and assist the defence Services on scientific problems and to undertake research in areas related to defence, with the then existing Technical Development Establishments of the three Services. Subsequently, a separate Department of Defence Research and Development (DDR&D) was formed in 1980 to improve administrative efficiency. Starting from a cluster of about 10 laboratories in 1958, DRDO today has 46 laboratories which are spread far and wide; from Tezpur in the east to Mumbai in the west, from Leh in the north to Kochi in the south.

8.2 DRDO's mandate is to provide assessment and advice on scientific aspects of weapons, platforms and surveillance sensors; to carry out research and to develop cutting edge technologies leading to production of state-of-the-art sensors, weapon systems, platforms and allied equipment for our defence Services. In the recent past, the mandate has been widened to support national cyber security architecture which includes testing capabilities, security solutions, networking systems and cyber defence tools. In this process, it has also established national infrastructure, enhanced defence industrial capability and developed committed quality human resources.

ORGANISATIONAL STRUCTURE

8.3 DRDO is headed by the Scientific Adviser to Raksha Mantri (SA to RM) who is also the Secretary, Department of Defence Research and Development and Director General R&D (DGR&D).

8.4 Based on the R&D work carried out by the 46 laboratories of DRDO, they are grouped into seven technology clusters namely, Armament and Combat Engineering Systems (ACE), Aeronautical Systems (AERO), Missiles and Strategic Systems (MSS), Naval Systems and Materials (NS & M), Electronics and Communication Systems (ECS), Micro Electronic Devices and Computational Systems (MED & CoS) and Life Sciences (LS). Each of these clusters functions under the administrative control of the cluster DGs. The seven DG offices are located at Pune (ACE), Bengaluru (Aero and ECS), Hyderabad (MSS), Vishakhapatnam (NS & M) and Delhi (MED & CoS and LS).

8.5 In addition, DDR&D has one autonomous body viz. Aeronautical Development Agency, one joint venture viz. BrahMos Aerospace, four human resource institutions i.e. Centre for Personnel Talent Management (CEPTAM), Institute of Technology Management (ITM), Military Institute of Training (MILIT) and Recruitment and Assessment Centre (RAC), one deemed university viz. Defence Institute of Advance Technology (DIAT) and three certification agencies i.e. Centre for Military Airworthiness

and Certification for airworthiness of products, Centre for Fire Explosive and Environment Safety for fire and explosives and Scientific Analysis Group for grading of information security products under its fold. These certification agencies provide services not just for DRDO but other organisations of Government of India as well. Four research boards (Aeronautics, Naval, Armaments and Life Sciences) functioning under DRDO funding, provide thrust to basic research in academia in areas of strategic importance.

DRDO HEADQUARTERS

8.6 DRDO headquarters (HQ) at Delhi, which coordinates the overall functioning of the organisation, is the interface between the Government and the laboratories. The HQ consist of corporate Directorates viz. Budget, Finance and Accounts (BF&A), Extramural Research and Intellectual Property Rights (ER&IPR), Human Resource Development (HRD), Parliamentary Affairs, Personnel, Planning and Coordination (P&C), Public Interface, Rajbhasha etc. Some corporate Directorates which oversee specific functions with partner organisations are Industry Interface and Technology Management (IITM), Interaction with Services for Business (ISB) and International Cooperation (IC). DRDO has in the recent past set up new Directorates/Groups with a specific role to assist/guide laboratories in respective areas viz. Cyber Security (CS), Futuristic Technology Management (FTM) group, Quality, Reliability and Safety (QR&S), Simulation and Modeling Centre (SAM-C) and Technical Coordination Group.

Table No. 8.1

Corporate Structure of DRDO

SA to RM, Secretary DDR&D and DG R&D	
Chief Controllers (R&D)	
CCR&D (HR)	Centre for Personnel Talent Management (CEPTAM), Defence Institute of Advanced Technology (DIAT), Defence Scientific Information and Documentation Centre (DESIDOC), Human Resource Development (HRD), Institute of Technology and Management (ITM), Military Institute of Training (MILIT), Personnel, Public Interface, Recruitment and Assessment Centre (RAC), Right to Information (RTI) Cell
CCR&D (R&M)	Budget Finance and Accounts (BF&A), Civil Works and Estates (CW&E), Defence Technology Commission (DTC) Sectt., Management Services, Material Management, Parliamentary Affairs, Planning and Coordination (P&C), Rajbhasha and O&M, Vigilance and Security (V&S)
CCR&D (SAM)	Institute for Systems Studies and Analyses (ISSA), Simulation and Modeling Centre (SAM-C), Space Security, Technical Core Group (TCG)
CCR&D (PC&SI)	Industry Interface and Technology Management (IITM), Interaction with Services for Business (ISB), International Cooperation and JVs, Low Intensity Conflicts (LIC), Quality, Reliability and Safety (QR&S), SA to Chiefs, Technical Advisors abroad
CCR&D (TM)	Extramural Research and Intellectual Property Rights (ER&IPR), Futuristic Technology Management (FTM), Research Boards, Research Innovation Centre (RIC)

8.7 There are five Chief Controllers R&D (CC R&D) to oversee the activities of the corporate HQ namely, CC R&D Production Coordination and Services Interaction (PC & SI), CC R&D Human Resources (HR), CC R&D Technology Management (TM), CC R&D Resources & Management and Implementation (R&M and Impl.) and CC R&D Systems Analysis & Modeling (SAM). The organisation chart of corporate HQ is given in Table 1.

8.8 In addition, there is a CC R&D who functions as CEO & MD BrahMos- the Indo Russian joint venture in which DRDO is a partner.

HUMAN RESOURCES

8.9 Being a mission mode organisation, DRDO follows a dynamic system of manpower planning. Authorization is reviewed after every two years to meet the contingent requirements on account of workload and new projects undertaken by the laboratories. The organisation optimally utilizes manpower through dynamic manpower management system. To keep the organisation young and energetic and also to fill deficiencies created on account of retirement and superannuation, scientists are being inducted every year as required by the laboratories. DRDO follows online receipt of applications under all recruitment and assessment activities thereby discontinuing the offline/ paper application in DRDO. DRDO has a total strength of 25,966 employees, out of which 7,574 are in Defence Research and Development Service (DRDS), 9,643 in Defence Research and Technical Cadre (DRTC) and 8,775 are in Admin & Allied Cadre.

8.10 DRDO ensures training to all cadres of personnel through training institutes, like DIAT, Pune (for technical courses); ITM, Mussorie (for techno-managerial programmes) and Defence Laboratory, Jodhpur (for technical, administrative and allied cadre). Every year few selected scientists are deputed to undergo ME/ MTech/ PhD at Indian Institute of Technology (IIT), Indian Institute of Science (IISc) and other reputed Indian universities under the sponsorship programme. Targeted Training Centre has been set up at Dr. Raja Ramanna Complex, Bangalore for DRDO scientists. Continuing Education Programme (CEP) are also part of DRDO annual training schedule. In the year 2014, more than 75 CEPs were organized in which almost 1500 candidates participated.

BUDGET

8.11 During current financial year 2014-15, DDR&D has been allocated ₹15,282.92 crore. The Government has enhanced the budget outlay for the department by ₹432.10 crore in 'Revenue' head and ₹4,240.65 crore in 'Capital' head, as compared to financial year 2013-14, which will further help to develop new weapon systems.

PROGRAMMES AND PROJECTS

8.12 DRDO projects are classified into five main project categories viz. Mission Mode (MM), Technology Demonstration (TD), Science and Technology (S&T), Infrastructure and Facilities (IF) and Product Support (PS). During the period January 1 to December 1, 2014, 52 new projects have been sanctioned at a total cost of ₹3,152.98 crore. DRDO has 294 ongoing projects (excluding strategic projects) amounting to ₹47,824.71 crore. Out of 294 ongoing projects, 43 large

projects (cost ≥ ₹100 crore) have a cost of ₹40,957.83 crore. Table No. 8.2 provides a brief outlay of category wise distribution of the projects and their cost.

Table No. 8.2
Financial Allocation for
Different Category of Projects

Projects	No. of Projects	Cost (in ₹ crore)
Mission Mode (MM)	60	36613.61
Technology Demonstration (TD)	144	7182.75
Infrastructure & Facilities (IF)	23	1716.27
Science & Technology (S&T)	62	1134.76
Product Support (PS)	05	1177.32
Total	294	47,824.71
Note: The data does not include strategic programmes and MM projects includes 10 CCS programmes		

8.13 There are currently 10 major programmes approved by the Government amounting to ₹36,539.64 crore (DRDO's share: ₹20581.87 crore). About 43.7% of the total cost of CCS programme is funded by the User. Out of these, two projects are related to design and development of missiles: Long Range Surface-to-Air Missiles (LRSAM) and Medium Range Surface-to-Air Missiles (MRSAM). The flagship projects in the field of aeronautics are: Light Combat Aircraft (LCA) Air Force Mk-I, LCA Air Force Mk-II, LCA Navy Mk-I, LCA Navy Mk-II, Airborne Early Warning and Control (AEW&C) System, Kaveri Engine and in-principle approved Airborne Warning and Control System (India) programme, AWACS(I).

8.14 The year 2014 witnessed a number of significant milestones/ achievements in DRDO projects, some of which are detailed in succeeding paragraphs:

'Agni' Missile Series: The last one in the series of development launches was successfully carried out for intermediate range ballistic missile Agni-4 (3000 km) on January 20, 2014. A trial of Agni-4 was carried out by the Indian Army from Wheeler Island off Odisha coast on December 2, 2014. The missile is under induction. Second missile ejection test of intercontinental ballistic missile Agni-5 (5000 km) was successfully completed. Successful flight tests of Agni-1 on April 11, 2014 and September 11, 2014 and Agni-2 on November 10, 2014 were carried out by Starategic Forces Command from the Wheeler Island, off the Odisha coast.

Agni-4

Surface-to-Air Missile 'Akash': Medium range (25 km) surface-to-air missile 'Akash' is a mobile, multi-directional, multi-target

Surface-to-Air Missile 'Akash'

point/area defence system which can simultaneously engage several air targets in a fully autonomous mode of operation. The total production orders placed by Services for Akash missile system amounts to approximately ₹ 20,400 crore. Missile system worth ₹ 3,500 crore has already been delivered to the Services. Flight test with Indian Army first off production model was conducted successfully in February 2014 and missile production process has been established. Successful trials of Akash missiles were conducted on April 26, May 28, June 18, August 12-13 and November 17-22, 2014 by IAF and the Indian Army as part of user trials.

Beyond Visual Range Air-to-Air Missile 'Astra': Beyond visual range air-to-air missile (BVRAAM) 'Astra' (60 km) possessing high single shot kill probability is being developed by DRDO to engage and destroy highly manoeuvring supersonic aerial targets. The missiles have undergone rigorous testing on Su-30 in the captive mode for avionics integration and seeker evaluation in 2013. Weapon integration with Su-30 MKI aircraft has been demonstrated during CFT-III sorties. Seeker evaluation was conducted successfully with shooter and target aircrafts during CFT Phase-III. Airworthy qualification of rocket motor was completed in March 2014 for release flights from Su-30 MKI aircraft. First release trial from Su-30 MKI has also been successfully completed. BVRAAM was tested successfully on May 4, 2014 and June 20, 2014 by IAF from a naval range off Goa.

Sub-sonic Cruise Missile 'Nirbhay': Nirbhay is India's first indigenously designed and developed long range subsonic cruise missile having 1000 km range and capable of carrying up to 300 kg warheads. It incorporate state-of-the-art inertial navigation system. Nirbhay was successfully flight tested on October 17, 2014.

Sub-sonic Cruise Missile 'Nirbhay'

Long Range Surface-to-Air Missile (LRSAM): LRSAM having a range of 70 km is a joint development programme of DRDO, Indian Navy and Israel Aerospace Industries (IAI), Israel. The missiles are intended to equip the three guided missile destroyers of the Indian Navy. Weapon control system and multi-function surveillance track and guidance radar systems were delivered for two ships and also undergoing installation, commissioning, integration and testing LRSAM was successfully tested against a flying target in a range in Israel on November 10, 2014.

Medium Range Surface-to-Air Missile (MRSAM): MRSAM having a range of 70 km is a joint development programme of DRDO, IAF and IAI, Israel. Designs of the various sub-systems/ major elements were completed. All MRSAM functional prototypes were delivered and integrated at IAI, Israel. The system participated successfully

Solid Fuel Ducted Ramjet Propulsion (SFDR): The state-of-the-art SFDR is a joint development project between DRDO and Roso Boron Export, Russia. SFDR is designed with an advanced propulsion system having thrust modulation using hot gas flow controller. Major achievements during the year include: Finalization of missile configuration for testing SFDR technology, Preliminary Design Review (PDR) of propulsion system and avionics system completed. Two tests have been carried out successfully of indigenous nozzle less booster.

New Generation Anti-Radiation Missile (NGARM): DRDO is involved in the design and development of NGARM having a range of 100 km. Major achievements in the year include completion of PDR's for airframe structures, propulsion system, on-board computer, passive homing head and electrical integration. Interface testing of missile has also been completed. Preliminary design phase is completed, wind tunnel testing is in progress and hardware is under realization.

Third Generation Anti-Tank Guided Missile 'Helina': Helina missile with a range of 7.0 kms is being developed by DRDO for deployment on Advanced Light Helicopter (ALH-WSI). This missile is airborne and has a lock-on-before-launch system. Successful trials of Helina were conducted on June 27, 2014 from a defence base off the Odisha coast.

Missile Launched Precision Guided Munitions (MLPGMs): successful trials of MLPGM was carried out from MIRACH unmanned aerial vehicle (UAV) on August 19, 2014 which met the mission objective, proving control and guidance algorithm of the munitions with mathematical model of seeker.

Canon Launched Guided Missile (CLGM): CLGM is the semi active laser homing anti-tank missile which is able to engage the enemy tanks up to 5 km. The kill mechanism with CLGM is tandem high explosive anti-tank warhead. Instrumented flight trials from tripod have been successfully completed and mid-course guidance has been demonstrated.

Supersonic Cruise Missile 'BrahMos': BrahMos is a two-stage missile with a solid propellant booster engine as its first stage which brings it to supersonic speed and then gets separated. The liquid ranjet or second stage then takes missile closer to 3 mach speed in cruise phase. The 290 km range supersonic cruise missile can carry conventional warhead weighing 200 to 300 kgs.

BrahMos was successfully fired for the first time in salvo mode from the naval warship INS Trikand off the coast of Karnataka in the Arabian Sea on February 7, 2014. Indian Navy on June 9, 2014 successfully conducted the flight test of BrahMos from the indigenously-built INS Kolkata, the lead ship

Supersonic Cruise Missile 'BrahMos'

of the Project 15A class destroyers, from the Arabian Sea. BrahMos was test fired as part of development trials on July 8, 2014 from the Odisha Coast.

Hypersonic Technology Demonstrator Vehicle (HSTDV): DRDO is developing HSTDV having speed up to 6.2 Mach. Successful ground test of full scale scramjet combustor carried out with gaseous ethylene fuel for 20 sec in connect pipe mode test facility. Fuel could ignite at extreme combustor entry Mach number of 2.7. Combustor performance meets the mission requirement in terms of thrust generation. Prototype of cruise vehicle bulkheads has been realized. Flight hardware of inter-stage has also been realized for launch vehicle.

Directed Energy Laser System: DRDO has initiated a project for the development of 10kW proof-of-concept directed energy system against UAVs like target and establishment of critical technologies of precision tracking/ pointing and laser beam combination.

Light Combat Aircraft (LCA) 'Tejas': Indigenously developed LCA is an advanced technology, single seat, single engine, supersonic, light weight, all-weather, multi-role, air superiority fighter designed for air-to-air, air-to-ground and air-to-sea combat roles. It is the smallest, light-weight, fourth generation combat aircraft developed in the world. Four Tejas aircrafts (TD1, TD2, PV1 and PV2) were built in Full Scale Engineering Development (FSED) Phase-I programme which was completed on March 31, 2004. FSED Phase-II programme was envisaged for fabrication of two prototype vehicles Tejas PV3 and PV4 and one two-seater trainer variant prototype vehicle Tejas PV5. Tejas production phase has been initiated. IAF has approved induction of Tejas into operational service with the first Tejas squadron with Initial Operational Clearance (IOC) configuration and the second squadron with Final Operational Clearance (FOC). Establishment of production facilities at Hindustan Aeronautics Limited (HAL) for production rate of eight aircrafts per annum is in progress. Hot weather and evaluation of radar warning receiver (RWR) Tarang-MK1B trials at Gwalior were conducted. Radar related trials and weapon release trials were also completed. Maiden flight of first series production Tejas aircraft (SP1) occurred on September 30, 2014. Tejas trainer (PV6) flew its maiden flight on November 8, 2014. As

LCA Tejas

on November 30, 2014, a total of 2775 flight tests on 14 Tejas have been completed. FOC is scheduled for June 2015.

LCA Navy: LCA Navy is designed to operate from the decks of aircraft carriers and incorporates stronger landing gears to absorb forces exerted by the ski jump ramp during take-off. FSED Phase-I programme is envisaged for fabrication of two prototypes (NP1 and NP2). A number of flights have been completed on the first LCA Navy prototype, a two seat trainer (NP1) aircraft. The maiden successful, picture perfect launch of NP1 from ski jump facility of shore based test facility at INS Hansa in Goa was conducted on December 20, 2014. The second LCA Navy prototype, a single seat fighter (NP2) aircraft is in advanced stage of system integration. Engine ground run (EGR) has been completed for NP2 aircraft. After-burner EGR has been completed. Development of drop tank for LCA Navy is expected to be completed by March 2015. FSED Phase-II programme is targeted to develop two single seat fighter prototypes (NP3 and NP4).

Airborne Early Warning and Control (AEW&C) System: AEW&C system consists of sensors mounted on an aircraft for locating and providing early warning of airborne and sea surface targets and hostile emissions. The system also provides comprehensive information to the controllers on-board the aircraft as well as to the ground stations. The first two fully modified Embraer EMB-145-I aircrafts were received in India. The system has surveillance capability and has unique air-to-air refueling provision for enhanced endurance. Primary radar line replaceable units (LRUs), secondary surveillance radar LRUs, mission system controller (MSC) and integrated RWR electronic support measures (ESM) self protection suit have been installed on the two aircrafts after clearance from System Test and Integration Rig, Director General of Aeronautical Quality Assurance and CEMILAC. AEW&C system is undergoing flight trials. So far, 240 sorties have been flown using two aircraft (KW 3555 and KW 3556) to test the various mission systems on-board totalling about 290 hours.

Airborne Warning and Control System (India): AWACS (I) programme is for the development and delivery of two systems which consists of modifications of the aircraft with a dome to carry the front end electronics of both primary and secondary antennas. The programme envisages the technology and products build for AEW&C to provide for longer endurance and improved data rate for data link. In the first phase of the programme, development of aperture array antenna unit has been taken up for which design configuration is in progress. Design of suitable scale down model for wind tunnel test is also under progress.

Wheeled Version Nishant 'Panchi': Four Nishant aircrafts with catapult launch (hydro

UAV 'Nishant' - Wheeled version

pneumatic version) and all ground systems have been delivered to the Indian Army. The wheeled version of Nishant made its maiden flight from a testing facility on December 24, 2014 meeting all mission objectives successfully.

Medium Altitude Long Endurance UAV 'Rustom-II': Rustom-II is being designed to operate up to 30,000 ft above mean sea level altitude (AMSL) with an endurance of 24 hours from take-off to landing with synthetic aperture radar and long range electro-optic payloads (up to 350 kg) at 20,000 ft AMSL. It is designed to perform intelligence, surveillance and reconnaissance missions for Indian Army, Indian Navy and IAF. Three airframes are under various stages of integration and testing. Low speed taxi trials up to 30 knots were conducted.

MALE UAV Rustom - II

Aerostats: Aerostat is a balloon based platform, works on lighter than air principle and carries payloads for surveillance and communication purposes. Following the successful demonstration of 2000 cu. m. 'Akashdeep', a new aerostat system, 'Nakshatra' is being developed by DRDO having 3500 cu.m. volume, communication intelligence (COMINT) gathering with net payload capacity of 300 kg and an endurance of 7-14 days. Flight evaluation trials for balloon have been completed. Integration of the system is in progress and will be ready for demonstration by 2015.

Heavy Drop System (HDS): A 16 ton capacity HDS consisting of a platform and a highly advanced system of parachutes to drop loads consisting of military stores such as vehicles (including BMP class), supplies and ammunition from IL-76 heavy lift aircraft has been designed developed and demonstrated. The system is an extension of technology developed by DRDO for 'P-7 HDS', the seven ton capacity HDS developed earlier and already accepted by Indian Army for induction. The design features built in the system ensure aircraft safety during the separation of such a large body in a fool proof manner as well as smooth deployment of parachutes and landing of load at pre-designated target point. These systems are re-usable type to provide drop practice to the troops during their regular military training during peace time. User Assisted Technical Trials (UATTs) have been completed for the system.

Controlled Aerial Delivery System (CADS): CADS is an aerial delivery system developed by DRDO that delivers a payload of 500 kg autonomously to a designated target within a 100 m circular error probability using ram air parachute. It has a maximum range of 20 km when released from 10 km altitude. The platform system already inducted caters for dropping up to 3 ton from AN-32 aircraft. Project preparation for controlled aerial delivery system (500 kg & 4 ton) for AN-32 aircraft is underway.

Successful Recovery of Space Capsule of India's Human Space Flight Programme using DRDO developed Parachute System: The first experimental flight of GSLV Mk-III X/CARE, India's next generation launch vehicle was also used to prove parachute system for recovery of Crew Module (CM) developed by DRDO. Parachute system was successfully tested on December 18, 2014. The GSLV Mk-III vehicle was launched from Satish Dhawan Space Centre, Sriharikota and CM was recovered in Bay of Bengal near Port Blair in about 20 min 43 sec after lift-off. The new launch vehicle designed by ISRO is capable of carrying 4000 kg CM of human space flight programme into the space. The parachute system designed by DRDO is used to bring the module safely on earth surface after aero-braking phase from the hypersonic to subsonic speeds. Total 08 parachutes for various functions and redundancy were used in the recovery system.

Parachute System for ISRO's HSP Programme

ASB Glide: Non-winged version of guided bomb having a range of 30 km has been named as 'Garuda' and winged version of this weapon having 100 km range is called as 'Garuthma'. Garuda store has been successfully released from the Su-30 MKI aircraft during 2013. Transfer alignment and safe separation have been proven as part of development trials of Garuda. Wing kit realization and wind tunnel tests have been completed as a part of development trials of winged version Garuthma. Garuthma drop trials were conducted successfully on December 19, 2014 in Bay of Bengal off the Odisha coast.

Main Battle Tank (MBT) 'Arjun': MBT Arjun Mk-II has been designed and developed incorporating 89 improvements on MBT Arjun Mk-I. Out of these 19 have been identified as major improvements. Phase IV User trials for demonstrating trench crossing and step climbing capabilities of MBT Arjun Mk-II has been completed in September 2014.

MBT Arjun

Arjun Armoured Recovery and Repair Vehicle (ARRV): The ARRV is intended for rendering comprehensive recovery and repair services to Arjun regiments and the mechanized ground forces in general. Two Arjun regiments are to be equipped with

ARRV on Arjun chassis fitted with SMTs, STEs and spares for field repair of MBT Arjun. The major systems in ARRV include chassis and automotive control, main winch, auxiliary winch, crane and anchor cum dozer, main engine and hydraulic system.

Development of 1500 hp Engine: As a part of the 'National Mission' for the development of military engines, a project for 'development of 1500 hp engine' for next generation main battle tank (NGMBT) has been taken up by DRDO. During the year 2014, the first milestone of conceptual design by DRDO was successfully completed.

Advanced Towed Artillery Gun System (ATAGS): DRDO has taken up the task of design and development of 155m/52 Cal ATAGS having higher accuracy and consistency (0.6% in range, 0.2% in line) for Artillery of Indian Army. Hardware sub-systems viz. barrel, first breech mechanism, muzzle brake, recoil system, gun structure and automotive and automation and control system, fixed firing stand, gun integration, gun barrel etc. are under realization.

130 mm (SP) Catapult Gun System on MBT Arjun: DRDO is involved in design and development of catapult gun system by integrating the Russian 130 mm gun system on MBT Arjun chassis and automotive system. The system is designed to provide Artillery guns, matching mobility with contemporary tanks in the battlefield. The vehicle is being prepared for GSQR based user trials scheduled for early 2015, which will be followed by induction into Artillery.

Multi Barrel Rocket Launcher System (MBRLS) 'Pinaka' Mk-II: MBRLS 'Pinaka' is an all weather indirect fire free flight artillery rocket system. Following induction of two regiments of Pinaka Mk-I. DRDO has taken the design and development of Pinaka Mk-II having an enhanced range of 60 km. Design configuration has been finalized and hardware realised for the first set of Pinaka Mk-II. Preliminary technical trials to freeze design have been carried out. Five series of dynamic trials were conducted at PXE and 40 nos. of rockets fired with inert warhead and telemetry.

Pinaka

Wheeled Armour Platform (WHAP): DRDO is involved in design and development of two prototypes technology demonstrator platforms indigenously (one for designer's evaluation and one for UATT). Ballistic trials of two samples were completed at TBRL, Chandigarh this year.

46m Military Load Class (MLC-70) Modular Bridge: DRDO has initiated the development of a 46m MLC-70 modular bridge to be laid in single span for gaps varying from 14 m to 46 m with Larsen & Toubro (L&T) as industry partner. Till date, one prototype has been realised. UATT and live load test with MBT Arjun has also been carried out. One more

prototype of the system is under realization to enhance performance.

46m MLC-70 Modular Bridge

New Family of Munitions: Six types of munitions are being designed and developed by DRDO viz. Nipun, Vibhav, Vishal, Parth, Prachand and Ulka to improve the existing munitions and enhance its performance. These are in various stages of technical / user trials.

Penetration-cum-Blast (PCB) and Thermo-Baric (TB) Ammunition for MBT Arjun: Dynamic trials of 120 mm PCB ammunition for MBT Arjun Mk-II were conducted successfully during June 2-6, 2014 at PXE, Chandipur.

Advanced Torpedo Defence System 'Maareech': Maareech is an advance torpedo defence system capable of detecting, tracking, seducing, confusing and decoying incoming modern and vintage torpedoes. Training regiment operation and maintenance of Maareech system for crew of INS Ganga and INS Gomati had been held. User Evaluation Trials (UETs) are in progress and till date, 13 UETs have been conducted.

Advanced Light Weight Torpedo (ALWT): ALWT has variable speed from 29 to 50 knots, range of 12 km at high speed, high resolution digital beam homing system, multi frequency operation, inertial navigation system, shaped charge warhead, balloon recovery system for practice torpedo and is for both ship and air borne applications. Six dynamic trials were completed last year. Integration of homing system, 70 kW battery, 60 kW BLDC motor with controller and all other sub systems have also been completed.

Heavy Weight Ship Launched Torpedo 'Varunastra': Varunastra is a ship launched anti-submarine torpedo having low drift navigational systems, acoustic homing with wide look angle, advanced acoustic counter-counter measure features, active homing, autonomous guidance algorithms, insensitive munitions warhead and global positioning system based recovery aid for practice torpedo. First phase of seven UETs were conducted in 2013. In the second phase of trials, 11 UETs have been conducted successfully till November 2014.

Ship Launched Heavy Weight Torpedo (Varunastra)

Advance Light Towed Array Sonar (ALTAS): ALTAS is an efficient sensing system for detection, localization and classification of submarines. The first set of technical trials for the system was conducted in December 2014.

Land based Prototype for Air Independent Propulsion (AIP) System : This is a land based prototype for fuel cell AIP for submarines. It aims to package the AIP plant sub-systems, reactant tanks and waste tanks inside the simulated hull section of the P-75 submarine. The system has in-situ provisioning of hydrogen through hydrolysis of borohydride and oxygen through liquid oxygen. The design part is completed and pre-production floor model has been tested. Hull model has been integrated and is under trials.

EW Suite for Fighter Aircraft (LCA Tejas): Under a joint development programme between DRDO, MoD Israel and M/s Elisra, Israel development, integration and evaluation of UEWS which is an integrated Radar Warner and Jammer (RWJ) system is in progress. Ground acceptance test has been completed on Tejas PV1.

Dual Colour Missile Approach Warning System (DCMAWS) for Fighter Aircraft (Su-30 MKI): DRDO along with the joint partner M/s Elisra, Israel is designing and developing DCMAWS for Su-30 MKI aircraft. Development of LRU's (sensor, digital processing unit and recording system) has been completed followed by system integration.

Internal EW System for MiG-29 upgrade Aircraft (D-29 System): DRDO is developing an internal EW system for MiG-29 upgrade aircraft. All hardware has been integrated and aircraft was tested in the rig and demonstrated in February 2014. Aircraft integration, ground testing, flight evaluation of the system (limited and multi emitter flight trials) will commence in 2015.

Internal RWJ System for Jaguar Darin III upgrade Aircraft (D-JAG System): PDR and critical design review have been completed along with core EW unit design. First prototype of core EW unit (low pressure section) has been developed and is under system integration. Technical specifications of transmitters have been finalized and development is in progress. Aircraft modification is also in progress at HAL.

EW Systems for Capital Ships, Aircrafts and Helicopters for Indian Navy 'Samudrika': DRDO has taken up the development of a family of seven EW systems (EW Suite 'Shakti'; COMINT 'Nayan' & 'Sarvadhari'; ESM 'Tushar', 'Sarang' & 'Sarakshi' and ESM & COMINT 'Nikash') customized for different platforms as per naval staff qualitative requirements. Design of each of the above mentioned products and hardware is under realization. The lab demonstration to the user for the first product of the 'Samudrika' family i.e. Sarang EW system has been done in November 2014.

Girishakti: Critical Entity Constituents and System Software for Himshakti: The objective of the project is to develop critical entity constituents and system software for Himshakti. Indian Army is in the process of procurement of integrated EW system for mountainous terrain (Himshakti) under the category 'Buy Indian (BEL) with DRDO Technologies'. Lab demo of communication and radar entities to Users has been completed. Field demo of communication EW has been completed at Leh and radar EW is scheduled in the first quarter of 2015.

Medium Power Radar (MPR) 'Arudhra': MPR is a sophisticated multi-functional sensor for modern fast changing battlefields designed and developed by DRDO. This

S-band solid state active aperture radar is being developed to detect and track airborne targets including helicopters, UAVs and slow speed radar cross section (RCS) air targets up to 100 km. At present, all the modes of operation of MPR have been established at Kolar for demonstration to the Users.

MPR 'Arudhra'

Low Level Transportable Radar (LLTR) 'Ashwini': LLTR is a state-of-the-art 4D active array technology based multifunction radar for IAF being developed by DRDO

LLTR 'Ashwini'

to provide airspace awareness about high maneuverable targets in high target density and intensive EW battlefield environment. LLTR will automatically detect and track airborne targets including UAVs up to 200 km depending on the target size. It will be able to detect fighter aircraft at altitudes from 30 m to 15 km. Radar processing software has been developed and tested at lab environment. Active antenna array unit is under calibration at Near Field Test Range (NFTR) in DRDO.

Active Electronically Scanned Array Radar (AESAR) 'Uttam': Uttam having range of 100 km is the fire control radar for fighter aircrafts and LCA. AESAR will have fully solid state X-Band radar with agile and electronically controlled beam, simultaneous multimode/ multifunction capability, long range air-to-air detection and tracking, air-to-ground detection and tracking, air-to-sea search and multi target tracking, support for air-to-air missile guidance, advanced ECCM and improvement in mission reliability.

Software Defined Radio (SDR): Development of SDR is being pursued by DRDO in a consortium approach with CDAC and WESEE as development partners and BEL as the production partner. The objective of the project is development of network enabled, interoperable and modular SDR having frequency in the range of 3-2000 MHz to provide wireless secure communication capability to both mobile and static forces required for Indian Navy. Developer sea trials of SDR-Naval Combat and SDR-Tactical in AM, FM, Link-II and secure low data rate (64 Kbps) waveform have been carried out. Two SDR-Airborne prototype hardware modules

and chassis have been realised. Currently, SDR-naval combat trials are under progress.

Situational Awareness for Maritime Domain: Naval Maritime Domain Awareness (MDA) is an indigenous application that provides common operational picture by collecting, collating and disseminating surveillance and intelligence inputs of vessels at sea through on-board sensors, shore-based sensors and interfacing networks. The application incorporates high level security overlay at all levels of data sharing for information assurance. It has been deployed pan country.

Cyber Security: In the area of Cyber Security, DRDO has developed a number of high assurance security technologies for securing information in transit, storage and during processing. A number of high grade communication secrecy solutions were delivered to the defence services and other sensitive government agencies.

Centralized Internet Access Gateway (CIAG): DRDO has commissioned a CIAG which is a private MPLS cloud. Each DRDO laboratory and establishment is connected to the cloud on a 20 Mbps link. The network has been commissioned and operationalised in order to facilitate converging of internet traffic of all DRDO constituent laboratories on to a central communication link (configured as central routing hub) and thereby enforcement of common security policies across the organization.

Nuclear, Biological and Chemical (NBC) Defence Technologies: The various achievements in the 'Programme on NBC Defence Technologies' with 36 projects involving 10 DRDO laboratories include: (1) Fabrication of all sub-systems viz. air cyclone for air sampling, burner chamber, hydrogen generator and flow control, optics-diode array detector, electronic signal processing for integration and prototype development of standalone flame photometry based chemical warfare agent detection system (2) Prototype of ion mobility spectrometry based single tube point detector and twin tube automatic chemical agent detection and alarm systems with detection capability for nerve, blister, blood and choking agents (3) Prototype of First Aid Kit-A Mk-I (4) Nanomaterials based Personal Decontamination Kit Mk-II (5) NBC Canister Neelkantha.

Biodigester dedicated to 'Swachh Bharat Mission': DRDO has developed an eco-friendly technology system for disposal of human waste i.e. a 'Biodigester' for use by the soldiers in high altitudes. Biodigesters are being used extensively by the services in Indian Army transit camps, Siachen glaciers, Partapur and high altitude cold regions. It has been installed in numerous other places like Lakshadweep, Dhamara, Odisha etc. Subsequent to the success it has been massively installed by the Indian Railways and is now sought for Rural Gram Panchayats and different ministries. DRDO has dedicated 'Biodigester' to the Swachh Bharat Mission.

Biodigester for high altitude

8.15 National Infrastructure Assets

DRDO has been instrumental in creation of sophisticated and high cost R&D facilities for test, evaluation and other purposes which are an asset to the nation. Some of the new facilities created/ upgraded are:

(i) **Seakeeping and Maneuvering Basin (SMB):** SMB is a world-class facility for comprehensive hydrodynamic model testing. The facility is used to generate complete operational envelope of ships, submarines and underwater weapons.

(ii) **Track Extension and RTRS Augmentation (TERA):** Rail Track Rocket Sled (RTRS), a national test facility, has been established for testing and evaluation of different components, systems and sub-systems related with armaments, missiles, aeronautical and space, at developmental stages, in simulated dynamic condition of their flight environment.

Side View of the Augmented RTRS Facility

New Assembly Sled

(iii) **Centre for Advanced Systems (CAS):** CAS has been established at Hyderabad for integration of strategic systems to reduce the realization time.

8.16 Corporate Initiatives

Long Term Technology Perspective Plan (LTTPP) of DRDO: DRDO has undertaken a study to understand the system requirements as laid out in the Long Term Integrated Perspective Plan (LTIPP) of Services and also for visualization of the technology needs beyond the XIV plan period. The aim of LTTPP of DRDO is to align technology development plan with systems acquisition plans given in LTIPP which will go a long way in fulfilling the needs of our Armed forces. A detailed document incorporating inputs from each cluster of DRDO has been completed this year. The LTTPP details the technology projects which need to be taken up, resources required in respect of test facilities infrastructure, test ranges and centers of research excellence that would be required. This is now under implementation.

Industry Interface: DRDO through ongoing DRDO-FICCI initiatives on Accelerated Technology Assessment Commercialization (DRDO-FICCI-ATAC) programme has entered into 12 licensing agreements for ToT. In addition, ToT (for defence use only) to industries for 12 technologies has also been done directly through laboratories. Five proposals under technology acquisition through offsets were processed, of which one has fructified into a positive requirement

by DRDO laboratories. To enhance the manufacturing/production base of defence equipment by Indian industries, 9 industries were recommended to Ministry of Defence for providing industrial license to participate in defence production. DRDO has evolved the draft export policy for export of DRDO developed systems. Three Quarterly Interaction Meetings (QIM) held during the year have laid down the foundation for greater synergy between DRDO, production agencies and the Users, right from the design stage to life cycle support.

Services Interaction: DRDO has a well established mechanism of regular interaction with the Services to boost up the induction of indigenously developed systems to increase self-reliance of the Armed forces. Joint reviews of DRDO projects by SA to RM and Vice Chiefs of all three Services and QIMs with all Line Directorates of Indian Army are conducted regularly to remove bottlenecks and provide necessary guidance to the development team. Indian Navy-DRDO synergy meetings for the long-term requirements of Indian Navy are already initiated and cluster wise meetings are being organized regularly. New projects to be taken up by DRDO laboratories for meeting the User requirements, as projected in the LTIPP are being discussed in the various QIMs with Users.

Policy for internal evaluation of DRDO developed systems by an independent team, before offering for User trials, has been implemented. This ensures that the product meets the User requirements in the first attempt. To review the performance of DRDO developed systems inducted by the IAF, DRDO scientists have been deputed to operational locations to get a firsthand feedback on utilization and to identify problems faced, if any. Due to persistent efforts, the production value of DRDO developed systems (inducted/approved for induction) has gone up to approximately ₹ 1,74,800 crore.

Table No. 8.3
Products/ Systems/ Technologies developed by DRDO

Systems	Cost (₹in crore)		
	R&D Cost	Inducted	Under Induction
Missile Systems	4150.19	23863.25	41725.73
Electronics and Radar Systems	1504.07	10642.70	22826.18
Advanced Materials and Composites	126.53	3504.96	138.84
Armament Systems	108.80	8362.38	4259.44
Aeronautical Systems	12433.68	598.76	18872.04
Combat Vehicles and Engineering Systems	776.02	13692.59	17882.67
Life Sciences Systems	12.51	246.91	286.29
Naval Systems	327.20	1038.76	802.13
Micro Electronic Devices and Computational Systems	195.46	1450.64	4649.41
Total	**19634.46**	**63400.95**	**111442.72**
Grand Total (Inducted + Under Induction)	**174843.67**		

National and International Exhibitions: DRDO participated in DefExpo-2014, New Delhi in which all DRDO laboratories participated and showcased their strength in defence technologies under different technological clusters. At Global R&D Summit-Destination India, DRDO used the platform to showcase its technologies identified under ATAC programme for commercialization.

In the international arena, India showcased its state-of-the-art airborne platforms systems designed and developed by DRDO in the Bahrain Air Show held during January 16-18, 2014. The indigenous AEW&C integrated on an Embraer participated in the flying display. At INDO Defence Expo & Forum, Jakarta held in November 2014, DRDO showcased its products and technologies in the field of AEW&C, sonars, radars and underwater communication systems for ships and submarines.

International Co-operation: The objective being pursued by DRDO through international cooperation is to promote global S&T cooperation and complementing respective capabilities to achieve self-reliance and indigenization in defence technology. This year DRDO held bilateral defence R&D meetings with Russia, USA, Israel and Singapore. In September 2014, DRDO successfully conducted Indo-US technology workshops in topical areas of interest to DRDO. In October 2014, DRDO and the Norwegian Defence Research Establishment signed a 'Statement of Intent' for defence R&D cooperation. Some new initiatives have been taken with Australia, Spain, Canada, Egypt and South Africa for exploring R&D technology cooperation.

Extramural Research (ER): To harness the S&T knowledge and practical excellence present in academic institutions and R&D centres three thrust areas viz. cyber security, space security and low intensity conflicts were included for extramural research funding. Two study projects on national security and strategic issues for planning future DRDO projects have been granted to National Institute of Advanced Studies under Memoranda of Collaboration (MoC). Also MoCs have been entered with IISc, IIT and Jawahar Lal Nehru Centre for Advanced Scientific Research to assist DRDO in ongoing projects at laboratories.

There are nearly 400 ongoing projects in armaments, high energy materials, life sciences, sensors, cryptography, human psychology and physiology, solar cells and mathematical modeling. 56 projects were successfully completed and over 600 papers were published in international and national journals and conferences. Two patents have been filed from the outcome of ER funded projects. Over 148 conferences/ workshops in various fields of importance and relevance to DRDO were sponsored for ₹ 9.71 crore.

DRDO has been once again awarded the prestigious 'Thomson Reuters India Innovation Award-2014' in category of 'Research Institutions'. DRDO had also

won the Thomson Reuters India Innovation Award-2011 in the category of 'Hi-Tech Academic & Government'.

Intellectual Property Rights (IPR): 140 IPR applications (including 2 in foreign countries) were processed for filing on products/ processes covering the fields of armaments, electronics, instrumentation, materials, bio-medical sciences, food technology etc. for providing legal protection to innovations of DRDO scientists. 35 patents (including 8 in foreign countries) were granted during the period. In addition, 9 copyrights and 5 designs were registered in India. In order to promote IPR awareness among DRDO scientists, 5 IPR awareness programmes/ workshops/ patent clinics including 2 workshops in collaboration with the European Patent Office were held during the period.

8.17 **Awards**

DRDO awards for the year 2013 were given by Hon'ble Prime Minister of India to honour individual scientists/teams of DRDO and partners of DRDO from other sectors for their outstanding contributions in furthering DRDO's efforts in achieving self-reliance.

DRDO Life Time Achievement Award: Dr. Dipankar Banerjee.

Technology Leadership Award: Shri S Anantha Narayanan, DS & Director NPOL.

Academy Excellence Awards: Emeritus Prof. S Mohan, IISc Bangalore and Dr. V Kamakoti, IIT Madras, Chennai.

Silicon Trophy: DRDL, Hyderabad

Titanium Trophy: DIPAS, Delhi

Path Breaking Research/ Outstanding Technology Development: Dr. SC Sati, Scientist 'H' & Director ADRDE and his team; the second award was shared between Dr. S Guruprasad, Scientist 'H' & Director R&DE(E) and his team and Shri RS Chandrasekhar, Scientist 'F', RCI and his team.

DRDO Award for Performance Excellence: The award was shared between Shri PS Subramanyam, DS & Director ADA and his team and Dr. K Tamilmani, DS, CEMILAC and his team.

Special Award for Strategic Contributions: Smt. UJ Santhi, Scientist F, SPIC and her team; the second award was shared between Shri KR Sankar, Scientist F, CAIR and his team and Shri Rajeev Thaman, Scientist F, SAG and his team.

Defence Technology Absorption Award: M/s Accord Software & Systems Ltd., Bengaluru; the second award was shared between M/s Aerospace Engineers, Salem, Tamil Nadu and M/s Krishna Industries, Mumbai.

Defence Technology Spin Off Award: DFRL, Mysore.

8.18 With a vision to empower India with cutting edge technologies and equip our Services with internationally competitive systems, DRDO has proven its competence to produce state-of-the-art strategic and tactical military hardware and related

technologies in diverse disciplines such as Aeronautics, Armaments, Combat Vehicles, Combat Engineering, Electronics, Missiles, Cyber Security, Low Intensity Conflicts, Life Sciences, NBC Detection and Protection, Materials, and Naval Systems. At the core of this technological strength of DRDO is its expertise in system design, system integration, testing and evaluation and project management built over the last five decades, which have enabled it in developing indigenous capabilities in weapons and their delivery systems.

9

INTER SERVICE ORGANISATIONS

College of Militray Enginering, Pune

Inter-Service Organisations are responsible for carrying out the tasks related to the common needs of the three services.

9.1 The following inter-Service organizations function directly under Ministry of Defence:

(i) Military Engineer Services

(ii) Armed Forces Medical Services

(iii) Directorate General Defence Estates

(iv) Office of the Chief Administrative Officer

(v) Directorate of Public Relations

(vi) Army Purchase Organisation

(vii) Services Sports Control Board

(viii) Armed Forces Films and Photo Division

(ix) National Defence College

(x) School of Foreign Languages

(xi) History Division

(xii) College of Defence Management

(xiii) Defence Services Staff College

(xiv) Ministry of Defence Library

MILITARY ENGINEER SERVICES (MES)

9.2 Military Engineer Services (MES) provides support to the three services at Strategic and Operational level. The organization is manned by professional and technically competent officers and subordinate staff.

9.3 The MES functions under the overall control of Engineer-in-Chief at the Army Headquarters, who is advisor to the Ministry of Defence and the three Service Chiefs on all facets of works related issues. It has an annual budgetary work load exceeding ₹ 12000 crore. As a part of modernization plan of Defence Forces, a large number of infrastructure projects have been planned to be executed. MES has also been supporting military diplomatic initiatives by creating infrastructure aboard for friendly foreign Governments. The MES organisation comprising proficient personnel are deployed across the country at remote locations in all types of terrain and inhospitable climatic conditions and provide works services support during peace time and also equipped to provide dedicated support during war.

9.4 **Important Projects under Progress:**

(a) **Modernisation of Central Ordnance Depot (COD) Agra and Jabalpur:** As part of overall "Modernisation Drive", Army Ordnance Depot are being upgraded with Modernized Engineered Building. The Phase-I works are nearing completion and Phase-II works are commencing. The administrative Building of Central Ordnance Depot Agra has been adjudged as the "Outstanding Concrete Structure" in western Uttar Pradesh by the Indian Concrete Council on 6th September, 2014

(b) **High Altitude Area (HAA) Habitat:** A pilot project phase-I and Phase-II for improvement of Habitat in High Altitude Area has been successfully completed. Phase-III works at 12 platoon locations is under progress. The trial evaluation

of assets being created would be given post winter.

9.5 **Important Projects completed:**

(a) OTM and Married Accommodation for Coast Guard at Digligpur.

(b) OTM Accommodation for 37 Wing Air Force Station at Carnicobar.

(c) OTM Accommodation for 166 Military hospital at Jammu.

(d) OTM Accommodation for Infantry division (Phase-I) at Bikaner.

(e) Office Accommodation for CDA Jabalpur.

(f) OTM Accommodation for Mechanized Battalion at Hisar.

(g) OTM Accommodation for Infantry Battalion at Damana.

(h) Religious Building for Sikh Regiment Centre at Fatehgarh.

(i) Children School at Bikaner.

(k) OTM Accommodation for Ladakh Scouts Battalion (Phase-I) at Chandimandir.

9.6 **Major Initiatives:**

(a) **Outsourcing in Defence Sector:** In order to overcome the deficiency in manpower, Government has approved outsourcing of services for housekeeping, conservancy, security of MES establishments, maintenance and upkeep of accommodation.

(b) **Command Test Laboratory:** Eight command test Laboratories have been activated to ensure quality control in works services under the direct command and control of Chief Engineer Command.

(c) **e-Tendering:** An e-Tendering portal has been created on NIC server for more transparency in the tendering process and for improving the overall efficiency of the organisation.

(d) **Laying of Foundation Stone of New IDS building at Mehramnagar by Raksha Mantri:** Foundation Stone of new IDS Building at Mehramnagar was laid by the then Raksha Mantri on June 27, 2014.

(e) **Comprehensive End-To-End E-Procurement:** All procurement above ₹ 5 lakh are being carried out through E-Procurement only.

(f) **Renewable Energy:** Proposals for generation and utilisation of approximately 150 MW energy via Solar Power have been prepared for approval and implementation.

9.7 **Married Accommodation project (MAP):** Director General Married Accommodation Project was raised in 2002 for constructing deficient married accommodation for all the three services of the Armed Forces in one go. A total of 1,98,881 dwelling Units were to be constructed in Phase-I, Phase-II and Phase-III. The scales of accommodation which were issued in the year 1983 got revised with major improvements in finishes. MAP has been configured to work on outsourced concept with design and execution entrusted to consultants with minimal supervision. All dwelling units being constructed adhere to green norms of the Government of India.

ARMED FORCES MEDICAL SERVICES (AFMS)

9.8 The Armed Forces Medical Services (AFMS) consists of the Medical Services

of the Army, Navy and Air Force and a Directorate General, Armed Forces Medical Services. Each Medical Service is under a Director General Medical Service (DGMS) in the rank of Lt General or equivalent. The Director General, Armed Forces Medical Services (DG, AFMS), who heads the service, is medical advisor to the Ministry of Defence and is also the Chairman of the Medical Services Advisory Committee. The personnel of AFMS include officers of the Army Medical Corps (AMC), AMC (Non-Tech), the Army Dental Corps (ADC) and the Military Nursing Services (MNS). There are 130 Armed Forces Hospitals. The authorized strength of AMC, ADC, MNS and AMC (NT) is 5988, 658, 4600 and 363 respectively.

9.9 The AFMS of our country has a distinguished record of providing dedicated and dependable health care to the defence personnel and their families. Services are also catered to personnel of para-military organizations, while posted in the field, and other Central Police / Intelligence forces and GREF Units, operating in the disturbed and forward areas of the country. AFMS also provides medical care to the ex-servicemen and their dependents within the country. During natural calamities, disasters and operational areas, it also serves civilian population.

9.10 The OPD load across all MI Rooms, Sick bays, Station Medicare Centre and Specialist OPDs was approximately 2.31 crore. Over 6,85,272 patients were admitted and treated in service hospitals during the last year.

9.11 Important decisions / activities undertaken during the year:

(I) **Augmentation of manpower in AFMS:** As per Twelfth Report of SCOD, three - Phase accretion of 10590 personnel is in progress. Phase II (2012 – 14) has been completed.

(II) Commission in AFMS

(a) **Short Service Commission (SSC) from civil sources:** 140 doctors from civil sources including 26 women were granted SSC in 2014.

(b) **Commission to AFMC cadets:** 103 cadets from AFMC have been granted commission during the year 2014 as under:

(i) PC - 47

(ii) SSC - 56

(c) **Grant of Departmental Permanent Commission (DPC) to Short Service Commission (SSC) officers:** 24 Short Service Commission officers have been granted DPC in 2014 (Male 15 and Female 09).

(d) **Departmental Permanent Commission, AMC (NT):** 05 SSC officers of AMC (NT) have been granted Permanent Commission (PC) during the year 2014.

(e) **PC/SSC in AMC (NT) to Other Ranks (OR):** 5 PC and 10 SSC were granted to PBORs in AMC (NT) against the vacancies for the year 2014.

(III) **Appointment of Honorary Consultant/ Advisor:** To ensure holistic care to Armed Forces, eminent civilian doctors in different specialities are appointed as honorary consultants at various locations based upon service requirement, expertise of the consultant and their willingness to provide service free of cost.

(IV) **HIV-AIDS in Armed Forces:** The AFMS AIDS Control Organisation (ACO) is the nodal agency for HIV/AIDS Control in the Armed Forces. The organisation has achieved remarkable success on HIV control in the Armed Forces. Vigorous implementation of preventive strategies has resulted in a declining trend in HIV Positive cases, which suggests that the epidemic may be stabilizing. A Memorandum of Understanding (MoU) was signed on February 18, 2014 between DGAFMS and Department of AIDS Control, Ministry of Health and Family Welfare (M/o H&FW), Government of India. This pertains to the roadmap for further prevention, care and rehabilitation of HIV/AIDS affected people on the Armed Forces.

(V) **Armed Forces Medical College, Pune:** The college provides training to under graduate and post Graduate Medical and Nursing students with assured career prospects in the Defence Services. Admission for MBBS in 2014 was conducted centrally through the All India basis test – National Eligibility-cum-Entrance Test (NEET) (Under Graduate) and a total of 37717 candidates applied online for admission to AFMC, Pune for the year. The application process for the same was made completely online. Based on their merit, 1688 candidates were called for interview. A computer based Test for English language, Logic and Reasoning (ToELR) was also conducted at AFMC for the shortlisted candidates and finally 130 (105 boys and 25 girls) students were admitted into the MBBS course for the year 2014. In addition, 5 sponsored candidates were also admitted from friendly neighbouring countries.

(VI) **Modernization of AFMS**

(a) **Project Telelink:** To address occurrences of sickness/injury of personnel on board ships etc, a project to telelink ships to mainland tertiary care Naval hospitals is in progress. On completion of the project, opinion and expertise of naval super specialists/specialists of tertiary care land based hospitals will be gainfully utilized on board ships/ submarines/hospitals located in remote location.

(b) **Automation of Armed Forces Medical Stores Depot (AFMSD) and Supply Chain Management:** This project named as "iAushadhi" is a web based online system. The system will help reduce lead period significantly and will provide real time information on Non-Available (NA) drugs which will help hospitals to initiate procurement of drugs from their allocated funds. This in turn will enhance patient satisfaction level. This application will help the AFMSDs in efficient inventory management and better forecasting/ planning/ procurement. User trials have been conducted / completed and security clearances have been obtained. This application will be hosted shortly for use in the Armed Forces.

(c) **Cardio Thoracic Vascular Surgery (CTVS) Centre Army Hospital R&R Delhi:** CTVS Centre has been completed and is functional with manpower and equipment.

(d) The Office of DGAFMS has provided high quality, comprehensive health care to its dependent clientele, including the defence veterans fraternity and their dependents. High end, sophisticated 'state-of-the-art' medical equipments have been procured

through the Annual Acquisition Plans (AAPs) which were conceived in 2006-07 as phased modernisation templates which have evolved into an unprecedented enhancement of the specialised and critical care equipment profile of service hospitals at present. The budgetary allocation for DGAFMS in the past 9 years, ₹ 1128 crore have been expended in Capital Budget and ₹ 5115 crore expended in Revenue Budget. The expenditure on Ex-Servicemen Contributory Health Scheme (ECHS) during the last 7 years is ₹ 257 crore.

(e) The massive drive to address the essential, life saving and regular use medical equipment across the various Armed Forces hospitals has had a force multiplying as well as salutary impact on the patient care services and all clientele satisfaction indices. Medical and humanitarian aid has been provided to a number of foreign countries thereby enhancing the global importance and goodwill of India. The unprecedented improvement in the coverage of Central Rate Contract with reputed manufacturers and firms has been achieved by concluding 312 valid Rate Contracts (RCs) as on date which includes 166 items of Common Drug List. This has been achieved at an average discount of 60% of Maximum Retail Price (MRP), which is a significant saving to the state. Procurement of anti Cancer drugs and vaccines has been prioritized.

(f) The noteworthy all round improvement in the provisioning, procurement and superb supply chain management of medical equipment for the entire Armed Forces has been possible through exquisite planning and streamlined execution by following the principles of financial propriety, probity and prudence.

(VII) Foreign Aid provided to friendly countries:

(a) At present a proposal for procurement of 1 CT Scan and 1 MRI Machines is at advance stage for gifting to Maldives National Defence Forces (MNDF) hospital.

(b) As part of bilateral co-operation between India and Yemen, 10 medical store items costing approximately ₹1 crore have been made available for collection by Ministry of External Affairs (MEA) for onward despatch to Yemen.

(c) 350 Medical Store items approved by Government of India have been sent to India- Tajikistan Friendship Hospital (ITFH), Tajikistan.

(d) The India- Tajikistan Friendship (ITFH) hospital was inaugurated on the 8th October, 2014 by the President of Republic of Tajikistan and Defence Secretary, Government of India. Team comprising 73 personnel (9 Officers, 4 Member of Nursing Services, 3 Junior Commissioned Officers and 57 other Ranks) are presently deployed at ITFH, Tajikistan. This hospital has in-patient and out-patient facilities of Medicine, Surgery, Anaesthesiology, Gynaecology, Dental Surgery including facilities of Operation Theatre, Laboratory, Intensive Care Unit (ICU)

and Wards (both for male and female patients). Funding of ITFH has been done by Ministry of External Affairs.

(VIII) **Modernisation / upgradation of hospitals:**

(i) Annual Major Works Programme 2014-15: Nine works for various hospitals costing ₹13850.31 lakhs have been listed through ceiling allotted to DGMS (Army) under list V (Centrally funded Projects) during AMWP 2014-15.

(ii) Hospital Project Series No -2: A comprehensive document elucidating Defence Works Procedure (2007) and implementation of Hospital Project after Post administrative approval stage was published and released during 52nd AMC Biennial Conference in AMC Centre & College, Lucknow in November, 2013. The 53rd Biennial Conference is scheduled in November, 2015.

(IX) **Research Activities:** Approval was accorded to carry out 125 research projects at an approximate cost of ₹8.13 crore during the 52nd Armed Forces Medical Research Committee (AFMRC) meeting held at Pune in February, 2014.

(X) **Treatment of Foreign Nationals in AFMS Hospitals:** As a measure of goodwill being extended by the Government of India, the Armed Forces personnel from countries like Afghanistan, Bhutan, Nepal, Bangladesh and Maldives are accorded treatment facilities in AFMS hospitals.

(XI) **Raksha Mantri Trophy for Best Command Hospital:** Command Hospital (Southern Command), Pune, bagged the coveted 'Raksha Mantri Trophy' for the "Best command Hospital in the Armed Forces" for the year 2014.

(XII) **Training to Foreign Nationals in Medical / Dental Courses:** Training was provided to Foreign Nationals in Medical / Dental Courses in different Medical/ Dental Courses to 115 candidates sponsored by friendly neighbouring foreign countries by AFMS in its training Institutions / Hospitals based upon the requests received from these countries.

(XIII) **Disaster Relief:**

(a) **Op Megh Rahat:** The state of Jammu & Kashmir received unprecedented rainfall which led to extensive flooding of the low lying areas in Jammu and Kashmir valley. Armed Forces participated in flood relief operations named 'OP MEGH RAHAT' and has provided Medical relief in flood affected areas.

(b) **OP Lehar – Cyclone 'HUDHUD':** Hudhud, a very severe cyclonic storm made landfall directly over Visakhapatnam and Odisha on October 12, 2014. With wind speed gusting up to 205 kmph, extensive damage to property had occurred in the city of Visakhapatnam in general and in the Naval Area in particular. The Operation for provisioning of relief by Armed Forces in the aftermath cyclonic storm 'Hudhud' was named as 'OP LEHAR'.

(c) **3 RAMT at Purnea (Bihar):** To support local response efforts for imminent floods like situation in various affected districts of Bihar, 3 RAMT was airlifted from Palam and deployed at Purnea

on 4th August, 2014. While awaiting deployment instructions from local authorities, the team conducted health camps for the school children, teachers, families and civil population.

DIRECTORATE GENERAL DEFENCE ESTATES

9.12 The Directorate General Defence Estates, New Delhi, has advisory and executive functions in matters relating to management of Defence lands and Civic Administration in 62 Cantonments. The Directorate General presently functions through six Principal Directorates at Jammu, Chandigarh, Kolkata, Lucknow, Pune and Jaipur. The Principal Directorates in turn supervise a number of field offices, such as offices of the Defence Estates Officers, Assistant Defence Estates officers and Cantonment Boards. These field offices are entrusted with the day to day management of defence lands and Cantonment Boards across the length and breadth of the country.

9.13 The Ministry of Defence owns approximately 17.54 lakh acres of land throughout the country which is managed by the three Services and other Organizations like Ordnance Factory Board, DRDO, DGQA, CGDA etc. The Army has maximum land holdings under its control and management i.e. 14.14 lakh acres followed by Air Force 1.40 lakh acres and Navy 0.44 lakh acres. The defence land inside the notified Cantonments is approximately 1.57 lakh acres and the remaining around 16.00 lakh acres lie outside the Cantonments.

9.14 The Directorate General has undertaken computerization of the land records, survey and demarcation of all defence lands and digitization of records in order to strengthen control and management over defence land.

9.15 The Defence Estates Department also undertakes hiring of residential accommodation and hiring / requisitioning of land for the Armed Forces. In J&K requisition of immovable property is done under J&K RAIP Act, 1968.

9.16 Directorate General Defence Estates is also responsible on behalf of the Ministry of Defence to control, monitor and supervise the Civic Administration in Cantonments. There are 62 Cantonments in India. These are located in 19 States, including National Capital Territory of Delhi. The Cantonment Boards are 'bodies corporate', functioning under the overall control of the Central Government and under the provisions of the Cantonments Act, 2006. Half of the members of the Cantonment Boards are elected. The Station Commander is the President of the Cantonment Board. Supervision and control over the working of these bodies is exercised through the General Officers Commanding in Chief and Principal Directors, Defence Estates at the intermediate level and by the Central Government through Directorate General Defence Estates at the apex level. Elections in 57 Cantonment Boards were held on January 11, 2015. Elections in remaining 5 Cantonment Boards are likely to be held in May-June, 2015.

9.17 The resources of the Cantonment Boards are limited, as the bulk of the property in the Cantonment is owned by the Government, on which no tax can be levied. Boards, however, receive payment of service

charges in respect of Central Government properties. The Central Government provides financial assistance by way of grants-in-aid to balance the budget of some of the Cantonment Boards which are financially deficit. During the financial year 2014-15, ₹226.26 crore was paid to deficit Cantonment Boards besides a sum of ₹30.120 crore was provided for creation of Capital Assets in Cantonments up to December, 2014.

9.18 To provide primary education, Cantonment Boards run primary Schools. A number of Cantonment Boards are also maintaining Higher Secondary Schools and Intermediate/ Junior Colleges. The total number of schools and colleges maintained by Cantonment Boards is 197.

9.19 Cantonment Boards are also maintaining 40 Hospitals, having 1360 beds and 39 dispensaries for providing medical services to the general public of Cantonments and nearby areas.

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

9.20 The Office of the Chief Administrative Officer (CAO) provides civilian manpower and infrastructural support to the Services Headquarters and the Headquarter Offices of Inter-Service Organisations (ISOs) under the Ministry of Defence. The Chief Administrative Officer (CAO) also discharges the functions of Joint Secretary (Training) and Director (Security).

9.21 The functions of the CAO's Office are carried out by the following seven Divisions:

(a) **Administration Division:** This Division provides administrative cover to about 12,000 civilian personnel employed in the Service Headquarters and Inter-Service Organisations.

(b) **Personnel & Legal Division:** The Personnel & Legal Division is responsible for the Cadre Management including posting of the civilian personnel in about 200 grades, posted in the three Service Headquarters and 27 Inter-Service Organisations. This Division also looks after the Court cases of the CAO's Office.

(c) **Manpower Planning and Recruitment Division:** This Division is responsible for recruitment to various categories of the AFHQ Cadre/Ex-Cadre posts, compassionate employment, framing/ amendment of recruitment rules for various grades, re-verification of character and antecedents of employees working in sensitive organisations, Cadre Review / Restructuring of AFHQ Civilian cadres and work related to Pay Commissions etc.

(d) **Finance and Material Division:** This Division provides material support to the ISOs which includes procuring and provisioning of office equipments, stores, furniture, stationery and IT equipments.

(e) **Estate and Works Division:** This Division performs the Estate functions for residential accommodation of Service Officers posted at the Armed Forces HQs and coordinates the Major Works Programmes at the Defence Headquarters.

(f) **Departmental Discipline, Coordination and Welfare Division:** This Division

deals with disciplinary cases of AFHQ Civilian employees. Besides, coordination within CAO's Office and for JS(Trg) & CAO Wing of MoD, matters relating to implementation of Official Language policy, welfare activities like Office Council (JCM), Women Cell, Sports & Cultural activities, Departmental Canteens, appointment of AMAs, Defence Civilian Medical Aid Fund (DCMAF) etc., are also dealt with in this Division. Matters relating to implementation of e-governance, electronic data processing and maintenance of LAN website of CAO's office also come under the purview of this Division. Administration of MoD(Library) along with the functions / responsibility pertaining to selection of books and securing National Defence Fund (NDF) grant for procurement of the same as well as laying down of guidelines for this purpose have also been entrusted to this Division.

(g) **Defence Headquarters Training Institute (DHTI):** Training requirements of civilian personnel posted in the Services Headquarters and in the Inter-Service Organisations as well as MoD Section Officers are looked after by the Defence HQ Training Institute (DHTI), functioning under the aegis of the Office of JS(Trg) & CAO. Some specialized courses relating to Procurement, RTI, Cabinet Note and Parliament Procedure are also conducted for the Service officers from the three Services Headquarters and ISOs. During the year 2014-15, 142 courses have been / are to be conducted by DHTI covering both Civilian and Services Personnel at its premises and additional 19 courses at various field establishments in the domain area of "Civilian Personnel Management."

9.22 **Security Office:**

(a) The Security Office is responsible for physical security, surveillance and access control and prevention of breaches of security and fire within the Defence Headquarters Security Zone comprising of 22 buildings. The Chief Security Officer has the following primary responsibilities, namely:

(i) DHQ Security troops from Defence Security Troops for guarding the buildings and regulating entry into DHQ Security Zone.

(ii) The Security Office looks after the policy administrative aspects including issue of identity documents by the Pass Section, security clearance of foreign visitors, fire-fighting arrangements and issue of various security related instructions/ advisories, as and when required.

(iii) A reception network which regulates the entry and exit of visitors to the Zone by way of issuing them visitor passes and by providing civilian escorts to the visitors, as and when necessary.

(b) The Security Office is in the process of implementing Surveillance and Access Control Management System (SACMS) in South Block and Sena Bhawan to regulate the entry/exit of personnel and vehicles by biometric and RFID system, respectively.

(c) The Security Office issues approximately 75,000 passes in a year including SLIC, DAC, TP, CHT passes, vehicle stickers etc.

DIRECTORATE OF PUBLIC RELATIONS

9.23 The Directorate of Public Relations (DPR) is the nodal agency for the dissemination of information to the media and the public about the important events, programmes, achievements and major policy decisions of the Ministry, Armed Forces, Inter-Services Organisations and Public Sector Undertakings under the Ministry of Defence. The Directorate, with its headquarters in New Delhi and 25 regional offices across the country is responsible for providing media support to ensure wide publicity in the print and electronic media. It also facilitates media interaction with the leadership and senior officials of the Ministry of Defence and Armed Forces by conducting regular interviews, press conferences and press tours.

9.24 As in the previous years, the Directorate conducted the Defence Correspondents' Course for media persons from August 19, 2014 to September 20, 2014 to enhance their knowledge about defence matters. Thirty one journalists including nine women drawn from all over the country attended the month long course.

9.25 The Directorate brings out a fortnightly journal, Sainik Samachar, for the Armed forces in 13 languages. The Broadcasting Section of the Directorate produces a 40 minute programme 'Sainikon Ke Liye' that is broadcast daily on All India Radio for the Armed Forces personnel. The Photo Section of the Directorate provides photo coverage to important events related to Defence. The Photo Archives of the Photo Section of the DPR is now undergoing the digitisation process.

9.26 The Directorate set up mobile units to coordinate and facilitate media movements into the affected areas during the unfortunate flash floods in Jammu & Kashmir and Himachal Pradesh in September 2014.

9.27 During the year, DPR covered the inauguration of the much awaited Information Management and Analysis Centre (IMAC) – the nodal centre of the National Command Control Communications and Intelligence Network, a symbol of the revolutionary change in our outlook towards coastal security. Besides this, DPR also arranged befitting publicity for the Prime Minister's embarkment on the deck of newly acquired aircraft carrier 'INS Vikramaditya', induction of medium range air defence system 'Akash', successful flight testing of long range sub-sonic missile 'Nirbhay', successful launching of 5000 km range 'Agni-5', user trials of Prithvi-II and supersonic 'BrahMos' and above all beyond visual range missile 'Astra'.

9.28 The DPR also provided excellent publicity to the joint rescue and relief operations launched by Indian Armed Forces for the flash flood victims of Jammu & Kashmir. It also covered various joint exercises and visit of Indian Warship to foreign shores on goodwill missions. Among other themes, those were covered include Swachh Bharat Abhiyaan, Services contribution in putting India in the sports map of the world and Ex-servicemen's welfare.

9.29 The Directorate arranges all media facilities related to the Republic Day Celebrations and brings out a commentary for the parade on the Rajpath. Other important calendar events such as the Independence Day Celebrations at Red Fort, Combined Commanders' Conference and NCC Rally addressed by the Prime Minister and Defence Investiture Ceremonies at Rashtrapati Bhawan were also accorded due publicity.

9.30 For the first time the Defence Ministry made its debut in the Social Media platform when its official twitter account was opened on February 10, 2015. The Twitter handle @ spokespersonMoD was activated by the spokesperson of the Ministry.

ARMY PURCHASE ORGANISATION

9.31 Army Purchase Organisation (APO) in the Ministry of Defence is entrusted with the responsibility of procurement and timely supply of different types of food stuffs and dry rations dry rations for the consumption of Defence Forces. APO procures rice and wheat through the Food Corporation of India and sugar is allotted by the Directorate of Sugar out of levy quota allocated to various sugar mills. Other items like pulses, animal ration, edible oils & vanaspati and milk products are procured from the central and State Public Sector Undertakings and National / State Level Cooperative Consumer/Marketing Federations. Whole milk powder, butter and ghee are procured from the members of the National Cooperative Diary Federation of India. Tea and tinned items like vegetables, fruits, jams, milk, meat and fish, coffee, egg powder, Meal Ready to Eat (MRE) etc. are procured from registered suppliers including private parties. APO also procures vegetables and chicken curry in retort pouches for the Armed Forces from registered suppliers having the technology. APO has stared procurement of sugar during the consumption year 2014-15 through open bid system.

SERVICES SPORTS CONTROL BOARD

9.32 Services Sports Control Board (SSCB) conducts and co-ordinates various sports activities in the three Defence Services. Inter-Services championships comprising of four teams (Army Red, Army Green, Indian navy and Air Force) are conducted under the aegis of SSCB in 18 Sports and trials are conducted in 14 disciplines to select the Services team for participation in the National Championship/ Games/ Military World Championships.

9.33 During the year 2014 the SSCB fielded Senior Men's teams in the National Championships conducted by Sports Federations/Associations which are recognised by Ministry of Youth Affairs and Sports. Services team won the National Championships in 10 events. During the year total of 123 Services sportsmen represented India in various International Championships.

9.34 During the year 2014, SSCB Sports persons won 05 Gold, 11 Silver and 12 Bronze Medals in Asian Games, 2014 (South Korea), Commonwealth Games, 2014 (Glasgow Scotland) and the 29th World Military Wrestling Championship, 2014 (New Jersey, USA). SSCB was proud winner of the prestigious FICCI India Sports Awards as best organisation promoting sports in public sector (Government Supported Organisation) under organisation category.

ARMED FORCES FILM & PHOTO DIVISION

9.35 Armed Forces Film & Photo Division (AFFPD) is an Inter Services Organization of the Ministry of Defence and is responsible for producing training, documentary and promotional films for the three services, as also Photo and Video Coverage of ceremonial functions and other important events of the MoD. AFFPD also stores and preserves a rich collection of rare films and photographs looking back at History and also has a well stocked Film Library comprising of current and past Defence Training Films.

9.36 At present, AFFPD has 19 training films under various stages of production, out of which 8 films have been completed as on December 31, 2014. Out of 11 films which are in post production stage, 8 are in final stages of completion and remaining 3 films are at a advanced stage of production. In addition to this, 2 promotional films for the Army are under production out of which shooting of 1 film has been completed and is presently at final editing stage and 1 film is at shooting stage as it requires to be shot at approximately 30 locations. The duration of most of the films produced by AFFPD are 30 to 60 minutes and are in Hindi and English.

9.37 The Division has done video and still photographic coverage of Republic Day Parade, Beating Retreat, Independence Day Flag Hoisting Ceremony, various other ceremonial functions like investiture ceremony, Army Day Parade, etc.

9.38 Photography has now shifted from negative to Digital format and presently all the photographs are being exposed digitally and issued as CD/DVD and also as hard copies (photo prints) as per requirement. 9318 photographs have been exposed and 130 Photo CDs, 9 Photo DVDs and 1956 photographic prints have been prepared and issued from January 1, 2014 to December 31, 2014.

9.39 The Central Defence Film Library (CDFL) of this Division is responsible for distribution of training films to various units/ formations/ training establishments / commands, to meet their specific training requirements. During the year 2014, 336 DVDs have been dispatched / issued on loan to various units / formations of Army / Navy / Air Force.

9.40 AFFPD has a rich collection of rare films and photographs of the Second World War, this material inherited from the British are of great historical value and are maintained and preserved at the Central Defence Film Library of this Division. These photographs and films depict the Indian Forces in action in various theatres of Second World War, its parades, festivals, personalities and training activities etc. Some important films like Battle of Britain, Battle of Russia, Battle of China, Desert Victory, Japanese Surrender, Nazis Strikes, Burma Campaign, Churchill the Man, London Victory Parade etc are also preserved along with many other historical films.

9.41 The Mobile Cinema Unit (MCU) of this Division also procured / distributed Documentary films / News Magazines on cultural, family welfare, and other socially relevant issues, to the troops. During the year MCU has issued films on 9 topics to various Defence Establishments on loan basis.

NATIONAL DEFENCE COLLEGE

9.42 The National Defence College is a premier training institution of the Ministry of Defence which has established a name for itself as a centre of excellence on matters pertaining to National Security and Strategic Studies. Selected Armed forces officers of the rank of Brigadier/equivalent from Indian and Foreign Armed Forces and Civil Services officers of equivalent status of Director and above are nominated for training at the college. The officers undergo an eleven months programme with focus on National Security, covering all dimensions of domestic, regional and international issues to equip future policy makers with background necessary to get a broad understanding of the multifarious economic, political, military scientific and organizational aspects that are essential for planning of national strategy. The course curriculum comprises Study Capsules, Lectures/Panel Discussions, Strategic Game Exercise, Field Tours, Research Activities/ Writing of theses and Seminars. Towards this end, six study capsules are conducted for the course.

9.43 The 55th NDC Course consisted of 100 officers comprising Army (40), Navy (06), Air Force (12), Civil Services (16) and Friendly Foreign Countries (26). The Course concluded on November 28, 2014.

SCHOOL OF FOREIGN LANGUAGES

9.44 The School of Foreign Languages (SFL) is an Inter-Services organization under the aegis of the Ministry of Defence. It is a unique institution of our country as nowhere else so many foreign languages are taught under the same roof. It has been the pioneer in foreign language teaching in India since 1948. At present the School is engaged in imparting training in 18 foreign languages to personnel of the three Services of the Indian Armed Forces. It also caters to the needs of the other Ministries and Departments of the Government of India, such as the Ministry of External Affairs, the Cabinet Secretariat, Central Police Organisation viz, BSF, CRPF, ITBP, etc. Besides civilian students are also admitted for Certificate of Proficiency, Advanced Diploma and Interpretership Courses as per the laid down Government rules.

9.45 The Foreign Languages taught on regular basis at the SFL are Arabic, Bahasa Indonesia, Burmese, Chinese, French, German, Persian, Russian, Spanish, Tibetan, Sinhala and the short term courses in Japanese, Thai, etc.

9.46 The courses offered by the SFL are Certificate of Proficiency Course, Advanced Diploma Course, Interpreter Course and Short-term Course/capsule Course.

9.47 The Interpreter Course is a fulltime Course. The students are sponsored by the Armed Forces, Ministry of Defence, the Cabinet Secretariat and other Government Departments. This course trains the students to become experts in the highly skilled worked of interpretation and translation. Furthermore, they are trained in writing and speaking the target language with utmost fluency. It is highly specialized course, which has no parallel anywhere else in India. Languages of strategic importance from politico-military point of view such as Sinhala, Bhasa Indonesia, Burmese, Pushto Pak Urdu, Thai and Tibetan are taught at SFL.

9.48 Short term courses are conducted as and when necessary, especially for Military Attaches Designates and officers being sent on UN Missions or as per specific need of user organization.

9.49 The SFL is the controlling organization for other Defence institutions where foreign languages are taught, viz National Defence Academy, Pune and Army Education Corps Training Centre and College Pachmarhi. It conducts examinations and issues diploma to the successful candidates. For the IFS probationers, it is obligatory to qualify the Advanced Diploma (IFS) examination conducted by the Institute. The SFL conducts examination in Regimental Languages, viz, Nepali at various Service units all over the country. Language Special Proficiency Exams in various foreign language are conducted for the three services exclusively to assess the assimilation and retention of the languages learnt.

9.50 During 2014-15, SFL has trained the DA/MA (Designate) to various countries in respective foreign languages viz. Arabic, German, French, Japanese and Russian.

HISTORY DIVISION

9.51 The History Division, earlier known as Historical Section was established on October 26, 1953 to compile the histories of the military operations conducted by the Indian Armed Forces since the independence. Till now, it has compiled and published 17 volumes including the History of Operations in Jammu & Kashmir 1947-48, Operation Polo, Operation Vijay (Goa), Military Costumes of India, Stories of Heroism, The India-Pakistan War of 1965: A History. The Division has also reprinted eight volumes of Official History of the Indian Armed Forces in the Second World War 1939-45. The operations conducted by the Indian Armed Forces on UN Peace Keeping missions have also been compiled and these include the History of Indian Armed Forces in UN Operations in Congo, CFI or The Indian Troops in Korea 1953-54, Operation Shanti (Indian Troops in Egypt) and Terrific Responsibility (The Battle for Peace in Indo-China). Some of the publications have been brought out both in Hindi and English. One book entitled "Stories of Heroism: Param Vir Chakra and Ashoka Chakra winners" is in the press. Presently, the Division is working on two titles, viz. Stories of Heroism Vol. III and War Memorials of the Indian Army.

9.52 The History Division also functions as the research, record and reference office of the Ministry of Defence and the Indian Armed Forces. It receives operational records and miscellaneous records pertaining to military matters from the Ministry of Defence, three Service HQs and various Units on a regular basis for preservations and use. The Division is presently engaged in the digitization of records. The Division also runs a Fellowship scheme under which two research fellowships are granted every three years to encourage research in military history. So far seventeen research fellows have benefitted under the scheme.

9.53 The Heraldic Cell of the Division assists the three Services Headquarters including Coast Guard Headquarters and the Ministry of Defence in all ceremonial matters such as naming of new establishments and acquisitions, designing of crests and badges and coining of suitable mottoes.

9.54 The Departmental Library houses more than five thousands titles, which include some rare books, periodicals and foreign publications of military importance. About 600 books have been added to the Library during past one year. Efforts are also being made to digitize the catalogue of the Library to facilitate the availability of the books.

COLLEGE OF DEFENCE MANAGEMENT (CDM)

9.55 CDM is the only tri-Service training institution in India which imparts Defence Management education to senior officers of the three Services, Para Military Forces, officers of the Ministry of Defence and international participants at the conceptual, directional and the functional levels. The College also hosts a number of civilian and foreign delegations on defence management training. To meet the requirements of 'Higher Defence Management' education in the Indian Armed Forces, necessitated by the 'Revolution in Military Affairs', CDM has optimised its existing training infrastructure and yearly trains approximately 500 officers. CDM has also developed tailor made capsule courses/ Management Development Programmes (MDPs) for management education at all levels in the Indian Armed Forces. These MDPs are also subscribed by large number of Friendly Foreign Countries. In fact, one MDP on Defence Management is entirely devoted to the officers from SAARC countries. From January 1, 2013 to March 31, 2014, CDM has conducted one Higher Defence Management course, two Senior Defence Management course, Ten Management Development Programmes and various External Capsule courses. The participants of HDMC also carry out project studies sponsored by service HQs and on successful completion of the course get Master in Management (MMS) degree from Osmania University.

DEFENCE SERVICES STAFF COLLEGE

9.56 DSSC is an Armed Forces Training Institution (AFTI) which conducts Staff Course for the selected officers of the Three Services and also the officers from the Central Civil Services. In addition, defence officers from friendly foreign countries also subscribe to the Staff Course conducted by the college. The officers passing out of DSSC are awarded Master of Science (MSc) in Defence and Strategic Studies from Chennai University. To meet the requirements of the three services, concerted efforts are on to enhance the capacity of staff course to 500 in a phased manner. The planned training infrastructure for the same has been already established. However, the construction for the married accommodation is in progress as part of the 'Married Accommodation Project' (MAP), which is likely to be completed by 2015. Notwithstanding, the strength of the current Staff Course (69th SC) has been enhanced to 445 including 32 officers from the Friendly Foreign Countries, by optimising the existing infrastructure. DSSC has also made notable progress in modernisation of training aids by procuring 'Deep Blue War Gaming Package for Air Ops' and digitisation of the Sand Model Rooms. A Comprehensive Joint War Gaming Package is also under development.

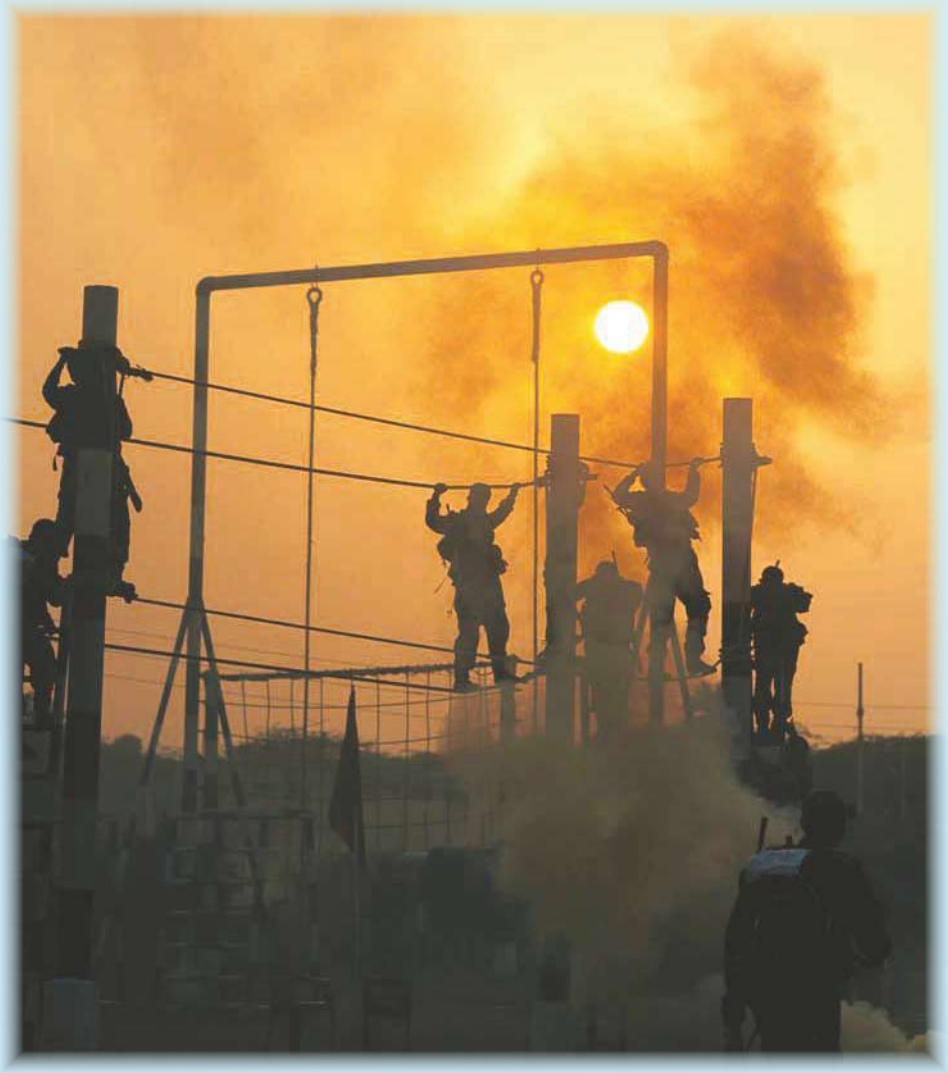
MINISTRY OF DEFENCE LIBRARY

9.57 The Ministry of Defence library provides literature on subjects relevant to planning and policy formulation in Ministry of Defence, three Services

Headquarters, Inter-Service Organisations and other allied Defence Establishments located in Delhi. It specializes in Defence and related subjects, besides catering to the needs of general readers. During the year the library added 1725 books, subscribed to 129 Journals/Periodicals and 29 Newspapers.

10

RECRUITMENT AND TRAINING



Training in Progress

Recruitment to the Armed Forces is voluntary and open to all citizens of India irrespective of caste, class, religion and community provided the laid down physical, medical and educational criteria are met.

10.1 The Armed Forces epitomize the ideals of service, sacrifice, patriotism and composite culture of the country. Recruitment to the Armed Forces is voluntary and open to all citizens of India irrespective of caste, class, religion and community provided the laid down physical, medical and educational criteria are met.

10.2 **Recruitment of Commissioned Officers in the Armed Forces through UPSC:** Commissioned Officers in the Armed Forces are recruited mainly through UPSC which conducts the following two All India Competitive Examinations:

(a) **National Defence Academy (NDA) and Naval Academy (NA):** The UPSC holds entrance Examination twice a year for entry into the NDA and NA. Candidates on completion of 10+2 examination or while in the 12th standard are eligible to compete. Having cleared UPSC written examination, eligible candidates undergo Service Selection Board (SSB) interview, which lasts for five days. On being medically fit and coming in NDA merit list, successful candidates join the NDA or NA as per their option of service exercised at the time of applying. On completion of the course, they are sent to the respective Service Academies for their pre-commissioning training.

(b) **Combined Defence Service Examination (CDSE):** CDSE is conducted by the UPSC twice a year. University graduates or those in final year of graduation are eligible to appear in the examination. Candidates qualifying in the written examination have to undergo SSB interview and medical tests. Candidates whose names appear in the merit list undergo basic military training of 18 months at Indian Military Academy/Air Force Academy and Naval Academy for Permanent Commission and 11 months at Officers Training Academy (OTA) to become Short Service Commissioned Officers (SSCOs). SSCOs can serve for a duration of 10 years extendable to 14 years. However, they can opt for permanent commission after completion of 10 years or seek release after completion of five years of service, which is considered on case to case basis.

ARMY

10.3 Apart from the UPSC entries, Commissioned officers are also recruited in the Army through the following entries:

(a) **10+2 Technical Entry Scheme (TES):** Candidates who have qualified 10+2 CBSE/ ICSE/ State Board Examination with minimum aggregate of 70% marks in Physics, Chemistry and Mathematics are eligible to apply for commission under the 10+2(TES). On being successful in the SSB and being declared fit by the Medical Board, they undergo one year basic military training at the Officers Training Academy, Gaya and thereafter undergo three years

engineering degree course in respective streams before getting Permanent Commission. On being commissioned, they are further put through one year of post commissioning training for the Arm/Service into which they are commissioned.

(b) **University Entry Scheme (UES):** Pre-Final year students in the notified engineering disciplines are eligible to apply for Permanent Commission in the Technical Arms of the Army as Commissioned Officers under the UES. Eligible candidates are selected through a campus interview by the Screening Teams deputed by the Army Headquarters. These candidates are required to appear before the SSB and the Medical Board. Successful candidates undergo one year pre-commission training at the Indian Military Academy (IMA), Dehradun. Cadets through this entry are also entitled to one year ante-date seniority on commissioning.

(c) **Technical Graduates Course (TGC):** Engineering graduates from notified disciplines of engineering, post graduates with minimum second division aggregate marks in the notified discipline for Army Education Corps and M.Sc. in Agriculture / Dairy for Military Farm are eligible to apply for Permanent Commission through this entry. After the SSB and the Medical Board, the selected candidates are required to undergo one year pre-commissioned training at the IMA, Dehradun. Engineering Graduates through this entry are also entitled to one year ante-date seniority on commissioning.

(d) **Short Service Commission (Technical) Entry:** The Short Service Commission (Technical) Entry Scheme provides avenue for recruitment to eligible technical graduates / post graduates into Technical Arms. After SSB and Medical Board, the selected candidates are required to undergo approximately 49 weeks pre-commission training at OTA, Chennai. On completion of training, they are inducted as Short Service Commissioned Officers. Cadets through this entry are also entitled to one year's ante-date seniority on commissioning.

(e) **NCC (Special Entry Scheme):** University graduates possessing NCC 'C' Certificate with minimum 'B' grade and 50% aggregate marks in graduation examination are eligible to apply for Short Service Commission through this entry. Those studying in the third year are allowed to apply provided they have secured minimum 50% aggregate marks in the first two years. Such candidates will need to secure overall aggregate of minimum 50 % marks if selected in interview failing which his candidature will be cancelled. Candidates must possess graduation degree at the time of joining OTA or those candidates studying in the third year should be able to produce the degree within 12 weeks from date of commencement of training at OTA. Such cadets have to undergo SSB interview followed by a Medical Board. Candidates meeting the qualitative requirements have to apply through NCC Group Headquarters at the State level. After Screening by respective Group Headquarters, Directorate General of NCC forwards the applications of eligible cadets to the Recruiting Directorate of Integrated Headquarters of Ministry of Defence (Army).

(f) **Judge Advocate General Entry:** Law graduate with minimum 55% aggregate marks in LLB having age between 21 to 27 years can apply for Judge Advocate General Branch. Eligible candidates are called for direct SSB interview and medical test thereafter. It is a Short Service Commission Entry wherein suitable candidates can opt for Permanent Commission.

(g) **Short Service Commission Women:** Eligible women candidates are recruited in the Army as Short Service Commission Officers. Commission is granted in Corps of Electronics and Mechanical Engineers, Corps of Engineers, Signals, Army Educational Corps, Military Intelligence Corps, Judge Advocate General's Branch, Army Supply Corps, Army Ordnance Corps and Army Air Defence. Women are offered Short Service Commission in three streams viz. Non-Technical Graduate, Technical and Post Graduate/Specialist for a period of ten years, extendable by additional four years purely on voluntary basis. Recently, Government of India granted option for permanent commission for officers in Army Education Corps and Judge Advocate General Branch after completion of 10 years of service. The duration of training is 49 weeks at Officers Training Academy, Chennai. For Short Service Commission Women (Technical) Entry, passed or final year/semester students of B.E / B.Tech in the notified streams are eligible to apply. Eligible candidates appear for direct SSB interview and Medical Test thereafter. The applicants for Non-Technical Graduate, however, is required to apply through UPSC and after written examination, come up for SSB interview as is being done for Short Service Commissioned male officers. A total of 20% allotted seats from Non-Technical stream have been reserved for NCC 'C' certificate holders women candidates with minimum 'B' grade and 50% aggregate marks in graduation examination. The applications are routed through NCC Directorate, Integrated Headquarters of Ministry of Defence (Army), as applicable for male officers. For Judge Advocate General Branch, applications are invited from Law Graduates with minimum 55% for direct SSB interviews. Widows of Defence Personnel who meet the laid down eligibility criteria are granted four years age relaxation and 5% seats of each course (2.5 each in Tech and Non-Tech) are reserved for them. Short Service Commission Women (Tech), NCC entry and Judge Advocate General Branch are exempted from written examinations and need to apply directly to Additional Directorate General of Recruiting, Integrated Headquarters of Ministry of Defence (Army). The notification is published along with SSCW (Tech) twice a year.

(h) Service Entries: Recruitment of Junior Commissioned Officer and Other Ranks (JCOs &ORs) into officers cadre is done through Service Selection Board in the following:

(i) **Army Cadet College (ACC) Entry:** The eligible Other Ranks (OR) in age group of 20-27 years and minimum two years of service, having 10+2 pass qualifications can apply for Regular Commission. After qualifying in the written examination conducted by the Military Training Directorate,

aspirants are screened by the SSB and the Medical Board. Successful candidates are trained at Army Cadet College Wing, Dehradun for three years at the end of which they get a graduation degree. This is followed by one year pre-commission training at IMA, Dehradun.

(ii) **Special Commissioned Officers (SCO) Scheme:** Under this entry JCOs / NCOs / OR in the age group of 28-35 years, with a Senior School Certificate Pass (Class 10+2 pattern) qualification, are eligible for Permanent commission after screening by the SSB and the Medical Board. They have to undergo pre-commission training of one year at OTA Gaya. The rules for substantive promotion and acting promotion are the same as for regular officers. These officers are employed in units as sub unit commander / Quarter Master and on various Extra Regimental Employment appointments up to the rank of Major. They retire at the age of 57 years after serving for period of about 20-25 years. The scheme not only improves the career prospects of the existing JCOs and OR but also helps in making up the deficiency of the support cadre officers in the Army to some extent.

(iii) **Permanent Commission (Special List) (PC SL):** Under this entry, JCOs / NCOs / OR up to 42 years of age and minimum 10 years of service, with a Senior Schools Certificate Pass (Class 10+2 pattern) qualification are eligible for commission after screening by the SSB and the Medical Board. They are granted PC (SL) after successful completion of four weeks orientation training at the IMA.

10.4 **Intake:** Intake of candidates for pre-commission training as officers during the year 2014 is given in the Table No.10.1:

Table No. 10.1

S.No	Academy	Entry	Induction
1.	NDA	Army	392
		Navy	71
		Air Force	132
		Total	**595**
2.	IMA	IMA (DE)	278
		ACC	112
		SCO	71
		PC(SL)	47
		Total	**508**
3.	OTA	SSC(NT)	169
		SSCW (NT)	26
		SSCW (T)	39
		NCC	79
		NCC(W)	08
		JAG	19
		JAG(W)	12
		Total	**352**
4.	Tech Entries	UES	85
		SSC (T)	197
		10+2 TES	202
		TGC	135
		Total	**619**
		Grand Total	**2074**

10.5 **Raising of Selection Centre North:** Government sanctioned raising of two Service Selection Boards (SSBs) under Selection Centre North at Ropar (Punjab) which is in progress.

10.6 **Recruitment of Junior Commissioned Officer and Other Ranks (JCOs & ORs):** In the Army, there are eleven Zonal Recruiting Offices, two Gorkha Recruiting Depots, one Independent Recruiting Office and 59 Army Recruiting Offices in addition to 47 Regimental Centres which carry out recruitment through rallies in their respective areas of jurisdiction. Recruitment of JCOs & ORs is carried out through Open Rally system. The recruitment of JCOs & ORs commences with the preliminary screening of aspiring candidates at rally site followed by document checking, physical fitness tests, physical measurements and medical examination. This is followed by a written examination for the candidates who are found eligible in all respects. Finally, selected candidates are dispatched to respective training centres for training. Efforts are made so that each district of the country is covered at least once by recruitment rallies in a recruitment year.

10.7 **Recruitment Rallies:** In the recruiting year 2014-15, out of 146 rallies planned, 107 rallies have been conducted up to December 31, 2014. A total of 31911 candidates have been recruited till December, 2014.

10.8 **Computer Based Entrance Test (CBET):**

(i) A CBET software developed to replace the 'paper pencil' based test for Common Entrance Examination is being utilized successfully at all HQ Recruiting Zones initially for the Nursing Assistant trade. Advantages of CBET are as under:-

(a) Complete transparency.

(b) User friendly.

(c) Need for invigilation and evaluation board of officers is reduced thus saving on precious manpower.

(d) Obviates impersonation.

(e) Instant results are possible.

(f) Right to Information (RTI) compliant.

(ii) **Present progress on CBET Labs:** At present, there are 11 functional CBET labs for conducting computer based Common Entrance Examination for Soldier Nursing Assistant category. It is anticipated that 28 additional CBET labs will also become operational shortly.

10.9 **Automation:** Customized Softwares have been introduced for recruitment in the Indian Army. Data of candidates are entered in the computers and thereafter the entire process is automated. Encrypted bar codes are used for conduct of examination. There is no human intervention in the evaluation of the examination papers, preparation of main list and allotment of regimental centres. Verification of candidates at various stages like Rally, medical, written examination dispatch to Regimental Centre is done through biometric finger device. This has made the recruitment transparent and removed impersonation.

NAVY

10.10 Recruitment into the Navy is based on the requirement to effectively man all new and existing ships, submarines, aircraft and

shore establishments to the optimum levels. Towards this end, recruitment is being carried out on all India basis. Total number of personnel recruited depends on the number of eligible applicants (men and women) who are able to qualify in the written test, Services Selection Board (SSB) interview, medical examination and their relative position in the merit list. No distinction is made on the basis of gender / religion / caste / creed, either during recruitment or at any point of time during their tenure in Service.

Recruitment of Officers in Indian Navy

10.11 **Method of Recruitment:** The recruitment system of the Indian Navy is a streamlined, transparent, expeditious and candidate friendly procedure. There are two modes of induction in the Navy viz. UPSC Entry and Non-UPSC Entry:

(a) **UPSC Entry:** The UPSC holds an examination, twice a year, for entry into the National Defence Academy (NDA) and Indian Naval Academy (INA) as Permanent Commission (PC) entries. Candidates are eligible to compete on completion of the 10+2 (PCM) Examination or while in the 12th standard. UPSC shortlists candidates after written examination. Thereafter, candidates are sent to the Service Selection Boards located at Bengaluru, Bhopal and Coimbatore. Results of qualified candidates are forwarded to the UPSC for making the final merit list. Medically fit candidates who are in the merit list, are intimated for appointment to NDA / INA as cadets. On completion of the NDA / INA training, the Naval Cadets are sent to training ships at Kochi for Naval sea training. For the Graduate Special Entry, the UPSC holds the Combined Defence Services Examination (CDSE) twice a year. Graduates with B.Tech degree are also eligible to appear in the examination. Successful candidates join the Indian Naval Academy at Ezhimala, Kerala for the Naval Orientation Course.

(b) **Non-UPSC Entry:** The non-UPSC entries cater to both Permanent Commission (PC) and Short Service Commission (SSC). In this case, applications are invited and shortlisted at IHQ of MoD (Navy). Subsequently, the shortlisted candidates undergo SSB interviews. Thereafter, a merit list, comprising qualified candidates, is prepared as per the availability of vacancies. Recruitment for the non-UPSC entries is made through Service Selection Boards for the following branches / cadres of the Navy:

(i) **Executive:** SSC through University Entry Scheme (UES) and other SSC Schemes for Executive (GS) / Air Traffic Control / Law/ Logistic/ Naval Armament Inspectorate (NAI) / Hydro / Pilot / Observer and also Permanent Commission for Logistic/ Law / NAI cadres.

(ii) **Engineering (Including Naval Architects):** SSC through University Entry Scheme (UES), Special Naval Architects Entry Scheme (SNAES) & SSC (E) Schemes. Permanent Commission is through 10+2 (Cadet Entry Scheme).

(iii) **Electrical Engineering:** SSC entry through UES and SSC (L) Schemes. Permanent Commission is through 10+2 (Cadet Entry Scheme).

(iv) **Education Branch:** Permanent Commission and SSC schemes exist for the Education branch.

(c) **10+2 (Cadet Entry Scheme):** This scheme is for permanent commission in the Executive, Engineering and Electrical branches of the Navy. Under this scheme, candidates with 10+2 (PCM) qualifications, after selection through the Services Selection Board, are sent to the Indian Naval Academy for the B Tech Course. On successful completion of the course they are granted Permanent Commission in the Executive, Electrical and Engineering branches of the Navy.

(d) **University Entry Scheme (UES):** The UES has been re-launched as a SSC Scheme. Seventh and Eighth semester Engineering college students are eligible for induction into the Executive and Technical Branches of the Navy. Naval selection teams from the IHQ of MoD (Navy) and Command Headquarters visit AICTE approved engineering colleges, across the country, to shortlist the candidates. The shortlisted candidates, based on All India Merit, undergo interview at the Services Selection Board. The successful candidates are, thereafter, put through medical tests. Final selection is based on all India merit on the basis of marks obtained in the SSB interviews.

10.12 **Women Officers:** Women are being inducted into the Navy, as Short Service Commission (SSC) officers in the Executive (Observer, ATC, Law & Logistic), Education Branch and the Naval Architecture cadre of the Engineering Branch.

10.13 **Permanent Commission to SSC Officers**: Grant of Permanent Commission prospectively to the Short Service Commission officers, for both men and women, of the Executive Branch (Law Cadre), Education Branch and Engineering Branch (Naval Architecture) has been introduced.

10.14 **Recruitment through NCC:** University graduates possessing NCC 'C' certificate with minimum 'B' grading and 50% marks in the graduation degree examination are inducted in the Navy as regular commissioned officers. These graduates are exempted from appearing in the CDSE conducted by the UPSC and are selected through the SSB interview only. They join the Indian Naval Academy for Naval Orientation Course along with the CDSE cadets.

10.15 **Special Naval Architecture Entry Scheme:** The Government has recently approved the induction of Naval Architect officers into the Navy as Short Service Commissioned Officers under a 'Special Naval Architects Entry Scheme' (SNAES). An empowered Naval team visits IIT Kharagpur, IIT Chennai, Cochin University of Science and Technology (CUSAT) and Andhra University, where B Tech (Naval Architecture) courses are conducted, to select candidates through campus interviews. The selected candidates undergo medical examination at the nearest Military Hospital and, if found fit, are selected for training.

Recruitment of Sailors

10.16 **Method of Recruitment:** Recruitment into the Navy is carried out on all India basis on state-wise merit of the eligible recruitable male population, as per the number of vacancies available. The number of personnel recruited from a particular state depends on the number of eligible applicants who are able to qualify in the written examination, physical fitness test, and medical examination and their relative position in the merit. There is no quota of vacancies based on caste/creed or religion. Advertisements in all leading National and Regional newspapers and Employment News are published inviting applications from eligible volunteers. Publicity material is also dispatched to a large number of schools/ colleges and all Zilla Sainik Boards. The local administration carries out the publicity drive in rural/ backward areas through local media.

10.17 **Types of Entries:** The various entries for recruitment of sailors are as follows (with educational qualifications indicated against each):

(a) Artificer Apprentices (AAs) – 10+2 (PCM).

(b) Senior Secondary Recruits (SSR) – 10+2 (Sc.).

(c) Matric Entry Recruits (MER), for recruitment of Cooks, Stewards and Musicians – Matriculation.

(d) Non Matric Recruits (NMR), for recruitment of Topass Sailors (Safaiwala) - Class VI.

(e) Direct Entry (Outstanding Sportsmen).

10.18 NCC Certificate Holders: The Navy has earmarked 25 vacancies per Batch for candidates holding NCC (Naval Wing) 'C' certificate in the SSR entry.

Indian Naval Academy (INA), Ezhimala

10.19 The Bachelor of Technology (B Tech) curriculum commenced at Indian Naval Academy, Ezhimala in June, 2009 and the first batch of trainees were awarded B Tech degrees in 2013 on passing out from the Academy. Spread over 2452 acres of coastal upland, INA has world class facilities in terms of infrastructure, for academic pursuits and outdoor activities; including state-of-the-art laboratories, workshops, swimming pools and play fields, thereby ensuring all round development of the cadets undergoing training.

10.20 The Government of India had accorded sanction in December, 2011 for augmenting the capacity of INA to 1200 trainees with three additional squadrons and associated infrastructure. INA has a current training capacity of 1050 trainees.

10.21 **Certificate Course on 'Finance, Accounting, Costing, Project and Contract Management':** A large number of Naval Officers are involved in executing and management of contracts for ships, systems, spares and ship repair. In order to give more exposure and focussed training to officers in the field of Contract Management which includes General Principles of Procurement, Service Contracts, CVC guidelines, Tender Acceptance, Liquidated Damages, Arbitration, Bank Guarantee, etc, ICWAI has devised a certificate course with a customised curriculum for the Navy. These courses are

being periodically conducted at the premises of ICWAI, Delhi.

10.22 **Deputations Abroad:** In the current strategic scenario, wherein global security challenges are numerous and countries have shared threat perceptions, co-operation in training is vital for fostering mutual trust and interoperability. Further, with rapidly changing know-how it is essential for personnel to gain exposure in new technologies and adopt the same to improve our system and processes. In 2013, 47 personnel have so far been deputed for various training courses abroad.

Training of Sailors at INS Chilka

10.23 INS Chilka is the premier Sailors Training establishment of the Indian Navy which was set up for ab-initio training of approximately 1700 trainees per year. On an average, Chilka also trains 800 personnel of other services such as CISF/BSF and Indian Coast Guard (ICG) annually. The establishment also provides administrative, training and logistics support to the NCC units located within the state of Odisha. The Establishment presently trains more than 5000 trainees annually (including 600 trainees from Indian Coast Guard). Efforts are in hand to augment infrastructure and to maintain high standards of training at the training establishment.

INDIAN AIR FORCE

Recruitment of Officers

10.24 The policy for selection of officers in Indian Air Force is strictly on the basis of merit and is open to all citizens of the country. Being a technologically intensive service, the IAF strives to maintain high standards for induction of personnel.

10.25 **Induction of Officers:** National Defence Academy (NDA) and Combined Defence Service Examination (CDSE) entries through Union Public Service Commission (UPSC) are prime feeders for the officer cadre. The non-UPSC entries for induction into the officer cadre are: Short Service Commission (SSC) (Men & Women) Flying, NCC Entry (Permanent Commission for men), Ground Duty Officer Commissioning (GDOC) (Non Tech) (PC for Men), Airmen Entry (PC for Air Warriors), Short Service Commission (Technical) (Men & Women) and Short Service Commission (Non Tech) (Men & Women).

10.26 **Recruitment through Service Selection Boards:** Recruitment through Service Selection Boards/Air Force Selection Boards is made for the Flying (Pilot), Aeronautical Engineering (Electronics), Aeronautical Engineering (Mechanical), Education, Administration, Logistics, Accounts and Meteorology branches of the IAF.

10.27 **Service Entry Scheme:** Under this entry, serving personnel with minimum 10 years of service (of technical and non-technical trades) of the rank of Sergeant and above between the age of (36 - 42 years) and minimum educational qualification as 10+2, are eligible for Commission after screening at unit level followed by Air Force Selection Board selection tests and medical examination. Service personnel of technical trades are inducted in the Technical Branch and personnel from Non-technical trades are inducted in the Ground Duty Branches.

10.28 **Recruitment of Women Officers:** Eligible women are recruited as Short Service Commissioned Officers in the Flying, Aeronautical Engineering (Electronics),

Aeronautical Engineering (Mechanical), Education, Administration, Logistics, Accounts and Meteorology branches of the IAF.

10.29 **Recruitment through National Cadet Corps (NCC):** University graduates possessing NCC 'C' Certificate with minimum 'B' grading and 50% marks in graduation are inducted in Navy and Air Force as Regular Commissioned Officers by way of selection through the Service Selection Boards.

10.30 **Increase in Number of Applicants for AFCAT 02/2014:** The IAF career website, careerairforce.nic.in, ranks amongst the top 20 most visited government websites. For the period from April to September, 2014, the website had 47,98,354 hits by visitors. The number of applications submitted for AFCAT cycle 02/2014 are 1,47,869, which is an increase over the same period last year.

10.31 **Establishment of New Air Force Selection Boards (AFSBs):** Government sanction for establishment of two additional AFSBs (No. 3 AFSB and No. 5 AFSB) was accorded in June, 2014. No. 3 and No.5 mini AFSBs have been made operational.

10.32 **Recruitment of Airmen:** Recruitment in Indian Air Force in airmen cadre is on All India Merit Basis through Scheduled Selection Tests. It is open to all eligible citizens of the country without any discrimination of caste, creed, religion or community. In addition to the Scheduled Tests, Recruitment Rallies are conducted in remote /low response / border / insurgency affected / naxal affected / tribal areas / hill districts and island territories of the country to provide opportunities to youth from these regions to join the IAF at the level of airmen.

10.33 **Professional Military Education:** To encourage merit in performance of officers in various 'In-Service' courses, due weightage is being given to officers' performance in such courses for various merit-based selections for placements/ appointments. Also, a categorization scheme has been introduced for officers of the Technical and Logistics branches. Additionally, an Air Force Instructor Training School has been established for training of all instructors posted to various training institutions. These measures are aimed at improving Professional Military Education amongst officers.

10.34 **Induction Training for Civilians:** Civilians constitute a sizeable work force of IAF and play a very important role in achieving overall objectives / goals set by IAF. There is a provision of an Induction Training course for civilian clerks joining IAF. The objective of the training is to acquaint them with the IAF and various nuances of civil administration, enhance their skills and inculcate in them a sense of professionalism.

INDIAN COAST GUARD

10.35 **Recruitment of Officers:** The Officers are recruited into Coast Guard bi-annually. The vacancies for Assistant Commandant in Coast Guard are advertised in Employment News and leading Newspapers in the month of December / January and June / July. Five years relaxation of age for SC/ST and 3 years for OBC is admissible for recruitment. The Officers are recruited through Coast Guard Selection Board (CGSB) in the following streams:

(a) **General Duty:** Male / Female candidates between the age group of 21 - 25 years having Bachelor's

Degree of a recognized University with Mathematics and Physics as subject up to Intermediate or 12th standard of 10+2+3 scheme of education or equivalent are eligible to apply for officers as General Duty stream.

(b) **General Duty (Pilot / Navigator):** Male / Female candidates between the age group of 21-25 years having Bachelor's Degree of a recognized University with Mathematics and Physics as subject up to Intermediate or 12th standard of 10+2+3 scheme of education or equivalent are eligible to apply for officers as General Duty (Pilot / Navigator) stream.

(c) **General Duty (Commercial Pilot License Short Service Entry)**: Male / Female candidates between age group of 19-25 years having 12th Class or equivalent passed and in possession current Commercial Pilot License (CPL) issued / validated by Director General Civil Aviation on the date of submission of application are eligible to apply for Officers in CPL Short Service Entry.

(d) **General Duty (Short Service Appointment Scheme) for Women:** Women candidates between the age group of 21 - 25 years having Bachelor's Degree of a recognized University with Mathematics and Physics as subject up to Intermediate or 12th standard of 10+2+3 scheme of education or equivalent are eligible to apply for officers as General Duty stream.

(e) **Technical Branch:** Male candidates between age group of 21-25 years with degree in Engineering (Naval architecture / Mechanical / Marine / Automotive / Mechtronics / Industrial & Production / Metallurgy / Design / Aeronautical / Aerospace / Electrical/ Electronics / Telecommunication / Instrumentation / Instrumentation and control / Electronic & Communication / Power Engineering / Power Electronics) or equivalent qualification are eligible to apply for officers in Technical stream.

(f) **Law Branch:** Male / Female candidates between the age group of 21-30 years having Degree in Law are eligible to apply for Officer in Law stream. However, the age is relaxable up to five years in case of personnel serving in the Coast Guard Organisation or equivalent rank in Army or Navy or Air Force and for the candidates belonging to the Scheduled Castes or Scheduled Tribes, three years for the Other Backward Classes.

10.36 **Induction of Subordinate Officers as officer:** Outstanding subordinate officers up to the age of 48 years are selected Assistant Commandant in General duty and Technical Branch as per the selection procedure.

10.37 **Recruitment of Personnel Below Officers Rank (PBORs):** The PBORs are recruited into Coast Guard bi-annually. The vacancies for PBORs in Coast Guard are advertised in Employment News and leading Newspapers in the month of December / January and June / July. The PBORs are recruited in the following main streams:

(a) **Yantrik:** Male candidate having passed matriculation with three years diploma in Mechanical/ Electrical/Electronic Engineering and between the age group

of 18 - 22 years are eligible to apply as Yantrik.

(b) **Navik (General Duty):** Male candidates having passed 12th class with Mathematics and Physics and between age group of 18 - 22 years are eligible to apply as Navik (General Duty).

(c) **Navik (Domestic Branch):** Male candidates having passed Matric and between age group of 18 - 22 years are eligible to apply as Navik (Domestic Branch)

SAINIK SCHOOLS

10.38 Sainik Schools were established as a joint venture of the Central and State Governments. These are under the overall governance of Sainik Schools Society. At present, there are 25 Sainik Schools located in various parts of the country. There is a growing demand from many States to open new Sainik Schools. As a result the states of Andhra Pradesh, Haryana, Bihar and Karnataka have two Sainik Schools each.

10.39 The objectives of Sainik Schools include bringing quality Public School education within the reach of common man, all round development of a child's personality and to remove regional imbalance in the officer's cadre of the Armed Forces. The number of cadets joining the National Defence Academy is on the rise in keeping with the primary aim of establishing of Sainik Schools to prepare boys academically, physically and mentally for entry into the National Defence Academy. For the 132 NDA Course which commenced in July 2014, a total of 98 Cadets from all Sainik Schools have joined the NDA and Naval Academy.

10.40 Sainik Schools admit boys into classes VI and IX. Their age should be 10-11 years for classes VI and 13-14 years for class IX as on 1st July of the year in which admission is sought. Admissions are made strictly as per the order of merit on the basis of an All India Sainik School Entrance Examination held in January each year.

10.41 The Sainik Schools Society has taken a number of measures to achieve academic excellence which has also resulted in achieving record higher Board and NDA results. Efforts are also being made to open Sainik Schools in small states located in North-East of the Country.

RASHTRIYA MILITARY SCHOOLS (RMS)

10.42 There are five Rashtriya Military Schools in the country at Belgaum and Bangalore in Karnataka, Chail in Himachal Pradesh and Ajmer and Dholpur in Rajasthan. The youngest Rashtriya Military School is at Dholpur and was established on July 16, 1962. These schools are affiliated to CBSE. These schools aim to provide quality education to the boys and prepare them to join Defence Services.

10.43 Rashtriya Military Schools admit boys through a Common Entrance Test. The candidates are tested in four subjects i.e. English, Mathematics, Intelligence and General Knowledge. 67% of the seats in RMS are reserved for the wards of Junior Commissioned Officers / Other Ranks, 20%

seats are reserved for wards of Commissioned Officers and the remaining 13% for the wards of civilians.

NATIONAL DEFENCE ACADEMY (NDA)

10.44 NDA is a premier Tri-Service institution which trains cadets of all three Services before inducting them into their respective pre commissioning training academies. Keeping in mind the shortage of officers in the Indian Armed Forces and the consequent urgency for making up the deficiency, the intake capacity of NDA was recently enhanced from 1800 cadets to 1920 cadets with the sanction for raising an additional Sqn at NDA i.e. 16th Sqn. Since the construction of the building will take few more years, as an interim measure, one set of pre-fabricated shelters to accommodate 120 cadets have been constructed at NDA. In addition, a proposal for construction of one more set of pre-fabricated shelters and also raising of an additional Battalion (5th Bn) with 4 Sqns at NDA to further enhance the intake capacity of cadets to 2400 cadets by 2015, has been progressed. The academic threshold of NDA cadets is also being enhanced to equip military leaders of tomorrow to cope with the future technology inductions in the Indian Armed Forces.

RASHTRIYA INDIAN MILITARY COLLEGE (RIMC)

10.45 Rashtriya Indian Military College (RIMC) was established in 1922 with the aim to prepare selected boys to join National Defence Academy (NDA) and Naval Academy (NAVAC). 25 cadets are admitted in each term twice a year (January and July) on the basis of All India Entrance Examination without any reservation

10.46 Selection of boys for RIMC is through a written examination cum viva voce conducted through the State Governments. Seats for respective States are reserved based on population. The College admits boys in Class VIII.

INDIAN MILITARY ACADEMY (IMA), DEHRADUN

10.47 Founded in 1932, Indian Military Academy, Dehradun aims at the fullest development of intellectual, moral and physical qualities of persons joining the Army as officers. The various modes of entry into the IMA are :

(a) On graduation from NDA.

(b) On graduation from Army Cadet College, which is a Wing of the IMA itself.

(c) Direct Entry graduate cadets, who qualify the Union Public Service Commission Exam and get through the Service Selection Board.

(d) For Technical Graduate's Course (TGC).

(e) Under University Entry Scheme (UES) for engineering college students in Final / Pre-Final year of studies.

(f) Through 10+2 Technical Entry Scheme (TES).

10.48 The IMA also imparts training to Gentlemen Cadets from friendly countries.

OFFICER TRAINING ACADEMY (OTA), CHENNAI

10.49 Established in 1963, the Officers Training School (OTS) was re-designated

as Officers Training Academy (OTA) from January 1, 1988 on completion of 25 years of its existence. Its main task before 1965 was to train Gentlemen Cadets for grant of Emergency Commission. From 1965 onwards, the Academy trains cadets for Short Service Commission.

10.50 With the entry of women officers in the Army since September 21. 1992, around 100 lady officers now get commissioned from OTA every year in Army Service Corps, Army Education Corps, Judge Advocate General's Department, Corps of Engineers, Signals and Electrical and Mechanical Engineers.

10.51 OTA imparts pre-commission training for the following:

(a) Short Service Commission (Non Technical) for Graduates.

(b) Short Service Commission (Technical) for Graduates.

(c) Short Service Commission (Woman) for Graduate / Post Graduate Lady Cadets.

OFFICERS TRAINING ACADEMY (OTA), GAYA

10.52 The Cabinet Committee on Security (CCS) approved setting up of second Officers Training Academy (OTA) at Gaya, Bihar on December 3, 2009. Training commenced at the OTA from July 18, 2011. Against the planned intake of 135 Gentlemen cadets, 149 joined the first term. The capacity will be progressively built up to a strength of 750 Gentlemen cadets.

ARMY WAR COLLEGE, MHOW

10.53 Re-designated as the Army War College from January 15, 2003, the earlier College of Combat was created out of Infantry School and established as an independent institution on April 1, 1971. A premier all arms tactical training institution for officers, the AWC performs the important functions of evaluation of new concepts and doctrines in the fields of tactics and logistics.

JUNIOR LEADERS WING (JLW), BELGAUM

10.54 The Junior Leaders Wing at Belgaum is training junior officers, JCOs and NCOs in Sub Unit Level Tactical and Special Mission Techniques to enable them to carry out assigned operational missions in varied terrain under severe stress and strain and be able to command and administer their Sub-Units effectively in war and peace. It trains officers and NCOs of Army, Para Military Forces, Central Police Organisations and friendly foreign countries in commando type of operations and makes them capable of either forming part of special mission groups or leading independent missions in all types of terrain and operational environment.

JUNIOR LEADERS ACADEMY (JLA), BAREILLY

10.55 Considering the need for more training facilities, JLA Ramgarh has been amalgamated with JLA Bareilly. The institution has been imparting training to 4212 candidates every year.

HIGH ALTITUDE WARFARE SCHOOL (HAWS), GULMARG

10.56 The aim of the School is to train selected personnel in all aspects of high altitude mountain warfare and develop techniques for fighting in such terrains. HAWS conducts

two series of courses, viz, Mountain Warfare (MW) and Winter Warfare (WW) at Sonamarg and Gulmarg respectively for officers, JCOs and NCOs. The training periods broadly run from January to April (WW Series) and May to October (MW Series). Personnel from the School have scaled some of the important peaks in the world including Mt. Everest, Mt Kanchenjunga and Mt. Mckinley in the USA.

COUNTER INSURGENCY & JUNGLE WARFARE SCHOOL (CIJW), VEIRANGTE

10.57 The CIJW conducts courses for Officers, JCOs/NCOs in counter insurgency techniques, language courses in Assamese, Bodo, Nagamese, Manipuri / Tangkhul as also imparts Pre-induction Training (PIT) for all units prior to induction into insurgency areas.

COUNTER INSURGENCY PRE INDUCTION TRAINING BATTLE SCHOOLS

10.58 Since the capacity of CIJW School was limited and on account of peculiar operational situation and administrative problems of movement of Units, it was considered necessary to impart training to units at places closer to their areas of operation. Therefore more Corps Battle Schools from within the resources of the Army have been established at Kheru, Sarol and Bhalra for units moving into Northern Command and at Thakurbari for units moving into Assam and Meghalaya. Besides training for counter insurgency, these schools especially in the Northern Command are training units for their role along the line of control and high altitude.

INFANTRY SCHOOL, MHOW

10.59 The Infantry School is the largest and oldest military training institution of the Indian Army. Courses conducted at Infantry Schools are Young Officers Course, Platoon Weapon Course, Mortar Course, Anti Tank& Guided Missile Course, Medium Machine gun & Automatic Grenade launcher (J/N) Course, Section Commanders Course, Automatic Data Processing Course, Sniper Course and Support Weapon Course. The institution is training Officers, JCOs and ORs of not only infantry but other arms and services also, besides Para Military Forces and Civil Police Organisations.

COLLEGE OF MATERIALS MANAGEMENT

10.60 The College owes its lineage to Indian Army Ordnance Corps (IAOC) School of Instruction established at Kirkee in October, 1925. The School was later re-designated as IAOC Training Centre in February, 1939 and shifted to its present location at Jabalpur. In January, 1950, the IAOC School became the Army Ordnance Corps (AOC) School. The AOC School was renamed as College of Materials Management (CMM) and affiliated to the University of Jabalpur (Rani Durgavati Vishwa Vidhyalaya) in 1987. The CMM attained an autonomous status in 1990. The College is also registered as a 'Government College' with the University Grants Commission. It also has the approval of All India Council of Technical Education (AICTE).

10.61 The National Assessment and Accreditation Council (NAAC), an autonomous body constituted under the UGC Act has awarded Five Star (Highest)

Accreditation to the College. The college imparts necessary institutional training to all ranks of AOC and civilians entrusted with management of Ordnance support in the Indian Army. It also imparts training in handling unit administration and material management to selected Officers, JCOs and Other Ranks of all arms and services.

SCHOOL OF ARTILLERY, DEOLALI

10.62 The School of Artillery, Deolali, the academic centre for various sub-disciplines of the science and methodology of artillery warfare imparts technical training to Officers, JCOs and NCOs on artillery weapons and systems including training of pilots for Air Observation Post duties. Besides, the review of doctrines, study and trials of artillery equipment, both Indian and foreign, is also carried out.

10.63 Apart from a large number of Officers, JCOs and NCOs of the Indian Army, the school has also trained several officers and personnel from friendly foreign countries during the year.

ARMY AIR DEFENCE COLLEGE, GOPALPUR

10.64 The Army Air Defence College (AADC) earlier functioned as a wing of School of Artillery, Deolali till October, 1989, when it was moved to Gopalpur before separation of Air Defence Artillery from the main branch of Artillery. The college trains personnel of Air Defence Artillery, others arms and armed forces personnel of friendly foreign countries in Air Defence related subjects.

10.65 The AADC conducts a number of courses. Some of the courses are Long Gunnery Staff Course (Officers), Young Officers Course, Electronic Warfare Course, Senior Command Air Defence Course, Long Gunnery Staff Course, Junior Commissioned Officer / Non Commissioned Officer, Technical Instructors Fire Control Course, Aircraft Recognition Course, Unit Instructors and Crew Based Training and Automated Data Processing Course.

ARMY SERVICE CORPS (ASC) CENTRE AND COLLEGE, BANGALORE

10.66 Army Service Corps Centre (South) and Army School of Mechanical Transport were merged with ASC Centre at Bangalore to establish Army Service Corps Centre and College at Bangalore on May 1, 1999. It is a premier training institute imparting basic and advanced training in multifarious disciplines viz logistics management, transport management, catering, automated data processing etc to Officers, Junior Commissioned Officers, Other Ranks and recruits of Army Service Corps as well as other arms and services.

10.67 Since 1992, the ASC College has been affiliated to Rohilkhand University, Bareilly for award of diplomas / degrees in Logistics and Resource Management.

ARMY EDUCATION CORPS TRAINING COLLEGE AND CENTRE, PACHMARHI

10.68 The AEC Training College & Centre, Panchmarhi is a Defence Seat of Excellence in Educational Training in the Armed Forces. It is also an Autonomous College affiliated to Barkatullah University, Bhopal

with academic and administrative powers to design, conduct, test and award its own courses and degrees.

10.69 The Department of Map Craft runs a ten week long Map Reading Instructors Course for AEC Officers and Personnel Below Officer Rank (PBOR) of all Arms and Services of Indian Army, Para Military Forces personnel and personnel from friendly foreign countries.

10.70 The 12-week long Unit Education instructors (UEI) Course trains ORs from all Army and Services of the Indian Army to be effective instructors in their units.

10.71 The Foreign Language Wing (FLW), which is one of the three Divisions of the AEC Training College & Centre, is a premier node of foreign language training, not only in the Armed Forces but also in the national academic environment. It has two digitized language labs, each with a capacity of 20 students.

MILITARY MUSIC WING, PACHMARHI

10.72 The Military Music Wing (MMW) raised in October, 1950 under the patronage of the then C-in-C Gen (later Field Marshal) KM Cariappa, OBE as a part of the AEC Training College & Centre, Pachmarhi has a rich treasure of more than 200 musical compositions to its credit and has also excelled in maintaining the standard of military music in India through a diverse range of courses designed to train the recruit bandsmen, pipers and drummers.

REMOUNT AND VETERINARY CORPS CENTRE AND SCHOOL, MEERUT

10.73 The Remount and Veterinary Corps (RVC) Centre and School, located in Meerut, aims at training officers and PBORs of all Arms and Services on animal management and veterinary aspects. Eleven courses for officers and six for PBORs are conducted. The total strength of students being trained is 250.

ARMY SPORTS INSTITUTE (ASI), PUNE

10.74 With a view to producing prospective medal winners at international sporting events, the Army Sports Institute at Pune has been set up alongwith Army Sports Nodes in selected disciplines at various places in the country. Appropriate funds have been earmarked for state-of-the-art infrastructure and equipment coupled with food, habitat, foreign exposure and training under foreign coaches.

ARMY SCHOOL OF PHYSICAL TRAINING, PUNE

10.75 Army School of Physical Training (ASPT) is a premier institution imparting systematic and comprehensive instruction to personnel of the Army regarding the conduct of physical training in units and sub units. The school also imparts basic training in Sports and Games with a view to improving standards in the Army and complementing physical training through recreation in games and sports. These courses are attended by Officers, JCOs and ORs of the Army, Para Military Forces and service personnel from friendly foreign countries. In collaboration with National Institute of Sports, ASPT has started six allied sports in Boxing, Volleyball, Basketball, Swimming and Life Saving, Judo and Yoga Courses for PBORs.

COMBAT ARMY AVIATOR TRAINING SCHOOL (CAATS), NASIK ROAD

10.76 Combat Army Aviator Training School (CAATS) has been raised at Nasik Road in May 2003 aims to train aviators in aviation skills and handling of aviation units in various operations of war. The school also trains aviation instructors for developing Standard Operating Procedures (SOPs) and to assist Army Training Command in development of Aviation Tactical Doctrine in Synergy with ground troops. The courses identified to be run in the School are Pre-Basic Pilot Course, Basic Army Aviation Course, pre-Qualified Flying Instructor Course, Aviation Instructor Helicopter Course, Helicopter Conversion on type, Flight Commanders Course and New Equipment Course.

COLLEGE OF MILITARY ENGINEERING (CME), PUNE

10.77 The College of Military Engineering at Pune is a premier technical institution conducting training for personnel of the Corps of Engineers, other Arms and Services, Navy, Air Force, Para Military Forces, Police and Civilians. Besides, personnel from friendly foreign countries are also trained. CME is affiliated to Jawaharlal Nehru University (JNU) for the award of B.Tech and M. Tech degrees. All India Council for Technical Education (AICTE) also recognizes the graduate and postgraduate courses run by the CME.

MILITARY COLLEGE OF ELECTRONICS AND MECHANICAL ENGINEERING (MCEME), SECUNDERABAD

10.78 The role of MCEME is to provide technical education to all ranks of EME, including civilians, in various disciplines of engineering, weapon systems and equipment with special reference to their maintenance, repairs and inspection and to provide training in management and tactics at senior, middle and supervisory levels. The MCEME is designed to train 1760 personnel (all ranks). It conducts 13 courses for officers and 61 different courses for PBORs.

10.79 Computer Based Training Packages (CBTs) and digitized charts have been developed which contain exhaustive technical information on the functioning, repair, maintenance, servicing aspects and the correct usage of the electrical and electronics portion of equipment being taught at MCEME.

CORPS OF MILITARY POLICE CENTRE AND SCHOOL, BANGALORE

10.80 The role of the School is to train officers and PBORs on military and police duties in law, investigation, traffic control etc. Four courses for officers and fourteen courses for PBORs are being conducted. The total strength of students being trained is 910.

ARMY AIRBORNE TRAINING SCHOOL (AATS), AGRA

10.81 The Army Airborne Training School (AATS) was previously designated as Army Air Transport Support School (AATSS). In response to the need to concentrate all Airborne Training under one single agency, the Army Air Transport Support School was redesignated as Army Airborne School with effect from January 15, 1992.

MILITARY COLLEGE OF TELECOMMUNICATION ENGINEERING (MCTE), MHOW

10.82 MCTE, Mhow trains signal Officers in Combat Communication, Electronic Warfare, Communication Engineering, Computer Technology, Regimental Signal Communications and Cryptology. Besides, the five Training Faculties and Wings, the College has a Department of Administration to provide administrative and logistic support to the staff and the students, a Conceptual Studies Cell to evolve communication doctrines and produce training material, a modern and well-stocked library, and an in house printing press. Trainees are provided with an opportunity to study and train in a formal setting to equip them with the requisite skills, knowledge and abilities for current as well as future tasks.

MILITARY INTELLIGENCE TRAINING SCHOOL AND DEPOT (MINTSD), PUNE

10.83 The Military Intelligence Training School and Depot (MINTSD) is a premier establishment responsible for imparting training on Intelligence Acquisition, Counter Intelligence and Security aspects to all ranks of the Indian Army, Navy, Air Force, and Para Military Forces and personnel of friendly foreign countries. Civilian officers of the Department of Revenue Intelligence are also trained at this establishment. The School has the capacity to impart training to 90 officers and 130 Junior Commissioned Officers / Non Commissioned Officers of all the arms at a time. The School trains approximately over 350 Officers and 1100 Junior Commissioned Officers / Non Commissioned Officers every year.

ELECTRONIC AND MECHANICAL ENGINEERING SCHOOL (EME), VADODARA

10.84 The EME School conducts postgraduate level courses for officers and diploma and certificate level courses for PBOR. A number of foreign officers and PBOR from friendly foreign countries have been attending various courses conducted at EME School.

INSTITUTE OF MILITARY LAW, KAMPTEE

10.85 The Institute of Military Law was established at Shimla. In 1989, the institute was shifted to Kamptee. The charter of duties of the School includes a comprehensive system of legal education for officers of all arms and services of the Army. The School undertakes wide-ranging research, development and dissemination work in the field of Military and allied laws.

ARMOURED CORPS CENTRE AND SCHOOL, AHMEDNAGAR

10.86 In 1948, the Training Wings, the Recruits Training Centre and Armoured Corps Depot and Records were shifted to Ahmadnagar where the fighting Vehicles School was already functioning and they were all amalgamated to form the Armoured Corps Centre and School and Armoured Corps Records. It has six wings namely School of Armoured Warfare, School of Technical Training, Basic Training Regiment, Driving and Maintenance Regiment, Automotive Regiment and Armament and Electronics Regiment for Specialised training in these disciplines.

FOREIGN TRAINING

10.87 With the interest of foreign armies for training in Indian Army establishments increasing considerably, the Army personnel from neighbouring countries, South East Asia, Central Asian Republics (CAR), African continent and a few developed countries are being trained in India. Training courses are also being availed by Indian Officers in certain disciplines in developed countries abroad.

10.88 Under the Indian Technical and Economic Cooperation (ITEC) programme of Ministry of External Affairs, the Government of India provides assistance to the developing and less developed nations. Under this programme, personnel from developing countries get training in service institutions either free of cost or at subsidized rates. Developed western countries also send their officers for training in these institutions on reciprocal and self -financing basis by paying cost of training and other related charges.

10.89 During the period from April 1, 2014 to December 31, 2014, training of 499 personnel from various friendly foreign countries has been undertaken by IAF under the ITEC Programme.

10.90 The Indian Navy has been providing training to foreign personnel for the last 32 years, during which it has trained more than 10000 foreign personnel from 39 countries. The reputation for providing high quality training drives the Indian Navy to constantly evaluate and evolve its training syllabus and facilities so that it remains up-to-date and relevant to current technologies and practices. Training of international trainees has, therefore, been revitalised to make it more attractive and invite wider global participation. These efforts have borne fruit with more countries requesting for training courses with the Indian Navy. During the current Training Year, 833 vacancies have been allocated to various Friendly Foreign Countries. Commencing this Training Year, special impetus is being laid on sending Mobile Training Teams to Friendly Foreign Countries where the number of trainees is fairly large. IN has deputed Mobile Training Teams to Mauritius, Seychelles, Vietnam, Singapore, Sri Lanka, South Africa and Oman. Feasibility of deputing similar teams to UAE, Qatar and Myanmar is under consideration.

11

RESETTLEMENT AND WELFARE OF EX-SERVICEMEN

An ECHS Polyclinic

Kendriya Sainik Board is responsible for implementing the Central Government policies for rehabilitation and welfare of the war deceased/ disabled and retired service personnel and their dependents.

11.1 The Department of Ex-Servicemen Welfare formulates various policies and programmes for the welfare and resettlement of Ex-Servicemen (ESM) in the country. The Department has two Divisions viz. Resettlement and Pension, and it has 3 attached offices namely, Kendriya Sainik Board (KSB Sectt.), Directorate General (Resettlement) (DGR) and Central Organisation, Ex-Servicemen Contributory Health Scheme (ECHS). The KSB is responsible for the welfare of Ex-Servicemen and their dependents and also for the administration of welfare funds. The KSB is assisted in its task by 32 Rajya Sainik Boards (RSBs) and 392 Zila Sainik Boards (ZSBs), which are under the administrative control of respective State Governments/Union Territory Administrations. The office of Directorate General of Resettlement implements various Policies/ Schemes/ Programmes on pre and post retirement training, re-employment and self-employment etc. The DGR is assisted in its task by 5 DRZs at each of the 5 Commands. ECHS takes care of the healthcare and medical needs of Ex-Servicemen and their dependents.

WELFARE

11.2 **Kendriya Sainik Board, Secretariat:** KSB Secretariat is the Apex Body of Government of India responsible for implementing the Central Government policies for rehabilitation and welfare of the war deceased/ disabled and retired service personnel and their dependents. The welfare schemes are implemented through Rajya Sainik Boards (RSBs) located in State capitals and Zila Sainik Boards (ZSBs) located at district level. The establishment expenses of these RSBs/ ZSBs are shared by the Centre and States. Funding pattern is 75:25 in respect of special category States, namely, Arunachal Pradesh, Assam, Jammu and Kashmir, Meghalaya, Mizoram, Manipur, Nagaland, Sikkim, Tripura, Himachal Pradesh and Uttarakhand, and 60:40 in the

Meeting of Directors RSBS on November 21, 2014

case of the other States/ UTs. The Central Share provided to States/ UTs towards establishment/ maintenance of RSBs/ ZSBs is reimbursed from the DSE budget allocated to KSB Secretariat for this purpose. ₹ 22.26 Crore has been disbursed as Central Share upto December, 2014.

11.3 **Construction of Sainik Rest Houses (SRHs):** In order to provide suitable and cheap accommodation to Ex-Servicemen during their short visit to the State Capital/ District HQs for settlement of their pension cases and other matters like availing facilities of CSD Canteen, Hospital, etc. KSB Secretariat

shares 50% of the cost of construction of SRHs out of DSE. The SRHs are required to be maintained by State Governments/ UT Administrations from their resources/ funds.

ARMED FORCES FLAG DAY

11.4 Armed Forces Flag Day is commemorated on December 7 every year across the country with the aim to remember the sacrifices made by the armed forces personnel for the country. On this day, token flags are pinned and voluntary contributions are collected from public for welfare and rehabilitation of war widows/ disabled, ESM and their dependents.

Armed Forces Flag Day Fund

11.5 Apart from the DSE Budget, Armed Forces Flag Day Fund (AFFDF) is the major source of funding for welfare and rehabilitation of war widows, ESM and their dependents. Out of the interest earned on the AFFDF corpus, 7.5% is ploughed back into the corpus and balance is used to fund the welfare and rehabilitation schemes of KSB. ₹ 29.12 Lakh has been collected upto December, 2014.

Hon'ble Prime Minister on Armed Forces Flag Day, 2014

Raksha Mantri's Discretionary Fund (RMDF) Schemes

11.6 Financial assistance is provided to ESM and their dependents for their identified personal needs, e.g., Penury Grant, Children Education and Marriage Grant, Medical Grant etc. under RMDF. Financial assistance of ₹19.70 crore has been disbursed under RMDF upto December, 2014.

PM's Scholarship Scheme (PMSS)

11.7 To support higher technical/ professional education of dependent wards/ widows of ex-servicemen and Ex- Indian Coast Guards, the scheme was introduced in the year 2006. 4000 scholarships are awarded annually under this scheme to wards of Ex-servicemen/ widows. The scheme is funded out of National Defence Fund. The amount of scholarships is ₹ 2,000/- for boys and ₹ 2,250/- for girls per month (paid annually). The amount of scholarships disbursed to 12053 beneficiaries upto December 2014 during Financial year 2014-15 is ₹ 30.17 crore.

Other Welfare Schemes

11.8 **Financial Assistance for Serious Diseases:** Financial assistance upto 90% and 75% of total expenditure subject to maximum of ₹ 1.25 Lakh (for heart ailments, joint replacement etc.) and ₹ 0.75 Lakh per year (for treatment of cancer and dialysis) is provided to non-pensioner PBOR and officers including their dependents, respectively. This scheme is also applicable for the Indian ESM residing in Nepal till ECHS becomes operational in that country. ₹ 64.83 Lakh has been disbursed upto December, 2014.

11.9 **Financial Assistance for Purchase of Modified Scooter:** Financial assistance of ₹ 57,500/- is provided from AFFDF budget for procurement of modified scooter for the ESM (with 50% or more disability) who became disabled after retirement from service.

11.10 **Grant to War Memorial Hostels**

(WMH): The WMH grant of ₹ 1350/- per month per child is provided to wards of war widows/ war disabled. ₹ 28.26 Lakh has been disbursed upto December 2014.

11.11 **Grant to Paraplegic Rehabilitation Centres:** In addition to ₹ 14,600/- per annum per inmate, annual grant of ₹ 9,60,750/- and ₹ 4,34,375/- (5% escalation per annum on establishment charges is also provided) is provided for upkeep/ maintenance of PRCs at Kirkee and Mohali respectively which are being run as autonomous organizations for rehabilitation of paraplegic/ tetraplegic ESM. Per annum per inmate grant has been revised upwardly to ₹ 30,000 and establishment grant to ₹ 20 Lakh and 10 Lakh respectively.

11.12 **Grant to St Dunstan's After Care Organisation:** St Dunstan's After Care Organisation at Dehradun for blinded Soldiers, Sailors and Airmen provides psychological support to overcome the shock of blindness and also facilitates vocational training to enable the blinded ESM to get rehabilitated in society, besides providing after care services. Maintenance grant is provided at the rate of ₹ 14.00 Lakh per annum.

11.13 **Reservation of Seats in Medical/ Dental Colleges by Ministry of Health & Family Welfare:** KSB Secretariat is allotted some MBBS/ BDS seats by Ministry of Health & Family Welfare as Government of India nominee for wards of ESM. 24 seats have been are allotted during 2014-15.

Highlights

11.14 KSB Secretariat obtained ISO 9001:2008 Certification for processes/ procedures used for disbursal of financial assistance to beneficiaries and handling of welfare related grievances.

11.15 Financial assistance/ grants from AFFD to beneficiaries is being done through National Electronic Fund Transfer (NEFT).

11.16 50% more financial assistance (about ₹ 27.00 Crore) was disbursed to ESM and their dependents during the year 2014 as compared to the last year, 2013.

RESETTLEMENT

11.17 The main thrust of the Department of Ex-Servicemen Welfare is on resettlement/ rehabilitation of ESM. Nearly 60,000 armed forces personnel retire or are released from active service every year, most of them being in the comparatively younger age bracket of 35 to 45 years and they need a second career to support their families. These personnel constitute a very valuable disciplined, well-trained and dedicated talented pool available for nation building. This is sought to be achieved through the following modalities:-

(a) Assisting ESM in finding re-employment and upgrading their skills by imparting necessary training to prepare them to take on new assignment/ jobs.

(b) Constant endeavor to provide employment opportunities in government/ quasi government/ public sector organizations.

(c) Pro-active action to facilitate re-employment of ESM in the Corporate Sector.

(d) Providing jobs through schemes for self-employment.

(e) Assistance in entrepreneurial ventures.

TRAINING PROGRAMMES

11.18 Directorate General Resettlement

(DGR) is entrusted with the responsibility of preparing retiring/ retired service personnel for a second career. The resettlement courses are selected with a focus on employability of ESM in society.

11.19 **Officers' Training:** For training of ESM (O), various types of Resettlement Training Programmes are conducted including 24 Weeks Management Courses at IIMs and other reputed B-Schools, Modular management courses like Project Finance, Academic Institutions, Supply Chain, Retail, Six Sigma, Seafaring, etc. at other reputed institutes. 60% Course fee is paid by DGR. Widows of officers are also eligible to undergo above courses. New courses like Strategic Retail Management, HRM, Facility, Transition, Export and Import, Event Management etc., Corporate Social Responsibility and Jet Transition have been introduced for the training year 2014-15.

11.20 **JCOs/ OR and Equivalents Training:** For JCOs/ OR and equivalent, the training courses are conducted for a duration of upto one year in diversified fields, such as, Security, Fire & Industrial Safety, Computer & IT including 'O' Level, Hospitality, Tourism, Agri based, Business Management, Modular Management, Vocational & Technical, Medical & Healthcare, Library & Information Science, Legal Assistant etc. These courses are also run at reputed institutes with proper accreditation. 100% Course fee is paid by DGR. Widows/one dependent of JCOs/ OR are eligible to do any course sponsored by DGR. ESM are now also entitled to apply for regular DGR training courses which are not fully subscribed by retiring personnel. Newly introduced courses for 2014-15 include Logistics & Transport Management, Retailing & Showroom, Corporate Office, Material Management, Marine Engineering etc. Besides regular institutes at least two courses are planned every month at all the Regimental Centres to provide variety of courses to the retirees on pension drill.

11.21 **ESM Training:** Under this scheme, funds are allotted to RSBs for conducting vocational training for ESM in their States. The scheme is primarily meant for those ESM who could not avail the facility of resettlement training while in service. The scheme has also been extended to the widow/ one dependent of an ESM, irrespective of whether his death is attributable to military service or not. The course is free of cost for the ESM and a stipend of ₹ 1000/- per month is also paid to each trainee who opt to undergo the training at destination other than their hometown. Now, ESM can attend the regular resettlement training programmes of DGR which are under-subscribed to benefit all those ex-Servicemen who have not done any resettlement course in the past and are desirous to do these courses to hone up their skill. However, in this case, no stipend is given to the candidates for attending these high value courses.

Employment Opportunities

11.22 **Reservation in Government Jobs:** The Central Government has provided for the following reservation in services for ESM:

(a) 10% in Group 'C' posts and 20% in Group 'D' posts. In addition 4.5% reservation in each category is meant for Disabled Soldiers and Widows/ dependents.

(b) 14.5% in Group 'C' and 24.5% Group 'D' posts in PSUs and Nationalized Banks.

(c) 10% posts upto Assistant Commandants in paramilitary forces.

(d) 100% in Defence Security Corps.

11.23 **Implementation of Reservation:** The Government has designated Director General Resettlement as Nodal agency for the monitoring implementation of reservation policy for ESM.

11.24 **Jobs in the Corporate/ Private Sector:** Substantial employment for ESM can be generated in the Private/ Corporate sector. In order to generate awareness and urge these sectors to employ ESM, a National Corporate Conclave was conducted by DGR in August 2014 where the competencies of the ESM were presented to Corporate Houses and the Raksha Mantri urged them to generate the employment opportunities for ESM. DGR has also signed a MoU with CII towards this end and held two job fairs. Status of personnel sponsored for permanent/ contractual jobs through DGR and RSB is as under:

(a)	Through DGR	4,957
(b)	Through RSBs	12,459 (as on June 30, 2014)

11.25 **Security Agency Scheme:** The DGR empanels/ sponsors ESM run private security agencies, companies and ESM corporations for providing security guards to various Central Public Sector Undertaking (PSUs). The scheme offers good self-employment opportunities to retired JCOs/ ORs and equivalent in the field of their expertise. The number of ESM employed during 2014 is 41,764. A total of 382 Security Agencies have been empanelled during 2014.

SCHEME FOR SELF EMPLOYMENT

11.26 **Coal Transportation Companies:** This scheme has been re-energized by issue of new MoU and guidelines in 2014. Accordingly, during 2014, 30 Officers, 60 JCO/ ORs and 36 Widows/ disabled ESM/ dependents have benefitted from the scheme.

11.27 **Issue of Eligibility Certificates for allotment of Oil Product Agencies:** In accordance with the Policy Guidelines issued by the Ministry of Petroleum and Natural Gas/ Oil Company, DGR issues Eligibility Certificate for allotment of Oil Product Agencies under Defence Quota. A total of 65 Eligibility Certificates have been issued to entitled ESM/ Widow/ Dependents during the year 2014.

11.28 **Company Owned Company Operated (COCO) Retail Outlets:** In accordance with the Policy Guidelines issued by the Ministry of Petroleum and Natural Gas/ Oil Companies, DGR sponsors Officers for management of Retail Outlets of IOCL, BPCL and HPCL all over India under the COCO Scheme. DGR has sponsored a total of 320 ESM (O) for COCO Scheme during the year 2014.

11.29 **Gopaljee Dairy and Fresh Farm:** The scheme aims at providing Self-employment to JCO/ OR in the National Capital Region. A total of 56 ESM have benefited from this scheme.

11.30 **Mother Dairy Milk Booth and Fruit and Vegetable (SAFAL) Shops:** This is a time tested well-paying self-employment scheme for ESM JCOs/ ORs equivalent. 211 JCOs/ ORs equivalent have benefited from this

scheme during the year 2014.

11.31 **Management of CNG Stations by ESM (Officers) in NCR:** The Scheme has been recently revised. The scope of the scheme has been extended to cover entire NCR to include Noida, Faridabad and Gurgaon. 62 ESM (Officers) have benefited from this Scheme during the year 2014.

11.32 **Allotment of Army Surplus Class V 'B' Vehicles:** Ex-Servicemen and widows of defence personnel, who died while in service, are eligible to apply for allotment of Army Surplus Class V 'B' vehicles. A total of 65 ESM were registered with DGR during the year 2014.

11.33 **Publicity and Awareness Campaign:** DGR has launched its Twitter page and publicized competencies of ESM to bring in awareness about opportunities. 3 Conclaves with CII at Delhi, Jaipur and Hyderabad have been conducted. Participation in Air Force Veteran Job Fair on November 14-15, 2014 at Subrato Park, New Delhi was also undertaken.

Raksha Mantri and the Service Chiefs during DGR Corporate Conclave 2014

HEALTH CARE

11.34 Ex-Servicemen Contributory Health Scheme (ECHS) was launched with effect from April 1, 2003. The Scheme was further expanded in October 2010. ECHS aims to provide quality healthcare to Ex-Servicemen (ESM) and their dependents through a network of ECHS Polyclinics, Service medical facilities and civil empanelled/ Government hospitals spread across the Country. The Scheme has been structured on the lines of Central Government Health Scheme (CGHS) and is financed by the Government of India. Endeavour is to ensure cashless treatment by utilising the empanelled hospitals to the veterans and their dependents.

11.35 ECHS Polyclinics are designed to provide 'Out Patient Care' that includes consultations, essential investigation and provision of medicines. Specialized consultations, investigations and 'In Patient Care' (Hospitalisation) is provided through spare capacity available in Service hospitals, all Govt. hospitals as also through civil medical facilities empanelled with ECHS.

11.36 **Central Organisation:** At the apex level is the Central Organisation, ECHS located in Delhi, which functions under the Chiefs of Staff Committee through the Adjutant General in the Integrated Headquarters of Ministry of Defence (Army). The Central Organisation is headed by a serving Major General. Executive control of ECHS is vested with the Department of Ex-Servicemen Welfare.

11.37 **Regional Centres:** There are a total of 28 Regional Centres spread across the country. A total of 432 ECHS Polyclinics including six Polyclinics in Nepal have been sanctioned by the Government of India so far. Out of this, 401 polyclinics have been operationalized, across the country.

Present Status

11.38 **ECHS Membership:** As on December 31, 2014, a total of 14,09,535 ESM have

enlisted themselves with the Scheme along with 30,96,346 dependents. Total beneficiaries under this Scheme are 45,05,881.

Patient being Registered at Jodhpur

11.39 **Polyclinics and Civil Empanelled Medical Facilities:** A total of 250 additional medical facilities have been empanelled with ECHS in the last one year. Now the Scheme has 1132 civil hospitals empanelled with it, and all the above hospitals have signed Memorandum of Agreement for providing cashless treatment to ECHS beneficiaries. However, in case of emergency, members are permitted to avail medical treatment at non-empanelled hospital on payment. Their medical treatment bills are reimbursed at approved CGHS rates.

11.40 **Highlights**

(a) **ECHS Seminar:** The first ever ECHS Seminar and Regional Centre Directors Conference, a biennial Army level event, was conducted under the aegis of the AG's Branch, IHQ of MoD (Army). The event conducted on March 10 and 11, 2014 at the Manekshaw Centre, New Delhi, aimed at harmonizing the efforts of various stakeholders to surmount the challenges being faced by the Scheme.

(b) **On-Line Bill Processing:** Government had accorded sanction for 'On-Line Bill Processing' using a Bill Processing Agency (UTI-ITSL) in February 2012 at five major Regional Centres. On successful launch, this 'on-line' processing was further extended to five more Regional Centres in February 2013. 'On-line Bill' processing has not only ushered in total transparency but also speeded up payment of empanelled hospital bills. Extension of 'on-line' billing to the remaining 18 Regional Centres has been sanctioned and will be effective by March 31, 2015.

(c) **Operationalisation of Polyclinics:** 30 Polyclinics have been operationalised during the last one year. 17 Polyclinics are left to be operationalised. Efforts are on to achieve the target of operationalising all the Polyclinics as soon as possible.

(d) **ECHS Nepal:** ECHS facilities have been extended to Nepal Domicile Gorkha (NDG) Ex-servicemen in Nepal. The Government has sanctioned three ECHS Polyclinics, one each at Kathmandu, Pokhra and Dharan with a mobile clinic co-located at each of the above locations. All the three above Polyclinics have been made functional w.e.f. April 2014. However, the procedure to have mobile clinic is under process. Presently eight medical facilities have been sanctioned for empanelment with ECHS Nepal.

(e) **ECHS Toll-Free Helpline:** ECHS Toll free Helpline has been made available for all ECHS members at 1800-114-115 for resolving queries on Membership,

Treatment and Employment. The service is available from Monday to Friday on all working days from 0900-1700 hours.

PENSION REFORMS

11.41 The benefit of broad-banding of percentage of disability/ war injury has been allowed to Armed Forces Officers and PBOR pensioners who were invalidated out of service prior to January 1, 1996 and were in receipt of disability element/ war injury element as on January 1, 1996.

11.42 The notional full pension of the commissioned officers absorbee pensioners determined in terms of Ministry's letter No.1(4)2007/D(Pen/Pol), dated August 21, 2009 amended vide letter of even number dated February 9, 2011 has been stepped up to fifty percent (50 %) of the minimum of the fitment tables for the rank in the revised pay band vide letter No. 1(1)/2014-D (Pen/Pol) dated October 16, 2014.

11.43 In addition to the existing prescribed documents, Aadhaar Card issued by UIDAI has been accepted as Proof of date of birth/ age for payment of additional pension/ family pension on completion of 80 years of age or above.

11.44 In supersession of previous instructions, consolidated instructions have been issued vide letter No.1(1)/2010-D(Pen/Pol) dated December 23, 2014, regarding grant of family pension to the eligible members of family of an Armed Forces Personnel/ pensioner/ family pensioner reported missing and whose whereabouts are not known. It includes those kidnapped by insurgents/ terrorists.

ई.सी.एच.एस पॉलिक्लिनिक
ECHS POLYCLINIC
CHANDIMANDIR

12

COOPERATION BETWEEN THE ARMED FORCES AND CIVIL AUTHORITIES

Coordinated Efforts of IAF with Civil Authorities during 'Operation Megh Rahat'

Armed Forces render timely assistance to civil authorities for the maintenance of law and order as also in rescue and relief operations during natural calamities.

12.1 Apart from the main responsibility of defending the borders of the country, the Armed Forces render timely assistance to civil authorities for the maintenance of law and order and/ or essential services as also in rescue and relief operations during natural calamities. The details of assistance provided by the Armed Forces during the period are given in the succeeding paragraphs.

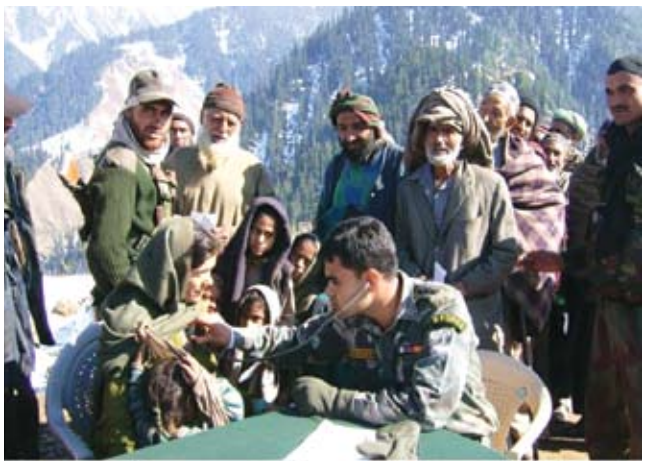
INDIAN ARMY

MILITARY CIVIC ACTION PROGRAMME

12.2 Army has undertaken a large number of military civic action programmes sponsored and funded by the Government of India aimed at "Winning Hearts and Minds" of the people in the areas affected by terrorism and insurgency in Jammu & Kashmir and North Eastern States, as part of 'Operation Sadbhavana'. The focus of Operation Sadbhavana in these regions has been towards development of core social indices of 'Quality Education', 'Women Empowerment', 'Community and Infrastructural Development', 'Health and Veterinary Care', 'Development of Gujjars/ Bakarwals' and 'Nation Building'. In order to promote cross cultural exchange of youth and Nation building, some projects were also undertaken towards 'Educational/ Motivational Tours' by the students, elders and Veer Naris to the other parts of the Country. In addition, basic needs like 'Water Supply Schemes', 'Electrification' and 'Animal Husbandry' are also given due importance while undertaking Operation Sadbhavana projects.

12.3 During the year 2014-15, a sum of ₹1.80 crore has been allotted for undertaking Military Civic Action in Jammu & Kashmir and North East Region.

12.4 During the period under review 400 Columns including Five Medical Teams and Six Engineer Task Force were deployed in Aid to Civil Authorities. Details of assistance provided in few of the important instances are given in the succeeding paragraphs.



FLOOD RELIEF OPERATIONS

12.5 **Operation Megh Rahat: Jammu and Kashmir:** Consequent to heavy rains and

resultant flooding in different parts of J&K, Indian Army responded promptly in order to reach out to the marooned and affected people of the State to provide immediate succour and relief. As part of Operation Megh Rahat launched on September 2, 2014, 298 columns were deployed by Army in Kashmir Valley and Jammu-Punch Region. Approximately 1,60,000 civilians were rescued by the Army. Relief effort included medical aid, shelter and food provided to approximately 2,18,000 civilians. Plant Equipment Detachments were deployed for restoring road connectivity and construction of bridges. Four and half sets of equipment bridges from Army resources have been employed for restoration of essential road communication. 240 Boats with 158 Out Board Motors were also employed with the columns.

12.6 15 Cheetah Helicopters and 5 Advanced Light Helicopters (ALHs) of the Army Aviation were employed to evacuate approximate 850 civilians and to deliver approximately 275 tons of relief material.

Medical Assistance

Relief and Rescue Operations by Army

12.7 **Operation LEHAR:** Andhra Pradesh and Odisha: Based on requisition received from Commissioner, Disaster Management, Andhra Government, Indian Army was deployed to carry out rescue and relief operations on October 10, 2014. 16 Army teams including two Engineer Task Forces and four Medical Teams were deployed at Vishakhapatnam and Srikakulam for rescue and relief operations. Following rescue and relief operations were conducted by the Army:

(a) 272 civilians rescued.

(b) Medical Camp established at Achutapuram.

(c) Clearance of fallen trees along Road Axis from Vizag to Kailashgiri, Vizag to Vizag Airport and Vizag to Achutapuram.

(d) Repair and resuscitation of essential services in Vishakhapatnam and Srikakulam.

Relief and Rescue Operations by Army

12.8 **Goalpara, Kamrup and Morigaon (Assam):** Due to incessant rain, civil administration requisitioned aid from Army on September 22, 2014. Nine Army columns were deployed for flood rescue operations in Goalpara, Kamrup and Morigaon districts. Six Army columns were on standby in Kamrup and Morigaon districts. 1,535 people were evacuated and moved to high ground by the Army columns. Two medical camps were established which provided relief to 360 people. In addition food was provided to 730 people.

Maintenance of Law and Order

12.9 **Zunheboto: Nagaland:** Consequent to deterioration in law and order situation in Zunheboto district, Nagaland, seven columns of Assam Rifles were deployed in general area Mukalimi Camp on night December 28-29, 2013 on requisition of civil administration for maintenance of law and order. Columns were finally de-requisitioned on January 2, 2014.

12.10 **Assam:** Subsequent to deterioration of law and order situation in Kokrajhar, Baksa and Dhubri districts of Lower Assam, assistance was requisitioned by civil administration from Army. Consequently eight Army columns were deployed in Kokrajhar on May 2, 2014 and 11 Army columns were deployed in Baksa and Dhubri districts on May 3, 2014. Army columns in Kokrajhar district were de-requisitioned on May 6, 2014 and Baksa and Dhubri districts on May 7, 2014.

12.11 **Manipur:** Subsequent to deterioration of law and order situation in Ukhrul district of Manipur, assistance was requisitioned by civil administration from Army on 30 August 2014. Consequently four Army columns were deployed for maintenance of peace and tranquility. The Army columns were de-requisitioned on September 21, 2014.

INDIAN NAVY (IN)

12.12 **Evacuation of Indian Nationals from Iraq:** On June 27, 2014, INS Mysore was deployed to the Persian Gulf to be standby for evacuating Indian Nationals from Iraq. During the deployment, the ship undertook Operational Turnaround (OTR) at Mina Ash Shuwaykh, Kuwait in June and July, 2014. In addition, INS Mumbai was kept standby at Mumbai with a suitably equipped medical team, medicines, extra rations and stores embarked. INS Mysore was de-inducted from the Persian Gulf on July 19, 2014.

12.13 **Operation Megh Rahat – Relief Operations during Floods in J&K – September 2014:** An Indian Navy diving

team comprising 10 divers led by an officer along with two Gemini craft, diving and rescue equipment were deployed for relief operations from September 11 to 19, 2014. Additionally, a medical team comprising one medical officer and two medical assistants were deputed to Base Hospital, Srinagar. The Indian Diving Team evacuated approximately 1300 personnel to safer areas and distributed relief material to about 3650 people and nine submerged villages.

12.14 **Operation Lehar – Relief Operations Post Cyclone Hudhud at Visakhapatnam:** Super Cyclone Hudhud made landfall at Visakhapatnam on October 12, 2014. Wind speeds of the order of 190 km/hour were experienced, resulting in large scale damage to both civil and naval infrastructure. Indian Navy was nominated as the Lead Service and coordinated with other Services and State agencies for rescue and relief operations. A liaison cell was established at the Andhra Pradesh Secretariat in Hyderabad from October 13 to 18, 2014 to coordinate the response of the Armed Forces. Major relief operations undertaken were as follows:

(a) Restoration of basic essential services including power and water supply, clearing of roads and other obstructions.

(b) Provision and distribution of relief material including water.

(c) Setting up of community kitchens in four affected regions.

(d) Restoration of airport and port operations.

(e) Rescue of personnel from marooned villages.

Diving Assistance to Civil Authorities

12.15 Since January, 2014, the Diving teams of the Indian Navy were deployed on numerous occasions to render diving assistance to civil authorities. The assistance included Search and Rescue and Human Assistance and Disaster Relief (HADR) missions. The major deployments among these are as follows:

(a) MARCOS deployed at J&K and an additional team from INDT, Delhi were positioned for SAR and disaster relief operations in Kashmir in September, 2014 under Operation Megh Rahat.

(b) A diving team consisting of 12 personnel was deputed to South Eastern Coal Fields, Bilaspur in July, 2014.

(c) Indian Navy Diving team was deployed for providing diving assistance to Government of Himachal Pradesh for search and rescue of college students of Andhra Pradesh at Mandi, Himachal Pradesh in June, 2014.

12.16 **Coastal Security Awareness Programmes/ Campaigns:** A number of Coastal Security Awareness Programmes/ Campaigns were conducted along with the Indian Coast Guard and Marine Police in the coastal villages. The campaign aimed to enhance security awareness among the villagers and fisherman of the coastal villages.

12.17 **Interaction with Fishermen:** All Naval Detachments at Tamil Nadu conducted awareness camps to interact with local fishermen leaders and fisheries officials. Fishermen were advised to inform all

incidents occurring at sea to render timely assistance.

12.18 **Naval Health Camps:**

(a) **Medical Camp at Hutbay:** A Multi-specialty Medical Camp with specialists from INHS Dhanvantari was organized with local support from ICGS Hut bay & Civil Health authorities at PHC. The camp was conducted at Hutbay on January 17 and 18, 2014. 97 patients including small babies, pregnant ladies and elderly people were examined.

(b) **Medical Camp at Long Island:** A Multi-specialty Medical Camp with Specialists and Medical Officers was organized by INHS Dhanvantari for the population of Long Island on May 22, 2014. The camp was conducted in the premises of PHC, Long Island. 52 Ultrasounds were carried out and 72 patients with diabetes, hypertension and other diseases benefited from OPD consultation.

(c) **Blood Donation Camp:** As a part of outreach social service by the Indian Navy a blood donation camp was organised on May 23, 2014 at Naval Air Enclave, Porbandar. This was the first such activity conducted by Indian Navy at Porbandar. The blood collected would be used for blood transfusion to approximately 200 Thalassemia patients at Asha Children Hospital, Porbandar.

(d) **Medical Camp - Khuchidi village:** On request of the local public at Porbandar a second Medical Camp was conducted at Khuchidi village Porbandar on January 30, 2014. The camp was organised to extend specialist medical services to underprivileged people. The camp also spread awareness about the Indian Navy among the general population.

(e) **Medical Camps at Mumbai:** INHS Asvini, conducted the following medical camps:

(i) Cancer screening at Trombay on October 14, 2014.

(ii) Skin camp at Trombay on October 22, 2014.

(iii) Medical camps at Karanja on November 16, 2014.

COAST GUARD

12.19 **Odisha Flood Relief:** Indian Coast Guard (ICG) participated extensively in the relief operations in Odisha during the floods in August 2014. ICG personnel and Gemini boat were deployed on the request of the civil administration for rescue and relief operations. ICG teams were deployed in Balkani, Tandaptra, Kujang and Kendrapara area. ICG medical team was also deployed

Medical Officer attending to Patient

to the flood affected areas for providing medical care to victims. A total of 32 lives were saved by ICG team in rescue operations and 3 Medical Evacuation was carried out.

Evacuation of Affected Personnel by ICG Team

12.20 **Severe Cyclone 'Hudhud:** Indian Coast Guard (ICG) played a crucial role in pre impact alert dissemination and post impact rescue and relief operations during Cyclone 'Hudhud that lashed Andhra Pradesh coast on October 12, 2014. Well before the cyclone hit Andhra Coast, ICG issued advisories to state administrations, fisheries department and concerned ports to undertake preventive measures for safety of coastal population, fishermen and vessels. ICG units on the East coast in States of Andhra Pradesh and Odisha were kept ready for SAR post cyclone. 2 ICG ships ('Sarang' and 'Rajdhwaj') were the first to proceed to sea on October 12, 2014 from Chennai and Krishnapattinam respectively for relief and rescue operations along the Andhra coast. ICG Dornier aircraft was one of the first aircraft to land at Vizag on October 13, 2014 post cyclone and carried 2 Airport Authority engineers from Chennai to Vizag for repairing airport navaids for making the Vizag airport operational. Subsequently aircraft were deployed from Chennai, Vizag, Kolkata and Bhubaneswar for carrying out assessment of damage in the coastal areas on October 13 and 14, 2014. ICG helicopters provided food and water packets at remote villages towards relief operation. Ships and aircraft ferried relief material from Kakinada, Kochi and Chennai to Vizag.

AIR FORCE

12.21 Indian Air Force's rotary wing fleet has completed 60 years of service to the nation. In this landmark year, the fleet was required to undertake a variety of significant operations. The Lok Sabha General Elections saw the helicopter fleet deployed in support of election tasks, especially in the Left Wing Extremism (LWE) affected states. A massive effort of 1612 sorties utilising 1138 hours on various types of helicopters earned the praise of the Election Commission of India.

12.22 **Operation Megh Rahat:** IAF launched its biggest ever Disaster Relief Operations in the aftermath of floods in Jammu & Kashmir in September 2014. A total of 73 aircraft, comprising 34 fixed wing and 39 helicopters, were deployed in the operations. In the 11 days of operations, a total of 2915 sorties were undertaken by IAF aircraft, translating to airlift of 4536 Tonnes and 53159 passengers (including 47909 evacuated). IAF's air effort

during 'Operation Megh Rahat' surpassed the combined effort towards 'Operation Madad' (Tsunami 2004) and 'Operation Rahat' (Uttarakhand 2013).

12.23 A Rapid Action Medical Team was deployed at Air Force Station Awantipur to provide medical relief to the flood affected population. During the 23 days of deployment, the team provided medical relief to 3,236 patients. Its contribution was greatly appreciated by civil authorities.

12.24 **Operation Hudhud:** IAF participated in Cyclone Hudhud relief operations in Andhra Pradesh. A total of 47 sorties were flown, airlifting 316.3 tonnes of relief material and 154 passengers.

12.25 **Operation Triveni:** Mi-17 and Mi-17 V5 helicopters of the IAF have been deployed since December 2009 in support of anti-Naxal operations, where the IAF has been operating jointly with the Central Armed Police Forces. Continuously adapting itself to the specific demands of such operations, in the current year, IAF has flown 1224 sorties utilising 810 hours, airlifting 6131 personnel and 195 tonnes of material.

13

NATIONAL CADET CORPS

Prime Minister inspecting the Guard of Honour during PM's NCC Rally

The NCC strives to provide the youth of the country opportunities for all round development of character and leadership, ideals of selfless service, dedication and courage, so that they become responsible citizens of the country. The motto of NCC is "Unity and Discipline".

13.1 The National Cadet Corps (NCC) was established under the NCC Act, 1948. It has completed 66 years of existence. The NCC strives to provide the youth of the country opportunities for all round development of character and leadership, ideals of selfless service, dedication and courage, so that they become responsible citizens of the country. The motto of NCC is "Unity and Discipline". The growing and vibrant NCC alumni strength is testimony to its meaningful existence. In keeping with the changing times, the training philosophy was reviewed and new syllabus became effective from April 1, 2013.

13.2 **Expansion Plan of NCC:** In the year 2010, a decision was taken to increase the sanctioned NCC cadet strength by two lakh from 13 lakh to 15 lakh in five phases of 40,000 cadets each. Two phases of expansion have already been completed and the sanctioned strength of NCC cadets is 13.8 lakh cadets. The NCC's presence currently extends to 670 districts of the country covering 15,908 institutions under 800 NCC Units.

13.3 Wing-wise distribution of enrolled cadet strength is as under:

(a)	Army Wing	-	7, 38,443
(b)	Air Wing	-	52,003
(c)	Naval Wing	-	50, 215
(d)	Girls Wing	-	2, 90,422
	Total	**-**	**11, 31,083**

13.4 **New Raisings in the 3rd Phase of Expansion:** Approval-in-principle for raising of 1 Group HQ, 7 Army Units and 7 Naval Units for the 3rd Phase has been accorded. This will increase the number of NCC Units to 814 from the current 800 Units. Once these units are set up the strength of cadets would increase to 14.2 lakh.

13.5 **Out of Turn Allotment to Institutions Willing to Bear Entire Expenditure on NCC Activities:** In July, 2014, a decision was taken by the Government for out of turn allotment of NCC to institutions on self-financing basis. The scheme commenced as a Pilot project to be reviewed in the year 2016. The implementation process is on and there will be no cost to the Government exchequer. The scheme, besides resulting in savings to the Government exchequer, would contribute to reduction of deficiency in enrolment.

13.6 **Increase in Girls Representation:** A total of eight Girls Battalions have been raised in first two phases of implementation of the Government sanction accorded in the year 2010. Approval 'in principle' has been accorded to raise one more Girls Battalion in the third phase. Girls are also being encouraged to join the existing mixed battalion with an aim to increase their percentage in NCC.

TRAINING

13.7 Training in NCC comprise the following important facets:

(a) Institutional Training.
(b) Camp Training.
(c) Adventure Training.
(d) Social Service and Community Development Activities.
(e) Youth Exchange Programme.

13.8 **Institutional Training:** The aim of this training is to expose the youth to a regimental way of life and inculcate in them the values of discipline, personality development and orderliness. All enrolled cadets go through the Institutional Training in their respective schools/colleges as per specified syllabi for each wing of NCC.

13.9 **Camp Training:** Camp Training is an important part of NCC curriculum. Camps help in developing Camaraderie, Team Spirit, Dignity of Labour, Self-Confidence and most importantly inculcating sprit of Unity and Discipline. NCC has also introduced classes on Human Values as part of Personality Development Programme for its cadets. Various types of camps conducted in NCC are as listed below:

(a) **Annual Training Camps:** Annual Training Camps are conducted at State Directorate level so as to ensure that Junior Division/ Junior Wing (JD/JW) cadets and Senior Division/ Senior Wing (SD/SW) cadets numbering approximately 8.5 lakh attend at least one camp per year. Approximately 1800 such camps are conducted every year.

(b) **National Integration Camp (NIC):** A total of 37 NICs are conducted every year. 24,200 cadets from all States and Union Territories participate in these NICs. So far, 36 NICs have been conducted in different parts of the country. In addition, Special NICs have been scheduled/ conducted at the following places:

(i) **SNIC Srinagar:** A special NIC was conducted at Srinagar from June 12 to 23, 2014. A total of 250 cadets from all parts of the country participated in this SNIC.

(ii) **SNIC Peddapuram (Kakinada):** A Special NIC was conducted at Peddapuram from October 9 to 20, 2014. 300 Cadets, both boys and girls, participated from all States and UTs.

(iii) **SNIC Badabagh (Jaisalmer):** A Special NIC was conducted at Badabagh (Jaisalmer) from October 28 to November 8, 2014. 300 cadets from all over India participated.

(iv) **SNIC NER:** A national level camp was conducted in Dimapur (Nagaland) from January 3 to 14, 2015 which was attended by 600 Cadets from all over India.

(c) **Vayu Sainik Camp (VSC):** Every year an All India Vayu Sainik Camp for Air Wing Senior Division (SD) and Senior Wing (SW) cadets is organized at Jakkur Airfield (Bangalore) for a period of 12 days. This year the camp was conducted from October 9 to 20, 2014. A total of

600 SD/ SW cadets participated in this Camp.

(d) **Nau Sainik Camp (NSC):** This camp is also organized once a year for Naval Wing SD and SW cadets for 12 days. This year the camp was conducted at Karwar from December 21, 2014 to January 1, 2015. A total of 590 cadets participated in this camp.

(e) **Thal Sainik Camps:** A Thal Sainik Camp is conducted at Parade Ground, Delhi Cantonment every year for SD and SW NCC cadets. This year the camp was conducted from September 19 to 30, 2014. A total of 1360 cadets participated in this camp.

(f) **Leadership Camps:** Six Advance Leadership Camps (ALCs) are organized every year on all India basis. This year two ALCs have been converted to Service Selection Board Preparation and Screening Capsule. 300 SD Cadets/ SW Cadets from 17 States NCC Directorates participated in these camps.

(g) **Rock Climbing Training Camps:** Eight Rock Climbing camps are held every training year from April 1 to March 31 to expose the cadets to the basics of rock climbing and to inculcate the spirit of adventure in them. 1080 cadets attended these camps. Four of these camps were held at Gwalior in MP and another four camps were held at Srinagar and Garhwal.

(h) **Republic Day Camp 2015:** Republic Day Camp-2015 was conducted from January 1 to 31, 2015 at Delhi. The camp was attended by 2070 cadets from all over India, including cadets of friendly foreign countries with whom NCC has ongoing Youth Exchange Programme. Inter Directorate competitions concerning institutional training, cultural competitions and National Integration awareness programmes were conducted during the month long camp.

13.10 **Republic Day Parade:** Two NCC marching contingents and three NCC bands participated in the Republic Day Parade on Rajpath on January 26, 2015.

NCC Girls Band on the Rajpath

13.11 **Attachment Training:** The NCC cadets derive first hand experience of immense value through attachment training with the Armed Forces units. During the year, attachments conducted were as under:

(a) 440 officers and 20,000 cadets attended the attachment training with regular army units including women officers and 560 SW cadets.

(b) 120 SD cadets underwent attachment training at Indian Military Academy, Dehradun and 48 SW cadets were attached to Officers Training Academy, Chennai for duration of two weeks each.

(c) 1000 SW cadets underwent attachment training with various Military Hospitals.

(d) 100 Air Wing NCC cadets (76 SD and 24 SW) underwent attachment training with Air Force Academy, Dundigal.

(e) Every year 20 Associate NCC Officers (ANOs) and 200 Cadets (SD only) of Air Wing are attached to various Air Force Stations.

13.12 **Microlite Flying:** Microlite flying is being conducted in NCC with a view to give air experience to the Air Wing NCC cadets (SD/ SW). At present Microlite flying facilities are provided at 51 NCC Air Squadrons across all the States of the country with the help of 45 Zen air Microlite and 6 'X'-Air Microlite aircraft.

13.13 **Pre-Commission and Refresher Courses for Air Wing ANOs:** Every year 3 Pre-Commission Courses of 8/9 weeks duration each and 3 Refresher Courses of 4 weeks duration each for Air Wing Associate NCC Officers (ANOs) are conducted at Air Force Station Tambaram. Approximately 210 Air Wing ANOs attend the subject courses every year.

13.14 **Naval Ship Attachment:** 295 cadets of Naval Wing embarked onboard Naval Ships at Mumbai, Kochi and Visakhapatnam for training and attachment for a period of 12 days. Cadets were imparted intensive naval training in various naval subjects and got opportunity to see naval exercises at sea.

13.15 **Foreign Cruises:**

(a) **Naval Cruise:**

(i) 10 Cadets and 1 supervisory staff visited Singapore, Phuket and Yangon from April 2 to May 10, 2014 on board Naval Ships.

(ii) 10 Cadets and 1 supervisory staff visited Muscat (Oman), Dubai (UAE), Manama (Bahrain) and Al Juabi (Saudi Arabia) from September 27 to October 30, 2014.

(b) **Coast Guard:** 3 NCC cadets and 1 supervisory staff visited Maldives and Port of Male from April 2 to 12, 2014.

13.16 **Naval Academy Attachment Training:** An Annual Training Camp for 170 SW cadets was conducted at INA Ezhimala. Attachment for 25 SD cadets was conducted at Indian Naval Academy Ezhimala from December 10 to 21, 2014.

13.17 **Technical NCC Camp for Naval Wing:** 70 SD/ SW Cadets from Engineering Colleges at Chennai attended the Annual Technical Camp from June 23 to July 5, 2014. The cadets were taken to Naval Engineering Establishments at INS Valsura, Shivaji and Naval Dockyard at Mumbai on study tour.

13.18 **Sea Sorties:** With effect from this year, cadets are put on board Naval Ships for short sea experience. 245 cadets have been on sea sorties at Kochi, Chennai, Porbandar and Jamnagar during the period from September 27 to November 7, 2014.

ADVENTURE TRAINING

13.19 **All India Sailing Regatta at Chilka:** 48 SD and 48 SW Cadets from all NCC Directorates (except J&K Directorate) participated in All India NCC Sailing Regatta conducted at INS Chilka from November 11 to 18, 2014. One officer and six cadets from Bangladesh NCC also attended the Regatta.

13.20 **Sailing Expedition:** Sailing Expedition is an interesting feature of the Naval Training. Each NCC Directorate undertakes at least one sailing expedition for a period of 12 days covering a total distance of 400

to 500 kms. 40 to 60 cadets from each Directorate participate in the event. A total of 12 expeditions were conducted by different NCC Directorates in the year 2014-15.

13.21 **Scuba Diving:** This year Scuba Diving Camp was conducted at Karwar from August 5 to 14, 2014 in which 30 SD cadets participated.

13.22 **Mountaineering Expeditions:** Dte Gen NCC launches two expeditions every year, one each for the girl and boy cadets. 20 SD/ SW cadets participate in the expedition. In the year 2014, NCC Boy Cadets attempted Bhagirathi-II in May, 2014 and Girl Cadets scaled Rudugaira Peak in September, 2014.

13.23 **Trekking Expeditions:** A total of 28 trekking expeditions have been conducted by NCC Directorates with total participation of 14000 cadets.

13.24 **Para Basic Courses:** Every year 40 boy and 40 girl cadets are nominated for Para Basic course held at Para Training School, Agra. During the training year 2014-15, 40 SD and 40 SW cadets attended the course.

13.25 **Slithering:** 90 cadets were trained in Slithering during the year 2014-15 and 20 SD and 20 SW cadets participated in the slithering demonstration during NCC PM's Rally 2015.

13.26 **Desert Camel Safari:** Desert Camel Safari is conducted by Rajasthan Directorate in the deserts of Jaisalmer every year. In training year 2014-15, 2 officers and 10 cadets from Singapore and 1 officer and 12 cadets from Kazakhstan alongwith 20 Indian cadets participated in Desert Camel Safari from November 18 to 29, 2014.

YOUTH EXCHANGE PROGRAMME (YEP)

13.27 **Out-Going YEP Visits:** 9 YEP visits were undertaken during the year 2014-15 as given below:-

S.No.	Country	Officers	Cadets
(a)	Singapore	2	20
(b)	Russia	2	25
(c)	Sri Lanka – I	2	12
(d)	Sri Lanka – II	1	6
(e)	Bhutan	2	8
(f)	Bangladesh	2	20
(g)	Vietnam	2	13
Total		**13**	**104**

13.28 **In-coming YEP Visits:** The following incoming YEP visits by foreign delegations were undertaken during the year 2014-15:

S.No.	Country	Officers	Cadets
(a)	Singapore and Kazakhstan NCC cadets for Desert Safari	4	22
(b)	Bangladesh (Sailing Regatta)	1	6
(c)	Bangladesh (Belgaum Trek)	1	8
(d)	Sri Lanka (Shivaji Trail Trek)	1	6
(e)	Delegation from 08 foreign countries attended RDC – 2015 (Bhutan, Kazakhstan, Bangladesh, Singapore, Nepal, Sri Lanka, Vietnam and Russia).	12	100
(f)	HODs from Bangladesh, Nepal, Sri Lanka, Singapore, Kazakhstan, Vietnam, Bhutan and Russia.	8	0
Total		**27**	**142**

Social Service and Community Development

13.29 **General:** Social Service and Community Development activities are undertaken in NCC with the aim of making cadets imbibe the qualities of selfless service to the community, dignity of labour, importance of self help, need to protect the environment and to assist in upliftment of weaker sections of the society. This is carried out through programmes involving adult education, tree plantation, blood donation, visit to Old Age Homes, Orphanages, slums, village upliftment and various other social schemes. Major activities in which NCC cadets participated are given in subsequent paras.

13.30 **Tree Plantation:** NCC cadets plant saplings and thereafter maintain them in conjunction with the concerned State Department/ Colleges/ Schools and Villages. This year as part of environment protection and preservation drive, cadets planted about 1,61,889 saplings all over the country.

Cadets Planting a Sapling during Tree Plantation Drive

13.31 **Blood Donation:** NCC cadets have been donating blood as voluntary service whenever needed by Government hospitals. This year 16,043 NCC cadets voluntarily donated blood.

13.32 **Old Age Homes:** Like previous years, this year also cadets provided their services to old age homes.

13.33 **AIDS Awareness Programme:** NCC cadets participate actively in the AIDS/ HIV awareness programme and are carrying out AIDS awareness programmes throughout the country. Lectures and interactive sessions on HIV/ AIDS are also being conducted during various camps.

13.34 **Anti-Dowry and Anti-Female Foeticide Pledge:** NCC cadets all over the country took a pledge on Anti-Dowry and Anti-Female Foeticide. About 30,000 NCC cadets participated in rallies and awareness campaigns.

13.35 **Anti-Drug Rally:** 74,049 NCC cadets all over the country participated in Anti-Drug rallies organized in major cities and towns in the country.

13.36 **Pulse Polio Immunisation:** NCC cadets participated in numerous Polio eradication programmes launched by the Government all over the country as per National schedule. 46,310 NCC cadets actively participated in the same.

13.37 **Anti-Leprosy Drive:** NCC cadets have launched anti-leprosy drive throughout the country and are helping various voluntary/ Governments Organisations in this field.

13.38 **Cancer Awareness Programme:** 45,952 NCC cadets actively participated in Cancer Awareness Programme organized in various cities.

13.39 **Anti-Tobacco Drive:** 19,675 NCC cadets actively participated in 'No Tobacco Day' observed on May 31, 2014. On this day, all State NCC Directorates organized

numerous rallies/street shows/plays by NCC cadets to spread awareness among

13.40 **Adoption of Villages/ Slum Areas:** NCC has adopted 1047 villages/ slum areas in different parts of the country to induce all round and inclusive growth of those villages/ areas. This also provides an opportunity to NCC cadets to identify themselves with different sections of society and people living in villages.

13.41 **Swachh Bharat Abhiyaan:** NCC cadets have been carrying out 'Cleanliness Drive' and 'Safe Sanitation' Awareness Campaign under Swachh Bharat Abhiyaan.

SPORTS ACTIVITIES AT NATIONAL LEVEL

13.42 **NCC National Games:** NCC National Games were held in New Delhi from October 7 to 19, 2014. The shooting championship as part of the NCC National Games was held at Asansol from September 8 to 19, 2014. A total of 2100 cadets participated in Football, Hockey, Table Tennis, Badminiton, Athletics, Kho-kho, Kabaddi and Shooting Competition. NCC Directorate West Bengal & Sikkim were the overall champions and NCC Directorate, Odisha the Runner up.

13.43 **Jawahar Lal Nehru Hockey Cup Tournament:** NCC teams of Junior Boys, Junior Girls and Sub-Jr Boys categories participated in the prestigious Jawaharlal Nehru Hockey Tournament 2014, where they played against some of the best teams in the country and some foreign teams.

13.44 **Subroto Cup Football Tournament:** NCC teams of Junior Boys, Junior Girls and Sub-Junior Boys categories participated in the prestigious Subroto Cup Football Tournament 2014, where they played against some of the best teams in the country and some foreign teams. Maharashtra Directorate in Sub Junior Boys, NER Directorate in Junior Boys reached the Quarter finals, and NER Directorate Junior Girls reached the semi-finals of the tournament.

13.45 **All India GV Mavlankar Shooting Championship:** Firing being one of the core training activities of NCC, shooting discipline enjoys special place in NCC sporting activities. NCC shooting teams have been performing well in the event for the last many years and this year 43 cadets participated. They won 3 Gold, 3 Silver and 4 Bronze medals in XXIVth All India GV Mavlankar Shooting Championship Competition-2014.

13.46 **National Shooting Championship Competition:** Every year NCC Shooting teams participate in the prestigious National Shooting Championship Competition. This year it was conducted from December 12 to 24, 2014 and 26 NCC shooters were selected for the 58th National Shooting Championship Competition. The team won a bronze medal.

14

DEFENCE COOPERATION WITH FOREIGN COUNTRIES

Meeting with delegation led by Spanish Defence Minister

Defence cooperation is an important part of diplomacy to strengthen our bilateral cooperation with friendly foreign countries and to advance our foreign policy objectives.

14.1 Defence cooperation is an important part of diplomacy to strengthen our bilateral cooperation with friendly foreign countries and to advance our foreign policy objectives. It encompasses activities undertaken by the Ministry of Defence and the Armed Forces to avoid hostilities, build and maintain trust and make significant contribution towards conflict prevention and resolution. Defence cooperation activities are undertaken either as part of bilateral Defence Cooperation MoUs/ Agreements concluded with foreign countries or as a part of structured mechanism for interactions between civilian and military defence establishments of India and friendly foreign countries or on specific case to case basis arising out of the requirements of engaging foreign countries in pursuance of overall defence and security objectives. The present gamut of defence cooperation activities involve high level defence related visits, joint exercises, training, service to service talks, interactions through structured foras etc.

14.2 India continued to support **Afghanistan** in its endeavour to stablise its security situation. India has been assisting Afghanistan National Army (ANA) in building its capacity through military training courses, medical training and medical assistance. General Karimi, Chief of Afghan National Army (ANA) visited India in August 2014. A 10 member strategic group led by Sh. E. Nazari, First Dy. Defence Minister visited India from November 10-20, 2014. General Karimi, CGS, ANA again visited India from December 11-13, 2014 to review passing out parade at IMA Dehradun.

14.3 Defence cooperation with **Bangladesh** has been strengthened by high level bilateral visits and exchange of defence related training courses. Annual staff talks between the Army, Navy and Air Force have provided an opportunity to understand the doctrines of the Armed Forces of Bangladesh and explore the areas of cooperation. The Chief of Naval Staff (CNS) visited Bangladesh from February 16-19, 2015. The Chief of Air Staff of Bangladesh Air Marshal Muhammad Enamul Bari visited India from September 17-20, 2014. The joint exercises between the two armies were held at Sylhet. A Decota Air Frame was handed over to Bangladesh Air Force as a gift in February, 2015 in Dhaka by AOC-in-C, Eastern Air Command.

14.4 India has close defence relations with **Bhutan** that have matured over the years and are characterized by trust and understanding. It includes training of Bhutanese armed force personnel and strengthening of defence infrastructure. Chief of Army Staff (COAS) visited Bhutan from October 31 to November 2, 2014 and met Prime Minister of Bhutan, the King of Bhutan and his counterpart during the visit.

14.5 The defence cooperation with **China** got further boost by declaration of 2014 as

the "Year of Friendly Exchanges". The COAS in his capacity as Chief of Staff Committee (COSC) paid a goodwill visit to China from July 2-5, 2014. The 6th Annual Defence Dialogue was held at New Delhi from February 22-25, 2014. Defence Secretary led the delegation from Indian side and Lt. Gen Wang Guanzhong, Deputy Chief of General Staff of the Chinese People Libration Army led the Chinese delegation.

14.6 The defence exchanges from China to India in 2014 included the visit of 8 member border delegation led by Lt Gen Qi Jainguo, Dy.CGS (MO) from April 22-23, 2014. A 8 member delegation led by Lt Gen Zhu Fuxi, Political Commissar, CMAC visited India from September 22-26, 2014. A 25 member delegation led by Maj Gen He Hangjun, Dy Chief of Personnel Division of General Political Department visited from December 20-25, 2014. A 12 member delegation led by Sr. Col Chu Wei Wei visited from August 11-13, 2014. A 6 member delegation led by Sr. Col Geng Yensheng, Chief of Information Affairs Bureau, Ministry of National Defence visited from July 2-5, 2014. General Zhang Youxia, Director of the General Armament Department of the PLA visited India from February 27 to March 2, 2015.

14.7 Exchanges from India to China included the visit of a 2 member delegation led by ACOP (HRDA) that participated in WPNS symposium held at Qingdao from April 21-24, 2014. INS Shivalik made a port call at Qingdao port from April 21-24, 2014. A 2 member Navy delegation visited from December 9-12, 2014. A 5 member Air Force delegation visited from July 22-25, 2014. A 8 member Army delegation led by GoC, 3 Infantry Division visited from October 21-24, 2014. A 8 member Army delegation led by GoC-in-C, Eastern Command visited from November 10-14, 2014. A 15 member Tri Service Young Officers level delegation visited from August 19-22, 2014. Joint exercise 'Hand in Hand' with PLA was conducted in China from November 16-27, 2014.

14.8 India has warm ties with **Egypt** since independence. The 5th meeting of Joint Defence Committee (JDC) was held in Cairo, Egypt from January 12 to 13, 2015. The Indian delegation was led by Additional Secretary, Ministry of Defence and the Egyptian side was led by Brigadier Tawfik Khalid Saeed, Chief of Planning Branch in the Operations Authority. Scientific Advisor to R M visited Egypt in November, 2014 and had a fruitful visit. A six-member delegation from Military Training College of Egyptian Army visited CME, Pune from April 7-13, 2014.

14.9 India and **France** continue to share cordial and mutually beneficial defence relations. Mr. Jean-Yves Le Drian, French Defence Minister visited India on December 1, 2014 and again on February 24, 2015. The Chiefs of French Air Force and the French Navy visited India in June, 2014 and November, 2014, respectively. Joint Air Force exercise Garuda was conducted in India from June 2-13, 2014. Defence Secretary led an Indian delegation to France from January 11-13, 2015 for participation in the meeting of the High Committee on Defence Cooperation.

14.10 India shares friendly defence relations with **Germany**. A German delegation led by Dr. Ralf Brauksiepe, Parliamentary State Secretary visited India from July 9-10, 2014 for participating in the 7th High Defence

Committee (HDC) meeting. The HDC meeting was co-chaired by Defence Secretary from the Indian side.

14.11 India's relations with **Indonesia** have remained cordial. The 23rd cycle of Coordinated Patrol (CORPAT) between the Navies of India and Indonesia was conducted from September 9-29, 2014. Chief of Air Staff (CAS) visited Indonesia in November, 2014. The 4th Army-to-Army Staff talks were held in New Delhi on February 11-13, 2015.

14.12 The Defence relations with **Israel** have been cordial and friendly. The 11th meeting of the Israel – India Joint Working Group (JWG) was held in Tel Aviv on June 30, 2014. The Indian delegation was led by Defence Secretary while the Israeli delegation was led by Maj Gen (Retd.) Dan Harel, Director General of the Israeli Ministry of Defence. Defence Minister of Israel Mr. Moshe (Bogie) Ya'alon visited Aero India – 2015 at Bengaluru and held discussions with RM on further strengthening the defence cooperation. He also called on the Hon'ble Prime Minister.

14.13 Defence relations with **Malaysia** have been cordial. The 5th round of Army Staff Talks with Malaysia was held from November 27-28, 2014 in Malaysia.

14.14 Defence cooperation with **Maldives** is guided by the common maritime security concerns of both the countries. Mr. Mohd. Nazim, Minister of Defence of Republic of Maldives visited India from October 20-23, 2014 and called on Raksha Mantri. COAS visited Maldives from May 8-10, 2014. The Joint Army exercise EKUVERIN was held from November 17-30, 2014. India continued to assist Maldives in imparting training to its personnel from Maldives National Defence Forces.

14.15 Operation Neer was launched to overcome the fresh water crisis arising out of breakdown of desalination plant at Male. The Navy / ICG ships and Air Force ferried packaged fresh water to Maldives in December, 2014. SAR assistance was also provided by Indian Coast Guard by providing one Dornier in search and rescue of boat 'Coral Craft' which capsized 30 nm West of Baa Atoll.

14.16 Our bilateral relations with **Mongolia** have been friendly, cordial and trouble free. The 10th Joint Exercise 'Ex-Nomadic Elephant' between the Indian Army and Mongolian Armed Forces was held in India during January 26 – February 3, 2015.

14.17 India has historic close relations with **Mauritius**. Defence cooperation between the two countries has been strengthened through trainings, exchange visits, hydrography, port calls by Indian ships, deployment of defence assets etc. Chief of Naval Staff visited Mauritius from January 19-22, 2015. Shri D.I. Ramprasad, Commissioner of Police, Mauritius visited India from September 29, 2014. Indian Navy participates in the Independence Day celebrations of Mauritius on 12th March every year. OPV Barracuda constructed at GRSE Kolkota is ready to be commissioned in February, 2015.

14.18 Defence cooperation with **Myanmar** was strengthened during 2014. Training to the defence personnel from Myanmar was imparted in India and special training in English was imparted by Indian trainers at Defence Service Academy of Myanmar.

Navy-to-Navy joint exercise was held from February 13 -20, 2014. Training ships INS Taringini and CGS Vijaya made port calls at Yangoon. The 5th Regional Border Meeting was held in Limakhong, India from July 24-26, 2014 and the 6th RBC meeting was held at Kallay, Myanmar from February 4-6, 2015. These meetings further strengthened the defence cooperation specially in the management of the long border between the two countries.

14.19 India enjoys strong defence relationship with **Nepal**. Large number of defence personnel from Nepal avail training in defence institutions in India every year. The Chief of Army Staff visited Nepal from November 12-15, 2014. Lt.Gen SJB Rana, Chief of Army Staff, Nepal Army visited India from June 11-17, 2014. The 3rd battalion level Army exercise was held from August 17-31, 2014 at Pithoragarh.

14.20 During his visit to Nepal, the Prime Minister of India handed over 1 ALH to the Prime Minister of Nepal for the use of Nepalese Army on November 26, 2014.

14.21 India and **Nigeria** share friendly ties. The 2nd meeting of the Joint Defence Committee was held at Abuja, Nigeria on May 7, 2014. The Indian delegation was led by Joint Secretary (PIC). The Nigerian defence personnel participated in the training programmes in various defence institutions in India during the year.

14.22 India maintains cordial defence relation with **Oman**. The 7th India – Oman Joint Military Cooperation Committee (JMCC) meeting was held in New Delhi on January 29-30, 2014. The Indian side was led by the Defence Secretary while Mr. Mohamed bin Nasser Al – Rasby, Secretary General, Ministry of Defence, Sultanate of Oman led the Omani delegation. The 6th Air-to-Air Staff Talks were held in New Delhi from May 1-2, 2014.

14.23 Our relations with **Qatar** have been friendly. The 4th India - Qatar Joint Defence Committee (JDC) meeting was held in New Delhi on January 6, 2015. The Indian side was led by Joint Secretary (PIC) and the Qatari side was led by Brig Mohd Mahmoud A. AlSowaidi, Director, International Cooperation, Qatar Armed Forces, Ministry of Defence of the State of Qatar.

14.24 India and **Russia** share long standing defence relationship, based on mutual trust and understanding. Russia is the only country with which India has an institutionalized annual defence cooperation mechanism at the level of Defence Ministers of the two countries. The 14th meeting of the India-Russia Inter-Governmental Commission on Military Technical Cooperation (IGIRC-MTC) was held in New Delhi on January 21, 2015. The meeting was co-chaired by Raksha Mantri and Mr. S.K. Shoigu, Minister of Defence of the Russian Federation. The Defence Ministers of both countries signed a

Minister of Defence and General of Army of Russia and Raksha Mantri signing a Memorandum of Understanding

Protocol at the conclusion of the 14th IRIGC-MTC meeting. During this visit, both sides also signed an Agreement on Cooperation in Flight Safety. Both sides also signed an agreement for Training of Indian Armed Forces Personnel in the Military Educational Establishments of the Defence Ministry of the Russian Federation on December 11, 2014 on the sidelines of the Annual Summit Meeting between the President of Russia and the Prime Minister of India.

14.25 The Russian Deputy Prime Minister Dmitry Rogozin visited India and met Raksha Mantri during his visit to India on June 18, 2014 and discussed bilateral military technical cooperation issues. The 7th meeting of the India-Russia High Level Monitoring Committee was held in New Delhi on June 5, 2014. The meeting was co-chaired by Defence Secretary and Mr. Alexander V.Fomin, Director, FSMTC, Russia.

14.26 Joint exercise Indra was held between armies of both sides in Russia in September-October, 2014, Joint Navy exercise was held in July, 2014 and Joint Air Force exercise Avia INDRA was held in two phases in Russia during August 25- September 5, 2014 and in India during November 17-28, 2014. For the first time, Indian Army participated in Tank Biathlon held in Russia in July-August, 2014. India also participated in the Moscow Security Conference held in May, 2014 at the level of Additional Secretary.

14.27 India and **Seychelles** have close defence relationship marked by high level visits, training exchanges, supply of defence assets, hydrography, etc. Army-Army exercise 'LAMITYE' is held biennially. INS Sukanya and INS Trishul made port calls in 2014. CNS visited Seychelles in November, 2014 and handed over INS Tarasa after the refit. IN ships participated in Seychelles National day celebrations.

14.28 Defence relations between India and **Singapore** have been growing steadily during the recent years. Dr. Ng Eng Hen, Defence Minister of Singapore visited India and met Raksha Mantri on August 19, 2014 and held fruitful discussions on various aspects of bilateral ties. The 9th India- Singapore Defence Policy Dialogue (DPD) was held in Singapore on September 4, 2014. Defence Secretary led the Indian delegation while Singaporean delegation was led by Mr. Chan Yeng Kit, Permanent Secretary for Defence, Ministry of Defence, Singapore. The 10th Navy-to-Navy Staff Talks were held at New Delhi from November 10 to 12, 2014. The 10th Army-to-Army Staff Talks were held in India from January 21-23, 2015.

14.29 Defence Exchanges with **Sri Lanka** include training exchanges, joint exercises and high level bilateral visits. CAS visited Sri Lanka from July 15-18, 2014. Vice Admiral Jayantha Perera, CNS Sri Lanka visited India from October 26-29, 2014. Joint Exercises were conducted by the two Armies and Navies. Trilateral exercise 'DOSTI' involving Indian Coast Guard, Sri Lankan Coast Guard and Maldives National Defence Forces was conducted in Maldives from October 28-31, 2014. Staff talks were held by the Army,

Navy and Air Force with their counterparts.

14.30 The Second Annual Defence Dialogue was held at Colombo on October 9, 2014. The Indian side was led by Defence Secretary and Sri Lankan side was led by Shri Gotabaya Rajapaksa, SL Defence Secretary. This mechanism has further strengthened the defence cooperation with Sri Lanka.

14.31 India has traditionally warm relationship with **Tanzania**. Mr. Hussein Ali Mwinyi, Minister of Defence of Tanzania visited Aero India – 2015 held at Bengaluru from February 17-22, 2015 and held discussions with RM on the on-going defence cooperation between the two countries.

14.32 The Defence Cooperation with **Thailand** has been progressing well. The 3rd India-Thailand Defence Dialogue was held in New Delhi on May 8, 2014. Additional Secretary led the Indian side while Air Chief Marshal Songtam Chokkanapitag, Dy. Permanent Secretary for Defence, Ministry of Defence, Thailand led the Thai delegation. The visiting dignitary also called on Defence Secretary. Gen Tanasak Patimaprakorn, Chief of Defence Forces, Royal Thai Armed Forces visited India and met Raksha Mantri on June 30, 2014. The 19th cycle of Coordinated Patrol [CORPAT] between the Indian Navy and the Royal Thai Navy was held in November, 2014. Service-to–Service interactions have been going on satisfactorily. The 5th Air-to-Air Staff Talks were held in New Delhi from September 9-11, 2014. The 7th Navy-to-Navy Staff Talks were held from January 14-15, 2015 in Thailand.

14.33 The 7th India – UAE Joint Defence Cooperation Committee (JDCC) meeting was held in New Delhi on December 15, 2014. The meeting was co-chaired by Joint Secretary (PIC) and Brig Gen Mohammed Murad Hasan Al Baloushi, Joint Logistics Commander, GHQ Armed Forces, UAE.

14.34 Bilateral defence cooperation dialogue between India and the **United Kingdom** was established with the signing of the Terms of Reference for the 'Defence Consultative Group' (DCG) in 1995. Since then, the defence relations between India and UK have been growing steadily. There are regular exchanges of high level visits, training and expert exchanges and joint projects for defence production between the two countries.

14.35 Defence Secretary led an Indian delegation to UK from February 11-12, 2015 for participation in the DCG meeting. Indian Army participated in Exercise Cambrian Patrol in UK from October 17-26, 2014. The Chief of Air Staff visited UK in September, 2014 and the UK Chief of Army visited India from February 8-10, 2015.

14.36 India's defence relations with **United State of America (USA)** are an important element of the broader strategic partnership between the two countries. The bilateral defence cooperation is progressed through regular conduct of military cooperation activities, expert exchanges, exchanges of high level visits, cooperation in defence research and regular conduct of joint exercises.

14.37 During the visit of Defence Secretary Mr. Chuck Hagel to India in August, 2014, both sides agreed to establish a Defence Technology and Trade Initiative (DTTI) Group to identify projects for co-development and co-production of unique and exceptional defence technologies and to address process issues on both sides. The DTTI Group is co-chaired by Secretary (Defence Production) on the Indian side and on the US side by Mr Frank Kendall, Under Secretary (Acquisition, Technology and Logistics). Two meetings of this Group have been held in September, 2014 in the US and in January, 2015 in India.

14.38 A joint Army exercise 'Yudh Abhyas' was held in the USA from September 17-30, 2014. Indian Navy also participated in the exercise RIMPAC in Hawaii (USA) from June 25 – August 1, 2014. Joint Navy Exercise Malabar was held off the coast of Japan from July 27-30, 2014. Japan had also participated in this exercise.

14.39 Defence Secretary led an Indian delegation to the USA from October 28-29, 2014 for participation in the meeting of the Defence Policy Group. Both sides signed the Research, Development, Technology and Evaluation (RDT&E) Agreement in New Delhi on January 22, 2015.

14.40 India – **Vietnam** relations have been friendly and cordial. The 2nd meeting of the Joint Working Group with Vietnam was held on June 19-20, 2014 in Vietnam. Joint Secretary (PIC) led the Indian delegation while the Maj Gen VU Chien Thang, Director General of the Department of Foreign Relations led the Vietnamese delegation. The 3rd meeeting of Joint Working Group was held on January 15, 2015 in New Delhi. The 9th India-Vietnam Security Dialogue was held in New Delhi on January 16, 2015. Defence Secretary led the Indian delegation while Col Gen Nguyen Chi Vinh, Deputy Minister of Defence led the Vietnamese delegation.

15

CEREMONIAL AND OTHER ACTIVITIES

Republic Day Ceremony

Ministry of Defence encourages and promotes both academic and adventure activities through autonomous institutions which are provided regular financial assistance.

15.1 Ministry of Defence encourages and promotes both academic and adventure activities through autonomous institutions which are provided regular financial assistance. These institutions are:

(i) The Institute for Defence Studies and Analyses, New Delhi;

(ii) Mountaineering Institutes at Darjeeling and Uttarkashi; and

(iii) The Jawahar Institute of Mountaineering and Winter Sports (JIM) at Pahalgam.

15.2 The important activities of these institutions during the period under review are enumerated in the succeeding paragraphs.

INSTITUTE FOR DEFENCE STUDIES AND ANALYSES (IDSA)

15.3 The Institute for Defence Studies and Analyses (IDSA), established in November 1965, is a registered body under the Registration of Societies Act III of 1860 (Punjab Amendment Act 1957) as amended from time to time. The Institute is a non-partisan, autonomous body dedicated to objective research and policy relevant studies on all aspects of defence and security with a mission to promote national and international security through the generation and dissemination of knowledge on defence and security-related issues.

15.4 During the year, the IDSA kept a sharp eye on the regional and global developments having a bearing on India's security and foreign policy. IDSA has expanded its research to focus on emerging issues such as climate change, energy, water security as well as cyber and space security. The Institute analysed in depth the emergence of new challenges and India's responses. Special attention was paid to defence reforms, interface between Ministry of Defence and Indian Defence industry and numerous security dialogues initiated by the Government. Developments in the neighbourhood remained a priority area for IDSA scholars. A large number of books, monographs, papers were brought out during the year. A special effort was made to regenerate interest in indigenous knowledge in strategic affairs. Study of Kautilya's Arthashastra has been taken up with due seriousness.

15.5 IDSA's outreach activity has expanded considerably. A number of eminent persons and delegations from abroad were hosted at the IDSA. Prominent think tanks and universities were also engaged. IDSA's website has become a veritable source of information on a wide range of security and defence issues for researchers, students and public alike. Social media tools have been used extensively to enhance IDSA's reach.

15.6 In order to give policy thrust to IDSA's research output, a conscious effort was made to enhance interaction with policy makers. A number of research projects were undertaken on behalf of various government departments. IDSA has a large publications programme. Its flagship journal, Strategic Analysis and the quarterly Journal of Defence Studies emerged as major sources of reference.

15.7 IDSA is funded by the Ministry of Defence and functions autonomously. IDSA Scholars are drawn from academia, the defence forces and the civil services. The

research faculty of 53 scholars are organised under 13 Centres. The Institute also hosted 7 Visiting Fellows from various countries under its Visiting Fellowship Programme and 17 Interns under its Internship Programme during the year, which has enhanced its visibility across the globe. 60 IDSA Scholars were invited to attend Seminars, Round Tables and Conferences outside the country during the year.

International and National Conferences/ Seminars/ Dialogues

15.8 The Institute conducted the 8th South Asia Conference on "The Role of Media in Promoting Regional Understanding in South Asia" on October 28 -29, 2014. The Inaugural Address was made by Minister of State (Independent Charge) for Information and Broadcasting, Minister of State (Independence Charge) for Environment, Forest and Climate Change and Minister of State for Parliamentary Affairs via video conferencing.

15.9 **West Asia Conference:** The Inaugural Annual West Asia Conference titled 'Geopolitical Shift in West Asia: Trends and Implications' was held at IDSA on September 10-11, 2014.

15.10 Apart from the above mentioned Annual Conferences, the Institute also organized the following on conferences:

- An International conference on "A nuclear Weapon-Free World: From Conception to Reality" was held on April 2-3, 2014 at IDSA. The inaugural address was delivered by the then Prime Minister.
- An international seminar on "Kautilya" was held in collaboration with the Indian Council of Social Science Research (ICSSR) on April 9, 2014. Former National Security Advisor delivered the keynote address in the inaugural session.
- A conference titled "60th Anniversary of Panchasheel: Relevance for India-China Relations" was held on June 11, 2014, in collaboration with the Embassy of the People's Republic of China in New Delhi.

15.11 **Y.B. Chavan Memorial Lecture:** The 5th Y. B. Chavan Memorial Lecture was delivered by Dr. Madhav Godbole, former Home Secretary, Government of India on December 3, 2014 at the IDSA on the topic 'Securing India's Borders: The Way Ahead'. The lecture was chaired by Shri P C Haldar.

15.12 **Round Table Discussion:** The Institute organized several round table discussion during the year; the details of which are enumerated below:

- Internal Security Situation in Pakistan: An Analysis.
- South Asia and Border Security.
- International Security Situation and Afghanistan Post-US withdrawal.
- India's Foreign Policy Scenario: Post-2014 Election, China and South Asia Regional Dynamics and Afghanistan: Post-US Withdrawal.
- The Sectarian Challenge to Pakistan: Options for India.
- Peace and Security in Africa.
- Effective International and National Water Management - Experiences from Central Europe.

- Future Outcomes in Afghanistan.
- South Asia with emphasis on Nepal and India – Nepal Relations.
- India-US Strategic Partnership, Regional Security and Foreign Policy Issues.
- Social Media: Impact, Challenges and Opportunities for Internal Security and Law and Order.
- India-Vietnam Relations to commemorate the 60th Anniversary of Geneva Accords.
- Outcomes of the Chinese President Visit to India.
- India's Strategic Neighbourhood.

15.13 **Bilateral Interactions:** An important part of the Institute's outreach is the relationship that it has forged and continues to foster with prestigious institutions and think tanks of international repute from around the world. Some of the bilateral interactions undertaken include:

- 10th round of bilateral dialogue with Institute of Political and International Studies (IPIS) held from May 18-21, 2014 at Tehran, Iran.
- 3rd round of bilateral dialogue with Institute for Strategic Studies (ISS), Mongolia held at Ulan Bator on June 26-27, 2014.
- Bilateral dialogue with China Institute of Contemporary International Relations (CICIR) held on June 23-25, 2014 at Beijing.
- 1st Bilateral dialogue with the Institute of Strategic Studies (ISS), Islamabad held in New Delhi on October 24, 2014.
- 1st round of bilateral dialogue with Afghan Institute for Strategic Studies (AISS), Kabul held in New Delhi on June 18, 2014.
- A MoU signed with Afghan institute for strategic Studies (AISS), Kabul in November 8, 2014.

15.14 **IDSA Publications:** Important publications during the year 2014 which were edited and authored by IDSA scholars included:

- The Unfinished War in Afghanistan: 2001-2014 (authored by Vishal Chandra).
- Andaman and Nicobar Islands: India's Untapped Strategic Assets (authored by Sanat Kaul).
- The Other Kashmir: Society, Culture and Politics in the Karakoram Himalayas (edited by K. Warikoo).
- Unending Violence in Pakistan, Analysing the Trends, Pakistan Project Report (edited by Smruti Pattanaik).
- Understanding India's Maoists (authored by P.V. Ramana)
- Strategic Materials: A Resource Challenge for India (authored by Ajey Lele and Parveen Bhardwaj)
- Strategic Himalayas: Republican Nepal and External Powers (authored by Nihar R Nayak)

15.15 **IDSA Website:** IDSA has kept pace with the growing trend of digitalization and all IDSA publications have been posted on the Institute's website. Visitors were given "Open Access" to most of the publications as the same creates a healthier environment

for scholarship and communication. It also helps in exchange of ideas worldwide and preserves the publications in digital form, leading to greater shelf life.

15.16 **50th IDSA foundation Day:** The 50th Foundation Day of IDSA was celebrated on November 11, 2014. Dr. K Radhakrishnan, Chairman of Space Commission, Secretary, Department of Space, Government of India, and Chairman of ISRO delivered this year's lecture on "Contribution of India's Space Programme in Nation Building" and presented the 8th K Subrahmanyam Award and the Presidential Awards for Excellence. The 8th K Subrahmanyam Award was conferred on Dr Manpreet Sethi, ICCR Fellow at CAPS and the Presidents'Award for Excellence was presented to Shri Sam Rajiv, Associate Fellow, IDSA.

MOUNTAINEERING INSTITUTES

15.17 The Ministry of Defence administers, jointly with the concerned State Governments, four Mountaineering Training Institutes, namely, Himalayan Mountaineering Institute (HMI), Darjeeling in West Bengal, Nehru Institute of Mountaineering (NIM), Uttarkashi in Uttarakhand and Jawahar Institute of Mountaineering & Winter Sports (JIM & WS), Pahalgam in J&K and National Institute of Mountaineering and Allied Sports (NIMAS), Dirang in Arunachal Pradesh. These Institutes are run as registered societies and have been conferred the status of autonomous bodies. While Raksha Mantri is President of these Institutes, the Chief Minister of the respective State acts as Vice-President of the Institute. The Institutes are governed by Executive Councils consisting of members elected by General Body of each Institute, nominees from amongst donors and/ or persons who are keen to promote the cause of mountaineering, and representatives of Central and State Governments.

15.18 These Institutes provide an impetus to mountaineering as a sport, give boost to mountaineering and inculcate the spirit of adventure in youth. The broad objectives of the Mountaineering Institutes are:

(a) to impart theoretical knowledge and practical training in mountaineering and rock climbing techniques;

(b) to awaken interest in and love for mountains and exploration among the youth;

(c) to encourage and provide training in Winter Sports; and

(d) to generate a sense of preservation of environment and ecology in the Himalayan region through nature workshops.

15.19 These Institutes conduct courses in the Basic and Advanced Mountaineering, Method of Instruction (MOI), Search & Rescue (S&R) and Adventure. Trainees to these courses comprise personnel from Army, Air Force, Navy, ITBP, BSF, NCC and Indian citizens as well as foreigners. The syllabi, duration, grading and other details for admission to courses are available on the website of these Institutes which are www.hmi-darjeeling.com, www.nimindia.net and www.jawaharinstitutepahalgam.com for HMI, NIM and JIM respectively. Website of NIMAS is under process. E-mail of the Institute is nimasdirang2013@ gmail.com.

15.20 The regular courses conducted by the Institute and number of men and

women trained in these courses from April to December 2014 are given in Table No. 15.1.

15.21 HMI also conducted one special Basic Mountaineering Course for 20 person and 7 Adventure Courses for 409 persons.

15.22 NIM conducted 14 Special Courses including expeditious and trained 580 personnel.

15.23 JIM conducted 30 Special Environmental Courses and trained 907 men and 860 women. JIM also conducted 2 Major Expeditions of Gents Ladies to Mt Golap Kangri (6025 Meters) and Mt Stok Kangri (6135 Meters) for 69 men and 12 women.

15.24 NIMAS conducted expedition to Point 5880 Meters with 21 members and Reece expedition to Mt Kangto to 6042 Meters with 9 members.

CEREMONIAL, HONOURS AND AWARDS

15.25 The responsibility for organising National functions like the Republic Day Parade, Beating Retreat Ceremony, Martyr's Day and the Independence Day rests with Ministry of Defence. The Ministry also organises the Defence Investiture Ceremonies for presentation of Gallantry and Distinguished Service Awards at Rashtrapati Bhawan in association with the President's Secretariat. The Ceremonial functions organised during 2014-2015 are detailed in the following paragraphs.

15.26 **Independence Day Flag Hoisting Ceremony:** The celebration of the Independence Day began with singing of patriotic songs in different Indian languages by the School children's choir at Red Fort. The three Services and Delhi Police presented the Guard of Honour to the Prime Minister. Thereafter, the Prime Minister unfurled the National Flag on the Ramparts of the Red Fort to the accompaniment of the National Anthem played by the Services Band. A Gun Salute was presented on the occasion. After the Prime Minister's Address to the Nation, the ceremony concluded with the singing of National Anthem by school children and the NCC cadets followed by release of balloons. Later, during the day, the President laid a wreath at the Amar Jawan Jyoti at India Gate to pay homage to those who sacrificed their lives for the freedom of the motherland.

Table No. 15.1

Institute	Basic Course		Advanced Course		Adventure Course		MOI Course		S&R Course	
	No. of Courses	No. of Trainees	No. of Courses	No. of Trainees	No. of Courses	No. of Trainees	No. of Courses	No. of Trainees	No. of Courses	No. of Trainees
HMI	05	327	03	135	01	124	01	18	--	-
NIM	05	371	03	94	05	212	01	32	01	44
JIM	06	465	01	75	43	1443	-	-	-	-
NIMAS	02	30	-	-	04	95	-	-	-	-

15.27 The Gallantry Awards announced on the eve of the Independence Day-2014 are given in Table No. 15.2.

Table No. 15.2

Award	Number of Awards	Posthu-mous
Ashoka Chakra	01	01
Shaurya Chakra	12	04
Sena Medal (G)	39	04
Nao Sena Medal (G)	01	-
Vayu Sena Medal (G)	02	-

15.28 **Vijay Diwas:** Vijay Diwas was celebrated on December 16, 2014. On this occasion, the Raksha Mantri laid a wreath at the Amar Jawan Jyoti at India Gate.

15.29 **Amar Jawan Jyoti Ceremony, 2015**: The Prime Minister laid a wreath at the Amar Jawan Jyoti at India Gate in the morning of January 26, 2015. A two minute silence was observed for paying homage to those who laid down their lives in safeguarding the integrity of our nation.

15.30 **Republic Day Parade, 2015:** The unfurling of the National Flag at Rajpath marked the beginning of Republic Day Parade. The President's Body Guards presented the National Salute followed by the National Anthem played by the Service Bands and a 21 gun salute. The Hon'ble Mr. Barack Obama, the President of the United States of America was the Chief Guest on the occasion.

15.31 Mounted columns of 61 Cavalry, mechanised columns comprising of Tank T-90, Ballbway Machine Pikate (BMPII/IIK), Tank T-72 with Trawl, PINAKA, BRAHMOS, 3-Dimensional Tactical Control Radar, Satellite on the Move (SOTM), RADSAT, Fly past by Advanced Light Helicopters, Tableau – Armed Forces Women Mt. Everest Summiteers, marching contingents and bands of the three Services, Para Military Forces, Delhi Police, NCC, NSS etc. were part of the Parade. The DRDO column included Akash (Army Version) and Weapon Locating Radar.

15.32 Out of twenty four children conferred with National Bravery Awards, four were posthumous. Twenty award winning children, seated in decorated Army Jeeps, participated in the Parade. Tableaux of States, Central Ministries/ Departments and cultural items presented by school children were the other attractions of the parade. 25 tableaux and 6 school children items reflected the cultural diversity of the nation. The parade concluded with a motorcycle display by the jawans of BSF followed by an impressive fly past by Indian Air Force.

15.33 The Gallantry and distinguished service awards announced on the Republic Day are given in Table No. 15.3.

Table No. 15.3

Name of the award	Total	Posthu-mous
Gallantry Awards		
Ashoka Chakra	01	01
Kirti Chakra	03	01
Shaurya Chakra	12	04
Sena Medal/Nao Sena Medal/Vayu Sena Medal (Gallantry)	61	19

Distinguished Awards		
Param Vishisht Seva Medal	28	-
Uttam Yudh Seva Medal	03	-
Bar to Ati Vishisht Seva Medal	03	-
Ati Vishisht Seva Medal	53	-
Yudh Seva Medal	13	-
Sena Medal/ Nao Sena Medal/ Vayu Sena Medal (Devotion to duty)	69	01
Bar to Vishisht Seva Medal	04	-
Vishisht Seva Medal	124	-

15.34 **Beating Retreat Ceremony, 2015:** Beating Retreat is a centuries old military tradition practised by the troops at the time of disengaging from battle at sunset. The Beating Retreat Ceremony denotes departure of the troops assembled at Delhi for participating in the Republic Day Celebrations. The ceremony was organised at Vijay Chowk on January 29, 2015, which brought down the curtain on the Republic Day festivities. Bands of the three Services participated in this Ceremony. The conclusion of the ceremony coincided with illumination of the Rashtrapati Bhawan, North Block, South Block, Parliament House and India Gate.

15.35 **Martyrs' Day Ceremony, 2015:** On January 30, 2015, the President laid a wreath at Mahatma Gandhi's samadhi at Rajghat. The Vice President, the Prime Minister, the Raksha Mantri, Raksha Rajya Mantri and other dignitaries also paid floral tributes. This was followed by observance of two minutes' silence at 1100 hours to pay homage to those who sacrificed their lives in India's struggle for freedom.

15.36 **Armed Forces Flag Day (AFFD):** The Armed Forces Flag Day was commenced on December 7, 2014 like every year throughout the country. This day is observed to remember the sacrifices made by our gallant servicemen in defending the integrity of our borders, honour the brave and express solidarity and support towards welfare of widows, children, disabled and sick ex-servicemen.

OFFFICIAL LANGUAGE DIVISION

15.37 An Official Language Division is functioning in the Ministry of Defence for implementation of the official language policy of the Union Government. This Division provides assistance and guidance to the officers and employees of the Ministry of Defence (Secretariat), the three Services Headquarters, all Inter-Service Organizations and Defence Undertakings for proper implementation of the provisions of the Official Language Act and rules made thereunder and the directions/ orders issued by the nodal Department viz. Department of Official Language, Ministry of Home Affairs in this regard from time to time. There are two separate Hindi Advisory Committees constituted under the chairmanship of Raksha Mantri in the Ministry. These Committees are constituted with a view to advise the respective Department(s) of the Ministry on matters relating to the progressive use of Hindi for official purposes. The work relating to official language implementation comprises achieving of targets prescribed by the Department of Official Language every year for the progressive use of Hindi in official work, imparting training of Hindi,

Hindi typing and Hindi Stenography to the officers and staff working in the Ministry, organizing Hindi workshops for the staff to enable them to work in Hindi without any hesitation. The work relating to monitoring includes carrying out official language inspections of subordinate offices, defence undertakings and divisions/sections of the Ministry, organizing quarterly meetings of both the official language implementation committees (OLICs) of the Ministry, taking part in the meetings of OLICs of the three Services Headquarters and Inter-Service Organizations located at New Delhi by senior officers of the Division as representative of the Ministry and reviewing the quarterly progress reports received from the above offices for taking remedial measures.

15.38 **Annual Programme:** Annual Programme for the year 2014-15 received from the Department of Official Language was circulated to all defence organizations for achieving targets laid down therein. Emphasis is being laid on enhancing the original correspondence in Hindi, issuing all communication falling under Section 3(3) of Official Language Act in bilingual form, conducting Hindi workshops regularly and getting the officers/ employees trained in Hindi under the Hindi Teaching Scheme. In the quarterly meetings of the departmental OLICs, progress made in this regard is being reviewed regularly.

15.39 **Translation Work:** Substantial material for translation received from various offices and sections of the Ministry was disposed of during the year which included MP/VIP references, communications issued from Raksha Mantri/ Raksha Rajya Mantri offices, cabinet notes, audit paras, documents submitted to Standing Committee on Defence and Consultative Committee, Annual Report of the Ministry, Parliament Questions, Agreements etc.

15.40 **Meeting of Hindi Advisory Committees:** There are two Hindi Advisory Committee in the Ministry, one for the Department of Defence, Department of Ex-Servicemen Welfare and Department of Defence Research and Development and other for the Department of Defence Production. The tenure of both the Hindi Advisory Committees expired on February 25, 2014 and May 27, 2014 respectively. Process of reconstitution of both the Hindi Advisory Committees under the chairmanship of Raksha Rajya Mantri is in final stage.

15.41 **Incentive schemes for writing books in Hindi on subjects relating to defence:** Entries under the scheme for the block year i.e. 2011-13 were invited by widely circulating and advertising the scheme through newspaper. Evaluation process of the books received is underway.

15.42 **Hindi Pakhwara:** Hindi 'Pakhwara' (fortnight) was held in the Ministry from September 14 to 30, 2014 for encouraging the officers/ employees to use Hindi in their day-to-day official work. A number of competitions were organized during the period, which included Hindi noting and drafting, Hindi typing, Hindi stenography and essay writing competitions etc. In all, 145 officers/ employees participated in the above competitions.

15.43 **Inspections of Parliamentary Committee on Official Language:** Like previous years, the Committee of Parliament on Official Language made inspection tours

of various defence organizations at different stations in the country during the year. The Ministry assisted the offices under inspection by reviewing their questionnaires and suggesting amendments wherever required. Assurances given by the offices at the time of their inspection are being fulfilled as per the directions and requirements of the Committee.

WELFARE OF PERSONS WITH DISABILITIES

15.44 The representation of persons with disabilities in Group 'A', 'B' and 'C' posts in the Ministry of Defence (Department of Defence) and in attached and Subordinate Offices under Department of Defence Production is presented in Table No. 15.4 and Table No. 15.5 respectively.

15.45 **Armed Forces:** Provisions enshrined under Sections 33 and 47 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, lay down safeguards for persons with disabilities in the matter of recruitment and retention in the Service. However, keeping in view the nature of duties performed by the Armed Forces personnel, all combatant posts have been exempted from the applicability of the relevant Sections by virtue of special Notifications issued by the Ministry of Social Justice and Empowerment.

Table No. 15.4

Annual Statement showing the representation of the persons with disabilities in services (As on January 1, 2014)

Representation of Visually handicapped (VH)/ Hearing Handicapped (HH)/ Orthopedically Handicapped (OH) (As on 1.1.2014)					Number of Appointments made during the calendar year 2013											
					By Direct Recruitment				By Promotion				By Deputation			
Groups	Total Emplo-yee	VH	HH	OH	Total	VH	HH	OH	Total	VH	HH	OH	Total	VH	HH	OH
A	1918	0	0	7	82	0	0	5	329	0	0	0	4	0	0	0
B	11423	9	10	64	66	1	2	0	1026	3	2	3	2	0	0	0
C (Excluding Safai Karmchari)	71067	131	186	671	2435	16	16	80	3103	5	2	12	93	0	0	0
C (Safai Karamchari)	6671	3	36	62	288	3	1	5	0	0	0	0	0	0	0	0
Total	**91079**	**143**	**232**	**804**	**2871**	**20**	**19**	**90**	**4458**	**8**	**4**	**15**	**99**	**0**	**0**	**0**

Table No. 15.5

Annual Statement showing the representation of the persons with disabilities in services in Attached and Subordinate Offices under Department of Defence Production (As on January 1, 2014)

Representation of Visually handicapped (VH)/ Hearing Handicapped (HH)/ Orthopedically Handicapped (OH) (As on 1.1.2014)					Number of Appointments made during the calendar year 2013											
					By Direct Recruitment				By Promotion				By Deputation			
Groups	Total Emplo-yee	VH	HH	OH	Total	VH	HH	OH	Total	VH	HH	OH	Total	VH	HH	OH
A	1981	3	8	16	111	0	1	3	72	0	0	0	0	0	0	0
B	22653	24	38	310	20	0	0	2	634	0	2	10	0	0	0	0
C (Excluding Safai Karmchari)	70080	173	210	1255	2373	14	14	82	1623	7	11	83	0	0	0	0
C (Safai Karamchari)	3337	1	9	62	4	1	0	1	90	0	0	0	0	0	0	0
Total	**98051**	**201**	**265**	**1643**	**2508**	**15**	**15**	**88**	**2419**	**7**	**13**	**93**	**0**	**0**	**0**	**0**

15.46 **Department of Defence production:** All Defence Public Sector Undertakings (DPSUs) under the Ministry of Defence have been following the provisions of the Persons with Disabilities (Equal opportunities, Protection of Rights and Full participation) Act 1995 in order to enable persons with disabilities to avail the benefits of reservation. Several concessions and relaxations, in addition to those prescribed by the Governments, are also extended to persons with disabilities.

15.47 **Defence Research and Development Organisation:** DRDO is committed to implement the Government policies and instructions relating to the welfare of persons with disabilities. The 3% reservation in the recruitment and promotion is being provided to the persons with disabilities as per the Government instructions.

Department of Ex-Servicemen Welfare

15.48 **Special Medical Care for Disabled Soldiers:** A number of soldiers become disabled during action or due to accidents and other causes and are invalidated out from service. These ex-Servicemen (ESM) are provided special medical care and training to become self-reliance. The care and rehabilitation of such personnel is undertaken in specialized institutions which are supported financially by Kendriya Sainik Board (KSB) Secretariat out of Armed Forces Flags Day Fund.

16

ACTIVITIES OF VIGILANCE UNITS

Vigilance Division in the Ministry of Defence initiates measures with a view to combating corruption and reviewing procedures.

16.1 The Vigilance Division in the Ministry of Defence has been entrusted with the task of dealing with complaints regarding corrupt practices, misconduct and irregularities in respect of employees of the Ministry of Defence and various units under it. It serves as a nodal point for interaction on behalf of the Ministry of Defence with the Central Bureau of Investigation (CBI), Central Vigilance Commission (CVC) etc. on vigilance related issues and complaints. The Vigilance Division initiates measures with a view to combating corruption and reviewing procedures.

16.2 For administrative convenience, the vigilance work in respect of the Department of Defence (including Department of Ex-servicemen Welfare and Department of Defence Research and Development) and Department of Defence Production is being looked after by their respective Chief Vigilance Officers.

16.3 In accordance with the directives of the Central Vigilance Commission, all Departments/ Organisations/ Units under Ministry of Defence observed Vigilance Awareness Week from October 27 to November 1, 2014 with the intention of emphasizing good governance.

DEPARTMENT OF DEFENCE

16.4 In keeping with the need to ensure transparency, fair play, accountability and integrity, efforts are being made continuously in the Ministry of Defence for sensitization against corrupt practices.

16.5 The Chief Vigilance Officer maintains liaison with all concerned offices to ensure timely completion of various reports/ cases/ tasks relating to vigilance work.

16.6 The Ministry keeps a close watch over vigilance cases pending at different stages including cases pending in the concerned Wings/ Divisions so that such cases are disposed of in a time bound manner. The status of pendency is monitored by the CVO at regular intervals.

16.7 During the period, a total of 10 complaints were referred by CVC, on which action was initiated. 2 complaints were closed during the year. Prosecution sanction was issued against 7 Group 'A' Officers during 2014-15. During the year, one officer was exonerated.

16.8 During the Annual Zonal Review Meeting, 2014 taken by Chief Vigilance Commissioner (CVC) on July 2, 2014 at Satarkta Bhawan, New Delhi, several areas were identified for taking action. CVC stressed upon the need for transparency, fairness and equity in public procurements in the Defence Sector.

DEPARTMENT OF DEFENCE PRODUCTION

16.9 **Ordnance Factory Board (OFB): Preventive Vigilance -** Procurement and Recruitment areas were identified for preventive vigilance and a number of preventive checks and CTE type checks were carried out.

16.10 Systemic improvement measures were undertaken for speedy investigation of complaints. As a result, the number of pending complaints has been significantly brought down. Various training programmes were organized during the year 2014.

Hindustan Aeronautics Limited (HAL)

16.11 The endeavour of Vigilance Department has been to be preventive and proactive through streamlining of procedures and policy interventions. Various vigilance awareness sessions were organized.

16.12 As a part of proactive vigilance initiatives, following booklets, periodicals and reports were issued during the year:

(i) The revised HAL Vigilance Manual.

(ii) The fortnightly bulletin "V2" covering a specific issue in each bulletin to sensitize the employees.

(iii) Two volumes of in-house vigilance magazine "Marg Darshan" on "Promoting Good Governance" and "National Framework to Prevent Corruption".

(iv) "PRAYAS-2", a compendium of Vigilance Interventions and vigilance cases handled.

(v) Comprehensive policy on Corruption Risk Management in HAL with mitigating measures was framed.

(vi) TEJAS TALK, a Video Tutorial on Complaint Handling Policy was brought out.

16.13 **Bharat Electricals Limited (BEL):** Vigilance Awareness Week was observed from October 27 to November 1, 2014 with special address by former Justice N. Santhosh Hegde. Various activities like sapling of plants, sports events, cycle rally, friendly cricket match etc. were organized.

16.14 Following training programmes were conducted by Vigilance Division:

(i) Training Programme for newly inducted/ untrained Vigilance Officers of all DPSUs and OFB was organised by Department of Defence Production (Vigilance) in BEL on September 5 and 6, 2014. Manual for Intensive examination of contracts was prepared by corporate vigilance and was released during Training Program.

(ii) Talks on "Vigilance & Contract", "Emerging Trends on Cyber Crime", "Cyber Laws and Incident Response", "Prevention of Corruption Act,1988", "Abuse of Official Position", "Investigation Skills" and "Interface between CBI & Vigilance" by eminent persons, were organized.

16.15 Following activities were also taken up:

(i) Complaint Handling Policy in line with CVC Circulars and Guidelines was issued by corporate vigilance.

(ii) Five teams were constituted for CTE Type Intensive Examination of Works Contracts, Purchase Orders and Service Contracts.

(iii) CVO, BEL carried out surprise inspection at Pune Unit, BEL - Optromics Bangalore Unit and Panchkula Unit of BEL.

16.16 Corruption Risk Management Policy was issued on August 6, 2014 and implemented in all the Units of BEL. The Vendor Directory has been uploaded in BEL website for greater transparency. About 29 System improvement projects were taken up across all the Units of BEL.

16.17 **Garden Reach Shipbuilders and Engineers Ltd. (GRSE):** GRSE observed Vigilance Awareness Week from October 27 to November 1, 2014. GRSE took active part in the Vigilance Study Circle held on August 29, 2014.

16.18 Structured Meetings with CMD were held at regular intervals to apprise the status of vigilance cases. Sensitive Posts in the Company were identified and notified and a close liaison was maintained with the CBI. Agreed List was also drawn up in consultation with the CBI.

16.19 **Goa Shipyard limited (GSL):** The thrust during the year has been on preventive vigilance and promotion of Vigilance awareness amongst all stake holders. A number of regular inspections and surprise checks of work orders/ purchase orders were carried out in various areas to prevent lapses and violations of the guidelines of the Central Vigilance Commission. Further, following measures were undertaken to assure transparency:

(i) On-line Vendor registration has been introduced.

(ii) Defunct vendors are being identified and deleted from vendor database.

(iii) Newly inducted Management Trainees and Executives were made aware of vigilance set up in Goa shipyard and its functions.

(iv) The Vigilance Awareness Week was observed at Goa Shipyard from October 27 to November 1, 2014. Talk on "Combating Corruption – Technology as an enabler" was organised.

16.20 **Hindustan Shipyard Limited (HSL):** Vigilance Awareness week was observed from October 27 to November 1, 2014. A seminar on "Combating corruption, Technology as an enabler" and Debate competitions were also organized as a part of vigilance awareness week.

16.21 All the purchase contracts, valued more than ₹ 1.00 crore have been covered under Integrity Pact and around 95.5% of purchases are made through e-procurement route. Purchase and Recruitment manuals were updated.

16.22 **Mazagon Dock Limited (MDL):** Vigilance Awareness Week 2014 was observed from October 27 to November 1, 2014 and following activities were organized to spread vigilance awareness:

(i) In-house **Vigilance Journal 'SUCHARITA' Volume XVII** was released.

(ii) An interactive session between CVO and senior executives of MDL and a talk by the representative of Vigilance/DDP, Ministry of Defence was arranged.

(iii) Slogan, Essay and poster making competition on vigilance related topics in Hindi, Marathi & English were organized. An online quiz contest on Vigilance related topics was also held for MDL employees.

(iv) A "Suppliers' Meet" of leading contractors/ suppliers along with

Vigilance officials and Sr. executive of MDL was also arranged on the occasion of celebration of Vigilance awareness week.

16.23 MDL management has issued 6 circulars during year 2014 for systemic improvements accepting suggestions given in Vigilance CTE/ Spot Check Report leading to better Corporate Governance. Surprise/ Spot Checks were conducted by Vigilance Executives and suggestions/ corrective measures were recommended to the management for systemic improvement.

16.24 **Bharat Earth Movers limited (BEML):** Under the Complaint Handling Policy of BEML, Vigilance handled various complaints relating to Conduct of Forward e-Auction, Selection of Service-Provider for Forward e-Auction, Procurement of Medicines on e-Mode, Tendering process for hiring of vehicles at Regional Office and Sub-Contract Tendering process at Production Unit.

16.25 With the objective to protect the Company's Trade Secret & Confidential Business Information, the Exit Interview format has been revised to include a statement by the executives affirming their understanding and compliance to the terms of the non-disclosure agreement on separation or resignation of an executive.

16.26 A team consisting of 3 Vigilance officers has been formed for study and implementation of ISO Standards for the Vigilance Department. Updating of Vigilance Manual has been taken up as part of the process. To mark the observance of the Vigilance Awareness Week-2014 and in sync with the theme 'Combating Corruption-Technology as an enabler', a one day workshop on "e-Procurement" was organized by BEML vigilance department for Senior Executives, Division Heads, Procurement Managers, CIO team and Vigilance Officers.

16.27 **Mishra Dhatu Nigam Ltd. (MIDHANI):** About 90% of procurements are made through e-procurement route. On-line vendor registration has been effected and new Purchase Policy has been operationalized. About 80% payments are made through RTGS. Periodic structured meetings between CMD and CVO are being conducted on important issues related to vigilance.

16.28 As a part of Preventive Vigilance, the following actions were taken by Vigilance Department:

(i) System Improvement Advices were issued from time to time on various subjects.

(ii) A One Day Workshop for Middle level Executives on "Procurement and Common Irregularities" was organised.

(iii) Procurement files are examined on regular basis to ensure transparency and fairness.

(iv) CTE type examination of Scrap Auction and disposal was done with a view to ensure transparency and fairness in deal.

(v) Surprise checks are being conducted in thrust areas to eliminate malpractices.

16.29 Vigilance Awareness Week was observed from October 27 to November 1, 2014. Lectures by eminent external speakers were delivered on Vigilance and Corruption. Essay writing and various competitions were also organized to mark the occasion.

16.30 **Bharat Dynamics Ltd. (BDL):** As a part of proactive vigilance following actions were taken during the year 2014:

(i) Integrated Material Management (Procurement/ Purchase) Manual in line with the spirit of DPP & DPM was revised.

(ii) The Recruitment Manual/ Rules were prepared and implemented.

(iii) All procurements above ₹ 5.0 lakh are done through e-procurement process. New bidders are being trained online to participate in e-tendering process.

(iv) Automatic tender intimation email facility has been made available in e-tendering process for informing the vendors.

(v) 97% of the total payments was made through e-Payments (RTGS/ NEFT/ e-Transfers).

(vi) Online System for Clearance of Bills of Contractors is introduced for effective bill tracking by Contractors/ bidders.

(vii) Online Vendor Registration has been carried out by BDL and vendor base is improved.

(viii) Computerized File Tracking System (FTS) has been introduced in the Company.

(ix) A Standing Committee for Transparency in Procurement especially in Proprietary items/ products has been set up.

(x) Comprehensive Risk Management Policy has been adopted which includes mitigation of corruption also.

16.31 'Vigilance Awareness Week' 2014 was observed from October 27 to November 1, 2014 with the theme of "Combating Corruption – Technology as an enabler". 'Vigilance Compendium – 2014' C.D. & Book was released and guest lectures were also organized as a part of Vigilance awareness week.

16.32 **Directorate General Of Quality Assurance (DGQA) :** Preventive Vigilance – As an effective tool towards the upkeep and maintenance of preventive vigilance, Surprise/ Vigilance Checks were conducted at Units/Establishments level.

16.33 Vigilance Awareness Week – Vigilance Awareness week was observed from October 27 to November 1, 2014in all Units/ Establishments as well as at Head Quarter office of DGQA, Tech Directorates/ Adm Directorates to optimize success of customer-vendor relationship.

16.34 System Improvement Study - Study on System Improvement was ordered on the subjects "Placement of contracts for out sourcing services" and "Use of Local purchase funds" during the year 2014 to find out the areas prone to or susceptible to corruption and to give suggestions/ recommendations on measures to be adopted to prevent malpractices in DGQA.

16.35 **Directorate General of Aeronautical Quality Assurance (DGAQA):** As a part of vigilance awareness activities, banners with appropriate slogans were displayed and in-house talks were organised during the Vigilance Awareness Week from October 28 to November 2, 2014.

16.36 The Inspection Notes issued by Field Establishments of DGAQA are constantly monitored at DGQA Headquarters as a proactive and preventive measure. To enhance transparency in dealing with the trade sources, a quarterly report on data collection is made available to DG/ DGQA. An officer of SAG level at HQ and sufficiently senior level officers at Field Establishments are monitoring vigilance related matters. Heads of Field Establishments are rotated every three years.

16.37 **Action Taken by Department of Defence Production:** During the Annual Zonal Sectoral Review Meeting held on July 2, 2014, CVC has commended the action taken by the Department of Defence Production (Vigilance) in providing a comprehensive action taken report on last year's meeting as well as various systemic improvements introduced to bring in transparency and fairness in the working of the Defence Organizations. CVC stated that DDP has done well last year and cases have been disposed expeditiously.

16.38 To increase the transparency in various activities of Defence PSUs and Ordnance Factory Board, a comprehensive list of Actionable Points was circulated to all the DPSUs and OFB for compliance. Due to the close and regular monitoring of the actionable points at the Ministry's level, following actions were implemented:

(i) Continuous monitoring is being carried out for the reduction of proportion of the Limited/Single Tenders by DPSUs and OFB.

(ii) All the DPSUs and OFB are updating their vendor database on a regular basis, including deletion of the defunct sources.

(iii) Payments to vendors/ contractors are made through e-payment, as far as possible.

(iv) On-line tracking of status of bills by contractors has been implemented in all DPSUs and OFB.

(v) Structured meetings between CVOs and CMDs in all DPSUs and OFB are being held.

(vi) Sensitive posts have been identified in all the DPSUs and OFB and rotational transfer of the officials is being effected.

16.39 Training from September 3 and 4, 2014 was imparted by Department of Defence Production (Vigilance) to the officials of all DPSUs and OFB at BEL, Bangalore to improve knowledge in various vigilance related activities.

DEPARTMENT OF DEFENCE RESEARCH AND DEVELOPMENT

16.40 DRDO Laboratories/ Establishments are vital installations of national importance and thus it is imperative that security of laboratories is not compromised under any circumstances. In order to enhance their security, stringent measures were enforced to prevent any breach of security which may lead to damage and loss of life and property. The Directorate of Vigilance and Security has taken various initiatives and disseminated security instructions and guidelines related to security of DRDO labs/establishments on a regular basis.

16.41 Policy guidelines and security instructions were issued viz. Annual Security Instructions 2014, security during Republic Day and Independence Day, strengthening of security arrangements of vital installations etc.

16.42 Security clearance for visit of foreign nationals was granted to over 4000 foreign visitors to the DRDO labs/ estts. Security sensitization programme by senior officers of IB was organized on July 9, 2014 at ADE, Bengaluru for all officers of DRDO based at Bengaluru.

16.43 In 2014, IB, Ministry of Home Affairs conducted industrial security inspection of ADRDE Agra, IRT Chandipur, DL Jodhpur, ADA Bengaluru, DMSRDE Kanpur, DRDL Hyderabad, RCI Hyderabad, CABS Bengaluru, R&DE (Engineers) Pune and CVRDE Chennai.

16.44 Security Audit was conducted to DEAL & IRDE Dehradun, NPOL Kochi, NMRL Ambernath, DRDE Project Site Borkhedi, ADRDE Agra, P1 & P2 Site Bhubneshwar, ADE, CAIR & LRDE Bengaluru, DMSRDE Kanpur and TBRL Chandigarh.

16.45 Lecture on security and vigilance was conducted at ITM Mussorie, POINTS (DIAT) Pune, DRDL Hyderabad, LRDE Bengaluru and LASTEC Delhi to sensitize all employees on security issues.

17

EMPOWERMENT AND WELFARE OF WOMEN

Women Officers marching contingents of the three Services

With the induction of women in various non-combatant branches of the Armed Forces like flying (transport and helicopter stream), logistics and law, a larger role is envisaged for them.

17.1 The role of women has been increasing steadily in the field of national defence. Women are employed in Defence Production Units, Defence Research & Development Laboratories and in the Armed Forces. With the induction of women in various non-combatant branches of the Armed Forces like flying (transport and helicopter stream), logistics and law, a larger role is envisaged for them.

INDIAN ARMY

17.2 **Women Officers in the Army**: Women officers have been serving in the Armed Forces for about 80 years and have served with competence and distinction. They were inducted in the Military Nursing Service in 1927 and in the Medical Officers cadre since 1943. In the Armed Forces Medical Services, there are both permanent and Short Service Commission Officers (SSCOs).

17.3 In a significant step which would attract more women in the Army, the tenure of Women Officers in Short Service Commission has been increased from 10 years to 14 years of service. Besides, their promotional avenues have been substantially enhanced. Earlier, they were eligible for only one promotion, viz., to the rank of Major after 5 years of service. Women Short Service Commission Officers in the Army are now granted time-scale substantive promotions to the rank of Captain, Major and Lt. Colonel Rank after 2, 6 and 13 years of reckonable service respectively. This is at par with the promotions available to the Permanent Commission Officers. In addition, with a view to ensuring gender equality, the training period of women officers in the Army in Short Service Commission has been increased from 24 weeks to 49 weeks, to be at par with male Short Service Commission Officers.

17.4 Keeping in view the role and responsibility of the Armed Forces in defending the nation and protecting the territorial integrity of the country, the policy on induction and employment of women in Armed Forces was enunciated in November, 2011, as under:

(i) Women Officers may continue to be inducted as Short Service Commission Officers (SSCOs) in Branches/ Cadres where they are being inducted presently in the three Services;

(ii) Women SSCOs will be eligible for consideration for grant of permanent commission alongwith Men SSCOs in specific Branches in the three Services viz. Judge Advocate General (JAG) and Army Education Corps (AEC) of Army and their corresponding branches in Navy and Air Force; Naval constructor in Navy and Accounts branch in Air Force.

(iii) In addition to the above, in the Air Force, women SSCOs will be eligible alongwith male SSCOs, for consideration for grant of permanent commission in Technical, Administration, Logistics and Meteorology Branches.

17.5 The grant of permanent commission is subject to the willingness of the candidate and service specific requirements, availability of vacancies, suitability, merit of the candidate as decided by each Service.

INDIAN NAVY

17.6 **Women Officers:** Women are being inducted into the Navy, as Short Service Commission (SSC) officers in the Executive (Observer, ATC, Law & Logistics), Education Branch and Engineering Branch (Naval Architecture).

17.7 **Permanent Commission to SSC Officers:** The Government of India, Ministry of Defence vide letter No.12(1)/2004-D(AG). Pt.II dated September 26, 2008 has approved grant of Permanent Commission prospectively to the Short Service Commission officers, for both men and women, of the Executive Branch (Law Cadre), Education Branch and Engineering Branch (Naval Architecture).

17.8 **Creche for Lady Employees:** As per the Factory Act 1948, a crèche within the premises of work place is to be provided for women employees. A crèche for the children of Lady Employees of the Naval Dockyard (Vizag) has been set up in the Yard with all required infrastructure and toys.

17.9 **NWWA:** Naval Wives Welfare Association (NWWA) deals with empowerment and welfare of women. It organises vocational training courses, which helps sailors' wives gain self-confidence and employment opportunities, thereby encouraging them to be self-reliant and independent. The organisation provides professional counselling to help families of sailors to cope with stress. The organisation also helps in the rehabilitation of widows and bereaved families of naval personnel and encourages widows to be confident, self-reliant and independent.

17.10 **Issues of General Interest to Public:** The following welfare measures were considered in 2014 for the benefit of naval civilian employees and wives of naval personnel:

(a) **Gender Sensitivity Committee:** At INHS Asvini, a gender sensitivity committee headed by a senior Lady Officer (Surg Capt) is in place to cater to issues regarding sexual harassment at work. No incidents of harassment have been reported.

(b) **Employment of Women:** Various departments in the air station at Mumbai like metrology, medical, ATC and logistic have more than 75% of their strength as women officers who are actively involved in operational and administrative work.

(c) **Welfare of Women:** The following measures have been introduced for welfare of women employees in naval dockyards:

(i) Exclusive ladies rest room.

(ii) Medical aid.

(iii) Recreational facilities.

(iv) Provision of separate tea room in canteens.

17.11 **Workshop on Sensitisation of Women Employees on Sexual Harassment at Work place:** Towards sensitising the women workforce of the Yard against sexual harassment at workplace, a workshop was conducted on April 4, 2014 by the Women Cell of NSRY, Port Blair. The aim of the workshop was to raise awareness of the aforesaid issue and encourage women to take stand against the harasser.

INDIAN AIR FORCE

17.12 (i) A nine member all-women IAF officers' team successfully completed a high altitude cycle expedition covering a distance of approximately 1400 km. The expedition was flagged off from AF Stn Pathankot and culminated at Khardungla Pass on August 13, 2014. This was the first time ever that such an arduous expedition was attempted and successfully undertaken.

(ii) One lady officer of the IAF has graduated as a Qualified Flying Instructor.

17.13 **Steps to Evolve Policy:** Women officers are being considered and detailed for professional courses at par with their male counterparts. 'Administrative Instructions on Induction and Employment of Women SSC Officers in the IAF other than Medical and Dental Officers' have been issued on July 22, 2014.

INDIAN COAST GUARD

17.14 The women officers are being inducted in Indian Coast Guard as Assistant Commandant in the General Duty (Permanent), General Duty (Pilot/ Navigator) and as Assistant/ Deputy Commandant in Law Branch. The women officers are posted only in non-seagoing appointments. Women officers are also being inducted in the Short Service Appointment in General Duty and General Duty (Commercial Pilot License Holder) Branches to increase their intake in the service. Women officers holding Commercial Pilot License are inducted for flying aircraft. The selection process for women and male candidates are similar. The women officers in the Indian Coast Guard have the option to serve till superannuation, except for the officers appointed under short service scheme. At present, there are 108 women officers in Coast Guard. The married women officers are also considered for posting with their spouse in the same station, as far as possible.

ICG Women Pilots ready for action

DEFENCE RESEARCH DEVELOPMENT ORGANISATION

17.15 DRDO is committed to creating a healthy and safe work environment that enables employees to work without fear of prejudice, gender-bias and sexual harassment. This has resulted in many women scientists leading important defence projects of national importance as well as occupying top positions in DRDO as Directors.

17.16 DRDO has framed a Draft policy as per government instructions and directives issued on Sexual Harassment Act 2013. For creating awareness and to discuss this draft policy a national level workshop was organized at Defence Laboratory, Jodhpur for the office bearers of Women's Complaint Committee of all DRDO labs/establishments on November 26 - 27, 2014.

17.17 International Women's Day of 2014 was celebrated at national level by organizing a one-day workshop on "Women Innovators in Growth of Science (WINGS-2014)" at Combat Vehicles Research and Development Establishment (CVRDE), Chennai. More than 300 women scientists, technologists, officers and staff from different laboratories of DRDO from all over the country attended the workshop. The focal theme of the workshop was to highlight the innovations carried out by women in the field of science, engineering and research.

DEPARTMENT OF DEFENCE PRODUCTION

17.18 **Ordnance Factory Board (OFB):** As per the Government order, OFB has issued instruction for prevention of Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 to all OFs/ Units for immediate circulation. Women employees are not deployed at odd hours duty shift and all basic amenities like proper working area, separate toilets, restrooms have been provided to women employees in all OFs/ Units.

17.19 **Hindustan Aeronautics Ltd. (HAL):** The strength of women employees in HAL is 2607 as on September 30, 2014. All statutory welfare amenities have been extended to women employees. Based on the guidelines received, necessary action has been taken to prevent sexual harassment of women at workplace. The Conduct and Disciplinary Appeal Rules and Certified Standing Orders have been amended in this regard. Internal Complaints Committee as per Section 4 of the sexual harassment of women at workplace (Prevention, Prohibition & Redressal) Act, 2013 is also put in place.

17.20 **Bharat Electronics Ltd.(BEL):** As per the requirement of the Sexual Harassment of Women at workplace (prevention, prohibition and redressal) Act, 2013, the internal complaint committee has been constituted for receiving the complaints of sexual harassment at workplace in all units/ Offices of BEL.

17.21 **Garden Reach Shipbuilders & Engineers Ltd(GRSE):** GRSE regularly organizes sensitization workshops to mobilize and harness the power of women as well as to prevent discrimination against lady employees and gender bias. A 'Complaint Committee' headed by a lady officer and with an NGO representative has been set up to redress complaints of sexual harassment at work place.

17.22 **Goa Shipyard Ltd.(GSL):** A 'Complaint Committee' for prevention of sexual harassment and redressal of complaints

has been constituted, with more than 50% women representative and one independent local NGO representative. Flexible timing of one hour duration per day is provided to women employees, till the new born child attains 15 months of age including other allied benefits.

17.23 **Hindustan Shipyard Ltd (HSL):** An internal Complaint Committee has been constituted on prohibition of sexual harassment against women in workplace. A 'Gender Budgeting Cell' has already been constituted with four women officers to act as Nodal Agency for all gender responsive budgeting initiatives

17.24 **Mazagon Dock Ltd.(MDL):** A unit of the Women in Public Sector (WIPS) is functioning in MDL. A Grievance Redressal Cell for Complaints of Sexual Harassment has been formed to look into all aspects of gender specific issues at workplace. The cell is headed by a senior lady officer. All the complaints received are redressed promptly and are treated with utmost confidentiality.

17.25 **BEML Ltd:** Total strength of women employees/officers in BEML Ltd. is 309. Equal opportunity is given to women in recruitment, selection, training & development etc. Also, all the applicable statutory provisions under the Factories Act, Maternity Benefit Act, etc. are being complied with both in letter and spirit. In addition to the above, as per the requirement of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, the internal complaint committee has been constituted for receiving the complaints of sexual harassment, at workplace. Creche allowance of ₹ 200/- per month is given to women employees/ executives having children below the age of 5 years. All women employees irrespective of their wage group get 12 days of casual leave as against 7 days of casual leave to male employees in wage Group A to D.

17.26 **Bharat Dynamics Ltd.(BDL):** There are 341 women employees working in BDL. Of these, 100 are executives and 241 are non-executives and constitute 10.7% of the total workforce in the Company. To encourage women employees, the company accords necessary facilities for participation in the conferences/programs organized by CPSU forum i.e. Women in Public Sector (WIPS) and celebrates International Women's Day. A 'Complaint Committee' headed by a senior woman officer has also been constituted to inquire into complaints of sexual harassment.

17.27 **Mishra Dhatu Nigam Limited (MIDHANI):** MIDHANI is extending all facilities as per the statutes for welfare of the women employees. The strength of women employees is 65 as on December 31, 2014. Women employees both executives and non-executives were nominated for in-house as well as external programmes. As part of MIDHANI's commitment for empowerment of women, MIDHANI is setting up a plant for manufacture of fasteners at a cost of ₹7.00 crore, which will be run exclusively by women employees.

DEPARTMENT OF EX-SERVICEMEN WELFARE

17.28 Department of Ex-Servicemen Welfare deals with the rehabilitation and welfare of about 29 lakh ex-servicemen including widows and dependent family members. Financial assistance is being provided to the girls and women under various schemes. Kendriya Sainik Board (KSB) provides financial assistance for marriage of daughters of ESM, widow remarriage and vocational training of widows.

17.29 Higher scholarship amount is provided to girls under Prime Minister's Scholarship Scheme. Widow of ESM are eligible for Resettlement Training under Director General of Resettlement (DGR). A number of DGR Employment Schemes like Coal Tipper Scheme, Oil Product Agencies, Surplus Vehicles, etc. are also open to widows of ESM. All eligible widows of ESM and their dependents are entitled to become members of ECHS free of cost i.e. without paying any membership fee.

MATTERS DEALT WITH BY THE DEPARTMENTS OF THE MINISTRY OF DEFENCE

A. DEPARTMENT OF DEFENCE (RakshaVibhag)

1. Defence of India and every part thereof, including preparation for defence and all such acts as may be conducive in times of war to its prosecution and after its termination to effective demobilization.

2. The Armed Forces of the Union, namely, the Army, the Navy and the Air Force.

3. Integrated Headquarters of the Ministry of Defence comprising Army Headquarters, Naval Headquarters, Air Headquarters and Defence Staff Headquarters.

4. The Reserves of the Army, Navy and Air Force.

5. The Territorial Army.

6. The National Cadet Corps.

7. Works relating to Army, Navy and Air Force.

8. Remounts, Veterinary and Farms Organisation.

9. Canteen Stores Department.

10. Civilian Services paid from Defence Estimates.

11. Hydrographic Surveys and preparation of navigational charts.

12. Formation of Cantonments, delimitation/ excision of Cantonment areas, local self-government in such areas, the constitution and powers within such areas of Cantonment Boards and authorities and the regulation of housing accommodation(including the control of rents) in such areas.

13. Acquisition, requisitioning, custody and relinquishment of land and property for defence purposes. Eviction of unauthorized occupants from defence land and property.

14. Defence Accounts Department.

15. Purchase of food stuffs for military requirements and their disposal, excluding those entrusted to Department of Food and Public Distribution.

16. All matters relating to Coast Guard Organisation, including :-

    (i) Surveillance of maritime zones against oil spills;

    (ii) Combating oil spills in various maritime zones, except in the waters of ports and within 500 metres of off-shore exploration and production platforms, coastal refineries and associated facilities such as Single Buoy Mooring (SBM), Crude Oil Terminal (COT) and pipelines;

    (iii) Central Co-ordinating Agency for Combating of Oil Pollution in the

coastal and marine environment of various maritime zones;

(iv) Implementation of National Contingency Plan for oil spill disaster; and

(v) Undertaking oil spill prevention and control, inspection of ships and offshore platforms in the country, except within the limits of ports as empowered by the Merchant Shipping Act, 1958(44 of 1958).

17. Matters relating to diving and related activities in the country.

18. Procurement exclusive to the Defence Services.

19. All matters relating to Border Road Development Board and Border Road Organisation.

B. DEPARTMENT OF DEFENCE PRODUCTION (Raksha Utpadan Vibhag)

1. Ordnance Factory Board and Ordnance Factories.
2. Hindustan Aeronautics Limited.
3. Bharat Electronics Limited.
4. Mazagon Docks Limited.
5. Garden Reach Shipbuilders & Engineers Limited.
6. Goa Shipyard Limited.
7. Bharat Dynamics Limited.
8. Mishra Dhatu Nigam Limited.
9. Defence Quality Assurance Organizations, including Directorate General of Quality Assurance and Directorate General of Aeronautical Quality Assurance.
10. Standardisation of defence equipment and stores including Directorate of Standardisation.
11. BEML Limited.
12. Hindustan Shipyard Limited.
13. Development of aeronautics industry and co-ordination among users other than those concerned with the Ministry of Civil Aviation and the Department of Space.
14. Indigenisation, development and production and defence equipment and participation of the private sector in the manufacture of defence equipment.
15. Defence exports and international cooperation in defence production.

C. DEPARTMENT OF DEFENCE RESEARCH & DEVELOPMENT (Raksha Anusandhan Tatha Vikas Vibhag)

1. Apprising, assessing and advising Raksha Mantri on the influence on National Security of emerging developments in Science and Technology.
2. Rendering advice to Raksha Mantri and to the three services and inter-services organizations on all scientific aspects of weapons; weapons platforms; military operations; surveillance; support and logistics in all likely threats of conflict.

3. To function, with the concurrence of the Ministry of External Affairs, as the nodal co-ordinating agency of the Ministry of Defence on all matters relating to Instruments of Accord with foreign Governments relating to the acquisition of technologies whose export to India is the subject of national security related controls of foreign Governments.

4. Formulation and execution of programmes of scientific research and design, development, test and evaluation, in fields of relevance to national security.

5. Direction and Administration of agencies, laboratories, establishments, ranges, facilities, programmes and projects of the Department.

6. Aeronautical Development Agency.

7. All matters relating to certification of the design air worthiness of military aircrafts, their equipment and stores.

8. All matters relating to the protection and transfer of technology generated by the activities of the Department.

9. Scientific analysis support and participation in the acquisition and evaluation proceedings of all weapon systems and related technologies proposed to be acquired by the Ministry of Defence.

10. To render advice on the technological and intellectual property aspects of the import of technology by production units and enterprises manufacturing, or proposing to manufacture, equipment and stores for the Armed Services.

11. To deal with reference made under section 35 of the Patents Act, 1970(39 of 1970).

12. Financial and other material assistance to individuals, institutions and bodies corporate, for study and for the training of manpower on aspects of Science an d Technology that bear on national Security.

13. In consultation with the Ministry of External Affairs, international relations in matters connected with the role of Science and Technology in national security, including :

    (i) matters relating to relations with Research Organizations of other countries and with Inter-governmental agencies, particularly those which concern themselves, inter alia, with the scientific and technological aspects of national security.

    (ii) Arrangements with Universities, educational and research-oriented institutions or bodies corporate abroad to provide for foreign scholarships and the training of Indian scientists and technologists under the administrative control of the Department.

14. Execution of works and purchase of lands debitable to the budget of the Department.

15. All matters relating to personnel under the control of the Department.

16. Acquisition of all types of stores, equipment and services debitable to the budget of the Department.

17. Financial sanctions relating to the Department.

18. Any other activity assigned to, and accepted by the Department through understandings or arrangements with any other Ministry, Department, Agency of the Government of India whose activities have a bearing on the scientific and technological aspects of national security.

D. DEPARTMENT OF EX-SERVICEMEN WELFARE (Poorva Senani Kalyan Vibhag)

1. Matters relating to Armed Forces Veterans (Ex-Servicemen), including pensioners.
2. Armed Forces Veterans(Ex-Servicemen) Contributory Health Scheme.
3. Matters relating to Directorate General of Resettlement and Kendriya Sainik Board.
4. Administration of :
    a) the Pension Regulations for the Army 1961(Parts I and II);
    b) the Pension Regulations for the Air Force, 1961 (Part I and II);
    c) the Navy (Pension) Regulations 1964; and
    d) the Entitlement Rules to Casualty Pensionary Awards to the Armed Forces Personnel, 1982.

E. DEFENCE (FINANCE) DIVISION (RakshaVittaVibhag)

1. To examine all Defence matters having a financial bearing.
2. To render financial advice to the various functionaries of Ministry of Defence and the Services Headquarters.
3. To act as integrated Finance Division of Ministry of Defence.
4. To assist in the formulation and implementation of all schemes/ proposals involving expenditure.
5. To assist in the formulation and implementation of Defence Plans.
6. To prepare Defence budget and other estimates for the Defence Services, Civil Estimates of Ministry of Defence, estimates in respect of Defence Pensions and to monitor the progress of the scheme against the budget.
7. To exercise post-budget vigilance to ensure that there are neither considerable shortfalls in expenditure nor unforeseen excesses.
8. To advise heads of branches of the Armed Forces Headquarters in the discharge of their financial responsibility.
9. To function as the accounting authority for the Defence Services.
10. To prepare the Appropriation Accounts for the Defence Services.
11. To discharge the responsibility for payments and internal audit of Defence expenditure through the Controller General of Defence Accounts.

MINISTERS, CHIEFS OF STAFF AND SECRETARIES WHO WERE IN POSITION FROM JANUARY 1, 2014 ONWARDS

RAKSHA MANTRI

Shri A.K. Antony — From October 24, 2006 to May 26, 2014
Shri Arun Jaitley — From May 27, 2014 to November 8, 2014
Shri Manohar Parrikar — From November 9, 2014 onwards

RAKSHA RAJYA MANTRI

Shri Jitendra Singh — From October 28, 2012 to May 26, 2014
Rao Inderjit Singh — From May 27, 2014 onwards

DEFENCE SECRETARY
Shri Radha Krishna Mathur
From May 24 (FN), 2013 onwards

CHIEF OF ARMY STAFF
General Bikram Singh,
PVSM, UYSM, AVSM, SM, VSM, ADC
From January 1, 2012 to July 31, 2014

SECRETARY DEFENCE PRODUCTION
Shri Gokul Chandra Pati,
From August 7(FN), 2013 to July 31 (AN), 2014
Shri Radha Krishna Mathur
From August 1 (FN), 2014 to August 31(AN), 2014
Shri G. Mohan Kumar
From September 1 (FN), 2014 onwards

General Dalbir Singh
PVSM, UYSM, AVSM, VSM, ADC
From August 1, 2014 onwards

CHIEF OF NAVAL STAFF
Admiral DK Joshi,
PVSM, AVSM, YSM, NM, VSM, ADC
From September 1, 2012 to February 26, 2014

SECRETARY EX-SERVICEMEN WELFARE
Ms. Sangita Gairola,
From July 4(AN), 2013 to October 31 (AN), 2014
Shri Prabhu Dayal Meena
From November 1 (FN), 2014 onwards

Admiral RK Dhowan,
PVSM, AVSM, YSM, ADC
From April 17, 2014 onwards

SECRETARY (DR&D) AND SCIENTIFIC ADVISOR TO RAKSHA MANTRI
Dr. Avinash Chander,
From May 31 (AN), 2013 to January 31 (AN), 2015

CHIEF OF AIR STAFF
Air Chief Marshal Arup Raha,
PVSM, AVSM, VM, ADC
From January 1, 2014 onwards

Shri Radha Krishna Mathur,
From February 1 (FN), 2015 onwards

SECRETARY DEFENCE FINANCE

Shri Arunava Dutt,
From July 1(FN), 2013 to October 30 (AN), 2014
Smt. Vandana Srivastava,
From November 1 (FN), 2014 onwards

Summary of Important Audit Observation – Ministry of Defence Report No.4 of 2014 (Air Force and Navy)

I Unfruitful expenditure on development of a system

Due to injudicious decision to persist with a programme for development of Electronic Warfare suite sanctioned to enhance the operational capability of an aircraft, an investment of ₹156 crore was rendered largely unfruitful.

(Paragraph 2.1)

II Delay in upgradation of an aircraft

Due to delay in initiation and conclusion of the contract, facilities for upgradation of an aircraft could not be set up in time despite an investment of ₹272 crore on Transfer of Technology resulting in grounding of more than 50 per cent of the transport aircraft fleet.

(Paragraph 2.2)

III Avoidable expenditure in procurement of aero-engines

Despite being aware of long term requirement of aero-engines, IAF failed to project the entire requirement which resulted in an extra avoidable expenditure of ₹227 crore on procurement of 100 aero-engines.

(Paragraph 2.3)

IV Non-inclusion of variable percentage of profit in the contract for acquisition of Landing Craft Utility

The contract for acquisition of eight Landing Craft Utilities (LCUs) at a cost of ₹2169 crore, allowed a flat 10 per cent profit to the Shipyard. Inclusion of performance related profit in the contract would have given the Ministry control over the profit element based on the performance of the shipyard. By allowing a fixed 10 per cent profit element, Ministry denied itself the leverage of reducing the profit to an extent of ₹40.96 crore. Besides, provision of ₹9 crore towards Project Management Cost in the contract was unjustified.

(Paragraph 2.4)

V Avoidable expenditure on procurement of test equipment

Procurement of additional test equipment worth ₹11 crore to meet the increased work load was avoidable as the test equipment for setting up the base repair level facility at BRD had already been procured earlier which could cater to the increased work load.

(Paragraph 3.1)

VI Delay in commissioning of testers

Due to non-inclusion of commissioning clause in the contracts, testers procured at a cost of ₹5.47 crore could not be commissioned for over four years and had since been rendered unserviceable.

(Paragraph 3.2)

VII Directorate of Mechanical Transport, Air Headquarters.

Directorate of Mechanical Transport (DMT) at Air HQ is responsible for planning,

forecasting, provisioning and budgeting in respect of ranges of vehicles and their associated equipment. During detailed audit of DMT Air HQ and units there under from April 2012 to September 2012, Audit observed that 408 Aircraft Support Vehicles (ASVs) costing ₹132.09 crore planned (2007) in the backdrop of Ops Parakaram could not be procured. Besides, 37 weapon loader trolleys valuing ₹6.63 crore procured for SU – 30 units were found unsuitable, thereby depriving these units of a vital ASV. The newly introduced Common User Vehicles (CUVs) were diverted to use for other than the intended purpose. Delay in outsourcing of staff cars by Air Force Station, New Delhi despite Ministry's insistence, deprived IAF of envisaged (2008) annual savings of ₹1.95 crore on outsourcing of staff cars.

(Paragraph 3.3)

VIII Availability of airfield infrastructure/runways in Indian Air Force

Airfield is an area of land comprising runways, taxi-tracks, dispersals, blast pens and entire zone of safety surrounding the area which is used for the operation of the aircraft. During scrutiny of records pertaining to ten runways resurfacing project, Audit observed that there were cases of delays in sanction of works for runways resurfacing and blast pens. There were also delays in execution of works especially due to change of design sought after the sanction leading to time and cost overruns. Runways at three stations were not fit for operation of fighter aircraft. In most of the cases, the work executed by the contractor was of substandard quality and supervision by MES was also poor.

(Paragraph 3.5)

IX Blocking of funds due to improper planning and execution of work

Sanction of work for re-routing of electrical lines without obtaining necessary consent from the Revenue Authorities led to blocking of funds amounting to ₹6.14 crore from the year 2008.

(Paragraph 3.6)

X Avoidable payment of Income Tax

Failure of MoD to adhere to the contractual provision for availing of concessions on duties resulted in avoidable payment of ₹69.40 crore on account of Income Tax.

(Paragraph 3.7)

XI Allotment of Office space to a private organisation

Irregular allotment of office space to a private organisation by DRDO led to a revenue loss of ₹5.67 crore to the State.

(Paragraph 3.8)

XII Recoveries at the instance of Audit

At the instance of Audit, the IAF authorities recovered an irregular payment of ₹0.70 crore made to the IAF personnel and a private firm. Principal Controller of Defence Accounts (Navy) recovered ₹1.39 crore from a private firm as liquidated damage for the late delivery of fuel barges, only after being pointed out by Audit.

(Paragraph 3.10 and 4.10)

XIII Inadequacies in the refit of a submarine

Failure on the part of the Indian Navy to synchronise the procurement of 204 types of spares necessary for undertaking the refit of a submarine, in 2006 affected the quality and completeness of the refit. Additionally, the belated procurement of only 89 spares at a later date led to an extra expenditure of ₹18 crore.

(Paragraph 4.1)

XIV Unfruitful expenditure of ₹33.91 crore on Maintenance Dredging

Maintenance Dredging is an annual activity undertaken to maintain a minimum depth in Naval channels and areas for the safe navigation of ships, submarines and other crafts. Even though dredging in monsoon was not a viable option, dredging during the peak monsoon due to delay in tendering and conclusion of the contract, rendered an expenditure of ₹33.91 crore unfruitful.

(Paragraph 4.6)

XV Unfruitful expenditure on construction of a Hangar

Improper selection of the contractor, subsequent poor contract management and faulty design of the structure resulted in an unfruitful expenditure of ₹6.72 crore in constructions of a hangar at INS Rajali, Arakkonam. Even after lapse of more than a decade, the operational requirement at INS Rajali, for an additional hangar, could not be met.

(Paragraph 4.8)

XVI False claim of Dip Money

All qualified divers of the Indian Navy, belong to a specialised cadre, and are entitled to "Diving Allowance" and "Dip Money". However, at INDT (Delhi), weak internal controls, improper document maintenance and falsification of official records, led to an incorrect payment of ₹10.24 lakh as Dip Money.

(Paragraph 4.9)

XVII Excess payment of Island Special Duty Allowance in Navy

Island Special Duty Allowance (ISDA) for the personnel serving at the Andaman and Nicobar Islands, is not admissible during leave / training beyond 15 days at a time and beyond 30 days in a year and during suspension and joining time. However incorrect interpretation of the Government Orders relating to regulation of payment of ISDA by the Navy led to an overpayment of ₹3.29 crore. Further, despite being aware of this irregularity, the Navy did not take any steps to rectify the situation.

(Paragraph 4.11)

XVIII Avoidable expenditure on Short Refit of Indian Coast Guard Ship Vikram

As per the Coast Guard Instructions for ships awaiting decommissioning/ disposal, only essential repairs termed as Essential Repairs Dry Docking (ERDD) should be undertaken to ensure safe floatation till disposal of the vessel. Contrary to this, an expensive Short Refit (SR) was carried out at a cost of ₹5.66 crore on Indian Coast Guard Ship Vikram due to lack of co-ordination

between the two Directorates of ICGHQ which was avoidable.

(Paragraph 5.1)

XIX Qualitative Requirements based projects at Naval DRDO laboratories

Report No. 30 of 2013 Union Government (Defence Services) Army and Ordnance Factories

II MINISTRY OF DEFENCE

Para 2.1 Improper management of defence land

Despite highlighting cases of poor management of Defence Estates in the various Audit Reports repeatedly and issue of specific directions by the PAC for strict compliance with the concerned Rules and Regulations, there had been no significant improvement in the management of defence land. As a result, the irregularities relating to misuse of Defence land, inordinate delay in renewal/ termination of leases involving huge accumulation of arrears of rentals, unauthorised occupation of Defence land by other departments etc. continued to persist.

Para 2.3 Non introduction of Air Conditioners in Tanks

Ignoring the recommendations of the trial team, the Ministry of Defence procured Tanks 'X' valuing ₹9083.36 crore in 2001 and 2007 without Air Conditioners rendering the fleet of Tank 'X' vulnerable to degradation of sensitive components. Although the action for procurement of Air-Conditioners was initiated in 2002, the same was yet to materialise.

Para 2.4 Non-synchronization of payments without corresponding progress of work

Monitoring Cell consisting of members from Army and Bharat Earth Movers Limited failed to release payments judiciously, without linking the same to corresponding progress of work resulting in release of ₹110 crore as interest free advance to M/s Bharat Earth Movers Limited. As a result, order placed in 2001 for supply of Pontoon Mid stream bridges did not fructify despite advance payment of ₹313.72 crore made almost nine years ago.

Para 2.5 Absence of effective controls resulting in non recovery of outstanding dues

Ambiguity about the responsibility between Ministry of External Affairs (MEA) and Ministry of Defence (MoD) for recoveries pertaining to Peace Keeping Missions from the United Nations (UN) not only resulted in accumulation of huge outstanding balances but also in unlikely reimbursement of ₹73.84 crore due from four missions which have since been closed.

III ARMY

Para 3.1 Acceptance of sub-standard stores without prior technical inspection from an unregistered and inexperienced firm

The Integrated Headquarters of Ministry of Defence (Army) procured Mask Face Extreme Cold Weather valuing ₹2.54 crore between April 2008 and August 2008 from an unregistered vendor without proper survey and prior approval of sample resulting

in non-utilisation of 92783 number valuing ₹1.82 crore.

Para 3.4 Avoidable expenditure on re-transportation of stores

The failure of Army Headquarters, to implement the 'Transportation Model' envisaging direct dispatch of stores by the supplier to the ultimate consignee resulted in avoidable extra expenditure of ₹5.45 crore defeating the proposal for which transportation model was envisaged.

Para 3.5 Extra expenditure on account of provision of unauthorised strengthening measures in buildings

In violation of Indian Standard 1893: 2002, National Building Code of India 2005 and Central Command Works specifications, concerned competent financial authorities accorded sanctions incorporating additional plinth areas rates for construction of buildings in seismic zones II and III resulting in extra expenditure of ₹2.34 crore.

Para 3.6 Unauthorised use of Defence accommodation

Notwithstanding the specific Government orders and various Reports of the C&AG, the local Commanders misused their delegated powers by re-appropriating Government buildings at Delhi and Pune Cantonments for non-bona fide purposes.

IV Works and Military Engineer Services

Para 4.2 Poor planning resulting in suspension of work and damage to the Government property

Army acquired land worth ₹9.04 crore, without considering the provision for approach road, resulting in suspension of construction work after incurring ₹3 crore. These assets sustained damages worth ₹37 lakh and necessitated preventive works worth ₹1.87 crore.

V DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION

Para 5.3 Procurement in violation of norms by DRDO

Defence Research and Development Organisation procured a critical component required in production of 'NAG', missile at a cost of ₹52.58 crore, in anticipation of an order from the Army, which resulted in blocking of Government money amounting to ₹34.70 crore.

VI ORDNANCE FACTORIES ORGANISATION

Para 6.4 Undue benefit to a foreign firm by diluting the conditions in tender Enquiry and contract

Ordnance Factory Badmal, in violation of Defence Procurement Manual, accorded undue benefit to a foreign firm by accepting the PC sheets valuing ₹2.58 crore without ascertaining its manufacturing month. This coupled with delayed issue of PC sheets to Ordnance Factory Chanda had resulted in accumulation of shelf life expired PC sheets valuing ₹0.67 crore.

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II MINISTRY OF DEFENCE

Para 2.1 Inordinate delay in indigenisation of TATRA vehicles

In order to attain self reliance and

effect savings in foreign exchange, Bharat Earth Movers Limited, a Defence PSU, signed a collaboration agreement for indigenisation of TATRA vehicles in 1986 with M/s Omnipol of Czechoslovakia to cater the continuous need of the Indian Army. The objective of attaining 86 per cent indigenisation by 1991 was envisaged by BEML. However, till 2014 the target is yet to be attained. BEML attributed the delay mainly to the failure of Ministry in placing order for sufficient number of vehicles between 1986 and 1991. The process for indigenisation of TATRA vehicles suffered due to lack of clear long term projection of orders by Army to BEML. Resultantly, the objective of self-reliance in production of TATRA vehicles was defeated.

Para 2.2 Procurement of unacceptable equipment valuing ₹27.32 crore

Ministry of Defence imported 999 number of Individual Chemical Agent Detectors (ICADs) worth ₹27.32 crore between January, 2010 and October 2010 for detecting the presence of chemical agents and toxic industrial compounds. Non Conducting Field evaluation Trails in conditions where equipments is likely to be deployed as prescribed by DPP, had resulted in acceptance of defective ICADs worth ₹27.32 crore. These equipment were awaiting replacement since August 2011 by the firm as of June 2014.

Para 2.3 Loss of revenue due to unauthorised use of Defence land by United Services Club, Mumbai

Failure of the Local Military Authorities at Colaba and further lack of pursuance by Defence Estate Department for obtaining Government sanction for entering into a lease for the defence land occupied by the United Services Club, Mumbai resulted in recurring revenue loss of ₹5.74 crore per annum to Government exchequer. The MoD on their part, failed to monitor the assurance given to the Public Accounts Committee of the Parliament to review the arrangements with US Club which continued to commercially exploit A-1 defence land valuing ₹114.85 crore without Government sanction and paying a nominal rent of ₹0.36 lakh per annum.

Para 2.4 Irregular construction on Defence lease land

Old Grant Bungalow measuring 4.56 acre at Kirkee Cantonment was leased for residential purpose. Execution of an irregular deed for reconstruction by Defence Estate Officer (DEO) with Power of Attorney Holder (POAH) and failure on the part of DEO and Cantonment Executive Officer to take appropriate action against the POAH/ Holder of Occupancy Right facilitated the POAH to illegally construct a Community Centre which was misused for religious activities on Defence land worth ₹22.14 crore.

III ARMY

PARA 3.1 Nugatory expenditure of ₹88.39 crore in the procurement of Chemical, Biological, Radiological and Nuclear (CBRN) equipment

Injudicious planning by IHQ of MoD, Army in the procurement of nine items under Individual Protective Equipment relating to chemical, Biological, Radiological and Nuclear equipment, resulted in non-procurement of NBC suit permeable, the

main constituent of IPE. An expenditure of ₹88.39 crore on other eight items of IPE without addressing the compatibility issue defeated the purpose of ensuring protection in case of NBC Warfare.

Para 3.3 Loss of revenue due to non-collection of metal scrap from Field Firing Range

Despite instructions for collecting metal scrap of fired ammunition from Field Firing Ranges through hired civil labour in case of non conclusion of regular contract for the same, Army authorities failed to collect metal scrap of 285 MT (approximate quantity) worth ₹2.32 crore.

Para 3.4 Procurement of defective tyres

Army Headquarters incurred an expenditure of ₹2.65 crore in procurement of tyres despite the knowledge that the tyres were manufactured with inferior quality material.

Para 3.5 Over provisioning and uneconomical issue of Batteries by COD Agra

Over provisioning of batteries 'A' worth ₹7.16 crore during 2009 by Army Headquarters led to uneconomical issue of batteries 'A' worth ₹1.91 crore during 2013 against demands for low cost batteries 'B' and 'C' in order to liquidate the huge stock.

Para 3.6 Recoveries savings and adjustment in accounts at the instance of Audit

In pursuance of Audit observations, the audited entities recovered overpaid pay and allowances, sundry charges and recovered electricity charges, cancelled irregular works sanctions and amended annual accounts, having a net effect of ₹68.01 crore.

IV Works and Military Engineer Services

Para 4.1 Avoidable expenditure on construction of excess dwelling units

The failure of Local Military Authorities at Chennai to correctly assess the requirement of married accommodation for JCOs resulted in construction of 17 dwelling units in excess of the requirement at a total cost of ₹1.79 crore.

Para 4.2 Inordinate delay in handing over the clear site to the contractor resulted in avoidable payment of escalation charges.

Chief Engineer, Shillong Zone concluded contract for construction of 13 Ammunition storage accommodations for which GE Guwahati issued an inaccurate certificate for availability of clear site. This inordinately delayed the completion of work leading to avoidable payment of extra escalation charges of ₹4.58 crore over and above normal escalation charges admissible to the contractor for completion of work within completion period.

Para 4.3 Selection of improper site resulted in foreclosure of work after an expenditure of ₹5.49 crore

Military Engineer Services and Local Army authorities could not identify the proper site at planning stage for construction of other than married (OTM) accommodation

for Army. This resulted in foreclosure of the work after incurring expenditure of ₹5.49 crore.

V DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION

Para 5.1 Unauthorised utilisation of funds for construction of a Multipurpose Hall

Funds amounting to ₹0.93 crore allotted for the construction of two storage accommodations for two Border Road Task Forces were unauthorisedly utilized to construct a bigger Multipurpose Hall, with an area of 1,556 sqm against the sanctioned area of 489 sqm.

Para 5.2 Construction of a bridge without sub-soil investigation resulted in loss of ₹0.75 crore.

An expenditure of ₹0.75 crore incurred on excavation in foundation for a bridge work by Task Force under Chief Engineer (Project) Pushpak without sub-soil investigation as required under Codes of Indian Road Congress resulted in loss of public money as the site became landslide prone area which could have been forewarned after sub-soil investigation.

Para VI Project Management in Vehicle Research and Development Establishment, Ahmednagar and Combat vehicles Research and Development Establishment, Avadi

Audit scrutiny of the Staff and TD.R&D projects taken up by CVRDE and VRDE during the period April 1998 to March 2013 for delivery of products required by Defence Forces revealed the following.

Staff Projects

AT CVRDE: Two staff projects were closed during April 1998 to March 2013 out of which one project was undergoing Transfer of Technology but was yet to be productionised. In another project though the system developed was accepted by the user, yet the project could not be productionised due to imposition of ban on the foreign vendor.

At VRDE: Of the nine closed projects during April 1998 to March 2013, only one underwent productionisation. For another project though stated to have been successfully completed by the lab, the details of acceptance by the user leading to induction into Service could not be produced by the lab. Third project partly achieved the project requirement and the remaining six projects could not achieve success in terms of acceptance by the users.

Initiation of projects without firm General Staff Qualitative Requirement, failure of the laboratory to develop the desired deliverables and defective planning were the main reason for failure.

Technology Demonstration/ R&D Projects

The status of Technology Demonstration projects undertaken by the two labs was also not encouraging as 36 out of 51 closed projects did not lead to the utilisation of such technology in staff projects.

Para VII Defence Grants-in-Aid Scheme of Defence Research and Development Organisation

The Defence Grants-in-Aid scheme was instituted to utilize the indigenously available research talent and facilities in

IITs, Universities, Higher Technological Institute, etc. for undertaking research and development work on problems of scientific value and preferably in areas of interest to Defence. Audit observed that there were critical shortfalls in the management and monitoring of the Scheme such as awarding the project without arriving at viable and specific research objectives and not defining the quantitative and qualitative targets to be attained. The major expenditure was on purchase of equipments but in majority of cases the disposal of equipments was left at the discretion of the Grantee institutions in the manner desired. In these circumstances the schemes is far from satisfaction. The money was also sanctioned for creation of basic infrastructure against the provisions of the scheme.

VIII ORDANCE FACTORIES ORGANISATION

Para 8.1 Performance of Ordnance Factory Board

The Ordnance Factory Organisation comprising 41 Ordnance Factories (including two ordnance factories under project stage) with manpower of 96,317 is engaged in production of arms, ammunition, equipment, clothing etc. primarily for the Armed Forces of the Country. The factories function under the Ordnance Factory Board (Board). Revenue expenditure showed 11 per cent increase in 2011-12 but decreased marginally by 2 per cent in 2012-13. Stores (48 per cent) and manufactured expenditure (36 per cent) constituted 74 per cent of the total revenue expenditure. Both components, however, registered a dip in 2012-13: stores by 7 per cent and manufacturing by 2 per cent.

Capital expenditure of ₹349 crore during 2012-13 remained almost at the same level of 2008-09 and comprised only 3 per cent of the total expenditure of the Board.

Of 529 items targeted for manufacturing during 2012-13, Ordnance Factories achieved success rate of only 31 per cent. Inability to source quality components on time and fluctuations in demands were the reasons for the low success rate.

During 2012-13, the cost of production (₹15,972.44 crore) almost remained static when compared with 2011-12 with share of stores, Labour and Overhead cost of 61 per cent, 11 per cent and 28 per cent respectively. In eight ordnance factories, the percentage of overhead to cost of production exceeded 50 per cent. High supervision charges, with one supervisory officer for every 1.97 direct labours, contributed to the high overhead.

During 2012-13, the Board reported an increase of total receipts of ₹71 crore (0.56 per cent) over 2011-12. On the other hand, surplus generated during 2012-13 fell by ₹118 crore (16 per cent). Cross-subsidisation across the products led to inadequate cost control by the Board.

Revenue earned from exports reduced from ₹46 crore in 2011-12 to ₹15 crore in 2012-13 (67 per cent).

Para 8.2 Inventory Management in Ordnance Factories

The Ordnance Factories held an inventory of ₹10,490 crore (March 31, 2013) which accounted for two-third of the cost of production. Our audit covers the performance of Ordnance Factory Board and nine sampled Ordnance Factories in

respect of Inventory Management in the year 2010-11 to 2012-13. The sampled Factories together held inventory worth 4,799 crore which represented 46 per cent of the total inventory held in all Ordnance Factories as of March 31, 2013.

Stores-in-hand (SIH) i.e. inventory of raw material with the stores Section of the Factory is an area of concern in inventory management in the Factories. At the level of ₹2,425 crore, SIH constituted over 50 per cent of the inventory holding in the nine sampled factories as of March 31, 2013. In the nine sampled factories non-moving SIH i.e. items which sere not consumed for a period of three or more years after purchase, increased by 73 per cent during 2010-13. Our analysis showed that 95 per cent of the SIH in the sampled Factories exceeded the prescribed limits. Over four-fifth of these items held in excess of the limits were items which were not consumed at all during the year under our analysis, 2012-13. Items worth ₹96 crore were not only held in excess of the prescribed holding limits but also had not been used even once after their procurement during 2010-13. The current procedure to exhaust all option of potential usage had in effect failed and led to build up of non-active stores. On the other hand, the definition of "active" stores (an item is categorised as active even if only one unit is consumed during the year) creates a potential risk of token consumption in order to keep the items off the "non-moving" category. All nine sample factories together registered token consumption against 5,925 items valued at ₹373 crore, indicating a common trend.

Works-in-Progress (WIP) are inventory held by the Factory Production Shop, which are under production. WIP in the nine factories increased by 21 per cent during the period 2010-13 and as of March, 2013, the value of WIP stood at ₹1,501 crore. The increase in WIP without a correlated increase in cost of production points to a risk of fraudulent booking of material or labour against open warrants i.e. warrants not closed although production against them had stopped for variety of reasons. Although warrants are required to be closed within six months, 17 per cent of warrants of eight sampled factories were over a year old. The value of warrants that were open for more than one year was ₹434 crore. The factories had been reflecting rejected stocks as WIP or Stores-in-transit between factories, in some cases for over 20 years, which remained un-detected. A protracted process for review of inventory and to fix accountability for loss due to rejections, let to a tendency in the Factories to "hide" rejections by categorising rejected stores under WIP or SIT even as delays in fixing accountability defeated the purpose.

The assurance to be provided by the physical verification was inadequate and did not reflect the correct position on physical availability of stores. The use of "loan issues" of material without a demand note from the shop does not have the sanction of Board and constitutes a bad practice. The review of inventory holding by the Board was not comprehensive and did not yield clear and firm directions to the Factories.

Para 8.3 Indigenous production of MBT Arjun and T-90 Bhisma Tank

Against the Ministry's revised plan to induct 124 MBT Arjun in 2002-09, Ordnance

Factories issued 119 MBT Arjun to the Army during 2004-13. The production of 300 indigenous T-90 tanks, scheduled for delivery in 2006-10 based on transfer of Technology from Russia (2001), lagged behind with production of 225 T-90 and issue of only 167 T-90 tanks to the army during 2009-13. Inordinate delays in production of both the tanks led to fresh import (November, 2007) of T-90 tanks worth ₹4,913 crore. While the progress of the project for augmentation of production capacity of T-90 tanks sanction in September, 2011 was very slow, the existing facilities for MBT Arjun remained underutilised in absence of further order of MBT Arjun from the Army.

Para 8.4 Capacity addition in Ordnance Factories

Procurement of machinery in ten Ordnance Factories (test checked) did not enhance the production capacity as the availability of machine hours showed a downward trend from 683 lakh hours in 2010-11 to 639 lakh hours in 2012-13. Delays in receipt of 170machines (36 per cent) valuing ₹343 crore and delays in commissioning of 213 machines (29 per cent) valuing ₹317 crore deprived the Factories of the timely benefits of modernisation. Deficiencies in pre-dispatch inspection and pre-commissioning trials led to delays in commissioning and in some cases, acceptance of machinery compromising the quality. High incidence of under-utilisation (21 to 24 per cent machines utilised upto 30 per cent of capacity) and of breakdowns, affected the ability of the factories to meet the targets placed on them. These issues which have a direct bearing on the performance of the Board, did not receive focused attention of the top management.

Para 8.6 Avoidable extra expenditure on procurement of components

Procurement of Copper Tube/ Aluminium Alloy extruded Rod by Ordnance Factory Kanpur (OFC) from Ordnance Factory Katni/ Ordnance Factory Ambarnath, despite material cost of those sister factories being higher than the total trade cost, led to avoidable extra expenditure of ₹3.99 crore.

Para 8.7 Avoidable extra expenditure on procurement of components

Acceptance of defective stores before receipt of clearance for bulk production in violation of the Ordnance Factory Board's instruction led to a loss of ₹93.61 lakh.

Para 8.9 Injudicious procurement leading to uneconomical manufacture

Despite adequate stock of magazine assemblies through inter factory demand, the Rifle Factory Ishapore bought spring platforms at a cost of ₹1.27 crore which was avoidable and led to higher cost of production.

Para 8.10 Defective manufacture of mines

Manufacture of defective mines by Ordnance factory Chanda/ High Explosive Factory Kirkee coupled with their failure to seal the joint properly led to segregating of mines valuing ₹35.97 crore at Army Depots without repair/ replacement.

Para 8.13 Undue benefit to a private power utility provider

Failure of the Board/ Gun and Shell factory Cossipore to recover the lease rent and

premium from the private electricity supplier as per the prescribed rates resulted in revenue loss of ₹2.64 crore and led to undue benefit to the private electricity supplier.

IX DEFENCE PUBLIC SECTOR UNDERTAKINGS

Para 9.1 Licence production of Su-30 MKI aircraft

Since the ageing fleet of MiG 21 series of aircraft nearing completion of their total technical life were to be phased out from 2000 to 2010, Ministry of defence (MoD) directly purchased (1996 and 1998) 50 Su-30 MK aircraft from the Russian Government. An Inter-Governmental Agreement was concluded (October 2000) with Russia for transfer of licence and technical documentation to India for production of 140 aircraft, 920 engines and 140 sets of air-borne equipment.

Pursuant to this and considering the immediate requirement, IAF ordered (January 2001) 140 aircraft from HAL in four phase composition stipulating the deliveries upto 2017-18. HAL in turn signed (December 2000) a General Contract with Resoboronexport (ROE) for facilitating licence production. In March 2006, considering the sharp depletion in combat aircraft force levels and deliveries were advanced to 2014-15 with changed phase composition.

Based on IAF's proposal seeking additional 40 aircraft as urgent requirement, another order was placed on HAL considering its request to amend the procurement from 'buy' to 'make. Another order for supply of 42 aircraft was placed on HAL as a repeat order to avoid depletion in IAF's force levels and to use ToT available with HAL.

HAL did not receive all the components of transfer of technology from ROE as required impacting the timely supply of deliverables. Production of engines from raw material stage scheduled from 2009-10 was yet to start even as of December 2013. There was delay in receipt of documentation for Repair and Overhaul of Aircraft and engines resulting in delay in setting up of facilities for Repair and Overhaul. HAL procured inventory of ₹1,725.41 crore in advance of requirement due to non-synchronisation of purchase production schedule. Delayed setting up of Repair and Overhaul facilities for Aircraft at HAL led to TBO life extension from 10 years to 12 years by IAF.

IAF received 81 aircraft against 112 due till 2012-13 from HAL. This was due to delay in receipt of technical documents and rectification of defective toolings received from ROE. There were delays upto 275 days in ferry out of aircraft after signalling out due to snag rectification. MoD recovered liquidated damages of ₹96.26 crore from HAL due to delayed supply of aircraft. Though the delay was attributable to ROE, HAL could not recover the same from ROE in the absence of enabling provision. Further, due to delayed conclusion of agreements for role equipments with ROE, HAL could not deliver the same in time resulting in levy of liquidated damages of ₹4.77 crore by MoD. Acceptance of a new rate by HAL for procurement of engine kits disregarding the price stipulated in the General Contract of December 2000 resulted in additional expenditure of ₹66 crore.

HAL could not recover ₹66.61 crore in supply of Ground Handling Equipment/ Ground Support Equipment to IAF due to quoting rates without reference to year of incurrence and non-inclusion of escalation clause in the contract with MoD.

Owing to adoption of incorrect exchange rate by MoD, while amending the contract, HAL incurred a loss of ₹101.72 crore in supply of aircraft towards additional contract for 40 aircrafts.

Mandatory fatigue test of airframe was not conducted on aircraft manufactured indigenously from raw materials.

Para 9.2 Loss due to non utilisation of power for captive consumption

Non Utilisation of power generated by wind mill farm for captive consumption and sale of power to Hubli Electricity Supply Company Limited (HESCOM) by BEML Limited at a price lower than they paid to Bangalore Electricity Supply Company Limited (BESCOM) and Bhoruka Power Corporation Limited for purchase of power resulted in loss of ₹5.67 crore.

Para 9.3 Non-recovery of liquidated damages

BEML Limited's acceptance of non-enforceable terms of LD coupled with failure to withhold the payments resulted in non-recovery of LD of ₹12 crore.

Para 9.4 Loss of ₹9.81 crore in supply of ACEMU Coaches

Non-inclusion of Value Added Tax/ Central Sales Tax in the offer for supply of Air Conditioned Electric Multiple Units by BEML Limited, resulted in non-recovery of ₹5.51 crore and delayed supplies of coaches resulted in payment of Liquidated Damages of ₹2.99 crore. Further, the Company had to absorb ₹1.31 crore being the excise Duty paid for deliveries beyond stipulated delivery schedule as the extension of delivery schedule was with denial clause.

Para 9.5 Loss due to delay in procurement of material

Delay in procurement of raw material led to non-recovery of price escalation of ₹15.52 crore and consequent delay in supplies resulted in levy of LD of ₹1.47 crore on Mishra Dhatu Nigal Limited.

Position of Action Taken Notes (ATNs) as on 31.12.2014 in respect of observations made in the C&AG Reports/ PAC Reports

Sl. No.	Year		Details of the Paras/PA reports on which ATNs are pending as on 31.12.2014			
		No. of Paras/ PA reports on which ATNs have been submitted to PAC After vetting by Audit During 2014-15 (upto 31.12.2014)	No. of ATNs not sent to Audit by the Ministry even for the first time	No. of ATNs sent to Audit for vetting	No. of ATNs sent but returned with observations and Audit is awaiting their resubmission by the Ministry	No. of ATNs which have been finally vetted by Audit but have not been submitted by the Ministry to PAC
1	1987-88					
2	1988-89				1	
3	1990-91				1	
4	1996-97				1	
5	1997-98				1	
6	2001-02				4	
7	2002-03			1	1	
8	2003-04					
9	2004-05			1	1	
10	2005-06			1		
11	2006-07				1	
12	2007-08			1	1	
13	2008-09	1		2	2	
14	2009-10			2	6	1
15	2010-11	3	2	3	8	1
16	2011-12	5	1	11	8	1
17	2012-13	12		15	6	4
18	2013-14	6	32	3	27	
Total		**27**	**35**	**40**	**69**	**7**

Results-Framework Document (RFD) for Department of Defence Production-(2013-2014)

Section 1:
Vision, Mission, Objectives and Functions

Vision

To achieve self-reliance in production of state of the art weapon platforms, arms, ammunition equipment's and other material required for the defence of our nation.

Mission

Facilitate enhancement of capability and capacity through policies, initiatives and incentives for improving quality and timely delivery of defence equipment for Armed Forces and encourage R&D efforts in Indian defence industries for self-reliance and improve the functioning of OFB, DPSUs for transforming them into global leaders.

Objectives

1. Timely delivery of arms/ammunitions and equipments of quality standards to the Armed Forces as per their requirement.
2. Increase share of Indian products in the procurement for our defence needs.
3. Enhance manufacturing /mapping capabilities in the defence domain.
4. Streamlining Institutional Architecture for defence related Research and Development.
5. Facilitating and guiding improvements in the functioning of DPSUs, OFB and all the three Responsibility Centres.
6. Monitoring of offset policy.

Functions

1. To indigenise, develop & produce defence equipment
2. To encourage participation of the private sector in the manufacture of defence equipment.
3. To develop the aeronautics industry & coordination among users other that those concernd with the Ministry of Civil Aviation & the Department of Space.
4. To encourage defence exports & promote international cooperation in defence production.
5. To oversee Defence Quality Assurance Organization including DGQA & DGAQA.
6. To encourage standardisation of defence equipments & stores through Directorate of Standardisation.
7. To oversee and monitor work relating to the following organisations & undertakings. a) OFB & OFs b) HAL c) BEL d) MDL e) GRSE f) GSL g) BDL h) MIDHANI i) BEML j) HSL

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
1 Timely delivery of arms/ammunitions and equipments of quality standards to the Armed Forces as per their requirement.	30.00	Delivery of Ammunition due for delivery by 31.03.2014 as per annual target.	Value of Ammunition delivered.	Rs. In Cr	1.50	5870	5283	4696	4109	3522	4950	84.33	1.26
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	91	91.0	1.36
		Delivery of Armoured Vehicles due for delivery by 31.03.2014(187 Nos.) as per annual target.	Nos. delivered	No.	1.50	187	168	150	131	112	121	64.74	0.97
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	86	86.0	1.29
		Delivery of Pinaka rockets due for delivery by 31.03.2014(1400 Nos.) as per annual target.	Nos. delivered.	No.	1.50	1400	1260	1120	980	840	968	69.14	1.04
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	69	69.0	1.04
		Delivery of AK-630M gun due for delivery by 31.03.2014(12Nos.) as per annual target.	Nos. delivered.	No.	1.50	12	11	10	8	7	12	100.0	1.5
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	100	100.0	1.5
		Delivery of Missiles due for delivery by 31.03.14 (5500 Nos) as per annual target.	Nos. delivered.	No.	1.50	5500	4950	4400	3850	3300	6570	100.0	1.5
			Fulfillment of timely delivery as per terms of	%	1.50	100	90	80	70	60	100	100.0	1.5

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
			contract.										
		No of Ships delivered due for delivery by 31.03.2014 (10 Nos) as per annual target.	Nos Delivered.	No.	1.50	10	9	8	7	6	09	90.0	1.35
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	95	95.0	1.42
		Delivery of air-crafts/helicopters due for delivery by 31.03.14(68 Nos) as per annual target. .	Nos. Delivered.	No.	1.50	68	61	54	48	41	37	0.0	0.0
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	88	88.0	1.32
		Delivery of ULSB Mk-II for Army by 31.03.2014 (500 Nos) as per annual target.	Nos. Delivered.	No.	1.50	500	450	400	350	300	896	100.0	1.5
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	100	100.0	1.5
		Delivery of Passive Night Vision Device(PNVD) for Army due for delivery by 31.03.14 (10000 Nos) as per annual target.	Nos. Delivered.	No.	1.50	10000	9000	8000	7000	6000	10178	100.0	1.5
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	100	100.0	1.5
		Delivery of RADARS & Fire Control Systems due for delivery by 31.03.14 (30 Nos) as per annual target.	Nos. Delivered.	No.	1.50	30	27	24	21	18	40	100.0	1.5

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
			Fulfillment of timely delivery as per terms of contract.	%	1.50	100	90	80	70	60	100	100.0	1.5
2 Increase share of Indian products in the procurement for our defence needs.	30.00	Increase in no of manufacturing Vendors.	Increase in the percentage over previous year.	%	6.00	6	5	4	3	2	6	100.0	6.0
		Encourage Private Participation.	Number of NOCs recommended for Industrial Licence to private sector company.	No.	3.00	30	27	24	21	18	43	100.0	3.0
			Operationalization of licenses/granted upto 31.03.2012.	No.	3.00	16	14	12	11	10	16	100.0	3.0
		Indigenisation of T-90 tanks from the present level of indigenisation (65%) to cumulative (73%).	Cumulative increase in % of indigenisation from the present level.	%	4.00	8	7	6	5	4	7	90.0	3.6
		Indigenisation of Shakti Engine from the present level of Indigenization (25%) to Cumulative (29%) by HAL.	Cumulative increase in % of indigenisation from the present level.	%	4.00	4	3	2	1	0	4	100.0	4.0
		Indigenisation of Sukhoi Aircrafts from the present level of indigenisation (41%) to cumulative(47%) by HAL	Cumulative increase in % of indigenisation from the present level.	%	4.00	6	5.4	4.8	4.2	3.6	6	100.0	4.0
		Indigenisation of P-15A increase from the present level of indigenisation by 4%	Cumulative increase in % of indigenisation from the present level.	%	3.00	4	3	2	1	0	4	100.0	3.0
		Indigenisation of Tatra 8x8 vehicle from present level of indigenisation of	Cumulative increase in % of indigenisation from the present level.	%	3.00	10.0	7.5	5.0	3.0	0	10	100.0	3.0

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
		65% to cumulative 75% by BEML											
3 Enhance manufacturing /mapping capabilities in the defence domain.	15.00	Overall programme of Modernisation of OFs & DPSUs.	Expenditure incurred by OFs.	Rs in cr.	2.00	1020	918	816	714	612	1156	100.0	2.0
			Expenditure incurred by DPSUs.	Rs in cr.	2.00	1388.77	1249.89	999.91	699.94	489.95	1200.81	88.04	1.76
		Key Modernisation Project in OFB. Creation of capacity for Spares for T-72, T-90 OH for OFB.	Completion of Civil Work.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	03/03/2014	100.0	1.0
			Completion of installation of Plant and Machinery.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014		N/A	N/A
		Key Modernisation Project in OFB. Setting up of Ordnance Factory Korwa.	Completion of civil works for factory area.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	03/03/2014	100.0	1.0
			Placement of order for Plant and Machinery.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014		N/A	N/A
		Key Modernisation Project for Shipyards. Building & Ancillary work by MDL.	Completion of Building and Ancillary work component in MDL.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014		N/A	N/A
		Key Modernisation Project in BDL in respect of Konkurs-M project.	Completion of civil works for Heat Treatment shop, M1M2 Assy, control Drive Assy & wire spool Assy.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014		N/A	N/A
		Key Modernisation Project in HAL for ALH MRS manufacturing facility.	Completion of Augmentation of ALH MRS manufacturing facility .	Date	1.00	01/11/2013	03/12/2013	03/01/2014	04/02/2014	04/03/2014	31/10/2013	100.0	1.0
		Key Modernisation Project in BEL in respect of Radio Frequency (RF)	Completion of Expansion of the Radio Frequency (RF)/Micro	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	02/10/2013	100.0	1.0

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
		/Micro Wave(MW).	Wave(MW) Super Components Facility.										
		Key Modernisation Project in MIDHANI in respect of Erection of Major Equipments.	Completion of Erection of Major Equipments of Melt Shop IV.	Date	1.00	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	28/02/2014	100.0	1.0
		Key Modernisation project of BEML in respect of Material Handling Facility.	Completion of Side Loading Material Handling Facility.	Date	1.00	14/02/2014	28/02/2014	17/03/2014	24/03/2014	31/03/2014	31/01/2014	100.0	1.0
		Key Modernisation project of BEML for Engine Testing facility.	Completion of Engine Testing facility with Eddy Current Dynamometer.	Date	1.00	14/02/2014	28/02/2014	17/03/2014	24/03/2014	31/03/2014	10/02/2014	100.0	1.0
4 Streamlining Institutional Architecture for defence related Research and Development.	3.00	R&D Project of BEL for Communication System.	Completion of Internal Evaluation of Up/Down converter for Tropo Communication System.	Date	0.50	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	28/08/2013	100.0	0.5
		R&D Project of BDL for CMDS.	Completion of Design and Development of Multi dispenser CMDS to carry 240 Payloads.	Date	0.50	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	30/11/2013	100.0	0.5
		R&D Project of HAL for Thrust class Engine.	Completion of Design & Development of 20KN Thrust class Engine: Preliminary Design Review(PDR).	Date	0.50	31/12/2013	31/01/2014	28/02/2014	17/03/2014	31/03/2014	31/10/2013	100.0	0.5
		R&D Project of MDL for Development of 3D CAD Model .	Completion of Development of 3D CAD Model using Aveva Marine for Ship Hull and superstructure of P15B comprising of 148 Ship units.	Date	0.50	31/01/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014	31/01/2014	100.0	0.5
		R&D Project of OFB for 155X45 Cal. Gun.	Offer 155X45 Cal. Gun with Electronic Module	Date	0.50	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	03/03/2014	100.0	0.5

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
			for user trial.										
		R&D Project of OFB for Indigenisation of Rocket.	Pilot batch for final flight of Rocket 57 mm S-5 KP.	Date	0.50	03/03/2014	10/03/2014	17/03/2014	24/03/2014	31/03/2014	03/03/2014	100.0	0.5
5 Facilitating and guiding improvements in the functioning of DPSUs, OFB and all the three Responsibility Centres.	5.00	Strict Monitoring of the MOUs/RFDs of the DPSUs and RCs.	Excellent rating by the DPE.	No.	1.00	5	4	3	2	1	3	80.0	0.8
			Very good rating by DPE.	No.	1.00	3	2	1	0	0	3	100.0	1.0
		Finalisation of subsidiary RFD of three RCs.	Timely completion.	Date	1.00	15/05/2013	16/05/2013	17/05/2013	20/05/2013	21/05/2013	15/05/2013	100.0	1.0
		Improving the quality of Labs.	Number of Labs that get NABL accreditation.	No.	1.00	2	1	0	0	0	2	100.0	1.0
		To increase transparency in procurement.	E-procurement audit by committee of 3 officers from DPSUs and OFB.	Date	1.00	30/09/2013	31/10/2013	29/11/2013	31/12/2013	31/01/2014	24/09/2013	100.0	1.0
6 Monitoring of offset policy.	2.00	Study of signed offset contracts to determine extent of procurement from local sources.	Timely Completion.	Date	2.00	25/10/2013	25/11/2013	25/12/2013	24/01/2014	25/02/2014	25/09/2013	100.0	2.0
* Efficient Functioning of the RFD System	3.00	Timely submission of Draft RFD 2014-15 for Approval RFD System	On-time submission	Date	2.0	05/03/2014	06/03/2014	07/03/2014	08/03/2014	11/03/2014	04/03/2014	100.0	2.0
		Timely submission of Result for 2012-13	On-time submission	Date	1.0	01/05/2013	02/05/2013	03/05/2013	06/05/2013	07/05/2013	30/04/2013	100.0	1.0
* Transparency/Service delivery of Ministry/Department.	3.00	Independent Audit of implementation of Citizens'/Clients' Charter (CCC)	% of implementation	%	2.0	100	90	80	70	60	97	97.0	1.94

* Mandatory Objective(s)

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
		Independent Audit of implementation of Public Grievance Redressal System	% of implementation	%	1.0	100	90	80	70	60	37.23	0.0	0.0
* Administrative Reforms	6.00	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	1.0	100	95	90	85	80	100	100.0	1.0
		Implement ISO 9001 as per the approved action plan	% of implementation	%	2.0	100	95	90	85	80	100	100.0	2.0
		Identify, design and Implement major innovations.	Timely submission of Action Plan for enabling innovation	Date	2.0	15/05/2014	16/05/2014	19/05/2014	20/05/2014	21/05/2014	15/05/2014	100.0	2.0
		Identification of core and non-core activities of the Ministry/Department as per 2nd ARC recommendations	Timely submission	Date	1.0	24/03/2014	25/03/2014	26/03/2013	27/03/2014	28/03/2014	27/01/2014	100.0	1.0
* Improving Internal Efficiency/Responsiveness	2.00	Update departmental strategy to align with 12th Plan priorities	Timely updation of the strategy	Date	2.0	10/09/2013	17/09/2013	24/09/2013	01/10/2013	08/10/2013	10/09/2013	100.0	2.0
* Ensuring compliance to the Financial Accountability Framework	1.00	Timely submission of ATNs on Audit paras of C&AG	Percentage of ATNs submitted within due date (4 months) from date of presentation of Report to Parliament by CAG during the year.	%	0.25	100	90	80	70	60	40	0.0	0.0
		Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentage of ATRS submitted within due date (6 months) from date of presentation of Report to Parliament by PAC	%	0.25	100	90	80	70	60	0	0.0	0.0
		Early disposal of pending ATNs on Audit Paras of	Percentage of outstanding ATNs	%	0.25	100	90	80	70	60	89	89.0	0.22

* Mandatory Objective(s)

Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score
						100%	90%	80%	70%	60%			
		C&AG Reports presented to Parliament before 31.3.2013.	disposed off during the year.										
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2013	Percentage of outstanding ATRS disposed off during the year	%	0.25	100	90	80	70	60	0	0.0	0.0

* Mandatory Objective(s)

Total Composite Score : 89.38

Subject to the approval of High Power Committee (Conducted by PMD)

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
[1] Timely delivery of arms/ammunitions and equipments of quality standards to the Armed Forces as per their requirement.	[1.1] Delivery of Ammunition due for delivery by 31.03.2014 as per annual target.	[1.1.1] Value of Ammunition delivered.	Rs. In Cr	--	--	5283	--	--
		[1.1.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.2] Delivery of Armoured Vehicles due for delivery by 31.03.2014(187 Nos.) as per annual target.	[1.2.1] Nos. delivered	No.	--	--	168	--	--
		[1.2.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.3] Delivery of Pinaka rockets due for delivery by 31.03.2014(1400 Nos.) as per annual target.	[1.3.1] Nos. delivered.	No.	--	--	1260	--	--
		[1.3.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.4] Delivery of AK-630M gun due for delivery by 31.03.2014(12Nos.) as per annual target.	[1.4.1] Nos. delivered.	No.	--	--	11	--	--
		[1.4.2] Fulfillment of timely delivery as per	%	--	--	90	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		terms of contract.						
	[1.5] Delivery of Missiles due for delivery by 31.03.14 (5500 Nos) as per annual target.	[1.5.1] Nos. delivered.	No.	--	--	4950	--	--
		[1.5.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.6] No of Ships delivered due for delivery by 31.03.2014 (10 Nos) as per annual target.	[1.6.1] Nos Delivered.	No.	--	--	9	--	--
		[1.6.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.7] Delivery of air-crafts/helicopters due for delivery by 31.03.14(68 Nos) as per annual target. .	[1.7.1] Nos. Delivered.	No.	--	--	61	--	--
		[1.7.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.8] Delivery of ULSB Mk-II for Army by 31.03.2014 (500 Nos) as per annual target.	[1.8.1] Nos. Delivered.	No.	--	--	450	--	--
		[1.8.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	[1.9] Delivery of Passive Night Vision Device(PNVD) for Army due for delivery by 31.03.14 (10000 Nos) as per annual target.	[1.9.1] Nos. Delivered.	No.	--	--	9000	--	--
		[1.9.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
	[1.10] Delivery of RADARS & Fire Control Systems due for delivery by 31.03.14 (30 Nos) as per annual target.	[1.10.1] Nos. Delivered.	No.	--	--	27	--	--
		[1.10.2] Fulfillment of timely delivery as per terms of contract.	%	--	--	90	--	--
[2] Increase share of Indian products in the procurement for our defence needs.	[2.1] Increase in no of manufacturing Vendors.	[2.1.1] Increase in the percentage over previous year.	%	--	--	5	--	--
	[2.2] Encourage Private Participation.	[2.2.1] Number of NOCs recommended for Industrial Licence to private sector company.	No.	--	--	27	--	--
		[2.2.2] Operationalization of licenses/granted upto 31.03.2012.	No.	--	--	14	--	--
	[2.3] Indigenisation of T-90 tanks from the present level of indigenisation (65%) to cumulative (73%).	[2.3.1] Cumulative increase in % of indigenisation from the present level.	%	--	--	7	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	[2.4] Indigenisation of Shakti Engine from the present level of Indigenization (25%) to Cumulative (29%) by HAL.	[2.4.1] Cumulative increase in % of indigenisation from the present level.	%	--	--	3	--	--
	[2.5] Indigenisation of Sukhoi Aircrafts from the present level of indigenisation (41%) to cumulative(47%) by HAL	[2.5.1] Cumulative increase in % of indigenisation from the present level.	%	--	--	5.4	--	--
	[2.6] Indigenisation of P-15A increase from the present level of indigenisation by 4%	[2.6.1] Cumulative increase in % of indigenisation from the present level.	%	--	--	3	--	--
	[2.7] Indigenisation of Tatra 8x8 vehicle from present level of indigenisation of 65% to cumulative 75% by BEML	[2.7.1] Cumulative increase in % of indigenisation from the present level.	%	--	--	7.5	--	--
[3] Enhance manufacturing /mapping capabilities in the defence domain.	[3.1] Overall programme of Modernisation of OFs & DPSUs.	[3.1.1] Expenditure incurred by OFs.	Rs in cr.	--	--	918	--	--
		[3.1.2] Expenditure incurred by DPSUs.	Rs in cr.	--	--	1249.89	--	--
	[3.2] Key Modernisation Project in OFB. Creation of capacity for Spares for T-72, T-	[3.2.1] Completion of Civil Work.	Date	--	--	10/03/2014	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	90 OH for OFB.							
		[3.2.2] Completion of installation of Plant and Machinery.	Date	--	--	10/03/2014	--	--
	[3.3] Key Modernisation Project in OFB. Setting up of Ordnance Factory Korwa.	[3.3.1] Completion of civil works for factory area.	Date	--	--	10/03/2014	--	--
		[3.3.2] Placement of order for Plant and Machinery.	Date	--	--	10/03/2014	--	--
	[3.4] Key Modernisation Project for Shipyards. Building & Ancillary work by MDL.	[3.4.1] Completion of Building and Ancillary work component in MDL.	Date	--	--	10/03/2014	--	--
	[3.5] Key Modernisation Project in BDL in respect of Konkurs-M project.	[3.5.1] Completion of civil works for Heat Treatment shop, M1M2 Assy, control Drive Assy & wire spool Assy.	Date	--	--	10/03/2014	--	--
	[3.6] Key Modernisation Project in HAL for ALH MRS manufacturing facility.	[3.6.1] Completion of Augmentation of ALH MRS manufacturing facility .	Date	--	--	03/12/2013	--	--
	[3.7] Key Modernisation Project in BEL in respect of Radio Frequency (RF)/Micro Wave(MW).	[3.7.1] Completion of Expansion of the Radio Frequency (RF)/Micro Wave(MW) Super Components	Date	--	--	10/03/2014	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		Facility.						
	[3.8] Key Modernisation Project in MIDHANI in respect of Erection of Major Equipments.	[3.8.1] Completion of Erection of Major Equipments of Melt Shop IV.	Date	--	--	10/03/2014	--	--
	[3.9] Key Modernisation project of BEML in respect of Material Handling Facility.	[3.9.1] Completion of Side Loading Material Handling Facility.	Date	--	--	28/02/2014	--	--
	[3.10] Key Modernisation project of BEML for Engine Testing facility.	[3.10.1] Completion of Engine Testing facility with Eddy Current Dynamometer.	Date	--	--	28/02/2014	--	--
[4] Streamlining Institutional Architecture for defence related Research and Development.	[4.1] R&D Project of BEL for Communication System.	[4.1.1] Completion of Internal Evaluation of Up/Down converter for Tropo Communication System.	Date	--	--	10/03/2014	--	--
	[4.2] R&D Project of BDL for CMDS.	[4.2.1] Completion of Design and Development of Multi dispenser CMDS to carry 240 Payloads.	Date	--	--	10/03/2014	--	--
	[4.3] R&D Project of HAL for Thrust class Engine.	[4.3.1] Completion of Design & Development of 20KN Thrust class Engine: Preliminary Design Review	Date	--	--	31/01/2014	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		(PDR).						
	[4.4] R&D Project of MDL for Development of 3D CAD Model .	[4.4.1] Completion of Development of 3D CAD Model using Aveva Marine for Ship Hull and superstructure of P15B comprising of 148 Ship units.	Date	--	--	28/02/2014	--	--
	[4.5] R&D Project of OFB for 155X45 Cal. Gun.	[4.5.1] Offer 155X45 Cal. Gun with Electronic Module for user trial.	Date	--	--	10/03/2014	--	--
	[4.6] R&D Project of OFB for Indigenisation of Rocket.	[4.6.1] Pilot batch for final flight of Rocket 57 mm S-5 KP.	Date	--	--	10/03/2014	--	--
[5] Facilitating and guiding improvements in the functioning of DPSUs, OFB and all the three Responsibility Centres.	[5.1] Strict Monitoring of the MOUs/RFDs of the DPSUs and RCs.	[5.1.1] Excellent rating by the DPE.	No.	--	--	4	--	--
		[5.1.2] Very good rating by DPE.	No.	--	--	2	--	--
	[5.2] Finalisation of subsidiary RFD of three RCs.	[5.2.1] Timely completion.	Date	--	--	16/05/2013	--	--
	[5.3] Improving the quality of Labs.	[5.3.1] Number of Labs that get NABL accreditation.	No.	--	--	1	--	--
	[5.4] To increase transparency in	[5.4.1] E-procurement audit by committee of 3	Date	--	--	31/10/2013	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	procurement.	officers from DPSUs and OFB.						
[6] Monitoring of offset policy.	[6.1] Study of signed offset contracts to determine extent of procurement from local sources.	[6.1.1] Timely Completion.	Date	--	--	25/11/2013	--	--
* Efficient Functioning of the RFD System	Timely submission of Draft RFD 2014-15 for Approval RFD System	On-time submission	Date	29/02/2012	05/03/2013	06/03/2014	05/03/2015	05/03/2016
	Timely submission of Result for 2012-13	On-time submission	Date	04/05/2012	01/05/2013	02/05/2013	01/05/2014	01/05/2015
* Transparency/Service delivery of Ministry/Department.	Independent Audit of implementation of Citizens'/Clients' Charter	% of implementation	%	--	--	95	95	95
	Independent Audit of implementation of Public Grievance Redressal System	% of implementation	%	--	--	95	95	95
* Administrative Reforms	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	--	91.396	95	95	95
	Implement ISO 9001 as per the approved action plan	% of implementation	%	--	--	95	95	95
	Identify, design and Implement major innovations.	Timely submission of Action Plan for enabling innovation	Date	--	--	95	95	95
	Identification of core and non-core activities of the Ministry/Department as per	Timely submission	Date	--	--	15/10/2013	01/10/2014	01/10/2015

* Mandatory Objective(s)

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	2nd ARC recommendations							
* Improving Internal Efficiency/Responsiveness	Update departmental strategy to align with 12th Plan priorities	Timely updation of the strategy	Date	--	--	17/09/2013	10/09/2014	10/09/2015
* Ensuring compliance to the Financial Accountability Framework	Timely submission of ATNs on Audit paras of C&AG	Percentage of ATNs submitted within due date (4 months) from date of presentation of Report to Parliament by CAG during the year.	%	--	--	90	--	--
	Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentage of ATRS submitted within due date (6 months) from date of presentation of Report to Parliament by PAC	%	--	--	90	--	--
	Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2012.	Percentage of outstanding ATNs disposed off during the year.	%	--	--	90	--	--
	Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2012	Percentage of outstanding ATRS disposed off during the year	%	--	--	90	--	--

* Mandatory Objective(s)

Section 4:
Acronym

Sl.No	Acronym	Description
1	ALH	Advance Light Helicopter
2	ARV	Armoured Recovery Vehicle
3	ATGM	Anti Tank Guided Missile
4	BDL	Bharat Dynamics Limited
5	BEL	Bharat Electronics Limited
6	BEML	Bharat Earth Mover Limited

Section 4:
Acronym

Sl.No	Acronym	Description
7	DPSU	Defence Public Sector Unit
8	HAL	Hindustan Aeronautics Limited
9	MIDHANI	Mishra Dhatu Nigam Limited
10	MoD	Ministry of Defence
11	MoU	Memorandum of Understanding
12	OFB	Ordnance Factory Board

Section 4:
Acronym

Sl.No	Acronym	Description
13	RC	Responsibility Centre
14	ULSB	Unit Level Switch Board

Section 4:
Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
1	[1.1.1] Value of Ammunition delivered.	The success indicator reflects the value of production of ammunition to be delivered to the user in the year 2013-14 to the user.	-	Rs. in Crores	-
2	[1.2.1] Nos. delivered	The success indicator reflects the No of Armoured Vehicles to be delivered to the user in the year 2013-14.	-	In Numbers	-
3	[1.5.1] Nos. delivered.	The success indicator reflects the No .of missiles to be delivered to the user in the year 2013-14.	-	In Numbers	Target for year 2013-14 is less than that of 2012-13 because • Invar Missile indent is completed in 2012-13 and further indent is not yet received for Invar Missile.
4	[1.6.1] Nos Delivered.	The success indicator reflects the No. of ships to be delivered to the user in the year 2013-14.	-	In Numbers	Target for year 2013-14 is less than that of 2012-13 because the total demand by the user is less for the year 2013-14.
5	[1.7.1] Nos. Delivered.	The success indicator reflects the No. of aircrafts/helicopters to be delivered to the user in the year 2013-14.	-	In Numbers	Target for year 2013-14 is less than that of 2012-13 because; it is as per the targets projected by Service Headquarters.

Section 4:
Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
6	[1.10.1] Nos. Delivered.	The success indicator reflects the Nos. of RADAR & Fire Control Systems to be delivered to the user in the year 2013-14.	-	IN Numbers	Target for year 2013-14 is less than that of 2012-13 because • Out of total ordered quantity ,planned quantity for year 2012-13 were delivered in the same year. • Balance quantity is planned for 2013-14.
7	[2.1.1] Increase in the percentage over previous year.	As compared to last year how much manufacturing vendors increased this year.	-	In Percentage	-
8	[2.2.1] Number of NOCs recommended for Industrial Licence to private sector company.	The success indicator is for encouraging private participation.	-	In Numbers	• Number of NOC recommended depends on the number of industrial licence applications received from DIPP and considered licensable through representative Standing Committee and private sector participation. • Number of NOCs recommended for licence in year 2012-13 was 25.

Section 4:
Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
9	[3.1.1] Expenditure incurred by OFs.	The success indicator shows how much expenditure to be incurred on Modernisation on a particular project of OF.	-	Rs. in crores	-
10	[3.6.1] Completion of Augmentation of ALH MRS manufacturing facility .	The success indicator reflects the time limits for completion of a project.	-	Date wise	-
11	[4.5.1] Offer 155X45 Cal. Gun with Electronic Module for user trial.	The success indicator reflects the time limits by which the Gun will be offered to the user for trial.	-	Date wise	• Internal trials of Gun by November 2013. • Proof of Gun by December 2013. • Offer for User Trial by March 2014.
12	[4.6.1] Pilot batch for final flight of Rocket 57 mm S-5 KP.	The success indicator reflects the time limits by which the final flight trial of Rocket 's pilot batch will be done.	-	Date wise	• Assembly and Initial Flight trial of the Rocket by Sept 2013. • Environmental Test /Qualification Test by Dec 2013. • Pilot Batch for final flight trial of the Rocket by March 2014.

Section 4:
Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
13	[5.3.1] Number of Labs that get NABL accreditation.	The success indicator reflects the Number of Labs that get NABL accreditation.	-	In numbers	Only 2 Labs are left for getting NABL accreditation.

Section 5 :
Specific Performance Requirements from other Departments

Location Type	State	Organisation Type	Organisation Name	Relevant Success Indicator	What is your requirement from this organisation	Justification for this requirement	Please quantify your requirement from this Organisation	What happens if your requirement is not met.
Central Government		Ministry	M/o Finance	[3.1.1] Expenditure incurred by OFs.	Timely concurrence/sanctions for timely utilisation of fund.	Timely completion of a project	100%	It affects the National Security.
				[3.1.2] Expenditure incurred by DPSUs.	Timely concurrence/sanctions for timely utilisation of fund.	Timely completion of a project	100%	It affects the National Security.

Section 6:
Outcome/Impact of Department/Ministry

Outcome/Impact of Department/Ministry	Jointly responsible for influencing this outcome / impact with the following department (s) / ministry(ies)	Success Indicator	Unit	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
1 Turnover of Ordnance Factories	Armed Forces, DGQA, QEMs	Turnover	Rs. in Crores	11700	12935	13581	14260	14973
2 Turnover Value of Production of Defence PSUs	OEM, Armed Forces, DGQA	Turnover	Rs. in Crores	31590	33170	34829	36570	38398
3 % Growth in vendor base	Private Sector, Services and various Government setups.	% growth	%	-	6	6	6	6
4 Monitoring Offset policy	Services, Public/Private Sector	Timely study/review of signed offset contracts	Number	-	-	20	20	20

Back Cover : A Mig 29K aircraft approaching for landing on board INS Vikramaditya

C-130J, Hercules Aircraft of IAF in a flying formation