



ARMY DESIGN BUREAU
HARNESSING INDIGENOUS
INDUSTRIAL & ACADEMIC POWER

ARMY : INDIGENISATION

INDIAN ARMY

NEW EQUIPMENT

IMPORT SUBSTITUTION

Compendium of Problem Statements

Olive Pages

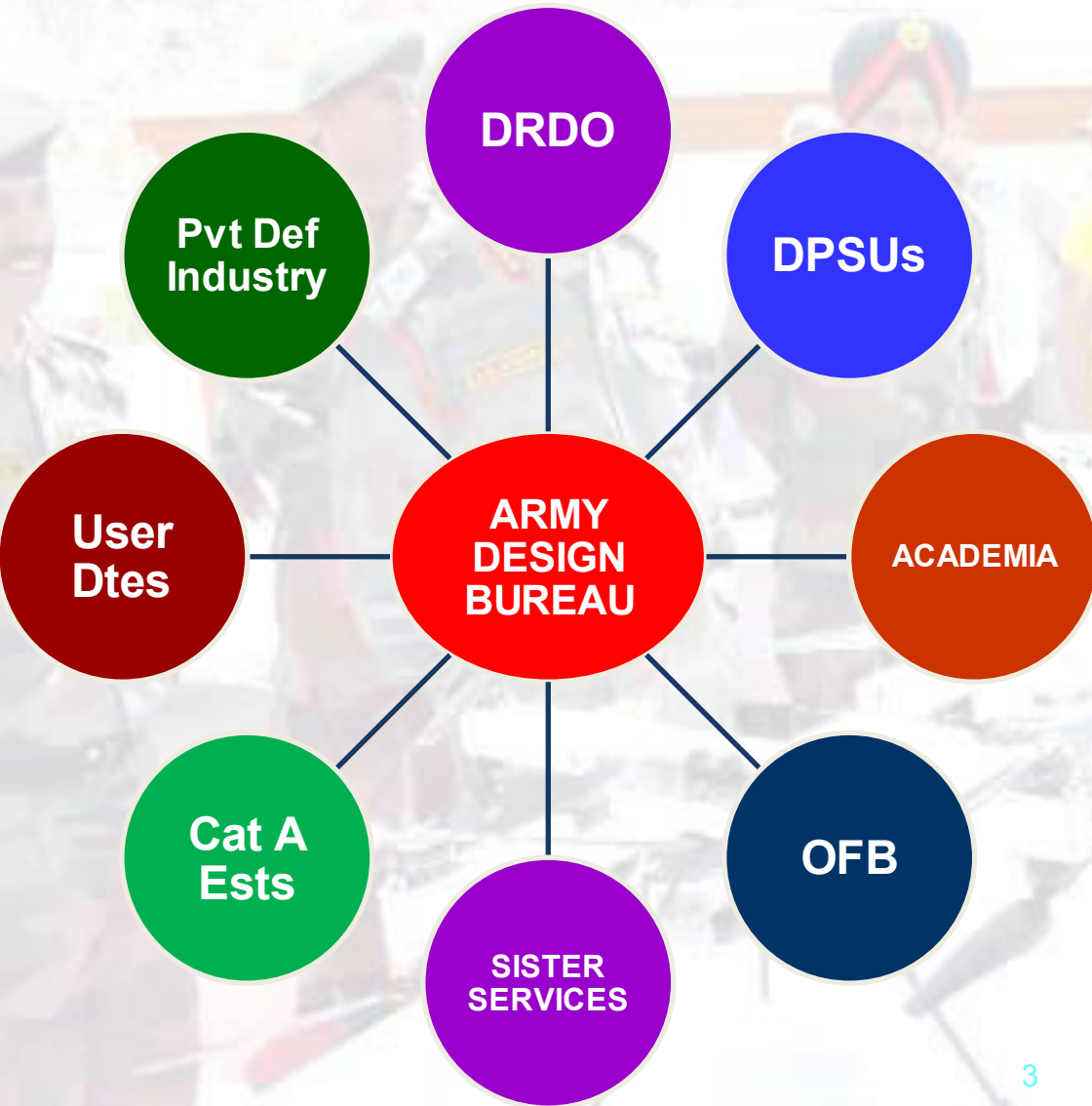
ARMY DESIGN BUREAU

DIRECTORATE OF INDIGENISATION

**Suo Moto Option
MAKE 2
Offsets**

**TDF
iDEX Challenge**

**Indigenisation of Spares
Reimburse Devp Cost
Club three years requirement for EOQ
Assurance of five years
Ex Import Inventory on DoI website
*Samples & Drawings available***



ROLE

To be the **facilitator** for **Research & Development** efforts and **initiation of procurements** of weapons and equipment required by the Indian Army

SPECTRUM OF ACTIVITIES

Outreach

Op Perspective

Problem Statements

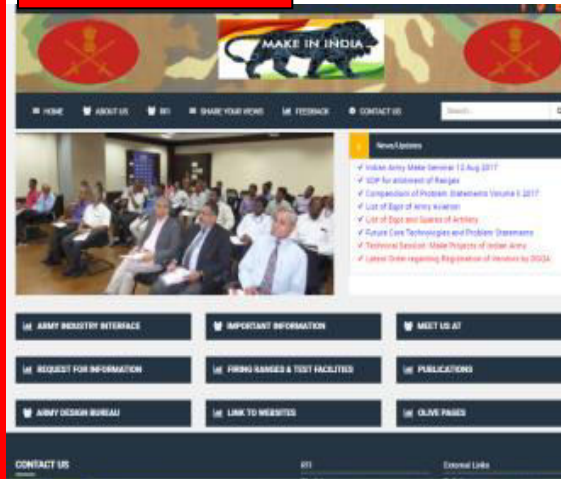
TDF

MAKE 2

iDEX



ADB Website



TPCR2018

Project	Expected Life Cycle of Equipment (Yrs)	Approx Quantity	Amplifying Remarks (If Any)
41. Short Range RPA	20	50	Army
<i>Broad Parameters/ Preferred Technologies.</i>			
(a) Range 200 Km (LOS) (b) Endurance 10 hrs (c) Altitude Ceiling Upto 20,000 feet (d) Payload EO (Day/Ni), SAR, ESM, ELINT (e) Multiple Payload carriage Capability.			
42. Hybrid RPAs	20	30	Army
<i>Broad Parameters/ Preferred Technologies.</i> Short Range RPAs with ranges up to 200 Kms and 20000 ft alt, with capability of rotary wing and fixed wing RPAs facilitating faster transition to and from the target in fixed wg configuration and hover capability in the target area. The ability will also enable to launch and recover the RPA by multiple modes.			
43. Stealth RPAs	20	55-70	Army

- Level of outreach has incr with MoD involvement
- Urgency with slew of initiatives
- Increasing focus on outcomes

- Industry - 1765
- Academia - 943
- MOU with IIT - 05

SPECTRUM OF ACTIVITIES

Outreach

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Problem Statements

TDF

MAKE 2

iDEX

Leh



Sikkim



Desert



Base Camp



Coimbatore



Deolali



- Op Vis / Demos specific to potential Make pgme
- Eqpt familiarisation @ Cat A Est – Extremely useful for industry

SPECTRUM OF ACTIVITIES

Outreach

Op Perspective

Problem Statements

TDF

MAKE 2

iDEX



25 Solns fwd for NCNC Demo in all Comds

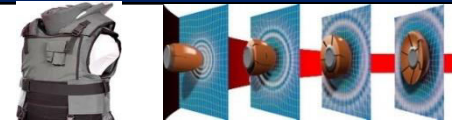
Industry
Academia

SPECTRUM OF ACTIVITIES

Outreach

Ongoing Projects

1. Light Weight Bullet Proof Material



Op Perspective

Projects Under Feasibility Study

2. Exoskeleton



Problem Statements

3. Weaponisation of ALH Mk III



4. English to Mandarin Translator

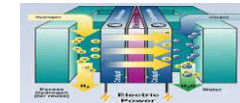


TDF

Projects under Approval

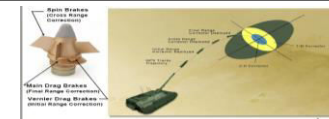
MAKE 2

5. Fuel Cells for Small to Large Powers



iDEX

6. Course Correction Fuzes for Artillery



7. Improved Reinforced 155 mm Shell for ATAGS



SPECTRUM OF ACTIVITIES

Outreach

- Make 2 Procedure Simplified - 18 Jan 18
- No need for AAP/ SCAP for projs upto 150 Crs
- Suo Moto Provision
- AIP to contract – 66 to 79 Weeks
- RFP cannot be retracted



Op Perspective

Problem Statements

TDF

Yr	IA	IAF	IN
2016	07	02	01
2017	08	01	01
2018	27 (56)*	16 (10)*	11 (17)*

* Suo Moto proposals by Industry

MAKE 2

iDEX



SPECTRUM OF ACTIVITIES

Outreach



To create an eco sys to foster innovation and encourage tech devp in Def & Aerospace by engaging R&D institutes, academia, industries incl MSMEs, start-ups and even indl innovators

Op Perspective

Defence India Start Up Challenge : 04 Aug 18

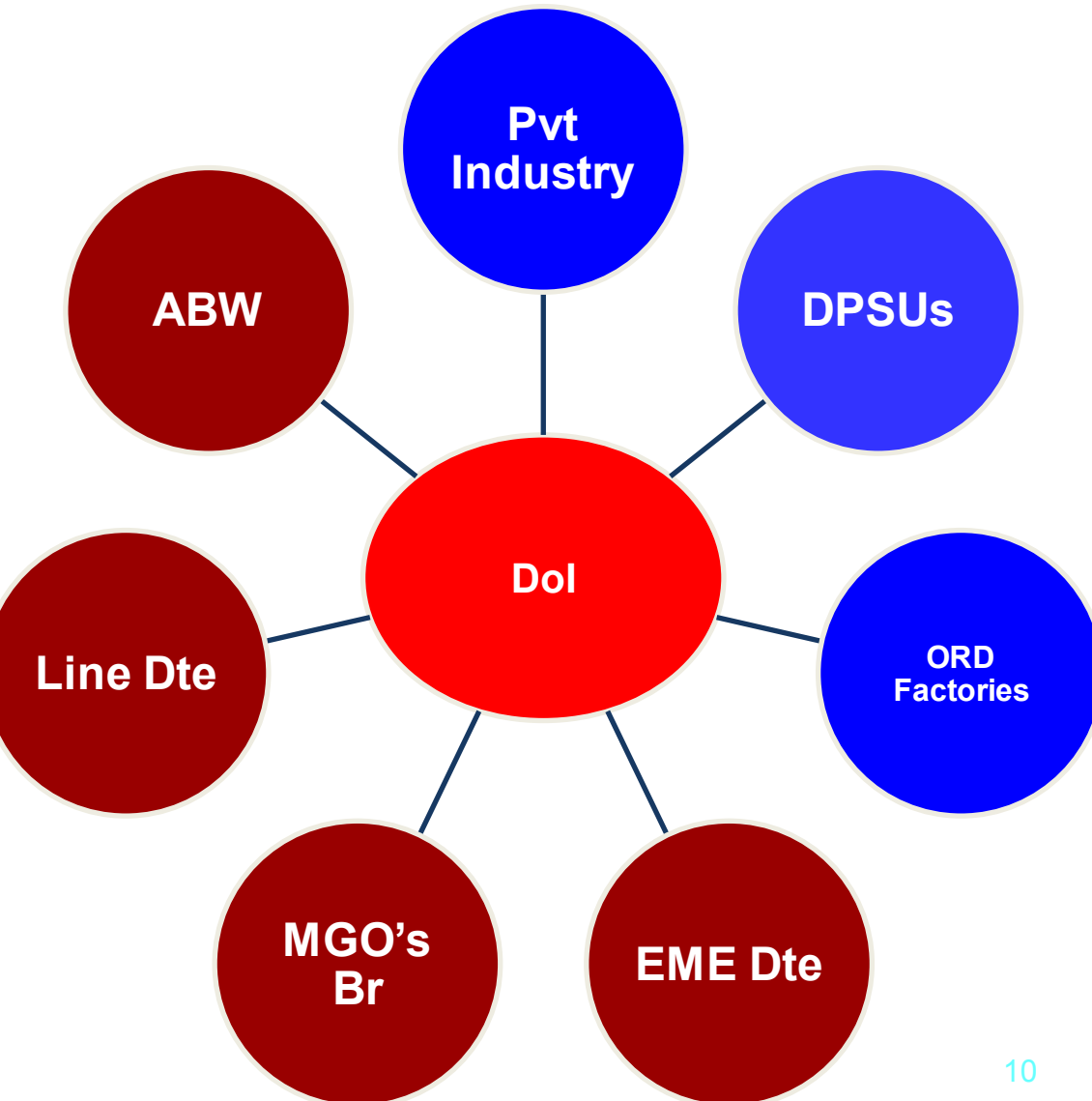
Problem Statements

TDF

MAKE 2

iDEX

<u>S No</u>	<u>Proj</u>	<u>Sponsor</u>
1	Indl Prot Sys with in-built sensors	IA
2	See Through Armour	OFB
3	Carbon Fibre Winding	
4	Active Prot Sys	
5	Secure offline Encryptor Device for Graded Security	IN
6	Devp of 4G/LTE based Tac Local Area Net Wk	
7	Devp of Adv Desalination and Oil & Water Separation Sys	
8	Lgs & Supply Chain Mgt Sys(AI)	IAF
9	Remotely Piloted AB Vehs	
10	Laser Weaponry	
11	Unmanned Vehs/Platforms	



ROLE

To carry out **indigenization of imported stores** including those manufactured by Ord Factory/ DPSUs where the OFB/ DPSUs state their inability to meet the requirements of the Army in required time frame pertaining to the following discipline:-

- **Veh Stores**
- **Electrical & Electronic Stores**
- **Armament Stores**
- **Engineering Equipment & Stores**



INFANTRY

INFANTRY



**MORTAR, MMG, AGL, AMR,
PRECISION SMALL ARMS
AMMUNITION, GUIDED BOMBLET**

LETHALITY

**BATTLE FIELD MANAGEMENT
SYSTEM, WEARABLE COMPUTER,
LASER TARGET DESIGNATOR**

**SITUATION
AWARENESS**

**INTEGRATED CLOTHING & BOOT
ANTI MINE INFANTRY**

SURVIVABILITY

**Lt Spl Veh, ALL Trn Veh & Lt BULLET
PROOF Veh / MPV/ HMV**

MOBILITY

**ADVANCE FIRST AID KIT, HIGH
CALORIE RATION, SUPPORTING
LOGISTICS**

SUSTAINABILITY

**HOSTILE FIRE LOCATING SYSTEM
(HOFILS), UNATTENDED GROUND
SENSOR SYSTEM , ROBOTICS**

MISC





MECHANISED FORCES

INDIGENISATION OPPORTUNITIES

T-72 TANK



Industry Participation Sought

- **Technology** - Improved Fire Control Systems, BMS, Enhance Night Fighting Capability, Survivability – Active/Passive Kits
- **Sustenance** – Repair, Overhaul, Spares

<u>System/Sub-system</u>	<u>Annual Requirement</u>	<u>Total</u>
1000 HP Engine	200	1,000
125mm smooth bore barrel	200	1,000
125mm Kinetic Energy ammunition	20,000	2,00,000
Gear box with final drive	450	450 (Recurring)
Pre-heater	450	450 (Recurring)
Track links/Sets	500	500 (Recurring)
T-72 Boogie Wheel	7,000	7,000 (Recurring)
Mine Ploughs	250	1,300

INDIGENISATION OPPORTUNITIES

T-90 TANK



Industry Participation Sought

- Technology – Upgrade Engine, BMS, Active Protection System
- **Sustenance** – Repair, Overhaul, Spares

<u>System/Sub-system</u>	<u>Annual Requirement</u>	<u>Total</u>
Active Protection System	1,657	2,108
Uncooled Thermal Imager Based Driver's Night Sight (DNS) – Fusion Technology	250	2,108
Environmental Control Unit (ECU) @ 01 per tank	250	2,108
Auxiliary Power Unit (APU) @ 01 per tank	250	2,108
Individual Under Water Breathing Apparatus (IUWBA) @ 04 per tank	2,000	10,000

IN-SERVICE EQUIPMENT

ARJUN MK I



Industry Participation Sought

- Solutions to reduce **weight**; alloys – lighter power pack, transmission, suspensions, tracks
- Increase in **indigenous content** – fire control systems, sighting systems, engine, transmission
- **Ammunition** –120 MM ammunition, Missiles
- **Sustenance** – Repair, Spares

INDIGENISATION OPPORTUNITIES

BMP2/2K ICV



Industry Participation Sought

- **Technology** – Night Fighting, Uprate Engine, Protection, Improved Fire Control Systems, BMS
- **Sustenance** – Repair, Overhaul, Spares

<u>System/Sub-system</u>	<u>Total</u>
Thermal Imaging Sight – Commander, Gunner, Driver	2,000
Fire Control System	2,000
Uprating Engine	2,000
Survivability – Active/Passive Protection System	2,000
Twin Missile Launcher	2,000



ARTILLERY



EXISTING REQUIREMENT OF EQUIPMENT/SYSTEMS



**POWER PACK FOR 155/39
BOFORS**

**HYDRAULIC KITS FOR 155/39
BOFORS**

ENGINES FOR KRAZ VEHICLES

ELECTRONIC FUZES ALL TYPES

AMMUNITION

REPAIR, SPARES

EXISTING REQUIREMENT OF EQUIPMENT/SYSTEMS



INERTIAL NAVIGATION SYS

GLOBAL POSITIONING SYSTEMS/SAT COM

PAYLOAD ELECTRO OPTIC, SYNTHETIC APERTURE RADAR

ACTUATORS FOR CONTROL FOR UAV

SUPPORT SYSTEMS FOR RADARS

COMMAND CONTROL AND COMMUNICATION SYSTEMS FOR UAV



AIR DEFENCE (AD)



CURRENT REQUIREMENT OF WEAPON SYSTEM / EQUIPMENT

Upgradation and Overhaul of Existing Systems

Indigenisation of Sub Systems and Ammunition

Successors of Existing Guns and Radars

**Acquisition of New Gun and Missile Systems ie
VSHORADS, ADGM (SP), SRSAM, QRSAM and
MRSAM**

**Pilot Target Aircraft (PTA) & Maneuverable
Expendable Aerial Targets**

FUTURE REQUIREMENT OF SUB-SYSTEMS

Electronic Scanned Array in Radars

**Multistatic Air Defence Radar
Concept**

**Terminally Guided Active Seekers in
Missiles**

Advanced Propulsion Systems

Compact Display and Power Systems

FUTURE REQUIREMENT OF WEAPON SYSTEM / EQUIPMENT

Automated Air Defence C&R System

Directed Energy Weapon System

- **Laser Weapon System**
- **High Power Microwave System**

Weapon System to counter Stealth Threat

Credible Anti UAV Capability

Supersonic Target Systems



COMBAT ENGINEERS



COMBAT ENGINEERS



**VEHICLE MOUNTED
MINE DETECTION SYSTEM**

- **HAND HELD MINE DISPENSING SYSTEM**
- **MINE PROTECTION GEAR**
- **LOGISTICS SUPPORT BRIDGE**
- **LIGHT WEIGHT HELIPAD**
- **WATER SUPPLY SYSTEM USING PIPELINES**
- **WELL BORING RIG**
- **MECHANICAL AERIAL CABLEWAY**



**LASER ORDNANCE
DISPOSAL SYSTEM**



**ASSAULT TRACK WAY
CLASS 24**



**AERIAL ENGINEER
RECONNAISSANCE VEHICLE**



**HIGH HEAD
WATER PUMP**

BRIDGING



10 M SHORT SPAN BRIDGE



MODULAR BRIDGE



5 M SHORT SPAN BRIDGE



MOUNTAIN FOOT BRIDGE

MINE LAYING



**VEHICLE BASED MINES
SCATTERING SYSTEM**



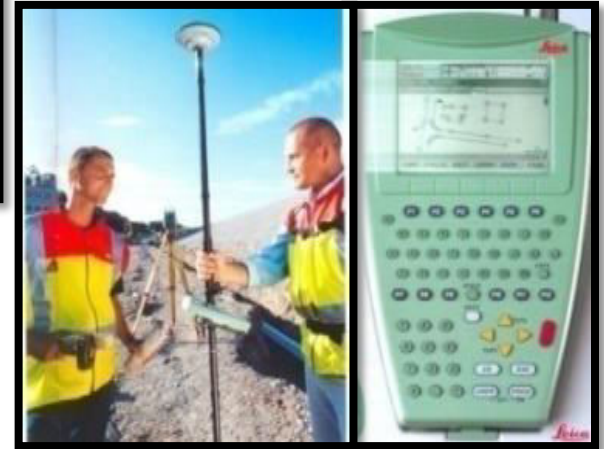
**SELF PROPELLED MINE
BURIER**



**MECHANICAL MINE LAYER
- SELF PROPELLED**



**MECHANICAL MINEFIELD
MARKING EQUIPMENT**



**GPS/GIS BASED MINEFD
RECORDING SYSTEM**

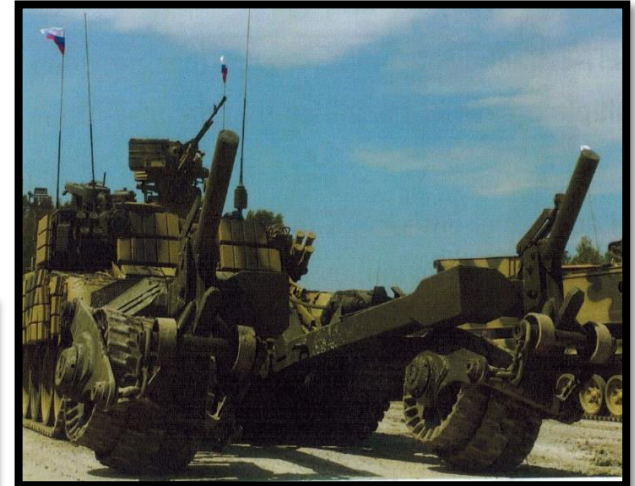
MINE FIELD BREACHING



FULL WIDTH TRAWLS



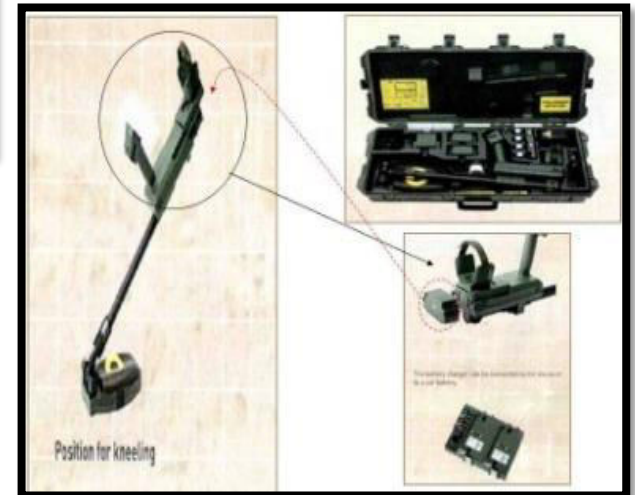
**REMOTE ACTUATOR OF
INFLUENCE MINES**



TREADWAY TRAWLS



SURFACE MINE CLEARING SYSTEM



DUAL TECH MINE DETECTOR

DOMINATION OF WATERWAYS



- **FAST ATTACK BOATS**
- **TROOP CARRIERS**



ARMY AVIATION



ARMY AVIATION – CURRENT REQUIREMENTS

ALH (UH) ,
ALH (WSI),
CHETAK,
CHEETAH

SPARES/REPAIR

MINIATURISED GROUND SUPPORT EQUIPMENT

TACTICAL METEOROLOGY SYSTEM, WEATHER
RADAR

WINCHING EQUIPMENT

PORTABLE REFUELLING RIG

CARGO SWING & CARGO NETS

FLIGHT DATA RECORDER (FDR) & COCKPIT VOICE
RECORDER (CVR)

AUTOMATIC FLIGHT CONTROL SYSTEM (AFCS)

ELECTRONIC WARFARE (EW) SUITE



ARMY AVIATION – FUTURE REQUIREMENTS

RECCE &
SURVEILLANCE
HELICOPTER (RSH)
& TACTICAL BATTLE
SUPPORT
HELICOPTER (TBSH)

ANTI TANK **GUIDED MISSILE**

HELICOPTER **SIMULATOR**
{ATTACK HELICOPTER (AH), LIGHT COMBAT
HELICOPTER (LCH)}

MISSILE FIRING **SIMULATOR**

SPATIAL DISORIENTATION **SIMULATOR**

AERO **ENGINES**

MAIN GEAR BOX (MGB)

MAIN ROTOR BLADES (MRB) & TAIL ROTOR
BLADES (TRB)

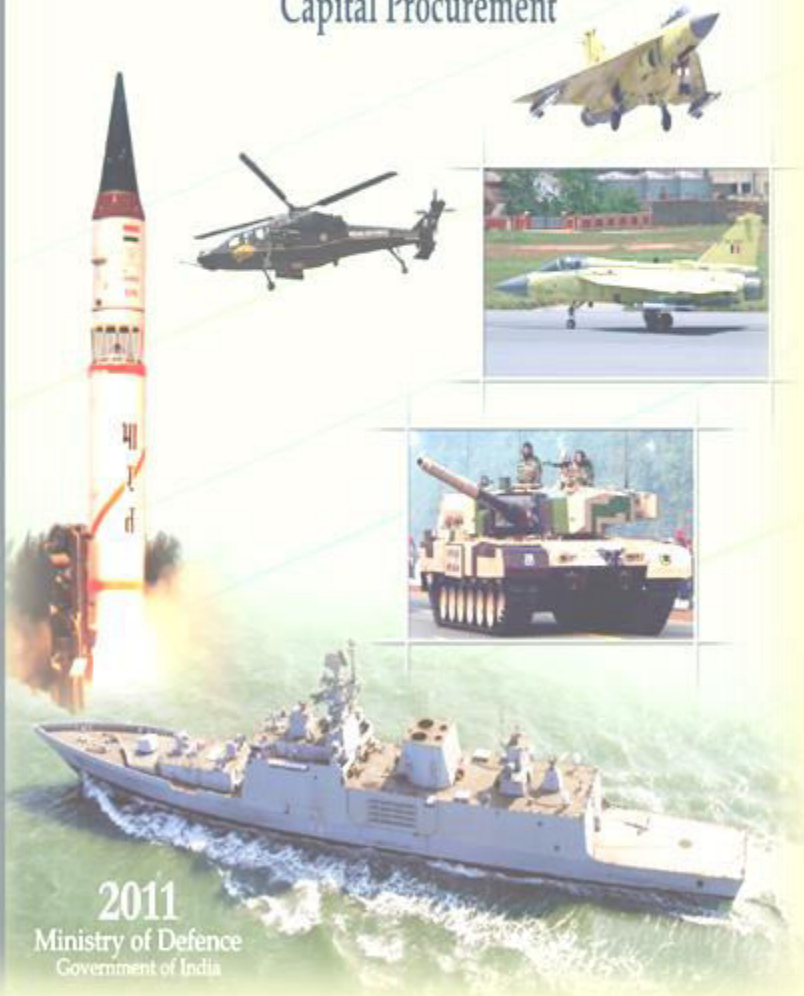
SEEKER TECHNOLOGY FOR MISSILES

HEALTH AND USAGE MONITORING
SYSTEM (HUMS)



Defence Procurement Procedure

Capital Procurement



2011

Ministry of Defence
Government of India

DEFENCE

PROCUREMENT

PROCEDURE - 2016

AIM

- Timely procurement of military equipment, systems, and platforms required by the Armed Forces in terms of performance capabilities and quality standards
- Optimum utilization of allocated budgetary resources.
- Provide for the highest degree of probity, public accountability, transparency, fair competition and level playing field
- Pursue steadfastly self-reliance in defence equipment production and acquisition

FOCUS AREAS IN DPP 2016

- **Make in India /Thrust on Indigenisation**
 - **Buy (Indian -IDDM) category introduced**
 - **Enhanced / Rationalised Indigenous content**
- **Revised Make procedure – to facilitate participation of Indian Industry**
- **Enhancing the role of MSMEs in Defence sector**
- **Cutting down timeframes for procurements**
- **Flexibility in Single vendor situations**
- **Additional parameters in SQRs to enhance capability**



REQUEST FOR INFORMATION (RFI)

ACCESSING AN RFI



www.indianarmy.nic.in Official Website of Indian Army

www.indianarmy.nic.in - Trovi Search

Type here
www.indianarmy.nic.in

All News Images Videos Maps More Search tools

About 1,05,00,000 results (0.44 seconds)

Official Website of Indian Army

[indianarmy.nic.in/](http://www.indianarmy.nic.in/)
GENERAL DALBIR SINGH, COAS AND ALL RANKS OF INDIAN ARMY EXPRESS HEARTFELT CONDOLENCES TO THE GRIEF Site hosted by NIC.

JCO / OR User Login - Join Indian Army.

joinindianarmy.nic.in/Bravo/BRAVOUserLogin.htm
Aug 5, 2015 - Join Indian Army, Government of India. ALPHA Login · BRAVO Login ...
<http://india.gov.in>, The National Portal of India : Page last updated on: ...

Join Indian Army.

joinindianarmy.nic.in/
Join Indian Army. Welcome to Join Indian Army website. Please write text as shown in following image to enter into the website. Captcha *

Registration | Join Indian Army

joinindianarmy.nic.in/bravo/registration.htm
Jun 1, 2015 - Registration | Join Indian Army. ... Join Indian Army, Government of India. ALPHA Login ... <http://india.gov.in>, The National Portal of India :

Official Website of Indian Army

www.indianarmy.gov.in/
This is the Official Indian Army Web Portal maintained & managed by the Indian Army

Indian Army


Armed Force - indianarmy.nic.in



The Indian Army is the land-based branch and the largest component of the Indian Armed Forces. The President of India serves as Commander-in-Chief of the army, and it is commanded by the Chief of Army Staff, who is a four-star General. [Wikipedia](#)

Part of: Indian Armed Forces
Headquarters: New Delhi
Founded: August 15, 1947, India
Notable commanders: Kodandera Madappa Cariappa, Sam Manekshaw
Transport: HAL Dhruv, Aérospatiale Alouette III, Aérospatiale SA 315B Lama

Profiles

 Facebook  Twitter

ACCESSING AN RFI

Official Website of Indian Army x

indianarmy.nic.in

Live for something rather than die for nothing Beta Version

INDIAN ARMY GOVERNMENT OF INDIA

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RECRUIT

Valour & Sacrifice



GENERAL DALBIR SINGH, COAS AND ALL RANKS OF INDIAN ARMY EXPRESS HEARTFELT CONDOLENCES TO THE GRIEF STRICKEN FAMILY OF CAPTAIN TUSHAR MAHAJAN, WHO LAID DOWN HIS LIFE FOR HONOUR AND IN SERVICE OF THE NATION WHILE FIGHTING THE TERRORISTS IN J&K



Knowledge Online Pay Homage to Martyrs

Organization Notice Whats New

Arms & Services

- RECRUITMENT OF CIVILIANS IN 29 FAD
- RECRUITMENT OF CIVILIANS IN 14 FAD

Pa indianarmy.nic.in/Site/NewsDetail/frmNewsDetails.aspx?MnId=wZKaJTvqh6pc+/Cj...



RFI



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Tenders

RFIs

Archives

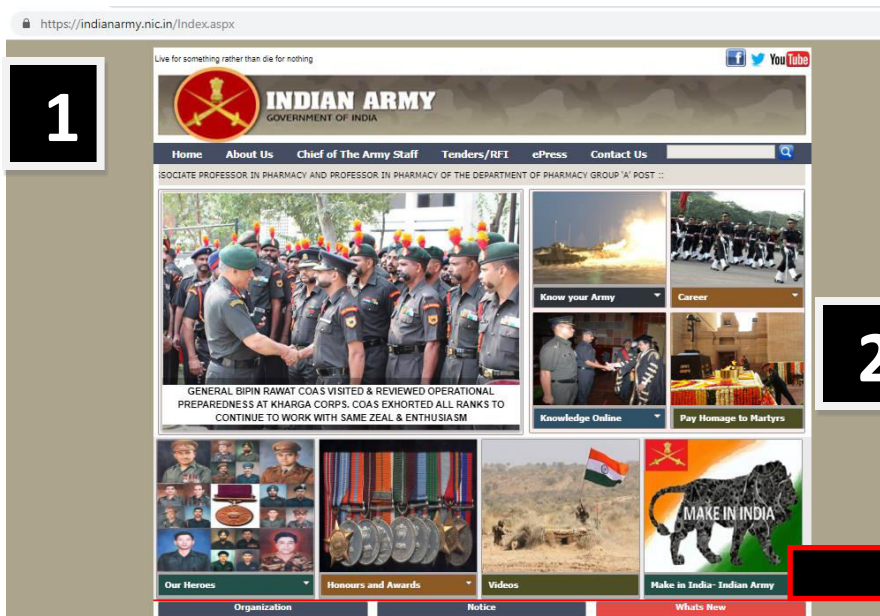
RFI

Latest RFIs

	Branch	RFI Name	Opening Date	Closing Date	Details
NEW	MGO Branch	Procurement of Cord Avalanche	01 Mar 2016	31 Mar 2016	view
NEW	MGO Branch	Procurement of Face Mask	01 Mar 2016	31 Mar 2016	view
NEW	MGO Branch	Procurement of Karabiner Screw Type	01 Mar 2016	31 Mar 2016	view
NEW	MGO Branch	LIGHT WEIGHT ASCENDER	01 Mar 2016	31 Mar 2016	view
NEW	MGO Branch	Procurement of Light Weight Descender	01 Mar 2016	31 Mar 2016	view
NEW	MGO Branch	Procurement of Pulley	01 Mar 2016	31 Mar 2016	view
NEW	MGO Branch	Procurement of Tubular Ice Piton G Type	01 Mar 2016	31 Mar 2016	view
NEW	Army AD Dte	RFI for Procurement of Air Target Imitator (ATI)	02 Mar 2016	06 Apr 2016	view

**LATEST
RFIs**

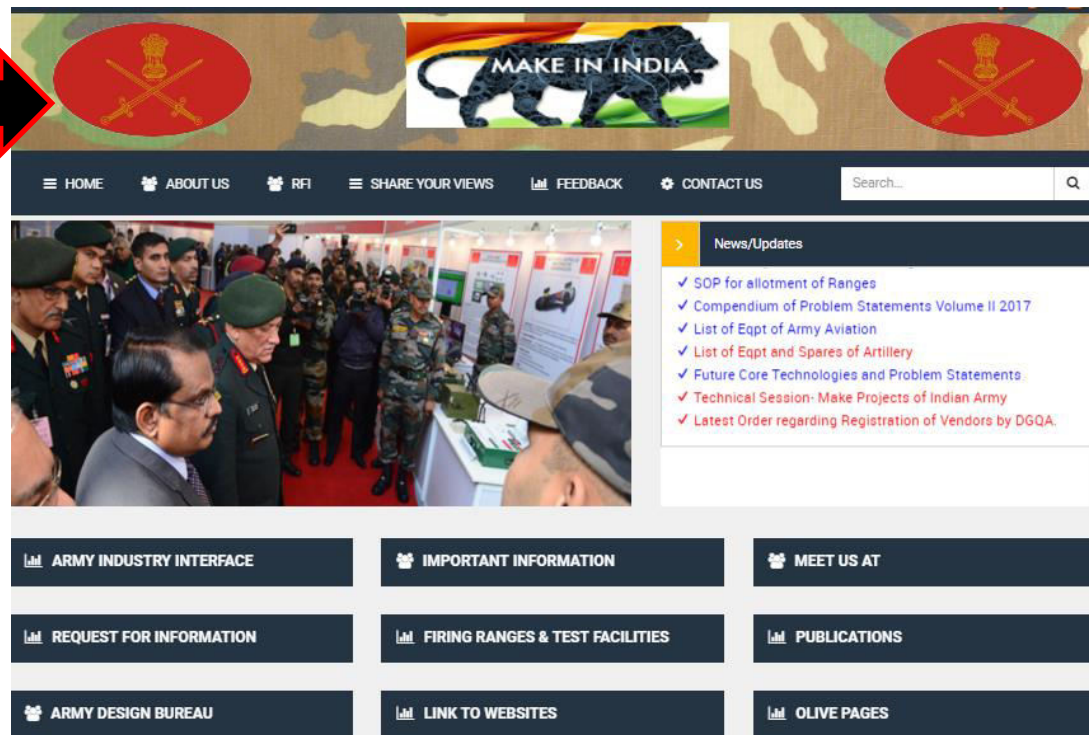
CONTACT US



1 Type <https://indianarmy.nic.in> in the address bar browser

2 Press Make in India icon

3 Reach IA Make in India webpage



CONTACT US

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iDEX	011-23016066, 9436633808	ddgtechres-mod@gov.in
DoI	011-26168620	doi-army@nic.in



JAI HIND