



INDIAN NAVY



PRESENTATION

ON

TECHNICAL TEXTILES

INDIAN NAVY



SCOPE OF PRESENTATION

- OVERVIEW
- TECHNICAL PROTECTIVE TEXTILES IN NAVY
- DESIRED COLLABORATION WITH INDUSTRY / FICCI / BIS
- PROJECTS UNDERWAY



INDIAN NAVY : AN OVERVIEW

STRENGTH

- **5TH LARGEST NAVY IN THE WORLD**
- **APPROX 1.5 LAKH INCLUDING OFFICERS, SAILORS AND DEFENCE CIVILIANS**

CLOTHING INVENTORY

- **409 DISTINCT ITEMS**
- **INCLUDES PROTECTIVE CLOTHING, SAFETY FOOTWEAR, TECHNICAL TEXTILE AND EXTREME WINTER CLOTHING ITEMS**

BUDGET

- **APPROX Rs 100 CRORES**



USAGE OF PROTECTIVE TEXTILES



FIRE RETARDENT ACTION OVERALL (FRAO)

- **EXISTING SPECS**
 - 50% ARAMID
 - 50% FR VISCOSE
- **ANNUAL REQUIREMENT – 95,000 NOS**
- **EXPECTED USAGE LIFE – 12 MONTHS**
- **RATE CONTRACTS CONCLUDED FOR 1-3 YEARS**



USAGE OF PROTECTIVE TEXTILES



DIGITAL CAMOUFLAGE

- **DIGITAL PIXELATED PRINT**
- **DEVELOPMENT ORDER – 400 PAIRS**
 - **POLYESTER / COTTON (50 : 50)**
 - **POLYESTER / COTTON (20 : 80)**
 - **NYLON / COTTON (50 : 50)**
- **INITIAL ANNUAL REQUIREMENT – 60,000 NOS**
- **EXPECTED USAGE LIFE – 18 MONTHS**



USAGE OF PROTECTIVE TEXTILES

OVERALL CE



- SPECIFICATION CHANGED TO POLYESTER/COTTON 67/33
- WEAVE CHANGED FROM PLAIN TO MOCKLENO
- INCLUSION OF ANTI-MICROBIAL PROPERTIES
- DESIGN CHANGED TO INCORPORATE VENTILATION FLAP ON BACK
- ANNUAL REQUIREMENT - 50,000 PAIRS



USAGE OF PROTECTIVE TEXTILES

RAIN SUIT



- OLD SPECIFICATION OF 2001 VINTAGE FOR RUBBER COATED MATERIAL
 - IMPROVED SPECIFICATION FOR VIZ. 100% POLYESTER LAMINATED UNDER FORMULATION.
 - TWO LAYERED FABRIC INCLUDING MESH & TAFETA FOR BETTER BREATHABILITY
 - SELF PACKABILITY IN POCKETS
- ANNUAL REQUIREMENT - 30,000 PAIRS



USAGE OF PROTECTIVE TEXTILES

RUCKSACK – 90 LTRS



- **BASIC FABRIC - NYLON**
- **IMPROVED DESIGN**
 - **TORSO ADJUSTABILITY**
 - **TOP OPENING WITH LOCKABLE ZIPPER**
 - **PARTITION AT BOTTOM FOR FLEXIBILITY**
- **PRESENTLY UNDER USER TRIAL**
- **INITIAL REQUIREMENT – 60,000 NOS**
- **ANNUAL REQUIREMENT– 12,000 NOS**



USAGE OF PROTECTIVE TEXTILES

DISPOSABLE GARMENTS



- FABRIC – 100 % COTTON

- ANTI FUNGAL TREATMENT/ NON-WOVEN

- USED ONBOARD SUBMARINE

- ANNUAL REQUIREMENT - 10,000 PAIRS





USAGE OF PROTECTIVE TEXTILES

ANTI FLASH HOOD & GLOVES



- **FABRIC – INHERENT FIRE RETARDANT**
- **ANTI FUNGAL TREATMENT/ NON-WOVEN**
- **USED ONBOARD SHIPS/ SUBMARINE**
- **ANNUAL REQUIREMENT - 25,000 PAIRS**



USAGE OF PROTECTIVE TEXTILES

EXTREME COLD CLIMATE (ECC) CLOTHING



- **THREE LAYERED**
- **-40 DEGREE CENTIGRADE**
- **USED BY PERSONNEL WHEN DEPLOYED
IN EXTRA COLD REGIONS**
- **ANNUAL REQUIREMENT - 1,000 PAIRS**
- **EXPECTED USAGE LIFE – 36 MONTHS**



USAGE OF PROTECTIVE TEXTILES

MARCOS OVERALL DARK BLUE



- **COMPOSITION – 93/5/2 (META ARAMID/
PARA ARAMID/ ANTI STAT**
- **USED BY MARCOS**
- **ANNUAL REQUIREMENT - 1,000 PAIRS**
- **EXPECTED USAGE LIFE – 12 MONTHS**



USAGE OF PROTECTIVE TEXTILES

ALUMINISED FIRE PROXIMITY SUITS



- **COMPOSITION – MULTI-LAYERED CLOTH COATED ARAMID ALUMINISED**
- **USED BY SHIPS/ SUBMARINES/ ESTABLISHMENTS**
- **ANNUAL REQUIREMENT - 300 PAIRS**



USAGE OF PROTECTIVE TEXTILES

FIRE SUIT FOR FIRE FIGHTERS



- **COMPOSITION – MULTI-LAYERED META ARAMID, ANTI STATIC, MICRO POROUS/ OLEOPHOBIC POLYMER, NOMEX**
- **USED BY SHIPS/ SUBMARINES/ ESTABLISHMENTS**
- **ANNUAL REQUIREMENT - 400 PAIRS**
- **EXPECTED USAGE LIFE – 60 MONTHS**



USAGE OF GENERAL TEXTILES

GENERAL SERVICE UNIFORM FABRIC



- **COMPOSITION – 70/30 (POLYESTER/VISCOSE)**
- **4.5 LAKH METERS – WHITE**
- **2 LAKH METERS – NAVY BLUE**
- **2 LAKH METERS – LIGHT BLUE**
- **FOCUS AREA**
 - (A) **WHITENESS RETENTION**
 - (B) **BREATHABILITY & ANTI WRINKLE**
 - (C) **GOOD CREASE RECOVERY ANGLE**



EXPECTATIONS FROM INDUSTRY / FICCI / BIS

- **INNOVATION – HIGH QUALITY PRODUCTS AT COMPETITIVE PRICES**
- **FIELD PARTICIPATION IN DEVELOPMENTAL ACTIVITIES**
- **FACILITATE PRODUCT SPECIFICATIONS**
- **PARTICIPATION IN INSPECTION AND QUALITY ASSURANCE PROCESS**
- **TEXTILE PRICE INDEX FOR LONG TERM RC**
- **SHARING OF EXPERTISE**



PROJECTS UNDERWAY

- FIRE RETARDANT ACTION OVERALL (FRAO)
- DIGITAL CAMOUFLAGE
- OVERALL CE
- RAIN SUIT (02 PIECE)
- RUCKSACK (90 LTRS CAPACITY)



INDIAN NAVY

THANK YOU

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