AIRCREW ESCAPE AND SURVIVAL (AES) AIR COMMODITIES PROJECT TEAM

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SCOPE

• LEGACY SITUATION 2012
• USER REQUIREMENT
• PROCUREMENT STRATEGY
• ADDITIONAL CAPABILITY
• MATERIALS
• TESTING AND TRIALS
• ROLL OUT
• THE FUTURE
• ENSEMBLE DESCRIPTION
LEGACY SITUATION 2012

• UNDERWEAR AND MID LAYER CONTRACT EXPIRED
• COVERALL CONTRACT ABOUT TO EXPIRE
• NO TWO PIECE ENSEMBLE POST AFGHANISTAN
• DISPLAY TEAMS WEARING UNPROVEN SUIT
USER REQUIREMENT

- ONE AND TWO PIECE ENSEMBLES
- SAFE
- FLEXIBLE
- CONTROL THERMAL BURDEN OVER LARGE PERCENTILE GROUP
- TWO PIECE TO LOOK LIKE GROUND FORCES-MTP
- COMMON LAYOUT
PROCUREMENT STRATEGY

• REQUIREMENT TO LOOK LIKE A SOLDIER LED TO DEFENCE CLOTHING CUT AND SEW CONTRACT
• COLLABORATION APPROACH
  • ROYAL AIR FORCE CENTRE OF AVIATION MEDICINE
  • QINETIQ ANTHROPOMETRY SME AND HF SPECIALISTS
  • DEFENCE CLOTHING TEXTILE TECHNICIAN
  • MANUFACTURERS DESIGNER
  • AIRCREW ESCAPE AND SURVIVAL PERSONNEL
  • USERS-OBVIOUSLY!

• CONDUCTED ALL IN ONE ROOM-OBVIOUS TO ME BUT APPARENTLY NOT TO ALL
ADDITIONAL CAPABILITY

• IMMERSION LINERS
• SELF REPAIR
• COMPATABILITY WITH OTHER SYSTEMS-BALCS
MATERIALS

• RANGE OF FR MATERIALS AND WEIGHTS
  • KERMAEL VISCOSE
  • ARAMID
  • DEFENDER M
  • FR MESH
  • PYRAD
  • PRO FIRE

• MID LAYERS NON FR BUT UTILISING AFFORDABLE MODERN MATERIALS
TESTING AND TRIALS

- LOWER LEVEL TEXTILE TESTS
- FULL ENSEMBLE BURNS
- IMMERSION THERMAL MANNEQUIN TESTING
- USER TRIAL-130 PERSONNEL
BURNS TRIALS

R.A.L.P.H

BRITISH TEXTILE TECHNOLOGY GROUP
A test manikin with 123 sensors, which predicts thermal injuries ranging from pain up to 3rd degree burns. It’s subjected to 1200°C flames for 4 seconds, representing an aircraft flash fire.
A test manikin with 123 sensors, which predicts thermal injuries ranging from pain up to 3rd degree burns. It’s subjected to 1200°C flames for 4 seconds, representing an aircraft flash fire.
SERIOUS BURNS

MULTIPLE LAYERS
(UNDERWEAR)

14.9%
SERIOUS BURNS
SERIOUS BURNS

SINGLE LAYER
(NO UNDERWEAR)

46.5%
SERIOUS BURNS
BURN PROTECTION ISSUES

• SHRINKAGE

• AFTERFLAME-TRADE OFF BETWEEN AFTERFLAME AND PROTECTION
ROLL OUT

• BIG BANG ROLLOUT
• WHOLE OF DEFENCE IN SIX MONTHS
• STATION ROAD SHOWS
• SIZING PACKS
• BROCHURE, ADVERTISEMENT
• COMPATABILITY WITH LEGACY GARMENTS BEING ASSESSED
• MVP SUIT BEING COMPETED SEPERATELY
THE FUTURE

• EVOLUTION RATHER THAN REVOLUTION

• TECHNOLOGY INSERTION

• SELECTION FIGHT MAY WELL BE BASED ON DURABILITY, COLOUR FASTNESS, COMFORT ETC, NOT SAFETY
ENSEMBLE DESCRIPTION
TAKE HOMES

- INVOLVE THE USERS-BUY IN ESSENTIAL

- COLLABORATION WORKS, EVERYONE IS A SPECIALIST-END RESULT LOOKS WORLD CLASS

- CUT AND SEW PREVENTS GARMENT MANUFACTURERS COMPETING, BUT NOT TEXTILE MANUFACTURERS
  - MVP FR LAYER COMPETITION COMING
QUESTIONS?
QUESTIONS?

HOW DO YOU KNOW IF A PILOT IS IN THE ROOM?
QUESTIONS?

HOW DO YOU KNOW IF A PILOT IS IN THE ROOM?

THEY’LL TELL YOU!