HUMAN RESPONSE RESEARCH UPDATE

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HUMAN RESPONSE RESEARCH UPDATE

METHODOLOGY
SOURCES
FACILITIES
RESULTS

METHODS

• PAIRED COMPARISON
• BAND-LIMITED WHITE NOISE
• HAYSTACK PATTERN
• VARIABLE LENGTH
SOURCES

• HELICOPTER - 500Hz OCTAVE BAND
  1 MINUTE DURATION
  VARIABLE 10 dB DOWN

• BLAST - 200 - 1500Hz WHITE NOISE
  ½ SECOND DURATION
  FIXED SHAPE

INSTRUMENTATION

• COMPUTER CONTROLS
  - TIMING (LIGHTS)
  - CONTROL SOURCE
  - MICROPHONE GAINS
  - DATA ANALYSES

• MACHINE READ QUESTIONNAIRES
TESTS

• HELICOPTER
  - CHAMPAIGN - UH1H - 200 SUBJECTS
  - CALIFORNIA - UH1H, UH1N, CH-46, CH-53 A/D
    CH53 E, AH-1G
  - 600 SUBJECTS

• BLAST
  - CHAMPAIGN - 5 HOUSE CONFIGURATION
    300 SUBJECTS
  - GRAFFENWOHR W. GERMANY
    2 HOUSE CONFIGURATIONS
    150 SUBJECTS
  - ABERDEEN PROVING GROUNDS
    NEW

RESULTS

• RATTLE
• LOUDNESS
• DETECTION (BACKGROUND)
NEW FACILITY
ABERDEEN PROVING GROUNDS

• WOOD HOUSE
• MASONRY HOUSE (GERMAN) EACH WITH 2 "APARTMENTS", GERMAN & AMERICAN
• OUTDOORS

5 LOCATIONS TOTAL (25 SUBJECTS)
★ NO NEAR NEIGHBORS

OUR TESTS

• BLAST NOISE
  - WINDOWS
  - WALLS
APG - SOURCES

• IN LINE WITH CROSS-RUNWAY
  - HELICOPTERS - FLYOVER, TAKE OFF, LAND
  - BLAST
  - FIXED-WING - FLYOVER, TAKE OFF, LAND
  - VEHICLES (PARTIAL)
  - ANY RECORDED SOURCES

• FUTURE USES OF APG
  - COMPARATIVE SOURCES

• NEVADA SITE
REFERENCES

