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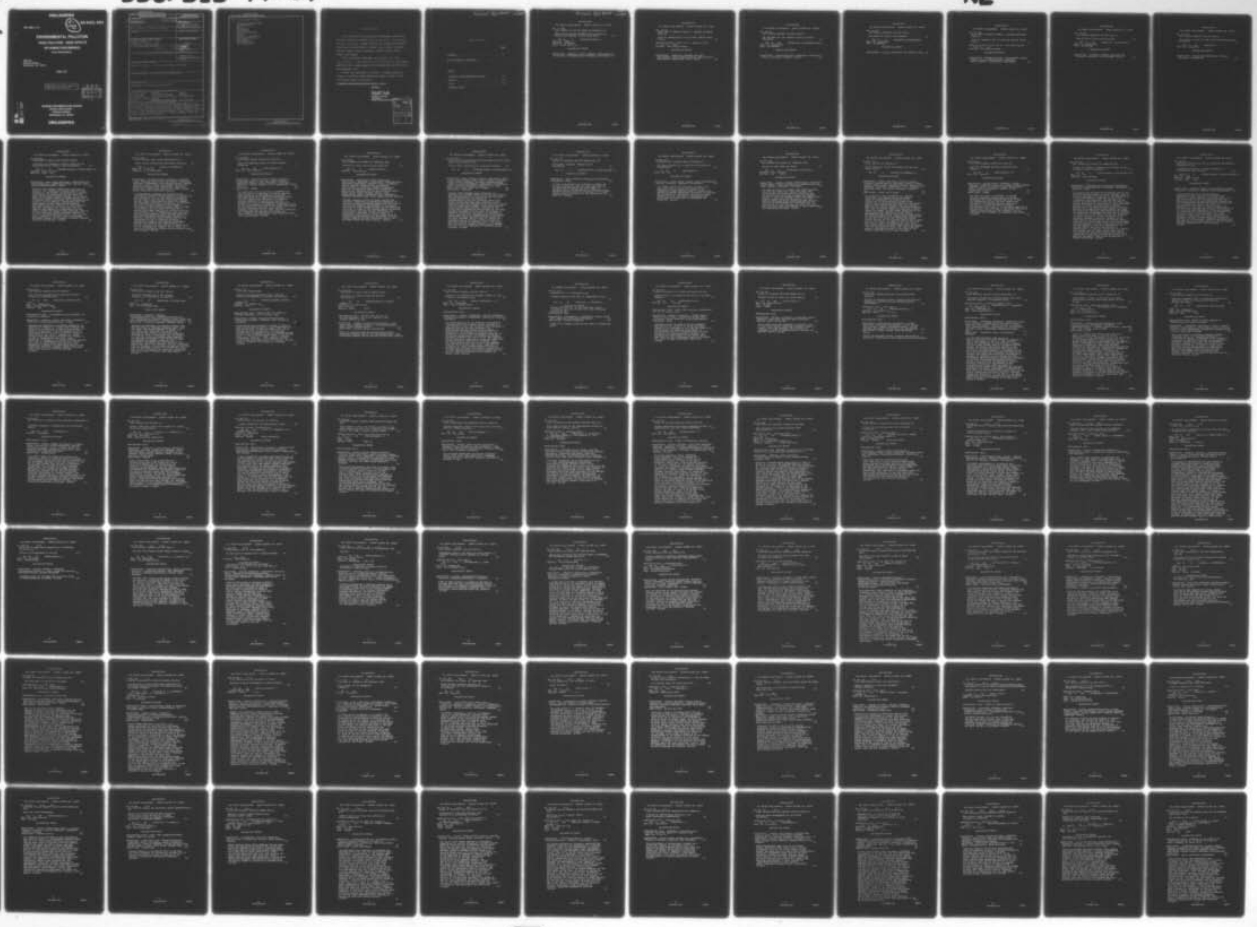

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AD-A041 600

DDC/BIB-77/07

ENVIRONMENTAL POLLUTION

NOISE POLLUTION - NOISE EFFECTS ON HUMAN PERFORMANCE

A DDC BIBLIOGRAPHY

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Supersedes AD-729 850 and AD-769 900

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Noise Pollution	Deafness	Speech
Noise (Sound)	Stress (Physiology)	Airports
Bibliographies	Tolerances (Physiology)	Aircraft Noise
Performance (Human)	Hazards	
Hearing	Adaptation (Physiology)	(See reverse)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This bibliography is a selection of unclassified and unlimited distribution references on Noise Pollution-Noise Effects on Human Performance. These citations of reports present information on noise effects on human performance such as motor reactions, hearing speech, sleep, perception, nervous systems, visual signals and fatigue. Corporate Author-Monitoring Agency, Subject, Title and Personal Author are provided.

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UNCLASSIFIED

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107200 dn

Item 19 KEY WORDS (Cont'd)

Thresholds (Physiology)
Psychoacoustics
Blast
Helicopters
Environments
Supersonic Aircraft
Diving
Hyperbaric Atmospheres
Nuclear Explosions
Sonic Boom
Jet Plane Noise
Jet Engine Noise

F O R E W O R D

This unclassified and unlimited bibliography contains 254 selected citations of reports on *Noise Pollution - Noise Effects On Human Performance*. These citations are studies and analyses pertaining to noise effect on humans, such as motor reactions, hearing, speech, sleep, perception, nervous system, visual signals and fatigue.

This bibliography supersedes *Environmental Pollution: Noise Pollution - Noise Effects On Human Performance*, AD-729 850, DDC-TAS-71-39-I, dated August 1971 and AD-769 900, DDC-TAS-73-69, dated November 1973.

Entries are sequenced by AD number. Computer-generated indexes of Corporate Author-Monitoring Agency, Subject, Title and Personal Author are provided.

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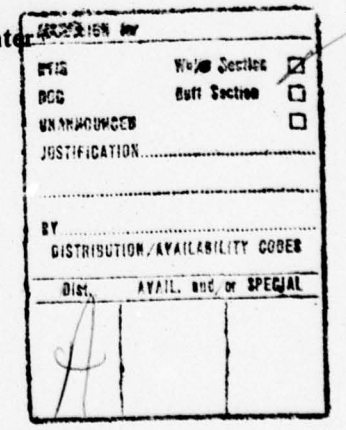

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CONTENTS

	Page
FOREWORD.	iii
AD BIBLIOGRAPHIC REFERENCES	1
INDEXES	
CORPORATE AUTHOR-MONITORING AGENCY	O-1
SUBJECT.	D-1
TITLE	T-1
PERSONAL AUTHOR	

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DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZUM07

AD- 51 868
NAVAL SCHOOL OF AVIATION MEDICINE PENSACOLA FLA

SPEECH RECEPTION AND TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE (U)

OCT 54 1V TOLHURST,GILBERT C.;
REPT. NO. JPR32
CONTRACT: N60NR22525
PROJ: NM 001 064 01 32

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *NOISE, *SPEECH, INTELLIGIBILITY, PHYSIOLOGY, PSYCHOACOUSTICS, THRESHOLDS (PHYSIOLOGY) (M)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 86 107
RADIO CORP OF AMERICA CAMDEN N J DEFENSE ELECTRONIC PRODUCTS

STUDY OF COMMUNICATION IN HIGH LEVEL AMBIENT NOISE FIELDS (U)

DESCRIPTIVE NOTE: REPT. NO. 5, 1 AUG-31 OCT 55,
OCT 55 33P
CONTRACT: DA-36-039-SC-64469

UNCLASSIFIED REPORT

DESCRIPTORS: *ACOUSTICS, *ARMORED VEHICLES, *HELICOPTERS, *VOICE COMMUNICATIONS, INTELLIGIBILITY, INTERFERENCE, MEASUREMENT, NOISE, SPEECH (M)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 86 351
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS (U)

FEB 56 26P COLEMAN,PAUL D.;KRAUSKOPF,JOHN;
REPT. NO. USAMRL-222
PROJ: DA-69520001

UNCLASSIFIED REPORT

DESCRIPTORS: *PSYCHOACOUSTICS, *THRESHOLDS (PHYSIOLOGY), *VISION, ACOUSTICS, INTENSITY, NOISE (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 86 352
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

THE EFFECT OF NOISE ON EYE MOVEMENTS (U)

FEB 56 1V KRAUSKOPF,J.;COLEMAN,P.D.;
REPT. NO. USAMRL-218
PROJ: DA-69520001

UNCLASSIFIED REPORT

DESCRIPTORS: •VISION, ACOUSTICS, EYE, MOTION, NOISE (M)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 93 006
RADIO CORP OF AMERICA CAMDEN N J DEFENSE ELECTRONIC PRODUCTS

STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS (U)

DESCRIPTIVE NOTE: REPT. NO. 6, 1 DEC 55-15 FEB 56.
FEB 56 14P
CONTRACT: DA-36-039-SC-64469

UNCLASSIFIED REPORT

DESCRIPTORS: *ARMORED VEHICLES, *HELICOPTERS, *NOISE, *SPEECH, *VOICE COMMUNICATIONS, ACOUSTICS, INTELLIGIBILITY, INTERFERENCE, MEASUREMENT (M)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 109 230
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

DESCRIPTION OF HUMAN ROTATION DEVICE (U)

MAY 56 17P GUEDRY,F.E. JR.;KALTER,H.;
REPT. NO. USAMRL-242
PROJ: DA-69520001

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRBURST, *NERVES, DECELERATION, PSYCHOLOGY, ROTATION, TEST EQUIPMENT, VELOCITY (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZUM07

AD- 129 446
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

THE EFFECTS OF NOISE ON WORK OUTPUT AND PHYSIOLOGICAL ACTIVATION (U)

MAR 57 25P HELPER,M.M.;
REPT. NO. USAMRL-270

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE, *PSYCHOACOUSTICS, MUSCLES, PHYSIOLOGY, SKIN(ANATOMY) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 146 756
AIR FORCE CAMBRIDGE RESEARCH CENTER WASHINGTON D C
OPERATIONAL APPLICATIONS LAB

TEMPORARY THRESHOLD SHIFT AS A FUNCTION OF NOISE EXPOSURE LEVEL (U)

DEC 57 4P TRITTIPOE,W.J.;
MONITOR: AFCRL TN-57-9

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE, ACOUSTICS, HEARING, INTENSITY, THRESHOLDS (PHYSIOLOGY) (M)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 245 980
NRC COMMITTEE ON HEARING AND BIO-ACOUSTICS WASHINGTON D C

THE PROBLEMS OF CRITERIA FOR NOISE EXPOSURE (U)

OCT 60 1V ELDREDGE,DONALD H.;
CONTRACT: NONR230005
MONITOR: AMC TR7 816 V1

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *NOISE, AUDIOMETRY, DEAFNESS, EAR, HAZARDS, PHYSIOLOGY, STANDARDS (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 256 800
MASSACHUSETTS MENTAL HEALTH CENTER BOSTON

THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES (U)

APR 61 IV FREEDMAN,SANFORD J.;PFAFF,DONALD W.;
CONTRACT: AF33 616 7625
MONITOR: AFOSR 503

UNCLASSIFIED REPORT

DESCRIPTORS: •EAR, •MOTOR REACTIONS, •PROPRIOCEPTION, •PSYCHOACOUSTICS, •SENSES(PHYSIOLOGY), MOTION, NOISE, STIMULATION(PHYSIOLOGY), THEORY (U)

SUBJECTS WERE EXPOSED, UNDER THREE CONDITIONS OF MOTILITY, TO A CONSTANTLY CHANGING AUDITORY FIELD PRODUCED BY TWO SEPARATE NOISE-GENERATING SYSTEMS, EACH FEEDING THE SOUND INTO ONE EAR. AFTER TWO HOURS OF CONTINUOUS EXPOSURE, ELEVEN OUT OF TWELVE AMBULATORY SUBJECTS SHOWED INCREASED VARIABILITY IN AN AUDITORY LOCALIZATION TASK, THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES. PERFORMANCE AFTER TWO HOURS UNDER THE SAME CONDITIONS OF EXPOSURE DETERIORATED FOR ONLY FIVE OUT OF TWELVE SUBJECTS WHEN BODY MOVEMENTS WERE RESTRICTED. WHEN THE SUBJECTS WERE WHEELED IN A WHEELCHAIR, SITTING QUIETLY EXCEPT FOR FREQUENT HEAD ROTATIONS, NINE OUT OF TWELVE SUBJECTS SHOWED INCREASED VARIABILITY. THAT IS, SELF-PRODUCED MOTION OF AT LEAST THE HEAD, WHILE LISTENING TO DICHOTIC NOISE WHICH MASKED BACKGROUND SOUNDS, WAS NECESSARY TO DISRUPT ACCURATE AUDITORY LOCALIZATION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 257 643
PHILCO NEWPORT BEACH CALIF AERONUTRONIC DIV

LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES (U)

MAR 61 1V OSLAKE,J.J.;DOBRIN,S.;
REPT. NO. U 108 118
CONTRACT: N123 61756 23304

UNCLASSIFIED REPORT

DESCRIPTORS: •GUIDED MISSILES, •HAZARDS, •LAUNCHING SITES, •ROCKETS, •SATELLITES (ARTIFICIAL), ACOUSTICS, AIRFRAMES, ATMOSPHERES, ATTITUDES(PSYCHOLOGY), BOOSTER ROCKETS, CLIMATE, DEFLECTION, DESIGN, DETONATIONS, DIFFUSION, EXHAUST GASES, EXPLOSIONS, LAUNCHING, PHYSIOLOGY, PROPAGATION, PROPELLANTS, ROCKET ENGINE NOISE, SELECTION, STRUCTURES, TOXICITY (U)

A COMPREHENSIVE TECHNIQUE FOR DETERMINING THE MAGNITUDE OF POTENTIAL LAUNCH HAZARDS IS DEVELOPED AS AN INTERMEDIATE STEP IN THE PROCESS OF SELECTING OPTIMUM LAUNCH SITES FOR VERY HIGH-THRUST BOOSTER ENGINES. THREE CHARACTERISTIC LAUNCH SITE HAZARDS ARE CONSIDERED: ACOUSTICS, EXPLOSIONS, AND TOXICITY. THE SITING CRITERIAL DEVELOPED ARE GENERALLY APPLICABLE TO MOST POTENTIAL LAUNCH SITES. IN ORDER TO ILLUSTRATE THE SITE SELECTION PROCEDURE A HYPOTHETICAL THREE STAGE LAUNCH VEHICLE (9 MILLION POUNDS THRUST), AND A PROSPECTIVE LAUNCH AREA WITH REALISTIC ENVIRONMENTAL CONDITIONS ARE POSTULATED. THE RESULTING HAZARD ESTIMATES ARE EMPLOYED TO SPECIFY A PARTICULAR LAUNCH COMPLEX LOCATION AND CONFIGURATION, AND TO ESTABLISH LAUNCHING CONSTRAINTS IMPOSED BY THE ASSUMED ENVIRONMENT. SEVERAL FIELD SURVEYS ARE FOUND NECESSARY TO PROVIDE CRITICAL DATA ABOUT POTENTIAL LAUNCH SITES FOR THE ASSESSMENT OF HAZARDS. TWO OF THESE, AN ACOUSTICAL MEASUREMENT PROGRAM AND GAS RELEASE TESTS, ARE DESCRIBED. (AUTHOR) (U)

UDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 259 830
AIR PROVING GROUND CENTER EGLIN AFB FLA

SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING (U)

JUN 61 24P LANEY,SHERRILL G.;
REPT. NO. APGC-TN-61-24

UNCLASSIFIED REPORT

DESCRIPTORS: *AVIATION SAFETY, *GUIDED MISSILES, *LAUNCHING, *SAFETY, AIR, EAR, GASES, HAZARDS, LABORATORY ANIMALS, NOISE, PERSONNEL, PHYSIOLOGY, RESPIRATORY SYSTEM, SURFACE TO AIR, TEMPERATURE, TESTS, TOXICITY (U)
IDENTIFIERS: BOMARC (U)

THE OBJECTIVE OF THIS TEST WAS TO DETERMINE THE RELATIVE SAFETY OF PERSONNEL IN SEVERAL SELECTED AREAS DURING AN IM-99A LAUNCHING. DATA WERE COLLECTED RELATIVE TO FREE-AIR TEMPERATURE, NOISE, AND TOXIC GASES WHICH CONTRIBUTE TO PERSONNEL HAZARDS. BASED ON THE ANALYSIS OF THE DATA OBTAINED BY PHYSICAL MEASUREMENTS AND FROM TEST ANIMALS, SURVIVABILITY OF PERSONNEL REMAINING AT FIVE OF THE SEVEN TEST LOCATIONS IN THE LAUNCH AREA DURING MISSILE LAUNCHINGS WOULD BE 100%. HOWEVER, PERSONNEL REMAINING IN THE LAUNCH AREA MAY EXPERIENCE BOTH TEMPORARY AND PERMANENT EAR DAMAGE AND IRRITATIONS OF THE RESPIRATORY TRACT RESULTING FROM TOXIC GAS EXPOSURE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 260 955
BOLT BERANEK AND NEWMAN INC CAMBRIDGE MASS

METHODS OF SPACE VEHICLE NOISE PREDICTION (U)

SEP 60 1V FRANKEN,PETER A.;
CONTRACT: AF33 616 6217

UNCLASSIFIED REPORT

DESCRIPTORS: •ACOUSTICS, •NOISE, •SATELLITES (ARTIFICIAL), •SPACECRAFT, AERODYNAMIC CHARACTERISTICS, AIRFRAMES, ATMOSPHERES, BOUNDARY LAYER, CYLINDRICAL BODIES, DAMPING, HUMAN FACTORS ENGINEERING, INTELLIGIBILITY, LAUNCHING, MANNED, MATHEMATICAL ANALYSIS, MATHEMATICAL PREDICTION, METEORITES, OSCILLATION, COMMUNICATION AND RADIO SYSTEMS, ROCKET ENGINE NOISE, ROCKET ENGINES, SHEETS, SOUND TRANSMISSION, SPEECH, SUPERSONIC FLOW, TURBULENCE, TURBULENT BOUNDARY LAYER, VOICE COMMUNICATIONS, WAKE (U)

POSSIBLE SOURCES OF NOISE IN SPACE VEHICLES ARE REVIEWED. INFORMATION IS SUMMARIZED DESCRIBING THE VARIOUS FLUCTUATING PRESSURE FIELDS THAT MAY EXIST AT THE VEHICLE EXTERIOR. THE RESPONSE OF THE VEHICLE STRUCTURE TO THESE PRESSURE FIELDS AND THE RESULTING RADIATION OF NOISE TO THE INTERNAL SPACES ARE STUDIED ANALYTICALLY. THE NEED FOR NEW THEORETICAL AND EXPERIMENTAL KNOWLEDGE IN SPECIFIC AREAS IS EMPHASIZED. THE EFFECTS OF ROCKET ENGINE NOISE ON COMMUNICATION AND HEARING ARE CONSIDERED IN DETAIL. GENERAL COMMENTS ARE MADE CONCERNING VEHICLE AND EQUIPMENT DESIGN FOR NOISE CONTROL. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 261 505
ARMY ELECTRONICS RESEARCH AND DEVELOPMENT ACTIVITY WHITE SANDS MISSILE RANGE N MEX

LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES (U)

JUL 60 1V SPRINGER,HAROLD S.;OLSEN,ROBERT O.;

UNCLASSIFIED REPORT

DESCRIPTORS: *EAR, *GUIDED MISSILES, *LAUNCHING, *NOISE, *ROCKET ENGINE NOISE, BLAST, GUIDED MISSILE LAUNCHERS, GUIDED MISSILE PERSONNEL, HAZARDS, INSTRUMENTATION, LAUNCHING SITES, MEASUREMENT, MEASUREMENT, METEOROLOGY, SAFETY, SOUND TRANSMISSION, SURFACE TO AIR, TEST FACILITIES, TESTS, WOUNDS AND INJURIES (U)
IDENTIFIERS: NIKE-ZEUS (U)

MAXIMUM SOUND PRESSURE LEVELS AVERAGING 115 DECIBELS, WITH EXTREME VALUES OF 90 AND 128 DECIBELS, WERE MEASURED ABOUT ONE MILE BEHIND THE NIKE ZEUS MISSILE LAUNCHER FOR THE VARIETY OF METEOROLOGICAL CONDITIONS OCCURRING DURING FOUR MONTHLY TESTS.ADDITIONAL SMALL SAMPLES OF DATA TAKEN BOTH NEAR THE LAUNCHER AND AT TWO MILES DISTNCE FROM THE SOUND SOURCE SUGGEST A 20-DECIBEL DECLINE IN PEAK NOISE LEVEL PER MILE. THE DECAY OF THE NOISE LEVEL FOLLOWING PEAK WAS BETWEEN TWO AND THREE DECIBELS PER SECOND FOR THE FIRST TEN SECONDS. A FREQUENCY ANALYSIS OF THE SOUND LEVEL MEASURED AT LAUNCH INDICATES THAT FREQUENCIES BELOW 125 CPS ARE PREDOMINANT. UNDER MOS METEOROLOGICAL CONDITIONS, THE SOUND PRESSURE LEVELS AT ONE MILE BEHIND THE LAUNCHER WOULD NOT BE GREAT ENOUGH TO CAUSE ANY STRUCTURAL DAMAGE OR PERSONNEL INJURY. THE LEVELS WOULD BE ABOVE 90 DECIBELS HOWEVER, WHICH APPROACH THE LEVEL AT WHICH COMPLAINTS OF ANNOYANCE BECOME FREQUENT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 265 502
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES (U)

AUG 61 IV WALDRON,DARYLE L.;MCNEE,RICHARD C.;

UNCLASSIFIED REPORT

DESCRIPTORS: *EAR, *HEARING, *THRESHOLDS (PHYSIOLOGY), MEASUREMENT, NOISE (U)

A STUDY IS DESCRIBED WHICH ATTEMPTS TO ANSWER THE FOLLOWING INQUIRY: DO THE LEFT AND RIGHT EARS OF AN INDIVIDUAL EXPERIENCE THE SAME DEGREE OF THRESHOLD SHIFT, AND RECOVER AT THE SAME RATE, WHEN SUBJECTED TO WHITE NOISE OF RELATIVELY HIGH INTENSITY LEVELS. RESULTS INDICATE THAT THE ANSWER IS IN THE NEGATIVE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 266 866
DEFENSE ATOMIC SUPPORT AGENCY WASHINGTON D C

THE SOUND INTENSITY OF A SHOCK WAVE AS RELATED TO OVERPRESSURE (U)

OCT 61 1V BAKKEN,BOYD A.;
REPT. NO. 540

UNCLASSIFIED REPORT

DESCRIPTORS: *SHOCK WAVES, *SOUND, *SOUND TRANSMISSION, HEARING, INTENSITY, THRESHOLDS (PHYSIOLOGY) (U)

THIS REPORT DEALS WITH THE SOUND INTENSITY OF A BLAST WAVE AND ITS NOISE LEVEL BASED ON THE THRESHOLD OF HUMAN HEARING. SINCE THE SOUND LEVEL DEPENDS ON AMBIENT CONDITIONS, THE EFFECT OF ALTITUDE WAS CONSIDERED BY DETERMINING THE RELATIVE CHANGE BETWEEN SEA LEVEL AND 5000 FT. EXPRESSIONS FOR SOUND LEVEL AS A FUNCTION OF OVERPRESSURE ARE PRESENTED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 271 605
BOLT BERANEK AND NEWMAN INC CAMBRIDGE MASS

MASKING OF PURE TONES AND SPEECH (U)

OCT 61 1V CARTER,N.L.;KRYTER,K.D.;
CONTRACT: AF19 604 4061
MONITOR: ESD TDR62 1

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *SPEECH TRANSMISSION, AUDIOMETRY, NOISE (RADIO), PITCH DISCRIMINATION, COMMUNICATION AND RADIO SYSTEMS, THRESHOLDS (PHYSIOLOGY) (U)

THE MASKING EFFECTS OF INTENSE PURE TONES AND BANDS OF NOISE UPON OTHER PURE TONES AND SPEECH WERE INVESTIGATED. OF PERHAPS SPECIAL IMPORTANCE ARE THE MASKING EFFECTS OF VERY INTENSE LOW FREQUENCY SOUNDS, IN THAT LOW FREQUENCY SOUNDS ARE PRESENT NEAR MISSILE LAUNCH SITES. ON THE BASIS OF THE TEST RESULTS, SPREAD OF MASKING FUNCTIONS WERE OBTAINED THAT CAN BE INCORPORATED INTO PROCEDURES FOR THE CALCULATION OF A NEW ARTICULATION INDEX THAT WILL BE VALID FOR A MUCH WIDER VARIETY OF NOISE CONDITIONS THAN HERETOFORE POSSIBLE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 273 779
NAVAL WEAPONS LAB DAHLGREN VA

TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9) (U)

MAR 62 IV WIGGINS,P.P.;DODSON,T.I.;

UNCLASSIFIED REPORT

DESCRIPTORS: *BLAST, *CRUISERS, *GUIDED MISSILES, *HAZARDS, BOOSTER ROCKETS, BULKHEADS, DAMAGE, EXHAUST FLAMES, EXHAUST GASES, EXPLOSION EFFECTS, GUIDED MISSILE PERSONNEL, LAUNCHING, MEASUREMENT, NOISE, PERSONNEL, POISONOUS GASES, SHIP DECKS, SHIPBOARD, SURFACE TO AIR (U)
IDENTIFIERS: TALOS, CGN 9 VESSEL (U)

SIX TALOS MK 11 MOD 2 BOOSTERS WITH CONCRETE SLUGS WERE FIRED ABOARD THE USS LONG BEACH (CGN9) TO INVESTIGATE THE ADEQUACY OF THE PROTECTION FOR TALOS PERSONNEL AGAINST BLAST EFFECTS AND TO DETERMINE THE EFFECTS OF THE BOOSTER BLAST ON THE SHIP'S STRUCTURE. THE TEST VEHICLES WERE FIRED AT VARIOUS ANGLES OF TRAIN AND ELEVATION SUCH THAT THE EXHAUST STREAM WAS DIRECTED AT AREAS THOUGHT TO IMPOSE THE MOST SEVERE CONDITIONS ON THE SHIP'S STRUCTURAL COMPONENTS AND EQUIPMENT. MEASUREMENTS WERE MADE OF STRUCTURAL STRAINS, TOXIC GAS CONCENTRATIONS, NOISE LEVELS, FLAME PENETRATIONS AT DOOR AND PORT SEALS, AND TEMPERATURE CHANGES INSIDE THE SHIP AND IN THE BLAST AREA OF THE 01 LEVEL AND THE MAIN DECK. HIGH-SPEED MOTION PICTURES WERE TAKEN ON ALL TESTS. THE RESULTS INDICATED MINOR GAS LEAKAGE AROUND THE BLAST DOORS, TOXIC GAS LEAKAGE INTO THE VENTILATION SYSTEMS, AND MINOR STRUCTURAL DAMAGE TO EQUIPMENT MOUNTED ON THE SIDES OF THE MISSILE HOUSE AND THE MAIN DECK. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 276 988
AIR PROVING GROUND CENTER EGLIN AFB FLA

SAFETY OF PERSONNEL DURING AN IM-99B MISSILE LAUNCHING (U)

JUN 62 1V LANEY,SHERRILL G.;
REPT. NO. TDR62 38

UNCLASSIFIED REPORT

DESCRIPTORS: *GUIDED MISSILE PERSONNEL, *GUIDED MISSILES, *LAUNCHING SITES, EAR, EXHAUST GASES, HAZARDS, LAUNCHING, NOISE, PHYSIOLOGY, ROCKET ENGINE NOISE, SAFETY, STRESS (PHYSIOLOGY), SURFACE TO AIR, TEMPERATURE, TOXICITY (U)
IDENTIFIERS: BOMARC (U)

THE RELATIVE SAFETY OF PERSONNEL IN SEVERAL SELECTED AREAS WAS STUDIED DURING AN IM-99B LAUNCHING. DATA WERE COLLECTED RELATIVE TO FREE-AIR TEMPERATURE, NOISE, AND TOXIC GASES WHICH CONTRIBUTE TO PERSONNEL HAZARDS. BASED ON AN ANALYSIS OF THE DATA OBTAINED BY PHYSICAL MEASUREMENTS, SURVIVABILITY OF PERSONNEL REMAINING AT THE SELECTED TEST LOCATIONS IN THE LAUNCH AREA DURING MISSILE LAUNCH WOULD BE 100%. HOWEVER, THEY MAY EXPERIENCE BOTH TEMPORARY AND PERMANENT EAR DAMAGE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 287 810
BOLT BERANEK AND NEWMAN INC CAMBRIDGE MASS

STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS (U)

AUG 62 1V CARTER,NORMAN L.;KRYTER,KARL D.;
REPT. NO. 949
CONTRACT: DA49 007MD985

UNCLASSIFIED REPORT

DESCRIPTORS: •DEAFNESS, •EAR, •FATIGUE (PHYSIOLOGY), •HEARING, •PSYCHOACOUSTICS, •THRESHOLDS (PHYSIOLOGY), INTENSITY, NOISE (U)

EXPERIMENTS ARE DESCRIBED WHICH PROVIDE DATA ON THE RELATIONS BETWEEN NUMBER AND SOUND PRESSURE LEVEL OF ACOUSTIC IMPULSES AS A FUNCTION OF THE SUSCEPTIBILITY OF DIFFERENT PEOPLE TO AUDITORY FATIGUE. THIS INFORMATION PLUS PREVIOUSLY OBTAINED DATA ON THE EFFECTS OF PULSE REPETITION RATE AND THE RESULTS OF PLANNED EXPERIMENS ON THE EFFECTS OF RISE TIME SHOULD PROVIDE THE BASIS FOR ESTABLISHING A GENERAL DESCRIPTION OF THE EFFECTS OF GUN NOISE ON AUDITORY FATIGUE. THIS DESCRIPTION SHOULD PROVIDE THE MEANS FOR SPECIFYING THE NOISE CHARACTERISTICS OF WEAPONS AND OPERATIONAL PROCEDURES FOR THEIR USE WITH RESPECT TO PROTECTION OF THE HEARING OF MILITARY PERSONNEL. THE GREAT VARIABILITY IN THE SUSCEPTIBILITY OF DIFFERENT PERSONS TO IMPULSES, PROBABLY DUE TO VARIATIONS IN THE BEHAVIOR OF THE AUDITORY REFLEX, SUGGESTS THAT DAMAGE RISK CRITERIA FOR IMPULSE NOISE MUST BE DESIGNED TO PROTECT THOSE PERSONS WITH EARS FAR MORE SENSITIVE THAN THOSE POSSESSED BY THE AVERAGE PERSON. INDIVIDUAL DIFFERENCES IN SUSCEPTIBILITY TO AUDITORY FATIGUE ARE MUCH GREATER FOR IMPULSE THAN FOR STEADY STATE NOISE. ONE OF THE EXPERIMENTS CONDUCTED REVEALED THAT PERSONS SUSCEPTIBLE TO AUDITORY FATIGUE FROM IMPULSE NOISE WERE NOT NECESSARILY MORE OR LES SUSCEPTIBLE TO STEADY STATE NOISE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 293 875
LOVELACE FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
ALBUQUERQUE N MEX

A TENTATIVE ESTIMATION OF MANS TOLERANCE TO OVERPRESSURES FROM AIR BLAST (U)

NOV 62 1V RICHMOND,DONALD R.;WHITE,CLAYTON S.;
REPT. NO. 1335
CONTRACT: DA49 146XZ55
MONITOR: DASA 1335

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRBURST, BLAST, EFFECTIVENESS, HAZARDS, PATHOLOGY, PHYSIOLOGY, PRESSURE, SURVIVAL(PERSONNEL) (U)

TENTATIVE ESTIMATES OF THE SHARP-RISING OVERPRESSURES AS A FUNCTION OF DURATION WHICH REPRESENT A LETHAL HAZARD TO THE 70-KG ANIMAL 1, 50 AND 99 PER CENT OF THE TIME WERE PRESENTED. THE PREDICTIONS WERE BASED ON INTERSPECIES CORRELATIONS AND EXTRAPOLATIONS ENCOMPASSING BLAST-TOLERANCE DATA FOR SIX MAMMALIAN SPECIES. THE TENTATIVE APPLICATION OF THE DATA TO INDICATE HUMAN BLAST TOLERANCE WAS DISCUSSED AND RELEVANT UNCERTAINTIES IN THE ESTIMATES WERE EMPHASIZED. IT WAS ALSO POINTED OUT THAT BIOLOGIC TOLERANCE WOULD BE DIFFERENT FOR AIR-BLAST PULSES HAVING NON-IDEAL WAVE FORMS FREQUENTLY ASSOCIATED WITH VARIOUS GEOMETRIES OF EXPOSURE. SELECTED PATHOPHYSIOLOGICAL INFORMATION PERTINENT TO THE BIOLOGICAL RESPONSE FOLLOWING BLAST EXPOSURE WAS GIVEN; NAMELY SURVIVAL TIME AND SELECTED POSTSHOT OBSERVATIONS OF DOGS AND GOATS.
(AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 294 582
TEXAS UNIV AUSTIN

EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS (U)

JAN 63 IV WATKINS,WILLIAM H.;

UNCLASSIFIED REPORT

DESCRIPTORS: •NOISE, •PSYCHOACOUSTICS, •VISUAL SIGNALS, DETECTION, PERCEPTION, STIMULATION(PHYSIOLOGY), VISION, VISUAL ACUITY (U)

EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS.

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 297 866
NAVAL MISSILE CENTER POINT MUGU CALIF

METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSLE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT, AND PERSONNEL (U)

AUG 60 1V OVERTON,J.B.;
REPT. NO. TM60 33

UNCLASSIFIED REPORT

DESCRIPTORS: *LAUNCHING, *ROCKET ENGINE NOISE, *SOUND, ACOUSTICS, GUIDED MISSILES, HAZARDS, LAUNCHING SITES, PERSONNEL, PRESSURE, RADIATION EFFECTS, SAFETY, STRUCTURES (U)

METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSILE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT AND PERSONNEL.

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 403 009
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSIVE DIFFERENCE LIMEN, (U)

APR 63 20P LOEB,MICHEL ;BINFORD,JOHN R.;

REPT. NO. USAMRL-563
PROJ: DA-3-A-012001-B-801
MONITOR: AMRL 563

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: IN COOPERATION WITH UNIVERSITY OF LOUISVILLE, KENTUCKY.

DESCRIPTORS: *HEARING, *NOISE, DETECTION, PSYCHOLOGY, ATTENTION, STIMULATION(PHYSIOLOGY), ERRORS. (U)

RESEARCH WAS UNDERTAKEN TO DETERMINE PROBABILITY OF DETECTION OF CHANGES IN A STEADY NOISE STIMULUS AND PROBABILITY OF DETECTION OF LOUDER NOISE PULSES IN A TRAIN OF PULSES UNDER UN ALERTED CONDITIONS OVER APPRECIABLE PERIODS OF TIME AT DIFFERENT LEVELS OF DISCRIMINATION DIF FICULTY. CHANGES IN A STEADY STIMULUS WERE MORE READILY DETECTED THAN CHANGES IN PULSES. AT INTERMEDIATE DIFFICULTY LEVELS DETECTIONS OF CHANGES IN THE STEADY STIMULUS DECLINED WITH TIME; AT INTERMEDIATE AND DIFFICULT LEVELS DETECTION OF LOUDER PULSES DECLINED WITH TIME. PROGRESSIVE INCREASES IN LATENCY WERE NOTED IN SOME CASES, AND THERE WAS A GENERAL TENDENCY FOR FALSE DETECTIONS TO DECLINE WITH TIME ON TASK. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 403 010
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

TEMPORARY THRESHOLD SHIFT FOR 'NORMAL' SUBJECTS AS A FUNCTION OF AGE AND SEX, (U)

MAY 63 9P LOEB,MICHEL ;FLETCHER,JOHN L. ;
REPT. NO. USAMRL-567
PROJ: DA-3-A-012001-A-800

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *HEARING, *THRESHOLDS(PHYSIOLOGY), *THRESHOLDS(PHYSIOLOGY), AGING(PHYSIOLOGY), AGING(PHYSIOLOGY), NOISE, NOISE, SEX, SEX, THRESHOLDS(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY) (U)
IDENTIFIERS: DECIBELS, TEMPORARY THRESHOLD SHIFTS (U)

RESEARCH WAS PERFORMED TO DETERMINE WHETHER THERE ARE VARIATIONS IN TEMPORARY THRESHOLD SHIFT (TTS) FOR NORMAL INDIVIDUALS EXPOSED TO INTENSE (110 DB), BROAD BAND (1200-2400 CPS) NOISE AS A FUNCTION OF AGE AND SEX. AT 2,000 CPS THERE WAS CONSIDERABLY LESS TTS FOR MALES THAN FOR FEMALES. AT 4,000 CPS NO SUCH DIFFERENCES WERE OBSERVED. THE SMALLEST DIFFERENCE IN TTS FOR MEN AND WOMEN WAS OBSERVED FOR SUBJECTS UNDER 30. THE SIGNIFICANT DIFFERENCES MAY HAVE INDICATED THAT SUSCEPTIBLE MALES MORE FREQUENTLY SUSTAIN A PERMANENT LOSS AND SO WOULD BE IN ELIGIBLE AS SUBJECTS FOR THIS KIND OF EXPERIMENT. THERE IS NO SUPPORT FROM THESE DATA FOR THE HYPOTHESIS THAT MALES ARE BIOLOGICALLY MORE SUSCEPTIBLE TO HEARING LOSS THAN FEMALES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 407 119
TUFTS UNIV MEDFORD MASS

TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION, (U)

63 7P FREEDMAN,SANFORD J.;PFAFF, DONALD W.;
CONTRACT: AF AFOSR61 26
MONITOR: AFOSR 1711

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPRINT FROM THE JOURNAL OF AUDITORY RESEARCH, 2, PP. 311-318, 1962.

DESCRIPTORS: *NOISE, *STIMULATION(PHYSIOLOGY), *EXPOSURE(PHYSIOLOGY), *HEARING, TIME, INTENSITY, AUDIOMETRY. (U)

BALANCING DICHOTIC INTENSITY IN ORDER TO CENTER A CLICK, AFTER VARIOUS DICHOTIC TIME DIFFERENCES HAD BEEN ESTABLISHED, YIELDED AN AVERAGE VALUE OF 43 MICROSEC/DB FOR FOUR SUBJECTS. THE SAME FOUR SUBJECTS GAVE AN AVERAGE OF ONLY 23 MICROSEC/DB WHEN DICHOTIC TIME DIFFERENCES WERE VARIED TO CEN TER THE SOUND, AS A FUNCTION OF PRESET DICHOTIC INTENSITY DIFFERENCES. AICATION OF THIS DISPARITY FOR THE LOCALIZATION MECHANISMS EMPLOY ING DICHOTIC TIME AND DICHOTIC INTENSITY DIFFER ENCES IS DISCUSSED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 408 004
MASSACHUSETTS MENTAL HEALTH CENTER BOSTON

THE EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION, (U)

63 5P FREEDMAN,SANFORD J.;PFAFF, DONALD W.;
CONTRACT: AF 33(616)-7625
PROJ: 9778 03
MONITOR: AFOSR J347

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPRINT FROM THE JNL. OF AUDITORY RESEARCH, VOL. 2, PP. 305-310, 1962. (COPIES SUPPLIED BY DDC)

DESCRIPTORS: (*NOISE, STIMULATION(PHYSIOLOGY)), EAR, GENERATORS, EXPOSURE(PHYSIOLOGY), PERFORMANCE(HUMAN), ANALY, BRAIN, NERVOUS SYSTEM. (U)
IDENTIFIERS: DICHOTIC NOISE, LOCALIZATION (U)

EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION; AMBULATORY SUBJECTS; ABILITY TO DISCRIMINATE SMALL TIME DIFFERENCES BETWEEN THE TWO EAR WAS SIGNIFICANTLY IMPAIRED.

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 413 817
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

CHANGES IN THE HEARING OF PERSONNEL EXPOSED TO HIGH INTENSITY CONTINUOUS NOISE, (U)

MAY 63 9P LOEB,M. ;FLETCHER,J. L. ;
REPT. NO. USAMRL-566
PROJ: DA-3-A-012001-A-800

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (•NOISE, THRESHOLDS), HEARING, PERSONNEL, EXPOSURE(PHYSIOLOGY), MEASUREMENT, STATISTICAL ANALYSIS, PHYSIOLOGY (U)

THE CHARACTERISTICS OF THE TEMPORARY AND PERMANENT THRESHOLD SHIFTS OF PERSONNEL ACUTELY EXPOSED TO A HIGH INTENSITY NOISE, AND TO RELATE NOISE EXPOSURE TO OBSERVED HEARING LOSS WERE PRESENTED. THE CORRELATIONS OBTAINED BETWEEN NOISE EXPOSURE, AS EVALUATED BY THE AUTHORS, AND HEARING LOSS, AS DETERMINED BY POST-EXPOSURE AUDIOMETRY, WERE NOT OF STATISTICAL SIGNIFICANCE. THE CORRELATION BETWEEN REFERENCE THRESHOLD AND INITIAL SHIFT WERE NEGATIVE AND STATISTICALLY SIGNIFICANT, AS WAS THE CORRELATION BETWEEN REFERENCE THRESHOLD AND PERMANENT LOSS. THE CORRELATION BETWEN INITIAL SHIFT AND PERMANENT LOSS WAS POSITIVE AND SIGNIFICANT. UNRELIABILITY OF REPORTS BY THOSE EXPOSED REGARDING DETAILS OF EXPOSURE AND INDIVIDUAL DIFFERENCES IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS MIGHT ACCOUNT FOR THE LACK OF CORRELATION BETWEEN NOISE EXPOSURE AND HEARING LOSS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 415 302
SYRACUSE UNIV N Y BIOACOUSTICS LAB

TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE. (U)

DEC 62 9P WRIGHT,H. N. ;ZWICKER,E. ;

UNCLASSIFIED REPORT
REPRINT FROM THE JNL. OF THE ACOUSTICAL SOCIETY OF AMERICA, 35:5, PP. 691-699, MAY 1963. (COPIESNOT SUPPLIED BY DDC)
SUPPLEMENTARY NOTE:

DESCRIPTORS: (•AUDIOMETRY), (•ACOUSTICS), SOUND, NOISE, AUDIO FREQUENCY, STIMULATION(PHYSIOLOGY) (U)
IDENTIFIERS: TEMPORAL SUMMATION (U)

A REPRINT ON TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE.

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 415 672
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM, (U)

APR 63 7P ARKADYEVSKIY,A.A.;
MONITOR: FTD TT63 292

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: TRANS. FROM GIGIYENA I SANITARIYA, NO. 10, PP. 25-28, 1962.

DESCRIPTORS: (*BRAIN, VIBRATION), (*NOISE, BRAIN), (*SPINAL CORD, NOISE), (*VIBRATION, SPINAL CORD), PHYSIOLOGY, MEDIUM FREQUENCY, ELECTROCARDIOGRAPHY, AUDIOMETRY, MOTOR (U)

INDIVIDUAL EFFECT OF NOISE OF MEDIUM FREQUENCY SPECTRUM WITH AN INTENSITY OF 85 DB AND GENERAL VIBRATION OF A FREQUENCY OF 50 C AND AMPLITUDE OF 15 MICRONS CAUSES NO EXPRESSED DISPLACEMENT IN PHYSIOLOGICAL REACTIONS. COMBINED EFFECT OF THESE FACTORS OF VERY SAME PARAMETERS INTENSIFY THE PHYSIOLOGICAL DISPLACEMENT OF THE INVESTI GATED FUNCTIONS, BUT THIS DISPLACEMENT DOES NOT GO BEYOND THE LIMITS OF NORMAL ORGANISMAL ADAPTATION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 429 966
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

APPARENT CHANGE OF REPETITIVE NOISE BURSTS, (U)

OCT 63 13P ELLIOTT,LOIS L. ;
REPT. NO. SAM-TDR-63-72
PROJ: AF-7755
TASK: 775503

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*NOISE, ILLUSIONS), (*ILLUSIONS, NOISE), NEUROLOGY, PHYSIOLOGY, AUDITORY NERVE, ANALYSIS, HEARING, THEORY, PSYCHIATRY (U)

NOISE BURSTS WHICH ARE PRESENTED AT CONSTANT, SLOW FLUTTER RATES THROUGH WIDE-RANGE EARPHONES APPEAR TO CHANGE IN RATE AND LOUDNESS. THIS ILLUSION IS DISCUSSED IN TERMS OF NEUROPHYSIOLOGIC EVIDENCE AND AUDITORY THEORY. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 431 851
TUFTS UNIV MEDFORD MASS INST FOR PSYCHOLOGICAL RESEARCH

EFFECTS OF PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUALMOTOR PERFORMANCE. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JAN 64 9P FREEDMAN,SANFORD J. ;
CONTRACT: AF AFOSR53 63
MONITOR: AFOSR 64 0197

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*PERCEPTION, AUDIOMETRY), (*MOTOR REACTIONS, STIMULATION(PHYSIOLOGY)), NOISE, MOTION, HEAD(ANATOMY), ERRORS, PERFORMANCE(HUMAN), VISION, HEARING, ADAPTATION (PHYSIOLOGY), EYE, MEASUREMENT (U)
IDENTIFIERS: DICHOTIC NOISE, MOTOR REACTIONS, SKILLS (U)

EFFECTS OR PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUAL-MOTOR PERFORMANCE.

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 432 087
ARMY PERSONNEL RESEARCH OFFICE WASHINGTON D C

INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE, (U)

DESCRIPTIVE NOTE: TECHNICAL RESEARCH NOTE,
OCT 63 18P CASTELNOVO,A. E. ;TIEDEMANN, J. G. ;SKORDAHL,D. M.;
REPT. NO. APRO-TRN-137
PROJ: DA-2-J-024701-A-713

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*PERSONNEL MANAGEMENT, COMMUNICATION AND RADIO SYSTEMS), (*COMMUNICATION AND RADIO SYSTEMS, OPERATORS (PERSONNEL)), (*HUMAN FACTORS ENGINEERING, VOICE COMMUNICATIONS), INTELLIGIBILITY, JOB ANALYSIS, MONITORS, NOISE, ATMOSPHERES, PERFORMANCE(HUMAN), ARMY (U)
IDENTIFIERS: ATMOSPHERIC NOISE, NOISE-MASKED MESSAGES (U)

THE MONITOR PERFORMANCE TASK HAS AS AN ONGOING OBJECTIVE THE ACCOMPLISHMENT OF RESEARCH TO MEET A REQUIREMENT OF THE U. S. ARMY SECURITY AGENCY FOR IMPROVEMENT OF WORK METHODS IN SEVERAL CRITICAL HUMAN FACTORS AREAS IN THE ARMY'S MONITOR SYSTEM. THE PRESENT PUBLICATION REPORTS ON ONE SEGMENT OF THIS RESEARCH EFFORT WHICH DEALS WITH VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE. THE STUDY WAS CONDUCTED TO EXPLORE THE QUESTION OF WHETHER INDIVIDUALS SHOW CONSISTENT DIFFERENCES IN ACCURACY OF TRANSCRIPTION AND WHETHER ANY SUCH DIFFERENCES ARE PREDICTABLE BY CONVENTIONAL MEASURES. VOICE-RADIO TRANSCRIBER PERFORMANCE UNDER LOW, MEDIUM, AND HIGH LEVELS OF ATMOSPHERIC NOISE IS ANALYZED. PREDICTION OF PERFORMANCE BY ARMY CLASSIFICATION BATTERY TESTS AND EFFECT OF INTRODUCTION OF ERRORS INTO TRANSCRIPT ARE EXAMINED. PRONOUNCED INDIVIDUAL DIFFERENCES IN TRANSCRIPTION WERE FOUND, BUT DIFFERENCES WERE STABLE OVER TIME AND ACROSS A BROAD RANGE OF NOISE INTENSITY. FINDINGS SUGGEST THE PRACTICALITY OF THE USE OF A JOB SAMPLE PERFORMANCE MEASURE AND STANDARDIZED SETS OF NOISE-MASKED MESSAGES AS AN APPROACH TO THE SELECTION PROBLEM. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 432 088
ARMY PERSONNEL RESEARCH OFFICE WASHINGTON D C

PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS, (U)

DESCRIPTIVE NOTE: TECHNICAL RESEARCH NOTE,
SEP 63 33P CASTELNOVO,A. E. ;TIEDEMANN,
J. G. ;DOBBINS,D. A.;
REPT. NO. APRO-TRN-135
PROJ: DA-2-J-024701-A-713

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*HUMAN FACTORS ENGINEERING, VOICE COMMUNICATIONS), (*OPERATORS (PERSONNEL), PERFORMANCE(HUMAN)), (*SPEECH, NOISE (RADIO)), MONITORS, ARMY, TEST METHODS, NOISE, ERRORS (U)
IDENTIFIERS: NOISE (U)

EFFORT TO IMPROVE WORK METHODS EMPLOYED IN THE ARMY'S MONITOR SYSTEMS IS CRITICAL TO THE ASSESSMENT OF HUMAN PERFORMANCE WITHIN THE SYSTEM AND TO THE DETERMINATION OF SYSTEM RELIABILITY. THE PRESENT STUDY REPORTS ON ONE SEGMENT OF THE RESEARCH EFFORT--IMPROVEMENT OF WORK METHODS EMPLOYED IN PRODUCING A TRANSCRIPT. THREE WORK METHODS, DIFFERING IN THE NUMBER OF TRANSCRIBERS CONTRIBUTING TO THE FINAL PRODUCT, WERE COMPARED WITH RESPECT TO ACCURACY AND COMPLETENESS OF THE RESULTING TRANSCRIPTION. THESE METHODS (INVOLVING ONE, TWO OR THREE TRANSCRIBERS) WERE TESTED UNDER THREE LEVELS OF NOISE WHICH YIELDED HIGH, MEDIUM, AND LOW INTELLIGIBILITY UNDER STANDARD CONDITIONS. DATA OBTAINED WERE INTERPRETED BY ANALYSIS OF VARIANCE TECHNIQUE. A SMALL BUT CONSISTENT DIFFERENCE IN FAVOR OF MULTIPLE TRANSCRIBER WORK METHODS WAS FOUND TO EXIST. DIFFERENCES WERE STATISTICALLY SIGNIFICANT ONLY AT THE MEDIUM NOISE LEVEL. A SECONDARY FINDING OF POTENTIAL VALUE WAS THAT REPEATED EXPOSURES TO A MESSAGE RESULTED IN SOME INCREASE IN ACCURACY AT LOW AND MEDIUM NOISE LEVELS; REPEATED EXPOSURES AT THE HIGH NOISE LEVEL WERE CONDUCTIVE TO ERROR. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 440 204
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE. (U)

MAR 64 8P LOEB,MICHEL ;FLETCHER,JOHN L. ;

REPT. NO. USAMRL-604
PROJ: DA-3-A-012001-B-801
MONITOR: AMRL 604

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPORT ON BASIC RESEARCH IN PSYCHOLOGICAL AND SOCIAL SCIENCES.

DESCRIPTORS: (*THRESHOLD (PHYSIOLOGY), NOISE), (*NOISE, THRESHOLD (PHYSIOLOGY)), (*REACTION, NOISE), ACOUSTICS, SOCIAL SCIENCE, MEASUREMENT, AUDIOMETRY, HEARING, MALES, F MALES, CONDITIONED RESPONSE (U)

THIS STUDY SOUGHT TO DETERMINE WHETHER TEMPORARY THRESHOLD SHIFT (TTS) FOLLOWING EXPOSURE TO CONTINUOUS OR PERIODIC INTERMITTENT NOISE CHANGES AS A FUNCTION OF REPETITIVE EXPOSURE (FIVE SUCCESSIVE SESSIONS). SIGNAFICANTLY LESS TTS WAS OBSERVED FOLLOWING EXPOSURE TO INTERMITTENT NOISE IN LATER SESSIONS FOR BOTH MEN AND WOMEN. NO SUCH EFFECT WAS NOTED FOR CONTINUOUS NOISE AS A FUNCTION OF REPETITIVE EXPOSURE. THESE FINDINGS AND SOME EARLIER ONES REPORTED BY COLES SUGGEST THAT TEMPORAL CONDITION OF THE ACOUSTIC REFLEX MAY BE AN OPERATION FACTOR. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 449 417
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST. (U)

DESCRIPTIVE NOTE: REPT. FOR NOV 62-FEB 63,
FEB 64 68P SPELLMAN,EDSEL A. ;
REPT. NO. TM4 64

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*ROCKET LAUNCHING, BLAST), (*EXHAUST GASES, HAZARDS), (*ROCKET LAUNCHERS, HUMANS), SIMULATORS, DESIGN, MILITARY PERSONNEL, STRESSES, SAFETY, CAPTIVE TESTS, WEIGHT, PRESSURE, PERFORMANCE (ENGINEERING), VALVES, DIAPHRAGMS (MECHANICS), TESTS (U)

THIS REPORT DESCRIBES THE ENGINEERING DESIGN, DEVELOPMENT, AND TESTING OF A FACILITY USED TO SIMULATE THE EFFECTS OF ROCKET BLAST UPON MILITARY PERSONNEL. THE MOST FORMIDABLE PROBLEMS ENCOUNTERED WERE (1) THE NECESSITY OF ACHIEVING A HIGH-ORDER RELIABILITY TO ASSURE SAFETY, AND (2) THE REQUIREMENTS FOR A TOTAL PRESSURE RISE WITHIN FIVE MILLISECONDS TO ACHIEVE HIGH BLAST IMPULSE. BOTH OF THESE PROBLEMS WERE RESOLVED THROUGH THE DESIGN OF A NOVEL SIDE-MOUNTED VALVE ACTUATED BY A SUDDEN PRESSURE DIFFERENTIAL RESULTING FROM THE BURSTING OF A PRESSURIZED DIAPHRAGM. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 455 002
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

EFFECTS OF HIGH INTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS, (U)

AUG 64 11P FLETCHER,JOHN L. ;ROBERSON, GEORGE D. ;LOEB,MICHEL ;
REPT. NO. USAMRL-610
PROJ: DA-3-A-012001-A-800
TASK: 3-A-012001-A-80001

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPORT ON MILITARY PSYCHOPHYSIOLOGICAL STUDIES.

DESCRIPTORS: (*HEARING, NOISE), BONES, EAR, PROSTHETICS, AUDITORY ACUITY, EFFECTIVENESS, BLAST, SHOCK WAVES, PRESSURE, ALTITUDE CHAMBERS, PSYCHOPHYSIOLOGY, SURGICAL TECHNIQUES, MONKEYS, PERFORMANCE (ENGINEERING), SOUND (U)
IDENTIFIERS: MIDDLE EAR, OTOSCLEROSIS (U)

IN ORDER TO DETERMINE THE EFFECTS OF IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED PATIENTS, 40 CEBUS MONKEYS WERE SUBJECTED TO THE STAPEDECTOMY PROCEDURE AND LATER EXPOSED TO GUNFIRE OR RAPID CHANGES IN PRESSURE IN AN ALTITUDE CHAMBER. TWO DIFFERENT PROSTHESES WERE USED, HALF THE MONKEYS RECEIVING THE POLYETHYLENE STRUT AND VEIN GRAFT, THE OTHER HALF GETTING A STAINLESS STEEL PISTON PROSTHESIS. IMMEDIATE POST-EXPOSURE EXAMINATION OF THE MONKEYS WAS MADE BY REFLECTING THE DRUMS. NO EXPERIMENTAL DISARTICULATION OF THE PROSTHESES WAS OBSERVED, NOR WERE THERE ANY BEHAVIORAL MANIFESTATIONS OF VESTIBULAR PATHOLOGY. NO SIGNIFICANT DIFFERENCES WERE OBSERVED BETWEEN THE TWO DIFFERENT PROSTHESES USED. ON THE BASIS OF THIS EXPERIMENT, NO VALID REASON FOR DRASTIC DUTY LIMITATION OS STAPEDECTOMIZED PATIENTS CAN BE SEEN. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 458 244
NRC COMMITTEE ON HEARING AND BIO-ACOUSTICS WASHINGTON D C

HAZARDOUS EXPOSURE TO INTERMITTENT AND STEADYSTATE NOISE, (U)

JAN 65 34P KRYTER,KARL D. ;
CONTRACT: NONR230005

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*SOUND, STRESS (PHYSIOLOGY)), (*NOISE, STRESS (PHYSIOLOGY)), LUNAR ENGINEERING, AUDITORY PERCEPTION, AUDITORY ACUITY, HEARING, WOUNDS AND INJURIES, DEAFNESS, TOLERANCES (PHYSIOLOGY), DATA, TABLES(DATA), EXPOSURE(PHYSIOLOGY) (U)
IDENTIFIERS: GRAPHS(CHARTS) (U)

THIS REPORT SPECIFIES DAMAGE RISK CRITERIA FOR EXPOSURE TO SOUND, AND CONTAINS GRAPHS OF MAXIMUM SOUND PRESSURE LEVELS AND DURATIONS OF EXPOSURES THAT ARE CONSIDERED TOLERABLE ALONG WITH EXAMPLES OF THE USE OF THESE GRAPHS. ALSO INCLUDED IS BACKGROUND INFORMATION AND A DISCUSSION OF THE RATIONALE, ASSUMPTIONS, LIMITATIONS, AND GENERAL PROBLEMS PERTINENT TO THE DEVELOPMENT AND APPLICATION OF DAMAGE RISK CRITERIA AND THE RELATED EXPOSURE CONTOURS. THIS REPORT IS INTENDED PRIMARILY FOR TECHNICAL PERSONS WORKING IN THIS PROBLEM AREA IN THE MILITARY SERVICES AND OTHER GOVERNMENT AGENCIES. NO ATTEMPT IS MADE TO INTERPRET OR SIMPLIFY THE REPORT OR PROCEDURES CONTAINED HEREIN FOR SPECIAL OR PARTICULAR OPERATIONAL SITUATIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 467 132
NAVAL WEAPONS LAB DAHLGREN VA

TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA, (U)

JUN 65 1V LOVING,J. W. ;DODSON,T. I. ; SMITH,A. D. ;STEPHENS,J. C. ;
REPT. NO. NWL-1982
TASK: RMLG13 135 210 4F009 05 01

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (•SURFACE TO AIR MISSILES, SHIPBOARD), LAUNCHING, CRUSIERS, TEMPERATURE, PRESSURE, FIRING TESTS(ORDNANCE), GUIDED MISSILE LAUNCHERS, NOISE, CONCRETE, GUIDE MISSILE WARHEADS, TESTS, GAS LEAKS, TOXICITY, EXHAUST GASES (U)
IDENTIFIERS: TERRIER (U)

EIGHT TERRIER MARK 12 MOD 0 BOOSTERS WITH CONCRETE SLUGS WERE FIRED ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA TO INVESTIGATE THE ADEQUACY OF THE PROTECTION FOR THE TERRIER LAUNCHING SYSTEM PERSONNEL AGAINST BLAST EFFECTS AND TO DETERMINE THE EFFECTS OF THE BOOSTER EXHAUST ON THE SHIP'S STRUCTURE. DURING THE TEST SERIES, MEASUREMENTS OF TOXIC GAS LEAKAGE INTO PERSONNEL AREAS, SOUND PRESSURE LEVELS, AIR TEMPERATURES, AND EXHAUST STREAM PRESSURES WERE OBTAINED. THE RESULTS INDICATED NO MAJOR STRUCTURAL DEFICIENCIES. THERE WAS SOME GAS AND SMOKE LEAKAGE INTO PERSONNEL AREAS ADJACENT TO THE LAUNCHER, EXPOSURE OF EQUIPMENT AND ORDNANCE TO HIGH TEMPERATURES AND SUPERFICIAL STRUCTURAL DAMAGE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 468 342
CENTRAL INST FOR THE DEAF ST LOUIS MO

A MOBILE LABORATORY FOR GROUP HEARING TESTS. (U)

DESCRIPTIVE NOTE: RESEARCH REPT.,
NOV 56 15P COX,J. R. ;BENSON,R. W. ;
NIEMOELLER,A. F. ;
CONTRACT: NONR115102
PROJ: NR146 092
MONITOR: NAVMED NM001-102-502-03

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*AUDIOMETRY, TRAILERS), (*HEARING, TEST FACILITIES), DESIGN, CONSTRUCTION, ACOUSTICS, PERFORMANCE(ENGINEERING), NOISE, ACOUSTIC INSULATION, TEST METHODS (U)

A MOBILE LABORATORY HAS BEEN CONSTRUCTED AS PART OF A NAVY PROGRAM TO INVESTIGATE BOTH THE AUDITORY AND THE NON-AUDITORY EFFECTS (IF ANY) OF THE NOISE EXPOSURE RECEIVED BY JET ENGINE MECHANICS AND MEMBERS OF THE FLIGHT DECK CREW ABOARD AIRCRAFT CARRIERS. THE CONSTRUCTION OF THE MOBILE LABORATORY WAS NECESSARY TO PERMIT THE MEASUREMENT OF AUDITORY THRESHOLDS AND PERFORMANCE ON CERTAIN PSYCHOMOTOR TESTS UNDER CONTROLLED ENVIRONMENTAL CONDITIONS. THE MOBILE LABORATORY HAS PROVED TO BE A USEFUL FACILITY FOR MAKING HEARING MEASUREMENTS IN THE FIELD. IT IS RELATIVELY EASY TO MOVE ABOUT AND THE DESIGN HAS, ON THE WHOLE, PROVED SATISFACTORY. SOME ADDITIONAL NOISE CONTROL WILL BE NECESSARY BEFORE THE ACOUSTICAL DESIGN IS COMPLETELY SATISFACTORY. THE GROUP AUDIOMETER IS CAPABLE OF MAKING COMPARISONS BETWEEN GROUPS OF MEN, AND BETWEEN BEFORE AND AFTER EXPOSURE TESTS TAKEN ON THE SAME GROUP OF MEN. THE AUDIOMETER IS SIMPLE, FAST, RELIABLE, AND NOT PARTICULARLY COSTLY. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 601 809
AEROSPACE MEDICAL RESEARCH LABS WRIGHT-PATTERSON AFB OHIO

NOISE SURVEY OF AUXILIARY SUPPORT EQUIPMENT AT ONE ATLAS COMPLEX AND ONE TITAN I COMPLEX, CAPE KENNEDY MISSILE TEST ANNEX, ATLANTIC MISSILE RANGE. (U)

DESCRIPTIVE NOTE: REPT. FOR 8 NOV 61-31 AUG 62
APR 64 34P ENGLAND,ROBERT T. ;
PROJ: 7231
TASK: 723104
MONITOR: AMRL TDR64 31

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*NOISE, GROUND SUPPORT EQUIPMENT), (*GROUND SUPPORT EQUIPMENT, LAUNCHING SITES), GUIDED MISSILES, SOUND PITCH, NARROWBAND, MEASUREMENT, HEARING, SPEECH, SAFETY, INSTRUMENTATION, EXPERIMENTAL DATE, BLOWERS, HYDRAULIC EQUIPMENT, COMPRESSORS, RECTIFIERS, PNEUMATIC DEVICES, AIR CONDITIONING EQUIPMENT, DEAFNESS (U)

NOISE LEVEL MEASUREMENTS WERE MADE ON SEVERAL ITEMS OF GROUND SUPPORT EQUIPMENT AT AN ATLAS COMPLEX AND TITAN I COMPLEX. OVERALL (FROM 18.7 TO 9600 CPS) AND OCTAVE-BAND (9 OCTAVES WITHIN THE OVERALL RANGE) SOUND PRESSURE LEVELS MEASURED IN THE NEAR VICINITY OF THE EQUIPMENT ARE PRESENTED. ONE-THIRD OCTAVE-BAND SOUND PRESSURE LEVELS ARE ALSO GIVEN FOR CERTAIN EQUIPMENT WHICH GENERATES NARROW-BAND SOUND LEVELS. EXPOSURE TIME LIMITATIONS AND SPEECH INTERFERENCE LEVELS FOR INDIVIDUALS WORKING IN THE VICINITY OF THE EQUIPMENT ARE DISCUSSED. RECOMMENDATIONS ARE MADE FOR MEASURES TO BE TAKEN TO INSURE AGAINST HEARING LOSS AND TO IMPROVE THE AREAS FOR SPEECH EFFECTIVENESS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 602 265
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT. (U)

JUN 64 8P CHAILLET,ROBERT F. ;
REPT. NO. HEL-SI-63A

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (•NOISE, HUMAN FACTORS ENGINEERING), (•HUMAN FACTORS ENGINEERING, ARMY EQUIPMENT), (•ARMY EQUIPMENT, HUMAN FACTORS ENGINEERING), HEARING, DAMAGE, SOUND, ARMY PERSONNEL, STANDARDS (U)

THIS STANDARD ESTABLISHES THE MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL PERMITTED AT PERSONNEL OCCUPIED SPACES OF EQUIPMENT DESIGNED, DEVELOPED OR PROCURED BY AMC. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 618 327
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN). (U)

DESCRIPTIVE NOTE: TECHNICAL MEMO.,
DEC 64 66P HODGE,DAVID C. ;GATES,HUGH W. ;SODERHOLM,ROBERT B. ;HELM,CHARLES P. ,JR.; BLACKMER,RAYMOND F. ;
REPT. NO. TM-15-64

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*AUDITORY ACUITY, NOISE), (*NOISE, AUDITORY ACUITY), HUMAN FACTORS ENGINEERING, HEARING, AUDIOMETRY, THRESHOLDS(PHYSIOLOGY), BEHAVIOR, PERFORMANCE(HUMAN), REACTION(PSYCHOLOGY), AUTOMATIC WEAPONS, SMALL ARMS, AUDIO FREQUENCY, ARMY PERSONNEL (U)

THE REPORT SUMMARIZES THE ACCOMPLISHMENTS OF THE U. S. ARMY HUMAN ENGINEERING LABORATORIES IMPULSENOISE PROGRAM (PROJECT HUMIN). AFTER REVIEWING PAST RESEARCH AND STATING THE RATIONALE FOR STUDYING HOW IMPULSE NOISE AFFECTS HUMAN SUBJECTS, IT GIVES DETAILED DESCRIPTIONS OF THE APPARATUS AND PROCEDURES WHICH HAVE BEEN DEVELOPED FOR THE PROGRAM. THE RESULTS OF FOUR PRELIMINARY IMPULSE-NOISE EXPERIMENTS WITH HUMAN SUBJECTS ARE PRESENTED AND DISCUSSED, TOGETHER WITH CERTAIN SPECIAL PROBLEMS WHICH HAVE ARISEN DURING THE CONDUCT OF THE PROGRAM. THE PROJECTED FUTURE COURSE OF THE PROJECT IS OUTLINED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 619 407
SCHOOL OF AVIATION MEDICINE RANDOLPH AFB TEX

CENTRAL REPOSITORY FOR HEARING CONSERVATION DATA. AN EXAMINATION OF THE FIRST YEAR'S REPORTING, (U)

OCT 58 23P WALDRON,DARYLE L. ;
REPT. NO. REVIEW-3-59

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPORT ON AEROMEDICAL REVIEWS.

DESCRIPTORS: (•NOISE, HEARING), (•AIR FORCE PERSONNEL, HEARING), (•HEARING, AIR FORCE PERSONNEL), AVIATION MEDICINE, AUDIOMETRY, THRESHOLDS(PHYSIOLOGY), JET ENGINE NOISE, AUDIO FREQUENCY, PATHOLOGY, DIAGNOSIS(MEDICINE), HAZARDS, REVIEWS (U)

AIR FORCE REGULATION 160-3, 'HAZARDOUS NOISE EXPOSURE,' HAS AS ITS PURPOSE THE ESTABLISHMENT OF A PROGRAM TO MINIMIZE THE UNDESIRABLE EFFECTS OF NOISE ON AIR FORCE PERSONNEL. SPECIFICALLY, THE REGULATORY SECTIONS OF AFR 160-3 REQUIRE THAT THE MEDICAL SERVICE: (1) IDENTIFY, DESIGNATE, AND MONITOR AREAS WHERE PERSONNEL ARE LIKELY TO BE EXPOSED TO HAZARDOUS NOISE LEVELS; (2) IDENTIFY THOSE WHO ARE ROUTINELY ASSIGNED TASKS IN THESE AREAS; (3) ESTABLISH A BASELINE OR REFERENCE AUDIOGRAM FOR EACH OF THESE INDIVIDUALS; (4) FIT, ISSUE, AND SUPERVISE THE USE OF PROTECTIVE EQUIPMENT; (5) SET UP AND CARRY OUT AN AUDIOMETRIC MONITORING PROGRAM AS A MEANS OF DETECTING THRESHOLD SHIFTS IN THE HEARING OF THOSE WHO HAVE A REFERENCE AUDIOGRAM; (6) SET UP AND MAINTAIN AN EDUCATION PROGRAM WHICH SUPPORTS THE OVER-ALL HEARING CONSERVATION GOAL; (7) ACCOMPLISH FORMS 1490 ('HEARING CONSERVATION DATA'), ONE COPY OF WHICH IS TO BE SENT TO THE CENTRAL REPOSITORY, SCHOOL OF AVIATION MEDICINE, USAF, RANDOLPH AIR FORCE BASE, TEXAS. THIS REPORT ATTEMPTS TO SUMMARIZE AND SHARE SOME OF THE INFORMATION GAINED FROM THE FIRST YEAR'S EXPERIENCE IN HANDLING AND EXAMINING THE FORMS 1490, AND IN COMMUNICATING WITH THOSE PERSONAL RESPONSIBLE FOR THEIR COMPLETION. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 620 259
OHIO STATE UNIV RESEARCH FOUNDATION COLUMBUS

SOME INFLUENCES OF DELAYED SIDE-TONE UPON INTELLIGIBILITY. (U)

DESCRIPTIVE NOTE: RESEARCH REPT.,
JUL 52 11P ATKINSON,CHESTER J. ;
REPT. NO. 13
CONTRACT: N60NR22525
PROJ: NR-142-993,NM-001-064.01.13
MONITOR: NAVMED , NM-001-064.01.13

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PREPARED IN COOPERATION WITH NAVAL SCHOOL OF AVIATION MEDICINE, PENSACOLA, FLA.

DESCRIPTORS: (•SPEECH, INTELLIGIBILITY), (•INTELLIGIBILITY, SPEECH), VOICE COMMUNICATIONS, HEARING, NOISE (U)

GROUPS OF LISTENERS HEARD INTELLIGIBILITY TESTS IN NOISE AND IN QUIET. THE SPEAKERS READ WITH DELAYS OF .02 TO .09 SECOND INTRODUCED INTO THEIR SIDE-TONE. THE LISTENER HEARD EITHER THE ORIGINAL SAYING OR THE ORIGINAL PLUS THE DELAYED SAYING OF SPEECH MATERIAL. SPEECH WAS RECEIVED LESS ACCURATELY IN EVERY CONDITION EXCEPT WHEN THE SPEAKERS READ WITH A .05, .08 OR .09 SECOND DELAY IN THEIR SIDETONE. CONCLUSIONS: (1) LISTENERS HEAR WORDS MORE ACCURATELY IF WORDS ARE RECEIVED ONLY AS AN ORIGINAL MESSAGE; SUPERIMPOSING AN ORIGINAL AND A DELAYED RENDITION OF A WORD RENDERS THE WORD LESS INTELLIGIBLE UNDER THE DELAY TIMES STUDIES; (2) THE DELAY OF .05 SECOND IN THE SIDE-TONE OF THE SPEAKER APPEARED TO AFFECT THE RECEPTION OF HIS SPEECH BENIFICIALLY; THE INTELLIGIBILITY SCORES FOR THIS CONDITION WERE SIGNIFICANTLY HIGHER THAN AT OTHER DELAY TIMES; (3) AN INTELLIGIBILITY INCREMENT SIMILAR TO BUT LESS THAN THAT OBSERVED FOR THE .05 SECOND DELAY WAS PRESENT FOR THE .08 AND .09 SECOND DELAY OF SIDE-TONE; (4) THE EFFECTS OF THE DELAYED SIDE-TONE UPON THE INTELLIGIBILITY OF A SPEAKER BECAME EVIDENT IN A PERIOD OF LESS THAN TWO MINUTES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 620 263
NAVAL SCHOOL OF AVIATION MEDICINE PENSACOLA FLA

A STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT. (U)

DESCRIPTIVE NOTE: RESEARCH REPT.,
OCT 56 16P WILBANK~,WILLIAM A. ;WEBB, WILSE B. ;TOLHURST,GILBERT C.;
PROJ: NM-001-104-100
MONITOR: NAVMED , NM-001-104-100-1

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*NOISE, REACTION(PSYCHOLOGY)), (*PERFORMANCE(HUMAN), NOISE), REASONING, APTITUDE TESTS, NAVAL PERSONNEL, TOLERANCES(PHYSIOLOGY), STATISTICAL ANALYSIS (U)

FOUR TESTS FROM THE DIFFERENTIAL APTITUDE TESTS WERE GIVEN TO NAVAL AVIATION CADETS UNDER NORMAL TESTING CONDITIONS AND WITH A 100 DECIBEL BACKGROUND NOISE. SIGNIFICANTLY HIGHER SCORES WERE OBTAINED UNDER NOISE ON THE DAT CLERICAL SPEED AND ACCURACY TEST. THIS EFFECT COULD BE DEMONSTRATED ONLY WHEN ABILITY DIFFERENCES AMONG THE CADETS WERE CONTROLLED. IT WAS ALSO FOUND THAT INDIVIDUALS MAINTAIN THEIR RELATIVE POSITION WITHIN THE POPULATION IN BOTH NOISE AND QUIET. THE IMPLICATIONS FOR SELECTION ARE DISCUSSED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 628 198 5/10 6/19
AEROSPACE MEDICAL RESEARCH LABS WRIGHT-PATTERSON AFB OHIO

HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS. (U)

DESCRIPTIVE NOTE: FINAL REPT., JUN 64-FEB 65,
DEC 65 20P SHOENBERGER,RICHARD W.;
HARRIS,CHARLES S.;
REPT. NO. AMRL-TR-65-165,
PROJ: AF-1710,
TASK: 171002,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*PERFORMANCE(HUMAN), NOISE), (*NOISE, PERFORMANCE(HUMAN)), ACOUSTIC PROPERTIES, INTENSITY, ANALYSIS OF VARIANCE, LEARNING, PSYCHOMOTOR (U)

PSYCHOMOTOR PERFORMANCE OF 16 SUBJECTS WAS EVALUATED UNDER FOUR NOISE CONDITIONS, DURING FOUR TEST SESSIONS, IN A LATIN SQUARE DESIGN. THREE EXPERIMENTAL CONDITIONS EACH BEGAN WITH DIFFERENT INTENSITIES OF NOISE (QUIET, 85 DB, OR 95 DB). AFTER 30 MINUTES EXPOSURE THE NOISE WAS CHANGED TO A FINAL HIGH INTENSITY LEVEL (110DB), WHICH LASTED FOR 15 MINUTES. THE FOURTH CONDITION SERVED AS A CONTROL, IN WHICH QUIET PREVAILED THROUGHOUT THE ENTIRE 45 MINUTE PERIOD. THE RESULTS PARTIALLY SUPPORTED THE HYPOTHESIS THAT GREATER CHANGES IN NOISE LEVELS PRODUCE GREATER DECREMENTS IN PERFORMANCE. THERE WAS, HOWEVER, A STRONG INTERACTION BETWEEN NOISE CONDITIONS AND SESSIONS. THE NATURE OF THIS INTERACTION INDICATED THAT THIS PHENOMENON DOES NOT OCCUR UNIFORMLY THROUGHOUT THE COURSE OF LEARNING, AND PROBABLY IS OF LESSER IMPORTANCE FOR WELL LEARNED TASKS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 634 456 6/10 6/19
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE. (U)

DESCRIPTIVE NOTE: TECHNICAL MEMO.,
APR 66 46P HODGE, DAVID C. ;MCCOMMONS, R. BRUCE ;
REPT. NO. TM-3-66,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*NOISE, *THRESHOLDS(PHYSIOLOGY)), EXPOSURE(PHYSIOLOGY), RELIABILITY, HEARING, AUDIOMETRY, ARMY PERSONNEL (U)

THREE STUDIES WERE CONDUCTED TO DETERMINE THE RELIABILITY, UNDER VARIOUS EXPOSURE CONDITIONS, OF TEMPORARY THRESHOLD SHIFT (TTS) PRODUCED BY IMPULSE NOISE. THE SUBJECTS, WHO WERE REPRESENTATIVE OF THE ARMY POPULATION, WERE TESTED AT FREQUENCIES THROUGHOUT THE RANGE OF HUMAN HEARING. INDIVIDUAL SUBJECTS' TTSS WERE NOT CONSISTENT ENOUGH TO PERMIT ANY MEANINGFUL GENERALIZATIONS. HOWEVER, GROUP-MEAN TTS WAS A RELIABLE MEASURE OF IMPULSE-NOISE EFFECTS FOR SUBJECTS WITH BOTH NORMAL AND SUBNORMAL HEARING, AND THROUGHOUT THE RANGE OF AUDIBLE FREQUENCIES. BASING INTERPRETATIONS ON THESE TYPES OF DATA SHOULD INSURE THAT RESULTS FROM VARIOUS TESTS WILL BE COMPARABLE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 638 355 5/9 17/2
PURDUE UNIV LAFAYETTE IND

AN EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION TRAINING. (U)

AUG 47 60P KELLY,J. C. ;MASON,HARRY M. ;
REPT. NO. 4,
CONTRACT: N6ORI-104(02),
PROJ: PRF-20-K-1,
MONITOR: SPECDEVCEN 104-2-4

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*SPEECH, TRAINING), (*TRAINING DEVICES, SPEECH), (*VOICE COMMUNICATIONS, TRAINING DEVICES), SPEECH TRANSMISSION, NOISE, AIRCRAFT NOISE, INTELLIGIBILITY (U)

FIVE GROUPS OF UNDERGRADUATE MEN WERE TRAINED TO INCREASE WORD-INTELLIGIBILITY UNDER DIFFICULT COMMUNICATION CONDITIONS, USING COURSE CONTENT FOUNDED ON EXPERIENCE GAINED DURING WORLD WAR II. EACH GROUP WAS TRAINED IN A SITUATION PRESENTING A DIFFERENT TYPE OR AMOUNT OF INTERFERENCE. EFFECTS OF TRAINING WERE EVALUATED BY WORD-INTELLIGIBILITY TESTS AND BY JUDGMENTS OF CONNECTED SPEECH. COMPARISON OF INCREASES IN WORD-INTELLIGIBILITY OF EXPERIMENTAL AND CONTROL SUBJECTS SHOWS THAT: (A) SUBJECTS WHICH PRACTICED UNDER THE MOST SEVERE NOISE CONDITION GAINED LEAST. THIS MOST SEVERE CONDITION WAS THE SAME AS THE TEST CONDITION USED TO EVALUATE TRAINING OF ALL GROUPS. (B) SUBJECTS TRAINED UNDER CONDITIONS OF NOISE 10VU LESS SEVERE, GAINED SLIGHTLY MORE THAN THOSE TRAINED UNDER MOST SEVERE NOISE. (C) SUBJECTS TRAINED UNDER A CONDITION PRESENTING A LESS INTENSE NOISE THAN USED IN (B) ABOVE, GAINED MORE THAN ANY OTHER GROUP. THE NOISE USED WITH THIS GROUP CONSISTED OF GARBLED SPEECH SIGNALS. (D) TWO PRACTICE CONDITIONS WHICH DID NOT EMPLOY AN INTERPHONE SYSTEM PRODUCED SLIGHTLY GREATER GAINS THAN THE SEVERE NOISE CONDITION, BUT LESS THAN THE CONDITION PRESENTING A REDUCED LEVEL OF AIRPLANE NOISE (B). (E) EXPERIMENTAL SUBJECTS GAINED SUBSTANTIALLY MORE THAN CONTROL SUBJECTS WHO WERE GIVEN THE SAME TESTS AFTER PRELIMINARY INDOCTRINATION IN USE OF EQUIPMENT. THE MOST SEVERE CONDITION WAS DESIGNED TO APPROXIMATE CONDITIONS WIDELY USED FOR TRAINING AIRCREW MEMBERS IN VOICE COMMUNICATION (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 639 103 17/2 5/10 6/10
PURDUE UNIV LAFAYETTE IND

THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.
DEC 54 19P SHAFFER,G. L. ;BILGER,R. C. ;
HANLEY,T. D. ;STEER,M. D. ;
CONTRACT: N6ORI-104(02),
PROJ: 20-F-8,
MONITOR: SPECDEVCEN 104-2-38

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*SPEECH, *INTELLIGIBILITY), (*NOISE, HEARING), (*HEARING, PERFORMANCE(HUMAN)), EXPOSURE(PHYSIOLOGY), VOICE COMMUNICATIONS, TOLERANCES(PHYSIOLOGY), AUDITORY ACUITY (U)

THE EXPERIMENT WAS DESIGNED TO DISCOVER WHETHER NOISE EXPOSURE RESULTS IN IMPAIRED LISTENING ABILITY IN A SITUATION IN WHICH THE INDIVIDUAL REMAINS IN THE NOISE ENVIRONMENT AND THE LISTENING TEST STIMULI ARE PRESENTED AT A CONSTANT LEVEL WITH RESPECT TO THE NOISE LEVEL. FOR THIS PURPOSE, FOUR LISTENING-IN-NOISE TESTS WERE ADMINISTERED TO AN EXPERIMENTAL AND A CONTROL GROUP. BETWEEN TESTS, THE EXPERIMENTAL SUBJECTS REMOVED THEIR HEADPHONES IN THE PRESENCE OF THE TEST NOISE; THE CONTROL SUBJECTS REMOVED THEIR HEADPHONES WHEN THE TESTING NOISE WAS CUT OFF AND SPENT THE INTERVAL BETWEEN TESTS IN QUIET. WITHIN BOTH GROUPS, SUBJECTS WERE EXPOSED TO NOISE AND TESTED OVER A FIFTY-MINUTE PERIOD WHILE OTHERS WERE TESTED OVER A PERIOD OF THREE HOURS AND TWENTY-FIVE MINUTES. DURING EITHER PERIOD, LISTENER PERFORMANCE WAS NOT AFFECTED BY EXPOSURE TO NOISE BETWEEN TESTS. THE PERFORMANCES OF EXPERIMENTAL AND CONTROL GROUPS WERE PARALLEL FROM TEST TO TEST. DURING THE FIFTY-MINUTE PERIOD, SUCCESSIVE TEST SCORES WERE SIGNIFICANTLY DIFFERENT; DURING THE THREE-HOUR AND TWENTY-FIVE MINUTE PERIOD, SUCCESSIVE TEST SCORES WERE NOT SIGNIFICANTLY DIFFERENT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 639 682 6/16
JOHNS HOPKINS UNIV BALTIMORE MD PSYCHOLOGICAL LAB

AUDITORY THRESHOLDS OF SHORT TONES AS A FUNCTION OF REPETITION RATES, (U)

MAY 47 10P GARNER,W. R. ;
CONTRACT: N5ORI-166(01),
MONITOR: SPECDEVCEN 166-1-13

UNCLASSIFIED REPORT
AVAILABILITY: PUBLISHED IN THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA V19 N4 P600-8 JUL 1947.
SUPPLEMENTARY NOTE:

DESCRIPTORS: (•HEARING, THRESHOLDS(PHYSIOLOGY)), AUDITORY PERCEPTION, NOISE, FREQUENCY (U)

AUDITORY THRESHOLDS WERE OBTAINED FOR REPEATED SHORT TONES (SINE-WAVE) WITH REPETITION RATES BETWEEN 1/4 AND 100 PER SECOND, AND TONE DURATIONS BETWEEN 1 AND 50 MILLISECONDS. BOTH NOISE-MASKED AND QUIET THRESHOLDS WERE MEASURED. ALTHOUGH THE TOTAL ENERGY IN A STIMULUS CAN BE CHANGED BY VARYING EITHER THE REPETITION RATE OR THE DURATION, THE RESULTS SHOW THAT ONLY IN THE LATTER CASE IS THERE AN EQUIVALENT SHIFT IN THE THRESHOLD. DISCUSSION OF THE RESULTS IN TERMS OF SPECTRAL DISTRIBUTION OF ENERGY OF SUCH TONES LEADS TO THE CONCLUSION THAT THE EAR DOES NOT PERFORM A FOURIER ANALYSIS OF THESE TONES. FURTHER DISCUSSION INDICATES THE CONDITIONS NECESSARY FOR TEMPORAL INTEGRATION OF ACOUSTIC ENERGY BY THE EAR. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 640 921 6/21
DAVID TAYLOR MODEL BASIN WASHINGTON D C STRUCTURAL MECHANICS LAB

EFFECTS OF OVERPRESSURE ON THE EAR, (U)

AUG 66 14P HIRSCH,ARTHUR E. ;
REPT. NO. DTMB-2252
PROJ: S-F015-14-04,

UNCLASSIFIED REPORT

DESCRIPTORS: (*BLAST, HEARING), (*PRESSURE, TOLERANCES(PHYSIOLOGY)), (*EAR, WOUNDS AND INJURIES), EXPLOSION EFFECTS, NUCLEAR EXPLOSIONS (U)

TOLERANCE LEVELS OF THE HUMAN EAR TO VARIOUS TYPES OF OVERPRESSURE ARE DISCUSSED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 645 898 6/5 5/10
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

RECOVERY FROM IMPULSE NOISE INDUCED ACOUSTIC TRAUMA, (U)

NOV 66 10P FLETCHER,J. L. ;CAIRNS,A. B. ;
REPT. NO. USAMRL-686
PROJ: DA-3-A-025601-A-819

UNCLASSIFIED REPORT

DESCRIPTORS: (*HEARING, DEGRADATION), NOISE, AUDIOMETRY, FREQUENCY, EXPOSURE(PHYSIOLOGY), ARMY PERSONNEL, RECOVERY, THRESHOLDS(PHYSIOLOGY), SPEECH, AUDIO FREQUENCY (U)

RECOVERY FROM IMPULSE NOISE INDUCED ACOUSTIC TRAUMA WAS EXAMINED IN SOLDIERS STATIONED AT FORT KNOX, KY. SERIAL AUDIOGRAMS WERE OBTAINED ON THE DAY OF EXPOSURE, ONE DAY, THREE DAYS, ONE WEEK, TWO WEEKS, FOUR WEEKS, SIX WEEKS, 12 WEEKS, FOUR MONTHS, FIVE MONTHS, AND SIX MONTHS POST EXPOSURE. RECOVERY FROM TEMPORARY THRESHOLD SHIFTS AS LARGE AS 35 DB WAS OBSERVED AT FREQUENCIES FROM 500 - 2, 000 CYCLES. AT THE HIGHER FREQUENCIES SHIFTS OF MAGNITUDES AS GREAT AS 85 DB WERE OBSERVED WITH GOOD RECOVERY MOST OF THE TIME. OUR RESULTS INDICATE THAT FOR LEGAL PURPOSES SIX MONTHS IS A MINIMUM WAITING PERIOD NECESSARY TO SUBSTANTIATE PERMANENT HEARING LOSS. HOWEVER, RECOVERY AT THE SPEECH FREQUENCIES IS ESSENTIALLY COMPLETE IN ABOUT TWO WEEKS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 646 775 6/10
MASSACHUSETTS INST OF TECH CAMBRIDGE

THE RELATIONS OF HEARING LOSS TO NOISE EXPOSURE. (U)

54 64P
CONTRACT: N5ORI-078(61)

UNCLASSIFIED REPORT
AVAILABILITY: ALL REQUESTS TO STANDARDS ASSOCIATION, INC., 70 E. 45TH ST., NEW YORK 17, N. Y. PRICE $1.50.

DESCRIPTORS: (*NOISE, *HEARING), (*INDUSTRIAL MEDICINE, NOISE), DEAFNESS, THRESHOLDS(PHYSIOLOGY), EXPOSURE(PHYSIOLOGY), LOW FREQUENCY, AIRCRAFT NOISE, JET ENGINE NOISE, AUDIOMETRY, TOLERANCES(PHYSIOLOGY), STANDARDS (U)

CONTENTS: DEFINITION OF VARIABLES: HEARING LOSS, NOISE, EXPOSURE; THE HUMAN PROBLEMS OF INDUSTRIAL NOISE; PRESBYCUSIS; REQUIREMENTS FOR FIELD DATA; CONTINUOUS EXPOSURE TO STEADY NOISE; THE RELATION OF HEARING LOSS AT CERTAIN FREQUENCIES TO OCTAVE BAND LEVELS; AVERAGE NET HEARING LOSS CONTOURS; TREND CURVES; ESTIMATES OF AVERAGE NET HEARING LOSS; CONFIRMATION OF THE TREND CURVES; LIMITATIONS OF TREND CURVES; SPECTRA AND EXTRAPOLATIONS; LIMITATIONS OF TREND CURVES; INTERMITTENT EXPOSURE AND NON-STEADY NOISE; LIMITATIONS OF TREND CURVES; TEMPORARY THRESHOLD SHIFT; REDUCTION IN TEMPORARY THRESHOLD SHIFT AFTER CESSATION OF EXPOSURE; EXPOSURE TO LOW-FREQUENCY NOISE; GROSS HEARING LOSSES IN THREE HYPOTHETICAL GROUPS; INTERMITTENT EXPOSURE TO STEADY NOISE; AIRPLANE NOISE; JET-ENGINE NOISE; INTERMITTENT EXPOSURE; RIVETING NOISE; IMPULSIVE NOISE; PROOF-FIRING; IMPACT NOISE; DROP FORGE; RELATION OF THRESHOLD SHIFTS TO INITIAL AUDIOGRAMS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 646 812 5/10 6 16
JOHNS HOPKINS UNIV BALTIMORE MD PSYCHOLOGICAL LAB

HEARING, (U)

52 20P GARNER,WENDELL R. ;
CONTRACT: N5ORI-166(01)
PROJ: NR-784-001
MONITOR: SPECDEVCEN 166-1-132

UNCLASSIFIED REPORT
AVAILABILITY: PUBLISHED IN ANNUAL REVIEW OF PSYCHOLOGY V3 P85-104 1952.

DESCRIPTORS: (*HEARING, REVIEWS), PSYCHOACOUSTICS, DEAFNESS, NOISE, INFORMATION THEORY, SPEECH, INTELLIGIBILITY, ELECTROPHYSIOLOGY, EAR, AUDIOMETRY, MASKING, THRESHOLDS(PHYSIOLOGY), FATIGUE(PHYSIOLOGY), AUDITORY PERCEPTION, NERVE CELLS, PITCH DISCRIMINATION, NERVOUS SYSTEM (U)

A REVIEW IS PRESENTED OF RESEARCH PROGRAMS WHICH ARE INVESTIGATING THE HEARING PROCESS. THE REPORT SUMMARIZES STUDIES DONE IN THE FOLLOWING AREAS: ELECTROPHYSIOLOGY OF THE COCHLEA; AUDIOMETRY; LOUDNESS AND MASKING; AUDITORY FATIGUE AND DEAFNESS; SHORT DURATION AUDITORY FATIGUE; MEASUREMENT OF NEURAL FATIGUE; LOUDNESS RECRUITMENT; PITCH; LOCALIZATION OF SOUND; BINAURAL INTERACTION IN THE NERVOUS SYSTEM; HEARING OF SPEECH; FREQUENCY SELECTIVITY IN THE NERVOUS SYSTEM; AND AUDITORY THEORY. THE BIBLIOGRAPHY LISTS 87 REPORTS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 647 540 5/10
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JAN 67 18P FLETCHER,JOHN L. ;LOEB, MICHEL ;
REPT. NO. USAMRL-680
PROJ: DA-3-A-025601-A-819

UNCLASSIFIED REPORT

DESCRIPTORS: (•NOISE, TOLERANCES(PHYSIOLOGY)), (•HEARING, THRESHOLDS(PHYSIOLOGY)), AUDIOMETRY (U)

HUMAN SS WERE EXPOSED TO A SERIES OF IMPULSES OF VARIABLE DURATION. PRE- AND POST-EXPOSURE HEARING WAS EXAMINED TO DETERMINE THE DIFFERENTIAL EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT. AN APPARENTLY LINEAR DURATION EFFECT WAS OBSERVED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 652 783 6/10 6/5
BOLT BERANEK AND NEWMAN INC CAMBRIDGE MASS

DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA, (U)

65 11P KRYTER,K. D. ;
CONTRACT: DA-49-193-MD-2235

UNCLASSIFIED REPORT
AVAILABILITY: PUBLISHED IN AMERICAN INDUSTRIAL HYGIENE ASSOCIATION V26 P34-44 JAN-FEB 1965.

DESCRIPTORS: (*HEARING, PROTECTION), (*INDUSTRIAL MEDICINE, *DEAFNESS), THRESHOLDS(PHYSIOLOGY), AUDIOMETRY, SPEECH RECOGNITION, NOISE, EXPOSURE(PHYSIOLOGY) (U)

A DAMAGE RISK CRITERION IS PROPOSED THAT PROVIDES MORE PROTECTION FOR THE FREQUENCY REGION OF HEARING IMPORTANT TO SPEECH PERCEPTION THAN TO OTHER AREAS. DAMAGE RISK CONTOURS ARE DRAWN TO THIS CRITERION ON THE BASIS OF RATHER DETAILED TEMPORARY THRESHOLD SHIFT DATA OBTAINED IN THE LABORATORY. THE TTS2 FOUND IN YOUNG ADULTS WITH NORMAL HEARING, FROM AN EIGHT-HOUR EXPOSURE TO A NOISE HAS ABOUT THE SAME NUMERICAL MAGNITUDE AS THE NIPTS IN INDUSTRIAL WORKERS EXPOSED FOR 10 OR MORE YEARS, EIGHT HOURS PER WORKDAY, TO ABOUT THE SAME NOISE; IT IS CONCLUDED THAT TTS DATA CAN BE USED AS A REASONABLY VALID SECONDARY YARDSTICK FOR ASSESSING THE POTENTIAL DAMAGE RISK FOR PERMANENT THRESHOLD SHIFTS DUE TO EXPOSURE TO NOISE. THE DAMAGE RISK CONTOURS PROPOSED REPRESENT A DEGREE OF CALCULATED RISK FOR PERSONS EXPOSED TO THE LEVELS, SPECTRA, AND DAILY DURATIONS SPECIFIED. THIS RISK CAN BEST BE MET BY LOWERING THE LEVELS SPECIFIED BY 10 DB OR SO; IF THIS IS NOT PRACTICAL, A PROGRAM FOR MONITORING THE HEARING OF NOISE-EXPOSED WORKERS COULD BE USED IN ORDER TO DETECT, AND REMOVE FROM THE NOISE, THOSE WORKERS SHOWING SIGNIFICANT PERMANENT THRESHOLD SHIFTS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 663 639 5/5 6/5
NAVAL SUBMARINE BASE NEW LONDON CONN

AUDITORY DAMAGE OF OPERATING PERSONNEL ABOARD GUIDED MISSILE SHIPS FROM SHORT-DURATION HIGH-INTENSITY NOISE. (U)

DESCRIPTIVE NOTE: MEMORANDUM REPT.,
MAR 58 13P O'HARE,JOHN J. ;
REPT. NO. SBNL-MEMO-58-4
PROJ: NAVMED-NM-22-03-20.02
TASK: NM-22-03-20.02-01

UNCLASSIFIED REPORT

DESCRIPTORS: (•HUMAN FACTORS ENGINEERING, FRIGATES), (•NAVAL PERSONNEL, HEARING), NOISE, GUIDED MISSILES, PROTECTION, MILITARY REQUIREMENTS, MILITARY MEDICINE, LAUNCHING, CRUISERS, SHIPBOARD (U)
IDENTIFIERS: CAG 2 VESSEL, CAG 1 VESSEL (U)

DATA ARE PRESENTED ON THE NOISE LEVELS INVOLVED DURING MISSILE FIRINGS ABOARD THE SHIPS USS CANBERRA AND BOSTON, THE NOISE SPECTRA, INTENSITY LEVELS, AND DURATIONS, AT VARIOUS POINTS NEAR THE FIRINGS. IT WAS FOUND THAT THE NOISE SPECTRA CONCENTRATED IN THE MORE DAMAGING LOW FREQUENCIES AND THAT THE INTENSITY LEVELS ALL EXCEEDED CURRENT DAMAGE-RISK CRITERIA, BUT ARE OF BRIEF DURATION. BUMED RECOMMENDATIONS ON HIGH-INTENSITY NOISE PROTECTION PROCEDURES ARE CITED AND PREVENTIVE MEASURES OUTLINED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 666 206 5/5 6/5 19/6
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE. (U)

DESCRIPTIVE NOTE: TECHNICAL MEMO.,
AUG 67 58P COLES,R. ROSS A. ;
GARINTHER,GEORGES R. ;HODGE,DAVID C. ;RICE,
CHRISTOPHER G. ;
REPT. NO. HEL-TM-13-67

UNCLASSIFIED REPORT

DESCRIPTORS: (*HEARING, HAZARDS), (*SMALL ARMS, NOISE), HUMAN FACTORS ENGINEERING, AUDITORY ACUITY, THRESHOLDS(PHYSIOLOGY), DAMAGE, AUDIOMETRY, TEST METHODS, TRANSDUCERS, FIRING TESTS(ORDNANCE) (U)

CRITERIA ARE PRESENTED FOR ASSESSING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE. THE CRITERIA ARE BASED ON CONCLUSIONS OF INDEPENDENT BRITISH AND AMERICAN STUDIES AND ON THE WORK OF OTHER RESEARCH WORKERS IN THIS FIELD. MOST OF THE STUDIES WHICH LED TO THESE CRITERIA WERE PERFORMED WITH NOISE FROM SMALL ARMS, BUT THE CRITERIA ARE GENERAL ENOUGH TO PERMIT ASSESSMENT OF MOST OTHER TYPES OF IMPULSE NOISE. THE VARIABLES WHICH MUST BE CONSIDERED IN DETERMINING THE POTENTIAL HEARING HAZARD AND IN MAKING PRACTICAL APPLICATION OF THE CRITERIA ARE PRESENTED, AND THE PARAMETERS WHICH MUST BE MEASURED ARE DEFINED. THE MEASUREMENT TECHNIQUE AND TYPE OF TRANSDUCERS TO BE USED ARE DISCUSSED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 671 116 6/19 5/10
AEROSPACE MEDICAL RESEARCH LABS WRIGHT-PATTERSON AFB OHIO

THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN PERFORMANCE. (U)

DESCRIPTIVE NOTE: FINAL REPT. OCT 66-JAN 67, JAN 68 25P HARRIS,C. STANLEY ;
REPT. NO. AMRL-TR-67-119
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, PERFORMANCE(HUMAN)), STRESS(PSYCHOLOGY), EFFICIENCY, BROADBAND, INTENSITY, MEMORY(PSYCHOLOGY), VISUAL PERCEPTION, PERFORMANCE(HUMAN), EAR PROTECTORS, VESTIBULAR APPARATUS, EQUILIBRIUM(PHYSIOLOGY), STRESS(PHYSIOLOGY) (U)

FOUR EXPERIMENTS WERE CONDUCTED ON THE EFFECTS OF BROADBAND, HIGH INTENSITY NOISE ON HUMAN PERFORMANCE. IN TWO EXPERIMENTS THE SUBJECTS' PERFORMANCE WAS MEASURED ON A DISCRIMINATION TASK, BASED PRIMARILY UPON VISUAL DISCRIMINATION AND SHORT TERM MEMORY, AND IN THE OTHER TWO EXPERIMENTS PERFORMANCE WAS MEASURED ON A HAND-TOOL DEXTERITY TEST. FOUR DIFFERENT NOISE EXPOSURE CONDITIONS WERE USED IN EACH EXPERIMENT: CONTROL (70 DB), 120 DB, 130 DB, AND 140 DB (RE 0.0002 DYNE/SQ CM). IN ONE EXPERIMENT USING THE DISCRIMINATION TASK, THE SUBJECTS WORE EARPLUGS, AND IN THE OTHER, SUBJECTS WORE EARPLUGS AND AN EARMUFF WITH ONE EARCUP TO PRODUCE AN ASYMMETRICAL NOISE EXPOSURE AT THE EARS. THESE TWO TYPES OF EAR PROTECTORS WERE WORN ALSO BY THE SUBJECTS IN THE TWO EXPERIMENTS USING THE HAND-TOOL DEXTERITY TASK. DECREMENTS ON THE DISCRIMINATION TASK WERE OBTAINED AT THE TWO HIGHEST NOISE INTENSITIES FOR THE ASYMMETRICAL EXPOSURE AND NO DECREMENTS WERE OBTAINED FOR ANY SYMMETRICAL EXPOSURE. WITH THE HAND-TOOL DEXTERITY TEST, SIGNIFICANT DECREMENTS WERE OBTAINED AT THE NOISE LEVELS OF 130 DB AND 140 DB WITH SYMMETRICAL EXPOSURE, AND AT 140 DB WITH THE ASYMMETRICAL EXPOSURE. THE DIFFERENCE IN PERFORMANCE BETWEEN THE TWO GROUPS WAS DUE TO A DIFFERENT INITIAL LEVEL OF ABILITY ON THE TASK RATHER THAN DUE TO SYMMETRICAL VERSUS ASYMMETRICAL EXPOSURE CONDITIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 671 618 6/3 19/4
LOVELACE FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
ALBUQUERQUE N MEX

THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS, (U)

AUG 67 64P WHITE,CLAYTON S. ;BOWEN,I. G. ;RICHMOND,DONALD R. ;
CONTRACT: DA-49-146-XZ-372
MONITOR: DASA 2064

UNCLASSIFIED REPORT

DESCRIPTORS: (•EXPLOSION EFFECTS, EAR), PHYSIOLOGY, LABORATORY ANIMALS, MEMBRANES(BIOLOGY), RUPTURE, BLAST, PRESSURE, TOLERANCES(PHYSIOLOGY), SHELTERS, SHOCK TUBES, DOGS, RABBITS, GUINEA PIGS, GOATS (U)
IDENTIFIERS: FORTIFICATIONS, OVERPRESSURE (U)

IN FIELD AND LABORATORY EXPERIMENTS DESIGNED TO STUDY OVERALL BLAST EFFECTS, INCIDENTAL OBSERVATIONS WERE MADE OF THE EARS OF OVER 490 ANIMALS. THOSE INSIDE STRUCTURES WERE EXPOSED TO A VARIETY OF 'ATYPICAL' BLAST WAVES. THOSE LOCATED INSIDE SHOCK TUBES OR IN THE OPEN WHEN HIGH EXPLOSIVES WERE DETONATED WERE EXPOSED TO FAIRLY 'TYPICAL' WAVE FORMS. AN ATTEMPT WAS MADE TO RELATE THE INCIDENCE OF EARDRUM RUPTURE TO VARIOUS ELEMENTS OF THE MEASURED PRESSURE-TIME CURVES. THE ASSOCIATION WAS NOT THE SAME FOR 'TYPICAL' AND 'ATYPICAL' WAVE FORMS. WITHIN THE LIMITS OF THE MEAGER DIFFERENCES WERE NOTED AND DISCUSSED WITH EMPHASIS ON THE APPARENT WIDE VARIABILITY IN TOLERANCE FOR WHICH AN EXPLANATION WAS PROPOSED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 680 165 20/1 6/17
ARMY NATICK LABS MASS PIONEERING RESEARCH LAB

RESEARCH ON ACOUSTICAL PROBLEMS OF THE MILITARY: A REVIEW AND FUTURE ASPECT. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
OCT 68 40P TANENHOLTZ,STANLEY D. ;
PROJ: DA-1-T-0621068121
TASK: 1-T-062106812102
MONITOR: USA-NLABS TR-69-44-PR

UNCLASSIFIED REPORT

DESCRIPTORS: (•ACOUSTICS, PATHOLOGY), (•PROTECTIVE COVERINGS, ARMY RESEARCH), BLAST, VIBRATION, COMBAT NOISE, SHOCK(MECHANICS), PHYSIOLOGY, HUMAN FACTORS ENGINEERING, ATTENUATION, EAR PROTECTORS, HELMETS, PROTECTIVE CLOTHING, STATE-OF-THE-ART REVIEWS, MATERIALS, STANDARDS (U)
IDENTIFIERS: ACOUSTIC RADIATION, GRAPHS(CHARTS) (U)

A REVIEW HAS BEEN MADE OF THE LITERATURE IN THE AREA OF ACOUSTICS, VIBRATION, SHOCK, AND BLAST PHENOMENA RELATED TO EFFECTS ON THE PHYSIOLOGICAL SYSTEM AND ATTENUATION EFFECTS OF MATERIALS AND DEVICES. IN ADDITION, INFORMATION FROM SOURCES OTHER THAN THE LITERATURE PERTINENT TO AN EVALUATION OF THE SIGNIFICANCE OF ACOUSTIC HAZARDS IN THE MILITARY ENVIRONMENT, IS ALSO PRESENTED. DAMAGE-RISK AND STANDARDS CRITERIA ARE PRESENTED, AND FURTHER STUDIES ARE SUGGESTED TO ADVANCE THE STATE-OF-THE-ART IN ACOUSTIC HAZARDS PROTECTION AS WELL AS TO EXPLOIT THE POTENTIALS OF ACOUSTIC PHENOMENA FOR THE INVESTIGATION OF MATERIAL PROPERTIES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZUM07

AD- 681 534 5/10
TUFTS UNIV MEDFORD MASS INST FOR PSYCHOLOGICAL RESEARCH

LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS, (U)

FEB 68 9P FISHER,H. G. ;FREEDMAN,S. J. ;

CONTRACT: AF 49(638)-1282
PROJ: AF-9778
TASK: 977801
MONITOR: AFOSR 69-0152TR

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN ACTA OTO-LARYNGOLOGICA, V66 P213-220, 1968.

DESCRIPTORS: (*AUDITORY PERCEPTION, AUDITORY SIGNALS), NERVOUS SYSTEM, PHYSIOLOGY, NOISE, HEAD(ANATOMY), MOTION, EAR, HEARING (U)

THIRTEEN SS WERE REQUIRED TO LOCALIZE PULSED NOISE IN AN ACOUSTICALLY TREATED ROOM WHILE THEIR HEAD MOVEMENTS WERE RESTRICTED. JUDGMENTS WERE MADE (A) WITH BOTH EARS UNOCCLUDED AND (B) WITH THE RIGHT EAR OCCLUDED SO THAT ITS INPUT WAS ATTENUATED BY 40 DB PLUS OR MINUS 5 DB. PERFORMANCE WAS HIGHLY ACCURATE UNDER BOTH CONDITIONS AND THERE WERE NO SIGNIFICANT DIFFERENCES BETWEEN CONDITIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 681 834 6/16 6/5
GOTEBORG UNIV (SWEDEN) DEPT OF OTOLARYNGOLOGY

EFFECT OF NOISE AND TOXIC AGENTS ON THE INNER EAR. (U)

DESCRIPTIVE NOTE: FINAL SCIENTIFIC REPT. 1 AUG 67-31 JUL 68.
DEC 68 7P ENGSTROM,HANS ;
CONTRACT: F61052-67-C-0090

UNCLASSIFIED REPORT

DESCRIPTORS: (*EAR, TOLERANCES(PHYSIOLOGY)), NOISE, TOXICITY, TOXIC TOLERANCES, ELECTRON MICROSCOPY, HUMANS, ANIMALS, HEARING, STREPTOMYCINS, BLOOD VESSELS, AGING(PHYSIOLOGY), ANATOMY, SWEDEN (U)

UNDER THE CONTRACT THERE HAS BEEN MADE AN EXTENSIVE STUDY ON THE NORMAL AND PATHOLOGICALLY ALTERED INNER EAR OF ANIMALS AND MAN. THE NORMAL INNER EAR HAS BEEN STUDIED BY LIGHT, ELECTRON AND SCANNING ELECTRON MICROSCOPY AND NEW TECHNIQUES HAVE BEEN DEVELOPED FOR THESE STUDIES. THE SAME TECHNIQUES HAVE ALSO BEEN USED FOR THE PATHOLOGICAL EARS. DAMAGE TO THE INNER EAR HAS BEEN PRODUCED BY NOISE AND OTOTOXIC AGENTS. IN MAN AUTOPSY MATERIAL HAS BEEN USED BUT A SPECIAL TECHNIQUE HAS BEEN DEVELOPED TO GET OPTIMAL FIXATION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 685 887 5/10
TEXAS UNIV AUSTIN DEFENSE RESEARCH LAB

EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE, (U)

68 5P TUCKER,ANN ;WILLIAMS,PAUL I. ;JEFFRESS,LLOYD A. ;

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN JNL. OF THE ACOUSTICAL SOCIETY OF AMERICA, V44 N3 P813-816 SEP 68.
SUPPLEMENTARY NOTE: SPONSORED IN PART BY OFFICE OF NAVAL RESEARCH, WASHINGTON, D. C., NAVAL SHIP SYSTEMS COMMAND, WASHINGTON, D. C. AND NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C.

DESCRIPTORS: (*HEARING, *ACOUSTIC SIGNALS), NOISE, BACKGROUND, PERFORMANCE(HUMAN) (U)

A SERIES OF TWO-ALTERNATIVE FORCED-CHOICE EXPERIMENTS SHOWED THAT FOR SHORT DURATIONS, THE DETECTION OF A TONAL SIGNAL IN NOISE WHEN THE TWO ARE GATED SYNCHRONOUSLY IS SUPERIOR TO THE DETECTION OF THE SIGNAL IN A BACKGROUND OF CONTINUOUS NOISE. THE EXPERIMENTS ALSO SHOWED THAT FOR GATED SIGNAL AND NOISE, THERE IS A STEADY IMPROVEMENT IN DETECTION AS THE DURATION IS SHORTENED, PROVIDED THAT HIGHLY PRACTICED OBSERVERS ARE EMPLOYED IN THE TASK. NAIVE OBSERVERS EXHIBIT A SIMILAR TREND, BUT THEIR PERFORMANCE DROPS AT THE SHORT DURATIONS (5 AND 10 MSEC) WHERE THE LISTENING TASK BECOMES VERY DIFFICULT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 695 850 6/5
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

THE PURE-TONE AIR CONDUCTION AUDIOGRAM. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JUL 69 19P BRAGG,VERNON C. ;
REPT. NO. SAM-TR-69-39, SAM-REVIEW-4-69

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO AD-630 999.

DESCRIPTORS: (*AUDIOMETRY, ANALYSIS), AUDITORY ACUITY, AUDITORY PERCEPTION, HEARING, THRESHOLDS(PHYSIOLOGY), EFFICIENCY, DIAGNOSIS(MEDICINE), NOISE (U)
IDENTIFIERS: *AUDIOGRAMS (U)

MANY U. S. AIR FORCE FLIGHT SURGEONS, MEDICAL OFFICERS, AND OTHERS CONCERNED WITH THE CONDUCT OF HEARING CONSERVATION PROGRAMS HAVE EXPRESSED THE NEED FOR A SET OF GUIDELINES TO BE USED IN THE INTERPRETATION OF AUDIOMETRIC DATA. ALTHOUGH THE AIR CONDUCTION AUDIOGRAM DOES NOT PROVIDE SUFFICIENT INFORMATION TO ALLOW A DEFINITIVE DIAGNOSIS TO BE MADE, IT USUALLY GIVES AN INDICATION AS TO WHETHER A HEARING LOSS IS CONDUCTIVE OR SENSORINEURAL IN ORIGIN. IN ADDITION, DETERMINATION MAY BE MADE FROM THE AUDIOGRAM AS TO WHAT FURTHER TESTING SHOULD BE CARRIED OUT AND WHAT ACTION MAY BE NECESSARY TO PREVENT FURTHER HEARING LOSS. A METHOD FOR INTERPRETATION OF AUDIOMETRIC DATA IS PRESENTED. AN EXPLANATION OF THE VARIOUS AUDIOMETRIC CONTOURS IS GIVEN, FOLLOWED BY A STEP-BY-STEP PROCEDURE FOR ANALYZING THE PURE-TONE AUDIOGRAM. IN ADDITION, RECOMMENDATIONS ARE MADE CONCERNING THE HANDLING OF PATIENTS WHOSE AUDIOGRAMS ARE NOT WITHIN NORMAL LIMITS. UTILIZATION OF THESE PROCEDURES WITHIN A COMPRESHENSIVE PROGRAM OF HEARING TESTING, NOISE CONTROL, AND EDUCATION IS RECOMMENDED WHEREVER PERSONNEL WORK IN HAZARDOUS NOISE. THEY SHOULD ALSO BE HELPFUL IN DEALING WITH OTHER TYPES OF HEARING LOSSES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 696 500 6/19
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY, (U)

APR 69 22P MYASNIKOV,V. I. ;KOZERENKO, O. P. ;YAKOVLEVA,I. YA. ;MATSNEV,E. I. ; LEBEDEVA,I. P. ;
REPT. NO. FTD-MT-24-499-68
PROJ: FTD-7230278

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED MACHINE TRANS. OF AKADEMIYA NAUK SSSR. IZVESTIYA. SERIYA BIOLOGICHESKAYA, V33 N1 P89-98 1968.

DESCRIPTORS: (*SLEEP, NOISE), INTENSITY, ELECTROPHYSIOLOGY, STIMULATION(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), ADAPTATION(PHYSIOLOGY), BRAIN, SPACE FLIGHT, PHYSIOLOGY, USSR (U)
IDENTIFIERS: TRANSLATIONS (U)

STUDIES WERE CONDUCTED AT THE PROF. F. D. GARBOV LABORATORY ON THE EFFECTS OF CONTINUOUS PROTRACTED BROAD BAND NOISE ON SLEEP AND ON THE TRANSITIONAL STATE BETWEEN SLEEP AND WAKEFULNESS TO DETERMINE THE PHYSIOLOGICAL BASIS FOR THE DISTURBING EFFECTS OF NOISE ON MAN DURING REST. QUALITY OF SLEEP WAS EVALUATED SUBJECTIVELY, AND BY THE DYNAMICS OF THE BIOELECTRIC ACTIVITY OF THE BRAIN, REACTIONS OF WAKING TO ACOUSTIC STIMULATION, CHANGES IN PERFORMANCE INDICES (SENSORY MOTOR REACTIONS TO LIGHT STIMULUS) AND DEVIATION OF CERTAIN ACOUSTIC SENSITIVITY INDEXES (SCREENING THRESHOLD AND ACOUSTIC ADAPTATION). A RELATIONSHIP BETWEEN LENGTH OF PRESLEEP AND SUBSEQUENT SLEEP STAGES WAS ESTABLISHED: THOSE WHO FELL ASLEEP RAPIDLY SLEPT SOUNDLY AND AWOKE FEELING WELL, WHILE THOSE HAVING DIFFICULTY FALLING ASLEEP SLEPT LIGHTLY, AWAKENED FREQUENTLY, AND DID NOT FEEL WELL. EEG OBSERVATIONS WERE MADE. THE MOTOR REFLEX LATENT PERIOD WAS REDUCED IN THE FIRST GROUP AND INCREASED IN THE SECOND GROUP COMPARED TO BACKGROUND DATA. IN THE FIRST GROUP FUNCTION OF THE AUDITORY ANALYZER WAS RESTORED AND IN THE SECOND GROUP IT WAS NOT, AS SHOWN BY RESPECTIVELY LOWERED AND RAISED SCREEN THRESHOLDS. IN THE FIRST GROUP THE DISTURBANCE OF ACOUSTIC ADAPTION (AFTER 8 HR EXPOSURE TO NOISE) WAS REDUCED (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 704 472 6/19
CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE, (U)

OCT 69 14P THACKRAY,RICHARD I. ;
TOUCHSTONE,R. MARK ;
MONITOR: FAA-AM 69-21

UNCLASSIFIED REPORT

DESCRIPTORS: (•NOISE, •PERCEPTION), (•MOTOR REACTIONS, NOISE), STIMULATION(PHYSIOLOGY), PERFORMANCE(HUMAN), RECOVERY, REACTION(PSYCHOLOGY), PULSE RATE, PHYSIOLOGY, MOTOR REACTIONS, RESPONSE(BIOLOGY), BEHAVIOR, AVIATION MEDICINE, PILOTS (U)

SUDDEN, HIGH-INTENSITY SOUNDS, SUCH AS THOSE PRODUCED BY SONIC BOOMS, CAN BE QUITE STARTLING. ALTHOUGH MANY STUDIES HAVE INVESTIGATED PHYSIOLOGICAL RESPONSE TO STARTLE, MUCH LESS IS KNOWN CONCERNING THE EFFECTS OF STARTLE ON PERFORMANCE. THE PRESENT STUDY WAS DESIGNED TO PROVIDE FURTHER INFORMATION CONCERNING THE EXTENT TO WHICH STARTLE DISRUPTS PERFORMANCE, THE RATE OF RECOVERY, AND CHARACTERISTICS OF SUBJECTS (SS) WHO DIFFER IN SUSCEPTIBILITY TO STARTLE. THIRTY SS WERE TRAINED ON BOTH REACTION TIME AND TRACKING TASKS. CONTINUOUS RECORDINGS WERE TAKEN OF HEART RATE AND SKIN CONDUCTANCE. DURING A SUBSEQUENT PERIOD OF CONTINUOUS TRACKING, 'STARTLE' STIMULI (115 DB RANDOM NOISE) WERE UNEXPECTEDLY PRESENTED. RESULTS REVEALED THE RECOVERY OF TRACKING PERFORMANCE FOLLOWING STARTLE TO BE QUITE RAPID; PERFORMANCE RETURNED TO PRE-STIMULUS LEVELS WITHIN 15 SECONDS FOLLOWING STIMULATION. CONTRARY TO SEVERAL PREVIOUS STUDIES, REACTION TIMES TO THE STARTLE STIMULI DECREASED RELATIVE TO NONSTARTLE REACTION TIMES. SS WITH THE GREATEST INCREASE IN TRACKING ERROR FOLLOWING STARTLE WERE LEAST PROFICIENT PRIOR TO STARTLE. THERE WAS ALSO AN INDICATION THAT THESE SS REACTED MORE STRONGLY TO STARTLE, BOTH IN TERMS OF SUBJECTIVE RESPONSE AND HEART RATE ACCELERATION, THAN THOSE SS WHOSE TRACKING WAS LEAST IMPAIRED BY STARTLE. AN APPARENT COVARIATION BETWEEN RECOVERY CURVES FOR HEART RATE AND TRACKING ERROR WAS FOUND FOLLOWING STARTLE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 721 010 20/1 1/3
WYLE LABS INC HUNTSVILLE ALA RESEARCH STAFF

NOISE PRIMER FOR THE SUPERSONIC TRANSPORT. (U)

MAR 71 34P
CONTRACT: FA-SS-71-9

UNCLASSIFIED REPORT

DESCRIPTORS: (*JET PLANE NOISE, *SUPERSONIC AIRCRAFT), (*JET TRANSPORT PLANES, *COMMERCIAL PLANES), SONIC BOOM, LAW, UNITED STATES GOVERNMENT, JET ENGINE NOISE, AIRPORTS, REDUCTION, URBAN AREAS (U)
IDENTIFIERS: *NOISE POLLUTION, *SUPERSONIC TRANSPORTS (U)

THE FIRST AIM OF THE BOOKLET IS TO CLARIFY THE BASIC CONCEPTS AND TERMINOLOGY NECESSARY IN ANY DISCUSSION OF AIRPORT-COMMUNITY NOISE AND THE SST. THE SECOND AIM OF THE BOOKLET IS TO DESCRIBE THE EXPECTED NOISE OF THE PLANNED COMMERCIAL SST--USING THE TERMINOLOGY AND CONCEPTS DEVELOPED TO DESCRIBE AIRCRAFT NOISE. THIS DESCRIPTION TRIES TO PUT SST NOISE INTO PERSPECTIVE BY: SUMMARIZING THE STATUS OF THE MAJOR EFFORTS TO REDUCE SST NOISE; CLARIFYING SOME OF THE OLD NUMERICAL VALUES FOR SST NOISE WHICH HAVE CAUSED CONFUSION; COMPARING THE NOISE OF THE SST WITH THAT OF OTHER AIRPLANES IN TERMS OF CERTIFICATION NOISE LEVELS; AND SHOWING HOW THE AIRPORT-COMMUNITY NOISE FROM SST OPERATIONS FITS INTO THE NOISE PICTURE ALONG WITH THE NEW AIRPLANES OF THE FUTURE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 722 365 20/1 1/5
BOLT BERANEK AND NEWMAN INC CAMBRIDGE MASS

NOISE EXPOSURE FORECAST CONTOURS FOR EXPECTED 1985 AND 1990 OPERATIONS AT SEVEN U. S. AIRPORTS. (U)

JAN 71 93P
REPT. NO. BBN-2076

UNCLASSIFIED REPORT

DESCRIPTORS: (*JET PLANE NOISE, PREDICTIONS), (*AIRPORTS, PLANNING), SUPERSONIC AIRCRAFT, COMMERCIAL PLANES, JET TRANSPORT PLANES, TAKEOFF, STATISTICAL DA(U)
IDENTIFIERS: *NOISE POLLUTION, *SUPERSONIC TRANSPORT PLANES (U)

THE REPORT SUMMARIZES A STUDY OF THE PROBABLE IMPACT OF FUTURE SUPERSONIC TRANSPORT (SST) AIRCRAFT OPERATIONS ON THE NOISE ENVIRONMENT AROUND SEVEN AIRPORTS IN THE UNITED STATES. THE NOISE ENVIRONMENT IS DEPICTED IN TERMS OF NOISE EXPOSURE FORECAST (NEF) CONTOURS OF NEF 30 AND 40 VALUES FOR PROJECTED 1985 AND 1990 OPERATIONS AT THE FOLLOWING SEVEN AIRPORTS: ANCHORAGE INTERNATIONAL AIRPORT (ANC); LOGAN INTERNATIONAL AIRPORT, BOSTON (BOS); HONOLULU INTERNATIONAL AIRPORT (HNL); JOHN F. KENNEDY INTERNATIONAL AIRPORT, NEW YORK (JFK); LOS ANGELES INTERNATIONAL AIRPORT (LAX); SEATTLE-TACOMA INTERNATIONAL AIRPORT (SEA); SAN FRANCISCO INTERNATIONAL AIRPORT (SFO). SETS OF NOISE CONTOURS ARE GIVEN FOR EACH AIRPORT FOR THE TWO PROJECTIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 723 464 6/16 20/1
CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

NOISE AUDIOMETRY. (U)

JAN 71 8P TOBIAS,JERRY V. ;
REPT. NO. FAA-AM-71-1
MONITOR: FAA-AM 71-1

UNCLASSIFIED REPORT

DESCRIPTORS: (•AUDIOMETRY, •NOISE), HEARING, AUDITORY ACUITY, AUDITORY PERCEPTION, MEASUREMENT, INSTRUMENTATION, MASKING, AIRCRAFT, OTORHINOLARYNGOLO(U)

THE DISPLACEMENT OF A THRESHOLD FROM ITS MEASURED-IN-THE-QUIET VALUE TO THE VALUE IT TAKES IN THE PRESENCE OF ANOTHER SOUND IS MASKING. MEASUREMENT OF THAT DISPLACEMENT IS MASKING AUDIOMETRY. AND THE MEASUREMENT OF DISPLACEMENTS AT A LARGE NUMBER OF FREQUENCIES PRODUCES MASKING PATTERNS. THIS PAPER CONCERNS ITSELF WITH A PROCEDURE THAT PRODUCES MASKING PATTERNS WITH GOOD PRECISION, SENSITIVITY, AND RAPIDITY WITHOUT THE PROBLEMS OF TONAL INTERFERENCE AND BEATS THAT NORMALLY INTERFERE WITH THE DETERMINATION OF MASKING PATTERNS. SEVERAL APPLICATIONS OF THE TECHNIQUES ARE SUGGESTED, INCLUDING ONE FOR DETERMINING THE AUDITORY EFFECTS PRODUCED BY AIRCRAFT NOISES, AND ONE FOR TESTING HEARING PROTECTORS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 724 344 20/1
CATHOLIC UNIV OF AMERICA WASHINGTON D C INST OF OCEAN SCIENCE AND ENGINEERING

A LITERATURE SURVEY OF NOISE POLLUTION. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
MAR 71 96P SHIH,H. H. ;
REPT. NO. 71-5
CONTRACT: N00014-69-A-0432

UNCLASSIFIED REPORT

DESCRIPTORS: (•NOISE, •REVIEWS), PUBLIC HEALTH, ENVIRONMENT, STRESS(PSYCHOLOGY), STRESS(PHYSIOLOGY), CONTROL, HEARING, INDUSTRIAL MEDICINE, SONIC BOOM, BIBLIOGRAPHIES (U)
IDENTIFIERS: •NOISE POLLUTION (U)

PHYSICALLY, NOISE IS A COMPLEX SOUND THAT HAS LITTLE OR NO PERIODICITY. HOWEVER, THE ESSENTIAL CHARACTERISTIC OF NOISE IS ITS UNDESIRABILITY. THUS, NOISE CAN BE DEFINED AS ANY ANNOYING OR UNWANTED SOUND. IN RECENT YEARS, THE RAPID INCREASE OF NOISE LEVEL IN OUR ENVIRONMENT HAS BECOME A NATIONAL PUBLIC HEALTH HAZARD. NOISE AFFECTS MAN'S STATE OF MENTAL, PHYSICAL, AND SOCIAL WELL-BEING. THE PROBLEM FORMS A SPECIAL TYPE OF AIR POLLUTION. NOISE STUDY IS A RATHER NEW SUBJECT AMONG OTHER BRANCHES OF SCIENCE. THE TRANSITION FROM ART TO NEAR-SCIENCE STARTED FROM BEFORE THE WORLD WAR II. THE WORK IS AN ATTEMPT TO ARRIVE AT AN UNDERSTANDING OF THE GENERAL SITUATION ON THE PROBLEM OF NOISE. THE SURVEY CONSISTS OF FOUR MAJOR PARTS: THE PRESENT STATUS OF NOISE POLLUTION, ITS SOURCES, ITS EFFECTS, AND THE CONTROL. MANY URGENT RESEARCH NEEDS ARE ALSO IDENTIFIED. FINALLY, LISTS OF TERMINOLOGY AND BIBLIOGRAPHY RELATING TO NOISE POLLUTION PROBLEMS ARE PROVIDED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 724 709 13/2
NAVAL UNDERSEA RESEARCH AND DEVELOPMENT CENTER SAN DIEGO CALIF

NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970. (U)

MAR 71 183P
REPT. NO. NUC-TP-215

UNCLASSIFIED REPORT

DESCRIPTORS: (*SYMPOSIA, *WATER POLLUTION), (*ECOLOGY, WATER POLLUTION), (*MARINE BIOLOGY, WATER POLLUTION), (*SEALS(MAMMALS), WATER POLLUTION), (*POLYMERS, *TOXICITY), MONITORS, OCEANS, CALIFORNIA, HAWAII, OCEAN CURRENTS, FISHES, HAZARDS, MANAGEMENT PLANNING AND CONTROL (U)
IDENTIFIERS: WATER POLLUTION EFFECTS, *WATER POLLUTION DETECTION, *NOISE POLLUTION, *OILS, *POLLUTION, *POLLUTION, *POPULATION GROWTH, *SAN DIEGO(CALIFORNIA), SEA LIONS, *SOLID WASTE DISPOSAL, *DRAG REDUCING POLYMERS (U)

;CONTENTS: PRINCIPLES OF EVOLUTION AND THE ECOLOGICAL CRISIS; ALTERNATIVES TO OVERPOPULATION; EXAMPLES OF SAN DIEGO NOISE CLIMATE; NUC'S EFFORTS TOWARD AN ACCEPTABLE NOISE ENVIRONMENT; LOW-POLLUTION AUTOMOBILE ENGINE; SEA-SURFACE SLICKS; ELEPHANT SEAL AND SEA LION MORTALITY ON SAN MIGUEL ISLAND; SAN CLEMENTE ISLAND AS A SITE FOR POLLUTION RESEARCH; OCEAN POLLUTION BY SUNKEN SHIPS; POTENTIAL HAZARDS OF NON-DEGRADABLE MATERIALS AS AN ENVIRONMENTAL POLLUTANT; POLLUTION POTENTIAL OF DRAG-REDUCING POLYMERS; ENVIRONMENTAL SURVEILLANCE, AN ESSENTIAL SAFEGUARD AGAINST POLLUTION; ENVIRONMENTAL MANAGEMENT - WHAT CAN NAVY SCIENCE CONTRIBUTE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 725 144 6/19
NAVY EXPERIMENTAL DIVING UNIT WASHINGTON D C

NOISE: A HAZARD TO DIVERS AND HYPERBARIC CHAMBER PERSONNEL. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
MAY 71 30P SUMMITT,JAMES K. ;REIMERS, STEPHEN D. ;
REPT. NO. NEDU-RR-5-71

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, *DIVING), HAZARDS, PERSONNEL, PRESSURE, DECOMPRESSION SICKNESS, HEARING, DEAFNESS, PHYSIOLOGY, STRESS(PHYSIOLOGY) (U)
IDENTIFIERS: HYPERBARIC CONDITIONS (U)

QUANTITATIVE INFORMATION DESCRIBING AMBIENT NOISE IN THE DIVING ENVIRONMENT IS ALMOST NON-EXISTENT. SENSORINEURAL HEARING DEFICITS THAT HAVE BEEN OBSERVED IN SOME DIVING GROUPS HAVE BEEN ATTRIBUTED TO PREVIOUS NOISE EXPOSURE IN NON-DIVING SITUATIONS SUCH AS EXPOSURE TO SMALL ARMS FIRE, ENGINE ROOM NOISE OR FLIGHT DECK NOISE. THIS REPORT DESCRIBES A SERIES OF EXPERIMENTS CONDUCTED AT THE NAVY EXPERIMENTAL DIVING UNIT TO DETERMINE THE SOUND LEVEL IN A VARIETY OF HELMET DIVING AND HYPERBARIC CHAMBER SITUATIONS FROM THE SURFACE TO A DEPTH OF 200 FEET. THE DATA IS DEFINED IN TERMS OF THE HEARING DAMAGE RISK CRITERIA CURRENTLY IN USE BY THE NAVY. RESULTS INDICATE THAT OPERATIONS INVOLVING BOTH DIVING HELMETS AND HYPERBARIC CHAMBERS FREQUENTLY EXPOSE PERSONNEL TO HAZARDOUS LEVELS OF NOISE DEPENDING ON THE LENGTH OF TIME OF THE EXPOSURE. THREE CASES OF TEMPORARY SENSORINEURAL HEARING LOSS THOUGHT TO BE PELATED TO NOISE EXPOSURE DURING AIR HELMET DIVES ARE ALSO PRESENTED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 726 217 6/19 13/12
NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL
WASHINGTON D C COMM ON HEARING BIOACOUSTICS BIOMECHANICS

HEARING CONSERVATION FOR SUBMARINERS, (U)

JUN 71 9P WARD,W. DIXON ;
CONTRACT: N00014-67-A-0244-0211
PROJ: NR-140-113

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPORT OF WORKING GROUP 64.

DESCRIPTORS: (*SUBMARINE PERSONNEL, *HEARING), (*SUBMARINE NOISE, HAZARDS), PROTECTION, THRESHOLDS(PHYSIOLOGY), TOLERANCES(PHYSIOLOGY), NOISE, CONTROL, STRESS(PHYSIOLOGY) (U)

THE REPORT ADVISES THE U.S. NAVY CONCERNING HEARING CONSERVATION ABOARD FUTURE SUBMARINES. INCLUDED ARE CRITERIA FOR HAZARD, AS WELL AS SUGGESTED TECHNIQUES FOR HEARING PROTECTION, INVOLVING PERSONAL PROTECTION, ENVIRONMENTAL DAMPING, AND NOISE CONTROL AT THE SOURCE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 726 333 6/19
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE. (U)

DESCRIPTIVE NOTE: PROGRESS REPT.,
MAR 71 15P LUZ,GEORGE A. ;MOSKO,JAMES D. ;
REPT. NO. USAMRL-921
PROJ: DA-3-A-061102-B-71R
TASK: 3-A-061102-B-71-R-03

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, *STRESS(PHYSIOLOGY)), (*EAR, NOISE), (*AUDITORY PERCEPTION, NOISE), DAMAGE, HEARING, ELECTROMAGNETIC PULSES, SENSITIVITY, RODENTS, MONKEYS, LABORATORY ANIMALS (U)

FIVE MONAURAL CHINCHILLAS WERE EXPOSED TO IMPULSES OF 168 DB SPL, AND THE LOSS OF SENSITIVITY FOR THE PURE TONES OF .3, .75, 1.5, 4.0, 6.0, 7.9, 11.0, 14.5, AND 16.5 KHZ WAS DETERMINED THROUGH AN AVOIDANCE CONDITIONING TECHNIQUE. THE RECOVERY OF SENSITIVITY WAS STUDIED OVER 64 DAYS AFTER EXPOSURE. THE CHINCHILLAS PROVED TO BE MUCH MORE SUSCEPTIBLE TO THIS NOISE THAN THE RHESUS MONKEY. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 728 332 5/10 20/1
STANFORD RESEARCH INST MENLO PARK CALIF

A STUDY OF SENSITIVITY TO NOISE. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JUN 71 65P BECKER,R. W. ;POZA,F. ;
KRYTER,K. D. ;
CONTRACT: DOT-FA69WA-2211
MONITOR: FAA-EQ 71-4

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, SENSITIVITY), (*PSYCHOPHYSIOLOGY, *SONIC BOOM), AUDITORY PERCEPTION, PSYCHOACOUSTICS, REACTION(PSYCHOLOGY), PERSONALITY, ATTITUDES, SIMULATION, ANALYSIS OF VARIANCE (U)
IDENTIFIERS: NOISE POLLUTION (U)

IN THE STUDY, 140 SUBJECTS WERE EXPOSED TO SIMULATED SONIC BOOMS AND RECORDED RESIDENTIAL NOISES IN ONE, TWO, OR THREE TWO-HOUR SESSIONS OVER A PERIOD OF SIX MONTHS. ELECTROPHYSIOLOGICAL MEASURES OF HEART RATE AND ELECTROMYOGRAPHIC RESPONSES TO THE STIMULI WERE ANALYZED. BIOGRAPHICAL, DEMOGRAPHICAL, AND PERSONALITY INVENTORIES WERE ALSO OBTAINED FOR EACH OF THE SUBJECTS. THE PURPOSE OF THIS RESEARCH WAS TO: DETERMINE WHETHER THERE ARE DIFFERENT DEGREES OF PSYCHOLOGICAL AND PHYSIOLOGICAL SENSITIVITY TO NOISE IN A LARGE GROUP OF PEOPLE; TO DETERMINE WHETHER AND HOW SUCH SENSITIVITY VARIED IN TIME; AND TO RELATE SUCH SENSITIVITY TO OTHER PSYCHOLOGICAL AND PERSONALITY VARIABLES. SIGNIFICANT DIFFERENCES IN PSYCHOLOGICAL SENSITIVITY TO NOISE WERE FOUND IN THE SUBJECT POPULATION. THESE DIFFERENCES REMAINED STABLE FOR THE DURATION OF THE EXPERIMENT AND WERE ALSO FOUND TO BE RELATED TO THE ATTITUDINAL AND BELIEF STRUCTURES OF THE INDIVIDUALS. DEFINITE PHYSIOLOGICAL RESPONSES TO THE SIMULATED SONIC BOOMS WERE OBSERVED. HOWEVER, THE PHYSIOLOGICAL INDICES USED IN THIS RESEARCH DID NOT SHOW INDIVIDUAL DIFFERENCES IN PHYSIOLOGICAL SENSITIVITY TO NOISE. THESE RESULTS DO NOT PRECLUDE THE POSSIBILITY THAT MORE ELABORATE AND EXTENSIVE PSYCHOPHYSIOLOGICAL MEASUREMENT MIGHT DEMONSTRATE VARYING PHYSIOLOGICAL SENSITIVITY TO NOISE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 728 426 6/19
NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL
WASHINGTON D C COMM ON HEARING BIOACOUSTICS BIOMECHANICS

NON-AUDITORY EFFECTS OF NOISE, (U)

JUN 71 31P KRYTER,KARL D. ;JANSEN, GERD ;PARKER,DONALD ;PARRACK,HORACE O. ; THIESSEN,GEORGE ;
CONTRACT: N00014-67-A-0244-0021

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPORT OF WORKING GROUP 63.

DESCRIPTORS: (•NOISE, PUBLIC HEALTH), (•STRESS(PHYSIOLOGY), NOISE), (•STRESS(PSYCHOLOGY), NOISE), TOLERANCES(PHYSIOLOGY), PERFORMANCE(HUMAN), PHYSIOLOGY, CARDIOVASCULAR SYSTEM, PATHOLOGY, PSYCHOPHYSIOLOGY (U)

THE REPORT IS A SUMMARY AND EVALUATION OF RESEARCH FINDINGS THAT RELATE TO ANY EFFECTS OF NOISE OTHER THAN TO THE EAR AND RELATED STRUCTURES. FOR EXAMPLE, INCUDED HEREIN ARE RESEARCH EFFORTS CONCERNED WITH PSYCHOLOGICAL EFFECTS OF NOISE, EFFECTS ON TASK PERFORMANCE, EFFECTS ON THE CARDIO-VASCULAR SYSTEM, AND ON GENERAL HEALTH. THIS REPORT ALSO PRESENTS AREAS AND TYPES OF RESEARCH STUDIES THAT MAY HELP TO PROVIDE FULL ANSWERS TO QUESTIONS ON THE DEGREE OF NOISE CONTROL DESIRABLE WITH RESPECT TO THE NON-AUDITORY EFFECTS OF NOISE NORMALLY PRESENT IN LIVING AND WORKING ENVIRONMENTS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 729 138 6/19 6/5
ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER CHARLOTTESVILLE VA

MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS (MORFOLOGICHESKIE IZMENENIYA V GIPOTALAMUSE PRI VEGETATIVNYKH HARUSHENIYAKH, VYZVANN YKH SILNYM ZVYKOVYM RAZDRAXHENIEM), (U)

AUG 71 12P KRIVITSKAYA,G. N. ;NICHKOV, S. M. ;
REPT. NO. FSTC-HT-23-263-71
PROJ: FSTC-T023012301

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: TRANS. OF ZHURNAL NEVROPATOLOGII I PSIKHIATRII (USSR) V66 N8 P1177-1183 1966.

DESCRIPTORS: (*AUDITORY NERVE, *STRESS(PHYSIOLOGY)), (*AUTONOMIC NERVOUS SYSTEM, NERVOUS SYSTEM DISEASES), (*NERVOUS SYSTEM DISEASES, NOISE), (*THALAMUS, NERVOUS SYSTEM DISEASES), HISTOLOGY, BRAIN, NERVOUS SYSTEM, PHYSIOLOGY, PATHOLOGY, ADAPTATION(PHYSIOLOGY), USSR (U)
IDENTIFIERS: TRANSLATIONS (U)

THE CONSEQUENCES ARE INVESTIGATED OF STRONG AUDITORY IRRITANTS ON THE HYPOTHALAMUS GIVING RISE TO MORPHOLOGICAL CHANGES AND ASSOCIATED AUTONOMIC DISORDERS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZUM07

AD- 729 213 5/10 20/1
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

NOISE AND HUMAN PERFORMANCE, (U)

JUN 71 50P GRETHER,WALTER F. ;
REPT. NO. AMRL-TR-70-29
PROJ: AF-7222

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, *PERFORMANCE(HUMAN)), VEHICLES, HEARING, ATTENTION, TRACKING, BEHAVIOR, INDUSTRIES, AIRCRAFT, EXPOSURE (U)
IDENTIFIERS: AUDITORY MASKING (U)

THE POSSIBLE EFFECTS OF NOISE ON HUMAN PERFORMANCE HAVE BEEN THE SUBJECT OF CONSIDERABLE RESEARCH DATING BACK TO 1916. THIS INTEREST HAS BEEN STIMULATED BY CONCERN ABOUT NOISE IN FACTORIES, OFFICES, SCHOOLS, AIRCRAFT AND OTHER MILITARY VEHICLES. TWO VERY DIRECT AND HARMFUL EFFECTS OF NOISE, PERMANENT HEARING LOSS AND AUDITORY MASKING, ARE TREATED ONLY BRIEFLY IN THIS REVIEW. SPECIAL ATTENTION IS GIVEN TO THE SO-CALLED NONAUDITORY EFFECTS ON SUCH PERFORMANCE MEASURES AS REACTION TIME, VIGILANCE, TIME ESTIMATION, TRACKING, MANUAL MANIPULATION, INTELLECTUAL CAPACITIES, AND INDUSTRIAL WORK TASKS. OVERALL, THE RESEARCH DATA ON NOISE AND HUMAN PERFORMANCE APPEAR RATHER CONTRADICTORY AND INCONSISTENT. WHILE MANY STUDIES HAVE FOUND NO PERFORMANCE IMPAIRMENT, AND EVEN IMPROVEMENT, THERE ARE SOME TYPES OF MEASURES THAT RATHER CONSISTENTLY SHOW DECREMENTS FROM EXPOSURE TO NOISE. SOME THEORETICAL EXPLANATORY MECHANISMS TO ACCOUNT FOR EFFECTS OF NOISE ON PERFORMANCE ARE INCLUDED IN THE REVIEW. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 730 065 6/19
ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER CHARLOTTESVILLE VA

EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM (VLIYANIE AVIATSIONNOGO SHUMA NA NEKOTORYE POKAZATELI BELKOVOGO I VITAMINNOGO OBMENA), (U)

AUG 71 10P UDALOV,YU. F. ;LAPAEV,E. V. ;SYZRANTSEV,YU. K. ;
REPT. NO. FSTC-HT-23-272-71
PROJ: FSTC-T7023012301

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: TRANS. FROM VOENNO-MEDITSINSKII ZHURNAL (USSR) N7 P61-64.

DESCRIPTORS: (*AIRPLANE NOISE, *STRESS(PHYSIOLOGY)), (*PROTEINS, NOISE), (*VITAMINS, NOISE), METABOLISM, ASTRONAUTICS, AVIATION PERSONNEL, PILOTS, GLUTAMIC ACID, CENTRAL NERVOUS SYSTEM, AMINO ACIDS, HAZARDS, USSR (U)
IDENTIFIERS: TRANSLATIONS (U)

RESEARCH RESULTS IN THIS REPORT POINT TO THE NEED FOR WIDER EMPLOYMENT OF VITAMINS AND GLUTAMIC ACID TO PREVENT THE DAMAGING EFFECTS OF NOISE ON FLYING PERSONNEL AND AIRCRAFT MAINTENANCE PERSONNEL. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 731 131 6/14
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. NOV 70-JUN 71,
AUG 71 12P SUTHERLAND,HARRELL C. , JR.;
GASAWAY,DONALD C. ;BOYER,JAMES F. , JR;
REPT. NO. SAM-TR-71-36
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: (*AUDIOMETRY, *AIR FORCE PERSONNEL), AUDITORY ACUITY, RECRUITING, HEARING, NOISE, HAZARDS, EXPOSURE (U)

MEDIAN HEARING LEVELS WERE DETERMINED FOR 225 YOUNG AIRMEN WHO WERE ENTERING TRAINING FOR OCCUPATIONS INVOLVING EXPOSURE TO POTENTIALLY HAZARDOUS NOISE. THE VALUES WERE EXTRACTED FROM HEARING CONSERVATION DATA FORMS RECEIVED FROM SHEPPARD AFB, TEXAS. THE MEDIANS WERE COMPATIBLE WITH THOSE REPORTED FOR THREE OTHER GROUPS OF YOUNG ADULT MEN. THESE MEDIAN HEARING LEVELS WERE DETERMINED TO ESTABLISH AN APPROPRIATE REFERENCE FOR ASSESSING THE HEARING OF INDIVIDUALS EXPOSED TO POTENTIALLY HAZARDOUS NOISE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 731 146 5/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE. (U)

DESCRIPTIVE NOTE: FINAL REPT. SEP 70-FEB 71, AUG 71 20P HARRIS,C. STANLEY ;SOMMER, HENRY C. ;
REPT. NO. AMRL-TR-70-21
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: (•STRESS(PSYCHOLOGY), PERFORMANCE(HUMAN)), (•NOISE, STRESS(PSYCHOLOGY)), (•VIBRATION, STRESS(PSYCHOLOGY)), PERFORMANCE TESTS, ACHIEVEMENT TESTS, MEMORY, INTENSITY (U)
IDENTIFIERS: MENTAL PERFORMANCE (U)

TWO EXPERIMENTS WERE CONDUCTED TO DETERMINE THE COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE. IN EXPERIMENT 1, TEN SUBJECTS WERE TESTED ON A COMBINATION SHORT TERM MEMORY AND SUBTRACTION TASK DURING EXPOSURE TO FOUR DIFFERENT INTENSITIES OF BROADBAND NOISE. ANOTHER GROUP OF TEN SUBJECTS WAS TESTED USING THE SAME NOISE INTENSITIES IN COMBINATION WITH 0.25G (PEAK) VERTICAL VIBRATION AT 5HZ. NOISE ALONE, AND VIBRATION WITH LOW LEVEL NOISE (80 DB AND 90 DB RE 0.0002 DYNE/SQ CM) HAD NO ADVERSE EFFECTS ON TASK PERFORMANCE WHILE THE HIGHEST LEVEL OF NOISE (110 DB) COMBINED WITH VIBRATION TO PRODUCE A SIGNIFICANT REDUCTION IN THE NUMBER OF CORRECT RESPONSES. IN EXPERIMENT 2, THE SECOND GROUP OF SUBJECTS USED IN EXPERIMENT 1 WAS TESTED DURING EXPOSURE TO THE FOLLOWING CONDITIONS: NO VIBRATION (CONTROL), VIBRATION AT 5 HZ - 0.25G, 7 HZ - 0.30G, AND 11 HZ - 0.50G, ALL COMBINED WITH 80 DB NOISE. SUBSEQUENTLY THESE SAME VIBRATION CONDITIONS WERE PRESENTED WITH 107 DB NOISE. HIGH INTENSITY NOISE AND VIBRATION COMBINED TO PRODUCE A GREATER DECREMENT IN PERFORMANCE THAN EITHER STRESSOR ALONE. VIBRATION AT 5 HZ WAS A MORE SENSITIVE FREQUENCY FOR MENTAL SUBTRACTION PERFORMANCE THAN 7HZ AND 11 HZ WHEN THE THREE FREQUENCIES WERE PRESENTED IN CONJUNCTION WITH HIGH INTENSITY NOISE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 731 154 6/19 20/1
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

COMPARISON OF A-WEIGHTED AUDITORY RISK CRITERIA WITH OCTAVE-BAND ESTIMATES. (U)

DESCRIPTIVE NOTE: FINAL REPT. NOV 70-MAR 71,
JUL 71 19P GASAWAY,DONALD C. ;
SUTHERLAND,HARRELL C. , JR;
REPT. NO. SAM-TR-71-19
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, THRESHOLDS(PHYSIOLOGY)), HEARING, HAZARDS, AIRPLANE ENGINE NOISE, INTENSITY, SAFETY (U)

THE RECENT TREND TOWARD ADOPTION OF A-WEIGHTED SOUND LEVELS TO IDENTIFY DEGREES OF AUDITORY RISK HAS PROMPTED INVESTIGATIONS TO DETERMINE MODIFICATIONS WHICH MUST BE MADE WHEN APPLYING THE A-WEIGHTED METHOD TO SPECIFIC NOISE ENVIRONMENTS. THIS REPORT COMPARES RECENTLY PROPOSED CRITERIA BASED ON A-WEIGHTED SOUND LEVELS WITH CRITICAL LIMITS BASED ON OCTAVE-BAND DATA AS PROPOSED BY WORKING GROUP 46 OF THE COMMITTEE ON HEARING, BIOACOUSTICS, AND BIOMECHANICS OF THE NATIONAL ACADEMY OF SCIENCES--NATIONAL RESEARCH COUNCIL. THE USE OF C--A AS A CORRECTION FACTOR TO EQUATE DBA LEVELS WITH OCTAVE-BAND ASSESSMENTS IS DISCUSSED. NOISE CONDITIONS WITHIN THE COCKPITS OF FIXED- AND ROTARY-WIND AIRCRAFT WERE USED AS THE BASIS FOR THE COMPARISONS. RESULTS INDICATE THAT USE OF A-WEIGHTED SOUND LEVELS FOR ESTIMATING POTENTIALLY HAZARDOUS EXPOSURES OF THE TYPE ENCOUNTERED IN AIRCRAFT MUST BE APPROACHED WITH CAUTION FOR TWO REASONS: (1) SPECTRUM CONTENT OF A GIVEN NOISE INFLUENCES THE DEGREE OF AUDITORY RISK ASSOCIATED WITH SINGLE VALUES OF DBA, AND (2) THE RELATIONSHIP BETWEEN DURATION AND INTENSITY OF NOISE IS CURVILINEAR, RATHER THAN LINEAR AS ASSUMED BY THE WALSH-HEALEY ACT PROVISIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 731 184 5/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE. (U)

DESCRIPTIVE NOTE: FINAL REPT. OCT 70-MAR 71,
JUL 71 33P HARRIS,C. STANLEY ;FILSON, GEORGE W. ;
REPT. NO. AMRL-TR-71-56
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: (•PERFORMANCE(HUMAN), •NOISE), STRESS(PSYCHOLOGY), INTENSITY, PERFORMANCE TESTS (U)

TO EVALUATE BROADBENT'S STATEMENTS CONCERNING THE NECESSARY CONDITIONS FOR DEMONSTRATING AN ADVERSE EFFECT OF NOISE ON HUMAN PERFORMANCE, 70 SUBJECTS WERE TESTED ON A SERIAL SEARCH TASK. PERFORMANCE WAS MEASURED DURING BROADBAND NOISE EXPOSURE AT AN OVERALL LEVEL OF 105 DB RE 0.0002 DYNE PER SQUARE CENTIMETER. THE PERFORMANCE OF ONE GROUP OF SUBJECTS WAS MEASURED FOR 36 MINUTES WITH TWO 3-MINUTE INTERPOLATED REST PERIODS, WHILE ANOTHER GROUP WAS TESTED FOR 36 CONSECUTIVE MINUTES WITH NO REST PERIODS. THE PERFORMANCE OF THESE GROUPS WAS COMPARED WITH THE PERFORMANCE OF COMPARABLE CONTROL GROUPS. IN ALL GROUPS, PERFORMANCE WAS MEASURED FOR 5 DAYS. NOISE PRODUCED A STATISTICALLY SIGNIFICANT REDUCTION IN THE NUMBER COMPLETED FOR THE REST GROUP FOR THE FIRST 12 MINUTES OF TESTING ON EACH DAY. THERE WERE NO SIGNIFICANT DIFFERENCES BETWEEN THE NOISE AND CONTROL GROUP DURING THE LAST 24 MINUTES OF TESTING. FOR THE NO REST GROUPS, NOISE RESULTED IN A SMALLER NUMBER OF ITEMS COMPLETED ON THE LAST TWO DAYS OF TESTING AND THE DIFFERENCE WAS STATISTICALLY SIGNIFICANT. ON THESE DAYS THE EFFECT WAS CONSTANT THROUGHOUT THE 36 MINUTES OF TESTING. THESE RESULTS ARE INTERPRETED AS GENERALLY SUPPORTING BROADBENT'S POSITION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 731 185 5/5
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

A REVIEW OF IMPULSE-NOISE RESEARCH AT THE HUMAN ENGINEERING LABORATORIES. (U)

DESCRIPTIVE NOTE: TECHNICAL NOTE,
APR 71 39P HODGE,DAVID C. ;
REPT. NO. HEL-TN-4-71

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED TO DELAWARE VALLEY CHAPTER, ACOUSTICAL SOCIETY OF AMERICA, ROSE TREE, PA., 6 JAN 71.

DESCRIPTORS: (*NOISE, HUMAN ENGINEERING), MEASUREMENT, HEARING, PATHOLOGY, PROTECTION, ARMY PERSONNEL (U)

THE SIGNIFICANCE OF IMPULSE-NOISE EXPOSURE AS A SEVERE ARMY PROBLEM IS DISCUSSED. EFFORTS AT ALLEVIATING THESE PROBLEMS ARE REVIEWED UNDER FIVE SUBJECT CATEGORIES: DEVELOPMENT OF MEASUREMENT TECHNIQUES, CONDUCT OF TEMPROARY HEARING LOSS INVESTIGATIONS, NOISE SUPPRESSION EXPERIMENTS, DETERMINATION OF THE LIMITS OF HEARING PROTECTION, AND DEVELOPMENT OF HEARING DAMAGE-RISK CRITERIA. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 731 467 20/1
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

BASELINE NOISE MEASUREMENTS OF THE OH-58A HELICOPTER. (U)

DESCRIPTIVE NOTE: TECHNICAL NOTE,
APR 71 72P LINCE,DONALD L. ;
REPT. NO. HEL-TN-3-71

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, *HELICOPTERS), MACHINE GUNS, AIRPLANE NOISE, VOICE COMMUNICATION SYSTEMS, INTELLIGIBILITY, HEARING, HAZARDS, STATISTICAL DATA (U)
IDENTIFIERS: XM-27E1 GUNS(7.62-MM), MINIGUNS, M-27 GUNS(7.62-MM), OH-58A AIRCRAFT, GRAPHS(CHARTS), H-58 AIRCRAFT (U)

SOUND MEASUREMENTS WERE TAKEN IN THE OH-58A (KIOWA) HELICOPTER UNDER CONDITIONS OF MAXIMUM PERFORMANCE TAKE OFF AND CLIMB, NORMAL CRUISE, DESCENT AND HOVER BOTH WITH AND WITHOUT SOUNDPROOFING INSTALLED. MEASUREMENTS WERE TAKEN OF THE NOISE PRODUCED BY FIRING THE XM27E1 MINIGUN SYSTEM. INTELLIGIBILITY TESTS OF THE INTERCOM SYSTEM AND ONE RADIO RECEIVER WERE CARRIED OUT. RESULTS ARE PRESENTED AND COMPARED TO HUMAN ENGINEERING LABORATORIES STANDARD S-1-63B. HEARING HAZARD PRESENTED BY WEAPON FIRING IS DISCUSSED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 732 264 1/2 20/1 14/1
ALL AMERICAN ENGINEERING CO WILMINGTON DEL

RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JUN 71 270P HIGHLEY,F. M. ;
CONTRACT: DOT-FA70WA-2224
PROJ: FAA-550-004-03H
MONITOR: FAA-EQ 71-1

UNCLASSIFIED REPORT

DESCRIPTORS: (*COMMERCIAL PLANES, *AIRPLANE NOISE), (*TRANSPORT PLANES, *LAUNCHING), (*CATAPULTS, COMMERCIAL PLANES), (*COST EFFECTIVENESS, LAUNCHING), FEASIBILITY STUDIES, REDUCTION, TAKE-OFF, JETS, THRUST AUGMENTATION, EXHAUST GASES (U)
IDENTIFIERS: *NOISE POLLUTION (U)

A COST EFFECTIVENESS STUDY WAS MADE TO DETERMINE THE FEASIBILITY OF REDUCING THE NOISE ASSOCIATED WITH AIRCRAFT TAKING OFF BY APPLYING AUXILIARY LAUNCH POWER DURING AIRCRAFT ACCELERATION ON THE GROUND. AUXILIARY LAUNCH SYSTEM CATEGORIES CONSIDERED WERE REACTION JETS, CATAPULTS, AIRCRAFT EXHAUST AUGMENTATION, AND ACCELERATING VEHICLE SYSTEMS. THE MOST OPTIMUM SYSTEM STUDIED WAS THE STEAM ZIPPER CATAPULT. IT WAS SELECTED ON THE BASIS OF ITS ABILITY TO HANDLE THE FULL RANGE OF AIRCRAFT (75,000 TO 1,500,000 POUND GROSS WEIGHT), ITS HIGH SPEED CAPABILITY (RESULTING IN ABBREVIATED TAKE-OFF TIME AND REDUCED NOISE LEVEL DURATION), SHORTER LAUNCH STROKE (3882 FEET VERSUS 10,000 FEET), EASE OF ACHIEVING BI-DIRECTIONAL CAPABILITY, AND ECONOMY OF OPERATION. OTHER SYSTEMS GIVEN DETAILED EVALUATION WERE THE JET CAR ACCELERATING VEHICLE AND THE STEAM-TURBINE CAPSTAN-DRIVEN CABLE CATAPULT. THE BASIC GOAL OF NOISE LEVEL REDUCTION AT TAKE-OFF IS ACCOMPLISHED TO A SIGNIFICANT DEGREE BY THE SELECTED LAUNCHING TECHNIQUE. COST OF THE LAUNCH SYSTEM DEVELOPMENT PROGRAM, THE AIRPORT INSTALLATION OF A SINGLE PROTOTYPE SYSTEM, AND THE MODIFICATION OF FIVE (5) AIRCRAFT (INCORPORATION OF LAUNCH HOOK(S) AND HIGH-SPEED LANDING GEAR) WOULD BE 25 TO 32 MILLION DOLLARS BASED UPON END SPEEDS OF 155 TO 297 KNOTS RESPECTIVELY, (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 732 434 20/1 6/16 13/12
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM). (U)

DESCRIPTIVE NOTE: TECHNICAL MEMO.,
MAY 71 40P GARINTHER,GEORGES R. ;HODGE, DAVID C. ;
REPT. NO. HEL-TM-7-71

UNCLASSIFIED REPORT

DESCRIPTORS: (*ROCKET LAUNCHERS, NOISE), (*HEARING, HAZARDS), (*RECOILLESS GUNS, STRESS(PHYSIOLOGY)), TOLERANCES(PHYSIOLOGY), EXPOSURE, TEST METHODS, ARMY PERSONNEL, THRESHOLDS(PHYSIOLOGY) (U)
IDENTIFIERS: M-20 ROCKET LAUNCHERS(3.5-IN.), M-72 ROCKET LAUNCHERS(66-MM), NOISE POLLUTION (U)

TEMPORARY THRESHOLD SHIFTS WERE DETERMINED FOR SINGLE EXPOSURES OF SUBJECTS TO IMPULSES PRODUCED BY THE M20A1 AND THE M72 ROCKET LAUNCHERS. THESE EXPOSURES WERE AT LEVELS UP TO 179 DB WITHOUT HEARING PROTECTION, AND UP TO 184 DB WITH HEARING PROTECTION. THIS STUDY INDICATES THAT THE CHABA IMPULSE NOISE DAMAGE-RISK CRITERION IS VALID FOR SINGLE IMPULSES HAVING DURATIONS OF 12 TO 34 MILLISECONDS. THE FIRER OF THE M72 IS SUBJECTED TO 179 DB WHICH IS GREATLY IN EXCESS OF THE EXPOSURE CRITERION; PERSONNEL SHOULD NOT BE EXPOSED TO SUCH CONDITIONS WITHOUT HEARING PROTECTION. THE STANDARD ARMY ISSUE EARPLUG (V51-R) NOMINALLY PROVIDES 25 DB ATTENUATION FOR THIS TYPE IMPULSE AND PERMITS SAFE EXPOSURES UP TO 184 DB. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 732 617 6/19 5/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS, (U)

71 7P GRETHER,W. F. ;HARRIS,C. S. ;MOHR,G. C. ;NIXON,C. W. ;OHLBAUM,M. ;

REPT. NO. AMRL-TR-71-19
PROJ: AF-7222

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN AEROSPACE MEDICINE, V42 N10 P1092-1097 OCT 71.

DESCRIPTORS: (*AVIATION MEDICINE, STRESS(PHYSIOLOGY)), (*STRESS(PSYCHOLOGY), AVIATION MEDICINE), HEAT, NOISE, VIBRATION, PERFORMANCE(HUMAN), FLIGHT CREWS (U)

FLIGHT IN AIRCRAFT AND SPACE VEHICLES OFTEN EXPOSES CREW MEMBERS SIMULTANEOUSLY TO SEVERAL ENVIRONMENTAL STRESSES. THE EFFECTS OF SUCH COMBINED STRESSES CANNOT BE REALISTICALLY PREDICTED FROM SINGLE-STRESS STUDIES. TO BETTER UNDERSTAND COMBINED-STRESS EFFECTS, TEN MEN WERE EXPOSED TO HEAT (120F), NOISE (105 DB), AND VIBRATION (5 HZ, 0.30 PEAK G) BOTH SINGLY AND IN COMBINATION. MEASUREMENTS WERE MADE OF TRACKING ABILITY, REACTION TIME, MENTAL ARITHMETIC, VISUAL ACUITY, VOICE COMMUNICATION, BODY TEMPERATURE, HEART RATE, WEIGHT LOSS, AND SUBJECTIVE RATINGS OF THE STRESS. ON NONE OF THE MEASURES WERE THE EFFECTS OF THE COMBINED-STRESS CONDITION MORE MARKED THAN THE EFFECT FROM THE SINGLE GREATEST STRESSOR. THERE WAS SOME EVIDENCE THAT THE COMBINED-STRESS CONDITION WAS ACTUALLY LESS DISTURBING TO THE SUBJECTS AND THEIR PERFORMANCE THAN WAS VIBRATION ALONE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 734 208 6/19
LOVELACE FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
ALBUQUERQUE N MEX

THE BIODYNAMICS OF AIRBLAST, (U)

JUL 71 129P WHITE,CLAYTON S. ;JONES,
ROBERT K. ;DAMON,EDWARD G. ;FLETCHER,E.
ROYCE ;RICHMOND,DONALD R. ;
CONTRACT: DASA01-70-C-0075
PROJ: DNA-NWER-XAXM
TASK: AO12
MONITOR: DNA 2738T

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE SYMPOSIUM ON LINEAR ACCELERATION OF THE IMPACT TYPE HELD IN PORTO (PORTUGAL) ON 23-26 JUN 71.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), *BLAST), IMPACT, PRESSURE, BAROMETRIC PRESSURE, ACCELERATION TOLERANCE, HEMORRHAGE, PHYSIOLOGY, CARDIOVASCULAR SYSTEM, RESPIRATORY SYSTEM, KIDNEYS, HEMATOLOGY, GAS EMBOLISM, BIOPHYSICS (U)
IDENTIFIERS: AERIAL EXPLOSIONS, *BIODYNAMICS (U)

AFTER POINTING OUT THAT ACCELERATIVE AND DECELERATIVE EVENTS ARE ASSOCIATED WITH THE DIRECT (PRESSURE) AND INDIRECT (TRANSLATIONAL EVENTS INCLUDING PENETRATING AND NONPENETRATING DEBRIS AND WHOLE-BODY IMPACT) EFFECTS OF EXPOSURE TO BLAST-INDUCED WINDS AND PRESSURE VARIATIONS, SOME OF THE RELEVANT BIOPHYSICAL PARAMETERS WERE SELECTIVELY NOTED AND DISCUSSED. THESE INCLUDED THE PRESSURE-TIME RELATIONSHIP; SPECIES DIFFERENCES; AMBIENT PRESSURE EFFECTS; THE SIGNIFICANCE OF POSITIONAL (ORIENTATIONAL) AND GEOMETRIC (SITUATIONAL) FACTORS AS THEY INFLUENCE THE WAVE FORM, THE PRESSURE 'DOSE' AND THE BIOLOGIC RESPONSE; AND DATA BEARING UPON THE ETIOLOGY OF BLAST INJURY. THE CONSEQUENCES OF PRESSURE-INDUCED VIOLENT IMPLOSION OF THE BODY WALL AND THE SIGNIFICANCE OF THE ASSOCIATED VARIATIONS IN THE INTERNAL GAS AND FLUID PRESSURES WERE DESCRIBED AND EMPHASIZED AS WERE ALTERNATING PHASES OF 'FORCED' HEMORRHAGE AND ARTERIAL AIR EMBOLIZATION, FIBRIN THROMBI, COAGULATION ANOMALIES AND RENAL, CARDIAC, AND PULMONARY SEQUELAE. TENTATIVE BIOMEDICAL CRITERIA CONSISTENT WITH RECENT INTERSPECIES SCALING AND MODELING STUDIES FOR ASSESSING PRIMARY BLAST HAZARDS WERE PRESENTED. (AUTHOR) (U)

AD-A041 600 DEFENSE DOCUMENTATION CENTER ALEXANDRIA VA F/G 6/19
ENVIRONMENTAL POLLUTION. NOISE POLLUTION-NOISE EFFECTS ON HUMAN--ETC(U)
JUN 77

UNCLASSIFIED DDC/BIB-77-07 NL

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DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 734 704 20/1
MASSACHUSETTS INST OF TECH CAMBRIDGE RESEARCH LAB OF ELECTRONICS

PRINCIPLES OF NOISE CONTROL, (U)

AUG 71 10P INGARD,UNO ;
CONTRACT: N00014-67-A-0204-0019

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PROCEEDINGS 1971 INTERSOCIETY ENERGY CONVERSION ENGINEERING CONFERENCE, BOSTON, MASS., 3-6 AUG 71, P1034-1040, AUG 71.

DESCRIPTORS: (*NOISE, CONTROL), REACTION(PSYCHOLOGY), SOURCES (U)
IDENTIFIERS: NOISE POLLUTION, *NOISE REDUCTION (U)

THE PURPOSE OF THIS PAPER IS TO GIVE AN OVERVIEW OF THE FIELD OF NOISE CONTROL. AFTER A DISCUSSION OF THE HUMAN RESPONSE TO NOISE, SOME RELATED CRITERIA AND NOISE REGULATIONS ARE DESCRIBED. METHODS OF CONTROLLING NOISE ARE REVIEWED, AND VARIOUS NOISE REDUCTION MEASURES BASED ON ALTERING SOURCE AND TRANSMISSION PATH CHARACTERISTICS ARE CONSIDERED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZUM07

AD- 734 932 6/19
FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY
BETHESDA MD LIFE SCIENCES RESEARCH OFFICE

A REVIEW OF ADVERSE BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
DEC 71 107P CARR,C. JELLEFF ;FISHER,
KENNETH D. ;
CONTRACT: DAHC19-71-C-0011

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, MILITARY PERSONNEL),
(*STRESS(PHYSIOLOGY), NOISE), MILITARY MEDICINE,
DEAFNESS, ENVIRONMENT, PROTECTION, HEARING,
PERFORMANCE(HUMAN), THRESHOLDS(PHYSIOLOGY) (U)
IDENTIFIERS: *NOISE POLLUTION, *NOISE REDUCTION (U)

THE REPORT PROVIDES A COMPREHENSIVE REVIEW OF THE ADVERSE EFFECTS OF SOUND ON MAN IN THE MILITARY ENVIRONMENT. THE DIVERSITY AND COMPLEXITY OF ARMY SYSTEMS THAT OVEREXPOSE THE SOLDIER TO NOISE HAVE CAUSED CONCERN FOR HIS HEALTH AND HIS CAPABILITY TO PERFORM EFFICIENTLY. DESPITE THE RECOGNITION OF THE DELETERIOUS EFFECTS OF NOISE EXPOSURE, PROBLEMS WITH NOISE-INDUCED HEARING LOSS AND HUMAN PERFORMANCE DECREMENT CONTINUE TO ENLARGE. IT IS GENERALLY RECOGNIZED THAT OVEREXPOSURE TO HIGH-INTENSITY NOISE DURING A LIFETIME WILL RESULT IN PROGRESSIVE HEARING LOSS. THERE IS NO WAY TO CORRECT PERMANENT THRESHOLD SHIFT; PERMANENT HEARING LOSS IS IRREVERSIBLE. IT IS NOT POSSIBLE AT THE PRESENT TIME TO IDENTIFY AUDIOMETRICALLY INDIVIDUALS WITH INCREASED SUSCEPTIBILITY OR RESISTANCE TO INJURY FROM NOISE EXPOSURE. PROTECTION BY SOUND ATTENUATING DEVICES, SUCH AS EARPLUGS OR EARMUFFS, HAS PROVED TO BE THE MOST PRACTICAL WAY TO PROTECT AND TO CONSERVE THE HEARING OF MEN REQUIRED TO WORK IN A NOISY ENVIRONMENT. EFFECTIVE HEARING CONSERVATION AND REDUCTION OF NOISE-INDUCED HEARING LOSS ARE COMPROMISED BY LACK OF ADHERENCE TO EXISTING ARMY REGULATIONS AND FREQUENT WAIVING OF EQUIPMENT DESIGN STANDARDS. WORK SHOULD BE DIRECTED TOWARD REDUCTION OF NOISE AT ITS SOURCE; AND, EMPHASIS SHOULD BE PLACED ON INCREASED SUPPORT FOR ARMY HEARING CONSERVATION PROGRAMS. THE REPORT IDENTIFIES RESEARCH OPPORTUNITIES THAT ARE RELATED TO ARMY NEEDS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 737 207 6/19
NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

REDUCTION IN AUDIOGRAM SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING. (U)

DESCRIPTIVE NOTE: MEMORANDUM REPT.,
MAY 71 14P HARRIS,J. DONALD ;LACROIX, PAUL G. ;
REPT. NO. NSMRL-MR-71-4
PROJ: MF12.524
TASK: MF12.524.004
MONITOR: NAVMED MF12.524.004-9010D-12

UNCLASSIFIED REPORT

DESCRIPTORS: (*DEAFNESS, SONAR PERSONNEL), (*AUDIOMETRY, SONAR PERSONNEL), SUBMARINE PERSONNEL, ECHO RANGING, NOISE, HEARING, EAR, PROTECTION (U)

AUDIOGRAMS COLLECTED UNDERWAY ON SONAR TECHNICIANS ON USS GATO (SSN 615) DURING EXPOSURE TO ECHO-RANGING 19 - 31 JANUARY 1971 SHOWED THAT SPLS IN THE SONAR HEADSETS MAY BE HAZARDOUS TO HEARING. TWO OF THREE HEADSETS WERE MODIFIED BY NUSC/NLON SO AS TO LIMIT THE PEAK SPLS DELIVERED TO THE EAR. ON A CRUISE 21 - 31 MARCH 1971, DURING WHICH LIGHT TO MODERATELY HEAVY ECHO-RANGING WAS ENCOUNTERED, 6 MEN USING AN UNMODIFIED HEADSET, WERE EXPOSED TO SPLS UP TO 118 DB. IN HALF THE 12 EARS A TEMPORARY HEARING LOSS WAS FOUND WHICH EXCEEDED A WIDELY-DISSEMINATED DAMAGE-RISK CRITERION. HOWEVER, OF 6 MEN WHO USED MODIFIED HEADSETS, NO AVERAGE LOSS WHATEVER WAS FOUND, AND ONLY 1 EAR SLIGHTLY EXCEEDED THE CRITERION. WHETHER THE MODIFICATION INTRODUCED ON THIS OCCASION WAS AN OPTIMAL COMPROMISE BETWEEN PROTECTING THE EARS VS OBTAINING ALL POSSIBLE INFORMATION FROM THE SEA, IS STILL AN OPEN QUESTION. FURTHER STUDIES ARE IN PROGRESS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 737 643 6/5 6/16
NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER BETHESDA MD

THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST, (U)

FEB 72 30P GESSWEIN,JOSEPH ;CORRAO,PAUL ;

REPT. NO. NSRDC-3789
PROJ: SF35.451.101
TASK: 01817

UNCLASSIFIED REPORT

DESCRIPTORS: (•HEARING, •NUCLEAR EXPLOSIONS), (•EAR, NUCLEAR EXPLOSIONS), DEAFNESS, BLAST, PATHOLOGY, PRESSURE, WOUNDS AND INJURIES, PROTECTION, HAZARDS (U)
IDENTIFIERS: MIDDLE EAR (U)

THE SCANTY DATA AVAILABLE ON HUMAN EARDRUM RUPTURE FROM BLAST PRESSURE SUGGEST A NORMAL DISTRIBUTION OF RUPTURE ABOUT A MEDIAN OVERPRESSURE OF 15 PSI. MORE ABUNDANT DATA ARE AVAILABLE ON BLAST-INDUCED EARDRUM RUPTURE IN ANIMALS, BUT THEIR VALUE IS LIMITED BECAUSE OF THE LACK OF SCALING LAWS. CONSEQUENTLY, PREDICTIONS FOR HUMAN INJURY STEM FROM CLINICAL EXPERIENCES. AS AN INJURY MODE TO SHIPBOARD PERSONNEL, EARDRUM RUPTURE WILL BE OF SECONDARY IMPORTANCE TO OTHER BLAST-INDUCED INJURIES. IN FACT, RUPTURE ITSELF MAY BE BENEFICIAL TO THE INDIVIDUAL BY PREVENTING DAMAGE TO THE MIDDLE EAR. HOWEVER, HEARING LOSS ASSOCIATED WITH BLAST PRESSURE OR RUPTURE ITSELF WILL COMPROMISE NORMAL VOICE COMMUNICATION. ALTHOUGH EAR PROTECTION IS ADVISABLE, IT SHOULD BE MADE AVAILABLE ONLY IN CONJUNCTION WITH PROTECTION AGAINST OTHER BLAST EFFECTS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 737 684 20/1
RAND CORP SANTA MONICA CALIF

THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM, (U)

NOV 71 20P GEBMAN,JEAN R. ;
REPT. NO. P-4735

UNCLASSIFIED REPORT

DESCRIPTORS: (•NOISE, •ENVIRONMENT), (•TRANSPORTATION, NOISE), PREDICTIONS, URBAN PLANNING, DECISION MAKING, PUBLIC OPINION, REACTION(PSYCHOLOGY) (U)
IDENTIFIERS: NOISE POLLUTION, COMMUNITIES (U)

AN OVERVIEW IS PRESENTED OF THE NOISE IMPACT ASSESSMENT METHODOLOGY BEING DEVELOPED TO ASSIST POLICY MAKERS IN EVALUATING THE POTENTIAL ENVIRONMENTAL IMPACT OF FUTURE TRANSPORTATION ALTERNATIVES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 737 826 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM, (U)

DEC 71 24P HARRIS,C. STANLEY ;VON GIERKE,HENNING E. ;
REPT. NO. AMRL-TR-67-41
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE AEROSPACE MEDICAL ASSOCIATION MEETING HELD AT WASHINGTON, D. C., ON APR 67.

DESCRIPTORS: (*NOISE, *EQUILIBRIUM(PHYSIOLOGY)), (*VESTIBULAR APPARATUS, NOISE), STRESS(PHYSIOLOGY), PERFORMANCE(HUMAN), INTENSITY, EXPOSURE(PHYSIOLOGY) (U)

FIVE EXPERIMENTS WERE CONDUCTED ON THE EFFECTS OF BROADBAND, HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM. THE ABILITY OF SUBJECT TO BALANCE ON NARROW RAILS WAS MEASURED DURING EXPOSURE TO THE NOISE; AND IMMEDIATELY AFTER TERMINATION OF THE NOISE. FOUR DIFFERENT NOISE CONDITIONS WERE USED IN EACH EXPERIMENT: CONTROL, 120, 130, AND 140 DB (RE. 0.0002 DYNE/SQ CM). IN THE FIRST EXPERIMENT SUBJECTS WORE EARMUFFS AND EARPLUGS; IN THE SECOND, ONLY EARPLUGS WERE WORN; AND IN THE THIRD EXPERIMENT, SUBJECTS WORE EARPLUGS AND ONE EARMUFF TO PRODUCE AN ASYMMETRICAL EXPOSURE. AT AN AMBIENT LEVEL OF 140 DB, A DETRIMENTAL EFFECT WAS OBTAINED IN ALL THREE EXPERIMENTS. AT LOWER INTENSITIES OF NOISE, THERE WERE PERFORMANCE DECREMENTS ONLY FOR THE ASYMMETRICAL EXPOSURE. IN THE REMAINING TWO EXPERIMENTS, CONDUCTED AFTER TERMINATION OF THE NOISE, DETRIMENTAL EFFECTS WERE OBTAINED FOR ASYMMETRICAL AUDITORY EXPOSURE BUT NOT FOR EQUAL AUDITORY EXPOSURE. THE RESULTS OF THESE EXPERIMENTS ARE INTERPRETED AS A POSSIBLE QUANTITATIVE DEMONSTRATION OF THE DIRECT EFFECT OF HIGH INTENSITY NOISE ON THE VESTIBULAR SYSTEM. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 737 827 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

PHYSIOLOGICAL AND PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
NOV 71 43P VON GIERKE,HENNING E. ;
REPT. NO. AMRL-TR-70-67
PROJ: AF-7231

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE AGARD GUIDANCE AND CONTROL PANEL MEETING ON LOW-ALTITUDE FLIGHT CONTROL PROBLEMS HELD IN BRUSSELS (BELGIUM) ON 1-3 SEP 70.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), *LOW ALTITUDE), (*FLIGHT SPEEDS, STRESS(PHYSIOLOGY)), STRESS(PSYCHOLOGY), PERFORMANCE(HUMAN), VIBRATION, NOISE, PILOTS, FATIGUE(PHYSIOLOGY), MAN MACHINE SYSTEMS, VISION, MOTOR REACTIONS (U)
IDENTIFIERS: *FLIGHT, *HIGH VELOCITY, *LOW ALTITUDE (U)

OPERATIONAL EXPERIENCE AS WELL AS FLIGHT AND SIMULATOR EXPERIMENTS INDICATE THAT LOW ALTITUDE HIGH SPEED FLYING CONSTITUTES A NONSPECIFIC STRESS RESULTING IN ADVERSE PHYSIOLOGICAL RESPONSES, CUMULATIVE FATIGUE AND POTENTIALLY DETRIMENTAL EFFECTS ON SELECTED PERFORMANCE CAPABILITIES. PSYCHOLOGICAL MISSION STRESS AND PILOT WORKLOAD ARE HARD TO SEPARATE FROM THE COMBINATION OF PHYSICAL STRESSORS, SUCH AS BUFFETING, NOISE, AND HEAT. RECENT STUDIES ON THE COMBINED EFFECTS OF NOISE AND VIBRATION ON VISUAL AND PSYCHOMOTOR PERFORMANCE WILL BE REVIEWED. AS GUIDANCE FOR THE EVALUATION OF OPERATIONAL SITUATIONS THE PROPOSED INTERNATIONAL STANDARD FOR THE EVALUATION OF VIBRATION ENVIRONMENTS WITH RESPECT TO HEALTH, PILOT PERFORMANCE, FATIGUE, AND COMFORT IS REVIEWED. RESEARCH GOALS OF ONGOING PROGRAMS IN SEVERAL COUNTRIES ARE DIRECTED TOWARD REDUCING ENVIRONMENTAL STRESSES AND TOWARD REFINING GUIDELINES WITH RESPECT TO HUMAN PSYCHO-PHYSIOLOGICAL RESPONSES TO THESE STRESSORS. PROMISING NEW APPROACHES APPEAR TO REST IN THE APPLICATION OF MODERN CONTROL THEORY TO DESCRIBE MAN-MACHINE EFFECTIVENESS UNDER ENVIRONMENTAL STRESS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 738 135 5/5
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

IMPROVED WEAPON NOISE EXPOSURE CRITERIA. (U)

DESCRIPTIVE NOTE: TECHNICAL NOTE,
FEB 72 19P HODGE,DAVID C. ;
REPT. NO. HEL-TN-1-72

UNCLASSIFIED REPORT

DESCRIPTORS: (•NOISE, MILITARY OPERATIONS), (•HUMAN FACTORS ENGINEERING, NOISE), WEAPONS, HEARING, DEAFNESS, EXPOSURE(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), MILITARY PERSONNEL (U)

THE STATE OF THE ART IN NOISE-EXPOSURE CRITERIA IS REVIEWED AND IT IS SUGGESTED THAT SUCH CRITERIA ARE IN NEED OF REVISION AND EXTENSION TO MEET FUTURE OPERATIONAL REQUIREMENTS OF THE ARMY. FURTHER, EXISTING NOISE CRITERIA, EXPRESSED IN TERMS OF 'DECIBELS OF HEARING LOSS,' SHOULD BE RE-STATED IN TERMS OF PREDICTIONS ABOUT THE PERFORMANCE OF MILITARY PERSONNEL AFTER THEY HAVE BEEN EXPOSED TO NOISE. SUCH RE-STATEMENT IN PERFORMANCE TERMS WILL SIGNIFICANTLY IMPROVE COMMUNICATION ABOUT THE RISK OF NOISE EXPOSURE TO PEOPLE WHO ARE IN A POSITION TO UTILIZE SUCH INFORMATION BUT WHO GENERALLY DO NOT COMPREHEND THE NOTATION OF DECIBELS OF HEARING LOSS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 739 288 6/5 6/16
OHIO STATE UNIV COLUMBUS DEPT OF OTOLARYNGOLOGY

ACOUSTIC DAMAGE OF THE COCHLEA, (U)

APR 71 13P LIM,DAVID J. ;MELNICK, WILLIAM ;

CONTRACT: F33615-69-C-1360
PROJ: AF-7231
TASK: 723102
MONITOR: AMRL TR-71-46

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN THE ARCHIVES OF OTOLARYNGOLOGY, V94 P294-305 OCT 71.

DESCRIPTORS: (*OTORHINOLARYNGOLOGY, ACOUSTICS), (*EAR, NOISE), PATHOLOGY, SENSE ORGANS, HEARING, DAMAGE, SENSES(PHYSIOLOGY) (U)
IDENTIFIERS: *COCHLEA (U)

THIRTY GUINEA PIGS, 15 EXPERIMENTAL AND 15 CONTROL, EXPOSED TO TWO DIFFERENT NOISES WITH OCTAVE BANDWIDTHS OF 300 TO 600 HERTZ AND 1,000 TO 2,000 HZ AT 117 DB SPL. EXPOSURE TIME VARIED FROM FOUR TO 24 HOURS. PROGRESSION IN THE EXTENT OF CHANGES IN THE SENSORY CELLS AS A RESULT OF NOISE EXPOSURE INVOLVED: (1) AN INCREASE IN FORMATION OF BLEBS ON THE SURFACE OF THE SENSORY HAIRS; (2) VESICULATION PROCEEDING TO VACUOLIZATION OF THE SMOOTH ENDOPLASMIC RETICULUM (ER) SYSTEM; (3) HEAVY ACCUMULATION OF LYSOSOMAL GRANULES IN THE SUBCUTICULAR REGION; (4) CUTICULAR PLATES OF THE SENSORY CELLS DEFORMED; AND (5) EVENTUAL CELL RUPTURE AND LYSIS. THE SPACE OCCUPIED BY THE DESTROYED SENSORY CELL WAS IMMEDIATELY SEALED OFF BY THE DEITER CELL PROCESSES. THE NERVE ENDINGS IMPINGING ON THE HAIR CELL BODIES DID NOT SHOW AND GREAT CHANGES EXCEPT FOR OCCASIONAL MYELIN DEGENERATION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 739 368 6/19 5/10
MEMPHIS STATE UNIV TENN DEPT OF PSYCHOLOGY

CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT. MAY 71-MAR 72, APR 72 13P FLETCHER,JOHN L. ;
REPT. NO. HRL/1
CONTRACT: N00014-71-C-0354
PROJ: NR-197-002

UNCLASSIFIED REPORT

DESCRIPTORS: (*HEARING, AIRCRAFT NOISE), (*AIRCRAFT NOISE, FLIGHT CREWS), NOISE, EXPOSURE(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), AUDIOMETRY, HAZARDS, PILOTS, JET AIRCRAFT (U)

CONVENTIONAL AND HIGH FREQUENCY AUDIOGRAMS FOR US NAVY PROP, JET, AND ROTARY WING PILOTS WERE OBTAINED AND PLOTTED AS A FUNCTION OF AMOUNT OF FLIGHT TIME LOGGED. LACK OF SUFFICIENT AUDIOGRAMS OF PROP AND ROTARY PILOTS RESTRICTS DISCUSSION OF THE RELATIVE HAZARD TO HEARING OF PROP, ROTARY, AND JET FLIGHT. HOWEVER, FOR JET AIRCREWMEN, LOSSES APPEAR TO BEGIN AT THE HIGHER FREQUENCIES I.E., ABOVE 6 KHZ, AND ERODE WITH CUMULATIVE FLIGHT TIME DOWN TO THE LOWER FREQUENCIES. PERCENT OF PERSONS DETECTING THE HIGH FREQUENCY SIGNALS IS A MORE PRECISE INDEX OF THE PROGRESSION OF HEARING LOSS THAN IS MEAN HEARING LEVEL, PRIMARILY BECAUSE OF AN ARTIFACT IN SCORING AUDIOGRAMS. DATA COLLECTION OF AIRCREW CANDIDATES PRE-TRAINING, DURING TRAINING, AND POST-PRIMARY HEARING ARE CONCURRENTLY BEING COLLECTED BY US NAVY AEROSPACE MEDICAL RESEARCH INSTITUTE (NAMI) PERSONNEL AT PENSACOLA NAS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 739 432 5/10 5/5
ARMY MATERIEL COMMAND TEXARKANA TEX INTERN TRAINING CENTER

THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE. (U)

DESCRIPTIVE NOTE: RESEARCH REPT.,
MAY 71 35P LEWIS,ROBERT P. ;

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: MASTER'S THESIS.

DESCRIPTORS: (*PERFORMANCE(HUMAN), *NOISE), (*TEMPERATURE, PERFORMANCE(HUMAN)), MAINTAINABILITY, HUMAN FACTORS ENGINEERING, INTERACTIONS, THESES (U)

THE EFFECTS OF TWO ENVIRONMENTAL FACTORS, NOISE AND TEMPERATURE, UPON HUMAN PERFORMANCE OF A SIMPLE, WELL-LEARNED MANUAL DEXTERITY TASK WERE EXAMINED. THE EXPERIMENTAL DESIGN WAS A 2X2 FACTORIAL, USING TWELVE SUBJECTS. THE DATA OBTAINED FROM SCORES ON A PURDUE PEGBOARD TASK WERE ANALYZED IN A RANDOMIZED BLOCK, BY MEANS OF AN ANALYSIS OF VARIANCE. RESULTS INDICATED THAT TEMPERATURE HAD A SIGNIFICANT EFFECT ON PERFORMANCE, WHILE NOISE AND THE TEMPERATURE X NOISE INTERACTION DID NOT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 739 474 5/10 5/5
ARMY MATERIEL COMMAND TEXARKANA TEX INTERN TRAINING CENTER

A STUDY OF THE EFFECTS OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE. (U)

DESCRIPTIVE NOTE: RESEARCH REPT.,
71 32P GARDINIER,CAROL A. ;

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE; MASTER'S THESIS.

DESCRIPTORS: (*MOTOR REACTIONS, PSYCHOPHYSICS), (*ILLUMINATION, MOTOR REACTIONS), (*NOISE, PERFORMANCE(HUMAN)), MAINTENANCE PERSONNEL, TEST CONSTRUCTION(PSYCHOLOGY), PERSONNEL MANAGEMENT, COST EFFECTIVENESS, HUMAN FACTORS ENGINEERING, THESES (U)
IDENTIFIERS: TASK PERFORMANCE (U)

THE PAPER INVESTIGATES THE EFFECTS OF TWO ENVIRONMENTAL PARAMETERS, ILLUMINATION AND NOISE, ON HUMAN PERFORMANCE. WHILE MANY SINGLE-FACTOR STUDIES HAVE BEEN MADE ON BOTH ILLUMINATION AND NOISE, RELATIVELY LITTLE RESEARCH HAS BEEN DONE TO DETERMINE MULTI-FACTOR ENVIRONMENTAL EFFECTS ON PERFORMANCE. STUDIES OF THE COMBINED EFFECTS OF VARIOUS ENVIRONMENTAL FACTORS WOULD BE USEFUL TO BOTH GOVERNMENT AND INDUSTRY IN THE MAINTENANCE AREA, SUCH AS FOR OBTAINING ACCURATE ESTIMATES FOR MAINTENANCE TASK TIMES AND REPAIR TIMES. IN AN ORGANIZATION AS LARGE AS THE ARMY, FOR EXAMPLE, THIS COULD RESULT IN A SIGNIFICANT COST REDUCTION. IN THIS STUDY, SUBJECTS PERFORMED A MANUAL TASK UNDER FOUR CONDITIONS OF ILLUMINATION AND NOISE. THE RESULTS ARE REPORTED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 739 501 6/2
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

SYMPOSIUM ON BIODYNAMIC MODELS AND THEIR APPLICATIONS, 26-28 OCTOBER 1970. (U)

DEC 71 962P
REPT. NO. AMRL-TR-71-29

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PROCEEDINGS OF THE SYMPOSIUM ON BIODYNAMIC MODELS AND THEIR APPLICATIONS HELD IN DAYTON, OHIO, 26-28 OCT 70.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), *ANATOMICAL MODELS), SYMPOSIA, MODELS(SIMULATIONS), RESPONSE(BIOLOGY), MECHANICAL PROPERTIES, STRESSES, TISSUES(BIOLOGY), BONES, TENSILE PROPERTIES, TOLERANCES(PHYSIOLOGY), BLAST, IMPACT, CRASH INJURIES, SHOCK(MECHANICS), VIBRATION, PERFORMANCE(HUMAN) (U)
IDENTIFIERS: *BIOMECHANICS, *BIODYNAMICS (U)

THE SYMPOSIUM ON BIODYNAMICS MODELS AND THEIR APPLICATIONS TOOK PLACE IN DAYTON, OHIO, ON 26-28 OCTOBER 1970 UNDER THE SPONSORSHIP OF THE NATIONAL ACADEMY OF SCIENCES - NATIONAL RESEARCH COUNCIL, COMMITTEE ON HEARING, BIOACOUSTICS, AND BIOMECHANICS; THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION; AND THE AEROSPACE MEDICAL RESEARCH LABORATORY, AEROSPACE MEDICAL DIVISION, UNITED STATES AIR FORCE. MOST TECHNICAL AREAS DISCUSSED INCLUDED APPLICATION OF BIODYNAMIC MODELS FOR THE ESTABLISHMENT OF ENVIRONMENTAL EXPOSURE LIMITS, MODELS FOR INTERPRETATION OF ANIMAL, DUMMY, AND OPERATIONAL EXPERIMENTS, MECHANICAL CHARACTERIZATION OF LIVING TISSUE AND ISOLATED ORGANS, MODELS TO DESCRIBE MAN'S RESPONSE TO IMPACT, BLAST, AND ACOUSTIC ENERGY, AND PERFORMANCE IN BIODYNAMIC ENVIRONMENTS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 739 931 6/16
WALTER REED GENERAL HOSPITAL WASHINGTON D C

THE EXTENT OF HEARING LOSS IN THE ARMY:
A SURVEY REPORT. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
DEC 71 55P WALDEN,BRIAN E. ;
WORTHINGTON,DON W. ;MCCURDY,HARRY W. ;
PROJ: DA-71-P-08

UNCLASSIFIED REPORT

DESCRIPTORS: (•DEAFNESS, ARMY PERSONNEL), HEARING,
NOISE, HAZARDS, PROTECTION, MILITARY MEDICINE (U)

THE PURPOSE OF THE STUDY WAS TO SURVEY THE INCIDENCE OF NOISE-INDUCED HEARING LOSS AMONG UNITED STATES ARMY TROOPS. ACCURATE HEARING THRESHOLD DATA WERE OBTAINED FROM A HETEROGENOUS SAMPLE OF 2726 MEN REPRESENTING DIFFERENT BRANCHES AND LENGTHS OF TIME OF ACTIVE DUTY. THE STUDY PROVIDES EVIDENCE SUGGESTING THAT NOISE-INDUCED HEARING LOSS IS THE NUMBER ONE HAZARD TO THE HEALTH OF ARMY PERSONNEL. THE REPORT SUMMARIZES THE MAGNITUDE OF THE PROBLEM AMONG CAREER ARMY PERSONNEL WITH OVER 10 YEARS ON ACTIVE DUTY.
(AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 740 227 6/19 20/1
CENTRAL INST FOR THE DEAF ST LOUIS MO

ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
FEB 72 27P BENITEZ,LUIS D. ;ELDREDGE,
DONALD H. ;TEMPLER,JERRY W. ;
CONTRACT: NONR-4327(00)
PROJ: NR-140-170

UNCLASSIFIED REPORT

DESCRIPTORS: (•STRESS(PHYSIOLOGY), NOISE), (•LABORATORY ANIMALS, THRESHOLDS(PHYSIOLOGY)), BEHAVIOR, AUDITORY PERCEPTION, EAR, RODENTS, ELECTROPHYSIOLOGY, FREQUENCY, INTENSITY, RECOVERY (U)
IDENTIFIERS: AUDITORY THRESHOLDS, •CHINCHILLAS, TEMPORARY THRESHOLD SHIFTS (U)

A PREVIOUS TEST EXPOSED CHINCHILLAS FOR SEVEN DAYS TO AN OCTAVE BAND OF NOISE CENTERED AT 500 HZ AND AT 95 DB SPL TO PRODUCE TEMPORARY SHIFTS OF BEHAVIORAL AUDITORY THRESHOLDS WHICH REQUIRED 4-7 DAYS TO RECOVER TO NORMAL. IN THE PRESENT STUDY PHYSIOLOGICAL POTENTIALS WERE MEASURED ABOUT 5, 24, AND 48 HOURS AFTER EXPOSURES TO THE SAME NOISE FOR 2 OR 3 DAYS. COCHLEAR MICROPHONOIC RESPONSES AND DC ENDOCOCHLEAR POTENTIALS WERE MEASURED IN EACH OF THE THREE COCHLEAR TURNS. INPUT-OUTPUT FUNCTIONS FOR WHOLE-NERVE ACTION POTENTIAL RESPONSES TO CLICKS AND VISUAL DETECTION LEVELS FOR EARLY AVERAGED EVOKED RESPONSES ARISING IN THE BRAIN STEM WERE ALSO MEASURED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 740 438 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT, (U)

DEC 71 45P FLETCHER,E. R. ;
REPT. NO. AMRL-TR-71-29-PAPER-1
PROJ: AF-7231

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE SYMPOSIUM ON BIODYNAMICS MODELS AND THEIR APPLICATIONS HELD AT DAYTON, OHIO, ON 26-28 OCT 70. SPONSORED IN PART BY DEFENSE ATOMIC SUPPORT AGENCY. PAPER ALSO INCLUDED IN AD-739 501, PC $11.00, MF $0.95.

DESCRIPTORS: (*THORAX, *BLAST), (*IMPACT SHOCK, THORAX), (*MUSCULOSKELETAL SYSTEM, BLAST), MODELS(SIMULATIONS), MECHANICAL PROPERTIES, FLUID DYNAMICS, STRESS(PHYSIOLOGY), PRESSURE, BIOPHYSICS, WOUNDS AND INJURIES, PREDICTIONS (U)
IDENTIFIERS: *ORTHROPEDICS, *BIODYNAMICS, *BIOMECHANICS (U)

A FLUID-MECHANICAL MODEL OF THE THORAX IS DESCRIBED WHICH HAS BEEN USEFUL IN EXPLAINING BIOPHYSICAL MECHANISMS AND SCALING PROCEDURES APPLICABLE IN ASSESSING RESPONSES OF THE THORAX ENERGIZED BY AIR-BLAST OVERPRESSURES OR BY NONPENETRATING MISSILES. METHODS OF PARAMETER ESTIMATION ARE DISCUSSED. COMPARISONS ARE MADE BETWEEN MEASURED AND COMPUTED INTRATHORACIC PRESSURES AND CHEST-WALL MOTIONS. THE TESTED MAMMALIAN SPECIES ARE SHOWN TO DIVIDE INTO TWO APPROXIMATELY SIMILAR GROUPS AND THE IMPLICATIONS OF THIS ARE DISCUSSED. SUGGESTIONS ARE MADE CONCERNING POSSIBLE FUTURE AREAS OF RESEARCH. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 740 445 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY, (U)

DEC 71 25P KALEPS,INTS ;VON GIERKE, HENNING E. ;WEIS,E. B, ;
REPT. NO. AMRL-TR-71-29-PAPER-8
PROJ: AF-7231

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE SYMPOSIUM ON BIODYNAMICS MODELS AND THEIR APPLICATIONS HELD AT DAYTON, OHIO, ON 26-28 OCT 70. PAPER ALSO INCLUDED IN AD-739 501, PC $11.00, MF $0.95.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), MODELS(SIMULATIONS)), HUMAN BODY, HUMANS, RESPONSE(BIOLOGY), THORAX, SPINAL COLUMN, BLAST, ACOUSTICS, STATICS, MATHEMATICAL MODELS (U)
IDENTIFIERS: *BIODYNAMICS (U)

A LINEAR, FIVE-DEGREE-OF-FREEDOM, LUMPED PARAMETER MODEL IS PROPOSED TO SIMULATE THORACIC, ABDOMINAL AND SPINAL RESPONSE TO VARIOUS DYNAMIC ENVIRONMENTS. FIVE CHARACTERISTIC BODY SEGMENT MASSES ARE CHOSEN, CORRESPONDING TO THE PELVIS, ABDOMEN, TORSO, CHEST WALL AND RESPIRATORY GAS. THE EFFECTS OF BLAST, ACOUSTIC FIELDS, STEADY-STATE PRESSURE VARIATIONS AND MECHANICAL FORCES CAN BE SIMULATED WITH THE MODEL TO PROVIDE INSIGHT INTO ACTUAL BODY RESPONSE. RELATIONS ARE GIVEN FOR SCALING FROM OR TO GEOMETRICALLY SIMILAR ANIMALS AS A FUNCTION OF MASS. THE MODEL FORMULATION ALSO PROVIDES A BASIS FOR A SYSTEMATIC SET OF BIODYNAMIC EXPERIMENTS FOR MAN OR SIMILAR PRIMATE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 740 697 5/10 20/1
TRACOR INC AUSTIN TEX

ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM. (U)

DESCRIPTIVE NOTE: FINAL REPT.
72 47P
CONTRACT: DOT-FA70WA-2254
PROJ: FAA-253-011
MONITOR: FAA-NO 70-17

UNCLASSIFIED REPORT

DESCRIPTORS: (*SONIC BOOM, *ATTITUDES(PSYCHOLOGY)), (*PUBLIC OPINION, *SONIC BOOM), JET PLANE NOISE, AIRPORTS, URBAN AREAS, NOISE, VEHICLES, TRANSPORTATIO(U)
IDENTIFIERS: *NOISE EXPOSURE, *NOISE POLLUTION, COMMUNITIES (U)

PREVIOUS STUDIES OF PUBLIC RESPONSE TO THE SONIC BOOM HAVE NOT CONSIDERED REACTIONS TO THE BOOM WITHIN THE CONTEXT OF THE CITY OR NEIGHBORHOOD ENVIRONMENT. DATA CONCERNING COMMUNITY REACTION TO AIRPORT NOISE IN ORDER TO STUDY THE EFFECT OF ENVIRONMENT CONDITIONS, BOTH PHYSICAL AND SOCIAL, ON RESPONSE TO THE BOOM. ATTITUDINAL RESPONSE IS AFFECTED BY THE RESPONDENT'S ENVIRONMENT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 742 819 6/19 18/3
LOVELACE FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
ALBUQUERQUE N MEX

THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS. (U)

DESCRIPTIVE NOTE: TECHNICAL PROGRESS REPT.,
MAR 71 41P BOGO,V. ;HUTTON,R. A. ;
BRUNER,A. ;
CONTRACT: DA-49-146-XZ-372
PROJ: DASA-NWER-XAXM
TASK: AO12
MONITOR: DASA 2659

UNCLASSIFIED REPORT

DESCRIPTORS: (*SHOCK WAVES, PERFORMANCE(HUMAN)), (*NUCLEAR EXPLOSIONS, BLAST), BEHAVIOR, AUDITORY PERCEPTION, VISUAL PERCEPTION, STRESS(PHYSIOLOGY), SHOCK WAVES, NOISE, EXPERIMENTAL DATA, MONKEYS (U)

EIGHTEEN MONKEYS, TRAINED TO PERFORM AUDITORY AND VISUAL DISCRIMINATION AVOIDANCE TASKS, WERE EXPOSED TO REFLECTED SHOCK-TUBE AIRBLAST OF 30-, 40-, OR 50-P.S.I. RESULTS INDICATED THAT: (1) IMMEDIATE BUT TRANSIENT PERFORMANCE DECREMENT OCCURRED; (2) LATENCY WAS MORE AFFECTED THAN ACCURACY, PARTICULARLY FOR THE 50-P.S.I. GROUP; (3) PERFORMANCE DECREMENT WAS MILD AND RECOVERY TIME BRIEF (USUALLY UNDER 4 HOURS) DESPITE FRANK PHYSICAL INJURIES; AND (4) AUDITORY DICSRIMINATION UNDERWENT MORE DECREMENT THAN VISUAL, WITH EARDRUM INJURY OCCURRING FREQUENTLY. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 743 095 20/1 1/5
IIT RESEARCH INST CHICAGO ILL

STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES. (U)

DESCRIPTIVE NOTE: FINAL REPT. ON PHASE I, 18 MAY-18 NOV 71,
DEC 71 56P SEMMELINK,A. ;CLINCH,J. M.
;
CONTRACT: DOT-FA71W-2587
MONITOR: FAA-RD 72-47

UNCLASSIFIED REPORT

DESCRIPTORS: (*TERMINAL FLIGHT FACILITIES, *AIRCRAFT NOISE), PSYCHOACOUSTICS, CONTROL, AIR TRAFFIC CONTROLLERS, PSYCHOLOGY, PERFORMANCE(HUMAN), STANDARDS (U)
IDENTIFIERS: *NOISE POLLUTION, *NOISE REDUCTION (U)

THE REPORT DESCRIBES THE DEVELOPMENT OF A NOISE STANDARD FOR PERMISSIBLE NOISE LEVELS IN FAA AIR TRAFFIC CONTROL AND NAVIGATIONAL FACILITIES. THE CONTENTS OF THE REPORT INCLUDE NOISE DEFINITIONS, THEORY OF SOUND, SOUND MEASURING INSTRUMENTATION, NOISE SURVEYS, REFERENCE PUBLICATIONS, AND NOISE CRITERIA. CRITERIA ARE GIVEN FOR NOISE ENVIRONMENTS WHICH PERMIT SAFE AND SATISFACTORY PERFORMANCE OF TASKS IN THE FOLLOWING FACILITIES: TRAFFIC CONTROL CENTERS, INCLUDING IMPORTANT COMMUNICATION AREAS; AIR TRAFFIC CONTROL TOWER CABS; FLIGHT SERVICE STATIONS AND REMOTE FACILITIES. CRITERIA FOR EACH OF THESE FACILITIES ARE DESCRIBED AND JUSTIFICATIONS FOR THE SELECTION OF NOISE CRITERIA ARE GIVEN. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 743 298 6/19
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

DEVELOPMENT OF REALISTIC A-WEIGHTED AUDITORY RISK CRITERIA FOR AEROSPACE OPERATIONS. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. NOV 70-AUG 71, DEC 71 22P GASAWAY,DONALD C. ; SUTHERLAND,HARRELL C. , JR;
REPT. NO. SAM-TR-71-47
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: (*HEARING, HAZARDS), EXPOSURE(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), NOISE, IMPACT, AEROSPACE MEDICINE (U)

THE AUTHORS HAVE PREVIOUSLY PROPOSED ADOPTION OF THE CHABA WORKING GROUP 46 CRITERION FOR STEADY-STATE NOISES TO ASSESS DEGREES OF AUDITORY RISK ASSOCIATED WITH AEROSPACE OPERATIONS. IN THIS REPORT, THE SALIENT FEATURES OF VARIOUS DAMAGE RISK CRITERIA ARE REVIEWED AND PRIMARY AND SECONDARY COMPROMISES ARE DISCUSSED. A SIMPLE CRITERION USING A-WEIGHTED SOUND LEVELS IS PROPOSED FOR BROAD-BAND AND NARROW-BAND STEADY-STATE AND INTERMITTENT NOISE AND FOR IMPACT NOISES. THE CRITERIA CONTAINED IN THIS REPORT PROVIDE GUIDANCE NEEDED TO IDENTIFY POTENTIALLY HAZARDOUS EXPOSURES ENCOUNTERED IN AEROSPACE OPERATIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 745 105 6/5 20/1
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

COCHLEAR PATHOLOGY IN MONKEYS EXPOSED TO IMPULSE NOISE. (U)

DESCRIPTIVE NOTE: PROGRESS REPT.,
MAR 72 31P
REPT. NO. USAMRL-968
PROJ: DA-3-A-061102-B-71-R
TASK: 3-A-061102-B-71-R-03

UNCLASSIFIED REPORT

DESCRIPTORS: (*EAR, *NOISE), AUDITORY NERVE, PATHOLOGY, NERVE FIBERS, DEAFNESS (U)
IDENTIFIERS: *NOISE POLLUTION, *COCHLEA, ELECTROMAGNETIC NOISE (U)

THE COCHLEAE OF TEN RHESUS MACAQUE MONKEYS EXPOSED TO IMPULSE NOISE WERE EXAMINED USING THE SURFACE PREPARATION TECHNIQUE. THERE WAS GREAT VARIABILITY IN THE SEVERITY AND EXTENT OF DAMAGE OBSERVED. ALL INNER EARS SUFFERED DESTRUCTION OF CORTI ORGAN AND MYELINATED NERVE FIBERS ALONG THE INITIAL SEGMENT OF THE BASILAR MEMBRANE. FURTHER DAMAGE, LIMITED MAINLY TO OUTER HAIR CELLS, PEAKED AT 8 TO 10 MM. GENERALLY THE THIRD OR OUTERMOST ROW OF OUTER HAIR CELLS LOST THE HIGHEST PERCENTAGE OF CELLS. TRANSITIONS BETWEEN NORMAL AND DAMAGED AREAS WERE ABRUPT. HENSEN'S CELLS WERE SPLIT AWAY FROM DEITERS' CELLS IN THE LOWER BASAL TURN IN HALF THE ANIMALS. INNER HAIR CELLS, MYELINATED NERVE FIBERS, AND RETICULAR LAMINA WERE RESISTANT TO DESTRUCTION EXCEPT IN THE HOOK AREA. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 746 083 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS, (U)

72 6P GRETHER,W. F. ;HARRIS,C. S. ;OHLBAUM,M. ;SAMPSON,P. A. ;GUIGNARD,J. C. ;

REPT. NO. AMRL-TR-71-131
PROJ: AF-7222

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN AEROSPACE MEDICINE, V43 N6 P641-645 JUN 72.

DESCRIPTORS: (*HEAT TOLERANCE, STRESS(PHYSIOLOGY)), (*NOISE, STRESS(PHYSIOLOGY)), (*VIBRATION, STRESS(PHYSIOLOGY)), PHYSIOLOGY, PERFORMANCE(HUMAN), BODY TEMPERATURE, HEART, BODY WEIGHT, BIOCHEMISTRY (U)
IDENTIFIERS: SYNERGISM (U)

IN AN EARLIER STUDY A COMBINATION OF HEAT, NOISE AND VIBRATION STRESS HAD NO GREATER, AND FOR SOME MEASURES SLIGHT LESS, EFFECT ON PHYSIOLOGICAL AND PERFORMANCE FUNCTIONS THAN DID THE SAME LEVELS OF HEAT OR VIBRATION ALONE. AS A FOLLOW-UP ON THAT FINDING THIS STUDY USED THE SAME LEVELS OF HEAT (120F), NOISE (105 DB) AND VIBRATION (5 HZ, 0.30 PEAK G), BUT WITH SOME MODIFICATIONS OF THE EARLIER EXPERIMENT. PHYSIOLOGICAL MEASURES INCLUDED SKIN AND RECTAL TEMPERATURE, HEART RATE, WEIGHT LOSS AND BIOCHEMICAL URINE ANALYSES. PERFORMANCE MEASURES INCLUDED TWO-DIMENSIONAL COMPENSATORY TRACKING, CHOICE REACTION TIME, A VOICE COMMUNICATION TEST OF LOGICAL ALTERNATIVES, MENTAL ARITHMETIC, VISUAL ACUITY AND SUBJECTIVE RATINGS OF THE STRESS CONDITIONS. THE COMBINATION OF STRESSES PRODUCED NO ADDITIVE STRESS INTERACTIONS. ON TRACKING AND REACTION TIME TESTS THE GREATEST IMPAIRMENT OF PERFORMANCE WAS PRODUCED BY VIBRATION ALONE. SUBJECTIVE RATINGS OF STRESS SEVERITY PROGRESSIVELY INCREASED WITH THE NUMBER OF STRESSES IN THE COMBINATION. SUBJECTIVE RATINGS OF STRESS INTRUSIVENESS, HOWEVER DID NOT SHOW SUCH A TREND. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 747 129 6/19 20/1
ENVIRONMENTAL ACOUSTICS CHATSWORTH CALIF

EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JUN 72 99P PARNELL,J. E. ;NAGEL,D. C. ;COHEN,A. ;
CONTRACT: DOT-FA70-WAI-200, PHS-71-0108
MONITOR: FAA-RD 72-72

UNCLASSIFIED REPORT

DESCRIPTORS: (*AIRCRAFT NOISE, *AIRPORTS), (*HEARING, AIRCRAFT NOISE), THRESHOLDS(PHYSIOLOGY), EXPOSURE(PHYSIOLOGY), URBAN AREAS, ANALYSIS OF VARIANCE, AUDITORY ACUITY (U)
IDENTIFIERS: LOS ANGELES INTERNATIONAL AIRPORT, *NOISE POLLUTION (U)

AUDIOGRAMS AND OTHER DATA RELATED TO EAR CONDITIONS AND NOISE EXPOSURE WERE OBTAINED FROM RESIDENTS DRAWN FROM TWO NEIGHBORHOODS IN THE GREATER LOS ANGELES AREA. ONE COMMUNITY BORDERED LOS ANGELES INTERNATIONAL AIRPORT AND HAD BEEN SUBJECTED OVER THE YEARS TO FREQUENT TAKEOFF NOISE OF HIGH LEVEL. MAXIMUM RMS MEASUREMENTS OF THESE AIRCRAFT SOUNDS OUTDOORS IN THIS NEIGHBORHOOD RANGED FROM 76 TO 101 DBA WITH A MEDIAN OF 88 DBA. THE SECOND COMMUNITY WAS SIMILAR TO THE AIRPORT ONE IN DEMOGRAPHY BUT FREE OF SIGNIFICANT AIRCRAFT NOISE INTRUSION. NOISE LEVELS HERE RARELY EXCEEDED 60 DBA AND COMMONLY WERE 50 DBA OR LESS. BOTH GROUPS DISPLAYED AVERAGE HEARING LEVELS AS GOOD AND AT CERTAIN FREQUENCIES SLIGHTLY BETTER THAN ESTIMATES OBTAINED FROM THE NATIONAL HEALTH SURVEY OF 1960-1962. THE OVERALL FINDINGS DID NOT MAKE IT POSSIBLE TO DRAW FIRM CONCLUSIONS ABOUT COMMUNITY AIRCRAFT NOISE EXPOSURE AS A CAUSE OF THE APPARENT DIFFERENCES IN HEARING LEVELS BETWEEN THE TWO GROUPS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 747 685 20/1 13/6 19/3
ARMY MATERIEL COMMAND TEXARKANA TEX INTERN TRAINING CENTER

AN ANALYSIS OF NOISE CONDITIONS PRESENT IN COMMERCIAL AND MILITARY VEHICLES. (U)

DESCRIPTIVE NOTE: MASTER'S THESIS,
71 64P ELLIOTT,JAMES EDWARD ;

UNCLASSIFIED REPORT

DESCRIPTORS: (*VEHICLES, *NOISE), HUMAN FACTORS ENGINEERING, AUDITORY PERCEPTION, THRESHOLDS(PHYSIOLOGY), ENGINE NOISE, ENGINE MUFFLERS, SAFETY, STATISTICAL DATA, THESES (U)
IDENTIFIERS: *NOISE POLLUTION (U)

A NOISE SURVEY WAS CONDUCTED TO DETERMINE WHETHER HAZARDOUS NOISE CONDITIONS EXIST WITHIN CONSTRUCTION, FARM, OR MILITARY VEHICLES. A CHECK WAS ALSO MADE ON THE BASIC MODES OF PUBLIC TRANSPORTATION: PLANE, RAILROAD, BUS, TAXI, AND PRIVATE AUTOMOBILES. EXTREME NOISE CONDITIONS WERE FOUND IN MUCH OF THE CONSTRUCTION AND FARM EQUIPMENT. THE MILITARY DESIGN VEHICLES ALSO SHOWED SOME SITUATIONS OF EXTREME NOISE. THE PUBLIC TRANSPORTATION MODES WERE GENERALLY FREE FROM ANY EXTREME NOISE CONDITIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 747 797 5/10
TEXAS TECH UNIV LUBBOCK CENTER OF BIOTECHNOLOGY AND HUMAN PERFORMANCE

THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE, (U)

72 24P CHILDS,JERRY M. ;HALCOMB, CHARLES G. ;

CONTRACT: DAAD05-69-C-0102
PROJ: DA-1-T014501-B-81-A, THEMIS-603

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE SOUTHWESTERN PSYCHOLOGICAL ASSOCIATION CONVENTION, OKLAHOMA CITY, OKLAHOMA, APRIL 1972.

DESCRIPTORS: (*PERFORMANCE(HUMAN), STRESS(PSYCHOLOGY)), (*STRESS(PSYCHOLOGY), NOISE), ATTENTION, VISUAL PERCEPTION, PERFORMANCE(HUMAN), VISUAL SIGNALS, STATISTICAL ANALYSIS (U)
IDENTIFIERS: TASK PERFORMANCE, THEMIS PROJECT (U)

VISUAL VIGILANCE (DETECTION) PERFORMANCE OF 140 SS WAS INVESTIGATED WITH RESPECT TO ENVIRONMENTAL STIMULATION (NOISE) AND INTRAORGANISMIC STIMULATION (SIMPLE VS. COMPLEX RESPONSE). CORRECT DETECTIONS AND FALSE ALARMS WERE ANALYZED. RESULTS ARE EVALUATED IN TERMS OF THE ACTIVATION HYPOTHESIS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 748 055 5/10 20/1
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

HUMAN RESPONSE TO SONIC BOOM IN THE LABORATORY AND THE COMMUNITY, (U)

JAN 71 18P GIERKE,H. E. VON ;NIXON,C. W. ;

REPT. NO. AMRL-TR-69-47
PROJ: AF-7231

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN THE JNL. OF THE ACOUSTICAL SOCIETY OF AMERICA, V51 N2 P766-782 1972.
SUPPLEMENTARY NOTE: REVISION OF REPORT DATED 3 NOV 70.

DESCRIPTORS: (•SONIC BOOM, REACTION(PSYCHOLOGY)), PSYCHOACOUSTICS, ATTITUDES(PSYCHOLOGY), SUPERSONIC AIRCRAFT, TRANSPORT AIRCRAFT, INTENSITY (U)
IDENTIFIERS: •NOISE POLLUTION, OVERPRESSURE (U)

PRESENT-DAY ESTIMATES REGARDING THE ACCEPTABILITY OF SONIC BOOMS BY MAN ARE DERIVED FROM VARIOUS OBSERVATIONS, OVERFLIGHT PROGRAMS, AND EXPERIMENTAL FIELD AND LABORATORY STUDIES CONDUCTED BOTH WITHIN AND OUTSIDE THE UNITED STATES. THE LOUDNESS AND ANNOYANCE OF INDIVIDUAL BOOMS AND THEIR DEPENDENCE ON THE BOOM OVERPRESSURE AND PRESSURE-TIME FUNCTION AS WELL AS THE COMPLEX REACTION OF INDIVIDUALS, GROUPS, AND COMMUNITIES EXPOSED TO SONIC BOOMS OF VARIED MAGNITUDE AND FREQUENCY ARE DISCUSSED. THE FEW EXPERIMENTS AVAILABLE PROVING THAT EVEN SONIC BOOMS OF THE MAXIMUM INTENSITY PRESENTLY FEASIBLE DO NOT PRODUCE DIRECT MEDICAL INJURY ARE DESCRIBED. BASED ON THE INTEGRATED BODY OF RESULTS OF RECENT PHYSIOLOGICAL, PSYCHOACOUSTIC, BEHAVIORAL, AND SOCIOLOGICAL STUDIES IN VARIOUS COUNTRIES, ESTIMATES OF THE EFFECTS AND ACCEPTABILITY OF REGULAR, FREQUENT SUPERSONIC COMMERCIAL OVERLAND FLIGHT SCHEDULES ARE PRESENTED AND DISCUSSED IN TERMS OF AIRCRAFT NOISE POLLUTION IN GENERAL, AND OF POTENTIAL CERTIFICATION OF AIRCRAFT WITH RESPECT TO NOISE AND SONIC BOOM. FINDINGS SUPPORT THE CURRENT POLICY THAT COMMERCIAL SUPERSONIC TRANSPORT AIRCRAFT WILL NOT BE PERMITTED TO FLY OVER THE UNITED STATES UNLESS AND UNTIL THE NOISE FACTORS ARE BROUGHT WITHIN ACCEPTABLE LIMITS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 749 887 6/19
BIOTECHNOLOGY INC FALLS CHURCH VA

BIOASTRONAUTICS DATA BOOK. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
SEP 72 927P PARKER,JAMES F. , JR.;
WEST,VITA R. ;
CONTRACT: N00014-67-C-0526
PROJ: NR-309-022

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SUPERSEDES N65-15594.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), SCIENTIFIC RESEARCH), (*SPACE BIOLOGY, DATA), (*AEROSPACE MEDICINE, DATA), BAROMETRIC PRESSURE, TEMPERATURE, ACCELERATION TOLERANCE, IMPACT, VIBRATION, WEIGHTLESSNESS, RADIOBIOLOGY, TOXICITY, PSYCHOPHYSIOLOGY, PERCEPTION, NOISE, HUMAN FACTORS ENGINEERING, LIFE SUPPORT, SPACE ENVIRONMENTS (U)
IDENTIFIERS: ACOUSTICS, HEARING, BIOMECHANICS (U)

;CONTENTS: BAROMETRIC PRESSURE, ATMOSPHERE, TEMPERATURE; SUSTAINED LINEAR ACCELERATION, ROTARY ACCELERATION; IMPACT, VIBRATION, WEIGHTLESSNESS; IONIZING RADIATION, TOXICOLOGY; RESPIRATORY SYSTEM, THE VESTIBULAR SYSTEM, VISION, AUDITORY SYSTEM, NOISE AND BLAST; HUMAN CONTROL CAPABILITIES, ATMOSPHERE CONTROL, WORK, HEAT, AND OXYGEN COST; COMBINED ENVIRONMENTAL STRESSES, AEROSPACE VEHICLE WATER-WASTE MANAGEMENT. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 750 043 5/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

EFFECTS OF INTERMITTENT AND CONTINUOUS NOISE ON SERIAL SEARCH PERFORMANCE, (U)

JUL 72 9P HARRIS,C. STANLEY ;
REPT. NO. AMRL-TR-72-18
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PERCEPTUAL AND MOTOR SKILLS, V35 P627-634 1972.

DESCRIPTORS: (*NOISE, *STRESS(PSYCHOLOGY)), INTENSITY, PERFORMANCE(HUMAN) (U)

TO DETERMINE WHETHER HIGH INTENSITY BROADBAND NOISE HAS AN ADVERSE EFFECT ON HUMAN PERFORMANCE WHEN SPECIAL CONDITIONS RELATED TO TYPE OF TASK, LENGTH OF TESTING, AND INTENSITY OF NOISE EXPOSURE ARE MET, 3 GROUPS OF 20 SS EACH WERE TESTED ON A SERIAL SEARCH TASK. THE FIRST GROUP WAS PRESENTED CONTINUOUS BROADBAND NOISE, THE SECOND RECEIVED INTERMITTENT NOISE, AND THE THIRD SERVED AS A CONTROL GROUP. PERFORMANCE WAS MEASURED FOR 36 MIN. CONTINUOUSLY ON A PRACTICE DAY AND 4 TEST DAYS. BOTH NOISE GROUPS PRODUCED APPROXIMATELY THE SAME RESULTS. BOTH GROUPS FOUND SIGNIFICANTLY FEWER NUMBERS ON THE TASK THAN THE CONTROL GROUP ON THE LAST TWO DAYS OF TESTING. THE EFFECT WAS QUITE ORDERLY; THE SMALLEST DIFFERENCE BETWEEN GROUPS OCCURRED ON THE 1ST TESTING DAY, AND THE LARGEST OCCURRED ON THE LAST DAY OF TESTING. ON THESE DAYS THE EFFECT WAS CONSTANT THROUGHOUT THE 36 MIN. OF TESTING. THE RESULTS SUPPORT THE CONTENTION THAT WHEN CERTAIN CONDITIONS OF TESTING ARE MET, A RELIABLE EFFECT OF NOISE ON PERFORMANCE CAN BE DEMONSTRATED.
(AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 750 649 20/1 15/5
HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

MATERIEL DESIGN STANDARD FOR NOISE LEVELS
OF ARMY MATERIEL COMMAND EQUIPMENT, (U)

SEP 72 29P GARINTHER,GEORGES R. ;HODGE,
DAVID C. ;
REPT. NO. HEL-STANDARD-S-1-63C

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE; SUPERSEDES AD-632 913.

DESCRIPTORS: (*NOISE, *STANDARDS), (*ARMY EQUIPMENT, NOISE), HUMAN FACTORS ENGINEERING, HAZARDS, VEHICLES, AIRCRAFT NOISE, ACOUSTIC IMPEDANCE, SOUND TRANSMISSION, INSTRUMENTATION, ENGINE NOISE, HEARING, MEASUREMENT (U)
IDENTIFIERS: *NOISE, *NOISE POLLUTION, *ACOUSTIC MEASUREMENT, DESIGN STANDARDS (U)

HEL STANDARD S-1-63C IS THE U. S. ARMY MATERIEL COMMAND'S DESIGN STANDARD FOR NOISE. IT ESTABLISHES THE ACOUSTICAL NOISE LEVELS PERMITTED IN AND AROUND ALL EQUIPMENT DESIGNED, DEVELOPED AND PROCURED BY AMC, AND SPECIFIES THE TESTING REQUIREMENTS AND MEASUREMENT TECHNIQUES FOR DETERMINING CONFORMANCE TO THE NOISE LIMITS. ADHERENCE TO THE PROVISIONS OF THIS STANDARD SHOULD ASSURE COMPLIANCE WITH TB MED 251. THE NOISE LEVELS AND TEST PROCEDURES OF THIS STANDARD ARE INTENDED TO COVER TYPICAL OPERATIONAL CONDITIONS AND ARE BASED ON CONSIDERATIONS OF HAZARD TO HEARING, SPEECH INTELLIGIBILITY, AURAL DETECTION AND APPROPRIATE STATE AND FEDERAL NOISE LIMITS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 750 840 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

EFFECTS OF INCREASING INTENSITY LEVELS OF INTERMITTENT AND CONTINUOUS 1000-HZ TONES ON HUMAN EQUILIBRIUM, (U)

JUN 72 10P HARRIS,C. STANLEY ;
REPT. NO. AMRL-TR-72-11
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN THE PERCEPTUAL AND MOTOR SKILLS, V35 P395-405 1972.

DESCRIPTORS: (*EQUILIBRIUM(PHYSIOLOGY), *NOISE), VESTIBULAR APPARATUS, STIMULATION(PHYSIOLOGY), PERCEPTION, VERTIGO, STRESS(PHYSIOLOGY) (U)

HUMAN EQUILIBRIUM WAS MEASURED DURING EXPOSURE TO CONTINUOUS AND INTERMITTENT 1000-HZ TONES PRESENTED BOTH ASYMMETRICALLY (ONE EAR) AND SYMMETRICALLY (BOTH EARS). INTERMITTENCY COMBINED WITH ASYMMETRY PRODUCED GREATER DECREMENTS IN EQUILIBRIUM THAN EITHER VARIABLE ALONE. THE RESULTS ARE INTERPRETED AS A POSSIBLE DEMONSTRATION OF ACOUSTIC STIMULATION OF THE VESTIBULAR SYSTEM. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 752 535 13/2 1/5
ENVIRONMENTAL HEALTH LAB MCCLELLAN AFB CALIF

NOISE ENVIRONMENTS OF CONTROL TOWERS. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JAN 72 20P CAPELL,ROBERT A. ;
REPT. NO. EHL-M-72M-1
PROJ: AF-EHL-NBF-133

UNCLASSIFIED REPORT

DESCRIPTORS: (*AIRPORT CONTROL TOWERS, *NOISE), (*JET FIGHTERS, *AIRCRAFT NOISE), SOUND, AIR FORCE, ATTENUATION (U)
IDENTIFIERS: *NOISE POLLUTION, F-104 AIRCRAFT, F-105 AIRCRAFT, F-111 AIRCRAFT, F-4 AIRCRAFT (U)

NOISE SURVEYS WERE MADE AT THE CONTROL TOWERS OF TWO AIR FORCE BASES. MEASUREMENTS OF THE INDOOR AND OUTDOOR SOUND PRESSURE LEVELS DURING AIRCRAFT TAKE-OFFS AND OTHER OPERATIONS WERE RECORDED. THESE DATA ARE PRESENTED SO THAT AN EVALUATION OF THE COMMUNICATION ENVIRONMENTS CAN BE MADE BY USING CERTAIN OPERATIONAL DATA FROM EACH BASE. AN EVALUATION OF THE NOISE ATTENUATION PROVIDED BY EACH TOWER IS ALSO MADE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 752 881 20/1
ACOUSTICAL SOCIETY OF AMERICA NEW YORK

PROCEEDINGS OF THE SONIC BOOM SYMPOSIUM (2ND) SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA (80TH MEETING) HELD AT HOUSTON, TEXAS ON 3 NOVEMBER 1970, (U)

72 152P RIBNER,HERBERT S. ;HUBBARD, HARVEY H. ;

UNCLASSIFIED REPORT
AVAILABILITY: AVAILABLE FROM BACK-NUMBERS DEPT., AMERICAN INSTITUTE OF PHYSICS, 335 EAST 45 ST., NEW YORK, N. Y. 10017. PC$5.00.
SUPPLEMENTARY NOTE: SPONSORED IN PART BY FEDERAL AVIATION ADMINISTRATION. LIBRARY OF CONGRESS CARD CATALOG NO. 72-96208. INTERNATIONAL STANDARD BOOK NO. 0-88318-201-7.

DESCRIPTORS: (*SONIC BOOM, SYMPOSIA), ACOUSTICS, SUPERSONIC FLIGHT, SHOCK WAVES, PROPAGATION, STRESS(PHYSIOLOGY), HUMANS, ANIMALS, BEHAVIOR (U)
IDENTIFIERS: NOISE POLLUTION, RAY TRACING (U)

A MAJOR ENVIRONMENTAL EFFECT OF SUPERSONIC FLIGHT THAT SETS IT APART FROM OTHER AIRCRAFT OPERATIONS IS THE SONIC BOOM. THE WAVE PATTERN THAT TRAVELS WITH THE AIRCRAFT--RATHER LIKE THE BOW WAVE OF A SHIP--SWEEPS OVER UNDERLYING AREAS AND MIMICS THE ADVANCING SHOCK WAVE OF A MILD EXPLOSION. IMPELLED BY THE PROSPECT OF CIVIL SUPERSONIC TRANSPORT (SST) AIRCRAFT, THERE HAS BEEN A GREAT VOLUME OF RESEARCH ON THE SONIC BOOM AND ITS EFFECTS, PARTICULARLY DURING THE LAST DECADE. THE STATE-OF-THE-ART AS OF 1965 WAS SUMMED UP IN THE FIRST SONIC BOOM SYMPOSIUM SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA, HELD IN ST. LOUIS. THE STATE-OF-THE-ART AS OF 1970 WAS LARGELY SUMMED UP IN THE SECOND SONIC BOOM SYMPOSIUM HELD IN HOUSTON FIVE YEARS LATER ON 3 NOVEMBER 1970. THE 1970 SYMPOSIUM CONSISTED AGAIN OF A SERIES OF INVITED PAPERS, FOR THE MOST PART OF A SURVEY NATURE. THE AUTHORS WERE DRAWN FROM THE INTERNATIONAL COMMUNITY OF RESEARCHERS ON SONIC BOOM AND ITS EFFECTS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 752 974 6/19 20/1
NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ. (U)

DESCRIPTIVE NOTE: MEDICAL RESEARCH PROGRESS REPT. NO. 7, JUL 72 11P MURRY,THOMAS ;LACROIX,PAUL G. ;
REPT. NO. NSMRL-719
PROJ: M4305.08

UNCLASSIFIED REPORT

DESCRIPTORS: (*AUDITORY PERCEPTION, *NOISE), (*DEAFNESS, NOISE), AUDIOMETRY, STRESS(PHYSIOLOGY), PSYCHOPHYSIOLOGY (U)

NAVY PERSONNEL WITH NORMAL HEARING AND WITH HEARING LOSSES AT 3 KHZ AND ABOVE WERE EVALUATED ON TESTS OF SPEECH DISCRIMINATION IN NOISE. TWO TESTS WERE USED, ONE PREVIOUSLY DESIGNED FOR USE IN AUDIOLOGICAL CLINICS AND ONE CONSTRUCTED AT THIS LABORATORY WITH BACKGROUND NOISE SIMILAR TO THAT FOUND IN THE ENGINEROOMS OF NUCLEAR SUBMARINES. THE RESULTS INDICATE THAT SUBJECTS WITH HEARING LOSSES AT 3 KHZ AND ABOVE MAY SCORE AS MUCH AS 11 PER CENT MORE GENERALLY AT LEAST FIVE PER CENT BELOW NORMALS FOR A SPEECH DISCRIMINATION TASK IN NOISE. FOR THE TWO TYPES OF NOISE USED IN THESE TESTS, THERE WAS LITTLE OR NO DIFFERENCE IN THE GENERAL TREND OF TEST RESULTS. THE CORRELATION COEFFIEIENTS OBTAINED BETWEEN THE PURE TONE AUDIOMETRIC FINDINGS AND THE SPEECH DISCRIMINATION TASK IN NOISE WERE FOUND TO BE NONSIGNIFICANT FOR THE MOST PART. FROM THESE RESULTS, IT APPEARS THAT HEARING LOSS AT 3 KHZ REDUCES ONE'S ABILITY TO DISCRIMINATE SPEECH IN NOISE BUT THIS REDUCTION IS MINOR. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 753 637 5/10 17/2
CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT, (U)

SEP 72 9P TOBIAS,JERRY V. ;
PROJ: FAA-AM-A-71-PSY-16, FAA-AM-A-72-PSY-16
MONITOR: FAA-AM 72-31

UNCLASSIFIED REPORT

DESCRIPTORS: (*SPEECH, *AUDITORY PERCEPTION), (*AVIATION MEDICINE, NOISE), (*JET AIRCRAFT, VOICE COMMUNICATIONS), AIRCRAFT CABINS, AIRCRAFT NOISE, HEARING, INTELLIGIBILITY, CIVIL AVIATION (U)
IDENTIFIERS: AIRCRAFT, LIGHTWEIGHT, BINAURAL HEARING (U)

LABORATORY STUDIES HAVE SHOWN THAT THE HUMAN BINAURAL AUDITORY SYSTEM CAN EXTRACT SIGNALS FROM NOISE MORE EFFECTIVELY WHEN THE SIGNALS (OR THE NOISE) ARE PRESENTED IN ONE OF SEVERAL INTERAURALLY DISPARATE CONFIGURATIONS. QUESTIONS ARISE AS TO WHETHER THESE LABORATORY STUDIES IN ANECHOIC OR SEMI-ANECHOIC SPACES CAN BE GENERALIZED TO MORE REVERBERANT LISTENING CONDITIONS. IN THIS STUDY, TESTS WERE CONDUCTED IN THE CABIN OF A LIGHT AIRPLANE, IN FLIGHT. FOR SYMMETRICAL SIGNAL SOURCES, LOUDSPEAKER TRANSMISSIONS OF INTELLIGIBILITY-TEST MATERIALS PRODUCE HIGHER INTELLIGIBILITY SCORES FOR SPEAKERS OUT-OF-PHASE THAN FOR SPEAKERS IN-PHASE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 754 111 20/1 1/3
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

NOISE FROM AIRCRAFT OPERATIONS, U. S. NAVAL AIR STATION, LEMOORE, CALIFORNIA. (U)

AUG 72 35P
REPT. NO. BBN-2225
CONTRACT: N62474-72-C-0344

UNCLASSIFIED REPORT

DESCRIPTORS: (*NAVAL AIR STATIONS, *JET AIRCRAFT NOISE), TAKEOFF, AIRCRAFT LANDINGS, TAXIING, JET ENGINE NOISE, STRESS(PHYSIOLOGY), TOLERANCES(PHYSIOLOGY), AVIATION PERSONNEL, CALIFORNIA (U)
IDENTIFIERS: *LEMOORE NAVAL AIR STATION, *NOISE POLLUTION, NOISE (U)

THE REPORT PROVIDES DESCRIPTIONS OF THE AIRCRAFT NOISE ENVIRONMENT FOR LAND AREAS ON OR IN THE VICINITY OF THE NAVAL AIR STATION, LEMOORE, CALIFORNIA. THE NOISE RESULTING FROM AIRCRAFT OPERATIONS AT NAS LEMOORE IS CONSIDERED IN SOME DETAIL FROM THE POINT OF VIEW OF LAND USE, AND ALSO WITH RESPECT TO POTENTIAL HEARING DAMAGE IN MAINTENANCE AREAS ON THE STATION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 754 174 1/5 9/2
CONSAD RESEARCH CORP PITTSBURGH PA

A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL. (U)

DESCRIPTIVE NOTE: FINAL REPT. APR 71-MAY 72, MAY 72 213P HINKLE,JERE J. ;
CONTRACT: DOT-FA71WA-2565
MONITOR: FAA-EQ,CPG 72-3-VOL-3,73-0045

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO VOLUME 2, AD-753 836 AND VOLUME 4, AD-751 932.

DESCRIPTORS: (*AIRPORTS, MATHEMATICAL MODELS), (*URBAN PLANNING, AIRPORTS), (*COMPUTER PROGRAMS, INSTRUCTION MANUALS), ECONOMICS, SITE SELECTION, AIRPLANE ENGINE NOISE (U)
IDENTIFIERS: *NOISE POLLUTION, CAEDM COMPUTER PROGRAM, PROGRAMMING MANUALS, FORTRAN, FORTRAN 4 PROGRAMMING LANGUAGE, LAND USE, ECONOMIC MODELS (U)

THE VOLUME PRESENTS A DESCRIPTION OF THE OPERATIONS OF THE COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL (CAEDM). THESE CAN BE USED TO EXAMINE A WIDE VARIETY OF PROBLEMS EXAMINING AIRCRAFT NOISE AND LAND USE INCOMPATIBILITIES IN THE VACINITY OF AN AIRPORT. INFORMATION IS GIVEN IN BOTH NARRATIVE AND GARPHIC FORM REGARDING THE KIND OF INPUT THAT IS REQUIRED TO BE PROVIDED BY THE USER OF THE PROGRAM. THE OPTIONS THAT ARE AVAILABLE WITHIN THE PROGRAM AND THE FORMAT AND ORDERING OF THE DATA THAT ARE REQUIRED FOR PROGRAM OPERATION ARE GIVEN. SAMPLE OUTPUT OF THE CAEDM IS PRESENTED IN THIS VOLUME. A LISTING OF THE CAEDM PROGRAM IS INCLUDED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 754 631 6/19 5/10
ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT
PARIS (FRANCE)

AEROMEDICAL ASPECTS OF VIBRATION AND
NOISE. (U)

DESCRIPTIVE NOTE: AGARDOGRAPH REPT.,
NOV 72 280P GUIGNARD,J. C. ;KING,P.
F. ;
REPT. NO. AGARD-AG-151

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: NATO FURNISHED.

DESCRIPTORS: (*AVIATION MEDICINE, NOISE), (*NOISE,
*AEROSPACE MEDICINE), (*VIBRATION, AEROSPACE MEDICINE),
STRESS(PHYSIOLOGY), STRESS(PSYCHOLOGY),
TOLERANCES(PHYSIOLOGY), HEARING, PATHOLOGY, HAZARDS,
SAFETY, PROTECTION, SENSES(PHYSIOLOGY) (U)
IDENTIFIERS: BIODYNAMICS (U)

VIBRATION AND NOISE ARE TREATED SEPARATELY IN PARTS ONE AND TWO OF THIS VOLUME; WHILE PART THREE DEALS WITH THE SPECIAL AEROMEDICAL PROBLEM OF AUDITORY PERCEPTION IN AIRCREW AND GROUND SUPPORT PERSONNEL AND ITS CONSERVATION. PART FOUR IS A GLOSSARY OF RELEVANT TERMS. THIS DIVISION OF THE SUBJECT MATTER RECOGNISES THAT IN PRACTICE VIBRATION AND NOISE ARE CONVENIENTLY STUDIED, MEASURED AND CONTROLLED AS SEPARATE ENTITIES. IT SHOULD, HOWEVER, BE BORNE IN MIND THAT THESE CONDITIONS RARELY AFFECT MAN SINGLY. THEY ARE COMMONLY PRESENT AT THE SAME TIME; AND VIBRATION AND NOISE MAY OFTEN BE ASSOCIATED WITH DIFFERENT KINDS OF ENVIRONMENTAL AGENT, SUCH AS HEAT, TO MAKE UP A COMBINED ENVIRONMENTAL STRESS. THE HUMAN RESPONSE TO SUCH COMBINATIONS OF STRESSFUL AGENTS IS STILL A LARGELY NEGLECTED FIELD OF RESEARCH. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 754 863 6/19 5/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

SOME EFFECTS OF NOISE ON MAN, (U)

71 11P NIXON,CHARLES W. ;
REPT. NO. AMRL-TR-71-53

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PROCEEDINGS OF THE 1971 INTERSOCIETY ENERGY CONVERSION ENGINEERING CONFERENCE, 3-5 AUG 71, P1024-1033 1971.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), *NOISE), (*PSYCHOACOUSTICS, NOISE), (*PSYCHOACOUSTICS, NOISE), (*PUBLIC HEALTH, NOISE), STRESS(PSYCHOLOGY), EXPOSURE(PHYSIOLOGY), CONTROL, EXPERIMENTAL DATA (U)
IDENTIFIERS: *NOISE POLLUTION, *NOISE REDUCTION (U)

THE PRIMARY REASON FOR NOISE ABATEMENT IS TO ELIMINATE DELETERIOUS EFFECTS ON MAN. CONSEQUENTLY, IT IS IMPORTANT THAT PERSONNEL WHO IMPLEMENT NOISE CONTROL MEASURES UNDERSTAND WHAT HUMAN RESPONSES ARE TO BE EXPECTED WHEN MAN EXPERIENCES VARIOUS CATEGORIES OF NOISE EXPOSURE. IT IS THE INTENT OF THIS PAPER, THROUGH CITING OF LABORATORY EXPERIMENTATION AND NOISE EXPOSURE EXPERIENCE OVER THE YEARS, TO DEMONSTRATE THAT THERE ARE MANY TYPES OF ACOUSTIC EXPOSURE WHICH DO AFFECT THE PHYSIOLOGICAL AND PSYCHOLOGICAL FUNCTIONS OF MAN IN DIFFERENT WAYS. IMPLICATIONS OF THESE EFFECTS FOR GENERAL HEALTH AND WELL-BEING ARE MENTIONED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 754 943 20/1 1/3
NATIONAL AERONAUTICAL ESTABLISHMENT OTTAWA (ONTARIO)

A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION. (U)

DESCRIPTIVE NOTE: AERONAUTICAL REPT.,
OCT 72 40P CHAN,Y. Y. ;
REPT. NO. NAE-LR-564
MONITOR: NRC 12923

UNCLASSIFIED REPORT

DESCRIPTORS: (*SOUND PITCH, ATTENUATION), (*JETS, SUPERSONIC FLOW), (*SUPERSONIC AIRCRAFT, *JET PLANE NOISE), AERODYNAMIC NOISE, NOZZLE GAS FLOW, UNCONVENTIONAL NOZZLES, SHOCK WAVES, ACOUSTICS, SPECTRUM SIGNATURES, ACOUSTIC IMPEDANCE, NOZZLE AREA RATIO, MATHEMATICAL MODELS, CANADA (U)
IDENTIFIERS: NEAR FIELD NOISE, NOISE GENERATION, NOISE REDUCTION, NOISE POLLUTION, COMPUTER AIDED DESIGN, DESIGN CRITERIA (U)

BASED ON THE DATA OF NEAR FIELD SURVEYS OF THE SOUND PRESSURE FROM A CHOKED JET, A SIMPLE MODEL IS PROPOSED FOR THE MECHANISM OF THE SCREECH GENERATION. A CONVECTED WAVE PROPAGATES DOWNSTREAM ALONG THE JET BOUNDARY AND IS MODULATED BY ITS INTERACTION WITH THE SHOCK-EXPANSION WAVES OF THE JET. THESE INTERACTIONS GENERATE STRONG DIPOLE RADIATIONS. USING THIS MODEL, AN EXCELLENT REPRODUCTION OF THE ESSENTIAL FEATURES OF THE EXPERIMENTAL RESULTS IS OBTAINED, BY PREVENTING THE FORMATION OF SHOCK WAVES INSIDE THE JET, THE STRONG DIPOLE RADIATION AND HENCE THE SCREECH NOISE CAN BE ELIMINATED. DESIGN DATA FOR PERFORATED NOZZLES TO ACHIEVE FULL EXPANSION OF THE JET ARE PROVIDED. THIS AVOIDS THE MECHANICAL COMPLICATION OF AN ADJUSTABLE CONVERGENT-DIVERGENT NOZZLE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 755 081 6/19
ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT
PARIS (FRANCE)

PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE
OF INTERACTING STRESSES ON PERFORMANCE. (U)

DESCRIPTIVE NOTE: CONFERENCE PROCEEDINGS NO. 101.
NOV 72 87P
REPT. NO. AGARD-CP-101

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PAPERS PRESENTED AT THE AGARD
AEROSPACE MEDICAL PANEL SPECIALIST MEETING,
BRUSSELS, BELGIUM 2 JUN 72. NATO FURNISHED.

DESCRIPTORS: (*AVIATION MEDICINE, STRESS(PHYSIOLOGY)),
(*STRESS(PHYSIOLOGY), *PERFORMANCE(HUMAN)),
(*STRESS(PSYCHOLOGY), PERFORMANCE(HUMAN)), (*AEROSPACE
MEDICINE, STRESS(PHYSIOLOGY)), ACCELERATION TOLERANCE,
NOISE, HEAT, VIBRATION, FLIGHT, SPACE FLIGHT, SYMPOSI(U)
IDENTIFIERS: BIODYNAMICS (U)

THE VOLUME CONTAINS THIRTEEN PAPERS AND ENSUING
DISCUSSIONS. PAPERS PRESENTED ON THE PHYSIOLOGICAL
AND PSYCHOLOGICAL ASPECTS OF STRESSES ENCOUNTERED IN
FLIGHT INCLUDE THE EFFECTS OF EXPOSURE TO HIGH
ACCELERATION ENVIRONMENTS, THE EFFECTS OF COMBINED
STRESSES INCLUDING NOISE, HEAT, AND VIBRATION, AND
THE EFFECTS OF LONG DURATION FLIGHTS.
(AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 755 183 13/1 5/5
ARMY NATICK LABS MASS

EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
JAN 72 33P BUDNICK,MORRIS L. ;
REPT. NO. USA-NLABS-TR-72-71-GP

UNCLASSIFIED REPORT

DESCRIPTORS: (*REFRIGERATION SYSTEMS, *NOISE), (*OPERATORS(PERSONNEL), *TOLERANCES(PHYSIOLOGY)), INTERNAL COMBUSTION ENGINE NOISE, COMPRESSOR NOISE, ENGINE MUFFLERS, MILITARY PERSONNEL, ACOUSTIC IMPEDANCE, ACOUSTIC INSULATION, TEST METHODS, HUMAN FACTORS ENGINEERING (U)
IDENTIFIERS: NOISE POLLUTION, NOISE REDUCTION, NOISE, NOISE EXPOSURE (U)

THE REPORT COVERS AN EVALUATION OF THE GASOLINE-ENGINE-DRIVEN 3000 BTU/HR CAPACITY, 5000 BTU/HR CAPACITY REFRIGERATION UNITS TO ESTABLISH NOISE LEVELS DURING OPERATION FOR THE CONDITIONS: AS MANUFACTURED, AFTER ADDITION OF A MUFFLER, AND AFTER APPLICATION OF ACOUSTICAL MATERIAL. THE OBJECTIVES OF THE EVALUATION WERE TO DETERMINE THE NOISE LEVEL AT THE OPERATOR'S POSITION FOR EACH OF THE UNITS AS MANUFACTURED, AFTER ADDITION OF A MUFFLER, AND AFTER APPLICATION OF TWO TYPES OF ACOUSTICAL MATERIAL; TO DETERMINE THE DISTANCES IN FRONT OF, TO THE LEFT, AND TO THE RIGHT OF EACH UNIT TO THE 90-DECIBEL NOISE LEVEL; TO DETERMINE THE BACK PRESSURE IN THE EXHAUST MANIFOLD OF EACH UNIT AFTER ASSEMBLY OF THE VARIOUS MUFFLERS; AND DETERMINE THE LEVELS OF THE OCTAVE BAND FOR THE 150-300, 300-600, 600-1200, 1200-2400, 2400-4800, AND 4800-10,000 CYCLES PER SECOND BANDS AT THE OPERATOR'S POSITION FOR EACH OF THE REFRIGERATION UNITS IN THE VARIOUS CONFIGURATIONS ARE DISCUSSED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 755 363 5/10
OHIO STATE UNIV COLUMBUS DEPT OF PSYCHOLOGY

MULTI-TASK TIME-SHARING REQUIREMENTS. (U)

DESCRIPTIVE NOTE: FINAL REPT. JUN 69-JUL 71,
AUG 72 39P BRIGGS,GEORGE E. ;FISHER,
RONALD P. ;GREENBERG,SETH N. ;LYONS,JAMES
J. ;PETERS,GREGORY L. ;
CONTRACT: F33615-69-C-1663
PROJ: AF-7183
TASK: 718304
MONITOR: AMRL TR-71-105

UNCLASSIFIED REPORT

DESCRIPTORS: (*PILOTS, *PERFORMANCE(HUMAN)),
PERFORMANCE(HUMAN), TRACKING, DECISION MAKING,
REACTION(PSYCHOLOGY), NOISE, ATTENTION (U)
IDENTIFIERS: CHOICE MAKING, INFORMATION
PROCESSING(PSYCHOLOGY), TRACKING TASKS (U)

TEN LABORATORY EXPERIMENTS ARE REPORTED ON DUAL-TASK PERFORMANCE. A CONTINUOUS TRACKING TASK AND A DISCRETE CHOICE REACTION TIME TASK WERE USED AS REPRESENTATIVE OF THE KINDS OF INFORMATION PROCESSING REQUIRED OF AN AIRCRAFT PILOT. THE RESEARCH DEALT WITH THREE MAJOR CONCERNS: A DEMONSTRATION OF THE TIME-SHARING; EFFECT AND AN EXAMINATION OF THE INFLUENCE OF AUDITORY NOISE ON TIME-SHARING LOCALIZING THE TIME-SHARING EFFECT IN AN INPUT, AN OUTPUT OR IN A CENTRAL STAGE OF HUMAN INFORMATION PROCESSING; AND THE INFLUENCE OF VARIATIONS IN THE TRACKING TASK, VARIATIONS IN AUGMENTED FEEDBACK ACROSS TASKS, AND THE INFLUENCE OF AUDITORY NOISE ON DUAL-TASK PERFORMANCE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 755 634 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS, (U)

72 8P GRETHER,WALTER F. ;
REPT. NO. AMRL-TR-71-113
PROJ: AF-7222

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN AGARD CONFERENCE PREPRINT NO. 101 ON PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE, PC3-1-C3-7.

DESCRIPTORS: (*STRESS(PHYSIOLOGY), *HEAT TOLERANCE), (*NOISE, STRESS(PHYSIOLOGY)), (*VIBRATION, STRESS(PHYSIOLOGY)), AVIATION MEDICINE, PILOTS, PERFORMANCE(HUMAN) (U)
IDENTIFIERS: SYNERGISM (U)

OPERATIONAL FLYING OFTEN EXPOSES CREW MEMBERS TO COMBINATIONS OF ENVIRONMENTAL STRESSES THAT MAY AFFECT FLIGHT PERSONNEL DIFFERENTLY THAN WOULD BE PREDICTED FROM SINGLE-STRESS LABORATORY EXPERIMENTS. TO OBTAIN A BETTER UNDERSTANDING OF SUCH COMBINED-STRESS EFFECTS A MAJOR EXPERIMENT WAS CONDUCTED USING HEAT (120F), NOISE (105 DB), AND VIBRATION (5 HZ, 0.30 PEAK G), BOTH SINGLY AND IN COMBINATION. MEASUREMENTS WERE MADE OF TRACKING ABILITY, CHOICE REACTION TIME, VOICE COMMUNICATION, MENTAL ARITHMETIC, VISUAL ACUITY, BODY TEMPERATURE, HEART RATE, WEIGHT LOSS, AND SUBJECTIVE RATINGS OF THE STRESS. ON NONE OF THESE MEASURES DID THE COMBINED TRIPLE-STRESS-CONDITION PRODUCE GREATER EFFECTS THAN DID THE MOST SEVERE SINGLE STRESS. ON THE PHYSIOLOGICAL MEASURES ONLY HEAT STRESS PRODUCED SIGNIFICANT EFFECTS, AND THE ADDITION OF NOISE AND VIBRATION PRODUCED NO FURTHER EFFECTS. ON THE PERFORMANCE MEASURES, PARTICULARLY THE TRACKING TEST, IMPAIRMENT WAS SLIGHTLY LESS FOR THE TRIPLE-STRESS CONDITION THAN FOR VIBRATION ONLY. THUS THERE WERE NO ADDITIVE INTERACTIONS, AND IN FACT SOME EVIDENCE OF ANTAGONISTIC INTERACTIONS. AS A CHECK ON THESE RESULTS A SECOND EXPERIMENT, WITH SLIGHT MODIFICATIONS WAS UNDERTAKEN. THIS EXPERIMENT YIELDED ESSENTIALLY THE SAME RESULTS. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 757 239 6/19
CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

AUDITORY EFFECTS OF NOISE ON AIR-CREW PERSONNEL, (U)

NOV 72 10P TOBIAS,JERRY V. ;
MONITOR: FAA-AM 72-32

UNCLASSIFIED REPORT

DESCRIPTORS: (*AVIATION PERSONNEL, *NOISE), (*HEARING, THRESHOLDS(PHYSIOLOGY)), PILOTS, AVIATION MEDICINE, COCKPITS, PROTECTION, FLIGHT CREWS (U)

HEARING-THRESHOLD TESTS WERE MADE ON FLIGHT PERSONNEL OF SEVERAL SORTS, INCLUDING AERIAL-APPLICATION PILOTS, FLIGHT INSTRUCTORS, PRIVATE PILOTS, STEWARDESSES, AND FAA FLIGHT INSPECTORS. EXCLUDING THOSE PEOPLE WHOSE FLIGHT EXPERIENCE IS OF SHORT DURATION, EACH GROUP SHOWS SOME MEASURABLE DEGREE OF THRESHOLD SHIFT, ALTHOUGH THIS SHIFT IS FREQUENTLY NOT ENOUGH TO BE REGARDED AS A CLINICALLY SIGNIFICANT ENTITY. DATA ON THE SORTS OF NOISE EXPOSURES EACH GROUP COMMONLY RECEIVES ARE PRESENTED, AND SOME CAUTIONS ARE OFFERED REGARDING INTERPRETATION OF THE DATA. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 757 337 6/19
NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'. (U)

DESCRIPTIVE NOTE: INTERIM REPT. NO. 8,
JUL 72 10P MYERS,C. K. ;ANGERMEIER, CYNTHIA ;
REPT. NO. NSMRL-720
PROJ: M4305.08

UNCLASSIFIED REPORT

DESCRIPTORS: (*SPEECH, INTELLIGIBILITY), (*NOISE, STRESS(PHYSIOLOGY)), (*NAVAL PERSONNEL, NOISE), COMMUNICATION SYSTEMS, AUDITORY ACUITY, AUDIOMETRY, PERFORMANCE(HUMAN), NAVAL RESEARCH, MEDICAL RESEARCH (U)
IDENTIFIERS: *SPEECH DISCRIMINATION (U)

FORTY-EIGHT YOUNG MEN, 21 WITH RATHER SHARP AUDIOMETRIC LOSSES ABOVE 2 KILOHERTZ, WERE GIVEN A STANDARD TEST OF MONSYLLABLES IN NOISE. ON THE AVERAGE, THESE 47 MEN SCORED 10 FEWER WORDS CORRECT PER 100 THAN HAS BEEN REPORTED FOR NORMAL CONTROLS. SCATTERGRAMS OF PERFORMANCE VS A VARIETY OF PURE-TONE AND SPEECH THRESHOLD DATA, HOWEVER, SHOWED THAT NO AUDIOMETRIC INFORMATION COULD PREDICT PERFORMANCE IN NOISE. IT WAS CONCLUDED THAT THE STANDARDIZED SPEECH-IN-NOISE TEST ITSELF SHOULD BE CONSIDERED AS THE PREDICTOR INSTEAD OF THRESHOLD TESTS, AND THAT IT SHOULD BE VALIDATED AGAINST ACTUAL JOB PERFORMANCE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 757 338 6/19
NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ, (U)

JUL 72 13P SERGEANT,RUSSELL L. ;MURRY, THOMAS ;

REPT. NO. NSMRL-721
PROJ: M4306.03

UNCLASSIFIED REPORT

DESCRIPTORS: (•SPEECH RECOGNITION, DEAFNESS), (•DEAFNESS, NOISE), VOICE COMMUNICATIONS, MILITARY PERSONNEL, SUBMARINE PERSONNEL, AUDITORY PERCEPTION, STRESS(PHYSIOLOGY) (U)

ENLISTED SUBMARINERS WITH HIGH-FREQUENCY HEARING LOSS (AVE. OF 22, 45 AND 60 DECIBELS AT 3, 4 AND 6 KILOHERTZ, RESPECTIVELY) PERFORMED POORER THAN A NORMAL-HEARING CONTROL GROUP BY 6.2 PERCENTAGE POINTS ON RATHER EASY TESTS OF SPEECH INTELLIGIBILITY, AND BY 5 PERCENTAGE POINTS ON RATHER DIFFICULT TESTS CONTAINING SPEECH IN BACKGROUND NOISE. THE PERFORMANCE OF THE HEARING-LOSS GROUP, HOWEVER, FOR THE EASIER TESTS EXCEEDED BY 12.7 POINTS THAT OF ANOTHER NORMAL-HEARING CONTROL GROUP IN WHICH THE HEARING LOSS WAS SIMULATED BY FILTERING. THE HEARING-LOSS SUBJECTS MAY BE EXPERIENCE HAVE COMPENSATED TO SOME EXTENT IN EASIER SITUATIONS FOR THEIR DEFECT. THIS WAS NOT TRUE FOR THE MORE DIFFICULT SITUATIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 757 431 13/11 13/5 20/11
VIRGINIA POLYTECHNIC INST BLACKSBURG DEPT OF MECHANICAL ENGINEERING

ISOLATION OF PIPING FROM PUMP VIBRATIONS, (U)

NOV 72 105P MITCHELL,L. D. ;
CONTRACT: N62470-72-C-1093

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REVISION OF REPORT DATED JUN 72.

DESCRIPTORS: (•PIPES, •VIBRATION ISOLATORS), (•PUMPS, VIBRATION), EXPANSION JOINTS, SHOCK ABSORBERS, FLEXIBLE COUPLINGS, ANCHORS(STRUCTURAL), NOISE, ACOUSTIC IMPEDANCE, STRESS(PHYSIOLOGY), MATHEMATICAL MODELS, DAMPING, HUMAN FACTORS ENGINEERING, SPECIFICATIONS (U)
IDENTIFIERS: NOISE POLLUTION, NOISE TRANSMISSION, DESIGN CRITERIA (U)

WHEN PIPING IS CONNECTED TO PUMPING SYSTEMS, UNWANTED VIBRATION AND/OR NOISE CAN BE TRANSMITTED FROM THE PUMP TO THE PIPING AND ULTIMATELY TO AN OBSERVER IN A WORKING OR LIVING SPACE AS NOISE. THE LOW FREQUENCY VIBRATION INDUCED IN PIPING CAN BE LARGE AND CAN CAUSE DAMAGE AND PIPE FAILURE. THE OBJECTIVE OF THE REPORT WAS TO PROVIDE GUIDELINES FOR EFFECTIVE SELECTION AND INSTALLATION OF FLEXIBLE PIPE CONNECTORS OR RESILIENT PIPE HANGERS IN AN EFFORT TO MINIMIZE OR ELIMINATE THIS PROBLEM. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZUM07

AD- 757 552 14/2 20/1 6/19
WYLE LABS HUNTSVILLE ALA EASTERN OPERATIONS

ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL. (U)

DESCRIPTIVE NOTE: FINAL REPT. 13 MAR-30 JUN 72, MAR 73 181P PLOTKIN,K. J. ;ROBERTSON, J. E. ;COCKBURN,J. A. ;
REPT. NO. WR-72-7-REV
CONTRACT: F40600-72-C-0007
MONITOR: AEDC TR-72-151-REV

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SUPERSEDES REPORT DATED OCT 72, AD-750 465.

DESCRIPTORS: (*TRANSONIC WIND TUNNELS, NOISE), (*NOISE, IMPACT), HUMANS, ANIMALS, BUILDINGS, TOLERANCES(PHYSIOLOGY), FRACTURE(MECHANICS), MODEL TESTS, REYNOLDS NUMBER, MATHEMATICAL PREDICTION, CONTROL SYSTEMS, WARNING SYSTEMS, ACOUSTIC INSULATION, MONITORS, STARTING, OPERATION (U)
IDENTIFIERS: *NOISE POLLUTION (U)

A STUDY TO EVALUATE THE ENVIRONMENTAL IMPACT OF THE NOISE PRODUCED BY A PROPOSED HIGH REYNOLDS NUMBER TUNNEL (HIRT) UNDER CONSIDERATION AT THE ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HAS BEEN CONDUCTED. THE STUDIES INCLUDE THEORETICAL ANALYSES OF THE NOISE GENERATION MECHANISMS ASSOCIATED WITH THE OPERATION OF THE FACILITY, AND SCALE-MODEL EXPERIMENTS TO PROVIDE BASE-LINE DATA FOR EXTRAPOLATION TO FULL-SCALE CONDITIONS. THIS ASSESSMENT CONTAINS ALL PERTINENT DATA OF RELEVANCE TO THE NOISE IMPACT WHICH MAY BE ANTICIPATED DURING HIRT OPERATION AND INCLUDES A SPECIFICATION OF ACCEPTABLE NOISE LIMITS FOR PEOPLE, ANIMALS AND BUILDINGS WHICH WILL BE EXPOSED TO HIRT NOISE, AND SPECIAL CONSIDERATIONS FOR NOISE PROTECTION AND CONTROL. (AUTHOR MODIFIED ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 758 254 14/2 20/1
NIELSEN ENGINEERING AND RESEARCH INC MOUNTAIN VIEW CALIF

A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS, (U)

FEB 73 88P WOOLLEY,JAMES P. ; KARAMCHETI,KRISHNAMURTY ;
REPT. NO. NEAR-TR-50
CONTRACT: F44620-72-C-0010
PROJ: AF-9781
TASK: 978102
MONITOR: AFOSR TR-73-0503

UNCLASSIFIED REPORT

DESCRIPTORS: (*TRANSONIC WIND TUNNELS, *NOISE), NARROWBAND, ORIFICES, ACOUSTIC PROPERTIES, STABILITY, SHEAR STRESSES, FLOW FIELDS, TURBULENCE (U)
IDENTIFIERS: *NOISE POLLUTION, SHEAR LAYERS (U)

THE REPORT IS CONCERNED WITH THE PROBLEM OF ENVIRONMENTAL NOISE IN TRANSONIC WIND TUNNELS WITH VENTILATED, OR PERFORATED, WALLS. A BRIEF CRITICAL REVIEW OF PAST EXPERIMENTAL INVESTIGATIONS OF SUCH SOUNDS IS GIVEN. IT IS INDICATED THAT THE INSTABILITY OF THE SEPARATED SHEAR LAYER OVER THE CAVITIES IN A PERFORATED WALL SHOULD BE THE MAIN AGENCY FOR SOUND GENERATION. A STABILITY ANALYSIS OF A NONPARALLEL SHEAR FLOW IS UNDERTAKEN. RELATIONS SUCH AS THE STROUHAL NUMBERS AND MINIMUM BREADTHS, ARE GIVEN IN TERMS OF WIND-TUNNEL AERODYNAMIC PARAMETERS. (AUTHOR MODIFIED ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 758 453 5/10 6/16
LOUISVILLE UNIV KY PERFORMANCE RESEARCH LAB

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT. (U)

DESCRIPTIVE NOTE: SEMIANNUAL PROGRESS REPT. NO. 2, 1 APR 72-31 MAR 73,
MAR 73 7P LOEB,MICHEL ;BROWN,BILL R.
;
REPT. NO. SAPR-2
CONTRACT: DADA17-72-C-2039

UNCLASSIFIED REPORT

DESCRIPTORS: (*HEARING, *MILITARY MEDICINE), AUDITORY ACUITY, NOISE, AUDITORY PERCEPTION, THRESHOLDS(PHYSIOLOGY), HUMANS, LABORATORY ANIMALS (U)
IDENTIFIERS: *HEARING CONSERVATION (U)

THE REPORT DESCRIBES INVESTIGATIONS IN PROGRESS OF FIELD STUDIES ON CONSERVATION OF HEARING, INCLUDING LONGITUDINAL STUDIES BEGINNING IN BASIC TRAINING AND A COMPARISON OF BASIC TRAINEES WITH INSTRUCTORS, AND LABORATORY STUDIES OF TEMPORARY THRESHOLD SHIFT IN HUMANS AND STUDIES OF TEMPORARY AND PERMANENT THRESHOLD SHIFT IN ANIMALS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 758 588 20/1 1/5
FEDERAL AVIATION ADMINISTRATION WASHINGTON D C OFFICE OF ENVIRONMENTAL QUALITY

AIRCRAFT SOUND DESCRIPTION SYSTEM
BACKGROUND AND APPLICATION. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
MAR 73 61P CRUZ,J. E. ;
REPT. NO. FAA-EQ-73-3

UNCLASSIFIED REPORT

DESCRIPTORS: (*AIRCRAFT NOISE, *AIRPORTS), PERIODIC VARIATIONS, EXPOSURE(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), MEASUREMENT, TAKEOFF, AIRCRAFT LANDINGS (U)
IDENTIFIERS: *NOISE POLLUTION, *NOISE EXPOSURE, *EXPOSURE TIME (U)

AN OBJECTIVE APPROACH TO DESCRIBING AIRCRAFT SOUND LEVELS FOR AREAS IN THE VICINITY OF AIRPORTS CALLED 'AIRCRAFT SOUND DESCRIPTION SYSTEM' (ASDS), SUITABLE FOR BOTH MANUAL AND COMPUTER APPLICATION, IS SET FORTH. THE BASIC PREMISE OF THE CONCEPT IS TO STATE EXPOSURE TO AIRCRAFT SOUND IN TERMS OF THE AMOUNT OF TIME THAT SOUND LEVELS EXCEED A PRESELECTED THRESHOLD VALUE. THE RATIONALE SUPPORTING THE SELECTION OF THIS PROCEDURE, THE SELECTION OF THE THRESHOLD VALUE, AS WELL AS SOME OPERATING TIME CONSTANTS ARE COVERED TOGETHER WITH TWO HYPOTHETICAL APPLICATIONS. (AUTHOR MODIFIED ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 759 212 1/2 20/1
HYDROSPACE-CHALLENGER INC ROCKVILLE MD

RESULTS OF NOISE SURVEYS OF SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
DEC 72 75P GRAY,DAMON C. ;
CONTRACT: DOT-FA73WA-3179
MONITOR: FAA-EQ 73-1

UNCLASSIFIED REPORT

DESCRIPTORS: (*AIRCRAFT NOISE, STATISTICAL DATA), (*CIVIL AVIATION, AIRCRAFT NOISE), PROPELLER NOISE, ENGINE NOISE, TAKEOFF, APPROACH, DATA PROCESSING (U)
IDENTIFIERS: *NOISE POLLUTION, NOISE, GENERAL AVIATION AIRCRAFT (U)

NOISE LEVELS, IN TERMS OF EPNL, PNL, DBA AND DBD ARE PRESENTED FOR BOTH JET AND PROPELLER-DRIVEN GENERAL AVIATION TYPE AIRCRAFT. THE NOISE LEVELS WERE DERIVED FROM MEASUREMENTS TAKEN BY THE FAA AND NASA/LRC AT THE NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER (NAFWC, ATLANTIC CITY, NEW JERSEY, DURING JUNE THROUGH SEPTEMBER 1972. LEVELS DERIVED FROM ACTUAL TAKE-OFF AND CONSTANT ALTITUDE FLY-BYS ARE PRESENTED WHEREVER POSSIBLE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 759 329 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME, (U)

73 6P SOMMER,HENRY C. ;HARRIS,C. STANLEY ;

REPT. NO. AMRL-TR-72-83
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN AEROSPACE MEDICINE, MAR 73.

DESCRIPTORS: (*NOISE, *ATTENTION), (*VIBRATION, *ATTENTION), PERFORMANCE(HUMAN), STRESS(PHYSIOLOGY) (U)
IDENTIFIERS: *VIGILANCE (U)

VIBRATION HAS BEEN SHOWN TO BE THE PRIMARY CAUSE OF PERFORMANCE IMPAIRMENT IN STUDIES OF THE COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE. NOISE HAS HAD LITTLE CONSISTENT EFFECT WHEN PRESENTED ALONE, AND HAS ADDED LITTLE OR NOT AT ALL TO THE IMPAIRMENT PRODUCED BY VIBRATION. IN TWO STUDIES WITH HEAT INCLUDED AS A THIRD STRESSOR, VIBRATION PRESENTED ALONE HAD A SLIGHTLY MORE ADVERSE EFFECT ON TRACKING PERFORMANCE THAN COMBINED HEAT, NOISE AND VIBRATION. IN THE PRESENT EXPERIMENT, 12 SUBJECTS WERE EXPOSED TO LOWER NOISE AND VIBRATION LEVELS FOR A LONGER PERIOD OF TIME THAN USED PREVIOUSLY. NOISE HAD NO SIGNIFICANT EFFECTS ON TRACKING PERFORMANCE, WHILE VIBRATION ADVERSELY AFFECTED BOTH DIMENSIONS OF THE TRACKING TASK. ON BOTH HORIZONTAL AND VERTICAL TRACKING, VIBRATION COMBINED WITH 60 DB NOISE PRODUCED GREATER IMPAIRMENT THAN VIBRATION COMBINED WITH 100 DB NOISE. THESE RESULTS PARALLEL PREVIOUS FINDINGS FROM STUDIES OF COMBINED NOISE, HEAT, AND VIBRATION, AND GIVE SUPPORT TO A SUBTRACTIVE INTERACTION INTERPRETATION OF THE COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE. (AUTHOR MODIFIED ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 759 721 17/1
NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

PERFORMANCE ON THE EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY. (U)

DESCRIPTIVE NOTE: MEDICAL RESEARCH PROGRESS REPT. NO. 1, JUN 72 38P OLSON,GARY M. ;LAXAR,KEVIN ;

REPT. NO. NSMRL-716
PROJ: MF51.524
TASK: MF51.524.004

UNCLASSIFIED REPORT

DESCRIPTORS: (•SONAR TARGETS, DIRECTION FINDING), (•SONAR SIGNALS, NOISE), ACCURACY, PERFORMANCE(HUMAN), CURVE FITTING, SUBMARINES, FIRE CONTROL SYSTEMS, STOCHASTIC PROCESSES, ERRORS (U)

TWO EXPERIMENTS ANALYZED THE EFFECTS OF STATISTICAL NOISE IN RAW SONAR BEARINGS ON PERFORMANCE IN A LABORATORY VERSION OF THE EXPANDED TIME BEARING PLOT. ACCURACY OF PAIRED BEARINGS AND BEARING RATE ESTIMATES WERE TAKEN AS THE MEASURES OF PERFORMANCE. GREATER AMOUNTS OF NOISE LED TO POORER PERFORMANCE, BUT THESE DECREMENTS WERE SMALLER WHEN THE NOISE WAS RANDOM THAN WHEN IT WAS CORRELATED. HUMAN PERFORMANCE WAS CONTRASTED WITH THAT OF AN ORTHOGONAL POLYNOMIAL CURVE FITTING ROUTINE DESIGNED TO DO THE SAME TASK. THE MATHEMATICAL ROUTINE WAS AFFECTED BY THE NOISE IN THE SAME WAY AS HUMANS WERE. HOWEVER, ON SIMPLE PLOTS THE MATHEMATICAL ROUTINE PROVIDED SUPERIOR SOLUTIONS WHILE ON CURVES OF MORE COMPLEX SHAPES OR AT THE ENDS OF CURVES HUMANS WERE SUPERIOR. THUS, IN CERTAIN SITUATIONS THE HUMAN'S PERCEPTUAL AND COGNITIVE ABILITIES GAVE HIM A DISTINCT ADVANTAGE OVER THE MATHEMATICAL ROUTINE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 759 726 6/5
NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

THE USE OF CIRCUMAURAL EARPHONES FOR ATTENUATING AMBIENT NOISE IN BONE CONDUCTION AUDIOMETRY. (U)

DESCRIPTIVE NOTE: MEDICAL RESEARCH PROGRESS REPT. NO. 23, OCT 72 17P ALFONSO,PETER J. ;HARRIS, J. DONALD ;
REPT. NO. NSMRL-728
PROJ: MF51.524
TASK: MF51.524.004

UNCLASSIFIED REPORT

DESCRIPTORS: (*AUDIOMETRY, NOISE), BONES, HEARING, THRESHOLDS(PHYSIOLOGY), AUDITORY PERCEPTION, OTORHINOLARYNGOLOGY (U)
IDENTIFIERS: AMBIENT NOISE, EARPLUGS (U)

AUDITORY SENSITIVITY TO A BONE-CONDUCTED (BC) ACOUSTIC STIMULUS IS INCREASED WHEN THE EAR CANAL IS PLUGGED('OCCLUSION EFFECT'), THUS INCREASING THE EARDRUM-OSSICLE COMPONENT. IT IS DESIRABLE TO PLUG THE EAR AGAINST EXTRANEOUS AMBIENT SOUND DURING BC TESTING, BUT IT IS NOT DESIRABLE AT THE SAME TIME TO AFFECT THE BC THRESHOLD. IT IS FOUND THAT ONE OF THE NEW CIRCUMAURAL EARMUFFS DOES A SUPERIOR JOB OF INSULATING THE EAR FROM AMBIENT SOUNDS, THUS ALLOWING BC TESTING IN OTHERWISE UNSATISFACTORILY NOISY AUDIOMETRIC WORKSPACES, WHILE AT THE SAME TIME CREATING SO LARGE A VOLUME OF AIR CONNECTED TO THE EAR CANAL THAT THE OCCLUSION EFFECT IS NEGLIGIBLE AT AUDIOMETRIC FREQUENCIES AS LOW AS 250 HZ. IT IS RECOMMENDED THAT IN SOME AUDIOMETRIC WORKSPACES SUCH EARMUFFS BE USED FOR BC AUDIOMETRY. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 759 865 13/2 1/5
URBAN SYSTEMS RESEARCH AND ENGINEERING INC CAMBRIDGE MASS

LAND USE CONTROL STRATEGIES FOR AIRPORT IMPACTED AREAS. (U)

DESCRIPTIVE NOTE: FINAL REPT. MAY 71-OCT 72.
OCT 72 173P
CONTRACT: DOT-FA71WA-2579
MONITOR: FAA-EQ 72-1

UNCLASSIFIED REPORT

DESCRIPTORS: (*AIRPORTS, NOISE), (*URBAN PLANNING, AIRPORTS), COMPATIBILITY, FEASIBILITY STUDIES, CONTROL, ECONOMICS (U)
IDENTIFIERS: NOISE POLLUTION, LAND USE ZONING, *LAND USE (U)

CONVERTING LAND NEAR AIRPORTS FROM RESIDENTIAL AND OTHER AIRPORT-INCOMPATIBLE USES TO COMMERCIAL, INDUSTRIAL, OR OTHER AIRPORT-COMPATIBLE USES PROVIDES A POTENTIAL SOLUTION TO THE AIRPORT NOISE PROBLEM. THE STUDY DEVELOPED A METHODOLOGY FOR ANALYZING THE FEASIBILITY OF REDEVELOPMENT AND APPLIED IT IN FOUR CASE STUDY AIRPORT AREAS: LOS ANGELES INTERNATIONAL, MIAMI INTERNATIONAL, LONG ISLAND-MACARTHUR (ISLIP, N.Y.), AND DALLAS-FORT WORTH. THE STUDY EXAMINED EXISTING LAND USE PATTERNS, THE IMPACT OF CURRENT LAND USE CONTROLS, PRICES FOR INCOMPATIBLE LAND, THE MARKET FOR COMPATIBLE REUSES OF IMPACTED LAND, COMMUNITY PARTICIPATION IN REDEVELOPMENT, AND INSTITUTIONAL AND POLITICAL BARRIERS TO SUCCESSFUL REDEVELOPMENT. THE STUDY FOUND INCOMPATIBLE LAND USES PREVALENT AND INCREASING IN ALL AREAS. REDEVELOPMENT WAS FOUND TO BE AN EFFECTIVE AND PERMANENT BUT GENERALLY VERY EXPENSIVE SOLUTION, BECAUSE OF HIGH LAND ACQUISITION COSTS AND LOW DEMAND FOR REUSES. REDEVELOPMENT CAN BE JUSTIFIED ONLY IN SELECTED, SMALL, HEAVILY IMPACTED AREAS. PRE-EMPTION OF VACANT LAND AND EFFECTIVE ZONING AND LAND USE PLANNING ARE OTHER OPTIONS FOR LAND USE CONTROL STRATEGY. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 759 982 6/11 20/1
NAVY EXPERIMENTAL DIVING UNIT WASHINGTON D C

TEST OF BENDIX AIR FILTERS USED AS MUFFLERS. (U)

DESCRIPTIVE NOTE: LETTER REPT.,
SEP 71 8P REIMERS,STEPHEN D. ;
REPT. NO. NEDU-LR-8-71

UNCLASSIFIED REPORT

DESCRIPTORS: (*DECOMPRESSION, NOISE), (*GAS FILTERS, RELIABILITY), (*NOISE, GAS FILTERS), REDUCTION, EXHAUST SYSTEMS, HAZARDS, TEST METHODS, LIFE SUPPORT (U)
IDENTIFIERS: MUFFLERS, AIR FILTERS, SILENCERS, *HYPERBARIC CHAMBERS (U)

EXCESSIVE NOISE, COMING MAINLY FROM AIR SUPPLY AND EXHAUST LINES, HAS RECENTLY BECOME RECOGNIZED AS A SERIOUS HAZARD TO HYPERBARIC CHAMBER PERSONNEL. A BENDIX AIR FILTER NO. 057619 WAS TESTED BY THE NAVY EXPERIMENTAL DIVING UNIT AS A POTENTIAL MUFFLER FOR THESE SYSTEMS. THE FILTER WAS FOUND TO PRODUCE A 30DBA REDUCTION IN THE SOUND LEVEL PRODUCED BY THE AIR SUPPLY LINE IN EDU'S NO. 5 RECOMPRESSION CHAMBER. THE FILTER, BEING COMBUSTIBLE, WAS, HOWEVER, JUDGED A FIRE HAZARD AND WORK WITH IT HAS BEEN TERMINATED IN FAVOR OF WORK WITH ALL METAL FILTERS AND SILENCERS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 761 669 20/1 13/10
ANDRULIS RESEARCH CORP BETHESDA MD

A STUDY OF SHIPBOARD NOISE CRITERIA. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
MAY 73 58P ANDRULIS,MARILYN W. ;MAGRAB,
EDWARD B. ;
REPT. NO. ARC-TR-73-0159.1
CONTRACT: N00014-73-C-0159

UNCLASSIFIED REPORT

DESCRIPTORS: (*SHIP NOISE, CLASSIFICATION),
STANDARDIZATION, MEASUREMENT, SHIP AUXILIARY EQUIPMENT,
SHIP STRUCTURAL COMPONENTS, CONTROL, BROADBAND, SPEECH
RECOGNITION, INTERFERENCE, NAVAL RESEARCH (U)
IDENTIFIERS: LOUDNESS, METRIC SYSTEM, NOISE
POLLUTION (U)

THE STUDY ON SHIPBOARD NOISE CRITERIA IS
PRIMARILY CONCERNED WITH THE CONTRACTUAL VIABILITY OF
SINGLE-NUMBER METRIC STANDARDS FOR SHIPBOARD
EQUIPMENT AND SPACES. AS AN INITIAL STEP TOWARD
PROVIDING TRANSITION GUIDELINES FROM OCTAVE BAND TO
DBA STANDARDS, ANDRULIS RESEARCH CORPORATION
(ARC) HAS DEVISED A METHODOLOGY BASED ON
STATISTICAL CONSIDERATIONS FOR THE CLASSIFICATION OF
EQUIPMENT AND OF SPACES IN TERMS OF SINGLE-NUMBER
METRICS. IMPLEMENTATION OF THE ARC SCHEME SHOULD
NOT ONLY CLARIFY THE FEASIBILITY OF CLASSIFYING
FREQUENCY-DEPENDENT EQUIPMENT AND SPACES IN TERMS OF
SINGLE-NUMBER METRICS, AND OF PREDETERMINING LAYOUT
DESIGNS AND NOISE CONTROL PROCEDURES, BUT ALSO THE
PRACTICABILITY OF THE CURRENTLY PROPOSED DBA
LEVELS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 762 988 6/19
CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF, (U)

DEC 72 31P COLLINS,WILLIAM E. ; IAMPIETRO,P. F. ;
PROJ: FAA-AM-B-70-PSY-24, FAA-AM-B-71-PSY-24
MONITOR: FAA-AM 72-35

UNCLASSIFIED REPORT

DESCRIPTORS: (*SLEEP, *SONIC BOOM), NOISE, STRESS(PHYSIOLOGY), ACCLIMATIZATION, PSYCHOPHYSIOLOGY, AGING(PHYSIOLOGY) (U)
IDENTIFIERS: *NOISE POLLUTION (U)

EIGHT MALE SUBJECTS IN EACH OF THREE AGE GROUPS (21-26, 40-45, 60-72 YEARS) SLEPT IN PAIRS IN THE CAMI SONIC BOOM SIMULATION FACILITY FOR 21 CONSECUTIVE NIGHTS. THE FIRST FIVE NIGHTS WERE USED TO ACCLIMATE THE SUBJECTS (NIGHTS 1 AND 2) AND TO OBTAIN BASELINE DATA (NIGHTS 3-5); THE 12 SUBSEQUENT NIGHTS (BOOM) INVOLVED THE HOURLY PRESENTATION OF SIMULATED SONIC BOOMS AT AN OVERPRESSURE LEVEL OF 1.0 PSF (AS THOUGH MEASURED 'OUTDOORS'); DURING FOUR ADDITIONAL NIGHTS (RECOVERY) THERE WERE NO BOOM PRESENTATIONS. ALL-NIGHT RECORDS OF EEG, EOG, EMG, ECG, AND BSR WERE OBTAINED AND ANALYZED. NONE OF THESE PHYSIOLOGICAL MEASURES SHOWED ANY STATISTICALLY SIGNIFICANT EFFECT OF THE BOOM PRESENTATIONS ON NIGHTLY SLEEP PATTERNS. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 764 739 6/19
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. APR 72-MAR 73, JUL 73 16P SUTHERLAND,HARRELL C. , JR.; DANFORD,ROY , JR.;GASAWAY,DONALD C. ;
REPT. NO. SAM-TR-73-20
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: (*EAR, AIRCRAFT NOISE), (*HEARING, AIRCRAFT NOISE), NOISE, MUSCLES, REFLEXES, INTENSITY, THRESHOLDS(PHYSIOLOGY) (U)
IDENTIFIERS: MIDDLE EAR (U)

MIDDLE-EAR MUSCLE REFLEX THRESHOLD WITH THREE TYPES OF AIRCRAFT NOISE AND WITH A 1000-HZ PURE TONE WAS SOUGHT WITH 21 RATED FLYING PERSONNEL. THREE SUBJECTS FAILED TO RESPOND TO THE NOISE AT MAXIMUM INTENSITY (108-DB SPL). AVERAGE REFLEX THRESHOLD IN DB SPL FOR THE OTHER 18 SUBJECTS WAS 94.8 DB FOR THE 1000-HZ TONE, 95.2 DB FOR T-37B NOISE, 98.8 DB FOR UH-1P NOISE, AND 94.4 DB FOR F-4E NOISE. THRESHOLD FOR THE UH-1P NOISE WAS SIGNIFICANTLY HIGHER THAN THRESHOLDS FOR THE OTHER SOUNDS. NO OTHER DIFFERENCES WERE SIGNIFICANT. THRESHOLD SPLS ARE WELL WITHIN THE RANGE OF INTENSITIES COMMONLY PRESENT IN AIRCRAFT, WHICH SUGGESTS THAT THIS REFLEX BE CONSIDERED IN ANY STUDY DEALING WITH THE EFFECTS OF AIRCRAFT NOISE ON OCCUPANTS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 765 419 6/19
HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD

NOISE AND BLAST. (U)

DESCRIPTIVE NOTE: TECHNICAL MEMO.,
JUN 73 67P HODGE,DAVID C. ;GARINTHER,
GEORGES R. ;
REPT. NO. HEL-TM-10-73

UNCLASSIFIED REPORT

DESCRIPTORS: (*STRESS(PHYSIOLOGY), *NOISE),
(*STRESS(PSYCHOLOGY), NOISE), (*HEARING, NOISE),
DEAFNESS, BLAST, MEASUREMENT, PERFORMANCE(HUMAN),
BEHAVIOR, INDUSTRIAL MEDICINE, URBAN AREAS (U)
IDENTIFIERS: *NOISE POLLUTION (U)

THE EFFECTS OF NOISE AND BLAST UPON MAN ARE COMPLEX AND VARIED. ALTHOUGH THIS REPORT IS DIRECTED PRIMARILY TOWARD THE NOISE PRODUCED DURING SPACE ACTIVITIES THE EFFECTS UPON MAN WILL BE SIMILAR REGARDLESS OF THE SPECIFIC NOISE SOURCE. DATA ARE PRESENTED DEALING WITH PHYSICAL ACOUSTICS, THE CHARACTERISTICS OF SOUND AND APPROPRIATE NOISE MEASUREMENTS. HEARING LOSS RESULTING FROM BOTH STEADY-STATE AND IMPULSE NOISE IS DISCUSSED ALONG WITH THE FACTORS INFLUENCING ITS ACQUISITION AND RECOVERY AND THE RESULTANT EFFECTS UPON PERFORMANCE. SUBJECTIVE AND BEHAVIORAL RESPONSE TO NOISE IS DISCUSSED IN TERMS OF MASKING OF AUDITORY SIGNALS AND SPEECH, ANNOYANCE AND GENERAL OBSERVATION. CURRENT RESEARCH IN THE AREA OF NONAUDITORY EFFECTS IS REVIEWED VARYING FROM CARDIOVASCULAR ALTERALTIONS TO THE RISK OF DEATH. CURRENT DESIGN CRITERIA ARE PRESENTED FOR BOTH STEADY-STATE AND IMPULSE NOISE FOR BOTH WORKSPACES AND COMMUNITIES. (AUTHOR)
PORTIONS OF THIS DOCUMENT ARE NOT FULLY LEGIBLE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 766 085 6/16 5/10
MEMPHIS STATE UNIV TENN DEPT OF PSYCHOLOGY

CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE. (U)

DESCRIPTIVE NOTE: FINAL REPT. MAY 71-AUG 73,
AUG 73 47P FLETCHER, JOHN L. ;
REPT. NO. HRL/2
CONTRACT: N00014-71-C-0354
PROJ: NR-197-002

UNCLASSIFIED REPORT

DESCRIPTORS: (*HEARING, HIGH FREQUENCY), (*AVIATION PERSONNEL, HEARING), EXPOSURE(PHYSIOLOGY), NOISE, AUDITORY PERCEPTION, AUDIOMETRY, DEAFNESS, NAVAL PERSONNEL, PILOTS (U)
IDENTIFIERS: HEARING, LOSSES, HEARING CONSERVATION (U)

CONVENTIONAL (.5, 1, 2, 3, 4, AND 6 KHZ) AND HIGH FREQUENCY (8, 9, 10, 11, 12, 13, 14, 15, 16, AND 18 KHZ) HEARING WAS TESTED OF US NAVY AVIATORS FLYING PRIMARILY PROP, JET, OR HELICOPTER AIRCRAFT FOR VARYING AMOUNTS OF HOURS. RESULTS SHOW A PROGRESSIVE DECLINE IN HEARING AS A FUNCTION OF NUMBER OF HOURS FLIGHT TIME. THEY ALSO REVEAL HIGH FREQUENCY HEARING TO BE MOST AFFECTED AS WELL AS EARLIER TO DETERIORATE FROM NOISE EXPOSURE. THESE RESULTS SUGGEST HIGH FREQUENCY HEARING TESTING COULD BE OF SIGNIFICANT VALUE IN HEARING CONSERVATION PROGRAMS IN EARLY DETECTION OF LOSS AND IN EVALUATING EFFECTIVENESS OF HEARING CONSERVATION MEASURES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 766 326 6/19
MAN-ACOUSTICS AND NOISE INC SEATTLE WASH

THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JUL 73 39P MABRY,J. E. ;PARRY,H. J.
;
REPT. NO. MAN-1004
CONTRACT: DOT-FA73WA-3213
PROJ: FAA-202-554-015
MONITOR: FAA-RD 73-115

UNCLASSIFIED REPORT

DESCRIPTORS: (*ELECTROENCEPHALOGRAPHY, *SONIC BOOM), (*NOISE, *SLEEP), SIMULATION, STRESS(PHYSIOLOGY), AIRCRAFT NOISE, JET AIRCRAFT (U)

THE THREE MAIN OBJECTIVES OF THIS STUDY WERE AS FOLLOWS: DETERMINE THE FEASIBILITY OF INVESTIGATING EFFECT OF SIMULATED SONIC BOOMS ON SOME SLEEP PATTERNS OF PERSONS UNDERGOING ROUTINE ELECTROENCEPHALOGRAPHIC (EEG) EXAMINATIONS; DETERMINE THE EXTENT THAT EEG WAVEFORMS ARE ALTERED BY THE SIMULATED SONIC BOOMS; AND OBTAIN 'DISTURBANCE', JUDGMENTS AS A FUNCTION OF THE SIMULATED BOOM NOISES. RESULTS WERE OBTAINED FROM FIFTY (50) SUBJECTS OF BOTH SEXES WITH AGES RANGING FROM 15 TO 72 YEARS OF AGE. DATA WAS RELEVANT TO RESTING, DOZING, OR LIGHT SLEEP. THE EEG WAVEFORMS FOR RESTING OR DOZING PERSONS WAS NOT CHANGED BY THE SIMULATED BOOM NOISES. IN GENERAL, THE SUBJECTS WERE NOT, 'DISTURBED', BY THE SIMULATED BOOMS. NINETY-TWO (92) PERCENT OF THE SUBJECTS REPORTED NO, 'DISTURBANCE', TO ANY OF THE SIMULATED BOOMS PRESENTED. TWO RISE TIMES OF 15 AND 7 MS WERE EMPLOYED WITH OVERPRESSURES RANGING FROM 0.94 TO 2.85 PSF. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 766 498 6/19
NAVAL AEROSPACE MEDICAL RESEARCH LAB PENSACOLA FLA

THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
AUG 73 34P ROBERTSON,RONALD M. ;
WILLIAMS,CARL E. ;
REPT. NO. NAMRL-1190

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO AD-739 368.

DESCRIPTORS: (*HEARING, AIRCRAFT NOISE), (*AIRCRAFT NOISE, FLIGHT CREWS), AVIATION PERSONNEL, NAVAL PERSONNEL, NOISE, EXPOSURE(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), AUDIOMETRY, SPEECH RECOGNITION (U)

THE INVESTIGATION WAS DESIGNED TO EXPLORE THE RELATIONSHIP BETWEEN AVIATION NOISE EXPOSURE HISTORY AND HIGH-FREQUENCY HEARING SENSITIVITY. THE NAMRL PORTION OF THE STUDY FOCUSED ON ADMINISTERING CONVENTIONAL AUDIOMETRY, HIGH-FREQUENCY AUDIOMETRY (4 KHZ - 18 KHZ), AND A SPEECH INTELLIGIBILITY TEST IN NOISE TO 108 NAVAL AVIATION OFFICER CANDIDATES PRIOR TO THE FOLLOWING PRIMARY FLIGHT TRAINING (APPROXIMATELY 25-28 HOURS) IN T-34 AIRCRAFT. HEARING PROTECTION CONSISTED OF EITHER THE APH-6C OR APH-6D FLIGHT HELMET. COCKPIT NOISE LEVELS IN THE T-34 RANGE FROM 96-115 DBA; DURING CRUISE THE NOISE LEVEL IS APPROXIMATELY 100 DBA. RESULTS INDICATE NO SIGNIFICANT CHANGE IN HEARING SENSITIVITY OR SPEECH DISCRIMINATION THAT COULD BE ATTRIBUTED TO NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 767 204 6/19 6/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

RELATION BETWEEN DAILY NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JUN 73 39P BAUGHN,WILLIAM L. ;
REPT. NO. AMRL-TR-73-53
PROJ: AF-7230

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PREPARED IN COOPERATION WITH ENVIRONMENTAL PROTECTION AGENCY, REPT. NO. EPA-550-73-001-C. SEE ALSO AD-767 205.

DESCRIPTORS: (*NOISE, *HEARING), (*INDUSTRIAL MEDICINE, NOISE), THRESHOLDS(PHYSIOLOGY), EXPOSURE(PHYSIOLOGY), AUDIOMETRY, DEAFNESS, AUDITORY ACUITY, OTORHINOLARYNGOLOGY (U)
IDENTIFIERS: *NOISE POLLUTION (U)

THE STUDY IS DESIGNED TO DISPLAY THE PERCENT OF A POPULATION EXHIBITING GREATER THAN CERTAIN SPECIFIED AUDIOMETRIC HEARING LEVELS AS A FUNCTION OF SPECIFIED EXPOSURE LEVELS AND DURATION OF EXPOSURES TO THOSE LEVELS. AUDIOMETRIC DATA FROM 6835 EMPLOYEES OF AN INDUSTRIAL PLANT WERE TAKEN DURING THE PERIOD FROM 1960 THROUGH 1965. THE EMPLOYEES WERE SELECTED ONLY ON THE CRITERION THAT THEIR NOISE EXPOSURES WERE REASONABLY WELL KNOWN. HEARING LEVELS FOR EACH OF THREE EXPOSURE CONDITONS (78, 86, AND 92 DBA) WERE OBTAINED FOR THE SPEECH (0.5, 1, AND 2 KHZ) AND THE 4 KHZ AUDIOMETRIC FREQUENCIES. THE DATA ARE SMOOTHED AND HEARING RISK TABLES ARE PRESENTED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 767 205 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

PREDICTION OF NIPTS DUE TO CONTINUOUS NOISE EXPOSURE. (U)

DESCRIPTIVE NOTE: JOINT EPA/USAF STUDY,
JUL 73 67P JOHNSON,DANIEL L. ;
REPT. NO. AMRL-TR-73-91
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PREPARED IN COOPERATION WITH ENVIRONMENTAL PROTECTION AGENCY, REPT. NO. EPA-550/9-73-001-B. SEE ALSO AD-767 204.

DESCRIPTORS: (*NOISE, THRESHOLDS(PHYSIOLOGY)), (*HEARING, NOISE), AUDIOMETRY, EXPOSURE(PHYSIOLOGY), HAZARDS, DEAFNESS, AUDITORY ACUITY, FREQUENCY (U)
IDENTIFIERS: *NOISE POLLUTION, *HEARING CONSERVATION (U)

THE REPORT COMPARES THE RELATIONSHIP OF NOISE EXPOSURE TO NOISE INDUCED PERMANENT THRESHOLD SHIFT (NIPTS) AS PREDICTED BY THE CURRENTLY AVAILABLE WORKS OF PASSCHIER-VERMEER, ROBINSON, BAUGHN AND KRYTER, AND THE YET UNPUBLISHED WORK OF THE NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH. THE WORKS OF PASSCHIER-VERMEER, ROBINSON, AND BAUGHN ARE SELECTED SINCE THESE ARE THE ONLY WORKS THAT COMPLETELY PREDICT THE RELATIONSHIP BETWEEN NIPTS AND NOISE EXPOSURE FOR VARIOUS AUDIOMETRIC FREQUENCIES, SOUND PRESSURE LEVELS AND POPULATION PERCENTILES. THE PREDICTIONS OF THESE THREE METHODOLOGIES ARE AVERAGED IN ORDER TO PROVIDE ONE SINGLE RELATIONSHIP BETWEEN CONTINUOUS NOISE EXPOSURE AND NIPTS. THIS RELATIONSHIP IS PRESENTED IN VARIOUS WAYS SO THAT THE EFFECT OF NOISE EXPOSURE ON HEARING CAN BE VIEWED IN MORE THAN ONE WAY. DISCUSSION CONCERNING THE TYPE OF FREQUENCY WEIGHTING, THE EQUAL ENERGY RULE, AND LONG DURATION EXPOSURES IS ALSO PROVIDED. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 767 222 20/1 6/19
ARMY ELECTRONICS COMMAND FORT MONMOUTH N J

THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING. (U)

DESCRIPTIVE NOTE: RESEARCH AND DEVELOPMENT TECHNICAL REPT.,
AUG 73 160P GIORDANO,THOMAS A. ;KEANE, GERARD C. ;
REPT. NO. ECOM-4140
PROJ: DA-1-T-061101-A-91-A, DA-1-F-263207-DB-97
TASK: 1-T-061101-A-91-A-30, 1-F-263207-DB-9701

UNCLASSIFIED REPORT

DESCRIPTORS: (*HELICOPTERS, *NOISE), (*HEARING, *HAZARDS), (*VOICE COMMUNICATIONS, INTELLIGIBILITY), STRESS(PHYSIOLOGY), ACOUSTICS, PROBLEM SOLVING, HELMETS, EAR PROTECTORS, TIME, DAMAGE, MICROPHONES, SIGNAL-TO-NOISE RATIO (U)
IDENTIFIERS: MICROPHONES, NOISE REDUCTION, CH-47 AIRCRAFT, HEARING, LOSSES, *HELICOPTERS, *NOISE(SOUND), COMPUTER ANALYSIS (U)

THE EFFECTS OF CH-47 (CHINOOK) HELICOPTER NOISE ON THE AVIATOR'S HEARING AND ON COMMUNICATION SYSTEM INTELLIGIBILITY ARE SERIOUS ONES. THE EFFORT DESCRIBED BY THIS REPORT IS AIMED AT REDUCING THE SOUND PRESSURE LEVELS AT THE AVIATOR'S EARS WHILE MAINTAINING HIGH INTELLIGIBILITY AND QUALITY IN THE COMMUNICATION SYSTEM. THE OVERALL PROBLEM IS FIRST DEFINED. THE NOISE LEVELS INSIDE ALL AREAS OF THE CH-47 WERE FOUND TO EXCEED THE HEARING DAMAGE RISK CRITERIA SET FORTH BY THE SURGEON GENERAL. EVEN WITH HEARING PROTECTORS, THE AVIATOR IS LIMITED TO THE TIME HE MAY FLY WITHOUT UNDUE RISK TO HIS HEARING. THE ELECTRICAL CHARACTERISTICS OF THE COMMUNICATION SYSTEM WERE DETERMINED. NON-LINEAR FREQUENCY RESPONSES OF THE MICROPHONE AND EARCUP WERE DETECTED. THESE RESONANCES CAUSE EMPHASIS OF THOSE FREQUENCIES IN WHICH THE EAR IS MOST SENSITIVE. THE POOR NOISE CANCELLING ABILITY OF THE M-87 MICROPHONE AT HIGH FREQUENCIES CAUSE LOW SIGNAL TO NOISE RATIOS IN THE COMMUNICATION SYSTEM. AN INTELLIGIBILITY VS. IN-EAR DBA LEVEL STUDY WAS RUN TO EVALUATE THE POTENTIAL SUCCESS OF AN 'IDEAL' PERFECT NOISE CANCELLING MICROPHONE AND OTHER MICROPHONE MODIFICATIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 767 274 6/19
DAYTON UNIV OHIO RESEARCH INST

A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION. (U)

DESCRIPTIVE NOTE: FINAL TECHNICAL REPT.,
JUL 73 159P GUIGNARD,J. C. ;
REPT. NO. UDRI-TR-73-29
CONTRACT: F33615-72-C-1402
PROJ: AF-7231
TASK: 723103
MONITOR: AMRL,EPA TR-73-90,550/9-73-001-A

UNCLASSIFIED REPORT

DESCRIPTORS: (*NOISE, *HEARING), (*DEAFNESS, NOISE), AUDIOMETRY, AUDITORY ACUITY, EXPERIMENTAL DATA, PHYSIOLOGY, STRESS(PHYSIOLOGY) (U)

A COMPILATION OF DATA IS PROVIDED, WITH REFERENCES TO PUBLISHED WORK, WHICH REPRESENTS THE PRESENT STATE OF KNOWLEDGE CONCERNING THE EFFECTS OF CONTINUOUS AND IMPULSIVE NOISE ON HEARING. THE DANGER TO THE EAR OF BOTH OCCUPATIONAL AND NONOCCUPATIONAL HUMAN EXPOSURE TO NOISE IS CONSIDERED. DATA ARE INCLUDED OR CITED WHICH ENABLE QUANTITATIVE PREDICTIONS TO BE MADE OF THE RISK TO HEARING IN THE AMERICAN POPULATION DUE TO NOISE EXPOSURE IN ANY WORKING OR LIVING CONTEXT. RECOMMENDATIONS ARE MADE CONCERNING THE NEED TO OBTAIN MORE DEFINITIVE DATA. RELEVANT ASPECTS OF NOISE ON THE EAR ARE DISCUSSED IN APPENDICES TO THE MAIN REPORT. THE REPORT DEALS SOLELY WITH THE EFFECTS OF NOISE ON HEARING; OTHER PHYSIOLOGICAL OR PSYCHOLOGICAL EFFECTS OF NOISE ARE NOT CONSIDERED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 768 223 5/9
VIRGINIA COMMONWEALTH UNIV RICHMOND DEPT OF PSYCHOLOGY

USES OF VIBRATION IN HELICOPTER FLYING. (U)

DESCRIPTIVE NOTE: FINAL REPT. 1 DEC 68-31 AUG 72,
JUL 73 83P HAWKES,GLENN R. ;KATZ,GARY M. ;RAY,WILLIAM S. ;
REPT. NO. PRI-73
CONTRACT: DADA17-69-C-9063

UNCLASSIFIED REPORT

DESCRIPTORS: (*PERCEPTION, *HELICOPTERS), (*PILOTS, TRAINING), PERFORMANCE(HUMAN), VIBRATION, NOISE, RESPONSE(BIOLOGY), TEST METHODS, TIME, ANALYSIS OF VARIANCE, ATTENTION, PERFORMANCE(HUMAN), ATTRITION, ACCURACY (U)
IDENTIFIERS: STIMULUS RESPONSE, JUDGMENT (U)

SEVEN RESEARCH STUDIES AND A SUMMARY PAPER ARE DESCRIBED IN THE REPORT. THE TASK SITUATION IS THAT OF THE HELICOPTER PILOT WHO MUST MAINTAIN VISUAL CONTACT WITH AN ENVIRONMENT OUTSIDE THE AIRCRAFT, AND RESPOND TO TURBULENCE AND OTHER REQUIREMENTS FOR CONTROL SURFACE ADJUSTMENTS FROM NOISE AND VIBRATION CUES. TIME JUDGMENTS OF THESE CUES WERE STUDIED WITH FINDINGS SUCH AS FOLLOWS: NOISE AND VIBRATION ARE JUDGED ABOUT EQUALLY WELL IN MOST SITUATIONS; NOISY VS. QUIET BACKGROUNDS HAVE LITTLE EFFECT ON PERFORMANCE; WHEN RESPONDING TO SIGNALS, PILOTS MAY OVER-REACT, OR THEY MAY UNDER-REACT IF THEY INITIATE MANEUVERS. OTHER RESPONSES ARE NOTED AND DISCUSSED WITH RESPECT TO VIBRATORY AND NOISE STIMULI THAT COULD BE OF VALUE, IN THE TRAINING OF PILOTS FOR OPERATIONAL USE OF HELICOPTERS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 770 185 5/10
SOCIETY OF AUTOMOTIVE ENGINEERS INC NEW YORK

AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS. (U)

DESCRIPTIVE NOTE: FINAL REPT.
OCT 73 66P
REPT. NO. SAE-R-12-1
CONTRACT: DOT-FA71WA-2673
MONITOR: FAA-RD 72-51-VOL-1

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO VOLUME 2, AD-770 244.

DESCRIPTORS: *AIRCRAFT NOISE, *PSYCHOACOUSTICS, *RESPONSE, HUMAN FACTORS ENGINEERING, TEST METHODS, LABORATORY PROCEDURES, TAPE RECORDING, SPECIFICATIONS, REQUIREMENTS (U)

ABSENCE OF GOOD AGREEMENT AMONG LABORATORY STUDIES INVOLVING HUMAN RESPONSE TO AIRCRAFT NOISE LED TO THE CONCLUSION THAT THE APPLICATION OF DIFFERENT PSYCHOACOUSTIC PROCEDURES COULD ACCOUNT FOR DIFFERING CONCLUSIONS. SINCE THERE IS A CONTINUING REQUIREMENT TO DEVELOP AN ENGINEERING CALCULATION PROCEDURE WHICH VALIDLY REFLECTS RESPONSE TO FLYOVER NOISE FROM FUTURE AIRCRAFT (STOL, VTOL, SST), A THREE-PHASE PROGRAM WAS CONCEPTUALIZED. THE DOCUMENT DEALS WITH PHASE 1: DETAILING OF SPECIFICATIONS AND REQUIREMENTS FOR FOUR PSYCHOACOUSTIC LABORATORY EXPERIMENTS PLUS THE ACQUISITION OF TAPE RECORDINGS OF NOISES THAT MATCH THE FOUR EXPERIMENTS. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 770 257 5/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME, (U)

73 5P HARRIS,C. STANLEY ;SOMMER, HENRY C. ;
REPT. NO. AMRL-TR-73-14
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN THE AEROSPACE MEDICINE, V44 N9 P1013-1016 1973.

DESCRIPTORS: *PERFORMANCE(HUMAN), *TRACKING, *NOISE, *VIBRATION, ANALYSIS OF VARIANCE, REACTION TIME, RESPONSE (U)

STUDIES CONDUCTED IN THE LABORATORY ON THE COMBINED EFFECTS OF NOISE AND VIBRATION ON TRACKING PERFORMANCE HAVE YIELDED BOTH ADDITIVE AND SUBTRACTIVE EFFECTS. ONE REASON FOR THE DIFFERENCE IN RESULTS MAY BE THE DIFFERENCE IN THE INTENSITY LEVELS OF THE NOISE USED. THE PURPOSE OF THE PRESENT STUDY WAS TO DETERMINE WHETHER THE INTENSITY DIFFERENCES IN NOISE LEVEL CAN ACCOUNT FOR THE RESULTS. NOISE PRODUCED A DETRIMENTAL EFFECT ON TRACKING TASK PERFORMANCE AND THE EFFECT WAS ADDITIVE TO THE ADVERSE EFFECT PRODUCED BY VIBRATION WHEN BOTH NOISE AND VIBRATION WERE PRESENTED SIMULTANEOUSLY. THESE RESULTS, ALONG WITH THE RESULTS OF THE PREVIOUS EXPERIMENTS, DEMONSTRATE THAT AS NOISE LEVEL IS INCREASED FROM 100 TO 110 DB THE COMBINED EFFECT OF NOISE AND VIBRATION CHANGES FROM SUBTRACTIVE TO ADDITIVE. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 770 285 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT. (U)

DESCRIPTIVE NOTE: FINAL REPT. JUL 72-MAR 73,
SEP 73 20P SOMMER,HENRY C. ;
REPT. NO. AMRL-TR-73-34
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: *AUDITORY PERCEPTION, *NOISE, *VIBRATION, *THRESHOLDS(PHYSIOLOGY), STRESS(PHYSIOLOGY) (U)
IDENTIFIERS: NOISE POLLUTION (U)

TO DETERMINE THE COMBINED EFFECTS OF NOISE AND VIBRATION ON AUDITORY FUNCTION, THE TEMPORARY THRESHOLD SHIFTS (TTS) OF TWO GROUPS OF 10 SUBJECTS EACH WERE MEASURED AS A FUNCTION OF INTENSITY AND DURATION OF EXPOSURE. COMBINED NOISE AND VIBRATION WAS PRESENTED TO ONE GROUP FOR 5 MINUTES AND TO THE OTHER FOR 20 MINUTES. BOTH GROUPS WERE EXPOSED TO VIBRATION IN THE Z AXIS AT FREQUENCIES OF 9 HZ AND 18 HZ AT INTENSITY LEVELS OF 0.475 GZ (PEAK) AND 0.950 GZ, RESPECTIVELY. NOISE LEVELS OF 90 DB AND 100 DB WERE PRESENTED SIMULTANEOUSLY WITH THE VIBRATION. TTS WAS MEASURED AT POST EXPOSURE RECOVERY TIMES OF 0.5, 2.0, 5.0, 10.0, AND 20.0 MINUTES. ALTHOUGH THE MEAN DIFFERENCE WAS SMALL (0.72 DB), A SIGNIFICANTLY LARGER TTS WAS OBTAINED AT 9 HZ THAN 18 HZ VIBRATION, AND 100 DB PRODUCED A LARGER TTS THAN 90 DB. SIGNIFICANT DIFFERENCES IN TTS WERE ALSO OBTAINED AS A FUNCTION OF DURATION OF EXPOSURE, AND AS A FUNCTION OF POST EXPOSURE RECOVERY TIME. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 772 449 6/10 6/19
ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER CHARLOTTESVILLE VA

SOME CLINICAL AND PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE, (U)

DEC 73 7P DUMKINA,G. Z. ;
REPT. NO. FSTC-HT-23-2405-72

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: TRANS. OF GIGIENA TRUDA I PROFESSIONALNYE ZABOLEVANIYA (USSR) N12 P23-26 1966.

DESCRIPTORS: *NOISE POLLUTION, *INDUSTRIAL MEDICINE, *MACHINERY NOISE, PATHOLOGY, NERVOUS SYSTEM, MACHINE TOOLS, LATHES, STRESS(PHYSIOLOGY), TRANSLATIONS, USSR, CARDIOVASCULAR SYSTEM, INDUSTRIAL MEDICINE, INDUSTRIAL HYGIENE, FATIGUE(PHYSIOLOGY), BLOOD PRESSURE, ELECTROCARDIOGRAPHY, HIGH FREQUENCY, HEARING (U)

SOME OF THE TURRET LATHE AND AUTOMATIC LATHE OPERATORS STUDIED, SUBJECTED TO THE INFLUENCE OF MIDDLE AND HIGH FREQUENCY NOISE AT 82-99 DB, SHOWED FUNCTIONAL CHANGES IN THE NERVOUS SYSTEM CHARACTERISTIC FOR THE ASTHENO-VEGETATIVE SYNDROME. THE DEGREE AND FREQUENCY OF THESE CHANGES INCREASED WITH INCREASING NOISE INTENSITY AND WORKING EXPERIENCE UNDER THE INFLUENCE OF NOISE. A NUMBER OF PERSONS, WITH NO ORGANIC CHANGES IN THE CARDIOVASCULAR SYSTEM, SHOWED FUNCTIONAL CHANGES OF HEMODYNAMICS, MANIFESTED AS CARDIAC-TYPE COMPLAINTS, LABILITY OF BLOOD PRESSURE AND A TENDENCY TOWARD CAPILLARY SPASM. IN SOME CASES, A PERSISTENT REDUCTION IN AUDITORY SENSITIVITY WAS NOTED IN THE HIGH FREQUENCY RANGE, PROGRESSIVE WITH INCREASING NOISE INTENSITY AND WORK EXPERIENCE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 773 451 6/19
CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY, (U)

JUL 73 20P THACKRAY,RICHARD I. ; RYLANDER,RAGNAR ;TOUCHSTONE,R. MARK ;
MONITOR: FAA-AM 73-11

UNCLASSIFIED REPORT

DESCRIPTORS: *SONIC BOOM, *NOISE POLLUTION, AVIATION MEDICINE, PSYCHOPHYSIOLOGY, SOUND, STIMULATION, REACTION(PSYCHOLOGY), STRESS(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), SWEDEN, FEMALES (U)
IDENTIFIERS: *STARTLE RESPONSE (U)

THE STUDY REPORTS THE RESULTS OF A SONIC BOOM FIELD STUDY CONDUCTED IN SWEDEN DURING OCTOBER 1972. TEN FEMALE SUBJECTS WERE TESTED INDOORS ON EACH OF SIX DAYS. TWO AGE GROUPS WERE STUDIED: 20-35 AND 50-65 YEARS. FIGHTER AIRCRAFT FLYING AT VARIOUS HEIGHTS OVER THE TEST SITE PRODUCED BOOMS WITH OUTDOOR OVERPRESSURES RANGING FROM 60-640 N/SQ.M. THE NUMBER OF BOOMS EXTENDED FROM 5 TO 13 PER DAY. SUBJECTS PERFORMED INDOORS ON AN ARM-HAND STEADINESS TASK. THE RESULTS INDICATED THAT OUTDOOR OVERPRESSURES RANGING FROM 70-120 N/SQ.M. (26-35 N/SQ.M. INDOORS) PRODUCED REFLEXIVE ARM-HAND MOVEMENTS IN ABOUT 10 PER CENT OF THE SUBJECTS. BOOMS OF 300 N/SQ.M. (67 N/SQ.M. INDOORS) AND GREATER PRODUCED RESPONSES IN ABOUT 75 PER CENT OF THE SUBJECTS. BETWEEN THESE EXTREMES OF OVERPRESSURE THERE WAS THE SUGGESTION OF A CRITICAL OVERPRESSURE RANGE LYING BETWEEN 150-180 N/SQ.M. (40-46 N/SQ.M. INDOORS) IN WHICH AN ABRUPT INCREASE IN STARTLE RESPONSE OCCURRED. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 773 690 5/10
ARMY CONSTRUCTION ENGINEERING RESEARCH LAB CHAMPAIGN ILL

PREDICTING COMMUNITY RESPONSE TO BLAST NOISE. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
DEC 73 98P SCHOMER,PAUL D. ;
REPT. NO. CERL-TR-E-17
PROJ: DA-4-A-062212
TASK: 4-A-06221205

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: REPORT ON SOUND AND VIBRATION TOLERANCE LIMITS--RESIDENTIAL AREAS.

DESCRIPTORS: *NOISE(SOUND), *COMMUNITY RELATIONS, *BLAST, *EXPLOSIVES, *NOISE POLLUTION, ATTITUDES(PSYCHOLOGY), MATHEMATICAL PREDICTION, COMPUTER PROGRAMMING, OVERPRESSURE, ARTILLERY FIRE, GROUND LEVEL, AIRBURST, UNDERGROUND EXPLOSIONS (U)
IDENTIFIERS: *ANNOYANCE (U)

THE REPORT PRESENTS A PRELIMINARY METHOD FOR PREDICTING LEVELS OF ANNOYANCE FROM ARTILLERY OR BLAST NOISE IN THE ENVIRONS OF A MILITARY BASE. THE MEANS ARE GIVEN TO RELATE VARIOUS ARTILLERY PIECES TO A TNT EQUIVALENT AND TO NORMALIZE THE OVERPRESSURE FROM DETONATING VARIOUS QUANTITIES OF TNT TO THE OVERPRESSURE FROM THE DETONATION OF ONE POUND OF TNT. BURIED CHARGES AND ABOVEGROUND DETONATIONS ARE ALSO CONSIDERED. VARIOUS WAYS TO PREDICT PROBABLE BLAST OVERPRESSURE AND FREQUENCY SPECTRUM AS A FUNCTION OF DISTANCE ARE DISCUSSED. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 776 943 6/10 6/16
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS, (U)

MAR 74 15P MAKSIMIVA,L. I. ;
REPT. NO. FTD-HT-23-1036-74

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED TRANS. FROM NAUCHNO-ISSLEDOVATELSKII INSTITUT GIGIENY, MOSCOW. UCHENYE ZAPISKII (USSR) P92-99 1968, BY VICTOR MESENZEFF.

DESCRIPTORS: *HEARING, *NOISE, *EAR PROTECTORS, DEAFNESS, TEST METHODS, AUDIOMETRY, STRESS(PHYSIOLOGY), PERSONNEL, USSR, TRANSLATIONS, OCCUPATIONAL DISEASES, MEDICAL RESEARCH, AUDITORY ACUITY, PREDICTIONS (U)

FOR PROLONGED PERIODS OF TIME UNDER INDUSTRIAL CONDITONS, NOISE AT 85-88 DB WHICH IS AT THE MAXIMUM PERMISSILBE LEVELS AND 74-80 DB WHICH IS 5-10 DB BELOW THE MAXIMUM PERMISSIBLE LEVELS IN THE FREQUENCY RANGE OF 800 TO 4000 HZ, CAN PRESENT A DANGER WITH REGARD TO THE DEVELOPMENT OF OCCUPATIONAL HARDNESS OF HEARING WHEN THE INDIVIDUAL'S HEARING ORGAN IS NOT SUFFICIENTLY STABLE. IN ORDER TO IMPROVE THE EFFECTIVE STANDARDS, IN ADDITION TO PHYSIOLOGICAL STUDIES, IT IS NECESSARY TO CARRY OUT DYNAMIC CLINICAL OBSERVATIONS IN THE PROCESS OF CHRONIC NOISE EFFECT UNDER INDUSTRIAL CONDITIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 777 184 5/10 6/19
NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT SAN DIEGO CALIF

PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM, (U)

73 19P JOHNSON,LAVERNE C. ; TOWNSEND,RICHARD E. ;NAITOH,PAUL ;MUZET,ALAIN G. ;

REPT. NO. NMNRU-73-33
PROJ: MF12.524
TASK: MF12.524.004

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PROCEEDINGS OF THE INTERNATIONAL CONGRESS ON NOISE AS A PUBLIC HEALTH PROBLEM HELD AT DUBROVNIK (YUGOSLAVIA) ON MAY 13-18, 1973, P559-574.

DESCRIPTORS: *NOISE, *SLEEP, PUBLIC HEALTH, PSYCHOPHYSIOLOGY, STRESS(PSYCHOLOGY), STRESS(PHYSIOLOGY), HUMANS, MONITORING, MILITARY MEDICINE, BEHAVIOR, EXPOSURE(PHYSIOLOGY), PERFORMANCE(HUMAN) (U)
IDENTIFIERS: SLEEP STAGES (U)

IN ONE 15-DAY AND ONE 55-DAY LABORATORY STUDY AND ONE OPERATIONAL 7-DAY TRAINING CRUISE, THE EFFECT OF 24-HOUR-A-DAY EXPOSURE TO PINGS OF INTENSITIES RANGING FROM 80 - 90 DB SPL ON SLEEP WAS EXAMINED. THE PINGS WERE LESS THAN A SECOND IN DURATION WITH AN INTERSTIMULUS INTERVAL OF 45 OR 22 SECONDS, AND IN THE 3-4 KHZ FREQUENCY RANGE. MAXIMUM DURATION OF PING EXPOSURE WAS 30 DAYS. IN THIS YOUNG ADULT SAMPLE, EXPOSURE TO THE NOISE DID NOT PRODUCE A DECREASE IN SLEEP DURATION OR AN INCREASE IN NUMBER OF AWAKENINGS. THERE WERE, HOWEVER, REPORTS OF SLEEP ONSET DIFFICULTY AND A DECREASE IN PERCENT OF SLEEP STAGE FOUR DURING PING EXPOSURE. NO SIGNIFICANT CHANGES IN WAKING PERFORMANCE OR BEHAVIOR WERE FOUND AS A RESULT OF THE PING EXPOSURE DURING ANY OF THE THREE STUDIES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 777 520 5/10 6/17
ARMY MEDICAL RESEARCH LAB FORT KNOX KY

PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
OCT 73 15P LUZ,GEORGE A. ;DECATUR, RICHARD A. ;THOMPSON,ROBERT L. ;
REPT. NO. USAMRL-1066
PROJ: DA-3-A-161102-B-71-R
TASK: 3-A-61102-B-71-R-03

UNCLASSIFIED REPORT

DESCRIPTORS: *BEHAVIOR, *EAR PROTECTORS, UTILIZATION, HEARING, NOISE, PROTECTIVE EQUIPMENT, MOTIVATION, ATTITUDES(PSYCHOLOGY) (U)
IDENTIFIERS: INCENTIVES(PSYCHOLOGY) (U)

THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE WHETHER SOCIAL CONTEXTS HAD ANY INFLUENCE ON THE USE OF EAR PROTECTION IN A HAZARDOUS NOISE ENVIRONMENT AND ON ATTITUDES TOWARD EARPLUGS. AN ARMY COMMUNITY WAS SCANNED FOR SITUATIONS IN WHICH PERSONS COULD CHOOSE TO USE EAR PROTECTION. BEHAVIOR WAS MEASURED IN THREE DIFFERENT WAYS: PENCIL AND PAPER TESTS, OBSERVATION, AND EXPERIMENTAL MANIPULATION. IN THREE DIFFERENT SITUATIONS, THE USAGE OF EARPLUGS WAS SIGNIFICANTLY RELATED TO SOCIAL CONTEXT. A RECOMMENDATION FOR A MORE PRECISE DEFINITION OF THE POSITIVE INCENTIVES FOR EAR PROTECTION WAS MADE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 777 581 6/19
FEDERAL AVIATION ADMINISTRATION WASHINGTON D C OFFICE OF AVIATION MEDICINE

A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS, (U)

DEC 73 14P THACKRAY,RICHARD I. ; TOUCHSTONE,ROBERT M. ;BAILEY,JOE P. ;
REPT. NO. FAA-AM-73-16

UNCLASSIFIED REPORT

DESCRIPTORS: *SONIC BOOM, PSYCHOMOTOR FUNCTIONS, STRESS(PHYSIOLOGY), RESPONSE(BIOLOGY), PERFORMANCE(HUMAN), HEART, EYE, GALVANIC SKIN RESPONSE, REFLEXES, NOISE, AUTONOMIC NERVOUS SYSTEM (U)
IDENTIFIERS: *STARTLE RESPONSES, NOISE POLLUTION, HEART RATE (U)

SUBJECTS WERE EXPOSED INDOORS TO SIMULATED SONIC BOOMS HAVING OUTSIDE OVERPRESSURES OF 50 AND 150 N/SQ M. RISE TIMES WERE HELD CONSTANT AT 5.5 MSECS. IN ADDITION TO THE OUTSIDE MEASUREMENTS, INSIDE MEASURES OF DBLIN AND DBA WERE ALSO OBTAINED. SUBJECTS ATTEMPTED TO HOLD A HAND-STEADINESS DEVICE ON TARGET DURING BOOM EXPOSURE AND AMPLITUDE OF THE ARM-HAND STARTLE RESPONSE WAS DETERMINED. RECORDINGS WERE ALSO OBTAINED OF THE SKIN CONDUCTANCE AND HEART-RATE RESPONSES AS WELL AS THE EYE-BLINK REFLEX. ALTHOUGH THE 50 N/SQ M BOOM PRODUCED SLIGHT ARM-HAND STARTLE RESPONSES IN A SMALL PERCENTAGE OF SUBJECTS, THE FREQUENCY OF THESE RESPONSES WAS SIGNIFICANTLY GREATER TO THE HIGHER BOOM LEVEL. TENTATIVE CONCLUSIONS ADVANCED THAT SONIC BOOMS EXPERIENCED INDOORS MAY CAUSE SLIGHT ARM-HAND STARTLE RESPONSES WHICH COULD HAVE ADVERSE EFFECTS ON OCCUPATIONAL TASKS IN WHICH ARM-HAND STEADINESS IS THE PRINCIPAL SKILL REQUIRED, BUT THAT IT SEEMS UNLIKELY THESE RESPONSES WOULD SIGNIFICANTLY IMPAIR PERFORMANCE ON LESS SENSITIVE PSYCHOMOTOR TASKS. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 779 833 6/10
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS, (U)

APR 74 12P PALTSEV,YU. P. ;
REPT. NO. FTD-HT-23-1031-74
PROJ: AF-7231
TASK: 723101

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED TRANS. FROM NAUCHNO-ISSLEDOVATELSKII INSTITUT GIGIENY, MOSCOW. UCHENYE ZAPISKII (USSR) P56-62 1968, BY FRANK C. VAUGHAN.

DESCRIPTORS: *THERMAL POWER PLANTS, *NOISE(SOUND), *INDUSTRIAL HYGIENE, ACOUSTIC MEASUREMENT, PERFORMANCE(HUMAN), DEAFNESS, USSR, TRANSLATIONS, PROTECTION, PERSONNEL, INDUSTRIAL MEDICINE (U)
IDENTIFIERS: RECOMMENDATIONS, NOISE POLLUTION, NOISE REDUCTION (U)

THE MAINTENANCE PERSONNEL OF THERMAL POWER STATIONS ARE EXPOSED TO THE CONSTANT EFFECT OF NOISE, WHOSE TOTAL LEVEL REACHES 100-111 DB, FOR THE WHOLE WORK DAY. THE NOISE LEVELS CAN BE LOWERED BOTH AT OPERATING AND PLANNED THERMAL POWER STATIONS DUE TO THE ELIMINATION OR SOUND PROOFING OF ITS SOURCES. FOR THE PROTECTION OF THE MAINTENANCE PERSONNEL OF THE POWER STATION FROM THE ADVERSE EFFECT OF NOISE IN TURBINE AND BOILER SHOPS, IT IS NECESSARY TO INSTALL NOISE INSULATING BOOTHS IN THE OPERATOR'S POSITIONS AND TO COVER THE WALLS OF THE ROOMS OF UNIT CONTROL PANELS WITH SOUND INSULATING PANELS. IT IS RECOMMENDED THAT ANTIHUM DEVICES BE USED DURING WORK IN SECTIONS WITH INTENSE NOISE (NEAR AIR HOLES OF STEAM PIPELINES). (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 780 369 6/10
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS, (U)

APR 74 11P KUBLANOVA,P. S. ;
REPT. NO. FTD-HT-23-1035-74
PROJ: AF-7231
TASK: 723101

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED TRANS. FROM NAUCHNO-ISSLEDOVATELSKII INSTITUT GIGIENY, MOSCOW. UCHENYE ZAPISKII (USSR) P86-91 1968, BY RAY E. ZARZA.

DESCRIPTORS: *PISTOLS, *HEARING, *NOISE, DEAFNESS, SMALL ARMS, TEST METHODS, INDUSTRIAL MEDICINE, USSR, TRANSLATIONS, PROTECTIVE EQUIPMENT (U)
IDENTIFIERS: HEARING CONSERVATION (U)

THE STATE OF THE ACOUSTIC FUNCTION IN 31 PISTOL TESTER-ASSEMBLERS WAS STUDIED. THEIR AGES WERE FROM 25 TO 45 YEARS, PERIOD OF SERVICE FROM ONE MONTH TO 2.5 YEARS. FOR THE WORKERS SUBJECTED TO PROLONGED ACTION OF INDUSTRIAL NOISE AND VIBRATIONS, SEVERAL TYPES OF AUDIOGRAMS WERE ENCOUNTERED THAT REFLECT DIFFERENT STAGES OF THE DEVELOPMENT OF OCCUPATIONAL DEAFNESS. THE LIMITED SUPPRESSION OF HEARING CAN BE REPRESENTED IN THE FORM OF A CURVE WITH A TROUGH AT 4000 HZ; EARLIER IMPAIRMENT PERSISTS OVER A RELATIVELY LONG PERIOD, AND THEN SLOWLY AND TO A LESS MARKED DEGREE, COVERS 3000 HZ, 2000 HZ AND LOWER FREQUENCIES. FOR THOSE WORKERS WITH A CONSIDERABLE DEGREE OF HEARING IMPAIRMENT AT 4000 HZ AND HIGHER, IT WAS OBSERVED THAT WITH A RELATIVELY GREATER PERIOD OF INDUSTRIAL SERVICE, THERE WAS RETENTION OF THE NORMAL PERCEPTION OF THE LOWER SOUNDS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 781 656 6/10
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES, (U)

JUN 74 15P KUBLANOVA,P. S. ;RYABOV,N. A. ;

REPT. NO. FTD-HT-23-1037-74

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED TRANS. OF NAUCHNO-ISSLEDOVATELSKII INSTITUT GIGIENY, MOSCOW. UCHENYE ZAPISKII (USSR) P100-107 1968, BY JOSEPH E. PEARSON.

DESCRIPTORS: •INDUSTRIAL MEDICINE, •NOISE, •VIBRATION, •HEARING, OPERATORS(PERSONNEL), DEAFNESS, EXCAVATION, STANDARDS, USSR, TRANSLATIONS (U)
IDENTIFIERS: MINES(EXCAVATIONS) (U)

THE REPORT GIVES A BRIEF DISCUSSION OF THE STUDY ON THE STATE OF THE OTORHINOLARYNGOLOGICAL ORGANS AND THE AUDITORY AND VESTIBULAR FUNCTIONS IN THE WORKERS OF THE SIBAYSKIY AND LIBEDINSKIY PITS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 781 658 6/10 6/20
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

REGARDING THE OCCUPATIONAL PATHOLOGY OF PERSONS SUBJECTED TO THE EFFECT OF HIGH-FREQUENCY NOISE IN COMBINATION WITH OTHER FACTORS DURING PLASMA SPRAY COATING OF METALS, (U)

JUN 74 15P ILNITSKAYA,A. V. ;
REPT. NO. FTD-HT-23-1034-74
PROJ: AF-7231
TASK: 723101

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED TRANS. OF NAUCHNO-ISSLEDOVATELSKII INSTITUT GIGIENY, MOSCOW. UCHENYE ZAPISKII (USSR) P78-85 1968, BY PAUL J. REIFF.

DESCRIPTORS: *INDUSTRIAL MEDICINE, *NOISE, METAL COATINGS, TOXICITY, ENVIRONMENTS, HAZARDS, EXPOSURE(PHYSIOLOGY), STANDARDS, OCCUPATIONAL DISEASES, INDUSTRIES, USSR, TRANSLATIONS (U)
IDENTIFIERS: RECOMMNEDATIONS, *PLASMA SPRAYING, METAL INDUSTRY (U)

AMONG THE NEW TECHNOLOGICAL PROCESSES, PLASMA METHODS OF METAL PROCESSING SHOW GREAT PROMISE. THEREFORE, A MULTIFACETED INVESTIGATION OF THE WORKING CONDITIONS OF PERSONS INVOLVED IN THE SERVICING OF PLASMA APPARATUSES IS PRESENTED TO PREVENT POSSIBLE OCCUPATIONAL ILLNESSES. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD- 785 740 6/10 5/10
LOUISVILLE UNIV KY PERFORMANCE RESEARCH LAB

BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE. (U)

DESCRIPTIVE NOTE: INTERIM TECHNICAL REPT. 1 JUL 71-30 JUN 72,
JUN 74 142P REPKO,JOHN D. ;BROWN,BILL R. ;LOEB,MICHEL ;
REPT. NO. ITR-74-29
CONTRACT: DAHC19-69-C-0009
PROJ: DA-2-T-014501-B-81-B
TASK: 2-T-014501-B-81-B-00

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: *NOISE POLLUTION, *STRESS(PSYCHOLOGY), *INDUSTRIAL HYGIENE, PSYCHOPHYSIOLOGY, PERFORMANCE(HUMAN), BEHAVIOR, MILITARY PERSONNEL, ACOUSTICS, ENVIRONMENTS, THRESHOLDS(PHYSIOLOGY), PHYSIOLOGICAL EFFECTS, EXPOSURE(PHYSIOLOGY), PSYCHOACOUSTICS (U)

THE PURPOSE OF THIS INVESTIGATION WAS TO ASSESS MAN'S PERFORMANCE IN A WORK SITUATION WHEREIN 90 DB CONTINUOUS AND PERIODIC 96 DB INTERMITTENT NOISE WERE SEPARATELY PRESENTED AS ENVIRONMENTAL OR WORK-SITUATION STRESSORS. THE PRESENT STUDY EMPLOYED A SYNTHETIC-WORK APPROACH IN WHICH SEVERAL TASKS WERE COMBINED INTO A MULTIPLE-TASK PERFORMANCE BATTERY (MTPB) CONSISTING OF SIX TASKS SELECTED TO TEST BOTH INDIVIDUAL- AND SMALL-GROUP (CREW) PERFORMANCE. THE RESULTS, SHOWED THAT THE MEAN PERCENTAGE OF BASELINE PERFORMANCE WAS ENHANCED BY A PERIODIC 96 DB INTERMITTENT NOISE. ON THE OTHER HAND, SINCE CONTINUOUS NOISE MAY BE CONSIDERED AS CONTAINING FEWER STIMULUS ELEMENTS THAN INTERMITTENT NOISE, IT WAS EXPECTED THAT GENERAL PERFORMANCE DURING CONTINUOUS NOISE WOULD BE LESS THAN DURING INTERMITTENT NOISE. (MODIFIED AUTHOR ABSTRACT) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 787 652 6/10 13/2
ENVIRONMENTAL HEALTH LAB KELLY AFB TEX

HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY, 910 TAC FIGHTER GROUP (AFRES) YOUNGSTOWN MUNICIPAL AIRPORT VIENNA OH 44473. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
SEP 74 42P GRAUVOGEL,LAWRENCE W. ;
REPT. NO. EHL(K)-74-24

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *INDUSTRIAL HYGIENE, OCCUPATIONAL DISEASES, OHIO, VENTILATION, THERMAL STRESSES, ILLUMINATION, PERSONNEL, CHEMICALS, AIR FORCE, AIRPORTS (U)
IDENTIFIERS: RECOMMENDATIONS, VIENNA(OHIO), *HEARING CONSERVATION (U)

AT THE REQUEST OF HEADQUARTERS, CENTRAL AIR FORCE RESERVE REGION, ELLINGTON AFB TX, A HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY WAS CONDUCTED 22-24 MAY 1974 FOR THE 910 TAC FIGHTER GROUP (AFRES), YOUNGSTOWN MA, VIENNA OH 44473. PERSONNEL EXPOSED TO POTENTIALLY HAZARDOUS NOISE AND SOURCES AND AREAS OF POTENTIALLY HAZARDOUS NOISE ARE IDENTIFIED BY SHOP. VENTILATION, THERMAL STRESS AND ILLUMINATION ARE DISCUSSED FOR EACH SHOP AND RECOMMENDATIONS MADE. COMPREHENSIVE LISTINGS BY SHOP OF CHEMICALS USED AND COMPOSITION ARE INCLUDED TO AID THE PHYSICIAN IN IDENTIFICATION OF THE POSSIBLE SOURCE OF OCCUPATIONAL ILLNESSES ENCOUNTERED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD- 907 805 19/4 6/19 14/2
ABERDEEN PROVING GROUND MD MATERIEL TESTING DIRECTORATE

SPECIAL STUDY OF ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS. (U)

DESCRIPTIVE NOTE: FINAL REPT. 19 APR-18 SEP 72,
DEC 72 32P COMPTON,J. ;
REPT. NO. APG-MT-4183
PROJ: RDT/E-1-U-65702-D-625, USATECOM-9-CO-001-000-082
TASK: 1-U-665702-D-62501

UNCLASSIFIED REPORT

DESCRIPTORS: (*ANATOMICAL MODELS, *EXPLOSION EFFECTS), (*BLAST, STRESS(PHYSIOLOGY)), ARMORED VEHICLES, ARMY PERSONNEL, ANTHROPOMETRY, VULNERABILITY, AIRBURST, IMPACT SHOCK, AMMUNITION FRAGMENTS, PROJECTILES, LAND MINES, SAFETY, PHYSICAL PROPERTIES, TISSUES(BIOLOGY), HEAD(ANATOMY), EXTREMITIES, THORAX, ABDOMEN, TOLERANCES(PHYSIOLOGY), HEAT TOLERANCE, EXPLOSIONS, FLAMES, SIMULATION, INSTRUMENTATION, TEST METHODS, CASUALTIES, WOUNDS AND INJURIES, BONE FRACTURES, HUMAN BODY, HUMANS, SURVIVAL(PERSONNEL), DYNAMICS, MALES, SIMULATORS, DAMPING, ELASTIC PROPERTIES, DEFORMATION, RESONANCE, ACCELERATION, FORCE(MECHANICS), MUSCULOSKELETAL SYSTEM (U)
IDENTIFIERS: BIOENGINEERING, OVERPRESSURE, TANK CREWS (U)

THE INVESTIGATION OF EXISTING MATERIEL TESTING DIRECTORATE (MTD) CAPABILITIES INVOLVING THE USE OF ANTHROPOMORPHIC SIMULATORS TO ACQUIRE DATA PERTINENT TO THE DETERMINATION OF INJURIES TO THE CREWS OF ARMORED VEHICLES AS A RESULT OF EXPOSURE TO MINE-EXCITED SHOCK BLAST WAS CONDUCTED FROM 19 APRIL THROUGH 18 SEPTEMBER 1972 AT ABERDEEN PROVING GROUND. THE OBJECTIVES OF THIS INVESTIGATION WERE TO DEFINE CUSTOMER INTERESTS, THE OPTIONS AVAILABLE IN ANTHROPOMORPHIC SIMULATORS, THE AVAILABILITY OF GUIDELINES FOR CORRELATING TEST RESULTS TO KNOWN HUMAN EFFECTS, AND THE APPLICABLE INSTRUMENTATION. THE INVESTIGATIONS WERE LIMITED TO THE IMPACT REGION OF HUMAN TOLERANCE LEVELS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A001 152 6/5
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

CONCEPTS OF THE TERMS SUSCEPTIBILITY AND RESISTANCE AS THEY RELATE TO HEARING DAMAGE DUE TO NOISE, (U)

NOV 74 14P SEDLACEK,K. ;
REPT. NO. FTD-HC-23-2783-74

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: EDITED TRANS. OF CESKOSLOVENSKA OTOLARYNGOLOGIE, V21 N1 P4-9 1972.

DESCRIPTORS: *NOISE POLLUTION, *HEARING, DAMAGE, LOSSES, RESISTANCE(BIOLOGY), INDUSTRIAL MEDICINE, TRANSLATIONS, CZECHOSLOVAKIA, HUMANS (U)
IDENTIFIERS: AUDITORY DEFECTS (U)

THE AUTHOR'S DEFINITION OF SUSCEPTIBILITY AND RESISTANCE IS FORMULATED ON THE BASIS OF CORRELATION BETWEEN THE INJURING FACTOR (NOXA) AND ITS EFFECT BY MEANS OF THE PROBABILITY THAT IS EXPRESSED AS THE DIFFERENCE BETWEEN THE EXPECTED VALUE GIVEN BY THE REGRESSION LINE AND REAL VALUE OF THE HEARING LOSS. THIS DEFINES SUSCEPTIBILITY AND, SIMILARLY, RESISTANCE AS THE PROBABILITY OF A GIVEN LOSS WITH THE PRESUMPTION OF THE AVERAGE REACTIVITY OF THE GIVEN PERSON. EXAMPLES OF APPLICATION OF SUCH AN EVALUATION OF RECEPTIVITY ARE SHOWN. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A002 266 5/10 20/1
FEDERAL AVIATION ADMINISTRATION WASHINGTON D C OFFICE OF AVIATION MEDICINE

BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS, (U)

SEP 74 16P THACKRAY,RICHARD I. ; TOUCHSTONE,R. MARK ;BAILEY,JOE P. ;
REPT. NO. FAA-AM-74-9
PROJ: FAA-AM-E-74-PSY-47, FAA-AM-E-75-PSY-47

UNCLASSIFIED REPORT

DESCRIPTORS: *SONIC BOOM, *STRESS(PSYCHOLOGY), *PSYCHOLOGICAL TESTS, SIMULATION, INTENSITY, RESPONSE, NOISE POLLUTION, EYE (U)
IDENTIFIERS: *STARTLE EFFECTS, ANNOYANCE, EYEBLINK (U)

TWO SEPARATE STUDIES ARE REPORTED. THE FIRST ATTEMPTED TO DETERMINE A SONIC BOOM EXPOSURE LEVEL BELOW WHICH STARTLE REACTIONS WOULD NOT OCCUR. SUBJECTS WERE EXPOSED INDOORS TO SIX SIMULATED SONIC BOOMS HAVING VARIOUS OUTSIDE OVERPRESSURES. IN THE SECOND STUDY, SUBJECTS WERE EXPOSED INDOORS TO A SERIES OF 12 SIMULATED BOOMS IN ORDER TO ASSESS HABITUAL EFFECTS. AUTOMATIC AND EYEBLINK RESPONSES, AS WELL AS RATINGS OF SUBJECTIVE ANNOYANCE, WERE OBTAINED IN BOTH STUDIES. THE FINAL SECTION OF THE REPORT SUMMARIZES THE EXPECTED BEHAVIORAL, AUTONOMIC, AND SUBJECTIVE EFFECTS OF EXPOSURE TO VARIOUS LEVELS OF SONIC BOOMS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A003 570 6/16 20/1
HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD

UPPER LIMIT TO STAPES DISPLACEMENT:
IMPLICATIONS FOR HEARING LOSS. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
FEB 74 6P PRICE,G. RICHARD ;
REPT. NO. HEL-TM-28-74

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN JNL ACOUSTICAL SOCIETY
OF AMERICA, V56 N1 P195-197 JUL 74.

DESCRIPTORS: *EAR, *DEAFNESS, *NOISE(SOUND),
HEARING, HIGH FREQUENCY, EXPOSURE(PHYSIOLOGY),
NOISE POLLUTION, HUMAN FACTORS ENGINEERING,
INDUSTRIAL MEDICINE, IMPULSE NOISE, REPRINTS (U)
IDENTIFIERS: *MIDDLE EAR, HEARING LOSS,
STAPES (U)

BASED ON CALCULATIONS FROM EXISTING DATA, THE HUMAN MIDDLE EAR APPEARS TO HAVE A DISPLACEMENT LIMIT OF ABOUT 30 MICROMETERS PEAK TO PEAK AND BECOMES NONLINEAR AT ABOUT 10 MICROMETERS PEAK TO PEAK. THIS NONLINEARITY BEGINS AT FREE-FIELD SPLS OF 110 TO 120 DB IN THE MIDRANGE OF FREQUENCIES. THE PRESENCE OF AN ABSOLUTE LIMIT TO STAPES DISPLACEMENTS INDICATES THAT AT HIGH SPLS THERE IS A HIGH-FREQUENCY BIAS IN THE CONDUCTING MECHANISM WHICH MAY IN PART BE RESPONSIBLE FOR THE HIGH-FREQUENCY HEARING LOSS COMMONLY SEEN FOLLOWING INDUSTRIAL AND/OR IMPULSIVE NOISE EXPOSURE. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A003 638 6/10 6/20
ENVIRONMENTAL HEALTH LAB KELLY AFB TEX

INDUSTRIAL HYGIENE SURVEY, 110TH TACTICAL SUPPORT GROUP, MI ANG BATTLE CREEK, MI 49016. (U)

DESCRIPTIVE NOTE: FINAL TECHNICAL REPT.,
DEC 74 44P GRAUVOGEL,LAWRENCE W. ;
REPT. NO. EHL(K)-74-28
PROJ: EHL-K-74-11

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *INDUSTRIAL HYGIENE, TOXICOLOGY, VENTILATION, INSPECTION, STANDARDS, OCCUPATIONAL DISEASES, CHEMICALS, EAR PROTECTORS (U)
IDENTIFIERS: INDUSTRIAL ATMOSPHERES, RECOMMENDATIONS, TOXIC HAZARDS (U)

AT THE REQUEST OF THE 110TH TACTICAL SUPPORT GROUP, MI ANG, BATTLE CREEK MI 49016 AND AS DIRECTED BY AFLC/SGB A HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY WAS CONDUCTED 9-12 SEPTEMBER 1974. PERSONNEL EXPOSED TO POTENTIALLY HAZARDOUS NOISE AND SOURCES AND AREAS OF POTENTIALLY HAZARDOUS NOISE ARE IDENTIFIED BY SHOP. VENTILATION IS DISCUSSED FOR THE SHOPS. COMPREHENSIVE LISTINGS BY SHOP OF CHEMICALS USED AND COMPOSITIONS ARE INCLUDED TO AND THE PHYSICIAN IN IDENTIFICATION OF THE POSSIBLE SOURCE OF OCCUPATIONAL ILLNESSES ENCOUNTERED. RECOMMENDATIONS FOR USE OF EAR PROTECTION AND OTHER PROTECTIVE EQUIPMENT AND ALTERATIONS IN VENTILATION SYSTEMS, ESPECIALLY FOR THE VEHICLE SPRAY PAINTING FACILITY, ARE SUMMARIZED BY SHOP. THE UNIT OPERATES O-2 AIRCRAFT. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A003 953 5/10
COMPUTER IMAGE CORP DENVER COLO

THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE. (U)

DESCRIPTIVE NOTE: FINAL TECHNICAL REPT.,
NOV 74 89P CICCHINELLI,LOUIS ;HALPERN,
JOSEPH ;
CONTRACT: N00014-74-C-0117

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PREPARED IN COOPERATION WITH DENVER UNIV., COLO.

DESCRIPTORS: *INFORMATION PROCESSING, *PERFORMANCE(HUMAN), *VISUAL ACUITY, DISPLAY SYSTEMS, DYNAMICS, OBSERVATION, CONTROL, TEST METHODS, STIMULI, NAVAL RESEARCH, INTERFERENCE, ACOUSTIC FIELDS, SHIP NOISE, SEA STATES (U)
IDENTIFIERS: OBSERVER CONTROL, TASK PERFORMANCE, SEA NOISE (U)

A SERIES OF EXPERIMENTS IS REPORTED WHICH INVESTIGATED THE EFFECTS ON PERFORMANCE OF OBSERVER CONTROL OVER CERTAIN INFORMATION PARAMETERS OF A DYNAMIC VISUAL DISPLAY. THE RESULTS SHOWED THAT CLASSIFICATION PERFORMANCE WAS ENHANCED WHEN EXPERIENCED OBSERVERS COULD ELIMINATE AND ATTENUATE INFORMATION. WHEN NAIVE OBSERVERS WERE PRESENTED WITH THIS ATTENUATED INFORMATION SET, THEIR PERFORMANCE WAS SUPERIOR TO THAT OF A COMPARABLE GROUP SHOWN THE ENTIRE INFORMATION SET. THESE RESULTS WERE CONSISTENT ACROSS TWO DIFFERENT, BUT RELATED, SETS OF STIMULI: AMBIENT SEA NOISES AND SHIP SOUNDS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD-A004 818 20/1 13/2
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
NOV 74 111P BISHOP,DWIGHT E. ;
REPT. NO. BBN-2582
CONTRACT: F33615-73-C-4160
MONITOR: AMRL TR-73-105

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRCRAFT NOISE, *URBAN AREAS, *URBAN PLANNING, *NOISE POLLUTION, AIRPORTS, LAND USE, AIRCRAFT ENGINE NOISE, FLIGHT PATHS, NOISE REDUCTION (U)
IDENTIFIERS: *NOISE EXPOSURE, *NOISE EXPOSURE FORECASTS (U)

THIS REPORT IS ONE OF A SERIES DESCRIBING THE RESEARCH PROGRAM UNDERTAKEN BY THE AEROSPACE MEDICAL RESEARCH LABORATORY TO DEVELOP PROCEDURES FOR PREDICTING THE COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. IT DISCUSSES THE APPLICATIONS OF THE PROCEDURE TO THE AIRCRAFT NOISE-RELATED PROBLEMS FACING MASTER PLANNERS, CIVIL ENGINEERS, ENVIRONMENTALISTS, ETC., AS WELL AS THE MANAGEMENT PEOPLE CONCERNED WITH OPERATING AN AIR BASE. EXAMPLES ARE GIVEN OF USE OF THE PROCEDURE IN TERMS FOR LAND PLANNING, OPERATIONAL APPLICATIONS AT AIR BASES AND BASIC AIRCRAFT DESIGN.(U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD-A004 822 20/1 13/2
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
NOV 74 235P GALLOWAY,WILLIAM J. ;
REPT. NO. BBN-2581
CONTRACT: F33615-73-C-4160
PROJ: AF-7231
TASK: 723105
MONITOR: AMRL TR-73-106

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRCRAFT NOISE, *URBAN AREAS, *URBAN PLANNING, *NOISE POLLUTION, AIRPORTS, LAND USE, DIURNAL VARIATIONS, AIRCRAFT ENGINE NOISE, PHYSIOLOGICAL EFFECTS, REACTION(PSYCHOLOGY), FLIGHT PATHS (U)

THIS REPORT IS ONE OF A SERIES DESCRIBING THE RESEARCH PROGRAM UNDERTAKEN BY THE AEROSPACE MEDICAL RESEARCH LABORATORY TO DEVELOP PROCEDURES FOR PREDICTING THE COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. IT REVIEWS CURRENT METHODS FOR PREDICTING NOISE EXPOSURE AROUND AN AIRPORT, THE RESULTS OF VARIOUS SOCIAL SURVEYS AROUND AIRPORTS, AND PSYCHOACOUSTIC STUDIES OF AIRCRAFT NOISE SIGNALS, AS WELL AS EFFECTS OF AIRCRAFT PERFORMANCE, FLIGHT PATH DISPERSION, NON-STANDARD WEATHER EFFECTS, AND OTHER FACTORS AFFECTING THE ACCURACY AND VARIABILITY IN PREDICTING AIRCRAFT NOISE EXPOSURE ON THE GROUND. THESE REVIEWS AND ANALYSES ARE USED TO RECOMMEND A REVISED PROCEDURE FOR PREDICTING NOISE AROUND AIR BASES. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A005 026 5/10
HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD

HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JAN 75 25P HODGE,DAVID C. ;MAZURCZAK, JOSEPH ;
REPT. NO. HEL-TN-2-75

UNCLASSIFIED REPORT

DESCRIPTORS: *AUDITORY ACUITY, *PERFORMANCE(HUMAN), *NOISE, MILITARY RESEARCH, EXPOSURE(PHYSIOLOGY), HEARING, LOSSES, SPEECH (U)
IDENTIFIERS: TEMPORARY THRESHOLD SHIFTS (U)

A NEW RESEARCH PROGRAM IS DESCRIBED WHOSE OBJECTIVES INCLUDE: IDENTIFICATION OF AURAL PERFORMANCE REQUIREMENTS OF SOLDIERS IN TACTICAL SITUATIONS; QUANTIFICATION OF THE EFFECTS OF AURAL ACUITY DEFICITS ON SUCH PERFORMANCE; AND DEVELOPMENT OF MODELS TO PREDICT THE EFFECTS OF MILITARY NOISE EXPOSURE ON SOLDIERS' PERFORMANCE. IT IS SHOWN THAT SOLDIERS NEED TO BE ABLE TO HEAR IN THE 100 HZ TO 12 KHZ RANGE. HEARING LOSSES ARE USUALLY FIRST OBSERVED AT 4-6 KHZ. SPEECH RECEPTION IS RELATIVELY UNAFFECTED BY TYPICAL HEARING LOSS PATTERNS, AND CAN BE PREDICTED FAIRLY WELL FROM AUDIOMETRIC DATA. MATERIEL SOUND DETECTION IS UNAFFECTED BY TYPICAL HEARING LOSSES. PERSONNEL SOUND DETECTION IS PROBABLY AFFECTED BY TYPICAL HEARING LOSSES, AND CANNOT BE PREDICTED FROM AUDIOMETRIC DATA. THE PROGRAM'S CURRENT EMPHASIS IS ON THE RELATION BETWEEN HEARING ACUITY AND HIGH-FREQUENCY PERSONNEL SOUND DETECTION. A DESCRIPTION OF THE TEST ENVIRONMENT IS INCLUDED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A005 274 5/5
SOUTHWEST RESEARCH INST SAN ANTONIO TEX

PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST. (U)

DESCRIPTIVE NOTE: FINAL REPT. MAY-DEC 74, FEB 75 83P WESTINE,PETER S. ;HOKANSON, JAMES C. ;
REPT. NO. R-CR-75-003
CONTRACT: DAAA09-74-C-2064
PROJ: DA-1-W-562603-A-004, SWRI-02-3987
MONITOR: RIA-R CR-75-003

UNCLASSIFIED REPORT

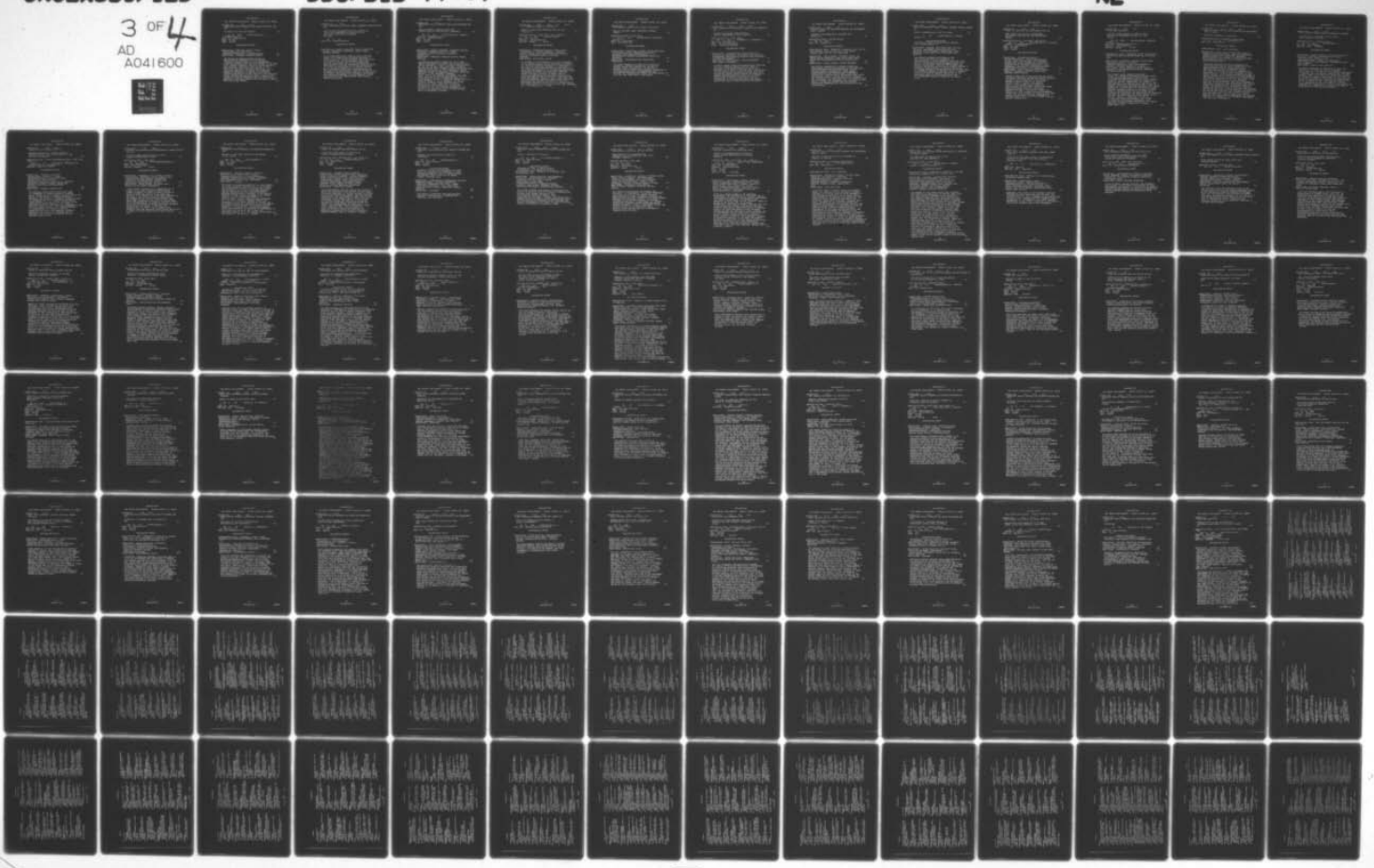
DESCRIPTORS: *BLAST, *HEARING, *SOUND PRESSURE, GUN BARRELS, MATHEMATICAL MODELS, LOSSES, TABLES(DATA), RANGE(DISTANCE), STANDOFF, IMPULSE NOISE, TOLERANCES(PHYSIOLOGY), HAZARDS (U)
IDENTIFIERS: RECOMMENDATIONS, HEARING CONSERVATION (U)

THE RECENTLY ISSUED MIL-STD-1474(MI) SPECIFIES WHAT MAXIMUM SIDE-ON SOUND PRESSURE LEVELS ARE TOLERABLE FOR DIFFERENT DURATIONS OF INCIDENT WAVES IF PERSONNEL AROUND HAZARDOUS NOISE SOURCES ARE TO BE PROTECTED FROM HEARING LOSS. IN THE CASE OF GUN CREW HEARING LOSS FROM MUZZLE BLAST, THE CODE EITHER PRESUMES THAT BLAST PRESSURES AND DURATIONS ARE KNOWN, EXPECTS BLAST PRESSURES AND DURATION TO BE CALCULATED, AND/OR DEMANDS THAT BLAST PRESSURES AND DURATIONS BE MEASURED AROUND ALL GUNS. IN RESPONSE TO MIL-STD-1474, THIS REPORT PRESENTS EMPIRICALLY DERIVED EQUATIONS FOR ESTIMATING PRESSURE, DURATION, AND TIME OF ARRIVAL FOR REFLECTED SHOCKS RELATIVE TO INCIDENT SHOCKS IN THE BLAST FIELD AROUND THE MUZZLE OF GUNS. (U)

AD-A041 600 DEFENSE DOCUMENTATION CENTER ALEXANDRIA VA F/G 6/19
ENVIRONMENTAL POLLUTION. NOISE POLLUTION-NOISE EFFECTS ON HUMAN--ETC(U)
JUN 77

UNCLASSIFIED DDC/BIB-77-07 NL

3 OF 4
AD
A041600



DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A006 395 5/10 6/16
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

THE EFFECT OF QUIET ON HEARING. (U)

JAN 75 22P NIXON,CHARLES W. ;
STEPHENSON,MARK R. ;
REPT. NO. AMRL-TR-74-99
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *QUIET, *NOISE, *PSYCHOACOUSTICS, SENSITIVITY, THRESHOLDS(PHYSIOLOGY), PSYCHOPHYSIOLOGY (U)
IDENTIFIERS: TEMPORARY THRESHOLD SHIFTS (U)

THE HEARING OF SUBJECTS PARTICIPATING IN PSYCHOACOUSTIC EXPERIMENTS MAY BE ELEVATED (TEMPORARY HEARING LOSS) DUE TO ENVIRONMENTAL NOISES ENCOUNTERED PRIOR TO THEIR ARRIVAL AT THE TEST SITE. HEARING THRESHOLD LEVELS OF TRAINED SUBJECTS WERE MEASURED IMMEDIATELY UPON ARRIVAL AT THE LABORATORY AND AGAIN FOLLOWING INDIVIDUAL 1/2, 1, AND 2 HOUR PERIODS IN THE QUIET OF AN ANECHOIC CHAMBER. COMPARISONS OF PREQUIET AND POSTQUIET THRESHOLDS REVEALED A SLIGHT TREND OF 1 OR 2 DECIBLES TOWARD IMPROVED HEARING AFTER QUIET. HOWEVER, THE CHANGES IN HEARING THRESHOLDS WERE NOT STATISTICALLY SIGNIFICANT AND WERE JUDGED TO BE TOO SMALL TO BE OF PRACTICAL SIGNIFICANCE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A007 193 6/10
ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND MD

EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES. (U)

NOV 74 11P
REPT. NO. USAEHA-99-039-75

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE, *MACHINERY NOISE, *INDUSTRIAL HYGIENE, *SPRAYERS, DISPERSING, INSECTICIDES, HAZARDS, HEARING (U)

NOISE MEASUREMENTS WERE MADE ON SEVEN ULTRA-LOW VOLUME (ULV) INSECTICIDE DISPERSAL MACHINES IN ORDER TO IDENTIFY NOISE HAZARDOUS CONDITIONS. WITH THE EXCEPTION OF THE NORTHEASTERN ASSOCIATES CARDINAL ULV SPRAYER ALL OF THE MACHINES WERE GASOLINE-DRIVEN AND THE PREDOMINANT SOURCE OF NOISE FROM THEM WAS IDENTIFIED AS THE ENGINE EXHAUSTS. ALL OF THE GASOLINE-DRIVEN ULV MACHINES, BY US ARMY STANDARDS, CONSTITUTED A HEARING HAZARD TO PERSONNEL IN CLOSE PROXIMITY SUCH AS THE JEEP DRIVER OR OPERATOR AND MAINTENANCE PERSONNEL. MAINTENANCE AND OPERATING PERSONNEL IN CLOSE PROXIMITY TO THE GASOLINE-DRIVEN ULV MACHINES MUST WEAR HEARING PROTECTIVE DEVICES. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A007 842 6/16
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES, (U)

JAN 75 24P NIXON,CHARLES W. ;KRANTZ, DAVID W. ;JOHNSON,DANIEL L. ;
REPT. NO. AMRL-TR-74-101
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE, *HEARING, *THRESHOLD EFFECTS, DEAFNESS, EXPOSURE(PHYSIOLOGY), HUMANS, AUDIOMETRY, NOISE POLLUTION, FREQUENCY, BIOACOUSTICS (U)
IDENTIFIERS: TEMPORARY THRESHOLD SHIFTS, *NOISE EXPOSURE (U)

THE EFFECTS ON HEARING SENSITIVITY OF 24 HOUR MONOTIC EXPOSURES TO A NARROW BAND NOISE WITH THE CENTER FREQUENCY AT 1000 HZ AT SOUND INTENSITIES OF 80, 85, AND 90 DB(A) WERE EVALUATED. AUTOMATIC AUDIOMETRY WAS USED TO ASSESS CHANGES IN HEARING FROM BASELINE LEVELS FOR SIX TEST FREQUENCIES DURING EXPOSURE AND DURING SUBSEQUENT RECOVERY. AMONG THE RESULTS (1) TTS (TEMPORARY THRESHOLD SHIFT) GROWTH AND RECOVERY WAS PRESENT FOR 1000, 1500, AND 2000 HZ TEST FREQUENCIES ONLY, (2) TTS REACHED A MAXIMUM OR ASYMPTOTE BETWEEN 8 AND 16 HOURS EXPOSURE, (3) TTS INDUCED BY THE 85 AND 90 DB(A) EXPOSURE LEVELS EXCEEDED THE LIMITS SPECIFIED BY CHABA (COMMITTEE ON HEARING, BIOACOUSTICS AND BIOMECHANICS) DAMAGE RISK CRITERIA AND (4) LONG DURATION EXPOSURES OF 85 AND 90 DB(A) REQUIRE AT LEAST 24 HOURS OF REST PRIOR TO SUBSEQUENT EXPOSURE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A009 663 20/1 5/10 1/3 6/19
H H AEROSPACE DESIGN CO ELMSFORD N Y

SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST. (U)

DESCRIPTIVE NOTE: FINAL REPT. JUN 74-FEB 75,
FEB 75 106P SLUTSKY,SIMON ;
REPT. NO. HHA-14
CONTRACT: DOT-FA74WAI-468
MONITOR: FAA-RD 75-68

UNCLASSIFIED REPORT

DESCRIPTORS: *STRESS(PHYSIOLOGY), *SONIC BOOM, *ENVIRONMENTS, ANIMALS, SUPERSONIC AIRCRAFT, ACOUSTIC WAVES, WAVE PROPAGATION, PHYSIOLOGICAL EFFECTS, RESPONSE(BIOLOGY), STRUCTURAL RESPONSE (U)
IDENTIFIERS: DOT/4DZ/DA, DOT/5B (U)

THE PURPOSE OF THIS DOCUMENT IS TO MAKE AVAILABLE TO THE NON-SPECIALIST AND NON-SCIENTIST A REVIEW OF THE TECHNICAL CONCEPTS UNDERLYING THE WORK DONE IN THE FIELD OF SONIC BOOM RESEARCH. IT CONTAINS A NON-TECHNICAL DISCUSSION OF THE ACOUSTIC MECHANISMS WHICH ARE FUNDAMENTAL IN SONIC BOOM PHENOMENA, USING PHOTOGRAPHS OF WATER WAVE ANALOGUES. THEN THE REPORT DISCUSSES A VARIETY OF BASIC ASPECTS INCLUDING: GENERATION, PROPAGATION, MINIMIZATION, HUMAN RESPONSE AND SOCIAL CRITERIA, STRUCTURAL AND WILDLIFE RESPONSE, THRESHOLD MACH NUMBER OPERATIONS AND SIMULATION METHODS. THE REPORT SITES MANY REFERENCES AND DRAWS EXTENSIVELY ON A RECENT REVIEW FOR INVESTIGATORS IN THE FIELD OF SONIC BOOM PREPARED BY L. J. RUNYAN AND E. J. KANE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A010 589 6/10
ENVIRONMENTAL HEALTH LAB MCCLELLAN AFB CALIF

MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
JAN 75 45P DIAMOND,PHILIP ;LUBINSKY, WILLIAM B. ;
REPT. NO. EHL-M-75M-1
PROJ: EHL-M-HFF-459

UNCLASSIFIED REPORT

DESCRIPTORS: *INDUSTRIAL HYGIENE, *NOISE POLLUTION, *TRICHLOROETHYLENE, THRESHOLDS(PHYSIOLOGY), SOLVENTS, JOBS, EXPOSURE(PHYSIOLOGY), ENVIRONMENTS, HAZARDS, ULTRASONICS, PROTECTIVE EQUIPMENT (U)
IDENTIFIERS: RECOMMENDATIONS, EVALUATION, DEGREASING (U)

THE REPORT PRESENTS THE RESULTS OF INDUSTRIAL HYGIENE EVALUATIONS CONDUCTED AT THE MAY AIR NATIONAL GUARD INSTALLATION. THE GREATEST POTENTIAL HEALTH HAZARD WAS ULTRASONIC DEGREASING IN THE PNEUDRAULICS SHOP. RECOMMENDATIONS AND FINDINGS ARE PRESENTED FOR CORRECTING DEFICIENCIES IN THIS AREA AND OTHER SHOPS INVESTIGATED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A010 629 20/1 13/2 13/13
ARMY CONSTRUCTION ENGINEERING RESEARCH LAB CHAMPAIGN ILL

CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
APR 75 81P SCHOMER,P. D. ;HOMANS,B. ;
REPT. NO. CERL-TR-E-53
PROJ: DA-4-A-162121-A-896
TASK: 4-A-162121-A-89606

UNCLASSIFIED REPORT

DESCRIPTORS: *CONSTRUCTION, *NOISE POLLUTION, CONSTRUCTION EQUIPMENT, NOISE REDUCTION, ACOUSTIC MEASUREMENT, PHYSIOLOGICAL EFFECTS, SPECIFICATIONS, MILITARY REQUIREMENTS (U)
IDENTIFIERS: *NOISE LEVELS, *NOISE ABATEMENT, ARMY CORPS OF ENGINEERS (U)

IN RECENT YEARS, NOISE FROM CONSTRUCTION SITES HAS BEEN AN INCREASING PROBLEM FOR THE CORPS OF ENGINEERS. THIS REPORT INTRODUCES NOISE AS A PROBLEM, HOW IT AFFECTS MAN, AND ARMY REQUIREMENTS FOR THE PREVENTION OF EXCESSIVE NOISE. WITH THIS BACKGROUND, SAMPLE SPECIFICATIONS ARE PREPARED TO CONTROL CONSTRUCTION-SITE NOISE AND THE MEANS ESTABLISHED TO MONITOR COMPLIANCE. FINALLY, INFORMATION IS GIVEN ON STATE AND LOCAL NOISE REGULATIONS AND ON NOISE-MITIGATION TECHNIQUES. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A012 090 20/1 1/3
ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT
PARIS (FRANCE)

AIRCRAFT NOISE GENERATION, EMISSION AND
REDUCTION. (U)

DESCRIPTIVE NOTE: LECTURE SERIES.
JUN 75 187P
REPT. NO. AGARD-LS-77

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED IN BELGIUM 16-17 JUN 75,
WEST GERMANY 19-20 JUN 75, AND IN THE UNITED
KINGDOM 23-24 JUN 75. NATO FURNISHED.

DESCRIPTORS: *JET AIRCRAFT, *AIRCRAFT NOISE, JET
ENGINE NOISE, PROPELLER NOISE, SONIC BOOM, NOISE
REDUCTION, PHYSIOLOGICAL EFFECTS, LEGISLATION,
NATO (U)
IDENTIFIERS: *NOISE SOURCES, *NOISE ABATEMENT (U)

THE PHYSICAL PROPERTIES OF AIRCRAFT NOISE ARE
SUMMARIZED, WITH SPECIAL EMPHASIS ON JET NOISE AND
FAN-COMPRESSOR-PROPELLER-ROTOR NOISE. TOPICS
INCLUDE ACOUSTIC FUNDAMENTALS, NOISE SOURCE
CHARACTERISTICS AND INTERACTIONS, ATMOSPHERIC
PROPAGATION, AIRFRAME NOISE, SONIC BOOM, DUCT LINER
AND MUFFLER THEORY. DURING THE SERIES, RESEARCH
AND TECHNOLOGY ACTIVITIES RELATED TO JET ENGINE NOISE
AND ITS CONTROL ARE DISCUSSED, AND THE IMPACT OF THIS
NOISE ON PEOPLE AND COMMUNITIES AND AIRCRAFT
OPERATIONAL PROCEDURES FOR NOISE MINIMISATION ARE
ALSO REVIEWED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A012 724 6/16 6/5
ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND MD

HEARING CONSERVATION IN THE U.S. ARMY, (U)

74 4P BEARCE,GERALD R. ;CHOOK, EDWARD K. ;

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PUBLIC HEALTH REPORTS, V85 N10 P896-900 OCT 70.

DESCRIPTORS: HEARING, *EAR PROTECTORS, MILITARY MEDICINE, AUDIOMETRY, PREVENTIVE MEDICINE, DEAFNESS, ARMY PERSONNEL, CONSERVATION, NOISE REDUCTION, NOISE POLLUTION, ARMY OPERATIONS, REPRINTS (U)

THE HEARING CONSERVATION PROGRAM IN THE ARMY IS DIVIDED INTO FIVE ELEMENTS: (1) IDENTIFICATION OF NOISE HAZARDS BY MEASURING SOUND LEVELS IN POTENTIALLY NOISE-HAZARDOUS AREAS; (2) MEDICAL SURVEILLANCE INCLUDING PREPLACEMENT AND PERIODIC AUDIOMETRIC EVALUATION OF WORKERS EXPOSED TO POTENTIAL NOISE HAZARDS; (3) HEARING PROTECTION OF PERSONS EXPOSED TO HAZARDOUS NOISE BY FITTING THEM WITH PERSONAL PROTECTIVE DEVICES, WHICH IF PROPERLY FITTED, CAN PROVIDE ADEQUATE PROTECTION TO THE INDIVIDUAL USER; (4) HEALTH EDUCATION; AND (5) ENGINEERING DESIGN TO REDUCE OR ELIMINATE NOISE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A013 101 6/19 5/9
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM. (U)

DESCRIPTIVE NOTE: FINAL REPT. JAN-JUN 74, JUN 75 28P BOLLINGER,RALPH R. ;CRIGLER, JOSEPH C. ;HARTMAN,BRYCE O. ;
REPT. NO. SAM-TR-75-15
PROJ: AF-7930
TASK: 793009

UNCLASSIFIED REPORT

DESCRIPTORS: *STRESS(PHYSIOLOGY), *STRESS(PSYCHOLOGY), *FATIGUE(PHYSIOLOGY), *FLIGHT CREWS, HELICOPTERS, HUMAN FACTORS ENGINEERING, SLEEP, METABOLISM, VIBRATION, AIRCRAFT NOISE, ENDURANCE(PHYSIOLOGY), TIME DEPENDENCE, JOB ANALYSIS, PERFORMANCE(HUMAN), TOLERANCES(PHYSIOLOGY), FOOD DISPENSING (U)
IDENTIFIERS: H-53 AIRCRAFT, HH-53 AIRCRAFT, WORKLOAD MANAGEMENT, COMFORT, HEART RATE, CRESTED ROOSTER PROJECT (U)

AIRCREW STRESS AND FATIGUE ARE BEING EVALUATED THROUGHOUT PROLONGED HELICOPTER (HH-53C) FLIGHTS, AS PART OF JOINT RESEARCH BY THE SCHOOL OF AEROSPACE MEDICINE AND THE AF SATELLITE CONTROL FACILITY (SAMSO, LOS ANGELES, CALIF.). DATA CONCERN SUCH FACTORS AS: CREW COMFORT MODIFICATIONS; FATIGUE AND SLEEP; FEEDING SYSTEMS; WORKLOAD; HEART RATE; ENDOCRINE-METABOLIC INDICES OF STRESS; AND EFFECTS OF A HIGH NOISE/VIBRATION ENVIRONMENT. INFORMATION IN THIS REPORT IS BASED ON DATA FROM SINGLE LONG RECOVERY MISSIONS. TOLERANCE TO FREQUENT LONG FLIGHTS IS NOT YET KNOWN, AND WILL REQUIRE FURTHER STUDY. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A013 435 20/1 1/5
MITRE CORP MCLEAN VA

AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES, (U)

SEP 74 358P GOLDMAN,DONALD ;MAGINNIS, FRANCIS X. ;
REPT. NO. MTR-6616-SER-1-VOL-3
CONTRACT: DOT-FA69NS-162
MONITOR: FAA-EQ 74-2-3

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SUPERSEDES REPORT DATED MAR 74, AD-786 614. SEE ALSO REPORT DATED MAR 74, AD-786 613.

DESCRIPTORS: *AIRPORTS, *AIRCRAFT NOISE, NOISE POLLUTION, PERIODIC VARIATIONS, EXPOSURE(PHYSIOLOGY), ACOUSTIC MEASUREMENT, AIRCRAFT LANDINGS, TAKEOFF, DATA BASES (U)
IDENTIFIERS: *NOISE EXPOSURE, *NOISE LEVELS, *AIRCRAFT SOUND DESCRIPTION SYSTEMS, SCENARIOS, DOT/4DZ/DA, DOT/5B (U)

THE AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) IS A METHOD OF DESCRIBING AIRCRAFT NOISE. IT HAS BEEN ESTABLISHED AS THE BASIC FAA TECHNIQUE FOR PREDICTING COMMUNITY NOISE EXPOSURE CAUSED BY AIRCRAFT OPERATIONS. THIS REPORT (IN FOUR VOLUMES) IS A DESCRIPTION OF THE MANUAL AND COMPUTER TECHNIQUES FOR APPLYING ASDS AS WELL AS A CURRENT SET OF NOISE EXPOSURE CONTOURS. THIS VOLUME PRESENTS IN TABULAR FORM A SET OF 239 ASDS NOISE EXPOSURE CONTOURS COVERING 51 DIFFERENT AIRCRAFT TYPES. A DESCRIPTION OF THE DATA TABLES AND A STATEMENT OF CONDITIONS AND ASSUMPTIONS IN DEVELOPING THE DATA ARE PRESENTED. THE OTHER VOLUMES IN THE SET ARE: VOLUME I, 'OVERVIEW,' VOLUME 2, 'MANUAL APPLICATION PROCEDURES,' AND VOLUME 4, 'COMPUTER APPLICATION PROCEDURES'. THIS DOCUMENT CONTAINS UPDATED VERSIONS OF THE TABLES PUBLISHED IN REPORT FAA-EQ-74-2, VOLUME 3, DATED MARCH 1974. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A014 237 6/19 5/5 1/2
ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT
PARIS (FRANCE)

BIODYNAMIC RESPONSE TO WINDBLAST. (U)

DESCRIPTIVE NOTE: CONFERENCE PROCEEDINGS,
JUL 75 87P GLAISTER,D. M. ;
REPT. NO. AGARD-CP-170

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: NATO FURNISHED.

DESCRIPTORS: *BLAST LOADS, *WIND, *BIODYNAMICS, *HUMAN FACTORS ENGINEERING, *MEETINGS, WOUNDS AND INJURIES, PROTECTION, PROTECTIVE EQUIPMENT, NUCLEAR EXPLOSIONS, AIRCRAFT, AEROSPACE MEDICINE, NATO, EJECTION, EJECTION SEATS, VELOCITY, TOLERANCES(PHYSIOLOGY) (U)

THE VOLUME CONTAINS THE TEXT, DISCUSSION AND TECHNICAL EVALUATION OF PAPERS PRESENTED AT THE AGARD AEROSPACE MEDICAL PANEL SPECIALISTS MEETING WHICH WAS HELD AT TORONTO, CANADA, 6 MAY 1975. THE SPECIFIC PROBLEM OF WINDBLAST WAS CONSIDERED AS IT AFFECTS HUMAN TOLERANCE TO HIGH-SPEED EJECTION. INJURY MECHANISMS WERE DISCUSSED IN SEVERAL PAPERS AND IT WAS SHOWN THAT MOST INJURIES ARE CAUSED BY EXCESSIVE MOTION OF THE LIMBS, RATHER THAN BY THE DIRECT EFFECT OF WIND PRESSURE. EJECTION INJURY MECHANISMS WERE ALSO CONSIDERED IN RELATION TO WINDBLAST FROM CONVENTIONAL AND NUCLEAR EXPLOSIONS. PROTECTION WAS CONSIDERED ALONG TWO LINES. THE PREVENTION OF LIMB MOTION BY MEANS OF RESTRAINTS WAS SHOWN TO BE AS PRACTICAL FOR THE ARMS AS FOR THE LEGS, AND COULD BE EXTENDED TO PROVIDE THE ARM RETRACTION NEEDED IN SAFE COMMAND EJECTION. IT WAS ALSO SHOWN THAT THE PROVISION OF A STABLE EJECTION SEAT WOULD GREATLY AMELIORATE THE WINDBLAST PROBLEM. THE PROBLEMS OF HEAD RESTRAINT AND HELMET LOSS WERE ALSO CONSIDERED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD-A014 516 5/7 17/2
ROYAL AIRCRAFT ESTABLISHMENT FARNBOROUGH (ENGLAND)

THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
MAR 75 49P JOHNSTON,MARY E. ;
REPT. NO. RAE-TR-75014
MONITOR: DRIC BR-46915

UNCLASSIFIED REPORT

DESCRIPTORS: *SPEECH RECOGNITION, *INTELLIGIBILITY, *ACOUSTIC TRACKING, BACKGROUND NOISE, VOICE COMMUNICATIONS, ERRORS, PILOTS, PERFORMANCE(HUMAN), SIGNAL TO NOISE RATIO, WORD RECOGNITION, DISTURBANCES, COMMUNICATION AND RADIO SYSTEMS (U)
IDENTIFIERS: SPEECH INTELLIGIBILITY (U)

THE REPORT DESCRIBES AN INVESTIGATION WHICH WAS CARRIED OUT TO STUDY THE EFFECT ON SPEECH INTELLIGIBILITY IN NOISE OF SIMULTANEOUSLY PERFORMING A TRACKING TASK. THE RESULTS INDICATE THAT FOR SOME SUBJECTS THERE IS A SIGNIFICANT DETERIMENTAL EFFECT OF TRACKING ON SPEECH INTELLIGIBILITY, AND THAT THIS EFFECT MAY BE OFFSET BY IMPROVING THE SIGNAL/NOISE RATIOS OF COMMUNICATION. THESE RESULTS SUGGEST THAT IT IS INACCURATE TO USE DATA BASED ON CLASSICAL SINGLE-STRESS INTELLIGIBILITY TESTS IN THE DESIGN AND ASSESSMENT OF COMMUNICATION SYSTEMS TO BE USED IN MULTI-ACTIVITY, REAL LIFE SITUATIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A015 023 6/16 20/1
LOUISVILLE UNIV FOUNDATION INC KY

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT. (U)

DESCRIPTIVE NOTE: FINAL COMPREHENSIVE REPT. 1 OCT 71-31 MAR 74,
NOV 74 10P LOEB,MICHEL ;BROWN,BILL R. ;CAMERON,PAUL D. ;LUZ,GEORGE A. ;
CONTRACT: DADA17-72-C-2039

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *DEAFNESS, *NOISE(SOUND), INTENSITY, STIMULI, EXPOSURE(PHYSIOLOGY), ARMY OPERATIONS, CONSERVATION, ARMY PERSONNEL, THRESHOLDS(PHYSIOLOGY), SENSITIVITY, AUDITORY PERCEPTION, LOSSES, HAZARDS, PREVENTION, RECOVERY, STATISTICAL DISTRIBUTIONS, AUDIOMETRY (U)
IDENTIFIERS: *HEARING CONSERVATION (U)

THE TECHNICAL OBJECTIVES OF THIS STUDY WERE: (1) ASSESSMENT OF CURRENT HAZARDS TO HEARING AND OF CURRENT HEARING CONSERVATION PRACTICES IN THE FIELD; (2) RESOLUTION OF CERTAIN QUESTIONS REGARDING PAST STUDIES OF TEMPORARY THRESHOLD SHIFT; (3) DETERMINATION OF THE HEARING CAPACITIES OF THOSE CURRENTLY IN THE MILITARY OR LIKELY TO BE, COMPARISON OF THOSE CAPACITIES WITH THOSE OF ANALOGOUS GROUPS IN YEARS PAST, AND ASSESSMENT OF THE PRACTICAL SIGNIFICANCE OF ANY CHANGES OBSERVED; (4) MEASUREMENTS OF CHANGES IN AUDITORY CHARACTERISTICS OTHER THAN ABSOLUTE INTENSIVE THRESHOLD, FOLLOWING NOISE EXPOSURE; AND (5) DEVELOPMENT OF INDICES OF SUSCEPTIBILITY TO PERMANENT HEARING LOSS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A015 086 1/5 13/12
NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER ATLANTIC CITY N J

JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
AUG 75 35P CHRISTIANSEN,GUENTHER H. ;
REPT. NO. FAA-NA-75-36
PROJ: FAA-214-531-030
MONITOR: FAA-RD 75-121

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRPORTS, *JET AIRCRAFT, *BLAST, *ATTENUATORS, PERFORMANCE TESTS, RUNWAYS, FLOW VISUALIZATION, TEST METHODS, MEASUREMENT, DETECTORS, INSTRUMENTATION, TAKEOFF, DATA ACQUISITION, OSCILLOSCOPES, VELOCITY (U)
IDENTIFIERS: *BLAST FENCES, JET BLAST, DOT/4CZ/CA, DOT/5A, SAFETY ENGINEERING (U)

A BLAST FENCE INSTALLED AT THE DEPARTURE END OF RUNWAY 31L AT JOHN F. KENNEDY INTERNATIONAL AIRPORT INTENDED TO PROTECT AIRCRAFT LANDING ON RUNWAY 4R FROM THE EFFECTS OF JET BLAST WAS BELIEVED TO BE INEFFECTIVE. TESTS WERE CONDUCTED IN TWO PHASES. THE INITIAL PHASE WAS SUBJECTIVE, USING SMOKE TO AID IN FLOW VISUALIZATION. THESE TESTS WERE INCONCLUSIVE AND LED TO A SECOND PHASE USING INSTRUMENTATION TO DETERMINE WHETHER OR NOT A JET BLAST WAS PRESENT ON RUNWAY 4R BEHIND THE BLAST FENCE. RESULTS OF PHASE II CONFIRMED THE PRESENCE OF A JET BLAST. TESTS COVERED SEVEN AIRCRAFT TYPES AND INDICATED MAXIMUM BLAST VELOCITIES AT RUNWAY 4R OF 35 MILES PER HOUR ABOVE AMBIENT WIND. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A015 732 6/16
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

EFFECTS OF SUSTAINED TALKING ON THE HEARING OF THE TALKER, (U)

AUG 75 25P NIXON,CHARLES W. ;
REPT. NO. AMRL-TR-75-39
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *SPEECH, INTENSITY, AUDITORY ACUITY, SENSITIVITY, LOSSES, THRESHOLDS(PHYSIOLOGY), FATIGUE(PHYSIOLOGY), DEAFNESS, PSYCHOACOUSTICS, VOLUME, CONTINUITY, TIME DEPENDENCE, SELF NOISE, AUDIOMETRY (U)
IDENTIFIERS: LOUDNESS (U)

THE EFFECTS ON HEARING SENSITIVITY OF LOUD TALKING AT 90 DBC FOR BRIEF DURATIONS OF 3 TO 12 MINUTES AND OF SUSTAINED TALKING AT 65 DB(A) AND 75 DB(A) FOR PERIODS OF 30 TO 120 MINUTES WERE MEASURED. LOSS OF HEARING SENSITIVITY FOLLOWING SPEECH EXPOSURE SESSIONS WERE ATTRIBUTED TO THE TALKING. RESULTS OF THREE STUDIES CONTAINED IN THE REPORT INCLUDE: (1) SELF-GENERATED SPEECH AT A LEVEL OF ABOUT 90 DB(C) PRODUCED SMALL DECREASES OF 2 TO 6 DB IN HEARING THRESHOLD SENSITIVITY FOLLOWING 3 TO 12 MINUTE PERIODS OF TALKING; (2) CONTINUOUS TALKING FOR PERIODS OF 30 TO 120 MINUTES AT LEVELS OF ABOUT 65 DB(A) HAD NO EFFECT ON THE HEARING OF THE TALKER AND (3) SUSTAINED SPEECH, EITHER SELF-GENERATED OR PRESENTED BY LOUDSPEAKER, AT VOICE LEVELS OF 65 DB(A) AND 75 DB(A) FOR CONTINUOUS PERIODS UP TO 120 MINUTES HAD NO EFFECT ON THE HEARING OF THE SUBJECT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A015 735 20/1 6/16
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

A-WEIGHTED SOUND LEVELS IN COCKPITS OF FIXED- AND ROTARY-WING AIRCRAFT. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. DEC 72-DEC 74,
AUG 75 27P GASAWAY,DONALD C. ;
REPT. NO. SAM-TR-75-22
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRCRAFT NOISE, *HEARING, CONSERVATION, FLIGHT CREWS, PILOTS, BACKGROUND NOISE, INTENSITY, COCKPITS, MILITARY AIRCRAFT, ROTARY WING AIRCRAFT, VOICE COMMUNICATIONS, INTERFERENCE, ENGINE NOISE, LEVEL(QUANTITY), ACOUSTIC MEASUREMENT, FATIGUE(PHYSIOLOGY), DEAFNESS, RISK, LOSSES, HEADGEAR, FLIGHT HELMETS, AVIATION MEDICINE, HELICOPTERS (U)
IDENTIFIERS: FIXED WING AIRCRAFT (U)

NOISE MEASUREMENTS OBTAINED WITHIN THE COCKPITS OF 339 FIXED- AND ROTARY-WING AIRCRAFT DURING NORMAL CRUISE ARE REPORTED. THE SAMPLE INCLUDES 271 FIXED-WING AND 68 ROTARY-WING AIRCRAFT THAT ARE GROUPED ACCORDING TO TYPE AND NUMBER OF POWER PLANTS. MEAN A-WEIGHTED LEVELS RANGED FROM 92 TO 105 DB FOR FIXED-WING VEHICLES AND FROM 98 TO 106 DB FOR HELICOPTERS. MEANS AND STANDARD DEVIATIONS ARE REPORTED BY OCTAVE-BANDS, ALL-PASS (FLAT), A-LEVELS, AND PREFERRED SPEECH INTERFERENCE LEVELS (PSIL, AVERAGE OF 500, 1000 AND 2000 HZ). ALSO, AT-THE-EAR A-LEVELS ARE REPORTED FOR GENERALIZED AMOUNTS OF ATTENUATION PROVIDED BY HEADSETS COMMONLY WORN IN AIRCRAFT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A017 269 6/16 20/1
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

AUDITORY AND PHYSIOLOGICAL EFFECTS OF INFRASOUND. (U)

SEP 75 8P JOHNSON,DANIEL L. ;
REPT. NO. AMRL-TR-75-33
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PROCEEDINGS OF INTER-NOISE 75, INTERNATIONAL CONFERENCE ON NOISE CONTROL ENGINEERING, INST. OF NOISE CONTROL ENGINEERING (USA), 27-29 AUG 75, SENDAI (JAPAN), P475-482 1975.

DESCRIPTORS: *INFRASONICS, PHYSIOLOGICAL EFFECTS, RESPONSE(BIOLOGY), AUDITORY PERCEPTION, VIBRATION, THRESHOLDS(PHYSIOLOGY), TRAUMA, TOLERANCES(PHYSIOLOGY), PAIN, IRRITATION, NOISE POLLUTION, HUMANS, LABORATORY ANIMALS, REPRINTS (U)
IDENTIFIERS: ANNOYANCE (U)

THIS PAPER IS ORGANIZED INTO FOUR SECTIONS: AUDITORY, PHYSIOLOGICAL, INFRASOUND AND VIBRATION, AND ANNOYANCE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A017 915 13/2 20/1 6/10
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

NOISE -- HOW MUCH IS TOO MUCH, (U)

MAY 75 12P VON GIERKE,HENNING E. ;
REPT. NO. AMRL-TR-74-81
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN NOISE CONTROL ENGINEERING, V5 N1 P24-34 JUL-AUG 75.
SUPPLEMENTARY NOTE: PRESENTED AT NOISE-CON 1975, GAITHERSBURG, MD.

DESCRIPTORS: *NOISE POLLUTION, *ENVIRONMENTAL PROTECTION, *NOISE REDUCTION, STANDARDS, INDUSTRIAL MEDICINE, PUBLIC HEALTH, NOISE(SOUND), LIMITATIONS, EXPOSURE(PHYSIOLOGY), STRESS(PHYSIOLOGY), INTENSITY, PEAK VALUES, DEAFNESS, HEARING, THRESHOLDS(PHYSIOLOGY), CONSERVATION, REPRINTS (U)

THE AUTHOR CONTENDS THAT ENOUGH IS KNOWN ABOUT THE EFFECTS OF NOISE ON PEOPLE TO PRODUCE GUIDELINES FOR MAXIMUM NOISE LEVELS. ADOPTED BY THE ENVIRONMENTAL PROTECTION AGENCY, THESE GUIDELINES ARE DESIGNED TO PROTECT THE PUBLIC WITH AN ADEQUATE MARGIN OF SAFETY AGAINST HEARING LOSS FROM OCCUPATIONAL AND ENVIRONMENTAL NOISE EXPOSURES AND AGAINST INTERFERENCE WITH SPEECH OR OTHER ACTIVITIES INDOORS OR OUTDOORS IN RESIDENTIAL AREAS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A018 036 20/1 1/2 5/10
MAN-ACOUSTICS AND NOISE INC SEATTLE WASH

NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I. (U)

DESCRIPTIVE NOTE: FINAL REPT.
NOV 75 84P
REPT. NO. MAN-101H
CONTRACT: DOT-FA74WAI-490
MONITOR: FAA-RD 75-190

UNCLASSIFIED REPORT

DESCRIPTORS: *COMMERCIAL AIRCRAFT, *AIRCRAFT NOISE, *SHORT TAKEOFF AIRCRAFT, *PSYCHOPHYSICS, INTENSITY, EXPERIMENTAL DATA, TEST METHODS, HUMAN FACTORS ENGINEERING, MAGNETIC TAPE, STANDARDS, VERTICAL TAKEOFF AIRCRAFT, RATINGS (U)
IDENTIFIERS: ANNOYANCE, NOISE LEVELS, CERTIFICATION, JUDGMENT, CRITERIA, DOT/2A, DOT/5B (U)

AS A MEANS OF DETERMINING THE ACCURACY AND RELIABILITY OF ENGINEERING CALCULATION PROCEDURES THAT COULD BE UTILIZED AS A BASIS FOR NOISE CERTIFICATION OF V/STOL COMMERCIAL AIRCRAFT, 36 PERSONS MADE ANNOYANCE JUDGMENTS TO 34 NOISE SIGNALS PRESENTED AT 5 DIFFERENT LEVELS. THE SIGNALS INCLUDED RECORDINGS OF CONVENTIONAL JET AIRCRAFT OPERATIONS, TURBOPROP AND RECIPROCATING ENGINE POWERED COMMERCIAL AIRCRAFT, HELICOPTER FLYBYS, AND SIMULATIONS OF V/STOL OPERATIONS. BOTH RELATIVE ANNOYANCE AND ABSOLUTE ACCEPTABILITY JUDGMENTS WERE OBTAINED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A018 667 5/8 5/10
SYSTEMS TECHNOLOGY INC HAWTHORNE CALIF

EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE. (U)

DESCRIPTIVE NOTE: FINAL REPT. JUL 71-MAR 75, OCT 75 31P ALLEN,R. WADE ;MAGDALENO, RAYMOND E. ;JEX,HENRY R. ;
REPT. NO. STI-TR-1027-2
CONTRACT: F33615-73-C-4003
PROJ: AF-7231
TASK: 723101
MONITOR: AMRL TR-75-65

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE(SOUND), *MANUAL OPERATION, *DYNAMIC RESPONSE, *PERFORMANCE(HUMAN), *WHITE NOISE, STRESS(PHYSIOLOGY), CONTROL, INTENSITY, PITCH(MOTION), ROLL, SIMULATION, FLIGHT CREWS, OPERATORS(PERSONNEL), AUDITORY SIGNALS, TRACKING, VIBRATION, PSYCHOMOTOR FUNCTION, STRESS(PSYCHOLOGY), BROADBAND (U)

NOISE IS A COMMON STRESS IN THE AEROSPACE ENVIRONMENT, AND THE PURPOSE OF THIS STUDY WAS TO INVESTIGATE ITS EFFECT ON MANUAL CONTROL PERFORMANCE AND ASSOCIATED BEHAVIOR. NINE SUBJECTS WERE SUBJECTED TO WHITE NOISE AT FOUR INTENSITY LEVELS OF 55 DB, 75 DB, 95 DB, AND 115 DB WHILE PERFORMING A SIMULATED PITCH/ROLL TRACKING TASK WITH A HIGH ATTENTIONAL DEMAND. PERFORMANCE ACTUALLY IMPROVED UNDER NOISE, PRESUMABLY DUE TO AN AROUSAL EFFECT. THE HUMAN OPERATOR'S DYNAMIC RESPONSE PROPERTIES WERE NOT AFFECTED BY NOISE, HOWEVER, AND THE PERFORMANCE EFFECTS AROSE FROM A REDUCTION IN REMNANT (SUBJECT TRACKING NOISE) AND POSSIBLY CROSS COUPLING INTERNAL TO THE OPERATOR. A MEASURE OF SUBJECTIVE REACTION TO THE NOISE ENVIRONMENT SHOWED HIGH SENSITIVITY TO THE VARIOUS NOISE LEVELS AND SOME HABITUATION OVER THREE EXPERIMENTAL SESSIONS. ALSO, TRACKING PERFORMANCE SHOWED STEADY IMPROVEMENT OVER THE THREE SESSIONS, PROBABLY DUE TO LEARNING. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A018 846 6/19 6/6
ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT
PARIS (FRANCE)

EFFECTS OF LONG DURATION NOISE EXPOSURE ON
HEARING AND HEALTH. (U)

DESCRIPTIVE NOTE: CONFERENCE PROCEEDINGS,
NOV 75 97P WHITCOMB,MILTON A. ;
REPT. NO. AGARD-CP-171

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: NATO FURNISHED.

DESCRIPTORS: *STRESS(PHYSIOLOGY), *FLIGHT CREWS,
*HEARING, *NOISE(SOUND), *MEETINGS,
EXPOSURE(PHYSIOLOGY), AEROSPACE MEDICINE,
AUDITORY PERCEPTION, LOSSES,
RESPONSE(BIOLOGY), HUMANS, PHYSIOLOGICAL
EFFECTS, AIRCRAFT NOISE, TABLES(DATA),
NATO (U)
IDENTIFIERS: NOISE POLLUTION (U)

;CONTENTS: MODE OF COCHLEAR DAMAGE BY EXCESSIVE
NOISE - AN OVERVIEW; TTS IN MAN FROM A 24-HOUR
EXPOSURE TO AN OCTAVE BAND OF NOISE CENTERED AT 4
KHZ; PROTECTIVE EFFECTS IN MEN OF BRAIN CORTEX
GANGLIOSIDES ON THE HEARING LOSS INDUCED BY HIGH
LEVELS OF NOISE; STUDIES OF ASYMPTOTIC TTS;
ASYMPTOTIC BEHAVIOR OF TEMPORARY THRESHOLD SHIFT
DURING EXPOSURE TO LONG DURATION NOISES; THE
INCIDENCE OF TEMPORARY AND PERMANENT HEARING LOSS
AMONG AIRCREWS EXPOSED TO LONG-DURATION NOISE IN
MARITIME PATROL AIRCRAFT; PSYCHO-PHYSICAL
PERFORMANCE OF AIR FORCE TECHNICIANS AFTER LONG
DURATION NOISE EXPOSURE; THE EFFECTS OF EAR
PROTECTORS ON SOME AUTONOMIC RESPONSES TO AIRCRAFT-
AND IMPULSIVE NOISE; INFLUENCE OF THE NOISE ON
CATECHOLAMINE EXCRETION; EFFECTS OF NOISE EXPOSURE;
PHYSIOLOGICAL EFFECTS OF NOISE; AN INVESTIGATION
OF AIRCRAFT VOICE COMMUNICATION SYSTEMS AS SOURCES OF
INSIDIOUS LONG-TERM ACOUSTIC HAZARDS; PHYSIOLOGICAL
RESPONSES DUE TO NOISE IN INHABITANTS AROUND MUNICH
AIRPORT. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A019 193 6/10 6/16
WALTER REED ARMY MEDICAL CENTER WASHINGTON D C AUDIOLOGY AND SPEECH CENTER

THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
AUG 75 103P WALDEN,BRIAN E. ;PROSEK, ROBERT A. ;WORTHINGTON,DON W. ;

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PREPARED IN COOPERATION WITH ARMY AEROMEDICAL RESERACH LAB., FT. RUCKER, ALA.

DESCRIPTORS: *HEARING, *OCCUPATIONAL DISEASES, *NOISE POLLUTION, *DEAFNESS, AUDIOMETRY, QUESTIONNAIRES, PROFILES, LOSSES, PROTECTIVE EQUIPMENT, EXPOSURE(PHYSIOLOGY), ENLISTED PERSONNEL, FREQUENCY BANDS, SPEECH RECOGNITION, INDUSTRIAL HYGIENE, STATISTICAL SAMPLES, AGING(PHYSIOLOGY), TIME, CONSERVATION, INFANTRY, ARMOR, ARTILLERY, RECRUITS (U)

THE PURPOSE OF THIS INVESTIGATION WAS TO DERIVE ESTIMATES OF THE PREVALENCE OF HEARING LOSS WITHIN U.S. ARMY BRANCHES SUSPECTED TO BE HIGH-RISK WITH REGARD TO HEARING LOSS. QUESTIONNAIRE DATA WERE OBTAINED FROM HIGH-RISK PERSONNEL CONCERNING THEIR OPINIONS OF THEIR HEARING ABILITY, HEARING PROTECTIVE DEVICES, AND EXPOSURE TO HAZARDOUS NOISES. AUDIOMETRIC AND QUESTIONNAIRE DATA WERE OBTAINED FROM 3000 ENLISTED MEN REPRESENTING THREE COMBAT BRANCHES (I.E., INFANTRY, ARMOR, ARTILLERY) AND FIVE TIME-IN-SERVICE CATEGORIES. SUBJECTS WERE SELECTED AT RANDOM, IN PROPORTION TO POPULATION SIZES, FROM TEN ARMY POSTS. ALL OF THE DATA GATHERING WAS ACCOMPLISHED BY THE AUDIOLOGY OFFICER(S) ASSIGNED TO EACH POST. THE RESULTS SUGGEST THAT THE PREVALENCE OF HEARING LOSS IS APPROXIMATELY THE SAME IN THE INFANTRY, ARMOR AND ARTILLERY BRANCHES. IN CONTRAST, THERE ARE SUBSTANTIAL DIFFERENCES IN THE PREVALENCE OF HEARING LOSS ACCORDING TO LENGTH OF TIME IN SERVICE. FURTHER, THE PROBLEM OF PREMATURE HEARING LOSS AMONG U.S. ARMY TROOPS AFFECTS ONLY THE MID- TO HIGH-FREQUENCY RANGE IN THE MAJORITY OF SOLIDERS, WITH SPEECH-RECEPTION THRESHOLDS AND SPEECH DISCRIMINATION IN QUIET FREQUENTLY REMAINING WITHIN NORMAL LIMITS EVEN IN ADVANCED CASES OF NOISE-INDUCED HEARING LOSS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A019 315 5/10 6/19
ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE, (U)

JAN 74 17P POULTON,E. C. ;EDWARDS,R. S. ;
REPT. NO. OES-8/74
MONITOR: DRIC BR-49195

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PREPARED FOR THE OPERATIONAL EFFICIENCY SUBCOMMITTEE.

DESCRIPTORS: *NOISE(SOUND), *HEAT STRESS(PHYSIOLOGY), *STRESS(PHYSIOLOGY), *PERFORMANCE(HUMAN), PSYCHOPHYSIOLOGY, LOW NOISE, STRESSES, SYNERGISM, VIGILANCE, SLEEP DEPRIVATION, EFFECTIVENESS, EXPERIMENTAL DATA, HUMANS, GREAT BRITAIN (U)

MODERATELY LOUD NOISE OF LOW FREQUENCY IMPROVES PERFORMANCE. WHEN PRESENTED WITH MILD HEAT, THE COMBINED EFFECT OF THE 2 STRESSES CAN BE SMALLER THAN THE SUM OF THE 2 SEPARATE EFFECTS. HOWEVER CAUTION IS NECESSARY IN INTERPRETING THIS RESULT BECAUSE PERFORMANCE IN THE CONTROL CONDITION IS AFFECTED BY THE PAIR OF STRESSES USED IN THE EXPERIMENT. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A021 203 6/12 6/19
ARMY AEROMEDICAL RESEARCH LAB FORT RUCKER ALA

BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS. (U)

DESCRIPTIVE NOTE: REPT. FOR 1963-1975,
JAN 76 12P BULLOCK,SYBIL H. ;
REPT. NO. USAARL-SPECIAL BIB-SER-6

UNCLASSIFIED REPORT

DESCRIPTORS: *BIBLIOGRAPHIES, *MEDICAL EQUIPMENT, *BLOOD PRESSURE, *NOISE, ULTRASONICS, MEASURING INSTRUMENTS, PHYSIOLOGICAL EFFECTS, AUTOMATION, STRESS(PHYSIOLOGY) (U)
IDENTIFIERS: *BLOOD PRESSURE MANOMETERS (U)

TITLES OF BOOKS, JOURNAL ARTICLES, AND DOCUMENTS ARE INCLUDED IN THIS SELECT BIBLIOGRAPHY ON BLOOD PRESSUREMENT MEASUREMENT IN A HIGH NOISE ENVIRONMENT. SUBJECTS COVERED INCLUDE ULTRASONICS, AUTOMATED AND DIGITAL READ-OUT DEVICES FOR DETERMINING BLOOD PRESSURE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A021 465 6/10 6/19
ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND MD

NOISE HAZARD EVALUATION SOUND LEVEL DATA ON NOISE SOURCES. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
JAN 75 60P GOLDSTEIN,JEFFREY ;

UNCLASSIFIED REPORT

DESCRIPTORS: *INDUSTRIAL HYGIENE, *NOISE(SOUND), HEARING, HAZARDS, EXPOSURE(PHYSIOLOGY), MILITARY OPERATIONS, PERSONNEL, FREQUENCY, THRESHOLDS(PHYSIOLOGY), HUMANS, SOURCES (U)
IDENTIFIERS: *HEARING CONSERVATION, ENVIRONMENTAL HEALTH, OCCUPATIONAL SAFETY AND HEALTH, EVALUATION (U)

THE TECHNICAL GUIDE WAS DEVELOPED AS AN AID AND SIMPLIFICATION OF THE NOISE HAZARD ASSESSMENT ELEMENT OF THE INSTALLATION HEARING CONSERVATION PROGRAM. PART I OF THE TECHNICAL GUIDE PROVIDES THE READER WITH BASIC INFORMATION NECESSARY FOR THE CONDUCT OF A ROUTINE OCCUPATIONAL NOISE HAZARD EVALUATION, WHILE PART II PROVIDES ADDITIONAL INFORMATION AND GUIDANCE CONCERNING TYPICAL PERSONNEL EXPOSURES TO MILITARY NOISE SOURCES. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A021 683 20/1 5/10 1/5
MAN-ACOUSTICS AND NOISE INC SEATTLE WASH

ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS. (U)

DESCRIPTIVE NOTE: FINAL REPT.
DEC 75 73P
REPT. NO. MAN-1011
CONTRACT: DOT-FA74WAI-439
MONITOR: FAA-RD 75-211

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *AIRPORTS, *COMMUNITY RELATIONS, *COMMERCIAL AVIATION, TEST METHODS, RESIDENTIAL SECTION, SIMULATION, DATA ACQUISITION, RESPONSE, DIURNAL VARIATIONS, DAY, NIGHT (U)
IDENTIFIERS: CRITERIA, ANNOYANCE, DOT/2 A, DOT/5 B, NOISE LEVELS (U)

THIS STUDY PROVIDES RESULTS THAT CONTRIBUTE TO ESTABLISHMENT OF AIRPORT NOISE LEVELS THAT ARE COMPATIBLE WITH RESIDENTIAL LIVING ACTIVITIES. COMMUNITY NOISE SIMULATION SYSTEMS WERE PLACED IN THE HOMES OF TWENTY-FOUR FAMILIES THAT WERE NOT IMPACTED BY ACTUAL AIRPORT NOISE. FOUR DIFFERENT AIRPORT NOISE CONDITIONS WERE SIMULATED. THREE CONDITIONS INVOLVED DAY FLIGHTS OF 150 AIRCRAFT WITH AVERAGE NOISE EXPOSURE FORECAST (NEF) VALUES OF 36.9, 32.5, AND 26.9. THE FOURTH CONDITION ADDED 18 NIGHT FLIGHTS (10:00 PM TO 7:00 AM) WHICH RESULTED IN A MEAN NEF OF 32.9. INTERFERENCE WITH DAILY LIVING ACTIVITIES AND ANNOYANCE RESPONSES TO THE FOUR CONDITIONS WERE OBTAINED. SOME OF THE RESULTS AND CONCLUSIONS ARE PRESENTED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD-A022 258 6/10
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. JAN-OCT 75, FEB 76 27P GASAWAY,DONALD C. ; SUTHERLAND,HARRELL C. , JR.;DANFORD,ROY , JR;
REPT. NO. SAM-TR-76-8
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *NOISE(SOUND), *NOISE POLLUTION, AGING(PHYSIOLOGY), AUDIOMETRY, OCCUPATIONAL DISEASES, PUBLIC HEALTH, DEAFNESS, HAZARDS, EAR, AUDITORY ACUITY (U)

RESULTS OF ANNUAL AUDIOMETRIC MONITORING OF 26,446 PERSONNEL (22,817 MILITARY AND 3,629 CIVILIAN EMPLOYEES) DURING JANUARY THROUGH MARCH 1975 ARE REPORTED. MEAN AND MEDIAN HEARING LEVELS ARE REPORTED SEPARATELY FOR MILITARY AND CIVILIAN PERSONNEL AT TEST FREQUENCIES OF 500 THROUGH 6000 HZ FOR RIGHT AND LEFT EARS. AGE GROUPINGS INCLUDED IN THIS STUDY RANGED FROM 17-19 AND 5-YEAR INTERVALS THEREAFTER UP TO AGE 49, WITH A FINAL AGE GROUP OF 50 AND OLDER. MEDIAN HEARING LEVELS ARE REPORTED FOR CURRENT ANNUAL AND REFERENCE (AUDIOMETRIC BASELINE) AUDIOGRAMS. RESULTS REVEALED THAT 98.9% OF BOTH LEFT AND RIGHT EARS OF 22,817 MILITARY PERSONNEL AND 95.05% OF LEFT EARS AND 94.84% OF RIGHT EARS OF CIVILIAN EMPLOYEES THAT ROUTINELY WORK IN POTENTIALLY HAZARDOUS NOISE SHOWED HEARING LEVELS AT 500, 1000, AND 2000 HZ THAT AVERAGED 30 DB OR BETTER. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A022 356 6/19 5/10 1/2
MAN-ACOUSTICS AND NOISE INC SEATTLE WASH

REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE. (U)

DESCRIPTIVE NOTE: FINAL REPT.
NOV 75 156P
REPT. NO. MAN-1011B
CONTRACT: DOT-FA74WAI-439
MONITOR: FAA-RD 75-182

UNCLASSIFIED REPORT

DESCRIPTORS: *STRESS(PHYSIOLOGY), *AIRCRAFT NOISE, *COMMERCIAL AIRCRAFT, *NOISE, RESPONSE(BIOLOGY), HUMANS, REVIEWS, AIRPORTS, EXPERIMENTAL DATA, AUDITORY PERCEPTION, HEARING (U)
IDENTIFIERS: *NOISE POLLUTION, ENVIRONMENTAL HEALTH (U)

THE REPORT REVIEWS EMPIRICAL STUDIES INVOLVING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT/AIRPORT NOISE. THE REVIEW WAS LIMITED TO STUDIES THAT INVOLVED RESPONSE TO ACTUAL OR RECORDED FLYOVER SIGNALS OF CONVENTIONAL TAKEOFF AND LANDING (CTOL) AIRCRAFT. STUDY SUMMARIES ARE PROVIDED FOR THE STUDIES REVIEWED. THESE SUMMARIES INCLUDED STUDY AIM, NUMBER OF SUBJECTS, TYPE OF AIRCRAFT SIGNALS, AND RESULTS. STUDY METHODS IDENTIFIED WERE LABORATORY, FIELD STUDIES, SOCIAL SURVEY APPROACH, COMPLAINT STUDIES, DAMAGE RISK, INTERFERENCE TYPE STUDIES, AND COMBINATION METHODS. LABORATORY METHODS HAVE DOMINATED RESEARCH WORK IN THIS AREA AND WITH THE EXCEPTION OF THE SOCIAL SURVEY AND COMPLAINT METHODS, EMPHASIS HAS BEEN ON RESPONSE TO INDIVIDUAL FLYOVER EVENTS. A FEW RECENT STUDIES HAVE STUDIED RESPONSE TO NUMBER OF EVENTS OVER TIME, PARTICULARLY INTERFERENCE TYPE STUDIES. RESEARCH NEEDS ARE IDENTIFIED EMPHASIZING THE MORE REALISTIC METHODS WHICH INVESTIGATE HUMAN RESPONSE TO MULTIPLE EVENTS OVER TIME. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A022 519 6/5 6/16
WASHINGTON UNIV SEATTLE DEPT OF OTOLARYNGOLOGY

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS, (U)

APR 74 10P PFINGST,BRYAN E. ;HIENZ, ROBERT ;KIMM,JOSEPH ;MILLER,JOSEF ;
CONTRACT: N00014-67-A-0103-0031, PHS-NS-08181
PROJ: RR001-66

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN JNL. OF THE ACOUSTICAL SOCIETY OF AMERICA, V57 N2 P421-430 FEB 75.
SUPPLEMENTARY NOTE: SEE ALSO AD-A022 520.

DESCRIPTORS: *HEARING, *REACTION TIME, *SOUND PRESSURE, STIMULI, HIGH INTENSITY, NOISE(SOUND), DEAFNESS, HUMANS, MONKEYS, PSYCHOPHYSIOLOGY, AUDIO TONES, REPRINTS (U)
IDENTIFIERS: SUPRATHRESHOLD FUNCTIONS, LOUDNESS (U)

REACTION TIME (RT), OR RESPONSE LATENCY, TO AUDITORY STIMULI HAS BEEN SUGGESTED AS A MEASURE OF LOUDNESS IN NONVERBAL ANIMALS AS WELL AS IN MAN. IN THIS STUDY RT FUNCTIONS WERE OBTAINED FOR HUMAN AND RHESUS MONKEY SUBJECTS UNDER NORMAL CONDITIONS AND UNDER CONDITIONS OF HEARING IMPAIRMENT. IN BOTH HUMANS AND MONKEYS RT VARIED IN A SIMILAR MANNER WITH CHANGES IN INTENSITY AND FREQUENCY OF THE STIMULUS, AND IN RESPONSE TO EXPERIMENTAL MANIPULATION OF THE RECEPTOR ORGAN. THE STUDY DEMONSTRATED THAT LATENCY FUNCTIONS ARE SIMILAR TO FUNCTIONS DERIVED BY LOUDNESS-MATCHING PROCEDURES IN HUMANS: IN SUBJECTS WITH NORMAL HEARING, EQUAL-LATENCY CONTOURS CORRESPONDED CLOSELY WITH EQUAL-LOUDNESS CONTOURS. IN SUBJECTS WITH IMPAIRED HEARING, MATCHED-LATENCY AND MATCHED-LOUDNESS CONTOURS ALSO CORRESPONDED CLOSELY. RATE OF DECREASE IN RT WITH INCREASING INTENSITY IS DISCUSSED AND RELATED TO RATE OF GROWTH IN LOUDNESS. THE RESULTS SUGGEST THAT RT IS A VALUABLE MEASURE OF SUPRATHRESHOLD HEARING IN HUMAN AND NONHUMAN PRIMATES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A022 520 6/5 6/16
WASHINGTON UNIV SEATTLE DEPT OF OTOLARYNGOLOGY

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. II. THRESHOLD FUNCTIONS, (U)

APR 74 6P PFINGST,BRYAN E. ;HIENZ, ROBERT ;MILLER,JOSEF ;

CONTRACT: N00014-67-A-0103-0031, PHS-NS-08181
PROJ: RR001-66

UNCLASSIFIED REPORT

AVAILABILITY: PUB. IN JNL. OF THE ACOUSTICAL SOCIETY OF AMERICA, V57 N2 P431-436 FEB 75.

SUPPLEMENTARY NOTE: SEE ALSO AD-A022 519.

DESCRIPTORS: *HEARING, *REACTION TIME, *SOUND PRESSURE, STIMULI, HIGH INTENSITY, NOISE(SOUND), DEAFNESS, HUMANS, RHESUS MONKEYS, PSYCHOPHYSIOLOGY, AUDIO TONES, REPRINTS (U)

IDENTIFIERS: THRESHOLD FUNCTIONS (U)

THE REACTION-TIME (RT) PROCEDURE APPLIED TO THE MEASURED OF SUPRATHRESHOLD FUNCTIONS IN THE PROCEDING PAPER MAY ALSO BE USED TO MEASURE THRESHOLD. THIS PAPER EXAMINES THRESHOLD CONTOURS MEASURED BY THE RT PROCEDURE IN HUMAN AND MONKEY SUBJECTS WITH NORMAL AND IMPAIRED HEARING. IN THE HUMAN SUBJECTS, THRESHOLDS OBTAINED USING THE RT PROCEDURE CLOSELY PARALLEL THOSE OBTAINED IN THE CLINIC BUT WERE AN AVERAGE OF 2.7 DB LOWER; RT THRESHOLDS WERE AN AVERAGE OF 5DB ABOVE THRESHOLDS OBTAINED IN A FORCE-CHOICE PROCEDURE. THRESHOLDS OBTAINED FROM MONKEY SUBJECTS PARALLELED THE NORMAL HUMAN CONTOURS WITHIN THE HUMAN FREQUENCY RANGE OF HEARING, BUT WERE SLIGHTLY HIGHER AT FREQUENCIES BELOW 4KHZ AND LOWER AT FREQUENCIES ABOVE 4KHZ. THE MONKEYS' HEARING EXTENDED APPROXIMATELY 1 1/4 OCTAVES ABOVE THE HUMANS.' THRESHOLD MEASURED USING THE RT PROCEDURE IN HUMAN AND MONKEY SUBJECTED AGREED WELL WITH THRESHOLDS PREVIOUSLY REPORTED IN THE LITERATURE. THE EFFECTS OF SOUND PRESENTATION AND CALIBRATION PROCEDURES ON THE SHAPE AND POSITION OF THE THRESHOLD CONTOURS ARE EXAMINED IN AN APPENDIX. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A022 842 6/10 6/5
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

SIGNIFICANT HEARING THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975. (U)

DESCRIPTIVE NOTE: PROGRESS REPT.,
FEB 76 12P GASAWAY,DONALD C. ;
SUTHERLAND,HARRELL C. , JR;
REPT. NO. SAM-TR-76-10
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: *AUDITORY ACUITY, *OCCUPATIONAL DISEASES, AUDIOMETRY, THRESHOLDS(PHYSIOLOGY), NOISE(SOUND), EPIDEMIOLOGY, AIR FORCE PERSONNEL, MILITARY PERSONNEL, EAR, HEARING, NOISE POLLUTION, DEAFNESS, SENSES(PHYSIOLOGY), JOBS, MILITARY APPLICATIONS (U)

HEARING CONSERVATION AUDIOMETRY REPORTS RECEIVED AT THE USAF HEARING CONSERVATION DATA REGISTRY FROM JANUARY THROUGH JUNE 1975 WERE GROUPED ACCORDING TO THE AIR FORCE SPECIALTY CODE, JOB DESCRIPTION, SHOWN FOR THE INDIVIDUAL. THE 48, 271 RECORDS SURVEYED INCLUDED 46 JOB CODES WITH 50 OR MORE REPORTS AND 47 WITH FEWER THAN 50. THERE WERE 5,298 RECORDS WITH NO IDENTIFIABLE JOB CODE. THE PERCENTAGE OF SIGNIFICANT THRESHOLD SHIFT WAS CALCULATED FOR EACH RECORD, WITH THE TOTAL GROUP REVEALING 23.21%. THE PERCENT SIGNIFICANT THRESHOLD SHIFT FOR EACH JOB CODE WITH 50 OR MORE WAS CALCULATED SO THAT EACH COULD BE COMPARED TO THE AVERAGE FOR THE ENTIRE GROUP. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A022 888 6/10 6/5
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. JAN-OCT 75,
FEB 76 10P GASAWAY,DONALD C. ;
SUTHERLAND,HARRELL C. , JR;
REPT. NO. SAM-TR-76-7
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: *AUDITORY ACUITY, *OCCUPATIONAL DISEASES, AUDIOMETRY, THRESHOLDS(PHYSIOLOGY), NOISE(SOUND), EPIDEMIOLOGY, HEARING, NOISE POLLUTION, AIR FORCE PERSONNEL, EAR, DEAFNESS, SENSES(PHYSIOLOGY) (U)

THE REPORT DESCRIBES THE CURRENT METHOD USED BY THE U.S. AIR FORCE TO IDENTIFY SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT (COMPARISON OF CURRENT WITH REFERENCE AUDIOGRAM) AMONG PERSONS WHO MAY BE EXPERIENCING EARLY STAGES OF PERMANENT SENSORINEURAL NOISE-INDUCED HEARING LOSS. THIS STUDY USED THE AUDIOGRAMS OF 26,756 PERSONNEL WHO ROUTINELY WORK IN NOISE AND COMPARED THE TWO CURRENT USAF THRESHOLD SHIFT CRITERIA WITH FOUR SINGLE EXPERIMENTAL CRITERIA: (1) 20 DB TS AT ANY FREQUENCY, EITHER EAR; (2) 20 DB TS AT 2000, 3000, OR 4000 HZ, EITHER EAR; (3) 15 DB TS AT ANY FREQUENCY, EITHER EAR; AND (4) AVERAGE OF 10 DB AT 2000, 3000, AND 4000 HZ, EITHER EAR. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A022 911 20/1
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
FEB 76 29P REDDINGIUS,NICOLAAS H. ;
REPT. NO. BBN-2946
CONTRACT: F33615-75-C-5044
PROJ: AF-7231
TASK: 723104
MONITOR: AMRL TR-73-108-APP

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: APPENDIX TO REPORT DATED JUL 74, AD-785 360.

DESCRIPTORS: *AIRCRAFT NOISE, *MILITARY FACILITIES, *NOISE POLLUTION, *COMPUTER PROGRAMMING, COMPUTERIZED SIMULATION, DIURNAL VARIATIONS, URBAN AREAS, AIRPORTS, RUNWAYS, FLIGHT PATHS, EXPOSURE(PHYSIOLOGY), VIBRATION, DIAGNOSIS(GENERAL), LAND USE, USER NEEDS, ENVIRONMENTAL IMPACT STATEMENTS, AIR FORCE OPERATIONS, AREA COVERAGE, FORTRAN, COMPUTER PROGRAMS, COMMUNITY RELATIONS (U)
IDENTIFIERS: NOISEMAP COMPUTER PROGRAMS, GROUND RUNUP, NOISE EXPOSURE (U)

THIS REPORT DELINEATES THE PROGRAM OPERATOR CHANGES CONSISTENT WITH THE ADDITIONAL DEVELOPMENTS MADE ON THE COMPUTER PROGRAM DESCRIBED IN AMRL-TR-73-109 (AD-A004 821). THE ADDED CAPABILITIES AND IMPROVED DIAGNOSTICS THAT FORM NOISEMAP 3.2 ARE DISCUSSED. NOISEMAP 3.2 IS USED AIR FORCE-WIDE TO COMPUTE COMMUNITY NOISE EXPOSURE FROM AIRCRAFT FLYING AND GROUND RUNUP OPERATIONS FOR PREPARING/ ASSESSING CANDIDATE ENVIRONMENTAL IMPACT STATEMENTS AND PLANNING COMPATIBLE LAND USE IN THE VICINITY OF AIR INSTALLATIONS. IMPROVEMENTS MADE TO NOISEMAP INCLUDE: (1) OPTIONAL OUTPUTS IN TERMS OF DAY-NIGHT AVERAGE SOUND LEVEL, NOISE EXPOSURE FORECAST, AND THESE MEASURES WITH TONE CORRECTION AND GROUND RUNUP PENALTY WEIGHTINGS; (2) OPTIONAL CONTOUR PLOTTING ON A LINE PRINTER WHEN SOPHISTICATED CONTOUR PLOTTING SOFTWARE AND HARDWARE ARE NOT AVAILABLE; (3) OPTIONAL CAPABILITY TO PERFORM THE NOISE EXPOSURE COMPUTATIONS OVER LIMITED AREAS RATHER THAN THE ENTIRE AIRBASE (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A023 407 20/1 6/16 1/3
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH). (U)

DESCRIPTIVE NOTE: PROGRESS REPT. MAR-OCT 75, FEB 76 23P GASAWAY,DONALD C. ;
REPT. NO. SAM-TR-76-9
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRCRAFT NOISE, *COCKPITS, *AMBIENT NOISE, *AUDITORY PERCEPTION, *NOISE REDUCTION, AUDITORY ACUITY, AUDITORY NERVE, HEARING, LEVEL FLIGHT, TAKEOFF, CLIMBING, AIRSPEED, RISK, MEDICAL RESEARCH, BIOMEDICINE, MEAN, ANALYSIS OF VARIANCE, STANDARD DEVIATION, EXPERIMENTAL DATA, ACOUSTIC MEASUREMENT, INTERNAL (U)
IDENTIFIERS: HEARING CONSERVATION, AUDITORY RISKS, UNDESIRABLE NOISE LEVELS (U)

NOISE MEASUREMENTS OBTAINED WITHIN COCKPITS OF 12 GROUPS OF FIXED- AND ROTARY-WING AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH) ARE REPORTED. MEAN, VARIANCE, AND STANDARD DEVIATIONS ARE REPORTED FOR EACH GROUP. DATA INCLUDE FLAT (F) OR C-WEIGHTED LEVELS, A-WEIGHTED LEVELS, AND F/C MINUS A LEVELS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A025 446 5/10
NAVAL POSTGRADUATE SCHOOL MONTEREY CALIF

THE EFFECT OF CONTINUOUS NOISE ON SHORT TERM MEMORY PERFORMANCE TASKS. (U)

DESCRIPTIVE NOTE: MASTER'S THESIS,
SEP 75 32P RIVENES,IVER JOHN , III;

UNCLASSIFIED REPORT

DESCRIPTORS: *MEMORY(PSYCHOLOGY), *NOISE(SOUND), PERFORMANCE(HUMAN), NOISE POLLUTION, NAVAL PERSONNEL, OFFICER PERSONNEL, ATTENTION, THESES, SHORT RANGE(TIME) (U)

NAVAL OFFICERS ROUTINELY PERFORM A NUMBER OF TASKS REQUIRING SHORT TERM MEMORY UNDER CONDITIONS OF MODERATE BACKGROUND NOISE LEVELS. THE PERFORMANCE OF 20 NAVY OFFICERS ON A SERIAL SHORT TERM MEMORY TASK WAS ANALYZED UNDER TWO LEVELS OF DIFFICULTY AND TWO DIFFERENT SOUND LEVELS. THE PURPOSE OF THE EXPERIMENT WAS TO DETERMINE WHETHER MODERATE INTENSITY, CONTINUOUS NOISE HAD AN EFFECT ON SHORT TERM MEMORY. ANALYSIS OF THE DATA COLLECTED INDICATED THAT CONTINUOUS NOISE AT A SOUND LEVEL PRESSURE OF 85 DB HAD NO EFFECT ON THE SUBJECTS SHORT TERM MEMORY. LEVELS OF DIFFICULTY RESULTED IN A SIGNIFICANT DIFFERENCE IN PERFORMANCE ON THE SERIAL SHORT TERM MEMORY TASK USED IN THIS EXPERIMENT. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A025 789 6/16 5/10 9/2
AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OHIO SCHOOL OF ENGINEERING

STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS. (U)

DESCRIPTIVE NOTE: MASTER'S THESIS,
DEC 74 64P ANDERSON,EARLE E. ;KREMPIN, ARTHUR G. ;
REPT. NO. GE/EE/74-38

UNCLASSIFIED REPORT

DESCRIPTORS: •PATTERN RECOGNITION, •PERFORMANCE(HUMAN), •VISUAL ACUITY, •CHARACTER RECOGNITION, THESES, MATHEMATICAL MODELS, PREDICTIONS, BIBLIOGRAPHIES, STATISTICAL ANALYSIS, PSYCHOPHYSIOLOGY, NOISE (U)
IDENTIFIERS: OBJECTIVES, RECOMMENDATIONS (U)

THE OBJECTIVES OF THIS PILOT STUDY ARE TO DETERMINE IF IT IS POSSIBLE (1) TO PREDICT HUMAN PERFORMANCE TO DISPLAYED ALPHABETIC CHARACTERS THAT ARE PRESENTED IN A VARYING NOISE BACKGROUND AND (2) TO PREDICT AT WHAT RANGE PEOPLE HAVE A 50% PROBABILITY OF IDENTIFYING PICTURES OF ARMY VEHICLES. EACH OF THE PREDICTIONS IS MADE USING A MODEL OF THE HUMAN VISUAL SYSTEM AND STATISTICAL ANALYSIS. PREDICTIONS BASED ON THIS ANALYSIS ARE COMPARED TO PSYCHOPHYSICAL PERFORMANCE. THE RESULTS INDICATE THE CAPABILITY TO PREDICT THE TREND OF HUMAN PERFORMANCE, THUS WARRANTING IN-DEPTH RESEARCH INTO THESE AREAS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A025 969 6/5
MIAMI UNIV OXFORD OHIO

EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
MAR 76 85P PARKER,D. E. ;RITZ,L. A.
;TUBBS,R. L. ;WOOD,D. L. ;
CONTRACT: F33615-73-C-4002
PROJ: AF-7231
TASK: 723103
MONITOR: AMRL TR-75-89

UNCLASSIFIED REPORT

DESCRIPTORS: *VESTIBULAR APPARATUS, *NOISE(SOUND), EXPOSURE(PHYSIOLOGY), STIMULI, RESPONSE(BIOLOGY), GUINEA PIGS, MONKEYS, HUMANS, BEHAVIOR, PHYSIOLOGICAL EFFECTS, EQUILIBRIUM(PHYSIOLOGY), ALCOHOLS, THRESHOLDS(PHYSIOLOGY) (U)

VESTIBULAR RESPONSES HAVE BEEN EVOKED FROM GUINEA PIGS, MONKEYS, AND HUMAN BEINGS FOLLOWING STIMULATION WITH STATIC PRESSURE, INFRASOUND, SUSTAINED AUDIOFREQUENCY SOUND, AND REPETITIVE AUDIOFREQUENCY TRANSIENTS. THESE OBSERVATIONS LEAD TO SUGGESTIONS CONCERNING THE MANNER IN WHICH SOUND AFFECTS THE VESTIBULAR RECEPTORS AS WELL AS TO PROPOSALS CONCERNING LEVELS OF SOUND EXPOSURE THAT MIGHT DISTURB HUMAN PERFORMANCE BY INFLUENCING BEHAVIORS MEDIATED AT LEAST IN PART BY THE VESTIBULAR SYSTEM. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A026 086 6/5
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. JAN-DEC 75, APR 76 28P GASAWAY,DONALD C. ; SUTHERLAND,HARRELL C. ;
REPT. NO. SAM-TR-76-16
PROJ: AF-7755
TASK: 775508

UNCLASSIFIED REPORT

DESCRIPTORS: *DEAFNESS, *OCCUPATIONAL DISEASES, HEARING, NOISE POLLUTION, AIR FORCE PERSONNEL, THRESHOLDS(PHYSIOLOGY), AUDIOMETRY (U)

THIS REPORT DESCRIBES THE HEARING OF 34,091 MILITARY PERSONNEL WITHIN 13 AIR FORCE SPECIALTY (AFSC) KNOWN TO CONSTITUTE ROUTINE ENCOUNTERS WITH POTENTIALLY HAZARDOUS NOISE. THE SMALLEST GROUP CONTAINED 1049 PERSONS, AND THE LARGEST, 11,736. A TOTAL OF 7678 (22.5%) OF THE ENTIRE SAMPLE REVEALED SIGNIFICANT THRESHOLD SHIFT. CUMULATIVE PERCENTAGES OF ANNUAL AUDIOGRAMS ALONG WITH MEDIAN HEARING LEVELS ARE ALSO DESCRIBED. THE HEARING LEVELS IN THIS STUDY REVEAL THAT USAF USE OF SIGNIFICANT THRESHOLD SHIFTS TO IDENTIFY IN THE EARLY STAGES, PERSONS WHO ARE EXPERIENCING HEARING SHIFTS DUE TO NOISE PREVENTS SIGNIFICANT HEARING LOSS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A026 145 6/5
HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD

DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR, (U)

76 15P PRICE,G. RICHARD ;HODGE, DAVID C. ;

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *COMBAT AREAS, THRESHOLDS(PHYSIOLOGY), PERFORMANCE(HUMAN), NOISE(SOUND), DEAFNESS, SPECIFICATIONS, MODELS, AUDIO FREQUENCY, PREDICTIONS, COMPUTERIZED SIMULATION, AUDITORY PERCEPTION, AUDIOMETRY, DETECTION, ARMY PERSONNEL (U)

A COMPREHENSIVE PROGRAM OF RESEARCH HAS BEEN INITIATED BY THE HUMAN ENGINEERING LABORATORY TO EXAMINE THE HEARING REQUIREMENTS OF SOLDIERS IN A VARIETY OF OPERATIONAL CONTEXTS AND TO DETERMINE THE EFFECTS OF HEARING LOSS ON PERFORMANCE. THE INITIAL FOCUS OF THIS PROGRAM IS ON THE AURAL DETECTION AND IDENTIFICATION OF COMBAT-RELEVANT SOUNDS. ONE OF THE MOST IMPORTANT CONTRIBUTIONS OF THE PRESENT EFFORT HAS BEEN THE DEVELOPMENT OF A DETECTION MODEL WHICH INCORPORATES THE EAR'S ANALYSIS OF INCOMING ENERGY INTO CRITICAL BANDS OF FREQUENCIES, AND ITS INTEGRATION OF ENERGY ARRIVING DURING A PERIOD OF 200 MSEC. BASED ON THESE THEORETICAL CONSIDERATIONS A UNIQUE COMPUTER-BASED ANALYSIS PROCEDURE WAS DEVELOPED, WHICH WAS USED TO PROVIDE A PREDICTION OF THE CRITICAL BAND(S) OF PRIMARY IMPORTANCE IN THE DETECTION OF REPRESENTATIVE COMBAT-RELEVANT SOUNDS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A026 209 1/5 20/1 13/2
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
MAR 76 39P FIDELL,SANFORD ;
REPT. NO. BBN-2941
CONTRACT: F33615-75-C-5044
PROJ: AF-7231
TASK: 723104
MONITOR: AMRL TR-75-110

UNCLASSIFIED REPORT

DESCRIPTORS: *AIRCRAFT NOISE, *AIRPORTS, *NOISE POLLUTION, MILITARY FACILITIES, MILITARY AIRCRAFT, ATTITUDES(PSYCHOLOGY), SURVEYS, COMMUNITIES, COMMUNITY RELATIONS, THRESHOLDS(PHYSIOLOGY), QUESTIONNAIRES, AIRCRAFT MAINTENANCE, ACOUSTICS (U)
IDENTIFIERS: *AIRPORT PLANNING (U)

THIS REPORT OUTLINES A TEST PLAN FOR CONDUCTING A SOCIAL SURVEY TO DETERMINE WHETHER COMMUNITY RESPONSE TO NOISE FROM MILITARY AIRCRAFT OPERATIONS DIFFERS SIGNIFICANTLY BETWEEN NOISE FROM FLIGHT OPERATIONS AND NOISE FROM GROUND RUNUP (MAINTENANCE) OPERATIONS. THE REPORT INCLUDES DISCUSSION OF THE METHODOLOGY AND RATIONALE FOR THE SURVEY AS WELL AS SAMPLE TELEPHONE AND MAIL QUESTIONNAIRES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZQM07

AD-A026 535 20/1 13/2 1/3
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE, (U)

MAR 76 123P BISHOP,DWIGHT E. ; DUNDERDALE,TOM C. ;HORONJEFF,RICHARD D. ; MILLS,JOHN F. ;
REPT. NO. BBN-2956
CONTRACT: F33615-75-C-5044
PROJ: AF-7231
TASK: 723104
MONITOR: AMRL TR-75-115

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO REPORT DATED AUG 75, AD-A017 741.

DESCRIPTORS: *AIRCRAFT NOISE, *COMMUNITY RELATIONS, NOISE POLLUTION, EXPOSURE(GENERAL), MODELS, MATHEMATICAL PREDICTION, COMPUTER APPLICATIONS, AIRPORTS, SENSITIVITY, LEVEL(QUANTITY), AIR FORCE RESEARCH, NOISE REDUCTION (U)
IDENTIFIERS: NOISEMAP, NOISE LEVELS, *NOISE EXPOSURE (U)

THIS REPORT DESCRIBES A PRELIMINARY STUDY OF THE SENSITIVITY OF NOISE EXPOSURE CONTOURS TO VARIOUS AIRCRAFT NOISE MODELING PARAMETERS AND ASSUMPTIONS. THE STUDY IS THE FIRST STEP IN A CONTINUING TECHNICAL ASSESSMENT OF THE AIR FORCE COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE. THE RESULTS INDICATE THAT THE ADDITION OF A TONE CORRECTION TO THE NOISE MEASURE CAN RESULT IN APPRECIABLE INCREASE IN NOISE EXPOSURE AREAS, BUT THE INCREASE IS HIGHLY DEPENDENT ON THE TYPE OF AIRCRAFT OPERATIONS. COMPUTATION OF CONTOUR AREAS FOR NINE BASES WITH AND WITHOUT THE GROUND RUNUP PENALTY SHOWED HOW THE PERCENT OF AREA IMPACTED INCREASED WITH INCREASING NOISE EXPOSURE LEVEL. USE OF ALTERNATE ALGORITHMS FOR GROUND-TO-GROUND PROPAGATION AND TRANSITIONS FOR AIR-TO-GROUND AND GROUND-TO-GROUND SITUATIONS IS DISCUSSED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A026 856 5/8 20/1 5/8
ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION, (U)

NOV 73 18P HARTLEY,L. R. ;
REPT. NO. OES-13/74
MONITOR: DRIC BR-52186

UNCLASSIFIED REPORT

DESCRIPTORS: *MAN MACHINE SYSTEMS, *NOISE(SOUND), HEARING, PERFORMANCE(HUMAN), ERRORS, REACTION TIME, RESPONSE(BIOLOGY), EFFICIENCY, HIGH INTENSITY, SCORING, GREAT BRITAIN (U)

THIRTEEN NAVAL RATINGS PERFORMED THE 5-CHOICE SERIAL REACTION TASK FOR 40 MIN, AND ALSO FOR THE LAST 20 MIN OF A 40 MIN PERIOD, UNDER EACH OF THE FOLLOWING 4 CONDITIONS: (1) QUIET FOR THE FULL 40 MIN. (2) 100DB(A) NOISE FOR THE FULL 40 MIN. (3) QUIET FOR THE FIRST 20 MIN FOLLOWED BY NOISE FOR THE LAST 20 MIN. (4) NOISE FOLLOWED BY QUIET. OVERALL PERFORMANCE DURING THE LAST 20 MIN WAS ASSESSED BY THE SUM OF ERRORS, AND GAPS LONGER THAN 1.5 SEC BETWEEN RESPONSES. THE TIME INTERVAL BETWEEN SUCCESSIVE RESPONSES WAS MEASURED TO THE NEAREST 0.2 SEC. COMPARED WITH QUIET FOR THE FULL 40 MIN, PERFORMANCE DURING THE LAST 20 MIN WAS IMPAIRED TO ABOUT THE SAME EXTENT BY WORKING IN NOISE AFTER 20 MIN IN QUIET, AS BY WORKING IN QUIET AFTER 20 MIN IN NOISE. NOISE FOR THE FULL 40 MIN PRODUCED THE GREATEST IMPAIRMENT. ERRORS WERE MORE LIKELY TO HAVE RESPONSE TIMES OF 0.4 SEC AND BELOW THAN WERE CORRECT RESPONSES. IT FOLLOWS THAT AFTER A PERSON HAS BEEN EXPOSED TO HIGH INTENSITY NOISE FOR AN APPRECIABLE PERIOD OF TIME, HE MAY NEED A PERIOD IN QUIET IN ORDER TO REGAIN THE LEVEL OF EFFICIENCY WHICH HE HAD BEFORE HE WAS EXPOSED TO THE NOISE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A027 141 20/1 6/6 5/9
ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

EFFECT OF NOISE ON THE STROOP TEST, (U)

MAR 74 14P HARTLEY,L. R. ;ADAMS,R. G. ;
REPT. NO. OES-16/74
MONITOR: DRIC BR-52536

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE, *SOUND PITCH, *ACOUSTIC MEASUREMENT, *NAVAL PERSONNEL, BROADBAND, RATINGS, PERFORMANCE TESTS, JOB ANALYSIS, QUIET, PERFORMANCE(HUMAN), REACTION(PSYCHOLOGY) (U)
IDENTIFIERS: BROADBAND NOISE, *NOISE LEVELS, NOISE PERCEPTION (U)

NOISE INCREASES THE INTERFERENCE BETWEEN COLOURS AND CONFLICTING COLOUR NAMES. THE INTERFERENCE INCREASES WITH THE TIME SPENT IN THE NOISE. THIS COULD BE DUE TO THE OVERAROUSAL PRODUCED BY THE NOISE, OR TO THE PERCEPTUAL ISOLATION WHICH THE NOISE ALSO PRODUCES. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A027 142 13/2 6/19
ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

PERFORMANCE DURING CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION. (U)

MAR 74 13P HARTLEY,L. R. ;
REPT. NO. OES-14/74
MONITOR: DRIC BR-52537

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *PERFORMANCE(HUMAN), NOISE(SOUND), AUDITORY PERCEPTION, COMPARISON, ERRORS, BROADBAND, LOUDNESS, EAR PROTECTORS, VARIATIONS, GREAT BRITAIN (U)

IN EXPERIMENT 1 36 CIVILIANS PERFORMED THE 5-CHOICE SERIAL REACTION TASK FOR 40 MIN UNDER EACH OF THE FOLLOWING 3 CONDITIONS: (1) CONTINUOUS BROADBAND NOISE WITH EQUAL ENERGY PER OCTAVE AT A SOUND PRESSURE LEVEL OF 95 DBC. (2) QUIET, THE SAME NOISE AT 70DBC. (3) VARIABLE INTERMITTENT NOISE ALTERNATING BETWEEN 70 AND 95 DBC AT IRREGULAR INTERVALS, WITH THE DURATION OF THE NOSIE BURSTS AVERAGING TWICE THE DURATION OF THE QUIET INTERVALS. THERE WERE MORE GAPS OF 1.5 SEC OR LONGER BETWEEN RESPONSES IN THE VARIABLE INTERMITTENT NOISE THAN IN QUIET. THE INCREASE WAS TWICE AS GREAT IN THE CONTINUOUS NOISE. THE BENEFICIAL EFFECT OF CHANGING FROM THE CONTINUOUS NOISE TO THE VARIABLE INTERMITTENT NOISE WAS PROBABLY DUE TO THE INCREASE IN VARIETY PRODUCED BY THE VARIABLE INTERMITTENT NOISE. IN EXPERIMENT 2 16 CIVILIANS PERFORMED THE 5-CHOICE SERIAL REACTION TASK FOR 40 MIN UNDER EACH OF THE FOLLOWING 4 CONDITIONS: (1) THE BROADBAND NOISE AT 95 DBC. (2) QUIET, THE SAME NOISE AT 70 DBC. (3) AND (4) THE SAME NOISE AND QUIET, BUT WEARING EAR MUFFS. WITHOUT THE EAR MUFFS THERE WERE MORE GAPS IN NOISE THAN IN QUIET. EAR MUFFS PREVENTED THE DETRIMENTAL EFFECT OF THE NOISE, BUT ONLY DURING THE FIRST 20 MIN OF THE 40 MIN TASK. DURING THE SECOND HALF OF THE TASK THE CIVILIANS WITHOUT EAR MUFFS HAD PROBABLY ADAPTED TO THE NOISE. THUS THEIR PERFORMANCE DID NOT SUFFER SO MUCH FROM THE LACK OF EAR MUFFS. ERRORS WERE NOT AFFECTED BY ANY OF THE EXPERIMENTAL CONDITIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A027 143 13/2 6/19
ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE, (U)

MAR 74 9P HARTLEY,L. R. ;
REPT. NO. OES-15/74
MONITOR: DRIC BR-52535

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *PERFORMANCE(HUMAN), NOISE(SOUND), AUDITORY PERCEPTION, COMPARISON, FREE FIELD, ERRORS, BROADBAND, LOUDNESS, GREAT BRITAIN (U)
IDENTIFIERS: HEADPHONES (U)

FOURTEEN NAVAL RATINGS AND 1 HOUSEWIVES PERFORMED THE 5 CHOICE SERIAL REACTION TASK FOR 40 MIN UNDER EACH OF THE FOLLOWING 4 CONDITIONS: (1) CONTINOUS BROADBAND NOISE WITH EQUAL ENERGY PER OCTAVE, PRESENTED THROUGH HEADPHONES AT A SOUND PRESSURE LEVEL OF 95 DBC. (2) THE SAME NOISE PRESENTED IN A FREE FIELD WITHOUT HEADPHONES. (3 AND 4) THE BROADBAND NOISE PRESENTED WITH AND WITHOUT HEADPHONES AT 70 DBC. IN THE NOISE THERE WERE MORE GAPS OF 1.5 SEC BETWEEN RESPONSES. THE HEADPHONE NOISE PRODUCED MORE GAPS THAN THE FREEFIELD NOISE. THERE WERE ALSO MORE ERRORS IN THE NOISE. THE INCREASE IN ERRORS OCCURRED AT ONCE IN THE FREE FIELD NOISE, BUT ONLY IN THE LAST 20 MIN OF THE 40 MIN PERIOD WITH THE HEADPHONE NOISE. THE EARLIER AND MORE MARKED EFFECT IN THE FREE FIELD IS PROBABLY DUE TO THE GREATER APPARENT LOUDNESS OF THE NOISE, WITH THE CONSEQUENT INCREASE IN ANNOYANCE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A027 737 13/2 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

SOME THOUGHTS ON HEARING CONSERVATION: POSSIBLE CORRECTIONS TO EQUAL ENERGY RULE TO ACCOUNT FOR INTERMITTENCY AND IMPULSE NOISE, (U)

75 5P JOHNSON,DANIEL L. ;
REPT. NO. AMRL-TR-75-4
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN PROCEEDINGS OF THE TECHNICAL PROGRAM - NOISE EXPO, P1-4 1975.
SUPPLEMENTARY NOTE: PRESENTED AT THE NATIONAL NOISE AND VIBRATION CONTROL CONFERENCE, 30 APR-2 MAY 75, ATLANTA, GA.

DESCRIPTORS: *NOISE POLLUTION, *IMPULSE NOISE, HEARING, NOISE(SOUND), FEDERAL LAW, EXPOSURE(PHYSIOLOGY), AUDIOMETRY, THRESHOLDS(PHYSIOLOGY), DEAFNESS, REPRINTS (U)
IDENTIFIERS: EQUAL ENERGY RULE, ENVIRONMENTAL PROTECTION AGENCY (U)

THIS PAPER CONSIDERS TWO RELATED TOPICS. THE FIRST TOPIC CONCERNS A POSSIBLE COMPROMISE BETWEEN USING THE EQUAL ENERGY RULE (3 DB/HALVING OF TIME) AND THE 5 DB RULE (5 DB HALVING OF TIME) FOR EVALUATING NONSTEADY NOISES. BY USING THIS COMBINATION, IT IS POSSIBLE TO PRESERVE ONE OF THE KEY BENEFITS OF THE EQUAL ENERGY RULE. THIS BENEFIT IS THAT IT CAN REASONABLY APPROXIMATE THE HEARING CRITERIA FOR IMPULSE NOISE EXPOSURE. DISCUSSION OF THE USE OF EQUAL ENERGY FOR ASSESSING IMPULSE NOISE EFFECTS MAKES UP THE SECOND PART OF THIS PAPER. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A027 807 13/2 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

SUMMARY OF PRESENT DAMAGE RISK CRITERIA, (U)

76 16P VON GIERKE,H. E. ;JOHNSON, DANIEL L. ;

REPT. NO. AMRL-TR-75-58
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE INTERNATIONAL SYMPOSIUM, THE EFFECTS OF NOISE ON HEARING-CRITICAL ISSUES, 22-25 JUN 75, CAZENOVIA, N. Y.

DESCRIPTORS: *NOISE POLLUTION, *STRESS(PHYSIOLOGY), RISK ANALYSIS, EXPOSURE(PHYSIOLOGY), THRESHOLDS(PHYSIOLOGY), LONG RANGE(TIME), CRITERIA, DEAFNESS, SAFETY, TRADE OFF ANALYSES, STANDARDS, PREDICTIONS, PHYSIOLOGICAL EFFECTS (U)
IDENTIFIERS: HEARING LOSS (U)

THIS SUMMARY MAINTAINS THAT IN SPITE OF UNCERTAINTIES AND OPEN SCIENTIFIC QUESTIONS, THE AVAILABLE DATA BASE IS CONSISTENT ENOUGH TO PREDICT FOR PREVENTIVE/PROTECTIVE PURPOSES THE AMOUNT OF NOISE-INDUCED PERMANENT THRESHOLD SHIFT TO BE EXPECTED IN A POPULATION AS A RESULT OF HABITUAL NOISE EXPOSURE. FOR NOISE EXPOSURE LEVELS TO HAVE NO EFFECT ON A POPULATION'S HEARING AFTER 40 YEARS OF DAILY EXPOSURE, A 'SAFE' LEVEL OF APPROXIMATELY 75 DB(A) IS DERIVED FOLLOWING THE ARGUMENTS ADVANCED IN THE EPA 'LEVELS DOCUMENT.' (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A030 042 19/3 6/19
MICHIGAN TECHNOLOGICAL UNIV HOUGHTON KEWEENAW RESEARCH CENTER

THE STUDY OF VIBRATIONS GENERATED BY THE TRACKS OF TRACKED VEHICLES, (U)

JUL 76 52P LEE,S. M. ;
CONTRACT: DAAE07-75-A-0508

UNCLASSIFIED REPORT

DESCRIPTORS: •VEHICLE TRACKS, •TRACKED VEHICLES, •STRESS(PHYSIOLOGY), VIBRATION, LOW FREQUENCY, TANKS(COMBAT VEHICLES), TANK CREWS, NOISE, HEARING, DAMAGE, DEAFNESS, SELF PROPELLED GUNS, ROADWHEELS, IDLER WHEELS (U)

THE CREW MEMBERS OF TRACKED VEHICLES ARE AFFECTED ADVERSELY BY LOW FREQUENCY VIBRATIONS TRANSMITTED TO THE VEHICLE COMPARTMENT FROM THE VIBRATIONS OCCURRING IN THE TRACK. THE NOISE AND VIBRATION LEVEL IN THE CREW COMPARTMENT CAN CAUSE HEARING DAMAGE AND SERIOUS DISCOMFORT TO THE CREW MEMBERS RESULTING IN SERIOUS DEGRADATION OF EFFICIENCY. THESE NOISE AND VIBRATION ARE CAUSED BY THE TRANSMISSION OF THE VIBRATIONS OCCURRING IN THE TRACK AS IT LEAVES THE REAR ROAD WHEEL AND GOES OVER THE IDLER AND ENGAGES THE SPROCKET. THE CHORDAL ACTION IN VARIOUS PARTS OF THE TRACK CORRESPONDING TO THE RESONANCE-TYPE VIBRATIONS ALSO CONTRIBUTE TO THE NOISE AND VIBRATION. THESE FACTORS, THEREFORE, INDICATE LOSS OF ENERGY GENERATED BY THE ENGINE IN ADDITION TO THE DISCOMFORT TO THE CREW. THIS IS AN ANALYTICAL STUDY OF THE VIBRATIONS GENERATED BY THE TRACK OF TRACKED VEHICLES. A METHOD OF ANALYSIS IS DERIVED FROM THE TECHNIQUE OF RECEPTANCE CALCULATION. BY THIS MEANS, THE RATIO OF DISPLACEMENT AT THE IDLER WHEEL SUPPORT TO A PERIODIC FORCE APPLIED AT THE REAR ROAD WHEEL, AS THE TRACK PADS STRIKE THE ROAD, IS CALCULATED. THIS RATIO CAN BE OBTAINED WITH DUE RAGARDS TO THE VARIOUS PHYSICAL PARAMETERS DESCRIBING THE CHARACTERISTICS OF THE TRACK CONFIGURATION AND THE BOUNDARY CONDITIONS AT THE IDLER WHEEL SUPPORT. ANALYSIS OF FORCES ACTING ON THE IDLER WHEEL SUPPORT ALSO YIELDS RESULTS DESCRIBING FAVORABLE IDLER WHEEL CONFIGURATION, COMPLIANCE OF IDLER ARM, AND THE SIZE OF THE TRACK SHOE ASSEMBLY. COMBINATION OF THESE RESULTS CAN BE USED TO PREDICT OPTIMUM CONDITIONS UNDER WHICH THE VIBRATION OF A PRESCRIBED FREQUENCY CAN BE MINIMIZED. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A030 896 13/2
BOLT BERANEK AND NEWMAN INC ARLINGTON VA

HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,
SEP 76 163P LEHR,J. ;NELSON,D. ;
SUTTERLIN,M. ;
REPT. NO. BBN-3222
CONTRACT: N00014-75-C-0057

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE REDUCTION, *NOISE POLLUTION, *SHIP NOISE, MACHINERY NOISE, ENGINE NOISE, STANDARDS, SHIPBOARD (U)
IDENTIFIERS: FF 1052 CLASS VESSELS, FF 1070 VESSEL, FF 1082 VESSEL (U)

THIS REPORT COVERS THE PROTOTYPE PHASE OF AN OPNAV SPONSORED HEARING CONSERVATION PROGRAM. THE OBJECTIVE OF THE PROTOTYPE PHASE WAS TO DEMONSTRATE THE FEASIBILITY OF REDUCING MACHINERY SPACE NOISE LEVELS SUFFICIENTLY TO COMPLY WITH BUMED/OSHA HEARING DAMAGE RISK CRITERIA. THE USS ELMER MONTGOMERY (FF 1082), THE DESIGNATED PROTOTYPE SHIP, WAS SUBJECTED TO COMPREHENSIVE UNDERWAY AND DOCKSIDE DIAGNOSTIC NOISE TESTING. THE TESTS INDICATED THAT EVEN AT NOMINAL 15 TO 20 KNOT CRUISING SPEEDS, NOISE LEVELS AT MANY MANNED LOCATIONS IN THE ENGINE ROOM AND FIRE ROOM EXCEEDED THE BUMED 90 DBA HEARING DAMAGE RISK CRITERION. CONCEPTUAL APPROACHES FOR NOISE CONTROL TREATMENT WERE PROVIDED TO THE NAVAL SHIPYARD WHICH DEVELOPED THE DESIGN FOR THE PROTOTYPE TREATMENTS. SUBSEQUENT NOISE TRIALS CONDUCTED TO ASSESS THE PERFORMANCE OF THE PROTOTYPE TREATMENTS INDICATED THE PREDICTED NOISE REDUCTION FROM THE TREATMENTS WAS ACHIEVED. NOISE TRIALS WERE ALSO CONDUCTED ON A SECOND SHIP IN THE CLASS, THE USS DOWNES (FF 1070), TO INSURE THAT DIFFERENCES IN EQUIPMENT MANUFACTURE OR SHIPYARD CONSTRUCTION PRACTICES DID NOT RESULT IN SIGNIFICANT DIFFERENCES IN THE NOISE ENVIRONMENT WITHIN THE FF 1052 CLASS MACHINERY SPACES. THE REPORT CONCLUDES WITH A RECOMMENDED NOISE CONTROL PACKAGE FOR SHIPS OF THE FF 1052 CLASS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A031 087 13/2
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES. (U)

DESCRIPTIVE NOTE: FINAL REPT. JAN 72-JUN 74, MAR 75 27P KOESTLER,ALFRED G. ;DALTON, LESLIE ;
REPT. NO. AMRL-TR-75-42
CONTRACT: DOT-FA70WAI-181
PROJ: AF-7231
TASK: 723103
MONITOR: FAA-RD 75-85

UNCLASSIFIED REPORT

DESCRIPTORS: *IMPULSE NOISE, *NOISE POLLUTION, PHYSIOLOGICAL EFFECTS, FEMALES, CHIMPANZEES, EXPOSURE(PHYSIOLOGY), BEHAVIOR, PERFORMANCE(HUMAN), PSYCHOMOTOR FUNCTION, AMBIENT NOISE, STIMULI, RESPONSE(BIOLOGY) (U)

TWO YOUNG FEMALE CHIMPANZEES WERE EXPOSED TO 35 IMPULSIVE ACOUSTIC STIMULI EACH NIGHT FOR 180 CONSECUTIVE NIGHTS. DAYTIME PERFORMANCE ON A TEMPORAL DISCRIMINATION PSYCHOMOTOR TASK DETERIORATED FOLLOWING INITIATION OF THE ACOUSTIC EXPOSURES. ADAPTATION TO BASELINE PERFORMANCE WAS OBSERVED FOR ONE SUBJECT AND SUGGESTED FOR THE OTHER. BOTH EXHIBITED PREEXPOSURE PERFORMANCE AFTER THE IMPULSES CEASED. CAGE MOVEMENTS WERE MEASURED FOR BOTH SUBJECTS IN RESPONSE TO EVERY IMPULSE NOISE PRESENTATION OVER THE 180 DAYS. THE STUDY DEMONSTRATED PERFORMANCE DECREMENTS WHICH SHOWED ADAPTATION OVER TIME AS WELL AS GENERAL BEHAVIOR CHANGES AND SLEEP INTERFERENCE WHICH DID NOT SHOW ADAPTATION OVER 180 DAYS. ALL BEHAVIORAL CHANGES WHICH OCCURRED DURING THE EXPOSURE DISAPPEARED AFTER THE NOISE EXPOSURES WERE TERMINATED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A031 366 13/2 6/19 20/1
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE, (U)

JUN 76 11P VON GIERKE,H. E. ;MEYER,A. F. ;

REPT. NO. AMRL-TR-75-43
PROJ: AF-6231
TASK: 623103

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE INTERNATIONAL CONGRESS, MAN AND NOISE, 6-10 JUN 75, TURIN (ITALY). THIS PAPER IS A CONDENSED VERSION OF REPT. NO. AMRL-TR-75-40.

DESCRIPTORS: *NOISE POLLUTION, *NOISE(SOUND), CRITERIA, NOISE REDUCTION, PHYSIOLOGICAL EFFECTS, ENVIRONMENTAL PROTECTION, INDUSTRIAL NOISES, LEVEL(QUANTITY), STANDARDS, PUBLIC HEALTH, HEARING (U)

PLANNING AND EXECUTION OF AN EFFECTIVE NOISE CONTROL PROGRAM REQUIRES DEFINITION OF THE HARMFUL EFFECTS OF NOISE TO BE PREVENTED AND THE ESTABLISHMENT OF GOALS TO BE ACHIEVED. IN RESPONSE TO THE NOISE CONTROL ACT OF 1972 THE US ENVIRONMENTAL PROTECTION AGENCY CONDUCTED STUDIES TO CLARIFY THE CAUSE AND EFFECTS RELATIONSHIPS BETWEEN THE NOISE ENVIRONMENT AND VARIOUS HEALTH EFFECTS, WHICH WERE PUBLISHED IN A CRITERIA DOCUMENT. BASED ON THESE FINDINGS ENVIRONMENTAL NOISE LEVELS WERE IDENTIFIED, AT OR BELOW WHICH THE POPULATION WOULD BE PROTECTED AGAINST ADVERSE EFFECTS ON HEALTH AND WELFARE; THIS INFORMATION WAS PUBLISHED IN THE LEVELS DOCUMENT. THE RATIONALE FOR SELECTING BASICALLY ONE DESCRIPTOR FOR CHARACTERIZING NOISE ENVIRONMENTS WITH RESPECT TO THEIR HEALTH EFFECTS AND THE JUSTIFICATION FOR THE LEVELS SELECTED BASED ON HEARING CONSERVATION AND ACTIVITY INTERFERENCE/ANNOYANCE CRITERIA WILL BE DISCUSSED. THE USE OF THESE LEVELS IN THE OVERALL ENVIRONMENTAL NOISE CONTROL PROGRAM AND THEIR RELATIONSHIP TO INDUSTRIAL/OCCUPATIONAL NOISE EXPOSURE LIMIT LEVELS WILL BE EXPLAINED. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A031 382 13/2 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

LONG-DURATION EXPOSURE TO INTERMITTENT NOISES, (U)

76 6P JOHNSON,DANIEL L. ;NIXON, CHARLES W. ;STEPHENSON,MARK R. ;
REPT. NO. AMRL-TR-76-41
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN AVIATION, SPACE AND ENVIRONMENTAL MEDICINE, V47 N9 P987-990 SEP 76.

DESCRIPTORS: *IMPULSE NOISE, *NOISE POLLUTION, HEARING, PHYSIOLOGICAL EFFECTS, THRESHOLDS(PHYSIOLOGY), LONG RANGE(TIME), EXPOSURE(PHYSIOLOGY), RECOVERY, REPRINTS (U)
IDENTIFIERS: HEARING LOSS (U)

THE EFFECTS WERE EXAMINED OF VARIOUS PATTERNS OF INTERRUPTION-OF CONTINUOUS NOISE BY PERIODS OF QUIET-ON THE GROWTH AND RECOVERY OF TEMPORARY THRESHOLD SHIFT OF HEARING OVER AN EXPOSURE PERIOD OF 24 H. MONAURAL THRESHOLD OF HEARING WERE MEASURED PRIOR TO, DURING, AND FOLLOWING EXPOSURE TO A PINK NOISE AT A LEVEL OF 85 DBA AND TO FOUR CONDITIONS IN WHICH THE PINK NOISE WAS INTERRUPTED WITH VARIOUS ON-OFF RATIOS. THE INTERRUPTED EXPOSURE PATTERNS AND LEVELS WERE ADJUSTED TO MAKE THEIR AVERAGE LEVELS EQUIVALENT TO 85 DBA. AMONG THE RESULTS: (1) THE GROWTH OF TTS CLEARLY REACHED ON ASYMPTOTE FOR ALL INTERRUPTED EXPOSURE CONDITIONS, EVEN WHEN THE TTS WAS AS SMALL AS 5 DB, (2) THE INTERRUPTED EXPOSURES PRODUCED LOWER ASYMPTOTIC LEVELS THAN THE CONTINUOUS EXPOSURE WITH THE SAME AMOUNT OF ENERGY, AND (3) THE TTS RECOVERY PATTERNS WERE ESSENTIALLY THE SAME AT 1 H AND BEYOND, FOR ALL CONDITIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A032 015 13/2
SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

HEARING LEVELS OF NOISE-EXPOSED U.S. AIR FORCE PERSONNEL COMPARED TO THOSE IN THE TOTAL U. S. POPULATION. (U)

DESCRIPTIVE NOTE: PROGRESS REPT. JAN-JUN 75, SEP 76 18P SUTHERLAND,HARRELL C. , JR.; GASAWAY,DONALD C. ;
REPT. NO. SAM-TR-76-27
PROJ: 7755
TASK: 08

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *NOISE POLLUTION (U)
IDENTIFIERS: LEVELS(QUANTITY), THRESHOLDS(PHYSIOLOGY), AIR FORCE PERSONNEL, COMPARISON, AGE DISTRIBUTION, WUSAM77550802, PE62202F (U)

HEARING THRESHOLD LEVELS AS REPORTED ON FORMS RECEIVED AT THE USAF HEARING CONSERVATION DATA REGISTRY WERE STUDIED. FORMS RECEIVED DURING JANUARY THROUGH JUNE 1975 WERE INCLUDED. MEDIAN HEARING LEVELS FOR BOTH MILITARY AND CIVILIAN USAF PERSONNEL WERE FOUND TO BE GENERALLY BETTER THAN IN THE NONINSTITUTIONALIZED UNITED STATES POPULATION. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A032 028 20/1 1/3
MAN-ACOUSTICS AND NOISE INC SEATTLE WASH

NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS. (U)

DESCRIPTIVE NOTE: FINAL REPT.
JUL 76 108P
REPT. NO. MAN-1014
CONTRACT: DOT-FA74WAI-490
MONITOR: FAA-RD 76-116

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO REPORT DATED NOV 75, AD-A018 036.

DESCRIPTORS: *NOISE POLLUTION, *HELICOPTERS, *SHORT TAKEOFF AIRCRAFT, *PSYCHOPHYSICS, AIRCRAFT NOISE, ACOUSTIC MEASUREMENT, HUMAN FACTORS ENGINEERING, INTENSITY, EXPOSURE(GENERAL), STATISTICAL PROCESSES, SIMULATION, MODELS, ANALYSIS OF VARIANCE, ENVIRONMENTAL PROTECTION, EXPERIMENTAL DATA, COMMUNITY RELATIONS, LABORATORY TESTS (U)
IDENTIFIERS: ANNOYANCE, NOISE LEVELS, CERTIFICATION (U)

THIS IS THE SECOND PART OF A PROGRAM CONCERNING NOISE CERTIFICATION FOR V/STOL AND HELICOPTER AIRCRAFT. ASPECTS CONSIDERED WERE: AN ENGINEERING CALCULATION PROCEDURE WHICH VALIDLY AND RELIABLY REFLECTS ANNOYANCE TO HELICOPTER OPERATIONS; ESTIMATES OF NOISE EXPOSURE LEVELS WHICH COULD BE COMPATIBLE WITH HUMAN ACTIVITIES IN AREAS SURROUNDING HELIPORTS; NOISE EXPOSURE MODELING FOR HELICOPTER NOISE; CERTIFICATION MEASUREMENT APPROACHES FOR HELICOPTER NOISE CERTIFICATION. THE BASICS OF THE PROGRAM INVOLVED HUMAN RESPONSE EVALUATIONS OF CONVENTIONAL TAKEOFF AND LANDING (CTOL) AIRCRAFT NOISE, SIMULATIONS OF HELICOPTER NOISE EMPHASIZING 'SLAP' OR PULSATING NOISE EFFECTS, AND RECORDINGS OF A WIDE VARIETY OF HELICOPTER OPERATIONS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD-A032 156 6/19
ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES. (U)

AUG 73 16P ROBERT,G. ;HOCKEY,J. ;
REPT. NO. OES-11/74
MONITOR: DRIC BR-51849

UNCLASSIFIED REPORT

DESCRIPTORS: *SLEEP DEPRIVATION, *NOISE POLLUTION, *ATTENTION, PERFORMANCE(HUMAN), SONAR OPERATORS, NAVAL PERSONNEL, MILITARY FORCES(FOREIGN), VIGILANCE, ENLISTED PERSONNEL, DETECTION, DECISION MAKING, GREAT BRITAIN (U)

THREE GROUPS OF 12 NAVAL RATINGS HAD TO MONITOR 3 SOURCES OF SIGNALS, AND TO REPORT EACH TIME THEY DETECTED A SIGNAL. A SOURCE WAS CHECKED BY PRESSING THE CORRESPONDING KEY AND LOOKING FOR A DULL RED FLASH. ONE GROUP WORKED WITH AND WITHOUT NOISE. THE OTHER GROUP WORKED AFTER A NIGHT WITHOUT SLEEP AND AFTER NORMAL SLEEP. NOISE HAS A BENEFICIAL EFFECT IN MAKING THE MAN CONCENTRATE MORE ON THE MOST PROBABLE SOURCE OF SIGNALS. BUT NOISE HAS A DETRIMENTAL EFFECT IN INCREASING THE NUMBER OF MISSES IN THE SECOND HALF OF THE EXPERIMENTAL PERIOD. WHEREAS LOSS OF A NIGHT'S SLEEP HAS ONLY DETRIMENTAL EFFECTS. IT STOPS THE MAN FROM CONCENTRATING MORE ON THE MOST PROBABLE SOURCE OF SIGNALS. AND IT MAKES HIM REQUIRE MORE EVIDENCE BEFORE HE REPORTS A SIGNAL. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A032 401 6/19 6/6
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN, (U)

MAY 76 11P JOHNSON,DANIEL L. ;
REPT. NO. AMRL-TR-76-17
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT ELECTRO 76, BOSTON, MASS. 11-14 MAY 76 SPONSORED BY INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

DESCRIPTORS: *NOISE POLLUTION, *INFRASONIC RADIATION, *STRESS(PHYSIOLOGY), NOISE(SOUND), EXPOSURE(PHYSIOLOGY), PHYSIOLOGICAL EFFECTS, HUMANS, LOW FREQUENCY, VIBRATION, SOURCES, HEARING, THRESHOLDS(PHYSIOLOGY) (U)
IDENTIFIERS: *ENVIRONMENTAL HEALTH (U)

INFRASOUND, SINUSOIDAL PRESSURE VARIATIONS FROM 0.1 TO 20 HZ, IS SOMEWHAT MORE COMPLICATED TO MEASURE AND ANALYZE THAN SOUND OF HIGHER FREQUENCY. BUT THE MOST COMMON ERROR IN ANALYZING INFRASOUND IS NOT TO ALSO MEASURE THE HIGHER FREQUENCY SOUNDS AND THEN INTERPRET THESE SOUNDS WITH RESPECT TO THEIR EFFECTS ON HUMANS. GENERALLY, WHERE THERE IS INTENSE INFRASOUND, THERE ARE ALSO INTENSE SOUNDS ABOVE 20 HZ; AND THESE ARE THE SOUNDS THAT CAUSE ADVERSE HUMAN EFFECTS. AT SUFFICIENT INTENSITY INFRASOUND IS AUDIBLE, BUT IS EASILY MASKED BY HIGHER FREQUENCY SOUND. INFRASOUND DOES NOT OFTEN OCCUR AT LEVELS THAT ARE HARMFUL OR EVEN AUDIBLE TO MAN. THUS INFRASOUND EXPOSURE IS NOT ONE OF MANKINDS MORE PRESSING ENVIRONMENTAL PROBLEMS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A032 971 13/2 15/5
ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MISS

THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT, (U)

DEC 73 75P GREEN,A. J. ;RANDOLPH,D. D. ;RULA,A. A. ;
REPT. NO. WES-MP-M-73-15

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SPONSORED IN PART BY ARMY CONSTRUCTION ENGINEERING RESEARCH LAB., CHAMPAIGN, ILL.

DESCRIPTORS: *MILITARY TRANSPORTATION, *ENVIRONMENTAL PROTECTION, SURVEYS, AIR QUALITY, NOISE POLLUTION, VIBRATION, WATER QUALITY, SOIL SCIENCE, MILITARY VEHICLES, VEGETATION, DEGRADATION, HYDROLOGY (U)
IDENTIFIERS: *ENVIRONMENTAL IMPACTS (U)

THE STUDY REPORTED WAS UNDERTAKEN TO EVALUATE THE IMPACT OF MILITARY TRANSPORTATION ACTIVITIES UPON RELATED ENVIRONMENTAL ATTRIBUTES. THE MILITARY ACTIVITIES WERE RELATED TO THEIR IMPACT ON THESE ATTRIBUTES BY MEANS OF A MATRIX. THIS MATRIX USED A SCALE TO IDENTIFY THE MAGNITUDE AND PROBABILITY OF THE IMPACT. ADDITIONALLY, KNOWN MITIGATION AND ABATEMENT PRACTICES THAT CAN BE USED TO MINIMIZE ADVERSE ENVIRONMENTAL IMPACTS WERE IDENTIFIED AND BRIEFLY DESCRIBED. THE PRINCIPAL CONCLUSION WAS THAT THIS TECHNIQUE PROVIDED A FIRST APPROXIMATION FOR ASSESSING THE EFFECT OF MILITARY TRANSPORTATION ON THE ENVIRONMENT. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A033 468 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

AFTEREFFECTS OF RANDOM AND FIXED INTERMITTENT SOUND ON HUMAN PERFORMANCE, (U)

SEP 76 12P HARRIS,C. STANLEY ;
REPT. NO. AMRL-TR-76-75
PROJ: AF-7231
TASK: 723103

UNCLASSIFIED REPORT

DESCRIPTORS: *STRESS(PHYSIOLOGY), *NOISE(SOUND), HIGH FREQUENCY, PERFORMANCE(HUMAN), INTENSITY, STIMULI, RESPONSE(BIOLOGY) (U)
IDENTIFIERS: INTERMITTENT NOISE (U)

RECENT RESEARCH SUGGESTS THAT UNPREDICTABLE NOISE CAN ADVERSELY AFFECT HUMAN PERFORMANCE SUBSEQUENT TO THE NOISE EXPOSURE. THREE GROUPS OF SUBJECTS WERE EXPOSED TO VARIOUS UNPREDICTABLE NOISES IN THREE EXPERIMENTS. THE NOISE STIMULUS USED IN THE FIRST EXPERIMENT WAS THE SOUND OF AN AUTOMOBILE HORN, AND IN THE LAST TWO EXPERIMENTS VARIOUS MIXED SOUNDS WERE PRESENTED. IN EACH EXPERIMENT THERE WAS (1) A CONTROL CONDITION, (2) A FIXED INTERMITTENT CONDITION, AND (3) A RANDOM INTERMITTENT CONDITION. TESTING WAS CONDUCTED FOR A 30 MINUTE PERIOD ON AN ARITHMETIC ADDITION TASK DURING EACH NOISE EXPOSURE. SUBSEQUENT TO THE NOISE EXPOSURE, PERFORMANCE WAS MEASURED FOR 15 MINUTES ON A PROOFREADING TASK IN EXPERIMENT 1 AND 2 AND ON A SERIAL SEARCH TASK IN EXPERIMENT 3. THERE WERE NO ADVERSE EFFECTS OF NOISE ON PERFORMANCE OF THE ADDITION TASK IN ANY OF THE THREE EXPERIMENTS. SIMILARLY, NO ADVERSE AFTEREFFECTS WERE OBTAINED IN EXPERIMENT 1 OR IN EXPERIMENT 3. HOWEVER, IN EXPERIMENT 2 THE MIXED SOUND STIMULUS PRODUCED AN ADVERSE AFTEREFFECT ON PERFORMANCE OF THE PROOFREADING TASK. THE FIXED INTERMITTENT NOISE CONDITION PRODUCED STATISTICALLY SIGNIFICANT LESS EFFICIENT PROOFREADING PERFORMANCE THAN THE CONTROL CONDITION AND THE RANDOM INTERMITTENT NOISE CONDITION. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A033 497 21/8.2 21/9.2 5/11
ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT
PARIS (FRANCE)

SMALL SOLID PROPELLANT ROCKETS FOR FIELD USE. (U)

DESCRIPTIVE NOTE: CONFERENCE PROCEEDINGS.
76 154P
REPT. NO. AGARD-CP-194

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: NATO-FURNISHED. PAPERS PRESENTED AT THE MEETING OF THE AGARD PROPULSION AND ENERGETICS PANEL (47TH), 17-19 MAY 76, HELD AT DFVLR PORZ-WAHN (WEST GERMANY).

DESCRIPTORS: *SOLID PROPELLANT ROCKET ENGINES, *CONFERENCES, ANTITANK WEAPONS, ANTIAIRCRAFT WEAPONS, ARTILLERY ROCKETS, PROPULSION SYSTEMS, THRUST VECTOR CONTROL SYSTEMS, HIGH ENERGY PROPELLANTS, IGNITION, NOISE, SHOCK(MECHANICS), GUNNERS, HUMAN FACTORS ENGINEERING, SHOULDER LAUNCHED WEAPONS, TACTICAL WEAPONS, DOUBLE BASE ROCKET PROPELLANTS, INTERIOR BALLISTICS, SHELF LIFE, RECOILLESS GUNS, FIELD TESTS, NATO (U)
IDENTIFIERS: 110-MM AMMUNITION (U)

THE SPECIALISTS' MEETING IS DEVOTED TO TECHNOLOGICAL PROBLEMS ASSOCIATED WITH PROPULSION SYSTEMS OF ADVANCED SMALL ROCKET MOTORS FOR ANTI-TANK, ANTI-AIRCRAFT, AND LIGHT ARTILLERY ROCKETS. AFTER SPECIFICATION OF THE REQUIREMENTS FOR THE THREE TYPES OF WEAPON SYSTEMS, PROBLEMS OF SYSTEMS DEVELOPMENT WILL BE DISCUSSED INCLUDING THE OPTIMIZATION AND MATCHING OF PROPULSION SYSTEMS AS WELL AS NEW METHODS FOR CONTROL AND THRUST VECTORING. HIGH ENERGY SOLID PROPELLANTS AND IGNITION PROBLEMS WILL BE REVIEWED. A DISCUSSION OF IMPORTANT PROBLEMS OF APPLICATION, SUCH AS NOISE AND SHOCK EFFECTS ON THE GUNNER, WILL TERMINATE THE SESSIONS. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOH07

AD-A033 666 6/10 6/19
ARMY AEROMEDICAL RESEARCH LAB FORT RUCKER ALA

EFFECT OF IMPULSE NOISE ON HEARING: A SELECT BIBLIOGRAPHY, (U)

NOV 76 24P BULLOCK,SYBIL H. ;
REPT. NO. USAARL-SPECIAL BIB-SER-10

UNCLASSIFIED REPORT

DESCRIPTORS: *IMPULSE NOISE, *BIBLIOGRAPHIES, HEARING, CRITERIA, SMALL ARMS, INDUSTRIAL HYGIENE, THRESHOLDS(PHYSIOLOGY), GUNFIRE, DEAFNESS (U)

THIS BIBLIOGRAPHY CONTAINS REFERENCES TO BOOKS, TECHNICAL REPORTS, AND JOURNAL ARTICLES ON THE EFFECTS OF IMPULSE NOISE ON HEARING. IT COVERS PRIMARILY THE 1950'S TO THE PRESENT TIME; THE ARRANGEMENT IS ALPHABETICALLY BY AUTHOR. (AUTHOR) (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A034 051 20/1 13/2
NAVAL UNDERSEA CENTER SAN DIEGO CALIF

SUMMARY REPORT OF THE NAVY CONFERENCE ON ENVIRONMENTAL NOISE 18-20 NOVEMBER 1975. (U)

MAR 76 56P
REPT. NO. NUC-TP-520
PROJ: YF59.592
TASK: YF59.592.001

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *NAVAL PLANNING, *MEETINGS, ENVIRONMENTAL PROTECTION, AIRCRAFT NOISE, SHIP NOISE, NAVAL SHORE FACILITIES, PHYSIOLOGICAL EFFECTS, PSYCHOLOGICAL DISTRESS, NOISE REDUCTION, COMMUNITY RELATIONS, SHIPBOARD, DATA ACQUISITION (U)
IDENTIFIERS: OCCUPATIONAL NOISE (U)

THE NAVY CONFERENCE ON ENVIRONMENTAL NOISE WAS HELD AT THE NAVAL ACADEMY, ANNAPOLIS, IN NOVEMBER 1975 UNDER JOINT SPONSORSHIP OF NAVMAT, ONR, AND BUMED. THE PURPOSE WAS AN IN-HOUSE REVIEW OF THE NAVY'S CAPABILITIES, PLANS, PROGRAMS, AND NEEDS IN THE AREA OF ENVIRONMENTAL AND OCCUPATIONAL NOISE. THIS GENERAL AREA DEALS WITH AIRBORNE NOISE -- ITS SOURCES (ON SHIPS, AIRCRAFT, AND ASHORE), ITS EFFECTS ON PERSONNEL (THOSE IN THE OPERATIONAL AND WORK ENVIRONMENT, AND THOSE EXPOSED TO NAVY NOISE IN THE OFF-STATION OR HOME ENVIRONMENT), AND METHODS FOR NOISE ABATEMENT. THIS REPORT SUMMARIZES THE PROCEEDINGS, CONCLUSIONS, AND RECOMMENDATIONS OF THE CONFERENCE. THE PRINCIPAL OUTPUTS ARE THE RECOMMENDATIONS OF THE FOUR WORKSHOPS IN THE AREAS OF (1) MEDICAL PROBLEMS, (2) AIRCRAFT NOISE, (3) SHORE AND COMMUNITY NOISE, AND (4) SHIPBOARD NOISE. THE EXECUTIVE SUMMARY PROVIDES A CONCISE OVERALL REVIEW OF THE CONFERENCE GOALS AND FINDINGS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A034 605 6/19 13/2 20/1
DAYTON UNIV OHIO RESEARCH INST

EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT. 1 FEB 75-31 JUL 76, NOV 76 147P SCHORI,THOMAS R. ;
CONTRACT: F33615-75-C-5055
PROJ: AF-6231
TASK: 623103
MONITOR: AMRL TR-76-97

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO AD-767 205.

DESCRIPTORS: *NOISE, *HEARING, GUIDES, THRESHOLDS(PHYSIOLOGY), EXPOSURE(PHYSIOLOGY), METHODOLOGY, AUDIOMETRY, DEAFNESS, AUDITORY ACUITY, FREQUENCY, TABLES(DATA), EXPERIMENTAL DATA, RATINGS, SCALE, TEST AND EVALUATION, SAFETY, INDUSTRIAL HYGIENE (U)
IDENTIFIERS: *NOISE POLLUTION, APPENDICES, OCCUPATIONAL HEALTH AND SAFETY, THRESHOLD LIMIT VALUES (U)

THE TTS2 (TEMPORARY THRESHOLD SHIFT MEASURED TWO MINUTES AFTER NOISE TERMINATION) CONSEQUENCES OF BRIEF NOISE EXPOSURES WERE SYSTEMATICALLY EVALUATED. SPECIFICALLY, FORTY SUBJECTS WERE TESTED AT EACH OF 10 APPROPRIATELY SPACED NOISE EXPOSURE LEVELS. THE 90TH PERCENTILE TTS2 AT 4000 HZ WAS DETERMINED FOR EACH EXPOSURE LEVEL AND THEN A MULTIPLE REGRESSION EQUATION WAS FITTED TO THESE VALUES. FROM THIS EQUATION, A 5 DB EQUAL 90TH PERCENTILE TTS2 CURVE WAS CALCULATED, WHICH REPRESENTS THE AUTHORS PREDICTIONS AS TO THE TRADE-OFFS BETWEEN NOISE INTENSITY AND EXPOSURE DURATION NECESSARY TO PRODUCE 90TH PERCENTILE TTS2S OF 5 DB. A COMPARISON OF THE AUTHORS PREDICTIONS TO THOSE OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) (IN THE AREA OF UNCERTAINTY) SUGGESTS THAT THE CONSERVATIVE EPA PREDICTIONS MAY BE TOO CONSERVATIVE WHILE THE EPA'S MODIFIED AND EXTENDED NATIONAL RESEARCH COUNCIL COMMITTEE ON HEARING, BIOACOUSTICS, AND BIOMECHANICS (CHABA) CRITERION PREDICTIONS MAY NOT BE SUFFICIENTLY CONSERVATIVE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A035 084 5/10 6/16 6/14
HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD

COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET. (U)

DESCRIPTIVE NOTE: FINAL REPT.,
DEC 76 44P PRICE,G. RICHARD ;HODGE, DAVID C. ;
REPT. NO. HEL-TM-35-76

UNCLASSIFIED REPORT

DESCRIPTORS: *HEARING, *COMBAT NOISE, AUDITORY DEFECTS, AUDITORY PERCEPTION, PERFORMANCE(HUMAN), MILITARY PERSONNEL, DETECTION (U)

THE PRESENCE OF ENEMY PERSONNEL IS OFTEN REVEALED BY THE NOISES THEY OR THEIR EQUIPMENT MAKE. A PREDICTIVE MODEL WAS DEVISED WHICH TOOK ACCOUNT OF THE SPECTRAL AND TEMPORAL DISTRIBUTION OF ENERGY IN THE SOUNDS, AND THE SPECTRAL SENSITIVITY OF THE EARS DETECTING THEM. PREDICTIONS WERE COMPARED WITH ACTUAL DETECTIONS FOR 20 EARS AS THEY LISTENED FOR 24 DIFFERENT RECORDED SOUNDS (WALKING NOISES, RIFLE BOLT, ETC.). CORRELATIONS BETWEEN PREDICTIONS AND DETECTIONS RANGED FROM .89 TO .98. THE SAME MODEL WAS THEN USED WITH DATA FROM A RECENT SURVEY OF HEARING IN THE COMBAT ARMS TO PREDICT DETECTION OF THE SAME SOUNDS. PRELIMINARY DATA INDICATE THAT SIMPLE DETECTION (THE PERFORMANCE MEASURED IN THESE STUDIES) DOES NOT REVEAL THE TRUE DIFFERENCES BETWEEN EARS WITH HEARING LOSSES AND THOSE IN THE NORMAL RANGE. AUDITORY PERFORMANCE IS EXPECTED TO BE BEST DESCRIBED BY THE EAR'S ABILITY TO IDENTIFY THE SOUNDS, RATHER THAN SIMPLY DETECT THEM. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A036 224 13/2 6/19
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

DEVELOPMENT OF A UNIFORM APPROACH TO CHARACTERIZE NOISE IMPACT ON PEOPLE. (U)

DESCRIPTIVE NOTE: JOURNAL REPRINT,
76 10P VON GIERKE,HENNING E. ;
REPT. NO. AMRL-TR-75-40
PROJ: 7231
TASK: 03

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN AVIATION, SPACE AND ENVIRONMENTAL MEDICINE, P45-53 JAN 76.
SUPPLEMENTARY NOTE: PRESENTED AT ANNUAL AEROSPACE MEDICAL ASSOCIATION MEETING (46TH) HELD IN SAN FRANCISCO, CALIF., 27 APR-2 MAY 75.

DESCRIPTORS: *NOISE POLLUTION, *AIRCRAFT NOISE, POLLUTION ABATEMENT, NOISE(SOUND), ENVIRONMENTAL MANAGEMENT, PUBLIC HEALTH, PLANNING, COSTS, REPRINTS (U)
IDENTIFIERS: PE62202F (U)

EFFECTIVE PLANNING REQUIRES VALID CHARACTERIZATION AND PREDICTION OF THE NOISE ENVIRONMENT, AN UNDERSTANDING OF THE ORIGIN OF THE NOISE AND THE CONTRIBUTION OF VARIOUS SOURCES, AND THE LEGAL POWER TO CONTROL NOISE GENERATION AND ENFORCE LANDING-USE PLANNING. AS A MATTER OF FACT, SOME OF THE TREMENDOUS PROGRESS MADE IN PRODUCING THE NEW, QUIETER GENERATION COMMERICAL JET AIRCRAFT, SUCH AS THE DC10 OR L1011, IS ALMOST IN VAIN UNLESS PROPER LAND-USE PLANNING AROUND AIRPORTS PREVENTS FURTHER ENCROACHMENT OF RESIDENTIAL AREAS ON THE AIRPORT. A NOISE CONTROL PROGRAM WHICH DOES NOT ADDRESS ALL PHASES OF THE TOTAL SYSTEM-NOISE SOURCES, TRANSMISSION PATH TO THE RECEIVER, AND THE RECEIVER OF THE NOISE; I.E., THE COMMUNITIES AND THE PEOPLE IN THEM-MUST REMAIN EFFECTIVE. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A036 535 6/10 13/10
BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS, (U)

JAN 77 170P KUGLER,B. ANDREW ;HALE, MARLUND E. ;RENTZ,PETER E. ;
REPT. NO. BBN-3410

UNCLASSIFIED REPORT

DESCRIPTORS: *NOISE POLLUTION, *OCCUPATIONAL DISEASES, *SHIP DESIGN, NOISE REDUCTION, NAVAL PERSONNEL, SHIP PERSONNEL, SURFACE SHIPS, COST ANALYSIS, SHIP NOISE, DATA BASES, ENGINE NOISE, LEVEL(QUANTITY) (U)
IDENTIFIERS: FF-1052 CLASS VESSELS, DD-963 CLASS VESSELS (U)

THIS STUDY INVESTIGATES THE SHIPBOARD PERSONNEL NOISE EXPOSURE PROBLEM BY ANALYZING THE AVAILABLE NOISE LEVEL DATA ON TWO SURFACE SHIP CLASSES CURRENTLY OPERATIONAL IN THE FLEET. THESE ARE THE FF 1052 (KNOX) CLASS AND THE DD 963 (SPRUANCE) CLASS. THE FINAL OBJECTIVE OF THE STUDY IS A FIRST ORDER ESTIMATE OF THE COSTS OF ENGINEERING NOISE CONTROLS NECESSARY TO COMPLY WITH CURRENT/PROPOSED PERSONNEL NOISE EXPOSURE STANDARDS. THE STANDARDS EVALUATED ARE THE NAVY COMPARTMENT CATEGORY D, BUMED INSTRUCTION 6260.6B, THE PRESENT OSHA NOISE STANDARD AND THE PROPOSED OSHA NOISE STANDARD. ALTHOUGH THE PRESENT EVALUATION IS RESTRICTED TO ENGINEERING SPACES (I.E., ENGINE ROOMS, FIRE ROOMS, AUXILIARY ROOMS, ETC.), THE MODEL FOR PERSONNEL NOISE EXPOSURE EVALUATION AND NOISE CONTROL ASSESSMENT DEVELOPED IN THIS STUDY IS MEANT TO BE GENERAL AND IS APPLICABLE TO OTHER SPACES ABOARD THESE SHIPS AND TO OTHER CLASSES IN THE FLEET. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZOM07

AD-A036 949 6/16
AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

INFRASOUND, (U)

76 43P GIERKE,H. E. VON ;PARKER, D. E. ;
REPT. NO. AMRL-TR-75-99
PROJ: 7231

UNCLASSIFIED REPORT
AVAILABILITY: PUB. IN HANDBOOK OF SENSORY PHYSIOLOGY (WEST GERMANY) V5 PT3 P585-624 1976.

DESCRIPTORS: •AUDITORY PERCEPTION, PHYSIOLOGICAL EFFECTS, IMPULSE NOISE, EAR, MASKING, VIBRATION, THRESHOLDS(PHYSIOLOGY), LOUDNESS, SPEECH RECOGNITION, LITERATURE SURVEYS, REPRINTS (U)
IDENTIFIERS: •INFRASONICS, PE62202F (U)

CONTENTS: INFRASOUND STIMULI; RECEPTION OF INFRASOUND ENERGY; DIRECT AUDITORY RESPONSE TO INFRASOUND -- PERCEPTION AND OVERSTIMULATION; EFFECTS OF INFRASOUND ON AUDIOFREQUENCY SOUND RECEPTION; INDIRECT AUDITORY RESPONSE TO INFRASOUND; NONAUDITORY RESPONSE TO INFRASOUND; AND PROPOSED EXPOSURE LIMITS. (U)

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. /ZDM07

AD-B002 067 20/1 17/1 6/16
WYLE LABS HAMPTON VA

CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I. (U)

DESCRIPTIVE NOTE: FINAL CONTRACTOR REPT. MAR 73-DEC 74,
JAN 75 135P ABRAHAMSON,A LOUIS ;
CONTRACT: DAAJ02-73-C-0057
PROJ: DA-1-F-126205-AH-88
TASK: 1-F-126205-AH-8801
MONITOR: USAAMRDL TR-14-102A

UNCLASSIFIED REPORT

DESCRIPTORS: (*AIRCRAFT NOISE, HELICOPTERS), (*AIRCRAFT DETECTION, *AUDITORY PERCEPTION), (*SOUND TRANSMISSION, AIRCRAFT NOISE), HEARING, FACTOR ANALYSIS, RANGE(DISTANCE), ATTENTION, ARMY PERSONNEL, TERRAIN, MASKING, ATTENUATION, AMBIENT NOISE, FLIGHT PATHS, METEOROLOGICAL DATA, EXPERIMENTAL DATA, DATA REDUCTION, STATISTICAL ANALYSIS, MATHEMATICAL MODELS, VALIDATION, FIELD TESTS, CORRELATION TECHNIQUES, AERODYNAMIC NOISE, JET ENGINE NOISE, GEAR NOISE, WIND, LOW ALTITUDE, POWER SPECTRA, TACTICAL AIR SUPPORT, ARMY AIRCRAFT (U)
IDENTIFIERS: *HELICOPTER NOISE (U)

THIS STUDY WAS CONCEIVED AS A BASIC EXPERIMENT FOR MEASUREMENT OF HELICOPTER AURAL DETECTABILITY, AND FOR ASSESSMENT OF THE ACCURACY OF A MODEL DEVELOPED BY OLLERHEAD FOR COMPUTING AURAL DETECTION DISTANCES. THE EXPERIMENT WAS CONDUCTED OVER A PERIOD OF TWO WEEKS AT NASA WALLOPS STATION UTILIZING 25 ARMY PERSONNEL AS LISTENING SUBJECTS, AND THREE DIFFERENT TYPES OF HELICOPTERS CURRENTLY IN ARMY SERVICE. THE EFFECT OF THE FOLLOWING PARAMETERS WAS INVESTIGATED: AMBIENT NOISE LEVEL, FLIGHT PROFILE, LISTENER ATTENTIVENESS, ATMOSPHERIC CONDITIONS. REDUCTION OF DATA WAS EXECUTED USING A NEW PROCEDURE FOR SIMULATING AURAL FREQUENCY DECOMPOSITION OF SOUND. CORRELATION WITH OLLERHEAD'S MODEL CONFIRMED HIS LABORATORY-DERIVED DETECTABILITY CRITERION AS A MEDIAN CASE FOR INDIVIDUAL RESPONSE AND ALLOWED EXTENSION OF THE CRITERION IN THE CONTEXT OF A MEASURED STATISTICAL DISTRIBUTION. PUBLISHED DATA INCLUDED IN OLLERHEAD'S MODEL FOR SOUND ATTENUATION, (U)

CORPORATE AUTHOR - MONITORING AGENCY

AD-A012 090

•ABERDEEN PROVING GROUND MD MATERIEL TESTING DIRECTORATE

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APG-MT-4183
SPECIAL STUDY OF ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS.
AD- 907 805

•ACOUSTICAL SOCIETY OF AMERICA NEW YORK

• • •

PROCEEDINGS OF THE SONIC BOOM SYMPOSIUM (2ND) SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA (80TH MEETING) HELD AT HOUSTON, TEXAS ON 3 NOVEMBER 1970.
AD- 752 881

•ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT PARIS (FRANCE)

• • •

AGARD-AG-151
AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.
AD- 754 631

• • •

AGARD-CP-101
PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.
AD- 755 081

• • •

AGARD-CP-170
BIODYNAMIC RESPONSE TO WINDBLAST.
AD-A014 237

• • •

AGARD-CP-171
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.
AD-A018 846

• • •

AGARD-CP-194
SMALL SOLID PROPELLANT ROCKETS FOR FIELD USE.
AD-A033 497

• • •

AGARD-LS-77
AIRCRAFT NOISE GENERATION, EMISSION AND REDUCTION.

•AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO

• • •

AMRL-563
SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSIVE DIFFERENCE LIMEN.
AD- 403 009

• • •

AMRL-604
TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE.
AD- 440 204

• • •

AMRL-TR-67-41
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM.
AD- 737 826

• • •

AMRL-TR-69-47
HUMAN RESPONSE TO SONIC BOOM IN THE LABORATORY AND THE COMMUNITY.
AD- 748 055

• • •

AMRL-TR-70-21
COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.
AD- 731 146

• • •

AMRL-TR-70-29
NOISE AND HUMAN PERFORMANCE.
AD- 729 213

• • •

AMRL-TR-70-67
PHYSIOLOGICAL AND PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS.
AD- 737 827

• • •

AMRL-TR-71-19
EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS.
AD- 732 617

• • •

AMRL-TR-71-29
SYMPOSIUM ON BIODYNAMIC MODELS AND THEIR APPLICATIONS, 26-28 OCTOBER 1970.
AD- 739 501

• • •

AMRL-TR-71-29-PAPER-1
A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT.
AD- 740 438

• • •

AMRL-TR-71-29-PAPER-8
A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY.
AD- 740 445

• • •

AMRL-TR-71-46
ACOUSTIC DAMAGE OF THE COCHLEA.
AD- 739 288

• • •

AMRL-TR-71-53
SOME EFFECTS OF NOISE ON MAN.
AD- 754 863

• • •

AMRL-TR-71-56
EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE.
AD- 731 184

• • •

AMRL-TR-71-105
MULTI-TASK TIME-SHARING REQUIREMENTS.
AD- 755 363

• • •

AMRL-TR-71-113
TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 755 634

• • •

AMRL-TR-71-131
FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 746 083

• • •

AMRL-TR-72-11
EFFECTS OF INCREASING INTENSITY LEVELS OF INTERMITTENT AND CONTINUOUS 1000-HZ TONES ON HUMAN EQUILIBRIUM.

AD- 750 840

• • •

AMRL-TR-72-18
EFFECTS OF INTERMITTENT AND CONTINUOUS NOISE ON SERIAL SEARCH PERFORMANCE.
AD- 750 043

• • •

AMRL-TR-72-83
COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME,
AD- 759 329

• • •

AMRL-TR-73-14
INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME,
AD- 770 257

• • •

AMRL-TR-73-34
THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.
AD- 770 285

• • •

AMRL-TR-73-53
RELATION BETWEEN DAILY NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES.
AD- 767 204

• • •

AMRL-TR-73-90
A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.
AD- 767 274

• • •

AMRL-TR-73-91
PREDICTION OF NIPTS DUE TO CONTINUOUS NOISE EXPOSURE.
AD- 767 205

• • •

AMRL-TR-73-105
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.
AD-A004 818

• • •

AMRL-TR-73-106
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW.
AD-A004 822

• • •

AMRL-TR-73-108-APP
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS, APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.
AD-A022 911

• • •

AMRL-TR-74-81
NOISE -- HOW MUCH IS TOO MUCH,
AD-A017 915

• • •

AMRL-TR-74-99
THE EFFECT OF QUIET ON HEARING,
AD-A006 395

• • •

AMRL-TR-74-101
HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,
AD-A007 842

• • •

AMRL-TR-75-4
SOME THOUGHTS ON HEARING CONSERVATION: POSSIBLE CORRECTIONS TO EQUAL ENERGY RULE TO ACCOUNT FOR INTERMITTENCY AND IMPULSE NOISE,
AD-A027 737

• • •

AMRL-TR-75-33
AUDITORY AND PHYSIOLOGICAL EFFECTS OF INFRASOUND,
AD-A017 269

• • •

AMRL-TR-75-39
EFFECTS OF SUSTAINED TALKING ON THE HEARING OF THE TALKER,
AD-A015 732

• • •

AMRL-TR-75-40
DEVELOPMENT OF A UNIFORM APPROACH TO CHARACTERIZE NOISE IMPACT ON PEOPLE.
AD-A036 224

• • •

AMRL-TR-75-42
BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.
(FAA-RD-75-85)
AD-A031 087

• • •

AMRL-TR-75-43
CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE,
AD-A031 366

• • •

AMRL-TR-75-58
SUMMARY OF PRESENT DAMAGE RISK CRITERIA,
AD-A027 807

• • •

AMRL-TR-75-65
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.
AD-A018 667

• • •

AMRL-TR-75-89
EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.
AD-A025 969

• • •

AMRL-TR-75-99
INFRASOUND,
AD-A036 949

• • •

AMRL-TR-75-110
TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION.
AD-A026 209

• • •

AMRL-TR-75-115
SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE,
AD-A026 535

• • •

AMRL-TR-76-17
INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN,
AD-A032 401

• • •

AMRL-TR-76-41
LONG-DURATION EXPOSURE TO INTERMITTENT NOISES,

AD-A031 382

• • •

AMRL-TR-76-75
AFTEREFFECTS OF RANDOM AND FIXED INTERMITTENT SOUND ON HUMAN PERFORMANCE.
AD-A033 468

• • •

AMRL-TR-76-97
EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE.
AD-A034 605

*AEROSPACE MEDICAL RESEARCH LABS WRIGHT-PATTERSON AFB OHIO

• • •

AMRL-TDR64 31
NOISE SURVEY OF AUXILIARY SUPPORT EQUIPMENT AT ONE ATLAS COMPLEX AND ONE TITAN I COMPLEX, CAPE KENNEDY MISSILE TEST ANNEX, ATLANTIC MISSILE RANGE.
AD- 601 809

• • •

AMRL-TR-65-165
HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS.
AD- 628 198

• • •

AMRL-TR-67-119
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN PERFORMANCE.
AD- 671 116

*AIR FORCE CAMBRIDGE RESEARCH CENTER WASHINGTON D C OPERATIONAL APPLICATIONS LAB

• • •

AFCRL-TN-57-9
TEMPORARY THRESHOLD SHIFT AS A FUNCTION OF NOISE EXPOSURE LEVEL
AD- 146 756

*AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OHIO SCHOOL OF ENGINEERING

• • •

GE/EE/74-38
STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.
AD-A025 789

*AIR FORCE OFFICE OF SCIENTIFIC RESEARCH BOLLING AFB D C

• • •

AFOSR-64 0197
EFFECTS OF PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUALMOTOR PERFORMANCE.
AD- 431 851

• • •

AFOSR-69-0152TR
LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS,
AD- 681 534

• • •

AFOSR-503
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES
AD- 256 800

• • •

AFOSR-1711
TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119

• • •

AFOSR-J347
THE EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION,
AD- 408 004

• • •

AFOSR-TR-73-0503
A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS,
AD- 758 254

*AIR PROVING GROUND CENTER EGLIN AFB FLA

• • •

APGC-TN-61-24
SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING
AD- 259 830

• • •

TDR62 38
SAFETY OF PERSONNEL DURING AN IM-99B MISSILE LAUNCHING
AD- 276 988

*ALL AMERICAN ENGINEERING CO WILMINGTON DEL

• • •

RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.
(FAA-EQ-71-1)
AD- 732 264

*ANDRULIS RESEARCH CORP BETHESDA MD

• • •

ARC-TR-73-0159.1
A STUDY OF SHIPBOARD NOISE CRITERIA.
AD- 761 669

*ARMY AEROMEDICAL RESEARCH LAB FORT RUCKER ALA

• • •

USAARL-SPECIAL BIB-SER-6
BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.
AD-A021 203

• • •

USAARL-SPECIAL BIB-SER-10
EFFECT OF IMPULSE NOISE ON HEARING: A SELECT BIBLIOGRAPHY,
AD-A033 666

*ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LAB FORT EUSTIS VA EUSTIS DIRECTORATE

• • •

USAAMRDL-TR-14-102A
CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.
AD-B002 067

*ARMY CONSTRUCTION ENGINEERING

RESEARCH LAB CHAMPAIGN ILL

• • •

CERL-TR-E-17
PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.
AD- 773 690

• • •

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CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION.
AD-A010 629

•ARMY ELECTRONICS COMMAND FORT MONMOUTH N J

• • •

ECOM-4140
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.
AD- 767 222

•ARMY ELECTRONICS RESEARCH AND DEVELOPMENT ACTIVITY WHITE SANDS MISSILE RANGE N MEX

• • •

LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES
AD- 261 505

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• • •

WES-MP-M-73-15
THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT,
AD-A032 971

•ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND MD

• • •

HEARING CONSERVATION IN THE U.S. ARMY,
AD-A012 724

• • •

NOISE HAZARD EVALUATION SOUND LEVEL DATA ON NOISE SOURCES.
AD-A021 465

• • •

USAEHA-99-039-75
EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES.
AD-A007 193

•ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER CHARLOTTESVILLE VA

• • •

FSTC-HT-23-263-71
MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS (MORFOLOGICHESKIE IZMENENIYA V GIPOTALAMUSE PRI VEGETATIVNYKH NARUSHENIYAKH, VYZVANN YKH SILNYM ZVYKOVYM RAZDRAXHENIEM),
AD- 729 138

• • •

FSTC-HT-23-272-71
EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM (VLIYANIE AVIATSIONNOGO SHUMA NA NEKOTORYE POKAZATELI BELKOVOGO I VITAMINNOGO OBMENA),
AD- 730 065

• • •

FSTC-HT-23-2405-72
SOME CLINICAL AND PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE,
AD- 772 449

•ARMY MATERIEL COMMAND ALEXANDRIA VA

• • •

AMC-TR7 816 V1
THE PROBLEMS OF CRITERIA FOR NOISE EXPOSURE
AD- 245 980

•ARMY MATERIEL COMMAND TEXARKANA TEX INTERN TRAINING CENTER

• • •

THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE.
AD- 739 432

• • •

A STUDY OF THE EFFECTS OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE,
AD- 739 474

• • •

AN ANALYSIS OF NOISE CONDITIONS PRESENT IN COMMERCIAL AND MILITARY VEHICLES.
AD- 747 685

•ARMY MEDICAL RESEARCH LAB FORT KNOX KY

• • •

USAMRL-218
THE EFFECT OF NOISE ON EYE MOVEMENTS
AD- 086 352

• • •

USAMRL-222
THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS
AD- 086 351

• • •

USAMRL-242
DESCRIPTION OF HUMAN ROTATION DEVICE
AD- 109 230

• • •

USAMRL-270
THE EFFECTS OF NOISE ON WORK OUTPUT AND PHYSIOLOGICAL ACTIVATION
AD- 129 446

• • •

USAMRL-563
SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSIVE DIFFERENCE LIMEN, (AMRL-563)
AD- 403 009

• • •

USAMRL-566
CHANGES IN THE HEARING OF PERSONNEL EXPOSED TO HIGH INTENSITY CONTINUOUS NOISE,
AD- 413 817

• • •

USAMRL-567
TEMPORARY THRESHOLD SHIFT FOR 'NORMAL' SUBJECTS AS A FUNCTION OF AGE AND SEX,
AD- 403 010

• • •

USAMRL-604

TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE. (AMRL-604)
AD- 440 204

• • •

USAMRL-610
EFFECTS OF HIGH INTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS.
AD- 455 002

• • •

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EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE.
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• • •

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RECOVERY FROM IMPULSE NOISE INDUCED ACOUSTIC TRAUMA.
AD- 645 898

• • •

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THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.
AD- 726 333

• • •

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COCHLEAR PATHOLOGY IN MONKEYS EXPOSED TO IMPULSE NOISE.
AD- 745 105

• • •

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PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.
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•ARMY NATICK LABS MASS

• • •

USA-NLABS-TR-72-71-GP
EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.
AD- 755 183

•ARMY NATICK LABS MASS PIONEERING RESEARCH LAB

• • •

USA-NLABS-TR-69-44-PR
RESEARCH ON ACOUSTICAL PROBLEMS OF THE MILITARY: A REVIEW AND FUTURE ASPECT.
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•ARMY PERSONNEL RESEARCH OFFICE WASHINGTON D C

• • •

APRO-TRN-135
PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS.
AD- 432 088

• • •

APRO-TRN-137
INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE.
AD- 432 087

•ARNOLD ENGINEERING DEVELOPMENT CENTER ARNOLD AIR FORCE STATION TENN

• • •

AEDC-TR-72-151-REV
ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.
AD- 757 552

•BIOTECHNOLOGY INC FALLS CHURCH VA

• • •

BIOASTRONAUTICS DATA BOOK.
AD- 749 887

•BOLT BERANEK AND NEWMAN INC ARLINGTON VA

• • •

BBN-3222
HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.
AD-A030 896

•BOLT BERANEK AND NEWMAN INC CAMBRIDGE MASS

• • •

METHODS OF SPACE VEHICLE NOISE PREDICTION
AD- 260 955

• • •

MASKING OF PURE TONES AND SPEECH (ESD-TDR62 1)
AD- 271 605

• • •

DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA.
AD- 652 783

• • •

949
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS
AD- 287 810

• • •

BBN-2076
NOISE EXPOSURE FORECAST CONTOURS FOR EXPECTED 1985 AND 1990 OPERATIONS AT SEVEN U. S. AIRPORTS.
AD- 722 365

•BOLT BERANEK AND NEWMAN INC CANOGA PARK CALIF

• • •

BBN-2225
NOISE FROM AIRCRAFT OPERATIONS, U. S. NAVAL AIR STATION, LEMOORE, CALIFORNIA.
AD- 754 111

• • •

BBN-2581
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW. (AMRL-TR-73-106)
AD-A004 822

• • •

BBN-2582
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE. (AMRL-TR-73-105)
AD-A004 818

• • •

BBN-2941

TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION. (AMRL-TR-75-110)
AD-A026 209

• • •

BBN-2946
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL. (AMRL-TR-73-108-APP)
AD-A022 911

• • •

BBN-2956
SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE, (AMRL-TR-75-115)
AD-A026 535

• • •

BBN-3410
OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS,
AD-A036 535

•BUREAU OF MEDICINE AND SURGERY WASHINGTON D C

• • •

NAVMED-NM-001-064.01.13
SOME INFLUENCES OF DELAYED SIDE-TONE UPON INTELLIGIBILITY.
AD- 620 259

• • •

NAVMED-NM001-102-502-03
A MOBILE LABORATORY FOR GROUP HEARING TESTS.
AD- 468 342

• • •

NAVMED-NM-001-104-100-1
A STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT.
AD- 620 263

•CATHOLIC UNIV OF AMERICA WASHINGTON D C INST OF OCEAN SCIENCE AND ENGINEERING

• • •

71-5
A LITERATURE SURVEY OF NOISE POLLUTION.
AD- 724 344

•CENTRAL INST FOR THE DEAF ST LOUIS MO

• • •

ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.
AD- 740 227

•CENTRAL INST FOR THE DEAF ST LOUIS MO

• • •

A MOBILE LABORATORY FOR GROUP HEARING TESTS.
(NAVMED-NM001-102-502-03)
AD- 468 342

•CIVIL AEROMEDICAL INST OKLAHOMA CITY OKLA

• • •

RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE,
(FAA-AM-69-21)
AD- 704 472

• • •

BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT,
(FAA-AM-72-31)
AD- 753 637

• • •

AUDITORY EFFECTS OF NOISE ON AIR-CREW PERSONNEL.
(FAA-AM-72-32)
AD- 757 239

• • •

SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,
(FAA-AM-72-35)
AD- 762 988

• • •

SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,
(FAA-AM-73-11)
AD- 773 451

• • •

FAA-AM-71-1
NOISE AUDIOMETRY.
(FAA-AM-71-1)
AD- 723 464

•COMPUTER IMAGE CORP DENVER COLO

• • •

THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.
AD-A003 953

•CONSAD RESEARCH CORP PITTSBURGH PA

• • •

A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL.
(FAA-EQ-72-3-VOL-3)
AD- 754 174

•DAVID TAYLOR MODEL BASIN WASHINGTON D C STRUCTURAL MECHANICS LAB

• • •

DTMB-2252
EFFECTS OF OVERPRESSURE ON THE EAR,
AD- 640 921

•DAYTON UNIV OHIO RESEARCH INST

• • •

EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE.
(AMRL-TR-74-97)
AD-A034 605

• • •

UDRI-TR-73-29
A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.
(AMRL-TR-73-90)
AD- 767 274

•DEFENCE RESEARCH INFORMATION CENTRE ORPINGTON (ENGLAND)

• • •

DRIC-BR-46915
THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.
AD-A019 516

• • •

DRIC-BR-49195
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,
AD-A019 315

• • •

DRIC-BR-51849
THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES.
AD-A032 156

• • •

DRIC-BR-52186
THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION.
AD-A026 856

• • •

DRIC-BR-52535
COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE.
AD-A027 143

• • •

DRIC-BR-52536
EFFECT OF NOISE ON THE STROOP TEST.
AD-A027 141

• • •

DRIC-BR-52537
PERFORMANCE DURING CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION.
AD-A027 142

•DEFENSE ATOMIC SUPPORT AGENCY WASHINGTON D C

• • •

540
THE SOUND INTENSITY OF A SHOCK WAVE AS RELATED TO OVERPRESSURE
AD- 266 866

• • •

DASA-1335
A TENTATIVE ESTIMATION OF MANS TOLERANCE TO OVERPRESSURES FROM AIR BLAST
AD- 293 875

• • •

DASA-2064
THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS.
AD- 671 618

• • •

DASA-2659
THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.
AD- 742 819

•DEFENSE NUCLEAR AGENCY WASHINGTON D C

• • •

DNA-2738T
THE BIODYNAMICS OF AIRBLAST.
AD- 734 208

•ELECTRONIC SYSTEMS DIV HANSCOM AFB MASS

• • •

ESD-TDR62 1
MASKING OF PURE TONES AND SPEECH
AD- 271 605

•ENVIRONMENTAL ACOUSTICS CHATSWORTH CALIF

• • •

EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.
(FAA-RD-72-72)
AD- 747 129

•ENVIRONMENTAL HEALTH LAB KELLY AFB TEX

• • •

EHL(K)-74-24
HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY, 910 TAC FIGHTER GROUP (AFRES) YOUNGSTOWN MUNICIPAL AIRPORT VIENNA OH 44473.
AD- 787 652

• • •

EHL(K)-74-28
INDUSTRIAL HYGIENE SURVEY, 110TH TACTICAL SUPPORT GROUP, MI ANG BATTLE CREEK, MI 49016.
AD-A003 638

•ENVIRONMENTAL HEALTH LAB MCCLELLAN AFB CALIF

• • •

EHL-M-72M-1
NOISE ENVIRONMENTS OF CONTROL TOWERS.
AD- 752 535

• • •

EHL-M-75M-1
MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.
AD-A010 589

•FEDERAL AVIATION ADMINISTRATION WASHINGTON D C SYSTEMS RESEARCH AND DEVELOPMENT SERVICE

• • •

FAA-RD-72-47
STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.
AD- 743 095

• • •

FAA-RD-72-51-VOL-1
AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS.
AD- 770 185

• • •

FAA-RD-72-72
EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.
AD- 747 129

• • •

FAA-RD-73-115
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.
AD- 766 326

• • •

FAA-RD-75-68
SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST.
AD-A009 663

• • •

FAA-RD-75-85
BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.
AD-A031 087

• • •

FAA-RD-75-121
JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.
AD-A015 086

• • •

FAA-RD-75-182
REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.
AD-A022 356

• • •

FAA-RD-75-190
NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.
AD-A018 036

• • •

FAA-RD-75-211
ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.
AD-A021 683

• • •

FAA-RD-76-116
NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.
AD-A032 028

•FEDERAL AVIATION ADMINISTRATION WASHINGTON D C OFFICE OF AVIATION MEDICINE

• • •

FAA-AM-69-21
RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE,
AD- 704 472

• • •

FAA-AM-71-1
NOISE AUDIOMETRY.
AD- 723 464

• • •

FAA-AM-72-31
BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT,
AD- 753 637

• • •

FAA-AM-72-32
AUDITORY EFFECTS OF NOISE ON AIR-CREW PERSONNEL,
AD- 757 239

• • •

FAA-AM-72-35
SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,
AD- 762 988

• • •

FAA-AM-73-11
SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,
AD- 773 451

• • •

FAA-AM-73-16
A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS,
AD- 777 581

• • •

FAA-AM-74-9
BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,
AD-A002 266

•FEDERAL AVIATION ADMINISTRATION WASHINGTON D C OFFICE OF ENVIRONMENTAL QUALITY

• • •

FAA-EQ-71-1
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.
AD- 732 264

• • •

FAA-EQ-71-4
A STUDY OF SENSITIVITY TO NOISE.
AD- 728 332

• • •

FAA-EQ-72-1
LAND USE CONTROL STRATEGIES FOR AIRPORT IMPACTED AREAS.
AD- 759 865

• • •

FAA-EQ-72-3-VOL-3
A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL.
AD- 754 174

• • •

FAA-EQ-73-1
RESULTS OF NOISE SURVEYS OF SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT.
AD- 759 212

• • •

FAA-EQ-73-3
AIRCRAFT SOUND DESCRIPTION SYSTEM BACKGROUND AND APPLICATION.
AD- 758 588

• • •

FAA-EQ-74-2-3
AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES,
AD-A013 435

•FEDERAL AVIATION ADMINISTRATION WASHINGTON D C OFFICE OF NOISE ABATEMENT

• • •

FAA-NO-70-17
ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.
AD- 740 697

•FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY BETHESDA MD LIFE SCIENCES RESEARCH OFFICE

• • •

A REVIEW OF ADVERSE BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT.
AD- 734 932

•FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO

• • •

FTD-HC-23-2783-74
CONCEPTS OF THE TERMS SUSCEPTIBILITY AND RESISTANCE AS THEY RELATE TO HEARING DAMAGE DUE TO NOISE,

AD-A001 152

• • •

FTD-HT-23-1031-74
HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS.
AD- 779 833

• • •

FTD-HT-23-1034-74
REGARDING THE OCCUPATIONAL PATHOLOGY OF PERSONS SUBJECTED TO THE EFFECT OF HIGH-FREQUENCY NOISE IN COMBINATION WITH OTHER FACTORS DURING PLASMA SPRAY COATING OF METALS.
AD- 781 658

• • •

FTD-HT-23-1035-74
IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS.
AD- 780 369

• • •

FTD-HT-23-1036-74
CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS.
AD- 776 943

• • •

FTD-HT-23-1037-74
OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES.
AD- 781 656

• • •

FTD-HT-24-499-68
PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY.
AD- 696 500

• • •

FTD-TT63 292
COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM.
AD- 415 672

•GOTEBORG UNIV (SWEDEN) DEPT OF OTOLARYNGOLOGY

• • •

EFFECT OF NOISE AND TOXIC AGENTS ON THE INNER EAR.
AD- 681 834

•H H AEROSPACE DESIGN CO ELMSFORD N Y

• • •

HHA-14
SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST. (FAA-RD-75-68)
AD-A009 663

•HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD

• • •

DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR.
AD-A026 145

• • •

HEL-TM-10-73
NOISE AND BLAST.
AD- 765 419

• • •

HEL-TM-28-74
UPPER LIMIT TO STAPES DISPLACEMENT: IMPLICATIONS FOR HEARING LOSS.
AD-A003 570

• • •

HEL-TM-35-76
COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET.
AD-A035 084

• • •

HEL-TN-2-75
HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.
AD-A005 026

•HUMAN ENGINEERING LABS ABERDEEN PROVING GROUND MD

• • •

HEL-SI-63A
MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT.
AD- 602 265

• • •

HEL-STANDARD-S-1-63C
MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT.
AD- 750 649

• • •

HEL-TM-7-71
SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM).
AD- 732 434

• • •

HEL-TM-13-67
CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.
AD- 666 206

• • •

HEL-TN-1-72
IMPROVED WEAPON NOISE EXPOSURE CRITERIA.
AD- 738 135

• • •

HEL-TN-3-71
BASELINE NOISE MEASUREMENTS OF THE OH-58A HELICOPTER.
AD- 731 467

• • •

HEL-TN-4-71
A REVIEW OF IMPULSE-NOISE RESEARCH AT THE HUMAN ENGINEERING LABORATORIES.
AD- 731 185

• • •

TM-3-66
FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE.
AD- 634 456

• • •

TM4 64
DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST.
AD- 449 417

• • •

TM-15-64
PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

•HYDROSPACE-CHALLENGER INC ROCKVILLE MD

• • •

RESULTS OF NOISE SURVEYS OF

SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT.
(FAA-EQ-73-1)
AD- 759 212

•IIT RESEARCH INST CHICAGO ILL
• • •
STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.
(FAA-RD-72-47)
AD- 743 095

•JOHNS HOPKINS UNIV BALTIMORE MD PSYCHOLOGICAL LAB
• • •
AUDITORY THRESHOLDS OF SHORT TONES AS A FUNCTION OF REPETITION RATES,
(SPECDEVCEN-166-1-13)
AD- 639 682
• • •
HEARING,
(SPECDEVCEN-166-1-132)
AD- 646 812

•LOUISVILLE UNIV KY PERFORMANCE RESEARCH LAB
• • •
ITR-74-29
BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.
AD- 785 740
• • •
SAPR-2
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD- 758 453

•LOUISVILLE UNIV FOUNDATION INC KY
• • •
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD-A015 023

•LOVELACE FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH ALBUQUERQUE N MEX
• • •
THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS,
(DASA-2064)
AD- 671 618
• • •
THE BIODYNAMICS OF AIRBLAST,
(DNA-2738T)
AD- 734 208
• • •
THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.
(DASA-2659)
AD- 742 819
• • •
1335
A TENTATIVE ESTIMATION OF MANS TOLERANCE TO OVERPRESSURES FROM AIR BLAST
(DASA-1335)
AD- 293 875

•MAN-ACOUSTICS AND NOISE INC SEATTLE WASH
• • •
MAN-101H
NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.
(FAA-RD-75-190)
AD-A018 036
• • •
MAN-1004
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.
(FAA-RD-73-115)
AD- 766 326
• • •
MAN-1011
ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.
(FAA-RD-75-211)
AD-A021 683
• • •
MAN-1011B
REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.
(FAA-RD-75-182)
AD-A022 356
• • •
MAN-1014
NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.
(FAA-RD-76-116)
AD-A032 028

•MASSACHUSETTS INST OF TECH CAMBRIDGE
• • •
THE RELATIONS OF HEARING LOSS TO NOISE EXPOSURE.
AD- 646 775

•MASSACHUSETTS INST OF TECH CAMBRIDGE RESEARCH LAB OF ELECTRONICS
• • •
PRINCIPLES OF NOISE CONTROL.
AD- 734 704

•MASSACHUSETTS MENTAL HEALTH CENTER BOSTON
• • •
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES
(AFOSR-503)
AD- 256 800
• • •
THE EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION,
(AFOSR-3347)
AD- 408 004

•MEMPHIS STATE UNIV TENN DEPT OF PSYCHOLOGY
• • •
HRL/1
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.
AD- 739 368

• • •

HRL/2
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.
AD- 766 085

•MIAMI UNIV OXFORD OHIO

• • •

EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.
(AMRL-TR-75-89)
AD-A025 969

•MICHIGAN TECHNOLOGICAL UNIV HOUGHTON KEWEENAW RESEARCH CENTER

• • •

THE STUDY OF VIBRATIONS GENERATED BY THE TRACKS OF TRACKED VEHICLES.
AD-A030 042

•MITRE CORP MCLEAN VA

• • •

MTR-6616-SER-1-VOL-3
AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES.
(FAA-EQ-74-2-3)
AD-A013 435

•NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL WASHINGTON D C COMM ON HEARING BIOACOUSTICS BIOMECHANIC

• • •

HEARING CONSERVATION FOR SUBMARINERS.
AD- 726 217

• • •

NON-AUDITORY EFFECTS OF NOISE.
AD- 728 426

•NATIONAL AERONAUTICAL ESTABLISHMENT OTTAWA (ONTARIO)

• • •

NAE-LR-564
A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION. (NRC-12923)
AD- 754 943

•NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER ATLANTIC CITY N J

• • •

FAA-NA-75-36
JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.
(FAA-RD-75-121)
AD-A015 086

•NATIONAL RESEARCH COUNCIL OF CANADA OTTAWA (ONTARIO)

• • •

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A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION.
AD- 754 943

•NAVAL AEROSPACE MEDICAL RESEARCH LAB PENSACOLA FLA

• • •

NAMRL-1190
THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES.
AD- 766 498

•NAVAL MISSILE CENTER POINT MUGU CALIF

• • •

TM60 33
METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSLE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT, AND PERSONNEL
AD- 297 866

•NAVAL POSTGRADUATE SCHOOL MONTEREY CALIF

• • •

THE EFFECT OF CONTINUOUS NOISE ON SHORT TERM MEMORY PERFORMANCE TASKS.
AD-A025 446

•NAVAL SCHOOL OF AVIATION MEDICINE PENSACOLA FLA

• • •

A STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT. (NAVMED-NM-001-104-100-1)
AD- 620 263

• • •

JPR32
SPEECH RECEPTION AND TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE
AD- 051 868

•NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER BETHESDA MD

• • •

NSRDC-3789
THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST.
AD- 737 643

•NAVAL SUBMARINE BASE NEW LONDON CONN

• • •

SBNL-MEMO-58-4
AUDITORY DAMAGE OF OPERATING PERSONNEL ABOARD GUIDED MISSILE SHIPS FROM SHORT-DURATION HIGH-INTENSITY NOISE.
AD- 663 639

•NAVAL SUBMARINE MEDICAL RESEARCH LAB GROTON CONN

• • •

REDUCTION IN AUDIOGRAM SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING.
AD- 737 207

• • •

NSMRL-716
PERFORMANCE ON THE EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY.
AD- 759 721

• • •

NSMRL-719
SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ.
AD- 752 974

• • •

NSMRL-720
HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.
AD- 757 337

• • •

NSMRL-721
A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ.
AD- 757 338

• • •

NSMRL-728
THE USE OF CIRCUMAURAL EARPHONES FOR ATTENUATING AMBIENT NOISE IN BONE CONDUCTION AUDIOMETRY.
AD- 759 726

•NAVAL TRAINING DEVICE CENTER PORT WASHINGTON N Y

• • •

SPECDEVCEN-104-2-4
AN EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION TRAINING.
AD- 638 355

• • •

SPECDEVCEN-104-2-38
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.
AD- 639 103

• • •

SPECDEVCEN-166-1-13
AUDITORY THRESHOLDS OF SHORT TONES AS A FUNCTION OF REPETITION RATES.
AD- 639 682

• • •

SPECDEVCEN-166-1-132
HEARING.
AD- 646 812

•NAVAL UNDERSEA CENTER SAN DIEGO CALIF

• • •

NUC-TP-520
SUMMARY REPORT OF THE NAVY CONFERENCE ON ENVIRONMENTAL NOISE 18-20 NOVEMBER 1975.
AD-A034 051

•NAVAL UNDERSEA RESEARCH AND DEVELOPMENT CENTER SAN DIEGO CALIF

• • •

NUC-TP-215
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.
AD- 724 709

•NAVAL WEAPONS LAB DAHLGREN VA

• • •

TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)
AD- 273 779

• • •

NWL-1982
TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA.
AD- 467 132

•NAVY EXPERIMENTAL DIVING UNIT WASHINGTON D C

• • •

NEDU-LR-8-71
TEST OF BENDIX AIR FILTERS USED AS MUFFLERS.
AD- 759 982

• • •

NEDU-RR-5-71
NOISE: A HAZARD TO DIVERS AND HYPERBARIC CHAMBER PERSONNEL.
AD- 725 144

•NAVY MEDICAL NEUROPSYCHIATRIC RESEARCH UNIT SAN DIEGO CALIF

• • •

NMNRU-73-33
PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM.
AD- 777 184

•NIELSEN ENGINEERING AND RESEARCH INC MOUNTAIN VIEW CALIF

• • •

NEAR-TR-50
A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS.
(AFOSR-TR-73-0503)
AD- 758 254

•NRC COMMITTEE ON HEARING AND BIO-ACOUSTICS WASHINGTON D C

• • •

THE PROBLEMS OF CRITERIA FOR NOISE EXPOSURE
(AMC-TR7 816 V1)
AD- 245 980

• • •

HAZARDOUS EXPOSURE TO INTERMITTENT AND STEADYSTATE NOISE.
AD- 458 244

•OHIO STATE UNIV COLUMBUS DEPT OF PSYCHOLOGY

• • •

MULTI-TASK TIME-SHARING REQUIREMENTS.
(AMRL-TR-71-105)
AD- 755 363

•OHIO STATE UNIV COLUMBUS DEPT OF OTOLARYNGOLOGY

• • •

ACOUSTIC DAMAGE OF THE COCHLEA.
(AMRL-TR-71-46)
AD- 739 288

•OHIO STATE UNIV RESEARCH FOUNDATION COLUMBUS

• • •

13
SOME INFLUENCES OF DELAYED SIDE-TONE UPON INTELLIGIBILITY.
(NAVMED-NM-001-064.01.13)
AD- 620 259

•PHILCO NEWPORT BEACH CALIF AERONUTRONIC DIV

• • •

U 108 118
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES
AD- 257 643

•PURDUE UNIV LAFAYETTE IND

• • •

THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND

LISTENER ACCURACY.
(SPECDEVCEN-104-2-38)
AD- 639 103

• • •

4
AN EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION TRAINING.
(SPECDEVCEN-104-2-4)
AD- 638 355

•RADIO CORP OF AMERICA CAMDEN N J DEFENSE ELECTRONIC PRODUCTS

• • •

STUDY OF COMMUNICATION IN HIGH LEVEL AMBIENT NOISE FIELDS
AD- 086 107

• • •

STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS
AD- 093 006

•RAND CORP SANTA MONICA CALIF

• • •

P-4735
THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM.
AD- 737 684

•ROCK ISLAND ARSENAL ILL GENERAL THOMAS J RODMAN LAB

• • •

RIA-R-CR-75-003
PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.
AD-A005 274

•ROYAL AIRCRAFT ESTABLISHMENT FARNBOROUGH (ENGLAND)

• • •

RAE-TR-75014
THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.
(DRIC-BR-46915)
AD-A014 516

•ROYAL NAVAL PERSONNEL RESEARCH COMMITTEE LONDON (ENGLAND)

• • •

OES-8/74
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,
(DRIC-BR-49195)
AD-A019 315

• • •

OES-11/74
THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES,
(DRIC-BR-51849)
AD-A032 156

• • •

OES-13/74
THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION,
(DRIC-BR-52186)
AD-A026 856

• • •

OES-14/74
PERFORMANCE DURING CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION,
(DRIC-BR-52537)
AD-A027 142

• • •

OES-15/74
COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE,
(DRIC-BR-52535)
AD-A027 143

• • •

OES-16/74
EFFECT OF NOISE ON THE STROOP TEST,
(DRIC-BR-52536)
AD-A027 141

•SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TEX

• • •

INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES
AD- 265 502

• • •

SAM-REVIEW-4-69
THE PURE-TONE AIR CONDUCTION AUDIOGRAM.
AD- 695 850

• • •

SAM-TDR-63-72
APPARENT CHANGE OF REPETITIVE NOISE BURSTS,
AD- 429 966

• • •

SAM-TR-69-39
THE PURE-TONE AIR CONDUCTION AUDIOGRAM.
AD- 695 850

• • •

SAM-TR-71-19
COMPARISON OF A-WEIGHTED AUDITORY RISK CRITERIA WITH OCTAVE-BAND ESTIMATES.
AD- 731 154

• • •

SAM-TR-71-36
HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.
AD- 731 131

• • •

SAM-TR-71-47
DEVELOPMENT OF REALISTIC A-WEIGHTED AUDITORY RISK CRITERIA FOR AEROSPACE OPERATIONS.
AD- 743 298

• • •

SAM-TR-73-20
MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE.
AD- 764 739

• • •

SAM-TR-75-15
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.
AD-A013 101

• • •

SAM-TR-75-22
A-WEIGHTED SOUND LEVELS IN COCKPITS OF FIXED- AND ROTARY-WING AIRCRAFT.
AD-A015 735

• • •

SAM-TR-76-7
INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING

SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975.
AD-A022 888

• • •

SAM-TR-76-8
HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.
AD-A022 258

• • •

SAM-TR-76-9
NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).
AD-A023 407

• • •

SAM-TR-76-10
SIGNIFICANT HEARING THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975.
AD-A022 842

• • •

SAM-TR-76-16
DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975.
AD-A026 086

• • •

SAM-TR-76-27
HEARING LEVELS OF NOISE-EXPOSED U.S. AIR FORCE PERSONNEL COMPARED TO THOSE IN THE TOTAL U. S. POPULATION.
AD-A032 015

•SCHOOL OF AVIATION MEDICINE RANDOLPH AFB TEX

• • •

REVIEW-3-59
CENTRAL REPOSITORY FOR HEARING CONSERVATION DATA. AN EXAMINATION OF THE FIRST YEAR'S REPORTING.
AD- 619 407

•SOCIETY OF AUTOMOTIVE ENGINEERS INC NEW YORK

• • •

SAE-R-12-1
AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS.
(FAA-RD-72-51-VOL-1)
AD- 770 185

•SOUTHWEST RESEARCH INST SAN ANTONIO TEX

• • •

R-CR-75-003
PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.
(RIA-R-CR-75-003)
AD-A005 274

•STANFORD RESEARCH INST MENLO PARK CALIF

• • •

A STUDY OF SENSITIVITY TO NOISE.
(FAA-EQ-71-4)
AD- 728 332

•SYRACUSE UNIV N Y BIOACOUSTICS LAB

• • •

TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE.
AD- 415 302

•SYSTEMS TECHNOLOGY INC HAWTHORNE CALIF

• • •

STI-TR-1027-2
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.
(AMRL-TR-75-65)
AD-A018 667

•TEXAS TECH UNIV LUBBOCK CENTER OF BIOTECHNOLOGY AND HUMAN PERFORMANCE

• • •

THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE.
AD- 747 797

•TEXAS UNIV AUSTIN

• • •

EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS
AD- 294 582

•TEXAS UNIV AUSTIN DEFENSE RESEARCH LAB

• • •

EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE.
AD- 685 887

•TRACOR INC AUSTIN TEX

• • •

ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.
(FAA-NO-70-17)
AD- 740 697

•TUFTS UNIV MEDFORD MASS

• • •

TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
(AFOSR-1711)
AD- 407 119

•TUFTS UNIV MEDFORD MASS INST FOR PSYCHOLOGICAL RESEARCH

• • •

EFFECTS OF PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUALMOTOR PERFORMANCE.
(AFOSR-64 0197)
AD- 431 851

• • •

LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS.
(AFOSR-69-0152TR)
AD- 681 534

•URBAN SYSTEMS RESEARCH AND ENGINEERING INC CAMBRIDGE MASS

• • •

LAND USE CONTROL STRATEGIES FOR AIRPORT IMPACTED AREAS.
(FAA-EQ-72-1)
AD- 759 865

•VIRGINIA COMMONWEALTH UNIV RICHMOND
DEPT OF PSYCHOLOGY

• • •

PRI-73
USES OF VIBRATION IN HELICOPTER FLYING.
AD- 768 223

•VIRGINIA POLYTECHNIC INST BLACKSBURG
DEPT OF MECHANICAL ENGINEERING

• • •

ISOLATION OF PIPING FROM PUMP VIBRATIONS,
AD- 757 431

•WALTER REED ARMY MEDICAL CENTER
WASHINGTON D C AUDIOLOGY AND SPEECH CENTER

• • •

THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.
AD-A019 193

•WALTER REED GENERAL HOSPITAL
WASHINGTON D C

• • •

THE EXTENT OF HEARING LOSS IN THE ARMY: A SURVEY REPORT.
AD- 739 931

•WASHINGTON UNIV SEATTLE DEPT OF
OTOLARYNGOLOGY

• • •

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS,
AD-A022 519

• • •

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. II. THRESHOLD FUNCTIONS,
AD-A022 520

•WYLE LABS HAMPTON VA

• • •

CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I. (USAAMRDL-TR-14-102A)
AD-B002 067

•WYLE LABS HUNTSVILLE ALA EASTERN
OPERATIONS

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WR-72-7-REV
ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL. (AEDC-TR-72-151-REV)
AD- 757 552

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RESEARCH STAFF

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NOISE PRIMER FOR THE SUPERSONIC TRANSPORT.
AD- 721 010

[illegible] MEASUREMENT
EFFECT OF NOISE ON THE STROOP TEST.*
AD-A027 141

*ACOUSTIC SIGNALS
HEARING
REPRINT: EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE.
AD- 685 887

*ACOUSTIC TRACKING
THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.*
AD-A014 516

*ACOUSTICS
STUDY OF COMMUNICATION IN HIGH LEVEL AMBIENT NOISE FIELDS*
AD- 086 107
METHODS OF SPACE VEHICLE NOISE PREDICTION*
AD- 260 955
A REPRINT ON TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE.
AD- 415 302

PATHOLOGY
RESEARCH ON ACOUSTICAL PROBLEMS OF THE MILITARY: A REVIEW AND FUTURE ASPECT.*
AD- 680 165

*AEROSPACE MEDICINE
DATA
BIOASTRONAUTICS DATA BOOK.*
AD- 749 887

NOISE
AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.*
AD- 754 631

STRESS(PHYSIOLOGY)
PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.*
AD- 755 081

*AIR FORCE PERSONNEL
AUDIOMETRY
HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.*
AD- 731 131

HEARING
DATA ON CONSERVATION OF HEARING WITHIN THE USAF: EXAMINATION OF FIRST YEAR'S COLLECTION.
AD- 619 407

*AIRBURST
DESCRIPTION OF HUMAN ROTATION DEVICE*
AD- 109 230
ESTIMATION OF MAN'S TOLERANCE TO OVERPRESSURES FROM AIR BLAST.
AD- 293 875

*AIRCRAFT DETECTION
AUDITORY PERCEPTION
CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.*
AD-B002 067

*AIRCRAFT NOISE
AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS.*
AD- 770 185
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.*
AD-A004 818
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW.*
AD-A004 822
AIRCRAFT NOISE GENERATION, EMISSION AND REDUCTION.*
AD-A012 090
AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES.*
AD-A013 435
A-WEIGHTED SOUND LEVELS IN COCKPITS OF FIXED- AND ROTARY-WING AIRCRAFT.*
AD-A015 735
NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.*
AD-A018 036
REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.*
AD-A022 356
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.*
AD-A022 911
NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).*
AD-A023 407
TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION.*
AD-A026 209
SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE.*
AD-A026 535
REPRINT: DEVELOPMENT OF A UNIFORM APPROACH TO CHARACTERIZE NOISE IMPACT ON PEOPLE.
AD-A036 224

AIRPORTS
EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.*
AD- 747 129
AIRCRAFT SOUND DESCRIPTION SYSTEM BACKGROUND AND APPLICATION.*
AD- 758 588

FLIGHT CREWS
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.*
AD- 739 368
THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES.*

AD- 766 498

HELICOPTERS
CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.*
AD-B002 067

JET FIGHTERS
NOISE ENVIRONMENTS OF CONTROL TOWERS.*
AD- 752 535

STATISTICAL DATA
RESULTS OF NOISE SURVEYS OF SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT.*
AD- 759 212

TERMINAL FLIGHT FACILITIES
STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.*
AD- 743 095

*AIRPLANE NOISE
COMMERCIAL PLANES
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.*
AD- 732 264

STRESS(PHYSIOLOGY)
EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM--TRANSLATION.
AD- 730 065

*AIRPORT CONTROL TOWERS
NOISE
NOISE ENVIRONMENTS OF CONTROL TOWERS.*
AD- 752 535

*AIRPORTS
AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES.*
AD-A013 435
JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.*
AD-A015 086
ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.*
AD-A021 683
TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION.*
AD-A026 209

AIRCRAFT NOISE
EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.*
AD- 747 129
AIRCRAFT SOUND DESCRIPTION SYSTEM BACKGROUND AND APPLICATION.*
AD- 758 588

MATHEMATICAL MODELS
A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL.*
AD- 754 174

NOISE
LAND USE CONTROL STRATEGIES FOR AIRPORT IMPACTED AREAS.*
AD- 759 865

PLANNING
NOISE EXPOSURE FORECAST CONTOURS FOR EXPECTED 1985 AND 1990 OPERATIONS AT SEVEN U. S. AIRPORTS.*
AD- 722 365

*AMBIENT NOISE
NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).*
AD-A023 407

*ANATOMICAL MODELS
EXPLOSION EFFECTS
SPECIAL STUDY OF ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS.*
AD- 907 805

STRESS(PHYSIOLOGY)
SYMPOSIUM ON BIODYNAMIC MODELS AND THEIR APPLICATIONS, 26-28 OCTOBER 1970.*
AD- 739 501

*ARMORED VEHICLES
STUDY OF COMMUNICATION IN HIGH LEVEL AMBIENT NOISE FIELDS*
AD- 086 107
STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS*
AD- 093 006

*ARMY EQUIPMENT
HUMAN FACTORS ENGINEERING
MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT.
AD- 602 265

NOISE
MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT.*
AD- 750 649

*ATTENTION
THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES.*
AD-A032 156

NOISE
REPRINT: COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 759 329

VIBRATION
REPRINT: COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME.

AD- 759 329

*ATTENUATORS
JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.*
AD-A015 086

*ATTITUDES(PSYCHOLOGY)
SONIC BOOM
ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.*
AD- 740 697

*AUDIOMETRY
A REPRINT ON TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE.
AD- 415 302

AIR FORCE PERSONNEL
HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.*
AD- 731 131

ANALYSIS
THE PURE-TONE AIR CONDUCTION AUDIOGRAM.*
AD- 695 850

NOISE
NOISE AUDIOMETRY.*
AD- 723 464
THE USE OF CIRCUMAURAL EARPHONES FOR ATTENUATING AMBIENT NOISE IN BONE CONDUCTION AUDIOMETRY.*
AD- 759 726

SONAR PERSONNEL
REDUCTION IN AUDIOGRAM SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING.*
AD- 737 207

TRAILERS
A MOBILE LABORATORY FOR GROUP HEARING TESTS.
AD- 468 342

*AUDITORY ACUITY
HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.*
AD-A005 026
SIGNIFICANT HEARING THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975.*
AD-A022 842
INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975.*
AD-A022 888

NOISE
PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

*AUDITORY NERVE
STRESS(PHYSIOLOGY)
MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS--TRANSLATION.
AD- 729 138

*AUDITORY PERCEPTION
THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.*
AD- 770 285
NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).*
AD-A023 407
REPRINT: INFRASOUND.
AD-A036 949

AIRCRAFT DETECTION
CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.*
AD-B002 067

AUDITORY SIGNALS
REPRINT: LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS.
AD- 681 534

NOISE
THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.*
AD- 726 333
SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ.*
AD- 752 974

SPEECH
BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT.*
AD- 753 637

*AUTONOMIC NERVOUS SYSTEM
NERVOUS SYSTEM DISEASES
MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS--TRANSLATION.
AD- 729 138

*AVIATION MEDICINE
NOISE
BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT.*
AD- 753 637
AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.*
AD- 754 631

STRESS(PHYSIOLOGY)
REPRINT: EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS.
AD- 732 617
PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.*
AD- 755 081

*AVIATION PERSONNEL
HEARING
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.*
AD- 766 085

NOISE
AUDITORY EFFECTS OF NOISE ON AIR-

CREW PERSONNEL,*
AD- 757 239

*AVIATION SAFETY
SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING*
AD- 259 830

*BEHAVIOR
PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.*
AD- 777 520

*BIBLIOGRAPHIES
BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.*
AD-A021 203
EFFECT OF IMPULSE NOISE ON HEARING: A SELECT BIBLIOGRAPHY,*
AD-A033 666

*BIODYNAMICS
BIODYNAMIC RESPONSE TO WINDBLAST.*
AD-A014 237

*BLAST
TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)*
AD- 273 779
PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.*
AD- 773 690
PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.*
AD-A005 274
JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.*
AD-A015 086

HEARING
EFFECTS OF OVERPRESSURE ON THE EAR,*
AD- 640 921

STRESS(PHYSIOLOGY)
THE BIODYNAMICS OF AIRBLAST,*
AD- 734 208
SPECIAL STUDY OF ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS.*
AD- 907 805

THORAX
A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT,*
AD- 740 438

*BLAST LOADS
BIODYNAMIC RESPONSE TO WINDBLAST.*
AD-A014 237

*BLOOD PRESSURE
BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.*
AD-A021 203

*BRAIN
VIBRATION
TRANSLATION OF FOREIGN RESEARCH ON THE COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM.
AD- 415 672

*CATAPULTS
COMMERCIAL PLANES
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.*
AD- 732 264

*CHARACTER RECOGNITION
STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.*
AD-A025 789

*CIVIL AVIATION
AIRCRAFT NOISE
RESULTS OF NOISE SURVEYS OF SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT.*
AD- 759 212

*COCKPITS
NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).*
AD-A023 407

*COMBAT AREAS
DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR,*
AD-A026 145

*COMBAT NOISE
COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET.*
AD-A035 084

*COMMERCIAL AIRCRAFT
NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.*
AD-A018 036
REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.*
AD-A022 356

*COMMERCIAL AVIATION
ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.*
AD-A021 683

*COMMERCIAL PLANES
AIRPLANE NOISE
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.*
AD- 732 264

JET TRANSPORT PLANES
NOISE PRIMER FOR THE SUPERSONIC TRANSPORT.*
AD- 721 010

*COMMUNICATION AND RADIO SYSTEMS OPERATORS (PERSONNEL)
INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE.*
AD- 432 087

*COMMUNITY RELATIONS
PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.*
AD- 773 690
ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.*
AD-A021 683
SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE.*
AD-A026 535

*COMPUTER PROGRAMMING
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.*
AD-A022 911

*COMPUTER PROGRAMS
INSTRUCTION MANUALS
A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USEP'S MANUAL.*
AD- 754 174

*CONFERENCES
SMALL SOLID PROPELLANT ROCKETS FOR FIELD USE.*
AD-A033 497

*CONSTRUCTION
CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION.*
AD-A010 629

*COST EFFECTIVENESS
LAUNCHING
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.*
AD- 732 264

*CRUISERS
TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)*
AD- 273 779

*DEAFNESS
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS.
AD- 287 810
REPRINT: UPPER LIMIT TO STAPES DISPLACEMENT: IMPLICATIONS FOR HEARING LOSS.
AD-A003 570
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.*
AD-A015 023
THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.*
AD-A019 193
DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975.*
AD-A026 086

ARMY PERSONNEL
THE EXTENT OF HEARING LOSS IN THE ARMY: A SURVEY REPORT.*
AD- 739 931

INDUSTRIAL MEDICINE
REPRINT: DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA.
AD- 652 783

NOISE
SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ.*
AD- 752 974
A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ.*
AD- 757 338
A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.*
AD- 767 274

SONAR PERSONNEL
REDUCTION IN AUDIOGRAM SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING.*
AD- 737 207

*DECOMPRESSION
NOISE
TEST OF BENDIX AIR FILTERS USED AS MUFFLERS.*
AD- 759 982

*DIVING
NOISE
NOISE: A HAZARD TO DIVERS AND HYPERBARIC CHAMBER PERSONNEL.*
AD- 725 144

*DYNAMIC RESPONSE
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.*
AD-A018 667

*EAR
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES*
AD- 256 800
LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES*
AD- 261 505
INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES*
AD- 265 502
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS.
AD- 287 810
REPRINT: UPPER LIMIT TO STAPES DISPLACEMENT: IMPLICATIONS FOR HEARING LOSS.
AD-A003 570

AIRCRAFT NOISE
MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE.*
AD- 764 739

NOISE
THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.*
AD- 726 333
REPRINT: ACOUSTIC DAMAGE OF THE COCHLEA.
AD- 739 288
COCHLEAR PATHOLOGY IN MONKEYS EXPOSED TO IMPULSE NOISE.*
AD- 745 105

NUCLEAR EXPLOSIONS
THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST,*
AD- 737 643

TOLERANCES(PHYSIOLOGY)
EFFECT OF NOISE AND TOXIC AGENTS ON THE INNER EAR.*
AD- 681 834

WOUNDS AND INJURIES
EFFECTS OF OVERPRESSURE ON THE EAR,*
AD- 640 921

*EAR PROTECTORS
CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS-- TRANSLATION.
AD- 776 943
PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.*
AD- 777 520

*ECOLOGY
WATER POLLUTION
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*ELECTROENCEPHALOGRAPHY
SONIC BOOM
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.*
AD- 766 326

*ENVIRONMENT
NOISE
THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM,*
AD- 737 684

*ENVIRONMENTAL PROTECTION
REPRINT: NOISE -- HOW MUCH IS TOO MUCH.
AD-A017 915
THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT,*
AD-A032 971

*ENVIRONMENTS
SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST.*
AD-A009 663

*EQUILIBRIUM(PHYSIOLOGY)
NOISE
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM,*
AD- 737 826
REPRINT: EFFECTS OF INCREASING INTENSITY LEVELS OF INTERMITTENT AND CONTINUOUS 1000-HZ TONES ON HUMAN EQUILIBRIUM.
AD- 750 840

*EXHAUST GASES
HAZARDS
DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST.*
AD- 449 417

*EXPLOSION EFFECTS
ANATOMICAL MODELS
SPECIAL STUDY OF ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS.*
AD- 907 805

EAR
THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS,*
AD- 671 618

*EXPLOSIVES
PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.*
AD- 773 690

*EXPOSURE(PHYSIOLOGY)
TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119

*FATIGUE (PHYSIOLOGY)
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS.
AD- 287 810

*FATIGUE(PHYSIOLOGY)
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.*
AD-A013 101

*FLIGHT CREWS
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.*
AD-A013 101
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.*
AD-A018 846

*FLIGHT SPEEDS
STRESS(PHYSIOLOGY)
PHYSIOLOGICAL AND PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS.*
AD- 737 827

*GAS FILTERS
RELIABILITY

TEST OF BENDIX AIR FILTERS USED AS MUFFLERS.*
AD- 759 982

*GROUND SUPPORT EQUIPMENT
LAUNCHING SITES
NOISE SURVEY OF AUXILIARY SUPPORT EQUIPMENT AT ONE ATLAS COMPLEX AND ONE TITAN I COMPLEX, CAPE KENNEDY MISSLE TEST ANNEX, ATLANTIC MISSILE RANGE.
AD- 601 809

*GUIDED MISSILE PERSONNEL
SAFETY OF PERSONNEL DURING AN IM-99B MISSILE LAUNCHING*
AD- 276 988

*GUIDED MISSILES
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES*
AD- 257 643
SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING*
AD- 259 830
LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES*
AD- 261 505
TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)*
AD- 273 779
SAFETY OF PERSONNEL DURING AN IM-99B MISSILE LAUNCHING*
AD- 276 988

*HAZARDS
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES*
AD- 257 643
TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)*
AD- 273 779

HEARING
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.*
AD- 767 222

*HEARING
SPEECH RECEPTION AND TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE*
AD- 051 868
THE PROBLEMS OF CRITERIA FOR NOISE EXPOSURE*
AD- 245 980
INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES*
AD- 265 502
MASKING OF PURE TONES AND SPEECH*
AD- 271 605
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS.
AD- 287 810
RESEARCH ON SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSE DIFFERENCE LIMEN. PROBABILITIES OF DETECTION CHANGES IN A STEADY NOISE STIMULUS AND PROBABILITY OF DETECTION F LOUDER NOISE PULSES IN A TRAIN OF PULSES UNDER UNALERT CONDITIONS WAS INVESTIGATED.
AD- 403 009
RESEARCH ON THE TEMPORARY THRESHOLD SHIFT FOR NORMAL SUBJECTS AS A FUNCTION OF AGE AND SEX.
AD- 403 010
RESEARCH ON THE TEMPORARY THRESHOLD SHIFT FOR NORMAL SUBJECTS AS A FUNCTION OF AGE AND SEX.
AD- 403 010
TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119
CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS--TRANSLATION.
AD- 776 943
IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS--TRANSLATION.
AD- 780 369
OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES--TRANSLATION.
AD- 781 656
CONCEPTS OF THE TERMS SUSCEPTIBILITY AND RESISTANCE AS THEY RELATE TO HEARING DAMAGE DUE TO NOISE--TRANSLATION.
AD-A001 152
PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.*
AD-A005 274
THE EFFECT OF QUIET ON HEARING.*
AD-A006 395
HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES.*
AD-A007 842
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.*
AD-A015 023
EFFECTS OF SUSTAINED TALKING ON THE HEARING OF THE TALKER.*
AD-A015 732
A-WEIGHTED SOUND LEVELS IN COCKPITS OF FIXED- AND ROTARY-WING AIRCRAFT.*
AD-A015 735
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.*
AD-A018 846
THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.*
AD-A019 193
HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.*
AD-A022 258
REPRINT: REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS.
AD-A022 519
REPRINT: REACTION-TIME PROCEDURE FOR MEASUREMENT OF HEARING. II. THRESHOLD FUNCTIONS.
AD-A022 520
DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR.*
AD-A026 145

HEARING LEVELS OF NOISE-EXPOSED U.S. AIR FORCE PERSONNEL COMPARED TO THOSE IN THE TOTAL U. S. POPULATION.*
AD-A032 015
EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE.*
AD-A034 605
COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET.*
AD-A035 084

ACOUSTIC SIGNALS
REPRINT: EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE.
AD- 685 887

AIR FORCE PERSONNEL
DATA ON CONSERVATION OF HEARING WITHIN THE USAF: EXAMINATION OF FIRST YEAR'S COLLECTION.
AD- 619 407

AIRCRAFT NOISE
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.*
AD- 739 368
EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.*
AD- 747 129
MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE.*
AD- 764 739
THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES.*
AD- 766 498

DEGRADATION
RECOVERY FROM IMPULSE NOISE INDUCED ACOUSTIC TRAUMA,*
AD- 645 898

HAZARDS
CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.*
AD- 666 206
SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM).*
AD- 732 434
DEVELOPMENT OF REALISTIC A-WEIGHTED AUDITORY RISK CRITERIA FOR AEROSPACE OPERATIONS.*
AD- 743 298
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.*
AD- 767 222

HIGH FREQUENCY
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.*
AD- 766 085

MILITARY MEDICINE
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.*
AD- 758 453

NOISE
EFFECTS OF HIGH-ENTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS.
AD- 455 002
THE RELATIONS OF HEARING LOSS TO NOISE EXPOSURE.*
AD- 646 775
NOISE AND BLAST.*
AD- 765 419
RELATION BETWEEN DAILY NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES.*
AD- 767 204
PREDICTION OF NIPTS DUE TO CONTINUOUS NOISE EXPOSURE.*
AD- 767 205
A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.*
AD- 767 274

NUCLEAR EXPLOSIONS
THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST.*
AD- 737 643

PERFORMANCE(HUMAN)
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.*
AD- 639 103

PROTECTION
REPRINT: DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA.
AD- 652 783

REVIEWS
REPRINT: HEARING.
AD- 646 812

SUBMARINE PERSONNEL
HEARING CONSERVATION FOR SUBMARINERS,*
AD- 726 217

TEST FACILITIES
A MOBILE LABORATORY FOR GROUP HEARING TESTS.
AD- 468 342

THRESHOLDS(PHYSIOLOGY)
REPRINT: AUDITORY THRESHOLDS OF SHORT TONES AS A FUNCTION OF REPETITION RATES.
AD- 639 682
EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE.*
AD- 647 540
AUDITORY EFFECTS OF NOISE ON AIR-CREW PERSONNEL,*
AD- 757 239

***HEAT STRESS(PHYSIOLOGY)**
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,*
AD-A019 315

*HEAT TOLERANCE
STRESS(PHYSIOLOGY)
REPRINT: FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 746 083
REPRINT: TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 755 634

*HELICOPTERS
STUDY OF COMMUNICATION IN HIGH LEVEL AMBIENT NOISE FIELDS*
AD- 086 107
STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS*
AD- 093 006
NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.*
AD-A032 028

NOISE
BASELINE NOISE MEASUREMENTS OF THE OH-58A HELICOPTER.*
AD- 731 467
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.*
AD- 767 222

PERCEPTION
USES OF VIBRATION IN HELICOPTER FLYING.*
AD- 768 223

*HUMAN FACTORS ENGINEERING
BIODYNAMIC RESPONSE TO WINDBLAST.*
AD-A014 237

ARMY EQUIPMENT
MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT.
AD- 602 265

FRIGATES
AUDITORY DAMAGE OF OPERATING PERSONNEL ABOARD GUIDED MISSILE SHIPS FROM SHORT-DURATION HIGH-INTENSITY NOISE.*
AD- 663 639

NOISE
IMPROVED WEAPON NOISE EXPOSURE CRITERIA.*
AD- 738 135

VOICE COMMUNICATIONS
INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE,*
AD- 432 087
PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIC TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS,*
AD- 432 088

*ILLUMINATION
MOTOR REACTIONS
A STUDY OF THE EFFECTS OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE.*
AD- 739 474

*ILLUSIONS
NOISE
APPARENT CHANGE OF REPETITIVE NOISE BURSTS.
AD- 429 966

*IMPACT SHOCK
THORAX
A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT,*
AD- 740 438

*IMPULSE NOISE
REPRINT: SOME THOUGHTS ON HEARING CONSERVATION: POSSIBLE CORRECTIONS TO EQUAL ENERGY RULE TO ACCOUNT FOR INTERMITTENCY AND IMPULSE NOISE.
AD-A027 737
BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.*
AD-A031 087
REPRINT: LONG-DURATION EXPOSURE TO INTERMITTENT NOISES.
AD-A031 382
EFFECT OF IMPULSE NOISE ON HEARING: A SELECT BIBLIOGRAPHY,*
AD-A033 666

*INDUSTRIAL HYGIENE
EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES.*
AD-A007 193

*INDUSTRIAL HYGIENE
HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS--TRANSLATION.
AD- 779 833
BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.*
AD- 785 740
HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY, 910 TAC FIGHTER GROUP (AFRES) YOUNGSTOWN MUNICIPAL AIRPORT VIENNA OH 44473.*
AD- 787 652
INDUSTRIAL HYGIENE SURVEY, 110TH TACTICAL SUPPORT GROUP, MI ANG BATTLE CREEK, MI 49016.*
AD-A003 638
MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.*
AD-A010 589
NOISE HAZARD EVALUATION SOUND LEVEL DATA ON NOISE SOURCES.*
AD-A021 465

*INDUSTRIAL MEDICINE
SOME CLINICAL AND PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE--TRANSLATION.
AD- 772 449
OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES--TRANSLATION.
AD- 781 656
REGARDING THE OCCUPATIONAL PATHOLOGY OF PERSONS SUBJECTED TO

THE EFFECT OF HIGH-FREQUENCY NOISE IN COMBINATION WITH OTHER FACTORS DURING PLASMA SPRAY COATING OF METALS--TRANSLATION.
AD- 781 658

DEAFNESS
REPRINT: DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA.
AD- 652 783

NOISE
THE RELATIONS OF HEARING LOSS TO NOISE EXPOSURE.*
AD- 646 775
RELATION BETWEEN DAILY NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES.*
AD- 767 204

*INFORMATION PROCESSING
THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.*
AD-A003 953

*INFRASONIC RADIATION
INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN,*
AD-A032 401

*INFRASONICS
REPRINT: AUDITORY AND PHYSIOLOGICAL EFFECTS OF INFRASOUND.
AD-A017 269

*INTELLIGIBILITY
THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.*
AD-A014 516

SPEECH
SOME INFLUENCES OF DELAYED SIDE-TONE UPON INTELLIGIBILITY.
AD- 620 259
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.*
AD- 639 103

*JET AIRCRAFT
AIRCRAFT NOISE GENERATION, EMISSION AND REDUCTION.*
AD-A012 090
JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.*
AD-A015 086

VOICE COMMUNICATIONS
BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT,*
AD- 753 637

*JET AIRCRAFT NOISE
NAVAL AIR STATIONS
NOISE FROM AIRCRAFT OPERATIONS, U. S. NAVAL AIR STATION, LEMOORE, CALIFORNIA.*
AD- 754 111

*JET FIGHTERS
AIRCRAFT NOISE
NOISE ENVIRONMENTS OF CONTROL TOWERS.*
AD- 752 535

*JET PLANE NOISE
PREDICTIONS
NOISE EXPOSURE FORECAST CONTOURS FOR EXPECTED 1985 AND 1990 OPERATIONS AT SEVEN U. S. AIRPORTS.*
AD- 722 365

SUPERSONIC AIRCRAFT
NOISE PRIMER FOR THE SUPERSONIC TRANSPORT.*
AD- 721 010
A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION.*
AD- 754 943

*JET TRANSPORT PLANES
COMMERCIAL PLANES
NOISE PRIMER FOR THE SUPERSONIC TRANSPORT.*
AD- 721 010

*JETS
SUPERSONIC FLOW
A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION.*
AD- 754 943

*LABORATORY ANIMALS
THRESHOLDS(PHYSIOLOGY)
ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.*
AD- 740 227

*LAUNCHING
SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING*
AD- 259 830
LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES*
AD- 261 505
METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSILE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT AND PERSONNEL.
AD- 297 866

TRANSPORT PLANES
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.*
AD- 732 264

*LAUNCHING SITES
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES*
AD- 257 643
SAFETY OF PERSONNEL DURING AN IM-99B MISSILE LAUNCHING*
AD- 276 988

*LOW ALTITUDE
STRESS(PHYSIOLOGY)
PHYSIOLOGICAL AND PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS.*

AD- 737 827

*MACHINERY NOISE
SOME CLINICAL AND PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE--TRANSLATION.
AD- 772 449
EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES.*
AD-A007 193

*MAN MACHINE SYSTEMS
THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION.*
AD-A026 856

*MANUAL OPERATION
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.*
AD-A018 667

*MARINE BIOLOGY
WATER POLLUTION
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*MEDICAL EQUIPMENT
BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.*
AD-A021 203

*MEETINGS
BIODYNAMIC RESPONSE TO WINDBLAST.*
AD-A014 237
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.*
AD-A018 846
SUMMARY REPORT OF THE NAVY CONFERENCE ON ENVIRONMENTAL NOISE 18-20 NOVEMBER 1975.*
AD-A034 051

*MEMORY(PSYCHOLOGY)
THE EFFECT OF CONTINUOUS NOISE ON SHORT TERM MEMORY PERFORMANCE TASKS.*
AD-A025 446

*MILITARY FACILITIES
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.*
AD-A022 911

*MILITARY MEDICINE
HEARING
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.*
AD- 758 453

*MILITARY TRANSPORTATION
THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT,*
AD-A032 971

*MOTOR REACTIONS
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES*
AD- 256 800

NOISE
RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE,*
AD- 704 472

PSYCHOPHYSICS
A STUDY OF THE EFFECTS OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE.*
AD- 739 474

STIMULATION(PHYSIOLOGY)
EFFECTS OR PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUAL-MOTOR PERFORMANCE.
AD- 431 851

*MUSCULOSKELETAL SYSTEM
BLAST
A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT,*
AD- 740 438

*NAVAL AIR STATIONS
JET AIRCRAFT NOISE
NOISE FROM AIRCRAFT OPERATIONS, U. S. NAVAL AIR STATION, LEMOORE, CALIFORNIA.*
AD- 754 111

*NAVAL PERSONNEL
EFFECT OF NOISE ON THE STROOP TEST,*
AD-A027 141

HEARING
AUDITORY DAMAGE OF OPERATING PERSONNEL ABOARD GUIDED MISSILE SHIPS FROM SHORT-DURATION HIGH-INTENSITY NOISE.*
AD- 663 639

NOISE
HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.*
AD- 757 337

*NAVAL PLANNING
SUMMARY REPORT OF THE NAVY CONFERENCE ON ENVIRONMENTAL NOISE 18-20 NOVEMBER 1975.*
AD-A034 051

*NERVES
DESCRIPTION OF HUMAN ROTATION DEVICE*
AD- 109 230

*NERVOUS SYSTEM DISEASES
NOISE
MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS--TRANSLATION.
AD- 729 138

*NOISE
SPEECH RECEPTION AND TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE*
AD- 051 868
STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS*
AD- 093 006
THE EFFECTS OF NOISE ON WORK OUTPUT AND PHYSIOLOGICAL ACTIVATION*
AD- 129 446
TEMPORARY THRESHOLD SHIFT AS A FUNCTION OF NOISE EXPOSURE LEVEL*
AD- 146 756
THE PROBLEMS OF CRITERIA FOR NOISE EXPOSURE*
AD- 245 980
METHODS OF SPACE VEHICLE NOISE PREDICTION*
AD- 260 955
LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES*
AD- 261 505
EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS.
AD- 294 582
RESEARCH ON SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSE DIFFERENCE LIMEN. PROBABILITIES OF DETECTION CHANGES IN A STEADY NOISE STIMULUS AND PROBABILITY OF DETECTION F LOUDER NOISE PULSES IN A TRAIN OF PULSES UNDER UNALERT CONDITIONS WAS INVESTIGATED.
AD- 403 009
TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119
REPRINT: INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 770 257
THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.*
AD- 770 285
CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS--TRANSLATION.
AD- 770 943
REPRINT: PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM.
AD- 777 184
IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS--TRANSLATION.
AD- 780 369
OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES--TRANSLATION.
AD- 781 656
REGARDING THE OCCUPATIONAL PATHOLOGY OF PERSONS SUBJECTED TO THE EFFECT OF HIGH-FREQUENCY NOISE IN COMBINATION WITH OTHER FACTORS DURING PLASMA SPRAY COATING OF METALS--TRANSLATION.
AD- 781 658
HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.*
AD-A000 026
THE EFFECT OF QUIET ON HEARING,*
AD-A000 395
EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES.*
AD-A007 193
HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,*
AD-A007 842
BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.*
AD-A021 203
REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.*
AD-A022 356
EFFECT OF NOISE ON THE STROOP TEST,*
AD-A027 141
EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE.*
AD-A034 605

AEROSPACE MEDICINE
AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.*
AD- 754 631

AIRPORT CONTROL TOWERS
NOISE ENVIRONMENTS OF CONTROL TOWERS.*
AD- 752 535

ATTENTION
REPRINT: COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 759 329

AUDIOMETRY
NOISE AUDIOMETRY.*
AD- 723 464

AUDITORY ACUITY
PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

AUDITORY PERCEPTION
SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ.*
AD- 752 974

AVIATION PERSONNEL
AUDITORY EFFECTS OF NOISE ON AIR-CREW PERSONNEL,*
AD- 757 239

BRAIN
TRANSLATION OF FOREIGN RESEARCH ON THE COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM.
AD- 415 672

CONTROL
REPRINT: PRINCIPLES OF NOISE CONTROL.

AD- 734 704

DIVING
NOISE: A HAZARD TO DIVERS AND HYPERBARIC CHAMBER PERSONNEL.*
AD- 725 144

EAR
COCHLEAR PATHOLOGY IN MONKEYS EXPOSED TO IMPULSE NOISE.*
AD- 745 105

ENVIRONMENT
THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM.*
AD- 737 684

EQUILIBRIUM(PHYSIOLOGY)
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM.*
AD- 737 826
REPRINT: EFFECTS OF INCREASING INTENSITY LEVELS OF INTERMITTENT AND CONTINUOUS 1000-HZ TONES ON HUMAN EQUILIBRIUM.
AD- 750 840

GAS FILTERS
TEST OF BENDIX AIR FILTERS USED AS MUFFLERS.*
AD- 759 982

GROUND SUPPORT EQUIPMENT
NOISE SURVEY OF AUXILIARY SUPPORT EQUIPMENT AT ONE ATLAS COMPLEX AND ONE TITAN I COMPLEX, CAPE KENNEDY MISSLE TEST ANNEX, ATLANTIC MISSILE RANGE.
AD- 601 809

HEARING
DATA ON CONSERVATION OF HEARING WITHIN THE USAF: EXAMINATION OF FIRST YEAR'S COLLECTION.
AD- 619 407
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.*
AD- 639 103
THE RELATIONS OF HEARING LOSS TO NOISE EXPOSURE.*
AD- 646 775
RELATION BETWEEN DAILY NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES.*
AD- 767 204
A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.*
AD- 767 274

HELICOPTERS
BASELINE NOISE MEASUREMENTS OF THE OH-58A HELICOPTER.*
AD- 731 467
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.*
AD- 767 222

HUMAN ENGINEERING
A REVIEW OF IMPULSE-NOISE RESEARCH AT THE HUMAN ENGINEERING LABORATORIES.*
AD- 731 185

HUMAN FACTORS ENGINEERING
MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT.
AD- 602 265

ILLUSIONS
APPARENT CHANGE OF REPETITIVE NOISE BURSTS.
AD- 429 966

IMPACT
ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.*
AD- 757 552

MILITARY OPERATIONS
IMPROVED WEAPON NOISE EXPOSURE CRITERIA.*
AD- 738 135

MILITARY PERSONNEL
A REVIEW OF ADVERSE BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT.*
AD- 734 932

PERCEPTION
RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE.*
AD- 704 472

PERFORMANCE(HUMAN)
HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS.
AD- 628 198
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN PERFORMANCE.*
AD- 671 116
NOISE AND HUMAN PERFORMANCE.*
AD- 729 213
EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE.*
AD- 731 184
THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE.*
AD- 739 432
A STUDY OF THE EFFECTS OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE.*
AD- 739 474

PUBLIC HEALTH
NON-AUDITORY EFFECTS OF NOISE.*
AD- 728 426

REACTION(PSYCHOLOGY)
STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT.
AD- 620 263

REFRIGERATION SYSTEMS
EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.*
AD- 755 183

REVIEWS
A LITERATURE SURVEY OF NOISE POLLUTION.*
AD- 724 344

SENSITIVITY
A STUDY OF SENSITIVITY TO NOISE.*
AD- 728 332

SLEEP
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.*
AD- 766 326

STANDARDS
MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT,*
AD- 750 649

STIMULATION(PHYSIOLOGY)
EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION: AMBULATORY SUBJECTS: ABILITY TO DISCRIMINATE SMALL TIME DIFFERENCES BETWEEN THE TWO EAR WAS SIGNIFICANTLY IMPAIRED.
AD- 408 004

STRESS (PHYSIOLOGY)
HAZARDOUS EXPOSURE TO INTERMITTENT AND STEADY-STATE NOISE.
AD- 458 244

STRESS(PHYSIOLOGY)
THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.*
AD- 726 333
REPRINT: FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 746 083
REPRINT: SOME EFFECTS OF NOISE ON MAN.
AD- 754 863
REPRINT: TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 755 634
HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.*
AD- 757 337
NOISE AND BLAST.*
AD- 765 419

STRESS(PSYCHOLOGY)
COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.*
AD- 731 146
REPRINT: EFFECTS OF INTERMITTENT AND CONTINUOUS NOISE ON SERIAL SEARCH PERFORMANCE.
AD- 750 043

THRESHOLD (PHYSIOLOGY)
TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE, *
AD- 440 204

THRESHOLDS
THE CHARACTERISTICS OF THE TEMPORARY AND PERMANENT THRESHOLD SHIFTS OF PERSONNEL ACUTELY EXPOSED TO A HIGH INTENSITY NOISE, AND TO RELATE NOISE EXPOSURE TO OBSERVED HEARING LOSS.
AD- 413 817

THRESHOLDS(PHYSIOLOGY)
FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE.*
AD- 634 456
COMPARISON OF A-WEIGHTED AUDITORY RISK CRITERIA WITH OCTAVE-BAND ESTIMATES.*
AD- 731 154
PREDICTION OF NIPTS DUE TO CONTINUOUS NOISE EXPOSURE.*
AD- 767 205

TOLERANCES(PHYSIOLOGY)
EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE.*
AD- 647 540

TRANSONIC WIND TUNNELS
A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS,*
AD- 758 254

VEHICLES
AN ANALYSIS OF NOISE CONDITIONS PRESENT IN COMMERCIAL AND MILITARY VEHICLES.*
AD- 747 685

*NOISE POLLUTION
SOME CLINICAL AND PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE--TRANSLATION.
AD- 772 449
SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,*
AD- 773 451
PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.*
AD- 773 690
BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.*
AD- 785 740
HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY, 910 TAC FIGHTER GROUP (AFRES) YOUNGSTOWN MUNICIPAL AIRPORT VIENNA OH 44473.*
AD- 787 652
CONCEPTS OF THE TERMS SUSCEPTIBILITY AND RESISTANCE AS THEY RELATE TO HEARING DAMAGE DUE TO NOISE--TRANSLATION.
AD-A001 152
INDUSTRIAL HYGIENE SURVEY, 110TH TACTICAL SUPPORT GROUP, MI ANG BATTLE CREEK, MI 49016.*
AD-A003 638
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.*
AD-A004 818
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW.*
AD-A004 822
MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.*

AD-A041 600 DEFENSE DOCUMENTATION CENTER ALEXANDRIA VA F/G 6/19
ENVIRONMENTAL POLLUTION. NOISE POLLUTION-NOISE EFFECTS ON HUMAN--ETC(U)
JUN 77

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4 OF 4
AD
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AD-A010 589
CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION.*
AD-A010 629
REPRINT: NOISE -- HOW MUCH IS TOO MUCH.
AD-A017 915
THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.*
AD-A019 193
ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.*
AD-A021 683
HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.*
AD-A022 258
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.*
AD-A022 911
TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION.*
AD-A026 209
PERFORMANCE DURING CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION,*
AD-A027 142
COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE,*
AD-A027 143
REPRINT: SOME THOUGHTS ON HEARING CONSERVATION: POSSIBLE CORRECTIONS TO EQUAL ENERGY RULE TO ACCOUNT FOR INTERMITTENCY AND IMPULSE NOISE.
AD-A027 737
SUMMARY OF PRESENT DAMAGE RISK CRITERIA,*
AD-A027 807
HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.*
AD-A030 896
BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.*
AD-A031 087
CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE,*
AD-A031 366
REPRINT: LONG-DURATION EXPOSURE TO INTERMITTENT NOISES.
AD-A031 382
NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.*
AD-A032 028
THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES,*
AD-A032 156
INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN,*
AD-A032 401
SUMMARY REPORT OF THE NAVY CONFERENCE ON ENVIRONMENTAL NOISE 18-20 NOVEMBER 1975.*
AD-A034 051
REPRINT: DEVELOPMENT OF A UNIFORM APPROACH TO CHARACTERIZE NOISE IMPACT ON PEOPLE.
AD-A036 224
OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS,*
AD-A036 535

*NOISE REDUCTION
REPRINT: NOISE -- HOW MUCH IS TOO MUCH.
AD-A017 915
NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).*
AD-A023 407
HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.*
AD-A030 896

*NOISE(SOUND)
PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.*
AD- 773 690
HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS--TRANSLATION.
AD- 779 833
REPRINT: UPPER LIMIT TO STAPES DISPLACEMENT: IMPLICATIONS FOR HEARING LOSS.
AD-A003 570
HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.*
AD-A015 023
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.*
AD-A018 667
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.*
AD-A018 846
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,*
AD-A019 315
NOISE HAZARD EVALUATION SOUND LEVEL DATA ON NOISE SOURCES.*
AD-A021 465
HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.*
AD-A022 258
THE EFFECT OF CONTINUOUS NOISE ON SHORT TERM MEMORY PERFORMANCE TASKS.*
AD-A025 446
EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.*
AD-A025 969
THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION,*
AD-A026 856
CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE,*
AD-A031 366
AFTEREFFECTS OF RANDOM AND FIXED INTERMITTENT SOUND ON HUMAN PERFORMANCE,*
AD-A033 468

*NUCLEAR EXPLOSIONS
BLAST

THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.*
AD- 742 819

HEARING
THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST,*
AD- 737 643

*OCCUPATIONAL DISEASES
THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.*
AD-A019 193
SIGNIFICANT HEARING THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975.*
AD-A022 842
INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975.*
AD-A022 888
DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975.*
AD-A026 086
OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS,*
AD-A036 535

*OPERATORS (PERSONNEL)
PERFORMANCE(HUMAN)
PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS,*
AD- 432 088

*OPERATORS(PERSONNEL)
TOLERANCES(PHYSIOLOGY)
EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.*
AD- 755 183

*OTORHINOLARYNGOLOGY
ACOUSTICS
REPRINT: ACOUSTIC DAMAGE OF THE COCHLEA.
AD- 739 288

*PATTERN RECOGNITION
STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.*
AD-A025 789

*PERCEPTION
AUDIOMETRY
EFFECTS OR PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUAL-MOTOR PERFORMANCE.
AD- 431 851

HELICOPTERS
USES OF VIBRATION IN HELICOPTER FLYING.*
AD- 768 223

NOISE
RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE,*
AD- 704 472

*PERFORMANCE(HUMAN)
REPRINT: INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 770 257
THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.*
AD-A003 953
HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.*
AD-A005 026
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.*
AD-A018 667
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,*
AD-A019 315
STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.*
AD-A025 789
PERFORMANCE DURING CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION,*
AD-A027 142
COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE,*
AD-A027 143

NOISE
STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT.
AD- 620 263
HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS.
AD- 628 198
NOISE AND HUMAN PERFORMANCE,*
AD- 729 213
EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE.*
AD- 731 184
THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE.*
AD- 739 432

PILOTS
MULTI-TASK TIME-SHARING REQUIREMENTS.*
AD- 755 363

STRESS(PHYSIOLOGY)
PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.*
AD- 755 081

STRESS(PSYCHOLOGY)
THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE,*
AD- 747 797

*PERSONNEL MANAGEMENT
COMMUNICATION AND RADIO SYSTEMS
INDIVIDUAL DIFFERENCES IN

TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE,*
AD- 432 087

*PILOTS
PERFORMANCE(HUMAN)
MULTI-TASK TIME-SHARING REQUIREMENTS.*
AD- 755 363

TRAINING
USES OF VIBRATION IN HELICOPTER FLYING.*
AD- 768 223

*PIPES
VIBRATION ISOLATORS
ISOLATION OF PIPING FROM PUMP VIBRATIONS,*
AD- 757 431

*PISTOLS
IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS--TRANSLATION.
AD- 780 369

*POLYMERS
TOXICITY
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*PRESSURE
TOLERANCES(PHYSIOLOGY)
EFFECTS OF OVERPRESSURE ON THE EAR,*
AD- 640 921

*PROPRIOCEPTION
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES*
AD- 256 800

*PROTECTIVE COVERINGS
ARMY RESEARCH
RESEARCH ON ACOUSTICAL PROBLEMS OF THE MILITARY: A REVIEW AND FUTURE ASPECT.*
AD- 680 165

*PROTEINS
NOISE
EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM--TRANSLATION.
AD- 730 065

*PSYCHOACOUSTICS
THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS*
AD- 086 351
THE EFFECTS OF NOISE ON WORK OUTPUT AND PHYSIOLOGICAL ACTIVATION*
AD- 129 446
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES*
AD- 256 800
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS.
AD- 287 810
EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS.
AD- 294 582
AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS.*
AD- 770 185
THE EFFECT OF QUIET ON HEARING,*
AD-A006 395

NOISE
REPRINT: SOME EFFECTS OF NOISE ON MAN.
AD- 754 863
REPRINT: SOME EFFECTS OF NOISE ON MAN.
AD- 754 863

*PSYCHOLOGICAL TESTS
BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,*
AD-A002 266

*PSYCHOPHYSICS
NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.*
AD-A018 036
NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.*
AD-A032 028

*PSYCHOPHYSIOLOGY
SONIC BOOM
A STUDY OF SENSITIVITY TO NOISE.*
AD- 728 332

*PUBLIC HEALTH
NOISE
REPRINT: SOME EFFECTS OF NOISE ON MAN.
AD- 754 863

*PUBLIC OPINION
SONIC BOOM
ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.*
AD- 740 697

*PUMPS
VIBRATION
ISOLATION OF PIPING FROM PUMP VIBRATIONS,*
AD- 757 431

*QUIET
THE EFFECT OF QUIET ON HEARING,*
AD-A006 395

*REACTION
NOISE
TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE, *
AD- 440 204

*REACTION TIME
REPRINT: REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS.
AD-A022 519
REPRINT: REACTION-TIME PROCEDURE FOR MEASUREMENT OF HEARING. II. THRESHOLD FUNCTIONS.
AD-A022 520

*RECOILLESS GUNS
STRESS(PHYSIOLOGY)
SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM).*
AD- 732 434

*REFRIGERATION SYSTEMS
NOISE
EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.*
AD- 755 183

*RESPONSE
AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS.*
AD- 770 185

*REVIEWS
NOISE
A LITERATURE SURVEY OF NOISE POLLUTION.*
AD- 724 344

*ROCKET ENGINE NOISE
LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES*
AD- 261 505
METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSILE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT AND PERSONNEL.
AD- 297 866

*ROCKET LAUNCHERS
HUMANS
DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST.*
AD- 449 417

NOISE
SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM).*
AD- 732 434

*ROCKET LAUNCHING
BLAST
DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST.*
AD- 449 417

*ROCKETS
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES*
AD- 257 643

*SAFETY
SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING*
AD- 259 830

*SATELLITES (ARTIFICIAL)
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES*
AD- 257 643
METHODS OF SPACE VEHICLE NOISE PREDICTION*
AD- 260 955

*SEALS(MAMMALS)
WATER POLLUTION
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*SENSES(PHYSIOLOGY)
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES*
AD- 256 800

*SHIP DESIGN
OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS.*
AD-A036 535

*SHIP NOISE
HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.*
AD-A030 896

CLASSIFICATION
A STUDY OF SHIPBOARD NOISE CRITERIA.*
AD- 761 669

*SHOCK WAVES
THE SOUND INTENSITY OF A SHOCK WAVE AS RELATED TO OVERPRESSURE*
AD- 266 866

PERFORMANCE(HUMAN)
THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.*
AD- 742 819

*SHORT TAKEOFF AIRCRAFT
NOISE CERTIFICATION CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.*
AD-A018 036
NOISE CERTIFICATION CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.*
AD-A032 028

*SLEEP
REPRINT: PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM.
AD- 777 184

NOISE
PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY--TRANSLATION.
AD- 696 500
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.*
AD- 766 326

SONIC BOOM

SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,*
AD- 762 988

*SLEEP DEPRIVATION
THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES,*
AD-A032 156

*SMALL ARMS
NOISE
CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.*
AD- 666 206

*SOLID PROPELLANT ROCKET ENGINES
SMALL SOLID PROPELLANT ROCKETS FOR FIELD USE.*
AD-A033 497

*SONAR SIGNALS
NOISE
PERFORMANCE ON THE EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY.*
AD- 759 721

*SONAR TARGETS
DIRECTION FINDING
PERFORMANCE ON THE EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY.*
AD- 759 721

*SONIC BOOM
SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,*
AD- 773 451
A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS,*
AD- 777 581
BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,*
AD-A002 266
SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST.*
AD-A009 663

ATTITUDES(PSYCHOLOGY)
ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.*
AD- 740 697

ELECTROENCEPHALOGRAPHY
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.*
AD- 766 326

PSYCHOPHYSIOLOGY
A STUDY OF SENSITIVITY TO NOISE.*
AD- 728 332

PUBLIC OPINION
ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.*
AD- 740 697

REACTION(PSYCHOLOGY)
REPRINT: HUMAN RESPONSE TO SONIC BOOM IN THE LABORATORY AND THE COMMUNITY.
AD- 748 055

SLEEP
SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,*
AD- 762 988

SYMPOSIA
REPRINT: PROCEEDINGS OF THE SONIC BOOM SYMPOSIUM (2ND) SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA (80TH MEETING) HELD AT HOUSTON, TEXAS ON 3 NOVEMBER 1970.
AD- 752 881

*SOUND
THE SOUND INTENSITY OF A SHOCK WAVE AS RELATED TO OVERPRESSURE*
AD- 266 866
METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSILE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT AND PERSONNEL.
AD- 297 866

STRESS (PHYSIOLOGY)
HAZARDOUS EXPOSURE TO INTERMITTENT AND STEADY-STATE NOISE.
AD- 458 244

*SOUND PITCH
EFFECT OF NOISE ON THE STROOP TEST,*
AD-A027 141

ATTENUATION
A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION.*
AD- 754 943

*SOUND PRESSURE
PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.*
AD-A005 274
REPRINT: REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS.
AD-A022 519
REPRINT: REACTION-TIME PROCEDURE FOR MEASUREMENT OF HEARING. II. THRESHOLD FUNCTIONS.
AD-A022 520

*SOUND TRANSMISSION
THE SOUND INTENSITY OF A SHOCK WAVE AS RELATED TO OVERPRESSURE*
AD- 266 866

AIRCRAFT NOISE
CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.*

AD-B002 067

*SPACE BIOLOGY
DATA
BIOASTRONAUTICS DATA BOOK.*
AD- 749 887

*SPACECRAFT
METHODS OF SPACE VEHICLE NOISE PREDICTION*
AD- 260 955

*SPEECH
SPEECH RECEPTION AND TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE*
AD- 051 868
STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS*
AD- 093 006
EFFECTS OF SUSTAINED TALKING ON THE HEARING OF THE TALKER,*
AD-A015 732

AUDITORY PERCEPTION
BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT,*
AD- 753 637

INTELLIGIBILITY
SOME INFLUENCES OF DELAYED SIDE-TONE UPON INTELLIGIBILITY.
AD- 620 259
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.*
AD- 639 103
HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.*
AD- 757 337

NOISE (RADIO)
PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS,*
AD- 432 088

TRAINING
EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION SYSTEM.
AD- 638 355

*SPEECH RECOGNITION
THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.*
AD-A014 516

DEAFNESS
A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ,*
AD- 757 338

*SPEECH TRANSMISSION
MASKING OF PURE TONES AND SPEECH*
AD- 271 605

*SPINAL CORD
NOISE
TRANSLATION OF FOREIGN RESEARCH ON THE COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM.
AD- 415 672

*SPRAYERS
EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES.*
AD-A007 193

*STANDARDS
NOISE
MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT,*
AD- 750 649

*STIMULATION(PHYSIOLOGY)
TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119

*STRESS(PHYSIOLOGY)
SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST.*
AD-A009 663
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.*
AD-A013 101
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.*
AD-A018 846
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,*
AD-A019 315
REVIEW OF STUDIES INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.*
AD-A022 356
SUMMARY OF PRESENT DAMAGE RISK CRITERIA,*
AD-A027 807
THE STUDY OF VIBRATIONS GENERATED BY THE TRACKS OF TRACKED VEHICLES,*
AD-A030 042
INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN,*
AD-A032 401
AFTEREFFECTS OF RANDOM AND FIXED INTERMITTENT SOUND ON HUMAN PERFORMANCE,*
AD-A033 468

AIRPLANE NOISE
EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM--TRANSLATION.
AD- 730 065

ANATOMICAL MODELS
SYMPOSIUM ON BIODYNAMIC MODELS AND THEIR APPLICATIONS, 26-28 OCTOBER 1970.*
AD- 739 501

AUDITORY NERVE
MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS--TRANSLATION.

AD- 729 138

BLAST
THE BIODYNAMICS OF AIRBLAST,*
AD- 734 208

HEAT TOLERANCE
REPRINT: TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 755 634

LOW ALTITUDE
PHYSIOLOGICAL AND PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS.*
AD- 737 827

MODELS(SIMULATIONS)
A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY,*
AD- 740 445

NOISE
THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.*
AD- 726 333
NON-AUDITORY EFFECTS OF NOISE,*
AD- 728 426
A REVIEW OF ADVERSE BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT.*
AD- 734 932
ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.*
AD- 740 227
REPRINT: SOME EFFECTS OF NOISE ON MAN.
AD- 754 863
NOISE AND BLAST.*
AD- 765 419

PERFORMANCE(HUMAN)
PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.*
AD- 755 081

SCIENTIFIC RESEARCH
BIOASTRONAUTICS DATA BOOK.*
AD- 749 887

*STRESS(PSYCHOLOGY)
BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.*
AD- 785 740
BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,*
AD-A002 266
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.*
AD-A013 101

AVIATION MEDICINE
REPRINT: EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS.
AD- 732 617

NOISE
NON-AUDITORY EFFECTS OF NOISE,*
AD- 728 426
THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE,*
AD- 747 797
REPRINT: EFFECTS OF INTERMITTENT AND CONTINUOUS NOISE ON SERIAL SEARCH PERFORMANCE.
AD- 750 043
NOISE AND BLAST.*
AD- 765 419

PERFORMANCE(HUMAN)
COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.*
AD- 731 146
PERFORMANCE AND BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.*
AD- 755 081

*SUBMARINE NOISE
HAZARDS
HEARING CONSERVATION FOR SUBMARINERS,*
AD- 726 217

*SUBMARINE PERSONNEL
HEARING
HEARING CONSERVATION FOR SUBMARINERS,*
AD- 726 217

*SUPERSONIC AIRCRAFT
JET PLANE NOISE
NOISE PRIMER FOR THE SUPERSONIC TRANSPORT.*
AD- 721 010
A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION.*
AD- 754 943

*SURFACE TO AIR MISSILES
SHIPBOARD
TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA.
AD- 467 132

*SYMPOSIA
WATER POLLUTION
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*TEMPERATURE
PERFORMANCE(HUMAN)
THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE.*
AD- 739 432

*TERMINAL FLIGHT FACILITIES
AIRCRAFT NOISE
STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.*
AD- 743 095

*THALAMUS
NERVOUS SYSTEM DISEASES
MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS--TRANSLATION.
AD- 729 138

*THERMAL POWER PLANTS
HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS--TRANSLATION.
AD- 779 833

*THORAX
BLAST
A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT,*
AD- 740 438

*THRESHOLD (PHYSIOLOGY)
NOISE
TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE, *
AD- 440 204

*THRESHOLD EFFECTS
HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,*
AD-A007 842

*THRESHOLDS (PHYSIOLOGY)
THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS*
AD- 086 351
INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES*
AD- 265 502
STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS.
AD- 287 810

*THRESHOLDS(PHYSIOLOGY)
RESEARCH ON THE TEMPORARY THRESHOLD SHIFT FOR NORMAL SUBJECTS AS A FUNCTION OF AGE AND SEX.
AD- 403 010
RESEARCH ON THE TEMPORARY THRESHOLD SHIFT FOR NORMAL SUBJECTS AS A FUNCTION OF AGE AND SEX.
AD- 403 010
THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.*
AD- 770 285

NOISE
FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE.*
AD- 634 456

*TOLERANCES(PHYSIOLOGY)
OPERATORS(PERSONNEL)
EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.*
AD- 755 183

*TOXICITY
POLYMERS
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*TRACKED VEHICLES
THE STUDY OF VIBRATIONS GENERATED BY THE TRACKS OF TRACKED VEHICLES,*
AD-A030 042

*TRACKING
REPRINT: INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 770 257

*TRAINING DEVICES
SPEECH
EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION SYSTEM.
AD- 638 355

*TRANSONIC WIND TUNNELS
NOISE
ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.*
AD- 757 552
A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS,*
AD- 758 254

*TRANSPORT PLANES
LAUNCHING
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.*
AD- 732 264

*TRANSPORTATION
NOISE
THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM,*
AD- 737 684

*TRICHLOROETHYLENE
MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.*
AD-A010 589

*URBAN AREAS
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.*
AD-A004 818
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW.*
AD-A004 822

*URBAN PLANNING
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.*
AD-A004 818
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS:

TECHNICAL REVIEW.*
AD-A004 822

AIRPORTS
A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL.*
AD- 754 174
LAND USE CONTROL STRATEGIES FOR AIRPORT IMPACTED AREAS.*
AD- 759 865

*VEHICLE TRACKS
THE STUDY OF VIBRATIONS GENERATED BY THE TRACKS OF TRACKED VEHICLES.*
AD-A030 042

*VEHICLES
NOISE
AN ANALYSIS OF NOISE CONDITIONS PRESENT IN COMMERCIAL AND MILITARY VEHICLES.*
AD- 747 685

*VESTIBULAR APPARATUS
EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.*
AD-A025 969

NOISE
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM.*
AD- 737 826

*VIBRATION
REPRINT: INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 770 257
THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.*
AD- 770 285
OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES--TRANSLATION.
AD- 781 656

AEROSPACE MEDICINE
AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.*
AD- 754 631

ATTENTION
REPRINT: COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME.
AD- 759 329

SPINAL CORD
TRANSLATION OF FOREIGN RESEARCH ON THE COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM.
AD- 415 672

STRESS(PHYSIOLOGY)
REPRINT: FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 746 083
REPRINT: TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS.
AD- 755 634

STRESS(PSYCHOLOGY)
COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.*
AD- 731 146

*VIBRATION ISOLATORS
PIPES
ISOLATION OF PIPING FROM PUMP VIBRATIONS.*
AD- 757 431

*VISION
THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS*
AD- 086 351
THE EFFECT OF NOISE ON EYE MOVEMENTS*
AD- 086 352

*VISUAL ACUITY
THE EFFECTS OF OBSERVER CONTROL OVEP VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.*
AD-A003 953
STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.*
AD-A025 789

*VISUAL SIGNALS
EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS.
AD- 294 582

*VITAMINS
NOISE
EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM--TRANSLATION.
AD- 730 065

*VOICE COMMUNICATIONS
STUDY OF COMMUNICATION IN HIGH LEVEL AMBIENT NOISE FIELDS*
AD- 086 107
STUDY OF COMMUNICATION IN HIGH-LEVEL AMBIENT NOISE FIELDS*
AD- 093 006

INTELLIGIBILITY
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.*
AD- 767 222

TRAINING DEVICES
EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION SYSTEM.
AD- 638 355

*WATER POLLUTION
SYMPOSIA
NUC SYMPOSIUM ON ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.*
AD- 724 709

*WHITE NOISE
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.*
AD-A018 667

*WIND
BIODYNAMIC RESPONSE TO

VEH-WIN

WINDBLAST.*
AD-A014 237

TITLE INDEX

A-WEIGHTED SOUND LEVELS IN COCKPITS OF FIXED- AND ROTARY-WING AIRCRAFT.(U) AD-A015 735
*AIRCRAFT NOISE

ACOUSTIC DAMAGE OF THE COCHLEA,(U) AD- 739 288
*OTORHINOLARYNGOLOGY

AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.(U) AD- 754 631
*AVIATION MEDICINE

AFTEREFFECTS OF RANDOM AND FIXED INTERMITTENT SOUND ON HUMAN PERFORMANCE,(U) AD-A033 468
*STRESS(PHYSIOLOGY)

AIRCRAFT NOISE GENERATION, EMISSION AND REDUCTION.(U) AD-A012 090
*JET AIRCRAFT

AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES,(U) AD-A013 435
*AIRPORTS

AIRCRAFT SOUND DESCRIPTION SYSTEM BACKGROUND AND APPLICATION.(U) AD- 758 588
*AIRCRAFT NOISE

AN ANALYSIS OF NOISE CONDITIONS PRESENT IN COMMERCIAL AND MILITARY VEHICLES.(U) AD- 747 685
*VEHICLES

APPARENT CHANGE OF REPETITIVE NOISE BURSTS,(U) AD- 429 966
*NOISE

AUDITORY AND PHYSIOLOGICAL EFFECTS OF INFRASOUND,(U) AD-A017 269
*INFRASONICS

AUDITORY DAMAGE OF OPERATING PERSONNEL ABOARD GUIDED MISSILE SHIPS FROM SHORT-DURATION HIGH-INTENSITY NOISE.(U) AD- 663 639
*HUMAN FACTORS ENGINEERING

AUDITORY EFFECTS OF NOISE ON AIR-CREW PERSONNEL,(U) AD- 757 239
*AVIATION PERSONNEL

AUDITORY THRESHOLDS OF SHORT TONES AS A FUNCTION OF REPETITION RATES,(U) AD- 639 682
*HEARING

BASELINE NOISE MEASUREMENTS OF THE OH-58A HELICOPTER.(U) AD- 731 467
*NOISE

A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.(U) AD- 767 274
*NOISE

BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,(U) AD-A002 266
*SONIC BOOM

BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.(U) AD-A031 087
*IMPULSE NOISE

BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.(U) AD- 785 740
*NOISE POLLUTION

BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT,(U) AD- 753 637
*SPEECH

BIOASTRONAUTICS DATA BOOK.(U) AD- 749 887
*STRESS(PHYSIOLOGY)

BIODYNAMIC RESPONSE TO WINDBLAST.(U) AD-A014 237
*BLAST LOADS

THE BIODYNAMICS OF AIRBLAST,(U) AD- 734 208
*STRESS(PHYSIOLOGY)

BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.(U) AD-A021 203
*BIBLIOGRAPHIES

CENTRAL REPOSITORY FOR HEARING CONSERVATION DATA. AN EXAMINATION OF THE FIRST YEAR'S REPORTING,(U) AD- 619 407
*NOISE

CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS,(U) AD- 776 943
*HEARING

CHANGES IN THE HEARING OF PERSONNEL EXPOSED TO HIGH INTENSITY CONTINUOUS NOISE, (U) AD- 413 817
*NOISE

COCHLEAR PATHOLOGY IN MONKEYS EXPOSED TO IMPULSE NOISE.(U) AD- 745 105
*EAR

COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET.(U) AD-A035 084
*HEARING

COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM,(U) AD- 415 672
*BRAIN

COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME,(U) AD- 759 329
*NOISE

COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.(U) AD- 731 146
*STRESS(PSYCHOLOGY)

THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.(U) AD- 770 285
*AUDITORY PERCEPTION

A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL.(U) AD- 754 174
*AIRPORTS

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.(U) AD-A022 911
*AIRCRAFT NOISE

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.(U) AD-A004 818
*AIRCRAFT NOISE

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW.(U) AD-A004 822
*AIRCRAFT NOISE

COMPARISON OF A-WEIGHTED AUDITORY RISK CRITERIA WITH OCTAVE-BAND ESTIMATES.(U) AD- 731 154
*NOISE

COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE,(U) AD-A027 143
*NOISE POLLUTION

A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ,(U) AD- 757 338
*SPEECH RECOGNITION

A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS,(U) AD- 777 581
*SONIC BOOM

CONCEPTS OF THE TERMS SUSCEPTIBILITY AND RESISTANCE AS THEY RELATE TO HEARING DAMAGE DUE TO NOISE,(U) AD-A001 152
*NOISE POLLUTION

CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION.(U) AD-A010 629
*CONSTRUCTION

CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.(U) AD- 739 368
*HEARING

CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.(U) AD- 766 085
*HEARING

CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.(U) AD-B002 067
*AIRCRAFT NOISE

CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.(U) AD-A013 101
*STRESS(PHYSIOLOGY)

CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.(U) AD- 666 206
*HEARING

CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE,(U) AD-A031 366
*NOISE POLLUTION

DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA,(U) AD- 652 783
*HEARING

DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975.(U) AD-A026 086
*DEAFNESS

DESCRIPTION OF HUMAN ROTATION DEVICE(U) AD- 109 230
*AIRBURST

DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR,(U) AD-A026 145
*HEARING

DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST.(U) AD- 449 417
*ROCKET LAUNCHING

DEVELOPMENT OF A UNIFORM APPROACH TO CHARACTERIZE NOISE IMPACT ON PEOPLE.(U) AD-A036 224
*NOISE POLLUTION

DEVELOPMENT OF REALISTIC A-WEIGHTED AUDITORY RISK CRITERIA FOR AEROSPACE OPERATIONS.(U) AD- 743 298
*HEARING

THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.(U) AD-A014 516
*SPEECH RECOGNITION

EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM (VLIYANIE AVIATSIONNOGO SHUMA NA NEKOTORYE POKAZATELI BELKOVOGO I VITAMINNOGO OBMENA),(U) AD- 730 065
*AIRPLANE NOISE

EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS(U) AD- 294 582
*NOISE

THE EFFECT OF CONTINUOUS NOISE ON SHORT TERM MEMORY PERFORMANCE TASKS.(U) AD-A025 446
*MEMORY(PSYCHOLOGY)

THE EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION,(U) AD- 408 004
*NOISE

THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES(U) AD- 256 800
*EAR

THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.(U) AD- 767 222
*HELICOPTERS

EFFECT OF IMPULSE NOISE ON HEARING: A SELECT BIBLIOGRAPHY,(U) AD-A033 666
*IMPULSE NOISE

THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT,(U) AD-A032 971
*MILITARY TRANSPORTATION

EFFECT OF NOISE AND TOXIC AGENTS ON THE INNER EAR.(U) AD- 681 834
*EAR

THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES.(U) AD- 766 498
*HEARING

THE EFFECT OF NOISE ON EYE MOVEMENTS(U) AD- 086 352
*VISION

EFFECT OF NOISE ON THE STROOP TEST,(U) AD-A027 141
*NOISE

THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION,(U) AD-A026 856
*MAN MACHINE SYSTEMS

THE EFFECT OF QUIET ON HEARING,(U) AD-A006 395
*HEARING

EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE,(U) AD- 685 887
*HEARING

THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.(U) AD- 766 326
*ELECTROENCEPHALOGRAPHY

THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.(U) AD- 742 819
*SHOCK WAVES

THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE.(U) AD- 739 432
*PERFORMANCE(HUMAN)

EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS,(U) AD- 732 617
*AVIATION MEDICINE

EFFECTS OF HIGH INTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS,(U) AD- 455 002
*HEARING

THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM,(U) AD- 737 826
*NOISE

THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN PERFORMANCE.(U) AD- 671 116
*NOISE

EFFECTS OF INCREASING INTENSITY LEVELS OF INTERMITTENT AND CONTINUOUS 1000-HZ TONES ON HUMAN EQUILIBRIUM,(U) AD- 750 840
*EQUILIBRIUM(PHYSIOLOGY)

EFFECTS OF INTERMITTENT AND CONTINUOUS NOISE ON SERIAL SEARCH PERFORMANCE,(U) AD- 750 043
*NOISE

EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.(U) AD-A018 846
*STRESS(PHYSIOLOGY)

THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES,(U) AD-A032 156
*SLEEP DEPRIVATION

THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE,(U) AD- 747 797
*PERFORMANCE(HUMAN)

EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE.(U) AD- 731 184
*PERFORMANCE(HUMAN)

THE EFFECTS OF NOISE ON WORK OUTPUT AND PHYSIOLOGICAL ACTIVATION(U) AD- 129 446
*NOISE

THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.(U) AD-A003 953
*INFORMATION PROCESSING

EFFECTS OF OVERPRESSURE ON THE EAR,(U) AD- 640 921
*BLAST

EFFECTS OF PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUALMOTOR PERFORMANCE.(U) AD- 431 851
*PERCEPTION

EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.(U) AD-A025 969
*VESTIBULAR APPARATUS

EFFECTS OF SUSTAINED TALKING ON THE HEARING OF THE TALKER,(U) AD-A015 732
*HEARING

EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.(U) AD-A018 667
*NOISE(SOUND)

ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.(U) AD- 740 227
*STRESS(PHYSIOLOGY)

ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.(U) AD- 757 552
*TRANSONIC WIND TUNNELS

ENVIRONMENTAL INFLUENCE ON PUBLIC RESPONSE TO THE SONIC BOOM.(U) AD- 740 697
*SONIC BOOM

ESTABLISHING NOISE CRITERIA FOR RESIDENTIAL LIVING IN AREAS SURROUNDING COMMERCIAL AVIATION AIRPORTS.(U) AD-A021 683
*NOISE POLLUTION

EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.(U) AD- 747 129
*AIRCRAFT NOISE

EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.(U) AD- 755 183
*REFRIGERATION SYSTEMS

AN EVALUATION OF PSYCHOACOUSTIC PROCEDURES FOR DETERMINING HUMAN RESPONSE TO AIRCRAFT NOISE. VOLUME I. SPECIFICATIONS FOR FOUR EXPERIMENTS.(U) AD- 770 185
*AIRCRAFT NOISE

EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE.(U) AD-A034 605
*NOISE

EVALUATIONS FOR DETERMINATION OF COMPARATIVE NOISE LEVELS PRODUCED BY SELECTED ULTRA-LOW VOLUME INSECTICIDE DISPERSAL MACHINES.(U) AD-A007 193
*NOISE

AN EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION TRAINING.(U) AD- 638 355
*SPEECH

EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE.(U) AD- 647 540
*NOISE

THE EXTENT OF HEARING LOSS IN THE ARMY: A SURVEY REPORT.(U) AD- 739 931
*DEAFNESS

A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY,(U) AD- 740 445
*STRESS(PHYSIOLOGY)

FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE.(U) AD- 634 456
*NOISE

FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS,(U) AD- 746 083
*HEAT TOLERANCE

HAZARDOUS EXPOSURE TO INTERMITTENT AND STEADYSTATE NOISE,(U) AD- 458 244
*SOUND

HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY, 910 TAC FIGHTER GROUP (AFRES) YOUNGSTOWN MUNICIPAL AIRPORT VIENNA OH 44473.(U) AD- 787 652
*NOISE POLLUTION

HEARING CONSERVATION FOR SUBMARINERS,(U) AD- 726 217
*SUBMARINE PERSONNEL

HEARING CONSERVATION IN THE U.S. ARMY,(U) AD-A012 724
*HEARING

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.(U) AD- 758 453
*HEARING

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.(U) AD-A015 023
*HEARING

HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.(U) AD-A030 896
*NOISE REDUCTION

HEARING LEVELS OF NOISE-EXPOSED U.S. AIR FORCE PERSONNEL COMPARED TO THOSE IN THE TOTAL U.S. POPULATION.(U) AD-A032 015
*HEARING

HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.(U) AD- 757 337
*SPEECH

HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.(U) AD-A022 258
*HEARING

HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.(U) AD- 731 131
*AUDIOMETRY

HEARING,(U) AD- 646 812
*HEARING

HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS.(U) AD- 628 198
*PERFORMANCE(HUMAN)

HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.(U) AD-A005 026
*AUDITORY ACUITY

HUMAN RESPONSE TO SONIC BOOM IN THE LABORATORY AND THE COMMUNITY,(U) AD- 748 055
*SONIC BOOM

HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,(U) AD-A007 842
*NOISE

HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS,(U) AD- 779 833
*THERMAL POWER PLANTS

IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS,(U) AD- 780 369
*PISTOLS

IMPROVED WEAPON NOISE EXPOSURE CRITERIA.(U) AD- 738 135
*NOISE

INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE,(U) AD- 432 087
*PERSONNEL MANAGEMENT

INDUSTRIAL HYGIENE SURVEY, 110TH TACTICAL SUPPORT GROUP, MI ANG BATTLE CREEK, MI 49016.(U) AD-A003 638
*NOISE POLLUTION

THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS(U) AD- 086 351
*PSYCHOACOUSTICS

INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN,(U) AD-A032 401
*NOISE POLLUTION

INFRASOUND,(U) AD-A036 949
*AUDITORY PERCEPTION

INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975.(U) AD-A022 888
*AUDITORY ACUITY

INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE,(U) AD-A019 315
*NOISE(SOUND)

INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME,(U) AD- 770 257
*PERFORMANCE(HUMAN)

INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES(U) AD- 265 502
*EAR

ISOLATION OF PIPING FROM PUMP VIBRATIONS,(U) AD- 757 431
*PIPES

JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.(U) AD-A015 086
*AIRPORTS

LAND USE CONTROL STRATEGIES FOR AIRPORT IMPACTED AREAS.(U) AD- 759 865
*AIRPORTS

LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES(U) AD- 261 505
*EAR

LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES(U) AD- 257 643
*GUIDED MISSILES

A LITERATURE SURVEY OF NOISE POLLUTION.(U) AD- 724 344
*NOISE

LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS,(U) AD- 681 534
*AUDITORY PERCEPTION

LONG-DURATION EXPOSURE TO INTERMITTENT NOISES,(U) AD-A031 382
*IMPULSE NOISE

MASKING OF PURE TONES AND SPEECH(U) AD- 271 605
*HEARING

MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT,(U) AD- 750 649
*NOISE

MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT.(U) AD- 602 265
*NOISE

MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.(U) AD-A010 589
*INDUSTRIAL HYGIENE

THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM,(U) AD- 737 684
*NOISE

METHODS FOR ESTABLISHING NOISE LEVELS AT VARIOUS DISTANCES FROM A MISSLE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT, AND PERSONNEL(U) AD- 297 866
*LAUNCHING

METHODS OF SPACE VEHICLE NOISE PREDICTION(U) AD- 260 955
*ACOUSTICS

MIDDLE-EAR MUSCLE AD- 764 739
REFLEX TO AIRCRAFT NOISE.(U)
*EAR

A MOBILE LABORATORY FOR AD- 468 342
GROUP HEARING TESTS.(U)
*AUDIOMETRY

A MODEL TO SIMULATE AD- 740 438
THORACIC RESPONSES TO AIR BLAST AND TO IMPACT.(U)
*THORAX

MORPHOLOGICAL CHANGES AD- 729 138
IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS (MORFOLOGICHESKIE IZMENENIYA V GIPOTALAMUSE PRI VEGETATIVNYKH HARUSHENIYAKH, VYZVANN YKH SILNYM ZVYKOVYM RAZDRAXHENIEM).(U)
*AUDITORY NERVE

MULTI-TASK TIME-SHARING AD- 755 363
REQUIREMENTS.(U)
*PILOTS

NOISE: A HAZARD TO AD- 725 144
DIVERS AND HYPERBARIC CHAMBER PERSONNEL.(U)
*NOISE

NOISE AND BLAST.(U) AD- 765 419
*STRESS(PHYSIOLOGY)

NOISE AND HUMAN AD- 729 213
PERFORMANCE.(U)
*NOISE

NOISE AUDIOMETRY.(U) AD- 723 464
*AUDIOMETRY

NOISE CERTIFICATION AD-A032 028
CONSIDERATIONS FOR HELICOPTERS BASED ON LABORATORY INVESTIGATIONS.(U)
*NOISE POLLUTION

NOISE CERTIFICATION AD-A018 036
CRITERIA AND IMPLEMENTATION CONSIDERATIONS FOR V/STOL AIRCRAFT. VOLUME I.(U)
*COMMERCIAL AIRCRAFT

NOISE ENVIRONMENTS OF AD- 752 535
CONTROL TOWERS.(U)
*AIRPORT CONTROL TOWERS

NOISE EXPOSURE FORECAST AD- 722 365
CONTOURS FOR EXPECTED 1985 AND 1990 OPERATIONS AT SEVEN U. S. AIRPORTS.(U)
*JET PLANE NOISE

NOISE FROM AIRCRAFT AD- 754 111
OPERATIONS, U. S. NAVAL AIR STATION, LEMOORE, CALIFORNIA.(U)
*NAVAL AIR STATIONS

NOISE HAZARD EVALUATION AD-A021 465
SOUND LEVEL DATA ON NOISE SOURCES.(U)
*INDUSTRIAL HYGIENE

NOISE -- HOW MUCH IS AD-A017 915
TOO MUCH.(U)
*NOISE POLLUTION

NOISE LEVELS MEASURED AD-A023 407
WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).(U)
*AIRCRAFT NOISE

NOISE PRIMER FOR THE AD- 721 010
SUPERSONIC TRANSPORT.(U)
*JET PLANE NOISE

NOISE SURVEY OF AD- 601 809
AUXILIARY SUPPORT EQUIPMENT AT ONE ATLAS COMPLEX AND ONE TITAN I COMPLEX, CAPE KENNEDY MISSILE TEST ANNEX, ATLANTIC MISSILE RANGE.(U)
*NOISE

NON-AUDITORY EFFECTS OF AD- 728 426
NOISE.(U)
*NOISE

NUC SYMPOSIUM ON AD- 724 709
ENVIRONMENTAL PRESERVATION, 20-21 MAY 1970.(U)
*SYMPOSIA

OCCUPATIONAL HEARING AD- 781 656
DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES.(U)
*INDUSTRIAL MEDICINE

OCCUPATIONAL NOISE AD-A036 535
EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS.(U)
*NOISE POLLUTION

PECULIARITIES OF HUMAN AD- 696 500
SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY.(U)
*SLEEP

PERFORMANCE AND AD- 755 081
BIODYNAMIC STRESS-INFLUENCE OF INTERACTING STRESSES ON PERFORMANCE.(U)
*AVIATION MEDICINE

PERFORMANCE DURING AD-A027 142
CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION.(U)
*NOISE POLLUTION

PERFORMANCE OF SINGLE AD- 432 088
VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS.(U)
*HUMAN FACTORS ENGINEERING

PERFORMANCE ON THE AD- 759 721
EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY.(U)
*SONAR TARGETS

PHYSIOLOGICAL AND AD- 737 827
PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS.(U)
*STRESS(PHYSIOLOGY)

THE POSITION OF EARDRUM AD- 737 643
RUPTURE AND HEARING LOSS IN THE

SCALE OF INJURIES FROM NUCLEAR BLAST.(U)
*HEARING

PREDICTING COMMUNITY AD- 773 690
RESPONSE TO BLAST NOISE.(U)
*NOISE(SOUND)

PREDICTION OF NIPTS DUE AD- 767 205
TO CONTINUOUS NOISE EXPOSURE.(U)
*NOISE

PREDICTION OF STANDOFF AD-A005 274
DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.(U)
*BLAST

PRELIMINARY STUDIES OF AD- 618 327
THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).(U)
*AUDITORY ACUITY

THE PREVALENCE OF AD-A019 193
HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.(U)
*HEARING

PRINCIPLES OF NOISE AD- 734 704
CONTROL,(U)
*NOISE

THE PROBLEMS OF AD- 245 980
CRITERIA FOR NOISE EXPOSURE(U)
*HEARING

PROCEEDINGS OF THE AD- 752 881
SONIC BOOM SYMPOSIUM (2ND) SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA (80TH MEETING) HELD AT HOUSTON, TEXAS ON 3 NOVEMBER 1970,(U)
*SONIC BOOM

PROLONGED EXPOSURE TO AD- 777 184
NOISE AS A SLEEP PROBLEM,(U)
*NOISE

PSYCHOLOGICAL FACTORS AD- 777 520
RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.(U)
*BEHAVIOR

THE PURE-TONE AIR AD- 695 850
CONDUCTION AUDIOGRAM.(U)
*AUDIOMETRY

REACTION-TIME PROCEDURE AD-A022 519
FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS,(U)
*HEARING

REACTION-TIME PROCEDURE AD-A022 520
FOR MEASURMENT OF HEARING. II. THRESHOLD FUNCTIONS,(U)
*HEARING

RECOVERY FROM IMPULSE AD- 645 898
NOISE INDUCED ACOUSTIC TRAUMA,(U)
*HEARING

RECOVERY OF MOTOR AD- 704 472
PERFORMANCE FOLLOWING STARTLE,(U)
*NOISE

REDUCTION IN AUDIOGRAM AD- 737 207
SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING.(U)
*DEAFNESS

REGARDING THE AD- 781 658
OCCUPATIONAL PATHOLOGY OF PERSONS SUBJECTED TO THE EFFECT OF HIGH-FREQUENCY NOISE IN COMBINATION WITH OTHER FACTORS DURING PLASMA SPRAY COATING OF METALS,(U)
*INDUSTRIAL MEDICINE

RELATION BETWEEN DAILY AD- 767 204
NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES.(U)
*NOISE

THE RELATION BETWEEN AD- 639 103
DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.(U)
*SPEECH

THE RELATION BETWEEN AD- 671 618
EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS.(U)
*EXPLOSION EFFECTS

THE RELATIONS OF AD- 646 775
HEARING LOSS TO NOISE EXPOSURE.(U)
*NOISE

RESEARCH ON ACOUSTICAL AD- 680 165
PROBLEMS OF THE MILITARY: A REVIEW AND FUTURE ASPECT.(U)
*ACOUSTICS

RESEARCH STUDY OF COST AD- 732 264
EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.(U)
*COMMERCIAL PLANES

RESULTS OF NOISE AD- 759 212
SURVEYS OF SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT.(U)
*AIRCRAFT NOISE

A REVIEW OF ADVERSE AD- 734 932
BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT.(U)
*NOISE

A REVIEW OF IMPULSE- AD- 731 185
NOISE RESEARCH AT THE HUMAN ENGINEERING LABORATORIES.(U)
*NOISE

REVIEW OF STUDIES AD-A022 356
INVESTIGATING HUMAN RESPONSE TO COMMERCIAL AIRCRAFT NOISE.(U)
*STRESS(PHYSIOLOGY)

SAFETY OF PERSONNEL AD- 259 830
DURING AN IM-99A MISSILE LAUNCHING(U)
*AVIATION SAFETY

SAFETY OF PERSONNEL AD- 276 988
DURING AN IM-99B MISSILE LAUNCHING(U)
*GUIDED MISSILE PERSONNEL

SENSITIVITY STUDIES OF AD-A026 535
COMMUNITY-AIRCRAFT NOISE EXPOSURE

(NOISEMAP) PREDICTION PROCEDURE,(U)
*AIRCRAFT NOISE

SIGNIFICANT HEARING AD-A022 842
THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975.(U)
*AUDITORY ACUITY

A SIMPLE MODEL OF SHOCK AD- 754 943
CELL NOISE GENERATION AND ITS REDUCTION.(U)
*SOUND PITCH

SIMULATED SONIC BOOMS AD- 762 988
AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,(U)
*SLEEP

SMALL-ROCKET NOISE: AD- 732 434
HAZARDS TO HEARING (ADVANCED LAW PROGRAM).(U)
*ROCKET LAUNCHERS

SMALL SOLID PROPELLANT AD-A033 497
ROCKETS FOR FIELD USE.(U)
*SOLID PROPELLANT ROCKET ENGINES

SOME CLINICAL AND AD- 772 449
PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE,(U)
*NOISE POLLUTION

SOME EFFECTS OF NOISE AD- 754 863
ON MAN,(U)
*STRESS(PHYSIOLOGY)

SOME FACTORS AD- 403 009
INFLUENCING THE EFFECTIVE AUDITORY INTENSIVE DIFFERENCE LIMEN,(U)
*HEARING

SOME INFLUENCES OF AD- 620 259
DELAYED SIDE-TONE UPON INTELLIGIBILITY.(U)
*SPEECH

SOME THOUGHTS ON AD-A027 737
HEARING CONSERVATION: POSSIBLE CORRECTIONS TO EQUAL ENERGY RULE TO ACCOUNT FOR INTERMITTENCY AND IMPULSE NOISE,(U)
*NOISE POLLUTION

SONIC BOOM STARTLE AD- 773 451
EFFECTS--REPORT OF A FIELD STUDY,(U)
*SONIC BOOM

THE SOUND INTENSITY OF AD- 266 866
A SHOCK WAVE AS RELATED TO OVERPRESSURE(U)
*SHOCK WAVES

SPECIAL STUDY OF AD- 907 805
ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS.(U)
*ANATOMICAL MODELS

SPEECH DISCRIMINATION AD- 752 974
IN NOISE AND HEARING LOSS AT 3000 HERTZ.(U)
*AUDITORY PERCEPTION

SPEECH RECEPTION AND AD- 051 868
TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE(U)
*HEARING

STATISTICAL PREDICTION AD-A025 789
OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.(U)
*PATTERN RECOGNITION

STUDIES OF TEMPORARY AD- 287 810
THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS(U)
*DEAFNESS

STUDY OF COMMUNICATION AD- 086 107
IN HIGH LEVEL AMBIENT NOISE FIELDS(U)
*ACOUSTICS

STUDY OF COMMUNICATION AD- 093 006
IN HIGH-LEVEL AMBIENT NOISE FIELDS(U)
*ARMORED VEHICLES

A STUDY OF INTELLECTUAL AD- 620 263
ACTIVITY IN A NOISY ENVIRONMENT.(U)
*NOISE

A STUDY OF NARROW BAND AD- 758 254
NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS,(U)
*TRANSONIC WIND TUNNELS

STUDY OF NOISE IN AIR AD- 743 095
ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.(U)
*TERMINAL FLIGHT FACILITIES

A STUDY OF SENSITIVITY AD- 728 332
TO NOISE.(U)
*NOISE

A STUDY OF SHIPBOARD AD- 761 669
NOISE CRITERIA.(U)
*SHIP NOISE

A STUDY OF THE EFFECTS AD- 739 474
OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE.(U)
*MOTOR REACTIONS

THE STUDY OF VIBRATIONS AD-A030 042
GENERATED BY THE TRACKS OF TRACKED VEHICLES,(U)
*VEHICLE TRACKS

SUMMARY OF PRESENT AD-A027 807
DAMAGE RISK CRITERIA,(U)
*NOISE POLLUTION

SUMMARY REPORT OF THE AD-A034 051
NAVY CONFERENCE ON ENVIRONMENTAL NOISE 18-20 NOVEMBER 1975.(U)
*NOISE POLLUTION

SURVEY OF SONIC BOOM AD-A009 663
PHENOMENA FOR THE NON-SPECIALIST.(U)
*STRESS(PHYSIOLOGY)

THE SUSCEPTIBILITY OF AD- 726 333
THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.(U)
*NOISE

SYMPOSIUM ON BIODYNAMIC AD- 739 501

MODELS AND THEIR APPLICATIONS, 26-28 OCTOBER 1970.(U)
*STRESS(PHYSIOLOGY)

TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)(U) AD- 273 779
*BLAST

TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE.(U) AD- 415 302
*AUDIOMETRY)

TEMPORARY THRESHOLD SHIFT AS A FUNCTION OF NOISE EXPOSURE LEVEL(U) AD- 146 756
*NOISE

TEMPORARY THRESHOLD SHIFT FOR 'NORMAL' SUBJECTS AS A FUNCTION OF AGE AND SEX.(U) AD- 403 010
*HEARING

TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE, (U) AD- 440 204
*THRESHOLD (PHYSIOLOGY)

A TENTATIVE ESTIMATION OF MANS TOLERANCE TO OVERPRESSURES FROM AIR BLAST(U) AD- 293 875
*AIRBURST

TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA.(U) AD- 467 132
*SURFACE TO AIR MISSILES

TEST OF BENDIX AIR FILTERS USED AS MUFFLERS.(U) AD- 759 982
*DECOMPRESSION

TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION.(U) AD-A026 209
*AIRCRAFT NOISE

TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.(U) AD- 407 119
*NOISE

TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS.(U) AD- 755 634
*STRESS(PHYSIOLOGY)

UPPER LIMIT TO STAPES DISPLACEMENT: IMPLICATIONS FOR HEARING LOSS.(U) AD-A003 570
*EAR

THE USE OF CIRCUMAURAL EARPHONES FOR ATTENUATING AMBIENT NOISE IN BONE CONDUCTION AUDIOMETRY.(U) AD- 759 726
*AUDIOMETRY

USES OF VIBRATION IN HELICOPTER FLYING.(U) AD- 768 223
*PERCEPTION

PERSONAL AUTHOR INDEX

•ABRAHAMSON, A LOUIS
• • •
CORRELATION OF ACTUAL AND ANALYTICAL HELICOPTER AURAL DETECTION CRITERIA. VOLUME I.
AD-B002 067

•ADAMS, R. G.
• • •
EFFECT OF NOISE ON THE STROOP TEST,
AD-A027 141

•ALFONSO, PETER J.
• • •
THE USE OF CIRCUMAURAL EARPHONES FOR ATTENUATING AMBIENT NOISE IN BONE CONDUCTION AUDIOMETRY.
AD- 759 726

•ALLEN, R. WADE
• • •
EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.
AD-A018 667

•ANDERSON, EARLE E.
• • •
STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.
AD-A025 789

•ANDRULIS, MARILYN W.
• • •
A STUDY OF SHIPBOARD NOISE CRITERIA.
AD- 761 669

•ANGERMEIER, CYNTHIA
• • •
HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.
AD- 757 337

•ARKADYEVSKIY, A.A.
• • •
COMBINED EFFECT OF VIBRATION AND NOISE ON THE HUMAN ORGANISM,
AD- 415 672

•ATKINSON, CHESTER J.
• • •
SOME INFLUENCES OF DELAYED SIDE-TONE UPON INTELLIGIBILITY.
AD- 620 259

•BAILEY, JOE P.
• • •
A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS,
AD- 777 581
• • •
BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,
AD-A002 266

•BAKKEN, BOYD A
• • •
THE SOUND INTENSITY OF A SHOCK WAVE AS RELATED TO OVERPRESSURE
AD- 266 866

•BAUGHN, WILLIAM L.
• • •
RELATION BETWEEN DAILY NOISE EXPOSURE AND HEARING LOSS BASED ON THE EVALUATION OF 6,835 INDUSTRIAL NOISE EXPOSURE CASES.
AD- 767 204

•BEARCE, GERALD R.
• • •
HEARING CONSERVATION IN THE U.S. ARMY,
AD-A012 724

•BECKER, R. W.
• • •
A STUDY OF SENSITIVITY TO NOISE.
AD- 728 332

•BENITEZ, LUIS D.
• • •
ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.
AD- 740 227

•BENSON, R. W.
• • •
A MOBILE LABORATORY FOR GROUP HEARING TESTS.
AD- 468 342

•BILGER, R. C.
• • •
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.
AD- 639 103

•BINFORD, JOHN R.
• • •
SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSIVE DIFFERENCE LIMEN,
AD- 403 009

•BISHOP, DWIGHT E.
• • •
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: APPLICATION GUIDE FOR PREDICTIVE PROCEDURE.
AD-A004 818
• • •
SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE.
AD-A026 535

•BLACKMER, RAYMOND F.
• • •
PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

•BOGO, V.
• • •
THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.
AD- 742 819

•BOLLINGER, RALPH R.
• • •

CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.
AD-A013 101

•BOWEN, I. G.

• • •

THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS,
AD- 671 618

•BOYER, JAMES F., JR

• • •

HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.
AD- 731 131

•BRAGG, VERNON C.

• • •

THE PURE-TONE AIR CONDUCTION AUDIOGRAM.
AD- 695 850

•BRIGGS, GEORGE E.

• • •

MULTI-TASK TIME-SHARING REQUIREMENTS.
AD- 755 363

•BROWN, BILL R.

• • •

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD- 758 453

• • •

BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.
AD- 785 740

• • •

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD-A015 023

•BRUNER, A.

• • •

THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.
AD- 742 819

•BUDNICK, MORRIS L.

• • •

EVALUATION OF NOISE LEVEL OF REFRIGERATION EQUIPMENT.
AD- 755 183

•BULLOCK, SYBIL H.

• • •

BLOOD PRESSURE MEASUREMENT IN A HIGH NOISE ENVIRONMENT, SELECT BIBLIOGRAPHY OF BOOKS, JOURNAL ARTICLES AND DOCUMENTS.
AD-A021 203

• • •

EFFECT OF IMPULSE NOISE ON HEARING: A SELECT BIBLIOGRAPHY,
AD-A033 666

•CAIRNS, A. B.

• • •

RECOVERY FROM IMPULSE NOISE INDUCED ACOUSTIC TRAUMA,
AD- 645 898

•CAMERON, PAUL D.

• • •

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD-A015 023

•CAPELL, ROBERT A.

• • •

NOISE ENVIRONMENTS OF CONTROL TOWERS.
AD- 752 535

•CARR, C. JELLEFF

• • •

A REVIEW OF ADVERSE BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT.
AD- 734 932

•CARTER, N.L

• • •

MASKING OF PURE TONES AND SPEECH
AD- 271 605

•CARTER, NORMAN L

• • •

STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS
AD- 287 810

•CASTELNOVO, A. E.

• • •

INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE,
AD- 432 087

• • •

PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS,
AD- 432 088

•CHAILLET, ROBERT F.

• • •

MAXIMUM ACCEPTABLE STEADY STATE NOISE LEVEL FOR ARMY MATERIEL COMMAND EQUIPMENT.
AD- 602 265

•CHAN, Y. Y.

• • •

A SIMPLE MODEL OF SHOCK CELL NOISE GENERATION AND ITS REDUCTION.
AD- 754 943

•CHILDS, JERRY M.

• • •

THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE,
AD- 747 797

•CHOOK, EDWARD K.

• • •

HEARING CONSERVATION IN THE U.S. ARMY,
AD-A012 724

•CHRISTIANSEN, GUENTHER H.

• • •

JET BLAST FENCE INVESTIGATION AT JOHN F. KENNEDY INTERNATIONAL AIRPORT.
AD-A015 086

•CICCHINELLI, LOUIS
• • •
THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.
AD-A003 953

•CLINCH, J. M.
• • •
STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.
AD- 743 095

•COCKBURN, J. A.
• • •
ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.
AD- 757 552

•COHEN, A.
• • •
EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.
AD- 747 129

•COLEMAN, P.D
• • •
THE EFFECT OF NOISE ON EYE MOVEMENTS
AD- 086 352

•COLEMAN, PAUL D
• • •
THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS
AD- 086 351

•COLES, R. ROSS A.
• • •
CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.
AD- 666 206

•COLLINS, WILLIAM E.
• • •
SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,
AD- 762 988

•COMPTON, J.
• • •
SPECIAL STUDY OF ANTHROPOMORPHIC SIMULATORS FOR USE IN BLAST ENVIRONMENTS.
AD- 907 805

•CORRAO, PAUL
• • •
THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST.
AD- 737 643

•COX, J. R.
• • •
A MOBILE LABORATORY FOR GROUP HEARING TESTS.
AD- 468 342

•CRIGLER, JOSEPH C.
• • •
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.
AD-A013 101

•CRUZ, J. E.
• • •
AIRCRAFT SOUND DESCRIPTION SYSTEM BACKGROUND AND APPLICATION.
AD- 758 588

•DALTON, LESLIE
• • •
BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.
AD-A031 087

•DAMON, EDWARD G.
• • •
THE BIODYNAMICS OF AIRBLAST,
AD- 734 208

•DANFORD, ROY, JR
• • •
MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE.
AD- 764 739

• • •
HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.
AD-A022 258

•DECATUR, RICHARD A.
• • •
PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.
AD- 777 520

•DIAMOND, PHILIP
• • •
MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.
AD-AD10 589

•DOBBINS, D. A
• • •
PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS,
AD- 432 088

•DOBRIN, S
• • •
LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES
AD- 257 643

•DODSON, T.I
• • •
TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)
AD- 273 779

•DODSON, T. I.
• • •
TERRIER STRUCTURAL FIRING TESTS

ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA,
AD- 467 132

•DUMKINA, G. Z.
• • •
SOME CLINICAL AND PHYSIOLOGICAL STUDIES OF WORKERS SUBJECTED TO STABLE NOISE,
AD- 772 449

•DUNDERDALE, TOM C.
• • •
SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE,
AD-A026 535

•EDWARDS, R. S.
• • •
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: *MILD HEAT AND LOW FREQUENCY NOISE,*
AD-A019 315

•ELDREDGE, DONALD H
• • •
THE PROBLEMS OF CRITERIA FOR NOISE EXPOSURE
AD- 245 980

•ELDREDGE, DONALD H.
• • •
ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.
AD- 740 227

•ELLIOTT, JAMES EDWARD
• • •
AN ANALYSIS OF NOISE CONDITIONS PRESENT IN COMMERCIAL AND MILITARY VEHICLES.
AD- 747 685

•ELLIOTT, LOIS L.
• • •
APPARENT CHANGE OF REPETITIVE NOISE BURSTS,
AD- 429 966

•ENGLAND, ROBERT T.
• • •
NOISE SURVEY OF AUXILIARY SUPPORT EQUIPMENT AT ONE ATLAS COMPLEX AND ONE TITAN I COMPLEX, CAPE KENNEDY MISSILE TEST ANNEX, ATLANTIC MISSILE RANGE.
AD- 601 809

•ENGSTROM, HANS
• • •
EFFECT OF NOISE AND TOXIC AGENTS ON THE INNER EAR.
AD- 681 834

•FIDELL, SANFORD
• • •
TEST PLAN FOR AIRCRAFT RUNUP NOISE PENALTY EVALUATION.
AD-A026 209

•FILSON, GEORGE W.
• • •
EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE.
AD- 731 184

•FISHER, H. G.
• • •
LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS,
AD- 681 534

•FISHER, KENNETH D.
• • •
A REVIEW OF ADVERSE BIOMEDICAL EFFECTS OF SOUND IN THE MILITARY ENVIRONMENT.
AD- 734 932

•FISHER, RONALD P.
• • •
MULTI-TASK TIME-SHARING REQUIREMENTS.
AD- 755 363

•FLETCHER, E. R.
• • •
A MODEL TO SIMULATE THORACIC RESPONSES TO AIR BLAST AND TO IMPACT,
AD- 740 438

•FLETCHER, E. ROYCE
• • •
THE BIODYNAMICS OF AIRBLAST,
AD- 734 208

•FLETCHER, J. L.
• • •
CHANGES IN THE HEARING OF PERSONNEL EXPOSED TO HIGH INTENSITY CONTINUOUS NOISE,
AD- 413 817
• • •
RECOVERY FROM IMPULSE NOISE INDUCED ACOUSTIC TRAUMA,
AD- 645 898

•FLETCHER, JOHN L.
• • •
TEMPORARY THRESHOLD SHIFT FOR 'NORMAL' SUBJECTS AS A FUNCTION OF AGE AND SEX,
AD- 403 010
• • •
TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE,
AD- 440 204
• • •
EFFECTS OF HIGH INTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS,
AD- 455 002
• • •
EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE.
AD- 647 540
• • •
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.
AD- 739 368
• • •
CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AIRCREWMEN AS A FUNCTION OF NOISE EXPOSURE.

AD- 766 085

•FRANKEN, PETER A

• • •

METHODS OF SPACE VEHICLE NOISE PREDICTION
AD- 260 955

•FREEDMAN, S. J.

• • •

LOCALIZATION OF SOUND DURING SIMULATED UNILATERAL CONDUCTIVE HEARING LOSS.
AD- 681 534

•FREEDMAN, SANFORD J

• • •

THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES
AD- 256 800

• • •

TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119

• • •

THE EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION,
AD- 408 004

•FREEDMAN, SANFORD J.

• • •

EFFECTS OF PROLONGED UNUSUAL STIMULUS CONDITIONS ON PERCEPTUAL DISCRIMINATION AND PERCEPTUALMOTOR PERFORMANCE.
AD- 431 851

•GALLOWAY, WILLIAM J.

• • •

COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS: TECHNICAL REVIEW.
AD-A004 822

•GARDINIER, CAROL A.

• • •

A STUDY OF THE EFFECTS OF ILLUMINATION AND NOISE ON SIMPLE MOTOR PERFORMANCE.

AD- 739 474

•GARINTHER, GEORGES R.

• • •

CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.
AD- 666 206

• • •

SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM).
AD- 732 434

• • •

MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT,
AD- 750 649

• • •

NOISE AND BLAST.
AD- 765 419

•GARNER, W. R.

• • •

AUDITORY THRESHOLDS OF SHORT TONES AS A FUNCTION OF REPETITION RATES,
AD- 639 682

•GARNER, WENDELL R.

• • •

HEARING,
AD- 646 812

•GASAWAY, DONALD C.

• • •

HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.
AD- 731 131

• • •

COMPARISON OF A-WEIGHTED AUDITORY RISK CRITERIA WITH OCTAVE-BAND ESTIMATES.
AD- 731 154

• • •

DEVELOPMENT OF REALISTIC A-WEIGHTED AUDITORY RISK CRITERIA FOR AEROSPACE OPERATIONS.
AD- 743 298

• • •

MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE.
AD- 764 739

• • •

A-WEIGHTED SOUND LEVELS IN COCKPITS OF FIXED- AND ROTARY-WING AIRCRAFT.
AD-A015 735

• • •

HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.
AD-A022 258

• • •

SIGNIFICANT HEARING THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975.
AD-A022 842

• • •

INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975.
AD-A022 888

• • •

NOISE LEVELS MEASURED WITHIN AIRCRAFT DURING TAKEOFF, CLIMB, AND CRUISE (LOW, NORMAL, AND HIGH).
AD-A023 407

• • •

DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975.
AD-A026 086

• • •

HEARING LEVELS OF NOISE-EXPOSED U.S. AIR FORCE PERSONNEL COMPARED TO THOSE IN THE TOTAL U. S. POPULATION.
AD-A032 015

•GATES, HUGH W.

• • •

PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

•GEBMAN, JEAN R.

• • •

THE MECHANICS OF FORECASTING THE COMMUNITY NOISE IMPACT OF A TRANSPORTATION SYSTEM,

AD- 737 684

•GESSWEIN, JOSEPH
• • •
THE POSITION OF EARDRUM RUPTURE AND HEARING LOSS IN THE SCALE OF INJURIES FROM NUCLEAR BLAST,
AD- 737 643

•GIERKE, H. E. VON
• • •
HUMAN RESPONSE TO SONIC BOOM IN THE LABORATORY AND THE COMMUNITY,
AD- 748 055
• • •
INFRASOUND,
AD-A036 949

•GIORDANO, THOMAS A.
• • •
THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.
AD- 767 222

•GLAISTER, D. H.
• • •
BIODYNAMIC RESPONSE TO WINDBLAST.
AD-A014 237

•GOLDMAN, DONALD
• • •
AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES,
AD-A013 435

•GOLDSTEIN, JEFFREY
• • •
NOISE HAZARD EVALUATION SOUND LEVEL DATA ON NOISE SOURCES.
AD-A021 465

•GRAUVOGEL, LAWRENCE W.
• • •
HAZARDOUS NOISE AND INDUSTRIAL HYGIENE SURVEY, 910 TAC FIGHTER GROUP (AFRES) YOUNGSTOWN MUNICIPAL AIRPORT VIENNA OH 44473.
AD- 787 652
• • •
INDUSTRIAL HYGIENE SURVEY, 110TH TACTICAL SUPPORT GROUP, MI ANG BATTLE CREEK, MI 49016.
AD-A003 638

•GRAY, DAMON C.
• • •
RESULTS OF NOISE SURVEYS OF SEVENTEEN GENERAL AVIATION TYPE AIRCRAFT.
AD- 759 218

•GREEN, A. J.
• • •
THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT,
AD-A032 971

•GREENBERG, SETH N.
• • •
MULTI-TASK TIME-SHARING REQUIREMENTS.
AD- 755 363

•GRETHER, W. F.
• • •
EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS,
AD- 732 617
• • •
FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS,
AD- 746 083

•GRETHER, WALTER F.
• • •
NOISE AND HUMAN PERFORMANCE,
AD- 729 213
• • •
TWO EXPERIMENTS ON THE EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS,
AD- 755 634

•GUEDRY, F.E. JR
• • •
DESCRIPTION OF HUMAN ROTATION DEVICE
AD- 109 230

•GUIGNARD, J. C.
• • •
FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS,
AD- 746 083
• • •
AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.
AD- 754 631
• • •
A BASIS FOR LIMITING NOISE EXPOSURE FOR HEARING CONVERSATION.
AD- 767 274

•MALCOMB, CHARLES G.
• • •
THE EFFECTS OF NOISE AND RESPONSE COMPLEXITY UPON VIGILANCE PERFORMANCE,
AD- 747 797

•MALE, MARLUND E.
• • •
OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS,
AD-A036 535

•MALPERN, JOSEPH
• • •
THE EFFECTS OF OBSERVER CONTROL OVER VISUAL INFORMATION IN CLASSIFICATION PERFORMANCE.
AD-A003 953

•MANLEY, T. D.
• • •
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.
AD- 639 103

•MARRIS, C. S.
• • •
EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS,
AD- 732 617
• • •
FURTHER STUDY OF COMBINED HEAT,

NOISE AND VIBRATION STRESS.
AD- 746 083

•HARRIS, C. STANLEY
• • •
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN PERFORMANCE.
AD- 671 116
• • •
COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.
AD- 731 146
• • •
EFFECTS OF NOISE ON SERIAL SEARCH PERFORMANCE.
AD- 731 184
• • •
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM,
AD- 737 826
• • •
EFFECTS OF INTERMITTENT AND CONTINUOUS NOISE ON SERIAL SEARCH PERFORMANCE,
AD- 750 043
• • •
EFFECTS OF INCREASING INTENSITY LEVELS OF INTERMITTENT AND CONTINUOUS 1000-HZ TONES ON HUMAN EQUILIBRIUM,
AD- 750 840
• • •
COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME,
AD- 759 329
• • •
INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME,
AD- 770 257
• • •
AFTEREFFECTS OF RANDOM AND FIXED INTERMITTENT SOUND ON HUMAN PERFORMANCE,
AD-A033 468

•HARRIS, CHARLES S.
• • •
HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS.
AD- 628 198

•HARRIS, J. DONALD
• • •
REDUCTION IN AUDIOGRAM SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING.
AD- 737 207
• • •
THE USE OF CIRCUMAURAL EARPHONES FOR ATTENUATING AMBIENT NOISE IN BONE CONDUCTION AUDIOMETRY.
AD- 759 726

•HARTLEY, L. R.
• • •
THE EFFECT OF PRIOR NOISE OR PRIOR PERFORMANCE ON SERIAL REACTION,
AD-A026 856
• • •
EFFECT OF NOISE ON THE STROOP TEST,
AD-A027 141
• • •
PERFORMANCE DURING CONTINUOUS AND VARIABLE INTERMITTENT NOISE AND WEARING EAR PROTECTION,
AD-A027 142
• • •
COMPARISON OF PERFORMANCE WITH HEADPHONE AND FREE-FIELD NOISE,
AD-A027 143

•HARTMAN, BRYCE O.
• • •
CREW STRESS AND FATIGUE IN PROLONGED HELICOPTER MISSIONS. THE CRESTED ROOSTER PROGRAM.
AD-A013 101

•HAWKES, GLENN R.
• • •
USES OF VIBRATION IN HELICOPTER FLYING.
AD- 768 223

•HELM, CHARLES P., JR
• • •
PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

•HELPER, M.M
• • •
THE EFFECTS OF NOISE ON WORK OUTPUT AND PHYSIOLOGICAL ACTIVATION
AD- 129 446

•HIENZ, ROBERT
• • •
REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS,
AD-A022 519
• • •
REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. II. THRESHOLD FUNCTIONS,
AD-A022 520

•HIGHLEY, F. M.
• • •
RESEARCH STUDY OF COST EFFECTIVENESS OF AUXILIARY LAUNCH SYSTEMS APPLICABLE TO COMMERCIAL TRANSPORTS FOR PURPOSES OF NOISE ABATEMENT.
AD- 732 264

•HINKLE, JERE J.
• • •
A COMMUNITY/AIRPORT ECONOMIC DEVELOPMENT MODEL. VOLUME III. USER'S MANUAL.
AD- 754 174

•HIRSCH, ARTHUR E.
• • •
EFFECTS OF OVERPRESSURE ON THE EAR.
AD- 640 921

•HOCKEY, J.
• • •
THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES,
AD-A032 156

•HODGE, DAVID C.
• • •

PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

• • •

FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE.
AD- 634 456

• • •

CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.
AD- 666 206

• • •

A REVIEW OF IMPULSE-NOISE RESEARCH AT THE HUMAN ENGINEERING LABORATORIES.
AD- 731 185

• • •

SMALL-ROCKET NOISE: HAZARDS TO HEARING (ADVANCED LAW PROGRAM).
AD- 732 434

• • •

IMPROVED WEAPON NOISE EXPOSURE CRITERIA.
AD- 738 135

• • •

MATERIEL DESIGN STANDARD FOR NOISE LEVELS OF ARMY MATERIEL COMMAND EQUIPMENT.
AD- 750 649

• • •

NOISE AND BLAST.
AD- 765 419

• • •

HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.
AD-A005 026

• • •

DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR,
AD-A026 145

• • •

COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET.
AD-A035 084

•HOKANSON, JAMES C.

• • •

PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.
AD-A005 274

•HOMANS, B.

• • •

CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION.
AD-A010 629

•HORONJEFF, RICHARD D.

• • •

SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE,
AD-A026 535

•HUBBARD, HARVEY H.

• • •

PROCEEDINGS OF THE SONIC BOOM SYMPOSIUM (2ND) SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA (80TH MEETING) HELD AT HOUSTON, TEXAS ON 3 NOVEMBER 1970,
AD- 752 881

•HUTTON, R. A.

• • •

THE EFFECTS OF AIRBLAST ON DISCRIMINATED AVOIDANCE BEHAVIOR IN RHESUS MONKEYS.
AD- 742 819

•IAMPIETRO, P. F.

• • •

SIMULATED SONIC BOOMS AND SLEEP: EFFECTS OF REPEATED BOOMS OF 1.0 PSF,
AD- 762 988

•ILNITSKAYA, A. V.

• • •

REGARDING THE OCCUPATIONAL PATHOLOGY OF PERSONS SUBJECTED TO THE EFFECT OF HIGH-FREQUENCY NOISE IN COMBINATION WITH OTHER FACTORS DURING PLASMA SPRAY COATING OF METALS,
AD- 781 658

•INGARD, UNO

• • •

PRINCIPLES OF NOISE CONTROL,
AD- 734 704

•JANSEN, GERD

• • •

NON-AUDITORY EFFECTS OF NOISE,
AD- 728 426

•JEFFRESS, LLOYD A.

• • •

EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE,
AD- 685 887

•JEX, HENRY R.

• • •

EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.
AD-A018 667

•JOHNSON, DANIEL L.

• • •

PREDICTION OF NIPTS DUE TO CONTINUOUS NOISE EXPOSURE.
AD- 767 205

• • •

HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,
AD-A007 842

• • •

AUDITORY AND PHYSIOLOGICAL EFFECTS OF INFRASOUND,
AD-A017 269

• • •

SOME THOUGHTS ON HEARING CONSERVATION: POSSIBLE CORRECTIONS TO EQUAL ENERGY RULE TO ACCOUNT FOR INTERMITTENCY AND IMPULSE NOISE,
AD-A027 737

• • •

SUMMARY OF PRESENT DAMAGE RISK CRITERIA,
AD-A027 807

• • •

LONG-DURATION EXPOSURE TO INTERMITTENT NOISES,

AD-A031 382

• • •

INFRASOUND, ITS SOURCES AND ITS EFFECTS ON MAN,
AD-A032 401

•JOHNSON, LAVERNE C.

• • •

PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM,
AD- 777 184

•JOHNSTON, MARY E.

• • •

THE EFFECT OF A TRACKING TASK ON SPEECH INTELLIGIBILITY IN NOISE.
AD-A014 516

•JONES, ROBERT K.

• • •

THE BIODYNAMICS OF AIRBLAST,
AD- 734 208

•KALEPS, INTS

• • •

A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY,
AD- 740 445

•KALTER, H

• • •

DESCRIPTION OF HUMAN ROTATION DEVICE
AD- 109 230

•KARAMCHETI, KRISHNAMURTY

• • •

A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS,
AD- 758 254

•KATZ, GARY M.

• • •

USES OF VIBRATION IN HELICOPTER FLYING.
AD- 768 223

•KEANE, GERARD C.

• • •

THE EFFECT OF HELICOPTER NOISE ON COMMUNICATION AND HEARING.
AD- 767 222

•KELLY, J. C.

• • •

AN EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION TRAINING.
AD- 638 355

•KIMM, JOSEPH

• • •

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS,
AD-A022 519

•KING, P. F.

• • •

AEROMEDICAL ASPECTS OF VIBRATION AND NOISE.
AD- 754 631

•KOESTLER, ALFRED G.

• • •

BEHAVIORAL EFFECTS OF CHRONIC EXPOSURE TO IMPULSIVE NOISE IN PRIMATES.
AD-A031 087

•KOZERENKO, O. P.

• • •

PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY,
AD- 696 500

•KRANTZ, DAVID W.

• • •

HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,
AD-A007 842

•KRAUSKOPF, J

• • •

THE EFFECT OF NOISE ON EYE MOVEMENTS
AD- 086 352

•KRAUSKOPF, JOHN

• • •

THE INFLUENCE OF HIGH INTENSITY NOISE ON VISUAL THRESHOLDS
AD- 086 351

•KREMPIN, ARTHUR G.

• • •

STATISTICAL PREDICTION OF HUMAN PERFORMANCE AT TWO PATTERN RECOGNITION TASKS.
AD-A025 789

•KRIVITSKAYA, G. N.

• • •

MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS (MORFOLOGICHESKIE IZMENENIYA V GIPOTALAMUSE PRI VEGETATIVNYKH NARUSHENIYAKH, VYZVANN YKH SILNYM ZVYKOVYM RAZDRAXHENIEM),
AD- 729 138

•KRYTER, K.D

• • •

MASKING OF PURE TONES AND SPEECH
AD- 271 605

•KRYTER, K. D.

• • •

DAMAGE RISK CRITERION AND CONTOURS BASED ON PERMANENT AND TEMPORARY HEARING LOSS DATA,
AD- 652 783

• • •

A STUDY OF SENSITIVITY TO NOISE.
AD- 728 332

•KRYTER, KARL D

• • •

STUDIES OF TEMPORARY THRESHOLD SHIFT CAUSED BY HIGH INTENSITY ACOUSTIC TRANSIENTS
AD- 287 810

•KRYTER, KARL D.

• • •

HAZARDOUS EXPOSURE TO INTERMITTENT AND STEADYSTATE NOISE,
AD- 458 244

• • •

NON-AUDITORY EFFECTS OF NOISE.
AD- 728 426

•KUBLANOVA, P. S.

• • •

IMPAIRMENT OF THE HEARING FUNCTION IN PISTOL TESTER-ASSEMBLERS.
AD- 780 369

• • •

OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES.
AD- 781 656

•KUGLER, B. ANDREW

• • •

OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS.
AD-A036 535

•LACROIX, PAUL G.

• • •

REDUCTION IN AUDIOGRAM SHIFTS IN SONAR WATCHSTANDERS WHEN EXPOSED TO SURFACE SHIP ECHO-RANGING.
AD- 737 207

• • •

SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ.
AD- 752 974

•LANEY, SHERRILL G

• • •

SAFETY OF PERSONNEL DURING AN IM-99A MISSILE LAUNCHING
AD- 259 830

• • •

SAFETY OF PERSONNEL DURING AN IM-99B MISSILE LAUNCHING
AD- 276 988

•LAPAEV, E. V.

• • •

EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM (VLIYANIE AVIATSIONNOGO SHUMA NA NEKOTORYE POKAZATELI BELKOVOGO I VITAMINNOGO OBMENA).
AD- 730 065

•LAXAR, KEVIN

• • •

PERFORMANCE ON THE EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY.
AD- 759 721

•LEBEDEVA, I. P.

• • •

PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY.
AD- 696 500

•LEE, S. M.

• • •

THE STUDY OF VIBRATIONS GENERATED BY THE TRACKS OF TRACKED VEHICLES.
AD-A030 042

•LEHR, J.

• • •

HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.
AD-A030 896

•LEWIS, ROBERT P.

• • •

THE EFFECTS OF COMBINED ENVIRONMENTAL FACTORS ON HUMAN PERFORMANCE OF A MANUAL TASK: NOISE AND TEMPERATURE.
AD- 739 432

•LIM, DAVID J.

• • •

ACOUSTIC DAMAGE OF THE COCHLEA.
AD- 739 288

•LINCE, DONALD L.

• • •

BASELINE NOISE MEASUREMENTS OF THE OH-58A HELICOPTER.
AD- 731 467

•LOEB, M.

• • •

CHANGES IN THE HEARING OF PERSONNEL EXPOSED TO HIGH INTENSITY CONTINUOUS NOISE.
AD- 413 817

•LOEB, MICHEL

• • •

SOME FACTORS INFLUENCING THE EFFECTIVE AUDITORY INTENSIVE DIFFERENCE LIMEN.
AD- 403 009

• • •

TEMPORARY THRESHOLD SHIFT FOR 'NORMAL' SUBJECTS AS A FUNCTION OF AGE AND SEX.
AD- 403 010

• • •

TEMPORARY THRESHOLD SHIFT IN SUCCESSIVE SESSIONS FOR SUBJECTS EXPOSED TO CONTINUOUS AND PERIODIC INTERMITTENT NOISE.
AD- 440 204

• • •

EFFECTS OF HIGH INTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS.
AD- 455 002

• • •

EXPLORATORY STUDY OF THE EFFECT OF PULSE DURATION ON TEMPORARY THRESHOLD SHIFT PRODUCED BY IMPULSE NOISE.
AD- 647 540

• • •

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD- 758 453

• • •

BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.
AD- 785 740

• • •

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD-A015 023

•LOVING, J. W.

• • •

TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA.
AD- 467 132

•LUBINSKY, WILLIAM B.

• • •

MAY AIR NATIONAL GUARD INDUSTRIAL HYGIENE SURVEY.
AD-A010 589

•LUZ, GEORGE A.

• • •

THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.
AD- 726 333

• • •

PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.
AD- 777 520

• • •

HEARING CONSERVATION: INTENSE ACOUSTIC STIMULATION AND NOISE SUSCEPTIBILITY IN THE MILITARY ENVIRONMENT.
AD-A015 023

•LYONS, JAMES J.

• • •

MULTI-TASK TIME-SHARING REQUIREMENTS.
AD- 755 363

•MABRY, J. E.

• • •

THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.
AD- 766 326

•MAGDALENO, RAYMOND E.

• • •

EFFECTS OF WIDEBAND AUDITORY NOISE ON MANUAL CONTROL PERFORMANCE AND DYNAMIC RESPONSE.
AD-A018 667

•MAGINNIS, FRANCIS X.

• • •

AIRCRAFT SOUND DESCRIPTION SYSTEM (ASDS) APPLICATION PROCEDURES. VOLUME III. DATA TABLES.
AD-A013 435

•MAGRAB, EDWARD B.

• • •

A STUDY OF SHIPBOARD NOISE CRITERIA.
AD- 761 669

•MAKSIMIVA, L. I.

• • •

CHANGES IN HEARING OF WORKERS UNDER A PROLONGED EFFECT OF NOISE WITH STANDARD PARAMETERS.
AD- 776 943

•MASON, HARRY M.

• • •

AN EXPERIMENTAL COMPARISON OF 5 CONDITIONS FOR VOICE COMMUNICATION TRAINING.
AD- 638 355

•MATSNEV, E. I.

• • •

PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY.
AD- 696 500

•MAZURCZAK, JOSEPH

• • •

HUMAN PERFORMANCE CRITERIA FOR MILITARY NOISE EXPOSURE.
AD-A005 026

•MCCOMMONS, R. BRUCE

• • •

FURTHER STUDIES OF THE RELIABILITY OF TEMPORARY THRESHOLD SHIFT FROM IMPULSE-NOISE EXPOSURE.
AD- 634 456

•MCCURDY, HARRY W.

• • •

THE EXTENT OF HEARING LOSS IN THE ARMY: A SURVEY REPORT.
AD- 739 931

•MCNEE, RICHARD C

• • •

INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES
AD- 265 502

•MELNICK, WILLIAM

• • •

ACOUSTIC DAMAGE OF THE COCHLEA.
AD- 739 288

•MEYER, A. F.

• • •

CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE.
AD-A031 366

•MILLER, JOSEF

• • •

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS.
AD-A022 519

• • •

REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. II. THRESHOLD FUNCTIONS.
AD-A022 520

•MILLS, JOHN F.

• • •

SENSITIVITY STUDIES OF COMMUNITY-AIRCRAFT NOISE EXPOSURE (NOISEMAP) PREDICTION PROCEDURE.
AD-A026 535

•MITCHELL, L. D.

• • •

ISOLATION OF PIPING FROM PUMP VIBRATIONS.
AD- 757 431

•MOHR, G. C.

• • •

EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS.

AD- 732 617

•MOSKO, JAMES D.

• • •

THE SUSCEPTIBILITY OF THE CHINCHILLA EAR TO DAMAGE FROM IMPULSE NOISE.
AD- 726 333

•MURRY, THOMAS

• • •

SPEECH DISCRIMINATION IN NOISE AND HEARING LOSS AT 3000 HERTZ.
AD- 752 974

• • •

A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ,
AD- 757 338

•MUZET, ALAIN G.

• • •

PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM,
AD- 777 184

•MYASNIKOV, V. I.

• • •

PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY,
AD- 696 500

•MYERS, G. K.

• • •

HEARING LOSS AT 3 KILOHERTZ AND THE CHABA 'PROPOSED CLINICAL TEST OF SPEECH DISCRIMINATION IN NOISE'.
AD- 757 337

•NAGEL, D. C.

• • •

EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.
AD- 747 129

•NAITOH, PAUL

• • •

PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM,
AD- 777 184

•NELSON, D.

• • •

HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.
AD-A030 896

•NICHKOV, S. M.

• • •

MORPHOLOGICAL CHANGES IN THE HYPOTHALAMUS IN AUTONOMIC DISORDERS CAUSED BY STRONG AUDITORY STIMULUS (MORFOLOGICHESKIE IZMENENIYA V GIPOTALAMUSE PRI VEGETATIVNYKH NARUSHENIYAKH, VYZVANN YKH SILNYM ZVYKOVYM RAZDRAXHENIEM),
AD- 729 138

•NIEMOELLER, A. F.

• • •

A MOBILE LABORATORY FOR GROUP HEARING TESTS.
AD- 468 342

•NIXON, C. W.

• • •

EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS,
AD- 732 617

• • •

HUMAN RESPONSE TO SONIC BOOM IN THE LABORATORY AND THE COMMUNITY,
AD- 748 055

•NIXON, CHARLES W.

• • •

SOME EFFECTS OF NOISE ON MAN,
AD- 754 863

• • •

THE EFFECT OF QUIET ON HEARING,
AD-A006 395

• • •

HUMAN TEMPORARY THRESHOLD SHIFT AND RECOVERY FROM 24 HOUR ACOUSTIC EXPOSURES,
AD-A007 842

• • •

EFFECTS OF SUSTAINED TALKING ON THE HEARING OF THE TALKER,
AD-A015 732

• • •

LONG-DURATION EXPOSURE TO INTERMITTENT NOISES,
AD-A031 382

•O'HARE, JOHN J.

• • •

AUDITORY DAMAGE OF OPERATING PERSONNEL ABOARD GUIDED MISSILE SHIPS FROM SHORT-DURATION HIGH-INTENSITY NOISE.
AD- 663 639

•OHLBAUM, M.

• • •

EFFECTS OF COMBINED HEAT, NOISE AND VIBRATION STRESS ON HUMAN PERFORMANCE AND PHYSIOLOGICAL FUNCTIONS,
AD- 732 617

• • •

FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS,
AD- 746 083

•OLSEN, ROBERT O

• • •

LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES
AD- 261 505

•OLSON, GARY M.

• • •

PERFORMANCE ON THE EXPANDED TIME BEARING PLOT AS A FUNCTION OF BEARING ACCURACY.
AD- 759 721

•OSLAKE, J.J

• • •

LAUNCH SITING CRITERIA FOR HIGH-THRUST VEHICLES
AD- 257 643

•OVERTON, [illegible]

• • •

METHODS FOR ESTABLISHING NOISE

LEVELS AT VARIOUS DISTANCES FROM A MISSLE FIRING AND EFFECTS OF THESE NOISE LEVELS ON STRUCTURES, EQUIPMENT, AND PERSONNEL
AD- 297 866

•PALTSEV, YU. P.
• • •
HYGIENIC CHARACTERISTICS OF NOISE AT MODERN THERMAL POWER STATIONS.
AD- 779 833

•PARKER, D. E.
• • •
EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.
AD-A025 969
• • •
INFRASOUND.
AD-A036 949

•PARKER, DONALD
• • •
NON-AUDITORY EFFECTS OF NOISE.
AD- 728 426

•PARKER, JAMES F., JR
• • •
BIOASTRONAUTICS DATA BOOK.
AD- 749 887

•PARNELL, J. E.
• • •
EVALUATION OF HEARING LEVELS OF RESIDENTS LIVING NEAR A MAJOR AIRPORT.
AD- 747 129

•PARRACK, HORACE O.
• • •
NON-AUDITORY EFFECTS OF NOISE.
AD- 728 426

•PARRY, H. J.
• • •
THE EFFECT OF SIMULATED SONIC BOOM RISE TIME AND OVERPRESSURE ON ELECTROENCEPHALOGRAPHIC WAVEFORMS AND DISTURBANCE JUDGMENTS.
AD- 766 326

•PETERS, GREGORY L.
• • •
MULTI-TASK TIME-SHARING REQUIREMENTS.
AD- 755 363

•PFAFF, DONALD W
• • •
THE EFFECT OF EXPOSURE TO DICHOTIC NOISE ON THE DISCRIMINATION OF DICHOTIC TIME DIFFERENCES
AD- 256 800
• • •
TRADING RELATIONS BETWEEN DICHOTIC TIME AND INTENSITY DIFFERENCES IN AUDITORY LOCALIZATION.
AD- 407 119
• • •
THE EFFECT OF DICHOTIC NOISE ON AUDITORY LOCALIZATION.
AD- 408 004

•PFINGST, BRYAN E.
• • •
REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. I. SUPRATHRESHOLD FUNCTIONS.
AD-A022 519
• • •
REACTION-TIME PROCEDURE FOR MEASURMENT OF HEARING. II. THRESHOLD FUNCTIONS.
AD-A022 520

•PLOTKIN, K. J.
• • •
ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.
AD- 757 552

•POULTON, E. C.
• • •
INTERACTIONS AND RANGE EFFECTS IN EXPERIMENTS IN PAIRS OF STRESSES: MILD HEAT AND LOW FREQUENCY NOISE.
AD-A019 315

•POZA, F.
• • •

A STUDY OF SENSITIVITY TO NOISE.
AD- 728 332

•PRICE, G. RICHARD
• • •
UPPER LIMIT TO STAPES DISPLACEMENT: IMPLICATIONS FOR HEARING LOSS.
AD-A003 570
• • •
DETECTION OF COMBAT SOUNDS BY THE HUMAN EAR.
AD-A026 145
• • •
COMBAT SOUND DETECTION: I. MONAURAL LISTENING IN QUIET.
AD-A035 084

•PROSEK, ROBERT A.
• • •
THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.
AD-A019 193

•RANDOLPH, D. D.
• • •
THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT.
AD-A032 971

•RAY, WILLIAM S.
• • •
USES OF VIBRATION IN HELICOPTER FLYING.
AD- 768 223

•REDDINGIUS, NICOLAAS H.
• • •
COMMUNITY NOISE EXPOSURE RESULTING FROM AIRCRAFT OPERATIONS. APPENDIX: NOISEMAP PROGRAM OPERATOR'S MANUAL.
AD-A022 911

•REIMERS, STEPHEN D.
• • •
NOISE: A HAZARD TO DIVERS AND HYPERBARIC CHAMBER PERSONNEL.
AD- 725 144
• • •
TEST OF BENDIX AIR FILTERS USED AS MUFFLERS.

AD- 759 982

•RENTZ, PETER E.

• • •

OCCUPATIONAL NOISE EXPOSURE ON FF 1052 (KNOX) AND DD 963 (SPRUANCE) CALSS SHIPS,
AD-A036 535

•REPKO, JOHN D.

• • •

BEHAVIORAL EFFECTS OF PROLONGED EXPOSURE TO CONTINUOUS AND INTERMITTENT NOISE.
AD- 785 740

•RIBNER, HERBERT S.

• • •

PROCEEDINGS OF THE SONIC BOOM SYMPOSIUM (2ND) SPONSORED BY THE ACOUSTICAL SOCIETY OF AMERICA (80TH MEETING) HELD AT HOUSTON, TEXAS ON 3 NOVEMBER 1970,
AD- 752 881

•RICE, CHRISTOPHER G.

• • •

CRITERIA FOR ASSESSING HEARING DAMAGE RISK FROM IMPULSE-NOISE EXPOSURE.
AD- 666 206

•RICHMOND, DONALD R

• • •

A TENTATIVE ESTIMATION OF MANS TOLERANCE TO OVERPRESSURES FROM AIR BLAST
AD- 293 875

•RICHMOND, DONALD R.

• • •

THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS,
AD- 671 618

• • •

THE BIODYNAMICS OF AIRBLAST,
AD- 734 208

•RITZ, L. A.

• • •

EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.
AD-A025 969

•RIVENES, IVER JOHN, III

• • •

THE EFFECT OF CONTINUOUS NOISE ON SHORT TERM MEMORY PERFORMANCE TASKS.
AD-A025 446

•ROBERSON, GEORGE D.

• • •

EFFECTS OF HIGH INTENSITY IMPULSE NOISE AND RAPID CHANGES IN PRESSURE UPON STAPEDECTOMIZED MONKEYS,
AD- 455 002

•ROBERT, G.

• • •

THE EFFECTS OF NOISE AND OF LOSS OF SLEEP UPON THE OBSERVATION OF 3 SOURCES OF SIGNALS WITH UNEQUAL PROBABILITIES,
AD-A032 156

•ROBERTSON, J. E.

• • •

ENVIRONMENTAL IMPACT OF NOISE FROM THE PROPOSED ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) HIGH REYNOLDS NUMBER TUNNEL.
AD- 757 552

•ROBERTSON, RONALD M.

• • •

THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES.
AD- 766 498

•RULA, A. A.

• • •

THE EFFECT OF MILITARY TRANSPORTATION ACTIVITIES ON THE ENVIRONMENT,
AD-A032 971

•RYABOV, N. A.

• • •

OCCUPATIONAL HEARING DISORDERS (HARDNESS OF HEARING) IN EXCAVATOR (POWER SHOVEL) OPERATORS IN QUARRIES,
AD- 781 656

•RYLANDER, RAGNAR

• • •

SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,
AD- 773 451

•SAMPSON, P. A.

• • •

FURTHER STUDY OF COMBINED HEAT, NOISE AND VIBRATION STRESS,
AD- 746 083

•SCHOMER, P. D.

• • •

CONSTRUCTION NOISE: SPECIFICATION, CONTROL, MEASUREMENT, AND MITIGATION.
AD-A010 629

•SCHOMER, PAUL D.

• • •

PREDICTING COMMUNITY RESPONSE TO BLAST NOISE.
AD- 773 690

•SCHORI, THOMAS R.

• • •

EVALUATION OF SAFE EXPOSURE GUIDELINES FOR MODERATE AND HIGH INTENSITY CONTINUOUS NOISE.
AD-A034 605

•SEDLACEK, K.

• • •

CONCEPTS OF THE TERMS SUSCEPTIBILITY AND RESISTANCE AS THEY RELATE TO HEARING DAMAGE DUE TO NOISE,
AD-A001 152

•SEMMELINK, A.

• • •

STUDY OF NOISE IN AIR ROUTE TRAFFIC CONTROL CENTER, FLIGHT SERVICE

STATION, AIR TRAFFIC CONTROL TOWER AND REMOTE FACILITIES.
AD- 743 095

•SERGEANT, RUSSELL L.
• • •
A COMPARISON OF SPEECH DISCRIMINATION ABILITY FOR SIMULATED AND REAL HEARING LOSS AT 3 AND 6 KHZ,
AD- 757 338

•SHAFFER, G. L.
• • •
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.
AD- 639 103

•SHIH, H. H.
• • •
A LITERATURE SURVEY OF NOISE POLLUTION.
AD- 724 344

•SHOENBERGER, RICHARD W.
• • •
HUMAN PERFORMANCE AS A FUNCTION OF CHANGES IN ACOUSTIC NOISE LEVELS.
AD- 628 198

•SKORDAHL, D. M
• • •
INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE,
AD- 432 087

•SLUTSKY, SIMON
• • •
SURVEY OF SONIC BOOM PHENOMENA FOR THE NON-SPECIALIST.
AD-A009 663

•SMITH, A. D.
• • •
TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA,
AD- 467 132

•SODERHOLM, ROBERT B.
• • •
PRELIMINARY STUDIES OF THE IMPULSE-NOISE EFFECTS ON HUMAN HEARING (PROJECT HUMIN).
AD- 618 327

•SOMMER, HENRY C.
• • •
COMBINED EFFECTS OF NOISE AND VIBRATION ON MENTAL PERFORMANCE.
AD- 731 146
• • •
COMBINED EFFECTS OF NOISE AND VIBRATION ON HUMAN TRACKING PERFORMANCE AND RESPONSE TIME,
AD- 759 329
• • •
INTERACTIVE EFFECTS OF INTENSE NOISE AND LOW-LEVEL VIBRATION ON TRACKING PERFORMANCE AND RESPONSE TIME,
AD- 770 257
• • •
THE COMBINED EFFECTS OF VIBRATION, NOISE, AND EXPOSURE DURATION ON AUDITORY TEMPORARY THRESHOLD SHIFT.
AD- 770 285

•SPELLMAN, EDSEL A.
• • •
DEVELOPMENT OF A ROCKET-BLAST SIMULATOR: DESIGN AND TEST.
AD- 449 417

•SPRINGER, HAROLD S
• • •
LAUNCH NOISE DISTRIBUTION OF NIKE-ZEUS MISSILES
AD- 261 505

•STEER, M. D.
• • •
THE RELATION BETWEEN DURATION OF EXPOSURE TO HIGH LEVEL NOISE AND LISTENER ACCURACY.
AD- 639 103

•STEPHENS, J. C.
• • •
TERRIER STRUCTURAL FIRING TESTS ABOARD THE ITALIAN NAVAL SHIP ANDREA DORIA,
AD- 467 132

•STEPHENSON, MARK R.
• • •
THE EFFECT OF QUIET ON HEARING,
AD-A006 395
• • •
LONG-DURATION EXPOSURE TO INTERMITTENT NOISES,
AD-A031 382

•SUMMITT, JAMES K.
• • •
NOISE: A HAZARD TO DIVERS AND HYPERBARIC CHAMBER PERSONNEL.
AD- 725 144

•SUTHERLAND, HARRELL C.
• • •
DESCRIPTION OF HEARING IN 13 GROUPS OF AIR FORCE PERSONNEL WHO ROUTINELY WORK IN NOISE: JANUARY-JUNE 1975.
AD-A026 086

•SUTHERLAND, HARRELL C., JR
• • •
HEARING OF YOUNG AIRMEN ENTERING NOISE EXPOSURE CAREER FIELDS.
AD- 731 131
• • •
COMPARISON OF A-WEIGHTED AUDITORY RISK CRITERIA WITH OCTAVE-BAND ESTIMATES.
AD- 731 154
• • •
DEVELOPMENT OF REALISTIC A-WEIGHTED AUDITORY RISK CRITERIA FOR AEROSPACE OPERATIONS.
AD- 743 298
• • •
MIDDLE-EAR MUSCLE REFLEX TO AIRCRAFT NOISE.
AD- 764 739
• • •
HEARING OF PERSONNEL INCLUDED IN THE USAF HEARING CONSERVATION PROGRAM.
AD-A022 258

• • •

SIGNIFICANT HEARING THRESHOLD SHIFT IN USAF MILITARY PERSONNEL: JANUARY-JUNE 1975.
AD-A022 842

• • •

INITIAL STUDY TO EVALUATE SIMPLE CRITERIA FOR IDENTIFYING SIGNIFICANT AMOUNTS OF THRESHOLD SHIFT IN PERSONS WHO WORK IN NOISE: JANUARY-MARCH 1975.
AD-A022 888

• • •

HEARING LEVELS OF NOISE-EXPOSED U.S. AIR FORCE PERSONNEL COMPARED TO THOSE IN THE TOTAL U. S. POPULATION.
AD-A032 015

•SUTTERLIN, M.

• • •

HEARING CONSERVATION PROGRAM PROTOTYPE PHASE FINAL REPORT.
AD-A030 896

•SYZRANTSEV, YU. K.

• • •

EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM (VLIYANIE AVIATSIONNOGO SHUMA NA NEKOTORYE POKAZATELI BELKOVOGO I VITAMINNOGO OBMENA),
AD- 730 065

•TANENHOLTZ, STANLEY D.

• • •

RESEARCH ON ACOUSTICAL PROBLEMS OF THE MILITARY: A REVIEW AND FUTURE ASPECT.
AD- 680 165

•TEMPLER, JERRY W.

• • •

ELECTROPHYSIOLOGICAL CORRELATES OF BEHAVIORAL TEMPORARY THRESHOLD SHIFTS IN CHINCHILLA.
AD- 740 227

•THACKRAY, RICHARD I.

• • •

RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE,
AD- 704 472

• • •

SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,
AD- 773 451

• • •

A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS,
AD- 777 581

• • •

BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,
AD-A002 266

•THIESSEN, GEORGE

• • •

NON-AUDITORY EFFECTS OF NOISE,
AD- 728 426

•THOMPSON, ROBERT L.

• • •

PSYCHOLOGICAL FACTORS RELATED TO THE VOLUNTARY USE OF HEARING PROTECTION IN HAZARDOUS NOISE ENVIRONMENTS.
AD- 777 520

•TIEDEMANN, J. G.

• • •

INDIVIDUAL DIFFERENCES IN TRANSCRIBING VOICE RADIO MESSAGES EMBEDDED IN ATMOSPHERIC NOISE,
AD- 432 087

• • •

PERFORMANCE OF SINGLE VS MULTIPLE VOICE RADIO TRANSCRIBERS WORKING UNDER THREE SPEECH TO NOISE RATIOS,
AD- 432 088

•TOBIAS, JERRY V.

• • •

NOISE AUDIOMETRY.
AD- 723 464

• • •

BINAURAL PROCESSING OF SPEECH IN LIGHT AIRCRAFT,
AD- 753 637

• • •

AUDITORY EFFECTS OF NOISE ON AIRCREW PERSONNEL,
AD- 757 239

•TOLHURST, GILBERT C

• • •

SPEECH RECEPTION AND TEMPORARY HEARING LOSS AS A FUNCTION OF EXPOSURE TO HIGH LEVEL NOISE
AD- 051 868

•TOLHURST, GILBERT C.

• • •

A STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT.
AD- 620 263

•TOUCHSTONE, R. MARK

• • •

RECOVERY OF MOTOR PERFORMANCE FOLLOWING STARTLE,
AD- 704 472

• • •

SONIC BOOM STARTLE EFFECTS--REPORT OF A FIELD STUDY,
AD- 773 451

• • •

BEHAVIORAL, AUTOMATIC, AND SUBJECTIVE REACTIONS TO LOW- AND MODERATE-LEVEL SIMULATED SONIC BOOMS: A REPORT OF TWO EXPERIMENTS AND A GENERAL EVALUATION OF SONIC BOOM STARTLE EFFECTS,
AD-A002 266

•TOUCHSTONE, ROBERT M.

• • •

A COMPARISON OF THE STARTLE EFFECTS RESULTING FROM EXPOSURE TO TWO LEVELS OF SIMULATED SONIC BOOMS,
AD- 777 581

•TOWNSEND, RICHARD E.

• • •

PROLONGED EXPOSURE TO NOISE AS A SLEEP PROBLEM,
AD- 777 184

•TRITTIPOE, W.J
• • •
TEMPORARY THRESHOLD SHIFT AS A FUNCTION OF NOISE EXPOSURE LEVEL
AD- 146 756

•TUBBS, R. L.
• • •
EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.
AD-A025 969

•TUCKER, ANN
• • •
EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE,
AD- 685 887

•UDALOV, YU. F.
• • •
EFFECT OF AVIATION NOISE ON SOME INDICES OF PROTEIN AND VITAMIN METABOLISM (VLIYANIE AVIATSIONNOGO SHUMA NA NEKOTORYE POKAZATELI BELKOVOGO I VITAMINNOGO OBMENA),
AD- 730 045

•VON GIERKE, H. E.
• • •
SUMMARY OF PRESENT DAMAGE RISK CRITERIA,
AD-A027 807
• • •
CRITERIA FOR EVALUATING THE HARMFUL EFFECTS OF NOISE,
AD-A031 366

•VON GIERKE, HENNING E.
• • •
THE EFFECTS OF HIGH INTENSITY NOISE ON HUMAN EQUILIBRIUM,
AD- 737 826
• • •
PHYSIOLOGICAL AND PERFORMANCE EFFECTS ON THE AIRCREW DURING LOW-ALTITUDE HIGH-SPEED FLIGHT MISSIONS.
AD- 737 827
• • •
A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY,
AD- 740 445
• • •
NOISE -- HOW MUCH IS TOO MUCH,
AD-A017 915
• • •
DEVELOPMENT OF A UNIFORM APPROACH TO CHARACTERIZE NOISE IMPACT ON PEOPLE.
AD-A036 224

•WALDEN, BRIAN E.
• • •
THE EXTENT OF HEARING LOSS IN THE ARMY: A SURVEY REPORT.
AD- 739 931
• • •
THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.
AD-A019 193

•WALDRON, DARYLE L
• • •
INTRA-AURAL TEMPORARY THRESHOLD SHIFT DIFFERENCES
AD- 265 502

•WALDRON, DARYLE L.
• • •
CENTRAL REPOSITORY FOR HEARING CONSERVATION DATA. AN EXAMINATION OF THE FIRST YEAR'S REPORTING,
AD- 619 407

•WARD, W. DIXON
• • •
HEARING CONSERVATION FOR SUBMARINERS,
AD- 726 217

•WATKINS, WILLIAM H
• • •
EFFECT OF CERTAIN NOISES UPON DETECTION OF VISUAL SIGNALS
AD- 294 582

•WEBB, WILSE B.
• • •
A STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT.
AD- 620 263

•WEIB, E. B.
• • •
A FIVE-DEGREE-OF-FREEDOM MATHEMATICAL MODEL OF THE BODY,
AD- 740 445

•WEST, VITA R.
• • •
BIOASTRONAUTICS DATA BOOK.
AD- 749 887

•WESTINE, PETER S.
• • •
PREDICTION OF STANDOFF DISTANCES TO PREVENT LOSS OF HEARING FROM MUZZLE BLAST.
AD-A005 274

•WHITCOMB, MILTON A.
• • •
EFFECTS OF LONG DURATION NOISE EXPOSURE ON HEARING AND HEALTH.
AD-A018 846

•WHITE, CLAYTON S
• • •
A TENTATIVE ESTIMATION OF MANS TOLERANCE TO OVERPRESSURES FROM AIR BLAST
AD- 293 875

•WHITE, CLAYTON S.
• • •
THE RELATION BETWEEN EARDRUM FAILURE AND BLAST-INDUCED PRESSURE VARIATIONS,
AD- 671 618
• • •
THE BIODYNAMICS OF AIRBLAST,
AD- 734 208

•WIGGINS, P.P
• • •
TALOS STRUCTURAL FIRING TEST ABOARD THE USS LONG BEACH (CGN-9)
AD- 273 779

•WILBANKS, WILLIAM A.
• • •
A STUDY OF INTELLECTUAL ACTIVITY IN A NOISY ENVIRONMENT.

AD- 620 263

•WILLIAMS, CARL E.

• • •

THE EFFECT OF NOISE EXPOSURE DURING PRIMARY FLIGHT TRAINING ON THE CONVENTIONAL AND HIGH FREQUENCY HEARING OF NAVAL AVIATION OFFICER CANDIDATES.
AD- 766 498

•WILLIAMS, PAUL I.

• • •

EFFECT OF SIGNAL DURATION ON DETECTION FOR GATED AND FOR CONTINUOUS NOISE,
AD- 685 887

•WOOD, D. L.

• • •

EFFECTS OF SOUND ON THE VESTIBULAR SYSTEM.
AD-A02E 969

•WOOLLEY, JAMES P.

• • •

A STUDY OF NARROW BAND NOISE GENERATION BY FLOW OVER VENTILATED WALLS IN TRANSONIC WIND TUNNELS,
AD- 758 254

•WORTHINGTON, DON W.

• • •

THE EXTENT OF HEARING LOSS IN THE ARMY: A SURVEY REPORT.
AD- 739 931

• • •

THE PREVALENCE OF HEARING LOSS WITHIN SELECTED U.S. ARMY BRANCHES.
AD-AD19 193

•WRIGHT, H. N.

• • •

TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE,
AD- 415 302

•YAKOVLEVA, I. YA.

• • •

PECULIARITIES OF HUMAN SLEEP UNDER CONDITIONS OF CONTINUOUS PROLONGED

INFLUENCE OF BROAD-BAND NOISE OF AVERAGE INTENSITY,
AD- 696 500

•ZWICKER, E.

• • •

TEMPORAL SUMMATION FOR TONES IN NARROW-BAND NOISE,
AD- 415 302