

*Army Missile Command Index - 1967*

SPECIAL REPORT



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**TECHNICAL DOCUMENTS, PAPERS, AND ARTICLES**  
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**U.S. ARMY MISSILE COMMAND**  
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1 MARCH 1968

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## FOREWORD

This report lists the technical reports, papers, and articles published by the Research and Development Directorate during 1967. Compilations for the nine years preceding 1967 are contained in six publications: *List of Technical Documents Published During the Years 1958 Through 1962, 1 June 1963*; *List of Technical Papers and Articles, 1958 Through 1962, 1 July 1963*; *List of Technical Documents, Papers, and Articles Published in 1963, 1 May 1964*; *List of Technical Documents, Papers, and Articles Published in 1964, 1 March 1965*; *List of Technical Documents, Papers, and Articles Published in 1965, 1 March 1966*; and *List of Technical Documents, Papers, and Articles Published in 1966, 1 March 1967*.

## CONTENTS

	<i>Page</i>
Section I. R&DD NUMBERED DOCUMENTS . . . . .	1
Section II. MISCELLANEOUS DOCUMENTS . . . . .	21
Section III. PRESENTATIONS . . . . .	26
Section IV. MAGAZINE ARTICLES . . . . .	35

Section I  
R&DD NUMBERED DOCUMENTS

ADVANCED SENSORS LABORATORY

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RE-TN-67-1 (Secret)	8 Jun 67	LASER ILLUMINATOR SUSCEPTIBILITY OPTICAL DETECTION (U)	Bates, H.
RE-TN-67-2 (Conf)	27 Sep 67	SPECTRAL REFLECTANCE OF PAINTED ASPHALT SAMPLES (U)	Passmore, R.
RE-TN-67-3 (Secret)	6 Oct 67	EVALUATION OF THE DEHAVILLAND IRSS TESTS CONDUCTED AT EGLIN AIR FORCE BASE DURING JUNE 1967 (U)	Lacy, D.
RE-TM-67-1 (Secret)	7 Feb 67	A NOMOGRAPH TECHNIQUE FOR PREDICTING NIGHT LIFE SYSTEM PERFORMANCE (U)	Passmore, R.
RE-TM-67-4 (Secret)	1 Aug 67	AMPAP RADAR CROSS SECTION REVIEW (U)	Swerling, R. Johnston, S.
RE-TR-66-26 (Conf)	25 Oct 66	HELAR - Q-SWITCHED (U)	Moody, C. Byrd, A.
RE-TR-66-25 (Uncl)	19 Oct 66	OPTICAL DISCRIMINATION SYSTEM DATA FLOW AND COORDINATED SYSTEMS	Benson, D. Price, G.
RE-TR-66-27 (Secret)	31 Aug 66	ANALYSIS OF PHASED ARRAY COMPONENTS: MAR/WS PREAMPLIFIER (U)	Dunlap, S.
RE-TR-66-28 (Conf)	12 Dec 66	OPTICAL CONTRAST SEEKER PROGRAM: FISCAL YEAR 1966 SUMMARY AND CAPTIVE FLIGHT TEST RESULTS (U)	Holter, D. Bates, H. Widenhofer, G.
RE-TR-66-29 (Conf)	12 Dec 66	CAPTIVE FLIGHT TESTS OF THE MICOM/SRI TELEVISION CONTRAST SEEKER AGAINST A U1-A AIRCRAFT (U)	Bates, H.
RE-TR-67-1 (Uncl)	1 Jun 67	A NEW CLUTTER MODEL WHICH ACCOUNTS FOR CLUTTER CORRELATION AND ITS APPLICATION TO RADAR DESIGN	Ward, R.
RE-TR-67-2 (Secret)	24 Jan 67	PRELIMINARY TECHNICAL REQUIREMENTS FOR A SERGEANT PENETRATION AID SYSTEM (U)	Root, L., Jr. Garner, R.
RE-TR-67-3 (Uncl)	18 May 67	A SIGNAL DETECTION TECHNIQUE FOR INFRARED SYSTEMS	Hatcher, J.
RE-TR-67-4 (Secret)	23 Jun 67	TARGET FLUCTUATION INVESTIGATION (U)	Swerling, P. Johnston, S.
RE-TR-67-5 (Conf)	27 Jun 67	AN ANALYSIS OF THE P-I-N PHOTODIODE FOR PULSED LIGHT EXCITATION (U)	Bates, H.
RE-TR-67-6 (Uncl)	14 Jul 67	MECHANIZATION OF LINEAR FOCAL PLANE MEASUREMENTS IN THE CORDIC COMPUTING ALGORITHM	Woods, H.
RE-TR-67-7 (Uncl)	May 67	SPECULAR REFLECTION AND CHARACTERISTICS OF REFLECTED LIGHT	Holl, H.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RE-TR-67-8 (Uncl)	22 Aug 67	AN IMPROVED APPROACH TO THE ADJOINT METHOD APPLIED TO THE STATISTICAL ANALYSIS OF A HOMING MISSILE	Willems, G.
ADVANCED SYSTEMS LABORATORY			
RD-TN-67-1 (Uncl)	23 Jan 67	CONICAL BOATTAIL EFFECTS ON THE STATIC STABILITY CHARACTERISTICS OF BODIES OF REVOLUTION	Washington, W.
RD-TN-67-2 (Conf)	1 Feb 67	ENDSPEED ANALYSIS (U)	Vest, C.
RD-TN-67-3 (Conf)	Mar 67	ESTIMATED AERODYNAMICS CHARACTERISTICS OF THE TFG-DC-LAW (U)	Dahlke, C. Henderson, J.
RD-TN-67-4 (Conf)	Apr 67	THE AERODYNAMICS AND CONTROL CHARACTERISTICS OF THE TFG LITTLEJOHN (U)	Spring, D. Martin, T.
RD-TN-67-5 (Uncl)	18 Aug 67	DETERMINATION OF EQUILIBRIUM ROLL RATE FOR TWO POSSIBLE EXTENDED RANGE LANCE FIN CONFIGURATIONS	Burt, J., Jr.
RD-TN-67-7 (Conf)	19 Sep 67	MARS-2 PRELIMINARY AERODYNAMICS (WITH 5-CALIBER OGIVE NOSE) (U)	Burt, J., Jr. Henderson, J.
RD-TN-67-8 (Conf)	19 Sep 67	MARS-2 PRELIMINARY AERODYNAMICS (WITH 4-CALIBER OGIVE NOSE) (U)	Burt, J., Jr. Henderson, J.
RD-TN-67-9 (Conf)	30 Sep 67	RANGE DEPENDENT (THERMAL-NOISE) FOR SAM-D, ADCON HAWK AND HAWK-I IN THE PRESENCE OF A STANDOFF JAMMER (U)	Hallum, M.
RD-TN-67-10 (Conf)	1 Sep 67	ON THE POSTULATED BARRAGE NOISE JAMMING THREAT UP TO 2000 AD (U)	Hallum, M.
RD-TN-67-11 (Uncl)	15 Aug 67	ON A TYPICAL FIGHTER TYPE AIRCRAFT MANEUVER AND RESPONSE CHARACTERISTICS	Hallum, M.
RD-TN-67-12 (Conf)	30 Oct 67	MULTIPLE TARGET ENHANCEMENT THROUGH REDUCTION OF GUIDANCE TIME CONSTANTS (U)	Hallum, M.
RD-TN-67-13 (Conf)	26 Oct 67	PRELIMINARY AERODYNAMIC CHARACTERISTICS OF THE MARS-2 MISSILE WITH A 3-CALIBER TANGENT OGIVE NOSE AND A BOATTAILED AFTERBODY (U)	Burt, J., Jr.
RD-TN-67-14 (Conf)	24 Oct 67	EFFECT OF BOATTAILING ON MARS-2 DRAG (3-CALIBER TANGENT OGIVE NOSE) (U)	Henderson, J.
RD-TN-67-17 (Conf)	27 Nov 67	HP MARS-2 PRELIMINARY AERODYNAMICS (U)	Burt, J., Jr.
RD-TN-67-18 (Conf)	24 Nov 67	PRELIMINARY AERODYNAMIC CHARACTERISTICS OF THE TFG MARS-2 (U)	Burt, J., Jr.
RD-TM-66-18 (Uncl)	30 Dec 66	INLET DESIGN TECHNIQUE FOR AMC SCRAMJET ENGINES	Jenkins, B.
RD-TM-67-1 (Conf)	5 Apr 67	SUMMARY OF STATIC STABILITY CHARACTERISTICS OF TWO LANCE FLIGHT CONFIGURATIONS INCLUDING SPIN JET EFFECTS (U)	Washington, W. Marks, A.
RD-TM-67-2 (Sec/RD)	23 Mar 67	TECHNICAL ALTERNATIVES FOR A PERSHING REPLACEMENT (U)	

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RD-TM-67-3 (Conf)	15 Jun 67	EFFECT OF DEFLECTOR AND NOZZLE GEOMETRY ON THE EFFECTIVENESS OF THE MULTIPLE RAIL ROCKET SYSTEM - THRUST FLOATED GYRO THRUST DEFLECTOR (U)	Washington, W.
RD-TM-67-4 (Conf)	8 Jun 67	EFFECTS OF SPIN AND VENT TUBE JET FLOW ON LANCE MISSILE AERODYNAMIC COEFFICIENTS FROM ANALYSIS OF WIND TUNNEL TEST, LTV TEST 246 (U)	Burt, J., Jr. Dahlke, C.
RD-TM-67-5 (Uncl)	27 Jul 67	AERODYNAMIC CHARACTERISTICS OF MULTIPLE FINS OF RECTANGULAR PLANFORM ON A BODY OF REVOLUTION AT MACH NUMBERS OF 1.48 to 2.22	Pettis, W.
RD-TM-67-6 (Uncl)	14 Aug 67	PRETEST INFORMATION FOR A TRANSONIC TEST ON THE GENERALIZED JET INTERACTION MODEL IN THE AEDC 1-FOOT TUNNEL	Spring, D. Killough, T.
RD-TM-67-7 (Uncl)	18 Aug 67	INITIAL RESULTS OF COLD GAS STATIC TESTS ON THE EJECTROL CONTROL FORCE CONCEPT	Killough, T.
RD-TM-67-8 (Uncl)	1 Sep 67	SIZE AND LOCATION OF MACH DISC IN HIGHLY OVEREXPANDED JETS	Zien, S.
RD-TR-66-7 (Uncl)	8 Mar 66	A PROGRAM FOR ESTIMATING STATIC STABILITY CHARACTERISTICS AND TOTAL POWER-OFF DRAG FOR SHARP AND BLUNT NOSED BODIES OF REVOLUTION AT SUPERSONIC SPEEDS	Adams, C. Washington, W.
RD-TR-66-14 (Secret)	15 Dec 64	COORDINATED ARTILLERY MRM/LRM SYSTEM STUDY (U)	Sullivan, G.
RD-TR-66-17 (Conf)	2 Dec 66	LANCE AUTOMET ERROR ANALYSIS (U)	Burt, J., Jr.
RD-TR-67-1 (Secret)	20 Jan 67	THE RADAR CROSS SECTION OF FROG 3M4 SCUD A AND B AND 250 MM - FREE ROCKET AT 6 FREQUENCIES (U)	Chynoweth, R. Foman, D.
RD-TR-67-2 (Conf)	8 Feb 67	THE GUIDANCE AND TARGET INTERCEPT COMPUTER EQUATIONS FOR A DIGITAL SIMULATION OF THE SPARTAN SUBSYSTEM (U)	Garber, V.
RD-TR-67-5 (Secret)	17 Oct 67	TRANSVERSE JET EXPERIMENTS AND THEORIES: A SURVEY OF THE LITERATURE, PART 2 (U)	Spring, D. Street, T. Amick, J.
RD-TR-67-4 (Uncl)	30 Jun 67	TRANSVERSE JET EXPERIMENTS AND THEORIES: A SURVEY OF THE LITERATURE, PART 1	Spring, D. Street, T. Amick, J.
RD-TR-67-7 (Conf)	27 Sep 67	AN EXPERIMENTAL INVESTIGATION OF THE DYNAMIC STABILITY OF A LITTLEJOHN MISSILE WITH A SIMULATED REACTION JET CONTROL SYSTEM (U)	Martin, T.
RD-TR-67-8 (Secret)	3 Oct 67	PERSHING MISSILE SYSTEM ACCURACY ANALYSIS (U)	Maddix, M.
RD-TR-67-9 (Conf)	11 Oct 67	PRELIMINARY DESIGN AND SYSTEM DESCRIPTION OF THE DIRECTIONAL CONTROL, THRUST FLOATED GYROSCOPE, LITTLEJOHN (MRRS) VOLUME II (U)	Forgey, R. Morrow, M.



<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RD-TR-67-12 (Uncl)	Dec 67	CORRELATION OF VISCOUS EFFECTS AND COMPARISON BETWEEN EXPERIMENTAL AND THEORETICAL DISTRIBUTION OF POTENTIAL NORMAL FORCE AND PITCHING MOMENT FOR BODIES OF REVOLUTION AT SUPERSONIC SPEEDS	Washington, W.
RD-MPR-67-1 (Sec/RD)	20 Dec 66	NIKE-X QUARTERLY PROGRESS REPORT, OCTOBER, NOVEMBER, AND DECEMBER 1966 (U)	
RD-MPR-67-2 (Sec/RD)	20 Mar 67	NIKE-X QUARTERLY PROGRESS REPORT, JANUARY FEBRUARY, AND MARCH 1967 (U)	
RD-MPR-67-3 (Sec/RD)	20 Jun 67	NIKE-X QUARTERLY PROGRESS REPORT, APRIL, MAY, JUNE 1967 (U)	
RD-MPR-67-4 (Sec/RD)	20 Sep 67	NIKE-X QUARTERLY PROGRESS REPORT, JULY, AUGUST, AND SEPTEMBER 1967(U)	

ARMY INERTIAL GUIDANCE AND CONTROL LABORATORY AND CENTER

RG-TM-67-1 (Uncl)	6 Jan 67	APPLICATION OF THE HYDRAULIC ANALOGY TO INTERNAL FLOWS SUCH AS EXIST IN PURE FLUID ELEMENTS	Warren, C.
RG-TR-66-14 (Uncl)	16 May 66	FUNCTIONS REQUIRED IN A SPECIAL PURPOSE DIGITAL DIFFERENTIAL ANALYZER	Williams, J. Gilbert, W.
RG-TR-66-15 (Uncl)	16 May 66	DISCRETE CIRCUITS USED IN AN INTEGRATED CIRCUIT DIGITAL DIFFERENTIAL ANALYZER	Grabney, J. Williams, J.
RG-TR-66-24 (Secret)	18 Aug 66	ANALYSIS OF ARMY MISSILE CONTROL SYSTEM ELECTRONICS FOR PERMANENT RADIATION EFFECT (U)	McIngvale, P. Farwer, G.
RG-TR-66-26 (FOUO)	15 Nov 66	HYDRAULIC - VIBRATION EVALUATION AND RESPONSE ANALYSIS OF SECONDARY INJECTION, PULSE RATIO MODULATED ON-OFF VALVES (LANCE MISSILE SYSTEM)	Wisniewski, R.
RG-TR-66-27 (Conf)	20 Dec 66	ACCURACY ANALYSIS OF A REAR-CONTROLLED MULTIPLE RAIL ROCKET SYSTEM LITTLEJOHN (U)	Lewis, C.
RG-TR-66-28 (Uncl)	16 Dec 66	RADIATION EFFECTS PREDICTION FOR A PULSE WIDTH MODULATED SERVO AMPLIFIER	Holeman, J.
RG-TR-66-29 (Uncl)	16 Dec 66	RATE GYRO EVALUATION, AMERICAN CHAIN AND CABLE MODEL 54	Jones, D.
RG-TR-67-1 (FOUO)	10 Jan 67	A LABORATORY EVALUATION OF THE LOCKHEED MISSILE AND SPACE COMPANY'S PULSE REBALANCED ACCELEROMETER	Little, L.
RG-TR-67-2 (Uncl)	16 Jan 67	DIGITAL DIFFERENTIAL ANALYZER ORGANIZATION FOR AN ANALYTIC PLATFORM TRANSFORMATION COMPUTER	Scheiman, G.
RG-TR-67-3 (Uncl)	15 Mar 67	TELEDYNE FRI FREE ROTOR GYROSCOPE EVALUATION	Pugh, R.
RG-TR-67-4 (Uncl)	15 Mar 67	EXPERIMENTAL INVESTIGATION OF NEUTRON AND GAMMA RADIATION EFFECTS ON SEMICONDUCTOR DIFFERENTIAL AMPLIFIERS	McIngvale, P.
RG-TR-67-5 (Secret)	13 Mar 67	NUCLEAR RADIATION STUDY ON LANCE POWER SUPPLY ELECTRONIC (TP) (U)	Ruwe, V.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RG-TR-67-6 (Uncl)	31 Mar 67	HAWK S-BAND TELEMETRY ANTENNA INVESTIGATION	Howell, J.
RG-TR-67-7 (Secret)	6 Apr 67	EVALUATION OF GUIDANCE SYSTEMS FOR THE PERSHING II MISSILE (U)	Bezner, K. Johnston, J. Copeland, D.
RG-TR-67-8 (Uncl)	14 Apr 67	TWO-AXIS AUTOMATIC THEODOLITE	Hall, R. Merrell, J.
RG-TR-67-10 (Conf)	1 May 67	NORTH SEEKING PLATFORM STUDY FOR PERSHING II (U)	Stripling, W.
- RG-TR-67-11 (Uncl)	2 May 67	FLUERIC MISSILE CONTROL SYSTEM DEVELOPMENT AND FLIGHT TEST	Clayton, B. Williams, J. Wetheral, T.
RG-TR-67-12 (Uncl)	19 May 67	PULSE DURATION MODULATION GUIDANCE MODULE DESIGN AND DEVELOPMENT (SUMMARY REPORT)	Byrd, J.
- RG-TR-67-13 (Uncl)	25 May 67	EXPERIMENTAL DETERMINATION OF PERMANENT NUCLEAR RADIATION EFFECTS ON ARMY MISSILE CONTROL SYSTEM ELECTRONICS	McIngvale, P.
RG-TR-67-15 (Secret)	20 Jun 67	ARMY LAND COMBAT STUDY (U)	Alongi, R.
RG-TR-67-16 (Uncl)	15 Aug 67	AN EXAMPLE OF THE APPLICATION OF ECAP TO CIRCUIT ANALYSIS OF A-C POWER SUPPLY	Ruwe, V. Holeman, J.
RG-TR-67-18 (Uncl)	17 Jul	LAYING AND AIMING STUDY FOR ADVANCED STUDY LAND COMBAT SYSTEMS	Johnston, J.
RG-TR-67-19 (Uncl)	Jul 67	APPLICATION OF THE HYDRAULIC ANALOGY TO INTERNAL SUBSONIC FLOW	Warren, C.
RG-TR-67-20 (Uncl)	15 Aug 67	THE EFFECT OF NEUTRON AND TEMPERATURE ENVIRONMENT ON SENSISTORS, STABISTORS AND ZENER DIODES	Ruwe, V.
RG-TR-67-22 (Uncl)	21 Aug 67	LEAR PULSE REBALANCED ACCELEROMETER	Little, L.
RG-TR-67-23 (Conf)	23 Aug 67	STUDY, APPLICATION, AND EVALUATION OF MICROCIRCUITS FOR THE DRAGON MISSILE CONTROL SYSTEM ELECTRONICS PACKAGE (U)	Herbert, E.
RG-TR-67-25 (Uncl)	1 Sep 67	AN EVALUATION OF DRC'S 3000-COUNT DIRECT AXIS OPTICAL ENCODER	Hunter, J.
RG-TR-67-26 (Uncl)	13 Sep 67	ARITHMETIC OPERATIONS IN AN INCREMENTAL MISSILE GUIDANCE COMPUTER	Williams, J. Brown, J., Jr.
RG-TR-67-27 (Uncl)	18 Sep 67	LEAR SQUEEZE FILM ACCELEROMETER	Little, L.
RG-TR-67-29 (Conf)	20 Oct 67	STATUS OF INERTIAL GUIDANCE FOR DIRECT-FIRE MISSILES (U)	Jordan, W.
RG-TR-67-31 (Uncl)	30 Sep 67	DESIGN PERFORMANCE APPRAISAL OF THE LANCE CONFIGURATION BELL ACCELEROMETER	Hunter, J.
RG-TR-67-33 (Uncl)	30 Nov 67	DESIGN VERIFICATION EVALUATION OF A HYBRID PNEUMATIC ACCELEROMETER	Hunter, J.

ARMY PROPULSION LABORATORY AND CENTER

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RK-TN-67-1 (Conf)	27 Jul 67	ALTERNATE CASE MATERIALS FOR SPRINT (U)	Crownover, W.
RK-TR-67-1 (Uncl)	3 Jan 67	EFFECT OF PLASTICIZERS ON THE STRENGTH OF A PLASTIC MOTOR CASE, PART I- SHEAR CREEP OF SEGMENTS IMMERSSED IN PLASTICIZER	Morgan, D.
RK-TR-67-2 (Conf)	31 Jan 67	OPTIMIZING THE PACKING OF AMMONIUM PERCHLORATE AND ALUMINUM PARTICLE SIZE MIXTURES OF SOLID PROPELLANTS (U)	Alley, B. Dykes, H.
RK-TR-67-3 (Conf)	5 Apr 67	A PHOTOELASTIC ANALYSIS OF THE STRESS CONCENTRATION IN THE HIBEX GRAIN CONFIGURATION (U)	Griffin, J.
RK-TR-67-4 (Conf)	23 Aug 67	COMPOSITE PROPELLANT COMBUSTION (U)	Pittman, C., Jr.
RK-TSR-67-1 (Conf)	Jul-Sep 66	QUARTERLY STATUS REPORT, PROPULSION LABORATORY (U)	
RK-TSR-67-2 (Conf)	Sep-Dec 66	TECHNICAL STATUS REPORT, PROPULSION LABORATORY (U)	
RK-TSR-67-3 (Conf)	Jan-Mar 67	TECHNICAL STATUS REPORT, PROPULSION LABORATORY (U)	
RK-TSR-67-4 (Conf)	Apr-Jun 67	TECHNICAL STATUS REPORT, PROPULSION LABORATORY (U)	

DEVELOPMENT DIVISION

RH-TR-66-1 (Uncl)	30 Nov 66	METEOROLOGICAL ROCKET PROGRAM - VOLUME II (REVISION 1) ROCKET COMPONENTS FOR THE METEOROLOGICAL DATA SOUND SYSTEM AN/UMQ-7 ( ) (V)	Estes, G.
RH-TR-66-1 (Uncl)	31 Oct 66	METEOROLOGICAL ROCKET PROGRAM - VOLUME III (REVISION 1) METEOROLOGICAL RESEARCH, DEVELOPMENT, TEST AND EVALUATION ROCKET	Estes, G.
RH-TR-67-1 (Uncl)	Apr 67	INVESTIGATION INTO IMPROVEMENT IN CONTROL OF THE SS-11 MISSILE	Doorley, R. Walker, N. Drury, D.

FUTURE MISSILE SYSTEMS DIVISION

RF-TR-67-1 (Sec/RD NOFORN)	6 Feb 67	APOSTULATED SOVIET AIR DEFENSE CAPABILITIES 1968 - 1972 (ADDENDUM) (U)	Farmer, D.
RF-TR-67-2 (Uncl)	Nov 67	U. S. ARMY MISSILE COMMAND'S SYSTEM ORIENTED COST MODEL, VOLUME I - MODEL CONCEPTS AND CHARACTERISTICS	Strope, D.
RF-TR-67-2 (Uncl)	Nov 67	U. S. ARMY MISSILE COMMAND'S SYSTEMS ORIENTED COST MODEL, VOLUME II - ADDITIONAL INFORMATION FOR MODEL OPERATION	Strope, D.

## GROUND SUPPORT EQUIPMENT LABORATORY

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RL-TN-67-1 (Uncl)	Jan 67	ANALYSIS OF 50-VOLT POWER SUPPLY	Lienau, J.
RL-TN-67-3 (Uncl)	15 Apr 67	PROGRESS REPORT NO. 1, ADVANCED SENSORS TRACKING MOUNT	
RL-TN-67-4 (Conf)	28 Mar 67	PRELIMINARY GROUND SUPPORT EQUIPMENT CONCEPT FOR ADVANCED COMBAT STUDY OF ARTILLERY WEAPONS (U)	Johnson, A. Buffington, W. Gregg, T.
RL-TN-67-5 (Conf)	10 Jul 67	STABILIZED SIGHT FOR LASAM (U)	McDonald, C.
RL-TN-67-6 (Uncl)	24 Aug 67	INVESTIGATION OF ROCKETS AND LAUNCHERS FOR AIRCRAFT WEAPONIZATION	Cornelison, C.
RL-TN-67-7 (Uncl)	Sep 67	PROGRESS REPORT NO. 2, ADVANCED SENSORS TRACKING MOUNT	
RL-TN-67-8 (Conf)	26 Sep 67	STUDY ON SPRINT MISSILE SECTION CONTAINER REQUIREMENTS (U)	Wade, J., Jr.
RL-TN-67-9 (Uncl)	10 Oct 67	INITIAL SUPPORT OPERATIONAL EVALUATION PROGRAM LAND COMBAT SUPPORT SYSTEM	Harness, J.
RL-TM-67-1 (Uncl)	17 Jan 67	WEIGHT AND BALANCE COMPUTER PROGRAM FOR USE IN ARMING AND MODIFYING AIRCRAFT	McDonald, C. Magnant, K.
RL-TM-67-2 (Secret)	10 Jul 67	FIRESTORM EFFECTS ON NIKE-X POWER PLANT (U)	Hiza, M.
RL-TM-67-3 (Conf)	Jun 67	REPORT ON A LASER TARGET DESIGNATOR SYSTEM (GIMBALLED SEEKER-SENSOR) FIELD DEMONSTRATION (U)	Dunstone, D.
RL-TR-67-1 (Uncl)	17 Feb 67	THE IMPROVEMENT OF THE MAGNETIC HARDNESS TESTER WHICH WAS DEVELOPED FOR THE U. S. ARMY MISSILE COMMAND BY THE BUREAU OF ENGINEERING RESEARCH, UNIVERSITY OF ALABAMA UNDER CONTRACT DA 01-021-AMC-11187 (Z)	Patterson, W.
RL-TR-67-3 (Conf)	12 Jun 67	EXPLORATORY DEVELOPMENT PROGRAM FOR A MULTIRAIL ROCKET LAUNCHER (U)	Williams, L. Collier, B. Lamar, G. Dunstone, D. Browning, A.
RL-TR-67-4 (Conf)	3 Oct 67	578 MM SOSR ROCKET DEVELOPMENT PROGRAM FLIGHT TEST RESULTS (U)	Collier, B.
RL-TR-67-5 (Uncl)	1 Nov 67	DRAGON LAUNCHER SUPPORT STUDY	Smith, J.

PHYSICAL SCIENCES LABORATORY

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RR-TM-67-1 (Secret)	15 Aug 67	SEMIEMPIRICAL MODEL FOR ESTIMATING REENTRY VEHICLE WEIGHT (U)	Jenkins A. Bartee, E.
RR-TR-66-10 (Uncl)	21 Jul 66	A COMPILATION OF TABLES OF METEOROLOGICAL VISIBILITY STATISTICS	Dudel, H.
RR-TR-66-16 (Uncl)	10 Nov 66	EXPERIMENTAL STUDIES OF THE BENNETT PINCH	Roberts, T.
RR-TR-66-17 (Uncl)	1 Dec 66	THE RADIAL DISTRIBUTION OF EMISSION FROM A CYLINDRICAL PLASMA	Hales, W. Roberts, T.
RR-TR-67-1 (Uncl)	16 Jan 67	THE ABSORPTION SPECTRUM OF A THREE-BODY F-CENTER MODEL	Howgate, D. Coulter, C.
RR-TR-67-2 (Uncl)	17 Jan 67	SHORT-TIME CREEP BEHAVIOR OF 18-NICKEL (250 KSI) AND 18-NICKEL (300 KSI) MARAGING STEEL UNDER UNIAXIAL TENSILE AND 1:2 TENSION-TENSION BIAXIAL LOADING	Austin, C., Jr.
RR-TR-67-3 (Uncl)	15 Feb 67	PHASE SENSITIVE AUTOMATIC FREQUENCY CONTROL	Hartman, R.
RR-TR-67-4 (Uncl)	15 Feb 67	WIND SHEAR AND BAROCLINICITY IN CROSS SECTIONS ALONG 80° W	Stewart, D.
RR-TR-67-5 (Uncl)	5 Apr 67	SOME CLIMATIC INFORMATION ON SURFACE VISIBILITY	Dudel, H.
RR-TR-67-6 (Uncl)	3 Apr 67	AN ELECTRON BEAM PROBE FOR LOCAL MEASUREMENTS OF GAS PROPERTIES	Cason, C.
RR-TR-67-7 (Uncl)	3 Mar 67	DEVELOPMENT OF THE MULTIPLE ARC CONCEPT FOR THE AMICOM 8000-KW PLASMA FACILITY	Barr, T., Jr. Cason, C.
RR-TR-67-8 (Uncl)	2 May 67	WIND PROFILE CLIMATOLOGY OF NEW ORLEANS, LOUISIANA	Essenwanger, O. Reisig, G
RR-TR-67-9 (Uncl)	10 May 67	SHAPE DEPENDENCE OF THE CONDUCTION BAND TAIL UPON DONOR CONCENTRATION IN GALLIUM ARSENIDE	Wittman, H.
RR-TR-67-10 (Uncl)	10 Jul 67	FORTRAN PROGRAMS TO COMPUTE RAWINSONDE DATA FOR MILITARY AND WEATHER BUREAU RADIOSONDES	Billions, N.
RR-TR-67-11 (Uncl)	25 Jul 67	EXPERIMENTAL DEVELOPMENT OF N <sub>2</sub> -CO <sub>2</sub> LASERS	Roberts, T. Hutchenson, G. Ehrlich, J. Hales, W.
RR-TR-67-12 (Uncl)	17 Aug 67	MESOSCALE STRUCTURE IN THE TROPICS AS REVEALED BY COMPARATIVE RAWINSONDE DATA FOR KWAJALEIN AND ROI-NAMUR ISLANDS, KWAJALEIN TEST SITE, MARSHALL ISLANDS	Billions, N.
RR-TR-67-13 (Uncl)	1 Aug 67	PREPARATIVE SCALE GAS-LIQUID CHROMATOGRAPHY OF SUBSTITUTED DIAZIRINES	Merritt, J. Knopka, W. Mitchell, R. Robertson, L.



REDSTONE SCIENTIFIC INFORMATION CENTER

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-504 (Uncl)	1 Sep 67	LUNAR SURFACE MATERIALS	
RSIC-537 (Uncl)	1 Apr 66	SOLAR ACTIVITY - A BIBLIOGRAPHY	Eckstein, H.
RSIC-549 (Uncl)	23 Jun 67	AUTOMATED LITERATURE PROCESSING HANDLING AND ANALYSIS SYSTEM - FIRST GENERATION	
RSIC-658 (Uncl)	Apr 67	PERIODICALS CATALOG	
RSIC-566 (Conf)	15 Nov 66	A REVIEW OF EXTERNAL BURNING (U)	Caras, G.
RSIC-589 (Uncl)	9 Nov 66	TESTS AND COMPARISONS OF THE NORMAL TEXT SEARCH FOR INFORMATION RETRIEVAL (IBM)	Dutchess, D.
RSIC-591 (Uncl)	30 Sep 66	FERROCENE AND FERROCENE DERIVATIVES	McNutt, W. Pittman, C., Jr.
RSIC-607 (Uncl)	31 Oct 66	ADHESION IN THE SPACE ENVIRONMENT	Pattee, H. Monroe, R.
RSIC-611 (Uncl)	16 Jan 67	SPACE VEHICLE NAVIGATION, GUIDANCE, AND CONTROL	Langston, R.
RSIC-612 (Translation) (Uncl)	29 Nov 66	THE MAIN SECTION OF AXISYMMETRICAL JETS OF AN INCOMPRESSIBLE FLUID FLOWING FROM AN APERTURE OF FINITE SIZE INTO A CO-AXIAL UNIFORM FLOW OF THE SAME FLUID	Pavlovskiy, V.
RSIC-613 (Translation) (Uncl)	26 Jul 67	CERTAIN GENERAL PATTERNS IN THE OCCURRENCE OF HYDROGEN BRITTLENESS IN THE ALLOYS VT3-1 AND VT15	Kolachev, B. Livanov, V. Gusel'nikov, N. Bukhanova, A.
RSIC-614 (Uncl)	30 Nov 66	INDUSTRIAL SURVEY OF ELECTRONIC PACKAGING	Easterday, J. Kaiser, D. Burley, C.
RSIC-615 (Translation) (Uncl)	6 Dec 66	DYNAMIC RELATIONSHIP BETWEEN STRESS AND STRAIN IN ELASTIC MATERIALS AND PLASTICS	Volterra, E.
RSIC-616 (Translation) (Uncl)	6 Dec 66	THE USE OF STRIOSCOPIIC OBSERVATION METHODS IN BOILING AND DE-AERATION STUDIES	Behar, M. Semeria, R.
RSIC-617 (Translation) (Uncl)	8 Dec 66	RING SUBSTITUTIONS AND SUBSEQUENT REACTIONS ON AROMATIC-METAL- $\pi$ -COMPLEXES, PART I AND PART II	Plesske, K.
RSIC-618 (Translation) (Uncl)	8 Dec 66	WALL-TEMPERATURE FLUCTUATIONS DURING BOILING IN A HEATING TUBE	Morin, R.
RSIC-619 (Uncl)	30 Dec 66	STUDIES OF RANDOM NOISE: AN ANNOTATED BIBLIOGRAPHY	Eckstein, H.
RSIC-620 (Translation) (Uncl)	9 Dec 66	STUDIES ON THE EFFECTIVE HEAT TRANSFER THROUGH A PACKED BED	Yagi, S. Kunii, D.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-621 (Translation) (Uncl)	12 Dec 66	ON THE CALCULATION OF AN INERTIAL NAVIGATION SYSTEM	Vovchenko, N.
RSIC-622 (Translation) (Uncl)	14 Dec 66	PERIODIC SUCTION BOUNDARY LAYERS	Wuest, W.
RSIC-623 (Translation) (Uncl)	15 Dec 66	KINETIC STUDY OF THE BOILING OF A LIQUID	Terao, K. Hatano, F. Sano, F.
RSIC-624 (Translation) (Uncl)	15 Dec 66	THEORETICAL STUDY OF THE TWO-DIMENSIONAL PANEL FLUTTER AND PANEL DIVERGENCE IN SUBSONIC FLOW (II)	Ishii, T.
RSIC-626 (Translation) (Uncl)	19 Dec 66	ASYMPTOTIC SUCTION BOUNDARY LAYERS FOR CYLINDRICAL BODIES IN LONGITUDINAL FLOW	Wuest, W.
RSIC-627 (Uncl)	25 Jan 67	A REVIEW OF THE RESEARCH ORIGINS OF THE LANCE WEAPON SYSTEM - PROJECT HINDSIGHT - TASK 1 SUPPLEMENT	Brown, J. Bagby, F. Conlon, R. Hess, R. Luce, R. Ogden, H. Van Orsdel, J.
RSIC-628 (Translation) (Uncl)	5 Jan 67	KIRCHHOFF'S THEOREM IN THE ACOUSTICS OF A MOVING MEDIUM	Chernov, L.
RSIC-629 (Translation) (Uncl)	5 Jan 67	SOLID STATE LIGHT AMPLIFIERS (AMPLIFICONS OR OPTRONS)	Diemer, G.
RSIC-630 (Translation) (Uncl)	6 Jan 67	STRESS AND STABILITY INVESTIGATIONS ON THIN-WALL CONICAL SHELLS FOR AXIALLY SYMMETRIC BOUNDARY CONDITIONS	Schiffner, K.
RSIC-631 (Translation) (Uncl)	6 Jan 67	PARAMAGNETIC RELAXATION IN HOLMIUM ETHYL SULFATE	Cremer, R. Gabrielsen, N. Hufner, S. Nicolay, K. Weber, G.
RSIC-632 (Translation) (Uncl)	6 Jan 67	MECHANISM OF STEAM BUBBLE FORMATION	Shekriladze, I.
RSIC-633 (Uncl)	31 Jan 67	MERCURY ATMOSPHERE AND SURFACE	Hoop, H.
RSIC-634 (Translation) (Uncl)	18 Jan 67	A DIFFERENTIAL EQUATION FOR THE PHASE IN THE CASE OF NEUTRON-PROTON SCATTERING	Bergmann, O.
RSIC-635 (Translation) (Uncl)	18 Jan 67	AMPLITUDE DEPENDENT DAMPING AND MODULUS DEFECT IN ALUMINUM, PART I. MEASURING METHODS	Lang, H. Holzinger, O. Pechhold, W.
RSIC-636 (Translation) (Uncl)	19 Jan 67	CALCULATION OF WAVE DAMPING IN A VISCOUS LIQUID OF FINITE DEPTH	Biesel, F.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-637 (Translation) (Uncl)	20 Jan 67	COMMENTS ON "WAVE DAMPING COMPUTATION FOR A VISCOUS LIQUID OF FINITE DEPTH," BY F. BIESEL, LA HOUILLE BLANCHE, NO. 5 630-634 (1949)	Carry, C.
RSIC-638 (Translation) (Uncl)	23 Jan 67	STUDIES ON PHOSPHORYL AND THIOPHOSPHORYL COMPOUNDS. IV. <sup>19</sup> F- AND <sup>31</sup> P- NUCLEAR MAGNETIC RESONANCE SPECTRA OF SPF <sub>3</sub> , SPF <sub>2</sub> Cl, AND SPF <sub>2</sub> Br	Horn, H. Muller, A.
RSIC-639 (Translation) (Uncl)	24 Jan 67	STUDY OF OBJECTIVES	Hartman, J.
RSIC-640 (Translation) (Uncl)	25 Jan 67	EFFECT OF CERTAIN ADDITIVES ON THE THERMAL DECOMPOSITION OF AMMONIUM PERCHLORATE	Shidlovskiy, A. Shmagin, L. Bulanova, V.
RSIC-641 (Translation) (Uncl)	25 Jan 67	SOLID STATE REACTIONS OF THE TITANIUM-OXIDE ZINC-OXIDE SYSTEM	Kubo, T. Kato, M. Mitarai, Y. Uchida, K.
RSIC-642 (Uncl)	27 Jan 67	FUNDAMENTALS OF SELECTED ASPECTS OF DEFORMATION CHARACTERISTICS OF ADHESIVE-BONDED JOINTS AND METAL-ADHESIVE INTERFACES	Masubuchi, K. Keith, R.
RSIC-643 (Translation) (Uncl)	1 Feb 67	REACTION OF SULFUR TRIOXIDE WITH CARBON DISULFIDE	Steudel, R.
RSIC-644 (Translation) (Uncl)	6 Feb 67	STUDY OF TWO DIMENSIONAL PANEL FLUTTER AND PANEL DIVERGENCE IN SUBSONIC FLOW (III)-EXPERIMENTAL STUDIES OF TWO DIMENSIONAL AND THREE DIMENSIONAL PANELS IN LOW SPEED WIND TUNNEL	Ishii, T.
RSIC-645 (Translation) (Uncl)	13 Feb 67	FERROCENE ACETYLENES. PART 6: SYNTHESIS AND LIGHT ABSORPTION OF FERROCENYL POLYINES	Schlögl, K. Steyrer, W.
RSIC-646 (Conf)	15 Mar 67	FERROCENE AND FERROCENE DERIVATIVES (U)	McNutt, W. Pittman, C., Jr.
RSIC-647 (Translation) (Uncl)	13 Feb 67	REPORT 4: INSTABILITY OF PERIODIC MOTIONS NEAR COLLINEAR POINTS OF LIBRATION IN THE RESTRICTED PROBLEM OF THREE BODIES	Duboshin, G.
RSIC-648 (Translation) (Uncl)	1 Mar 67	PREPARATION AND SUPERCONDUCTIVITY CHARACTERISTICS OF Nb-Sn MULTIWIRES	Koch, D. Speidel, H. Otto, G. Saur, E.
RSIC-649 (Translation) (Uncl)	2 Mar 67	OPTIMUM PROCESSES IN SYSTEMS WITH DISTRIBUTED PARAMETERS AND SOME PROBLEMS OF INVARIANCE THEORY	Yegorov, A.
RSIC-650 (Secret)	28 Feb 67	SIMULATION OF NUCLEAR WEAPONS EFFECTS (U)	Matthews, R. Leach, E. Castle, R.
RSIC-651 (Conf)	16 Mar 67	AN EVALUATION OF SIGNAL PROCESSING TECHNIQUES SUITABLE FOR AN ELECTRONICALLY SCANNED MOBILE TACTICAL AIR DEFENSE RADAR SYSTEM (U)	Barrick, D.



<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-652 (Translation) (Uncl)	7 Mar 67	THE CARBON SUBSULFIDE C <sub>3</sub> S <sub>2</sub>	Stock, A. Praetorius, P.
RSIC-653 (Uncl)	10 May 67	A CRITICAL REVIEW OF DATA ON HEAT TRANSFER AND PRESSURE DISTRIBUTION ON NOSE CONES IN THE HIGH UNIT REYNOLDS NUMBER REGIME	Whitacre, G. Ungar, E.
RSIC-654 (Translation) (Uncl)	27 Mar 67	FORCED OSCILLATIONS OF PRISMATIC BARS	Timoschenko, S.
RSIC-655 (Translation) (Uncl)	29 Mar 67	COLLIMATION OF X-RAYS USING TOTAL REFLECTION. PART III - A HIGH-SPEED MONOCHROMATOR FOR THE STUDY OF SMALL-ANGLE X-RAY SCATTERING	Damaschun, G.
RSIC-656 (Translation) (Uncl)	29 Mar 67	CHRISTIANSEN DISPERSION FILTERS FOR HIGH-INTENSITY AND SELECTIVE MONOCHROMATORS	Geffecken, W.
RSIC-657 (Uncl)	28 Sep 67	MARS THERMOPHYSICS	McNutt, W. Maye, B. McHugh, N.
RSIC-659 (Translation) (Uncl)	12 Apr 67	REFLECTION OF X-RAYS ON ABSORBING IDEAL CRYSTALS	Prins, J.
RSIC-660 (Translation) (Uncl)	21 Apr 67	ANALYSIS OF THE RUNGE-KUTTA-FEHLBERG METHOD	Filippi, S. Spicher, K.
RSIC-661 (Translation) (Uncl)	21 Apr 67	ANOMALOUS DISPERSION IN THE FIELD OF RADIOLOGY	Forster, R.
RSIC-662 (Translation) (Uncl)	24 Apr 67	DETERMINATION OF THE INDEX OF REFRACTION OF THE X-RAYS THROUGH THE PHENOMENON OF TOTAL REFLECTION	Linnik, W. Laschkarew, W.
RSIC-663 (Uncl)	15 Apr 67	COMPATIBLE AUTOMATED LIBRARY CIRCULATION CONTROL SYSTEMS	Umstead, C. Croxtton, F.
RSIC-664 (Translation) (Uncl)	2 May 67	OPTIMIZATION OF DYNAMIC DAMPERS FOR MACHINE TOOLS - BREAKING DOWN A MACHINE TOOL INTO ITS ELEMENTARY VIBRATIONAL SYSTEMS	Vanherck, P.
RSIC-665 (Translation) (Uncl)	2 May 67	STORAGE BATTERIES FOR MINER'S PORTABLE LAMPS	Keul, R.
RSIC-666 (Translation) (Uncl)	3 May 67	THE THERMAL EMISSION OF METALS INTO THE HALF SPACE	Klein, H.
RSIC-667 (Translation) (Uncl)	3 May 67	EXPERIMENTAL INVESTIGATION OF THE REFRACTION AND DISPERSION OF X-RAYS THROUGH CRYSTAL REFLECTION ON MICA	Larsson, A.
RSIC-668 (Translation) (Uncl)	5 May 67	ON THE DISPERSION AND ABSORPTION OF X-RAYS	Prins, J.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-669 (Translation) (Uncl)	5 May 67	DETERMINATION OF THE MECHANICAL PROPERTIES OF SOLID ROCKET FUELS	Schubert, H. Schmitt, D.
RSIC-670 (Uncl)	28 Sep 67	INTEGRATION OF NASA-SPONSORED STUDIES ON ALUMINUM WELDING	Masubuchi, K.
RSIC-671 (Translation) (Uncl)	11 May 67	GASTIGHT AND MAINTENANCE-FREE STORAGE BATTERIES	Krämer, G.
RSIC-672 (Translation) (Uncl)	11 May 67	ANALYSIS, CLASSIFICATION, AND LABORATORY SIMULATION OF THE CLIMATIC DETERIORATION OF ELECTRICAL EQUIPMENT	Rychtera, M.
RSIC-673 (Translation) (Uncl)	15 May 67	TOTAL REFLECTION OF LONGWAVE X-RADIATION	Schön, M.
RSIC-674 (Translation) (Uncl)	15 May 67	STUDY OF OBJECTIVES	Hartmann, J.
RSIC-675 (Translation) (Uncl)	18 May 67	ALKALINE PRIMARY CELLS	Jolas, F.
RSIC-676 (Translation) (Uncl)	19 May 67	CONTACT DIFFUSION INTERACTION OF MATERIALS WITH CLADDING	Babad-Zakhryapina, A.
RSIC-677 (Translation) (Uncl)	25 May 67	CONCERNING THE CALCULATION OF THE NATURAL FREQUENCIES OF AN UNCLOSED CIRCULAR RING OF CONSTANT CROSS SECTION WHICH MOVES FREELY IN ITS PLANE	Hasselgruber, H.
RSIC-678 (Translation) (Uncl)	26 May 67	RECENT ACHIEVEMENTS IN THE SYNTHESIS AND INVESTIGATION OF HEAT RESISTANT POLYMERS PART I	Rabek, J.
RSIC-679 (Uncl)	30 Jun 67	FACILITIES FOR SIMULATING ATTITUDE MOTION OF SPACECRAFT	Hoop, H.
RSIC-680 (Translation) (Uncl)	15 Jun 67	SDS RADAR: A SURVEILLANCE RADAR FOR THE DETECTION OF MOVING OBJECTS ON THE GROUND AND ITS EXTENSION TO LOW-FLYING AIRCRAFT	van den Broek, G.
RSIC-681 (Conf)	30 Jun 67	ANTI-TANK MISSILE GUIDANCE AND CONTROL: AN ANNOTATED BIBLIOGRAPHY (U)	Terry, J.
RSIC-682 (Translation) (Uncl)	29 Jun 67	REFLECTION OF A LIGHTWAVE BOUNDED ON THE SIDE AT THE LESS DENSE MEDIUM AT SOME DISTANCE FROM THE CRITICAL ANGLE OF TOTAL REFLECTION	Artmann, K.
RSIC-683 (Translation) (Uncl)	29 Jun 67	FLUID DYNAMICS - THE IMPORTANCE OF THE REYNOLDS NUMBER AND OF THE GEOMETRIC CONFIGURATION OF THE FLOW SOURCE IN THE STUDY OF TURBULENT SUBSONIC GAS JETS	Florent, P.
RSIC-684 (Translation) (Uncl)	30 Jun 67	ALKYLATION OF ACTIVATED AROMATIC COMPOUNDS BY CYCLOPROPENYLIUM SALTS	Föhlisch, B. Bürgle, P.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-685 (Translation) (Uncl)	30 Jun 67	REFRACTION AND REFLECTION OF A (LIGHT-) WAVE BOUNDED ON THE SIDE AT THE PLANE INTERFACE OF TWO MEDIA NEAR THE CRITICAL ANGLE OF TOTAL REFLECTION	Artmann, K.
RSIC-686 (Translation) (Uncl)	3 Jul 67	THE PRINCIPAL FACTORS DETERMINING THE DIRECTIONAL PATTERN OF A DIELECTRIC ANTENNA	Rankis, G.
RSIC-688 (Translation) (Uncl)	21 Jul 67	THERMO-DIFFUSION IN THE TUNGSTEN-BERYLLIUM SYSTEM	Arzhanyi, P. Volkova, R. Prokoshkin, D.
RSIC-689 (Translation) (Uncl)	28 Aug 67	DELAYED FRACTURE OF TITANIUM ALLOYS	Shorshorov, M. Meshcheriakov, V.
RSIC-690 (Translation) (Uncl)	26 Jul 67	A DEVICE FOR THE AUTOMATIC CALCULATION OF CORRELATION FUNCTIONS OF ACOUSTIC SIGNALS	Berthier, D.
RSIC-691 (Translation) (Uncl)	6 Sep 67	CYCLOPROPENYL IUM SALTS AND QUINOCYCLOPROPENES	Föhlisch, F. Bürgle, P.
RSIC-692 (Translation) (Uncl)	31 Jul 67	UNSTEADY AERODYNAMIC FIELD WITH APPLICATION TO PANEL FLUTTER	Morino, L.
RSIC-693 (Translation) (Uncl)	31 Jul 67	FLAME PROPAGATION INTO THE GAP OF SOLID PROPELLANT GRAIN (I)	Godai, T.
RSIC-694 (Translation) (Uncl)	2 Aug 67	SOLAR SAILS - A REALISTIC PROPULSION FOR SPACECRAFT	Urbanczyk, M.
RSIC-695 (Translation) (Uncl)	2 Aug 67	INVESTIGATION OF THE COMBUSTION MECHANISM OF SOLID ROCKET PROPELLANTS	Selzer, H.
RSIC-696 (Translation) (Uncl)	8 Aug 67	PERIODIC PROCESSES IN THE MECHANISM OF BURNING OF COMPOSITE ROCKET PROPELLANTS	Selzer, H.
RSIC-697 (Translation) (Uncl)	9 Aug 67	NUMERICAL DIGITAL COMPUTER METHOD FOR DETERMINING THE TRANSIENT RESPONSES OF NONLINEAR AUTOMATIC SYSTEMS BASED ON CALCULATION OF THE CONVOLUTION INTEGRAL	Vul'fson, A.
RSIC-698 (Translation) (Uncl)	9 Aug 67	VISION IN SPACE TRAVEL	Popov, V. Boyko, N.
RSIC-699 (Secret)	11 Aug 67	A SURVEY AND ANALYSIS OF RADAR GLINT AS APPLIED TO AIR DEFENSE MISSILE SYSTEM DESIGN (U)	Coleman, J. Someroski, F.
RSIC-700 (Translation) (Uncl)	24 Aug 67	PRANDTL-MEYER EXPANSION IN AXIALLY SYMMETRICAL FLOW	Ginsburg, T.
RSIC-701 (uncl)	11 Oct 67	REVIEW OF NONDESTRUCTIVE TESTING TECHNIQUES FOR DETECTING LACK OF PENETRATION IN ALUMINUM FUSION WELDS	Gibson, J.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RSIC-702 (Translation) (Uncl)	30 Aug 67	RESEARCH ON THE TOLERANCE FOR SPHERICAL ABERRATION	Francon, M.
RSIC-703 (Translation) (Uncl)	30 Aug 67	OPTIMUM FLIGHTS WITH PRESSURE OF LIGHT TAKEN INTO ACCOUNT	Kirpichnikov, S.
RSIC-705 (Uncl)	Oct 67	PERIODICALS CATALOG	

#### STRUCTURES AND MECHANICS LABORATORY

RS-TM-67-1 (Conf)	18 May 67	LANCE DYNAMIC THRUST ALIGNMENT STUDY (U)	Bass, A.
RS-TM-67-2 (Uncl)	28 Jul 67	EXPERIMENTAL INVESTIGATION OF MATERIALS FOR ROLL-TORQUE JET VANES IN A ROCKET MOTOR USING UDMH AND IRFNA PROPELLANT	Burleson, W. Alston, J.
RS-TM-67-3 (Secret)	Jul 67	STRUCTURAL CONCEPT STUDY FOR SAM-D ARMY OPTIMUM MISSILE (U)	Mullinix, B.
RS-TP-67-1 (Conf)	15 Nov 67	FLIGHT DEMONSTRATION OF A DUAL THRUST LIQUID PROPELLANT MOTOR (U)	Brown, D. et al.
RS-TR-66-8 (Uncl)	1 Sep 66	ANALYSIS OF AXISYMMETRIC SHELL STRUCTURES UNDER AXISYMMETRIC LOADING BY THE FINITE ELEMENT METHOD - REVISED EDITION	Smith, T.
RS-TR-66-14 (Uncl)	22 Nov 66	STRESS ANALYSIS OF THE LANCE PROPULSION SYSTEM	Rausch, R.
RS-TR-66-15 (Uncl)	30 Nov 66	STRESS AND DEFORMATION ANALYSIS FOR CIRCULAR CYLINDRICAL SHELLS UNDER AXISYMMETRIC LOADING AND SATISFYING ALL END BOUNDARY CONDITIONS	Smith, T.
RS-TR-67-1 (Uncl)	18 Jan 67	STRESS-CORROSION CRACKING IN THE HAWK MOTOR CASE	McClane, W.
RS-TR-67-2 (Uncl)	8 Mar 67	COMBINED AERODYNAMIC STATIC STABILITY DERIVATIVES OF A WING-BODY-TAIL CONFIGURATION	Adams, C. Sandlin, J.
RS-TR-67-3 (Uncl)	17 May 67	DIGITAL COMPUTER CURVE READING ROUTINE FOR CURVES WITH n CONSTANT LINES	Sandlin, J. Steedley, E.
RS-TR-67-4 (Uncl)	23 Apr 67	ANALYSIS, DESIGN, AND COGENT FLIGHTS OF THE FIRST LARGE DIAMETER GUN LAUNCHED TEST BODIES - LAHIVE	Hurst, N. Burleson, W.
RS-TR-67-5 (Uncl)	1 Jun 67	DETECTION OF FLAWS IN METAL-HONEYCOMB STRUCTURES BY MEANS OF LIQUID CRYSTALS	Brown, S.
RS-TR-67-6 (Uncl)	28 Jun 67	ENVIRONMENTAL COMPATIBILITY OF GLASS REINFORCED PLASTICS	Parham, J. Verchot, E.
RS-TR-67-7 (Conf)	17 Jul 67	EVALUATION OF THE MARQUARDT CORPORATION UNSOLICITED PROPOSAL FOR AN ANTI MORTOR SYSTEM (U)	
RS-TR-67-8 (Uncl)	25 Jul 67	OPERATING MANUAL FOR A DIGITAL PROGRAM TO CALCULATE UNIT INERTIA LOADS ON A MISSILE	Neale, B. Wirts, N.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RS-TR-67-9 (Uncl)	15 Sep 67	ANALYSIS OF A CIRCULAR SANDWICH PLATE WITH A HOLE IN THE CENTER	Thompson, R.
RS-TR-67-10 (Uncl)	15 Sep 67	A GENERAL SMALL DEFLECTION THEORY OF A SYMMETRICALLY LOADED SANDWICH CYLINDER	Eldridge, C.
RS-TR-67-11 (Uncl)	10 Oct 67	PRACTICAL GALVANIC SERIES	Forman, C. Verchot, E.
RS-TR-67-12 (Uncl)	20 Oct 67	TWO-DIMENSIONAL TRAJECTORY	Steedley, E.
RS-TR-67-13 (Uncl)	15 Nov 67	STATE-OF-THE-ART SURVEY OF RAINDROP EROSION	Wheelahan, E.

#### TEST AND RELIABILITY EVALUATION LABORATORY

✓ RT-TM-66-55 (Uncl)	20 Jul 66	RADIO FREQUENCY EFFECTS INSTRUCTIONAL DOCUMENT	Ponds, C.
RT-TM-66-84 (Conf)	19 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-153 (U)	Rutledge, C.
RT-TM-66-85 (Conf)	14 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-164 (U)	Rutledge, C.
RT-TM-66-86 (Conf)	16 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-151 (U)	Rutledge, C.
RT-TM-66-87 (Conf)	19 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-159 (U)	Rutledge, C.
RT-TM-66-88 (Conf)	19 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-140 (U)	Rutledge, C.
RT-TM-66-89 (Conf)	20 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-141 (U)	Rutledge, C.
RT-TM-66-90 (Conf)	20 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-152 (U)	Rutledge, C.
RT-TM-66-91 (Conf)	20 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-154 (U)	Rutledge, C.
RT-TM-66-92 (Conf)	20 Dec 66	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-161 (U)	Rutledge, C.
RT-TM-66-93 (Uncl)	30 Dec 66	TEST EVALUATION REPORT ON LCSS ELECTRICAL CONNECTOR OPN 11076307	Nelson, R.
RT-TM-67-1 (Conf)	30 Dec 66	STATIC FIRING OF THIRTY-SEVEN TOW FLIGHT MOTORS IN THE QUALIFICATION TEST PROGRAM OF THE TOW TACTICAL FLIGHT MOTOR (U)	Avery, J.
RT-TM-67-2 (Uncl)	18 Jan 67	DATA REPORT - EIGHT PAIR FIRINGS OF 4.5-INCH IMPROVED ROCKETS	Brannon, B.
RT-TM-67-3 (Conf)	10 Jan 67	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-166 (U)	Rutledge, C.
RT-TM-67-4 (Conf)	19 Jan 67	DATA REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-198 AND G-222 (U)	Rutledge, C.



<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RT-TM-67-5 (Conf)	31 Jan 67	TEST REPORT - TOW MISSILES HM-88G-264, G-215, AND G-231 SERVICE TEST MODELS (U)	Huber, C.
RT-TM-67-6 (Conf)	23 Feb 67	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-162 (U)	Rutledge, C.
RT-TM-67-7 (Conf)	27 Feb 67	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-160 (U)	Rutledge, C.
RT-TM-67-8 (Uncl)	21 Feb 67	TEST EVALUATION REPORT - SAFETY TEST OF SHALLOW KEY SHILLELAGH	Richmond, G.
RT-TM-67-9 (Uncl)	10 Mar 67	TEST EVALUATION OF THE SHIPPING AND STORAGE CONTAINER, GUIDED MISSILE (CHAPARRAL) XM-570	Howell, T.
RT-TM-67-10 (Uncl)	20 Mar 67	TEST REPORT OF TOW WIRE LEADER TEST	Huber, C.
RT-TM-67-11 (Uncl)	15 Mar 67	TEST REPORT OF TOW SAFETY FIRINGS	Huber, C.
RT-TM-67-12 (Conf)	6 Feb 67	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-139 (U)	Rutledge, C.
RT-TM-67-13 (Conf)	23 Mar 67	DATA REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-167 (U)	Rutledge, C.
RT-TM-67-14 (Uncl)	14 Apr 67	TEST EVALUATION REPORT ON LCSS VARIABLE RESISTOR OPN 11150193-17	Nelson, R.
RT-TM-67-15 (Uncl)	14 Apr 67	TEST EVALUATION REPORT - TRANSPORTATION VIBRATION, HANDLING, AND STORAGE TESTS OF THE CHAPARRAL CONTAINER	Lyle, J.
RT-TM-67-16 (Conf)	21 Apr 67	TEST REPORT - TOW MISSILES HM-88G-213 AND -219 SERVICE TEST MODEL (U)	Huber, C.
RT-TM-67-17 (Conf)	21 Apr 67	TEST REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-169 (U)	Rutledge, C.
RT-TM-67-18 (Conf)	15 May 67	TEST REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-163 AND G-165 (U)	Rutledge, C.
RT-TM-67-19 (Conf)	5 May 67	TEST REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-142 (U)	Rutledge, C.
RT-TM-67-20 (Conf)	18 May 67	TEST REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-170 (U)	Rutledge, C.
RT-TM-67-21 (Uncl)	11 Apr 67	TOW ADM MISSILE ELECTRONICS UNIT TEST AND EVALUATION REPORT	Garrard, P.
RT-TM-67-22 (Uncl)	1 Jun 67	TOW INFRARED LIGHT SOURCE TEST AND EVALUATION REPORT	Garrard, P.
RT-TM-67-23 (Conf)	8 Jun 67	TEST REPORT - TOW MISSILE HM-88G-217 SERVICE TEST MODEL (U)	Huber, C.
RT-TM-67-24 (Conf)	8 Jun 67	TEST REPORT - TOW MISSILE HM-88G-234 SERVICE TEST MODEL (U)	Huber, C.
RT-TM-67-25 (Conf)	8 Jun 67	TEST REPORT - TOW MISSILES HM-88G-229, -228, -221, AND -216 SERVICE TEST MODELS (U)	Huber, C.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RT-TM-67-26 (Conf)	12 Jun 67	TEST REPORT - TOW MISSILES HM-88G-235 AND -232 SERVICE TEST MODELS (U)	Huber, C.
RT-TM-67-27 (Conf)	9 Jun 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-223 AND G-224 (U)	Rutledge, C.
RT-TM-67-28 (Conf)	12 Jun 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-225 AND G-252 (U)	Rutledge, C.
RT-TM-67-29 (Conf)	12 Jun 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-238 (U)	Rutledge, C.
RT-TM-67-30 (Conf)	12 Jun 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-254 (U)	Rutledge, C.
RT-TM-67-31 (Conf)	14 Jun 67	TEST REPORT - TOW MISSILES HM-88G-193 AND -263 SERVICE TEST MODEL (U)	Huber, C.
RT-TM-67-32 (Conf)	11 Sep 67	STATIC FIRING OF TEN HAWK MOTORS FOR THE HAWK AFT CLOSURE STUDY (U)	Jones, K.
RT-TM-67-33 (Conf)	10 Aug 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-240 AND G-313 (U)	Rutledge, C.
RT-TM-67-34 (Uncl)	2 Aug 67	TEST EVALUATION REPORT - TOW WIRE LEADER TEST	Huber, C.
RT-TM-67-35 (Conf)	16 Aug 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-309 (U)	Rutledge, C.
RT-TM-67-36 (Conf)	15 Aug 67	TEST REPORT - TOW/HELICOPTER WIRE INTEGRITY TEST ROUND NO. G-311 (U)	Rutledge, C.
RT-TM-67-37 (Conf)	17 Aug 67	TEST REPORT - TOW MISSILES HM-88G-218, G-183, AND G-230 SERVICE TEST MODEL (U)	Huber, C.
RT-TM-67-38 (Conf)	31 Jul 67	TEST REPORT - TOW/HELICOPTER GUIDED FLIGHT TEST ROUND NO. G-168 (U)	Rutledge, C.
RT-TM-67-39 (Conf)	23 Apr 67	TEST REPORT - STATIC TEST OF NIKE-X SECOND- STAGE SPARTAN MOTOR NO. 3 (U)	Hurst, E.
RT-TM-67-40 (Conf)	8 Sep 67	TEST EVALUATION REPORT - STATIC FIRING OF FOUR M-30 ROCKET MOTORS, M-30 FIVE YEAR SURVEILLANCE PROGRAM, SECOND YEAR EFFORT (U)	Tucker, W.
RT-TM-67-41 (Conf)	28 Aug 67	TEST EVALUATION REPORT - EXPLORATORY DEVELOP- MENT OF A UH-1B HELICOPTER BORNE 4.5-INCH AERIAL ARTILLERY ROCKET WEAPON (U)	Childers, J.
RT-TM-67-42 (Uncl)	27 Sep 67	TEST EVALUATION REPORT - EVALUATION TESTING OF XM159A LAUNCHER WITH NEW SPRING LOADED FIRING CONTACTS	Richmond, G.
RT-TM-67-43 (Uncl)	29 Aug 67	TEST EVALUATION REPORT - LANCE XM688 LOADER TRANSPORTER HANDLING UNIT (XM39) OPERATIONAL ENDURANCE TESTS	Crick, T.
RT-TM-67-44 (Uncl)	12 Oct 67	TEST EVALUATION REPORT - LCSS FIXED RESISTOR, APN 11150358-1	Smith, B. Nelson, R.
RT-TM-67-45 (Uncl)	10 Oct 67	TEST EVALUATION REPORT - LANCE XM688E1 LOADER TRANSPORTER INTERMEDIATE MISSILE SUPPORT	Clayton, A., Jr.
RT-TP-66-27 (Conf)	2 Dec 66	TEST PLAN - TOW/HELICOPTER GUIDED FLIGHT TESTS (U)	Rutledge, C.

<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RT-TP-66-28 (Conf)	15 Dec 66	TEST PLAN FOR FIRING SUBGROUP X-B YHM-88 SERVICE TEST MODEL MISSILES (U)	Huber, C.
RT-TP-67-1 (Conf)	2 Jan 67	TOW/HELICOPTER (XM-26) COORDINATED TEST PLAN (U)	Wahlheim, W. Johnson, L.
RT-TP-67-2 (Uncl)	16 Jan 67	TEST PLAN FOR QUALIFICATION TESTING OF LCSS SEMICONDUCTOR AND INTEGRATED CIRCUIT DEVICES	Nelson, R.
RT-TP-67-3 (Conf)	23 Jan 67	TOW/HELICOPTER MISSILE COMMAND WIRE INTEGRITY TEST PLAN (U)	Rutledge, C.
RT-TP-67-4 (Conf)	24 Feb 67	TEST PLAN FOR FIRING SUBGROUP X-D/G TOW SERVICE TEST MODEL MISSILES (U)	Huber, C.
RT-TP-67-5 (Uncl)	9 Mar 67	FINAL TEST PLAN FOR ENGINEER DESIGN, TROPICAL ENVIRONMENTAL SOAK, AND OPERATIONAL TESTS OF THE LANCE TACTICAL PROTOTYPE MISSILE SYSTEM	Petcher, F.
RT-TP-67-6 (Uncl)	28 Apr 67	ENVIRONMENTAL TEST PLAN - LANCE TACTICAL PROTOTYPE WEAPON SYSTEM	Smith, B.
RT-TP-67-7 (Uncl)	15 May 67	FINAL TEST PLAN FOR ENGINEER DESIGN AIRDROP AND FIRE OPERATIONAL TEST OF THE LANCE TACTICAL PROTOTYPE MISSILE SYSTEM	McGregor, P.
RT-TP-67-8 (Conf)	10 May 67	TEST PLAN FOR TOW MISSILE ENGINEERING DESIGN LABORATORY TEST PROGRAM (U)	Anderson, F.
RT-TP-67-9 (Uncl)	16 May 67	TEST PLAN FOR RELIABILITY TESTING OF LAW TRAINING DEVICE LAUNCHERS	Riddle, W.
RT-TP-67-10 (Uncl)	16 May 67	TEST PLAN FOR SEQUENTIAL ENVIRONMENTAL TESTING OF A TRAINING DEVICE FOR THE M72E-1 LAW SYSTEM	Riddle, W.
RT-TP-67-11 (Uncl)	15 May 67	TEST PLAN FOR LANCE PROBABILITY OF LAUNCH (PL)	Crick, T.
RT-TP-67-12 (Uncl)	15 Jun 67	TEST PLAN FOR LAW TRAINER SAFETY TEST AND OPERATOR/SYSTEM PERFORMANCE TEST PROGRAM	Huber, C.
RT-TP-67-13 (Conf)	1 Jul 67	TOW/HELICOPTER (XM-26) COORDINATED TEST PLAN (U)	Wahlheim, W. Johnson, L.
RT-TP-67-14 (Uncl)	8 Aug 67	TEST PLAN FOR QUALIFICATION TESTING OF LCSS PUSHBUTTON SWITCHES	Nelson, R.
RT-TP-67-15 (Uncl)	15 Aug 67	TEST PLAN - QUALIFICATION TESTING OF LCSS ELECTRICAL CONNECTORS	Storey, B.
RT-TP-67-16 (Uncl)	22 Aug 67	TEST PLAN - QUALIFICATION TESTING OF LCSS INCANDESCENT LAMPS	Nelson, R.
RT-TP-67-17 (Uncl)	31 Aug 67	TEST PLAN - QUALIFICATION TESTING OF LCSS RADIO FREQUENCY OSCILLATOR	Nelson, R.
RT-TP-67-18 (Uncl)	29 Sep 67	AIRBORNE TOW (XM-26) QUALIFICATION AND RELIABILITY TEST PLAN	Heatherington, B.



<u>Report No.</u>	<u>Date</u>	<u>Title</u>	<u>Author</u>
RT-TP-67-19 (Uncl)	31 Aug 67	TEST PLAN - RELIABILITY TESTING OF LANCE IGNITERS AND SAFE-AND-ARM ASSEMBLIES	Smith, B.
RT-TP-67-22 (Uncl)	14 Nov 67	TEST PLAN - QUALIFICATION TESTING OF LCSS SOLID STATE CIRCUIT BREAKER, APN 11150827	Priddy, R. Nelson, R.
RT-TP-67-23 (Uncl)	2 Oct 67	SYSTEM SAFETY AND QUALIFICATION TEST PROGRAM FOR TRAINING DEVICE FOR 66MM LIGHT ANTITANK WEAPON (LAW) M72E1	Wahlheim, W.
RT-TR-67-1 (Conf)	16 May 67	TEST EVALUATION REPORT FOR THE TOW AND TOW-MULE WEAPON SYSTEMS ENGINEERING DESIGN CONTROLLED IMPACT AND AIR DROP OPERATIONAL TESTS (U)	Petcher, F.

Section II  
MISCELLANEOUS DOCUMENTS

<u>Title</u>	<u>Date</u>	<u>Author</u>
A MODEL OF UNIFIED FIELDS AND PARTICLES	3 Jul 67 (Uncl)	Carter, W.

ADVANCED SENSORS LABORATORY

LIVER RESECTION WITH THE CARBON DIOXIDE LASER	Oct 67 (Uncl)	Hawkins, R. Nixon, J.
MINUTES OF TTCP FOURTH ANNUAL MEETING OF TECHNICAL WORKING PANEL D-7 ON ANTITANK MISSILE GUIDANCE AND CONTROL, VOL. II - PRESENTATIONS (U)	19 Sep - 5 Oct 66 (Secret)	Kilbourn, D.

ARMY INERTIAL GUIDANCE AND CONTROL LABORATORY AND CENTER

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FACILITIES AND CAPABILITIES BROCHURE

STRAPDOWN INERTIAL GUIDANCE DEVELOPMENT PROGRAM FOR 50 - 400 NM MISSILE SYSTEM	26 May 67 (Uncl)	Scheiman, G.
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ARMY PROPULSION LABORATORY AND CENTER

FINAL SUMMARY REPORT FOR NATIVE MIST PROJECT 8.16 PYROTECHNICS (U)	5 Jan 67 (Sec/RD)	Thomas, W.
ACTIVE SITES ON BINDER AND PROPELLANT SURFACES	1 Mar 67 (Uncl)	Odom, R.
HAWK AFT CLOSURE FAILURE INVESTIGATION (U)	22 May 67 (Conf)	Tate, J.
FIRST MEETING OF THE ARMY LIQUID PROPULSION SUBGROUP - A REVIEW OF THE EXPLORATORY DEVELOPMENT PROGRAMS IN LIQUID PROPULSION (U)	Oct 66 - Apr 67 (Conf)	Fohrell, E.
SECOND MEETING OF THE ARMY SOLID PROPULSION SUBGROUP - A REVIEW OF THE EXPLORATORY DEVELOPMENT PROGRAMS IN PROPULSION ( EXCEPT LIQUID PROPULSION) (U)	Jun 66 - Jun 67 (Conf)	Sayles, D.
COMPOSITIONS AND CHARACTERISTICS OF THE PROPELLANTS USED IN ARMY MISSILE SYSTEMS (U)	20 Jun 67 (Conf)	Sayles, D.

DEVELOPMENT DIVISION

TECHNICAL REQUIREMENTS NO. 1076 - TARGET MISSILE FLIGHT SERVICES	12 Jan 67 (Uncl)	Sockwell, W.
TECHNICAL REQUIREMENTS NO. 1085 - ROADRUNNER TARGET GUIDED MISSILE	26 Jan 67 (Uncl)	Cherry, M.
TECHNICAL REQUIREMENTS NO. 1096 - MQM-61A TARGET GUIDED MISSILES	23 Feb 67 (Uncl)	Stanley, R.

<u>Title</u>	<u>Date</u>	<u>Author</u>
SDR (DRAFT PROPOSED), FOR MQM-34D COMPLETE TARGET SYSTEM (MOBILE)	Mar 67 (Uncl)	Accardi, R.
U. S. ARMY TARGET GUIDED MISSILE R&D PROGRAM	Mar 67 (Uncl)	Cherry, M.
ARMY STUDY OF SUPERSONIC TARGET MISSILE REQUIREMENTS FOR SPEEDS UP TO MACH 2.5 - 3.0 AT ALTITUDES UP TO 70,000 FT	May 67 (Uncl)	Cherry, M.
TARGET MISSILE COST COMPARISON STUDY; SUBSONIC TRAINING AND EVALUATION TARGET (FOR DDR&E) (U)	May 67 (Conf)	Stanley, R.
TR 2045 FALLING MASS HAZARD NEUTRALIZATION ROCKET	17 May 67	Howison, J.
ANNEX TO QMR (DRAFT PROPOSED) FOR VARIABLE SPEED TRAINING TARGET (VSTT) (U)	Jun 67 (Secret)	Stanley, R.
MINUTES OF THE INTERSERVICE SCORER TECHNICAL GROUP MEETING HELD AT WHITE SANDS MISSILE RANGE	20-21 Jun 67 (Uncl)	
INTERSERVICE TECHNICAL SCORING GROUP MEETING - MINUTES	Jun 67 (Uncl)	Ducote, J.
TECHNICAL REQUIREMENTS NO. 2072 - AQM-37A TARGET MODIFICATIONS AND SUPPORT OF FLIGHT SERVICES	18 Aug 67 (Uncl)	Cherry, M.
ARMY REQUIREMENTS FOR HIGH PERFORMANCE FUZING AND WARHEAD FULL SIZE TARGET CAPABILITY	Aug 67 (Uncl)	Cherry, M.
PROGRAM DATA SHEETS FOR TARGET MISSILES FY 69-70	Sep 67 (Uncl)	Sockwell, W.
SDR (DRAFT PROPOSED), SCALAR SCORING DEVICE, ANCILLARY EQUIPMENT FOR TARGET GUIDED MISSILES	Sep 67 (Uncl)	Norman, R.
SMALL DEVELOPMENT REQUIREMENT (SDR) (DRAFT PROPOSED), IR PLUME TARGET	Sep 67 (Uncl)	Tonetti, S.
TARGET MISSILE COST COMPARISON STUDY	1 Nov 67 (FOUO)	Cherry, M.
TARGET MISSILE COST COMPARISON STUDY; SUPERSONIC OPERATIONS TO MACH 5, ALTITUDE TO 100,000 FT. (FOR DDR&E)	1 Nov 67 (FOUO)	Cherry, M.
MINUTES OF MEETING - INTERSERVICE SCORER TECHNICAL GROUP (HELD AT FORT BLISS, TEXAS)	16 Nov 67 (Uncl)	Webster, C.
SDR (DRAFT PROPOSED), TARGET FORMATION FLIGHT CONTROL	Nov 67 (Uncl)	Norman, R.
TECHNICAL REQUIREMENTS NO. 2109 - CONCEPT FORMULATION AND PRELIMINARY DESIGN STUDY OF A LOW ALTITUDE SUPERSONIC TARGET (LAST) MISSILE	27 Nov 67 (Uncl)	Cherry, M.
SDR (DRAFT PROPOSED), FOR A COMPLETE MOBILE TARGET TRACKING SYSTEM	Nov 67 (Uncl)	Norman, R.
COMMODITY MANAGERS MASTER PLAN, TARGET MISSILES	Nov 67 (Uncl)	Stanley, R. Tonetti, S.
TECHNICAL DEVELOPMENT PLAN - ECM	Dec 67 (Uncl)	Norman, R.

<u>Title</u>	<u>Date</u>	<u>Author</u>
QUALITATIVE MILITARY REQUIREMENT (QMR) FOR LOW ALTITUDE SUPERSONIC TARGET (LAST) (U) PROPOSED DRAFT	Dec 67 (Secret)	Cherry, M.
CONSOLIDATED TARGET MISSILE TECHNICAL DEVELOPMENT PLAN INTRODUCTION (REVISION 1)	Dec 67 (Uncl)	Sockwell, W.
TECHNICAL DEVELOPMENT PLAN - TOWED LONG ENDURANCE IR TARGET	Dec 67 (Uncl)	Tonetti, S.
TECHNICAL DEVELOPMENT PLAN - LOW ALTITUDE SUPERSONIC TARGET (LAST)	Dec 67 (Uncl)	Cherry, M.
TECHNICAL DEVELOPMENT PLAN - HIGH PERFORMANCE TOWED GUNNERY TARGET	Dec 67 (Uncl)	Tonetti, S.
TECHNICAL DEVELOPMENT PLAN - TARGET FORMATION FLIGHT CONTROL	Dec 67 (Uncl)	Norman, R.
TECHNICAL DEVELOPMENT PLAN - SCORING DEVICES	Dec 67 (Uncl)	Norman, R.
TECHNICAL DEVELOPMENT PLAN - VARIABLE SPEED TRAINING TARGET (VSTT)	Dec 67 (Uncl)	Stanley, R.

#### FUTURE MISSILE SYSTEMS DIVISION

RF-57-66 ATAAD CONCEPT DEFINITION (U)	1 Dec 66 (Secret)	Thompson, G.
RF-58-66 SEMIANNUAL REPORT OF UNSOLICITED PROPOSALS (U)	6 Dec 66 (Secret)	Thompson, G.
RF-60-67 RDT&E PROGRAM - LONG RANGE PLAN (MICOM) (U)	1 Jan 67 (Secret)	DuVall, F.
RF-64 (Revision) QMDO PLAN FOR UNIFIED SYSTEM FOR ATTACK OF SURFACE AND AIRBORNE TARGETS (U)	1 Jan 67 (Secret)	Bahan, M.
RF-59-67 RESUME OF RADAR RECEIVER STATE-OF-THE-ART (U)	15 Feb 67 (Conf)	Thompson, G.
RF-61-67 QMDO PLAN FOR ANTITANK/ASSAULT/AIR DEFENSE WEAPON (U)	May 67 (Secret)	Thompson, G.
EVALUATION OF NIKE-X MAINTENANCE DATA SYSTEM (U)	15 Jun 67 (Secret)	DuVall, F.
RF-62-67 SEMIANNUAL REPORT OF UNSOLICITED PROPOSALS - SECOND HALF FY 67 (U)	16 Jun 67 (Secret)	Thompson, G.
RDT&E AIR DEFENSE PROGRAM - 1969-1973 (U)	5 Sep 67 (Secret)	Bahan, M.
RF-63-67 QUARTERLY REPORT OF UNSOLICITED PROPOSALS, FIRST QUARTER FY 68 (U)	15 Oct 67 (Secret)	Thompson, G.

GROUND SUPPORT EQUIPMENT LABORATORY

<u>Title</u>	<u>Date</u>	<u>Author</u>
TECHNICAL REQUIREMENTS FOR MOLDED POLYSTYRENE CONTAINER FOR THE REDEYE MISSILE SYSTEM	26 Jan 67 (Uncl)	Stoddard, O.
TEST REQUIREMENTS FOR FIRING TEST OF THE MAW LAUNCHER SUPPORT INVESTIGATION	7 Feb 67 (Uncl)	Dunstone, D.
CHANGE 1	3 Apr 67	Dunstone, D.
REVISION 1	5 Jul 67	Smith, J.
TECHNICAL REQUIREMENTS FOR CARRYING RACKS FOR REDEYE WEAPONS ON THE M151 VEHICLE	8 Feb 67 (Uncl)	Dunstone, D.
STUDY PLAN FOR THE MAW LAUNCHER SUPPORT INVESTIGATION	1 Mar 67 (Uncl)	Dunstone, D.
TECHNICAL REQUIREMENTS FOR KIT, TOW MISSILE SYSTEM SUPPORT VEHICLE M151A1	7 Mar 67 (Uncl)	Stoddard, O.
TEST REQUIREMENTS FOR ROAD TEST OF REDEYE CARRYING RACKS ON THE M151A1 VEHICLE	13 Mar 67 (Uncl)	Dunstone, D.
TEST REQUIREMENTS KIT, TOW MISSILE, M151A1 SUPPORT VEHICLE	21 Mar 67 (Uncl)	Stoddard, O.
TEST REQUIREMENTS FOR REDEYE MISSILE SYSTEM UNIPACK CONTAINER	30 Mar 67 (Uncl)	Stoddard, O.
TOW SYSTEM SAFETY STATEMENT SUPPLEMENT	3 Apr 67 (Uncl)	Taylor, R.
TEST PLAN FOR A FLIGHT DEMONSTRATION OF THE TARGET DESIGNATION SYSTEM	14 Apr 67 (Uncl)	Dunstone, D.
STRUCTURAL CHARACTERISTICS STUDY - MULTIRAIL LAUNCH FIXTURE	28 Apr 67 (Uncl)	Lamar, G.
TECHNICAL REQUIREMENTS FOR NINETEEN-TUBE REPAIRABLE, REUSABLE, FAIRED LAUNCHER FOR THE 2.75-INCH FOLDING-FIN AIRCRAFT ROCKET	4 May 67 (Uncl)	Blackledge, W.
CHANGE 1 TO TECHNICAL REQUIREMENTS FOR REPAIR PARTS CONTAINERS FOR THE CHAPARRAL GCG, TDD, WARHEAD AND S&A DEVICE	7 Jun 67 (Uncl)	Stoddard, O.
GROUND SUPPORT EQUIPMENT LABORATORY PART IX-INTERIM REPORT - ADVANCED LAND COMBAT SYSTEM STUDY LAND AND AERIAL NAVIGATION	15 Aug 67 (Uncl)	Blackledge, W.
POMM 9-1400-425-12/2 PRELIMINARY OPERATING AND MAINTENCE MANUAL MOUNTING KIT, VEHICLE, GUIDED MISSILE SYSTEM: XM237	Aug 67 (Uncl)	Cramer, M.
POMM 9-1410-585-14/2 PRELIMINARY OPERATING AND MAINTENCE MANUAL SHIPPING AND STORAGE CONTAINER GUIDED MISSILE: XM570	Oct 67 (Uncl)	Cramer, M.
TEST PLAN FOR ORGANIZATIONAL MAINTENANCE SHOP SET, SUPPORT MAINTENANCE SHOP SET FOR CHAPARRAL GUIDED MISSILE SYSTEM	20 Oct 67 (Uncl)	Stoddard, O.
DRAFT TECHNICAL REQUIREMENTS FOR THE ADAPTATION OF A LASER SEMI-ACTIVE MISSILE (LASAM) ILLUMINATOR AND RANGE FINDER TO THE ADVANCED DEVELOPMENT MODEL (ADM) TOW/HELICOPTER STABILIZED SIGHT/SENSOR (XM-26) (U)	30 Oct 67 (Conf)	Blackledge, W.

<u>Title</u>	<u>Date</u>	<u>Author</u>
DRAFT ACCEPTANCE AND CHECKOUT TEST PLAN FOR THE ADAPTION OF A LASER SEMI-ACTIVE MISSILE (LASAM) ILLUMINATOR AND RANGE FINDER TO THE ADVANCED DEVELOPMENT MODEL (ADM) TOW/HELICOPTER STABILIZED SIGHT/SENSOR (XM-26)	30 Oct 67 (Uncl)	Blackledge, W.
TECHNICAL REQUIREMENTS FOR THE ADAPTION OF A LASER SEMI-ACTIVE MISSILE (LASAM) ILLUMINATOR AND RANGE FINDER TO THE ADVANCED DEVELOPMENT MODEL (ADM) TOW/HELICOPTER STABILIZED SIGHT/SENSOR (XM-26) (U)	30 Oct 67 (Conf)	Blackledge, W.
PRELIMINARY TEST REQUIREMENTS FOR THE CHAPARRAL MISSILE (XMIM72A) IN THE ARMY MISSILE COMMAND'S SHIPPING CONTAINER (XM570)	31 Oct 67 (Uncl)	Stoddard, O.
578 MM SOSR METEOROLOGICAL DATA REQUIREMENTS FOR EVENT ROUND TESTS	16 Nov 67 (Uncl)	Collier, B.
578 MM SOSR ROCKET PREFIRE CALCULATIONS REQUIRED FOR AIMED TESTS OF EVENT ROUNDS (U)	12 Dec 67 (Conf)	Collier, B.
POMM 91400-470-12/3 PRELIMINARY OPERATING AND MAINTENANCE MANUEL MOUNTING KIT, VEHICLE, GUIDED MISSILE SYSTEM: XM236	Dec 67 (Uncl)	Cramer, M.

#### REDSTONE SCIENTIFIC INFORMATION CENTER

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#### TEST AND RELIABILITY EVALUATION LABORATORY

T&RE LABORATORY FACILITIES BROCHURE

(Uncl)

## Section III PRESENTATIONS

### OFFICE OF THE DIRECTOR

<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
FRONTIERS OF TOMORROW	Exchange Club, Huntsville, Ala.	Mar 67	McDaniel, J.
MANAGEMENT AND RELIABILITY	1967 IEEE Region III Meeting, Jackson, Miss.	Apr 67	McDaniel, J.

### ADVANCED SENSORS LABORATORY

DEGENERATE PRINCIPAL ANGLES OF INCIDENCE IN ULTRAVIOLET REFLECTANCE OF ALKALI METALS	Alabama Academy of Science Meeting, Huntsville, Ala.	Apr 67	Holl, H.
EXPERIMENTAL RESULTS OF THE HIGH ENERGY LASER ARRAY DEVICE (U)	Third DOD Conference on Laser Technology, U. S. Naval Air Station, Pensacola, Fla.	Apr 67	Moody, C.
APPLICATION OF THE ADJOINT ANALOG TECHNIQUE TO AN ANTITANK MISSILE	1967 IEEE Region III Meeting, Jackson, Miss.	Apr 67	Davis, C.
MEASURING PULSE PARAMETERS USING DIGITAL TECHNIQUES	1967 IEEE Region III Meeting, Jackson, Miss.	Apr 67	Hall, K.
DECOY DISCRIMINATION CAPABILITY OF THREAT AIR DEFENSE SYSTEMS	North American Air Defense Command Conference, Washington, D. C.	Sep 67 Belr	Root, L. Belrose, F.
SIMULATED AIR DEFENSE SYSTEM ANTITACTICAL BALLISTIC MISSILE ANALYSIS	Missile Electronics Warfare Technical Area, White Sands Missile Range, N. Mex.	Nov 67	Root, L.

### ADVANCED SYSTEMS LABORATORY

PARAMETERS IN R&D IN RELATION TO COST/ACCURACY INVESTIGATIONS	Thirteenth Conference on Design of Experiments in Army Research, Development and Testing, Fort Belvoir, Va.	Nov 67	Conard, R.
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### ARMY INERTIAL GUIDANCE AND CONTROL LABORATORY AND CENTER

STRAPDOWN INERTIAL GUIDANCE	Combat Development Command Headquarters, Fort Belvoir, Va.	Feb 67	Alongi, R.
EVALUATION OF STRAPDOWN GUIDANCE FOR P-1b	Army Inertial Guidance and Control Technical Panel, Redstone Arsenal, Ala.	Feb 67	Alongi, R.
AVC GUIDANCE	1967 AIAA Conference on Guidance, Control and Flight Dynamics, Huntsville, Ala.	Aug 67	Jordan, W.



<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
LECTURE ON GUIDANCE AND CONTROL CONCEPTS	Fifth Annual Lecture Series for Science and Engineering Students and Faculty Members, Huntsville, Ala.	Aug 67	McLean, J.
LECTURE ON GUIDANCE AND CONTROL CONCEPTS	Fifth Annual Lecture Series for Science and Engineering Students and Faculty Members, Huntsville, Ala.	Aug 67	Grider, K.
LECTURE ON GUIDANCE AND CONTROL CONCEPT	Fifth Annual Lecture Series for Science and Engineering Students and Faculty Members, Huntsville, Ala.	Aug 67	Lewis, C.
ACCELERATION VECTOR CONTROL - THE IMPACT OF TERMINAL GUIDANCE ON INERTIAL INSTRUMENT SELECTION	Guidance and Control Seminar, Redstone Arsenal, Ala.	Sep 67	Holtcamp, J.
PRESENT STATE-OF-THE-ART IN GUIDANCE AND CONTROL TECHNIQUES	Guidance and Control Seminar, Redstone Arsenal, Ala	Sep 67	Grider, K.
AN ADVANCED GUIDANCE SYSTEM FOR MULTIPLE RE-ENTRY VEHICLES AND AN APPROACH TO EVALUATION OF STRAPDOWN GUIDANCE SYSTEMS	Guidance and Control Seminar, Redstone Arsenal, Ala.	Sep 67	Gregory, J.
NUCLEAR SUSCEPTIBILITY STUDY OF THE LANCE POWER ELECTRONICS (U)	U. S. Army Missile Command Conference on Radiation Effects on Army Guided Missile Electronic Systems, Redstone Arsenal, Ala.	Nov 67	Ruwe, V.
<b>ARMY PROPULSION LABORATORY AND CENTER</b>			
ACTIVE SITES ON BINDER AND PROPELLANT SURFACES	Chemical Propulsion Information Agency, Anaheim, Calif.	Jun 67	Odom, R.
A NEW CALIBRATION METHOD FOR X-RAY FLUORESCENCE ANALYSIS	Chemical Propulsion Information Agency, Canoga Park, Calif.	Jun 67	Dykes, H.
ARMY RESEARCH & DEVELOPMENT ROCKET PROPULSION PROGRAM ACHIEVEMENTS AND PLANS (U)	Presentation to Mr. C. Branson Smith, Special Assistant for Propulsion Technology, DOD; Redstone Arsenal, Ala.	Jul 67	
A NUCLEAR SPACE PLANE	1967 National Symposium of the American Astronautical Society, Huntsville, Ala.	Jun 67	Smith, S.
ACTIVE SITES ON BINDER AND PROPELLANT SURFACES (U)	Second ICRPG/AIAA Solid Propulsion Conference, Anaheim, Calif.	Jun 67	Odom, R.
CHEMI-THERMO-BED TECHNIQUES FOR GAS GENERATION (U)	AIAA Third Propulsion Joint Specialist Conference, Washington, D. C.	Jul 67	Connaughton, J. Murfree, J. Duncan, W. Sandlin, B. Wharton, W.



<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
INVESTIGATION OF A UNIQUE DESIGN ENGINE ASSEMBLY (U)	AIAA Third Propulsion Joint Specialist Conference, Washington, D. C.	Jul 67	Wilson, B.
ARMY STORAGE REQUIREMENTS FOR LIQUID PROPELLANTS	Ninth Liquid Propulsion Symposium, St. Louis, Mo.	Oct 67	Fohrell, E., Jr.
LIQUID DEMAND GAS GENERATOR TECHNOLOGY FOR THE ARMY ENVIRONMENT (U)	Hydrazine Monopropellant Technology Symposium, Johns Hopkins University, Silver Springs, Md.	Nov 67	Connaughton, J. Rhoades, R.
THE APPLICATION OF TWO-DIMENSIONAL PHOTOELASTICITY TO THE STUDY OF ACCELERATION STRESSES UNDER QUASI-STATIC CONDITIONS	SESA Annual Meeting, Chicago, Ill.	Nov 67	Griffin, J.
THE INFLUENCE OF MICROSTRUCTURAL CHARACTERISTICS ON THE MAXIMUM STRAIN ENERGY DENSITY OF A COMPOSITE PROPELLANT SYSTEM	ICRPG Working Group on Mechanical Behavior, Jet Propulsion Laboratory, Pasadena, Calif.	Dec 67	Martin, D.
DEVELOPMENT DIVISION			
U. S. ARMY TARGET MISSILE FORMATION CONTROL PROGRAM	Naval Materiel Command, Washington, D. C.	Jan 67	Ducote, J.
RECENT DEVELOPMENTS IN NEUTRALIZATION OF METEOROLOGICAL ROCKET FALLING MASS HAZARDS	AIAA Sounding Rocket Vehicle Technology Specialist Conference, Williamsburg, Va.	Feb - Mar 67	Howison, J.
U. S. ARMY TARGET GUIDED MISSILE PROGRAMS	Annual Tri-Service Target Missile Meeting, Redstone Arsenal, Ala.	Mar 67	Ducote, J. Sockwell, W. Tonetti, S. Stanley, R. Webster, D. Accardi, R. Cherry, M.
U. S. ARMY TARGET MISSILE SCORER PROGRAMS	Army Training Center, Air Defense Center, Fort Bliss, Tex.	Jun 67	Ducote, J.
U. S. ARMY TARGET GUIDED MISSILE PROGRAM	Annual TTCP (Quadripartite) Target Missile Conference, Eglin Air Force Base, Fla.	Oct 67	Sockwell, W. Ducote, J.
STATUS OF ARMY SCORER PROGRAMS	Interservice Technical Scoring Group, White Sands Missile Range, N. Mex.	Nov 67	Ducote, J. Norman, R.
FUTURE MISSILE SYSTEMS DIVISION			
THE ARMY AND LASER SEMI-ACTIVE TERMINAL GUIDANCE	Third DOD Conference on Laser Technology, U. S. Naval Air Station, Pensacola, Fla.	Apr 67	Bell, N.
MARS II	Presentation to Assistant Secretary of Army, Washington, D. C.	May 67	Katechis, J.

## GROUND SUPPORT EQUIPMENT LABORATORY

<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
MULTIRAIL LAUNCHER PROGRAM (U)	GSE Laboratory Seminar Redstone Arsenal, Ala.	Nov 67	Collier, B.

## PHYSICAL SCIENCES LABORATORY

EXCITED ELECTRONIC STATES, ELECTRON PHONON INTERACTION AND PIEZOSPECTROSCOPIC SHIFTS IN DEFECT AGGREGATES	Atomic, Molecular and Solid-State Physics Symposium, Sanibel Island, Fla.	Jan 67	Shatas, R. Stettler, J.
F <sup>19</sup> RELAXATION IN AFM KMnF <sub>3</sub>	American Physical Society, Chicago, Ill.	Mar 67	Parrish, P. Daniel, A. Mahler, R.
MULTIPLE ARC PERFORMANCE IN AN 8,000 KW PLASMA FACILITY	Eighth Symposium on Engineering Aspects of Magnetohydrodynamics, Stanford University, Stanford, Calif.	Mar 67	Barr, T. Cason, C.
LIAPUNOV'S DIRECT METHOD AND THE NUMBER OF ZEROS WITH POSITIVE REAL PARTS OF A POLYNOMIAL WITH CONSTANT COMPLEX COEFFICIENTS	Congress of the Society of Applied Mathematics and Mechanics, Zurich, Switzerland	Mar 67	Lehnigk, S.
COMBINED STRESS TESTING OF TUBULAR CERAMIC SPECIMENS	Southeastern Section Meeting of the American Ceramic Society, Huntsville, Ala.	Mar - Apr 67	Ely, R.
ESR STUDIES OF HINDERED ROTATION OF THE METHYL GROUP IN AN IRRADIATED CRYSTAL	American Physical Society, Chicago, Ill.	Mar 67	Gable, W. Miyagawa, I. Hartman, R.
KWAJALEIN TEST SITE RANGE ACTIVITY REPORT	Twenty-third Meeting of the Inter-Range Instru- mentation Group, Meteor- ological Working Group (IRIG-MWG), NASA, MSFC Michoud Assembly and Mississippi Test Facilities, New Orleans, La.	Apr 67	Billions, N.
CHOICE OF BASIC FUNCTION FOR COUPLED-STATES CALCULATIONS OF SCATTERING	American Physical Society, Washington, D. C.	Apr 67	Perkins, J.
THE EFFECT OF SYNOPTIC ANALYSIS ERRORS ON SOME PREDICTIONS MADE WITH THE SPECTRAL VORTICITY EQUATION	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala	Apr 67	Stewart, D.
THEORY OF INTENSE PULSED BEAMS AT RELATIVISTIC ENERGIES	American Physical Society, Washington, D. C.	Apr 67	Bennett, W. Roberts, T.
EXPERIMENTS WITH INTENSE PULSED BEAMS AT RELATIVISTIC ENERGIES	American Physical Society, Washington, D. C.	Apr 67	Roberts, T. Bennett, W.
ANIONIC ISOMERIZATION OF CYCLOPROPANE AND OLEFINIC HYDROCARBONS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Dorko, E.

<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
ACOUSTIC ELECTRON PARAMAGNETIC RESONANCE OF TETRAVALENT U IN $\text{CaF}_2$	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	McDonald, P.
THREE-BODY MODEL OF A DEFECT CENTER	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Howgate, D. Coulter, C.
POLARIZATION OF CONDUCTION ELECTRONS IN Fe-Sn COMPOUNDS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Werkheiser, A.
THE AMICOM 8,000 KW PLASMA FACILITY	Canaveral Council of Technical Societies - Fourth Space Congress, Cocoa Beach, Fla.	Apr 67	Barr, T.
DETERMINATION OF LOCAL GAS PARAMETERS IN A REENTRY SIMULATOR	Canaveral Council of Technical Societies - Fourth Space Congress, Cocoa Beach, Fla.	Apr 67	Cason, C.
THE FUTURE OF DEFENSE ORIENTED CERAMIC MATERIALS	Southeastern Section Meeting of the American Ceramic Society, Huntsville, Ala.	Mar - Apr 67	Steverding, B.
LIAPUNOV'S DIRECT METHOD AND THE STABILITY PROPERTIES OF LINEAR SYSTEMS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Lehnigk, S.
CURRENT RESEARCH ON $\text{N}_2$ - $\text{CO}_2$ GAS LASERS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Hales, W. Roberts, T. Ehrlich, J. Hutcheson, G.
UNIVERSAL ELECTRON BEAN PROBE FOR A RAREFIED GAS FLOW ANALYSIS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Hutcheson, G. Cason, C.
THE PHYSICAL SCIENCE LABORATORY 2 MeV VAN DE GRAAFF FACILITY	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Polk, R.
THEORY OF UNIAXIAL STRESS EFFECTS ON ENERGY LEVELS OF TRIVALENT CHROMIUM IONS IN CRYSTALLINE $\text{Al}_2\text{O}_3$ AND MgO	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Stettler, J. Range1, E.
LOW TEMPERATURE X-RAY IRRADIATION EFFECTS ON $\text{CaF}_2$ CRYSTALS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Mukerji, A. Tanton, G. Williams, J.
ULTRASONIC RESONANCE IN PARAMAGNETIC CRYSTALS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Meyer, H. Stettler, J.
ON ENVIRONMENTAL CONDITIONS FOR MISSILE DESIGN AND PERFORMANCE	Sixteenth Meeting of the U. S. Army Meteorological R D Coordination Committee, Huntsville, Ala.	Apr 67	Essenwanger, (

<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
CROSS RELAXATION IN MgO	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Wilkinson, E.
RAMAN RELAXATION IN MgO	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Bennett, J.
STUDIES ON U TO F CENTER CON- VERSION IN POTASSIUM CHLORIDE	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Tanton, G. Shatas, R. Mittra, S.
ON MODELS OF ATMOSPHERIC DENSITY FROM SURFACE THROUGH 25 KM	Alabama Academy of Science, University of Alabama, Huntsville Campus Huntsville, Ala.	Apr 67	Essenwanger, O.
PHONONS IN SPIN LATTICE RELAXATION	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Hartman, R.
ELECTRIC POLARIZATION AND RECTIFICATION IN ORGANIC POLYMERS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Wittmann, H.
THE METEOROLOGICAL PROGRAMS AND FUTURE PLANS FOR THE KWAJALEIN TEST SITE	Sixteenth Meeting of the U. S. Army Meteorological R D Coordination Committee, Huntsville, Ala.	Apr 67	Billions, N.
EFFECTIVE POTENTIALS OF DEFECT AGGREGATES IN IONIC CRYSTALS	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Shatas, R. Stettler, J.
TURBULENCE INTERPRETED AS FLOW- AMPLIFIED IRREGULAR MOTION	Alabama Academy of Science, University of Alabama, Huntsville Campus, Huntsville, Ala.	Apr 67	Steverding, B. Lehnigk, S.
CLIMATE CLASSIFICATION - PAST AND PRESENT	Huntsville Chapter, American Meteorological Society, Huntsville, Ala.	May 67	Essenwanger, O.
INTENSE PULSED BEAMS AT RELATIVISTIC ENERGIES IN AN IONIZED MEDIUM	North Carolina Academy of Science, Raleigh, N. C.	May 67	Roberts, T.
A SIMPLE ELECTRONIC TRUE RANDOM EVENT GENERATOR	1967 Army Numerical Analysis Conference, Madison, Wis.	May 67	Polk, R. Koehler, D. Grissom, J.
THE MICOM 8,000 KW PLASMA FACILITY	Wright-Patterson Air Force Base, Ohio	May 67	Cason, C.
THE EFFECT OF ELECTROCHEMICAL PARAMETERS ON THE OXIDATION OF METALS	American Ceramic Society, New York, N. Y.	May 67	Benzel, J.
POLARIZATION OF NEUTRONS FROM THE $\text{Be}^9(d,n) \text{B}^{10}$ REACTION	Toronto American Physical Society Meeting, Toronto, Canada	Jun 67	Miller, T. Biggerstaff, J.

<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
ANGULAR DEPENDENT RAMAN RELAXATION OF Fe (3+) IN MgO	Toronto American Physical Society, Toronto, Canada	Jun 67	Bennett, J. Hartman, R.
HIGHER ORDER PERTURBATION THEORETIC CALCULATION OF EIGENFUNCTIONS AND ENERGY, EIGENSTATES OF THE SYMMETRIC LINEAR DIATOMIC ANHARMONIC NON-RIGID ROTATOR-VIBRATOR	Thirteenth Conference of Army Mathematicians, Fort Monmouth, N. J.	Jun 67	Shatas, R.
THE USE OF A MULTI-PATH CELL AS A CO <sub>2</sub> -N <sub>2</sub> GAS LASER AMPLIFIER AND OSCILLATOR	1967 Conference on Laser Engineering and Applications, Washington, D. C.	Jun 67	Dezenberg, G. Merritt, J.
LOW LYING ENERGY LEVEL OF Fe(2+) IN MgO	Toronto American Physical Society Meeting, Toronto, Canada	Jun 67	Hartman, R. Wilkinson, E. Castle, J.
HIGH POWER N <sub>2</sub> -He-CO <sub>2</sub> LASER DEVELOPMENT	1967 Conference on Laser Engineering and Applications, Washington, D. C.	Jun 67	Ehrlich, J. Hutcheson, G. Hales, W. Roberts, T.
APPLICATION OF HYDROGEN MOLECULAR ION WAVE FUNCTIONS AND EIGENVALUES TO A THREE-BODY DEFECT CENTER MODEL	Second Canadian Symposium on Quantum Chemistry, Montreal, Canada	Jun 67	Howgate, D. Coulter, C.
THE ADJECTION DISCHARGE PHENOMENON	American Astronomical Society, Huntsville, Ala.	Jun 67	Ehrlich, J.
THE THEORY OF LASERS	Fifth Annual Summer Lecture Series in Aerospace Science and Engineering for Summer Employees, Huntsville, Ala.	Jul 67	Stettler, J.
ATMOSPHERIC ENVIRONMENT AND EFFECTS ON MISSILES	Fifth Annual Summer Lecture Series in Aerospace Science and Engineering for Summer Employees, Huntsville, Ala.	Jul 67	Essenwanger, O.
SURFACE TEMPERATURE AND HEAT TRANSFER CONDITIONS IN THE ABLATION OF SHEAR THINNING AND SHEAR THICKENING LIQUID	ASME-AIChE Heat Transfer Conference, Seattle, Wash.	Aug 67	Steverding, B.
THE MOLECULAR STRUCTURE OF TRIMETHYLENECYCLOPANE	American Chemical Society, Chicago, Ill.	Sep 67	Dorko, E.
NUCLEAR SPIN-LATTICE RELAXATION IN SEVERAL ANTIFERROMAGNETS	International Congress on Magnetism, Boston, Mass.	Sep 67	Daniel, A.
THE USE OF A MULTI-PATH CELL	Georgia Institute of Technology, Engineering Experimental Station, Atlanta, Ga.	Sep 67	Dezenberg, G.
CONSTANTS OF MOTION IN AN INTERACTING ELECTRON-LATTICE SYSTEM	Physics Colloquium, Auburn University, Auburn, Ala.	Sep 67	Shatas, R.



<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
KWAJALEIN TEST SITE ACTIVITIES	Twenty-Fourth Meeting of the Inter-Range Instrumentation Group, Meteorological Working Group (IRIG-MWG), Air Force Eastern Test Range, Patrick Air Force Base, Fla.	Oct 67	Billions, N.
ON FITTING OF THE WEIBULL DISTRIBUTION WITH NON-ZERO PARAMETERS AND SOME APPLICATIONS	Thirteenth Conference on the Design of Experiments in Army Research, Development and Testing, Fort Belvoir, Va.	Nov 67	Essenwanger, O.
IMPULSIVE HEATING II, EXPERIMENTAL	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Werkheiser, A. Steverding, B.
THE PROPAGATION OF INTENSE PULSED BEAMS AT RELATIVISTIC ENERGIES IN PLASMA COLUMNS	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Roberts, T. Bennett, W.
CHOPPER WHEEL CO <sub>2</sub> -N <sub>2</sub> -He LASERS	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Cason, C.
RECENT INNOVATIONS IN EPR SPECTROSCOPY	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Hartman, R. Bennett, J.
RESPONSE OF DEUTERATED BENZENE SCINTILLATORS TO NEUTRONS AND GAMMA RAYS	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Miller, T.
SPIN-LATTICE COEFFICIENTS FOR SUBSTITUTIONAL Gd <sup>3</sup> IN CaF <sub>2</sub>	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Bowden, C.
FREQUENCY DEPENDENCE OF UPR ABSORPTION IN CaF <sub>2</sub> :U <sup>4</sup>	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	McDonald, P. Meyer, H. Donoho, P.
SHAPE OF DONOR BAND TAILS IN HEAVILY DOPED COMPENSATED GaAs	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Wittmann, H.
COLOR CENTERS IN CaF <sub>2</sub> , SrF <sub>2</sub> AND BaF <sub>2</sub>	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Tanton, G. Mukerji, A Shatas, R.
ELECTRON WAVE FUNCTIONS AND BAND GAP PARAMETERS IN bcc CRYSTALS	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Foster, H.

<u>Title</u>	<u>Conference</u>	<u>Date</u>	<u>Author</u>
IMPULSIVE HEATING I, THEORY	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Steverding, B. Werkheiser, A.
EFFECTIVE POTENTIALS OF AGGREGATE DEFECT CENTERS	SE Section Meeting of the American Physical Society, Clemson University, Clemson, S. C.	Nov 67	Shatas, R. Stettler, J.
UNIAXIAL STRESS INDUCED SPECTRAL SHIFTS OF NO-PHONON LINES AND TRAPPED CARRIER-LATTICE INTERACTION IN AGGREGATE DEFECT CENTERS	Bendix Research Laboratories, Southfield, Mich.	Dec 67	Shatas, R.
A COMBINED STRESS TEST METHOD AND RESULTS FOR NON-METALLIC MATERIALS	Society for Experimental Stress Analysis, Huntsville, Ala.	Dec 67	Ely, R.
POLARIZATION OF NEUTRONS FROM THE $B^{11}(d,n) C^{12}$ REACTION	American Physical Society, Pasadena, Calif.	Dec 67	Miller, T.

Section IV  
MAGAZINE ARTICLES

OFFICE OF THE DIRECTOR

<u>Title</u>	<u>Publication</u>	<u>Date</u>	<u>Author</u>
THE MISSILE COMMAND LEAD LABORATORY CONCEPT	Alabama Academy of Science, Inc., University of Alabama	1967	McDaniel, J.

ADVANCED SENSORS LABORATORY

DIGITAL PULSE TAKING	Electronics, Vol 40, No. 9	May 67	Carrol, C. Hall, K.
DYNAMIC RADAR CROSS SECTION FROM STATIC MEASUREMENTS	IEE - Fall Issue, Line Wire and Crow Caws	1967	Belrose, F.
Z - PLANE DAMPING RATIO CURVES	Instruments and Control Systems, Vol 40	Dec 67	Willems, G.

ARMY PROPULSION LABORATORY AND CENTER

DIRECT OBSERVATION OF A 1, 1' -DI-A-FERROCERYL CARBONIUM ION	Journal of American Chemical Society	1967	Pittman, C.
ORGANOMETALLIC POLYMER, I. SYNTHESIS OF FERROCENE CONTAINING POLYPHOSPHINE OXIDES AND POLYPHOSPHINE SULFIDES	Journal of Polymer Science, Part A-1: Polymer Chemistry	1967	Pittman, C.
FERROCENE-CONTAINING POLYMERS	Proceedings of the Paint Research Institute	1967	Pittman, C.
FERROCENE-CONTAINING POLYESTERS AND POLYAMIDES	Journal of Polymer Science, Polymer Chemistry, Part I	1967	Pittman, C.

PHYSICAL SCIENCES LABORATORY

BIAXIAL STRESS RESULTS FOR NYLON	Experimental Mechanics Journal	1967	Ely, R.
STRENGTH OF MAGNESIUM SILICATE AND GRAPHITE UNDER BIAXIAL STRESS	American Ceramic Society Journal	1967	Ely, R.
ROTATIONAL ANALYSIS OF 3200 Å ABSORPTION BANDS OF PYRAZINE-15N VAPOR	Journal of Molecular Spectroscopy, 23	1967	Merritt, J. Innes, K.
CALCULATION OF F-CENTER HALF-WIDTH AND EFFECTIVE LATTICE FREQUENCY	Physics Letters 25A	1967	Ritter, J. Stettler, J.
A FAST NEUTRON SPECTROMETRIC TECHNIQUE, II	Nuclear Instruments and Methods, 52	1967	Koehler, D. Grissom, J.



<u>Title</u>	<u>Publication</u>	<u>Date</u>	<u>Author</u>
THE INFRARED SPECTRUM OF $CF_2(O^F)_2$	Journal of Molecular Spectroscopy, 24	1967	Mitchell, R. Merritt, J.
ELECTRON-PHONON INTERACTION AND PIEZOSPECTROSCOPIC SHIFTS OF SHARP SPECTRAL LINES IN SOLIDS	International Journal of Quantum Chemistry	1967	Stettler, J Shatas, R.
IMPROVEMENTS IN NEUTRON POLARIMETER	Nuclear Instruments and Methods, 48	1967	Miller, T.
A NEW X-RAY SPECTROMETRIC TECHNIQUE	Nuclear Instruments and Methods, 50	1967	Koehler, D. Grissom, J.
VIBRATIONAL SPECTRA OF NORMAL IMINE-DEUTERATED AND $^{15}N$ ETHYLENEIMINE	Spectrochimic Acta, Vol 23A, No. 1, Part A	Jan 67	Mitchell, R. Burr, J., Jr. Merritt, J.
HYLLERAAS VARIATIONAL CALCULATION OF AUTOIONIZATION STATES	Physical Review, Vol. 153, No. 1	Jan 67	Perkins, J.
BIAXIAL STRESS TESTING OF ACRYLIC TUBE SPECIMENS	Polymer Engineering and Science, Vol 7, No. 1	Jan 67	Ely, R.
THE INFRARED SPECTRA OF METHYLCHLORO- AND METHYL-BROMODIAZIRINE	Journal of Molecular Spectroscopy, Vol 22, No. 2	Feb 67	Mitchell, R. Merritt, J.
LIAPUNOV'S DIRECT METHOD AND THE NUMBER OF ZEROS WITH POSITIVE REAL PARTS OF A POLYNOMIAL WITH CONSTANT COMPLEX COEFFICIENTS	SIAM Journal on Control Vol 5, No. 2	May 67	Lehnigk, S.
UPR STUDIES ON $CaF_2:U^4$	Physics Letters, Vol 24A, No. 11	May 67	Meyer, H. McDonald, P. Stettler, J. Donoho, P.
INFINITE-ORDER PERTURBATION THEORY FOR FINITE SYSTEMS	Physical Review, Vol 157, No. 5	May 67	Coulter, C.
COMMENTS ON "MESOSCALE STRUCTURE OF 11-20 KM WINDS"	Journal of Applied Meteorology, Vol 6, No. 3	Jun 67	Essenwanger, O.
VACUUM MANIFOLDS OF PLASTIC PIPE	The Review of Scientific Instruments, Vol 38, No. 6	Jun 67	Hartman, R.
SPIN 1/2 PARTICLES IN THE GRAVITATIONAL FIELD	American Journal of Physics, Vol 35, No. 7	Jul 67	Coulter, C.
X-RAY INDUCED F-CENTERS IN $CaF_2$	Physica Status Solidi, Vol 22, No. 1	Jul 67	Mukerji, A. Tanton, G. Williams, J.
PARAMAGNETIC RESONANCE OF $CaF_2:U^2$	Journal of Physics and Chemistry of Solids, Vol 28 No. 8	Aug 67	McDonald, P. Wilkinson, E. Jensen, R.
A NOTE ON WIND SHEAR NEAR 80W	Journal of Applied Meteorology, Vol 6, No. 4	Aug 67	Stewart, D.
THE USE OF A MULTIPATH CELL AS A $CO_2-N_2$ GAS LASER AMPLIFIER AND OSCILLATOR	Applied Optics, Vol 6, No. 9	Sep 67	Dezenberg, G. Merritt, J.

<u>Title</u>	<u>Publication</u>	<u>Date</u>	<u>Author</u>
THE ELECTRONIC ABSORPTION SPECTRA OF BROMOMETHYL-DIAZIRINE AND CHLOROMETHYL-DIAZIRINE	Journal of Molecular Spectroscopy, Vol 24, No. 1	Sep 67	Robertson, L. Merritt, J.
RAYLEIGH-RITZ CALCULATIONS OF He $2^1S$ INVOLVING HALF-INTEGRAL POWERS OF $r_1$ AND $r_2$	The Journal of Chemical Physics, Vol 45, No. 10	Nov 66	Perkins, J.

STRUCTURES AND MECHANICS LABORATORY

RADIANT ENERGY FLUX BETWEEN TWO PARALLEL, CONCENTRIC DISKS USING AN INTEGRAL METHOD	AIAA Journal	1967	Hurst, N.
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