

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES



30 OCTOBER 1981

AD A1 25498

Management Analysis Report...

Department of the Army

Department of the Navy

Department of the Air Force

DTIC

MAR 1 0 1983

A

DTIC FILE COPY

This document has been approved
for public release and sale; its
distribution is unlimited.

Prepared by
Harold F. Davidson
9318 Convento Terrace
Fairfax, VA 22031

Contract Number DAAK-21-82-C-0097
Non-Competitive, \$35,000

Sponsored by
Robert Chaillet
DARCOM (DRCDE-PA)
5001 Eisenhower Avenue
Alexandria, VA 22333

DEPARTMENT OF DEFENSE IN-HOUSE RDTE ACTIVITIES

30 October 1981

Prepared for:

US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND
5001 Eisenhower Avenue
Alexandria, Virginia 22333



Accession No.	
NTIS	<input type="checkbox"/>
DTIC	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	<input type="checkbox"/>
Re:	
Distribution/	
Avail. Fidelity Codes	
Dist	Avail and/or Special
A	

FOREWORD

THIS REPORT WAS PREPARED FOR THE US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND AT THE DIRECTION OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT, AND ACQUISITION. THIS EDITION IS THE FIFTEENTH OF A SERIES THAT WAS INITIATED IN 1966.

EACH IN-HOUSE RDTE ACTIVITY OF THE DEPARTMENT OF DEFENSE IS DESCRIBED ON ONE PAGE IN THIS COMPILATION. THE DATA FOR 1981 ARE SUMMARIZED IN TABLES PRECEDING THE MAIN TEXT AND CHARTS AND TABLES ARE PROVIDED FOR EACH SERVICE SHOWING ORGANIZATIONAL RELATIONSHIPS AND COMMAND CHAIN.

ALL CURRENT DOD RDTE ACTIVITIES WHICH MEET THE REPORT REQUIREMENT OF HAVING AT LEAST 25 PER CENT OF THEIR BUDGET IN RDTE FUNDS ARE LISTED IN THE CONTENTS ALPHABETICALLY WITHIN EACH DEPARTMENT. SOME T&E FACILITIES WHICH DO NOT MEET THE REQUIREMENT PREVIOUSLY NOTED ARE ALSO LISTED BY SPECIAL REQUEST. ORGANIZATIONAL CHANGES DURING FY 1981 APPEAR IN APPENDIX I.

DOD INSTRUCTION 7700.9 WHICH HAS BEEN THE BASIS FOR THIS REPORT SINCE ITS INCEPTION HAS BEEN REPLACED BY A TRI-SERVICE REGULATION, AR 70-63 NAVCOMPTIST 7044.5E, AFR 80-26, DNA 7700.9A, ENTITLED DOD IN-HOUSE RDTE ANNUAL ACTIVITIES REPORT, 1 SEPTEMBER 1981. APPENDIX II CONTAINS MANY OF THE DEFINITIONS USED IN THIS REPORT AND ARE PROVIDED AS AN ADDITIONAL AID IN USE OF THE REPORT. APPENDIX III LISTS SELECTED ABBREVIATIONS AND ACRONYMS. APPENDIX IV LISTS SELECTED KEY WORDS WITH PAGE REFERENCES.

EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION, PARTICULARLY FISCAL DATA. ALL NUMBERS AND STATEMENTS HAVE BEEN THOROUGHLY EXAMINED AND IN ALMOST ALL CASES, REVIEWED WITH THE SUBMITTING AGENCY TO INSURE CORRECTNESS AND CLARITY.

NO MAJOR CHANGES HAVE BEEN MADE IN THIS YEARS REPORT VIS-A-VIS LAST YEARS.

IT IS DESIRED THAT THIS PUBLICATION BE GIVEN WIDESPREAD DISTRIBUTION IN THE DOD LABORATORIES AS AN INTERNAL MANAGEMENT DOCUMENT AT THE DIRECTOR AND COMMANDING OFFICER LEVEL AS WELL AS AT THE BENCH LEVEL IN ORDER TO ALLOW PERSONNEL AN OPPORTUNITY TO FAMILIARIZE THEMSELVES WITH THE FUNCTIONAL CAPABILITIES OF OTHER DOD LABORATORIES. IT IS HOPED THAT BY THIS MEANS LABORATORY SCIENTISTS AND ENGINEERS WILL BE ENCOURAGED TO COMMUNICATE WITH EACH OTHER ON COMMON PROBLEMS OF INTEREST TO THEIR SERVICE LABORATORIES AS WELL AS TO COMMUNICATE WITH LABORATORIES OF THE OTHER SERVICES.

SINCERE APPRECIATION IS EXTENDED TO MRS CATHERINE BERKEMEIER AND LIZ STEPHENS OF THE US ARMY MANAGEMENT SYSTEMS SUPPORT AGENCY FOR THEIR EFFORTS AND ASSISTANCE IN PROVIDING A COMPUTER PRINTOUT FROM WHICH THIS REPORT IS PRINTED. SINCERE APPRECIATION IS ALSO EXTENDED TO MRS JEANETTE MERRITT FOR HER KIND ASSISTANCE, AND TO MR EUGENE GROSECLOSE OF USAMSSA FOR HIS TECHNICAL TROUBLE SHOOTING WHICH MADE A COMPUTER PRINTOUT POSSIBLE, MR. FLOYD PURCE OF THE DEFENSE

PRINTING SERVICE IS ALSO DESERVING OF A NOTE OF GRATITUDE FOR HIS EFFORTS IN PRINTING THIS DOCUMENT IN A THOROUGHLY PROFESSIONAL MANNER.

ADDITIONAL COPIES OF THIS DOCUMENT MAY BE OBTAINED BY WRITING THE DEFENSE TECHNICAL INFORMATION CENTER, BUILDING 5, CAMERON STATION, ALEXANDRIA, VIRGINIA 22314.

CONTENTS

	<u>PAGE</u>
FOREWORD	III
CONTENTS	V
TABLES	VIII
CHARTS	VIII
SUMMARY: DEPARTMENT OF DEFENSE IN-HOUSE RDTE FACILITIES	IX
SUMMARY: DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES	XVII

DEPARTMENT OF THE ARMY

AEROMEDICAL RESEARCH LABORATORY	1
AIR DEFENSE BOARD	2
AIRBORNE BOARD	3
ARMOR AND ENGINEER BOARD	4
ARMY RESEARCH OFFICE	5
ATMOSPHERIC SCIENCES LABORATORY	6
AVIATION BOARD	7
AVIATION DEVELOPMENT TEST ACTIVITY	8
AVIATION ENGINEERING FLIGHT ACTIVITY	9
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	10
AVIONICS R&D ACTIVITY	11
BALLISTIC RESEARCH LABORATORY	12
CHEMICAL SYSTEMS LABORATORY	13
COLD REGIONS R&F LABORATORY	14
COLD REGIONS TEST CENTER	15
COMBAT SURVEILLANCE & TGT ACQUISITION LABORATORY	16
COMMUNICATIONS & ELECTRONICS BOARD	17
COMMUNICATIONS-ELECTRONICS R&D CENTER	18
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	19
DUGWAY PROVING GROUND	20
ELECTRONIC PROVING GROUND	21
ELECTRONIC WARFARE LABORATORY	22
ELECTRONICS TECHNOLOGY AND DEVICES LABORATORY	23
ENGINEER TOPOGRAPHIC LABORATORIES	24
ENGINEER WATERWAYS EXPERIMENT STATION	25
FIELD ARTILLERY BOARD	26
FIRE CONTROL & SMALL CAL. WPNS SYSTEMS LABORATORY	27
HARRY DIAMOND LABORATORIES	28
HUMAN ENGINEERING LABORATORY	29
INFANTRY BOARD	30
INSTITUTE OF DENTAL RESEARCH	31
INSTITUTE OF SURGICAL RESEARCH	32
INTELLIGENCE & SECURITY BOARD	33
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	34
LARGE CALIBER WPNS SYSTEMS LABORATORY	35
LETTERMAN ARMY INSTITUTE OF RESEARCH	36

DEPARTMENT OF THE ARMY (con't)

	<u>PAGE</u>
MATERIALS AND MECHANICS RESEARCH CENTER	37
MATERIEL SYSTEMS ANALYSIS ACTIVITY	38
MATERIEL TESTING DIRECTORATE	39
MEDICAL BIOENGINEERING R&D LABORATORY	40
MEDICAL R&D COMMAND	41
MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE	42
MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES	43
MISSILE LABORATORY	44
MOBILITY EQUIPMENT R&D COMMAND	45
NATICK R&D LABORATORIES	46
NIGHT VISION & ELECTRO-OPTICS LABORATORY	47
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCIENCES	48
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	49
SIGNALS WARFARE LABORATORY	50
TANK-AUTOMOTIVE COMMAND LABORATORIES	51
TROPIC TEST CENTER	52
WALTER REED ARMY INSTITUTE OF RESEARCH	53
WHITE SANDS MISSILE RANGE	54
YUMA PROVING GROUND	55

DEPARTMENT OF THE NAVY

AEROSPACE MEDICAL RESEARCH LABORATORY	56
AIR DEVELOPMENT CENTER	57
AIR PROPULSION CENTER	58
AIR TEST CENTER	59
ARCTIC RESEARCH LABORATORY	60
ATLANTIC FLEET WEAPONS TRAINING FACILITY	61
BIODYNAMICS LABORATORY	62
BIOSCIENCES LABORATORY	63
CIVIL ENGINEERING LABORATORY	64
CLOTHING & TEXTILE RESEARCH FACILITY	65
COASTAL SYSTEMS CENTER	66
DAVID W. TAYLOR SHIP R&D CENTER	67
DENTAL RESEARCH INSTITUTE, NTC	68
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	69
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	70
HEALTH RESEARCH CENTER	71
MEDICAL RESEARCH INSTITUTE	72
MEDICAL RESEARCH UNIT NO. 2	73
MEDICAL RESEARCH UNIT NO. 3	74
OCEAN R&D ACTIVITY	75
OCEAN SYSTEMS CENTER	76
OFFICE OF NAVAL RESEARCH	77
ORDNANCE MISSILE TEST FACILITY	78
PACIFIC MISSILE TEST CENTER	79
PERSONNEL RESEARCH & DEVELOPMENT CENTER	80

DEPARTMENT OF THE NAVY (con't)

	<u>PAGE</u>
RESEARCH LABORATORY	81
SUBMARINE MEDICAL RESEARCH LABORATORY	82
SURFACE WEAPONS CENTER	83
UNDERSEA RANGES DEPARTMENT	84
UNDERWATER SYSTEMS CENTER	85
WEAPONS CENTER	86
WEAPONS EVALUATION FACILITY	87

DEPARTMENT OF THE AIR FORCE

AERO PROPULSION LABORATORY	88
AEROSPACE MEDICAL RESEARCH LABORATORY	89
ARMAMENT DIVISION	90
ARNOLD ENGINEERING DEVELOPMENT CENTER	91
AVIONICS LABORATORY	92
EASTERN SPACE AND MISSILE CENTER	93
ENGINEERING AND SERVICES CENTER/RD	94
FLIGHT DYNAMICS LABORATORY	95
FLIGHT TEST CENTER	96
FRANK J. SEILER RESEARCH LABORATORY	97
GEOPHYSICS LABORATORY	98
HUMAN RESOURCES LABORATORY	99
MATERIALS LABORATORY	100
OFFICE OF SCIENTIFIC RESEARCH	101
ROCKET PROPULSION LABORATORY	102
ROME AIR DEVELOPMENT CENTER	103
SCHOOL OF AEROSPACE MEDICINE	104
WEAPONS LABORATORY	105
WESTERN SPACE AND MISSILE CENTER	106
4950 1ST WING	107
6585TH TEST GROUP	108

ARMED FORCES RADIOBIOLOGY RSCH INSTITUTE	109
--	-----

APPENDICES:

I. CHANGES IN ORGANIZATION OR NAME	110
II. DEFINITIONS	111
III. SELECTED STANDARD ABBREVIATIONS AND ACRONYMS	114
IV. KEY WORDS	115

TABLES

	<u>PAGE</u>
TABLE 1. ARMY RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA	X
TABLE 2. ARMY RDTE FACILITIES DATA	XII
TABLE 3. NAVY RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA	XIV
TABLE 4. NAVY RDTE FACILITIES DATA	XV
TABLE 5. AIR FORCE RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA ...	XVI
TABLE 6. AIR FORCE RDTE FACILITIES DATA	XVII
TABLE 7. DOD RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA	XVIII
TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA	XX
TABLE 2A. ARMY R&D FACILITIES DATA	XXI
TABLE 3A. NAVY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA	XXII
TABLE 4A. NAVY R&D FACILITIES DATA	XXIII
TABLE 5A. AIR FORCE R&D LABORATORIES PROGRAM AND PERSONNEL DATA ...	XXIV
TABLE 6A. AIR FORCE R&D FACILITIES DATA	XXV
TABLE 7A. DOD RDTE FACILITIES DATA	XXVI
TABLE 8. ARMY R&D LABORATORY ORGANIZATIONAL RELATIONSHIPS	XXVII
TABLE 9. NAVY R&D LABORATORY ORGANIZATIONAL RELATIONSHIPS	XXIX
TABLE 10. AIR FORCE R&D LABORATORY ORGANIZATIONAL RELATIONSHIPS	XXX

CHARTS

ARMY LABORATORIES COMMAND CHAIN	XXXI
NAVY LABORATORIES COMMAND CHAIN	XXXII
AIR FORCE LABORATORIES COMMAND CHAIN	XXXIII

SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E FACILITIES

PROGRAM DATA FOR FY 1981

	(MILLIONS)
TOTAL ANNUAL PROGRAM	9817.026
TOTAL INHOUSE PROGRAM	4096.908
TOTAL RDT&E PROGRAM	6046.385
TOTAL INHOUSE RDT&E	2626.708
TOTAL ANNUAL OPERATING COST	1041.275

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	24559	721	6298
CIVILIAN	66422	3659	27202
TOTAL	90981	4380	88500

PHYSICAL FACILITIES (END OF FY 1981)

ACRES	8298499
-------	---------

SPACE (THOUSANDS OF SQ FT)

LABORATORY	30809.807
ADMINISTRATIVE	10440.415
OTHER	58770.759
TOTAL	100020.481

COST (MILLIONS)

REAL PROPERTY	4605.842
EQUIPMENT	4665.802
TOTAL	9271.144

TABLE 1. ARMY RD&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1961

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	INHOUSE	TOTAL	INHOUSE	TOTAL	MIL	CIV	TOTAL	MIL	CIV	TOTAL	MIL	CIV	PROF
	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E	RD&E
AEROMEDICAL RESEARCH LABORATORY	5.925	5.370	4.231	3.676	78	17	6	48	13	13	17	6	48	13
AIR DEFENSE BOARD	8.689	7.671	4.894	4.358	112	85	0	0	16	13	0	0	16	13
AIRBORNE BOARD	3.509	3.509	1.299	1.299	110	39	0	0	16	6	0	0	16	6
ARMOR AND ENGINEER BOARD	13.895	8.801	6.801	6.801	231	96	0	0	50	27	0	0	50	27
ARMY RESEARCH OFFICE	55.173	0.100	55.073	0.080	2	95	0	31	2	31	0	0	31	2
ATMOSPHERIC SCIENCES LABORATORY	26.745	17.575	21.900	12.780	352	175	0	27	1	97	0	0	27	1
AVIATION BOARD	12.543	12.485	3.746	3.693	79	36	0	1	30	8	0	0	30	8
AVIATION DEVELOPMENT TEST ACTIVITY	17.556	17.556	6.099	6.099	156	94	0	1	21	22	0	0	21	22
AVIATION ENGINEERING FLIGHT ACTIVITY	7.461	7.461	6.288	6.288	66	100	0	0	26	35	0	0	26	35
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	59.627	22.064	54.204	20.382	20	363	1	33	13	246	0	0	33	13
AVIONICS R & D ACTIVITY	26.210	15.021	14.298	6.275	10	264	0	4	9	161	0	0	9	161
BALLISTIC RESEARCH LABORATORY	52.389	43.094	46.961	37.774	31	717	1	107	10	417	0	0	107	10
CHEMICAL SYSTEMS LABORATORY	76.134	44.762	59.152	32.780	60	707	1	39	19	306	0	0	39	19
COLD REGIONS R&E LABORATORY	16.176	12.698	7.594	5.240	14	289	0	33	12	125	0	0	33	12
COLD REGIONS TEST CENTER	9.632	9.632	5.312	5.312	263	22	1	1	42	10	0	0	42	10
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	60.288	6.110	23.997	3.500	12	158	0	2	13	92	0	0	2	13
COMMUNICATIONS - ELECTRONICS BOARD	3.543	3.543	1.554	1.554	59	31	0	0	0	58	0	0	0	58
COMMUNICATIONS - ELECTRONICS R & D CENTER	70.571	19.820	64.655	17.582	69	557	0	16	22	281	0	0	16	22
CONSTRUCTION ENGINEERING RESEARCH LAB	22.732	11.491	15.223	8.095	3	204	1	32	8	128	0	0	32	8
DUGWAY PROVING GROUND	35.325	31.594	30.026	27.423	143	624	1	15	17	77	0	0	15	17
ELECTRONIC PROVING GROUND	32.201	24.862	13.475	7.750	649	220	1	0	22	74	0	0	22	74
ELECTRONIC WARFARE LABORATORY	157.216	24.288	56.551	15.963	84	412	0	0	5	286	0	0	5	286
ELECTRONICS TECHNOLOGY AND DEVICES LAB	48.164	20.057	40.238	19.394	0	279	0	32	0	163	0	0	32	0
ENGINEER TOPOGRAPHIC LABORATORIES	30.035	11.857	27.326	10.085	15	299	1	19	5	157	0	0	19	5
ENGINEER WATERWAYS EXPERIMENT STATION	67.505	56.810	19.222	17.440	20	1362	0	87	14	54	0	0	87	14
FIELD ARTILLERY BOARD	4.098	4.098	1.208	1.208	152	37	0	0	37	5	0	0	37	5
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	66.859	52.993	30.468	22.747	14	608	0	24	10	340	0	0	24	10
HARRY DIAMOND LABORATORIES	156.388	67.228	63.834	35.206	6	1199	0	50	2	330	0	0	50	2
HUMAN ENGINEERING LABORATORY	12.365	9.295	11.536	6.446	33	147	1	16	16	185	0	0	16	16
INFANTRY BOARD	4.217	4.217	1.995	1.995	122	55	0	0	2	5	0	0	2	5
INSTITUTE OF DENTAL RESEARCH	3.366	2.641	1.818	1.893	82	27	0	2	30	11	0	0	2	30
INSTITUTE OF SURGICAL RESEARCH	7.868	6.782	2.719	2.441	152	81	18	3	54	31	0	0	3	54
INTELLIGENCE & SECURITY BOARD	2.359	0.708	1.751	0.861	98	24	0	2	29	11	0	0	2	29
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	151.270	6.732	143.735	5.477	27	183	0	1	17	52	0	0	1	17
LARGE CALIBER WEAPONS SYSTEMS LAB	206.000	105.805	155.074	48.904	43	1784	1	82	10	1049	0	0	82	10
LETTERMAN ARMY INSTITUTE OF RESEARCH	12.443	9.977	8.098	6.432	161	112	30	14	110	27	0	0	14	110
MATERIALS AND MECHANICS RESEARCH CENTER	37.809	19.979	30.354	15.796	17	606	1	63	8	239	0	0	63	8
MATERIEL SYSTEMS ANALYSIS ACTIVITY	22.005	14.123	18.385	12.095	32	449	0	23	9	302	0	0	23	9
MATERIEL TESTING DIRECTORATE	67.214	64.422	41.395	39.887	215	993	0	7	24	229	0	0	7	24
MEDICAL BIOENGINEERING RD LAB	10.018	5.137	8.565	4.174	36	102	4	15	21	37	0	0	15	21
MEDICAL R & D COMMAND	5.508	5.508	3.252	3.252	59	101	22	1	48	2	0	0	1	48
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	15.350	8.974	13.553	7.177	75	145	27	15	44	52	0	0	15	44
MEDICAL RSCH INST OF INFECTIOUS DISEASES	0.000	0.000	0.000	0.000	328	210	45	34	97	77	0	0	34	97
MISSILE LABORATORY	285.239	83.601	198.106	52.313	44	1231	0	55	27	630	0	0	55	27
MOBILITY EQUIP R & D COMMAND	359.652	50.549	91.857	30.112	74	1219	0	16	17	279	0	0	16	17
NATICK RD LABORATORIES	63.778	30.818	42.236	26.471	104	1087	6	74	27	428	0	0	74	27
NIGHT VISION & ELECTRO OPTICS LABORATORY	211.017	25.282	47.159	28.449	32	462	3	36	3	208	0	0	36	3
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	28.228	16.046	27.225	15.843	33	332	1	168	34	242	0	0	168	34
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	5.608	5.206	4.160	3.766	81	102	6	19	39	58	0	0	19	39

SIGNALS WARFARE LABORATORY
 TANK-AUTO CORRALO LABORATORIES
 TROPIC TEST CENTER
 WALTER REED ARMY INSTITUTE OF RESEARCH
 WHITE SANDS MISSILE RANGE
 YUMA PROVING GROUND

160.433	6.667	37.225	6.645	72	171	0	5	0	59
237.999	36.525	110.340	20.447	34	543	1	14	25	290
4.499	4.414	3.140	3.075	74	68	0	3	14	26
61.230	48.620	44.050	32.747	463	443	100	65	438	266
187.566	156.424	154.226	131.899	919	2736	6	57	719	1040
54.949	52.299	43.561	43.561	383	585	0	0	48	63
3363.183	1358.515	1915.974	889.262	6622	23059	358	1350	2430	9057

TOTALS

TABLE 2. ARMY ROTAE FACILITIES DATA, FY 1981

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIIN	OTHER	REAL PROPERTY	EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	10	52,747	7,797	21,864	0.844	6,787
AIR DEFENSE BOARD	0	33,154	37,090	20,183	0.000	12,312
AIRBORNE BOARD	27	3,978	3,914	39,390	0.970	4,578
ARMOR AND ENGINEER BOARD	2	63,365	50,454	88,069	1.455	3,787
ARMY RESEARCH OFFICE	6	0.000	24,840	0.000	0.000	0.619
ATMOSPHERIC SCIENCES LABORATORY	15	51,541	26,663	67,658	2.745	20,759
ATMOSPHERIC BOARD	0	0.000	18,681	13,599	0.000	1,612
AVIATION DEVELOPMENT TEST ACTIVITY	1196	0.000	39,124	112,463	1.400	28,953
AVIATION ENGINEERING FLIGHT ACTIVITY	19	9,200	16,000	124,800	3.850	12,298
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	88,848	58,673	16,374	2.272	13,124
AVIONICS R & D ACTIVITY	0	16,000	33,500	0.000	0.000	7,400
BALLISTIC RESEARCH LABORATORY	1920	511,780	11,200	40,982	13,870	39,807
CHEMICAL SYSTEMS LABORATORY	1750	361,365	14,184	310,727	14,619	28,088
CHEMICAL SYSTEMS RESEARCH LABORATORY	29	80,787	30,027	128,544	8,359	6,642
COLD REGIONS TEST CENTER	647155	0.000	7,200	259,719	10,336	6,983
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	35	52,324	6,139	10,569	0.680	7,400
COMMUNICATIONS - ELECTRONICS BOARD	7	0.000	20,950	0.493	0.127	0.814
COMMUNICATIONS - ELECTRONICS R & D CENTER	30	81,534	34,717	0.000	0.000	11,500
CONSTRUCTION ENGINEERING RESEARCH LAB	840911	104,875	201,133	1683,266	6,500	4,652
DUGWAY PROVING GROUND	66000	0.000	50,400	229,776	77,902	28,075
ELECTRONIC PROVING GROUND	6	218,928	74,832	119,394	96,011	77,200
ELECTRONIC WARFARE LABORATORY	0	0.081	0.032	0.007	0.000	13,190
ELECTRONICS TECHNOLOGY AND DEVICES LAB	33	90,722	7,000	13,300	6,000	13,177
ENGINEER TOPOGRAPHIC LABORATORIES	847	1739,308	358,215	169,444	21,960	49,454
ENGINEER WATERWAYS EXPERIMENT STATION	0	18,938	32,733	17,720	0.000	2,451
FIELD ARTILLERY BOARD	1513	84,515	86,607	24,543	23,001	34,637
FIRE CONTROL & SMALL CAL. MPNS SYSTS LAB	2316	515,000	113,000	1240,004	52,842	37,617
HARRY DIAMOND LABORATORIES	12	46,944	7,056	34,082	4,412	6,983
HUMAN ENGINEERING LABORATORY	1	0.000	32,203	30,156	3,000	0,859
INFANTRY BOARD	4	9,852	5,696	14,153	0,875	2,253
INSTITUTE OF DENTAL RESEARCH	1	26,424	1,800	22,400	2,313	2,850
INSTITUTE OF SURGICAL RESEARCH	10	4,000	6,627	21,667	0,616	3,523
INTELLIGENCE & SECURITY BOARD	1361	0.000	162,309	2244,364	235,460	223,941
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	4335	369,030	249,577	30,785	64,125	69,275
LARGE CALIBER WEAPONS SYSTEMS LAB	9	133,198	36,506	305,309	42,680	9,126
LETTERMAN ARMY INSTITUTE OF RESEARCH	48	381,776	88,261	172,646	14,885	22,055
MATERIALS AND MECHANICS RESEARCH CENTER	4	8,140	100,276	1,715	2,070	1,239
MATERIEL SYSTEMS ANALYSIS ACTIVITY	22865	724,317	4,351	269,547	17,245	50,649
MATERIEL TESTING DIRECTORATE	5	45,103	27,300	34,108	3,274	3,176
MEDICAL BIOENGINEERING RESEARCH LABORATORY	1	0.000	36,337	0.000	0,560	0,619
MEDICAL R & D COMMAND	31	36,426	15,345	98,429	9,246	4,260
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	43	80,843	19,820	209,699	17,085	8,078
MEDICAL RSCH INST OF INFECTIOUS DISEASES	11000	664,000	224,000	251,500	165,815	102,000
MISSILE LABORATORY	1064	488,653	326,499	209,879	50,706	55,891
MOBILITY EQUIP R & D COMMAND	2466	558,160	65,900	413,128	28,114	20,889
NATICK RAD LABORATORIES	38	151,800	75,800	0.000	32,000	26,036
NIGHT VISION & ELECTRO OPTICS LABORATORY	0	46,110	2,559	7,245	0.000	1,354
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	4	60,421	18,793	28,647	3,713	4,350
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE						

SIGNALS WARFARE LABORATORY
 TANK-AUTO COMMAND LABORATORIES
 TROPIC TEST CENTER
 WALTER REED ARMY INSTITUTE OF RESEARCH
 WHITE SANDS MISSILE RANGE
 YUMA PROVING GROUND

VINT HILL, VA.	10	3.936	29.145	3.963	3.000	5.100
WARREN, MI.	11	259.652	33.828	109.733	38.294	148.000
FT. CLAYTON, C.Z.	2625	18.000	35.925	88.556	0.874	3.078
WASHINGTON, D.C.	203	363.274	58.600	0.000	10.080	18.443
WHITE SANDS, N.M.	3790038	1341.779	578.864	3035.167	191.591	217.980
YUMA, AZ	838063	0.832	114.289	1397.891	55.809	98.977
TOTALS	6238206	10077.447	3757.520	13817.699	1352.285	1631.420

TABLE 3. NAVY RDT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1981

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA								
	TOTAL	TOTAL	TOTAL	INHOUSE	TOTAL	TOTAL	TOTAL	PHD	PHD	PHD	PHD	PROF	PROF
	INHOUSE	RDT&E	RDT&E	RDT&E	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	MIL
AEROSPACE MEDICAL RESEARCH LABORATORY	4,359	3,923	3,321	2,920	42	58	8	10	27	25	25	25	25
AIR DEVELOPMENT CENTER	263,725	146,688	159,656	99,764	263	2047	5	33	200	1132	1132	1132	1132
AIR PROPULSION CENTER	35,965	24,033	32,615	22,445	6	588	1	0	8	158	158	158	158
AIR TEST CENTER	190,564	145,871	108,882	80,667	1493	2004	1	5	225	416	416	416	416
ARCTIC RESEARCH LABORATORY	6,443	0,000	3,862	0,000	0	0	0	0	0	2	2	2	2
ATLANTIC FLEET WEAPONS TRAINING FACILITY	28,603	4,820	6,094	0,003	100	34	0	0	32	24	24	24	24
BIODYNAMICS LABORATORY	3,653	3,265	3,052	2,714	36	50	8	7	11	25	25	25	25
BIOSCIENCES LABORATORY	3,885	3,885	3,639	3,639	9	6	3	0	4	4	4	4	4
CIVIL ENGINEERING LABORATORY	29,348	17,122	24,988	13,979	16	320	0	29	8	182	182	182	182
CLOTHING & TEXTILE RESEARCH FACILITY	2,990	1,782	1,782	1,782	1	55	0	1	1	34	34	34	34
COASTAL SYSTEMS CENTER	57,607	32,285	36,114	20,028	105	618	0	25	13	287	287	287	287
DAVID W. TAYLOR SHIP R&D CENTER	198,474	135,783	157,509	112,537	75	2408	1	118	52	1133	1133	1133	1133
DENTAL RESEARCH INSTITUTE	1,764	1,624	1,133	0,993	29	15	11	4	16	6	6	6	6
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	4,924	2,015	4,584	1,675	14	30	1	7	5	30	30	30	30
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	12,247	6,794	7,457	4,618	50	167	0	2	11	44	44	44	44
HEALTH RESEARCH CENTER	3,159	3,159	2,568	2,568	31	62	5	10	15	26	26	26	26
MEDICAL RESEARCH INSTITUTE	19,126	17,112	14,081	12,266	251	189	47	35	59	68	68	68	68
MEDICAL RESEARCH UNIT NO.2	1,531	1,531	1,166	1,166	32	58	7	4	11	25	25	25	25
MEDICAL RESEARCH UNIT NO.3	2,791	2,791	1,955	1,955	34	202	9	10	13	32	32	32	32
OCEAN R & D ACTIVITY	37,305	17,318	35,211	15,934	10	288	1	55	7	160	160	160	160
OCEAN SYSTEMS CENTER	306,453	141,341	187,087	96,202	277	2423	2	177	53	1292	1292	1292	1292
OFFICE OF NAVAL RESEARCH	373,532	16,641	315,745	15,267	30	391	2	56	27	83	83	83	83
ORDNANCE MISSILE TEST FACILITY	9,268	5,405	6,499	3,189	86	54	1	0	23	9	9	9	9
PACIFIC MISSILE TEST CENTER	385,348	215,981	176,175	114,975	1000	3645	7	14	245	944	944	944	944
PERSONNEL RESEARCH & DEVELOPMENT CENTER	23,319	12,651	18,399	10,054	29	288	0	84	12	214	214	214	214
RESEARCH LABORATORY	277,474	179,441	233,746	151,935	140	3115	1	606	35	1338	1338	1338	1338
SUBMARINE MEDICAL RESEARCH LABORATORY	3,102	3,052	2,272	2,232	38	56	8	10	14	24	24	24	24
SURFACE WEAPONS CENTER	389,235	177,721	252,633	110,226	116	4479	3	228	29	2054	2054	2054	2054
UNDERSEA RANGES DEPARTMENT	41,042	28,819	29,347	26,274	44	42	0	0	4	27	27	27	27
UNDERWATER SYSTEMS CENTER	352,370	132,505	152,681	67,898	79	2669	0	88	56	1385	1385	1385	1385
WEAPONS CENTER	357,059	190,200	202,343	119,170	561	3891	1	122	41	1379	1379	1379	1379
WEAPONS EVALUATION FACILITY	9,549	8,892	2,908	2,480	121	105	6	2	2	21	21	21	21
TOTALS	3436,214	1685,668	2183,504	1121,555	5120	30357	133	1742	1280	12616	12616	12616	12616

TABLE 4. NAVY RDT&E FACILITIES DATA, FY 1981

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
	SPACE (THOUSANDS OF SQUARE FEET)					
AEROSPACE MEDICAL RESEARCH LABORATORY	7	110,323	6,164	14,672	3,130	3,074
AIR DEVELOPMENT CENTER	840	852,000	83,000	654,000	37,600	71,200
AIR PROPULSION CENTER	68	492,618	14,706	128,710	50,966	10,737
AIR TEST CENTER	6898	962,545	358,167	3488,111	142,567	25,690
ARCTIC RESEARCH LABORATORY	300	47,310	14,987	368,049	13,156	0,830
ATLANTIC FLEET WEAPONS TRAINING FACILITY	3696	0,000	16,957	182,152	12,600	109,000
BIODYNAMICS LABORATORY	1	32,014	21,578	0,000	0,400	25,000
BIOSCIENCES LABORATORY	5	77,625	8,731	34,646	1,000	5,409
CIVIL ENGINEERING LABORATORY	30	81,840	71,748	44,158	7,593	3,429
CLOTHING & TEXTILE RESEARCH FACILITY	1	10,000	9,000	3,000	0,460	0,497
COASTAL SYSTEMS CENTER	665	342,248	44,891	364,688	43,905	20,458
DAVID W. TAYLOR SHIP R&D CENTER	325	1711,149	111,178	268,041	73,472	73,039
DENTAL RESEARCH INSTITUTE	0	30,650	4,815	8,090	0,000	0,849
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	1,352	4,856	10,594	0,000	0,000
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	1170	68,335	20,706	23,082	4,871	3,990
HEALTH RESEARCH CENTER	1	19,052	7,159	0,000	0,147	0,755
MEDICAL RESEARCH INSTITUTE	4	164,297	10,545	44,508	6,179	11,669
MEDICAL RESEARCH UNIT NO.2	0	9,500	6,500	0,000	0,000	0,538
MEDICAL RESEARCH UNIT NO.3	5	41,068	8,962	53,350	1,443	0,000
OCEAN R & D ACTIVITY	5	55,725	19,923	45,014	9,548	8,402
OCEAN SYSTEMS CENTER	2723	1345,482	202,432	189,258	45,964	134,739
OFFICE OF NAVAL RESEARCH	0	0,000	84,785	2,500	0,000	0,000
ORDNANCE MISSILE TEST FACILITY	65	5,200	30,539	172,332	5,542	2,925
PACIFIC MISSILE TEST CENTER	27084	918,748	397,508	3510,799	152,822	146,807
PERSONNEL RESEARCH & DEVELOPMENT CENTER	1	65,860	7,080	0,000	0,485	4,682
RESEARCH LABORATORY	919	2313,975	192,677	481,945	93,134	113,892
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40,514	14,099	0,000	1,315	1,042
SURFACE WEAPONS CENTER	5348	1627,548	160,247	1303,534	100,847	130,973
UNDERSEA RANGES DEPARTMENT	1042	82,130	12,464	311,500	25,803	1,441
UNDERWATER SYSTEMS CENTER	367	1096,100	240,615	461,499	49,909	64,323
WEAPONS CENTER	1135711	1195,457	429,280	4494,341	233,659	111,739
WEAPONS EVALUATION FACILITY	7	0,400	53,592	94,926	9,600	1,118
TOTALS	1187349	13801,075	2668,893	16749,499	1128,119	1119,827

TABLE 5. AIR FORCE RDT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1961

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA								
	TOTAL	INHOUSE	RDT&E	TOTAL	INHOUSE	RDT&E	TOTAL	TOTAL	PHD	PHD	PROF	PROF	
								MIL	CIV	MIL	CIV	MIL	CIV
AERO PROPULSION LABORATORY	125.343	15.740	124.219	124.219	14.616	14.616	45	338	4	26	36	214	214
AEROSPACE MEDICAL RESEARCH LABORATORY	18.522	10.735	17.009	17.009	9.739	9.739	136	155	20	25	56	99	99
ARMAMENT DIVISION	705.041	267.165	478.207	478.207	182.655	182.655	4719	3095	20	35	571	701	701
ARNOLD ENGINEERING DEVELOPMENT CENTER	175.413	26.535	161.147	161.147	23.769	23.769	153	207	4	5	62	57	57
AVIONICS LABORATORY	169.423	22.804	157.563	157.563	19.944	19.944	159	604	5	40	111	410	410
EASTERN SPACE & MISSILE CENTER	278.206	93.433	0.000	0.000	0.000	0.000	965	1266	2	0	115	74	74
ENGINEERING & SERVICES CNTR / RD	14.376	4.430	11.755	11.755	1.855	1.855	89	18	6	1	45	12	12
FLIGHT DYNAMICS LABORATORY	108.984	28.952	93.080	93.080	23.668	23.668	188	640	2	31	121	434	434
FLIGHT TEST CENTER	212.858	151.613	122.108	122.108	84.376	84.376	2980	1545	3	4	141	279	279
FRANK J SEILER RESEARCH LABORATORY	1.505	1.505	0.960	0.960	0.960	0.960	23	9	12	1	14	4	4
GEOPHYSICS LABORATORY	66.991	27.497	60.237	60.237	25.250	25.250	120	491	6	91	41	295	295
HUMAN RESOURCES LABORATORY	30.904	13.111	25.729	25.729	10.532	10.532	124	236	6	41	71	139	139
MATERIALS LABORATORY	123.533	14.332	58.683	58.683	12.534	12.534	52	312	4	65	40	245	245
OFFICE OF SCIENTIFIC RESEARCH	124.754	25.861	123.583	123.583	24.710	24.710	46	96	14	25	32	38	38
ROCKET PROPULSION LABORATORY	43.519	17.428	40.222	40.222	14.161	14.161	174	250	2	11	56	103	103
ROME AIR DEVELOPMENT CENTER	275.841	28.524	217.149	217.149	24.156	24.156	222	1888	9	54	118	561	561
SCHOOL OF AEROSPACE MEDICINE	27.547	20.354	20.547	20.547	13.354	13.354	300	269	48	34	121	95	95
WEAPONS LABORATORY	171.152	73.737	155.000	155.000	57.535	57.535	650	525	38	57	343	271	271
WESTERN SPACE AND MISSILE CENTER	108.877	107.477	0.600	0.600	0.000	0.000	295	362	1	2	308	363	363
4950 TEST KING	84.553	80.899	66.426	66.426	62.772	62.772	865	1048	1	0	27	100	100
6585TH TEST GROUP	34.621	16.580	21.114	21.114	11.677	11.677	325	261	1	3	105	186	186
TOTALS	2893.163	1068.962	1959.338	1959.338	618.317	618.317	12726	12875	238	551	2544	4630	4630

TABLE 6. AIR FORCE ROTAE FACILITIES DATA, FY 1981

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AERO PROPULSION LABORATORY	40	229,490	41,784	105,665	56,100	29,563
AEROSPACE MEDICAL RESEARCH LABORATORY	30	97,955	1,739	200,005	10,964	22,500
ARMAMENT DIVISION	463588	320,295	1020,924	10765,171	321,723	163,727
ARNOLD ENGINEERING DEVELOPMENT CENTER	39081	1093,540	207,876	2026,055	390,754	60,351
AVIONICS LABORATORY	229	229,373	9,494	405,264	34,482	75,686
EASTERN SPACE & MISSILE CENTER	17484	129,369	1213,525	4510,214	390,367	326,086
ENGINEERING & SERVICES CNTR / RD	3	12,300	14,000	0,000	1,960	2,156
FLIGHT DYNAMICS LABORATORY	92	530,356	5,100	147,128	27,558	56,504
FLIGHT TEST CENTER	218767	102,125	263,504	7664,465	291,831	139,151
FRANK J SEJLER RESEARCH LABORATORY	0	19,000	3,100	0,000	0,100	2,100
GEOPHYSICS LABORATORY	335	388,689	14,566	25,863	9,863	32,084
HUMAN RESOURCES LABORATORY	5	88,519	55,009	58,570	6,617	73,660
MATERIALS LABORATORY	15	188,750	119,141	54,123	23,340	19,226
OFFICE OF SCIENTIFIC RESEARCH	0	0,000	36,688	5,128	0,000	0,000
ROCKET PROPULSION LABORATORY	68345	419,046	85,648	4,780	126,000	22,477
ROME AIR DEVELOPMENT CENTER	1517	766,168	54,080	182,271	27,492	53,499
SCHOOL OF AEROSPACE MEDICINE	74	432,994	51,447	196,103	17,862	20,216
WEAPONS LABORATORY	702	555,629	161,356	132,261	76,613	67,690
WESTERN SPACE AND MISSILE CENTER	55860	914,964	568,103	607,327	180,000	300,000
4950 TEST WING	205	0,000	57,671	891,608	14,260	393,456
6585TH TEST GROUP	6602	386,000	12,000	165,000	103,657	40,748
TOTALS	872974	6904,262	3997,955	28147,021	2111,543	1900,800

TABLE 7. DEPARTMENT OF DEFENSE RDT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1981

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA					
	TOTAL	TOTAL	INHOUSE	TOTAL	TOTAL	TOTAL	PHD	PHD	PROF	PROF
	TOTAL	RD&E	RD&E	RD&E	MIL	CIV	MIL	CIV	MIL	CIV
ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE	11.297	11.297	8.753	8.753	91	131	22	16	44	49
TOTALS	11.297	11.297	8.753	8.753	91	131	22	16	44	49

SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES

PROGRAM DATA FOR FY 1981

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	7054.764
TOTAL INHOUSE PROGRAM	2725.908
TOTAL RDT&E PROGRAM	4358.019
TOTAL INHOUSE RDT&E	1861.125
TOTAL ANNUAL OPERATING COST	689.241

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	12142	674	3735
CIVILIAN	48103	8899	22310
TOTAL	60245	4073	26045

PHYSICAL FACILITIES (END OF FY 1981)

ACRES	1711202
-------	---------

SPACE (THOUSANDS OF SQ FT)

LABORATORY	23404.885
ADMINISTRATIVE	5568.726
OTHER	25659.804
TOTAL	54633.415

COST (MILLIONS)

REAL PROPERTY	2244.200
EQUIPMENT	2330.495
TOTAL	4574.695

TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1961

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA											
	TOTAL	INHCUSE	TOTAL RDT&E	INHOUSE RDT&E	TOTAL MIL	TOTAL CIV	PHO MIL	PHO CIV	PROF MIL	PROF CIV	TOTAL MIL	TOTAL CIV	PHO MIL	PHO CIV	PROF MIL	PROF CIV
AEROMEDICAL RESEARCH LABORATORY	5.925	5.370	4.231	3.676	78	75	13	6	40	17						
ATMOSPHERIC SCIENCES LABORATORY	26.745	17.575	21.903	12.780	352	175	0	27	1	97						
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	59.627	22.064	54.204	20.382	20	363	1	33	13	246						
AVIONICS R & D ACTIVITY	26.210	15.021	14.298	6.275	18	264	0	4	9	161						
BALLISTIC RESEARCH LABORATORY	52.389	43.094	46.961	37.774	31	717	1	107	10	417						
CHEMICAL SYSTEMS LABORATORY	76.134	44.782	59.152	32.780	80	787	1	39	19	386						
COLD REGIONS R&E LABORATORY	16.176	12.698	7.594	5.240	14	289	0	33	12	125						
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	60.288	6.110	23.997	3.530	12	158	0	2	13	97						
COMMUNICATIONS - ELECTRONICS R & D CENTER	70.571	19.820	64.655	17.582	69	557	0	16	22	261						
CONSTRUCTION ENGINEERING RESEARCH LAB	22.732	11.491	15.223	8.095	3	204	1	32	8	128						
ELECTRONIC WARFARE LABORATORY	157.216	24.206	56.551	15.963	84	412	0	8	5	236						
ELECTRONICS TECHNOLOGY AND DEVICES LAB	48.164	20.057	40.238	19.394	0	279	0	32	0	163						
ENGINEER TOPOGRAPHIC LABORATORIES	30.035	11.057	27.326	10.085	15	299	1	19	5	157						
ENGINEER MATERWAYS EXPERIMENT STATION	67.505	56.810	19.222	17.440	20	1362	0	87	14	514						
FIRE CONTROL & SMALL CAL. WPNS SYSTG LAB	66.859	52.993	30.468	22.747	14	608	0	24	10	390						
HARRY DIAMOND LABORATORIES	156.388	67.228	63.834	35.206	6	1199	0	50	2	330						
HUMAN ENGINEERING LABORATORY	12.385	9.295	11.536	8.446	33	147	1	16	16	105						
INSTITUTE OF DENTAL RESEARCH	3.366	2.641	1.818	1.093	82	27	0	2	38	11						
INSTITUTE OF SURGICAL RESEARCH	7.060	6.782	2.719	2.441	152	81	18	3	54	31						
LARGE CALIBER WEAPONS SYSTEMS LAB	206.000	105.805	135.074	48.904	43	1704	1	82	18	1049						
LETTERMAN ARMY INSTITUTE OF RESEARCH	12.443	9.977	8.698	6.432	161	112	38	14	118	27						
MATERIALS AND MECHANICS RESEARCH CENTER	37.009	19.979	30.354	15.796	17	606	1	63	8	239						
MEDICAL BIOENGINEERING R&D LABORATORY	10.018	5.137	8.565	4.174	36	102	4	15	21	37						
MEDICAL R & D COMMAND	5.508	5.508	3.252	3.252	59	101	22	1	48	2						
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	15.350	8.974	13.553	7.177	75	145	27	15	44	52						
MEDICAL RSCH INST OF INFECTIOUS DISEASES	0.000	0.000	0.000	0.000	320	210	45	34	97	77						
MISSILE LABORATORY	285.239	83.601	198.106	52.313	44	1231	0	55	27	638						
MOBILITY EQUIP R & D COMMAND	359.852	50.549	91.687	30.112	74	1219	0	16	19	279						
NATICK R&D LABORATORIES	63.778	38.818	42.236	26.471	104	1087	6	74	27	428						
NIGHT VISION & ELECTRO OPTICS LABORATORY	211.017	25.282	47.159	20.449	32	462	0	36	3	288						
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	28.228	16.046	27.225	15.043	33	332	1	160	34	242						
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	5.600	5.206	4.160	3.766	81	102	6	19	39	58						
SIGNALS WARFARE LABORATORY	160.433	8.667	37.225	6.645	71	171	0	5	8	59						
TANK-AUTO COMMAND LABORATORIES	237.999	36.525	110.340	20.447	34	543	1	14	25	290						
WALTER REED ARMY INSTITUTE OF RESEARCH	61.230	48.620	44.050	32.747	463	443	168	65	438	266						
TOTALS	2665.479	918.570	1368.011	574.627	2730	16573	349	1208	1249	7888						

TABLE 2A. ARMY RD FACILITIES DATA, FY 1981

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	10	52,747	7,797	21,884	0.844	8.787
ATMOSPHERIC SCIENCES LABORATORY	15	51,541	26,663	67,658	2.745	20,759
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	86,848	58,673	16,378	2.272	13,124
AVIATION R & D ACTIVITY	0	16,000	33,500	0.000	0.000	7,400
BALLISTIC RESEARCH LABORATORY	1920	511,780	11,200	40,982	13.870	39,807
CHEMICAL SYSTEMS LABORATORY	1750	361,365	14,184	310,727	14.619	28,968
COLD REGIONS R&E LABORATORY	29	80,787	30,027	128,544	8.359	8,642
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	35	52,324	6,139	10,509	0.600	7,400
COMMUNICATIONS - ELECTRONICS R & D CENTER	0	81,534	34,717	0.000	0.000	11,500
CONSTRUCTION ENGINEERING RESEARCH LAB	30	56,705	34,750	20,019	6.500	4,652
ELECTRONIC WARFARE LABORATORY	6	218,928	74,832	119,394	96.011	77,290
ELECTRONICS TECHNOLOGY AND DEVICES LAB	0	0.001	0.032	0.007	0.000	13,198
ENGINEER TOPOGRAPHIC LABORATORIES	33	90,722	7,000	13,300	6.000	13,177
ENGINEER WATERWAYS EXPERIMENT STATION	847	1739,308	358,215	169,444	21.960	49,454
FIRE CONTROL & SMALL CAL. FIRE SYSYS LAB	1513	84,515	86,607	24,543	23.001	34,637
HARRY DIAMOND LABORATORIES	2316	515,000	113,000	1240,004	52.842	37,617
HUMAN ENGINEERING LABORATORY	12	46,944	7,056	34,862	4.412	6,903
INSTITUTE OF DENTAL RESEARCH	4	9,052	5,696	14,153	0.875	2,253
INSTITUTE OF SURGICAL RESEARCH	1	26,424	1,800	22,400	2.313	2,850
LARGE CALIBER WEAPONS SYSTEMS LAB	4335	369,030	249,577	88,785	64.125	69,275
LETTERMAN ARMY INSTITUTE OF RESEARCH	9	133,190	36,506	305,309	42.600	9,126
MATERIALS AND MECHANICS RESEARCH CENTER	48	381,778	88,261	172,648	14.885	22,955
MEDICAL BIOENGINEERING RD LABORATORY	5	45,103	27,300	34,108	3.274	3,176
MEDICAL R & D COMMAND	1	0.000	35,337	0.000	0.560	0.619
MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE	31	36,426	15,345	96,420	9.246	4,248
MEDICAL RSCH INST OF INFECTIOUS DISEASES	43	80,843	19,820	209,699	17.885	8,878
MISSILE LABORATORY	11000	664,000	224,000	251,500	165.815	182,000
MOBILITY EQUIP R & D COMMAND	1064	498,653	326,499	209,879	50.706	55,891
NIGHT VISION & ELECTRO OPTICS LABORATORY	2466	558,160	65,900	413,126	28.214	20,889
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	39	151,800	75,800	0.000	32.000	76,836
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	0	46,110	2,559	7,245	0.000	1,394
SIGNALS WARFARE LABORATORY	4	60,421	18,793	28,647	3.713	4,390
TANK-AUTG COMMAND LABORATORIES	10	3,936	29,145	3,963	3.000	5,188
WALTER REED ARMY INSTITUTE OF RESEARCH	11	250,652	33,828	109,733	36.294	148,000
	293	383,274	58,600	9,000	18.000	18,443
TOTALS	27916	7746,669	2220,158	4179,153	740.906	886,172

TABLE 3A. NAVY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1961

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA												
	TOTAL	TOTAL		TOTAL	INHOUSE			TOTAL			PHD			PROF			
		INHOUSE	RD&E		RD&E	MIL	CIV	TOTAL	MIL	CIV	TOTAL	MIL	CIV	TOTAL	MIL	CIV	TOTAL
AEROSPACE MEDICAL RESEARCH LABORATORY	4.359	3.923	3.321	2.920	42	56	0	10	27	25	0	0	0	0	0	0	0
AIR DEVELOPMENT CENTER	263.725	146.688	159.656	99.764	263	2047	5	33	200	1132	0	0	0	0	0	0	0
ARCTIC RESEARCH LABORATORY	6.443	0.000	3.862	0.000	0	0	0	0	0	0	0	0	0	0	0	0	0
BIODYNAMICS LABORATORY	3.653	3.265	3.052	2.714	9	6	3	0	4	0	0	0	0	0	0	0	0
BIOSCIENCES LABORATORY	7.885	3.885	3.639	3.639	9	6	3	0	4	0	0	0	0	0	0	0	0
CIVIL ENGINEERING LABORATORY	29.348	17.122	24.988	13.979	16	320	9	29	8	182	0	0	0	0	0	0	0
CLOTHING & TEXTILE RESEARCH FACILITY	2.990	2.990	1.782	1.782	1	55	0	1	1	34	0	0	0	0	0	0	0
COASTAL SYSTEMS CENTER	57.607	32.285	36.114	20.028	105	618	0	25	11	287	0	0	0	0	0	0	0
DAVID H. TAYLOR SHIP R&D CENTER	198.474	135.783	157.509	112.537	75	2498	1	118	52	1133	0	0	0	0	0	0	0
DENTAL RESEARCH INSTITUTE	1.764	1.624	1.133	0.993	29	15	11	4	16	6	0	0	0	0	0	0	0
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	4.924	2.015	4.584	1.675	14	38	1	7	5	38	0	0	0	0	0	0	0
HEALTH RESEARCH CENTER	3.159	3.159	2.568	2.568	31	62	5	10	15	26	0	0	0	0	0	0	0
MEDICAL RESEARCH INSTITUTE	19.126	17.112	14.081	12.266	251	189	47	35	59	68	0	0	0	0	0	0	0
MEDICAL RESEARCH UNIT NO.2	1.531	1.531	1.166	1.166	32	58	7	4	11	25	0	0	0	0	0	0	0
MEDICAL RESEARCH UNIT NO.3	2.791	2.791	1.955	1.955	34	202	9	10	13	32	0	0	0	0	0	0	0
OCEAN R & D ACTIVITY	37.305	17.318	35.211	15.934	10	288	1	58	7	168	0	0	0	0	0	0	0
OCEAN SYSTEMS CENTER	306.453	141.341	187.087	96.202	277	2423	2	177	53	1292	0	0	0	0	0	0	0
PERSONNEL RESEARCH & DEVELOPMENT CENTER	23.319	12.651	18.399	10.054	29	268	0	84	12	214	0	0	0	0	0	0	0
RESEARCH LABORATORY	277.474	179.441	233.746	151.935	140	3115	1	606	38	1338	0	0	0	0	0	0	0
SUBMARINE MEDICAL RESEARCH LABORATORY	3.102	3.062	2.272	2.232	36	56	6	10	14	24	0	0	0	0	0	0	0
SURFACE WEAPONS CENTER	389.235	177.721	252.633	110.226	116	4479	3	228	29	2854	0	0	0	0	0	0	0
UNDERSEA RANGES DEPARTMENT	41.042	28.019	29.347	26.274	44	42	0	0	0	4	0	0	0	0	0	0	0
UNDERWATER SYSTEMS CENTER	352.370	132.505	152.661	67.878	79	2669	0	88	56	1305	0	0	0	0	0	0	0
WEAPONS CENTER	357.059	190.200	202.343	119.170	561	3891	1	122	41	1379	0	0	0	0	0	0	0
TOTALS	2391.138	1257.231	1533.129	877.911	2232	23369	121	1663	688	16878	0	0	0	0	0	0	0

TABLE 4A. NAVY R&D FACILITIES DATA, FY 1961

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL	EQUIPMENT
	ACRES	LABORATORY	ADMIN	OTHER	PROPERTY	
AEROSPACE MEDICAL RESEARCH LABORATORY	7	110.323	6.164	14.672	3.130	3.074
AIR DEVELOPMENT CENTER	640	652.000	63.000	654.000	37.600	71.270
ARCTIC RESEARCH LABORATORY	300	47.310	15.967	368.049	13.150	3.110
BIODYNAMICS LABORATORY	1	32.014	21.578	0.000	0.000	29.000
BIOSCIENCES LABORATORY	5	77.625	6.731	34.646	1.000	5.409
CIVIL ENGINEERING LABORATORY	30	61.840	71.748	44.156	7.593	3.429
CLOTHING & TEXTILE RESEARCH FACILITY	1	10.000	9.000	3.000	0.440	0.497
COASTAL SYSTEMS CENTER	665	342.248	44.851	364.506	43.905	20.456
DAVID M. TAYLOR SHIP R&D CENTER	325	1711.149	111.178	268.041	73.672	73.039
DENTAL RESEARCH INSTITUTE.	0	30.650	4.815	0.090	0.000	0.049
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	1.362	4.853	10.594	0.000	0.000
HEALTH RESEARCH CENTER	1	19.052	7.159	0.000	0.147	0.786
MEDICAL RESEARCH INSTITUTE	4	164.297	10.545	44.568	6.179	11.649
MEDICAL RESEARCH UNIT NO.2	0	9.500	6.500	0.000	0.000	0.530
MEDICAL RESEARCH UNIT NO.3	5	41.068	6.962	55.350	1.443	0.880
OCEAN R & D ACTIVITY	5	55.725	19.923	45.014	0.000	0.402
OCEAN SYSTEMS CENTER	2723	1345.482	202.432	189.258	45.964	134.739
PERSONNEL RESEARCH & DEVELOPMENT CENTER	1	65.860	7.000	0.000	0.485	4.602
RESEARCH LABORATORY	919	2313.975	192.677	481.945	93.134	113.892
SURMARINE MEDICAL RESEARCH LABORATORY	1	40.514	14.099	0.000	1.315	1.042
SURFACE WEAPONS CENTER	5348	1627.548	160.247	1303.534	100.847	130.973
UNDERSEA RANGES DEPARTMENT	1042	82.130	12.464	311.500	25.603	1.441
UNDERWATER SYSTEMS CENTER	367	1096.100	240.615	461.499	49.909	64.323
WEAPONS CENTER	1135711	1195.457	429.280	4484.341	233.659	111.739
TOTALS	1140301	11353.229	1693.933	9146.607	749.151	709.560

TABLE 5A. AIR FORCE R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1961

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA													
	TOTAL	IMHOUSE	TOTAL	IMHOUSE	TOTAL	MIL	CIV	TOTAL	MIL	CIV	TOTAL	MIL	CIV	TOTAL	MIL	CIV	PROF	CIV
		RD&E		RD&E														
AERO PROPULSION LABORATORY	125.343	15.740	124.219	14.616	45	330	4	26	36	214								
AEROSPACE MEDICAL RESEARCH LABORATORY	18.522	17.009	9.739	136	155	20	25	54	99									
ARMAMENT DIVISION	705.641	287.165	478.207	182.655	4719	3095	20	35	571	781								
AVIONICS LABORATORY	160.423	22.804	157.563	19.944	159	604	5	40	111	410								
ENGINEERING & SERVICES CNTR / RD	14.376	4.480	11.755	1.859	89	18	6	1	45	12								
FLIGHT DYNAMICS LABORATORY	108.984	28.952	93.880	23.668	188	649	2	31	121	434								
FRANK J SEILER RESEARCH LABORATORY	1.505	1.505	0.960	0.960	23	9	12	1	14	4								
GEOPHYSICS LABORATORY	66.991	27.497	63.237	25.250	120	491	6	91	41	295								
HUMAN RESOURCES LABORATORY	30.904	13.111	25.729	10.532	124	236	6	41	71	139								
MATERIALS LABORATORY	123.533	14.332	58.883	12.534	52	312	4	65	48	245								
ROCKET PROPULSION LABORATORY	43.519	17.428	40.222	14.161	174	250	2	11	66	103								
ROME AIR DEVELOPMENT CENTER	275.041	28.524	217.149	24.156	222	1088	9	54	118	561								
SCHOOL OF AEROSPACE MEDICINE	27.547	20.354	20.547	13.354	380	269	48	34	121	95								
WEAPONS LABORATORY	171.152	73.737	155.000	57.585	650	525	34	57	343	271								
TOTALS	1873.681	566.364	1464.360	411.013	7089	8030	182	512	1754	3583								

TABLE 6A. AIR FORCE R&D FACILITIES DATA, FY 1961

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
		(THOUSANDS OF SQUARE FEET)				
AERO PROPULSION LABORATORY	40	229.490	41.784	105.665	56.100	29.563
AEROSPACE MEDICAL RESEARCH LABORATORY	30	97.955	1.739	200.005	10.964	22.500
ARMAMENT DIVISION	663588	320.295	1020.924	10765.171	321.723	163.727
AVIONICS LABORATORY	229	229.373	9.494	405.264	34.482	75.606
ENGINEERING & SERVICES CNTR / RD	3	12.000	14.000	0.000	1.960	2.156
FLIGHT DYNAMICS LABORATORY	92	530.356	5.100	147.128	27.558	56.594
FRANK J SEILER RESEARCH LABORATORY	0	19.000	3.100	0.000	0.100	2.100
GEOPHYSICS LABORATORY	335	308.689	14.566	25.893	9.853	32.064
HUMAN RESOURCES LABORATORY	5	88.519	55.009	58.570	6.617	73.660
MATERIALS LABORATORY	15	188.750	119.141	54.123	23.340	19.226
ROCKET PROPULSION LABORATORY	68345	419.046	86.848	4.780	126.000	22.477
ROME AIR DEVELOPMENT CENTER	1517	766.168	54.020	182.271	27.492	53.499
SCHOOL OF AEROSPACE MEDICINE	74	432.994	51.447	196.103	17.862	28.216
WEAPONS LABORATORY	702	555.629	161.356	132.261	76.613	67.690
	534975	4278.264	1630.588	12277.224	740.674	641.008
TOTALS						

TABLE 7A. DEPARTMENT OF DEFENSE ROT&E FACILITIES DATA, FY 1981

INSTALLATION	ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE						
	10	26.523	16.047	56.540	13.395	13.755
	10	26.523	16.047	56.540	13.395	13.755
TOTALS						

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	<u>INTERMEDIATE</u>	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
AFOMEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
ATMOSPHERIC SCIENCES LABORATORY	ELECTRONICS R&D CMD	MAT DEV & READ CMD	
AVIATION R&T ACTIVITY	AVIATION R&D COMMAND	MAT DEV & READ CMD	
AVIONICS R&D ACTIVITY	AVIATION R&D COMMAND	MAT DEV & READ CMD	
BALLISTIC RESEARCH LABORATORY	ARMAMENT R&D COMMAND	MAT DEV & READ CMD	
CHEMICAL SYSTEMS LABORATORY	ARMAMENT R&D COMMAND	MAT DEV & READ CMD	
COLD REGIONS R&E LABORATORY	--	CHIEF OF ENGINEERS	
COMBAT SURVEILLANCE & TARGET ACQUISITION LABS	ELECTRONICS R&D COMMAND	MAT DEV & READ CMD	
COMMUNICATIONS-ELECTRONICS R&D CENTER	COMMUNICATIONS-ELECTRONICS COMMAND	MAT DEV & READ CMD	
CONSTRUCTION ENGINEERING RSCH LABORATORY	--	CHIEF OF ENGINEERS	
ELECTRONIC WARFARE LABORATORY	ELECTRONICS R&D COMMAND	MAT DEV & READ CMD	
ELECTRONICS TECHNOLOGY & DEVICES LABORATORY	ELECTRONICS R&D COMMAND	MAT DEV & READ CMD	
ENGINEER TOPOGRAPHIC LABORATORIES	--	CHIEF OF ENGINEERS	
ENGINEER WATERWAYS EXPERIMENT STATION	--	CHIEF OF ENGINEERS	
FIRE CONTROL & SMALL CALIBER WPNS SYSTEMS LAB	ARMAMENT R&D COMMAND	MAT DEV & READ CMD	
HARRY DIAMOND LABORATORIES	ELECTRONICS R&D COMMAND	MAT DEV & READ CMD	
HUMAN ENGINEERING LABORATORY	--	MAT DEV & READ CMD	
INSTITUTE OF DENTAL RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
INSTITUTE OF SURGICAL RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	ARMAMENT R&D COMMAND	MAT DEV & READ CMD	
LETTERMAN ARMY INSTITUTE OF RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
MATERIALS AND MECHANICS RESEARCH CENTER	--	MAT DEV & READ CMD	
MEDICAL BIOENGINEERING R&D LABORATORY	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
MEDICAL R&D COMMAND	--	THE SURGEON GENERAL	
MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
MISSILE LABORATORY	MISSILE COMMAND	THE SURGEON GENERAL	
MOBILITY EQUIPMENT R&D COMMAND	--	MAT DEV & READ CMD	
NATICK R&D LABORATORIES	--	MAT DEV & READ CMD	
NIGHT VISION & ELECTRO-OPTICS LABORATORY	ELECTRONICS R&D COMMAND	MAT DEV & READ CMD	

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
RES INST FOR BEHAVIORAL & SOCIAL SCIENCES	---	DEPUTY CHIEF OF STAFF FOR PERSONNEL
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	MEDICAL R&D COMMAND	THE SURGEON GENERAL
SIGNALS WARFARE LABORATORY	ELECTRONICS R&D CMD	MAT DEV & READ CMD
TANK-AUTOMOTIVE COMMAND LABORATORIES	TANK AUTOMOTIVE COMMAND	MAT DEV & READ CMD
WALTER REED ARMY INSTITUTE OF RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL

TABLE 9 - NAVY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	<u>INTERMEDIATE</u>	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
AEROSPACE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND		CHIEF, BUR OF MED/SUR
AIR DEVELOPMENT CENTER	--		CHIEF OF NAVAL MATERIAL
ARCTIC RESEARCH LABORATORY	MEDICAL R&D COMMAND		CHIEF OF NAVAL RESEARCH
BIODYNAMICS LABORATORY	--		CHIEF BUR OF MED/SUR
BIOSCIENCES LABORATORY	--		CHIEF OF NAVAL RESEARCH
CIVIL ENGINEERING LABORATORY	NAVAL PAC ENG COMMAND		CHIEF OF NAVAL MATERIAL
CLOTHING AND TEXTILE RESEARCH FACILITY	NAVAL SUPPLY SYS COMMAND		CHIEF OF NAVAL MATERIAL
COASTAL SYSTEMS CENTER	--		CHIEF OF NAVAL MATERIAL
DAVID W. TAYLOR SHIP R&D CENTER	--		CHIEF, BUR OF MED/SUR
DENTAL RESEARCH INSTITUTE, NTC	MEDICAL R&D COMMAND		CHIEF OF NAVAL MATERIAL
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	NAVAL AIR SYSTEMS COMMAND		CHIEF, BUR OF MED/SUR
HEALTH RESEARCH CENTER	MEDICAL R&D COMMAND		CHIEF, BUR OF MED/SUR
MEDICAL RESEARCH INSTITUTE	MEDICAL R&D COMMAND		CHIEF, BUR OF MED/SUR
MEDICAL RESEARCH UNIT NO. 2	MEDICAL R&D COMMAND		CHIEF, BUR OF MED/SUR
MEDICAL RESEARCH UNIT NO. 3	MEDICAL R&D COMMAND		CHIEF, BUR OF MED/SUR
OCEAN R&D ACTIVITY	--		CHIEF OF NAVAL RESEARCH
OCEAN SYSTEMS CENTER	--		CHIEF OF NAVAL MATERIAL
PERSONNEL RESEARCH & DEVELOPMENT CENTER	--		CHIEF OF NAVAL MATERIAL
RESEARCH LABORATORY	--		CHIEF OF NAVAL RESEARCH
SUBMARINE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND		CHIEF, BUR OF MED/SUR
SURFACE WEAPONS CENTER	--		CHIEF OF NAVAL MATERIAL
UNDERSEAS RANGES DEPARTMENT	--		CHIEF OF NAVAL MATERIAL
UNDERWATER SYSTEMS CENTER	--		CHIEF OF NAVAL MATERIAL
WEAPONS CENTER	--		CHIEF OF NAVAL MATERIAL

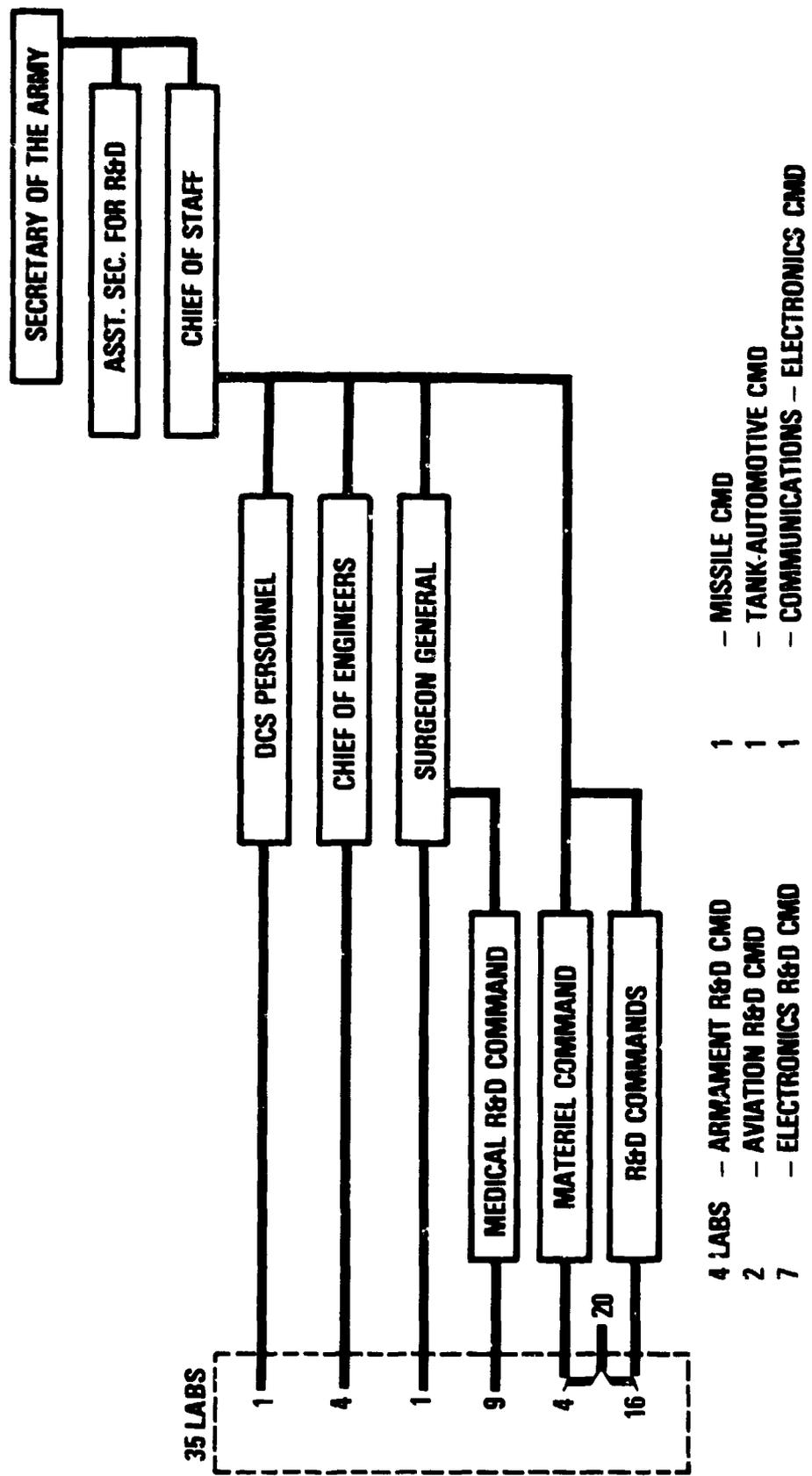
TABLE 10 AIR FORCE RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

		<u>COMMAND CHAIN</u>
<u>INTERMEDIATE</u>		<u>COMMAND</u>
AEROPROPULSION LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
*ARMAMENT DIVISION	---	AF SYSTEMS COMMAND
AVIONICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ENGINEERING SERVICES CENTER/RD	---	HQ US AIR FORCE
FLIGHT DYNAMICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
FRANK J. SEILER RESEARCH LABORATORY	OFFICE OF SCIENTIFIC RES	AF SYSTEMS COMMAND
GEOPHYSICS LABORATORY	---	AF SYSTEMS COMMAND
HUMAN RESOURCES LABORATORY	---	AF SYSTEMS COMMAND
MATERIALS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ROCKET PROPULSION LABORATORY	---	AF SYSTEMS COMMAND
ROME AIR DEVELOPMENT CENTER	ELECTRONIC SYSTEMS DIVISION	AF SYSTEMS COMMAND
SCHOOL OF AEROSPACE MEDICINE	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
WEAPONS LABORATORY	---	AF SYSTEMS COMMAND

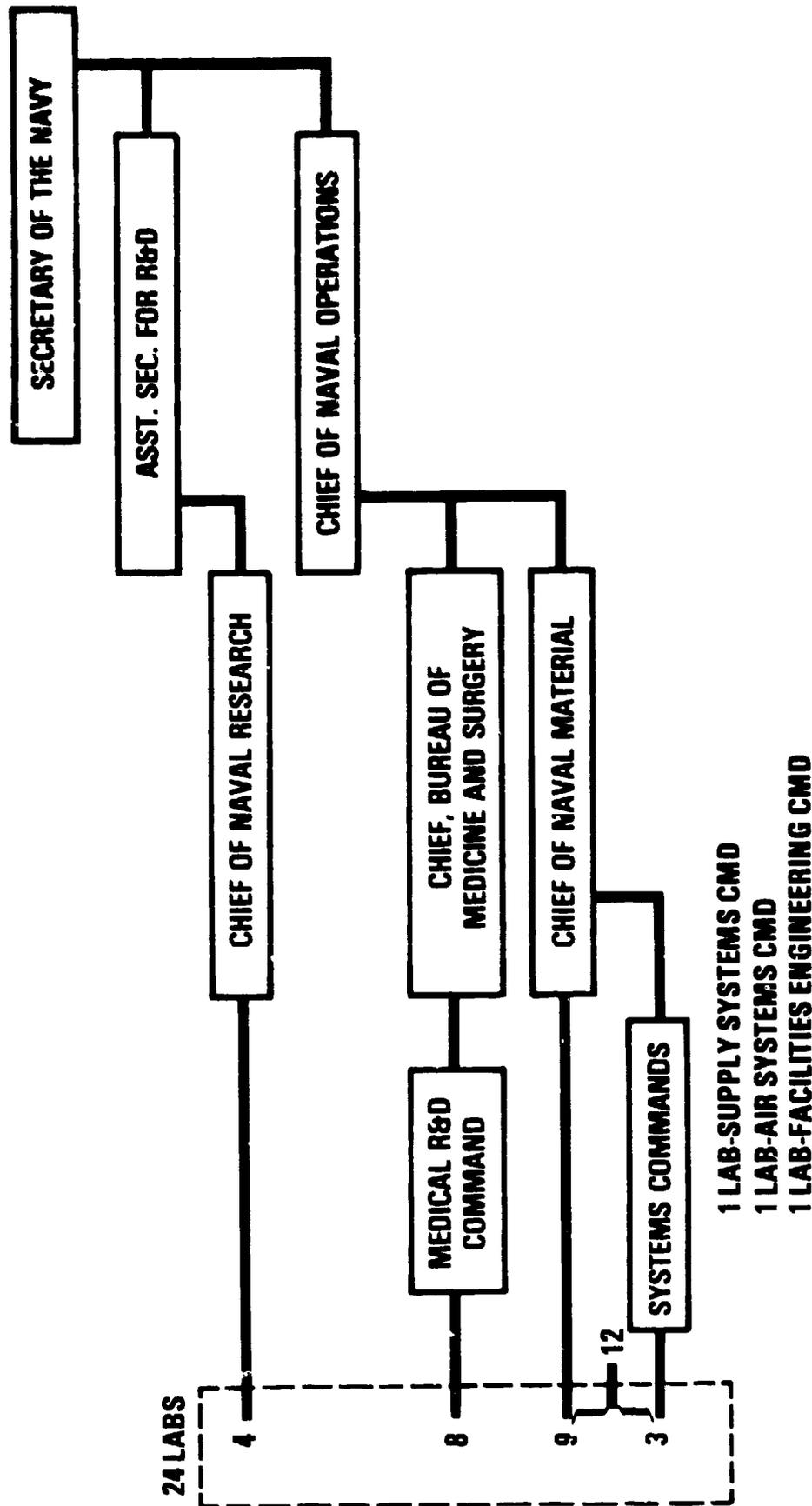
XXX

* Laboratory portion not reported separately in this report (See Armament Division which includes Armament Laboratory)

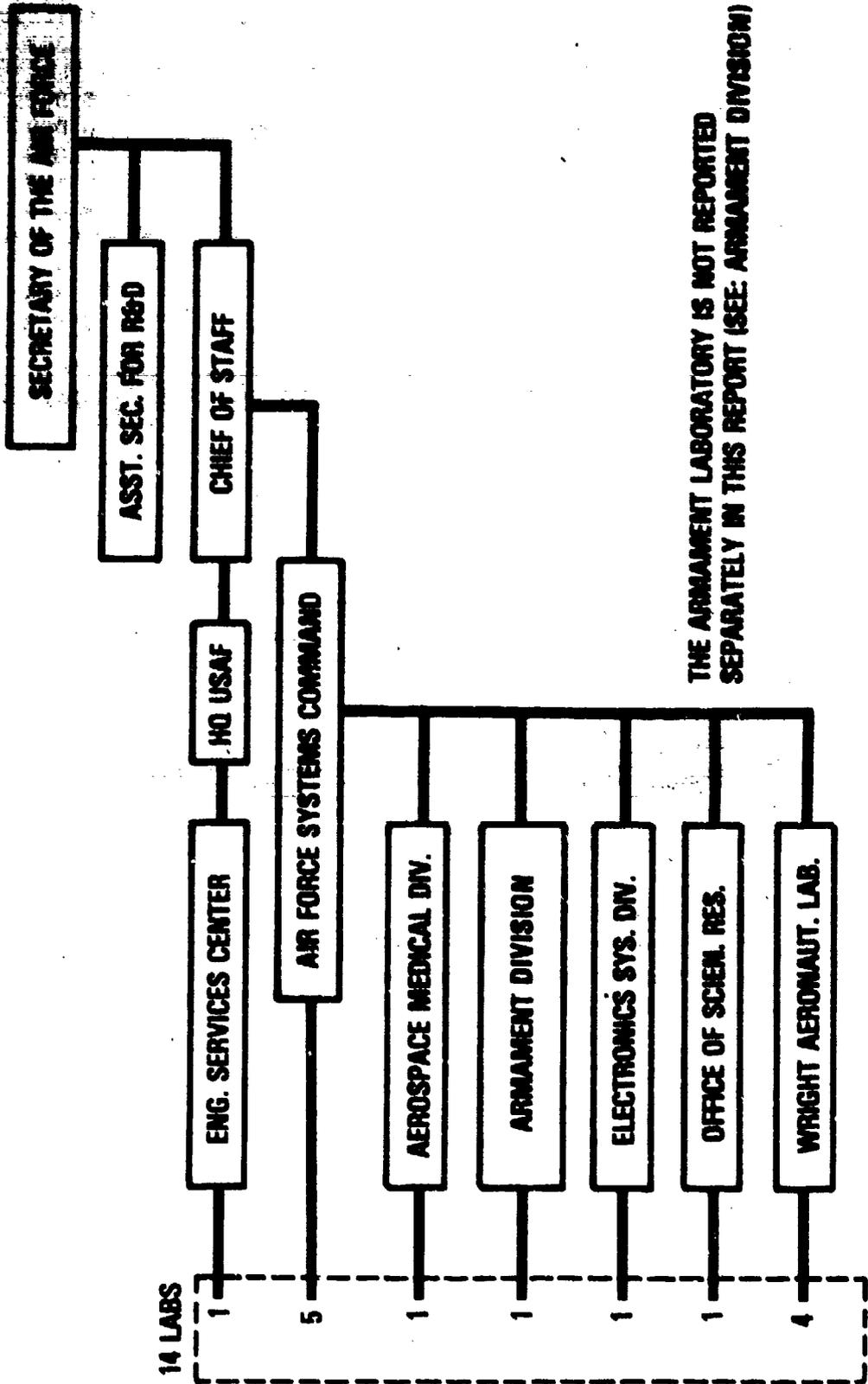
ARMY LABORATORIES COMMAND CHAIN



NAVY LABORATORIES COMMAND CHAIN



AIR FORCE LABORATORIES COMMAND CHAIN



THE ARMAMENT LABORATORY IS NOT REPORTED SEPARATELY IN THIS REPORT (SEE: ARMAMENT DIVISION)

CDR. COL. STANLEY C. KNAPP

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	4.281	5.904
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.116	0.000
TOTAL OTHER	1.578	2.145
TOTAL ANNUAL LAB	5.925	8.049
TOTAL INHOUSE	5.870	7.599
TOTAL INHOUSE RDT&E	8.676	5.454
ANNUAL OPERATING COST	1.708	2.986

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	78	18	40	88
CIVILIAN	76	6	17	58
TOTAL	158	19	57	96

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	52.747	7.797	21.884	82.428	0.844	8.787

...MISSION

STANDARDS AND CIRCA 1982 LIFE SUPPORT
 MAN-RATED VIBRATION FACILITY; HELICOPTER INFLIGHT MONITORING SYS WITH
 INSTRUMENTED RANGE; ANECHOIC AND REVERBERATION CHAMBERS; MOBILE
 ACCOUSTICS LAB; EYE MOVEMENT MEASURING LAB.

...CURRENT IMPORTANT PROGRAMS

CHEMICAL WARFARE DEFENSE
 MACHINE VS HUMAN CAPABILITY/SUSTAINABILITY
 HIGH TECHNOLOGY WEAPON HAZARDS
 CASUALTY MANAGEMENT ON INTEGRATED BATTLEFIELD

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INFLIGHT MEDICAL RESEARCH; VIVARIUM; DATA ACQUISITION & BIOTELEMETRY SYS
 ELECTRON MICROSCOPY LAB; FIELD RSCH FACILITY; HYBRID ANALOGUE/DIGITAL
 COMPUTER SYS; IMPACT FACILITY; SCIENTIFIC & MEDICAL RSCH INFO CENTER;
 SPECTROGRAPHIC ANALYSIS SYS; CARDIOPULMONARY LAB
 CONDUCTS LIFE SCIENCES RSCH INTO AVIATION, COMBAT VEHICLES, AND COMBAT
 WEAPON SYS ENVIRONMENTS & THEIR EFFECTS ON CREWMEMBERS HEALTH, SAFETY &
 PERFORMANCE. PROVIDES TO DESIGNERS, DEVELOPERS & USERS OF ARMY SYS, DATA
 BASES ACQUIRED THRU FIELD & LAB RSCH. ASSISTS OTHER USAMRDC LABS AND
 INSTITUTES IN RSCH ON THE BIOEFFECTS OF LASER SYS, MEDICAL DEFENSE AGNST
 CHEMICAL AGENTS, IMPACT OF CONTINUOUS OPNS ON INDIVIDUAL & CREW
 PERFORMANCE, AND DEVELOPMENT OF IMPROVED MEANS OF PATIENT EVACUATION.

PRES. LTC. WALTER M. BURCH

TECH. ADV. MR. CHARLES E. FRENCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	4.894	5.097
TOTAL PROCUREMENT	0.617	0.625
TOTAL O&M	0.518	0.828
TOTAL OTHER	2.665	2.965
TOTAL ANNUAL LAB	8.689	9.510
TOTAL INHOUSE	7.671	8.788
TOTAL INHOUSE RDT&E	4.858	4.586
ANNUAL OPERATING COST	0.445	0.516

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	PROF	
MILITARY	112	0	16	96
CIVILIAN	85	0	18	72
TOTAL	197	0	29	168

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	88.154	87.090	20.183	90.427	0.000	12.812

...MISSION

PLAN, CONDUCT AND REPT ON OPERATIONAL AND OTHER USER TESTS. PARTICIPATE IN OTHER TESTING AS DIR. PROV ADVICE AND GUIDN ON TEST MATTERS TO COMBAT TRAINING, AND MAT DEVELOPERS, OTHER SERVICES AND PRIVATE INDUSTRY. CONDUCT OTHER TESTS AND SELECTED SPECIFIC EVAL AS DIR BY CG TRADOC.

...CURRENT IMPORTANT PROGRAMS

DIVAD GUN OT IIA
 CHAP FLIR
 MILES AGES/AD
 CROSSEYE AIRBORNE
 AN/ADR-6

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT: MULTIPLE TGT TRACKING SYS PROVIDES DATA FROM AIR & GROUND TGTS, TWO LASER TRACKING SYS PROVIDE DATA FROM COOPERATIVE TGTS, INSTR RADAR SYS THAT PROVIDES HIGH ACCURACY, ONE NIKE-HERC FIRE CON SYS USED WITH RADAR DATA RECORDER, A RANGE TIMING SYS TO PROVIDE A TIME BASE FOR ALL INSTR SYS, TWO DATA ACQ SYS ACCEPT 59 DIFFERENT SIGNALS, CCTV SYS FOR RANGE SAFETY, TECH PHOTO LAB FOR REQUIPED DATA, RICS PROVIDES NEAR REAL TIME DATA OUTPUTS. FACILITIES AT FT BLISS, BLDG 1656 HOUSES RICS, RANGE TIMING SYS, DATA REDUCTION SYS, ELECTRONICS CAL & FABRICATION LAB, MACHINE & CARPENTER SHOPS, MICROWAVE TERMINAL THAT PROVIDES DATA LINK TO RANGES, PHOTOGRAPHIC LAB, NORTH MCGREGOR RANGES FOR FIRING FORWARD AREA WEAPONS AT AIR OR GROUND TGTS. SITE MONITOR FOR ELECTRONICS TESTING OF EQUIPMENT.

PRES. COL. WILLIAM R. FOLEY

ENGR. ADV. MR. GEORGE E. GORE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.299	1.519
TOTAL PROCUREMENT	0.125	0.173
TOTAL O&M	0.218	1.090
TOTAL OTHER	1.867	2.822
TOTAL ANNUAL LAB	8.509	5.104
TOTAL INHOUSE	8.500	5.104
TOTAL INHOUSE RDT&E	1.299	1.519
ANNUAL OPERATING COST	1.124	1.370

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	110	0	16	94
CIVILIAN	89	0	8	81
TOTAL	149	0	24	125

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27	8.978	8.914	89.890	47.282	0.970	4.578

...MISSION

THE MISSION OF THE ABN BD IS TO PLAN, CONDUCT AND REPORT ON OT I & II, FDTE AND OTHER USER TYPE TESTS OF AIRBORNE ITEMS; PARTICIPATE IN DT I, II & III AS DIRECTED; PROVIDE ADVICE AND GUIDANCE ON TEST AND EVALUATION MATTERS. CONDUCT SPECIAL TESTS & EVALUATIONS AS DIRECTED.

...CURRENT IMPORTANT PROGRAMS

LOW ALTITUDE PARACHUTE EXTRACTION SYSTEM
 STANDARD AIRDROP OF SELECTED ITEMS OF EQUIPMENT
 EXTERNAL AIR TRANSPORTABILITY
 INTERNAL AIR TRANSPORTABILITY
 LIGHTER THAN AIR CUSHIONED VEHICLE, 80 TON PAYLOAD

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE: MAIN OFC BLDG, ABN HANGAR, INSTRUMENTATION/DESIGN INTERFACING SECTION, COMBINED SHOP & ADP FACILITY. MAJOR EQUIPMENT INCLUDES: LIGHTWEIGHT OPTICAL TRACKING SYSTEM, 25-TON CRANE, 2 20-TON MOBILE CRANES, 5-TON WRECKER, 40,000 LB ACFT LOADER, THREE T-28B ACFT, 1 UH-1H HELICOPTER, VARIOUS TYPES OF STANDARD PARACHUTES, NINE GASOLINE GENERATORS, DIGITAL THEODOLITES, ELECTRONIC DIAGNOSTIC EQUIPMENT, VOLTMETERS, AMMETERS, SPECTRUM ANALYZERS, SOUND & VIBRATION ANALYZERS, TIME MARK GENERATORS, OSCILLOSCOPES, MULTIMETERS, RANDOM NOISE GENERATORS, POWER SUPPLIES, Q METERS, ATTENUATORS, GRAPHIC LEVEL RECORDERS, 16MM CAMERAS, FILM ANALYZERS, PORTABLE VIDEO EQUIPMENT, VAN METER, ANALOG TAPE RECORDER, FREQUENCY COUNTERS, SOUND LEVEL CALIBRATORS, METER CALIBRATORS, MEGOHMMETER.

INSTALLATION: ARMOR AND ENGINEER BOARD

FT. KNOX, KY.

PRES. COL. J. LYNN FLEMING

CIV. SCI. ADVISOR MR. WARREN W. WELLS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.801	7.118
TOTAL PROCUREMENT	0.816	0.496
TOTAL O&M	0.427	0.200
TOTAL OTHER	4.851	4.800
TOTAL ANNUAL LAB	18.895	12.609
TOTAL INHOUSE	18.895	12.609
TOTAL INHOUSE RDT&E	8.801	7.118
ANNUAL OPERATING COST	0.669	0.777

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	281	0	50	181
CIVILIAN	98	0	27	71
TOTAL	329	0	77	252

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	68.365	50.454	88.069	201.888	1.455	8.787

...MISSION

PLAN CONDUCT & REPORT: OTI, II, III, FDTE, CEP & OTHER USER TESTS OF AR/ENGR EQ. PARTICIPATE IN SPEC STUDY OF CML EQ. PROVIDE GUIDANCE & ADVICE TO DEVELOPERS, PRODUCERS, OTHER SVCS & PRIVATE INDUSTRY, PLAN, COORDINATE, RPT & MANAGE ACVTP. PROVIDE ADM, LOGISTICS & OPN SUPPORT TO DCD.

...CURRENT IMPORTANT PROGRAMS

COMBAT VEHICLE TECHNOLOGY PROGRAM
M1 TANK DRIVER TRAINER
OFF-ROUTE ANTI-TANK MINE SYSTEM
RIBBON BRIDGE ERECTION BOAT
INSTITUTIONAL TANK GUNNERY AND MISSILE TRACKING SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SIMFIRE HIT-KILL INDICATOR; POSITION LOCATION SYS; WIRE GUIDED EVASIVE TGT SYS; TANK VIDEO SYS; GUN CAMERA; RANGE TIMING EQ; MICROWAVE TELEMETRY EQ; SLR CAMERA; 16MM MOTION PICTURE CAMERA W/DATADOORS; THRU-TANK-OPTICS VIDEO DEV GUN ELEVATION DEVICE; AUTOMATIC FILM ANALYZER & DIGITIZER SYS; ROBOTICS EXPERIMENTATION; DATA ANALYSIS & RECORDING SUBSYSTEM; VIDEO I; VIDEO II; AND METEOROLOGICAL INSTRUMENTATION.

INSTALLATION: ARMY RESEARCH OFFICE

DURHAM, N.C.

CDR. COL. DUFF G. MANGES

TRCH. DIR. DR. HERMANN R. ROBL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	55.078	69.188
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.100	0.112
TOTAL ANNUAL LAB	55.178	69.245
TOTAL INHOUSE	0.100	0.112
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	1.196	1.880

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON-PROF
		PHDS			
MILITARY	2	0		2	0
CIVILIAN	95	31		31	64
TOTAL	97	31		33	64

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	0.000	24.840	0.000	24.840	0.000	0.619

...MISSION

TO MANAGE THAT PORTION OF THE RSCH PROGRAM RELEVANT TO ARMY MISSIONS IN MATH AND THE PHY, ENGR, ENVIRONMENTAL AND LIFE SCIS ACCOMPLISHED THRU CONTR AND GRANTS WITH EDUC INSTITS, RSCH INSTITS AND GOVT AND INDUS LABS AND TO REP ARMY RSCH INTERESTS OVERSEAS.

...CURRENT IMPORTANT PROGRAMS

ATMOSPHERIC EFFECTS ON TRANSMISSION.
CHEMICAL AND BIOLOGICAL DEFENSE.
JOINT SERVICES ELECTRONICS PROGRAM.
LARGE SCALE SCIENTIFIC COMPUTATION.
NEAR MILLIMETER WAVE SOURCES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES
MATHEMATICAL, MATERIAL, ELECTRONICS, MECHANICS AND AERONAUTICS.
ADMINISTRATION OF THE RESEARCH PORTION OF ARMY RESEARCH AND STANDARDIZATION OFFICE, LONDON, COORDINATES ARMY RESEARCH EFFORTS WITHIN THE ARMY AND WITH OTHER GOVERNMENT AGENCIES SUCH AS NAVY, NASA, DOD, DOE, NSF AND OTHERS.

CDR. DIR. COL. W. E. RAWLINSON JR

DEP. DIR. DR. HENRY RACHELE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	21.900	19.378
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.089	0.084
TOTAL OTHER	4.756	5.152
TOTAL ANNUAL LAB	28.745	24.564
TOTAL INHOUSE	17.575	17.670
TOTAL INHOUSE RDT&E	12.780	12.484
ANNUAL OPERATING COST	4.839	5.257

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	PROF	
MILITARY	852	0	1	851
CIVILIAN	175	27	97	78
TOTAL	827	27	98	429

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	51.541	26.663	67.658	145.862	2.745	20.759

...MISSION

RESPONSIBLE FOR THAT PORTION OF ERADCOM DEVOTED TO RESEARCH IN ATMOSPHERIC SCIENCES DEVELOPMENT OF METEOROLOGICAL TECHNIQUES AND EQUIPMENT FOR FIELD ARMY FURNISH METEOROLOGICAL SERVICES TO ARMY ROTÉ ACTIVITIES

...CURRENT IMPORTANT PROGRAMS

AUTOMATIC ATMOSPHERIC SOUNDING SET AN/TMO-81
 ATMOSPHERIC CHARACTERIZATION-BATTLEFIELD OBSCURATION EFFECTS
 REMOTE ATMOSPHERIC SENSING MILLIMETER MICROWAVE PROPAGATION
 ATMOSPHERIC MODELS FOR E-O SYSTEMS ATMOS EFFECTS ON COMMUNICATIONS
 METEOROLOGICAL SUPPORT TO RDTE ACTIVITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

METEOROLOGICAL RESEARCH FACILITY AND CAPABILITY
 TRANSPORTABLE ATMOSPHERIC CHARACTERIZATION STATION
 ATMOSPHERIC PHYSICS RESEARCH FACILITY AND CAPABILITY
 UPPER ATMOSPHERE RESEARCH AND SOUNDING ROCKET FACILITY AND CAPABILITY
 ION MASS SPECTROMETER SYSTEM
 REMOTE ATMOSPHERIC SENSING FIELD RESEARCH FACILITY
 ATMOSPHERIC SPECTROSCOPY-LASER PROPOGATION FACILITY
 METEOROLOGICAL RDTE SUPPORT FACILITIES-ALASKA TO CANAL ZONE
 METEOROLOGICAL INSTRUMENTATION TEST MAINTENANCE CALIBRATION FACILITY
 FACILITY FOR SONIC OBSERVATION OF TRAJECTORY AND IMPACT OF MISSILES
 HIGH ENERGY LASER TEST FACILITY.

INSTALLATION: AVIATION BOARD

FT. RUCKER, AL.

PRES. COL. ROBERT A. BONIFACIO

TECH. ADV. GEORGE E. SLAGLEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.746	6.897
TOTAL PROCUREMENT	0.711	0.650
TOTAL O&M	6.266	0.721
TOTAL OTHER	1.820	2.075
TOTAL ANNUAL LAB	12.548	9.848
TOTAL INHOUSE	12.485	9.848
TOTAL INHOUSE RDT&E	8.698	6.897
ANNUAL OPERATING COST	1.826	1.938

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	79	0	80	49
CIVILIAN	86	1	8	28
TOTAL	115	1	88	77

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROF	EQUIP
0	0.000	18.681	18.599	32.280	0.000	1.612

...MISSION

TO PLAN, CONDUCT AND REPORT ON OPERATIONAL TEST I, II AND IIA FOR NONMAJ AND OTHER TESTS AS DIRECTED BY HQ TRADOC. AVN BD DESIGNS AND CONDUCTS TESTING AND EVALUATION OF AVIATION SYSTEMS, SUBSYSTEMS AND ANCILLIARY EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

FO257, NIGHT HAWK/NIGHT VISION GOGGLES WEATHER MINIMUMS
OTN 505, BLACK HAWK FLIGHT SIMULATOR
OTN 849, OXYGEN SYSTEM FOR HELICOPTERS
OTN 886, QUADRANT LASER WARNING RECEIVER
OTN 689, AVIATION NIGHT VISION IMAGING SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NO MAJOR EQUIPMENT OR FACILITY.

INSTALLATION: AVIATION DEVELOPMENT TEST ACTIVITY

FT. RUCKER, AL.

CDR. LTC. (P) WILLIAM B. WOODSON

TECH. DIR. DR. JAMES S. KISHI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.099	10.006
TOTAL PROCUREMENT	1.180	1.445
TOTAL O&M	4.916	5.200
TOTAL OTHER	8.411	8.889
TOTAL ANNUAL LAB	17.556	20.540
TOTAL INHOUSE	17.556	20.540
TOTAL INHOUSE RDT&E	8.099	10.006
ANNUAL OPERATING COST	6.455	7.848

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	156	0	21	185
CIVILIAN	94	1	22	72
TOTAL	250	1	43	207

SPACE AND PROPERTY

ACRES	SPACE 'THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1196	0.000	39.124	112.468	151.587	1.400	28.958

...MISSION

PLAN, CONDUCT, EVALUATE & REPORT ON AVN GOVT TEST ELEM(EDT-G, ADVT-G, PQT-G, PVT-G), EXCEPT THOSE PORTIONS PERTAINING TO ACFT PERFORMANCE, STABILITY & CONTROL PROVIDE INPUT, MONITOR & EVALUATE RESULTS OF CONTR TEST ELEMENTS CONDUCT OTHER AVIATION TESTS & EVALUATIONS AS DIRECTED BY CG, TECOM.

...CURRENT IMPORTANT PROGRAMS

CH-47C W/T65 L712 ENGINE
LOGISTICAL EVALUATION TEST OF THE UH-60A BLACK HAWK
RAM GROWTH/MATURITY OF THE CH-47D
LASER WARNING RECEIVER (LWR) AN/AVR-2
HELICOPTER OXYGEN SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1 U-21, 4 AH-1, 1 T-42, 1 UH-60) AND MAY BE USED AS TEST BEDS FOR ALL COMPONENTS, EQUIPMENT OR SUPPLIES APPLICABLE TO THAT A/C SERIES. A MODULAR ENGINE TEST SYSTEM (METS) PROVIDES ACCURATE MEASUREMENTS OF TURBINE ENGINE PERFORMANCE FOR ENGINES UP TO 5000 HP & WT UP TO 2000 LB. ON-SITE DATA PROCESSING & DISPLAY CAPABILITY EXISTS WITH PDP-11 & IBM 4831 COMPUTER SYS. ADMIN & TECHNICAL PHOTOGRAPHIC CAPABILITY ARE AVAIL TO INCLUDE VIDEO & 16MM INSTRUMENTATION CAMERAS. THE INSTRUMENTATION LAB CAN COLLECT ANALOG & DIGITAL MEASUREMENTS USING 14-TRACK INSTRUMENTATION RECORDERS; HAS B&W & COLOR VIDEO RECORDING CAP, STRIP-CHART RECORDERS, OSCILLOGRAPH RECORDERS & AIRINC 514 AIRLINE TYPE CRASH RECORDERS. AN OVER-WATER RANGE IS AVAIL FOR RELIABILITY TESTING OF A/C WEAPONS SYS.

CDR. COL. LEWIS J. MCCONNELL

TECH. DIR. MR. JAMES S. HAYDEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	6.288	6.500
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.178	1.290
TOTAL ANNUAL LAB	7.461	7.790
TOTAL INHOUSE	7.461	7.790
TOTAL INHOUSE RDT&E	6.288	6.500
ANNUAL OPERATING COST	1.725	1.895

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	66	0	26	40
CIVILIAN	100	0	85	65
TOTAL	166	0	61	105

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
19	9.200	16.000	124.800	150.000	8.850	12.298

...MISSION

PRODUCE ENGR FLT TEST DATA ON ACFT PERF, HANDLING QUALITIES, VIBRATION, SYS/SUBSYSTEM INTERFACE FOR USE IN ACFT DEVELOPMENT AND QUALIFICATION. SUSTAIN THE CAPABILITY TO COMPLETELY INSTRUMENT TEST ACFT WITH ONBOARD RECORDING/TELEMETRY REAL TIME DATA REDUCTION. CONDUCT PRE-TPS ORIENT.

...CURRENT IMPORTANT PROGRAMS

YAH-64A EDT A&FC PHASE I
 UH-60A A&FC ICING
 OV-1 ICING
 LCH RAPID DEPLOYMENT MODS
 CH-47 CLIMATIC LABORATORY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

JT-28B 2T-28 OV-1C JOV-1C JU-21A JAH-1S 2CH-47C JOH-58C 5JUH-1H
 ACFT MAINT CAPABILITY
 ACFT MODIFICATION CAPABILITY
 ACFT INSTRUMENTATION CAPABILITY
 AIRBORNE DATA ACQUISITION-SYSTEMS
 IEMR COMPUTER WITH TELEMETRY
 3REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY
 1MILIKEN CAMERA
 1MAG TAPE COMPOSER 3MAG TAPE TYPEWRITERS 2MAG TYPEWRITERS 8MAG COMPOSERS

INSTALLATION: AVIATION RESEARCH & TECHNOLOGY LABORATORIES MOFFETT FIELD, CA.

DIR. DR. RICHARD M. CARLSON DEP. DIR. COL. WALTER URBACK JR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	54.204	80.287
TOTAL PROCUREMENT	4.000	6.052
TOTAL O&M	0.612	0.035
TOTAL OTHER	0.811	1.102
TOTAL ANNUAL LAB	59.627	87.476
TOTAL INHOUSE	22.064	22.414
TOTAL INHOUSE RDT&E	20.882	20.798
ANNUAL OPERATING COST	6.181	6.679

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	20	1	18	7
CIVILIAN	368	88	246	117
TOTAL	388	84	259	124

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
127	88.848	58.678	16.870	163.891	2.272	18.124

...MISSION

MANAGE AND EXECUTE RESEARCH AND DEVELOPMENT OF ARMY AIRMOBILE SYSTEMS. PROVIDE TECHNICAL SUPPORT TO PROJECT/PRODUCT MANAGERS AND SYSTEM DEVELOPERS AS REQUIRED. PROVIDE INDEPENDENT TECHNICAL RISK ASSESSMENT TO COMMANDER USAAVRADCOM AND HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

RSCH IN FUNDAMENTAL ROTOR/ROTORCRAFT AERODYNAMICS, DYNAMICS, AND NOISE. RESEARCH AND DEVELOPMENT OF SMALL GAS TURBINES. R&D TO IMPROVE RELIABILITY & MAINTAINABILITY OF AIRMOBILE SYSTEMS. RSCH COMPOSITES & EVALUATE APPLICATIONS TO IMPROVE STRUCTURES FOR A/C. EVOLVE TECHNOLOGY & CRITERIA TO IMPROVE FLIGHT SAFETY & SURVIVABILITY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LABORATORIES AT MOFFETT FIELD CA, CLEVELAND OH, HAMPTON VA, COLLOCATED WITH NASA, PARTICIPATING IN RESEARCH OF AIRMOBILE SYSTEMS AND DISCIPLINES, JOINTLY USING WIND TUNNELS, SIMULATORS AND LABORATORY TEST FACILITIES, INCLUDING SHOPS, FLIGHT LINE AND HANGAR, STRUCTURE LAB, ENGINE TEST FACILITIES AND COMPUTATIONAL EQUIPMENT. FOURTH LABORATORY AT FORT EUSTIS VA, PERFORMING ADVANCED APPLICATIONS WORK INCLUDING AIRCRAFT WEAPONIZATION AND MISSION SUPPORT EQUIPMENT. MAJOR EQUIPMENT AND FACILITIES ARE FILAMENT WINDING MACHINES, TENSILE TESTERS, VIBRATION TESTER, SMALL BALLISTIC RANGE, CALIBRATION LAB, ENVIRONMENT CHAMBER, ATOMIC ABSORPTION SPECTROMETER, TELEMETER GROUND STATION, NON-DESTRUCT TESTING FACILITY, AND FLIGHT SAFETY LAB.

INSTALLATION: AVIONICS R & D ACTIVITY

FT. MONMOUTH, N. J.

CDR. COL. DARROLD D. GARRISON

DEP. DIR. MR. T. SUETA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	14.298	24.496
TOTAL PROCUREMENT	7.489	12.991
TOTAL O&M	8.018	2.446
TOTAL OTHER	1.460	0.846
TOTAL ANNUAL LAB	26.210	40.279
TOTAL INHOUSE	15.021	14.985
TOTAL INHOUSE RDT&E	6.275	7.908
ANNUAL OPERATING COST	8.878	4.088

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PERDS	PROF	PROF
MILITARY	18	0	9	9
CIVILIAN	264	4	161	103
TOTAL	282	4	170	112

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	16.000	88.500	0.000	49.500	0.000	7.400

...MISSION

RESPONSIBLE FOR THAT PORTION OF AVRADCOMS MISSION WHICH PERTAINS TO AVIONICS FROM RESEARCH THRU FIRST TIME PRODUCTION. THIS ENCOMPASSES AIRBORNE AND GROUND EQUIPMENT FOR COMMUNICATIONS, NAVIGATIONS, AIR TRAFFIC MGT, ENVIRONMENT SENSING, LANDING AND INSTRUMENTATION.

...CURRENT IMPORTANT PROGRAMS

ARMY DIGITAL AVIONICS SYSTEM
 INTEGRATED INERTIAL NAVIGATION SYSTEM
 ADVANCED DIGITAL COMMUNICATIONS
 AIRBORNE TARGET HANDOFF SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INCLUDES NIGHT NAVIGATION PILOTAGE SYSTEM, DIGITAL HOT BENCH, SYMBOLOGY GENERATOR, WIRE DETECTION AND RECOGNITION SIMULATOR, A DIGITAL MULTI LEGEND DISPLAY SWITCH, MICROPROCESSOR INTERFACE UNIT, LARGE SCALE COMPUTER DYNAMIC SIMULATION OF GLOBAL POSITIONING SYSTEM/ DOPPLER VELOCITY SENSOR HYBRID NAVIGATION SYSTEM, AND AUDIO/DIGITAL ANALYZERS FACILITIES INCLUDE ACOUSTIC/AUDIO ANALYSIS FACILITY, TACTICAL AVIONICS SYSTEM SIMULATOR (TASS), SYSTEM TEST BED FOR AVIONICS RESEARCH (STAR), AIR TRAFFIC CONTROL FACILITY, ADJACENT HELIPORT

DIR. DR. ROBERT J. EICHELBERGER

DEP. DIR. COL. ROBERT N. MATHIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	48.961	51.480
TOTAL PROCUREMENT	0.287	0.210
TOTAL O&M	1.158	1.020
TOTAL OTHER	3.988	2.200
TOTAL ANNUAL LAB	52.889	54.910
TOTAL INHOUSE	48.094	42.500
TOTAL INHOUSE RDT&E	37.774	39.200
ANNUAL OPERATING COST	12.879	12.500

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	81	1	10	21
CIVILIAN	717	107	417	800
TOTAL	748	108	427	821

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1920	511.780	11.200	40.982	563.962	13.870	39.807

...MISSION

CONDUCT RESEARCH AND EXPL DEV IN SCIENCES/TECHNOLOGIES NECESSARY FOR CONCEIVING, DESIGNING, DEVELOPING AND EVALUATING WEAPON SYSTEMS, PURSUE ORIENTED FUND RESEARCH IN PHYS, CHEM, MATH, ENGINEERING SUBJECTS, INVESTIGATE PERTINENT BRANCHES OF MILITARY SCIENCES AND TECHNOLOGIES.

...CURRENT IMPORTANT PROGRAMS

PROPULSION DYNAMICS OF HYPERVELOCITY AND CONVENTIONAL GUNS, EFFECTS OF CONVENT/NUC WARHEADS, BALLISTIC PROTECT, KE PENETRATORS, WAR HEAD MECHANICS, PENETRATION, FRAGMENTATION, EXPLOSIVE/METAL INTERACTION, FLIGHT DYNAM OF PROJ AND MISSILES, ALL LAND BASED WPNS FIRING TABLES, VULNERABILITY ANALYSIS/VULNERABILITY REDUCTION THREAT/US MATERIEL.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EXPLOSIVE BLAST CHAMBERS, AERODYNAMIC RANGES, HIGH ALTITUDE BLAST SPHERE, SHOCK TUBES TO SIMULATE NUCLEAR BLAST, MEASURE CHEMICAL REACTION RATES, SOFT RECOVERY SYSTEM FOR ARTILLERY SHELLS, HI SPEED MOTION PHOTOGRAPHY, SPARK PHOTOGRAPHY RANGES, X-RAY CINERADIOGRAPHY, FLASH HOLOGRAPHIC SYST, FIELD TEST FACILITIES FOR PROJECTILE, EXPLOSIVE, AND ARMOR RSCH TESTS, ANALOG COMPUTER FOR SIMULATION OF KINEMATICS OF GUNS AND RIFLES, CENTRAL SITE COMPUTATIONAL FACILITY WITH 108 REMOTE INTERACTIVE TERMINALS, 118 REMOTE BATCH TERMINALS, AN ENVIRONMENTALLY SECURE FULL SCALE TANK GUN TEST FACILITY, PULSED FLOW CHEMICAL REACTOR SYSTEM, ION BEAM ACCELERATOR.

CDR. DIR. COL. E. C. WEEKEL

ASSOC. DIR. DR. T. J. WELCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	59.152	106.056
TOTAL PROCUREMENT	10.000	28.000
TOTAL O&M	5.557	6.000
TOTAL OTHER	1.425	1.760
TOTAL ANNUAL LAB	76.184	141.816
TOTAL INHOUSE	44.762	67.400
TOTAL INHOUSE RDT&E	32.780	47.640
ANNUAL OPERATING COST	9.888	10.679

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH		TOTAL		NON-PROF
			PHDS	PROF	
MILITARY	80		1	19	61
CIVILIAN	787		89	386	401
TOTAL	867		40	405	462

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1750	861.865	14.184	310.727	686.276	14.619	28.088

...MISSION

CSL IS THE ARMY'S CENTER FOR CML RSCH & DEV PROVIDING A DETERRENT AND RETALIATORY CAPABILITY AGAINST CML ATTACK & PROTECTION AGAINST CML/BIO ATTACK. PLAN & CONDUCT WOUND BALLISTIC RSCH INVEST SHOCK TRAUMA, EVAL CP CLOTH/EQUIP; PLAN & CONDUCT RSCH, EXP, DEV OBSCURING SMOKE/AEROSOL SYSTEMS

...CURRENT IMPORTANT PROGRAMS

CHEMICAL BIOLOGICAL PROTECTIVE MASK, XM80
 CHEMICAL BIOLOGICAL DETECTION & WARNING MATERIEL
 CHEMICAL DECONTAMINATION & CONTAMINATION AVOIDANCE
 SMOKE OBSCURANTS & SMOKE TOXICOLOGY
 LETHAL CHEMICAL WEAPONS DEVELOPMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC RESEARCH; SMOKE/OBSCURANTS; SMOKE TOXICOLOGY; DECONTAMINATION & CONTAMINATION AVOIDANCE; TRAINING AGENTS; ALARM TECH; CML PROTECTION; CML/BIO THREAT ASSESS; CML TECHNOLOGY & TOXICOLOGICAL EFFECTS OF THREAT AGTS; ASSESS FOREIGN BIO; DETECT & IDENT; BIO DETECT; LETHAL & INCAP CA/WEAPONS; CIVIL DIST; BIORRESPONSE TO TRAUMA; CML SYS & PROCEDURES MAJOR EQUIP IS CONTAINED IN A COMPLEX OF ENGR/LAB AREAS, INCLUDES CML PILOT PLANTS, AEROSOL CHAMBER, MUNITIONS FILLING FACILITY, PRODUCTION & FACILITY DESIGN, CHAMBER FOR STUDIES ON SPEECH TRANSMISSION, SIMULANT AGENT CHALLENGE TEST CHAMBER, RUBBER/ELASTOMER MOLD FACILITY. SPECIALIZED CHEMICAL AGENT LAB, PYROTECHNIC MIXING, LOADING, HANDLING FACILITY, COMPUTER MAN, INDOOR BALLISTIC RANGE, SUBSONIC-SUPERSONIC, TRANSONIC WIND TUNNEL.

CDR. COL. W. A. HANSON

ACT. TECH. DIR. DR. K. F. STERRETT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	7.594	9.780
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.893	0.405
TOTAL OTHER	7.034	7.829
TOTAL ANNUAL LAB	16.176	17.464
TOTAL INHOUSE	12.693	18.395
TOTAL INHOUSE RDT&E	5.240	6.714
ANNUAL OPERATING COST	8.181	8.182

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	14	0	12	2
CIVILIAN	289	33	125	164
TOTAL	303	33	137	166

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
29	30.737	30.027	128.544	239.853	8.359	8.642

...MISSION

COLD REGIONS RESEARCH & ENGINEERING LABORATORY CONDUCTS AND COORDINATES RESEARCH APPLICABLE TO THE ARMY'S NEEDS WHERE WINTER WEATHER AND COLD REPRESENT A SEVERE PROBLEM. MANAGE ARMY COLD REGIONS INFORMATION CENTER.

...CURRENT IMPORTANT PROGRAMS

WINTER COMBAT OPERATIONS TECHNOLOGY
 IMPACT OF WINTER ENVIRONMENT ON NEW WEAPON SYSTEMS AND OTHER MATERIEL
 FACILITIES CONST, OPERATION, & REPAIR IN TEMP & ARCTIC COLD CONDITIONS
 CONTROL OF ICE ON STRUCTURES. EQUIPMENT AND IN NAVIGATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAIN LABORATORY AT USACRREL CONTAINS 24 COLD LABS WHICH CAN BE OPERATED TO -58 F), SPECIAL TESTING APPARATUS FOR FROZEN MATERIALS, AN ICE ENGINEERING FACILITY FOR LARGE MODELING EXPERIMENTS WITH ICE, A CHEMISTRY LAB, AN ELECTRON MICROSCOPE LAB, A SOILS PROCESSING LAB, A PAVEMENT TEST FACILITY FOR TESTING UNDER FREEZING/THAWING CONDITIONS, A WASTEWATER TREATMENT RESEARCH FACILITY, A COMPUTER FACILITY, A MASS SPECTROMETER, A GAS CHROMATOGRAPH, AND A SMALL LASER FACILITY. THE ALASKA PROJECTS OFFICE AT FAIRBANKS CONDUCTS RESEARCH AND PROVIDES LOGISTICS SUPPORT FOR OTHER RESEARCH. USACRREL'S MILITARY AND CIVILIAN PERSONNEL HAVE EXPERTISE COVERING A WIDE RANGE OF SCIENTIFIC AND ENGINEERING DISCIPLINES RELATED TO COLD REGIONS RESEARCH. NEW FACILITIES SCHEDULED FOR CONSTRUCTION INCLUDE A FROST EFFECTS RESEARCH FACILITY.

INSTALLATION: COLD REGIONS TEST CENTER

APO SEATTLE, WA.

CDR. COL. JAMES F. HENRIONNET

TECH. ADV. WILLIAM J. HASLEM

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	5.812	6.068
TOTAL PROCUREMENT	0.074	0.000
TOTAL O&M	0.007	0.028
TOTAL OTHER	4.289	5.112
TOTAL ANNUAL LAB	9.632	11.208
TOTAL INHOUSE	9.632	11.203
TOTAL INHOUSE RDT&E	5.812	6.068
ANNUAL OPERATING COST	4.644	5.260

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	268	1	42	221
CIVILIAN	22	1	10	12
TOTAL	285	2	52	288

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
647155	0.000	7.200	259.719	266.919	10.336	8.988

...MISSION

PLAN, CONDUCT, AND REPORT THE RESULTS OF COLD REGIONS, MOUNTAIN AND NORTHERN ENVIRONMENTAL PHASES OF DEVELOPMENT AND OTHER TESTS; REVIEW PLANS AND MONITOR DEVELOPMENT TESTING IAW INTEGRATED TESTING CYCLE POLICIES. PROVIDE ADVICE AND GUIDANCE TO GOVT AGENCIES AND PRIVATE IND.

...CURRENT IMPORTANT PROGRAMS

DT II PROJECTILE 155 SMOKE WP XM 825
DT II XM 30 PROTECTIVE MASK
DT II XM 19 BIOLOGICAL AGENT ALARM AND XM2 SAMPLER
EDT COMPONENTS OF ARCTIC FUEL SYSTEM SUPPLY POINT
IME/TFT XM17 NORWEGIAN LIGHTWEIGHT DECONTAMINATION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITY CAN ACCOMMODATE A WIDE VARIETY AND LARGE NO OF TESTS AT ANY ONE TIME. SEVERAL VEH TEST COURSES AND EXTENSIVE CROSS COUNTRY TERRAIN RANGES ARE AVAILABLE. 500,000 ACRE ISOLATED IMPACT AREA, 50KM MAX UNOBSERVED RANGE. LARGE RESTRICTED AIRSPACE WITH UNRESTRICTED FIRING TO 10,000 FT ORDINATE. COORD WITH FAA CAN EFFECT UNRESTRICTED ORDINATE. 1ST, 2ND, OR 3RD ORDER SURVEY POINTS. GOOD SECONDARY ROADS. PHONE/NON-TAC RADIO AT ALL RANGES AND TEST SITES. AUTODIN, FACSIMILE, TELETYPE, PHOTO LAB AND MAINT FOR MAJORITY OF EQUIP INCL ACFT, DS/GS CALIBRATION, LIMITED ENGR SUPPORT. ARMY AVN AND USAF ACFT CAN BE ARRANGED. METEOROLOGICAL SPT AVAIL. INST FOR MOST ITEMS AVAIL, CAN OBTAIN OTHER INSTRUMENTS. MOVING TARGET SYSTEM, EOD, STATISTICAL, AND MAINT EVAL CAPABILITIES AVAIL. COMPUTER FACILITY AVAIL.

INSTALLATION: COMBAT SURVEILLANCE & TGT ACQUISITION LAB FT. MONMOUTH, N. J.

CDR/DIR. MR. JOHN P. SCHOENING (A) DEPT. DIR. MR. WILLIAM FISHBEIN (A)

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	28.997	31.881
TOTAL PROCUREMENT	82.971	41.788
TOTAL O&M	8.100	8.070
TOTAL OTHER	0.220	0.228
TOTAL ANNUAL LAB	60.288	76.917
TOTAL INHOUSE	6.110	6.698
TOTAL INHOUSE RDT&E	8.500	3.700
ANNUAL OPERATING COST	4.619	4.309

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	12	0	18	1
CIVILIAN	158	2	92	66
TOTAL	170	2	105	67

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
85	52.324	6.189	10.589	69.052	0.680	7.400

...MISSION

CONDUCT ALL PHASES OF R&D IN THE SCIENCES &
ASSOCIATED TECH - IDENT FRIEND FOE NEUTRAL.
NUCLEAR RADIATION DETECTION & MEASUREMENT RADAR ACOUSTIC
WEAPONS LOCATION REMOTE SENSING AND IMAGERY INTERPRETATION

...CURRENT IMPORTANT PROGRAMS

PROCUREMENT OF MOBILE GROUND IMAGERY INTERPRETATION CENTER.
ADV DEV OF BATTLEFIELD IDENT FRIEND OR FOE.
DEV OF ADV GROUND SURV & TARGET ACQ RADAR SYSTEM.
ADV DEV & INITIAL PROD OF VARIOUS NUCLEAR RAD DETECT & MEASURE EQUIP
EXPL DEV OF VARIOUS CS&TA SENSORS & SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RADAR TECHNIQUES DEVELOPMENT FACILITIES INCL MICROWAVE DARKROOM ATTEN-
NA PATTERN & TEST RANGE. 65-FT RADAR TEST PLATFORM. OUTDOOR & INDOOR
RANGES INSTRUMENTED FROM 30 MHZ TO GHZ. MOBILE SPECTRAL & TIME DIS-
TRIBUTION MEASUREMENT FACILITIES. RADAR INSTRUMENTATION FACILITY CAPABLE
OF CRACKING X-BAND RADAR & COLLECTING & RECORDING POSITIONS VELOCITY
AND SIGNAL STRENGTH INCLUDING A SHORT RANGE SEARCH CAPABILITY
DATA INFORMATION INVESTIGATION. STUDIES AIMED AT BANDWIDTH
REDUCTION AJ TECHNIQUES INFORMATION PROCESSING, DIGITAL FRAME STORAGE
MEMORY CIRCUITS AND MULTI-ELEMENT, MULTI-FUNCTIONS MULTI-BEAM ANTENNA
SYSTEMS. RADIOLOGICAL ASSISTANCE TEAM EXPERIENCED IN FUNCTIONING NEAR
NUC DETONATIONS, FALLOUT FIELDS, & RADIATION ACCIDENTS. ALPHA, BETA, &
GAMMA DOSIMETERS.

PRES. COL. EDWIN W. CHANDLER

ENGR. ADV. MR. RONNIE E. BRACKETT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.554	2.661
TOTAL PROCUREMENT	0.154	0.158
TOTAL O&M	0.075	0.741
TOTAL OTHER	1.760	1.841
TOTAL ANNUAL LAB	8.543	5.401
TOTAL INHOUSE	8.543	5.401
TOTAL INHOUSE RDT&E	1.554	2.661
ANNUAL OPERATING COST	0.874	1.028

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	59	0	40	19
CIVILIAN	81	0	11	20
TOTAL	90	0	51	39

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	0.000	20.950	0.498	21.448	0.127	0.814

...MISSION

PLANS, CONDUCTS AND REPORTS ON OPERATIONAL TESTS OT I, II, AND, III OF C-E SYSTEMS AND FORCE DEVELOPMENT TESTING AND EXPERIMENTATION AS PUBLISHED IN THE DA FIVE YEAR TEST PROGRAM. CONDUCTS CONCEPT EVALUATION PLANS AND OTHER USER-RELATED/CUSTOMER TEST DIRECTED BY TRADOC

...CURRENT IMPORTANT PROGRAMS

INFANTRY DIVISIONS COMMUNICATIONS
 ARMY DATA DISTRIBUTION SYSTEM/PACKET RADIO EXPERIMENT
 STEERABLE NULL ANTENNA PROCESSOR
 SPECIAL FORCES BURST COMM SYS
 AUTOMATIC TEST SPT EQUIP FACILITY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANUAL AND AUTOMATED STIMULUS AND MEASUREMENT EQUIPMENT THAT PROVIDES DATA COLLECTION AND ANALYSIS CAPABILITY OF COMMUNICATIONS-ELECTRONICS CIRCUITS, EQUIPMENT, AND SYSTEMS.

CDR. MG DONALD M. BABERS

TECH. DIR. MR. THEODORE PHEIFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	64.655	83.184
TOTAL PROCUREMENT	1.702	19.874
TOTAL O&M	1.892	8.713
TOTAL OTHER	2.322	1.888
TOTAL ANNUAL LAB	70.571	108.154
TOTAL INHOUSE	19.820	16.860
TOTAL INHOUSE RDT&E	17.582	18.790
ANNUAL OPERATING COST	4.452	4.816

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	69	0	22	47
CIVILIAN	557	16	281	276
TOTAL	626	16	303	323

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
0	81.334	84.717	0.000	116.251	0.000	11.500

...MISSION

CONDUCT R&D RELATED TO COMM EQUIP & SYSTEMS, INCL RADIO, TELEPHONIC, FACSIMILE & DATA COMM/COMSEC. CONDUCT TECH BASE R&D PROG IN TACT ADP SYSTEMS & COMPT SCT. DEV TACT ADP HARDWARE, SOFTWARE, AND LIFE CYCLE SOFTWARE SUPPORT. MANAGE C8 ARMY INTEROP SYS ENGR.

...CURRENT IMPORTANT PROGRAMS

MILITARY COMPUTER FAMILY(MCF), MCF PERIPHERALS & ADA LANGUAGE SYS PROG
 MM WAVE FAMILY OF RADIOS
 DIGITAL GROUP MULTIPLEXER
 FIBER OPTICS
 ARMY C8 AND INTEROPERABILITY SYSTEM ENGINEERING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT R&D RELATING TO MICROWAVE & MILLIMETER RADIO SYS, FIBER-OPTICS, DIGITAL DISTR SYS TACT ANT SYS, SWITCHING & TERMINAL DEVICES. TELEPROCESSING DESIGN CEN IS LAB EXPERIMENTAL FAC THAT SUPPORTS EXPERIMENTS WHICH ALLOW OPTIMUM DEVELOPMENT & VALIDATION OF ARMY & JOINT BATTALION SYS. TDC HAS DEVELOPED EMULATIONS OF THE AN/UYK-12 & AN/UYK-19 ALLOW POST DPL SPT CENTERS & SYSTEMS TO BE SUPPORTED & TO COMMUNICATE IN A SECURE HIGH SPEED MANNER. CONDUCT SOFTWARE SUPPORT OF COMMUNICATIONS SYSTEMS.

CDR. DIR. COL. L. J. CICERO JR

TECH. DIR. DR. L. R. SHAFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	15.223	16.746
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	4.800	4.780
TOTAL OTHER	8.209	8.530
TOTAL ANNUAL LAB	22.782	25.006
TOTAL INHOUSE	11.491	12.641
TOTAL INHOUSE RDT&E	8.095	8.905
ANNUAL OPERATING COST	2.794	8.074

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	3	1	3	5
CIVILIAN	204	82	128	76
TOTAL	207	33	136	81

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
30	56.785	84.750	20.019	111.554	6.500	4.652

...MISSION

PLAN AND EXECUTE RESEARCH TO OBTAIN THE BEST COMBINATION OF ENGINEERING, DESIGN, CONSTRUCTION, OPERATIONS AND MAINTENANCE TO PROVIDE FACILITIES FOR THE MILITARY ESTABLISHMENT AND OTHER AGENCIES AT LEAST COST AND TO DISSEMINATE THE RESEARCH RESULTS.

...CURRENT IMPORTANT PROGRAMS

DEV ENERGY CONS TECH/PROC FOR MIL INSTS
 DEV COMPUTER AIDED SYSTEMS FOR PLANNING AND DESIGN
 DEV IMPROVED SYSTEMS FOR RPMA OF MIL FACILITIES
 DEV MGMT INFO SYS FOR MX PROGRAM
 DEV SYSTEMS FOR ENVIRONMENTAL QUALITY MGMT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONTROLLED ENVIRONMENT CHAMBERS; 100000 POUND CLOSED-LOOP MATERIAL TEST SYSTEM; SCANNING ELECTRON MICROSCOPE; SEMI-AUTOMATIC WELDING EQUIPMENT; BIAXIAL SHOCK TEST MACHINE; NON-DESTRUCTIVE TESTING FACILITY; VACUUM INDUCTION FURNACES; METALLOGRAPHIC SAMPLE PREP; METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYSTEM; DYNAMIC TENSION ANALYSIS SYSTEM; DIGITAL RECORDING ANALYSIS EQMT; AND HVAC TEST FACILITY. CAPABILITIES INCLUDE SYSTEMS BUILDING METHODS AND TECHNIQUES; COMPUTER BASED DESIGN AND CONSTRUCTION MGMT TECHNIQUES; ENERGY SYSTEMS DESIGN; CONSERVATION AND ALTERNATE FUELS STRATEGIES; HARDENED FACILITIES ANALYSIS; ENVIRONMENTAL QUALITY MGMT; POLLUTION CONTROL ABATEMENT; MILITARY HOUSING SYSTEMS; UTILITIES SYSTEMS ANALYSIS AND EVALUATION; QUALITY OF LIFE AND ARCHITECTURAL RESEARCH; AND ELECTROMAGNETIC PULSE/INTERFERENCE RESEARCH.

INSTALLATION: DUGWAY PROVING GROUND

DUGWAY, UT.

CDR. COL. GEORGE A. CARRUTH

SCI. DIR. DR. LOTHAR L. SOLOMON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	30.026	40.644
TOTAL PROCUREMENT	0.118	0.170
TOTAL O&M	1.331	1.349
TOTAL OTHER	3.355	4.140
TOTAL ANNUAL LAB	35.325	46.303
TOTAL INHOUSE	31.594	36.529
TOTAL INHOUSE RDT&E	27.423	32.144
ANNUAL OPERATING COST	15.238	16.518

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	143	1	17	126
CIVILIAN	624	15	77	547
TOTAL	767	16	94	673

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
840911	104.875	201.183	1643.266	1949.274	77.902	28.075

...MISSION

DPG PLANS & CONDUCTS APPROVED TESTS TO ASSESS THE MILITARY VALUE OF CML WEAPONS, SMOKE/OBSCURANTS & CML-BIO DEF SYS. TESTS SPT R&D & PROVIDE BASIS FOR DEVELOPMENT OF NEW OPERATIONAL & LOGISTICAL CONCEPTS FOR EMPLOYMENT OF TESTED SYS. TESTS ARE RESPONSIVE TO USER REQUIREMENTS.

...CURRENT IMPORTANT PROGRAMS

CONDUCTS SERVICE DEV CML CML-BIO DEFENSE SMOKE/OBSCURANT TEST PROGRAMS
CONDUCTS R & D & LAB INVESTIGATIONS NECESSARY TO SUPPORT MISSION
CONDUCTS JT OP CML & CML-BIO DEFENSE TESTS/STUDIES FOR CINCS, SERVICES
CONDUCTS PROG TO SUP ARMY POLL ABATEMENT HAZARD EVAL & DEMIL OPNS
CONDUCTS ECOLOGICAL EPIDEMIOLOGICAL & TOXICOLOGICAL SURVL OF DPG AREA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INST GRIDS FOR CML CML-BIO TESTS: ARTY RG FOR CONVL & CML METAL PARTS, BALLISTIC & DISSEM TESTS: WITH FIELD SMPL, SMPL MASS ANAL, MET (AUTO DATA ACQ & MESOMET NETWK)SYS. TSPI (RADAR SLAVE PHOTO)SYS; PHYS & ENVIRON TEST FAC (MIL SPEC 810) CHAMBERS FOR TOTAL AGENT CONTAINMNT; EXPLO SHIELDING PROPAGATION & OVERPRESSURE MEASMNTS, OPNS SPTD BY MET RSCH ON BEHAVIOR OF CLOUDS; CML, LIFE SCI TECHN, ECOL SURVL OF DPG; CAPBL FOR PLANNING ANAL, EVAL OF TESTS, OPNS RSCH; LABS EQUIPD FOR WIDE RNG OF CML, MICROBIOL, TOXICOL, IMMUNOL, ECOL, EPIDEMIO, POLL CNTL STUDIES; CAPBL FOR PROD BIO SIMUL AG; TECHN & MASS ASSAY OF FLUORESCENT AIR TRACERS; EXTENSV COMM & RG SAFETY SYS. OUTSTANDING ARE LARGE LAND AREA, RESTRICTED AIR SPACE, LONG & FLAT ARTY RANGES, PROJECTILE RECOVERY, SONIC & ELECTROMAG STERILITY, DIVERSE SKILLS.

CDR. COL. JAMES E. PHILLIPS

TECH. DIR. MR. GRADY H. BANISTER JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	18.475	18.478
TOTAL PROCUREMENT	8.858	6.564
TOTAL O&M	2.229	2.065
TOTAL OTHER	12.689	12.941
TOTAL ANNUAL LAB	32.201	40.048
TOTAL INHOUSE	24.862	30.647
TOTAL INHOUSE RDT&E	7.750	11.752
ANNUAL OPERATING COST	9.786	10.551

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	649	1	22	627
CIVILIAN	220	0	74	146
TOTAL	869	1	96	778

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
66000	0.000	50.400	229.776	280.176	3.600	48.500

...MISSION

PLAN, CONDUCT, EVALUATE AND REPORT ON DEVELOPMENT AND OTHER ENGINEERING. LAB-TYPE TESTS OF GROUND AND AIRBORNE EQUIPMENT AND SYSTEMS THAT UTILIZE ELECTRONIC/ELECTROMAGNETIC TECHNOLOGY. MAINTAIN MODERN TEST FACILITY, INSTRUMENTATION, AND METHODOLOGY CAPABILITY.

...CURRENT IMPORTANT PROGRAMS

STAND-OFF TARGET ACQUISITION SYSTEM
 POSITION LOCATION REPORTING SYSTEM
 SINGLE CHANNEL GROUND AIRBORNE RADIO SYSTEM
 CBI SYS TEST CAPABILITY
 AN/MSM-105 TEST & REPAIR SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT TESTS OF HDWR/SOFTWARE, DOCTRINAL CONCEPTS/SCENARIOS TEST CAPABILITY INCL TEST OF COMM, IMAG, IMAGERY INTERPRETATION MET, RADIAC, RDR, LASER INTEL, EW, CMD/CTRL, PWR SOURCES, RPV, GND&SCTY SENSORS SYS/EQUIP INCL EMC, EMI, EMV, ECM, ECCM, TEMPEST AND INTRA/INTEROPERABILITY ANAL AS REQ. TECHNIQUES INCL BENCH AND FLD TEST W/ACCESS TO EXTENSIVE REAL EST, MATH MDL AND SIM FACS INCL: EM, CLIMATIC/STRUCT ENVIRON, INSTRUMENTED SPACE POS RG (3 FPS-16/CAPRI), TEMPEST, CBI SYS TEST INCL A REALISTIC EM BATTLEFIELD, ANTENNA PATTERN, ELECTRO-OPT AND VARIOUS ENVIRON FACILITIES INCL NVC, PERFORM RELIABILITY, AVAILABILITY AND MAINTAINABILITY (INCLUDE MAINT MANUALS, REPAIR PARTS, SPECIAL TOOLS), SAFETY AND HFE TEST, CONDUCT/PARTICIPATE IN RELATED DOCTRINAL AND CONCEPT STUDIES, AND TEST FOR ARMY, OTHER SERVICES AND DOD AGENCIES.

CDR/DIR. MR. M. ADLER

DEPTY DIR. MR. R. GIORDANO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	56.551	58.278
TOTAL PROCUREMENT	91.755	95.082
TOTAL O&M	8.910	7.826
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	157.216	161.186
TOTAL INHOUSE	24.208	28.436
TOTAL INHOUSE RDT&E	15.963	21.273
ANNUAL OPERATING COST	2.882	2.993

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	84	0	5	79
CIVILIAN	412	8	206	206
TOTAL	496	8	211	285

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	218.928	74.882	119.894	418.154	96.011	77.200

...MISSION

DEV INITIAL ACQ AND FIRST FIELDING OF EW AND SELECTED INTEL MATERIAL
 INCL EW PROTECT OF COMBAT VEHCLS: INTERCEPT & LOCATION OF SIG ANALYSIS
 DECEP VULNERABILITY/COUNTERCOUNTERMEASURES SOFTWARE SUPPORT FOR ERADCOM
 AND SYSTEMS ACQUIS OF NON STANDARD INTEL TECHNICAL MATERIAL.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF ARTILLERY FIRED/HAND EMPLACED EXPENDABLE JAMMERS
 PRODUCTION OF SIGINT EQPT, QUICK LOOK AND GUARDRAIL
 DEVELOPMENT OF CON TECHNIQUES FOR SINGARS
 DEVELOPMENT OF ECM AND WARNING EQPT FOR SELF PROTECTION OF COMSAT VEHCL
 EW VULNRABILITY INVESTIGATION OF MISSLE SYS EG PATRIOT, ROLAND, DIVAD

...FUNCTIONS/EQUIPMENT/CAPABILITIES

QUICK REACTION CAPABILITY DEV AND SPT IN INTERCPT DF SIG ANAL.
 JAMMING DECEPTION SIGNAL INTELLIGENCE ACOUSTIC INTELLIGENCE
 COUNTERMEASURES INTELLIGENCE VULNERABILITY AND COUNTER-COUNTERMEASURES
 BIG CROW (KG-185) AIRBORNE ELECTRONIC WARFARE LABORATORY
 INFRARED COUNTERMEASURES SIMULATOR (US AND FOREIGN MISSILES)
 INFRARED MEASUREMENTS AND REDUCTION
 ERADCOM TACTICAL SOFTWARE SUPPORT CENTER
 ELECTRONIC WARFARE INFO SYS FACILITY
 WAYSIDE TEST AREA (HF VHF DF) ANTENNA RANGE

CDR/DIR. DR. C. G. THORNTON

DEPTY DIR. MR. S. F. DANKO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	40.238	54.697
TOTAL PROCUREMENT	7.190	5.200
TOTAL O&M	0.786	0.514
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	48.164	60.411
TOTAL INHOUSE	20.057	20.656
TOTAL INHOUSE RDT&E	19.894	20.167
ANNUAL OPERATING COST	8.240	8.522

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	0	0	0	0
CIVILIAN	279	82	163	116
TOTAL	279	82	163	116

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.081	0.032	0.007	0.120	0.000	18.190

...MISSION

TO DEV ESSENTL BASE IN ELECTRNCS TECH & DEVICES CONSISTNT WITH NEXT GENERATN ARMY SYS OPERATNL REQMTS. TO THIS END, AN ELECTRONCS-ORIENTED APPL R&D PROG IS PURSUED, FOCUSING ON CRITICL BARRIER DEVICES & MATRL PROBLMS THAT INHIBIT UPGRADING EXISTING & DEV NEW ARMY SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

MMW DEVICES & PULSERS FOR TARGET LOC & IDENT THRU SMOKE & FOG
 SIG PRGC DEVICES TO PERMIT NONAMMABLE COMMO & DEEP BATTLFLD ASSMNT
 PULSE POWER SOURCES FOR DIRECT BEAM WEAPONS & LASER DESIGNATORS
 LIGHTWT, EFFICIENT PORTABLE POWER FOR DESIGNATORS, NV & C/E SYSTEMS
 INTELLIGENT, INTERACTIVE TERMINALS & DISPLAY DEVICES FOR TACTICAL OPS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADVANCED RESRCH FACIL'S SUCH AS MBE SYSTEM, LEBES E-BEAM LITHOGRAPHIC SYSTEM, ISS/SIMS, CADD & AUGER ELECTRON SPECTROSCOPY ARE AVAIL FOR PERFORMING ON PREP, PROPERTIES & CONTRL OF ELEC MATERIALS & ON ELEC PARTS, DEVICES IC'S & ASSEMBLIES. AREAS OF LAB EXPERTISE INCL: COMPL DESIGN, FABRIC & TESTING OF IC'S, HYBRID CIRCUIT ASSEMBLIES, SEMICONDUCTOR DEVICES & CIRCUITS, SURFACE ACOUSTIC WAVE DEVICES, ELECTRON TUBES, DISPLAY DEVICES, PRIMARY, SECONDARY & SPEC PURPOSE PWR SOURCES, ELECTRO-CHEM RESEARCH CHARACTERIZATION OF ELEC MATERIALS. QUICK TURNAROUND CUSTOMIZED & FABRIC OF LSI ARRAYS ARE AVAIL TO CIRCUIT & SYSTEM DESIGNERS IN OTHER ARMY LABS. LAB ALSO PROVIDES ARMY CUSTOMERS WITH EXPRT SERVICES INCL DIRECT R&D DEV, SUPPORT, CONSULTATION & DIRECT PARTICIPATION IN SYSTEM DEV.

CDR. COL. EDWARD K. WINTZ

DIR. MR. R. P. MACCHIA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	27.826	28.853
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.469	2.345
TOTAL OTHER	0.240	0.249
TOTAL ANNUAL LAB	30.035	31.452
TOTAL INHOUSE	11.857	12.970
TOTAL INHOUSE RDT&E	10.085	11.185
ANNUAL OPERATING COST	3.112	8.667

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED		TOTAL		NON-PROF
	STRENGTH		FHDS	PROF	
MILITARY	15		1	5	10
CIVILIAN	299		19	157	142
TOTAL	314		20	162	152

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
33	90.722	7.000	13.300	111.022	6.000	13.177

...MISSION

RESEARCH AND DEVELOPMENT IN TOPOGRAPHIC SCIENCES, MAPPING, POINT POSITIONING, AND MILITARY GEOGRAPHIC INFORMATION, OPERATIONAL SUPPORT, TERRAIN ANALYSIS, AND SCIENTIFIC/ADVISORY SERVICES, REMOTE SENSING, COMPUTER TECHNOLOGY, AND ENVIRONMENTAL EFFECTS DATA.

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO PERSHING II
 SUPPORT TO MX MISSILE PROGRAM
 SUPPORT TO ARMY SPACE PROGRAM
 AUTOMATED FEATURE EXTRACTION DEVELOPMENT
 QUICK RESPONSE MULTICOLOR PRINTER, QAMP.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE A CARTOGRAPHIC LABORATORY TO STUDY THE PROBLEMS ASSOCIATED WITH HANDLING DIGITAL CARTOGRAPHIC DATA, A DIGITAL IMAGE PROCESSING LABORATORY TO STUDY THE MANIPULATION AND ENHANCEMENT OF TERRAIN IMAGERY FOR OBTAINING MAPPING AND GEOGRAPHIC DATA, COMPUTER ASSISTED PHOTO-INTERPRETATION STATIONS FOR EXTRACTION OF TERRAIN FEATURES, AND A COHERENT OPTICS LABORATORY FOR DETERMINING THE POTENTIAL OF COHERENT OPTICS FOR TOPOGRAPHIC DATA PROCESSING. COMPUTATIONAL EQUIPMENT INCLUDES THE CDC 6400, GOODYEAR STARAN S-1000, DEC PDP 1150 AND PDP 1170. OTHER SPECIALIZED EQUIPMENT INCLUDE A COMTAL, DICOMED, PDS DIGITAL AUTOMATED MICRODENSITOMETERS, A RECORDING OPTICAL SPECTRUM ANALYZER AND PRECISION MENSURATION EQUIPMENT.

CDR. COL. MR. T. C. CREEL

TECH. DIR. MR. F. R. BROWN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	19.222	21.445
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.805	0.250
TOTAL OTHER	47.978	49.155
TOTAL ANNUAL LAB	67.505	70.848
TOTAL INHOUSE	56.810	59.268
TOTAL INHOUSE RDT&E	17.440	18.535
ANNUAL OPERATING COST	6.687	8.254

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	20	0	14	6
CIVILIAN	1862	87	514	848
TOTAL	1882	87	528	854

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
847	1789.308	358.215	169.444	2266.967	21.960	49.454

...MISSION

MIL.&CIV.FUNDED RSCH,DEV&INVES.IN HYD, ECOLOGY, PERM&EXPEDIENT PAVEMENTS, SOIL, CONC., EXPLD.WPN.EFF, EXPLD.EXCAVATION, VEH.MOBILITY & ENVIRONMENTAL ASPECTS OF MIL.OPERATIONS. OPERATE TECH LIBRARY&GOVERNMENT CEMENT POZZO-LAN TESTPROGRAM. SERVES CE, DARCOM, DNA, AF, NAVY, DOE, EPA & OTHER AGENCIES.

...CURRENT IMPORTANT PROGRAMS

HYD&MATH MODELING TO SOLVE RIVER, TIDAL, WIND-WAVE, ECOLOGICAL&STRUC. PROBS. RSCH.ON VEH MOBILITY, REMOTE SENSING, ENVIR.IMPACT, &EARTHQUAKE DESGN CRIT. NUC&HE RSCH TO DEV.CRIT.FOR DESGN.OF PROTECT.STRUC, BARRIERS&EXCAVATIONS. RSCH&DEV.OF NEW&IMPROVED ENG.DESGN.CRIT.FOR ROADS, STOR.AREAS, &AIRFIELDS. RSCH&DEV.OF CEMENTITIOUS.MATLS. AND RSCH OF MASS AND STRUCTURAL CONCRETE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABLE OF PERF GEN INVEST IN FLD OF HYD, SOIL MECH, CONCRETE, MOBILITY OF MIL VEH, EXPLD EFF, ECOLOGY&EXPLD EXCAVATION AND DEV OF STRUCT & PAVEMENT DESIGN CRIT.BY BASIC & APP. RSCH; CAPABLE OF DEV. METHODS&TECHNOLOGY FOR TESTING MATLS&EQUIP IN SUPPORT OF THE CE MISSION. WES RESERVATION CON-TAINS BLDGS, TEST SITES, SPECIAL AND OTHER PLANT SUPPORT EQUIP. TEST SITES &FAC.FOR SPECIAL PURPOSES ARE MAINT. IN OTHER AREAS ON PERM./TEMP.BASIS. FAC. INCL. FLUMES OF DIFF TYPES&SIZES, WAVE&TIDE GENERATORS. WELL EQUIP-ED SOILS, CONC, CHEM, CALIB, ELEC&TEMP CONTROLLED ENVIRONMENTAL AND LYM-NOLOGICAL LABS, X-RAY DIFFRACTION & SPECTROSCOPY EQUIP, SMALL AND LARGE BLAST LOAD GENERATORS, 200K DYNAMIC LOADER, MOBILITY RSCH FAC, SINGLE AND MULTIPLE WHEEL LOAD CARTS, SURFACE BLAST EFF FAC, HIGH&LOW FREQ VIBRATORS, ELECTRONBEAM MICROSCOPE, LARGE SCALE COMP.FACILITY AND TECH. LIBRARY.

INSTALLATION: FIELD ARTILLERY BOARD

FT. SILL, OK.

PRES. COL. C. S. NOBLES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.208	1.761
TOTAL PROCUREMENT	0.029	0.185
TOTAL O&M	0.198	0.691
TOTAL OTHER	2.668	8.007
TOTAL ANNUAL LAB	4.098	5.594
TOTAL INHOUSE	4.098	5.594
TOTAL INHOUSE RDT&E	1.208	1.761
ANNUAL OPERATING COST	0.245	0.325

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	152	0	87	115
CIVILIAN	87	0	5	82
TOTAL	189	0	42	147

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	18.938	32.788	17.720	69.891	0.000	2.451

...MISSION

PLAN CONDUCT AND REPORT ON OT I OT II AND OTHER USER-TYPE TESTS
PARTICIPATE IN DT I AND DT II AS DIRECTED
PROVIDE ADVICE TO PROPONENT AGENCIES AND DEVELOPERS
CONDUCT OTHER TESTS AND EVALUATIONS AS DIRECTED BY TRADOC

...CURRENT IMPORTANT PROGRAMS

OPERATIONAL TEST II FIELD ARTY AMMO SPT VEHICLE
OPERATIONAL TEST II M110 CREW BALLISTIC SHIELD
OPERATIONAL TEST II TACFIRE TAPE VALIDATION VERSION 8
OPERATIONAL TEST II FIRE SPT TEAM DIGITAL MSG DEVICE
OPERATIONAL TEST II PROJ SCREEN SMOKE XM825

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TWO MET STATIONS
TEST ITEMS ADDITIONAL SUPPORT IS OBTAINED FROM USAFACFS WHEN NEEDED

INSTALLATION: FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB DOVER, N.J.

CDR. DIR. COL. MURRAY G. SWINDLER DEP. DIR. DR. DONALD A. GYOROG

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	80.468	81.758
TOTAL PROCUREMENT	25.071	26.790
TOTAL O&M	11.320	12.014
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	66.859	70.562
TOTAL INHOUSE	62.993	57.768
TOTAL INHOUSE RDT&E	22.747	24.902
ANNUAL OPERATING COST	14.000	18.200

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	14	0	10	4
CIVILIAN	608	24	390	218
TOTAL	622	24	400	222

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1518	84.515	86.607	24.548	195.665	28.001	84.637

...MISSION

ACCOMPLISH RESEARCH EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT LIFE CYCLE TECH RESPONSIBILITY FOR FIRE CONTROL AND ALL WEAPON SYSTEMS, AMMUNITION, AUXILIARY ITEMS THROUGH 40MM CAL. FIRE CONTROL INCLUDES ALL COMBAT VEHICLES, FIELD ARTILLERY, HELICOPTERS, AIR DEFENSE AND INFANTRY.

...CURRENT IMPORTANT PROGRAMS

JOINT SERVICE SMALL ARMS PROGRAM
FIRE CONTROL AND SMALL CALIBER ARMAMENT TECHNOLOGY
SQUAD AUTOMATIC WEAPON
SUBMACHINEGUN, 5.56MM PORT FIRING, M281
DIVISION AIR DEFENSE GUN SYSTEM SUPPORT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORY CONDUCTS RESEARCH EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT IN SMALL CALIBER WEAPON SYSTEMS AND FIRE CONTROL SYSTEMS. IT MAINTAINS TEST BED FACILITIES TO EVALUATE SYSTEMS IN AREAS OF FIRE CONTROL, AIR DEFENSE AND BOMBAT VEHICLES. LAB HAS CAPABILITY FOR DESIGN AND EVALUATION OF OPTICAL, ELECTRO-OPTICAL AND ELECTROMAGNETIC SYSTEMS, SIGHTING DEVICES, DIGITAL AND ANALOG SIGNAL PROCESSORS, GUN/TURRET STABILIZATION AND CONTROL SYSTEMS, SMALL CALIBER WEAPONS INCLUDING AUTOMATIC CANNONS, WEAPON MECHANISMS, MOUNTS, PROJECTILES, PENETRATORS, SHAPED CHARGE LINERS, PROPELLANTS, PRIMERS, CARTRIDGE CASES, METAL AND PLASTIC MATERIALS AND ADHESIVES, AND MANUFACTURING TECHNOLOGY. JOINT SERVICE SMALL ARMS PROGRAM HAS RESPONSIBILITY FOR ALL SMALL ARMS CONVENTIONAL AND SPECIAL WEAPONS SYSTEMS FOR ALL USERS.

INSTALLATION: HARRY DIAMOND LABORATORIES

WASHINGTON, D.C.

CDR/DIR. COL. A. R. BURKE

TECH. DIR. DR. W. W. CARTER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	68.834	59.477
TOTAL PROCUREMENT	86.691	82.900
TOTAL O&M	5.116	3.091
TOTAL OTHER	0.747	0.690
TOTAL ANNUAL LAB	155.838	146.055
TOTAL INHOUSE	67.228	62.879
TOTAL INHOUSE RDT&E	35.206	33.656
ANNUAL OPERATING COST	18.867	13.560

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	3	0	2	4
CIVILIAN	1199	59	880	869
TOTAL	1205	59	882	878

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2816	515.000	118.000	1240.004	1868.004	52.842	87.617

...MISSION

MISSION: ELECTRONIC FUZES NUCLEAR WEAPONS EFFECTS TECHNOLOGY SPECIAL RADAR TECH'Y AND SYSTEMS ELECTRONIC TECH'Y COMPONENTS CIRCUITS AND MATERIALS FLUIDIC COMPONENTS AND SYSTEMS ELECTRO-OPTICAL DEVICES SELECTED INSTRUMENTATION/SIMULATORS COUNTERMEASURES (CM) AND COUNTER-CM

...CURRENT IMPORTANT PROGRAMS

CURRENT SIGNIFICANT PROGRAMS: DEV OF XM818E1 FUZE FOR PATRIOT MISSILE R&D ON FLUIDICS ORDNANCE ELECTRONICS NUCLEAR WEAPONS EFFECTS AND NMMW DEVELOPMENT OF XM445 FUZE FOR MULTIPLE LAUNCH ROCKET SYSTEM DEVELOPMENT OF XM749 AND M785 FUZES FOR 158MM AND 8 IN NUCLEAR ARTILLERY DEV OF ART'Y DELIVERED EXPENDABLE JAMMERS; INSTALLATION SECURITY RADAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITIES:

NUCLEAR FACILITIES: GAMMA RAY SIMULATOR (AURORA) HIGH INTENSITY FLASH X-RAY (HIF) COBALT CD AND ELECTROMAGNETIC PULSE SIMULATORS.

ELECTRONIC DESIGN FACILITIES: THICK FILM HYBRID CIRCUIT FACILITIES

MICROWAVE ANECHOIC CHAMBER

FUZING FACILITIES: ARTILLERY SIMULATOR ENVIRONMENTAL TESTING

DIR. DR. JOHN D. WEISZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	11.586	13.769
TOTAL PROCUREMENT	0.079	0.100
TOTAL O&M	0.347	0.850
TOTAL OTHER	0.423	0.475
TOTAL ANNUAL LAB	12.885	14.694
TOTAL INHOUSE	9.295	9.525
TOTAL INHOUSE RDT&E	8.446	8.600
ANNUAL OPERATING COST	2.690	3.000

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PIIDS	TOTAL PROF	
MILITARY	88	1	16	17
CIVILIAN	147	16	105	42
TOTAL	180	17	121	59

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
12	46.944	7.056	34.062	88.062	4.412	6.983

...MISSION

CONDUCTS FUNDAMENTAL AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING PROVIDES DIRECT DESIGN SUPPORT TO ALL MATERIEL DEVELOPMENT PROGRAMS SPONSORED BY DARCOM. SIXTEEN DETACHMENTS AND/OR LIAISON REPRESENTATIVES HAVE BEEN ESTABLISHED AT DARCOM COMMANDS, CRTIC AND TRADOC CTRS/SCHOOLS.

...CURRENT IMPORTANT PROGRAMS

COMMAND CONTROL COMMUNICATIONS INTELLIGENCE
 ROBOTICS-AUTOMATION
 TRAINING TECHNOLOGY
 INDIVIDUAL SOLDIER
 CLOSE COMBAT LIGHT AND HEAVY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATA ACQUISITION AND BIOTELEMETRY SYSTEMS
 GAT 2M HELICOPTER SIMULATOR
 COMMAND CONTROL SIMULATOR SYSTEM/TEST FACILITY
 ACOUSTICAL AND ANECHOIC CHAMBER REVERBERANT ROOM
 HELFAST LOGISTICS TESTING FACILITIES
 EYE MOVEMENT MEASURING DEVICE
 SMALL ARMS TEST FIRING RANGE
 WOOD AND METAL WORKING TEST SUPPORT CAPABILITY
 HUMAN FACTORS DATA BANK
 ARMOR TEST SITE

CDR. COL. ARTHUR J. KINZEL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.995	2.278
TOTAL PROCUREMENT	0.101	0.201
TOTAL O&M	0.059	0.095
TOTAL OTHER	2.062	2.701
TOTAL ANNUAL LAB	4.217	5.275
TOTAL INHOUSE	4.217	5.275
TOTAL INHOUSE RDT&E	1.995	2.278
ANNUAL OPERATING COST	1.249	1.689

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	122	0	2	120
CIVILIAN	55	0	5	50
TOTAL	177	0	7	170

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	82.208	80.156	62.859	3.000	0.859

...MISSION

PLAN CONDUCT REPORT ON OPERATIONAL TESTS 1/2/8. FORCE DEVELOPMENT TESTS OTHER TESTS OF EQUIPMENT & ANCILLARY ITEMS TO BE USED BY INFANTRY UNITS FOR COMMAND, CONTROL, FIREPOWER, TARGET ACQUISITION, GROUND SURVEILLANCE, FIRE CONTROL GROUND MOBILITY & TNG & CHEMICAL/BIOLOGICAL EQUIP.

...CURRENT IMPORTANT PROGRAMS

INFANTRY MANEUVER CONCEPT (MOTORIZED)
 GENERAL PURPOSE SHOE
 INDIVIDUAL LIFT DEVICE
 MOVING TARGET RIFLE MARKSMANSHIP TRAINER
 PROTECTIVE MASK XMSO OTIIA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AUTOMATED, COMPUTERIZED AUTOMATIC & SMALL ARMS WEAPONS RANGE
 CLOTHING & EQUIPMENT TEST FACILITY
 MANNED EVASIVE TARGET TANKS
 NOVA 812 COMPUTER CAPABILITIES

CDR. COL. THOMAS P. SWEENEY

DEP. FOR RSCH. DR. GINO BATTISTONE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.818	2.498
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.159	0.171
TOTAL OTHER	1.889	2.726
TOTAL ANNUAL LAB	8.866	5.890
TOTAL INHOUSE	2.641	4.169
TOTAL INHOUSE RDT&E	1.098	1.272
ANNUAL OPERATING COST	0.519	0.777

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	82	0	88	44
CIVILIAN	27	2	11	16
TOTAL	109	2	49	60

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
4	9.852	5.696	14.153	29.701	0.875	2.258

...MISSION

DEVELOP TECHNIQUES TO TREAT WAR-RELATED MAXILLOFACIAL INJURIES AND DENTAL DISEASES. PREVENTION AND TREATMENT OF FIELD DENTAL EMERGENCIES. TO PROVIDE DENTAL RESIDENCY PROGRAMS. TO PROVIDE A DENTAL CLINIC FOR RESEARCH AND TRAINING.

...CURRENT IMPORTANT PROGRAMS

BIODEGRADABLE MATERIALS FOR LONG-TERM SLOW RELEASE AND ORGAN REPLACEMENT
 USE OF SALIVA FOR DETECTING EXPOSURE TO CHEMICAL AGENTS IN THE FIELD
 R&D OF NEW AND IMPROVED DENTAL MATERIALS FOR MILITARY USEAGE WORLD-WIDE
 STUDIES ON METHODS OF IMPROVING COMBAT CONTAMINATED WOUND HEALING
 STUDIES FOR IMPROVING METHODS OF CONTROLLING INFECTIONS IN COMBAT WOUNDS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AND EVALUATE THE PHYSICAL, CHEMICAL AND MECHANICAL PROPERTIES OF DENTAL METALS, ALLOYS, PLASTICS AND POLYMERS. EVALUATE CHGS DUE TO ENVIRONMENT AND TRANSPORTATION. CONDUCT RSCH IN MICROBIOLOGY, CHEMISTRY, BIOCHEMISTRY, IMMUNOLOGY, RADIATION EFFECTS, PHARMACOLOGY, PHYSIOLOGY, HISTOLOGY & PATHOLOGY AS THEY RELATE TO DENTAL MILITARY RSCH. CONDUCT EPIDEMIOLOGICAL STUDIES ON TRAUMA, DISEASE, MAN/MACHINE INTERFACE TRAUMA AND FIELD DENTAL EMERGENCIES. STUDY NEW MATERIALS AND METHODS MORE CLINICALLY EFFECTIVE IN THE FIELD. DEVELOP AND EVALUATE NEW TECHNIQUES AND NEW MATERIALS TO TREAT COMBAT WOUNDS AND TO TEST THESE IN VARIOUS BIOLOGIC MEDIA. DISSEMINATE AS PRACTICAL ALL INFORMATION TO THE FIELD. STUDY MEANS OF TREATING DENTAL EMERGENCIES FAR FORWARD IN THE FIELD AND DEVELOP THE MATERIEL REQUIRED.

INSTALLATION: INSTITUTE OF SURGICAL RESEARCH

FT. SAM HOUSTON, TX.

CDR. COL. BASIL A. PRUITT

TECH. DIR. DR. AUTHUR D. MASON JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	2.719	3.226
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	4.341	4.169
TOTAL ANNUAL LAB	7.060	7.895
TOTAL INHOUSE	6.782	7.121
TOTAL INHOUSE RDT&E	2.441	2.952
ANNUAL OPERATING COST	1.177	1.180

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	152	18	54	98
CIVILIAN	81	8	81	50
TOTAL	233	21	85	148

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	26.424	1.800	22.400	50.624	2.813	2.850

...MISSION

CONDUCTS BASIC & CLINICAL RSCH ON SEVERE BURN INJURIES & THEIR COMPLCTNS
PROVIDES TREATMENT FOR BURNED PATIENTS AND TRAINS SPECIFIED PERSONNEL IN
THE TOTAL MANAGEMENT OF SUCH PATIENTS.

...CURRENT IMPORTANT PROGRAMS

BURN INFECTION, TREATMENT AND PREVENTION
METABOLISM AND NUTRITIONAL EFFECTS OF BURN INJURY IN SOLDIERS
INFECTION AND MICROBIOLOGIC SURVEILLANCE OF TROOPS WITH THERMAL INJURY
ALTERATION OF HOST RESISTANCE IN BURNED SOLDIERS
ASSESSMENT OF L-TRIODOOTHYRONINE THERAPY IN THERMALLY INJURED SOLDIERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATES 80 BEDS FOR SERIOUSLY BURNED AND INJURED PATIENTS. PROVIDES
CLINICAL LABORATORY SUPPORT AND RESEARCH CAPABILITIES IN THE FIELDS OF
PATHOLOGY (INCLUDING USE OF ELECTRON MICROSCOPE), MICROBIOLOGY, EXPERI-
MENTAL SURGERY, RENAL PHYSIOLOGY AND BIOCHEMISTRY. MAINTAINS AN ANIMAL
COLONY, ELECTRONIC SHOP, MACHINE SHOP, SURGICAL LIBRARY, METABOLIC
CHAMBER AND COMPUTER FACILITY

PRES. COL. ROGER L. DUNLAP

TECH. DIR. PHILLIP E. WRALSTAD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.751	3.340
TOTAL PROCUREMENT	0.858	0.815
TOTAL O&M	0.255	1.927
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	2.859	6.082
TOTAL INHOUSE	0.908	1.721
TOTAL INHOUSE RDT&E	0.861	1.836
ANNUAL OPERATING COST	0.618	0.695

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	98	0	29	69
CIVILIAN	24	2	11	18
TOTAL	122	2	40	82

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	4.000	6.627	21.667	82.294	0.616	8.528

...MISSION

PLAN, CONDUCT AND REPORT ON OT I, II, III AND OTHER USER TYPE TESTS OF INTELLIGENCE + SECURITY MATERIEL. PROVIDE ADVICE ON TEST AND EVAL MATTERS TO MATERIEL DEVELOPERS, OTHER SVCS AND PRIVATE INDUSTRY. CONDUCT OTHER RDT&E TESTS AS DIRECTED BY CDR TRADOC.

...CURRENT IMPORTANT PROGRAMS

IMAGERY DISSEMINATION TECHNIQUES (SLOW SCAN)
 COMBAT ELECTRONIC WARFARE INTELLIGENCE BATTALION
 REMOTELY MONITORED BATTLEFIELD SENSOR SYSTEM
 QUICK FIX WITH DF
 SPECIAL ELEC MISSION ACFT-ACFT SURVIVABILITY EQP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EW MONITORING FAC: TRANSPORTABLE 80 FT VAN RECEIVE 10KHZ TO 40GHZ; DF 20MHZ TO 40GHZ; ANALYSIS EQUIPMENT. VULNERABILITY MOBILE TRANSMITTER-A: TRANSPORTABLE 40 FT VAN RECEIVE 900KHZ TO 1GHZ; JAM 2MHZ TO 1GHZ WITH 1000W TRANSMITTERS; ANALYSIS EQUIPMENT. NON-COMM EMITTER SIMULATOR: 8.5 TO 17.0GHZ; 200W OUTPUT SIMULATING 20 THREAT RADARS; MODES COMPUTER CONTROL VIA DATA LINK, TRANSPORTABLE; REPROGRAMABLE. COMM EMITTER SIMULATOR: 2 TO 500MHZ; 20W OUTPUT SIMULATING 50 THREAT COMM TYPES; MODULATE AND CONTROL THROUGH SYSTEM MICROPROCESSOR, RECORDER, OR VIA DATA LINK; TRANSPORTABLE; REPROGRAMABLE. OPERATIONAL TEST CON CEN: BUILDING HOUSES REALTIME RANGE CONTROL. SYS CON FAC (VAX11/780 AND DEC-10 COMPUTERS): DATA PROCESSING AND AUTOMATED RANGE CON.

CDR. COL. R. J. FEIST

DEPUTY DIR. MR. O. R. OVA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	143.735	164.730
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	7.535	4.780
TOTAL ANNUAL LAB	151.270	169.510
TOTAL INHOUSE	6.732	7.297
TOTAL INHOUSE RDT&E	5.477	5.867
ANNUAL OPERATING COST	0.529	0.558

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	PROF	
MILITARY	27	0	17	10
CIVILIAN	103	1	52	51
TOTAL	180	1	69	61

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1361	0.000	162.309	2244.364	2406.673	235.460	223.941

...MISSION

PLAN, MANAGE, DIRECT & COORDINATE ACTIVITIES OF THE KMR. PROVIDE TECH & LOG SUPPORT OF BMD R&D PROGS. TECH INSTR SPT OF STRATEGIC OFF WEAPON SYS DEV & OPER TESTS. DATA COLL SUPT FOR DOD INTEL COMM. PRIN ADV PERT TO KMR RELATIONS W/TRUST TERR OF PACIFIC ISLANDS/GOVT OF THE MARSHALL ISLANDS.

...CURRENT IMPORTANT PROGRAMS

BALLISTIC MISSILE DEFENSE R&D TESTING
 USAF BMD ADVANCED STRATEGIC MISSILE SYSTEMS R&D TESTING
 MINUTEMAN II AND MINUTEMAN III USAF SAC OPERATIONAL TESTING
 SPACE OBJECT IDENTIFICATION
 SPACE DETECTION AND TRACKING SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ALCOR, TRADEX, ALTAIR, MULTISTATIC MEASUREMENT SYSTEM, KREMS TO CONUS HIGH SPEED DATA LINK, 2 AN/MP5 36, AN/TPQ 18, AN TPX 42 RADARS, 4 RADOTS, 5 SUPER RADOTS, 7 BALLISTIC CAMERAS, 4 SPECTRAL CAMERAS, PHOTO LAB, S BAND TELEMETRY RECEIVING SYSTEMS INCL 8 AUTO TRACK ANTENNAS, 1 MOBILE RELAY SYS RECEIVE AND RECORD SYS, DATA SEPARATION & DISPLAY SYS AND DATA DISTRIBUTION SYS, LONG HAUL AND INTRA ATOLL COMMO SYS, METEOROLOGICAL SYS, LAUNCH ORDNANCE FAC TIMING AND COUNTDOWN SYS, FREQUENCY CONTROL AND ANALYSIS SYS, 7600/6400 INSTRUMENTATION CONTROL CENTER, AIR TRAFFIC CONTROL SYS INCL TACAN LOW FREQUENCY HOMING BEACON AND AC COMMUNICATIONS, CLOSED CIRCUIT TV SYS, DATA REDUCTION FACILITY AND INSTRUMENTATION SYS ACCURACY ANALYSIS CAPABILITY, GROUND PORTION OF FLIGHT TERMINATION AND CONTROL SYS, AND RANGE SAFETY SYSTEM.

INSTALLATION: LARGE CALIBER WEAPONS SYSTEMS LAB

DOVER, N. J.

CDR. COL. R. E. PHILLIP

TECH. DIR. DR. J. T. FRASIER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	135.074	134.745
TOTAL PROCUREMENT	68.888	65.000
TOTAL O&M	7.548	7.600
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	206.000	207.345
TOTAL INHOUSE	105.805	106.460
TOTAL INHOUSE RDT&E	48.904	48.460
ANNUAL OPERATING COST	20.861	21.568

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	48	1	10	88
CIVILIAN	1704	82	1049	655
TOTAL	1747	88	1059	688

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4835	369.080	249.577	80.785	699.892	64.125	69.275

...MISSION

MAINTAIN A STRONG BASIC AND EXPLORATORY TECHNOLOGY BASE. DES AND RES WPNS SYS-GUN/AMMO, LARGER THAN 40MM FOR TANKS, ARTY, MORTAR, RECOILLESS GUNS, AIR DEFENSE, MINES AND DEMO SYS, EXPLOS AND WHDS. ENG SPT DURING PROCUREMENT, PRODUCTION AND FIELD USE. PREVENT TECHNOLOGICAL SURPRISE.

...CURRENT IMPORTANT PROGRAMS

SPT PM-CAWS, M509 AND M488 PROJ, M692 ADAM, XM718 RAAM, DSWS.
SPT XM1 TANK, 120MM AMMO/GUN.
SPT PM-NUCL, PERSHING 2, XM785, XM758 8 INCH PROJ.
SCATTERABLE MINE SYSTEMS, MOPMS AND GEMMS.
ARTILLERY-SADARM, GUN PROPULSION INCL CHG DSG, REDUCED WEAR AND EROSION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP NEW ITEMS. A NEW IGNITION, RHEOLOGICAL AND COMBUSTION LAB WAS COMPLETED. A NEW CHEMISTRY LAB VALUED AT 5.5M WAS COMPLETED. FACILITIES AND EQUIPMENT RESOURCES IS CONTAINED IN COMPLEX OF ENG AND LAB BLDGS. 15ADMIN BLDGS, 86 LAB BLDGS, AND 47 STORAGE BLDGS.

CDR. COL. JOHN D. MARSHALL JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.898	10.188
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.146	0.164
TOTAL OTHER	3.899	4.485
TOTAL ANNUAL LAB	12.448	14.787
TOTAL INHOUSE	9.977	11.450
TOTAL INHOUSE RDT&E	6.482	6.851
ANNUAL OPERATING COST	4.257	4.617

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	161	38	110	51
CIVILIAN	112	14	27	85
TOTAL	278	52	137	136

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
9	188.198	86.506	805.809	475.018	42.680	9.126

...MISSION

TO PROVIDE MEDICAL RESEARCH CAPABILITY AND CONDUCT RESEARCH IN AREAS OF LASER BIOEFFECTS, MILITARY TRAUMA AND RESUSCITATION, BLOOD PRESERVATION, CHRONIC MAMMALIAN TOXICOLOGY, DERMAL PROTECTION AGAINST CBR HAZARDS, CASUALTY MANAGEMENT AND OTHER AREAS AS DIRECTED BY CDR, USA MED R&D CMD.

...CURRENT IMPORTANT PROGRAMS

DETERMINATION OF SAFE THRESHOLDS OF COHERENT RADIATION
 RESUSCITATION SOLUTIONS FOR THE ACUTELY INJURED
 CHRONIC MAMMALIAN TOXICOLOGY
 ADVERSE EFFECTS ON HUMAN SKIN BY ENVIRONMENTAL FACTORS
 COMBAT CASUALTY CARE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SURGICAL OPERATING ROOMS, ENVIRONMENTAL ROOMS, GERM-FREE ANIMALS, SCANNING TRANSMISSION ELECTRON MICROSCOPES, AUTO-ANALYZERS/RECORDERS, AUTOMATIC BETA-GAMMA COUNTERS, GAMMA CAMERA, MASS SPECTROMETER. RESEARCH INCLUDES BIOMEDICAL COMPUTER RESEARCH, EXPERIMENTAL SURGERY, STUDIES ON BLOOD PRESERVATION, OPTIMAL BLOOD STORAGE CONDITIONS, AND CELL-FREE RESUSCITATING SOLUTIONS, MAINTAINING BREEDING COLONIES OF SPECIAL ANIMAL STRAINS, COMPUTER ENHANCED TOXICOLOGICAL RESEARCH AND BIOMEDICAL ASPECTS OF CHEMICAL DEFENSE.

CDR. COL. G. SIBERT

DIR. DR. E. S. WRIGHT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	80.854	87.718
TOTAL PROCUREMENT	1.142	1.266
TOTAL O&M	5.513	4.584
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	37.009	48.558
TOTAL INHOUSE	19.979	28.117
TOTAL INHOUSE RDT&E	15.796	19.000
ANNUAL OPERATING COST	8.478	6.424

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	17	1	8	9
CIVILIAN	606	63	239	867
TOTAL	623	64	247	876

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
48	381.778	88.261	172.848	642.687	14.835	22.056

...MISSION

MANAGE THE DARCOM STRUCTURAL MATERIALS AND MECHANICS PROGRAM AS LEAD LAB FOR MATERIALS, MECHANICS AND MATERIALS TESTING TECHNOLOGY. CONDUCT RESEARCH AT THE FOREFRONT OF TECHNOLOGY TO PROVIDE THE ADVANCED MATERIALS REQUIRED FOR PRESENT AND FUTURE ARMY WEAPONS SYSTEMS AT REASONABLE COSTS.

...CURRENT IMPORTANT PROGRAMS

METAL AND ORGANIC MATRIX COMPOSITES FOR LIGHTWEIGHT MATERIEL APPLICATION
 ADVANCED ARMOR AND ARMOR PENETRATOR MATERIALS INCLUDING LASER HARDENING
 STRUCTURAL INTEGRITY, NDT, AND LIFE PREDICTION/RELIABILITY MECHANICS
 CERAMICS FOR ELECTRO-OPTICAL, ENGINE, AND GUN TUBE APPLICATIONS
 MATERIALS PROCESSING AND CHARACTERIZATION: METALS ORGANICS AND CERAMICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE CENTER POSSESSES THE IN-HOUSE EXPERTISE AND FACILITIES TO PERFORM R&D PROJECTS RANGING FROM THE SYNTHESIS OF NEW AND IMPROVED MATERIALS AND DESIGNS TO THE PROTOTYPE MANUFACTURE OF COMPONENTS FOR ARMY WEAPONS SYSTEMS. METALS PROCESSING EQUIPMENT INCLUDES: CASTING, FORGING, ROLLING, HEAT TREATING, JOINING, PLATING, ISOSTATIC PRESSING, VACUUM ARC MELTING, AND MACHINING. CERAMIC PROCESSING EQUIPMENT: SLIP CASTING, HOT PRESSING, SINTERING AND GRADIENT FURNACE CRYSTAL GROWTH. POLYMER/COMPOSIT PROCESSING EQUIPMENT: INJECTION MOLDING, LAMINATING, FILM FORMING AND ORIENTATION, FILAMENT WINDING, PULTRUSION, FOAM PROCESSING, TAPE LAYUP, VACUUM FORMING AND PILOT POLYMER PRODUCTION. QC AND NDT EQUIPMENT: ULTRASONICS, XRAY AND NEUTRON RADIOGRAPHY, SPECTROSCOPY, HOLOGRAPHY, CHEMICAL ANALYSIS, METALLOGRAPHY AND OPTICS. OTHER: U AND BE MACHINING, BALLISTIC RANGE AND POWDER CHARACTERIZATION.

DIR. MR. KEITH A. MYERS

DEP. DIR. BG JAMES E. DRUMMUND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	18.385	21.979
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.891	4.791
TOTAL OTHER	0.729	0.787
TOTAL ANNUAL LAB	22.005	27.557
TOTAL INHOUSE	14.128	18.494
TOTAL INHOUSE RDT&E	12.095	14.885
ANNUAL OPERATING COST	2.660	2.860

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	82	0	9	23
CIVILIAN	449	23	802	147
TOTAL	481	28	811	170

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	8.140	100.276	1.715	110.131	2.070	1.289

...MISSION

PROVIDES THE CENTRAL INDEPENDENT TECHNICAL CAPABILITY FOR DARCOM FOR THE CONDUCT OF MAJOR SYSTEMS ANALYSIS AND COST EFFECTIVENESS STUDIES, SERVES AS DARCOM LEAD ACTIVITY FOR SURVIVABILITY AND RELIABILITY, AVAILABILITY AND MAINTAINABILITY METHODOLOGY.

...CURRENT IMPORTANT PROGRAMS

TEST DESIGN & EVAL OF AAH, HELLFIRE, PATRIOT, BLACKHAWK AND STINGER. DEVELOP ITEM LEVEL PERFORMANCE/EFFECTIVENESS EVALUATIONS FOR AIR DEFENSE AVIATION, ARTILLERY, BARRIER, INFANTRY, ARMORED AND C3 SYSTEMS. STUDY EFFECTIVENESS AND SURVIVABILITY OF PATRIOT, HEL, AAH AND HELLFIRE. PREPARE AIR-TO-AIR/AIR-TO-SURF JOINT MUNITIONS EFFECTIVENESS MANUALS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMSAA MISSION CAPABILITIES INCLUDE PERFORMING INDEPENDENT TEST DESIGN AND OVERALL EVALUATION FOR DECISIONS ON MAJOR, DESIGNATED NON-MAJOR, AND SELECTED OTHER SYSTEMS, PROVIDING OVERVIEW OF LIFE CYCLE SURVEILLANCE PROGRAMS FOR MATERIEL SYSTEMS IN INVENTORY; PROVIDING WEAPON SYSTEM EFFECTIVENESS ESTIMATES FOR COST AND OPERATIONAL EFFECTIVENESS ANALYSES; PROVIDING SYSTEMS ANALYSIS SUPPORT TO DARCOM MAJOR SUBORDINATE COMMANDS AND PROJECT/PRODUCT MANAGERS; MAINTAINING DIRECT CONTACT WITH ARMY MATERIEL USERS IN THE FIELD; SERVING AS THE DARCOM FIELD ACTIVITY FOR ADMINISTERING THE JOINT TECHNICAL COORDINATING GROUP FOR MUNITIONS EFFECTIVENESS, JTCC/ME, AND PERFORMING LOGISTICS AND READINESS RELATED ANALYSIS.

DIR. COL. CHARLES W. BINNEY

ASSOC. DIR. DONALD RESCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	41.895	49.898
TOTAL PROCUREMENT	18.044	20.254
TOTAL O&M	0.950	1.045
TOTAL OTHER	6.825	7.508
TOTAL ANNUAL LAB	67.214	78.705
TOTAL INHOUSE	64.422	75.530
TOTAL INHOUSE RDT&E	39.887	48.162
ANNUAL OPERATING COST	26.627	31.806

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHOS	PROF	PROF
MILITARY	215	0	24	191
CIVILIAN	998	7	229	764
TOTAL	1208	7	258	955

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
22865	724.817	4.851	269.547	998.215	17.245	50.649

...MISSION

PLAN CDT AND RPT TESTS OF WPNS WPN SYS RKIS & GM SYS FIRE CON & TGT ACQ EQUIP ITEMS OF AMMO & MUN COMPONENTS CBT VEHs OTHER AUTO MAT GEN EQUIP. PROV COR SVCS FOR PROC OF ARMOR PLATE FOR ALL DARCOM INSTLS & ACTIVITIES PROV SUPPORT SVCS TO APG ELEMENTS & SUPPORT COMMANDS.

...CURRENT IMPORTANT PROGRAMS

XM1 TANK SYSTEM INCL VULNERABILITY
 120MM GUN/AMMO PROGRAM
 INFANTRY FIGHTING VEHICLE
 DIVADS
 XM1E1 TANK SYSTEM INCL VULNERABILITY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AREA 68700 ACRES RANGE TO LAND IMPACT 26000M RANGE TO WATER IMPACT 80000 41 MILES OF AUTMV CRS INCL 27 SP ENGR TEST CRS & OBSTACLES VAR OF ENVIR OR COND EQUIP SP CHAMBERS FOR SUBJECTING EQUIP TO DUST SALT SPRAY OR SOLAR RADN ISOLATED VIBRATION TEST FAC WHICH PERMITS SHAKING EXPLO EQUIP SIMULTANEOUSLY WITH TEMP CONDITIONING FAC FOR CONTROLLED TESTS OF ELEC CON & GUIDANCE EQUIP FREQ SOURCE WHICH PERMITS TESTING ALL TYPES OF MAT IN PRESENCE OF A HIGH INTENSITY ELEC MAGNETIC RADN SP FAC FOR TEST OF ARMOR PLATE SP VEL & TGT EQUIP IS AVAIL FOR OBSERVATIONS DURING RAPID FIRE AS IS RKT TRACK FOR CONTROLLED TERMINAL BALLISTIC TESTS FAC AVAIL FOR TESTS OF SP ELECTRONIC & FIRE CON EQUIP & RELATED SYS & COMPONENTS. PULSE RADIATION FAC AVAIL FOR USE IN RADIATION TESTING NUCLEAR EFFECTS. SIMULATION REACTOR TECHNOLOGY & RADIATION PHYSICS.

CDR. COL. JOHN N. ALBERTSON JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.565	12.090
TOTAL PROCUREMENT	0.001	0.000
TOTAL O&M	0.065	0.000
TOTAL OTHER	1.387	1.059
TOTAL ANNUAL LAB	10.018	18.149
TOTAL INHOUSE	5.137	5.909
TOTAL INHOUSE RDT&E	4.174	4.850
ANNUAL OPERATING COST	1.449	2.745

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	36	4	21	15
CIVILIAN	102	15	37	65
TOTAL	138	19	58	80

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	45.108	27.800	34.108	106.511	3.274	8.176

...MISSION

CONDUCTS ENG RSCH & DEVELOPMENT OF MILITARY MEDICAL EQUIPMENT
 CONDUCTS THE SURGEON GENERAL'S RDT&E PROGRAM IN INTEGRATED PEST MGT
 CONDUCTS ENVIRONMENTAL OCCUPATIONAL HLTH BASIC & APPLIED RSCH ON CHGMCLS
 CONDUCTS LIFE CYCLE SYSTEM MGT OF MED, DENTAL & PEST MGT MATERIELS

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF FIELD MEDICAL DEVICES AND EQUIPMENT
 PEST MGT RDT&E INCLUDING METHODS, MATERIALS, EQUIPMENT AND CONCEPTS
 DEVELOPMENT OF MEDICAL EQUIPMENT FOR CHEMICAL DEFENSE
 OCCUPATIONAL HLTH RSCH: SMOKE OBSC WPN SYS, SYN FUEL, FLD SAN & WATER
 DEVELOP ENVIRONMENTAL QLTY & OCCUP HLTH CRITERIA ON MIL CHEMICALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DESIGN, DEVELOP & FABRICATE PROTOTYPE & TEST MODELS OF MILITARY MED MAT
 PRODUCE LIMITED QUANTITIES OF MED MAT FOR URGENT MILITARY REQUIREMENTS
 DESIGN, DEVELOP & FABRICATE PEST MGT EQUIP AND SYSTEMS
 DESIGN, DEVELOP & FABRICATE PROTOTYPE & TEST MODELS OF MIL DENTAL MAT
 PERFORM HLTH & ECOLOGICAL EFFECTS & RESEARCH ON ENVIRON POLLUTANTS
 PERFORM PILOT PLANT RSCH ON WATER & WASTEWATER FOR FIELD ARMY USE.

CDR. MG GARRISON RAPMUND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.252	8.845
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.278	0.300
TOTAL OTHER	1.978	2.782
TOTAL ANNUAL LAB	5.508	6.427
TOTAL INHOUSE	5.508	6.427
TOTAL INHOUSE RDT&E	8.252	8.845
ANNUAL OPERATING COST	8.530	8.645

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PRDS	PROF	
MILITARY	59	22	48	11
CIVILIAN	101	1	2	99
TOTAL	160	28	50	110

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	86.887	0.000	86.887	0.560	0.619

...MISSION

ADMINISTRATION AND COORDINATION OF THE MEDICAL RDTE PROGRAM
 PROGRAM LIMITED TO UNIQUE MILITARY PROBLEMS WITHIN US AND OCONUS
 SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY MEDICAL
 DEPARTMENT

...CURRENT IMPORTANT PROGRAMS

CARE OF THE WOUNDED
 PREVENTION AND CONTROL OF INFECTIOUS DISEASES
 ENHANCEMENT OF MILITARY PERFORMANCE
 PROTECTION AGAINST MILITARY ENVIRONMENTAL HAZARDS
 MEDICAL DEFENSE AGAINST CHEMICAL WARFARES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY
 MEDICAL DEPARTMENT.

INSTALLATION: MEDICAL RESEARCH INSTITUTE CHEMICAL DEFENSE ABERDEEN PROV. GR., MD

CDR. COL. FRANKLIN H. TOP JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	13.558	35.128
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.031	0.020
TOTAL OTHER	1.766	2.418
TOTAL ANNUAL LAB	15.350	37.561
TOTAL INHOUSE	8.974	11.481
TOTAL INHOUSE RDT&E	7.177	9.048
ANNUAL OPERATING COST	1.680	1.850

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	75	27	44	81
CIVILIAN	145	15	52	98
TOTAL	220	42	96	124

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
81	36.426	15.345	98.429	150.200	9.246	4.260

...MISSION

FUNDAMENTAL RESEARCH ON MECHANISMS OF ACTION (CW AGENTS & ANTIDOTES)
 DEVELOPMENT OF PRETREATMENT & ANTIDOTE DRUGS (AGAINST CW AGENTS)
 DEVELOP & EVALUATE PREVENTION, RESUSCITATION, TREATMENT & MANAGEMENT
 METHODS FOR CHEMICAL CASUALTIES AND ASSIST IN THEIR IMPLEMENTATION

...CURRENT IMPORTANT PROGRAMS

MEDICAL CHEMICAL DEFENSE SCIENCE BASE/MECHANISM OF ACTION AGENTS/DRUGS
 DEVELOP SOLDIER CW AGENT ANTIDOTES & PRETREATMENT REGIMEN
 DEVELOP BIOMEDICAL MODELS TO EVALUATE DRUG EFFICACY
 EVALUATE BEHAVIORAL/PERFORMANCE DECREMENTS FROM CW AGENTS/ANTIDOTES
 DEVELOP METHODS FOR MGT & TREATMENT OF MASS CASUALTIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MODERN 7000 SQ FT ANIMAL HOLDING FACILITY
 2400 TECH LIBRARY HOLDINGS & DIVERSE NUMBER OF SCIENCE DATA BASES
 COMPLETE VIDEO PRODUCTION FACILITY
 MEDICAL MAINTENANCE FACILITY
 RADIOISOTOPE ANALYSIS
 BEHAVIORAL TESTING LABORATORY
 LIQUID, GAS, COLUMN AND AFFINITY CHROMATOGRAPHY
 ELECTROPHORESIS, SPETROSCOPY, FLUOROMETRY AND SPECTROPOLARIMETRY
 GC MASS SPECTROMETRY AND ELECTRON SPIN RESONANCE
 AMINO ACID ANALYSIS AND PEPTIDE SEQUENCING
 TISSUE CULTURE
 ELECTRON MICROSCOPY.

CDR. COL. RICHARD F. BARQUIST

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	0.000	18.359
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.000	7.863
TOTAL ANNUAL LAB	0.000	25.722
TOTAL INHOUSE	0.000	19.447
TOTAL INHOUSE RDT&E	0.000	12.084
ANNUAL OPERATING COST	0.000	7.515

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON- PROF
		PHDS	PROF	
MILITARY	820	45	97	223
CIVILIAN	210	84	77	188
TOTAL	530	79	174	356

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
48	80.848	19.820	209.699	310.862	17.085	8.078

...MISSION

PERFORMS STUDIES ON THE PATHOGENESIS, DIAGNOSIS, PROPHYLAXIS, TREATMENT AND EPIDEMIOLOGY OF NATURALLY OCCURRING INFECTIOUS DISEASES OF MILITARY IMPORTANCE WITH EMPHASIS ON PROBLEMS ASSOCIATED WITH THE MEDICAL DEFENSE AGAINST BIOLOGICAL AGENTS.

...CURRENT IMPORTANT PROGRAMS

IMPLEMENTED NEW MEDICAL DEFENSE STUDIES ON THE SMALL MOLECULAR WEIGHT TOXINS WITH PARTICULAR EMPHASIS ON T-2 MYCOTOXINS
RECENT INFORMATION REVEALS INCOMPLETE PROTECTION OF KILLED VIRAL VACCINES (RVF AND VEE) TO VIRULENT VIRUS CHALLENGE BY AEROSOL ROUTE
METHODOLOGY DEVELOPED FOR PRODUCTION, PURIFICATION AND PARTIAL CHARAC-

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COMPLETED GLP TOXICITY STUDY OF RIBAVIRIN AND FOUND THAT THE DRUG'S IMPACT ON BONE MARROW HAS AN ACCEPTABLE RISK/BENEFIT RATIO IN TREATMENT OF HIGH HAZARD VIRUS INFECTIONS SUCH AS LASSA FEVER
800 LITERS OF HORSE PLASMA HAVE BEEN COLLECTED AND PROCESSED AND CONTAIN HIGH LEVELS OF NEUTRALIZING ANTIBODY TO ALL SEVEN TYPES OF BOTULIUM TOXIN. DESPECIATING PROCEDURES WILL BE UNDERTAKEN IN ORDER TO HAVE AVAILABLE A SUPPLY OF NON-SENSITIZING GLOBULIN FOR INTRAVENEUS ADMIN.
THIS LABORATORY WAS ORGANIZED INTACT AS A SEPARATE UNIT EFFECTIVE 1 OCTOBER 81.

CDR. MAJ. GEN. ROBERT L. MOORE

DIR. DR. WILLIAM C. MCCORKLE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	198.106	162.022
TOTAL PROCUREMENT	42.668	59.115
TOTAL O&M	28.052	20.921
TOTAL OTHER	21.418	29.788
TOTAL ANNUAL LAB	285.289	271.796
TOTAL INHOUSE	88.601	85.388
TOTAL INHOUSE RDT&E	52.318	50.390
ANNUAL OPERATING COST	17.884	19.598

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED		TOTAL		NON-PROF
	STRENGTH		PHDS	PROF	
MILITARY	44		0	27	17
CIVILIAN	1231		55	680	601
TOTAL	1275		55	657	618

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11000	664.000	224.000	251.500	1139.500	165.815	102.000

...MISSION

MISSION. MNGE & CONDUCT RSCH, EXP & ADV DEV FOR ASSGN MAIL; PROVIDE S&E SPT TO OTHER ACTIVITIES; PLANS, DIRECTS & CONDUCTS RSCH STUDIES & PRGMS TO ADV SYS ENGR & TESTING TECHNOLOGY; PROVIDES CENTRAL ENGR BASE FOR DESIGN & MANUFACTURE OF PROTOTYPE SYS & COMPONENTS.

...CURRENT IMPORTANT PROGRAMS

DEVELOPING CONCEPTS FOR: SINGLE PENETRATOR KINETIC ENERGY (SPIKE) PKT, FIBER OPTICS GUIDED MISSILE, ARTILLERY ROCKET TECH, OVER ARMOR TECHNOLOGY SYNTHESIS AND CARBON DIOXIDE LASER BEAMRIDER CONCEPT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LAB IS EQUIPPED TO STUDY PROBLEMS IN PROP, AERO, G&C & STRUCTURES. MAJOR FAC IS MCMORROW LAB WHICH HOUSES MAJORITY FACILITY. SOME OF UNIQUE FAC ARE: ADV SIM CTR; A COMPUTER COMPLEX SURROUNDED PERIPHERALI Y BY 3 ENVIR EFFECTS SIMULATORS; MSL COMPUTER SOFTWARE/HDW CTR; SIG EVAL ENVIR CHAMBER; ARMY MSL OPTICAL RANGE DESIGNED TO MEASURE LASER RADAR SIG. MAINTAINS AND OPERATES 7 MAJOR TEST AREAS WHICH ENCOMPASS FLIGHT STATIC, ENVIRONMENTAL & FUNCTIONAL TEST; STATE-OF-THE-ART FACILITIES & EQP SUCH AS LASER TRACKERS & ELECTRO-MAGNETIC RADAR SENSORS, ENGR DESIGN & DEV OF CORRECTIONS TO DESIGN DEFICIENCIES IN FIELDIED WPN SYSTEMS. PERFORMS ARMY LEAD LAB FUNCTION IN HIGH POWER/ENERGY LASER RSCH & TECH & MSL RSCH. FAC FOR MECH, ELECT & ELEC FABRICATION & ASSY, & HYBRID MICRO-CIRCUITRY DESIGN ARE AVAILABLE. SMOKE CHARACTERIZATION FACILITY IS ALSO AVAILABLE.

CDR. COL. THEODORE VANDER ELS

TECH. DIR. MR. T. W. LOVELACE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	91.887	80.594
TOTAL PROCUREMENT	285.756	290.610
TOTAL O&M	82.209	84.622
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	859.852	405.826
TOTAL INHOUSE	50.549	51.387
TOTAL INHOUSE RDT&E	30.112	26.765
ANNUAL OPERATING COST	14.287	16.600

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	74	0	19	55
CIVILIAN	1219	16	279	940
TOTAL	1298	16	298	995

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	I.AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1064	488.658	826.499	209.879	1025.081	50.706	55.891

...MISSION

PROVIDE THE ARMY WITH NEW AND IMPROVED COMBAT SUPPORT AND COMBAT SERVICE SUPPORT EQUIPMENT THROUGH RESEARCH, DEVELOPMENT, ENGINEERING, INITIAL ACQUISITION, AND SUBSEQUENT ACQUISITION SUPPORT IN MOBILITY/COUNTER-MOBILITY, ENERGY, SURVIVABILITY, AND LOGISTICS EQUIPMENT SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

ASSAULT BRIDGING
 FACILITIES INTRUSION DETECTION SYSTEM
 PETROLEUM DISTRIBUTION SYSTEMS AND WATER SUPPLY EQUIPMENT
 COUNTERMINE EQUIPMENT
 ELECTRIC POWER FUEL CELLS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCOMPLISH RSCH, DEV, & ACQUISITION OF MAT FOR MIL SYS OF BARRIERS, BRDG O STRUCS, CNTRMINE, FIELD FORTIFICATIONS, CAMOUFLAGE, PHYSICAL SECURITY. TUNNEL DETECTION, TOPOGRAPHY-ENGRG ONLY, FUELS & LUBES, FUEL HNDLG EQUIP, ELEC POWER GENERATION & DISTRIBUTION, ENVIRON CONTROL, WATER & WASTE MGT, MAT HNDLG & SUPPLY DISTRIB, TRANSPORT-MARINE & RAIL EQUIP, AND CONSTRUCTION EQUIP. FACILITIES INCLUDE MINE FIELD TEST LANES, SENSOR TEST AREA, RDO FREQ ANECHOIC CHAMBER, CAMOUF EVAL & REF CTR, FUEL CELL & BATTERY TEST STAS, FLUID STROKING TEST CHAMBER, FIRE SUPPRESSION CHAMBER, ELECTRIC PROPULSION SIM, BRIDGE TEST HANGER, MOBILE STRESS ANALYSIS VAN, TRK STABILITY TILT TABLE, VH TEST TRACKS, SHOCK & VIBRATION DYNAMIC SIM, ENVIRON SIM, MATERIALS RSCH LAB, EMI SIN, COMPT CTR, STILL & MOTION PIC SPT, RSCH & DEV MODEL FABRICATION SHOPS, CALIB & INSTRUMATION.

INSTALLATION: NATICK R&D LABORATORIES

NATICK, MA.

CDR. COL. JAMES S. HAYES

ACTG. TECH. DIR. COL. GEORGE R. RUBIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	42.286	40.623
TOTAL PROCUREMENT	2.046	0.000
TOTAL O&M	15.647	19.662
TOTAL OTHER	8.849	4.198
TOTAL ANNUAL LAB	68.778	64.483
TOTAL INHOUSE	88.818	40.791
TOTAL INHOUSE RDT&E	26.471	27.498
ANNUAL OPERATING COST	7.820	8.650

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON- PROF
		PHDS	PROF	
MILITARY	104	6	27	77
CIVILIAN	1087	74	428	659
TOTAL	1191	80	455	786

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2466	558.160	65.900	418.128	1087.188	28.214	20.889

...MISSION

CONDUCT SCIENTIFIC R&D TO SUSTAIN AND PROTECT MILITARY PERSONNEL UNDER ALL CONDITIONS. DESIGN/DEVELOP FOOD/FOOD SERVICE SYSTEMS, CLOTHING, AIR DELIVERY EQUIPMENT. PERFORM ILS FUNCTION. FIRST PRODUCTION BUY/FIELDING OF NEW ARMY MANAGED ITEMS. TECH/ENG SPT TO PROCUREMENT AGENCIES.

...CURRENT IMPORTANT PROGRAMS

AIRDROP SYSTEMS AND EQUIPMENT TECHNOLOGY AND DEVELOPMENT
CLOTHING, EQUIPMENT TECHNOLOGY AND DEVELOPMENT
ANALYSIS AND DESIGN OF MILITARY FEEDING SYSTEMS
SUBSISTENCE TECHNOLOGY
TACTICAL RIGID-WALL SHELTERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HIGH POWER LINEAR ACCELERATION. BACTERIOLOGY LAB EQUIPMENT FOR INVESTIGATION OF PATHOGENIC MICROORGANISMS. HIGH RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS. FEBETRON MACHINE USED AS A RADIATION SOURCE FOR PULSE RADIOLYSIS. PILOT PLANT TO STUDY DATA ON CONVERTING CELLOULOSE TO GLUCOSE ENZYMATICALY. DYING AND FINISHING LAB FOR STUDIES TEXTILES. COMPUTER GENERATED SYSTEM OF CLOTHING PATTERNS TO OUTPUT. COMPLETE TARIFF OF SIZES FROM ONE MASTER. CLIMATIC TEST CHAMBERS W/TEMPS -57C TO +74C WITH WIND AND RAIN. FLAME PROTECTION LAB AND FACILITY INCLUDING OUTDOOR FIRE PIT. UNIVAC 1106 COMPUTER W/DISK PACS, TAPE DRIVES AND INPUT/OUTPUT EQUIPMENT. AIRCRAFT ROLLER CONVEYER TEST FACILITY, DROP TEST FACILITY, 40X40 FT RAINCOURT, EXPERIMENTAL KITCHEN, SENSORY EVALUATION LAB, HORIZONTAL IMPACT TESTING MACHINE.

DIR. DR. LOUIS M. CAMERON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	47.159	65.759
TOTAL PROCUREMENT	162.112	145.082
TOTAL O&M	1.746	1.800
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	211.017	212.091
TOTAL INHOUSE	25.282	27.729
TOTAL INHOUSE RDT&E	20.449	22.929
ANNUAL OPERATING COST	2.156	2.058

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	32	0	8	29
CIVILIAN	462	86	208	254
TOTAL	494	86	211	288

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
88	151.800	75.800	0.000	227.600	82.000	26.036

...MISSION

NV&EOL IS RESPONSIBLE FOR PROVIDING THE ARMY WITH AN ELECTRO-OPTICAL CAPABILITY THAT WILL ALLOW IT TO OPERATE WITH DAYLIGHT EFFICIENCY AT NIGHT AND UNDER CONDITIONS OF LIMITED VISIBILITY. THE SYSTEMS DEVELOPMENT PROGRAM IS STRUCTURED AROUND A STRONG TECHNOLOGY BASE

...CURRENT IMPORTANT PROGRAMS

LIQUID PHASE EPITAXY FOR COMMON MODULE DETECTORS
 AUTOMATION OF FLIR SENSORS
 SECOND GENERATION THERMAL IMAGING
 AVIATORS NIGHT VISION SYSTEM
 SURVEILLANCE TARGET ACQUISITION RADAR FOR TANK LOCATION & ENGAGEMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FACILITIES INCLUDE: NIGHT VISION SYSTEM LAB IR DETECTOR FABR & ANALYSIS FACILITY SURFACE RESEARCH FACILITY FOCAL PLANE ARRAY TEST FACILITY IR OPTICAL TEST FACILITY IMAGE INTENSIFIER TUBE TESTING FACILITY SEMI-CONDUCTOR MATERIALS RESEARCH FACILITY ELECTRONICS TEST FACILITY INTERACTIVE IMAGE PROCESSING FACILITY LASER RANGES 3D MULTI SPECTRAL SIMULATOR SCIENTIFIC COMPUTER CENTER FIRING TEST RANGE AND E-O/IR IMAGE EVALUATION FACILITY.

INSTALLATION: RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI ALEXANDRIA, VA.

CDR. COL. L. MEALE COSBY

TECH. DIR. DR. JOSEPH ZEIDNER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	27.225	83.180
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.003	0.985
TOTAL ANNUAL LAB	28.228	84.165
TOTAL INHOUSE	16.046	17.857
TOTAL INHOUSE RDT&E	15.048	16.872
ANNUAL OPERATING COST	5.063	6.198

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	38	1	84	1
CIVILIAN	882	160	242	90
TOTAL	865	161	276	91

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL. PROP	EQUIP
0	46.110	2.569	7.245	55.914	0.000	1.854

...MISSION

TO MAXIMIZE COMBAT EFFECTIVENESS THROUGH RESEARCH IN THE ACQUISITION, DEVELOPMENT AND UTILIZATION OF SOLDIERS IN MILITARY SYSTEMS. NINE CONUS FIELD UNITS AND ONE IN EUROPE. LIAISON OFFICES AT TRADOC, FORSCOM, & IN LONDON SUPPORT IN-HOUSE RESEARCH PROGRAM MANAGED BY 8 LABS

...CURRENT IMPORTANT PROGRAMS

MANPOWER ACCESSION AND RETENTION SYSTEMS
COMBAT SKILL ACQUISITION, RETENTION, AND TRANSFER
SIMULATION AND TRAINING DEVICES
COMBAT VEHICLE IDENTIFICATION
BASIC SKILLS INSTRUCTIONAL SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NINE CONUS FIELD UNITS AND ONE IN EUROPE.
9 CONUS UNITS ARE AT FTS BENNING, BLISS, KNOX, SILL, HOOD, LEAVENWORTH, RUCKER, BEN HARRISON, & PRESIDIO OF MONTEREY. IN-HOUSE EXPERIMENTAL FACILITIES INCLUDE LABORATORY AREA. ARMY OWNED IN-HOUSE COMPUTERS PERMIT WITHIN THE LABS, REAL TIME EXPERIMENTATION, GAMING, AND SIMULATION. ADDITIONAL TERMINAL LINES TO EXTERNAL COMPUTERS PROVIDE FLEXIBILITY. EXPERIMENTAL PROGRAM PERMITS A WIDE RANGE OF LAB OPTIONS TO TEST HUMAN PERFORMANCE HYPOTHESES UNDER SIMULATED OPERATIONAL CONDITIONS INCLUDING A COMMAND POST IN SIMULATED TACTICAL SITUATIONS .

INSTALLATION: RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE NATICK, MA.

CDR. LT. COL. (P) ELIOT J. PEARLMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	4.160	4.037
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.045	0.000
TOTAL OTHER	1.895	2.122
TOTAL ANNUAL LAB	5.600	6.159
TOTAL INHOUSE	5.206	5.896
TOTAL INHOUSE RDT&E	8.766	8.774
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	81	6	89	42
CIVILIAN	102	19	58	44
TOTAL	183	25	97	86

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4	60.421	18.798	28.647	107.861	3.718	4.350

...MISSION

CONDUCT RSCH TO DETERMINE EFF OF HEAT, COLD, HIGH TERRESTRIAL ALT & WORK ON SOLDIER'S LIFE PROCESSES, PERF & HLTH. CONDUCTS RSCH IN THE PHYSIOLOGICAL ASPECTS & HEALTH EFFECTS OF ARMY PHYSICAL FITNESS TRAINING. ASSIST NATICK LABS IN DEVELOPMENT OF PERSONAL CLOTHING AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

MED SCREEN FOR PERS 0/40 YRS OLD PRIOR TO PARTICIPATION IN PHYS TNG/TSTG ASSESS WORK LIMITS IMPOSED ON SOLDIER BY SNGL/MLTPL PROT REGMNS TO CW BIOMED IMPACT OF MIL CLTHNG & EQ DSGN INCL SELECTION OF CREW COMPART ENV INVTGNS DIRECTED TWD VENTILATORY RSPNSE TO HYPOXIA/PRE-SEL FOR H/A MSNS STRUC & FNCTNL ALTNS IN CELLS, TISSUES & ORGANS IND BY EXP TO ENV EXTRMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT RSCH & PROVIDE GUIDANCE TO DESIGNERS, ENGINEERS, TACTICIANS, PLANNERS & PHYSICIANS ON MIL PERF & CASUALTY PREVENTION & TRTMENT IN EXTREME CLIMATES & ENGINEERED ENVIRONS; ADVISE ON HLTH & SAFETY IN MANG-UVERS DURING HEAT, COLD, OR HYPOXIC STRESS & RAPID AIR TRANSLOCATION. THE MAJOR EQ & FAC CAPABILITIES OF THE LAB INCLUDE TWO LG ALT CHMBRS, SMALL CLIMATIC CHMBRS, AAALAC ACC ANIMAL CARE FAC'S, ELECTRON MICROSCOPY, UNDERWATER RSCH POOL, COPPER MANIKINS & DIVERSE PHARMACOLOGICAL & PSYCHOLOGICAL MEASURING EQUIPMENT. THE INSTITUTE MAINTAINS A FIELD FACILITY ON THE SUMMIT OF PIKES PEAK, COLORADO.

CDR/DIR. MR. H. S. HOVEY JR ACTING DEPTY DIR. W. S. HAYDEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	87.225	47.049
TOTAL PROCUREMENT	121.186	55.560
TOTAL O&M	2.022	2.456
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	160.433	105.065
TOTAL INHOUSE	8.667	10.234
TOTAL INHOUSE RDT&E	6.645	7.778
ANNUAL OPERATING COST	0.402	0.450

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	71	0	8	63
CIVILIAN	171	5	59	112
TOTAL	242	5	67	175

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
10	3.936	29.145	3.963	37.044	8.600	5.100

...MISSION

RESEARCH DESIGN DEVELOPMENT EVALUATION ANALYSIS LOGISTICAL INTEGRATION
 FIRST ARTICLE PRODUCTION SUCCESSFUL FIELDING AND PRODUCT IMPROVEMENT OF
 SIGNALS. INTELL/ELECTRONIC WARFARE SYS AND THE DESIGN OF SIGNAL SECURITY
 DEVICES AND TECH TO MEET ARMY AND DIRECTED NATIONAL REQMTS.

...CURRENT IMPORTANT PROGRAMS

AN/TLG-17A TACTICAL JAMMER
 AN/MLQ-34 TAC JAM
 EXPENDABLE JAMMERS
 AN/ALQ-151 QUICK FIX
 MANPACK RADIO DF SET

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE US ARMY SIGNALS WARFARE LABORATORY IS LOCATED AT VINT HILL FARMS
 STATION WARRENTON VIRGINIA IN A FACILITY UNIQUELY SUITED TO MISSION.
 THE LABORATORY CONSISTS OF APPROXIMATELY 4000 SQUARE FEET WITH A COMPUT-
 ERIZED SIGNAL PROCESSING FACILITY (CONSISTING OF A CPU RECORDS ANAL)
 FOR SYS SOFTWARE VERIFICATION AND VALIDATION R&D SOFTWARE DEV AND SUP
 ARE USED FOR DESIGN AND TEST OF EQUIPMENT IN A REAL TIME ENVIRONMENT.
 THE LAB IS STAFFED WITH ELECTRONIC ENGINEERS AND TECH SIGNALS ANALYSTS
 OPERATION RESEARCH ANALYSTS INTEGRATED LOGISTICS SUPPORT PERSONNEL PRO-
 DUCT AND QUALITY ASSURANCE TECHNICIANS AND PRODUCTION ENGINEERS TO
 PROVIDE FOR TECHNICALLY SOUND MILITARIZED AND FULLY SUPPORTABLE AND
 INTER/INTRA-OPERATABLE COMMUNICATIONS AND ELECTRONICS SYSTEM AND
 EQUIPMENT.

CDR. BG C. M. MATHEWS JR

TECH. DIR. DR. E. N. PETRICK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	110.840	110.007
TOTAL PROCUREMENT	115.805	366.465
TOTAL O&M	11.405	8.238
TOTAL OTHER	0.949	1.816
TOTAL ANNUAL LAB	287.999	486.021
TOTAL INHOUSE	86.525	39.418
TOTAL INHOUSE RDT&E	20.447	21.639
ANNUAL OPERATING COST	5.878	5.867

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	34	1	25	9
CIVILIAN	548	14	290	253
TOTAL	577	15	315	262

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11	258.652	33.828	109.733	402.213	38.294	148.000

...MISSION

RESPONSIBLE FOR ACCOMPLISHING DESIGN, DEVELOPMENT, ACQUISITION AND INITIAL DEPLOYMENT OF ASSIGNED WEAPONS/EQUIP SYSTEMS. CONDUCT AND MANAGE RESEARCH, PERFORM PROCUREMENT AND QUALITY ASSURANCE THRU DEVELOPMENT. PERFORM RELIABILITY-MAINTAINABILITY ASSESSMENT.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF DYNAMIC ANALYSIS AND DESIGN SYSTEM VEHICLE MODELING
 STANDARDIZED AUTOMATIC OPTICAL FIRE SUPPRESSION AND DETECTION COMPONENTS
 SECURE LIGHTING IMPLEMENTATION INTO ALL COMBAT VEHICLES
 ARMORED COMBAT VEHICLE SCIENCE AND TECHNOLOGY PLAN
 FULL SCALE DEV OF FIELD ARTILLERY AMMUNITION SUPPORT VEHICLE (FAASV)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VEHICLE BRAKE DYNAMOMETER; ENGINE AND TRANSMISSION TEST CELLS
 VEHICLE SUBSYSTEM INTEGRATION, VEHICLE MOTION SIMULATOR
 ANALYTICAL PREDICTION OF MILITARY VEHICLE PERFORMANCE
 VEHICLE SIGNATURE MEASUREMENT CAPABILITY
 SIX DEGREE OF FREEDOM SIMULATOR. VEHICLE COMPONENT EVALUATION.
 SCIENTIFIC AND ENGINEERING COMPUTER NETWORK (SENET) FOR
 COMPUTER AIDED DESIGN (CAD) SERVICES. METAL ANALYSIS WITH
 MICROPROBE ELECTRON MICROSCOPE ANALYZER AND TECHNIQUES
 DEVELOPMENT OF IMPROVED ARMOR WELDING, FABRICATION AND APPLICATION
 TECHNIQUES. LOW TEMPERATURE SHOCK AND VIBRATION TEST FACILITIES
 VEHICLE DYNAMIC SIMULATION FACILITY; IMAGE PROCESSING CAPABILITY
 HOLOGRAPHIC CAPABILITY FOR LARGE STRUCTURES

CDR. COL. RICHARD P. BARRERE TECH. DIR. MR. FRANK S. MENDEZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL PDT&E	8.140	8.524
TOTAL PROCUREMENT	0.054	0.015
TOTAL O&M	0.000	0.013
TOTAL OTHER	1.305	1.488
TOTAL ANNUAL LAB	4.499	5.040
TOTAL INHOUSE	4.414	4.940
TOTAL INHOUSE RDT&E	3.075	3.424
ANNUAL OPERATING COST	0.440	0.450

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PODS	PROF	PROF
MILITARY	74	0	14	60
CIVILIAN	60	8	26	84
TOTAL	134	8	40	94

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2625	18.000	85.925	88.556	142.481	0.874	3.098

...MISSION

PLAN, CONDUCT AND REPORT ON ENVIRONMENTAL PHASES OF DEVELOPMENT TEST II AND OTHER DEVELOPMENTAL TYPE TESTS. PROVIDE ADVICE AND GUIDANCE ON TESTS AND EVALUATION MATTERS TO MATERIEL DEVELOPERS, MATERIEL PRODUCERS, OTHER SERVICES AND PRIVATE INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

TEMPERATE BATTLE DRESS UNIFORM
 120MM CARTRIDGE
 RESEARCH AND DEVELOPMENT INSTRUMENTATION PROGRAM
 INDEPENDENT LABORATORY IN-HOUSE RESEARCH
 TEST METHODOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST FACILITIES AND LABORATORIES WITH INSTRUMENTS AND EQUIPMENT FOR CONDUCTING TROPIC TESTS OF DOD MATERIEL IN THE NATURAL ENVIRONMENT TO INCLUDE ELECTRONICS, HUMAN FACTORS, CHEMICAL, MICROBIOLOGICAL, MATERIALS, SOILS, AUDIO-VISUAL, AND DATA ANALYSIS LABORATORIES.
 OTHER TEST RESOURCES CONSIST OF FIRING RANGES; NATURAL TERRAIN MOBILITY COURSES; AMMO TEST STORAGE AREAS; JUNGLE, GRASS AND COASTAL MATERIEL EXPOSURE SITES; JUNGLE RADIO RANGING SITES; POL TANK FARM; MAN PACK PORTABILITY COURSE; CALIBRATED SEISMIC DETECTION AND CHEMICAL TEST GRIDS; 2583 ACRES OF BROADLEAF EVERGREEN TREES, SEMIDECIDUOUS TREES, MARSHLAND, AND GRASSLAND; CORAL REEFS; AND FLAT AND HILLY TERRAIN CONTAINING ALL TYPES OF TROPIC VEGETATION.

INSTALLATION: WALTER REED ARMY INSTITUTE OF RESEARCH

WASHINGTON, D.C.

DIR. COL. PHILIP K. RUSSELL

DEP. DIR. LTC. FRANK J. SODETZ JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	44.050	36.471
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.729	1.884
TOTAL OTHER	15.451	18.522
TOTAL ANNUAL LAB	61.230	61.947
TOTAL INHOUSE	48.620	39.274
TOTAL INHOUSE RDT&E	32.747	28.798
ANNUAL OPERATING COST	8.473	1.802

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	463	160	438	25
CIVILIAN	443	65	266	177
TOTAL	906	225	704	202

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
208	883.274	58.600	0.000	441.874	10.080	18.443

...MISSION

PERFORMS GENERAL MILITARY MEDICINE RESEARCH IN THE AREAS OF COMMUNICABLE DISEASE & IMMUNOLOGY, SURGERY, DRUG DEVELOPMENT, NEUROPSY, GENERAL MEDICINE & PREVENTIVE MEDICINE. SERVES AS COMMAND & CONTROL ELEMENT FOR SPECIAL FOREIGN ACTIVITIES. PLANS & CONDUCTS AMEDD COURSES.

...CURRENT IMPORTANT PROGRAMS

BASIC RESEARCH ON MILITARY DISEASES
MILITARY PSYCHIATRY
MICROWAVE INJURY, PREVENTION & TREATMENT
MEDICAL EFFECTS OF WEAPONS SYSTEMS BLAST OVERPRESSURE
MEDICAL ASPECTS OF CHEMICAL WARFARE DEFENSE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT & FACILITY CAPABILITY OF THE LABORATORY INCLUDES CHEMICAL ANALYTICAL EQUIPMENT, MICROBIOLOGICAL LABS, MICROWAVE EXPOSURE SYSTEM, BEHAVIORAL RESEARCH INSTRUMENTATION AND ELECTRON MICROSCOPES. ADDITIONAL RESEARCH FACILITIES ARE LOCATED IN GERMANY, MALAYSIA, KENYA, BRAZIL, THAILAND AND MARYLAND.

CDR. MAJ. GEN. ALAN A. NORD

TECH. DIR. DR. RICHARD H. DUNCAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	154.226	179.938
TOTAL PROCUREMENT	15.806	14.674
TOTAL O&M	3.941	8.580
TOTAL OTHER	14.093	15.547
TOTAL ANNUAL LAB	187.566	213.734
TOTAL INHOUSE	156.424	180.133
TOTAL INHOUSE RDT&E	131.899	153.886
ANNUAL OPERATING COST	39.520	43.202

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	919	6	719	200
CIVILIAN	2736	57	1048	1688
TOTAL	8655	63	1767	1888

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
3790038	1841.779	578.864	3036.167	4955.810	191.591	217.980

...MISSION

TO PROVIDE AND OPERATE A NATIONAL TEST RANGE TO INCLUDE THE DEVELOPMENT AND OPERATION OF THE HELSTF, THE TESTING AND EVALUATION OF ARMY MATERIEL, AND THE OPERATION AND MAINTENANCE OF THE INSTALLATION FOR RANGE TENANTS AND OTHER USERS.

...CURRENT IMPORTANT PROGRAMS

- PERSHING II (ARMY)
- AIR INTERCEPT MISSILE (AIR FORCE)
- ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AIR FORCE)
- PATRIOT (ARMY)
- HIGH ENERGY LASER SYSTEMS TEST FACILITY (HELSTF) (DOD)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMR, AN ALL-OVERLAND RANGE TESTING COMPLEX, PROVIDES PRECISION TRAJECTORY DATA FROM OPTICAL, ELECTRONIC, ELECTRO-OPTICAL, & RADAR TRACKING STATION REDUCTIONS; TRAJECTORY EVENT DATA FROM LONG FOCAL-LENGTH TRACKING OPTICS & FIXED CAMERAS; AND MISS-DISTANCE DATA FROM TELESCOPES & THE MISS-DISTANCE INDICATOR RADAR FOR MISSILE SYSTEM/SUBSYSTEM TESTING. WSMR ALSO PROVIDES SECURE TELEMETRY, EXPERIMENTAL PAYLOADS & MISSILE COMPONENTS RECOVERY, DOCUMENTARY PHOTOGRAPHY & FILM PRODUCTION, AIR & GROUND TARGET CONTROL, AND GEODETIC SURVEYING OF IMPACT POINTS. OTHER EQUIPMENT & FACILITIES ARE USED TO TEST GUIDANCE, ELECTRO-OPTICAL, & MICRO-WAVE SYSTEMS; DYNAMIC & CLIMATIC ENVIRONMENTS, CHEMICAL, METALLURGICAL, MICROBIOLOGICAL, NUCLEAR, & ELECTROMAGNETIC EFFECTS; AND HAZARDOUS WARHEADS & EXPLOSIVES. WSMR CAN SIMULATE MISSILE SYSTEMS/SUBSYSTEMS.

CDR. COL. H. B. LOVE JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	48.561	55.328
TOTAL PROCUREMENT	1.948	2.941
TOTAL O&M	0.501	0.427
TOTAL OTHER	8.944	6.849
TOTAL ANNUAL LAB	54.949	65.545
TOTAL INHOUSE	52.299	65.545
TOTAL INHOUSE RDT&E	48.561	55.828
ANNUAL OPERATING COST	18.432	16.265

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	888	0	48	385
CIVILIAN	585	0	68	522
TOTAL	968	0	111	857

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
888063	0.832	114.288	1897.891	1518.011	65.809	90.977

...MISSION

PLAN, CONDUCT, SPT DT AIR DEL EQ, L-RNGE TUBE ARTY, ACFT WPNS SYS, MOB EQUIP. PLAN, CONDUCT, RPT DESERT TEST. PROVIDE TEST, EVAL ADVICE, GUIDANCE TO PROSPECTIVE FACILITY USERS. DEVELOP, MAINTAIN MASTER PLAN FOR INSTALLATION, FACILITIES, METHODOLOGY AND INSTRUMENTATION

...CURRENT IMPORTANT PROGRAMS

ADVANCED ATTACK HELICOPTER
 XM1 TANK
 GLOBAL POSITIONING SYSTEM
 HIGH ALTITUDE AIRDROP RESUPPLY SYSTEM
 XM785 155-MM PROJECTILE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INSTRUMENTED 60 KM ARTILLERY RANGE
 VEHICLE TEST COURSES AND MOBILE DYNAMOMETERS
 INSTRUMENTED 20X80 KM AIRCRAFT ARMAMENT RANGE
 INSTRUMENTED AIR DELIVERY DROP ZONES
 AIRSPACE WITH LASER, POSITION LOCATING SYSTEM, & CINETHEODOLITE TRACKING
 STATIONARY, MOVING AND SIMULATED TARGETS ARRAY
 INSTRUMENTED PROJECTILE IMPACT AREAS WITH AUTOMATED SCORING
 PHYSICAL AND CHEMICAL TEST FACILITIES
 ENVIRONMENTAL SIMULATION TEST FACILITIES
 SCIENTIFIC COMPUTER CENTER WITH REAL-TIME TEST CONTROL AND DATA DISPLAY
 VEHICLE, WEAPONS AND AIRCRAFT MAINTENANCE AND EVALUATION FACILITIES
 INSTRUMENTATION CALIBRATION FACILITY

C.O. CAPT. W. M. HOUK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	3.321	8.438
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.232	0.000
TOTAL OTHER	0.806	0.698
TOTAL ANNUAL LAB	4.359	4.181
TOTAL INHOUSE	8.928	8.628
TOTAL INHOUSE RDT&E	2.920	2.952
ANNUAL OPERATING COST	0.990	1.184

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL (END OF FY 1981)		NON-PROF
		TOTAL PHDS	TOTAL PROF	
MILITARY	42	8	27	15
CIVILIAN	58	10	25	38
TOTAL	100	18	52	48

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	110.323	6.164	14.672	131.159	8.180	3.074

...MISSION

CONDUCT RESEARCH, DEVELOPMENT, TEST AND EVALUATION IN AVIATION MEDICINE AND ALLIED SCIENCES RELATED TO THE SAFETY AND PERFORMANCE OF NAVY AND MARINE CORPS PERSONNEL.

...CURRENT IMPORTANT PROGRAMS

AVIATION MEDICAL PERFORMANCE BASE STANDARDS.
 PHYSIOLOGICAL AND BEHAVIORAL EFFECTS NONIONIZING RADIATION.
 HUMAN FACTORS DESIGN CRITERIA DEVELOPMENT.
 DEVELOPMENT IN PERFORMANCE ENHANCEMENT IN NAVAL MOTION ENVIRONMENTS.
 AVIATION VISUAL PERFORMANCE REQUIREMENTS AND CAPABILITIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MICROWAVE AND EXTREMELY LOW FREQUENCY NONIONIZING RADIATION FACILITY.
 SLOW ROTATION ROOM. CORIOLIS ACCELERATION PLATFORM. HUMAN DISORIENTATION DEVICE. STILL-WERNER CHAIR. OFF VERTICAL ROTATING CHAIR. ANACHOIC AND REVERBERANT CHAMBERS. AUTOMATED PULMONARY FUNCTION. TREADMILL. VECTOR AND ECHOCARDIOGRAPHY. THERMOGRAPHIC IMAGING SYSTEM. 30 BINOCULAR EYE-TRACKER AND VISUAL STIMULATOR ELECTRON MICROSCOPE. VIVARIUM WITH OPERATING SUITE. EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS. COMPLEX TASKS HUMAN PERFORMANCE MEASUREMENT SYSTEMS.

INSTALLATION: AIR DEVELOPMENT CENTER

JOHNSVILLE, PA.

C.O. CAPT. J. B. ANDERSON

TECH. DIR. MR. R. S. BUFFUM

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	159.656	184.125
TOTAL PROCUREMENT	44.902	30.608
TOTAL O&M	29.841	30.994
TOTAL OTHER	29.526	24.265
TOTAL ANNUAL LAB	268.725	269.992
TOTAL INHCUSE	146.688	159.978
TOTAL INHOUSE RDT&E	99.764	115.707
ANNUAL OPERATING COST	84.776	41.502

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	268	5	200	63
CIVILIAN	2047	83	1182	915
TOTAL	2310	88	1382	978

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
840	852.000	88.000	654.000	1589.000	87.600	71.200

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR NAVAL AIRCRAFT SYSTEMS
LESS AIRCRAFT LAUNCHED WEAPON SYSTEMS

...CURRENT IMPORTANT PROGRAMS

CARRIER ANTI-SUBMARINE WARFARE MODULE
S-8A, F-14, F-18, VP PROGRAM
LIGHT AIRBORNE MULTI-PURPOSE SYSTEMS
NAVSTAR GPS
J-TIDS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AIRCRAFT SYSTEMS SIMULATION, AIRBORNE SEARCH & RESCUE, INERTIAL
NAVIGATION TECHNOLOGY, AIR VEHICLE TECHNOLOGY STRUCTURES, MATERIALS,
FLIGHT DYNAMICS, PERFORMANCE, FLIGHT CONTROL, AIRBORNE ASW SYSTEMS.
DEVELOP & INTEGRATION OF AIRBORNE SYSTEMS INCLUDING ELECTRONIC
SURVEILLANCE & COUNTERMEASURES, COMMUNICATIONS, NAVIGATION INFORMATION
PROCESSING & DISPLAY, ENVIRONMENTAL SENSING, ELECTROMAGNETIC/MAGNETIC,
ACOUSTIC, ELECTRO-OPTIC, & PHOTOGRAPHIC, A/C SUPPORT SYSTEMS, A/C COST
METHODOLOGY AND LOGISTICS, AEROSPACE MEDICINE AND AVIATION PHYSIOLOGY
AND SUPPORT TO OTHER ACTIVITIES AS DIRECTED.

C.O. CAPT. E. J. STRUM

TECH. CONSULTANT MR. B. T. MCWILLIAMS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	32.615	48.894
TOTAL PROCUREMENT	0.296	1.543
TOTAL O&M	1.938	1.510
TOTAL OTHER	1.116	0.808
TOTAL ANNUAL LAB	85.965	52.755
TOTAL INHOUSE	24.033	30.062
TOTAL INHOUSE RDT&E	22.445	27.869
ANNUAL OPERATING COST	8.595	8.904

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED		TOTAL		NON-PROF
	STRENGTH		PHDS	PROF	
MILITARY	8		1	8	0
CIVILIAN	588		0	158	480
TOTAL	596		1	166	480

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68	492.618	14.706	128.710	636.034	50.966	10.737

...MISSION

PROVIDE NAVAIR & FLEET COMPLETE TECHNICAL & ENGINEERING SUPPORT FOR AIR-BREATHING PROPULSION SYSTEMS, ACCESSORIES, COMPONENTS AND FUELS & LUBES. MANAGE AND PERFORM APPLIED R&D ON NEW PROPULSION SYSTEMS; EVALUATE NEW SYSTEMS. BY T&E ASSURE MISSION ACCOMPLISHMENT AND SOLVE FLEET PROBLEMS.

...CURRENT IMPORTANT PROGRAMS

CRUISE MISSILE ENGINE (F107) QUALIFICATION OF ENGINE IMPROVEMENTS
 F104-GE-400 FULL AUTHORITY DIGITAL ELECTRONIC CONTROL EVALUATION
 F402-RR-402 AMBIENT TEMPERATURE EFFECTS ON ACCELERATION TIME
 PETROLEUM & SYNTHETIC AIRCRAFT ENGINE FUEL DEVELOPMENT, TEST & EVAL
 CORROSION-INHIBITED MIL-L-23699 LUBRICATING OIL PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LARGE ALTITUDE CELLS, TWO LARGE SEA LEVEL CELLS AND FOUR SMALL ALTITUDE CELLS PROVIDE ENVIRONMENTAL AND FLIGHT SIMULATION CAPABILITY OF SEA LEVEL TO 100000 FEET; MINUS 65 TO PLUS 650 DEGREES F; FLIGHT SPEEDS FROM ZERO TO MACH 8 TO TEST TURBOJET/FAN AND TURBOPROP/SHAFT ENGINES. FIVE TEST ROOMS TO TEST STARTERS, ACCESSORIES AND AUXILIARY POWER UNITS. TEN TEST ROOMS AND CHEMISTRY LAB USED FOR R&D ON FUELS, LUBES AND BEARINGS. SPECIAL TEST FACILITIES ARE ROTOR SPIN FACILITY, HELICOPTER TRANSMISSION TEST FACILITY, GYRO RIG AND ENGINE TURNTABLE. FACILITIES ARE USED FOR R&D ON ADVANCED FUELS AND LUBRICATING OILS, OIL-WETTED ENGINE COMPONENTS, AIR POLLUTION, LOW CYCLE FATIGUE, CONTAINMENT, NOISE AND I/R PROGRAMS. NAPC QUALS OILS, MANAGES NAVY EXPLORATORY AND ADV DEVEL PRGMS, PROVIDES ADMN & TECH DIR TO SELECTED NAVAIR CONTRACTS.

C.O. RADM J. G. WISSLER

TECH. DIR. MR. J. F. LYNCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	108.882	128.147
TOTAL PROCUREMENT	16.170	17.862
TOTAL O&M	24.679	26.705
TOTAL OTHER	40.888	39.763
TOTAL ANNUAL LAB	190.564	211.977
TOTAL INHOUSE	145.871	149.998
TOTAL INHOUSE RDT&E	80.667	85.804
ANNUAL OPERATING COST	67.279	82.208

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED		TOTAL		NON-PROF
	STRENGTH		PHDS	PROF	
MILITARY	1493		1	225	1268
CIVILIAN	2004		5	416	1588
TOTAL	3497		6	641	2856

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6898	962.545	858.167	8488.111	4808.823	142.667	55.690

...MISSION

PRINCIPAL SITE FOR FULL SCALE DEVELOPMENT TEST AND EVALUATION AND SERVICE SUITABILITY TRIALS OF ALL NAVY AND MARINE AIRCRAFT PLUS GROUND SUPPORT EQUIPMENT AND TRAINING SIMULATORS. TRAINING OF NAVY TEST PILOTS AND DEVELOPMENT OF AIRCRAFT TESTING TECHNOLOGY AND FACILITIES.

...CURRENT IMPORTANT PROGRAMS

F-18 AND LAMPS FULL SCALE DEVELOPMENT AND SERVICE SUITABILITY TESTING. CONDUCT OF TECHEVALS AND BIS TRIALS FOR UPDATE/IMPROVEMENTS FOR F-14, A-4, A-6, A-7, EA-6, AV-8P-3, S-8, E-2, EC-130, AH-1, UH-1, CH-53, SH-2 AND SH-3. CONDUCT OF T&E ON AUTOMATIC TEST EQUIPMENT, COMPUTERS AND SOFTWARE, HUMAN FACTORS, RELIABILITY AND MAINTAINABILITY, AND SIMULATORS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE LARGE, RESTRICTED, INSTRUMENTED AIRSPACE, REAL-TIME RANGE AND AIRCRAFT DATA PROCESSING; SIMULATION LABORATORIES FOR AIRBORNE WEAPONS SYSTEMS AND SOFTWARE; ENVIRONMENTAL SIMULATORS FOR UNDERWATER ACOUSTICS, ELECTRONIC WARFARE, AND ELECTROMAGNETIC VULNERABILITY TESTING AIRCRAFT GUN FIRING TUNNEL, AIRCRAFT ELECTRICAL SYSTEMS TEST FACILITY; CONTROLLED ENVIRONMENT AIRCRAFT ENGINE TEST FACILITY; AIRCRAFT CARRIER CATAPULT AND ARRESTMENT GEAR INSTALLATION; COMMUNICATIONS SYSTEMS TEST RANGE; REMOTE CONTROLLED SEABORNE AND AIRBORNE TARGETS; HUMAN FACTORS AND BIOMEDICAL LABORATORIES; ELECTROMAGNETIC SHIELDED HANGAR; PRECISION CONTROLLED ELECTRO-OPTICAL TARGET AND TEST RANGE; EXTENSIVE AIRCRAFT AND GROUND BASED INSTRUMENTATION DEVELOPMENT LABORATORIES.

INSTALLATION: ARCTIC RESEARCH LABORATORY

BARROW, AK.

C.O. CDR. MARIA KAZANCWSKA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	8.862	0.000
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.108	0.000
TOTAL OTHER	2.475	0.000
TOTAL ANNUAL LAB	6.448	0.000
TOTAL INHOUSE	0.000	0.000
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	8.862	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	0	0	2	2
CIVILIAN	0	0	0	0
TOTAL	0	0	2	2

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
300	47.810	15.987	368.049	481.846	18.158	0.880

... MISSION

PROVIDE OPERATIONS AND MAINTENANCE SERVICES TO ACCOMPLISH TRANSITION OF FACILITY OPERATIONAL STATUS TO CARETAKER LEVEL IN PREPARATION FOR CLOSURE.

... CURRENT IMPORTANT PROGRAMS

PROVIDE OPERATIONS AND MAINTENANCE SERVICES TO OPERATE THE FACILITY AND REDUCE OPERATING LEVEL.
NO RESEARCH PROGRAMS CONDUCTED.

... FUNCTIONS/EQUIPMENT/CAPABILITIES

THE FACILITY CONSISTS OF 110 SEMI-PERMANENT BUILDINGS (APPROX 50 BLDGS TO BE USED IN FY 82) INCLUDING A LABORATORY-ADMINISTRATION-BILLETING BLDG WHICH HAS 48 LABORATORY SPACES, SLEEPING QUARTERS FOR 100 PEOPLE, ADMIN OFFICES, AND GAME ROOM. THE LAB PROVIDES FACILITIES MAINTENANCE, UTILITY GENERATION AND DISTRIBUTION, MOTOR VEHICLE OPERATION AND MAINTENANCE, JANITORIAL SERVICE, COMMUNICATIONS, FOOD SERVICES, AND PROVISION OF SPECIAL SERVICES, INCLUDING RECREATION AND RESALE ACTIVITIES. THE LAB CAPABILITY INCLUDES LIMITED SUPPORT OF MILITARY OPERATIONS IN THE ARCTIC INCLUDING SEARCH AND RESCUE. THIS FACILITY WAS DISCONTINUED IN FY 1981.

INSTALLATION: ATLANTIC FLEET WEAPONS TRAINING FACILITY ROOSEVELT ROADS, P.R.

C.O. CAPT. L. J. DRUDE

TECH. DIR. MR. TOMAS RAMIREZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	0.094	0.095
TOTAL PROCUREMENT	8.665	10.268
TOTAL O&M	15.672	16.821
TOTAL OTHER	4.172	2.974
TOTAL ANNUAL LAB	28.608	29.653
TOTAL INHOUSE	4.820	5.072
TOTAL INHOUSE RDT&E	0.008	0.008
ANNUAL OPERATING COST	1.169	1.049

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	100	0	82	68
CIVILIAN	84	0	24	10
TOTAL	184	0	56	78

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3696	0.000	14.957	182.152	197.109	12.600	109.000

...MISSION

TO OPERATE, MAINTAIN AND DEVELOP WEAPONS TRAINING FACILITIES AND SERVICES IN DIRECT SUPPORT OF THE TRAINING OF FLEET FORCES AND OTHER ACTIVITIES AND FOR THE DEVELOPMENT, TEST AND EVALUATION OF WEAPONS SYSTEMS

...CURRENT IMPORTANT PROGRAMS

CNO PROJECT 189-OT-IIB LAMPS MK-3 OPEVAL.
CNO PROJECT 679 UHF SATCOM BUOY TEST
CNO PROJECT 186 MK-86 FCS GP
HMS BOARDSDWORD G.W.S. -25-SEA WOLF-OT
AN/ALQ-78 ESM SYSTEM TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NAVY'S LARGEST TRAINING FAC FOR ATLANTIC FORCES WITH 202,000 SQ.MI. COMBINED SEA AREA FOR AIR, SURFACE AND SUBSURFACE WARFARE OPERATIONS. CENTRAL COMMAND AND CONTROL SYSTEM WITH NTDS LINKING, REALISTIC EW ENVIRONMENT, SURVEILLANCE/TRACK RADARS, AIR/SURFACE TARGETS PRESENTATION, LARGE SCREEN DISPLAY SYSTEM FOR OPS MONITOR/CONTROL, EVENT RECONSTRUCTION, AND VARIOUS OTHER INSTRUMENTATION SYS. FLTAC FIELD STATION FOR MISSILE ANALYSIS AND EVALUATION. AIR TO GRND AND SURFACE TO SURFACE WEAPONS TARGET FACILITIES FOR CONVENTIONAL AIRCRAFT ORDNANCE DELIVERY, STRAFING AND NAVAL GUNFIRE WITH RADAR, TV BOMB SCORING SYSTEM AND OTHER SCORING/SPOTTING SYSTEMS. UNDERWATER RANGE FOR PRECISION SURFACE AND SUBSURFACE TRACKING, WSATS AND FORACS. NAVSTA PROVIDES FOR AIRCRAFT/SHIPS LOGISTICS SUPPORT, BOQ AND BEQ.

C.O. CAPT. J. E. WENGER

SCI. DIR. DR. C. L. EWING

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	3.052	4.021
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.005	0.000
TOTAL OTHER	0.596	0.672
TOTAL ANNUAL LAB	3.653	4.693
TOTAL INHOUSE	3.265	4.208
TOTAL INHOUSE RDT&E	2.714	3.555
ANNUAL OPERATING COST	0.400	0.578

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	36	8	11	25
CIVILIAN	50	7	25	25
TOTAL	86	15	36	50

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	82.014	21.578	0.000	58.592	0.400	25.000

...MISSION

TO CONDUCT BIOMEDICAL RESEARCH ON THE EFFECTS OF MECHANICAL FORCES ENCOUNTERED IN SHIPS & AIRCRAFT ON NAVAL PERSONNEL; TO ESTABLISH HUMAN TOLERANCE LIMITS FOR THESE FORCES; & TO DEVELOP PREVENTIVE & THERAPEUTIC METHODS TO PROTECT PERSONNEL FROM SUCH FORCES.

...CURRENT IMPORTANT PROGRAMS

LONG-TERM EFFECTS OF BIODYNAMIC STRESS EXPERIMENTS.
 PHYSIOLOGICAL AND PERFORMANCE EFFECTS OF SHIP MOTION ON CREW MEMBERS.
 DETERMINATION OF HUMAN DYNAMIC RESPONSE TO IMPACT ACCELERATION.
 EFFECTS OF IMPACT ACCELERATION ON HUMAN NEUROPHYSIOLOGY.
 DEVELOPMENT OF AND VALIDATION OF HUMAN ANTHROPOMORPHIC MANIKINS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IMPACT FACILITY 1 MEGA N THRUST ACCELERATOR. 213 M ENVIRONMENTALLY ENCLOSED TRACK. 17.8 K N THRUST VERTICAL ACCELERATOR. X-RAY CINEMATOGRAPHY ELECTRODYNAMIC MOTION EXCITORS. C210 SHAKER. SHIP MOTION GENERATOR. 22 CHANNEL INERTIA DATA ACQUISITION SYSTEM AND HIGH SPEED CAMERAS EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS.

INSTALLATION: BIOSCIENCES LABORATORY

OAKLAND, CA.

C.O. CDR. J. E. SIPPEL

SCI. DIR. DR. D. KINGSBURY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.689	2.866
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.246	0.220
TOTAL ANNUAL LAB	8.885	3.086
TOTAL INHOUSE	8.885	3.086
TOTAL INHOUSE RDT&E	8.689	2.866
ANNUAL OPERATING COST	0.670	0.783

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	9	8	4	5
CIVILIAN	6	0	0	6
TOTAL	15	8	4	11

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	77.625	8.731	84.646	121.002	1.000	5.409

...MISSION

THE MISSION OF THE BIOSCIENCES LABORATORY IS TO CONDUCT RESEARCH AND DEVELOPMENT IN THE BIOSCIENCES RELATED TO THE NEEDS OF THE NAVAL ESTABLISHMENT

...CURRENT IMPORTANT PROGRAMS

IMMUNE MECHANISMS OF INFECTIOUS DISEASES
BLOOD GROUP DEGRADING ENZYMES
RECOMBINANT DNA TECHNOLOGY
TOXIC EFFECTS OF ORGANOMETAL COMPOUNDS IN THE MARINE ENVIRONMENT
TOXIC PROPERTIES ON NAVY RELEVANT CHEMICALS AND WASTES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT INCLUDES CLASS III CONTAINMENT FACILITIES FOR HANDLING PATHOGENIC VIRUS AND BACTERIA, CONTINUOUS FLOW LIQUID WASTE DECONTAMINATION UNIT, PROCESS AIR DECONTAMINATION SYSTEM, ELECTRON SPIN RESONANCE AND NUCLEAR MAGNETIC RESONANCE SPECTROMETERS, SPECTROPHOTOMETER, SPECTROFLUOROMETER AND BOTH SCANNING AND TRANSMISSION ELECTRON MICROSCOPES. THE EQUIPMENT IS CONTINUOUSLY BEING MODIFIED AND EXPANDED ACCORDING TO CURRENT PROJECTS. NBL IS A CONTRACT BASIC RESEARCH LAB WITH THE UCB & MOST SCIENTIFIC & TEC PERSONNEL UCB EMPLOYEES.

C.O. CAPT. JAMES. H. OSBORN

TECH. DIR. DR. DONALD BIRKIMER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	24.988	81.650
TOTAL PROCUREMENT	0.818	0.900
TOTAL O&M	2.752	8.020
TOTAL OTHER	1.290	8.840
TOTAL ANNUAL LAB	29.848	88.810
TOTAL INHOUSE	17.122	15.560
TOTAL INHOUSE RDT&E	18.979	12.040
ANNUAL OPERATING COST	4.421	8.720

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	16	0	8	8
CIVILIAN	820	29	182	188
TOTAL	386	29	190	146

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
80	81.840	71.748	44.158	197.746	7.598	3.429

...MISSION

MISSION OF LABORATORY IS TO BE THE PRINCIPAL RDT AND E CENTER FOR NAVY SHORE FACILITIES, FIXED SURFACE AND SUBSURFACE OCEAN FACILITIES AND FOR THE NAVY AND MARINE CORPS CONSTRUCTION FORCES.

...CURRENT IMPORTANT PROGRAMS

NAVY SHORE FACILITIES SUPPORT. NAVY SEAFLOOR INSTALLATIONS, AMPHIBIOUS AND ADVANCED BASE TECHNOLOGY. ENVIRONMENTAL PROTECTION. ORGANIC MATERIALS. ENERGY TECHNOLOGY. DEEP OCEAN TECHNOLOGY. OFFSHORE BULK FUEL TRANSFER. INDEPENDENT EXPLORATORY DEVELOPMENT. INDEPENDENT RESEARCH. CONTAINER OFF-LOADING TRANSFER SYSTEM (COTS). MARINE CORPS. ARMY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESSURE VESSEL FACILITY WITH 9, 18, 34, 72, INCH VESSELS SIMULATION PRESSURES TO OCEAN DEPTHS OF 20,000 FEET. DIVING LOCKER AND EQUIPMENT FOR 10 DIVERS. SEA FLOOR SOILS LAB. ENERGY TEST BED. CLASS G PHOTO LAB. PHYSICAL SECURITY LABS. CHEMISTRY LAB. INSTRUMENTATION LAB. WARPING TUG ELECTROMAGNETIC FACILITY. CORROSION AND METALURGICAL LABS. ENVIRONMENTAL RESEARCH LAB. CDC 8090 TERMINAL WITH HIGH SPEED READER AND LINE PRINTER. DIGITAL MAG TAPE. PEN PLOTTER. CURRENT SESOR LAB. ENERGY MONITORING CAPABILITY. PROTOTYPE MACHINE, WELDING, CARPENTER, AND RIGGING SHOPS. SHALLOW OCEAN SIMULATION FACILITY. MATERIAL TESTING LAB. SYSTEMS LAB. CONCRETE MIXING LAB.

C.O. CDR. JOHN B. SEWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.782	1.890
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.986	1.814
TOTAL OTHER	0.222	0.169
TOTAL ANNUAL LAB	2.990	8.878
TOTAL INHOUSE	2.990	8.226
TOTAL INHOUSE RDT&E	1.782	1.748
ANNUAL OPERATING COST	0.077	0.065

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED		TOTAL		NON-PROF
	STRENGTH	PHDS	PROF		
MILITARY	1	0	1	0	
CIVILIAN	55	1	84	21	
TOTAL	56	1	85	21	

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	10.000	9.000	8.000	22.000	0.460	0.497

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST & EVALUATION & PROVIDE ENGINEERING SUPPORT IN CLOTHING TEXTILES & RELATED FIELDS ASSOCIATED WITH SERVICE CLOTHING & ENVIRONMENTAL PROTECTIVE CLOTHING

...CURRENT IMPORTANT PROGRAMS

BATTLE DRESS CLOTHING
 WOMEN'S SEA ENVIRONMENTAL PROTECTIVE CLOTHING
 MATERIALS FOR FUTURE SPECIAL PROTECTIVE CLOTHING
 IMPROVED FIREFIGHTERS' CLOTHING
 OCCUPATIONAL & SAFETY FOOTWEAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYDRO-ENVIRONMENT TEMPERATURE LAB, AIR CHAMBER-MARINE TANK REPRODUCES AIR-SEA TEMP CONDITIONS FOR WATER IMMERSION PHYSIOLOGY & BUOYANCY TESTS. ENVIRONMENTAL TEST CHAMBER FOR EVALUATING PROTECTIVE CLOTHING UNDER WORK STRESS & EXTREME TEMPERATURES.
 INSTRUMENTED THERMAL MANIKIN FOR DETERMINING THERMAL INSULATION OF CLOTHING IN WET & DRY ENVIRONMENTS.
 THERMAL FLAMMABILITY APPARATUS FOR CONDUCTING FLAME RETARDANCY. FLAMMABILITY & HEAT RESISTANCE MATERIAL TESTING.
 CHEMICAL & PHYSICAL TESTING EQUIPMENT FOR CONDUCTING RDT&E ON FABRICS, YARNS, FIBERS, LEATHER, PLASTICS, RUBBER, DYES, & FINISHES.
 SEWING MACHINES & PATTERN DRAFTING FOR DEVELOPING GARMENTS.

C.O. CAPT. R. D. BENNETT

TECH. DIR. MR. G. C. DILWORTH JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	86.114	41.148
TOTAL PROCUREMENT	4.861	5.925
TOTAL O&M	14.089	10.821
TOTAL OTHER	8.093	8.869
TOTAL ANNUAL LAB	57.607	61.768
TOTAL INHOUSE	82.285	85.982
TOTAL INHOUSE RDT&E	20.028	28.855
ANNUAL OPERATING COST	18.653	18.579

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	105	0	18	92
CIVILIAN	618	25	287	881
TOTAL	723	25	800	428

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
685	842.248	44.891	864.688	751.827	48.905	20.458

...MISSION

TO BE THE PRINCIPAL NAVY ACTIVITY FOR CONDUCTING RDT&E IN SUPPORT OF NAVAL MISSIONS AND OPERATIONS THAT TAKE PLACE PRIMARILY IN THE COASTAL REGIONS.

...CURRENT IMPORTANT PROGRAMS

MINE COUNTERMEASURES
 TORPEDO AND SONAR COUNTERMEASURES
 DIVING, SALVAGE, AND SPECIAL WARFARE
 COASTAL WARFARE
 COASTAL TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE- OCEAN SIMULATION FAC TO 2250' DEPTH. HYDROSPACE LAB. SWIMMER/DIVER R&D FAC. GAS ANALYSIS LAB. SONAR TEST BED. MAGNETIC TARGET DETECTION & CLASSIFICATION RANGE. MAGNETIC LAB. OPTICAL POSITIONING SYS. TWO UNMANNED OFFSHORE SENSOR/INSTRUMENTATION PLATFORMS. CALIBRATION AND STANDARDS FAC. MECHANICAL CALIBRATION LAB. CABLE TEST FAC. ACOUSTIC TEST FAC. TRANSDUCER LAB. PRECISION ACOUSTIC TANK. ACOUSTIC ANAL FAC. SYSTEMS DEVELOPMENT AND TEST FAC. ELECTRONIC TRACKING RANGE, PORTABLE TRACKING & POST RUN ANALYSIS SYS. COUNTERMEASURE EVALUATOR IN REAL-TIME SIMULATION BURROUGHS 6810 DIGITAL COMPUTER AND ASSOCIATED DATA COMMUNICATIONS SYS. ENVIRONMENTAL MONITORING FAC. SONAR PROCESSING FAC WITH DATA COLLECTION SYS. PIER SPACE & BOATS TO INCLUDE RESEARCH VESSELS ATHENA I&II, MSO-448 USS FIDELITY. INDUSTRIAL SHOPS. HELIPORT COMPLEX WITH 2 RH53D & 1 UHIE.

INSTALLATION: DAVID W. TAYLOR SHIP R&D CENTER

BETHESDA, MD.

C.O. CAPT. D. F. TIBBITTS

TECH. DIR. DR. A. POWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	157.509	168.882
TOTAL PROCUREMENT	18.819	5.952
TOTAL O&M	21.401	21.182
TOTAL OTHER	6.245	2.079
TOTAL ANNUAL LAB	198.474	198.095
TOTAL INHOUSE	135.788	181.672
TOTAL INHOUSE RDT&E	112.587	109.401
ANNUAL OPERATING COST	32.905	41.635

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	75	1	52	28
CIVILIAN	2408	118	1188	1275
TOTAL	2483	119	1185	1298

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
825	1711.149	111.178	268.041	2090.868	78.472	78.089

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST, AND EVALUATION (RDT&E) CENTER FOR NAVAL VEHICLES AND LOGISTICS AND TO PROVIDE RDT&E SUPPORT TO THE U.S. MARITIME ADMINISTRATION AND THE MARITIME INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

SURFACE/SUBSURFACE SHIP SILENCING (ACOUSTIC/NON-ACOUSTIC/MACHINERY), AERODYNAMICS (CIRCULATION CONTROL ROTORS AND WINGS), SHIP STRUCTURES, MATERIALS, SURVIVABILITY (HIGH-STRENGTH ALLOYS/STEELS, DESIGN/INTEGRITY) PROPULSION/AUXILIARY MACHINERY (SUPERCONDUCTING ELECTRIC PROPULSION, POWER/PIPING/MACHINERY SYSTEMS), HYDRODYNAMICS (MANEUVERING/SEAKEEPING).

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT/FACILITY CAPABILITIES: SHALLOW AND DEEP WATER TOWING BASINS, MANEUVERING AND SEAKEEPING BASIN, WIND TUNNELS, ANECHOIC FLOW FACILITY, WATER TUNNELS, STRUCTURAL EVALUATION FACILITY, UNDERWATER EXPLOSIONS LABORATORY BARGE, PRESSURE TANKS, SUBMARINE INTERNAL FLUID DYNAMICS FACILITY, METALLURGICAL CHARACTERIZATION AND EVALUATION FACILITY, WELDING DEVELOPMENT LABORATORY, ENVIRONMENTAL PROTECTION LABORATORY, PAINT DEVELOPMENT LABORATORY, MACHINERY DEVELOPMENT LABORATORY, FUELS LABORATORY, FABRICATION TECHNOLOGY LABORATORY, SHOCK AND VIBRATION FACILITY, ELECTRIC PROPULSION TEST CRAFT, DEEP OCEAN TECHNOLOGY HIGH-PRESSURE TEST FACILITY, TURBO-ELECTRIC PROPULSION LABORATORY, NOISE MEASUREMENT FACILITY

C.O. CAPT. D. W. TURNER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	1.188	0.872
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.631	0.740
TOTAL ANNUAL LAB	1.764	1.612
TOTAL INHOUSE	1.624	1.612
TOTAL INHOUSE RDT&E	0.998	0.872
ANNUAL OPERATING COST	0.845	0.895

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	11	16	13
CIVILIAN	15	4	6	9
TOTAL	44	15	22	22

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	30.650	4.815	8.090	43.555	0.000	0.849

...MISSION

TO CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN DENTAL AND ALLIED SCIENCES WITH PARTICULAR EMPHASIS ON PROBLEMS OF DENTAL AND ORAL HEALTH IN NAVY AND MARINE CORPS POPULATIONS AND ON PROBLEMS OF FLEET AND FIELD DENTISTRY.

...CURRENT IMPORTANT PROGRAMS

PROCEDURES FOR TREATMENT OF DENTAL PULP DISEASE
 WOUND HEALING OF SUPPORTING TISSUES
 DENTAL EQUIPMENT DEVELOPMENT AND EVALUATION OF FLEET HEALTH CARE
 MONITORING ORAL HEALTH OF NAVAL PERSONNEL
 EFFECT OF FLUORIDE RINSE ON DENTAL PLAQUE FLUORIDE LEVELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMINO ACID ANALYZER/ATOMIC ASORPTION UNIT/FLUORIDE ELECTRODES/ LIQUID SCINTILATION COUNTER/MINI COMPUTER/GAS CHROMATOGRAPH UNIT/ FOUR DENTAL UNITS/FIVE DENTAL CHAIRS/TRANSMISSION ELECTRON MICROSCOPE/CRYO MICROTOME DIAZO PROCESSOR/SPECTROPHOTOMETERS/ORAL SURGERY CHAIR/THERMAL BALANCE/VIVARIUM/ANIMAL SURGERY ROOM/XRAY EQUIPMENT/RPM INSTRUMENTS/SOUND METERS/SHAKERS/INCUBATERS/CENTRIFUGES/BALANCES/FRACTIONATORS/RECORDERS/FIELD DENTAL TREATMENT EQUIPMENT/PROTOTYPE SHOP/MARINE CORPS PROTOTYPE EXPEDITIONARY DENTAL TREATMENT SHELTER/ PHOTO LAB/ DENTAL EQUIPMENT REPAIR SHOP/

INSTALLATION: ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CA.

C.O. CAPT. W. G. SCHRAMM

DIR. OF RSCH. DR. A. WEINSTEIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	4.584	4.798
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.840	0.402
TOTAL ANNUAL LAB	4.824	5.200
TOTAL INHOUSE	2.015	2.500
TOTAL INHOUSE RDT&E	1.675	2.098
ANNUAL OPERATING CGST	0.718	0.750

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	14	1	5	9
CIVILIAN	30	7	30	0
TOTAL	44	8	35	9

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	1.862	4.858	10.594	16.814	0.000	0.000

...MISSION

CONDUCT RESEARCH AND DEVELOPMENT DIRECTED TOWARD PROVIDING OBJECTIVE LOCAL, REGIONAL AND GLOBAL ENVIRONMENTAL ANALYSIS AND PREDICTION TECHNIQUES. PROVIDE PLANNING MODELING AND EVALUATION SERVICES TO DETERMINE THE EFFECT OF ENVIRONMENTAL ELEMENTS ON NAVAL WEAPON SYSTEMS

...CURRENT IMPORTANT PROGRAMS

DEVELOP TECHNIQUES FOR PROCESS/DISPLAY OF ENVIRONMENTAL SATELLITE DATA
 DEVELOP COMPUTER MODELS TO ANALYZE/ASSIMILATE ATMOSPHERIC DATA
 DEVELOP TECHNIQUES TO PREDICT/DIAGNOSE ATMOS AFFECTS ON WEAPON SYSTEMS
 DEVELOP OBJECTIVE LOCAL/REGIONAL ATMOS ANALYSIS/PREDICTION TECHNIQUES
 DEVELOP SYNOPTIC, SUBSYNOPTIC AND MESOSCALE ATMOS PREDICTION MODELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATA-CRAFT/5 COMPUTER
 THREE NOVA 2 1 ECLIPSE 5/250, 1 HP9845A COMPUTER
 ACCESS TO CDC CYBER 175 AND CYBER 208 COMPUTERS
 ACCESS TO 8 CDC 6500 COMPUTERS
 CAPABILITY OF BUILDING, ANALYZING AND MODIFYING GLOBAL, REGIONAL AND LOCAL WEATHER MODELS
 CAPABILITY OF RECEIVING ENHANCING AND ANALYZING REMOTELY SENSED ATMOS DATA

C.O. CAPT. R. M. DUNBAR

TECH. DIR. MR. L. A. DICKISON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	7.457	6.455
TOTAL PROCUREMENT	1.864	2.424
TOTAL OSM	1.689	1.048
TOTAL OTHER	1.287	1.450
TOTAL ANNUAL LAB	12.247	11.872
TOTAL INHOUSE	6.794	6.418
TOTAL INHOUSE RDT&E	4.818	4.170
ANNUAL OPERATING COST	8.965	4.147

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	50	0	11	89
CIVILIAN	167	2	44	128
TOTAL	217	2	55	162

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1170	68.885	20.706	28.082	112.128	4.871	8.990

...MISSION

CONDUCT RESEARCH DEVELOPMENT, TEST AND EVALUATION CONCERNING BOTH THE DISPOSAL AND RENDERING-SAFE PROCEDURES FOR CONVENTIONAL AND SPECIAL WEAPONS, GUIDED MISSILES, UNDERWATER WEAPONS, EXPLOSIVES, B10 AND CHEM. MUNITIONS, BOTH U.S. AND FOREIGN, PLUS THE REQUIRED TOOLS AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF RENDER SAFE AND DISPOSAL TOOLS FOR CONVENTIONAL MUNITIONS
 DEVELOPMENT OF RENDER SAFE AND DISPOSAL PROCEDURES
 IMPROVISED NUCLEAR DEVICE COUNTERMEASURES
 TERRORIST DEVICE COUNTERMEASURES
 EXPLOSIVE RANGE CLEARANCE TECHNIQUES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP EXPLOSIVE ORDNANCE DISPOSAL -EOD- PROCEDURE, PREPARE AND PUBLISH EOD PUBLICATIONS FOR JOINT-SERVICE USE, CONDUCT EXP. AND ADV. DEVELOPMENT LEADING TO SPECIALIZED TOOLS AND EQUIP. NEEDED TO LOCATE, IDENTIFY, RECOVER, RENDER-SAFE AND DISPOSE OF ALL TYPES OF EXPLOSIVE ORDNANCE. PREPARE AND MAINTAIN DOCUMENTATION FOR EOD TOOLS AND EQUIP. CONDUCT FIRST ARTICLE INSPECTION ON EOD TOOLS BEING PROCURED FOR ALL SERVICES. CONDUCT IN-SEARCH ENGINEERING FUNCTIONS FOR EOD AND SWIMMER WEAPONS SYSTEM TOOLS. CONDUCT INITIAL EVALUATION OF FOREIGN EXPLOSIVE ORDNANCE. MAINTAIN STOCK AND ISSUE EOD PUBLICATIONS FOR JOINT-SERVICE USE. CAPABILITY OF TESTING EOD TOOLS TO DEPTH OF 400 FT IN A DIVING CHAMBER CAPABILITY OF ANALYZING HIGH SPEED EVENTS WITH FLASH XRAYS AND PHOTOS

C.O. CAPT. JESSE E. LANG

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	2.568	2.668
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.591	0.686
TOTAL ANNUAL LAB	8.159	8.854
TOTAL INHOUSE	8.159	8.854
TOTAL INHOUSE RDT&E	2.568	2.668
ANNUAL OPERATING COST	0.845	0.870

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	81	5	15	18
CIVILIAN	62	10	28	86
TOTAL	98	15	41	52

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	19.052	7.159	0.000	26.211	0.147	0.755

...MISSION

CONDUCT RSCH AND DEVELOPMENT ON MEDICAL AND PSYCHOLOGICAL ASPECTS OF HEALTH AND PERFORMING OF NAVAL SERVICE PERSONNEL AND TO PERFORM SUCH OTHER FUNCTIONS OR TASKS AS MAY BE DIRECTED BY CHIEF BUMED

...CURRENT IMPORTANT PROGRAMS

EFFECTS OF BENZODIAPINES ON SLEEP BEG AND PERFORMANCE
 DEVELOP INFORMATION SYSTEMS FOR MONITORING OCCUPATIONAL HEALTH & SAFETY
 EARLY DETECTION OF ENTERIC BACTERIAL INFECTIONS
 EVALUATION OF HEALTH RISKS FOR NAVY OCCUPATIONS
 PHYSICAL FITNESS/RQMTS & PERFORMANCE DURING SUSTAINED OPERATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ELECTROENCEPH MONITORING OF SLEEP PATTERNS
 CARDIOVASCULAR STRESS TESTING LAB
 MUSCLE STRENGTH TESTING LAB
 CARDIOIMMUNO - ASSAY CAPABILITY
 SERUM AUTO-ANALYSIS
 MICROBIOLOGY DIAGNOSTIC KITS
 COMPUTER STORAGE-TOTAL USN/USMC HEALTH DATA
 COMPLETE HEALTH DATA FOR ENLISTED WOMEN
 BLOOD GAS MONITORING DURING AWAKE/ASLEEP

C.O. CAPT. J. VOROSMARTI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	14.081	12.042
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.041	0.019
TOTAL OTHER	5.004	5.186
TOTAL ANNUAL LAB	19.128	17.197
TOTAL INHOUSE	17.112	16.782
TOTAL INHOUSE RDT&E	12.288	11.667
ANNUAL OPERATING COST	5.680	6.906

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL (END OF FY 1981)		NON-PROF
		TOTAL PHDS	TOTAL PROF	
MILITARY	251	47	59	192
CIVILIAN	189	85	68	121
TOTAL	440	82	127	818

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	164.297	10.545	44.608	219.850	6.179	11.649

...MISSION

CONDUCT BASIC & APPLIED RESEARCH & DEVELOPMENT CONCERNED WITH THE HEALTH SAFETY & EFFICIENCY OF NAVY PERSONNEL

...CURRENT IMPORTANT PROGRAMS

TISSUE TYPING ORGAN TRANSPLANTS & IMMUNOSUPPRESSION IN RESTORATIVE SURG
 BASIC & APPLIED MICROBIOLOGY & VACCINE DEV TO CONTROL MALARIA & SCHISTO
 BASIC MECHANISM OF BACTERIAL & TRAUMATIC SHOCK HEAT STRESS & TOXIC MAT
 PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF HYPERBARIC ENVIRONMENT
 TREATMENT OF ORAL DISEASE & TRAUMA ACCELERATION OF WOUND REPAIR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYPERBARIC RESEARCH FACILITY WITH MAN-RATED HYPERBARIC CHAMBERS
 HUMAN PHYSIOLOGICAL & HEAT STRESS EQUIPMENT & FACILITIES
 HUMAN TISSUE PRESERVATION & STORAGE EQUIPMENT & FACILITIES
 BIOHAZARDOUS MATERIALS HANDLING LAB EQUIPMENT & FACILITIES
 TOXICOLOGY EVALUATION EQUIP & FACILITIES INCLUDE HYPERBARIC CHAMBERS
 TRANSMISSION & SCANNING ELECTRON MICROSCOPES FLUORESCENT ANTIBODY CELL
 SORTER & COMPUTER
 EXPERIMENTAL ANIMAL FACILITIES ANIMAL HOUSE & OPERATING ROOMS
 LAB EQUIPMENT & FACILITIES FOR BASIC & APPLIED BIOCHEMICAL
 MICROBIOLOGICAL & PSYCHOLOGICAL STUDIES

C.O. CAPT. W. H. SCHROEDER

SCI DIR. DR. J. H. CROSS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.166	1.472
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.865	0.885
TOTAL ANNUAL LAB	1.581	1.857
TOTAL INHOUSE	1.581	1.857
TOTAL INHOUSE RDT&E	1.166	1.472
ANNUAL OPERATING COST	0.891	0.564

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	82	7	11	21
CIVILIAN	58	4	25	88
TOTAL	90	11	86	54

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	9.500	6.500	0.000	16.000	0.000	0.538

...MISSION

TO CONDUCT RESEARCH AND DEVELOPMENT ON INFECTIONS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC OR EPIDEMIC IN THE ASSIGNED GEOGRAPHIC AREAS TO PERFORM SUCH OTHER FUNCTIONS OR TASKS AS MAY BE DIRECTED BY CHIEF BUREAU OF MEDICINE AND SURGERY.

...CURRENT IMPORTANT PROGRAMS

CONDUCTS RESEARCH ON TROPICAL COMMUNICABLE DISEASES TO INCLUDE MALARIA, AMEBIASIS, PARASITIC DISEASES, ARTHROPOD VECTOR DISEASES AND DIARRHEA. EMPHASIS IS ON DIAGNOSIS, PREVENTION, AND TREATMENT OF TROPICAL INFECTIOUS DISEASES AND THEIR GEOGRAPHIC EPIDEMIOLOGY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AUTOCLAVES; LAMINAR FLOW BIOLOGICAL SAFETY CABINETS; AIR AND CO2 INCUBATORS; FLUORESCENT AND COMPOUND MICROSCOPES; DISECTING MICROSCOPES; ZEUSS PHOTOMICROSCOPE; SUPERSPEED- AND ULTRACENTRIFUGES; LIQUID SCINTILLATION COUNTER; COULTER COUNTER; ULTRAFLOW TEMPERATURE FREEZERS; SPECTROPHOTOMETERS; FRACTION COLLECTORS; ELISA READER ; IBM 1180 COMPUTER; INSECTORY; ANIMAL PRODUCTION FACILITIES; CELL CULTURE FACILITIES; FACILITIES IN INDONESIA INCLUDE 10000 SQUARE FEET FOR ALL SPACES.

C.O. CAPT. R. H. WATTEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	1.955	1.851
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.836	0.866
TOTAL ANNUAL LAB	2.791	2.717
TOTAL INHOUSE	2.791	2.717
TOTAL INHOUSE RDT&E	1.955	1.851
ANNUAL OPERATING COST	0.860	0.880

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	9	18	21
CIVILIAN	202	10	82	170
TOTAL	286	19	45	191

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	41.068	8.962	55.850	105.880	1.443	0.800

...MISSION

TO CONDUCT RESEARCH AND DEVELOPMENT OF INFECTIONS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC OR EPIDEMIC IN ITS ASSIGNED GEOGRAPHICAL AREA AND TO PERFORM SUCH OTHER FUNCTIONS AS MAY BE DIRECTED BY THE BUREAU OF MEDICINE AND SURGERY.

...CURRENT IMPORTANT PROGRAMS

MENINGITIS STUDY. PATHOLOGY OF SCHISTOSOMIASIS.
 ARTHROPOD VIRUS ISOLATIONS IN TICKS, MOSQUITOES AND SANDFLIES.
 IMMUNOLOGY OF SCHISTOSOMIASIS.
 VIRAL, CLINICAL, ENTOMOLOGICAL, ECOLOGICAL, AND EPIDEMIOLOGICAL ASPECTS OF RIFT VALLEY FEVER.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VERTICAL LAMINAR FLOW & GLOVE/BOX BIOLOGICAL SAFETY CABINETS; COMPOUND, FLUORESCENT, AND PHASE CONTRAST COMPOUND MICROSCOPES; STEREOMICROSCOPES; CLINICAL, SUPERSPEED REFRIGERATED- AND ULTRACENTRIFUGES; ULTRA TEMP FREEZERS; WALK IN REFRIGERATOR & FREEZER ROOMS; LIQUID SCINTILLATION & GAMMA COUNTERS, GAS-LIQUID & HIGH-PRESSURE LIQUID CHROMATOGRAPHS; UV/VISIBLE & FLUORESCENT SPECTROPHOTOMETERS WITH GEL SAMPLERS & RAPID SAMPLERS; ELISS READERS; ANAEROBE CHAMBERS; COULTER WBC & RBC/HB COUNTERS; CLIN. CHEM. AUTO-ANALYSERS; REFRIG. FRACTION COLLECTORS W/ ABSORBANCE MONITORS & PROGRAMMERS; HIGH VOLTAGE, POLYACRYLAMIDE GEL, FLAT BED, IMMO & COUNTERIMMUNO ELECTROPHORESIS SYSTEMS; DENTAL OPERATORY WITH CAVITVOR, BW & PANOREX DENTAL X-RAYS & LAB.; NUCLEAR MEDICINE LAB W/ MAGNA SCANNER; CELL CULTURE & HYBRIDOMA FACILITY; AUTOCLAVES; INSECTORY; EMERG. POWER GENERATOR; PATIENT WARDS.

C.O. CAPT. G. T. PHELPS

TECH. DIR. DR. R. R. GOODMAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	85.211	40.291
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.898	0.488
TOTAL OTHER	1.701	1.898
TOTAL ANNUAL LAB	87.805	42.622
TOTAL INHOUSE	17.818	19.741
TOTAL INHOUSE RDT&E	15.984	18.222
ANNUAL OPERATING COST	5.480	5.781

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	10	1	7	8
CIVILIAN	288	55	160	128
TOTAL	298	56	167	131

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	55.725	19.928	45.014	120.662	9.548	8.402

...MISSION

TO CARRY OUT A BROAD BASED RDT&E PROGRAM IN OCEAN SCIENCE AND TECHNOLOGY WITH EMPHASIS ON UNDERSTANDING OCEAN PROCESSES THROUGH MEASUREMENT AND ANALYSIS, AND THE EFFECTS OF THIS OCEAN ENVIRONMENT ON NAVY SYSTEMS AND OPERATIONS.

...CURRENT IMPORTANT PROGRAMS

ACOUSTIC BOTTOM INTERACTION TO SUPPORT SURV AND TACTICAL SYS DEV/PERF. REMOTE SENS/MESOSCALE OCEANOGRAPHY TO SUPPORT OCEAN PREDICTING AND FORECASTING. ARCTIC R&D TO SUPPORT NAVOPS. MARINE BIO R&D TO SUPPORT MATLS DEV. ENV ACOUSTIC MODELING. OCEAN PREDICT AND TECH DEV, MC&G. SEA STATE SPECTRA R&D TO SUPPORT SHIP HULL DESIGN. FINE SCALE OCEANO/CHEM FOR SSBN

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WAVE CURRENT INTERACTION SIMULATOR FACILITY. INTERACTIVE DIGITAL SATELLITE IMAGE PROCESSING SYS TO HANDLE DATA FROM ALL IMAGING SATELLITES. DEEP OCEAN SEDIMENT CORE AND DREDGE SAMPLE DEPOSITORY—1728 SF. VEKA, A MULTIPURPOSE HYDROPHONE PRESSURE SENSOR KEVLAR ARRAY, CAN BE DEPLOYED IN VARIOUS MODES FOR EXPERIMENTAL MEASUREMENTS. X-RAY FLUORESCENT, TRANSMISSION AND SCANNING ELECTRON MICROSCOPE FACILITY.

INSTALLATION: OCEAN SYSTEMS CENTER

SAN DIEGO, CA.

C.O. CAPT. S. L. GUILLE

TECH. DIR. DR. H. L. BLOOD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	187.087	281.776
TOTAL PROCUREMENT	59.207	41.718
TOTAL O&M	48.882	49.318
TOTAL OTHER	11.827	8.986
TOTAL ANNUAL LAB	806.458	881.748
TOTAL INHOUSE	141.841	177.404
TOTAL INHOUSE RDT&E	96.202	119.998
ANNUAL OPERATING COST	47.566	54.472

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	277	2	58	224
CIVILIAN	2428	177	1292	1181
TOTAL	2700	179	1345	1855

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2728	1345.482	202.482	189.258	1737.172	45.964	134.739

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR COMMAND CONTROL, COMMUNICATIONS, OCEAN SURVEILLANCE, SURFACE AND AIR LAUNCHED UNDERSEA WEAPON SYSTEMS, SUBMARINE ARCTIC WARFARE AND SUPPORTING TECHNOLOGIES.

...CURRENT IMPORTANT PROGRAMS

OCEAN SURVEILLANCE SYS WITH SOSUS UPDATE AND MULTI-SENSOR INTEGRATION, COMMAND CONTROL AND COMMUNICATIONS SYS ARCHITECTURE AND ENGINEERING, ADVANCED SURFACE AND AIR LAUNCHED UNDERSEA WEAPONS AND SURFACE ASW SYS, TECHNOLOGY DEVELOPMENTS SUCH AS ADV MARINE BIO SYS, ARCTIC SUB OPS, OCEAN ENGINEERING AND ELECTRONIC WARFARE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CENTER FACILITIES INCLUDE ARCTIC RESEARCH FACILITY; C3 SITE, INCLUDING TACTICAL FLAG COMMAND CENTER (TFCC) AND ADVANCED COMMAND CONTROL ARCHITECTURE TEST BED (ACCAT); INTEGRATED UNDERSEA SURVEILLANCE SYSTEM (IUSS) FACILITY; MICROWAVE AND MILLIMETER WAVE ANTENNA PATTERN RANGE COMPLEX; OCEANOGRAPHIC RESEARCH TOWER; STABLE SEMI-SUBMERGED PLATFORM; UNMANNED TETHERED VEHICLES INCL CURV III, SCAT, AND SNOOPY; USS DOLPHIN, EXPERIMENTAL SUB; TRANSDUCER EVALUATION CENTER; MICRO-ELECTRONICS LAB COMPLEX; ACOUSTIC SIGNAL DATA ANALYSIS AND CONVERSION SYSTEM; SIMULATION AND REAL-TIME COMPUTER FACILITIES FOR DEVELOPMENT OF OCEAN SURVEILLANCE AND ASW SYSTEMS; SHIP MOTION SIMULATOR AND A BIO-SCIENCE FACILITY ENGAGED IN RESEARCH, TRAINING AND HANDLING OF MARINE MAMMALS.

C.O. RADM L. S. KOLLMORGEN

TECH. DIR. DR. JEROME A. SMITH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	815.745	449.912
TOTAL PROCUREMENT	0.050	0.054
TOTAL O&M	51.814	55.907
TOTAL OTHER	5.923	7.626
TOTAL ANNUAL LAB	878.532	518.499
TOTAL INHOUSE	16.641	17.725
TOTAL INHOUSE RDT&E	15.267	16.881
ANNUAL OPERATING COST	10.700	11.681

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON- PROF
		PHDS	PROF	
MILITARY	80	2	27	8
CIVILIAN	891	56	88	308
TOTAL	421	58	110	311

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	84.785	2.500	87.285	0.000	0.000

...MISSION

RESPONSIBLE FOR LEADERSHIP OF NAVY RESEARCH PROGRAM, MANAGEMENT AND DIRECTION OF ONR CONDUCTED RDT&E AND OF THE NAVY-WIDE PATENT PROGRAM, DEVELOPMENT OF NAVY-WIDE RDT&E FOR ASN(RES), WORLD WIDE RESEARCH INFO AND CONTRACT MGMT OF FEDERALLY FUNDED UNIVERSITY RESEARCH

...CURRENT IMPORTANT PROGRAMS

CONTRACT RESEARCH AND TECHNOLOGY PROGRAMS
 NAVY PATENT PROGRAM
 NAVY-WIDE RDT&E APPROPRIATION ADMINISTRATION
 FOCAL POINT FOR WORLD-WIDE RESEARCH INFORMATION
 CONTRACT MANAGEMENT PROGRAM AT EDUCATIONAL INSTITUTIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES, MATHEMATICAL AND INFORMATION SCIENCES, BIOLOGICAL SCIENCES, PSYCHOLOGICAL SCIENCES, ARCTIC AND EARTH SCIENCES, MATERIAL SCIENCES, OCEAN SCIENCE AND TECHNOLOGY ADMINISTRATION OF TECHNOLOGY PROGRAMS IN NAVAL VEHICLE AND WEAPONS TECHNOLOGY, SENSOR AND CONTROL TECHNOLOGY, ANALYSIS AND SUPPORT. FIELD ACTIVITIES INCLUDE NRL, NORDA AND NARL IN FY1981. MAINTAINS RESEARCH RESERVE PROGRAM. COORDINATES NAVAL RESEARCH AND PROMOTES COOPERATIVE RESEARCH EFFORTS WITHIN NAVY, OTHER DOD, NSF, NASA, DEPT OF ENERGY AND OTHER GOVERNMENT RESEARCH GROUPS. SUPPORT AND ADMINISTRATION OF NAVAL RESEARCH ADVISORY COMMITTEE.

INSTALLATION: ORDNANCE MISSILE TEST FACILITY

WHITE SANDS, N.M.

C.O. CAPT. J. T. LEWIS

CH. ENG. MR. H. L. HENDON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	6.499	5.461
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.007	0.002
TOTAL OTHER	2.762	2.741
TOTAL ANNUAL LAB	9.268	8.204
TOTAL INHOUSE	5.405	4.496
TOTAL INHOUSE RDT&E	8.189	2.548
ANNUAL OPERATING COST	1.877	1.200

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	88	1	28	68
CIVILIAN	54	0	9	45
TOTAL	140	1	82	108

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROF	EQUIP
85	5.200	30.589	172.382	208.071	5.542	2.925

...MISSION

UPPORT THE NAVY GUIDED MISSILE AND RESEARCH ROCKET PROGRAMS INCLUDING GROUND AND FLIGHT TESTING. ASSIST JOINT SERVICE LASER GUIDED WEAPONS COUNTERMEASURE TEST. PARTICIPATE IN THE OPERATION OF THE DOD INTEGRATED MISSILE TEST RANGE AT WHITE SANDS

...CURRENT IMPORTANT PROGRAMS

STANDARD MISSILE 1 AND 2/AEGIS FLIGHT TESTING
CRUISE MISSILE FLIGHT TESTING
RAM FLIGHT TESTING
VERTICAL LAUNCHER TESTING
UPPER ATMOSPHERE RESEARCH ROCKET LAUNCHING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST TERRIER/TARTAR/STANDARD/SAM GUIDED MISSILES AND PROJECTILES
LAUNCH AEROBEE 160 170 200 ARIES ASTROBEE F D BLACK BRANT ORION
AND VARIOUS OTHER SOUNDING ROCKETS FOR UPPER ATMOSPHERIC STUDY
CONDUCT NAVY AIR WEAPONS TESTS
LAUNCH VARIOUS ROCKETS IN SUPPORT OF NASA PROJECTS
LAUNCH VARIOUS ROCKETS IN SUPPORT OF AIR FORCE PROJECTS
CONDUCT VARIOUS DEVELOPMENT TESTS FOR SSM AND SAM PROJECTS
PROVIDE DRONE SUPPORT AND VANDAL MISSILE HIGH SPEED TARGETS
ASSIST IN OPEVAL OF CRUISE MISSILE
MAINTAIN TARGET ECM EQUIPMENT
5-INCH GUIDED PROJECTILE LAUNCH CAPABILITY
PROVIDE WARHEAD AND EOD ANALYSIS ARENA

INSTALLATION: PACIFIC MISSILE TEST CENTER

POINT MUGU, CA.

C.O. RADM F. H. BAUGHMAN

TECH. DIR. MR. T. P. PERRY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	176.175	195.550
TOTAL PROCUREMENT	71.758	79.350
TOTAL O&M	88.097	97.787
TOTAL OTHER	49.813	57.734
TOTAL ANNUAL LAB	885.848	480.721
TOTAL INHOUSE	215.981	240.175
TOTAL INHOUSE RDT&E	114.975	127.618
ANNUAL OPERATING COST	54.060	60.162

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PRDS	PROF	PROF
MILITARY	1000	7	245	755
CIVILIAN	3645	14	944	2701
TOTAL	4645	21	1189	3456

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27084	918.748	397.503	8510.799	4827.055	152.822	146.807

...MISSION

PERFORM DEVELOPMENT TEST AND EVALUATION DEVELOPMENT SUPPORT, FOLLOW-ON ENGINEERING AND LOGISTICS AND TRAINING SUPPORT FOR NAVAL WEAPONS, WEAPON SYSTEMS AND RELATED DEVICES; AND PROVIDE MAJOR RANGE TEST FACILITIES BASE SUPPORT FOR FLEET OTHER DOD AND GOVERNMENT AGENCY USERS

...CURRENT IMPORTANT PROGRAMS

HARPOON ANTI-SHIPING MISSILE
F-14 TACTICAL SOFTWARE
IMPROVED PHOENIX AIR-TO-AIR MISSILE
TRIDENT SUBMARINE LAUNCHED BALLISTIC MISSILE
TOMAHAWK CRUISE MISSILE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORIES FOR WEAPON SYSTEMS SIMULATIONS SYSTEM INTEGRATION, ELECTRONIC WARFARE ENVIRONMENTAL SIMULATIONS, TACTICAL SOFTWARE SUPPORT, ANECHOIC MEASUREMENTS. 45000 SQUARE MILE AIR AND SURFACE TRACKING RANGE FPS-16 FPQ-10, FPQ-12 AND MPS-25 RADARS, THEODOLITES AND CINE-SEXTANTS P, L AND S BAND TELEMETRY RECEIVE, RECORD AND DISPLAY SYSTEMS. DATA REDUCTION FACILITIES FOR REAL TIME AND POST OPERATIONS. MISSILE AND TARGET LAUNCH FACILITIES WITH COMMAND CONTROL AND FLIGHT TERMINATION CAPABILITY. SHIP MOTION SIMULATOR, ALL-UP ROUND MISSILE TEST FACILITY AND ORDNANCE ASSEMBLY BUILDINGS. POINT MUGU NAVAL AIR STATION. 700 SQUARE MILE, 400-6000 FATHOM THREE DIMENTIONAL UNDERWATER TRACKING RANGE. MK-80 UNDERWATER TARGET LAUNCH AND RECOVERY SYSTEMS.

INSTALLATION: PERSONNEL RESEARCH & DEVELOPMENT CENTER

SAN DIEGO, CA.

C.O. CAPT. J. F. KELLY

TECH. DIR. DR. J. J. REGAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	18.899	17.050
TOTAL PROCUREMENT	0.548	0.000
TOTAL O&M	2.688	2.985
TOTAL OTHER	1.684	1.576
TOTAL ANNUAL LAB	28.819	21.611
TOTAL INHOUSE	12.651	14.171
TOTAL INHOUSE RDT&E	10.054	10.680
ANNUAL OPERATING COST	8.858	4.056

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	0	12	17
CIVILIAN	288	84	214	74
TOTAL	817	84	226	91

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL REAL PROP	EQUIP
1	65.860	7.080	0.000	72.940	0.485 4.632

...MISSION

PRINCIPLE NAVY ACTIVITY FOR CONDUCTING HUMAN RESOURCES RDT&E IN THE AREAS OF MANPOWER, PERSONNEL, EDUCATION & TRAINING AND TO SERVE AS THE COORDINATING ACTIVITY FOR ALL SUCH NAVY R&D. PROVIDE SUPPORT TO THE NAVY SYSTEMS COMMANDS TO AUGMENT & STIMULATE HUMAN FACTORS EFFORTS IN NEW SYSTEM DESIGN

...CURRENT IMPORTANT PROGRAMS

PERSONNEL AND TRAINING TECHNOLOGY
MANPOWER CONTROL SYSTEM DEVELOPMENT
EDUCATION AND TRAINING
TRAINING DEVICE PROTOTYPE DEVELOPMENT
MANAGEMENT SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IBM 4831 COMPUTER SYSTEM WITH COMMUNICATIONS CAPABILITY TO OTHER COMPUTERS, PDP11/70 WITH ARPANET ACCESS WHICH SUPPORTS THE NAVY LABORATORY COMPUTER NETWORK, PDP 11/45, BIOTECHNOLOGY DATA ACQUISITION SYSTEMS, VARIOUS CRT AND PRINTING DEVICES INTERFACING WITH THE NAVAL OCEAN SYSTEMS CENTER UNIVAC 1100/82 COMPUTER

C.O. CAPT. J. A. MCMORRIS II

DIR. OF RSCH. DR. ALAN BERMAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	233.748	256.850
TOTAL PROCUREMENT	8.084	8.825
TOTAL O&M	18.170	14.880
TOTAL OTHER	22.474	24.480
TOTAL ANNUAL LAB	277.474	303.036
TOTAL INHOUSE	179.441	195.170
TOTAL INHOUSE RDT&E	151.935	165.975
ANNUAL OPERATING COST	61.839	68.445

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	140	1	85	105
CIVILIAN	8116	806	1888	1777
TOTAL	8256	807	1873	1882

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
919	2818.976	192.677	481.945	2989.597	93.184	113.892

...MISSION

TO CONDUCT A BROADLY BASED MULTIDISCIPLINARY PROGRAM OF SCIENTIFIC RESEARCH AND ADVANCED TECHNOLOGICAL DEVELOPMENT DIRECTED TOWARD NEW AND IMPROVED MATERIALS, EQUIPMENT, TECHNIQUES, SYSTEMS, AND RELATED OPERATIONAL PROCEDURES FOR THE NAVY.

...CURRENT IMPORTANT PROGRAMS

DIRECTED ENERGY DEVICES
 ADVANCED ECM AND DECOYS FOR NAVY EW SYSTEMS
 ADVANCED ACOUSTIC AND NON-ACOUSTIC SUBMARINE DETECTION PROGRAM
 SATELLITE PROGRAMS
 ADVANCED HIGH PERFORMANCE MATERIALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRINCIPAL RESEARCH AND DEVELOPMENT LABORATORY OF THE NAVY. PRIMARY AREAS ARE MATERIALS SCIENCE AND TECHNOLOGY, SPACE SCIENCE AND TECHNOLOGY, RADAR, ELECTRONIC WARFARE, LASER TECHNOLOGY, OPTICS, OPTICAL WARFARE, ELECTRONIC DEVICES, PLASMA AND NUCLEAR PHYSICS, INTELLIGENCE SUPPORT, UNDERSEA SURVEILLANCE, ENVIRONMENTAL SCIENCE AND TECHNOLOGY. MAJOR FACILITIES INCLUDE ONE SHIP FOR ACOUSTIC AND NON-ACOUSTIC ASW RESEARCH, BATHYMETRY, AND DEEP OCEAN SEARCH. MAJOR ACOUSTIC STANDARD AND CALIBRATION FACILITIES. HIGH LEVEL RADIATION LABORATORY. THREE NUCLEAR PARTICLE ACCELERATORS. DIVERSE HIGH ENERGY LASERS. 200 KILOGAUSS HIGH FIELD MAGNET FACILITY. SPACE SIMULATION FACILITIES. MAJOR PLASMA PHYSICS FACILITIES. ELECTRONIC WARFARE CENTRAL TARGET SIMULATOR.

INSTALLATION: SUBMARINE MEDICAL RESEARCH LABORATORY

GROTON, CT.

C.O. CAPT. W. C. MILROY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	2.272	2.211
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.020	0.020
TOTAL OTHER	0.810	0.928
TOTAL ANNUAL LAB	8.102	8.154
TOTAL INHOUSE	8.062	8.154
TOTAL INHOUSE RDT&E	2.202	2.211
ANNUAL OPERATING COST	0.728	0.815

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	88	8	14	24
CIVILIAN	56	10	24	82
TOTAL	94	18	88	56

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL. PROP	EQUIP
1	40.514	14.099	0.000	54.613	1.815	1.842

...MISSION

TO CONDUCT MEDICAL RESEARCH AND DEVELOPMENT AS IT RELATES TO SUBMARINE, SHIPBOARD, DIVING AND AMPHIBIOUS ENVIRONMENTS.

...CURRENT IMPORTANT PROGRAMS

COMPUTER ASSISTED DIAGNOSIS PROGRAMS FOR CORPSMEN ABOARD NUCLEAR SUBS. AUDITORY AND VISUAL T AND E OF SUBMARINERS AND DIVERS. PHYSIOLOGICAL PSYCHOLOGICAL RESEARCH IN COLD WEATHER. HUMAN FACTORS VISION AUDITORY RSCH IN ADVANCED SONAR SYSTEMS AND HUMAN FACTORS SUB INFO PROCESSING. HEALTH AND LONGEVITY OF NUCLEAR SUBMARINE CREWS. NUC SUB ATMOSPHERE EVAL.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC AND APPLIED RESEARCH COMPETENCE IN CARDIOPULMONARY, THERMAL, AND HYPERBARIC PHYSIOLOGY, BIOCHEMISTRY, AUDITION, VISION, HUMAN FACTORS ENG, HYPERBARIC AND MECHANICAL SERVICES, ELECTRICAL INSTRUMENTATION AND REPAIRS, COMPUTER APPLICATIONS, ANIMAL SCIENCES, TECHNICAL LIBRARY, GRAPHIC ARTS, PHOTOGRAPHY, MODEL MAKING, HYPERBARIC CHAMBERS, HUMAN-150 PSI ANIMAL-800 PSI AND 1000 PSI, SURGICAL SUITE, COMPUTER APPLICATION FACILITY, CLOSED CIRCUIT TV SYSTEM, GAS CHROMATOGRAPHS, EEG, DOPPLER SYSTEM, SONAR STACK SIMULATION TEST SYSTEM, FLUIDIC CONTROL CONSOLE, RESPIRATORY MASS SPECTROMETER.

C. O. CAPT. J. E. FERNANDES

TECH. DIR. H. S. VAUGHN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	252.688	268.894
TOTAL PROCUREMENT	52.616	80.878
TOTAL O&M	50.408	47.083
TOTAL OTHER	83.578	29.911
TOTAL ANNUAL LAB	389.285	676.711
TOTAL INHOUSE	177.721	204.718
TOTAL INHOUSE RDT&E	110.226	181.886
ANNUAL OPERATING COST	78.726	88.509

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	116	8	29	87
CIVILIAN	4479	228	2054	2425
TOTAL	4695	231	2088	2512

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5848	1627.543	160.247	1803.584	3091.329	100.847	180.978

...MISSION

THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR SURFACE SHIP WEAPONS SYSTEMS, ORDNANCE, MINES, AND STRATEGIC SYSTEMS SUPPORT

...CURRENT IMPORTANT PROGRAMS

STRATEGIC SYSTEMS-TRIDENT, POSEIDON, MK500, MISSILE MATERIALS, TARGETING. COMBAT SYSTEMS-AEGIS, DDGX, CV/CVN, CGN-88, DDG-993, DD-983, SURF SHIPS. WEAPON SYSTEMS-TOMAHAWK, SM-2, GUIDED PROJECTILE, HI POWER RADIATION. UNDERWATER SYSTEMS-CAPTOR, QUICKSTRIKE MINES, MK48(ADCAP), WARHEADS. ELECTRONIC SYSTEMS-SLQ-82, SLQ-17, AN/SPY-1, NUCLEAR WPNS EFFECTS, OTH.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE-WIND TUNNELS UP TO MACH 18, 1.75 MILLION GAL. HYDROBALLISTIC TANK, MAGNETIC SILENCING FACILITY, FBM DISCPAC PRODUCTION FACILITY, FACILITIES FOR ASSURANCE OF COMPUTER PROGRAMS FOR STRATEGIC AND TACTICAL MISSILES, INTELLIGENCE PROCESSING SYS, GUN AND MISSILE RANGE INCLUDING LAND-BASED DEVELOPMENT SITES FOR WEAPON CONTROL SYSTEMS, ELECTROMAGNETIC EFFECTS FACILITIES FOR NUCLEAR AND NON-NUCLEAR EFFECTS, FACILITIES FOR WARHEAD CHARACTERIZATION AND DAMAGE TO TARGETS, DEV AND TEST FACILITIES FOR LASER AND ELECTRO-OPTICS SUBSYSTEMS, DEEP WATER OFFSHORE FACILITIES FOR MINE SYS, MOBILE TACTICAL WAR GAMES FAC, EXPLOSIVES DEV FACILITIES, EXTENSIVE SCIENTIFIC COMPUTER FACILITY, FUZES, EXPLOSIVES, MATERIALS AND MARINE CORPS SUPPORT FACILITIES

INSTALLATION: UNDERSEA RANGES DEPARTMENT

NEWPORT, RI.

C.O. CAPT. J. W. AILES

TECH. DIR. DR. C. NICHOLAS PRYOR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	29.847	36.994
TOTAL PROCUREMENT	0.686	0.858
TOTAL O&M	9.072	9.100
TOTAL OTHER	1.987	2.104
TOTAL ANNUAL LAB	41.042	48.554
TOTAL INHOUSE	28.819	31.594
TOTAL INHOUSE RDT&E	28.274	28.926
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	44	0	4	40
CIVILIAN	42	0	27	15
TOTAL	86	0	81	55

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1042	82.180	12.464	811.500	406.094	25.808	1.441

...MISSION

TO PROVIDE DEEP WATER DEV AND OPRNL T&E FACLTYS FOR UNDRWTR ACOUSTIC MEASUREMENTS, TESTING AND CALBRING SONRS. PROVIDE ACURAT UNDPWTR. SURFACE AND IN-AIR TRACKING DATA ON SHIPS, SUBS, AIRCRAFT AND WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

MK48 WEAPON SYSTEMS TRAINING CERTIFICATION PROGRAM
SHIP SILENCING PROGRAM
FLEET TRAINING/SUBROC, SUBEX, SHAREM
TORPEX/RANGFX
R&D TESTS/CAPTOR/MF SONAR/TOWED ARRAYS/LAMPS/BQQ 5/LICASS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HIGHLY ADVANCED AND INSTRUMENTED ASW WEAPONS, SONAR, AND FORACS TEST MEASUREMENT RANGES IN SUPPORT OF NAVY ASW AND UNDERSEA R&D PROGRAMS, AND ASW FLEET ASSESSMENT AND OPERATIONAL READINESS.

INSTALLATION: UNDERWATER SYSTEMS CENTER

NEWPORT, RI.

C. O. CAPT. J. W. AILES

TECH. DIR. DR. L. NICHOLAS PRYOR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	152.681	189.684
TOTAL PROCUREMENT	86.901	86.630
TOTAL O&M	79.634	84.265
TOTAL OTHER	88.154	19.517
TOTAL ANNUAL LAB	352.870	380.116
TOTAL INHOUSE	182.505	146.149
TOTAL INHOUSE RDT&E	67.298	81.605
ANNUAL OPERATING COST	42.711	52.876

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	79	0	56	28
CIVILIAN	2669	88	1385	1284
TOTAL	2748	88	1441	1807

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
867	1096.100	240.615	461.499	1798.214	49.909	64.828

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CTR FOR SUBMARINE WARFARE AND SUBMARINE WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

ADVNC'D TECHNGY IN U/W ACOUTCS, INFO PROCSNG, WEAPONRY.
 DESGN, DEV & EVAL U/W COMBAT SUB SYSTEMS INC'DNG SUBACS & SURF SHIP SONAR.
 RDT&E FOR OVERALL U/W COMBAT (TRIDENT, 688, ETC.).
 DESGN, DEV&EVAL OF LAUNCHERS, U/W TARGET SYS & MOBILE/FIXD U/W TEST RANGES
 INTRODUCE TO FLEET AND IN-SERV' ENGINEERING OF MK48 & DEV OF MK48 ADCAP.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRIMARY IN-HSE R&D CAPABILITY FOR NAVY U/W COMBAT SYSTEMS, SUBSYSTEMS AND
 TECHNLOGYS FOR SONAR SYSTEMS (HULL-TOWD/SUB COMCTNS SYSTEMS INTBRTN/SUB
 ANNA SYSTEMS). U/W WPN RANGE TECHNLOGY/REDINESS OF IN-SERVICE SHIPBOARD U/
 W SYSTEMS/ASW SUP. TORPEDO TEST RANGES (FIXD/PORITBLE) SHLOW AND DP WIR ASW
 WPN FIRE CNTRL R&D FACILITY. ASW WPN LAUNCHNG DEVCE R&D FACILITY, QLTY ENG,
 EVAL&RELIABLY LAB. BERMUDA RSCH FACLT, TORPDO PROPULSN TEST FACLT, ELECT
 MAGNETIC FACLT, SYS CERTCTN AND INTBRTN FACLT, ACOUSTIC MSRMNT & XDUCER R&E
 FACLT, TORPDO TEST RANGE.

C.O. CAPT. J. J. LAHR

TECH. DIR. MR. R. M. HILLYER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	202.848	230.468
TOTAL PROCUREMENT	75.274	72.580
TOTAL O&M	85.677	24.118
TOTAL OTHER	48.765	44.707
TOTAL ANNUAL LAB	857.059	871.818
TOTAL INHOUSE	190.200	215.868
TOTAL INHOUSE RDT&E	119.170	188.249
ANNUAL OPERATING COST	57.972	61.518

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	561	1	41	520
CIVILIAN	8891	122	1879	2512
TOTAL	4452	123	1420	8082

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1185711	1195.457	429.280	4484.841	6109.078	288.689	111.769

...MISSION

THE PRINCIPAL NAVY RDT&E CENTER FOR AIR WARFARE SYSTEMS (EXCEPT ANTI-SUBMARINE WARFARE SYSTEMS) AND MISSILE WEAPON SYSTEMS, AND THE NATIONAL RANGE/FACILITY FOR PARACHUTE TEST AND EVALUATION.

...CURRENT IMPORTANT PROGRAMS

ANTI-AIR MISSILES AIM-9L/M SIDEWINDER, AIM/RIM-7F/M SPARKOW, MSL COMPTS ANTI-SURFACE WPNS A/RGM-84 HARPOON, FAR, ADV. TACTICAL MISSILES. ELEC-TRONIC WARFARE AGM-88 HARM MISSILE, SIMULATION, EQUIPTS AND TACT EVALS TAC A/C SYSTEMS INTEGRATION A-7E, A-6E, AV-8B, F/A-18, AIRCREW EQUIPMTS T AND B AIR/SURFACE-LAUNCHED WPNS, TACTICS, A/C WPN SYSTEMS, SUB/SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT IN-HOUSE RESEARCH AND ESTABLISH AND MAINTAIN PRIMARY IN-HOUSE DEVELOPMENT, TEST, EVALUATION, AND IN-SERVICE ENGINEERING SUPPORT FOR SPECIFIC NAVY, MARINE CORPS AND JOINT SERVICE PRODUCTS SUCH AS ANTI-AIR MISSILES, ANTI-SURFACE WEAPONS, DEFENSE PENETRATION SYSTEMS, INTEGRATED TACTICAL AIRCRAFT SYSTEMS. FACILITIES INCLUDE MICHELSON LAB, ELECTRONIC WARFARE THREAT ENVIRONMENT SIMULATION, SOLID STATE DEVICE LAB, ENCOUNTER SIMULATION LAB, PROPULSION RESEARCH LAB, MICROELECTRONICS FACILITY, EXPLOSIVES R&D FACILITIES, GROUND AND AIRCRAFT RANGES, EXTERIOR AND TERMINAL BALLISTICS RANGES, ARMITAGE AIR FIELD, PARACHUTE TEST TOWERS, SUPERSONIC TEST TRACKS, MICROWAVE ANECHOIC FACILITIES, HARDWARE-IN-THE-LOOP SIMULATIONS, AND LASER/ELECTRO-OPTICS LAB.

INSTALLATION: WEAPONS EVALUATION FACILITY

ALBUQUERQUE, N.M.

C.O. CAPT. D. R. WEICHMAN

TECH. DIR. MR. E. G. GREWIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	2.908	4.165
TOTAL PROCUREMENT	0.747	0.820
TOTAL O&M	2.290	2.649
TOTAL OTHER	8.604	4.547
TOTAL ANNUAL LAB	9.549	12.181
TOTAL INHOUSE	8.892	11.298
TOTAL INHOUSE RDT&E	2.480	3.558
ANNUAL OPERATING COST	1.484	1.664

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	121	0	21	100
CIVILIAN	106	2	60	45
TOTAL	226	2	81	145

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	0.400	58.582	94.926	148.918	9.600	1.118

...MISSION

SUPPORT NAVY NUCLEAR WEAPON DEVELOPERS. ADMINISTER THE NAVY NUCLEAR WEAPONS SAFETY PROGRAM. ASSIST THE PRESIDENT, BOARD OF INSPECTION AND SURVEY. IMPROVE THE SURVIVABILITY OF AIRCRAFT AND WEAPONS IN NUCLEAR EFFECTS. SUPPORT THE NAVY LASER PROGRAM AT THE AIR FORCE WEAPONS LAB.

...CURRENT IMPORTANT PROGRAMS

ASSISTED IN EARLY DEVELOPMENT OF A STAND-OFF WEAPON AND AN AIR-TO-AIR WEAPON. ASSISTED IN THE FAANIAEL EMP TEST OF 2 NAVY AIRCRAFT. CONDUCTED STUDIES ON THE SURVIVABILITY OF NAVY AIRCRAFT AND CREW IN NUCLEAR ENVIRONMENTS. CONDUCTED THE NAVY HIGH ENERGY LASER PROJECT AT THE AIR FORCE WEAPONS LAB. IMPROVED TECHNIQUES FOR ANALYZING WEAPON SYSTEMS CIRCUITRY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

4 A-7, 2 F-14, 1 OV-10, AND 2 U-8 AIRCRAFT. 15 ORDNANCE STORAGE LOCKERS. A SECURE STORAGE VAULT. WEAPON LOADING CAPABILITY FOR A WIDE VARIETY OF ORDNANCE. HOT-COLD CHAMBER FOR ORDNANCE TEST. TELEMETRY AND ON-BOARD-AIRCRAFT PHOTO AND TAPE RECORDING EQUIPMENT. PERKIN-ELMER 7/82 COMPUTER. WANG 2200 COMPUTER. AS A KIRTLAND AIR FORCE BASE TENANT ACCESS TO THE CRAY-2, CYBER 176, AND CDC 6600 COMPUTERS, ALECS, ARES, TRESTLE, AND OTHER EMP FACILITIES. GENERAL SEVERE ENVIRONMENT FACILITIES. HIGH ENERGY LASER LAB INCLUDING THE AIRBORNE LASER LAB. SHOCK-BLAST FACILITY. NEARBY ARE THE FOLLOWING. WHITE SANDS MISSILE RANGE, SANDIA LABS, LOS ALAMOS NATIONAL LAB, ALL WITH AVAILABLE EXTENSIVE TEST FACILITIES. AT NWEF THE FOLLOWING CAPABILITIES; SAFETY ANALYSIS AND EVALUATION. BOARD OF INSPECTION AND SURVEY ON NUCLEAR WEAPONS. DEVELOP WEAPON LOADING CHECK LISTS

CDR. COL. GEORGE E. STRAND

CH. SCI. DR. EDWARD T. CURRAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	124.219	129.178
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.124	1.281
TOTAL ANNUAL LAB	125.848	180.459
TOTAL INHOUSE	15.740	15.998
TOTAL INHOUSE RDT&E	14.616	14.712
ANNUAL OPERATING COST	8.568	8.600

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	45	4	86	9
CIVILIAN	838	26	214	124
TOTAL	883	30	250	133

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
40	229.490	41.784	105.665	376.939	56.100	29.568

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, AND PROTOTYPE DEVELOPMENT PROGRAMS IN AIRBREATHING PROPULSION, AEROSPACE POWER, FUELS AND LUBRICATION, AND AIRCRAFT FIRE PROTECTION. CONDUCT CONTRACT AND IN-HOUSE PROGRAMS. PROVIDE OPERATIONAL AND SYSTEMS SUPPORT.

...CURRENT IMPORTANT PROGRAMS

ADVANCED TURBINE ENGINE TECHNOLOGY DEMONSTRATORS
 OPTIMIZE AVAILABILITY AND COST OF AVIATION TURBINE FUELS
 VARIABLE CYCLE ENGINES FOR MULTI-MISSION AIRCRAFT
 RAMJET TECHNOLOGY FOR TACTICAL AND STRATEGIC MISSILES
 SPACE AND AIRBORNE HIGH POWER GENERATION AND CONDITIONING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TURBINE ENGINE CONTROLS TEST FAC, BATTERY DEVELOPMENT AND TEST FAC, MHD GENERATOR, LUBE TEST RIGS, SEAL TEST RIGS, BEARING TEST RIGS, FUEL HANDLING FAC, FIRE RESEARCH LAB, COKER LAB, FUEL ANALYSIS LAB, COMBUSTION FAC, ROTOR TEST FAC, 6 SEA LEVEL TEST STANDS TO 60,000 LBS THRUST, 2 TURBINE ENGINE ALTITUDE CELLS TO 5,000 LBS THRUST, MACH 1.5, 50,000 FT 2 PROPELLER WHIRL RIGS TO 10,000 HP, DIRECT CONNECT RAMJET TEST FAC, RAMJET COMPONENTS LAB, ELECTRO-AERODYNAMIC LASER, HIGH TEMPERATURE TURBINE COMPONENT TEST FAC, AIRCRAFT ELECTRICAL POWER FAC WITH THREE, 850 HP DRIVES AND AIRCRAFT SIMULATORS, VACUUM CHAMBERS, SUPERCONDUCTIVITY LAB, HIGH POWER LAB TO 5 MW, THERMAL ENERGY STORAGE LAB, HYDRAULICS LAB, PLASMA PHYSICS LAB, LASER HOLOGRAPHY LAB, COMPRESSOR TEST FAC, SOLAR CELL LAB.

CDR. COL. GEORGE C. MOHR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	17.009	16.658
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.167	0.000
TOTAL OTHER	1.846	5.901
TOTAL ANNUAL LAB	18.622	22.559
TOTAL INHOUSE	10.785	10.484
TOTAL INHOUSE RDT&E	9.739	9.775
ANNUAL OPERATING COST	0.750	0.750

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	185	20	56	80
CIVILIAN	155	25	99	56
TOTAL	291	45	155	136

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
80	97.955	1.789	200.005	299.699	10.904	22.500

...MISSION

ACCOMPLISH BEHAVIORAL AND BIOMEDICAL RESEARCH AND DEVELOPMENT TO DEFINE HUMAN TOLERANCE AND DEGRADATION OF HUMAN PERFORMANCE UNDER THE CONDITION OF ENVIRONMENTAL STRESS ASSOCIATED WITH AEROSPACE OPERATIONS AND PROVIDE SUPPORT TO SYSTEM DEVELOPMENT IN THE ABOVE AREAS.

...CURRENT IMPORTANT PROGRAMS

DEFINE TOXIC HAZARDS, ENVIR POLLUTION EFF OF MISSILE OPS-PROPELLANT TEST.
 DEFINE EFFECT OF CREW PERF ON MANNED WEAPON SYSTEM EFFECTIVENESS.
 DEV OPTICAL COUNTERMEASURE MECHANISMS FOR ADV DEV PROGRAM APPLICATIONS.
 EFF OF OPERATIONAL NOISE AND VIBRATION ENVIRONMENTS ON AF PERSONNEL-OPS.
 DEVELOP HUMAN PERFORMANCE ESTIMATES IN CHEMICAL WARFARE ENVIRONMENTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HUMAN DECELERATION SYSTEM TO SIMULATE THE COMPLEX ACCELERATION ENVIRON ASSOCIATED WITH EJECTION AND CRASH LANDING. DYNAMIC ENVIRONMENT SIMULATOR A SIX DEGREE OF FREEDOM MAN-RATED CENTRIFUGE USED TO SIMULATE SUSTAINED ACCELERATIONS SUCH AS THOSE ENCOUNTERED IN AIR COMBAT MANEUVERING. THOMAS DOMES-EIGHT ALTITUDE EXPOSURE CHAMBERS TO SIMULATE EXOTIC ARTIFICIAL ATMOSPHERIC CONDITIONS. STRATEGIC AND TACTICAL COCKPIT SIMULATION FACILITIES USED TO PERFORM REAL-TIME MAN-IN-THE-LOOP EXPERIMENTS. ANECHOIC AND REVERBERATION CHAMBERS TO ENABLE EXPERIMENTAL INVESTIGATIONS OF POTENTIALLY HAZARDOUS NOISE TO DETERMINE EFFECTS ON BODY FUNCTION AND PERFORMANCE. VIVARIUM-LABORATORY RESEARCH ANIMAL FACILITY.

CDR. MAJ. GEN. W. B. MAXSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	456.973	606.529
TOTAL PROCUREMENT	250.696	124.711
TOTAL O&M	11.046	9.402
TOTAL OTHER	100.295	112.101
TOTAL ANNUAL LAB	819.010	852.743
TOTAL INHOUSE	259.611	311.394
TOTAL INHOUSE RDT&E	171.476	207.771
ANNUAL OPERATING COST	84.495	35.362

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PIIDS	TOTAL PROF	
MILITARY	4719	20	571	4148
CIVILIAN	3095	35	701	2394
TOTAL	7814	55	1272	6542

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
463588	320.295	1020.924	10765.171	12106.390	321.723	168.727

...MISSION

WRAP, ELEC-OPTICAL WEP DEV, A/C GUN, AMMO, RELATED EQUIP. RESPON FOR BASIC TECHNOLOGY, DEVEL, TEST, INITIAL ACQ AND DEPLOY. TEST MISSION INCL LEAD CENTER IN MUN, EMW, INTRUSION/INTERDICTION, AND CLIMACTIC SIMULATION.

...CURRENT IMPORTANT PROGRAMS

WIDE AREA ANTI-ARMOR MUNITION
 PRECISION GUIDANCE MUNITIONS
 ADVANCED MEDIUM RANGE AIR TO AIR MISSILE
 COMBINED EFFECTS MUNITION
 RESPONSIBLE FOR AIR-LAUNCH TACTICAL AND DEF MSLS; NONNUC MUN

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SCIENTIFIC/ENGINEERING PERSONNEL AND LABORATORY FACILITIES CAPABLE OF EXPLOR, ADV, & ENG DEV OF NONNUCLEAR MUNITIONS & EQUIP. ARMAMENT SYSTEM TEST ENVIRONMENT COVERING 725SQ MI WITH LARGE ADJACENT WATER AREA; HAS 28 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADAR AND PHOTO-OPTICS; IS USED FOR MUNITION TESTING AND ELECTRO MAGNETIC TEST ENVIRONMENT; AN INSTRUMENTED COMPLEX OF THREAT SYSTEMS FOR EVAL WPN SYST EFFECTIVENESS; PROVIDES A REALISTIC ENVIRONMENT FOR TESTING A WPN SYST AGAINST AN ACTIVE DEFENSE SYSTEM; A CLIMATIC LAB CAPABLE OF TESTING COMPLETE WPN SYST, A COMPUTER SCIENCE LAB, A PHYSICAL SCIE.LAB A PHOTO LAB, AN INSTRUMENTATION/R/D FACILITY, & A MISSILE SIMULATION AND TEST LAB.

CDR. COL. KENNETH R. JOHNSON

CH. SCI. DR. BRUCE REESE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	161.147	175.928
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.007	0.012
TOTAL OTHER	14.259	5.115
TOTAL ANNUAL LAB	175.413	181.061
TOTAL INHOUSE	26.535	26.931
TOTAL INHOUSE RDT&E	28.769	28.687
ANNUAL OPERATING COST	26.598	32.462

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	158	4	62	91
CIVILIAN	207	5	57	150
TOTAL	360	9	119	241

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
39081	1093.540	207.876	2026.055	3227.471	890.754	60.851

...MISSION

PRIMARY MISSION IS TO PROVIDE ENVIRONMENTAL TEST SUPPORT TO SYSTEMS DEVELOPMENT AND RESEARCH AND DEVELOPMENT PROGRAMS OF DOD AND TO KEEP EXISTING FACILITIES MODERN TO PROVIDE ADVANCED FACILITIES AS REQUIRED, AND TO CONTINUALLY DEVELOP ADVANCED TEST TECHNIQUES AND INSTRUMENTATION.

...CURRENT IMPORTANT PROGRAMS

MX TESTING INCLUDING AERODYNAMICS, STAGE SEPARATION AND ENGINE FIRING AIR LAUNCH CRUISE MISSILE ENGINE AND AERODYNAMIC TEST SUPPORT F100 ENGINE COMPONENT IMPROVEMENT PROGRAM TESTING ENGINE MODEL DERIVATIVE PROGRAM AERODYNAMIC AND ENGINE TEST CELLS ABRES-IMPACT RANGES, VACUUM CHAMBERS, ABLATION AND AERODYNAMIC TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AEDC IS COMPRISED OF ABOUT 85 TEST UNITS. INCLUDED ARE WIND TUNNELS WITH TEST SECTIONS TO 16 FT SQ AND SPEED FROM SUBSONIC TO MACH 20; TURBINE ENGINE TEST CELLS WHICH PROVIDE SIMULATION TO MACH 8, ROCKET TEST CELLS, THE LARGEST RATED AT .5 MILLION LBS THRUST AT ALTITUDE; SPACE SIMULATION CHAMBERS TO 42 FT DIA AND 82 FT HIGH; HYPERBALLISTIC RANGES; DUST & SNOW EROSION FACILITY; BIRD IMPACT FACILITY; TWO CAPTIVE TRAJECTORY SYSTEMS. THESE FACILITIES HAVE SUPPORTED DEVELOPMENT AND QUALIFICATION OF MOST MAJOR AERONAUTICAL, MISSILE, AND SPACE SYSTEM DEVELOPMENT SINCE 1954. THIS TESTING COMPLEMENTS EXPENSIVE AND OFTEN HAZARDOUS FLIGHT TESTING AND ASSURES THAT SYSTEM DEFICIENCIES ARE FOUND EARLY, SAVING TIME AND RESOURCES IN THE OVERALL DEVELOPMENT, ACQUISITION AND DEPLOYMENT PROCESS.

CDR. COL. BARTON KRAWETZ

CH. SCI. DR. JESSIE C. RYLES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL.)	(ACT + EST)
TOTAL RDT&E	157.568	174.075
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.860	3.260
TOTAL ANNUAL LAB	160.428	177.835
TOTAL INHOUSE	22.804	25.268
TOTAL INHOUSE RDT&E	19.944	22.008
ANNUAL OPERATING COST	4.051	4.500

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	TOTAL PROF	
MILITARY	159	5	111	48
CIVILIAN	604	40	410	194
TOTAL	763	45	521	242

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
229	229.378	9.494	405.264	644.131	34.482	75.606

...MISSION

MAINTAINS AN AVIONICS TECHNOLOGY BASE THROUGH RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT AND ASSIGNED BASIC RESEARCH PROGRAMS. DEVELOPS AND DEMONSTRATES COST-EFFECTIVE AVIONICS CONCEPTS TO REDUCE ACQUISITION AND OPERATING COSTS AND IMPROVE OPERATIONAL CAPABILITIES.

...CURRENT IMPORTANT PROGRAMS

VERY HIGH SPEED INTEGRATED CIRCUITS TECHNOLOGY
 SYNTHETIC APERTURE/BISTATIC RADAR
 GALLIUM ARSENIDE POWER SOURCES FOR MICROWAVE APPLICATIONS
 MONOPULSE RADAR COUNTERMEASURES
 AUTOMATIC TARGET CLASSIFICATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL AREAS INCLUDE FIRE CONTROL, WEAPON DELIVERY, COMMUNICATIONS, ELECTRONIC WARFARE, NAVIGATION, SURVEILLANCE, RECONNAISSANCE, INFO PROCESSING AND CONTROL, SUBSYSTEMS, INTEGRATION AND SYSTEMS ARCHITECTURE, SUPPORTING ELECTRONIC DEVICES. INHOUSE LABS INCLUDE SIMULATION AND ANALYSIS OF INTEGRATED DIGITAL SYSTEMS DESIGN AND FABRICATION OF SPECIALIZED INTEGRATED/HYBRID CIRCUITS AND PRINTED WIRING BOARDS, PERFORMANCE EVALUATION OF E-O SYSTEMS AND CORRELATION WITH WEATHER OBSERVATION, SIMULATION OF REAL-WORLD SIGNAL/JAMMING ENVIRONMENT FOR EVALUATION OF ELECTRONIC WARFARE SYSTEMS, EVALUATION OF RECON SENSORS IN REALISTIC FLIGHT ENVIRONMENT. OTHER LABS ARE MAINTAINED FOR EVALUATION OF AIRBORNE AND SPACE SENSORS AND COMPONENTS FROM OPTICAL TO RADIO FREQUENCIES.

CDR. COL. MARVIN L. JONES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	0.000	0.000
TOTAL PROCUREMENT	6.119	6.807
TOTAL O&M	249.491	270.800
TOTAL OTHER	22.595	37.100
TOTAL ANNUAL LAB	278.208	314.707
TOTAL INHOUSE	98.483	152.050
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	25.222	29.000

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	965	2	115	850
CIVILIAN	1206	0	74	1182
TOTAL	2171	2	189	1982

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
17484	129.869	1213.525	4510.214	5853.108	890.367	326.083

...MISSION

SUPPORT OF AIR, GROUND AND SEA LAUNCHED SPACE AND MISSILE SYSTEMS FROM CCAFS AND KSC. OPERATION OF INSTRUMENTED SHIPS IN SUPPORT OF JCS REQUIREMENTS. SUPPORT OF USAF SPACETRACK. SUPPORT OF SPECIAL PROJECTS, DOCUMENTED R&D TESTS AND VARIOUS TENANT ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

NAVY PROGRAMS - POSEIDON, TRIDENT, CHEVALINE AND PENGUIN
 MILITARY SPACE SUPPORT PROGRAMS - TITAN IIIC AND 34D/IUS
 MILITARY MISSION SUPPORT PROGRAMS - SRAM AND PERSHING
 NASA PROGRAMS - DELTA, ATLAS/CENTAUR, AND SPACE SHUTTLE
 DOD SPACE TRANSPORTATION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ESMC CAPABILITIES INCLUDE: ASSEMBLY, PRELAUNCH CHECKOUT AND LAUNCH PERFORMANCE EVALUATION OF BALLISTIC MISSILES, SPACE LAUNCH VEHICLES AND PAYLOADS. SERVICES INCLUDE: TRACKING, LONG DISTANCE COMMUNICATIONS, AND DATA REDUCTION AND ANALYSIS. EQUIPMENT AND FACILITIES INCLUDE: CCAFS LAUNCH SUPPORT, MAINLAND AND DOWNRANGE INSTRUMENTATION AND COMMUNICATION INSTRUMENTED SHIPS, DATA PROCESSING, PHOTO/ELECTRO-OPTICAL SERVICES, MISSILE IMPACT LOCATION SYSTEMS, EXTENSIVE METEOROLOGICAL SERVICES AND RANGE TIMING SYSTEMS. ESMC OPERATES AND MAINTAINS CCAFS, MAINLAND SITES AND DOWNRANGE STATIONS. SUPPORT FUNCTIONS INCLUDE: CONTRACTOR OPERATION PLANT ENGINEERING, LABS, SHOPS AND OTHER SPECIAL SERVICES.

CDR. COL. FRANCIS B. CROWLEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	11.755	16.819
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.321	0.810
TOTAL OTHER	1.800	2.052
TOTAL ANNUAL LAB	14.376	19.681
TOTAL INHOUSE	4.480	4.767
TOTAL INHOUSE RDT&E	1.859	1.905
ANNUAL OPERATING COST	0.150	0.165

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	89	6	45	44
CIVILIAN	18	1	12	6
TOTAL	107	7	57	50

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
8	12.000	14.000	0.000	26.000	1.960	2.156

...MISSION

AIR FORCE LEAD AGENCY FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION IN THE AREAS OF CIVIL ENGINEERING AND ENVIRONMENTAL QUALITY. AF FOCAL POINT FOR ENVIRONMENTAL QUALITY AND LEAD LABORATORY FOR FACILITIES ENERGY.

...CURRENT IMPORTANT PROGRAMS

RAPID RUNWAY REPAIR AND NEW AIRCRAFT OPERATIONAL SURFACES
 ENVIRONMENTAL QUALITY AND ASSESSMENT RESEARCH AND DEVELOPMENT
 SURVIVABILITY/VULNERABILITY OF FACILITIES
 ENERGY CONSERVATION AND ALTERNATE ENERGY SOURCES
 FIRE PROTECTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

QUALITATIVE AND QUANTITATIVE MEASUREMENTS ON ENGINEERING MATERIALS, PAVEMENTS, SOIL MECHANICS, AIR QUALITY, WASTE TREATMENT PROCESSES, FIRE EXTINGUISHING AGENTS, AND HARDENED AIRCRAFT SHELTERS. EQUIPMENT INCLUDES FLAME AND ABSORPTION SPECTROPHOTOMETERS, WATER/WASTE STANDARD METHODS TEST EQUIPMENT, ELECTRICAL AEROSOL ANALYZING EQUIPMENT, LASER PARTICLE SIZE MEASUREMENT EQUIPMENT, AND MICROPROCESSOR DEVELOPMENT SYSTEMS. REMOTE TERMINAL ACCESS IS AVAILABLE TO CYBER 171 AND 176 SCIENTIFIC COMPUTERS WITH OFF LINE PLOTTING CAPABILITY. A RUNWAY REPAIR /ALTERNATE LAUNCH SURFACE TEST SITE HAS A 200 X600 FOOT TYPICAL RUNWAY SECTION.

CDR. COL. ROBERT C. BARLOW

CH. SCI. DR. G. KEITH RICHEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	93.820	99.038
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.090
TOTAL OTHER	15.104	6.028
TOTAL ANNUAL LAB	108.984	105.059
TOTAL INHOUSE	28.952	31.740
TOTAL INHOUSE RDT&E	23.668	25.717
ANNUAL OPERATING COST	5.808	6.300

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	188	2	121	67
CIVILIAN	640	81	434	206
TOTAL	828	83	555	273

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
92	530.356	5.100	147.128	682.584	27.558	56.504

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY AND ADV DEV PROGRAMS FOR AERO-SPACE FLT VEHICLE STRUCTURES, AERODYNAMICS, FLT CONTROL, DYNAMICS AND EQUIPMENT. LEAD AFSC LAB FOR EXPERIMENTAL FLT VEHICLES. FOCAL POINT FOR NON-NUCLEAR SURVIVABILITY PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

ADVANCED COMPOSITE STRUCTURES
 ADVANCED FIGHTER TECHNOLOGY INTEGRATOR
 AIRCRAFT GROUND MOBILITY SYSTEM
 DIGITAL FLIGHT CONTROL SYSTEM
 FORWARD SWEEP WING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FATIGUE TESTING OF F-4C/D IN THE STRUCTURES TEST FACILITY DEMONSTRATED STRUCTURAL MODIFICATIONS TO DOUBLE LIFE. THE LANDING GEAR TEST FACILITY WHICH DYNAMICALLY SIMULATES LANDING GEAR PERFORMANCE, ENABLED CERTIFICATION OF THE SHUTTLE LANDING GEAR HARDWARE. EVALUATION OF AIRCREW/AVIONIC COMPLEMENT FOR KC-185 TANKER WAS PERFORMED IN THE ENGINEERING FLT SIMULATION FAC. PERFORMANCE/RELIABILITY OF AERONAUTICAL EQUIPMENT UNDER REALISTIC ENVIRONMENTAL CONDITIONS WERE ASSESSED IN THE COMBINED ENVIRONMENTS RELIABILITY TESTING FACILITY. BALLISTIC RANGE ASSESSED VUNERABILITY OF A/C DRY BAYS TO MISSILE FRAGMENT IMPACT BY SIMULATING THREAT, FUEL, STRUCTURAL AND AERODYNAMIC ENVIRONMENTS. FLOW VISUALIZATION TESTS WERE CONDUCTED IN A PILOT WATER TUNNEL ON FORWARD SWEEP WING CONCEPTS AND ESTABLISHED CRITERIA FOR A LARGER WATER TUNNEL FACILITY.

INSTALLATION: FLIGHT TEST CENTER

EDWARDS AFB, CA.

CDR. MG. P. J. CONLEY JR

TECH. DIR. MR. F. N. STOLIKER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	122.108	144.485
TOTAL PROCUREMENT	8.081	2.800
TOTAL O&M	14.758	18.095
TOTAL OTHER	72.966	78.179
TOTAL ANNUAL LAB	212.838	248.559
TOTAL INHOUSE	151.818	175.020
TOTAL INHOUSE RDT&E	84.876	100.426
ANNUAL OPERATING COST	22.680	22.662

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED		TOTAL		NON-PROF
	STRENGTH		PHDS	TOTAL PROF	
MILITARY	2988		8	141	2847
CIVILIAN	1645		4	279	1866
TOTAL	4633		7	420	4218

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
218767	102.125	268.504	7664.465	8030.094	291.831	189.151

...MISSION

TESTS MANNED/UNMANNED AEROSPACE VEH, INCL ALL-WEATHER. FLT EVAL AEROSPACE RSCH VEH AND DEV TEST AERODYNAMIC DECELERATORS. USAF TEST PILOT SCHOOL. SUPPORTS USAF, DOD, GOV, FOREIGN AND CONTRACTOR TEST/EVAL. UTAH TEST AND TRAINING RANGE AND EDWARDS FLIGHT TEST RANGE.

...CURRENT IMPORTANT PROGRAMS

INTEGRATED WEAPONS SYSTEMS TESTS
F-16 DT AND E
A-10 DT AND E
F-15 DT AND E
INTEGRATED FLIGHT AND FIRE CONTROL SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL CAPABILITIES. FACILITIES AND EQUIP ARE AVAILABLE FOR COMPLETE RANGE OF SERVICES TO CONDUCT DT AND E FLT TESTS OF AERONAUTICAL SYS OVER LONG DISTANCES, TO CONDUCT FLT EVAL AND RECOVER RSCH VEH, AND TO TRAIN TEST PILOTS. FLIGHT TEST MISSION CONTROL COMPLEX, ENGRG FACILITIES, REAL-TIME INSTRUMENTED RANGES, DATA COLLECTION, REDUCTION AND ANALYSIS FAC, PHOTO/TV, ACFT/ENGINE MAINT, TEST EQUIP, ELECTRONIC SHOPS, AND DRY LAKES FOR RECOVERY AND EMERGENCY LANDINGS PROVIDE SUPPORT FOR ALL PROGRAMS. OTHER FACILITIES ARE PRECISION IMPACT, GUNNERY/BOMBING, INFRARED/PHOTO RESOLUTION, RADAR FIDELITY, TACTICAL AND OPTICAL RANGES, ENGR SIMULATOR, MUNITIONS STORAGE AND CHECKOUT, AND CONTRACTOR-ASSIGNED HANGARS, SHOPS, OFFICE SPACE, ETC. INTEGRATED REAL-TIME MISSION CONTROL CENTER.

CDR. COL. W. D. SIURU

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	0.960	0.959
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.545	0.629
TOTAL ANNUAL LAB	1.505	1.588
TOTAL INHOUSE	1.505	1.588
TOTAL INHOUSE RDT&E	0.960	0.959
ANNUAL OPERATING COST	0.051	0.070

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	28	12	14	9
CIVILIAN	9	1	4	5
TOTAL	82	18	18	14

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	19.000	8.100	0.000	22.100	0.100	2.100

...MISSION

CONDUCT RESEARCH IN AEROSPACE MECHANICS AND CHEMISTRY. ENCOURAGE & SUPPORT ACADEMY FACULTY & CADET RESEARCH BY DIRECT PARTICIPATION. MONITOR FACULTY CONSULTANT PROG, SUMMER RSCH PROG. FOCAL POINT FOR USAF ACADEMY RESEARCH PROPOSED TO DL RESEARCH & TECHNOLOGY LABS (AFSC).

...CURRENT IMPORTANT PROGRAMS

BATTERY RESEARCH & ELECTROCHEMISTRY OF MOLTEN SALTS, ENERGETIC MATERIALS RESEARCH, CHEMICAL MOLECULAR DYNAMICS
OPTICAL ROTATION SENSORS, OPTICS RESEARCH, PERIODIC CONTROL, NUCLEAR GYROS, IMAGE PROCESSING.
UNSTEADY AERODYNAMICS, INTEGRATED AIRBREATHING PROPULSION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MOLTEN SALT MELT STRUCTURE, CONDUCTIVITY & ELECTRODE REACTIONS. EXPLOSIVE & PROPELLANT SYNTH, DECOMPOSITION MECHANISMS & DETONATION PHENOMENA. GENERATION, MSMT, SPECTROSCOPY & MO CALC. OF EXCITED STATE SPECIES. IR, UV, NMR, EPR, X-RAY & MASS SPECTS, GAS & LIQ CHROMATOGRAPHS, ELECTRON MICROSCOPE, SPECIAL SPECTROMETERS & CONDUCTIVITY EQUIP., ASSOC FACILITIES FOR WET CHEMISTRY. ADVANCED ANALYSIS & EVALUATION TECHNIQUES FOR INERTIAL GUIDANCE SENSORS USING 2-AXIS TEST TABLE (GYRO), AUTOMATIC AZIMUTH ALIGNMENT EQUIPMENT & ELECTRONIC CONTROL EQUIP FOR 50 SERIES INERTIAL DEVICES LOCATED IN A CLASS 1000 CLEAN LAB ON 80 TON AIR SUPPORTED STABLE PLATFORM. VAX 11/780 MINI COMPUTER & SOFTWARE TO AUTOMATE GYRO RESEARCH. AERODYNAMIC RESEARCH IN USAFA SUBSONIC & TRISONIC WIND TUNNELS, HOLOGRAPHIC & OTHER OPTICAL FLOW VISUALIZATION INSTRUMENTATION.

CDR. COL. JOHN FRIEL

CHI. SCI. DR. JOHN N. HOWARD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	68.287	69.161
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	8.754	8.588
TOTAL ANNUAL LAB	66.991	72.747
TOTAL INHOUSE	27.497	28.846
TOTAL INHOUSE RDT&E	25.250	25.978
ANNUAL OPERATING COST	6.750	7.074

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	(END OF FY 1981)		TOTAL PROF	NON-PROF
		TOTAL PHDS	TOTAL		
MILITARY	120	6	41		79
CIVILIAN	491	91	296		196
TOTAL	611	97	336		275

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
885	888.689	14.566	25.888	429.188	9.868	62.084

...MISSION

CONDUCTS AND SUPPORTS AF RELEVANT RESEARCH AND EXPLORATORY DEVELOPMENT IN ENVIRONMENTAL AND PHYSICAL SCIENCES WITH MAJOR EMPHASIS ON GEOPHYSICS. ALSO CONDUCTS AND SUPPORTS SPECIFICALLY ASSIGNED ADVANCED DEVELOPMENT EFFORTS.

...CURRENT IMPORTANT PROGRAMS

SPACE ENVIRONMENT
 WEATHER FORECAST AND OBSERVING AUTOMATION
 IONOSPHERIC SPECIFICATION FOR CBI SYSTEMS
 OPTICAL, INFRARED AND UV BACKGROUNDS FOR SURVEILLANCE SYSTEMS
 GEODETIC AND EARTH MOTION EFFECTS ON MISSILE CEP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS RESEARCH AND TECHNICAL DEVELOPMENT IN TERRESTRIAL SCIENCES, METEOROLOGY, AERONOMY, AND OPTICAL, SPACE AND SOLAR PHYSICS RELATING TO AIR FORCE NEEDS. EQUIPMENT AND FACILITIES INCLUDE IN-HOUSE LABORATORIES; SPACE SIMULATION CHAMBERS; ROCKET AND BALLOON LAUNCH FACILITIES; TWO KC 135 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND IONOSPHERIC STUDIES; AND TWO CDC 6600 COMPUTER SYSTEMS

INSTALLATION: HUMAN RESOURCES LABORATORY

DROOKS AFB, TX.

CDR. COL. RONALD W. TERRY

VICE CDR. COL. KENNETH E. STOUT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	25.729	28.198
TOTAL PROCUREMENT	0.827	0.044
TOTAL O&M	2.108	1.525
TOTAL OTHER	2.742	8.089
TOTAL ANNUAL LAB	80.904	82.856
TOTAL INHOUSE	18.111	18.914
TOTAL INHOUSE RDT&E	10.532	11.018
ANNUAL OPERATING COST	2.125	2.801

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	124	6	71	58
CIVILIAN	286	41	139	97
TOTAL	360	47	210	150

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	88.519	55.009	58.570	202.098	6.617	78.660

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY DEVELOPMENT, AND ADVANCED DEVELOPMENT PROGRAMS IN TRAINING AND PERSONNEL SYSTEMS TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

MANPOWER AND PERSONNEL PROGRAMS IN SELECTION, CLASSIFICATION AND RETENTION; EDUCATION AND TRAINING PROGRAMS IN TECHNICAL TRAINING, FLYING TRAINING AND CREW AND TEAM TRAINING; SIMULATION AND TRAINING DEVICES PROGRAMS; DEVELOPING FLIGHT AND MAINTENANCE TRAINING SIMULATORS; LOGISTICS PROGRAMS IN COMBAT MAINTENANCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE ADVANCED SIMULATOR FOR PILOT TRAINING CONSISTING OF TWO COCKPITS ON A SIX DEGREES OF FREEDOM MOTION BASE WITH WIDE-ANGLE INFINITY VISUAL DISPLAYS AND A COMPUTER IMAGE GENERATION SYSTEM. THE ADVANCED INSTRUCTIONAL SYSTEM COMPUTER-BASED TRAINING SYSTEM OFFERING INDIVIDUALIZED, ADAPTIVE TRAINING TO MAXIMIZE INDIVIDUAL LEARNING PERFORMANCE. THE UNIVAC 1100/81 COMPUTER SYSTEM USED FOR R&D IN ALL FACETS OF PERSONNEL SELECTION, TRAINING, MANAGEMENT AND RETENTION.

DIR. MR. GEORGE P. PETERSON

CH. SCI. DR. NORMAN M. TALLAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	58.883	58.491
TOTAL PROCUREMENT	60.100	68.252
TOTAL O&M	2.752	8.100
TOTAL OTHER	1.798	2.049
TOTAL ANNUAL LAB	123.533	181.892
TOTAL INHOUSE	14.382	15.815
TOTAL INHOUSE RDT&E	12.584	18.266
ANNUAL OPERATING COST	8.004	8.100

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH		TOTAL		NON-PROF
	LAB	ADMIN	PHDS	PROF	
MILITARY	52		4	40	12
CIVILIAN	812		65	245	67
TOTAL	864		69	285	79

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	188.750	119.141	54.128	862.014	28.840	19.226

...MISSION

PLAN/EXECUTE EXPLORATORY AND ADVANCED DEVELOPMENT, AND ASSIGNED BASIC RESEARCH PROGRAMS FOR MATERIALS. PROVIDE TECHNICAL AND MANAGEMENT ASSISTANCE FOR STUDIES, ANALYSIS, DEVELOPMENT PLANNING, ACQUISITION, TEST, EVALUATION, MODIFICATION AND OPERATION OF AEROSPACE SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT OF LASER HARDENED MATERIALS
 MAN TECH COST REDUCTION PROGRAM FOR METALS, NON-METALS AND EM MATERIALS
 THERMAL PROTECTION MATERIALS FOR REENTRY VEHICLES
 PROPULSION SYSTEMS MATERIALS
 SYSTEMS SUPPORT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DIRECTED MANUFACTURING PROGRAMS. MATERIALS RESEARCH AND DEVELOPMENT FACILITIES AND CAPABILITIES FOR AEROSPACE STRUCTURES, THERMAL PROTECTION SYSTEMS FOR BALLISTIC REENTRY VEHICLES AND ENGINES, FLUIDS, LUBRICANTS, FLUID CONTAINMENT, PROPULSION COATINGS, FIBERS, ELECTROMAGNETIC WINDOWS, SENSORS, DISPLAYS, LASER WINDOWS AND OPTICAL DEVICES, ELECTRICAL COMPONENTS, NON-DESTRUCTIVE TESTING, POLYMERS, ADHESIVES, NON-METALLIC MATRIX COMPONENTS, ELASTOMERS, METALS, ALLOYS, METAL COMPOSITES, METAL PROCESSING, INTERMETALLICS, CERAMICS, STATIC AND DYNAMIC BEHAVIOR, JOINING, GRAPHITE, ELECTRONIC/PHYSICAL/CHEMICAL ANALYSIS, OTHER MAJOR MATERIALS FUNCTIONS WHICH INCLUDE: MANUFACTURING TECHNOLOGY, SYSTEMS APPLICATIONS, SYSTEM SUPPORT, AND THERMAL PROTECTION MATERIALS.

CDR. COL. JAMES E. BAKER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	128.588	185.220
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.171	1.370
TOTAL ANNUAL LAB	124.754	186.590
TOTAL INHOUSE	26.881	29.258
TOTAL INHOUSE RDT&E	24.710	27.888
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON-PROF
		PHDS			
MILITARY	46	14		82	14
CIVILIAN	96	25		88	58
TOTAL	142	39		70	72

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	36.688	5.128	41.816	0.000	0.000

...MISSION

MANAGES THE AF RESEARCH PROGRAM, PREVENTS TECHNOLOGICAL SUPRISE, ASSISTS IN SOLVING TECHNOLOGICAL PROBLEMS, PROVIDES RESEARCH OPTIONS, ENHANCES THE CONTINUED SUPERIORITY OF THE AF OPERATIONAL CAPABILITY ASSISTS IN TRANSITION OF PRODUCTS OF THAT RESEARCH TO DEVELOPMENT ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

SPACE POWER AND PROPULSION
 SPACECRAFT STRUCTURES AND MATERIALS
 SPACECRAFT IMAGE PROCESSING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE THE AIR FORCE RESEARCH PROGRAM AND SPONSOR EXTRAMURAL RESEARCH.

CDR. COL. ALLAN MACLAREN

DIR. MR. DON HART

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	40.222	44.746
TOTAL PROCUREMENT	0.079	0.010
TOTAL O&M	0.087	0.054
TOTAL OTHER	3.181	3.509
TOTAL ANNUAL LAB	48.519	48.319
TOTAL INHOUSE	17.428	18.940
TOTAL INHOUSE RDT&E	14.161	15.897
ANNUAL OPERATING COST	0.850	0.950

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	174	2	66	108
CIVILIAN	250	11	103	147
TOTAL	424	13	169	255

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68845	419.046	86.848	4.780	510.674	126.000	22.477

...MISSION

CONDUCT THE AIR FORCE'S ROCKET PROPULSION RESEARCH, EXPLORATORY, AND ADV DEVEL PROGRAMS TO PROVIDE ADV TECH FOR FUTURE ICBMS, STRATEGIC AND TACTICAL AIR LAUNCHED MISSILES, SPACE VEHICLES, AND SATELLITES. PROVIDES ROCKET PROPULSION TECHNOLOGICAL SUPPORT OF DOD AND NON-DOD AGENCIES.

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO THE MX FULL SCALE ENGINEERING DEVELOPMENT. PROVIDE PROPULSION OPTIONS FOR ADVANCED BALLISTIC MISSILES. PROVIDING HIGH PERFORMANCE AND PROPULSION FLEXIBILITY OPTIONS FOR TACTICAL MISSILES. PROVIDE PROPULSION OPTIONS FOR SPACE SYSTEMS DEPLOYMENT. DEMONSTRATE HIGHER PERFORMANCE SATELLITE THRUSTERS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORIES FOR SYNTHESIS, ANALYSIS AND FORMULATION OF NEW PROPELLANTS. FACILITIES FOR MIXING, CASTING, CURING AND TESTING SOLID ROCKET MOTORS. SOLID MOTOR EXPERIMENTAL COMPLEX FOR INVESTIGATION OF COMBUSTION, AGING, STRUCTURAL INTEGRITY, BALLISTIC PERFORMANCE AND HIGH TEMP COMPONENTS. LAB FOR EXPERIMENTATION OF SMALL ATTITUDE CONTROL AND SATELLITE PROPULSION SYSTEMS AND COMPONENTS UNDER SIMULATED SPACE ENVIRONMENTS. ALTITUDE EXPERIMENTATION OF LIQUID AND SOLID ROCKETS UP TO 50,000 POUNDS THRUST. AMBIENT EXPERIMENTATION OF LIQUID OR SOLID ROCKETS UP TO 500,000 POUNDS THRUST. IN-HOUSE ANALYTICAL CAPABILITY FOR DESIGN, ANALYSIS, AND DATA REDUCTION. SHOPS FOR FABRICATING EXPERIMENTAL HARDWARE AND SYSTEMS.

CPR. COL. PHILIPPE ROUCHARD

CH. SCI. DR. FRED I. DIAMOND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	217.149	212.289
TOTAL PROCUREMENT	17.061	12.607
TOTAL O&M	33.614	36.285
TOTAL OTHER	4.217	4.616
TOTAL ANNUAL LAB	275.041	265.747
TOTAL INHOUSE	28.524	30.169
TOTAL INHOUSE RDT&E	24.156	25.391
ANNUAL OPERATING COST	18.197	14.076

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	222	9	118	104
CIVILIAN	1088	54	561	527
TOTAL	1310	63	679	631

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1517	766.168	54.080	182.271	1002.519	27.492	53.499

...MISSION

CONDUCTS RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, TEST AND SELECTED ENGINEERING DEVELOPMENT AND ACQUISITION SUPPORT PROGRAMS IN SUPPORT OF COMMAND, CONTROL AND COMMUNICATIONS AND INTELLIGENCE ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

ADVANCED TACTICAL RADAR
 SPACE BASED RADAR
 COMMAND, CONTROL AND COMMUNICATIONS DECISION AIDS
 SATELLITE COMMUNICATIONS
 ADVANCED AIRBORNE SURVEILLANCE RADAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR AREAS OF TECHNOLOGY ARE ANTENNAS, SIGNAL PROCESSING, SOLID STATE COMPONENTS, THERMIONICS, OPTO-ELECTRONICS, RADIATION HARDENING, SYSTEM AND COMPONENT RELIABILITY, SOFTWARE, ARTIFICIAL INTELLIGENCE-WITH EMPHASIS ON DECISION AIDS, AND RECONNAISSANCE AND INTELLIGENCE DATA HANDLING. MAJOR IN-HOUSE FACILITIES ARE: RECONNAISSANCE EXPLOITATION FACILITY, HIGH POWER FACILITY, DIGITAL COMMUNICATIONS EXPERIMENTAL FACILITY, R AND D COMPUTER FACILITY FEATURING TWO HONEYWELL 6180 COMPUTERS WITH MULTICS, RELIABILITY ANALYSIS CENTER, RADIATION EFFECTS FACILITY, EXPERIMENTAL PHOTOGAMMETRIC FACILITY, ECCM AND SIGNAL PROCESSING LABORATORY, SOLID STATE DEVICE FAILURE ANALYSIS FACILITY, EXPERIMENTAL DEVICE FABRICATION FACILITY, ELECTRO-MAGNETIC VULNERABILITY FACILITY FOR WEAPONS TESTING, SURVEILLANCE LABORATORY, AND MATERIALS SYNTHESIS AND DEVELOPMENT FACILITY.

INSTALLATION: SCHOOL OF AEROSPACE MEDICINE

BROOKS AFB, TX.

CDR. COL. ROY L. DEHART VICE CDR. COL. JAMES A. BOYDSTUN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	20.547	28.258
TOTAL PROCUREMENT	0.000	0.000
TOTAL C&M	0.000	0.000
TOTAL OTHER	7.000	7.980
TOTAL ANNUAL LAB	27.547	36.238
TOTAL INHOUSE	20.854	22.050
TOTAL INHOUSE RDT&E	18.854	14.070
ANNUAL OPERATING COST	2.800	8.100

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	388	48	121	267
CIVILIAN	269	34	95	174
TOTAL	657	82	216	441

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
74	482.994	51.447	196.108	680.544	17.862	20.216

...MISSION

CONDUCT EXPLORATORY RESEARCH AND DEVELOPMENT PROGRAMS IN AEROSPACE BIOTECHNOLOGY. INCLUDES LIFE SUPPORT, AEROSPACE MEDICINE, BIOMEDICAL PROGRAMS AND RADIOBIOLOGY. PROVIDE MEDICAL EVALUATION AND CONSULTATION FOR AIRCREWS TO ASSURE RETENTION OF FLYING STATUS.

...CURRENT IMPORTANT PROGRAMS

CREW READINESS/CREW PROTECTION TECH FOR ADV SYS/CHEMICAL ENVIRONMENTS
MEDICAL AND BIOMEDICAL ASPECTS OF AEROSPACE OPERATIONS.
RADIOBIOLOGY IN AEROSPACE OPERATIONS.
MODELING BIOLOGICAL SYSTEMS/MAN-ATMOSPHERE ENVIRONMENT INTERACTION.
HUMAN FACTORS IN A/C ACCIDENT PREVENTION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN AEROSPACE MEDICAL PROBLEMS, LIFE SUPPORT, ENVIRONMENTAL STRESS, RADIOBIOLOGY, LASER, BIOMETRICS, BIOMED ENGINEERING, RDTE ON MEDICAL EQUIPMENT AND SYSTEMS. WHOLE BODY COUNTER, HUMAN CENTRIFUGE, TESTING CELLS, RESEARCH CHAMBERS, TELETHERAPY COBALT 60 RADIATION SOURCE, RADIOFREQUENCY RADIATION FACILITY, ELECTRON MICROSCOPE SYSTEM, REMOTE INTERACTIVE GRAPHIC TERMINAL SYSTEM, THERMAL CHAMBER, CARDIAC CATH LAB, AEROSP MED SCIENCE LAB, LASER HAZARD FACILITIES, AEROMEDICAL LIBRARY, AEROSP MED EVALUATION AND CONSULTATIVE SERVICES, OPTICAL RESEARCH AUDIOLOGY, VESTIBULAR STUDIES, PSYCHOBIOLOGY, RADIOISOTOPE, AEROMED STANDARDS, MODELING, BIOMED RESEARCH, MEDICAL REPOSITORIES, RADIATION SCIENCES RESEARCH, BIODYNAMICS RESEARCH, DEVELOP ENGINEERING.

CDR. COL. B. L. FRANCIS

VCDR. COL. T. M. JOHNSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	155.000	169.656
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.520	1.289
TOTAL OTHER	15.682	17.770
TOTAL ANNUAL LAB	171.152	188.665
TOTAL INHOUSE	73.787	81.872
TOTAL INHOUSE RDT&E	57.585	62.868
ANNUAL OPERATING COST	14.658	15.916

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	650	38	848	307
CIVILIAN	525	57	271	254
TOTAL	1175	95	614	561

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
702	555.629	161.356	182.261	849.246	76.618	67.690

...MISSION

RESPONSIBLE FOR EXPLORATORY, ADVANCED, AND ENGINEERING DEVELOPMENT IN NUCLEAR WEAPONS EFFECTS, COMPONENTS, NUCLEAR SURVIVABILITY/VULNERABILITY, HIGH ENERGY LASER SYSTEMS, ADVANCED WEAPON CONCEPTS AND TECHNOLOGY, AND NUCLEAR SAFETY.

...CURRENT IMPORTANT PROGRAMS

ADVANCED RADIATION TECHNOLOGY
 ADVANCED WEAPON TECHNOLOGY
 NUCLEAR SURVIVABILITY/VULNERABILITY ANALYSIS AND TESTING
 NUCLEAR SAFETY ANALYSIS AND DESIGN CRITERIA
 NUCLEAR WEAPONS EFFECTS ANALYSIS AND TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NUCLEAR WEAPONS EFFECTS SIMULATION, SAFETY, COMPONENT ASSESSMENT AND ANALYSIS OF WEAPONS SYSTEMS NUCLEAR HARDNESS ARE CONDUCTED IN ENGINEERING TEST LABORATORIES AND PHYSICS LABORATORIES. SIMULATION TESTS ON MISSILES, AIRCRAFT, AND COMPONENTS USE ELECTROMAGNETIC PULSE SIMULATORS, GAS GUNS, AND X-RAY DEVICES. CIVIL ENGINEERING PROGRAMS USE SHOCK TUBES AND HIGH EXPLOSIVES FOR SIMULATION OF NUCLEAR BLAST AND SHOCK. LASER SYSTEMS DEVELOPMENT USES LASER/OPTICS LABORATORIES AND TEST RANGES WITH LARGE, HIGH POWER DEVICES. A TECHNICAL LIBRARY, METALLURGY AND METROLOGY LABORATORIES, 1 CRAY AND 1 CDC-6600 COMPUTERS WITH REMOTE ACCESS TERMINALS AND MULTI-CHANNEL SENSING/RECORDING AND DATA REDUCTION SUPPORT ALL REQUIRING RDT/E PROGRAMS.

CDR. COL. WILLIAM J. MURPHY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	0.600	2.600
TOTAL PROCUREMENT	6.978	5.860
TOTAL O&M	91.801	108.768
TOTAL OTHER	9.498	9.730
TOTAL ANNUAL LAB	108.877	121.994
TOTAL INHOUSE	107.477	120.994
TOTAL INHOUSE RDT&E	0.000	1.800
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1981)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	295	1	308	13
CIVILIAN	362	2	368	1
TOTAL	657	3	676	14

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
F6860	914.964	568.108	607.327	2090.894	180.000	300.000

...MISSION

OPERATE THE WESTERN TEST RANGE TO SUPPORT FIELD TEST AND LAUNCH OPERATIONS FOR A VARIETY OF GOVERNMENT RANGE USERS. WSMC CAPABILITIES INCLUDE TEST LAUNCH AND RANGE SUPPORT. TEST LAUNCH INCLUDES: ASSEMBLY AND PRELAUNCH TESTING OF LAUNCH VEHICLE SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

ADVANCED BALLISTIC REENTRY SYSTEMS PROGRAMS.
 MINUTEMAN II OPERATIONAL TESTING PROGRAM.
 MINUTEMAN III OPERATIONAL TESTING PROGRAM
 SPACE LAUNCH PROGRAMS USING TITAN, ATLAS, DELTA, AND SCOUT BOOSTERS.
 RANGE SUPPORT TO GUIDED MISSILE AND AERONAUTICAL TEST PROGRAMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ATLAS, TITAN AND MM BOOSTERS; PAYLOAD AND VEHICLE INTEGRATION/CHECKOUT; AND LAUNCH CONTROL/SAFETY. WESTERN TEST RANGE SUPPORT INCLUDES NEAR AND FAR TERM RANGE INSTRUMENTATION PLANNING, AND DATA GATHERING ON BALLISTIC/SPACE/GUIDED MISSILES; AIRCRAFT AND OTHER TESTS AT UPRANGE AND CATIONS, AND COMMAND CONTROL SYSTEMS ARE AVAILABLE. LAUNCH AZIMUTHS VARY FROM 140 TO 818 DEGREES. AERONAUTICAL TESTS ARE CONDUCTED IN AN INSTRUMENTED OFFSHORE OPERATING AREA. LAUNCH FACILITIES AND RANGE INSTRUMENTATION CAN BE RECONFIGURED TO MEET PROGRAM REQUIREMENTS.

INSTALLATION: 4950 TEST WING

WPAFB, OH.

CDR. COL. R. W. YATES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	66.426	84.094
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.005	2.211
TOTAL OTHER	16.122	17.251
TOTAL ANNUAL LAB	84.558	103.556
TOTAL INHOUSE	80.899	99.104
TOTAL INHOUSE RDT&E	62.772	79.642
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	865	1	27	888
CIVILIAN	1048	0	100	948
TOTAL	1918	1	127	1786

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
205	0.000	57.671	891.608	949.279	14.260	398.456

...MISSION

DOD MAJ TEST FAC. PERFORMS T&E ON MIL SYS, SUBSYS, AND COMP. OPER & MAIN ASGN TEST SUP ACFT AND ANCIL EQUIP. MANAGES A CENTRAL FAC FOR MAJ MOD OF AFSC ACFT. OPER SHOP FAC IN SUP OF CMD ACFT CLASS II MODS AND AFWAL R&D PROGMS. PROVIDES FLT TST ENGRG, TECH DATA ACQ, AND TECH PHOTO SVCS.

...CURRENT IMPORTANT PROGRAMS

TRIDENT
SUPPORT TO AIR LAUNCH CRUISE MISSILE (ALCM)
AIRBORNE LASER LABORATORY
CROSSEYE ECM
SATELLITE COMMUNICATION (SATCOM)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

41 TEST SUPPORT AIRCRAFT (7 ARIA EC-185) PROVIDE GLOBAL SUPPORT
ALL AFSC MAJOR CLASS II AIRCRAFT MODIFICATIONS
MISSILE LAUNCH/REENTRY TRACKING AND DATA RELAY
1400 SQUARE MILE RESTRICTED TEST AREA IN OHIO
FLIGHT TEST ENGINEERING (AERO-MECH, AVIONICS, ANALYSIS, INSTRUMENTATION)
TEST DATA ACQUISITION/PROCESSING/ANALYSIS
8 OPERATIONAL SQS (FLIGHT CREWS) AND 8 MAINTENANCE SQS
SPECIALIZED FABRICATION AND MODELING EQUIPMENT
COMPUTER AIDED DESIGN/MANUFACTURING (CAD/CAM) CAPABILITY
TECHNICAL PHOTOGRAPHIC INSTRUMENTATION & PROCESSING
LARGEST PMEL IN AF
ASD LABORATORY MATERIAL CONTROL ACTIVITY.

CDR. COL. ROBERT E. HANEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981 (ACTUAL)	1982 (ACT + EST)
TOTAL RDT&E	21.114	24.898
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	5.904	6.200
TOTAL OTHER	7.803	6.779
TOTAL ANNUAL LAB	84.821	87.872
TOTAL INHOUSE	16.580	19.988
TOTAL INHOUSE RDT&E	11.677	14.359
ANNUAL OPERATING COST	0.108	0.180

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL		NON-PROF
	STRENGTH	PHDS	PROF	
MILITARY	825	1	105	220
CIVILIAN	281	3	186	95
TOTAL	606	4	291	315

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6602	886.000	12.000	165.000	563.000	103.657	40.748

...MISSION

DOD FOCAL POINT FOR FLIGHT, LAB & SLED T&E OF INERTIAL GUIDANCE SYST & COMPONENTS. HIGH SPEED TRACK FOR AERODYNAMIC, EJECTION, IMPACT, RAINFLD GUIDANCE & BLAST INTERACTION. RADAR CROSS SECTION & ANTENNA PATTERNS OF A/C, SPACECRAFT RVS. A/C SUPPORT FOR IN-HOUSE AND TRANSIENT REQUIREMENTS

...CURRENT IMPORTANT PROGRAMS

MX MISSILE GUIDANCE SYSTEM AND COMPONENTS TESTING
 A/C NAVIGATION SYSTEM VERIFICATION TESTING, PROJECT 688G
 B-52 INTEGRATED WEAPONS SYSTEM TESTING
 ADVANCED GUIDANCE TECHNOLOGY TESTING IN SUPPORT OF ABRES
 HBU-X LAB BELT TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1-260IN/2-100IN PRECISION CENTRIFUGES, PRECISION GRND/ABN TEST FACILITY
 PRECISION REFERENCE/DATA COLLECTION
 ENVIRONMENTAL CHAMBERS/INERTIAL NAV TEST VAN
 508799 FT TEST TRACK, 85,588 FT, 2 RAIL/15,200 FT, 8 RAIL
 5 BLOCKHOUSES, 2 INTRMN STATIONS
 9000 FT TRACKSIDE, 2000 FT BALL RAINFLD, ROCKET SLED/PROPULSION SYST
 INV RADAR SCATTER FAC, 80 MHZ TO 95 GHZ
 MEASURE MONOSTATIC/BISTATIC AMP, PHASE, DOPPLER, GLINT
 JET ENGINE MODULATION IR SIGNATURE

CDR. CAPT. PAUL E. TYLER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1981	1982
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.758	10.575
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.544	8.080
TOTAL ANNUAL LAB	11.297	18.635
TOTAL INHOUSE	11.297	18.655
TOTAL INHOUSE RDT&E	8.758	10.575
ANNUAL OPERATING COST	2.270	2.689

PERSONNEL DATA (END OF FY 1981)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	91	22	44	47
CIVILIAN	181	16	49	82
TOTAL	222	88	98	129

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	26.528	16.047	56.540	99.110	18.895	13.755

...MISSION

THE MISSION OF AFRRRI SHALL BE TO CONDUCT RESEARCH IN THE FIELD OF RADIOBIOLOGY AND RELATED MATTERS ESSENTIAL TO THE OPERATIONAL AND MEDICAL SUPPORT OF THE DEPARTMENT OF DEFENSE AND THE MILITARY SERVICES

...CURRENT IMPORTANT PROGRAMS

DEFINE PHYSIOLOGICAL/PATHOLOGICAL RESPONSE IN HUMANS TO RADIATION.
 ASSESS EFFECTS OF COMBINED INJURIES, MILITARY FORCES/NONCOMBATANTS,
 DATA FOR PREDICTION OF COMBAT INEFFECTIVENESS AND CASUALTY PRODUCTION.
 TREATMENT METHODS FOR CASUALTIES FROM RADIATION/COMBINED INJURY.
 INSTRUCTION TO ARMED SERVICES ON TREATMENT OF NUCLEAR CASUALTIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS: OPERATE FACILITIES FOR CONDUCTING RADIOBIOLOGY RESEARCH AND DISSEMINATING RESULTS; CONDUCT ADVANCED TRAINING; PROVIDE ANALYSIS CONSULTATION ON BIOEFFECTS OF RADIATION AND PERFORM OTHER SUCH RESEARCH FUNCTIONS AS REQUIRED. MAJOR EQUIPMENT INCLUDES: PULSE AND STEADY STATE NUCLEAR REACTOR, 200,000-CURIE COBALT-60 IRRADIATOR, ELECTRON LINEAR ACCELERATOR, X-RAY AND THERATRON
 EXPOSURE CAPABILITY
 SUPPORT SERVICES INCLUDE: MEASUREMENT OF RADIATION FIELDS, PROVISION AND CARE OF LABORATORY ANIMALS, EQUIPMENT DESIGN AND FABRICATION ASSISTANCE, REAL-TIME DATA ACQUISITION SYSTEM, TELEVISION AND FILM DOCUMENTATION OF EXPERIMENTS, PERSONNEL AND ENVIRONMENTAL MONITORING, EDITORIAL ASSISTANCE IN REPORT PREPARATION, AND A LARGE TECHNICAL LIBRARY

APPENDIX I

DISESTABLISHMENT, ESTABLISHMENT OR CHANGES IN ORGANIZATION OR NAME*

DEPARTMENT OF THE ARMY

BIOMEDICAL LABORATORY
Aberdeen Proving Ground, MD

DISESTABLISHED
Name change

COMMUNICATIONS-ELECTRONICS
R&D CENTER
Ft. Monmouth, NJ

ESTABLISHED

COMMUNICATIONS R&D COMMAND
Ft. Monmouth, NJ

DISESTABLISHED

MEDICAL RESEARCH INSTITUTE OF
CHEMICAL DEFENSE
Aberdeen Proving Ground, MD

ESTABLISHED
Name change from above

DEPARTMENT OF THE NAVY

ARCTIC RESEARCH LABORATORY
Barrow, Alaska

DISESTABLISHED

DEPARTMENT OF THE AIR FORCE

NONE

* Changes since publication of Department of Defense In-house RDTE Activities,
30 October 1980.

APPENDIX II

DEFINITIONS

1. **IN-HOUSE RDTE ACTIVITIES**--Those organizational entities engaged in performing work in any or all of the categories of research, development, test, and evaluation. The RDTE effort, however, should represent a minimum of 25 percent of the total effort of each entity reporting in order to be considered as an RDTE activity.

2. **PROFESSIONALS**--Full-time government scientific and engineering personnel actively engaged in RDTE activities. In the case of civilians this will include all those holding positions that fall into the following categories under the Civil Service Occupational Groups and Series of Classes, General Schedule:

101	Social Science	660	Pharmacist
150	Geography	662	Optometrist
180	Psychology	665	Speech Pathology and Audiology
184	Sociology	668	Podiatrist
190	General Anthropology	680	Dental Officer
193	Archeology	690	Industrial Hygiene
401	Biology	695	Food and Drug Officer
403	Microbiology	696	Consumer Safety
405	Pharmacology	701	Veterinary Medical Science
408	Ecology	801	General Engineering
410	Zoology	803	Safety Engineering
413	Physiology	804	Fire Prevention Engineering
414	Entomology	806	Materials Engineering
430	Botany	807	Landscape Architecture
434	Plant Pathology	808	Architecture
435	Plant Physiology	810	Civil Engineering
436	Plant Protection and Quarantine	819	Sanitary Engineering
437	Horticulture	830	Mechanical Engineering
440	Genetics	840	Nuclear Engineering
454	Range Conservation	850	Electrical Engineering
457	Soil Conservation	855	Electronic Engineering
460	Forestry	858	Biomedical Engineering
470	Soil Science	861	Aeronautics Engineering
471	Agronomy	871	Naval Architecture
480	General Fish & Wildlife	880	Mining Engineering
482	Fishery Biology	881	Petroleum Production and Natural Gas Engr.
486	Wildlife Biology	890	Agriculture Engineering
487	Husbandry	892	Ceramic Engineering
493	Home Economics	893	Chemical Engineering
601	General Health	894	Welding Engineering
602	Medical Officer	896	Industrial Engineering
		1221	Patent Adviser
		1222	Patent Attorney
		1223	Patent Classifying
		1224	Patent Examining
		1225	Patent Interference Examining

1226	Design Patent Examining	1370	Cartography
1301	General Physical Science	1372	Geodesy
1306	Health Physics	1380	Forest Products Technology
1310	Physics	1382	Food Technology
1313	Geophysics	1384	Textile Technology
1315	Hydrology	1386	Photographic Technology
1320	Chemistry	1510	Actuary
1321	Metallurgy	1515	Operations Research
1330	Astronomy and Space Science	1520	Mathematics
1340	Meteorology	1529	Mathematical Statistician
1350	Geology	1530	Statistician
1360	Oceanography	1540	Cryptography
		1550	Computer Sciences

Military professionals, both officer and enlisted, actively engaged in RDTE activities could be identified with the functions described in the above referenced civilian job series. Lawyers, accountants, chaplains, social workers, and educators should be excluded.

3. **TECHNICIANS**--Generally nonprofessionals working on an RDTE project or program in support of a professional. In the case of civilians, it will include, but will not necessarily be limited to, those holding positions that fall into the following categories of the Civil Service Occupational Groups and Series of Classes, General Schedule:

102	Social Science Technician	681	Dental Assistant
181	Psychological Technician	682	Dental Hygienist
404	Biological Technician	683	Dental Laboratory Technician
421	Plant Protection Technician	684	Public Health Dental Hygienist
455	Range Technician	685	Public Health Program Specialist
458	Soil Conservation Technician	688	Sanitarian
462	Forestry Technician	698	Environmental Health Technician
603	Physician Assistant	699	Health Technician
621	Nurse Assistant	704	Animal Health Technician
622	Medical Supply Aid	802	Engineering Technician
625	Autopsy Attendant	817	Surveying Technician
636	Rehabilitation Therapy Asst	818	Engineering Drafting
642	Nuclear Medicine Technician	856	Electronics Technician
644	Medical Technologist	895	Industrial Engineering Technician
645	Medical Technician	1202	Patent Technician
646	Pathology Technician	1311	Physical Science Technician
647	Medical Radiology Technician	1316	Hydrologic Technician
648	Therapeutic Radiological Technologist	1341	Meteorological Technician
649	Medical Machine Technician	1371	Cartographic Aid
650	Medical Technical Assistant	1374	Geodetic Technician
661	Pharmacy Technician	1521	Mathematics Technician
664	Restoration Technician	1531	Statistical Clerical & Administrative
667	Orthotist and Prosthetist	1541	Cryptanalysis
669	Medical Record Librarian		

Discretion will have to be exercised by each RDTE activity in determining the number of military technicians. Generally, they should follow the guidelines established in defining civilian technicians and can be identified in DOD 1312.1

4. REAL PROPERTY COST--Each reporting activity will be responsible for determining and reporting the cost of real property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

5. EQUIPMENT COST--Each reporting activity will be responsible for determining and reporting the cost of personal property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

6. SPACE--The data to be furnished should include only walled and roofed building space. It should not include such things as parking lots, open storage areas, lean-tos, etc. The source of data may be the annual report submitted in compliance with the requirements of DOD Instruction 4165.14.

7. IN-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by the organizational entity. Their work is carried on directly by their own personnel. Particular care should be taken to include under in-house performance the cost of supplies and equipment essentially of an off-the-shelf nature that are procured for use in in-house research and development, plus such things as travel, publications, and other types of services in support of in-house functions and M.P.A. Excluded from the in-house total are expenses for planning and administering programs by DOD personnel of contracts and grants for out-of-house work and M.C.A.

8. OUT-OF-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by other than the organizational entity. Out-of-house performers may include other departmental or DOD organizational entities, industrial firms, educational institutions, not-for-profit institutions, and private individuals. Included as out-of-house work are all expenses paid the out-of-house performers, as well as the expenses incurred in planning and administering these programs by personnel of the organizational entity. This would also include travel and other supporting services.

9. ANNUAL OPERATING COST--This should generally reflect the overhead cost of operating the laboratory or facility. It should include such things as costs of utilities, rents, janitorial services, guard and fire protection, support services such as supply personnel, printing, maintenance of buildings and grounds, etc. It should not include the salaries of direct labor personnel such as scientists, engineers, technicians, draftsmen, machinists, etc.

APPENDIX III

Selected Standard Abbreviations and Acronyms

AAM -- air-to-air missile
AAW -- antiair warfare
ADPE -- automatic data-processing equipment
AEDC -- Arnold Engineering Development Center
AFSC -- Air Force Systems Command
AFWET -- Air Force weapons effectiveness testing
APG -- Aberdeen Proving Ground
ARPA -- Advanced Research Projects Agency
ASW -- antisubmarine warfare
AUS -- Army United States

BIS -- Board of Inspection and Survey
BW -- biological warfare

CBR -- chemical, biological radiological
CE -- Chief of Engineers, Army
CG -- commanding general
CNO -- Chief of Naval Operations
COMMEL -- communications electronics

DA -- Department of the Army
DARCOM -- Department of the Army Materiel, Development, and Readiness Command
DASA -- Defense Atomic Support Agency
DOD -- Department of Defense
DZ -- drop zone

ECM -- electronic countermeasures
ED -- engineering development
EDT -- engineering development & test
EEG -- electroencephalogram
EKG -- electrocardiogram
ELINT -- electronic intelligence
EMP -- electromagnetic propagation
EMW -- electromagnetic warfare
EODC -- Explosive Ordnance Disposal Center
ET -- engineering artillery
FA -- field artillery
FBM -- fleet ballistic missile

GC -- ground-controlled approach
HF -- high-frequency
IFF -- identification, friend or foe
IR -- infrared
MPT -- military potential test
NAF -- Naval Air Facility
NASA -- National Aeronautics and Space Administration
NASC -- Naval Air Systems Command
NAVORD -- Naval Ordnance Systems Command
NAVSHIP -- Naval Ship Systems Command
NEMP -- nuclear electromagnetic propagation
PI -- product improvement
POL -- petroleum oil, lubricants

QA -- quality assurance
QMDO -- qualitative materiel development objective
QMR -- qualitative materiel requirement

RDTE -- Research, development, test and evaluation
RF -- radio frequency
RV -- reentry vehicle

SATS -- short airfield tactical support
SDR -- small development requirement
SI -- ship installation
SP -- self-propelled
ST -- service test

T&E -- test and evaluation

UDT -- underwater demolition team
ULMS -- Undersea Long-Range Missile System
USATECOM -- US Army Test and Evaluation Command
UTTAS -- utility tactical transport aircraft system
USW -- undersea warfare
UV -- ultraviolet
V/STOL -- vertical/short takeoff and landing

APPENDIX IV

KEY WORK OR ACTIVITY

	<u>PAGE</u>
<u>AIR MOBILITY:</u>	
AVIATION R&T LABORATORIES	10
<u>AIR TO AIR MISSILES:</u>	
ORDNANCE MISSILE TEST FACILITY (NAVY)	78
PACIFIC MISSILE TEST CENTER	79
WEAPONS CENTER	86
<u>AIRCRAFT:</u>	
AIR DEVELOPMENT CENTER	57
AVIATION BOARD	7
AVIATION ENGINEERING FLIGHT ACTIVITY	9
AVIATION R&T LABORATORIES	10
AVIATION R&D ACTIVITY	11
FLIGHT DYNAMICS LABORATORY	95
FLIGHT TEST CENTER	96
<u>AIRCRAFT ENGINES:</u>	
AERO PROPULSION LABORATORY	88
AIR PROPULSION CENTER	58
ARNOLD ENGINEERING DEVELOPMENT CENTER	92
<u>AMMUNITION:</u>	
ARMAMENT DIVISION	90
ARMOR AND ENGINEER BOARD	4
BALLISTIC RESEARCH LABORATORY	12
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	70
FIRE CONTROL & SMALL CALIBER WEAPON SYSTEMS LABORATORY	27
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	35
MATERIEL TESTING DIRECTORATE, APG	39

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>AMPHIBIOUS OPERATIONS:</u>	
COASTAL SYSTEMS CENTER	66
DAVID W. TAYLOR SHIP R&D CENTER	67
<u>ANTIAIRCRAFT DEFENSE SYSTEMS:</u>	
AIR DEFENSE BOARD	
ORDNANCE MISSILE TEST FACILITY	78
SURFACE WEAPONS CENTER	82
<u>ANTIMISSILE DEFENSE SYSTEMS:</u>	
EASTERN SPACE AND MISSILE CENTER	93
KWAJALEIN MISSILE RANGE	34
WESTERN SPACE AND MISSILE CENTER	106
<u>ANTISUBMARINE WARFARE:</u>	
AIR DEVELOPMENT CENTER (NAVY)	57
OCEAN SYSTEMS CENTER	76
RESEARCH LABORATORY (NAVY)	81
UNDERSEA RANGES DEPARTMENT	84
UNDERWATER SYSTEMS CENTER	85
<u>ARCHITECTURAL:</u>	
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	19
<u>ARCTIC ENVIRONMENTAL TESTING:</u>	
ARCTIC RESEARCH LABORATORY	60
COLD REGIONS R&E LABORATORY	14
COLD REGIONS TEST CENTER	15

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

ARTILLERY AND GUNS:

COLD REGIONS TEST CENTER	15
FIELD ARTILLERY BOARD	26
FIRE CONTROL & SMALL CALIBER WEAPONS SYSTEMS LABORTORY	27
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	35
MATERIEL TESTING DIRECTORATE, APG	39

ATOMIC PROPERTIES:

ARMOR AND ENGINEER BOARD	4
BALLISTIC RESEARCH LABORATORY	12
INSTITUTE OF DENTAL RESEARCH	31
WEAPONS EVALUATION FACILITY	87

AUTOMOTIVE VEHICLES:

MATERIEL TESTING DIRECTORATE APG	39
TANK-AUTOMOTIVE COMMAND LABORATORIES	51
YUMA PROVING GROUND	55

AVIONICS:

AVIONICS LABORATORY (AIR FORCE)	92
AVIONICS R&D ACTIVITY (ARMY)	11
BALLISTIC RESEARCH LABORATORY	12

BASIC RESEARCH

ARMY RESEARCH OFFICE	5
OFFICE OF NAVAL RESEARCH	77
OFFICE OF SCIENTIFIC RESEARCH	101

BIOLOGICAL WARFARE:

CHEMICAL SYSTEMS LABORATORY	13
DUGWAY PROVING GROUND	20
SCHOOL OF AEROSPACE MEDICINE	104

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>BLOOD:</u>	
WALTER REED ARMY INSTITUTE OF RESEARCH	57
<u>BURN: (INJURIES)</u>	
INSTITUTE OF SURGICAL RESEARCH	32
<u>CAMOUFLAGE:</u>	
MOBILITY EQUIPMENT R&D COMMAND	45
<u>CHEMICAL WARFARE:</u>	
CHEMICAL SYSTEMS LABORATORY	13
DUGWAY PROVING GROUND	20
<u>CLOTHING:</u>	
AIR DEVELOPMENT CENTER	57
CLOTHING AND TEXTILE RESEARCH FACILITY	65
NATICK R&D LABORATORIES	46
<u>COASTAL REGIONS:</u>	
COASTAL SYSTEMS CENTER	66
<u>COLD REGIONS:</u>	
ARCTIC RESEARCH LABORATORY	60
COLD REGIONS R&E LABORATORY	14
COLD REGIONS TEST CENTER	15
<u>COMBAT SURVEILLANCE:</u>	
COMBAT SURVEILLANCE & TARGET ACQUISITION LABORATORY	16

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

COMMUNICATIONS AND RADIO SYSTEMS:

AVIONICS R&D ACTIVITY (ARMY)	11
COMMUNICATIONS-ELECTRONICS R&D CENTER	18
COMMUNICATIONS-ELECTRONICS BOARD	17
RESEARCH LABORATORY (NAVY)	81

CONSTRUCTION AND STRUCTURAL ENGINEERING:

CIVIL ENGINEERING LABORATORY	64
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	19
ENGINEERING WATERWAYS EXPERIMENT STATION	25

COST ANALYSIS:

MATERIEL SYSTEMS ANALYSIS ACTIVITY	38
--	----

CRYOGENICS:

LARGE CALIBER WEAPONS SYSTEMS	35
-------------------------------------	----

DATA PROCESSING:

ATMOSPHERIC SCIENCES LABORATORY	6
COMMUNICATIONS-ELECTRONICS R&D CENTER	18
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	19

DENTISTRY:

DENTAL RESEARCH INSTITUTE NTC	68
INSTITUTE OF DENTAL RESEARCH	31
MEDICAL RESEARCH INSTITUTE	72

EARTH SCIENCES:

ENGINEERING WATERWAYS EXPERIMENT STATION	25
--	----

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

ELECTRONIC WARFARE:

ARNOLD ENGINEERING DEVELOPMENT CENTER	91
ELECTRONIC PROVING GROUND	21
ELECTRONIC WARFARE LABORATORY	22
ELECTRONICS DEVICES AND TECHNOLOGY LABORATORY	23
FRANK J. SEILER RESEARCH LABORATORY	98
ROME AIR DEVELOPMENT CENTER	103

ENVIRONMENT:

COLD REGIONS R&E LABORATORY	14
COLD REGIONS TEST CENTER	15
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	19
DUGWAY PROVING GROUND	20
MATERIEL TESTING DIRECTORATE	39
MEDICAL BIOENGINEERING RESEARCH & DEVELOPMENT LABORATORY	40
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	49
TROPIC TEST CENTER	52

EQUIPMENT: GENERAL

MOBILITY EQUIPMENT R&D COMMAND	45
--------------------------------------	----

ESCAPE SYSTEMS:

FLIGHT TEST CENTER	96
--------------------------	----

FIRE CONTROL SYSTEMS:

ARMAMENT DIVISION	90
FIRE CONTROL & SMALL CALIBER WEAPONS SYSTEMS LABORATORY	27
WEAPONS CENTER	87

FOOD PRESERVATION:

NATICK R&D LABORATORIES	46
-------------------------------	----

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

FUELS AND LUBRICANTS:

AERO PROPULSION LABORATORY	88
AIR DEVELOPMENT CENTER	57
HARRY DIAMOND LABORATORIES	28
MOBILITY EQUIPMENT R&D COMMAND	45

FUZES:

HARRY DIAMOND LABORATORIES	28
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	35

GUIDED MISSILES:

ARMAMENT DIVISION	90
BALLISTIC RESEARCH LABORATORY	12
EASTERN SPACE AND MISSILE TEST CENTER	94
FIELD ARTILLERY BOARD	26
INFANTRY BOARD	30
KWAJALEIN MISSILE RANGE	34
MISSILE RESEARCH & DEVELOPMENT COMMAND	44
ORDNANCE MISSILE TEST FACILITY	78
WESTERN SPACE AND MISSILE TEST CENTER	106
WHITE SANDS MISSILE RANGE	54

HUMAN FACTORS ENGINEERING:

AEROMEDICAL RESEARCH LABORATORY	1
AEROSPACE MEDICAL RESEARCH LABORATORY (NAVY)	56
HUMAN ENGINEERING LABORATORY	29
HUMAN RESOURCES LABORATORY	99
SCHOOL OF AEROSPACE MEDICINE	104

HYDROFOIL:

DAVID W. TAYLOR SHIP R&D CENTER	67
ENGINEER WATERWAYS EXPERIMENT STATION	25

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

INFECTIOUS DISEASES:

MEDICAL RESEARCH UNIT NO. 2 (PHILIPPINES)	73
MEDICAL RESEARCH UNIT NO. 3 (EGYPT)	74
WALTER REED ARMY INSTITUTE OF RESEARCH	53

INSECTS:

BIOSCIENCES LABORATORY	63
LETTERMAN ARMY INSTITUTE OF RESEARCH	36
MEDICAL BIOENGINEERING R&D LABORATORY	40

JET ENGINES:

AERO PROPULSION LABORATORY	88
AIR PROPULSION CENTER	58
ARNOLD ENGINEERING DEVELOPMENT CENTER	91

LANDING AIDS:

AVIONICS R&D ACTIVITY (ARMY)	11
AVIONICS LABORATORY (AIR FORCE)	92
FLIGHT TEST CENTER	96

LASERS:

AERO PROPULSION LABORATORY	88
AVIONICS LABORATORY (AIR FORCE)	92
AVIONICS R&D ACTIVITY (ARMY)	11
COMBAT SURVEILLANCE & TARGET ACQUISITION LABORATORY	16
INSTITUTE OF DENTAL RESEARCH	31
LETTERMAN ARMY INSTITUTE OF RESEARCH	36
MISSILE COMMAND	44
RESEARCH LABORATORY (NAVY)	81
SURFACE WEAPONS CENTER	83

MAPPING:

ENGINEERING TOPOGRAPHIC LABORATORIES	24
--	----

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

MATERIALS:

BALLISTIC RESEARCH LABORATORY	12
MATERIALS LABORATORY	10
MATERIALS AND MECHANICS RESEARCH CENTER	37

MEDICAL RESEARCH:

AEROMEDICAL RESEARCH LABORATORY	1
ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE	109
BIOSCIENCES LABORATORY	63
INSTITUTE OF DENTAL RESEARCH	31
INSTITUTE OF SURGICAL RESEARCH	32
LETTERMAN ARMY INSTITUTE OF RESEARCH	36
MEDICAL BIOENGINEERING R&D LABORATORY	40
MEDICAL RESEARCH INSTITUTE (NAVY)	72
MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE	42
MEDICAL RESEARCH UNIT, NO. 2 (PHILIPPINES)	73
MEDICAL RESEARCH UNIT, NO. 3 (EGYPT)	74
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	49
SCHOOL OF AEROSPACE MEDICINE	104
SUBMARINE MEDICAL RESEARCH LABORATORY	82
WALTER REED ARMY INSTITUTE OF RESEARCH	53

METEOROLOGY:

ATMOSPHERIC SCIENCES LABORATORY	6
COLD REGIONS TEST CENTER	15
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	69
FIELD ARTILLERY BOARD	26

MINES:

COASTAL SYSTEMS CENTER	66
------------------------------	----

NAVAL ARCHITECTURE:

DAVID W. TAYLOR SHIP R&D CENTER	67
---------------------------------------	----

NIGHT VISION:

NIGHT VISION AND ELECTRO-OPTICS LABORATORY	47
--	----

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

NUTRITION:

LETTERMAN ARMY INSTITUTE OF RESEARCH	36
NATICK R&D LABORATORIES	46

OCEANOGRAPHY:

ARCTIC RESEARCH LABORATORY	60
CIVIL ENGINEERING LABORATORY	64
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	69
OCEAN RESEARCH & DEVELOPMENT ACTIVITY	75

OPTICS:

ENGINEER TOPOGRAPHIC LABORATORIES	24
NIGHT VISION & ELECTO-OPTICS LABORATORY	47

PHYSICAL PROPERTIES:

FRANK J. SEILER RESEARCH LABORATORY	97
MATERIALS AND MECHANICS RESEARCH CENTER	37

PHYSICAL SCIENCES:

BALLISTIC RESEARCH LABORATORY	12
FRANK J. SEILER RESEARCH LABORATORY	97
GEOPHYSICS LABORATORY	98

PSYCHOLOGY:

HEALTH RESEARCH CENTER	71
LETTERMAN ARMY INSTITUTE OF RESEARCH	36
PERSONNEL RESEARCH & DEVELOPMENT CENTER	80
RESEARCH INSTITUTE FOR BEHAVIORAL & SOCIAL SCIENCES	48
WALTER REED ARMY INSTITUTE OF RESEARCH	53

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>RADAR</u>	
AVIONICS LABORATORY (AIR FORCE)	92
AVIONICS R&D ACTIVITY (ARMY)	11
COMBAT SURVEILLANCE & TARGET ACQUISITION LABORATORY	16
HARRY DIAMOND LABORATORIES	28
RESEARCH LABORATORY (NAVY)	81
ROME AIR DEVELOPMENT CENTER	103
<u>RADIOBIOLOGY:</u>	
ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE	109
<u>ROCKET PROPULSION:</u>	
ROCKET PROPULSION LABORATORY	102
<u>SATELLITES:</u>	
FLIGHT DYNAMICS LABORATORY	95
ORDNANCE MISSILE TEST FACILITY (NAVY)	78
RESEARCH LABORATORY (NAVY)	81
<u>SOCIAL SCIENCES:</u>	
PERSONNEL RESEARCH AND DEVELOPMENT CENTER	80
RESEARCH INSTITUTE FOR BEHAVIORAL AND SOCIAL SCIENCES	48
<u>SYSTEM ANALYSIS:</u>	
MATERIAL SYSTEMS ANALYSIS ACTIVITY	38
<u>TARGET ACQUISITION:</u>	
AEROSPACE MEDICAL RESEARCH LABORATORY	89
COMBAT SURVEILLANCE & TARGET ACQUISITION LABORATORY	16
HARRY DIAMOND LABORATORIES	28

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>TOPOGRPAHY:</u>	
ENGINEER TOPOGRAPHIC LABORATORIES	24
<u>TRPEDOES:</u>	
SURFACE WEAPONS CENTER	83
UNDERSEA RANGES DEPARTMENT	84
<u>TROPICAL REGIONS:</u>	
TROPICAL TEST CENTER	52
<u>WARHEADS:</u>	
ARMAMENT DIVISION	90
BALLISTIC RESEARCH LABORATORY	12
FIELD ARTILLERY BOARD	26
WEAPONS CENTER	86
<u>WEAPONS SYSTEMS:</u>	
AIR DEFENSE BOARD	2
AIR DEVELOPMENT CENTER	57
INFANTRY BOARD	30
MATERIEL TESTING DIRECTORATE	39
UNDERWATER SYSTEMS CENTER	85
WEAPONS LABORATORY	105