

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES

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⑥ DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES. ^{and}

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Science Applications, Inc.
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⑨ Management analysis reptis

Prepared for:
US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND
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FOREWORD

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

EACH IN-HOUSE RDT&E ACTIVITY OF THE DEPARTMENT OF DEFENSE IS DESCRIBED ON ONE PAGE IN THIS COMPILATION. THE DATA FOR 1977 ARE SUMMARIZED IN TABLES PRECEDING THE MAIN TEXT AND CHARTS AND TABLES ARE PROVIDED FOR EACH SERVICE SHOWING ORGANIZATIONAL RELATIONSHIPS AND COMMAND CHAINS.

ALL CURRENT DOD RDT&E ACTIVITIES WHICH MEET THE REPORT REQUIREMENT OF HAVING AT LEAST 25 PER CENT OF THEIR BUDGET IN RDT&E 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 1977 APPEAR IN APPENDIX I.

APPENDIX II CONTAINS THE DEFINITIONS GIVEN IN DOD INSTRUCTION 7700.9 (DEPARTMENT OF THE ARMY LETTER, "RESEARCH AND DEVELOPMENT RESOURCE DATA FOR IN-HOUSE RDT&E ACTIVITIES," DATED 6 AUGUST 1973) AND EMPLOYED AS THE DIRECTIVE FOR THESE DATA. THIS LETTER WILL BE REPLACED BY A TRI-SERVICE REGULATION IN FY 1978 WHICH WILL BE USED BY ALL SERVICES AS THE BASIS FOR DATA SUBMISSION FOR THIS REPORT IN ENSUING YEARS. 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 WHERE NECESSARY, REVIEWED WITH SUBMITTING AGENCY TO INSURE CORRECTNESS AND CLARITY.

SINCERE APPRECIATION IS EXTENDED TO MR. JACK LATTA AND HIS ASSOCIATES 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 ASSISTANCE.

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SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E FACILITIES

PROGRAM DATA FOR FY 1977

	(MILLIONS)
TOTAL ANNUAL PROGRAM	6280.564
TOTAL INHOUSE PROGRAM	2955.402
TOTAL RDT&E PROGRAM	3527.979
TOTAL INHOUSE RDT&E	1827.722
TOTAL ANNUAL OPERATING COST	686.097

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	22768	743	5869
CIVILIAN	69845	3496	27935
TOTAL	92613	4239	33804

PHYSICAL FACILITIES (END OF FY 1977)

ACRES	9269278
SPACE (THOUSANDS OF SQ FT)	
LABORATORY	28273.790
ADMINISTRATIVE	9001.029
OTHER	58246.685
TOTAL	95521.504
COST (MILLIONS)	
REAL PROPERTY	3954.703
EQUIPMENT	3122.120
TOTAL	7076.823

TABLE 1. ARMY ROTEE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	IMHOUSE	ROTEE	IMHOUSE	TOTAL	IMHOUSE	ROTEE	TOTAL	IMHOUSE	ROTEE	TOTAL	IMHOUSE	ROTEE	PROF
AEROMEDICAL RESEARCH LABORATORY	3,509	3,345	2,137	2,137	67	52	13	6	24	16	16	16	16	16
AIR DEFENSE BOARD	4,354	4,354	2,297	2,297	117	87	0	0	26	15	15	15	15	15
AIR MOBILITY R&D LABORATORY	42,977	16,762	41,991	16,512	26	570	1	30	19	236	236	236	236	236
AIRBORNE COMMUNICATIONS & ELECTRONICS BOARD	3,670	3,670	1,197	1,197	122	52	0	1	75	6	6	6	6	6
AIRCRAFT DEVELOPMENT TEST ACTIVITY	9,965	6,258	6,938	3,496	185	93	0	1	29	17	17	17	17	17
ARMOR AND ENGINEER BOARD	7,666	7,666	2,661	2,661	220	85	0	2	60	12	12	12	12	12
ATMOSPHERIC SCIENCES LABORATORY	14,141	10,946	13,916	10,721	442	232	0	19	13	96	96	96	96	96
AVIATION BOARD	2,211	2,211	1,332	1,332	76	36	0	1	44	13	13	13	13	13
AVIATION ENGINEERING FLIGHT ACTIVITY	5,133	5,133	4,084	4,084	66	105	0	0	23	33	33	33	33	33
AVIONICS LABORATORY	20,160	10,380	12,148	6,396	12	178	0	4	6	129	129	129	129	129
BALLISTICS RESEARCH LABORATORIES	52,040	31,823	50,172	30,515	27	744	1	103	33	398	398	398	398	398
BENET WEAPONS LABORATORY	16,736	10,332	8,438	4,503	6	309	0	23	4	138	138	138	138	138
COLD REGIONS R&E LABORATORY	11,147	6,500	8,386	4,310	13	275	0	29	6	103	103	103	103	103
COLD REGIONS TEST CENTER	7,342	7,342	3,695	3,695	282	22	0	0	95	6	6	6	6	6
COMBAT SURVEILLANCE & TGT ACQUISITION LABS	30,328	11,041	28,567	9,449	11	212	0	10	8	142	142	142	142	142
COMMUNICATIONS ADP LABORATORY	29,012	20,035	21,995	14,529	11	360	0	15	4	257	257	257	257	257
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	10,584	6,790	9,336	6,046	3	204	0	48	3	163	163	163	163	163
DUGWAY PROVING GROUND	22,262	19,721	15,769	13,501	163	631	2	16	20	134	134	134	134	134
EDGEWOOD ARSENAL LABORATORIES	60,066	51,240	49,902	41,076	127	914	30	52	75	519	519	519	519	519
ELECTRONIC PROVING GROUND	10,289	8,808	4,062	3,436	378	196	1	2	36	71	71	71	71	71
ELECTRONICS WARFARE LABORATORY	91,749	22,233	33,225	16,617	53	427	0	8	9	210	210	210	210	210
ELECTRONICS TECHNOLOGY AND DEVICES LAB	22,815	13,771	21,052	12,264	3	337	0	34	2	216	216	216	216	216
ENGINEER TOPOGRAPHIC LABORATORIES	17,261	8,235	14,991	7,065	16	269	0	19	11	172	172	172	172	172
ENGINEER WATERWAYS EXPERIMENT STATION	51,190	41,045	13,351	11,653	39	1410	2	81	35	471	471	471	471	471
FIELD ARTILLERY BOARD	3,325	3,325	1,001	1,001	172	35	0	0	40	3	3	3	3	3
FRANKFORD ARSENAL LABORATORIES	32,992	21,552	14,025	8,435	30	550	0	22	20	374	374	374	374	374
HARRY DIAMOND LABORATORIES	156,006	47,693	69,497	34,364	14	1324	2	76	5	786	786	786	786	786
HO USAMROC	23,387	1,520	24,062	0,195	60	97	22	6	45	7	7	7	7	7
HUMAN ENGINEERING LABORATORY	6,717	6,115	6,089	5,554	32	145	1	18	8	102	102	102	102	102
INFANTRY BOARD	3,155	3,155	1,556	1,556	121	55	0	0	5	5	5	5	5	5
INSTITUTE OF DENTAL RESEARCH	2,277	2,195	0,971	0,889	77	26	6	2	37	6	6	6	6	6
INSTITUTE OF SURGICAL RESEARCH	3,789	3,789	1,819	1,819	135	78	19	4	23	18	18	18	18	18
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	96,178	4,490	93,688	3,795	27	104	2	0	25	72	72	72	72	72
LETTERMAN ARMY INSTITUTE OF RESEARCH	8,973	8,973	5,801	5,801	273	193	50	18	155	99	99	99	99	99
MATERIAL SYSTEMS ANALYSIS AGENCY	19,001	13,659	16,356	11,397	29	409	0	18	10	324	324	324	324	324
MATERIALS AND MECHANICS RESEARCH CENTER	30,544	18,508	20,095	12,393	17	609	2	65	7	206	206	206	206	206
MATERIEL TESTING DIRECTORATE	44,640	43,875	29,014	28,616	213	813	0	10	210	145	145	145	145	145
MEDICAL RIDEENGINEERING R&D LABORATORY	3,465	3,465	2,760	2,760	30	88	5	11	21	32	32	32	32	32
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	10,071	10,071	6,871	6,871	304	196	49	25	57	53	53	53	53	53
MISSILE RES., DEV. AND ENGINEERING LAB	105,613	69,124	62,094	39,851	14	536	1	50	11	411	411	411	411	411
MOBILITY EQUIPMENT R&D COMMAND	110,127	44,170	55,150	26,206	76	1303	1	22	22	408	408	408	408	408
NATICK R&D COMMAND	47,801	36,408	26,534	17,960	104	1081	6	77	24	434	434	434	434	434
NIGHT VISION LABORATORY	71,253	21,498	21,253	21,498	28	415	0	30	26	198	198	198	198	198
PICATINNY ARSENAL LABORATORIES	258,855	153,076	117,257	53,875	21	1800	0	50	11	964	964	964	964	964
RED TECHNICAL SUPPORT ACTIVITY	12,146	12,146	10,209	10,209	5	643	0	0	0	84	84	84	84	84
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	23,286	10,842	22,603	10,159	36	227	2	137	29	200	200	200	200	200
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	4,696	4,696	3,621	3,621	8	79	18	21	50	37	37	37	37	37
TANK & AUTOMOTIVE R&D COMMAND	25,815	9,130	19,552	7,667	14	273	1	10	10	186	186	186	186	186
TROPIC TEST CENTER	3,741	3,322	2,626	2,284	80	62	0	4	11	12	12	12	12	12
WALTER REED ARMY INSTITUTE OF RESEARCH	23,799	23,799	15,702	15,702	480	467	36	57	144	162	162	162	162	162
WHITE SANDS MISSILE RANGE	0,129	0,093	0,117	0,081	931	3857	0	47	382	1006	1006	1006	1006	1006
YUMA PROVING GROUND	41,060	34,082	24,184	24,184	450	792	1	0	55	80	80	80	80	80
TOTALS	1721,448	944,402	1096,149	587,835	6196	23859	274	1276	2107	9987	9987	9987	9987	9987

TABLE 2. ARMY ROTCE FACILITIES DATA, FY 1977

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	10	52,747	7,797	19,993	0.844	8.100
AIR DEFENSE BOARD	26	36,550	36,646	30,114	1.895	9.167
AIR MOBILITY RED LABORATORY	127	88,848	58,673	16,370	1.431	4.211
AIRBORNE COMMUNICATIONS & ELECTRONICS BOARD	27	3,978	39,140	39,390	0.971	3.316
AIRCRAFT DEVELOPMENT TEST ACTIVITY	1196	0.000	34,000	132,300	1.800	23.300
ARMOR AND ENGINEER BOARD	6900	6,230	54,455	143,087	1.382	2.863
ATMOSPHERIC SCIENCES LABORATORY	45	4,800	3,400	3,300	48.000	22.000
AVIATION BOARD	1	0.000	15,096	3,200	0.392	0.182
AVIATION ENGINEERING FLIGHT ACTIVITY	19	9,200	16,000	124,800	3.632	6.076
AVIONICS LABORATORY	0	25,000	30,000	0.000	0.000	9.012
BALLISTICS RESEARCH LABORATORIES	1920	537,624	20,103	34,157	40.462	30.413
BENET WEAPONS LABORATORY	4	167,463	24,600	7,489	4.018	12.912
COLD REGIONS RCE LABORATORY	24	40,734	30,027	97,947	5.056	6.443
COMBAT SURVEILLANCE & TGT ACQUISITION LABS	647155	51,007	120,079	155,428	12.474	5.699
COMMUNICATIONS ADP LABORATORY	227	88,475	6,139	12,569	3.950	15.048
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	0	30,950	40,004	5,000	0.000	10.817
DUGWAY PROVING GROUND	30	76,061	34,159	0.000	3.896	4.067
EDGEWOOD ARSENAL LABORATORIES	840909	90,728	191,558	1690,346	51.237	16.086
ELECTRONIC PROVING GROUND	1750	435,213	234,224	780,402	27.746	17.054
ELECTRONICS TECHNOLOGY AND DEVICES LAB	59573	0.000	50,300	169,500	2.350	43.602
ENGINEER TOPOGRAPHIC LABORATORIES	0	142,936	13,617	48,502	0.000	61.543
ENGINEER WATERWAYS EXPERIMENT STATION	33	90,722	10,575	26,474	0.000	10.822
FIELD ARTILLERY BOARD	722	1736,714	336,418	170,446	6.000	7.808
FRANKFORD ARSENAL LABORATORIES	23	28,100	32,802	17,640	18.914	30.290
HARRY D'AMOND LABORATORIES	43	7,312	141,532	56,591	1.260	1.260
HQ USAM-OC	2343	511,196	145,986	101,139	16,960	12.000
HUMAN ENGINEERING LABORATORY	0	0.000	23,300	0.000	47.594	27.377
INFANTRY BOARD	12	30,776	19,352	29,538	0.000	0.000
INSTITUTE OF DENTAL RESEARCH	10	0.000	39,237	64,133	0.781	3.750
INSTITUTE OF SURGICAL RESEARCH	4	9,325	5,696	6,730	0.900	0.357
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	1	26,424	1.800	22,408	0.853	1.130
LETTERMAN ARMY INSTITUTE OF RESEARCH	1491	0.000	210,232	2625,077	2.013	1.653
MATERIAL SYSTEMS ANALYSIS AGENCY	9	133,198	34,506	305,309	229,950	137.839
MATERIALS AND MECHANICS RESEARCH CENTER	4	8,140	91,994	1,715	42.449	10.342
MATERIEL TESTING DIRECTORATE	48	382,028	76,761	160,030	1.870	0.697
MEDICAL BIOENGINEERING RED LABORATORY	25048	712,500	4,351	274,102	15,726	16.006
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	5	45,888	27,300	34,068	11,314	34.508
MISSILE RES., DEV. AND ENGINEERING LAB	43	80,854	19,820	209,699	3.213	2.655
MOBILITY EQUIPMENT RED COMMAND	7700	281,105	10,145	91,305	17.824	4.300
NATICK RED COMMAND	1064	693,644	115,530	194,279	88.680	39.124
NIGHT VISION LABORATORY	2994	552,557	65,900	407,970	49.093	29.417
PICATTINNY ARSENAL LABORATORIES	20	177,279	15,493	20,000	26.452	16.459
RED TECHNICAL SUPPORT ACTIVITY	4000	204,685	184,072	128,700	0.830	36.591
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	136	17,826	34,599	77,415	8.580	60.000
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	0	60,110	2,559	6,190	33.988	6.821
TANK & AUTOMOTIVE RED COMMAND	4	60,421	18,563	28,647	0.000	1.760
TROPIC TEST CENTER	80	0.380	104,608	418,434	3.463	3.243
WALTER REED ARMY INSTITUTE OF RESEARCH	18866	18,782	30,000	83,891	23.000	4.508
WHITE SANDS MISSILE RANGE	1373	382,494	50,360	0.000	1.033	1.659
YUMA PROVING GROUND	4214377	1429,254	143,278	3012,997	19.060	14.964
	870393	0.832	112,690	1295,093	170.000	214.244
					47.207	69.673
TOTALS	6710789	9652,874	3466,476	13309,174	101.673	1114.008

II

TABLE 3. NAVY ROTEE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL	
	INHOUSE	ROTTEE	INHOUSE	ROTTEE	INHOUSE	ROTTEE	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV
AEROSPACE MEDICAL RESEARCH LABORATORY	5.839	5.470	4.976	4.607	68	121	16	20	21	42	PROF			
AIR DEVELOPMENT CENTER	192.953	75.918	128.577	50.418	295	2300	3	33	60	1183	CIV			
AIR ENGINEERING CENTER	87.031	61.704	23.102	15.361	330	1951	0	3	38	437				
AIR PROPULSION TEST CENTER	22.636	16.384	18.770	13.881	8	607	0	0	8	156				
AIP TEST CENTER	113.899	99.184	60.619	51.497	1491	2135	1	7	189	231				
ARCTIC RESEARCH LABORATORY	11.136	0.055	7.728	0.000	3	0	0	0	2	0				
ATLANTIC FLEET WEAPONS TRAINING FACILITY	14.130	3.016	0.148	0.026	103	34	0	0	29	21				
BIOMEDICAL RESEARCH LABORATORY	2.559	0.672	2.035	0.404	18	6	5	0	8	0				
BLOOD RESEARCH LABORATORY	2.136	2.136	0.977	0.977	11	10	4	0	5	2				
CIVIL ENGINEERING LABORATORY	17.545	10.798	14.121	8.456	15	298	1	27	8	158				
CLOTHING & TEXTILE RESEARCH UNIT	1.783	1.384	0.695	0.695	1	56	0	1	1	37				
COASTAL SYSTEMS LABORATORY	41.114	24.313	33.530	18.209	115	652	1	23	12	295				
DENTAL RESEARCH INSTITUTE, NTC	1.121	1.121	0.632	0.632	26	16	10	3	11	7				
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	3.251	4.451	3.011	1.211	13	41	1	6	6	24				
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	7.898	3.380	4.621	1.461	50	168	0	2	8	43				
HEALTH RESEARCH CENTER	2.817	2.817	2.281	2.281	37	78	14	10	18	28				
MEDICAL RESEARCH UNIT NO.2	15.647	14.314	12.697	11.364	251	226	68	42	87	96				
MEDICAL RESEARCH UNIT NO.3	2.587	2.546	1.981	1.981	31	5	13	2	20	4				
MEDICAL RESEARCH TEST RANGE	1.985	1.985	1.523	1.523	25	61	6	12	10	50				
NATIONAL PARACHUTE TEST RANGE	15.665	12.771	7.666	7.632	251	290	1	0	26	30				
OCEAN R & D ACTIVITY	15.902	5.711	15.588	5.397	11	242	3	48	11	140				
ORDNANCE MISSILE TEST FACILITY	4.539	2.982	3.273	1.628	98	54	0	0	36	3				
PACIFIC MISSILE TEST CENTER	165.631	106.377	81.319	56.923	1043	3952	4	15	272	1191				
PERSONNEL RESEARCH & DEVELOPMENT CENTER	15.468	8.267	12.282	6.365	24	278	1	73	9	150				
RESEARCH LABORATORY	184.399	150.110	134.825	100.536	140	3306	0	543	36	1536				
SHIP RESEARCH & DEVELOPMENT CENTER	138.032	118.471	95.640	79.061	68	2640	1	126	25	1208				
SURFACED MEDICAL RESEARCH LABORATORY	2.195	2.182	1.744	1.731	31	60	9	12	12	34				
SURFACE WEAPONS CENTER	264.492	145.995	167.285	90.636	125	5038	1	239	43	2278				
UNDERSEA CENTER	217.363	117.061	153.023	82.573	367	2629	4	105	47	1347				
UNDERWATER RANGES DIRECTORATE	22.640	11.417	17.070	10.648	40	36	0	1	21	26				
UNDERWATER SYSTEMS CENTER	218.794	115.735	84.292	50.049	106	3049	2	95	39	1424				
WEAPONS CENTER	227.733	128.736	134.493	81.443	514	4160	0	134	34	1409				
WEAPONS EVALUATION FACILITY	6.560	6.433	1.355	1.355	154	116	1	2	24	50				
TOTALS	2042.520	1260.996	1231.579	761.161	5863	34615	170	1684	1176	13650				

TABLE 4. NAVY ROTEE FACILITIES DATA, FY 1977

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AEROSPACE MEDICAL RESEARCH LABORATORY	6	167.657	3.800	11.680	3.130	3.329
AIR DEVELOPMENT CENTER	750	833.000	43.000	451.000	32.665	39.901
AIR ENGINEERING CENTER	7398	334.473	139.206	2455.146	82.637	23.480
AIR PROPULSION TEST CENTER	68	376.704	37.973	211.766	50.820	11.802
AIR TEST CENTER	6638	15.125	363.400	4433.501	153.768	18.825
ARCTIC RESEARCH LABORATORY	4973	45.706	15.987	341.075	35.000	19.000
ATLANTIC FLEET WEAPONS TRAINING FACILITY	3602	0.000	14.957	147.550	10.468	92.007
BIOMEDICAL RESEARCH LABORATORY	5	77.625	8.731	34.646	0.100	5.300
BLOOD RESEARCH LABORATORY	1	14.720	7.360	8.300	0.500	1.239
CIVIL ENGINEERING LABORATORY	30	117.980	27.061	46.181	2.000	2.472
CLOTHING & TEXTILE RESEARCH UNIT	1	10.000	7.000	3.000	0.400	0.800
COASTAL SYSTEMS LABORATORY	682	341.224	38.150	252.742	30.803	15.873
DENTAL RESEARCH INSTITUTE, NTC	1	22.025	4.815	13.355	0.000	0.682
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	1.208	5.012	11.090	0.000	0.855
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	1087	55.345	10.950	66.295	3.833	2.331
HEALTH RESEARCH CENTER	1	11.177	4.500	0.000	1.880	0.491
MEDICAL RESEARCH INSTITUTE	4	145.868	9.400	40.229	3.887	7.583
MEDICAL RESEARCH UNIT NO.2	2	32.832	16.075	48.364	0.101	0.757
MEDICAL RESEARCH UNIT NO.3	3	26.165	8.288	34.747	1.160	0.776
NATIONAL PARACHUTE TEST RANGE	484608	6.400	56.670	1142.407	33.061	16.964
OCEAN R & D ACTIVITY	5	20.145	23.789	14.900	9.000	3.200
ORDNANCE MISSILE TEST FACILITY	88	108.566	30.539	78.694	5.822	9.988
PACIFIC MISSILE TEST CENTER	27078	908.941	372.742	3489.017	152.146	130.215
PERSONNEL RESEARCH & DEVELOPMENT CENTER	1	49.300	4.900	0.000	0.302	1.826
RESEARCH LABORATORY	801	2292.816	202.482	496.822	48.899	83.118
SHIP RESEARCH & DEVELOPMENT CENTER	296	1641.072	125.113	233.076	71.008	51.499
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40.514	14.099	0.000	1.070	1.470
SURFACE WEAPONS CENTER	5381	1502.920	131.121	1547.925	51.264	71.934
UNDERSEA CENTER	38927	1170.850	251.522	451.429	66.774	118.915
UNDERWATER RANGES DIRECTORATE	1042	66.392	11.173	266.044	23.575	1.200
UNDERWATER SYSTEMS CENTER	314	842.852	107.524	532.378	42.683	45.073
WEAPONS CENTER	1093676	109.372	397.144	5882.416	226.241	84.474
WEAPONS EVALUATION FACILITY	7	0.400	53.592	14.926	9.600	0.700
TOTALS	1677477	11389.374	2553.079	22760.701	1234.617	868.079

TABLE 5. AIR FORCE ROT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA						
	TOTAL INHOUSE		TOTAL INHOUSE		TOTAL MIL	TOTAL PHD		PHD PROF		PROF CIV	CIV
	ROT&E	ROT&E	ROT&E	ROT&E		MIL	CIV	MIL	CIV		
AERO PROPULSION LABORATORY	67.645	12.457	66.615	11.427	50	372	9	38	44	217	217
ARMAMENT DEVELOPMENT AND TEST CENTER	667.104	215.797	256.448	124.262	4474	2989	16	35	453	438	438
ARNOLD ENGINEERING DEVELOPMENT CENTER	543.510	101.735	102.607	99.857	81	134	6	6	54	134	134
ATONICS LABORATORY	132.609	19.062	129.291	15.744	173	823	12	41	119	469	469
CIVIL AND ENVIRONMENTAL ENG. DIV. OFFICE	11.642	5.388	4.834	0.797	66	12	5	1	41	11	11
EASTERN TEST RANGE	186.645	69.306	0.000	0.000	97	352	0	1	57	87	87
FLIGHT DYNAMICS LABORATORY	89.394	30.613	85.821	27.360	203	792	8	46	120	480	480
FRANK J SEILER RESEARCH LABORATORY	122.809	102.228	78.967	59.707	2858	1632	1	0	168	216	216
GEOPHYSICS LABORATORY	1.271	1.134	0.708	0.571	23	9	15	0	20	3	3
HUMAN RESOURCES LABORATORY	53.253	23.031	45.325	20.640	120	510	11	76	42	319	319
MATERIALS LABORATORY	22.992	8.981	19.895	7.029	126	242	12	43	84	155	155
ROCKET PROPULSION LABORATORY	79.883	14.836	44.888	13.741	53	354	4	64	46	259	259
ROME AIR DEVELOPMENT CENTER	36.670	12.511	33.439	9.856	175	264	2	13	73	90	90
SCHOOL OF AEROSPACE MEDICINE	209.970	25.914	93.149	19.876	229	1130	8	59	91	607	607
SPACE AND MISSILE TEST CENTER	22.640	19.540	12.020	8.920	388	283	58	36	385	286	286
WEAPONS LABORATORY	73.419	18.120	51.700	10.544	400	402	4	0	208	101	101
6570 AEROSPACE MEDICAL RESEARCH LABORATORY	150.115	40.423	137.455	28.263	649	486	73	31	431	220	220
6505TH TEST GROUP	17.704	8.017	15.513	5.826	136	160	25	23	63	86	86
	19.953	12.643	15.696	8.386	320	293	2	2	34	72	72
TOTALS	2509.228	742.636	1194.371	472.846	10622	11239	271	515	2533	4250	4250

TABLE 6. AIR FORCE ROTTE FACILITIES DATA, FY 1977

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACPS	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AERO PROPULSION LABORATORY	40	225.194	38.700	90.220	20.850	18.108
ARMAMENT DEVELOPMENT AND TEST CENTER	464248	425.000	805.000	10276.000	274.487	56.793
ARMOLC ENGINEERING DEVELOPMENT CENTER	39081	2257.728	201.411	544.014	378.546	72.766
AVIONICS LABORATORY	220	250.901	9.775	412.829	23.828	67.603
CIVIL AND ENVIRONMENTAL ENG. DIV. OFFICE	3	4.981	2.200	9.751	0.938	1.076
EASTERN TEST RANGE	16202	117.422	488.388	2635.327	290.087	330.164
FLIGHT DYNAMICS LABORATORY	90	450.400	121.580	121.539	26.059	68.660
FLIGHT TEST CENTER	227742	103.066	208.167	6784.039	239.740	115.566
FRANK J. TELLER RESEARCH LABORATORY	0	21.815	3.000	0.100	0.000	1.284
GEOPHYSICS LABORATORY	369	384.959	14.813	31.383	9.736	26.069
HUMAN RESOURCES LABORATORY	13	71.910	41.010	57.680	5.577	30.889
MATERIALS LABORATORY	15	222.809	25.169	111.156	19.005	14.703
ROCKET PROPULSION LABORATORY	68345	410.066	86.848	4.780	125.000	44.879
ROME AIR DEVELOPMENT CENTER	1560	847.196	90.344	127.532	30.728	51.694
SCHOOL OF AEROSPACE MEDICINE	74	337.147	73.336	69.046	13.052	20.613
SPACE AND MISSILE TEST CENTER	55567	91.407	334.384	431.044	94.520	76.686
WEAPONS LABORATORY	702	555.629	141.612	134.243	20.516	71.590
6570 AEROSPACE MEDICAL RESEARCH LABORATORY	30	66.597	47.679	45.343	19.213	26.685
6585TH TEST GROUP	6602	336.000	7.000	148.000	10.220	40.602
TOTALS	981002	7189.207	2940.425	22039.976	1611.142	1135.70

TABLE 7. DEPARTMENT OF DEFENSE ROT&F ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA					
	TOTAL		TOTAL INHOUSE		TOTAL		TOTAL		PROF	
	TOTAL	INHOUSE	ROT&F	RDY&F	MIL	CIV	MIL	CIV	MIL	CIV
ARMED FORCES RADIOBIOLOGY RES. INSTITUTE	7.368	7.368	5.880	5.880	87	132	28	19	53	48
RETHESDA, MD	7.368	7.368	5.880	5.880	87	132	28	19	53	48
TOTALS										

SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES

PROGRAM DATA FOR FY 1977

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	4719.132
TOTAL INHOUSE PROGRAM	2238.145
TOTAL RDT&E PROGRAM	2904.418
TOTAL INHOUSE RDT&E	1408.977
TOTAL ANNUAL OPERATING COST	512.817

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	12808	719	3717
CIVILIAN	52221	3363	23664
TOTAL	65029	4082	27381

PHYSICAL FACILITIES (END OF FY 1977)

ACRES	1722463
SPACE (THOUSANDS OF SQ FT)	
LABORATORY	21824.589
ADMINISTRATIVE	5120.495
OTHER	28470.507
TOTAL	55415.591
COST (MILLIONS)	
REAL PROPERTY	1941.659
EQUIPMENT	1690.185
TOTAL	3631.844

TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	INHOUSE	TOTAL	INHOUSE	TOTAL	MIL	CIV	TOTAL	MIL	CIV	PHD	PHD	PHD	PROF
AEROMEDICAL RESEARCH LABORATORY	3.509	3.345	2.137	2.137	67	52	13	6	24	6	16	16	16	16
AIR MOBILITY R&D LABORATORY	42.977	16.762	41.991	16.512	26	570	1	30	19	236	19	236	19	236
ATMOSPHERIC SCIENCES LABORATORY	14.141	10.946	13.916	10.721	442	232	0	19	13	96	13	96	13	96
AVIONICS LABORATORY	20.160	10.380	12.148	6.396	12	178	0	4	6	129	6	129	6	129
BALLISTICS RESEARCH LABORATORIES	52.040	31.823	50.172	30.315	27	744	1	103	33	398	33	398	33	398
BENET WEAPONS LABORATORY	16.736	10.332	8.438	4.503	6	309	0	23	4	138	4	138	4	138
COLD REGIONS R&E LABORATORY	11.147	6.500	8.386	4.310	13	275	0	29	6	103	6	103	6	103
COMBAT SURVEILLANCE & TGT ACQUISITION LABS	30.328	11.041	28.567	9.449	11	212	0	10	8	142	8	142	8	142
COMMUNICATIONS ADP LABORATORY	29.012	20.035	21.995	14.529	11	360	0	15	4	257	4	257	4	257
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	10.584	6.790	9.336	6.046	3	204	0	48	3	163	3	163	3	163
EDGEWOOD ARSENAL LABORATORIES	60.066	51.240	49.902	41.076	127	944	30	52	75	519	75	519	75	519
ELECTRONIC WARFARE LABORATORY	91.749	22.233	33.225	16.417	53	427	0	8	9	210	8	210	9	210
ELECTRONICS TECHNOLOGY AND DEVICES LAB	22.815	13.771	21.052	12.264	3	337	0	34	2	216	2	216	2	216
ENGINEER TOPOGRAPHIC LABORATORIES	17.2/1	8.235	14.991	7.065	16	269	0	19	11	172	11	172	11	172
ENGINEER WATERWAYS EXPERIMENT STATION	51.190	41.045	13.351	11.653	39	1410	2	81	35	471	35	471	35	471
FRANKFORD ARSENAL LABORATORIES	32.992	21.552	14.025	8.435	30	550	0	22	20	374	20	374	20	374
HARRY DIAMOND LABORATORIES	156.006	47.683	69.497	34.364	14	1324	2	76	9	786	9	786	9	786
HQ USAMRDC	25.387	1.520	24.062	0.195	60	97	22	0	45	7	45	7	45	7
HUMAN ENGINEERING LABORATORY	6.717	6.115	6.089	5.554	32	145	1	18	8	102	8	102	8	102
INSTITUTE OF DENTAL RESEARCH	2.277	2.195	0.971	0.889	77	26	6	2	37	6	37	6	37	6
INSTITUTE OF SURGICAL RESEARCH	3.789	3.789	1.819	1.819	135	78	19	4	23	18	23	18	23	18
LETTERMAN ARMY INSTITUTE OF RESEARCH	8.973	8.973	5.801	5.801	273	193	50	18	155	99	155	99	155	99
MATERIALS AND MECHANICS RESEARCH CENTER	30.544	18.508	20.095	12.393	17	609	2	66	7	206	7	206	7	206
MEDICAL BIOMECHANICS R&D LABORATORY	3.465	3.465	2.760	2.760	30	88	5	11	21	32	11	32	11	32
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	10.071	10.071	6.871	6.871	304	196	49	25	57	53	57	53	57	53
MISSILE RES., DEV. AND ENGINEERING LAB	105.613	69.124	62.094	39.851	14	536	1	50	11	411	11	411	11	411
MOBILITY EQUIPMENT R&D COMMAND	110.127	44.170	55.150	26.206	76	1303	1	22	22	488	22	488	22	488
NATICK R&D COMMAND	47.801	36.408	26.534	17.960	104	1081	6	77	24	434	24	434	24	434
NIGHT VISION LABORATORY	71.253	21.498	71.253	21.498	28	415	0	30	26	196	26	196	26	196
PICATINNY ARSENAL LABORATORIES	258.855	153.076	117.257	53.875	21	1800	0	50	11	964	11	964	11	964
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	23.286	10.842	22.003	10.159	36	227	2	137	29	280	29	280	29	280
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	4.696	4.696	3.621	3.621	8	79	18	21	50	37	21	50	37	37
TANK & AUTOMOTIVE R&D COMMAND	25.815	9.130	19.552	7.667	14	273	1	10	10	106	10	106	10	106
WALTER REED ARMY INSTITUTE OF RESEARCH	23.799	23.799	15.702	15.702	480	467	36	57	144	162	57	144	144	162
TOTALS	1425.181	761.092	875.363	469.013	2609	15980	268	1176	961	7949	961	7949	961	7949

TABLE 2A. ARMY RED FACILITIES DATA, FY 1977

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)					COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL	PROPERTY	EQUIPMENT
ACROMEDICAL RESEARCH LABORATORY	10	52.747	7.797	19.993	0.044	8.100	
AIR MOBILITY RED LABORATORY	127	88.848	58.673	16.370	1.431	4.211	
ATMOSPHERIC SCIENCES LABORATORY	45	4.800	3.400	3.300	48.000	22.000	
AVIONICS LABORATORY	0	25.000	30.000	0.000	0.000	9.012	
BALLISTICS RESEARCH LABORATORIES	1920	537.624	20.103	34.157	40.462	30.413	
BENEY WEAPONS LABORATORY	4	167.463	24.600	7.489	4.018	12.912	
COLD REGIONS ARE LABORATORY	24	40.734	30.027	97.947	5.056	6.443	
COMBAT SURVEILLANCE & TEST ACQUISITION LABS	227	88.475	6.139	12.569	3.950	15.848	
COMMUNICATIONS ADP LABORATORY	0	30.950	40.004	5.000	0.000	10.817	
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	30	76.081	34.159	0.000	3.896	4.067	
EDGEWOOD ARSENAL LABORATORIES	1750	435.213	234.224	780.402	27.746	17.054	
ELECTRONICS WARFARE LABORATORY	0	142.936	13.617	48.502	0.000	61.543	
ELECTRONICS TECHNOLOGY AND DEVICES LAB	0	95.789	10.575	26.474	0.000	10.822	
ENGINEER TOPOGRAPHIC LABORATORIES	33	90.722	7.000	13.300	6.000	7.800	
ENGINEER WATERWAYS EXPERIMENT STATION	722	1736.714	336.418	170.446	18.914	30.290	
FRANKFORD ARSENAL LABORATORIES	43	7.312	141.532	56.591	16.960	12.000	
HARRY DIAMOND LABORATORIES	2343	511.196	145.986	101.139	47.594	27.377	
HQ USAMRIID	0	0.000	23.300	0.000	0.000	0.000	
HUMAN ENGINEERING LABORATORY	12	30.776	19.352	29.538	0.781	3.750	
INSTITUTE OF DENTAL RESEARCH	4	9.325	5.696	6.730	0.853	1.130	
INSTITUTE OF SURGICAL RESEARCH	1	26.424	1.800	22.408	2.013	1.653	
LETTERMAN ARMY INSTITUTE OF RESEARCH	9	133.198	36.506	305.309	42.449	10.342	
MATERIALS AND MECHANICS RESEARCH CENTER	48	382.028	76.761	160.030	15.726	16.006	
MEDICAL BIOENGINEERING RED LABORATORY	5	45.888	27.300	34.068	3.213	2.555	
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	43	80.854	19.820	209.699	17.824	4.300	
MISSILE RES., DEV. AND ENGINEERING LAB	7700	281.105	10.145	91.305	88.680	39.124	
MOBILITY EQUIPMENT RED COMMAND	1064	693.649	115.530	194.279	49.093	29.417	
NATICK RED COMMAND	2994	552.557	65.900	407.970	26.452	16.459	
NIGHT VISION LABORATORY	20	177.279	15.493	20.000	0.030	36.591	
PICATINNY ARSENAL LABORATORIES	4000	204.685	184.072	128.700	8.580	60.000	
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	0	46.110	2.559	6.190	0.000	1.760	
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	4	60.421	18.563	28.647	3.663	3.243	
TANK & AUTOMOTIVE RED COMMAND	80	0.380	104.608	418.434	23.000	4.500	
WALTER REED ARMY INSTITUTE OF RESEARCH	1373	382.494	58.360	0.000	10.040	14.966	
TOTALS	24635	7239.777	1930.019	3456.986	517.268	536.605	

TABLE 3A. NAVY P&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA									
	TOTAL	INHOUSE	RT&E	TOTAL	PHD	MIL	PHD	CIV	PHD	PROF	CIV	PROF	CIV
AEROSPACE MEDICAL RESEARCH LABORATORY	5,030	5,470	4,576	4,407	68	121	16	20	21	42			
AIP DEVELOPMENT CENTER	192,453	75,519	125,277	50,419	205	230	3	33	60	1183			
AIR ENGINEERING CENTER	59,721	61,304	23,102	15,761	330	1451	0	3	36	437			
APCTIC RESEARCH LABORATORY	11,136	0,055	7,729	0,000	3	0	0	0	0	0			
BIOCHEMICAL RESEARCH LABORATORY	2,550	0,672	2,035	0,404	18	6	5	0	0	0			
BLOOM RESEARCH LABORATORY	2,136	2,136	0,477	0,477	11	10	4	0	0	0			
COASTAL SYSTEMS LABORATORY	17,545	10,748	14,171	8,454	15	248	1	27	9	158			
CLOTHING & TEXTILE RESEARCH UNIT	1,783	1,384	0,605	0,605	1	56	0	1	1	37			
CRISTAL SYSTEMS LABORATORY	41,114	24,213	33,431	19,500	115	652	1	23	12	285			
CENTRAL RESEARCH INSTITUTE, JTC	1,171	1,121	0,632	0,632	26	16	10	3	11	7			
ENVIRONMENTAL PRECISION RESEARCH FACILITY	3,251	1,451	3,011	1,211	13	41	1	6	6	24			
HEALTH RESEARCH CENTER	2,517	2,517	2,281	2,281	37	78	14	10	18	28			
MEDICAL RESEARCH INSTITUTE	15,447	14,314	12,497	11,264	251	226	68	42	87	96			
MEDICAL RESEARCH UNIT NO. 2	2,587	2,546	1,981	1,981	31	5	13	2	20	4			
MEDICAL RESEARCH UNIT NO. 3	1,585	1,585	1,523	1,523	24	61	6	12	10	50			
OCEAN & F. ACTIVITY	15,462	5,711	15,586	5,307	11	242	3	48	11	140			
PERSONNEL RESEARCH & DEVELOPMENT CENTER	15,440	8,267	12,282	6,365	24	278	1	73	9	150			
RESEARCH LABORATORY	154,509	150,110	134,825	101,526	140	3306	0	503	36	1338			
SHIP RESEARCH & DEVELOPMENT CENTER	128,052	118,471	95,640	79,061	68	2640	1	126	25	1208			
SURFACING MEDICAL RESEARCH LABORATORY	2,155	2,182	1,744	1,721	31	63	4	12	12	34			
SURFACE WEAPONS CENTER	264,492	145,495	187,245	90,536	198	5038	1	235	42	2278			
UNDERSEA CENTER	217,363	117,061	153,023	92,573	367	2620	4	185	47	1367			
UNDERWATER RESEARCH CENTER	22,660	11,417	17,070	13,648	40	36	0	1	21	26			
UNDERWATER SYSTEMS CENTER	215,764	115,735	14,262	50,740	108	5044	2	95	35	1624			
WEAPONS CENTER	227,733	126,736	134,403	81,443	514	4160	0	134	34	1404			
TOTALS	1451,572	1035,649	1053,403	624,559	2665	27259	162	1654	584	11925			

TABLE 4A. NAVY R&D FACILITIES DATA, FY 1977

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AEROSPACE MEDICAL RESEARCH LABORATORY	6	167.657	8.800	11.880	3.130	3.329
AIR DEVELOPMENT CENTER	750	833.000	43.000	451.000	32.665	39.901
AIR ENGINEERING CENTER	7398	334.473	139.206	2455.146	82.637	23.480
ARCTIC RESEARCH LABORATORY	4973	45.706	15.987	341.075	35.000	19.000
BIOMEDICAL RESEARCH LABORATORY	5	77.625	8.731	34.646	0.100	5.300
BLOOD RESEARCH LABORATORY	1	14.720	7.360	9.300	0.500	1.239
CIVIL ENGINEERING LABORATORY	30	117.980	27.061	4.181	2.000	2.472
CLOTHING & TEXTILE RESEARCH UNIT	1	10.000	7.000	3.000	0.400	9.800
COASTAL SYSTEMS LABORATORY	582	341.224	38.150	252.742	30.823	15.873
DENTAL RESEARCH INSTITUTE, MTC	1	22.025	4.815	13.355	0.000	0.682
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	1.208	5.012	11.090	0.000	0.855
HEALTH RESEARCH CENTER	1	11.177	4.500	0.000	1.880	0.491
MEDICAL RESEARCH INSTITUTE	4	145.868	9.400	40.229	3.687	7.583
MEDICAL RESEARCH UNIT NO. 2	2	32.832	16.075	44.364	0.101	0.757
MEDICAL RESEARCH UNIT NO. 3	3	26.165	8.284	34.747	1.160	0.776
OCEAN R & D ACTIVITY	5	20.145	23.789	14.900	9.000	3.200
PERSONNEL RESEARCH & DEVELOPMENT CENTER	1	49.300	4.900	0.000	0.302	1.826
RESEARCH LABORATORY	801	2292.816	202.482	496.822	88.899	85.118
SHIP RESEARCH & DEVELOPMENT CENTER	296	1641.072	125.113	233.076	71.008	51.499
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40.514	14.099	0.000	1.070	1.470
SURFACE WEAPONS CENTER	5381	1502.920	131.121	1547.925	91.264	71.934
UNDERSEA CENTER	38927	1170.850	251.522	451.429	66.774	118.915
UNDERWATER RANGES DIRECTORATE	1042	66.392	11.173	766.044	23.575	1.200
UNDERWATER SYSTEMS CENTER	314	842.852	107.528	532.378	42.683	45.073
WEAPONS CENTER	1093676	109.372	397.144	5882.416	226.241	84.474
TOTALS	1154301	9917.893	1612.256	13176.545	815.079	585.247

TABLE 5A. AIR FORCE R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1977

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL		TOTAL INHOUSE		TOTAL	TOTAL		TOTAL		TOTAL		TOTAL		PROF
	TOTAL	INHOUSE	RDYCE	RDYCE		MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	
AERO PROPULSION LABORATORY	67.645	12.457	66.615	11.427	50	372	9	38	44	217				CIV
ARMAMENT DEVELOPMENT AND TEST CENTER	667.104	215.797	256.448	124.262	4474	2989	16	35	453	438				438
AVIONICS LABORATORY	132.609	19.062	129.291	15.744	173	823	12	41	119	449				449
CIVIL AND ENVIRONMENTAL ENG. DEV. OFFICE	11.642	5.388	4.834	0.797	66	12	5	1	41	11				11
FLIGHT DYNAMICS LABORATORY	89.394	30.613	85.821	27.360	203	792	8	46	120	480				480
FRANK J SEILER RESEARCH LABORATORY	1.271	1.134	0.708	0.571	23	9	15	0	20	3				3
GEOPHYSICS LABORATORY	33.253	23.931	45.323	20.840	120	510	11	76	42	319				319
HUMAN RESOURCES LABORATORY	22.992	8.981	19.875	7.029	126	242	12	43	84	155				155
MATERIALS LABORATORY	79.883	14.836	44.888	13.741	53	354	4	4	44	239				239
ROCKET PROPULSION LABORATORY	30.670	12.511	33.439	92.856	176	264	2	13	73	90				90
ROME AIR DEVELOPMENT CENTER	209.970	75.914	93.149	19.676	229	1130	8	59	91	687				687
SCHOOL OF AEROSPACE MEDICINE	22.640	19.540	12.020	9.920	385	286	58	36	379	248				248
WEAPONS LABORATORY	150.115	40.423	137.455	28.263	649	486	773	31	431	220				220
6570 AEROSPACE MEDICAL RESEARCH LABORATORY	17.704	8.017	15.513	5.825	136	160	25	23	63	86				86
TOTALS	1552.892	438.604	945.401	294.312	6863	8429	259	506	2806	3422				3422

TABLE 6A. AIR FORCE R&D FACILITIES DATA, FY 1977

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AERO PROPULSION LABORATORY	40	225.194	38.700	90.220	20.850	18.108
ARMAMENT DEVELOPMENT AND TEST CENTER	464248	425.000	805.000	10276.000	276.487	56.793
AVIONICS LABORATORY	229	250.901	9.775	412.829	23.828	67.603
CIVIL AND ENVIRONMENTAL ENG. DEV. OFFICE	3	4.981	2.200	9.751	0.938	1.076
FLIGHT DYNAMICS LABORATORY	90	450.400	121.589	121.589	26.059	68.663
FRANK J. SEILER RESEARCH LABORATORY	0	21.815	3.000	0.100	0.000	1.284
GEOPHYSICS LABORATORY	369	389.959	14.813	31.383	9.736	26.048
HUMAN RESOURCES LABORATORY	13	71.910	41.010	62.680	5.577	30.899
MATERIALS LABORATORY	15	222.809	25.149	111.156	19.005	14.703
ROCKET PROPULSION LABORATORY	68345	419.046	86.848	4.780	125.000	44.879
ROME AIR DEVELOPMENT CENTER	1560	847.196	90.344	127.532	30.728	51.094
SCHOOL OF AEROSPACE MEDICINE	74	337.147	73.336	69.046	13.052	20.613
WEAPONS LABORATORY	702	555.629	141.612	134.243	20.516	71.590
6570 AEROSPACE MEDICAL RESEARCH LABORATORY	30	66.597	47.679	45.333	19.213	26.485
TOTALS	535718	4288.584	1501.075	11496.642	588.989	499.706

TABLE 72. DEPARTMENT OF DEFENSE OFFICE FACILITIES DATA, FY 1977

INSTALLATION	ACRES	SPACE (THOUSANDS OF SQUARE FEET)		CCST (MILLIONS \$)
		LABORATORY	ADMIN	
ARMED FORCES ESTABLISHMENT RES. INSTITUTE	1	41.335	21.040	7.911
TOTALS	1	42.335	21.040	7.911
				4.463

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

COMMAND CHAIN			
IMMEDIATE		COMMAND	
AEROMEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
AIR MOBILITY RESEARCH AND DEVELOPMENT LAB	AVIATION SYSTEMS COMMAND	ARMY MAT DEV & READ	CMD
ATMOSPHERIC SCIENCES LABORATORY	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD
AVIONICS LABORATORY	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD
BALLISTICS RESEARCH LABORATORIES	--	ARMY MAT DEV & READ	CMD
BENET WEAPONS LABORATORY	ARMAMENT COMMAND	ARMY MAT DEV & READ	CMD
COLD REGIONS R&E LABORATORY	--	CHIEF OF ENGINEERS	
COMBAT SURVEILLANCE & TARGET ACQUISITION LABS	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD
COMMUNICATIONS ADP LABORATORY	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD
CONSTRUCTION ENGINEERING RSCH LABORATORY	--	CHIEF OF ENGINEERS	
EDGEWOOD ARSENAL LABORATORIES	ARMAMENT COMMAND	ARMY MAT DEV & READ	CMD
ELECTRONIC WARFARE LABORATORY	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD
ELECTRONICS TECHNOLOGY & DEVICES LABORATORY	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD
ENGINEER TOPOGRAPHIC LABORATORIES	--	CHIEF OF ENGINEERS	
ENGINEER WATERWAYS EXPERIMENT STATION	--	CHIEF OF ENGINEERS	
FRANKFORD ARSENAL LABORATORIES	ARMAMENT COMMAND	ARMY MAT DEV & READ	CMD
HARRY DIAMOND LABORATORIES	--	ARMY MAT DEV & READ	CMD
HQ MEDICAL R&D COMMAND	--	THE SURGEON GENERAL	
HUMAN ENGINEERING LABORATORY	--	ARMY MAT DEV & READ	CMD
INSTITUTE OF DENTAL RESEARCH	--	THE SURGEON GENERAL	
INSTITUTE OF SURGICAL RESEARCH	--	THE SURGEON GENERAL	
LETTERMAN ARMY INSTITUTE OF RESEARCH	--	THE SURGEON GENERAL	
MATERIALS AND MECHANICS RESEARCH CENTER	--	ARMY MAT DEV & READ	CMD
MEDICAL BIOENGINEERING R&D LABORATORY	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	MEDICAL R&D COMMAND	THE SURGEON GENERAL	
MISSILE RD&E LABORATORY	MISSILE COMMAND	ARMY MAT DEV & READ	CMD
MOBILITY EQUIPMENT R&D COMMAND	--	THE SURGEON GENERAL	
NATICK R&D COMMAND	--	ARMY MAT DEV & READ	CMD
NIGHT VISION LABORATORY	ELECTRONICS COMMAND	ARMY MAT DEV & READ	CMD

Table 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

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

TABLE 9 - NAVY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

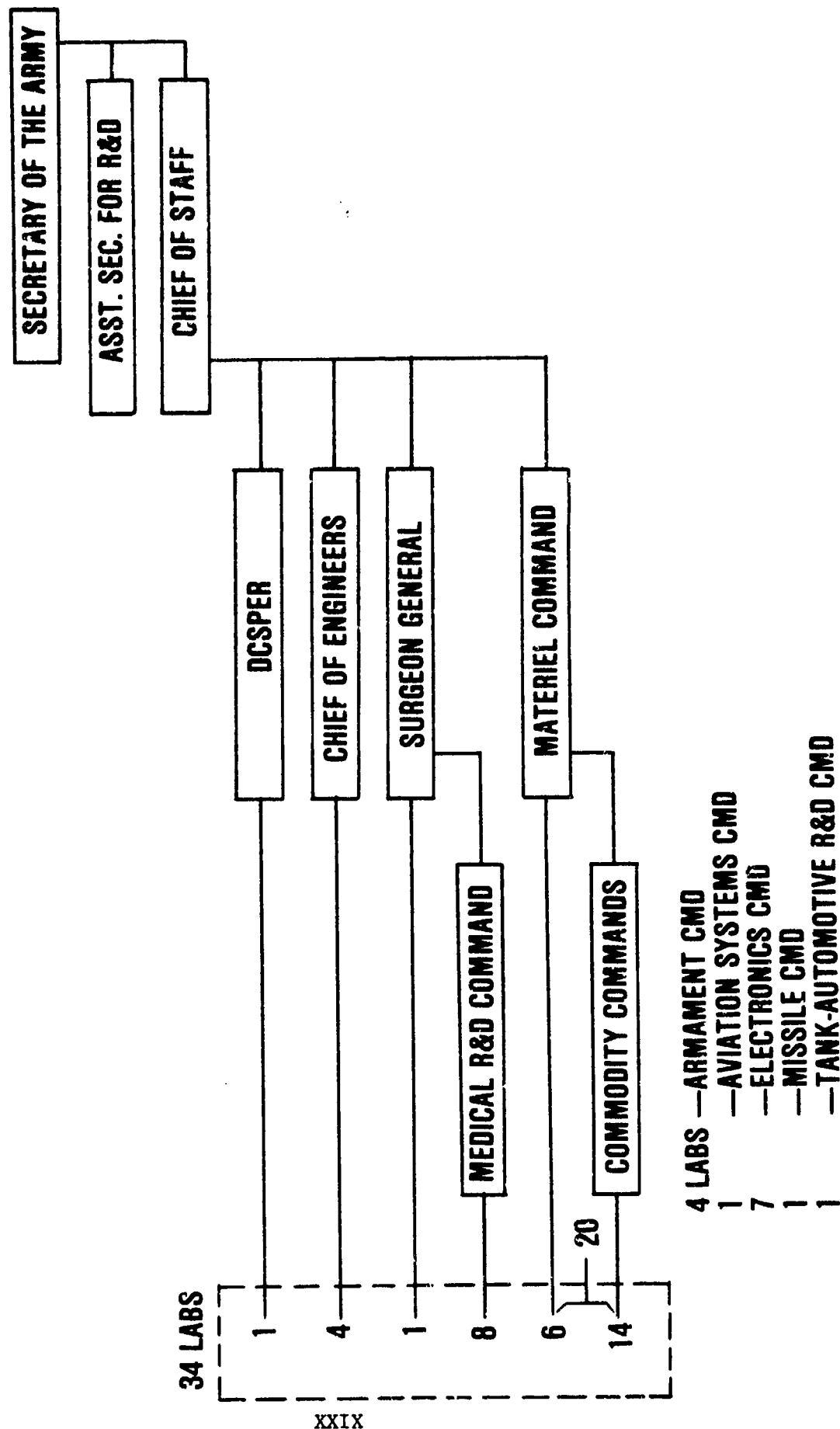
COMMAND CHAIN		COMMAND
INTERMEDIATE		
AEROSPACE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
AIR DEVELOPMENT CENTER	--	CHIEF OF NAVAL MATERIAL
AIR ENGINEERING CENTER	NAVAL AIR SYSTEMS COMMAND	CHIEF OF NAVAL MATERIAL
ARCTIC RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
BIOMEDICAL RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
BLOOD RESEARCH LABORATORY	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
CIVIL ENGINEERING LABORATORY	NAVAL FAC ENG COMMAND	CHIEF OF NAVAL MATERIAL
CLOTHING AND TEXTILE RESEARCH UNIT	NAVAL SUPPLY SYS COMMAND	CHIEF OF NAVAL MATERIAL
COASTAL SYSTEMS LABORATORY	--	CHIEF OF NAVAL MATERIAL
DENTAL RESEARCH INSTITUTE, NTC	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	NAVAL AIR SYSTEMS COMMAND	CHIEF OF NAVAL MATERIAL
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
PERSONNEL RESEARCH & DEVELOPMENT CENTER	--	CHIEF OF NAVAL MATERIAL
RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
SHIP RESEARCH & DEVELOPMENT CENTER	--	CHIEF OF NAVAL MATERIAL
SUBMARINE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	CHIEF OF NAVAL MATERIAL
SURFACE WEAPONS CENTER	--	CHIEF, BUR OF MED/SUR
UNDERSEA CENTER	--	CHIEF OF NAVAL MATERIAL
UNDERWATER RANGES DIRECTORATE	--	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

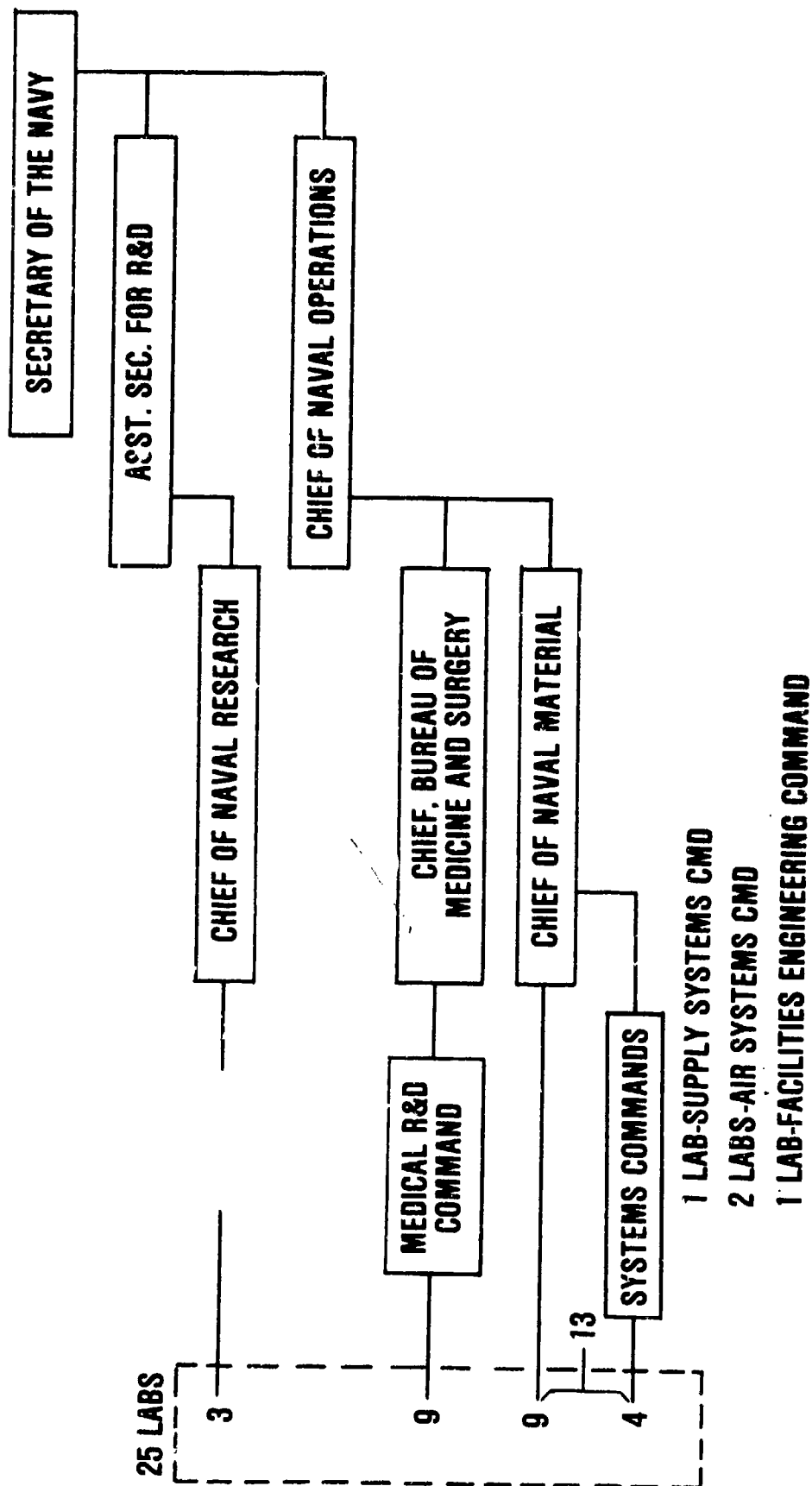
	<u>INTERMEDIATE</u>	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
AEROPULSION LABORATORY	AF WRIGHT AERONAUTICAL LABS	AF SYSTEMS	COMMAND
*ARMAMENT LABORATORY	ARMAMENT DEV & TEST CENTER	AF SYSTEMS	COMMAND
AVIONICS LABORATORY	AF WRIGHT AERONAUTICAL LABS	AF SYSTEMS	COMMAND
CIVIL AND ENVIRONMENTAL ENG DEV OFFICE	ARMAMENT DEVELOPMENT & TEST CENTER	AF SYSTEMS	COMMAND
FLIGHT DYNAMICS LABORATORY	AF WRIGHT AERONAUTICAL LABS	AF SYSTEMS	COMMAND
FRANK J. SEILER RESEARCH LABORATORY	AF OFFICE OF SCIENTIFIC RES	AF SYSTEMS	COMMAND
GEOPHYSICS LABORATORY	--	AF SYSTEMS	COMMAND
HUMAN RESOURCES LABORATORY	--	AF SYSTEMS	COMMAND
MATERIALS LABORATORY	AF 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
6570 AEROSPACE MEDICAL RESEARCH LABORATORY	AEROSPACE MEDICAL DIVISION	AF SYSTEMS	COMMAND

* Laboratory portion not reported separately in this report. (For Armament Laboratory, see Armament Development and Test Center.)

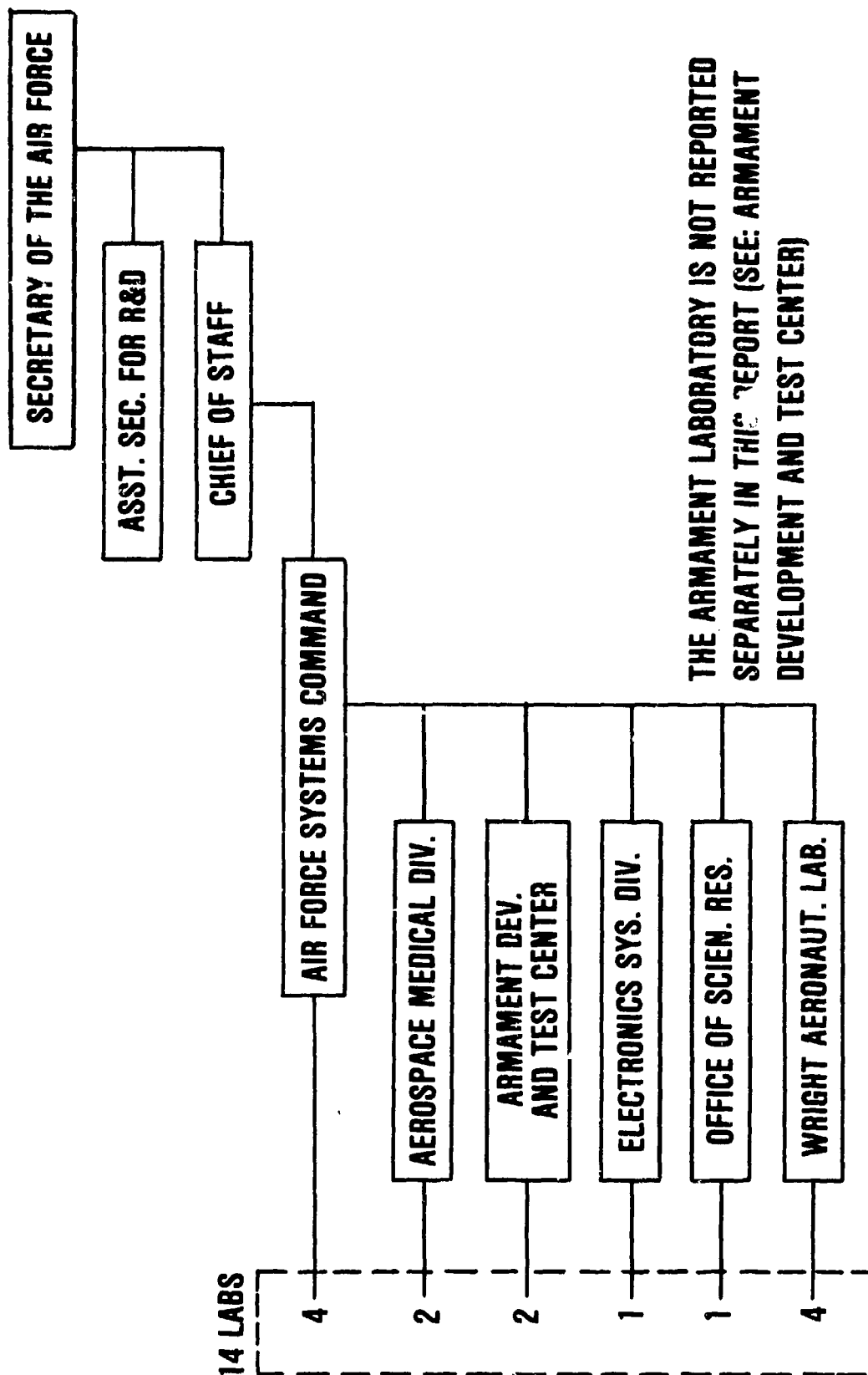
ARMY LABORATORIES COMMAND CHAIN



NAVY LABORATORIES COMMAND CHAIN



AIR FORCE LABORATORIES COMMAND CHAIN



THE ARMAMENT LABORATORY IS NOT REPORTED SEPARATELY IN THIS REPORT (SEE: ARMAMENT DEVELOPMENT AND TEST CENTER)

INSTALLATION: AEROMEDICAL RESEARCH LABORATORY

FT. RUCKER, AL.

CDR COL. STANLEY C. KNAPP

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	2.137	2.408
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.017	0.000
TOTAL OTHER	1.355	1.250
TOTAL ANNUAL LAB	3.509	3.658
TOTAL INHOUSE	3.345	3.658
TOTAL INHOUSE RDT&E	2.137	2.408
ANNUAL OPERATING COST	1.083	1.354

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	67	13	24		43
CIVILIAN	52	6	16		36
TOTAL	119	19	40		79

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
10	52.747	7.797	19.993	80.537	0.844	8.100

...MISSION

CDT FUNDMTL/APPLD RSCH ON MED ASPECTS OF AAVN, APN & GND OPNS AFFECTING HLTH, WLF & EFFCY OF SOLDIER; PERF MED RSCH ON VIS/AUD FUNC; MAN/MACH INTEGRATION; MED ASPECTS OF NONMED MAT; PHYSIO/PSYCHO RESPNS TO OPNL ENVMTS; & MIL OPNL TNG IMPACTS UPON ECOLOGY. PRIME DOD CONSULT IN ALL AREAS.

...CURRENT IMPORTANT PROGRAMS

MEDICAL HAZARD ASSESSMENT OF MAJOR WEAPON SYSTEMS
RSCH & DEV OF MED FACTORS INFLUENCING VEH & WPNS CREW PERFORMANCE
RSCH OF VIS & PSYCHOACOUSTICAL FACTORS OF MED IMPORTANCE TO ARMY CRT SYS
DIRECT APPLIED RSCH & DEV SPT TO ARMY AVN
FUNDAMENTAL BIOMED RSCH & DEV TO ESTB EQUIP ENVMT & TASK DESIGN CRIT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ANFCHOIC CHAMGER; COLORIMETER; ECG & EEG MACH; AUTOANALYZER; MASS SPECTRO; 3 DEGREE FREEDOM CLOSED-LOOP SERVHYDRAULIC HEL SEAT MNTD SIMULATOR; SEQ MULTI ANALYZER-COMPUTERIZED; SIMUHIMS (HEL SIMULATOR); HYBRID CPMT SYS (SEL-8500 DIGITAL MAINFRAME; SAT-681 ANALOG MAINFRAME; SAT-693 COMM INTERFACE; IMLAC PDS-10 DISPLAY PROCESSOR); FAST FOURIER SOUND ANALYSER; PHOTOMETRY LAB W/AUTOMATIC CIE ANAL RAPID SCAN SPECTROMETER TRACEABLE TO BU OFSTDS; DROP TOWER FOR ANSI EVAL OF HEL SYS; THREE AXES PEGASUS MAN-RATED VIP PLATFORM W/HARDWARE CPMT CONT/ANAL SYS CAPABLE OF MOVING 600 LB LOAD 0-50 W/2 DR ERROR; HEMISPHERE W/SENSORS TO DETM HEAD PNTING CAPABILITY FOR USE IN CONJ W/VIB PLATFORM FOR DYNAMIC STUDIES; EMERG PHYSICIAN CALL SYS (10 MILE RADIUS); ELECTRON MICROSCOPES (2EA); AUTOMATED TISSUE FIXATION SYS; APN EQUIP; BIOCHEM LAB; ELECTRONIC & ENGR FAB SHOP; & PHOTO LAB.

INSTALLATION: AIR DEFENSE ROAD

EL PASO, TX.

PRES. COL. JAMES C. CROSBY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	2.297	2.288
TOTAL PROCUREMENT	0.007	1.889
TOTAL O&M	0.108	0.075
TOTAL OTHER	1.942	2.074
TOTAL ANNUAL LAB	4.354	6.276
TOTAL INHOUSE	4.354	6.276
TOTAL INHOUSE RDT&E	2.297	2.288
ANNUAL OPERATING COST	0.398	0.348

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	117	0	26		91
CIVILIAN	87	0	15		72
TOTAL	204	0	41		163

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL REAL PROP	EQUIP	
	LAB	ADMIN	OTHER	TOTAL			
26	36.550	36.646	30.114	103.310	1.895	9.167	

...MISSION

PLAN, CONDUCT, & REPORT ON OPERATIONAL TEST I, OPERATIONAL TEST II, OPERATIONAL TEST III, & OTHER USER-TYPE TESTS OF AD WEAPON SYS, FIRE DISTRIBUTION SYS, ELECTRONIC COUNTER MEASURES & COUNTER-COUNTER MEASURES EQUIP & DEVICES & TARGET DEVICES. PARTICIPATE IN OT I, OT II & OT III.

...CURRENT IMPORTANT PROGRAMS

USROLAND OT II
TUBULAR ROUND FOR VULCAN
MILITARY UTILITY OF TRACKING ADJUNCT SYSTEM (TAS)
HAWK CAMOUFLAGE SUPPORT SYSTEM
SUPPORT OF AN/TSQ-73 FOE I AND FOE II

...FUNCTIONS/EQUIPMENT/CAPABILITIES

REVIEW & COMMENT ON TRAINING DEVICE REQUIREMENTS DOCUMENTS, ORGANIZATION PHASE DOCUMENTS, NEW EQUIPMENT TRAINING PACKAGES, & ASSIST IN REVIEW OF MILITARY SPECS. PROVIDE TRADOC TEST REQUIREMENTS FOR THE COORDINATED TEST PROGRAM. PLAN DIRECT & CONTROL A PROGRAM IN TEST METHODOLOGY, TEST INSTRUMENTATION, & TEST FACILITIES NEEDED TO SUPPORT CURRENT & FUTURE TEST REQUIREMENTS WITHIN ASSIGNED MISSION AREA. SPT FIELD RESEARCH, STUDIES, TESTS, & OPERATIONS OF TRADOC, DA OR DOD AGENCIES AS REQUIRED & DIRECTED BY CG USA AIR DEFENSE CENTER & FORT BLISS.
EQUIPMENT: ACCESS TO COMPUTER, TAC & INSTRUMENTATION RADAR, AUTOMATED DATA ACQUISITION SYSTEMS, CINETHEODOLITES, PHOTO LAB & FILM READING EQUIP. SITE MONITOR FOR ELECTRONIC TEST OF EQUIP & DONA ANA & NORTH MCGREGOR RANGES FOR FIRING FWD AREA WPNS AT TARGET DEVICES & DRONES

INSTALLATION: AIR MOBILITY R&D LABORATORY

MOUNTAIN VIEW, CA.

DIR. DR. RICHARD M. CARLSON

DEP. DIR. COL. JOHN R. FITCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	41.991	32.707
TOTAL PROCUREMENT	0.616	0.955
TOTAL O&M	0.370	0.050
TOTAL OTHER	0.000	0.003
TOTAL ANNUAL LAB	42.977	33.715
TOTAL INHOUSE	16.762	15.957
TOTAL INHOUSE RDT&E	16.512	15.750
ANNUAL OPERATING COST	2.193	2.848

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	26	1	19	7
CIVILIAN	570	30	236	334
TOTAL	596	31	255	341

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
127	88.848	58.673	16.370	163.891	1.431	4.211

...MISSION

MANAGES AND EXECUTES R&D OF ARMY AIRMOBILE SYSTEMS, THROUGH DEMONSTRATION OF TECHNOLOGY. PROVIDES TECHNICAL SUPPORT TO PROJECT/PRODUCT MANAGERS & SYSTEM DEVELOPERS AS REQUIRED. PROVIDES INDEPENDENT TECHNICAL RISK ASSESSMENT TO CG USAVRADCOM AND HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

RESEARCH IN FUNDAMENTAL ROTOR AERODYNAMICS, DYNAMICS & NOISE.
RESEARCH & DEVELOPMENT OF SMALL GAS TURBINES.
R&D TO IMPROVE RELIABILITY & MAINTAINABILITY OF AIRMOBILE SYSTEMS.
RSCH. COMPOSITES & MEASURE OPNL. FLT. LOADS TO IMPROVE STRUCTURES FOR A/C
EVOLVE TECHNOLOGY & CRITERIA TO IMPROVE FLIGHT SAFETY & SURVIABILITY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: AIRBORNE COMMUNICATIONS & ELECTRONICS BOARD FT. BRAGG, N.C.

PRES. COL. BRUCE E. WALLACE

ENGR. ADV. MR. CHARLES SWARINGEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	1.197	1.197
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.223	0.223
TOTAL OTHER	2.250	2.250
TOTAL ANNUAL LAB	3.670	3.670
TOTAL INHOUSE	3.670	3.670
TOTAL INHOUSE RDT&E	1.197	1.197
ANNUAL OPERATING COST	0.794	0.794

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	122	0	75	47
CIVILIAN	52	1	6	46
TOTAL	174	1	81	93

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
27	3.978	39.140	39.390	82.508	0.971	3.316

...MISSION

THE MISSION OF THE USAACERD IS TO PLAN, CONDUCT AND REPORT ON OTI & 2, FOTE AND OTHER USER TYPE TESTS OF AIRBORNE, COMMUNICATIONS AND ELECTRONIC ITEMS THAT PERTAIN TO EQUIPMENT AND SYSTEMS. PROVIDE ADVICE AND GUIDANCE ON TEST AND EVALUATION MATTERS.

...CURRENT IMPORTANT PROGRAMS

STANDARD AIRDROP SELECTED ITEMS OF EQUIPMENT
LAPES

INVESTIGATION TO DETERMINE MID-AIR ENTANGLEMENT
GROUND SURVEILLANCE VERY SHORT RANGE, AN/PPS-15
OT I OF SNAP 1

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE: HANGAR BUILDING, C-E FACILITY, CRYPTOGRAPHIC TEST FACILITY AND WOODWORK SHOP. MAJOR EQUIPMENT INCLUDES: 5-TON WRECKER, 400,000 LB LOADER, 20-TON MOBILE CRANE, TWO T-28R MODEL AIRCRAFT, 1 4H-1H HELICOPTER, VARIOUS TYPES OF STANDARD PARACHUTES, NINE GASOLINE GENERATORS, 4 DIGITAL THEODOLITES, WEATHER STATION, ELECTRONIC DIAGNOSTIC EQUIPMENT, TACTICAL RADIO SETS, RADIO RECEIVERS, SIX TELETYPEWRITER SETS, OSCILLOGRAPH, ACCELEROMETERS, 2 SIGNAL GENERATORS, 8 MULTIMETERS, 1 FREQUENCY SYNTHESIZER, ONE RANDOM NOISE GENERATOR, SIX VOLT OHM METER 4 OSCILLOSCOPES, NINE ATTENUATORS, 5 AC VOLTMETERS, 1 GRAPHIC LEVEL, 2 TRANSISTOR TESTERS, RECORDER, 1 MILLAMETER, 2 FREQUENCY COUNTERS, 3 SOUND LEVEL CALIBRATORS, METER CALIBRATORS, MEGOHMMETER, Q METER, PORTABLE VIDEO EQUIP, VAN METER, ANALOG TAPE RECORDER.

INSTALLATION: AIRCRAFT DEVELOPMENT TEST ACTIVITY

FT. RUCKER, AL.

COR. COL. W. E. CROUCH, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	6.938	6.928
TOTAL PROCUREMENT	0.146	0.247
TOTAL O&M	1.043	2.719
TOTAL OTHER	1.838	2.671
TOTAL ANNUAL LAB	9.965	12.565
TOTAL INHOUSE	6.258	8.363
TOTAL INHOUSE RDT&E	3.496	3.984
ANNUAL OPERATING COST	2.051	2.663

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	185	0	29	156
CIVILIAN	95	1	17	78
TOTAL	280	1	46	234

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1196	0.000	34.000	132.300	166.300	1.800	23.300

...MISSION

TO PLAN, CONDUCT, EVALUATE, AND REPORT ON THE GOVERNMENT TEST ELEMENTS-
EDT-G, ADVT-G, PQT-G, PVT-G-AND TO MONITOR, EVALUATE, AND REPORT ON CONTR
TESTS UNDER SIDTC CONCEPT FOR ACFT, ACFT COMP AND RELATED EQUIP. CONDUCT
OTHER TESTS AND EVALUATIONS AS DIRECTED BY TEST & EVALUATION COMMAND

...CURRENT IMPORTANT PROGRAMS

ALO-144 IR JAMMER, PRODUCTION QUALIFICATION TEST
UTTAS ENVIROMENTAL PRODUCTION QUALIFICATION TEST
AH-1Q OPERATIONAL FLIGHT TRAINER SYSTEM, PRODUCTION QUALIFICATION TEST
PRODUCT IMPROVEMENT OF T63 A720 ENGINE
PRODUCTION VALIDATION TEST OF UTILITY HOIST FOR UH-1 HELICOPTER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN, CONDUCT, RECORD, EVALUATE AND REPORT RESULTS OF ASSIGNED TEST & EVAL
SUPPORT DT EFFORTS OF COMMODITY COMMANDS RESPON FOR DEV OF AVN MATERIEL
PERFORM SOLDIER TESTING TO EVAL HFE, SAFETY, AND MAN MACHINE INTERFERENCE
PROVIDE DATA CONCERNING OPERATIONS UNDER EXTREME ENVIROMENTAL CONDITION
CONDUCT PI TESTS OF FIELDIED AVN MATERIEL TO IMPROVE SYS CAP & RAM
REVIEW AND COMMENT ON NEW EQUIP TRAINING PACKAGES
PARTICIPATE IN THE DEVELOPMENT AND REVIEW OF MILITARY SPECIFICATIONS
PROVIDE AIRCRAFT & SUPPORT AS REQUESTED TO SPT US ARMY SPONSORED TESTS
PROVIDE ADVICE & GUIDANCE ON TEE MATTERS TO DEVELOPERS, PRODUCERS & INDS
PARTICIPATE IN CONDUCT OF COMB DT/OT & OBSERVE OT WHEN DIRECTED
SUPPORT FIELD RESEARCH, STUDIES, TESTS, AS REQ & DIRECTED BY CG, TECOM
PROVIDE TECOM TEST REQUIREMENTS FOR COORDINATED TEST PROGRAMS

INSTALLATION: ARMOR AND ENGINEER BOARD

FT. KNOX, KY.

PRES. LTC. JIMMY L. PIGG

TECH. DIR. MR. JAMES C. KELTON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	2.661	3.015
TOTAL PROCUREMENT	0.286	0.230
TOTAL O&M	0.419	0.210
TOTAL OTHER	4.300	5.244
TOTAL ANNUAL LAB	7.666	8.699
TOTAL INHOUSE	7.666	8.699
TOTAL INHOUSE RDT&E	2.661	3.015
ANNUAL OPERATING COST	0.513	0.498

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	220	0	60	160
CIVILIAN	85	2	12	73
TOTAL	305	2	72	233

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROF	EQUIP
6900	6.200	54.455	143.047	203.702	1.382	2.863

...MISSION

PLAN, CONDUCT & REPORT ON OTI, II, III TESTS, FOTE & EXPERIMENTATION; CEP, TEA & OTHER USER-TYPE TESTS OF AR & ENGR EQ; AUTOMOTIVE SYS; ATOMIC DEMO MUNITIONS & GEN EQ; FUEL HANDLING & STORAGE EQ. PROVIDE ADVICE, GUIDANCE TO DEVELOPERS & OTHERS. CONDUCT OTHER TESTS AS DIRECTED BY CG TRADOC

...CURRENT IMPORTANT PROGRAMS

COMBAT VEHICLE TECHNOLOGY PROGRAM
SURFACE LAUNCHED UNIT FUEL AIR EXPLOSIVE (SLUFAE) OT II
TANK THERMAL SIGHT OT II
GROUND EMPLACED MINE SCATTERING SYSTEM (GEMSS) OT II
COMMERCIAL SUBSTITUTE FOR 1/4 TON TRUCK IN NONMANEUVER SYSTEMS FOTE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQ: SIMFIRE INSTRUMENTATION SYS; 40T OVERHEAD CRANE; REMOTE CONTROL VEH & PER TYPE, MOVING & STATIONARY TARGETS; STILL & MOTION PICTURE PHOTO EQ; TARGET LOCATING SYS; GUN ELEV LIMITING DEV; VIDEO TAPE RECORDERS; CBT VEH, TACTICAL WHLD VEH, ENGR CONSTR EQ; MACHINE SHOP & SHOP MAINT EQ SETS; CALIBRATION MOTOROLA POSITIONING SYS; THRU-OPTICS CAMERA; ADVANCED DIR FIRE WPNS SIMULATION SYS; ELEVATED CAMERA PLATFORM FOR UP TO 40FT HEIGHT FACILITIES: 6900 ACRES OF SPACE AVAILABLE BASIS FOR TESTING; MCFARLAND-OLIVER RANGE (160 ACRES)-FIRING CAPABILITY UP TO 2000 METERS; OTHER RANGE WITH FIRING CAPABILITIES UP TO 10,000 METERS; STILL WATER TEST AREAS; 72,988 SQ FT BARRACKS SPACE; 47,788 SQ FT OFFICE SPACE; 58,527 SQ FT SHOP AREA; 48,106 SQ FT OF STORAGE SPACE; AND 85,750 SQ FT OF MOTOR PARK SPACE

INSTALLATION: ATMOSPHERIC SCIENCES LABORATORY

WHITE SANDS MR,N.M.

CDR/DIR.COL.WILLIAM RAWLINSON DEP.DIR.DR.HENRY RACHELF

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDTE	13.916	14.385
TOTAL PROCUREMENT	0.000	1.725
TOTAL O&M	0.225	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	14.141	16.110
TOTAL INHOUSE	10.946	10.255
TOTAL INHOUSE RDTE	10.721	10.230
ANNUAL OPERATING COST	3.400	3.381

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	442	0	13	429
CIVILIAN	232	19	96	136
TOTAL	674	19	109	565

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
45	4.800	3.400	3.300	11.500	48.000	22.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

FIELD ARTILLERY METEOROLOGICAL ACQUISITION SYSTEM
ATMOSPHERIC CHARACTERISTICS FOR SMOKE/AEROSOLS
REMOTE ATMOSPHERIC SENSING AND PROBING
ATMOSPHERIC MODELS FOR E-O SYSTEMS
METEOROLOGICAL SUPPORT TO RDTE ACTIVITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

METEOROLOGICAL RESEARCH FACILITY AND CAPABILITY
WIND TUNNEL FACILITY, LOW SPEED
ATMOSPHERIC PHYSICS RESEARCH FACILITY AND CAPABILITY
UPPER ATMOSPHERE RESEARCH AND SOUNDING ROCKET FACILITY AND CAPABILITY
ION MASS SPECTROMETER SYSTEM
METEOROLOGICAL SOUNDING ROCKET FACILITIES-N.M.,UTAH,ALASKA,CANAL ZONE
REMOTE ATMOSPHERIC SENSING FIELD RESEARCH FACILITY
ATMOSPHERIC SPECTROSCOPY - LASER PROPAGATION 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. DIR. GEORGE E. SLAGLEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL ROT&E	1.332	1.706
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.079	0.000
TOTAL OTHER	0.800	1.212
TOTAL ANNUAL LAB	2.211	2.918
TOTAL INHOUSE	2.211	2.918
TOTAL INHOUSE ROT&E	1.332	1.706
ANNUAL OPERATING COST	0.177	0.247

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PROS	TOTAL PROF	NON- PROF
MILITARY	76	0	44	32
CIVILIAN	36	1	13	23
TOTAL	112	1	57	55

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	0.000	15.096	3.200	18.296	0.392	0.182

...MISSION

MISSION: THE CONDUCT OF OPERATIONAL TEST I, II, III, FOR NON-MAJOR SYSTEMS AND OTHER TESTS AS DIRECTED BY HEADQUARTERS TRADOC. SPECIFICALLY, THE AVIATION BOARD DESIGNS AND CONDUCTS TESTING AND EVALUATION OF AVIATION SYSTEMS, SUBSYSTEMS AND ANCILLIARY EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

AH-1 FLIGHT SIMULATOR
OH-58C INITIAL OPERATING CAPABILITY
AIR COMBAT ENGAGEMENT EVALUATION
UTILITY TACTICAL TRANSPORT AIRCRAFT SYSTEM EVALUATION
ATTACK HELICOPTER AIR-TO-AIR SELF-DEFENSE WEAPONS SUBSYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NO MAJOR EQUIPMENT OR FACILITY CAPABILITY

INSTALLATION: AVIATION ENGINEERING FLIGHT ACTIVITY

EDWARDS AFB, CA.

CDR COL.DENNIS M. ROYLE

TECH.DIR.MR.JAMES S. HAYDEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	4.084	3.405
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.049	1.117
TOTAL ANNUAL LAB	5.133	4.522
TOTAL INHOUSE	5.133	4.522
TOTAL INHOUSE RD&E	4.084	3.405
ANNUAL OPERATING COST	1.119	1.190

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	66	0	23	43
CIVILIAN	105	0	33	72
TOTAL	171	0	56	115

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
19	9.200	16.000	124.800	150.000	3.632	6.070

...MISSION

PLAN AND CONDUCT AIRWORTHINESS QUAL FLT TESTS OF AIR VEHICLES DEVELOPED AND/OR PROCURED. AIRWORTHINESS EVAL OF AIR VEHICLES PROPOSED FOR ARMY APPLICATION. INCORPORATE ADVANCE CONCEPTS. PRODUCE DATA.ACFT PERF STAB

...CURRENT IMPORTANT PROGRAMS

ICE PHOBIC COATING FLT TEST EVALUATION
FLT TEST OF UH-60A BLACK HOWK
TEST SUPPORT OF PAFII FOR UH-60A
214A FIBERGLASS BLADE EVAL
CH-47 713 ENGINE EVAL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AND CONTROL.CONDUCT TEST PILOT ORIENTATION CRS
1F51D 2T2PB 1JOVIQ 1JRU21 1JAH1G 1JCH47C 1OH5PA 3JUH1H AND SEVEN(7) TEST ACFT
ACFT MAINT CAPABILITY
ACFT MODIFICATION CAPABILITY
EMR COMPUTER WITH TELEMETRY
AIRBORNE DATA AQUISITION SYSTEMS
3REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY
1MILIKEN CAMERA
1FAIRCHILD FLIGHT ANALIZER
1MAGNETIC TAPE COMPOSER SYSTEM
3MAGNETIC TAPE TYPEWRITERS 3MAGCARD TYPEWRITERS

INSTALLATION: AVIONICS LABORATORY

FT. MONMOUTH, N.J.

CDR COL. DARWIN A. PETERSEN

TECH. DIR. MR. THEODORE J SUETA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	12.148	11.000
TOTAL PROCUREMENT	1.921	2.000
TOTAL OEM	5.971	7.000
TOTAL OTHER	0.120	0.240
TOTAL ANNUAL LAB	20.160	20.240
TOTAL INHOUSE	10.380	12.090
TOTAL INHOUSE RDT&E	6.396	6.350
ANNUAL OPERATING COST	3.719	3.800

PERSONNEL	PERSONNEL DATA (END OF FY 1977)		TOTAL PROF	NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS		
MILITARY	12	0	6	6
CIVILIAN	178	4	129	49
TOTAL	190	4	135	55

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	25.000	30.000	0.000	55.000	0.000	9.012

...MISSION

APPLIED RES DEV AND ENGRG IN ARMY AVIATION ELECTRONICS INCLUDING AIR TRAFFIC REGULATION AIRBORNE COMMUNICATIONS NAVIGATION LANDING AIRCRAFT INSTRUMENTATION ENVIRONMENTAL SENSORS SYSTEMS DESIGN AND ENGINEERING INSTALLATION AND TEST SYSTEMS ENGINEERING PRODUCTION ENGINEERING

...CURRENT IMPORTANT PROGRAMS

INTEGRATED AVIONICS CONTROL SYSTEM
WIRE OBSTACLE WARNING SYSTEM
MAP OF THE EARTH COMMUNICATIONS
DIGITAL MODULAR AVIONICS,
AIR TRAFFIC MANAGEMENT SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST DATA ACQUISITION & DATA REDUCTION FACILITY
TACTICAL AVIONICS SYSTEM SIMULATOR
ENVIRONMENTAL VEHICLE FOR AVIONICS RESEARCH
HELICOPTER ROTABLE TEST FACILITY
NAVIGATION DEVELOPMENT & TEST FACILITY
ACOUSTIC COMMUNICATIONS TEST FACILITY
ELECTROMAGNETIC RADIATION TEST FACILITY
FIXED BASE COCKPIT SIMULATOR UH-1
GYRO TEST FACILITY
ATMS DESIGN TEST CENTER
AIRCRAFT ANTENNA TEST FACILITY

INSTALLATION: BALLISTICS RESEARCH LABORATORIES

ABERDEEN PROV.GR.,M.

DIR.DR.ROBERT J. EICHELBERGER DEP.DIR.COL.ROBERT M. GOMEZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	50.172	38.871
TOTAL PROCUREMENT	0.186	0.000
TOTAL OEM	0.751	0.815
TOTAL OTHER	0.931	1.727
TOTAL ANNUAL LAB	52.040	41.413
TOTAL INHOUSE	31.823	31.827
TOTAL INHOUSE RDT&E	30.315	30.000
ANNUAL OPERATING COST	5.514	6.097

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	1	33	6
CIVILIAN	744	103	398	346
TOTAL	771	104	431	352

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1920	537.624	20.103	34.157	591.884	40.462	30.413

...MISSION
CONDUCT RES AND EXPL DEVL IN SCIENCES/TECHNOLOGIES NECESSARY FOR
CONCEIVING DESIGNING DEVELOPING AND EVALUATING WEAPONS SYSTEMS
PURSUE ORIENTED FUND RESEARCH IN PHYSICS CHEM MATH ENGR
INVESTIGATE PERTINENT BRANCHES OF MILITARY SCIENCE AND TECHNOLOGIES

...CURRENT IMPORTANT PROGRAMS
PROPULSION DYNAMICS OF GUN WEAPON SYSTEMS
CONVENTIONAL/NUCLEAR WARHEAD EFFECTS AND BALLISTICS PROTECTION
WARHEAD DYNAMICS,PENETRATION,FRAGMENTATION,EXPLOSIVE/METAL INTERACTIONS
REFINED FLIGHT DYNAMICS OF PROJECTILES AND MISSILES
VULNERABILITY/VULNERABILITY REDUCTION GROUND AIRBORNE MATERIEL

...FUNCTIONS/EQUIPMENT/CAPABILITIES
EXPLOSIVE BLAST CHAMBERS AND HIGH ALTITUDE BLAST SPHERE
SHOCK TUBES-SIMULATION OF NUCLEAR BLAST/CHEMICAL REACTION RATE
SOFT RECOVERY SYST FOR ARTY SHELL
FIELD TEST FACILITIES FOR EXPLOSIVES AND ARMOR RESEARCH
HIGH SPEED MOTION PHOTOGRAPHY SCHLIEREN INTERFEROMETRY
ELECTRON MICROSCOPE-ELECTRON SPIN RESONANCE-NUCLEAR MAGNETIC RESEARCH
ANALOG COMPUTER FOR SIMULATION OF DYNAMICS OF GUN AND RIFLE
PROPULSION AND COMBUSTION CHAMBERS, CENTRAL SITE COMPUTATIONAL FACILITY
WITH 60 REMOTE INTERACTIVE TERMINALS, 8 REMOTE BATCH TERMINALS.
FLASH HOLOGRAPHIC SYSTEMS
AFTER GLOW REACTION CHAMBER-UPPER ATMOSPHERE CHEM REACTION RATE

INSTALLATION: BENET WEAPONS LABORATORY

WATERVLIET, N.Y.

CDR COL. P.B. KENYON

TECH. DIR. DR. J.T. FRASIER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL ROT&E	8.438	5.566
TOTAL PROCUREMENT	5.243	5.770
TOTAL O&M	2.862	1.905
TOTAL OTHER	0.193	0.529
TOTAL ANNUAL LAP	16.736	13.770
TOTAL INHOUSE	10.332	8.679
TOTAL INHOUSE ROT&E	4.503	2.972
ANNUAL OPERATING COST	4.584	4.803

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	6	0	4	2
CIVILIAN	309	23	138	171
TOTAL	315	23	142	173

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4	167.463	24.600	7.489	199.552	4.018	12.912

...MISSION

DESIGN AND DEVELOP ARTILLERY, TANK, AIR DEFENSE, AND SECONDARY CANNON ABOVE 40MM. SYSTEM MANAGEMENT, DESIGN AND DEVELOPMENT OF MORTAR SYSTEMS AND RE-COILLESS RIFLE SYSTEMS, BARREL AND CANNON SUPPORT AND SUPPORTING PHYSICAL AND ENGINEERING SCIENCES TECHNOLOGIES BASIC AND APPLIED RESEARCH AND MMT

...CURRENT IMPORTANT PROGRAMS

SYSTEM MANAGEMENT OF LIGHTWEIGHT COMPANY MORTAR SYSTEM, 60MM M224 MORTAR SYSTEM MANAGEMENT OF BATTALION MORTAR SYSTEM
 ROTARY FORGE INTEGRATED PRODUCTION LINE TECHNOLOGY
 DESIGN AND DEVELOP CANNONS XM205 AND M199 FOR HOWITZERS XM204 AND M198
 ULTRA HIGH PRESSURE AND CRYOGENIC TECHNOLOGY AND EQUIPMENT 400KB AT RM T

...FUNCTIONS/EQUIPMENT/CAPABILITIES

UNIQUE FACILITIES AND CAPABILITIES INCLUDE HIGH PRESSURE METALLURGY WITH 2-80K HYDROSTATIC, 1-150 HYDROSTATIC, 1-200 STATIC 1-DUAL PRESSURE 100K AND 60K HYDRAULIC FATIGUE SYSTEM AND 20-30K BAR FLUID EXTRUSION PRESSURE FULL SCALE WEAPON COMPONENTS DYNAMIC TESTER BY PRESSURE/PULSE SIMULATED FIRING LOAD STRESS ANALYSIS PHOTOELASTICITY SYSTEM ENCLOSED PROOF RANGE 40MM MAX ELECTRON MICROSCOPE 2.3 A RESOLUTION SEM MICROSCOPE WITH 100 A RESEARCH CRYOGENIC 4K 600K BAR HIGH PRESSURE SYSTEM. 1200 LB 1500 G HIGH PERFORMANCE SHOCK TEST HIGH TEMPERATURE VACUUM 3000C MAX TIME OF FLIGHT MASS SPECTROMETER 2000 GAUSS MAGNET ELECTROPLATE, ANODIZE AND TITANIUM HARD COAT PROCESS ELECTRON MICROPROBE ANALYSIS IBM 360-44 COMPUTER WITH GRAPHIC AND INTEGRAPHIC TERMINAL SYSTEM. AUTOMATED X-RAY ACQUISITION ANALYSIS SYSTEM FILAMENT WOUND METAL MATRIX PLASMA SPRAY ASSEMBLY.

INSTALLATION: COLD REGIONS R&E LABORATORY

HANOVER, N.H.

CDR COL. R. L. CROSBY

TECH. DIR. DR. D. R. FRETAG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	8.386	9.250
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.339	0.125
TOTAL OTHER	2.422	2.872
TOTAL ANNUAL LAB	11.147	12.247
TOTAL INHOUSE	6.500	7.681
TOTAL INHOUSE RDT&E	4.310	5.454
ANNUAL OPERATING COST	1.971	2.234

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	13	0	6	7
CIVILIAN	275	29	103	172
TOTAL	288	29	109	179

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)					
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
24	40.734	30.027	97.947	168.708	5.056	6.443

...MISSION

AS THE ARMY LABORATORY FOR SCIENCE AND TECHNOLOGY IN COLD REGIONS, USACRREL CONDUCTS AND COORDINATES RESEARCH APPLICABLE TO THE ARMY'S NEEDS IN THOSE GEOGRAPHIC AREAS OF THE WORLD WHERE COLD REPRESENTS A SEVERE PROBLEM AT LEAST ONE YEAR IN TEN.

...CURRENT IMPORTANT PROGRAMS

DESIGN, CONSTRUCTION, AND OPERATIONS TECHNOLOGY FOR COLD REGIONS
RESEARCH IN SNOW, ICE, AND FROZEN GROUND
MOBILITY AND ENVIRONMENTAL RESEARCH
LAND TREATMENT OF WASTEWATER
ICE ENGINEERING

...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, 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. AN ALASKA PROJECTS OFFICE AT FAIRBANKS CONDUCTS RESEARCH AND PROVIDES LOGISTIC 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.

INSTALLATION: COLD REGIONS TEST CENTER

APO SEATTLE, WA.

CDR COL. JAMES F. HENRIONNET TECH. ADV. MR. WILLIAM J. HASLEM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	3.695	3.619
TOTAL PROCUREMENT	0.018	0.025
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.629	3.883
TOTAL ANNUAL LAB	7.342	7.527
TOTAL INHOUSE	7.342	7.527
TOTAL INHOUSE RDT&E	3.695	3.619
ANNUAL OPERATING COST	1.834	1.850

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	282	0	95		187
CIVILIAN	22	0	6		16
TOTAL	304	0	101		203

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL REAL PROP	EQUIP	
647155	51.007	120.079	155.428	326.514	12.474	5.699

...MISSION

PLAN CONDUCT EVALUATE REPORT ON ENVIRONMENTAL PHASE OF DEVELOPMENT TESTS
EMPLOY INTEGRATED TESTING POLICYS DURING DEVELOPMENT TESTING PROVIDE
TECH INFO ADVICE GUIDANCE ON TESTS TO GOVT AGENCIES AND INDUSTRY CONDUCT
OTHER TESTS AND EVALUATIONS AS DIRECTED BY CG TECOM

...CURRENT IMPORTANT PROGRAMS

PEWS PLATOON EARLY WARNING SYSTEM
SLUFAE FUEL AIR EXPLOSIVE NEUTRILIZER
GEMSS XM128 GROUND EMPLACED MINE SCATERING SYSTEM
SUSV SMALL UNIT SUPPORT VEHICLE
M113 POWER TRAIN PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITY CAN ACCOMMODATE A WIDE VARIETY AND LARGE NO OF TESTS AT ANY ONE
TIME SEVERAL VEH TST COVRSGS AND EXTENSIVE CROSS COUNTRY TERRAIN RANGES
ARE VERSITILE 500 THOUS ACRE ISOLATED IMPACT AREA, 50KM MAX UNOBSERVED
RANGE LARGE RESTRICTED AIRSPACE AREA WITH UNRESTRICTED FIRING TO 5000 FT
ORDINATE. COORDINATION 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, FASCIMILE TELETYPE, PHOTOLAB AND MAINT.
FOR MAJORITY OF EQUIP INCL ACFT DS/GS CALIBRATION SVCS. LIMITED ENGINEER
SUPPORT UHIA ACFT ORGANIC. AF SPT CAN BE ARRANGED. NET TEAM SUPPORT
AVAILABLE. INST FOR MOST ITEMS ON HAND, CAN OBTAIN OTHER INSTRUMENTS.
MOVING TARGET SYSTEM, REMOTE SARTS TARGET SYSTEM, E.O.D, STATISTICAL AND
MAINTENANCE EVALUATION CAPABILITIES AVAILABLE. ADAQUATE COMPUTER FACIL.

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

CDR/DIR. COL. WINSTON K. EVANS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	28.567	13.531
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.761	0.106
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	30.328	13.637
TOTAL INHOUSE	11.041	4.229
TOTAL INHOUSE RDT&E	9.449	4.123
ANNUAL OPERATING COST	3.257	1.226

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	11	0	8	3
CIVILIAN	212	10	142	70
TOTAL	223	10	150	73

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
227	88.475	6.139	12.569	107.183	3.950	15.848

...MISSION

R&D OF EQUIPMENT FOR COMBAT SURVEILLANCE, TARGET ACQUISITION, IFF + RADIOLOGICAL SURVEY, APPLYING TECHNOLOGY IN RADAR, ELECTRO-OPTICS, PARTICULARLY LASERS, PHOTOGRAPHY, REMOTE SENSING, ACOUSTICS, RADIATION DETECTION AND MEASUREMENT, +IFF. ACTS AS DARCOM LEAD LAB ON LOW ENERGY LASERS

...CURRENT IMPORTANT PROGRAMS

ENGR DEV OF MOBILE GROUND IMAGERY INTERPRETATION CENTER ABV MAGIIC
ENGR DEV OF TACTICAL IMAGERY PROCESSING SET. ES-102 ABV TIPS
ADVANCED DEV OF NUCLEAR PUKST DETECTION SYSTEM ABV NRDS
EXPLORATORY DEV OF VARIOUS CS+TA SENSORS
ENGR DEV OF HANDHELD LASER RANGEFINDER AN/GVS-5

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PHOTO PROCESSING, OPTICAL TEST, LENS RESOLUTION TEST PATTERN FACILITIES, INCLUDING DARK ROOMS, CHEM LABS. RADAR TECHNIQUES DEV FAC, INCL MICRO-WAVE DARK ROOM, ANTENNA PATTERN + TEST RANGE, 65 FOOT RADAR TEST PLATFORM. OUTDOOR AND INDOOR RANGES INSTRUMENTED FROM 30 MHZ TO 70 GHZ. MOBILE SPECTRAL AND TIME DISTRIBUTION MEASUREMENT FAC. OPTICS FACILITY FOR MEASURING DETECTIVITY OF ELEMENTS, OUTPUT OF SOURCES, TRANSMISSION CHARACTERISTICS. SPECIAL LASER TEST + MEASUREMENT FAC INCL A 3.4KM BY 18M RANGE EQUIPPED WITH 2 HIGH RESOLUTION TARGETS TO EVALUATE LASER RANGE. FINDING, DESIGNATING, AND TRACKING SYSTEMS. RADAR INSTRUMENTATION FAC CAPABLE OF TRACKING X-BAND RADAR AND COLLECTING AND RECORDING POSITION, VELOCITY, AND SIGNAL STRENGTH, INCLUDING A SHORT RANGE SEARCH CAPABILITY. AND SIGNAL STRENGTH, ALSO HAS SHORT RANGE SEARCH CAPABILITY.

INSTALLATION: COMMUNICATIONS ADP LABORATORY

FT. MONMOUTH, N.J.

CDR COL. D.A. SLINGERLAND

DEP. DIR. MR. R.R. RIEHS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	21.995	26.104
TOTAL PROCUREMENT	3.231	3.286
TOTAL O&M	3.786	0.500
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	29.012	29.890
TOTAL INHOUSE	20.035	20.369
TOTAL INHOUSE RDT&E	14.529	17.168
ANNUAL OPERATING COST	3.500	3.690

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	11	0	4	7
CIVILIAN	360	15	257	103
TOTAL	371	15	261	110

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	30.950	40.004	5.000	75.954	0.000	10.817

...MISSION

TO PERFORM R&D ACTIVITIES RELATED COMMUNICATIONS EQUIPMENTS AND SYSTEMS WHICH INCLUDE THE FIELDS OF RADIO TELEPHONIC TELEGRAPHIC SECURITY DATA/ SIGNAL PROCESSING COMPUTER HARDWARE AND SOFTWARE COMMUNICATIONS SWITCHING ELECTROMAGNETIC COMPATIBILITY AND SPECTRUM UTILIZATION

...CURRENT IMPORTANT PROGRAMS

FIBER OPTIC CABLE COMMUNICATIONS SYSTEMS
 PACKET RADIO/DIGITAL DISTRIBUTION SYSTEM
 SINGLE CHANNEL GROUND AND AIRBORNE RADIO SYSTEM (SINGARS)
 ARTADS TACFIRE TACTICAL OPERATIONS SYSTEM PLRS PLCS TCS
 MSCS AN/TTC 39 DIGITAL GROUP MULTIPLEXRS TENLEY UNIT-LEVEL SWITCHBOARD

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LAB SPACES TEST INSTRUMENTS AND SPECIALIZED ELECTRONIC MECHANICAL AND COMPUTER AND OPTICAL EQUIPMENT TO PERFORM DESIGN FABRICATION TESTING OF ELECTRONIC EQUIPMENTS IN PRINTING SPEECH NARROW AND WIDEBAND RADIOS LOW TO LASER FREQUENCIES MULTIPLEXING SWITCHING ERROR DETECTION CODING ANTENNA AND PROPAGATION TECHNOLOGY FIXED AND TACTICAL RADIO MODEM MULTIPLEX SWITCHING EQUIPMENTS TO SIMULATE FIELD CONFIGURATIONS FOR TEST DATA AND AUTOMATIC DATA PROCESSING SYSTEMS (TELEPROCESSING DESIGN CENTER AND COMMUNICATION SYSTEM DESIGN FACILITY) COLLECTION AND EVALUATION OF EQUIPMENT PROPAGATION INTERFACE PROBLEMS ANTENNA TEST FACILITY AND SHIELDED ROOMS TO MEASURE TEST AND ESTABLISH DOD STANDARDS FOR ELECTROMAGNETIC COMPATIBILITY RADIATION AND PROPAGATION IONOSPHERIC SOUNDING FACILITY (DIGITAL IONOSONDE) FOR REAL TIME IONOSPHERIC UPDATED PREDICTIONS

INSTALLATION: CONSTRUCTION ENGINEERING RESEARCH LABORATORY URBANA, IL.

COR DIR. COL. J.E. HAYS

TECH. DIR. DR. L.R. SHAFFER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	9.336	8.883
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.150	0.580
TOTAL OTHER	0.098	0.222
TOTAL ANNUAL LAB	10.584	9.685
TOTAL INHOUSE	0.790	6.651
TOTAL INHOUSE RDT&E	6.046	6.153
ANNUAL OPERATING COST	1.350	1.400

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	3	0	3	0
CIVILIAN	204	48	163	41
TOTAL	207	48	166	41

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
30	76.081	34.159	0.000	110.240	3.896	4.067

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

MATERIALS RESEARCH AND DEVELOPMENT FOR MILITARY CONSTRUCTION
 ENVIRON QUALITY FOR CONSTRUCTION & OPERATION OF MILITARY FACILITIES
 DEVELOP OF INDUSTRIALIZED CONSTRUCTION FOR MILITARY FACILITIES
 DEVELOP OF AUTOMATED PROCEDURES FOR MILITARY CONSTRUCTION
 ARCHITECTURAL RESEARCH AND DEVELOPMENT FOR MILITARY FACILITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONTROLLED ENVIRONMENT CHAMBER, 1-MILLION POUND CLOSED LOOP MATERIALS TEST SYSTEM, SCANNING ELECTRON MICROSCOPE.
 X-RAY EQUIPMENT, SEMI-AUTOMATIC WELDING EQUIPMENT,
 BIAXIAL SHOCK TEST MACHINE- NON-DESTRUCTIVE TESTING FACILITY, VACUUM INDUCTION FURNACES, METALLURGIC SAMPLE PREPARATION AND RESEARCH METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYSTEM, DYNAMIC TENSION ANALYSIS SYSTEM, DIGITAL RECORDING AND ANALYSIS EQUIP455T
 FACILITIES CAPABILITIES INCLUDE SYSTEMS BUILDING METHODS AND TECHNIQUES, COMPUTER BASED DESIGN AND CONSTRUCTION MANAGEMENT TECHNIQUES, HARDENED FACILITIES ANALYSIS, ENVIRONMENTAL QUALITY MANAGEMENT, POLLUTION CONTROL AND ABATEMENT, MILITARY HOUSING SYSTEMS, POWER GENERATION SYSTEMS, UTILITIES SYSTEMS ANALYSIS, EVALUATION, AND ARCHITECTURAL RESEARCH

INSTALLATION: DUGWAY PROVING GROUND

DUGWAY,UT.

CDR COL.JAMES R. KLUGH

SCI.DIR.DR.MORTIMER A. ROTHENBERG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	15.769	16.095
TOTAL PROCUREMENT	0.268	0.300
TOTAL O&M	2.568	2.464
TOTAL OTHER	3.657	3.726
TOTAL ANNUAL LAB	22.262	22.585
TOTAL INHOUSE	19.721	19.472
TOTAL INHOUSE RDT&E	13.501	13.200
ANNUAL OPERATING COST	8.336	8.035

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	163	2	20		143
CIVILIAN	631	16	134		497
TOTAL	794	18	154		640

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
840909	90.728	191.558	1680.346	1962.632	51.237	15.086

...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 & MESOMFT 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 PY 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.

INSTALLATION: EDGEWOOD ARSENAL LABORATORIES

EDGEWOOD ARSENAL, MD

CDR COL. STAFFORD R. BROOKS

TECH. DIR. DR. BENJ L. HARRIS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDTRF	49.902	55.718
TOTAL PROCUREMENT	1.810	1.923
TOTAL OEM	7.006	5.521
TOTAL OTHER	1.348	1.362
TOTAL ANNUAL LAB	60.066	64.524
TOTAL INHOUSE	51.240	51.921
TOTAL INHOUSE RDTRF	41.076	43.115
ANNUAL OPERATING COST	11.561	12.250

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	127	30	75	52
CIVILIAN	914	52	519	395
TOTAL	1041	82	594	447

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1750	435.213	234.224	780.402	1449.839	27.746	17.054

...MISSION

CLASS II ACTIVITY CONDUCTING A RESEARCH AND DEVELOPMENT MISSION FOR ARMY CHEMICAL MUNITIONS AND DEFENSIVE ITEMS. INCLUDES BASIC RESEARCH AND GENERAL INVESTIGATIONS, AS WELL AS EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT OF MATERIAL.

...CURRENT IMPORTANT PROGRAMS

DEV SMOKE/AEROSOL MUN FOR SCREENING
THERAPEUTIC & PROPHYLACTIC MED DEF AGAINST CML WARFARE AGENTS
BIOLOGICAL & CHEMICAL AGENT ALARM DEVELOPMENT
NEW PROTECTIVE MASK DEVELOPMENT
BINARY LETHAL CHEMICAL AGENT PROJECTILE DEVELOPMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TOX EFFECTS CML AGTS: MED PROPHYLAXIS & TREAT: CML DECON & CONTAM AVOID:
CML PROT TECH: CML SAFETY INVEST: CML & BIO DETECT & ID TECH: CML ALARM
TECH: CML TRNG AGTS & EQUIP: PHY DEF AGST BIO ATCK: CML THREAT ASSESS TECH:
GEN CML INVEST: DISSEM & DISP TECH: LETH CML AGT/WPN: TNCAP CML AGTS: SMOKE:
CIVIL DIST & TACT IRRITANT: WOUND BALL: ENVIRONMENTAL QUALITY: RES IN DEF
SYS/CW/BW & INHOUSE LAB INDEPENDENT RESEARCH
MAJOR EQUIP IS CONTAINED IN A COMPLEX OF ENGR LAB AREAS, INCLUDES CML
PILOT PLANTS-MUN FILLING-ENGR DESIGN, EXPR FAB SHOPS, AEROSOL DISSEM TEST
CHAMBERS, PYROTECH MIXING LOADING HANDLING FAC- INDOOR BALLISTIC RANGE-
SUBSONIC-SUPERSONIC TRANSONIC WIND TUNNELS - A COMPLETE CLINICAL
RESEARCH FACILITY - AN ANIMAL BREEDING/HOLDING FACILITY. ICAL

INSTALLATION: ELECTRONIC PROVING GROUND

FT. HUACHUCA, AR.

CDR COL. WILLIAM C. PETTY

CH. SCI. DR. GEORGE E. SCHAFER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	4.062	5.761
TOTAL PROCUREMENT	0.892	1.211
TOTAL OEM	1.106	0.755
TOTAL OTHER	4.229	5.092
TOTAL ANNUAL LAB	10.289	12.819
TOTAL INHOUSE	8.808	10.763
TOTAL INHOUSE RDT&E	3.436	4.891
ANNUAL OPERATING COST	7.943	8.022

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	328	1	36	292
CIVILIAN	196	2	71	125
TOTAL	524	3	107	417

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
59573	0.000	50.300	169.500	219.800	2.350	43.602

...MISSION

PLAN, CDT, EVAL, REPT RESULTS OF DEV AND DEV-TYPE TESTS IAW INTGRD TESTING CYCLE PLCY FOR COMM-ELCT AND OPT/ELECTRO-OPT EQUIP AND SYS, TEMPEST AND OTHER MAT. OP EMTF, ECM VULNERABILITY TEST FAC, AND STF. DEV/MAINT MASTER PLAN FOR DEV AND MODERNIZATION OF TEST INSTR, TEST FAC, TEST METHODOLOGY.

...CURRENT IMPORTANT PROGRAMS

TRI-TAC PROGRAM
ELECTROMAGNETIC COMPATIBILITY PROGRAM /EMC/
ELECTRONIC WARFARE INTELLIGENCE TESTING PROGRAM /EWT/
REMOTELY MONITORED BATTLEFIELD SENSOR SYSTEM PROGRAM /REMBASS/
COMSEC TESTING PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COMD USAELCT PG. CONDUCT DEV AND DEV-TYPE TESTS IAW INTGRD TESTING CYCLE FOR FOL TYPES MATERIEL, COMM-ELCT AND OPTICAL/ELECTRO-OPT EQUIP AND SYS, TEMPEST, AND OTHER MATERIEL AS DIRECTED. MAINT CAPABILITY FOR ELECTRO-MAGNETIC COMPATIBILITY AND ELECTRONIC COUNTERMEASURES TEST ANALYSES. OPERATE AND MAINTAIN THE INSTRUMENTATION AND FACILITIES TO PROVIDE NECESSARY CAPABILITY. MAINTAIN CAPABILITY FOR CONDUCT OF TEMPEST TESTS AND ANALYSES DURING RESEARCH, DEVELOPMENT, TESTS AND EVALUATION CYCLES. CONDUCT OR PARTICIPATE IN FIELD RESEARCH AND RELATED STUDIES FOR DOD AGENCIES AS DIRECTED. DEVELOP AND MAINTAIN MASTER PLAN FOR THE DEVELOPMENT AND MODERNIZATION OF TEST INSTRUMENTATION, TEST FACILITIES, TEST METHODOLOGY AND TEST EXPERTISE NECESSARY TO SUPPORT ARMY MATERIEL DEVELOPMENT.

INSTALLATION: ELECTRONIC WARFARE LABORATORY

FT. MONMOUTH, N.J.

DIR. MR. CLYDE D. HARDIN

DEP. DIR. COL. J. F. PASSAFIUME

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	33.225	33.238
TOTAL PROCUREMENT	53.306	98.422
TOTAL O&M	5.218	1.045
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	91.749	132.705
TOTAL INHOUSE	22.233	18.721
TOTAL INHOUSE RDT&E	16.417	14.579
ANNUAL OPERATING COST	2.376	2.296

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	53	0	0		44
CIVILIAN	427	8	210		217
TOTAL	480	8	219		261

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	142.936	13.617	48.502	205.055	0.000	61.543

...MISSION

RES AND DEV ESSENTIAL TO ELECTRONIC WARFARE, AND SELECTED AREAS OF INTEL ENCOMPASSES APPLD RDA INCL QRC DEV AND SPT IN INTERCEPT, DF, SIG ANALYSIS JAMMING DECEP, SIG INTELL, ACQUST INTELL, AGENT EQUIP, SECURITY, COUNTER-INTEL, VULNERABILITY AND COUNTER-COUNTERMEASURES

...CURRENT IMPORTANT PROGRAMS

EW/SIGINT- DEVELOPMENT/PRODUCTION OF SIGINT/EW EQUIPMENT
 SELF-PROTECTION- ARMY ACFT, TANKS, TROOPS, LAND COMBAT WARNING/ECM
 VULNERABILITY/ECM, C-E SYSTEMS, MISSILES
 TECHNOLOGY, EW TECH, HF THRU MM WAVES; IR THRU UV
 QRC READINESS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL FACILITIES, BIG CROW (KC-130), AIRBORNE EW LABORATORY, IRCM SIMULATOR (US AND FOREIGN MISSILES), IR MEASUREMENTS AND DATA REDUCTION (ISMS, ISIS; AIRCRAFT SIGNATURES), MOBILE INSTRUMENTATION FACILITY (LGWCM), IMDSO PHOTO AND PHYSICAL SECURITY FACILITIES, EW INFORMATION SYSTEM (QRC DATA BASE), WAYSIDE TEST AREA (HF, VHF, DF, TONOSONOE), ANTENNA RANGE FACILITY (MICROWAVE, DF ANTENNA PATTERNS), SANDY HOOK TEST AREA (ELINT) MEASUREMENTS), ANECHOIC CHAMBER (MICROWAVE ANTENNA MEASUREMENTS), ELECTRONICALLY SECURE LABORATORY AREA

INSTALLATION: ELECTRONICS TECHNOLOGY AND DEVICES LAB

FT. MONMOUTH, N.J.

TECH. DIR. DR. C. C. THORNTON

DEP. DIR. MR. S. DANKO

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	21.052	20.498
TOTAL PROCUREMENT	1.328	0.976
TOTAL O&M	0.435	0.225
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	22.815	21.699
TOTAL INHOUSE	13.771	12.340
TOTAL INHOUSE RDT&E	12.264	11.239
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	3	0	2	1
CIVILIAN	337	34	216	121
TOTAL	340	34	218	122

ACRES	SPACE AND PROPERTY			COST (MILLION. \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL REAL PROP	EQUIP	
	LAB	ADMIN	OTHER			
0	95.789	10.575	26.474	132.838	0.000	10.822

...MISSION

TO DEVELOP AN ESSENTIAL BASE IN ELECTRONICS TECHNOLOGY AND DEVICES CONSISTENT WITH NEXT GENERATION ARMY SYSTEM OPERATIONAL REQUIREMENTS. TO THIS END, AN APPLIED R&D PROGRAM IS PURSUED, FOCUSING ON CRITICAL BARRIER DEVICE AND MATERIAL PROBLEMS THAT INHIBIT DEVEL. OF NEW ARMY SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

HIGH SPEED SIGNAL PROCESSING DEVICES FOR REAL TIME IDENT & LOCATION OF ENEMY EQUIPMENT & WEAPONS. WIDE BAND EFF JAMMING DEVICES, DECOY COMPONENTS FOR OPERATION FROM EXPENDABLE AB PLATFORMS. MICROWAVE MM-WAVE DEVICES FOR LOCATION IDENT DESTRUCTION OF TARGETS THRU SMOKE INCLMENT WEATHER. LIGHT WEIGHT PORTABLE POWER FOR FIELD ARMY. HI-PWR PULSERS FOR LASERS/WEAPONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES ARE AVAILABLE FOR PERFORMING R&D ON PREPARATION, PROPERTIES & CONTROL OF ELECTRONIC MATERIALS FOR CONDUCTING R&D ON ELECTRONIC PARTS, DEVICES, INTEGRATED CIRCUITS AND ASSEMBLIES. LABORATORIES FOR PERFORMING R&D IN THESE AREAS ARE EQUIPPED WITH THE NORMAL ARRAY OF STD LABORATORY INSTRUMENTATION AND FACILITIES. LABORATORY WORK AREAS INCLUDE FACILITIES FOR THE COMPLETE DESIGN, FABRICATION AND TESTING OF IC'S, HYBRID CIRCUITS, ASSEMBLIES, SEMICONDUCTOR DEVICES, QUARTZ CRYSTALS, MICROWAVE AND MM-WAVE DEVICES AND CIRCUITS, ELECTRON TUBES AND DISPLAY DEVICES. ALSO FACILITIES FOR PRIMARY, SECONDARY & SPECIFIC PURPOSE POWER SOURCES, ELECTROCHEMICAL RESEARCH, CHARACTERIZATION OF ELECTRONIC MATERIALS. THE LAB ALS PROVIDES ARMY CUSTOMERS WITH EXPERT SERVICES INCLUDING DIRECT R&D DEVELOPMENT, SUPPORT, CONSULTATION AND DIRECT PARTICIPATION IN SYSTEMS DEVELOPMENT.

INSTALLATION: ENGINEER TOPOGRAPHIC LABORATORIES

FT. BELVOIR, VA.

CDR. COL. PHILIP R. HOGE

TECH. DIR. MR. R. P. MACCHIA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	14.991	16.999
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.057	2.085
TOTAL OTHER	0.213	0.225
TOTAL ANNUAL LAB	17.261	19.309
TOTAL INHOUSE	8.235	9.392
TOTAL INHOUSE RDT&E	7.065	7.983
ANNUAL OPERATING COST	2.107	2.500

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	16	0	11	5
CIVILIAN	269	19	172	97
TOTAL	285	19	183	102

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	7.800

...MISSION

ACCOMPLISHES RESEARCH AND DEVELOPMENT OF SYSTEMS, EQUIPMENT, PROCEDURES AND TECHNIQUES APPLICABLE TO MAPPING, SURVEYING, GEODESY, PHOTO-INTERPRETATION AND MILITARY GEOGRAPHIC INFORMATION RELEVANT TO MILITARY OPERATIONS AND MATERIEL DEVELOPMENT.

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO PERSHING II
TOPOGRAPHIC SUPPORT SYSTEM
POSITION AND AZIMUTH DETERMINING SYSTEM
ARMY TERRAIN INFORMATION SYSTEM
EXPERIMENTAL DIGITAL INTERACTIVE FACILITY

...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, 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 AND DEC PDP 11/50. OTHER SPECIALIZED EQUIPMENT INCLUDE A COMTAL, DICOMED, PDS DIGITAL AUTOMATED MICRODENSITOMETER, A RECORDING OPTICAL SPECTRUM ANALYZER, POCKELS READOUT OPTICAL MODULAR, COLOR AND MULTIBAND AERIAL CAMERAS, PRECISION MENSURATION EQUIPMENT, AND A COHERENT RADAR SIGNAL PROCESSOR.

INSTALLATION: ENGINEER WATERWAYS EXPERIMENT STATION

VICKSBURG, MS.

DIR. COL. JOHN L. CANNON

TECH. DIR. MR. F. R. BROWN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	13.351	13.590
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.325	0.330
TOTAL OTHER	37.514	41.130
TOTAL ANNUAL LAB	51.190	55.050
TOTAL INHOUSE	41.045	42.700
TOTAL INHOUSE RDT&E	11.653	11.760
ANNUAL OPERATING COST	6.709	7.216

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	39	2	35	4
CIVILIAN	1410	81	471	939
TOTAL	1449	83	506	943

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
722	1736.714	336.410	170.446	2243.578	18.914	30.290

...MISSION

MIL&CIV FUNDED RSCH, DEV&INVS IN HYD, ECOLOGY, PERM&EXPEDIENT PAVEMENTS, SOIL, CONCRETE, EXPLO WPN EFF, EXPLO EXCAVATION, VEH MOBILITY&ENVIRONMENTAL ASPECTS OF MIL OPERATIONS. OPERATE TECH LIBRARY&GOVERNMENT CEMENT&POZZOLAN TEST PROGRAM. SERVES CE, DARCOM, DNA, ERDA, AF, NAVY, EPA & OTHER AGENCIES

...CURRENT IMPORTANT PROGRAMS

HYDEMATH MODELING TO SOLVE RIVER, TIDAL, WIND-WAVE, ECOLOGICAL&STRUC PROBS. RSCH ON VEH MOBILITY, REMOTE SENSING, ENVIR IMPACTS, EARTHQUAKE DSGN CRIT. NUC&HE RSCH TO DEV CRIT FOR ED OF PROTECTIVE STRUC, BARRIERS&EXCAVATIONS. RSCH, DEV&FORMULATION OF NEW&IMP ENG CRIT ON ROADS, STOR AREAS, &AIRFIELDS. INVS OF CEMENTITIOUS MATERIALS AND RSCH OF MASS AND STRUCTURAL CONCRETE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABLE OF PERF GEN INVS IN FLD OF HYD, SOIL MECH, CONCRETE, MOBILITY OF MIL VEH, EXPLO EFF, ECOLOGY&EXPLO EXCAVATION AND DEV OF STRUC & PAVEMENTS DESIGN CRIT. THRU BR&APPLIED RSCH, THE CAPABILITY OF DEV METHODS&TECH AND THE TESTING OF MAT&EQUIP IS EXERCISED TO ASST IN ACCOMPMT OF THE CE MSN. WES RESERVATION CNTN BLDGS, TEST SITES, SPECIAL EQUIP&OTHER PLANT FAC. TEST SITES&FAC FOR SP PURPOSES ARE MAINT IN OTHER AREAS ON PERM OR TEMP BASIS. FAC INCL FLUMES OF DIFF TYPES&SIZES, WAVE&TIDE GENR MACH, DRILL EQUIP, FULLY EQUIPED SOILS, CONCRETE, CHEMISTRY, CALBR, ELCT&TEMPERATURE CON ENVIRONMENTAL MODEL LABS, X-RAY DIFFRACTION&SPECTROSCOPY APPAR, LARGE AND SMALL BLAST LOAD GENERATOR, 200K DYNAMIC LOADER, MOBILITY RSCH FAC, SINGLE AND MULTIPLE WHEEL LOAD CARTS, SUR EFF BLAST FAC, HIGH&LOW FREQ VIBRATORS, ELECTRON MICROSCOPE, LARGE SCALE CMPT FAC AND TECH LIBRARY.

INSTALLATION: FIELD ARTILLERY BOARD

FT.SILL,OK.

PRES.COL.BORIS POGOLOFF

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	1.001	1.440
TOTAL PROCUREMENT	0.039	0.059
TOTAL O&M	0.110	0.035
TOTAL OTHER	2.175	2.142
TOTAL ANNUAL LAB	3.325	3.676
TOTAL INHOUSE	3.325	3.676
TOTAL INHOUSE RD&E	1.001	1.440
ANNUAL OPERATING COST	0.249	0.249

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	172	0	40		132
CIVILIAN	35	0	3		32
TOTAL	207	0	43		164

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
23	28.100	32.802	17.640	78.542	3.330	1.260

...MISSION

PLAN CONDUCT AND REPORT ON OT I OT II AND OTHER USER-TYPE TESTS
PARTICIPATE IN OT I AND OT 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 XM736
OPERATIONAL TEST II XM710
OPERATIONAL TEST II RCS
OPERATIONAL TEST II PHOTOLocator
OPERATIONAL TEST IIA PADS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ONE MET STATION
TEST ITEMS ADDITIONAL SUPPORT IS OBTAINED FROM USAFACFS WHEN NEEDED

INSTALLATION: FRANKFORD ARSENAL LABORATORIES

PHILADELPHIA, PA.

CDR COL. NEIL S. WILLIAMSON

TECH. DIR. DR. DONALD GYOROG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	14.025	0.000
TOTAL PROCUREMENT	14.693	0.000
TOTAL O&M	4.274	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	32.992	0.000
TOTAL INHOUSE	21.552	0.000
TOTAL INHOUSE RDT&E	8.435	0.000
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	30	0	20	10
CIVILIAN	550	22	374	176
TOTAL	580	22	394	186

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
43	7.312	141.532	56.591	205.435	16.960	12.000

...MISSION

LIFE CYCLE ENGINEERING RESPONSIBILITY THROUGH FIRST PRODUCTION FOR ALL WEAPONS SYSTEMS THROUGH 40MM CALIBER SMALL ARMS, GRENADE LAUNCHERS AND AUTOMATIC CANNON FOR INFANTRY, AIR DEFENSE, AIRCRAFT ARMAMENT AND COMBAT VEHICLES. FIRE CONTROL FOR ALL WEAPONS SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

SQUAD AUTOMATIC WEAPON SYSTEM
FIRE CONTROL FOR AIRCRAFT AIR DEFENSE ARTILLERY, COMBAT VEHICLE, SMALL ARMS
LASER COUNTER MEASURES AND PROTECTION
ADVANCED RIFLE PROGRAM
ADVANCED ATTACK HELICOPTER.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FIRE CONTROL AND SMALL CALIBER WEAPONS SYSTEMS LABORATORY HAS AVAILABLE TO IT ALL THE FACILITIES OF THE FORMER PICATINNY ARSENAL AS WELL AS CONSIDERABLE EQUIPMENT MOVED FROM FRANKFORD ARSENAL AND RODMAN LABORATORIES INCLUDING, BALLISTIC MEASURING EQUIPMENT, PHOTOMETRIC TRACER, MICROWAVE INTERFEROMETER, HIGH SPEED HARD AND SOFT X-RAY, DOPPLER RADAR, HOLOGRAPHIC EQUIPMENT, 18 INCH HIGH G SHOCK MACHINE, 155MM AIR GUN, RAPID SCAN SPECTROPHOTOMETER, SCANNING AND TRANSMISSION ELECTRON MICROSCOPES, MASS SPECTROMETER, LASER TEST FACILITY, ELECTRON BEAM VACUUM FILM DEPOSITION, PHOTOELASTIC STRESS ANALYSIS, CDC 6600 COMPUTER FACILITIES, DIFFUSION SCAN CALORIMETER, PILOT TRACER LOAD FACILITY, RADIO-ISOTOPE LAB, ULTRASONIC MATERIAL TEST, ELECTRON MICROPROBE, VACUUM ARC MELTING FACILITY, STATIC DYNAMIC IMPACT, LASER PHOTOLYSTS, SMALL CALIBER AMMUNITION MODERNIZATION PROGRAM FACILITY.

INSTALLATION: HARRY DIAMOND LABORATORIES

WASHINGTON, D.C.

CDR COL. JOHN J. RAMSDEN

TECH. DIR. DR. WILLIAM W. CARTER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	69.497	59.962
TOTAL PROCUREMENT	55.872	37.133
TOTAL O&M	26.866	22.833
TOTAL OTHER	3.771	3.456
TOTAL ANNUAL LAB	156.006	123.384
TOTAL INHOUSE	47.683	38.057
TOTAL INHOUSE RD&E	34.364	31.147
ANNUAL OPERATING COST	11.344	13.940

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	2	9	5
CIVILIAN	1324	76	786	538
TOTAL	1338	78	795	543

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
2343	511.196	145.986	101.139	758.321	47.594	27.377

...MISSION

INFLUENCE TIME AND COMMAND FUZING/TARGET DETECTION AND SIGNATURE ANALYSIS/TARGET INTERCEPT PHASE OF TERM GUID/WEAPON SYS SYNTHESIS&ANALYSIS/ECCM&NUC EFFECTS & OTHER SEVERE ENV/FLUIDICS & MFD ENG/INSTRUMENTATION& SIMULATION/COMPONENTS&MATERIALS/INDUSTRIAL & MAINTENANCE ENGINEERING

...CURRENT IMPORTANT PROGRAMS

RD&E ON PROXIMITY & ELECTRONIC FUZING/ECM-ECCM GTR/ARM-CM/PATRIOT FUZE TEMPS/M734/POWER SUPPLIES/NUC WPNS EFFECTS/TREE/INTERNAL & EXTERNAL EMP/SPEC PURPOSE RADARS/FLUIDICS/M1140 LANCE FUZE/XM732 SHORT INTRUSION FUZE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SMULATORS TO DETERMINE SUSCEPTIBILITY OF WPN SYS TO NUCLEAR WPNS EFFECT & TO HARDEN DESIGNS/PULSED NUCLEAR REACTOR & HIGH INTENSITY X-RAY/EY- TREMELY. LARGE DOSE & VOLUME GAMMA RAY GEN AURORA & RICONIC EMP DEVICE & LARGE TRANSPORTABLE EMP SIMULATOR TEMPS FOR HIGH ALT & THREAT LEVEL ENVIRONMENT SIMULATION/ARTILLERY SIMULATOR TO EVALUATE EFFECTS OF FIRING LATITUDE MAGNETIC SIMULATOR FOR ANTITANK SIGNATURE ANALYSIS/ANTENNA TEST RANGE/RADAR TEST SITE/HIGH PRESS SHOCK TUBES MERCURY ARC PLASMA TUBE & OPTICAL & SPECTROSCOPIC EQUIPMENT/ECM VULNERABILITY ANALYSES/CIRMEASURE EQUIPMENT DEVELOPMENT/TECHNICAL INTELLIGENCE STUDIES/MICROCIRCUIT FABRICATION/HIGH-G ELECTRONICS INTELLIGENCE STUDIES/ NEAR MILLIMETER WAVE TECHNOLOGY

INSTALLATION: HQ USAMRDC

WASHINGTON DC

CDR BG WILLIAM S. AUGERSON MD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	24.062	22.800
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.325	1.500
TOTAL ANNUAL LAB	25.387	24.300
TOTAL INHOUSE	1.520	1.519
TOTAL INHOUSE RDT&E	0.195	0.019
ANNUAL OPERATING COST	1.954	2.037

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	60	22	45	15
CIVILIAN	97	0	7	90
TOTAL	157	22	52	105

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	0.000	23.300	0.000	23.300	0.000	0.000

...MISSION

ADMINISTRATION AND COORDINATION OF THE RESEARCH, DEVELOPMENT, TEST AND EVALUATION PROGRAM OF THE ARMY MEDICAL DEPARTMENT. THE PROGRAM IS LIMITED TO THOSE PROBLEMS WHICH ARE UNIQUE TO THE MILITARY AND IS CONDUCTED IN THE US AS WELL AS OTHER COUNTRIES.

...CURRENT IMPORTANT PROGRAMS

CARE OF THE WOUNDED.
PREVENTION AND CONTROL OF INFECTIOUS DISEASES
ENHANCEMENT OF MILITARY PERFORMANCE.
PROTECTION AGAINST MILITARY ENVIRONMENTAL HAZARDS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DESCRIPTION OF LABORATORY EQUIPMENT AND FACILITY CAPABILITIES IS NOT APPLICABLE TO THIS HEADQUARTERS, AS IT SERVES IN AN ADMINISTRATIVE CAPACITY ONLY.

INSTALLATION: HUMAN ENGINEERING LABORATORY

ABERDEEN PRO.GR.,MD.

DIR.DR.JOHN D. WEISZ

DEP.DIR.LTC.RICHARD D. KAVANAUGH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	6.089	7.109
TOTAL PROCUREMENT	0.094	0.030
TOTAL OEM	0.152	0.130
TOTAL OTHER	0.382	0.409
TOTAL ANNUAL LAB	6.717	7.678
TOTAL INHOUSE	6.115	6.703
TOTAL INHOUSE RDT&E	5.554	6.134
ANNUAL OPERATING COST	2.796	2.985

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	32	1	8	24
CIVILIAN	145	18	102	43
TOTAL	177	19	110	67

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
12	30.776	19.352	29.538	79.666	0.781	3.750

...MISSION

CONDUCTS FUNDAMENTAL AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING
 PROVIDES DIRECT DESIGN SUPPORT TO ALL MARERIEL DEVELOPMENT PROGRAMS SPON-
 -SORED BY DARCOM HEL DETACHMENTS LOCATED AT ARRADCOM-PA-RIA-CSL-AVRADCOM
 TARADCOM, MERADCOM, MIRADCOM, AMSAA, TECOM LEAD LAB HUMAN FACTORS ENGR TECH

...CURRENT IMPORTANT PROGRAMS

MILITARY OPERATIONS IN BUILT UP AREAS MOBA
 FEMALE SOLDIER PERFORMANCE OF MILITARY TASKS
 HUMAN ENGINEERING LAB ARTILLERY TESTS HELRAT VII
 AEFA FLIGHT TEST EVALUATION MARK II SYSTEM
 HUMAN FACTORS ENGINEERING IN SUP OF ALL MATERIEL BEING DEVELOPED DARCOM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATA ACQUISITION AND RIOTELEMETRY SYSTEM
 GAT 2M HELICOPTER SIMULATOR
 CCMAN CONTROL SIMULATOR SYS AND TEST FACILITY
 ACOUSTICAL RSCH ANECHOIC CHAMBER REVERBERANT ROOM
 LONG RANGE POSITIONED DETERMINING SYS
 INSTRUMENTED PHYSICAL ENDURANCE COURSE
 EYE MOVEMENT MEASURING DEVICE
 SMALL ARMS TEST FIRING RANGE
 NOISE MEASUREMENT AND ANALYSIS INSTRUMENTATION
 WOOD AND METAL WORKING TEST SUPPORT CAPABILITY
 HUMAN PERFORMANCE DATA BANK
 ARMOR TEST SITE

INSTALLATION: INFANTRY BOARD

FT.BENNING,GA.

PRES.COL.WALTER E. MEINZEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977	1978
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.556	1.463
TOTAL PROCUREMENT	0.093	0.255
TOTAL O&M	0.013	0.014
TOTAL OTHER	1.493	1.946
TOTAL ANNUAL LAB	3.155	3.678
TOTAL INHOUSE	3.155	3.678
TOTAL INHOUSE RDT&E	1.556	1.463
ANNUAL OPERATING COST	0.922	1.064

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	121	0	5		116
CIVILIAN	55	0	5		50
TOTAL	176	0	10		166

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)					
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	0.000	39.237	66.133	105.370	0.900	0.357

...MISSION

PLAN CONDUCT REPORT ON OPERATIONAL TESTS 1/2/3 FORCE DEVELOPMENT TESTS & EXPERIMENTS & OTHER USER TESTS.PARTICIPATE IN DEVELOPMENT TESTS 1/2/3. PROVIDE ADVICE TO PROPONENT AGENCIES & MATERIEL DEVELOPERS ON EQUIPMENT WHICH IS EITHER USED BY OR PROVIDES SUPPORT TO INFANTRYMEN.CE IS BASIS.

...CURRENT IMPORTANT PROGRAMS

MORTAR FIRE CONTROL CALCULATOR
VIPER OT II AND TRAINING EFFECTIVENESS ANALYSIS
HIGH MOBILITY WEAPONS CARRIER
SMALL UNIT TRANSCEIVER
DRAGON LAUNCH SIMULATOR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT & ANCILLARY ITEMS TO BE USED BY INF UNITS FOR COMMAND & CONTROL
FIREPOWER TARGET ACQUISITION GROUND SURVEILLANCE FIRE CONTROL GROUND
MOBILITY & TRAINING. CLOTHING & EQUIP FOR INDIVIDUALS.RATIONS COOKING & MESSING EQUIP. ANTIPERSONNEL MINES & RELATED EQUIP. CLOTHING EQUIP & RATIONS WORN OR CARRIED BY INDIVIDUAL PARACHUTISTS WHILE JUMPING FROM AIRCRAFT & THEN CARRIED BY INDIVIDUALS AFTER CLEARING DROP ZONE.
CHEMICAL WARFARE - BIOLOGICAL WARFARE EQUIPMENT FOR INDIVIDUALS.

INSTALLATION: INSTITUTE OF DENTAL RESEARCH

WASHINGTON, D.C.

COR COL. DUANE E. CUTRIGHT

TECH. DIR. DR. GINO BATTISTONE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.971	1.048
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.147	0.148
TOTAL OTHER	1.159	1.176
TOTAL ANNUAL LAB	2.277	2.372
TOTAL INHOUSE	2.195	2.285
TOTAL INHOUSE RDT&E	0.889	0.961
ANNUAL OPERATING COST	0.516	0.552

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	77	6	37	40
CIVILIAN	26	2	6	20
TOTAL	103	8	43	60

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL REAL PROP	EQUIP
4	9.325	5.696	6.730	21.751	0.853	1.130

...MISSION

DEVELOP TECHNIQUES TO TREAT WAR RELATED MAXILLOFACIAL INJURIES AND DENTAL DISEASES. PREVENTION AND CONTROL OF DENTAL DISEASE. TO PROVIDE DENTAL RESIDENCY PROGRAMS. TO PROVIDE A DENTAL CLINIC FOR RESEARCH AND TRAINING.

...CURRENT IMPORTANT PROGRAMS

BIODEGRADABLE COPOLYMERS FOR HOLLOW ORGAN REPLACEMENTS - ANIMAL TEST
NONINVASIVE RAPID METHOD FOR DETECTING EXPOSURE TO CHEMICAL AGENTS
DEVELOPMENT OF NEW AND IMPROVED MILITARY DENTAL MATERIALS
TOOTH VITALITY TESTER THAT NEEDS NO SUBJECTIVE PATIENT RESPONSE
STUDIES ON METHODS OF ACCELERATING WOUND HEALING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DETERMINE PHYSICAL CHEMICAL AND MECHANICAL PROPERTIES OF METALS, ALLOYS, CERAMICS, PLASTICS, AND POLYMERS, TO INCLUDE STRESS TESTING AND ELECTRON MICROSCOPE EVALUATION. CONDUCT EXPERIMENTAL RESEARCH IN MICROBIOLOGY, BIOCHEMISTRY, IMMUNOLOGY, RADIATION MEDICINE, AND PHARMACOLOGY. TEST AND EVALUATE ANY FACET OF CLINICAL DENTISTRY, TO INCLUDE CLINICAL AND LABORATORY TECHNIQUES. PREPARE AND ANALYZE HISTOPATHOLOGIC SPECIMENS AND PERFORM DIFFERENTIAL DIAGNOSTIC EVALUATION ON THEM. PERFORM MOST FACETS OF ANIMAL SURGERY REQUIRED TO SUPPORT RESEARCH EFFORT.

INSTALLATION: INSTITUTE OF SURGICAL RESEARCH

FT.SAM HOUSTON,TX.

COR COL.BASIL A. PRUITT,JR.

TECH.DIR.DR.ARTHUR D. MASON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	1.819	1.953
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.970	2.112
TOTAL ANNUAL LAB	3.789	4.065
TOTAL INHOUSE	3.789	4.065
TOTAL INHOUSE RDT&E	1.819	1.953
ANNUAL OPERATING COST	0.827	0.868

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	135	19	23		112
CIVILIAN	78	4	18		60
TOTAL	213	23	41		172

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	26.424	1.800	22.408	50.632	2.013	1.653

...MISSION

CONDUCTS BASIC AND CLINICAL RESEARCH ON SEVERE BURN INJURIES AND THEIR COMPLICATIONS PROVIDES TREATMENT FOR BURNED PATIENTS AND TRAINS SPECIFIED PERSONNEL IN THE TOTAL MANAGEMENT OF SUCH PATIENTS OPERATES 40 BEDS FOR HOSPITALIZATION OF SERIOUSLY BURNED AND INJURED PATIENTS

...CURRENT IMPORTANT PROGRAMS

DIAGNOSIS TREATMENT AND PREVENTION OF INFECTION IN BURN PATIENTS
METABOLIC RESPONSE TO INJURY
HEMODYNAMIC RESPONSE TO INJURY
HOST DEFENSE IMPAIRMENT AFTER BURN INJURY
DIAGNOSIS AND TREATMENT OF PULMONARY COMPLICATION IN BURN PATIENTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROVIDES CLINICAL AND LABORATORY SUPPORT AND RESEARCH CAPABILITY IN THE FIELDS OF PATHOLOGY INCLUDING USE OF ELECTRON MICROSCOPE MICROBIOLOGY EXPERIMENTAL SURGERY PHYSIOLOGY AND BIOCHEMISTRY MAINTAINS AN ANIMAL COLONY ELECTRONIC SHOP SURGICAL LIBRARY METABOLIC CHAMBER AND COMPUTER

INSTALLATION: KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS

APO SAN FRANCISCO

DIR. COL. J. H. REEVE

DEP. DIR. MR. O. E. OVA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	93.688	94.087
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.490	3.453
TOTAL ANNUAL LAB	96.178	97.540
TOTAL INHOUSE	4.490	5.250
TOTAL INHOUSE RDT&E	3.795	4.400
ANNUAL OPERATING COST	0.000	0.450

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	2	25	2
CIVILIAN	104	0	72	32
TOTAL	131	2	97	34

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER				
1491	0.000	210.232	2625.077	2835.309	229.950	137.839	

...MISSION

PLAN, MANAGE, DIRECT, CONTROL AND COORDINATE OVERALL ACTIVITIES OF THE KWAJALEIN MISSILE RANGE IN ACCORDANCE WITH DOD NATIONAL RANGE POLICIES. SERVE AS THE PRINCIPAL ADVISOR FOR ALL MATTERS PERTAINING TO THE KMR RELATIONSHIP WITH THE TRUST TERRITORY OF THE PACIFIC ISLANDS.

...CURRENT IMPORTANT PROGRAMS

BALLISTIC MISSILE OFFENSE R&D TESTING
 ADVANCED BALLISTIC REENTRY SYSTEMS USAF SAMSO R&D TESTING
 MINUTEMAN III USAF SAMSO R&D TESTING
 MINUTEMAN IIR MINUTEMAN III USAF SAC OPERATIONAL TESTING
 SPACE OBJECT IDENTIFICATION USAF SPACETRACK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ALCOR, ALTAIR, TRADEX, L-AN/MPS36 AND AN-TPQ-18 RADARS 7-CINETHEODOLITES, 8-BALLISTIC CAMERAS, 4-SPECTRAL CAMERAS AND FIXED CAMERAS; PHOTO LABORATORY; S-BAND TELEMETRY COMPLEX INCLUDING 8-AUTOTRACKING ANTENNAS, RECEIVE & RECORD SYSTEM; DATA SEPARATION & DISPLAY SYSTEM; DATA DISTRIBUTION SYSTEM WITH CAPABILITY FOR RECEIVING AND PROCESSING PCM/FM, PCM/FM/FM, PDM/FM/FM, PDM/FM, PAM/FM/PM; SPLASH DETECTION RADARS WITH IMPACT TIMING SYSTEM; RV RECOVERY SYSTEM; LONG-HAUL AND INTRA-ATOLL COMMAND SYSTEM; METEOROLOGICAL SYSTEM; FREQUENCY CONTROL & ANALYSIS SYSTEM; CALIBRATION LABORATORY; TIMING & COUNTDOWN SYSTEM; LAUNCH/ORDNANCE CAPABILITY; COMMAND & CONTROL CENTER; 7600/6400 CENTRAL DATA PROCESSING CENTER; POSITION NAVIGATION SYSTEM; CLOSED CIRCUIT TELEVISION SYSTEMS; DATA REDUCTION AND ACCURACY ANALYSIS FACILITY.

INSTALLATION: LETTERMAN ARMY INSTITUTE OF RESEARCH

PRESIDIO, S.F., CA.

CDR COL. JOHN E. CANHAM

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	5.801	6.180
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.172	3.396
TOTAL ANNUAL LAB	8.973	9.576
TOTAL INHOUSE	8.973	9.576
TOTAL INHOUSE RDT&E	5.801	6.180
ANNUAL OPERATING COST	3.112	2.794

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	273	50	155	118
CIVILIAN	193	18	99	94
TOTAL	466	68	254	212

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)				
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
9	133.198	36.506	305.309	475.013	42.449	10.342

...MISSION

TO PROVIDE GENERAL MEDICAL RESEARCH CAPABILITY AND CONDUCT RESEARCH IN AREAS OF NUTRITION, FOOD WHOLESOMENESS, DERMATOLOGY, INFECTIOUS DISEASE, EFFECT OF LASERS, EXPERIMENT PSYCHOLOGY, TRAUMA, RESUSCITATION AND OTHER RESEARCH AS DIRECTED BY COMMANDER USAMRDC.

...CURRENT IMPORTANT PROGRAMS

RESUSCITATION SOLUTIONS FOR THE ACUTELY INJURED
APPLIED NUTRITION STUDIES OF DOD PERSONNEL
ADVERSE EFF ON HUMAN SKIN BY ENVIRONMENTAL FACTORS AND INFECTIONS AGENTS
DETERMINATION OF SAFE THRESHOLD LEVELS OF COHERENT RADIATIONLATIONSHIP.
METABOLIC ADAPTATION AND METABOLIC INTERRELATIONSHIP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HUMAN METABOLIC WARD SURGICAL OPERATING ROOMS, ENVIRONMENTAL ROOMS
GERM FREE ANIMALS SCANNING & TRANSMISSION ELECTRON MICROSCOPES, AUTO
ANALYZERS & RECORDERS AUTO BETA & GAMMA COUNTERS SHADOW SHIELD WHOLE
BODY COUNTER, GAMMA CAMERA AUTO AMINO ACID ANALYZERS MASS SPECTROMETER
RSCH INCLUDE: NUTR SURVEYS & RATION TESTING PICMED CMPT RSCH BASIC &
APPLIED STUDIES OF TRACE MINERAL METABOLISM, NUTRIENT RQR & INTER-
RELATIONSHIP EXPR SURG BIOCHEM STUDIES OF MUSCLE METABOLISM, EXER &
FATIGUE IN MAN & MILITARY DOG. STUDIES OF DELAYED HYPERSENSITIVITY,
FRICTION BLISTERS, STUDIES ON BLOOD PRESERVATION OPTIONAL BLOOD STORAGE
CONDITIONS & CELL FREE RESUSCITATION FUNGAL SKIN DIS., PROLONGED WATER
IMMERSION & PRICKLY HEAT, MAINTAINS BREEDING COLONIES SPECIAL ANIMAL
STRAINS.

INSTALLATION: MATERIAL SYSTEMS ANALYSIS AGENCY

ABERDN PROV GROUND, MD

DIR.DR.JOSEPH SPERRAZZA

DEP.DIR.COL.ALBERT D. DEPROSPERO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	16.356	16.020
TOTAL PROCUREMENT	0.276	0.000
TOTAL OEM	2.369	2.254
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	19.001	18.274
TOTAL INHOUSE	13.659	13.217
TOTAL INHOUSE RD&E	11.397	11.513
ANNUAL OPERATING COST	1.530	1.700

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	0	10	19
CIVILIAN	409	18	324	85
TOTAL	438	18	334	104

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	8.140	91.994	1.715	101.849	1.870	0.697

...MISSION

TO PROVIDE THE CENTRAL INDEPENDENT TECHNICAL CAPABILITY IN DARCOM FOR THE CONDUCT OF MAJOR SYSTEMS ANALYSIS AND COST EFFECTIVENESS STUDIES. TO DESIGN DEVELOPMENT TESTS AND CONDUCT INDEPENDENT EVALUATIONS OF MAJOR MATERIEL SYSTEMS. LEAD ACTIVITY FOR SURVIVABILITY. ADMINISTER JTCG/ME.

...CURRENT IMPORTANT PROGRAMS

AAH
FVS
XM 1
BLACK HAWK
PATRIOT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT AMC WPN SYS ANALYSIS AND EVAL OF MATERIAL CONCEPTS AND PROPOSALS DEVELOPS, IMPROVES, AND DISSEMINATES METHODOLOGY AND TECHNIQUES FOR CONDUCT OF SYS ANALYSIS, ANAL OF PERFORMANCE, SCHEDULE AND COST RISKS, DESIGN, CONDUCT AND EVAL OF TESTS, EVAL LIFE CYCLE REQ OF MATERIAL SYS. CONDUCTS TACTICAL, OPERATIONAL ANALYSIS OF WPN AND MATERIAL SYSTEMS. RELIABILITY, AVAILABILITY AND MAINTAINABILITY CENTER FOR ARMY SYS. TECH DIR OF AMC SURVEILLANCE PROGRAM FOR STOCKS OF ARMY MISSILES, NUCLEAR, AND NONNUCLEAR AMMUNITION. PROVIDE TECH COORD, DATA, AND ANALYSIS FOR DETERMINATION OF JOINT SERVICES MUNITIONS EFFECTIVENESS MODELS AND MANUALS.

INSTALLATION: MATERIALS AND MECHANICS RESEARCH CENTER

WATERTOWN, MA.

DIR.DR.E.S. WRIGHT

CDR DEP.DIR.LTC.F.E. CHICK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	20.095	20.603
TOTAL PROCUREMENT	7.389	9.869
TOTAL O&M	3.060	2.851
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	30.544	33.323
TOTAL INHOUSE	18.508	19.477
TOTAL INHOUSE RDT&E	12.393	13.169
ANNUAL OPERATING COST	5.046	5.258

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	17	2	7	10
CIVILIAN	609	65	206	403
TOTAL	626	67	213	413

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
48	382.028	76.761	160.030	618.819	15.726	16.006

...MISSION

MANAGE DARCOM RED STRUCTURAL MATERIALS & MECH PROGRAM AS LEAD LAB FOR MATERIALS, SOLID MECH & TESTING TECHNOLOGY. CONDUCT TECHNOLOGICAL PROGRAMS IN MAT & MECH USED IN ARMY MATERIEL. EXECUTES PROGRAM IN OWN FACILITIES & BY ASSIGNMENT & FUND TRANSFER TO OTHER DARCOM LABORATORIES & CONTRACTORS

...CURRENT IMPORTANT PROGRAMS

BASIC RESEARCH IN MATERIALS AND MECHANICS
ADVANCED MATERIALS FOR AIRCRAFT
ADVANCED MATERIALS FOR ARMOR
ADVANCED MATERIALS FOR ARMAMENT
ADVANCED MATERIALS FOR MISSILES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE DOD PROGRAM AS EXECUTIVE AGENT-ARMOR TECHNOLOGY. MANAGE & CONDUCT INTEGRATED & DIRECTED BASIC & APPLIED RESEARCH ON MATERIALS SUCH AS METALS, CERAMICS, ORGANIC & INORGANIC POLYMERS & COMPOSITES. MANAGE & CONDUCT THEORETICAL & APPLIED STUDIES ON MECHANICS OF MATERIALS & SYSTEMS. IDENTIFY & INVESTIGATE BASIC FACTORS INVOLVED IN PROCESSING & APPLICATION OF NEW & IMPROVED MATERIALS. TECHNICALLY MANAGE FOUR INFORMATION ANALYSIS CENTERS. ASSIST IN DESIGN & DEVELOPMENT OF PROTOTYPES. DEVELOP METHODS FOR TEST & EVALUATION OF MATERIALS & STRUCTURES. MANAGE ARMY PORTION DEFENSE STANDARDIZATION PROGRAM. CONDUCT ENGINEERING STANDARDIZATION EFFORT. MANAGE DARCOM MATERIALS TESTING PROGRAM. CONDUCT MANUFACTURING METHODS & TECHNOLOGY PROGRAMS & ADVISE COMMAND & INDUSTRY ON PROCESSING TECHNIQUES.

INSTALLATION: MATERIEL TESTING DIRECTORATE

ABERDEEN PROV. GR., MD.

CDR COL. FRANK S. KOOS

ACTG. ASSOC DIR. MR. P. A. BECHTOL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	29.014	26.084
TOTAL PROCUREMENT	11.476	7.406
TOTAL O&M	1.165	0.695
TOTAL OTHER	2.985	2.478
TOTAL ANNUAL LAB	44.640	36.663
TOTAL INHOUSE	48.875	36.395
TOTAL INHOUSE RDT&E	28.616	25.965
ANNUAL OPERATING COST	17.390	18.480

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	213	0	210	3
CIVILIAN	813	10	145	668
TOTAL	1026	10	355	671

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
25048	712.500	4.351	274.102	990.953	11.314	34.508

...MISSION

PLAN CDT & REPT TESTS OF WPNS WPN SYS RKTS & GM SYS FIRE CON & TGT ACQ
EQUIP ITEMS OF AMMO & MUN COMPONENTS CRT VEHs OTHER AUTO MAT GEN EQUIP
PROV COR SVS FOR PROC OF ARMOR PLATE FOR ALL DARCOM INSTLS & ACTIVITIES
PROV SUPPORT SVCS TO APG ELEMENTS & SUPPORTED COMMANDS PORTED CMDS

...CURRENT IMPORTANT PROGRAMS

XM1 TANK SYSTEM DARCOM (XM1)
LIGHTER AMPHIBIAN AIR-CUSHION VEH-30 (LACV-30)
GROUND-EMPLACE MINE-MARKING SYS (GEMSS)
HOW MED TOWED 155MM XM199 (155MMXM198)
LIGHTWEIGHT COMPANY MORTAR SYS (LWCMS)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AREA 58700 ACRES RANGE TO LAND IMPACT 26000M RANGE TO WATER IMPACT
30000M 41 MILES. OF ACTMV 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 A 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

INSTALLATION: MEDICAL BIOENGINEERING R&D LABORATORY

FT. DIETRICK, MD.

CDR. COL. CHARLES M. DETTOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	2.760	2.655
TOTAL PROCUREMENT	0.065	0.051
TOTAL O&M	0.045	0.055
TOTAL OTHER	0.595	0.644
TOTAL ANNUAL LAB	3.465	3.405
TOTAL INHOUSE	3.465	3.405
TOTAL INHOUSE RDT&E	2.760	2.655
ANNUAL OPERATING COST	0.895	1.000

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	30	5	21	9
CIVILIAN	88	11	32	56
TOTAL	118	16	53	65

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
5	45.888	27.300	34.068	107.256	3.213	2.655

...MISSION

CONDUCTS ENG RSRCH & DEVEL OF MIL MED EQUIP
CONDUCTS THE SURGEON GENERAL'S ROTCE PROGRAM IN INTEGRATED PEST MNGT
CONDUCTS ENVIRONMENTAL HEALTH ENGINEERING RESEARCH

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF FIELD MED DEVICES AND EQUIP.
ROTCE OF PEST MNGT EQUIPMENT.
DEVELOPMENT OF ENVIRONMENTAL QLTY STNDS FOR INSTALLATION RESTORATION.
INDUSTRIAL HYGIENE/OCCUPATIONAL HEALTH RSRCH STUDIES RELATED TO MIL ACT.
PILOT PLANT DEVELOPMENT FOR WASTEWATER REUSE FOR FIELD ARMY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THIS LABORATORY IS CAPABLE OF (1) DESIGNING, DEVELOPING AND FABRICATING
PROTOTYPE AND TEST MODELS OF MILITARY MEDICAL MATERIAL;
(2) PRODUCING LIMITED QUANTITIES OF MEDICAL MATERIAL FOR URGENT
MILITARY REQUIREMENTS;
(3) DESIGNING, DEVELOPING AND FABRICATING PEST MANAGEMENT EQUIPMENT
AND SYSTEMS;
PERFORMING HEALTH AND ECOLOGICAL EFFECTS RESEARCH ON ENVIRONMENTAL
POLLUTANTS.

INSTALLATION: MEDICAL RESEARCH INST OF INFECTIOUS DISEASES FT.DIETRICK,MD.

CDR COL.RICHARD F. BARQUIST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	6.871	8.161
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.200	3.370
TOTAL ANNUAL LAB	10.071	11.531
TOTAL INHOUSE	10.071	11.531
TOTAL INHOUSE RDT&E	6.871	8.161
ANNUAL OPERATING COST	1.675	2.475

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	304	49	57	247
CIVILIAN	196	25	53	143
TOTAL	500	74	110	390

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
43	20.854	19.820	209.699	310.373	17.824	4.300

...MISSION

PERF STUDIES ON THE PATHOGENESIS, DIAGNOSIS, PROPHYLAXIS, TREATMENT, EPIDEMIOLOGY OF NATURALLY OCCURRING INFECT DISEASES OF MIL IMPORT WITH EMPHASIS ON PROBLEMS ASSOCIATED WITH THE MED DEFENSE AGAINST BIOLOGICAL AGENTS AND ON MICROORGANISMS WHICH REQ SPEC CONTAINMENT FACILITIES

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF NEW VACCINES AND TOXOIDS. IMMUNOLOGICAL STUDIES TO DETERMINE HOW TO IMPROVE VACCINE PRODUCTION. STUDIES ON PATHOGENESIS OF DR COL.RICHARD F. BARQUIST
METHODS OF INFECTION DIAGNOSIS AND MEDICAL THERAPY FOR BW DEFENSE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TWO LARGE BUILDINGS PROVIDE ABOUT 300,000 SQUARE FEET OF SPACE AND CONTAIN 23 MODERN LABORATORY SUITES WHICH REPRESENT THE LATEST IN FUNCTIONAL CONCEPTS, LABORATORY DESIGN, AND SAFETY. A COMPLEX PROGRAM OF MEDICAL RESEARCH IS CONDUCTED AND INCLUDES IMMUNOLOGY, PATHOLOGY, PHYSIOLOGY, SEROLOGY, BIOCHEMISTRY, BIOPHYSICS, MOLECULAR BIOLOGY, AND TISSUE CULTURE. SPECIAL CAPABILITIES INCLUDE ELECTRON MICROSCOPY, RADIOIMMUNOASSAY LABORATORIES, A VACCINE PRODUCTION SUITE, HOSPITAL FACILITIES FOR MEDICAL PATIENTS AND FOR RESEARCH STUDIES WITH VOLUNTEERS. USAMRIID RESEARCH IS SUPPORTED BY TWO COMPUTERS AND AN ANIMAL FARM.

INSTALLATION: MISSILE RES., DEV. AND ENGINEERING LAB

REDSTONE ARSENAL, AL.

CDR MG.CHARLES F. MEANS

DIR.DR.JULIAN S. KOBLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977	1978
	(ACTUAL)	(ACT + EST)
TOTAL RD&E	62.094	54.902
TOTAL PROCUREMENT	35.481	23.677
TOTAL OEM	7.382	5.404
TOTAL OTHER	0.656	0.459
TOTAL ANNUAL LAB	105.613	84.442
TOTAL INHOUSE	69.124	52.157
TOTAL INHOUSE RD&E	39.851	35.983
ANNUAL OPERATING COST	10.846	12.536

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-PROF
MILITARY	14	1	11	3
CIVILIAN	536	50	411	125
TOTAL	550	51	422	128

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
7700	281.105	10.145	91.305	382.555	88.680	39.124

...MISSION

PLAN, MANAGE & CONDUCT RESEARCH, EXPLORATORY & ADVANCED DEV. PROVIDES SCIENTIFIC & ENGR SPT TO OTHER CARCOM & DOD ELEMENTS. PERFORMS DEV ENGR FOR MSL SYS. PROVIDES SIMULATION TO SPT EXP. ADV. & ENGR DEV PRGMS. PERFORM RES & COMPONENT DEV. OPR INERTIAL GUID & RKT PROP TECH CENTERS.

...CURRENT IMPORTANT PROGRAMS

QUIET RADAR.
SIMPLIFIED INERTIAL GUIDANCE DEMONSTRATION
LASER DESIGNATOR WEAPON SYSTEM SIMULATION
LOW SIGNATURE PROPULSION EFFORT.
MULTI-ENVIRONMENT ACTIVE RF SEEKER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNOLOGY LAB FACILITIES ARE EQUIPPED & STAFFED TO STUDY PROBLEMS OF PROPULSION, AERODYNAMICS, GUIDANCE & CONTROL & STRUCTURES. THE MAJOR FACILITY IS THE FRANCIS J. MCMORROW LAB BLDG WHICH HOUSES FOUR OF THE FIVE FUNCTIONAL DIRECTORATES. ITEMS OF EQUIPMENT COVER A BROAD SPECTRUM, NOT ONLY IN SIZE & VALUE BUT ALSO IN CAPABILITIES. ONE OF THE UNIQUE FACILITIES WITHIN THE LAB AN ADVANCED SIMULATION CENTER; THE ASC CONSISTS OF A CENTRALLY LOCATED MODERN HYBRID COMPUTER COMPLEX SURROUNDED PERIPHERALLY BY THREE ENVIRONMENTAL EFFECTS SIMULATORS. COMPUTER SOFTWARE & HDW CENTER - PROVIDES SPT TO MIRADCOM & MIRCOM PRGMS THAT INVOLVE THE USE OF TACTICAL DIGITAL COMPUTERS. SIGNATURE EVALUATION ENVIRONMENT CHAMBER - PERMITS EVAL OF PROGRESS TOWARD DEV. OF SMOKELESS PROPELLANTS RQD IN CERTAIN CONCEPTS FOR FUTURE ARMY MSLs.

INSTALLATION: MOBILITY EQUIPMENT R&D COMMAND

FT. BELVOIR, VA.

CDR COL. BERNARD C. HUGHES

ACTG. TECH. DIR. MR. DONALD B. DINGER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	55.150	47.788
TOTAL PROCUREMENT	38.719	63.637
TOTAL O&M	16.258	15.846
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	110.127	127.266
TOTAL INHOUSE	44.170	45.990
TOTAL INHOUSE RDT&E	26.206	25.239
ANNUAL OPERATING COST	11.183	12.000

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	76	1	22	54
CIVILIAN	1303	22	408	895
TOTAL	1379	23	430	940

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1064	693.649	115.530	194.279	1003.458	49.093	29.417

...MISSION

PROVIDE TECHNOLOGY BASE & MANAGE MAT SYS & INITIAL ACQ PGMS FOR ASSGD MAT IN ORDER TO DEV NEW & IMPROVED SYS WHICH MEET DA REQTS, ARE LOGISTICALLY SPTABLE, CAN BE PROC WITHIN BUDGET CONSTRAINTS & ARE COST & OP EFFECTIVE. SPT READINESS COMDS IN FOLLOW-ON ACQ OF ASSGD MAT.

...CURRENT IMPORTANT PROGRAMS

COUNTERMINE
BRIDGING
CONSTRUCTION EQUIPMENT
ELECTRICAL POWER GENERATION
ENERGY & ENVIRONMENTAL SYSTEMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCOMP RTE OF MAT FOR MIL SYS OF BAR/CBAR (BARRIERS, CMINE, FLD FTM, BRGS) CSURVEIL CAM, TOPO EQ, PHYS SCTY ENERGY/ENVI ELEC POW, FUELS & LUBE, FUELS HDLG, WTR & WASTE MGT, ENVIR CON SUP DISTR/CONST EQ MAT HDLG, MARINE CRAFT, CONST EQ & MAT TECH SPT TO INCLUDE PROD ASSUR/TEST, INTGR SPT, CALBR, MAT RSCH, POLLUT ABATE & SP TECH. FAC INCLUDE MINE FLD TEST LANES, SENSOR TEST AREA, RDO FREQ ANECHOIC CHAMBER, FLUID STROKING TEST CHAMBER, FUELS & LUBES LAB, FIRE SUPPRESSION CHAMBER, CAM EVAL & REF CEN, FUEL CELL & BTRY TEST STAS, ELEC PROPULSION SIM, MPPS POWER TEST CELLS, BRG TEST HANGAR, MOBILE STRESS ANAL VAN, TRK STABILITY TEST TILT TABLE, VEH TEST TRACKS, SHOCK & VIBRATION DYNAMIC SIM, ENVI SIM, MAT RSCH LAB, CALBR & INSTRUMENTATION, EMI SIM, COMPT CEN, STILL MOPIC SPT, RSCH & DEV MODEL FABRICATION SHOPS

INSTALLATION: NATICK R&D COMMAND

NATICK, MA.

CDR COL. HUGH F. PENNEY

TECH. DIR. DR. DALE H. STELING

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	26.534	22.878
TOTAL PROCUREMENT	1.591	0.000
TOTAL O&M	15.020	12.830
TOTAL OTHER	4.636	2.680
TOTAL ANNUAL LAB	47.801	38.388
TOTAL INHOUSE	36.408	30.656
TOTAL INHOUSE RDT&E	17.960	15.904
ANNUAL OPERATING COST	6.404	6.400

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	104	6	74	80
CIVILIAN	1081	77	434	647
TOTAL	1185	83	458	727

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2994	552.557	65.900	407.970	1026.427	26.452	16.459

...MISSION

CONDUCT MULTI DISCIPLINE PROG OF SCIEN R&D TO SUSTAIN AND PROTECT MILMAN OR WOMAN FROM POWER OF MOD WARFARE. DESIGN AND DEVL FOOD, PROT CLOTHING, SHELTERS, AIRDROP EQUIP AND MOBILE EQUIP TO MIL RQMTS TO SUSTAIN AND PROT OUR FORCES IN COMBAT OR COMBAT RELATED ACTIONS. CONDUCT PROD IMPROV EFFTS

...CURRENT IMPORTANT PROGRAMS

RADIATION PRESERVATION OF FOOD
SUBSISTENCE TECHNOLOGY
ANALYSIS AND DESIGN OF MILITARY FEEDING SYSTEMS
CLOTHING AND EQUIPMENT TECHNOLOGY
AIRDROP TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COBALT 60 IRRAD FACIL DESIGNED FOR MAX FLEXIBILITY IN FOOD PROCESSING
ELECTRON LINEAR ACCELERATOR DESIGNED FOR HIGH POWER OUTPUT IN FOOD PROV
LAB FOR PILOT PLANT STUDIES ON FOOD AND FOOD PACKAGING DEVELOPED FOR MIL
BACTERIOLOGY LAB EQUIP FOR INVESTIGATIONS OF PATHOGENIC MICROORGANISMS
HIGH RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS
FEBETRON MACHINE USED AS A RADIA SOURCE FOR PULSE RADIOLYSIS STUDIES
PILOTPLANT TO STUDY DATA ON CONVERTING CELLULOSE TO GLUCOSE ENZYMATICALLY
DYEING AND FINISHING LAB FOR CONDUCTING STUDIES OF TEXTILES
CLIMATIC CHAMBERS TO TEST ITEMS AT TEMPS -57C TO 74C WITH WIND AND RAIN
FLAME PROTECTION LAB AND FACILITY INCLUDING AN OUTDOOR FLAME PIT
UNIVAC 1106 COMPUTER WITH DISK PACS, TAPE DRIVES AND INPUT/OUTPUT EQUIP
SHOPS USED FOR DEVL, TESTING AND ENG ON CLOTHING, TENTAGE, SHELTERS, PCHTS.

INSTALLATION: NIGHT VISION LABORATORY

FT. BELVOIR, VA.

DIR. MR. EDWARD J. SHEEHAN

DEP. DIR. MR. JOHN JOHNSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	71.253	38.533
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	71.253	38.533
TOTAL INHOUSE	21.498	18.925
TOTAL INHOUSE RDT&E	21.498	18.925
ANNUAL OPERATING COST	1.758	1.931

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	28	0	26	2
CIVILIAN	415	30	198	217
TOTAL	443	30	224	219

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
20	177.279	15.493	20.000	212.772	0.030	36.591

...MISSION

NVEEOL IS RESPONSIBLE FOR PROVIDING A NIGHT VISION CAPABILITY TO ENABLE THE ARMY TO CARRY OUT OPERATIONS AT NIGHT WITH NEAR DAYLIGHT EFFICIENCY. THE SYS DEV PROGRAM IS STRUCTURED AROUND A TECHNOLOGY BASE CONSISTING OF IMAGE INTENSIFICATION, FIR, RADIATION SOURCES AND VISIONICS. SIONICS.

...CURRENT IMPORTANT PROGRAMS

LOW COST NIGHT VISION AIDS
AIRBORNE GOGGLES
THERMAL WEAPON SIGHT
NON-SCANNING THERMAL SYSTEMS
OPTICAL AUGMENTATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NVEEOL'S MOST SIGNIFICANT FACILITY CAPABILITIES, THE NEW NIGHT VISION SYSTEMS LABORATORY, DETECTOR FABRICATIONS AND ANALYSIS FACILITY, X-RAY ANALYSIS FACILITY, SECONDARY-ION MASS SPECTROMETER, COMPUTER-CONTROLLED SCANNING ELECTRON MICROSCOPE, SURFACE RESEARCH FACILITY, INFRARED DETECTOR FACILITY, FOCAL PLANE ARRAY TEST FACILITY, INFRARED OPTICAL TEST FACILITY, SEMICONDUCTOR LASER RESEARCH FACILITY, SEMICONDUCTOR MATERIALS RESEARCH FACILITY, ELECTRONICS TEST FACILITY, INTERACTIVE IMAGE PROCESSING FACILITY, LASER RANGE(S), AND 3-D MULTI-SPECTRAL SEARCH SIMULATOR.

INSTALLATION: PICATINNY ARSENAL LABORATORIES

DOVER, N.J.

CDR COL. PETER B. KENYON

TECH. DIR. DR. J. T. FRASIER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	117.257	0.000
TOTAL PROCUREMENT	125.246	0.000
TOTAL O&M	16.312	0.000
TOTAL OTHER	0.040	0.000
TOTAL ANNUAL LAB	258.855	0.000
TOTAL INHOUSE	153.076	0.000
TOTAL INHOUSE RDT&E	53.875	0.000
ANNUAL OPERATING COST	8.400	0.000

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	21	0	11	10
CIVILIAN	1800	50	964	836
TOTAL	1821	50	975	846

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4000	204.685	184.072	128.700	517.457	8.580	60.000

...MISSION

CONDUCT OR MANAGE TECHNOLOGY, LIFE-CYCLE ENGINEERING AND SYSTEM INTEGRATION FOR ASSIGNED LARGE CALIBER WEAPONS AND AMMUNITION AND ANCILLARY ITEMS. RESPONSIBLE FOR MINE PROGRAMS AND NUCLEAR WARHEADS. ENERGETIC MATERIALS LEAD LABORATORY. MAINTAIN TECHNICAL DATA PACKAGES FOR ARMAMENTS

...CURRENT IMPORTANT PROGRAMS

M198 155MM HOWITZER AND 155MM AMMUNITION ITEMS
M110E2 8 INCH HOWITZER AND 8 INCH AMMUNITION ITEMS
XM204 105MM HOWITZER AND AMMUNITION ITEMS
XM1 TANK MAIN GUN AND AMMUNITION
ARMY MINE PROGRAMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROTOTYPE FABRICATION AND ASSEMBLY. EXPLOSIVES AND PROPELLANTS PILOT PRODUCTION PLANTS PROVIDE COMPLETE FACILITY FOR ASSEMBLY INSPECTION AND TEST FOR AMMUNITION AND COMPONENTS. UNUSUAL EQUIPMENT CAPABILITY FOR RESEARCH AND ENGINEERING SUCH AS BETATRON, HIGH SPEED PHOTOGRAPHIC AND SHOCK LOADS HIGH ALTITUDE TEST CHAMBERS. ELECTROMAGNETIC RADIATION INSPECTION FACILITY. ENVIRONMENTAL TEST FACILITY INCLUDES STATIC AND DYNAMIC TEST RIGS, DROP TOWER, DUD RECOVERY AND DISSASSEMBLY. RF VULNERABILITY AND TARGET EFFECTS. STATIC ROCKET RANGE, 2540 TON HYDROSTATIC PRESS, CLOSED CIRCUIT TV, HIGH ACCELERATION SLED TRACK, CLOSED PUMPS TO 150KPSI. TEST VELOCIMETERS FOR PROJECTILE DYNAMICS. ULTRASONIC TESTING FACILITIES, CDC 6600 COMPUTER SYSTEMS AND INTERACTIVE COMPUTER GRAPHICS TERMINALS. SCANNING ELECTRON MICROSCOPES

INSTALLATION: R&D TECHNICAL SUPPORT ACTIVITY

FT. MONMOUTH, N.J.

DIR. MR. R. JOHNSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	10.209	10.889
TOTAL PROCUREMENT	1.170	1.050
TOTAL O&M	0.670	0.650
TOTAL OTHER	0.097	0.100
TOTAL ANNUAL LAB	12.146	12.689
TOTAL INHOUSE	12.146	12.689
TOTAL INHOUSE RDT&E	10.209	10.889
ANNUAL OPERATING COST	4.500	4.600

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	5	0	0	5
CIVILIAN	443	0	84	359
TOTAL	448	0	84	364

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
136	17.826	34.599	77.415	129.840	33.988	6.821

...MISSION

PROVIDE ENGINEERING SUPPORT AND SHOP SERVICES TO FACILITATE THE CONDUCT OF RESEARCH AND DEVELOPMENT BY THE SEVERAL LABORATORIES PROJECT MANAGERS OTHER MAJOR SUBORDINATE COMMANDS CORPORATE LABORATORIES AS WELL AS OTHER SERVICES

...CURRENT IMPORTANT PROGRAMS

COUNTER BATTERY RADAR
QUICK LOOK I
SINGARS
QUICK FIX I
CEFLY LANCER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ENVIRONMENTAL EVALUATION FACILITY PROVIDES ENVIRONMENTAL TESTS ON ARMY ELECTRONIC EQUIP THRU USE OF CLIMATIC CHAMBERS, MPC200 VIBRATION MACHINE AND MONTEREY SHOCK MACH METROLOGY AND CALIBRATION FACILITY HAS MICROWAVE NETWORK ANALYZER HPR542P REAL TIME DATA ACQUISITION AND CALIBRATION SYS. HP9600 PROVIDE CHARACTERIZATION OF ELECTRONIC EQUIP OVER FREQUENCY RANGE OF 100 MHZ AND CALIBRATION CAPABILITY FOR VOLTAGE CURRENT RESISTANCE. RADIO FREQ MICROWAVE PWR FREQUENCY AND TEMP ELECTROMAGNETIC INTERFERENCE TEST FACILITY. MECHANICAL DATA REDUCTION AND ANALYSIS FACILITY PROVIDES ANALYSIS OF DATA FROM ENVIRONMENTAL TESTS USING AN ORTHOLOG ANALYZER OR- SA10 COMPUTER AIDED DESIGN AND MANUFACTURING DRAFTING SERVICES AND ALL TYPES OF SHOP SERVICES

INSTALLATION: RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI WASHINGTON, D.C.

CDR COL. WILLIAM C. MAUS

TECH. DIR. DR. JULIUS E. UHLANER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL ROT&E	22.603	23.434
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.683	0.751
TOTAL ANNUAL LAB	23.286	24.185
TOTAL INHOUSE	10.842	12.833
TOTAL INHOUSE ROT&E	10.159	12.082
ANNUAL OPERATING COST	2.973	3.069

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	36	2	29	7
CIVILIAN	227	137	200	27
TOTAL	263	139	229	34

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	46.110	2.559	6.190	54.859	0.000	1.760

...MISSION

RSCH & DEV PRGMS IN BEH & SOC SCI FOR DEPT ARMY IN INDIV TNG & PERF & IN ORGS & SYSTS- INCL RSCH TO IMPR INDIV & UNIT TNG & EVAL, PERS ACCES & UTILIZA, ENHANCE CAREER DEV & SOLDIER PROD, ENH EFF OF GPS IN CMD-CNTRL & TAC OPS, IMPV HUM PERF THRU ED TECH, TNG SIMULA, & ORG EFF ANALYSIS

...CURRENT IMPORTANT PROGRAMS

MANPOWER SYS MGT TECHNOL INCL MANP ACCESS&RETEN & ROLE OF WOMEN IN ARMY ON-THE-JOB INDIV TRAIN TECHNOL- AUTOMA, SIMULA & EVAL IN SYST EMB TRAIN NAP-OF-THE-EARTH & NIGHT FLIGHT TRAIN, FLT SIMULATION & AVIATOR SELECT TECHNIQUES OF ORGANIZATIONAL EFFECTIVENESS & MANAGEMENT TRAINING TAC ENGAGE SIMULA & UNIT PERF, BATTLEFIELD INFO, MGT, CP CONFIG, OP DOCT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EIGHT CONUS FIELD UNITS & ONE IN EUROPE, LIAISON OFFICES AT TRADOC, FORSCOM, & IN LONDON SUPPORT IN-HSE RSCH PRGM MANAGED BY TWO LABS WITHIN WHICH ARE 8 TECH AREAS, 1 PERS ACCESSION & UTILIZA, 2 INDIV TNG & SKILL EVAL, 3 CAREER DEVEL & SOLD PRODUCTIVITY, 4 ORG EFFECTIVENESS, 5 UNIT TNG & EVAL SYS, 6 BTLFLD INFO SYS, 7 ED TECH & TNG SIMULA, 8 HUM FACTORS IN TAC OPS. IN-HSE EXPR FACILITIES INCL LABORATORY AREA, AN ARMY-OWNED IN-HSE COMPUTER PERMITS, WITHIN THE LABS, REAL-TIME EXPERIMENTATION, ADDITIONAL TERMINAL LINES TO EXTERNAL COMPUTERS INCR DATA STORAGE & PROV FLEXIBILITY. EXPR PROG PERMITS WIDE RANGE OF LAB OPS TO TEST HUMAN PERF HYPOTHESES UNDER SIMULATED TACTICAL CONDITIONS.

INSTALLATION: RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE NATICK, MA.

CDR COL. HARRY G. DANGERFIELD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	3.621	3.986
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.075	1.358
TOTAL ANNUAL LAB	4.696	5.344
TOTAL INHOUSE	4.696	5.344
TOTAL INHOUSE RDT&E	3.621	3.986
ANNUAL OPERATING COST	0.767	0.843

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8	18	50	42
CIVILIAN	79	21	37	42
TOTAL	87	39	87	84

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4	60.421	18.563	28.647	107.631	3.663	3.243

...MISSION

CONDUCTS BASIC AND APPLIED RESEARCH TO DETERMINE THE EFFECTS OF HEAT, COLD, HIGH TERRESTRIAL ALTITUDE AND WORK UPON THE SOLDIER'S LIFE PROCESSES, PERFORMANCE AND HEALTH. CONDUCTS CONTINUING RESEARCH IN THE PHYSIOLOGICAL ASPECTS AND HEALTH EFFECTS OF PHYSICAL FITNESS TRAINING.

...CURRENT IMPORTANT PROGRAMS

EVALUATION OF ARMY PHYSICAL FITNESS TRAINING PROGRAMS. PREVENTION AND TREATMENT OF DISABILITIES DUE TO MILITARY OPERATIONS IN THE EXTREME ENVIRONMENT. PREDICTION OF LIMITS OF MILITARY PERFORMANCE AS A FUNCTION OF ENVIRONMENT, CLOTHING, AND EQUIPMENT, BIOMEDICAL PROCESSES THAT LIMIT HEAVY PHYSICAL WORK, MEDICAL PROBLEMS IN MILITARY ARCTIC OPERATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT RESEARCH AND PROVIDE GUIDANCE TO DESIGNERS, ENGINEERS, TACTICIANS, PLANNERS AND PHYSICIANS ON MILITARY PERFORMANCE AND CASUALTY PREVENTION AND TREATMENT IN EXTREME CLIMATES AND ENGINEERED ENVIRONMENTS; ADVISE ON HEALTH AND SAFETY IN MANEUVERS DURING HEAT, COLD OR HYPOXIC STRESS. IN HUMAN AND ANIMAL RESEARCH, USE APPROXIMATELY 50 VOLUNTEER TEST SUBJECTS AND CLIMATIC CHAMBERS OF USA NARADCOM PLUS MANY SMALLER CHAMBERS, ANIMAL CARE FACILITIES, ELECTRON MICROSCOPE, UNDERWATER RESEARCH POOL, COPPER MANIKINS, AND DIVERSE EQUIPMENT FOR BIOMEDICAL, BIO-PHYSICAL, MEDICAL, PHYSIOLOGICAL, PHARMACOLOGICAL, AND PSYCHOLOGICAL MEASUREMENT. FIELD FACILITIES ARE MAINTAINED AT PTKES PEAK, CO AND FORT WAINWRIGHT, AK.

INSTALLATION: TANK & AUTOMOTIVE R&D COMMAND

WARREN, MI.

CDR MG.O.C. DECKER, JR.

CH.SCI.DR.E.W. PETRICK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	19.552	17.809
TOTAL PROCUREMENT	3.200	14.100
TOTAL OEM	3.063	1.464
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	25.815	35.373
TOTAL INHOUSE	9.130	11.605
TOTAL INHOUSE RDT&E	7.667	8.621
ANNUAL OPERATING COST	4.111	3.700

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	14	1	10		4
CIVILIAN	273	10	186		87
TOTAL	287	11	196		91

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
80	0.380	104.608	418.434	523.422	23.000	4.500

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

EXPERIMENTAL EQUIP/TECH FOR HOLOGRAPHIC STRESS ANALYSIS
DETAILED STUDIES/FABRICATION F/ARMORED RESUPPLY VEHICLES
CONSTRUCTION/FIELD TEST FC AUTOMATIC DEFENSE SYSTEM
DESIGN/TEST RIG FABRICATION F/5 AND 10 TON HI MOB TRUCKS
ADIABATIC ENGINE CERAMIC CAPPED PISTONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VEHICLE BRAKE DYNAMOMETER
VEHICLE SUBSYSTEM INTEGRATION
ANALYTICAL PREDICTION OF MILITARY VEHICLE PERFORMANCE
VEHICLE MOTION SIMULATOR
RIVER SIMULATOR FACILITY/LAND LOCOMOTION SOIL BINS
MINE PROTECTION
VEHICLE SIGNATURE PROGRAM
VEHICLE COMPONENT EVALUATION
SIX DEGREE OF FREEDOM SIMULATOR
METAL ANAL W/MICROPROBE ELECTRON MICROSCOPE ANALYZER AND TECHNIQUES
DEVELOPMENT OF IMPROVED ARMOR WELDING AND FABRICATION
LOW TEMPERATURE, SHOCK AND VIBRATION TEST FACILITIES

INSTALLATION: TROPIC TEST CENTER

FT. CLAYTON, C.Z.

CDR COL. WENDELL L. PRINCE

TECH. DIR. MR. FRANK S. MENDEZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	2.626	2.612
TOTAL PROCUREMENT	0.033	0.000
TOTAL O&M	0.086	0.000
TOTAL OTHER	0.996	1.019
TOTAL ANNUAL LAB	3.741	3.631
TOTAL INHOUSE	3.322	3.376
TOTAL INHOUSE RDT&E	2.284	2.357
ANNUAL OPERATING COST	0.400	0.400

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	80	0	11	69
CIVILIAN	62	4	12	50
TOTAL	142	4	23	119

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
18866	18.782	30.000	83.891	132.673	1.033	1.699

...MISSION

PLAN, CONDUCT AND REPORT ON ENVIRONMENTAL PHASES OF DEVELOPMENT TEST 11, AND OTHER DEVELOPMENTAL TYPE TESTS. PROVIDE ADVICE AND GUIDANCE ON TESTS AND EVALUATION MATTERS TO MATERIAL DEVELOPERS, MATERIAL PRODUCERS, OTHER SERVICES, AND PRIVATE INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

PERSONNEL ARMOR SYSTEM GROUND TROOP (PASGT)
PLATOON EARLY WARNING SYSTEM (PEWS)
MACHINE GUN ACCURACY AND DISPERSION (MAD)
PSYCHO-PHYSICAL MEASUREMENT TECHNIQUES (ILIR)
TEST METHODOLOGY AND R AND D INSTRUMENTATION PROGRAMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST FACILITIES AND LABORATORIES WITH INSTRUMENTS AND EQUIPMENT FOR CONDUCTING TROPIC TESTS OF DOD MATERIEL IN THE NATURAL ENVIRONMENT INCLUDE ELECTRONICS, HUMAN FACTORS, CHEMICAL, MICROBIOLOGICAL, MATERIALS, SOILS, CALIBRATION, AUDIO-VISUAL AND DATA ANALYSIS LABORATORIES. OTHER TEST RESOURCES CONSIST OF FIRING RANGES, NATURAL TERRAIN MOBILITY COURSES, AMMO TEST STORAGE AND FUNCTIONING 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 AND 18,000 ACRES OF BROADLEAF EVERGREEN TREES, SEMIDECIDUOUS TREES, MARSHLAND, GRASSLAND, CORAL REEFS, FLAT AND HILLY TERRAIN AND ALL TYPES OF TROPIC VEGETATION.

INSTALLATION: WALTER REED ARMY INSTITUTE OF RESEACH

WASHINGTON,D.C.

CDR COL.GARRISON RAPMUND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	15.702	16.986
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.862	1.781
TOTAL OTHER	6.235	6.741
TOTAL ANNUAL LAB	23.799	25.508
TOTAL INHOUSE	23.799	25.277
TOTAL INHOUSE RDT&E	15.702	16.755
ANNUAL OPERATING COST	1.500	1.600

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	480	36	144	336
CIVILIAN	467	57	162	305
TOTAL	947	93	306	641

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1373	382.494	58.360	0.000	440.854	10.040	14.966

...MISSION

MAJOR FUNCTIONS ARE BIOMEDICAL RESEARCH POSTGRADUATE MEDICAL SCIENCE INSTRUCTION AND MEDICAL REFERENCE LABORATORY SERVICES. RESEARCH AREAS OF MAJOR INTEREST ARE PREV MEDICINE, INFECTIOUS DISEASES, COMBAT SURGERY INTERNAL MEDICINE, MED CHEMISTRY, AND NEUROPSYCHIATRIC ABNORMALITIES.

...CURRENT IMPORTANT PROGRAMS

BASIC RESEARCH ON MILITARY DISEASES
MILITARY PREVENTIVE MEDICINE AND TROPICAL DISEASES
MALARIA PROPHYLAXIS AND TREATMENT
MILITARY PSYCHIATRY
MICROWAVE INJURIES-PREVENTION AND TREATMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SOPHISTICATED EQUIPMENT INCLUDES ELECTRON MICROSCOPES, MASS SPECTROMETERS, PHYSICAL AND CHEMICAL ANALYTICAL EQUIPMENT, MICROWAVE EXPOSURE SYSTEMS AND BEHAVIORAL RESEARCH INSTRUMENTATION. ADDITIONAL LABORATORY FACILITIES ARE LOCATED IN THAILAND, MALAYSIA, KENYA, BRAZIL, GERMANY, FOREST GLEN, MD., AND FORT MEADE, MD.

INSTALLATION: WHITE SANDS MISSILE RANGE

WHITE SANDS, N.M.

CDR M.G. ORVILLE L. TOBIASON

TECH. DIR. DR. RICHARD W. DUNCAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	0.117	0.123
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.001	0.001
TOTAL OTHER	0.011	0.047
TOTAL ANNUAL LAB	0.129	0.171
TOTAL INHOUSE	0.093	0.099
TOTAL INHOUSE RD&E	0.081	0.087
ANNUAL OPERATING COST	0.082	0.123

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	931	0	382	549
CIVILIAN	3857	47	1006	2851
TOTAL	4788	47	1388	3400

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER	TOTAL REAL PROP EQUIP
4214377	1429.254 443.278 3012.997	4885.529 178.080 214.264

...MISSION

OPERATE A NATIONAL MISSILE RANGE FOR SUPPORT OF ALL APPROVED MISSILE AND RELATED TEST PROGRAMS. INDEPENDENTLY TEST AND EVALUATE ARMY MISSILE AND ROCKET SYSTEMS. ENGINEER AND DEVELOP RANGE INSTRUMENTATION SYSTEMS FOR GATHERING TEST DATA.

...CURRENT IMPORTANT PROGRAMS

PULSE-DOPPLER RADAR APPLICATIONS. USE OF GEOS C SATELLITE TO CALIBRATE RADARS. LASER RANGING AND TRACKING SYSTEM. TESTING OF DRONE FORMATION CONTROL SYSTEM FOR MULTIPLE ENGAGEMENT AIR DEFENSE. LASER TEST FACILITY INSTRUMENTATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

GROUND AND FLIGHT SAFETY. OBTAINING FLIGHT TRAJECTORY AND EVENT DATA. RECOVERING MISSILES OR PORTIONS THEREOF. REDUCING AND PUTTING INTO READABLE FORMS DATA COLLECTED BY RANGE INSTRUMENTS. ENGINEERING AND DEVELOPMENT OF RANGE INSTRUMENTATION. INDEPENDENTLY TEST AND EVALUATE ARMY WEAPONS SYSTEMS. EVALUATE GUIDANCE AND CONTROL SYSTEMS, STRUCTURAL INTEGRITY, PROPULSION SYSTEMS, ELECTROMAGNETIC RADIATION EFFECTS. ANALYSIS OF CHEMICAL AND METALLOGRAPHIC EFFECTS, MICROBIOLOGICAL EFFECTS, CLIMATIC ENVIRONMENTAL EFFECTS. TEST AND EVALUATE WARHEADS AND SPECIAL WEAPONS. WEAPONS SIMULATION. NUCLEAR EFFECTS TESTING. SOLAR FURNACE. COUNTER-COUNTER MEASURES TESTING. ELECTRONIC AND OPTICAL TRACKING SENSORS AND DATA TRANSMISSION REQUIRED TO PROVIDE TEST DATA ON MISSILES AND RELATED PROGRAMS.

INSTALLATION: YUMA PROVING GROUND

YUMA, AR.

CDR COL. ERNEST E. BEACH

TECH. DIR. DR. RICHARD H. MILLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	24.184	20.353
TOTAL PROCUREMENT	4.589	3.707
TOTAL OEM	0.694	0.551
TOTAL OTHER	11.593	4.736
TOTAL ANNUAL LAB	41.060	29.347
TOTAL INHOUSE	34.087	29.079
TOTAL INHOUSE RDT&E	24.184	20.353
ANNUAL OPERATING COST	9.184	9.689

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	450	1	55	395
CIVILIAN	792	0	80	712
TOTAL	1242	1	135	1107

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
870393	0.832	112.690	1295.093	1408.615	47.207	69.673

...MISSION
PLAN, CONDUCT, SPT ET AIR DEL EQUIP, L-PNGE TUPE ARTY, ACFT WPNS SYS, MOB
EQUIP. PLAN, CONDUCT, RPT DESERT ENV TEST. SPT ARCTIC ENV TESTS. PROVIDE
TEST, EVAL ADVICE, GUIDANCE TO PROSPECTIVE FACILITY USERS. DEVELOP, MAINT
MASTER PLAN FOR INST, FACIL, METHOD, TECH TEST EXPERTISE.

...CURRENT IMPORTANT PROGRAMS
GLOBAL POSITIONING SYSTEM
PROJECTILE 8-INCH XM753
TANK COMBAT XM1
ENHANCED COBRA ARMAMENT PROGRAM
LOW ALTITUDE PARACHUTE EXTRACTION SYS OF SELECTED MUNITIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
INSTRUMENTED ARTILLERY RANGE
VEHICLE MOBILITY TEST RANGES AND FACILITY
INSTRUMENTED AIRCRAFT ARMAMENT RANGE
REAL TIME CINETHEDDOLITE SYSTEM
LASER RANGE TRACKER
POSITION LOCATING DATA COMMUNICATION SYSTEM
INSTRUMENTED DROP ZONES
ENGINEERING TEST FACILITY
INSTRUMENTATION CALIBRATION FACILITY
SCIENTIFIC COMPUTER CENTER
ENVIRONMENTAL TEST FACILITIES
WEAPONS EVALUATION FACILITY

INSTALLATION: AEROSPACE MEDICAL RESEARCH LABORATORY

PENSACOLA, FL.

C.O.CAPT.R.F. MITCHELL

TECH.ADV.DR.A. GRAYPIFL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	4.976	4.550
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.068	0.070
TOTAL OTHER	0.795	0.795
TOTAL ANNUAL LAB	5.839	5.415
TOTAL INHOUSE	5.470	4.977
TOTAL INHOUSE RD&E	4.607	4.112
ANNUAL OPERATING COST	0.764	0.797

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	68	16	21	47
CIVILIAN	121	20	42	79
TOTAL	189	36	63	126

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL
6	167.657	8.800	11.620	189.137
				REAL PROP
				EQUIP
				3.130
				3.329

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN AERO SPACE MEDICINE AND RELATED SCIENTIFIC AREAS APPLICABLE TO AEROSPACE SYSTEMS

...CURRENT IMPORTANT PROGRAMS

PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF NONIONIZING RADIATION
HUMAN DYNAMIC RESPONSE TO IMPACT ACCELERATION AND VIBRATION
AVIATION PERSONNEL PROCUREMENT SELECTION AND RETENTION
CREW PERFORMANCE 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 ECHOCARDIOGRAPH THERMOGRAPHIC IMAGING SYSTEM 3D BINOCULAR EYE-
TRACKER AND VISUAL STIMULATOR ELECTRON MICROSCOPE IMPACT FACILITY.
1MEGA N THRUST ACCELERATOR 213 M ENVIRONMENTALLY ENCLOSED TRACK 178K
N THRUST VERTICAL ACCELERATOR X-RAY CINEMATOGRAPHY ELECTRODYNAMIC
MOTION EXCITORS C210 SHAKER SHIP MOTION GENERATOR 22 CHANNEL INERTIAL
DATA ACQUISITION SYSTEM HIGH SPEED CAMERAS VIVARIUM WITH OPERATING
SUITE EQUIPPED FOR HUMAN ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOS-
PHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS.

INSTALLATION: AIR DEVELOPMENT CENTER

JOHNSVILLE, PA.

C.O. CAPT. C. RIGSBEE

TECH. DIR. DR. R.K. LOBB

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	128.377	173.604
TOTAL PROCUREMENT	35.517	15.717
TOTAL OEM	15.972	19.542
TOTAL OTHER	13.087	6.499
TOTAL ANNUAL LAB	192.953	215.362
TOTAL INHOUSE	75.918	95.759
TOTAL INHOUSE RDT&E	50.418	71.169
ANNUAL OPERATING COST	24.114	27.424

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	295	3	60	235
CIVILIAN	2300	33	1183	1117
TOTAL	2595	36	1243	1352

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
750	833.000	43.000	451.000	1327.000	32.665	39.901

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

TACTICAL SUPPORT CENTER
S-3A, F-14, F-18, VP PROGRAM
LIGHT AIRBORNE MULTI-PURPOSE SYSTEMS
V/STOL
JOINT TACTICAL INFORMATION DATA SYSTEM

...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 & COUNTER MEASURES) COMMUNICATIONS, NAVIGATION INFORMATION
PROCESSING & DISPLAY, A/C ENVIRONMENTAL SENSING (ELECTROMAGNETIC/MAGNET-
IC, ACOUSTIC, ELECTRO-OPTIC, & PHOTOGRAPHIC); A/C SUPPORT SYSTEMS, A/C
COST METHODOLOGY & LOGISTICS, AEROSPACE & AVIATION PHYSIOLOGY.
AND SUPPORT TO OTHER ACTIVITIES AS DIRECTED

INSTALLATION: AIR ENGINEERING CENTER

LAKEHURST, N.J.

C.O.CAPT.J.H. HOGANSON

TECH.DIR.MR.W.J. COX

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	23.102	17.000
TOTAL PROCUREMENT	27.768	39.000
TOTAL O&M	23.741	22.000
TOTAL OTHER	7.420	10.690
TOTAL ANNUAL LAB	82.031	88.690
TOTAL INHOUSE	61.304	65.123
TOTAL INHOUSE RD&E	15.361	11.233
ANNUAL OPERATING COST	6.671	6.700

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	330	0	38	292
CIVILIAN	1051	3	437	1514
TOTAL	2281	3	475	1806

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
7398	334.473	139.206	2455.146	2928.825	82.637	23.480

...MISSION

CNDCT RSRCH, ENGR, DEV, TEST, T&E SYS INTGRTN, LTD PROD, PROC & FLET ENGR SUPRT IN; A/C LAUNCHG, RCVRY & LNDG AID SYS & GRND SUPRT EQUIP FOR A/C & A/BRN WPNS SYS. PRVD, OPER & MATN SITES FOR TESTS OF ABV EQIP. SUPRT DOD STD & SPECS PRGMS. OPER AVIA FACILITIES AS DESGNTD BY APPRO AUTH.

...CURRENT IMPORTANT PROGRAMS

RECOVERY SYSTEM FOR HELICOPTERS ABOARD SHIP (RAST)
 TRIBOLOGY (STUDY OF WEAR) TECHNOLOGY BASE PROGRAM
 AUTOMATIC TEST EQUIPMENT FOR AVIONICS SUPPORT AND AVIONICS READINESS
 MARK 14 RECOVERY SYSTEM
 HELO RECOVERY ASSIST, SECURE AND TRAVERSING (RAST) ABOARD SHIP TEST

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST CATAPULTS, ARRESTING GEAR AND SLED TRACKS FOR SYSTEM AND COMPONENT TESTS. INSTRUMENTATION AND DATA PROCESSING. HELO AND VTOL RECOVERY TEST SITES. VLA TEST SITES. MOCKUP OF AIR LAUNCHED WEAPONS HANDLING AND STOWAGE FACILITIES ON AIRCRAFT CARRIERS. AIRCRAFT CARRIER OPERATIONAL ANALYSTS ROOM FOR STUDYING SPOTTING AND SERVICING CAPABILITIES ON FLIGHT AND HANGER DECKS, MACHINE SHOP WITH CONVENTIONAL AND AUTOMATED MACHINE TOOLS CAPABLE OF PROTOTYPE AND PRODUCTION. VACUUM FURNACE FOR HEAT TREATING ELECTRON BEAM WELDER. CRYOGENICS FACILITY. RAPID LOAD TEST MACHINE TRIBOLOGY (STUDY OF WEAR) LABORATORY. NOISE MEASUREMENT LAB. ULTRASONIC CLEANING LAB. AVIONICS SUPPORT FACILITY. ELECTRIC POWER AND ELECTRONIC SUPPORT FACILITY. NONDESTRUCTIVE EVALUATION LAB. AUTOMATIC TEST EQUIPMENT SOFTWARE FACILITY.

INSTALLATION: AIR PROPULSION TEST CENTER

TRENTON, N.J.

C.O. CAPT. W.C. BENTLEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	18.770	26.154
TOTAL PROCUREMENT	2.557	3.778
TOTAL O&M	0.399	0.020
TOTAL OTHER	0.910	0.461
TOTAL ANNUAL LAB	22.636	30.413
TOTAL INHOUSE	16.884	22.277
TOTAL INHOUSE RDT&E	13.881	18.499
ANNUAL OPERATING COST	4.610	4.677

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8	0	8	0
CIVILIAN	607	0	156	451
TOTAL	615	0	164	451

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
68	376.704	37.973	211.766	626.443	50.820	11.802

...MISSION

PROVIDE COMPLETE TECHNICAL & ENGINEERING SUPPORT FOR AIR-BREATHING PROPULSION SYSTEMS, INCLUDING THEIR ACCESSORIES & COMPONENTS, FUELS & LUBES TO NAVAIR AND THE FLEET. MANAGE & PERFORM APPLIED R&D LEADING TO NEW PROPULSION SYSTEMS & CORRECTION OF DESIGN DEFICIENCIES & SERV PRORS.

...CURRENT IMPORTANT PROGRAMS

F404-GE-400 EXPLORATORY AND DEVELOPMENT TEST SUPPORT
T76-420/421 QUALIFICATION TESTS
TF30-P-414 ENGINE-EVALUATION OF ERG-RECOMMENDED FIXES
TF30-P-412 ENGINE-1000 HOUR MISSION ENDURANCE TEST
SEA LAUNCHED CRUISE MISSILE(SLCM) ENGINE DEVELOPMENT FLIGHT RATING TESTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST CELLS FOR SIMULATING ALTITUDE & ENVIRONMENTAL CONDITIONS OF FLIGHT. SIMULATION CAPABILITY: SEA LEVEL TO 100000 FEET: MINUS 65 DEGREES F TO PLUS 650 DEGREES F; FLIGHT TO MACH 3. THREE LARGE ALTITUDE CELLS, FOUR SMALL ALTITUDE CELLS USED TO TEST ANY ENGINE IN NAVY INVENTORY OR PLANNED. IN ADDITION TO TURBOJET/FAN TURBOSHAFT/PROP-ENGINES; NAPC TESTS AND EVALUATES PROPELLERS, HELICOPTER TRANSMISSIONS, STARTERS, AUXILIARY POWER UNITS, ROTORS FOR LCF AND CONTAINMENT AIRCRAFT AND ENGINE FUEL SYSTEM COMPONENTS, AND OTHER ASSOCIATED HARDWARE. PERFORMS RESEARCH AND DEVELOPMENT RELATED TO ADVANCED LUBRICATING OILS, ENGINE OIL-WETTED COMPONENTS, ADVANCE & SYNTHETIC A/C FUELS & ENGINE AIR POLLUTION. NAPC QUALS ALL A/C ENGINE OILS, MANAGES NAVY EXPL AND ADV DEVEL PRGMS, PROVIDES ADMN & TECH DIR TO SELECTED NAVAIR CONTRACTS

INSTALLATION: AIR TEST CENTER

PATUXENT RIVER, MD.

C.O. RADM. J.H. FOXGROVER

TECH. DIR. MR. J.B. PARADIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	60.619	67.510
TOTAL PROCUREMENT	17.979	17.139
TOTAL O&M	8.403	8.840
TOTAL OTHER	26.898	24.997
TOTAL ANNUAL LAB	113.899	118.486
TOTAL INHOUSE	99.184	93.559
TOTAL INHOUSE RDT&E	51.497	52.026
ANNUAL OPERATING COST	43.104	47.983

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1491	1	189	1302
CIVILIAN	2135	7	231	1904
TOTAL	3626	8	420	3206

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6638	15.125	363.400	4433.501	4812.026	153.768	18.825

...MISSION

CONDUCT TECH EVALS & BIS TRIALS, TRAIN TEST PILOTS, TEST & EVALUATE TOTAL AIRCRAFT, THEIR MISSION SYSTEMS & ALL SUBSYSTEMS & COMPONENTS, RELATED SUPT SYSTEMS & ILS. PROVIDE TECHNICAL ADVICE & ASSISTANCE TO NASC & OTHER TO TRAIN TEST PILOTS & TO DEVELOP AIRCRAFT TESTING TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

TEST & EVALUATION OF A/C & THEIR SYSTEMS F14, F18, A4, 6, FA6, A7, AV8, P3, EP3E, E2C EC130, AH1, UH1, CH46, CH53, SH2, SH3 & LAMPS PLUS THEIR ASSOCIATED SIMULATORS. GROUND SUPPORT EQUIP A/C COMPUTERS & SOFTWARE, RELIABILITY & MAINTAINABILITY, HUMAN FACTORS, ELECTRONIC WARFARE CAPABILITIES, ELECTROMAGNETIC COMPAT, CARRIER SUIT, ACLS MLS A/C CARRIER & AIRFIELD CERTIFICATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LARGE RESTRICTED AIRSPACE, REAL TIME RANGE & AIRCRAFT TEST DATA PROCESSING CATAPULT & ARRESTING GEARS, ACLS SITES, ELECTROSTATIC SHIELDED HANGAR, GUN FIRING TUNNELS, ENVIRONMENTAL TESTING FACILITIES, ELECTRICAL POWER AND CONTROL TESTING LABS, INSTRUMENTED SONOBUOY RANGE, ASW TACTICAL SUPPORT CENTER, ASW SYSTEMS LABS, BIOMEDICAL & HUMAN FACTORS LABS, EXTENSIVE INSTRUMENTATION DESIGN & CONSTRUCTION FACILITIES, COMPUTER & SOFTWARE T&E LABS, WATER EDGE LOW ELECTROMAGNETIC NOISE TEST AREA, ELECTRO-OPTICAL TARGETS & TEST RANGE ENGINE TEST CELL & THRUST STAND BROADBAND EW TEST RANGE, VSTOL TEST SITE SURFACE EFFECT SHIP TEST FACILITY.

INSTALLATION: ARCTIC RESEARCH LABORATORY

BARROW, AR.

C.O.LCDR.DENNIS H. CHRISTIAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	7.728	9.086
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.408	1.733
TOTAL ANNUAL LAB	11.136	10.819
TOTAL INHOUSE	0.055	0.055
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	5.428	5.586

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	3	0	2		1
CIVILIAN	0	0	0		0
TOTAL	3	0	2		1

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4973	45.706	15.987	341.075	402.768	35.000	19.000

...MISSION

PROVIDE ALL FACILITIES AND SERVICES FOR ACCOMPLISHING PROGRAMS OF BASIC AND APPLIED RESEARCH WHICH CONTRIBUTE TO SUCCESSFUL NAVY OPERATIONS IN THE ARCTIC REGIONS AND ENVIRONMENT.

...CURRENT IMPORTANT PROGRAMS

STUDY PHYSICAL PROPERTIES, OPTICAL CHARACTERISTICS AND CHEMICAL COMPOSITION OF ARCTIC AEROSOLS.

CONSTRUCT SEDIMENT DISTRIBUTION CHART OF THE ARCTIC BASIN.

DEVELOP RELATIONSHIPS BETWEEN ICE, AIR AND WATER OF THE ARCTIC OCEAN.

STUDY THE PHYSICAL OCEANOGRAPHY OF THE BARENTS AND KARA SEAS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE FACILITY CONSISTS OF 116 SEMI-PERMANENT AND PERMANENT BUILDINGS INCLUDING A LABORATORY-ADMINISTRATION-BILLETING BUILDING WHICH HAS 43 LABORATORY SPACES, SLEEPING QUARTERS FOR 100 PEOPLE, ADMIN OFFICES, GAME ROOM, MUSEUM OF ARCTIC FAUNA AND ARCHEOLOGY AND A LIBRARY OF POLAR ORIENTED PUBLICATIONS. THE LAB PROVIDES FACILITIES MAINTENANCE, UTILITY SERVICE, MOTOR VEHICLE OPERATION AND MAINTENANCE, FIRE PROTECTION, FOOD SERVICE, LAUNDRY, SECURITY, JANITORIAL SERVICES, COMMUNICATIONS, AIRPORT OPERATIONS INCLUDING 4 SINGLE-ENGINE AND 2 MULTI-ENGINE AIRCRAFT, AND MEDICAL SUPPORT.

INSTALLATION: ATLANTIC FLEET WEAPONS TRAINING FACILITY

ROOSEVELT ROADS, P.R.

C.O.CAPT.E.W. INGLEY

MR.THOMAS RAMIREZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.148	0.076
TOTAL PROCUREMENT	4.300	3.857
TOTAL OEM	7.989	9.771
TOTAL OTHER	1.693	1.242
TOTAL ANNUAL LAB	14.130	14.946
TOTAL INHOUSE	3.016	2.949
TOTAL INHOUSE RDT&E	0.026	0.005
ANNUAL OPERATING COST	0.835	0.900

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	103	0	29	74
CIVILIAN	34	0	21	13
TOTAL	137	0	50	87

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3602	0.000	14.957	147.550	162.507	10.488	92.007

...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

MOBILE SEA RANGE DEVELOPMENT SUPPORT
DD-963 CLASS POST DELIVERY TESTING
ANTI-SHIP MISSILE DEFENSE
GOWEX-ELFEX SSRN VULNERABILITY ASSESSMENT
SUBMARINE SILENCING PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NAVY'S LARGEST TRAINING GRND FOR ATLANTIC FORCES WITH 118,000 SQ.MI. COM-
BINED 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 TARGET PRESENTATION,LARGE SCREEN
DISPLAY SYSTEM FOR OPS MONITOR/CONTROL,EVENT RECONSTRUCTION,AND VARIOUS
INSTRUMENTATION SYSTEMS BASED AROUND A UNIVAC 1230 COMPUTER SYSTEM WITH
EXTENDED CORE MEMORY UNIT. 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.UN-
DERWATER RANGE FOR PRECISION SURFACE AND SUBSURFACE TRACKING, WSATS AND
FORACS.NAVSTA PROVIDES FOR AIRCRAFT/SHIPS LOGISTIC SUPPORT,ROQ & REQ

INSTALLATION: BIOMEDICAL RESEARCH LABORATORY

OAKLAND, CA.

C.O.CAPT.J.F. PRIBNOW

SCI.DIR.DR.N.A. VEDROS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	2.035	2.151
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.524	0.449
TOTAL ANNUAL LAB	2.559	2.600
TOTAL INHOUSE	0.672	0.736
TOTAL INHOUSE RDT&E	0.404	0.468
ANNUAL OPERATING COST	0.404	0.468

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	18	5	8		10
CIVILIAN	6	0	0		6
TOTAL	24	5	8		16

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
5	77.625	8.731	34.646	121.002	0.100	5.300

...MISSION

CONDUCTS RESEARCH IN MICROBIOLOGY AIMED AT THE PREVENTION AND CONTROL OF DISEASES OF NAVAL PERSONNEL UNDER ISOBARIC, HYPERRARIC AND HYPOBARIC CONDITIONS AS WELL AS NORMAL AND UNUSUAL BREATHING MIXTURES, ALSO CONDUCTS RESEARCH ON POLLUTION CONTROL AND ABATEMENT.

...CURRENT IMPORTANT PROGRAMS

WORK ON SURVIVAL OF ENTEROPATHOGENS IN SEA WATER
DETERMINE DISEASES OF MARINE MAMMALS OF IMPORTANCE TO THE NAVY
DEVELOP BIOINDICATOR ORGANISMS THAT CAN SERVE AS POLLUTION INDICATORS
USE OF MICRO-ORGANISMS FOR BIODEGRADATION OF POLLUTANTS IN SEAWATER
ISOLATE AND IDENTIFY ANTIBACTERIAL AND ANTIVIRAL SUBSTANCES FROM THE SEA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT INCLUDES MINIATURE DEEP FREEZE AND MINIATURE FIELD INCUBATORS FOR VIRUS ISOLATION, ROTATING DRUM USED TO INVESTIGATE EFFECT OF LIGHT ON AEROSOLIZED MICROORGANISMS AND PHOTOCHEMICAL REACTIONS, A HYPERBARIC TEST FACILITY, MICROAEROFLUOROMETER USED TO TRACK AEROSOL CLOUDS AND CLASS IV CONTAINMENT FACILITIES FOR HANDLING EXTREMELY PATHOGENIC VIRUS AND BACTERIA, CONTINUOUS FLOW LIQUID WASTE DECONTAMINATION UNIT, PROCESS AIR DECONTAMINATION SYSTEM, MOVABLE 400 LITER AEROSOL TEST CHAMBERS, MOBILE VIROLOGY LABORATORY, AND VARIOUS EXPOSURE AND HOLDING SYSTEMS FOR SMALL ANIMALS. THE RESEARCH EQUIPMENT IS CONTINUOUSLY BEING MODIFIED AND EXPANDED IN ORDER TO MAINTAIN A LAB THAT IS RESPONSIVE TO THE TOTAL BIOLOGICAL NEEDS OF THE NAVY.

INSTALLATION: BLOOD RESEARCH LABORATORY

CHELSEA, MA.

C.O.CAPT.CESARE R. VALERI

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.977	0.827
TOTAL PROCUREMENT	0.977	0.827
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.182	0.153
TOTAL ANNUAL LAB,	2.136	1.807
TOTAL INHOUSE	2.136	1.807
TOTAL INHOUSE RDT&E	0.977	0.827
ANNUAL OPERATING COST	0.300	0.325

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	11	4	5	6
CIVILIAN	10	0	2	2
TOTAL	21	4	7	14

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	14.720	7.360	8.300	30.380	0.500	1.239

...MISSION

CONDUCT RESEARCH AND DEVELOP METHODS FOR LONG-TERM PRESERVATION OF BLOOD AND BLOOD PRODUCTS AND EVALUATION OF USEFULNESS IN OPERATIONAL AREAS ON LAND, AT SEA, AND IN HOSPITALS.

...CURRENT IMPORTANT PROGRAMS

WHITE CELL- AND PLATELET-POOR RED CELLS FOR THERAPEUTIC TRANSFUSION.
EVALUATE METHODS FOR REJUVENATING INDATED AND OUTDATED RED CELLS
EVALUATE METHODS FOR PRESERVING PLATELETS, WHITE CELLS AND STEM CELLS
CLINICAL EVALUATION OF FROZEN RED CELLS AND PLATELETS.
EVALUATE NEW METHODS FOR COLLECTING WHITE CELLS, PLATELETS & STEM CELLS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

STORAGE CAPABILITY FOR 6500 UNITS OF FROZEN BLOOD
LIQUID AND FREEZE PRESERVATION EQUIPMENT FOR RED CELLS, WHITE CELLS,
PLATELETS, PLASMA PROTEIN, AND STEM CELLS.
EQUIPMENT TO BIOLOGICALLY EVALUATE THE VIABILITY AND FUNCTION OF RED CELLS
EQUIPMENT TO BIOLOGICALLY EVALUATE THE VIABILITY AND FUNCTION OF WHITE CELLS AND STEM CELLS
EQUIPMENT TO BIOLOGICALLY EVALUATE THE VIABILITY AND FUNCTION OF PLATELETS

INSTALLATION: CIVIL ENGINEERING LABORATORY

PORT HUENEME, CA.

C.O.CAPT.NORMAN W. PETERSEN

TECH.DIR.WILLIAM F. BURKART

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	14.121	18.911
TOTAL PROCUREMENT	0.551	5.255
TOTAL O&M	1.526	1.445
TOTAL OTHER	1.347	1.315
TOTAL ANNUAL LAB	17.545	26.926
TOTAL INHOUSE	10.798	12.540
TOTAL INHOUSE RDT&E	8.456	10.401
ANNUAL OPERATING COST	2.659	3.058

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	15	1	8	7
CIVILIAN	298	27	158	140
TOTAL	313	28	166	147

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
30	117.980	27.061	46.181	191.222	2.000	2.472

...MISSION

MISSION OF LABORATORY IS TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR SHORE AND 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 & 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).

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESSURE VESSEL FACILITY WITH 72-INCH-10 BY 10 FT. DEEP PRESSURE VESSEL SUSTAINING PRESSURES UP TO 5500 PSI. DIVING LOCKER & EQUIPMENT FOR 10 DIVERS. SEAFLOOR SOILS, MATERIALS, SOLID STATE, METALURGICAL, PHOTOELASTIC, SNOW AND ICE LABORATORIES, WARPING TUG, CORER FOR TAKING SAMPLE AT WATER DEPTHS TO 6000 FT., INSITU TESTING EQUIPMENT FOR DEEP OCEAN INCLUDING A VANE SHEAR DEVICE CONE PENETROMETER, 10 FT CORER PLATE BEARING TEST DEVICE & FOUNDATION MONITOR. PHOTOGRAPHIC FACILITY, ENVIRONMENTAL PROTECTION MONITORING CAPABILITY. CPC 8090 COMPUTER/TERMINAL WITH A HIGH SPEED READER & LINE PRINTER. DIGITAL MAG TAPE T/O ANALOG TAPE, ADC & DAC CONVERSION & A PEN PLOTTER & TIE WITH CDC-6600

INSTALLATION: CLOTHING & TEXTILE RESEARCH UNIT

NATICK, MA.

C.O.CDR D.S. PARSONS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.695	0.758
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.834	0.912
TOTAL OTHER	0.254	0.209
TOTAL ANNUAL LAB	1.783	1.879
TOTAL INHOUSE	1.384	1.519
TOTAL INHOUSE RDT	0.695	0.758
ANNUAL OPERATING COST	0.170	0.121

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1	0	1	0
CIVILIAN	56	1	37	19
TOTAL	57	1	38	19

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	10.000	7.000	3.000	20.000	0.400	0.800

...MISSION

CONDUCT RESEARCH, DEVELOPMENT, TEST AND EVALUATION AND GIVE ENGINEERING SUPPORT IN CLOTHING, TEXTILES, AND RELATED FIELDS ASSOCIATED WITH SERVICE CLOTHING AND ENVIRONMENTAL AND SPECIAL PROTECTIVE CLOTHING

...CURRENT IMPORTANT PROGRAMS

HAZARDOUS ENVIRONMENT CLOTHING FOR NAVY 1986
CRASH CREW FIRE PROXIMITY CLOTHING
THERMAL TRANSMISSION APPARATUS DESIGN
LIFE SUPPORT SYSTEMS PROTECTIVE CLOTHING
BUOYANT COLD WEATHER JACKET

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FUNCTIONS--

CONDUCT RDT&E IN TEXTILE MATERIALS, LEATHER, PLASTICS, AND RUBBER
DEVELOP NAVY CLOTHING, ACCESSORIES, AND RELATED ITEMS
CONDUCT STUDIES IN ENVIRONMENTAL SCIENCES AND LIFE SUPPORT SYSTEMS
PREPARE SPECIFICATIONS FOR CLOTHING, TEXTILES, FOOTWEAR AND RELATED ITEMS
COORDINATE STANDARDIZATION IN CLOTHING
PROVIDE TECHNICAL SUPPORT TO ALL DOD AGENCIES IN NAVY CLOTHING AREAS

MAJOR EQUIPMENT AND FACILITIES--

TEXTILE LABORATORIES
COLD TEST CHAMBERS
HYDRO-ENVIRONMENT SIMULATOR
HIGH INTENSITY THERMAL TEST UNIT

INSTALLATION: COASTAL SYSTEMS LABORATORY

PANAMA CITY, FL.

C.O.CAPT.JAMES V. JOLLIFF

TECH.DIR.MR.GERALD G. GOULD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	33.430	37.863
TOTAL PROCUREMENT	0.733	2.654
TOTAL O&M	3.857	4.188
TOTAL OTHER	3.094	2.074
TOTAL ANNUAL LAB	41.114	46.779
TOTAL INHOUSE	24.313	30.794
TOTAL INHOUSE RD&E	18.209	22.511
ANNUAL OPERATING COST	8.144	8.676

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	115	1	12	103
CIVILIAN	652	23	285	367
TOTAL	767	24	297	470

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL REAL PROP EQUIP
682	341.224	38.150	252.742	632.116 30.803 15.873

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

DIVING & SALVAGE
MINE COUNTERMEASURES
ACOUSTIC WARFARE
COASTAL WARFARE
COASTAL TECHNOLOGY & ADVANCED CRAFT TEST & EVALUATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCEAN SIMULATION FAC. HYDROSPACE LAB. HYDRODYNAMIC PRESSURE SIMULATOR.
WET SUBMERSIBLE VEHICLE FAC. GAS ANALYSIS LAB.
TWO OFFSHORE PLATFORMS WITH LIVING QUARTERS FOR 30 & 4 PEOPLE. MAGNETIC
TARGET DETECTION & CLASSIFICATION.
MAGNETIC LAB.
OPTICAL POSITIONING SYSTEM. POST RUN ANALYSIS SYSTEM. PORTABLE TRACKING
ELECTRONIC TRACKING RANGE. ACOUSTIC TEST POOL. PRECISION ACOUSTIC TANK.
ACOUSTIC ANALYSIS FAC. ENVIRONMENTAL MONITORING SYSTEM. COUNTERMEASURES
EVALUATOR, LOW FREQUENCY HYDROPHONE CALIBRATION FAC.
PIER SPACE & BOATS TO INCLUDE RESEARCH VESSEL, ATHENA.
HELIPORT COMPLEX WITH 3 RH53D & 1 UH1E HELOS.

INSTALLATION: DENTAL RESEARCH INSTITUTE,NTC

GREAT LAKES,IL.

C.O.CAPT.M.R. WIRTHLIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.632	0.583
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.489	0.486
TOTAL ANNUAL LAB	1.121	1.069
TOTAL INHOUSE	1.121	1.069
TOTAL INHOUSE RDT&E	0.632	0.583
ANNUAL OPERATING COST	0.285	0.280

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	26	10	11	15
CIVILIAN	16	3	7	9
TOTAL	42	13	18	24

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	22.025	4.815	13.355	40.195	0.000	0.682

...MISSION

CONDUCT RESEARCH IN DENTAL PROBLEMS OF ORAL HEALTH IN NAVAL AND MARINE CORPS PERSONNEL AND DELIVERY OF DENTAL CARE

...CURRENT IMPORTANT PROGRAMS

ORAL HEALTH OF NAVAL PERSONNEL
EVALUATION OF NAVY PLAQUE CONTROL PROGRAM
EPIDEMIOLOGY AND TREATMENT OF NECROTIZING GINGIVITIS
EVALUATION OF IMPLANT MATERIALS
WOUND HEALING OF SUPPORT TISSUE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ASSESS DENTAL HEALTH STATUS OF RECRUITS IMPROVE DISEASE PREVENTION AND CARE PROCEDURES, INCREASE QUALITY AND QUANTITY OF DENTAL CARE
AMINO ACID ANALYZER ATOMIC ABSORPTION UNIT FLUORIDE ELECTRODES
SCINTILLATION COUNTER RK MEMORY CORE COMPUTER GAS CHROMATOGRAPH UNIT
FOUR DENTAL UNITS FOUR DENTAL CHAIRS

INSTALLATION: ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CAL.

C.O.CAPT.P.A. PETIT

RSCH.DIR.DR.A. WEINSTEIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	3.011	2.934
TOTAL PROCUREMENT	0.000	0.000
TOTAL CSM	0.000	0.000
TOTAL OTHER	0.240	0.295
TOTAL ANNUAL LAB	3.251	3.229
TOTAL INHOUSE	1.451	1.754
TOTAL INHOUSE RDT&E	1.211	1.459
ANNUAL OPERATING COST	0.485	0.587

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	13	1	6	7
CIVILIAN	41	6	24	17
TOTAL	54	7	30	24

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	1.208	5.012	11.090	17.310	0.000	0.855

...MISSION

CONDUCT RESEARCH AND DEVELOPMENT DIRECTED TOWARD PROVIDING OBJECTIVE LOCAL, REGIONAL AND GLOBAL ENVIRONMENTAL ANALYSIS AND PREDICTION TECHNIQUES. PROVIDE PLANNING, MODELING AND EVALUATION SERVICES FOR DETERMINING 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 EFFECTS ON WEAPON SYSTEMS
 DEVELOP OBJECTIVE LOCAL/REGIONAL ATMOS ANALYSIS/PREDICTION TECHNIQUES
 DEVELOP SYNOPTIC, SUBSYNOPTIC AND MESOSCALE ATMOS PREDICTION MODELS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATACRAFT/5 COMPUTER
 TWO NOVA 2 COMPUTERS
 WANG 2200 COMPUTER
 TWO TEKTRONIX 4051 COMPUTER TERMINALS
 ACCESS TO ONE CDC CYBER 175 COMPUTER
 ACCESS TO THREE CDC 6500 COMPUTERS
 ELECTRONIC MAINTENANCE SHOP
 PHOTOGRAPHIC LABORATORY
 TWO TI 733 DUAL CASSETTE COMPUTER TERMINALS
 SIX TI 735 PORTABLE COMPUTER TERMINALS
 FOUR LEAR-SIEGLER COMPUTER TERMINALS

INSTALLATION: EXPLOSIVE ORDNANCE DISPOSAL FACILITY

INDIAN HEAD, MD.

C.O.CDR W.S. CADDW

TECH.DIR.MR.L.A. DICKENSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	4.621	4.923
TOTAL PROCUREMENT	0.331	0.625
TOTAL O&M	2.648	2.814
TOTAL OTHER	0.298	0.524
TOTAL ANNUAL LAB	7.898	8.886
TOTAL INHOUSE	3.380	3.844
TOTAL INHOUSE RDT&E	1.461	1.593
ANNUAL OPERATING COST	2.500	2.419

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	50	0	8	42
CIVILIAN	168	2	43	125
TOTAL	218	2	51	167

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1087	55.345	10.950	66.295	132.590	3.833	2.331

...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, RIO AND CHEM MUNITIONS, BOTH U.S. AND FOREIGN, PLUS THE REQUIRED TOOLS AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

RANGE CLEARANCE AND DISPOSAL TECHNIQUES
REMOTE CASE ENTRY SYSTEMS
IMPROVISED EXPLOSIVE DEVICE COUNTERMEASURES
EXPLOSIVE CONTAINMENT STUDY
EOD DIVER BREATHING SYSTEM

...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-SERVICE ENGINEERING FUNCTIONS FOR EOD AND SWIMMER WEAPONS SYSTEM TOOLS- CONDUCT INITIAL EVALUATION OF FOREIGN EXPLOSIVE ORDNANCE MAINTAIN, STOCK AND ISSUE EOD PUBLICATION FOR JOINT-SERVICE USE. CAPABILITY OF TESTING EOD TOOLS TO A DEPTH OF 400 FT IN A DIVING CHAMBER

INSTALLATION: HEALTH RESEARCH CENTER

SAN DIEGO, CA.

C.O.CAPT.R.H. RAHE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	2.281	2.290
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.536	0.592
TOTAL ANNUAL LAB	2.817	2.882
TOTAL INHOUSE	2.817	2.882
TOTAL INHOUSE RD&E	2.281	2.290
ANNUAL OPERATING COST	0.422	0.340

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	37	14	18		19
CIVILIAN	78	10	28		50
TOTAL	115	24	46		69

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	11.177	4.500	0.000	15.677	1.880	0.491

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

MORBIDITY FORECAST MODEL FOR OPERATIONAL DEPLOYMENTS
IMPROVED CRITERIA FOR DIAGNOSIS, PROGNOSIS, DISPOSITION-PSYCHIATRIC DIS.
STRESS TOLERANCE, PSYCHOLOGICAL DEFENSES, COPING IN THE NAVAL RECRUIT
SLEEP PATTERNS, PERFORMANCE IN OPERATIONAL ENVIRONMENTS
SERUM PROTEIN PROFILES AS HEALTH STATUS PREDICTORS IN MILITARY PERSONNEL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MEDICAL AND PSYCHOLOGICAL RESPONSES TO PRISONER OF WAR EXPERIENCE
PSYCHOPHYSIO LAB INCLUDING STUDY SLEEP LOSS, PROLONGED WORK-REST CYCLES
IMMUNOLOGICAL CORRELATES OF STRESS
RAPID DIAGNOSTIC TESTS UTILIZING ANTIGEN-ANTIBODY REACTIONS
PHYSICAL FITNESS STUDIES OF MEN IN STRESSFUL OCCUPATIONS

INSTALLATION: MEDICAL RESEARCH INSTITUTE

BETHESDA, MD.

C.O. CAPT. WALTER F. MINER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	12.697	10.598
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.950	3.355
TOTAL ANNUAL LAB	15.647	13.953
TOTAL INHOUSE	14.314	13.488
TOTAL INHOUSE RDT&E	11.364	10.133
ANNUAL OPERATING COST	4.749	5.823

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	251	68	87	164
CIVILIAN	226	42	96	130
TOTAL	477	110	183	294

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4	145.868	9.400	40.227	195.497	3.887	7.583

...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
MECHANISMS OF ORAL PLACQUE DISEASE & TREATMENT OF ORAL DISEASE & TRAUMA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ENVIRONMENTAL HEALTH EFFECT LAB INCLUDE MAN-RATED ANIMAL HYPER CHAMBER
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

INSTALLATION: MEDICAL RESEARCH UNIT NO.2

TAIPEI, TAIWAN

C.O.CAPT.KURT SORENSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	1.981	1.881
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.606	0.715
TOTAL ANNUAL LAB	2.587	2.596
TOTAL INHOUSE	2.546	2.467
TOTAL INHOUSE RDT&E	1.981	1.881
ANNUAL OPERATING COST	0.612	0.697

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	31	13	20		11
CIVILIAN	5	2	4		1
TOTAL	36	15	24		12

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
2	32.832	16.075	48.364	97.271	0.101	0.757

...MISSION

CONDUCT RESEARCH AND DEVELOPMENT IN THE BIOMEDICAL SCIENCES, PROVIDE DATA ON DISEASES AND MEDICAL PROBLEMS OF MILITARY SIGNIFICANCE, RECOMMEND CONTROL MEASURES, AND PROVIDE TRAINING IN RESEARCH AND DEVELOPMENT TECHNIQUES.

...CURRENT IMPORTANT PROGRAMS

PREVALENCE AND DISTRIBUTION OF INFECTIOUS DISEASES IN ASIA
RESEARCH ON FILARIASIS IN INDONESIA AND PHILIPPINES.
EXPERIMENTAL AND IMMUNOLOGICAL STUDIES ON SCHISTOSOMIASIS & FILARIASIS
ASSOCIATION OF HEPATITIS B VIRUS AND LIVER DISEASE.
EPIDEMIOLOGY AND ECOLOGY OF ARTHROPOD-BORNE DISEASES IN ASIA.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CLINICAL STUDIES ON DIAGNOSIS AND TREATMENT OF TROPICAL DISEASES, EPIDEMIOLOGICAL STUDIES ON INFECTIOUS DISEASES ENDEMIC AND EPIDEMIC IN ASIA
LABORATORY FACILITIES FOR STUDIES ON VIRAL, BACTERIAL, PARASITIC AND ARTHROPOD-BORNE DISEASES, LABORATORY ANIMAL CARE FACILITIES, BIOCHEMISTRY AND PATHOLOGY LABORATORIES. COMPLETE RADIOISOTOPE EQUIPMENT AND COMPUTER CAPABILITY IN CLINICAL INVESTIGATIONS, MICROBIOLOGY, MEDICAL PHYSICS.

INSTALLATION: MEDICAL RESEARCH UNIT NO.3

CAIRO, EGYPT

C.O.CAPT.RAYMOND H. WATTEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	1.523	1.685
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.462	0.490
TOTAL ANNUAL LAB	1.985	2.175
TOTAL INHOUSE	1.985	2.175
TOTAL INHOUSE RDT&E	1.523	1.685
ANNUAL OPERATING COST	0.140	0.140

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	6	10	15
CIVILIAN	61	12	50	11
TOTAL	86	18	60	26

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
3	26.165	8.288	34.747	69.200	1.160	0.776

...MISSION

TO CONDUCT RESEARCH AND DEVELOPMENT ON INFECTIOUS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC OR EPIDEMIC IN ITS ASSIGNED GEOGRAPHIC AREA; AND, TO PERFORM SUCH OTHER FUNCTIONS AS MAY BE DIRECTED BY THE CHIEF, BU REAU OF MEDICINE AND SURGERY.

...CURRENT IMPORTANT PROGRAMS

MENINGITIS STUDY.

PATHOLOGY OF SCHISTOSOMIASIS.

ARTHROPOD VIRUS ISOLATIONS IN TICKS, MOSQUITOES, AND SANDEFLIES.

SALMONELLA EPIDEMIOLOGY AND TREATMENT.

IMMUNOLOGY OF HUMAN SCHISTOSOMIASIS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICIAN TISSUE PROCESSOR, HEWETT PACKARD MODEL 9100 CALCULATOR, NUCLEAR MAGNASCANNER, ATOMIC ABSORPTION SPECTROPHOTOMETERS, GAS CHROMATOGRAPH COULTER BLOOD CELL COUNTER, CARDIOGRAPH, AO FLOURESCENT MICROSCOPE GUILFORD MODEL 240 SPECTROPHOTOMETER, AUTOCLAVES, BLOOD GAS APPARATUS, ANALYTIC SCANNER & INTEGRATOR, UNICOM UV SPECTROPHOTOMETER, REVCO FREEZERS, METTLER BALANCES; CLIMITIZER, INDUSTRIAL REFRIGERATORS, MICROSCOPES, COLONOSCOPE, INCUBATOR CO2, EDECARD HOOD, AUTOMATIC PIPETTER, MICROTOME, PATIENTS, WARDS FOR SICK EGYPTIANS, PUBLIC WORKS FACILITY, LAB EQUIPMENT & FACILITY FOR APPLIED AND BASIC MICROBIOLOGICAL AND CHEMICAL STUDIES; TECHNICAL MEDICAL LIBRARY; ANIMAL FACILITY; WORLD'S MOST COMPLETE TICK COLLECTIONS.

INSTALLATION: NATIONAL PARACHUTE TEST RANGE

EL CENTRO, CA.

C.O.CAPT.R.S. CHEW, JR.

TECH.DIR.MR.H.C. FISH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	7.666	7.817
TOTAL PROCUREMENT	0.502	0.155
TOTAL O&M	0.988	1.086
TOTAL OTHER	6.509	3.994
TOTAL ANNUAL LAB	15.665	13.052
TOTAL INHOUSE	12.771	12.967
TOTAL INHOUSE RDT&E	7.632	7.777
ANNUAL OPERATING COST	3.500	3.400

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	251	1	26	225
CIVILIAN	290	0	30	260
TOTAL	541	1	56	485

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
484608	6.400	56.670	1142.407	1205.477	33.061	16.964

...MISSION

CONDUCT RDT&E AND FOLLOW-ON ENGINEERING OF AERODYNAMIC DECELERATORS, ASSOCIATED SYSTEMS, ASSEMBLIES AND EQUIPMENT, AND TO PROVIDE COMMON RANGE, TECHNICAL AND BASE SUPPORT FOR UNITS OF OPERATING FORCES OF THE NAVY AND OTHER DOD APPROVED USERS.

...CURRENT IMPORTANT PROGRAMS

PHYSIOLOGICAL RESEARCH - G EFFECT ON HEAD AND NECK
TA-7C ESCAPE SYSTEM SERVICE RELEASE TEST
TAV-8A/B ESCAPE SYSTEM
US-10S MARTIN BAKER ESCAPE SYSTEM FOR F-18
QUALIFICATION TEST OF SPACE BOOSTER RECOVERY SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DROP TEST RANGE LAND AND SALT WATER, SPACE POSITIONING PHOTO CCTV
TELEMETRY INSTRUMENTATION-ADP FOR RANGE DATA-PARAMETERS SEA LEVEL TO
BOKFT ENGINEERING SERVICES-EXPLORATORY DEVELOPEMENT ADVANCED AND BASIC
DESIGN IN SERVICE ENGINEERING MATERIALS TESTING LAB PHYSIOLOGICAL EVAL.
EQUIPMENT-PHOTO LAB STILL AND MOTION-16MM TO 70MM AND COLOR 5000 FPS-
AIRCRAFT-TRANSPORT DELIVERY LOW TO HIGH SPEED-VEHICLE DELIVERY-AIR TO
AIR PHOTO COVERAGE EJECTION SEAT TEST BED-PERSONNEL DELIVERY.
INDUSTRIAL SHOPS-MACHINE SHOP-MODEL MAKING-VEHICLE AND PROTOTYPE
PARACHUTE AND HARDWARE FARRICATION-CARPENTRY-WOODWORKING PAINTING
METAL FARRICATION FOR WELD BEND, HEAT TREAT AND MAGNAFLUX

INSTALLATION: OCEAN R & D ACTIVITY

BAY ST. LOUIS, MS.

C.O. CAPT. C.G. DARRELL

TECH. DIR. DR. RALPH R. GOODMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	15.588	14.292
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.314	0.365
TOTAL ANNUAL LAB	15.902	14.657
TOTAL INHOUSE	5.711	5.079
TOTAL INHOUSE RDT&E	5.397	4.714
ANNUAL OPERATING COST	0.886	0.812

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	11	3	11	0
CIVILIAN	242	48	140	102
TOTAL	253	51	151	102

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	20.145	23.789	14.900	58.834	9.000	3.200

...MISSION

TO PROVIDE FULL SPECTRUM OCEAN SCIENCE SUPPORT FOR OVERALL NAVY RESEARCH AND DEVELOPMENT PROGRAMS, TO PROVIDE OCEAN SCIENCE PROGRAM MANAGEMENT IN OCEANOGRAPHIC R&D, DEVELOP AN ANNUAL RECOMMENDED NAVY PLAN IN OCEAN SCI, AND CONDUCT RELATED R&D PROGRAMS AS ASSIGNED BY CHIEF OF NAVAL RESEARCH

...CURRENT IMPORTANT PROGRAMS

ACOUSTIC BOTTOM INTERACTION PROG IN SUPPORT OF DEEP OCEAN SURVEILLANCE
OCEAN FORECASTING EXPERIMENT TO DEVELOP VALID OCEAN FORECAST MODELS
DEVELOP TECHNIQUES TO EXTRACT OCEAN ENVIRON DATA FROM SATELLITE SENSORS
VERSITILE EXPERIMENTAL KEVLAR ARRAY PROGRAM - VEKA
DEVELOP REALISTIC EARTH MODELS DESCRIBING MARINE GEOLOGICAL ENVIRONMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HORIZONTAL CABLE TEST MACHINE WITH 30,000LB LOAD AND 60 FT SAMPLE LENGT
CAPACITY, OPTICAL CHARACTER RECOGNITION SYSTEM, WILD R-85 AVIOGRAPH/EK22
DATA ACQUISITION SYSTEM. WAVE-CURRENT INTERACTION SIMULATION FACILITY,
INTERACTIVE DIGITAL SATELLITE IMAGE PROCESSING SYSTEM TO HANDLE DATA
FROM ALL IMAGING SATELLITES, DEEP OCEAN SEDIMENT CORE AND DREDGE SAMPLE
DEPOSITORY-1728 SQ FT, VEKA IS A 32 HYDROPHONE, 3 PRESSURE SENSOR, 31.0
METER APERATURE KEVLAR APRAY WHICH CAN BE DEPLOYED IN VARIOUS MODES FOR
EXPERIMENTAL MEASUREMENTS. THESE ARE SURFACE SUPPORTED VERTICAL AND TOW
HORIZONTAL, BOTTOM MOORED VERTICAL AND HORIZONTAL. COMMUNICATION IS THRU
2000 M LONG KEVLAR MULTI-PAIR UMBILICAL OF VIA A PCM MULTIPLEXER PLACED
AT THE HEAD OF THE ARRAY AND A SMALL 3000 M KEVLAR QUAD UMBILICAL. THE
SYSTEM HIGHLY PORTABLE AND COMES COMPLETE DECK WINCH AND RECORDING EQUIP

INSTALLATION: ORDNANCE MISSILE TEST FACILITY

WHITE SANDS, N.M.

C.O. CAPT. M.A. PETERSON, JR.

CH. ENG. MR. H.L. HENDON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	3.273	3.962
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.020	0.056
TOTAL OTHER	1.246	1.214
TOTAL ANNUAL LAB	4.539	5.232
TOTAL INHOUSE	2.982	2.673
TOTAL INHOUSE RDT&E	1.828	1.516
ANNUAL OPERATING COST	1.804	0.943

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	98	0	36		62
CIVILIAN	54	0	3		51
TOTAL	152	0	39		113

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
88	108.566	30.539	78.694	217.799	5.822	9.988

...MISSION

SUPPORT 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 AT WHITE SANDS

...CURRENT IMPORTANT PROGRAMS

STANDARD MISSILE 1 AND 2/ AEGIS FLIGHT TESTING
AS MD MISSILE FLIGHT TESTING
CRUISE MISSILE FLIGHT TESTING
UPPER ATMOSPHERE RESEARCH ROCKET LAUNCHING
TRIDENT AND VERTICAL LAUNCH TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST TERRIER/TARTAR/STANDARD/SAM GUIDED MISSILES AND PROJECTILE LAUNCH AEROFEE 150, 170, 200, ARIES, ASTROBEE F, D, BLACK BRANT ORION AND VARIOUS OTHER SOUNDING ROCKETS FOR UPPER ATMOSPHERIC STUDY
CONDUCT NAVY AIR WEAPON 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
ASSIST IN OPEVAL 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. CAPT. J.C. WEAVER

TECH. DIR. MR. T. PERRY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	81.319	76.377
TOTAL PROCUREMENT	25.618	28.824
TOTAL O&M	22.406	28.081
TOTAL OTHER	36.288	34.701
TOTAL ANNUAL LAB	165.631	167.983
TOTAL INHOUSE	106.377	107.593
TOTAL INHOUSE RDT&E	56.923	53.464
ANNUAL OPERATING COST	15.858	17.056

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1043	4	272	771
CIVILIAN	3952	15	1191	2761
TOTAL	4995	19	1463	3532

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL REAL PROP EQUIP
27078	908.941	372.742	3489.017	4770.700 152.146 130.215

...MISSION

PERFORM DEVELOPMENT, TEST AND EVALUATION, DEVELOPMENT SUPPORT AND FOLLOW-ON ENGINEERING LOGISTICS AND TRAINING SUPPORT FOR NAVAL WEAPONS-WEAPONS-SYSTEMS AND RELATED DEVICES. PROVIDE MAJOR RANGE TECHNICAL AND BASE SUPPORT FOR FLEET USERS AND OTHER DEPARTMENT OF DEFENSE AND GOV AGENCIES

...CURRENT IMPORTANT PROGRAMS

AIR LAUNCHED WEAPON PROGRAMS-SPARROW, SIDEWINDER, PHOENIX, ALVRJ, TOMAHAWK CONDOR, WALLEYE, STANDARD ARM AND HARPOON
SURFACED-LAUNCHED WEAPON PROGRAMS-HARPOON, TOMAHAWK, AEGIS, SEASPARROW, CIWS
STRATEGIC WEAPONS TESTS OF MM3 POLARIS, TRIDENT
FLEET AIR-AIR, AIR-SURFACE, SURFACE AND ANTISUBMARINE EXERCISES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

UNDERWATER TRACKING RANGE, 1000 SO MILE, 3-DIMENSIONAL 400-6000 FATHOMS
AIR AND SURFACE TRACKING RANGE 45000 SQUARE MILES. FPS-16, FPQ-10, FPQ-12, MPS-25 RADARS. THEODOLITES AND SINE SEXTANTS. P, L, AND S BAND TELEMETRY, RECEIVE, RECORD, AND DISPLAY REAL-TIME AND POST OPERATIONAL DATA REDUCTION FACILITIES. VAST STATION WEAPONS SIMULATION LAB. CLIMATIC CHAMBER, ANACHOIC CHAMBER, EGM LAB. MISSILE AND TARGET LAUNCH PLATFORMS AND FACILITIES. COMMAND, CONTROL, AND DESTRUCT FACILITIES. SHIP MOTION SIMULATION. USNS WHEELING-TRACKING, TELEMETRY, COMMAND, CONTROL AND DESTRUCT SHIP. MISSILE IMPACT LOCATION SYSTEMS,

INSTALLATION: PERSONNEL RESEARCH & DEVELOPMENT CENTER

SAN DIEGO, CA.

C.O. CAPT. J.J. CLARKIN

TECH. DIR. DR. J.J. REGAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	12.282	17.181
TOTAL PROCUREMENT	0.456	0.398
TOTAL O&M	1.770	1.224
TOTAL OTHER	0.960	0.732
TOTAL ANNUAL LAB	15.468	19.535
TOTAL INHOUSE	8.267	10.999
TOTAL INHOUSE RDT&E	6.365	9.375
ANNUAL OPERATING COST	2.327	2.475

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	24	1	9		15
CIVILIAN	278	73	150		128
TOTAL	302	74	159		143

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	49.300	4.900	0.000	54.200	0.302	1.826

...MISSION

PRINCIPAL NAVY ACTIVITY FOR CONDUCTING HUMAN RESOURCES ROTE IN THE AREAS OF MANPOWER PERSONNEL EDUCATION AND TRAINING AND TO SERVE AS THE COORD ACTIVITY FOR ALL SUCH ROTE FOR THE NAVY. PROVIDE SUPPORT TO CNM ACTIVITIES TO AUGMENT HUMAN FACTORS IN DEVELOPMENT OF NEW SYSTEMS

...CURRENT IMPORTANT PROGRAMS

PERSONNEL ACQUISITION UTILIZATION AND EFFECTIVENESS
HUMAN PERFORMANCE IN NAVY SYSTEMS
PERSONNEL EDUCATION AND TRAINING
PERSONNEL MANAGEMENT
CAREER & OCCUPATIONAL DESIGN

...FUNCTIONS/EQUIPMENT/CAPABILITIES

GENERAL AUTOMATION 18/30 COMPUTER SYSTEM WITH REMOTE JOB ENTRY TO OTHER COMPUTER CENTERS PDP 12 LABORATORY INSTRUMENT CONTROL SYSTEM PDP 11/45
AUTOMATED TESTING AND TRAINING SYSTEM TEKTRONIC GRAPHIC TERMINALS
INTERFACING WITH NAVAL OCFAN SYSTEMS CENTER UNIVAC 1100 MAXICOMPUTER
PLATO IV TERMINALS INTERFACING WITH COMPUTER AT U OF ILL

INSTALLATION: RESEARCH LABORATORY

WASHINGTON, D.C.

C.O. CAPT. L.M. NOEL

RSCH. DIR. DR. ALAN BERMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	134.825	152.840
TOTAL PROCUREMENT	1.330	1.100
TOTAL OEM	35.264	27.960
TOTAL OTHER	12.980	18.938
TOTAL ANNUAL LAB.	184.399	200.838
TOTAL INHOUSE	150.110	162.710
TOTAL INHOUSE RDT&E	100.536	114.712
ANNUAL OPERATING COST	46.782	51.458

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	140	0	36	104
CIVILIAN	3306	563	1536	1770
TOTAL	3446	563	1572	1874

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET) LAB ADMIN OTHER	TOTAL	REAL	PROP	EQUIP	
801	2292.816 202.482 496.822	2992.120	88.899	83.118		

...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

NAVSTAR GLOBAL POSITIONING SYSTEM
EFFECTIVENESS OF NAVAL ELECTRONICS WARFARE SYSTEMS
HIGH ENERGY LASER; GENERATION, PROPAGATION, AND EFFECTS PROGRAM
ADVANCED ACOUSTIC ANTI-SUBMARINE WARFARE SURVEILLANCE PROGRAM
SATELLITE PROGRAMS

...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, OCEAN SCIENCE AND TECHNOLOGY. MAJOR FACILITIES INCLUDE ONE SHIP FOR ACOUSTIC ASW RESEARCH, OCEANOGRAPHY, AND DEEP OCEAN SEARCH. MAJOR ACOUSTIC STANDARD AND CALIBRATION FACILITIES. HIGH LEVEL RADIATION LABORATORY. THREE NUCLEAR PARTICLE ACCELERATORS. DIVERS HIGH ENERGY LASERS. 200 KILOGAUSS HIGH FIELD MAGNET FACILITY, SPACE SIMULATION FACILITIES. MAJOR PLASMA PHYSICS FACILITIES. ELECTRONIC WARFARE CENTRAL TARGET SIMULATOR.

INSTALLATION: SHIP RESEARCH & DEVELOPMENT CENTER

BETHESDA, MD.

C.O. CAPT. M.V. RICKETTS

TECH. DIR. DR. A. POWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	95.640	103.539
TOTAL PROCUREMENT	8.936	9.178
TOTAL O&M	19.725	17.275
TOTAL OTHER	13.751	8.130
TOTAL ANNUAL LAB	138.052	138.122
TOTAL INHOUSE	118.471	114.230
TOTAL INHOUSE RDT&E	79.061	87.882
ANNUAL OPERATING COST	33.823	38.765

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	68	1	25	43
CIVILIAN	2640	126	1708	1432
TOTAL	2708	127	1233	1475

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL REAL PROP EQUIP
296	1641.072	125.113	233.076	1999.261 71.008 51.499

...MISSION

TO BE THE PRINCIPAL NAVY 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

ADVANCED SHIP AND AIRCRAFT R&D (HYDROFOILS, SMALL WATERPLANE AREA TWIN HULL SHIP, AMPHIBIOUS ASSAULT LANDING CRAFT - SURFACE EFFECT SHIPS, CIRCULATION CONTROL AIRCRAFT). HYDROMECHANICS, MATERIALS, STRUCTURES, PROPULSION & AUX MACHINERY FOR SHIPS, SUBS & BOATS. SURFACE SHIP & SUB SILENCING. COMPUTER-AIDED SHIP DESIGN & CONSTRUCTION. LOGISTICS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN AND CONDUCT RDT&E AND PROVIDE SUPPORT OF THE OPERATING FORCES IN THE AREAS OF NAVAL ARCHITECTURE, HYDROMECHANICS, STRUCTURAL MECHANICS, AERODYNAMICS, COMPUTER ANALYSIS & MATHEMATICS, ACOUSTICS & VIBRATIONS, PROPULSION AND AUXILIARY MACHINERY, SHIP ELECTRICAL SYSTEMS, MATERIALS FOR SHIP STRUCTURES AND EQUIPMENT, SHIPBOARD POLLUTION CONTROL. FACILITIES INCLUDE; DEEP, SHALLOW, AND HIGH SPEED TOWING BASINS, MANEUVERING-SEAKEEPING AND ROTATING ARM TOWING BASINS, TRANSONIC AND SUBSONIC WIND TUNNELS, WATER TUNNELS, CIRCULATING WATER CHANNEL, DEEP SUBMERGENCE PRESSURE TANKS, ACOUSTIC DATA ANALYSIS CENTER, ANECHOIC FLOW FACILITY, LARGE SCALE STRUCTURAL RESEARCH FACILITY, MAGNETICS FACILITY, POLLUTION CONTROL LABORATORY, AND BALLAST BLOW FACILITY.

INSTALLATION: SUBMARINE MEDICAL RESEARCH LABORATORY

GROTON, CT.

C.O. CAPT. R. L. SPHAR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	1.744	1.810
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.451	0.435
TOTAL ANNUAL LAB	2.195	2.245
TOTAL INHOUSE	2.182	2.200
TOTAL INHOUSE RDT&E	1.731	1.765
ANNUAL OPERATING COST	0.950	0.714

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	9	12	19
CIVILIAN	60	12	34	26
TOTAL	91	21	46	45

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	1.070	1.470

...MISSION

TO CONDUCT BASIC AND APPLIED RESEARCH IN SUBMARINE AND DIVING MEDICINE CLOSED ENVIRONMENT, IN AREAS OF PHYSIOLOGY, PSYCHOLOGY, VISION, AUDITION HUMAN FACTORS MIL APPLICATIONS, TO MEET NAVY REQUIREMENTS, FURNISH RESEARCH AND MEDICAL SUPPORT TO SUB AND DIVING SHORE AND FLEET COMMD'S

...CURRENT IMPORTANT PROGRAMS

DYSBARIC OSTE/NECROSIS, OXYGEN TOXICITY, INERT GAS NARCOSIS IN DIVERS. AUDITORY AND VISUAL TESTS AND EVALUATIONS OF SUBMARINERS & DIVERS HUMAN FACTORS EVALUATION OF PERSONNEL IN SUBMARINE INFORMATION PROCESS LONGITUDINAL HEALTH STUDY OF SUBMARINERS & DIVERS. FACTORS SATURATION-EXCURSION AIR DIVES IN SHALLOW DEPTHS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC AND APPLIED RESEARCH COMPETENCE IN CARDIOPULMONARY, THERMAL, AND HYPERBARIC PHYSIOLOGY, BIOCHEMISTRY, AUDITION, VISION, HUMAN FACTORS ENG, PERSONNEL ASSESSMENT, HYPERBARIC AND MECHANICAL SERVICES ELECTRICAL INSTRUMENTATION AND REPAIRS, COMPUTER APPLICATIONS, VETERINARY SCIENCES, SUB. MED. RESEARCH LIBRARY GRAPHIC ARTS, PHOTOGRAPHY, MODEL MAKING HYPERBARIC CHAMBERS, HUMAN-150 PSI, ANIMAL-300 AND 1000 PSI, ENVIRO. CONTROL CHAMBERS, MEDICAL EXAM SUITE, X-RAY COPY FACILITY, SURGICAL SUITE COMPUTER APPLICATION FACILITY, CLOSED CIRCUITRY SYSTEM, GAS CHROMATOGRAPHS, EEG, DOPPLER SYSTEM, SONAR STACK SIMULATION TEST SYSTEM, FLUID CONTROL CONSOLE AIR ION MONITORING SYSTEM, UNDER WATER TV SYSTEM.

INSTALLATION: SURFACE WEAPONS CENTER

SILVER SPRING, MD.

C.O. CAPT. P.L. ANDERSON

TECH. DIR. MR. J.E. COLVARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RD&E	167.285	182.977
TOTAL PROCUREMENT	39.251	38.684
TOTAL O&M	33.969	35.107
TOTAL OTHER	23.987	23.009
TOTAL ANNUAL LAB	264.492	279.777
TOTAL INHOUSE	145.995	164.383
TOTAL INHOUSE RD&E	90.636	106.050
ANNUAL OPERATING COST	56.862	62.801

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	125	1	43	82
CIVILIAN	5038	239	2778	2760
TOTAL	5163	240	2321	2842

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
5381	1502.920	131.121	1547.925	3181.966	91.264	71.934

...MISSION

TO BE THE PRINCIPAL NAVY RD&E CENTER FOR SURFACE SHIP WEAPONS SYSTEMS, ORDNANCE, MINES, AND STRATEGIC SYSTEMS SUPPORT

...CURRENT IMPORTANT PROGRAMS

STRATEGIC SYSTEMS-POLARIS, POSEIDON, TRIDENT, MK500 REENTRY BODY, SAFETY-AEGIS COMBAT SYSTEMS LEAD CENTER. STANDARD MISSILE SYS GUN SYSTEMS-MX71, MK45, HIFRAG AMMO, PHALANX CIWS, GUIDED AMMO, USMC. UNDERWATER WEAPONS-TORPEDO MK48, MINES MK60 CAPTOR, QUICKSTRIKE, PRAM, SLMM. ELECTROMAGNETIC SYSTEMS-ARM COUNTERMEASURES, INTEL COLL, OTH/DC&T, FLT SUP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE-WIND TUNNELS TO MACH 20. BALLISTIC RANGES. 1.75 MILLION GALLON HYDROBALLISTIC TANK. MAGNETIC STRUCTURE FACILITY FOR SHIP AND SUB MODELS AND SATELLITES. F&M DISC/PAC PRODUCTION FACILITY. FACILITIES FOR ASSURANCE OF COMPUTER PROGRAMS FOR STRATEGIC AND TACTICAL MISSILE SYS, AND INTEL PROCESSING SYS. GUNNERY AND MISSILE RANGE COMPLEX INCLUDING LAND-BASED DEVELOPMENT SITES FOR WEAPON CONTROL SYS. ELECTROMAGNETIC VULNERABILITY FACILITIES, BOTH NON-NUCLEAR AND NUCLEAR EFFECTS, FACILITIES FOR CHARACTERIZATION OF WARHEADS AND DAMAGE TO TARGETS. DEVEL AND TEST FACILITIES FOR LASER AND ELECTRO-OPTICS SUBSYSTEMS. DEEPWATER OFFSHORE TEST FACILITIES FOR MINE SYS. MOBILE TACTICAL WAR GAME FACILITY. EXPLOSIVES DEVELOPMENT FACILITIES. EXTENSIVE SCIENTIFIC COMPUTER FACILITIES. EXPLOSIVES, MATERIALS, AND MARINE CORPS SUPPORT

INSTALLATION: UNDERSEA CENTER

SAN DIEGO, CA.

C.O. CAPT. R.R. GAVAZZI

TECH. DIR. DR. H.L. BLOOD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	153.023	159.658
TOTAL PROCUREMENT	19.515	14.396
TOTAL O&M	29.268	28.220
TOTAL OTHER	15.557	6.694
TOTAL ANNUAL LAB	217.363	208.968
TOTAL INHOUSE	117.061	126.158
TOTAL INHOUSE RDT&E	82.573	96.980
ANNUAL OPERATING COST	37.541	40.613

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	367	4	47	320
CIVILIAN	2629	185	1367	1262
TOTAL	2996	189	1414	1582

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
38927	1170.850	251.522	451.429	1873.801	66.774	118.915

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR COMMAND CONTROL, COMMUNICATION, OCEAN SURVEILLANCE, SURFACE AND AIR LAUNCHED UNDERSEA WEAPONS SYS, AND SUPPORTIVE TECHNOLOGIES.

...CURRENT IMPORTANT PROGRAMS

OCEAN SURVEILLANCE SYSTEM AND MULTI-SENSOR INTEGRATION
COMMAND CONTROL AND COMMUNICATIONS SYS ARCHITECTURE AND ENGINEERING
ADVANCED SURFACE AND AIR LAUNCHED UNDERSEA WEAPON AND FIRE CONTROL SYS
TECHNOLOGY DEVELOPMENTS SUCH AS ADV MARINE BIO SYS, EXTERNAL STOWAGE AND LAUNCH, ARTIC SUB OPS, ELECTRONIC WARFARE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES AT SAN DIEGO AND HAWAII LABS INCLUDE ARCTIC RESEARCH FACILITY, MICROWAVE AND MILLIMETER WAVE ANTENNA PATTERN RANGE COMPLEX, UNMANNED UNDERWATER TETHERED VEHICLES INCLUDING CURV III, SCAT, & SNOOPY USS DOLPHIN, EXPERIMENTAL SUB, TRANSDUCER EVALUATION CENTER, ELECTRONICS DEVELOPMENT AND TEST LAB, MICROELECTRONICS LAB COMPLEX: ACOUSTIC SIGNAL DATA ANALYSIS SYSTEM; SIMULATION AND REAL-TIME COMPUTER FACILITY FOR DEVELOPMENT OF ASW SYSTEMS; AND A BIO-SCIENCE FACILITY ENGAGED IN RESEARCH, TRAINING AND HANDLING OF MARINE MAMMALS; OFF-STATION FACILITIES INCLUDE VERY LOW FREQUENCY SOUNDER SITES IN HAWAII, ALASKA, ARIZONA AND GREENLAND

INSTALLATION: UNDERWATER RANGES DIRECTORATE

NEWPORT, R.I.

C.O. CAPT. W.L. BOHANNAN

SCI. DIR. MR. C.S. SOLIOZY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	17.070	18.368
TOTAL PROCUREMENT	0.307	0.276
TOTAL O&M	4.511	4.310
TOTAL OTHER	0.772	0.796
TOTAL ANNUAL LAB	22.660	23.750
TOTAL INHOUSE	11.417	13.809
TOTAL INHOUSE RDT&E	10.648	12.947
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	40	0	21	19
CIVILIAN	36	1	26	10
TOTAL	76	1	47	29

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
1042	65.392 11.173 266.044 343.609	23.575 1.200

...MISSION

TO PROVIDE DEEP WATER DEV & OPERTNL T&E FACLTYS FOR UNDRWTR ACSTIC MESR-
MNTS, TESTNG, & CALBRNG SONARS. PROVIDE ACURAT UNDRWTR, SRFCE, & IN-AIR TRC-
KING DATA ON SHIPS, SUBS, AIRCRAFT & WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

MK48 WEAPON SYSTEMS TRAINING CERTIFICATION PROGRAM
SHIP SILENCING PROGRAM
FLEET TRAINING /SUBROC, SUBEX, SHAREM
AIRBORNE MINEX & TORPEX/RANGEX
R&D TESTS/CAPTOR/MP SONAR/TOWED ARRAYS/LAMPS/BOQ 5/DICASS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HIGHLY ADVANCED & INSTRUMENTED ASW WEAPONS, SONAR & FORACS TEST MEASUREME
NT RANGES IN SUPPORT OF NAVY ASW & UNDERSEA R&D PROGRAMS, & ASW FLEET ASS-
ESMENT & OPERATIONAL READINESS.

INSTALLATION: UNDERWATER SYSTEMS CENTER

NEWPORT, R.I.

C.O. CAPT. W.L. ROHANNAN

TECH. DIR. DR. C. NICHOLAS PRYOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	84.292	103.217
TOTAL PROCUREMENT	74.621	52.995
TOTAL O&M	42.430	48.817
TOTAL OTHER	17.451	10.595
TOTAL ANNUAL LAB	218.794	215.624
TOTAL INHOUSE	115.735	122.666
TOTAL INHOUSE RDT&E	50.049	59.798
ANNUAL OPERATING COST	28.182	33.359

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	106	2	39	67
CIVILIAN	3049	95	1424	1625
TOTAL	3155	97	1463	1692

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
314	842.852	107.528	532.378	1482.758	42.683	45.073

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

ADVANCED TECHNGY IN U/W ACOUTCS, INFO PROCESSING, WEAPONRY
 DESGN, DEV & EVAL U/W COMBAT SUB SYSTMS INCLNG SURFC SHIP SONAR MODRNZTN
 RDT&E FOR OVERALL U/W COMBAT SYSTEMS (TRIDENT, 688, ETC)
 DESGN, DEV & EVAL OF U/W TARGET SYSTEMS & MOBILE/FIXD U/W TEST RANGES
 INTRODUCE TO FLEET & IN-SERVICE ENGINEERING OF MK 48

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRIMARY IN-HSE R&D CAPABILITY FOR NAVY & MARNE CRP SYSTEMS, SUBSYSTMS & T
 ECHNGYS FOR SONAR SYSTMS (HULL-TOWD/SUB COMCTNS SYSTMS INTEGRTN/SUB ANT-
 NA SYSTMS/UWTR WEAPN SYSTMS/UWTR TARGT SYSTMS/UWTR ACOUSTC PROPGTN) LANT
 & MED) UWTR RNGE TECHNLGY/REDINESS OF IN-SRVCE SHIPBOARD UWTR SYSTMS/ASW
 SUP, CINCLNT, TORPEDO TEST RNGES (FIXED/PORTBLE) SHLOW & DP WTR, ASW WEAPON F-
 IRE CNTRL R&D FACILITY, ASW WEAPON LAUNCHING DEVCE R&D FACLT, QLTY ENGRNG,
 EVALTN & RELIABLT LAR, BERMUDA RSCH FACLT, TORPEDO PROPULSN TEST FACLT,
 ELECTROMAGTIC FACILITY, SYSTMS CRTIFTN & INTGRTN FACILITY, ACOUSTC MSRMNT
 XDUCER R&E FACLT, TORPEDO TEST RANGE INSTRMNTN SHETER, ACOUSTC RNGE, AUT-
 EC, A70RES FIXED ACOUSTIC RANGE

INSTALLATION: WEAPONS CENTER

CHINA LAKE, CA.

C.O.RADM.W.L. HARRIS

ACTG.TECH.DIR.DR.R.M. HILLYER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	134.493	159.153
TOTAL PROCUREMENT	51.188	41.867
TOTAL O&M	15.208	12.319
TOTAL OTHER	26.844	15.221
TOTAL ANNUAL LAB	227.733	228.560
TOTAL INHOUSE	128.736	148.091
TOTAL INHOUSE RDT&E	81.443	100.605
ANNUAL OPERATING COST	31.332	36.080

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	514	0	34	480
CIVILIAN	4160	134	1409	2751
TOTAL	4674	134	1443	3231

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1093676	109.372	397.144	5882.416	6388.932	226.241	84.474

...MISSION

THE PRINCIPAL NAVY RDT&E CENTER FOR AIR WARFARE SYSTEMS, (EXCEPT ANTI-SUBMARINE WARFARE SYSTEMS) AND MISSILES WEAPON SYSTEMS,

...CURRENT IMPORTANT PROGRAMS

ELECTRONIC WARFARE- ANTI-RADIATION MISSILES AGM-45 SHRIKE, AGM-88 HARM
ANTI-AIR MISSILES AIM-9H/L SIDEWINDER, A/RGM-7F SPARROW, AIM-54 PHOENIX
ANTI-SURFACE WEAPONS A/RGM-84 HARPOON, FFAE, ADVANCED TACTICAL MISSILES
TAC A/C SYSTEMS INTEGRATION A-7E/D, A-6E TRAM, F/A-14, A/C SURV/VULN
T AND E OF AIR/SURFACE-LAUNCHED WEAPONS AND COMPONENTS, A/C WPN 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 AND MARINE CORPS PRODUCT LINES SUCH AS ANTI AIR MISSILES,
ETC. FACILITIES INCLUDE MICHELELSON LAB, ELECTRONIC WARFARE RANGE, SOLID
STATE DEVICES LAB, ENCOUNTER SIMULATION LAB, PROPULSION RESEARCH LAB
MICROELECTRONICS FACILITY, EXPLOSIVES R&D FACILITY, GROUND AND AIRCRAFT
RANGES, EXTERIOR AND TERMINAL BALLISTICS RANGES, ARMITAGE AIR FIELD,
AIRCRAFT SURVIVABILITY FACILITY, SUPERSONIC TEST TRACKS, MICROWAVE
ANECHOIC FACILITIES, AND LASER LAB.

INSTALLATION: WEAPONS EVALUATION FACILITY

ALBUQUERQUE, N.M.

C.O.CAPT.J.J. LANE

TECH.DIR.MR.F.X. BUSHNER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	1.355	2.112
TOTAL PROCUREMENT	0.641	0.666
TOTAL O&M	1.564	1.614
TOTAL OTHER	3.000	2.818
TOTAL ANNUAL LAB	6.560	7.210
TOTAL INHOUSE	6.433	7.030
TOTAL INHOUSE RDT&E	1.355	2.112
ANNUAL OPERATING COST	0.760	0.870

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	154	1	24		130
CIVILIAN	116	2	50		66
TOTAL	270	3	74		196

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
7	0.400	53.592	14.926	68.918	9.600	0.700

...MISSION

MISSION-PERFORM TESTS,EVALUATIONS AND PROVIDE TECHNICAL SUPPORT FOR NAVY NUCLEAR WEAPONS SYSTEMS PLAN AND COORDINATE THE NAVY NUCLEAR WEAPONS SAFETY PROGRAM,PROVIDE TECHNICAL ADVICE AND ASSISTANCE TO THE PRESINSERV ACT AS THE SUB-AREA COORDINATOR FOR COMEIGHT

...CURRENT IMPORTANT PROGRAMS

SUPPORT THE ERDA-DOD PHASE 3 FOR TOMAHAWK PROGRAM
SUPPORT THE ERDA-DOD STANFORD MISSILE-2
ASSIST IN PROVIDING F-18/A-18 AIRCRAFT WITH NUCLEAR WEAPONS CAPABILITY
PROVIDE SUPPORT FOR THE ASW CONCEPTION STUDY
CONDUCT THE TRIDENT NUCLEAR SYSTEMS SAFETY STUDY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

REVIEW OF AIRCRAFT AND ARMANENT SYSTEM CHANGES AND MODIFICATIONS AFFECT-
ING NUCLEAR WEAPON CAPABILITY,INVESTIGATION OF NUCLEAR WEAPON ACCIDENT/
INCIDENTS AND PERIODIC TESTING OF AIRCRAFT SUSPENSION,RELEASE,AND AMAC
SYSTEMS TO ENSURE THEY MEET ERDA AND NAVY REQUIREMENTS.PROVIDE ASSIS-
TANCE TO THE PRESIDENT,BOARD OF INSPECTION AND SURVEY ON THE TRIALS OF
NEW AND MODIFIED NUCLEAR CAPABLE SHIPS AND NUCLEAR WEAPONS TRIALS ON
NUCLEAR CAPABLE AIRCRAFT PROVIDE ADMINISTRATIVE SERVICES AS REQUIRED
FOR THE NAVY LIASON OFFICER TO THE JOINT ATOMIC WEAPONS PUBLICATION
SYSTEM. DETERMINE AND RECOMMEND TO NAVAIR THE ACCEPTABILITY OF BOMB
DUMMY UNITS LOADING HANDLING AND TRAINING SHAPES FOR RDT&E AND
SERVICE USE.PREPARE AND MAINTAIN NUCLEAR WEAPONS EMERGENCY DESTRUCT
PROCEDURES.

INSTALLATION: AERO PROPULSION LABORATORY

WPAFB, OH.

CDR COL. P. O. BOUCHARD

CH. SCI. DR. HANS VON OHAIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	66.615	71.342
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.030	1.102
TOTAL ANNUAL LAB	67.645	72.444
TOTAL INHOUSE	12.457	13.121
TOTAL INHOUSE RDT&E	11.427	12.019
ANNUAL OPERATING COST	2.401	3.007

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	50	9	44		6
CIVILIAN	372	38	217		155
TOTAL	422	47	261		161

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL REAL PROP	EQUIP	
	LAB	ADMIN	OTHER			
40	225.194	38.700	90.220	354.114	20.850	18.108

...MISSION

PLAN, FORMULATE AND EXECUTE RESEARCH AND EXPLORATORY, ADVANCED AND PROTOTYPE DEVELOPMENT PROGRAMS IN AIR-BREATHING PROPULSION, AEROSPACE POWER GENERATION AND DISTRIBUTION, AIRCRAFT FUELS, FUEL AND LUBRICATION SYSTEMS, AND FIRE PROTECTION. 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
RAMJETS FOR TACTICAL AND STRATEGIC MISSILES
AIRBORNE HIGH POWER FOR LASER SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TURBINE ENGINE CONTROL TEST FAC, BATTERY DEVELOPMENT AND TEST FAC, MHD GENERATOR, LUBRICANT RIGS, SEAL TEST RIGS, BEARING 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 LB THRUST, 2 TURBINE ENGINE ALTITUDE CELLS TO 5,000 LB 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, SAND EROSION RIG, AIRCRAFT ELECTRICAL POWER FAC WITH THREE 350 HP DRIVE SOURCES AND AIRCRAFT SIMULATORS, VACUUM CHAMBERS, SUPERCONDUCTIVITY LAB, HIGH POWER LAB TO 5 MW, THERMAL ENERGY STORAGE LAB, HYDRAULICS LAB, PLASMA PHYSICS LAB, HOLOGRAPHY LAB, COMPRESSOR TEST FAC

INSTALLATION: ARMAMENT DEVELOPMENT AND TEST CENTER

EGLIN AFB, FL.

CDR MAJ.GEN.H.M. LANE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	256.448	304.498
TOTAL PROCUREMENT	339.114	474.330
TOTAL O&M	8.244	8.918
TOTAL OTHER	63.298	81.503
TOTAL ANNUAL LAB	667.104	869.249
TOTAL INHOUSE	215.797	233.010
TOTAL INHOUSE RDT&E	124.262	130.629
ANNUAL OPERATING COST	47.806	47.806

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	4474	16	453	4021
CIVILIAN	2989	35	438	2551
TOTAL	7463	51	891	6572

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
464248	425.000	805.000	10276.000	11506.000	274.487	56.793

...MISSION

RESPONSIBLE FOR AIR-LAUNCH TACTICAL AND AIR DEF MSLS, NONNUC MUN, GUIDED WEAP, ELEC-OPTICAL WEP DEL SYS, 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 CLIMATIC SIMULATION

...CURRENT IMPORTANT PROGRAMS

WIDE AREA ANTI-ARMOR MUNITION
GBU-15
ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE
ADVANCED AERIAL GUN
LOW-COST-INERTIAL-GUIDANCE SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SCIENTIFIC/ENGINEERING PERSONNEL AND LABORATORY FACILITIES CAPABLE OF EXPLOR, ADV, ENG DEV OF NONNUCLEAR MUNITIONS
TEST ENVIRONMENT COVERING 725 SQ MI WITH LARGE ADJACENT WATER AREA- HAS 28 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADARS AND PHOTO-OPTICS- IS USED FOR MUNITIONS TESTING AND ELECTROMAGNETIC 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 SYSTEMS, A COMPUTER SCIENCE LAB, A PHYSICAL SCIENCE LAB, A PHOTO LAB, AN INSTRUMENTATION/DESIGN/FABRICATION FACILITY, AERO-BALLISTIC RESEARCH FACILITY, HIGH EXPLOSIVE R/D FACILITY, A MISSILE SIMULATION AND TEST LABORATORY.

INSTALLATION: ARNOLD ENGINEERING DEVELOPMENT CENTER

TULLAHOMA, TN.

COR. COL. OLIVER H. TALMAN II

CH. SCI. DR. WM. H. HEISEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	102.607	103.895
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.041	0.030
TOTAL OTHER	440.862	3.121
TOTAL ANNUAL LAB	543.510	107.046
TOTAL INHOUSE	101.735	103.842
TOTAL INHOUSE RDT&E	99.857	102.041
ANNUAL OPERATING COST	12.433	15.078

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	81	6	54	27
CIVILIAN	134	6	134	0
TOTAL	215	12	188	27

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)				
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
39081	2252.728	201.411	544.014	2998.153	378.546	72.766

...MISSION

PRIMARY MISSION IS TO SUPPORT THE TIMELY ACQUISITION OF SUPERIOR AEROSPACE SYSTEMS BY CONDUCTING RESEARCH AND DEVELOPMENT TESTS IN GROUND ENVIRONMENTAL TEST FACILITIES WHICH SIMULATE THE ACTUAL CONDITIONS THAT THE HARDWARE WILL EXPERIENCE IN PERFORMING ITS MISSION

...CURRENT IMPORTANT PROGRAMS

CONTINUED ALCM ENGINE DEVELOPMENT TESTS AND AERODYNAMIC PERFORMANCE TEST
CONTINUED F-15 STORE SEPARATION TESTS AND ENGINE COMPONENT IMPROVEMENT
CONDUCTED DEVELOPMENT TESTS OF F-16, A-10, A-7, M-X, GLOBAL POSITIONING SYST
CONTINUED EXTENSIVE MINUTEMAN PSRE, POA AND AGING AND SURVEILLANCE TESTS
OTHER SIGNIF TESTS. F-18, ABRES, SPACE SHUTTLE, BIRD IMPACT, SENSOR PERF

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AEDC IS COMPRISED OF ABOUT 40 TEST UNITS. INCLUDED ARE WIND TUNNELS WITH TEST SECTIONS TO 16 FT SQ AND SPEEDS FROM SUBSONIC TO MACH 22, TURBINE ENGINE TEST CELLS WHICH PROVIDE SIMULATION TO MACH 3, ROCKET TEST CELLS, THE LARGEST RATED AT .5 MILLION LBS THRUST AT ALTITUDE, SPACE SIMULATION CHAMBERS TO 42 FT D/A AND 82 FT HIGH, HYPERBALLISTIC RANGES, DUST AND SNOW EROSION FACILITY, BIRD IMPACT FACILITY, SEVERL CAPTIVE TRAJECTORY SYSTEMS. THESE FACILITIES HAVE ESSENTIALLY SUPPORTED THE DEVELOPMENT AND QUALIFICATION OF EVERY MAJOR AERONAUTICAL, MISSILE, AND SPACE SYSTEM DEVELOPMENT SINCE 1954. BY PLANNING FOR AN ADEQUATE GROUND ENVIRONMENTAL TEST PROGRAM IN THESE FACILITIES, DEVELOPMENT PROGRAM MANAGERS CAN ASSURE THAT SYSTEM DESIGN DEFICIENCIES ARE FOUND EARLY, PREVENTING COST AND SCHEDULE OVERRUNS.

INSTALLATION: AVIONICS LABORATORY

WPAFB, OH.

COL. J. D. EVERETT

SCI. DR. J. C. RYLES

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	129.291	126.800
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.318	3.400
TOTAL ANNUAL LAB	132.609	130.200
TOTAL INHOUSE	19.062	19.400
TOTAL INHOUSE RDT&E	15.744	16.000
ANNUAL OPERATING COST	3.600	3.800

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	173	12	119	54
CIVILIAN	823	41	469	354
TOTAL	996	53	588	408

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
229	250.901	9.775	412.829	673.505	23.828	67.603

...MISSION

MAINTAINS AN AVIONICS TECHNOLOGY BASE THROUGH RESEARCH AND EXPLORATORY AND ADVANCED DEVELOPMENT. DEVELOPS AND DEMONSTRATES COST-EFFECTIVE AVIONICS CONCEPTS TO REDUCE ACQUISITION AND OPERATING COST AND IMPROVE OPERATIONAL CAPABILITIES. SUPPORTS OPERATIONAL CMDS AND PRODUCT DIVISIONS.

...CURRENT IMPORTANT PROGRAMS

ALL WEATHER TACTICAL STRIKE SYS - SELF CONTAINED RADAR TARGET ACQ-STRIKE
DIRECTOR FIRE CONTROL - IMPROVED AERIAL GUNNERY APPLICATION
ELECTRO-OPTICAL COUNTERMEASURES - TECHNOLOGY TO DEFEAT OPTICAL THREATS
DIGITAL AVIONICS INFORMATION SYSTEM - INTEGRATED SYS ARCHITECTURE
ELECTRONICALLY AGILE RADAR - MULTIMODE RADAR FOR STRATEGIC APPLICATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAINTAINS A WIDE RANGE OF AVIONICS SIMULATION, EVALUATION, DESIGN AND FABRICATION CAPABILITIES ACROSS THE BROAD MISSION RANGE. AVSAIL IS FOR ANALYSIS AND SIMULATION OF MULTIPLEX DIGITAL AVIONICS CONCEPTS. CSEL, TOGETHER WITH IMAGE PROCESSING FAC AND SATCOM R/T CAN EVALUATE A-A, A-G AND SATELLITE DATA LINK PERFORMANCE. CAD/IC FAC IS USED TO DESIGN AND FABRICATE SPECIALIZED INTEGRATED/HYBRID CIRCUITS AND PRINTED WIRING BOARDS. DEES, EDE AND EWAC CAN SIMULATE REAL WORLD SIGNAL/JAMMING ENVIRONMENT FOR EVALUATION OF ELECTRONIC WARFARE SYSTEMS. TARGETING SYS CHARACTERIZATION FAC CAN CORRELATE E-O SYSTEMS PERFORMANCE WITH MEASURED WEATHER CONDITIONS. DYNAMIC ANALYZER EVALUATES RECON SENSORS IN REALISTIC FLIGHT ENVIRONMENT. LABS ARE MAINTAINED FOR EVALUATION OF AIRBORNE AND SPACECRAFT SENSORS AND COMPONENTS FROM OPTICAL TO RADIO FREQUENCIES.

INSTALLATION: CIVIL AND ENVIRONMENTAL ENG. DEV. OFFICE

TYNDALL AFB FL

CDR COL. JOSEPH S. PIZZUTO

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977	1978
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	4.834	6.490
TOTAL PROCUREMENT	0.086	0.061
TOTAL O&M	1.931	1.117
TOTAL OTHER	4.791	3.525
TOTAL ANNUAL LAB	11.642	11.193
TOTAL INHOUSE	5.388	4.500
TOTAL INHOUSE RDT&E	0.797	1.169
ANNUAL OPERATING COST	0.050	0.050

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF		
MILITARY	66	5	41		25
CIVILIAN	12	1	11		1
TOTAL	78	6	52		26

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER				
3	4.981	2.200	9.751		16.932	0.938	1.076

...MISSION

LEAD AFSC AGENCY FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION IN THE AREA OF CIVIL AND ENVIRONMENTAL ENGINEERING

...CURRENT IMPORTANT PROGRAMS

NEW AIRCRAFT OPERATIONAL SURFACES AND RAPID REPAIR SYSTEMS
 SURVIVABILITY/VULNERABILITY OF AEROSPACE FACILITIES
 ENVIRONMENTAL QUALITY AND ASSESSMENT RESEARCH AND DEVELOPMENT
 WARM FOG DISPERSAL SYSTEM FOR AIRFIELDS
 ENERGY CONSERVATION AND ALTERNATE SOURCES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CEEDO HAS ACCESS TO LABORATORIES AND TEST SITES TO PERFORM QUALITATIVE AND QUANTITATIVE MEASUREMENTS ON CORROSION, ENGINEERING MATERIAL, PAVEMENTS, SOIL MECHANICS, AIR QUALITY, WASTE TREATMENT PROCESS, FIRE EXTINGUISHING AGENTS, AND HARDENED AIRCRAFT SHELTERS. EQUIPMENT INCLUDES FLAME AND ABSORPTION SPECTROPHOTOMETERS, WATER/WASTE STANDARD METHODS EQUIPMENT AND A MICROPROCESSOR DEVELOPMENT SYSTEM. REMOTE TERMINAL ACCESS IS AVAILABLE TO A CDC 6600 SCIENTIFIC COMPUTER WITH OFF-LINE DRUM PLOTTING CAPABILITY. A RUNWAY REPAIR/ALTERNATE LAUNCH SURFACES TEST SITE HAS A 200 X 600 FOOT TYPICAL RUNWAY SECTION.

INSTALLATION: EASTERN TEST RANGE

PATRICK AFB, FL.

CDR CO. OSCAR W. PAYNE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.000	1.507
TOTAL PROCUREMENT	9.304	4.394
TOTAL O&M	160.655	155.112
TOTAL OTHER	16.686	2.299
TOTAL ANNUAL LAB	186.645	163.312
TOTAL INHOUSE	69.306	51.152
TOTAL INHOUSE RDT&E	0.000	1.507
ANNUAL OPERATING COST	4.000	4.000

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	97	0	57	40
CIVILIAN	352	1	87	265
TOTAL	449	1	144	305

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
16292	117.422	688.388	2635.327	3441.137	299.087	330.164

...MISSION

SUPPORT OF LAUNCH PROGRAMS AND AIR/GROUND-LAUNCHED MISSILE SYSTEMS FROM CCAFS AND KSC, OPERATION OF THE ARIS. IN SUPPORT OF JCS REQUIREMENTS, SUPPORT OF AEROSPACE DEFENSE COMMAND ON-ORBIT TRACKING REQUIREMENTS AND SUPPORT OF SPECIAL PROJECTS, DOCUMENTED R&D TESTS AND TENANT ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

FRM PROGRAMS - POLARIS, POSEIDON, TRIDENT AND CHEVALINE
MIL SPACE SUPPORT PROGRAMS - TITAN IIIC AND ATLAS/AGENA
MIL MISSILE SUPPORT PROGRAMS - SRAM/OT&E AND PERSHING
NASA - THOR/DELTA, ATLAS/CENTAUR AND SPACE SHUTTLE PROGRAMS
DOD SPACE TRANSPORTATION PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ETR CAPABILITIES INCLUDE: ASSEMBLY, PRE-LAUNCH TESTING, AND LAUNCH PERFORMANCE EVALUATION OF BALLISTIC MISSILES, LAUNCH VEHICLES, SPACE-CRAFT AND SATELLITES TO INCLUDE TRACKING, LONG-DISTANCE COMMUNICATIONS, DATA TRANSMISSION, COLLECTION AND REDUCTION. EQUIPMENT AND FACILITIES INCLUDE MAINLAND AND DOWN-RANGE INSTRUMENTATION AND COMMUNICATIONS, INSTRUMENTED SHIPS, SCIENTIFIC DATA PROCESSING EQUIPMENT AND FACILITIES, PHOTO/ELECTRO-OPTICAL SYSTEMS AND SERVICES, MISSILE IMPACT LOCATION SYSTEMS, METEOROLOGICAL WEATHER STATIONS AND EQUIPMENT, AND RANGE TIMING SYSTEMS. DET 1, SAMTEC OPERATES AND MAINTAINS CCAFS, MAINLAND SITES AND DOWN-RANGE STATIONS. SUPPORT FUNCTIONS INCLUDE LAUNCH SUPPORT SERVICES AND OVERALL GENERAL MANAGEMENT OF THE ETR, INCLUDING PLANT ENGINEERING, CONTRACTOR OPERATIONS, LABORATORIES, SHOPS AND OTHER SPECIAL SERVICES.

INSTALLATION: FLIGHT DYNAMICS LABORATORY

WPAFB, OH.

CDR COL. G. F. CUDAHY

CH. SCI. K. I. COLLIER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	85.821	100.402
TOTAL PROCUREMENT	0.600	0.000
TOTAL O&M	0.320	0.320
TOTAL OTHER	3.253	5.302
TOTAL ANNUAL LAB	89.394	106.024
TOTAL INHOUSE	30.613	36.619
TOTAL INHOUSE RDT&E	27.360	33.138
ANNUAL OPERATING COST	5.500	5.775

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	203	8	120	83
CIVILIAN	792	46	480	312
TOTAL	995	54	600	395

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
90	450.400	121.589	121.589	693.578	26.059	68.600

...MISSION

PLAN AND EXECUTE USAF RESEARCH EXPLORATORY AND ADVANCED DEV PROGRAMS FOR AEROSPACE FLT VEHICLE STRUCTURES AERODYNAMICS FLT CONTROL VEHICLE DYN AND VEHICLE EQUIP. LEAD AFSC LAB FOR EXPER FLT VEHICLES. AFSC FOCAL PT FOR NONNUCLEAR SURVIVABILITY PROG. EVALUATE CONTRACTOR I R AND D PROG.

...CURRENT IMPORTANT PROGRAMS

INTEGRATED FLIGHT/FIRE CONTROL
ADVANCED COMPOSITE STRUCTURES
ADVANCED FIGHTER TECHNOLOGY INTEGRATOR
COMBINED ENVIRONMENT RELIABILITY TEST
FLIGHT VEHICLE SURVIVABILITY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

50MW TEST FACILITY IS A 30 MIN CONTINUOUS FLOW ARC HEATED HYPERSONIC W/T HAVING A RE-ENTRY NOSE TIP (RENT) TEST LEG AND HYPERSONIC TEST LEG (HTL) STRUCTURES TEST FACILITY PERMITS STRUCTURAL TESTING OF FULL SCALE VEHICLES AND COMPONENTS WITH PROGRAM CONTROLLED SIMULATION OF FORCE AND THERMAL FLT ENVIRONMENTS. LANDING GEAR TEST FACILITY DYNAMICALLY SIMULATES LANDING GEAR COMPONENT PERFORMANCE CHARACTERISTICS THRU PROGRAMMED PARAMETERS OF LOADS VELOCITIES TEMP ETC. ENGINEERING FLT SIMULATION FAC CONTAINS FLT SIMULATORS AND COMPUTING EQUIP TO DEVELOP CONTROL DISPLAY CONCEPTS AND EVALUATE MANS PERFORMANCE ON SPECIFIC DISPLAY AND CONTROL SYSTEMS. BALLISTIC RANGES TEST VULNERABILITY OF AIRCRAFT SUBSYSTEMS BY SIMULATING THREAT FUEL STRUCTURAL AND AERODYNAMIC ENVIRONMENTS.

INSTALLATION: FLIGHT TEST CENTER

EDWARDS AFB, CA.

CDR MG T.P. STAFFORD

TECH.DIR. MR F.N. STOLIKER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	78.967	75.756
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.306	1.229
TOTAL OTHER	42.536	57.471
TOTAL ANNUAL LAB	122.809	134.456
TOTAL INHOUSE	102.228	100.158
TOTAL INHOUSE RDT&E	59.707	57.356
ANNUAL OPERATING COST	25.586	24.532

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	2858	1	168	2690
CIVILIAN	1632	0	216	1416
TOTAL	4490	1	384	4106

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL	PROP
	LAB	ADMIN	OTHER			EQUIP
227742	103.066	208.167	6784.039	7095.272	239.740	115.566

...MISSION

PLANS, CONDUCTS/SUPPORTS AND REPORTS ON TESTS OF MANNED/UNMANNED AEROSPACE VEH INCL ALL-WEATHER TESTS. CONDUCTS FLIGHT EVAL OF AEROSPACE RSCH VEH AND DEV TEST OF AERODYNAMIC DECELERATORS. OPR USAF TEST PILOT SCHOOL. SUPPORTS USAF, DOD, GOV, FOREIGN AND CONTRACTOR TEST AND EVAL

...CURRENT IMPORTANT PROGRAMS

F-16 DT AND E
A-10 DT AND E
F-15 DT AND F
B-1 DT AND E
ALCM DT AND E

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL CAPABILITIES, FACILITIES AND EQUIP ARE AVAILABLE TO PROVIDE A COMPLETE RANGE OF SERVICES FOR CONDUCTING DT AND E FLT TESTS OF AERONAUTICAL SYS, TO CONDUCT FLT EVAL AND RECOVER RSCH VEH, AND TO TRAIN TEST PILOTS. ENGRG FACILITIES, REALTIME INSTRUMENTED RANGES, DATA COLLECTION, REDUCTION AND ANALYSIS FACILITIES, 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, ENGRG SIMULATOR, MUNITIONS STORAGE AND CHECKOUT AND CONTRACTOR-ASSIGNED HANGARS, SHOPS, OFFICE SPACE, ETC.

INSTALLATION: FRANK J SEILER RESEARCH LABORATORY

USAF ACADEMY, CO.

CDR COL M.D. BACON

CH.SCI.LTC.C.E. SIMON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	0.708	0.700
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.563	0.602
TOTAL ANNUAL LAB	1.271	1.302
TOTAL INHOUSE	1.134	1.190
TOTAL INHOUSE RDT&E	0.571	0.588
ANNUAL OPERATING COST	0.040	0.045

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	23	15	20	3
CIVILIAN	9	0	3	6
TOTAL	32	15	23	9

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
0	LAB	ADMIN	OTHER			
	21.815	3.000	0.100	24.915	0.000	1.284

...MISSION

CONDUCT RESEARCH IN AEROSPACE MECHANICS, APPLIED MATHEMATICS & 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 OF LASERS AND PLUMES. APPLIED OPERATIONS RESEARCH, INERTIAL GUIDANCE TESTING, ADVANCED SENSOR DEVELOPMENT, MICROPROCESSOR RESEARCH. FLUID DYNAMICS, UNSTEADY AERODYNAMICS.

...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. PDP 11/45 MINI COMPUTER & SOFTWARE TO AUTOMATE GYRO RESEARCH. AERODYNAMIC RESEARCH IN USAFA SUBSONIC & TRISONIC WIND TUNNELS, HOLOGRAPHIC & OTHER OPTICAL FLOW VISUALIZATION INSTRUMENTATION.

INSTALLATION: GEOPHYSICS LABORATORY

HANSCOM AFB, MA.

CDR COL. BERNARD S. MORGAN, JR. CH. SCI. DR. JOHN N. HOWARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977	1978
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	45.325	45.000
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	7.928	8.000
TOTAL ANNUAL LAB	53.253	53.000
TOTAL INHOUSE	23.931	24.000
TOTAL INHOUSE RDT&E	20.840	21.000
ANNUAL OPERATING COST	5.000	5.000

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-PROF
MILITARY	120	11	42	78
CIVILIAN	510	76	319	191
TOTAL	630	87	361	269

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)					
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
369	389.959	14.813	31.383	436.155	9.736	26.069

...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
 SPACECRAFT CHARGING TECHNOLOGY
 SURFACE WEATHER OBSERVING AUTOMATION
 STRATOSPHERIC ENVIRONMENTAL IMPACT ASSESSMENTS
 OPTICAL, INFRARED AND UV BACKGROUNDS FOR SURVEILLANCE SYSTEMS
 GEODETIC AND GEOKINETIC 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 RADIO TELESCOPES FOR SOLAR RESEARCH; ONE C-130 AIRCRAFT FOR METEOROLOGICAL RESEARCH; ROCKET AND BALLOON LAUNCH FACILITIES; TWO KC-135 AND ONE C-130 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND NEAR EARTH SPACE STUDIES; AND TWO CDC 6600 COMPUTER SYSTEMS.

INSTALLATION: HUMAN RESOURCES LABORATORY

BROOKS AFB, TX.

CDR COL. DAN D. FULGHAM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	19.895	21.410
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.097	3.004
TOTAL ANNUAL LAB	22.992	24.414
TOTAL INHOUSE	8.981	9.509
TOTAL INHOUSE RDT&E	7.029	7.420
ANNUAL OPERATING COST	1.000	1.024

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	126	12	84		42
CIVILIAN	242	43	155		87
TOTAL	368	55	239		129

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
13	71.910	41.010	62.680	175.600	5.577	30.889

...MISSION

PRINCIPAL AFSC ORGANIZATION CHARGED WITH PLANNING AND EXECUTING EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS FOR SELECTION, MOTIVATION, TNG, RETENTION, EDUCATION, UTILIZATION AND CAREER DEVELOPMENT OF AF MILITARY PERSONNEL; COMPOSITION OF PERSONNEL FORCE; AND TNG EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT IN THE USE OF SIMULATION FOR UNDERGRADUATE PILOT AND AEROSPACE CREW TNG. IMPROVED PERSONNEL SELECTION, CLASSIFICATION, EVALUATION AND UTILIZATION TECHNIQUES. HUMAN FACTORS IN DESIGN OF TNG SYSTEMS. DESCRIBING, EVALUATING AND STRUCTURING AF OCCUPATIONS. IMPROVED TECHNICAL TNG THROUGH ADVANCED INSTRUCTIONAL SYSTEMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCCUPATIONAL ANALYSIS; PERSONNEL PROCUREMENT, CLASSIFICATION, RETENTION AND SEPARATION; COMPUTER SIMULATION MODELS FOR PERSONNEL SYSTEMS; MAN-POWER REQTS OF AF WEAPONS SYS; TNG TECHNIQUES; DESIGN OF SIMULATORS AND OTHER TRAINING DEVICES; CONDUCT TRNG RESEARCH ASSOCIATED WITH PILOT TRNG USING SOPHISTICATED HIGH-FIDELITY A/C SIMULATORS; ADVANCED INSTRUCTIONAL SYS FOR INDIVIDUALLY PACED COMPUTER AIDED TECH INSTRUCTION; ADVANCED SIMULATOR FOR UPT; ADVANCED INSTRUCTIONAL SYSTEM; SIMULATION AND TRAINING ADVANCED RESEARCH SYSTEM; SIMULATION FOR MAINTENANCE TRAINING. TECHNICAL LIBRARY, PERSONNEL TESTING ROOMS; COMPUTER, UNIVAC 1108 ELECTRONIC DATA PROCESSING SYSTEM WITH 2 CPUS, 12 TAPE DRIVES, 16 DISC DRIVES, 16 UNISCOPE INTERACTIVE TERMINALS, GRAPHICS DISPLAY CONSOLE, 2 PRINTERS, CARD READER, CARD PUNCH. ELEC ASSOC TR 48 ANALOG COMPUTER.

INSTALLATION: MATERIALS LABORATORY
WPAFB, OH.
DIR. F.N. KELLY
CDR COL. L.D. WHIPPLE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT. + EST)
TOTAL RDT&E	44.888	48.526
TOTAL PROCUREMENT	33.900	41.272
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.095	1.167
TOTAL ANNUAL LAB	79.883	90.965
TOTAL INHOUSE	14.836	15.122
TOTAL INHOUSE RDT&E	13.741	13.955
ANNUAL OPERATING COST	3.384	3.739

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	53	4	46	7	
CIVILIAN	354	64	259	95	
TOTAL	407	68	305	102	

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
15	222.809	25.169	111.156	359.134	19.005	14.703

...MISSION

PLAN/EXECUTE EXPLORATORY AND ADVANCED DEVELOPMENT, AND ASSIGNED BASIC RSCH, PROGS. FOR MATERIALS. PROVIDE TECH./MANAGEMENT ASSISTANCE FOR STUDIES, ANALYSES, DEVELOPMENT PLANNING, ACQUISITION, TEST, EVALUATION MOD. AND OPN. OF AEROSPACE SYSTEMS. MANAGE/DIRECT A.F. DIRECT MFG. PROG.

...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT OF LASER HARDENED MATERIALS
MANUFACTURING TECHNOLOGY COST REDUCTION PROGRAM FOR METALS, NONMETALS AND THERMAL PROTECTION MATERIALS FOR REENTRY VEHICLES
PROPULSION MATERIALS
SYSTEMS SUPPORT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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, EM WINDOWS, SENSORS, DISPLAYS, LASER WINDOWS, AND OPT DEVICES, ELECT COMPONENTS, NON-DESTRUCTIVE TESTING, POLYMERS, ADHESIVES, NONMETALLIC 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 -MANUFACTURING TECHNOLOGY, SYSTEM APPLICATION, SYSTEM SUPPORT, THERMAL PROTECTION MATERIALS.

INSTALLATION: ROCKET PROPULSION LABORATORY

EDWARDS AFB, CA.

CDR COL. EARL B. ESSING

CH. SC1. DR. RICHARD R. WEISS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977	1978
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	33.439	36.732
TOTAL PROCUREMENT	0.282	0.229
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.949	3.089
TOTAL ANNUAL LAB	36.670	40.050
TOTAL INHOUSE	12.511	12.846
TOTAL INHOUSE RDT&E	9.856	9.978
ANNUAL OPERATING COST	0.320	0.350

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	176	2	73		103
CIVILIAN	264	13	90		174
TOTAL	440	15	163		277

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
68345	419.046	86.848	4.780	510.674	125.000	44.879

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

PROVIDE PROPULSION OPTIONS FOR MX FULL SCALE DEVEL. PROVIDE SOLID ROCKET SIGNATURE, PERFORMANCE, AND ENERGY MGT OPTIONS FOR AIR LAUNCHED MISSILES DEMO 30 TO 50 PERCENT REDUCTION IN ACQUISITION COST OF HIGH PRODUCTION RATE SOLID ROCKETS. DEMONSTRATE AN IMPROVED PERFORMANCE KICK MOTOR FOR SPACE APPL. DEMO LONG LIFE MONOPROPELLANT SATELLITE THRUSTERS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ROME AIR DEVELOPMENT CENTER

GRIFFISS AFB, N.Y.

CDR COL. JOHN Z. DILLON

CH. SC1. DR. JOHN S. BURGESS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	93.149	100.668
TOTAL PROCUREMENT	27.442	24.787
TOTAL O&M	8.321	8.900
TOTAL OTHER	81.058	85.648
TOTAL ANNUAL LAB	209.970	220.003
TOTAL INHOUSE	25.914	27.698
TOTAL INHOUSE RDT&E	19.676	20.941
ANNUAL OPERATING COST	11.799	12.152

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	229	8	91	138
CIVILIAN	1130	59	607	523
TOTAL	1359	67	698	661

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1560	847.196	90.344	127.532	1065.072	30.728	51.094

...MISSION

CONDUCTS RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS IN COMMAND, CONTROL AND COMMUNICATIONS C-CUBED ACTIVITIES, AND IN THE C-CUBED AREAS OF INFORMATION SCIENCES AND INTELLIGENCE.

...CURRENT IMPORTANT PROGRAMS

MTI: WING TARGET INDICATOR< RADAR SURVEILLANCE/STRIKE SYSTEM
TACT L TARGET IDENTIFICATION TECHNOLOGY
MICROPROCESSOR/LSI RELIABILITY
TACTICAL SURVEILLANCE RADAR
SEEK TAIL/HAVE QUICK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRINCIPAL TECHNICAL AREAS ARE COMMUNICATIONS, ELECTROMAGNETIC GUIDANCE AND CONTROL, SURVEILLANCE OF GROUND AND AEROSPACE OBJECTS, INTELLIGENCE DATA COLLECTION AND HANDLING, INFORMATION SYSTEM TECHNOLOGY, IONOSPHERIC PROPAGATION, SOLID STATE SCIENCES, MICROWAVE PHYSICS AND ELECTRONIC RELIABILITY, MAINTAINABILITY AND COMPATIBILITY. EMPHASIS IS PLACED ON EXPLORATORY AND ADVANCED DEVELOPMENT. PROVIDES TECHNICAL CONSULTATION AND SERVICES TO OTHER SYSTEMS COMMAND, AIR FORCE, AND DOD ELEMENTS IN THOSE AREAS OF RADAR TECHNICAL EXPERTISE, TO ENSURE THAT NEW SYSTEMS EXPLOIT THE LATEST PROVEN C-CUBED TECHNOLOGY. FACILITIES ARE COMPOSED OF MAIN LABORATORY AT GRIFFISS AFB, NY, AND 12 FACILITIES/TEST SITES AND THE DEPUTY FOR ELECTRONIC TECHNOLOGY LOCATED AT HANSCOM AFB, MA WITH 2 MAJOR OFF BASE FACILITIES/TEST SITES.

INSTALLATION: SCHOOL OF AEROSPACE MEDICINE

BROOKS AFB, TX.

CDR R GEN. R. G. MCIVER

DEP. DIR. BILLY E. WELCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	12.020	12.476
TOTAL PROCUREMENT	0.078	0.092
TOTAL O&M	2.022	1.834
TOTAL OTHER	8.520	8.751
TOTAL ANNUAL LAB	22.640	23.153
TOTAL INHOUSE	19.540	20.250
TOTAL INHOUSE RDT&E	8.920	9.573
ANNUAL OPERATING COST	2.000	2.080

PERSONNEL DATA (END OF FY 1977)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	397	64	107	290
CIVILIAN	289	35	102	187
TOTAL	686	99	209	477

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)				
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
74	337.147	73.336	69.046	479.529	13.052	20.613

...MISSION

EXPLORATORY PROGRAMS IN AEROSPACE BIOTECHNOLOGY. INCLUDES LIFE SUPPORT, AEROSPACE MEDICINE, AND RADIOBIOLOGY. PROVIDE MEDICAL EVALUATION AND CONSULTATION FOR RATED PERSONNEL WITH MEDICAL PROBLEMS AFFECTING FLYING STATUS. CONDUCT AEROMEDICAL EDUCATION.

...CURRENT IMPORTANT PROGRAMS

MEDICAL AND BIOTECHNOLOGICAL ASPECTS OF AEROSPACE OPERATIONS
HEALTH EVALUATION AND RISK TABULATION (HEART)
CREW RESPONSE TO ACCELERATION AND MISSION DURATION IN USAF SYSTEMS
RADIOBIOLOGY IN AEROSPACE OPERATIONS
MODELLING BIOLOGICAL SYSTEMS/MAN ATMOSPHERE ENVIRONMENT INTERACTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN AEROSPACE MEDICAL PROBLEMS. ENVIRONMENTAL STRESS, DEVELOPMENTAL ENGINEERING, RADIOBIOLOGY, LASER HAZARDS, BIOMETRICS, BIOMEDICAL ENGINEERING AND EPIDEMIOLOGY. WHOLE BODY COUNTER, HUMAN CENTRIFUGE, VARIOUS TEST CELLS AND RESEARCH CHAMBERS, NEUTRON GENERATOR, KILO-CURIE-COBALT 60 RADIATION SOURCE, REMOTE INTERACTIVE GRAPHIC TERMINALS SYSTEM, THERMAL CHAMBER, CARDIAC CATH LAB, RADIOFREQUENCY FACILITIES, AEROSPACE MEDICAL CONSULTATIVE SERVICES, AEROMEDICAL EVALUATION. OCULOTHERMAL, RESEARCH OPTICAL, AUDIOLOGY, VESTIBULAR, PSYCHOBIOLOGY, RADIOISOTOPE, AND HYPERBARIC MEDICINE.

INSTALLATION: SPACE AND MISSILE TEST CENTER

VANDENBERG AFB, CA.

CDR B/GEN. DON M. HARTUNG

TECH. DIR. MR. EUGENE E. CLARY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	51.700	52.316
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	21.719	26.173
TOTAL ANNUAL LAB	73.419	78.489
TOTAL INHOUSE	18.120	20.063
TOTAL INHOUSE RDT&E	10.584	12.242
ANNUAL OPERATING COST	3.096	3.246

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	400	4	208	192
CIVILIAN	402	0	101	301
TOTAL	802	4	309	493

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
55567	91.407	334.384	431.954	857.745	94.520	76.686

...MISSION

MANAGE FIELD TEST AND LAUNCH OPERATIONS FOR SAMSO/OTHERS. DEVELOP, MANAGE AND OPERATE THE EASTERN AND WESTERN TEST RANGES (ETR/WTR) AS DESIGNATED NATIONAL RANGES.

...CURRENT IMPORTANT PROGRAMS

MINUTEMAN III R AND D AND OPERATIONAL TESTING PROGRAMS.
CLASS AND UNCLAS SPACE PGMS USING ATLAS, TITAN, THOR AND SCOUT.
ADVANCED BALLISTIC REENTRY SYSTEMS PROGRAMS.
GUIDED MISSILE PROGRAMS INCLUDING CRUISE MISSILES AND ROMARC.
AIRCRAFT PROGRAMS INCLUDING R-1 AND F-15.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SAMTEC CAPABILITIES INCLUDE TEST LAUNCH AND RANGE SUPPORT. TEST LAUNCH INCLUDES ASSEMBLY AND PRELAUNCH TESTING OF LAUNCH VEHICLE SYSTEMS USING ATLAS, TITAN AND MM BOOSTERS; AGENA AND TITAN III UPPER STAGES; PAYLOAD AND VEHICLE INTEGRATION AND CHECKOUT; AND LAUNCH CONTROL. WTR (PACIFIC) RANGE SUPPORT INCLUDES NEAR AND FAR TERM RANGE INSTRUMENTATION PLANNING, AND DATA GATHERING ON BALLISTIC/SPACE/GUIDED MISSILE/PROBE LAUNCHES, AIRCRAFT SYSTEMS AND OTHER TESTS AT UPRANGE AND DOWNRANGE LOCATIONS. VARIOUS RADAR, TELEMETRY, OPTICAL, DATA PROCESSING, COMMUNICATIONS AND COMMAND-CONTROL SYSTEMS ARE AVAILABLE. LAUNCH AZIMUTHS VARY FROM 140 TO 313 DEGREES. AERONAUTICAL TESTS ARE CONDUCTED IN A WELL INSTRUMENTED OFF-SHORE TEST AREA. LAUNCH FACILITIES AND RANGE INSTRUMENTATION CAN BE RECONFIGURED TO MEET PROGRAM REQUIREMENTS.

INSTALLATION: WEAPONS LABORATORY

KIRTLAND AFB, N.M.

CDR COL. JOHN C. RICH

CH. SCI. DR. ARTHUR H. GUENTHER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	137.455	137.470
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.700	0.400
TOTAL OTHER	11.960	12.797
TOTAL ANNUAL LAB	150.115	150.667
TOTAL INHOUSE	40.423	42.588
TOTAL INHOUSE RDT&E	28.263	29.786
ANNUAL OPERATING COST	1.917	1.663

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	649	73	431	218
CIVILIAN	486	31	220	266
TOTAL	1135	104	651	484

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
702	555.629	141.612	134.243	831.484	20.516	71.590

...MISSION

RESPONSIBLE FOR EXPLORATORY, ADVANCED, AND ENGINEERING DEVELOPMENT PROGRAMS IN NUCLEAR WEAPON EFFECTS, NUCLEAR SURVIVABILITY/VULNERABILITY, NUCLEAR SAFETY, NUCLEAR HARDNESS CRITERIA, LASER APPLICATIONS, LASER SURVIVABILITY/VULNERABILITY AND ADVANCED WEAPON TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

ADVANCED RADIATION TECHNOLOGY
 ADVANCED WEAPON TECHNOLOGY
 NUCLEAR SURVIVABILITY/VULNERABILITY ANALYSIS AND TESTING
 NUCLEAR SAFETY ANALYSIS AND DESIGN CRITERIA
 NUCLEAR 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, A COMPUTATION FACILITY WITH REMOTE ACCESS TERMINALS AND MULTI-CHANNEL SENSING/RECORDING AND DATA REDUCTION SUPPORT ALL REQUIRING RDT/E PROGRAMS.

INSTALLATION: 6570 AEROSPACE MEDICAL RESEARCH LABORATORY WPAFB, OH.

CDR. COL. ROY L. DEHART

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	15.513	15.513
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.191	2.250
TOTAL ANNUAL LAB	17.704	17.763
TOTAL INHOUSE	8.017	8.034
TOTAL INHOUSE RDT&E	5.826	5.784
ANNUAL OPERATING COST	0.700	0.750

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	136	25	63	73
CIVILIAN	160	23	86	74
TOTAL	296	48	149	147

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
30	66.597	47.679	45.333	159.609	19.213	26.485

...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.
 INV OF COMBINED STRESSES AND THEIR IMPACT ON HUMAN OPERATOR PERF METRICS

...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 MANUVERING. THOMAS DOMES-EIGHT ALTITUDE EXPOSURE CHAMBERS TO SIMULATE EXOTIC ARTIFICIAL ATMOSPHERIC CONDITIONS. HUMAN ENGINEERING SYSTEMS SIMULATOR FACILITY USED TO PERFORM REAL-TIME MAN-IN-THE-LOOP EXPERIMENTS AND DATA ANALYSIS. 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. AEROSPACE SYSTEM OPS. VIVARIUM-LABORATORY RESEARCH ANIMAL FACILITY.

INSTALLATION: 6585TH TEST GROUP

HOLLOMAN AFB, N.M.

COL. LEMUEL D. HORTON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	15.696	13.978
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	4.257	4.554
TOTAL ANNUAL LAB	19.953	18.532
TOTAL INHOUSE	12.643	11.974
TOTAL INHOUSE RDT&E	8.386	7.420
ANNUAL OPERATING COST	0.056	0.065

PERSONNEL	PERSONNEL DATA (END OF FY 1977)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	320	2	34	286
CIVILIAN	293	2	72	221
TOTAL	613	4	106	507

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET) LAB ADMIN OTHER	TOTAL	REAL PROP	EQUIP		
6602	336.000 7.000 148.000	491.000	10.220	40.602		

...MISSION

DODFICAL POINT FOR TESTING AND EVALUATION OF INERTIAL GUIDANCE SYSTEMS AND COMPONENTS. OPERATES HIGH SPEED TEST TRACK FOR AERODYNAMIC, EJECTION, GUIDANCE TESTING. MEASURES RADAR CROSS SECTIONS, AND ANTENNA PATTERNS OF SPACECRAFT, MISSILES, AIRCRAFT, RVS AND OTHER TARGETS.

...CURRENT IMPORTANT PROGRAMS

260IN. CENTRIFUGE IMPROVEMNT-IMP ACCY OF G LVL / COUNTERROTATION.
SLED TEST DATA ACQUISITION IMP SLEDBORNE DATA COLLECTION / STORAGE.
HYPERSONIC SLED TECH-DEVEL MONORAIL SLED FOR 75LR PAYLOAD AT 10000 FPS.
ADVANCED SLED VELOCITY MEASUREMENT SYST- DEVEL ACCURATE MAGNETIC VMS.
RAINFIELD UPGRADE-IMP ACCY OF FLOW RATE / DROP SIZE DISTRIBUTION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1-260IN / 2-100IN PRECISION CENTRIFUGES, MAX 100G WITH 300 LB PAYLOAD.
PRECISION GRND / ABN TEST FCLTY. PRECISION REFERENCE / DATA COLLECTION CAPABILITIES. COMPLETE DATA / PERFORMANCE ANALYSIS CAPABILITY. ENVIRONMENTAL CHAMBERS FOR COMBINED ENVIRONMENTAL RELIABILITY TESTING. INERTIAL NAV TEST VAN. CONTINUOUS 50,788 FT TEST TRACK 2-RAIL, 35,588 FT/ 3-RAIL 15,200 FT<, 5 BLOCKHOUSES, 2 INSTRMN STATIONS, SPECIALIZED SITES FOR AIRBLAST, EJECTION, IMPACT TESTING, 9000 FT TRACKSIDE, 2000 FT BALL RAINFIELD. ROCKET SLED / PROPLSN SYST INV. RADAR TARGET SCATTER FAC TO MEAS RADAR CROSS SECTION / ANTENNA PTRNS FROM 30 MHZ TO 95 GHZ. MEASURE MONOSTATIC / BISTATIC AMP, PHASE, DOPPLER, GLINT AND JET ENGINE MODULATION OF RETURN PRECIS MODEL BLDG FACIL FOR FULL / REDUCED SCALE MOLS OF TARGETS. IR SIGNATURE MEASUREMENT CAPABILITY.

INSTALLATION: ARMED FORCES RADIOBIOLOGY RES. INSTITUTE

BETHESDA, MD

CDR COL. DARRELL W. MCINDOE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1977 (ACTUAL)	1978 (ACT + EST)
TOTAL RDT&E	5.880	6.820
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.488	1.801
TOTAL ANNUAL LAB	7.368	8.621
TOTAL INHOUSE	7.368	8.621
TOTAL INHOUSE RDT&E	5.880	6.820
ANNUAL OPERATING COST	1.553	1.713

PERSONNEL	PERSONNEL DATA (END OF FY 1977)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	87	28	53		34
CIVILIAN	132	19	48		84
TOTAL	219	47	101		118

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
10	42.335	21.049	56.834	120.218	7.911	4.463

...MISSION

THE MISSION OF AFRRRI SHALL BE TO CONDUCT SCIENTIFIC RESEARCH IN THE FIELD OF RADIOBIOLOGY AND RELATED MATTERS THAT ARE ESSENTIAL TO THE MEDICAL SUPPORT OF THE DEPARTMENT OF DEFENSE.

...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; OPERATE FACILITIES FOR PRODUCTION OF SHORT-LIVED RADIOISOTOPES; AND PERFORM OTHER SUCH RESEARCH FUNCTIONS AS REQUIRED. MAJOR EQUIPMENT INCLUDES: PULSE AND STEADY STATE NUCLEAR REACTOR, 300,000-CURIE COBALT-60 IRRADIATOR, ELECTRON LINEAR ACCELERATOR, X-RAY MACHINES WITH ASSOCIATED EXPOSURE ROOM COMPLEXES
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

AS OF OR PRIOR TO 1 OCTOBER 1977

ARCTIC TEST CENTER Fort Greely, AK	COLD REGIONS TEST CENTER Fort Greely, AK
**BENET WEAPONS LABORATORY	Subordinate to Large Caliber Weapons System Laboratory Dover, NJ
**CHEMICAL SYSTEMS LABORATORY Aberdeen Proving Ground, MD	Established - name change only
**EDGEWOOD ARSENAL LABORATORIES Edgewood Arsenal, MD	DISESTABLISHED
**FRANKFORD ARSENAL Philadelphia, PA	DISESTABLISHED
**FIRE CONTROL AND SMALL CALIBER WEAPONS SYSTEM LABORATORY Dover, NJ	ESTABLISHED
**LARGE CALIBER WEAPONS SYSTEMS LABORATORY Dover, NJ	ESTABLISHED
**MOBILITY SYSTEM LABORATORY Warren, MI	DISESTABLISHED
**PICATINNY ARSENAL LABORATORIES Dover, NJ	DISESTABLISHED
TANK-AUTOMOTIVE R&D CMD Warren, MI	ESTABLISHED

APPENDIX I

DISESTABLISHMENT, ESTABLISHMENT OR CHANGES IN ORGANIZATION
OR NAME (continued) *

DEPARTMENT OF THE NAVY

AS OF OR PRIOR TO 1 OCTOBER 1977

AIR TEST FACILITY (SHIP INSTALLATIONS) Lakehurst, NJ	DISESTABLISHED
BIOMEDICAL RESEARCH LABORATORY Oakland, CA	BIOSCIENCES LABORATORY
ELECTRONICS LABORATORY CENTER San Diego, CA	DISESTABLISHED
MEDICAL FIELD RESEARCH LABORATORY Camp Lejune, NC	DISESTABLISHED
MEDICAL RESEARCH UNIT NO. 5 Ethiopia	DISESTABLISHED
OCEAN RESEARCH AND DEVELOPMENT ACTIVITY Bay St Louis, MS	ESTABLISHED
UNDERSEA CENTER San Diego, CA	OCEAN SYSTEMS CENTER
UNDERWATER RANGES DIRECTORATE Newport, RI	UNDERSEA RANGES DEPARTMENT

DEPARTMENT OF THE AIR FORCE

CIVIL ENGINEERING CENTER Tyndall AFB, FL	DISESTABLISHED
CIVIL AND ENVIRONMENTAL ENGINEERING DEVELOPMENT OFFICE Tyndall AFB, FL	ESTABLISHED
6585 TEST GROUP Halloman AFB, NM	Now reported separately from the Armament Development and Test Center

* Changes since publication of Department of Defense In-House RDT&E
Activities, 30 October 1976

** Change due to DARCOM realignment.

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	436	665	850	1226	1382
150	437	668	855	1301	1384
180	440	680	861	1306	1386
184	454	690	871	1310	1510
190	457	695	880	1313	1515
193	460	696	881	1315	1520
401	470	801	890	1320	1529
403	471	803	892	1321	1530
405	482	804	893	1330	1540
410	487	806	894	1340	
413	601	808	896	1350	
414	602	810	1221	1360	
430	644	819	1223	1370	
434	660	830	1224	1372	
435	662	840	1225	1380	

Military professionals, both officer and enlisted, actively engaged in RDTE activities should 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:

181	646	699	1371
404	647	704	1374
421	649	802	1521
455	650	817	1531
458	661	818	1541
462	667	856	
622	681	895	
625	682	1311	
636	683	1316	
645	698	1341	

Discretion will have to be exercised by each RDT&E 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-E.

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	GCA -- ground-controlled approach
AAW -- antiair warfare	
ADPE -- automatic data-processing equipment	HF -- high-frequency
AEDC -- Arnold Engineering Development Center	IFF -- identification, friend or foe
AFMDC -- Air Force Missile Development Center	IR -- infrared
AFSC -- Air Force Systems Command	MPT -- military potential test
AFWET -- Air Force weapons effectiveness testing	NAF -- Naval Air Facility
APG -- Aberdeen Proving Ground	NASA -- National Aeronautics and Space Administration
ARPA -- Advanced Research Projects Agency	NASC -- Naval Air Systems Command
ASW -- antisubmarine warfare	NAVORD -- Naval Ordnance Systems Command
AUS -- Army United States	NAVSHIP -- Naval Ship Systems Command
	NEMP -- nuclear electromagnetic propagation
BIS -- Board of Inspection and Survey	PI -- product improvement
BW -- biological warfare	POL -- petroleum oil, lubricants
CBR -- chemical, biological radiological	QA -- quality assurance
CE -- Chief of Engineers, Army	QMDO -- qualitative materiel development objective
CG -- commanding general	QMR -- qualitative materiel requirement
CNO -- Chief of Naval Operations	RDT&E -- Research, development, test and evaluation
COMTEL -- communications electronics	RF -- radio frequency
	RV -- reentry vehicle
DA -- Department of the Army	SATS -- short airfield tactical support
DARCOM -- Department of the Army Materiel and Readiness Command	SDR -- small development requirement
DASA -- Defense Atomic Support Agency	SI -- ship installation
DoD -- Department of Defense	SP -- self-propelled
DZ -- drop zone	ST -- service test
ECM -- electronic countermeasures	T&E -- test and evaluation
ED -- engineering development	TOTO -- Tongue-of-the Ocean
EDT -- engineering development & test	UDT -- underwater demolition team
EEG -- electroencephalogram	ULMS -- Undersea Long-Range Missile System
EKG -- electrocardiogram	USATECOM -- US Army Test and Evaluation Command
ELINT -- electronic intelligence	UTTAO -- utility tactical transport aircraft system
EMP -- electromagnetic propagation	USW -- undersea warfare
EMW -- electromagnetic warfare	UV -- ultraviolet
EODC -- Explosive Ordnance Disposal Center	
ET -- engineering test	V/STOL -- vertical/short takeoff and landing
FA -- field artillery	
FBM -- fleet ballistic missile	

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