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DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES

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Management Analysis Report...

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DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES

HAROLD F. DAVIDSON

30 October 1980

Prepared for:

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

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FOREWORD

THIS REPORT WAS PREPARED FOR THE US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND AT THE DIRECTION OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT AND ACQUISITION. THIS EDITION IS THE FOURTEENTH 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 COMPENDIUM. DATA FOR 1980 ARE SUMMARIZED IN TABLES PRECEDING THE MAIN TEXT AND REPORTS 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 PERCENT 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 1980 APPEAR IN APPENDIX I.

DOD INSTRUCTION 7700.9 WHICH HAS BEEN THE BASIS FOR THIS REPORT SINCE ITS INCEPTION HAS BEEN REPLACED BY A TRI-SERVICE REGULATION, AR 70-63 NAVCOMPTIST 7044.5E, AFR 80-26, DNA 7700.9A, ENTITLED DOD IN-HOUSE RDT&E ANNUAL ACTIVITIES REPORT, 1 SEPTEMBER 1981.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

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

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

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

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

FOR HIS TECHNICAL TROUBLE SHOOTING WHICH MADE A COMPUTER PRINTOUT POSSIBLE, MR. FLOYD PURCE OF THE DEFENSE PRINTING SERVICE IS ALSO DESERVING OF A NOTE OF GRATITUDE FOR HIS EFFORTS IN PRINTING THIS DOCUMENT IN A THOROUGHLY PROFESSIONAL MANNER.

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

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SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E FACILITIES

PROGRAM DATA FOR FY 1980

	(MILLIONS)
TOTAL ANNUAL PROGRAM	9266.180
TOTAL INHOUSE PROGRAM	3688.169
TOTAL RDT&E PROGRAM	5531.022
TOTAL INHOUSE RDT&E	2384.548
TOTAL ANNUAL OPERATING COST	1036.028

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	24592	765	5073
CIVILIAN	66199	3564	27460
TOTAL	90791	4329	33433

PHYSICAL FACILITIES (END OF FY 1980)

ACRES	8754435
SPACE (THOUSANDS OF SQ FT)	
LABORATORY	30584.011
ADMINISTRATIVE	14411.356
OTHER	54685.643
TOTAL	99681.010
COST (MILLIONS)	
REAL PROPERTY	4583.143
EQUIPMENT	4101.478
TOTAL	8684.621

TABLE 1. ARMY ROTEC ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1980

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	TOTAL INHOUSE	TOTAL ROTEC	RD/TE	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	MIL	CIV	MIL	CIV	PROF CIV	
AEROMEDICAL RESEARCH LABORATORY	4,084	3,740	3,111	3,111	77	65	9	5	38	21	11	11	21	
AIR DEFENSE BOARD	10,663	9,783	5,298	4,430	117	85	0	0	21	11	6	6	11	
ATROBNE BOARD	3,267	1,423	1,423	1,423	90	40	0	0	16	16	0	0	16	
ARMOR AND ENGINEER BOARD	14,764	10,841	10,841	10,841	277	48	0	0	137	17	0	0	137	
ARMY RESEARCH OFFICE	47,586	0,087	0,000	0,000	2	94	0	0	30	2	30	2	30	
ATMOSPHERIC SCIENCES LABORATORY	26,953	15,557	23,324	11,928	355	175	0	23	1	88	0	0	88	
AVIATION BOARD	4,590	4,590	2,927	2,927	79	36	0	2	34	11	0	0	34	
AVIATION DEVELOPMENT TEST ACTIVITY	13,716	8,867	8,867	8,867	229	93	0	1	30	10	0	0	30	
AVIATION ENGINEERING FLIGHT ACTIVITY	7,152	7,152	6,193	6,193	66	105	0	0	21	25	0	0	25	
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	55,855	21,602	52,401	20,778	75	545	0	33	17	576	0	0	576	
AVIONICS R & D ACTIVITY	15,371	6,662	10,126	3,797	10	231	0	4	9	144	0	0	144	
BALLISTIC RESEARCH LABORATORY	44,185	36,543	41,818	34,301	27	726	1	97	9	378	0	0	378	
BIOLOGICAL LABORATORY	9,739	8,733	7,554	7,554	67	121	29	11	47	50	0	0	50	
CHEMICAL SYSTEMS LABORATORY	89,165	45,547	60,329	32,411	91	764	1	39	35	537	0	0	537	
COLD REGIONS REE LABORATORY	14,278	11,458	6,841	6,841	14	263	1	32	4	149	0	0	149	
COLD REGIONS TEST CENTER	9,414	9,414	5,087	5,087	263	22	1	1	17	7	0	0	17	
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	85,375	20,404	36,773	17,650	14	160	0	1	11	93	0	0	93	
COMMUNICATIONS - ELECTRONICS BOARD	7,458	1,248	1,248	1,248	50	31	0	0	40	10	0	0	40	
COMMUNICATIONS R & D COMMAND	68,115	12,186	60,445	10,845	57	415	0	12	17	262	0	0	262	
CONSTRUCTION ENGINEERING RESEARCH LAB	12,538	9,436	8,675	6,073	5	204	1	33	5	114	0	0	114	
DUNHAM PROVING GROUND	30,209	24,962	24,945	20,584	159	628	0	0	16	6	0	0	6	
ELECTRONIC PROVING GROUND	25,664	17,956	11,328	6,016	715	220	0	0	48	75	0	0	75	
ELECTRONIC WARFARE LABORATORY	113,567	31,429	64,676	12,234	84	411	0	8	5	201	0	0	201	
ELECTRONICS TECHNOLOGY AND DEVICES LAB	42,699	14,019	35,228	13,663	0	278	0	32	0	166	0	0	166	
ENGINEER TOPOGRAPHY LABORATORIES	33,214	10,936	30,776	9,233	15	299	1	15	8	124	0	0	124	
ENGINEER WATERWAYS EXPERIMENT STATION	62,637	51,116	16,246	14,500	19	1381	0	79	12	538	0	0	538	
FIELD ARTILLERY BOARD	3,545	3,545	1,278	1,278	157	37	0	0	6	36	0	0	36	
FIRE CONTROL & SMALL CAL. WPNS SVCTS LAB	71,242	50,450	26,904	21,262	14	611	0	26	6	347	0	0	347	
HARRY DIAMOND LABORATORIES	160,369	50,078	73,882	41,814	6	1145	1	49	3	338	0	0	338	
INFANTRY BOARD	10,621	9,219	5,944	7,442	33	142	1	14	15	104	0	0	104	
INSTITUTE OF DENTAL RESEARCH	3,840	3,840	1,835	1,835	127	55	0	1	3	7	0	0	7	
INSTITUTE OF SURGICAL RESEARCH	3,637	2,529	2,225	1,174	80	27	2	2	44	8	0	0	44	
INTELLIGENCE & SECURITY BOARD	5,692	5,692	2,151	2,151	150	81	16	5	52	25	0	0	25	
INTELLIGENCE & SECURITY BOARD	4,749	1,103	3,656	1,097	93	24	0	2	41	7	0	0	41	
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	123,711	4,005	119,901	5,095	27	103	0	1	17	52	0	0	52	
LARGE CALIBER WEAPONS SYSTEMS LAB	223,566	121,243	179,823	59,830	27	1720	1	79	10	1062	0	0	1062	
LETTERMAN ARMY INSTITUTE OF RESEARCH	10,572	8,381	7,354	5,163	157	106	27	12	116	44	0	0	44	
MATERIALS AND MECHANICS RESEARCH CENTER	39,215	33,561	27,167	23,271	14	604	1	62	6	189	0	0	189	
MATERIALS SYSTEMS ANALYSIS ACTIVITY	26,640	13,324	17,640	10,615	24	411	0	21	13	294	0	0	294	
MATERIAL TESTING DIRECTORATE	52,368	51,241	36,919	36,180	215	844	0	7	14	174	0	0	174	
MEDICAL ENGINEERING REG LABORATORY	11,959	5,008	11,106	4,156	34	102	5	15	20	38	0	0	38	
MEDICAL R & D COMMAND	4,235	4,235	2,547	2,547	57	92	25	1	46	2	0	0	46	
MEDICAL RSCH INST OF INFECTIOUS DISEASES	15,098	13,584	10,553	9,039	321	194	44	30	89	76	0	0	89	
MISSILE COMMAND LABORATORIES	180,236	76,547	100,239	46,004	33	1104	0	70	25	563	0	0	563	
MOBILITY EQUIP R & D COMMAND	239,324	55,198	86,070	36,925	79	1208	1	23	11	380	0	0	380	
NATICK REG LABORATORIES	61,169	38,792	39,496	22,704	103	1083	7	74	28	429	0	0	429	
NIGHT VISION & ELECTRO OPTICS LABORATORY	207,362	23,921	42,178	18,079	32	459	0	34	3	209	0	0	209	
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	26,047	13,409	25,284	12,646	37	328	1	135	22	201	0	0	201	
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	5,584	5,144	4,530	4,092	80	95	0	18	34	45	0	0	45	
SIGNALS WARFARE LABORATORY	89,304	7,775	36,174	4,895	71	172	0	6	27	54	0	0	54	
TANK-AUTO COMMAND LABORATORIES	200,478	27,074	94,432	18,051	47	871	2	13	36	347	0	0	347	
TROPIC TEST CENTER	4,029	3,462	2,828	2,776	74	61	0	2	16	19	0	0	19	
WALTER REED ARMY INSTITUTE OF RESEARCH	40,022	29,225	30,460	19,663	464	440	160	65	436	266	0	0	436	
WHITE SANDS MISSILE RANGE	21,384	147,703	117,178	117,178	970	2734	1	46	31	979	0	0	979	
YUMA PROVING GROUND	46,323	42,023	35,037	36,037	343	625	6	0	54	80	0	0	80	
TOTALS	2978,521	1267,890	1713,729	938,350	6496	27987	354	1289	2249	16110	0	0	16110	

TABLE 2. ARMY ROTEE FACILITIES DATA, FY 1990

INSTALLATION	ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)		COST (MILLIONS \$)	
		LABORATORY	ADMIN OTHER	REAL PROPERTY	EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	10	52,747	7,797	21,894	0,844
AIR DEFENSE BOARD	1	36,878	36,326	17,223	1,339
ARMOR AND ENGINEER BOARD	27	3,978	3,914	39,390	4,172
ARMY RESEARCH OFFICE	2	63,365	50,654	98,069	1,455
ATMOSPHERIC SCIENCES LABORATORY	0	0,000	24,840	0,000	0,000
AVIATION BOARD	15	52,541	26,663	17,961	2,740
AVIATION DEVELOPMENT TEST ACTIVITY	0	0,000	17,314	17,961	0,502
AVIATION ENGINEERING FLIGHT ACTIVITY	1196	0,000	39,124	112,463	1,400
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	19	9,200	16,009	174,800	8,280
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	88,848	58,673	16,370	1,431
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	0	16,000	33,500	0,000	0,000
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	1920	511,740	11,200	29,262	13,870
BALLISTIC RESEARCH LABORATORY	31	42,559	8,736	54,507	3,929
BIOLOGICAL LABORATORY	1750	361,632	13,017	310,727	26,310
CHEMICAL SYSTEMS LABORATORY	24	80,737	178,544	178,544	8,127
CHEMICAL SYSTEMS LABORATORY	647155	0,000	7,200	259,719	10,336
CHEMICAL SYSTEMS LABORATORY	35	52,324	20,189	10,589	0,680
CHEMICAL SYSTEMS LABORATORY	7	0,000	60,950	0,125	0,409
CHEMICAL SYSTEMS LABORATORY	0	83,359	7,779	0,000	0,000
CHEMICAL SYSTEMS LABORATORY	30	56,785	34,750	70,019	5,171
CHEMICAL SYSTEMS LABORATORY	66000	104,875	201,133	164,266	79,990
CHEMICAL SYSTEMS LABORATORY	0	0,000	50,300	2,5624	46,402
CHEMICAL SYSTEMS LABORATORY	6	218,928	74,932	119,394	96,011
CHEMICAL SYSTEMS LABORATORY	0	80,600	33,000	6,000	0,000
CHEMICAL SYSTEMS LABORATORY	33	90,722	7,000	13,300	6,000
CHEMICAL SYSTEMS LABORATORY	852	1724,058	356,194	167,747	21,025
CHEMICAL SYSTEMS LABORATORY	23	101,064	32,802	17,640	2,666
CHEMICAL SYSTEMS LABORATORY	1513	101,064	125,173	0,750	21,994
CHEMICAL SYSTEMS LABORATORY	2316	430,300	56,500	728,200	49,500
CHEMICAL SYSTEMS LABORATORY	12	45,524	7,054	34,409	4,412
CHEMICAL SYSTEMS LABORATORY	1	0,000	32,203	3,000	0,770
CHEMICAL SYSTEMS LABORATORY	4	9,325	6,730	0,890	1,932
CHEMICAL SYSTEMS LABORATORY	1	26,424	1,800	2,313	2,459
CHEMICAL SYSTEMS LABORATORY	6	0,000	5,000	34,774	2,400
CHEMICAL SYSTEMS LABORATORY	1361	233,455	162,309	2744,364	237,550
CHEMICAL SYSTEMS LABORATORY	4335	133,198	210,401	40,356	67,377
CHEMICAL SYSTEMS LABORATORY	0	133,198	36,509	305,309	42,680
CHEMICAL SYSTEMS LABORATORY	48	381,778	88,261	197,922	14,636
CHEMICAL SYSTEMS LABORATORY	4	8,140	100,276	1,714	2,070
CHEMICAL SYSTEMS LABORATORY	22965	774,317	4,351	769,547	49,576
CHEMICAL SYSTEMS LABORATORY	5	45,103	27,300	34,108	3,021
CHEMICAL SYSTEMS LABORATORY	1	0,000	33,497	0,000	0,538
CHEMICAL SYSTEMS LABORATORY	43	80,843	19,820	709,599	7,129
CHEMICAL SYSTEMS LABORATORY	11006	664,000	224,102	428,000	165,815
CHEMICAL SYSTEMS LABORATORY	1064	757,449	173,130	209,879	50,706
CHEMICAL SYSTEMS LABORATORY	2466	554,320	65,900	413,728	77,826
CHEMICAL SYSTEMS LABORATORY	36	151,798	75,849	0,000	32,000
CHEMICAL SYSTEMS LABORATORY	0	46,110	2,559	0,001	2,480
CHEMICAL SYSTEMS LABORATORY	4	60,421	18,793	28,647	4,075
CHEMICAL SYSTEMS LABORATORY	10	3,936	3,101	3,964	3,000
CHEMICAL SYSTEMS LABORATORY	11	140,319	69,947	0,000	38,254
CHEMICAL SYSTEMS LABORATORY	2625	20,510	35,925	89,958	2,711
CHEMICAL SYSTEMS LABORATORY	203	382,974	58,360	0,000	1,008
CHEMICAL SYSTEMS LABORATORY	4214377	1373,882	565,861	309,244	189,103
CHEMICAL SYSTEMS LABORATORY	870310	0,832	112,713	1315,759	46,997
TOTALS	664940	10179,954	359,044	17721,760	1336,707

TABLE 3. NAVY ROTEE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1980

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA											
	TOTAL INHOUSE	TOTAL ROTEE	INHOUSE ROTEE	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV
AEROSPACE MEDICAL RESEARCH LABORATORY	3.857	3.114	2.691	41	66	7	10	19	38						
AIR DEVELOPMENT CENTER	237.479	157.854	77.838	287	2048	2	33	287	1126						
AIR PROPULSION CENTER	37.011	33.234	19.006	8	581	0	0	7	156						
AIR TEST CENTER	154.627	79.532	59.050	150	1957	3	7	192	318						
ARCTIC RESEARCH LABORATORY	8.537	6.487	0.000	3	0	0	0	2	0						
ATLANTIC FLEET WEAPONS TRAINING FACILITY	19.019	0.238	0.008	190	34	0	0	0	20						
BIOYNAMICS LABORATORY	3.453	3.001	2.565	31	55	8	7	10	25						
BIOSCIENCES LABORATORY	3.429	3.209	3.209	9	6	4	0	5	0						
CIVIL ENGINEERING LABORATORY	26.757	21.553	12.008	16	323	0	29	8	180						
CLOTHING & TEXTILE RESEARCH FACILITY	2.514	1.304	0.980	1	55	0	1	1	39						
COASTAL SYSTEMS CENTER	52.733	35.424	19.800	129	613	0	20	13	275						
DAVID W. TAYLOR SHIP RES CENTER	168.220	136.481	103.217	76	2376	1	124	20	1160						
DENTAL RESEARCH INSTITUTE	1.532	0.864	0.830	29	16	11	4	15	6						
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	4.161	3.866	1.423	14	31	2	7	5	27						
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	11.900	7.070	4.790	40	167	0	0	11	44						
HEALTH RESEARCH CENTER	3.111	2.570	2.570	32	64	3	11	11	24						
MEDICAL RESEARCH INSTITUTE	15.231	11.547	10.632	212	189	59	41	74	83						
MEDICAL RESEARCH UNIT NO.2	1.447	1.088	1.088	31	58	6	3	17	25						
MEDICAL RESEARCH UNIT NO.3	2.414	1.839	1.839	32	55	11	14	16	54						
OCEAN R & D ACTIVITY	31.177	30.483	11.016	10	290	3	46	10	142						
OCEAN SYSTEMS CENTER	257.460	166.069	88.719	288	2404	0	176	48	1296						
OFFICE OF NAVAL RESEARCH	547.533	379.221	14.852	30	393	3	58	28	90						
ORDNANCE MISSILE TEST FACILITY	5.705	4.524	2.326	74	53	1	0	22	6						
PACIFIC MISSILE TEST CENTER	328.755	153.068	107.148	930	3634	0	13	190	1021						
PERSONNEL RESEARCH & DEVELOPMENT CENTER	24.177	19.591	9.295	25	271	1	82	12	201						
RESEARCH LABORATORY	250.885	217.232	139.660	145	3159	0	595	30	1464						
SURMARINE MEDICAL RESEARCH LABORATORY	2.714	2.199	2.145	37	57	15	10	20	28						
SURFACE WEAPONS CENTER	343.896	228.521	96.820	124	4489	2	229	39	2037						
UNDERSEA RANGES DEPARTMENT	36.215	26.383	23.929	44	47	0	0	6	23						
UNDERWATER SYSTEMS CENTER	301.712	129.412	56.130	97	2660	2	97	41	1537						
WEAPONS CENTER	313.106	208.891	127.811	590	3871	1	117	38	1406						
WEAPONS EVALUATION FACILITY	9.025	2.441	2.045	133	106	0	2	18	47						
TOTALS	3209.792	2078.310	1000.399	5175	30138	145	1736	1242	12896						

TABLE 4. NAVY ROTEE FACILITIES DATA, FY 1980

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL	EQUIPMENT
AEROSPACE MEDICAL RESEARCH LABORATORY	6	116,574	3,500	13,748	3,140	12,265
AIR DEVELOPMENT CENTER	840	852,000	83,000	654,000	33,000	52,000
AIR PROPULSION CENTER	68	376,704	37,973	211,765	51,030	11,630
AIR TEST CENTER	6 72	962,545	363,507	3479,111	141,926	61,304
ARCTIC RESEARCH LABORATORY	4,007	47,310	15,987	37,049	13,158	0,830
ATLANTIC FLEET WEAPONS TRAINING FACILITY	3692	0,000	14,957	182,152	12,590	100,660
BIODYNAMICS LABORATORY	1	32,014	21,578	0,000	0,400	25,000
CIVIL ENGINEERING LABORATORY	5	77,625	8,731	34,846	1,000	5,400
CLOTHING & TEXTILE RESEARCH FACILITY	30	91,840	71,748	44,158	7,593	3,429
COASTAL SYSTEMS CENTER	1	10,000	7,000	3,000	0,440	0,931
DAVID W. TAYLOR SHIP R&D CENTER	665	346,747	38,150	251,455	34,434	20,326
DENTAL RESEARCH INSTITUTE	324	1708,694	102,847	245,267	72,534	71,971
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	30,650	4,315	8,090	0,000	0,794
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	0	1,362	4,888	10,594	0,000	1,370
HEALTH RESEARCH CENTER	1097	48,398	19,506	47,814	4,564	1,854
MEDICAL RESEARCH INSTITUTE	1	19,057	7,159	0,000	2,060	0,709
MEDICAL RESEARCH UNIT NO. 2	4	145,868	9,400	40,299	4,000	10,414
MEDICAL RESEARCH UNIT NO. 3	0	12,013	4,509	0,000	0,000	0,606
OCEAN R & D ACTIVITY	5	41,068	8,962	55,350	1,443	0,800
OFFICE OF NAVAL RESEARCH	5	63,976	18,990	25,794	9,400	7,188
ORDNANCE MISSILE TEST FACILITY	2723	1195,939	208,922	187,286	45,501	132,885
PACIFIC MISSILE TEST CENTER	0	0,000	84,795	1,500	0,000	0,000
PERSONNEL RESEARCH & DEVELOPMENT CENTER	85	108,566	30,539	78,694	5,822	10,106
RESEARCH LABORATORY	27084	950,507	396,913	3504,398	151,753	135,356
SUBMARINE MEDICAL RESEARCH LABORATORY	1	65,860	7,080	0,000	0,485	2,418
SURFACE WEAPONS CENTER	798	2317,917	192,677	479,359	92,205	104,371
UNDERSEA RANGES DEPARTMENT	1	40,514	14,099	0,000	1,105	1,792
UNDERWATER SYSTEMS CENTER	5380	1672,436	175,798	1292,994	98,178	90,547
WEAPONS CENTER	1042	64,216	8,595	304,964	24,504	1,391
WEAPONS EVALUATION FACILITY	367	1006,047	114,190	591,567	45,506	44,964
TOTALS	1122177	1161,336	418,202	4441,031	231,892	108,896
	7	0,400	53,502	94,926	9,600	0,998
	1178258	13573,178	2552,553	16672,007	1099,193	1623,225

TABLE 5. AIR FORCE ROTEE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1960

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA											
	TOTAL	TOTAL ROTEE	INHOUSE ROTEE	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV
AERO PROPULSION LABORATORY	117.099	116.171	14,584	45	349	5	28	34	216						
AEROSPACE MEDICAL RESEARCH LABORATORY	16.154	14.854	1.272	135	153	16	32	59	103						
ARMAMENT DIVISION	1700.359	373.134	146.358	4545	3102	23	36	481	685						
ARNOLD ENGINEERING DEVELOPMENT CENTER	147.433	136.716	15.362	110	155	4	6	61	45						
AVIONICS LABORATORY	145.754	142.688	19.638	159	610	8	38	107	398						
EASTERN SPACE & MISSILE CENTER	246.242	0.000	0.000	046	1207	3	0	218	73						
ENGINEERING & SERVICES CNTR / RD	10.663	8.771	1.143	91	18	9	1	48	12						
FLIGHT DYNAMICS LABORATORY	96.350	93.000	25.540	188	646	6	50	119	431						
FLIGHT TEST CENTER	142.782	100.274	77.571	3050	1786	5	3	137	278						
FRANK J SEILER RESEARCH LABORATORY	1.262	0.722	0.722	23	9	13	1	15	4						
GEOPHYSICS LABORATORY	56.352	52.612	24.076	120	495	6	79	39	274						
HUMAN RESOURCES LABORATORY	27.662	23.751	9.061	125	238	12	40	75	143						
MATERIALS LABORATORY	112.414	55.810	14.264	52	313	7	47	47	242						
OFFICE OF SCIENTIFIC RESEARCH	118.927	117.977	24.746	48	98	13	22	22	26						
ROCKET PROPULSION LABORATORY	40.345	37.661	13.292	176	254	4	14	64	93						
ROME AIR DEVELOPMENT CENTER	235.473	195.995	23.849	219	1091	9	54	108	592						
SCHOOL OF AEROSPACE MEDICINE	22.881	16.394	11.190	393	274	50	38	116	124						
WEAPONS LABORATORY	181.936	169.216	58.238	647	481	48	50	386	239						
WESTERN SPACE AND MISSILE CENTER	90.884	0.596	0.596	350	333	1	2	221	260						
4950 TEST WING	57.983	55.757	46.327	878	1052	0	0	29	98						
6585TH TEST GROUP	28.242	18.264	9.137	324	282	1	2	56	79						
TOTALS	3117.197	908.287	537.170	12633	12946	243	523	2442	4405						

TABLE 6. AIR FORCE ROT&E FACILITIES DATA, FY 1980

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)						COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL			
					PROPERTY	EQUIPMENT		
AERO PROPULSION LABORATORY	40	229.490	36.784	105.665	56.100	28.670		
AEROSPACE MEDICAL RESEARCH LABORATORY	30	70.586	3.068	95.133	10.964	20.812		
ARMAMENT DIVISION	463587	320.295	914.900	10347.525	301.687	201.856		
ARNOLD ENGINEERING DEVELOPMENT CENTER	39081	1097.395	184.217	703.205	384.364	64.910		
AVIONICS LABORATORY	229	250.901	8.775	412.929	24.294	68.733		
EASTERN SPACE & MISSILE CENTER	17484	129.369	1213.525	4510.214	382.881	323.165		
ENGINEERING & SERVICES CNTR / RD	3	5.460	2.200	9.751	1.960	1.730		
FLIGHT DYNAMICS LABORATORY	92	515.356	5.100	147.178	26.438	54.214		
FLIGHT TEST CENTER	227071	102.125	263.504	6761.139	282.040	131.081		
FRANK J SEILER RESEARCH LABORATORY	1	19.000	3.100	0.000	1.720	1.500		
GEOPHYSICS LABORATORY	368	389.923	14.566	25.883	9.684	30.867		
HUMAN RESOURCES LABORATORY	8	85.100	49.190	55.220	6.123	36.507		
MATERIALS LABORATORY	15	188.750	119.141	54.123	23.340	19.327		
OFFICE OF SCIENTIFIC RESEARCH	0	0.000	36.688	5.128	0.000	0.000		
ROCKET PROPULSION LABORATORY	68345	419.046	86.848	4.780	126.000	25.108		
ROME AIR DEVELOPMENT CENTER	1517	817.004	54.060	182.038	30.351	51.200		
SCHOOL OF AEROSPACE MEDICINE	74	420.115	21.096	183.400	16.257	20.408		
WEAPONS LABORATORY	702	555.629	161.356	137.261	76.612	66.370		
WESTERN SPACE AND MISSILE CENTER	55860	837.000	5000.000	409.000	260.000	49.900		
4950 TEST WING	218	0.000	60.582	928.120	15.516	415.994		
6585TH TEST GROUP	6502	386.000	7.000	153.000	103.001	41.375		
TOTALS	881327	6838.544	8245.710	25235.542	2139.332	1653.727		

TABLE 7. DEPARTMENT OF DEFENSE ROT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1980

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA					
	TOTAL	TOTAL INHOUSE ROT&E	TOTAL ROT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV
ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE	10.670	10.670	8.620	88	128	23	16	40	49
TOTALS	10.670	10.670	8.620	88	128	23	16	40	49

SUMMARY
 DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES
 PROGRAM DATA FOR FY 1980

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	6553.981
TOTAL INHOUSE PROGRAM	2498.258
TOTAL RDT&E PROGRAM	3950.752
TOTAL INHOUSE RDT&E	1721.657
TOTAL ANNUAL OPERATING COST	715.970

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	11974	723	3737
CIVILIAN	48000	3319	23010
TOTAL	59974	4042	26747

PHYSICAL FACILITIES (END OF FY 1980)

ACRES	1702300
SPACE (THOUSANDS OF SQ FT)	
LABORATORY	23246.459
ADMINISTRATIVE	5125.080
OTHER	23978.907
TOTAL	52350.441
COST (MILLIONS)	
REAL PROPERTY	2169.797
EQUIPMENT	2103.640
TOTAL	4273.437

TABLE IA. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1980

INSTALLATION	FUNDING DATA (MILLIONS \$)		PERSONNEL DATA									
	TOTAL INHOUSE	TOTAL RDTC&E	TOTAL INHOUSE	TOTAL RDTC&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PHD PROF MIL	PHD PROF CIV	PROF CIV	
AEROMEDICAL RESEARCH LABORATORY	4.984	3.740	4.365	3.111	77	65	9	5	38	21	21	
ATMOSPHERIC SCIENCES LABORATORY	26.953	23.324	15.557	11.928	355	175	0	23	1	88	88	
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	52.855	52.601	21.602	20.728	25	545	0	33	17	576	576	
AVIONICS R & D ACTIVITY	15.371	10.126	6.662	3.797	10	231	0	4	5	144	144	
BALLISTIC RESEARCH LABORATORY	44.185	41.918	36.543	34.301	27	726	1	97	9	378	378	
BIOLOGICAL LABORATORY	8.738	7.554	8.733	7.554	62	221	29	11	47	50	50	
CHEMICAL SYSTEMS LABORATORY	29.165	60.329	45.547	32.411	91	764	1	39	35	537	537	
COLD REGIONS R&E LABORATORY	16.278	6.841	11.458	4.645	14	263	1	32	4	149	149	
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	85.375	36.773	20.404	12.650	14	169	0	1	11	93	93	
COMMUNICATIONS R & D COMMAND	68.115	60.485	12.186	10.856	57	415	0	12	17	262	262	
CONSTRUCTION ENGINEERING RESEARCH LAB	12.539	8.675	9.936	6.073	5	204	1	33	5	114	114	
ELECTRONIC WARFARE LABORATORY	113.567	64.676	31.929	12.234	84	411	0	8	5	201	201	
ELECTRONICS TECHNOLOGY AND DEVICES LAB	42.688	35.228	14.019	13.663	0	278	0	32	0	166	166	
ENGINEER TOPOGRAPHIC LABORATORIES	33.214	30.776	10.936	9.233	15	299	1	15	6	124	124	
ENGINEER WATERWAYS EXPERIMENT STATION	62.637	16.206	51.116	14.500	19	1381	0	79	12	538	538	
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	71.242	26.904	50.850	21.262	14	611	0	26	6	397	397	
HARRY DIAMOND LABORATORIES	160.369	73.982	56.078	41.814	6	1145	1	49	3	338	338	
HUMAN ENGINEERING LABORATORY	10.621	9.994	8.219	7.642	33	142	1	16	15	104	104	
INSTITUTE OF DENTAL RESEARCH	3.630	2.225	2.529	1.174	80	27	2	2	44	8	8	
INSTITUTE OF SURGICAL RESEARCH	5.692	2.151	5.692	2.151	150	91	16	5	52	25	25	
LARGE CALIBER WEAPONS SYSTEMS LAB	223.566	129.823	121.243	73.54	27	1720	1	79	10	1062	1062	
LETTERMAN ARMY INSTITUTE OF RESEARCH	10.572	7.354	8.381	5.163	157	106	27	12	116	42	42	
MATERIALS AND MECHANICS RESEARCH CENTER	39.215	27.167	33.561	23.271	18	604	1	62	6	189	189	
MEDICAL BIOENGINEERING R&D LABORATORY	11.958	11.106	5.008	4.156	34	102	5	15	20	38	38	
MEDICAL R & D COMMAND	4.235	2.547	4.235	2.547	57	92	25	1	46	2	2	
MEDICAL RSCH INST OF INFECTIOUS DISEASES	15.098	10.553	13.584	9.039	321	199	44	30	89	76	76	
MISSILE COMMAND LABORATORIES	180.236	100.239	76.547	46.004	33	1104	0	70	25	563	563	
MOBILITY EQUIP R & D COMMAND	259.328	86.070	55.198	36.925	79	1208	1	23	11	380	380	
MUTICK R&D LABORATORIES	61.168	39.496	38.792	22.704	103	1083	7	74	28	429	429	
NIGHT VISION & ELECTRO OPTICS LABORATORY	207.362	42.178	23.921	18.029	32	459	0	34	3	209	209	
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	26.047	25.284	13.409	12.646	32	328	1	135	22	201	201	
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	5.584	4.530	5.146	4.092	80	95	9	18	34	45	45	
SIGNALS WARFARE LABORATORY	88.304	34.724	7.775	4.895	71	172	0	6	27	59	59	
TANK-AUTO COMMAND LABORATORIES	200.478	94.432	27.074	18.051	47	871	2	13	39	347	347	
WALTER REED ARMY INSTITUTE OF RESEARCH	40.072	30.460	29.225	19.663	446	440	160	65	438	266	266	
TOTALS	2282.390	1222.371	887.450	558.692	2675	16636	346	1159	1252	8221	8221	

TABLE 2A. ARMY RED FACILITIES DATA, FY 1980

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL	EQUIPMENT
	ACRES	LABORATORY	ADMIN	OTHER	PROPERTY	
AEROMEDICAL RESEARCH LABORATORY	10	52.747	7.797	21.884	0.844	7.686
ATMOSPHERIC SCIENCES LABORATORY	15	52.541	26.663	67.658	2.740	22.366
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	88.848	58.673	16.370	1.431	16.933
AVIONICS R & D ACTIVITY	0	16.000	33.500	0.000	0.000	7.671
BALLISTIC RESEARCH LABORATORY	1920	511.780	11.200	29.262	13.870	34.194
BIOLOGICAL LABORATORY	31	92.559	8.736	54.502	9.077	3.928
CHEMICAL SYSTEMS LABORATORY	1750	361.632	13.917	310.727	14.619	26.310
COLD REGIONS R&E LABORATORY	24	80.787	30.027	128.544	8.138	8.127
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	35	52.324	6.139	10.589	0.680	9.400
COMMUNICATIONS R & D COMMAND	0	83.359	7.779	0.000	0.000	10.800
CONSTRUCTION ENGINEERING RESEARCH LAB	30	56.785	34.750	20.019	6.200	5.171
ELECTRONIC WARFARE LABORATORY	6	218.928	74.832	119.394	96.011	77.200
ELECTRONICS TECHNOLOGY AND DEVICES LAB	0	80.000	33.000	6.000	0.000	17.100
ENGINEER TOPOGRAPHIC LABORATORIES	33	90.722	7.000	13.300	6.000	11.263
ENGINEER WATERWAY'S EXPERIMENT STATION	852	1724.058	356.195	167.747	21.025	44.296
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	1513	101.064	125.173	0.750	21.994	5.650
HARRY DIAMOND LABORATORIES	2316	430.300	56.500	228.203	49.500	41.400
HUMAN ENGINEERING LABORATORY	17	45.524	7.056	33.409	4.412	3.567
INSTITUTE OF DENTAL RESEARCH	4	9.325	5.694	6.730	0.890	1.932
INSTITUTE OF SURGICAL RESEARCH	1	26.424	1.800	22.400	2.313	2.494
LARGE CALIBER WEAPONS SYSTEMS LAB	4335	233.455	210.491	40.356	67.377	12.800
LETTERMAN ARMY INSTITUTE OF RESEARCH	9	133.198	36.504	305.309	42.680	9.620
MATERIALS AND MECHANICS RESEARCH CENTER	48	381.778	98.261	187.922	14.636	20.997
MEDICAL BIOENGINEERING RED LABORATORY	5	45.103	27.300	34.108	3.274	3.021
MEDICAL R & D COMMAND	1	0.000	33.497	0.000	0.538	0.619
MEDICAL RSCH INST OF INFECTIOUS DISEASES	43	80.843	19.820	209.699	17.842	7.129
MISSILE COMMAND LABORATORIES	11000	664.000	224.102	428.000	165.815	102.000
MOBILITY EQUIP R & D COMMAND	1064	757.449	173.130	209.879	50.706	35.050
NATICK RED LABORATORIES	2466	554.320	65.900	413.228	27.820	16.876
NIGHT VISION & ELECTRO OPTICS LABORATORY	38	151.798	75.849	0.000	32.000	35.000
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	0	46.110	2.559	6.190	0.001	2.480
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	4	60.421	18.793	28.647	3.713	4.075
SIGNALS WARFARE LABORATORY	10	3.936	32.101	3.963	3.000	9.900
TANK-AUTO COMMAND LABORATORIES	11	140.319	99.947	0.000	38.294	135.000
WALTER REED ARMY INSTITUTE OF RESEARCH	203	382.974	58.360	0.000	1.008	16.300
TOTALS	27916	7811.411	2073.049	3124.686	726.448	768.250

TABLE 3A. NAVY RED LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1980

INSTALLATION	TOTAL		FINDING DATA (MILLIONS \$)		PERSONNEL DATA													
	TOTAL	INHOUSE	TOTAL	INHOUSE	TOTAL	MIL	CIV	TOTAL	PHD	MIL	CIV	PROF	MIL	CIV	PROF	MIL	CIV	
AEROSPACE MEDICAL RESEARCH LABORATORY	3.857	3.834	3.114	2.691	41	66	7	10	19	38								
AIR DEVELOPMENT CENTER	237.479	113.292	157.854	72.838	287	2048	2	33	287	1126								
ARCTIC RESEARCH LABORATORY	8.537	0.059	6.487	0.000	3	0	0	0	0	2								
BIOYNAMICS LABORATORY	3.453	3.004	3.001	2.565	31	55	8	7	10	25								
BIOSCIENCES LABORATORY	3.429	3.429	3.209	3.209	0	6	4	0	5	0								
CIVIL ENGINEERING LABORATORY	26.757	15.056	21.553	12.009	16	323	0	29	8	180								
CLOTHING & TEXTILE RESEARCH FACILITY	2.514	1.862	1.304	0.980	1	55	0	1	1	39								
COASTAL SYSTEMS CENTER	52.733	30.575	35.424	19.800	129	613	0	20	13	275								
DAVID W. TAYLOR SHIP RESEARCH CENTER	168.220	125.510	136.481	103.217	76	2376	1	124	20	1160								
DENTAL RESEARCH INSTITUTE	1.537	1.498	0.864	0.830	29	16	11	4	15	6								
ENVIRONMENTAL PROTECTION RESEARCH FACILITY	4.151	1.718	3.866	1.423	14	31	2	7	5	27								
HEALTH RESEARCH CENTER	3.111	3.111	2.570	2.570	37	64	3	11	11	24								
MEDICAL RESEARCH INSTITUTE	15.231	14.171	11.547	10.632	212	189	59	41	74	83								
MEDICAL RESEARCH UNIT NO.2	1.447	1.447	1.088	1.088	31	58	6	5	17	25								
MEDICAL RESEARCH UNIT NO.3	2.414	2.414	1.839	1.839	32	55	11	14	16	54								
OCEAN R & D ACTIVITY	31.177	11.617	30.483	11.016	10	290	3	46	10	142								
PERSONNEL RESEARCH & DEVELOPMENT CENTER	257.460	122.863	166.069	88.719	288	2404	0	176	48	1296								
RESEARCH LABORATORY	24.177	11.970	19.591	9.795	25	271	1	82	12	201								
SUBMARINE MEDICAL RESEARCH LABORATORY	250.885	160.807	217.232	139.650	145	3159	0	595	30	1464								
SURFACE WEAPONS CENTER	2.714	2.660	2.145	2.145	37	57	15	10	20	26								
SURFACE WEAPONS CENTER	343.896	159.188	228.521	96.820	124	4489	2	229	39	2037								
UNDERSEA RANGES DEPARTMENT	36.215	25.863	23.829	23.829	44	47	0	0	6	23								
UNDERWATER SYSTEMS CENTER	301.712	116.315	129.412	56.130	97	2660	2	97	41	1537								
WEAPONS CENTER	313.106	179.739	208.891	127.911	580	3871	1	117	38	1406								
TOTALS	2096.217	1111.102	1418.992	791.114	2293	23203	138	1656	747	11194								

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TABLE 4A. NAVY RED FACILITIES DATA, FY 1980

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
	SPACE (THOUSANDS OF SQUARE FEET)					
AEROSPACE MEDICAL RESEARCH LABORATORY	6	116.574	3.500	13.748	3.130	12.265
AIR DEVELOPMENT CENTER	840	852.000	83.000	654.000	33.000	52.000
ARCTIC RESEARCH LABORATORY	4987	47.310	15.987	368.049	13.158	8.930
BIODYNAMICS LABORATORY	1	32.014	21.572	0.000	0.400	25.000
CIVIL ENGINEERING LABORATORY	5	77.625	8.731	34.646	1.000	5.400
CLOTHING & TEXTILE RESEARCH FACILITY	30	81.840	71.748	44.158	7.593	3.429
COASTAL SYSTEMS CENTER	1	10.000	7.000	3.000	0.440	0.931
DAVID W. TAYLOR SHIP RED CENTER	665	346.747	39.150	251.455	34.434	20.376
DENTAL RESEARCH INSTITUTE	324	1708.694	102.847	745.262	72.534	71.971
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	30.650	4.815	8.090	0.000	0.794
HEALTH RESEARCH CENTER	0	1.362	4.958	10.594	0.000	1.370
MEDICAL RESEARCH INSTITUTE	1	19.052	7.159	0.000	2.000	0.709
MEDICAL RESEARCH UNIT NO.2	4	145.868	9.400	40.299	4.000	10.414
MEDICAL RESEARCH UNIT NO.3	0	12.013	4.500	0.000	0.000	6.606
OCEAN R & D ACTIVITY	5	41.068	8.962	55.350	1.443	0.800
OCEAN SYSTEMS CENTER	5	63.976	18.990	25.794	9.400	7.188
PERSONNEL RESEARCH & DEVELOPMENT CENTER	2723	1195.939	208.922	197.286	45.507	132.885
RESEARCH LABORATORY	1	65.860	7.080	0.000	0.485	2.418
SUBMARINE MEDICAL RESEARCH LABORATORY	798	2312.917	192.677	479.359	92.205	104.371
SURFACE WEAPONS CENTER	1	40.514	14.099	0.000	1.105	1.792
UNDERSEA RANGES DEPARTMENT	5380	1672.436	175.798	1292.994	98.178	90.547
UNDERWATER SYSTEMS CENTER	1042	64.216	8.595	304.964	24.504	1.391
WEAPONS CENTER	367	1006.047	114.190	581.567	45.506	44.964
	1122177	1161.336	418.202	4441.031	231.892	108.896
TOTALS	1139363	11106.058	1550.799	9041.646	721.908	701.297

TABLE 5A. AIR FORCE RED LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1980

INSTALLATION	FUNDING DATA (MILLIONS \$)		PERSONNEL DATA									
	TOTAL	RDTEE	TOTAL	RDTEE	IMHOUSE	TOTAL	PHD	PROF	TOTAL	PHD	PROF	
	INHOUSE	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	
AERO PROPULSION LABORATORY	117.099	15.517	116.171	45	349	5	28	34	216	216	0	
AEROSPACE MEDICAL RESEARCH LABORATORY	16.154	1.272	14.854	135	153	16	32	59	103	103	0	
ARMAMENT DIVISION	1200.350	373.134	146.358	4545	3102	23	36	481	685	685	0	
AVIONICS LABORATORY	145.754	22.704	142.688	159	610	8	38	107	398	398	0	
ENGINEERING & SERVICES CNTR / RO	10.663	3.035	8.771	91	18	9	1	48	12	12	0	
FLIGHT DYNAMICS LABORATORY	96.350	28.890	93.000	188	646	6	30	119	431	431	0	
FRANK J SEILER RESEARCH LABORATORY	1.262	1.262	0.722	23	9	13	1	15	274	274	0	
GEOPHYSICS LABORATORY	56.352	26.896	52.612	120	495	6	79	39	143	143	0	
HUMAN RESOURCES LABORATORY	27.667	11.512	23.751	125	238	12	40	75	242	242	0	
MATERIALS LABORATORY	112.414	15.472	55.810	52	313	7	47	47	93	93	0	
ROCKET PROPULSION LABORATORY	40.345	37.661	13.292	176	254	4	14	64	582	582	0	
ROME AIR DEVELOPMENT CENTER	23.473	27.820	195.995	219	1091	9	54	108	124	124	0	
SCHOOL OF AEROSPACE MEDICINE	22.881	17.575	16.394	393	274	50	38	116	239	239	0	
WEAPONS LABORATORY	181.936	70.682	169.216	647	481	48	50	386	431	431	0	
TOTALS	2264.704	489.036	1300.779	6018	8033	216	488	1698	3546	3546	0	

TABLE 6A. AIR FORCE R&D FACILITIES DATA, FY 1980

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL	EQUIPMENT
		(THOUSANDS OF SQUARE FEET)				
AERO PROPULSION LABORATORY	40	229,490	36,784	105,665	56,100	28,670
AEROSPAC MEDICAL RESEARCH LABORATORY	30	70,586	3,068	95,133	10,964	20,812
ARMAMENT DIVISION	463587	320,295	914,900	10347,525	301,687	201,856
AVIONICS LABORATORY	229	250,901	8,775	412,829	24,294	68,733
ENGINEERING & SERVICES CNTR / RD	3	5,460	2,200	9,751	1,960	1,730
FLIGHT DYNAMICS LABORATORY	92	515,356	5,100	147,128	26,438	54,214
FRANK J SEILER RESEARCH LABORATORY	1	19,000	3,100	0,000	1,720	1,500
GEOPHYSICS LABORATORY	368	389,923	14,566	25,883	9,684	30,867
HUMAN RESOURCES LABORATORY	R	85,100	48,180	55,220	6,123	36,507
MATERIALS LABORATORY	15	188,750	119,141	54,123	23,340	19,327
ROCKET PROPULSION LABORATORY	68345	419,046	86,848	4,780	126,000	25,108
ROME AIR DEVELOPMENT CENTER	1517	217,004	54,080	182,038	30,351	51,200
SCHOOL OF AEROSPACE MEDICINE	74	420,115	21,096	183,400	16,257	20,408
WEAPONS LABORATORY	702	555,629	161,356	132,261	76,617	66,370
TOTALS	535011	4286,655	1480,194	11755,736	711,530	627,302

TABLE 7A. DEPARTMENT OF DEFENSE ROTICE FACILITIES DATA, FY 1980

INSTALLATION	ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)	
		LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE BETHESDA, MD.	10	42.335	21.049	56.834	7.911	6.791
TOTALS	10	42.335	21.049	56.834	7.911	6.791

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

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

Table 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

COMMAND CHAIN

INTERMEDIATE

COMMAND

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

TABLE 9 - NAVY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

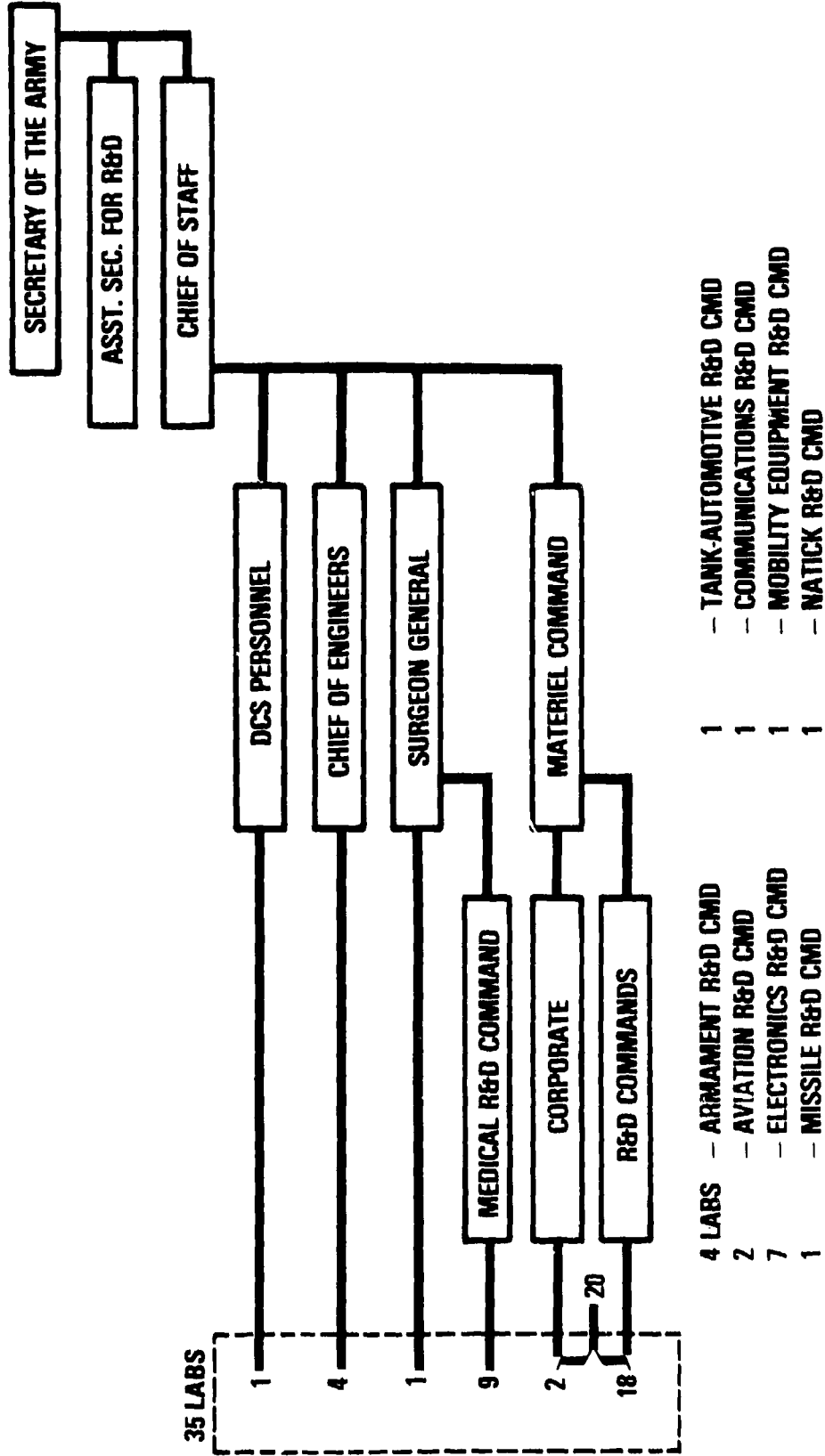
	<u>COMMAND CHAIN</u>	<u>INTERMEDIATE</u>	<u>COMMAND</u>
AEROSPACE MEDICAL RESEARCH LABORATORY		MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
AIR DEVELOPMENT CENTER		--	CHIEF OF NAVAL MATERIAL
ARCTIC RESEARCH LABORATORY		--	CHIEF OF NAVAL RESEARCH
BIODYNAMICS LABORATORY		--	CHIEF BUR OF MED/SUR
BIOSCIENCES LABORATORY		--	CHIEF OF NAVAL RESEARCH
CIVIL ENGINEERING LABORATORY		NAVAL FAC ENG COMMAND	CHIEF OF NAVAL MATERIAL
CLOTHING AND TEXTILE RESEARCH FACILITY		NAVAL SUPPLY SYS COMMAND	CHIEF OF NAVAL MATERIAL
COASTAL SYSTEMS CENTER		--	CHIEF OF NAVAL MATERIAL
DAVID W. TAYLOR SHIP R&D CENTER		--	CHIEF, BUR OF MED/SUR
DENTAL RESEARCH INSTITUTE, NIC		MEDICAL R&D COMMAND	CHIEF OF NAVAL MATERIAL
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
OCEAN SYSTEMS CENTER		--	CHIEF OF NAVAL MATERIAL
PERSONNEL RESEARCH & DEVELOPMENT CENTER		--	CHIEF OF NAVAL MATERIAL
RESEARCH LABORATORY		--	CHIEF OF NAVAL RESEARCH
SUBMARINE MEDICAL RESEARCH LABORATORY		MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
SURFACE WEAPONS CENTER		--	CHIEF OF NAVAL MATERIAL
UNDERSEAS RANGES DEPARTMENT		--	CHIEF OF NAVAL MATERIAL
UNDERWATER SYSTEMS CENTER		--	CHIEF OF NAVAL MATERIAL
WEAPONS CENTER		--	CHIEF OF NAVAL MATERIAL

TABLE 10 AIR FORCE RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

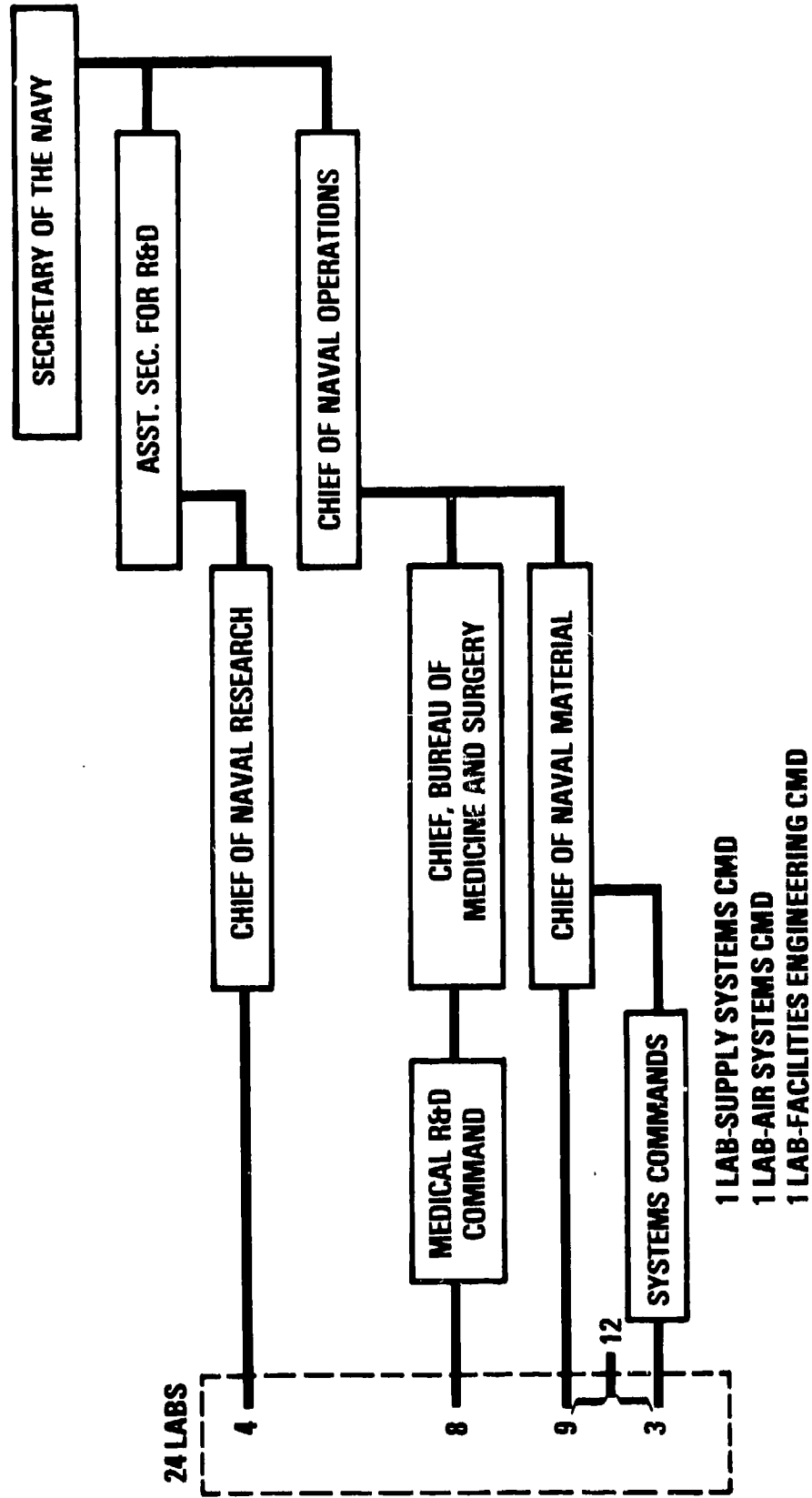
COMMAND CHAIN	
INTERMEDIATE	COMMAND
AEROPULSION LABORATORY	AF SYSTEMS COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	AF SYSTEMS COMMAND
*ARMAMENT LABORATORY	AF SYSTEMS COMMAND
AVIONICS LABORATORY	AF SYSTEMS COMMAND
ENGINEERING SERVICES CENTER/RD	HQ US AIR FORCE
FLIGHT DYNAMICS LABORATORY	AF SYSTEMS COMMAND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

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

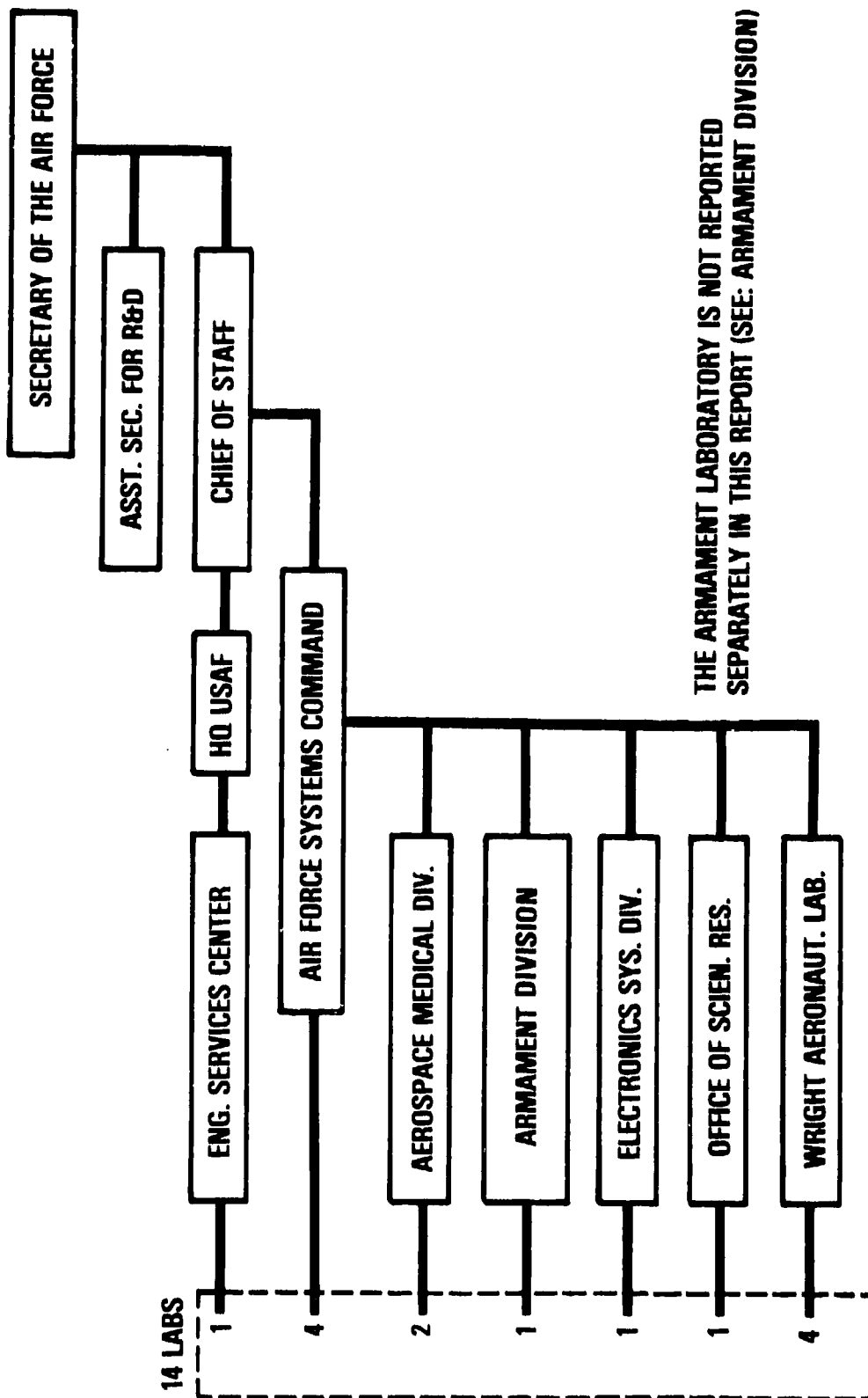
ARMY LABORATORIES COMMAND CHAIN



NAVY LABORATORIES COMMAND CHAIN



AIR FORCE LABORATORIES COMMAND CHAIN



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

INSTALLATION: AEROMEDICAL RESEARCH LABORATORY

FT. RUCKER, AL.

CDR. COL. STANLEY C. KNAPP

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	3.740	3.332
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.067	0.070
TOTAL OTHER	1.177	1.317
TOTAL ANNUAL LAB	4.984	4.719
TOTAL INHOUSE	4.355	4.190
TOTAL INHOUSE RDT&E	3.111	2.803
ANNUAL OPERATING COST	1.600	1.904

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	77	9	38	39
CIVILIAN	65	5	21	44
TOTAL	142	14	59	83

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	52.747	7.797	21.884	82.428	0.844	7.686

...MISSION

CONDUCTS LIFE SCIENCES RESEARCH INTO AVIATION, COMBAT VEHICLE, AND COMBAT WEAPONS SYSTEMS ENVIRONMENTS AND THEIR EFFECTS ON CREW MEMBERS HEALTH, SAFETY AND PERFORMANCE. PROVIDES DATA BASES, ACQUIRED THRU FIELD AND LABORATORY RSCH, TO DESIGNERS, DEVELOPERS, AND USERS OF ARMY SYSTEMS

...CURRENT IMPORTANT PROGRAMS

VISUAL PHYSIOLOGY AND PSYCHOPHYSICS
IMPACT PHYSIOLOGY AND BIOMEDICAL ASPECTS OF VIBRATION
SUSTAINED AVIATION OPERATIONS, CREW WORKLOAD, AND STRESS
MILITARY ACOUSTICS HAZARDS PROGRAM
MEDICAL HAZ ASSESSMENT OF AVIATION, COMBAT VEH AND COMBAT WEAPON SYS ENV

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAN-RATED VIBRATION FACILITY; VIVARIUM
HELICOPTER IN-FLIGHT MONITORING SYSTEM WITH INSTRUMENTED RANGE
ANECHOIC AND REVERBERATION CHAMBERS
MOBILE ACOUSTICS LABORATORY
EYE MOVEMENT MEASURING DEVICE
AIRCRAFT MODIFIED FOR IN-FLIGHT MEDICAL RESEARCH
DATA ACQUISITION AND BIOTELEMETRY SYSTEMS
ELECTRON MICROSCOPY LABORATORY
FIELD RESEARCH FACILITY
HYBRID-ANALOGUE/DIGITAL COMPUTER SYSTEMS
IMPACT FACILITY
SCIENTIFIC AND MEDICAL RESEARCH INFORMATION CENTER

INSTALLATION: AIR DEFENSE BOARD

EL PASO, TX.

PRES. COL. JAMES C. CROSBY, TECH ADV. MR. CHARLES F. FRENCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&F	5.298	5.984
TOTAL PROCUREMENT	2.129	0.586
TOTAL OEM	0.540	0.107
TOTAL OTHER	2.696	2.701
TOTAL ANNUAL LAB	10.663	9.378
TOTAL INHOUSE	9.283	9.427
TOTAL INHOUSE RDT&F	4.439	5.108
ANNUAL OPERATING COST	0.374	0.422

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	117	0	21	96
CIVILIAN	85	0	11	74
TOTAL	202	0	32	170

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
26	36.878	36.326	17.223	90.427	1.339	12.090

...MISSION

PLAN, CONDUCT AND REPT ON DT I, II, AND IIA AS ROR, AND OTHER USER-TYPE TESTS OF AD WPN SYS, FIRE DISTR SYS, ECM AND ECCM EQUIP AND DEVICES AND TGT DEVICES. MONITOR AND PARTICIPATE IN DT I AND DT II AND CONDUCT OTHER TESTS AND EVAL AS DIR BY CG, USA TRADOC AND CG, USAADCENR.

...CURRENT IMPORTANT PROGRAMS

OIVAD GUN DT II
ROLAND RELIABILITY DEMONSTRATION
SHORAD C-SQUARE
GRASS BLADE
AN/ALO-156 (V) RADAR MISSILE DETECTOR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT: MULTIPLE TGT TRACKING SYS PROVIDES DATA FROM AIR & GROUND TGTS, TWO LASER TRACKING SYS TO BE OPER BY FEB 81 WILL PROVIDE DATA FROM COOPERATIVE TGTS, INSTR RADAR SYS THAT PROVIDES HIGH ACCURACY, TWO NIKE-HERC FIRE CON SYS USEC AS INSTR RADARS MATED TO RADAR DATA RECORDERS, A RNG TIMING SYS TO PROVIDE A TIME BASE FOR ALL INSTR SYS, TWO DATA ACQ SYS ACCEPT 59 DIFFERENT SIGNALS, CCTV SYS FOR RNG SAFETY, TECH PHOTO LAB FOR REQUIRED DATA, RICS PROVIDES NEAR REAL TIME DATA OUTPUTS. FACILITIES AT FT BLISS: BLDG 1656 HOUSES RICS, RNG TIMING SYS, DATA PREPARATION, ELECTRONIC CAL & FABRICATION LAB, MACH & CARPENTER SHOPS, MICROWAVE TERM THAT PROVIDES DATA & COMMO LINK TO RANGES; BLDG 1658 - PHOTOGRAPHIC LAB; DONA ANA, MCGREGOR, NORTH MCGREGOR RANGES FOR FIRING FORWARD AREA WEAPON AT AIR OR GROUND TARGETS. SITE MONITOR FOR ELECTRONICS TESTING OF EQUIP.

INSTALLATION: AIRBORNE BOARD

FT. BRAGG, N.C.

PRES. COL. C.H. FERGUSON

ENGR. ADV. MR. GEORGE E. GORE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	1.423	1.743
TOTAL PROCUREMENT	0.299	0.272
TOTAL OEM	0.127	0.179
TOTAL OTHER	1.418	1.526
TOTAL ANNUAL LAB	3.267	3.720
TOTAL INHOUSE	3.267	3.720
TOTAL INHOUSE RDT&E	1.423	1.743
ANNUAL OPERATING COST	1.000	1.128

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	90	0	16	74
CIVILIAN	40	0	6	34
TOTAL	130	0	22	108

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
27	3.978	3.914	39.390	47.282	0.970	4.172

...MISSION

THE MISSION OF THE ABN BD IS TO PLAN, CONDUCT AND REPORT ON OT I & II, FDTE AND OTHER USER TYPE TESTS OF AIRBORNE ITEMS; PARTICIPATE IN OT I, II & III AS DIRECTED; PROVIDE ADVICE AND GUIDANCE ON TEST AND EVALUATION FACILITIES INCLUDE: MAIN OFC BLDG, ABN HANGAR, INSTRUMENTATION/DESIGN

...CURRENT IMPORTANT PROGRAMS

LOW ALTITUDE PARACHUTE EXTRACTION SYSTEM
STANDARD AIRDROP OF SELECTED ITEMS OF EQUIPMENT
EXTERNAL AIR TRANSPORTABILITY
MILITARY AMPHIBIOUS RECONNAISSANCE SYSTEM
PARACHUTE INFLATION ASSISTANCE DEVICE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ARMOR AND ENGINEER BOARD

FT.KNOX,KY.

PRES. COL. JIMMY L. PIGG, SCI. ADV. MR. WARREN W. WELLS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RD&E	10.841	11.181
TOTAL PROCUREMENT	0.348	0.712
TOTAL O&M	0.333	0.300
TOTAL OTHER	3.242	3.500
TOTAL ANNUAL LAB	14.764	15.693
TOTAL INHOUSE	14.764	15.693
TOTAL INHOUSE RD&E	10.841	11.181
ANNUAL OPERATING COST	0.556	0.598

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL	TOTAL	NON-
		PHDS	PROF	PROF
MILITARY	227	0	137	90
CIVILIAN	98	0	17	81
TOTAL	325	0	154	171

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	63.365	50.454	88.069	201.888	1.455	3.176

...MISSION

PLAN CONDUCT & REPORT: OTI, II, III, FDTE, CEP, TEA, & OTHER USER TESTS OF ARM/ ENGR EQ. PARTICIPATE IN OT'S & SP STUDY OF CML EQ. PROVIDE GUIDANCE & ADVICE TO DEVELOPERS, PRODUCERS, OTHER SVCS & PRIVATE INDUSTRY. PLAN, CO-ORDINATE, MANAGE & REPORT ON ACVTP. PROVIDE ADM, LOGIS, & OPNS SPT TO DCO.

...CURRENT IMPORTANT PROGRAMS

NEW ARMY BATTLE TANK (FT KNOX PHASE) XMI OTIII
FDTE CAVALRY FIGHTING VEHICLE
ARMORED COMBAT VEHICLE TECHNOLOGY PROGRAM, SPEC EVAL
AIR TRANSPORTABLE PROTECTED ANTIARMOR/ASSAULT CAPABLE SYS
UNITED KINGDOM COMBAT SUPPORT BOAT OTI

...FUNCTIONS/EQUIPMENT/CAPABILITIES

REMOTE CONTROLLED, VARIABLE SPEED, RELOCATABLE MOVING TARGET (MT); REMOTE CONTROLLED, HIT INDICATING, RELOCATABLE STATIONARY TARGET (ST); VIDEO AUTOMATIC TARGET TRACKING SYSTEM; SIMFIRE HIT-KILL INDICATOR; POSITION LOCATION SYSTEM; MULTI-MODE EVASIVE TARGET SYSTEM; TANK VIDEO SYSTEM; GUN CAMERA; RANGE TIMING EQUIPMENT; TELEMETRY EQUIPMENT; 16MM MOTION PICTURE CAMERA WITH DATADOORS; THRU-TANK-OPTICS VIDEO DEVICE; GUN ELEVATION LIMITING DEVICE; SLR CAMERA, AUTOMATIC FILM ANALYZER AND DIGITIZER SYS; DATA ANALYSIS AND RECORDING SUBSYSTEM; VIDEO I; VIDEO II; AND METEOROLOGICAL INSTRUMENTATION.

INSTALLATION: ARMY RESEARCH OFFICE

DURHAM, N.C.

CDR. COL. DUFF G. MANGES

TECH. DIR. DR. HERMAN ROBL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + FST)
TOTAL RDT&E	47.504	60.437
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.082	0.082
TOTAL ANNUAL LAB	47.586	60.519
TOTAL INHOUSE	0.082	0.082
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	1.478	1.743

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	2	0	2	0
CIVILIAN	94	30	30	64
TOTAL	96	30	32	64

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	24.840	0.000	24.840	0.000	0.694

...MISSION

TO MANAGE THAT PORTION OF THE ARMY'S RSCH PROG RELEVANT TO ARMY MSNS IN MATH AND THE PHYS, ENGR, ENVIRONMENTAL AND LIFE SCIS ACCOMP THROUGH CONTR AND GRANTS WITH EDUC INSTITS, RSCH INSTITS AND GOVT AND INDUS LAB AND TO REPRESENT THE RESEARCH INTERESTS OF THE ARMY OVERSEAS.

...CURRENT IMPORTANT PROGRAMS

DEVELOP AND MANAGE THE ARMY BASIC RESEARCH PROGRAMS
COLLECT, ANALYZE AND EVALUATE BASIC RESEARCH RESULTS
ESTABLISH AND MAINTAIN LIAISON WITH ARMY DEVELOPMENT AGENCIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ATMOSPHERIC SCIENCES LABORATORY

WHITE SANDS MR.N.M.

CDR. COL. W. F. RAWLINSOON JR DEP. DIR. DR. HENRY RACHELE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	23.324	18.443
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.082	0.020
TOTAL OTHER	3.547	4.079
TOTAL ANNUAL LAB	26.953	22.542
TOTAL INHOUSE	15.557	16.178
TOTAL INHOUSE RDT&E	11.928	12.079
ANNUAL OPERATING COST	4.208	4.746

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	355	0	1	354
CIVILIAN	175	23	88	87
TOTAL	530	23	89	441

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	52.541	26.663	67.658	146.862	2.740	22.366

...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 ROTE ACTIVITIES

...CURRENT IMPORTANT PROGRAMS

AUTOMATIC ATMOSPHERIC SOUNDING SET AN/TMO-31
ATMOSPHERIC CHARACTERIZATION-BATTLEFIELD OBSCURATION EFFECTS
REMOTE ATMOSPHERIC SENSING MILLIMETER MICROWAVE PROPAGATION
ATMOSPHERIC MODELS FOR F-0 SYSTEMS ATMOS EFFECTS ON COMMUNICATIONS
METEOROLOGICAL SUPPORT TO ROTE ACTIVITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: AVIATION BOARD

FT. RUCKER, AL.

PRES. COL. ROBERT A. BONIFACIO, TECH. ADV. GEORGE F. SLAGLEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&E	2.927	3.319
TOTAL PROCUREMENT	0.010	0.351
TOTAL O&M	0.092	3.859
TOTAL OTHER	1.561	1.717
TOTAL ANNUAL LAB	4.590	9.246
TOTAL INHOUSE	4.590	9.246
TOTAL INHOUSE ROT&E	2.927	3.319
ANNUAL OPERATING COST	1.189	1.604

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	79	0	34	45
CIVILIAN	36	2	11	25
TOTAL	115	2	45	70

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	17.314	12.961	30.275	0.000	0.502

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

OTN302AH-1 FIRE CONTROL SYSTEM
OTN260CMSET AN/ALQ 156(V) RADAR MISSILE DETECTOR
OTN763AN/ASN-438 PRODUCT IMPROVEMENT PROGRAM
FO237 LIGHT COMBAT HELICOPTER (FAST DEPLOYMENT) TEST
OT3048 PROTECTIVE MASK, XM30

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NO MAJOR EQUIPMENT OR FACILITY.

INSTALLATION: AVIATION DEVELOPMENT TEST ACTIVITY

FT. RUCKER, AL.

CDR. COL. WILLIAM E. CROUCH JR. TECH. DIR. DR. JAMES S. KISHI

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	8.867	9.592
TOTAL PROCUREMENT	0.629	0.800
TOTAL O&M	2.095	2.300
TOTAL OTHER	2.125	2.250
TOTAL ANNUAL LAB	13.716	14.942
TOTAL INHOUSE	13.716	14.942
TOTAL INHOUSE RDT&E	8.867	9.592
ANNUAL OPERATING COST	6.179	6.592

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	229	0	30	199
CIVILIAN	93	1	16	77
TOTAL	322	1	46	276

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1196	0.000	39.124	112.463	151.587	1.400	34.584

...MISSION

PLAN, CONDUCT, EVALUATE AND REPORT ON GOVT TEST ELEMENTS (EDT-G, ADVT-G, PQT-G, PVT-G), EXCEPT THOSE PORTIONS PERTAINING TO ACFT PERFORMANCE, STABILITY AND CONTROL. PROVIDE INPUT, MONITOR AND EVALUATE CONTR TEST ELEMENTS. CONDUCT OTHER TESTS AND EVALUATIONS AS DIR BY CDR, TECOM.

...CURRENT IMPORTANT PROGRAMS

AAH DEVELOPMENT TEST PROGRAM
UH-60A BLACKHAWK DEVELOPMENT TEST PROGRAM
CH-47D RAM GROWTH MATURITY TEST PROGRAM
JP-8 FUEL CONVERSION TEST
CH-47C WITH T-55 L-712 ENGINE TEST PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN, CONDUCT, RECORD, EVALUATE AND REPORT RESULTS OF ASSIGNED DEVELOPMENT TESTS AND EVALUATIONS. PARTICIPATE IN AND SUPPORT THE DEVELOPMENT EFFORTS OF VARIOUS COMMODITY COMMANDS WITH RESPONSIBILITY FOR THE DEVELOPMENT OF AVIATION AND AVIATION RELATED MATERIEL. MONITOR CONTR TEST PROGRAMS, DEMONSTRATIONS, IN WHOLE OR IN PART. PERFORM SOLDIER TESTING TO EVALUATE HFE, SAFETY, AND THE MAN-MACHINE INTERFACE. PROVIDE TECOM TEST REQUIREMENTS FOR THE COORDINATED TEST PROGRAMS. PROVIDE DATA CONCERNING OPERATIONS UNDER EXTREME ENVIRONMENTAL CONDITIONS. CONDUCT PRODUCT IMPROVEMENT TESTS OF FIELDED AVIATION MATERIEL TO IMPROVE SYSTEM CAPABILITY AND RAM. REVIEW AND COMMENT ON NEW EQUIPMENT TRAINING PACKAGES. PROVIDE AIRCRAFT AND SUPPORT AS REQUESTED BY OTHER COMMANDS IN THE MATERIEL DEVELOPMENT EFFORT.

INSTALLATION: AVIATION ENGINEERING FLIGHT ACTIVITY

EDWARDS AFB, CA.

CDR. COL. LEWIS J. MCCONNELL

TECH. DIR. MR. JAMES S. HAYDEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	6.183	4.683
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.969	1.114
TOTAL ANNUAL LAB	7.152	5.797
TOTAL INHOUSE	7.152	5.797
TOTAL INHOUSE RDT&E	6.183	4.683
ANNUAL OPERATING COST	1.698	1.860

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	66	0	21	45
CIVILIAN	105	0	25	80
TOTAL	171	0	46	125

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
19	9.200	16.000	124.800	150.000	3.750	8.280

...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 AND CONTROL. CONDUCT TEST PILOT ORIENTATION CRS.

...CURRENT IMPORTANT PROGRAMS

CH-47D A&FC
ICING: UH-60A, CH-47D, YAH-64, HISS IMPROVEMENT
UH-60A A&FC
YAH-60 FDT IVE V, YAH A&FC
OH-58C RAPID DEPLOYMENT MODS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

JT-28B T-28 20V-1C JU-21A JUH-1S 2JCH-47C JNH-58C JUH-60A 5JUH-1H
ACFT MAINT CAPABILITY
ACFT MODIFICATION CAPABILITY
EMR COMPUTER WITH TELEMETRY
AIRBORNE DATA ACQUISITION SYSTEMS
3REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY
1MILIKEN CAMERA
1FAIRCHILD FLIGHT ANALYZER
1MAGNETIC TAPE COMPOSER SYSTEM
3MAGNETIC TAPE TYPEWRITERS 3MAGCARD TYPEWRITERS

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

DIR. DR. RICHARD M. CARLSON DEP. DIR. COL. JOHN B. FITCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	52.601	50.261
TOTAL PROCUREMENT	2.724	2.186
TOTAL O&M	0.071	0.019
TOTAL OTHER	0.459	0.394
TOTAL ANNUAL LAB	55.855	52.859
TOTAL INHOUSE	21.602	20.839
TOTAL INHOUSE RDT&E	20.728	19.810
ANNUAL OPERATING COST	5.070	5.553

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	0	17	8
CIVILIAN	545	33	576	31
TOTAL	570	33	593	39

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
127	88.848	58.673	16.370	163.891	1.431	16.833

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

RESEARCH IN FUNDAMENTAL ROTOR AERODYNAMICS, DYNAMICS, AND NOISE.
 RESEARCH AND 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 & SURVIVABILITY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: AVIONICS R & D ACTIVITY

FT. MONMOUTH, N. J.

CDR. COL. L. WHITE DEP. DIR. MR. T. SUETA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	10.126	11.325
TOTAL PROCUREMENT	3.092	4.287
TOTAL O&M	1.989	2.350
TOTAL OTHER	0.265	0.294
TOTAL ANNUAL LAB	15.371	18.256
TOTAL INHOUSE	6.662	10.362
TOTAL INHOUSE RDT&E	3.797	6.151
ANNUAL OPERATING COST	3.189	3.478

PERSONNEL	PERSONNEL DATA (END OF FY 1990)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	10	0	0	1
CIVILIAN	231	4	144	87
TOTAL	241	4	153	88

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)		OTHER	TOTAL	REAL PROP	EQUIP
	LAB	ADMIN				
0	16.000	33.500	0.000	49.500	0.000	7.671

...MISSION

RESPONSIBLE FOR THAT PORTION OF AVRADCOM'S MISSION WHICH PERTAINS TO AVIATION ELECTRONICS FROM RESEARCH THRU FIRST TIME PRODUCTION. THIS ENCOMPASSES BOTH AIRBORNE AND GROUND EQUIPMENT FOR COMMUNICATIONS, NAVIGATION INSTRUMENTATION, ENVIRONMENT SENSING, LANDING AND AIR TRAFFIC

...CURRENT IMPORTANT PROGRAMS

ARMY DIGITAL AVIONICS SYSTEMS
 MAP-OF-THE-EARTH COMMUNICATIONS
 MULTIFUNCTION CO2 NOE SENSOR
 AIRBORNE TARGET HANDOFF SYSTEM
 ELECTRONIC MASTER MONITOR/ADVISORY DISPLAY SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INCLUDES NIGHT NAVIGATION PYLOTAGE SYSTEM, DIGITAL HOT BENCH, SYMBOLOGY GENERATOR, WIRE DETECTION AND RECOGNITION SIMULATOR, DIGITALLY ADDRESSABLE, MULTI-LEGEND DISPLAY SWITCH, MICROPROCESSOR/INTERFACE UNIT, ELECTROMAGNETIC INTERFERENCE TEST FACILITY, INST RUMENT LIGHTING LABORATORY, A MICROPROCESSOR DEVELOPMENT CENTER, DATA FORMATTING FACILITY, AN AIR TRAFFIC MANAGEMENT SYSTEMS DESIGN CENTER, COMPUTER AIDED DESIGN ENGINEERING (CAD/E) FACILITY, NAVIGATION SYSTEMS MODELING LABORATORY, MOBILE NAVIGATION LAB, AND ADJACENT HELIPORT.

INSTALLATION: BALLISTIC RESEARCH LABORATORY

ABERDEEN PROV. CR., MD.

DIR. ROBERT J. EICHELBERGER DEP. DIR. COL. ROBERT N. MATHIS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	41.918	36.585
TOTAL PROCUREMENT	0.301	0.264
TOTAL O&M	0.588	0.513
TOTAL OTHER	1.378	1.066
TOTAL ANNUAL LAB	44.185	38.429
TOTAL INHOUSE	36.543	31.757
TOTAL INHOUSE RDT&E	34.301	29.936
ANNUAL OPERATING COST	11.966	10.126

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	1	9	18
CIVILIAN	726	97	378	348
TOTAL	753	98	387	366

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1920	511.780	11.200	29.262	552.242	13.870	34.184

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

PROPULSION DYNAMICS OF HYPERVELOCITY AND CONVENTIONAL GUNS
EFFECTS OF CONVENTIONAL/NUCLEAR WARHEADS AND BALLISTIC PROTECTION
WARHEAD DYNAMICS, PENETRATION, FRAGMENTATION, EXPLOSIVE/METAL INTERACTIONS
FLIGHT DYNAMICS OF PROJECTILES AND MISSILES; ARTILLERY FIRING TABLES
VULNERABILITY ANALYSIS/VULNERABILITY REDUCTION ARMY MATERIEL, AIRCRAFT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EXPLOSIVE BLAST CHAMBERS, AERODYNAMIC RANGES, HIGH ALTITUDE BLAST SPHERE
SHOCK TUBES TO SIMULATE NUCLEAR BLAST, MEASURE CHEMICAL REACTION RATES
SOFT RECOVERY SYSTEM FOR ARTILLERY SHELLS, HIGH SPEED MOTION PHOTOGRAPHY
SPARK PHOTOGRAPHY RANGES, X-RAY CINERADIOGRAPHY, FLASH HOLOGRAPHIC SYST
FIELD TEST FACILITIES FOR PROJECTILE, EXPLOSIVE, AND ARMOR RESEARCH TESTS
ANALOG COMPUTER FOR SIMULATION OF KINEMATICS OF GUNS AND RIFLES
CENTRAL SITE COMPUTATIONAL FACILITY WITH 108 REMOTE INTERACTIVE TERM-
INALS, 12 REMOTE BATCH TERMINALS, AND AN ENVIRONMENTALLY SECURE FULL
SCALE TANK GUN TEST FACILITY. PULSED FLOW CHEMICAL REACTOR SYSTEM

INSTALLATION: BIOMEDICAL LABORATORY

ABERDEEN PROV. GR., MD

COR. COL. CRAIG H LLEWELLYN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	7.554	7.536
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.005	0.020
TOTAL OTHER	1.179	1.315
TOTAL ANNUAL LAB	8.738	9.871
TOTAL INHOUSE	8.733	9.871
TOTAL INHOUSE RDT&E	7.554	7.536
ANNUAL OPERATING COST	3.090	1.678

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	62	29	47	15
CIVILIAN	121	11	50	71
TOTAL	183	40	97	86

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
31	92.559	8.736	54.502	155.797	9.077	3.928

...MISSION

CONDUCTS RDT&E AS IT RELATES TO MEDICAL DEFENSE AGAINST CHEMICAL WARFARE, INCLUDING DRUG DEVELOPMENT AND EVALUATION, METHODS OF PREVENTION, RESUSCITATION, TREATMENT AND MANAGEMENT OF CW CASUALTIES, DOCTRINE DEVELOPMENT, AND TRAINING ON MANAGEMENT AND TREATMENT OF CW CASUALTIES.

...CURRENT IMPORTANT PROGRAMS

SIGN-FREE INJECTABLE PRETREATMENT FOR ORGANOPHOSPHATE POISONING
EFFICACY OF PHOSPHINATES AS PROPHYLACTIC AGENTS IN OP POISONING
EFFICACY OF 4DMAP FOR TREATMENT OF ACUTE CYANIDE POISONING
DEVELOPMENT OF ANIMAL MODELS FOR MEDICAL DEFENSE AGAINST NERVE AGENTS
EFFECTS OF MUSTARD ON SKIN, USING THE ATHYMIC MOUSE MODEL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LARGE ANIMAL BREEDING AND HOLDING FACILITY
LIQUID, GAS, COLUMN AND AFFINITY CHROMATOGRAPHY
ELECTROPHORESIS SPECTROPHOTOMETRY AND FLUOROMETRY
RADIOISOTOPE ANALYSIS
SCAT BEHAVIORAL CONTROL SYSTEM
BEHAVIORAL TESTING LABORATORY
COMPLETE VIDEO PRODUCTION FACILITY
MEDICAL MAINTENANCE FACILITY

INSTALLATION: CHEMICAL SYSTEMS LABORATORY

ABERDEEN PROV. GR., MD

CDR. COL. W. KASTENMAYER DEP. DIR. DR. BENJ HARRIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + FST)
TOTAL RDT&E	60.329	67.293
TOTAL PROCUREMENT	22.300	21.900
TOTAL O&M	5.136	4.200
TOTAL OTHER	1.350	1.485
TOTAL ANNUAL LAB	89.165	94.878
TOTAL INHOUSE	45.547	49.060
TOTAL INHOUSE RDT&E	32.411	35.675
ANNUAL OPERATING COST	9.548	10.524

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	91	1	35	56
CIVILIAN	764	39	537	227
TOTAL	855	40	572	283

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1750	361.632	13.917	310.727	686.276	14.619	26.310

...MISSION

A RSCH, DEV AND ENGR LAB PROVIDING DETERRENT AND RETALIATORY CAPABILITY AND PROTECTION AGST CML AND BIOL ATTACK. PLAN AND CONDUCT WOUND BAL-
LISTICS RSCH; INVESTIGATIONS OF SHOCK TRAUMA, EVAL COMBAT PROT CLOTHING
AND EQUIPMENT; PLAN AND CONDUCT ARMY OBSCURING/AERSOL SYSTEMS R&D.

...CURRENT IMPORTANT PROGRAMS

CHEMICAL/BIOLOGICAL PROTECTIVE MASK XM30
CB DETECTION AND WARNING MATERIEL
CHEMICAL DECONTAMINATION AND CONTAMINATION AVOIDANCE
LETHAL CHEMICAL WEAPONS DEVELOPMENT
SMOKE OBSCURANTS AND SMOKE TOXICOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC RESEARCH; SMOKE/OBSCURANTS; SMOKE TOX; DECON AND CONTAMINATION
AVOIDANCE; ALARM TECH; TRAINING AGTS; CML PROTECTION; PHY DEF AGAINST
BIO ATTACK; DETECT & IDENT; CB THREAT ASSESS; OPER SCIENCE/TECH; TOX
EFFECTS OF THREAT AGTS; LETHAL AGTS; CIVIL DISTURBANCE/TACT IRRITANTS;
INCAP CML AGTS; BIO RESPONSE TO TRAUMA; ASSESS FOREIGN BIOLOGICALS.
MAJOR EQUIPMENT IS CONTAINED IN A COMPLEX OF ENGINEERING/LABORATORY
AREAS. INCLUDES CML PILOT PLANT; AEROSOL CHAMBER; MUNITION FILLING
FACILITY; PRODUCTION AND FACILITY DESIGN; CHAMBER FOR STUDIES ON SPEECH
TRANSMISSION; SIMULANT AGENT CHALLENGE TEST CHAMBER; RUBBER/ELASTOMER
MOLD FACILITY; SPECIALIZED CML AGENT LABORATORY; PYROTECHNIC MIXING.
LOADING, HANDLING FACILITY; COMPUTER MAN; INDOOR BALLISTIC RANGE;
SUBSONIC-SUPERSONIC, TRANSONIC WIND TUNNEL.

INSTALLATION: COLD REGIONS R&E LABORATORY

HANOVER, N.H.

CDR. COL. A. B. DEVEREAUX JR. TECH. DIR. DR. D. P. FREITAG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	6.841	6.860
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.416	0.460
TOTAL OTHER	7.021	7.705
TOTAL ANNUAL LAB	14.278	15.025
TOTAL INHOUSE	11.458	12.165
TOTAL INHOUSE RDT&E	4.645	4.660
ANNUAL OPERATING COST	2.846	3.100

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	1	4	10
CIVILIAN	263	32	140	114
TOTAL	277	33	153	124

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE LAB	(THOUSANDS OF ADMIN	SQUARE FEET OTHER	TOTAL	REAL PROP	EQUIP
24	80.787	30.027	128.544	239.358	8.138	8.127

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAIN LABORATORY AT USACRREL CONTAINS 24 COLD LABS (WHICH CAN BE OPERATED TO -58 F), SPECIAL TESTING APPARATUS FOR FROZEN MATERIALS, AN ICE ENGINEERING FACILITY FOR LARGE MODELING EXPERIMENTS WITH ICE, A CHEMISTRY LAB, AN ELECTRON MICROSCOPE LAB, A SOILS PROCESSING LAB, A PAVEMENT TEST FACILITY FOR TESTING UNDER FREEZING/THAWING CONDITIONS, A WASTEWATER TREATMENT RESEARCH FACILITY, A COMPUTER FACILITY, A MASS SPECTROMETER, A GAS CHROMATOGRAPH, AND A SMALL LASER FACILITY. THE ALASKA PROJECTS OFFICE AT FAIRBANKS CONDUCTS RESEARCH AND PROVIDES 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. NEW FACILITIES SCHEDULED FOR CONSTRUCTION INCLUDE A FROST EFFECTS RESEARCH FACILITY.

INSTALLATION: COLD REGIONS TEST CENTER

APD SEATTLE, WA.

CDR COL JAMES F HENRIONNET

TECH. ADV. MR. WILLIAM J. HASLEM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	5.087	5.312
TOTAL PROCUREMENT	0.002	0.074
TOTAL O&M	0.014	0.007
TOTAL OTHER	4.311	4.203
TOTAL ANNUAL LAB	9.414	9.596
TOTAL INHOUSE	9.414	9.596
TOTAL INHOUSE RDT&E	5.087	5.312
ANNUAL OPERATING COST	4.477	4.644

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	263	1	17	246
CIVILIAN	22	1	7	15
TOTAL	285	2	24	261

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
647155	0.000	7.200	259.719	266.919	10.336	8.760

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

XM1 TANK
HARD OVERPACK
250000 RTU HEATER
ARCTIC TENT 5 AND TEN MAN
XM797 105 MM PROJECTILE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITY CAN ACCOMMODATE A WIDE VARIETY AND LARGE NO OF TESTS AT ANY ONE TIME. SEVERAL VEH TST COURSES AND EXTENSIVE CROSS COUNTRY TERRAIN RANGES ARE AVAILABLE. 500000 ACRE ISOLATED IMPACT AREA, 50KM MAX UNOBSERVED RANGE. LARGE RESTRICTED AIRSPACE WITH UNRESTRICTED FLYING TO 5000FT ORDINATE. COORD WITH FAA CAN EFFECT UNRESTRICTED ORDINATE. 1ST, 2ND, OR 3RD ORDER SURVEY POINTS. GOOD SECONDARY ROADS. PHONE/NON-TAC RADIO AT ALL RANGES AND TEST SITES. AUTODIN, FACSIMILE, TELETYPE, PHOTO LAB AND MAINT FOR MAJORITY OF EQUIP INCL ACFT, DS/GS CALIBRATION, LIMITED ENGR SUPPORT. UHIA ACFT. AF SUPPORT CAN BE ARRANGED. METEOROLOGICAL SPT AVAIL. INST FOR MOST ITEMS AVAIL, CAN OBTAIN OTHER INSTRUMENTS. MOVING TARGET SYSTEM, FOD, STATISTICAL AND MAINT EVAL CAPABILITIES AVAIL. COMPUTER FACILITY AVAIL.

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

CDR/DIR. COL. J. G. MIKULA DEPT DIR MR. V. J. KUBLIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	36.773	42.292
TOTAL PROCUREMENT	47.498	20.645
TOTAL O&M	0.927	1.231
TOTAL OTHER	0.177	0.207
TOTAL ANNUAL LAB	85.375	64.375
TOTAL INHOUSE	20.404	24.563
TOTAL INHOUSE RDT&E	12.650	14.548
ANNUAL OPERATING COST	2.264	2.600

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	0	11	3
CIVILIAN	169	1	43	76
TOTAL	183	1	104	79

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
35	52.324	6.139	10.589	69.052	0.680	9.400

...MISSION

CONDUCT ALL PHASES OF R&D INCL PROD IN THE FOLLOWING PHYSICAL SCIENCES & ASSOCIATED TECHNOLOGIES - IDENT FRIEND FOE NEUTRAL; DATA TRANSMISSION & PROCESSING; NUCLEAR RADIATION DETECTION & MEASUREMENT; RADAR; ACOUSTIC WEAPONS LOCATION; REMOTE SENSING; AND IMAGERY INTERPRETATION.

...CURRENT IMPORTANT PROGRAMS

PROCUREMENT OF MOBILE GROUND IMAGERY INTERPRETATION CENTER.
ADV DEV OF BATTLEFIELD IDENT FRIEND OR FOE.
DEV OF ADV GROUND SURV & TARGET ACQ RADAR SYSTEM.
ADV DEV & INITIAL PROD OF VARIOUS RADIAL SETS & DOSIMETERS
EXPL DEV OF VARIOUS CS&TA SENSORS & DATA XMSN TECHS & SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RADAR TECHNIQUES DEVELOPMENT FACILITIES, INCL MICROWAVE DARKROOM, ANTENNA PATTERN & TEST RANGE, 65-FT RADAR TEST PLATFORM. OUTDOOR & INDOOR RANGES INSTRUMENTED FROM 30 MHZ TO 70 GHZ. MOBILE SPECTRAL & TIME DISTRIBUTION MEASUREMENT FACILITIES. RADAR INSTRUMENTATION FACILITY CAPABLE OF CRACKING X-BAND RADAR & COLLECTING & RECORDING POSITIONS, VELOCITY, AND SIGNAL STRENGTH, INCLUDING A SHORT RANGE SEARCH CAPABILITY.
DATA INFORMATION INVESTIGATION; STUDIES AIMED AT BANDWIDTH REDUCTION, AJ TECHNIQUES, INFORMATION PROCESSING, DIGITAL FRAME STORAGE MEMORY CIRCUITS AND MULTI-ELEMENT, MULTI-FUNCTION, MULTI-BEAM ANTENNA SYSTEMS. RADIOLOGICAL ASSISTANCE TEAM EXPERIENCED IN FUNCTIONING NEAR NUC DETONATIONS, FALLOUT FIELDS, & RADIO ACCIDENTS. ALPHA, BETA, & GAMMA DOSIMETERS.

INSTALLATION: COMMUNICATIONS - ELECTRONICS BOARD

FT. GORDON, GA.

PRES. COL. EDWIN W. CHANDLER ENGR. ADV. MR. RONNIE E. BRACKETT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	1.248	1.259
TOTAL PROCUREMENT	0.120	0.003
TOTAL O&M	0.020	0.031
TOTAL OTHER	1.070	1.135
TOTAL ANNUAL LAB	2.458	2.428
TOTAL INHOUSE	2.458	2.428
TOTAL INHOUSE RDT&E	1.248	1.259
ANNUAL OPERATING COST	0.561	0.661

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	59	0	40	19
CIVILIAN	31	0	10	21
TOTAL	90	0	50	40

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
7	0.000	20.950	0.498	21.448	0.125	0.409

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

...CURRENT IMPORTANT PROGRAMS
FIBER OPTICS EXPERIMENT FOR LOCAL DISTRIBUTION
ARMY DATA DISTRIBUTION SYSTEM/PACKET RADIO EXPERIMENT
DIVISION LEVEL DATA ENTRY DEVICE
RADIO SET, AN/PRC-70
UPGRADE COMMUNICATIONS TECHNICAL CONTROL CTR

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

INSTALLATION: COMMUNICATIONS R & D COMMAND

FT MONMOUTH, N. J.

CDR. MG EMMETT PAIGE, JR.

TECH DIR. MR. THEODORE PFEIFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1991 (ACT + EST)
TOTAL RDT&E	60.485	77.454
TOTAL PROCUREMENT	4.500	14.000
TOTAL O&M	3.130	2.297
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	68.115	93.751
TOTAL INHOUSE	12.186	18.422
TOTAL INHOUSE RDT&E	10.856	16.510
ANNUAL OPERATING COST	1.145	1.245

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	57	0	17	40
CIVILIAN	415	12	262	153
TOTAL	472	12	279	193

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	93.359	7.779	0.000	91.138	0.000	10.800

...MISSION

CONDUCT R&D RELATED TO COMM EQUIP & SYSTEMS, INCLUDING FIELD OF RADIO, TELEPHONIC, FACSIMILE & DATA COMM/COMSEC & COMM PROC. CONDUCT & DIRECT TECH BASE R&D PROG IN TACT ADP SYSTEMS & COMPT SCT DEV MULTI-APPL TACT ADP HARDWARE & SOFTWARE, MANAGE THE C3 & ARMY INTEROP SYS ENGR FUNCTIONS.

...CURRENT IMPORTANT PROGRAMS

MILITARY COMPUTER FAMILY AND INTELLIGENCE FAMILY
MM WAVE FAMILY OF RADIOS
DIGITAL GROUP MULTIPLEXER
FIBER OPTICS
ARMY C3 AND INTEROPERABILITY SYSTEM ENGINEERING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT R&D RELATING TO MICROWAVE & MILLIMETER RADIO SYS, FIBER-OPTICS, DIGITAL DISTR SYS TACT ANT SYS, SWITCHING & TERMINAL DEVICES. TELEPROCESSING DESIGN GEN IS LAB EXPERIMENTAL FAC THAT SUPPORTS EXPERIMENTS WHICH ALLOW OPTIMUM DEVELOPMENT & VALIDATION OF ARMY & JOINT BATTALION SYS. TDC HAS DEVELOPED EMULATIONS OF THE AN/JYK-15 & AN/UJK-19 ALLOW POST DPL SPT CENTERS & SYSTEMS TO BE SUPPORTED & TO COMMUNICATE IN A SECURE HIGH SPEED MANNER.

INSTALLATION: CONSTRUCTION ENGINEERING RESEARCH LAB

CHAMPAIGN, IL.

COR. COL. L. J. CIRCEO,

TECH. DIR. DR. L. R. SHAFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	8.675	10.844
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.827	2.284
TOTAL OTHER	2.036	2.795
TOTAL ANNUAL LAB	12.538	15.923
TOTAL INHOUSE	9.936	12.670
TOTAL INHOUSE RDT&E	6.073	7.501
ANNUAL OPERATING COST	2.261	2.710

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	5	1	5	0
CIVILIAN	204	33	114	90
TOTAL	209	34	119	90

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
30	56.785	34.750	20.019	111.554	6.200	5.171

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

DEV ENERGY CONS TECH/PROC FOR MIL INSTS
DEV COMP AIDED SYSTS FOR PLAN AND DESIGN
DEV IMPROVED SYST FOR RPMA OF MIL FACs
DEV MGMT INFO SYST FOR MX PROGRAM
DEV SYSTS FOR ENV QLTY MGMT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONTROLLED ENVIRONMENT CHAMBERS; ONE-MILLION POUND CLOSED-LOOP MATERIALS TEST SYSTEM; SCANNING ELECTRON MICROSCOPE; SEMI-AUTOMATIC WELDING EQUIPMENT; BIAXIAL SHOCK TEST MACHINE; NON-DESTRUCTIVE TESTING FACILITY; VACUUM INDUCTION IN FURNACES; METALLOGRAPHIC SAMPLE PREPARATION; METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYSTEM; DYNAMIC TENSION ANALYSIS SYSTEM; DIGITAL RECORDING ANALYSIS EQUIPMENT; AND HVAC TEST FACILITY. CAPABILITIES INCLUDE SYSTS BLDG METHODS AND TECHNIQUES; COMPUTER BASED DESIGN AND CONSTRUCTION MGMT TECHNIQUES; ENERGY SYSTEMS DESIGN, CONSERVATION, AND ALTERNATE FUELS STRATEGIES; HARDENED FACILITIES ANALYSIS; ENV QUALITY MGMT; POLLUTION CONTROL AND ABATEMENT; MIL HOUSING SYSTEMS; UTILITIES SYS EVAL AND ANALYSIS; QUALITY OF LIFE AND ARCHITECTURAL RES; AND ELECTROMAGNETIC PULSE/INTERFERENCE RESEARCH.

INSTALLATION: DUGWAY PROVING GROUND

DUGWAY, UT.

CDR. COL. CHARLES H. RAY SCI. DIR. DR. MORTIMER A. ROTHENBERG

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&F	24.995	26.610
TOTAL PROCUREMENT	0.365	0.390
TOTAL O&M	0.951	1.200
TOTAL OTHER	3.998	4.506
TOTAL ANNUAL LAB	30.209	32.706
TOTAL INHOUSE	24.962	26.842
TOTAL INHOUSE RDT&F	20.586	21.820
ANNUAL OPERATING COST	14.352	16.935

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	159	0	6	153
CIVILIAN	628	16	64	564
TOTAL	787	16	70	717

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
940911	104.875	201.133	1643.266	1949.274	79.999	28.762

...MISSION

DPG PLANS & CONDUCTS APPROVED TESTS TO ASSESS THE MILITARY VALUE OF 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 PRG 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 & MESMFT NETWK)SYS. TSPI(RADAR SLAVE PHOTO)SYS: PHYS & ENVIRON TEST FAC(MIL SPFC 910) CHAMBERS FOR TOTAL AGENT CONTAINMNT; EXPLO SHIELDING PROPAGATION & OVERPRESSURE MEASMNTS, OPNS SPTD BY MET RSCH ON BEHAVIOR OF CLOUDS; CML, LIFE SCI TECHN, ECOL SURVL OF DPG; CAPBL FOR PLANNING ANAL, EVAL OF TESTS, OPNS RSCH; LABS EQUIPD FOR WIDE RNG OF CML, MICROBIOL, TOXICOL, IMMUNOL, ECOL, EPIDEMIO, POLL CNTL STUDIES; CAPBL FOR PROD BIO SIMUL AG; TECHN & MASS ASSAY OF FLUORESCENT AIR TRACERS; EXTENSV COMM & RG SAFETY SYS. OUTSTANDING ARE LARGE LAND AREA, RESTRICTED AIR SPACE, LONG & FLAT ARTY RANGES, PROJECTILE RECOVERY, SONIC & ELECTROMAG STERILITY, DIVERSE SKILLS.

INSTALLATION: ELECTRONIC PROVING GROUND

FT. HUACHUCA, AR.

COR. COL. JAMES H. PHILLIPS

TECH DIR MR. GRADY H. BANISTER, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	11.328	13.101
TOTAL PROCUREMENT	2.341	2.757
TOTAL O&M	1.786	2.073
TOTAL OTHER	10.159	10.975
TOTAL ANNUAL LAB	25.664	29.916
TOTAL INHOUSE	17.956	20.700
TOTAL INHOUSE RDT&E	6.016	7.206
ANNUAL OPERATING COST	8.705	8.943

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	715	0	48	667
CIVILIAN	220	0	75	145
TOTAL	935	0	123	812

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
66000	0.000	50.300	235.624	285.924	8.500	46.402

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

STAND-OFF TARGET ACQUISITION SYSTEM
POSITION LOCATION REPORTING SYSTEM
SINGLE CHANNEL GROUND AIRBORNE RADIO SYSTEM
C3I SYS TEST CAPABILITY
MORTAR LOCATING RADAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT TESTS OF HW/SOFTWARE, DOCTRINAL CONCEPTS/SCENARIOS TEST CAPABILITY INCL TEST OF COMM, IMAG, IMAGERY INTERPRETATION MET, RADIAC, RDR, LASER INTEL, EW, CMD/CTRL, PWR SOURCES, RPV, GND&SCTY SENSORS SYS/EQUIP INCL EMC, EMI, EMV, ECM, FCCM, TEMPEST AND INTRA/INTEROPERABILITY ANAL AS REQ. TECHNIQUES INCL BENCH AND FLD. TEST W/ACCESS TO EXTENSIVE REAL EST, MATH MDL AND SIM FACS INCL: EM, CLIMATIC/STRUCT ENVIRON, INSTRUMENTED SPACE POS RG (3 FPS-16/CAPRI), TEMPEST, C3I SYS TEST INCL A REALISTIC FM BATTLEFIELD, ANTENNA PATTERN, ELECTRO-OPT AND VARIOUS ENVIRON FACILITIES INCL NUC, PERFORM RELIABILITY, AVAILABILITY AND MAINTAINABILITY (INCLUDE MAINT MANUALS, REPAIR PARTS, SPECIAL TOOLS), SAFETY AND HFE TEST, CONDUCT/PARTICIPATE IN RELATED DOCTRINAL AND CONCEPT STUDIES, AND TEST FOR ARMY, OTHER SERVICES AND DOD AGENCIES.

INSTALLATION: ELECTRONIC WARFARE LABORATORY

FT. MONMOUTH, N. J.

DIR MR. M. ADLER

DEP DIR MR. R. GIORDANO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	64.676	52.106
TOTAL PROCUREMENT	42.459	99.311
TOTAL O&M	6.432	4.962
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	113.567	156.279
TOTAL INHOUSE	31.929	42.563
TOTAL INHOUSE RDT&E	12.234	34.746
ANNUAL OPERATING COST	2.763	2.901

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	0	5	79
CIVILIAN	411	8	201	210
TOTAL	495	8	206	289

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	218.928	74.832	119.394	413.154	96.011	77.200

...MISSION

RES DEV INITIAL ACQ AND FIRST FIELDING OF EW AND SELECTED INTEL MATERIAL
INCL EW PROTECT OF COMBAT VEHCLS INTERCEPT OF LOCATION SIG ANALYSIS ECM.
DECEP VULNERABILITY/COUNTERCOUNTERMEASURES SOFTWARE SUPPORT FOR ERADCOM.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF ARTILLERY FIR-FD/HAND EMPLACED EXPENDABLE JAMMERS
PRODUCTION OF SIGINT EQPT QUICK LOOK GUARDRAIL AND QUICK FIX
DEVELOPMENT OF CCN TECHNIQUES FOR SINGGARS
DEVELOPMENT OF ECM AND WARNING EQPT FOR SELF PROTECTION OF COMBAT VEHCL
EW VULNRABILITY INVESTIGATION OF MISSILE SYS EG PATRIOT, ROLAND

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ENCOMPASSES APPLD RDA INCL QRC DEV AND SPT IN INTEREPT OF SIG ANALYSIS
JAM DECEP SIG INTEL ACoust INTEL AGT EQUIP SPEC CM INTEL VULN AND CCM
TECHNICAL FACILITIES BIG CROW (KC-135) AIRBORNE EW LABORATORY IRCM
SIMULATOR (US AND FOREIGN MISSILES) IR MEASUREMENTS AND REDUCTION
(ISMS ISTS ACFT SIGN) MOB INST FAC IMDSO PHOTO PHYS SEC FAC EWIS
(QRC DATA BASE) WAYSIDE TEST AREA (HF VHF DF JONOSONDE) ANTENNA RANGE

INSTALLATION: ELECTRONICS TECHNOLOGY AND DEVICES LAB

FT. MONMOUTH, N. J.

CDR. DR. C. G. THORNTON

DEP. DIR. MR. S. F. DANKO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	35.228	35.650
TOTAL PROCUREMENT	7.104	6.182
TOTAL O&M	0.356	0.509
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	42.688	42.341
TOTAL INHOUSE	14.019	13.599
TOTAL INHOUSE RDT&E	13.663	13.090
ANNUAL OPERATING COST	1.740	1.800

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	0	0	0	0
CIVILIAN	278	32	166	112
TOTAL	278	32	166	112

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	80.000	33.000	6.000	119.000	0.000	17.100

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

SOLID STATE & TUBE TYPE MICROWAVE & MILLIMETER WAVE DEVICES FOR MISSILES
ADV HIGH SPEED MICROELECTRONIC DEVICES/TECHNOLOGY TO PERMIT REAL TIME ID
HI-ENERGY DENSITY LITHIUM BATTERIES FOR LASER DESIGNATORS
IR SOURCES FOR AIRCRAFT SURV EQPMT BROADBAND HIGH FREQ MICROWAVE
MICROWAVE TUBES FOR DECOY SYSTEM. SUNLIGHT LEGIBLE DISPLAY FOR C3 ISTA.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COMPLETE LABORATORY FACILITIES ARE AVAILABLE FOR SYNTHESIS AND DIAGNOSIS OF ELECTRONICS MATERIALS FOR EXPLORATORY APPLICATIONS TO ELECTRON DEVICES IN GENERAL AND MICROELECTRONICS IN PARTICULAR. DIVERSE R&D ACTIVITIES INCLUDE FABRICATION AND EVALUATION OF ADVANCED DESIGNS OF IC HYBRID MICROCIRCUITS SEMICONDUCTOR DEVICES QUARTZ CRYSTALS MICROWAVE AND MILLIMETER DEVICES ELECTRON TUBES DISPLAY DEVICES SIGNAL PROCESSOR SUB-ASSEMBLIES AND PRECISION FREQUENCY CONTROL SUBSYSTEMS. FACILITIES ALSO AVAILABLE FOR PRIMARY AND SECONDARY BATTERY DEVELOPMENT AND RELATED (UP TO 1.5 KW) BATTERY CHARGERS AND HAND-CRANKED GENERATORS. THE LAB ALSO PROVIDES ARMY CUSTOMERS WITH EXPERT SERVICES FOR DIRECT R&D SUPPORT CONSULTATION AND TEAM PARTICIPATION IN SYSTEMS DEVELOPMENT.

INSTALLATION: ENGINEER TOPOGRAPHIC LABORATORIES

FT. BELVOIR, VA.

CDR. COL. DANIEL L. LYCAN.

TECH. DIR. MR. R. P. MACCHIA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	30.776	19.128
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.145	2.234
TOTAL OTHER	0.293	0.320
TOTAL ANNUAL LAB	33.214	21.682
TOTAL INHOUSE	10.936	12.402
TOTAL INHOUSE RDT&E	9.233	10.405
ANNUAL OPERATING COST	2.763	4.055

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	15	1	8	7
CIVILIAN	299	15	124	175
TOTAL	314	16	132	182

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
33	90.722	7.000	13.300	111.022	6.000	11.263

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO PERSHING II
SUPPORT TO MX MISSILE PROGRAM
SUPPORT TO ARMY SPACE PROGRAM
EXPERIMENTAL DIGITAL INTERACTIVE FACILITY
QUICK RESPONSE MULTICOLOR PRINTER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ENGINEER WATERWAYS EXPERIMENT STATION

VICKSBURG, MS.

CDR. COL. NELSON P. CONOVER

TECH. DIR. MR. F. R. BROWN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	16.206	17.940
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.190	0.200
TOTAL OTHER	46.241	50.710
TOTAL ANNUAL LAB	62.637	69.850
TOTAL INHOUSE	51.116	55.250
TOTAL INHOUSE RDT&E	14.500	15.355
ANNUAL OPERATING COST	9.132	10.915

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL	TOTAL	NON-PROF
		PHDS	PROF	
MILITARY	19	0	12	7
CIVILIAN	1381	79	538	843
TOTAL	1400	79	550	850

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
852	1724.058	356.195	167.747	2248.000	21.025	44.296

...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, DOE, AF, NAVY, EPA & OTHER AGENCIES.

...CURRENT IMPORTANT PROGRAMS

HYD&MATH MODELING TO SOLVE RIVER, TIDAL, WIND-WAVE, ECOLOGICAL&STRUC PROBS. RSCH ON VEH MOBILITY, REMOTE SENSING, ENVIR 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 PERFORM 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. WEBS 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 GENER MACH, DRILL EQUIP, FULLY, EQUIPED SOILS, CONCRETE, CHEMISTRY, CALBR, ELECT&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. M. J. KINNE JR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	1.278	1.644
TOTAL PROCUREMENT	0.173	0.040
TOTAL O&M	0.006	0.214
TOTAL OTHER	2.088	2.527
TOTAL ANNUAL LAB	3.545	4.425
TOTAL INHOUSE	3.545	4.425
TOTAL INHOUSE RDT&E	1.278	1.644
ANNUAL OPERATING COST	0.245	0.245

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	152	0	36	116
CIVILIAN	37	0	5	32
TOTAL	189	0	41	148

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
23	22.566	32.802	17.640	73.008	3.333	2.666

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

OPERATIONAL TEST II COMM MODE SELECTOR CONTROL
OPERATIONAL TEST II TACFIRE TAPE VALIDATION VERSION 3
OPERATIONAL TEST II MET DATA SYSTEM
OPERATIONAL TEST II SMALL UNIT TRANSCEIVER
OPERATIONAL TEST II XM795

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

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

CDR. COL. MURRAY G. SWINDLER

DEP. DIR. DR. DONALD A. GYOROG

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL ROTGE	26.904	29.889
TOTAL PROCUREMENT	22.904	23.619
TOTAL O&M	21.434	11.079
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	71.242	64.587
TOTAL INHOUSE	50.850	53.847
TOTAL INHOUSE ROTGE	21.262	23.619
ANNUAL OPERATING COST	14.579	16.100

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHDS	PROF	
MILITARY	14	0	6	R
CIVILIAN	611	26	397	214
TOTAL	625	26	403	222

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP EQUIP
1513	101.064	125.173	0.750	226.987	21.994 5.650

...MISSION

ACCOMPLISH EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT AND LIFE CYCLE TECHNICAL RESPONSIBILITY FOR FIRE CONTROL AND ALL WEAPON SYSTEMS AND ANCILLARY ITEMS THROUGH 40MM. FIRE CONTROL RESPONSIBILITY INCLUDES- ALL VEHICLES, FIELD ARTILLERY, HELICOPTERS, AND AIR DEFENSE AND INFANTRY.

...CURRENT IMPORTANT PROGRAMS

JOINT SERVICE SMALL ARMS PROGRAM (USSAP)
FIRE CONTROL AND SMALL CALIBER ARMAMENT TECHNOLOGY
SQUAD AUTOMATIC WEAPON (SAW)
FIRING PORT WEAPON
GENERAL PURPOSE HEAVY MACHINE GUN - WEAPON AND AMMUNITION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE LABORATORY CONDUCTS RESEARCH, EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT IN GUN FIRE CONTROL AND SMALL CALIBER WEAPON SYSTEMS. IT MAINTAINS TEST BED FACILITIES WHICH PERMIT EVALUATION OF SYSTEMS IN THE COMMODITY AREAS OF FIRE CONTROL, AIR DEFENSE AND COMBAT VEHICLES. THE LAB HAS THE CAPABILITY FOR DESIGN AND EVALUATION OF OPTICAL SYSTEMS, MATERIALS AND SIGHTING DEVICES, DIGITAL AND ANALOG SIGNAL PROCESSORS AND GUN/TURRET STABILIZATION AND CONTROL SYSTEMS, SMALL CALIBER WEAPONS, WEAPON MECHANISMS AND MOUNTS, PROJECTILES, PENETRATORS, SHAPED CHARGE LINERS, PROPELLANTS, PRIMERS AND CARTRIDGE CASES. JOINT SERVICE SMALL ARMS PROGRAM, (USSAP) FOR CONVENTIONAL AND SPECIAL WEAPON SYSTEMS.

INSTALLATION: HARRY DIAMOND LABORATORIES

WASHINGTON, D.C.

CDR. COL. W. R. BENOIT

TECH. DIR. DR. W. W. CARTER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	73.882	61.427
TOTAL PROCUREMENT	82.044	71.693
TOTAL O&M	3.360	1.151
TOTAL OTHER	1.083	0.486
TOTAL ANNUAL LAB	160.269	135.457
TOTAL INHOUSE	56.078	44.714
TOTAL INHOUSE RDT&E	41.814	31.950
ANNUAL OPERATING COST	14.800	16.900

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	6	1	3	3
CIVILIAN	1145	49	238	807
TOTAL	1151	50	241	810

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2316	430.300	56.500	228.200	715.000	49.500	41.400

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

CURRENT SIGNIFICANT PROGRAMS: DEV OF XM818F1 FUZE FOR PATRIOT MISSILE
R&D ON FLUIDICS ORDNANCE ELECTRONICS NUCLEAR WEAPONS EFFECTS AND NMMW
DEVELOPMENT OF XM445 FUZE FOR MULTIPLE LAUNCH ROCKET SYSTEM
DEVELOPMENT OF XM749 AND M735 FUZES FOR 155MM AND P IN NUCLEAR ARTILLERY
DEV OF ART'Y DELIVERED EXPENDABLE JAMMERS; INSTALLATION SECURITY RADAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITIES:

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

ELECTRONIC DESIGN FACILITIES: THICK FILM HYBRID CIRCUIT FACILITIES

MICROWAVE ANECHOIC CHAMBER

FUZZING FACILITIES: ARTILLERY SIMULATOR ENVIRONMENTAL TESTING

BLOSSOM POINT TEST AREA MAGNETIC SIGNATURE FACILITY

INSTALLATION: HUMAN ENGINEERING LABORATORY

ABERDEEN PRO. GR., MD.

DIR. DR. JOHN D. WEISZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&E	9.994	11.150
TOTAL PROCUREMENT	0.035	0.035
TOTAL O&M	0.200	0.122
TOTAL OTHER	0.392	0.413
TOTAL ANNUAL LAB	10.621	11.720
TOTAL INHOUSE	8.219	9.129
TOTAL INHOUSE ROT&E	7.642	8.581
ANNUAL OPERATING COST	3.699	3.988

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	33	1	15	18
CIVILIAN	142	16	104	38
TOTAL	175	17	119	56

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
12	45.524	7.056	33.409	85.989	4.412	3.567

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

CONDUCT ARTILLERY C3 STUDY-HELBAT 8 FIELD TEST SERIES
NOISE AND BLAST EFFECTS RESEARCH
FORWARD AMMUNITION SUPPLY TRANSFER FIELD STUDIES
RESEARCH RELATED TO READING AND PERCEPTION, VISUAL SEARCH
HUMAN FACTORS ENGR IN SPT OF ALL MATERIEL BEING DEVELOPED BY DARCOM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATA ACQUISITION AND BIOTELEMETRY SYSTEMS
GAT 2M HELICOPTER SIMULATOR
COMMAND CONTROL SIMULATOR SYSTEM/TEST FACILITY
ACOUSTICAL AND ANECHOIC CHAMBER REVERBERANT ROOM
HELFAST LOGISTICS TESTING FACILITY
INSTRUMENTED PHYSICAL ENDURANCE COURSE
EYE MOVEMENT MEASURING DEVICE
SMALL ARMS TEST FIRING RANGE
MILITARY OPERATIONS IN BUILT-UP AREAS TEST FACILITY
WOOD AND METAL WORKING TEST SUPPORT CAPABILITY
HUMAN FACTORS DATA BANK
ARMOR TEST SITE

INSTALLATION: INFANTRY BOARD

FT. BENNING, GA.

CDR. COL. ARTHUR J. KINZEL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&E	1.835	2.311
TOTAL PROCUREMENT	0.345	0.221
TOTAL O&M	0.020	0.128
TOTAL OTHER	1.690	1.881
TOTAL ANNUAL LAB	3.890	4.541
TOTAL INHOUSE	3.890	4.541
TOTAL INHOUSE ROT&E	1.935	2.311
ANNUAL OPERATING COST	1.109	1.480

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	122	0	3	119
CIVILIAN	55	1	7	48
TOTAL	177	1	10	167

ACRES	SPACE AND PROPERTY			COST (MILLION \$)	
	SPACE LAB	(THOUSANDS OF SQUARE FEET) ADMIN OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	32.203 30.156	62.359	3.000	0.770

...MISSION

PLAN CONDUCT REPORT ON OPERATIONAL TESTS 1/2/3, FORCE DEVELOPMENT TESTS & OTHER TESTS OF EQUIPMENT & ANCILLARY ITEMS TO BE USED BY INFANTRY UNITS FOR COMMAND, CONTROL, FIREPOWER, TARGET ACQUISITION, GROUND SURVEILLANCE, FIRE CONTROL GROUND MOBILITY & TNG & CHEMICAL/BIOLOGICAL EQUI

...CURRENT IMPORTANT PROGRAMS

VIPER OTII
PROTECTIVE MASK XM30 & XM34
MORTAR FIRE CONTROL CALCULATOR
IMPROVED TOW OTII
COMBAT ROOTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AUTOMATED, COMPUTERIZED AUTOMATIC & SMALL ARMS WEAPONS RANGE
CLOTHING & EQUIPMENT TEST FACILITY
MANNED EVASIVE TARGET TANKS
NOVA 312 COMPUTER CAPABILITIES

INSTALLATION: INSTITUTE OF DENTAL RESEARCH

WASHINGTON, D.C.

CDR. COL. THOMAS P. SWEENEY RES COORD. DR. GINO C. BATTISTONE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1990 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.225	2.137
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.166	0.156
TOTAL OTHER	1.239	1.318
TOTAL ANNUAL LAB	3.630	3.611
TOTAL INHOUSE	2.529	2.620
TOTAL INHOUSE RDT&E	1.124	1.146
ANNUAL OPERATING COST	0.250	0.254

PERSONNEL	PERSONNEL DATA (END OF FY 1990)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	80	2	44	36
CIVILIAN	27	2	8	19
TOTAL	107	4	52	55

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
4	LAB	ADMIN	OTHER	TOTAL	0.890	1.932
	9.325	5.496	6.730	21.751		

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: INSTITUTE OF SURGICAL RESEARCH

FT. SAM HOUSTON, TX.

COR. COL. BASTL A. PRUITT

TECH. DIR. DR. ARTHUR D. MASON JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.151	2.540
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.541	2.793
TOTAL ANNUAL LAB	5.692	5.333
TOTAL INHOUSE	5.692	5.055
TOTAL INHOUSE RDT&E	2.151	2.262
ANNUAL OPERATING COST	1.084	1.039

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	150	16	52	98
CIVILIAN	81	5	25	56
TOTAL	231	21	77	154

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE LAB	(THOUSANDS OF ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	26.424	1.800	22.400	50.624	2.313	2.499

...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 30 BEDS FOR HOSPITALIZATION OF SERIOUSLY INJURED BURN PATIENTS.

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATES 30 BEDS FOR SERIOUSLY BURNED AND INJURED PATIENTS. PROVIDES CLINICAL LABORATORY SUPPORT AND RESEARCH CAPABILITIES IN THE FIELDS OF PATHOLOGY, INCLUDING USE OF ELECTRON MICROSCOPE, MICROBIOLOGY, EXPERIMENTAL SURGERY, RENAL PHYSIOLOGY AND BIOCHEMISTRY. MAINTAINS AN ANIMAL COLONY, ELECTRONIC SHOP, MACHINE SHOP, SURGICAL LIBRARY, AND METABOLIC CHAMBER.

INSTALLATION: INTELLIGENCE & SECURITY BOARD

FT HUACHUCA, AR.

PRES. COL. ROGER W. DUNLAP.

TECH. DIR. PHILLIP E. WRALSTAD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	3.656	2.608
TOTAL PROCUREMENT	1.000	0.349
TOTAL O&M	0.093	0.500
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	4.749	3.457
TOTAL INHOUSE	1.103	1.141
TOTAL INHOUSE RDT&E	1.097	1.131
ANNUAL OPERATING COST	0.627	0.664

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	93	0	41	52
CIVILIAN	24	2	7	17
TOTAL	117	2	48	69

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
6	0.000	5.000	34.278	39.278	0.020	2.400

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

QUICK FIX W/O DE OTN198
QUICK FIX WITH DE TEST PREPARATION OTN174
SEMA-ASF R2F0214 PLANNING PHASE
CAVEDODGE CUSTOMER TEST
METHODOLOGYS INSTR TECHNICAL CONTRACTING PREPARATION FOR OT SUPPORT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EW MONITORING FACILITY-TRANSPORTABLE- HOUSED IN A 30 FT ELECTRONIC VAN WITH FOLLOWING CAPABILITIES; RECEIVERS-10KHZ TO 40GHZ, ANTENNAS-30MHZ TO 40GHZ, TAPE RECORDERS SPECTRUM ANALYZERS AND OSCILLOPES. REQUIRES 5 TON TRACTOR FOR TOWING. OTHER FACILITIES, INCLUDE OVER 70000 ACRES AT FORT HUACHUCA, 23000 ACRES AT WILLCOX DRY LAKE AND 1505000 ACRES AT GILA BEND

INSTALLATION: KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS APO SAN FRANCISCO

DIR. COL. R. A. PARSONS DEP. DIR. MR. O. F. OVA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	119.901	151.850
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.810	6.440
TOTAL ANNUAL LAB	123.711	158.290
TOTAL INHOUSE	6.005	6.590
TOTAL INHOUSE RDT&E	5.095	5.590
ANNUAL OPERATING COST	0.406	0.485

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	0	17	10
CIVILIAN	103	1	52	51
TOTAL	130	1	69	61

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1361	0.000	162.309	2244.364	2406.673	237.550	172.621

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: LARGE CALIBER WEAPONS SYSTEMS LAB

DOVER, N.J.

CDR. COL. R. E. PHILLIP

TECH. DIR. DR. J. T. FRASIER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RD&E	129.823	144.516
TOTAL PROCUREMENT	83.217	57.658
TOTAL O&M	10.200	9.200
TOTAL OTHER	0.326	0.366
TOTAL ANNUAL LAB	223.566	211.740
TOTAL INHOUSE	121.243	104.909
TOTAL INHOUSE RD&E	59.830	59.300
ANNUAL OPERATING COST	95.075	102.000

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		PHOS	PROF	
MILITARY	27	1	10	17
CIVILIAN	1720	79	1062	658
TOTAL	1747	80	1072	675

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
4335	233.455	210.491	40.356	484.302	67.377	12.800

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

SPT PM-CAWS, M509 AND M483 PROJ, M692 ADAM, XM719 RAAM.
 SPT XM1 TANK, 120MM AMMO/GUN.
 SPT PM-NUCL, PERSHING 2, XM785, XM753 8 INCH PROJ.
 SCATTERABLE MINE SYSTEMS, MOPMS AND GEMMS.
 ARTILLERY-ESPAWS, GUN PROPULSION INCL CHG DSG, REDUCED WEAR AND FROSION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NEW MAJOR EQUIPMENT AND FACILITY CAPABILITIES OF LCWSL INCLUDES A NEW IBM COMPUTER, MODEL 4341 AT BENET LAB. A NEW IGNITION, RHEOLOGICAL AND COMBUSTION LAB WILL BE COMPLETED IN OCT 81. AN INTERIOR BALLISTIC SIMULATOR WAS FABRICATED FOR LCWSL BY THE NAVAL SURFACE WPNS CTR. THE ESTABLISHMENT OF A MC-AAAC MANAGEMENT OFFICE FOR ALL ARMOR-RELATED ARRADCOM ACTIVITIES. FACILITIES AND EQUIPMENT RESOURCES IS CONTAINED IN A COMPLEX OF ENGINEERING AND LABORATORY AREAS CONSISTING OF 15 BLDGS (ADMIN), 36 BLDGS (LABORATORIES) AND 47 BLDGS (STORAGE). IN ADDITION, A NEW CHEMISTRY LABORATORY VALUED AT 5.5M IS 60 PERCENT COMPLETED.

INSTALLATION: LETTERMAN ARMY INSTITUTE OF RESEARCH

PRESIDIO, S.F., CA.

CDR. COL. JOHN D. MARSHALL, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	7.354	8.592
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.198	0.200
TOTAL OTHER	3.020	2.878
TOTAL ANNUAL LAB	10.572	11.670
TOTAL INHOUSE	8.381	8.562
TOTAL INHOUSE RDT&E	5.163	5.484
ANNUAL OPERATING COST	3.819	3.004

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	157	27	116	41
CIVILIAN	106	12	42	64
TOTAL	263	39	158	105

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	133.198	36.506	305.309	475.013	42.680	9.620

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: MATERIALS AND MECHANICS RESEARCH CENTER

WATERTOWN, MA.

CDR. COL. G. SIBERT

DIR. DR. E. S. WRIGHT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	27.167	26.695
TOTAL PROCUREMENT	5.761	5.661
TOTAL O&M	4.963	4.303
TOTAL OTHER	0.324	0.386
TOTAL ANNUAL LAB	39.215	37.045
TOTAL INHOUSE	33.561	22.193
TOTAL INHOUSE RDT&E	23.271	17.242
ANNUAL OPERATING COST	5.825	6.351

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	18	1	6	12
CIVILIAN	604	62	189	415
TOTAL	622	63	195	427

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
48	381.778	88.261	187.822	657.861	14.636	20.997

...MISSION

MANAGE DARCOM STRUCTURAL MATLS AND MECHANICS PROGRAM. EXECUTE PROGRAM IN-HOUSE & BY ASSIGNMENT & FUND TRANSFER TO OTHER DARCOM FACILITIES, EDUCATIONAL & INDUSTRIAL CONTRACTORS; MANAGE FIVE INFORMATION CENTERS; ASSIST IN DESIGN OF AND DEVELOPMENT OF PROTOTYPE MATERIEL COMPONENTS; CONDUCT

...CURRENT IMPORTANT PROGRAMS

MATLS RESEARCH AIRCRAFT
MATLS RESEARCH ARMAMENT
MATLS RESEARCH ARMORED VEHICLES
MATLS RESEARCH MISSILES
MATLS RESEARCH MULTI-MISSION/SPECIAL REQUIREMENTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANTECH PROGRAMS. INSURES THE EFFECTIVE DEVELOPMENT, MANAGEMENT, AND COORDINATION OF TECHNICAL PROGRAMS IN CHEMICAL & PHYSICAL PROPERTIES; EXECUTE ASSIGNED PHASES OF INTERNATIONAL STANDARDIZATION AND OTHER PROGRAMS; DEVELOPS LONG RANGE R&D PLANS AND LONG RANGE MM&T PLANS CONSISTANT WITH THE OBJECTIVES OF THE ARMY. DEVELOPS OTHER GUIDANCE AS PROVIDED BY DARCOM INCLUDING ASSESSMENTS OF GOVERNMENT AND PRIVATE RESEARCH IN RELATION TO PLANS. CONDUCTS & MANAGES BASIC, APPLIED, AND ADVANCED RDT&E ON MATERIALS SUCH AS CERAMICS, METALS, ORGANIC POLYMERS, AND METAL AND ORGANIC MATRIX COMPOSITE MATERIALS; TO IDENTIFY AND INVESTIGATE FACTORS INVOLVED IN THE DEVELOPMENT, PROCESSING, AND APPLICATION OF NEW AND IMPROVED MATERIALS. CONDUCTS MANUFACTURING METHODS AND TECHNOLOGY PROGRAMS; ADVISE COMMANDS AND INDUSTRY ON PROCESSING TECHNIQUES

INSTALLATION: MATERIEL SYSTEMS ANALYSIS ACTIVITY

ABERON. PROV. GR (UND, MU

ACT. DIR. RG JAMES DRUMMUND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	17.940	17.968
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.980	3.248
TOTAL OTHER	0.729	0.795
TOTAL ANNUAL LAB	20.649	22.011
TOTAL INHOUSE	13.324	14.645
TOTAL INHOUSE RDT&E	10.615	10.602
ANNUAL OPERATING COST	1.432	1.625

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	0	13	16
CIVILIAN	411	21	294	117
TOTAL	440	21	307	133

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	8.140	100.276	1.715	110.131	2.070	0.767

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

TEST DESIGN & EVAL OF AAH, HELLFIRE, FIGHTING VEHICLE SYSTEM PATRIOT, & XMI EFFECTIVENESS & SURVIVABILITY OF PATRIOT, HEL, AAH, AND HELLFIRE
INDEPENDENT EVAL OF XMI, COPPERHEAD, GSRs, PATRIOT, SOTAS, AND VIPER
EVALUATE DEV TEST OF AN/TPQ-36 AND TACFIRE DATA LINKS
PREPARE AIR-TO-AIR/AIR-TO-SURF JOINT MUNITIONS EFFECTIVENESS MANUALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: MATERIEL TESTING DIRECTORATE

ABERDEEN PROV. GR., MD.

CDR. COL. CHARLES W. BINNEY

ASSOC. DIR. MR. DONALD RESCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	36.919	46.009
TOTAL PROCUREMENT	8.454	10.536
TOTAL O&M	1.051	1.310
TOTAL OTHER	5.944	7.257
TOTAL ANNUAL LAB	52.368	65.112
TOTAL INHOUSE	51.241	63.706
TOTAL INHOUSE RDT&E	36.115	45.099
ANNUAL OPERATING COST	24.663	28.707

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL	TOTAL	NON-
		PHDS	PROF	PROF
MILITARY	215	0	14	201
CIVILIAN	844	7	174	670
TOTAL	1059	7	188	871

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
22865	724.317	4.351	269.547	998.215	17.245	49.576

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

XM1 TANK SYSTEM
GROUND-EMPLACE MINF-MARKING SYS (GEMSS)
120MM GUN INTEGRATION PROGRAM
INFANTRY FIGHTING VEHICLE (IFV)
DIVISION AIR DEFENSE (DIVAD) WEAPON SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AREA 68700 ACRES RANGE TO LAND IMPACT 26000M RANGE TO WATER IMPACT 30000 41 MILES OF AUTMV CRS INCL 27 SP ENGR TEST CRS & OBSTACLES VAR OF ENVIR DR 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 CONE GUIDANCE EQUIP FREQ SOURCE WHICH PERMITS TESTING ALL TYPES OF MAT IN PRESENCE OF A HIGH INTENSITY ELEC MAGNETIC RADN SP FAC FOR TEST OF ARMOR PLATE SP VEL & TGT EQUIP IS AVAIL FOR OBSERVATIONS DURING RAPID FIRE AS IS RKT TRACK FOR CONTROLLED TERMINAL BALLISTIC TESTS FAC AVAIL FOR TESTS OF SP ELECTRONIC & FIRE CON EQUIP & RELATED SYS & COMPONENTS. PULSE RADIATION FAC AVAIL FOR USE IN RADIATION TESTING NUCLEAR EFFECTS. SIMULATION REACTOR TECHNOLOGY & RADIATION PHYSICS

INSTALLATION: MEDICAL BIOENGINEERING R&D LABORATORY

FT.DETRICK,MD.

CDR. COL. JOHN N. ALBERTSON JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	11.106	10.154
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.852	0.897
TOTAL ANNUAL LAB	11.958	11.051
TOTAL INHOUSE	5.008	5.191
TOTAL INHOUSE RDT&E	4.156	4.294
ANNUAL OPERATING COST	1.190	1.612

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	34	5	20	14
CIVILIAN	102	15	38	64
TOTAL	136	20	58	78

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
5	45.103	27.300	34.108	106.511	3.274	3.021

...MISSION

CONDUCTS ENGINEERING RSCH AND DEVELOPMENT OF MILITARY MEDICAL EQUIPMENT
CONDUCTS THE SURGEON GENERALS RDT&E PROGRAM IN INTEGRATED PEST MGMT
CONDUCTS ENVIRO OCCUPATIONAL HLTH BASIC AND APPLIED RSCH ON CHEMICALS
CONDUCTS LIFE CYCLE SYSTEM MGMT OF MED, DENTAL AND PEST MGMT MATERIELS

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF FIELD MEDICAL DEVICES AND EQUIPMENT
PEST MGT RDT&E INCLUDING METHODS, MATERIALS, EQUIPMENT AND CONCEPTS
DEVELOPMENT OF ENVIRONMENTAL QUALITY STANDARDS FOR USATHAMA
OCCUPATIONAL HLTH RSCH ON SMOKE OBSC WPN SYS, SYN FUEL, FLD SAN AND WTR
DEVELOP ENVIRO QUALITY AND OCCUP HLTH CRITERIA ON MILITARY CHEMICALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DESIGN, DEVELOP AND FABRICATE PROTOTYPE AND TEST MODELS OF MIL MED MAT
PRODUCE LIMITED QUANTITIES OF MED MAT FOR URGENT MILITARY REQ
DESIGN, DEVELOP AND FABRICATE PEST MANAGEMENT EQUIPMENT AND SYSTEMS
DESIGN, DEVELOP & FABRICATE PROTOTYPE AND TEST MODELS OF MIL DENTAL MAT
PERFORM HLTH AND ECOLOGICAL EFFECTS AND FATE RSCH ON ENVIRO POLLUTANTS
PERFORM PILOT PLANT RSCH ON WATER AND WASTEWATER FOR FIELD ARMY USE

INSTALLATION: MEDICAL R & D COMMAND

FT. DETRICK, MD.

CDR. BG GARRISON RAPMUND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.547	4.853
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.221	0.260
TOTAL OTHER	1.467	1.630
TOTAL ANNUAL LAB	4.235	6.743
TOTAL INHOUSE	4.235	6.743
TOTAL INHOUSE RDT&E	2.547	4.853
ANNUAL OPERATING COST	2.768	5.113

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	57	25	46	11
CIVILIAN	92	1	2	90
TOTAL	149	26	48	101

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	33.497	0.000	33.497	0.538	0.619

...MISSION

ADMINISTRATION AND COORDINATION OF THE MEDICAL RESEARCH, DEVELOPMENT, TEST AND EVALUATION PROGRAM. PROGRAM LIMITED TO UNIQUE MILITARY PROBLEMS WITHIN US AND OCONUS.

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY MEDICAL DEPARTMENT

INSTALLATION: MEDICAL RSCH INST OF INFECTIOUS DISEASES FT. DETRICK, MD.

CDR. COL. RICHARD F. BARQUIST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	10.553	0.000
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.262	0.000
TOTAL OTHER	4.283	0.000
TOTAL ANNUAL LAB	15.098	0.000
TOTAL INHOUSE	13.584	0.000
TOTAL INHOUSE RDT&E	9.039	0.000
ANNUAL OPERATING COST	5.804	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	321	44	89	232
CIVILIAN	199	30	76	123
TOTAL	520	74	165	355

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
43	80.843	19.820	209.699	310.362	17.842	7.129

...MISSION

TISSUE CULTURE TECHNOLOGY DEVELOPED FOR GROWTH OF EBOLA VIRUS. ANTIVIRAL DRUG, RIBAVIRIN, FOUND TO BE EFFECTIVE IN TREATING LASSA, RIFT VALLEY AND YELLOW FEVERS. STUDIES INDICATE THAT MACHUPU VIRUS, LASSA FEVER AND L. PNEUMOPHILIA HAVE BW POTENTIAL BECAUSE OF AEROSOL CHARACTERISTICS.

...CURRENT IMPORTANT PROGRAMS

LEGIONELLA PNEUMOPHILIA CULTURED TO HIGH TITER IN SYNTHETIC MEDIA WITH NO LOSS OF VIRULENCE. LEGIONELLA PNEUMOPHILIA PRODUCES TOXIN. TOXIN UNDERGOING CHARACTERIZATION FOR APPLICATION TO VACCINE DEVELOPMENT. KOREAN HEMORRHAGIC FEVER VIRUS ISOLATED AND IDENTIFIED. TECHNOLOGY DEVELOPED FOR ITS GROWTH IN TISSUE CULTURE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IMMUNOFLUORESCENCE SPOT SLIDES DEVELOPED AND AVAILABLE FOR DIAGNOSING 30 VIRAL DISEASES OF BW POTENTIAL. ANTHRAX PROGRAM EXPANDED EMPHASIZING ROLE OF TOXINS TOWARD VACCINE IMPROVEMENT. STUDIES UNDERWAY TO DEVELOP HEXAVALENT BOTULIUM TOXOID. FIXED AND TRANSPORTABLE P4 CONTAINMENT PLASTIC HUMAN ISOLATORS (VICKERS) FOR HOSPITAL CARE AND TRANSPORT OF SICK PATIENTS ARE TESTED AND AVAILABLE. PHASE I VERSUS PHASE II Q FEVER VACCINE UNDER EVALUATION IN PROFESSIONAL STAFF. THIS LABORATORY BECAME A PART OF WALTER REED ARMY INSTITUTE OF RESEARCH ON 1 OCTOBER 1980 FOR ACCOUNTING PURPOSES.

INSTALLATION: MISSILE COMMAND LABORATORIES

REDSTONE ARSENAL, AL.

CDR. MG ROBERT L. MOORE ACTG LAB DIR COL ROBERT J FIEST

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	100.239	94.100
TOTAL PROCUREMENT	32.522	34.885
TOTAL O&M	11.492	12.213
TOTAL OTHER	35.983	37.464
TOTAL ANNUAL LAB	180.236	178.662
TOTAL INHOUSE	76.547	77.519
TOTAL INHOUSE RDT&E	46.004	45.646
ANNUAL OPERATING COST	15.495	17.530

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	33	0	25	8
CIVILIAN	1104	70	563	541
TOTAL	1137	70	588	549

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)		OTHER	TOTAL	REAL PROP	EQUIP
	LAB	ADMIN				
11000	664.000	224.102	428.000	1316.102	165.815	102.000

...MISSION

MANAGE AND CONDUCT RSCH, EXP & ADV DEV FOR ASSIGNED MATERIEL; PROVIDE S&E SPT TO OTHER ACTIVITIES; PLANS, DIRECTS & CONDUCTS RSCH STUDIES & PRGMS TO ADVANCE SYS ENGR & TESTING TECHNOLOGY; PROVIDES CENTRAL ENGR BASE FOR DESIGN & MANUFACTURE OF PROTOTYPE SYS & COMPONENTS.

...CURRENT IMPORTANT PROGRAMS

SIMPLIFIED INERTIAL GUIDANCE DEMO (SIG-D) BALLISTIC MSL FLT TESTS.
 BATTLEFIELD OBSCURATION PRGM FLD TESTS OF LASER DESIGNATORS, SEEKERS, TGTS
 MINATURIZE OPTICAL COMPUTERS FOR MSL SIZED APPLCATIONS.
 LOW ALTITUDE SIMULTANEOUS HAWK ENGAGEMENT (LASHE) TECHNIQUE.
 CHEMICAL LASER MODULE (MADS) PROGRAM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: MOBILITY EQUIP R & D COMMAND

FT. BELVOIR, VA.

CDR. COL. ALBERT F DORRIS

TECH DIR. MR. DONALD B. DINGER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	86.070	75.958
TOTAL PROCUREMENT	131.961	137.751
TOTAL O&M	21.297	19.685
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	239.328	233.394
TOTAL INHOUSE	55.198	51.732
TOTAL INHOUSE RDT&E	36.925	34.047
ANNUAL OPERATING COST	14.688	18.383

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	79	1	11	68
CIVILIAN	1208	23	380	828
TOTAL	1287	24	391	896

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1064	757.449	173.130	209.879	1140.458	50.706	35.050

...MISSION

PROVIDE THE ARMY WITH NEW AND IMPROVED COMBAT SUPPORT AND COMBAT SERVICE SUPPORT EQUIPMENT THRU RESEARCH, DEVELOPMENT, ENGINEERING, INITIAL ACQ AND SUBSEQUENT ACQ SUPPORT IN CNTRBARRIER, ENERGY/ENVIRONMENTAL, COUNTER SURVEILLANCE AND SUPPLY DISTRIBUTION/CONSTRUCTION EQUIPMENT SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

SLUFAE--SURFACE LAUNCHED UNIT, MINE NEUTRALIZER
GIANT VIPER
3000/2000 GPH REVERSE OSMOSIS WATER PURIFICATION UNIT ROWPUK
AIRBORNE/AIRMOBILE CONSTRUCTION EQUIPMENT
PETROLEUM DISTRIBUTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCOMPLISH R, D & A OF MATERIEL FOR MIL SYS OF BARRIERS, BRDNG & STRUCS, COUNTERMINE, FIELD FORTIFICATIONS, CAMOUFLAGE, PHYSICAL SECURITY, TUNNEL DETECTION, TOPOGRAPHY ENGRG ONLY, FUELS & LUBES, FUEL HNDLG EQUIP, ELEC POWER GENERATE & DISTRIB, ENVIRON CONTROL, WATER & WASTE MGT, MATERIALS HNDLG & SUPPLY DISTRIB, TRANSPORT--MARINE & RAIL EQUIP, & CONSTRUCTION EQUIP. FAC INCL MINE FLD TEST LANES, SENSOR TEST AREA, RDN FREQ ANECHOIC CHAMBER, FLUID STROKING TEST CHAMBER, FUELS & LUBF LAB, FIRE SUPPRESSION CHAMBER, CAMOUF EVAL & REF CTR, FUEL CELL & BATTERY TEST STAS, ELECTRIC PROPULSION SIM, BRIDGE TEST HANGER, MOB STRESS ANAL VAN, TRK STABILITY TILT TABLE, VEH TEST TRACKS, SHOCK & VIBRATION DYNAMIC SIM, ENVIROM SIM, MATERIALS RSCH LAB, CALIB & INSTRUMENTATION, EMI SIM, COMPT CTR, STILL & MOTION PIC SPT, RSCH & DEV MODEL FABRICATION SHOPS.

INSTALLATION: NATICK R&D LABORATORIES

NATICK, MA.

CDR. COL. R. J. CUTHBERTSON

ACTING TECH DIR COL. GEORGE R. RUBIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	39.496	37.203
TOTAL PROCUREMENT	4.045	3.000
TOTAL O&M	12.539	12.942
TOTAL OTHER	5.088	4.425
TOTAL ANNUAL LAB	61.168	57.570
TOTAL INHOUSE	38.792	36.972
TOTAL INHOUSE RDT&E	22.704	21.193
ANNUAL OPERATING COST	7.550	7.500

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	103	7	28	75
CIVILIAN	1083	74	429	654
TOTAL	1186	81	457	729

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2466	554.320	65.900	413.228	1033.448	27.820	16.876

...MISSION

CONDUCT SCIENTIFIC R&D TO SUSTAIN AND PROTECT MIL PERS UNDER ALL CONDINS
DESIGN AND DEVELOP FOOD & FOOD SERV SYS PROT CLOTH&AIRDROP DELIV EQUIP
ACCOMPLISH ILS FUNCTION IN ABOVE & EXECUTE FIRST PROD PROC & FIELDING OF
NEW ARMY MANAGED ITEMS PROV TECH & ENG SUPPORT TO PROD AGENCIES

...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 PROCESS. HIGH
POWER LINEAR ACCELERATOR. PILOT PLANT FOR FOOD AND FOOD PACKAGING. BACTER
IOLOGY LAB EQUIP FOR INVESTIGATION OF PATHOGENIC MICRO RGANISMS. HIGH
RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS. FEBETRON
MACHINE USED AS A RAD SOURCE FOR PULSE RADIOLYSIS. PILOT PLANT TO STUDY
DATA ON CONVERTING CELLULOSE TO GLUCOSE ENZYMATICALY. DYEING AND FINISH
ING LAB FOR CONDUCTING STUDIES OF TEXTILES. COMPUTER GENERATED SYS OF
CLOTHING PATTERNS TO OUTPUT COMPLETE TARIFF OF SIZES FROM ONE MASTER.
CLIMATIC CHAMBERS TO TEST ITEMS AT TEMP -57C TO +74C
FLAME PROTECTION LAB AND FACILITY INCLUDING AN OUTDOOR FLAME PIT.
UNIVAC 1106 COMPUTER WITH DISK PACS&TAPE DRIVES AND INPUT/OUTPUT EQUIP.
AIRCRAFT ROLLER CONVEYOR TEST FACILITY. FIRE PITS FOR TESTING MATERIALS

INSTALLATION: NIGHT VISION & ELECTRO OPTICS LABORATORY

FT. BELVOIR, VA.

CDR/DIR DR. L. CAMERON DEP DIR MR. J JOHNSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	42.178	50.644
TOTAL PROCUREMENT	164.477	148.349
TOTAL O&M	0.707	0.785
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	207.362	199.778
TOTAL INHOUSE	23.921	21.569
TOTAL INHOUSE RDT&E	18.029	17.169
ANNUAL OPERATING COST	2.000	2.200

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	32	0	3	29
CIVILIAN	459	34	209	250
TOTAL	491	34	212	279

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE LAB	(THOUSANDS ADMIN	OF SQUARE OTHER	FEET) TOTAL	REAL PROP	EQUIP
38	151.798	75.849	0.000	227.647	32.000	35.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

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

CDR. COL. FRANKLIN A HART TECH. DIR. DR. JOSEPH ZEIDNER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	25.284	28.341
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.763	0.852
TOTAL ANNUAL LAB	26.047	29.193
TOTAL INHOUSE	13.409	16.238
TOTAL INHOUSE RDT&E	12.646	15.286
ANNUAL OPERATING COST	3.822	4.574

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	32	1	22	10
CIVILIAN	328	135	201	127
TOTAL	360	136	223	137

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
0	46.110	2.559	6.190	54.859	0.00	2.480

...MISSION

TO MAXIMIZE COMBAT EFFECTIVENESS THROUGH RESEARCH IN THE ACQUISITION, DEVELOPMENT AND UTILIZATION OF SOLDIERS IN MILITARY SYSTEMS

...CURRENT IMPORTANT PROGRAMS

PERFORMANCE ORIENTED SKILL DEVELOPMENT AND EVALUATION
TRAINING TECHNOLOGY
ON-THE-JOB TRAINING
MANPOWER ACCESSION AND RETENTION SYSTEMS
BASIC SKILLS INSTRUCTIONAL SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NINE CONUS FIELD UNITS AND ONE IN EUROPE. LIASON OFFICES AT TRADOC, FORSCOM, & IN LONDON SUPPORT IN-HOUSE RESEARCH PROGRAM MANAGED BY 2 LABS WITHIN WHICH ARE 6 TECH AREAS, 1 PERSONNEL UTILIZATION, 2 TRAINING, 3 LEADERSHIP & MANAGEMENT, 4 SIMULATION SYSTEMS, 5 MANPOWER & EDUCATIONAL SYSTEMS, 6 HUMAN FACTORS. CONUS UNITS ARE AT FTS BENNING, BLISS, KNOX, SILL, HOOD, LEAVENWORTH, RUCKER, BEN HARRISON, & PRESIDIO OF MONTEREY. IN-HOUSE EXPERIMENTAL FACILITIES INCLUDE LABORATORY AREA. ARMY-OWNED IN-HOUSE COMPUTERS PERMIT, WITHIN THE LABS, REAL-TIME EXPERIMENTATION, GAMING, & SIMULATION. ADDITIONAL TERMINAL LINES TO EXTERNAL COMPUTERS PROVIDE FLEXIBILITY. EXPER PROGRAM PERMITS A WIDE RANGE OF LAB OPTIONS TO TEST HUMAN PERFORMANCE HYPOTHESES UNDER SIMULATED OPERATIONAL CONDITIONS, INCL A COMMAND POST IN SIMULATED TACTICAL SITUATIONS.

INSTALLATION: RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE NATICK, MA.

CDR. LTC. ELIOT J. PEARLMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	4.530	4.021
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.054	1.167
TOTAL ANNUAL LAB	5.584	5.188
TOTAL INHOUSE	5.146	4.760
TOTAL INHOUSE RDT&E	4.092	3.593
ANNUAL OPERATING COST	0.950	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	80	9	34	46
CIVILIAN	95	18	45	50
TOTAL	175	27	79	96

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)		OTHER	TOTAL	REAL PROP	EQUIP
4	60.421	18.793	28.647	107.861	3.713	4.075

...MISSION

CONDUCT BASIC & APPLIED RSCH TO DETERMINE THE EFFECTS OF HEAT, COLD, HIGH TERRESTRIAL ALTITUDE AND WORK UPON THE SOLDIERS' LIFE PROCESSES, PERFORMANCE AND HEALTH. PROVIDE TECH, ADVISORY AND CONSULTANT SVCS TO ARMY CDRS, INSTALLATIONS, & ACTYS IN SPT OF THE ARMY PREV MEDICINE PROG.

...CURRENT IMPORTANT PROGRAMS

PHYSICAL FITNESS TEST FOR INDIVIDUALS OVER 40 YEARS OLD
 PHYSICAL FITNESS REQMTS, EVALUATION & JOB PERFORMANCE IN THE U.S. ARMY
 WORK LIMITATIONS INDUCED BY ANTIDOTES TO CHEMICAL WARFARE AGENTS
 BIOMEDICAL IMPACT OF MIL CLOTHING & EQ DSGN INCL SEL OF CREW COMPART ENV
 STRUC & FUNC ALTNS IN CELLS, TISSUES & ORGANS INDUCED BY EXP TO ENV EXTM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IN HUMAN AND ANIMAL RESEARCH USE APPROXIMATELY 199 VOLUNTEER TEST SUBJECTS, AND CLIMATIC CHAMBERS OF USANLABS. IN ADDITION, APPROXIMATELY 1215 OTHER HUMAN TEST SUBJECTS WERE USED AT VARIOUS LOCATIONS THROUGHOUT CONUS. MAJOR EQUIPMENT AND FACILITY CAPABILITIES OF THE LABORATORY INCLUDE, BUT ARE NOT LIMITED TO, MANY SMALL CHAMBERS, ANIMAL CARE FACILITIES, ELECTRON MICROSCOPE, UNDERWATER RESEARCH POOL, COPPER MANIKINS AND DIVERSE PHARMACOLOGICAL AND PSYCHOLOGICAL MEASUREMENT. THE INSTITUTE MAINTAINS A FIELD FACILITY AT PIKES PEAK, COLORADO.

INSTALLATION: SIGNALS WARFARE LABORATORY

VINT HILL, VA.

CDR/DIR. MR. H. S. HOVEY JR. DEP. DIR. COL. D. CLINGEMPEEL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RD&E	36.724	37.863
TOTAL PROCUREMENT	48.700	94.900
TOTAL OEM	2.890	1.698
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	88.304	134.461
TOTAL INHOUSE	7.775	10.820
TOTAL INHOUSE RD&E	4.895	9.122
ANNUAL OPERATING COST	0.375	0.402

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	71	0	27	44
CIVILIAN	172	6	59	113
TOTAL	243	6	86	157

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	3.936	32.101	3.963	40.000	3.000	9.900

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

AN/MLQ-33 CLOSE AIR SUPPORT ECM
AN/MLQ-34 TAC JAM
EXPENDABLE JAMMERS
AN/ALO-151 QUICK FIX
AREA SUPPORT RADAR JAMMERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: TANK-AUTO COMMAND LABORATORIES

WARREN, MI.

CDR. BG C. M. MATTHEWS JR,

TECH. DIR. DR. E. N. PETRICK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	94.432	94.853
TOTAL PROCUREMENT	99.393	287.664
TOTAL O&M	6.653	6.501
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	200.478	389.018
TOTAL INHOUSE	27.074	33.453
TOTAL INHOUSE RDT&E	19.051	21.554
ANNUAL OPERATING COST	3.986	3.746

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	47	2	39	8
CIVILIAN	871	13	347	524
TOTAL	918	15	386	532

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11	140.319	99.947	0.000	240.266	38.294	135.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

TACTICAL AND COMBAT VEHICLE FLEET PLANNING
ADVANCED AND ENERGY EFFICIENT PROPULSION SYSTEMS
NBC PROTECTION FOR COMBAT VEHICLES AND CREWS
COUNTERMEASURES AGAINST INFRARED AND RADAR ANTI-TANK THREATS
COST EFFECTIVE MANUFACTURING METHODS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VEHICLE BRAKE DYNAMOMETER; ENGINE AND TRANSMISSION TEST CELLS
VEHICLE SUBSYSTEM INTEGRATION; VEHICLE MOTION SIMULATOR
ANALYTICAL PREDICTION OF MILITARY VEHICLE PERFORMANCE
VEHICLE SIGNATURE MEASUREMENT CAPABILITY
SIX DEGREE OF FREEDOM SIMULATOR
VEHICLE COMPONENT EVALUATION
EIGHT DEGREE OF FREEDOM TRACK TESTER
METAL ANAL W/MICROPROBE ELECTRON MICROSCOPE ANALYZER AND TECHNIQUES
DEVELOPMENT OF IMPROVED ARMOR WELDING, FABRICATION AND APPIC TECHNIQUES
LOW TEMPERATURE SHOCK AND VIBRATION TEST FACILITIES
VEHICLE DYNAMIC SIMULATION FACILITY; IMAGE PROCESSING CAPABILITY
HOLOGRAPHIC CAPABILITY FOR LARGE STRUCTURES

INSTALLATION: TROPIC TEST CENTER

FT. CLAYTON, C.Z.

CDR. COL. RICHARD P. BARBERE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.828	2.927
TOTAL PROCUREMENT	0.015	0.054
TOTAL O&M	0.015	0.012
TOTAL OTHER	1.171	1.250
TOTAL ANNUAL LAB	4.029	4.243
TOTAL INHOUSE	3.962	4.172
TOTAL INHOUSE RDT&E	2.776	2.876
ANNUAL OPERATING COST	0.410	0.440

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	74	0	16	58
CIVILIAN	61	2	19	42
TOTAL	135	2	35	100

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
2625	20.510	35.925	89.858	146.293	1.067	2.711

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

TEMPERATE BATTLE DRESS UNIFORM
XM-1E1 TANK SYSTEM
POL COLLAPSIBLE TANKS
INDEPENDENT LABORATORY IN-HOUSE RESEARCH
TEST METHODOLOGY AND RESEARCH AND DEVELOPMENT INSTRUMENTATION PROGRAM

...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 2,533 ACRES OF BROADLEAF EVERGREEN TREES, SEMI-DECIDUOUS TREES, MARSHLAND, GRASSLAND, CORAL REEFS, FLAT AND HILLY TERRAIN AND ALL TYPES OF TROPIC VEGETATION.

INSTALLATION: WALTER REED ARMY INSTITUTE OF RESEARCH

WASHINGTON, D.C.

CDR. COL. PHILIP K. RUSSELL DEP. DIR. COL. FRANKLIN H. TOP JR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	30.460	40.105
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.697	1.410
TOTAL OTHER	7.865	8.478
TOTAL ANNUAL LAB	40.022	49.993
TOTAL INHOUSE	29.225	38.890
TOTAL INHOUSE RDT&E	19.663	29.011
ANNUAL OPERATING COST	1.881	2.077

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	446	160	438	8
CIVILIAN	440	65	266	174
TOTAL	886	225	704	182

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
203	382.974	58.360	0.000	441.334	1.008	16.300

...MISSION

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

.. CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: WHITE SANDS MISSILE RANGE

WHITE SANDS, N.M.

CDR. MAJ. GEN ALLAN A NORD

TECH. DIR. DR. RICHARD H. DUNCAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&E	145.263	168.900
TOTAL PROCUREMENT	13.323	9.703
TOTAL O&M	4.357	4.448
TOTAL OTHER	54.441	15.234
TOTAL ANNUAL LAB	217.384	198.285
TOTAL INHOUSE	147.703	164.169
TOTAL INHOUSE ROT&E	117.128	136.069
ANNUAL OPERATING COST	39.184	43.493

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	920	1	431	489
CIVILIAN	2739	46	979	1760
TOTAL	3659	47	1410	2249

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE LAB	(THOUSANDS OF SQUARE FEET) ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4214377	1323.882	565.861	3059.244	4948.987	189.103	189.417

...MISSION

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

PERSHING II DT & OT TESTING
PATRIOT DT & OT TESTING
HIGH ENERGY LASER SYSTEM TEST FACILITY
SECURE TELEMETRY IMPLEMENTATION
ENVIRONMENTAL TEST FACILITY IMPROVEMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMR, AN ALL-OVERLAND RANGE, HAS CAPABILITY TO SUPPORT MISSILE TRAJECTORIES UP TO 1500 MILES IN LENGTH AND CAN PROVIDE THE FOLLOWING: PRECISION TRAJECTORY DATA FROM OPTICAL, ELECTRONIC, ELECTRO-OPTICAL & RADAR TRACKING STATION REDUCTIONS; COMPLETE, SECURE TELEMETRY DATA; TRAJECTORY EVENT DATA FROM LONG FOCAL LENGTH TRACKING OPTICS & FIXED CAMERAS; & DOCUMENTARY PHOTOGRAPHY SUCH AS STILL, MOTION & FILM PRODUCTION. RECOVER EXPERIMENTAL PAYLOADS AND MISSILE COMPONENTS. SURVEY IMPACT LOCATIONS VIA TIE IN TO A PRECISE GEODETIC CONTROL. SIMULATE MISSILE SYSTEMS/SUBSYSTEM. CAPABILITIES INCLUDE: FACILITIES & INSTRUMENTATION TO TEST GUIDANCE, ELECTRO-OPTICAL & MICRO-WAVE SYSTEMS; ALSO, DYNAMIC ENVIRONMENT, CLIMATIC ENVIRONMENT, CHEMICAL, METALLURGICAL, MICROBIOLOGICAL, NUCLEAR & ELECTROMAGNETIC EFFECTS TESTS. TEST HAZARDOUS WARHEADS AND EXPLOSIVES.

INSTALLATION: YUMA PROVING GROUND

YUMA, AZ

CDR. COL. FRANCIS W. MC DONALD JR.

TECH. DIR. RICHARD H. MILLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	36.037	52.190
TOTAL PROCUREMENT	0.013	2.093
TOTAL O&M	0.574	0.295
TOTAL OTHER	9.699	9.938
TOTAL ANNUAL LAB	46.323	63.516
TOTAL INHOUSE	42.023	60.866
TOTAL INHOUSE RDT&E	36.037	52.190
ANNUAL OPERATING COST	10.044	11.624

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	
MILITARY	383	6	54	329
CIVILIAN	625	0	80	545
TOTAL	1008	6	134	874

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
870319	0.832	112.713	1315.759	1429.304	46.997	80.726

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

ADVANCED ATTACK HELICOPTER
XM1 TANK
GLOBAL POSITIONING SYSTEM
XM261 2.75" FFAR SUBMUNITION WARHEAD
XM785 155-MM PROJECTILE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INSTRUMENTED 60 KM ARTILLERY RANGE
VEHICLE TEST COURSES AND MOBILE DYNAMOMETERS
INSTRUMENTED 20X30 KM AIRCRAFT ARMAMENT RANGE
INSTRUMENTED AIR DELIVERY DROP ZONES
AIRSPACE WITH LASER, POSITION LOCATING SYSTEM, & CINETHEODOLITE TRACKING
STATIONARY, MOVING AND SIMULATED TARGET ARRAYS
INSTRUMENTED PROJECTILE IMPACT AREAS WITH AUTOMATED SCORING
PHYSICAL AND CHEMICAL TEST FACILITIES
ENVIRONMENTAL SIMULATION TEST FACILITIES
SCIENTIFIC COMPUTER CENTER WITH REAL-TIME TEST CONTROL AND DATA DISPLAY
VEHICLE, WEAPONS AND AIRCRAFT MAINTENANCE AND EVALUATION FACILITIES
INSTRUMENTION CALIBRATION FACILITY

INSTALLATION: AEROSPACE MEDICAL RESEARCH LABORATORY

PENSACOLA, FL.

*C.O. CAPT W.M. HOUK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&F	3.114	3.303
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.289	0.000
TOTAL OTHER	0.454	0.473
TOTAL ANNUAL LAB	3.857	3.776
TOTAL INHOUSE	3.434	3.537
TOTAL INHOUSE ROT&E	2.691	3.064
ANNUAL OPERATING COST	1.174	1.350

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	41	7	19	22
CIVILIAN	66	10	38	28
TOTAL	107	17	57	50

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	116.574	3.500	13.748	133.822	3.130	12.265

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

DYNAMIC NAVAL AVIATOR SELECTION TEST AND EVALUATION SYSTEM. AVIATION MEDICAL PERFORMANCE BASE STANDARDS. PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF NONIONIZING RADIATION. AVIATION PERSONNEL SELECTION PSYCHOMOTOR TEST DEVELOPMENT. AVIATION VISUAL PERFORMANCE REQUIREMENTS AND CAPABILITIES. HUMAN FACTORS DESIGN CRITERIA DEVELOPMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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. 30 BINOCULAR EYE-TRACKER AND VISUAL STIMULATOR ELECTRON MICROSCOPE. VIVARIUM WITH OPERATING SUITE. EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS. COMPLEX TASKS HUMAN PERFORMANCE MEASUREMENT SYSTEMS. MICROWAVE AND EXTREMELY LOW FREQUENCY NONIONIZING RADIATION FACILITY.

INSTALLATION: AIR DEVELOPMENT CENTER

JOHNSVILLE, PA.

C.O. CAPT P. DUDLEY TECH DIR. DR. R. K. LOBB

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	157.854	164.820
TOTAL PROCUREMENT	39.435	41.957
TOTAL O&M	26.343	20.354
TOTAL OTHER	13.847	19.113
TOTAL ANNUAL LAB	237.479	245.244
TOTAL INHOUSE	113.292	123.328
TOTAL INHOUSE RDT&E	72.838	86.614
ANNUAL OPERATING COST	31.992	35.208

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	287	2	287	0
CIVILIAN	2048	33	1126	922
TOTAL	2335	35	1413	922

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
840	852.000	83.000	654.000	1589.000	33.000	52.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

CARRIER ANTI-SUBMARINE WARFARE MODULE
S-3A, F-14, F-19, VP PROGRAM
LIGHT AIRBORNE MULTI-PURPOSE SYSTEMS
V/STOL
J-TIDS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: AIR PROPULSION CENTER

TRENTON, N.J.

C.O. CAPT B. T. ALLIGOOD JR,

TFCH CONSUL MR. B.T. MCWILLIAMS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	33.234	38.709
TOTAL PROCUREMENT	1.429	0.110
TOTAL O&M	0.677	0.969
TOTAL OTHER	1.671	1.334
TOTAL ANNUAL LAB	37.011	41.022
TOTAL INHOUSE	21.666	25.283
TOTAL INHOUSE RDT&E	19.006	23.875
ANNUAL OPERATING COST	7.752	7.982

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8	0	7	1
CIVILIAN	581	0	156	425
TOTAL	589	0	163	426

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	51.030	11.630

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

CRUISE MISSILE ENGINE (F107) DEVELOPMENT & QUALIFICATION TESTING
F404-GE-400 ENGINE QUALIFICATION & CORROSION TESTS
TF30-P414/414A ENGINE STABILITY & PERFORMANCE EVALUATION
T55-L-712 ALTITUDE PERFORMANCE EVALUATION
T700-GE-401 ENGINE CORROSION SUSCEPTIBILITY TEST

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LARGE ALTITUDE CELLS, TWO LARGE SEA LEVEL CELLS AND FOUR SMALL ALTITUDE CELLS PROVIDE ENVIRONMENTAL AND FLIGHT SIMULATION CAPABILITY OF SEA LEVEL TO 100000 FEET; MINUS 65 TO PLUS 650 DEGREES F, FLIGHT SPEEDS FROM ZERO TO MACH 3 TO TEST TURBOJET/FAN AND TURBOPROP/SHAFT ENGINES. SEVEN TEST ROOMS TEST STARTERS, ACCESSORIES AND AUXILIARY POWER UNITS. EIGHT TEST ROOMS AND CHEMISTRY LAB USED FOR R&D ON FUELS, LUBES AND BEARINGS. SPECIAL TEST FACILITIES ARE ROTOR SPIN FACILITY, HELICOPTER TRANSMISSION STAND, GYRO RIG, AND ENGINE TURNTABLE. FACILITIES ARE USED FOR R&D ON ADVANCED FUELS AND LUBRICATING OILS, OIL-WETTED ENGINE COMPONENTS, AIR POLLUTION, LOW CYCLE FATIGUE, CONTAINMENT, NOISE AND I/R PROGRAMS, NAPC QUALS OILS, MANAGES NAVY EXPLORATORY AND ADV DEVEL PRGMS, PROVIDES ADMN & TECH DIR TO SELECTED NAVAIR CONTRACTS.

INSTALLATION: AIR TEST CENTER

PATUXENT RIVER, MD.

C.O. ADM J.G. WISSLER

TECH.DIR. MR. J.F. LYNCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDTC	79.532	106.777
TOTAL PROCUREMENT	17.513	17.373
TOTAL OEM	25.059	15.854
TOTAL OTHER	32.523	24.656
TOTAL ANNUAL LAB	154.627	166.660
TOTAL INHOUSE	122.907	121.908
TOTAL INHOUSE RDTC	59.050	75.692
ANNUAL OPERATING COST	55.965	75.160

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1563	3	192	1371
CIVILIAN	1967	7	318	1649
TOTAL	3530	10	510	3020

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
6872	962.545 363.500 3488.111 4814.156	141.926 61.304

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ARCTIC RESEARCH LABORATORY

BARROW, AK.

C.O. LCDR. MARIA KAZANOWSKA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	6.487	6.383
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.188	0.156
TOTAL OTHER	1.862	2.805
TOTAL ANNUAL LAB	8.537	9.344
TOTAL INHOUSE	0.059	0.065
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	6.487	6.383

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	3	0	2	1
CIVILIAN	0	0	0	0
TOTAL	3	0	2	1

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4987	47.310	15.987	368.049	431.346	13.158	0.830

...MISSION

PROVIDE 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 CANADIAN 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 BUILDINGS (TO BE REDUCED BY 50 BLDGS BY FY81) INCLUDING A LABORATORY-ADMINISTRATION-BILLETING BLDG 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 GENERATION AND DISTRIBUTION, MOTOR VEHICLE OPERATION AND MAINTENANCE, FIRE PROTECTION AND SECURITY, JANITORIAL SERVICE, COMMUNICATIONS, AIRPORT OPERATION, MEDICAL SUPPORT, FOOD SERVICES, AND PROVISION OF SPECIAL SERVICES, INCLUDING LAUNDRY, RECREATION AND RESALE ACTIVITIES. THE LABS CAPABILITY INCLUDES LIMITED SUPPORT OF MILITARY OPERATIONS IN THE ARCTIC INCLUDING SEARCH AND RESCUE.

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

C.O. CAPT. I. J. DRUDE TECH DIR. MR. TOMAS RAMIREZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	0.238	0.240
TOTAL PROCUREMENT	4.628	2.495
TOTAL O&M	12.094	14.058
TOTAL OTHER	2.059	4.021
TOTAL ANNUAL LAB	19.019	20.814
TOTAL INHOUSE	3.432	3.801
TOTAL INHOUSE RDT&E	0.008	0.009
ANNUAL OPERATING COST	0.747	0.905

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-PROF
MILITARY	100	0	29	71
CIVILIAN	34	0	20	14
TOTAL	134	0	49	85

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3692	0.000	14.957	182.152	197.109	12.590	100.680

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

CNO PROJECT 111-DT-1VB SLO OPEVAL
 CNO PROJECT 111-DT-1VB SLO-32 TECHEVAL
 CNO PROJECT 215-DT-111A TORCH OPEVAL
 CNO PROJECT 215-DT-111A TORCH TECHEVAL
 CNO PROJECT ONE PROJECT 005-3-DT-1V AN/SSQ-14 DEEP MOD SONAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: BIODYNAMICS LABORATORY

NEW ORLEANS LA

C.O. CAPT J. E. WENGER

SCI. DIR. DR. C. L. EWING

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	3.001	3.052
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.024	0.000
TOTAL OTHER	0.428	0.596
TOTAL ANNUAL LAB	3.453	3.653
TOTAL INHOUSE	3.004	3.265
TOTAL INHOUSE RDT&E	2.565	2.714
ANNUAL OPERATING COST	0.346	0.400

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	8	10	21
CIVILIAN	55	7	25	30
TOTAL	86	15	35	51

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	32.014	21.578	0.000	53.592	0.400	25.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: BIOSCIENCES LABORATORY

OAKLAND, CA.

C.O. CDR J. C. BOND

SCI DIR. DR. N. A. VEDROS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	3.209	3.703
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.220	0.246
TOTAL ANNUAL LAB	3.429	3.949
TOTAL INHOUSE	3.429	3.949
TOTAL INHOUSE RDT&E	3.209	3.703
ANNUAL OPERATING COST	0.556	0.763

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	9	4	5	4
CIVILIAN	6	0	0	6
TOTAL	15	4	5	10

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	1.000	5.400

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

AEROBIOLOGICAL STUDIES OF THE AIR HYGIENE/QUALITY OF NAVAL SPACES
BASIC STUDIES OF THE ROLE OF IMMUNE MECHANISMS OF INFECTIOUS DISEASES
INVESTIGATE TOXIC EFFECTS OF ORGANOMETAL COMPOUNDS IN MARINE ENVIRONMENT
BIOCHEMICAL ISOLATION/EVALUATION OF ANTIVIRAL SUBSTANCES IN MARINE ALGAE
STUDY TOXIC PROPERTIES/ACTIONS OF NAVY RELEVANT CHEMICALS AND WASTES

...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 MICRO-ORGANISMS AND PHOTOCHEMICAL REACTIONS, A HYPERRBARIC TEST FACILITY, MICROAEROFUOROMETER 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, ELECTRON SPIN RESONANCE AND NUCLEAR MAGNETIC RESONANCE SPECTROMETERS, SPECTROPHOTOMETER, SPECTROFUOROMETER AND BOTH SCANNING AND TRANSMISSION ELECTRON MICROSCOPES. THE EQUIPMENT IS CONTINUOUSLY BEING MODIFIED AND EXPANDED ACCORDING TO CURRENT PROJECTS. NBL IS A CONTRACT BASIC RESEARCH LAB WITH THE UCB & MOST SCIENTIFIC & TEC PERSONNEL ARE UCB EMPLOYEES.

INSTALLATION: CIVIL ENGINEERING LABORATORY

PORT HUENEME, CA.

C.O. CAPT RONALD P. COPP

TECH DIR. WILLIAM F. BURKART

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&E	21.553	26.570
TOTAL PROCUREMENT	0.469	0.520
TOTAL O&M	2.829	3.110
TOTAL OTHER	1.906	1.610
TOTAL ANNUAL LAB	26.757	31.810
TOTAL INHOUSE	15.056	16.463
TOTAL INHOUSE ROT&E	12.008	12.551
ANNUAL OPERATING COST	3.936	3.440

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL DOOR	
MILITARY	16	0	8	8
CIVILIAN	323	29	180	143
TOTAL	339	29	188	151

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
30	81.840	71.748	44.158	197.746	7.593	3.420

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESSURE VESSEL FACILITY WITH 9, 18, 34, 72 INCH VESSELS SIMULATING PRESSURES TO OCEAN DEPTHS OF 20,000 FEET. DIVING LOCKER AND EQUIPMENT FOR 10 DIVERS. SEA FLOOR SOILS LAB. ENERGY TEST BED. CLASS G PHOTO LAB. PHYSICAL SECURITY LABS. CHEMISTRY LAB. INSTRUMENTATION LAB. WARPING TUG ELECTROMAGNETIC FACILITY. CORROSION AND METALURGICAL LABS. ENVIRONMENTAL RESEARCH LAB. CDC RO90 TERMINAL WITH HIGH SPEED READER AND LINE PRINTER. DIGITAL MAG TAPE. PEN PLOTTER. CURRENT SENSOR LAB. ENERGY MONITORING CAPABILITY. PROTOTYPE MACHINE. WELDING, CARPENTER, AND RIGGING SHOPS. SHALLOW OCEAN SIMULATION FACILITY. MATERIAL TESTING LAB. ELECTRICAL SYSTEMS LAB. CONCRETE MIXING LAB. AGGREGATE PROCESSING LAB. DATA PROCESSING CENTER.

INSTALLATION: CLOTHING & TEXTILE RESEARCH FACILITY

NATICK, MA.

C.O. CDR JOHN R. SEWELL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	1.304	1.782
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.994	0.986
TOTAL OTHER	0.216	0.222
TOTAL ANNUAL LAB	2.514	2.990
TOTAL INHOUSE	1.862	2.990
TOTAL INHOUSE RDT&E	0.980	1.782
ANNUAL OPERATING COST	0.060	0.065

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1	0	1	0
CIVILIAN	55	1	29	16
TOTAL	56	1	40	16

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	10.000	7.000	3.000	20.000	0.440	0.931

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: COASTAL SYSTEMS CENTER

PANAMA CITY, FL.

C.O. CAPT. R. D. BENNETT TECH DIR. M. G. G. GOULD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	35.424	48.691
TOTAL PROCUREMENT	4.130	2.478
TOTAL O&M	10.327	11.363
TOTAL OTHER	2.852	2.487
TOTAL ANNUAL LAB	52.733	65.019
TOTAL INHOUSE	30.575	32.222
TOTAL INHOUSE RDT&E	19.800	21.257
ANNUAL OPERATING COST	9.484	10.717

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL	TOTAL	NON-
		PHDS	PROF	PROF
MILITARY	129	0	13	116
CIVILIAN	613	20	275	338
TOTAL	742	20	288	454

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
665	346.747	38.150	251.455	636.352	34.434	20.326

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

DIVING, SALVAGE, AND OCEAN ENGINEERING
MINE COUNTERMEASURES
TORPEDO AND SONAR COUNTERMEASURES
AMPHIBIOUS, COASTAL, AND SPECIAL WARFARE SUPPORT
COASTAL TECHNOLOGY AND ADVANCED/SPECIAL CRAFT T&E

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE—OCEAN SIMULATION FAC TO 2250' DEPTH, HYDROSPACE LAB, SWIMMER/DIVER R&D FAC, GAS ANALYSIS LAB, SONAR TEST BED, MAGNETIC TARGET DETECTION & CLASSIFICATION RANGE, MAGNETIC LAB, OPTICAL POSITIONING SYS, TWO OFFSHORE PLATFORMS WITH LIVING QTRS FOR 30 & 6 PEOPLE, CALIBRATION & STANDARDS FAC, MECHANICAL CALIBRATION LAB, CABLE TEST FAC, ACOUSTIC TEST FAC, TRANSDUCER LAB, PRECISION ACOUSTIC TANK, ACOUSTIC ANAL FAC, SYSTEMS DEVELOPMENT AND TEST FAC, ELECTRONIC TRACKING RANGE, PORTABLE TRACKING & POST RUN ANALYSIS SYS, COUNTERMEASURES EVALUATOR IN REAL-TIME SIMULATION BURROUGHS 6810 DIGITAL COMPUTER AND ASSOCIATED DATA COMMUNICATIONS SYS, ENVIRONMENTAL MONITORING FAC, SONAR PROCESSING FAC WITH DATA COLLECTION SYS, PIER SPACE & BOATS TO INCLUDE RESEARCH VESSELS ATHENA I&II, MSO-44, USS FIDELITY, INDUSTRIAL SHOPS, HELIPORT COMPLEX WITH 3 RH53D & 1 UH1F.

INSTALLATION: DAVID W. TAYLOR SHIP R&D CENTER

BETHESDA, MD.

C.O. CAPT M. V. RICKETTS

TECH DIR. DR. A POWELL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	136.481	152.884
TOTAL PROCUREMENT	3.170	1.458
TOTAL O&M	18.986	14.142
TOTAL OTHER	9.583	18.700
TOTAL ANNUAL LAB	168.220	187.194
TOTAL INHOUSE	125.510	95.507
TOTAL INHOUSE RDT&E	103.217	71.378
ANNUAL OPERATING COST	35.437	33.825

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	76	1	20	56
CIVILIAN	2376	124	1160	1216
TOTAL	2452	125	1180	1272

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
324	1708.694	102.847	245.262	2056.803	72.534	71.971

...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

SUBMARINE SILENCING, TARGET STRENGTH REDUCTION, SUBMARINE MANEUVERING, PRESSURE HULLS, PROPELLER DESIGN, ELECTRIC PROPULSION, CIRCULATION CONTROL ROTORS AND WINGS, ENERGY CONSERVATION AND SOURCES, HIGH STRENGTH STEEL, LOGISTICS, SURVIVABILITY, HYDROFOILS, SWATH.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN AND CONDUCT RDT&E FOR NAVAL VEHICLES (SHIPS, SUBMARINES & AIRCRAFT) AND SUPPORT THE OPERATING FORCES IN THE AREAS OF SHIPS' SYSTEMS DEVELOPMENT AND TECHNOLOGY (HYDRODYNAMICS, STRUCTURES, ACOUSTICS, PROPULSION AND AUXILIARY MACHINERY SYSTEMS, SHIPS' MATERIALS ENGINEERING, COMPUTER-AIDED SHIP DESIGN), AIRBORNE AERODYNAMICS, AND LOGISTICS. FACILITIES INCLUDE- SHALLOW AND DEEP WATER TOWING BASINS, MANUEVERING & SKEEPPING BASIN, WIND TUNNELS, ANECHOIC FLOW FACILITY, WATER TUNNELS, STRUCTURAL EVALUATION LAB, UNDERWATER EXPLOSIONS LABORATORY BARGE, SEVERAL LARGE PRESSURE TANKS, SUBMARINE INTERNAL FLUID DYNAMICS FACILITY, METALLURGICAL CHARACTERIZATION AND EVALUATION FACILITY, WELDING DEVELOPMENT LABORATORY, PAINT DEVELOPMENT LABORATORY, MACHINERY DEVELOPMENT LABORATORY, AND HIGH SPEED RESEARCH VESSELS.

INSTALLATION: DENTAL RESEARCH INSTITUTE.

GREAT LAKES, IL.

C.O. CAPT M. R. WIRTHLIN JR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1979
TOTAL RDT&E	0.864	1.131
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.668	0.000
TOTAL ANNUAL LAB	1.532	1.764
TOTAL INHOUSE	1.498	1.624
TOTAL INHOUSE RDT&E	0.830	0.993
ANNUAL OPERATING COST	0.351	0.345

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	11	15	14
CIVILIAN	16	4	6	10
TOTAL	45	15	21	24

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	30.650	4.825	8.090	43.555	0.000	0.794

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMINO ACID ANALYZER/ATOMIC ABSORPTION UNIT/FLUORIDE ELECTRODES/ LIQUID SCINTILLATION COUNTER/MINI COMPUTER/GAS CHROMATOGRAPH UNIT/FOUR DENTAL UNITS/FIVE DENTAL CHAIRS/TRANSMISSION ELECTRON MICROSCOPE/CRYO MICROTOM DIAZO PROCESSOR/SPECTROPHOTOMETERS/DRAL SURGERY CHAIR/THERMAL BALANCE/VIVARIUM/ANIMAL SURGERY ROOM/XRAY EQUIPMENT
SOUND METERS/SHAKERS/INCUBATORS/CENTRIFUGES/BALANCES/FRACTIONATORS/ RECORDERS/FIELD DENTAL TREATMENT EQUIPMENT/PROTOTYPE SHOP /MARINE CORPS PROTOTYPE EXPEDITIONARY DENTAL TREATMENT SHELTERS/PHOTO LAB/DENTAL EQUIPMENT REPAIR SHOP/

INSTALLATION: ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CA.

C.O. CAPT W. G. SCHRAMM

DIR OF RSCH DR. A. WEINSTEIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (EST)
TOTAL RDT&E	3.866	5.333
TOTAL PROCUREMENT	0.000	0.000
TOTAL ORM	0.000	0.000
TOTAL OTHER	0.295	0.340
TOTAL ANNUAL LAB	4.161	5.673
TOTAL INHOUSE	1.718	2.046
TOTAL INHOUSE RDT&E	1.423	1.716
ANNUAL OPERATING COST	0.521	0.633

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	2	5	9
CIVILIAN	31	7	27	4
TOTAL	45	9	32	13

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
0	1.362	4.858	10.594	16.814	0.000	1.370

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATACRAFT/5 COMPUTER
 THREE NOVA 2 1 ECLIPSE 5/250, 1 HP9845A COMPUTER
 ACCESS TO CDC CYBER 175 AND CYBER 203 COMPUTERS
 ACCESS TO 3 CDC 6500 COMPUTERS
 CAPABILITY OF BUILDING, ANALYZING AND MODIFYING GLOBAL, REGIONAL AND LOCAL WEATHER MODELS
 CAPABILITY OF RECEIVING ENHANCING AND ANALYZING REMOTELY SENSED ATMOS DATA

INSTALLATION: EXPLOSIVE ORDNANCE DISPOSAL FACILITY

INDIAN HEAD, MI.

C.O. CAPT R.M. DUNBAR

TECH DIR. MR. L.A. DICKINSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&F	7.070	7.446
TOTAL PROCUREMENT	1.283	1.025
TOTAL O&M	1.522	1.478
TOTAL OTHER	2.025	1.678
TOTAL ANNUAL L	11.900	11.627
TOTAL INHOUSE	7.978	7.631
TOTAL INHOUSE RDT&E	4.790	4.937
ANNUAL OPERATING COST	3.679	3.869

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	40	0	11	29
CIVILIAN	167	0	44	123
TOTAL	207	0	55	152

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1087	68.398	19.506	67.814	155.718	4.564	1.854

...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 (BIO AND CHEM), MUNITIONS (U.S. AND FOREIGN), PLUS THE REQUIRED TOOLS AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

RANGE CLEARANCE AND DISPOSAL TECHNIQUES
TERRORIST DEVICES COUNTERMEASURES
REMOTE EXPLOSIVE CASE ENTRY SYSTEMS
IMPROVISE NUCLEAR DEVICE COUNTERMEASURES
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 PUBLICATIONS 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 JESSE E. LANG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.570	2.398
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.541	0.528
TOTAL ANNUAL LAB	3.111	2.926
TOTAL INHOUSE	3.111	2.926
TOTAL INHOUSE RDT&E	2.570	2.398
ANNUAL OPERATING COST	0.916	0.845

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	32	3	11	21
CIVILIAN	64	11	24	40
TOTAL	96	14	35	61

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
1	19.052	7.159	0.000	26.211	2.000	0.709

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: MEDICAL RESEARCH INSTITUTE

BETHESDA, MD.

C.O. CAPT J. VOROSMARTI

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	11.547	13.134
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.021	0.000
TOTAL OTHER	3.663	4.147
TOTAL ANNUAL LAB	15.231	17.281
TOTAL INHOUSE	14.171	16.045
TOTAL INHOUSE RDT&E	10.632	12.097
ANNUAL OPERATING COST	5.868	6.181

PERSONNEL	PERSONNEL DATA (FND OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	212	59	74	138
CIVILIAN	189	41	83	106
TOTAL	401	100	157	244

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
4	145.868	9.400	40.299	195.567	4.000	10.414

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: MEDICAL RESEARCH UNIT NO.2

MANILA, PHILIPPINES

C.O. CAPT W. H. SCHROEDER SCI. DIR. DR. JOHN H. CROSS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.088	1.078
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.359	0.378
TOTAL ANNUAL LAB	1.447	1.456
TOTAL INHOUSE	1.447	1.456
TOTAL INHOUSE RDT&E	1.088	1.078
ANNUAL OPERATING COST	0.336	0.373

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	31	6	17	14
CIVILIAN	58	3	25	33
TOTAL	89	9	42	47

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	12.013	4.500	0.000	16.513	0.000	0.606

...MISSION

TO CONDUCT RESEARCH & DEVELOPMENT OF INFECTIOUS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC OR EPIDEMIC IN ITS ASSIGNED GEOGRAPHICAL AREA.

...CURRENT IMPORTANT PROGRAMS

CONDUCT RESEARCH & DEVELOPMENT IN THE BIOMEDICAL SCIENCES. PROVIDES DATA ON DISTRIBUTION & PREVALENCE OF INFECTIOUS DISEASES IN WESTERN ASIA, ESPECIALLY PHILIPPINES & INDONESIA. EXPERIMENTAL & IMMUNOLOGICAL STUDIES ON SCHISTOSOMIASIS & FILARIASIS & ETIOLOGY OF DIARRHEAL DISEASES & INFLUENZA SURVEILLANCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

STUDIES ON THE DIAGNOSIS, DISTRIBUTION & PREVALENCE OF TROPICAL DISEASE EPIDEMIOLOGICAL STUDIES ON INFECTIOUS DISEASES IN ASIA. ADEQUATE LABORATORY FACILITIES FOR STUDIES ON VIRAL, BACTERIAL, PARASITIC, & ARTHROPOD-BORNE DISEASES, CLINICAL, BIOCHEMICAL & PATHOLOGY LABORATORIES, RADIO-ISOTOPE EQUIPMENT COMPUTER CAPABILITY, FULLY OPERATIONAL PERMANENT DETACHMENT IN JAKARTA, INDONESIA, WITH ADEQUATE CAPABILITIES TO CONDUCT ALL ASPECTS OF BIOMEDICAL RESEARCH. FIELD COLLECTING FACILITY IN TAGUDIN, ILOCOSUR, LUZON, PHILIPPINES. LABORATORY ANIMAL CARE FACILITIES IN INDONESIA.

INSTALLATION: MEDICAL RESEARCH UNIT NO.3

CAIRO, EGYPT

C.O. CAPT RAYMOND H. WATTEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	1.839	1.676
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.575	0.822
TOTAL ANNUAL LAB	2.414	2.498
TOTAL INHOUSE	2.414	2.498
TOTAL INHOUSE RDT&E	1.839	1.676
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	32	11	16	16
CIVILIAN	55	14	54	1
TOTAL	87	25	70	17

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
5	41.068	8.962	55.350	105.380	1.443	0.800

...MISSION
TO CONDUCT RESEARCH & DEVELOPMENT OF INFECTIONS DISEASES OF MILITARY IMPORTANCE ENDEMIC OR EPIDEMIC IN ASSIGNED GEOGRAPHICAL AREA & PERFORM OTHER FUNCTIONS DIRECTED BY THE CHIEF, BUREAU OF MEDICINE & SURGERY.

...CURRENT IMPORTANT PROGRAMS

MENINGITIS STUDY
PATHOPHYSIOLOGY OF SCHISTOSOMIASIS
ARTHROPOD VIRUS ISOLATIONS IN TICKS, MOSQUITOES, & SANDFLIES
IMMUNOLOGY OF HUMAN SCHISTOSOMIASIS
VIRAL, CLINICAL, & EPIDEMIOLOGICAL ASPECTS OF RIFT VALLEY FEVER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LECTURSCOPE, MODEL L5-2 VERTICAL ILLUMINATOR OUTFIT, OIL FIRED PORTABLE HOT HIGH PRESSURE CLEANER, MICROTOMES, KNIFE SHARPENER, FREEZING CHAMBER, BIOGRAD HOOD, ABSORBANCE MONITOR WITH STAND & FLOW CELL, INCUBATORS, ULTRA-CENTRIFUGE, REFRIGERATORS, HAEMA COUNT PLATELET COUNTING SYSTEM, MICROSCOPES, AD COULTER COUNTER, REVCO FREEZERS, PATIENT WARD FOR SICK EGYPTIAN PUBLIC WORKS FACILITY, TECHNICAL BIOMEDICAL LIBRARY, ANIMAL FACILITIES

INSTALLATION: OCEAN R & D ACTIVITY

BAY ST. LOUIS, MS.

C.O. CAPT G.T. PHELPS TECH DIR. DR. R.R. GOODMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	30.483	37.655
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.202	0.267
TOTAL OTHER	0.492	0.580
TOTAL ANNUAL LAB	31.177	39.502
TOTAL INHOUSE	11.617	14.327
TOTAL INHOUSE RDT&E	11.016	13.614
ANNUAL OPERATING COST	4.138	5.729

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	10	3	10	0
CIVILIAN	290	46	142	148
TOTAL	300	49	152	148

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	63.976	18.990	25.794	109.760	9.400	7.188

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: OCEAN SYSTEMS CENTER

SAN DIEGO, CA.

C.O. CAPT S. L. GUILLE

TECH. DIR. DR. H. L. BLOOD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	166.069	184.791
TOTAL PROCUREMENT	33.165	33.532
TOTAL O&M	41.962	37.652
TOTAL OTHER	16.264	8.343
TOTAL ANNUAL LAB	257.460	264.318
TOTAL INHOUSE	122.963	145.922
TOTAL INHOUSE RDT&E	88.719	102.057
ANNUAL OPERATING COST	43.793	46.150

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	288	0	49	240
CIVILIAN	2404	176	1296	1108
TOTAL	2692	176	1344	1348

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
2723	1195.939	208.922	187.286	1592.147	45.501	132.885

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: OFFICE OF NAVAL RESEARCH

WASHINGTON D.C.

C.O. ADM A.J. BACIOCCO JR.

TECH. DIR. DR. JEROME A. SMITH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RD&E	379.221	380.726
TOTAL PROCUREMENT	8.321	9.100
TOTAL O&M	154.322	169.300
TOTAL OTHER	5.669	6.381
TOTAL ANNUAL LAB	547.533	564.507
TOTAL INHOUSE	16.161	17.223
TOTAL INHOUSE RD&E	14.852	15.796
ANNUAL OPERATING COST	10.553	11.201

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	30	3	26	4
CIVILIAN	393	58	90	303
TOTAL	423	61	116	307

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	84.785	2.500	87.285	0.000	0.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ORDNANCE MISSILE TEST FACILITY

WHITE SANDS, N.M.

C.O. CAPT J. T. LEWIS FAC ENG MR. H. L. HENDON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1990 (ACTUAL)	1981 (ACT + EST)
TOTAL ROT&E	4.524	6.216
TOTAL PROCUREMENT	0.356	0.094
TOTAL O&M	0.095	0.000
TOTAL OTHER	0.730	1.536
TOTAL ANNUAL LAB	5.705	7.846
TOTAL INHOUSE	3.206	2.966
TOTAL INHOUSE ROT&E	2.386	2.176
ANNUAL OPERATING COST	0.975	0.912

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PODF	NON- PROF
MILITARY	78	1	22	56
CIVILIAN	53	0	6	47
TOTAL	131	1	28	103

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
85	108.566	30.539	78.694	217.799	5.822	10.106

...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 RANGE AT WHITE SANDS

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST TERRIER/TARTAR/STANDARD/SAM GUIDED MISSILES AND PROJECTILES
LAUNCH AEROBEE 150, 170, 200, ARIES, ASTROBEE F, D, BLACK BRANT ORION
AND VARIOUS OTHER SOUNDING ROCKETS FOR UPPER ATMOSPHERIC STUDY
CONDUCT NAVY AIR WEAPONS TESTS
LAUNCH VARIOUS ROCKETS IN SUPPORT OF NASA PROJECTS
LAUNCH VARIOUS ROCKETS IN SUPPORT OF AIR FORCE PROJECTS
CONDUCT VARIOUS DEVELOPMENT TESTS FOR SSM AND SAM PROJECTS
PROVIDE DRONE SUPPORT
ASSIST IN OPEVAL OF CRUISE MISSILE
MAINTAIN TARGET ECM EQUIPMENT
5-INCH GUIDED PROJECTILE LAUNCH CAPABILITY
PROVIDE WARHEAD AND EOD ANALYSIS ARENA

INSTALLATION: PACIFIC MISSILE TEST CENTER

POINT MUGU, CA.

C.O. RADM F.H. RAUGHMAN TECH. DIR. MR. T.P. PERRY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	153.068	175.886
TOTAL PROCUREMENT	68.396	79.684
TOTAL O&M	66.117	74.986
TOTAL OTHER	41.174	51.884
TOTAL ANNUAL LAB	328.755	382.440
TOTAL INHOUSE	206.729	234.053
TOTAL INHOUSE RDT&E	107.148	123.120
ANNUAL OPERATING COST	26.005	29.431

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	930	0	190	740
CIVILIAN	3634	13	1021	2613
TOTAL	4564	13	1211	3353

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
27094	LAB ADMIN OTHER	950.507	396.913	3504.398	4851.818	151.753	135.356

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST LABORATORIES FOR WEAPON SYSTEMS SIMULATIONS, SYSTEM INTEGRATION, ENVIRONMENTAL, ANECHOIC, ELECTRONIC WARFARE COUNTERMEASURES, TACTICAL SOFTWARE SUPPORT, AIR AND SURFACE TRACKING RANGE-45000 SQUARE MILES/ RADARS- FPS-16, FPQ-12, MPS-25/ THEODOLITES AND CINE SEXTANTS. RECEIVE, RECORD AND DISPLAY P, L AND S BAND TELEMETRY, REAL TIME AND POST OPERATIONAL DATA REDUCTION FACILITIES. MISSILE AND TARGET LAUNCH PLATFORMS AND FACILITIES. COMMAND CONTROL AND FLIGHT TERMINATION FACILITIES. SHIP MOTION SIMULATION. MISSILE IMPACT LOCATION AND MISS- DISTANCE INDICATOR SYSTEMS. ALL-UP ROUND MISSILE TEST FACILITY. UNDERWATER TRACKING RANGE - 700 SQUARE MILES, THREE-DIMENSIONAL 400 - 6000 FATHOMS.

INSTALLATION: PERSONNEL RESEARCH & DEVELOPMENT CENTER

SAN DIEGO, CA.

C.O. CAPT J.F. KELLEY JR. TECH DIR. DR. J.J. REGAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	19.591	22.988
TOTAL PROCUREMENT	0.144	0.130
TOTAL O&M	2.860	2.770
TOTAL OTHER	1.582	0.662
TOTAL ANNUAL LAB	24.177	26.550
TOTAL INHOUSE	11.970	12.627
TOTAL INHOUSE RDT&E	9.295	9.895
ANNUAL OPERATING COST	3.422	4.077

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	1	12	13
CIVILIAN	271	82	201	70
TOTAL	296	83	213	83

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	65.860	7.080	0.000	72.940	0.485	2.419

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

PERSONNEL ACQUISITION UTILIZATION AND EFFECTIVENESS
HUMAN PERFORMANCE IN NAVY SYSTEMS
PERSONNEL EDUCATION AND TRAINING
PERSONNEL MANPOWER MANAGEMENT
MANAGEMENT SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

GENERAL AUTOMATION 18/30 COMPUTER SYSTEM WITH REMOTE JOB ENTRY TO OTHER COMPUTER CENTERS. PDP11/45 LABORATORY INSTRUMENT CONTROL SYSTEM. PDP 11/70 AUTOMATED TESTING AND TRAINING SYSTEM. VARIOUS CRT AND PRINTING TERMINALS INTERFACING WITH THE NAVAL OCEAN SYSTEMS CENTER UNIVAC 1100/82 COMPUTER.

INSTALLATION: RESEARCH LABORATORY

WASHINGTON, D.C.

C.O. CAPT E.F. HENIFIN DIR. OF RSCH. DR. ALAN BERMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	217.232	217.295
TOTAL PROCUREMENT	4.242	4.650
TOTAL O&M	13.941	9.155
TOTAL OTHER	15.470	15.431
TOTAL ANNUAL LAB	250.885	246.531
TOTAL INHOUSE	140.807	158.931
TOTAL INHOUSE RDT&E	139.660	140.200
ANNUAL OPERATING COST	56.299	61.085

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	145	0	30	115
CIVILIAN	3159	595	1464	1695
TOTAL	3304	595	1494	1810

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
798	2312.917	192.677	479.359	2984.953	92.205	104.371

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

DIRECTED ENERGY DEVICES
EFFECTIVENESS OF NAVAL ELECTRONICS WARFARE AND SURVEILLANCE SYSTEMS
ADVANCED ACOUSTIC ANTI-SUBMARINE WARFARE SURVEILLANCE PROGRAM
SATELLITE PROGRAMS
ADVANCED HIGH PERFORMANCE MATERIALS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: SUBMARINE MEDICAL RESEARCH LABORATORY

GROTON, CT.

C.O. CAPT R. A. MARGULIES

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.199	2.014
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.040	0.000
TOTAL OTHER	0.475	0.530
TOTAL ANNUAL LAB	2.714	2.544
TOTAL INHOUSE	2.660	2.504
TOTAL INHOUSE RDT&E	2.145	1.974
ANNUAL OPERATING COST	0.658	0.683

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	37	15	20	17
CIVILIAN	57	10	26	31
TOTAL	94	25	46	48

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
1	40.514	14.099	0.000	54.613	1.105	1.792

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

...CURRENT IMPORTANT PROGRAMS
COMPUTER ASSISTED DIAGNOSIS PROGRAMS FOR CORPSMEN ABOARD NUCLEAR SUBS.
AUDITORY AND VISUAL T AND E OF SURMARINERS AND DIVERS. PHYSIOLOGICAL PSY-
CHOLOGICAL RESEARCH IN COLD WEATHER. HUMAN FACTORS VISION AUDITORY RSCH
IN ADVANCED SONAR SYSTEMS AND HUMAN FACTORS SUB INFO PROCESSING.
HEALTH AND LONGEVITY OF NUCLEAR SUBMARINE CREWS.

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

INSTALLATION: SURFACE WEAPONS CENTER

SILVER SPRING, MO.

C.O. CAPT P. L. ANDERSON

TECH DIR. MR. R. S. VAUGHN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RD&E	228.521	232.369
TOTAL PROCUREMENT	43.823	42.971
TOTAL O&M	41.418	41.187
TOTAL OTHER	30.134	25.652
TOTAL ANNUAL LAB	343.896	342.179
TOTAL INHOUSE	159.188	192.323
TOTAL INHOUSE RD&E	96.820	119.574
ANNUAL OPERATING COST	69.198	75.393

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	124	2	39	85
CIVILIAN	4489	229	2037	2452
TOTAL	4613	231	2076	2537

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5380	1672.436	175.798	1292.994	3141.228	98.178	90.547

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

STRATEGIC SYSTEMS-TRIDENT, POSEIDON, MK500 RB, MISSILE MATLS, IMPROV ACCUR.
COMBAT SYSTEMS-AEGIS, DDGX, SEAFIRE, TERRIER, TARTAR, MK86 FC, SWIMMER WPNS.
WEAPON SYSTEMS-EXPL MATLS, HI PWR RAD, IR SRCH TRCK, 5 IN/54 AMMO, HIFRAG.
UNDERWATER SYSTEMS-CAPTOR, IWD, QUICKSTRIKE MINES, MK48 (ADCAP), ALWT TORPS.
ELECTRONIC SYSTEMS-EMP TESTS, EMPASS, SLO32, OTH, LHA/CVN INTEL CTR, JAMMERS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE-WIND TUNNELS TO MACH 20, 1.75 MILLION GAL
HYDROBALLISTIC TANK, MAGNETIC STRUCTURE FACILITY FOR SHIP & SUB MODEL
& SATELLITES, FBM DISCPAC PRODUCTION FACILITY, FACILITIES FOR ASSURANCE OF
COMPUTER PROGRAMS FOR STRATEGIC AND TACTICAL MISSILE SYS, INTELLIGENCE
PROCESSING SYS, GUNNERY AND MISSILE RANGE COMPLEX INCLUDING LAND-BASED
DEVELOPMENT SITES FOR WEAPON CONTROL SYS, ELECTROMAGNETIC VULNERABILITY
FACILITIES FOR NUCLEAR AND NON-NUCLEAR EFFECTS, FACILITIES FOR WARHEAD
CHARACTERIZATION AND DAMAGE TO TARGETS, DEVELOP & TEST FACILITIES FOR
LASER & ELECTRO-OPTICS SUBSYSTEMS, NONDESTRUCTIVE TESTING FACILITIES, DEEP
WATER OFFSHORE FACILITIES FOR MINE SYS, MOBILE TACTICAL WAR GAMES FAC,
EXPLOSIVES DEVELOPMENT FACILITIES, EXTENSIVE SCIENTIFIC COMPUTER FACILITY
, FUZES, EXPLOSIVES, MATERIALS, AND MARINE CORPS SUPPORT FACILITIES.

INSTALLATION: UNDERSEA RANGES DEPARTMENT

NEWPORT, RI.

C.O. CAPT V. C. HONINGER SCI. DIR. MR. C.S. SOLTZY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	26.383	24.285
TOTAL PROCUREMENT	0.296	0.270
TOTAL O&M	8.022	7.141
TOTAL OTHER	1.514	2.825
TOTAL ANNUAL LAB	36.215	34.521
TOTAL INHOUSE	25.863	23.260
TOTAL INHOUSE RDT&E	23.828	21.544
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	44	0	6	38
CIVILIAN	47	0	23	24
TOTAL	91	0	29	62

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1042	64.216	8.595	304.964	377.775	24.504	1.391

...MISSION

TO PROVIDE DEEP WATER DEV & OPRTNL T&E FCLTYS FOR UNDRWTR ACSTIC MESRMNT S, TSTNG, & CALRTNG SONRS. PROVIDE ACURAT UNDRWTR, SRFC, & IN-AIR TRCKNG DA TA ON SHIPS, SUBS, AIRCFT, & WPN SYSTMS.

...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/RQQ 5/DICASS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: UNDERWATER SYSTEMS CENTER

NEWPORT, RI.

C.O. CAPT V.C. HONSINGER

TECH DIR. C. NICHOLAS PRYOR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	129.412	181.162
TOTAL PROCUREMENT	77.270	82.218
TOTAL O&M	68.285	77.585
TOTAL OTHER	26.745	14.097
TOTAL ANNUAL LAB	301.712	355.062
TOTAL INHOUSE	116.315	157.528
TOTAL INHOUSE RDT&E	56.130	84.411
ANNUAL OPERATING COST	39.751	44.154

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	97	2	41	56
CIVILIAN	2660	97	1537	1123
TOTAL	2757	99	1578	1179

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
367	1006.047	114.190	581.567	1701.804	45.506	44.964

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

ADVNC'D TECHNGY IN U/W ACQUITS, OCEAN ENGRNG, INFO PROCNG, WEAPONRY
DESIGN, DEV & EVAL U/W COMBAT SUB SYSTMS INCNG SURFC SHIP SONAR MODRNZTN
RDT&E FOR OVERALL U/W COMBAT SYSTEMS (TRIDENT, 688 ETC)
DESIGN, 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 CAPABLITY FOR NAVY & MARNE CRP SYSTEMS, SUBSYSTEMS & T-
ECHNLGYS FOR SONAR SYSTMS (HULL-TOWD/SUB COMCTNS SYSTMS INTEGRTN/SUB ANT-
NA SYSTMS/UWTR WEAPN SYSTMS/UWTR TARGT SYSTMS/UWTR ACUSTC PRPGTN (LANT
& MED) UWTR RNGE TECHNLGY/REDINESS OF IN-SRVE SHIPBRD UWTR SYSTMS/ASW
SUP, CINCLNT, TORPEDO TEST RNGES (FIXED/PORTBLE) SHLOW & DP WTR, ASW WEPON F-
IRE CNTRL R&D FACILITY, ASW WEPON LAUNCHNG DEVCE R&D FACLT, QLTY ENGRNG,
EVALTN & RELIABTY

INSTALLATION: WEAPONS CENTER

CHINA LAKE, CA.

C.O. CAPT W. B. HAFF TECH DIR. MR. R. M. HILLYER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	208.891	222.640
TOTAL PROCUREMENT	49.450	50.240
TOTAL O&M	23.895	26.070
TOTAL OTHER	30.870	42.427
TOTAL ANNUAL LAB	313.106	341.377
TOTAL INHOUSE	179.239	218.407
TOTAL INHOUSE RDT&E	127.811	140.763
ANNUAL OPERATING COST	48.937	57.854

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	580	1	38	542
CIVILIAN	3871	117	1406	2465
TOTAL	4451	118	1444	3007

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1122177	1161.336	418.202	4441.031	6020.569	231.892	108.896

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: WEAPONS EVALUATION FACILITY

ALBUQUERQUE, N.M.

C.O. CAPT D. R. WEICHMAN TECH DIR. E. G. GREWIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	2.441	2.734
TOTAL PROCUREMENT	1.010	0.960
TOTAL OFM	1.765	1.700
TOTAL OTHER	3.809	4.292
TOTAL ANNUAL LAB	9.025	9.686
TOTAL INHOUSE	8.141	8.640
TOTAL INHOUSE RDT&E	2.045	2.198
ANNUAL OPERATING COST	1.350	1.491

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	133	0	18	115
CIVILIAN	106	2	47	59
TOTAL	239	2	65	174

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)	
	LAB ADMIN OTHER TOTAL	REAL PROP	EQUIP
7	0.400 53.592 94.926 148.918	9.600	0.998

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

PROVIDED SAFETY AND WARHEAD DEVELOPMENT DIRECTION INVOLVING 4 SHIPS, 1 AIRCRAFT, AND 11 WEAPONS. ASSISTED IN THE DEVELOPMENT OF NAVY APPLICATIONS OF THE USAF HIGH ENERGY LASER. ASSISTED EMP TESTS ON 2 NAVY AIRCRAFT. PREPARED LOADING GUIDES FOR 11 GUNS 8 AIRCRAFT AND ONE BOMB. DEVELOPED A NAVY CAPABILITY TO ANALYZE COMPUTER SOFTWARE FOR SAFETY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FOUR A-7 AND ONE OV-10 AIRCRAFT. 15 ORDNANCE STORAGE LOCKERS. A SECURE STORAGE VAULT. WEAPON LOADING CAPABILITY FOR A WIDE VARIETY OF ORDNANCE. HOT-COLD CHAMBER FOR ORDNANCE TEST. TELEMETRY AND ON-BOARD-AIRCRAFT PHOTO AND TAPE RECORDING EQUIPMENT. INTERDATA 7/32 COMPUTER. AS AN AIR FORCE TENANT ORGANIZATION ACCESS TO THE FOLLOWING AT KIRTLAND AIR FORCE BASE. CRAY-2 AND CYBER .76 COMPUTERS. ALECS, ARFS, TRESTLE, AND OTHER EMP FACILITIES. GENERAL SEVERE ENVIRONMENT FACILITIES. HIGH ENERGY LASER LAB INCLUDING THE AIRBORNE LASER LAB. SHOCK-BLAST FACILITY. NEARBY ARE THE FOLLOWING. WHITE SANDS MISSILE RANGE, SANDIA LABS, LOS ALAMOS SCIENTIFIC LAB, ALL WITH AVAILABLE EXTENSIVE TEST FACILITIES. AT NWEF THE FOLLOWING CAPABILITIES- SAFETY ANALYSIS AND EVALUATION. BOARD OF INSPECTION AND SURVEY ON NUCLEAR WEAPONS. DEVELOP WEAPON LOADING CHECK LISTS.

INSTALLATION: AERO PROPULSION LABORATORY

WPAFB, OH.

CDR. COL. GEORGE E. STRAND

CH. SCI. LTCOL CHARLES E. SIMON (ACTG)

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RD&E	116.171	107.700
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.928	0.900
TOTAL ANNUAL LAB	117.099	108.600
TOTAL INHOUSE	15.512	15.384
TOTAL INHOUSE RD&E	14.584	14.484
ANNUAL OPERATING COST	3.598	4.037

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	45	5	34	11
CIVILIAN	349	28	216	133
TOTAL	394	33	250	144

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
40	229.490	36.784	105.665	371.939	56.100	28.670

...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 GENERATION AND CONDITIONING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TURBINE ENGINE CONTROL TEST FAC, BATTERY DEVELOPMENT AND TEST FAC, MHD GENERATOR, LUBRICATION RIGS, SEAL TEST RIGS, BEARING RIGS, FUEL HANDLING FAC, FIRE RESEARCH LAB, COKE 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 PROPELLOR 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, SOLAR CELL LAB.

INSTALLATION: AEROSPACE MEDICAL RESEARCH LABORATORY

WPAFB, OH.

CDR. COL. GEORGE C. MOHR

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	14.854	14.162
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.300	1.304
TOTAL ANNUAL LAB	16.154	15.466
TOTAL INHOUSE	1.272	0.945
TOTAL INHOUSE RDT&E	1.272	0.945
ANNUAL OPERATING COST	0.757	0.801

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	135	16	59	76
CIVILIAN	153	32	103	50
TOTAL	288	48	162	126

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
30	70.586	3.068	95.133	168.787	10.964	20.812

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ARMAMENT DIVISION

EGLIN AFB, FL.

CDR MAJ GEN R.M. BOND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	373.134	456.973
TOTAL PROCUREMENT	310.385	250.773
TOTAL O&M	13.400	11.046
TOTAL OTHER	503.440	909.142
TOTAL ANNUAL LAB	1,200.359	1,627.934
TOTAL INHOUSE	230.478	250.691
TOTAL INHOUSE RDT&E	146.358	171.476
ANNUAL OPERATING COST-	34.071	34.495

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	
MILITARY	4545	23	491	4064
CIVILIAN	3102	36	695	2417
TOTAL	7647	59	1166	6481

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
463587	320.295	914.900	10347.525	11582.720	301.687	201.856

...MISSION
RESPONSIBLE FOR AIR-LAUNCH TACTICAL AND AIR DEF MSLS;NONNUC MUN, GUIDED WEAP,ELFC-OPTICAL WEP DEL DYD, A/C GUN, AMMO, RELATED EQUIP. RESPON FOR BASIC TECHNOLOGY, DEVEL, TEST,INITIAL ACO AND DEPLOY. TEST MISSION INCL LEAD CENTER IN MUN,EMW,INTRUSION/INTERDICTION, AND CLIMATIC SIM.

...CURRENT IMPORTANT PROGRAMS
WIDE AREA ANTI-ARMOR MUNITION
PRECISION GUIDANCE MUNITIONS
ADVANCED MEDIUM RANGER AIR-TO AIR MISSILE
LOW ALTITUDE AIR FIELD ATTACK SYSTEM
COMBINED EFFECTS MUNITION

...FUNCTIONS/EQUIPMENT/CAPABILITIES
SCIENTIFIC/ENGINEERING PERSONNEL AND LABORATORY FACILITIES CAPABLE OF EXPLOR,ADV,& ENG DEV OF NONNUCLEAR MUNITIONS & EQUIP,ARMAMENT SYSTEMS TEST ENVIRONMENT COVERING 725 SQ MI WITH LARGE ADJACENT WATER AREA; HAS 28TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADARS AND PHOTO-OPTICS; IS USED FOR MUNITIONS TESTING AND ELECTROMAGNET 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 SYS; A CLIMATIC LAB CAPABLE OF TESTING COMPLETE WPN SYS, A COMPUTER SCIENCE LAB, A PHYSICAL SCIENCE LAB, A PHOTO LAB AN INSTRUMENTATION/R/D FACILITY, & A MISSILE SIMULATION AND TEST LABORATORY

INSTALLATION: ARNOLD ENGINEERING DEVELOPMENT CENTER

TULLAHOMA, TN.

CDR. COL. MICHAEL H. ALEXANDER

CH SCI DR. BRUCE REESE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980	1981
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	136.716	156.831
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.021	0.021
TOTAL OTHER	10.696	5.280
TOTAL ANNUAL LAB	147.433	162.132
TOTAL INHOUSE	17.123	20.548
TOTAL INHOUSE RDT&E	15.362	19.540
ANNUAL OPERATING COST	25.495	32.968

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		NON-PROF
		TOTAL	PROF	
MILITARY	110	4	61	49
CIVILIAN	155	6	45	110
TOTAL	265	10	106	159

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
39081	1097.395	184.217	703.205	1984.817	384.364	64.910

...MISSION

DEVELOPMENT AND RESEARCH AND DEVELOPMENT PROGRAMS OF DOD AND TO KEEP EXISTING FACILITIES MODERN TO PROVIDE ADVANCED FACILITIES AS REQUIRED, AND TO CONTINUALLY DEVELOP ADVANCED TEST TECHNIQUES AND INSTRUMENTATION. AEDC IS COMPRISED OF ABOUT 35 TEST UNITS. INCLUDED ARE WIND TUNNELS WITH

...CURRENT IMPORTANT PROGRAMS

CONTINUED MX TESTING TO INCLUDE AERODYNAMICS, STAGE SEPARATION, AND F100 ENGINE CIP; F101 EMDP; AND SPACE SHUTTLE. OTHER SIGNIFICANT TESTING: F16 MULTISTAGE SEPARATION, NAVY TRIDENT, ABRES, AMRAAM, IUS, MM AGING SURVEILLANCE, ADV WPNS CONF, WASP, AND SPCAC DEFENSE SYSTEMS. PRIMARY MISSION IS TO PROVIDE ENVIRONMENTAL TEST SUPPORT TO SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EST SECTIONS TO 16 FT SQ AND SPEED FROM SUBSONIC TO MACH 20; 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 DIA AND 82 FT HIGH; HYPERBALLISTIC RANGES; DUST AND SNOW EROSION FACILITY; BIRD IMPACT FACILITY; TWO CAPTIVE TRAJECTORY SYSTEMS. THESE FACILITIES HAVE SUPPORTED DEVELOPMENT AND QUALIFICATION OF MOST MAJOR AERONAUTICAL, M.SSLE, AND SPACE SYSTEM DEVELOPMENT SINCE 1954. THIS TESTING COMPLEMENTS EXPENSIVE AND OFTEN HAZARDOUS FLIGHT TESTING AND ASSURES THAT SYSTEM DEFICIENCIES ARE FOUND EARLY, THEREBY SAVING TIME AND RESOURCES IN THE OVERALL DEVELOPMENT, ACQUISITION AND DEPLOYMENT PROCESS

INSTALLATION: AVIONICS LABORATORY

WPAFB, OH.

CDR. COL. R. R. RANDINE CH SCI DR. W. C. FPPERS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	142.688	159.300
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.066	3.000
TOTAL ANNUAL LAB	145.754	162.300
TOTAL INHOUSE	22.704	21.862
TOTAL INHOUSE RDT&E	19.638	18.862
ANNUAL OPERATING COST	3.465	3.510

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	159	8	107	52
CIVILIAN	610	38	398	212
TOTAL	769	46	505	264

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
229	250.901	8.775	412.829	672.505	24.294	68.733

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: EASTERN SPACE & MISSILE CENTER

PATRICK AFB, FL.

CDR. COL. JOHN S. BURKLUND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	0.000	0.000
TOTAL PROCUREMENT	5.616	6.119
TOTAL O&M	220.346	249.491
TOTAL OTHER	20.280	22.596
TOTAL ANNUAL LAB	246.242	278.206
TOTAL INHOUSE	91.332	93.433
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	23.725	25.222

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	946	3	218	728
CIVILIAN	1207	0	73	1134
TOTAL	2153	3	291	1862

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
17484	129.369	1213.525	4510.214	5853.108	382.881	323.165

...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

FBM PROGRAMS - POSEIDON, TRIDENT AND CHEVALINE
 MIL SPACE SUPPORT PROGRAMS - TITAN IIIC AND TITAN 34D/IUS
 MIL MISSION SUPPORT PROGRAMS - SRAM/OT&E AND PERSHING
 NASA - THOR/DELTA, ATLAS/CENTAUR AND SPACE SHUTTLE PROGRAMS
 DOD SPACE TRANSPORTATION SYSTEM

...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. EASTERN SPACE AND MISSILE CENTER OPERATES AND MAINTAINS CCAFS, MAINLAND SITES AND DOWN-RANGE STATIONS. SUPPORT FUNCTIONS INCLUDE LAUNCH SUPPORT SERVICES AND OVERALL MANAGEMENT OF THE ETR, INCLUDING CONTRACTOR OPERATIONS, PLANT ENGINEERING, LABS, SHOPS AND OTHER SPECIAL SERVICES.

INSTALLATION: ENGINEERING & SERVICES CNTR / RD

TYNDALL AFB, FL.

CDR COL FRANCIS B. CROWLEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + FST)
TOTAL RDT&E	8.771	11.765
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.579	0.625
TOTAL OTHER	1.313	1.800
TOTAL ANNUAL LAB	10.663	14.190
TOTAL INHOUSE	3.035	4.089
TOTAL INHOUSE RDT&E	1.143	1.664
ANNUAL OPERATING COST	0.150	0.150

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	91	9	48	43
CIVILIAN	18	1	12	6
TOTAL	109	10	60	49

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3	5.460	2.200	9.751	17.411	1.960	1.730

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ESL HAS ACCESS TO LABORATORIES AND TEST FACILITIES TO PERFORM QUALITATIVE AND QUANTITATIVE MEASUREMENTS ON CORROSION, ENGINEERING MATERIALS, PAVEMENTS, SOIL MECHANICS, AIR QUALITY, WASTE TREATMENT PROCESSES, FIRE EXTINGUISHING AGENTS, AND HARDENED AIRCRAFT SHELTERS. EQUIPMENT INCLUDES FLAME AND ABSORPTION SPECTROPHOTOMETERS, WATER/WASTE STANDARD METHODS TEST EQUIPMENT, ELECTRICAL AEROSOL ANALYZING EQUIPMENT, LASER PARTICLE SIZE MEASUREMENT EQUIPMENT, AND MICROPROCESSOR DEVELOPMENT SYSTEM. REMOTE TERMINAL ACCESS IS AVAILABLE TO A CDC 6600 SCIENTIFIC COMPUTER WITH OFF LINE PLOTTING CAPABILITY. A RUNWAY REPAIR/ALTERNATE LAUNCH SURFACE TEST SITE HAS A 200 X 600 FOOT TYPICAL RUNWAY SECTION.

INSTALLATION: FLIGHT DYNAMICS LABORATORY

WPAFB, OH.

TECH DIR COL R.C. BARLOW

CH SCI DR C.K. RICHEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	93.000	94.000
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.350	3.400
TOTAL ANNUAL LAB	96.350	97.400
TOTAL INHOUSE	28.890	27.884
TOTAL INHOUSE RDT&E	25.540	24.484
ANNUAL OPERATING COST	5.261	5.979

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	188	6	119	69
CIVILIAN	646	30	431	215
TOTAL	834	36	550	284

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
92	515.356	5.100	147.128	667.584	26.438	54.214

...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

ADVANCED COMPOSITE STRUCTURES
ADVANCED FIGHTER TECHNOLOGY INTEGRATOR
COMBINED ENVIRONMENT RELIABILITY TEST
DIGITAL FLIGHT CONTROL SYSTEM
FLIGHT VEHICLE TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LANDING GEAR TEST FACILITY, WHICH DYNAMICALLY SIMULATES LANDING GEAR PERFORMANCE, PERMITTED VERIFICATION OF F-14 CARBON AND BERYLLIUM BRAKES. EVALUATION OF AIRCREW/AVIONIC COMPLEMENT FOR KC-135 TANKER AND EVALUATION AND VALLIDATION OF IFFC-1 CONCEPT FOR F-15 WERE PERFORMED IN THE ENGINEERING FLT SIMULATION FAC. STRUCTURAL TESTING OF HAVE BOUNCE F-4 (WINGS, GEARS, PYLONS) AND A-10 WING WITH PROGRAM CONTROLLED FORCE ENVIRONMENTMENTS WERE ACCOMPLISHED IN THE STRUCTURES TEST FAC. BALLISTIC RANGES ASSESSED VULNERABILITY OF AIRCRAFT DRY BAYS TO MISSILE WARHEAD FRAGMENT IMPACT BY SIMULATING THREAT, FUEL, STRUCTURAL AND AERODYNAMIC ENVIRONMENT. DEMONSTRATED IN THE MACH 3 HIGH REYNOLDS NUMBER WIND TUNNEL THE CONCEPT OF FLUID DYNAMIC METHODS OF LASER HARDENING.

INSTALLATION: FLIGHT TEST CENTER

EDWARDS AFB, CA.

CDR MG P.J. CONLEY, JR.

TECH.DIR. MR F.N. STOLIKER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + FST)
TOTAL RDT&E	100.274	102.518
TOTAL PROCUREMENT	0.832	3.441
TOTAL O&M	11.483	15.134
TOTAL OTHER	50.193	69.714
TOTAL ANNUAL LAB	162.782	190.807
TOTAL INHOUSE	131.687	147.904
TOTAL INHOUSE RDT&E	77.571	77.545
ANNUAL OPERATING COST	45.057	49.627

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	3050	5	137	2913
CIVILIAN	1786	3	278	1508
TOTAL	4836	8	415	4421

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
227071	102.125	263.504	6761.139	7126.768	282.040	131.081

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: FRANK J SEILER RESEARCH LABORATORY

USAF ACADEMY, CO.

CDR LT COL W D SIURU

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	0.722	0.871
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.540	0.600
TOTAL ANNUAL LAB	1.262	1.471
TOTAL INHOUSE	1.262	1.471
TOTAL INHOUSE RDT&E	0.722	0.871
ANNUAL OPERATING COST	0.047	0.058

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	23	13	15	8
CIVILIAN	9	1	4	1
TOTAL	32	14	19	9

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
1	LAB	ADMIN	OTHER	22.100	1.720	1.500

...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. JAMES E. BAKER

CHI SCI DR. JOHN N. HOWARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	52.612	62.823
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.740	3.724
TOTAL ANNUAL LAB	56.352	66.547
TOTAL INHOUSE	26.896	27.100
TOTAL INHOUSE RDT&E	24.076	24.198
ANNUAL OPERATING COST	6.748	7.355

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	120	6	30	81
CIVILIAN	495	79	274	221
TOTAL	615	85	313	302

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
368	389.923	14.566	25.883	430.372	9.684	30.867

...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
IONOSPHERIC SPECIFICATION FOR CBI SYSTEMS
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 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. RONALD W. TERRY VICE CDR COL KENNETH E. STOUT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	23.751	24.463
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.474	1.133
TOTAL OTHER	2.437	2.830
TOTAL ANNUAL LAB	27.662	28.426
TOTAL INHOUSE	11.512	12.388
TOTAL INHOUSE RDT&E	9.061	9.658
ANNUAL OPERATING COST	1.780	2.045

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	125	12	75	50
CIVILIAN	238	40	143	95
TOTAL	363	52	218	145

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE LAB	(THOUSANDS OF ADMIN	SQUARE FEET) OTHER	TOTAL	REAL PROP	EQUIP
8	35.100	49.180	55.220	189.500	6.123	36.507

...MISSION

DATA IN SYSTEM DESIGN AND OPERATION. ALSO DEVELOPS ADVANCED SIMULATION HARDWARE AND SOFTWARE TECHNOLOGIES AND PROVIDES TECHNICAL SUPPORT OF STUDIES, ANALYSES, DEVELOPMENT PLANNING ACTIVITIES, ACQUISITION, TEST, EVALUATION, MODIFICATION, AND OPERATION OF AEROSPACE SYSTEMS AND RELATED

...CURRENT IMPORTANT PROGRAMS

PRINCIPLE AFSC ORGANIZATION CHARGED WITH AND EXECUTING THE USAF EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS FOR PERSONNEL SELECTION, CLASSIFICATION AND RETENTION; FORCE STRUCTURE AND UTILIZATION; EDUCATION, TRAINING, AND INSTRUCTIONAL STRATEGIES; TRAINING TECHNOLOGY FOR SIMULATORS AND INSTRUCTIONAL DEVICES; PERFORMANCE EVALUATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCCUPATIONAL ANALYSTS; PERSONNEL PROCUREMENT, CLASSIFICATION, RETENTION AND SEPARATION; COMPUTER SIMULATION MODELS FOR PERSONNEL SYSTEMS; MANPOWER REQTS OF AF WEAPONS SYS; TRNG 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.

INSTALLATION: MATERIALS LABORATORY

WPAFB, OH.

TECH. DIR. MR. GEORGE P PETERSON

CH SCI DR NORMAN M TALLAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	55.810	60.000
TOTAL PROCUREMENT	55.400	69.500
TOTAL OEM	0.000	0.000
TOTAL OTHER	1.204	1.200
TOTAL ANNUAL LAB	112.414	130.700
TOTAL INHOUSE	15.472	15.425
TOTAL INHOUSE RDT&E	14.269	14.225
ANNUAL OPERATING COST	2.553	2.696

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	52	7	47	5
CIVILIAN	313	47	242	71
TOTAL	365	54	289	76

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	198.750	119.141	54.123	362.014	23.340	19.327

...MISSION

PLAN/EXECUTE EXPLORATORY AND ADVANCED DEVELOPMENT, AND ASSIGNED BASIC RSCH PROGRAMS FOR MATERIALS. PROVIDE TECH/MANAGEMENT ASSISTANCE FOR STUDIES, ANALYSES, DEVELOPMENT PLANNING, ACQUISITION, TEST, EVALUATION, MOD AND OPN OF AEROSPACE SYSTEMS. MANAGE AF DIRECTED MFG PROGRAM.

...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT OF LASER HARDENED MATERIALS
MAN TECH COST REDUCTION PROGRAM FOR METALS, NONMETALS AND EM MATERIALS.
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, DISPLAY, LASER WINDOWS, AND OPTICAL 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: OFFICE OF SCIENTIFIC RESEARCH

WASHINGTON, D.C.

DIRECTOR DR. LAWRENCE C KRAVITZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	117.977	125.400
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.950	1.117
TOTAL ANNUAL LAB	118.927	126.512
TOTAL INHOUSE	25.696	29.240
TOTAL INHOUSE RDT&E	24.746	27.128
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	48	13	22	26
CIVILIAN	98	22	26	72
TOTAL	146	35	48	98

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	36.688	5.128	41.816	0.000	0.000

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

AERODYNAMICS OF FUEL EFFICIENT AIRCRAFT
AERODYNAMICS OF LOW SPEED TAKE OFF AND LANDING
WEAPON SYSTEM AUTOMATION
MANUFACTURING SCIENCES
CHEMICAL AGENT DEFENSE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE THE AIR FORCE RESEARCH PROGRAM AND SPONSOR EXTRAMURAL RESEARCH.

INSTALLATION: ROCKET PROPULSION LABORATORY

EDWARDS AFB, CA.

CDR. COL. WILLIAM F. MORRIS

CH. SCI. DR. RICHARD R. WEISS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	37.661	42.365
TOTAL PROCUREMENT	0.298	0.268
TOTAL O&M	0.019	0.011
TOTAL OTHER	2.367	2.905
TOTAL ANNUAL LAB	40.345	45.549
TOTAL INHOUSE	15.926	16.227
TOTAL INHOUSE RDT&E	13.292	13.443
ANNUAL OPERATING COST	0.650	0.725

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	176	4	64	112
CIVILIAN	254	14	93	161
TOTAL	430	18	157	273

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68345	419.046	86.848	4.780	510.674	126.000	25.108

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: ROME AIR DEVELOPMENT CENTER

GRIFFISS AFB, N.Y.

CDR. COL. DONALD J. STUKEL CH.SCI-DR. JOHN S. BURGESS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	195.995	224.080
TOTAL PROCUREMENT	8.412	12.790
TOTAL O&M	27.620	24.945
TOTAL OTHER	3.446	3.825
TOTAL ANNUAL LAB	235.473	265.640
TOTAL IN-HOUSE	27.820	29.357
TOTAL IN-HOUSE RDT&E	23.849	24.976
ANNUAL OPERATING COST	9.402	9.480

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	219	9	108	111
CIVILIAN	1091	54	582	509
TOTAL	1310	63	690	620

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
1517	817.004	54.080	182.038	1053.122	30.351	51.200

...MISSION

CONDUCTS RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, TEST AND SELECTED ACQUISITION PROGRAMS IN SUPPORT OF COMMAND, CONTROL AND INTELLIGENCE -C-CUBED I- ACTIVITIES

...CURRENT IMPORTANT PROGRAMS

DIRECT DIGITAL TARGETING
DECISION AIDS
VERY LARGE SCALE INTEGRATED CIRCUIT RELIABILITY
FIBER OPTICS MULTIPOINT FAMILY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRINCIPLE 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. MAJOR IN-HOUSE FACILITIES ARE: RECONNAISSANCE EXPLOITATION FACILITY, HIGH POWER FACILITY, DIGITAL COMMUNICATIONS EXPERIMENTAL FACILITY, R AND D COMPUTER FACILITY CONSISTING OF TWO HONEYWELL 6180 COMPUTERS, RELIABILITY ANALYSIS CENTER, RADIATION EFFECTS FACILITY, CARTOGRAPHIC TEST FACILITY, ECCM AND SIGNAL PROCESSING LABORATORY, SOLID STATE DEVICE FAILURE ANALYSIS FACILITY EXPERIMENTAL DEVICE FABRICATION FACILITY, AND AN ELECTROMAGNETIC VULNERABILITY FACILITY FOR WEAPONS TESTING.

INSTALLATION: SCHOOL OF AEROSPACE MEDICINE

BROOKS AFB, TX.

CDR. COL. ROY L. DEHART

DEP. DIR. BILLY E. WELCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	16.394	18.771
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	6.487	7.044
TOTAL ANNUAL LAB	22.881	25.815
TOTAL INHOUSE	17.575	18.169
TOTAL INHOUSE RDT&E	11.190	11.222
ANNUAL OPERATING COST	2.500	2.800

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	393	50	116	277
CIVILIAN	274	38	124	150
TOTAL	667	88	240	427

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
74	420.115	21.096	183.400	624.611	16.257	20.408

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: WEAPONS LABORATORY

KIRTLAND AFB, N.M.

DIR. DR. W.L. LEHMANN

CDR. COL R. T. WHITE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	169.216	151.803
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.027	0.027
TOTAL OTHER	12.693	12.200
TOTAL ANNUAL LAB	181.936	164.030
TOTAL INHOUSE	70.682	59.125
TOTAL INHOUSE RDT&E	58.238	46.898
ANNUAL OPERATING COST	16.067	17.529

PERSONNEL DATA (END OF FY 1980)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	647	48	386	261
CIVILIAN	481	50	239	242
TOTAL	1128	98	625	503

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
702	555.629	161.356	132.261	849.246	76.612	66.370

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

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

...FUNCTIONS/EQUIPMENT/CAPABILITIES

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

INSTALLATION: WESTERN SPACE AND MISSILE CENTER

VANDENBERG AFB, CA.

CDR. COL. W.M. BURKETT

TFCH DIR. DR. J.A. MEANS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RD&E	0.596	0.800
TOTAL PROCUREMENT	6.612	6.645
TOTAL O&M	76.415	88.193
TOTAL OTHER	7.261	10.286
TOTAL ANNUAL LAB	90.884	105.924
TOTAL INHOUSE	90.884	105.924
TOTAL INHOUSE RD&E	0.596	0.800
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	359	1	221	138
CIVILIAN	333	2	260	73
TOTAL	692	3	481	211

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
55860	837.000	5000.000	409.000	6246.000	260.000	49.900

...MISSION

MANAGE FIELD TEST AND LAUNCH OPERATIONS FOR SPACE DIVISION/OTHERS.
DEVELOP MANAGE AND OPERATE THE WESTERN TEST RANGE AS A DESIGNATED
NATION RANGE.

...CURRENT IMPORTANT PROGRAMS

ADVANCED BALLISTIC REENTRY SYSTEMS PROGRAMS.
MINUTEMAN II OPERATIONAL TESTING PROGRAMS.
MINUTEMAN III R AND D AND OPERATIONAL TESTING PROGRAM
CLASSIFIED AND UNCLASSIFIED SPACE PGMS USING TITAN, ATLAS, THOR, AND SCOUT
BOMARC MISSILE, TOMAHAWK CRUISE MISSILE, AIR-LAUNCHED CRUISE MISSILE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMC 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/CHECKOUT; AND LAUNCH CONTROL. WESTERN TEST RANGE
SUPPORT INCLUDES NEAR AND FAR TERM RANGE INSTRUMENTATION PLANNING, AND
DATA GATHERING ON BALLISTIC/SPACE/GUIDED MISSILES/PROBE LAUNCHES;
AIRCRAFT AND OTHER TESTS AT UPRANGE AND DOWNRANGE LOCATIONS. RADAR,
TELEMETRY, OPTICAL, DATA PROCESSING, COMMUNICATIONS AND COMMAND CONTROL
SYSTEMS ARE AVAILABLE. LAUNCH AZIMUTHS VARY FROM 140 TO 313 DEGREES.

CONSIDERABLE INCREASE OVER 79 FIGURES FOR SPACE DUE TO NON REPORTING
OF RTE CONTRACTOR OCCUPIED SPACE IN FY 79

INSTALLATION: 4950 TEST WING

WPAFB, OH.

CDR. COL. D.T. WARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	55.757	74.355
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.212	2.205
TOTAL OTHER	0.014	0.016
TOTAL ANNUAL LAB	57.983	76.676
TOTAL INHOUSE	48.553	72.174
TOTAL INHOUSE RDT&E	46.327	70.853
ANNUAL OPERATING COST	0.015	0.015

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	878	0	24	849
CIVILIAN	1052	0	98	954
TOTAL	1930	0	122	1803

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
218	0.000	60.582	928.120	988.702	15.516	415.994

...MISSION

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

...CURRENT IMPORTANT PROGRAMS

POSEIDON
TRIDENT
TACTICAL BISTATIC RADAR DEMO
RANGE ONLY CORRELATION SYSTEM
ACFT NAVIGATION SYS VERIFICATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

43 TEST SUPPORT AIRCRAFT (9 ARIA EC-135)
ALL AFSC MAJOR CLASS II AIRCRAFT MODIFICATIONS
MISSILE LAUNCH/REENTRY TRACKING AND DATA RELAY
WORLDWIDE TEST SUPPORT CAPABILITY
1400 SQUARE MILE RESTRICTED TEST AREA IN OHIO
FLIGHT TEST ENGINEERING (AERO-MECHANICAL, AVIONICS, AND ARIA)
TEST DATA ACQUISITION/PROCESSING/ANALYSIS
3 OPERATIONAL SQS (FLIGHT CREWS) AND 3 MAINTENANCE SQS
SPECIALIZED SHOP EQUIP METAL/WOOD WORKING, MODELING, & DATA AUTOMATION
TECHNICAL PHOTOGRAPHIC INSTRUMENTATION & PROCESSING
CENTRAL AFSC AT WPAFB PMEL SERVICES
ASD LABORATORY MATERIAL CONTROL ACTIVITY

INSTALLATION: 6585TH TEST GROUP

HOLLOMAN AFB, N.M.

COL. ROBERT E. HANEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	18.264	19.150
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	5.054	6.000
TOTAL OTHER	4.924	7.939
TOTAL ANNUAL LAB	28.242	33.089
TOTAL INHOUSE	13.976	14.114
TOTAL INHOUSE RDT&E	9.337	9.035
ANNUAL OPERATING COST	0.051	0.120

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	324	1	56	268
CIVILIAN	282	2	79	203
TOTAL	606	3	135	471

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
6602	386.000	7.000	163.000	556.000	103.001	41.375

...MISSION

DOD FOCAL POINT FOR FLIGHT, LAB & SLED T&E OF INERTIAL GUIDANCE SYSTEMS & COMPONENTS. HIGH SPEED TRACK FOR AERODYNAMIC, EJECTION, IMPACT, RAIN-FIELD, GUIDANCE & BLAST INTERACTION. RADAR CROSS SECTION & ANTENNA PATTERNS OF A/C, SPACECRAFT RVs. A/C SUPPORT FOR IN-HOUSE & TRANSIENT REQ.

...CURRENT IMPORTANT PROGRAMS

MX MISSILE GUIDANCE SYSTEM AND COMPONENTS TESTING
B-52 OFFENSIVE AVIONICS SYSTEM TESTING
ADVANCED GUIDANCE TECHNOLOGY TESTING IN SUPPORT OF ABRES
A/C NAVIGATION SYSTEM VERIFICATION, PROJECT 6PPG
RANGE ONLY CORRELATION SYSTEM IN SUPPORT OF ABRES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRECISION GRND/ABN TEST FACILITY
PRECISION REFERENCE/DATA COLLECTION
ENVIRONMENTAL CHAMBERS
INERTIAL NAV TEST VAN
35,599 FT, 2 RAIL/15,200 FT, 3 RAIL
2 INTRMN STATIONS
9000 FT TRACKSIDE
2000 FT BALL RAINFIELD
ROCKET SLED/PROPULSION SYST INV
RADAR TARGET SCATTER FAC, 30 MHZ TO 90 GHZ
MEASURE MONOSTATIC/BISTATIC AMP, PHASE, DOPPLER, GLINT, JET ENG MODULA
IR SIGNATURE

INSTALLATION: ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE

BETHESDA, MD.

CDR. CAPT. PAUL E. TYLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1980 (ACTUAL)	1981 (ACT + EST)
TOTAL RDT&E	8.620	9.025
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.050	2.431
TOTAL ANNUAL LAB	10.670	11.656
TOTAL INHOUSE	10.670	11.656
TOTAL INHOUSE RDT&E	8.620	9.025
ANNUAL OPERATING COST	2.017	2.270

PERSONNEL	PERSONNEL DATA (END OF FY 1980)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	88	23	40	48
CIVILIAN	128	16	49	79
TOTAL	216	39	89	127

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	42.335	21.049	56.834	120.218	7.911	6.791

...MISSION

THE MISSION OF AFRI 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; 200,000-CURIE COBALT-60 IRRADIATOR; ELECTRON LINEAR ACCELERATOR AND 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 1980

MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES Ft Detrick, MD	DISESTABLISHED Now part of Walter Reed Army Institute of Research
MISSILE COMMAND Redstone Arsenal, AL	ESTABLISHED Name change
MISSILE R&D COMMAND Redstone Arsenal, AL	DISESTABLISHED
NATICK R&D LABORATORIES Natick, MA	ESTABLISHED Name change
NATICK R&D COMMAND Natick, MA	DISESTABLISHED
TANK-AUTOMOTIVE COMMAND Warren, MI	ESTABLISHED Name change
TANK-AUTOMOTIVE R&D COMMAND Warren, MI	DISESTABLISHED

DEPARTMENT OF THE NAVY

NAVAL BIODYNAMICS LABORATORY New Orleans, LA	ESTABLISHED
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DEPARTMENT OF THE AIR FORCE

NONE

APPENDIX II

Definitions

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

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

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

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

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	Psychological Technician	682	Dental Hygiene
404	Biological Laboratory Technician	683	Dental Laboratory Technicians
421	Plant Pest Control Technician	698	Environmental Health Technician
455	Range Technician	699	Medical Aid
458	Soil Conservation Technician	704	Animal Health Technician
462	Forestry Technician	802	Engineering Technician
622	Medical Aid (Sterile Supplies)	817	Surveying Technician
625	Morgue Attendant	818	Engineering Drafting
636	Physican Medicine & Rehabilitation Therapy Asst	856	Electronic Technician
642	Nuclear Medicine Technician	895	Industrial Engineering Technician
645	Medical Technician	1311	Physical Science Technician
646	Pathology Technician	1316	Hydrologic Technician
647	Medical Radiology Technician	1341	Meteorological Technician
649	Medical Machine Technician	1371	Cartographic Aid
650	Medical Technical Asst	1374	Geodetic Technician
661	Pharmacy Technician	1521	Mathematics Technician
667	Orthopotist and Prosthetist	1531	Statistical Clerical & Administrative
681	Dental Assistant	1541	Cryptanalysis

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

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

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

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

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

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

PI -- product improvement
POL -- petroleum oil, lubricants
QA -- quality assurance
QMDO -- qualitative materiel development objective
QMR -- qualitative materiel requirement
RDT&E -- Research, development, test and evaluation
RF -- radio frequency
RV -- reentry vehicle

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

T&E -- test and evaluation
TOTO -- Tongue-of-the Ocean
UDT -- underwater demolition team
ULMS -- Undersea Long-Range Missile System
USATECOM -- US Army Test and Evaluation Command
UTTAS -- utility tactical transport aircraft system
USW -- undersea warfare
UV -- ultraviolet
V/STOL -- vertical/short takeoff and landing

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