



30 October 1972

Management Analysis Report

Department of the Army

Department of the Navy

Department of the Air Force

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DEPARTMENT OF DEFENSE IN-HOUSE RDT & ACTIVITIES.

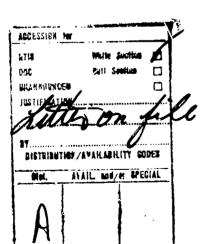
10 Harold F. Davidson

30 October 1072

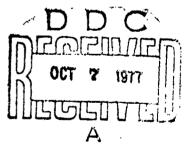
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Voffice of the Chief of Research and Development Department of the Army Washington, D.C. 20310



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### **FOREWORD**

For this report

This report was prepared by the Department of the Army at the request of the Director of Defense Research and Engineering. The Departments of the Army, the Navy and the Air Force provided comprehensive data on the finances, manpower and facilities of their organizations that perform research, development, test and evaluation (RDT E). In addition, they briefly described each activity's mission, current important programs. functions, and equipment capabilities. The statistical data relate to the past and current fiscal years, i.e. 1972 and 1973.

Each in-house RDT/E activity of the Department of Defense is described on one page in this compilation. The data for FY 1972 are summarized in tables preceding the main text.

This edition is the seventh of a series that started in 1966. Information was submitted on key-punched cards, and the report's preparation was thus entirely automated—with some manual correction of typographical errors and clarification of obscure abbreviations and contractions.

All current DoD RDT&E activities are listed in the Contents alphabetically within each Department. Some new organizational names appear in this issue and others have been changed since last year; for this information, see Appendix 1.

Appendix 11 contains the definitions given in DoD instruction 7700.9 and employed as the basis for these data. Appendix 111 lists selected standard abbreviations and acronyms.

Thanks are extended to Mr. Donald J. Ertel, Office, Chief of Research and Development, Department of the Army, for his unselfish and unstinting assistance in checking the raw data submitted by the Services and to Ms. Marilyn Rurak and Mr. Eugene S. Groseclose, Jr., for coercing an obstreperous computer into providing an accurate, legible report. Thanks are also due Ms. Cheryl Gellerson for her kind assistance and patience in correcting numerous typegraphical errors.

Data for In-House RDT&E Activities," dated 18 August 1972.

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## SUMMARY

# DEPARTMENT OF DEFENSE IN-HOUSE ROTGE FACILITIES

## PROGRAM DATA FOR FY 1972

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	4379.696
	2318.807
TOTAL INHOUSE PROGRAM	
TOTAL ROTEE PROGRAM	2848.035
TOTAL INHOUSE ROTEE	1514.803
	585-926
TOTAL ANNUAL OPERATING COST	JUJE 7EU

## PERSONNEL DATA (END OF FY 1972)

PER SONNEL	AUTHORIZED	TOTAL	TOTAL
	Strength	PHD	PROFESSIONALS
MILITARY	26338	1188	8653
CIVILIAN	81628	3071	28881
TOTAL	107966	4259	37534

## PHYSICAL FACILITIES (END OF FY 1972)

ACRES	9438879
SPACE (THOUSANDS OF SQ FT)	
LABORATORY ADMINISTRATIVE OTHER	28665.763 9573.256 53290.477
TOTAL	91529.496
COST (MILLIONS)	
REAL PROPERTY Equipment	3462.161 3655.879
TOTAL	7118.040

		FUNDIN	FUNDING DATA ('	CHILL FONS	<b>3</b>		PERS	ERSONNEL	DATA		
			TOTAL	TOTAL	INHOUSE	- 1	TOTAL P		•	ROF	P. OF
	. SUCKEP. AL.	101 AL	398°T	1.285	1,285	1 F		)   1   1   1   1   1   1   1   1   1   1	- 	1 S	<u>*</u>
. II	PASO, TEXAS	7.999	7.979	5.057	5.037	345				45	=======================================
!	MOUNTAIN VIEW, CAL.	43.641	13.458	43.021	12.638	34	575		56	34	236
ECTRUMICS BUARD FI	A STAGGA NACTA	3.490	4.090	1.488	994-1	207	2 6	<b>-</b>	<b>.</b>		
ų.	FI. CHUX. KENTIKKY	5.647	5.647	2.186	2,186	176	ŝ			D 6	- 0
_	-	12.219	11.034	9.220	8.035	483	258		1	ę	115
/ITY	· Cál.	4.478	4.478	3.689	3.689	62	116		-1	23	56
	ER	9.540	6.935	6.426	3.821	221	133		0	‡	*
_		20.956	18.146	12.699	11.294	52	251		so,	1	160
ORIES		30.868	20.928	30.609	20-808	15	6-2		2	79	9
		15.334	13.665	9-89	8.332	m	<b>610</b>		<b>.</b>	~	527
COALING AND CHEMICAL LABORATORY	ASERDEEN PROV GR. MD.	010.0	1.738	7.699	1.47	۰;	n :	-4 6	7 :	۰;	82
	ROVERS TABLE	1.450	541.0	2.136	775	Ŧ	9	٧.	"	9 6	Ď.
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× 04.74.40	TILL BUNDOUND NO.	30.10	070	004416	008-61	67	2		۲,	7.	ŝ
EARCH LABURATURY U	DANA, IL.		600.0	678.0	10/	9	9 9			• !	*
ร์ เ		15.807	10.41	13.491	12-666	355	288		<u>.</u>	117	2
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	FI. HUACHUCA, AK.	14.129	V . C . C . C . C . C . C . C . C . C .	7-1:5	040	10 C	177	5 0		9 9	10.
		7000	710-01	27.25	086-47	6:				<b>,</b>	7 6
ELECTRONICS TECHNOLOGY AND DEFICES LAG	TO SECURITION OF THE PARTY OF T	750.77	12.373	12 25	467-71	15				٠:	700
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•	CASBONG MISS.	477.4	C 10 - 7 7	799	45.403	0 m	757				, כ
. 4	DHILLDRY DA.	15.155	26.244	37. 246	474-1	600	9				124
3	MASHINGTON, O.C.	77, 783	60-845	45.986	33,530	( 0	1505				5.33
•	SERDEEN PROV GR. MD.	3.629	3.253	3.208	2.832	30	100		9		5
	¥.	2.746	2.631	1.294	1.179	184	55	0	0		~
3	MASHINGTOR, D.C.	1.384	1.384	0.715	0.715	26	52		-	30	ø
E	FT. SAM HOUSTON'S TX.	2.799	2.799	1. 35	1.435	127	2		E)	42	20
	ABERDEEN PROV GR. MO.	8-853	5.262	8.551	966-4	9,1	111		6	*	23
LETTERMAN ARMY INSTITUTE OF RESEARCH	ESIDIO, S.F., CAL.	11.960	1.462	0.704	0.70	6	2		~	S.	2
E.R.		33.682	15.257	27.293	13-173	01	607		9	2	219
SYSTEMS ANALYSIS AGENCY AL	ERDEEN PROV GR.	15.569	8.455	14-044	7-512	E 6	314	0 0	۰,	£1:	238
A 2000 00 00 00 00 00 00 00 00 00 00 00 0	ABERDEEN PROV GR. FU.	\$1 C • 97	204.62		4000	<u>.</u>	2 ;	، د	<b>-</b> 4 (	; ;	Ξ:
	TOTTEN E V	676	670.0	47.4	110	9 -	3 2	<b>v</b> c	+ <	¥ -	÷.
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		0.317	0-317	0-191	0.191	0	•			٠ د	
LAB	4	82.091	37-154	73.792	29. 354	31	1196	ı m	. 07 07	*	680
	- BELVOIR, VA.	91.970	27.406	44 745	18.855	*	1370		23	- M	596
	TICK, MASS.	40.281	25.684	23.207	14.968	132	1236		06		479
	FT. BELVOIR, VA.	32.654	15.727	32.654	15.727	51	404		34		219
	VER, N.J.	129.900	65.000	99.220	55.300	69	2676		29	-	889
	FT. MONMOUTH, N.J.	11.419	11.290	11.319	11.290	12	654	0	0		101
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE NA	TICK, MASS.	3.351	3.351	2-600	2.600	17	102		20	22	\$
SEASES	FT. DETRICK, MD.	5.111	5.111	3-040	3.040	365	248	ş	61		8
	OCK ISLAND, IL.	21-360	13.666	14-717	9.227	σ;	749	⊶ .	61 :	I,	ğ
AL SCIENCES	MANATURA DAGE	9. 700	046-7	907	046-7	⊒:	0.51	۰ ،	;		5
-	MARKENS TIO	10-120	4.257	767.04	2,702	1 26		<b>.</b>	<b>0</b> 4	)   	77
DF RESEARCH WA	SHINGTON, 0.C.	19,956	19-956	13.691	13.691	546	66.	1 99	20.	• 10	253
	•••	111-111	91.240	94.021	74.340	11.61	3594	¥	6 11	9	441
*	· •	24.653	24-653	11.508	11.508	436	802	13	0	25	8

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INSTALLATION		,			,	REAL	
		ACRES	LASORATORY	MOMIN	DTHER	PRCPERTY	EOUI PMF
A EROMEDICAL RESEARCH LABORATORY	FT. RUCKER, AL.	•	26.933	5.940	7.470	0.379	2.1
AIR DEFENSE BOARD	EL PASO, TEXAS	92	36.550	38.646	\$2.724	1.895	11.0
AIR MOBILITY RED LABORATORY	MOUNTAIN VIEW, CAL.	108	85.014	43.308	15.584	1.474	4.0
AIRBORNE COMMUNICATIONS & ELECTRONICS BOARD	FT. BRASG, N.C.	27	00000	50.879	114.000	4.190	
	FT. GREELY, AK.	726014	20.550	30,600	229.847	13,158	<b>0</b> *3
ARMOR AND ENGINEER BOARD	FT. KNOX, KENTUCKY	900	6.200	68.068	166.374	1.419	2•3
ATMOSPHERIC SCIENCES LABORATORY	WHITE SANDS MR. N.M.	<b>+</b> 5	0.056	0.025	0.033	48.000	2.5
AVIATION SYSTEMS TEST ACTIVITY	EDMARDS AFB; CAL.	13	0.004	0.033	0.098	1.140	<b>.</b>
AVIATION TEST BOARD	FT. RUCKER, AL.	1234	2.440	46.334	180.754	2.850	13.1
AVIONICS LABORATORY	EATONTOWN, N.J.	0	43.500	7.500	1.706	2.605	14.9
BALLISTICS RESEARCH LABORATORIES	ABERDEEN PROV GR, MD.	3380	277.823	113.784	0000	15,633	34.4
BENET WEAPONS LABORATORY	MATERVLIET, N.Y.	•	176.776	24-600	0.000	2.266	
COATING AND CHEMICAL LABORATORY	ABERDEEN PROV GR, MD.	0	0.017	0.002	9000	090*0	••
COLD REGIONS REE LABORATORIES	HANDVER, N.H.	631	19.013	9.848	108.415	3.906	4.3
COMBAT SURVETLLANCE & TGT ACQUISITION LABS	FT. MONMOUTH, N.J.	11	103,535	7.281	26.133	2.418	23.0
COMMUNICATIONS ADP LABORATORY	FT. MONNOUTH, N.J.	71	75.305	7.389	1.015	000 0	6.9
CONSTRUCTION ENGINEERING RESTARCH LABORATORY		51	68.875	32.075	0000	3,481	1.9
DESERET TEST CENTER (LABS)	DUGHAY, UTAH	640910	65.891	130.051	1743.102	<b>*69.608</b>	21.8
FOGEWOOD ARSENAL LABS	EDGEWOOD ARSENAL, MO.	4055	496.713	97.329	148.154	16.899	8.9
FLECTRONIC PROVING GROUND		19431	00000	187.580	0000	3.320	27.8
FI FOTROWIC MAREARE LABORATORY	FT. MONMOUTH. N.J.	0	61.311	40.868	10.850	2,525	13.8
ELECTIONIC TECHNOLOGY AND DEVICES 'AR	MONKOUTH. N	279	142.900	8.100	0000	5.832	12.4
CENTRAL TODOUGHBUTT - ABOUTTO THE	ET. REI WITE. VA.		A5.800	10.828	1.700	000 0	11.6
CHOINERS LOTOGRAPHIC CAROLATION CALLED	CTORESON BACO	000	1201.000	709 822	102,133	15.080	24.8
CHOLNER WAS EXMAIN CAMENDAL GIALLOS	CT CTI OF	600	26.286	74. 14.	56.138	924.6	
FIELD AN ILLER! BOARD	But the but a	3 7	207.00	34.000	KK7_000	0.070	o oc
TRESTORY RESIDENCE	restance of the	1	200	200467		72 61	2 2 6
HARRY DIABOND LABORALDRY	APPROPRIATE PROPERTY OF ACT	2	700107	17 606	28 052	700	7
HOMEN ENGINEERING CABORALONS	į	101			20 67		
INFANIXY GUAKU	TI- DENNING, GA-	66641	1.000	4 133	1.425	000.0	
INDITION OF DENIAL REDEAKCE	RACOLAGICAL CO.	-	75 424		10,00	1.068	
INVIIOU E UT VOKGICAL REVEARUR	ARCED CAN DOCUMENT OF THE	1	28.601	2000	12.628	0.686	6
LAND WARFARE LABORATORY	٠.	2 "	50-03	CC0-7	0.000	0.647	
. •	LATED TOLDS. MACC.	` \$	281.778	100	203-880	16.247	11.6
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はなしにおしてい ひょうにつく かんかにっしょく からにっしょ		67740	1220-000	424.000	905,000	227,000	\$2°C
コラーにおいた。 これりょうちゅうしょうかくじょうかくじょう カインタイプログライン・カイン カインかんしじょうじょう かけんかい カー・カインタイプ			11.463	1-022	0000	0.976	4.0
MEDICAL BIGHTOMENT BED 148	FT. TOTTEN. R.Y.	0	21.523	9.081	6.469	944	••
	DENVER. CO.	7	83.663	5,138	19.087	5.079	3.3
RESEARCH LABORATORY	FT. KNOX, KY.	20	88.025	5.363	34.734	0.280	3.0
MEDICAL RESEARCH UNIT	KUALA LUMPUR MAYLASIA	15	7.000	0.400	0000	0.100	0.0
RESEARCH UNIT	BALBOA HEIGHTS, C.Z.	0	2.000	0.600	0.000	0.00	0.0
MISSILE RES. + DEV. AND ENGINEERING LAB	REDSTONE ARSENAL, AL.	11000	1168-000	262.000	408-000	23.178	35.6
5	FT. BELVOIR, VA.	1000	011-110	147.480	128-040	617.06	
NATICK LABORATORIES	MAILCR, MASS.	306	252.000	006-69	2000	2C1 -04	77
NIGHT VISION LABORATORY	FT. BELVOIR, VA.	61	(30.61	24.863	161.10	106-64	
PICATINNY ARSENAL LABORATURIES	COVERNITY IN THE	0 44 6	240-46	000.0	0.315	104.8	9
KAD FERMISAL BOPPORT ACTIVITY Secresols tentities of rectonsafatal medicing	MATTER MACK	9	60.421	18,563	28.647	6.902	2.0
ē	FT. DETRICK. HD.	57	93.217	13.819	198,731	17.818	3.1
ROCK ISLAND ARSENAL LABORATORIES	ROCK ISLAND, IL.	180	103.617	100.838	106-679	3.598	11.1
RSCH INST FOR BEHAVIORAL AND SOCIAL SCIENCES	MASHINGTON, D.C.	0	25.435	9.742	1.623	000 0	1:0
TANK-AUTOMOTIVE COMMAND LABS	MARREN, MI.	1125	361.202	0.00	000.0	15.538	16.7
TROPIC TEST CENTER	FT. CLAYTON, C.Z.	18868	66.363	87.971	67.118	1.211	e .
WALTER REED ARMY INSTITUTE OF RESEARCH	MASHINGTON, D.C.	1173	389.300	58-600	00000	140.507	164.1
KHITE SAND MISSEE RANGE	WHITE SANDS MK. No.K.	1086909	166.247	976-444	179.028	85. 771	55.3
YOMA PROVING GROUND		10001		****	>**************************************	•	,

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TABLE 3. NAVY RDTEE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1972

			FUNDIN	FUNDING DATA (MILLIONS	ILL IONS	3		PEPS	PEP SONNEL DAT	DAT	_	
	INSTALLATION			TOTAL	TOTAL	INHOUSE	TOTAL	TOTAL P	OH OH	PHO PE	£ 5	ROF
			TOTAL	INHOUSE	ROTEE	ROTEE				- -	11	<u>د ۱</u>
	WHENTAL PREDICTION RESEARCH FACILITY	MONTEREY, CA.	1-158	0-885	1.079	908-0	91	27		-	-	2
	AEROSPACE MEDICAL RESEARCH LABORATORY	SACOLA, FL.	3.708	3.708	3.408	3.408	31	123	-	17	13	<b>4</b>
	AEROSPACE RECOVERY FACILITY	CENTRO, CA.	7.466	6.496	2.447	2.347	991	110	-	0	•	*
	AIR DEVELOPMENT CENTER	JOHNSVILLE, PA.	104.202	49.203	71.889	37.307	389	2335	11	27	107	042
	ENGINEER ING CENTER	PHILADELPHIA, PA.	78.997	46.283	12.613	8.162	37	2198	0	4	ĸ	804
	AIR PROPULSION TEST CENTER	¥.5.	16.450	11.052	11.233	7.425	2	9	0	0	_	158
_	AIP TEST CENTER	PATUXENT RIVER, MD.	89.774	74.328	34.733	31,014	116	2042	_	'n	205	420
_	AIR TEST FACILITY (SHIP INSTALLATIONS)	LAKEHURST, N.J.	9.775	9-765	1-371	1.371	134	405	0	0	_	*
_		CHELSEA, MS.	0.469	0.469	0.332	0.332	2	13	٠r	0	•	0
-	_	PORT HUENEME, CA.	11.787	8.434	9.700	6.833	21	361	_	39	0	196
_	CLOTHING AND TEXTILE RESEARCH UNIT	NATICK, MS.	1.205	1.205	0.558	0.558		6	0	0	-	23
_	DENTAL RESEARCH INSTITUTE, NTC	AT LAKES, IL	0.760	0.742	0.489	0.489	20	15	_	7	œ	€0
-	ELECTRONICS LABORATORY CENTER	SAN DIEGO, CA.	59.325	54.713	32-774	29.981	\$	1468	~	19	99	737
_	۲	IAN HEAD, MD.	4.563	3.097	1.532	0.972	73	152	0		56	11
	NAVAL MEDICAL FIELD RESEARCH LABORATORY CAM	CAMP LEJEUNE, N.C.	1.109	1-189	0.821	0.821	37	21	•	~	9	11
_		BETHESDA, MD.	6.543	6.543	4.323	4.323	204	207	84		106	23
	_	BERKELEY, CA.	0.268	0.268	0.047	0.047	91	~	•	_	sv.	0
-	RESEARCH UNIT NO. 2	FAIPEI, TAIMAN	2.035	2.035	1.489	1.489	35	•	13	~	30	FU.
_	RESEARCH UNIT NO. 3	AO, EGYPT	1.864	1.864	0.758	0.758	31	108	€0		٠.	4
_	MEDICAL RESEARCH UNIT NO. 4	AT LAKES, IL	1-140	1-140	0.760	0-760	38	7	5			11
-	MISSILE CENTER	NT MUGU, CA.	469.99	54.030	32.629	24.472	638	1691	0		٠	521
_	_	TE DAK, MD.	101-150	62.010		43-332	23	2847	-	137	_	1144
_	ORDNANCE MISSILE TEST FACILITY	TE SANDS M.R., N.H	3.750	3-452	1.206	1,206	178	63	-		٠,	ĸ
_	PERSONNEL RED LABORATORY	MASHINGTON, D.C.	3.673	3-600	2-284	2.211	£3	197	0	15	Ţ	120
	PERSONNEL RESEARCH ACTIVITY	SAN DIEGO, CA	3.971	3.971	3.340	3.340	34	. 165	0			98
_	RESEARCH LABORATORY	MASKINGTON, D.C.	145.678	140-048	20~057	114.427	114	3586	w	19	_	476
_	SHIP RED LABORATORY	PANAMA CITY, FL.	14.570	13.342	7.380	6-301	138	587	~	17		240
	SHIP RESEARCH AND DEVELOPMENT CENTER WA	SHINGTON, D.C.	103-696	39-204	78.899	28.455	S	3072	7	70	_	232
_	SPACE SYSTEMS ACTIVITY	S ANGELES, CA.	22.334	0.881	9.784	0.631	<b>5</b> *	32	•	<b>,</b>	12	61
_	SUBHARINE MEDICAL RESEARCH LABORATORY	LONDON, CT.	1.950	1.950	1-446	1-446	42	67	٠.	14	_	37
_		SAN DIEGO, CA.	78.596	46-724	48-893	31.374	284	1631	0	2		683
_	UNDERMATER SYSTEMS CENTER	NEWPORT, R.I.	116.421	85.440	49.143	39°445	93	2140	0	73		359
_	RICK	FREDERICK, MD.	0.117	0.117	0.025	0.025	91		2	0		0
_	CENTER	CHINA LAKE, CA.	172.091	108-975 1	05.453	68.527	716	4592	0	٠		453
_	FACILITY	ALBUQUERQUE, N.M.	5.288	5.236	1.170	1.118	200 7	\$	0	-	_	36
_		DAMLGREN, VA.	83.325	56.550	29.369	19.469	108	2703	0	67	27	620
_	RIC RESEARCH UNIT	SAN DIEGO, CA	1-492	1.492	0.975	0.975	6	60 60	=	0		56
	ZNEU	HESDA, MD.	0.365	0.380	0.234	0.229	11	<b>!-</b>	m (	<u>ဗ</u>	<b>.</b>	~
-	PACIFIC MISSILE RANGE	NT MUGU, CA.	211-06	56.156	65.355	44-150	121	5062	•	<u>~</u>	8	384

1417.971 968.977 828.864 570.336

TOTALS

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כטצב נאנררנסאפ פו	REAL PROPERTY EQUIPMENT	0.000 0.195	2.807 2.073	8-598 3-758	22,912 37,810	32,293 17,039		_	34,172 7,431		5.733 5.679		0.000 0.359	m	2.851 2.437		4.016 0.623	0.000 0.000			0.387 0.440		m			_			*				w		€0		63.573 31.101		~	142.600 170.000	1031.501 726.839
ERTY SQUARE FEET)	OTHER	6.351	11.693	263.000	444.075	723.209	136.000	3101.833	91.906	1.000	31.548	3.000	000-9	221.523	43.335	15,590	26.590	0.000	17.826	2-300	18.975	754.611	636-274	238.950	1.420	00000	664-139	329.707	1957-680	3.233	12.638	671-100	795.281	000-0	5752.845	101.958	808-830	0.000	1.416	1395.996	19291.832
SPACE AND PROPERTY (THOUSANDS OF SQUA	ADM1N	0.843	19.604	10.000	26.080	177.625	51.600	216.948	29.598	0.160	21.977	7.000	5.100	157.531	19.797	8.655	21.561	0.360	38.674	9.500	16.716	169.569	178.035	30.540	2.703	4.900	135.662	35.296	182.073	1.595	6.441	33.457	121.655	2.121	163.857	21.522	73.655	4.500	0-140	271-263	2278.563 19291.832
SPACE (THOUS)	LABORATORY	908.0	131.787	44.000	815.970	1373.426	410.937	748.000	59.204	9.000	120.352	10.000	006-9	461.555	50.771	28-226	151.730	0000	32,780	18,242	22.053	110.756	388-021	84.310	22-156	47.300	2241.527	172,445	318.012	0.00	23.325	336.900	625.928	0.000	722.689	19.590	484.567	13.977	2-250	93.463	1284692 10201.965
gs	ACRES 1		0	101230	631	560	99	6872	2500	0	22	2		1881	1084	m	*	0	7	m	-	•	1059	112	0	-	2161	419	325	0	0	37575	835	0	1083019	*C	4490	0	0	29600	1284692 1
		MONTEREY, CA.	PENSACOLA, FL.	EL CENTRO, CA.	JOHNS VILLE, PA.	PHILADELPHIA, PA.		PATUXENT RIVER, MO.	LAKEHURST, N. J.	CHELSEA, MS.	PORT HUENEME, CA.	NATICK, MS.	GREAT LAKES, IL	•	INDIAN HEAD, MD.	CAMP LEJEUNE, N.C.	BETHESDA, MD.	BERKELEY. CA.	TAIPEI, TAIWAN	CAIRO, EGYPT	GREAT LAKES, IL	POINT MUGU, CA.	WHITE DAK, ND.		MASHINGTON. D.C.		WASHINGTON, D.C.	PANANA CITY. FL.	WASHINGTON, D.C.	LOS ANGELES, CA.	NEW LONDON, CT.	SAN DIEGO, CA.	NEMPORT, R.I.	FREDERICK, MD.	CHINA LAKE, CA.	AL BUQUERQUE, N.M.	DAMEREN, VA.	SAN DIEGO, CA	SDA, M	FOINT MUGU, CA.	
	INSTALLATION	_	AE JOSPACE MEDICAL RESEARCH LABORATORY   6		AIR DEVELOPMENT CENTER		NTER	_	AIR TEST FACILITY (SHIP INSTALLATIONS)	_	OR∀	H UNIT			ACILITY			RESEARCH UNIT NO. 1	RESEARCH UNIT NO. 2	RESEARCH UNIT NO. 3	RESEARCH UNIT NO. 4		ORDNANCE LABORATORY	ORDNANCE MISSILE TEST FACILITY		ITY			EVELOPMENT CENTER	SPACE SYSTEMS ACTIVITY	SUSMARINE MEDICAL RESEARCH LABORATORY N		UNDERWATER SYSTEMS CENTER			FACILITY	_	RIC RESEARCH UNIT	_		TOTALS

TABLE 4. NAVY ROTGE FACILITIES DATA, FY 1972

TABLE 5. AIR FORCE ROTGE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1972

		FUNDIN	FUNDING DATA (MILLTONS 8)	HILL TONS			PER	SONN	PERSONNEL DATA	<b>4</b>	
NOTE A LINE TANK			TOTAL	TOTAL	_	TOTAL	TOTAL	949	OHa	PROF	PROF
		107 26	INHOUSE	ROTCE		H	<u> </u>	MIL	CIV	#IL	CI^
A SROPROPIN STON I ABORATORY	WPAFB. OH.	60° 830	5.387	60.830		51	341	*	20	4	182
AFROSTACE RESEARCH LABORATORIES	YPAFB. OH	13.814	9.155	12.754		72	173	22	<del>6</del> 3	26	Š
ARMAMENT DEVELOPMENT AND TEST CENTER	EGLIN AFB. FL.	384.255	100.205	129.713		4531	3707	114	35	1269	678
ARNOLD FACINFFRING DEVELOPMENT CENTER	TULLAHOMA. TN.	64.416	10.286	55.063		80	146	4	m	62	53
AVIONICS LABORATORY	WPAFB . CH.	108.277	8-682	100.858		161	584	17	20	103	354
CAMBRIDGE RESEARCH LABS	L.G. HANSCOM FLD. MS.	60.959	34.050	56.240		182	417	<u>*</u>	159	2	666
FASTER TEST RANGE	PATRICK AFB. FL.	338.951	115-506	153.255		1507	1875	34	-	103	112
FIGHT DYNAMICS LABORATORY	WPAFB. OH.	70.877	25.587	68-472		198	146	*	34	4	511
FIGHT TEST CENTER	EDWARDS AFB. CA.	80.290	64.978	49.619		3101	1775	20	0	271	174
FRANK 1. SETTER RESEARCH LABORATORY	USAF ACADEMY. CO.	1.540	1.540	0.570		22	٥	11	-	22	7
LIMAN RESUMPCES I ABORATORY	BROOKS AFB. TX.	11,348	4.472	10.090		134	231	<b> -</b> -	38	16	116
ZATERIALS - AB	WPAFB. OH	56.043	10.676	44.909		9	337	50	46	9	245
ROCKET PROPULSION LABORATORY	EDWARDS AFB. CA.	29.750	13,123	25.851		188	298	17	9	16	\$
BOSE ATR DEVELOPMENT CHUTER	GRIFFISS AFB. N.Y.	169,205	37.179	92.745		325	1130	9	15	119	525
SPACE AND MISSIE TEST CENTER	VANDENBURG AFB. CA.	84.860	26.595	77.617		452	395	w	-	253	155
USAF SCHOOL OF AFROSPACE MEDICINE	BROOKS AFB. TX.	17,398	15.196	10.886		603	357	92	ç	224	127
PEAPENS LABORATORY	KIRTLAND AFB. N.M.	85.704	40.866	75.218		796	397	96	20	572	188
6570 AEROSPACE MEDICAL RESEARCH LABORATORY	MPAFB. OH	14.318	9.613	12.798	8.093	127	168	53	26	11	8
TOTALS		1652.835	533.0961037.488	037.488	340-646	12590	12590 13841	516	498	3587	4305

TABLE 6. AIR FORCE ROTGE FACILITIES DATA, FY 1972

			SPACE	SPACE AND PROPERTY		COST (MILLIONS	LIGNS \$3
		SP	SPACE (THOUS	(THOMSANDS OF SQUARE	JARE FEET)		
INSTALL ATION						REAL	
		ACRES	LABORATORY	ADMIN	OTMER	PROPERTY	<b>EOUI PHENT</b>
AEROPROPULSION LABORATORY	WPAFB. CH.	04	309,500	66.500	274-775	12,894	16.713
AFROSPACE RECEARCH LABORATORIES	WPAFB. OH	34	134,953	49.837	34.719	12.625	12.603
ARMAMENT DEVELOPMENT AND TEST CENTER		464795	676.611	944.144	6656.315	210-861	223-159
ARNOLD FNGTNEFRING DEVELOPMENT CENTER	TULLAHOMA, TN.	40118	1149-163	201.411	532,348	361.532	59.005
AVIORICS LABORATORY	WPAFE. OH.	254	218.583	5,304	264.277	21.008	35.638
CAMBRIDGE RESTARCH LARS	L.G. HANSCOM FLD. MS.	858	614.773	19.708	125.916	20.554	64.228
SASTERN TEST RANGE	PATRICK AFB, FL.	18203	130.543	739.482	7044.196	370,670	519.800
FLIGHT DYNAMICS LABORATORY	WPAFB. OH.	90	541-130	60.600	26.000	22.705	54.000
FLIGHT TEST CENTER	EDWARDS AFB, CA.	246523	541.686	323.084	6405.099	178-895	423.455
FRANK J. SEILER RESEARCH LABORATORY	USAF ACADEMY, CO.	0	9.394	2.860	0.240	1.287	1.483
HIMAN RESUIRCES LABORATORY	BROOKS AFB. TX.	13	62.679	29.544	31,539	1.925	4.102
TANEST LAS	WPAFB, OH	Φ	0-117	0.061	0.038	6-750	10.396
ROCKET PROPULSION LABORATORY	EDWARDS AFB, CA.	54400	419,046	99.248	4.780	29,869	24.093
ROME A'R DEVELOPMENT CENTER	GRIFFISS AFB, N.Y.	2817	719.708	92.402	238.531	29.351	72.599
SPACE AND MISSLE TEST CENTER	VANDENBURG AFB. CA.	45546	91.407	354.384	431.954	<b>309∙96</b>	495.861
334F SCHOOL OF AFROSPACE MEDICINE	BROOKS AFB. TX.	63	452.105	95,230	59.114	15.377	21,932
HEAPONS LABORATORY	KIRYLAND AFB, N.M.	934	428,659	14.620	22.187	10.791	33,887
6570 AEROSPACT MEDICAL RESEARCH LABORATORY	WPAFB, OH	30	211-900	10.000	15.200	11.570	15.938
TOTALS		874568	6711.957	3109.619 22167.228	22167.228	1415.268	2088,902

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	PROGRAM AND PERSONNEL DATA, FY 1972
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	7. DEPARTMENT OF DEFENSE ROTCE AC
	LE 7. DEPARTMENT OF DEFENSE ROTGE AC
	ABLE 7. DEPARTMENT OF DEFENSE ROTCE AC
	TABLE 7. DEPARTMENT OF DEFENSE ROTCE AC

	20.5	36	Š
TA	PROF	41	<b>7.</b>
PERSONNEL DATA	PHD PROF	17	14 41
SONN	PH0	202	20
PE	rotal.	138	138
	TOTAL	83	83
£ 5	INHOUSE	3.094	3.127 3.094
MILLIONS	TOTAL	3.127	3-127
UNDING DATA (MILLIONS \$)	TOTAL	3.950	3,983 3,950
FUNDING	10101	3.983	3.983
		BETHESDA, MARYLAND	
	INSTALLATION	ARMED FORCES RADIOBIOLOGY RES. INSTITUTE	TOTALS

## SUMMARY

## DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES

## PROGRAM DATA FOR FY 1972

	(MILLIUNS)
TOTAL ANNUAL LABORATORY PROGRAM	2840.100
TOTAL INHOUSE PROGRAM	1536.053
TOTAL ROTEE PROGRAM	2034•385
TOTAL INHOUSE ROTGE	1082.604
TOTAL ANNUAL OPERATING COST	378.238

## PERSONNEL DATA (END OF FY 1972)

PER SONN EL	AUTHORIZED	TOTAL	TOTAL
	Strength	PHD	PROFESSIONALS
MILITARY	8208	871	3740
CIVILIAN	<b>57249</b>	2939	24799
TOTAL	65457	3810	28539

## PHYSICAL FACILITIES (END OF FY 1972)

ACRES	1240472
SPACE (THOUSANDS OF SQ FT)	
LABORATORY ADMINISTRATIVE OTHER	20900 .897 4399.507 19505.494
TOTAL	44805.898
COST (MILLIONS)	
REAL PROPERTY EQUIPMENT	1268.906 1237.314
TOTAL.	2506.220

TABLE 1A. ARMY RED LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1972

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		FUNDIA	FUNDING DATA (	(MILLIONS	<b>3</b>		6. 6.	PERSONNEL	L DAT	⋖	
INSTALLATION		TOTAL	TOTAL	TOTAL RDTGE	INHOUSE ROT EE	TOTAL MIL	TOTAL	HIL	PHO P	R PR	PROF CIV
AFROMEDICAL RESEARCH LASSRATORY	FT. RUCKER. AL.	1.868	•	1.285		48	2.				4
AIR MOBILITY RED LABORATORY	EW, CA	43.641		43.021	12.838	34	575	-	26	34	236
ATMOSPHERIC SCIENCES LABORATORY	HHITE SANDS MR, N.M.	12.219		9.220		4.83				ç	115
AVIONICS LABORATORY	TONTOWN, N. J.	20.956	18-146	12-699	11.294	25		-		14	160
BALLISTICS RESEARCH LABORATORIES	βÖ	30.868		30.609		75		σ		95	410
BENET WEAPONS LABORATORY	T, N.Y.	15.334		168.6	æ	m		0	<b>4</b> 3	~	175
COATING AND CHEMICAL LABORATORY	PROV G	3.546		2.899		ın		-	7	ø	58
COLD REGIONS REF LABORATORIES	Z.H.	7.435		5-197		41		~	22	36	84
COMBAT SURVEILLANCE & TGT ACQUISITION LABS	FT. MONMOUTH, N.J.	33.000		33.000		38		-	9	23	172
COMMUNICATIONS ADP LABORATORY	FT. MONFOUTH, N.J.	31.700	14-100	31.400		23		0	σ.	12	252
CONSTRUCTION ENGINEERING RESEARCH LASORATORY	INBANA, IL.	404-9	5.069	5.873		m		0	33	4	<b>\$</b>
EDGEWOOD ARSENAL LABS	GEWOOD ARSE	39.080	36.760	33.205		196		61	65	146	557
ELECTRONIC WARFARE LABORATORY	FT. MONMOUTH, N.J.	32.560	15,312	32.228		63		0	4	<b>4</b>	161
ELECTRONICS TECHNOLOGY AND DEVICES LAB	FT. MONMOUTH, N.C.	22.092	12.393	21.953		13		-	52	S	305
ENGINEER TOPOGRAPHIC LABORATORIES	FT. BELVOIR, VA.	13.411	5.800	13,256		52		<b>-</b>	21	12	169
ENGINEER WATERWAYS EXPERIMENT STATION	VICKSBURG, MISS.	24.534	22.073	14.451		23		m	36	45	355
FPANKFORD ARSENAL LABS	PHILADELPHIA, PA.	35.355	26-244	32.246		31		7	33	22	724
HARRY DIAMOND LABORATORY	MASHINGTON, D.C.	77.,783	40.845	45.986		6		-	61	•	533
HUMAN ENGINEEP ING LABORATORY	ERDEEN PROV	3.629	3.253	3.208		30		-	20	13	53
INSTITUTE OF DENTAL RESEARCH	WASHINGTON, D.C.	1.384	1.384	0-715		26		10	7	30	6
INSTITUTE OF SURGICAL RESEARCH	_	2-799	2.799	1.435		127		20	m	45	20
LAND WARFARE LABORATORY	ABERDEEN PROV GR, MD.	8.853		8.551		91		0	m	7	22
LETTERMAN ARMY INSTITUTE OF RESEARCH	PRESIDIG, S.F., CAL.	11.960		0.704		90		19	2	20	2
MATERIALS AND MECHANICS RESEARCH CENTER	MATERTOWN MASS.	33.682		27.293		2		w	65	2	219
MATERIEL SYSTEMS ANALYSIS AGENCY	EROEEN	15.569	8.455	14.044	7.512	13		0	~	13	238
MEDICAL BIOMECHANICAL RESEARCH LABORATORY	WASHINGTON, D.C.	1.025		0.865		18		7	4	12	12
MEDICAL EQUIPMENT RED LAB	FT. TOTTEN, N.Y.	0.949		0.775		15		0	0	-	m)
MEDICAL RESEARCH AND NUTRITION LAB, FGH	DENVER, CO.	3,532		2-426		119		30	12	69	4.5
MEDICAL RESEARCH LABORATORY	FT. KNOX, KY.	3.255		1-754		119		11	<u>*</u>	86	36
MEDICAL RESEARCH UNIT	UMPUR MA'	0.301		0.224		•	0	'n	0	<b>~</b>	0
MEDICAL RESEARCH UNIT	BALBOA HEIGHTS, C.Z.	0.317		0.191		o.		~	ن	40	0
	REDSTONE ARSENAL, AL.	82.091	37.154	73-792		31	1196	m	5	ж ф	680
MOBILITY EQUIPMENT RED CENTER	FT. BELVOIR, VA.	91-970	27.406	44.745		54		4	23	34	596
NATICK LABORATORIES		40,231	25.684	23.207		132		=	0	29	61.4
NIGHT VISION LABORATORY		32.654	15.727	32.654		21		ο.	Ť.	32	219
PICATINNY ARSENAL LABORATORIES		129.900	86.000	99.200		68		-	62	21	1889
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	KA4	3.351	3.351	2.600		F		e :-	20	22	64
RESEARCH INSTITUTE OF INFECTIOUS DISEASES	FT. DETRICK,	5.111	5.111	3.040		365	248	<b>4</b>	19	6	8
ROCK ISLAND ARSENAL LABORATORIES	8	21.360	13.666	14.717		6	749	-	19	<b>:</b>	304
RECH INST FOR BEHAVIORAL AND SOCIAL SCIENCES	WASHINGTON, D	8.706	2.540	٠	2.540	11	130	-	44	<u>ټ</u>	63
TANK-AUTOMOTIVE COMMAND LABS	¥	78-128	27.551	46.291	16.659	16	686	0	•	13	412
WALTER REED ARMY INSTITUTE OF RESEARCH	WASHINGTON, D.C.	19.956	19.956	•	13.691	546	909	168	120	305	253
					157 157					1676	0100
TOTALS		1052-949	936-066	803.247	453.451	3159	/1417	#02 11#1			5/ <b>7</b> 0 <b>T</b>

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TABLE 24. ARMY RED FACILITIES DATA, FY 1972

COST (HILLIONS \$)	1411	TY EQUI				2.605 14.900					~	0.000 6.987						~		7						-												4			3.598 11.189	0.000 1.999	p-4	0.000 12.917	075-293 662-269	
SPACE AND PROPERTY	COMPACTEE!	DTHER		-				0	_	100				-	-				ī.		~			-	_	20					m			-		~		25		19 198.731	106	1.823	003*0 00	000-0	7 5280-785	
ACE AND PROF	TUUSANUS UF			4			-	776 24-600							4			•	~		200 17-605						m							. •	_			•		13.819	2		.202 0.000	99*85 00:	121 2485.347	
SPACE	SPACE (1)	ACRES LABORATORY	8 26.933	<b>6</b> 0	45 0.056	٥	3380 277-823	4 176-776	0 0.017	631 19,013	1			*		279 142,900		-		~	•••					38			0 21.523				0	-		٠,		w		57 93.217	180 103-517	25	1125 361.2		37814 8636-021	
			FT. RUCKER, AL.	MOUNTAIN VIEW, CAL-	WHITE SANDS MR, N.M.	EATONTOWN, N.J.	ABERDEEN PROV GR. MD.	HATER VLIET, N.Y.	ABERDEEN PROV GR, MD.	HANOVER, N.H.	MC AMDUTH,	FT. MONMOUTH, N.J.	_		FT. MONMOUTH, N.J.	FT. MONMOUTH, N.J.	FT. BELVOIR, VA.	VICKSBURG, MISS.	PHILADELPHIA, PA.		ABERDEEN PROV GR, MD.	MASHINGTON, D.C.	FT. SAM HOUSTON, TX.		PRESIDIO, S.F., CAL.		ABERDEEN PROV GR. MD.	WASHINGTON, D.C.	FT. TOTTEN, N.Y.	DENVER, CO.	FT. KNOX, KY.	_		REDSTONE ARSENAL, AL.	FT. BELVUIR, VA.	NATICK, MASS.	FT. BELVOIR, VA.	DOVER, N.J.		FT. DETRICK, MD.	ROCK ISLAND, IL.	MASHINGTON, D.C.	WARREN, MI.	WASHINGTON, D.C.		
	NOTE		AEROMEDICAL RESEGREH LABORATORY	AIR MOBILITY RED LABORATORY	ATMOSPHERIC SCIENCES LABORATORY	AVIONICS LABORATORY	BALLISTICS RESEARCH LABORATORIES	BENET WEAPONS LABORATORY	COATING AND CHEMICAL LABORATORY	COLD REGIONS REE LABORATORIES	COMBAT SURVEILLANCE & TGT ACQUISITION LABS	COMMUNICATIONS ADP LABORATORY	CONSTRUCTION ENGINEERING RESEARCH LABORATORY	EDGEWOOD ARSENAL LABS	ELECTRONIC WARFARE LABORATORY	ELECTRONICS TECHNOLOGY AND DEVICES LAB	ENGINEER TOPOGRAPHIC LABORATORIES	ENGINEER WATERWAYS EXPERIMENT STATION	FRANKFORD ARSENAL LABS		E HUMAN ENGINEERING LABORATORY	INSTITUTE OF	INSTITUTE OF SURGICAL RESEARCH	LAND WARFARE LABORATORY	LETTERMAN ARMY INSTITUTE OF RESEARCH	MATERIALS AND MECHANICS RESEARCH CENTER								AND	MOBILITY EQUIPMENT RED CENTER	NATICK LABORATORIES	NIGHT VISION LABORATORY	PICATINNY ARSENAL LABORATORIES	RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	RESEARCH INSTITUTE OF INFECTIOUS DISEASES	ROCK ISLAND ARSENAL LABORATORIES	RSCH INST FOR BEHAVIORAL AND SOCIAL SCIENCES	TANK-AUTOMOTIVE COMMAND LABS	WALTER REED ARMY INSTITUTE OF RESEARCH	TOTALS	716.7

TABLE 3A. NAVY RED LABORATORIES, PROGRAM AND PERSONNEL DATA, FT 1972

			FUNDING	DATA	(HILLIONS	3		PER	PERSONNEL	IL DATA	<b>«</b>	
	INSTALLATION				TOTAL	INHOUSE	TOTAL	rotal	OH4		R 05	PROF
			TOTAL		RDTEE	ROTEE	MIL	CΙ	HIL		HI!	<b>~</b> 12
	ENVIRONMENTAL PREDICTION RESEARCH FACILITY MON	MONTEREY, CA.	1.158		1.079	0.896	16	27			<b>;.</b> .	52
	ARCH LABORATORY P	ENSACOLA, FL.	3.708		3.408	3.408	31	123	11		67	<b>6</b>
	7	IOHUSVILLE, 24.	104.202		71.889	37.207	389	2335	11		107	1042
	NAVAL AIR ENGINEERING CENTER PHI	PHILADELPHIA, PA.	78.997		12.813	8.162	37	2198	0		15	904
	NAVAL BLOOD RESEARCH LABORATORY CHE	ELSEA, MS.	0.469		0.332	0.332	2	13	4		•	0
		PORT YUENEME, CA.	11.787	8.434	9.700	6.833	21	361	-	e E	σ	196
	TIN	FICK, MS.	1.205		0.558	0.558	-	9	0		-	23
		A DIEGO, CA.	59.325		32.774	29.981	96	1468	~		99	737
	NAVAL MEDICAL FIELD RESEARCH LABORATORY CAM	CAMP LEJEUNE, N.C.	1.189		0.821	0.821	37	51	4		9	=
	RESEARCH INSTITUTE	BETHESDA, MD.	6.543		4-323	4-328	204	207	48		901	73
	RESEARCH UNIT NO. 1	KELEY, CA.	6.268		0.047	0.047	91	7	4		<b>L</b>	0
X	NO. 2	IPEI, TAIMAN	2,035		1.489	1.489	35	6	13		30	2
•	NAVAL MEDICAL RESEARCH UNIT NO. 3 CAT	IRU, EGYPT	1.854		0.758	0.758	31	108	ಛ		12	4
	NAVAL MEDICAL RESEARCH UNIT NO. 4 GRE	EAT LAKES, IL	1.140		0.760	0.760	38	*	'n		14	13
	NAVAL ORDNANCE LABORATORY	ITE DAK, MD.	101, 150		78.696	43.332	23	2847	-		27	114
		MASHINGTON, D.C.	3.673		2-284	2.211	43	197	0		47	120
	MAVAL PERSONNEL RESEARCH ACTIVITY SAN	W DIEGD, CA	3.971		3.340	3.340	34	165	0		34	6
		SHINGTON, D.C.	145.678		120.057	114.427	114	3986	m	_	o	1476
	MAVAL SHIP RED LABORATORY	WAMA CITY, FL.	14.570		7.380	6.301	136	587	N		15	240
		SHINGTON, D.C.	103.696		78.889	28.455	50	3072	7		54	1232
	MAYAL SUBMARINE MEDICAL RESEARCH LABORATORY NEW	I LONDON, CT.	1.950		1.446	1.446	45	67	-		16	37
	NAVAL UNDERSEA RED CENTER	N DIEGO, CA.	78.596		43.893	31,374	284	1691	0		35	683
	NAVAL UNDERWATER SYSTEMS CENTER	PORT, R.I.	116.421		49.143	39.445	63	3140	ဂ		23	1359
	NAVAL WEAPONS CENTER CHI	INA LAKE, CA.	172.091		105.453	68.527	716	4592	0		45	1453
	NAVAL WEAPONS LABORATORY	KGREN, VA.	83.325		29.369	19.469	108	2703	0		27	1029
	NAVY MEDICAL NEUROPSYCHIATRIC LESEARCH UNIT SAN	SAN DIEGO, CA	1.492		0.975	0.975	13	28	11		14	56
	TOTALS		1100.503 741.245 666.676 454.887	741-245	566.676	454.887	2654	2654 30108 138		1366	713 1	11475

# TABLE 44. NAVY RED FACILITIES DATA, FY 1972

Mark Andrews Andrews

(RE FEET) COST (MILLIONS \$)	140 de	OTHER PROPERTY FOILT PARKI	€00.0	2.807	22.912 3		000*0		0.275	221-523 11-077 36-203	15.590 0.528 0.657			0.101	6.344	18.975 0.440	46.618	1.420 0.652 0.450	5.210	664-139 77-247 59-343			12.638 0.885	38.846	795.281 28.598 32.915	229,339	808.830 63.573 31.101	_	153.594 645.235
SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)		ADKIN		19.60÷	26.080	177-625	0.160	21.977	7.000	157,531	8.655	21.561	0.360	38-674	9.500	16.716	178,085	2.703	006. <del>4</del>	135.662	35.296	_	6.441	33.457	121.655		3.655	4.500	1448.570 13153.594
SPACE (THOUS		ACRES LABORATORY	0.806	131,787	815.970	1373-426	000-9	120-352	10-000	461.555	26.226	151-730	00000	32-780	18.242	22.053	388.021	22-156	47.300	2241.527	172-445	318-012	23.325	336.960	625.928	722-689	484.567	13.977	8569,774
ï		ACRES	0	0	831	560	0	22	2	1591	m	4	0	8	m	-	1059	0	<b>,</b> i	2161	429	325	0	37575	835	1093019	4490	0	1143158
			MONTEREY, CA.	PENSACOLA, FL.	JOHNSVILLE, PA.	PHILADELPHIA, PA.	CHELSEA, MS.	PORT HUENEME, CA.	NATICK, MS.	SAN DIEGO, CA.	CAMP LEJEUNE, N.C.	BETHESDA, MD.	BERKELEY, CA.	TAIPEI, TAIWAN	CAIRO, EGYPT	CREAT LAKES, IL	WHITE DAK, MD.	MASHINGTON, D.C.	SAN DIEGO, CA	WASHINGTON, D.C.	PANAMA CITY, FL.	MASHINGTON, D.C.	HEN LONDON, CT.	SAN DIESO, CA.	NEWPORT, R.I.	CHINA LAKE, CA.	DAHLGREN, VA.	SAN DIEGO, CA	
	INSTALLATION		ENVIRONMENTAL PREDICTION RESEARCH FACILITY	NAVAL AEROSPACE MEDICAL RESEARCH LABORATORY							MEDICAL	MEDICAL	MEDICAL	NAVAL MEDICAL RESEARCH UNIT		NAVAL						NAVAL SHIP RESEARCH AND DEVELUPMENT CENTER		NAVAL UNDERSEA RED CENTER		NAVAL WEAPONS CENTER	NAVAL WEAPONS LABORATORY	NAVY MEDICAL NEUROPSYCHIATRIC RESERRCH UNIT	TGTALS

TABLE 5A. AIR FORCE RED LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1972

TOTAL   TOTAL	PERSONNEL DATA	TOTAL TOTAL PHD PHD PROF F	MIL CIV MIL CIV MIL	51 541 4 10 47	72 173 22 43 56	161 584 17 20 103	182 977 14 159 70	198 941 4 34 97 511	22 9 11 1 22	134 231 7 38 91	60 337 20 46 60	188 298 17 6 91	325 1130 6 15 119	796 397 36 20 572	127 168 29 26 77	2316 5586 247 418 1405 3006
TOTAL IN TOTAL IN TOTAL IN TOTAL IN TOTAL IN WPAFB, OH.  L.G. HANSCOM FLD, MS. 60.959 3 L.G. HANSCOM FLD, MS. 60.959 3 L.G. HANSCOM FLD, MS. 60.959 3 MPAFB, OH.  SORATORY BROOKS ACADEMY, CO. 11.348 MPAFB, OH 56.043 11.348 EDWARDS AFB, TX. 56.043 11.348 MPAFB, OH 56.043 14.318 XIRTLAND AFB, N.Y. 166.205 3 XIRTLAND AFB, N.W. 14.318 14.318	(MILLIONS \$)	TOTAL	ROTEE	60.830	12.754	100.858	56.240	68-472	0.570	10.090	44.909	25.851	92.745	75.218	12.798	561.335 171.166
WPAFB, OH- WPAFB, OH- WPAFB, OH- L.G. HANSCOM FLD, WPAFB, OH- WPAFB, OH- WPAFB, OH- WPAFB, OH- EDWARDS AFB, TX- EDWARDS AFB, CA- GRIFFISS AFB, N-Y- XIRTLAND AFB, N-M- XIRTLAND AFB, N-M- XIRTLAND AFB, N-M-		TOTAL														682.665 200.330
AT TENE		MCIE					SAA TOO TOO TOO TOO TOO TOO TOO TOO TOO T	ND AFR. OH.			S THORNWICK	ABOUT ABOUT A STORY				TOTALS

TABLE 64. AIR FORCE RED FACILITIES DATA, FY 1972

				•				
			ď	SPACE AND PROPERTY SPACE (THOUSANDS OF SOURRE FFET)	NO PROPER	TY DARE FEET)	COST (MILLIONS S)	IONS \$1
	INSTALLATION		<b>i</b>				REAL	
			ACRES	ACRES LABORATORY	ADMIN	OTHER	¥	<b>EQUIPMENT</b>
,	AEROPROPULSION LABORATORY	WPAFB , OH.	649	309-500	66.500	274.775	12.894	16.713
_	AEROSPACE RESEARCH LABORATORIES	WPAFB, OH	r)	134.953	49.837	34.719	12.625	12.603
_	AVIONICS LABORATORY	WPAFB, OH.	264	218,583	5.304	264-277	21.008	35.638
	CAMBRIDGE RESEARCH LABS	L.G. HANSCOM FLD, MS.	859	614,773	19-708	125.516	20.554	64.228
	FLIGHT DYNAMICS LABORATORY	WPAFB, OH.	90	541.130	60.600	26.000	22, 705	54.000
-	FRANK J. SEILER RESEARCH LABORATORY	USAF ACADEMY, CO.	0	9.394	2.860	0.240	1.287	1.483
	HUMAN RESOURCES LABORATORY	BROOKS AFB, TX.	13	65.679	29.544	31.539	1.925	4.102
_	MATERIALS LAB	WPAFB OH	6	0.117	0.061	0.038	6.750	10.396
	ROCKET PROPULSION LABORATORY	EDWARDS AFB, CA.	54400	419.046	99.248	4.780	29.869	24.003
	ROME AIR DEVELOPMENT CENTER	GRIFFISS AFB, N.Y.	2817	719.708	92.402	238.531	29.351	72-699
	WEAPONS LABORATORY	KIRTLAND AFB, N.H.	934	428.659	14.620	22,187	10.791	33.887
-	6570 AEROSPACE MEDICAL RESEARCH LABORATORY	WPAFB, OH	30	211.900	10.000	15.200	11.570	15.938
	TOTALS		59490	3670.442	450-684	1038.202	181.329	345.690

The state of the s

TABLE 74. DEPARTMENT OF DEFENSE RDT&E FACILITIES DATA, FY 1972

7.899 2.849		32,913	14.906	10 24.660 14.906	01		TOTALS
REAL Property squipment 7.899 2.849		OTHER 32.913	ADMIN 14.506	ACRES LABORATORY 10 24.660	ACRES 10	BETHESDA, MARYLAND	ARMED FORCES RADIOBIOLOGY RES. INSTITUTE
COST (MILLIONS \$)	_	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)	IND PROPER	SPACE A	Š		INSTALLATION

C.O. COL ROBERT W. BAILEY TECH. DIR. DR. E.J. BALDES

	PROGRAM DATA BY FISCA	AL YEAR (MILLION \$)
PROGRAM	1972	1973
	(ACTUAL)	(ACT + EST)
TOTAL ROTEE	1.285	1-375
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.000	0.000
TOTAL OTHER	0.583	0.531
TOTAL ANNUAL LAB	1.868	1.906
TOTAL INHOUSE	1.868	1.906
TOTAL INHOUSE ROTEE	1.285	1.375
ANNUAL OPERATING COST	0.773	0.878
PERSO	NNEL DATA LEND DE EL	1972)

	PERSONNEL DATA	(END OF FY	<b>—</b> · · — ·	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHD\$	PROF	PROF
MILITARY	48	17	35	13
CIVILIAN	25	2	4	21
TOTAL	73	19	39	34

			D PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	T)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
8	26.933	5.940	7.470	40.343	0.379	2.186

TO CONDUCT TIMELY STUDIES ON CURRENT AND ANTICIPATED RESEARCH PROBLEMS OF A FUNDAMENTAL OR IMMEDIATE NATURE RELEVANT TO ARMY AVIATION AND AIRBORNE OPERATIONS AND PHYSICAL PERFORMANCE STANDARDS AND THE MEDICAL ASPECTS OF RETENTION AND SELECTION OF AVIATORS AND PARACHUTISTS.

...CURRENT IMPORTANT PROGRAMS
RESEARCH PSYCHOLOGY APPLIED TO MEDICALLY SIGNIFICANT ARMY AVN PROBLEMS.
MEDICAL RESEARCH APPLIED TO THE PROBLEMS IN ARMY AVN.
RESEARCH OF VISUAL PROBLEMS MEDICALLY SIGNIFICANT TO ARMY AVN.
RESEARCH OF PSYCHOACOUSTICAL PROBLEMS MEDICALLY SIGNIFICANT TO ARMY AVN.
RESEARCH OF BIOENGINEERING PROBLEMS MEDICALLY SIGNIFICANT TO ARMY AVN.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
EQUIPMENT INCLUDES A SOUNDPROOF HEARING ROOM, ANECHOIC CHAMBER, COLORIMETER, ECG AND EEG MACHINES, A BIOCHEMISTRY LAB, AN ELECTRONICS AND
ENGINEERING FABRICATION SHOP, PHOTOGRAPHY LAB AND AIRBORNE MONITORING
EQUIPMENT. EQUIPMENT IS USED TO STUDY THE PHYSIOLOGY AND PSYCHOLOGICAL ASPECTS OF AVIATION AND AIRBORNE PERSONNEL IN THE TRAINING AND
OPERATIONAL ENVIRONMENT.

### PRES. COL WILLIAM H. HOLCOMBE

	PRO	GRAM DATA	BY FISC	AL YEAR	MILLION	\$)	
PROGRAM		197	2	197	73		
		(ACTUA	L)	(ACT + E	ST)		
TOTAL RDT&E		5	<b>.</b> 057	2	2.964		
TUTAL PROCUREM	IENT	0	.000	(	0.000		
TOTAL DEM		0	.000	(	0.000		
TOTAL OTHER		2	.942	3	3.580		
TOTAL ARNUAL L	ΔR	_	.999		5-544		
IDIAL MINORE		•		•			
TOTAL INHOUSE		7	.979		5.370		
TOTAL INHOUSE	ROTEF		.037		2.790		
ANNUAL OPERATI			.576		0.625		
ANNONE OF CRAFT		•		·			
	PERSONNE	I DATA (F	ND OF F	Y 1972)			
PERSONNEL	AUTHORIZED		OTAL		DTAL	NON-	
CROOMICE	STRENGTH		PHDS		PRCF	PROF	
MILITARY	342		1		42	300	
CIVILIAN	117		õ		11	106	
	459		ĭ		53	406	
TOTAL	427		•		23	700	
		SPACE AND	PROPERT	· <b>v</b>			
ACRES	SPACE (THO				COST	(MILLION S)	
A01123	L AB	ADMIN	OTHER	TOTAL			)
26	36.550	38.646	52.724	127.9	_	.895 11.024	

---MISSION
PLAN CONDUCT REPORT ON ST & CHECKTEST OF AIR DEF EQUIP & SYSPARTICIPATE IN ENG TEST INIT PROD TEST PRE-PROD TEST & OTHER TESTSPROVIDE ADVICE TO PROPONENT AGENCIES DURING DEVELOPMENT OF EQUIPMENT.

---CURRENT IMPORTANT PROGRAMS
VULCAN GUNNER TRACKING EVALUATOR
CHECKTEST AN/MWM-3 FOR VULCAN
ENGINEER ING/SERVICE TEST AN/TSQ-73
SERVICE TEST AN/TPX-46 INTERROGATOR
SUPPORT ROLAND II MISSLE WEAPON SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ASSURE MAX UTILIZATION OF RESOURCES IN ACCOMPLISHMENT OF MSN. PLAN, CONDUCT, RECORD & REPORT RESULTS OF TEST & EVAL OF WPN SYS & FIRE DIST SYS.
EVAL ITEMS FOR SAFETY, SUIT FOR ARMY USE &/OR SUIT FOR ISSUANCE TO FLD.
COMMENT ON QMOD/QMR/SDR & MNT PKG. ASSIST IN REVISION OF MIL SPECS. PROVIDE TEST REQUIREMENTS FOR TEST PLAN. CONDUCT PROGRAM IN TEST
METHODOLOGY TO ASSURE PROPER TEST REPORTS. SUPPORTS FLD RSCH STUDIES,
TESTS & OPNS. PROVIDE REPRESENTATION FOR ARMY BOARDS, COMMITTEES & SYMPOSIA. ASSIST IN PREP OF TNG LITERATURE AND SELECTION OF TNG AIDS.
EQUIPMENT COMPUTER TAC & INSTRUMENTATION RADAR, AUTOMATED DATA
ACQUISITION SYSTEMS CINETHEODOLITES PHOTO LAB & FILM READING EQUIP.
SITE MONITOR FOR ELECTRONIC TEST OF EQUIP AND DCNA ANA RANGE FOR FIRING
FORWARD AREA WEAPONS TARGET DEVICES AND TARGET ORONES.

85.014

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DIR. PAUL F. YAGGY DEPUTY DIR. NORMAN L. ROBINSON

		PROGRAM		FISCAL	YEAR (MI	LLION	\$)
PROGRA	M		1972		1973		
		(	ACTUAL)	( )	ACT + EST	<b>')</b>	
TOTAL	ROTEE		43.0	21	33.6	75	
TOTAL	PROCUR EMENT		0.00	00	0.0	00	
TOTAL	M30		0.00	<b>)1</b>	0.0	01	
TOTAL			0.6	9	0.5	38	
	ANNUAL LAB		43.6	=	34.2		
	WILLIAME ENV		.5.4	, •	5	•	
TOYAL	INHOUSE		13.4	58	12.5	53	
	INHOUSE ROTEE		12.8	-	12.0		
	OPERATING CO		1.9	_	2.1		
ANNUAL	. UPERAIING CO	31	109	12	201	.01	
	•	COCOMMES DAT	ra read	OE EV 1	10721		
25050		ERSONNEL DAT		OF FY 1		. 1	NON-
PERSON		ORIZED	TOT		TOTA		
	ST	RENGTH	PHI	)S	PRO	)F	PROF
MILITA	NRY	34		1	34	•	0
CIVIL	AN	575		26	236	<b>,</b>	339
TOTAL		609		2 <b>7</b>	270	)	339
							-
		SPACE	AND PR	OPERTY			
ACRE	S SPAC	E (THOUSANDS	S OF SOU	ARE FEET	T)	COST	(MILLION \$)
		LAB ADMI		THER	TOTAL	REAL	

...MISSION
MANAGES AND EXECUTES R&D OF ARMY AIRMOBILE SYSTEMS.THROUGH DOMONSTRATION
OF TECHNOLOGY. PROVIDES TECHNICAL SUPPORT TO PROJECT/PRODUCT MANAGERS &
SYSTEM DEVELOPERS AS REQUIRED. PROVIDES INDEPENDENT TECHNICAL RISK ASSES
SMENT TO CG USAAVSCOM AND 'TIGHER AUTHORITY.

15.584

143.906

1.474

5.446

current important programs
research in fundamental fotor aerodynamics.phynamics & noise.
resfarch & development of small gas turbines.

43.308

TO IMPROVE RELIABILITY & MAINTAINABILITY OF AIRMOBILE SYSTEMS.

.H. COMPOSITES & MEASURE OPNL. FLT.LOADS TO IMPROVE STRUCTURES FOR A/C

.VOLVE TECHNOLOGY & CRITERIA TO IMPROVE FLIGHT SAFETY & SURVIVABILITY.

THREE DIRECTORATES AT MOFFETT FIELD CAL, CLEVELAND OHIO, HAMPTON VAGCOLOC ATED WITH NASA, PARTICIPATING IN RESEARCH OF AIRMOBILE SYSTEMS & DISCIPLI NES, JOINTLY USING WIND TUNNELS, SIMULATORS & LABORATORY TEST FACILITIES, INCLUDING SHOPS, FLIGHT LINE & HANGAR, STRUCTURE LAB, ENGINE TEST FACILITIES & & COMPUTATIONAL EQUIPMENT. FOURTH DIRECTORATE AT FORT EUSTIS VA., PERFOR MING ADVANCED APPLICATIONS WORK. MAJOR EQUIPMENT & FACILITIES: FILAMENT WINDING MACHINES, TENSILE TESTERS, VIBRATION TESTER, SMALL BALLISTIC RANGE, CALIBRATION LAB, ENVIRONMENT CHAMBER, ATOMIC ABSORPTION SPECTR, TELEMETER GROUND STATION, NON-DESTRUCT TESTING FACILITY, FLIGHT SAFETY LAB.

TENED STEERING

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

PRES. COL PETER E. KELLEY ENGIN. ADV. EDWIN S. SPAINHOUR

	PROGRAM DATA BY FISCA	AL YEAR (MILLION	5)
PRUGR#M	1972	1973	• •
	(ACTUAL)	(ACT + EST)	
TOTAL RDT&E	1.488	1.645	
TOTAL PROCUREMENT	0.000	0.000	
TOTAL GEM	0.000	0.000	
TOTAL OTHER	1.907	2.000	
TOTAL ANNUAL LAB	3.395	3.645	
TOTAL THUOLOG	2 705	2 115	
TOTAL INHOUSE	3.395	3.645	
TOTAL INHOUSE ROTEE	1.488	1.645	
ANNUAL OPERATING COST	0.737	0.792	
PERS	SONNEL DATA (END OF F	Y 1972)	
PERSONNEL AUTHORI	TOTAL	TOTAL	NON-
STREM	NGTH PHDS	PROF	PROF
MILITARY	207 0	41	166
CIVILIAN	61 0	8	53

ACRES	SPACE (THO		D PROPERTY Square fe		COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27	0.000	50.879	114-000	164.879	4.190	3.090

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PLAN, CONDUCT, AND REPORT ON EXPANDED SERVICE TESTS AND CHECK TESTS OF A IRBORNE, COMMUNICATIONS, AND ELECTRONICS EQUIPMENT AND SYSTEMS. THE COMMUNICATIONS AND ELECTRONICS—TYPE TESTS ARE USED AT DIV LEVEL OR BELOW. THE AIRBORNE TSTS PERTAIN TO EQIP AND SYS WHICH SUPP AIRDROP & TRANSPORT.

...CURRENT IMPORTANT PROGRAMS
TEST OF THE AERIAL RECOVERY KIT
TEST OF JOINT SERVICE INTERIOR INTRUSION DEVICE
TEST OF PARKHILL (COMMUNICATIONS SECURITY)
TEST OF AN-USD-501 AIRBORNE SURVEILLANCE DRONE SYSTEM
TEST OF FORWARD AREA TELETYPEWRITER SET

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**JATCT** 

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
FACILITIES INCLUDE: HANGAR BLD, COMMUNICATIONS-ELECTRONICS FACILITY, CRY
TOGRAPHIC TEST FACILITY, AND WOODWORK SHOP. MAJOR EQUIPMENT INCLUDES:
2 T-28B AIRCRAFT, 40000-POUND LOADER, 5-TON WRECKER, 20-TON MOBILE CRANE,
3 SEMITRAILERS, SEVERAL STANDARD VEHICLES, 1 U-6 AIRCRAFT, 1 UH-1 AIRCRAFT, VARIOUS TYPES OF STANDARD PARACHUTES, STANDARD PLATFORMS, HINE
GASOLINE DRIVEN GENERATORS, BALLASTABLE AIRDROP VEHICLES WITH REMOVABLE
WEIGHT INCREMENTS, THREE ANEMOMETERS, VARIOUS THERMOMETERS, STOPWATCHES,
ELEVEN TACTICAL RADIO SETS, TWO RADIO RECEIVERS, SIX TELETYPEWRITER SETS
, TWENTY TWO SIGNAL GENERATORS, TWO LEVEL METERS, 1 SOUND AND VIBRATION:
ANALYZER, 1 PHOTO ANALYZER, 5 OSCILLOGRAPHS, CLOSED CIRCUIT VIDEO EQUIPMENT, STRAIN GUAGES, ACCELLEROMETERS, AND GALVINOMETERS.

### C.O. COL DAVID J. SCHUMACHER TECH. DIR. JERRELL L. SANDERS

1972	1973
(ACTUAL)	(ACT + EST)
2.627	2.472
0.027	0.000
0.003	0.038
2.232	2.300
4.889	4.810
4 • 859	4.772
2.606	2.434
2-212	2.500
	2.627 0.027 0.003 2.232 4.889 4.859 2.606

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	321	1	26	295
CIVILIAN	29	0	6	23
TOTAL	350	1	32	318

		SPACE AN	D PROPERTY			
ACRES	SPACE (THE	USANDS OF	SQUARE FE	ET)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
726014	20.550	30.600	229.847	280.997	13.158	4.063

PLAN COND & RPT ON ENVIRON PHASES OF ENG TESTS, EXP SVC TESTS, CK TESTS, INITIAL PROD TEST, MIL POY TEST & APPROP PRE-PROD TEST. TO PROVIDE ADV TO PROP AGENCIES AND MAT DEV. COND OTHER TEST & EVAL AS DIR BY CG, TECOM.PROV SUPP TO DOD, AND OTHER DA SUB-EL, AS DIR, FOR SVC3 NOT SHOWN.

...CURRENT IMPORTANT PROGRAMS
MISSILE GUIDED.DRAGON
HELICOPTER CH-47C
PORTABLE MULTI-SHOT FLAME WEAPON
AERIAL MINE DISPERSING SYSTEM
HOOD EXTREME COLD WEATHER ARTIFICIAL RUFF

...FUNCTIONS/EQUIPMENT/CAPABILITIES
THE ATC FAC WITH FEW EXCEP CAN BE USED FOR MULT APPL'S IN ACCOMP TESTS
ALLOWING THE CEN TO ACC A NO OR VAR OF TEST ITEMS AT ANY ONE TIME. ALL
FIRING RGS ARE ORIENTED TO FT GREELY 500,000 ACRE IMPACT AREA WEST OF
DELTA R.THIS AREA PROVIDES A MAX UNOBS RG OF 50,000 METERS.A MAJORITY OF
THIS AREA IS WITHIN RESTR AIRSPACE ALLOWING UNRESTR FIRING TO A MAX ORD
OF 5,000 FT. COORD WITH LOCAL FAA FLT SVC CAN EFFECT UNLIMITED ORDINATE
CAP OVER ALL FIRING RGS. 1ST,2D OF 3RD ORDER SURVEY MONUMENTS EXIST NEAR
ALL THE CEN FIRING RGS & TEST SITES.A GOOD SECONDARY RD SYS CONNECTS ALL
RGS TO THE ALASKA & RICHARDSON HYWS. CLASS A TEL CAP EXISTS WITH PRIN
RGS & A NON-TACTICAL RADIO NET PROV ALT COMMO WITH ALL PARTS OF THE RES.
ADEQUATE MAINT FAC FOR DS&GS SUPP OF MOST ITEMS,TO INCL ACFT,ARE ORG TO
THE CEN. THE CEN HAS CMPTR FAC ADQUATE FOR ANY RQMT.MET FAC ARE AVAIL.

PRES. COL JOHN P. BERRES

	PROGRAM	DATA BY FISCAL	YEAR (MILLION	\$)
PROGRAM		1972	1973	
	(	ACTUAL)	(ACT + EST)	
TOTAL RDT&E		2.186	2.178	
TOTAL PROCUREN	ENT	0.261	0.250	
MAG JATOT		0.000	0.000	
TOTAL OTHER		3.200	3.440	
TOTAL ANNUAL L	.AB	5.647	5-868	
TOTAL INHOUSE		5.647	5.868	
TOTAL INHOUSE	RDT&E	2.186	2.178	
ANNUAL OPERATI	ING COST	0.390	0.441	
	PERSONNEL DAT	A (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	FHDS	PROF	PROF
MILITARY	450	0	97	353
CIVILIAN	101	Ó	1	100
TOTAL	551	0	98	453
	SPACE	AND PROPERTY		
ACRES	SPACE ITHOUSANDS		ETE COST	INTLITON &

ACRES	SPACE (THO		SQUARE FE		COST (MILL	.ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6900	6 • 200	68.068	166.374	240.642	1.419	2.355

---MISSION
PLAN, CONDUCT, AND REPORT ON EST, MPT, AND CHECK TEST OF ARMOR AND ENG
ENGINEER EQUIPMENT, AUTO SYS AND MATERIAL, AND ATOMIC DEMO MUNITIONS.
PARTICIPATE IN ET, IPT, AND P AS DIRECTED. PROVIDE ADVICE TO AGENCIES
AND DEVELOPERS IN DEVELOPMENT OF ARMOR AND ENGINEER EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS
METHODOLOGY INVESTIGATION ON AUTOMATED ANTI-ARMOR TEST CAPABILITY
IMPROVE ALL ASPECTS OF MILITARY SERVICE UNDER THE MODERN VOLUNTEER ARMY
MILITARY POTENTIAL TEST OF 5 AND 10 KW GENERATORS
INITIAL PRODUCTION TESTS ON M60A2 TANK, COMBAT FULL TRACKED, 152MM GUN
MILITARY POTENTIAL TEST OF SIMFIRE HIT-KILL INDICATOR

USAARENBD MAJOR EQUIP: ADEQUATE STILL AND MOTION PICTURE PHOTO EQUIP: VIDEO TAPE RECORDER& STATIONARY ELEVATED CAMERA PLATFORM FOR HEIGHTS UP TO 40 FT ABOVE ADJACENT GRADE& GENERATOR LOAD BANKS& MOBILE DYNAMOMETER, WHICH MEASURES DRAW BAR PULL FROM 0 TO 100 TONS& OVERHEAD CRANE, 40 TON& TACTICAL WHLD VEH& COMBAT VEH& ENGR CONSTR EQUIP& MACHINE SHOP EQUIP/ SHOP MAINTENANCE SETS. THE BOARD FACILITIES CONSIST OF 6400 ACRES FOR TESTING& MCFARLAND-OLIVER (160 ACRES) WITH A FIRING CAPABILITY OF UP TO 2000 METERS& ADDITIONAL RANGE WITH FIRING UP TO 10,000 METERS ON A SPACE AVAILABLE BASIS& STILL WATER TEST AREA& BARRACKS SPACE 72,988 SQ FT& OFFICE SPACE 71,788 SQ FT& SHOP AREA 69,888 SQ FT& STORAGE 48,106 SQ FT& AND MOTOR PARK 85,750 SQ FT.

 ${\bf L}_{-}$ 

### C.O. AND DIR. RICHARD C. CHABOT DEPUTY DIR. DR. MARVIN DIAMOND

PROGRAM	PRO GR AM	DATA BY FISC 1972	AL YEAR (MILLION 1973	\$)
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		9.220	9.646	
TOTAL PROCUREMENT		0.000	0.000	
TOTAL OEM		0.031	0.031	
TOTAL OTHER		2.968	3.031	
TOTAL ANNUAL LAB		12.219	12.708	
TOTAL INHOUSE		11.034	10.720	
TOTAL INHOUSE RDT	8.6	8.035	7.658	
ANNUAL OPERATING	COST	0.000	0.000	
	PERSONNEL DA	TA (END OF F	Y 1972)	
PERSONNEL AL	THURIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	483	1	40	443
CIVILIAN	258	11	115	143
TOTAL	741	12	155	586
	SPAC	E AND PROPERT	· <b>Y</b>	
ACRES SP	ACE (THOUSAND	S OF SQUARE F	EET) COST	(MILLION \$)
	LAB ADM		TOTAL REAL P	ROP EQUIP
45	0.056 0.0	25 0.033	0-114 48-	000 2.500

\*\*\* MISSION
RESEARCH IN ATMOSPHERIC SCIENCES, DEVELOPMENT OF METEOROLOGICAL TECHNIQUES AND EQUIPMENT FOR FIELD ARMY. FURNISH METEOROLOGICAL SERVICES TO ARMY ROTE ACTIVITIES. PROVIDE ADMIN AND LOGISTICAL SUPPORT TO TOHER NUPPER ATMOSPHERE RESEARCH AND SOUNDING ROCKET FACILITY AND CAPABILITY

...CURRENT IMPORTANT PROGRAMS
DETERMINATION OF ATMOSPHERIC EFFECTS ON ARMY SYSTEMS
DEVELOP ARMY ATMOSPHERIC SENSING SYSTEMS, TECHNIQUES, APPLICATIONS
RESEARCH OF MICROSCALE, MESOSCALE, AND UPPER ATMOSPHERIC PHENOMENA
FOG DISSIPATION
METEOROLOGICAL SUPPORT TO ROTE ACTIVITIES

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
METEOROLOGICAL RESEARCH FACILITY AND CAPABILITY
WIND TUNNEL FACILITY, LOW SPEED
ATMOSPHERIC PHYSICS RESEARCH FACILITY AND CAPABILITY
UPPER ATMOSPHERE RESEARCH AND SOUNDING ROCKET FACILITY AND CAPABILITY
ION MASS SPECTROMETER SYSTEM
METEOROLOGICAL SOUNDING ROCKET FACILITIES—N.M., UTAH, ALASKS, CANAL ZONE
REMOTE ATMOSPHERIC SENSING FIELD RESEARCH FACILITY
ATMOSPHERIC SPECTROSCOPY—LASER PROPAGATION FACILITY
METEOROLOGICAL ROTE SUPPORT FACILITIES — ALASKA TO PANAMA CNAL ZONE
METOEOROLOGICAL INSTRUMENTATION TEST, MAINTENANCE, CALIBRATION FACILITY
FACILITY FOR SONIC OBSERVATION OF TRAKECTORY AND IMPACT OF MISSILES
COLOR DENSITOMETER FOR ANALYSIS OF METEOROLOGICAL SATELLITE DATA

## C.O. COL DEAN E. WRIGHT TECH. DIR. JAMES S. HAYDEN

			GAL YEAR IMILLION	\$ )
PROGRAM		1972	1973	
	( AC	TUAL)	(ACT + EST)	
TOTAL ROTEE		3-689	4.395	
TOTAL PROCURE	MENT	0.000	0.000	
TOTAL OWM		0.000	0~000	
TOTAL OTHER		0.789	0.340	
TOTAL ANNUAL	LAB	4.478	5,235	
TOTAL INHOUSE		4.478	5.235	
TOTAL INHOUSE	RDTGE	3.689	4.395	
ANNUAL OPERAT		1-132	1.040	
	PERSONNEL DATA	(END OF	FY 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHD\$	PRUF	PROF
MILITARY	62	0	23	39
CIVILIAN	126	1	26	90
TOTAL	178	1	49	129
	65.45° A		<b>*</b>	

ACRES	SPACE (THO	•	D PROPERTY Square fee	T)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
19	0.004	0.033	0.098	0.135	1.140	4.165

...MISSION
CONDUCT AIRWORTHINESS QUALIF TESTS ON ALL ARMY ACFT & COMPONENTS ENTERGING INVENTORY OR CONSIDERED FOR SPECIFIC APPLICATION. MONITOR CONTRACTOR
FLT TESTING & PARTICIPATE IN ENG FLT TESTS CONDUCTED BY USAF, USA OR
FAA.PUBLISH TEST RESULTS.

---CURRENT IMPORTANT PROGRAMS
CH-47 IMPROVEMENT TESTS
CH-54 AIRWORTHINESS FLIGHT QUALIFICATION
INSTRUMENTATION VIBRATION SURVEYS
LOH-,OH-6,OH-58 IMPROVEMENT TESTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
IC-47 1U-8G 10V-1C 1T28-B 2F-51D U1H-1H AND 9 TEST AIRCRAFT
1EMR COMPUTER WITH TELEMETRY
3 IARBORNE DATA ACQUISITION SYSTEMS
2 REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY
4 MAGNETIC TAPE SELECTRIC TYPEWRITERS FOR TEST REPORT PREPARATION
LIMITED INSTRUMENT CALIBRATION CAPABILITY

PRES. COL DANIEL G. GUST

PROGRAM	PROGRAM	DATA BY FISCA	AL YEAR (MILLION 1973	\$)
PROCRAM		(ACTUAL)	(ACT + EST)	
POTAL DOTCE	'	6.426	6.610	
TOTAL ROTEE			<del>-</del> -	
TOTAL PROCUREM	=N [	0.626	0.321	
MAD JATUT		0.196	0.330	
TOTAL OTHER		2.292	2-400	
TOTAL ANNUAL L	AB	9.540	9.661	
TOTAL INHOUSE		6.935	7.092	
TOTAL INHOUSE	ROTEE	3.821	4.041	
ANNUAL OPERATI	· - ·	3.247	3.445	
	PERSONNEL DA	TA (END OF FY	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	221	0	44	177
CIVILIAN	139	0	4	135
TOTAL	360	Ō	48	312
	SPAC	E AND PROPERTY	Y	
ACRES	SPACE (THOUSAND			(MILLION \$)
	LAB ADM			
1234		34 180.754		650 13-185

---MISSION
PLAN, CONDUCT & REPORT ON SERVICE & CHECK TESTS OF AIRCRAFT, A/C SUBSYSTEMS & ANCILLARY EQUIP- PARTICIPATE IN ENGINEERING, PREPRODUCTION &
INITIAL PRODUCTION TESTS AS DIRECTED- ADVISE PROPONENT AGENCIES DURING
THE DEVELOPMENT OF A/C SYSTEMS-

...CURRENT IMPORTANT PROGRAMS
INFRA-RED PROJECTS
CH-47C ARCTIC TEST
OH-58 PROJECTS
XM56 MINE DISPENSER
NEW DS MAINTENANCE SHOPS CONCEPT

...FUNCTIONS/EQUIPMENT/CAPABILITIES
HAVE REQUIRED FACILITIES & CAPABILITIES TO PERFORM STATED MISSION, TO
REVIEW & COMMENT ON OMDOS, MATL NEEDS, MAINT PACKAGES & TO ASSIST IN
REVIEWING MIL SPECS. ABILITY TO EVALUATE & RECOMMEND ON SAFETY & SUITABILITY OF MATLS FOR ARMY USE, TO SUPPORT FIELD RESEARCH, STUDIES, TESTS
& OPERATIONS OF OTHER AMC SUBORDINATE ELEMENTS, DA OR DOD AGENCIES. CAN
PLAN DIRECT & CONTROL PROGRAMS IN METHODOLOGY TO AS SURE PROPER TESTING
&REPORTING IN CURRENT & FUTURE YRS. ABLE TO ASSIST IN PREPARING TRAINING LITERATURE & SELECTION OF TRAINING AIDS, TO RECCOMMEND TO CG TECOM
THROUGH ESTABLISHED PROCEDURES, R&D PROJECTS DESIGNED TO IMPROVE TECOM
TEST & EVALUATION.

## C.O. LTC EVERETY RICHARDS TECH. DIR. THEODORE SUETA

	PRO			L YEAR (MILLIO	IN \$)	
PROGRAM		197	-	1973		
		( ACTUA	L)	(ACT + EST)		
TOTAL RDT&E		12	•699	11.752		
TOTAL PROCURE	IENT	8	-257	9.151		
TOTAL DEM		0	-000	0.000		
TOTAL OTHER		0	-000	0.000		
TOTAL ANNUAL L	.AB	20	•956	20.903		
TOTAL INHOUSE		18	.146	17.845		
TOTAL INHOUSE	RDT&E	11	.294	10.223		
ANNUAL OPERAT	ING COST	5	-014	5.658		
	PERSONNE		ND OF FY			
PERSONNEL	AUTHORIZED	T	OTAL	TOTAL		NON-
	STRENGTH		PHDS	PROF		PROF
MILITARY	25		1	14		11
CIVILIAN	251		5	160		91
TOTAL	276		6	174		102
		SPACE AND	PROPERTY	•		
ACRES	SPACE (THOU				ST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL REAL	L PROP	EQUIP
9	43.500	7.500	1.706	52.706	2.605	14.900

...MISSION
APPLIED RES DEVEL AND ENGRG IN ARMY AVIATION ELECTRONICS INCLUDING
NAVIGATION LANDING COMMUNICATIONS ENVIRONMENT SENSING CONTROL THEORY
AIRCRAFT ANTENNAS INSTRUMENTATION GROUND AND AIRBORNE SYSTEMS
INSTALLATION AND TEST SYSTEMS ENGRG

...CURRENT IMPORTANT PROGRAMS
LOW LEVEL NIGHT OPERATIONS FOR ARMY AIRCRAFT
LORAN CD NAVIGATION SYSTEM
ATTENDED AREA TACTICAL LANDING SYSTEM
NATIONAL LANDING SYSTEM
AIRCRAFT SYSTEMS ENGINEERING

...FUNCTIONS/EQUIPMENT/CAPABILITIES
TACTICAL AVIONICS SYSTEMS SIMULATOR
AIRCRAFT ANTENNA TEST FACILITY
FIXED BASE COCKPIT SIMULATOR UH-1
INSTRUMENTED C-47 AIRCRAFT FOR TESTING NAVIGATION SYSTEMS
GYRO TEST FACILITY
MOVING EARTH SIMULATOR FOR DOPPLER NAVIGATOR TESTING
ELECTROMAGNETIC RADIATION TEST FACILITY

NON-PROF 13

469

482

879

954

CIVILIAN

TOTAL

C.O. COL RUDOLPH A. AXELSON DIR. ROBERT J. EICHELBERGER

PROGRAM	PROGRAM DATA BY FISCA 1972	1973
	(ACTUAL)	(ACT + EST)
TOTAL ROTEE	30.609	29.005
TOTAL PROCUREMENT	0.139	0.200
TOTAL DAM	0.120	0.120
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	30.868	29.325
TOTAL INHOUSE	20.928	20.120
TOTAL INHOUSE ROTEE	20.808	20.000
ANNUAL OPERATING COST	5.593	7.837
PERS	ONNEL CATA (END OF FY	( 1972)
PERSONNEL AUTHORI		TOYAL
STREN	STH PHDS	PROF
<del>-</del> -	75 9	62

		SPACE AND	PROPERTY			
ACRES	SPACE (TH	OUSANDS OF	SQUARE FE	ET)	COST (MILI	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3380	277.823	113.784	0.000	391.607	15.633	34.429

85

410

472

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

...CURRENT IMPORTANT PROGRAMS
MATHEMATICAL MODELS OF GUN PROPELLANT SYSTEMS
CONVENTIONAL WARHEAD EFFECTS
WARHEAD DYNAMICS FRAGMENTATION-EXPLOSIVE METAL INTERACTION
REFINED FLIGHT DYNAMICS OF PROJECTILES AND MISSILES
VULNERABILITY GROUND AND AIRBORNE TARGETS-OFFENSIVE/DEFENSIVE MEASURES

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
SUPERSONIC AND HYPERSONIC WIND TUNNELS/TRANSONIC RANGE
EXPLOSIVE BLAST CHAMBERS AND HIGH ALTITUDE BLAST SPHERE
SHOCK TUBES-SIMULATION OF NUCLEAR BL ST/CHEMICAL REACTION RATE
PULSE RADIATION FACILITY-TANDEM VAN LE GRAFF ACCELERATOR
EXPLOSIVE FIELD TEST FACILITIES
HIGH SPEED MOTION PHOTOGRAPHY SCHLIEREN INTERFEROMETRY
ELECTRON MISCACSCOPE-ELECTRON SPIN RESONANCE-NUCLEAR MAGNETIC RESEARCH
ELECTROMAGNETIC RADIATION RANGES
ANALOG COMPUTER FOR SIMULATION OF DYNAMICS OF GUN AND RIFLE
PROPULSION AND COMBUSTION CHAMBERS
LASERS FOR PLASMA PROPAGATION AND SIGNATURES
AFTER GLOW REACTION CHAMBER-UPPER ATMOSPHERE CHEM REACTION RATE

Bridge State State

### C.O. COL CHRISTOPHER MAGGIO TECH. DIR. ROBERT E. WEIGLE

PROGRAM	PR		A BY FISC 972	AL YEAR (MI) 1973	LION \$)	
PRUGRAH		(ACŤ	. —			
TOTAL ROTGE		( AU I		(ACT + EST	-	
	MENT		9.891	10.2	•	
TOTAL PROCURE	MENI		3.583	3.4		
TOTAL DEM			1.732	1.0		
TOTAL OTHER			0.128	0.0	58	
TOTAL ANNUAL	LAB		15.334	14.7	76	
TOTAL INHOUSE			13.665	13.0	34	
TOTAL INHOUSE	RDT&E		8.332	8.50	52	
ANNUAL OPERAT	ING COST		3.455	3.6	75	
	PERSON	EL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZEC	)	TOTAL	TOTAL	L	NON-
	STRENGTH	ı	PHDS	PRO	F	PROF
MILITARY	3		0	2		1
CIVILIAN	410		43	175		235
TOTAL	413		43	177		236
		SPACE AN	D PROPERT	Y		
ACRES	SPACE (THO				COST (MIL	LION \$)
<del>-</del>	LAB	ADMIN	OTHER		REAL PROP	EQUIP
4	176.776	24.600	0.000	201.376	2.266	3.842

---MISSION
DESIGN DEV ARTILLERY, TANK, AIR DEFENSE SECONDARY CANNON ABOVE 20MM.
SPARE PARTS SUCH AS BREECH MECHS, MUZZLE DEVICES, BORE EVACUATORS
SCAVENGERS AUTO LOADERS, SYS MGT, DESIGN DEV OF MORTAR REC. RIFLES
CONDUCT BASIC APPL RESEARCH MFG TECH TO SPT THE DEVELOPMENT MISSION

...CURRENT IMPORTANT PROGRAMS
DEV OF 105MM XM205 HOW FOR 105MM TOWED S.R. HOW XM204
DEV SYS MGT OF LIGHT WEIGHT COMPANY MORTAR SYSTEM
APPL-OF FRACTURE MECHS TO FATIGUE LIFE PREDICTIONS FOR CANNON TUBES
DEV OF CANNON, 155MM HOW XM199 FOR 155MM HOW XM198.DEV OF COMPOSITE
SYSTEMS WITH METAL MATRICES INORGANIC FIBERS FOR HI-TEMP APPLICATIONS

..FUNCTIONS/EQUIPMENT/CAPABILITIES UNIQUE FACILITIES CAPABILITIES INCLUDE HIGH PRESSURE METALLURGY WITH 20-30 K-BAR FLUID EXTRUSION PRESS, WHISKER GROWTH TEST, NEUTRON ANALYSIS 150TOPE COUNTING, DYNAMIC TEST OF BREECH COMPONENTS TUBE SECTIONS--FULL SIZE--BY PRESSURE/PULSE SIMULATING FIRING LOADS, EXP STRESS ANALYSIS THRU 2 3 DIMENSIONAL PHOTOELASTICITY.COMP.MTRLS ELECTRODEPOSITION--VACUUM ELECTRON-BEAM VAPOR-DEPOSITION--ENCLOSED PROOF RANGE--20MM MAX-COATER ELECTRON MICROSCOPY--2.3 ANGST.RESOLUTION 250000X MAG--CRYDGENICS (HELIUM DEWAR APP) TO TEMPS OF 4 KELVIN HI-PEPFORMANCE SHOCK TEST (1200 1500 G FOR GUN COMPONENTS, H1-TEMP VACUUM FURNALE--3000 C MAX--CRYDGENIC TIME OF FLIGAT MASS SPECTROMETER, 20000 GAUSS MAGNET FOR TEST OF HIGH TEMP SPECIMENS, ELECTROPLATING, ANDDIZING TITANEUM HARD COAT PROCESSES, ELECTRON MICROPROBE ANALYZER--B-UR IN PPM--XBM 360-44 COMPUTER

TOTAL AND A STATE OF THE STATE

NON-PROF

15

16

28

48

CIVILIAN

TOTAL

CaD. COL RUDDLPH A. AXELSON DIR. HARRY L. AMMLUNG

	PROGRA	M DATA BY FISCA	AL YEAR (HILLION	5)
PROGRAM	. 22.	1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		2.899	2.006	
TOTAL PROCUR	EMENT	0.186	0-194	
MAG JATOT	_	0.458	0.155	
TOTAL OTHER		0.003	0.008	
TOTAL ANNUAL	LAB	3.546	2.363	
TOTAL INHOUS	E	1.738	1.035	
TOTAL INHOUS	E RDT&E	1.471	0.743	
ANNUAL OPERA	TING COST	0.138	0.179	
	PERSONNEL D	ATA (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	
	STRENGTH	PHDS	PROF	
MILITARY	5	1	6	

		SPACE ANI	D PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	T)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0-017	0.002	0.005	0-024	0.060	0-410

...MISSION
MANAGE & DIRECT THE ASSIGNED PORTION OF AMC MAT & FUELS & LUBES PROGRAM
INCLUDES BASIC & APPLIED RESEARCH IN AUTO CHEMICALS ORGANIC & SEMI ORGANIC COATINGS PAINT CLEANING FUELS & LUBES COORINATE THE RESEARCH
PROGRAM OF AMC IN THE FIELD OF FUELS & LUBES & RELATED MATERIALS

...CURRENT IMPORTANT PROGRAMS
DEVELOPE FULLY COORDINATED FED SPEC FOR UNLEADED AUTOMOTIVE GASOLINES
DEFINING PERFORMANCE CHARACTERISTICS OF MULTI VISCOSITY ENGINE LUBS
COATINGS TO IMPROVE PROTECTION AND OPERATIONAL RELIABILITY OF MATERIEL
FUNCTIONAL CLEANING COMPOUNDS AND PAINT REMOVERS
INCREASE THE STABILITY OF ANTIFREEZE CORROSIGN INHIBITOR

...FUNCTIONS/EQU'PMENT/CAPABILITIES
SPECTROPHOTOMETERS
AUCELERATED WEATHERING MACHINE
CORROSION TEST CABINETS
GAS CHROMATOGRAPHS
PROGRAMED HUMIDITY CHAMBERS
FUEL COKER
SUB ZERO TEST CABINET
STROKING UNIT (BRAKE FLUID)
TEMPERATURE FLOW CORROSION UNIT
SPRAY BOOTH
AUTOMATIC V/L RATIO ANALYZER
TWO GENERAL PURPOSE LABORATORY BUILDING AND EXPOSURE FARM

4.383

3.906

19.013

C.O. AND DIR. COL J.F. CASTRO TECH. DIR. DR. D.F. FREITAG

	PROGRAM D	ATA BY FISCA	L YEAR (MILLION	\$)
PROGRAM		1972	1973	
	( A	CTUAL)	(ACT + EST)	
TOTAL ROTEE	_	5.197	4.897	
TOTAL PROCUR	EMENT	0.005	0.000	
MAG JATOT		0.170	0.200	
TOTAL OTHER		2.063	2.700	
•	1 A C	7.435	7.797	
TOTAL ANNUAL	LAD	1.433	10171	
TOTAL INHOUS	E	6.198	6.440	
TOTAL INHOUS	_	4.322	3.720	
	<del>-</del>			
ANNUAL OPERA	IIING CUST	1.450	1.600	
	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	41	2	36	5
		_		-
CIVILIAN	248	22	84	164
TOTAL	289	24	120	169
	SDACE	AND PROPERTY	,	
ACRES	SPACE (THOUSANDS	•		(MILLION \$)
MUNES			· - · ·	·
	LAB ADMIN	OTHER	TOTAL REAL	PROP EQUIP

...MISSION

631

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

108-415

137.276

...CURRENT IMPORTANT PROGRAMS
ENGINEERING IN COLD ENVIRONMENTS
ENVIRONMENTAL QUALITY FOR COLD REGIONS - MILITARY CONSTRUCTION
RESEARCH IN MILITARY ENGINEERING AND CONSTRUCTION
COLD REGIONS RESEARCH
MOBILITY AND ENVIRONMENTAL RESEARCH

9.848

THE MAIN LABORATORY AT USACRREL CONTAINS 24 COLD LABS & WHICH CAN BE OPERATED TO -580&, SPECIAL TESTING APPARATUS FOR FROZEN MATERIALS, A CHEMICAL LAB, AN ELECTRON MICROSCOPE LAB, A ROCK MECHANICS LAB, A SOILS PROCESSING LAB, AND A SPRAY IRRIGATION TEST FACILITY. FIELD WORK SUPPORT IN ALASKA IS PROVIDED BY A FIELD STATION AT FAIRBANKS. REPRESENTATIVE AREAS OF COMPETENCE AMONG USACRRELS SCIENTISTS AND ENGINEERS INCLUDE BIOLOGY, BIOCHEMISTRY, METEOROLOGY, CHEMICAL ENGINEERING, CIVIL ENGINEERING, MARINE ENGINEERING, MECHANICAL ENGINEERING, GEOLOGY, SANITARY ENGINEERING, ELECTRONICS, ELECTRICAL ENGINEERING, PHYSICS, CHEMISTRY, HYDROLOGY, AND GEOPHYSICS.

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

DEPUTY DIR. HERBERT GOLDWAG

	PROGRAM	4 DATA BY FISCA	AL YEAR (MILLION	\$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL ROTEE		33.000	32.100	
TOTAL PROCUREM	ENT	0.000	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.000	0.000	
TOTAL ANNUAL L	AB	33.000	32.100	
TOTAL INHOUSE		13.500	13.200	
TOTAL INHOUSE	RDT&E	13.500	13.200	
ANNUAL OPERATI	NG COST	1.300	1-400	
	PERSONNEL DA	ATA (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	38	1	23	15
CIVILIAN	312	6 7	172	140
TOTAL	350	7	195	155
	SPA	CE AND PROPERT	Y	
ACRES	SPACE (THOUSAN	DS OF SQUARE FI	EET) COST	(MILLION \$)
	LAB ADI	MIN OTHER	TOTAL REAL P	ROP EQUIP
71	103.535 7.	281 26.133	136.949 2.	418 23.000

...MISSION

DO RED OF EQUIPMENTS FOR COMBAT SURVEILLANCE, TARGET ACQUISITION, IDEN-TIFICATION-FRIEND-OR-FOE, RADIOLOGICAL SURVEY. APPLY FOLLOWING TECHNOLO-GIES RADAR, I-R, LIGHT, SOUND, SEISMICS, NUCLEONICS, ELECTRO-OPTICS, PHOTOGRAPHY, GEOPHYSICS, IMAGE INTERPRETATION, DATA TRANSFER AND DRONES

... CURRENT IMPORTANT PROGRAMS ADV DEV AND SUPPORTING TECHNOLOGY FOR ARTILLERY LOCATING RADAR AN/MPQ-() ENGR DEV OF MOBILE, HELI-LIFTED, MORTAR-LOCATING RADAR AN/TPQ-36 ENGR DEV OF MOVING-TARGET LOCATING RADAR SET AN/TPS-58 ENGR DEV OF LASER DESIGNATOR TRACKER SYSTEM (LDTS) REMOTELY MONITORED BATTLEFIELD SENSOR SYSTEM (REMBASS)

... FUNCT IONS / EQUIPMENT/CAPABILITIES PHOTO PROJESSING, OPTICAL TEST, LENS RESOLUTION TEST PATTERN FACILITIES (FAC)& INCL DARK ROUMS, CHEM LABS. RADAR TECHNIQUES DEV FAC& INCL MI-CROWAVE DARK ROOM, ANTENNA PATTERN & TEST RANGE, 65FT HIGH RADAR TEST PLATFORM& FIVE OUTDOOR & ONE INDOOR RANGES INSTRUMENTED FROM 30 MC TO 70 GS PER SEC. MOBILE SPECTRAL AND TIME-DISTRIBUTION MEASUREMENT FAC GOOD FROM 2900 A TO INTERMEDIATE IR. OPTICS FACILITY FOR MEASURING DETECTIV-ITY OF ELEMENTS, OUTPUT OF SOURCES, TRANSMISSION CHARACTERISTICS. LASER TEST & MEASUREMENT FAC FOR LASER SYSTEM COMPOMENTS. RADAR INSTRUMENTA-TION FAC CAPABLE OF TRACKING X-BAND RADAR AND COLLECTING AND RECORDING POSITION, VELUCITY, AND SIGNAL STRENGTHE HAS S-BAND SHORT-RANGE SEARCH CAPABILITY

C.O. AND DIR. COL J. MITCHELL

	PROGR/	AM DATA BY F	ISCAL YEAR (M	(LLION \$)	
PROGRAM		1972	1973		
		(ACTUAL)	(ACT + ES	r <b>3</b>	
TOTAL ROTEE		31.400	21	500	
TOTAL PROCUREM	ENT	0.000	0.	000	
TOTAL D&M		0.000	0.	000	
TOTAL OTHER		0.300	0.	330	
TOTAL ANNUAL L	.AB	31.700	21.	930	
TOTAL INHOUSE		14-100	11.	230	
TOTAL INHOUSE	RDT&E	13.800	10.	900	
ANNUAL OPERATI	NG COST	0.000	0.	000	
	PERSONNEL I	DATA (END C	F FY 1972)		
PERSONNEL	AUTHORIZED	TOTAL	TOT	AL	NON-
	STRENGTH	PHDS	PR	)F	PROF
MILITARY	23	(		2	11
CIVILIAN	420	ę	25	5	165
TOTAL	443	ć	26	r	176
	SP/	ACE AND PROP	PERTY		
ACRES	SPACE (THOUSA	NDS OF SQUAR	E FEET)	COST (MI	LLION \$3
		DMIN OTH		PEAL PROP	EQUIP
12	75.305 7.	389 1.0	115 83,709	0.000	6-987

---MISSION
TO PERFORM R&D ACTIVITIES RELATED COMMUNICATIONS & ADP EQUIPMENT AND SYSTEMS WHICH INCLUDE THE FIELDS OF RADIO TELEPHONIC TELEGRAPHIC AND FACSIMILE COMMUNICATIONS ADP TECHNIQUES & DATA STORAGE COMMUNICATION SECURITY ELECTROMAGNETIC COMPATIBILITY & COMMUNICATING PROCESSES

•••CURRENT IMPORTANT PROGRAMS
TACTICAL RADIO COMMUNICATIONS SYSTEM
RADIO SET AN ARC 70
AACOMS TSQ 85 TYC38 ANUGC72 73 74 75 76 TD10651G TD1069

LAB SPACES TEST INSTRUMENTS & SPECIALIZED ELECTRONIC MECHANICAL AND OPTICAL EQUIPMENT TO PERFORM DESIGN FABRICATION & TESTING OF ELECTRONIC CIRCUITS COMPONENTS EQUIPMENTS IN DISPLAY PRINTING SPEECH NARROW AND WIDE BAND RADIOS FROM LOW TO LIGHT FREQUENCY RANGE CONVENTIONAL AND AD VANCED MULTIPLEXING SWITCHING ERROR DETECTION & CODING ANTENNA AND PROPAGATION TECHNOLOGIES SMALL SCALE COMPUTERS TO TEST & EVALUATE AD VANCED COMPUTER CONCEPTS & SUBSYSTEM SOFTWARE & HARDWARE FIXED & MOBILE TACTICAL RADIO MODEM MULTIPLEXING SWITCHING EQUIPMENTS TO SIMULATE FIELD CONFIGURATIONS FOR TEST DATA COLLECTION & EVALUATION OF EXISTING EQUIPMENT PROPAGATION INTERFACE PROBLEMS ANTENNA TEST FACILITY &SHIELDED ROOMS FOR MEASURING OF & ESTABLISHING DOD STANDARDS FOR ELECTROMAGNETIC COMPATIBILITY RADIATION & PROPAGATION

INSTALLATION CONSTRUCTION ENGINEERING RESEARCH LABORATORY URBANA, IL-

DIR. R.W. REISACHER DEPUTY DIR. R.L. SHAFFER

DISSENINATE THE RESEARCH RESULTS

DECCAM	PROGRAM D	ATA BY FISC 1972	AL YEAR (MILLION \$)	
PROGRAM		CTUAL)	(ACT + EST)	
TOTAL ROTEE	•	5.873	5.960	
TOTAL PROCUR	EMENT	0.000	0.000	
TOTAL OEM		0.531	0.315	
TOTAL OTHER		0.000	0.000	
TOTAL ANNUAL	LAB	6.404	ú <b>.</b> 275	
TOTAL INHOUS	E	5.069	3.977	
TOTAL INHOUSE	E RDT&E	4.701	3.712	
ANNUAL OPERA	TING COST	1.676	1.757	
	PERSONNEL DATA	(END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHOS	PROF	PR ()F
MILITARY	3	0	4	1
CIVILIAN	168	33	94	74
TOTAL	171	33	98	75
	SPACE	AND PROPERT		
ACRES	SPACE (THOUSANDS	OF SQUARE F	FEET) COST (	MILLION \$)
	LAB ADMIN	N OTHER	TOTAL REAL PRO	OP EQUIP

15 68.875 32.075 0.000 100.950 3.481 1.961
...MISSION
PLAN, EXECUTE AND EVALUATE RESEARCH TG UBTAIN THE BEST COMBINATION OF ENGINEERING, DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE TO PROVIDE

FACILITIES FOR THE MILITARY ESTABLISHMENT AND OTHER AGENCIES AND TO

...CURRENT IMPORTANT PROGRAMS
DEVELOPMENT OF MATERIALS FOR PERMANENT MILITARY CONSTRUCTION
ENVIRONMENTAL QUALITY FOR MILITARY CONSTRUCTION AND FACILITIES OPERATION
INDUSTRIALIZED BUILDINGS FOR MILITARY CONSTRUCTION APPLICATIONS
DEVELOPMENT OF IMPROVED DESIGN, CONSTRUCTION AND MANAGEMENT TECHNIQUES
EVALUATION OF ELECTROMECHANICAL SYSTEMS FOR MILITARY FACILITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONTROLLED ENVIRONMENT CHAMBER, 1-MILLION POUND CLOSED-LOOP MATERIALS
TEST SYSTEM, SCANNING ELECTRON MICROSCOPE, 10MW RESISTANCE LOAD BANK AND
INSTRUMENTATION, X-RAY EQUIPMENT, SEMI-AUTOMATIC WELDING EQUIPMENT,
BIAXIAL SHOCK TEST MACHINE, NON-DESTRUTIVE TESTING FACILITY, VACUUM
INDUCTION FURNACES, METALLOGRAPHIC SAMPLE PREPARATION AND RESEARCH
METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYSTEM, DYNAMIC
TENSION ANALYSIS SYSTEM, DIGITAL RECORDING AND ANALYSIS EQUIPMENT
FACILITIES CAPABILITIES INCLUDE SYSTEMS BUILDING METHODS AND TECHNIQUES,
COMPUTER BASED DESIGN AND CONSTRUCTION MANAGEMENT TECHNIQUES, HARDENED
FACILITIES ANALYSIS ENVIRONMENTAL QUALITY MANAGEMENT, POLLUTION CONTRO!
AND ABATEMENT, MILITARY HOUSING SYSTEMS, POWER GENERATION SYSTEMS, AND
UTILITIES SYSTEMS ANALYSIS AND EVALUATION

## C.O. COL ROBERT A. SHADE SCIENTIFIC DIR. M. A. ROTHENBERG

	PROGRAM D		CAL YEAR (MILLION	\$3
PROGRAM		1972	1973	
	( A	CTUAL)	(ACT + EST)	
TOTAL RDT&E		13.491	10.788	
TOTAL PROCURI	EM EN T	0.493	0.300	
TOTAL OEM		0.393	0.395	
TOTAL OTHER		1.430	1.320	
TOTAL ANNUAL	LAB	15.807	12.801	
TOTAL INHOUSE		14.617	11.806	
TOTAL INHOUS		12.666	10.111	
ANNUAL OPERA		6.783	6.193	
	PERSONNEL DATA	(END OF	FY 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	355	8	117	238
CIVILIAN	887	15	130	757
TOTAL	1242	23	247	995
	SPACE	AND PROPER	TY	
ACDEC	CDACE ETHOUGHING			AMELLICAL AL

ACRES SPACE (THOUSANDS OF SQUARE FEET) COST (MILLION \$)

LAB ADMIN OTHER TOTAL REAL PROP EQUIP

840910 85.891 130.051 1743.102 1959.044 49.608 21.856

DTC PLANS & CONDUCTS APPROVED TESTS TO ASSESS THE MILITARY VALUE OF CML WEAPONS & CML-BIO DEF SYS. TESTS SPT R & D & PROVIDE A BASIS FOR DEVEL-OPMENT OF NEW OPERATIONAL & LOGISTICAL CONCEPTS FOR EMPLOYMENT OF TESTD SYS. TESTS ARE RESPONSIVE TO USER REQUIREMENTS.

...CURRENT IMPORTANT PROGRAMS
ANALYSIS OF FIELD TEST SAMPLES G.ENGINEERING TESTIN
DEVELOP OF ANALYTICAL PRO, AEROSOL SAMPL, CML & BIO SIMULANT AGENTS.
DETERMINATION OF THE FATE, PERSISTANCE & METABOLISM OF CML AGENTS.
ECOLOGICAL EPIDEMIOLOGICAL & TOXICOLOGICAL SURVL OF THE UPG PERIMETER.
DEVELOP OF NEW TECHNO FOR TEST PROP OF SIMULANT BIO AGT CLOUDS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MODERN CML ANALYTICAL, MICRO-ANALYTICAL & RSCH LABORATORY FOR MASS
ASSAY & SPECIAL STUDIES WITH 7 GAS CHROMATOGRAPHS, MASS INFRA-RED,
NUCLEAR MAGNETIC RESONANCE, ULTRA-VIOLET, VISIBLE, ATOMIC ABSORBTION,
FLUORESCENCE SPECTORMETRIC EQUIP, 3 RJBOT CHEMIST ANALYZERS, AUTOMATIC
SPOT SIZER/COUNTER & BACTERIAL COLONY COUNTER, FMALE PHOTOMETRIC DETECTORS, RADIO ISOTYPE EQUIP, SCIENTIFIC GALSS BLOWING SHOP, AEROSOL &
ENVIRONMENTAL CHAMBERS, AIRBORNE PARTICLE SIZING & LIGHT-SCATTERING
PHOTOMETERS, LOW-HIGH SPEED & ULTRA CENTRIFUGES FOR PREP & ANALYSIS,
ELECTRON MICROSCORE, MICROBIAL FERMENTATION CAPABILITY EUNDER IMPLEMENTATIONN. MICRO-BIOLOGICAL, IMMUNOLOGICAL, EPIDEMIOLOGICAL & ECOLOGICAL
LABORATORY FOR FIELD WORK & RESEARCH. FACILITIES FOR LARGE, SMALL AND
WILD TEST ANIMALS.

5

C.D. COL JOHN K. STONER TECH. DIR. DR. B.L. HARRIS

	PRO	GRAM DATA	BY FISCA	L YEAR (MIL	LION \$}	
P: DGRAM		197	12	1973		
		( ACTUA	iL)	(ACT + EST)		
TOTAL RDT&E		33	3-205	25.04	4	
TOTAL PROCUREME	NT	(	0.000	0.00	0	
TOTAL DEM		3	3.915	3.70	0	
TOTAL OTHER		3	1.960	1.96	0	
TOTAL ANNUAL LA	NB.	39	9.080	30.70	4	
TOTAL INHOUSE		3(	5.760	28.56	0	
TOTAL INHOUSE R	BATOR	30	.885	23.00	0	
ANNUAL OPERATIO	G COST	14	4.602	14.63	8	
	PERSONNI	EL DATA (	END OF FY	1972)		
PERSONNEL	<b>AUTHORIZED</b>	7	OTAL	TOTAL		NON-
	STR ENGT H		PHDS	PROF		PROF
MILITARY	196		61	146		50
CIVILIAN	1123		65	557		566
TOTAL	1319		126	703		616
		SPACE AND	PROPERTY			
ACRES	SPACE (THO	JSANDS OF	SQUARE FE	ET)	COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL R	EAL PROP	EQUIP
4055	496.713	97.329	148.154	742.196	16.899	8.900

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

...CURRENT IMPORTANT PROGRAMS
PROPHYLAXIS AGAINST AND TREATMENT OF CHEMICAL AGENT CASUALTIES
CHEMICAL AGENT ALARM TECHNIQUES
PHYSICAL PROTECTION AGAINST CHEMICAL ATTACK
BINARY LETHAL CHEMICAL AGENT PROJECTILE DEVELOPMENT
DEVELOPMENT OF MODULAR COLLECTIVE PROTECTION EQUIPMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCT DOD RSCH OF ANTIPERS CML AGTS & ON VEGEVATION CONTROL AGENTS /
TOXICOLOGY-PHYSIOLOGY & PHARM OF CML COMPOUNDS & ANTIPERS-ANTIMAT FLAME
INCEND AGTS / DA RSCH OF DEFENSE AGAINST CML ATTACK & DISSEM-DISPERISON
OF CML MUNITIONS / AERODYNAMICS RSCH / INVEST SIMULANTS & TRNG AGENTS /
DEV CML AGT PROCESS-TEST & ASSESS TECHNOLOGY / DEV CIVIL DISTRUB-RIOT
CONTROL SYS / INTELLIGENCE EXPLOITATION / DEV PROT EQUIP & WNG-DETECT
MAT FOR DEF AGAINST CML ATTACK & DEV CML AGENT MUNITIONS SYSTEMS.
MAJOR EQUIP IS CONTAINED IN A COMPLEX OF ENGR & LAB AREAS & INCLUDES
CML PILOT PLTS-MUN FILLING-ENGR DESIGN & EXP FAB SHOPS& AEROSOL DISSEM
TEST CHAMBERS&PYROTECH MIXING-LOADING & HANDLING FAC&INDOOR BALLISTIC
RANGE&SUBSONIC-SUPERSONIC & TRANSONIC WIND TUNNELS& A COMPLETE CLINICAL
RESEARCH FACILITY & AN ANIMAL BREEDING & HOLDING FACILITY.

C.O. COL WALLACE D. ENDERLE CH. SCI./TECH. DIR. DR. GEORGE E. SCHAFER

		PR	OGRAM DAT	A BY FISC	AL YEAR (MI	LLION \$)	
PROGRA	M	-		972	1973		
			( ACT	UAL)	(ACT + EST	<b>')</b>	
TOTAL	RDT&E			9.175	8.0	35	
TOTAL	PROCUR EMENT	T		2.269	1.8	60	
TOTAL	M30			0.152	0.1	66	
TOTAL	OTHER			3.133	3.3	99	
TOTAL	ANNUAL LAB			14.729	13.4	·60	
TOTAL	INHOUSE			9.685	11.2	15	
TOTAL	INHOUSE RD	T&E		4.640	6.1	.80	
ANNUAL	DPERATING	COST		2.048	1.9	00	
		PERSONN	IEL DATA	(END OF F	Y 1972)		
PERSON	INEL A	UTHORIZED	)	TOTAL	TOTA	\L	NON-
		STRENGTH	<del>1</del>	PHDS	PRO	)F	PROF
MILITA	\RY	358		0	96	1	262
CIVILI	AN	227		2	101	•	126
TOTAL		585		2	197	•	388
			SPACE AN	D PROPERT	· <b>Y</b>		
ACRE	s s	PACE (THO	USANDS OF	•	•	COST (MIL	LION \$3
	•	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1943	31	0.000	187.580	0.000	187-580	3.320	27.876

-..MISSION
PLAN, CONDUCT, AND REPORT ON ENGR TESTS, CHECK TESTS, INITIAL PRODUCTION
TESTS, APPROP PREPRODUCTION TESTS, ASSIGNED SERVICE TESTS, AND SENSOR
TESTS.SERVICE TESTS PERTAIN TO COMM-ELECTRONICS EQUP AND SYSTEMS ABOVE
DIVISION LEVEL.

-..CURRENT IMPORTANT PROGRAMS
METHODS OF MEASURING REFRACTIVITY ERROR
AUTOMATIC FEST EQUIPMENT FOR COMMUNICATIONS ELECTRONICS
INFRARED SYSTEM SENSITIVITY STUDY FOR 1972-80
INFRARED OPTICAL EVALUATION DATA CONTROL SYSTEM
INFRARED OPTICAL PROPAGATION STUDY

...FUNCTIONS/EQUIPMENT/CAPABILITIES
OPERATES THE USA ELECTRONIC PROVING GROUND TO INCLUDE AN ELECTROMAGNETIC
ENVIRONMENTAL TEST FACILITY, AN ELECTRONIC COUNTERMEASURES VULNERABILITY
TEST FACILITY AND A SYSTEM TEST FACILITY. PROVIDE ADVICE TO PROPONENT
AGENCIES AND MATERIEL DEVELOPERS DURING DEVELOPMENT OF MATERIEL-CONDUCT
OTHER TESTS AND EVALUATIONS AS DIRECTED BY THE CGTECOM

## C.O. AND DIR. COL JAS D. DONNELLY DEPUTY DIR. C.K. SHULTES

	PROGRAM (		AL YEAR (MILLION	\$)
PROGRAM		1972	1973	
	( /	ACTUAL)	(ACT + EST)	
TOTAL ROTEE		32-228	33.881	
TOTAL PROCUREM	ENT	0.000	0.000	
TOTAL DEM		0.332	0.345	
TOTAL OTHER		0.000	0.000	
TOTAL ANNUAL L	AB	32.500	34.226	
TOTAL INHOUSE		15.312	14.217	
TOTAL INHOUSE	RDT&E	14.980	13.872	
ANNUAL OPERATI	NG COST	3 <b>.</b> 748	3.770	
	PERSONNEL DATA	A COND OF F	Y 1972)	
PERSONNEL	AUTHORIZED	YOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	63	0	40	23
CIVILIAN	384	4	191	193
TOTAL	447	4	231	216
	SPACE	AND PROPERT	ſY	
ACRES	SPACE (THOUSANDS			(MILLION S)
·	LAB ADMII		TOTAL REAL	
0	61.311 40.86		113.029 2	.525 13.880

...MISSION
ECOM R&D ESSENTIAL TO ELECTRONIC WARFARE & SELECTED AREAS OF INTELL.
ENCOMPASSES APPLD R&D (INCL QRC DEV)&SPT IN INTERCEPT, DF, SIG ANALY,
JAMMING, DECEPT, SIG INTELL, ACOUST INTELL, AGENT EQUIP, SECURITY, CNTR INTEL,
VULNERABILITY AND COUNTER COUNTERMEASURES.

...CURRENT IMPORTANT PROGRAMS
PROTECTION OF ARMY AIRCRAFT
ASA EW/SIGINT PROGRAM-ARDF
MISSILE ELECTRONIC WARFARE
PROTECTION OF COMBAT VEHICLES
QRC READINESS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ECM EQUIP & DEVICES R&D FACILITY, MISSILE EW, DF TEST FACILITY, MAJOR EQUIP
VT FUZE SIMULATOR, LASERS, RTMS, ABN ECM LABS, IR TEST RANGE, ECM TEST RANGE,
ANECHOIC CHAMBER, ANTENNA PATTERN RANGE, 20MHZ-40GHZ, CAPABILITIES CONCEIVE,
DESIGN, DEVELOP ECM AGAINST C-E EQUIP. CONCEIVE, DESIGN, DEVELOP NEW EW SYS
FOR SIGINT, ELINT, COMINT, QRC APPLICATIONS. MEASURE VUL TO ECM OF ARMY
GUIDED MISSILES. PROVIDE LINEAR, SQUARE ROOT, LOG ANTENNA PATTERN
PRESENTATIONS.

DIR. DR. HANS K. ZIEGLER

	PROGRAM	DATA BY	FISCAL YE	AR (MILLION	\$}
PROGRAM		1972		1973	
	(	(ACTUAL)	(ACT	+ EST)	
TOTAL ROTGE		21.9	53	11.876	
TOTAL PROCUREMENT		0-00	0	0.000	
TOTAL DEM		0.00	0	0.000	
TOTAL OTHER		0.13	19	0.058	
TOTAL ANNUAL LAB		22.09	92	11.934	
TOTAL INHOUSE		12.39	93	7.172	
TOTAL INHOUSE ROTEE		12.29	54	7.114	
ANNUAL OPERATING COS	T	2.21	1.8	1.983	
PE	RSONNEL DA	TA (END	OF FY 197	2)	
PERSONNEL AUTHO	RIZED	TOT	<b>NL</b>	TOTAL	NON-
STR	ENGTH	PHO	S	PROF	PROF
MILITARY	13		1	5	8
CIVILIAN	475		55	302	173
TOTAL	488	!	56	307	181
	SP AC	E AND PRO	PERTY		
ACRES SPACE	(THOUSAND	S OF SQU	ARE FEET!	COST	(MILLION \$)
Ĺ	AB ADM	IN O	THER T	OTAL REAL	PROP EQUIP
279 142.	900 8.1	00 0	000 15	1.000 5	.832 12.482

PLANS AND CONDUCTS EXPLORATORY R AND D OF ELECTRONIC MATERIALS, PARTS AND DEVICES ASSEMBLIES AND RELATED DISCIPLINES AND TECHNIQUES APPLICABLE TO EQUIPMENTS AND SYSTEMS. CONDUCTS RESEARCH IN THE PREPARATION, COMPOSITION, STRUCTURE AND PROPERTIES OF ELECTRONIC MATERIALS AND RELATED PHENOMENA.

...CURRENT IMPORTANT PROGRAMS
RESEARCH IN ELECTRONICS, PHYSICS, CHEMISTRY, MATHEMATICS, & NUCLEAR PHYSICS
EXPLORATORY DEVELOPMENT OF FLECTRONIC DEVICES, MATERIALS, TECHNIQUES AND
ASSEMBLIES.R AND D OF BATTERIES, CHARGERS, POWER CONDITIONING, THERMAL ENER
GY AND FUEL CELLS.R AND D OF GENERAL PURPOSE TEST EQUIPMENT FOR ELECTRON
IC SYSTEMS.

FACILITIES ARE AVAILABLE FOR PERFORMING EXPLORATORY RESEARCH IN PHYSICS AND CHEMISTRY OF MATERIALS AND FOR CONDUCTING R AND D ON ELECTRONIC PART S DEVICES, INTEGRATED CIRCUITS AND ASSEMBLIES. LABORATORIES FOR PERFORMING R AND D IN THESE AREAS ARE EQUIPPED WITH THE NORMAL COMPLEMENT OF STOLAB INSTRUMENTATION AND FACILITIES. WORK AREAS INCLUDE FACILITIES FOR THE COMPLETE FABRICATION AND TESTING OF INTEGRATED CIRCUITS AND ASSEMBLIES SEMICONDUCTOR DEVICES, ELECTRON TUBES, DISPLAY, STORAGE AND PICKUP DEVICES. ALSO FOR R AND D IN ALL TYPES OF PRIMARY, SECONDARY AND SPECIAL PURPOSE POWER SOURCES, ELECTRONIC MATERIAL CHARACTERIZATION. FACILITIES ARE AVAILABLE FOR STUDYING THE EFFECTS OF NUCLEAR RADIATION ON ELECTRONIC MATL®S. WORLD WIDE TRACKING STATIONS ARE AVAILABLE FOR STUDYING EFFECTS OF SOLAR RADIATION AND IONOSPHERIC PHENOMENA ON ELECTROMAGNETIC PROPAGATION

C.O. COL JOHN E. WAGNER TECH. DIR. GILBERT G. LORENZ

	PROGR A		AL YEAR (MILLION	\$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		13.256	10.759	
TOTAL PROCURE	MENT	0.000	9-000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.155	0.262	
TOTAL ANNUAL	I AR	13.411	11.021	
TOTAL MINORE	LAU	130411	11.021	
TOTAL INHOUSE		5.800	6.968	
TOTAL INHOUSE	ROTEF	5.645	6.706	
ANNUAL OPERAT		0.551	0.560	
AMMORE OF CHAI	1110 0001	0.551	0.500	
	PERSONNEL D	ATA (END OF F	Y 19721	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	25	71103	12	
	<del>-</del> -	, ,		13
CIVILIAN	265	21	169	96
TOTAL	290	22	181	109
		CE AND PROPERT		
ACRES	SPACE (THOUSAN	IDS OF SQUARE F	EET) COST	(MILLION \$)
	LAB AD	MIN OTHER	TOTAL REAL !	PROP EQUIP
O	55-899 10-	828 3.700		-000 11-477

### ...MISSION

ACCOMPLISHES RESEARCH AND DEVELOPMENT OF SYSTEMS, EQUIPMENT, PROCEDURES AND TECHNIQUES APPLICABLE TO MAPPING, SURVEYING, GEODESY, PHOTO INTER-PRETATION AND ANALYSIS OF ENVIRONMENTAL DATA RELEVANT TO MILITARY OPERATIONS AND MATERIEL DEVELOPMENT.

---CURRENT IMPORTANT PROGRAMS
DEVELOPMENT OF SEMI-AUTOMATIC CARTOGRAPHIC SYSTEM
DEVELOPMENT OF AN ALL-WEATHER RADAR MAPPING SYSTEM
DEVELOPMENT OF MILITARY GEOGRAPHIC INTELLIGENCE CONCEPTS AND SYSTEMS
DEVELOPMENT OF A LONG-RANGE POSITION DETERMINING SYSTEM
DEVELOPMENT OF A POSITION AND AZIMUTH DETERMINING SYSTEM

FUNCTIONS/EQUIPMENT/CAPABILITIES
FACILITIES INCLUDE AN EXPERIMENTAL CARTOGRAPHIC LABORATORY TO STUDY THE PROBLEMS ASSOCIATED WITH HANDLING DIGITAL CARTOGRAPHIC DATA, A PHOTOGRAPHIC PROCESSING LABORATORY TO SUPPORT INVESTIGATIONS OF COLOR PHOTOGRAPHY, A MENSURATION LABORATORY FOR PRECISE MEASUREMENT OF IMAGE COORDINATES REQUIRED IN ANALYSIS OF DATA REDUCTION SYSTEMS, A LASER ROOM WITH FOUR LASERS AND AN AIR SUPPORTED TABLE FOR HOLOGRAPHIC INVESTIGATIONS, AN ELECTRONICS LABORATORY THAT CAN ANALYZE CIRCUITS FROM DC TO 40 GHZ, AND A CHEMISTRY LABORATORY TO SUPPORT ANALYSIS OF THE IMAGE REPRODUCTION PROCESS. COMPUTATIONAL CAPABILITIES INCLUDE A FULL DUPLEX INPUT TO THE NATIONAL BUREAU OF STANDARDS UNIVAC 1108 WITH A PLANNED CHANGE OVER IN 1973 TO THE CDC 6600 AT FORT BELVOIR, VIRGINIA.

DIR. COL ERNEST D. PEIXOTTO TECH. DIR. F.R. BROWN

	PROGRAM D	ATA BY FISCA	L YEAR (MILLION S.	)
PROGRAM		1972	1973	
	( A	CTUAL)	(ACT + EST)	
TOTAL ROTEE		14.451	14.650	
TOTAL PROCUREM	ENT	0.000	0.000	
TOTAL DEM		0.399	0.470	
TOTAL OTHER		10.084	16.707	
TOTAL ANNUAL LA	AB	24.934	31.827	
TOTAL INHOUSE		22.073	26.070	
TOTAL INHOUSE	RDT&E	12.469	11.771	
ANNUAL OPERATION	NG COST	4.109	4.807	
	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOYAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	58	3	42	16
CIVILIAN	1197	36	355	842
TOTAL	1255	39	397	858
	SPACE	AND PROPERTY	,	
ACRES	SPACE (THOUSANDS			MILLION \$)
•		OTHER		OP EQUIP
2009	1391.000 338.596			80 24.852

...MISSION
MILECIV FUNDED ENGR RSCH DEVEINVES IN HYD.ECOLOGY, PERMEEXPEDIENT PAVE—
MENTS, SOIL, CONCRETE, EXPLO WPN EFF, EXPLO EXCAVATION, VEH MOBILITYEENVIRON—
MENT ASPECTS OF MIL OP.CONSULTANT SVCETECH LIBRARY. TECH SURVL OF CEMENT
AND POZZOLAN TEST PROG.SERVES CE, AMC, DNA, AEC, OCD, AF, NAVYEOTHER AGENCIES.

...CURRENT IMPORTANT PROGRAMS
HYDEMATH MODELING TO SOLVE RIVER, TIDAL, WIND-WAVE, ECOLOGICAL & STRUC PROBS.
INVES MEANS OF AGUIRING TERRAIN DATA BY USE OF VARIOUS SENSING DEVICES.
NUCEHE RSCH TO DEV CRITERIA FOR ED OF PROTECTIVE STRUC BOTH UGNDEUNTR.
RSCH, DEVEFORMULATION OF NEWEIMP ENG CRITERIA ON ROADS, STORAGE AREAS, AIRFIELDSEHELIPORTS. INVES OF CEMENTITIOUS MATERSCH OF MASSESTRUC CONCRETE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CDT RDT&E FOR MANY SPONSORS, PERF GEN INVES IN FLD OF HYD, SOIL MECH, CONCRETE, MOBILITY OF MIL VEH, EXPLO EFF, ECGLOGY, EXPLO EXCAVATION& PAVEMENTS.
THRU BR& APPLIED RSCH IN THESE FLD&RLT FLD, THE DEV OF METHODS& TECHNIQUES
AND THE TESTING OF MAT& EQUIP, ASST IN A \_\_OMPMT OF THE CIV WORKS & MIL MSN
OF CE.WES RESERVATION ONTO BLOGS, TEST SITES, SPECL EQUIP& OTHER PLANT FAC.
TEST SITES& FAC FOR SP PURPOSES ARE MAINT IN OTHER AREAS ON PERM OR TEMP
BASIS. FAC INCL FLUMES OF DIFF TYPES& SIZES, WAVE& TIDE GENR MACH, DRILL
EQUIP, FULLY EQUIPED SOILS LAB, X-RAY DIFFRACTION AND SPECTROSCOPY APPAR,
FULLY EQUIPED CONCRETE LAB, LARGE & SMALL BLAST LOAD GENERATOR, 200K DYNAMIC
LOADER, MOBILITY TEST CARTS, SINGLE& MULTIPLE WHEEL LOAD CARTS FOR TFC, SUR
EFF BLAST FAC, HIGH&LOW FREQ VIBRATORS, ELECTRON MICROSCOPE, PHYS TREATMENT
LAB, CALBR LAB, ELCT LAB, LARGE SCALE CMPT FAC& A TECHNICAL LIBRARY.

PRES. COL ROBERT T. BLAKE

	PROGRA	M DATA BY FISCA	AL YEAR (MILLION \$1	
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		1.466	1.550	
TOTAL PROCUREM	ENT	0.054	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		3.254	3.400	
TOTAL ANNUAL LA	AB	4.774	4.950	
TOTAL INHOUSE		4.682	4.818	
TOTAL INHOUSE I	RDT&E	1.424	1.418	
ANNUAL OPERATIO	NG COST	0.250	0.283	
	PERSONNEL D	ATA (END OF F	( 1972)	
PEPSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	388	0	103	285
CIVILIAN	43	0	1	42
TOTAL	431	0	104	327
	SPA	CE AND PROPERTY	1	
ACRES	SPACE (THOUSAN	DS OF SQUARE FI	EET) COST (!	ILLION \$)
	LAB AD	MIN OTHER	TOTAL REAL PRO	OP EQUIP
23	26.286 47.	135 56.138	129.559 3.3	

...MISSION
PLAN CONDUCT AND REPORT ON ST AND CK OF FA MAT PARTICIPATE IN ET IPT
AND PI AS DIR ADVISE PROPONENT AGENCIES AND MAT DEVELOPERS DURING
DEVELOPMENT OF FA MAT FROM DATA AND INFO DERIVED FROM TEST EXPERIENCE
CONDUCT OTHER TESTS AND EVAL AS DIRECTED BY CG TECOM

...CURRENT IMPORTANT PROGRAMS
EXPANDED SERVICE TEST TACFIRE
EXPANDED SERVICE TEST LANCE MISSILE SYSTEM AND XM234 WARHEAD SECTION
EXPANDED SERVICE TEST XM198 HOW
EXPANDED SERVICE TEST MET DATA SOUNDING SYSTEM
EXPANDED SERVICE TEST M110E2 HOW

...FUNCTIONS/EQUIPMENT/CAPABILITIES
THREE 105MM HOW TWO 155MM HOW ONE 8IN HOW/175MM GUN ONE AN MPQ4 RADAR
ONE MET STATION AND MAINTENANCE AND EVALUATION FACILITIES TO DO UP TO
GS MAINT ON TEST ITEMS ADDITIONAL SUPPORT WHEN NEEDED IS OBTAINED
FROM USAFACES

C.C. COL JAMES L. WALLACE TECH. DIR. DR., SIDNEY ROSS

	PRO			AL YEAR (MI	LLION \$)	
PROGRAM			972	1973		
		( ACT	UAL)	(ACT + EST	· )	
TOTAL ROTGE			32.246	21.0	27	
TOTAL PROCURE	EMENT		3.026	9.0	28	
M3O JATOT			0.000	0.0	00	
TOTAL OTHER			0.083	0.0	57	
TOTAL ANNUAL	LAB		35.355	30 • 1	.12	
TOTAL INHOUSE			26.244	24.8	27	
TOTAL INHOUSE	E RDT&E		23.135	15.7	42	
ANNUAL OPERAT	TING COST		4.534	4.6	68	
	PERSONNE	L DATA	(FND OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	ላፐዐፕ	i <b>L</b>	NON-
	STRENGTH		PHDS	PRO	)F	PROF
MILITARY	31		2	22	•	9
CIVILIAN	1609		38	724	•	885
TOTAL	1640		40	746	•	894
		SPACE AN	D PROPERT	Y		
ACRES	SPACE (THOU	SANDS UF	SQUARE F	EET)	COST (MIL	LION \$1
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
43	558.000 1	34.000	557.000	1249-000	0.970	8 - 891

---MISSION
COMMODITY CENTER SMALL CAL AMMO, PROPELL ACT DEVICES, MULTIPURP TEST EQ,
FIRE CONTROL EQUIP, NON-FERR METALS, MATERIAL DEGRAD, MYCOLOGY, POWER TRANS
FLUIDS, SYNTH LUBS, PROPELLANTS, FXPLOS, PYROTECH, LASER COUNTERMEASURES,
R&D TFACER, AMMO DESIGN, DEVELOP ARTY METAL PARTS, MECH TIME FUZE.

---CURRENT IMPORTANT PROGRAMS
ARMY SMALL CALIBER AMMUNITION RESEARCH AND ENGINEERING PROGRAM,
SMALL CALIBER AMMUNITION MODERNIZATION PROGRAM,
FIRE CONTROL FOR- AIRCRAFT, ANTIAIRCRAFT, ARTILLERY, COMBAT VEHICLES,
TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT,
LASER COUNTERMEASURES AND PROTECTION RESEARCH AND EXPLORATORY DEVL.

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
RAPID SCAN SPECTROPHOTOMETER, PILOT PLANT TRACER LOADING FACILITY, OPTICAL
LAB&DESIGN FACILITY SHOP, LASER TEST FACILITY, SOLID STATE PHYSICS LAB,
ELECTRON MICROSCOPE, CRYSTAL GROWING EQUIP, ELECTRON BEAM VACUUM FILM DEPOSITION EQUIP, DYNAMIC PHOTOELASTIC STRESS ANALYSIS EQUIP, AIR GUN FACIL—
ITY, SPACE&ATMOSPHERIC SIMULATOR, CDC BATCH TERMINALS, HYDPAUL&MECH POWDER
MOLD EQUIP, VAC—ARC MELTING FURNACES, MICROSCAN X—RAY ANALYZER, RADIO—ISO—
TOPE LAB, MICROBIOLOGY LAB, TROPICAL CLIMATE ROOM, EPR SPECTROMETER, DIFF
SCAN CALORIMETER, PROPELLANT PROCESSING LAB, SPECIAL EQUIP FOR IGNITION &
PYRCTECH R&D, 15 FIRING RANGES, AIRBORNE FIRE CONTROL TEST EQ, 4 PADS FOR
POINT FUZE DETONATION, BALLISTIC MEAS EQUIP, DOPPLER RADAR SPECTRA PHOTO—
METER, K—BAND MICROWAVE INTERFEROMETER, MICROWAVE ANAECHOIC CHAMBER, AUTO—
MATIC CHECK—OUT EQUIP&LAB, HOLOGRAPHIC EQUIP, VERTICAL TEST TOWERS.

C.O. COL DAVID W. EINSEL TECH. DIR. BILLY M. HORTON

	PRO			AL YEAR (M)	(LLION \$)	
PROGRAM			972	1973		
		( ACT	UAL)	(ACT + EST	T)	
TOTAL KDIEE			45.986	42 • 8	306	
TOTAL PROCURE	MENT		19.810	16-5	66	
TOTAL UEM			11.412	13.3	55	
TOTAL OTHER			0.575	0.3	364	
TOTAL ANNUAL	LAB		77.783	73.0		
TOTAL INHOUSE			40.845	28.7	773	
TOTAL INHOUSE	RDT&E		33.530	25 • 4	62	
ANNUAL OPERAT	ING COST		10.430	11-0	)44	
	PERSONNE	L DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTA	AL.	NON-
	STRENGTH		PHDS	PRO	)F	PROF
MILITARY	9		1		•	3
CIVILIAN	1505		61	533	3	972
TOTAL	1514		62	539	•	975
		SPACE AN	D PROPERT	Y		
ACRES	SPACE (THO!	JSANDS OF	SQUARE F	EET)	COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2770	281.602	46.119	54.154	381.875	11.874	23.299

...MISSION
PROX FUZES FOR NUCLEAR ARTILLERY & MISSILES & FOR AIR TARGETS & MULTI.
OPTION FUZE FOR MORTARS/NUCLEAR EM PULSE & TRANSIENT RADIATION EFFECTS/
WEAPONRY & PERSONNEL DETECTION RADARS/FLUERICS/ELECT COMPONENT RELIABILI
TY & AUTOMATED PRODUCTION & TELEMETRY & ECCM\*

...CURRENT IMPORTANT PROGRAMS
RD&E ON ELECTRONIC FUZING INCL PROXIMITY & TIME & COMMAND & MULTIOPTION/
LEAD LAB FOR NUCLEAR WEAPONS EFFECTS & FLUIDICS/WEAPON SYS ANALYSIS &
SYNTHESIS/INSTRUMENTATION & ENVIRONMENTAL SIMULATION/RESEARCH IN BASIC
ELECT & ENERGY CONVERSION & RADIATION PHYSICS & FLUIDICS & ELECTRO—
OPTICS & BASIC SCIENCES\*

...FUNCTIONS/EQUIPMENT/CAPABILITIES
SIMULATORS TO DETERMINE SUSCEPTIBILITY OF WEAPON SYSTEMS TO NUCLEAR
WEAPONS EFFECTS & TO ESTABLISH HARDENED DESIGNS/PULSED NUCLEAR REACTOR &
HIGH INTENSITY X RAY /AN EXTREMELY LARGE DOSE & VOLUME GAMMA RAY
GENERATOR AURORA & BICONIC ELECTROMAGNETIC PULSE EMP DEVICE & LARGE
TRANSPORTABLE EMP SIMULATOR TEMPS FOR HIGH ALTITUDE & THREAT LEVEL
ENVIRONMENT SIMULATION/ARTILLERY SIMULATOR TO EVALUATE EFFECTS OF FIRING
FORCES/LATITUDE MAGNETIC SIMULATOR FOR ANTITANK SIGNATURE ANALYSIS/INFRA
RED DARK TUNNEL/ANTENNA TEST RANGE/RADAR TEST SITE/ HIGH PRESSURE SHOCK
TUBES FOR STUDY OF HIGH TEMP GASES/ MERCURY ARC PLASMA TUBE & OPTICAL &
SPECTROSCOPIC EQUIPMENT\*

CANAL THE WAR THE WAS THE AREA OF THE SECOND

DIR. DR. JOHN D. WEISZ EXEC. LTC RICHARD D. KAVANAUGH

PROGRAM	ROGRAM DATA BY FISCAL 1972 (ACTUAL) (A	YEAR (MILLION \$) 1973 CT + EST)
TOTAL ROTGE TOTAL PROCUREMENT TOTAL OGM TOTAL OTHER TOTAL ANNUAL LAB	3.208 0.071 0.056 0.294 3.629	3.330 0.000 0.036 0.305 3.671
TOTAL INHOUSE TUTAL INHOUSE ROTEE ANNUAL OPERATING COST	3.253 2.832 1.330	3.343 3.002 1.379

	PERSONNEL DATA	LEND OF FY	1972)	
PERSONNEL	AUTHORÍZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY .	30	1	19	11
CIVILIAN	100	10	53	47
TOTAL	130	11	72	58

46056	55465 4745		PROPERTY		COST /HTLL	704 43
ACRES	SPACE (THU	USANOS UF	SQUARE FEI	E ( )	COST (MILL	TON 2)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	26.500	17-605	28.953	73.058	0.709	2.600

CONDUCT BASIC AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING DEVELOP NEW HUMAN FACTORS ENGINEERING METHODOLOGY ESTAB AND OPERATE A MPR CHARACTERISTICS DATA BANK INTER ALL MPR CHARACTERISTICS INTO ARMY MAT DEVELOPMENT PROGRAM

...CURRENT IMPORTANT PROGRAMS
HUMAN ENGR LAB ARMOR SYSTEMS TESTS, HELAST
COMBAT-LIKE PSYCHOLOGICAL STRESS EFFECTS
SHORT RANGE MANPORTABLE ANTITANK WEAPON TECHNOLOGY
HUMAN FACTORS ENGR IN SPT OF AIR MOBILITY
NOISE ABATEMENT

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
FIXD WING FLIGHT SIMULATORS
HELICOPTER SIMULATORS - WHIRLYMITE
COMMAND AND CONTROL INFORMATION HANDLING SIMULATORS
ANECHOIC CHAMBER
PHYSIOLOGY LABORATORY WITH INSTRUMENTATION
SMALL ARMS TEST FIRING RANGE
ANIMAL SURGICAL FACILITY
NOISE MEASURMENT AND ANALYSIS INSTRUMENTATION
WOOD AND METAL WORKING TEST SUPPORT CAPABILITY
BODY ARMOR TEST SITE
CENTRAL NERVOUS SYSTEM OUTPUT RECORDING INSTRUMENTATION
HUMAN PERFORMANCE DATA BANK

THE RELEASE COURS OF A SALESMAN SALESMAN AS A SALESMAN SALESMAN OF A SALESMAN SALESMAN AND A SALESMAN AS A SALESMA

## PRES. COL WALTER E. MEINZEN

PROGRAM	PROGRAM DATA BY	FISCAL YEAR (MI	LLION \$)
PRUGRAM	(ACTUAL)		• •
TOTAL RDT&E	· ·	· · - · · · - · · · - · · · - · · · · - ·	-
	1.2		<del>,</del>
TOTAL PROCUREMENT	0.0		
TOTAL DEM	0.0		= =
TOTAL OTHER	1.4		103
TOTAL ANNUAL LAB	2.7	46 3.1	.99
TOTAL INHOUSE	2.6	31 3.1	153
TOTAL INHOUSE RDT&E	1.1	79 1.2	250
ANNUAL OPERATING COST	0.1	85 0.1	. 85
PER	SONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHOR			AL NON-
STRE	NGTH PH	DS PRO	PROF
MILITARY	184	0 22	2 162
CIVILIAN	55	0 2	53
TOTAL	239	0 24	215
	SPACE AND PR	OPERTY	
ACRES SPACE	(THOUSANDS OF SQU		COST (MILLION \$)
LA		THER TOTAL	REAL PROP EQUIP
14959 0.0		<b>.</b> 576 78 <b>.</b> 629	0.500 0.360

---MISSION
PLAN CONDUCT & REPORT YESTS RELATED TO SUITABILITY OF EQUIP FOR ARMY USE
PERFORM CUSTOMER TESTS TO EXPEDITE DEVELOPMENT & PROCUREMENT TEST PRGS
CONTROL PROGRAM ON TEST METHODOLOGY INSTRUMENTATION AND FACILITIES
PROVIDE ACVICE TO DEVELOPERS DURING THEIR DEVELOPMENT OF INFANTRY EQUIP

...CURRENT IMPORTANT PROGRAMS
EXPANDED SERVICE TEST MEDIUM ANTITANK ASSAULT WEAPON XM47 URAGON
STUDY TO IMPROVE TEST METHODOLOGY AND DEVELOPE INSTR TEST FACILITIES
SERVICE TESTS OF NIGHT VISION SIGHTS ANPVS-4
DESERT CLOTHING SYSTEM
SERVICE TEST LIGHT WEIGHT LOADCARRYING EQUIPMENT

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
SERVICE TEST EQUIP & ANCILLARY ITEMS USED BY INF FOR FIRE POWER TARGET
ACQUISITION GROUND SURVEILLANCE FIRE CONTROL & GROUND MOBILITY FIELD
CLOTHING EQUIP & RATIONS AP MINES CB EQUIP FOR INDIVIDUALS & SMALL UNITS
AIRBORNE TEST OF EQUIP WORN OR CARRIED BY PARACHUTISTS WHILE JUMPING
PROVIDE REPRESENTATION FOR IN-PROCESS REVIEWS
ASSIST IN PREPARATION OF AND REVIEW MATERIEL NEEDS
PLAN DIRECT AND CONTROL PROGRAM IN TEST METHODOLOGY & INSTRUMENTATION
EVALUATE & MAKE RECOMMENDATIONS CONCERNING SUITABILITY AND SAFETY OF
TEST ITEMS FOR OPERATIONAL USE
KNOWN DISTANCE SMALL ARMS RANGE MORTAR RANGE & INSTRUMENTED ANTITANK
RANGE DEFENSE RANGE ATTACK RANGE & QUICK FIRE RANGE CLIMATIC CHAMBER
CLIMATIC CHAMBER

E PER SANGE WEST PROPERTY AND ASSESSED.

#### C.O. BG SURINDAR N. BHASKAR

PROGRAM	PROGRAM DATA BY FISCAL 1972	YEAR (MILLION \$) 1973
	(ACTUAL) (/	ACT + EST)
TOTAL RDT&E	0.715	0.866
TOTAL PROCUREMENT	0.000	0.000
TOTAL OGM	0.048	0.061
TOTAL OTHER	0.621	0.708
TOTAL ANNUAL LAB	1.384	1-635
TOTAL INHOUSE	1.384	1.635
TOTAL INHOUSE ROTEE	0.715	0.866
ANNUAL OPERATING COST	0.112	0.127
DEDC	ONNEL DATA LEND OF EV	10701

	PERSONNEL DATA	(END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	56	10	30	26
CIVILIAN	25	1.	9	16
TOTAL	81	11	39	42

ACRES	SPACE (THO		D PROPERTY Square fee	T)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER		REAL PROP	EQUIP
0	7.711	4.722	1.425	13.858	0.000	0.670

...MISSION
CONDUCT CLINICAL INVESTIGATIONS AND RESEARCH IN ETIDLOGY, CONTROL AND PREVENTION OF DRAL DISEASE. DEVELOP SIMPLIFIED TECHNIQUES OF EFFECTIVE TREATMENT INCLUDING MAXILLOFACIAL INJURIES. INVESTIGATE PROPERTIES AND USES OF DENTAL MATERIALS. CONDUCT DENT EDUCATION AND TRAINING PROGRAMS.

...CURRENT IMPORTANT PROGRAMS WATER LAVAGE.
RESTORATIVE MATERIALS.
NITINOL.
ELECTRO-AJESTHESIA.
BIODEGR\*JEABLE MATERIALS.

\*\*\* FUNCTIONS / EQUIPMENT/CAPABILITIES
MAJOR EQUIPMENT INCLUDES ELECTRON MICROSCOPES, STRESS/FATIQUE TESTING
EQUIPMENT, SPECTROPHOTOMETER, SCINTILLATION COUNTER, LYOPHILIZERS, GAS
CHROMOTOGRAPH, CRYOSTAT, GRYOSURGERY UNIT, DENTAL OPERATING EQUIPMENT,
ULTRACENTRIFUGE, MULTI CHANNEL PHYSIOLOGIC RECORDERS, THERMAL ANALYSIS
SYSTEM, MICROS TOOLMAKER, MICROSCOPES AND STERILIZERS. CAPABILITIES
INCLUDE FULL SPECTRUM BIOCHEMISTRY, HISTOLOGIC, PATHOLOGIC, MICROBIOLOGIC AND ELECTRON MICROSCOPY LABORATORIES, EXTENSIVE METALLURGICAL
AND MATERIALS TESTING LABORATORY, ANIMAL SURGERY, DENTAL RESEARCH, AND
EDUCATION.

C.O. COL BASIL A. PRUITT, JR. TECH. DIR. ARTHUR D. MASON

	PRO	GRAM DATA	BY FISC	AL YEAR (M	ILLION \$)	
PROGRAM		19	72	1973	1	
•		( ACTU	AL)	(ACT + ES	T)	
TOTAL ROTEE			1.435	1.	633	
TOTAL PROCURE	MENT		0.000	0.	000	
TOTAL OSM			0.000	0.	000	
TOTAL OTHER			1.364	1.	534	
TOTAL ANNUAL	LAB		2.799	3.	167	
TOTAL INHOUSE			2.799	3.	167	
TOTAL INHOUSE	RDT&E		1.435	1.	633	
ANNUAL SPERAT	ING COST		0-105	0.	120	
•	PERSONNE	L DATA (	END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOT	'AL	NON-
	STRENGTH		PHDS	PR	OF .	PROF
MILITARY	127		20	4	2	85
CIVILIAN	79		3	2	0	59
TOTAL	206		23	6	2	144
		SPACE AND				
ACRES	SPACE (THOU		SQUARE F	EET)	COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	25.424	0.800	19.000	45-224	1.968	0.968

CONDUCT BOTH CLINICAL AND LABORATORY STUDIES IN TREATMENT OF THERMAL AND TRAUMATIC INJURIES. PROVIDE CARE FOR PATIENTS WITH THESE TYPES OF INJURIES. TRAIN OTHERS IN THE CARE OF SUCH PATIENTS.

... CURRENT IMPORTANT PROGRAMS STUDY OF POST BURN HEMODYNAMIC AND PULMONARY CHANGES. CLINICAL AND LABORATORY STUDIES OF INFECTION IN BURN PATIENTS.
STUDY OF ACUTE RENAL FAILURE AND RENAL PHYSIOLOGY.
STUDY OF POST BURN HEMATOLOGY AND IMMUNOLOGY. METABOLIC CHANGES FOLLOWING BURNS AND EFFECTS OF HYPERALIMENTATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
OPERATES 60 BEDS FOR SERIOUSLY BURNED AND INJURED PATIENTS. PROVIDES CLINICAL LABORATORY SUPPORT AND RESEARCH CAPABILITIES IN THE FIELDS OF PATHOLOGY, ELECTRON MICROSCOPY, MICROBIOLOGY, EXPERIMENTAL SURGERY, RENAL PHYSIOLOGY AND BIOCHEMSTRY. MAINTAINS AN ANIMAL COLONY, ELECTRONIC SHOP, MACHINE SHOP, SURGICAL LIBRARY, AND A METABOLIC CHAMBER.

C.O. COL R.L. CLARKSON TECH. DIR. DR. R.D. SHELTON

PROGRAM		1972	1973	•
FROORAM		(ACTUAL)	(ACT + EST)	
TOTAL ROTEE		8.551	6.300	
	ACAIT			
TOTAL PROCURE	TENT	0.000	0.000	
TOTAL OEM		0.038	0.000	
TOTAL OTHER	•	0-264	0.238	
TOTAL ANNUAL L	.AB \(\)	8.853	6.538	
TOTAL INHOUSE	•	5.262	4.673	
TOTAL INHOUSE	ROTEE	4.996	4.435	
ANNUAL OPERATI		2.355	2.390	
ANNOAL OFERALL	ING COST	2.333	2.370	
	PERSONNEL	DATA (END OF	FY 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHD\$	PROF	PROF
MILITARY	16	0	14	2
CIVILIAN	111	3	55	56
TOTAL	127	3 3	69	58
TOTAL		•	0,	30
	SP	ACE AND PROPER	TY	
ACRES	SPACE (THOUSA	NDS OF SQUARE	FEET) COST (	MILLION \$)
		DMIN OTHER	·	
80		.655 12.628		

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

...MISSION
TO PROVIDE A CENTRALIZED QUICK REACTION RESEARCH AND DEVELOPMENT
FACILITY FOR ACCOMPLISHING DEVELOPMENT OF SPECIALIZED MILITARY ITEMS
AND FOR THE GENERATION OF NEW IDEAS FOR SUCH MATERIAL

...CURRENT IMPORTANT PROGRAMS
TACTICAL CAMOUFLAGE AND CONCEALMENT
HARDWARE IN SUPPORT OF ARCTIC OPERATIONS
CONTROL OF DRUGS AND CIVIL DISTURBANCE
TARGET DETECTION AND LOCATION
SURVIVAL AND IMPROVED COMBAT EFFECTIVENESS OF THE INDIVIDUAL

THE USALWL PROVIDES RESEARCH AND DEVELOPMENT ASSISTANCE TO SOLUTION OF FIELD PROBLEMS IN ALL THEATERS AND IN ALL CLIMATES AND GEOGRAPHIES. THE LABORATORY CAPABILITY COVERS ALL MAJOR SCIENTIFIC AREAS. WITH 69 PROFESSIONAL PERSONNEL THE ORGANIZATION CONTAINS 7 SMALL WELL-EQUIPPED WORKING LABS IN COMMUNICATIONS/ELECTRONICS, MUNITIONS, MOBILITY, ENVIRONMENT AND SURVIVAL, APPLIED CHEMISTRY, APPLIED PHYSICS AND BIOLOGICAL SCIENCES. FURTHER, THE LABORATORY HAS INHOUSE DESIGN AND PROTOTYPE FABRICATION CAPABILITY IN METALS AND WOOD. THE ORGANIZATION IS ASSIGNED AN CIGHTY ACRE TEST FACILITY FOR DEVELOPMENTAL TESTING OF PERTINENT ITEMS AND IS LOCATED AT ABERDEEN PROVING GROUND, MARYLAND WHERE MANY MAJOR TESTING FACILITIES ARE READILY AVAILABLE.

PRESIDIO, S.F., CAL.

INSTALLATION LETTERMAN ARMY INSTITUTE OF RESEARCH

C.O. COL WILLIAM A. AKERS TECH. DIR. DR. JAMES R. NEVILLE

	PRO	GRAM DATA	BY FISC	AL YEAR (MI	LLION \$)	
PROGRAM		197	2	1973		
		( ACTUA	L)	(ACT + EST	)	
TOTAL ROTGE		0	.704	0.7	27	
TOTAL PROCURS	MENT	0	.000	0.0	00	
TOTAL OEM		0	.000	0.0	00	
TOTAL OTHER		11	.256	12.4	26	
TOTAL ANNUAL	LAB	11	-960	13.1	53	
TOTAL INHOUSE	•	1	•462	1.7	06	
TOTAL INHOUSE	RDT&E	O	.704	0.7	27	
ANNUAL OPERAT	ING COST	o	-296	0.2	78	
	PERSONNE	L DATA (E	NO OF F	Y 1972)		
PERSONNEL	AUTHORIZED	- τ	OTAL	TOTA	L	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	90		19	50	l	40
CIVILIAN	20		2	10	1	10
TOTAL	110		21	60	1	50
		SPACE AND	PROPERT	Y		
ACRES	SPACE (THOU	ISANDS OF S	QUARE F	EET)	COST (MIL	LIGN \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	60102	8-900	0.000	69.002	0.467	2-670

CONDUCTS RESEARCH IN THE FIELDS OF MEDICINE AND DENTISTRY. GUIDES, CO-DRDINATES AND SUPPORTS RESEARCH PROJECTS OF STAFF MEMBERS OF LETTERMAN GENERAL HOSPIYAL. SUPPORTS RESEARCH IN HOSPITALS AT CLASS I INSTALLA-TIONS. MONITORS OTHER RESEARCH AS DIRECTED BY CG, USAMRDC.

...CURRENT IMPORTANT PROGRAMS
ASSULTS AGANIST HUMAN SKIN BY WATER, HEAT, HUMIDITY, FRICTION, INSECTS, BACTERIA, FUNGI, ALONE AND IN COMBINATION. SURVEY OF MAXILLOFACIAL INJURIES, EARLY RESTORATION OF ORAL INTEGRITY, BONE REPAIR, BACTERMIA, HEMORRHAGIC SHOCK. TEST COMPOUNDED RADIO-PHARMACEUTICALS.

LABORATORIES EQUIPPED FOR CUTANEOUS AND ORAL BACTERIOLOGY, BIOCHEMISTRY, BLOOD GAS ANALYSIS, CHROMATOGRAPHY, ENZYMOLOGY, HEMATOLOGY, HISTOLOGY, IMMUNOLOGY, MYCOLOGY, NUCLEAR PHARMACY, ANIMAL PHYSIOLOGY, AND ISOTOPIC SCANNING. THIRTY MILITARY VOLUNTEERS ARE USED IN STUDIES OF DELAYED HYPERSENSITIVITY, FRICTION BLISTERS, FUNGAL SKIN INFECTIONS, MOSQUITO REPELLENTS, PROLONGED WARM WATER IMMERSION AND PRICKLY HEAT RASH. MAINTAIN BREEDING COLONY OF MOEN-CHASE GUINEA PIGS FOR CUTANEOUS DELAYED HYPERSENSITIVITY. BONE GRAFTING, REPAIR, AND HEALING STUDIES EMPLOY ANGER SCINTILLATION CAMERA, PHYSICAL METHODS AND HISTOLOGY. RADIOIMMUNO-ASSAYS OF ANGIOTEMSIN I AND III AND RENIN IN CLINICAL USE. DXYHEMOGLOBIN DISSOCIATION VALUES OBTAINABLE IN FIVE MINUTES USING 0.5 MIL BLOOD AND NOW BEING EVALUATED IN MAN.

CALL STATE OF THE WAY OF THE STATE OF THE ST

WATERTOWN, MASS.

INSTALLATION MATERIALS AND MECHANICS RESEARCH CENTER

C.O. LTC R.B. HENRY DIR. DR. A.E. GORUM

PROGRAM	PROGRAM DATA BY FISCA 1972 (ACTUAL)	L YEAR (MILLION \$) 1973 (ACT + EST)
TOTAL ROTGE TOTAL PROCUREMENT TOTAL OEM TOTAL OTHER TOTAL ANNUAL LAB	27.293 4.534 1.655 0.000 33.682	19.475 4.715 2.189 0.000 26.379
TOTAL INHOUSE ROTEE ANNUAL OPERATING COST	15.257 13.173 5.984	13.233 10.527 6.240

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	10	5	10	0
CIVILIAN	607	65	219	388
TOTAL	617	70	229	388

		SPACE AN	D PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FE	ET)	COST (MILI	ION \$)
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
48	381.778	89.394	203.880	675-052	14.247	11-417

MANAGE AMC RED STRUC MAT & MECH PROG AS LEAD LAB FOR MAT, SOLID MECH & TESTING TECHNOLOGY.COT TECHNOLOGICAL PROG IN MAT & MECH USED IN ARMY MATERIEL, EXEC PROG IN DWN FAC & BY ASSIGNMENT & FUND TRF TO OTHER AMC LABS & CONTRACTORS.

...CURRENT IMPORTANT PROGRAMS
R&D PROGRAMS FOR IMPROVED MATERIAL - ARMOR
R&D PROGRAMS FOR IMPROVED MATERIAL - ABM HARDENING
R&D PROGRAMS FOR IMPROVED MATERIAL - AIRCRAFT
R&D PROGRAMS FOR IMPROVED MATERIAL - MATERIALS-PROCESSING & EVALUATION
R&D PROGRAMS FOR IMPROVED MATERIAL - ARMAMENTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MANAGE AMC R&D PROG IN MATERIALS & MECHANICS & CONDUCT TECH PROGS IN MATERIALS SYSTEMS & MECHANICS DIRECTED TO ARMY MATERIEL.MANAGE DOD PROG AS
EXECUTIVE AGENT-ARMOR TECHNOLOGY.MANAGE & CONDUCT INTEGRATED & DIRECTED
BASIC & APPLIED RES ON MATERIALS SUCH AS METALS, CERAMICS, ORGANIC & INORGANIC POLYMERS & COMPOSITES.MANAGE & CONDUCT THEORETICAL & APPLIED
STUDIES ON MECH OF MATLS & SYSTEMS, IDENTIFY & INVES BASIC FACTORS INVOLVED IN PROC & APPL OF NEW & IMPROVED MATLS. TECH MANAGE FIVE INFO ANAL
CEN.ASST IN DESIGN & DEV OF PROTOTYPES. DEV METHODS FOR TEST & EVAL OF
MATS & STRUCTURES.MANAGE ARMY PORTION DEFENSE STANDARDIZATION PROG.CONDUCT ENGINEERING STANDARDIZATION EFFORT. MANAGE AMC, MATERIALSTESTING PROG
.CONDUCT PEMA MANUFACTURING METHODS & TECHNOLOGY PROGRAMS & ADVISE
COMMAND & INDUSTRY ON PROCESSING TECHNIQUES.

Medicality of the sold of the

8.700

DIR. DR. JOSEPH SPERRAZZA ASSOC. DIR. WALLACE H. HARRIS

	PRUGRAM	DAIA BY LTD	PAT AFRK (WIFFIN	<b>&gt;</b> 1
PROGRAM		1972	1973	
	(	ACTUAL)	(ACT + EST)	
TOTAL ROTEE		14.044	11.262	
TOTAL PROCUR	EMENT	0.000	0.000	
TOTAL DAM		1.525	1.785	
TOTAL OTHER		0.000	0.000	
TOTAL ANNUAL	LAB	15.569	13.047	
TOTAL INHOUS	E	8.455	8.250	
TOTAL INHOUS	E ROTEE	7.512	7.262	
ANNUAL OPERA	TING COST	1.845	1.674	
	PERSONNEL DAT	A (END OF	FY 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	13	0	13	0
CIVILIAN	314	7	238	76
TOTAL	327	7	251	76
	SPACE	AND PROPER	TY	
ACRES	SPACE (THOUSANDS	OF SQUARE	FEET) COST	(MILLION \$)
	LAB ADMI	N OTHER	TOTAL REAL	PROP EQUIP

DODCDAM DATA BY STECAL VEAD (MILLION 4)

TO PROVIDE THE CENTRAL TECHNICAL GAPABILITY OF AMC FOR THE CONDUCT OF MAJOR SYSTEMS ANALYSES OF PROPOSED AND EXISTING ARMY WEAPONS/MATERIEL SYSTEMS SERVES AS THE AMC FIELD AGENCY TO ADMINISTER THE JOINT TECHNICAL COORDINATING GROUP FOR MUNITIONS EFFECTIVENESS PROGRAM

3.000

48.200

1.773

0.360

...CURRENT IMPORTANT PROGRAMS
SYSTEMS ANALYSIS OF GROUND WEAPONS SYSTEMS
SYSTEMS ANALYSIS OF AIR WARFARE SYSTEMS
SYSTEMS ANALYSIS OF COMBAT SUPPORT SYSTEMS
SYSTEMS ANALYSIS OF RELIABILITY AVAILABILITY AND MAINTAINABILITY
COORDINATION OF JOINT MUNITIONS EFFECTIVENESS

36.500

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

C.O. COL WALTER R. HARRIS TECH. DIR. R.P. WITT

PROGRAM	PROGRAM DATA BY FISC	1973
	(ACTUAL)	(ACT + EST)
TOTAL ROTGE	8.770	8.433
TOTAL PROCUREMENT	15.876	15.264
TOTAL DEM	0.915	0.887
TOTAL OTHER	0.953	0.861
TOTAL ANNUAL LAB	26.514	25.445
TOTAL INHOUSE	25.908	24.885
TOTAL INHOUSE ROTEE	8.604	8.273
ANNUAL OPERATING COST	14.881	14.234
PERS	DNNEL DATA (END OF F	Y 1973)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	99	0	61	38
CIVILIAN	9 <b>79</b>	1	171	808
TOTAL	1078	1	232	846

ACRES	SPACE (TH	OUSANDS OF	SOUARE F	•	COST (MIL	LION \$1
	L AB	ALMIN	OTHER		REAL PROP	EGUIP
<b>67750</b>	1220.000	424.000	905.000	2549.000	227.000	82.000

PLAN CDT & REPT TESTS OF WPNS WPN SYS RKTS & GM SYS FIRE CON SURV & TGT ACQ EQUIP ITEMS OF AMMO & MUN COMPONENTS CBT VEHS OTHER AUTO MAT GEN EQUIP SUCH AS GENERATORS & AIR CONDS PROC INSP STORE & ISSUE ARMOR PLATE FOR ALL USAMC AMMO TESTING PROV R&D ADVICE TO PROPONENT AGCYS & DEVELOP-

---CURRENT IMPORTANT PROGRAMS
ENGR TEST FUZE MINE AT XM616
FATIGUE CORRELATION TEST CANNON 105MM GUN M68
ENGR DESIGN TEST TRUCKS CARGO/AMBULANCE 11/4T XM705/XM737
PROD 1MP TEST 105MM M392 APDS-T WITH REDUCING LINER
FEAS OF MEAS GENERATOR PERFORMANCE CHARACTERISTICS WITH A COMPUTER

...FUNCTIONS/EQUIPMENT/CAPABILITIES ERS DURING DEVELOPMENT STAGE

TEST AREA 68700 ACRES RANGE TO LAND IMPACT 26000 M RANGE TO WATER IMPACT 30000 M 41 M1 OF AUTHV CRS INCL 27 SP ENGR TEST CRS & OBSTACLES VARIETY CF ENVIR OR COND EQUIP SP CHAMBERS FOR SUBJECTING EQUIP TO DUST SALT SPRAY OR SOLAR RADN ISOLATED VIBRATION TEST FAC WHICH PERMITS SHAKING EXPLO EQUIP SIMULTANEOUSLY WITH TEMP CONDITIONING FAC FOR CONTROLLED TESTS OF ELEC CON & GUIDANCE EQUIP FREQ SOURCE WHICH PERMITS TESTING ALL TYPES OF MAT IN PRESENCE OF A HIGH INTENSITY ELEC MAGNETIC RADN SP FAC FOR TEST OF ARMOR PLATE SP VEL & TGT EQUIP IS AVAL FOR OBSERVATIONS DURING RAPID FIRE AS IS A RKT TRACK FOR CONTROLLED TERMINAL BALLISTIC TESTS FAC AVAIL FOR TESTS OF SP ELECTRONIC & FIRE CON EQUIP & RELATED SYS & COMPONENTS

INSTALLATION MEDICAL BIOMECHANICAL RESEARCH LABORATORY WASHINGTON, D.C.

C.O. COL ORLYN C. DESTEREICH SCI. DIR. DR. FRED LEONARD

PROGRAM	PROGRAM DATA BY FISCAL	YEAR (MILLION \$)
PRUGRAM	:	(ACT + EST)
TOTAL ROTEC	0.855	0.000
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.000	0.000
TOTAL OTHER	0.160	0.000
TOTAL ANNUAL LAB	1.025	0.000
TOTAL INHOUSE	1.025	0.000
TOTAL INHOUSE RDT&E	0.865	0.000
ANNUAL OPERATING COST	0.035	0.000
PERSI	ONNEL DATA LEND DE EY	1972)

	PERSONNEL DATA	(END OF FY	( 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	18	2	12	6
CIVILIAN	30	4	15	15
TOTAL	48	6	27	21

		SPACE AND	PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	ET)	COST (MILL	ION \$)
	L AB	NINGA	OTHER	TOTAL	REAL PROP	EQUIP
0	11.463	1.022	0-000	12.485	0.976	0.410

...MISSION
TO CONDUCT FUNDAMENTAL AND APPLIED RESEARCH TO DEVELOP MATERIALS AND
DEVICES FOR INTERNAL AND EXTERNAL BIOMECHANICAL APPLICATION AND THE FABRICATION OF PROTOTYPE DEVICES OF SPECIALIZED MILITARY NATURE OF MILITARY
INTEREST.

...CURRENT IMPORTANT PROGRAMS
INSTRUMENTATION TO DIFFERENTIATE BETWEEN VIABLE AND NECROTIC TISSUE.
SYNTHESIS AND CHARACTERIZATION OF SURGICAL REPAIR MATERIALS AND HEMOSTATIC AGENTS. MINERALIZATION OF SKELETAL AND SOFT TISSUE AND MEANS OF
ENHANCING THE RATE OF BONE HEALING. PROSTHETIC AND ORTHOTIC DEVICES
FOR THE SEVERLY HANDICAPPED/TRAUMATIZED PATIENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
LAB HAS SUFFICIENT EQUIPMENT AND FACILITIES TO CARRY OUT AN ONGOING
RESEARCH PROGRAM IN THE BIOENGINEERING FIELD. THIS INCLUDES INSTRUMENTATION FOR LIGHT SCATTERING, CHROMATOGRAPHY, ULTRACENTRIFUGATION RADIOASSAYS, OPTICAL METHODS, DTA, SYNTHESES, STEAM STERILIZATION, OVENS,
BATHS, HISTOLOGY AND ELECTRON MICROSCOPY. LAB HAS CAPABILITY TO PERFORM
ISOTOPF, METABOLIC, AUTORADIOGRAPHY, CELL ORGANELLE, RADIOLOGY, X-RAY,
AND CELL AND TISSUE CULTURE STUDIES. FACILITIES INCLUDE AN ANIMAL HOLDING FACILITY, EXPERIMENTAL SURGERY ROOM, AND A MACHINE SHOP EQUIPPED
WITH WELDING AND METAL WORKING MACHINES.

# C.O. COL WILLIAM L. BOST TECH DIR AARON ISMACH

	PROGRAM		L YEAR (MILLION	\$}
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		0.775	0.000	
TOTAL PROCUREM	ENT	0.000	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.174	0.000	
TOTAL ANNUAL L	AB	0.949	0.000	
TOTAL INHOUSE		0.949	0.000	
TOTAL INHOUSE	RDT&E	0.775	0.000	
ANNUAL OPERATI	NG COST	0-423	0.000	
	PERSONNEL DA	ATA (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	15	0	1	14
CIVILIAN	34	0	3	31
TOTAL	49	0	4	45
	SP A	CE AND PROPERTY		
ACRES		DS OF SQUARE FE		(MILLION \$)
		IN OTHER	TOTAL REAL	PROP EQUIP
0		081 6.469	37.073 0	.444 0.444

...MISSION .
CONDUCTS ENGINEERING RESEARCH AND DEVELOPMENT LEADING TO PRODUCTION OF FIELD MEDICAL EQUIPMENT FOR THE ARMY AND ON A REQUIRED BASIS FOR THE OTHER SERVICES.

...CURRENT IMPORTANT PROGRAMS
ARTHROPOD AND RODENT CONTROL EQUIPMENT.
PULSED WATER PRESSURE DEVICE FOR ARM AND HAND WASHING.
FIELD DENTAL EQUIPMENT.
HYPODERMIC INJECTION APPARATUS, VETERINARY MEDICINE, FIELD.
FIELD MEDICAL HUMAN BODY, DIAGNOSTIC, EXAMINATION, AND RECORDING SYSTEM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ELECTRICAL/ELECTRONICS BRANCH IS EQUIPPED WITH HAND METERS, GENERATORS,
OSCILLOSCOPES, REGULATED POWER SOURCES AND RECORDERS. PHYSICAL TESTING
BRANCH IS EQUIPPED WITH AN INSTRON TESTING MACHINE AND ENVIRONMENTAL
CHAMBERS. PROTOTYPE FABRICATION FACILITY IS EQUIPPED WITH LATHES, MILLING MACHINES, SURFACE GRINDERS, SHEARS, POWER BRAKE, POWER ROLLER, SPOT
WELDERS, FOUNDRY, HELIARC AND GAS WELDING EQUIPMENT, HEATING, TREATING
OVEN, PAINT OVEN, FABRIC SEWING MACHINE, PLASTIC FORMING EQUIPMENT,
CARPENTRY AND PATTERN MODEL MAKING TOOLS.

INSTALLATION MEDICAL RESEARCH AND NUTRITION LAB, FGH

DENVER, CO.

C.O. COL JOHN E. CANHAM

PROGRAM	PROGRAM DA	TA BY FISC	AL YEAR (1		\$)
·	(AC	CTUAL)	(ACT + E	ST)	
TOTAL RDT&E		2.426	2.	.583	
TOTAL PROCUREME	ENT	0.000	0	.000	
TOTAL OEM		0.000	0	.000	
TOTAL OTHER		1.106	1	-216	
TOTAL ANNUAL LA	AB	3.532	3	.799	
<b>707</b> 44 <b>7</b> 44/046 <i>7</i>		2 520	2	700	
TOTAL INHOUSE		3.532	_	<b>.</b> 799	
TOTAL INHOUSE		2.426		-583	
ANNUAL OPERATIO	NG COST	0.559	0	•592	
	PERSONNEL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED	TOTAL		TAL	NON-
	STRENGTH	PHOS	P	ROF	PROF
MILITARY	119	30		69	50
CIVILIAN	99	12		45	54
TOTAL	218	42	1	14	104
	SDACE	AND PROPERT	•		
	SPACE I	AND PROPERT			

ACRES SPACE (THOUSANDS OF SQUARE FEET) COST (MILLION \$)

LAB ADMIN OTHER TOTAL REAL PROP EQUIP

2 83.663 5.138 19.087 107.888 5.079 3.375

DETERMINE THE ADEQUACY OF TROOPS DIET IN ALL ENVIRONMENTS AND RECOMMEND NUTRITIONAL MEASURES FOR OPTIMUM PERFORMANCE. CONDUCT BASIC/APPLIED RESEARCH ON MEDICAL/SURGICAL AND NUTRITIONAL PROBLEMS, COMPUTER TECHNIQUES IN BIO-MEDICAL AREAS, FOOD HYGIENE, AND PHYSIOLOGY OF EXERCISE AND FAT.

...CURRENT IMPORTANT PROGRAMS
NUTRITIONAL AND METABOLIC ADAPTATION AND INTERRELATIONSHIPS.
PERIPHERAL BLOOD FLOW STUDIES FOLLOWING SURGICAL INTERVENTION.
BIOCHEMICAL FACTORS INFLUENCING PHYSIOLOGICAL FUNCTIONING.
APPLIED NUTRITION STUDIES OF MILITARY POPULATIONS.
NUTRITIONAL ASPECTS OF MILITARY PERSONNEL AND MILITARY DOG PERFORMANCE.

HUMAN METABLIC WARD WITH TEMP AND HUMID CONTROL RM, GERM -FREE ANIMALS, ACOUSTIC PHYSIO PERF, ELECTRON MICROSCOPY, HIGH ALT LAB AT PIKES PEAK, ENVIRON TEST CHAMBER, RCA 301-355 ADPS, AUTO ANALYZERS AND RECORDERS INCLUDING AUTO BETA AND GAMMA COUNTERS, SHADOW SHIELD WHOLE BODY COUNTER, AND MASS SPECTROMETER. RSCH INCLUDES NUTR SURVEYS AND RATION TESTING, BIOMED CMPT RSCH, INFLUENCE OF HIGH TERRESTRIAL ALT ON PHYSIO-PSYCHO PERF, BODY COMPOSITION, METABOLISM AND MODIFYING FACTORS, BASIC/APPLIED STUDIES OF TRACE MINERAL METABOLISM, NUTRIENT ROR AND INTERRELATIONSHIP, METABOLIC RESPONSE OF MAN TO NUTR AND DISEASE, EXPER SURG, COMPARATIVE PATHOLOGY OF STRESS IN ENVIRON AND OF NUTR, PHYSIO AND BIOCHEM STUDIES OF MUSCLE METABOLISM, EXER AND FATIGUE IN MAN AND MILITARY DOG.

Book and the state of the state

## C.O. COL FRANK R. CAMP

	PRO	GRAM DATA	A BY FISO	CAL YEAR (	MILLION	\$}	
PROGRAM		1	972	197	3		
		( ACT	UAL)	(ACT + E	ST)		
TOTAL ROTEE			1.754	1	-680		
TOTAL PROCURI	EMENT		0.000	C	-000		
TOTAL OGM			0.794	0	.613		
TOTAL OTHER			0.707	C	.788		
TOTAL ANNUAL	LAB		3.255	3	.081		
TOTAL INHOUSE	•		3.255	3	-081		
TOTAL INHOUSE			1.754	_	-680		
ANNUAL OPERAT	FING COST		1.187	1	-014		
	PERSONNE	L CATA	(END OF	FY 1972)			
PERSONNEL	AUTHORIZED		TOTAL		TAL		NON-
	STRENGTH		PHDS	F	ROF		PROF
MILITARY	119		17		98		21
CIVILIAN	132		14		36		96
TOTAL	251		31	1	.34		117
		SPACE AN	D PROPER	TY			
ACRES	SPACE (THOU						LION \$)
	L AB		OTHER			PROP	
20	88-025	5-368	34-734	128-12	27 0	280	3-072

...MISSION
CONDUCT RESEARCH IN SENSORY PSYCHOPHYSIOLOGY. CONDUCT RESEARCH IN
BIOLOGIC EFFECTS OF LASER RADIATION. CONDUCT RESEARCH IN MILITARY BLOOD
BANKING. OPERATE BLOOD DONOR CENTER AND CONDUCT A TRAINING PROGRAM IN
IMMUNOHEMATOLOGY.

...CURRENT IMPORTANT PROGRAMS
MILITARY BLOOD BANKING METHODOLOGY AND EQUIPMENT. MILITARY BLOOD BANKING- EVALUATION OF CHANGES OF BLOOD DURING STORAGE. MILITARY PERFORMANCE- PSYCHOPHYSIOLOGY OF VISION. MILITARY PERFORMANCE- TRAUMATIC
ORIGINS OF HEARING LOSS. LASER EFFECTS UPON VISUAL PERFORMANCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
PROCESSES 500 UNITS OF WHOLE BLOOD AND COMPONENTS PER WEEK. PERFORMS
AUTOMATED BLOOD GROUPING FOR NEW INDUCTEES. PROVIDES A LARGE SUPPLY OF
FROZEN BLOOD AND COMPONENTS TO DOD HOSPITALS. PERFORMS CERTAIN SPECIALIZED TESTS THAT CAN NOT BE PERFORMED BY MEDDAC. ANECHOIC CHAMBER FOR
SPECIALIZED AUDIO TESTS. HOLDING CAPABILITY FOR UP TO 100 PRIMATES.
ELECTRON MICROSCOPY CAPABILITY. CONDUCT RESEARCH IN SENSORY PSYCHOPHYSIOLOGY AND BIOLOGIC EFFECTS OF LASER RADIATION. CONDUCT RESEARCH IN
MILITARY BLOOD BANKING. CONDUCT TRAINING PROGRAM IN IMMUNUHEMATOLOGY.
CONDUCT ENLISTED PLOOD BANKING COURSE 311-1.

### INSTALLATION MEDICAL RESEARCH UNIT

C.O. CUL FRANCIS C. CADIGAN

PROGRAM	PROGRAM DATA BY FISCAL 1972	YEAR (MILLION \$) 1973
		CT + EST)
TOTAL RDT&E	0.224	0.225
TOTAL PROCUREMENT	0.000	0.000
TOTAL D&M	0.000	0.000
TOTAL OTHER	0.077	0.083
TOTAL ANNUAL LAB	0.301	0.308
TOTAL INHOUSE	0.301	0.308
TOTAL INHOUSE ROTEE	0.224	0.225
ANNUAL OPERATING COST	0.000	0.000

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	6	5	7	1
CIVILIAN	0	0	0	C
TOTAL	6	5	7	1

			PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	T)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOT AL	REAL PROP	EQUIP
15	7.000	0.900	0.000	7.900	0.100	0.222

TO FIND A DRUG OR NATURAL FACTOR WHICH BLOCKS ENDOTOXIC FEVER.
TO STUDY INFECTIOUS DISEASES OF POTENTIAL MILITARY IMPORTANCE IN EQUATORIAL ASIA.

-..CURRENT IMPORTANT PROGRAMS
STUDY SCRUB TYPHUS TRANSMISSION IN VIRGIN FORESTS.
EVALUATE SUBHUMAN PRIMATES FOR HUMAN MALARIA HOSTS.
DETERMINE TRANSOVARIAL TRANSMISSION RATE OF RICKETTSIA.
STUDY DIARRAHEA IN ABORIGINAL FOREST DWELLERS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONTINUED RESEARCH EFFORTS ALONG PRESENT LINES WITHIN THE SCOPE OF
RESEARCH ACTIVITIES, TO PROVIDE DIAGNOSTIC LABORATORY CONSULTATION FOR
MALAYSIAN CIVILIAN AND MILITARY MEDICAL SERVICES AND FOR COMMONWEALTH
MILITARY MEDICAL SERVICES. LABORATORY SPACE AND ANIMAL-REARING FACILITIES ARE PROVIDED BY THE INSTITUTE FOR MEDICAL RESEARCH, KUALA LUMPUR,
MALAYSIA.

### C.O. LTC JAMES C. BURKE

PROGRAM DATA BY FISCAL YEAR (MILL	ION \$)
1972 1973	
(ACTUAL) (ACT + EST)	
0.191 0.193	
0.000 0.000	
0.000 0.000	
0.126 0.123	
0.317 0.316	
0.317 0.316	
0.191 0.1.93	
0.090 0.090	
	(ACTUAL) (ACT + EST) 0.191 0.193 0.000 0.000 0.000 0.000 0.126 0.123 0.317 0.316 0.317 0.316 0.191 0.193

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL.	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	9	2	5	4
CIVILIAN	8	0	0	8
TOTAL	17	2	5	12

		SPACE AND	PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	ET)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	5.000	0.600	0.000	5.600	0.000	0.061

...MISSION
IN CONJUNCTION WITH OTHER U.S. GOVERNMENT AGENCIES, CONDUCTS RESEARCH
ON MEDICAL AND ENVIRONMENTAL PROBLEMS OF MILITARY IMPORTANCE IN CENTRAL
AMERICA, SOUTH AMERICA AND PANAMA.

...CURRENT IMPORTANT PROGRAMS
PREVALENCE AND DISTRIBUTION OF PARASITIC DISEASE IN LATIN AMERICA.
PATHOGENESIS OF PARASITIC INFECTIONS.
BIONOMICS OF PHLEBOTOMUS FLIES.
EPIDEMIOLOGY AND IMMUNOLOGY OF TROPICAL VIRUSES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
DIRECT AND INDIRECT ISOLATION AND IDENTIFICATION OF PARASITIC ORGANISMS
AND THEIR VECTORS IN CENTRAL AND SOUTH AMERICA. LABORATORY SPACE ADEQUATE FOR THE SCIENTIFIC DISCIPLINES OF ENTOMOLOGY, PARASITOLOGY, PATHOLOGY AND VIROLOGY. SPECIAL EQUIPMENT AND FACILITIES TO SUPPORT THESE
DISCIPLINES INCLUDE FLUORESCENT MICROSCOPE, AUTO-TECHNICIAN, CRYPSTOTAT,
PHOTOMICROGRAPHY, LABORATORY ANIMAL QUARTERS, TISSUE CULTURE LINES,
LIQUID NITROGEN PLANT AND ACCESS TO DATA PROCESSING EQUIPMENT.

REDSTONE ARSENAL, AL.

INSTALLATION MISSILE RES., DEV. AND ENGINEERING LAB

C.D. MG EDWIN I. DONLEY DIR. DR. JOHN L. MCDANIEL

PROGRAM	PROGRAM DATA BY FISCA 1972 (ACTUAL)	L YEAR (MILLION \$) 1973 (ACT + EST)
TOTAL RDT&E TOTAL PROCUREMENT TOTAL O&M TOTAL OTHER TOTAL ANNUAL LAB	73.792 4.577 3.722 0.000 82.091	67.719 4.217 4.764 0.000 76.700
TOTAL INHOUSE TOTAL INHOUSE RDT&E ANNUAL OPERATING COST	37.154 29.964 13.774	38.797 30.516 14.600

	PERSUNNEL CATA	(END OF PY	( 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	31	3	34	3
CIVILIAN	1196	59	680	516
TOTAL	1227	62	714	519

		SPACE AN	D PROPERTY	•		
ACRES	SPACE (THE	JUSANDS OF	SQUARE FE	ET)	COST (MILI	LION \$}
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11000	1168.000	262.000	408.000	1838.000	23.178	35.294

PLAN & DIRECT MATERIEL DEVELOPMENT PROGRAMS & PROJECTS NOT SELECTED FOR PROJECT OR COMMODITY MGMT. MANAGE BASIC & APPLIED RESEARCH PROJECTS. INI TIATE & PERFORM RESEARCH & COMPONENT DEVELOPMENT TO GENERATE NEW TECHNOL OGY & PERFORM FEASIBILITY & DESIGN STUDIES FOR FUTURE WPN SYS.

...CURRENT IMPORTANT PROGRAMS
ADVANCED LASER DEVELOPMENT
MISSILE TECHNOLOGY-SYSTEMS DEVELOPMENT
HIGH ENERGY LASER RESEARCH
HELIBORNE, LASER, FIRE, FORGET &HELLFIRE&
TERMINAL HOMING SYSTEM

PERFORM LONG RANGE TECH PLANNING. DESIGN, DEV AND FABRICATE PROTOTYPE MS L SYS. TECH EVALUATE & SUPV R&D CONTR PROPOSALS & EFFORTS. PLAN & CONDUCT ENGR DESIGN VESTS. OPERATE ADV SIMULATION FACILITY, AIGMT CTR, ARMY ROCKET PROP & TECH & MGMT CTR. SERVE AS AMC LEAD LAB FOR G&C/ TERM HOMING & HI ENERGY LASERS. FACILITIES-- ADV SIMULATION FAC WITH A CENTRAL COMP CM PLX & 4 SIMULATORS & INFRARED SYS, ELECTROOPTICAL SYS, RF SYS, FLIGHT MOTIONS. PLASMA JET FAC, PLASMA DRIVEN SHROUD WIND TUNNEL, 2 MEV VAN DE GRAFF ACCELORATOR. LASER TEST RANGE, X-RAY DIFFRACTOMETER & SPECTROGRAPH, PROPELLANT EVAL FAC, HYBRID SIM FAC WITH RF ANECHOIC CHAMBER & TRANSMITTER SPECTRAL ANALYZER, RADIATION HOMING MSL TEST BED FAC, CLEAN ROGM COMPLEX, STATIC TEST FAC, FLIGHT & TRACK TEST FAC, ENVRMT TEST LAB. MCMORROW LABORATORIES WITH 356,400 SQ FT & COMPUTERS & EQUIP VALUED AT 17M.

C.O. COL BENNET L. LEWIS TECH. DIR. WILLIAM B. TAYLOR

	PROG			YEAR (MI	LLION \$)	
PROGRAM		1972		1973		
		(ACTUAL)		ACT + EST	)	
TOTAL RDT&E		44.	145	42.7	14	
TOTAL PROCURE	MENT	36.4	+89	31.7	54	
TOTAL OEM		10.4	137	9.5	78	
TOTAL OTHER		0.2	299	0.3	00	
TOTAL ANNUAL	LAB	91.	70	84.3	46	
TOTAL INHOUSE		27.4	406	31.2	15	
TOTAL INHOUSE		18.	355	23.1	68	
ANNUAL OPERAT	ING COST	6.	789	6.6	50	
	PERSONNEL		OF FY	1972)		
PERSONNEL	AUTHORIZED		TAL	ATOTA	L	NON-
	STRENGTH	PI	HDS	PRO	F	PROF
HILITARY	54		4	34		20
CIVILIAN	1370		23	596		774
TOTAL	1424		27	630		794
	•	SPACE AND P	ROPERTY			
ACRES	SPACE (THOUS	SANDS OF SQL	JARE FEE	T)	COST (MI	LLICN \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1060	611.710 14	47.480 15	8-648	917-838	50.215	27.018

---MISSION
BASIC AND APP RSCH DES DEV AND ENGRG TEST ON ASGND EQUIP&RAIL-MARINE&
AMPHIB BDG&ASLT STREAM CROSS&ELEC PWR&INDUS ENGS&CONSTR EQUIP&FIREFIGHTG
HTG-AC&WASTE DISPOSAL&WATER PURIF&COUNTERMINE&BARRIER&CAMOUFLAGE&FUELS
HDLG&MHE&DEMLS&PHYS SECURITY&ENGR SPT TO MSC QUAN PROC AND MAINT ACTIVIT

---CURRENT IMPORTANT PROGRAMS
EARTHMOVING FAMILY OF ENGR CONSTRUCTION EQUIPMENT &FAMECE&
ELEC PWR GEN INCL LIQ FUEL CELLS RANKING CYC PLANTS TURBOALTERNATORS
MINE NEUTRALIZATION MINE DETECTION COUNTERMINE SYSTEMS
LIGHTWEIGHT FLOATING BRIDGE &RIBBON BRIDGE&
CAMOUFLAGE TECHNIQUES AND MATERIEL

OFFICES AND LABORATORIES WITH SUPPORTING DATA PROCESSING&ENGINEERING AND INSTRUMENTATION SERVICES&SHOPS, TEST COURSES AND TEST LANES. EQUIPMENT AND CAPABILITIES INCLUDE SEMI AUTOMATED FUEL CELL AND ELECTRIC POWER PLANT TEST LABS&AIRCONDITIONING AND HTG LAB&ANECHOIC MICROWAVE FACILITY&ANECHOIC CHAMBER FOR ACQUISTIC HOMING STUDIES&ENERGY CONVERSION RESEARCH FACILITY&HIGH PRESSURE AIR COMPRESSORS&HYDRAULICALLY ACTUATED TEST FRAME FOR BRIDGES&SHOCK TEST TUBE SIMULATING HIGH EXPLOSIVE BLAST EFFECTS&POWER SYSTEMS SIMULATOR&OUTDOOR RAIN TEST SITE&FULL SCALE RAILCAR HUMP TEST FACILITY&LARGE AND SMALL TROPICAL TEMPERATURE AND HUMIDITY TEST CHAMBERS POL TEST AREA& MINE DETECTION TEST LANES&WATER TREATMENT RESEARCH LAB& AND A MATERIALS RESEARCH LABORATORY.

त्र व वरका <u>क्रमण</u>कार हा

C.O. BG JOHN G. MCWHORTER TECH. DIR. DALE H. SIELING

22.0C2.4M	PR		A BY FISC	AL YEAR (MI)	LLION \$)	
PROGRAM		_	UAL)	(ACT + EST	3	
TOTAL ROTEE		1 70 1	23.207	21.9		
TOTAL PROCURE	MENT		6.435	0.8		
TOTAL DAM			9.019	8.9	· =	
TOTAL OTHER			1.620	1.7		
TOTAL ANNUAL	1 40		40.281	33.3		
IDIAL MINUNE	LAD		40.201	23 43		
TOTAL INHOUSE	<b>:</b>		25.684	26.9	95	
TOTAL INHOUSE			14.968	16.6		
ANNUAL OPERAT			5.412	5.3		
	PERSONN	EL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTAL	L	NON-
	STRENGTH		PHDS	PRO	-	PROF
MILITARY	132	-	11	62		70
CIVILIAN	1236		90	479		757
TOTAL	1368		101	541		827
		SPACE AN	D PROPERT	Υ		
ACRES	SPACE (THO	USANDS OF	SQUARE F	EET)	COST (MIL	LION \$)
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3087	525.000	65.900	274-600	865.500	40.152	12.406

...MISSION
ACCOM ASG R-D IN THE PHYS AND BIOL SCI AND ENG TO MEET MIL RQR IN THE COMMODITY AREAS OF TEX CLO BODY ARMOR ORG MATLS INSECT AND FUNG SUBS CNTRS FOOD SVC EQUIP FLD SPT EQUIP TENT AND EQUIP AND AIR DEL EQUIP. IN DESIG CHOTY AREAS PROV TECH AND ENG SPT IN CONNEC W/ACCOM OF AE AND STD.

...CURRENT IMPORTANT PROGRAMS
POLLUTION ABATEMENT STUDIES
ANAL MIL FOOD SVC SYS TO EST MODERN METH OF DETERMINING DAILY FOOD ALLOW
PERSONNEL ARMOR PROGRAM
FLEXIBLE PACKAGING SYSTEM FOR HEAT PROCESSED FOODS
WHOLESOMENESS OF RADAPPERTIZED BEEF

...FUNCTIONS/EQUIPMENT/CAPABILITIES
COBALT 60 IRRAD FACILITY DESIGNED FOR MAX FLEXIBILITY IN FOOD PROCESSING
BACTERIOLOGY LAB EQUIP FOR INVESTIGATIONS OF PATHOGENIC MICRODRGANISMS
FLAME PROTECTION LAB AND FACILITY INCLUDING AN OUTDOOR FLAME PIT
HIGH RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS
FOOD PROCESSING FAC FOR CONTROLLED PREPROCESSING AND PROC BY SEV TECHNIQ
LAB SUBSONIC WIND TUNNEL CAPABLE OF VELOCITIES UP TO 110 FEET PER SEC
HEAT TRANSFER LAB TO STUDY HEAT AND MASS TRANSPORT CHAR OF FABRICS
ELECTRON LINEAR ACCELERATOR DESIGNED FOR HIGH POWER OUTPUT IN FOOD PROV
DROP TEST FAC CONS OF 40 TON CAPACITY TRACKED CRANE AND A 50 FT BOOM
DYEING AND FINISHING LAB FOR CONDUCTING STUDIES OF TEXTILES
FEBETRON MACHINE USED AS A RADIA SOURCE FOR PULSE RADIOLYSIS STUDIES
RAIN ROOM DESIGNED TO DUPLICATE RAINFALL CORRESPONDING TO NATURAL RAIN

DIR. BENJAMIN GOLDBERG DEP. DIR. DONALD J. LOOFT

	PR	JGKAM DAT	A BA FIZCI	AL YEAR (MI	frion 2)	
PROGRAM		1	<del>97</del> 2	1973		
		E ACT	UAL)	(ACT + EST	)	
TOTAL ROTEE			32-654	27.1	61	
TOTAL PROCURE	MENT		0.000	2.6	15	
P30 JATOT			0.000	0.0	00	
TOTAL OTHER			0.000	0.0	00	
TOTAL ANNUAL	LAB	:	32.654	29.7	76	
TOTAL INHOUSE	ļ.		15.727	12.2	94	
TOTAL INHOUSE	RDTEE		15.727	12.2	94	
ANNUAL OPERAT	ING COST		6-814	7.2	00	
	PERSONN	EL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTA	L	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	51		0	35		16
CIVILIAN	409		34	219		190
TOTAL	460		34	254	•	206
		SPACE AN	D PROPERT	Y		
ACRES	SPACE (THO	USANDS OF	SQUARE F	EEY)	COST (MI	LLION \$)
	L AB	ADMIN	DTHER	TOTAL	REAL PROP	EQUIP
15	73-625	29_883	67-131	170-639	43-961	45,000

DODGDAM DATA BY ETECAL YEAD ANTILTON 43

E..MISSION
NVL IS RESPONSIBLE FOR PROVICING THE ARMY WITH A NIGHT-VISION
CAPABILITY EQUAL TO THAT OF DAYLIGHT. AS SUCH, NVL HAS BEEN DESIGNATED
BY USAMC AS LEAD LABORATORY TO PROVIDE CENTRALIZED TECHNICAL DIRECTION
IN THE MANAGEMENT OF THE USAMC NIGHT VISION TECHNOLOGICAL BASE.

...CURRENT IMPORTANT PROGRAMS
LOW LEVEL NIGHT OPERATIONS
FAR INFRARED TECHNOLOGY
TURRET INTEGRATED NIGHT THERMAL SIGHT
THERMAL VIEWER FOR UNIVERSAL APPLICATIONS
COMMON TOW/DRAGON NIGHT SIGHT

...FUNCTIONS/EQUIPMENT/CAPABILITIES
NVL IS RESPONSIBLE FOR PROVIDING A NIGHT CAPABILITY TO THE ARMY. IN
KEEPING WITH THIS MISSION OBJECTIVE, THE NIGHT VISION PROGRAM IS BEING
CARRIED OUT IN FOUR MAJOR SYSTEM APPLICATION AREAS. GROUND-DEVICES FOR
INDIVIDUAL SOLDIERS AND PATROLS/GROUND VEHICLES-WHEELED AND TRACKED VEHICLES/AIRBORNE-FOR OBSERVER. GUNNER AND PILOT/AND MISSILE SYSTEMS. THE
SYSTEMS DEV PROGRAM BOTH FOR THE SHORT RANGE AND LONG RANGE GOALS IS DEPENDENT ON AN ACTIVE AND INNOVATIVE NV TECHNOLOGY BASE CONSISTING OF THE
FOLLOWING DISCIPLINES-IMAGE INTENSIFICATION, FAR INFRARED, RADIATION
SOURCES AND VISIONS. THE DOMINANT EFFORT AT THIS TIME IS IN FAR-INFRARED
TECHNOLOGY WHICH OFFERS GREAT POTENTIAL FOR HIGH PERFORMANCE SYSTEMS BUT
WHICH ARE COMPLEX AND COSTLY. THEREFORE, THE PRIME TECHNOLOGICAL EFFORT
IS TO REDUCE COST AND COMPLEXITY.

### C.O. COL G.M. MONTGOMERY TECH. DIR. H.W. PAINTER

	PR	OGRAM DA	TA BY FISC	CAL YEAR (MI	LLION \$}	
PROGRAM			1972	1973		
		( AC	TUAL)	(ACT + EST	)	
TOTAL RDT&E			99.200	83.8	00	
TOTAL PROCURE	MENT		22.400	19.3	00	
TOTAL OEM			8.300	9.3	00	
TOTAL OTHER			0.000	0.0	00	
TOTAL ANNUAL	LAB		129.900	112.4	00	
TOTAL INHOUSE			86.000	70.2	00	
TOTAL INHOUSE	RDTEE		55.300	41.6	00	
ANNUAL OPERAT	ING COST		5.900	6.2	00	
	PERSONN	EL DATA	(END OF	FY 1972)		
PERSONNEL	AUTHORIZED	}	TOTAL	TOTA	Ĺ	NON-
	STRENGTH	l	PHDS	PRO	F	PROF
MILITARY	68		1	51		17
CIVILIAN	2676		62	1889		787
TOT AL	2744		63	1940		804
		SPACE A	ND PROPER	TY		
ACRES	SPACE (THO	USANDS D	F SQUARE	FEET)	COST (MIL	LION \$)
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6495	594.642	668 . 245	2580.998	3843.885	72.600	45.000

...MISSION

CEN FOR LIFE CYCLE FUNC FR BASIC AND APPLIED RSCH THRU DEVMT AND ENGRG OF NUC AND CONV MUNS SUCH AS MINES, GRENS, RKT AND MSLE WHDS, PROJS, FUZES, EXPLOS, PYRO, PROP, MATS, PHYS AND ENGRG SCIENCE, DIGITAL ANALOG COMPTG. PROCS ALL NUC AND ASG CONV MUNS. OPS DOD PLASTEC.

---CURRENT IMPORTANT PROGRAMS
PROJECTILE 8 INCH XM673 ENG DEV
PROJECTILE 8 INCH XM711 ADVANCED DEV
FLUIDIC DPATION KIT ADVANCED DEV
TANK CANNON AMMUNITION EXPLORATORY DEV
P\ROTECHNIC EXPLORATORY DEV

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
NUC WPNS PROTOTYPE FAB AND ASSY, AND EXPLOS AND PROP PLT PLANTS PROV
COMPL INTRGED FAC FOR ASSY, INSP AND TEST OF AK AND CONV MUNS AND COMPS
AND THE MFG AND PROCING OF X EXPLOS AND PROP COMP. THE EXPLOS, PYRO,
PROP, MATLS AND QA LABS HAVE UNUSUAL EQUIP FOR RSCH, RELIABILITY AND QA
SUCH AS BETATRON, DYNAMITRON, HIGH SPEED PHOTO AND SHOCK LOAD FAC, HIGH
ALT TEST CHAMBERS, ELECTROMAGNETIC RADIATION INST ETC. THE DEVMT AND
ENVIRONMENTAL TEST AND EVAL FAC HAVE MAJOR CPBLTY AS STATIC AND DYNAMIC
TEST RGS, DROP FOWERS, DUD RECOVY AND DISASSEMBLY, RF VULNERABILITY
COMPL ENVIRONMENTAL SIM, TARGET EFF ETC. OTHER EQUIP INCL VIBRATORS
FOR LOADS TO 2000 LB, STATIC RKT TEST RG, 2540 TON HYDROSTATIC PRESS,
CMPT TAPE CON MFG EQUIP, VARIETY OF FUZE EVAL EQUIP, CLOSED CIRCUIT TV,
HIGH ACCEL SLED TRACK.

EQUIP

6.578

DIR. EDWARD J. FISTER

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		PROGRAM DATA BY F	ISCAL YEAR (MILLION	\$)		
PROGRA	M.	1972	1973			
		(ACTUAL)	(ACT + EST)			
TOTAL	RDT&E	11.319	11.950			
TOTAL	PROCUR EMENT	0.100	0.000			
TOTAL	Mao	0.000	0.000			
TOTAL	OTHER	0.000	0.000			
TOTAL	ANNUAL LAB	11-419	11.950			
TOTAL	INHOUSE	11.290	11.950			
	INHOUSE ROTGE	11,290				
	OPERATING COST	3.903				
	PERSO	NNEL DATA (END O	F FY 1972)			
PERSON	NEL AUTHORIZ			NON-		
	STRENG		PROF	PROF		
MILITA		.2	2	10		
CIVIL	IAN 65	4 0	101	553		
TOTAL	66	66 0	103	563		
SPACE AND PROPERTY						
ACRE	S SPACE (T	HOUSANDS OF SQUAR		(MILLION \$)		

OTHER

0.315

TOTAL REAL PROP

8-401

53.794

...MISSION
COMPOSITE MATERIALS
ANTENNA MASTS AND MECHANICAL STRUCTURES
VEHICULAR AND MARINECRAFT INSTALLATIONS
COMPUTER AIDED DESIGN TECHNIQUES

L AB

53.470

...CURRENT IMPORTANT PROGRAMS
MECHANICAL ENGINEERING - AIRBORNE EQUIPMENT
MECHANICAL ENGINEERING - GROUND EQUIPMENT
CRYOGENICS
ENVIRONMENTAL EQUIPMENT AND SHELTER INSTALLATIONS
COMPUTER AIDED DESIGN ENGINEERING AND MANUFACTURING

ADMIN

0.009

---FUNCTIONS/EQUIPMENT/CAPABILITIES
ELECTROMAGNETIC CAPABILITY FOR RFI
ENVIRONMENTAL CONTROL-PHYSICAL AND MECHANICAL
AIRCRAFT VIBRATION MEASUREMENTS
COMPUTER AIDED DESIGN FABRICATION
MODEL SHOP FABRICATION-ALL CRAFTS
TEST AND MEASURING EQUIPMENT CALIBRATION AND REPAIRS
MATHEMATICAL COMPUTATIONS AND STATISTICS

THE COLD SECTION SECTI

INSTALLATION RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE NATICK, MASS.

C.O. COL. LEERDY G. JONES TECH. DIR. DR. DAVID E. BASS

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TOT AL

PROGRAM		1972	L YEAR (MILLION 1973	\$)
	{ AC		(ACT + EST)	
TOTAL RDT&E		2.600	2.772	
TOTAL PROCUREMENT		0.000	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.751	0.904	
TOTAL ANNUAL LAB		3.351	3.676	
TOTAL INHOUSE		3.351	3.676	
TOTAL INHOUSE ROTGE		2.600	2.772	
ANNUAL OPERATING CO	ST	1.032	1.070	
P	ERSONNEL DATA	(END OF FY	1972)	
PERSONNEL AUTHO	DRIZED	TOTAL	TOTAL	NON-
ST	RENGTH	PHDS	PROF	PROF
MILITARY	71	18	55	16
CIVILIAN	102	20	45	53

SPACE AND PROPERTY						
ACRES	SPACE (THO	SANDS OF	SQUARE FE	ET)	CUST (MILL	ION \$)
	L AB	ADMIN	OTHER'	TOTAL	REAL PROP	EQUIP
0	60,421	18.563	28.647	107.631	6.902	2.044

38

104

69

...MISSION
TO CONDUCT BASIC AND APPLIED RESEARCH TO DETERMINE HOW HEAT, COLD, HIGH
TEPRESTRIAL ELEVATION AND WORK AFFECT THE SOLDIERS LIFE PROCESSES,
PERFORMANCE AND HEALTH. ADVISE THE ARMY AND THE SCIENTIFIC COMMUNITY.

-..CURRENT IMPORTANT PROGRAMS
PREVENTION AND TREATMENT OF DISABILITIES DUE TO MILITARY OPERATIONS IN
HEAT, COLD, AND AT ALTITUDE. PREDICTION OF LIMITS OF MILITARY PERFORMANCE AS A FUNCTION OF ENVIRONMENT, CLOTHING AND EQUIPMENT. MEDICAL
PROBLEMS IN MILITARY ARCTIC OPERATIONS. BIOLOGICAL PROCESSES THAT LIMIT
HEAVY PHYSICAL WORK.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCT RESEARCH AND PROVIDE GUIDANCE TO DESIGNERS, ENGINEERS, TACTICIANS, PLANNERS AND PHYSICIANS ON MILITARY PERFORMANCE AND CASUALTY PREVENTION AND TREATMENT IN EXTREME CLIMATES AND ENGINEERED ENVIRONMENTS.
ADVISE ON HEALTH AND SAFETY IN MANEUVERS DURING HEAT, COLD OR HYPOXIC
STRESS. TREAT COLD CASUALTIES AT BASSETT ARMY HOSPITAL, ALASKA. IN
HUMAN AND ANIMAL RESEARCH, USE APPROXIMATELY 50 VOLUNTEER TEST SUBJECTS
AND EXTENSIVE CLIMATIC CHAMBERS OF NLABS PLUS MANY SMALLER CHAMBERS,
EXTENSIVE ANIMAL CARE FACILITIES, ELECTRON MICROSCOPE, UNDERWATER RESEARCH POOL, COPPER MANIKINS, AND DIVERSE EQUIPMENT FOR BIOCHEMICAL,
BIOPHYSICAL, MEDICAL, PHYSIOLOGICAL, PHARMACOLOGICAL, AND PSYCHOLOGICAL
MEASUREMENT.

INSTALLATION RESEARCH INSTITUTE OF INFECTIOUS DISEASES FT. DETRICK, MD.

C.O. COL DAN CROZIER TECH. DIR. DR. WILLIAM R. BEISEL

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93.217

	PROGRA	M DATA BY FISC	SAL YEAR (MILLIUN \$	)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL ROTEE		3.040	6.105	
TOTAL PROCURE	MENT	0.000	0.000	
M3O JATOT		0.000	0.000	
TOTAL OTHER		2.071	2.796	
TOTAL ANNUAL	LAB	5.111	8.901	
TOTAL INHOUSE		5.111	8.901	
TOTAL INHOUSE ROTGE		3.040	6.105	
ANNUAL OPERATING COST		1.509	2.400	
	PERSONNEL (	ATA (END OF I	FY 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	365	46	49	316
CIVILIAN	248	19	38	210
TOTAL	613	65	87	526
	SPA	CE AND PROPER	TY	
ACRES	SPACE (THOUSA)			MILLION \$)
		MIN OTHER		OP EQUIP
		· · <del>-</del> · · ·		

...MISSION
STUDIES PATHOGENESIS, DIAGNOSIS, PROPHYLAXIS, TREATMENT, EPIDEMIOLOGY OF INFECTIOUS DISEASES, EMPHASIZING PROBLEMS OF MEDICAL DEFENSE AGANIST BW, NATURALLY OCCURRING INFECTIONS OF PECULIAR MILITARY IMPORTANCE AND MICRO-ORGANISMS WHICH REQUIRE SPECIAL CONTAINMENT FACILITIES.

198.731

305.767

17.818

3.100

13.819

...CURRENT IMPORTANT PROGRAMS
THE CREATION OF AN AEROBIOLOGY DIVISION ALLOWS FOR NEW STUDIES OF PATHOGENESIS OF AIRBORNE INFECTIOUS DISEASES. DEVELOPMENT OF RAPID AND
ACCURATE DIAGNOSTIC METHODS BEFORE APPEARANCE OF CLASSICAL SYMPTCMS OF
DISEASE. DEVELOPMENT OF NEW VACCINES AND TOXOIDS. DEVELOPMENT OF
METHODS FOR INFECTIOUS DISEASE MANAGEMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
A UNIQUE COMPLEX OF RESEARCH LABORATORIES IS NOW FUNCTIONAL. THE 17
LABORATORY SUITES ARE USED FOR THE STUDY OF MICRO-ORGANISMS, INCLUDING
HIGHLY INFECTIOUS ONES WHICH REQUIRE SPECIAL CONTAINMENT. THESE LABORATORIES PERMIT MULTIDISCIPLINE-ORIENTED RESEARCH INCLUDING IMMUNDLOGY,
PATHOLOGY, PHYSIOLOGY, BIOCHEMISTRY, BIOPHYSICS, MOLECULAR BIOLOGY, AND
TISSUE CULTURE. THE BUILDING HAS CAPABILITIES FOR STUDY OF LARGE ANIMALS, PRIMATES AND CUSTOMA: / LABORATORY ANIMALS AS WELL AS HOSPITAL
FACILITIES FOR MEDICAL PATIENTS AND FOR RESEARCH STUDIES UTILIZING VOLUNTEERS. AEROBIOLOGY DIV HAS FACILITIES FOR EXTENSIVE AEROSOL INVESTIGATIONS INCLUDING 2 LARGE ENVIRONMENTALLY-CONTROLLED CHAMBERS, 6 LABORATORY SITES, AND FACILITIES FOR INFECTED ANIMALS. USAMRIID RESEARCH IS
SUPPORTED BY 2 COMPUTERS.

C.O. MG H.A. RASMUSSEN CHIEF SCIENTIST DR. C.M. HUDSON

	PROGRAM DA	TA BY FISC.	AL YEAR (MILLION	<b>\$</b> }
PROGRAM		1972	1973	
	( AC	TUAL)	(ACT + EST)	
TOTAL ROTEE		14.717	21.111	
TOTAL PROCUR	EMENT	2.100	2.807	
TOTAL DEM		4.458	3.008	
TOTAL OTHER		0.085	0.084	
TOTAL ANNUAL	LAB	21.360	27.010	
TOTAL INHOUS	E	13.666	14.173	
TOTAL INHOUS	E RDT&E	9.227	11.192	
ANNUAL OPERA	TING COST	6.321	7.089	
	PERSONNEL DATA	(END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	9	1	11	2
CIVILIAN	749	19	304	445
TOTAL	758	20	315	447
	SPACE A	ND PROPERT	Υ	
ACRES	SPACE (THOUSANDS C	F SQUARE F	EET) COST	(MILLION \$)
	LAB ADMIN	OTHER	TOTAL REAL	PROP EQUIP

# ..MISSION

180

CET WPN SYS, ARTY & INF WPNS, CREW SERVED WPNS MTD ON ANY TYP VEH, & INF , CONVL ARTY LANH DVC FOR BOTH CONVL SHL & H CAP BST RKT ARTY SHL, EXCL FREE RKT.GM.BAL MSL.TGT MSL & RELATED LANH & GSE.CLIPS LK & MAG FLR FOR CONVL AMMO, TK, SP ARTY & ASGD SPV, CIPOLA, RCL & MT, ELEV & TRAV MECH-

106-679

311.134

3.598

11.189

... CURRENT IMPORTANT PROGRAMS GUN LOW ALTITUDE AIR DEFENSE PROTOTYPE -GLAADS LARGE CALIBER SOFT RECOIL SYSTEM SQUAD AUTOMATIC WEAPON GUN AIR DEFENSE EFFECTIVENESS STUDY BEAM RIDER PROJECTILES FOR DIRECT FIRE SYSTEMS

103.617 100.838

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FAC CAPABILITIES-RNG FAC PERMIT FIRING ARTY XPN OF 105MM SIZE OR SMALLER USING INRT PJCTL AT O DEGREES EL INTO PRF BUTT AT 100 YDS DIST. WPN FIR AT EL USING DISINTEGRATING PUCTL LOADED W/WET SAND.RNG BLDG HSG INDOOR RNG-2 ARE 100 MIR-1 CLIMATIC CHMBR RNG 1000 IN W/CONT HMD TEMP OF -90/ PLUS 200 DEGREE F. 1 1000 IN XPN MT SIM RNG. ANY SA WPN THRU 40MM CAN BE FIRED.LATTER RNG 25 W. 20 H PERMITS FIRING FROM TK OR HLCPTR.ACCESS TO IBM 360/65 COMPUTATION CENTER. PROTOTYPE SHOP IN SUPPORT OF RDTE. MAJOR EQUIP- ILLUSTROMAT 1200. CMPTR GRPHS. MY INSTM SYS. VAR FLEXIBILITY GUN MT. PROTOTYPE HIGH-SPEED SCNG IR RADIOMETER SYS. HOLOGRAPHIC SYS. VAR ANGLE HECPTR MT. ALPHA LUBT TESTER MODEL LEWS. MOTION TABLE FOR SMALL TURRET STBLN TESTING. HYDR FLOW SIM-HYFLOS. SMALL TURRET FIRING FIXTURE. NON-FIRING AUTO AMMO LOADER FOR TANKS. THERM ENVIR SIM EQUIP FOR WPN SYS INSTALLATION RSCH INST FOR BEHAVIORAL AND SOCIAL SCIENCES WASHINGTON, D.C. C.O. COL RICHARD A. ROOTH TECH. DIR. DR. J.E. UHLANER

	PROGRAM	DATA BY FISCA	AL YEAR (HILLION \$)
PROGRAM		1972	1973
		(ACTUAL)	(ACT + EST)
TOTAL ROTGE		8.706	6.580
TOTAL PROCURE	MENT	0.000	0.000
TOTAL OSM		0.000	0.000
TOTAL OTHER		0.000	0.000
TOTAL ANNUAL	LAB	8.706	6.580
TOTAL INHOUSE	•	2.540	3.315
TOTAL INHOUSE	=	2.540	3.315
ANNUAL OPERAT		0.392	0.909
	PERSONNEL DA	TA (END OF F	Y 1972)
PERSONNEL	AUTHORIZED	TOTAL	TOTAL

PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	11	1	9	2
CIVILIAN	130	44	93	37
TOTAL	141	45	102	39

		SPACE AN	DPROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	T)	COST (MILL	.ION \$}
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	25.435	9.742	1.823	37.000	0.000	1.999

...MISSION
RSCH AND DEV PRGMS IN BEH AND SOC SCI FOR DEPT ARMY IN IND TNG AND PERF
AND IN DRG SYS.PRGMS INCL RSCH: TO IMPRV TRNG AND TO INCR CAP OF SOL YO
RSLVE PERS-INTRPERS PROBS,TO IMPRV DISTR MNPWR, ENHANCE EFF OF GRPS IN
CMD-CNTRL, IMPRV PERF OF GRPS IN MIL SYS THRU ORG DEV, IMRRV UNIT LORSHP

\*\*\*CURRENT IMPORTANT PROGRAMS
EVALUATE EFFECTS OF COUNSELING AND PREDICTUR TESTS ON DISCIPLINE RATES
NEW TECH TO EVAL OFCR LDRSHP POTENTIAL FOR KEY PERS MGT DECISNS IN OPMS
HUMAN PERFORMANCE EXPERIMENTATION IN TACTICAL NIGHT OPERATIONS
DETERMINE INFORMATION REQUIREMENTS FOR TACTICAL SITUATION MAP DISPLAYS
ASSESSMENT OF ARMY RACE RELATIONS PROGRAMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
LABORATORY FACILITIES SUPPORT SIX TECH AREAS: 1SYS INTEG AND CND-CNTRL2
TEAM PERF ENHANCEMENT3UNIT TRNG AND EDUC TECHNLGY4IND TNG AND MNPWR DEV
5LDRSHP PERF6SOC PROC.CENTRAL COMPUTER PROVIDES DATA PROCESSING & REAL
TIME INTERFACING WITH VARIETY OF EXP STATIONS SUPPORTING ALL TECH AREAS
.TWO FIELD UNITS PROVIDE HUM PERF EXP SUPPORT TO MASSTER PROG AND TO
TACT NT VISION PROG.RSCH UTIL TEAM ASSESES OPERATIONAL UTILIZATION OF
RSCH PRODUCTS AND PROVIDES GUIDANCE FOR NEW RSCH DIRECTION

577

580

CIVILIAN

TOTAL

C.O. MG J.E. PIEKLIK DIR. RD&E COL L.F. FELDER

989

1005

	PROGRAM DATA BY	FISCAL YEAR (MILLI	ON \$)
PROGRAM	1972	1973	
	(ACTUAL)	(ACT + EST)	
TOTAL ROTGE	46.2	91 46.639	
TOTAL PROCUREMENT	26.6	04 41.667	
TOTAL O&M	5.0	26 5.945	
TOTAL OTHER	0.2	0.204	
TOTAL ANNUAL LAB	78.1	28 94.455	
TOTAL INHOUSE	27.5	51 27.016	
TOTAL INHOUSE ROTEE	16.6	59 15.439	
ANNUAL OPERATING COST	6.5	44 7.553	
PERS	SONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHORI			NON-
STREM	<del>-</del>	_	PROF
MILITARY	16	0 19	3

		SPACE AND	PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEE	ET)	COST (MILI	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1125	361.202	0.000	0.000	361.202	15.838	16.767

412

431

...MISSION
RESPONSIBLE FOR RESEARCH, CONCEPT, DESIGN, DEVELOPMENT, FABRECATION, ADVANCED PRODUCTION ENGINEERING, SUPPORT TO PRODUCTION, FOR PRESENT AND
FUTURE VEHICLES SYSTEMS AND SUB-SYSTEMS OF TANK-AUTOMOTIVE MATERIEL AND
ITS FUTURE SCIENCES

...CURRENT IMPORTANT PROGRAMS
AUTOMATIC TEST EQPT FOR INTERNAL COMBUSTION ENGINE POWERED MATERIAL
MID-RANGE AND LONG RANGE CONCEPT STUDIES ON FUTURE TRANSPORT VEHICLES
MID-RANGE AND LONG RANGE CONCEPT STUDIES ON FUTURE TACTICAL VEHICLES
HYBRID ENGINE DEVELOPMENT
RIVERINE RESEARCH

C.O. COL HYRUM DALLINGA TECH. ADV. FRANK S. MENDEZ

	PROGRA		AL YEAR (MILLION	5)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		2.792	2.587	
TOTAL PROCUREM	ENT	0.063	0.040	
TOTAL DEM		0.002	0.005	
TOTAL OTHER		1.400	1.200	
TOTAL ANNUAL L	AB	4.257	3.832	
TOTAL INHOUSE		4-257	3.832	
TOTAL INHOUSE	RDT&E	2.792	2.587	
ANNUAL OPERATI	NG COST	0.612	0.514	
	PERSONNEL D	ATA (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON <b>→</b>
	STRENGTH	PHDS	PROF	PROF
MILITARY	126	0	31	95
CIVILIAN	89	4	20	59
TOTAL	215	4	51	164
	SPA	CE AND PROPERT	Y	
ACRES	SPACE (THOUSAN	DS OF SQUARE F	EET) COST	(HILLION \$)
	LAB AD	MIN OTHER	TOTAL REAL	PROP EQUIP
18868	66.363 87.	971 67-118	221.452 1	.211 3.908

...MISSION
PLAN AND CONDUCT ENVIRONMENTAL PHASES OF ENGINEERING, EXPANDED SERVICE,
INTEGRATED ENGR/SERVICE EVALUATION, CHECK, AND CONFIRMATION TESTS.
SUPPORT TROPICAL ENVIRONMENTAL TESTS CONDUCTED BY OTHER AGENCIES.
CONDUCT RESEARCH IN TROPICAL ENVIRONMENTS.

...CURRENT IMPORTANT PROGRAMS
IN-HOUSE LABORATORY INDEPENDENT RESEARCH EILIRN.
DETERMINATION OF OPTIMUM TROPICAL STORAGE & EXPOSURE SITES, PHASE 1 AND PHASE 2. OPTIMUM DURATION OF TROPIC MATERIEL ITEMS.
MOBILITY IN NATURAL ENVIRONMENT.
EXPOSURE/PERFORMANCE TESTS OF SELECTED MATERIEL ITEMS.

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
EVALUATE AND RECOMMEND AS TO TEST ITEM SUITABILITY FOR PRESCRIBED USE
RECOMMEND TO HQ, TECOM, RESEARCH PROJECTS IN SUPPORT OF ARMY RDT&E.
PLAN AND SUPPORT RDT&E ACTIVITIES FOR DOD OR OTHER GOVERNMENT AGENCIES.
NATURAL TROPICAL ENVIRONMENT. FIRING RANGES UP TO 15MM CALIBER.
NATURAL TERRAIN MOBILITY COURSES. AMMO TEST STROAGE AND FUNCTIONING
AREAS. CHEMICAL, BIGLOGICAL, ELECTRONICS, SOILS, HUMAN FACTORS, AND
CALIBRATION LABORATORIES. JUNGLE GRASS AND COASTAL MATERIAL EXPOSURE
SITES. JUNGLE RADIO RANGING SITES. MAN-PACK PORTABILITY COURSE.
CALIBRATED SEISMIC DETECTION TEST GRIDS. PHOTOGRAPHIC SUPPORT FACILITY.
TECHNICAL OPERATIONS SUPPORT FACILITY, POL TANK FARM.

THE STATE OF THE PARTY OF THE P

C.O. COL E. L. BUESCHER

222224	PRO			YEAR (MI	LLION \$)	
PROGRAM		1972		1973	_	
		CACTUAL	•	ACT + EST	-	
TOTAL RDT&E		13.	691	15.6	45	
TOTAL PROCUREMA	NT	0.	000	0.0	00	
TOTAL O&M		1.	974	1.7	86	
TOTAL OTHER		4.	291	5.0	68	
TOTAL ANNUAL LA	<b>AB</b>		956	22.4	-	
TOTAL INHOUSE		19.	956	22.4	99	
TOTAL INHOUSE F	RDT&E	13.	691	15.6	45	
ANNUAL OPERATIO	NG COST		120	3.1	20	
	PERSONNE	L DATA (E)	ID OF FY	1972)		
PERSONNEL	AUTHORIZED		TAL	TOTA	L	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	546		168	305	•	241
CIVILIAN	606		120	253	ı	353
TOTAL	1152		288	558	<b> </b>	594
		SPACE AND I	PROPERTY			
ACRES	SPACE (THOU	ISANDS OF SO	JUARE FEE	ET)	COST (MIL	LIOM \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1173	389.300	58.600	0.000	447.900	0.000	12.917

...MISSION
PERF MED R AND D AND CONDUCTS GRAD EDUC IN MED FLD, VET MED AND ALLIED
MED SCI. SERVES AS CONSULTING AND DIAGNOSTIC REF LAB FOR ARMY. PROV
ADVISORY SVC ON PROB OF EPIDEMIOLOGY IN MIL MED. PRODUCES AND DISTR
BIOL PROD NOT AVAIL FROM COM SOURCES.

...CURRENT IMPORTANT PROGRAMS
TO DISCOVER EFFECTIVE PREVENTIVE AND TREATMENT AGENTS FOR CONTROL OF
DRUG REFRACTORY MALARIA. TO DEVELOP MODES FOR CONTROL OF MENINGOCOCCAL
AND OTHER RESPIRATORY DISEASES OF RECRUITS. TO DEFINE THE ETIOLOGY OF
DRUG ABUSE IN SOLDIERS. MOLECULAR PHARMACOLOGY OF CHEMOTHERAPEUTIC
DRUGS. TO DEVELOP IMPROVED SURGICAL MGT OF SEVERELY INJURED CBT CAS.

RESEARCH, TEACHING AND REF LAB SERVICES SUMMARIZE MAJOR FUNCTIONS IN THE AREAS OF PREVENTIVE MEDICINE, INFECTIOUS DISEASES, SURGERY, NEUROPSYCHI-ATRIC DISEASES, INTERNAL MEDICINE, MEDICAL CHEMISTRY, AND BASIC MEDICAL SCIENCES. HIGHLY SOPHISTICATED MEDICAL EQUI?MENT IN ALL AREAS OF INVESTIGATION INCLUDING ELECTRON MICROSCOPES, AUTOMATED CHEMICAL ANALYSIS SYSTEMS, CHEMICAL TYPEWRITERS, BEHAVORIAL RESEARCH INSTRUMENTATION. THE WRAIR MAINTAINS LABORATORY AND RESEARCH FACILITIES AT FT MEADE MD, EDGEWOOD ARSENAL, MD, SEATO HQ, BANGKOK, THAILAND, AND BRAZIL, S.A. THE WRAIR IS CAPABLE OF CONDUCTING RESEARCH IN A VAST NUMBER OF AREAS.

C.O. MG ARTHUR H. SWEENEY TECH. DIR. DR. RICHARD H. DUNCAN

PROGRAM	PROGRAM	DATA BY FISCA 1972	L YEAR (MILLION 1973	\$)
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		94.021	95.444	
TOTAL PROCUREM	ENT	3.168	3.497	
TOTAL ORM	<b>C.4.</b>	1.821	1.659	
TOTAL OTHER		12.101	12.163	
TOTAL ANNUAL L	<b>A</b> R	111.111	112.763	
	~	******	1120105	
TOTAL INHOUSE		91.240	90.5/3	
TOTAL INHOUSE	RDT&E	74.340	73.495	
ANNUAL OPERATI	NG COST	23.380	25.364	
	PERSONNEL DA	TA (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	HON-
	STRENGTH	PHDS	P'ROF	PROF
MILITARY	1181	6	1116	65
CIVILIAN	3594	6	441	3153
TOTAL	4775	12	1557	3218
	SPAC	E AND PROPERTY	•	
ACRES	SPACE (THOUSAND			(MILLION \$)
· = · · <del>= *</del>		IN OTHER		
4458509	1407.139 444.5			507 155.310

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

---CURRENT INPORTANT PROGRAMS
PULSE-DO PPLER RADAR APPLICATIONS
DISTANT OPTICAL ATTITUDE MEASURING SYSTEM
TRANSPONDER DEVELOPMENT
LASER RANGING AND TRACKING SYSTEM
COHERENT BEACON CHECKOUT SYSTEM

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

## C.O. COL NORMAN L. ROBINSON TECH. ADV. FLOYD E. WATTS

	PROGRAM DATA BY	FISCAL YEAR (MIL	LION \$)
PROGRAM	1972	1973	
	(ACTUAL)	(ACT + EST)	
TOTAL ROTGE	11.50	8 11.73	2
TOTAL PROCUREMENT	8.73	7 10.63	0
TOTAL DEM	0.54	2 0.48	0
TOTAL OTHER	3.86	6 3.79	8
TOTAL ANNUAL LAB	24.65	3 26.64	0
TOTAL INHOUSE	24.65	3 26.64	0
TOTAL INHOUSE RDT&E	11.50	8 11.73	2
ANNUAL OPERATING COST	9.43	6 10.42	2
PER:	SONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHOR:	IZED TOTA	L TOTAL	NON-
STRE	IGTH PHD	S PROF	PROF
MILITARY	k36 1	3 92	344
CIVILIAN		0 89	713
TOTAL 1:	238 1	3 181	1057
	SPACE AND PRO	PERTY	
	THOUSANDS OF SQUA		COST (MILLION \$)
LA 1086989 166.2			EAL PROP EQUIP 85.771 55.357

---MISSION
PLAN, CONCUCT, RPT ENG TEST AIRDROP MAT AND LONG RANGE TUBE ARTY
DESERT ENVIRONMENT TEST OF ARMY MATL AS DIRECTED
PLAN, CONDUCT, RPT ENG DESIGN PROC AND PCST PROD TEST AS DIRECTED
PLAN, CONDUCT, RPT ENG DISIGN TEST OF AIRCRAFT WEAPONS SYSTEM

---CURRENT IMPORTANT PROGRAMS
AIRCRAFT RECOVERY KIT
TRUCK, 1/4 TON XM705
HET 70
CHEYENNE AJ56A SUPPORT
2.757 BASELINE ACCURACY

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES BALL ISTIC MEASUREMENT RANGES ENG TEST FACILITIES VEHICLE FIELD TEST FACILITIES TEST COURSES DESERT TERRAIN TEST AREAS CONTROLLED IMPACT TEST FACILITY INSTRUMENTED DROP ZONES RADIO TELEMETRY DATA PROCESSING CENTER RANGE TIMING OPTICAL PHOTO ENG FACILITIES

## INSTALLATION ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONYEREY, CA.

## C.O. CDR G.D. HAMILTON

0

		PROGRAM	DATA BY FI	SCAL YEAR (MIL	LION \$)
PROGRA	M		1972	1973	
		(	ACTUAL)	(ACT + EST)	
TOTAL	RDT&E		1.079	0.75	•
TOTAL	PROCUR EMENT		0.000	0.00	0
TOTAL	M30		0.002	0.00	0
TOTAL	OT HER		0.077	0.20	0
TOTAL	ANNUAL LAB		1.158	0.95	•
TOTAL	INHOUSE		0.885	0-68	3
TOTAL	INHOUSE RDT&	E	0.806	0.48	3
ANNUAL	OPERATING C	OST	0.076	0.09	5
		PERSONNEL DAT		FY 1972)	
PERSON	INEL AUT	HORIZED	TOTAL	TOTAL	NON-
	· S	TRENGTH	PHDS	PROF	PROF
MILITA	NRY	16	1	7	9
CIVIL	IAN	27	1	15	12
TOTAL		43	2	22	21
		SPACE	AND PROPE	RTY	
ACRE	S SPA	CE (THOUSANDS	OF SQUARE	FEET)	COST (MILLION \$)
		LAB ADMI	N OTHE	R TOTAL R	EAL PROP EQUIP

...MISSION
CONDUCT RESEARCH AND DEVELOPMENT, DIRECTED TOWARDS PROVIDING EFFECTIVE
LOCAL AND REGIONAL ENVIRONMENTAL ANALYSIS AND PREDICTION TECHNIQUES& AND
PROVIDE PLANNING, MODELING AND EVALUATION SERVICES FOR THE NAVAL WEATHER
MODIFICATION PROGRAM.

6.351

8.000

0.000

0.195

0.843

0.806

...CURRENT IMPORTANT PROGRAMS
COMPUTER SIMULATION OF FOG/CLOUD AND PRECIP. MICROPHYSICAL PROCESSES
IMPROVED TECHNIQUES FOR APPLICATIONS OF ENVIRONMENTAL SATELLITE DATA.
IMPROVED MESOSCALE PREDICTION TECHNIQUES (MEDITERRANEAN, TYPHOONS ETC.)
IMPROVED WEATHER DATA PRESENTATION METHODS.
HYDRODYNAMICAL NUMERICAL MODELLING OF WATER LEVELS AND CURRENTS

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
CDC 3100 COMPUTER AND PERIPHERAL EQUIPMENT,
IBM 1130 COMPUTER AND PERIPHERAL EQUIPMENT
METEORLOGICAL/OCEANOGRAPHIC DATA DISPLAY SYSTEM
IN-HOUSE DOCUMENTATION FACILITIES (MTST, PLATE MAKER, OFFSET PRESS, ETC.)
20,000 VOLUME TECHNICAL LIBRARY OF ENVIRONMENTAL PUBLICATIONS
IN-HOUSE GRAPHIC ARTS AND DRAFTING FACILITIES.
CALMA DIGITIZER
CALCOMP 565 PLOTTER

INSTALLATION NAVAL AEROSPACE MEDICAL RESEARCH LABORATORY PENSACOLA, FL.
C.O. CAPT N.W. ALLEBACH TECH. ADV. DR. A. GRAYBIEL

DD 000 AM	PROGRAM		L YEAR (MILLION	\$)
PROGRAM		1972	1973	
	•	ACTUAL)	(ACT + EST)	
TOTAL ROTEE		3.408	3.393	
TOTAL PROCURE	MENT	0.000	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.300	0.321	
TOTAL ANNUAL	LAB	3.708	3.714	
TOTAL INHOUSE		3.708	3-714	
TOTAL INHOUSE	RDT&E	3.408	3.393	
ANNUAL 'OPERAT	ING COST	1.091	0.891	
	PERSONNEL DAT	A (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	31	11	19	12
CIVILIAN	123	17	49	74
TOTAL	154	28	68	86
	SPACE	AND PROPERTY	1	
ACRES	SPACE (THOUSANDS	OF SQUARE FE	ET) COST	(MILLION \$)
	LAB ADMI	N OTHER	TOTAL REAL P	ROP EQUIP
0	131.787 19.60	4 11.693	163.084 2.	807 2.073

...MISSION
CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN ASROSPACE MEDICINE
AND RELATED SCIENTIFIC AREAS APPLICABLE TO AEROSPACE SYSTEMS

...CURRENT IMPORTANT PROGRAMS
PHYSIOLOGICAL EFFECTS OF NONIONIZING RADIATION
HUMAN DYNAMIC RESPONSE TO IMPACT ACCELERATION
PREVENTION OF DISORIENTATION AND VESTIBULAR DISTURBANCES IN FLIGHT
AVIATION PERSONNEL PROCUREMENT AND SELECTION
EVALUATION OF CARDIOVASCULAR DISEASE RISK IN FLIGHT PERSONNEL

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
NONIONIZING RADIATION FACILITY WITH MICROWAVE AND EXTREMELY LOW FIELD
CAPABILITIES IMPACT ACCELERATION FACILITY EXAMINATION OF FLIGH PERS
FOR PHYSICAL FITNESS PSYCHOLOGICAL APTITUDES AND TOLERANCE TO STRESS
EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ACOUSTICAL
ELECTROMAGNETIC AND ATMOSPHERIC ENVIRONMENTS SLOW ROTATION ROOM HUMAN
DISORIENTATION DEVICE CORIDLIS ACCELERATION PLATFORM SHIP MOTION SIMULATOR STILLE-WERNER CHAIR OFF VERTICAL ROTATING CHAIR ELECTRON MICROSCOPE SUPER CONDUCTING MAGNET ANACHOIC CHAMBER ELECTRIC POSTURE TABLE
VERTICAL OSCILLATOR REVERBERANT CHAMBER PERIODIC ANFULAR ROTATOR CINE®
GLOBE OPTOKINETIC STIMULATOR ULTRACENTRIFUGE VECTORCARDIOGRAPH LOW
PRESSURE CHAMBER BALLISTOCARDIOGRAPH X-RAY VIVARIUM WITH OPERATING
SUITE

1988, STORAGE

44-000

101290

# C.O. CAPT CLARENCE E. RICH TECH. DIR. HOWARD C. FISH

	PROGRAM D		L YEAR (HILLION S	3)
PROGRAM		1972	1973	
	( A	CTUAL)	(ACT + EST)	
BATCH JATOT		2.447	2.588	
TOTAL PROCURE	MENT	2.687	2.375	
M30 JATOT		0.370	0.330	
TOTAL OTHER		1.962	2.000	
TOTAL ANNUAL	LAB	7-466	7.293	
		10100		
TOTAL INHOUSE	<u> </u>	6.496	6.488	
TOTAL INHOUSE		2.347	2.513	
ANNUAL OPERAT	ING COST	1.400	1-400	
	PERSONNEL DATA	(END OF FY	( 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	166	1	9	157
CIVILIAN	110	ō	24	86
TOTAL	276	ĭ	33	243
10176	210	•	33	243
	SPACE	AND PROPERTY	•	
ACRES	SPACE (THOUSANDS	OF SAUARE FE	ET) COST	(MILLION \$)
	LAB ADMIN	OTHER	TOTAL REAL P	ROP EQUIP

---MISSION
DEVELOP TEST AND EVAL PARACHUTES AND RELATED ASSY HUMAN ESCAPE METHODS AND SYS RETARD AND RECON SYS AND RESCUE SURVIVAL AND PERSONNEL SAFETY EQUIP STABILIZATION RETARD AND RECOV SYS FOR LAY-DOWN WEAPONS AIRCRAFT MISSILE AND CAPSULE ASSY AND SPECIAL LOG AERIAL DELIVERY METH TECH EQUIP

263.000

317.000

8.598

3.758

10.000

---CURRENT IMPORTANT PROGRAMS
LEAD LAB ON SEU-3/A ESCAPE SYSTEM FOR AV8A HARRIER AIRCRAFT
HELD ESCAPE AND PERSONNEL SURVIVAL ENCAPSULATED AND INDIVIDUAL ESCAPE
AIRCREW ESCAPE RECOVERY CAPABILITY (AERCAB)
MAXIMUM PERFORMANCE ESCAPE SYSTEM
GUNFIRED MISSILE RETARDATION SYSTEM

DROP TEST RANGE LAND AND SALT WATER INST WITH SPACE POSITION, LONG RANGE PHOTO, CCTV, TELEMETRY, DATA PROC, RAWIN, WHIRL AND DROP TEST TOWERS. RANGE PARAMETERS SEA LEVEL TO 80000 FT SPEED 0-MACH 3. ENGINEERING SERVICES EXPL DEV, ADV AND BASIC DESIGN, INSERV AND TEST ENGR. MATL LAB WITH TEXTILE MATL TEST AND ENVIRONMENTAL ACCEL EQUIP, TENSILE TEST FM 0-20000 LB AND PHYSIOLOGICAL EVAL EQUIP. PHOTO LAB WITH STILL AND MOTION PICTURE 16 MM TO 70MM COLOR UP TO 5000FPS. A/C SUP, TRANSPORT DELIVERY, LOW TO HIGH SPEED VEHICLE DELIVERY, AIR-TO-AIR PHOTO, EJECTION SEAT TEST BED, PERSONNEL DELIVERY AND SIMULATED WEAPON DELIVERY. INDUSTRIAL SHOP-TEST VEHICLE AND PROTOTYPE PARACHUTE AND ASSOCIATED HARDWARE FABRICATION.

C.O. CAPT M.B. MC CAULEY TECH. DIR. G.L. HOLLINGSWORTH

PROCRAM	PR		A BY FISC	AL YEAR (M) 1973	(LLION \$)	
7 1112 - 12411		_	UAL	(ACT + EST	73	
1. AL ROTGE			71.889	86.6		
TOTAL PROCURE	MENT		21.194	18.7	754	
M30 JATOT			5.599	6.	558	
TOTAL OTHER			5-520	5.4	42	
TOTAL ANNUAL	LAB	1	.04.202	117-4	443	
TOTAL INHOUSE	•		49.203	50.0	25	
TOTAL INHOUSE	RDTEE		37-307	37	702	
ANNUAL OPERAT	ING COST		12-815	13.0	000	
	PERSONN	EL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHOP!ZED		TOTAL	TOT	<b>NL</b>	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	389		11	10	7	282
CIVILIAN	2335		27	1042	2	1293
TOTAL	2724		38	114	9	1575
		SPACE AN	ID PROPERT	Y		
ACRES	SPACE (THO	USANDS OF	SQUARE F	EET)	COST (HIL	LION \$)
	'L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
831	81.5.970	26.080	444.075	1205-125	22.912	37.610

TO BE THE PRINCIPAL NAVY ROTSE CENTER FOR NAVAL AIRCRAFT SYSTEMS

...CURRENT IMPORTANT PROGRAMS
SHIP AIR SYSTEMS INTEGRATION (SASI)
LIGHT AIRBORNE MULTI-PURPOSE LYSTEMS (LAMPS)
ADVANCED ACGUSTIC SENSORS
HELICOPTER SENSOR SYSTEMS
AIRUPEN LIFE SUPPORT SYSTEMS, PROTECTIVE CLOTHING AND DEVICES

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
KSCH, DESISN, DEVELOP, TEST, LAB AND FLIGHT EVAL. LONG-RANGE AIR WARFARE
STUDIES, THEORETICAL ANAL, ENGIN ANAL AND FEAS PROTOTYPE DEVELOP OF SYS
IN ABN ASM, ATTACK CARRIER WARFARE AND OCEAN SURVEILLANCE ENGIN ANAL ON
AERO SYSTEM COMP AND AREAS OF TECHNOLOGY IN ABN ASW SYSTEMS COMMUNICATI
ONS, NAVIG, DIGITAL COMPUTATION, COUNTERMEAS, AEW, FC, AEROSPACE MED,
BIOPHYSICAL EFFECTS OF ACCELERATION, HUMAN FACTORS, AIRCREW PERSONAL
AND SAFITY EQUIP SPEC A/C CONFIG CONTROL SYSTEM, ABN WEAPONS HAND EQUIP,
ABN PHOTO EQUIP, MATERIALS AND PROCESSES USED IN A/C AIRFRAME STRUCTURES
AND SUPPORT TO OTHER ACTIVITIES AS DIRECTED.

C.O. CAPT. C.T. FROSCHER TECH. DIR. J.M. DUNFORD

	PROGR	AM DATA BY FISCA	L YEAR (MILLION	\$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL ROTEE		12.813	11.905	
TOTAL PROCUREM	ENT	37.029	25.972	
TOTAL DEM		24-601	16.864	
TOTAL OTHER		4.554	3-210	
TOTAL ANNUAL L	AB	78.997	57.951	
TOTAL INHOUSE		46.283	40.954	
TOTAL INHOUSE	RDT&E	8-162	7.583	
ANNUAL OPERATI	NG COST	9.338	9.401	
	PERSONNEL	DATA (END OF FY	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	37	0	15	22
CIVILIAN	2198	4	406	1792
TOTAL	2235	4	421	1814
	SP	ACE AND PROPERTY	Y	
ACRES		NDS OF SQUARE FE		(MILLION \$)
		DMIN OTHER	TOTAL REAL	
560	1373.426 177	-625 723-209	2274-260 32	-293 17-039

...MISSION
CONDUCT A PROG. OF RDT&E, SYS. INTEGRATION, LIMITED PROD'N, PROCUREMENT
& FLEET ENGINEERING SUPP. IN LAUNCHING, RECOVERY & LANDING AIDS FOR A/C
IN NAVAL INTELLIGENCE PROCESSING SYSTEMS& & IN GROUND SUPPORT EQUIP. FOR
A/C, AIRBORNE WEAPONS SYS. & NAVAL INTELLIGENCE PROCESSING SYS.

...CURRENT IMPORTANT PROGRAMS
SHIPBOARD RECOVERY OF HELICOPTERS AND V/STOL
SHIPBOARD STORED ENERGY ROTARY DRIVE CATAPULT
VERSATILE AUTOMATIC SHOP TESTER
AIRCRAFT NOISE SUPPRESSION PROGRAM
INTEGRATED OPERATIONAL INTELLIGENCE CENTER FOR CVA - 69

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCT ROTEE ON A/C. LAUNCHING AND RECOVERY EQUIP., VISUAL LANDING AIDS
NAVAL INTELLIGENCE PROCESSING SYSTEMS, GROUND SUPPORT EQUIP.AND RELATED
SYS. PROVIDE FLEET SUPPORT FOR INST\*LD EQUIP. DETERMINE SUPP. EQUIP.
REQUIREMENTS BY PERFORMING ANALYSES OF END-ITEMS. MANAGE TEST PROGRAMS
FOR EQUIP. TESTED ON VERSATILL AVIONICS SHOP TEST SYSTEM. MACHINE SHOP
WITH CONVENTIONAL AND AUTOMATED MACHINE TOOLS CAPABLE OF PROTOTYPE AND
LIMITED PRODUCTION.IBM 250/50 COMPUTER FOR ENGINEERING ANALYSES. LANDING
MAT TEST FACILITY FOR FULL SCALE SIMULATION OF RUNWAY LOADING. TEST
FACILITY FOR EVAL. OF WIRE ROPE COMPONENTS. TEST LAB FOR DEVELOPMENT
TESTING O. HYDRAULIC. PNEUMATIC AND ELECTRICAL EQUIP. UNDER CONDITIONS
SIMULATING FLEET USE. TEST AND EVAL SITE FOR NAV INTELL PROCESSING SYS.
VACUUM FURNACE FOR HEAT TREATING. ELECTRON BEAM WELDER. CRYOGENICS FAC.

#### C.O. CAPT A.D. WILLIAMS

	PROGR	AM DATA BY FISCA	AL YEAR (MILLION	\$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL ROTGE		11.233	13.193	
TOTAL PROCURE	MENT	3.000	4.700	
TOTAL O&M		0.016	0.010	
TOTAL OTHER		2.201	2.794	
TOTAL ANNUAL	LAB	16.450	20.607	
TOTAL INHOUSE		11.052	13.072	
TOTAL INHOUSE	RDT&E	7.425	7.700	
ANNUAL OPERAT	ING COST	3.596	3.000	
	PERSONNEL	DATA (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	10	0	9	1
CIVILIAN	690	Đ	158	532
TOTAL	700	0	167	533
	SI	PACE AND PROPERT	Y	
ACRES		ANDS OF SQUARE F		(HILLION \$)
<del>-</del>	LAB	ADMIN OTHER	TOTAL REAL	PROP EQUIP
66	410.937 5	1.800 136.000	598.737 45	.076 13.600

---MISSION
TO TEST AND EVALUATE AIRCRAFT PROPULSION SYSTEMS-THEIR COMPONENTS AND
ACCESSORIES AND FUELS AND LUBRICANTS AND TO PERFORM APPLIED RESEARCH AND
DEVELOPMENT LEADING TO CORRECTION OF DESIGN DEFICIENCIES AND SERVICE
PROBLEMS

...CURRENT IMPORTANT PROGRAMS
KF401-PW-400 PERFORM ALT AND ENVIRONMENTAL DEVELOPMENT TEST AND EVALUATE
IF34-GE-2 QUAL TESTS FOR PERFORMANCE ALT-ENVIRONMENTAL CONDITIONS
TF30-P6412 PERFORM QUAL TESTS IAW MIL-E-5007 SPEC
AVN FUELS AND LUBES MIL-L-23699 CHARACTERISTICS-SPEC-TESTS AND QUALS
YT400-CP-400 ENVIRONMENTAL QUAL TESTS

PROVIDE A TEST AND EVALUATION CENTER FOR AIRCRAFT PROPULSION SYSTEMS AND PROPULSION RELATED COMPONENTS. ENVIRONMENTAL CONDITIONS OF FLIGHT AND SERVICE ARE SIMULATED IN TEST CELLS-ON TEST BENCHES-OR IN THE LABORATORY THE TURBOJET-FAN-LARGE CELLS CAN SIMULATE ALTITUDES FROM SEA LEVEL TO BOOOD FT WITH TEMPERATURES FROM MIMUS 65 DEG TO PLUS 320 DEG F. THRUST STANDS INSTALLED ARE CAPABLE OF MEASURING THRUST TO 50000 LBS. THESE CELLS ARE FULLY CAPABLE OF TESTING THE LARGER JET ENGINES NOW IN NAVY SERVICE. THE TURBOSHAFT CELLS ARE CAPABLE OF SIMULATING ALTITUTES FROM SL TO OVER 40000 FT WITH SPECIFICATION RANGE OF TEMPERATURES. TEST CELL FACILITIES EXIST FOR COMPLETE RANGE OF SHAFT POWER ENGINES WITH SUB FACILITIES FOR TEST AND EVALUATION OF SHAFT ENGINE COMPONENTS-FUELS-LUBRICANTS - AUX POWER SYSTEMS AND ACCESSORIES

AND STREET, STREET, COLOR

### INSTALLATION NAVAL AIR TEST CENTER

C.O. RADM ROY M. ISAMAN TECH. DIR. JOHN B. PARADIS

		FISCAL YEAR (MILLION	5)
PROGRAM	1972	1973	
	(ACTUAL)	(ACT + EST)	
TOTAL RDT&E	34.71	3 32.833	
TOTAL PROCUREMENT	26.79	9 23.572	
TOTAL D&M	6.04	8 5.098	
TOTAL OTHER	22-21-	4 22-171	
TOTAL ANNUAL LAB	89.77	83.674	
TOTAL INHOUSE	74.32	8 69.850	
TOTAL INHOUSE ROTEE	31.01	4 29.326	
ANNUAL OPERATING COST	26.68	0 28.429	
PERS	ONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHORI	ZED TOTA	L TOTAL	NON-
STREN	GTH PHD	S PROF	PROF
MILITARY 9	11	1 205	706
CIVILIAN 20	142	5 420	1622
TOTAL 29	53	6 625	2328

		SPACE A	ND PROPERT'	4		
ACRES	SPACE (TH	DUSANOS DI	F SQUARE FI	EET)	COST (MILI	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6872	748-000	216-948	3101.833	4066.781	111.589	40.050

...MISSION
COORDINATE & PERFORM TEST & EVAL OF AIRCRAFT WEAPONS SYSTEMS, THEIR
COMPONENTS & RELATED EQUIPMENT, CONDUCT TEST PILOT TRAINING, PROVIDE
TECHNICAL ADVICE & ASSISTANCE TO BIS NASC CONTRACTORS, ETC.

-..CURRENT IMPORTANT PROGRAMS
EVALUATION NEW AIRCRAFT F14 S3A AD1J SH3D LAMPS AT A4M EP3E A6E//
CHECKOUT ALL AIRCRAFT IN AIMS AIRSPEED/ALTIMETER SYSTEMS//CHECKOUT ALL
ACLS//DEVELOPMENT & EVAL OF ASW SYSTEMS TACTICAL SUPPORT CENTER P3C CV
TSC/EVAL GROUND SUPPORT EQUIP VAST HUMAN FACTORS GRAN HEADS UP DISPLAY
SYSTEMS//ELECTRONIC WARFARE SYS TRAM CHARGER BLUE EA6A//

DEVELOP & TEST CONCEPTS FOR OPERATING AIRPLANES FROM CARRIERS//EVAL AIRCRAFT MAINTENANCE & RELIABILITY// PERFORM ACCELERATED SERVICE TESTS/PERFORM ELECTROMAGNETIC COMPATIBILITY TESTS//DEVEL & EVAL AIRCRAFT ELEC SYSTEMS//RESEARCH & DEVEL AIRCRAFT INSTRUMENTATION & DATA GATHERING DEVICES & SYSTEMS//ESTABLISH STORE RELEASE ENVELOPES//RECOMMEND DESIGN CHANGES TO AIRCRAFT//CONDUCT NAVY PRELIMINARY EVAL//MAJOR FACILITIES//CATAPULTS & ARRESTING GEARS//INTERFERENCE TEST HANGAR//AVIONICS LAB//INSTRUMENTED THEODOLITE RADAR & ECM RANGE/EXTENSIVE ELEC & ENVIRONMENTAL LABS//EXTENSIVE INSTRUMENTATION. REAL TIME TELEMETRY, AND COMPUTER CAPABILITY//ENGINE TEST CELLS//OVER 120 TEST AIRCRAFT//LONG RUNWAYS//AIRCRAFT WEIGHING SCALES//HYDROFOIL SEAPLANE TEST CAPABILITY//SURFACE EFFECTS SHIPS TEST FACILITIES.

INSTALLATION NAVAL AIR TEST FACILITY (SHIP INSTALLATIONS) LAKEHURST, N.J.

C.O. CAPT CHARLES L. AXELL TECH. DIR. NICHOLAS IVANOVIC

PROGRAM	PROGRAM DATA BY FISCAL 1972	YEAR (MILLION \$)
	(ACTUAL) (	ACT + EST)
TOTAL ROTGE	1.371	1.062
TOTAL PROCUREMENT	2.611	2.439
TOTAL ORM	4.327	5.006
TOTAL OTHER	1,466	1.912
TOTAL ANNUAL LAB	9.775	10.419
TOTAL INHOUSE	~ ( ) t	10.414
TOTAL INHOUSE RDT&E	l.i	1.062
ANNUAL OPERATING COST	3.5	3.712

	PERSONNEL DATA	(ENG	≝Y 1972)	
PERSONNEL	AUTHORIZED	TOT	TOTAL	NON-
	STRENGTH	PHUS	PROF	PROF
MILITARY	134	0	7	127
CIVILIAN	405	0	74	331
OTAL	539	0	81	458

		SPACE AND	PROPERTY			
ACRES	SPACE (THE	USANDS OF	SQUARE FEI	ET)	COST (HILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2500	59-204	29.598	91.906	180.708	34.172	7.431

TO CONDUCT TESTS AND EVAL OF LAUNCHING RECOVERY AND VISUAL LANDING AIDS SYSTEMS AND RELATED EQUIPMENT PROVIDE TEST SITES FACILITIES FOR DEV TEST OF SI EQUIPMENT CONDUCT R AND D OF EQUIP AND INSTRUSED IN TEST AND EVALUATION OF SI EQUIPMENT

---CURRENT IMPORTANT PROGRAMS
EVAL OF INTEGRATED CATAPULT CONTROL STATION
HELICOPTER SUPPORT TEST AND EVALUATION CENTER
CVAN-68 JET BLAST DEFLECTOR DEV AND EVAL PROGRAM
CVAN-68 FLUSH DECK NOSE GEAR LAUNCH DEV ANC EVAL PROGRAM
CVAN-68 DEV AND EVAL PROGRAM

CARRIER CONFIGS OUPLICATED AND SERV OPS SIMULATED WITH NAVAL ACFT CAT DEV FAC SHIPBOARD USED TO DEV EVAL NEW ACFT-CARRIER LAUNCH SYSTEM CAT DEV FAC SHOREBASED EXPEDITIONARY CAT FOR DEV MARINE CORPS SATS CONCEPT AND REQUIRED ACFT LAUNCHING ACCESSORIES ARRESTING GEAR DEV FAC SHIPBOARD CONFIGURED TO SIMULATE STANDARD SHIPBOARD ARRESTING GEAR INSTAL MK5 MDD 3 AND MK7 MOD 1 2 AND 3 TEST TRACK FAC 5 TO DEV AND/OR EVAL SHOREBASED AND SHIPBOARD CAT SITES STEAM PLANT FAC SUPPLIES HIGH PRESS STEAM TO SHIPBOARD CAT SITES HYDRAULIC TEST FAC CONSISTS OF TWO HYDRAULIC TEST BENCHES DIGITAL AND ANALOG COMPUTATIONAL FAC PROVIDES FOR SCIENTIFIC PROBLEM SOLUTION MIS AND SCIENTIFIC DATA REDUCTION OF ACQUIRED DATA INSTR MAIN/CALIB FAC MOTION/STILL PHOTO CAP AND FILM DEV LAB

### C.O. COR CESARE R. VALERT

	PROGRAM DATA BY FIS	CAL YEAR (MILLION &	;)
PROGRAM	1972	1973	
	(ACTUAL)	(ACT + EST)	
TOTAL ROTEE	0.332	0.328	
TOTAL PROCUREMENT	0.000	0.000	
TOTAL OEM	0.000	0.000	
TOTAL OTHER	0.137	0.171	
TOTAL ANNUAL LAB	0.469	0.499	
TOTAL ANNUAL CAD	V• 409	0.433	
TOTAL INHOUSE	0.469	0.499	
TOTAL INHOUSE ROTEE	0.332	0.328	
ANNUAL OPERATING COST	0.070	0.060	
PERS	ONNEL DATA (END OF	FY 1972)	
PERSONNEL AUTHORI		TOTAL	NON-
STREN		PROF	PROF
	10 4	6	4
	13	Ö	13
	23 4	6	17
10175	-	•	••
	SPACE AND PROPER	TY	
ACRES SPACE (	THOUSANDS OF SQUARE		MILLION \$3
LAB		= •	OP EQUIP
0 6.00		· · · · · · · · · · · · · · · · · · ·	

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

•••CURRENT IMPORTANT PROGRAMS
EVALUATE IMPROVED METHODS FOR PRESERVING RED CELLS
EVALUATE METHODS FOR PRESERVING PLATELETS AND WHITE CELLS
EVALUATE IMPROVED METHODS FOR COMPONENT THERAPY
CLINICAL EVALUATION OF FROZEN RED CELLS AND PLATELETS
EVALUATE METHODS OF REJUVENATING OUTDATED RED CELLS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
HOLD FOR DONOR AND RARE BLOOD BANK STORAGE CAPABILITY
LIQUID AND FREEZE PRESERVATION EQUIPMENT FOR RED CELLS. WHITE CELLS.
AND PLASMA COMPONENTS
EQUIPMENT TO BIOLOGICALLY EVALUATE THE VIABILITY AND FUNCTION OF RED
CELLS
EQUIPMENT TO BIOLOGICALLY EVALUATE THE VIABILITY AND FUNCTION OF WHITE
BLOOD CELLS
EQUIPMENT TO BIOLOGICALLY EVALUATE THE VIABILITY AND FUNCTION OF
PLATELETS

C.O. CAPT E.M. SAUNDERS TECH. DIR. WILLIAM F. BURKART

	PROGRAM DATA BY	FISCAL YEAR (MIL	LION \$)
PROGRAM	1972	1973	
	(ACTUAL)	(ACT + EST)	
TOTAL ROTGE	9.7	00 10.77	3
TOTAL PROCUREMENT	0.0	69 0-07	3
TOTAL OEM	1.3	61 1.35	0
TOTAL OTHER	0.6	57 0.66	.7
TOTAL ANNUAL LAB	11.7	87 12.86	3
TOTAL INHOUSE	8.4	34 9.15	5
TOTAL INHOUSE ROTEE	6 • d	33 7.54	-2
ANNUAL OPERATING COST	1.6	37 1.79	:3
PERS	ONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHORI			. NON-
STREN	GTH PH	DS PROF	PROF
MILITARY	21	1 9	12
CIVILIAN 3	61	39 196	165
		40 205	177

ACRES	SPACE (THO	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
22	120.352	21.977	31.548	173.877	5.733	5.679

\*\*\*MISSION
MISSION OF LABORATORY IS TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR SHORE
AND SEAFLOOR FACILITIES AND THE SUPPORT OF MARINE CORPS CONSTRUCTION
FORCES

...CURRENT IMPORTANT PROGRAMS
NAVY SHORE FACILITIES SUPPORT. NAVY SEAFLOOR INSTALLATIONS. AMPHIBIOUS &
ADVANCED BASE TECHNOLOGY. ENVIRONMENTAL PROTECTION. ORGANIC MATERIALS.
MATERIAL CONTROL DISTRIBUTION & STORAGE. DEEP OCEAN TECHNOLOGY. DEVELOPMENTS ASSIGNED BY SUPT OF SALVAGE. INDEPENDENT EXPLORATORY DEVELOPMENT &
INDENDENT RESEARCH ROTEE FOR SANGUINE, AIRFORCE, MARINE CORPS, ARMY

PRESSURE VESSEL FACILITY WITH 72-INCH-ID BY 10 FT DEEP PRESSURE VESSEL SUST INING PRESSURES UP TO 5500 PSI DIVING LOCKER & EQUIPMENT FOR 10 DIVLAS. SEAFLOOR SOILS, MATERIALS, SOLID STATE, METALURGICAL, PHOTOELAST-TIC, SNOW AND ICE LABORATORIES. UNDERSEA DIVER CONSTRUCTION VEHICLES (CAU, BTU & NEMO) & WARPING TUG& CORER FOR TAKING SAMPLES AT WATER DEPTHS TO 6000 FT.& INSTU TESTING EQUIPMENT FOR DEEP OCEAN INCLUDING A VANE SHEAR DEVICE, CONE PENETOMETER, 10 FT CORER, PLATE BEARING TEST DEVICE & FOUNDATION MONITOR. A MOTION COMPENSATING LIFTING SYSTEM CAPABLE OF LIFTING 40,000 LBS FROM 6000 FT DEPTH. PHOTOGRAPHIC FACILITY. ENVIRONMENTAL PROTECTION MONITORING CAPABILITY. CDC-8090 COMPUTER/TERMINAL WITH A HIGH SPEED READER & LINE PRINTER, DIGITAL MAG TAPE & PAPER TAPE T/O ANALOG TAPE ADC & DAC CONVERSION & A PEN PLOTTER & TIE WITH CDC-6600.

and I am an in the second of t

INSTALLATION NAVAL CLOTHING AND TEXTILE RESEARCH UNIT NATICK, MS.

C.D. CDR J.L. POOK

PROGRAM	PROGRAM DATA BY FISCAL YE 1972 (ACTUAL) (ACT	1973
TOTAL ROTEE TOTAL PROCUREMENT TOTAL OEM TOTAL OTHER TOTAL ANNUAL LAB	0.558 0.020 0.607 0.020 1.205	0.682 0.080 0.645 0.022 1.429
TOTAL INHOUSE TOTAL INHOUSE ROTGE ANNUAL OPERATING COST	1.205 0.558 0.160	1.429 0.682 0.165

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	1	0	1	0
CIVILIAN	60	0	23	37
TOTAL	61	0	24	37

ACRES	SPACE (THO		) PROPERTY Square fea	EY)	COST (MILL	ION \$)
2	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
	10.000	7-000	3.000	20.000	0-275	0-600

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

...CURRENT IMPORTANT PROGRAMS
EXTREME LOW-TEMPERATURE CLOTHING
STATIC-ELECTRICITY PROPENSITY OF CLOTHING
AIRCRAFT-CARRIER FLIGHT-DECK CLOTHING
COLD-WEATHER HANDWEAR
CRASH-CREW FIRE-PROTECTIVE CLOTHING

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
MAJOR FUNCTIONS:
CONDUCT ROT&E IN TEXTILE MATERIALS, LEATHER, PLASTICS, AND RUBBER
DEVELOP NAVY CLOTHING, ACCESSORIES, AND RELATED ITEMS
CONDUCT STUDIES IN ENVIRONMENTAL SCIENCES AND LIFE SUPPORT SYSTEMS
PREPARE SPECIFICATIONS FOR CLOTHING, TEXTILES, FOOTWEAR AND RELATED ITEMS
COORDINATE STANDARDIZATION IN CLOTHING
PROVIDE TECHNICAL SUPPORT TO ALL DOD AGENCIES IN NAVY CLOTHING AREAS
MAJOR EQUIPMENT AND FACILITIES
TEXTILE LABORATORIES
COLD TEST CHAMBERS
HYDRO-ENVIRONMENT SIMULATOR
HIGH-INTENSITY THERMAL TEST UNIT

THE THE SAME OF THE SAME FAILS, AND ASSESSED TO SAME TO SAME

#### C.D. CAPT N.J. KEENE

PROGRAM	PROGRAM	DATA BY FISCA	AL YEAR (MILLION 1973	\$)
PROGRAM	(	ACTUAL)	(ACT + EST)	
TOTAL ROTSE	•	0.489	0.374	
TOTAL PROCUREMENT		0.000	0.000	
MAD JATOT		0.000	0.000	
TOTAL OTHER		0.271	0.279	
TOTAL ANNUAL LAB		0.760	0.653	
TOTAL INHOUSE		0.742	0.639	
TOTAL INHOUSE RDT	&E	0.489	0.374	
ANNUAL OPERATING	COST	0.092	0.100	
	PERSONNEL DAT	A (END OF F	Y 1972)	
PERSONNEL AU	<b>ITHORIZED</b>	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	20	1	8	12
CIVILIAN	12	2 <sup>.</sup> 3	8	4
TOTAL	32	3	16	16
	SP ACE	AND PROPERTY	<b>Y</b>	
ACRES SF	ACE (THOUSANDS	OF SQUARE FI	EET) COST	(MILLION \$)
	LAB ADMI	N OTHER	TOTAL REAL	•
1	8.900 5.10	6.000	20.000 0	.000 0.359

...MISSION
CONDUCT RESEARCH IN DENTAL PROBLEMS OF ORAL HEALTH IN NAVAL AND MARCORPS
PERSONNEL AND DELIVERY OF DENTAL CARE

...CURRENT IMPORTANT PROGRAMS

ORAL HEALTH OF NAVAL PERSONNEL

CHEM AND ENZYMOLOGY OF CARIES IN CARIES IMMUNE RECRUITS

BACTERIOLOGY OF SALIVA AND PLAQUE OF CARIES IMMUNE RECRUITS

SELF SUPPORTED MOBILE DENTAL VAN FOR FIELD AND GARRISON

HISTOPATHOLOGY OF DENTAL PULP AND TOOTH STRUCTURE

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ASSESS DENTAL HEALTH STATUS OF RECRUITS IMPROVE DISEASE PREVENTION AND
CARE PROCEDURES INCREASE QUALITY AND QUANTITY OF CARE IN COMBAT TROOPS
INCLUDING FACIAL INJURIES DEFINE ORAL DISEASE ETIOLOGY AND DEVELOPMENT
OF SAFE THERAPEUTIC METHODS COMPUTERIZATION OF DENTAL PROCESSING
PROCEDURES TRACE ELEMENT ANALYSIS OF TOOTH STRUCTURE HISTOPATHOLOGICAL
EVALUATION OF ORAL TISSUE
AMINDACID ANALYZER ATOMIC ABSORPTION SPECTROPHOTOMETER FLUORIDE
ELECTRODE SCINTILLATION COUNTER MOBILE DENTAL TREATMENT UNIT
4K MEMORY CORE COMPUTER BACTERIAL TAXONOMY VACCINE PRODUCTION AND
TESTING DENTAL EQUIPMENT DESIGN AND FABRICATION

SAN DIEGO, CA.

## INSTALLATION NAVAL ELECTRONICS LABORATORY CENTER

C.U. CAPT N.D. HARDING, JR. TECH. DIR. DR. C.E. BERGHAN

	PROGRA	M DATA BY FISC	AL YEAR (MILLION	\$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL ROTGE		32.774	35.680	
TOTAL PROCUREN	IENT	5.498	5.332	
TOTAL DEM		11.783	9.599	
TOTAL OTHER		9.270	7-418	
TOTAL ANNUAL L	. AB	59.325	58.029	
TOTAL INHOUSE		54.713	53.133	
TOTAL INHOUSE	RDT&E	29.981	32.477	
ANNUAL OPERATI	ING COST	12-866	12.960	
	PERSONNEL D	ATA (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	YOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	94	2	66	28
CIVILIAN	1468	61	737	731
TCTAL	1562	63	803	759
	SPA	CE AND PROPERT	· Y	
ACRE3	SPACE (THOUSAN	•		(MILLION \$)
<del>-</del>	LAB AD	MIN OTHER	TOTAL REAL	PROP EQUIP
1591	461.555 157.	531 221.523	840.609 11	.077 36.203

...MISSION
TO BE THE PRINCIPAL NAVY ROTEF CENTER FOR ELECTRONICS TECHNOLOGY AND COMMAND CONTROL AND COMMUNICATIONS CONCEPTS AND SYSTEMS

\*\*\*CURRENT IMPORTANT PROGRAMS
FLEET SATELLITE COMMUNICATION AND DIGITAL INFORMATION EXCHANGE SYSTEMS
MESSAGE PROCESSING AND DISTRIBUTION SYSTEM FOR CVAN 68 AND 69
IMPROVEMENT OF FBM COMMUNICATION SYSTEMS
OPERATIONAL APPLICATIONS OF ELECTRO-OPTICS
SYSTEM CONCEPTS FOR INTEGRATED WORLD WIDE OCEAN SURVEILLANCE SYSTEM

...FUNCTIONS/EQUIPMENT/COMPILITIES
FUNCTIONS ARE TO ESTABLISH AND MAINTAIN THE PRIMARY IN-HOUSE RESEARCH
AND DEVELOPMENT CAPABILITY FOR NAVY AND MARINE CORPS SYSTEMS AND
TECHNOLOGIES FOR COMMAND CONTROL AND COMMUNICATIONS, ELECTRONIC WARFARE
ELECTROMAGNETIC SURVEILLANCE, IDENTIFICATION, AND NAVIGATION.
FACILITIES INCLUDE: ADVANCED COMPUTER SCIENCE CENTER, MICROELECTRONICS
LAB, ENVIRONMENTAL TEST FACILITY, ELECTRO-OPTICS R&D LAB, MATERIALS
SCIENCE LAB, SIXTY FOOT TELESCOPE, ANTENNA MODEL RANGES, HUMAN FACTORS
LAB, SYSTEMS EVALUATION FACILITIES.

INSTALLATION NAVAL EXPLOSIVE ORDNANCE DISPOSAL FACILITY INDIAN HEAD, MD.

C.O. CAPT CHARLES K. NAYLOR TECH. DIR. LIONEL A. DICKINSON

800084#	PROGRAM DATA BY FISC	(AL YEAR (MILLION S)
PROGRAM	1972	
	(ACTUAL)	(ACT + EST)
TOTAL ROTEE	1.532	1.613
TOTAL PROCUREMENT	2.245	2.048
TOTAL OEM	0.002	0.059
TOTAL OTHER	0.784	0.676
TOTAL ANNUAL LAB	4.563	4.396
TOTAL INHOUSE	3.097	3.345
TOTAL INHOUSE RDT&E	0.972	1.022
ANNUAL OPERATING COST	0.751	1.253
25050	NAME OATA JEND OF	. 10731

	PERSONNEL DATA	(END OF FY	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	73	0	56	17
CIVILIAN	152	1	17	135
TOTAL	225	1	73	152

		SPACE ANI	D PROPERTY			
ACRES	SPACE (THO	DUSANDS OF	SQUARE FE	ET)	COST (WILL	.ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1084	50.771	19.797	43.335	113.903	2.851	2.439

...MISSION
UNDER THE MANAGERSHIP OF SECNAY CONDUCTS THE JOINT SERVICE ROTE, TECHNICAL INFORMATION, AND EQUIPMENT MANAGEMENT PROGRAMS FOR THE LOCATION, IDENTIFICATION, NEUTRALIZATION, AND DISPOSAL OF EXPLOSIVE LOADED ORDNANCE TO INCLUDE IMPROVISED DEVICES, SUPPORT OTHER GOVT AGENCIES

...CURRENT IMPORTANT PROGRAMS
JOINT SERVICE ROTGE IN EXPLOSIVE ORDNANCE DISPOSAL
JOINT SERVICE TECHNICAL INFORMATION IN EXPLOSIVE ORDNANCE DISPOSAL
NAVAL MINE LOCATION AND NEUTRALIZATION
INITIAL EXAMINATION OF FOREIGN EXPLOSIVE ORDNANCE AND IMPROVISED DEVICES
IMPROVISED EXPLOSIVE DEVICES

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MULTIDISCIPLINARY ROTSE LABORATORY SPACES AND MODEL SHOPS
ORDNANCE EXAMINATION FACILITY WITH REMOTELY OPERATED EQUIPMENT AND AN
EXTENSIVE RADIOGRAPHIC CAPABILITY
MAN RATED TEMP CONTROLLED DIVING TANK, 137 METERS OF SEAWATER
EQUIPMENT DIVING TANK, 3000 METERS OF SEA WATER
INSTRUMENTED MINE RANGE
ORDNANCE LIBRARY

#### C.O. CAPT JESSE F. ADAMS

	PRO		FISCAL YEAR (		
PROGRAM		1972	1973	3	
		(ACTUAL)	(ACT + E	ST)	
TOTAL ROTEE		0.82	21 0.	.878	
TOTAL PROCURE	MENT	0.00		000	
TOTAL DEM		0.00		.005	
TOTAL OTHER		0.36	-	.370	
TOTAL ANNUAL	LAB	1.18		.253	
TOTAL INHOUSE		1-18	19	.253	
TOTAL INHOUSE		0.82	21 0	.878	
ANNUAL OPERAT	ING COST	0.21	.6 0.	- 265	
	PERSONNEI	DATA (END	OF FY 1972)		
PERSONNEL	AUTHORIZED	TOTA	L TO	TAL	NON-
	STRENGTH	PHE	S PI	ROF	PROF
MILITARY	37		4	6	31
CIVILIAN	51		2	11	40
TOTAL	88			17	71
	:	SPACE AND PRO	PERTY		
ACR ES		SANDS OF SQUA		COST (MILL	ION S)
<del>-</del>	L AB		HER TOTAL	REAL PROP	EQUIP
3	28.226		590 52.47		0.657

... MISSION CONDUCT RESEARCH DEVELOPMENT AND TESTING IN THE MEDICAL DENTAL AND ALLIED SCIENCES WITH PARTICULAR EMPHASIS ON PROBLEMS OF FIELD AND AMPHIBIOUS MEDICINE

... CURRENT IMPORTANT PROGRAMS TROOP HEAT ACCLIMATIZATION AND EVAL OF FIELD WATER PURIFICATION SYSTEMS RHABDOMYOLYSIS AND RESPIRATORY ILLNESS IN MARINE RECRUITS NGU AND GONORRHEA IN USMC PERSONNEL DEV OF MODULAR FIELD AND SHIPBOARD MEDICAL FACILITIES VECTOR CONTROL METHODS, EQUIPMENT AND SUPPLIES

... FUNCTIONS/EQUIPMENT/CAPABILITIES CONDUCT RESEARCH IN PROBLEMS OF FIELD AND AMPHIBIOUS MEDICINE, DEVELOP TEST AND EVALUATE MEDICAL EQUIP AND SUPPLIES AND CLOTHING AND EQUIPMENT FOR USMC PERSONNEL USE AND PROTECTION PRIMARY CAPABILITIES IN APPLIED RESEARCH SPECIFICALLY IN AREAS OF BACT. PHYSIOLOGY, STRESS PHYSIOLOGY, ENTOMOLOGY, ENVIRON BIOLOGY. VIROLOGY, FIELD MEDICAL EQUIP, BIOCHEMISTRY AND ANIMAL INVESTIGATIONS. MAJOR EQUIP OLFACTOMETER, BLAST FACILITY, BALLISTIC RANGE, HIGH SPEED BECKMAN CAMERA, FREQUENCY COUNTERS, MATERIALS LAMINATING PRESS AND SEALERS, SEWING EQUIP SHOP MACHINERY, 2-MAN RESP DISEASE ENVIRON CHAMBER, CLIMATIC CHANBER, SMALL LOW PRESSURE AND LOW TEMP CHAMER, AUTOANALYZER, OXYGEN ANALYZER, MULTIPLE PHYSIOLOGIC DATA RECORDER, ELECTRONIC PROGRAMMER, FLUOROMETERS, RESPIROMETER, GAS PARTITIONER, PYRHELIOGRAPH, UNRESTRICTED PHOTO CAPABILITY

#### C.O. CAPT TOR RICHTER

PROGRAM	PROGRAM DATA BY 1972	FISCAL YEAR	
FROOTAIN	(ACTUAL)	(ACY + E	. •
TOTAL ROTEE	4.3		5-546
TOTAL PROCUREMENT	0.0		0.000
TOTAL OEM	0.00		0.000
TOTAL OTHER	2.2	- <del>-</del>	2.620
TOTAL ANNUAL LAB	6.54		8.166
	•••	,,	
TOTAL INHOUSE	6.5	F4	3.166
TOTAL INHOUSE ROTEE	4.3		5.546
ANNUAL OPERATING COST	1.2		1.200
PER!	SONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHOR	IZED TOTA	AL T	DTAL NGN-
STRE	NGTH PHI	DS 1	PROF PROF
MILITARY	204	48	106 98
CIVILIAN	207	25	73 134
TOTAL	611	73	179 232

SPACE AND PROPERTY

ACRES SPACE (THOUSANDS OF SQUARE FEET) COST (MILLION \$)

LAB ADMIN OTHER TOTAL REAL PROP EQUIP

4 151.730 21.561 26.590 199.881 4.016 0.623

...MISSION
CONDUCT BASIC AND APPLIED RESEARCH AND
DEVELOPMENT CONCERNED WITH THE HEALTH
SAFETY AND EFFICIENCY OF NAVAL
PERSONNEL

...CURRENT IMPORTANT PROGRAMS
TISSUE TYPING ORGAN TRANSPLANTS AND IMMUOSUPPRESSION IN RESTORATIVE SURG VACCINE DEV FOR CONTROL OF MALARIA AND SCHISTOSOMIASIS
HEAT AND COLD STRESS IN HYPERBARIC AND HIGH HUMIDITY ENVIRONMENTS
BEHAVIORAL IN HYPERBARIC ENVIRONMENTS
DEVELOP AND EVALUATE MEDICAL PERSONNEL TRAINING PROGRAMS

DISCIPLINES AFFECTING HUMAN HEALTH SAFETY AND PERFORMANCE INCLUDING HUMAN ENVIRONMENTAL STRESS FACILITIES INCLUDING HUMAN ENVIRONMENTAL STRESS FACILITIES INCLUDING HYPERBARIC CHAMBER COMPLEX TRANSMISSION AND SCANNING ELECTRON MICROSCOPES TISSUE PRESERVATION AND TRANSPLANTATION CAPABILITIES RESEARCH BIOCHEMISTRY EXPERIMENTAL ANIMAL FACILITIES AND ANIMAL HOUSE

C.O. CAPT DOR. TENEYCK

PROGRAM	PROGRAM DATA BY FISCA 1972	L YEAR (MILLION \$) 1973
	(ACTUAL)	(ACT + EST)
TOTAL ROTGE	0.047	0.055
TOTAL PROCUREMENT	0.000	0.000
TOTAL GEM	0.000	0.000
TOTAL OTHER	0.221	0.235
TOTAL ANNUAL LAB	0.268	<b>0.290</b>
TOTAL INHOUSE	0.268	0.290
TOTAL INHOUSE ROTEE	0.047	0.055
ANNUAL OPERATING COST	0.030	0.030

	PERSONNEL DATA	(END OF F'	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	16	4	5	11
CIVILIAN	2	0	0	2
TOTAL	18	4	5	13

		SPACE AND	PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FEF	TI	COST (MILL	ION \$)
	l. AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	0.360	0.000	0.369	0.000	0.000

...MISSION
TO CONDUCT BASIC RESEARCH IN THE BIUMEDICAL SCIENCES, PROVIDE ESSENTIAL INFORMATION ON MEDICAL PROBLEMS OF MILITARY SIGNIFICANCE AND PROVIDE TRAINING IN RESEARCH TECHNIQUE

...CURRENT IMPORTANT PROGRAMS
IMPROVED MICROBIOLOGICAL DIAGNOSTIC TECHNIQUES
NEISSERIA REPOSITORY AND RESEARCH
COCCIDOMYCOSIS VACCINE
HAZARDS OF DEEP WATER SUBMERGENCE
GENETICS OF VIRUS SURVIVAL

\*\*\*SECTIONS SEQUIPMENT/CAPABILITIES BACTERIOLOGY, VIROLOGY AND OTHER FIELDS RELATIVE TO PROBLEMS OF DISEASES OF MILITARY IMPORTANCE. STUDY ENVIRONMENTAL FACTORS AFFECTING HOST RESPONSE TO INFECTION AND INVESTIGATE SPECIFIC AND NONSPECIFIC HOST RESPONSE TO INFECTION. IMMUNOLOGIC AND PHYSIOLOGIC STUDIES ON MENIGITIS. TEST AND IMPROVE COCCIDIOIDES VACCINE. DEVELOP RAPID DIAGNOSTIC PROCESS FOR ARBO AND RESPRIATORY VIRUSES. STUDY OF OCEAN ENVIRONMENT RELATIVE TO NAVAL TECHNICAL PROGRAMS.

32.780

2

## C.O. CAPT R.H. WATTEN CHIEF SCIENTIST R.Q. BLACKWELL

PROGRAM	PROGRAM DA	ATA BY FISCAL	L YEAR (MILLION 1973	\$1
FILOGICAN	1 41		(ACT + EST)	
TOTAL ROTGE	•	1.489	1.559	
TOTAL PROCURE	MENT	0.000	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.546	0-607	
TOTAL ANNUAL	LAB	2.035	2.166	
TOTAL INHOUSE		2.035	2-166	
TOTAL INHOUSE	RDT&E	1.489	1.559	
ANNUAL OPERAT	ING COST	0.500	0.500	
	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	35	13	30	5
CIVILIAN	9	2	5	4 9
TOTAL	44	15	35	9
	SPACE	AND PROPERTY		
ACRES	SPACE (THOUSANDS	OF SQUARE FE	ET) COST	(MILLION \$)
	LAB ADMIN	OTHER	TOTAL REAL	PROP EQUIP

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

17-826

89.280

0.101

0.890

38.674

...CURRENT IMPORTANT PROGRAMS
INFLUENCE OF NUTRITION ON SUSCEPTIBILITY OF INFECT DIS MORB PERFORMANCE
STUDIES OF CAPILLARIASIS IN THE PHILIPPINES
SCHISTOSOMIASIS IN SULAWESI IN INDONESIA
ETIOLOGY OF FEBRILE ILLNESSES IN INDONESIA
INFLUENZA SURVEILLANCE

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CLINICAL STUDY OF DIAGNOSIS AND TREATMENT OF TROPICAL DISEASE AND
EPIDEMIOLOGICAL STUDY OF INFECTIOUS DISEASES. COMPLETE RADIOISOTOPE
EQUIPMENT AND COMPUTER CAPABILITY PROFICIENCY IN CLINICAL INVESTIGATION
MICROBIOLOGY MEDICAL PHYSICS MEDICAL ECOLOGY BIOCHEMISTRY PATHOLOGY
ANIMAL FACILITY

A STATE OF THE PARTY OF THE PAR

## C.O. CAPT HENRY A. SPARKS

	PRO			EAR (MILLION	1 \$)
PROGRAM		1972		1973	
		(ACTUAL	) (AC	T + EST)	
TOTAL ROTGE		0.	758	0.675	
TOTAL PROCUREM	EMT	0.	873	0.619	
TOTAL OGM		0.	000	0.000	
TOTAL OTHER		0.	233	0,260	
TOTAL ANNUAL L	AB		864	1.554	
TOTAL INHOUSE		i.	864	1-554	
TOTAL INHOUSE	RDT&E	0.	758	0.675	
ANNUAL OPERATIO	NG COST	0.	341	0.419	
	PERSONNE	L DATA (EN	D OF FY 19	72)	
PERSONNEL	AUTHORIZED	TO	TAL	TOTAL	NON-
	STRENGTH	P	HDS	PROF	PROF
MILITARY	31		8	12	19
CIVILIAN	108		4	4	104
TOTAL	139		12	16	123
		SPACE AND P	ROPERTY		
ACRES	SPACE (THOU	SANDS OF SQ	UARE FEET)	COST	(MILLION S)
	L AB			_	PROP EQUIP
3	18.242	9.500	2.300	30.042	0.344 0.790

...MISSION
RESEARCH INTO CAUSES, PATHOGENES, EPIDEMIOLOGY, PREVENTION AND TREATMENT ENDEMIC DISEASES IN EGYPT, MORTH AFRICA AND THE MIDDLE EAST AND THE CONDUCT OF COLLABORATIVE EDUCATIONAL PROGRAMS WITH BIOMEDICAL SCIENTISTS IN EGYPT

...CURRENT IMPORTANT PROGRAMS
MENINCOOODOAL VACCINE STUDY
SCHISTOSOMIASIS PATHOPHYSIOLOGY OF
RELAPSING FEVER TREATMENT OF
ARTHROPOD VIRUS ISOLATIONS TICKS AND MOSQUITCES
THERAPEUTIC DRUG STUDY OF INFECTIOUS DISEASES

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
TECHNON TISSUE PROCESSOR HEWLETT-PACKARD MODEL 9100 CALCULATOR PICKER
NUCLEAR MAGNASCANNER RENALTRON 4 ATOMIC ABSORPTION SPECTROPHOTOMETER
UNICAN UV SPECTROPHOTOMETER GAS CHROMOTOGRAPH COULTER BLOOD CELL COUNTER
X-RAY APPARATUS CARDIOGRAPH ELECTRONIC CALCULATOR WANG FLUORESCENT
MICROSCOPE GUILFORD MODEL 240 SPECTROPHOTOMETER ANSCO AUTOCLAVES
SPECTROPHOTOMETERS CENTRIFUGES ANALYTICAL SCANNER AND INTERGRATION
FREEZERS REVCO X-RAY FLUORESCENT SPECTROMETER BALANCES NETTLER
FLUOROMETER CLIMATIZER WALK 12 REFRIGERATOR AND FREEZER PATIENTS WARD TO
HOSPITALIZE SICK EGYPTIANS PUBLIC WORKS FACILITY WORLD'S MOST COMPLETE
TICK COLLECTION MODERN LABORATORY TO STUDY DISEASES IN EGYPT AND A
RESEARCH DETACHMENT IN ETHIOPIA THAT IS ALSO MODERN AND WELL EQUIPPED
AND WITH WARD SPACES AT THE NEARBY ST. PAUL'S HOSPITAL

LAB 22.053

## C.O. CAPT C. H. MILLER

	PROGRAM	DATA BY FISCA	L YEAR (MILLION \$	)
PROGRAM		1972	1973	
	(	ACTUAL)	(ACT + EST)	
TOTAL ROTEE		0.760	0.714	
TOTAL PROCURE	MENT	0.000	0.000	
M30 JATOT		0.000	0.000	
TOTAL OTHER		0.380	0.402	
TOTAL ANNUAL	LAB	1.140	1.116	
TOTAL INHOUSE		1.140	1-116	
TOTAL INHOUSE	RDT&E	0.760	0.714	
ANNUAL OPERAT		0.214	0.255	
		*****	00200	
	PERSONNEL DAT	A (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	38		14	24
CIVILIAN	41	5 2 <sup>.</sup>	17	24
TOTAL	79	7	31	48
TOTAL	, ,	•	21	40
	SPACE	AND PROPERTY	,	
ACRES	SPACE (THOUSANDS	OF SQUARE FE	ET) COST (	HILLION \$)
	LAB ADMI	IN OTHER	TOTAL REAL PR	OP EQUIP

---MISSION

CONDUCT R AND P IN BIGMED SCI PROVIDE DATA ON DISEASE AND MED PROB OF MIL IMPORT RECOMMEND CONTROL MEASURES FOR COMMUN DISEASE PROV TRAIN IN RSCH TECH RSCH IN ETIOLOGY TRANS CONTROL AND TREAT OF COMMUN RESPIR DISEASE AID MED ACT TO EPIDEMIC RESPIR DISEASE STUD MED PROB OF RECRUIT

18.975

57.744

0.387

0.440

---CURRENT IMPORTANT PROGRAMS
FACTORS INFLUENCING INTERFERON RESPONSE
ETIOLOGIC AGENTS OF RESPIRATORY DISEASE IN RECRUITS
MOST STUDIES OF ILLNESS SUSCEPTIBILITY
EVAL ANTIBACTERIAL AGENTS TO ELIMINATE MENINGOCOCCI IN NASOPHARYNX
EVAL VARIOUS INFLUENZA VACCINE IN RECRUITS

16.716

...FUNCTIONS/EQUIPMENT/CAPABILITIES
INCUBATORS REFRIGERATION UNITS ULTRACENTRIFUGE LIQUID SCINTILLATION
SYSTEM OSCILLATOR SPECTROPHOTOMETERS ELECTRON SCOPE GAS CHROMATOGRAPH
RESEARCH IN ETOL AND CONTROL OF COMMUNICABLE DISEASE MYCOPLASMA
BACTERIOLOGY BIOCHEMISTRY BIOMETRICS EPIDEMIOLOGY IMMUNOLOGY AND
VIROLOGY

C.O. CAPT E.E. IRISH

	PROGRAM	DATA BY FISCA	L YEAR (MILLION	\$1
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&F		32.629	40 - 206	
TOTAL PROCUREM	ENT	11.354	15.092	
M&O JATOT		13.282	35.738	
TOTAL OTHER		9-429	9.405	
TOTAL ANNUAL L	AB	66.694	80.441	
TOTAL INHOUSE		54.030	61.648	
TOTAL INHOUSE	RDT&E	24.472	30.743	
ANNUAL OPERATI	NG COST	14.895	17.810	
	PERSONNEL DA		( 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	638	0	134	504
CIVILIAN	1691	7	521	1170
TOTAL	2329	7	655	1674
	SPAC	E AND PROPERTY	1	
ACRES	SPACE (THOUSAND	S OF SQUARE FI	EET) COST	(MILLION \$)
	LAB ADM	IN OTHER	TOTAL REAL	PROP EQUIP
4	110.756 169.5	569 754.611	1034.936 25	.973 39.490

---MISSION
TO PERFORM TEST, EVALUATION, DEVELOPMENT SUPPORT AND EXERCISE ENGINEERING COGNIZANCE AS ASSIGNED OF NAVAL WEAPONS SYSTEMS AND RELATED DEVICES

...CURRENT IMPORTANT PROGRAMS
F-14A/PHOENIX DEVELOPMENT TESTING
AIRBORNE ELECTRONIC COUNTERMEASURE R&D
ENGINEERING COGNIZANCE OF AIR LAUNCHED WEAPONS
AIR-TO-AIR, AIR-TO-SURFACE MISSILE PRODUCTION TESTING
T AND E OF AERIAL AND SURFACE TARGETS

PERFORM TESTS AND CONDUCT TECH EVALUATIONS OF NAVAL AIRZORNE WEAPONS GUIDED MISSILE SUBSYSTEMS AND RELATED SUPPORT EQUIP, PERFORM BTS TRIPS FOR INTERRELATED AIRBORNE WEAPONS SYSTEMS, PERFORM PROD MONITORING TESTS OF GUIDED MISSILE LOTS&PROVIDE ENG.COGNIZANCE AND FIELD ENG SERVICES ON ASSIGNED OPERATIONAL AIRBORNE WEAPONS AND TARGET SYSTEMS&PROVIDE ENGINEERING MANAGEMENT AND SUPPORT FOR FW EQUIPMENT DURING DEV. AND DEPLOYMENT PERFORM DEV. T&E OF AIRBORNE AND-SURFACE TARGET SYSTEMS MAJOR FAC:TEST OPERATIONS FAC ROCKET ENGINE TEST FAC INTEGRATED SYSTEMS SIMULA TION FAC TARGETS FAC, PHOTOGRAPHICS FAC INFRARED LASER END OPTICS LAB

#### C.O. CAPT ROBERT WILLIAMSON II TECH. DIR DR. G.K. HARTMANN

0000048	PROGRAM D	ATA BY FISCA	AL YEAR (MILLION 1973	\$)
PROGRAM				
	(A	CTUAL	(ACT + EST)	
TOTAL ROTGE		78-696	86-471	
TOTAL PROCURE	MENT	12.859	11-147	
TOTAL OSM		3.794	2.920	
TOTAL OTHER		5.801	6.618	
TOTAL ANNUAL	LABI	101-150	107-156	
TOTAL INHOUSE		62.010	62.567	
TOTAL INHOUSE	RDT&E	43.332	46.141	
ANNUAL OPERAT	ING COST	23.313	23.154	
	PERSONNEL DATA	(END OF FY	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	53	1	27	26
CIVILIAN	2847	137	1144	1703
TOTAL	2900	138	1171	1729
	SPACE	AND PROPERTY	<b>Y</b>	
ACRES	SPACE (THOUSANDS			(MILLION \$)
= •	LAB ADMIN		TOTAL REAL F	
1059	388.021 178.085			618 34.165

...MISSION
TO BE THE PRINCIPAL NAVY ROTGE CENTER FOR ORDNANCE TECHNOLOGY CONCEPTS
AND SYSTEMS.CAPABILITIES FOR STRATEGIC SYSTEMS, NAVAL MINE SYSTEMS, MULTI
MEDIA WEAPONS SYSTEMS, DIRECTED ENERGY SYSTEMS, FUZE DEVEL, INSHORE WARFAR
ORDNANCE, SMALL CRAFT ARMAMENT, SWIMMER WEAPONS SYTEMS, ORD. TECHNOLOGY

...CURRENT IMPORTANT PROGRAMS
TORPEDD MK48-1
CAPTOR DEVELOPMENT
HIGH ENERGY LASER RESEARCH AND DEVELOPMENT
NUCLEAR WEAPON EFFECTS RESEARCH INCLUDING VULNERABILITY AND HARDENING
REENTRY VEHICLES MATERIALS

ALEN IN CONTRACTOR FOR THE SAME OF THE SAM

C.O. CAPT H.E. DAVIES, JR. CHIEF ENG. DR. W.W. BOHN

	PROGR AM		L YEAR (MILLION \$)
PROGRAM		1972	1973
	(	ACTUAL)	(ACT + EST)
TOTAL ROTEE		1.206	0.854
TOTAL PROCUR	EMENT	0.780	0.110
TOTAL DEM		0.025	0.000
TOTAL OTHER		1.739	2.627
TOTAL ANNUAL	L.AB	3.750	3.591
TOTAL INHOUS	2	3.452	3.248
TOTAL INHOUS		1.206	0.854
ANNUAL OPERA	TING COST	0.833	0.850
	PERSONNEL DAT	A (END OF FY	1972)
PERSONNEL	AUTHORIZED	TOTAL	TOTAL

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-
MILITARY	51 KENGI H 178	Pnu3 1	46	132
CIVILIAN	83	ĩ	5	78
TOTAL	261	2	51	210

ACR ES	SPACE (THO		D PROPERTY Square fe		COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
112	84.310	30-540	238-950	353.800	6.670	3.487

SUPPORT THE NAVY GUIDED MISSILE AND ROCKET PROGRAM INCLUDING GROUND AND FLIGHT TESTINGS PARTICIPATE IN THE OPERATION OF THE DEPT OF DEFENSE INTEGRATED MISSILE TEST RANGE AT WHITE SANDS

...CURRENT IMPORTANT PROGRAMS STANDARD MISSILE 2 SLANT AEGIS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FLIGHT TEST TALOS TERRIER TARTAR STANDARD SURFACE TO AIR GUIDED MISSILES
FLIGHT TEST STANDARD ANTI RADIATION MISSILE AIR TO SURFACE
LAUNCH AEROBEE 150 170 AND 350 SOUNDING ROCKETS FOR UPPER ATMOS STUDY
CONDUCT NAVY AIR WEAPON (BOMB) TESTS
CONDUCT FEASIBILITY TEST FOR LOW ALTITUDE SUPERSONIC TARGET
CONDUCT TESTS OF ISSMC PROGRAM

COST (MILLION \$)

0.652

EQUIP

0.450

TOTAL REAL PROP

26.279

C.O. CAPT AL BLANKS TECH. DIR. E.M. RAMRAS

LAB

22.156

ACRES

	PRUGRAM	DATA BY FISCAL		\$)
PROGRAM		1972	1973	
		(ACTUAL) (	ACT + EST}	
TOTAL RE	T&E	2.284	3-227	
TOTAL PI	ROCURÉMENT	0.320	0.320	
TOTAL DE	i.M	0.650	0.466	
TOTAL OF	HER	0.419	0.475	
TOTAL A	INUAL LAB	3.673	4.488	
TOTAL IN	HOUSE	3.600	4.372	
TOTAL IN	IHOUSE RDT&E	2.211	3.111	
ANNUAL (	PERATING COST	0.520	0.665	
	PERSONNEL DA	TA (END OF FY	10721	
PERSONNE		TOTAL	TOTAL	NON-
LINGUINI	SYRENGTH	PHDS	PROF	PROF
MILITARY		0	41	2
CIVILIAN		15	120	77
TOTAL	240	15	161	79
	en se	F AND DOORSTY		
	SPAC	E AND PROPERTY		

...MISSYON
CONDUCT REARCH DEVELOPMENT TEST EVALUATION BEHAVIOR AND SOCIAL SCIENCES
AND RELATED FIELDS DIRECTED TOWARD NEW AND IMPROVED PERSONNEL AND
MANPOWER SYSTEMS TECHNIQUES AND OPERATIONS

OTHER

1.420

...CURRENT IMPORTANT PROGRAMS
ENLISTED OCCUPATIONAL DATA BANK
COMBAT SYSTEMS MAINTENANCE MANAGEMENT CONCEPTS
MANPOWER PLANNING AND ALLOCATION TECHNOLOGY
SHIP SIMULATION MODELING TECHNOLOGY FOR MAN MAN MACHINE TRADE OFFS
IMPACT OF INCREASING PREFERENCE OPTIONS IN USMC

SPACE (THOUSANDS OF SQUARE FEET)

ADMIN

2.703

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCCUPATIONAL ANALYSIS CAREER STRUCTURES MAN MACHINE SYSTEMS MANPOWER
REQUIREMENTS ORGANIZATIONAL EFFECTIVENESS RECRUITMENT PROCUREMENT
MANPOWER PERSONNEL COSTS ATTITUDES MOTIVATION SIMULATION MODELING
RCA 301 COMPUTER IBM 1050 TELEPROCESSING TERMINAL WITH REMOTE JOB
ENTRY CABILITY TO A IBM 360/91 AT APPLIED PHYSICS LABORATORY JOHN
HOPKINS UNIVERSITY AND 360/67 AT NAVAL POST GRAD SCHOOL MONTEREY DATA
100 DATA BATCH PROCESSING TERMINAL TO JOHN HOPKINS OPSCAN 100DC

47.300

C.O. CAPT F.L. NELSON TECH. DIR. DR. EARL I. JONES

	PROGRAM I		L YEAR [MILLION !	<b>5)</b>
PROGRAM		1972	1973	
	( )	ACTUAL)	(ACT + EST)	
TOTAL RDTEE		3.340	4.010	
TOTAL PROCURE	MENT	0.000	0.080	
TOTAL OGM		0.093	0.085	
TOTAL OTHER		0.538	0.646	
TOTAL ANNUAL	LAB	3.971	4.821	
TOTAL INHOUSE		3.971	4.263	
TOTAL INHOUSE	RDT&E	3.340	3.452	
ANNUAL OPERAT	ING COST	0.467	0.433	
	PERSONNEL DATA	A (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	34	0	34	0
CIVILIAN	165	35	98	67
TOTAL	199	35	132	67
	SPACE	AND PROPERTY	,	
ACRES	SPACE (THOUSANDS	OF SQUARE FE	ET) COST	(MILLION \$)
	LAB ADMI	N OTHER	TOTAL REAL PI	ROP EQUIP

-..MISSION
PLANS AND CONDUCTS RESEARCH AND DEVELOPMENT IN PERSONNEL OPERATIONS AND BEHAVIORAL SCIENCES TO DEVELOP NEW CONCEPTS AND IMPROVED METHODS FOR ACQUIRING, CLASSIFYING, TRAINING, DISTRIBUTING, AND RETAINING PERSONNEL AND FOR MAXIMIZING THE UTILIZATION OF NAVY MANPOWER RESOURCES.

0.000

52.200

0.210

0.289

...CURRENT IMPORTANT PROGRAMS
INSTRUCTIONAL DESIGN AND EXPERIMENTAL TRAINING
COMPUTERIZED MANPOWER MANAGEMENT RESEARCH
PERSONNEL MEASUREMENT, CLASSIFICATION, ASSIGNMENT, AND RETENTION
EDUCATIONAL TECHNOLOGY AND ADVANCED INSTRUCTIONAL SYSTEMS
METHODOLOGY FOR DATA PROCESSING AND RESEARCH DESIGN

4.900

...FUNCTIONS/EQUIPMENT/CAPABILITIES
IBM 1130 DATA PROCESSING COMPUTER SYSTEM WITH REMOTE JOB ENTRY CAPABILITY TO A IBM 360/65 LOCATED AT THE NAVY ELECTRONICS LABORATORY CENTER OPTICAL SCANNER
EXPERIMENTAL TESTING AND TRAINING FACILITIES
PLATO STATIONS PLANNED FOR DECEMBER 1972

3986

4100

CIVILIAN

TOTAL

NON-PROF 105

2510

2615

DIR. CAPT EARLE W. SAPP DIR. OF RESEARCH DR. ALAN BERMAN

			FISCAL YEAR (MILL	ION \$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL R	DT&E	120.0	57 131.169	)
TOTAL P	ROCUREMENT	16.9	12 14.528	}
TOTAL O	M.3	6.5	44 3.557	•
TOTAL O	THER	2.10	65 2.28	5
TOTAL A	NNUAL LAB	145.6	78 151.539	)
TOTAL I	NHOUSE	140.0	48 149.499	)
TOTAL I	NHOUSE ROTEE	114-4	27 129.129	)
ANNUAL	OPERATING COST	28.8	97 30.520	)
	PERSON	NEL DATA (END	OF FY 1972)	
PERSONN	EL AUTHORIZE			
	STRENGT	H PHI	DS PROF	
MILITAR	Y 114		3 9	

		SPACE AN	D PROPERTY	1		
ACRES	SPACE (TH				COST (M.L	:
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2161	2241 - 527	135_662	644 <u>.</u> 139	3041 <sub>-</sub> 32#	ツブ・クムブ	50_343

519

522

1476

1485

...MISSION
TO CONDUCT SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE PHYSICAL SCIENCES
AND RELATED FIELDS DIRECTED TOWARD NEW AND IMPROVED MATERIALS,
EQUIPMENT, TECHNIQUES, AND SYSTEMS FOR THE NAVY

...CURRENT IMPORTANT PROGRAMS
FLEET SATELLITE COMMUNICATIONS
COMMUNICATIONS SECURITY
HIGH ENERGY LASER GENERATION, PROPAGATION, AND LASER EFFECTS PROGRAM
SATELLITE PROGRAMS
ADVANCED ACOUSTIC ANTI-SUMARINE WARFARE SURVEILLANCE PROGRAM

PRINCIPAL RESEARCH AND DEVELOPMENT LABORATORY OF THE NAVY. PRIMARY AREAS ARE MATERIALS SCIENCE AND TECHNOLOGY, SPACE SCIENCE AND TECHNOLOGY, RADAR, ELECTRONIC WARFARE, LASER TECHNOLOGY, OPTICS, OPTICAL WARFARE, ELECTRONIC DEVICES, PLASMA AND NUCLEAR PHYSICS, INTELLIGENCE SUPPORT, UNDERSEA SURVEILLANCE, OCEAN SCIENCE AND TECHNOLOGY. MAJOR FACILITIES INCLUDE TWO SHIPS FOR ACOUSTIC ASW RESEARCH, OCEANOGRAPHY, AND DEEP OCEAN SEARCH. MAJOR ACOUSTIC STANDARD AND CALIBRATION FACILITIES. HIGH LEVEL RADIATION LABORATORY. THREE NUCLEAR PARTICLE ACCELERATORS. DIVERS HIGH ENERGY LASERS. 200 KILDGAUSS HIGH FIELD MAGNET FACILITY. SPACE SIMULATION FACILITIES

C.O. CAPT L.O.G. WHALEY TECH. DIR. GERALD G. GOULD

	PRO			CAL YEAR (MI	LLION \$	;)
PROGRAM		1	972	1973		
		( ACT	'UAL')	(ACT + 形ST	<b>()</b>	
TOTAL ROTGE			7.380	9.7	129	
TOTAL PROCURE	MENT		0.286	0.8	166	
MAG JATOT			2.269	2.4	40	
TOTAL OTHER			4-635	3.3	186	
TOTAL MINUAL	LAB		14.570	16.4	21	
TOTAL INHOUSE			13.342	15.1	52	
TOTAL INHOUSE	RDT&E		6.301	8.6	12	
ANNUAL OPERAT	ING COST		4.769	5.2	!96	
	PERSONNE	L DATA	(END OF	FY 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTA	AL.	NON-
	STRENGTH		PHDS	PRO	)F	PROF
MILITARY	138		2	19	5	123
CIVILIAN	587		17	240	)	347
TOTAL	725		19	259	5	470
		SPACE AN	ID PROPER	TY		
ACRES	SPACE (THOU	SANDS OF	SQUARE	FEET)	COST (	(MILLION \$)
	L AB		OTHER		REAL PR	ROP EQUIP
674	172.445	35-296	329-707	537.448	14-9	62 11-013

...MISSION
TO BE THE PRINCIPAL NAVY ROTGE CENTER FOR THE APPLICATION OF SCIENCE
AND TECHNOLOGY ASSOCIATED WITH MILITARY OPERATIONS CARRIED OUT PRIMARILY IN THE COASTAL REGION, AND TO PERFORM INVESTIGATIONS IN RELATED
FIELDS OF SCIENCE AND TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS
COASTAL TECHNOLOGY SUPPORTING MARINE CORPS, AMPHIBIOUS MINE COUNTER
MEASURES & INSHORE WARFARE OPERATIONS. DETECTION AND CLASSIFICATION OF
UNDERWATER OBJECTS. THEORY AND TACTICAL DOCTRINE FOR MINE COUNTER
MEASURES. INTEGRATED SWIMMER DIVER SYSTEMS INCLUDING SALVAGE ACOUSTIC
WARFARE SYSTEMS FOR SURFACE SHIPS AND SUBMARINES.

PLAN & CONDUCT RDT&E & PROVIDE SUPPORT TO OPERATING FORCES, NAVAL & GOV. AGENCIES IN SURFACE, SUBSURF & AIRBORNE MINE DEFENSE&ACCUSTIC & TORPEDO COUNTERMEASURES&INSHORE WARFARE& & RELATED SC & ENG. COMPUTERS& \$3.5M CM EVALUATOR, SDS 9300 DIGITAL & 2 ADI 256 ANALOGS& \$M B5500. 2 GULF RESEARCH PLATFORMS& \$5M IN 100° & 60° WATER WITH LIVING/LABS FOR 30 & 4 PEOPLE. \$220K OPTICAL TRACKING SYS. \$300K MODEL TOW BASIN. \$150K ELECTR TRACK RANGE. UNDERWATER ACCUSTICS FAC& \$200K TRACK RANGE, \$210K ANALOG DATA ANAL, \$500K TRANSDUCER DEV & EVAL, \$200K TRANSDUCER TEST POOL, \$425K SIM & SIGNATURE GENERATOR, \$50K TEST PLATFORM, MAGNETICS FAC: \$350K SIM, \$53K HELMHOLTZ COIL, \$110K SWEEP SIM, \$330K TARGET DETECT CLASS RANGE. \$110K PRES SIGNATURE SIM. \$89K WET SUBMERSIBLE.

The Market of the Control of the Con

INSTALLATION NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER WASHINGTON, D.C.

C.O. CAPT P.W. NELSON TECH. DIR. OR. A. POWELL

		PROGRAM	1 DATA BY FI	SCAL YEAR (MILL	.ION \$)
PROGRA	M		1972	1973	
			(ACTUAL)	(ACT + EST)	
TOTAL	RDTEE		78.889	115.795	)
TOTAL	PROCUREMEN	NT	0.619	0.475	i e
TOTAL	Mag		12.090	8.231	•
TOTAL	OT HER		12.098	9.248	l .
TOTAL	ANNUAL LA	В	103.696	133.750	
TOTAL	INHOUSE		39.204	40.354	•
TOTAL	INHOUSE R	337D	28.455	32.367	1
ANNUAL	OPERATIN	G COST	23.572	22-655	
		PERSONNEL DA	ATA (END OF	FY 1972)	
PERSON	INEL .	AUTHORIZED	TOTAL	TOTAL	NON-
		STRENGTH	PHDS	PROF	PROF
MILITA	IRY	50	2	24	26
CIVILI	AN	3072	101	1232	1840
TOTAL		3122	103	1256	1866
		SPA	CE AND PROPE	RTY	
ACRE	S	SPACE (THOUSANI	DS OF SQUARE	FEET) (	COST (MILLION \$)
		LAB ADI	AIN OTHE	R TOTAL RE	AL PROP EQUIP

...MISSION

325

TO BE THE PRINCIPAL NAVY ROTGE CENTER FOR NAVAL VEHICLES AND TO PROVIDE ROTGE SUPPORT TO THE U.S. MARITIME ADMINISTRATION AND THE MARITIME INDUSTRY.

2457.765

43.015

...CURRENT IMPORTANT PROGRAMS
TOWED COMMUNICATIONS FOR SUBMARINES.
PROJECT SURPASS.
INTEGRATED AIRCRAFT/WEAPON AERODYNAMICS (CONFORMAL CARRIAGE).
NAVY ENVIRONMENTAL PROTECTION PROGRAM.
COMPUTER-AIDED SHIP DESIGN AND CONSTRUCTION (CASDAC).

318-612 182-073 1957-680

PLAN AND CONDUCT ROTEE AND PROVIDE SUPPORT TO THE OPERATING FORCES AND NAVAL AND GOVERNMENT AGENCIES AS ASSIGNED IN THE AREAS OF HYDROMECHANICS, STRUCTURAL MECHANICS, ACOUSTICS & VIBRATIONS, AERODYNAMICS, APPLIED MATHEMATICS, SHIPS ATMOSPHERE CONDITIONING AND POLLUTION CONTROL, SHIP ELECTRICAL SYSTEMS, AND SHIPBOARD MACHINERY SYSTEMS. FACILITIES INCLUDE: BALLAST BLOW FACILITY& MAIN SEAWATER PIPING SYSTEM FACILITY& COMPUTER FACILITIES& HIGH SPEED, DEEP AND SHALLOW WATER, MANEUVERING-SEAKEPING, AND ROTATING ARM TOWLING BASINS& SUBSONIC, TRANSONIC, SUPERSONIC, AND HYPERSONIC WIND TUNNELS& ACQUISTIC DATA ANALYSIS CENTER& ANECHOIC FLOW FACILITY&DEEP SUBMERGENCE PRESSURE TEST TANKS& MAGNETIC FIELDS FACILITY& WELDING ANALYSIS FACILITY& AND STRUCTURAL RESEARCH FACILITY.

C.O. CAPT D.G. FAULKNER, JR. TECH. ADV. DR. E.E. MUEHLNER

	PROGRAM DA	ATA BY FIS	CAL YEAR (MILLION	\$)
PROGRAM	• •	1972	1973	
	( AC	TUAL	(ACT + EST)	
TOTAL ROVEE		9.784	7.564	
TOTAL PROCUR	EMENT	10.726	15.953	
TOTAL OSM		0.299	0.000	
TOTAL OTHER		1.525	2.936	
TOTAL ANNUAL	LAB	22.334	26.453	
TOTAL INHOUS	E	0.881	1.081	
TOTAL INHOUS	SE RDT&E	0.631	0.776	
ANNUAL OPERA	TING COST	0.000	0.000	
	PERSONNEL DATA	(END OF	FY 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	24	1	12	12
CIVILIAN	35	1	19	18
TOTAL	59	2	31	28

		SPACE AND	D PROPERTY			
ACRES	SPACE (THOUSANDS OF SQUARE FEET		ET)	r) cost (Million \$)		
	L AB	ADMIN	GTHER	TOTAL	REAL PROP	EQUIP
0	0.000	1.595	3.233	4.828	0.000	0.022

PROVENG COMPET & MGMT FOR DEVELP ASSGND SPA SYSERESPONSIVE ROMTS OTHER USN ACTSEPROV GUIDANCE NAVAIRSYSCOM ON SCOPE & CONTENT ADV STUDY RESRCH & ESPLOR PROGSEPERFORM NAVY MGMT & ENG FUNCTIONS RELATED JT SVC SPA SYSDEVELP&COORD WITH AFSAMSO ON TECH & ENG ASPECTS OF SPA DEVELP & PROGS

...CURRENT IMPORTANT PROGRAMS ADVANCED SPACE SYSTEM PROJECT SROE FLEET SATELLITE COMMUNICATIONS SPACE TEST PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES
INITIATE PLAN AND EXECUTE SPACE PROJECTS AS ASSIGNED
PRODUCE TECH, COST & EFFECT STUDIES & ASSOC ENG MGNT & FINANCIAL PLANS
RESPONS FOR MISSON AREAS IN WHICH USN PARTICIPATES AS MBR JT SVC EFFORT
COORD ASSOC USN SPT EFFORT TO DOD & NASA SPACE RELATED PROGRAMS
FOCAL POINT FOR NAVY SPACE EXPERIMENTS
SINGLE POINT OF CONTACT WITH USAF SAMSO FOR ALL SPACE MATTERS
COORD SPT PROVIDED OTHER USN ACTIVITIES TO AREAS NSSA RESPONSIBLE
SUCH OTHER RESPONS AS ASSGND BY COMPETENT AUTHORITY

INSTALLATION NAVAL SUBMARINE MEDICAL RESEARCH LABORATORY NEW LONDON, CT.

C.U. CAPT J.H. BAKER SCIENTIFIC DIR. DR. C.F. GELL

PROGRAM		TA BY FISCAL 1972	YEAR (MILLION 1973	\$)
PRUGARA			(ACT + EST)	
TOTAL ROTEE	(1.4)	1,446	1.461	
TOTAL PROCUREMENT		0.000	0.000	
TOTAL USM		0.000	0.000	
TOTAL OTHER		0.504	0.465	
TOTAL ANNUAL LAS		1.950	1.926	
TOTAL INHOUSE		1.950	1.926	
TOTAL INHOUSE ROTEE		1.446	1.461	
ANNUAL OPERATING COS	ST .	0.042	0.046	
DF	ERSONNEL DATA	(END OF FY	19721	
	RIZED	TOTAL	TOTAL	NON-
	LENGTH	PHDS	PROF	PROF
MILITARY	42	7	16	26
CIVILIAN	67	14	37	30
TOTAL	709	21	53	56
	CDACE A	NU OGUOEDIA		

SPACE AND PROPERTY						
ACRES	SPACE (THO	USANDS OF	SQUARE FE	ET)	COST (MILL	.ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	23,325	6.441	12-638	42.404	0.000	0.885

# ...MISSION

TO CONDUCT BASIC AND APPLIED RESEARCH IN SUBMARINE AND DIVING MEDICINE, CLOSED ENVIRONMENTS IN AREAS OF PHYSIOL. MEDICAL PSYCHOL. VISION AUDITION HUMAN FAC.ENG., DENTISTRY, MIL. APPLICATIONS, TO MEET NAVY REQ., AND FURNISH RES. AND MEDICAL ASSISTANCE TO SUB AND DIVING SHORE AND FLEET ACTIVITIES.

# ... CURRENT IMPORTANT PROGRAMS

1.EFFECTS OF ENVIRONMENTAL STRESS ON SUBMARINE PERS. A PROGRAM OF HABITA BILITY STUDIES IN THE LAB AND AT SEA:2 ESTABLISHMENT OF PHYSILOGICAL LIMITS OF SATURATION-EXCURSION DIVING:3.LONGITUDINAL HEALTH STUDY OF SUB AND DIVING PERS.:24.ORAL HEALTH EFFECTS OF SUB ENVIRONMENT AND PREVENTIVE CARE:5.SELECTION AND RETENTION OF SUBMARINE AND DIVING PERSONNEL.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYPERBARIC CHAMBERS, HUMAN-150PSI, ANIMIMAL, 300 PSI, 1000PSIEENVIR. CONTRIL CHAMBERS EUNDERWATER VISTON TEST POOL EARLCHOIC SUITE EMOBILE BIO-ACOUSTIC VANE ANIMAL CARE-HOUSING FAC. EGROUP OR AL HLTH-RES.FAC. EDENTAL OPERATORYE MICROBIOL-ISOLATION FAC. EAPPARATUE-MODEL SHOPETECH.LIB. EDATA PROC. EGRAPHIC ARTS-PHOTO LAB.PUB.DUP.FAC. ERADIOISOTOPE HANDLING-STORAGE FAC. EDATA CONG-LOGGING SYST. EDIGITAL COMPTR. EANALOG COMPTR. EHI-PRESS. REACTION VESSELEBIOTELEMETRY SYST. EMASS SPECS. EATOMIC ABSORP. SPTMTR. EGAS CHROMATO GRAPHEBODY PLETHYSMOGRAPHETREADMILLEPORT.X-RAY SYST. ETECHNICON AUTOANAL. SURGICAL SUITEGMISTO-PATHOL.LABEBIOCHEM LABSEBIOENG. LABEPUL, FUNC. EXERCISE LABECAR DIOPUL.-BLOOD ANAL.LABECOMP. AUTOMATED HU.FAC. ENG LABS. MULTICHANNEL MAG-TAPE SYSTSECLSD CIRUITE TV SHSYEREFRIG.HI SPEED CENTRIFUGEE NITROGEN FREEZE UNITEFLUIDIC CONTR. CONSOLEAIR ION MONITORING SYST.

C.O. CAPT R.H. GAUTIER TECH. DIR. DR. WM. B. HCLEAN

0000044	PROGRAM		L YEAR (MILLION	\$)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		48.893	52.500	
TOTAL PROCUREM	ENT	10.307	15.419	
TOTAL OEM		11.554	10.642	
TOTAL OTHER		7.842	5.522	
TOTAL ANNUAL L	AB	78.596	84.083	
TOTAL INHOUSE		46.724	49.302	
TOTAL INHOUSE	RDT&E	31.374	33.620	
ANNUAL OPERATI	NG COST	18.819	18.624	
	PERSONNEL DA	ATA (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	284	Ö	35	249
CIVILIAN	1691	91	€83	1008
TOTAL	1975	91	718	1257
	SP A	CE AND PROPERTY		
ACRES	SPACE (THOUSAND	DS OF SQUARE FE	ET) COST	(MILLION \$)
		MIN OTHER	TOTAL REAL	PROP EQUIP
37575	336.900 33.4	-		.846 44.345

#### ...MISSION

MISSION OF THE CENTER IS TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR UNDERSEA SURVEILLANCE, OCEAN TECHNOLOGY AND ADVANCED UNDERSEA WEAPONS SYSTEMS.

...CUPRENT IMPORTANT PROGRAMS
ADV U/S SURVEILLANCE INCL LG APERTURE & TOWED ARRAYS. ADV SONAR TECHNICS & FLEET SONAR SYS IMPROVEMT. ASW WEAPONS SYS DEV, EG ADV TORPEDO TECHNOL SUB-LAUNCHED MISSILE TECHNOL.FIRE CONTROL SYS & ACOUSTIC C/M CCEAN SCI. INCL MARINE BIOSYS.ACOUSTIC PROPAGATN & USW RELATED OCEANOG RSCH.OCEAN ENGRG INCL DEEP SUBMERG RECOVERY & WORK SYS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
UNDERSEA SURVL. UNDERSEA/SURFACE WEAPONS & FIRE CONTROL SYS LTWT TORPEDOES, HIGH SPEED VEHICLE & HIGH RESOLUTION SONARS, UW ACOUSTIC WARFARE SYS, REMOTE CONTROL UW SYS, OCEAN TECHNOL & ENGRG, MARINE BIOSCI, MAR MAMMAL SYS, ACOUSTIC PROPAGATION (PAC/ARC), PACFLT ASW SUPPT, ARCTIC SUBMARINE SYS. ROTEE LABS SDIEGO, PASADENA, HAWAII& MAR BIOSCI FACS SEA TEST/ENGRG RANGES SAN CLEMENTE IS, MORRIS DAM, LBEACH& CALIBRATION STAW ARCTIC FIELD STA, ALASKA& ARCTIC SUB LAB & POLAR ICE SIMULATOR& TRANSDUCER EVAL CTR ANECHOIC ALL FREQS& ASH COMPUTER SIM CTR& RSCH SHIPS & CRAFT INCL USNS SP LEE TAG 192& DATA ACQ, PLAYBACK & ANAL FAC FOR DEV/EVAL OF SIGNAL PROC TECHNICS& RESCUE SYS TEST FAC&DEV/TEST FACS FOR LTWT AIRDROP TORPEDOES&CABLE CONTROL UW RECOVY VEHICLE&PANORAMIC VIEW SUBMERSIBLES& VARIABLE ANGLE LAUNCHER.

C.O. CAPT MILTON C. MCFARLAND TECH. DIR. HAROLD E. NASH

	PROGRAM DATA	BY FISCAL Y	EAR (MILLION	\$)
PROGRAM	1 97	<b>'2</b>	1973	
	(ACTUA	L) (AC	T + EST)	
TOTAL ROTEE	49	-143	62.865	
TOTAL PROCUREMENT	36	.802	34.984	
TOTAL DEM	20	.033	25.898	
TOTAL OTHER	10	.443	7.653	
TOTAL ANNUAL LAB	118	-421	131-400	
TOTAL INHOUSE	85	5 <b>-4</b> 40	101-645	
TOTAL INHOUSE ROTEE	39	-445	46.995	
ANNUAL OPERATING COST	17	7•82 <del>9</del>	18-115	
PERS	ONNEL DATA (E	ND OF FY 19	972)	
PERSONNEL AUTHORI	ZED	OTAL	TOTAL	NON-
STREN	GTH	PHDS	PROF	PROF
MILITARY	93	0	23	<b>70</b> .
CIVILIAN 31	40	73	1359	1781
TOTAL 32	33	73	1382	1851
	SPACE AND	PROPERTY		
ACRES SPACE (	THOUSANDS OF S			(MILLION \$) PROP EQUIP
<del></del>	8 121.655		_	.598 32.915

---MISSION
TO BE THE PRINCIPAL NAVY ROTGE CENTER FOR UNDERWATER WEAPONS SYSTEMS

...CURRENT IMPORTANT PROGRAMS
DEVELOPMENT OF UNDERWATER ACOUSTIC THEORY MODELS & SIMULATION TECHNIQUES
DESIGN DEVELOPMENT AND EVALUATION OF UNDERWATER WEAPON AND TARGET SYSTEM
MAINTAIN PRIMARY R&D CAPABILITY FOR SONAR SYSTEMS HULL MOUNTED AND TOWED
DESIGN/PERFORM UNDERWATER RANGING EXPERIMENTS AND EVALUATION OF DATA
R&D CAPABILITY FOR READINESS OF IN-SERVICE SHIPBOARD UNDERWATER SYSTEMS

---FUNCTIONS/EQUIPMENT/CAPABILITIES
TO PROVIDE ROTGE SUPPORT TO NAVSHIPS/NAVELEX/NAVORD/NAVAIR/NAVOCEANO.
MAJOR EQUIPMENT AND FACILITIES - TORPEDO TEST RANGE COMPLEX INCLUDING
LOCATIONS AT NEWPORT R I ANDROS ISLAND BAHAMAS AND CAPE KENNEDY FLORIDA/
ASW WEAPON FIRE CONTROL DEVELOPMENT AND EVALUATION FACILITY/ACOUSTIC
MEASUREMENT AND TRANSDUCER RESEARCH AND EVALUATION FACILITIES/INSTRUMENT
CALIBRATION LABORATORY/ASW WEAPON LAUNCHING DEVICE DEVELOPMENT AND
EVALUATION FACILITY/WEAPONS SYSTEMS SIMULATION LABORATORY/OCEANGGRAPHIC
LABORATORY FACILITY/LABORATORY RESEARCH AND TECHNICAL SUPPORT SHOP
FACILITIES/RESEARCH SUPPORT VESSELS FACILITY/INSTRUMENTATION DESIGN AND
RECORDING TECHNIQUES FACILITY/TORPEDO PROPULSION TEST FACILITY/DIGITAL
COMPUTER AND DATA ANALYSIS RESEARCH FACILITIES TO EVALUATE EXISTING AND
PROPOSED WEAPONS SYSTEMS AND TO CONDUCT DATA REDUCTION AND ANALYSIS.

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### C.O. CAPT G.W. WERNER

	PROGRAM DA		AL YEAR (MILLION	\$)
PROGRAM		1972	1973	
	( AC	TUAL)	(ACT + EST)	
TOTAL RDT&E		0.025	0.162	
TOTAL PROCUR	EMENT	0.000 .	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.092	0.178	
TOTAL ANNUAL	LAB	0.117	0.340	
TOTAL ATTIONS	# F1 #	00201	***************************************	
TOTAL INHOUSE	=	0.117	0.340	
TOTAL INHOUS		0.025	0.162	
ANNUAL OPERA		0.019	0.040	
ANNUAL UPERA	IING COST	0.019	0.040	
	PERSONNEL DATA	(END OF F	V 10721	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
PERSONNEL				
M71 7 7 4 0 14	STRENGTH	PHDS	PROF	PROF
MILITARY	16	2	6	10
CIVILIAN	1	0	0	1
TOTAL	17	2	6	11
	SPACE A	ND PROPERT	Υ	
ACRES	SPACE (THOUSANDS		-	(MILLION \$)
~~~~	I AR ADMIN	OTHER	TOTAL DEAL	

ACRES SPACE (THOUSANDS OF SQUARE FEET) COST (MILLION \$)

LAB ADMIN OTHER TOTAL REAL PROP EQUIP

0 0.000 2.121 0.000 2.121 0.000 0.010

DEVELOPMENT OF MATERIALS AND METHODS COMPATIBLE WITH NAVY REQUIREMENTS FOR THE PREVENTION AND CONTROL OF DISEASES OF NATURAL AND UNNATURAL ORIGIN
VIRAL AND BACTERIAL SEROLOGY VIRAL AND TISSUE CULTURE AND AEROBIOLOGY

---CURRENT IMPORTANT PROGRAMS
DEVELOPMENT OF NEW EXPERIMENTAL VACCINES
ENVIRONMENTAL PREVENTION AND CONTROL OF AIRBORNE DISEASES
CLEANSING OF HOSPITAL EQUIP AND SPACES WITH GASEOUS DISINFECTANTS
PROMOTE MODERN MED SCIENTIFIC RESEARCH JOINTLY WITH DEPT OF THE ARMY
AND EVALUATE BIOLOGICAL WARFARE MEDICAL DEFENSIVE MEASURES

•••FUNCTIONS/EQUIPMENT/CAPABILITIES
DRUG SYNTHESIS FOR ANTICHOLINESTERASE
NONIONIZING RADIATION EFFECTS SAFETY MONITORING
RAPID IDENTIFICATION TECHNIQUES OF VIRUSES

### INSTALLATION NAVAL WEAPONS CENTER

C.O. RADM H. SUERSTEDT, JR. TECH. DIR. H.G. WILSON

PROGRAM	PROGRAM DATA BY	FISCAL YEAR (MILLIO	IN \$)
PRUGRAM	(ACTUAL)	(ACT + EST)	
TOTAL ROTEE	105.45		
TOTAL PROCUREMENT	35.03		
TOTAL OEM	6.06	2 5.610	
TOTAL OTHER	25.54	5 24.722	
TOTAL ANNUAL LAB	172.09	1 163.104	
TOTAL INHOUSE	108.97	5 105.210	
TOTAL INHOUSE ROTGE	68.52	7 66.842	
ANNUAL OPERATING COST	40.32	5 42.432	
PERSO	NNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHORIZ	ED TOTA	L TOTAL	NON-
STRENG	TH PHD	S PROF	PROF
MILITARY 71	6	0 45	671
CIVILIAN 459	2 10	4 1453	3139
TOTAL 530	8 10	4 1498	3810
	SPACE AND PRO	PERTY	

		SPACE A	ND PROPERTY	Y		
ACRES	SPACE (TH	OUSANDS O	F SQUARE FE	EET)	COST (MILI	LION \$)
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1093019	722.689	163.857	5752.845	6639.391	229.339	83.925

---MISSION
THE MISSION OF THE NAVAL WEAPONS CENTER IS TO BE THE PRINCIPAL NAVY
ROT AND E CENTER FOR AIR WARFARE AND MISSILE WEAPON SYSTEMS.
THE FUNCTIONS ARE TO ESTABLISH AND MAINTAIN THE PRIMARY IN-HOUSE
RESEARCH AND DEVELOPMENT CAPABILITY FOR NAVY AND MARINE CORPS SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

AGILE - ADVANCED SHORT RANGE AIR-TO-AIR MISSILE SYSTEM.

HARM - HIGH SPEED ANTI-RADIATION MISSILE.

FAE - FUEL AIR EXPLOSIVE.

CONDOR - AIR-TO-SURFACE MISSILE SYSTEM WITH STAND-OFF CAPABILITY.

AIM9L - GUIDED, AIR-LAUNCHED INTERCEPTOR MISSILE.

SUBSYSTEMS AND TECHNOLOGIES IN SUCH AREAS AS: STRIKE AIRCRAFT/WEAPON SYSTEMS AND CONCEPT DEVELOPMEN & AVIONICS SYSTEMS& TACTICAL MISSILES (ANTI-SHIP CRUISE MISSILES AND POINT DEFENSE MISSILES)& PROPULSION, GUIDANCE AND CONTROL, WARHEAD, FUZE, AND LAUNCHER AND HANDLING EQUIPMENT SUBSYSTEMS FOR THE AFDREMENTIONED SYSTEMS: STRIKE WARFARE COUNTERMFASURES& AND WEATHER MODIFICATION. FACILITIES INCLUDE: MICHELSON LABORATORY& ELECTRONIC WARFARE RANGE& SOLID STATE DEVICES LABORATURY& FUZE TEST RANGE& PROPULSION RESEARCH LABORATORIES& MICROELECTRONICS FACILITY& EXPLOSIVES RESEARCH AND DEVELOPMENT FACILITY& GROUND AND AIRCRAFT RANGES& EXTERIOR AND TERMINAL BALLISTICS RANGES& NAVAL AIR FACILITY& AIRCRAFT SURVIVABILITY FACILITY SUPERSONIC TEST TRACKS& MICROWAVE ANECHOIC FACILITIES.

C.O. CAPT R.H. STOLPE TECH. DIR. F.X. BUSHNER

	PRO GR A		ISCAL YEAR (MI	LLION \$)	
PROGRAM		1972	1973		
		(ACTUAL)	(ACT + EST	)	
TOTAL ROTEE		1.170	1.1	51	
TOTAL PROCUREM	ENT	0.752	0.6	54	
TOTAL OEM		0.927	0.7	97	
TOTAL OTHER		2.439	2.4	73	
TOTAL ANNUAL L	AB	5,288	5.0	75	
TOTAL INHOUSE		5,236	5.0	45	
TOTAL INHOUSE	RDT&E	1.118	1.1	21	
ANNUAL OPERATI	NG COST	0.599	0.7	01	
	PERSONNEL D		F FY 1972)		
PERSONNEL	AUTHORIZED	TOTAL	TOTA	L NON-	
	STRENGTH	PHDS	PRO	F PROF	
MILITARY	200	0	200	0	
CIVILIAN	94	1	39	55	
TOTAL	294	1	239	55	
	-	ICE AND PROP			
ACRES	SPACE (THOUSAN	NDS OF SQUAR	E FEET)	COST (MILLION \$)	
	LAS A	HTO NIM	ER TOTAL	REAL PROP EQUI	P
5	19.590 21.	522 101.9	58 143.070	8.500 0.45	0

...MISSION

TEST-EVALUATE-SUPPORT NUCLEAR/DESIGNATED NON-NUC WPNS/WPN SYSTEMS. ADVIS CNO IN PROMOTING-MONITORING NUC WPN SAFETY. PLAN-CONDUCT N&C WPN SYSTEM SAFETY STUDIES/RVWS.ASSIST BD OF INSP/SURVEY IN EVAL OF NUC WPN/AIRCRAFT/SHIPS. PROVIDE A/C CHECKLISTS/LDG MAN FOR NUC/DESIGNATED NON-NUC WPNS.

\*\*\*CURRENT IMPORTANT PROGRAMS
PREPARING CHECKLISTS/LDG MANUALS FOR F-14 A/C AND HARRIER WPN SYSTEM.
CONDUCTING EVAL OF A7E COMPUTER DELIVERY OF NUC WPNS. CONDUCTING FAULT
TREE SAFETY ANALYSIS OF MK48 TORPEDO. EVALUATING NUC SAFETY OF ASROC WPN
SYSTEM DN DD963 CLASS SHIPS. PARTICIPATING IN EARLY DEVELOPMENT OF XM517
AND XM673 NUC PROJECTILES, SM-2 AAW MISSILE, AND MK400 AR MK500 FBMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCT OF NAVY NUC WPNS:EVALUATION, TEST, VULNERABILITY, COMPATIBILITY AND
SAFETY PROGRAMS&SAFETY STUDIES AND RYWS&FEASIBILITY STUDIES FOR FUTURE
SYSTEMS&SAFETY SURVEYS AND SYMPOSIA. PREPARATION OF NUC WPN:A/C CHECK
LISTS AND LDG MANUALS, MILITARY CHARACTERISTICS AND STOCKPILE-TC-TARGET
SEQUENCES, SAFETY ANALYSES, MECH-ELECT INTERFACE DWGS, EMERGENCY DESTRUCT
PROCEDURES, NUC SAFETY PERIODICAL. PARTICIPATION IN NUC WPN:BD OF INSP
AND SURVEY TRIALS OF A/C AND SHIPS, EFFECTS TESTS, PROTECTIVE EQUIPMENT
PROGRAM, DEV OF A/C BDUS AND SUSPENSION-RELEASE-AMAC EQUIP, PHASE I AND II
STUDIES. PROVIDE:FLIGHT SERVICE TO THE AEC, SUPPORT TO THE NLO-JAWPS,
ENGINEERING-TECHNICAL-FIELD TO SYSTEM COMMANDS/PROTECT OFFICES, A/C AND
HDLG EQUIPMENT MAINTENANCE, NUC WPN LIAISON TO AEC-DNA-CONTRACTORSFLEETS-FIELD ACTIVITIES.

C.O. CAPT ROBERT F. SCHNIEDWIND TECH. DIR. BERNARD SMITH

	PRO	GRAM DATA BY	FISCAL YEAR	(MILLION	\$)
PROGRAM		1972	1	973	
		(ACTUAL)	(ACT +	EST)	
TOTAL ROTEE		29.3	69	45.486	
TOTAL PROCURE	MENT	24.2		16.287	
TOTAL DEM		11.3	69	11.358	
TOTAL OTHER		18.3		13.237	
TOTAL ANNUAL	I AR	83.3		86.368	
TOTAL MITTORE		0212			
TOTAL INHOUSE		56.5	50	63.290	
TOTAL INHOUSE		19.4		36.826	
ANNUAL OPERAT		12.2		13.135	
	PERSONNE	L DATA (END	OF FY 19721	)	
PERSONNEL	AUTHORIZED	TOT		TOTAL	NON-
· - • - · · · · -	STRENGTH	PH	DS	PROF	PROF
MILITARY	108		0	27	81
CIVILIAN	2703		67	1029	1674
TOTAL	2811		67	1056	1755
			••	2000	•,,,,
		SPACE AND PR	OPERTY		
ACRES		SANDS OF SQU		COST	(MILLION \$)
	L AB				PROP EQUIP
4490	484.567	73.655 808	.830 1367.		.573 31.101

...MISSION
CONDUCTS A PROGRAM OF WARFARE ANALYSIS, RESEARCH, DEVELOPMENT, TEST,
EVALUATION, SYSTEMS INTEGRATION, AND FLEET ENGINEERING SUPPORT IN NAVAL
WEAPONS SYS, PRINCIPALLY FOR SURFACE WARFARE, AND CONDUCTS SUPPORTIVE
PROGRAMS IN OTHER WARFARE AND FIELDS OF TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS
EXTENDED RANGE GUIDED PROJECTILE AND AMMUNITION PROGRAMS
NAVAL TACTICAL RECONNAISSANCE AND SURVEILLANCE PROGRAMS
GUIDANCE DATA FOR POLARIS/POSEIDON/ULMS/FBM SYSTEMS PROGRAMS
SPECIAL EFFECTS WARHEADS
DIGITAL FIRE CONTROL SOFTWARE/HARDWARE PROGRAMS

LAB CAPABILITIES SUPPORT WORK IN TACTICAL, STRATEGIC, AMPHIBIOUS AND MINE WARFARE ANALYSIS, SYSTEMS EFFECTIVENESS STUDIES, SATELLITE GEODESY& DIGITAL FIRE CONTROL SYSTEMS, COMPUTER SCIENCES, ROTGE IN WARFARE AND SURFACE LAUNCHED WEAPONS & ELECTROMAGNETIC WARFARES MISSILE GUIDANCES WEAPONS CONTROLSMATERIALS AND INSTRUMENTATION RESEARCHS WEAPONS SAFETY, MODEL FABRICATIONSPRODUCT ENGINEERINGS ELECTRONIC AND APPLIED PHYSICSS GEO, INTERIOR, EXTERIOR AND TERMINAL BALLISTICSS WARHEAD AND MUNITIONS RED FACILITIES INCLUDE WARFARE ANALYSIS CENTER AND COMPUTATION FACSFIRE CONTROL PROGRAM ASSURANCE FACS FBM DISC PACK PRODUCTION FACSEXPLOSIVE EFFECTS EVALUATION COMPLEXS CHEM/BIO DEFENSE LAB COMPLEXSSPECIAL EFFECTS TEST FACSGUNNERY AND MISSILE RANGE COMPLEXS NAVAL GUN EVAL FACS EMPASS SUPPORT FACSELECTROMAGNETIC VULNERABILITY TEST FACILITY.

INSTALLATION NAVY MEDICAL NEUROPSÝCHIATRIC RESEARCH UNIT SAN DIEGO. CA C.O. CAPT R.J. ARTHUR SCIENTIFIC DIR. DR. W. WILKINS

	PROGRA		AL YEAR (MILLION \$	)
PROGRAM		1972	1973	
,		(ACTUAL)	(ACT + EST)	
TOTAL ROTEE		0.975 ,	1-460	
TOTAL PROCUREM	ENT	0.000	0.000	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.517	0-295	
TOTAL ANNUAL L	AB	1.492	1.755	
TOTAL INHOUSE		1.492	1.672	
TOTAL INHOUSE	ROTAE	0.975	1.377	
ANNUAL OPERATI	NG COST	0.190	0.170	
	PERSONNEL C	DATA (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	19	11	14	5
CIVILIAN	58	9	26	32
TOTAL	77	20	40	37
	SP A	ACE AND PROPERT	Y	
ACRES	<u> </u>	IDS OF SQUARE F		MILLION \$)
		MIN OTHER		
0	13.977 4.	500 0.000	18-477 0-0	00 0.317

CONDUCT NEUROPSYCHIATRY RESEARCH AS APPLIES TO NAVAL SERVICE DEVELOP STUDY PLAN ON REPATRIATED PRISONERS OF WAR

...CURRENT IMPORTANT PROGRAMS LIFE STRESS & HEART DISEASE IN HEALTHY NAVY OFFICERS AND PETTY DEFICERS STRESS TOLERANCE DIFFERENCES AMONG NAVAL PERSONNEL DEVELOP COMPUTERIZED PSYCHIATRIC DATA-SYSTEM FOR NAVAL SERVICE GUIDELINES FOR PSYCHIATRIC TREATMENT AND DISPOSITION OF NAVAL PERSONNEL PHYSICAL FITNESS STANDARDS PREDICTING MILITARY EFFECTIVENESS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ANALYSIS OF UNDERWATER PSYCHOPHYSIO PROGRAMS AND TASKS COMPLETE EEG COMBINED USE FOR SINGLE SEIZURE STUDY AND SLEEP DEPRIVATION ON-LINE SEG RECORDING CAPABILITIES

#### C-O- LCDR L-J. JENKINS

	PRO	GRAM DATA	BY FISC	AL YEAR (MI	LLION \$)	
PROGRAM		19	72	1973		
		(ACTL	IAL)	(ACT + EST	·)	
TOTAL ROTEE			0.234	0.5	48	
TOTAL PROCURE	MENT		0.000	0.0	00	
MAG LATOT			0.000	0.0	00	
TOTAL OTHER			0-151	0.1	.58	
TOTAL ANNUAL	LAB		0.385	0.7	'06	
TOTAL INHOUSE			0.380	0.4	23	
TUTAL INHOUSE	ROTEE		0.229	0.2	65	
ANNUAL OPERAT	ING COST		0.012	0.0	15	
	PERSONNE	L DATA	END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL.	TOTA	\L	NON-
	STRENGTH		PHDS	PRO	)F	PROF
MILITARY	17		3	8	}	9
CIVILIAN	7		0	2	?	5
TOTAL	24		3	10	)	14
		SPACE AND	PROPERT	Y		
ACRES	SPACE (THOU				COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	2.260	0-140	1.416	3-816	0-187	0.508

...MISSION
CONDUCT ROTGE IN OPERATIONAL & ENVIRONMENTAL TOXICOLOGY. RESEARCH TOX
RESPONSE TO ATMOSPHERIC CONTAMINANTS AT HIGH PRESSURE, CHARACTERIZE TOX
POTENTIAL OF SURFACE SHIP & SUBMARINE CHEMICALS & MATERIALS. RESEARCH
SYNERGISTIC EFFECTS OF THERMAL DEGRADATION PRODUCTS OF ORGANIC NITRATE

...CURRENT IMPORTANT PROGRAMS
CHRONIC INGESTION OF RDX IN MONKEYS DOGS AND RODENTS.
TOXICOLOGY OF SULFOLANE A MATERIAL WITH POTENTIAL USE IN CO2 SCRUBBERS.
BEHAVIORAL TOXICOLOGY OF SULFOLANE AND NOSET-A PROPELLANT.
THRESHOLD TOXICITY OF MONOMETHYLHYDRAZINE.
HYPERBARICTOXICITY OF HYPERBARIC BREATHING GAS MIXTURES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FUEL. EVALUATE ACUTE AND CHRONIC TOXICITY OF ENVIRONMENTAL CONTAMINANTS
OF NAVAL ORIGIN BY EFFECTS ON HEMATOLOGIC BIOCHEMICAL ENZYMATIC AND
PATHOLOGIC PARAMETERS. DETERMINE MODE AND SITE OF ACTION OF TOXIC
MATERIALS. DEVELOP DATA ON ORAL OCULAR DERMAL AND INHALATION HAZARDS OF
MILITARY CHEMICALS. DEVELOP EXPOSURE CRITERIA TO PROTECT HEALTH.
RESEARCH TOX OF ATMOSPHERIC CONTAMINANTS AT PRESSURES TO 1000 PSIG.
FACILITIES AND EQUIPMENT CAPABILITY CONSISTS OF 6&2 CV METER EXPOSURE
CHAMBERS 150 & 1000 PSIG CHAMBERS WELL EQUIPPED CHEMISTRY BIOCHEMISTRY
HEMATOLOGY PATHOLOGY PHARMACOLOGY & INSTRUMENTATION LABORATORIES.
OVERALL CAPABILITY IN ENVIRONMENTAL TOXICOLOGY OF INHALED & INGESTED
CONTAMINANTS OF NAVAL ORIGIN & DEVELOPMENT OF EXPOSURE CRITERIA.

The state of the s

C.O. RADM W.M. HARNISH TECH. DIR. W.L. MILLER

00000 44	PROGRAM		L YEAR (MILLION	\$1
PROGRAM		1972	1973	
TOTAL DOTAL			(ACT + EST)	
TOTAL ROTGE		65.355	67.723	
TOTAL PROCURE	MENT	1.496	4.969	
TOTAL DEM		6.955	6.323	
TOTAL OTHER		16.305	14.592	
TOTAL ANNUAL	LAB	90.112	93.607	
TOTAL INHOUSE		58.156	59.233	
TOTAL INHOUSE	RDT&E	44.150	44.998	
ANNUAL OPERAT	ING COS?	22.795	23.022	
	PERSONNEL DA	ATA (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	727	9	118	609
CIVILIAN	2909	5	284	2525
TOTAL	3636	14	502	3134
	SPA	CE AND PROPERTY		
ACRES		S OF SQUARE FE		(MILLION \$)
***************************************		MIN /OTHER		
29600	93.463 271.			.600 170.000

...MISSION
TO PROVIDE SUPPORT FOR THE DEPARTMENT OF DEFENSE AND OTHER DESIGNATED GOVERNMENT AGENCIES FOR LAUNCHING, TRACKING, & COLLECTING DATA IN GUIDED MISSILE, SATELLITE, & SPACE VEHICLE RESEARCH, DEVELOPMENT, EVALUATION AND TRAINING PROGRAMS AND ACTUAL OPERATIONS

\*\*\*CURRENT IMPORTANT PROGRAMS
RANGE SUPPORT OF 280 NATIONAL RANGE USER PROGRAMS INCL F-14 AND HARPOON
DEV OF UNDERWATER TEST AND EVAL RANGE IN HAWAIIAN AREA FOR ASM WEAPONS
DEV EXTENDED AREA TRACKING SYSTEM (OVER-THE-HORIZON) IN CONUS AREA
DEV OF INTEGRATED TARGET CONTROL SYSTEM (ITCS) FOR CONUS SITES
DEV OF AIR COMBAT MANEUVERING TEST SYSTEM (ACMTS) FOR TACT WPN SYS EVAL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATE NAT\*L RANGE FACIL AT PT MUGU CAL/SAN NICOLAS IS/KAUAI HAW/MIDWAY
IS/WAKE IS/JOHNSTON IS. OPERATE UNDERWATER RANGE; KAUAI. OPERATE RANGE
INSTR SHIP USNS WHEELING (TAGM-8) AND 5 RANGE INSTR AIRCRAFT (EC-121K).
PROVIDE TRAJECTORY DATA, TELEMETRY COMMAND CONTROL/DESTRUCT, COMM SVCS
DATA RELAY AND DISPLAY FOR CONTROL DATA PROCESSING ITEM RECOVERY AT
SEA, TECH SVCS (CALIB/REPAIR/INSTALL (MAINT), METRO & OCEANO SVCS, FREQ
PROTECTION, NAVIG AIDS LOGISTICS & BASE SUPPORT MAJOR OP CONTROL SITES
AT CONUS & BARKING SANDS DATA PROC CENTER PT MUGU PROBE LAUNCH COMPLEX
AT PT MUGU SAN NICOLAS IS, & KAUAL. UNDERWATER RANGE KAUAI IS 5 X 10 MI
WITH 37 HYDROPHONES AT 400-1000 FATHOMS INSTRUMENTED AREAS: CONUS-100X
200 MI/HAW AREA - 50 X 100 MI/JOHNSTON - 100 MI RADIUS AREA FREQ COORD
(JCS) AT CONUS AND HAW AREA. SPEC HYDROACOUSTIC ARRAY OAHJ/MIDWAY/WAKE

C.O. COL W.S. MOE DEPUTY DIR. M.P. DUNNAM

	PRO			AL YEAR (M)	LLION \$)	
Program			72	1973	_	
		(ACTU	AL)	(ACT + EST	<b>')</b>	
TOTAL RDTG2		6	0.830	70.5	00	
TOTAL PROCURE	1ENT		0.000	0.0	00	
TOTAL DEM			0.000	0.0	00	
TOTAL STHEP			0.000	0.0	000	
TOTAL ANNUAL	_AB	6	0.830	70 • 5	00	
TOTAL INHOUSE			5.387	5.2	235	
TOTAL INHOUSE	RD7&E		5.387	5.2	235	
ANNUAL OPERAT	ING COST		0.189	0.2	237	
	PERSONNE	L DATA (	END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOT*L	TOTA	\L	NON-
	STRENGTH		PHUS	PRO	)F	PROF
MILITARY	51		4	47	7	4
CIVILIAN	341		10	182	2	159
TOTAL	392		14	229	•	163
		SPACE AND	PROPERT	ſΥ		
ACRES	SPACE (THO	JSANDS OF	SQUARE F	EET)	COST (MIL	LION \$)
· •	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
40	309.500	66.500	274.775	650.775	12.894	16.713

PLAN, FORMULATE AND EXECUTE EXPLORATORY ADVANCED AND PROTOTYPE DEVELOP-MENT PROGRAMS IN AIR-BREATHING PROPULSION, FLIGHT POWER, LASER AERODYNAM-ICS AND AIRCRAFT FUELS, LUBRICANTS AND FIRE PROTECTION. ENSURE THE RAPID APPLICATION OF RESEARCH AND TECHNOLOGY TO ADVANCED AEROSPACE SYSTEMS.

...CURRENT IMPORTANT PROGRAMS
YJ101 PROTOTYPE ENGINE FOR LIGHTWEIGHT FIGHTERS
HIGH TEMPERATURE TURBINE, WITH VARIABLE GEOMETRY AND HIGH STAGE LOADING
INTEGRAL ROCKET/RAMJET POWERED MULTI-PURPOSE MISSILE
LASER AERODYNAMICS AND HIGH POWER FOR LASER SYSTEM
FUELS AND PROTECTION TECHNIQUES TO ENHANCE AIRCRAFT SURVIVABILITY

TURBOSHAFT ENGINE ALT CELL-FUEL CONTROL SYNTHESIS-CENTRAL DATA SYSTEM ENERGY CONVERSION TRANSFER FAC-PROGRAMMABLE BATTERY TEST RACKS LUBRICANT RESEARCH FAC-GEAR RIGS-BEARING RIG-SEAL TEST RIGS, FUEL RESEARCH LABCORROSION TEST-AGING CHAMBERS-FUEL CHAMBER, ROTOR TEST FAC-UP TO 4000 HP P-95 FT MAX DIA UP TO 50000 LB THRUST TURBINE ENGINE TEST STANDS-10 SEALEVEL STANDS TO 50000 LB THRUST, 2 TURBINE ENGINE ALTITUDE CELLS TO 3000 LB THRUST-50000 FT-MACH 1.5, PROPELLER WHIRL RIGS-4 RIGS TO 30000 HP GYROSCOPIC TEST CHAMBER, SPACE POWER VACUUM AND LIQUID METAL LOOP FAC-27 FT DIA BY 37 FT HIGH, HEAT TRANSFER RESEARCH FAC-HYDROGEN COOLED TURBINE ENGINE BLADES, ELECTRO AERODYNAMIC LASER FAC-VARIABLE POWER SUP-PLY TO 300 KW AT 100-600 VDC, AIRCRAFT SOLID STATE ELECTRICAL POWER FAC-THREE 350 HP DRIVE STANDS-2 AT AIRCRAFT ELECTRICAL SIMULATORS

HARLES OF THE WAY TO BE THE STATE OF THE STATE OF

C.O. COL W.J. HARE CHIEF SCIENTIST DR. HANS J.P. VON CHAIN

	PRO			AL YEAR (MI	LLION \$)	
PROGRAM		19	72	1973		
		<b>EACTU</b>	AL)	(ACT + EST	)	
TOTAL ROTEE		1	2.754	12.4	54	
TOTAL PROCUREME	NT		0.000	0.0	00	
TOTAL DEM			0.000	0.0	00	
TOTAL OTHER			1.060	1.0	62	
TOTAL ANNUAL LA	18	1	3.814	13.5	16	
TOTAL INHOUSE			9.155	8.1	67	
TOTAL INHOUSE R	DT&E		8.095	7.1	05	
ANNUAL OPERATIO	IG COST		1.504	1.3	34	
	PERSONNE	L DATA (	END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTA	L	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	72		22	56		16
CIVILIAN	173		43	84		89
TOTAL	245		65	140		105
		SPACE AND	PROPERT	r <b>y</b>		
ACRES	SPACE (THOU	JSANDS OF	SQUARE F	EET)	COST (MI	LLION \$)
	L AB	ADMIN		TOTAL	REAL PROP	EQUIP
34	134.953	49.837	34.719	219.509	12.625	12.603

...MISSION
PLANS AND EXECUTES USAF RESEARCH PROGRAMS IN THE PHYSICAL AND ENGINEER
SCIENCES. PROVIDES TECHNICAL OR MANAGEMENT ASSIST IN SUPPORT OF STUDIES,
ANALYSES, RESCH AND DEVELOPMENT PLANNING ACTIVITIES, ACQUISITION, TEST,
EVALUATION. AND OPERATION OF AEROSPACE SYSTEMS AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS
INVESTIGATION OF FLUID DYNAMIC ENERGY AND MOMENTUM EXCHANGE PROCESSES.
STUDY OF PROCESSES AT SOLID-GAS AND SOLID-SOLID INTERFACES.
STUDY OF INFRARED TRANSMISS AND CONVERSION PROCESSES IN II-VI MATERIALS.
FUNDAMENT. RESCH ON NON-EQUILIBRIUM IONIZAT AND EXCITAT PROC IN PLASMAS.
EXCITAT AND IONIZAT PROCESS., KINETICS OF CHEM REACTIONS PERT. TO LASERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
ARL CONDUCTS AND SPONSORS FUNDAMENTAL RESCH IN: STRUCTURE AND PROPERTIES
OF SOLIDS& CHEMICAL PROPERTIES AND PROCESSES& HIGH VELOCITY FLUID MECHANICS& AEROSPACE SIMULATION TECHNIQUES& APPLIED MATH& PLASMA AND SOLID
STATE PHYSICS AND ENERGY CONVERSION. SUPPORT FACILITIES INCL GLASS SHOP,
MACHINE SHOP AND 15000 VOL TECHNICAL LIBRARY. EXPERIMENTAL FACILITIES
INCL: TWO HIGH REYNOLDS NUMBER SUPERSIN. WIND TUNNELS& 4 HYPERSONIC WIND
TUNNELS& AND A SUPERSONIC COMBUSTION FACILITY& A 1 MEV VAN DE GRAAFF ACCELERATOR& EPR AND NMR SPECTROMETERS& A TANDEM 10N-MGLECULE MASS SPECTROMETER& AND CAPABILITY FOR GROWTH OF THIN PLATELET TYPE II-VI CRYSTALS
OF A VERY HIGH DEGREE OF PURITY AND SURFACE PERFECTION.

#### C.O. MG J.C. MAXWELL CHIEF SCIENTIST T.H. DALEHITE

	PROGRAM	DATA BY FISC.	AL YEAR (MILLION \$	)
PROGRAM		1972	1973	•
	(	ACTUAL)	(ACT + EST)	
TOTAL ROTEE		129.713	138.817	
TOTAL PROCURE	MENT	205.271	195.000	
MAG LATOT		2.632	2.615	
TOTAL OTHER		46.639	58.413	
TOTAL ANNUAL	LAB	384-255	394.845	
, , , , , , , , , , , , , , , , , , , ,			0.5.100.10	
TOTAL INHOUSE		100.205	107.601	
TOTAL INHOUSE	RDT&E	57.006	58.988	
ANNUAL OPERAT	ING COST	20.000	20.000	
	PERSONNEL DAT	A (END OF F	Y 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	4531	114	1269	3262
CIVILIAN	3707	35	678	3029
TOTAL	8238	149	1947	6291
	SPACE	AND PROPERT	Y	
ACRES	SPACE (THOUSANDS	OF SQUARE F	EET) COST (	MILLION \$)
	LAR ADMI	-		OP EQUIP
464795	676.611 944.74	4 6656.315	8277.670 210.8	61 223.159

...MISSION
EXPL ADV ENGR DEV AND TEST EVAL INITIAL ACQUISITION OF NONNUCLEAR MUNS
CONDUCTS TESTS & EVALUATIONS IN FOLLOWING AREAS EMW AFWET COM/CONTROL
INTRUSION/INTERDICTION, ELECTRO/OPTICAL, CLIMATIC SIMULATION, VERTICAL
PROBES. PERFORMS COMBAT TECH APPL. SUPPORTS TESTS OF OTHER AGENCIES.

...CURRENT IMPORTANT PROGRAMS
DEFENSE SUPPRESSION
SEEK BAT
MODULAR WEAPON SYS EMS
CLOSE AIR SUPPORT
ADVANCED AERIAL TARGETS - HAST AND PQM-102

...FUNCTIONS/EQUIPMENT/CAPABILITIES
A CAPABILITY OF SCIENTIFIC/ENGINEERING PERSONNEL AND LABORATORIES FOR
EXPL ADV & ENGR DEV IN THE AREA OF NONNUCLEAR MUNITIONS. ARMAMENT SYS
TEST ENVIRONMENT COVERING 728 SQ MI WITH LARGE ADJACENT WATER AREA.
HAS 28 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION
TRACKING RADARS AND PHOTO-OPTICS. IS USED FOR MUNITIONS TESTS AND
ELECTROMAGNETIC TEST ENVIRONMENT, IS AN INSTRUMENTED COMPLEX OF THREAT
SYSTEMS FOR EVALUATION OF EMW DEVICES AND TECHNIQUES. WEAPONS
EFFECTIVENESS AND SYS TEST ENVIRONMENT PROVIDES A REALISTIC ENVIRONMENT
FOR TESTING A WPNS SYS AGAINST AN ACTIVE DEFENSE SYSTEM. A CLIMATIC LAB
CAPABLE OF TESTING COMPLETE WPNS SYSTEMS. A PROBE LAUNCH FACILITY FOR
LAUNCHING SCIENTIFIC PROBES. A COMPUTER SCIENCES LAB. A PHYSICAL
SCIENCES LAB. A PHOTO LAB. AN INSTRUMENTATION/DESIGN/FAB FACILITY.

#### C.O. COL WARD E. PROTSMAN CHIEF SCIENTIST D.R. EASTMAN

	PROGRA	M DATA BY	FISCAL Y		ION \$)
PROGRAM		1972		1973	
		(ACTUAL)	(A)	CT + EST)	
TOTAL ROTEE		55.06	.3	47.340	
TOTAL PROCUREM	ENT	2.15	7	4.303	
MAG LATOT		1.81	.8	1.260	
TOTAL OTHE		5.37	'8	4.231	
TOTAL ANNUAL L	AB	64-41	,6	57-134	
TOTAL INHOUSE		10.28	16	14.126	
TOTAL INHOUSE	RDT&E	8.87	-	12.617	
ANNUAL GPERATI	· · · = =	4.23		4.231	
	PERSONNEL D	ATA (END	OF FY 19	972)	
PERSONNEL	AUTHORIZED	TOTA		TOTAL	<b>パのみ</b> ー
	STRENGTH	PHO	S	PROF	PROF
MILITARY	80		4	62	18
CIVILIAN	146		3	53	93
TOTAL	226		7	115	111
	SP A	CE AND PRO	PERTY		
ACRES	SPACE (THOUSAN			) (	OST (MILLION \$)
			HER		AL PROP EQUIP
40118	1149.163 201.	411 532.	348 1	882.922	361.532 59.005

...MISSION
PRIMARY MISSION IS TO SUPPORT THE TIMELY ACQUISITION OF QUALATIVE
SUPERIOR AEROSPACE SYSTEMS BY CONDUCTING RESEARCH AND DEVELOPMENT TESTS
IN GROUND ENVIRONMENTAL TEST FACILITIES WHICH SIMULATE THE NECESSARY
FLIGHT CONDITIONS.

...CURRENT IMPORTANT PROGRAMS
COMPLETED F-15 ENG/INLET COMPATIBILITY AND PRELIMINARY ENGIN TESTING.
COMPLETED B-1 INLET AFTERBODY, ESCAPE CAPSULE AND WEAPONS COMPAT TESTS.
A-X ENGINE TEST PREPARATION WAS CONDUCTED.
DEFENCE SUPPRESSION DRONE/RPV WIND TUNNEL TESTS WERE CONDUCTED.
OTHER SIGNIF TESTS. MINUTEMAN, SPACE SHUTTLE, ABRES ECN PODS AIRBRN LASER

AEDC IS COMPRISED OF ABOUT 33 MAJOR TEST UNITS HAVING A CAPITAL VALUE OF MORE THAN \$400 MILLION. INCLUDED ARE 15 WIND TUNNELS WITH TEST SECTION SIZES TO 16 FT SQ AND SPEEDS RANGING FROM SUBSONIC TO MACH NO 22, SIX TURBINE ENGINE TEST CELLS WHICH CAN PROVIDE TRUE SIMULATION TO ABOVE MACH 3. FOUR ROCKET ALTITUDE TEST CELLS, THE LARGEST RATED AT ONE-HALF MILLION LBS THRUST, THREE HYPERBALLISTIC RANGES, AND FOUR SPACE SIMULATION CHAMBERS, THE LARGEST BEING 42 FT DIAM BY 82 FT HIGH. THESE TEST FACILITIES HAVE SUPPORTED THE DEVELOPMENT AND QUALIFICATION OF EVERY MAJOR AERONAUTICAL, MISSLE AND SPACE SYSTEM INITIATED SINCE 1954. THROUGH ADEQUATE PLANNING OF AN ENVIRONMENTAL TEST PROGRAM IN THESE FACILITIES, DEVELOPMENT PROGRAM MANAGERS CAN HELP TO ASSURE THAT SYSTEM DESIGN DEFICIENCIES ARE FOUND EARLY, PREVENTING COST AND SCHED OVERRUNS.

C.O. COL M. MICHAEL BONNER CH. SCIENTIST DR. B. H. LIST

PROGRAM	1972	FISCAL YEAR (MI 1973	
	(ACTUAL)	(ACT + EST	
TOTAL RDT&E	100.8	= : : : : : : : : : : : : : : : : : : :	
TOTAL PROCUREMENT	0.0	00 0.0	00
TOTAL OGM	0.0	00 0.0	00
TOTAL OTHER	7.4	19 8.7	26
TOTAL ANNUAL LAB	108.2	77 101.9	69
TOTAL INHOUSE	8.6	82 8.5	85
TOTAL INHOUSE ROTEE	7.1	24 6.6	85
ANNUAL OPERATING COST	3.7	97 3.7	61
PERS	ONNEL DATA (END	OF FY 1972)	
PERSONNEL AUTHORI	ZED TOT	AL TOTA	L NON-
STREN	GTH PH	DS PRO	F PROF
MILITARY 1	61	17 103	58
CIVILIAN 5	84	20 354	230
	· · · · ·	37 457	288

		SPACE AN	D PRUPER: Y			
ACR ES	SPACE (THO	USANDS OF	SQUARE FE	ET)	COST (MILI	LION \$3
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
264	218.583	5.304	264-277	488.164	21.008	35.638

...MISSION
MAINTAINS A BASE OF AVIONICS TECHEDEVELOPSEDEMONSTRATES COST-EFFECTIVE
AVIONIC SYSTEMS TO INPROVE OPERATIONAL CAPABILITIES IN NAV, COMM, EW, RECON
, SURVEILLANCEEWPN DEL.PROVIDE SYS SUPPORT TO AFSCEALL USAF OPERATIONAL
UNITSEMODIFICATION OF AVIONICS IN THE INVENTORY

---CURRENT IMPORTANT PROGRAMS
DEVELOP TECHNIQUES FOR TGT DE' \_TION, TGT TRACKING WEAPON DELIVERY
EXPLOIT DIGITAL AVIONICS TECH FOR APPLICATIONS IN SPACE
DEVELOP GIMBALD ELECTROSTATIC GYRO FOR AIRCRAFT NAVIGATION (GEANS)
DEVELOP LASER COMMUNICATIONS FOR SPACE APPLICATIONS
DEVELOP FORWARD LOOKING ADVANCED MULTIMODE RADAR (FLAMR)

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCTS IN-HSE R+D TO MAINTAIN A HIGH DEGREE OF TECHNICAL COMPETENCE.
ACTS AS AFSC FOCAL POINT FOR INFO IN ASSIGNED TECHNICAL AREAS.EXECUTES
ASSIGNED PROJECTS FOR AND WORKS CLOSELY WITH ARMY, NAVY, NASA, ARPA, +OTHER
GOVT AGENCIES.SUPPORTS AFSC PROGRAMS AND INSURES THE RAPID APPLICATION
OF RESEARCH+TECHNOLOGY TO ADVANCED SYSTEMS.PROVIDES TECHNICAL SUPPORT TO
CURRENT+FUTURE SYSTEMS PROGRAMS+OPERATIONAL SUPPORT PROJECTS IN AREAS OF
ASSIGNED MISSION.PERFORM CONCEPTUAL PLANNING, ANALYSIS\*STUDIES.MAJOR FAC/
EQUIP ARE-ELECTROOPTICAL SURVEILLANCE FAC WITH 48 IN APERATURE-DYNAMIC
ANALYZER FOR ADVANCED RECON SYSTEMS-LASER RESEARCH FAC-SOLID STATE
INTEGRATED CIRCUITS LAB ELECTROMAGNETIC TECHS COUNTERMEASURES LAB INCL
ECM UCM SIMULATION FAC.

C.O. COL WILLIAM K. MORAN CH. SCIENTIST DR. JOHN N. HOHARD

	, ,,,,			MP 15MN 11188		
PROGRAM		1	972	1973		
		( ACT	UAL)	(ACT + EST)		
TOTAL RDT&E			56.240	52.71	.0	
TOTAL PROCUR	EMENT		1.353	0.55	8	
TOTAL DEM			0.001	0.00	)1	
TOTAL OTHER			3.365	2.13	10	
TOTAL ANNUAL	LAB		60.959	55.39	19	
TOTAL INHOUS	E		34.050	34.97	74	
TOTAL INHOUS	E RDT&E		32.030	32.84	-	
ANNUAL OPERA	TING COST		7.100	7.17	12	
	PERSONN	EL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTAL	•	NON-
	STRENGTH		PHDS	PROF	:	PR OF
MILITARY	182		14	70		112
CIVILIAN	977		159	599		378
TOTAL	1159		173	6 6 9		490
		SPACE AN	ID PROPERT	Y		
ACRES	SPACE (THO				COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL F	REAL PROP	EQUIP
859	614.773	19.708	125.916	760.397	20.554	64-228

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

## ...MISSION

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

\*\*\*CURRENT IMPORTANT PROGRAM"
IONOSPHERIC MAPPING AND FORE STING FOR COMMUNICATIONS
SHORT RANGE TERMINAL FORECAS: "NG
RADIATION HARDENING OF DEVICES AND INTEGRATED CIRCUITS
OPTICAL AND INFRARED BACKGROUND MEASUREMENTS
DENSITY SATELLITE MEAS FOR LOW ALTITUDE ORBITAL SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES
CONDUCTS RESEARCH AND TECHNICAL DEVELOPMENT IN TERRESTRIAL, AEROSPACE,
OPTICAL, AND SOLAR PHYSICS, IN EM WAVE PROPAGATION, AND IN ELECTRONICS,
ENERGY CONVERSION, SOLID STATE AND INFORMATION SCIENCES RELATING TO AIR
FORCE NEEDS. EQUIPMENT AND FACILITIES INCLUDE RADIO AND OPTICAL TELE—
SCOPES FOR SOLAR RESEARCH: S,X,AND L DAND RADARS AND A C-130 AIRCRAFT
FOR METEOROLOGICAL RESEARCH: RUCKET AND BALLOON LAUNCH FACILITIES, TWO
KC-135 AND TWO C-130 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND NEAR
SPACE STUDIES: FACILITIES FOR GROWTH OF ELECTRONIC MATERIALS,
A VAN DE GRAAFF ACCELERATOR, COBALT 60 SOURCE, 12 MEV LINAC, 29 FOOT
MILLIMETER WAVE ANTENNA ALL FOR ELECTRONICS RELATED PROGRAMS, AND A
CDC 6600 COMPUTATIONAL NETWORK.

## INSTALLATION EASTERN TEST RANGE

C.O. MG D.M. JONES

	PROGRAM DATA BY FISCA	L YEAR (MILLION \$)
PROGRAM	1972	1973
	(ACTUAL)	(ACT + EST)
TOTAL ROTGE	153.255	118.333
TOTAL PROCUREMENT	0.666	2.553
TOTAL OEM	137.377	106.644
TOTAL OTHER	47.653	47.098
TOTAL ANNUAL LAB	338.951	274.628
TOTAL INHOUSE	115.506	107.623
TOTAL INHOUSE ROTEE	39.495	36.872
ANNUAL OPERATING COST	9-144	8.733

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PPOF	PROF
MILITARY	1507	34	103	1404
CIVILIAN	1875	1	112	1763
TOTAL	3382	35	215	3167

SPACE AND PROPERTY

ACRES SPACE (THOUSANDS OF SQUARE FEET) COST (MILLION \$)

LAB ADMIN OTHER TOTAL REAL PROP EQUIP

18203 130.543 739.482 7044.196 7914.221 370.670 519.800

---MISSION
BALLISTIC MISSILE TESTING(R&D)
SPACE LAUNCH
DASO
OT/FOT

...CURRENT IMPORTANT PROGRAMS PERSHING ATLAS/AGENA USAF PROGRAMS TITAN 3 POLARIS POSEIDON

---FUNCTIONS/EQUIPMENT/CAPABILITIES
GUIDANCE VERIFICATION
TRACKING SHIP
TELEMETRY MISSILES/SATELLITES
RDR TRACKING MISSILES/SATELLITES
IMPACT SCORING
TELEMETRY SHIP
TELEMETRY AIRCRAFT
PHOTOGRAPHY
DATA PROCESSING
SPACE(AND MISSILE)LAUNCH FACILITY
COMMUNICATIONS
COMMAND CONTROL

# C.O. COL C.A. SCOLATTI CH. SCIENTIST DR. DEMETRIUS ZONARS

	PROC	SRAM DATA I	BY FISCAL	L YEAR (MI	LLION \$)	•
PROGRAM		197	2	1973		
		(ACTUA1	_) (	(ACT + EST.	)	
TOTAL ROTGE		68	.472	46.8	46	
TOTAL PROCURE	IENT	0.	.000	0.0	00	
MAG JATOT		0.	640	0.1	2.5	
TOTAL OTHER		£.	765	2.0	58	
TOTAL ANNUAL L	, <b>A</b> 8	70	.877	49.0	29	
TOTAL INHOUSE		24	587	22.4	4 <b>.7</b>	
TOTAL INHOUSE	POTRE		822	20.3	• •	
ANNUAL OPERATI			305	4.5		
ANNUAL OFERATI	,80 0031	<del></del>	, 30)	7.0	LU	
	PERSONNEI	DATA (E	ND OF FY	1972)		
PERSONNEL	AUTHORIZED	T	DTAL	TOTA	L	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	198		4	97		101
CIVILIAN	941		34	511		430
TOTAL	1139		38	608		531
	,	SPACE AND	DDODED TV			
ACRES	SPACE (THOU	•			COST (MI	LITON EL
MUNES	L AB	ADMIN	OTHER		REAL PROP	
90			26.000	627.730	22.705	

...MISSION

IDEVEL OF CONTROL CONFIGURED FLT VEH DES FOR ACTIVE FLUTTER, RIDE AND MANUVER CONTROL ZAIR CUSHION LANDING GEAR DEVEL 3DETERM OF DYNAMIC CHARACTERISTICS OF COMPOSITE STRUCTURES 4EXPER TO OBTAIN DES CRITERIA ON DELAY BUFFET ONSET TRANSONIC SPEEDS

...CURRENT IMPORTANT PROGRAMS
DETERMINED DESIGN CRITERIA FOR JOINTS IN FILAMENT COMPOSITE STRUCTURES
COMPL FIELD TESTS ESTAB AURAL DETECTION CRITERIA FOR QUIET AIRCRAFT
PREPARED DESIGN GUIDELINES RE FRACTURE MECHANICS FOR AIRCRAFT APPLICATIO
GROUND SIMULATION OF B-1A FLT CONTROL SYS FOR 3 CONTRACTORS DESIGNS
FLIGHT DEMONSTRATION POWERED EJECTION SEAT FOR INCREASED CREW SURVIVAL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

1DEVELOP FLIGHT CONTROL SYSTEM AND PILOTS DISPLAY FOR LANDING SYSTEM
FOR ZERO ZERO WEATHER 2DEVELOP OTPIMAL FLIGHT VEHICLE DESIGN CRITERIA
FOR NON-NUCLEAR COMBAT SURVIVABILITY 3DESIGN FLIGHT CONTROL SYSTEM FOR
TACTICAL AIR TO GROUND AND AIR TO AIR PRECISION WEAPON DELIVERY 4DEMONSTRATE FULL SCALE AIR CUSHION LANDING GEAR PERMITTING MAXIMUM FLEX1BILITY IN SITES FOR GROUND CARGO DELIVERY BY AIRCRAFT 5INTEGRATE TECHNOLOGIES FOR DESIGN OF ACFT FOR OPTIMAL TRANSONIC COMBAT EFFECTIVENESS
PLAN AND EXECUTE USAF EXPLORATORY AND ADVANCED DEV PROGRAMS FOR AEROSPCE
FLT VEHICLE STRUCTURES FLT MECHANICS FLT CONTROL VEHICLE DYNAMICS AND
VEHICLE EQUIPMENT PROVIDE TECH OR MGT ASSIST IN SUPPORT OF STUDIES ANALYSES DEV PLANS TEST EVALUATION MODIFICATION OF AEROSPACE SYS AND EQUIP

ALCOHOLOGICA CONTRACTOR OF THE

#### C.O. BG M.L. LANE CHIEF SCIENTIST COL R.C. LATAROP

PROGRAM	PRO		TA BY FISC 1972	AL YEAR (MI 1973	LLION \$)	
riconan			TUAL)	(ACT + EST	.)	
TOTAL RDT&E			49.619	47.4	-	
TOTAL PROCURE	MENT		0.005	0.0	32	
TOTAL OEM			2.560	2-1	.25	
TOTAL OTHER			28.106	30.9	942	
TOTAL ANNUAL	LAB		80.290	80 - 5	553	
TOTAL INHOUSE	•		64.978	67.4	13	
TOTAL INHOUSE	RDT&E		35.641	35 • 8	378	
ANNUAL OPERAT	ING COST		10.532	11-6	79	
	PERSONNEL	DATA	(END OF F	Y 1972)		
PERSONNEL	<b>AUTHORIZED</b>		TOTAL	TOT	<b>NL</b>	NON-
	STRENGTH		PHDS	PRO	)F	PROF
MILITARY	3101		20	27	L	2830
CIVILIAN	1775		0	174	<b>,</b>	1601
TOTAL	4876		20	449	5	4431
	:	SPACE A	ND PROPERT	Y		
ACRES	SPACE (THOU:	SANDS O	F SQUARE F	EET)	COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
246323	541.686 3	23-084	6405-099	7269-869	178-899	423-455

---MISSION
PLAN/CONDUCT QUANTITATIVE ENG, DEVELOPMENT TEST & EVALUATION OF MANNED/
UNMANNED AERO VEH. EVAL INCLUDING AERODYN PERF/STAB/CONTROL, SYS & SUBSYS
GND SUPT EQUIP.MAINTAINABILITY/RELIBLTY AERO DECELTRS, CONDUCT PSCH TO SP
T MSN. OPR AF TST PLT SCH.SUPPORT .NASA, DOD, GOV CONTRACTOR

...CURRENT IMPORTANT PROGRAMS
DRONE/REMOTELY PLTD VEH DT&E(SYS/PROG 468A)
A/X PROTOTYPE DEVELOP (SYS/PROG 329A)
ADV SPACE TECH/COMPONETS(SYS/PROG 69AJ) PCHT & AERIAL RECOVERY
F-111 & FB-111 (SYS/PROG 324A) DT&E
F-5(E) (SYS/PROG 330B) DT&E

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
TECHNICAL FACILITIES AND EQUIPMENTS ARE AVAILABLE TO PROVIDE A COMPLETE
RANGE OF SERVICES FOR CONDUCTING DIGE FLT TEST OF AERONAUTICAL SYSTEMS&
CONDUCT FLIGHT EVALUATION AND RECOVERY OR REVRIEVAL OF RESEARCH VEHICLES
,TRAIN TEST PILOTS. ENGINEERING LABS,REALTIME INSTRUMENTED RANGES,DATA
COLLECTION,REDUCTION AND ANALYSIS LABS,PHOTO/TV,ACT/ENGINE/MAINT,TST EQP
AND ELECTRONICS SHOPS ALONG WITH A COMPLEX OF DRY LAKES FOR RECOVERY AND
EMERGENCY LANDING PROVIDES VARIOUS SUPPORT FOR ALL TST PROGRAMS OTHER
MAJOR FACILITIES ARE:PRECISION IMPACT,GUNNERY/BOMB,PHOTO RESOLUTION,INFA
RED,RADAR FIDELITY,TACTICAL,&OPTICAL RANGES&CONTRACTOR ASSIGNED HANGARS,
SHOPS,LABS,AND OFFICE SPACES MUNITIONS STORAGE AND CHECKOUTS JOINT PARAC
HUTE TEST FACILITY AT EL CENTRO NAF &ENGINEERING SIMULATION LAB.

COMMANDING OFFICER COL MILTON D SPRINKEL

	PROGR A		L YEAR (MILLION	\$}
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL RDT&E		0.570	0.525	
TOTAL PROCUREM	ENT	0.570	0.525	
TOTAL DEM		0.000	0.000	
TOTAL OTHER		0.400	0.400	
TOTAL ANNUAL L	AB	1.540	1.450	
TOTAL INHOUSE		1.540	1.450	
TOTAL INHOUSE	RNT&E	0.570	0.525	
ANNUAL OPERATI	NG COST	0.018	0.020	
	PERSONNEL D	ATA (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	22	11	22	0
CIVILIAN	9	1	2	7
TOTAL	31	12	24	7
	SP A	CE AND PROPERTY	,	
ACRES		ILS OF SQUARE FE		(MILLION \$)
		MIN OTHER	TOTAL REAL	
0	-	860 0.240		287 1.483

...MISSION
CONDUCT RESEARCH IN AEROSPACE MECHANICS, APPLIED MATHEMATICS & CHEMISTRY.
ENCOURAGE & SUPPORT ACADEMY FACULTY & CADET RESEARCH BY DIRECT PARTICIPATION, MONITOR FACULTY CONSULTANT PROG, SUMMER LAB PROG, FOCAL POINT FOR

PATION, MONITOR FACULTY CONSULTANT PROG, SUMMER LAB PROG, FOCAL POINT FOR USAF ACADEMY RESEARCH PROPOSED TO THE DOL RESETECH LABORATORIES (AFSC)

...CURRENT IMPORTANT PROGRAMS
FUEL CELL AND BATTERY STUDIES-ALUMINUM ANODES IN MOLTEN SALT ELECTROLYTE
SYNTHISIS AND CHARACTERIZATION OF ORGANOMETALLIC MONOMERS & POLYMERS -MODELING OPTIMIZATION PROGRAMING AND CONTROL (MATH MODELS GUIDANCE SYS.)
DIFFERENTIAL GAMES (IMPERFECT INFO), NONLINEAR CONTROL THEORY & ESTIMATES
MECH OF FLUIDS (LOW DENSITY SHOCK WAVES, RAM-WING THEORY, AERODYNAM SHAPES

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
MATH MODELING OPTIMIZATION CONTROL AND GUIDANCE SYSTEMS USING BURR B6700
COMPUTER. DRGANDMETALLIC & ELECTROCHEM & NITROALIPHATIC AND FLUGRCNITROALIPHATIC CHEMISTRY USING 6 POSITION LAB & INSTRUMENT ROOM CONTAINING
ANAL NUC MAG RESONATOR SPECTROMETER, X-RAY EQUIPMENT, INFRARED SPECTROPHOTOMETER, MASS SPECTROMETER, AUTOMATIC GAS CHROMATOGRAPH & OTHER EQUIP.
FLUID DYNAMICS RESEARCH USING 17 INCH LOW DENSITY SHOCK TUBE AND ASSOCIATED INSTRUMENTATION, 2 INCH HIGH DENSITY SHOCK TUBE & WIND TUNNELS.
ADVANCED ANALYSIS AND EVALUATION TECHNIQUES FOR INERTIAL GUIDANCE SENSOR
S USING TWO-AXIS TEST TABLE (GYRO), AUTOMATIC AZIMUTH ALIGNMENT EQUIP AND
ELECTRONIC CONTROL EQUIPMENT FOR 50 SERIES INERTIAL DEVICES LOCATED IN A
CLASS 1000 CLEAN LAB ON 80 TON AIR SUPPORTED STABLE PLATFORM.

THE RESERVE THE RE

C.D. COL GEORGE K. PATTERSON CH. SCIENTIST DR. H.L. PARRIS

	PROGRAM DATA_BY FISCA	
PROGRAM	1972	1973
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	10.090	12-848
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.000	0.150
TOTAL OTHER	1.258	1.482
TOTAL ANNUAL LAB	11.348	14.480
TOTAL INHOUSE	4.472	5.357
TOTAL INHOUSE ROTGE	3,214	3.875
ANNUAL OPERATING COST	0.836	0.970

	PERSONNEL DATA	(END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	134	7	91	43
CIVILIAN	231	38	116	115
TOTAL	365	45	207	158

		SPACE AN	D PROPERTY			
ACRES	SPACE (THO	USANDS OF	SQUARE FE	ET)	COST (MILL	ION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
13	62.679	29.544	31.539	123.762	1.925	4.102

PRINCIPAL AF INTERFACE WITH SCIENCE, INDUSTRY AND OTHER GOVT AGENCIES FOR MANAGEMENT OF BASIC, EXPLORATORY, AND ADVANCED DEVELOPMENT RED PROGRAM IN PERSONNEL SELECTION, MANAGEMENT AND TRAINING, AND THE EVALUATION OF NEW TECHNICAL DEVELOPMENTS FOR APPLICATION TO AF PROBLEMS.

...CURRENT IMPORTANT PROGRAMS
HUMAN FACTORS IN DESIGN OF TRAINING SYSTEMS. SIMULATION TECHNIQUES FOR
AEROSPACE CREW TRAINING. ADVANCED INSTRUCTIONAL SYSTEMS AND ADVANCED
SIMULATION FOR UNDERGRADUATE PILOT TRAINING.
DESCRIBING, EVALUATING AND STRUCTURING AIR FORCE DECUPATIONS.
DOD MANPOWER DEVELOPMENT PROGRAM EVALUATION AND IMPROVEMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
FUNCTIONAL AREAS OF OCCUPATIONAL ANALYSIS, PERSONNEL PROCUREMENT,
PERSONNEL CLASSIFICATION, RETENTION AND SEPARATION, PERSONNEL SYSTEM
COMPUTER SIMULATION MODELS, MANPOWER ROMTS OF AF WEAPONS SYS TRAINING
TECHNIQUES, DESIGN OF SIMULATORS AND OTHER TRAINING DEVICES CAPABILITIES
CONDUCT TRAINING RESEARCH ASSOC. WITH PILOT TRAINING USING SOPHISTICATED
HIGH-FIDELITY A/C SIMULATOR, ADVANCED INSTRUCTIONAL SYS FOR INDIVIDUALLY
PACED COMPUTER AIDED TECH INSTRUCTION, CHECKOUT AND MAINT OF ELECTRONIC
EQUIP, TECH AND PROF LIBRARY, PERSONNEL TESTING ROOMS, AUDIO VISUAL EQUIP
RESEARCH SIMULATOR COCKPIT, INFINITY OPTICS DISPLAY, RAYTHEON PB440 DIGITL
COMPUTER, IBM 7040 ELECTRONIC DATA PROCESSING SYSTEM WITH 6 TAPES DISC
FILE, CARD READ/PUNCH PRINTER AND INQUIRY STATION, VISUAL DISPLAY DEVICE
ELECTRONICS ASSOCIATES TR48 ANALOG COMPUTER.

THE PERSON NAMED IN THE PARTY OF THE PARTY O

C.O. COL R.K. SAXER ACTG. DEPUTY DIR. R.T. SCHWARTZ

	PROGRAM	DATA BY FISCA	L YEAR (MILLION \$)	)
PROGRAM		1972	1973	
		(ACTUAL)	(ACT + EST)	
TOTAL ROTEE		44.909	35.844	
TOTAL PROCUREM	ENT	10.161	13.705	
TOTAL OEM		0.000	0.000	
TOTAL OTHER		0.973	0.945	
TOTAL ANNUAL L	AB	56.043	50.494	
TOTAL INHOUSE		10.676	11.570	
TOTAL INHOUSE	RDT&E	9.703	10-625	
ANNUAL OPERATI	NG COST	2.445	2.887	
		TA (END OF FY		
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PROF
MILITARY	60	20	60	0
CIVILIAN	337	46	2 45	92
TOTAL	397	66	305	92
	SPAC	E AND PROPERTY		
ACRES	SPACE (THOUSAND	S OF SQUARE FE	<del></del>	MILLION \$)
	LAB ADM	IN OTHER	TOTAL REAL PRO	OP EQUIP
9	0-117 0-0	0.038	0.216 6.79	50 10.396

PLAN, FOR MULATE AND EXECUTE RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT AND MANUTACTURING METHODS FOR NEW MATERIALS OF ALL CLASSES IN SUPPORT OF THE AF MISSION. ACT AS AFSC FOCAL POINT FOR MATERIALS TECHNOLOGY INFO. INSURE TIMELY TRANSITIONING OF NEW MATERIALS AND TECHNOLOGY TO AF SYSTEM

...CURRENT IMPORTANT PROGRAMS
MATERIALS AND TECHNIQUES FOR A/C STRUCTURAL INTEGRITY AND RELIABILITY.
MATERIALS AND TECHNIQUES FOR AF WEAPONS SURVIVABILITY AND HARDENING.
TACTICAL AND LIMITED WARFARE MATERIALS AND TECHNOLOGY SUPPORT.
MANUFACTURING TECHNOLOGY OF NEW MATERIALS FUR SYSTEMS APPLICATION.
ADV COM/OSITES, METALS AND ALLOYS FOR AIRFRAME AND PROPULSION STRUCTURES.

\*\*\*FUNCTIONS/EQUIPMENT/CAPABILITIES
MATERIALS RESEARCH AND DEVELOPMENT FACILITIES AND CAPABILITIES FOR:
AEROSPACE STRUCTURES, TPS FOR BALLISTIC RV, AND ENGINES, FLUIDS, LUBRICANTS,
FLUID CONTAINMENT, PROPULSION, COATINGS, FIBERS, ARMOR, EM WINDOWS, SENSORS,
DISPLAYS, LASERS AND OPTICAL DEVICES, ELECTRONIC COMPONENTS, NON-DESTRUCT
TESTING, POLYMERS, ADHESIVES, NONMETALLIC MATRIX COMPOSITES, ELASTOMERS,
METALS, ALLOYS, METAL AND CERAMIC COMPOSITES, METAL PROCESSING,
INTERMETALLICS, CERAMICS, STATIC AND DYNAMIC BEHAVIOR, JOINING, GRAPHITE,
ELECTRONIC AND MAGNETIC MATERIALS, PHYSICAL CHEMICAL ANALYSIS. OTHER
MAJOR MATERIALS FUNCTIONS: MANUFACTURING TECHNOLOGY, SYSTEMS APPLICATION
SYSTEMS SUPPORT.

## C.O. COL THOMAS A. MCCREERY CH. SCIENTIST DR. FRANK KELLEY

PROGRAM	PROGRAM	DATA BY FISCAL	L YEAR (MILLION 1973	5)
PROGRAM			<del>-</del>	
			(ACT + EST)	
TOTAL ROTEE		25.851	22-416	
TOTAL PROCUREM	ENT	0.000	0.000	
TOTAL GEM		0.000	0.000	
TOTAL OTHER		3.899	2.636	
TOTAL ANNUAL L	AB	29.750	25.052	
TOTAL INHOUSE		13.123	13.166	
TOTAL INHOUSE	RD <b>T&amp;</b> E	10.624	10.530	
ANNUAL OPERATION	NG COST	0.280	0-270	
	PERSONNEL DA	TA (END OF FY	1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PRQF	PROF
MILITARY	188	17	91	97
CIVILIAN	298	6	104	194
TOTAL	486	23	195	291
	SPAC	E AND PROPERTY		
ACRES	SPACE (THOUSAND		ET) COST	(MILLION \$)
	LAB ADM		TOTAL REAL S	
54400	419.046 99.2			869 24-003

...MISSION
PLAN. FORMULATE, PRESENT, AND EXECUTE THE AFSC EXPLOR AND ADV DEVELOPMENT PROGRAMS IN ROCKET PROPULSION SYS, COMPONENTS, PROPELLANTS AND
ACCOCD EQUIP. CONDUCT IN-HOUSE RSCH. SUPPORT DEPLOYED AND DEVELOPMENTAL
SYSTEMS. ACT AS AFSC FOCAL POINT FOR INFO IN THE ASSIGNED TECH AREAS.

...CURRENT IMPORTANT PROGRAMS
INCREASE ICBM RANGE/PAYLOAD/PENETRATION CAPABILITIES AND IMPROVE SERVICE
LIFE PREDICTION. INCREASE LIFE OF SATELLITE SYS. INCREASE ABILITY OF
STRATEGIC ACFT TO PENTRATE TO THE TARGET. PROVIDE MAX PROPULSIVE
MANEUVERING FOR SPACECRAFT. IMPROVE ACCURACY AND REDUCE COSTS OF
TACTICAL ARMAMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES
A COMPONENT TEST LAB AND CENTRIFUGE FOR TESTING SMALL PROPULSION SYS AND COMPONENTS UNDER SIMULATED SPACE ENVIRONMENTS, FACILITIES FOR FORMULATG AND TESTING NEW SOLID AND LIQUID PROPELLANT RKT MOTORS. A CHEM LAB FOR SYSNTHESIS, ANALYSIS, AND FORMULATION OF NEW PROPELLANTS. A SOLID MOTOR TEST AND EVAL COMPLEX FOR INVESTIGATION OF COMBUSTION, AGING, STRUCTURAL INTEGRITY AND HOT COMPONENTS. AMBIENT AND ALTITUDE TESTING OF TOXIC RKTS UP TO 50,000 LB THRUST. HOT AIR CAPABILITY TO TEST AIR BREATHING PROPULSION. A FACILITY FOR TESTING REENTRY NOSE CONES. A FACILITY FOR TESTING RKT ENGINES UP TO 10,000,000 LB THRUST. IN-HOUSE ANALYTICAL CAPABILITY FOR W/S PROPULSION SYS OPTIMIZATION, TRADE-OFF AND MISSION STUDIES. A COMPUTER FACILITY FOR DESIGN, ANALYSIS, AND TEST DATA REDUCTION. SHOPS FOR FABRICATING TEST HARDWARE AND TEST SYSTEMS.

C.O. COL P.N. LARSEN CHIEF SCIENTIST DR. IRVING GABELMAN

PROGRAM	PROGRA	M DAT≯ BY 1972	FISCAL YEAR	(MILLION .973	\$)
PRUGRAM			_		
		(ACTUAL)	,		
TOTAL RDT&E		92.74		.05.564	
TOTAL PROCURER	IENT	32.37	77	21.350	
TOTAL DEM		7.09	56	5.480	
TOTAL OTHER		37.02	2 <b>7</b>	40.203	
TOTAL ANNUAL L	,AB	169.20	o5 1	72.597	
TOTAL INHOUSE		37.1	79	36.484	
TOTAL IMHOUSE	RDT&E	31.92	2 <b>7</b>	31.709	
ANNUAL OPERATI	ING COST	10.5	71	9.360	
	PERSONNEL D	ATA (END	OF FY 19721	)	
PERSONNEL	AUTHORÍZED	TOT	AL	TOTAL	NON-
	STRENGTH	PHO	)S	PROF	PROF
MILITARY	325		6	119	206
CIVILIAN	1130	1	15	525	605
TOTAL	1455		21	644	811
	SPA	CE AND PRO	OPERTY		
ACRES	SPACE (THOUSAN	DS OF SQUA	ARE FEET)	COST	(MILLION \$)
	LAB AD	MIN O	THER TOT	TAL REAL	PROP EQUIP
2817	719.708 92.		531 1050		-351 72-699

PLANS AND EXECUTES EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS FOR ELECTROMAG INTELLIGENCE AND RECON PROCESSING, DISPLAYS, SURVEILLANCE, RELIABILITY AND COMPATIBILITY, COMMUNICATIONS FOR AIR FORCE, DOD AND OTHER CRGANIZATIONS, PROVIDES TECHNICAL CONSULTATION TO MAJOR AIR COMMANDS.

---CURRENT IMPORTANT PROGRAMS

OVER THE HORIZON DETECTION EXPERIMENTS AND DEVELOPMENTS

INTELLIGENCE AND RECON EXPLORATORY DEVELOPMENTS AND FIELD SUPPORT

INTEGRATED COMMUNICATION NAVIGATION AND IDENTIFICATION TECHNIQUES

PAVE ONYX (ADVANCED LOCATION STRIKE SYSTEM)

ELECTROMAGNETIC RELIABILITY AND COMPATABILITY TECH AND FIELD SUPPORT

PROVIDES A WELL BALANCED COMBINATION OF PROFESSIONAL SKILLS AND EXPERIMENTAL FACILITIES TO MARRY THEORETICAL STUDIES TO POTENTIAL APPLICATION. BY COMBINATION OF AURBORNE LABORATORY MEASUREMENT IN INSTRUMENTED FLIGHT TEST AIRCRAFT AND FLEXIBLE ON-BASE AND OFF-BASE EXPERIMENTAL SITES, A HIGH DEGREE OF SOPHISTICATION IS ACHIEVED FOR CONDUCTING GROUND ELECTROMAGNETIC STUDIES AND EXPERIMENTS. CAPABILITIES ARE AVAILABLE FOR CONDUCTING HIGH AND LOW-POWER EXPERIMENTS OVER ELECTROMAGNETIC SPECTRUM FROM EXTREMELY LOW FREQUENCIES TO LIGHT. SCIENTIFIC STUDIES ARE PERFORMED USING ONE OF THE NATIONS LARGEST ON-LINE TIME SHARING COMPUTERS. RESOURCES ARE PRIMARILY USED IN EXPLORATORY AND ADVANCED DEVELOPMENTS AND EXTENDING TO TECHNICAL SUPPORT THIRTY-FIVE OTHER AIR FORCE AND OOD ORGANIZATIONS.

C.D. MG JESSUP D. LOWE TECH. DIR. S.R. RADOM

	PRO			AL YEAR (MI	LLIGN \$)	
PROGRAM			972	1973		
			UAL )	(ACT + EST	·)	
TOTAL RDT&E			77.617	65.1	.57	
TOTAL PROCURES	1ENT		0.000	0.0	00	
TOTAL DEM			0.000	0.0	00	
YOTAL OTHER			7.243	7.0	13	
TOTAL ANNUAL I	. AB		84.860	72.1	.70	
					**	
TOTAL INHOUSE			26.595	24 - 4	88	
TOTAL INHOUSE	RDT&E		19.452	17-6	75	
ANNUAL OPERAT	ING COST		15.660	13.0	31	
	PERSONNE	L DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED		TOTAL	TOTA	\L	NON-
	STRENGTH		PHDS	PRO	)F	PROF
MILITARY	452		5	253	1	199
CIVILIAN	395		1	1 55	<b>i</b>	240
TOTAL	847		6	408	,	439
		SPACE AN	D PROPERT	Y		
ACRES	SPACE (THOU	SANDS OF	SQUARE F	EET)	COST (MIL	LION \$)
	L AB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
45546	91.407 3	54.384	431.954	877.745	96-600	495.861

...MISSION
MANAGE SPACE AND MISSILE FIELD TEST OPERATIONS. INSURE TIMELY DEVELOPMENT OF TEST CAPABILITY INCLUDING PERSONNEL, FACILITIES, INSTRUMENTATION
AND DOCUMENTATION.

...CURRENT IMPORTANT PROGRAMS
MINUTEMAN II & III OPERATIONAL TRAINING
SAFEGUARD SYSTEM TEST TARGET PROGRAM-MINUTEMAN & TITAN BOOSTERS
ABRES PROGRAMS
CLASS & UNCLASS SPACE LAUNCHES USING ATLAS, THOR, TITAN & SCOUT BOOSTERS
MINUTEMAN III R&D

SAMTEC CAPABILITIES INCLUDE TEST LAUNCH AND RANGE SUPPORT. THE FORMER INCLUDES VEHICLE & PAYLOAD CHECKOUT, ASSEMBLY, & PRELAUNCH TESTING FOR BOOSTERS/WEAPON SYSTEMS SUCH AS THOR, ATLAS, TITAN 263, & MINUTEMAN 3. THE LA/TER INCLUDES BOTH LONG & SHORT RANGE INSTRUMENTATION PLANNING & SCHEDULING OF ORBITAL, BALLISTIC & PROBE LAUNCHES& AIRCRAFT FLYBY& AND OTHER TESTS. A VARIETY OF FIXED & MOBILE ELECTRONIC & OPTICAL INSTRUMENTATION IS AVAILABLE ON THE WEST COAST, PACIFIC ISLANDS, AND SHIPS & AIRCRAFT TO GATHER RANGE SAFETY AND PROGRAM TEST DATA. LAUNCH AZIMUTHS VARY FROM 165 TO 310 DEGREES. LAUNCH FACILITIES AND RANGE INSTRUMENTATION CAN BE RECONFIGURED TO MEET NEW PROGRAM REQUIREMENTS. IMPACT SCORING OF BALLISTIC PAYLOADS IS AVAILABLE AT TWO DOWNRANGE SITES AND IN THE BROAD OCEAN AREA.

### C.O. COL EVAN R. GOLTRA

	PRO	GRAM DATA B	FISCAL Y	YEAR (MILLION	\$)
PROGRAM		1972		1973	
		( ACTUAL:	) (AC	CT + EST)	
TOTAL ROTEE		10.0	386	10.383	
TOTAL PROCURE	MENT	0.5	536	0.550	
YOTAL OEM		0.0	398	1.036	
TOTAL OTHER		5	078	5.621	
TOTAL ANNUAL	LAB	17.	398	17.590	
TOTAL INHOUSE		15.	196	15.539	
TOTAL INHOUSE	RDT&E	9.1	13	8.349	
ANNUAL OPERAT	ING COST	3.	113	2.831	
	PERSONNE	L DATA (EN	OF FY 19	972)	
PERSONNEL	AUTHORIZED	TO	TAL	TOTAL	NON-
	STRENGTH	PI	HD\$	PROF	PROF
MILITARY	603		92	224	379
CIVILIAN	357		40	127	230
TOTAL	960	:	132	351	609
		SPACE AND P	ROFERTY		
ACRES	SPACE (THOU		JARE FEET!	COST	(MILLION \$)
	L AB	A'DMIN (	THER	TOTAL REAL	PROP EQUIP
93	452.395	95.830 5	9-114 6	507.049 15	.377 21.932

---MISSION
PESFARCH IN LIFE SUPPORT AEROSPACE MEDICINE
BIOLOGICAL SCIENCES
CLINICAL EVALUATIONS
EDUCATION AND TRAINING

...CURRENT IMPORTANT PROGRAMS
BIOLOGICAL EFFEC'S OF COHERENT RADIATION
CABIN HABITABILITY STUDIES
ARMED FORCES ENTRANCE EXAMINING SYSTEM
PERFORMANCE DECREMENT NEUTRON GAMMA STUDIES AND RF RADIATION
DRUG DETECTION AND SCREENING STUDIES

USAF SCHOOL OF AEROSPACE MEDICINE RESEARCH IN AEROSPACE MED PROBLEMS ENVIRONMENTAL STRESS DEVELOPMENTAL ENGINEERING RADIOBIOLOGY LASER HAZARDS BIOMETRICS BIOSCIENCE BIOMED ENGINEERING AND EPIDEMIOLOGY FACILITIES WHOLE BODY COUNTER HUMAN CENTRIFUGE VARIOUS TEST CELLS AND CHAMBERS COCKCRAFT WALTON ACCELERATOR NEUTRON GENERATOR PHILCO 2000 DIGITAL COMPUTER ROTATIONAL FLIGHT SIMULATOR KILO CURIE CO 60 RADIATION SOURCE AEROSPACE MEDICAL SCIENCE LAB AEROSPACE MEDICAL CONSULTATIVE SERVICES AEROMEDICAL EVALUATION CLINICAL SCIENCE CCULO THERMAL RESEARCH OPTICAL AUDIOLOGY VESTIBULAR PSYCHOBIOLOGY RADIO ISOTOPE AEROSPACE MEDICAL STANDARDS AND LASER HAZARDS FACILITIES ZEISS PHOTO COAGULATOR VECTORCARDIOGRAPH MACHINE BALLISTOCARDIOGRAPH MACHINE PHONOCARDIOGRAPH MACHINE AND MASS SPECTROMETERS

### INSTALLATION WEAPONS LABORATORY

C.O. COL ROBERT W. ROWDEN CH. SCIENTIST MAJ WM. A. WHITAKER

0000014	PR			AL YEAR (MI	LLION \$)	
PROGRAM		_	972	1973	_	
			UAL }	(ACT + EST	-	
TOTAL ROTEE			75.218	94.1	20	
TOTAL PROCURE	MENT		0.000	1.4	50	
MAG JATOT			0.287	0.2	44	
TOTAL OTHER			10.199	10.6	07	
TOTAL ANNUAL	LAB		85.704	106.4		
TOTAL INHOUSE			40.866	42.1	_	
TOTAL INHOUSE	RDT&E		30.577	31.5	74	
ANNUAL OPERAT	ING COST		0.000	0.0	00	
	PERSONN	EL DATA	(END OF F	Y 1972)		
PERSONNEL	AUTHORIZED	)	TOTAL	TOTA	L	NON-
	STRENGTH		PHDS	PRO	F	PROF
MILITARY	796		96	572		224
CIVILIAN	397		20	188		209
TOTAL	1193		116	760		433
		SPACE AN	D PROPERT	· <b>Y</b>		
ACRES	SPACE (THO				COST (MIL	LION \$)
<del></del>	LAB	ADMIN	OTHER		REAL PROP	EQUIP
934	428.659	14-620	22-187	465.466	10.791	

PLAN AND EXECUTE RSCH, EXPLORATORY, ADV, AND ENGRG DEV PRGMS ON DEVICES, EFFECTS, AND HAZARDS FOR NUC, LASER, AND ADV WPNS. COND CIV ENGRG RDT&E PRGMS. DEV CRITERIA AND ASSESSES NUC HARDNESS OF WPN SYS. PROVIDES TECH ASSISTANCE FOR NUC WPN SYS INTEGRATION. FOCAL POINT FOR NUC SYS SAFETY ASPECTS.

...CURRENT IMPORTANT PROGRAMS
LASER WEAPON TECHNOLOGY
AEROSPACE FACILITIES 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 RESEARCH, SIMULATION, SAFETY, TEST PARTICIPATION
AND ANALYSIS OF WEAPON SYSTEMS NUCLEAR HARDNESS ARE CONDUCTED IN NUCLEAR
ENGINEERING TEST LABORATORIES AND PHYSICS LABORATORIES. SIMULATION TESTS
ON MISSILES, AIRCRAFT, AND COMPONENTS USE ELECTROMAGNETIC PULSE SIMULATDRS, GAS GUNS, PULSE POWER, AND X-RAY DEVICES. LASER WEAPON DEVELOPMENT
USES LASER/OPTICS LABORATORIES AND TEST RANGE WITH LARGE, HIGH-POWER DEVICES. CIVIL ENGINEERING RESEARCH, EXPLORATORY, ADVANCED DEVELOPMENT AND
TESTING USES SOILS-, ENVIRONMENTAL-, AND CHEMICAL LABORATORIES AND SHOCK
TUBES FOR SIMULATION. TECHNICAL LIBRARY, METALLURGY- AND METROLOGY LABDRATDRIES, AN EQUIPMENT POOL OF VARIED DIAGNOSTIC AND METERING DEVICES,
DUAL CDC-6600 COMPUTERS WITH REMOTE TERMINALS AND MULTI-CHANNEL RECORDING AND DATA REDUCTION SUPPORT RESEARCH AND TESTS.

INSTALLATION 6570 AEROSPACE MEDICAL RESEARCH LABORATORY WPAFB, OH

C.O. COL C.L. HOLT

30

PROGRAM	PROGRAM DA	TA BY FISC 1972	AL YEAR (MILLION 1973	\$)
PRUGRAM	I AC	YUAL)	(ACT & EST)	
TOTAL ROTGE	180	12.798	12.435	
TOTAL PROCUR	FMENT	0.000	0.000	
TOTAL DEM	- Circles	0.000	0.000	
TOTAL OTHER		1.520	1.520	
	4 AD	14.318		
TOTAL ANNUAL	LAD	14.310	13.955	
TOTAL INHOUS	E	9.613	8.774	
TOTAL INHOUS		8.093	7.254	
			• •	
ANNUAL OPERA	TING CUST	1.025	1.006	
	PERSONNEL DATA	(END OF F	¥ 1972)	
PERSONNEL	AUTHORIZED	TOTAL	TOTAL	NON-
	STRENGTH	PHDS	PROF	PRCIF
MILITARY	127	29	77	50
		_		
CIVILIAN	168	26	96	72
TOTAL	295	55	173	122
	SPACE	ND PROPERT	rv	
ACRES	SPACE (THOUSANDS			(MILLION S)
WA11 P.	LAB ADMIN	OTHER	TOTAL REAL P	

---MISSION
CONDUCT R\*T TO DEFINE MANS PERFORMANCE PHYSIOLOGICAL TOLERANCE, PERSONAL PROT NEEDS, AND DEVELOP PROTECTIVE TECHNIQUES AND EQUIP TO SUSTAIN AND ENHANCE HIS PERF IN AF OPERATIONAL ENVIRONMENTS TO EST DESIGN CRITERIA AND PROVIDE SUPPORT TO SYSTEM DEVELOPMENT IN ABOVE AFEAS

15.200

237.100

11.570

15-938

10.000

211-900

---CURRENT IMPORTANT PROGRAMS
DEFINE TOXIC HAZARDS ENVIR PULLUTION EFF OF MISSILE OPS PROPELLANT TEST
DEVELOP A HUMAN PERF METHOD TO COUNTER OPTICALLY AIMED WEAPONS
INV HELMET MOUNTED SIGHT SYS FOR FLT CONTROL AND WEAPON DELIVERY APPLNS
INV HIGH G PILOT SEAT CONTROLS \* DISPLAYS DESIGN FOR OPS ABOVE 8 G.S
DETERMINE MANS EXP LIMITS, CAPABILITY, PROT REQ DURING ESCAPE FROM ADV A/C

...FUNCTIONS/EQUIPMENT/CAPABILITIES
MAJOR FUNCTIONS 1.IDENTIFY, QUANTITATE AND DETERMINE TOXIC HAZARDS AND
ENVIRONMENTAL POLLUTION EFFECTS CREATED BY AF OPS 2.DEVELOP NEW CONCEPTS
AND DESIGN CRITERIA TO DEFINE MAN MACHINE SYSTEM EFFECTIVENESS IN AF OPS
3.PROVIDE HUMAN ENGINEERING DATA, PRINCIPLES AND TECHNIQUES APPLICABLE
TO DESIGN, TEST, OPS MAINTENANCE OF AF SYSTEMS AND EQUIP 4.STUDY EFFECTS,
DEFINE MANS TOLERANCE AND PERFORMANCE DURING BIODYNAMIC AND COMBINED
STRESS OF AF OPERATIONS
MAJOR EQUIP FACILITIES HUMAN ENGINEERING RESEARCH LAB, TOXIC HAZARDS
PESEARCH LAB, RESEARCH ANIMAL FACILITY, BIODYNAMIC NOISE, VIBRATION, IMPACT,
ACCELERATION AND COMBINED STRESS LAB MAN RATED ALTITUDE AND ENVIRONMENT
CHAMBER SIMULATION FACILITIES

#### INSTALLATION ARMED FORCES RADIOBIOLOGY RES. INSTITUTE

#### C.D. CAPT MYRON I. VARON

	PRO	GRAM DATA	BY FISC	AL YEAR	(MILLIO	N \$)	
PROGRAM		19	72	19	973		
		(ACTU	IAL)	(ACT +	EST)		
TOTAL ROTEE			3.127		3.086		
TOTAL PROCURE	MENT		0.000		0.000		
TOTAL DEM			0.000		0.000		
TOTAL OTHER			0.856		1.676		
TOTAL ANNUAL	LAU		3.983		4.762		
TOTAL INHOUSE			3.950		4.362		
TOTAL INHOUSE	RDT&E		3.094		3.046		
ANNUAL OPERAT	ING COST		1.043		0.951		
	PERSONNE	L DATA (	END OF F	Y 1972)			
PERSONNEL	AUTHORIZED		TOTAL		TOTAL		NON-
	STRENGTH		PHDS		PROF		PROF
MILITARY	83		20		47		36
CIVILIAN	138		14		39		99
TOTAL	221		34		86		135
		SPACE AND	PROPERT	Υ			
ACRES	SPACE (THOU			-	COS.	T (MILL	ION \$1
-	LAB	ADMIN	OTHER	TOY		PROP	EQUIP
10	24.660	14.906	32.913	72.	479 <sup>-</sup>	7.899	2.849

\*\*\*MISSION
THE MISSION OF AFRRI 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
BIOCHEMICAL DIAGNOSIS OF MALIGNANT AND METASTATIC TUMORS
ACUTE EFFECTS OF NON-IONIZING ELECTROMAGNETIC RADIATION
EFFECTS OF HEAD INJURY ON BLOOD FLOW AND BRAIN FUNCTION
NEURCLOGIC EFFECTS OF IONIZING RADIATION AND DRUGS
STIMULATION OF MARROW RECOVERY POSTIRRADIATION

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, 50,000-CURYE COBALT-60 IRRADIATOR, POSITIVE ION
ACCELERATOR, ELECTRON MICROWAVE ACCELERATOR, AND X-RAY MACHINES,
WITH ASSOCIATED EXPOSURE ROOM COMPLEXES. SUPPORT SERVICES INCLUDE:
MEASUREMENT OF RADIATION FIELDS, PROVISION AND CARE OF LABORATORY
ANYMALS, 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 1

# Changes in Organization or Name \*

## Department of the Army

## Previous

## As of 1 July 1972

Behavioral Science Research Laboratory Washington, D.C.

Research Institute for Behavioral and Social Sciences Washington, D.C.

Biological Laboratories Fort Detrick, Maryland Disestablished.

Combat Surveillance Group Fort Monmouth, New Jersey Combat Surveillance and Target
Acquisition Laboratories
Fort Monmouth, New Jersey

Watervliet Arsenal Laboratories Watervliet, New York

Benet Weapons Laboratory Watervliet, New York

Missile Command R&D Laboratories Redstone Arsenal, Alabama

Missile Research, Development and Engineering Laboratory Redstone Arsenal, Alabama

General Equipment Test Activity Fort Lee, Virginia

Disestablished.

Airborne Electronics and Special Warfare Board Fort Bragg, North Carolina

Airborne Communications and Electronics Board Fort Bragg, North Carolina

# Department of the Navy

Naval Ship Research and Development Laboratory Panama City, Florida (formerly component of Naval Ship Research and Development Center, Washington, D.C.) Now a separate activity.

Naval Training Devices Center Orlando, Florida

Deleted. In-house RDT&E less than 25% of total in-house effort.

Naval Electronics Systems Test and Evaluation Facility Patuxent River, Maryland

Deleted. In-house RDT&E loss than 25% of total in-house effort.

<sup>\*</sup>Changes since publication of Department of Defense In-House RDT&E Activities, 30 October 1971.

# Department of the Air Force

Aerospace Medical Laboratory (clinical) Disestablished. Lackland AFB, Texas

# APPENDIX II

# **Definitions**

- 1. In-House RDT&E Activities—Those organizational entities engaged in performing work in any or all of the categories of research, development, test and evaluation. The RDI&E effort, however, should represent a minimum of 25 percent of the total effort of each entity reporting in order to be considered as an RDT&E activity.
- 2. Professionals--Full-time government scientific and engineering personnel actively engaged in RDT&E 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:

150	440	665	871	1330
180	454	668	880	1340
190	457	680	881	1350
193	460	690	890	1360
401	470	701	892	1370
403	471	801	893	1372
405	482	806	894	1382
410	486	808	896	1384
413	487	810	1301	1386
414	601	819	1306	1510
430	602	830	1310	1515
434	635	840	1313	1520
435	644	850	1315	1529
436	660	855	1320	1530
437	662	861	1321	1540

Military professionals, both officer and enlisted, actively engaged in RDTSE activities should be identified with the functions described in the above-referenced civilian job series. Generally, these jobs are referenced in Department of Defense Occupational Conversion Tables DoD 1312.1-0, DoD 1312.1-E under DoD groups 5 and 6 of DoD 1312.1-0, and various other groups of DoD 1312.1-E, published under the provisions of DoD Instruction 1312.1. Lawyers, accountants, chaplains, social workers and educators should be excluded.

3. Technicians--Generally nonprofessionals working on an RDT&E 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 fail into the following categories of the Civil Service Occupational Groups and Series of Classes, General Schedule:

181	636	681	895
404	645	682	1311
421	646	683	1316
455	647	698	1341
458	649	699	1371
462	650	802	1374
621	661	817	1521
622	667	818	1531
625	669	856	1541

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 will include those costs incurred by the acquisition (including installation, when applicable) of all property other than real property. It will include personal property such as machine tools, environmental test equipment, furniture, laboratory equipment, vehicles, etc. Items having a unit cost of less than \$200 may be excluded.
- 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-huse 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

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

V/STOL -- vertical/short takeoff and landing

FBM -- fleet ballistic missile