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Marine Corps and Army Helicopter Employment and Attrition Statistics for Southeast Asia Operations from October 1965 through December 1971 (U)

Volume II

Marine Corps Operations Analysis Group

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CENTER FOR NAVAL ANALYSES

Marine Corps Operations Analysis Group

Study 1008

**MARINE CORPS AND ARMY HELICOPTER EMPLOYMENT
AND ATTRITION STATISTICS FOR SOUTHEAST ASIA OPERATIONS
FROM OCTOBER 1965 THROUGH DECEMBER 1971 (U)**

VOLUME II

MONTHLY SUMMARY STATISTICS (U)

October 1972

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The work reported here was conducted under the direction of the Center for Naval Analyses, and represents the opinion of the Center for Naval Analyses at the time of issue. It does not necessarily represent the opinion of Headquarters, U.S. Marine Corps except to the extent indicated by the comments of the Commandant, U.S. Marine Corps.

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ABSTRACT

Statistics of Marine Corps and Army helicopter operations in Southeast Asia between October 1965 and December 1971 have been compiled and studied.

Volume II presents tables of monthly data summaries covering the entire period for the parameters analyzed; a newly-developed list of authenticated Marine Corps helicopter losses incurred in Southeast Asia operations is included.

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MONTHLY SUMMARY STATISTICS

INTRODUCTION

This volume presents the history of the Marine Corps and Army helicopter operations in Southeast Asia from October 1965 through December 1971 in the form of monthly data summaries of sortie expenditure and attrition. The operations involved in overall accumulation of 2,434,000 combat sorties by the Marine Corps and 31,074,000 by the Army, with 247 and 1899 combat losses incurred by the respective services. Additionally, 28 and 167 helicopters, respectively, were lost in ground attacks.

For each service data summaries are provided, for all aircraft types combined as well as for each aircraft type separately. The listings present a break-down of the sorties and attrition data into 8 different mission types (M-1 through M-8) and 3 different operating areas or countries (C-1 through C-3), defined in appendix A. The sortie tables also include information on assets and utilization in terms of the parameters "possessed aircraft" and "flying hours". The attrition tables quote the summaries for the following six parameters: the number of incidents reported as (1) combat loss, (2) combat damage, (3) operational loss, (4) operational damage, and the number of personnel (5) lost and (6) recovered wounded.

ARRANGEMENT OF DATA TABULATIONS

Order of Tables

The volume first lists all Marine Corps, then all Army summary tables.

Each service part of the volume is divided into two symmetrical sections, one of sortie and one of attrition summaries. These sections are identical in their composition.

Each section is further divided into sets of tables summarizing the data for individual aircraft types. The first of these sets of tables, however, summarizes the overall experience by combining the data from all aircraft types.

Each set of tables first presents the overall experience in a table of the yearly summaries with an overall total. This overall summary table is followed by one table of monthly summaries for each year during which the aircraft was possessed. Each of these tables appears on a separate page.

The order in which the different aircraft types appear is as follows:

<u>USMC</u>	<u>USA</u>
AH-1	AH-1
UH-1	UH-1
UH-34	OH-6
CH-37	OH-13
CH-46	OH-23
CH-53	CH-37
	CH-47
	CH-54
	OH-58

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Labeling of Tables

Each table is identified by a mnemonic index, a unique combination of symbols, configured to clearly identify the tabulated data. It consists of three fields of symbols separated by slashes.

The first field, a pair of letters, indicates the service, Marine Corps (M) or Army (A), and the kind of parameters tabulated, sorties (S) or attrition (A). Thus, for example, AA signifies Army attrition, MS signifies Marine sorties.

Following a slash, the second field indicates the aircraft type summarized. For the tabulations of combined data from all aircraft, the symbol ALL is used.

The third field gives the year of the tabulation in terms of its last 2 digits. For the overall summaries of yearly totals this field is omitted.

Thus, for example, the table indexed AS/CH-47/68 presents monthly summaries of Army CH-47 sorties for the year 1968.

Composition of Each Table

Basically, each table consists of a total column together with a breakdown of the total by mission type and by country.

Sortie Tables

The sortie tables first list for the period summarized the average number of aircraft possessed, the total flying hours, and the total sorties. The remainder of the table is primarily concerned with combat sorties: first, the total of combat sorties is shown; then the sorties broken down by mission type (including the column of training and maintenance sorties, M-8, considered non-combat) and, finally, combat sorties are broken down by country of operation. A combat sortie is defined as a sortie in any of the mission types M-1 through M-7.

The various functions composing these mission types are listed in appendix A. They represent:

- | | |
|------|---|
| M-1 | Firing missions (predominantly armed helo and escort) |
| M-2 | Aerial surveillance missions |
| M-3 | Combat troop and cargo carrying missions |
| M-4 | Casualty evacuation missions |
| M-5 | Miscellaneous combat support missions |
| M-6 | Logistic troop and cargo carrying missions |
| M-7 | Administrative/liaison missions |
| M-8 | Non-combat missions |
| M-9* | Non-airborne |

*M-9 is listed here for the sake of completeness; it appears only in the attrition tables, not in the sortie tables.

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The country groupings are composed as follows:

- C-1 Republic of Vietnam (South Vietnam) and Cambodia
- C-2 Thailand and "at sea"
- C-3 North Vietnam and Laos

These are the areas in which the helicopter mission took place rather than the country in which the reporting unit was operating.

Attrition Tables

In a manner similar to the sortie tables, the attrition tables list total attrition, followed by a breakdown of attrition by mission type and by country. The entries under M-9 (non-airborne) are not included in the total, nor in the summaries by country.

Each entry actually consists of six individual statistics arranged in three rows of two entries each. The three rows are labeled:

- COMB for combat
- OPER for operational
- PERS for personnel

The two entries in each row are labeled:

- L for loss
- D for damage (or wounded)

Thus, the six parameters summarized simultaneously are:

- Number of incidents reported as
 - Combat loss
 - Combat damage
 - Operational loss
 - Operational damage

- Number of personnel reported as
 - KIA, MIA, POW (Lost)
 - Wounded (Recovered)

DATA SOURCES

The primary source of data for the summaries is the JCS OPREA file, a computer file based predominantly on OpRep-5 message reports. Marine Corps sorties were spot checked against hard-copy OpRep-5 message files of both the Marine Corps and the Navy operational archives. Marine Corps helicopter losses were carefully checked against, and augmented by, the loss listings of the Navy Safety Center and the aircraft separation and reinstatement reports of the office of the Chief of Naval Operations (Op-511), as well as hard-copy files of various kinds of accident messages held by the Marine Corps Operations Analysis Group. All other Marine Corps attrition data and all data of the Army summaries were derived entirely from the OPREA file (March 1972 version).

PERIOD COVERED

Because the OPREA file dates back to October 1965, when the JCS instituted the unified system of OpRep messages as a part of the JOPREP system*, the summaries begin with

*Now known as the Joint Reporting Structure (JRS)

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October 1965. Loss data are available for the period prior to October 1965; however, earlier sortie data are quite difficult to find in any form.

While the summaries continue through all of 1971, it is clear that they actually stop for Marine aircraft somewhat earlier, namely in June 1971, when Marines ceased to operate in RVN.

DATA QUALITY ASSESSMENT AND CORRECTIONS

A limited quality assessment was made of the Marine Corps sortie data in OPREA, resulting in a few corrections. Similarly, the set of helicopter losses held in OPREA was checked; and was found to require considerable correction. The newly generated (corrected) list of Marine Corps helicopter losses for Southeast Asia is presented in appendix B. The quality assessment effort on both sorties and losses and the resulting sortie data summary corrections are discussed in appendix C.

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TABLES

**SUMMARY OF HELICOPTER ASSETS,
EMPLOYMENT AND ATTRITION IN SOUTHEAST ASIA**

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SUMMARY TABLES

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	87-150 :	Army Helicopter Sortie Data
	151-214 :	Army Helicopter Attrition Data

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TABLE 1

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE: AIRCRAFT TYPE:		USMC ALL													
YEAR	PERS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
					M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
1965	168.23	31874	55385	53433	2815	1740	23306	1934	4399	15832	3407	5952	53432	0	1
1966	166.92	146713	437223	421877	33394	16888	146762	35027	8865	120065	60876	15346	421877	0	0
1967	197.56	160276	448056	423259	65581	17014	101274	44912	20536	94920	79022	24797	422624	635	0
1968	212.05	202246	667039	604329	94371	20799	173940	51448	24799	124908	114064	62710	604329	0	0
1969	188.74	165233	544563	499422	78299	13847	130056	34062	51500	84362	107296	45141	499422	0	0
1970	149.79	113049	364811	344096	74711	15447	42195	20453	55714	70039	65537	20715	344096	0	0
1971	104.31	28304	90444	87187	20293	3127	10322	6220	25708	16588	4929	3257	87187	0	0
ALL	175.49	847695	2611521	2433603	369464	88862	627855	194056	191521	526714	435131	177918	2432967	635	1

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TABLE 2

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1965

SERVICE: AIRCRAFT TYPE:		USMC ALL		SORTIES BY MISSION TYPE									COMBAT SORTIES BY COUNTRY		
MONTH	ROSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
OCT	186	8787	6864	6761	696	219	1868	362	715	2419	482	103	6761	0	0
NOV	209	13152	71145	19392	859	691	4006	480	1355	5913	1088	1753	19391	0	1
DEC	111	5935	31376	27280	1260	830	12432	1092	2329	7500	1837	4096	27280	0	0
ALL	168.73	31874	55385	53433	2815	1740	23306	1934	4399	15832	3407	5952	53432	0	1

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TABLE 3

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1966

SERVICE: AIRCRAFT TYPE:		USMC ALL		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	BOSE A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	133	9123	20119	27681	1630	2598	10535	1446	662	8095	2715	438	27681	0	0	
FEB	117	12734	18914	17490	1779	1198	18254	2346	1325	5302	3286	1424	37490	0	0	
MAR	148	11780	35273	34162	1688	1350	15208	2868	1021	8374	3653	1111	34162	0	0	
APR	142	12666	41707	40605	1846	1677	14994	2779	672	14039	4598	1102	40605	0	0	
MAY	172	11357	37194	35876	2364	1287	11742	2805	659	12702	4317	1318	35876	0	0	
JUN	161	13349	41899	40200	3457	1470	11259	2764	774	14482	5994	1699	40200	0	0	
JUL	163	16281	47523	45843	3709	1530	15419	4016	775	13239	7155	1680	45843	0	0	
AUG	153	15271	36223	35171	2968	1261	12892	3444	773	8753	4080	1052	35171	0	0	
SEP	187	11766	34172	32660	3899	1511	8923	3916	623	8784	5004	1512	32660	0	0	
OCT	193	11187	31653	30478	3434	1370	9643	3417	606	6465	5583	1175	30478	0	0	
NOV	202	10589	32334	31349	2739	736	10018	2112	580	8689	6475	985	31349	0	0	
DEC	228	10410	32212	30362	3881	940	7875	3114	395	6941	7216	1850	30362	0	0	
ALL	166.92	146713	437223	421877	33394	16888	146762	35027	8865	120065	60876	15346	421877	0	0	

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TABLE 4

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1967

MONTH	DOCS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
					M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	187	9003	34060	31200	4026	892	9131	3267	1579	6845	5460	2860	31112	48	0
FEB	165	11382	34774	32656	5172	1085	9287	1379	1760	7809	6164	2118	32109	547	0
MAR	180	12952	38744	36344	5870	784	7531	4248	2078	8892	6941	2400	36344	0	0
APR	208	11872	37108	34258	4315	1387	8374	4066	1884	7795	6437	2850	34258	0	0
MAY	200	18198	43362	40563	7152	957	12241	4304	1985	6721	7203	2799	40563	0	0
JUN	193	9354	45878	43897	7063	1177	9892	4054	4025	10078	7608	1981	43897	0	0
JUL	209	24133	42987	40952	6101	1668	10084	4278	1361	9457	8903	2035	40952	0	0
AUG	158	17470	45277	43557	6356	2407	10440	4819	1096	10038	8401	1720	43557	0	0
SEP	174	15559	39892	38375	7074	2330	6794	5055	1168	9804	6150	1517	38375	0	0
OCT	236	10473	25021	27713	4518	1937	5708	3724	1064	6770	3992	1308	27713	0	0
NOV	228	9695	26180	24845	3220	1091	5659	2884	754	4998	6239	1335	24845	0	0
DEC	160	17985	30773	28899	4714	1299	6133	2834	1782	5713	6424	1874	28899	0	0
ALL	197.56	160276	448056	423259	65581	17014	101274	44912	20536	94920	79022	24797	422624	635	0

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TABLE 5

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1968

SERVICE: AIRCRAFT TYPE:		USMC ALL		SORTIES BY MISSION TYPE										COMPT SORTIES BY COUNTRY		
MONTH	POSC P/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	155	12719	35135	32067	5672	1181	6536	3493	1426	6730	7029	3068	32067	0	0	
FEB	264	10854	35263	32234	5974	736	6952	3337	419	8180	6645	3029	32234	0	0	
MAR	252	15038	43506	39329	6555	1194	7794	4605	1845	7759	9577	4177	39329	0	0	
APR	235	15584	50662	45803	7057	1643	13980	4389	700	7834	10200	4859	45803	0	0	
MAY	185	12597	62371	56279	9539	2684	14030	6380	1002	11614	10980	6092	56229	0	0	
JUN	211	20258	70080	63258	9404	1776	18800	4694	2374	15157	11053	6822	63258	0	0	
JUL	198	21263	71285	65410	9348	2065	19326	5277	2422	15517	11455	5875	65410	0	0	
AUG	205	18996	67915	58797	9339	2206	17714	4954	2370	11352	10162	4818	58097	0	0	
SEP	205	17034	54974	49828	8245	1570	14546	3859	2982	9324	9302	5146	49828	0	0	
OCT	279	17565	60666	54587	8314	1143	18541	3246	3493	11357	8493	6079	54587	0	0	
NOV	178	17241	60504	54568	8381	2403	16650	3212	3094	10767	10061	5936	54568	0	0	
DEC	192	16112	59728	52919	6543	2198	19071	4002	2681	9317	9107	6809	52919	0	0	
ALL	212.05	202246	667039	604329	94371	20799	173940	51448	24799	124908	114064	62710	604329	0	0	

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TABLE 6

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1969

SERVICE: AIRCRAFT TYPE:		USMC ALL		COMBAT SORTIES	SORTIES BY MISSION TYPE								COMPT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES		M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	205	15784	54701	49091	6282	1902	17035	3650	2208	8951	9063	5610	49091	0	0
FEB	206	15223	48246	43368	5343	1190	13770	3456	1895	8305	9409	4878	43368	0	0
MAR	184	16799	45864	44632	6203	1590	11983	3687	2647	6560	11962	5232	44632	0	0
APR	189	17170	56641	50179	7798	1728	14456	3737	2421	7373	12666	6462	50179	0	0
MAY	203	16924	57070	51931	7347	1661	13598	4254	3153	9345	12573	5139	51931	0	0
JUN	174	16547	54146	49665	7999	1305	12294	3659	5689	8491	10228	4481	45665	0	0
JUL	152	13968	50676	47326	6393	794	12432	2458	6640	8126	10483	3350	47326	0	0
AUG	201	13727	45891	42604	7322	559	10178	2530	4149	7166	10700	3287	42604	0	0
SEP	187	11555	40085	37568	7369	514	9552	2171	5346	5667	6949	2517	37568	0	0
OCT	158	10113	30577	29337	5066	889	6618	1227	7075	4226	4236	1640	29337	0	0
NOV	183	8614	28324	27046	5517	732	3805	1483	5150	5816	4543	1278	27046	0	0
DEC	178	8829	27942	26675	5660	983	4335	1750	5127	4336	4484	1267	26675	0	0
ALL	199.24	165233	544563	499422	78299	13847	130056	34062	51570	84362	107296	45141	499422	0	0

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TABLE 7

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1970

SERVICE: AIRCRAFT TYPE:		USMC ALL		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	DCSS A/F	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	169	10051	30912	29406	6850	1652	4604	1644	4361	4973	5322	1506	29406	0	0	
FEB	158	9135	27978	26594	6392	1503	2658	1610	3966	5727	4748	1384	26594	0	0	
MAR	156	8773	28458	26898	6124	1709	2883	1562	4056	9464	5100	1560	26898	0	0	
APR	159	9898	31662	29840	6520	2188	3429	1567	4396	6011	5729	1822	29840	0	0	
MAY	125	12976	35543	33659	6971	2753	3793	1683	4927	6803	6729	1884	33659	0	0	
JUN	162	13013	38240	34964	7981	1032	4929	1904	4816	6535	7767	3276	34964	0	0	
JUL	158	11483	36987	35316	7213	951	4647	1700	6085	7553	7179	1671	35316	0	0	
AUG	147	9890	33727	32291	6653	819	4424	1494	4507	6454	7940	1436	32291	0	0	
SEP	137	8624	30392	28740	5942	943	2932	1647	3944	6290	7042	1652	28740	0	0	
OCT	136	6956	22885	21234	4247	511	1864	1721	4625	4877	1389	1651	21234	0	0	
NOV	132	7152	23956	22437	4959	665	3276	1985	4673	4874	2005	1519	22437	0	0	
DEC	126	7108	24071	22717	4869	721	2756	1936	5358	4481	2596	1354	22717	0	0	
ALL	149.79	113049	364811	344096	74711	15447	42195	20453	55714	70039	65537	20715	344096	0	0	

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TABLE 8

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1971

SERVICES: AIRCRAFT TYPE:		USMC ALL		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	PERCENT A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	119	7771	27185	25668	6060	840	3072	2072	6044	5089	2491	1517	25668	0	0	
FEB	114	7580	25073	23754	6279	722	3243	1612	4514	5442	1942	1319	23754	0	0	
MAR	106	6383	19337	18916	4106	777	2347	1132	6722	3336	496	421	18916	0	0	
APR	105	5311	15639	15639	3298	727	1660	1220	6547	2187	0	0	15639	0	0	
MAY	104	1251	3210	3210	550	61	0	184	1881	534	0	0	3210	0	0	
JUN	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALL	104.31	28304	90444	87187	20293	3127	10322	6220	25708	16588	4929	3257	87187	0	0	

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TABLE 9

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE: AIRCRAFT TYPE:		USMC AH-1		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
YEAR	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
1969	12.79	8502	21287	20678	20529	101	0	0	28	0	20	609	20678	0	0	
1970	24.06	20339	48101	46407	46406	0	0	0	0	0	1	1694	46407	0	0	
1971	24.21	6221	15128	14666	13846	0	0	0	820	0	0	462	14666	0	0	
ALL	20.17	35062	84516	81751	80781	101	0	0	848	0	21	2765	81751	0	0	

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TABLE 10

SUMMARY OF HELICOPTER ASSEYS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1969

SERVICE AIRCRAFT TYPE:	USMC AH-1	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
					M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
APR	3	105	184	155	149	0	0	0	0	0	6	29	155	0	0
MAY	5	420	938	881	781	95	0	0	2	0	3	57	881	0	0
JUN	9	815	2029	1931	1920	0	0	0	6	0	5	98	1931	0	0
JUL	10	862	2021	1919	1901	6	0	0	12	0	0	102	1919	0	0
AUG	14	1232	3078	2981	2981	0	0	0	0	0	0	97	2981	0	0
SEP	15	1212	3366	3288	3280	0	0	0	8	0	0	78	3288	0	0
OCT	16	1138	2840	2771	2771	0	0	0	0	0	0	69	2771	0	0
NOV	20	1246	3221	3185	3185	0	0	0	0	0	0	36	3185	0	0
DEC	23	1472	3610	3567	3561	0	0	0	0	0	6	43	3567	0	0
ALL	12.79	8502	21287	20678	20529	101	0	0	28	0	20	609	20678	0	0

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TABLE 11

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1970

SERVICE: AIRCRAFT TYPE:		USMC AH-1		SORTIES BY MISSION TYPE									COMBAT SORTIES BY COUNTRY		
MONTH	DOSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	26	1925	4530	4429	4429	0	0	0	0	0	0	101	4429	0	0
FEB	27	1935	4166	4063	4062	0	0	0	0	0	1	103	4063	0	0
MAR	25	1648	4191	4047	4047	0	0	0	0	0	0	144	4047	0	0
APR	24	1690	3843	3715	3715	0	0	0	0	0	0	128	3715	0	0
MAY	25	1855	4188	4032	4032	0	0	0	0	0	0	156	4032	0	0
JUN	25	2232	5130	5032	5032	0	0	0	0	0	0	98	5032	0	0
JUL	25	2024	4173	4145	4145	0	0	0	0	0	0	28	4145	0	0
AUG	25	1794	4136	3941	3941	0	0	0	0	0	0	195	3941	0	0
SEP	25	1491	3726	3562	3562	0	0	0	0	0	0	164	3562	0	0
OCT	23	1099	2783	2602	2602	0	0	0	0	0	0	181	2602	0	0
NOV	21	1275	3551	3368	3368	0	0	0	0	0	0	183	3368	0	0
DEC	20	1371	3684	3471	3471	0	0	0	0	0	0	213	3471	0	0
ALL	2406	20339	48101	46407	46406	0	0	0	0	0	1	1694	46407	0	0

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TABLE 12

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1971

SERVICE: AIRCRAFT TYPE:		USMC AH-1	SORTIES BY MISSION TYPE										COMB SORTIES BY COUNTRY		
MONTH	BOSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	21	1483	4607	4423	4313	0	0	0	110	0	0	184	4423	0	0
FEB	23	1647	4516	4315	4315	0	0	0	0	0	0	201	4315	0	0
MAR	25	1369	2719	2642	2469	0	0	0	173	0	0	77	2642	0	0
APR	26	1288	2602	2602	2235	0	0	0	367	0	0	0	2602	0	0
MAY	26	434	684	684	514	0	0	0	170	0	0	0	684	0	0
ALL	24.21	6221	15128	14666	13846	0	0	0	820	0	0	462	14666	0	0

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TABLE 13

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE: AIRCRAFT TYPE:		USMC UH-1		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
YEAR	POSS A/P	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
1965	29.34	9356	6219	5910	2750	792	47	706	938	270	407	309	5910	0	0	
1966	35.77	28564	68592	66483	28429	8943	2077	8122	4291	278	14343	2109	66483	0	0	
1967	48.81	48620	111185	107034	62137	8319	603	2433	7966	407	25169	4151	106951	83	0	
1968	64.52	56174	146059	137767	93564	6101	177	590	1598	179	35558	8292	137767	0	0	
1969	55.95	45880	125334	118850	57610	3896	935	667	15310	5382	35050	6484	118850	0	0	
1970	33.22	26907	72934	66338	28298	2560	251	185	32633	0	2411	6496	66338	0	0	
1971	21.48	6870	19047	17886	6447	675	0	0	10583	0	181	1161	17886	0	0	
ALL	44.55	222271	549270	520268	279235	31286	4090	12703	73319	6516	113119	29002	520185	83	0	

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TABLE 14

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1965

SPECIFIC AIRCRAFT TYPE:		USMC UH-1		SORTIES BY MISSION TYPE									COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
OCT	34	1370	1442	1439	665	157	0	217	286	41	69	7	1435	0	0
NOV	29	6426	2031	1839	859	277	47	161	310	51	134	192	1839	0	0
DEC	25	1560	2746	2636	1226	358	0	328	342	178	204	110	2636	0	0
ALL	29.14	9356	6219	5910	2750	792	47	706	938	270	407	309	5910	0	0

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TABLE 15

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1966

MONTH	SERVICE: AIRCRAFT TYPE:	USMC UH-1	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
						M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	31		2088	5797	5645	1464	2193	12	1074	290	46	656	152	5645	0	0
FEB	31		2258	5175	5003	1473	874	207	1166	981	15	687	172	5003	0	0
MAR	26		2359	5452	5339	1490	943	0	1481	451	0	974	113	5339	0	0
APR	30		2463	5582	5409	1566	1088	2	1447	356	2	948	173	5409	0	0
MAY	31		2088	5507	5299	2033	738	9	1281	265	0	973	208	5299	0	0
JUN	24		2433	6110	5903	3037	649	9	820	383	2	1003	207	5903	0	0
JUL	30		1143	6601	6373	3377	644	229	157	456	50	1460	228	6373	0	0
AUG	30		2931	6121	6016	2632	595	846	215	640	4	1174	105	6016	0	0
SEP	44		2967	6444	6331	3271	629	245	122	341	56	1671	113	6331	0	0
OCT	50		2001	5613	5365	2735	420	168	283	231	52	1476	248	5365	0	0
NOV	46		1873	4275	4115	2153	215	109	24	190	16	1408	160	4115	0	0
DEC	48		1960	5915	5685	3198	139	241	52	107	35	1913	230	5685	0	0
ALL	35.77		28564	68592	66483	28429	8943	2077	8122	4291	278	14343	2109	66483	0	0

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TABLE 16

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1967

SERVICE; AIRCRAFT TYPE:	USMC UH-1	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
					M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	41	2302	6625	6274	3734	227	10	100	349	8	1046	351	6195	79	0
FEB	33	2259	8769	8570	4699	415	29	32	425	68	2902	199	8566	4	0
MAR	41	3414	9108	8781	5242	210	59	528	684	41	2017	327	8781	0	0
APR	48	2587	8055	7717	4041	721	32	340	767	232	1584	338	7717	0	0
MAY	44	4579	9826	9511	6577	320	44	180	874	5	1511	315	9511	0	0
JUN	41	1950	10969	10598	6733	390	147	68	996	4	2260	371	10598	0	0
JUL	59	10359	10195	9842	5863	1035	46	45	593	21	2239	353	9842	0	0
AUG	53	5464	11056	10697	6323	1597	28	65	723	2	1959	359	10697	0	0
SEP	46	5580	12494	12184	6998	1292	201	240	920	0	2533	310	12184	0	0
OCT	70	4118	8626	8238	4142	1903	0	297	825	14	1957	388	8238	0	0
NOV	55	2553	6528	6069	3149	408	0	157	159	4	2192	459	6069	0	0
DEC	53	3415	8434	8553	4636	701	7	381	651	8	2169	381	8553	0	0
ALL	48.01	48620	111185	107034	62137	8319	603	2433	7966	407	25169	4151	106951	83	0

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TABLE 17

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1968

SERVICE; AIRCRAFT TYPE:	USMC UH-1	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
					M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	66	3930	8539	8216	5630	574	2	178	138	0	1654	323	8216	0	0
FEB	66	2818	8678	8150	5918	295	0	37	73	0	1827	528	8150	0	0
MAR	63	4007	9377	8860	6471	429	0	35	141	2	1782	517	8860	0	0
APR	57	4091	10529	9893	6852	466	15	14	134	0	2412	636	9893	0	0
MAY	74	5371	13829	13135	9351	608	5	56	86	20	3009	694	13135	0	0
JUN	64	5345	14758	13924	9363	585	30	12	196	0	3738	834	13924	0	0
JUL	75	5716	15052	14170	9292	622	6	52	326	0	3872	882	14170	0	0
AUG	71	4858	14418	13680	9246	602	38	46	324	0	3424	738	13680	0	0
SEP	77	5384	12815	11976	8231	365	21	106	31	0	3222	839	11976	0	0
OCT	69	5218	12724	12059	8305	327	0	20	46	74	3237	665	12059	0	0
NOV	61	4905	13669	12787	8365	624	27	17	9	11	3734	882	12787	0	0
DEC	59	4481	11671	10917	6540	604	33	17	44	72	3607	754	10917	0	0
ALL	64.52	56174	146059	137767	93564	6101	177	590	1548	179	35558	8292	137767	0	0

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TABLE 18

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1969

SERVICE; AIRCRAFT TYPE:		USMC UH-1		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	POSS E/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	55	4356	11715	11138	6204	488	150	37	100	452	3707	577	11138	0	0	
FEB	59	3574	11225	10469	5314	341	52	124	106	789	3743	756	10469	0	0	
MAR	61	4426	12012	11271	6192	577	42	97	44	749	3570	741	11271	0	0	
APR	64	5270	13931	13214	7649	415	111	92	7	438	4502	717	13214	0	0	
MAY	55	5156	13784	13134	6565	395	23	127	26	976	5022	650	13134	0	0	
JUN	56	4381	11936	11317	6077	424	151	87	14	750	3814	619	11317	0	0	
JUL	56	3401	9147	8644	4492	226	8	16	13	291	3600	501	8644	0	0	
AUG	58	3992	9622	9122	4341	207	55	18	317	318	3866	500	9122	0	0	
SEP	65	3677	9778	9340	4084	144	326	27	2778	138	1836	458	9340	0	0	
OCT	53	2994	8401	8020	2256	277	4	19	5019	13	432	381	8020	0	0	
NOV	48	2002	7145	6806	2332	84	1	16	3328	468	577	339	6806	0	0	
DEC	42	2161	6618	6373	2099	318	12	5	3558	0	381	245	6373	0	0	
ALL	55.95	45880	125334	118850	57610	3896	935	667	15310	5382	35050	6484	118850	0	0	

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TABLE 19

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1970

SERVICE: AIRCRAFT TYPE:		USMC UH-1		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	39	2495	6487	6043	2414	325	0	0	2845	0	459	444	6043	0	0	
FEB	36	2507	6626	6090	2320	499	0	185	2637	0	449	536	6090	0	0	
MAR	36	2216	5927	5475	2077	351	0	0	2817	0	230	452	5475	0	0	
APR	36	2478	6528	6168	2805	514	0	0	2716	0	133	360	6168	0	0	
MAY	35	2692	7183	6647	2939	641	0	0	2898	0	169	536	6647	0	0	
JUN	34	2482	7025	6175	2949	67	251	0	2495	0	413	850	6175	0	0	
JUL	31	2551	6971	6128	3068	19	0	0	2862	0	179	843	6128	0	0	
AUG	37	2142	5890	5282	2712	46	0	0	2436	0	88	608	5282	0	0	
SEP	33	1948	5706	5161	2380	63	0	0	2673	0	45	545	5161	0	0	
OCT	30	1733	4537	4073	1645	31	0	0	2367	0	50	464	4073	0	0	
NOV	31	1799	4903	4464	1591	4	0	0	2735	0	134	439	4464	0	0	
DEC	28	1762	5051	4632	1398	0	0	0	3172	0	62	419	4632	0	0	
ALL	33.22	26807	72834	66338	28298	2560	251	185	32633	0	2411	6496	66338	0	0	

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TABLE 20

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1971

SERVICE: AIRCRAFT TYPE:		USMC UH-1		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	24	1887	5419	4906	1747	95	0	0	2965	0	99	513	4906	0	0	
FEB	24	1747	4795	4250	1964	9	0	0	2247	0	28	545	4250	0	0	
MAR	23	1467	4235	4132	1637	160	0	0	2281	0	54	103	4132	0	0	
APR	20	1306	3410	3410	1063	350	0	0	1997	0	0	0	3410	0	0	
MAY	19	453	1188	1188	36	61	0	0	1091	0	0	0	1188	0	0	
JUN	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALL	21.48	6870	19047	17886	6447	675	0	0	10583	0	181	1161	17886	0	0	

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TABLE 21

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE; AIRCRAFT TYPE:	USMC UH-34	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
						M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
1965		133.55	22114	52526	46944	65	446	22916	1222	3434	15369	2992	5582	46943	0	1
1966		85.89	96590	315751	305963	4784	7619	119552	25610	3682	102062	42654	9788	305963	0	0
1967		78.18	69653	218357	212253	3016	7393	53618	40072	5043	94544	48567	6104	211705	548	0
1968		43.06	57553	168663	161539	639	4868	26650	31654	16906	30724	50093	7124	161539	0	0
1969		18.62	12290	40644	39312	106	1931	8077	727	12995	3930	12576	1332	39312	0	0
ALL		63.68	251208	745941	766011	8610	21827	230813	99240	41960	206629	156882	29930	765462	548	1

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TABLE 22

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1965

SERVICE: AIRCRAFT TYPE:		USMC UH-34		SORTIES BY MISSION TYPE									COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
NOV	146	7258	5355	5259	31	62	1836	145	417	2359	409	96	5259	0	0
NOV	175	6663	18980	17456	0	412	8931	318	1033	9811	951	1524	17455	0	1
DEC	81	8193	28191	24229	34	472	12149	759	1984	7199	1632	3962	24229	0	0
ALL	132.55	22114	52526	46944	65	946	22916	1222	3434	15369	2992	5582	46943	0	1

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TABLE 23

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1966

SERVICE: AIRPORT TYPE:	USMC UH-34	SORTIES BY MISSION TYPE											COMBAT SORTIES BY COUNTRY		
		FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	97	6946	22092	21820	164	495	10449	372	372	7911	2057	272	21820	0	0
FEB	78	10779	33397	32195	304	324	17938	1180	713	9173	2593	1202	32195	0	0
MAR	100	8559	27495	26667	198	390	14208	1356	562	7398	2555	828	26667	0	0
APR	84	9291	33431	32617	280	589	14201	1303	316	12398	3530	814	32617	0	0
MAY	56	8726	28506	27712	329	549	10723	1508	167	11426	3010	794	27712	0	0
JUN	83	8756	29937	28599	420	808	10252	1882	229	10891	4117	1338	28599	0	0
JUL	80	10657	35056	33764	311	817	12372	3685	189	11080	5310	1292	33764	0	0
AUG	73	8764	26524	25843	304	741	10363	3005	120	7822	3488	681	25843	0	0
SEP	59	7510	24139	23044	619	866	6922	3701	256	7550	3130	1095	23044	0	0
OCT	66	6769	18713	18101	673	885	4947	2850	203	4825	1718	612	18101	0	0
NOV	80	5759	19296	19006	561	465	4327	1998	327	6808	4520	290	19006	0	0
DEC	54	5214	17165	16595	621	690	2850	2770	208	4830	4626	570	16595	0	0
ALL	85.89	96590	315751	305963	4784	7619	119552	25610	3682	102062	42654	9788	305963	0	0

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TABLE 24

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1967

SERVICE: AIRCRAFT TYPE:		USMC UH-34		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	63	3371	14535	15601	271	541	4067	2957	1128	3857	2780	934	15592	9	0	
FEB	59	4882	13198	12821	466	597	3521	1125	450	3842	2820	377	12282	539	0	
MAR	50	5530	17999	17659	550	486	2530	1394	1109	5254	4332	339	17659	0	0	
APR	96	5086	18006	17586	268	609	3742	3468	835	4219	4445	420	17586	0	0	
MAY	81	8899	22510	21495	489	585	6123	3833	105	5039	5321	1015	21495	0	0	
JUN	80	4109	22255	21600	320	620	4080	3860	190	7660	4870	655	21600	0	0	
JUL	79	9543	20958	20266	91	584	4904	4078	126	5178	5305	692	20266	0	0	
AUG	79	6865	21829	21531	33	532	5017	4514	83	5687	5665	298	21531	0	0	
SEP	63	6987	21956	21290	64	931	6131	4769	93	5732	3570	566	21290	0	0	
OCT	94	4934	16459	16228	376	934	5602	3410	138	3764	2904	231	16228	0	0	
NOV	125	5774	15914	15615	43	683	4885	2689	550	2896	3889	299	15615	0	0	
DEC	60	3673	10839	10561	45	291	3016	1971	236	1416	3586	278	10561	0	0	
ALL	78.19	69653	218357	212253	3016	7393	53618	40072	5043	54544	48567	6104	211705	548	0	

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TABLE 25

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1968

SERVICE; AIRCRAFT TYPE:	USMC UH-34	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
					M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	59	3542	10662	10571	35	306	2295	2441	319	1214	3881	91	10571	0	0
FEB	81	3040	10349	10085	35	327	1986	2358	217	1508	3654	264	10085	0	0
MAR	80	5555	18696	18282	64	635	3509	3953	1578	2999	9544	416	18282	0	0
APR	65	5000	16933	15787	182	615	2784	3496	386	2966	5358	1146	15787	0	0
MAY	29	5528	18148	17275	148	868	2740	4208	514	3227	5570	873	17275	0	0
JUN	42	5746	18652	17346	27	390	2832	3097	1656	4404	4940	1306	17346	0	0
JUL	33	5229	19228	18348	30	383	2677	3447	1556	4889	5366	880	18348	0	0
AUG	30	4762	15710	15300	93	369	2925	2953	1568	2764	4629	410	15300	0	0
SEP	29	3134	10617	10344	0	325	990	1870	2077	1697	3385	273	10344	0	0
OCT	23	3078	9971	9312	9	161	959	1677	2339	1652	2515	659	9312	0	0
NOV	24	3004	10305	10085	16	326	450	1668	2535	1985	3105	220	10085	0	0
DEC	25	2935	9392	8804	0	164	2503	491	2081	1419	2146	588	8804	0	0
ALL	43.06	50553	168663	161539	639	4868	26650	31659	16906	30724	50093	7124	161539	0	0

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TABLE 26

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1969

SERVICE; AIRCRAFT TYPE:		USMC UH-34		SORTIES BY MISSION TYPE									COMBAT SORTIES BY COUNTRY		
MONTH	BOSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	28	2358	8075	7713	78	274	2543	174	1165	1084	2395	362	7713	0	0
FEB	27	1456	3738	3640	17	68	1031	61	358	654	1451	98	3640	0	0
MAR	23	1560	5210	5040	11	52	557	86	839	554	2941	170	5040	0	0
APR	21	1150	3401	3263	0	75	716	14	173	175	2105	138	3263	0	0
MAY	23	1349	5923	5725	0	61	1819	249	470	1313	1813	198	5725	0	0
JUN	21	1982	6514	6413	0	239	1142	112	3726	150	1044	191	6413	0	0
JUL	12	1744	5597	5418	0	156	178	21	4444	0	619	179	5418	0	0
AUG	12	680	2152	2069	0	76	91	5	1720	0	177	83	2069	0	0
SEP	1	19	34	31	0	0	0	0	0	0	31	3	31	0	0
ALL	18.62	12298	40644	39312	106	1001	8077	727	12895	3930	12576	1332	39312	0	0

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TABLE 27

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE: AIRCRAFT TYPE: USMC CH-37		SORTIES BY MISSION TYPE											COMBAT SORTIES BY COUNTRY		
YEAR	PERCENT A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
1965	5.34	404	640	579	0	2	343	6	27	193	8	61	579	0	0
1966	7.17	3118	8556	8099	10	1	695	214	73	7060	46	457	8099	0	0
1967	8.93	1359	3087	3056	0	0	21	44	312	2677	2	31	3056	0	0
ALL	7.33	4881	12783	11734	10	3	1059	264	412	9930	56	549	11734	0	0

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TABLE 28

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1965

SERVICE: AIRCRAFT TYPE:		USMC CH-37		SORTIES BY MISSION TYPE									COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
NOV	6	159	67	67	0	0	32	0	12	19	4	0	67	0	0
NOV	5	63	134	97	0	2	28	1	12	51	3	37	97	0	0
DEC	5	182	439	415	0	0	283	5	3	123	1	24	415	0	0
ALL	5.34	404	640	579	0	2	343	6	27	193	8	61	579	0	0

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TABLE 29

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1966

SERVICE: AIRCRAFT TYPE: USMC CH-37		SORTIES BY MISSION TYPE											COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	5	89	230	216	2	0	74	0	0	138	2	14	216	0	0
FEB	6	137	342	292	2	0	109	0	11	164	6	50	292	0	0
MAR	7	231	589	468	0	1	29	0	6	422	10	121	468	0	0
APR	8	316	898	837	0	0	52	2	0	783	0	61	837	0	0
MAY	8	332	880	836	0	0	55	0	52	716	13	44	836	0	0
JUN	8	221	793	767	0	0	16	0	0	748	3	26	767	0	0
JUL	8	473	1290	1257	0	0	200	34	1	1020	2	33	1257	0	0
AUG	8	256	535	498	0	0	90	0	0	407	1	37	498	0	0
SEP	8	255	586	565	0	0	26	0	0	539	0	21	565	0	0
OCT	6	237	761	740	0	0	18	19	0	695	8	21	740	0	0
NOV	6	299	876	857	4	0	26	4	3	820	0	19	857	0	0
DEC	8	272	776	766	2	0	0	155	0	608	1	10	766	0	0
ALL	7.17	3118	8556	8099	10	1	695	214	73	7060	46	457	8099	0	0

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TABLE 30

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1967

MONTH	SERVICE: AIRCRAFT TYPE	USMC CH-37	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
						M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	8		268	643	629	0	0	11	4	6	607	1	14	629	0	0
FEB	13		236	575	567	0	0	8	0	0	559	0	8	567	0	0
MAR	9		367	752	749	0	0	2	29	147	571	0	3	749	0	0
APR	8		361	803	799	0	0	0	5	0	794	0	4	799	0	0
MAY	8		127	314	312	0	0	0	6	159	146	1	2	312	0	0
ALL	8.93		1352	3087	3056	0	0	21	44	312	2677	2	31	3056	0	0

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TABLE 31

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE: USMC AIRCRAFT TYPE: CH-46		SORTIES BY MISSION TYPE											COMBAT SORTIES, BY COUNTRY		
YEAR	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
1966	45.43	18441	44324	41332	171	325	24438	1091	819	19665	3833	2992	41332	0	0
1967	50.98	20023	87141	73976	241	1254	45327	2265	4376	15306	5205	13155	73972	4	0
1968	77.01	78220	298545	257914	109	9759	113569	18923	5390	81777	28387	40871	257914	0	0
1969	74.63	73000	204760	265997	42	8870	74348	32073	22720	68663	59321	23772	265997	0	0
1970	72.74	51166	189749	179391	0	12887	23990	19579	22558	37842	51736	10659	179391	0	0
1971	44.96	11651	44901	43588	0	2407	9580	6212	13506	7748	4135	1313	43588	0	0
ALL	62.45	267510	953759	861198	561	35472	231252	83532	69361	221401	162617	92361	861198	4	0

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TABLE 32

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1966

SERVICE: AIRCRAFT TYPE:		USMC CH-46		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	PERCENT A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
MAR	15	631	1737	1688	0	16	971	31	2	554	114	49	1688	0	0	
APR	20	596	1796	1742	0	0	739	27	0	856	120	54	1742	0	0	
MAY	31	911	2301	2029	2	0	955	16	175	560	321	272	2029	0	0	
JUN	46	1939	5059	4931	0	13	982	62	162	2841	871	128	4931	0	0	
JUL	45	2078	4576	4449	21	69	2618	140	129	1089	383	127	4449	0	0	
AUG	42	3320	3043	2814	32	15	1593	224	13	720	217	229	2814	0	0	
SEP	36	1234	3003	2720	9	20	1730	93	26	639	203	283	2720	0	0	
OCT	71	2180	6566	6272	26	25	4510	265	172	893	381	294	6272	0	0	
NOV	70	2658	7887	7371	21	56	5556	86	60	1045	547	516	7371	0	0	
DEC	78	2964	8356	7316	60	111	4784	137	80	1468	676	1040	7316	0	0	
ALL	45.43	18441	44324	41332	171	325	24438	1081	819	10665	3833	2992	41332	0	0	

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TABLE 33

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1967

MONTH	SERVICE: AIRCRAFT TYPE:	USMC CH-46	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
						M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN	75		2062	10257	8696	21	124	5043	206	96	2373	833	1561	8696	0	0
FEB	56		2811	11579	10063	0	73	5729	222	653	2946	440	1516	10059	4	0
MAR	68		3438	10427	3709	45	88	4784	293	78	2840	581	1718	8709	0	0
APR	52		3521	9418	7344	6	57	4460	250	240	1926	405	2074	7344	0	0
MAY	57		4727	9556	8151	21	51	5867	285	714	862	351	1405	8151	0	0
JUN	48		2209	8629	7829	0	120	5275	110	1363	488	473	800	7829	0	0
JUL	50		2932	8300	7523	109	49	4819	141	588	1379	438	777	7523	0	0
AUG	46		3942	8711	7818	0	278	5176	235	246	1116	767	893	7818	0	0
SEP	45		389	1117	601	0	107	315	25	57	50	47	516	601	0	0
OCT	48		246	624	100	0	0	66	4	2	0	28	524	100	0	0
NOV	21		465	1250	921	6	0	712	14	1	13	175	329	921	0	0
DEC	45		2736	7263	6221	33	307	3081	480	340	1313	667	1042	6221	0	0
ALL	50.98		30023	87131	73976	241	1254	45327	2265	4378	15306	5205	13155	73972	4	0

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TABLE 34

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1968

MONTH	SERVICE; AIRCRAFT TYPE	USMC CH-46	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	SORTIES BY MISSION TYPE								COMBAT SORTIES BY COUNTRY		
							M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3
JAN			62	4069	12310	9878	7	301	4237	857	787	2239	1450	2432	9878	0	0
FEB			90	3101	12566	10576	21	80	4940	916	76	3189	1154	1990	10576	0	0
MAR			80	4464	12580	9540	0	130	3930	610	70	2550	2250	3040	9540	0	0
APR			90	5470	20471	17543	0	562	8786	878	131	4761	2425	2928	17543	0	0
MAY			70	7716	27992	23668	40	1208	9347	2107	279	8286	2401	4324	23668	0	0
JUN			76	8051	32723	28188	14	801	12274	1569	410	10745	2375	4535	28188	0	0
JUL			65	8672	32606	28557	10	1060	12416	1764	462	10628	2217	4049	28557	0	0
AUG			74	7533	28638	25056	0	1232	10838	1944	397	8540	2105	3582	25056	0	0
SEP			66	7133	26365	23147	14	871	10548	1833	835	6351	2695	3218	23147	0	0
OCT			107	7679	31716	28366	0	641	13745	1518	979	8742	2741	3350	28366	0	0
NOV			45	7506	29965	26570	0	1453	11712	1496	463	8224	3222	3395	26570	0	0
DEC			80	6826	30653	26825	3	1430	10796	3431	491	7322	3352	3828	26825	0	0
ALL			77.01	78220	298585	257914	109	9769	113569	18923	5380	81777	28387	40671	257914	0	0

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TABLE 35

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1969

SERVICE: AIRCRAFT TYPE: CH-46		USMC		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	ACFT A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8		C-1	C-2	C-3
JAN	93	7332	78215	25009	0	1133	9672	3365	885	6993	2961	3206		25009	0	0
FEB	89	8098	28386	25421	0	781	9202	3187	1405	6631	4215	2965		25421	0	0
MAR	69	8005	28395	25207	0	957	8569	3436	1712	5082	5451	3188		25207	0	0
APR	77	8715	33231	29203	0	1236	9620	3541	2210	6569	6027	4028		29203	0	0
MAY	90	8143	30137	27472	1	1110	7489	3821	2567	6750	5734	2665		27472	0	0
JUN	62	6724	25962	24332	2	638	5879	3411	1886	7155	5361	1630		24332	0	0
JUL	50	6628	27426	26354	0	406	7600	2401	2147	7551	6249	1782		26354	0	0
AUG	75	6343	25047	23694	0	276	5943	2475	2087	6261	6652	1353		23694	0	0
SEP	57	5015	21035	19842	0	368	4970	2101	2479	4858	5066	1193		19842	0	0
OCT	84	4583	14725	13910	39	612	2812	1184	2021	3493	3749	815		13910	0	0
NOV	80	4297	13748	12961	0	648	1107	1440	1768	4119	3879	787		12961	0	0
DEC	77	4126	13452	12592	0	665	1485	1711	1553	3201	3977	860		12592	0	0
ALL	74.63	78009	289769	265997	42	8830	74348	32073	22720	68663	59321	23772		265997	0	0

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TABLE 36

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1970

SERVICE: AIRCRAFT TYPE:		USMC CH-46		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	BASE A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	77	4549	15533	14652	0	1327	1906	1623	1481	3538	4777	881	14652	0	0	
FEB	75	3784	13040	12351	0	1094	1387	1407	1398	2962	4283	689	12351	0	0	
MAR	75	3999	13603	12726	0	1358	1015	1547	1227	2710	4869	877	12726	0	0	
APR	79	4551	16162	14958	0	1674	1485	1548	1661	2994	5596	1204	14958	0	0	
MAY	85	5073	18525	17633	0	2112	1845	1650	1997	3469	6560	892	17633	0	0	
JUN	83	5265	19925	18223	0	965	2118	1800	2293	3695	7352	1702	18223	0	0	
JUL	82	5332	19735	19029	0	932	2343	1660	3175	3929	6990	706	19029	0	0	
AUG	65	4617	18700	18139	0	773	2608	1481	2051	3374	7852	561	18139	0	0	
SEP	60	4160	16902	16064	0	880	2377	1626	1245	2951	6985	838	16064	0	0	
OCT	64	3265	12158	11786	0	480	1433	1717	2029	2563	3064	872	11286	0	0	
NOV	62	3317	12407	11616	0	661	3025	1983	1922	2563	1462	791	11616	0	0	
DEC	60	3254	12359	11714	0	721	2448	1936	2169	2494	1946	645	11714	0	0	
ALL	72.24	51166	189049	178391	0	12887	23990	19978	22558	37242	61736	10658	178391	0	0	

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TABLE 37

SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA FOR 1971

SERVICE: AIRCRAFT TYPE:		USMC CH-46		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
MONTH	POSS A/C	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
JAN	56	3653	14255	13661	0	745	2788	2064	2955	3150	1959	594	13661	0	0	
FEB	50	3018	12001	11497	0	713	3035	1612	2250	2140	1747	504	11497	0	0	
MAR	41	2691	9999	9784	0	592	2248	1132	3950	1433	429	215	9784	0	0	
APR	41	2148	8026	8026	0	357	1509	1220	3928	1012	0	0	8026	0	0	
MAY	41	151	620	620	0	0	0	184	423	13	0	0	620	0	0	
JUN	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALL	44.96	11651	44901	43588	0	2407	9580	6212	13506	7748	4135	1313	43588	0	0	

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SUMMARY OF HELICOPTER ASSETS, UTILIZATION, AND EMPLOYMENT IN SOUTHEAST ASIA

SERVICE: AIRCRAFT TYPE:		USMC CH-53		SORTIES BY MISSION TYPE										COMBAT SORTIES BY COUNTRY		
YEAR	PCSS A/F	FLYING HOURS	TOTAL SORTIES	COMBAT SORTIES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	C-1	C-2	C-3	
1967	17.37	10621	20296	26940	187	48	1705	98	2837	21486	79	1356	26940	0	0	
1968	27.47	17299	53732	47109	99	61	33544	276	915	12228	26	6623	47109	0	0	
1969	34.10	20344	67529	54585	12	19	46696	595	547	6387	329	12944	54585	0	0	
1970	20.26	14737	54827	52960	7	0	17954	290	523	32797	1389	1867	52960	0	0	
1971	17.67	3562	11368	11047	0	45	742	8	749	8840	613	321	11047	0	0	
ALL	24.14	66763	215752	192641	265	173	100641	1267	5621	82238	2436	23111	192641	0	0	

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