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logical assumption would be that airpower and artillery had done more than destroy enemy forces and supplies; they had probably kept the enemy from effectively massing his forces for an assault. The enemy also undoubtedly suffered heavy losses in manpower and supplies from the NIAGARA air effort; however, with existing data, it is much too early to assess the final results.

Epilogue

By the end of March, it appeared that the enemy had abandoned any immediate thoughts of overrunning Khe Sanh. Reportedly, one of the divisions had been redeployed out of the area towards Hue.^{199/} COMUSMACV directed that Operation NIAGARA be terminated on 31 March,^{200/} with a follow-on joint effort known as Operation PEGASUS/LAMSON 207 to be executed on the same day to reopen the supply routes to Khe Sanh.^{201/}

Continued enemy presence in the area was clearly evident on the last day of NIAGARA operations when Khe Sanh received 347 incoming rounds over the 24 hour period. Six U.S. Marines were killed and twelve wounded. The area was quiet for two days, and then on 3 April the base received 152 rounds of mixed artillery and mortar fire resulting in five personnel wounded. By this time, Operation PEGASUS forces were sweeping in close to Khe Sanh, and in seven separate small unit contacts on 3 April ground forces killed 14 enemy. At 1735 hours on the 3rd, gunships from the A/1/9 Cav engaged an estimated 200 enemy in the open, and reported 20 enemy killed.^{202/}

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On 4 April, elements of the 26th Marine Regiment secured Hill 471 to the south of Khe Sanh without enemy contact; however, artillery prep fires reportedly had killed 30 enemy soldiers on the hill. Also, after taking Hill 471, the Marines received approximately 120 rounds of mixed mortar, artillery, and rocket fire throughout the day. Seven Marines were killed and fifty were wounded, forty of whom were evacuated. Then, on 5 April at 0515 hours, Hill 471 received mortar and rocket fire followed by a ground attack from an estimated enemy battalion. After tactical air strikes and artillery were called in, the enemy broke contact at 0715 hours. Two U.S. Marines were wounded, 122 enemy were reported killed and three detained. Thirty-two individual weapons and 15 crew-served weapons were captured. ^{203/}

Other action continued throughout the area as friendly units moved out to secure other hills and landing zones and to reopen the supply routes. Many of the enemy were holed up in bunker complexes which required air strikes and artillery suppression in support of friendly sweeps. Several large ammunition and supply caches were discovered as friendly forces swept through the area around Khe Sanh. One situation was reported on 5 April which indicated poor battle discipline among the enemy ranks left behind. In the middle of the afternoon of the 5th, gunships from the 1/9 Cav observed 15 enemy in the open four kilometers southwest of Khe Sanh Village. The gunships engaged the enemy with machine guns and rockets, killing 15 enemy. In the same location ten minutes later, the gunships observed 35-40 enemy moving among the enemy dead from the previous attack. ^{204/}

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The gunships attacked again, and 35 additional KIA were reported. Oddly, the enemy although well armed did not attempt to fire against the gunships. Gunship crews reported the battle area strewn with enemy dead and weaponry. Later, a sweep of the area disclosed 28 enemy KIA, and 12 individual weapons and one crew-served weapon. ^{205/}

On 12 April, Route 9 from Ca Lu to Khe Sanh was open to friendly traffic. In addition to reopening the Khe Sanh supply routes, one objective of Operation PEGASUS was to obtain additional information on results in NIAGARA. Much of the evidence was still being gathered, sifted, and reviewed by joint service teams. Khe Sanh appeared to be out of immediate danger, although enemy forces still held much of the high ground in the area. This high ground had been considerably altered. As one Marine officer commented: "The hills are numbered according to their height in meters above sea level. After NIAGARA, those numbers will have to be lowered." ^{206/}

MACV COC logs contained the following entries after 31 March which related specific air results in PEGASUS, or which could possibly be tied to the NIAGARA air effort: ^{207/}

- 5 April: At 1300 hours, 3 kilometers east of Khe Sanh, 1/5 Cav engaged an enemy force in a bunker complex. Organic weapons and friendly artillery, gunships and tactical air supporting. Estimated enemy 4 KIA; friendly 2 KIA.
- 5 April: At 1500 hours, 4 kilometers south of Khe Sanh, D/1/8 Cav engaged an enemy force in bunker complex. Both tactical air and artillery

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supported. Enemy broke contact. There were no friendly casualties; the enemy lost 11 KIA, one detained, two individual weapons and one crew-served weapon.

- 6 April: One kilometer east of Khe Sanh, the 37th Ranger Bn (ARVN), in a sweep of the area, found 70 enemy bodies which were credited to tactical air strikes and artillery. Numerous weapons were also captured.
- 6 April: One kilometer south of Khe Sanh, a USMC unit found six enemy dead with weapons.
- 9 April: One kilometer southeast of Khe Sanh Village, D/2/5 Cav found mass grave containing 35 bodies. (Could be enemy refugees)
- 7 April: Four kilometers northeast of Khe Sanh Village, an element of B/2/7 Cav found 24 enemy bodies, one individual weapon and one crew-served weapon.
- 8 April: Four kilometers west of Khe Sanh Village, at 0350 hours the 3rd ARVN CP was probed by an unknown size force. Air and Artillery supported. Results: Friendly 11 KIA, 20 WIA; Enemy 74 KIA, five detained, and 39 weapons captured
- 9 April: One kilometer northwest of Khe Sanh Village, B/1/12 CAV found 59 enemy dead killed by tactical air strikes or artillery.
- 10 April: Nine kilometers southwest of Khe Sanh Village, A/1/9 Cav reported three tactical air strikes destroyed a tank and killed 15 enemy.
- 14 April: Eight kilometers northwest of Khe Sanh Base at 1428 hours, the 3rd Bn, 26th Marines secured Hill 881-N after extensive artillery and tactical air prep fires. Results: Friendly 6 KIA, 4 WIA; Enemy 106 KIA, 2 detained, and 66 weapons captured.
- 17 April: 2/3 USMC found bunkers and one cave containing a total of 16 enemy dead and three weapons.

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Operation PEGASUS/LAMSON 207 was renamed Operation SCOTLAND II on 15 April. Cumulative results reported by MACV for PEGASUS/LAMSON 207 were as follows: Friendly 92 KIA (41 USA, 51 USMC), 667 WIA (208 USA, 459 USMC), 5 MIA (USA); Enemy 1,044 KIA, 9 detainees, 539 individual weapons and 184 crew-served weapons captured. ^{208/} 1,380 7AF, USN, and USMC tactical strike sorties and 210 B-52 sorties were flown in support of the operation. Cumulative results from the tactical air strikes were reported as follows: ^{209/}

- . 68 secondary explosions and 43 secondary fires.
- . 48 KBA.
- . Five trucks and one tracked vehicle destroyed.
- . 41 gun positions destroyed and seven damaged.
- . 112 bunkers destroyed and 13 damaged.

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FOOTNOTES

1. (S) Memorandum for Record, by Gen William W. Momyer, Comdr 7AF, subj: CIIB Meeting, 9 Jan 68 (Secret Material extracted from TS document); Memorandum by Gen William W. Momyer to Maj Gen Gordon F. Blood, 7AF, DCS Operations, subj: Air Support of I Corps, 21 Jan 68, Doc. 1; Memorandum for TACT Hq 7AF, by Brig Gen Jones E. Bolt, Dep Dir TACC Hq 7AF, subj: Niagara Operational Planning, 16 Jan 68.
2. (S) Statistical Data compiled by Hq 7AF DOSR for tactical air sorties and Hq MACV MACCOC8 for Arc Light sorties.
3. (S) Statistical Data made available by Hq 7AF DIP.
4. (S) Memorandum for Record, by Gen William W. Momyer, Comdr 7AF, subj: CIIB Meeting, 9 Jan 68. (Secret extract from Top Secret document)
5. (S) Msg, COMUSMACV to CINCPAC, subj: Operation Niagara, 151131Z Jan 68. (Secret extract from Top Secret document)
6. (S) Msg, Hq 7AF to Tiger Hound Addressees, subj: Operation Niagara, 20 Jan 68 (Secret extract from Top Secret document); Msg, COMUSMACV to CG III MAF, subj: Priority Arc Light Targeting, 6 Jan 68. (Secret extract from Top Secret document)
7. (S) Msg, COMUSMACV to CG III MAF, subj: Priority Arc Light Targeting, 6 Jan 68. (Secret extract from Top Secret document)
8. (S) Memorandum for Record, by Gen William W. Momyer, Comdr 7AF, subj: CIIB Meeting, 9 Jan 68. (Secret extract from Top Secret document)
9. Ibid.
10. (S) Memorandum by Comdr 7AF to DCS Operations 7AF, subj: Air Support of I Corps, 21 Jan 68. Doc. 1.
11. (S) Msg, COMUSMACV to Comdr 7AF, CG III MAF, CJCS, CINCPAC, CMC, CSAF, PACAF, FMFPAC, subj: Air Support of I Corps, 22 Jan 68.
12. (S) Msg, COMUSMACV to CINCPAC, subj: Air and Naval Support for I Corps, 22 Jan 68. (Secret extract from Top Secret document.)
13. (S) Msg, CINCPAC to COMUSMACV, subj: Naval Air Support for I Corps, 23 Jan 68. (Secret extract from Top Secret document.)
14. (S) Memorandum by Comdr 7AF to DCS Operations 7AF, subj: Air Support of I Corps, 21 Jan 68. Doc. 1.

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15. (S) Msg, 7AF TACC to 111 MAF, subj: Operation Niagara, 19 Jan 68.
(Secret extract from Top Secret document)
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17. (S) Msg, 7AF TACC to 504 TASC, 20th TASS, I DASC, and I Corps ALO,
22 Jan 68.
18. (S) Msg, Hq 7AF to Tiger Hound Addressees, subj: Operation Niagara,
20 Jan 68. (Secret extract from Top Secret document)
19. (S) Memorandum to Comdr 7AF, by Dep Dir TACC Hq 7AF, subj: Trip
Report, 24 Jan 68. Doc. 2.
20. ibid.
21. ibid.
22. ibid.
23. ibid.
24. (S) Memorandum for ACofS, J-3, by Col Marcus L. Hill, Jr., USAF,
MACCOG8, subj: Niagara Task Force Report, 9 Jan 68.
25. (C) MACV Combat Operations Center Log, 21-22 Jan 68.
26. (S) Msg, JANAF Attaches Vientiane Laos to DIA, subj: Situation Report,
Laos, Debrief of Lt Col Soulang, CO, BV-33, 20 Feb 68, Doc. 3;
Tigerhound/Tally Ho DISUMS, 23-24 Jan 68.
27. (S) Interview with Capt Charles Rushforth, and other Covey FACs, by
Mr. Warren A. Trest, Hq 7AF Project CHECO, at Da Nang AB, 19 Feb 68.
Docs. 4-8.
28. (S) Ibid; Hq 7AF DIS Logs.
29. (S) Msg, JANAF Attaches, Vientiane Laos to DIA, subj: Situation Report,
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30. (C) Interview with Capt Charles Rushforth, Covey FAC #252, 19 Feb 68.
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35. (C) Interview with Covey FAC #252, 19 Feb 68. Doc. 4.
36. (C) Msg, AMEMB Vientiane to Sec State, subj: Situation Report, Laos, 21 Feb 68. Doc. 9.
37. (C) Msg, OLB 1, 6250th Spt Sq ABCCC to 7AF CC, subj: Hillsboro ABCCC Mission Report, 24 Jan 68.
38. (S) Msg, JANAF Attaches, Vientiane Laos to DIA, subj: Situation Report, Laos, Debrief of Lt Col Soulang, CO, BV-33, 20 Feb 68. Doc. 3.
39. (C) Interview with Covey FAC #252, 19 Feb 68. Doc. 4.
40. (C) Interview with Covey FAC #252, 19 Feb 68, and other Covey FACs, Docs. 4-8.
41. (SNF) Msg, COMUSMACV to AIG 7051, subj: J-2 MACV DISUM 23-68 for period 220001 to 222400 January, 23 Jan 68. Doc. 10.
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43. (C) TACC Duty Logs, 24 Jan 68.
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45. (SNF) Msg, COMUSMACV to AIG 7051, subj: J-2 MACV DISUM 23-68 for period 220001 to 222400 January, 23 Jan 68. Doc. 10.
46. (S) Memorandum for Record, by Comdr 7AF, subj: Employment of Forces, 24 Jan 68.
47. (S) Memorandum by Comdr 7AF to DCS Operations 7AF, subj: Tet and Niagara, 24 Jan 68.
48. (C) Sortie Statistical data compiled by Hq 7AF DOSR for tactical air sorties and Hq MACV for Arc Light sorties; BDA compiled by Hq 7AF DIS.
49. (C) Msg, COMUSMACV to VMAC, subj: Cancellation of Tet Offensive, 30 Jan 68.
50. (C) 7th Air Force TACC Logs, 29 Jan 68.

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54. (C) Material provided by Hq 7AF DCS/Intelligence.
55. (S) Memorandum by Comdr 7AF to DCS/Operations 7AF, subj: Niagara, 2 Feb 68.
56. (S) Memorandum by Col H. H. Moreland, Hq 7AF TACP, subj: Diversion of In-Country Forces to Niagara, 2 Feb 68.
57. (S) Msg, Comdr 7AF to CG III MAF, CTF 77, subj: Niagara, 13 Feb 68.
58. (C) Statistical Data compiled by Hq 7AF DOSR for tactical air sorties and Hq MACV for Arc Light sorties.
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60. (C) Hq 7AF DIS In-Country Intelligence Summary, 3-9 Feb 68.
61. (C) Interview with Covey FAC #232, Capt Gerald Herrington, at Da Nang AB, 19 Feb 68. Doc. 8.
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76. (C) Interview with Covey FAC #232, 19 Feb 68. Doc. 8.
77. (C) Interview with Maj Milton G. Hartenbower, 7AF ALO to Khe Sanh, at Da Nang AB, 20 Feb 68. Doc. 6.
78. (S) Command Historical Chronology, 3rd Mar Div, Jan-Feb 68, on file at MACV History Office.
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80. (C) Interview with Covey FACs, 19-20 Feb 68. Docs. 4-8.
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83. Ibid.
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97. (C) MACV COC Log, 23 Feb 68.
98. (C) Sortie rates documented by Hq 7AF DOSR.
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100. (S) Working Paper Message, on file DCS/Intelligence.
101. (S) Article prepared for Weekly Air Intelligence Summary, Hq 7AF, by Lt Col W. O. Ramey, Hq 7AF DIPA, 11 May 68.
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123. (C) ABCCC Mission Reports by OLB 1, 6250th Spt Sq to Hq 7AF, 22 Jan-31 Mar 68.
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127. (S) Msg, by Brig Gen Dale S. Sweat, Dir Combat Ops, Hq 7AF, to Niagara Tactical Air participants, subj: Close Air Support, 26 Feb 68.
128. (C) Msg, III MAF COC to MACV COC, subj: Niagara Daily Visual and Pad Surveillance Report, 27 Feb 68.
129. (S) Memorandum for Record by Col H. H. Moreland, Chief, Current Plans Division, TACC, subj: Response to Khe Sann/Camp Carrol Crisis, 20 Feb 68.
130. (S) Msg, Dir Combat Ops Hq 7AF to Niagara Tactical Air Participants, subj: Close Air Support, 26 Feb 68.
131. (C) ABCCC Mission Report by OLB 1, 6250th Spt Sq to Hq 7AF, 25 Feb 68.
132. (C) Tigerhound/Tally Ho DISUM, 25 Feb 68.
133. (C) ABCCC Mission Report by OLB 1, 6250th Spt Sq to Hq 7AF, 24 Feb 68.
134. (C) ABCCC Mission Report by OLB 1, 6250th Spt Sq to Hq 7AF, 23 Feb 68.
135. (C) Tigerhound/Tally Ho DISUM, 24 Feb 68.

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144. (C) Tigerhound/Tally Ho DISUMS, 22-26 Feb 68.
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146. (S) Interview by 1st Lt Thomas Clark, Hq 7AF DIP, with Chief, MACCOB8, Hq MACV, 18 Apr 68.
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148. ibid.
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150. (S) Msg, CINCPAC to COMUSMACV, subj: Arc Light, 18 Feb 68.
151. (S) Msg, Hq SAC to CINCPAC, subj: Continuous Arc Light Emergency Capability for Operation Niagara, 101830Z Feb 68.
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- 181. (S) Msg, CG III MAF to Comdr 7AF, subj: Air Effort for Defense of Khe Sanh, 140852Z Feb 68.
- 182. (C) ABCCC Mission Reports, Docs. 13-50.
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- 184. (C) Msg, OLB 1 6250th Spt Sq ABCCC Udorn RTAFB Thai to 7AF, subj: Moonbeam ABCCC Mission Report, 160241Z Feb 68.
- 185. (C) "History of Aircraft at Khe Sanh," by 834th AD History Section.
- 186. (U) Statistical Data sheet released by MACV on Khe Sanh, 11 Apr 68. Doc. 51.
- 187. (C) Hq 7AF TACC Logs, 15 Mar 68.
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- 192. (C) Sortie Statistical Data compiled by Hq 7AF DOSR for tactical air sorties and Hq MACV for Arc Light Sorties; BDA recorded daily by Hq 7AF DIS.
- 193. (C) Ibid.; artillery data from MACV Fact Sheet. Doc. 51.

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APPENDIX I

NIAGARA DAILY SORTIES*
23 Jan - 31 Mar

<u>DATE</u>	<u>7AF</u>	<u>SAC</u>	<u>USN</u>	<u>USMC</u>	<u>TOTAL TAC</u>
22 Jan	92	17	19	117	228
23 Jan	249	49	119	245	613
24 Jan	271	32	76	80	427
25 Jan	241	33	133	106	480
26 Jan	226	33	138	127	491
27 Jan	217	32	88	94	399
28 Jan	219	30	25	108	352
29 Jan	204	24	51	107	362
30 Jan	240	45	153	86	479
31 Jan	184	39	161	57	402
1 Feb	131	39	93	59	283
2 Feb	122	36	24	64	210
3 Feb	104	39	56	48	208
4 Feb	106	45	48	71	225
5 Feb	98	39	98	52	248
6 Feb	96	39	58	74	228
7 Feb	83	36	37	51	171
8 Feb	106	40	70	77	253
9 Feb	70	39	67	17	154
10 Feb	112	38	91	47	250
11 Feb	87	33	78	79	244

* Source: Hq 7AF TACC and Hq MACV

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<u>DATE</u>	<u>7AF</u>	<u>SAC</u>	<u>USN</u>	<u>USMC</u>	<u>TOTAL TAC</u>
12 Feb	100	27	65	62	227
13 Feb	138	45	83	66	287
14 Feb	182	36	64	92	338
15 Feb	181	30	27	89	297
16 Feb	210	39	73	68	351
17 Feb	217	40	66	37	320
18 Feb	198	30	78	58	334
19 Feb	168	41	107	56	331
20 Feb	162	39	46	42	250
21 Feb	138	30	65	82	285
22 Feb	114	29	59	55	228
23 Feb	199	32	47	58	304
24 Feb	125	32	38	47	210
25 Feb	111	34	34	73	218
26 Feb	162	19	11	87	260
27 Feb	145	32	63	83	291
28 Feb	115	54	62	108	285
29 Feb	131	45	106	124	361
1 Mar	75	42	52	73	200
2 Mar	127	42	76	44	247
3 Mar	95	41	71	22	188
4 Mar	129	36	28	150	307
5 Mar	133	41	43	159	335
6 Mar	101	42	88	142	331

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<u>DATE</u>	<u>7AF</u>	<u>SAC</u>	<u>USN</u>	<u>USMC</u>	<u>TOTAL TAC</u>
7 Mar	149	41	109	134	392
8 Mar	123	27	94	121	338
9 Mar	126	21	85	108	319
10 Mar	128	33	86	70	284
11 Mar	126	32	82	123	331
12 Mar	140	36	37	97	274
13 Mar	191	42	86	133	410
14 Mar	90	39	57	126	273
15 Mar	135	35	98	130	363
16 Mar	165	38	117	119	401
17 Mar	132	31	64	118	314
18 Mar	114	32	59	128	301
19 Mar	133	39	67	103	303
20 Mar	92	30	16	68	176
21 Mar	101	42	52	123	276
22 Mar	117	42	73	112	302
23 Mar	146	51	183	109	438
24 Mar	122	45	112	100	334
25 Mar	93	50	84	57	234
26 Mar	106	54	78	111	295
27 Mar	90	29	110	125	325
28 Mar	61	35	85	129	275
29 Mar	118	27	88	118	324
30 Mar	97	48	90	110	297
31 Mar	75	33	20	70	165

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APPENDIX II

RECONNAISSANCE OBJECTIVES*
(PROGRESSIVE)

<u>22 January - 29 January</u>	<u>Fragged</u>	<u>Successful</u>
Black & White	627	282
Color	34	19
Camouflage Detection	39	21
Infra-red	345	115
High Acuity	27	5
 <u>22 January - 5 February</u>		
Black & White	784	397
Color	54	32
Camouflage Detection	59	34
Infra-red	526	191
High Acuity	75	30
 <u>22 January - 12 February</u>		
Black & White	940	424
Color	89	40
Camouflage Detection	95	41
Infra-red	83	29
High Acuity	142	30

* Source: Hq 7AF DIS

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<u>22 January - 19 February</u>	<u>Fragged</u>	<u>Successful</u>
Black & White	1,169	486
Color	150	72
Camouflage Detection	176	76
Infra-red	805	239
High Acuity	205	30
 <u>22 January - 26 February</u>		
Black & White	1,474	568
Color	185	83
Camouflage Detection	286	122
Infra-red	934	278
High Acuity	232	36
 <u>22 January - 4 March</u>		
Black & White	1,796	647
Color	216	103
Camouflage Detection	332	137
Infra-red	1,010	312
High Acuity	250	36
 <u>22 January - 11 March</u>		
Black & White	2,093	797
Color	236	113
Camouflage Detection	349	146
Infra-red	1,132	365
High Acuity	276	40

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<u>22 January - 18 March</u>	<u>Fragged</u>	<u>Successful</u>
Black & White	2,334	907
Color	253	118
Camouflage Detection	370	154
Infra-red	1,219	388
High Acuity	309	67
<u>22 January - 25 March</u>		
Black & White	2,598	1,026
Color	253	118
Camouflage Detection	373	157
Infra-red	1,317	407
High Acuity	334	88
<u>22 January - 31 March</u>		
Black & White	2,839	1,122
Color	253	119
Camouflage Detection	385	162
Infra-red	1,389	444
High Acuity	345	79

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APPENDIX III

TACTICAL AIR CUMULATIVE BDA*
(PROGRESSIVE)

<u>22 January - 29 January</u>	<u>7AF</u>	<u>Navy/Marines</u>
Secondary Explosions	149	56
Secondary Fires	106	35
Killed by Air	176	55
Trucks (Dest/Dam)	11/7	5/0
Gun Positions (Dest/Dam)	11/2	7/1
Bunkers (Dest/Dam)	11/0	18/10
Structures (Dest/Dam)	110/35	71/30
 <u>22 January - 5 February</u>		
Secondary Explosions	269	119
Secondary Fires	326	103
Killed by Air	223	94
Trucks (Dest/Dam)	59/11	13/0
Gun Positions (Dest/Dam)	15/4	33/6
Bunkers (Dest/Dam)	34/2	180/11
Structures (Dest/Dam)	181/35	149/30

* Source: Hq 7AF DIS (Collected as of 31 March through visual sightings only)

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<u>22 January - 12 February</u>	<u>7AF</u>	<u>Navy/Marines</u>
Secondary Explosions	327	156
Secondary Fires	367	205
Killed by Air	284	218
Trucks (Dest/Dam)	62/11	17/2
Gun Positions (Dest/Dam)	18/4	39/6
Bunkers (Dest/Dam)	43/4	202/11
Structures (Dest/Dam)	303/38	336/54
Tanks (Dest/Dam)	3/0	2/3
 <u>22 January - 19 February</u>		
Secondary Explosions	1277	397
Secondary Fires	396	252
Killed by Air	304	240
Trucks (Dest/Dam)	66/13	20/5
Gun Positions (Dest/Dam)	33/7	48/6
Bunkers (Dest/Dam)	44/4	243/12
Structures (Dest/Dam)	328/38	371/54
Tanks (Dest/Dam)	4/0	2/3
 <u>22 January - 26 February</u>		
Secondary Explosions	1321	422
Secondary Fires	434	285
Killed by Air	339	256
Trucks (Dest/Dam)	78/14	22/7
Gun Positions (Dest/Dam)	44/12	51/8
Bunkers (Dest/Dam)	57/4	251/12

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	<u>7AF</u>	<u>Navy/Marines</u>
Structures (Dest/Dam)	332/38	381/84
Tanks (Dest/Dam)	4/0	3/3
<u>22 January - 4 March</u>		
Secondary Explosions	1461	464
Secondary Fires	546	329
Killed by Air	417	285
Trucks (Dest/Dam)	89/15	26/8
Gun Positions (Dest/Dam)	54/12	54/8
Bunkers (Dest/Dam)	73/6	258/12
Structures (Dest/Dam)	406/43	394/84
Tanks (Dest/Dam)	4/0	4/4
<u>22 January - 11 March</u>		
Secondary Explosions	1651	687
Secondary Fires	703	415
Killed by Air	490	399
Trucks (Dest/Dam)	102/18	36/10
Gun Positions (Dest/Dam)	74/13	79/15
Bunkers (Dest/Dam)	98/8	373/32
Structures (Dest/Dam)	419/45	459/96
Tanks (Dest/Dam)	4/0	4/4

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<u>22 January - 18 March</u>	<u>7AF</u>	<u>Navy/Marines</u>
Secondary Explosions	1795	770
Secondary Fires	1019	519
Killed by Air	570	468
Trucks (Dest/Dam)	93/15	92/17
Gun Positions (Dest/Dam)	151/27	38/11
Bunkers (Dest/Dam)	122/9	449/32
Structures (Dest/Dam)	524/45	481/96
Tanks (Dest/Dam)	4/0	5/4
 <u>22 January - 25 March</u>		
Secondary Explosions	2179	1040
Secondary Fires	1116	593
Killed by Air	641	566
Trucks (Dest/Dam)	164/33	44/14
Gun Positions (Dest/Dam)	135/18	144/21
Bunkers (Dest/Dam)	153/12	563/79
Structures (Dest/Dam)	563/51	487/100
Tanks (Dest/Dam)	4/0	5/4
 <u>22 January - 31 March</u>		
Secondary Explosions	2215	1128
Secondary Fires	1173	651

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	<u>7AF</u>	<u>Navy/Marines</u>
Killed by Air	650	638
Trucks (Dest/Dam)	204/37	49/15
Gun Positions (Dest/Dam)	135/18	165/25
Bunkers (Dest/Dam)	216/19	675/80
Structures (Dest/Dam)	564/52	497/106
Tanks (Dest/Dam)	4/0	5/4

APPENDIX IV

PHOTO SIGNIFICANT ITEMS*
(PROGRESSIVE)

	<u>29</u> <u>Jan</u>	<u>5</u> <u>Feb</u>	<u>12</u> <u>Feb</u>	<u>19</u> <u>Feb</u>	<u>26</u> <u>Feb</u>	<u>4</u> <u>Mar</u>	<u>11</u> <u>Mar</u>	<u>18</u> <u>Mar</u>	<u>25</u> <u>Mar</u>	<u>31</u> <u>Mar</u>
Bunkers	173	180	190	243	258	258	262	282	292	301
Trenches	4	5	5	55	56	59	64	65	65	72
Strong Points	12	23	50	52	78	78	78	84	85	86
Gun Positions	101	144	143	151	172	180	211	230	236	238
POL Drums	136	136	136	136	136	136	136	151	151	151
Foxholes	576	636	661	661	1,042	1,254	1,544	1,544	1,544	1,544
Mortar Positions	23	31	31	36	36	55	55	66	80	80
Tanks	0	4	5	5	5	5	5	5	5	5
Troops	93	93	128	130	147	147	147	147	147	147

TARGET STATUS 22 Jan - 31 Mar

	<u>Targets Nominated</u>	<u>Targets Fragged</u>	<u>Struck</u>	<u>Deleted</u>	<u>Active</u>
Logistics	318	490	169	261	57
LOCs	84	74	19	81	3
Truck Parks	55	60	15	20	35
Weapons	566	663	291	389	177
Troops	547	617	253	420	127
Control/Comm	46	61	24	31	15
Fortifications	427	414	205	230	197
Miscellaneous	4	2	2	3	1

* Source: Hq 7AF DIS

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APPENDIX V

TOTAL ORDNANCE EXPENDED
by 7th AIR FORCE

<u>AMMO</u>	<u>FIRE BOMB</u>	<u>FLARES</u>	<u>ANTI-MAT</u>	<u>INC-CLUST</u>	<u>ANTI-PERS</u>	
744,000	1,263	576	315	500	579	
<u>FRAG-CLUST</u>	<u>INC-SMOKE</u>	<u>ROCKET</u>	<u>SPIKE</u>	<u>GLVB-30</u>	<u>250</u>	<u>500</u>
64	118	1,390	8	36	794	21,621
<u>750</u>	<u>1000</u>	<u>2000</u>	<u>3000</u>	<u>BULL-PUP</u>		
15,362	120	33	30	20		

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APPENDIX VI

KHE SANH AIRLIFT SUMMARY

DATE	LAND	TONS	CDS	LAPES	TONS	LAND	TONS	DROP	TONS	TOTAL SORTIES	TOTAL TONS
<u>JAN</u>											
21						6	25.8			6	25.8
22						20	88.2			20	88.2
23	14	174.4								14	174.4
24	18	253.2				1	.3			19	253.5
25	13	156.9	4		55.0	1	1.4			18	213.3
26	13	225.3				1	.5			*16	*227.1
27	23	312.2				1	.4			*27	*318.7
28	8	111.0	1		12.0	2	9.4			*14	*126.0
29	24	289.7								24	289.7
30	18	250.7				2	3.5			20	254.2
31	24	288.9				6	25.5			30	314.4
<u>FEB</u>											
1	16	221.7				2	3.4			18	225.1
2	2	23.4				1	4.8			3	28.2
3	1	14.2								1	14.2
4	11	160.6								11	160.6
5	15	202.9				2	7.1			17	210.0
6	11	148.5								11	148.5
7	10	144.1				1	4.9			11	149.0
8	20	245.9				1	4.1			21	250.0

Source: 834th AD ALCC

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DATE	LAND	TONS	CDS	LAPES	TONS	LAND	TONS	DROP	TONS	TOTAL SORTIES	TOTAL TONS
FEB											
9	3	27.0				1	5.0			4	32.0
10	6	45.0								6	45.0
11	9	101.1								9	101.1
12						7	41.3			7	41.3
13			2		30.0	11	32.7			13	62.7
14			7		98.0	18	102.0			25	200.0
15			5		75.0	11	46.0			16	121.0
16			8	4	149.0	6	19.9			18	168.9
17			8		122.6					8	122.6
18			10		156.1					10	156.1
19			7	2	122.8					9	122.8
20			9		169.3	1	5.0			**10	**174.3

* Includes C-7As

** Totals include 8 C-7A sorties (13 tons)

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KHE SANH AIRLIFT SUMMARY

DATE	<u>C-130</u>					<u>C-123</u>				TOTAL SORTIES	TOTAL TONS
	LAND	TONS	CDS	LAPES	TONS	LAND	TONS	DROP	TONS		
<u>FEB</u>											
21			10	4	183.4	1	4.9			15	188.3
22			10		143.3	2	10.6			12	153.9
23			10		156.2	2	8.3			12	164.5
24			9		117.1	5	20.7			14	137.8
25			9		141.7	2	8.0	1	3.0	12	152.7
26	1	8.5	9	2	149.7	3	12.5	1	3.1	16	173.8
27	3	38.0	10	1	152.5	4	12.7			18	203.2
28	5	51.4	9		149.9	1	4.8			15	206.1
29	5	62.7	10		152.8	6	22.7	1	1.8	22	240.0
<u>MAR</u>											
1			5	1	79.9	7	32.8			13	112.7
2			10	2	169.8	1	4.0	1	3.2	14	177.0
3			10		152.2	1	1.9	1	1.8	12	155.7
4			10		151.1	3	14.0	3	7.5	16	172.6
5			10		138.1	2	7.3	2	7.8	14	153.2
6			8		121.3	5	20.6	3	9.5	16	151.4
7			10		150.6			1	1.4	11	152.0
8			10		151.0			2	3.6	12	154.6
9			7	3	128.2	3	15.1			11	143.3
10			11	1	167.1	1	1.2	3	8.0	16	176.3
11			11		164.3	2	6.7	2	7.4	15	178.4
12			10	2	157.3			2	4.0	12	161.3

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C-130

C-123

DATE	LAND	TONS	CDS	LAPES	TONS	LAND	TONS	DROP	TONS	TOTAL SORTIES	TOTAL TONS
<u>MAR</u>											
13			12	2	194.9			4	10.7	18	205.6
14			9		134.7			4	8.6	13	143.3
15			12		171.2	1	4.6	3	9.2	16	185.0
16			14	1	211.2	4	10.2	2	16.0	21	237.4
17			13		206.8	2	8.4	3	12.8	19	228.0
18			14	5	245.8	1	4.6	3	9.8	23	260.2
19			15	1	216.8	1	4.2	2	6.4	19	227.4
20			13	1	190.8	1	4.8	4	7.9	19	203.5
21			10	1	142.3			5	15.5	16	157.8
22			11	1	164.5	2	6.8	4	10.2	18	181.5
23			10	2	152.8	1	3.9	4	10.6	17	167.3
24			10	1	157.1	1	4.0	4	8.9	16	170.0
25			10	1	151.3					11	151.3
26			9	2	139.0			2	4.9	13	143.9
27			7		100.2	1	5.4	2	6.3	10	111.9
28			10	1	151.5			4	11.9	15	163.4
29			10	2	154.3	1	4.0	2	4.5	15	162.8
30		(1 GPES)	4	2	71.7	2	8.5	2	4.1	11	84.3
31			6	4	95.8	1	1.1	4	12.6	15	109.5
<u>APR</u>											
1		(1 GPES)	5	1	106.4	1	3.6	4	13.0	13	123.0
2			5	2	85.3			4	9.1	11	94.4
3			5		76.4			3	7.4	8	83.8

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DATE	<u>C-130</u>				<u>C-123</u>				TOTAL SORTIES	TOTAL TONS	
	LAND	TONS	CDS	LAPES	TONS	LAND	TONS	DROP			TONS
APR											
4	(3 GPES)	5			100.0	1	5.3	4	5.9	13	111.2
5	(3 GPES)	5			95.8	1	5.5	1	2.1	10	103.4
6	(4 GPES)	5			109.7	2	5.6			11	115.3
7	(3 GPES)	5			104.8			4	12.9	12	117.7
8			2		27.4	2	8.4	4	11.0	6	46.8
TOTAL:	273	3557.8	496	52	7825.8	179	738.9	105	294.3	*1124	*12430.0
		3558	(GPES 15)		7826		739		294		12430

GPES = Ground Proximity Extraction System

CDS = Container Delivery System

LAPES = Low Altitude Parachute Extraction System

* Totals Include Eight (8) C-7A Sorties (13 Tons)

<u>AIRDROPS</u>		<u>AIRLAND</u>	
C-130	7826	C-130	3558.0
C-123	294	C-123	739.0
		C-7A	13.0
TOTAL	8120	TOTAL	4310

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GLOSSARY

AA	Antiaircraft
AAA	Antiaircraft Artillery
AB	Air Base
ABCCC	Airborne Command and Control Center
AD	Air Division
ADVON	Advanced Echelon
AF	Air Force
AGL	Above Ground Level
ALCC	Airlift Control Center
ALO	Air Liaison Officer
AO	Air Observer
AP	Armor Piercing
APC	Armored Personnel Carrier
ARVN	Army of the Republic of Vietnam
AW	Automatic Weapon
BDA	Bomb Damage Assessment
CAP	Combat Air Patrol
CAS	Close Air Support
CBU	Cluster Bomb Unit
CDS	Container Delivery System
CG	Commanding General
CIDG	Civilian Irregular Defense Group
CINCPAC	Commander in Chief, Pacific
CO	Commanding Officer
COC	Combat Operations Center
COMUSMACV	Commander U.S. Military Assistance Command, Vietnam
CONUS	Continental United States
CP	Command Post
CSS	COMBAT SKYSPOT
CTZ	Corps Tactical Zone
DASC	Direct Air Support Center
DI	Director of Intelligence
DMZ	Demilitarized Zone
FAC	Forward Air Controller
FSCC	Fire Support Control Center
GCA	Ground-Controlled Approach
GPES	Ground Proximity Extraction System
HUMINT	Human Intelligence

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ICC	Intelligence Control Center
IDHS	Intelligence Data Handling System
IP	Initial Point
JCS	Joint Chiefs of Staff
KBA	Killed by Air
KIA	Killed in Action
LAPES	Low Altitude Parachute Extraction System
LOC	Lines of Communication
LZ	Landing Zone
MACV	Military Assistance Command, Vietnam
MAF	Marine Amphibious Force
MAW	Marine Air Wing
MIA	Missing in Action
NCO	Noncommissioned Officer
NVA	North Vietnamese Army
NVN	North Vietnam
NW	Northwest
OIC	Officer in Charge
PI	Photo Interpreter
POL	Petroleum, Oil, Lubricants
POW	Prisoner of War
SA	Small Arms
SAC	Strategic Air Command
SAM	Surface to Air Missile
SE	Southeast
SF	Special Forces
SLAM	Seek, Locate, Annihilate, and Monitor
SSE	South Southeast
SSW	South Southwest
STOL	Short Take Off and Landing
SVN	South Vietnam
TACC	Tactical Air Control Center
TACP	Tactical Air Control Party
TACS	Tactical Air Control System
TAOR	Tactical Area of Operational Responsibility
TASS	Tactical Air Support Squadron
TDY	Temporary Duty
TOC	Tactical Operations Center
TOT	Time Over Target

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USA	United States Army
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
USSF	United States Special Forces
VC	Viet Cong
VR	Visual Reconnaissance
WAAPM	Wide Area Anti-personnel Mine
WAIS	Weekly Air Intelligence Summary
WIA	Wounded in Action