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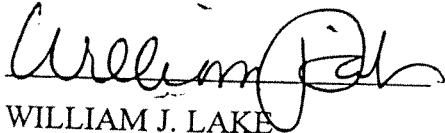
HISTORY
OF THE
49TH FIGHTER WING (U)
1 JANUARY-30 JUNE 1998

NARRATIVE
VOLUME NO. 1

Assigned to
Twelfth Air Force, Air Combat Command

Stationed at
Holloman Air Force Base, New Mexico

by:
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CHAPTER I MISSION AND ORGANIZATION (U)

MISSION (U)

(U) The 49th Fighter Wing (FW), stationed at Holloman Air Force Base (AFB), New Mexico, supported national security objectives with its unique weapon system, the F-117A *Nighthawk*. With the F-117A, the Wing employed a critical mission, Strategic Attack: operations intended to directly achieve strategic results, intent on engaging adversary military forces. Two combat flying squadrons (8th and 9th Fighter Squadrons, 18 primary aircraft authorized), of the 49 FW employed the first fighter in the Air Force inventory capable of evading radar through the exploitation of low-observable stealth technology.¹

(U) Air Combat Command (ACC), stationed at Langley AFB, Virginia, served as the Wing's major command, while Twelfth Air Force, stationed at Davis-Moahan AFB, Arizona, operated as an intermediate headquarters. In its 1998 "Master Plan", ACC outlined its own mission as: *Air Combat Command professionals providing the world's best combat air forces, delivering rapid, decisive, and sustainable airpower, any time, anywhere.*²

(U) Implementing ACC objectives, the 49 FW defined its own missions through its 1998 Strategic Plan. The Wing defined its missions and goals as:

¹ Fact Sheet (U), USAF, "F-117A Nighthawk," Mar 96, SD I-3.

² Extract (U), ACC, "Master Plan 98," ca. 1998, SD I-4.

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Improving on over 50 year years of Forty-Niner excellence by providing:

- Mission ready forces to meet worldwide contingencies
- The best training for our people and international aircrews
- Quality support for all base personnel, associate units, and the local community³

Chart I-1

49 FW Goals for 1998 (U)⁴

• ***Improve Combat Readiness and Power Projection to Ensure Combat Dominance***

Continue to improve our ability to meet any worldwide tasking by modernizing, equipping, and training to put bombs on target, on time, and providing combat rescue whenever and wherever needed .

• ***Care For and Develop Our People***

Foster the highest quality of life for all our people.

• ***Modernize***

Aggressively modernize our combat assets, support assets, and way of doing business. Improve the communications component to all units using the state of the art equipment within budgetary allowances. Improve base infrastructure to enhance security and safety of assets and community. Upgrade equipment to improve health and welfare of our people.

• ***Maximize Efficiency by Eliminating Waste and Reinvest The Savings***

Eliminate waste while facilitating quality practices and following through with initiatives. Incorporate process reengineering and provide leadership in process improvement efforts, concentrating from the bottom up.

• ***Provide First-Rate International Military Support***

Provide world-class formal course academic and flying training for our international partners. Provide timely logistical and operational support. Provide as many opportunities as possible for international personnel and their families.

• ***Foster Community Partnerships***

Promote public awareness, community involvement, social responsibility, and partnership with Holloman and local communities. Each unit should adopt a cause to support the local community. Be the caretaker of our environment.

³ Plan (U), 49FW, "1998 Strategic Plan," ca. 1998, SD I-5.

⁴ *Ibid.*

F-117 Restructure (U)

(U) Brig Gen Dennis R. Larsen, 49th Fighter Wing Commander, responded to the announced changes with a letter to ACC Plans and Programs. The General emphasized that a centralized training program was needed to maintain the seven F-117 and T-38 training courses. In his letter, General Larsen stated that inactivating the 7th and transferring the training programs to the operational squadrons would "...substantially dilute and degrade our FTU [formal training unit] training."²⁸ Rather, the General recommended maintaining the 7th, and integrating the academic training of the 49th Training Squadron into one organization. Thus, operational and training missions would remain separate.²⁹

(U) Another concern raised by General Larsen was the maintenance and flying window of the F-117s. In the past, the 7th flew training missions in the morning and afternoon, while the 8th and 9th often flew operational night missions. However, under this reorganization, the 8th and 9th would maintain all the F-117s. Thus, the flying window of these units would stretch from 9-10 hours to 15-16 hours.³⁰

(U) In response to 49th Fighter Wing recommendations, ACC Plans and Programs revised the original restructure of the 49th Fighter Wing's units. On 10 April 1998, ACC outlined the following changes:³¹

A. Transfer the nine PTAI F-117s currently assigned to the 7 FS as follows: three to the 8 FS, three to the 9 FS, and three into

²⁸ Memo (U), 49 FW/CC to ACC/XP, "Response to Quadrennial Defense Review," 9 Feb 98, SD I-22.

²⁹ *Ibid.*

³⁰ Intvw (S/DECL 11 Sep 2006), SSgt G Henneman with Brig Gen D Larsen, "Commander's Interview (U)," 9 Apr 98, (information used is U), filed as SD I-2 in 49 FW History, Jul 96-Dec 97, Volume II.

³¹ Msg (U), ACC/XPX to 49FW/CV et al, "ACC Programming Message 98-08," 102132Z Apr 98, SD I-23.

attrition reserve status. This will leave the 8 FS and 9 FS with a force mix of 18 PMAI and 3 PTAI each. The 7 FS will retain its T-38 assets (12 PTAI, 2 BAI, 1 AR).*

B. Transfer the 49th Training Squadron assets and mission (academics, simulator) to the 7 FS and inactivate the 49 TRS flag.³²

(U) One week later, from 14-16 April 1998, the 49 FW hosted ACC representatives in a site activation task force (SATAF). The focus of this meeting was to identify actions needed to redesignate the 7th Fighter Squadron, transfer the F-117 aircraft, and inactivate the 49 TRS. During the SATAF, Wing and Command leaders recommended transferring six F-117s from the 7th Fighter Squadron to the 9th Fighter Squadron, rather than three to each of the operational squadrons. The three attrition reserve aircraft would be transferred to the 8th Fighter Squadron. After the week-long SATAF, leadership recommended a cut of 168 personnel, 24 less than originally planned. Additionally, 27 base operational support personnel would be cut, 10 fewer than the first announcement. All reviewed areas (operations, logistics, manpower/ personnel, and financial management) received a rating of "Green", indicating all programs were on track.³³

(U) As stated, one of the key issues discussed was maintaining the 7th Fighter Squadron. Wing leadership sought to maintain this squadron to have a centralized unit for pilot training, and to maintain the historical integrity of the 56 year-old squadron. On 29 April 1998, ACC announced its recommendation, pending Air Staff approval, maintaining the 7th, albeit

* (U) Acronyms used in this quote: PTAI, Primary Training Aircraft Inventory; PMAI, Primary Mission Aircraft Inventory; BAI, Backup Aircraft Inventory; AR, attrition reserve.

³² Msg (U), ACC/XPX to 49FW/CV et al, "ACC Programming Message 98-08," 102132Z Apr 98, SD I-23.

³³ Rpt (U), ACC/XP, "49 FW Restructure," 17 Apr 98, SD I-24; Brfg (U), 49 FW/XP, "7th Fighter Squadr SATAF Brief," ca. Apr 98, SD I-25.

with a new name: the 7th Fighter Training Squadron. Plans called for the 49 TRS to inactivate and the 7th to redesignate effective 15 January 1999.³⁴

48th Rescue Squadron Restructure (U)

A/R

non-responsive

³⁴ Msg (U), ACC/XPX to 49 FW/CV et al, "ACC Programming Message 98-08," 291526Z Apr 98, SD I-26.

³⁵ Msg (S/DECL OADR dated 1 Jun 98), ACC/XP to USAF/XPP et al, "ACC Program Change Request (U), 011445Z Jun 98, SD I-27.

³⁶ *Ibid.*

³⁷ Plan (U), ACC/XP, "ACC Programming Plan 98-09, Rescue Force Restructure," 27 Mar 98, SD I-28.

CHAPTER II
OPERATIONS AND TRAINING (U)

MISSION (U)

(U) The 49th Operations Group (OG) served as the combat arm of the 49th Fighter Wing, employing its primary weapon system, the F-117A *Nighthawk*. Supporting national objectives, the F-117A operated as the only Air Force fighter capable of employing low-observable stealth technology. The 8th and 9th Fighter Squadrons served as the combat units underneath the 49 OG, while the 7 FS trained crews in the F-117A and T-38A.¹

(U) Providing search and rescue capabilities, the 48th Rescue Squadron operated under the command and control of the 49 OG. In five years of service at Holloman AFB, the 48th conducted 32 real-world saves in the American Southwest. Additionally, the 48th provided combat search and rescue support in Southwest Asia and for Operation Northern Watch.²

(U) Supporting the German Air Force (GAF), the 20th Fighter Squadron trained German aircrews in the F-4F. The following chart outlines the 49 OG goals for 1998.³

¹ Brfg (U), 49FW/PA, "Mission Briefing," ca Jun 98, SD II-1.

² *Ibid.*

³ *Ibid.*

CHART II-1

49 OG GOALS (U)⁴

COMBAT READINESS & POWER PROJECTION: *Continue to improve our ability to meet any world wide tasking by modernizing, equipping and training to put bombs on target, on time, and providing combat rescue whenever and wherever needed*

- SCORE EXCELLENT OR ABOVE ON ALL PHASE I AND PHASE II EXERCISES/ORI'S
- STRIVE FOR TRAINING ALL PERSONNEL TO FULLY QUALIFIED STATUS IN MINIMUM TIME
- MAINTAIN F-117A AIRCRAFT AT 80% MC RATE
- MAINTAIN HH-60G AIRCRAFT AT 75% MC RATE
- KEEP F-117A AIRCRAFT ABORT RATE BELOW 6%
- KEEP HH-60G AIRCRAFT ABORT RATE BELOW 5%
- ACHIEVE F-117A WEAPONS RELEASE RELIABILITY OF 99% AND A HIT RATE OF 90%
- PUT BOMBS ON TARGET WITHIN 2 SECONDS OF ASSIGNED TOT
- 100% OF ALL TASKED AIRCRAFT GENERATED WITHIN PROGRAMMED TIMELINE
- SAFE, EFFICIENT, AND ON-TIME DEPLOYMENTS WITH ZERO ACCIDENTS OR INCIDENTS
- 100% OF TASKED AIRCRAFT/FORCES REGENERATED FOR COMBAT WITHIN TIME LIMITS
- NO CLASS A/B OPERATOR/MAINTENANCE FACTOR MISHAPS

TAKING CARE OF OUR PEOPLE: *Foster the highest quality of life for all our people*

- USE SENIOR LEADERSHIP MENTORING TO LEAD BY EXAMPLE AND DEMONSTRATE CORE VALUES
- PROMOTE WELLNESS AND FITNESS PROGRAMS
- PROVIDE SUPPORT TO OUR AIR FORCE FAMILIES ESPECIALLY DURING DEPLOYMENTS AND HARDSHIPS
- ENHANCE THE WORKPLACE THROUGH FACILITY AND ENVIRONMENT IMPROVEMENTS
- RECOGNIZE OUTSTANDING PERFORMERS THROUGH A TAILORED AWARDS PROGRAM
- PROMOTE DETAILED AND FREQUENT PERFORMANCE FEEDBACK TO ENHANCE INDIVIDUAL PERFORMANCE AND JOB SATISFACTION
- INSTILL SAFETY AS A WAY OF LIFE BOTH ON AND OFF DUTY
- INGRAIN AND ENFORCE THE USE OF ALL SAFETY AND PERSONAL PROTECTIVE EQUIPMENT
- PROMOTE EDUCATIONAL DEVELOPMENT FOR OUR PEOPLE AND INCREASE PARTICIPATION BY 10 %

MODERNIZE: *Aggressively modernize our combat assets, support assets, and way of doing business.*

- TRANSITION TO TDPS, DIMES, AFMSS, AND TIC-TAC-TOE, ACHIEVING AN EQUAL OF BETTER CAPABILITY AND ARCHITECTURE
- SEAMLESS INTEGRATION OF RNIP, OFP-66 UPGRADES FOR THE F-117 SIMULATOR, MAINTENANCE, AND OPERATIONS
- REDUCE PERSONNEL AND EQUIPMENT MISHAPS BY 50% THROUGH EDUCATION, TRAINING, AND SUPERVISION

⁴ Rpt (U), 49OG, "1998 Goals," nd, SD II-2.

CHART II-1 (CON'T)

- INTEGRATE LOCOMM INTO OUR PLANNING AND TACTICS
- TRANSITION TO AFMSS AND CLOAR FOR F-117 MISSION PLANNING CAPITALIZE ON ADPE AND 8MM RECORDING TO IMPROVE FLIGHT TRAINING EFFICIENCY
- SEAMLESS CONVERSION TO MICROSOFT EXCHANGE
- ENCOURAGE A CULTURE OF CONTINUOUS IMPROVEMENT THROUGH AN ACTIVE ASAP PROGRAM

REDUCE THE COST OF DOING BUSINESS: *Eliminate waste while facilitating quality practices and initiatives*

- ACHIEVE EXCELLENCE IN ALL WE DO
- ACTIVELY SEEK COST CUTTING OPPORTUNITIES THROUGH OUTSOURCING AND GOALS AT EACH ECHELON OF COMMAND
- IMPLEMENT MEANINGFUL, MISSION RELATED, PROCESS AND RESULTS ORIENTED QUALITY PERFORMANCE MEASURES
- CONDUCT DETAILED LONG RANGE PLANNING TO GUIDE UNITS WITH RESOURCE APPLICATION
- ENCOURAGE INNOVATIVE THINKING THROUGH INDIVIDUAL AND TEAM RECOGNITION
- OPTIMIZE THE NUMBER OF F-117 PILOTS ASSIGNED TO THE WING, AND REDUCE JOBS WHICH UNNECESSARILY SADDLE PILOTS WITH ANCILLARY DUTIES

INTERNATIONAL PROGRAMS: *Provide world class formal course academic and flying training for our international partners*

- MAINTAIN AN F-4F ACADEMIC QUALITY RATING OF 4 ON A FIVE POINT SCALE
- MAINTAIN 99% F-4F SIMULATOR MISSION CAPABLE RATE
- CONTINUOUSLY IMPROVE GERMAN AIR FORCE FLIGHT TRAINING SYLLABI, LESSON PLANS, AND MISSION SCENARIOS
- CLOSELY COORDINATE OPS SCHEDULING AND MAINTENANCE CONTRACTING EFFORTS TO ACHIEVE AN AIRCRAFT MC RATE AT OR ABOVE 84% AND AN ABORT RATE OF LESS THAN 5%
- MAINTAIN PFT SCHEDULING EFFECTIVENESS AT OR ABOVE 80%
- ENHANCE F-4F AND TORNADO MISSION EMPLOYMENT TRAINING

COMMUNITY PARTNERSHIP: *Promote public awareness, community involvement, social responsibility, and partnership with Holloman and local communities*

- INCREASE COMMUNITY AWARENESS OF HOLLOMAN'S PURPOSE THROUGH AIRSHOWS, OPEN HOUSE EVENTS, AND STATIC DISPLAYS
- ENCOURAGE PERSONNEL TO SUPPORT LOCAL COMMUNITY CHARITABLE CAUSES AND WORTHWHILE SOCIAL PROGRAMS
- RESPOND TO AFRCC REQUESTS TO PROVIDE PEACETIME SEARCH AND RESCUE CAPABILITY TO SUPPORT LOCAL LAW ENFORCEMENT AGENCIES WHEN POSSIBLE
- REDUCE ALCOHOL RELATED INCIDENTS BY 50%
- INCREASE AWARENESS AND EDUCATE OUR PERSONNEL ON ENVIRONMENTAL PROTECTION STANDARDS, PROCEDURES, AND PRECAUTIONS
- CONTINUE TO REDUCE HAZARDOUS WASTE AND THE COST OF HAZARDOUS MATERIAL USAGE THROUGH ALTERNATIVES SUCH AS INNOVATION, SUBSTITUTION, AND REPLACEMENT
- STRIVE FOR FLAWLESS ENVIRONMENTAL INSPECTION RESULTS ON EACH INSPECTION

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members lacked in off-station and level II training. Overall, the 49 SFS reported C-2 in January and C-3 from February to June.¹²

non-responsive

Pilot Training (U)

(U) In addition to employing combat airpower, the 49th Fighter Wing trained pilots in the F-117A, F-4F, and T-38A. The 49th served as the sole home of the F-117A, and did not have a central instruction school similar

¹² Rpts (S/DECL OADR dated 18 Jun 98), 49FW/SORTS, [SORTS Reports (U)] Jan-Jun 98, SD II-4.

¹³ *Ibid.*

(U) The 49th Medical Group deployed its air transportable hospital to Guyana from June-September 1997.

¹⁴ Rpts (S/DECL OADR dated 18 Jun 98), 49FW/SORTS, [SORTS Reports (U)] Jan-Jun 98, SD II-4.

¹⁵ *Ibid.*

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¹³ *Ibid.*

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¹⁵ Rpts (S/DECL OADR dated 18 Jun 98), 49FW/SORTS, [SORTS Reports (U)] Jan-Jun 98, SD II-4.

¹⁶ *Ibid.*

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to other aircraft. Instead, all F-117A training took place at Holloman AFB to include initial, currency, and instructor pilot training. Since the F-117A was a single seat aircraft, the 7 FS used the T-38A as a "chase plane" for pilot training. Therefore, the Wing also conducted instructor pilot training in the T-38A. Supporting the German Air Force, the 20 FS, with the cooperation of the 49 TRS, trained German aircrews in the F-4F.¹⁶

(U) From January-June 1998, the Wing trained 18 pilots through the F-117A Formal Training Unit (FTU), Instructor Pilot Upgrade Training Course. Following completion of the course, a pilot could perform instructor duty in the F-117A Transition/Requalification Training Course. This course required 16 training days: eight ground training and eight flying training days. This syllabus changed from the previous course that required nine ground training days.* Additionally, a consolidation of other T-38A training into this program required an increase in academic hours from 3.0 to 12.0. Further, in support of refueling operations, total flying training time increased from 10.6 to 10.9 hours.¹⁷

(U) During this same period, 13 pilots completed the T-38A Companion Trainer Qualification Course. This course included two tracks, the first, designed for F-117A pilots included 13 training days (three ground and 10 flying). The second, designed for experienced pilots with 900 hours of

¹⁶ Memo (U), Det 4/TRSS to ACC/TRSS, "Formal Training Courseware Index," 19 May 98, SD II-5.

* (U) Ground training time was reduced because Wing planners determined that not as much training was required in the Air Force Mission Support System.

¹⁷ Rpt (U), ACC/DOTO, "F-117A Formal Training Unit (FTU) Instructor Pilot Upgrade Training Course," May 98, SD II-6; Rpt (U), ACC/DOTO, "F-117A Flying Criterion Referenced Objectives," May 98, SD II-7; Telecon (U), SSgt G Henneman, 49 FW/HO with Maj A Eiland, Det 4/TRSS, 20 Jul 98; Telecon (U), SSgt G Henneman, 49FW/HO, with F McGee, 13 Jul 98.

flying time and one tour as an aircraft commander, included 20 training days (four ground and 16 flying). Both tracks required 32.5 academic hours and 3.0 device training hours; however, track one scheduled seven flying sorties for nine hours, while track two pilots flew 14 sorties for 18.2 hours.¹⁸

(U) The 20th Fighter Squadron conducted flight training in the German F-4F, while the 49th Training Squadron provided classroom instruction. This period marked the first graduation of a German F-4F basic syllabus course (the 20th transitioned from the F-4E to the F-4F in 1997 and 1998; the final F-4E departed on 26 February 1998). Supporting this training, the 49th Training Squadron received its first F-4F cockpit familiarization trainer from Luke AFB, Arizona. From January-June 1998, 32 German pilots completed training programs, as the 20th was able to meet all GAF requirements.¹⁹

Training Restrictions (U)

(U) International military uses of the White Sands Missile Range (WSMR), and associate ranges, impacted upon both F-117A training and daily operations. Without warning, or coordination with the 49 FW, the Israeli military began testing its tactical high-energy laser at WSMR. In order to maintain proper security for F-117A operations, schedules had to be deconflicted between tests at WSMR and 49th flying. Wing personnel were not only concerned that non-US operations took priority, and limited the

¹⁸ Rpt (U), ACC/DOTO, "T-38 Flying Criterion Referenced Objectives," Feb 98, SD II-8; Rpt (U), ACC/DOTO, "T-38 Companion Trainer Program Qualification Course," Feb 98, SD II-9; Rpt (U), ACC/DOTO, "T-38 Companion Trainer Program Instructor Upgrade Course," Feb 98, SD II-10; Telecon (U), SSgt G Henneman, 49FW/HO, with F McGee, 49 TRS, 13 Jul 98.

¹⁹ Ltr (U), 49FW/CC to ACC/CC, [Quarterly Update], 8 Apr 98, SD I-2; Telecon (U), SSgt G Henneman, 49FW/HO, with F McGee, 49TRS, 13 Jul 98.

Wing's availability of range utilization; moreover, leadership was concerned that test radar systems could "acquire and potentially exploit USAF aircraft signatures outside of the WSMR range boundaries in FAA or uncontrolled airspace." Wing planners continued to work with WSMR officials on this issue.²⁰

Ready Aircrew Program (U)

(U) In 1997, the Air Force sought a new method to better identify the impact of flying hour cuts upon combat capability, specifically focusing on pilot training. Although the in-place Graduated Combat Capability program sufficiently provided for pilot training, the old program focused on events instead of mission, was easily manipulated, and did not accurately report aircrew readiness. In response, ACC, in line with other major commands, instituted the Ready Aircrew Program (RAP) as the Command's formal continuation training program. The RAP focused more on training requirements and reporting procedures, improving overall aircrew training.²¹ The RAP "provided baseline training requirements for units' use in developing a realistic training program tailored to unit specific requirements."²²

(U) The first year of the annual RAP program ran from 1 July 1997-30 June 1998. After receiving initial qualification, a crew member was assigned to either a basic mission capable (BMC) or combat mission ready (CMR) position. The majority of pilots fell into the CMR category—the wing's front-line fighter pilots. Pilots who held staff positions were required to train

²⁰ Ltr (U), 49FW/CC to ACC/CC, [Quarterly Update], 10 Jul 98, SD I-2.

²¹ Perscon (U), SSgt G Henneman, 49FW/HO, with Maj D Moore, 49OSS/OST, [RAP Program] 30 Jul 98.

²² Brfg (U), ACC/DOTO, "Ready Aircrew Program," nd, SD II-11.

to a BMC level. The table below illustrates the annual sortie requirements for the 49 FW's weapon systems. A complete listing of training requirements, event requirements, and special taskings is provided in Appendix V.²³

Table II-1
Ready Aircrew Program Requirements (U)²⁴

Training Requirements	BMC (INEX/EXP)	CMR (INEX/EXP)
F-117A		
Annual Sortie Requem't	72/60	94/82
Surface Attack Tactics-Day	44/32	56/47
Surface Attack Tactics-Night	8/8	28/25
Commander Option	20/20	10/10
HH-60G		
Annual Sortie Requem't	24/19	40/32
Combat Skills Sortie	7/5	10/9
Tactical Mission (Day)	-	8/6
Tactical Mission (Night)	-	16/12
Cockpit Familiarization	-	2/2
Training		
Commander Option	17/14	4/3
T-38A*		
Category	Maximum	Minimum
T-38 Instructor Pilots	As required by Programmed Flying Training (PFT)	60
Formal F-117 Instructor Pilots	As Required by PFT	60
F-117 Chase Instructor Pilots/Supervisors/Stan/Eval Flight Examiner	72	48
Basic-Dual Qualified	72	48

²³ ACCI 11-F-117A (U), "Pilot Training—F-117A," 1 Jul 1997, SD II-12; ACCI 11-HH-60G (U), "Training—HH-60G," 1 Jul 1997, SD II-13.

²⁴ Msg (U), ACC/DOT to 49OG/CC et al, "F-117 Ready Aircrew Program," nd, SD II-14; Msg (U), ACC/DOT to 49OG/CC et al, "HH-60G Ready Aircrew Program, nd, SD II-15; ACCI 11-T-38A (U), "Pilot Training—T-38A," 17 Jan 97, SD II-16.

* (U) T-38 training requirements listed are those specific to the F-117A training mission, as prescribed in ACCI 11-T-38A, Chapter 5.

(U) During this first year of the RAP, the F-117A program completed 100 percent of all RAP sorties. Within training requirements, each of the fighter squadrons met nearly 100 percent of each training event. The only exception was the 8th Fighter Squadron which completed 83 percent of flag events. Nonetheless, the F-117A program completed 100 percent of overall requirements.²⁵

(U) Likewise, the HH-60G program flew 100 percent of its total RAP sorties. However, a minority of some training events were not completed to 100 percent, these included: pilot water operations which were flown to 79 percent, co-pilot water operations at 76 percent, co-pilot night vision goggle operations at 72 percent, and co-pilot air-to-air refueling at 86 percent.²⁶

(U) In addition to changing the pilot training program, the RAP changed the flying hour program and the process of SORTS reporting. Under the previous process of the flying hour program, ACC established a utilization rate for each weapons system, which provided the sorties and hours required, regardless of manning. In this new program, ACC sought to compute flying hours based upon crew training requirements and manning levels. Thus, after identifying the training sorties required, the sorties were multiplied by the average sortie duration to compute the flying hour program. Within the 49 FW, this new RAP-driven flying hour program was first used to compute the FY 1999 program. [The flying hour program is discussed in greater detail on the following pages.]²⁷

²⁵ Brfg (U), 49OG, "Status of Flying Training Board," 30 Jul 98, SD II-17.

²⁶ *Ibid.*

²⁷ Brfg (U), Lt Col S Tippetts, ACC/DOTO, "Ready Aircrew Program," 19 Aug 98, SD II-18. Telecon (U), SSgt G Henneman, 49FW/HO, with Maj D Kyger, 49OSS/OSOS, [Flying Hour Program and RAP] 28 Aug 98.

(U) In the same manner, RAP better identified shortages in manning through SORTS. Under the previous system, aircrew manning numbers were combined with those of other critical personnel. Therefore, manning of maintenance personnel and other specialties could hide a shortage of pilots. With the implementation of RAP, tables were added to the SORTS reports that measured aircrew manning separate from other critical personnel. If aircrew manning dropped below a designated percentage then the SORTS personnel rating would drop below C-1.²⁸

Flying Hour Program (U)

(U) Air Combat Command managed its fiscal commitments and aircrew readiness through the flying hour program. Mission taskings, aircrew training requirements, unit equipment, aircrew ratio, and other factors were all accumulated to determine flying hour allocations. Flying hour allocations were expressed as a utilization (UTE) rate, determined by computing the number of sorties per aircraft per month. Typically, ACC would send out a "first look" message to its wing's months before the upcoming fiscal year. After reviewing training and operational requirements, the wing returned its feedback to ACC, which would be later followed by a flying hour contract. Throughout the year, wing and Command representatives adjusted the program, primarily based on training needs and unscheduled deployments.²⁹

²⁸ Brfg (U), Lt Col S Tippets, ACC/DOTO, "Ready Aircrew Program," 19 Aug 98, SD II-18.

²⁹ ACCI 11-103 (U), Flying Hour Program, 15 Nov 96, SD II-19.

FY 98 (U)

(U) During this period, the Wing continued to execute its fiscal year (FY) 1998 flying hour program. Wing personnel worked closely with ACC to manage the program, ensuring training and operational requirements were met. When ACC issued the flying hour contract on 20 November 1997, the Wing's F-117A Southwest Asia deployment was not anticipated. Thus, the most significant change to the program was the movement of 1,150 sorties and 1,570 flying hours from operations to Southwest Asia. Additionally, HH-60 operations reduced their planned average sortie duration from 2.7 to 1.6 hours. Therefore, the number of sorties were increased from the original contract, while the overall flying time decreased.³⁰

(U) On 3 June 1998, ACC issued a message to its wings, instructing them to submit an updated flow plan for the remainder of FY 1998. The 49th responded with its plan for the remainder of the year, identifying the sorties, hours, average sortie duration, and utilization rate for each remaining month.³¹

(U) The table on the following page illustrates the initial contract, updated plan, and actual flown for the 49th Fighter Wing.

³⁰ Msg (U), ACC/DOT to AIG 7151, "Evaluation of FY98 Flying Hours," 031316Z Mar 98, SD II-20.

³¹ Msg (U), ACC/DOT to AIG 7154/CC, "Fourth quarter flying hour reflow request," 031902Z Jun 98, SD II-21; Msg (U), 49OG/CC to ACC/DOS, "49 FW Flying Hour Reflow," nd, SD II-22.

Table II-2
FY 98 Flying Hour Program (U)³²

Weapon System	Mission	Initial Contract Sorties/Hours	Adjusted Contract Sorties/Hours (Updated Plan)	Actual Flown Sorties/Hours (as of 30 June 98)
T-38A	TNG	3,241/4,084	3,243/4,084	2,407/3,045.5
HH-60G	OPS	620/1,681	782/1,225.6	604/874.6
HH-60G	SWA	123/344	332/607.1	282/482.1
F-117A	OPS	6,401/10,875	4,562/7,221	3,103/5,448
F-117A	SWA	Not Scheduled	1,150/1,570	1,150/1,570
F-117A	TNG	1,300/2,002	1,250/1,995	960/1,579

FY 99 (U)

(U) Even as the Wing continued to execute the FY 1998 program, preparation began for the FY 1999 program. In line with the RAP (mentioned earlier in this chapter), the FY 1999 program was calculated using RAP numbers vice the previous method of the UTE rate. Under this new method, the flying hour program was calculated by determining manning and training requirement, and multiplying the number of sorties by the average sortie duration.³³

(U) The table on the next page illustrates the initial contract allocation issued by ACC. This program did not factor in Southwest Asia deployments, but did program for the scheduled inactivation of the 48th Rescue Squadron in February 1999.³⁴

³² Msg (U), 49OG/CC to ACC/DOS, "49 FW Flying Hour Reflow," nd, SD II-22; Rpt (U), 49OSS/OSO, "June," ca Jul 98, SD II-23.

³³ Telecon (U), SSgt G Henneman, 49FW/HO, with Maj D Kyger, 40OSS/OSOS, [RAP and Flying Hour Program] 28 Aug 98; Brfg (U), ACC/DOTO, "Ready Aircrew Program," nd. SD II-11.

³⁴ Rpt (U), 49OSS/OSO, [FY 99 Flying Hour Program], 3 Jun 98, SD II-24.

Table II-3
FY 99 Initial Allocation (U)³⁵

Weapon System	Mission	Initial Contract Sorties/Hours
T-38A	TNG	2,880/3,629.0
HH-60G	RES	636/1,908
F-117A	OPS	6,636/11,282.0
F-117A	TNG	1,192/1,836.0

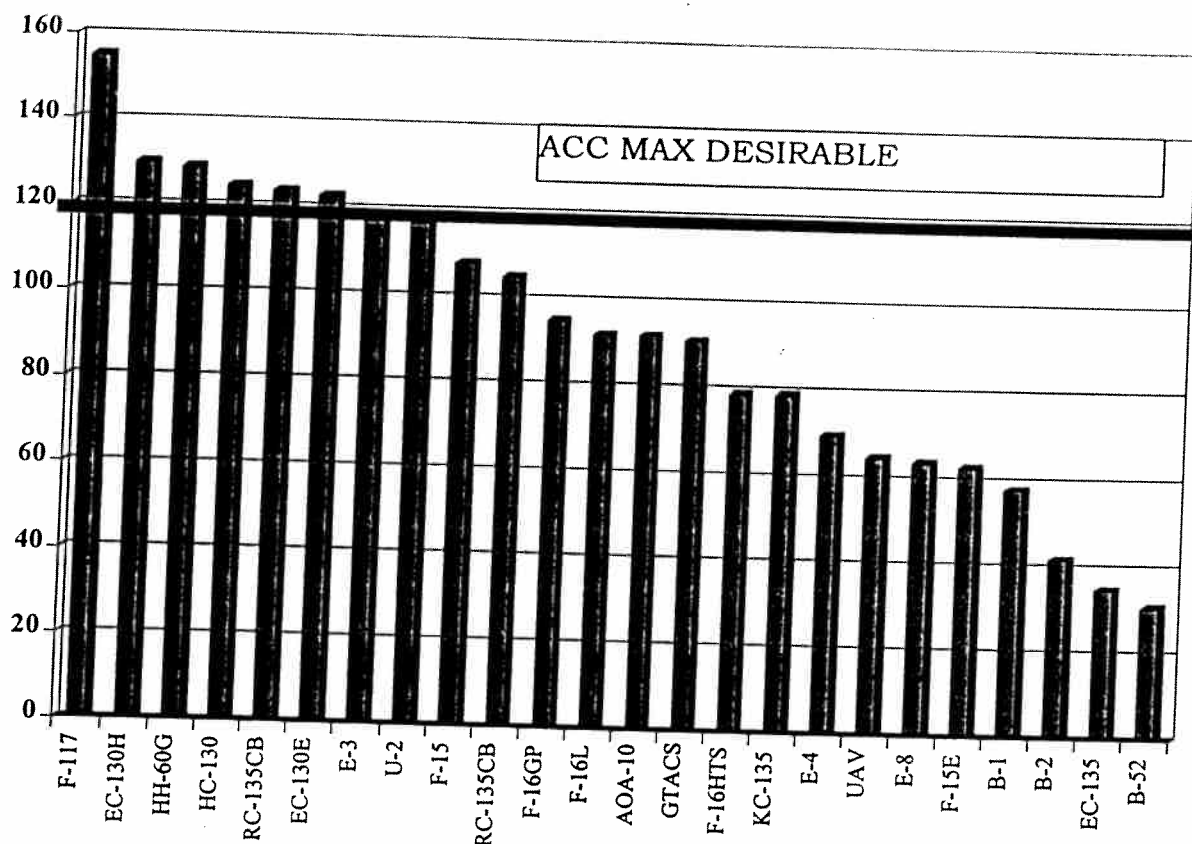
DEPLOYMENTS (U)

(U) The 49th Fighter Wing continued to deploy its aircraft, equipment, and personnel in support of global operations. In fact, during this period, both the F-117A and HH-60G had some of the highest deployment rates in Air Combat Command. The following chart illustrates the operations tempo of the F-117A and HH-60G in comparison to other Command weapon systems.³⁶

³⁵ Rpt (U), 49OSS/OSO, [FY 99 Flying Hour Program], 3 Jun 98, SD II-24.

³⁶ Brfg (U), ACC/CSX, "Air Combat Command Today," ca Jul 98, SD II-25.

Chart II-2
Operations Tempo by Aircraft (U)³⁷
As of 1 July 1998



(U) Flying squadrons were not the only units to endure high deployment rates. From January-June 1998, the 49th Security Forces Squadron (SFS) deployed over 40 people to support various missions in Kuwait, Saudi Arabia, Italy, and Germany. On top of this, the 49 SFS was manned at less than 75 percent. In order to maintain security for Holloman AFB assets, and support the numerous deployments, the squadron used a "Ready Program." Through the Ready Program, other units on base detailed

³⁷ Brfg (U), ACC/CSX, "Air Combat Command Today," ca Jul 98, SD II-25.

their personnel to work as security augmentees. However, this pulled from the assets of those squadrons, which supported their own deployments and daily operations.³⁸

Southwest Asia (U)

(U) In November 1997, following Iraqi refusals to allow UN weapons inspectors access to suspected sites, Air Combat Command tasked the 8th Fighter Squadron to deploy six F-117As and 220 personnel to Al Jaber Air Base, Kuwait. Less than 24 hours after notification, on 19 November, 10 aircraft departed Holloman AFB, spending the first night at Langley AFB, Virginia. The following day, six primary aircraft continued on to Kuwait, demonstrating the United States' resolve [For more information on this deployment see the 49 FW History, Jul 96-Dec 97, Chapter II].³⁹

(U) Despite a build up of forces, Iraq continued to block weapons inspections. In fact, on 16 January 1998, the United Nations (UN) weapons inspection team departed Iraq. In response, the United States warned that failure to comply with UN resolutions would result in military strikes.⁴⁰

U (S) As regional tensions increased, the 49th Fighter Wing received its first official notification of an additional deployment.]

[

³⁸ Memo (U), 49 SFS, [SFS Deployments] 10 Aug 98, SD II-26.

³⁹ Hist (S/UO), 49FW/HO, "History of the 49th Fighter Wing, 1 July 1996-31 Dec 1997 (U)" 28 May 98, (information used is U).

⁴⁰ Article (U), CNN News, "U.S.-led inspection team to leave Baghdad," 15 Jan 98, SD II-27.

(S) While the 49th Fighter Wing's jets stood ready to deploy, higher headquarters continued to work the logistics of the massive force increase.

(S)

However, delays in acquiring diplomatic clearance requests slipped the entire deployment.

⁴¹ Msg (S/DECL OADR), ACC/BSD to 1 FW/CC et al, [Planning Order (U)] 291420Z Jan 98, SD II-28.

⁴² Msg (S/DECL 30 Jan 2008), USCINCENT/CCJ3 to USCINCENTTRANS et al, "Deployment order for additional forces (U)," 7 Feb 98, SD II-29.

⁴³ Msg (S/OADR), ACC/AODX to 49 FW/CC, et al, "Coronet East 167 Air Tasking Order," 071417Z Feb 98, SD II-30; Msg (S/OADR), ACC/AODX to 49 FW/CC, et al, "Coronet East 167 Air Tasking Order, Chg 1." 132027Z Feb 98, SD II-31; Msg (S/DECL 9 Feb 2008), USCINCENT/CCJ3 to USCINCENTTRANS et al, "Operation

~~(FOUO)~~ The tables below list the deployed F-117As. The first table shows the tail numbers of aircraft that deployed in the first increment in November 1997, the second shows the complete package in place by February 1998.⁴⁴

Table II-4
Deployed Aircraft, December 1997 (~~FOUO~~)⁴⁵

A0799	A0818
A0816	A0819
A0817	A0833

Table II-5
Deployed Aircraft, March 1998 (~~FOUO~~)⁴⁶

A0794	A0817	A0824
A0795	A0818	A0832
A0799	A0819	A0833
A0816	A0829	A0842

non-responsive

NR

Southern Watch TPFDD Status Report (U)," 9 Feb 98, SD II-32; Amn C Uhles, "Six more F-117A Nighthawks depart for Southwest Asia," Sunburst, 20 Feb 98, SD II-33.

⁴⁴ Charts (FOUO), 49MXS, "Weekly Equip Utilization and Maintenance Schedule," Dec 97; Mar 98, SD II-34.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

[non-responsive]

(U) With increased forces building on their southern border, on 11 February, Iraq offered a limited, short-term opening of eight presidential sites. The United States denied this compromise, and tensions continued to grow in the region. On 20 February, UN Secretary General, Kofi Annan, arrived in Baghdad, Iraq on a mission to find a peaceful resolution to the standoff with Iraq. Three days later, the Secretary General signed a deal allowing for the opening of suspected weapons sites.⁴⁸ Despite the UN-brokered agreement, United States Armed Forces, including the aircraft and personnel of the 49th Fighter Wing, remained in the area ensuring Iraqi compliance with the new agreement.⁴⁹

(U) The increase of forces put a considerable strain on the resources at Al Jaber. This caused shortages in water, electricity, and lodging. As many as 20 airmen shared one tent, coupled by an over utilization of latrines and showers. Additional in-place Harvest Falcon assets could have helped accommodate the increase in personnel.⁵⁰

(U) The flying schedule was left much to the discretion of the local commander. The number of sorties and average sortie duration were determined by RAP requirements and phase flow. At least 10 sorties per

[non-responsive] NR

⁴⁸ Article (U), CNN News, "Iraq again offers limited access to palaces," 11 Feb 98, SD II-38; Article (U), CNN News, "Annan confident about new U.N. accord on Iraq," 24 Feb 98, SD II-39.

⁴⁹ Article (U), CNN News, "U.S. keeping troops in Gulf, just in case," 24 Feb 98, SD II-40.

⁵⁰ Rpt (U), 8FS/ADO, "Lessons Learned," nd, SD II-41.

month were scheduled for each pilot, with an average sortie duration of 1.1 hours. At least once per week, a 10 turn eight was scheduled to practice contingency operations. Schedulers at Al Jaber, through the F-117 liaison officer at Joint Task Force-Southwest Asia, determined the F-117 flying schedule for implementation into the theater air tasking order. However, the air tasking order did not list hard takeoff times; rather, the schedule gave the F-117 program a 12-hour window, so take off times could be adjusted. From November 1997 through June 1998, the deployed contingent flew 1,150 sorties.⁵¹

(U) One area of concern for aircraft maintenance was the hangars, specifically the hangar doors. Due to space restrictions, two F-117As were placed in each hangar. The rear hangar doors could not open, and the front doors could not close. Since the front doors could not close, the sun absorbed into the aircraft's black skin, degrading the radar absorbent material and avionics. A contract was awarded for the replacement of the doors, which were finished in June 1998. Although the F-117As returned home in June, the new doors would be ready for the next deployment to Kuwait.⁵²

(U) On 19 March 1998, 230 pilots, maintenance, and support personnel, primarily from the 9th Fighter Squadron, departed Holloman AFB to replace the 8th Fighter Squadron's forces. The 12 F-117As, mostly from the 8th Fighter Squadron, remained in place.⁵³

⁵¹ Rpt (U), 8FS/ADO, "Lessons Learned," nd, SD II-41.

⁵² See Note Above; Intvw (S/DECL 11 Sep 2006), SSgt G Henneman, 49FW/HO, with Brig Gen D Larsen, 49FW/CC, "Commander's Interview, 8 Apr 98, filed as SD I-2, 49 FW Hist Jul 96-Dec 97, (Information used is U).

⁵³ SrA A Cram, "Holloman rotates airmen to Kuwait," Sunburst, 20 Mar 98, SD II-42.

u (S) As tensions in the region subsided, and Iraq allowed weapons inspectors access to sites, rumors of redeployment began to spread. These rumors were fed by media reports that President William J. Clinton, and Secretary of Defense William Cohen were authorizing a scaling back of theater forces.⁵⁴

(U) The first group of six F-117As departed Al Jaber on 6 June 1998, with the second group departing on 7 June. After a night's stay in Moron, Spain, the Nighthawks continued on to Wright-Patterson AFB, Ohio. On 10 June, 10 of the 12 F-117As returned to Holloman AFB, while two remained at Moron. Aircraft, tail number 0818, remained behind due to fuel system problems, and the second remained in order to fly a two-ship formation. The final two F-117As returned home on 13 June 1998. Also, on 10 June, the majority of the maintenance and support personnel returned home to Holloman AFB and their waiting families.⁵⁷

⁵⁴ Associated Press, "U.S. may scale back troops, ships in gulf," Daily Press, p A-4, 29 Apr 98, SD II-43.

⁵⁵ Msg (S/DECL 22 May 2008), ACC/BSD to 552ACW/CC et al, [Redeployment Order (U)], 301447Z May 98, SD II-44.

⁵⁶ *Ibid.*

⁵⁷ Chart (U), 49FW/CP, "TimeLine," ca Jun 98, SD II-45; AFNews, "Tankers support F-117 trek across Atlantic," 10 Jun 98, SD II-46; 2Lt T Shamhart, "Team Holloman members return," Sunburst, 12 Jun 98, SD II-47; Email (U), Col J Snider, 49OG/CD to 49FW/CP, "Moron Info," 9 Jun 98, SD II-48.

(U) Upon return to Holloman AFB the 49th Fighter Wing Commander received the following commendation from General Anthony C. Zinni, United States Commander-in-Chief Central Command:

Since the plus up of personnel and equipment to the CENTCOM AOR in February, your forces have superbly complemented JTF-SWA in performing Operation Southern Watch and preparing for possible contingency operations. Your deployed personnel significantly contributed to the military presence required to ensure the successes of diplomatic negotiations during the recent period of heightened tensions.

Your rapid deployment of combat power to the region clearly demonstrated the readiness and professionalism required to make deterrence a success. Each and every deployed service member should be extremely proud of their accomplishments during this deployment. The dedication, excellence, hard work, and warrior spirit exhibited at every level did not go unnoticed. I personally commend those under your command on a job well done. Thank you and best wishes to all in the future.⁵⁸

Spirit Hawk '98 (U)

(U) From 7-21 February 1998 the 49th Fighter Wing deployed eight F-117As and 130 people to the Air Force's first ever low observable combat exercise, nicknamed Spirit Hawk '98. Although in the past the F-117As participated in Red Flag exercises, security concerns prohibited the full implementation of low observable stealth technology. Furthermore, during Spirit Hawk, rather than being a participant in a composite force Red Flag

⁵⁸ Email (U), Col F Clawson, 49FW/CV to SSgt G Henneman, 49FW/HO et al, "Well Done," 3 Jun 98, SD II-49.

exercise, Wing leaders drove the tactics and demonstrated the value of stealth technology.⁵⁹

(U) Despite this exercise taking place simultaneously with the Kuwaiti deployment, the 49th flew 34 sorties with a 100 percent mission effectiveness rate. More importantly, the exercise helped refine stealth-implementation tactics. Three months after the exercise, the 49th Operations Group was still reaping the benefits of this exercise, "It has helped focus our training and provide your [ACC] staff more tailored advice on future requirements. We eagerly await Spirit Hawk '99."⁶⁰

Combat Hammer 98-04 (U)

~~(FOUO)~~ From 29 May-5 June 1998 the 8th Fighter Squadron deployed eight F-117As (four from the 8th and four from the 9th Fighter Squadron) and 109 people (14 pilots and 95 maintenance and support) to Mountain Home AFB, Idaho for participation in the Weapons System Evaluation Program's (WSEP) exercise, Combat Hammer. The mission of this exercise was to evaluate the employment of GBU-10, GBU-12, and GBU-27 munitions.⁶¹

~~(FOUO)~~ Flying operations began on 1 June; six F-117s employed 12 inert GBU-27s on WSEP targets over the Utah Tactical Test Range. Four aircraft released dual-door munitions, while the other two employed four single-weapon deliveries. In this first day, the Wing achieved three of its

⁵⁹ Intvw (S/DECL 11 Sep 2006), SSgt G Henneman, 49FW/HO, with Brig Gen D Larsen, 49FW/CC, "Commander's Interview, 8 Apr 98, filed as SD I-2, 49 FW Hist Jul 96-Dec 97, (Information used is U).

⁶⁰ Letters (U), 49FW/CC to ACC/CC, [Quarterly Letter] Jan-Jun 98, SD I-2.

⁶¹ Memo (U), 8FS/DOW to 8FS/DO et al, "After Actions Report for Exercise Combat Hammer 98-04," 15 Jun 98, SD II-50.

initial goals: time-on-target in window, no switch errors, and 100 percent aircraft generated on time with fraggd munitions. However, two of the goals were not met: 100 percent hits and fulfill heavyweight requirements. Since this mission was flown at night, a chase plane was not employed to fully gather weapons data.⁶²

~~(F-117)~~ On the following day, weather and high winds canceled all flying operations. On 3 and 4 June, the F-117As launched 100 percent of the tasked missions; however, thunderstorms caused both missions to abort before munitions could be employed. Six F-117As returned to Holloman on 5 June, with one remaining behind for static display support of the Boise Airshow and another for maintenance.⁶³

~~(F-117)~~ Because of weather conditions, the Wing never had the opportunity to employ its GBU-10 and GBU-12 weapons. Nonetheless, squadrons members saw positive benefits from the deployment: maintenance personnel generated 100 percent of all scheduled sorties and deployed pilots met with EA-6B Navy pilots to discuss F-117 electronic warfare support and integration. Additionally, the Combat Hammer, Officer-in-Charge described the Wing's participation as "exceptional" and "first class."⁶⁴

FWIC/ME (U)

(U) The 8th Fighter Squadron deployed three F-117As and 69 personnel to Nellis AFB, Nevada in support of the Mission Employment (ME) phase of the Fighter Weapons Instructor Course (FWIC). An advanced echelon team arrived at Nellis AFB on 18 May 1998, in order to brief mission

⁶² Memo (U), 8FS/DOW to 8FS/DO et al, "After Actions Report for Exercise Combat Hammer 98-04," 15 Jun 98, SD II-50.

⁶³ *Ibid.*

⁶⁴ *Ibid.*

planners on F-117A employment tactics and weapon system capabilities. Mission planners told the 8th Fighter Squadron representatives that they understood the F-117 issues; however, there was not a lot of flexibility during this exercise. On 31 May, the F-117As arrived at Nellis AFB along with maintenance and support personnel. Night sorties were scheduled for 1, 2, 4, 8, 9, and 10 June.⁶⁵

(U) Maj Edward L. Terry, 8th Fighter Squadron Assistant Operations Officer, rated the mission execution as marginal. The ME syllabus limited realistic F-117A employment and allowed the use of only narrow, limited altitude blocks. This exercise, by design, did not provide the F-117As the opportunity to fully employ its low observable (LO) technology. Additionally, poor weather caused the cancellations of night flying on the 8th, 9th, and 10th.⁶⁶

(U) Overall, the 49th Fighter Wing only fulfilled two of its five objectives during this exercise: "Broaden F-117A pilot experience by ME participation; [and] employ appropriate ordnance to achieve mission objectives."⁶⁷ Two other objectives were partially accomplished: "Educate future CAF [Combat Air Force] officers on F-117A integration and employment; [and] support understanding of LO capabilities and limitations."⁶⁸ One objective was not accomplished, "Train realistically in strike packages using the full complement of aircraft available to the Mission Commander."⁶⁹

⁶⁵ Memo (U), 8FS/ADO to 8 FS/CC et al, "Mission Employment (ME) 98-A After Action Report," 7 Aug 98, SD II-72.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

(U) Maj Terry summed up the exercise, "While ME is not a exercise for developing new tactics, the most current tactics should be used whenever possible. Due to air-to-air engagement rules and peacetime training restrictions, the ME cadre was not able to employ the most current tactics being practiced by strike aircraft in operational theaters today."⁷⁰ Additionally, Maj Terry noted that F-117A participation could be improved by including a low observable phase into the exercise and addressing airspace restrictions.⁷¹

48th Rescue Squadron (U)

X/R

non-responsive

⁷⁰ Memo (U), 8FS/ADO to 8 FS/CC et al, "Mission Employment (ME) 98-A After Action Report," 7 Aug 98, SD II-72.

⁷¹ *Ibid.*

⁷² (U) For more detailed information, reference the histories of the 4404th Wing, Provisional.

⁷³ Perscon (U), SSgt G Henneman, 49FW/HO, with 48RQS, 22 Jul 98.

CHAPTER III
MISCELLANEOUS ACTIVITIES (U)

Aircraft Maintenance (U)

(U) The 49th Fighter Wing maintained its fleet of F-117A aircraft within Air Combat Command standards. In nearly every maintenance category, the Wing surpassed Command standards, including mission capable rate (finishing at 82.3 percent, exceeding the 80 percent standard), cannibalizations (averaging 1.8 percent, below the five percent standard), and abort rate (averaging 2.8 percent, below the six percent standard).¹

(U) Col Guy Vanderman, 49th Logistics Group Commander, noted during an Intermediate Repair Enhancement Program meeting how well the 49th did in comparison to wings with other weapon systems. Colonel Vanderman attributed this to the fact that other bases had to compete for parts and depot support for their aircraft. Since the 49th was the sole home of the F-117A, this was not a concern. Col Frank W. Clawson, 49th Fighter Wing Vice Commander, also noted the strength of 49th Fighter Wing maintenance record in comparison to other wings, attributing this success to carefully tracking problems and conducting repair in a timely manner.²

(U) The other weapon systems under the 49th Fighter Wing also exceeded command standards. The mission capable rate for the 7th Fighter Squadron's T-

¹ Brfg (U), 49OSS/OSOS, "F-117 Monthly Maintenance Summary," June 98, SD III-1.

² Memo (U), 49FW/CV, "Minutes of the Intermediate Repair Enhancement Program (IREP) Briefing," 8 Jul 98, SD III-2.

38As, maintained by Lockheed Martin, peaked at 97.6 percent in May 1998, and ended the period at 94.4 percent, far exceeding the 84 percent standard. Likewise the German F-4Fs, also maintained by Lockheed Martin, peaked at a 98.5 percent mission capable rate in March 1998, ending with a 97.1 percent rate, surpassing the 84 percent standard.³

(U) During the first four months of calendar year 1998 the 48th Rescue Squadron's HH-60s surpassed command standards, peaking at 88.5 percent in April. However, when the squadron returned from its Southwest Asia deployment the percentage dropped to 62.7 percent in May, rising back to 73.1 in June. Upon return from the deployment, some of the helicopters required phase inspections, as they did not undergo phase during the four-month deployment. Additionally, each HH-60G had to go through a functional check flight upon return from Southwest Asia before being placed into operational status.⁴

Gold Flag (U)

(U) The 49th Logistics Support Squadron continued to search for methods to reduce costs through the execution of ACC's Gold Flag program. Since 1994, the 49th's Gold Flag program identified ways of more effectively repairing or replacing aircraft parts.⁵

(U) Gold Flag programs provided savings in three different areas: cost avoidance, cost savings, and MICAP (Mission-Impaired Capability Awaiting Parts). Cost avoidance items were those that were locally repaired that would have typically been disposed of and a new item purchased through the supply system. Cost savings were identified from items repaired by the Gold Flag program. Additionally, the Gold Flag Office sought to solve MICAP items that affected

³ Rpt (U), Lockheed Martin, "Unit Internal Performance Review," Jun 98, SD III-3.

⁴ Telecon (U), SSgt G Henneman, 49FW/HO, with 48 RQS/MA, [HH-60G MC Rates], 1 Sep 98; Rpt (U), 49OSS/OSOA, "HH-60G Monthly Maintenance Summary," Aug 98, SD III-4.

⁵ (U) For more background on the Gold Flag program see 49 FW History, Jul 96-Dec 97, Chapter 5.

mission capability. From January-June 1998, the Wing's Gold Flag program generated \$473,200 in cost avoidance, \$310,320 in cost savings, and resolved 13 MICAP items.⁶

(U) One example of a local initiative was the repair of the environmental sensor controller. No repair of this item was available due to a Department of Defense shortage. In order to maintain the Wing's need for this part a 49th Gold Flag electronics technician reverse-engineered the panel, and built a mock-up of how the part worked inside the C-5/MA3D support air conditioner. Because of this initiative full repair capability was achieved at the Wing. Repair of this item, when available, previously cost the Wing \$800 per panel.⁷

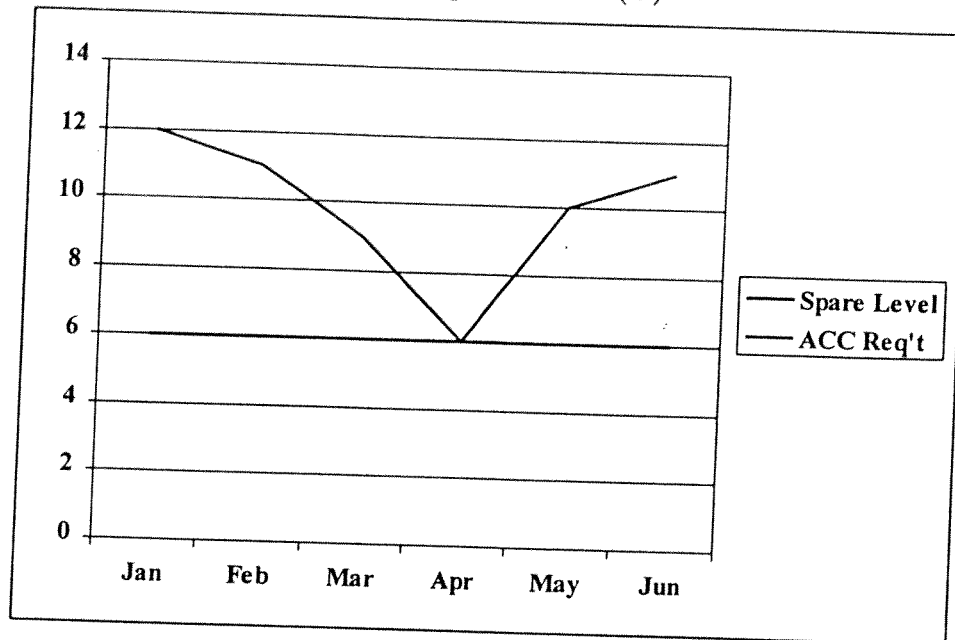
Engines (U)

(U) The 49th Maintenance Squadron continued to manage the 49th Fighter Wing's fleet of F-117A F-404 engines. Throughout this period, the Wing met or exceeded the Command requirement of six serviceable spare engines. In April 1998, during the Southwest Asia deployment, the spare level dropped to six. However, in May and June the level rose again with the return of the F-117A from Southwest Asia.

⁶ Brfg (U), 49LG, "Intermediate Repair Enhancement Program," June 1998, SD III-5.

⁷ Telecon (U), SSgt G Henneman, 49FW/HO, with SSgt D Cristelli, 49LSS/GF, 2 Sep 98.

Chart III-1
Engine Spare Level (U)⁸



F-117 Upgrades (U)

(U) The 49th Fighter Wing continued to update its F-117A fleet to improve the weapon system's reliability and performance.⁹

RNIP (U)

(U) One of the most significant changes to the F-117A took place under the ring laser gyro navigational improvement program (RNIP). This upgrade replaced the conventional inertial navigation system (INS), used in B-52s, with the ring laser gyro (RLG). RNIP improved system reliability and required less maintenance.

⁸ Chart (U), 49MXS/LGMP, "Engine Spare Level," ca Jul 98.

⁹ Rpts (U), 49LG, [LG Monthly Historical Reports] Jan-Jun 98, SD III-7.

Aircraft received the RNIP upgrade when they rotated through the depot at Palmdale, California.¹⁰

(U) The RLG brought many advantages to the F-117A. First, the data entry method changed from a control display unit to a control display navigational unit, enhancing system integrity. In addition, the number of INS failures significantly decreased in aircraft with the RLG. In fact, it was often months between INS failures. Maintenance on the new navigation system had been minimal, with most maintenance attributed to lack of experience by maintainers and pilots, or relatively minor items such as loose knobs or burnt out bulbs.¹¹

(U) Preparation time for an F-117A mission also decreased by the RNIP upgrade. The older INS required a two-hour preparation time that is not needed with the RLG. One minor drawback, during the time of the transition to the RLG, was a lack of experience by technicians. Technicians needed to train and gain proficiency with the new system, including knowledge of switch positions and overall troubleshooting.¹²

(U) Another important upgrade under the RNIP was the addition of the global positioning system (GPS). The new navigation system incorporated GPS technology and worked well while requiring low maintenance. When the first few F-117As received GPS the wrong coaxial cables were installed. The maintainers of the 49th worked to replace those cables. Nonetheless, the GPS proved to be an overall reliable system.¹³

(U) The F-117As also received an upgrade to its Weapons Systems Computational computers. The new computers had more memory and required

¹⁰ EMail (U), CMSgt D Carter, 49OG/CME, to SSgt G Henneman, 49FW/HO, [F-117 Upgrades] 7 Oct 98, SD III-6.

¹¹ *Ibid.*

¹² *Ibid.*

¹³ *Ibid.*

fewer reboots and system reloads. Maintainers still encountered some problems booting the computers; however, the upgrade improved the overall reliability.¹⁴

(U) By June 1998, 22 of the Wing's F-117As still required RNIP modification. Wing leadership projected the last jet would be completed by December 1999.¹⁵

LoComm (U)

(U) Unlike the RNIP, the changes to the low observable communications (LoComm) antenna had numerous problems. LoComm replaced the previous ultra high frequency (UHF) antenna, permitting communication while maintaining a stealth posture. Unfortunately, as of this time, LoComm had not lived up to system expectations.¹⁶

(U) The first modification, LoComm 1, used a lowered flush mounted UHF antenna in conjunction with the pre-existing UHF blade antenna. Originally, LoComm 1 was supposed to be tested on one aircraft, but since the modification team had extra kits they installed the system on several aircraft. As stated, system operations did not meet expectations. The major problem focused on operability of certain frequencies. Lockheed, the aircraft manufacturer, used these test jets installed with LoComm1 to develop LoComm 2.¹⁷

(U) Despite the testing phase, LoComm 2 proved as troublesome as LoComm 1. LoComm 2 only used the flush mounted antenna, although the pre-existing UHF antenna continued to extend and retract from the aircraft. The seriousness of the problem with LoComm 2 was discovered when the first F-117A arrived from the depot with the upgrade. When F-117A, tail 81-0795, returned to

¹⁴ EMail (U), CMSgt D Carter, 49OG/CME, to SSgt G Henneman, 49FW/HO, [F-117 Upgrades] 7 Oct 98, SD III-6.

¹⁵ *Ibid.*

¹⁶ *Ibid.*

¹⁷ *Ibid.*

Holloman, specialists discovered that a problem existed transmitting on certain frequencies. When the next two F-117As returned, both with the same problem, a representative from Lockheed came to Holloman AFB to help identify the problem. After troubleshooting the aircraft, Wing maintainers and Lockheed identified that LoComm 2 only permitted the F-117A to transmit on four different frequency bands. Fortunately, this problem did not affect Have-Quick radio operations.¹⁸

(U) In February 1998, Lockheed engineers recommended an impedance matching system, which did not work. While the manufacturer continued to work towards a solution, the Wing was informed to finish modifying the remaining LoComm 1 aircraft to LoComm 2. The Wing asked to wait until the correction to LoComm 2 was developed. Since then, no other LoComm 1 aircraft have been upgraded.¹⁹

(U) The following month, March 1998, Lockheed proposed another possible fix. Engineers recommended a change to the amplifier and extended the length of a cable for impedance matching. This was tested on one aircraft, tail 0837, and appeared to open the previously unusable frequencies.²⁰

(U) One other area that concerned the Wing was system range. The old UHF system worked by line-of-sight. The old extending antenna provided greater range. On the other hand, the flush mounted antenna was expected to decrease range.²¹

(U) By June 1998, only seven of the Wing's F-117As did not have LoComm. Twenty of the aircraft had LoComm 1, with rest LoComm 2. Until further tests were completed, no plans existed to make all jets LoComm 2.²²

¹⁸ EMail (U), CMSgt D Carter, 49OG/CME, to SSgt G Henneman, 49FW/HO, [F-117 Upgrades] 7 Oct 98, SD III-6.

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ *Ibid.*

²² *Ibid.*

AVTR (U)

(U) Maintainers from the 49th installed new airborne video tape recorders (AVTR) in the F-117A. The new AVTR included new machines, better video quality, required less maintenance, and used smaller, eight-millimeter tapes that were more available. Only one minor problem occurred during the upgrade, mount screws were not the correct length. All but two of the Wing's aircraft had the new AVTR by June 1998.²³

Low VOC Paint (U)

(U) In January 1998, the transition to a low volatile organic compound (VOC), black polyurethane paint, BK-99, officially began for the F-117A fleet. During the first four months of 1998, efforts focused on full painting, with occasional touch ups, as the Wing prepared for the summer airshow season.²⁴

(U) The Low VOC painted proved to be more environmentally friendly and less hazardous than the previous BK-29 paint. When applied correctly, less paint was required, and less waste generated. However, the paint did not hold up as well against maintenance inflicted scuffs as did the BK-29. A thorough evaluation of BK-99 had not been accomplished.²⁵

RAPCON/WSMR Consolidation (U)

(U) In an effort to reduce costs by combining functions, the 49th Fighter Wing worked towards the consolidation of Holloman AFB's Radar Approach Control (RAPCON) and the Cherokee Military Range Control on White Sands Missile Range (WSMR). Holloman's RAPCON needed an expensive upgrade to its facility and

²³ EMail (U), CMSgt D Carter, 49OG/CME, to SSgt G Henneman, 49FW/HO, [F-117 Upgrades] 7 Oct 98, SD III-6.

²⁴ *Ibid.*

²⁵ *Ibid.*