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IMPLEMENTING FORCE STRUCTURE REDUCTIONS FOR
AIR COMBAT COMMAND F-15'S

by

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Preface

This report was born out of my experience as a F-15C instructor pilot at Langley AFB, Virginia and in NAS Keflavik, Iceland. I experienced first hand the turbulence created during the reduction from 24 to 18 primary assigned aircraft during the 1st FW reduction in 1993 and the increase in Operational tempo caused by Southwest Asia (SWA) deployments. In Iceland, I was responsible for orchestrating the deployment of F-15s to maintain an alert commitment. While there, I developed an appreciation for the difficulties the deployment caused back at Langley AFB and Eglin AFB from discussions with the hundreds of F-15 pilots who deployed to Iceland during my two year tour. This experience convinced me that the Southwest Asia and the Iceland deployments in combination with the newly reduced 18 aircraft F-15C squadrons were a problem. This paper addresses this problem and offers alternative solutions. Hopefully, the value of this paper will help future wing leaders make sound decisions when implementing future F-15C reductions, thus minimizing the impact on young Mission Ready pilots. In addition, I would like to thank all of the pilots and maintenance personnel who provided insight into the problems the F-15C drawdown created. I could not have written this paper without them!

Abstract

Force structure is fundamental to creating an effective fighting force. Force structure reductions are negotiated and fought over at the very highest levels of government. However, the reductions are implemented at the operational wing level. The number of assigned aircraft per squadron seems to be an inconsequential factor in the macro view of the overall effectiveness of the Air Force. However, in the micro view the number of aircraft assigned per squadron significantly impacts a unit's capability. This study examines how two F-15C Air Combat Command wings implemented force reductions. In 1993, as part of the overall DOD budget decline the Air Force reduced F-15C squadrons from 24 primary assigned aircraft (PAA) to 18 PAA. This reduction created stress on the F-15C squadrons as they dealt with an increasing operations tempo with reduced manning. Subsequently as part of the Quadrennial Defense Review (QDR) F-15C squadrons will be reinstated to 24 PAA. Although each squadron will return to 24 PAA, the Air Force to comply with the QDR reduced the 33^d Fighter from three squadrons to two. Reducing the wing from 54 to 48 F-15Cs. This paper analyzes the consequences of the force structure changes capturing the impact of reductions on personnel. Drawing the lessons learned during the post drawdown, I offer an alternative F-15C structure that decreases non-essential pilot additional duties, reduces OPTEMPO and increases pilot manning to more effectively develop fighter pilots. These changes will reduce future stress as the F-15C's drawdown and transition to the F-22.

Chapter 1

Introduction

A battle sometimes decides everything, and sometimes the most trifling thing decides the fate of a battle.¹

—Napoleon

Force structure is fundamental to creating an effective fighting force. Force structure reductions are determined at the very highest levels of the government. However, the reductions are implemented at the operational wing/squadron level. The number of assigned aircraft per squadron seems to be an inconsequential factor in the macro view of the overall effectiveness of the Air Force. However, in the micro view the number of aircraft assigned per squadron significantly impacts a unit's capability. This study evaluates the impact of fighter force reductions over the past five years on Air Combat Command's F-15Cs and the implications for further F-15C reductions as a result of the Quadrennial Defense Review (QDR). It provides information on current management downsizing theory. To better understand how fighter wings are organized, it also provides the Air Force organizational structure. It closely examines the 1993, Air Force reduction of F-15C squadrons from 24 primary assigned aircraft (PAA) to 18 PAA. The study analyzes the implications and impacts of this reduction capturing the lessons learned from the Air Force's experiment with 18 PAA F-15C squadrons. Furthermore this paper looks at the QDR action of reinstating F-15C squadrons to 24 PAA. The study

analyzes the implications of a newly required QDR wing structure to determine the benefits and potential problems. The study examines Air Force solutions to identified operations tempo (OPTEMPO) problems created by force reductions. Finally, the study provides an alternative F-15C force structure maximizing F-15C air superiority capability with limited resources.

Notes

¹ Lt Col Charles M. Westenhoff, *Military Air Power: The CADRE Digest of Air Power Opinions and Thoughts* (Air University Press, Maxwell AFB, Alabama, 1990), 157.

Chapter 2

Background Information

Management Theory

*A wise man learns from his experience; a wiser man learns from the experience of others.*¹

—Confucius

Stability is not a word Air Force officials have been able to utter with much seriousness since the drawdown began in 1987. Lt Gen Michael McGinty, the Air Force Deputy Chief of Staff for Personnel recently stated “The Air Force already has weathered the enormous 1990’s drawdown of 206,000 Active, Reserve and Guard military members and 77,400 civilians, representing the elimination of 284,000 spaces.”² He went on to say about future QDR cuts “Compared to that, the loss of up to 74,900 more over a six-year period is relatively modest.”³ He continues saying “the Air Force already is feeling the effects of carrying a heavier operational load with reduced force. The effects are showing up as retention problems in some key specialties. The most visible problem concerns pilots.”⁴ Air Combat Command’s F-15C squadrons were not immune during these enormous cutbacks and to the effects of the drawdown. Squadrons were closed, aircraft avionics upgrades were delayed and eventually aircraft and people were drawn-down from individual squadrons.

Cutbacks and drawdowns are not unique to the Air Force. The 1990's have seen tremendous upheaval as companies cut cost and reduce work forces "to regain market share and become profitable in the fierce international arena."⁵ Samuel Greengard discusses several important issues with downsizing. He illustrates that even successful companies downsize. "The upheaval and carnage throughout the land is overwhelming," says William P. MacKinnon, president of MacKinnon & Associates, a strategy-consulting firm.⁶ The reasons for the turmoil are numerous: a failing economy, new technology, increased international competition, mergers or just plain fashion. Mitchell Marks, Director of Delta Consulting Group in New York City says, "There are CEO's who see everyone else doing it and believe it's their ticket to greater profits."⁷

Whatever the reason the consequences are clear, "the best-executed downsizing creates tremendous anxiety and loss of productivity."⁸ According to Cameron, who studied 30 automakers over four years of downsizing, only five or six experienced gains in productivity.⁹ Mitchell said, "It's a complete disruption to the work force. It turns a company upside down."¹⁰ A study by the American Management Association indicated "64 percent of downsized firms that have more than 10,000 employees report lowered morale among those who survived. Thirty percent found that it increased overtime cost, and 22 percent found that they ultimately had eliminated the wrong people."¹¹

The key to successful downsizing according to Greengard is planning. Marks reinforces this when he says, "If there's one thing that differentiates the winners from the losers, it's having a strategic plan in place from the beginning."¹² The plan must include what types of employees to layoff and what functions need to be eliminated not simply a number crunching exercise. "When a portion of the work force is lost, so too are

valuable contacts, knowledge and experience. One risk is that you'll make a misjudgment and that you'll eliminate people that you later need. You wind up not only cutting the fat out of the organization, but the muscle and bone as well."¹³

Another area of concern is worker burnout. An organization may restructure and one-person winds up handling the equivalent of two or three positions. Mitchell Marks says, "You get people who not only work 12-hour days, but see no letup in sight." He continues, "They eventually become demoralized. If you don't eliminate work when you eliminate positions, the decrease in productivity is absolutely devastating."¹⁴

Charlene Solomon explains how downsizing has led to extended workweeks, longer workdays and frantic employees. She says, "Downsizing has left many companies with fewer people, and those remaining workers have been forced to pick up the slack of the workers who have left. The result often is frantic employees and more stress-related workers'-compensation claims."¹⁵ A survey conducted by Priority Management revealed how workers are working longer hours. "Of 1400 workers surveyed, 95 percent work longer than the standard workweek of 40 hours, 57 percent work six to 20 additional hours per week, and 6 percent work more than 20 hours each week beyond the norm. People are averaging a 10-hour workday. Some of them work as long as 15 hours a day."¹⁶ The study went on to say that 90 percent of workers in the study think they lead unbalanced lives. Leisure time has decreased 22 percent and 66 percent of the respondents think that their jobs are more stressful than a decade ago with most expecting it to only become more stressful.¹⁷

Solomon offers some practical advice on how this extra stress can be eliminated. The first step is to analyze the business processes to determine which tasks are important

and how managers can reorganize and streamline them. Second, teach managers and employees to work smarter by making better decisions about their work. Finally, decrease the stress employee's experience by helping them attain balance in their lives.¹⁸ Higgins, executive director of manpower management for White-house Station, reaffirms this concept saying, "I think the most fundamental shift is an examination of what one does today and a compares it with what's needed. It's very difficult to do this because it's new."¹⁹

Marks sums up downsizing very well by saying,

There's no way to eliminate anxiety, there's no way you're going to go through a downsizing without morale taking a hit. It's a very painful process that always has some negative fallout. A Company can operate in a state of denial and not acknowledge the potential problems, or it can begin formulating a strategy before a crisis ever occurs. The companies that are proactive almost always wind up on top.²⁰

Air Force Organization

The Air Force organization is outlined according to instruction. In 1993, Air Combat Command delineated organizational structure in ACCI 21-166. A standard wing organization consisted of the Wing Commander his staff and four Group Commanders: the Support Group, the Logistics Group, the Medical Group and the Operations Group. All of the flying operations are consolidated under the Operations Group Commander. The operations group standard configuration can be seen in figure 1. The usual group organization consists of three operational flying squadrons and an operational support squadron. The instruction further delineated the structure of the operational flying and operations support squadrons as shown in figures 2 and 3.

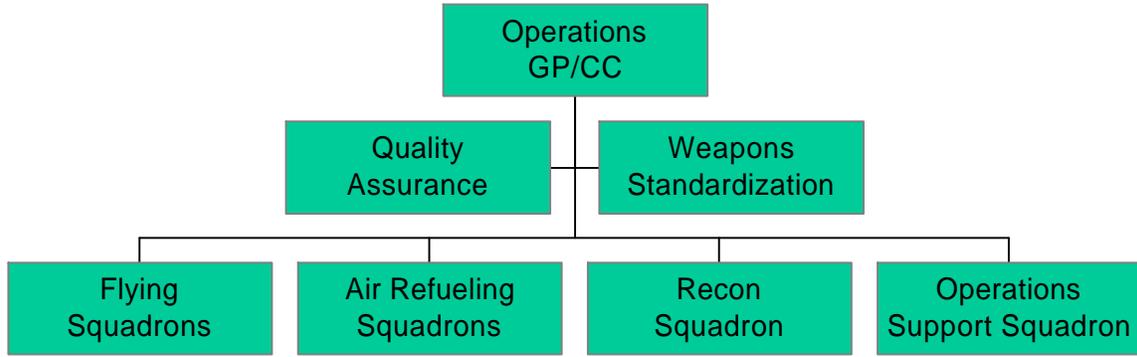


Figure 1. Operations Group Structure²¹

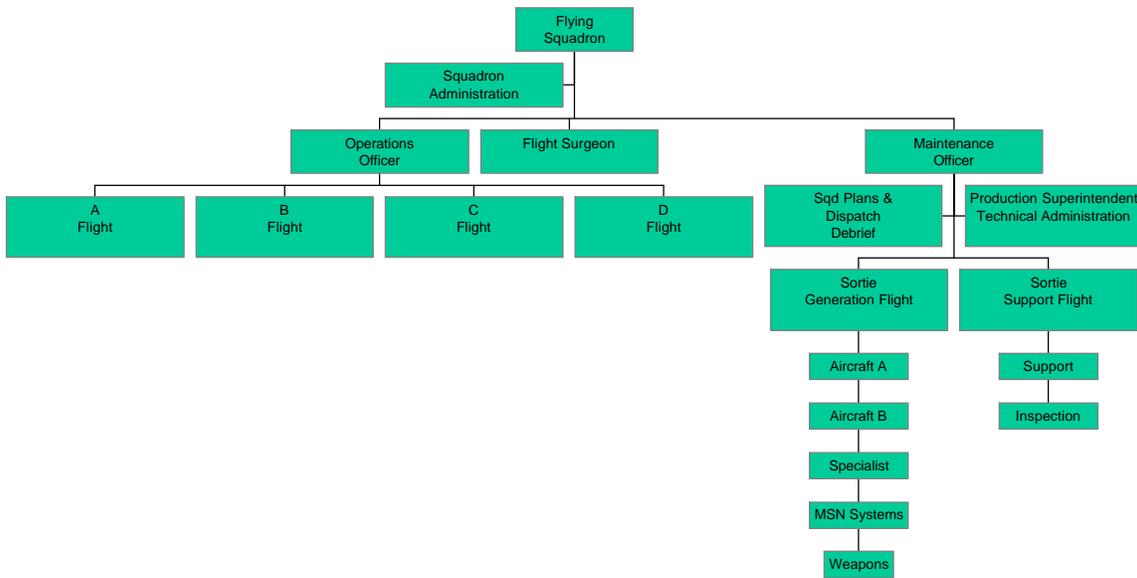


Figure 2. Operational Flying Squadron Organization²²

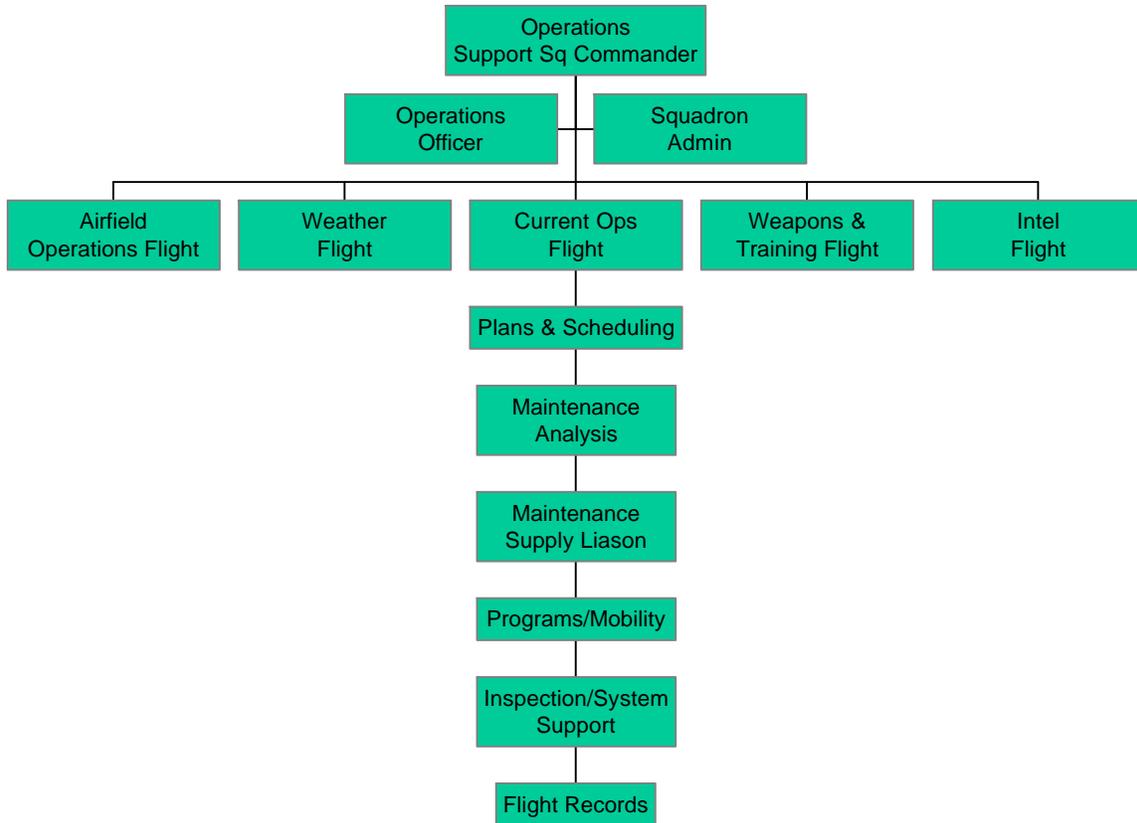


Figure 3. Operations Support Squadron organization²³

The importance of these organizations regards manning. This structure is used by the manpower personnel to delineate the number of personnel assigned to the wing based on aircraft type and number of primary assigned aircraft. It also is important to note the structure did not change when the squadrons changed from 24 PAA to 18 PAA..

Notes

¹ Lt Col Charles M. Westenhoff, *Military Air Power: The CADRE Digest of Air Power Opinions and Thoughts* (Air University Press, Maxwell AFB, Alabama, 1990), 174.

² Bruce D. Callander, "A Talk with the Personnel Chief," *Air Force Magazine*, December 1997, 33.

³ *Ibid.*, 32.

⁴ *Ibid.*, 32.

⁵ Samuel Greengard, "Don't Rush Downsizing: Plan, Plan, Plan," *Personnel Journal*, November 1993, 64-76.

Notes

- ⁶ Ibid., 65.
- ⁷ Ibid., 65.
- ⁸ “The Downside of Downsizing.” *Psychology Today*,. October 1993, 21-22.
- ⁹ Ibid., 22.
- ¹⁰ Greengard, “Don’t Rush Downsizing: Plan, Plan, Plan,” 66.
- ¹¹ Ibid., 68.
- ¹² Ibid., 66
- ¹³ Ibid., 68.
- ¹⁴ Ibid., 75.
- ¹⁵ Charlene Marmer Solomon,. *Working Smarter: How HR Can Help*, Personnel Journal. Jun 1993, 54.
- ¹⁶ Ibid., 56.
- ¹⁷ Ibid., 56.
- ¹⁸ Ibid., 56.
- ¹⁹ Ibid., 57.
- ²⁰ Samuel Greengard, “Don’t Rush Downsizing: Plan, Plan, Plan,” 76.
- ²¹ Air Combat Command Instruction 21-166. *Organization*, Langley AFB, Va., May1994, 16.
- ²² Ibid., 17.
- ²³ Ibid., 17.

Chapter 3

The First Force Reduction

Rationale for the Reduction

In the post Cold War era, as part of the overall decline in defense budgets the Chief of Staff of the Air Force directed all fighter squadrons be reduced from the traditional size of 24 aircraft to 18 aircraft, a 25 percent reduction. By 1997, almost all squadrons have been reduced to this smaller size; likewise reducing most wings by 25 percent from 72 to 54 aircraft.¹ The Air Force cited flexibility as the reason for the reduction in squadron size as opposed to reducing the number of squadrons. It cited increased operational deployment flexibility as the primary benefit of using smaller-sized squadrons. The Air Force's hesitation in reducing squadrons reflected the new security environment characterized by multiple contingency operations and the possibility of nearly two major regional conflicts. However, the General Accounting Office (GAO) found "the Air Force would have considerable deployment flexibility even if the aircraft remained in the former 24-aircraft configuration."² The GAO continues saying fighters are accounted for in terms of "fighter wing equivalents" which underscores that fighters are stated in terms of total aircraft not squadrons. In addition, the report cites officials at Ninth Air Force who state, "the primary use of squadron organizations in a regional

conflict is to manage the daily flight shifts and that squadron structures become almost invisible because all aircraft are controlled by the theater's air component commander.”³

The Air Force also cites “span of control,” the ability to effectively manage personnel for which they are responsible, as a reason for smaller squadrons. However, span of control issues are difficult to imagine as critical since the change to smaller squadrons only reduced manning by 10 percent or 30 people per squadron. The GAO report stated in discussions with a number of wing and squadron officials that “span of control” had never been an issue.⁴

The GAO determined the Air Force's reduction in squadron size was “never evaluated in a systematic manner, nor supported by documented studies.”⁵ The GAO states the real reason for moving to smaller squadrons was to “minimize the reduction in wing and squadron commands.”⁶ The Air Force considered command reductions inappropriate during the ongoing base realignment and closure process. Regardless of the rationale, the wings were required to execute the drawdown.

1st Fighter Wing Reduction

In early March 1994, Air Combat Command (ACC) sent a message to the 1st FW to initiate the planning for the “de-bust” of the 1st FW from 72 aircraft to 54 aircraft. By 1994, the Air Force thought it had an excellent understanding of how to eliminate or drawdown aircraft and people. The 1st FW tapped into ACC's expertise and formed a Site Activation Task Force (SATAF). This SATAF did not work without experience. Eglin AFB and the 33^d Fighter Wing had recently completed their drawdown; therefore, the 1st FW SATAF used Eglin's lessons learned as a guide.⁷

The SATAF's mission was daunting. Eliminating 18 aircraft and all of the associated people and parts would take the dedicated effort of many people looking at logistics, operations, manpower and organization, personnel and financial management. Eventually, the 1st FW would spend a total of \$918,143 to transfer 18 aircraft.⁸ To detail exactly how the SATAF accomplished its mission is beyond the scope of this paper, but I would like to focus on how the pilot reduction was derived and its implications.

Using the 1st FW as an example effectively illustrates the problems Eglin's 33^d FW also experienced. The 1st FW followed the guidance outlined in ACCI 21-166. Within the Ops GP there are four squadrons, the 27th Fighter Squadron (27th FS), the 71st Fighter Squadron (71st FS), the 94th Fighter Squadron (94th FS) and the 1st Operational Support Squadron (1st OSS) as well as some other non F-15 flying organizations. Each squadron is authorized a number of officers to fulfill certain roles and responsibilities. These authorizations are given based upon Air Force Instructions and are delineated in manning documents. However, the 1st OSS has certain responsibilities and jobs, which are required, but do not have officers assigned to fill those positions. In those cases, the fighter squadrons provide the manpower to fill those positions.⁹

The equation used to determine the manning is very simple. A fighter squadron is authorized 1.25 pilots for each primary assigned aircraft plus an additional squadron commander and operations officer. On 1 September 1994, the 71st FS was authorized 24 primary assigned aircraft; therefore, the squadron was authorized 30 pilots plus the commander and operations officer. However, on 1 October 1994, the 71st FS authorization changed to 18 primary assigned aircraft; therefore, the squadron was authorized 23 pilots plus the commander and operations officer.¹⁰ This decrease was

exactly the same in the 27th FS and the 94th FS. In reality, there was a transition period and there were no draconian cuts from one day to the next, but it is important to note that the SATAF determined these numbers based upon my example. The positions eliminated were line pilots, pilots whose responsibilities resided within the squadron. No consideration was given where the cuts came from within the squadron. The management of who would fill these cuts was left up to the squadron commanders with the following guidance. All of the positions at the Wing level and 1st OSS filled prior to the cuts were still required to be filled after the cut.¹¹ In effect, this meant the brunt of the reduction in manpower occurred within the squadron.

The 21 pilot reduction was handled over a gradual period. The Operations Group Commander determined that pilots who had been on station the longest amount of time needed to start looking for jobs. Through changes in assignments and pilots getting out of the service, the required manning reductions were achieved by January 1995.¹²

ACCI 21-166 delineated how to set-up the “Objective Squadron.” The reduction in manning did not affect how the squadron was structured at all. However, it did affect the distribution of personnel within the squadron. An example is in order. I will use the 71st FS as my comparison tool. Realize the 27th and 94th FS are dealing with the same situation, but may have modified its distribution of people somewhat differently. Figure 4 displays the operations side of the squadron organization.

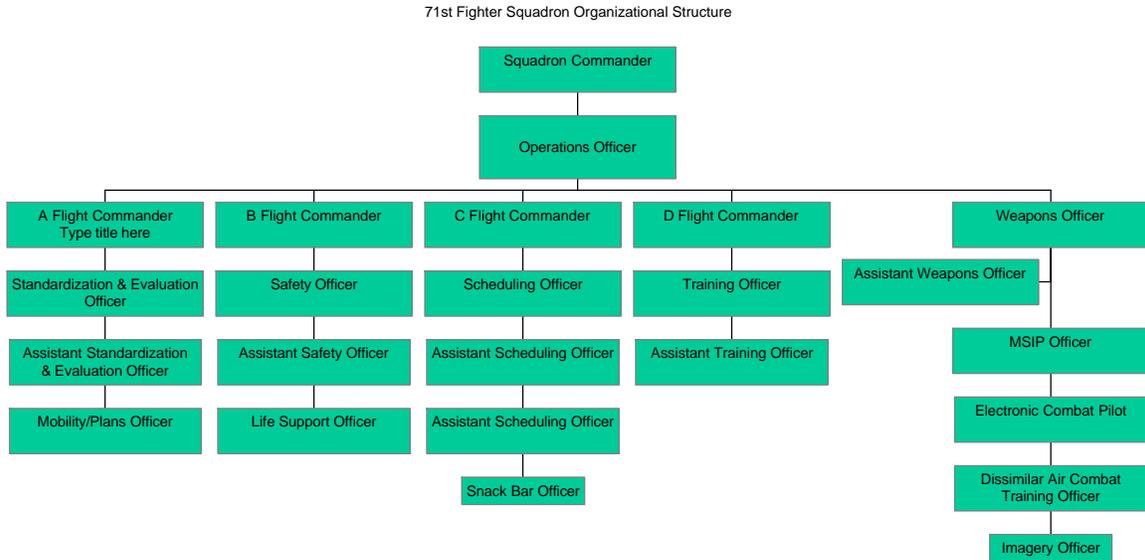


Figure 4. 71 Fighter Squadron Organizational Structure June 1994¹³

Figure 4 is based upon the 71st FS as it looked in June 1994. Remember the squadron was authorized 30 pilots plus the commander and operations officer. Note there are 22 primary assigned jobs plus the six additional jobs which the squadron members held at the wing/group level displayed in figure 5.

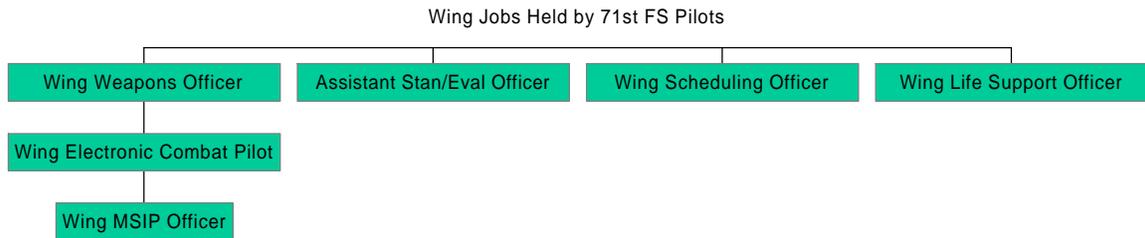


Figure 5. Wing Jobs Held by 71st FS Pilots¹⁴

In June 1994, the squadron had 90 percent of its authorized manning rate, 27 of the 30 pilots authorized.¹⁵ As illustrated everyone in the squadron had a job. Most of the important jobs had assistants who were assigned to help cover TDY and leaves ensuring the jobs were accomplished.

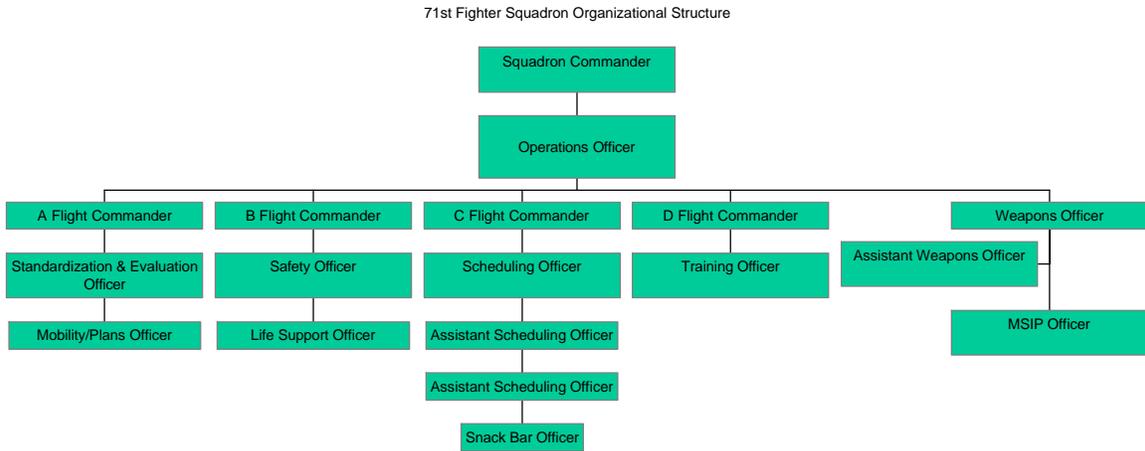


Figure 6. 71st Fighter Squadron Organizational Structure May 1995¹⁶

Figure 6 shows the squadron as of May 95. Remember the squadron was authorized 23 pilots plus the commander and operations officer. Note there are 16 primary assigned jobs plus the six additional jobs which the squadron members held at the wing/group level displayed in figure 7.

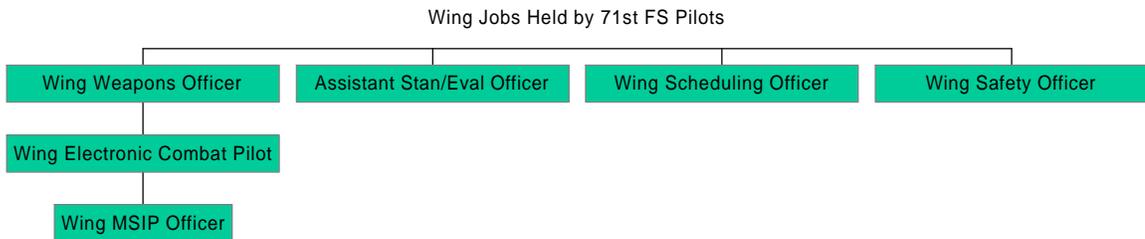


Figure 7. Wing Jobs held by 71st FS pilots in May 1995¹⁷

In May 1995, the squadron was at 90 percent of its authorization rate. The squadron had 21 of the 23 authorized.¹⁸ As illustrated everyone in the squadron had a job. Note that most of the jobs do not have assistants assigned to help cover TDY, leaves etc. As a result, pilots performed two jobs much of the time to help cover the primary worker while he is away. This also meant the majority of jobs had fewer people to distribute the workload. The Weapons and Tactics shop is a primary example.

The Weapons shop of a fighter squadron prepares the squadron for its primary mission, fighting in combat. The Weapons Officer is tasked with monitoring and enhancing the combat capability of the squadron. By comparing figures 4 and 6, you can see the 71st FS Weapons shop lost half its manpower. In May 1995, Capt Stuart Johnson, 71st FS Weapons Officer, stated it this way; “My manning is at the critical point. I can no longer allow my shop to accomplish the nice to do things. I only worry about the mission essential elements.” Johnson goes on further to say, “This affects the way my shop operates since no one has time to read all of the latest tactics developments, or prepare a Weapons and Tactics Trainer competition. The bottom line is it really puts me into the reactive mode as opposed to driving the fight.”¹⁹ He summed up his view of the situation with these words, “I’ll get the job done, but it reminds me of a quote from a previous Operations Officer, ‘I’ll find a good horse and ride him till he drops, then I’ll find me another good horse.’”²⁰

This force reduction ties directly into what Greengard says about planning downsizing. Good planning helps eliminate morale problems, makes sure you only are eliminating fat and not cutting the muscle and bone and finally eliminates unnecessary work so you don’t overwork the people. From the actions taken during the 1st FW force reduction, it doesn’t appear that current management theory was applied.

Another problem with the manning reduction deals with how to best develop effective fighter pilots. The McDonnell Douglas F-15C Eagle, flown by the 1st FW, is an extremely complex weapon system. The F-15C has an air combat victory ratio of 95-0 making it one of the most effective air superiority aircraft ever developed.²¹ A Multi-Stage Improvement Program (MSIP) incorporated advanced avionics upgrades further

improving the F-15C's lethality. However, these upgrades have also made the aircraft more complex. In 1995, Lt Col Tim Wolters, the 1st FW Safety Officer and a Fighter Weapons School Graduate remarked about the dramatic differences. "Back in 1981, when I was a Lieutenant all we had to shoot were AIM-9Ps and AIM-7Fs basically requiring you to get within visual range of the target. We didn't worry about launch and leave versus launch and defend tactics, because if we did merge with the bandit we could outperform any aircraft out there. Today, it's a totally different ballgame. The complexities of the machine and required subsequent knowledge of enemy threats simply amaze me. We are so much smarter than we were just ten years ago, it's mind boggling!"²² This complexity and advanced knowledge requires a tremendous amount of time spent studying. According to Capt Tom Dean, 1st FW Weapons Officer, stunting our young pilot's development through excessive additional duties is the problem with the 18 PAA manning situation.

Captain Dean related how in the past a newly mission ready qualified F-15C pilot in the squadron wouldn't be given a job or at least not a time consuming job. Instead, he would be expected to spend the majority of his free time in the squadron weapons vault studying. It wasn't until maybe six months to a year after being mission ready that the young guys were given jobs of significant responsibility. Captain Dean goes on to say, "Under the present system we are using our young guys to fulfill a short term need, but in the long run we are hurting ourselves because we are not creating the most effective young fighter pilots we can."²³

In 1995, the senior leadership acknowledged using young pilots to accomplish squadron additional duties could cause potential problems, but also realized that the

mission needed accomplishment. Lt Col Jeff Brown, 71st FS Operations Officer, stated, “I realize that I’m putting my young guys in a tough situation, but the mission has to be accomplished and I can only operate with the resources I’m given.”²⁴ Besides worrying about the manning situation, Colonel Brown was also concerned about the operational pace. “The training TDYs aren’t the problem, people enjoy the Flag exercises. The problem isn’t even Iceland the challenge is SWA. Motivating your people to go back for another 90-day rotation after the majority has just returned from 120 days in the desert last year is tough. I know the SWA rotation causes a tremendous amount of family stress.”²⁵

OPTEMPO Problems

Operational tempo issues are debated at the highest levels of the Air Force. In 1994, Gen Ronald Fogleman, the Air Force Chief-of-Staff, said, “There’s clearly an operational tempo question. What is the safe zone for deployment time? We want under 120 days of deployment per year for people.”²⁶ Meeting the goal of 120 days of deployment per year per person was extremely difficult for the 1st FW fighter squadrons before the pilot reductions. After the force reductions it was impossible. Tables 1 and 2 below compare the operational deployments of the fighter squadrons from April-October 1994 and November 1994-May 1995.

Table 1. 1st FW Deployment History.²⁷**DEPLOYMENTS APRIL –OCTOBER 1994 24 PAA**

Unit	Exercise	Dates	Location	Deployed
94 FS	Green Flag	26 Mar-9 Apr	Nellis AFB, NV	10 F-15s
27 FS	WSEP 94	8-23 Apr	Tyndall AFB, FL	8 F-15s
94 FS	Coronet	29 Apr-12	MayAl Jafr, Jordan	8 F-15s
	Orion			
27 FS	Coronet Star	31 May-17	JunCambrai, France	8 F-15s
94 FS	Longshot '94	23 Jun-25 Jun	Nellis AFB, NV	4 F-15s
71 FS	SOUTHERN WATCH	6 May-10 Oct	Dhahran, SA	8 F-15s
94 FS	WSEP	24 Jul-6 Aug	Nellis AFB, NV	8 F-15s
71 FS	Volk Field	4-13 Aug	Volk Field, WI	4 F-15s
1 FW	WIC Support	17 Aug-2 Sep	Nellis AFB, NV	10 F-15s
27 FS	SOUTHERN WATCH	30 Aug-20 Dec	Dhahran, SA	**
27 FS	VIGILANT WARRIOR	11 Oct-12 Dec	Dhahran, SA	9 F-15s
1 FW	William Tell	11-25 Oct	Tyndall AFB, FL	6 F-15s

** The 27th FS flew the F-15s in-place from the 71st FS's deployment

Table 2. 1st FW Deployment History .²⁸**DEPLOYMENTS NOVEMBER 1994-10 MAY 95 18 PAA**

Unit	Exercise	Dates	Location	Deployed
1 FW	Cajun Eagle	29-30 Nov	Cannon AFB, NM	4 F-15s
71 FS	Keflavik	6 Jan-4 Apr	Keflavik, Iceland	5 F-15s
94 FS	Red Flag	7-21 Jan	Nellis, NV	8 F-15s
71 FS	Cajun Eagle	10-12 Jan	S. Johnson, NC	2 F-15s
71 FS	Iron Fang	10-17 Feb	Cecil Field, FL	7 F-15s
27 FS	WIC Support	3-17 Mar	Tucson, AZ	12 F-15s
27 FS	Green Flag	18 Mar-1 Apr	Nellis, NV	12 F-15s
71 FS	Green Flag	1 Apr-16 Apr	Nellis, NV	10 F-15s
94 FS	DACT	3-11 Apr	Homestead AFB, FL	6 F-15s
27 FS	Long Shot	27-29 Apr	Nellis AFB, NV	4 F-15s

By comparing the two seven month periods, you see the pace of the 1st FW is brisk. Several areas should be noted. First, in Table 2, the squadrons are 18 PAA versus 24 PAA in Table 1. Therefore, when the squadron deploys a greater percentage of its pilots must go on the deployment. Note in Table 2, there are two 12 aircraft deployments. This means at least 66 percent of the squadron pilots went on that TDY. In reality 85 percent of the squadrons pilots went on those deployments.²⁹

Note, in Table 2, no squadrons had deployed to SWA. Both the 71st FS and 94th FS rotated to SWA within six months for 90 days each with the entire squadron deploying. When you add these deployments, you find the majority of pilots in the 71st and 94th exceeded 120 days TDY. The 27th FS pilots hovered just around the 120 days deployed figure.

The last item to note about OPTEMPO is while pilots are TDY; their additional duties do not go away. For the short training TDYs, upon arrival back home, the usual requirement is to catch up on paperwork and deadlines missed. For extended TDYs to SWA, the work is brought along and accomplished at the deployed location. The combination of the pace, additional duties and flying schedule all contribute to a stressful and fatiguing work environment which validates Mitchell Marks management theory. Doing more or even the same amount with less leads to predictable outcomes.

The loss of aircraft also affects maintenance and the flying schedule. Losing six aircraft equates to fewer aircraft available to fill the schedule or to cannibalize for parts. This reduces maintenance supervisor's flexibility because they must manage the phase and depot jets with less room for error. In addition, a jet that is performing poorly, i.e. breaking often has a bigger impact since it represents a larger portion of the flying

schedule. The 33^d FW Operations Group Commander (OG/CC) summarized some of the maintenance concerns in an October 1995, message. He states.

Aircraft and equipment maintenance continues to concern us as ops tempo increases, Deployed flying with long mission length such as SOUTHERN WATCH and Iceland causes both accelerated wear and more frequent phase inspections. As an example of accelerated wear, eighteen 33^d wing aircraft deployed to SWA last year flew their entire squadron yearly flying hours plus 25 percent while deployed for six months. The average airframe time on 33^d FW jets is 3300 hours. This is over 1000 hours more than the 366th FW flying same year jets, but not flying SWA rotations. The increased phase work limits the availability of jets and number of front lines both while deployed and at home station. High ops tempo to support training deployments and conus tasking becomes increasingly difficult as jet availability declines. The higher aircraft availability required by increases in Utilization (UTE) rate will cause accelerated phase inspections and fleet aging. We address immediate challenges by working more shifts. However, we are now working not only with fewer people, but people with less experience. The supervisory challenge is to ensure safety and not cause a decline in quality of life. Limited parts availability adds to the operational challenge. With the fleet aging, aircraft reliability has reduced and this increases our maintenance tempo. As we continue to do more with less, additional tasking accelerates both the ops and maintenance cycle. Length of duty day (9.5 hours to 10.5 hours), number of pilot TDY days (140 to 160 days), and quality of life survey negatives have been increasing. Hidden cost on our people include the stress of competing demands among mission, peacetime training, professional development, advanced education, family and a 24-hour day. At some point these competing demands may affect safe performance.³⁰

This message from the Operations Group Commander substantiates management theory. The Commander's personnel have to work longer, with fewer resources and less experienced personnel. The outcome is predictable as both Solomon and Marks forecast stressed out workers!

Readiness

The AF senior leadership was determined to maintain a capable force, so even though we had absorbed a force structure cut, the UTE rate for aircraft remained steady at

20. This relatively high UTE rate combined with a decrease in aircraft availability resulted in squadrons needing to surge at least once a month to comply with required flying hours. Even though operations and maintenance were having to work harder since no task had been reduced but personnel removed, the combat capability of the 1st FW during this period remained stable. The 1st FW was reporting that it was capable and ready to accomplish its wartime mission. However, there were concerns within the wing leadership regarding the overall training the wing was receiving. The major contributor to the fears of degradation was operation SOUTHERN WATCH. A report prepared for the Wing Commander showed the Wing's training goal of 14 sorties per pilot over the August – December 1994, timeframe was not met. In addition, the Wing failed to meet the goal of two dis-similar air combat training (DACT) sorties per month. Finally, the rate of overdue ground training items for maintainers increased from under 50 in August to over 450 in December.³¹

The 33^d FW OG/CC noted the same problems saying in message traffic.

Quality of training reduces as OPTEMPO increases as a result of several factors. First, limited opportunities to fly training and upgrade missions while deployed in SWA reduces BFM and ACT skills, weapons employment, and G tolerance. Pilots returning from SWA require a good portion of available training sorties to “Re-blue”, and upgrade in those programs not available in SWA. Second, the increasing turnover rate of pilots moving every three years combined with the higher OPTEMPO have taken what was formerly a steady MR upgrade program and compressed it into surges within the squadrons during the year. The associated “Red Air” requirements to support this training require MR pilots to use CT sorties as adversary simulators and subtract from “Blue air” training. Third, flying additional sortie surges (to meet flying goals with an increased UTE rate) reduces quality training because of limited debrief time.³²

The problem is systemic to the nature of the Saudi deployments. The number of SOUTHERN WATCH deployments was predictable with the 1st and 33^d FW splitting the

rotations for the air superiority requirement levied by the Commander of US Central Command (CINCCENT). However, the Air Force created the Air Expeditionary Force (AEF) concept. AEFs are Composite Wing deployments to bare base locations in SWA. The AEF deployments exacerbated the OPTEMPO because this deployment created a new rotation for a squadron to absorb. These additional deployments meant each squadron in each wing had a high probability of deploying to SWA each year. In addition, when the squadrons deploy to SWA they must deploy on a wartime footing with the capability for sustained 24-hour operations. This requirement means additional pilots and maintainers must be obtained from other squadrons or the Group to satisfy the manning ratios. However, the drawdown to 18 PAA results in a smaller pool of pilots and maintainers; thereby, exacerbating the personnel tempo problem with possible multiple SWA rotations in a three year assignment.

Iceland

The addition of the Icelandic Alert commitment accentuated the OPTEMPO problem. This deployment consisted of the 1st FW and 33^d FW maintaining four or five aircraft with pilots and maintenance crews in Iceland for 90 days. Besides accelerating the personnel tempo, this deployment created unique problems for the different wings because of the approach each wing took to fulfill the commitment. The 1st FW rainbowed the deployment. This meant it took aircraft, pilots and maintenance from all of the squadrons. The pilots would rotate every two to three weeks and maintenance every 30 days. This distributed the load throughout the wing thus minimizing the impact at Langley. The 33^d FW took a different approach. They assigned one squadron the rotation for the entire 90-day period. This meant pilots rotated every three to four weeks

and maintenance every 45 days. This approach significantly impacted the ability of squadron to fly local training sorties at Eglin. With five F-15s off station, one or two in depot, one in phase inspection and one or two broken it was difficult to maintain an adequate schedule. The lack of flying made it difficult to maintain pilot proficiency and training requirements for the maintenance personnel thus accentuating the training problem already created by SWA deployments.

Going Hollow

The net effects of the reduction in aircraft without an associated restructuring of the organizational structure, the increased operational tempo being deployed to the desert, Iceland and other training exercises resulted in no reported reduction in combat capability. However, having to achieve 12 months of training requirements in nine months of training time combined with an increased workload created morale and frustration problems. Senator John McCain in his report *Going Hollow: The Warnings of the Chiefs of Staff* in September 1994, identified these same problems across the DOD. He noted.

Although it is difficult to measure the level of current dissatisfaction, it is important to recognize the serious effects of a hollowing force on retaining people. While the number of people in uniform has decreased, commitments for those remaining have increased because the services are asking fewer people to do more with fewer resources. The Readiness Task Force reported an increased rate in suicide and family violence. Poor quality of life and low job satisfaction affect performance in any organization. It is now becoming more challenging for commanders to maintain the buildings in which people work and live because they do not have funds for repairs...highly skilled mechanics are being told to cannibalize planes as a regular means of repair.³³

Gen Fogleman substantiated these comments by stating, "Repair parts shortages are causing critical problems in maintaining sufficient levels of F100 engines (for F-15s) ...

Because of this parts shortage we've had difficulty maintaining adequate engine serviceable stock to meet our requirements and have had some holes in aircraft." He goes on to say "We've seen a subtle rise in overall cannibalization rates."³⁴

Senator McCain also discussed the high OPTEMPO problem. He said.

High OPTEMPO does not mean the services are training. Rather, at the present time it means just the opposite. We learned that OPTEMPO is high not because units are training, but because they are supporting non-traditional operations. Readiness is perishable, and the high level of readiness evident in DESERT STORM is withering as training tempo is reduced. Units deploy for these operations with 100 percent of their billets filled. This puts pressure on the personnel system to send people with critical skills, such as mechanics, back to deploying units because those billets need to be filled. This creates subsequent strain on families and non-deployed units as people with critical skills are deployed overseas repeatedly.³⁵

Gen Fogleman said it best testifying, "Over the last seven years we have had a four-fold increase in deployment obligations, as we have been drawing down the Air Force by nearly one-third to meet Congressionally-mandated end strength requirements."³⁶

The F-15C drawdown was a little microcosm of the entire DOD and demonstrated the same problems highlighted by Senator McCain. Proper application of management theory makes many of these problems avoidable; however, operating in a new strategic environment with tremendous demands on the wings, left the leadership little time to plan. The leadership did the best job they could with the resources allotted. However, the restructuring of the military was far from over, the next round of cuts would come with the QDR.

Notes

¹ General Accounting Office, *Air Force Aircraft: Consolidating Fighter Squadrons Could Reduce Cost* (Washington DC, General Accounting Office, 6 May 1996), 2.

² *Ibid.*, 3.

Notes

- ³ Ibid., 4.
- ⁴ Ibid., 4.
- ⁵ Ibid., 4.
- ⁶ Ibid., 5.
- ⁷ History, 1st Fighter Wing “F-15 Drawdown SATAF,” 1 March 1994.
- ⁸ History, AF Historical Document 1st FW History, 1 July 1992-30 June 1993, 20.
- ⁹ 1st Operational Support Squadron/Manpower Office, *1st Operations Group Manning Summary*, May 1995
- ¹⁰ Ibid.
- ¹¹ 1st Fighter Wing. F-15 Drawdown SATAF,” 1 March 1994.
- ¹² Ibid.
- ¹³ 1st Operational Support Squadron/Manpower Office. *1 Operations Group Manning Summary*. May 1995
- ¹⁴ Ibid.
- ¹⁵ Ibid.
- ¹⁶ Ibid.
- ¹⁷ Ibid.
- ¹⁸ Ibid.
- ¹⁹ Captain Mark C. Nowland, “A Study of F-15 Pilots” (Embry Riddle University Graduate Research Proposal extended Campus, Langley AFB, Virginia, 1995), 11.
- ²⁰ Ibid., 11.
- ²¹ History, 1st Fighter Wing Historian. *Deployment History*. May 1995.
- ²² Nowland, “A Study of F-15 Pilots,” 11.
- ²³ Ibid., 12.
- ²⁴ Ibid., 12.
- ²⁵ Ibid., 13.
- ²⁶ Michael A. Dornheim, “Fogleman To Stress ‘Stability’ After Deep Cuts,” *Aviation Week & Space Technology*, 7 November 1994, 28.
- ²⁷ History, 1st Fighter Wing Historian. *Deployment History*. May 1995.
- ²⁸ Ibid.
- ²⁹ Ibid.
- ³⁰ Message, 061300Z, 33^d FW OG to ACC/DO 06 October 1995.
- ³¹ History, AF Historical 1st FW History, 132.
- ³² Message, 061300Z, 33^d FW OG to ACC/DO 06 October 1995.
- ³³ Senator John McCain, *Going Hollow: The Warnings of the Chiefs of Staff: An Update*, 103rd Cong., September 1994. 7.
- ³⁴ Ibid., 8.
- ³⁵ Ibid., 8.
- ³⁶ Ibid., 12.

Chapter 4

Quadrennial Defense Review Implications

One can never have too many guns; one never has enough¹.

—Napoleon

The QDR released its report in May 1997, resulting in a modest force reduction in fighter aircraft. The report stated, “The Air Force is consolidating its fighter, bomber and theater airlift squadrons, increasing the number of aircraft in each squadron while decreasing the number of squadrons. It is also reducing intermediate headquarters to streamline its command structure. These actions, together with infrastructure efficiencies, will result in the following personnel reductions: Active 26,900.”² The impedance for this fighter force consolidation is economic. With a stagnant defense budget of \$250 billion 1996 dollars the service leadership looked for any cost savings they could find. They found a target in 18 PAA fighter squadrons.

The GAO in the report *Air Force Aircraft: 18 Vs 24 PAA Squadrons* said,

The organizational structure of the Air Force’s fighter force is not cost-effective. By operating F-15s and F-16s in smaller squadrons, the Air Force increases the number of squadrons above the number that would have been used in the traditional 24-aircraft configuration. The result is increased operating costs and slowed progress in reducing infrastructure costs. Although the Air Force considers smaller squadrons beneficial, it has not undertaken any studies to justify its decision. The Air Force’s arguments for using smaller squadrons do not justify the additional costs. We evaluated a range of options for consolidating squadrons that could reduce operating cost by as much as \$115 million annually or by more than \$745 million over the Defense planning period of fiscal years 1997-

2002. In addition, consolidating squadrons could result in base closures, reducing infrastructure cost by about \$50 million yearly per base closing.³

The report explains,

Organizing the fighter force into 24-aircraft squadrons reduces the total number of squadrons and results in more economical operations than squadrons of 18 aircraft. For example, annual operating cost for 72 F-15s are about \$12 million less if they are organized into squadrons of 24 aircraft instead of squadrons of 18.⁴ The annual savings are primarily due to reduced military personnel requirements, in such areas as command, staff, administrative and maintenance. The savings cost associated with reduced military personnel requirements accounts for about 70 percent of the total savings, of which over 90 percent is enlisted pay. Also, larger squadrons allow maintenance specialty shops to be used more efficiently, requiring little or no change in staffing.⁵

33^d FW Implications

The QDR recommended changing the mix of active and reserve fighter wings from 13 active and seven reserve FWEs to 12+ active and eight reserve FWEs. The first impact of this reduction for F-15C's occurred in October 1997, when the 33^d FW closed the 59th FS.⁶ The aircraft from the squadron shifted to the 58th and 60th FS. Although the squadrons are now reestablished at the traditional 24 PAA standard, the wing is now in an untraditional convention of only two flying squadrons versus the traditional three flying squadrons. This new two-squadron wing reduces the 33^d FW force structure by 12 percent from 54 aircraft to 48. Examination of the wing structure shows the wing did not change the organizational overhead structure. Thirteen pilots filled staff positions before and after the closure of the 59th FS.⁷ Within the wing structure, larger squadrons provide a benefit since young pilots no longer have to perform additional duties. This allows the new pilots time to study, learn and practice thus maturing into the weapon system.

The real impact of losing a squadron will be the personnel tempo (PERSTEMPO). The impact of AEFs and Saudi rotations will be inevitable. With one less squadron to select to fill the CINCs requirements, the rate of deployment for the other F-15 squadrons will increase. The 33^d FW demonstrated this increase in the past seven months. Table 3 displays the impact. In the 212-day period from 1 Sep 1997-30 Mar 1998, the 33^d FW Commander had all of his F-15s on station for only 15 days.

Table 3. 33^d FW Deployment Schedule Sep 97-Mar 98 ⁸

Date	Location	Unit	Number of F-15s
25 Aug-7 Sep	FWIC	59 th	11
13-20 Sep	FWIC	60 th	11
1 Oct-31 Dec	Iceland	60 th	5
29 Oct-21 Nov	FWIC	58 th / 60 th	16
21 Nov –20 Jan	AEF	58 th	12
20 Jan – 30 Mar	AEF	60 th	12
1-14 Mar	WSEP	58 th	8

The 24 PAA squadrons make Iceland more manageable for the 33^d FW. The five aircraft off station will have less impact since the squadron's resources in people and aircraft are now greater. The 58th demonstrated this reduced impact by deploying to WSEP while they were deployed to Iceland in November 1997.

1st FW Implications

The 1st FW announced on 10 Feb 1998, that it would receive 12 more aircraft. The aircraft are coming from the closure of the 53^d FS at Spangdahlem AB, Germany.⁹ The

wing will increase from 54 aircraft to 66 aircraft. Currently, the new wing structure is undecided. It may increase to three squadrons of 22 or two squadrons of 24 and one of 18 aircraft. Regardless of however Langley restructures, the impact of fewer F-15C squadrons will be the same for both Eglin and Langley with respect to AEF and SWA rotations. If the load is not spread out amongst all of the combat Air Forces (CAF) then they should expect yearly rotations to SWA. Col William Carpenter, 1st FW vice commander, in March 1997, testimony to the House Subcommittee on Military Readiness in comments about readiness said,

Throughout 1996, Langley units fulfilled over 2,100 deployment taskings, with an average of over 500 wing airmen deployed in any single month, the majority of the TDY lengths was over 90 days. The impact is two-fold, our people are deploying more often and for longer periods and the troops who stay home have to work harder to pick up the slack for those who are TDY.¹⁰

The high OPTEMPO problems described by Senator McCain and the 33^d FW OG/CC will not go away. The high SWA deployment rate forces wings to accomplish 12 months of training in nine months creating the same problems no matter how many aircraft are assigned to the squadron. Unfortunately, the SWA and AEF rotations are not going to go away, so how can force structure or manning be used to help alleviate the situation?

Notes

¹ Lt Col Charles M. Westenhoff, *Military Air Power: The CADRE Digest of Air Power Opinions and Thoughts* (Air University Press, Maxwell AFB, Alabama, 1990), 93.

² William S. Cohen, *Report of the Quadrennial Defense Review*. (Washington D.C., May 1997), vii

³ General Accounting Office, *Air Force Aircraft: Consolidating Fighter Squadrons Could Reduce Cost* (Washington DC, General Accounting Office, 6 May 1996), 2

⁴ *Ibid.*, 5

Notes

- ⁵ Ibid., 6
- ⁶ Maj Joanne Kile, Air Staff Briefing Slide,
- ⁷ History, 33^d FW Historian
- ⁸ History, 33^d FW Historian
- ⁹ “Force Structure Changes Announced”, *Air Force News Service*, 10 Feb 1998, available from http://www.af.mil/news/Feb1998/n19980210_980170.html
- ¹⁰ “Military Members Voice Readiness Concerns at House Subcommittee”, *Air Force News Service*, 12 March 1997, available from http://www.af.mil/news/Mar1997/n19970312_980170.html

Chapter 5

Solutions

I have flown in just about everything, with all kinds of pilots in all parts of the world—British, French, Pakistani, Iranian, Japanese, Chinese—and there wasn't a dime's worth of difference between any of them except for one unchanging, certain fact: the best, most skillful pilot had the most experience.¹

—Charles E. “Chuck” Yeager

Air Force Solutions

On 10 July 1997, the Commander of Air Combat Command directly addressed the OPTEMPO problem SWA creates by proposing to CINCCENT and receiving his approval to change the rotation timeframe individuals deploy to SWA. Previously, pilots rotated every 90 days, but in May 1997, CINCCENT changed to 45-day rotations.² This solution definitely reduces the number of days in theater; however, it also requires twice as many pilots from the wing to cover the rotation. Therefore, this solution increases the frequency of deployments for pilots because it did not reduce the overall SWA deployment requirement.

The Air Force also attempted to relieve the pressure from the constant deployments by establishing a recovery period after long deployments. According to General McGinty,

All the commands have implemented a policy-not just for pilots but for everybody-that if they've been away from their families for 45 days or more, we're going to give them a seven-day stand-down period when they get home to get reacquainted. They can take leave or the commander can give them up to a four-day pass. If they want to stay home and be present for duty in an emergency, that's fine, too, but their duty location will be home. If they are gone 90 days or more, we're going to give them two weeks off. That should help this OPTEMPO business.³

Unfortunately for the Air Force, it appears this policy has not solved the OPTEMPO problem, since according to General McGinty "I think what's happening is that people are voting with their feet and separating from the Air Force."⁴ SMSgt Dennis Krebs, a sortie generation flight chief assigned to the 71st FS, said in Congressional testimony in March 1997, when answering why are troops leaving the service, "The top two reasons are that they are tired of working extended shifts because of the lack of help and they are tired of being away from their families."⁵ Time off isn't going to solve the problem; the solution must involve manning, workload and OPTEMPO.

Alternative Solutions

Alternative solutions do exist, these solutions consist of changing manning ratios, eliminating administrative workload and finally creating associate reserve squadrons. If the AF would increase the manning of the squadrons from a crew ratio of 1.25 to a crew ratio of 1.5, this would alleviate some of the deployment problems. For a 24 PAA squadron, a 1.5 crew ratio adds six pilots. The addition of these pilots allows the squadrons to deploy without having to take additional bodies from another squadron. This increased manning also provides more bodies to accomplish the work within the squadron. Thereby, freeing pilots to spend more time studying and focusing on the primary job of flying and debriefing. The problem with this solution is cost. Six

additional bodies per squadron means additional funding is required for more flying hours to maintain pilot proficiency, training levels and to fund the additional maintenance cost of the extra wear on the aircraft. However, if additional bodies help retain pilots, the overall additional training cost might be mitigated.

Another possible solution is eliminating administrative requirements. This requires appraising the entire spectrum of work a squadron or Group accomplishes and prioritizing the work. The items of low priority should be eliminated. In accomplishing this, management frees personnel to focus on the important tasks. In addition, prioritization creates more time for additional training or to provide time as compensation time for deployments. This solution simply follows current management theory detailed in the beginning of this report. By eliminating the low priority items leaders get away from the do more with less philosophy. This concept requires leadership, because it requires a paradigm shift. Supervisors must accept that they will not receive the same data as in the past, and they must make decisions everyday about what new task they want their personnel to accomplish. This solution requires an investment in time initially, but the exercise of focusing on the important task helps streamline the organization and create a healthy environment.

An off shoot of the work reduction solution is to change the overhead structure of the wing organization. Once each functional area in the wing prioritizes work, it would be possible to identify work accomplished by a pilot that could be accomplished by a non-rated individual. The goal of shifting responsibility is to transfer the work to a NCO or civilian. This solution allows the pilots to go back to the squadrons. The return of pilots to the squadrons has a cascading effect eventually providing the young pilots more time

to focus on mastering the trade. In addition, it provides a full time civilian or NCO to accomplish the Group or Wing level task. This civilian or NCO will not split the responsibilities of the job with flying, thus providing continuity. The advantage of this solution is providing the squadrons the appropriate manning they need to maximize combat capability. Unfortunately, it will cost the Air Force more money to fund additional administrative positions, but this solution is not as expensive as increasing the pilot manning ratios.

The Reserve Component

A more radical approach to solving the F-15C force structure problem involves creating associate reserve squadrons at each of the active duty wings. These units, if allowed to use the wing's existing equipment and facilities, would create a ready reserve of pilots and maintainers. These trained and ready personnel would relieve some of the OPTEMPO problems by picking up or filling in on the short deployments. By using the active duty aircraft and equipment a more efficient seven-day a week operation is created. Lt Col Dan Gladman in his report *Total Force Policy and the Fighter Force* cited some definite benefits from this approach. First he states.

In wartime, the combined active and mobilized ARC aircrews would provide robust manning for sustained around the clock operations. Active and ARC maintenance and support personnel would work and train together to accomplish their assigned peacetime and wartime missions. Studies have shown that this concept could provide a fighter wing (72 aircraft) with the equivalent capability of a full additional squadron (24 aircraft) for approximately 25 percent of the cost of adding an additional active squadron to the wing. Another more subtle benefit would be the harnessing of the political clout of the reserve components---specifically the Guard. The fighter force may benefit from the special political relationship enjoyed by the Guard with the Congress. Potential benefits could include increased funding for facilities, equipment, and personnel programs. While difficult to quantify, closer integration and association

by the active force with the Guard and ultimately the community would undoubtedly result in some additional fallout funding for the fighter force as a whole. ⁶

This program could help solve the retention problem too. If you had a fighter pilot leaving the service, the Air Force could offer him to remain in the reserves right at his present base and continue to fly fighters on a part time basis. In addition, the Air Force could use this as an incentive for those pilots who only want to fly for 20 years, let them serve as active duty advisors to these squadrons. In addition, offering a five-year reserve contract position to active duty members of the squadrons who are departing the Air Force could save reserve-training money. This type of contract allows the reserves to save money since they would not have to pay for weapon system training. It also allows pilots to pursue other jobs such as flying for the airlines, yet still fulfill the Air Force's requirement of having a capable reserve force. Airline pilot/reserve pilot ratios may negatively impact the Civil Reserve Airline Fleet capabilities in times of presidential selective recall. However, in a study titled *Choosing Force Structures: Modeling Interactions Among Wartime Requirements, Peacetime Basing Options and Manpower and Personnel Policies* researchers found that in one model by mixing active and reserve F-16 units allowing up to 20 percent of each components spaces to be filled by members of another component it would be possible to save around \$80 million per year.⁷

One problem with this solution is the OPTEMPO for the active duty forces with respect to SWA remains high. The reserve forces can handle short deployments like Iceland or training TDYs like REDFLAG, but cannot handle the extended 45 or 90-day deployments to SWA. However, for large-scale contingencies where the President performs a partial selective reserve recall, the associate reserve unit option provides a

reserve pool of trained pilots and maintainers. The major obstacle to this solution is the mindset of allowing reserve components to use active duty aircraft and equipment.

Notes

¹ Lt Col Charles M. Westenhoff, *Military Air Power: The CADRE Digest of Air Power Opinions and Thoughts* (Air University Press, Maxwell AFB, Alabama, 1990), 23.

² ACC Retention Web Site, 10 July 1997, available from <http://www.ACC.AF.mil/Aircrew/Done/45day.html>.

³ Bruce D. Callander, "A Talk with the Personnel Chief," *Air Force Magazine*, December 1997, 33.

⁴ *Ibid.*, 33.

⁵ "Military Members Voice Readiness Concerns at House Subcommittee", *Air Force News Service*, 12 March 1997, available from http://www.af.mil/news/Mar1997/n19970312_980170.html

⁶ Lt Col Daniel L. Gladman, *Total Force Policy and the Fighter Force*, Air University Report No. AU-ARI-94-5 (Air University Press, Maxwell AFB, Alabama, April 1995) 51.

⁷ S.C. Moore et al., *Choosing Force Structures: Modeling Interactions Among Wartime Requirements, Peacetime Basing Options, and Manpower and Personnel Policies*, (63rd Military Operations Research Symposium, United States Naval Academy, Annapolis MD, 6-8 June 1995) 8.

Chapter 6

Conclusions

US budgetary constraints are a fact of life. As the F-22 is phased into operation more F-15 squadrons will be eliminated. As this transition occurs, the Air Force must learn from past lessons and make wise decisions in implementing F-15C reductions. As these reductions occur, wing leadership must apply sound business downsizing theory to help reduce the drawdown turbulence. The wing/squadron organizations must reduce unnecessary work and increase the number of pilots available by eliminating overhead structural requirements. This will help prevent doing more with less.

The number of aircraft for each squadron is critical for single seat fighter squadrons. Eighteen PAA F-15C squadrons are not optimum force structures. The reduction of pilots and aircraft increases the cost of wing operations. Without streamlining operations, 18 PAA excessively increases the workload of the people within the organizations. Ultimately, it forces pilots to focus on too many additional duties; not their primary job of learning, studying and practicing to gain our nation's air superiority.

Traditional 24 PAA squadrons are more economical. However, the new 33^d FW structure of two flying squadrons as opposed to three creates challenges and opportunities. The 33^d FW must apply downsizing theory to eliminate inefficiencies. Twenty-four PAA squadrons offer an opportunity for the new pilots to grow in the

weapon system before being saddled with additional duties. Ultimately, the OPTEMPO for the 1st FW and 33^d FW will remain incredibly high given the present SWA and AEF deployments. This OPTEMPO could be solved if the Air Force would sink the up-front cost of creating associate reserve units that are co-located with the active duty squadrons. These units will help reduce the OPTEMPO by filling in the short deployments and relieving some pressure from the active duty forces. In addition, they would act as a capable reserve force deployable upon presidential order.

All of the solutions require an increase in money, but the funds required to reduce pilot's additional duties and creating associate reserve units will be offset by retaining more combat ready-trained pilots. The Air Force must create an environment that allows pilots to focus on being the best trained and most capable in the world. Ultimately it's these pilots who will protect America's vital interest and gain air superiority. Since "air superiority offers the national political leadership the freedom to engage at any time and in any place –in sum, the freedom to exercise national prerogatives. Air superiority is the critical, synergistic enabler for all forms of military power..."¹With that knowledge, it is my hope the Air Force applies the learned F-15C drawdown solutions, so that in the future we won't learn with the blood of any American airman.

Notes

¹ Daniel Goure and Christopher Szara, *Air and Space Power in the New Millennium*, (Washington D.C., The Center For Strategic & International Studies, 1997) 17-18

Glossary

ACC	Air Combat Command
ACCI	Air Combat Command Instruction
ACSC	Air Command and Staff College
ACT	Air combat maneuvering
AEF	Air Expeditionary Force
ARC	Air Reserve Component
BFM	Basic fighter maneuvers
CAF	Combat Air Force
CINC	Commander In Chief
Conus	Continental United States
CT	Continuation Training
DACT	Dis-similar Air Combat Training
DOD	Department of Defense
FS	Fighter Squadron
FW	Fighter Wing
FWIC	Fighter Weapons Instructor Course
GAO	General Accounting Office
MR	Mission Ready
MSIP	Multi-stage Improvement Program
OG	Operations Group
OPTEMPO	Operations Tempo
OSS	Operations Support Squadron
PAA	Primary Assigned Aircraft
PERSTEMPO	Personnel Tempo
QDR	Quadrennial Defense Review
SATAF	Site Activation Task Force
SWA	South West Asia

TDY	Temporary duty assignment
UTE	Utilization rate
WSEP	Weapons System Evaluation Program

Bibliography

- Air Combat Command Instruction (ACCI) 21-166. *Organization*. Langley AFB, Va., May 1994.
- Callander, Bruce D., "A Talk with the Personnel Chief." *Air Force Magazine*. December 1997. 31-34.
- Cohen, William S., *Report of the Quadrennial Defense Review*. Washington D.C.: May 1997.
- Dornheim, Michael A., "Fogleman To Stress 'Stability' After Deep Cuts," *Aviation Week & Space Technology*, 7 November 1994, 28.
- "Force Structure Changes Announced", *Air Force News Service*, On-Line. Internet, 10 Feb 1998, available from http://www.af.mil/news/Feb1998/n19980210_980170.html.
- General Accounting Office. *Air Force Aircraft: Consolidating Fighter Squadrons Could Reduce Cost*. Washington D.C.: 6 May 1996.
- General Accounting Office. *Air Force Fighters: More Reliance On Reserves Increases the Need to Know Their Capabilities*. Washington D.C.: 9 May 1994.
- Gladman, Lt Col Daniel L., *Total Force Policy and the Fighter Force*. Air University Report. No. AU-ARI-94-5.. Maxwell AFB, Alabama.: Air University Press, April 1995.
- Goure, Daniel, and Szara, Christopher, *Air and Space Power in the New Millennium*. Washington D.C.: The Center For Strategic & International Studies. 1997.
- Greengard, Samuel. "Don't Rush Downsizing: Plan, Plan, Plan." *Personnel Journal*. November 1993. 64-76.
- History. AF Historical Document. 1st FW History. 1 July 1992-30 June 1993.
- History. 1st Fighter Wing/ Historian. *Deployment History*. May 1995.
- History. 1st Fighter Wing. *F-15 Drawdown SATAF*. 1. March 1994.
- History. 33d FW Snapshot Book. September 1997.
- Jordan, Bryant. "Life After the Drawdown." *Air Force Times*, May 1995. 12-13.
- Kile, Maj Joanne. Air Staff Briefing Slide.
- McCain, Senator John. *Going Hollow: The Warnings of the Chiefs of Staff: An Update*. 103rd Cong., September 1994.
- Message. 041500Z MAR 94. HQ ACC LANGLEY AFB VA. To 1st FW LANGLEY AFB VA. *ACC Programming Message*. 4 March 1994.
- Message. 061300Z OCT 95. 33OG EGLIN AFB FL. To HQ ACC LANGLEY AFB VA. *OPSTEMPO Feedback for RTRB*. 6 October 1995.
- "Military Members Voice Readiness Concerns at House Subcommittee", *Air Force News Service*, 12 March 1997, On-Line. Internet, available from http://www.af.mil/news/Mar1997/n19970312_980170.html

- Moore, S.C. et al., Choosing Force Structures: Modeling Interactions Among Wartime Requirements, Peacetime Basing Options, and Manpower and Personnel Policies. 63rd Military Operations Research Symposium. United States Naval Academy. Annapolis MD. 6-8 June 1995.
- Nowland, Capt Mark C. A Study of 1st FW F-15 Pilots. Graduate Research Proposal, Embry Riddle University, May 1995.
- 1st Operational Support Squadron/Manpower Office. *1 Operations Group Manning Summary*. May 1995.
- “The Downside of Downsizing.” *Psychology Today*. October 1993, 21-22.
- Solomon, Charlene Marmer. “Working Smarter: How HR Can Help.” *Personnel Journal*. June 1993. 54-58.
- Westenhoff, Lt Col Charles M., *Military Air Power: The CADRE Digest of Air Power Opinions and Thoughts*. Maxwell AFB, Alabama: Air University Press, 1990.