

# Systems Design and Management

## Thesis Overview

**Title:** An Analysis of Retention Issues of Scientists, Engineers, and Program Managers in the US Air Force

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**Notes:** This document is a synopsis but does not build the case nor does it give the necessary background for giving the actual full conclusions or recommendations. For the necessary detail, see the Executive Summary available at <http://mit.cartala.com>

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### Summary

The United States Air Force is having a difficult time retaining their technical officers, who are critical to the success of their research, development, and acquisitions of major military and defense systems. A statistical analysis is conducted on survey data collected, and the analysis seeks to explain the reasons why officers, mostly junior in rank, leave the Air Force after only a short time on active duty. This retention problem leads to fewer higher-ranking officers, since the military only hires from the bottom up. Results of the research show that about 47% of junior officers have intent to leave the Air Force after their initial commitment, which is 4 to 5 years. With nearly half of the Air Force's incoming officer leaving after their initial commitment, the problem is very serious. Job satisfaction and the closely related Air Force assignment system are shown to be the primary problems for junior officer retention. The thesis concludes with recommendations to Air Force leadership on where to focus their retention efforts. Special emphasis is given on how the Air Force may address tangible components of job satisfaction. Policy change recommendations that affect satisfaction levels with the assignment system are also given.

### Thesis Overview

#### *Situation/background*

The purpose of this thesis is to analyze the driving issues that lead technical officers (Scientists or 61's, Engineers or 62's, and Program Managers or 63's) to separate. These issues primarily affect junior officers at 4 to 5 Years of Service (YOS), following the completion of their initial commitment after commissioning. However, given that it takes 5 or more years to develop an officer<sup>†</sup>, the cost to the Air Force, and the taxpayer, is immense when junior officers are lost at precisely the time they are becoming most valuable. This loss of officers, which starts at 4 to 5 YOS, trails off at about 8 to 10 YOS, since officers are more compelled to remain in until their retirement eligibility at 20 years once they have passed the halfway point. The focus of this research is then "why do officers leave the Air Force", and in particular, "why do acquisitions junior officers (< 5yrs) leave the Air Force".

#### *Problem/Challenge*

The problem is that as officers first become product at about 4-5 Years of Service, precisely when their initial contract to the Air Force expires. Many choose to leave the Air Force, costing the Air Force in terms of lost investment, and the middle ranks are undermanned. The Air Force has

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<sup>†</sup> Forseth, Christopher E., "The Pursuit of Acquisition Intrapreneurs". Unpublished. Prepared under the support of and available from the Lean Aerospace Initiative, MIT, Cambridge, MA. 2002.

focused mostly on recruiting more officers than necessary to stymie the losses after the first contract, but the real focus needs to be on controlling the loss rate at the 4-5 year point by addressing the issues that are driving people to separate versus remain longer in the Air Force.

#### *Approach/Method*

Interviews, Literature Review, Personal Experience, and a Web-Based Survey were all utilized in gathering data. For the survey, the working data set was 592 records. This sample is about 8.6% of the actual 61, 62, 63 population, and is therefore representative of the population.

#### *Results/Solution*

The primary reason people separate is due to low job satisfaction. The close secondary reason is due to inflexibility in the assignment system. Pay proved to be mostly satisfactory and was not a contributor to separating. The Air Force has attempted offering Retention Bonuses in the past to thwart losses, however, analysis of one such recent attempt shows that such bonuses have little effect, despite their great cost.

#### *Conclusions/Key Lessons Learned*

In this age of internet file-sharing, music downloads, and Tivo, one principle has become evident, particularly in today's younger generations: people will give up quality for flexibility and control. In fact, the entire consumer industry is moving more and more to giving people more control. While this is applicable to many internet-based business models and consumer products, this is also true for career choices. The Air Force competes with the civilian sector as a whole for manpower, and the flexibility offered by the civilian sector is more valuable to many people, even despite benefits like retirement and medical pay. Such benefits are essentially unrealized gains for very junior officers, while these same benefits become strong incentives to stay in the Air Force for senior officers. Because of benefits being unrealized for juniors, junior officers are more likely to weigh their career decision on non-monetary and non-benefit incentives. The problem with AF manpower is that the military gets just one chance to retain someone, since once separated, a former officer can not (typically) rejoin. Thus, finding the root causes for retention are critical if the military wishes to minimize the numbers that are separating. The overall reasons junior officers are separating are due to problems with the assignment system and overall job satisfaction, and these two factors are strongly correlated to each other. Thus, giving officers better control, particularly in these two areas, is at the heart of all possible solutions to maximize retention. The specific recommendations to the Air Force can be found in the Executive Summary or at <http://mit.cartala.com>.

#### *Keywords:*

- Topic area: Organizations, Risk & Change
- Subtopic area: Manpower, Human Resources, Job Satisfaction, Pay, Merit, Retention
- Method: Interviews, Literature Review, Personal Experience, and a Web-Based Survey