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PROFESSIONAL DEVELOPMENT OF JUNIOR FULL-TIME SUPPORT AEROSPACE MAINTENANCE DUTY OFFICERS

December 2017

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I collected data from 14 officers through telephone interviews. I asked those interviewed to describe their experiences during their initial squadron tour as an FTS AMDO. The interviews focused on the following topics: Navy background and educational history, FTS redesignation process, initial expectation of the FTS AMDO community, professional training history, first FTS squadron assignment, experience as the maintenance material control officer in an FTS squadron, and recommendations for improvement within the FTS AMDO community. I collated the responses into critical incidents by their frequency and relevance.

The critical incidents identified are a need for additional community information to prospective and newly selected officers, a need for a more robust mentorship program and a need for a means of knowledge management within the community. I have provided five recommendations to the FTS AMDO community to meet the needs discovered by this study.

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PROFESSIONAL DEVELOPMENT OF JUNIOR FULL-TIME SUPPORT AEROSPACE MAINTENANCE DUTY OFFICERS

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Submitted in partial fulfillment of the requirements for the degree of

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LIST OF ACRONYMS AND ABBREVIATIONS

A2M2	advanced aviation maintenance manager
AMDO	aerospace maintenance duty officer
AMO	assistant maintenance officer
CACO	casualty assistance calls officer
CNATT	center for naval aviation technical training
CWO	chief warrant officer
DCO	direct commission officer
FRC	fleet readiness center
FST	fleet support team
FTS	full time support
IRB	institution review board
JASMM	joint aviation supply and maintenance material management
LDO	limited duty officer
MCO	material control officer
MMCO	maintenance material control officer
NALCOMIS	naval aviation logistics command management information system
NAMP	naval aviation maintenance program
OCS	officer candidate school
OOMA	optimized organizational maintenance activity
OPTAR	operating target
PMA	program manager air
RL	restricted line
SELRES	selected reserve
STA-21	seaman to admiral 21
URL	unrestricted line

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I. INTRODUCTION

A. PURPOSE

This MBA project aims to identify and remediate professional knowledge gaps for junior full time support (FTS) aerospace maintenance duty officers (AMDO) during their initial tours. The study utilizes the critical incident technique, a method of gathering facts from domain experts to identify opportunities for performance improvement (Flanagan, 1954). I interviewed officers and then formulated, categorized and evaluated the interview data to identify areas where junior FTS AMDOs may be lacking in professional knowledge and/or experience.

The motivation for this study came from my personal experience interacting with junior FTS AMDOs in their first squadron tours. As an officer with four tours on active duty prior to any experience with the Navy Reserve, I could see that newly selected FTS AMDOs often weren't fully prepared for the burden placed on them within a squadron. Additionally, as I was searching for an MBS project topic, I solicited input from the three FTS AMDO captains. Their response was overwhelmingly in support of finding new ways to support and develop junior officer within the community.

The FTS AMDO community serves to organize and manage personnel and maintain reserve naval aviation assets and related equipment. This chapter describes the Navy Reserve FTS program, the FTS redesignation board process, the AMDO designator, naval aviation maintenance officer training and motivation for transfer and redesignation into the FTS community.

B. BACKGROUND

The Navy Reserve FTS program for officers serves to "perform duties in connection with organizing, administering, recruiting, instruction, or training Reserve components" (Bureau of Naval Personnel, 2002, sec. 1306–1500). Officers from the active duty component are available to transfer to FTS via a semi-annual transfer and redesignation board. Officers from the ready reserve wishing to transfer to an FTS

community will apply for recall to active duty through the same transfer and redesignation board process.

According the naval military personnel manual (Bureau of Naval Personnel, 2002), the FTS officer community is tasked with several aspects of Navy Reserve management. First, FTS officers are tasked with the management and training of the selected reserve (SELRES); they also serve as a conduit for the mobilization readiness of the Navy Reserve by effectively planning and organizing reserve forces. Further, FTS officers provide access to and maintenance of Navy Reserve assets. Ultimately, the FTS community is responsible to the Navy Reserve for the daily support of assets, manpower, training and administration in support of the SELRES (Bureau of Naval Personnel, 2002).

FTS officers are promoted at similar career points as their active duty counterparts (Bureau of Naval Personnel, 2002). The promotion zones used and criteria for selection are also very similar between the active and FTS components. However, FTS officers are looked at for promotion by Navy Reserve promotion boards and they are only competitive against other FTS officers of the same designators (Bureau of Naval Personnel, 2002). Additionally, unlike officers on the active duty list who are looked at only twice for each promotion, FTS officers are considered for promotion every year after reaching eligibility for that rank (Bureau of Naval Personnel, 2002).

1. FTS Redesignation Board

The FTS transfer and redesignation board is held semi-annually. Officers eligible for the transfer and redesignation board include those on the active duty list and ready reserve officers, comprising the SELRES, voluntary training units, reserve canvassing recruiters and selected reserve officers on active duty recall (Bureau of Naval Personnel, 2002). Officers considered for transfer and redesignation are generally lieutenant commanders with three years in grade or less (Bureau of Naval Personnel, 2002). However, individual community policy is promulgated for each board cycle. The FTS transfer and resignation board is unique in that an officer can apply to transfer from the ready reserve or active duty to the FTS, but they may also request to change their career field and designator at the same time (Bureau of Naval Personnel, 2002). This can create

situations where an officer with significant experience in one career field gets selected to transfer to another career field where they have little knowledge or experience. These officers, by virtue of their rank, will be looked upon to be knowledgeable in whatever field they are assigned, but may not get the training and experience commensurate with that expectation prior to their first assignment.

Applicants for the semi-annual transfer and redesignation board apply to Navy Personnel Command (NPC), designated by the code PERS-9, via their current commanding officer (Bureau of Naval Personnel, 2002). Applications contain a brief history of the officer's assignments, qualifications, education history and the FTS communities for which they are interested in being considered. Officers coming from active duty will incur a two year service obligation, where ready reserve officers that are recalled must serve for a minimum of three years on active duty (Bureau of Naval Personnel, 2002). FTS officers are distinguished from their active duty and selected reserve counterparts by the assignment of a seven as the last digit of their designator (Bureau of Naval Personnel, 2002). For example, in the aerospace maintenance duty officer community, an active duty officer will have the designator 1520, a selected reservist will have a 1525 designator and an FTS officer will have a 1527 designator.

Transfer and redesignation is determined through a selection board process. Prior to requesting applications, eligibility criteria is established for each community accepting applications. Additionally, a limitations matrix is produced for each selection board, limiting the year groups of officers that will be accepted by each community. Both the eligibility criteria and limitations matrix are posted on the NPC website (Navy Personnel Command, 2017). The selection board membership consists of officers, generally captains and commanders, selected from each of the FTS communities. Officers are selected based on the information provided in the board precept, the eligibility requirements, the limitations matrix and number of billets available (Bureau of Naval Personnel, 2002).

2. Aerospace Maintenance Duty Officers

Naval officers are assigned designator codes indicating an occupational specialty and community. Additionally, officers are broken down into the following categories: unrestricted line (URL), restricted line (RL), staff corps and limited duty officers (LDO). Aerospace maintenance duty officers fall into the category of the restricted line. Restricted line officers typically serve in operational commands and provide support functions such as maintenance, administration and logistics (Bureau of Naval Personnel, 2002).

Aerospace maintenance duty officers "develop, establish, and implement maintenance and material management policies and procedures to support naval aircraft, airborne weapons, attendant systems, and related support equipment fleet-wide" (Navy Personnel Command, n.d.-a, sec. "Mission"). AMDOs typically start their careers by serving in operational squadrons or in intermediate level maintenance facilities, either ashore or afloat (Navy Personnel Command, n.d.-a). As officers gain experience they are often placed in billets on major staffs or in systems acquisition, and senior officers can serve as acquisitions program managers or compete for major command such as in a fleet readiness center (FRC) (Navy Personnel Command, n.d.-a).

The FTS AMDO community differs slightly from that of their active duty counterparts. First, there are significantly fewer officers in the community, currently 82 in total. Also, the community operates in a complementary role to their active counterparts. This is accomplished through duties including the operation of adversary squadrons, logistics support squadrons, and naval special warfare support. The different makeup of the FTS aviation community places different burdens on FTS AMDOs. FTS squadrons also have less manpower than their active counter parts. For instance, the typical active component F/A-18 squadron has five ground maintenance officers (limited duty officers, chief warrant officers and AMDOs). A similar FTS F/A-18 squadron has just two active ground maintenance officers, both FTS AMDOs. Further, many of the FTS squadrons have only one FTS AMDO assigned who is burdened with the responsibilities that are placed on three to five aviation maintenance officers in the active component.

3. Aviation Maintenance Officer Training

All newly commissioned or redesignated aviation maintenance officers with a 1520, 1525 or 1527 designator are required to attend the naval aviation maintenance program (NAMP) indoctrination course. The NAMP indoctrination course is taught by the center for naval aviation technical training (CNATT), Detachment Whiting Field, just outside of Pensacola, Florida. The course lasts nine weeks and covers the gamut of Navy and Marine Corps aviation at the organizational and intermediate levels. The purpose of this course is to:

> Provide newly commissioned or designated aviation ground officers (Navy 1520/1525/1527 and Marine Corps 6002) with little (two years or less) or no aviation maintenance background who are prospective members of organizational or intermediate maintenance organizations with technical information and knowledge of the managerial responsibilities and the administrative duties required to perform at an entry level aircraft maintenance position. (Center for Naval Aviation Technical Training, n.d., sec. "Aviation Maintenance Officer")

Those officers who enter an aviation maintenance designated community with greater than two years' aviation experience attend the NAMP manager's course instead of the indoctrination course (Center for Naval Aviation Technical Training, n.d.). Though the officers selected for the shorter, four week, course are typically limited duty officers or chief warrant officers, aerospace maintenance duty officers can also be sent through this course if they meet the experience requirements. Either of these courses satisfy the entirety of training required for a Navy aviation maintenance officer, regardless of designator. An optional mid-career course is also offered by CNATT, the advanced aviation maintenance manager (A2M2) course. A2M2 is designed to provide senior lieutenants and lieutenant commanders a greater understanding of "logistics support and advanced managerial responsibilities" (Center for Naval Aviation Technical Training, n.d., sec. "A2M2") that they might need as they progress into positions on senior staffs, in FRCs or on aircraft type wing staffs.

4. Motivation for Transfer and Redesignation to the FTS

Naval officers may seek transfer and redesignation to the FTS component for a variety of reasons, either personal or professional. Whittam (2009) shows that Naval officers are often dissatisfied with their career fields, and this dissatisfaction often leads to officers leaving the Navy to pursue other careers. However, under one percent of officers apply for transfer and redesignation (Dailey, 2013), it may be an attractive option to those who wish to continue their career in the Navy.

a. Personal Reasons

The work–life balance within the military can be difficult. Ryan (2007) found that the quality of work-life balance played a significant role in an officer's decision to leave or continue naval service. Whittam (2009) found that officers on sea duty worked over 40 hours per week more often than officers serving in shore duty billets. Additionally, Ryan found that officers who worked less hours were more inclined to remain in the Navy. The FTS, having no sea duty billets, may be an attractive alternative to these officers.

b. Professional Reasons

The individual job fit of an officer could also be a contributing factor for those seeking to transfer and redesignate to the FTS. Whittam (2009) found that unrestricted line officers were particularly dissatisfied with the job assignments within their given career fields. Further, she found that 39 percent of Naval officers find that Navy manning practices are consistent and fair and only 34 percent feel the Navy retains the most qualified personnel. While 72% of officers feel secure that they will have a future in the Navy as long as they do a good job, only 26% report that they are prepared to make a designator change if that was the only route to stay in the Navy (Whittam, 2009).

The FTS transfer and redesignation board is also an option to officers who have failed to select twice for promotion. While officers on the active duty list that have twice failed to select for promotion are no longer eligible for promotion, they would gain eligibility once transferred to an FTS community (Bureau of Naval Personnel, 2002).

This may be a major motivation not only for officers that have twice failed to select, but for those with their first failure.

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II. LITERATURE REVIEW

A. OVERVIEW

Three important concepts were considered during the course of this study. First, the adult learning process looks at what drives an adult to learn a new skill or proficiency. Next, knowledge management entails the collection and dissemination of the collective knowledge held within an organization. Finally, the role of mentorship is surveyed to find the most effective ways to share knowledge and experience through interpersonal relationships. These topics were chosen as they relate to potential areas for improvement within the FTS AMDO community.

B. ADULT LEARNING

The term andragogy has been used for the past two centuries to describe adult education, and according to Knowles, Holton and Swanson (1998) the term can be traced back as far 1833 to a German school teacher named Alexander Kapp who used the word androgogik in reference to Plato. In 1921 Eugen Rosenstock, another German school teacher, used the term to describe the characteristics associated with adult education, such as special teachers, methods and philosophy (Knowles et al., 1998).

The main premise of andragogy is that the adult learner requires involvement in the process of learning, and it also assumes that an adult learner is capable of self-directed learning (Knowles et al., 1998). Andragogy is based off the pedagogical model of learning for children. The pedagogical model "assigns the teacher full responsibility" (Knowles et al., 1998, p. 3) for what, when and how learning occurs as well as the learning outcome. In the pedagogical model, the learner is a recipient of the material rather than a participant in the learning process. Eduard Lindeman (1926) noted the following assumptions about adult learners:

- Adults are inspired to learn by interests and requirements that will be satisfied by the learning.

- Adult learning is life-centered, thus real life situations are most appropriate.
- Experience is the best basis for learning by adults.
- Adults desire to be self-directed. The goal of the facilitator should be a process of mutual inquiry vice transmission of knowledge.
- Differences between learners grow with age. These differences in manner, style and location must be accounted for by the facilitator.

Knowles (1998) sees that both models have a role in adult learning, as not all adult situations necessarily lead to autonomy of the learner. Lindeman (1926) theorized that youths may also learn better when these items are considered.

Knowles, Holton and Swanson defined andragogy by six core principles of adult learning:

1. Learner's need to know
   - Why
   - What
   - How
2. Self-concept of the learner
   - Autonomous
   - Self-Directing
3. Prior experience of the learner
   - Resource
   - Mental models
4. Readiness to learn
   - Life related

- Developmental task

5. Orientation to learning

   - Problem centered
   - Contextual

6. Motivation to learn

   - Intrinsic value
   - Personal payoff (1998, p. 4)

While this set of principles can be used as a basis for evaluation, it should not be used solely without considering all aspects of the situation (Knowles et al., 1998). Other factors for consideration include differences in personal learning, situational differences and the specific goals of the learner (Knowles et al., 1998).

C. KNOWLEDGE MANAGEMENT

Rowley (1999, p. 418) describes knowledge management in the following way, "knowledge management is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives." Kane, Robinson and Berge (2010, p. 63) state "knowledge management involves getting people to think of the knowledge they have, capturing that knowledge in a designated place, and disseminating knowledge to the right people at the right time."

Alavi and Leidner (2001) found that a firm's knowledge falls neatly into the resource based view. They stated that the organization's knowledge-based assets can lead to a competitive advantage, since they meet the criteria of being rare, valuable and inimitable. Though the knowledge assets themselves are an asset to the organization, Alavi and Leidner (2001) explain it is how they are utilized that truly creates the value. Further, they found that knowledge is personalized and that large amounts of information are of little value. After extracting knowledge from one person, it needs to be interpreted and then expressed to others in terms that they will understand (Alavi & Leidner, 2001). Additionally, once collected, an organization will need to deal with an enormous amount

of information. If the knowledge is not organized and shared with those who have a need, then the asset is not being exploited (Alavi & Leidner, 2001).

Rowley (2000, p. 12) states “Indiscriminate knowledge creation will not lead to organizational learning.” She goes on to list six characteristics of knowledge that must be recognized in order to contribute to organizational effectiveness. Those six characteristics are (Rowley, 2000, pp. 12–13):

- Objectivity—Knowledge retains the social and contextual environment within which it was created. Accuracy and reliability are also related the issue of objectivity.

- Accessibility—Knowledge must be made available to those with the need. It may be stored and accessed in a variety of ways and integration of these differing formats presents a challenge for organizations. Completeness of the information must be judged by whether a specific task may be completed.

- Relevance—The knowledge made available to the user must be suitable for the task. The knowledge may be judged by the other characteristics in this list in addition to its comprehensiveness.

- Currency—Most information has a life cycle. Old information must be replaced by the current information in order to maintain relevancy.

- Structure and organization - Structure is important to our understanding of material. Structure has two important characteristics: the way which things are put into categories and the associations between those categories.

- Systems—Information will be shared through communications or information systems. These systems must be designed such that retrieval of information is effective and efficient.

Knowledge management solutions broadly fall into two categories, enterprise solutions and alternate solutions (Wagner, Chung, Lee, & Ip, 2003). Enterprise solutions are targeted at large corporations and government entities. They "are designed to manage large amounts of knowledge and information, access by many concurrent users at multiple organization units and locations, and hosted on large, multi-tiered hardware platforms" (Wagner et al., 2003, p. 3). Because of the scope and complexity of these solutions, they are extremely costly. Additionally, enterprise systems often rely on existing technology infrastructure, such as organizational databases and enterprise resource planning (ERP) systems, requiring further investments if not already in place (Wagner et al., 2003).

Enterprise knowledge management systems are constructed in several ways, as described by Wagner et al. (2003). First, a knowledge management portal can collate, organize and disseminate information. Features of portal systems can include email, chat and search, which can be useful for information management (Wagner et al., 2003). According to Wagner et al., many portal solutions are built upon ERP as the backbone. The goal of customer relationship management (CRM) systems, they explain, is to manage interactions between the organization and its customers; CRM solutions allow for knowledge management of customer facing data via embedded analytical solutions. Data mining is another enterprise solution used to "identify hidden useful relationships and patterns in existing large datasets, which makes is an important knowledge management technology" (Wagner et al., 2003). Text mining, the authors continue, is a related resource where text is analyzed to extract information that can be used for a specific purpose. Lastly, content management systems allow for online access of an organizations knowledge through documents. The aim of content management systems is "to overcome problems of information accessibility by knowledge workers" (Wagner et al., 2003, p. 5).

Contrary to the expensive and complex enterprise systems described above, there are several alternate solutions available to organizations seeking knowledge management solutions. An expert directory is a system where an organization collates information on each employee's area of expertise and then publishes this list along with his or her

contact information (Wagner et al., 2003). This simple solution requires little technology, a webpage or database, but can be extremely useful. However, the expert directory does not enhance or spread knowledge and relies upon the knowledgeable to share their expertise repeatedly (Wagner et al., 2003). Virtual communities reside in a computer environment where individuals communicate and have relationships while being supported by technology (Rheingold, 1993). Wagner et al. (2003) state:

> People are drawn to virtual communities because they provide an engaging environment in which to connect with other people—sometimes only once, but more often in an ongoing series of interactions that create an atmosphere of trust and real insight. (p. 5)

Several technologies allow the construction of virtual communities, including email, discussion boards (Wagner et al., 2003), or wiki pages (Wagner, 2004). Finally, knowledge management can be attained by using simple web pages (Wagner et al., 2003). Knowledge can be passed with basic web pages; however, their use is limited by the need to be updated by the author (Wagner et al., 2003). This can be overcome by the use of database backed sites which fill into web templates in real time (Wagner et al., 2003).

A wiki is a collection of webpages linked together and produced by the incremental development of users (Leuf & Cunningham, 2001). Wiki comes from the Hawaiian term wikiwiki, meaning fast (Wagner, 2004). Ward Cunningham declared the following twelve principles of wiki design:

- Simple—Easier to use than abuse. A wiki that reinvents HTML markup, for example, has lost the path!
- Open—Should a page be found to be incomplete or poorly organized, any reader can edit it as they see fit.
- Incremental—Pages can cite other pages, including pages that have not been written yet.
- Organic—The structure and text content of the site are open to editing and evolution.

- Mundane—A small number of (irregular) text conventions will provide access to the most useful page markup.
- Universal—The mechanisms of editing and organizing are the same as those of writing, so that any writer is automatically an editor and organizer.
- Overt—The formatted (and printed) output will suggest the input required to reproduce it.
- Unified—Page names will be drawn from a flat space so that no additional context is required to interpret them.
- Precise—Pages will be titles with sufficient precision to avoid most name clashes, typically by forming noun phrases.
- Tolerant—Interpretable (even if undesirable) behavior is preferred to error messages.
- Observable—Activity within the site can be watched and reviewed by any other visitor to the site.
- Convergent—Duplication can be discouraged or removed by finding and citing similar or related content. (Cunningham, 2014, para. 1)

Utilizing Cunningham's principles with specific publishing and collaboration controls, wikis can specifically address many of the needs of knowledge management (Wagner, 2004). Wikis, by way of their incremental knowledge creation allow for question answering. Wagner (2004) states they are able to combine differing sets of knowledge easily, users are able to create new content that is lacking, or even inaccurate, and depend on other users to add to and edit the content. He adds that wikis create a joint ownership of the knowledge being created, allowing the entire group to share this knowledge freely. Further, the large number of user/creators also enables a type of

reliability or security feature. Any individuals who try to remove or edit content in a spiteful way will be thwarted, since the group can quickly repair any damage done (Wagner, 2004).

D. MENTORSHIP

The history of persons seeking wise counsel, teaching and coaching can be followed back to Homer's *Odyssey*, in which Odysseus, the king of Ithaca, placed Mentor as the head of his home while he fought in the Trojan War (Roche, 1979). Since, mentor and protégé relationships have been sought in all fields from the arts, to professional sports and the military (Roche, 1979). Ensher, Thomas and Murphy (2001, p. 420) describe the traditional definition of mentorship as "a dyadic relationship in which the mentor, the senior person in age or experience, provides guidance and support to the less experienced person, the protégé."

In a survey of 1,250 business executives, Roche (1979, p. 15) found that executives that have had a mentor relationship "earn more money at a younger age, are better educated, are more likely to follow a career plan, and, in turn, sponsor more protégés than executives than who have not had a mentor." Additionally, he found that those executives that had a mentor derived more satisfaction from their work and their career progress (Roche, 1979).

Roche (1979, p. 15) defined a mentor as "a person who took a personal interest in your career and who guided or sponsored you." Interestingly, he found that approximately 40% of respondents reported their mentor relationships as average in influence, while only 17% reported an extraordinary influence. The rate of those who reported extraordinary influence doubled with those who both had a mentor and a protégé (Roche, 1979). This shows that those who benefit most from mentorship are likely to pass on their knowledge to the next cohort. The characteristic found to be most important in a mentor was a "willingness to share knowledge and understanding" (Roche, 1979, p. 24). Other highly ranked characteristics of a mentor included "knowledge of the organization and people in it, a mentor's rank, respect from peers in the organization and knowledge of the use of power" (Roche, 1979, p. 24).

Ensher, Thomas and Murphy (2001, pp. 420-421) prescribe that the spectrum of mentor relationships be described by "a three categorical classification system which includes: (a) the traditional mentor, (b) the step-ahead mentor (i.e., an individual one level above in the organizational hierarchy), and (c) the peer mentor." The traditional mentor is often a parent-like figure or even a godfather, showing a high degree of paternalism (Hunt & Michael, 1983). A step-ahead mentor is a categorized step above of the protégé and likely in a role that will be the protégé's logical career progression (Ensher et al., 2001). A mentor that holds a similar position within the organization, in terms of experience and standing, is referred to as a peer mentor (Ensher et al., 2001).

Ensher, Thomas and Murphy (2001) used the social exchange theory to determine the perceptions of protégés. Further, they found that traditional mentor relationships received the highest perceived values for vocational support, role-modeling, mentor satisfaction, job satisfaction and career achievement. Meanwhile, peer mentoring received the highest values for social support and reciprocity (Ensher et al., 2001). Step-ahead mentorship did not lead in any of these tested categories, but was never the lowest ranked either (Ensher et al., 2001).

Hunt and Michael (1983, p. 480) outline the common characteristics of mentors as "age differential, age of mentor, gender of mentor and power, organization position and self-confidence." Levinson (1978) found that mentors are typically eight to 15 years older than their protégé. Further, he states that age differences greater than 20 years tended to be less effective as the relationship is more like that of a parent and child. If the age difference is less than six years, he found the mentorship aspects tended to be minimized, as they see each other as peers (Levinson, 1978). Given this age differential, the protégé is typically younger than the mentor. Hunt and Michael (1983, p. 480) state that "if mentors are 20 or 30 years older than their protégés, there may be significant communication or value problems caused by historical generational differences."

Levinson (1978) posited that mentor relationships should be same sex. Hunt and Michael (1983, p. 480) attributed this sentiment to the principle of homophily, where interactions between people are based on similar "attributes, beliefs, values and social factors." Kram (1980) studied both male mentor-male protégé and male mentor-female

protégé relationships. She found that the male mentor-female protégé relationships had to deal with additional complexities that led to a less effective mentor-protégé relationship (Kram, 1980).

Mentors often have many of the same characteristics. Hunt and Michael (1983, p. 480) state that they "generally are highly placed, powerful, knowledgeable individuals who are willing to share their expertise but who are not threatened by the protégé's potential for equaling or surpassing them." Kram (1980) stated that mentors gained standing and admiration in the eyes of their protégés. Hunt and Michael (1983) go further and suggest that a primary factor in the motivation of mentors is that for power. The relationships established through mentoring allow the mentor to "spread their influence through many parts of the organization" (Hunt & Michael, 1983, p. 481). Leaders, therefore, can use mentorship as a means to extend their power base.

The mentor-protégé relationship typically goes through several stages (Hunt and Michael, 1983). The initial period of six to twelve months is called the initiation stage (Kram, 1980). This stage is where the relationship is started and where roles are defined (Hunt and Michael, 1983). The mentor starts out the relationship as "more skilled, professionally recognized, and more powerful than the apprentice, who is at the shining star or potential level, with abilities as yet undeveloped" (Hunt & Michael, 1983, p. 482). The protégé stage, a period of two to five years, is when the apprentice advances their skills to the point where the mentor recognizes them as their protégé (Kram, 1980). Protégés are given additional responsibilities to make decisions and are likely to grow in their feeling of power (Hunt & Michael, 1983). The mentor also shields the protégé from criticism if they make a poor decision (Hunt & Michael, 1983). The breakup stage begins as the protégé grows in their desire for individual recognition (Hunt & Michael, 1983). This separation of the relationship typically takes place six months to two years after "a significant change in the structural role relationship and/or in the emotional experience of the relationship" (Kram, 1980, p. 140). The separation often occurs during a physical separation, such as when the protégé takes on a new job for career enhancement (Hunt & Michael, 1983). Other reasons for relationship termination are changes in role of the mentor or protégé or simple loss of interest in the arrangement (Hunt & Michael, 1983).

This breakup is not necessarily the end of the relationship, mentors and protégés who accept the inevitable changes in status that occur often remain close and develop into friendships (Kram, 1980). The lasting friendship stage is marked by a new "mutual or perhaps equal status and reciprocal relationship" (Hunt & Michael, 1983, p. 483).

E. CONCLUSION

This review found several areas of potential improvement in the development of junior FTS AMDOs. According to the adult learning principles, the officers will be motivated to learn by the requirements of their assigned duties. Additionally, personal experience is the best form of learning for these officers. The concept of knowledge management is something that can be harnessed to better distribute the vast amount of experience and knowledge that the community has. Knowledge management tools, such as an expert directory or wiki, can be used to facilitate this knowledge collection and distribution. Further, mentorship is critical to the development of leaders. Improving access to not only traditional mentor relationships, but also step-ahead and peer mentors, within the community has the ability to greatly improve the rate at which junior officers are developed.

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III. METHOD

A. INTRODUCTION

The critical incident technique is a system used to collect and analyze evidence about human behavior in a manner that the information gathered can be utilized to solve practical problems. The critical indent technique can trace its roots to the aviation psychology program conducted by the U.S. Army Air Forces during Work War II (Flanagan, 1954). Flanagan (1954) states that the aim of Army Air Forces' aviation psychology program was to develop selection procedures for aircrew, due to the large number of pilot candidates that were failing out of flight training schools. When doing an initial analysis of the underlying reasons for flight training failure, the program found that the majority of reasons given by instructor pilots were clichés, stereotypes or generalizations (Flanagan, 1954). In subsequent studies, the aviation psychology program emphasized the importance of specific observations and facts (Flanagan, 1954). This greatly improved the usefulness of the reports produced; however, the program members noticed that they were still not obtaining a complete record of details for all events of interest (Flanagan, 1954).

In 1944, the Army Air Forces conducted another study into the problems of combat leadership (Flanagan, 1954). Flanagan states that this study was the first attempt at gathering specific incidents that related a behavior to an activity. The study asked veterans to report events "observed by them that involved behavior which was especially helpful or inadequate in accomplishing the assigned mission" (Flanagan, 1954, p. 328). Then they were asked to describe their actions, specifically, what did they do? These incidents were then collected and studied to provide a description of what combat leadership looks like. The results were labeled as "critical requirements" for leadership in combat (Flanagan, 1954). Further studies by the aviation psychology program kept refining this method and eventually led to a theoretical basis for these procedures (Flanagan, 1954). Flanagan brings together the initial work of the Army Air Forces' aviation psychology program work and subsequent work performed at the University of

Pittsburgh Department of Psychology. Flanagan describes the five steps of the critical incident technique as:

1. Establish the general aim. The general aim establishes what is necessary to accomplish a specific action or task, in the simplest terms possible. He further breaks this down further into three areas:

    a. Introductory statement: Tell the interviewee what the study is about and then why they are uniquely qualified to participate.
    b. Request for general aim: Ask the interviewee what they see as the primary purpose of the activity in question.
    c. Request for summary: Have the interviewee summarize the purpose of the activity in question.

2. Create plans and specifications. The goal of this step to focus on the specific tasks or behaviors that are believed to be crucial to the activity being observed. Specifications are broken down into three area:

    a. The people that make the observations are those with knowledge of the activity.
    b. Groups to be observed: the when, where, how and who.
    c. The specific behaviors to be observed.

3. Collect the data. If the previous steps are completed with rigor, the data collection process should follow smoothly. Observations should be obtained as close as possible to the event in question. However, if complete and detailed reports are given it has generally been assumed that the data obtained is accurate. Critical incident reports can be gathered one of four ways: interviews, group interviews, questionnaires or record forms.

4. Analyze the data. The analysis of the results make it easier to draw inferences or report the requirements vice improving the resulting data in any way. If the previous steps were executed with care, the resulting data should be complete and specific.

5. Interpretation and reporting. The interpretation of the results should include any biases that may have been introduced in the process or the disclosure of any disputes regarding the general aim of the study.

Since the original article by Flanagan, many have used the critical incident technique throughout a variety of disciplines. Psychologists have cited this article more than any other over the past 40 years (Butterfield, Borgen, Amundson, & Maglio, 2005). It has also been utilized extensively in the fields of communications, job analysis, education, medicine, organizational learning and performance appraisal (Butterfield et al., 2005). The usefulness of the critical incident technique across a range of disciplines can be attributed to the lack of a rigid set of rules. Flanagan (1954) held that the technique should be used as a flexible set of rules that would then be modified to suit a particular situation. While this has led to the overwhelming popularity of the technique, it has also created some problems. The adaptability of the method has led to a proliferation of terminology and approaches associated with the technique (Butterfield et al., 2005). For example, they found that there were nine different names associated with the technique itself, all describing studies that utilized the critical incident technique.

B. CRITICAL INCIDENT TECHNIQUE

1. General Aim

The critical incident technique as described in the previous section served as the roadmap for this study. I asked interviewees to report on experiences, based on their memories of the events in question. The purpose of the critical incident interviews is to accumulate data to determine areas where junior FTS maintenance officers may be lacking in professional knowledge and/or experience. The interviews should also reveal the frequency and intensity of these knowledge gaps. Due to the limitations of this study, not all incidents of identified issues are reported. However, the interviews will help not only help identify why an incident was reported, but also reveal data on the frequency of the actual problem.

2. Plans and Specifications

Participants for this study are personnel who have served as junior officers, O-3 and below, in operational squadrons as an FTS AMDO. As suggested by Flanagan (1954), the individuals interviewed hold special qualifications in that they are in a particularly good position to provide unique and valuable insight and experience and give account of the activities in question. The officers desired for this study should meet the following criteria:

- They are currently an FTS officer with the 1527 (Aerospace Maintenance Duty Officer) designator.
- They have completed a tour in an operational squadron as an FTS officer.
- They have attended either the NAMP indoctrination or NAMP manager's course.

All current FTS AMDO officers in grade O-4 and below were solicited for participation in this study. I obtained contact information for these officers through the global address list located on the Navy and Marine Corps intranet webmail server. Although personally identifiable information was used to contact these officers, no personally identifiable information was maintained or published in this report.

The design of this study was submitted to the Naval Postgraduate School's institutional review board (IRB) for screening. The IRB determined that this study did involve human subject research and a full IRB application was submitted. The IRB approved this study on August 8, 2017. Additionally, since I planned to interview more than nine persons in this study, Navy Survey Office approval was also required. Per Chief of Naval Operations Instruction 5300.8C, a formal request for personnel survey approval was submitted. CAPT B. C. Young, as the senior FTS AMDO, was selected as the program sponsor. The Navy Survey Office approved this study on September 11, 2017.

3. Data Collection

This study was conducted using individual interviews of the subjects identified. Fifty nine persons were identified as meeting the criteria for interview and 14 persons were available for interview. Although every effort was made to interview all eligible candidates, this still resulted in a small sample size. However, in the critical incident technique method, the sample size is not as significant as it might be in other methods (Butterfield et al., 2005).

The general aim of this study was to determine the areas where an FTS AMDO officer is lacking in professional knowledge when assigned as the maintenance material control officer (MMCO) in an operational Navy Reserve squadron. Questions were designed to quantify the objectives of this assignment in the eyes of those who have been assigned as MMCO during their first or second FTS tour. Additionally, I was interested in what the interviewee thought was expected of the MMCO in those operational squadrons and how they thought that they were prepared for those duties.

I asked officers to participate in this study via email notification. If a positive response was gathered, the interviewee was provided with a complete list of questions to be asked prior to the interview. Interviews took place via telephone and lasted on average 38 minutes. The questions asked allowed interviewees some leeway in responding in order to identify the level of subjectivity. However, to remain on topic, I worked to keep the participant focused on the primary factors of the study (Flanagan, 1954).

The questions asked were designed to exclude bias to the furthest extent possible; however, I am aware that my status an FTS AMDO officer does subject the study to inherent bias. All steps of the critical incident technique were examined for bias during the interpretation and reporting of the data. Additionally, any limitations and judgments made where scrutinized during this final step. Flanagan (1954, p. 343) stated “the research worker is responsible for pointing out not only the limitations but also the degree of credibility and the value of the final results obtained.” Bias, limitations and judgements are further discussed in Chapter IV. I focused the questions on seven specific topic areas and the participants provided answers to the broad questions. I used the many

sub-questions to keep them from straying off topic. The full list of questions are in the Appendix.

I sent out an initial solicitation email to 59 FTS AMDO officers with a rank of LCDR or junior on 12 September 2017. From this initial email, I received replies from 13 officers and was able to setup interview times with 10 officers. On 22 September 2017, I sent a second solicitation email to the same group of 59 officers. I was able to setup interviews with four additional officers based on this second solicitation. I conducted all interviews between 15 and 29 September 2017. I conducted all interviews via telephone and took detailed notes of the responses provided. Table 1 shows the rank of the participants and the length of each interview.

Table 1. Participant rank and interview length

Participant	Rank	Length of Interview	Note
1	LCDR	57 min	
2	LTJG	25 min	No FTS squadron tour
3	LCDR	35 min	
4	LCDR	14 min	Filled out questions beforehand
5	LT	38 min	
6	LT	47 min	
7	LCDR	50 min	
8	LCDR	50 min	
9	LCDR	40 min	
10	LT	45 min	
11	LCDR	37 min	
12	LCDR	24 min	
13	LT	27 min	No FTS squadron tour
14	LCDR	42 min	

4. Data Analysis

After completing the interviews, I combined the notes from all participants in order to better draw interpretation from the data collected. I assembled the data into the following seven topic areas:

- Navy Background and Educational History
- FTS Redesignation Process
- Initial Expectation of the FTS AMDO Community
- Professional Training and History
- First FTS Squadron Assignment
- Experience as Maintenance Material Control Officer in an FTS Squadron
- Recommendations for Improvement Within the FTS AMDO Community

The results of the data analysis are provided in chapter IV.

5. Interpretation and Reporting

Several strengths and limitations were identified during the course of this study. First, the study was limited in scope, as I only interviewed 14 of 82 total officers in the community. Further, in many cases, significant time had elapsed from the time that the events in question had occurred. My inclusion in the FTS AMDO community can be seen as both a strength and limitation. Some officers may have been reluctant to share embarrassing stories with a fellow officer. However, my experience in the community gave me insight into many aspects of the community that an outside observer would not have. Further interpretation of the strengths and weaknesses of this study are provided in the following chapter.

Following the analysis of the data collected during the 14 interviews, three critical incidents were identified. The critical incidents were identified by the frequency and relevance of the observations from the participants that pointed to a deficiency in the professional development of junior FTS AMDO officers.

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IV. ANALYSIS

A. INTRODUCTION

Upon completion of the interviews, I gathered the notes from all of the participants and grouped the data into the seven topic areas. This section provides a summary of the input obtained from the 14 participants.

B. ANALYSIS

1. Navy Background and Educational History

I started each interview by asking the participant to give a brief history of their military service. Ten of the 14 persons interviewed reporting joining the military by volunteering for enlisted service. Those interviewed became commissioned officers through a variety of sources including the direct commission officer (DCO) program, officer candidate school (OCS), the seaman to admiral 21 (STA-21) program, the chief warrant officer (CWO) program and the LDO program.

I then asked the participants about their educational history. Six of the 14 persons reported having a B.S. degree or higher in an engineering discipline. The remaining eight officers had bachelor degrees in a variety of fields ranging from liberal arts to applied science. Six interviewees also reported having completed a postgraduate degree. Table 2 shows the participants previous Navy component and their educational history.

Table 2. Participant sources and educational history

Participant	Rank	Previous Navy component	Education
1	LCDR	SELRES	Technical B.S.
2	LTJG	SELRES	Business M.S.
3	LCDR	Active Duty	Non-technical B.S.
4	LCDR	SELRES	Technical B.S.
5	LT	Active Duty	Non-technical B.A.
6	LT	SELRES	MBA
7	LCDR	SELRES	Technical M.S.
8	LCDR	SELRES	Non-technical M.S.
9	LCDR	SELRES	Technical B.S.
10	LT	SELRES	Non-technical M.S.
11	LCDR	Active Duty	Technical B.S.
12	LCDR	Active Duty	Non-technical M.S.
13	LT	SELRES	Technical Ph.D.
14	LCDR	SELRES	Technical M.S.

2. FTS Redesignation Process

Next, I asked the participants to describe what drew them to the FTS AMDO community and how they went through the redesignation process. Eleven of the 14 persons interviewed applied for recall from the selected reserve. The three others applied for transfer from the active component, two of which had received at least one FOS for promotion to lieutenant commander. Of those that applied from the SELRES, there were several reports of a perceived difficulty for selection into the community.

Influence and motivation to apply for redesignation came from a variety of sources. The FTS detailer was the most commonly mentioned source of influence and information about the community. Two officers noted the FTS detailer had reached out to them to express interest in them applying to the community. Those officers interviewed that had not been a part of a reserve aviation squadron expressed a general unfamiliarity with the community and multiple officers reported that the information available to via the NPC website to be insufficient to outline the basic community goals and expectations. Many officers reported an influence to apply for the community by senior, 0–5 and above, FTS AMDO officers. This was especially true of those SELRES officers that had

been drilling or on recall with a reserve aviation unit. Other officers received influence from active duty AMDOs and senior enlisted personnel that had familiarity with the FTS. All statements of influence given during the interviews had a favorable view of the community, its mission and assignments.

3. Initial Expectation of the FTS AMDO Community

The participants then detailed their initial expectations of the FTS AMDO community. Several participants reported applying for recall to FTS due to lack of job satisfaction or having been laid off in the civilian sector. Additionally, many of those interviewed reported that the benefits and retirement afforded by being on active duty was a major motivating factor behind their decision to apply to the FTS redesignation board. Further, four officers replied that they were compelled by the differing promotion opportunities afforded within the reserve component. Many officers reported that they expected an improvement in work/life balance in the FTS AMDO versus the active component. The officers cited the lack of true sea duty billets and good duty stations as reasons for this expectation.

A general lack of knowledge about the community was the most common response to this line of questioning. This was most prevalent in those officers coming from active duty or those that had not served within a reserve aviation unit. However, even those with reserve aviation maintenance experience reported a desire for more information about the community and the expectations of new officers. Several interviewees reported that there was little or no interaction with senior FTS AMDO officers throughout the redesignation process.

4. Professional Training History

Nine of the 14 officer interviewed reported having attended the NAMP indoctrination course at some point during their career, with the other five completing the NAMP manager’s course. Feedback reported for the NAMP indoctrination course was largely positive. Many officers stated that they felt it was especially helpful in gaining general NAMP knowledge and with the weight and balance program. Additionally, multiple officers reported that the course did a good job of blending book knowledge

with real life situations. Criticism of the course focused on a lack of training in component management, within the naval aviation logistics command management information system (NALCOMIS) optimized organizational maintenance activity (OOMA), assistant maintenance officer (AMO) duties and financial management. Two officers who had attended the NAMP manager's course expressed regret that they had not attended the longer NAMP indoctrination course.

The officers interviewed reported having attended a variety of other related professional training during their careers. Feedback for the many CNATTU courses offered was generally poor. Complaints about the CNATTU courses were that they made poor use of time, often done for the day by 0900, and they were just exercises in reading the applicable instructions vice practical or applied knowledge. The one exception to this sentiment was the OOMA configuration management course, which multiple officers reported as having been extremely useful.

Five officers reported having attended the joint aviation supply and maintenance material management (JASMM) course. Reviews of this course were mixed, with multiple officers reporting that it was worthwhile and helpful in their careers. Yet others reported that it had little applicability to the FTS, since it did not touch on reserve financial management. Several officers expressed a desire for a reserve specific financial management course, since JASMM and the CNATTU operating target (OPTAR) course both cater to the active duty.

5. First FTS Squadron Assignment

I then asked the officers to describe their experience upon reporting to their first FTS squadron. Two of the officers interviewed were yet to be assigned to a squadron as an FTS officer. Six of the twelve officers were assigned to squadrons where they were the only ground maintenance officer. Of those six, four reported having difficulty balancing the three main roles placed upon them, maintenance material control officer, material control officer (MCO) and assistant maintenance officer. Two officers stated that they felt they had no support structure or contingency plan to fall back on. The opposite was true of those officers assigned to squadrons with multiple FTS AMDO billets. Those

officers unanimously expressed the positive effect the other officer(s) had on their professional development. Though they still expressed a steep learning curve, the mentorship and support lent by fellow officers allowed for a sharing of duties, job rotations and comradery.

Several officers stated that they had received poor pass downs from the previous officer(s). This was noted by officers in squadrons with a single ground officer and those with multiple officers. Several officers reported being assigned collateral duties within their squadrons while serving as the MMCO. These duties included: casualty assistance calls officer (CACO), legal officer and transportation officer. Senior enlisted leadership was reported to have been both a source of good counsel and mentorship, but also a hindrance and source of confrontation by two officers.

6. Experience as Maintenance Material Control Officer in an FTS Squadron

I asked the officers that had served as a squadron MMCO how long they served in that role during their first squadron tour. Answers ranged from one year to three and half years. Next, I asked the officers what they felt the primary duty of the MMCO was within a squadron. Answers to this question broadly fell into two categories. First, the planning and prioritization of scheduled and unscheduled maintenance. Also, to communicate and liaise between the senior enlisted leaders and the aircrew/officers and with outside entities such as fleet support teams (FST) or program manager air (PMA).

I also asked the officers what obstacles they faced during their first squadron tours. Two officers reported having substantial issues with facilities during their tours. One of those was onboard an Air Force, which led to a significant delay in resolving the issue to the satisfaction of both service's requirements. Several officers reported that aircrew often had unrealistic expectations of the availability of operational aircraft for the flight schedule. Because of the unique structure of reserve squadrons, there is often an abundance of senior pilots and aircrew which can lead to this issue becoming even more difficult for the junior FTS AMDO officer if they are not supported by their maintenance officer and front office.

7. Recommendations for Improvement within the FTS AMDO Community

Lastly, I asked those interviewed to discuss the resources that they found most helpful during this initial tour and for any recommendations that they may have to assist officers that are transitioning into the community. The most common topic discussed was that of mentorship. Some officers expressed that they had developed relationships with the other officers in their squadron that turned into long term mentor relationships. Others had relationships from previous experience that they brought to the community and maintained that mentorship in their FTS AMDO careers. However, several officers responded that they had no mentor and did not seek one out or had no mentor assigned and did not have any such relationships to engage with. One lieutenant commander commented that the best resource during his career has been peer mentorship. Another officer commented that he had a real need for a mentor when he came to the community, as a prior DCO SELRES officer, but had no one assigned and didn't know who to reach out to. Another lieutenant commander also commented that he was assigned a mentor many years back, but when he contacted the senior officer he was put off and never heard from the officer again.

The officers interviewed put forth many other recommendations. The idea of improving and standardizing the turnover process so that new officers are setup for success when they check on board. Create a community specific indoctrination curriculum that would outline the expectations of officers within the community. Several officers commented that the type wing indoctrination is a great program. One suggested that the type wing indoctrination be scheduled so that the officer checks in with the squadron first and gets a few weeks in the squadron before returning for the training. This would allow the officer to formulate questions and better understand the material presented. Another officer mentioned this same concept in regards to attending training courses. Several participants pointed to officers in their sister squadrons as being a great help to them during their squadron tours. Many officers commented that the annual FTS AMDO training symposium is a valuable resource that allowed them to make contacts, develop relationships and feel more plugged into the community. A lieutenant

commander suggested that the community leadership engage with squadron leadership to provide them with guidance and training on where our community excels and what the goals for our junior officers are.

C. INTERPRETATION AND REPORTING

This section outlines the limitations, strengths and critical incidents identified in this study. Due to the limited nature of this study, not all incidents of identified issues are reported.

1. Strengths and Limitations

This study was limited in scope and significant time had lapsed since the events occurred. I designed this study only for those officers in grade O-4 and below in order to obtain input from officers that were less removed from the FTS redesignation process. However, this limited participation from our senior officers who have the most experience in the community and may have provided excellent insight if interviewed. Additionally, even though relatively junior officers were interviewed, there was often a large gap in time between the interview and the events in question. This leaves open the potential for differences between current policy and that which was in place during the experiences recorded.

The overall size of the community, at 82 officers, initially limited the size of the pool of candidates for this study. Further reducing this pool to the 57 officers that I contacted left a small remaining population suitable for participation. Since participation was voluntary, only 14 officers responded and partook of the interview process. Of the 14 officers that participated, nine were lieutenant commanders, increasing the likelihood that there had been a significant time gap between the interviews and the events in question. Further, I did not test the questions prior to conducting the interviews. This resulted the interviews taking a different context than I had originally intended. My focus had been on the experience of the officers as the MMCO in an FTS squadron. However, much of the data gathered focused on other areas of their initial FTS experiences.

Also, the study was limited by my involvement in the community. During some lines of questioning, participants may have been hesitant to provide complete answers. This seemed especially true when asking for areas where the officers may have struggled and for experiences that they learned from. I anticipated that this would be a major area of focus for this study, but I received little feedback during the interviews. Additionally, all participants were male. While the Navy officer corps and this community in particular are predominantly male, the lack of female input to this study is a significant limitation.

The strengths of this study result from the experience that I have within the community and the support of the community's senior leadership. I went through the FTS redesignation process in the spring of 2013. This gave me recent insight into the redesignation procedure and I now have over four years of experience within the community. Being a member of the community observed, I am familiar with the terminology used, the culture within the community and the billets that were discussed during the interviews. These are aspects of the community that an outside observer would need to spend many hours researching prior to conducting such a study. Additionally, I had the support of community leadership throughout the project. I contacted the three community Captains when I was searching for a research topic and they supported the project from the beginning. This project would have been much more difficult without the direct support of these leaders. Finally, being a member of the community, I had some amount of trust with the officers interviewed. This gave the participants confidence that I would accurately represent their accounts in this study.

2. Critical Incidents

The following critical incidents were identified through the interview process.

- The need for additional information for prospective and newly selected FTS AMDO officers.
- The need for a more robust mentorship program.
- The need for a means of knowledge sharing and knowledge management.

Each of these critical incidents and potential solutions are discussed in detail in the following chapter.

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V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY

Junior FTS AMDO officers are often placed in a billet where they have little direct support from more experienced officers. Due to the varied background of the officers selected for this community, each officer brings a different skillset with them into their initial tours. In an attempt to identify any potential knowledge and experience gaps common to junior FTS AMDO officers, I interviewed 14 officers to gain insight into their experiences during their initial squadron tours. This study utilizes the critical incident technique, a method of gathering facts from area experts to identify opportunities for performance improvement (Flanagan, 1954).

I asked those interviewed to describe their experiences during their initial squadron tour as an FTS AMDO. The interviews focused on the following topics: Navy background and educational history, FTS redesignation process, initial expectation of the FTS AMDO community, professional training history, first FTS squadron assignment, experience as the maintenance material control officer in an FTS squadron and recommendations for improvement within the FTS AMDO community. I collated the responses into critical incidents by the frequency and relevance of the responses.

The critical incidents identified are: a need for additional community information to prospective and newly selected officers, a need for a more robust mentorship program and a need for a means of knowledge managements within the community. I have provided five recommendations in this chapter to meet the needs of the FTS AMDO community.

B. CONCLUSIONS

1. Community Information for Prospective and Newly Selected Officers

One of the critical incidents identified during this study was the lack of publically available information for the FTS AMDO community. Information currently available to prospective and newly selected officers is limited to that which is available on the navy

personnel command (NPC) website. The FTS redesignation board page lists the applicable instructions, application template, eligibility criteria and the limitations matrix (Navy Personnel Command, 2017). This constitutes the minimum information needed to verify eligibility for the next board and to apply for that board. There is no community specific information listed on this page.

The NPC full time support officer community manager website lists some additional information (Navy Personnel Command, n.d.-c). It briefly describes the FTS officer community and addresses potential questions for officers who might be interested in redesignation. It also describes the basic redesignation procedures and provides a link to FTS community pages and the FTS redesignation board site.

The FTS AMDO homepage, also located on the NPC site, gives a brief overview of the community and links to the FTS redesignation board and FTS officer pages (Navy Personnel Command, n.d.-b). The page briefly lists the community career expectations by paygrades, provides a description of the acquisition coded billets in the community and some training courses that would be worthwhile to pursue. The page refers all questions to the FTS AMDO detailer.

These NPC website pages comprise all publically available information on the FTS AMDO community, the FTS community and the redesignation process. Prospective officers unaware of the community would need to find these pages himself or herself or hear of the community through word of mouth. The website amdo.org is popular among aviation maintenance officers in the Navy (LDO, CWO and AMDOs), however it has no current information about the FTS community. Since these pages are used primarily for recruitment of new officers, it would benefit the community to make the sites both more useful and more visible to the potential pool of candidates for the community.

Breaugh and Starke (2000) outline three phases of recruitment objectives and strategy. First, certain recruitment activities have an influence on the number and type of individuals that will apply for position. For example, if the community is seeking officers with previous aviation maintenance experience, it may not benefit them to advertise the community on a popular supply corps website. Next, there are activities during the

recruitment process that could affect whether an applicant withdraws during the recruitment process. This could be the case of receiving poor treatment during an interview or other perceived slights. Finally, there are recruitment actions, such as the timeliness of the application to the job offer, which could influence the decision of the applicant concerning the job offer (Breaugh & Starke, 2000).

During the interview process, I heard from several officers that they found the publically available information on the community to be lacking, especially concerning community goals and expectations. Also noted was a lack of information on what differentiates the FTS AMDO community from the active duty and the selected reserve. The officers interviewed expressed a desire to know what the community expected of them after the selection process. The FTS detailer was seen as major source of information and assistance during the recruitment and application process.

The FTS AMDO homepage should be updated to include a more robust explanation of what distinguishes FTS AMDOs, such as duty locations, mission types and career path, from the many other aviation maintenance officer communities within the Navy. Further, either linking to or adding this information to the amdo.org site will provide greater visibility for the community, as this is a popular destination for maintenance officers across naval aviation. The community has already initiated counseling for newly selected officers with the community manager, and this will help to alleviate the concerns raised about initial expectations of the community after selection.

2. Knowledge Management

With a cadre of 82 officers of vastly different backgrounds, the FTS AMDO community has a deep pool of experience from which to draw. Currently experience and knowledge is passed within the community via personal relationships, such and mentor and protégé, and within the confines of the chain of command. The type wings publish instructions and hold training sessions for newly assigned personnel. The wing instructions outline additional procedures to the NAMP that are peculiar to their type/model aircraft or operating environment. Additionally, for the past few years, officers assigned to FTS squadrons have been given an intermediate-stop on their orders

to attend indoctrination training at the associated type wing. This training has been coordinated between the three type wings and includes both common and platform specific topics. However, the information contained within the training is not widely available within the community. As of July 2017, the community has a secure website established as part of the Commander Naval Air Force Reserve (CNAFR) N42 SharePoint site. While there is currently little information shared via this site, it allows for the implementation of various knowledge management tools.

A simple method for engaging knowledge management within the community is the creation of an expert directory. An expert directory is means to organize information on each community member's areas of expertise and background (Wagner et al., 2003). This information can then be published along with each member's contact information. While the expert directory does not enhance or spread knowledge, it can be extremely useful for people to find others who have the knowledge or experience they need to draw on (Wagner et al., 2003). Additionally, the expert directory could prove to be valuable to members when choosing a mentor.

The data needed to compile the expert directory should come from multiple sources. First, a basic background of assignments, navy officer billet classifications (NOBC) and additional qualification designators (AQD) could be compiled from the fleet management & planning systems (FLTMPS). Contact information can be obtained through the GAL within NMCI. Finally, input from individual members would be needed to obtain more detail on areas where they have expertise, such as specific NAMP programs, positions they have held or technical skills. The FTS AMDO section of the CNAFR N42 SharePoint portal could host the expert directory. The site is secured with access only via DOD common access card, allowing personally identifiable information to be shared. The file could be shared in a manner that members can update their information, with regular backups occurring to ensure reliability in case of error or malicious damage.

The second method recommended for knowledge management within the community is the implementation of a wiki site. A wiki is a group of webpages linked together and created by a group of users (Leuf & Cunningham, 2001). Wikis are not only

able to collate information, they facilitate the answering of questions and the making of new content through incremental knowledge creation (Wagner, 2004). Wikis allow entire groups to share knowledge freely, creating joint ownership which adds to the reliability of the information assembled (Wagner, 2004). A wiki would not only allow for the consolidation of current training and knowledge from the type wings, but would create a means to share items such as: lessons learned, inspection planning, contact information for the various sites where we operate and detachment planning. Adults are inspired to learn by their current needs, and this learning should be self-directed (Lindeman, 1926). A wiki is an ideal tool to allow for both collaboration in the creation of content and the ad hoc, topic based retrieval of information.

Again, the CNAFR N42 SharePoint site is an ideal location to create and share a community wiki. Since the site is secured, most community information will be able to be shared via this portal. Microsoft SharePoint has built in tools that allow for the creation and administration of a wiki (Microsoft, n.d.). An enterprise wiki created within Microsoft SharePoint allows "for sharing and updating large volumes of information across an enterprise" (Microsoft, n.d., sec. "Wiki considerations").

3. Mentorship

A majority of the officers that I interviewed either had no formal mentor relationship within the community, or had created a peer mentor or step ahead mentor relationship based upon working with another FTS AMDO during their initial tour. Only one officer reported being assigned a mentor and that led to only one interaction between the two officers. Currently, the community is assigning all newly selected officers a mentor in the grade of O-5 or above. Additionally, all O-5 and above personnel in the community are to have a biography posted to the CNAFR N42 FTS AMDO SharePoint site. This is a great start and will help those newly assigned officers to get established within the community. However, many other officers in the community would also benefit from a mentor relationship with a senior officer.

When assigning mentors, consideration should be made as to the experience of the mentor assigned and the assignment of the officer (Ragins, 2007). For example, if the

junior officer is assigned to a F/A-18C squadron, the mentor should have some experience in a similar squadron. Baugh and Scandua (1999, p. 514) found that having multiple mentor relationships "may result in greater organizational commitment, greater job satisfaction, enhanced career expectation, increased perceptions of alternative employment, and lower ambiguity about one's work role." However, each mentor should be aware of the relationships of the protégé so that conflicting demands are not imposed (Baugh & Scandura, 1999). Since the community is spread across the country, with few concentrations of multiple officers, most mentoring takes place by electronic communication. This has the advantage of increased mentor access and only minor constraints on time and space (Colky & Young, 2006). However, the absence of face-to-face contact adds complication in understanding the attitude and approach of the other member (Colky & Young, 2006).

Creating a mentor list for the whole community would allow both senior and junior officers to see where there may be opportunities to establish new mentor-protégé relationships. This could also be added to the FTS AMDO portion of the CNAFR N42 SharePoint site and possibly integrated with the expert directory, depending on the format. The list would simply show any active mentor-protégé relationships and denote any desired relationships and the associated needs or desires for that relationship.

C. RECOMMENDATIONS

Based on the input received during the interviews and the analysis provided in this chapter, the following recommendations are made:

- Add community distinctive information to the FTS AMDO NPC site.
- Add links or new tab to amdo.org to broaden awareness of the community with naval aviation maintenance.
- Create an expert directory to be published on the CNAFR N42, FTS AMDO SharePoint site.

- Create a community wiki within the CNAFR N42, FTS AMDO SharePoint site.
- Create community mentor listing, part of expert directory, to be published on the CNAFR N42, FTS AMDO SharePoint site.

These recommendations will be briefed to the FTS AMDO senior leadership for consideration and distribution of action items.

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APPENDIX. LIST OF QUESTIONS

The format, wording and questions used in this study were adapted from the interview guide published by Ellis and Munson (2015, pp. 137–139).

A. INTRODUCTION

I am interested in capturing your experience in an organizational level squadron during one of your first two tours as an FTS AMDO. I am interested in hearing narrative and opinions from your perspective. Additionally, I would like to hear of your motivations, experiences, thoughts and perceptions during this assignment.

Thus, I will ask you to share your story and to give specific examples. I have prepared questions to help draw out your experiences, but please feel free to answer in whatever order makes sense to you.

B. BACKGROUND

- Please tell me how you came to join the Navy?
- What field was your undergraduate degree in?
- What drew you to aviation maintenance?

C. FTS REDESIGNATION

- Please describe or tell me the story of how you came to consider redesignation to the FTS AMDO community?
- What specific experiences contributed to your interest? How?
- How did other people inspire your decision? What was their role in your life (in other words, who were they, without giving us names)?
- Describe your interactions or experiences with other FTS AMDOs that might have influenced your interest.

- What was your rank when you applied for redesignation?
- What was your Navy experience at time of redesignation? Previous designator?
- What was your total time in service?

D. INITIAL EXPECTATIONS

- Before the assignment, what was your perception of the FTS AMDO community in general?
- What excited you about the community?
- What worried you about the community?
- What impacts did you want to make initially?
- Did you expect to be treated differently than in your previous community?
- How did you expect the assignment to impact your life and career?
- Work-life balance?
- Advancement?
- Socially?

E. TRAINING

- Did you attend either the NAMP Indoc or NAMP Managers course after being selected to the FTS AMDO community?
- What was your experience of the training? What happened?
- Did the training build on your previous aviation experience (if applicable)?

- How long after the training were you assigned to your first squadron?
- Have you attended any other training that has been useful in your FTS AMDO career?

F. REPORTING ONBOARD YOUR FIRST SQUADRON

- Tell me about your first experiences upon reporting to your first squadron.
- What assignment were you given when you first reported?
- How many other FTS AMDOs were in the squadron?
- How many SELRES AMDOs?
- What barriers or challenges did you face initially and how did you deal with them?

G. REMAINDER OF ASSIGNMENT

- What other billets did you fill during your tour?
- What collateral duties were you assigned?
- What conflicts existed? What were the keys to overcoming those conflicts?

H. MMCO EXPERIENCES

- Did you serve as the squadron MMCO? How long?
- What do you see as the primary role of the MMCO?
- What tasks are most important for the MMCO to accomplish?
- Please tell me about an experience or two where you felt that you really succeeded in this position.

- What people or events played a role?
- How long had you been in the MMCO role?
- Tell me about any awkward moments or learning experiences.
- What people or events played a role?
- How long had you been in the MMCO role?
- How did this affect the maintenance department?
- What was as expected, what was different serving as MMCO?
- Did you feel prepared for the job?
- What people or events most influenced your experience? How?
- How did your perspective about the assignment and/or behavior change over time? What events or people influenced this change?
- How has this experience influenced you since?
- What would you have done or thought differently, given what you know now?

I. RECOMMENDATIONS

- What resources or policies best supported your squadron experience?
- CNAP Portal?
- NAMP?
- Type Wing guidance?
- How did the leaders of the squadron support you?

- How did the type wing support you?
- What hindered you during your tour?
- Do you have any suggestions on how the community could improve the redesignation and training process?
- Was it adequate?
- Did it prepare you?
- Was there anything that would have been helpful to add? Change?

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