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REPORT NUMBER 87-1185

TITLE KEYS TO EFFECTIVE AIR FORCE AERO CLUBS

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PREFACE

Aero clubs contribute to the Air Force in many ways. This report describes just a few of the ways in which aero clubs contribute to the Air Force mission and morale. This report is aimed at aero club members; managers; Morale, Welfare, and Recreation officials; and base/wing commanders who have the common goal of making their aero club more effective. The first part of this report describes the development of the aero club regulation and compares Air Force aero clubs with general aviation as a whole. The second part describes the many innovative ways which aero clubs have been used to further the Air Force mission. The final part of this report is a compilation of ideas of how to make aero clubs even more effective. These ideas have worked for individual aero clubs but may not be common knowledge throughout the Air Force, and this report is designed to help in spreading the word.

I thank Maj (Lt Col-selectee) John Prible for sponsoring this project and providing the aero club historical data and several good ideas. I thank the several managers and members of Air Force aero clubs whose ideas and successes I have borrowed.

ABOUT THE AUTHOR

Major Robert C. Hicks, Jr, earned both bachelor's and master's degrees in Electrical Engineering from Texas Tech University. He was a distinguished graduate of the Air Force Reserve Officers Training Corps in December 1973. He has served in various development engineering assignments in USAF Space operations and flight test. He graduated from the Flight Test Engineering course of the USAF Test Pilot School at Edwards AFB, California, in December 1983. He has been a licensed pilot since 1973, and has been a member and served on the Board of Governors of several aero clubs, including the Naval the Seychelles (Indian Ocean) Aero Club, Air Station Moffett Field Aero Club, the Edwards AFB Aero Club, the Hickam/Wheeler Aero Club, and the He was president of the Board of Governors for the Maxwell/Gunter Aero Club. Edwards AFB Aero Club from 1984 to 1986. He is a commercial pilot with an instrument rating and a Certified Flight Instructor certificate. He iε presently a part-time instructor pilot with the Maxwell/Gunter Aero Club.

TABLE OF CONTENTS

4

Preface	111
About the Author	iv
List of Illustrations	vi
Executive Summary	vii
CHAPTER ONEDEVELOPMENT OF AIR FORCE AERO CLUBS	
Evolution of the Aero Club Regulation	1
Air Force Aero Clubs in Comparison with General Aviation	5
CHAPTER TWOAERO CLUB CONTRIBUTIONS TO THE AIR FORCE MISSION	
Aero Club Aircraft and TDY Travel	10
Aviation Training and Orientation Flights	12
Morale and Leadership	13
CHAPTER THREETECHNIQUES FOR MAKING AERO CLUBS MORE EFFECTIVE	
Rapport with the Commander	15
Techniques for Improving Safety and Operations	17
Techniques for Improving Financial Status	17
Techniques for Improving the "Club" Aspect of Aero Clubs	19
Long Term Suggestions for Improving Aero Clubs	20
Summary	22
CHAPTER FOURCONCLUSIONS AND RECOMMENDATIONS	23
BIBLIOGRAPHY	25
APPENDIX	
Additional Graphs: US General Aviation and USAF Aero Clubs	28

LIST OF ILLUSTRATIONS

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FIGURES

FIGURE	1-1Aircraft Accident Rates for USAF Aero Clubs and US General Aviation	3
FIGURE	1-2US General Aviation Current Pilots	6
FIGURE	1-3USAF Aero Clubs Total Number of Members	7
FIGURE	1-4Total USAF Aero Clubs	8
FIGURE	1-5USAF Aero Clubs Total Flight Hours	9
FIGURE	2-1Sample TDY Orders	11
FIGURE	A-1US General Aviation Total Flight Hours	29
FIGURE	A-2US General Aviation Number of Aircraft	30
FIGURE	A-3USAF Aero Clubs Total Number of Aircraft	31



EXECUTIVE SUMMARY

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REPORT NUMBER 87-1185

AUTHOR(S) MAJOR ROBERT C. HICKS, JR., USAF

TITLE

KEYS TO EFFECTIVE AIR FORCE AERO CLUBS

Air Force aero clubs have come a long way since their creation in 1955. The aero club regulation parallels the development of aero clubs. The first aero clubs were loose organizations which were locally administered with little formal guidance. Present aero clubs are safe and business-like organizations with structured programs on everything from operations and safety to pilot training to financial reporting. Air Force aero clubs have half the accident rate of general aviation as a whole, primarily due to training, safety programs, and supervision. Aero clubs and general aviation are subject to similar pressures, but while the number of general aviation pilots has declined by 10%, the number of Air Force aero club members has increased by 40% in the past ten years. The number of Air Force aero clubs declined, but has remained steady at around fifty for the past ten years. Air Force aero clubs are healthy and dynamic.

Air Force aero clubs contribute in many ways to the Air Force mission. Several ways have been quite noteworthy. Aero club aircraft can save time and money for Air Force travelers on TDY orders, and the procedure for authorizing use of aero club aircraft is quite straightforward. Aero club aircraft are ideally suited for the tasks of picking up or delivering aircraft parts, mechanics, or even VIPs. Many bases have their aero club written into their USAF Survival, Recovery, and Reconstitution plans as well as other contingency plans. Aviation training has always been an important part of aero clubs. Many aero club trained personnel have been selected to USAF Undergraduate Pilot Training

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or Undergraduate Navigator Training. USAF Reserve Officers Training Corps and USAF Academy cadets have been provided low-cost orientation and motivation flights in aero club aircraft. Rated personnel enjoy the aero club as a means of maintaining morale and proficiency during non-flying assignments. And finally, managing the aero club via the Board of Governors is a challenging training ground for future Air Force leaders.

As much as aero clubs contribute to the Air Force mission. there are always techniques which can enhance the operations of an aero club. Several areas are important in trying to improve aero clubs. First, aero clubs must maintain a sound relationship with the commander. Many commanders are not aware of all the programs which aero clubs use to contribute to their personnel and community, and aero club leaders must educate and inform the commander. Several techniques have been used to improve the operations and safety of the aero club, such as improving safety meeting content, implementing a Supervisor program, and aggressively pursuing continuing training programs. of Flying Another area where various aero clubs have succeeded is in strengthening their financial condition. Techniques such as micro computer management systems, aggressive leaseback aircraft management, and advance dues or "chit" systems have proven to be financial winners for aero clubs. Another area not to be overlooked is the membership or "club" aspect of aero clubs. Techniques such as Fly-Outs, Proficiency Contests, or club projects help bring out the esprit de corps which is vital to an aero club. There are also ways that the aero club system could be improved which are outside of the capabilities of a single aero club. For example, an annual meeting of aero club managers and presidents would help bring together good ideas and techniques which could benefit all aero clubs. Also, the manager's salary must be increased to be equal to his level of responsibility, and can only be done with the cooperation of the aero club and the Non-Appropriated Fund Financial Management Branch.

Aero clubs provide many services and capabilities to the Air Force mission and Air Force personnel. The aero club program has evolved into a safe and efficient system of over 8,600 active members with a commitment to aviation. The several innovative ideas and successes mentioned here are but a few of the reasons why zero clubs continue to contribute to the mission and morale of the Air Force.

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Chapter One

DEVELOPMENT OF AIR FORCE AERO CLUBS

Air Force members have been interested in and flying general aviation aircraft ever since general aviation aircraft have existed. At first. Air Force members who wanted to form an aero club to share the expenses of operating general aviation aircraft were forced to organize their aero clubs outside of the Air Force, because no aero clubs were allowed on base. For example, the Maxwell/Gunter Aero Club was chartered in the state of Alabama in September 1953 and operated out of a nearby civilian airfield (1:5). But Air In 1955, General Curtis E. Force members wanted to have aero clubs on base. LeNay discovered an old Taylorcraft which three Non-Commissioned Officers had hidden in an old hangar on base. He told them that they could remain on base if they would organize a club with Federal Aviation Administration (FAA) licensed mechanics and pilots (27:1). Apparently, this type of command attention was what was required to move the Air Force into action. In June 1955, the Air Force authorized the first two recreational flying organizations at Offutt AFB, Nebraska, and Maxwell AFB, Alabama (1:5).

EVOLUTION OF THE AERO CLUB REGULATION

The evolution of the aero club regulation parallels the development of Air Force aero clubs. The first Air Force aero clubs were regulated locally by local commanders. The first regulation concerning aero clubs was Air Force Regulation (AFR) 34-14, Personnel Services, Establishment and Operation of Air Aero Clubs, published on 9 February 1956. The entire regulation was Force than a page and a half in length, and provided only general less guidance. This first regulation defined the purpose of Air Force aero clubs as: 1) stimulate interest in aviation, 2) provide authorized personnel with the opportunity to engage in flying as a recreational activity, and 3) "encourage and develop skills in aeronautics, navigation, mechanics, and related aero sciences useful to the Air Force mission" (10:1). Aero clubs provided their own insurance and were directed to be "self-sufficient in a businesslike manner to assure financial stability at all times" (10:2). Base commanders were also directed to assure that clubs maintained an "effective air and safety program" (10:2). So, by 1956, Air Force aero clubs had a regulation, but not much specific guidance.

As the number of Air Force aero clubs grew, the aero club regulation evolved in size and scope, primarily to standardize aero clubs and give them direction in an effort to improve their generally poor accident rate and marginal financial condition. By 1960, the regulation directed that the commander task a rated officer to be the club advisor. The commander was also directed to assign a Flight Safety Officer to conduct an "effective ground and aircraft accident prevention program" and to conduct an "aircraft accident prevention survey at least once per year" (12:3). Some operational restrictions were also levied to prevent inexperienced aero club members from flying beyond their skill level, such as flying cross-country at night under Visual Flight Rules (VFR). Also in 1960, in an effort to prevent possible liability claims. AFR 34-14 required the so-called "Hold Harmless Agreement" to signed by civilian passengers (12:4). By 1961, all Air Force aero clubs were covered by the Air Force Welfare Board self-insurance program for hull and liability insurance (18:9-1).

In 1964, the aero club regulation was rewritten under the recreation program and the purpose statement was slightly changed. The purposes of Air Force aero clubs were to: 1) provide Air Force personnel and dependents an opportunity to develop skills in aeronautics including pilotage, navigation, mechanics, and other related aeronautical services, 2) develop awareness and appreciation of aviation requirements and techniques, 30 provide a facility designed to meet needs for low cost, safe, light aircraft operations, and 4) provide a social program to further Air Force morale (15:1). Safety was another important issue in 1964. Though the Air Force aero club and general aviation accident rate was nearly the same, 27 accidents per 100,000 flight hours was not acceptable. The accident prevention program was changed to once six months instead of twelve months. Additional every operational restrictions were added, such as prohibiting the towing of gliders and prohibiting parachuting from club aircraft (except in emergency) (15:3).

In 1966, the purpose statement for Air Force aero clubs was augmented by adding that the commander could use aero club aircraft in support of the USAF Survival, Recovery, and Reconstitution (SRR) Plan, subject to the consent of club membership. The original version stated that aero club aircraft could be used in support of the USAF SRR Plan to assist the commander "to accomplish his mission during a nuclear attack environment" (16:1). Subsequent versions of the regulation deleted the reference to the "nuclear attack environment," but retained this important purpose of Air Force aero clubs: to support the commander and the USAF SRR Plan.

In 1970, the purpose statement was modified and shortened. Aero clubs were recreational activities formed to promote positive morale. The purpose of Air Force aero clubs was to 1) provide eligible personnel the opportunity to enjoy safe, low cost, light aircraft operations, 2) develop skills in aeronautics, 3) develop awareness and appreciation of aviation requirements and techniques, and 4) support the USAF SRR Plan, if approved in the club constitution and by-laws. This is the same basic purpose statement in effect for Air Force aero clubs today.

The most radical change to the aero club regulation was in 1971, when it was published as Air Force Manual 215.8, Recreation, Air Force Aero Clubs. The result combined the aero club regulation with AFM 215-4, a how-to manual for aero clubs. The resulting manual expanded from five pages to 25 pages in an effort to provide more detail to commanders, aero club managers, aero club Boards of Governors, and advisors, on how to run an effective and safe aero club. Though Air Force aero club accident rates were half of those of general aviation, as shown in Figure 1-1, they were still not acceptable. Several changes were made to increase the supervision of aero clubs. Fiscal inspections, activity inspections, and safety inspections were required every

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six months. The aero club Board of Governors was formally defined and tasked with monthly meetings. The Chief Flight Instructor position was defined. Clearing authority requirements and tasks were defined. A Standardization Board was created consisting of all flight instructors, clearing authorities, operations advisor, operations officer, and club manager, with tasks defined and monthly meetings required (18:4-3). Monthly safety meetings were defined and made mandatory for each month (18:5-2). Additionally, specific guidance was detailed for aircraft maintenance policy, aircraft leasing, and club status reporting. The aero club regulation of today is basically the same structure as that published in 1971.

In the past fifteen years, several changes were enacted in a further effort to enhance safety and efficiency. In 1974, for example, one change authorized private pilots with over 200 flight hours to be designated as clearing authorities. In 1980, the members of the Board of Governors were redefined, and four mandatory advisors were named: operations, maintenance, resources, and safety. The current regulation, published in February 1986, also had several changes. The penalty was stiffened for missing the mandatory safety meeting. Another change permits viewing the videotape of a safety meeting as a substitute for attending a safety meeting. And the current regulation specifically mentions the use of aero club aircraft for Temporary Duty (TDY) travel (21:4).

As a result of findings of a Functional Management Inspection of Air Force aero clubs conducted in 1986 by the Inspector General (TIG) (26:3), a draft of AFR 215-12 is under review at time of this writing (29). Most of the changes clarify points which were not clear in the present version of AFR 215-12. The most significant change redefines the responsibilities of the Board of Governors and reconstitutes it as an Advisory Committee (29:2-5) which advises the manager who is responsible for the overall operation of the aero club (29:2-4). The draft version of AFR 215-12 does correct the deficiencies noted in the TIG report and aligns the regulation more with the actual operation of the more successful aero clubs. This draft, when ratified, will be the best and most consistent guidance available for aero clubs to date.

As a side note, not all changes to the aero club regulation were Some changes were too restrictive or not necessary and were permanent. deleted or modified in the next edition of the regulation. For example, there were no rules concerning club flight instructors until 1964 when a rule was added which required all club flight instructors to be checked by an FAA examiner every 12 months (15:3). The next version of the regulation, in 1966, was changed to say simply that all club flight instructors were required to have a current FAA flight instructor rating (16:4). In 1971, standardization meetings were made mandatory every month (18:4-3). The next edition changed the standardization board meetings to once a quarter, as they are today (19:4-2). Another overly restrictive policy was ruled in 1974 when the regulation stated that night landings did "not fulfill day requirements" for landing currency (19:4-3). The next edition of the regulation stated that night landings could be counted toward day landing currency (20:4-3). While it hasn't been without a few false starts, the evolution of the aero club regulation has resulted in basically solid guidance for the operation of aero clubs.

In summary, the aero club regulation has gone through many changes. It has grown from one and a half pages in 1956 to 40 pages in current form. It is a more comprehensive document based on the experiences and successes of Air Force aero clubs over the past 30 years. It specifies restrictions and guidance based on sound operations, safety, and fiscal policy. The regulation has developed and matured with the Air Force aero club system.

AIR FORCE AERO CLUBS IN COMPARISON WITH GENERAL AVIATION

Air Force aero clubs have shown several interesting trends when compared to general aviation as a whole. Statistics for aero clubs are only available since 1964, so all comparisons will be made based on the past twenty years. General aviation has had a steady increase in the number of pilots until the early 1980s, when the number of pilots began to decrease, as illustrated in The biggest reason for the decrease in the number of pilots with Figure 1-2. current medical certificates is the increase in the cost of operating aircraft over the past five years. The number of aero club members shows different The number of aero club members decreased trends, as shown in Figure 1–3. from a high of 10,700 in 1970 to a low of 6,500 in 1978 due to two reasons: 1) the decrease in the number of aero clubs, shown in Figure 1-4, and 2) the decrease in the number of active duty Air Force personnel. However, during the 1980s while the number of overall pilots has decreased, the number of aero club members has increased to a peak of 8,600 in 1985. Economics is the main reason for both trends. The cost of renting aero club aircraft has increased more slowly than the cost of renting arcraft from a civilian fixed base The main reason for this difference is that aero club aircraft are operator. self-insured, which costs less than civilian aircraft insurance. Aero club insurance rates have gone up, too, but not as much as civilian aircraft, partially due to the better accident rate, safety programs, and flying supervision of Air Force aero clubs (28).

During the 1960s and 1970s, the number of Air Force sero clubs declined, as shown in Figure 1-4, mostly due to financial problems. During the 1980s, the number of aero clubs began to steady. And, despite rising prices, aero club flight hours have increased slightly over the past five years (Figure 1-5). The numbers do not tell the whole story, but they do illustrate some overall trends. After years of steady increase, general aviation is now in a period of decline primarily due to the increasing cost of fuel, insurance, aircraft, and parts. Air Force aero clubs reflect these nation-wide trends to Air Force aero clubs have historically operated on the varying degrees. thinnest of profit margins, by their very nature as membership clubs. Weaker or poorly managed clubs have failed over the years and, once gone, aero clubs have been very difficult to start anew. However, recent trends are encouraging. The accident rate is half of that for general aviation as a whole. The number of clubs has stabilized and the number of members has increased dramatically in a period when the total number of active pilots in the US has decreased. Air Force aero clubs are healthy and growing in membership. Air Force aero clubs are on the way up because they continue to serve their members and the Air Force. The next chapters will address several ways in which Air Force aero clubs serve their members and the Air Force, as well as some recommendations on how to make good aero clubs even better.



FIGURE 1-2. US General Aviation Current Pilots

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FIGURE 1-3. USAF Aero Clubs Total Number of Members.



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Total USAF Areco Club Flight Hours

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USAF Aero Clubs Total Flight Hours.

FIGURE 1-5.

Chapter Two

AERO CLUB CONTRIBUTIONS TO THE AIR FORCE MISSION

Air Force aero clubs have contributed in many ways to the Air Force There are many examples of how aero clubs have participated in mission. and increased the mission capability of their local Air Force base. Unfortunately some people are only aware of the rare, but more spectacular, however. bad occurrences which befall aero clubs, such as aircraft accidents or financial struggles. Aero clubs make numerous positive contributions to the Air Force mission and Air Force morale. These contributions should be recognized and highlighted to commanders and to all Air Force personnel. The following are examples of contributions made by Air Force aero clubs to their members, their base, and their communities.

AERO CLUB AIRCRAFT AND TDY TRAVEL

Using aero club aircraft can save both time and money for Air Force personnel during TDY travel (21:4). Aero club aircraft have the advantages of being authorized to land at Air Force bases, and not being subject to airline schedules. Using aero club aircraft for TDY travel is fairly straightforward. Though travel in an aero club aircraft cannot take precedence over government conveyance, many TDY trips require Air Force personnel to travel via commercial aircraft or automobile or both. In order for an Air Force member to use an aero club aircraft for TDY travel, he simply must have the worda "Use of Aero Club Aircraft Authorized" in the Remarks section, as shown in the example orders of Figure 2-1 (14:4-6). The pilot-in-command (PIC) must also be noted since only the PIC is reimbursed for transportation costs. Aero club aircraft costs which may be reimbursed to the pilot include hourly rental rates, fuel charges, and landing and tiedown fees (25:4-107). In order to determine if travel by aero club aircraft is more advantageous to the government, one must compare the above-mentioned expenses to the commercial cost of travel to all TDY travelers. If the cost for using aero club aircraft all of the above expenses may be reimbursed. 18 less, then One may still travel via aero club aircraft even if more expensive than commercial The limit to the amount of reimbursement is simply the transportation. equivalent cost of commercial travel (25:4-107). Aero club aircraft can make TDY travel more convenient and leas expensive for Air Force nembers. especially for trips where airline service is infrequent and ground transportation is impractical.

The ability to use aero club aircraft for TDY travel has been put to good use by people all over the Air Force. As an example, when a unique missile tester at Luke AFB was needed by the F-16 Combined Test Force at Edwards AFB, another officer and I flew an aero club aircraft directly to Luke AFB to pick up the tester. We were there in under two and a half hours, and would have

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FIGURE 2-1. Sample TDY Orders.

returned the same day except for an unforseen problem with the missile tester. The total travel costs were under 9250, while commercial costs using rental cars and airlines would have cost over 9450. The Maxwell/Gunter AFB Aero aided their local C-21A mission by supplying transportation for C-21A mechanics to fix an aircraft which had broken at a civilian airport. Typically, the aero club aircraft were able to get the mechanics, tools, and parts to the disabled aircraft many hours faster than any other form of commercial transportation (35). Other aero clubs have helped local commanders in similar ways by providing pilots and aircraft to transport parts and mechanics, or to pick up Very Important Persons (VIPs). All aero clubs have this capability, but aero clubs must make the capability known to their local commanders.

Commanders may use Air Force aero club aircraft in support of the USAF Survival, Recovery, and Reconstitution Plan (USAF SRR Plan) (21:4). This has been a specific purpose for aero clubs since 1966 (16:1), but is not known by many commanders or aero club members. However, some commanders have used aero club aircraft during exercises as they would be used during an actual war or natural disaster (30). Other bases have aero club aircraft named in their contingency plans to perform functions such as ferrying parts and people, or aerial search. Aero clubs can provide commanders with assets for contingency planning, if aero clubs take the lead in offering their services. Aero clubs benefit by further contributing to the Air Force mission while gaining command attention at the same time.

Aero club aircraft provide commanders with a flexible and relatively inexpensive form of transportation to view areas of interest, such as crash sites or remote construction sites. Aircraft and proficient club pilots are usually available at short notice when the commander needs to get an aerial perspective of a site. He can often take members of his staff in the aircraft as well, if their on-scene presence is required. Again, aero club members must inform their commanders of this capability so that it might be more widely used.

AVIATION TRAINING AND ORIENTATION FLIGHTS

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All aero clubs have active and ongoing training programs which benefit Air This training of private pilots has benefited the Air Force Force members. directly as well. An applicant for Undergraduate Pilot Training (UPT) with a private pilot license or better has an advantage over applicants with no Over twenty pilots trained by the McClellan AFB Aero aviation experience. Club have been selected for UPT in the past three and a half years (30). Over twenty pilots trained by the Eglin AFB Aero Club have been selected for UPT in the past year and a half (31). Most other aero clubs have similar stories. Aero clubs provide the aviation training for many UPT-hopefuls throughout the Air Force. The Air Force benefits by not having to send the UPT-selectees to Hondo for T-41 training prior to T-37s in UPT. One recommendation which should be evaluated is that aero clubs could do all pre-UPT training and eliminate the need for the T-41 program at Hondo (30).

Several aero clubs have contributed to Reserve Officer Training Corps (ROTC) training programs at various Air Force bases. At McClellan AFB, during the summer of 1985, aero club aircraft and instructors were used for a onehour-per-cadet navigation training flight over one of three pre-planned routes. Over 140 ROTC cadets were motivated by the realistic training exercise, while the cost for the aircraft and instructors was small (\$5400 total) compared to the cost of doing similar training in an active Air Force aircraft (30). In addition, other aero clubs have provided motivational flights to ROTC cadets or USAF Academy cadets during their "Third Lieutenant" summer program. Aero club assets are an inexpensive way to motivate cadets for the Air Force flying mission.

The Air Force aero club safety program has contributed to the Federal Aviation Administration (FAA) Pilot Proficiency Program. This program combines three hours of dual flight instruction with attendance at a flight safety meeting as the requirements for earning FAA Pilot Proficiency Wings. All Air Force aero clubs hold monthly safety meetings with FAA Accident Many aero clubs have combined their normal Prevention Counselors present. safety meetings with the FAA Pilot Proficiency Program as a means of encouraging private pilot members to continue recurrent dual flight training. The Kirtland AFB Aero Club has been so successful with this program that the club accounts for over 80% of the FAA Pilot Proficiency Awards given in the Four Corners area (Colorado, New Mexico, Utah, and Arizona) (32). Other aero clubs have also been successful with this worthwhile pilot proficiency Aero club successes with this program contribute to the overall program. safety of general aviation.

Aero club pilot training contributes to the Air Force in teaching Air Force members about the environment and techniques of aviation. For example, I have benefited often in my job as a flight test engineer due to my private pilot training. I have used my private pilot training many times in flight test to understand the airborne environment, pilot workload, aircraft dynamics, and flight rules. Other engineers who are private pilots prove to be great assets to their flight test program because they possess that "air sense" which is impossible to teach someone who has never flown an aircraft. Nany other jobs in the Air Force are closely related to aircraft and flying, and the Air Force member who is a private pilot can understand the overall mission better because he understands the language and environment of the airman.

MORALE AND LEADERSHIP

Some of the most successful aero clubs are located at bases with a large population of rated officers in non-flying jobs. Many of the active members of the aero clubs at Wright-Patterson AFB and Maxwell AFB are rated officers. By flying aero club aircraft, rated officers keep their flying skills sharpened while at the same time improving their morale. "Flying a desk" during the week is not quite as painful when one can get airborne on the weekends.

One other way that aero clubs contribute to the Air Force mission is by providing opportunities for members to sharpen their organizational skills by being active in managing the aero club, such as serving on the Board of Governors (BOG). All aero clubs have a Board of Governors, consisting primarily of active duty Air Force personnel, who, with the manager, are responsible for the safe, efficient, and business-like management of the aero club (21:7). The BOG is responsible directly to the commander for operational matters involving club aircraft and members. The challenges inherent in operating an aero club tax the patience and the abilities of any would-be Air Force leader. And often, the aero club flies more hours per month than the active Air Force flying units on base. In fact, Air Force aero clubs taken as a whole would constitute the fifteenth largest air force in the world (28). A well-run aero club usually has a well-run Board of Governors, and a well-run BOG means that active duty Air Force members are improving their leadership and management skills to the benefit of their aero club and the Air Force.

Chapter Three

TECHNIQUES FOR MAKING AERO CLUBS MORE EFFECTIVE

There are many different techniques which have made Air Force aero clubs more effective in their mission. Every good aero club has innovative ideas which could help other aero clubs be more effective. This chapter discusses a few techniques and ideas which have been successful with one or more aero clubs around the Air Force. The areas discussed include establishing rapport with the commander, improving safety and operations, improving financial and improving the "club" aspect of aero clubs. Also discussed status, are which are beyond the scope of a single sero club. changes These recommendations would require changes to the aero club system or regulation.

RAPPORT WITH THE COMMANDER

One of the most important things which an aero club can have going for it is good rapport with the base or wing commander. The commander sets the tone for the type of support provided to the aero club by the various base agencies, including the Morale, Welfare, and Recreation (MWR) Division; the airfield manager; base supply; safety; and operations. A positive relationship with the commander can help a good aero club to flourish and a struggling aero club to overcome its problems. A negative relationship with the commander can kill even a thriving aero club.

One technique for improving communication with the commander is for the president (with the club manager) to brief the commander the aero club on status of the aero club, emphasizing the positive aspects of the aero club system and the local aero club itself. The commander wants to know two 1) Is the aero club going to get me in trouble, and 2) what is things: the aero club doing for my people? You can answer his first question by stressing the active and on-going safety and training programs which all aero clubs Tell him that Air Force aero clubs have half the accident rate of conduct. general aviation as a whole (see Chapter One). Review the content of recent mandatory monthly safety meetings. Review the procedures which insure adequate supervision of all aero club flying. Answer the second question by reviewing club statistics such as number of members, number and type of aircraft, number of hours flown per month and in the past year, safety record, and financial status. Answer all of his questions and don't be surprised if he is not too familiar with aero club operations. Many Air Force pilots have little or no general aviation experience, and fewer have been a member of an Some commanders may have had a bad experience with an aero club, aero club. so this briefing is doubly important to stress that yours is a good aero club. Stress to him the various ways in which the aero club can help him and his people with their mission (see Chapter Two). Use this opportunity to inform the commander of any problems you are having with various support agencies on

base. A well placed word with the boss can change the attitude of a recalcitrant fuels NCO. And don't leave the meeting without setting up a time for the commander to come out to the aero club and fly one of the aircraft. One hour of administrative time in an aircraft could not be better spent than to show the commander how a good aero club operates.

Another important aspect of the relationship the commander has with the aero club is in the choice of advisors to the aero club. The Air Force aero club regulation, AFR 215-12, specifies four mandatory advisors: the maintenance advisor, operations advisor, resource advisor, and safety advisor (21:8). These advisors are non-voting members of the aero club Board of Governors (BOG) and can be a great help in smoothing out problems which crop up in the operation of the aero club on base. However, advisors with poor attitudes or poor BOG meeting attendance can hurt the club. Do not tolerate a lackadaisical advisor. The president should contact the advisor's boss or the commander and ask for a replacement. The best advisors are typically ones with some general aviation experience and who may be aero club members. Good advisors are as important as good BOG members: they are important elements in a successful aero club.

Another area which aero clubs must educate commanders about is that of aero club facilities. A well-run aero club must have certain facilities to remain successful. These facilities include maintenance space (preferably hangar space), office and administrative space, pilot briefing/debriefing space, classroom space, and aircraft parking ramp space. Each of these areas, or lack thereof, has a direct bearing on the safety and financial auccess of the club. Some managers joke that whenever the wives' club decides to hold any type of function, the aero club automatically gets kicked out of its hangar. Some aero clubs do not have any maintenance hangar space. Commanders must be made aware that the lack of maintenance hangar space delays and sometimes prevents aircraft maintenance from being performed, which will have long-term effects on the club. Being kicked out of a hangar for a day is not earth-shattering, but often a one day event takes several days before and several days after of set up and clean up time: time when maintenance cannot be performed. Some aero clubs have been moved from one facility to another to accommodate a higher priority user. Aero clubs are not the most important organization on base, but they do represent thousands of dollars per month operating budget and hundreds of thousands of dollars of capital investment. Everytime an aero club is forced to change facilities, it costs that aero club thousands of dollars in lost revenue and fix-up expenses. Some moves are inevitable, but commanders must know the true cost which the aero club must bear for the move. Classroom space is another asset whose importance is often overlooked. Successful aero clubs make much of their income by conducting private pilot and other pilot training where an adequate classroom is essential. The importance of adequate facilities was also addressed in the IG Functional Management Inspection (FMI) of aero clubs. The IG found that because of inadequate facilities, "reduced aircraft availability due to extented maintenance times was directly responsible for financial declines in four [of the ten] aero clubs inspected" (26:12). The bottom line: Aero clubs must educate commanders that moves or lack of necessary facilities cost aero clubs dearly.

TECHNIQUES FOR IMPROVING SAFETY AND OPERATIONS

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One of the keys to safe aero club operations is an active training program. The monthly safety meeting is one method that aero clubs contribute to every members' aviation training. Since safety meetings are mandatory, and not all members can attend the scheduled meetings, many clubs have begun videotaping the monthly safety meeting (32). Viewing the monthly safety meeting tap^a satisfies the requirement for safety meeting attendance, if authorized by the commander (21:23). Videotape equipment is expensive, but is becoming more available as surplus equipment, which aero clubs may obtain. A videotape of the safety meeting passes along much more of the message and intent than a briefing on the safety meeting ever could.

Another key to safe aero club operations is adequate supervision of flying Many clubs have gone to a weekend Supervisor of Flying (SOF) operations, program using existing clearing authorities. The SOF program provides a clearing authority on duty on Saturday and Sunday when the club manager is off The SOF is typically a volunteer clearing authority who is given some duty. training and a book or checklist on aero club daily operations, including clearing pilots for flights, selling aviation items from the club stores, and informing people about membership in the aero club. This program does many things for the aero club. The SOF ensures that every pilot who wants to fly has satisfied aero club rules for currency. The presence of the SOF means that any member who wants to fly can be cleared to fly if an aircraft is available, even on the spur of the moment. Also, the SOF is a knowledgeable source of information to prospective members who always seem to show up at the club on weekends, during nice weather, when the manager is not on duty. The SOF program costs the club \$3 to \$4 per hour in credit to the SOF's aero club bill, but is more than made up for in additional flying time and additional members (30, 32, 33). And the primary benefit is better supervised, safer weekend flying operations.

One way which aero clubs can contribute to their pilots' training while increasing aero club income is by conducting an aggressive on-going training program. Most clubs gain new members as well as income by conducting frequent private pilot ground schools. The on-base education office can help by advertising the classes and by providing tuition assistance for qualified courses. Private pilot ground school should not be the only training program offered by the aero club. Kirtland AFB Aero Club offers a variety of courses including instrument/commercial ground school, instrument refresher training, night flying training, a pinch-hitter course, and an annual cross-wind landing clinic (32). Each one of the courses improves the pilots who take part in them. And each one of the courses provides income to the aero club.

TECHNIQUES FOR IMPROVING FINANCIAL STATUS

Aero clubs are not organized to generate large profits. They are usually operated on thin profit margins to support the purpose of giving eligible personnel the opportunity to "enjoy safe, low-cost, light aircraft operations" (21:4). Many aero clubs have developed innovative techniques for bringing in additional income and cutting overhead and expenses. Many of the ideas are universal and can be adopted by other aero clubs as a means of improving their financial picture.

Many aero clubs have incorporated micro computers into their operations with a number of benefits. Aero clubs have developed software and data base systems to keep track of aircraft maintenance expenses and scheduling, parts aircraft usage, and pilot currency (30, 31, 32). The computers inventory, have aided club managers in providing the multiple reports required by the Non-Appropriated Financial Management Branch (NAFFMB). Some clubs have even developed software to do their accounts receivable and billing (31). Some commands, such as Military Airlift Command, do not allow aero clubs to do their own billing, but require them to go through the NAFFMB (32). Micro computers can help aero clubs in many ways and save them time and money.

Nicro computers have been helpful to aero clubs, but could be even more Most if not all software used by various aero clubs around the country so. was developed locally by aero club members. All aero clubs could benefit they used a common software system. Aero clubs with existing software might resist change, but proven, common software with good documentation would benefit all aero clubs, especially if aero clubs were allowed to do their own accounts receivable and billing (with the appropriate reduction in NAFFMB And, if standardized aero club software is not possible, charges). clubs would benefit by seeing how other clubs' systems work. All aero club software should be evaluated centrally to determine the good ideas with which all could The annual aero club manager's conference would be an excellent benefit. place for each aero club to demonstrate their aero club software for Much good work has been done, and sharing the wealth benefit of other clubs. is imperative.

Management of leaseback aircraft is another area where aggressive club management can directly help the aero club. Most aircraft owners who leaseback aircraft to aero clubs do not take too active of a role in managing That is one of the roles they expect the aero their aircraft. club to perform. An important reason that people own leaseback aircraft is for their tax benefits. Aero clubs must be aggressive in keeping track of expenses (including depreciation) versus income for each leaseback aircraft. Often it is better for an owner to spend money to replace or repair parts of his aircraft (such as radios, upholstery, paint, etc.) and count that as a maintenance expense, rather than make a net profit for the aircraft for the year and have to pay tax on the income. Aggressive club management of leaseback aircraft can keep owners informed of opportunities to upgrade their aircraft while saving them tax bills. However, the tax laws have changed regarding leaseback aircraft. Aero clubs must keep abreast of the changes and how they affect owners, or face the problem of an unhappy owner who sells his airplane out from under the aero club for purely financial reasons.

Aero clubs have operating budgets that run into tens of thousands of dollars for even a small club (34). Most aero clubs operate on a "fly now, pay later" philosophy which can mean that a club does not receive payment for a flight for a month and a half after the flight. Time is money, and this credit system means that most aero clubs are "cash poor". I belonged to a Navy club which operated on a cash balance system which required that all members have a positive cash balance in their account at all times. This required realtime accounting practices, but meant that that club always had a lot of its members' money in its accounts. Converting to a positive cash balance system would be temporarily painful and probably unnecessary for most aero clubs. Many clubs have gone halfway by implementing a "chit" system. At the Maxwell/Gunter Aero Club for example, each month each member is billed \$28 (\$14 for monthly dues and \$14 for a chit). The chit is valid for 90 days and can be used to purchase anything at the club, including aircraft rental, The chit system encourages the members to instruction, and pilot supplies. fly and maintain their currency and proficiency. The system also provides the club with over \$3000 of "pre-payment" up front every month. Not every member uses his chits, and each month the Maxwell club benefits from over \$400 in expired chits (35). Other club systems are slightly different. The McClellan club uses a \$5 chit valid for 30 days (30). The results are the same: the chit system helps the club by supplementing the aero club's operating capital.

Many other innovative schemes have been developed to help clubs financially. The Eglin AFB Aero Club works with an Airframe and Powerplant (A&P) training program on base and, for a fee, allow their aircraft to be used for practice maintenance inspections (31). Other clubs are aggressive in recruiting membership from nearby federal government offices, such as the Federal Bureau of Investigation, air traffic controllers, and government laboratories, where their employees are eligible for Air Force aero club membership (32, 34). Aero clubs must be innovative and aggressive in finding ways to improve their financial condition.

TECHNIQUES FOR IMPROVING THE "CLUB" ASPECT OF AERO CLUBS

Aero clubs must operate in a safe and business-like manner, but it doesn't stop there. Aero clubs are also "social activities" (21:4). They are more than just a fixed base operator (FBO) at an airport who is interested in renting airplanes, cutting costs, and making a profit. An important function of aero clubs is to provide a means for aviation-minded individuals in the Air Force to get together, share experience and knowledge, grow professionally, and have fun doing it all. Some aero clubs are all too good at the business side of things and neglect the social side. The social side of aero clubs is what makes the difference between and FBO-like activity and an organization for the Air Force family.

Club projects are a good way to get club members together and make them feel a part of a fun and motivated organization. "Rides Day" is a project which benefits the club and the rest of the Air Force base by providing a means for non-aero club members to take a ride around the local area in aero club aircraft for a nominal fee. Flights are typically 20 to 30 minutes in duration and should cost from \$8 to \$12 per person. The club should use fourplace aircraft exclusively to keep the cost per seat down. Clubs can also make money by sponsoring a vendor to sell aviation-related souvenirs in the hangar during the Rides Day (34). Properly advertised and executed, a Rides Day can provide a unique opportunity to the community to fly over their Air Force base, make friends for the aero club, recruit new members, and provide a sense of accomplishment for aero club members.

Some clubs have been successful in sponsoring "Fly-Outs". During a Fly-Out, several club aircraft are reserved for a Saturday and club members sign up to fly to a nearby restaurant, tourist attraction, or fun place. The cost and flying time is split among the members. It is a great way for members and their families to get together and enjoy some of the unique advantages of general aviation and aero clubs. Some aero clubs have Fly-Outs as often as once per month, and find them one of their most popular and spirit-building activities.

Another activity which has been very popular at other aero clubs is the "Proficiency Contest" (34). The Proficiency Contest is a competition of flying skills such as spot landing, flour bombing, and mini-cross-country. The contest is usually conducted on a Saturday on-base, if traffic patterns permit, or at a nearby civilian airport with a quiet traffic pattern. Categories of pilots are established for student pilots, private pilots (under 200 hours flying time), and commercial pilots (over 200 hours). Points are awarded for each event and a cumulative score is kept for each contestant. There is a winner of each event, an overall winner in each category, and an At the next safety meeting, the club president hands out the overall winner. awards, including the bogus awards for worst landing and worst bomb. The Proficiency Contest is a fun and safe way to get aero club members together to "put up or shut up" about their flying skills.

Aero clubs can do other things to improve their "club" aspect. Aero clubs must be sensitive to their members and work to eliminate unnecessary hindrances and restrictions which do not contribute to safety and club growth. The clearing authority program must be clearly defined and advertised by the Board of Governors to prevent the appearance that only members of a clique or elite have the authority to clear themselves and others to fly. Having someone available to answer the telephone and schedule aircraft seven days of the week can mean the difference between a club which best serves the needs of its members and one which has trouble getting people airborne. A clean and uncluttered club facility gives the first and most lasting impression on how professional the club is run and the aircraft maintained. The safety meeting must be conducted professionally and with some obvious care. Since members are required to attend this mandatory meeting, aero clubs must ensure that safety meetings are informative, educational, well-run, and done on time. Nothing displeases a person more than attending a mandatory meeting which is disorganized, overly long, and pointless. The safety emphasis of aero clubs is one of the keys to the successful aero club program, and aero clubs owe their members the best they can possibly do regarding conducting safety All these things contribute to making the aero club truly a meetings. members' club to be proud of.

LONG TERM SUGGESTIONS FOR IMPROVING AERO CLUBS

The above suggestions are all within the ability of each aero club to use to improve their individual club. This section details some ideas for the improvement of aero clubs as a system, but are outside the ability of one aero club to implement. The aero club system as a whole is a sound system which has evolved and matured over time. Some things could be changed to make the system better, and better able to cope with problems of the future.

Many sero clubs have independently developed some good ideas, many of which have been presented in this report. However, most aero clubs operate as if they were the only aero club in the Air Force, and rely heavily on the initiative and hard work of their individual managers and members. A

mechanism exists which could be adjusted to help aero clubs by sharing good ideas and generating a consensus of support for change. The aero club managers' meeting is held once every two years and includes aero club managers and NWR personnel from HQ USAF and Headquarters Air Force Military Personnel Center (HQ AFMPC). This meeting could be the forum for much more than it The meeting should be held annually and include aero club serves now. presidents as well as aero club managers. All aero club presidents are active duty military personnel or Department of Defense (DOD) civilian employees, by In order to change anything significant in the aero club regulation (21:7). system, the widespread support of the active duty Air Force is required. What better place to gather that support than at the annual managers' meeting? Another reason to include the aero club presidents is that not all aero clubs have strong, competent managers. Those clubs without strong managers rely upon strong Boards of Governors with strong presidents to succeed. Aero clubs exist for active duty Air Force members primarily, and they should be represented in an annual meeting, such as the managers' meeting, in order to help chart the course of the Air Force aero club system.

Aero clubs should be allowed to use more of on-base facilities such as the reprographics shop, the sheetmetal shop, and other maintenance shops. This would cut down on some of the expenses which aero clubs must bear. This could be done by changing the USAF regulation which defines what Category 6 membership associations are authorized, or by changing the category to which aero clubs belong.

Another problem which aero clubs must overcome is the inadequate salary which aero clubs pay their manager. The manager is responsible for the safe and business-like operation of literally millions of dollars worth of aircraft, but is usually paid a salary comparable to that of the base commander's secretary. Aero clubs are losing highly qualified managers to better paying aviation jobs with the Federal Aviation Administration (34) and civilian business (33, 35). Unless aero clubs pay managers a salary comparable to their responsibility and experience, they will continue to lose managers and find it increasingly difficult to find competent replacements. Quality aero club managers are important to the aero club system. The IG FMI report stated that "at all installations inspected, the quality of the aero club related directly to the qualifications of the manager" (26:6). The grade of the manager must be upgraded to match his responsibilities. However, aero They must keep down their aircraft rental clubs are in a financial dilemma. and instruction charges which they charge their membership to stay competitive with civilian FBOs. Meanwhile, the manager's salary is the largest single item of aero club overhead (28). Getting appropriated funds to subsidize aero club manager salaries is not probable, with MWR activities come under increasing pressure and scrutiny from Congress to be self-sufficient. Ι recommend a two-pronged approach. The increase in managers salaries should the club itself and the Non-Appropriated Financial come from two sources: Management Branch (NAFFMB). First, the clubs are going to have to bite the bullet and increase their aircraft charges to cover the manager's increased Second, the NAFFMB should reduce or eliminate their assessment to the salary. aero club, which amounts to \$600 to \$1200 per month (30, 32, 33). The reduction in NAFFMB charges would be justified by the aero club system adopting a common accounts-receivable and billing software to be used on the aero club micro computer. Many aero clubs do or are ready to do their own

accounts immediately, and their knowledge could be passed to other aero clubs individually. The NAFFMB function would then be reduced to that of periodically inspecting and auditing the aero club, as they do now. Aero club managers' salaries must be increased to retain and attract competent managers. Failure to do so will result in the continued loss of the existing top-notch managers, and the crumbling of the aero club system if clubs are mismanaged by incompetents. Aero clubs cannot solve the problem without help from the NAFFMB to reduce the NAFFMB assessment.

The last suggestions pertain to the draft of the aero club regulation AFR 215-12. The bulk of the changes are excellent and timely, such as better defining the Clearing Authority's role and the proper format for currency cards (29:4-8). The draft regulation also makes the manager responsible for the club operations (29:2-4), maintenance (29:6-4), and financial planning (29:7-2), and reduces the Board of Governors' (BOG) role to that of an Advisory Committee (AC) (29:2-5). Though this change reflects the reality of clubs with good managers, it may hurt clubs with poor managers where the BOG takes a more active role in running the club. Aero clubs must always be operated by, for, and with the active duty Air Force member in mind, because he is the primary reason for the aero club's existence. The manager should not be cast in the role of the sole enforcer, and the BOG (or AC) must retain The BOG must also always be responsibility for policing the club membership. active in serving as the interface between the aero club and Air Force base All club managers know that base support people respond much more support. positively to an active duty Air Force member than they do to civilian And finally, aero clubs must be sensitive to the duty constraints managers. of its membership. As an example, the requirement should be deleted which requires that if a member misses three safety meetings, regardless of excuse, he is grounded until he attends another safety meeting (21:23). The regulation should recognize the requirement for Air Force personnel to be TDY, on duty at any time, or on other than day shift. The safety meeting requirement should be rewritten to the form of the 1980 version of the regulation, where a member is grounded only if he misses two consecutive The ability to view a safety meetings without a valid excuse (20:18). videotape of the safety meeting is a good compromise, but unnecessary rules which ignore reality and do not contribute to safety or efficiency will certainly discourage membership.

SUMMARY

Many innovative techniques have been used by aero clubs to make them more effective in accomplishing their mission. Good aero club operations begin and end with good rapport with the commander, who sets the tone for the quality of Safety and operations can be improved by aero club emphasis on base support. continuing training and safety programs. In addition, the Supervisor of Flying program has proven to be a key to safe aero club operations. Aero clubs are most severely tested in maintaining financial success. Micro computers with aero club-specific software has helped several aero clubs members' manage accounts, maintenance schedules, and administrative requirements while keeping costs down. And aero club managers' salaries can only be increased with the cooperation of the Non-Appropriated Funds Financial Finally, the "club" aspect of aero clubs should not be Management Branch. ignored. Successful aero clubs are part of the Air Force family.

Chapter Four

CONCLUSIONS AND RECOMMENDATIONS

Aero clubs have come a long way from their creation in the 1950s. The aero club regulation parallels the development of aero clubs from a loosely structured organization to the present system with specific guidance on everything from operations and maintenance to safety and accident reporting. The current regulation is basically sound, and is further improved by incorporating many of the recommendations of the Inspector General in the 1986 Functional Management Inspection of Air Force aero clubs.

Aero clubs have also become safer through their emphasis on safety, flight supervision, and continuing training. Aero clubs have half the accident rate as general aviation as a whole as a result. And, while general aviation has declined slightly in recent years, Air Force aero clubs are healthy and growing.

Aero clubs have contributed in many ways to the Air Force mission, and those ways need to be stressed and made known to commanders and aero club members alike. Aero club aircraft may be used for many mission-related tasks, such as TDY travel, aircraft parts pickup, VIP pickup, and support of the USAF Survival, Recovery, and Reconstitution plan. Aero club training of pilots has benefited the Air Force by providing a number of selectees to UPT and UNT. Several officer training programs have used aero club resources to provide orientation and motivation flights to their cadets. Rated and non-rated Air Force personnel enjoy the aero club as a means of maintaining morale and proficiency during non-flying assignments. And finally, the management of aero clubs provide a challenging training ground for future Air Force leaders. Many other Air Force missions are enhanced through use of the aero club, and aero clubs must aggressively seek out new ideas and offer their services to local commanders.

There are several areas where aero club should work to become even better. The first area is establishing and maintaining rapport with the commander. The commander needs to know how his aero club is contributing to his mission. and know that his aero club is being safely and responsibly managed. The commander can also solve many of the support problems which can hinder aero club operations. Another area is safety, which aero clubs emphasize and strive to improve. Safety meetings, Supervisor of Flying programs, and ongoing training programs all have an impact on successful and safe flying operations. The third area where aero clubs are continually working to improve is the financial area. Aero clubs are not designed to create large profits, but must make their own way financially. Micro computers can help keep track of maintenance expenses, inventories, scheduling, and currency.

They can also ease the effort necessary in generating the monthly activity reports. Computers can also help clubs aggressively manage their leaseback aircraft program. The "chit" program is another suggestion which has helped some aero clubs solve their cash flow problems. And finally, the "club" aspect should not be overlooked. Programs such as a Fly-Out or a Proficiency Contest can help build club esprit de corps.

The aero club system can be improved, but aero clubs must get together to make it happen. An annual meeting of managers and aero club presidents would provide a forum for sharing good ideas and making changes to the system. A common aero club software system could benefit the system and possibly provide a means to do accounts receivable and billing, and reduce the monthly assessment of the NAFFMB. Another item which must be addressed in the future is increasing the manager's salary to a level equal to his responsibility, which can only be done with the cooperation of the aero club and the Non-Appropriated Fund Financial Management Branch.

The current aero club regulation is an excellent source of guidance, but does have minor flaws. For example, the policy concerning safety meeting attendance does not recognize the basic fact of Air Force life concerning TDYs and extended duty hours, and should be changed back to the basic form of the 1980 regulation. And the draft aero club regulation is a definite improvement. However, aero club members must remember that though increasing the authority of the manager better reflects reality, the Board of Governors (or Advisory Committee) must never relinquish its responsibility to police the membership and serve as an interface with Air Force base support.

Aero clubs provide many services and capabilities to the Air Force and Air Force personnel. The aero club system has evolved into a safe and efficient organization of over 8,600 active members, with a commitment to aviation. The several innovative ideas and successes mentioned here are but a few of the reasons why aero clubs continue to contribute to the mission and morale of the Air Force.

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APPENDIX ____

ADDITIONAL GRAPHS:

US GENERAL AVIATION AND USAF AERO CLUBS

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<u> (1888)</u>





FIGURE A-2. US General Aviation Number of Aircraft.





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