AIR COMMAND
AND
STAFF COLLEGE

STUDENT REPORT
SERVICES INFORMATION MANAGEMENT SYSTEM
(SIMS) USERS' HANDBOOK

MAJOR DONNA G. BARNETT
MAJOR DAVID B. WHITE

"insights into tomorrow"
DISCLAIMER

The views and conclusions expressed in this document are those of the author. They are not intended and should not be thought to represent official ideas, attitudes, or policies of any agency of the United States Government. The author has not had special access to official information or ideas and has employed only open-source material available to any writer on this subject.

This document is the property of the United States Government. It is available for distribution to the general public. A loan copy of the document may be obtained from the Air University Interlibrary Loan Service (AUL/LDEX, Maxwell AFB, Alabama, 36112) or the Defense Technical Information Center. Request must include the author's name and complete title of the study.

This document may be reproduced for use in other research reports or educational pursuits contingent upon the following stipulations:

-- Reproduction rights do not extend to any copyrighted material that may be contained in the research report.

-- All reproduced copies must contain the following credit line: "Reprinted by permission of the Air Command and Staff College."

-- All reproduced copies must contain the name(s) of the report's author(s).

-- If format modification is necessary to better serve the user's needs, adjustments may be made to this report—this authorization does not extend to copyrighted information or material. The following statement must accompany the modified document: "Adapted from Air Command and Staff Research Report (number) entitled (title) by (author)."

-- This notice must be included with any reproduced or adapted portions of this document.
REPORT NUMBER  87-0155

TITLE   SERVICES INFORMATION MANAGEMENT SYSTEM (SIMS) USERS' HANDBOOK

AUTHOR(S)  MAJOR DONNA G. BARNETT, USAF
           MAJOR DAVID B. WHITE, USAF

FACULTY ADVISOR  MAJOR ROBERT L. PETERS II, ACSC/3823 STUS

SPONSOR  COLONEL JAMES W. ROSA, HQ AFESC/SI

Submitted to the faculty in partial fulfillment of requirements for graduation.

AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112
The Services Information Management System (SIMS) Users' Handbook was prepared to assist the Air Force Engineering and Services Center (AFESC) to successfully implement and effectively operate SIMS throughout the Air Force. The handbook is primarily intended for use by base-level Services managers, supervisors, and key SIMS administrative personnel, but is also recommended for all base-level Services personnel. The handbook provides a broad overview of SIMS philosophy and operational concepts to ease the transition to automated information management in the Services business. The areas addressed in the handbook include SIMS management concepts, Services' customer commitment philosophy, SIMS hardware and software, operational concepts, SIMS evolution and growth, and potential pitfalls. The handbook is not intended to supersede existing AFESC or MAJCOM guidance, or technical references already available.
The development of this Services Information Management System (SIMS) Users' Handbook was undertaken to assist the Air Force Engineering and Services Center (AFESC) meet the objectives and requirements of the Work Information Management System/Services Information Management System (WIMS/SIMS) Data Project Plan. This handbook will help base-level Chiefs of Services, Services branch chiefs, and SIMS implementation teams, administrators, and users prepare for, successfully implement, and effectively use SIMS. Although this handbook is primarily intended for use by the Chiefs of Services and Services branch chiefs, the authors believe it should be available to all base-level Services personnel to provide a conceptual framework for the effect of SIMS on the Services business.

The areas addressed in this handbook include SIMS management concepts, Services' customer commitment philosophy as affected by SIMS, and SIMS hardware and software components. Also addressed are some thoughts on SIMS operational concepts, SIMS evolution and growth from historical and futuristic perspectives, and potential pitfalls to be avoided during implementation and operation of SIMS.

This handbook will be published as an Air Force handbook after review and approval by the Commander, Air Force Engineering and Services Center, Tyndall AFB, Florida. This handbook is not designed to supersede or replace applicable manuals and directives and will not take precedence over them. Update of this handbook will be at the direction of the Director, Information Management Systems, Air Force Engineering and Services Center.

The authors acknowledge the professional guidance and assistance of the following personnel in preparing this document: Major General George E. Ellis, AF/LEE; Colonel James W. Rosa, HQ AFESC/SI; Major Frederick C. Kennedy, HQ AFESC/SIS; 1st Lt Stacey M. Shellenberger, HQ AFESC/SIS; and Major John Meyer, ACSC/3823 STUS.
ABOUT THE AUTHORS

Major Donna G. Barnett is a professional Services officer possessing base-level and MAJCOM experience in all Services functional areas. Following completion of a Bachelor of Arts degree in Speech and Hearing Science from Ohio Wesleyan University in 1974, she received an Air Force commission through the AFROTC program. She also possesses a Master of Arts degree in Counseling Psychology from Ball State University. Major Barnett has completed Squadron Officer School and Air Command and Staff College. Her assignments include Services Operations Officer and Food Service Officer at Rhein-Main AB, Germany, and Services Squadron Commander at Pope AFB, North Carolina. While assigned to the Deputy Chief of Staff (DCS), Engineering and Services at HQ Pacific Air Forces (PACAF), Major Barnett held a variety of positions including Executive Officer to the DCS and Chief of the Services Division in the Housing and Services Directorate. She was involved in the implementation and operation of SIMS at HQ PACAF.

Major David B. White is a professional Services officer with a wide variety of base-level and higher headquarters Services assignments. He graduated with a Bachelor of Science degree in Mathematics (Statistics) and received an AFROTC commission from Oklahoma State University in 1972. Selected for the Air Force Institute of Technology’s advanced degree program, he received an MBA in Hotel, Restaurant, and Institutional Management from Michigan State University in 1981. Major White has completed Squadron Officer School and Air Command and Staff College. His assignments include Services Operations Officer and Billeting Officer, Kelly AFB, Texas; Chief of Services, King Salmon Airport, Alaska; Services Inspector on the HQ MAC Inspector General Team, Scott AFB, Illinois; and Chief of the Food Management Assistance Team while assigned to the Air Force Engineering and Services Center (AFESC), Tyndall AFB, Florida. Major White’s most recent assignment, prior to attendance at the Air Command and Staff College, was as Director of Plans and Programs for the Air Force Commissary Service-European Region (AFCOMS-Eur Rgn), Ramstein AB, Germany. Major White assisted with the initial SIMS concept and software development while assigned to AFESC, and directed European commissary automation initiatives while assigned to AFCOMS-Eur Rgn.
# TABLE OF CONTENTS

Preface ................................................................. iii
About the Authors ................................................... iv
List of Illustrations ................................................. vi
Foreword ............................................................... vii

CHAPTER ONE -- OVERVIEW ......................................... 1

CHAPTER TWO -- MANAGEMENT CONCEPTS .......................... 5

CHAPTER THREE -- CUSTOMER COMMITMENT PHILOSOPHY ........... 13

CHAPTER FOUR -- SIMS MODEL ...................................... 19

CHAPTER FIVE -- SOFTWARE COMPONENTS .......................... 27

CHAPTER SIX -- OPERATIONAL CONCEPTS .......................... 33

CHAPTER SEVEN -- EVOLUTION AND GROWTH ...................... 39

CHAPTER EIGHT -- PITFALLS ........................................ 45

CHAPTER NINE -- CONCLUSION ..................................... 51

NOTES ........................................................................ 53

BIBLIOGRAPHY ......................................................... 55
LIST OF ILLUSTRATIONS

FIGURES

FIGURE 1--SIMS Model ........................................... 21
FIGURE 2--Billeting Model ........................................ 23
Innovation! Decentralization! Forward looking management! Customer credibility! Less paper! These are some of the words that come to mind as I examine the impact the Services Information Management System (SIMS) is having on the way we do business in Base Services. Simply put, SIMS will help improve the quality of service we give our customers while simultaneously freeing managers from their daily paper burden. They can now spend more time training and supervising their people. This handbook will help you understand what SIMS is all about -- I encourage you to read it and share it with those you work with.

GEORGE E. ELLIS
Major General, USAF
Director of Engineering and Services
CHAPTER 1: OVERVIEW

So, you're about to get your new SIMS computer and life in the Services business, as you know it, will change appreciably. Anxious? Nervous? Excited? All of the above? Implementation of the Services Information Management System (SIMS), while probably one of the most significant, positive changes that we've seen in the career field in the past ten years, should not be an anxiety-provoking event. . . but we can understand why it might be. This user's handbook is designed to help implementation, to orient users to the broad, nontechnical concepts surrounding the development of the new, automated system, and to provide tips on how to make the computer work for you.

This handbook is targeted toward all managers and
supervisors in a Services organization. While it was written with the Chief of Services plus mid-level military and civilian managers in mind, there's merit in its wider use because it contains helpful information for everyone who expects to come in contact with the computer. This users' handbook can help set the context for SIMS implementation and adjust the readers' thinking to a new, better way to provide quality service to our customers.

To coin a phrase from computer lingo, this handbook is user-friendly, that is, easy to use and understand. There should be something in here for everyone who is about to sit down at a SIMS workstation for the first time. The following chapters will cover key areas to help set the stage for a successful transition from the traditional "stubby pencil" operation to an automated system that has unlimited potential, flexibility, and application to Services. The chapter entitled "Management Concepts" highlights the conceptual context in which SIMS was developed and gives the reader a general plan of action or strategy for using SIMS successfully. The chapter, "Customer Commitment Philosophy," discusses the impact SIMS has on customers and the increased feeling of professionalism that develops when we can follow through and deliver on our promises to customers. Chapter four graphi-
cally illustrates a typical base-level system and identifies SIMS hardware components with short explanatory descriptions to be used as a nontechnical reference. The fifth chapter discusses various software applications citing specific examples in Billeting and Food Service. Chapter six, "Operational Concepts," helps the user decide what to do with all of this "new" information literally at his fingertips. The evolution and growth of SIMS is covered in chapter seven, which explains where we've been in the development process and where we hope to go. Finally, the chapter called "Pitfalls" gives helpful hints on what not to do as you prepare for your SIMS beddown. These lessons, learned from the lead bases who've experienced the challenge of integrating SIMS into their organization, may seem easy to avoid at first glance. However, they can also be simple traps for those not ready for some of the effects SIMS has in areas such as esprit, morale, facilities, and intra-base relations.

This handbook will help everyone in a base-level Services organization who uses SIMS in his or her everyday job. It can serve as an introduction to SIMS and, as such, will likely outlive its original purpose when SIMS implementation is complete Air Force-wide. But, given the dynamic nature of the personnel flow into and out of the Services
career field, this handbook can be used as part of an on-going systems orientation. There are those who may be hesitant to change life as we know it in the Services business today. We can understand that. But, we hope this handbook helps you see the potential that SIMS offers and allows you to set your internal organizational goals and implement the change that SIMS represents more easily.

Good luck and good reading!
OK, so the SIMS computer is coming and has been advertised as a great "management tool" for all Services areas. Will this new system really change the way we do our jobs?

As the SIMS implementation date approaches, this question will probably be in the front of many Services folks' minds. The answer is yes and no. Yes, it will change some of the ways we do business in that it will change how we offer certain services; and no, because we're still in the business of providing rooms to travelers, meals to dining hall customers, furniture to base housing occupants, and so forth. Simply stated, SIMS won't change "what" we're doing, but it will change some of the "hows" by making many parts of the job go faster and easier, giving managers more time and the right information to better manage their operations.

The Chief of Services' ability to promote enthusiasm and set the stage for SIMS will greatly influence the overall success of implemen-
dous, but normal. A prevailing attitude of "I know it won't work" is a recipe for failure. Conversely, an attitude of "I'm convinced SIMS will help us do our job better" is a 99% guarantee for success and is the attitude the Chief of Services and his top managers must create. Unfortunately, there's not a key on the computer to make this happen. Instead, the leadership of the Services organization must set the tone and perspective right from the outset. That presents a challenge, but not an impossible task. Here are some pointers for striking a healthy, positive management atmosphere.

Start by reassuring people their jobs are safe and
won't be deleted because of computer-related efficiencies. That is, billeting desk clerks will still work with customers on registrations and check-outs, the food service storeroom staff will still receive and issue food, and the squadron administrative staff will still manage the weight control program. The goal of SIMS is to improve customer service and increase productivity, not to save or cut manpower. Similarly, don't reorganize the squadron around the computer. Retaining the present organizational structure will send a message of stability to the Services staff.

The biggest advantage of SIMS is that it will give managers the TIME and INFORMATION to find and fix problems. How can a little machine that looks as innocent as a typewriter with a screen do this?

SIMS software packages have been developed to move Services out of the "stubby pencil" era by doing the tedious, repetitive tasks quickly, error-free, and without the typical "Why do you want this?" complaints. For example, with the press of a few keys on a SIMS
workstation, a billeting desk clerk can register a guest within a minute. And he can do this without preparing a handwritten guest folio or making a long, manual search for an empty room. Likewise, the dining hall shift leader won’t need to collect recipe cards, compute ingredient quantities, and prepare storeroom requisitions. These tasks are done automatically by SIMS. The shift leader can now use that time to concentrate on meal production, customer service, and on-the-job training of cooks. It’s this release from time-consuming busywork that will provide increased productivity. And there are easy ways to maximize this increased productivity potential. To be really effective, SIMS should be implemented using a top-down, bottom-up strategy.

As the name implies, a top-down, bottom-up approach has two real parts. One part deals with the “big picture,” those volumes of data required in a specific report format by air division, numbered air force, major air command, HQ USAF, DOD, or higher. There is always somebody on “top” to identify a requirement and pass it “down” until it finally stops in your in-basket. Most (and eventually all) top-down or regulatory requirements and reports are available in the SIMS software, i.e., the pre-programmed data that
tells your computer what to do, provided with your system.

The other part of this important strategy addresses what you, the user, know you REALLY NEED to do your job better. This requirement for certain kinds of information is identified at the lowest level, the "bottom," to improve your job, answer questions, and pass usable information "up" to your boss. This is an extremely important part of the SIMS management concept. For SIMS to be fully successful, the computer must do what AIC Smith or Mrs Jones wants it to do. EVERYBODY who touches a SIMS workstation can make those "reports" and manage the information they really need. The best guid-
already in the computer or to add data that the user thinks is important. "User-developed" software is called just that because the user develops the reports or new data base. The easy application of reports, data bases, and information developed by users is probably the key to the seductive nature the computer has on many new users. Here's an example of this important bottom-up process. Let's say SIMS has just been installed in your billeting operation, and the MAJCOM IG team arrives. Here's your chance to be creative, impress the IG team chief and the base commander, and make your job a lot easier. After all 100+ team members are registered (using the SIMS billeting module), existing software can give you an alphabetical list of all billeting customers. But, past experience tells you you're sure to get lots of questions based on where the IG team members are staying or who composes certain functional groups (that is, maintenance people looking for maintenance inspectors and so forth). You also believe you'll need a listing by rank. Using a particular utility application, in just a few minutes you can "create" three reports: one a team listing by functional area, another by rank, and the last one alphabetically. By distributing these reports, it'll be a lot easier for a late-night meeting or to locate the two captains the base commander wants to see.
With these kinds of quick, easy applications, everyone wins. The combinations of information are endless, but so is your ability to provide this data by using utility applications.

A few cautions are in order at this point. With all the creative energy cut loose by SIMS in a Services organization, the Chief of Services must be careful not to get caught in a micro-management or information overload trap. Managers and supervisors must continue to run their own areas using the computer as an additional tool. The end users (desk clerks, cooks, squadron admin troops) will be putting in a lot of long, hard hours to make SIMS work, so a few "positive strokes" are not only appropriate but probably needed to keep the momentum going.
Now to recap the do's of successful implementation or stage setting:

- Do "sell" SIMS to all Services personnel and base officials. Use commander's calls (yours and others), staff meetings, and the base newspaper to advertise SIMS.
- Do decentralize computer responsibility to the end user.
- Do encourage creativity at all levels.
- Do remember that anybody can work SIMS; you don't have to be a computer programmer to understand the system.
- Do give lots of positive feedback to your people who are using SIMS and developing their own information management network.

- Do guard against "micromanagement" and information overload.
- Do use your extra time and new information to manage big problems and fine-tune your Services operation.

Following these simple steps will not only make life easier for Services personnel, but will also logically lead to a stronger customer service commitment by employees because they will understand and appreciate the advantages of SIMS.
CHAPTER 3: CUSTOMER COMMITMENT PHILOSOPHY

Setting the stage in anticipation of a SIMS beddown is important to get all the internal players actively involved and anxious to get the system going. But, a very important external group who will benefit greatly from SIMS is our customers. The emphasis on quality customer service has been strong for the last several years, and we've come a long way from open bays with metal beds and footlockers, but SIMS will add more credibility to customer service efforts than we've enjoyed in the past. SIMS software packages automatically build a customer service credo into the program, and at SIMS lead bases, it's reported that the computer adds a more credible dimension of professionalism in almost all functional areas.

One of the obvious examples of a real commitment to customer service is the billeting reservation system. The requirement for a reservation system has been around for a long time. There are still wide-ranging variances in the reliability
of reservation systems as documented in inspection and management evaluation reports. They run the gamut from good to bad to nonexistent. SIMS software not only automates the reservation system and allows fuller use of the Cornell Reservation System, which advocates space management rather than room management, but it also allows the Chief of Services, Billeting Officer, and others to confirm reservations and assure inquiring customers that they will, in fact, have rooms waiting. This kind of "fingertips" information sends a clear, positive message that tells customers you care about them.

Likewise, in food service, SIMS will help assure menu integrity by automating subsistence ordering, headcount forecasting and accurate storeroom issues. The quality of the food still depends on preparation, but SIMS will take a lot of the guesswork out of batch cooking, serving as a kind of quality assurance monitor by calculating correct ingredients. The computer won't cook the food, but it will release management and shift leaders from the burdensome paperwork exercise required
by the complex subsistence accounting system and allow them to concentrate on the end product, the food itself. While we rarely hear a customer complain about sloppy paperwork, complaints about food quality are there. SIMS won’t solve all our problems, but it will enhance the quality of service we offer our customers.

The last example is the way SIMS helps to get a handle on much of the “administrivia” required of a typical Services organization. How often have you tried to track down information you think is readily available and easy to put your hands on, only to find out that two days later you still don’t have an answer to your question? SIMS will track much of the data now maintained in the first sergeant’s or admin clerk’s bottom drawer and make information such as suspense lists, quality force data, training requirements, detail rosters, leave schedules, locator files, and personnel data files readily available and current. This, in turn, will allow administrative clerks more productive time to concentrate on recurring training programs and to maintain error-free official files and publications. This will contribute significantly to the esprit and strength of the Services organization.

For the base population, SIMS allows all squadrons to do away with the costly
administrative burden of maintaining a meal card program. SIMS tracks social security numbers to control meal entitlement information. Now, every orderly room on the base is relieved from a paperwork-intensive system and SIMS will be the hero of the admin troops!

By now, you should be convinced that SIMS is not intended or designed primarily to save manpower, but to increase productivity. Many of the traditional, labor-intensive accounting functions can now be done by the manager, and, consequently, the clerk or cook formerly designated to perform those tasks will be returned to their primary duties. It is very difficult to measure productivity in the hospitality industry, but the real key to success is quality customer service. The primary measures of quality are in the eyes of the beholders or customers' perceptions of how they're being treated. The efficiency, accuracy, and synthesis of information that SIMS provides will shape customers' perceptions and leave them with the feeling that they're being well treated. At the same time, SIMS
users, Services personnel, will be proud and professional about what they're doing because they're operating from a position of confidence. And so the cycle continues . . . . SIMS represents a winning proposition for everyone by making customer service its number one product!
The management concepts and customer commitment philosophy covered in the previous two chapters provide the "theoretical soul" of SIMS. This chapter will discuss the "body," all that SIMS equipment. What equipment is needed? Who orders the equipment? Is computer expertise mandatory to identify equipment requirements? What should a base-level SIMS layout look like? What does the equipment do? All these questions add to pre-SIMS anxiety and will be addressed in this chapter.

Remember, every base is unique with respect to exact equipment requirements and layout. The layout and types of equipment needed will vary according to the number of dining halls, number of billeting registration desks, size of the furnishings management program, staff size in each branch, and the distance separating all facilities. In this chapter, we present a broad overview of a possible SIMS layout to give the general idea of what's needed and provide a point of departure to fine-tune
the layout at a particular base.

First, let's tackle the questions of needed equipment, ordering procedures, and requirements identification. The basic rule here is to follow your MAJCOM policy. Each MAJCOM has named a SIMS project officer to provide assistance or guidance on how to complete all base-level tasks. Use your MAJCOM expert. If the base is tasked to devise a layout, the MAJCOM will provide the "rules" on types of equipment, distance considerations for communications lines, equipment environmental considerations, and so forth. Everything, including the layout and requested equipment, will be reviewed by the SIMS experts at the MAJCOM, the Air Force Engineering and Services Center, and the Wang customer service representatives who assist in site visits to catch problems and make suggestions to "get it right the first time."

Figure 1 provides a sample layout by depicting an overview of a Services squadron system. Figure 2 is a more detailed depiction of the billeting system for a single registration desk operation. Most Services organizations, especially those with two or more billeting registration desks having a 2,000 foot or greater separation, may require two central processing units (CPUS) or a combination of a CPU and a programmable workstation (PW) linked by tele-
FIGURE 1. SIMS Model
communications or fiber optics. A variety of workstations, printers, and specialized peripheral equipment (like modems) are available to tailor SIMS to your Services functions. Your MAJCOM SIMS expert will help you select the correct components to meet individual base needs.

There are six types of workstations available: programmable, graphics, word processing, data processing, the specialized cash drawer, and Comtrex food service workstations. The programmable workstation has on-line data processing, word processing, and graphics capability. It is the same piece of equipment as the professional computer (PC) and is sometimes called by that name. Because it can perform batch file communication with the CPU and has some stand-alone capability, the PW is available in most branches or functions physically separated from the CPU (which is usually located in billeting). The graphics workstation (GW) is capable of supporting data processing, word processing, and graphics functions, and must be connected by cable to the CPU. The word processing workstation (WP) can support data processing and word processing functions. The WP will be one of the most common workstations in Services facilities. The data processing workstation (DP) is capable of supporting data processing functions only. The DP is used only when minimum workstation
FIGURE 2. Billeting Model
flexibility is desired. The cash drawer workstation (CD) is a point-of-sale device having a data processing workstation with a cash drawer and a receipt printer. The CD is used in billeting front desk operations. Finally, the Comtrex food service workstation, or electronic cash register (ECR), is a point-of-sale workstation with a built-in memory and a specialized keyboard to perform in a cafeteria-type food service operation.

The types of printers available include line, draft-quality matrix, letter quality, graphics, programmable workstation-compatible, laser, and transaction printers. A line printer (LP) is capable of printing between 600 or 1100 lines per minute (depending on the model) on paper ranging from 4 1/2 to 14 7/8 inches wide and having up to five-part carbon paper. The LP is well suited for billeting occupancy reports, food service subsistence orders, and similar large, frequently recurring printing tasks. Although the draft-quality matrix printer (DQ) is adjustable to accept the same types of paper as the LP, it prints much more slowly, about 180 characters per second. It is used at billeting front desks for guest folio printing. The letter-quality printer (LQ) is used for letters, reports, messages, and other office applications requiring a professional-quality finished product. This
printer is the only one capable of printing OCR font format for messages sent through the base communications center. The graphics printer (GQ) can operate in three modes: draft quality, letter quality, and graphics. The very flexible GQ will be used with the GW to fulfill graphics and word processing requirements and is likely to be the workhorse printer found in almost all Services functions. The programmable workstation-compatible printer (PP) is used in association with the PW. The laser printer (LPS) is capable of printing eight pages per minute. The LPS is designed primarily for word processing support and will usually be located in the Services staff office.

The transaction printer (TP) is a small printer used at the billeting reception desk to provide cash receipts.

The peripheral equipment available includes an optical character reader (OCR) and modems. The OCR "reads," i.e., picks up from electronic scanning, hard-copy documents and converts them to Wang word processing documents. Modems provide transmission and receiving capability between SIMS components using telephone lines or fiber optics.

Because each base is "unique," the equipment selection and layout should be tailored to meet the specific needs throughout the Services functions. The model presented in this
chapter gives a broad overview of how SIMS may be adapted to fulfill differing requirements.
Now that we've discussed SIMS equipment, it's time to address the system software. Remember, there has been a lot of information already published that will help you get ready for implementation. Many of these documents are technically oriented and probably haven't been read by most squadron personnel. Documents such as the SIMS Planning Guide, Wang Planning Guide, SIMS Hardware and Basic Software Implementation Guide, Food Service Implementation Guide, Billeting Implementation Guide, SIMS users' manuals for the three software modules, and SIMS Maintenance Manual will provide valuable references for the more technically-oriented users. Software, simply stated, is the "list of instructions" which tells the computer what to do--like the "brain" of the system. SIMS software will be implemented in three comprehensive modules: the basic system module, the billeting module, and the food service module. In this chapter, we review each of these modules
in nontechnical terms and describe the main parts, or subsystems, of each one.

The basic system module is usually the first module implemented at each base. Because each module is a comprehensive and independent system in itself, the modules can and will function independently from each other. The basic module is the one of the three that was almost entirely user developed. That is, most of the applications or programs in the module were identified, designed, and created by Services people using SIMS. In fact, many of the applications were developed by the Davis-Monthan AFB Services staff during prototype testing. The basic module consists of applications for the Services staff office, squadron administration, mortuary affairs, Prime RIBS, Services training and education, furnishings management, central dormitory management, linen exchange, and the USAF mortuaries. Other components of the basic module purchased from Wang with the system are word processing, data processing, "Wang Office" for electronic mail and time management, and utility applications. At
most bases, the billeting and food service software packages will be scheduled for implementation after the basic module. However, the food service and billeting staffs will be able to use the system for word processing, data processing, all other features available in the basic module, plus a demo system that provides a training data base to practice the functional program they'll be using later.

The basic module has those applications generally useful in all functional areas. For example, the squadron administration section will have personnel information such as complete personnel lists, weight program management reports, suspense reports, and so forth. The Services training and education staff will have access to recurring training reports, OJT status reports, and of course, SIMS training status for squadron personnel.

The billeting module includes the following applications: a reservation system, current guest folios, contract quarters availability status, funds status, sundry item inventories, beverage management, and guest and base locator services. As in the basic module, the data base included in the billeting module may be manipulated to best meet specific needs. The example given in chapter two of creating various billeting lists for an IG team visit demonstrates the ver-
satility available in SIMS' utility software.

Finally, the food service module contains storeroom accountability applications, various meal planning applications, subsistence-in-kind (SIK) and basic allowance for subsistence (BAS) validation applications, basic daily food allowance (BDFA) calculations, and the master recipe file. Additionally, the traditional, labor-intensive accounting functions are now accomplished by the computer, freeing managers to manage. For example, dining hall managers can now spend more time on quality control of food items, customer service, and menu planning instead of processing paperwork. They also know their account status quicker so they can react to any problem. The data base contains the information necessary to quickly calculate and prepare the food service production log, the senior cook’s requisition, and other meal planning forms with the stroke of a key. Similarly, those reports, lists, types of data, and information desired in any Services functional area should be available. What if an application is desired, but not available? That’s when utility applications come to the rescue.

The real “beauty” of SIMS is its adaptability to almost any demand or need. The utility functions allow EVERYBODY to make additions or modifications to existing
applications. For example, say you want a list of all Services personnel with a 622XX Air Force specialty code (AFSC). Because the AFSC is contained in the data base for each Services person, utility applications will allow you to create a separate report in the format desired, in this case, by AFSC. Should you want information not presently contained in the data base, such as the name of the spouse of each married member in the squadron, this same program will allow you to modify the data base to reflect spouse names or to enter the names, in effect, creating your own data base. Some of this same flexibility is available in all three modules.
SIMS software is tailored to fulfill all Services needs through the three software modules. The key word is "flexibility." You can and should add to, delete from, and modify the data base and applications to provide the information you need. Thus far we've talked about management, customer commitment, hardware, and software. Now we'll address some "how to make it go" issues--the operational concepts.
CHAPTER 6: OPERATIONAL CONCEPTS

We've already told you the organization. Extracting that information was, in many cases, a painful, lengthy process. Quality customer service is only possible if the manager has computer won't do the job for you, but it will give you access and insight into information which used to be "buried" throughout the
timely and accurate information. Now, we're going to tell you the operational steps to take within Services to make the system work best for everyone.

First, it's important to assign an overall SIMS project officer, usually the Operations Officer, to prepare for SIMS beddown and provide single point-of-contact interface with MAJCOM and AFESC staffs. This may be an additional duty until the system is fully implemented, or the Chief of Services may choose to keep the Operations Officer as the OIC of the branch charged with maintaining the system after implementation. Along with the project officer, system administrators are absolutely key to SIMS beddown, implementation, and integration. They head a team of people usually consisting of a billeting, food service, and word processing expert. System administrators must be totally reliable because they are responsible for operating the core system as well as system security. They have access to all passwords and, as such, can review all of the functional menus. Potential benefits of the computer can be compromised if users do not have faith in the system administrators' abilities to properly protect and safeguard "sensitive" information and automated correspondence. While system administrators do not have to be computer programmers, they should have some interests in and
general knowledge of computers to remain motivated throughout the early planning and implementation phases. If you can't find someone to fit the bill for this task within your organization, start recruiting! It's that important to find the right person! Other Services officers, the MAJCOM SIMS project officer, and the Systems Information staff at the Air Force Engineering and Services Center can assist and offer suggestions for filling this important position. We currently have an AFSC identifier for those who have qualified as system administrators; experienced enlisted systems administrators have a "W" prefix and officers, a "C" prefix.

Once you've identified the system administrators, everyone in the organization must receive training on the various SIMS functions and programs. This broad-scoped orientation training is important to bring all personnel to a "general knowledge" level as quickly as possible. Once everyone has received orientation training, specialized classes should be conducted by the system administrators on specific functions such as word processing, utility training, and graphics. You may be feeling anxious about all these training requirements, wondering if your system administrators are up to these rigorous training tasks. Don't worry. Extensive instruction volumes are
provided with the system itself which will give you a rather impressive library. But, the learning is not entirely self-taught because there are several formal training methods available to systems administrators, including a new AFIT management course offered at Wright-Patterson AFB, a SIMS System Security Administrator Guide, Utility Training Guide, and on-line documentation/help screens within programs. Another tip in the training area is to publish training schedules in advance to give the organization time to plan around it. Allow some flexibility for shift workers; schedule training during other than normal duty hours if it will help expedite the initial training. It's to everyone's advantage to tailor the training schedule to the organization because experience shows people who don't receive training, who don't get led through the SIMS programs, are reluctant to sit at a workstation and teach themselves. Most won't make the effort. Training is and will remain a very important part of the overall successful integration of SIMS into Services operations and the productivity we hope to gain from the computer.

With the right people assigned as system administrators and everyone trained, prepare for some creative organizational thinking. This healthy process is likely to start after folks have mastered
Remember, we're not changing the "whats" of our business, we're changing many of the "hows." Imagine being able to call the non-appropriated fund (NAF) income and expense budget to the screen in a matter of seconds or locate anyone on base in the time it takes to log on and get to the correct computer menu. For management of information, the center of the Services universe will operationally shift to SIMS, and the bottom-line results will be increased service to our customers.

the initial learning curve. Once they have workstations readily available in the workplace and begin to understand the reality of the computer's potential, their imaginations will take over, and many individuals will begin to develop their own applications. SIMS talk will buzz around the organization, and that's when productivity will start its inevitable climb.
While most Services folks welcome SIMS and the efficiencies it brings to our operations, there are still those who doubt the validity or usefulness of such a program. There’s a logic train that helped drive the development of SIMS, and it’s important for all of us to know the context or history of the system. Knowing its history will give us a feel for the direction SIMS will take as we prepare our operations for the twenty-first century.

SIMS grew from a series of negative management indicators that told us we weren’t doing as well as we could in many functional areas. Audits consistently found deficiencies in food service subsistence accounts and inspections routinely showed...
bases using contract quarters and issuing certificates of non-availability while on-base government assets were still available. We now know that SIMS amortizes the capital investment in less than five years using only the billeting module! This is not a cost avoidance but the savings of real dollars by decreasing our dependence on contract quarters. Increasingly tight budgets and dwindling resources created the combination of ingredients that led engineering and services leadership to pursue a better, more efficient, more productive way to do business. Many felt automation was the way of the future and would provide economies which would help offset some of the resource drains that were present and expected to continue.

Some of the key functional areas like food service and billeting began initial automation efforts. The initial use of computers in food service was called the Automated Food Service Operations System (AFSOS), and billeting's was called the Automated Billeting and Reservation System (ABARS). After a successful test of a prototype automated information management system at HQ TAC and initial development of an automated Base Civil Engineering work management system, Services jumped on the bandwagon to consolidate automation efforts to include all functional areas.

In 1983, Major General
Clifton D. Wright, then the Air Force Director of Engineering and Services (HQ USAF/LEE), tasked the Air Force Engineering and Services Center to launch a "Tiger Team" effort to develop end-user information required of an automated Services system. Functional area experts from MAJCOMs and bases across the Air Force met at Tyndall AFB for three months to put a SIMS strawman program together. Because of the complexity of food service and billeting operations and the requirement to maintain accurate audit trails, those modules were forwarded to the Data Systems Design Office (DSDO) at Gunter AFS for full program development. The remaining programs were developed and applied using Tiger Team models. It's important to know that most of the Services modules were developed by non-computer programmers, people like us, at the Air Force lead SIMS base, Davis-Monthan AFB, which began its test in early 1985.

SIMS' history is important, but understanding the roadmap for the future will help us focus on enhancements that we can look forward to. The nature of SIMS dictates that the software will never be 100% complete. And this isn't bad, because it means that SIMS supports and encourages user-developed programs. This is where the individual organizations and functional areas get to add their own brand of ingenuity to SIMS. Add good MAJCOM
and Air Force-wide crossfeed programs, and the possibilities for applications of SIMS are mind-boggling. Everyone wins, and we all take credit for advancing Services into the next century. What an exciting time to be part of Services!

In the hardware area, we anticipate expanding SIMS to interface with other base automated systems. We currently have the capability to tie into the Base Civil Engineering automated management information system called WIMS, an acronym for Work Information Management System, and the Base Contracting Automated System, called BCAS. SIMS, WIMS, and BCAS were purchased under the same computer buy and use Wang products.

Funds permitting, at some point in the future, Services may be able to query work orders directly and file requests for local purchase items without leaving the office.

Eventually, the food service module will tie in directly with part of the commissary's computerized system, the Automated Commissary Operations System (ACOS). This will enable storeroom clerks to order directly from the commissary's Troop.
Another innovation is the linking of SIMS Air Force-wide by telecommunications. This will eventually allow Services organizations throughout the Air Force to have a networked billeting reservation system, ala Marriott or Holiday Inn, with a direct and easy crossflow of information.

Hopefully, this short history lesson will serve as a frame of reference to help you understand where the Air Force hopes to take SIMS in the future. We see it as a never-ending evolution that marries technology with good old American ingenuity which will continue to produce innovations and enhancements to make the Air Force a better place to live and work.
CHAPTER 8: PITFALLS

The previous seven chapters have provided an overview of SIMS, what's expected from it, and how we believe it should be implemented. As with all new systems and major changes in long-practiced procedures, problems will arise. This chapter will capitalize on the "lessons learned" from the Davis-Monthan AFB SIMS prototype as well as the initial SIMS implementation at several lead bases. Additionally, we suggest you add notes to this chapter as new lessons are learned from SIMS implementations at other bases.

The first, and most significant, pitfall to avoid is not generating the right
attitude in the squadron and on the base. The attitude of the Chief of Services is infectious and will quickly spread throughout the organization. Enthusiasm and a positive approach will help get the organization really fired up, and it will spill over from SIMS into all facets of Services. Many of the younger troops (and even some of the senior troops!) have knowledge of or are eager to learn about automation—"so turn 'em loose!"

Clearly, a successful SIMS implementation has the potential to be the biggest single boost to Services prestige in the last several decades. This prestige is transmitted by the Services staff throughout the base as a result of our frequent contact with the base population, our customers.

A second, and very similar, pitfall is improper stage setting for SIMS implementation. We've already addressed the need for a solid, enthusiastic attitude and a "gung ho" approach to instill a desire to use SIMS. Make it a challenge, make it fun, and make it work for everybody! Equally important to the intangibles of attitude and approach are the tangibles or physical requirements. The rooms to
house the equipment must be ready. The supporting equipment and supplies must be available. Remember to order items like computer paper, printer ribbons, computer workstation and printer stands/tables, cables, and so forth. The Davis-Monthan Services staff discovered the importance of putting an identification label on each cable so it wouldn't have to be traced later to figure out its function! Stage setting requires a lot of resources, both fiscal and human, to be properly completed.

Failure to commit appropriate or adequate resources to the SIMS implementation is a true constraint on the success of automation. This is a "before and after" problem in that it could occur during the stage setting or preparation phase, during the implementation phase, or during the post-implementation or operating phase. SIMS will bring a lot of advantages with it, but it must be well-implemented and maintained for those advantages to be realized. A front-loaded investment of workhours and dollars will result in the high payoff of a smooth, efficient implementation and
effective daily operation of SIMS.

Another trap, poor preparation for software beddown, is highlighted because the software will be implemented in three phases. Avoid the relaxation trap or tendency to feel like all the work is done after implementing the basic module. Each module will need large amounts of care and feeding to get through the loading process. Data must be initialized; inventories must be taken, checked, and entered; training must be completed; and occasional mistakes must be corrected during each software module implementation. Although each base will have a great deal of help from the MAJCOM implementation team, be prepared to support the heavy man-hour requirement implementation demands. Another potential problem surfaces after SIMS implementation.

A very natural, and even expected, human tendency is to be skeptical of new ideas or methods, especially if machines are involved. The fifth pitfall, allowing continued reliance on the "stubby pencil" operation, is a real "gotcha." The very essence of SIMS will be defeated if a firm commitment is not made to the system. This commitment to SIMS must be visible from the Chief of Services down, throughout the organization. One approach for Chiefs of Services is to use the SIMS workstation to regularly check what's on the system,
being especially alert to missing or outdated information. Another way is to ensure system backup, i.e., running a program that will save current data if the system fails for any reason, at recommended frequencies. That way, personnel will have faith in the new, automated system rather than reverting to their old, manual methods.

The last trap, micro-management, is easy to fall into. Services managers at all levels will have easy and increased access to information. Consequently, managers may want to become involved in decision-making on too low a level. Trust your staff to perform correctly, as they did before SIMS. A genuine commitment to support and help Services people will lead to soaring confidence levels, a pervasive cooperative attitude, and great strides forward with SIMS. Managers should use their increased available time to tackle major problems and "manage smarter" rather than intervening at lower levels.

The few pitfalls we've discussed do not represent all that could happen. We've identified those broad areas
we believe could most seriously hinder a successful transition to SIMS. We hope you'll add your own "potential pitfalls" to this list and make them known to those Services organizations implementing SIMS after you.

SEND ME IN COACH!
Well, we've covered all the topics we said we would in chapter one. We hope we've eased your apprehension, nervousness, and anxiety on the transition to SIMS. We've discussed SIMS' development and overall strategy for use in the chapter on management concepts. We also looked at how SIMS can improve our ability to make and keep commitments to our customers. Chapters four and five covered the SIMS hardware and software and how we expect them to be tailored to fit each base's needs. The chapter on operational concepts addressed what to do with the increased information available. Then, we traced the SIMS concept from its beginnings to today's system, and looked toward the future for
potential enhancements that'll further improve the Services business. Finally, we reviewed a few key pitfalls to be avoided in your successful implementation and operation of SIMS.

SIMS is the start of a new era in Services—the automation era. Services professionals must incorporate these new information management concepts which will enable them to focus on problems and, thus, give them time to solve those problems. Managers need to hold onto the good, professional habits developed in the past, yet be ready to overcome organizational resistance and adopt improvements made possible by SIMS. We must set our sights on the qualitative improvements that SIMS will make possible in all Services areas.

We challenge you to visualize SIMS' potential, set your goals, and implement those changes that will advance our profession as we move toward the twenty-first century.

We're convinced Services managers all over the Air Force can meet this challenge and you will be among them. Go for it—and good luck!
BIBLIOGRAPHY

A. REFERENCES CITED

Official Documents


Unpublished Materials


Other Sources

3. Ellis, George E., Major General, USAF. Director, Engineering and Services, HQ USAF, Washington, DC. Interview, 16 September 1986.


B. RELATED SOURCES

Books

Official Documents


END

6 - 81

DTIC