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This paper addresses the design and implementation of a public relations program in support of the Composite Health Care System at Ireland Army Community Hospital, Fort Knox, Kentucky. A background on the Composite Health Care System and its objectives are provided. Important aspects of a basic public relations program are discussed. Internal and external publics are defined and studied to include hospital employees, staff, patients, visitors, local community, and civilian contractors. Local organization and initiatives in implementing a public relations program are examined. Many topics addressed may be applicable to military medical treatment facilities scheduled to receive the Composite Health Care System.

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THE DESIGN AND IMPLEMENTATION OF
A PUBLIC RELATIONS PROGRAM IN SUPPORT
OF THE COMPOSITE HEALTH CARE SYSTEM
AT IRELAND ARMY COMMUNITY HOSPITAL,
FORT KNOX, KENTUCKY

A Graduate Research Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Health Administration

by

Captain Charles M. McGibony, MS

October 1987

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CHAPTER I

INTRODUCTION

Conditions Which Promoted The Study

Today's health care industry has become increasingly more automated in the area of information management. In the past, automation in Department of Defense health care facilities has been a piecemeal, fragmented effort without any apparent centralized coordination. This has resulted in the armed services procuring and implementing separate, independent automated systems. Even within health care facilities of the same service, commonality was the exception rather than the rule. The Department of the Army has implemented some Army-wide systems in such areas as quality assurance, workload accountability, and personnel management. Other areas of automation in the clinical services area have been established independently at the individual facilities. This type of automated system management has severely limited data interface within the separate medical facilities, between hospitals within the same service, and especially between the Medical Departments within the Department of Defense. Congress has recognized the Department of Defense's need to acquire "...automated medical information systems for use in its military medical facilities" (Senate Appropriations Committee 1987, p. 152). This requirement was recognized and defined as the Composite Health Care System (CHCS). The objectives of CHCS were to: 1) improve the quality of patient care, 2) increase the efficiency of operations, 3) enhance the accuracy and availability of information, and 4) provide stand-ardized, yet flexible, computer support of essential facility operations (TRIMIS Program Office, 1986).

Implementation of the Composite Health Care System has been delayed over the past few years largely due to congressionally mandated alterations in the acquisition policy (Senate Appropriations Committee, 1987). This point was emphasized by the Assistant Secretary of Defense for Health Affairs who stated in testimony before the Manpower and Personnel Subcommittee:

> We are rapidly approaching the point at which the needs of our health care beneficiaries and providers have been subsumed by the costly tests and delays in the implementation of this system. These inure solely to the benefit of competitors for the project in the computer industry. We are conducting a fair and open competition, and it is time to get on with it. (Senate Appropriations Committee, 1987, p. 152).

The Senate Appropriations Committee supported these remarks and directed "... that the Secretary of Defense expeditiously undertake the completion of any remaining necessary development, testing, and evaluation of competing systems and to acquire such system or systems as will most effectively meet the needs of the military medical system" (Senate Appropriation Committee, 1987, p.152). Oversight of this project within the Department of Defense has been delegated to the Defense Management Systems Support Center and the Tri-Service Medical Information Systems (TRIMIS) Program Office (TRIMIS Program Office, 1986).

The Department of Defense, through a competitive procurement, awarded contracts to four teams of contractors to design, develop, install, operate, and maintain the Composite Health Care System. The contractor teams were headed by McDonnell-Douglas Health Information Systems Company,

Technicon Data Systems Corporation, Travenol Healthcare Information Services, and Science Applications International Corporation. The contractors were selected based on technical approach, corporate experience, personnel, contract management, and life cycle cost (TRIMIS Program Office, 1986). The contractors are competing for the right to implement their system throughout the more than 700 Department of Defense medical treatment facilities worldwide (TRIMIS Program Office, 1986). An operational test phase for the contractors' version of the Composite Health Care System has been scheduled to run from February 1987 to November 1987. The final contract award has been set for March 1988. The long range Army plan has called for installation of the Composite Health Care System at Beta sites in CONUS and overseas beginning in June 1988. Subsequent deployment to other Army medical treatment facilities has been scheduled from August 1989 to August 1992 (Appendix A) (TRIMIS-Army, 1987).

In order to evaluate their systems, the contractors were designated separate but similar military medical treatment facilities. Test sites were selected based upon the size of the medical treatment facility, the size and type of patient population supported, and the range of medical services provided (TRIMIS Program Office, 1986). The operational test site selected for McDonnell-Douglas was Camp Lajune Marine Base, North Carolina; Technicon's site was Charleston Naval Base, South Carolina; and Travenol's site was Sheppard Air Force Base, Texas. By September 1987, Technicon had withdrawn from the competition, leaving only three contractors.

Ireland Army Community Hospital, Fort Knox, Kentucky, was notified by Headquarters, U.S. Army Health Services Command on 28 October 1986 that the

hospital had been selected as a demonstration site to perform an operational test of the Composite Health Care System. Ireland Army Community Hospital was built as a ten-story structure that consisted of 490,000 square feet and a 500-bed capacity. The facility was formally dedicated on 1 April 1957. A construction project to upgrade and expand the facility was completed in 1980. In addition to the main hospital structure, five outlying troop medical clinics are operated on Fort Knox and are included in the operational test of the Composite Health Care System. The following workload was programmed for Ireland Army Community Hospital during Fiscal Year 1987:

TABLE 1

Ireland Army Community Hospital Programmed Workload - FY87

Operating Beds	178
Operating Bassinets	17
Total Operating Beds	195
Daily Bed Occupancy	155
Daily Admissions	32.3
Daily Live Births	3.3
Daily Clinic Visits	1570
Radiology Monthly Procedures	953
Pharmacy Monthly Procedures	2975
Laboratory Monthly Procedures	16095

The civilian contractor selected for the CHCS operational test at Fort Knox was the Science Applications International Corporation (SAIC), an employee owned, half-billion dollar per year corporation with over 7,000 employees. SAIC had a ten-year history of health services research and

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specializrd in developing automated systems for Department of Defense applications. SAIC headed a team of contractors that included Digital Equipment Corporation (computer hardware), American Telephone and Telegraph (communications), and DI-STAR Medical Systems Corporation (health care software) (SAIC, 1987), (Appendix B).

SAIC incorporated software written in the MUMPS (Massachusetts General Hospital Multi-Programming System) programming language. The MUMPS language was selected for exclusive use in over 160 Veterans Administration hospitals nationwide based on Congressional mandate (Hoehl and Kuenigsberg, 1987). More than fifty percent of the commercial medical facilities have chosen the MUMPS language (SAIC, 1987).

The operational test phase has allowed SAIC and the other contractors to see how their software and hardware work under conditions of real patient care services. The services directly affected by the test included: patient administration, patient appointment scheduling, laboratory services, radiology, nursing, clinical dietetics, pharmacy, and medical information system management (SAIC, 1987). A functionality overview of these services can be found in Appendix C. The outpatient pharmacy was the only operational area as of 1 October 1987. Other services will be phased in throughout the remainder of the hospital during the October 1987 to February 1988 timeframe. Once fully implemented, CHCS will drastically change the way health care has been delivered throughout the facility. Patients should experience less waiting because of enhanced management of health care resources. For example, prescription orders will be delivered electronically from the clinics and the wards directly to the pharmacy; thus, reducing processing time and hopefully having prescriptions ready for

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pickup when the patient arrives. The amount of paper will be reduced for patients and staff as more information can be entered directly by keyboard and less by manual methods. Additionally, patients should need to visit fewer offices within the hospital once various activities, such as inpatient registration, patient records access, and laboratory requests, can be accomplished from most locations in the hospital and the troop medical clinics.

The full implementation of the Composite Health Care System will consolidate and expand the automated capability of Ireland Army Community Hospital. This has indeed been a unique opportunity for the hospital to upgrade its operation. The technological change had to be implemented within a relatively short amount of time. The Commander and Deputy Commander for Administration recognized the need to keep the hospital staff, patients, and local community informed of these rapid changes and decided to incorporate public relations as an integral part of the implementation of the Composite Health Care System at Ireland Army Community Hospital. The scope of this study was to establish an effective public relations program in support of the Composite Health Care System within the financial and personnel constraints of the hospital.

Statement of the Research Question

To design and implement a public relations program in support of the Composite Health Care System at Ireland Army Community Hospital, Fort Knox, Kentucky.

Objectives

a. Develop a working definition of Public Relations.

b. Review and evaluate the existing public relations functions at the hospital.

c. Incorporate appropriate existing public relations activities in support of the Composite Health Care System.

d. Develop new public relations projects to meet the specific needs of the Composite Health Care System.

e. Enhance internal and external communications to facilitate awareness and acceptance of the Composite Health Care System.

Criteria

a. The public relations program was consistent with the goals and objectives of the Army Medical Department, the U.S. Army Health Services Command and the Joint Commission on Accreditation of Hospitals.

b. The public relations program was integrated into all areas of the hospital.

Assumptions

a. There was no significant change in the number of personnel working with public relations duties at Ireland Army Community Hospital.

b. Additional financial support was available on a limited basis for CHCS public relations functions through TRIMIS Program Office and the Science Applications International Corporation.

Limitations

a. A formal public relations program had to be organized, managed, and monitored with existing personnel resources.

b. Funding for any public relations activities had to be within the budgetary limitations of the hospital and any additional funding available from additional outside sources.

Review of the Literature

Public relations in hospitals is not a new phenomenon. However, its use has risen dramatically during the past decade as a result of increased competition, rising health costs, growing malpractice concerns, and en_{..} - sis on the quality of care. There is a wide range of literature available on public relations in general and on hospital public relations specifically. Literature on Army hospital public relations was primarily limited to military regulations and pamphlets. However, most public relations concepts are applicable to a military medical facility.

The definition of public relations has many variations. Harlow (1976) analyzed 472 definitions and produced the following definition: "Public relations is a distinctive management function which helps establish and maintain mutual lines of communications, understanding, acceptance and cooperation between an organization and its publics...."(p. 36). Cutlip, Center and Broom (1985) defined public relations as "the management function that identifies, establishes, and maintains mutually beneficial relationships between an organization and the various publics on whom its success or failure depends" (p. 4.). Canfield and Moore (1973) suggested that "public relations is a social philosophy of management expressed in policies and practices, which, through two-way communication with its publics strives to secure mutual understanding and goodwill" (p. 4.). The Public Relations Society of America referred to public relations as "the function that maintains an organization's relationship with society in a way that most effectively achieves that organization's goals" (Karolevitz, 1983, p. 1). The American Society for Hospital Public Relations (1984) stated that "public relations is a systematic program of goal - oriented communications designed to support the needs of the institution" (p. 5).

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Although there is no consensus, the numerous definitions of public relations shared the following common themes: 1) a planned and sustained program conducted by an organization's management, 2) the establishment of two-way communication between the organization and its various publics, and 3) the production of specific changes in awareness, opinions, attitudes, behaviors inside and outside the organization (Cutlip, Center, and Broom, 1985). Any successful public relations program, in support of the Composite Health Care System, must address these themes.

The literature stated that a hospital must deal with several publics or constituencies. It is important to have an understanding of the definition of a public and what constitutes the public for Ireland Army Community Hospital. The Texas Hospital Associaiton (1979) defined a public as "anyone interested in, or affected by, an institution - or whose opinion can affect the institution" (p. B-1). Kurtz (1969) wrote that the term "... implies that the public is a collective, unified group of one mind, one opinion, and one spirit. This obviously is incorrect. The public is not great monolith, but rather a group of segments, often overlapping and at times, almost indefinable" (p. 12). A hospital's publics can be grouped into external and internal publics (Cutlip, Center, and Broom, 1985).

The external publics of a hospital include the local community, government agencies, professional organizations, and the media. As a demonstration site for the Composite Health Care System, Ireland Army Community Hospital's involvement with these external publics can be expected to increase. The local community must be kept informed about the system because many activities on the installation will be affected, e.g., the Directorate of Engineering and Housing is responsible for many of the work requests in preparation for the installation of the CHCS equipment.

Government agencies, such as the TRIMIS Program Office, have a need to know how the project is progressing so that the contractural competition can be monitored. The hospital must also be sensitive to the needs of SAIC and the other corporate team members. A positive relationship with the contractor in the initial stages will provide the basis for a successful transition once the system is implemented. Finally, demands from the media in keeping Fort Knox and the surrounding community informed will most likely increase significantly as the demonstration progresses.

The internal publics of a hospital include patients and families, visitors, medical staff, employees, administration, and volunteers. Recent articles stress the vital role of the employee in public relations. The American Society for Hospital Public Relations (1984) suggested that "effective public relations begins with employees, their attitudes, and the quality of service they provide" (p. 25). A patient's perception of a hospital and the quality of care received is highly influenced by the amount of information received and the attitude of the employees (Anders, 1984; O'Sullivan, 1984; Quinn, 1986). Several authors stress the need for improving personal relations and communications between employees and patients (Fritz and Miller, 1984; Peters, 1985; Riffer, 1984).

The internal publics of Ireland Army Community Hospital play a vital role in the successful implementation of the Composite Health Care System. Final success of the system will be greatly influenced by whether hospital employees and patients accept it in a positive manner or resist the change.

It has been a common tendency for organizations and individuals to resist change. According to Zander, some of the causes for resistance to change in organizations are:

1. The purpose of the change is not clearly understood.

2. Persons affected by the change are not involved in planning for the change.

3. The change causes anxiety over job security.

4. There is poor communication.

5. Existing work customs and work group relationships are abruptly changed.

6. The appeal to change is based on loyalty rather than on problem solution or goal achievement.

7. There is fear of failure.

8. Work pressure is excessive and the change is seen as intensifying the pressure.

9. The change is seen as requiring too high a personal cost or providing inadequate reward.

10. A vested interest of the individual or his work unit is involved -- the "we" versus "they" problem.

11. Respect for and confidence in the person or group initiating the change are lacking.

12. There is prevailing satisfaction with the status quo (Powers, 1984).

Kotter and Schlesinger (1982) wrote that there are six methods in dealing with resistance: education and communication, participation and involvement, facilitation and support, negotiations and agreement, manipulation and co-optation, and explicit and implicit coercion. A good public relations program closely resembles the education and communications method of dealing with resistance. This method emphasizes the need for and logic of a change through verbal and written communication. Clearly, an effective public relations program can help overcome resistance.

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Gibson and Rose (1986) stated that in order to overcome computer resistance, managers must focus on the users of the system. The authors wrote that automation must be shown as an asset in supporting personal and organizational goals. They emphasized the need for structured, hands-on training. An internal public relations program can help facilitate user acceptance through keeping hospital employees informed of the system's progress and to supplement the training effort.

Patients, obviously, are a critical element of a hospital's internal public. Several articles point out that most patients do not have the knowledge or experience to evaluate the efficiency or effectiveness of a particular health care provider or treatment procedure (Doering, 1983; Ben-Sira, 1983; Kotler & Clarke, 1986). Instead, much of a patient's perception about the quality of care received is based on criteria such as staff courtesy, range of services provided, appearance of the hospital, and hospital reputation. It was interesting to note that the availability of state-of-the-art technology and equipment was among the top four patient criteria for quality of care (Kotler & Clarke, 1986).

There is great potential for positively influencing a patient's perception of care through a proactive public relations program that keeps patients aware of the implementation of technology such as CHCS. Proper utilization of the system by hospital employees can hopefully reduce administrative requirements of the staff, thus allowing more personalized care with patients, which is another important quality of care indicator for patients (Doering, 1983; Kotler & Clarke, 1986).

Personal attention of the patient must remain a primary concern even after CHCS is implemented. Naisbitt (1984) refers to this phenomenon as

"high tech/high touch... whenever new technology is introduced into society, there must be a counterbalancing human response - that is, high touch - or the technology is rejected" (p.35).

The literature was in agreement that any successful public relations program must have the support of top management (Cole, 1981; Cutlip, Center & Broom, 1985; Karolevitz, 1983; Powers, 1984; and Riggs, 1982). Although the Composite Health Care System demonstration was mandated from higher authorities, the depth of commitment by the management of Ireland Army Community Hospital was illustrated by their emphasis on establishing and implementing a public relations program for the project.

Research Methodology

a. Conducted a survey of the current literature on public relations.

b. Evaluated the existing public relations functions by reviewing written hospital policies, regulations, files, and inspection results.

c. Provided a descriptive study of public relations initiatives and their implementation in support of the Composite Health Care System at Ireland Army Community Hospital.

CHAPTER II

DISCUSSION

Organization

The public relations function at Ireland Army Community Hospital has been most closely associated with the Public Affairs Officer, an additional duty assigned to the Adjutant. The responsibilities of the Public Affairs Officer fall into three major areas: Command Information Program, Public Information, and Community Relations Program.

The Command Information Program was described by HSC Pamphlet 360-1 as "the only program with the sole purpose of promoting maximum communication between a commander and his internal audiences" (Health Services Command, 1986, p.2-1). The Public Affairs Officer must assist the Commander in disseminating topics of command interest to include command policies, safety, career programs, education, training, voting, equal opportunity, drug and alcohol abuse, recreation information, legal and medical assistance, and suggestion programs. The Public Affairs Officer has a wide range of forums to get out the information: daily bulletin, command letters, bulletin boards, displays, posters, closed circuit television, videotapes, Commander's Call, group meetings, committee meetings, formations, and informal channels (Health Services Command, 1986). Most of these resources are currently being used at Ireland Army Community Hospital.

Public information was defined as "... information and other material disseminated to the public(s) via press, radio, television, and other mass communication media" (Health Services Command, 1986, P. Glossary-1).

Public information is aimed toward the external as well as internal publics of the hospital. Close coordination by the hospital Public Affairs Officer with the installation Public Affairs Office is vital to the success of a Public Information Program. A key function of the Public Affairs Officer is to ensure that there is no credibility gap between the hospital and the media. The Public Information Program includes activities such as: news interviews, handling queries about accidents and incidents, Hometown News Release Program, release of patient information, release of photographs and videotapes, the Freedom of Information Act, and the Privacy Act. (Health Services Command, 1986).

The third major area for a Public Affairs Officer is the Community Relations Program. It is defined as "... the ongoing relationship between a military community and a civilian community" (Health Services Command, 1986, Glossary-1). The Community Relations Program can involve support of almost any local community activity on an individual or group basis. A few examples of community relations at Ireland Army Community Hospital have included sponsoring of a medical explorers group, conducting a Health Fair, supporting the Combined Federal Campaign, and participating in local functions such as EXPO 86, Golden Armor Field Day for handicapped children, and Golden Armor Festival Week. Almost any positive action that helps develop understanding and support of the local community for the hospital or the U.S. Army falls in the arena of community relations.

The development and implementation of a public relations program in support of the Composite Health Care System is a project that falls within the scope of the Adjutant's responsibilities as the Public Affairs Officer.

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However, the large scale of the project and the rapid, yet sustained nature of its implementation, justified the appointment of a separate officer dedicated to public relations for the Composite Health Care System. This task was delegated to the Administrative Resident as a special project. Close interaction with the hospital Adjutant and the installation Public Affairs Office must be maintained because of the need to coordinate information and media support. Keeping the internal and external publics informed about the Composite Health Care System and its progress was viewed as critical to the overall acceptance of the system. This attitude was enforced when the CHCS Public Relations Officer was made a member of the CHCS Management Team.

The formation of a consolidated management team was important to the implementation of a system as comprehensive as the Composite Health Care System. A management team must include the necessary disciplines to provide expertise yet be flexible enough to respond to short suspenses and rapid changes. At Ireland Army Community Hospital, this was accomplished through the establishment of a Project Team that met on a weekly basis to discuss and monitor the implementation of the system. The Project Team consisted of the following individuals:

TABLE 2

CHCS Management Team

Program Director	LTC James Hill
Financial Advisor	MAJ John Peden
Nursing Project Officer	MAJ Ollie Gray
Physician Project Officer	MAJ Chris Dempsher
Systems Project Officer	CPT John James

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Systems Analyst	Ms. Natella Davidson
Site Preparation Project Officer	MAJ Stuart Mervis
Education/Training Project Officer	SFC Ruel Bowman
Space Manager	Mr. Robert Skaggs
Public Relations Project Officer	CPT Charles McGibony

The Project Manager, Lieutenant Colonel Hill, also assigned as Chief, Clinical Support Division, monitored all project activities, keeping the hospital commander informed of the system's progress, and interfacing with outside agencies.

The Financial Advisor was Major Peden, Chief, Resource Management Division. He gave budgetary input and advice and closely coordinated and monitored funding of the project.

The Nursing Project Officer was Major Gray, a full time program representative for the Department of Nursing. She oversaw the implementation of the system on nursing units, wards, and the operating room. She provided liaison between all nursing activities, hospital administration, ancillary services, and the commercial vendors.

The Physician Project Officer was Major Dempsher, who provided medical expertise to the Project Team. Assigned as Chief, Department of Pathology, his responsibilities were similar to the Nursing Project Officer, although on a part-time basis. He represented the physician staff in resolving problems and researching questions pertaining to the system.

The Systems Project Officer was Captain James, the hospital's Information Management Officer. He served as the institution's resident expert on automated hardware and software. He coordinated closely with the TRIMIS Project Office; Headquarters, U.S. Army Health Services Command; and the Science Applications International Corporation.

Closely associated with Captain James was the Systems Analyst, Ms. Davidson. Assigned as Chief, Data Processing Division within the hospital's Information Management Office, Ms. Davidson provided organizational expertise on automated software. She coordinated the loading of data, resolving software problems, and developing change requests to the software packages.

The Site Preparation Project Officer was Major Mervis, the Chief, Logistics Division. He oversaw the coordination of minor construction contracts needed to upgrade the facility in implementing the Composite Health Care System. In addition, he served as the key staff member in the storage and accounting of the computer hardware, paper, and additional furniture until it is put into operation.

The Education/Training Project Officer was Sergeant First Class Bowman, the Non-Commissioned Officer in Charge of the Nursing Education and Staff Development Service. His responsibilities included close coordination with the TRIMIS Project Office and the Science Applications International Corporation in determining training needs and schedules.

The Space Manager was Mr. Skaggs, supervisor of the Resource Management Division's Management Analysis Branch. Part of his responsibility was to review and staff requests for internal moves within the facility. For example, additional space was required early in the project to allow for expansion of the existing computer room and the establishment of a Project Office. Changes of this type were coordinated through the Space Manager.

Being an active member of the Composite Health Care System Project Team was critical for the Public Relations Project Officer for several reasons. The credibility and importance of the position was enhanced through recognition as a project team member. Attendance at the weekly team meetings kept the Public Relations Officer current on the progress of CHCS. Interaction with other team members kept the Public Relations Officer informed about their needs in the area of public relations. Project team members also served as vital sources of ideas and suggestions. Membership on the Composite Health Care System Project Team served as a base from which to launch a Public Relations Program.

Internal Publics

As with any sound Public Relations Program, the target audience for the Composite Health Care System was divided into internal and external publics. The internal publics of the hospital, as previously stated, consisted of medical staff, employees, administration, volunteers, patients and families, and visitors. For purposes of the Composite Health Care System and clarity of discussion, the internal publics of Ireland Army Community Hospital were further subdivided into the employees and patients. The employees category encompassed the military and civilian personnel who work in Ireland Army Community Hospital and its troop medical clinics. The patients category included the inpatients, outpatients, family members, and visitors who enter the hospital and its clinics. These two types of internal publics have different needs for information about the Composite Health Care System. The ways to reach these publics also differed.

The assigned strength of military and civilian employees (as of 1 September 1987) within the hospital and troop medical clinics was 429 military personnel and 505 full-time civilian for a total of 934 employees.

In developing an internal public relations program for the hospital employees, it was necessary to begin with some type of baseline of their exposure to automated systems. A quick estimate was to determine the extent of automation that currently exists in the hospital and troop medical clinics. There were 130 computer terminals or mini-computers throughout the facility prior to CHCS. (Appendix D). This figure did not include the numerous printers, modules, and disk drives used to support the various systems in use throughout the hospital and troop medical clinics. The idea of a computer system would be a new experience to most areas of the hospital. In fact, some currently used systems are scheduled to be incorported into the Composite Health Care System. Such systems include the Automated Quality of Care Evaluation Support System (AQCESS), the Patient Appointment System (PAS), Admissions and Dispositions, and the Medical Expense and Performance Reporting System (MEPRS).

The internal public relations program must keep the employees informed and gain their support. An initial step in informing the hospital employees was to present a briefing on the Composite Health Care System. The briefing consisted of a ten-minute videotape followed by a lecture with viewgraphs that covered a broad overview of the Composite Health Care System. The briefing was given by personnel of the TRIMIS Project Office. Briefings were given on 14 occasions during 5 - 7 November 1986 in order to maximize attendance. During the presentation, emphasis was placed on Ireland Army Community Hospital being the only Army hospital involved with testing the system. This fact developed some interest and pride among the employees as well as informing them of the project. New employees, arriving after the initial orientation, are briefed on the system during the monthly Commander's Orientation.

In order to keep the employees informed of the system's progress, an internal newsletter was developed (Appendix E). The newsletter was compiled by the Public Relations Project Officer and the Education/Training Project Officer. It was decided to limit the newsletter to one page, to use a dot matrix printer to give it more of a computer generated appearance, and to emphasize topics of local interest. Draft editions of the newsletter were submitted through the Program Director for final approval prior to publication. Early editions of the newsletter were amateurish; however, improvements were made with each subsequent edition. For example, the dot matrix effect was deleted on the second edition because of its poor print quality.

The newsletter was used to assist in the next stage of the internal public relations program - increased employee involvement and awareness of the system. In December 1986, it was decided to have a contest to give the system a unique name and logo. The name Composite Health Care System is applicable to the system scheduled to be implemented throughout the Department of Defense.

A locally developed name and logo stimulated employee interest and awareness of the system. The contest was announced through the distribution of a flyer (Appendix F), the newsletter, and the hospital bulletin. A one hundred dollar savings bond and a Certificate of Appreciation were established as the winning selection's award.

A committee was selected to review the entries. The five-member committee consisted of a Medical Corps Major, a Nurse Corps Major, a Sergeant First Class, a Private First Class, and a GS-05 civilian. The committee had two white females, one black male, one Hispanic male, and one white

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male. Two of the individuals worked in activities outside of the main hospital building. None of the members was involved with the initial development of the contest nor did any have an entry in the contest. This committee mixture was established to allow for cross-representation of various hospital duty sections and personnel backgrounds.

There were thirty-two submissions in the Name the Computer Contest. Each committee member was given an advance copy of the entries to review. During the committee meeting, open discussion was conducted among members for what they thought were especially good entries. Committee members were instructed to select their top three choices. A weighted value of five was given for each first place vote, three for second, and one for third. The top three entries are in Appendix G.

The winning name in the contest was CHIPS, an acronym for Composite Healthcare Information Program System. The accompanying logo was originally submitted as a computer terminal but this was changed to an animated chipmunk in order to create more personality. The committee's selection was based on the simplicity of the word and its dual meaning with computer terminology.

Developing the final chipmunk logo proved to be more involved than originally anticipated. The installation Training Aid Support Center estimated a six-week turn around time. This was felt to be too long and estimates from commerical artists were too expensive. Finally, a military member volunteered to draw the chipmunk logo in final form.

The new name and logo were incorporated with other forms of internal communications. The CHCS newsletter, for example, was renamed the CHIPS Bulletin and the chipmunk logo was added as part of the bulletin mast head.

The next internal public relations initiative was to design and print a poster with the CHIPS name and logo. Attempts were made to have a multi-colored poster done locally by a commercial firm. The request was disapproved by the installtion print plant because of the capability to perform the job on post. This required going back to the installation Training Aid Support Center and having them design a photo ready copy from which a poster could be printed. This step added an additional six weeks to the project. Once the photo ready copy was completed, poster selection was limited to one color of paper and a single color ink. The final choice was 28 inches by 22 inches yellow poster board with dark blue ink. The name of the hospital, CHIPS, and the chipmunk logo were printed at the top half of the poster. The bottom half of the poster was left blank to allow for adding current information about the computer system, such as training schedules.

Another initiative taken to keep the hospital staff informed was a slide presentation and briefing. The Program Director tailored a briefing with information and slides specifically addressing the impact of the Composite Health Care System at Fort Knox. The slides included scenes of the installation, the hospital, and personnel working in the hospital. The briefing was presented to the medical, nursing, and administrative staffs. The briefing was continually updated by the Program Director.

Scheduling the training of hospital employees on how to use the Composite Health Care System was to be a significant project. The training had to be done quickly, yet effectively, to minimize disruption of routine hospital operations while implementing the system. The importance of training was highlighted by Lieutenant Colonel Roger Brown from the

TRIMIS-Army Office who wrote, "there is a considerable amount of information available which correlates employee acceptance and successful implementation of a new system with the amount and quality of training done prior to full development" (TRIMIS-Army, 1987). Training for hospital personnel was scheduled to be conducted in the Nursing Education and Staff Development Service. The Nursing Education and Staff Development Service training area on the ninth floor was upgraded with the installation of static resistant carpeting to reduce noise, partitions to provide separate training areas, and the installation of additional outlets. Equipment for the training area included computer terminals, printers with sound enclosures and stands, trainee desks and chairs, trainer tables, audiovisual equipment, bookshelves, and wall mounted liquid chalk boards. Various floor plans for the training areas were also available, depending on the number of students using each area (TRIMIS-Army, 1987), (Appendix H).

Training sessions vary from three to twelve hours depending on the individual's job and level of supervision. Following training, an individual must then apply this knowledge to the actual job situation.

The transition to a new automated system can lead to anxiety and resistance by hospital employees. A positive, proactive public relations technique can help reduce this apprehension. Recognition of employees who completed training was a method to accomplish this task. A unique certificate of training has been designed for future issue. Another means of recognition was the procurement of 3/4 inch fluorescent orange, stick-on reflective dots with the word CHIPS printed in black (Appendix I). Two thousand dots were ordered at a total cost of $244.00. The dots can be placed on the already existing hospital name badges worn by most hospital

employees. The reflective dots provided a quick means of rewarding indivi-

duals for completing training and makes them easily recognizable to other

employees in the hospital. This simple, colorful means of recognition has

contributed to the success of the training program.

Patients comprise the other major subgroup of the internal publics.

The exact size of this population would be difficult if not impossible to

calculate. It was reported by the Fort Knox Directorate of Resource

Management that the total population served by Ireland Army Community

Hospital was 124,597 (Appendix J). This figure included active duty per-

sonnel, civilian personnel, retirees, reservists, and family members, all

of whom are potential patients or visitors to the hospital. This popula-

tion, as it is at many military facilities, is very transient. This factor

increased the need to continually inform the external population about the

Composite Health Care System.

There are several ways to communicate with the patient public. Some of

the methods used for employees, such as posters and distribution of the

CHIPS newsletter, can also be used. One of the biggest effects the

Composite Health Care System had on patients during the initial implemen-

tation phase was registration in the CHCS data base. Because outpatient

pharmacy was the first area to go on-line with the new system, patients

with new prescriptions were identified as those who needed to be registered

first.

Registration for outpatients represented another source of incon-

venience because of the additional wait prior to turning in a prescription.

Posters and flyers (Appendix K) were used in the outpatient lobby to inform

patients of this new requirement. In addition, employees of the Science

Applications International Corporation were stationed in the outpatient lobby to direct patients to the registration terminals. These directors were readily available to provide a face-to-face explanation on why registration was required and what the system was designed to do. This personal contact with patients reduced confusion and frustration. If patients perceived the Composite Health Care System as a benefit, they would be more likely to accept it or at least tolerate it.

Other sources of information available for the internal publics are produced by agencies outside the hospital. The Tri-Service Medical Information Systems Program Office has produced a series of pamphlets, brochures, and information papers for distribution. These publications were often used to support the TRIMIS Program Office briefings mentioned earlier. Publications of this type provided a good foundation on the background and basics of the Composite Health Care System. The publications were professionally prepared, colorful, and easy to read. The obvious disadvantage of external publications was that it could have quickly become outdated and was not geared toward any specific medical treatment facility. These disadvantages reinforced the requirement for a facility public relations officer to supplement the external publications with locally produced information that specifically addressed the needs and changes occurring at a specific site.

A videotape of the Composite Health Care System was also available through the TRIMIS Project Office. The videotape, like published material, was limited in its timeliness and specificity. Ireland Army Community Hospital was involved in the production of a new videotape about CHCS. A film crew from the Department of Defense, escorted by a TRIMIS Program Office representative, visited each of the four demonstration sites. Fort

Knox was the final stop on the film crew's agenda. An advance copy of the script was sent to the Program Director at Ireland Army Community Hospital in early May 1987. The Public Relations Project Officer was delegated the responsibility of coordinating sites, times, and personnel for filming the scenes.

The film crew arrived on 13 May 1987 and reviewed the scenario with the CHCS Public Relations Officer. The next day was used to film scenes within the hospital and on the installation. The intent was to provide a flavor for the types of missions that are performed at Fort Knox. Internal scenes of the hospital included the outpatient pharmacy, radiology, the labora- tory, the intensive care ward, internal medicine clinic, and the new com- puter room. External scenes included the Bullion Depository, soldiers in training, and the exterior of the hospital.

The scenes from the various demonstration sites were edited into a videotape that was previewed on 22 June 1987 during a Defense Management Systems Support Center Conference in Denver with the hospital Commander and Program Director in attendance. Additional editing was still required and final release of the videotape has been scheduled for early fall of 1987. Plans include showing the film at all medical treatment facilities and at military training courses taught at the Academy of Health Sciences, Fort Sam Houston, Texas. Printed and audio-visual material produced by agencies such as the TRIMIS Program Office can also be used to inform external publics about the Composite Health Care System.

External Publics

The external publics for Ireland Army Community Hospital were the local community, government agencies, civilian contractors, and the media. A project on the magnitude of CHCS has obviously generated a great deal of

external interest. The congressional interest in the project has already been mentioned. The potential multi-million dollar contract has also created a great deal of attention. Another important factor was the uniqueness of the project. The simple fact that Ireland Army Community Hospital was a test site created an intense amount of scrutiny. Newly developed software was being tested in a live environment as opposed to a research lab. The quality of CHCS implementation at Fort Knox will, in large part, determine whether the system will accomplish the major objectives of improved quality of care and efficiency. The evaluation process has generated more than the usual external attention that is focused on the hospital. The need to keep the external publics informed was an important aspect of the public relations program.

One of the first external publics to be briefed about the Composite Health Care System was the Fort Knox Chief of Staff, Colonel Wolfe and key members of the installation staff. The hospital Commander, Colonel Richard G. Kirchdoerfer and the Program Director, LTC James R. Hill, briefed the installation staff on 6 November 1986. Keeping the installation staff briefed from the beginning of the Composite Health Care System was viewed as a critical step in obtaining the necessary support needed for implementation of the system. This was especially true in dealing with the Directorate of Engineering and Housing. The installation staff's positive and responsive support enabled the civilian contractor, Woodbine Corporation, to expand the existing computer room by over 800 square feet. The project was completed on 1 April 1987, four and one-half months after the initial engineering survey. To put this accomplishment in perspective, it took less time to expand the computer room than to have the CHIPS posters printed.

28

The new computer room was formally dedicated with a ribbon cutting ceremony on 14 May 1987. The Fort Knox Commanding General, Major General Thomas H. Tait, representatives from the Directorate of Engineering and Housing, and the hospital Commander, Colonel Kirchdoerfer, were on hand to help cut the ribbon. The event was included in the CHCS videotape. Immediately following the ceremony, a tour was conducted of the new computer room to include viewing the hardware.

Another crucial factor in communicating with the external public was the use of media support. The installation newspaper, Inside the Turret, provided an effective means of disseminating information to a wide audience both on and off the installation. An initial article about the Composite Health Care System was published in the post newspaper on 12 February 1987 (Appendix L). This article, entitled, "DoD using Ireland as one of four test sites for computer contracts", announced to the hospital's external publics the scope and uniqueness of the project.

Media support was also available from outside sources. The TRIMIS Project Office was responsible for news release to various military and civilian professional journals. The Science Applications International Corporation has also released information about the project, to include an article in their company magazine, Newsgram. Media attention will obviously increase as CHCS becomes more widely implemented. The Public Relations Project Officer should screen the appropriate publications to monitor the media activity. When the local activity is mentioned in a national publication, it should be brought to the attention of the hospital command group and the hospital employees. Positive media attention aimed at the external publics can serve to bolster the pride and awareness of the internal publics.

The external interest focused on the hospital has created a large number of site visits from representatives of various agencies. Individuals from the TRIMIS Project Office and SAIC are frequent visitors. Representatives from the Government Accounting Office came to Fort Knox on 28 May 1987 to assess the site preparation and implementation of the project. Brigadier General Billy Johnson, Deputy Commander, U.S. Army Health Services Command, visited the hospital on 4 August 1987. Project managers from facilities designed as beta sites, such as Eisenhower Army Medical Center, have also come to Fort Knox. Potential visitors include The Surgeon General of the Army and members of Congress. The Program Director must be able to brief and update these visitors on a continuous basis.

One of the most effective ways to brief the external visitors is to use the locally produced slide presentation that has also been used for the internal publics. The slides must be kept updated, but this has not required a great deal of time to accomplish. Most of the background information will remain the same. A typed text can also be produced to accompany the slide presentation so that someone other than the Program Director could use it if necessary. The slide show, as previously mentioned, can also be used to highlight aspects of the CHCS program that are unique to Fort Knox and Ireland Army Community Hospital. As part of the overall briefings, most external visitors were given a tour of the expanded computer room and other areas of the hospital. The briefing and tour could also be used for other sectors of the external public, such as unit commanders and wives clubs.

Summary

The Composite Health Care System demonstration project is an on-going program at Ireland Army Community Hospital. The Public Relations Program in support of the Composite Health Care System continues to exist. It is anticipated that it will remain a viable, active part of the total implementation process for several years.

CHAPTER III

Conclusion and Recommendations

Conclusions

The Composite Health Care System was the start of a long term plan to implement a standardized automated information system to help improve the delivery of health care in Department of Defense medical facilities world-wide. Ireland Army Community Hospital has been thrust into the operational test phase of the program on relatively short notice. A positive, proactive public relations program was considered the most effective way to inform the hospital's internal and external publics about the system. The Composite Health Care System public relations program at the Department of Defense and Department of the Army level was very limited and basic. This forced Ireland Army Community Hospital to design and implement its own program. No additional staffing and limited funding were available for such a project. Comparisons to similar projects at other operational test sites were not made during this study due to the constraints and amount of sensitive information resulting from the competitive contracting process. Any measure of success for the CHCS public relations program is purely subjective. It can only be assumed that the acceptance of, and knowledge about, the Composite Health Care System would have been restricted without the development and implementation of a formalized public relations program.

Recommendations

It is recommended that a public relations program in support of CHCS should continue at Ireland Army Community Hospital. Personnel turnover alone will require an on-going need to inform and train people on the system. As a demonstration site, Ireland Army Community Hospital will

serve as a source of information for those facilities projected to receive the system. This is true for any public relations programs developed at these sites. Even if more sophisticated, higher level programs are developed, the need exists for local facilities to tailor public relations programs to their specific needs.

The steps in this study can provide a basis for which to start local public relations programs in support of the Composite Health Care System at other medical treatment facilities. The major factor in the success of any program is command support. No program can begin or continue without it. An individual should be appointed to coordinate the public relations project for CHCS. The individual does not necessarily need to be the Public Affairs Officer, however, close interface with the medical facility's and installation's Public Affairs Office must be maintained. The individual selected should be included on the facility's implementation management team. This selection gives the public relations function the needed visibility, credibility, and interaction necessary for a successful program. The basic principles of public relations, such as those found in most public relations textbooks and journals, can serve as the background for starting a program.

As more facilities implement the Composite Health Care System, the exchange of public relations initiatives should be encouraged. Any future studies of the Composite Health Care System should consider comparing facilities which developed formal public relations programs to those that did not.

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Appendix A

CHCS Implementation Schedule - Army

Jun 88   Eisenhower Army Medical Center
          Blanchfield Army Hospital, Fort Campbell

Sep 88   Walter Reed Army Medical Center
          Tripler Army Medical Center

Dec 88   Nurenberg Army Hospital

Aug 89   Landstuhl Army Hospital

Nov 89   Ireland Army Hospital, Fort Knox (Upgrade)
          Landstuhl Hospital - Clinics
          Brooke Army Medical Center

Feb 90   Moncrief Army Hospital and Clinics, Fort Jackson
          Brooke Army Medical Center - Clinics
          Augsburg Army Hospital and Clinics
          Martin Army Hospital, Fort Benning

May 90   Martin Army Hospital - Clinics
          Womack Army Hospital, Fort Bragg

Aug 90   Womack Army Hospital - Clinics
          Winn Army Hospital and Clinics, Fort Stewart
          Walson Army Hospital and Clinics, Fort Dix

Nov 90   Letterman Army Medical Center and Clinics
          Kimbrough Army Hospital and Clinics, Fort Meade
          Frankfurt Army Hospital

Feb 91   Frankfurt Army Hospital - Clinics
          DeWitt Army Hospital and Clinics, Fort Belvoir

May 91   Weed Army Hospital and Clinics, Fort Irwin
          Heidelberg Army Hospital and Clinics

Aug 91   Noble Army Hospital and Clinics, Fort McClellan
          Cutler Army Hospital and Clinics, Fort Devens

Nov 91   Darnall Army Hospital and Clinics, Fort Hood
          Patterson Army Hospital and clinics, Fort Monmouth

Feb 92   Hays Army Hospital and Clinics, Fort Ord
          Reynolds Army Hospital and Clinics, Fort Sill
          Weurzburg Army Hospital

May 92   Lyster Army Hospital and Clinics, Fort Rucker
            Keller Army Hospital and Clinics, West Point
            Wurzburg Army Hospital and Clinics
            Seoul Army Hospital

Aug 92   Seoul Army Hospital - Clinics
            Evans Army Hospital and Clinics, Fort Carson
            Bayne-Jones Army Hospital and Clinics, Fort Polk

Sites not listed are to be implemented after Aug 92.

Appendix B

SAIC Project Organization For CHCS

CHCS PROJECT ORGANIZATION

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┌──────────┐
│   SAIC   │
└────┬─────┘
     │
┌────┴──────────────────┐
│  CHCS PROJECT         │
│                       │
│  Lee R. Murphy        │
│  Project Manager      │
│                       │
│  Lew Taynton          │
│  Deputy PM            │
│                       │
│  Mike Congleton       │
│  Assistant PM         │
└───────┬───────────────┘
        │
 ┌──────┼──────┬─────────┬────────┐
 │      │      │         │        │
┌┴───┐ ┌┴─────┐ ┌┴──────┐ ┌┴─────┐
│SAIC│ │DI-STAR│ │DIGITAL│ │AT&T  │
└────┘ └───────┘ └───────┘ └──────┘
```
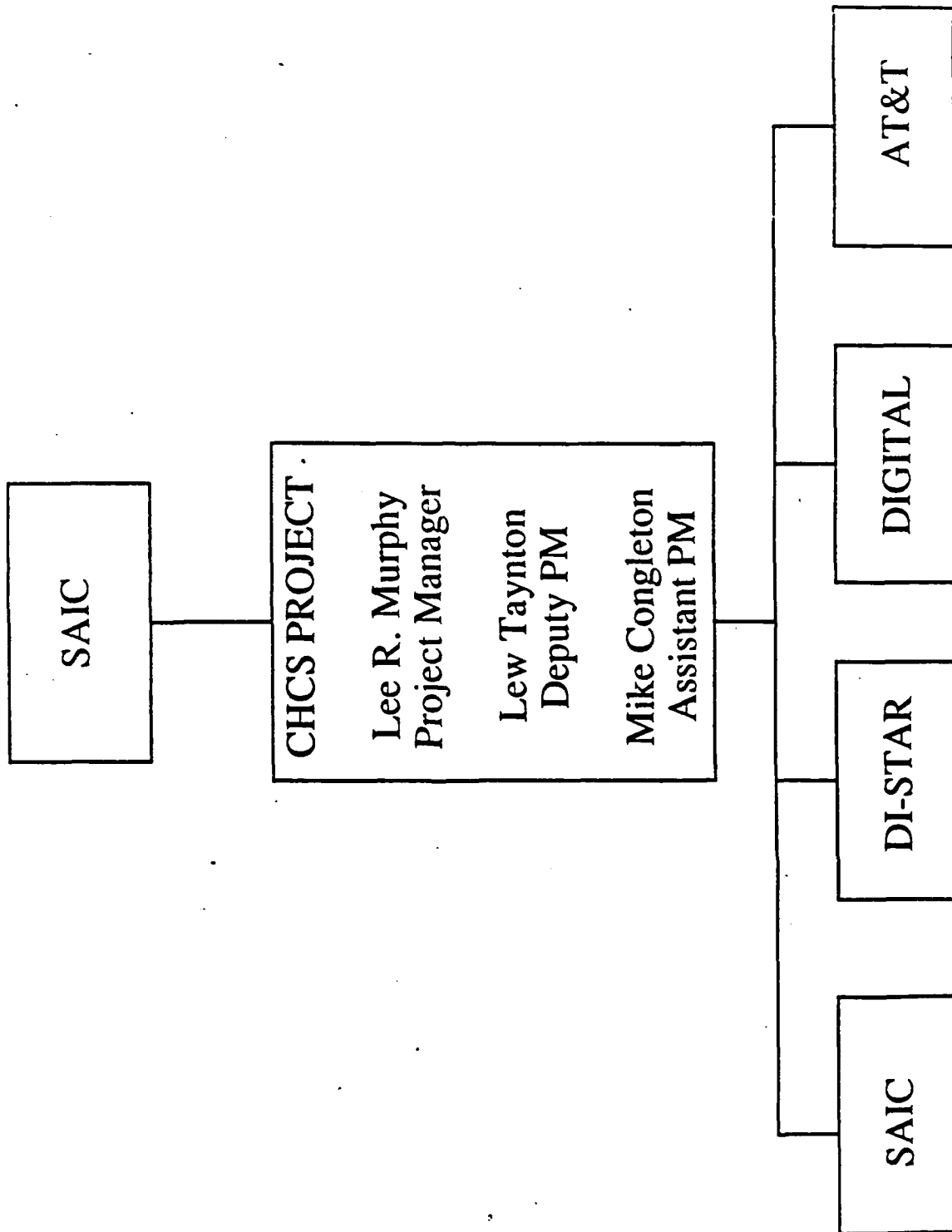
Appendix C

CHCS Functionality Overview

CHCS

FUNCTIONALITY OVERVIEW

- Patient Administration

- Patient Appointment and Scheduling

- Laboratory

- Radiology

- Pharmacy

- Nursing

- Clinical Dietetics

- Kernal (Core function)

SAIC

CHCS

CHCS SOFTWARE APPLICATIONS

Nursing
— Inpatient Care
— Ward Management

Clinical Dietetics
— Menu Planning
— Nutrition Analysis

Laboratory
— Ordering
— Test Reporting

Patient Administration
— Episode Records
— Business Office

CHCS Core
— System Management
— Reporting

Patient Appointment
and Scheduling
— Registration
— Appointments

Radiology
— Image Tracking
— Clinic Management

Pharmacy
— Order Processing
— Inventory

SAIC

VTC0310(861211)

C-2

GENERAL CAPABILITIES

- Identify and display patient data

- Ad hoc reports and displays

- System security

- Operational and workload reports

- Manage clinical orders and results

- QA

- DEERS checking

CHCS

VTC0311(861211)

SAIC

PATIENT ADMINISTRATION

CHCS

- Patient registration

- Patient episode data

- Patient bed management

- Medical record support

- (future) Medical service accounts

- (future) Medical records tracking

VTC0312(861211)

SAIC

CHCS

PATIENT APPOINTMENT & SCHEDULING

- Patient registration

- Create / maintain schedules

- Appoint patients (search, booking, modifications, notification)

- Record patient encounter

- (future) Waitlist

VTC0313(861211)

SAIC

RADIOLOGY

- Order processing

- Procedure logging

- Results processing

- Procedure / patient scheduling

- (future) Image library management

VTC0315(861211)

SAIC

NURSING

CHCS

- Patient care assessment

- Care implementation documentation

- Clinical order processing

- (future) Nursing staff management

- (future) Human & physical resource management

- (future) Policies and procedures

- (future) Patient care planning

VTC0317(861211)

SAIC

CLINICAL DIETETICS

- Nutrition clinic scheduling

- (future) Dietetics administration

- (future) Nutrition assessment

- (future) Menu selections

- (future) Nutrition supplement management

Appendix D

Computer Inventory - Ireland Army Community Hospital

COMPUTER INVENTORY IACH

SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
0	DIGITAL		HK13534		1002	127	MODEM	0			10/80
0	VT240	XIK-34	AB50604JD8	C5375	1002	127	TERMINAL	0			05/84
0	PANASONIC	KX-P1091	6AAKA01673	G4229		???????	PORT MIC	0			10/80
0	PANASONIC		6EXACJ5946	G4408		???????	DOTMATPRIN	0			10/80
0	DEC	DECWRTR 4	PN78584		851	NIO-261	PRINTER	0	AMO		10/80
0	VADIC	355	187087		851	NIO-26A	MODEM	0	AMO		05/84
0	DEC	MICRO-MUSE	B1560130		851	NIO-26A	MINI	0	CARDIOLOGY	*CAPOC (handwritten)*	06/82
0	DEC	VT 100	0006517		851	NIO-26A	TERMINAL	0	CARDIOLOGY		
0	DEC	DECWRTR 3	PN54224		851		PRINTER	0	CARDIOLOGY		
0	VADIC	355			851		MODEM	0	CARDIOLOGY		
0	EPSON	RX 80	349071		851	XIK-44	PRINTER	0	DERMATOLOGY		
0	HOUSTON INSTRUMENT	124FR	8828-64		851	XIH-20	PLOTTER	0	ENT		
0	HEWLET-PACKARD		17386	F0313	851	2-52	MINI	0	ICU-CCU		05/83
0	HEWLET PACKARD		559		851	XIC-24	Plotter	0	Neuro Psychology		01/81
0	MDS	977-11	1149	C5195	851	NIG-14	TERMINAL	0	Nuc Mec		01/81
0	MDS	977-11	MMCN-C3830		851	NIG-15	TERMINAL	0	Nuc Mec		01/80
0	Data General	Nova 3	REV-B-306	C5373	851	NIG-1	MINI	0	Nuc Med	*IMMAGINE SYSTEM (handwritten)*	01/80
0	MDS	977-11	18257-248	C3176	851	NIG-1	TERMINAL	0	Nuc Med		01/81
0	Data General	Nova 3	840352	C5260	851	NIG-14	MINI	0	Nuc Med		05/83
0	NICOLET	PATHFINDER	33291		851	XIC-24	MEDICAL	66000	Nuero Psychology		07/82
0	Farrington	Term One	15515	F4609	851	XBB-4A	TERMINAL	0	PAD		07/82
0	FARRINGTON	CARD THREE	532958	C5155	851	XBB-4A	CARD EMBOS	1895	PAD		
0	APPLE	II e	349147		851	NIF-14A	MICRO	0	PATHOLOGY		
0	EPSON	MX 80	0482508874		851	NIF-14A	PRINTER	0	PATHOLOGY		
0	Texas Instrument	825 KSR			851	NIF-14A	PRINTER	0	PATHOLOGY		
0	DIGITAL	350 PRO	WF57847	F9806	851	NIF-14	MICRO	3500	PATHOLOGY		07/85
0	DIGITAL		TAB1958	F9807	851	NIF-14	MONITOR	0	PATHOLOGY		07/85
0	DIGITAL		TCC7131A	F9808	851	NIF-14	PRINTER	0	PATHOLOGY		07/85
0	SIBEX		3010259WR		851	XIK-25	TERMINAL	6860	PHYSICAL THERAPY		09/33
0	IBM	IBM-AT	7267820		851	NIG-18	MICRO	0	RADIOLOGY	CATSCAN	APR87
0	IBM	IBM 5153	1409629		851	NIG-18	MONITOR	0	RADIOLOGY	CATSCAN	APR87
0	IBM	PROPRINTER	2797043		851	NIG-18	PRINTER	0	RADIOLOGY	CATSCAN	APR87
0	TI SILENT 700	737 KSR	0173317001		851	2-52	TERMINAL	0	RECOVERY		
2	COMMODORE	3200	01020048	C4898	851	NIG-20	MICRO	2166	NUC MED		09/82
2	COMMODORE	4022	112089	C5234	851	NIG-20	PRINTER	613	NUC MED		09/82
2	COMMODORE	8050	M1014792	C4899	851	NIG-20	DISK DRIVE	0	NUC MED		09/82
3	EPSON	CX-20	015728		851	NBD-24	ACOU MODEM	150	IMO		APR85
3	EPSON	CX-20	015731		851	NBD-24	ACOU MODEM	150	IMO		APR85
3	EPSON	PX-8	024333		851	NBD-24	BRFCSMICRO	850	IMO		APR85
3	EPSON	PX-8	023571	F8216	851	XIA-4	BRFCSMICRO	850	INTERNAL AUDIT		APR85
4	TELEVIDEO	TS 803	840141	G3249	851	NBD-8	MICRO	4796	LOG		12/82
4	EPSON	MX 100	409604	G3250	851	NBD-8	PRINTER	1700	LOG		12/82
5	TELEVIDEO	TS 803	83051617	C5275	851	XIF-6	MICRO	2035	PERSONNEL		06/83
5	C-ITOH	1550	201423	C5276	851	XIF-6	PRINTER	900	PERSONNEL		06/83
6	TELEVIDEO	TS 803	83050528	C5274	851	NBD-8	MICRO	2035	LOG (MDS)		05/83
6	C-ITOH	1550	201581		851	NBD-8	PRINTER	900	LOG (MDS)		05/83
7	TELEVIDEO	TS 803	83060253	F7687	851	NBF-18	MICRO	2035	CSD		07/83
7	EPSON	MX 100	409601	F7688	851	NBF-18	PRINTER	630	CSD		07/83

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SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
8	TELEVIDEO	TS 803	83060250		851	NBD-25	MICRO	2035	IMO		07/83
8	MPI		54956		851	NBD-25	PRINTER	630	IMO		07/83
8	RIXON	212A	5101593	F4449	851	NBD-25	MODEM	300	IMO		01/85
9	NORTHERN TELECOM	503	M20821	F8173	851	XIA-27	MICRO	4795	FAD		10/83
9	NORTHERN TELECOM	850	W-26103	F8175	851	XIA-27	PRINTER	3600	PAD		10/83
9	NORTHERN TELECOM	503A-FB	M22071	F8174	851	XIA-27	DISK DRIVE	0	PAD		10/83
9	NORTHERN TELECOM	53A	20821	F8173	851	XIA-27	MONITOR	0	PAD		07/83
9	NORTHERN TELECOM		M2440	F8176	851	XIA-27	KEYBOARD	0	PAD		
9	NORTHERN TELECOM	208A/B	22:250-262	F8177	851	XIA-27	MODEM	2450	PAD		10/83
10	RADIO SHACK	TRS 80 IV	0036578		851	NBE-7A	MICRO	2495	PHARMACY		08/83
10	RADIO SHACK	CMP 500	2-04789	F1819	851	N9E-15B	PRINTER	1195	PHARMACY		08/83
10	RADIO SHACK	26-1130	3011472		851	NBE-7A	DISK DRIVE	1400	PHARMACY		06/84
10	RADIO SHACK	26-1131	3100143		851	NBE-15B	DISK DRIVE	1400	PHARMACY		06/84
11	RADIO SHACK	TRS 80 IV	00036574	F1818	851	NBE-7A	MICRO	2495	PHARMACY		08/83
11	RADIO SHACK	DMP 500	2006220		851	NBE-7A	PRINTER	1195	PHARMACY		08/83
11	RADIO SHACK	26-1130	3009371		851	NB3-7A	DISK DRIVE	1400	PHARMACY		06/84
12	RADIO SHACK	TRS 80 IV	0074042	F0349	851	NBE-7A	MICRO	1100	PHARMACY		10/84
12	RADIO SHACK	DMP 500	3F01797	F0350	851	NBE-7A	PRINTER	1050	PHARMACY		10/84
13	CPT	8508	25940B	F5571	851	XIE-18	WORDPROCES	5424	ADJUTANT		09/84
13	CPT	8500	35721A	F5572	851	XIE-18	KEYBOARD	0	ADJUTANT		09/84
13	CPT	ROTARY 8	19018881	F5573	851	XIE-18	PRINTER	1860	ADJUTANT		09/84
17	SANYO	MBC 550	14126597		851	XBD-8	MICRO	1704	PO&T		03/84
17	BROTHER	DX 15	M31828621		851	XBD-8	PRINTER	0	PO&T		03/84
17	SANYO	CRT-36	18117904		851	XBD-8	MONITOR	0	PO&T		03/84
17	SANYO		14126640		851	XBD-8	KEY BOARD	0	PO&T		03/84
18	SANYO	MBC 555	18223158		851	XIA-2	MICRO	1704	COMPTROLLER		03/84
18	SANYO		18223191		851	XIA-2	KEYBOARD	0	COMPTROLLER		03/84
18	BROTHER	DX 15	31828609		851	XIA-2	PRINTER	0	COMPTROLLER		03/84
18	ZENITH	ZVM 123	1032263		851	XIA-2	MONITOR	0	COMPTROLLER		03/84
19	SANYO	MBC 550	14126628	F7523	1006		MICRO	1704	BLOOD BANK		03/84
19	BROTHER	DX 15	31824983	F7524	1006		PRINTER	0	BLOOD BANK		03/84
19	ZENITH	ZVM 123	1030954		1006		MONITOR	0	BLOOD BANK		03/84
19	SANYO		14126516		1006		KEY BOARD	0	BLOOD BANK		03/84
20	TELEVIDEO	TS 803	840300116	F0519	851		MICRO	1996	CREDENTIALING		05/84
20	TEC		041108	F0520	851		PRINTER	1150	CREDENTIALING		05/84
21	TELEVIDEO	TS 802 H	840301147G	C5089	851	XIA-5	MICRO	1996	PROPERTY MGT		05/84
21	TEC		54956		851	XIA-5	PRINTER	805	PROPERTY MGT		05/84
22	TELEVIDEO	TS 803	840303347G		851	9-2	MICRO	1996	NURSING SERVICE		05/84
22	MPI	150	54957		851	9-2	PRINTER	805	NURSING SERVICE		05/84
23	IBM PC	PC	1369000	F0351	851	XBG-3	MICRO	2400	FOOD SERVICE		10/84
23	IBM		0975245	F0353	851	XBG-3	MONITOR	0	FOOD SERVICE		10/84
23	EPSON	MX-100	32370	F3458	851	XBG-3	PRINTER	600	FOOD SERVICE		01/85
24	IBM		972375	F0352	851	XIA-8	PRINTER	400	LIBRARY		10/84
24	IBM-PC	5150	15198895	F4029	851	XIA-8	MICRO	2200	LIBRARY		01/85

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SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
24	IBM	5151	0470436	F4028	851	XIA-8	MONITOR	0	LIBRARY		01/85
24	RIXON	212A	5101594	F4448	851	XIA-8	MODEM	300	MED LIBRARY		01/85
25	IBM-PC	5150	15201265		851	XID-28	MICRO	2200	SOCIAL WORK SERVICE		01/85
25	IBM	5151	228908		851	XID-28	MONITOR	0	SOCIAL WORK SERVICE		01/85
25	IBM	5152	0053892	F4031	851	XID-28	PRINTER	300	SOCIAL WORK SERVICE		01/85
26	IBM-PC	5150	15227765		1002	136	MICRO	2200	PREVENTIVE MEDECINE		01/85
26	IBM	5151	0442518	F4030	1002	136	MONITOR	0	PREVENTIVE MEDECINE		01/85
26	EPSON	MX-100	033075	F3459	1002	136	PRINTER	600	PREVENTIVE MEDECINE		01/85
27	IBM-PC	5150	15226392		851	XIK-29	MICRO	2200	COMPTROLLER		1/85
27	IBM	5151	0461381		851	XIK-29	MONITOR	0	DERATOLOGY		01/85
27	EPSON	RX-80	0054593		851	XIK-29	PRINTER	300	DERATOLOGY		01/85
28	IBM-PC	5150	1312085	F3434	851	XIA-6	MICRO	2200	COMPTROLLER		12/84
28	IBM	5151	0395235	F3460	851	XIA-6	MONITOR	0	COMPTROLLER		12/84
28	EPSON	RX-100	051690	F5167	851	XIA-6	PRINTER	600	COMPTROLLER		12/84
29	LEADING EDGE	MP-16732	018355	*****	*****	TRAILER	MICRO	0	AUDIOLOGY		01/85
29	ZENITH	ZVM-124	U9433958	*****	*****	TRAILER	MONITOR	0	AUDIOLOGY		01/85
29	ETC	8510	BP304988	F3472	*****	TRAILER	PRINTER	300	AUDIOLOGY		01/85
29	KEYTRONIC	ICB5150	614243	F3471	*****	TRAILER	PRINTER	300	AUDIOLOGY		01/85
30	SPERRY		R22253	F6278	851	XIF-3	MICRO	0	PERSONNEL		02/85
30	SPERRY		R30346	F6277	851	XIF-3	MONITOR	0	PERSONNEL		02/85
30	SPERRY		88202		851	XIF-3	PRINTER	0	PERSONNEL		02/85
30	DEI		2803		851	XIF-3	MODEM	0	PERSONNEL		02/85
31	IBM-PC	5150	1485852	F3466	1002	316	MICRO	2200	AUDIOLOGY		02/85
31	IBM	5150	0414570	F3461	1002	316	MONITOR	0	AUDIOLOGY		02/85
31	EPSON	MX-100	33085	F3462	1002	316	PRINTER	700	AUDIOLOGY		02/85
32	IBM-PC	5151	1484880		851		MICRO	2200	PAD		03/85
32	IBM	5150	0414560		851		MONITOR	0	PAD		03/85
32	EPSON	MX-100	033069		851		PRINTER	300	PAD		03/85
33	IBM-PC	5150	1521268	F4032	851	XIA-16	MICRO	2200	COMPTROLLER		02/85
33	IBM	5150	0470438	F4033	851	XIA-16	MONITOR	0	COMPTROLLER		02/85
33	IBM	5152	0901569	F3435	851	XIA-16	PRINTER	0	COMPTROLLER		02/85
34	IBM-PC		24357	F3476	851	XIB-1	MICRO	0	TRANSCRIPTION		02/85
34	IBM DISK DRIVE	5271	005-8081		851	XIB-1	DISK DRIVE	0	TRANSCRIPTION		02/85
34	IBM PRINTER	D9226	5218-11000	F3498	851	XIB-5	PRINTER	0	TRANSCRIPTION		02/85
34	IBM KEYBOARD		33838	F3474	851	XIB-1	KEYBOARD	0	TRANSCRIPTION		02/85
34	IBM-PC		25662	F3500	851	XIB-1	MICRO	0	TRANSCRIPTION		02/85
34	IBM DISK DRIVE		005-8079	F3499	851	XIB-1	DISK DRIVE	0	TRANSCRIPTION		02/85
34	IBM PRINTER		D9227	F3497	851	XIB-1	PRINTER	0	TRANSCRIPTION		02/85
34	IBM KEYBOARD		33846	F3501	851	XIB-1	KEYBOARD	0	TRANSCRIPTION		02/85
34	IBM-PC		34210	F3486	851	XIB-1	MICRO	0	TRANSCRIPTION		02/85
34	IBM DISK DRIVE		005-8050	F3482	851	XIB-1	DISK DRIVE	0	TRANSCRIPTION		02/85
34	IBM KEYBOARD		33630	F3491	851	XIB-1	KEYBOARD	0	TRANSCRIPTION		02/85
34	IBM-PC		32211	F3488	851	XIB-3	MICRO	0	TRANSCRIPTION		02/85
34	IBM DISK DRIVE		005-8087	F3484	851	XIB-3	DISK DRIVE	0	TRANSCRIPTION		02/85
34	IBM PRINTER	D9228	F3480		851	XIB-3	PRINTER	0	TRANSCRIPTION		02/85
34	IBM KEYBAORD		33623	F3492	851	XIB-1	KEYBOARD	0	TRANSCRIPTION		02/85
34	IBM-PC		24355	F3487	851	XIB-5	MICRO	0	TRANSCRIPTION		02/85
34	IBM DISK DRIVE		005-8022	F3483	851	XIB-5	DISK DRIVE	0	TRANSCRIPTION		02/85
34	IBM PRINTER	D9226	F3477		851	XIB-1	PRINTER	0	TRANSCRIPTION		02/85
34	IBM KEYBOARD		03656	F3490	851	XIB-5	KEYBOARD	0	TRANSCRIPTION		02/85

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SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
34	IBM-PC		34203	F3489	851	XIB-5	MICRO	0	TRANSCRIPTION		02/85
34	IBM DISK DRIVE		005-8023	F3485	851	XIB-5	DISK DRIVE	0	TRANSCRIPTION		02/85
34	IBM PRINTER		D9224	F3478	851	XIB-5	PRINTER	0	TRANSCRIPTION		02/85
34	IBM KEYBOARD		33625	F3493	851	XIB-5	KEYBOARD	0	TRANSCRIPTION		02/85
35	IBM PRINTER		D9229	F3481	851	XIB-1	PRINTER	0	TRANSCRIPTION		02/85
36	DIGITAL	VT-240	HK13534		1002	127	TERMINAL	0	PREVENTIVE MED		04/85
36	DIGITAL	LA 50R	TCD4650A	C5347	1002	136	PRINTER	0	PREVENTIVE MED		04/85
37	IBM	5160	5522146		851	NIH-19	MICRO	0	NUCLEAR MEDICINE		07/85
37	ZENITH		1404929		851	NIH-19	MONITOR	0	NUCLEAR MEDICINE		07/85
37	EPSON	RX80	555361		851	NIH-19	PRINTER	0	NUCLEAR MEDICINE		07/85
39	IBM-PC	5150	6141626		6602	38	MICRO	0	DRUG AND ALCOHOL		10/85
39	IBM		699036		6602	14	MONITOR	0	DRUG AND ALCOHOL		10/85
39	OKIDATA	MICROLINE	0006924	G0373	6602	14	PRINTER	0	DRUG AND ALCOHOL		10/85
39	IBM-PC	5150	6137387		6602	16	MICRO	0	DRUG AND ALCOHOL		10/85
39	IBM		3669096		6602	16	MONITOR	0	DRUG AND ALCOHOL		10/85
39	DIABLO	D 25	021182		6602	16	PRINTER	0	DRUG AND ALCOHOL		10/85
40	WYSE PC	WY 1100-1	1000002456		1003		MICRO	1746	BLOOD BANK		05/86
40	SILVER REED	EXP 550	CKPT4550	G2793	1003		PRINTER	396	BLOOD BANK		05/86
40	AMDEX	310-A	6080773	G3792	1003		MONITOR	200	BLOOD BANK		05/86
41	WYSE PC	WY 1100-1	1001000272	G3805	2000		MICRO	1746	CRAVEN DENTAL CLINIC		05/86
41	AMDEX	310-A	6100589	G3809	2000		MONITOR	200	CRAVEN DENTAL CLINIC		05/86
41	SILVER REED	EXP 550	R5053684	G3307	2000		PRINTER	396	CRAVEN DENTAL CLINIC		05/86
42	AMDEX	310-A			851		MONITOR	0	HOSPITAL DENTAL CLIN		06/86
42	SILVER REED	EXP 550			851		PRINTER	0	HOSPITAL DENTAL CLIN		06/86
43	WANG	PM005	445388B	G4577	1002		PRINTER	0	PREVENTIVE MEDICENE	HHIMS	2/87
43	WANG	PM005	ZX2767	G4574	1002		MONITOR	0	PREVENTIVE MEDICINE	HHIMS	2/87
43	WANG	PC-XC4-2	ZX2956	G4575	1002		MONITOR	0	PREVENTIVE MEDICINE	HHIMS	2/87
43	WANG	PC-XC4-2	03275D	G4572	1002		MICRO	0	PREVENTIVE MEDICINE	HHIMS	2/87
43	WANG		03274D	G4573			MICRO	0	PREVENTIVE MEDICINE	HHIMS	2/87
44	WANG	PC-XC4-2	43411B	G4576			PRINTER	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PM005	02256D	G4557			MICRO	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PC-XC4-2	ZX1944	G4562			MONITOR	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PC-XC4-2	02033D	G4558			MICRO	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PM005	02012D	G4559			MICRO	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PM005	2U3431	G4420			MONITOR	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	725-2740	ZX0571	G4421			MONITOR	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	725-2740	00201	G4422			PWR COND	0	HEARING CONSERVATION	HEARS	12/86
44	WANG		00205	G4423			PWR COND	0	HEARING CONSERVATION	HEARS	12/86
44	WANG		01303D	G4418			MICRO	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PM005	01253D	G4419			MICRO	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PM005	ZX1900	G4563			MONITOR	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	725-2740	ZX1927	G4564			MONITOR	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	725-2740	G4567	G4567			PWR COND	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	725-2740	G4568	G4568			PWR COND	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PC-XC4-2	G4569	G4569			PWR COND	0	HEARING CONSERVATION	HEARS	2/87
44	WANG	PM005	040018D	G4561			MICRO	0	HOWLEY	HEARS	2/87
44	WANG	725-2740	ZX1915	G4566			MONITOR	0	HOWLEY	HEARS	2/87
44	WANG	PC-XC4-2	G4571	G4571			PWR COND	0	HOWLEY	HEARS	2/87
44	WANG	PC-XC4-2					MICRO	0	JEFFERSON PRV GROUND	HEARS	2/87
44	WANG	PM005	1916	G4565			MONITOR	0	JEFFERSO	HEARS	2/87

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SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
44	WANG	725-2740	G4570	G4570			PWR COND	0	JEFFERSON PRV GROUND HEARS		2\87
45	INTEL	310					MINI	0	DC-7		
45	INTEL	310			851		MINI	0	PATHOLOGY		
46	ITT	PC					MICRO	0	DC-7		
47	WYSE	PC					MICRO	0	DC-7		
48	IBM-PC	5150	N1778831	G0691	851	XIA-19	MICRO	0	DEPT OF NURSING		12/85
48	IBM	5151	0973554	G3309	851	XIA-19	MONITOR	0	DEPT OF NURSING		12/85
48	BROTHER	HR 25	051252717	F8336	851	XIA-19	PRINTER	620	DEPT OF NURSING		12/85
49	IBM-PC	5150	1839838	G0691	851	7-	MICRO	0	DEPT OF MEDICINE		10/85
49	IBM	5151	0929391	F3436	851	7-	MONITOR	0	DEPT OF MEDICINE		10/85
49	BROTHER	HR 25	051252736	F8334	851	7-	PRINTER	0	DEPT OF MEDICINE		10/85
50	ZENITH	284					MICRO	0	VETRINARY		APR87
50							PRINTER	0	VETS		APR87
50							MONITOR	0	VETS		
51	ZENITH	Z248	734AE0490		851	XIE-1	PRINTER	H	CSD	CHCS	FEB87
51	XEROX	4020	005169		851	XIE-1	PRINTER	0	CSD	CHCS	APR87
51	ZENITH		95290030		851	XIE-1	MONITOR	0	CSD	CHCS	JAN87
90	BURROUGHS	B-1955-1SY	111951190		851	NBD-24	SYSTEM	78705	DPD		10/08
90	BURROUGHS	B-1955-1CP	111951166		851	NBD-24	CPU	0	DPD		10/08
90	BURROUGHS	B-1155-256	111951174		851	NBD-24	256K MEMOR	0	DPD		10/08
90	BURROUGHS	B-1155-256			851	NBD-24	256K MEM	0	DPD		
90	BURROUGHS	B-1650-6			851	NBD-24	STDDIRASY?	1752	DPD		
90	BURROUGHS	B-1348-52			851	NBD-24	CNSL CONT	0	DPD		
90	BURROUGHS	B-1486-1			851	NBD-24	B/P CONTRO	0	DPD		
90	BURROUGHS	B-1352			851	NBD-24	B-LINE MLC	0	DPD		
90	BURROUGHS	B-1115			851	NBD-24	READ CONT	2063	DPD		05/08
90	BURROUGHS	B-1495-35	101611225		851	NBD-24	PE/MRZ CON	9637	DPD		05/08
90	BURROUGHS	B-9499-52	141086496		851	NBD-24	DDEC	17464	DPD		05/08
90	BURROUGHS	B-9999-4	NO SER NUM		851	NBD-24	TAPE CONT	696	DPD		
90	BURROUGHS	B-1491	NO SER NUM		851	NBD-24	NRZ CONT	0	DPD		
90	BURROUGHS	B-9361-23	139291488		851	NBD-24	CONS DISP	2788	DPD		05/08
90	BURROUGHS	B-9116	159555245		851	NBD-24	600CPMREAD	58	DPD		
90	BURROUGHS	B-9484-5'	322164211		851	NBD-24	DSK DR 130	18900	DPD		
90	BURROUGHS	B-9484-41	196100945		851	NBD-24	DSK DR 402	22680	DPD		
90	BURROUGHS	B-9494-41	141332411		851	NBD-24	DSK DR 402	22680	DPD		
90	BURROUGHS	AP-1340	191224336		851	NBD-24	AUX PRINT	0	DPD		12/08
90	BURROUGHS	AP-1340	191224427		851	NBD-24	AUX PRINT	0	DPD		12/08
90	BURROUGHS	AA-1340	191223908		851	NBD-24	AUX PRINT	0	DPD		12/08
90	BURROUGHS	B-9246-6	303249585		851	NBD-24	600LPMPRNT	13230	DPD		05/08
90	BURROUGHS	9246-6	303276448		851	NBD-24	600LPMPRNT	13230	DPD		10/08
90	BURROUGHS		101611226		851	NBD-24	TAPE CONT	0	DPD		05/08
90	BURROUGHS	B-9495-82	101121796		851	NBD-24	TAPE DRIVE	16290	DPD		05/08
90	BURROUGHS	B-9495-82	101121804		851	NBD-24	TAPE DRIVE	16290	DPD		05/08
90	BURROUGHS	B-9212	420636-004		851	NBD-24	CARD PUNCH	22693	DPD		03/08
90	BURROUGHS	AP-1340	189835192		851	NBD-24	AUX PRINT	3231	DPD		10/08
90	BURROUGHS	ET-1100	323110114		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	323110098		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	323110080		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	323109819		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	323109579		851	NBD-24	12"DISPLAY	16263	DPD		10/08

COMPUTER INVENTORY IACH

SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
90	BURROUGHS	ET-1100	323110106		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	3231095587		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	3231009835		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	3231009843		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	ET-1100	3231009827		851	NBD-24	12"DISPLAY	16263	DPD		10/08
90	BURROUGHS	BET-KB	3231046670		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	BET KB	3231127621		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	BET KB	3231118794		851	NPD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	BET KB	3230094854		851	NPD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	BET KB	3231145979		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	BET KB	3231027019		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	BET KB	3230937765		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURRROUGHS	BET KB	3230094144		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	3ET KB	3231118810		851	NBD-24	ALPHA KBRD	222	DPD		10/08
90	BURROUGHS	MT 985	1823554068		851		12" TERMIN	1791	DPD		03/08
90	BURROUGHS	MT 985	1823554050		851		12" TERMIN	1791	DPD		03/08
90	BURROUGHS	MT 985	1820965578		851	NBD-25	12" TERMIN	1791	DPD		/08
90	BURROUGHS	MT 985	1817005831		851		12" TERMIN	1791	DPD		/08
90	BURROUGHS				851		ALPHA KBRD	0	DPD		/08
90	BURROUGHS				851		ALPHA KBRD	0	DPD		/08
90	BURROUGHS	TP 130	193328591		851		ALPHA KBRD	396	DPD		03/08
90	BURROUGHS	TP 130	1832238575		851		ALPHA KBRD	396	DPD		05/08
90	BURROUGHS	CP-10004	314025776		851	NBD-24	MODEM	1800	DPD		05/08
90	BURROUGHS	CT-10004	314024621		851	NBD-24	MODEM	1800	DPD		03/08
90	BURROUGHS	CT-10004	314025388		851	NBD-24	MODEM	1800	DPD		03/08
90	BURROUGHS	CT-10004	314025479		851	NBD-24	MODEM	1800	DPD		03/08
90	BURROUGHS	CT-10004	314023305		851	NBD-24	MODEM	1800	DPD		03/08
90	BURROUGHS	CT-10004	314025701		851	NBD-24	MODEM	1800	DPD		03/08
90	BURRQUGHS	CT-10004	314025339		851	NBD-24	MODEM	1800	DPD		03/08
90	BURROUGHS	CT-10004	314025610		851	NBD-24	MODEM	1800	DPD		03/08
90	BURROUGHS	BET-KB	323093401		851	NBD-24	ALPHA KBRD	222	NPD		10/08
91	DIGITAL	LA1002A	PNJ6407	G3604	851	XBB-4A	PRINTER	813	A&D	AQCESS	02/86
91	DIGITAL	LA1002A	PNT1763	G3605	851	XBB-4A	PRINTER	813	A&D	AQCESS	02/86
91	DIGITAL	VT220A2	KG04457	G3613	851	XBB-4A	TERMINAL	469	A&D	AQCESS	02/86
91	DIGITAL	VT220A2	KG04449	G3614	851	XBB-4A	TERMINAL	469	A&D	AQCESS	02/86
91	DIGITAL	VT220A2	KG04473	G3616	851	XBB-4A	TERMINAL	469	A&D	AQCESS	02/85
91	DIGITAL	VT22KAA	B055104JC5	G3627	851	XBB-4A	KEYBOARD	86	A&D	AQCESS	02/86
91	DIGITAL	VT22KAA	B053003BR1	G3628	851	XBB-4A	KEYBOARD	86	A&D	AQCESS	02/86
91	DIGITAL	VT22KAA	B053005BC5	G3630	851	XBB-4A	KEYBOARD	86	A&D	AQCESS	02/86
91	DIGITAL	11/84BA	86041055X	G3592	851	NBD-25	CPU	37140	DPD	AQCESS	02/86
91	DIGITAL	TU80AA	SPH2729	G3953	851	NBD-25	TAPE DRIVE	11000	DPD	AQCESS	02/86
91	DIGITAL	RU80	CX08856	C3593	851	NBD-25		0	DPD	AQCESS	02/86
91	DIGITAL	H9642FC	AS01302	G3594	851	NBD-25	CABINET	2050	DPD	AQCESS	02/86
91	DIGITAL	LA1008A	PNWJ9531	G3595	851	NBD-25	CONSOLE	2195	DPD	AQCESS	02/86
91	DIGITAL	S1103	C511729C00	G3596	851	NBD-25	UPS EXIDE	10050	DPD	AQCESS	01/87
91	DIGITAL	VT22KAA	B052503LU8	G3633	851	X1A-27	KEYBOARD	86	INPATIENT	AQCESS	02/86
91	DIGITAL	V22KAA	B053005DQ4	G3634	851	X1A-27	KEYBOARD	86	INPATIENT	AQCESS	02/86
91	DIGITAL	VT22KAA	B052508914	G3635	851	X1A-27	KEYBOARD	86	INPATIENT	AQCESS	02/86
91	DIGITAL	VT22KAA	B053005J36	G3636	851	X1A-27	KEYBOARD	86	INPATIENT	AQCESS	02/86
91	DIGITAL	VT22KAA	B055103TJ9	G3637	851	X1A-27	KEYBOARD	86	INPATIENT	AQCESS	02/86

COMPUTER INVENTORY IACH

SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
91	DIGITAL	VT22KAA	B053003L11	G3638	851	X1A-27	KEYBOARD	86	INPATIENT	AQCESS	02/86
91	DIGITAL	LA100ZA	PN25613	G3609	851	X1A-29	PRINTER	813	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	LA100ZA	PN37223	G3610	851	X1A-29	PRINTER	813	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	VT220A2	KG04493	G3619	851	X1A-27	TERMINAL	469	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	VT220A2	KG04483	G3620	851	X1A-27	TERMINAL	469	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	VT220A2	KG04443	G3621	851	X1A-27	TERMINAL	469	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	VT220A2	KG04478	G3622	851	X1A-27	TERMINAL	469	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	VT220A2	KG04487	G3623	851	X1A-27	TERMINAL	469	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	VT220A2	KG04470	G3624	851	X1A-27	TERMINAL	469	INPATIENT RECORDS	AQCESS	02/86
91	DIGITAL	LA100ZA	PN25109	G3607	851	XBB-7	PRINTER	813	MSA	AQCESS	02/86
91	DIGITAL	LA100ZA	PNV5533	G3608	851	XBB-7	PRINTER	813	MSA	AQCESS	02/86
91	DIGITAL	VT220A2	KG04482	G3612	851	XBB-7	TERMINAL	469	MSA	AQCESS	02/86
91	DIGITAL	VT220A2	KG04446	G36.7	851	XBB-7	TERMINAL	469	MSA	AQCESS	02/86
91	DIGITAL	VT220A2	KG04447	G3618	851	XBB-7	TERMINAL	469	MSA	AQCESS	02/36
91	DIGITAL	VT22KAA	B0551103307	G3626	851	XBB-7	KEYBOARD	86	MSA	AQCESS	02/86
91	DIGITAL	VT22KA	B053006NS6	G3631	851	XBB-7	KEYBOARD	86	MSA	AQCESS	02/86
91	DIGITAL	VT22KAA	B052909CJ8	G3632	851	XBB-7	KEYBOARD	86	MSA	AQCESS	02/86
91	DIGITAL	VT220A2	KG04481	G3625	851	XBB-7	TERMINAL	469	PAD	AQCESS	02/86
91	DIGITAL	VT220A2	B052505307	G3639	851	XBB-7	KEYBOARD	86	PAD	AQCESS	02/86
91	DIGITAL	LA100ZA	PNV6867	G3606	851	X1C-21	PRINTER	813	QA	AQCESS	02/86
91	DIGITAL	VT220A2	KG04494	G3615	851	X1C-21	TERMINAL	469	QA	AQCESS	02/86
91	DIGITAL	VT22KAA	B053003JK2	G3629	851	X1C-21	KEYBOARD	86	QA	AQCESS	2/86
92	DEC	8220	875800		851		TERM/WKSTN	0		UAC	
92	DEC	8220	877343		851		TERM/WKSTN	0		UAC	
92	DEC	9628	785506		851	AMO OP WIN	FRNT LABEL	0	ANN WISEMAN	UAC	
92	DEC	8220	877219		851		TERM/WKSTN	0	CHIEF NURSE	UAC	
92	DEC	9621	809369		851		PNT 160CPS	0	CHIEF NURSE	UAC	
92	DEC	8220	877345		851		TERM/WKSTN	0	CIVILLIAN PERSONEL	UAC	
92	DEC	8220	875709		851	MIDDLE	256K PROC	0	CRMQ	UCA	
92	DEC	6040	820007		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	6661	837852		851	NBD-25	MODEM	0	DPD	UCA	
92	DEC	6663	828760		851	NBD-25	MODEM	0	DPD	UCA	
92	DEC	9257	839972		851	NBD-25	PRINTER	0	DPD	UCA	
92	DEC	9462	847797		851	NBD-25	COMM ADAPT	0	DPD	UCA	
92	DEC	9481	870167		851	NBD-25	MFUNC COMM	0	DPD	UCA	
92	DEC	9484	778261		851	NBD-25	HUB 8 PORT	0	DPD	UCA	
92	DEC	9586	890685		851	NBD-25	TAPE 800/1	0	DPD	UCA	
92	DEC	4755	850729		851	NBD-25	256K SYST	0	DPD	UCA	
92	DEC	8605	893240		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	8605	893241		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	8605	893244		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	8605	893243		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	8605	893246		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	9484	778262		851	NBD-25	HUB 8 PORT	0	DPD	UCA	
92	DEC	6660	773317		851	NBD-25	MODEM	0	DPD	UCA	
92	DEC	4755	850728		851	NBD-25	256K SYST	0	DPD	UCA	
92	DEC	8605	893242		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	8605	893247		851	NBD-25	256K PROC	0	DPD	UCA	
92	DEC	0546	893240		851	NBD-25	KIT UPGD	0	DPD	UCA	

DATA POINT

COMPUTER INVENTORY IACH

SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
92	DEC	0546	893241		851	NBD-25	KIT UPGD	0	DPD	UCA	
92	DEC	0546	893244		851	NBD-25	KIT UPGD	0	DPD	UCA	
92	DEC	0546	893243		851	NBD-25	KIT UPGD	0	DPD	UCA	
92	DEC	0546	893246		851	NBD-25	KIT UPGD	0	DPD	UCA	
92	DEC	0546	893242		851	NBD-25	KIT UPGD	0	DPD	UCA	
92	DEC	0546	893247		851	NBD-25	KIT UPGD	0	DPD	UCA	
92	DEC	01 & 02	787962		851	NBD-25	DISK PACK	0	DPD	UCA	
92	DEC	03 & 04	787967		851	NBD-25	DISK PACK	0	DPD	UCA	
92	DEC		841722		851	NBD-25	CONT CNSL	0	DPD	UCA	
92	DEC	9621	809361		851		PNT 160CPS	0	EIGHTH FLOOR	UAC	
92	DEC	8220	875771		851		TERM/WKSTN	0	FIFTH FLCOR	UCA	
92	DEC	9621	809367		851		PNT 160CPS	0	FIFTH FLOOR	UAC	
92	DEC	8220	877186		851		TERM/WKSTN	0	FORCE DEVELOPEMENT	UAC	
92	DEC	9621	809358		851		PRINTER	0	FOURTH FLJOR	UCA	
92	DEC	8220	877346		851		TERM/WKSTN	0	FOURTH FLOOR	UAC	
92	DEC	8220	875710		851	CRMO	TERM/WKSTN	0	HELGA	UCA	
92	DEC	8220	877233		851	CRMO	TERM/WKSTN	0	M RITA	UAC	
92	DEC	8220	875235		851		TERM/WKSTN	0	MIL PERS	UAC	
92	DEC	8220	877230		851		TERM/WKSTN	0	NUCLEAR MEDICINE	UAC	
92	DEC	9628	785508		851		FNT LABEL	0	NUCLEAR MEDICINE	UAC	
92	DEC	8220	877165		851		TERM/WKSTN	0	PATHOLOGY	UAC	
92	DEC	8220	877241		851		TERM/WKSTN	0	PATHOLOGY	UCA	
92	DEC	8220	877281		851		TERM/WKSTN	0	PATHOLOGY-ANATOMICAL	UAC	
92	DEC	822	877344		851		TERM/WKSTN	0	PATHOLOGY-MICRO	UAC	
92	DEC	8220	875708		851		TERM/WKSTN	0	PATHOLOGY/BLOOD BANK	UAC	
92	DEC	9628	785505		851		FNT LABEL	0	PHARM INPATIENT	UCA	
92	DEC	8220	877182		851	NBE-7A	TERM/WKSTN	0	PHARMACY	UAC	
92	DEC	8220	877234		851	NBE-7A	TERM/WKSTN	0	PHARMACY	UAC	
92	DEC	9628	785509		851	VAULT	PNT LABEL	0	PHARMACY	UCA	
92	DEC	8220	877347		851	NBE-7A	TERM/WKSTN	0	PHARMACY-WINDOW	UAC	
92	DEC	8220	877228		851		TERM/WKSTN	0	RADIOLOGY	UCA	
92	DEC	9628	785510		851		PNT LABEL	0	RADIOLOGY	UAC	
92	DEC	8220	875772		851		TERM/WKSTN	0	SECOND FLOOR	UAC	
92	DEC	9621	809364		851		PNT 160CPS	0	SECOND FLOOR	UAC	
92	DEC	8220	877229		851		TERM/WKSTN	0	SEVENTH FLOOR	UAC	
92	DEC	9621	809362		851		PNT 160CPS	0	SEVENTH FLOOR	UAC	
92	DEC	8220	877184		851		TERM/WKSTN	8	SIXTH FLOOR	UCA	
92	DEC	9621	809365		851		PNT 160CPS	0	SIXTH FLOOR	UAC	
92	DEC	9621	809359		851		PRINTER	0	THIRD FLOOR	UCA	
92	DEC	9621	809360		851		PRINTER	0	THIRD FLOOR	UCA	
92	DEC	8220	877163		851		TERM/WKSTN	0	THIRD FLOOR	UAC	
92	DEC	8220	877236		851		TERM/WKSTN	0	THIRD FLOOR	UAC	
99	RACAL	4276	FL01531		851	XBB4A	TERMINAL	0	A&D	UAC	07/82
99	RAYTHEON	R4185D-1/A	4373612		85.	XIA-5	PRINTER	0	COMPTROLLER	UAC	05/84
99	RAYTHEON	R2078-2M/D	451705R		85.	XIA-5	TERMINAL	0	COMPTROLLER	UAC	05/84
99	RAYTHEON	R 8185	410472 E		851	XBF 3	PRINTER	0	ENGINEERS	UAC	11/84
99	RAYTHEON	R 4078 D	489156 D		851	XBF 3	TERMINAL	0	ENGINEERS	UAC	11/84
99	IBM	129	9197140		851	NBD-25	CARD PUNCH	4708	IMO	UCA	01/80
99	UNIVAC	1610	C20673		851	NBD-25	CARD PUNCH	7000	IMO	UCA	01/80
99	UNIVAC	1610	10163		1022	208-A	CARD PUNCH	0	MATERIEL BRANCH	UAC	01/80

COMPUTER INVENTORY IACH

SIN	MANUFACUTRER	MODEL	SER NUM	BARCODE	BLDG	ROOM	TYPE	VALUE	USER	SYSTEM	INSTL
99	UNIVAC	1610	10755		1022		CARD PUNCH	2999	MATERIEL BRANCH		01/80
99	UNIVAC	1810	60806		1022	208-A	CARD PUNCH	0	MATERIEL BRANCH		06/85
99	RAYTHEON	R 8185	461754 T		851	9-49	PRINTER	0	MED HOLD		11/84
99	RAYTHEON	R 4078 D	491950 U		851	9-49	TERMINAL	0	MED HOLD		11/84
99	RAYTHEON	R 4078 D	489149 N		851	XBA 12	TERMINAL	0	MED MAINTENANCE		11/84
99	RACAL	4276	FL01662		851	NBF-25	TERMINAL	0	OUTPATIENT RECORDS		07/82
99	RACAL	4276	4615294	C4907	851	NBF-25	TERMINAL	0	OUTPATIENT RECORDS		07/82
99	RAYTHEON	R 8185	496832 J		851	X1F 3	PRINTER	0	PERSONNEL		11/84
99	RAYTHEON	R 4078 D	474679338	C3634	851	X1F 3	TERMINAL	0	PERSONNEL		11/84
99	TI SILENT 700	745	A2792		1002	45	TERMINAL	1350	FREVENTIVE-MED		06/82
99	IBM	059			1022			2400	PROPERTY MGT		01/74
99	RAYTHEON	R 8185	410490 X		851	NBD 7	PRINTER	0	PROPERTY MGT		11/84
99	RAYTHEON	R 4078 D	496838 M		851	NBD 7	TERMINAL	0	PROPERTY MGT		11/84

Appendix E

CHCS Newsletters

COMPOSITE HEALTH CARE SYSTEM

M.I.S. IRELAND
AN EDUCATIONAL PAPER ABOUT OUR MEDICAL INFORMATION SYSTEM (MIS)

C.H.C.S. WHAT IS IT?

The Composite Health Care System (CHCS) is a state-of-the-art information management system designed specifically for DoD hospitals and medical clinics. It is dynamic, easy to use, flexible, reliable and secure. It provides health care professionals and staff with a means for administering the wide range of services offered by both large and small facilities, as well as for meeting DoD regulations, communicating easily with the DEERS, and responding rapidly to mobilization and disaster situations.

But, most importantly, CHCS offers more efficient and more personalized health care to the millions of patients who rely on the military medical services.

Today's world is a world fueled by information. And no facet of our society is more dependent on accurate, reliable information than the medical profession. That is why CHCS is so valuable to the military medical services.

THE COMPOSITE HEALTH CARE SYSTEM, Pamphlet by TRIMIS Program Office, Bethesda, MD

LTC Hill Named C.H.C.S. Program Director

LTC James Hill has been appointed as the CHCS Program Director for the implementation of our new computer information system. He is responsible for the overall planning, coordination, implementation and installation of the new system. Other key individuals are:

-MAJ Mervis, Site Prep Project Officer
-MAJ Dempsher, Physician Project Officer
-MAJ Gray, Nursing Project Officer
-CPT James, Information Management Officer
-Mrs. Davidson, Data Processing
-Mr. Skaggs, Comptroller

These people are representing our best interests in making our computer information system work for us in the best way possible. Let us give them our full support.

SFC R. A. Bowman

C.H.C.S. WHAT WILL IT DO?

CHCS meets objectives essential to administrative and medical staffs of <u>all</u> military medical facilities, namely:
-To improve the quality of patient care
-To increase the efficiency of operations
-To enhance the accuracy and availability of information, and
-To provide standardized, yet flexible, computer support of essential facility operations.

What makes CHCS such a marked improvement over current information systems is that it is a fully integrated system. It replaces thousands of outmoded standalone computers with a standardized system that gives health care providers direct access to patient records and administrators access to work load data.

CHCS, Pamphlet by TRIMIS Program Office, Bethesda, MD.

DEAR ABACUS
???? QUESTIONS ????

Dear Abacus is intended to answer questions that you may have about our new computer system and it will be a regular section of this information paper. If you have a question, just jot it down and send it through distribution to:

Dear Abacus
Nursing Education & Staff Development
HSXM-DCN-E

WIN A $100.00 SAVINGS BOND
Name Our Computer
Contest

Our new computer system needs a name and a symbol. A contest is now underway that, if the name and rough sketch you submit to the committee wins, you win a $100.00 Savings Bond. For more complete information contact the Administrative Resident - CPT McGibony at phone number 9825.

To enter the contest submit the name of our new computer system along with a simple drawing. Please put your name, work section and phone number on all items submitted. Send it through distribution to:

Name Our Computer Contest
Administrative Resident
HSXM-DAC-R

The deadline for submission is January 26, 1987 at 12:00 o'clock.

GOOD LUCK!

" C H I P S "

A WINNER

The name CHIPS (Composite Healthcare Information Program System) was selected from among 32 suggestions submitted for the Name Our Computer Contest. The first place name was submitted by Ms. Kathy Beard. A five-person commi'e (one Medical Corps Officer, one Army Nurse Corps Officer, one Noncommissioned Officer, one enlisted soldier, and one civilian employee) reviewed the ideas and selected the top three entries. The second place entry was submitted by LTC Hill who suggested "Med CHeCS" and third place was submitted by SGT Champeau who suggested "COMPCARE". Ms. Beard will receive a $100.00 Savings Bond for the winning entry. Thanks to those who took the time and effort to enter the contest.

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by CPT McGibony

Dear Abacus,

What happens with the data in our new system when there is a power interuption?

Signed,
Energy Conscious

Dear Energy,
Our new system will have an Uninterupted Power Supply (UPS) system. UPS is a battery backup that will automatically save all data currently in the computer and take the computer down (turn it off) so that there is no loss of information or damage to the computer.

The Abacus

Send questions through distribution to:

Dear Abacus
Nursing Education & Staff Development
HSXM-DON-E

OUTPATIENT PHARMACY
1st TO GO ON LINE

The outpatient pharmacy will be the first area to have "CHIPS" put in and running. The beginning date for the operation of "CHIPS" in the outpatient pharmacy is projected to be the middle of April, 1987. To get to the operational level, there will be many construction projects in the hallways, and in & around the Pharmacy. Training of the Pharmacy personnel will be conducted at the end of March and the beginning of April. The construction project and training will not interfere with Pharmacy services, and will indeed improve the quality of care provided and increase the efficiency of the pharmacy.

Other areas in the Pharmacy and the rest of the hospital will receive "CHIPS" at different times. "CHIPS" will provide a more efficient and accurate method of documenting patient care in all areas of the hospital. This information paper will keep you informed of the progress and projected dates for the implementation of our new computer system - "CHIPS".

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by SFC Bowman

TERM TALK

Hardware- Those parts of a computer that you can see and touch. The computer and the machines that attach to it: the terminal, printer, keyboard and input devices to name a few.

Software- Instructions that tell the computer what to do. They are controlled by the main computer. The software that our system has is very "user friendly". That means that it is easy to work with.

C. H. I. P. S.

COMPOSITE HEALTHCARE INFORMATION PROGRAM SYSTEM
AN EDUCATIONAL PAPER ABOUT OUR
MEDICAL INFORMATION SYSTEM

COMPUTER ROOM

E X P A N D E D

The determination to expand the existing computer room from 820 square feet to more than 1500 square feet into the data processing office area was made during the middle of December 1986. The preliminary engineering design and architectural review were performed during the balance of December 1986 and January 1987. With the outstanding support from the Directorate of Engineering and Housing (DEH) and from Purchasing and Contracting (P&C), the renovation requirement was opened for bid and bidding was completed on January 30, 1987.

The contract was awarded to the Woodbine Corporation from Louisville, Kentucky. They started the demolition and renovation work on February 9, 1987. The construction project Includes a halon fire suppression system, air conditioning, an uninterupted power supply system, and a specially constructed raised floor as well as othe. unique requirements for a computer system of the magnitude of CHIPS.

Of course the computer room renovation is only one major portion of the overall project. Completion of the renovation is projected to be March 31, 1987. A ceremony to commemorate the event is being considered. The CHIPS system will be a boost to moral and above all an enhancement to our healthcare delivery system here and throughout the Department of Defense.

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by SFC Bowman

COMPUTERS IN NURSING
- A PRACTICAL LOOK -

On March 25 at 1430 hours an Inservice about the uses of computers In healthcare will be held In the 9th floor classroom. For more Information and reservations call NESDS at 9250.

PS - This Is not just for nurses.

S.A.I.C. HEADS
CONTRACTOR TEAM

Science Applications International Corporation (SAIC) heads a team of contractors that will be Installing CHIPS at Ireland. Other contractors include Digital Equipment Corporation (hardware), AT&T Federal Systems (communications), and DI-STAR Medical Information Systems (software). SAIC's team is one of four contractor teams developing individual hospital information systems for the Tri-Service Medical Information System (TRIMIS) Program Office and competing for the right to build an information system for all Department of Defense medical facilities worldwide. The other contractor teams are headed by McDonnell-Douglas at Camp LeJeune, NC; by Technicon at Charleston Naval Base, SC; and by Travenol at Sheppard Air Force Base, TX.

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by CPT McGibony

Dear Abacus,

In the event CHIPS Is not operational for a long time, what do I do when I need to document something?

Sincerely, Trahere

Dear Trahere,

There should not be any prolonged down time. The contract with SAIC calls for 95% to 99% up time. The allowable planned and unplanned down time will be 1 hour and 12 minutes for non-critical functions and just 14 minutes for critical functions every 24 hours. Most planned down time will be in the early morning hours when the use of CHIPS is lowest. There are many backup switching mechanisms that will prevent any prolonged down time. In the most unlikely event of a prolonged down time, a written form of the input would have to be done and then put into CHIPS when it is operational again.

Abacus

IRELAND ARMY COMMUNITY HOSP.

"C.H.I.P.S., THE MOVIE"

A movie about a computer system? YES, and part of it will be filmed here at Ireland Army Community Hospital. The TRIMIS Project Office is updating it's videotape on the Composite Health Care System and will include film footage from all four of the operational test sites. The film will be used to inform other Department of Defense facilities about CHCS. A film crew will be in the hospital during the middle of May 1987. Keep smiling; you may be caught in the action for "CHIPS, The Movie".

By CPT McGibony

RIBBON-CUTTING CEREMONY SET FOR NEW COMPUTER ROOM

There will be a ribbon-cutting ceremony on 14 May 1987 to dedicate the new computer room. The ceremony will take place immediately following the official opening of the hospital's new CAT scan room scheduled for 0900 hours that day. Guests of honor for the ceremony will be MG Tait, Commander, USA Armor Center and Fort Knox; COL Tilton, Directorate of Engineering and Housing; and Mr. Edlin, Chief, Contract Administration Division, Directorate of Contracting.

By CPT McGibony

TRAINING

With the addition of CHIPS to Ireland's health care delivery system, comes the opportunity to expand our knowledge and experience. Training of all personnel is a key ingredient in making CHIPS a success. The better the training, the more effective CHIPS will be in improving our health care delivery system.

The CHIPS training area will be in the bay area of Ward 9A. The area is receiving many improvements that will result in an excellent training area with many on-line terminals, and professional trainers employed by the contractor (SAIC) to meet each individuals computer education needs.

The primary method of training will be through computer assisted instruction (CAI). CAI is a method of teaching that allows people to learn at their own pace and to receive help and individual instruction from the trainers as needed. Each person will require a different amount of time to train, depending on their catagory. Training will be a minimum of two hours for the least technical catagory of personnel and a maximum of nine hours for the most technical users.

By SFC Bowman

MUMPS SOFTWARE TO BE USED

Two of the three major units for the CHIPS Central Processing Unit (CPU) have already been installed in the new computer room. Software must be added in order to operate the equipment. The software that will be used is written in MUMPS (Massachusetts General Hospital Multi-Program System) programming language. This language is used by the Veterans Administration system and over 50% of civilian medical facility systems.

By CPT McGibony

FOR THE COMMANDER:

James R. Hill
LTC, MS
Program Director

E-4

Effective until November 12, 1987

CHIPS AWAKENED
from
HIBERNATION

After an apparent lull in activity, the pace is beginning to pick-up again on the implementation of the hospital's new Composite Health Care System. Part of the delay was caused by the testing of the software programs to be used with CHIPS. The "bugs" in a software package must be worked out before the Tri-Service Medical Information System Project Office will approve it for use at Ireland Army Community Hospital. The software for Pharmacy has been approved and the software for Radiology is expected to be approved later this month. Another sign of CHIPS awakening is the data communication lines being strung throughout the hospital. There are approximately 6 miles of cable being used on this project. The lines will connect the computer terminals that will eventually be placed in designated locations.

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by CPT McGibony

TERM TALK

Cursor: A blinking character displayed on the screen that tells where your next action will take effect or where the next character typed will appear.

Hard Copy: Information printed on paper.

Database: That part of our computer system that organizes, stores, retrieves, modifies, and reports information.

DEAR ABACUS,

I am worried about CHIPS training. Would working on the PLATO computer help prepare me for CHIPS training?

Dear Worried,

Using the PLATO computer terminal would certainly help anyone with their basic understanding of computers and computer terminology. There are many training modules on the PLATO computer that help develop an understanding of computers in general. However, the programs on PLATO will not teach about the CHIPS system. There is some unfortunate news about the PLATO terminal located on the 9th floor in Nursing Education and Staff Development - it is being taken out due to a change of policy at the Fort Knox PLATO Office.

If you have questions for The Abacus, send them through distribution to:

Dear Abacus
Nursing Education & Staff Development
HSXM-DON-E

HELP WANTED

CHIPS is seeking the assistance of a few highly motivated and talented individuals to assist in the assembly of antigravitational devices for printers. For more information and to

VOLUNTEER!

Call CPT James at 9894.

FOR THE COMMANDER:

E-5

Expires in 6 months.

James R. Hill
LTC, MS
Project Director

C. H. I. P. S.

SERVICE BULLETTIN
IRELAND ARMY COMMUNITY HOSPITAL
FORT KNOX, KENTUCKY 40121

Number 87-06

September 9, 1987

GET ON YOUR MARK, GET SET, GO!

The long awaited training of personnel on CHIPS has started. Pharmacy personnel began the first training sessions on August 17, 1987. Other departments will start training soon, with the majority of personnel trained by February 1988.

The following tenative training plan has been established. Each group will receive training prior to the system coming on line in their work areas. Each individual will attend 2 or 3 sessions with each session lasting approximently 3 hours. Coordination of the specific training times for each individual will be accomplished through the OIC or NCOIC of each area about 3 to 4 weeks in advance of the training. The areas will be trained in the following basic groups:

1. Outpatient Pharmacy, PAD, Patient Appointment System, Radiology, Pathology, and Inpatient Pharmacy.

2. IMC, Dermatology, Allergy, Immunizations, HMC, Inhalation Therapy, Wards 2A(ICU), 7B(Medicine), and 8A(ARD).

3. Psychiatry, Social Work Services, CMHS, Ward 4A(Psychiatric).

4. Pediatric Clinic, Well Baby, EFMP, Ward 3A(Pediatrics), and 3C(NBN).

5. Surgical and Urology Clinic, Opthomology, ENT, Audiology, Optometry, Hospital Dental Clinic, Ward 5B(Surgical), Recovery room, Operating Room, and Anesthesiology.

6. OB/GYN Clinic, Ward 3B(Post Partum), 3D(Labor & Delivery).

7. Orthopedic Clinic, Podiatry, PT, OT, Ward 6B(Orthopedic).

8. ER, GMC.

9. CES, Preventive Medicine, TMC's & ATMC, Food Service, Nutrition Care.

All personnel will receive their training on CHIPS in the newly remodeled training area on the 9th floor, behind Nursing Education & Staff Development. Anyone may come by for a tour of the training area before they begin their training. Training of all personnel is a vital key to making CHIPS a success. The better the training, the more effective CHIPS will be in improving our health care delivery system.

LEARN MORE ABOUT COMPUTERS

Would you like to know about computers and information systems? There are several sources locally available. The Medical Library has the magazines Computers In Healthcare and Computers In Nursing. In addition, weekly articles on computers and information systems can be found in many professional journals, such as Hospitals and Modern Healthcare. The Information Management Office has more technical magazines: Byte, Info World, Computer World, and PC Tech Journal. Barr Library has several books on the subject. Some of the titles include: Exploring with Computers, The Beginners Guide to Computers, Computer Basics, Meet the Computer, and Computers in Government and the Military. Take the opportunity to review these resources.

Expires in 6 months.

E-6

Contributors:
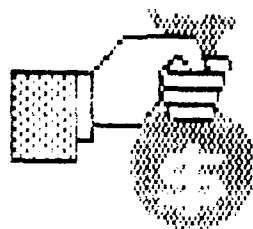   CPT McGibony
    SFC Bowman
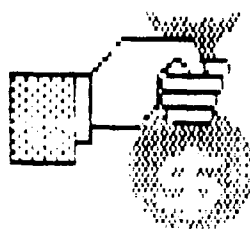
James R. Hill
LTC, MS
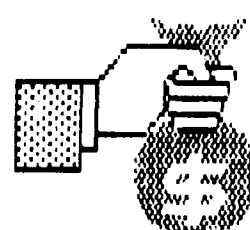Project Director

Appendix F
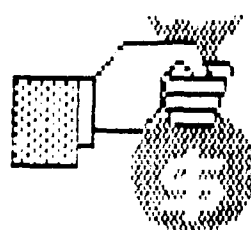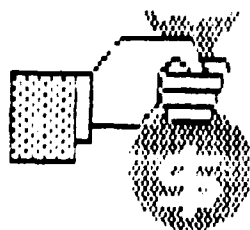
Name the Computer Contest Flyer

COMPOSITE HEALTH CARE SYSTEM
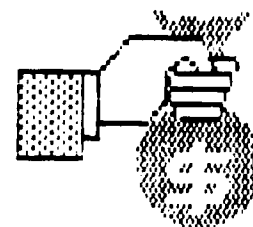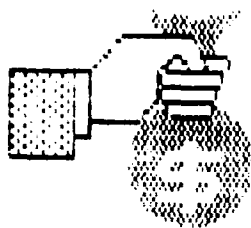
NAME OUR COMPUTER AND WIN!
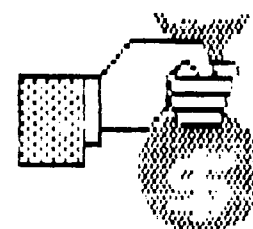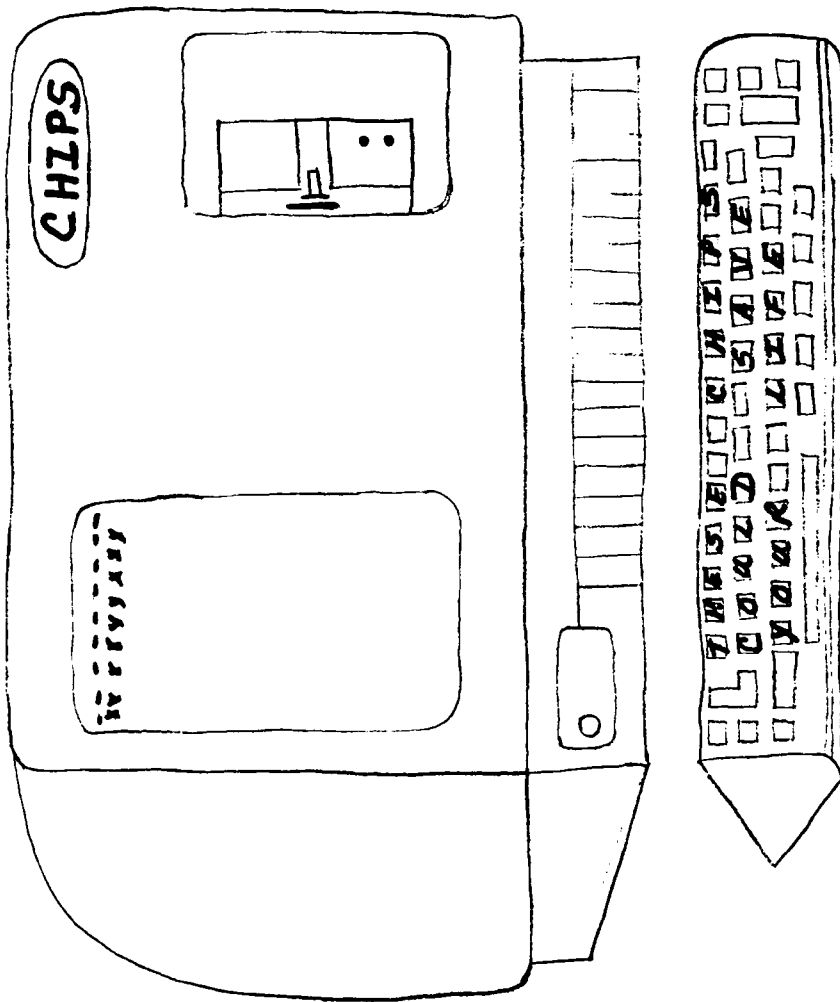
A $100.00 U.S. SAVINGS BOND

SEE OTHER SIDE FOR DETAILS

F-1

Appendix G

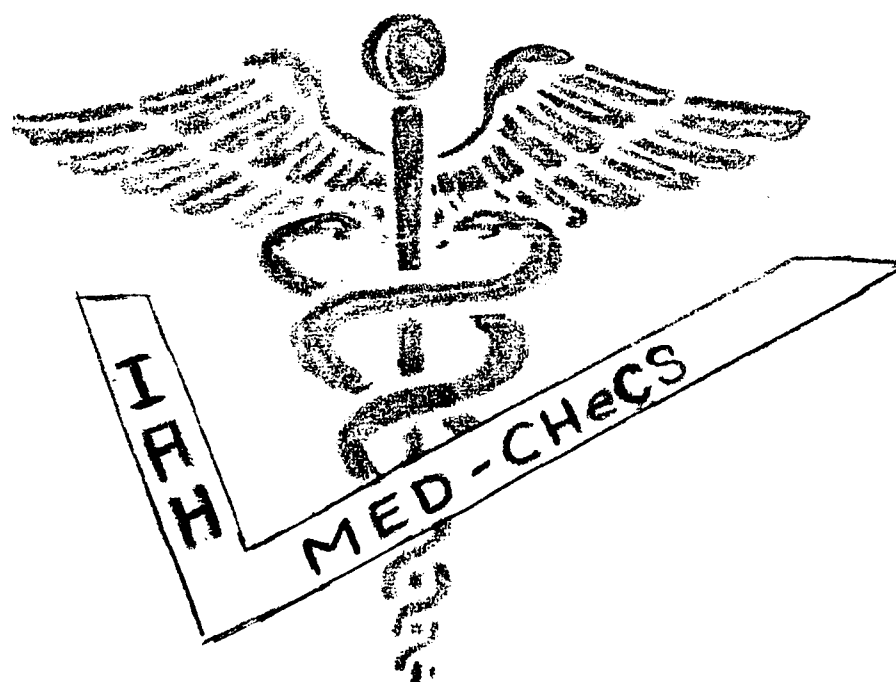Top Three (3) Finalists - Name the Computer Contest

CHIPS

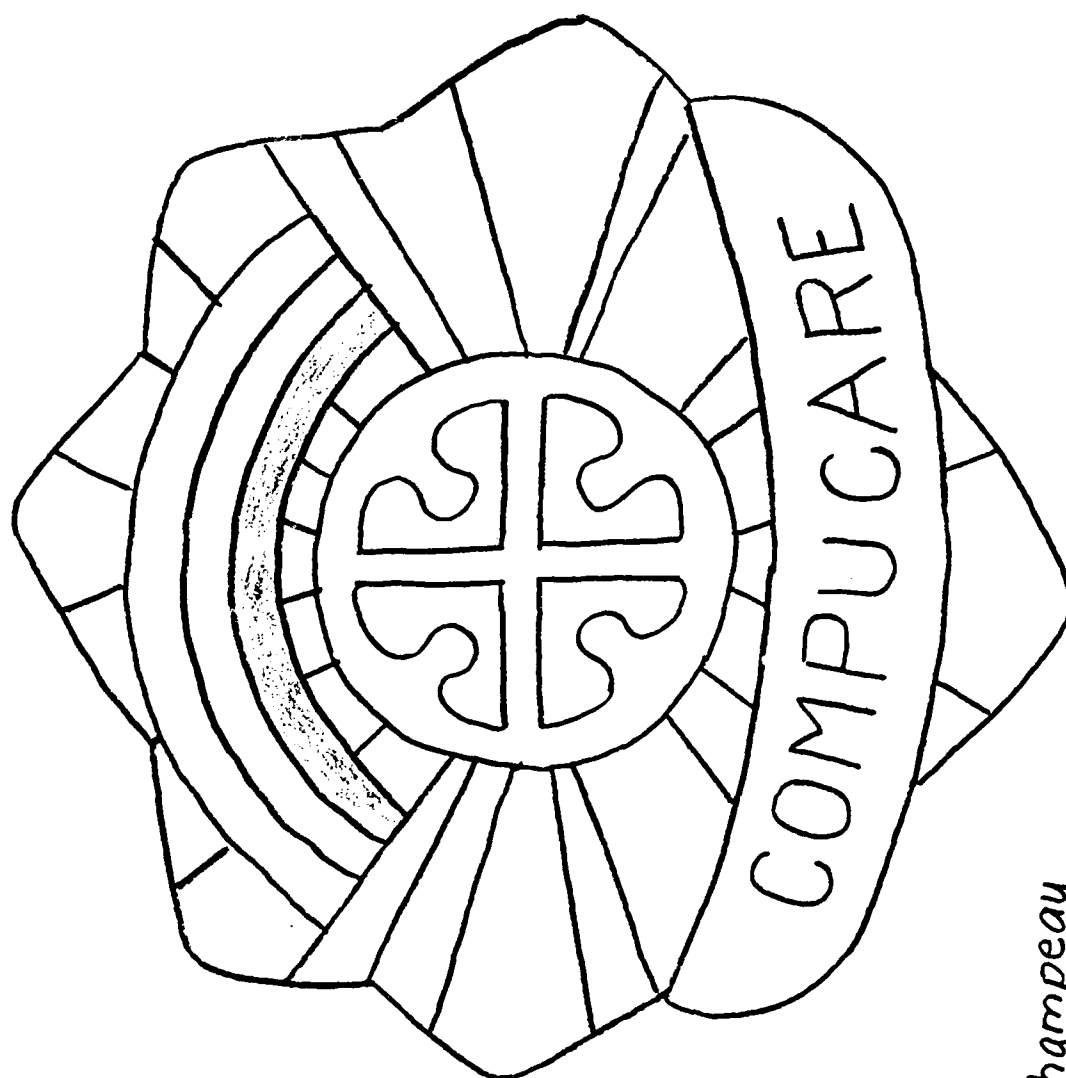(Composite Healthcare Information Program System)

Kathy D. Beard
Adjutant's Office
9840

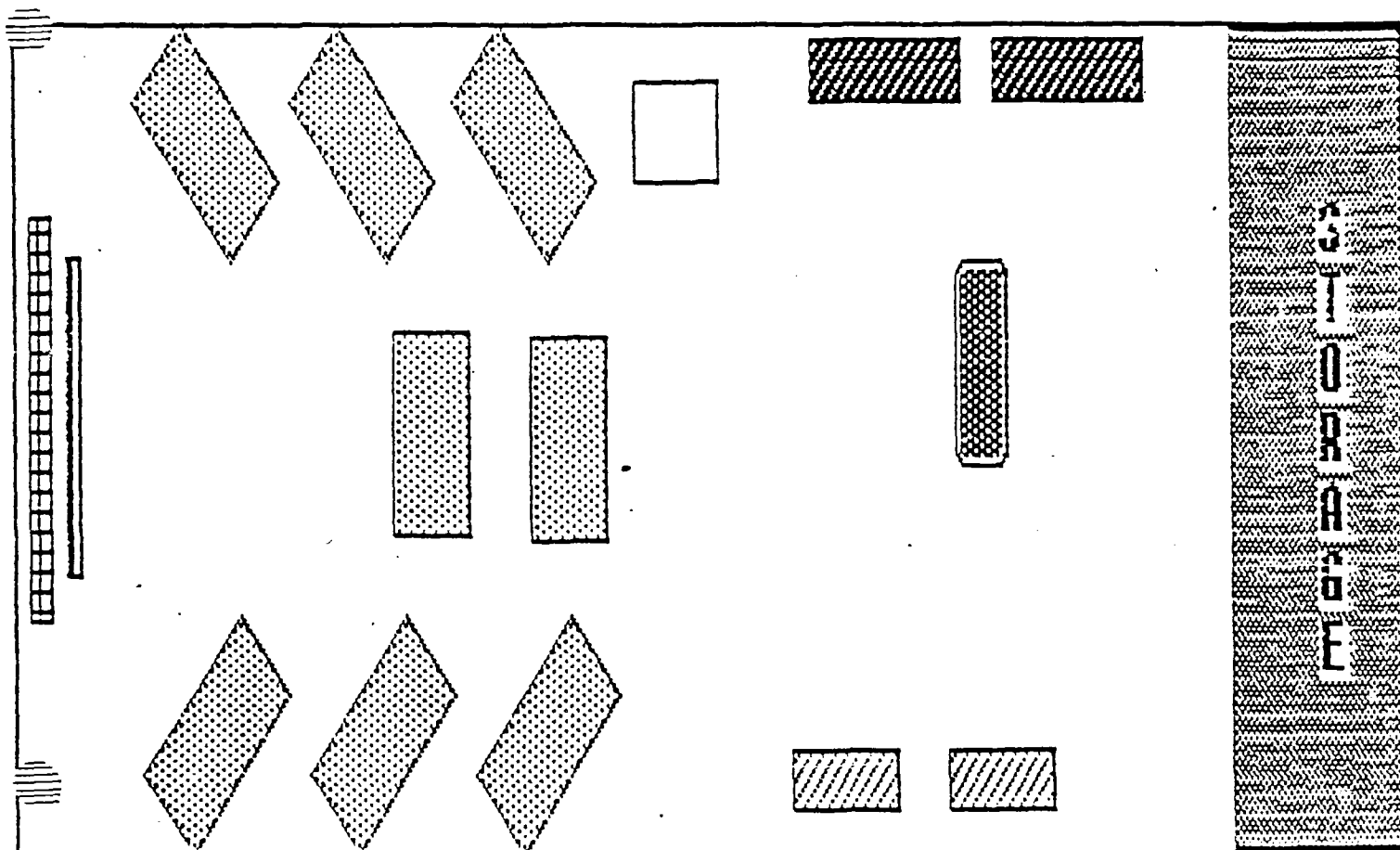# IRELAND ARMY HOSPITAL MEDICAL COMPOSITE HEALTH CARE SYSTEM

JAMES R. HILL
LTC, MSC
Chief. CSD

COMPUCARE

SGT William P. Champeau
Occupational Therapy
9964

Appendix H

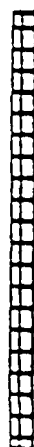Training Room Floor Plans
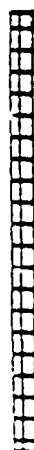
STORAGE

TRAINEE'S DESK

TRAINER'S DESK

LINE PRINTER

BOOK CASES

DROP SCREEN

ERASABLE SURFACE BOARD

(mounted behind drop screen)

MOVABLE AUDIO/VISUAL STAND

Training Room for 3 trainees, storage and trainer.
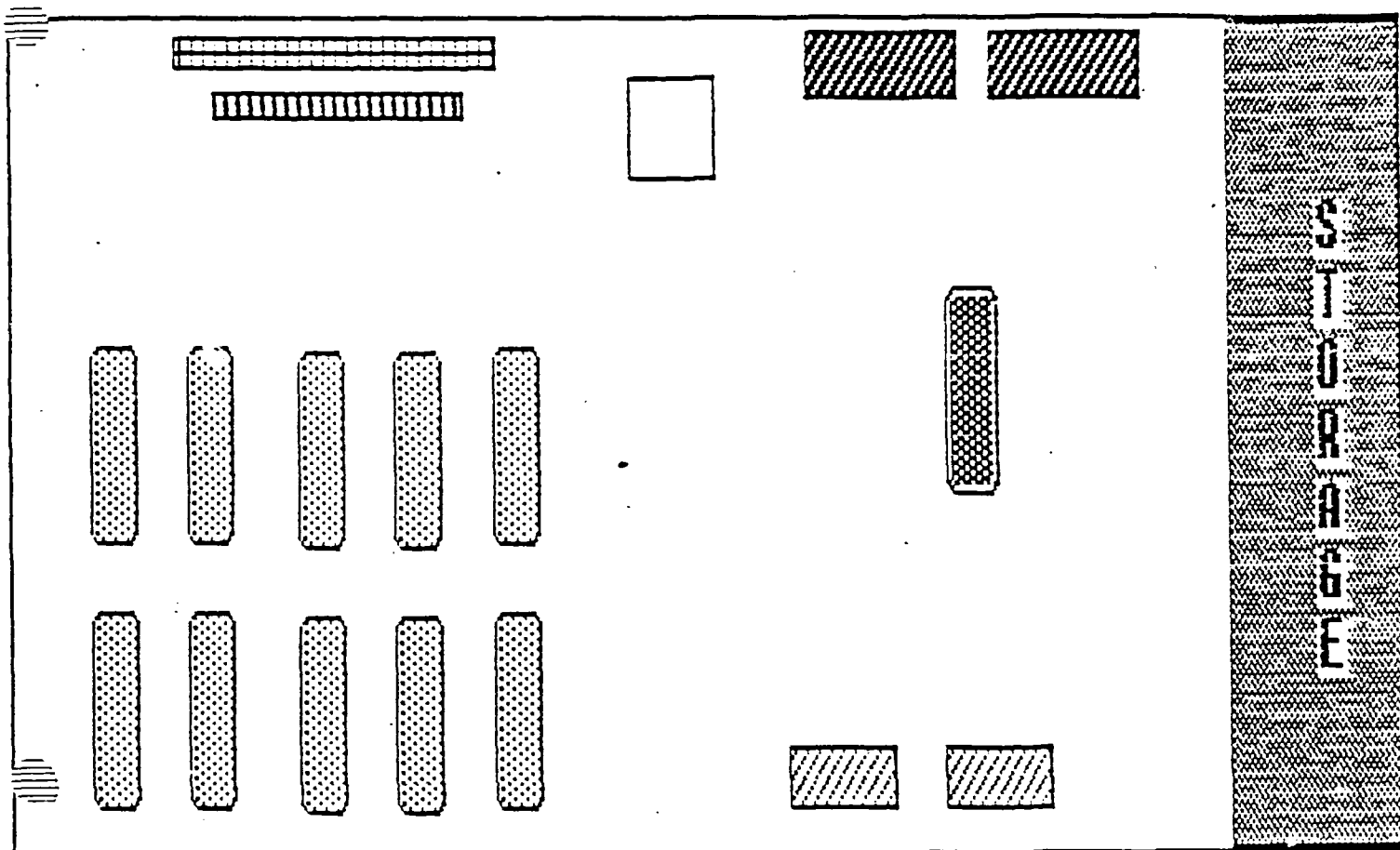
STORAGE

TRAINEE'S
DESK

TRAINER'S
DESK

LINE PRINTER

BOOK CASES

DROP
SCREEN

ERASABLE
SURFACE
BOARD
(mounted behind
drop screen)

MOVABLE
AUDIO/VISUAL
STAND

Training Room for 10 trainees,
storage and trainer.
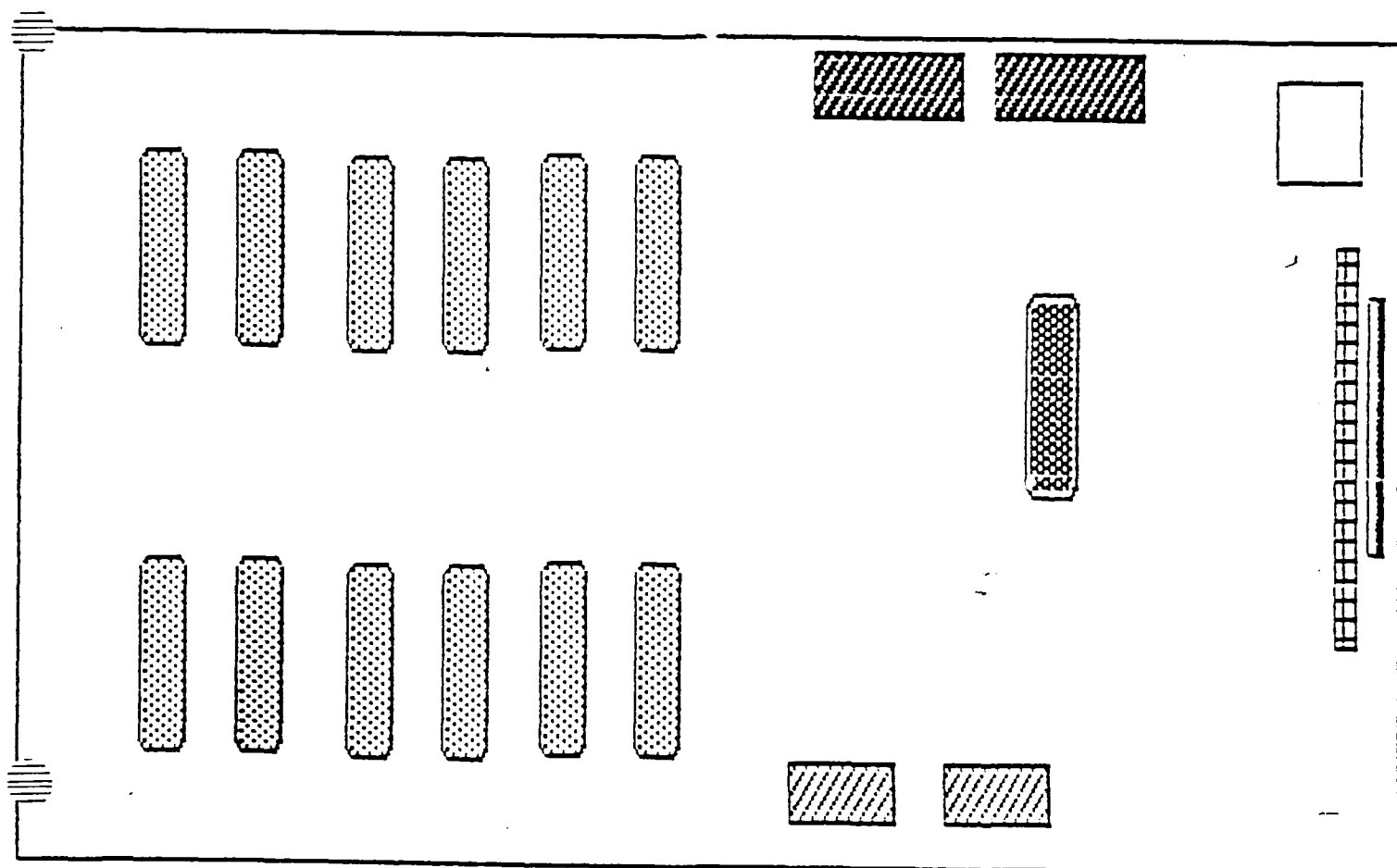
TRAINEE'S
DESK

TRAINER'S
DESK

LINE PRINTER

BOOK CASES

DROP
SCREEN

ERASABLE
SURFACE
BOARD
(mounted behind
drop screen)

MOVABLE
AUDIO/VISUAL
STAND

Training Room for 12 trainees
and trainer.

H-3

Appendix I

CHIPS Reflective Dot

CHIPS

Appenaix J

Fort Knox Population Served

FORT KNOX POPULATION SERVED
AS OF 30 JUN 1987

ON-POST POPULATION.......................................37,432
    Garrison Assigned - TDA..............................(6,170)
    STRAF MTDE and GSP MTDE..............................(5,629)
    Other Military Personnel (Tenant Command,
       Intransit, Processing, etc.)......................(2,627)
    Students and Trainees................................(4,001)
    Civil Service Personnel..............................(5,150)
    Non-Civil Service Personnel..........................(2,947)
    Military Family Members.............................(10,908)

OFF-POST POPULATION......................................87,165
    Reserve Personnel (100th Div, 125th ARCOM)...........(6,218)
    Military Family Members of Active Duty Army
       and Retires (estimated).........................(52,660)
    Retired Military Personnel..........................(28,287)

TOTAL POPULATION SERVED.................................124,597

Appendix K

Pharmacy Registration Flyer

PHARMACY PATIENTS

THE HOSPITAL IS INSTALLING A NEW COMPUTER SYSTEM. IN ORDER TO
SERVE YOU BETTER, IT WILL BE NECESSARY FOR YOU TO REGISTER IN
THE SYSTEM BEFORE YOU TURN-IN A PRESCRIPTION. THIS SYSTEM SHOULD
NOT BE CONFUSED WITH DEERS. YOU CAN REGISTER AT THE OUTPATIENT
LOBBY INFORMATION DESK NEXT TO THE PHARMACY. ONLY A MINIMUM
AMOUNT OF INFORMATION WILL BE REQUIRED. YOU WILL ONLY NEED TO
REGISTER ONCE. WE THANK YOU FOR YOUR COOPERATION.

Appendix L

Newspaper Article

inside the turret

DoD using Ireland as one of four test sites for computer contracts

By Sp4 MIKE HAGBURG
Inside the Turret staff writer

The first unit of what will be the Army's most advanced hospital computer system has arrived at Fort Knox and will soon be installed at Ireland Army Community Hospital.

The computer system is being installed as part of a Department of Defense operational test, said Lt. Col. James Hill, chief of the Clinical Support Division at Ireland Hospital. It is one of four such systems that will be tested at DoD installations to determine the winner of the DoD hospital computer contract.

Four corporations are vying to win this contract, according to Hill. Systems will be installed by McDonnell-Douglas at Camp Lejeune Marine Base, by Technicon at Charleston Naval Base, by Travenal at Sheppard Air Force Base and by Science Applications International Corporation (SAIC) at Knox.

"The contractors will be evaluated from Sept. 1 until the end of November and then one contractor will be chosen from the four sometime in January, 1988," said Hill.

The winning contractor will then test its system in 13 'beta' sites throughout DoD.'

"If the system passes this test it will be employed in some 700 DoD facilities," said Hill. "It's a large project—the final contract will amount to about $1.2 billion."

Hill believes the system will significant' improve the quality of medica re at Ireland Hospital

"It's a hospital information system that will work to assist the providers (doctors, nurses, and technicians) in taking care of paperwork functions in a more orderly, faster way," said Hill.

"It cuts down the amount of paperwork they have to write, so they can spend more time with patients.

"It's a composite health care system that will take all the hospital's areas—pharmacy, lab, radiology, nursing, patient appointments—and tie them together."

The system will provide doctors with easier access to patient information, simplify preparing records and reports, and make ordering clinical and diagnostic

Computer (Continued from page 1A)

services more efficient.

"Currently, if a doctor wants to write a prescription for a patient, he has to write it out, put all the necessary information on it, and give it to the patient," said Hill. "The doctor then documents the prescription in the patient's records and the patient takes it down to pharmacy.

"The pharmacist then takes it, determines all proper instructions, fills it, labels it and gives it to the patient."

The new computer, however, will streamline this process.

"In the system we're developing, the physician will enter the prescription he wants into the computer," said Hill. "It will automatically go into the patient's records and will be sent to the pharmacy.

"The computer will print a label and count out the pills. It will do an allergy check to make sure the patient isn't allergic to the medication, give all special

instructions, and do a dosage check to assure that the dosage prescribed is within the parameters of the drug.

"All the pharmacy will have to do is fill the bottle and put the label on it. It should be almost ready by the time the patient gets down to the pharmacy."

Ireland Hospital, installation staff, and SAIC have been working closely to get the system up and running, according to Hill. It should be completely operational by Sept. 1.

"The contractor has the major responsibility for coming in, installing, training and making the system work," said Hill. "Our ultimate goal is to develop a system that helps the hospital take better care of its patients.

"The system is a forerunner of what hospital computer systems —military and civilian—are going to be like in the 1990s. But we're going to have it now."

L-1