STRATEGY RESEARCH PROJECT

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THE PROPOSED DENTAL SUPPORT UNIT: BENCHMARK STRUCTURE FOR OTHER COMBAT SERVICE SUPPORT UNITS?

BY

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United States Army

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ABSTRACT

AUTHOR:	James C. Kulild (COL), USA
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Units employed in future operations must be configured to maximize efficiency, effectiveness, and economy of force to accomplish their mission in both war and operations other than war. Relying on the historic evolution of dental services in a theater of operations and combining that knowledge with current Force XXI developments, this paper studies the proposed dental support unit to determine whether its structure could serve as a model for other combat service support units.

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INTRODUCTION

"The HSS dental service is a major contributor to maintaining unit fighting strength. Joint operation planning must include consideration of the various roles of dental services."[1]

As the United States Army has continued its transition into a new era of radically varied mission requirements, diminished resources, explosive developments in information technology and management, and potential availability of weapons of mass destruction by secondary powers; combat, combat service, and combat service support (CSS) units in both the active and reserve components must be prepared to meet today's unknown challenges. Especially important is the requirement for CSS units to ensure that the "tooth-to-tail" ratio in deployed forces is balanced allowing a proper force mix necessary to accomplish the mission with optimal force economy.

As an important link in the CSS team, health service support (HSS) units are designed to support the soldier far-forward in a theater of operations (TO) providing him with caring, competent and compassionate medical treatment designed to return him to duty as soon as possible. It has been, and continues to be, the responsibility of medical planners to design units that provide the most efficient force structure required by the Army and the nation.

There are many strategic considerations of HSS:

- Support of force deployment by ensuring soldier medical readiness
- Industrial base mobilization
- Requirements determination and acquisition of medical equipment, supplies, and blood and biologicals to support force projection
- Stockpiling and prepositioning of medical materiel
- Host nation support
- Medical regulating, patient evacuation, and hospitalization
- Mobilization
- Reconstitution of the strategic force by returning injured soldiers to full health

- Demobilization[2]

The Army Medical Department plans for the following responsibilities in joint, combined, or interagency operations:

- Patient evacuation
- Medical regulating
- Hospitalization
- Health service logistics
- Blood management
- Veterinary services
- Preventive medicine
- Combat stress control
- Area medical support
- Medical laboratory services
- Medical information management
- Dental services (DS)[3]

Disease and nonbattle injuries (DNBI) caused by dental disease or injuries have been reported to be as high as 8%[4] and 29.5%[5]. It is the prime focus of the Army Dental Care System (ADCS) to minimize dental DNBI through evaluation and treatment at both table of distribution and allowances (TDA) and table or organization and equipment (TOE) dental units.

Therefore, dental units must be **on-the-ground** with the soldier and tailored for the overall mission to provide vital services to sustain the force. To that end, the Dental Corps has recommended a reorganization of the TOE dental organizational structure to better serve the needs of both the soldier receiving the treatment and the joint task force commander or geographic commander in chief responsible for the mission.

The purpose of this paper is to analyze this new structure in light of past historic dental organizations, as well as Force XXI concepts, and determine if this structure could serve as a model for other CSS units allowing for maximum efficiency and effectiveness in CSS force structure.

BACKGROUND

"The Dental Corps structure must be adequate to accomplish the stated peacetime and wartime missions."[6]

Section I. Dental Service Prior to World War II. Prior to World War (WW) II, dental treatment for combat troops was provided by dental personnel organic to a TOE medical unit assigned to each regiment and separate battalion (Bn). Dental personnel were generally assigned to the headquarters (HQ) and HQ section of the medical detachment (Med Det) as depicted in Figure 2.1.

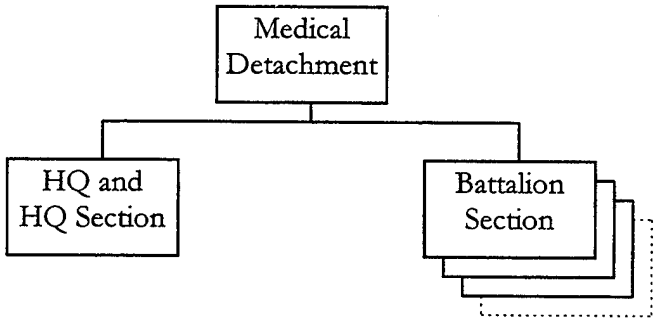

Figure 2.1 Organization of Medical Detachments in 1940

The senior Dental Corps (DC) officer in the unit was assigned as the dental surgeon and supervised the DS of the entire unit. He had no command responsibilities.

Dental treatment in the *combat area* was extremely limited and dental personnel were used primarily to aid in the treatment of medical conditions.

Soldiers had to report to a *non-combat* area to receive routine dental care at one of the dental dispensaries usually collocated with the regimental or battalion dispensaries.[7]

As a result of this type of support, many dental needs went unserviced even though dental assets were in the combat zone. Additionally, dental assets were under the command

and control (C^2) of personnel untrained in the dental requirements of either the soldier or the dental personnel themselves leading to a less effective use of dental resources

Section II. Dental Service in the World War II Era. Dental service in WW II generally continued the same DS support as that prior to the war. However, the following general principles were developed:

- Close support of attached medical personnel
- Mobility
- Flexibility
- Economy of force
- Decentralization of control.[8]

These lofty principles were not, unfortunately, routinely put into practice and the same inefficiencies remained in both C^2 and force structuring of dental assets.

Unit Dental Support was provided in the division where the DC officer was rated by a medical officer and the commander of the unit. The division dental surgeon provided coordination of all division dentists. However, there was great difficulty in providing uniform dental care in the larger commands because dental assets generally became highly dispersed and loosely supervised. Utilization of dental personnel was still very inefficient and it was impossible to distribute dental officers equitably to small organizations.[9]

Area Dental Support was provided in fixed hospitals, medical clearing companies, 400- and 750-bed evacuation hospitals, gas treatment battalions, and convalescent and field hospitals.

Most regiments or battalions had no assigned dental officers and coupled with the lack of mobility of dental assets, most non-division troops were often neglected in order to serve the division troops[10] A non-division soldier was able to obtain dental care only if he

happened to be in the vicinity of a large medical unit or he coordinated difficult arrangements for an appointment and transportation to take him back to the dispensary.

Because of these inefficiencies, knowledgeable senior DC officers recommended at the end of WWII that dental officers be removed from tactical units and assigned to dental detachments of 15 or more dentists. Additionally, they recommended that dental detachments be commanded by dentists, that a basis of allocation (BOA) be established in the TO to ensure that all soldiers received necessary care, and that dental officers concentrate on professional duties and not administrative requirements.[11]

Section III. Dental Service in the Korean War Era. Major changes were introduced in the Korean War era whereby the dental surgeon of a major theater command exercised operational control in the name of the commanding officer of all dental units not assigned or attached to a subordinate command.[12] Dental service was divided into 4 types.

The first was *Division DS* where all dental personnel were assigned to the organic Med Bn and the dental surgeon exercised technical supervision.

The second was *Hospital DS* where a Chief of DS supervised dental assets found in numbered general and station hospitals, field and evacuation hospitals, and convalescent centers.

The third was *Area DS* which was provided by new types of dental TOE units depicted in Figure 2.2. This new unit was the Team KJ[13], a DS Detachment (Det) commanded by a DC officer with a BOA of 1/15,000 non-division troops. The KJ Team was composed of a detachment HQ, 5 mobile operating teams, 2 small semimobile teams, 1 larger semimobile team, and a mobile prosthetic team.[14]

The fourth was *Supplemental DS* provided by other new dental TOE teams: Team KI (dental operating detachment), Team KK (dental prosthetic detachment, mobile), Team KL (dental prosthetic Detachment, fixed), Team KM (dental clinic, fixed), and Team KN (central dental laboratory).

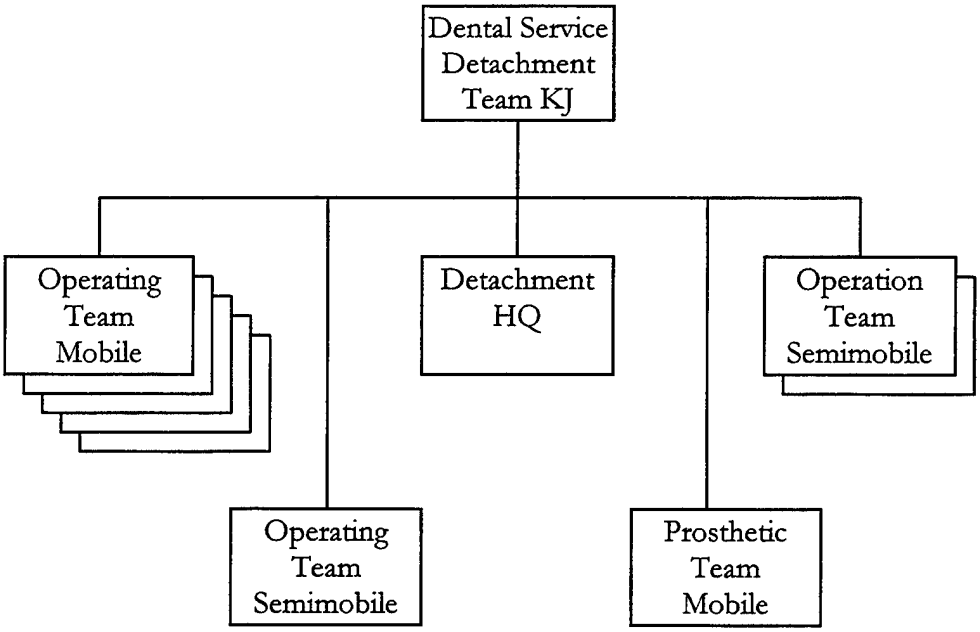

Figure 2.2 Area DS in Korean War Era

Dental officers remained organic to the division and provided emergency care to assigned troops. However, the introduction of the many different kinds of DS Detachments in the "Team" concept were confusing for planners coordinating DS in the TO.

Section IV. Dental Service in the Viet Nam Era. Dental Service in the Viet Nam era witnessed a refinement of earlier initiatives resulting in a decrease of the major types of dental support.

The first of two types of DS was *Unit DS* which was organic to divisions, hospitals, and certain other medical units. Emergency care was provided at this level.

The second was *Area DS* composed of dental units under OPCON of staff dental surgeons of field armies and subordinate commands of the theater logistical command. They were commanded by the major HQs they were assigned to.[15]

The structure of the dental Teams remained the same but, unfortunately, the limitations remained also. There were still many different types of dental units which were difficult to break down for smaller operations. Additionally, there was limited dental specialty support since prosthetics was the only "traditional" dental specialty included in field units.

Section V. Dental Service in the Post-Viet Nam Era. The first dental-specific doctrinal field guide to dental services was published in the post-Viet Nam era: FM 8-26.[16] Two types of DS were available in the TO.

The first was *Unit* DS provided by dental personnel organic to divisions, hospitals, and convalescent centers.

The second was *Area* DS provided by dental personnel assigned to a new family of dental TOE organizations depicted in Figure 2.3.

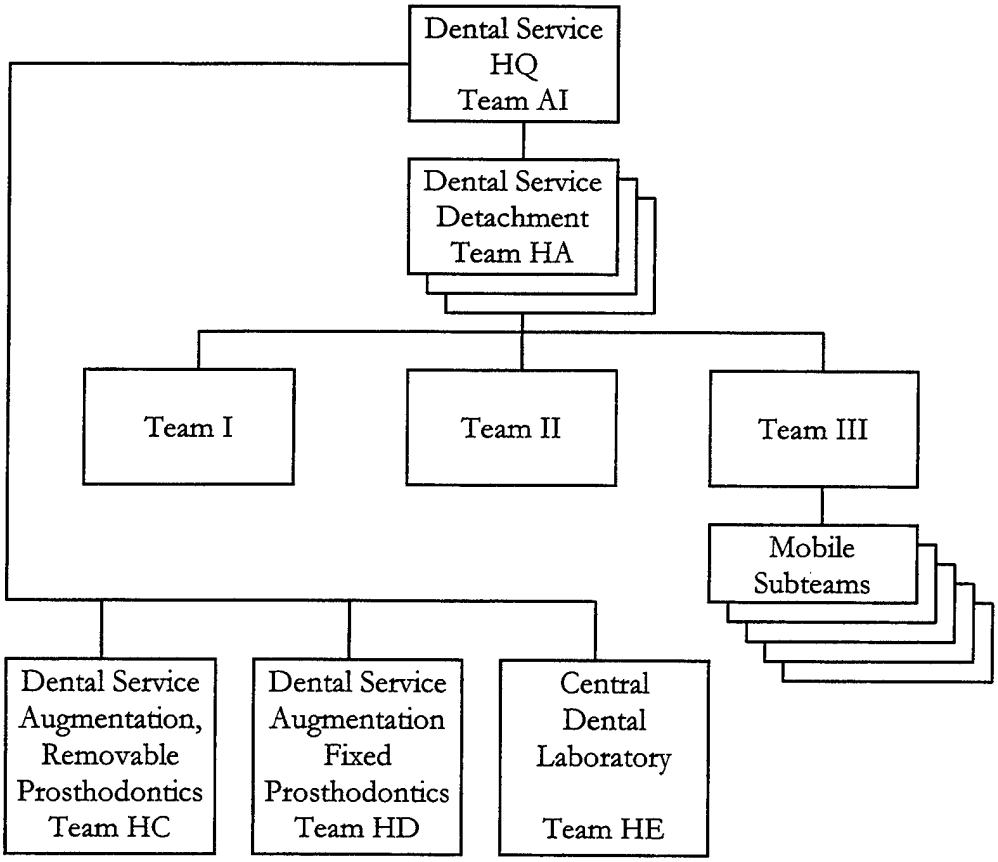

Figure 2.3 Area DS post Viet Nam

Team AI[17], DS HQ was assigned to a medical command (MEDCOM) or medical brigade (Med Bde) and provided C^2 for 6 to 12 subordinate HA Teams. A change to Title 10, U.S. Code was also passed during this time in 1978 which required that all dental units be commanded by a DC officer.[18]

Team HA, DS detachment, was the primary unit providing patient care.[19] This new family of deployable units provided flexible, modular, and far-forward treatment; and were also commanded by DC officers. However, there were still a large number of different types of dental units providing both C^2 and clinical care. The removable and fixed clinical specialties were split into 2 different detachments and no other "traditional" specialty support was offered.

The second edition of FM 8-26 was published in 1980 and further refined the concepts and principles contained in the first edition with some changes.[20] Because of

previous difficulties identified in C^2, Team AI was now responsible for C^2 of only 4 to 8 HA Teams. Team HB, DS, Augmentation, General Dentistry, was added to provide more clinical capability by augmenting HA Teams in the TO.

- ***Section VI. Dental Service in the Desert Storm Era.*** FM 8-10-19, Dental Service Support in a Theater of Operations introduced a whole new family of dental TOE units which are in the inventory today.[21]

Unit DS is provided by dental assets in area support squads in the medical companies of divisions, separate brigades, and armored cavalry regiments, and the medical element in the special forces group. Dental modules are also found in the area support squads of the area support medical company (Co) located in the combat zone and COMMZ.

Hospital DS is provided by dental assets in combat support, field, and general hospitals.

Area DS is provided by the new family of dental TOE units depicted in Figures 2.4 to 2.6.

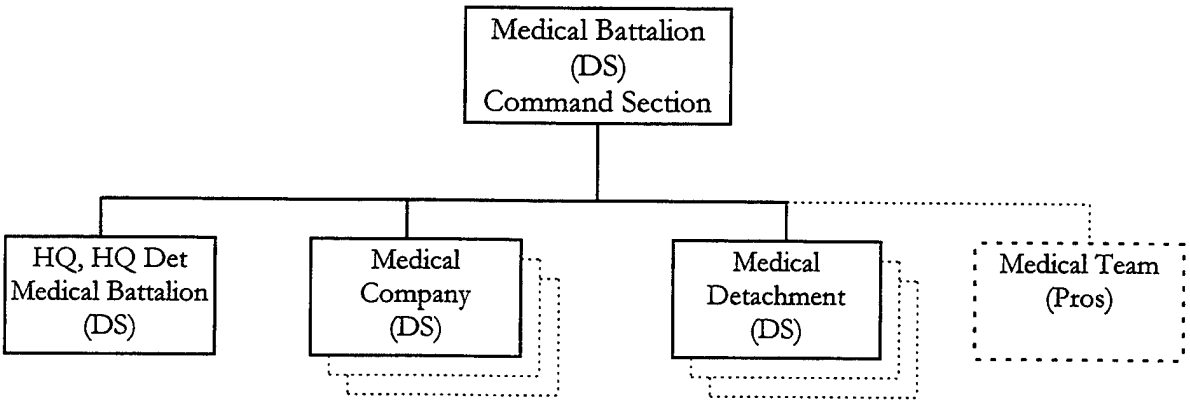

Figure 2.4 Medical Battalion (DS)

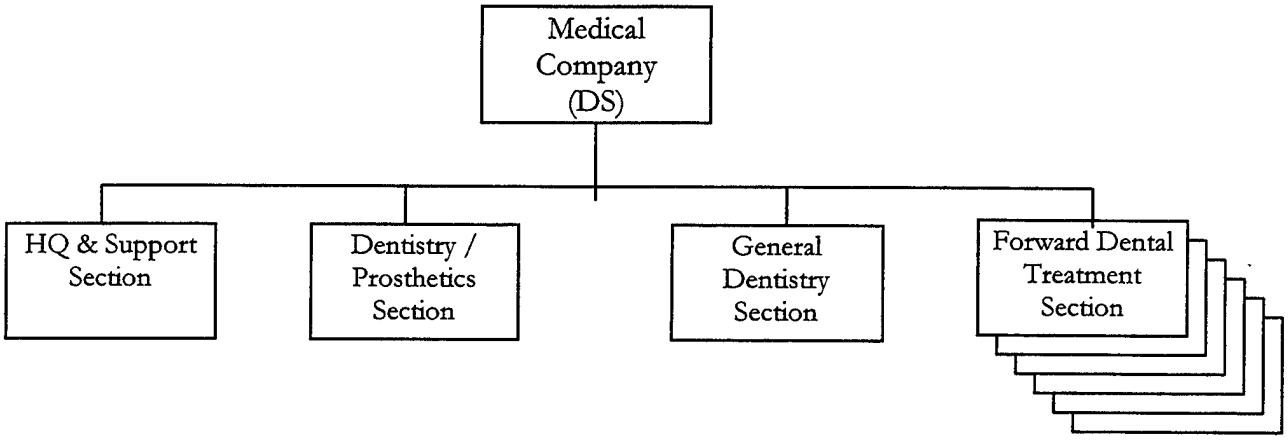

Figure 2.5 Medical Company (DS)

The forward dental treatment section can be further subdivided into 6 forward treatment teams, each with 1 DC officer.

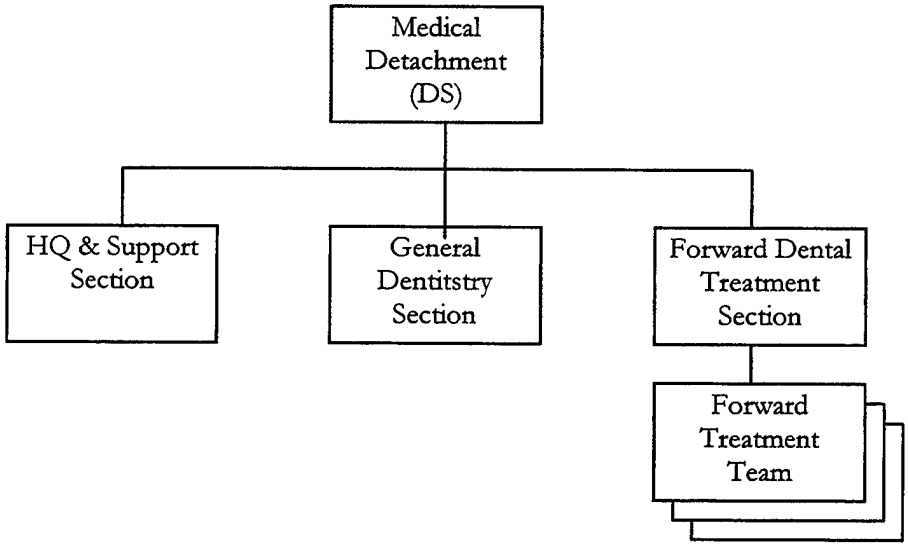

Figure 2.6 Medical Detachment (DS)

The medical team (prosthodontics) replaces the Team HC and Team HD, finally combining prosthodontic assets in one deployable unit.

The present system of DS has many advantages. The family is modular, and fixed and removable prosthodontics have been combined in one team. They provide far-forward treatment capabilities and remain commanded and controlled by a DC officer.

However, the TOE family retains the relatively complicated group of deployable modules which, once again, can complicate efforts by operators assembling a force for an operation. There is still no presence in the TO of the "traditional" specialties of endodontics and periodontics.[22] Additionally, the Med Bn (DS) is a redundant organization because C^2 of assigned or attached clinical units could be accomplished by the Med Bde. Moreover, the structure of the Med Bn (DS) contains insufficient personnel to fulfill the mission and responsibilities of a battalion-sized unit. There are only 3 officers and 7 enlisted soldiers assigned to the battalion.

Section VII. Dental Service in Haiti. A FTT, composed of one dental officer and one 91E military dental assistant deployed to provide dental treatment in the TO. The single FTT was attached to the Med Bn whose commander generally allowed the DC officer freedom to decide where and when to provide DS within the TO. Problems with inappropriate apportionment of vehicles and equipment by logistics personnel were solved and the FTT accomplished its mission. Senior dental leaders must work with AMEDD commanders "on the ground" to aid and assist in the overall mission. Communication, cooperation, and conciliation are keys to effective team-building.

PROPOSAL

> **"When one views the ADCS from an historical perspective, comparing the "dark ages" with the "golden age" of today, it is clear that certain aspects of the contemporary C^2 have been beneficial and merit retention in any reorganization scheme."**[23]

Section 1. Medical Reengineering Initiative. As a proactive effort to reengineer and rightsize the entire AMEDD TOE force structure in response to an era of changing missions and decreasing budgets, the Army Surgeon General (TSG) initiated the Medical Reengineering Initiative (MRI). He performed the MRI since TSG has the responsibility for HSS support aspects of force integration; health services doctrine and systems developed and fielding for the Army.[24]

To comply with the initiative of TSG, the ADCS formed a panel of subject matter experts to evaluate the dental TOE structure and make recommendations for change, where indicated. The operational capability requirements of the dental TOE force structure used by the panel were:

- Ability to provide emergency, preventive, general and specialty dental care across the entire range of military operations to include OOTW, joint, and combined operations
- Achieve the highest possible level of soldier dental fitness for America's Army
- TOE dental assets configured for strategic deployability, flexibility, and total mobility in the area of operations
- Dental organization and equipment which is standardized, has tactical modularity, structured for task organization, and the ability to be deployed in FEIs
- Improved far-forward care which will result in the early treatment of dental emergencies, the immediate return of the soldier to duty, and no evacuation of dental emergencies to the rear
- Dental assets which can amplify and augment medical care capabilities during combat and mass casualty situations
- Ability to provide C^2, technical supervision, planning and training guidance for all TOE dental units in peacetime and during all phases of military operations

- Assured communications and the capability for telecommunication and telementoring throughout the TO
- A digitized, continuous/seamless patient health record which will provide the system for the documentation of patient diagnostic and treatment information, patient tracking, and the collection of epidemiological data
- Sustain the leader development process[25]

Section 2. The Proposal. After thorough and meticulous evaluation by the panel and subsequent feedback from officers and noncommissioned officers in the field, the panel recommended that the following new structure in Figure 3.1 be adopted by the ADCS to provide state-of-the-art dental care in a TO.[26]

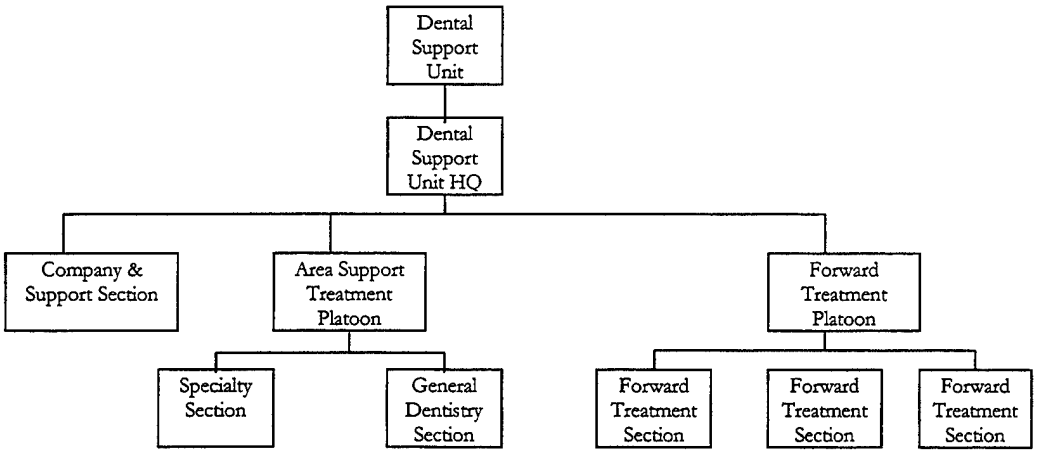

Figure 3.1

The recommendation includes 2 types of DS in a TO. *Unit* DS would remain essentially unchanged.

Area DS TOE units would be radically restructured. The main dental TOE dental unit in the TO would be the Dental Support Unit (DSU), similar to an earlier adopted finance unit. The DSU, commanded by a Colonel DC officer, would be assigned to a Med Bde for C^2. The DSU would have a DSU HQ, Co and support section, area support treatment platoon (ASTP), and a forward treatment platoon (FTP). The ASTP would have a specialty section, composed of a prosthodontist (63F), endodontist (63E), and periodontist (63D), and a general dentistry section. The FTP would have 3 forward treatment sections (FTS), each of which could be further broken down into 6 forward treatment teams (FTT). If a DSU HQ element is not deployed, in a smaller operation, for example, C^2 can be accomplished by the senior medical organization present in the TO, if necessary.

The Med Bn (DS), Med Co (DS), Med Det (DS), and Med Team (Prosthodontics) would all disappear from the inventory. The C^2 and administrative redundancies contained in these units would also disappear.

The basis for revision of the dental TOE units would be the following:

- Formation of the DSU would be accomplished through the consolidation and redistribution of personnel currently found in other dental organizations. There would be reduced costs in decreased numbers of dental HQs, redundancies, and consolidated mission and training capabilities
- Ensured Standards of Care—Current and future
- Far-forward treatment capabilities would be tripled
- Increased modularity and mobility
- Increased specialty care[27]

The mission of the new DSU would be to provide emergency, preventive, general, and specialty care on an area support basis within a TO. It would be subordinate to a

MEDCOM or Med Bde. The BOA of the new dental TOE units would be 1 DSU per 24,000 troops supported.[28]

There are many advantages of this new structure:

- **The modular design of the FSU would be much simpler than previous dental units and planning for deployment of these functional emulative increments (FEI) would be much easier for medical planners. An FEI as small as 1 FTT could potentially be deployed. It would be assigned to the senior medical unit in the TO for C^2. The DC officer would have the commander of the TO medical unit and the DSU commander in the rating scheme.**
- **Forward treatment teams would be 100% mobile.**
- **Far-forward care would be tripled.**
- **The FEIs could deploy to support any contingency: from OOTW to war.**
- **State-of-the-art organic communication is available at all echelons.**
- Increased specialty care would now be available in a TO.
- With the demise of the Med Bn (DS), the authorizations contained in that unit would be added to the corps MEDCOM. The authorization for Cdr of the Med Bn would become an authorization for a new Deputy (Dep) Cdr for Dental Services in the corps MEDCOM and also the Corps Dental Surgeon.
- This new plan would consolidate current dental structure into a single DSU.
- Many administrative redundancies would be eliminated, while, at the same time, increasing the capabilities of the dental assets.

FORCE XXI AND THE DENTAL SUPPORT UNIT

> **"Force XXI is the reconceptualization and redesign of the force at all echelons, from the foxhole to the industrial base, to meet the needs of a volatile and ever changing world."[29]**

In his quest to redesign the Army for the new challenges of the 21st century, the Chief of Staff (CoS) has focused on the initiative of Force XXI. In order to accomplish known mission requirements, as well as unknown contingencies, Force XXI units must be designed accordingly.

Force XXI is defined by the following 5 characteristics:[30]

- *Doctrinal Flexibility.* The future strategic environment is unclear and we must be prepared for new and totally unexpected challenges.
- *Strategic Mobility.* The army must be at the right place at the right time with the right capabilities. Forces must be lighter but just as capable.
- *Tailorability & Modularity.* Organizations need to be flatter and less rigidly hierarchical. Forces must be able to be tailored to meet each different type of contingency.
- *Joint, Multinational, & Interagency Connectivity.* This must be accomplished in order to fully execute full-dimensional operations.
- *Versatility in War and OOTW*(Operations other than war). Units must be able to accomplish both missions since our resources can't support 2 different armies.

The 2 keys to fully developing the 5 characteristics are *quality soldiers* and *information* to exploit the full dimensions of the battlespace.[31]

Organizations in Force XXI must be able to be:[32]

- Rapidly tailored for operations
- Organized around information processing and dissemination
- Flexible and changed for specific missions
- Organized around the division as the major tactical formation
- Modular and capable of task-organizing for the mission

Many authors have theorized about the composition and capabilities of Force XXI units. One author reported that the Army of the 21st century will have, as one of its three major components, a Support Command responsible for Manpower, Transportation,

Contract Support, and Logistics. The Support Command will be organized similarly to the warfighters into small Support Units capable of being combined to meet mission requirements. Command and specialized Support Units will lead peacekeeping operations focusing on combat service capabilities.[33]

The DSU structure is, indeed, configured to meet the challenges of Force XXI. It would have the capabilities to operate in the varied operating environments of the future to accomplish vital CSS missions. The doctrine of employment of the DSU is extremely flexible down to the lowest FEI, the FTT. It has the organic transportation available to achieve mobility in the TO and take dental care far-forward to the soldier.

Due to its structural foundation on FEIs, the DSU is extremely tailorable and modular which would enable it to become a constructive member of a contingency force of any size. The DSU, coupled with DC staff officer support at the MEDCOM and Med Bde, is also poised to operate with HN assets and sister-services to provide coordinated support. It can also aid foreign forces in the establishment of their available dental CSS units. Due to its relatively constant mission across any TO to provide dental health care, the DSU can operate equally effectively in both OOTW and war.

Division dental assets will remain organic to those units and unchanged allowing the division soldier access to the same high quality dental care he received under the previous system.

COMBAT SERVICE SUPPORT ORGANIZATIONS

> **"As in the past, the primary purpose of logistics will be to support mobilization, deployment, reception and movement, sustainment, reconstitution, redeployment, and demobilization of military forces across the full range of military operations."[34]**

Section I. Finance Combat Service Support Units. The premise of the DSU is built upon the concept of the Finance Support Unit (FSU), a new finance CSS unit developed to operate in a TO. Finance CSS is complex, varied, and includes providing: timely commercial vendor and contractual payments, various pay and dispersing services, and all essential accounting.[35]

FM 14-7 outlines the following hierarchy of TO finance units as depicted below in Figure 5.1:

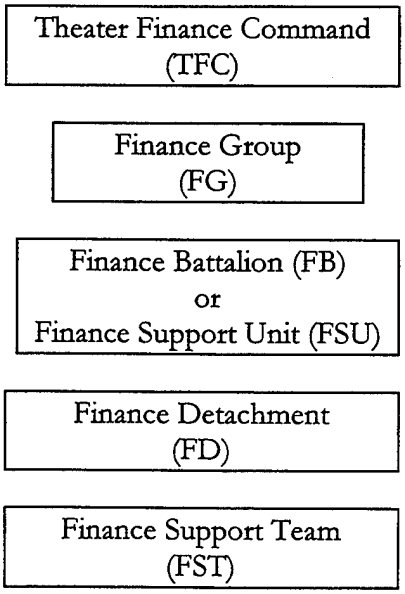

Figure 5.1

Supported units are depicted in Table 5.1:

Finance Organization	Supports
Theater Finance Command	Echelons above corps
Finance Group	Corps
Finance Battalion or Finance Support Unit	Division
Finance Detachment	Brigade
Finance Support Team	Battalion/platoon/squad

Table 5.1

The FG is the center of finance operations in a corps or theater Army area command.[36] The FB controls two to six FD, HQ section, military pay section, and travel section (if staffed with TDA assets).[37] The FSU functions as a TDA unit in areas where finance requirements do not require the larger FB. In war, the FB must be augmented with TDA elements to be able to accomplish the full range of finance support.[38].

All of the finance units in the TO must rely on other units for transportation to move to a new location.[39] In current theaters, finance units have augmented transportation assets with vehicles not on the MTOE. The requirement for transportation, plus the complexity of finance operations, make it impossible, at this time, for finance assets to be as flexible and modular as they would like. Moreover, there are 93 total personnel assigned into 19 different organizational elements even within the new FSU.[40]

Section II. Personnel Services Combat Service Support Units. Personnel organizations are responsible for many varied complex missions which are all supported by personnel information management.[41] In a TO, personnel assets are found both organic to the corps, division, brigade, and Bn in the J1, G1 and S1, respectively. They are also found in separate personnel units such as personnel services battalions (PSB), personnel groups (PG), a theater personnel services command (PERSCOM), and a variety of other mission-oriented units such as postal companies, replacement battalions and companies, and bands.

The personnel services C² hierarchy is depicted in Figure 5.2:

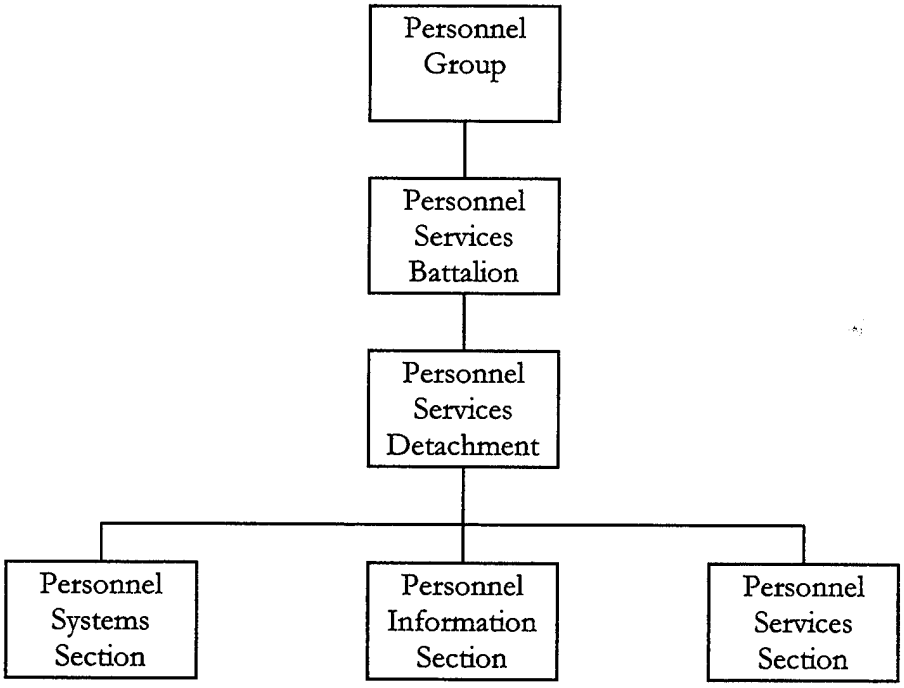

Figure 5.2 Personnel Organization Hierarchy in a Theater of Operations

Personnel groups exercise C² over personnel units in the TO and personnel services detachments are the main work unit of the PSB. The personnel services detachment can be divided further into smaller teams to support the mission. Personnel service units have some organic transportation to effect movement of the organization.

Section III. Dental Service in the United States Marine Corps. Dental service is provided to the Marines through hospital ships and Dental Battalions(DB). The DB is staffed by Naval DC officers and Marine and Navy enlisted personnel.[42] The battalion structure is depicted in Figure 5.3:

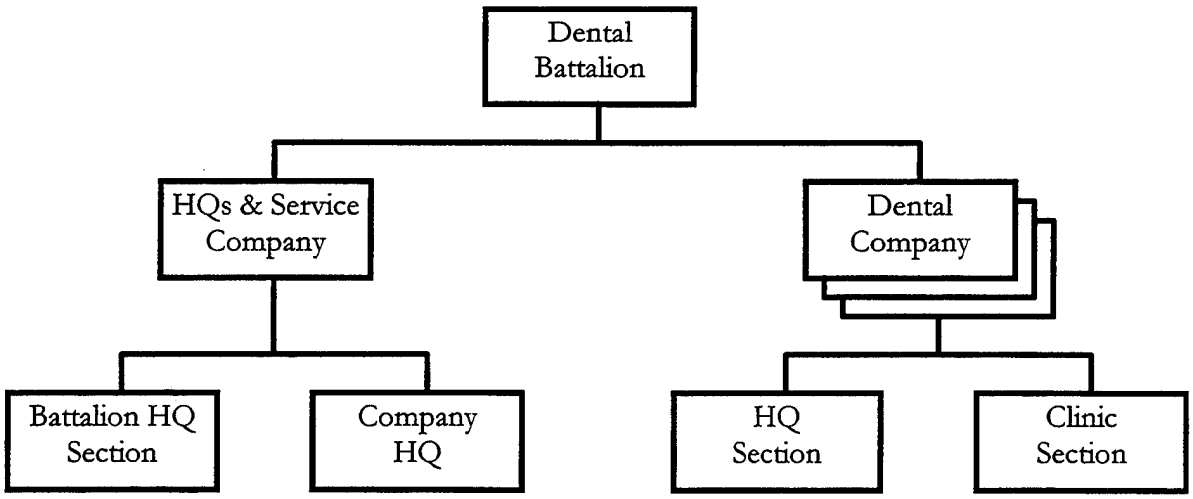

Figure 5.3

The mission of this dental unit is to provide general support dental health to the Marine Expeditionary Force (MEF).[43] Each subordinate Dental Co supports a Marine Expeditionary Brigade (MEB). The Dental Co can also be further broken down into detachments to support a Marine Air Ground Task Force (MAGTF) smaller than a MEF.[44] The Dental Co is helicopter transportable and requires transportation support from the motor transport battalion, force service support group to effect movement. Additionally, the battalion has no organic communication assets.

Section IV. Public Affairs (PA) Combat Service Support Units. Small PA sections are organic to the HQs of separate brigades, divisions, and echelons above corps (EAC). Separate PA units augment these organic elements depending on the mission. These separate TOE units can also operate independently when required.[45] The following units comprise the PA TOE force structure:

- Public affairs detachment (PAD) which provides direct PA support to units deployed in TA.

- Mobile public affairs detachment (MPAD) which provides direct PA support to EAC in a TA.
- Press camp headquarters (PCH) which provides press camp services and facilities to accredited media representatives in a TA.[46]
- Broadcast public affairs detachment (BPAD) which establishes a mobile radio and television broadcast facility.

Public affairs TOE units must depend extensively on force communication assets, host nation, and leased assets to achieve their mission. They have limited transportation assets and must rely on dedicated nonorganic transportation assets to transport personnel and equipment. Ultimately, PA units generally rely on the command or unit they are supporting to provide most logistical requirements.

Section V. Dental Service in the United States Navy. Dental Corps officers or independent duty corpsman assigned to a ship provide dental care afloat.[47] Ashore in a TO, dental treatment is provided to Navy personnel by the same Dental Bn which provides DS to the MEF.[48]

Section VI. Dental Service in the United States Air Force. Wartime or contingency Dental Service in the AF is provided by DC officers and enlisted personnel assigned to air transportable hospitals (ATH) or contingency hospitals. The ATH is available in 14-, 25-, 50-, and 90-bed configurations and can be delivered anywhere in the world in 24 hours. The contingency hospitals are prepositioned with 250- or 500-bed capability. Within the ATH, one general dental officer (GDO) is assigned to the 14- or 25-bed, 2 GDOs to the 50-bed, and 3 GDOs to the 90-bed configurations. Specialty care was previously relegated to the contingency hospitals. The 250-bed version offers 1 prosthodontist and 2 periodontists in

addition to 2 GDOs. The 500-bed contingency hospital contains 11 dental officers: 7 GDOs, 1 periodontist, 1 prosthodontist, and 2 oral & maxillofacial (OMFS) surgeons.

To increase flexibility and capabilities for future contingencies, the AF is currently building two new dental organizational structures. The first is composed of a number of small dental units containing either pediatric dental officers (for OOTW), endodontists, periodontists, or OMFSs. There would be a unit for each specialty mentioned and each would be assigned or attached to either an ATH or the other new organizational structure: the air transportable dental clinic (ATDC). The ATDC, which mirrors the dental capability of the ATH, would be a stand-alone unit or attached to the 14-bed ATH for administrative and other support. There is no organic transportation or communication capabilities with either of these new units.

Air Force hospitals are generally located near major airfields since this area contains the largest concentration of AF personnel as well as serving as an evacuation point for patients requiring transportation back to COMMZ hospitals.[49]

Section VII. Veterinary Service (VS). The VS provides food hygiene and quality assurance, veterinary medical care, veterinary preventive medicine, maintains the health of military animals to include complete care for all military working dogs, and participates in OOTW.[50] The VS is the Department of Defense (DoD) Executive Agent for veterinary support to the US Army, Navy, Marine Corps, and Air Force. Veterinary organizations must therefore be configured and adapted to operate with any service in any TO from war to OOTW.

The Med Det, VS (HQ) provides C^2 for 5 to 14 assigned and attached VS units in the TO. The Med Det, VS provides VS in an AOR and also can provide C^2 for up to 3

subordinate other VS units. It is organized into a semimobile HQs and 6 veterinary squads which are 100% mobile. The Med Det, Veterinary Medicine provides VS programs focused around veterinary treatment in a veterinary hospital. The Med Det, VS (Small) provides VS programs in food inspection and animal care and is identical in composition to the veterinary squad of the larger Med Det, VS. The VS requisite organization in a TO is depicted in Figure 5.4:

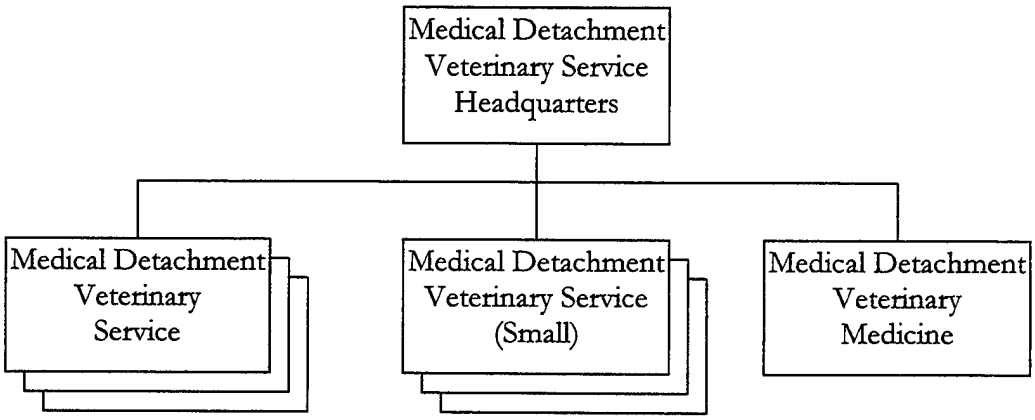

Figure 5.4 Veterinary Organization in a Theater of Operations

C^2 of the Med Det, VS, (HQ) is provided by the senior AMEDD commander in the TO. The two broad missions of VS, quality assurance/safety of food and animal medicine, are accomplished through these units with allowances made in veterinary doctrine for C^2 in both large and small contingencies.

APPLICABILITY OF DENTAL SUPPORT UNIT TO OTHER COMBAT SERVICE SUPPORT UNITS

Some of the CSS units identified in the **Combat Service Support Organizations** section could employ a structure similar to the DSU, in spite of dissimilarities between their mission and that of the DSU. Others could modify existing structures using some of the advantageous qualities of the DSU: modularity, tailorability, mobility, and the ability to communicate and accomplish its mission far-forward in a TO.

. The AF DS mission is different from that of the Army and Navy because it is confined to contingency hospitals, ATHs or the new ATDCs which will normally be fixed facilities with little or no required organic mobility. However, the Air Force is introducing new modular units which do allow for greater capabilities, flexibility, and tailorability of deployed dental support in a future deployment

Sea service DS could benefit by implementation of a DSU-type structure since the present Dental Bn does not contain enough personnel and assets to function like a true battalion-sized unit. The entire battalion contains only 233 Navy and Marine personnel. Moreover, it is not flexible enough to easily deploy in small enough FEIs to provide both patient care and effective C^2 in smaller future deployments. Marine Corps doctrine discusses formation of detachments to perform smaller missions, but there is no mention of C^2, logistical, or administrative support during these operations.[51] A DSU-type structure would also provide improved mobility and communication support.

The present structure of the VS is already similar to the DSU. The VS relationship with the rest of the AMEDD and its functions are very similar to those of the ADCS. Veterinary units are 100% mobile, and very modular and tailorable. It is reported that VS

force developers are presently considering the implementation of a support unit type structure.[52]

The 5-person PAD and the 18-person MPAD, which augment organic PA assets, have limited mobility and not easily modularized or tailorable to satisfy varying operational requirements. The units come only in a "small" or "larger" configuration. A new DSU-type PA structure would allow PA assets to task organize from the ground up: from forward support teams, containing 1 PA soldier; through forward support sections, containing 6 PA soldiers; to forward support platoons, containing 18 PA soldiers. Smaller or larger PA units could be assigned or attached to a parent unit for logistical and administrative support. Organic transportation would also allow independent movement and, in the current atmosphere of immediate news reporting, allow transportation of some news media personnel, mission permitting.

Current personnel TOE units are effectively configured to allow task organizing from the ground up. Starting with the personnel services teams, designed for small missions, extending through the personnel services section, PSD, and PSB, personnel assets are well-prepared to deploy units configured for any contingency. Problems with limited organic transportation could be easily rectified by the addition of additional tactical vehicles. Command and control of personnel units is presently satisfactory to accomplish the personnel mission in the TO.

The complexity of the finance mission creates unique problems for the organization of finance TOE units. The requirement for augmentation by TDA assets to perform some necessary theater tasks further complicates finance operations. Even though the DSU structure is based on the FSU structure, there are significant differences between the two. The FSU is a TDA organization while the TOE FB performs FSU

functions in a TO. The DSU would be a numbered TOE unit. A lack of knowledge about finance force structure can create confusion for operation planners. The FSU contains 93 total personnel assigned into 19 different organizational elements. The DSU would have 92 total personnel assigned into only 9 different organizational elements. Additionally, transportation assets are limited in the FSU which would require additional tactical vehicles to fully accomplish the mission. The C^2 structure is adequate to control TO finance operations and units.

CONCLUSIONS

The DSU is, indeed, a new organizational element whose time has come. The employment of FEIs coupled with enhanced communication and increased mobility will allow soldiers in this unit to perform their CSS mission far-forward to RTD supported soldiers who will then be better able to accomplish their mission and achieve victory in both war and OOTW.

It is not only the answer to today's problems but it also fulfills the principles of future Force XXI units which must be prepared for tomorrow's unknown contingencies. Its use of FEIs, 100% mobility, enhanced communications, and ability to accomplish its mission across the spectrum of full military operations make it a valuable contributor in tomorrow's TO. All of these capabilities and a decreased footprint on both the battlefield and in transportation assets required to carry both men and equipment to the AOR increases its desirability.

Further evaluation and scrutiny of the DSU must be ongoing to ensure that its capabilities are improved and enhanced to "conserve the fighting strength", the motto of the AMEDD. This must be accomplished with efficiency and stewardship to ensure that the taxpayer gets maximum effect from his investment in the security of America.

RECOMMENDATIONS

Recommend that CSS elements in the DoD inventory closely examine not only the structure of their organizational elements but also the core responsibilities those units accomplish in a TO. Redundant or unnecessary requirements should be eliminated. The force structure should then be designed around the remaining mission and configured to provide maximum flexibility and effectiveness in both employment and deployment.

Realizing that substantive differences exist in mission responsibilities among the aforementioned CSS units, redesigned units would not be exactly identical in structure but reflect those obvious differences. This could be done without sacrificing the overall intent of the DSU concept: far-forward service, RTD as soon as possible, mobility, flexibility, tailorability, communication, and effective flexible C^2 in any TO.

America's sons and daughters deserve the best when they are thrust into harms way; force developers have the responsibility to ensure that military units of the future have the configuration necessary to accomplish the mission in any environment while maintaining maximum efficiency in the use of America's most precious resource: the **Soldier**.

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[5] JE King and Brunner DG, "Theater of Operations Dental Work Load Estimation", (U.S. Army Health Care Studies and Clinical Investigation Activity, Final Dental Report #84-001, Fort Sam Houston, Texas, May, 1984).

[6] Richard D. Shipley, "Dental Corps Structure: Past, Present, and Future", (U.S. Army War College Military Studies Program Paper, AD-A 265 095, 1 April 1993), 19.

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[11] Ibid., 304-5.

[12] U.S. Department of the Army, Medical Service - Theater of Operations, Headquarters, Department of the Army, FM 8-10, (Washington, D.C.: United States Government Printing Office, March 1951) 264.

[13] The alphabetical designators for Teams KJ, KI, KK, KL, KM, and KN are not acronyms and have no definition.

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[15] U.S. Department of the Army, Medical Service - Theater of Operations, Headquarters, Department of the Army, FM 8-10, (Washington, D.C.: United States Government Printing Office, 3 November 1959) 235.

[16] U.S. Department of the Army, Dental Service, Headquarters, Department of the Army, FM 8-26, (Washington, D.C.: United States Government Printing Office, 22 September 1975).

[17] The alphabetical designators for Team AI, HA, HB, HC, HD, and HE are not acronyms and have no definition.

[18] Title 10, United States Code, Volume 3, Sections 3039 and 3081, (Washington, D.C.: United States Government Printing Office, 1989).

[19] FM 8-26, 3-1 to 3-5.

[20] U.S. Department of the Army, Dental Service, Headquarters, Department of the Army, FM 8-26, (Washington, D.C.: United States Government Printing Office, 9 September 1980).

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[22] Shipley, 18.

[23] Patrick D. Sculley, "Command and Control of the Army Dental Care System", (U.S. Army War College Military Studies Program Paper, AD-A 233 984, 9 January 1991), 15.

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[26] Unit Reference Sheet (DRAFT), "Dental Support Unit", (Department of Doctrine Development, U.S. Army Medical Department Center & School (AMEDDC&S), 1996) 15

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[31] Ibid., 3-2 to 3-3.

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[37] Ibid., 5-1.

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[44] Ibid., 6-86.

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[47] U.S. Department of the Navy, Operational Health Service Support, Naval Doctrine Command, Naval Warfare Publication 4-02, (Norfolk, August, 1995) 2-2.

[48] Ibid., 5-5.

[49] Lieutenant Colonel Steve Burke, HQ, USAF/SGXR, Boling AFB, D.C., interview by author over telephone {(202)767-5054}, 25 January 1996.

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