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2 October 1975

A REVISED DIVISION FORCE EQUIVALENT CONCEPT

BY

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The purpose is to explain the application and composition of the DFE Concept as it has been and is used currently in force development. Data was gathered using literary research and discussion with the developers of the concept and force structurers. The DFE has been used and misused in the past to describe the force in the context of force planning and development. The DFE's evolution has been traced to...
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A REVISED DIVISION FORCE EQUIVALENT (DFE) CONCEPT

The management of the combat forces of the US Army is facilitated by applying the principles contained in the Division Force Equivalent (DFE) Concept. The proper application of these principles only can be achieved best if the concept is understood. This understanding can be acquired through an examination of the requirement for a management concept, an evaluation of the concept, the problems previously associated with its application and a presentation of solutions to these problems resulting in the concept's revision.

Force Management Requirement

The development of an organization as large and complex as the US Army produces a requirement to specialize, delegate authority, and apply the principle of functional differentiation. Specialization and delegation of authority are actions which have been examined elsewhere and are not specifically addressed in this paper. Functional differentiation is an underlying principle of the DFE and is defined as the process of classifying functions according to their separate activities.¹ The Army Organization Act of 1950 acknowledged the importance of functional differentiation when it recognized the twelve basic branches of the Army. These designations with modifications are used still and will be referred to later in this paper to define functions within the revised DFE. Those twelve basic branches are:
(1) Infantry.

(2) Armor (a continuation of the cavalry).

(3) Artillery (a consolidation of the Field Artillery and Coast Artillery Corps).

(4) Corps of Engineers.

(5) Signal Corps.

(6) Adjutant General's Corps (formerly "Department").

(7) Quartermaster Corps.

(8) Finance Corps ("Department").

(9) Ordnance Corps (formerly "Department").

(10) Chemical Corps.

(11) Transportation Corps (not established before by statute).

(12) Military Police Corps (not established before by statute). There were three special branches that were recognized:

(a) Army Medical Service (formerly "Medical Department").

(b) Judge Advocate General's Corps.

(c) Chaplains.

This organizational development provided the Army greater effectiveness and efficiency as it moved toward greater specialization. However, specialization as a cause and as a result of the functional differentiation includes the inference that as diversification increases so does dependence of the separate parts. Furthermore, the more dependent the parts become on each other, the more difficult it becomes to separate them into clear cut categories that define their purpose or function. The whole span of Army
activity cannot be categorically separated into the nominal elements of troop organization; command, combat and service without applying arbitrary classifications to units which have multiple missions, or which do not allocate all of their personnel to one function. The broad categorization, of combat and support, that results in the formulation of a percentage between the number of troops that engage in combat and the number needed to sustain them is achieved based on an often inaccurate description of the way most units function. Nevertheless, to plan a balanced force structure or to analyze the use of manpower resources, some such method is both necessary and useful.

The traditional branch designations were used as a means of analyzing the make-up of the total force during the first world war. Units would be classified as either combat or service according to the definition of their parent branch and without regard for the fact that their actual roles may have been different. There was a vague distinction in the American Expeditionary Force (AEF) between "men in France fighting" and "men in France behind the lines", which constituted most or all of the Services of Supply.  

During the Second World War, the relation between combat and support was more precisely portrayed by the development of a system of the functional categories which permitted each unit to be identified by the tasks it performed rather than by administrative assignment or parent branch. "Combat" the basic category,
was applied to units whose primary mission was the destruction of enemy forces. There were two other groupings in the combat zone; "combat support" consisting of those units furnishing direct operational assistance to the combat forces and "combat service support" which provided battlefield logistical support. The service support which operated the rear establishment of the theater in the communication zone was the fourth group. The remainder of the Army was separated among three self-explanatory classes: training, overhead and miscellaneous. The lack of agreed upon definition of combat and the three support categories affected the conclusions concerning the composition of the Army. The amount of "support" required to sustain a given amount of "combat" lacked creditability because different measures were applied at different times. This problem has proved troublesome particularly when comparing Armies of various nations throughout history. Thus depending on how units are characterized, the ratio of combat to support has varied considerably.

There is no unique method of distinguishing between combat and support. Generalizations based upon ratios are valid only to the degree permitted by the computational methods used. After the First World War several books were written concerning the number of men needed behind the lines for each unit of fighting troops. One of them, Tomorrow's War: Its Planning, Management, and Cost, outlined detailed calculations of the weight of equipment and ammunition required for each kilometer of an Army's front. It concluded
from this evidence that modern war was beyond the capability of even the most highly industrialized nations. The conclusion was incorrect but the general argument that the more mechanized the warfare, the smaller the ratio of front line troops to supporting manpower was sound.

As the size of the support element grew, it became more specialized and its members required technical skills that paralleled those of society as a whole. These service tasks have direct civilian equivalents; such as engineers, machine maintenance specialists, health service experts and others. Their increasing requirement in the armed services would have to be satisfied by supplanting military tasks that could be accomplished only in uniform such as shooting and patrolling. The following table illustrates how the "purely" military specialties have decreased from over 90% of the Union Army in the Civil War to 30% of the Army at the end of the Korean Conflict:

<table>
<thead>
<tr>
<th>Occupation of Enlisted Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Occupation</td>
</tr>
<tr>
<td>Military Occupation</td>
</tr>
<tr>
<td>Technical &amp; Scientific</td>
</tr>
<tr>
<td>Administrative &amp; Clerical</td>
</tr>
<tr>
<td>Mechanics &amp; Repairmen</td>
</tr>
<tr>
<td>Craftsmen</td>
</tr>
<tr>
<td>Service Workers</td>
</tr>
<tr>
<td>Operators &amp; Laborers</td>
</tr>
</tbody>
</table>
These figures are not derived from identical sources but they do indicate with reasonable accuracy the Army's configuration during the past 100-years.

The specialties included in this rising proportion of Army strength was similar to those that existed in civilian life, but nevertheless had to be adapted to Army needs. Men could be trained to serve and operate the machinery of speed and mobility that brought firepower to bear, however, the problem remained to integrate the new techniques of warfare into principles of tactics and strategy. As the functional differentiation of manpower increased, the interdependence of all elements of Army on one another also became greater and the idea of a balanced force became paramount.

The logistical planning documents of the European Theater of Operations in 1944 referred to the division slice concept for the first time. It was used to express the numerical relationship between the total theater strength and the number of divisions supported and was determined by dividing the theater strength by the number of divisions present. This arithmetical calculation identified the combined strength of a division and its proportionate share, or slice, of corps, field army, and communication zone troops. At the end of July 1944, 772,389 Army Troops (excluding air forces) were on the European continent and the division slice for that theater was calculated at close to 43,000. Planning for the European campaign determined that a division
slice requirement of 40,000 was necessary and this was divided into 15,000 in the division, 15,000 in the corps and Army troops and 10,000 in the communication zone. The actual size of the slice varied around this planning estimate and while this is important it is to be noted that the concept at this time was used more as a means of planning theater logistic requirements than for planning and allocating troop strengths.  

The division slice provided staff planners with an incremental factor for making the first of a series of increasingly accurate logistical requirement estimates. The basic assumption incorporated into the concept was that when an additional division was introduced into a theater it would bring with it a body of men larger than the division. Some of these would come in units directly associated with the support of the division, while others would serve the needs of all or more than one division. Regardless of their roles, they could be logically grouped together for purposes of determining the overall requirements for equipping and maintaining the division slice. A level of 650 tons a day of all classes of supplies was established for each division slice of the 12th Army Group; the total tonnage required would be computed by multiplying the slice figure by the number of divisions. In the European Theater where the division count rose to 61, the value of the slice was apparent. In theaters that had no division, such as the China-Burma-India theater, the division slice concept was not relevant and supply requirements were computed based on
the units in the troop list. 6

From logistical planning to force planning seemed a short step for if tonnage requirements could be established from it, it seemed reasonable that a similar estimate could be made of the need for troops, either in total numbers or by branch categories. The use of the division slice concept was extended to force planning at the end of World War II. After the Korean Conflict, it was used and misused as a tracking device for measuring the amount of support required by a division either in current planning or in analyzing past operations.

As an instrument of force planning, the division slice became part of official Army doctrine in the Staff Officers Field Manual on "Organization, Technical and Logistical Data". Troop planning slices were displayed as preliminary estimates of the total size of a force "in order to determine the final composition and ultimate size of the force." The planning slice of the European Theater of Operations (ETO) of 40,000 was accepted as a standard figure and was allocated by placing 17,000 in the division, 13,000 in the corps and Army troops of which 5,500 were combat and 7,500 support, r d 10,000 in the communication zone. When the 20,000 forces per division in the zone of interior were added to the theater slice of 40,000 it produced a worldwide slice of 60,000. 7

The total force of the division slice was broken down by percentages allocated the arms and service and is shown on the following page:
Percent of Theater Slice by Branch & Grouping

<table>
<thead>
<tr>
<th>Branch</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat Division</td>
<td>42.5%</td>
</tr>
<tr>
<td>HQ Units, Admin &amp; Intel Services</td>
<td>3.3</td>
</tr>
<tr>
<td>Armored Cavalry</td>
<td>2.4</td>
</tr>
<tr>
<td>Artillery</td>
<td>8.5</td>
</tr>
<tr>
<td>Chemical</td>
<td>11.1</td>
</tr>
<tr>
<td>Engineer</td>
<td>9.7</td>
</tr>
<tr>
<td>Military Police</td>
<td>1.2%</td>
</tr>
<tr>
<td>Medical</td>
<td>6.4</td>
</tr>
<tr>
<td>Ordnance</td>
<td>4.8</td>
</tr>
<tr>
<td>Signal</td>
<td>3.5</td>
</tr>
<tr>
<td>Transportation</td>
<td>6.2</td>
</tr>
<tr>
<td>Replacements</td>
<td>3.8</td>
</tr>
</tbody>
</table>

These figures are derived from Army experienced in ETO. 8

While the actual slices in both world wars turned out to be a good deal larger than anticipated, they differed by only one thousand five hundred. This small difference was questioned together with the idea that World War II divisions required more support. However, the size of the divisions in the two wars differed. The authorized strength of an infantry division in 1945 was 14,037, less than half of that of the 28,105 division of 1918. Considering the strength of a World War II infantry division with that of a 10,670 man armored division, it can be concluded that for the same number of men in three divisions in 1918, five could have been created in 1945. Fifty-seven WW I divisions were equivalent in personnel of ninety to ninety-five WW II divisions. Twenty-five percent of the divisions sent to France in WW I could not be sustained as combat units due to lack of sufficient support. Applied to the figure of ninety odd WW II division equivalents, this factor reduces it to between sixty-seven and seventy. For comparison, sixty-eight WW I divisions equivalent in personnel
strength to WW II divisions were organized in the field. The WW I slice would thus be 54,500 or 11,000 less than that of WW II. WW II slice was sufficient since eighty-nine divisions were capable of sustained combat. A dozen divisions of the AEF were converted to depot or replacement divisions which indicates the inadequacy of the slice. However, allied needs in the spring of 1918, rather than US Army doctrine or plans, determined the schedule and the priorities under which troops and units were deployed to France.

The division slice permits numerical comparisons such as these but hardly reveals the complexity of the process of force structuring. To understand this process fully, something must be known of the geography, strategy, politics, and history of the theater of employment. These factors significantly affect the size and composition of the support requirement.

No changes were made to the notion of a division slice during the Korean conflict. The Army at the end of that conflict consisted of twenty divisions and eighteen separate regiments or regimental combat teams. Thirteen divisions and regimental formations were deployed overseas while the remainder were located in CONUS. The Army strength declined substantially between June 1953 and June 1956. By 1959 the authorized troop level was 870,000; a decrease from 1,500,000 at the height of the Korean conflict.

The world-wide division slice during this period indicates how the decreasing size of end strength forced a proportional
reduction in the number of divisions in order to approximate the slice of 60,000 which was the established planning guide in 1953. This was raised in 1961 to 63,250 as shown below.\(^{11}\)

<table>
<thead>
<tr>
<th>AS OF 30 JUNE</th>
<th>TOTAL STRENGTH</th>
<th>NO. OF DIVISIONS</th>
<th>DIVISION SLICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>593,167</td>
<td>10</td>
<td>59,000</td>
</tr>
<tr>
<td>1951</td>
<td>1,531,596</td>
<td>18</td>
<td>85,000</td>
</tr>
<tr>
<td>1952</td>
<td>1,596,419</td>
<td>20</td>
<td>80,000</td>
</tr>
<tr>
<td>1953</td>
<td>1,533,815</td>
<td>20</td>
<td>77,000</td>
</tr>
<tr>
<td>1954</td>
<td>1,404,598</td>
<td>19</td>
<td>74,000</td>
</tr>
<tr>
<td>1955</td>
<td>1,109,296</td>
<td>20</td>
<td>55,000</td>
</tr>
<tr>
<td>1956</td>
<td>1,025,776</td>
<td>18</td>
<td>57,000</td>
</tr>
<tr>
<td>1957</td>
<td>997,994</td>
<td>18</td>
<td>55,000</td>
</tr>
<tr>
<td>1958</td>
<td>898,925</td>
<td>15</td>
<td>60,000</td>
</tr>
<tr>
<td>1959</td>
<td>861,964</td>
<td>15</td>
<td>57,000</td>
</tr>
<tr>
<td>1960</td>
<td>873,078</td>
<td>14</td>
<td>62,000</td>
</tr>
<tr>
<td>1961</td>
<td>857,934</td>
<td>14</td>
<td>61,000</td>
</tr>
</tbody>
</table>

Doctrinal changes were also taking place during this period. Prior to the Korean Conflict, the Army force structuring had been directed towards total war and mobilization of large ground forces. The limited war in Korea emphasized the need for containment of aggression on a smaller scale and in an area of lesser strategic importance. While these changes were advocated by Generals' Ridgway and Taylor, they were ignored at other government levels. Within the budgetary restrictions and manpower ceilings established by the administration, the Army sought to develop flexibility in its
planning doctrine and force organization that would enable it to meet the full spectrum of possible military challenges. The division slice was inadequate as a measure of force, size, and structure. A new method was required for explaining to the public of how the Army allocated its manpower. A method had to be developed that would be responsive to meet the requirements of unspecified and unpredictable emergencies. The Army needed a means to anticipate and explain force composition as a planning factor and a method of analysis.

The method was slow to develop. Its origins are lost although the desire to replace the division slice was probably the starting point.

The division force definition as a useful concept originated during 1961 and 1962. In part, it grew out of its limited use as a force planning tool within the Strategic Army Corps (STRAC). Equally important was the development in the systems analysis approach to National Security introduced by Secretary of Defense Robert S. McNamara. Unlike the "identified" division force of the STRAC, the division force as a "program package" was not intended to fight in actual battle. It was a means of examining the composite of units employed as an entity to accomplish the division's mission of sustained land or at. As a measure of performance, cost, and military worth, it provided a factor for appraising the strength of the Army total force, for estimating the effect of changes in that strength, and for planning mobilization of
additional strength from the Reserve Components. From its inception the DFE considered all components. Thus, a definition of the concept evolved between mid 1961 and mid 1962 as the Army simultaneously expanded to meet the threat of the Berlin Crisis.

The Berlin Crisis resulted in an increase in the size of the Army from 875,000 to 1,081,000. Two National Guard divisions were activated and before the end of the year 16 Active Army Divisions had been organized. Throughout this period, the Army had to demonstrate to the Secretary of Defense, that it was utilizing its manpower in the best possible manner. In September 1961 Secretary McNamara fixed the Army end strength for FY 1963 at 929,000. The Army considered this figure too low, but to persuade a change the Army would have to demonstrate that a greater end strength would be cost effective. Secretary of the Army, Cyrus R. Vance, in a proposal for an Army end strength of 1,055,700 submitted on 1 November 1961 the division force as a concept of analysis. Mr. Vance stated that Army divisions included only those elements required in the performance of their primary combat mission. Specialized combat and support units to augment divisions in specific situations were pooled at higher echelons in order to retain maximum efficiency and flexibility on the utilization of resources. The additional units would contribute to the make-up of a division force--"a division plus the pro-rata portion of the nondivisional combat and support units within the larger force of which the division is a part". 

13

14
This definition did not specify whether all the "nondivisional combat and support units within the larger force" would be included in the computation of the division force or whether it would include only those that contributed directly to battlefield operations. The distinction is important, for unless the scope of the nondivisional units was limited in some way, the division force definition would not differ from that of the division slice. The term, division slice, which was obtained by dividing the number of active Army divisions into the active Army strength was used in the same manner as theater slice which refers to a portion of a theater of operations from the front lines to the beach or the division's share of the total troop population of the theater. On 15 November, Secretary McNamara stated that the authorized strength for FY 1969 would be 960,000 and from within that size the Army would maintain 16 divisions. The Army had to achieve not only sixteen divisions but, in fact, packages of divisions and their support within an active duty strength of 960,000.

The division force then emerged as the "basic major unit of US ground combat power." The division force is defined as a division plus an appropriately balanced combination of nondivisional combat and supporting units designed for employment in the theater of operations in wartime. The division force thus excludes elements present in the theater for purposes other than participation in wartime combat operations or their immediate
support, such as military assistance advisory groups and missions or peacetime garrison support. It was to be an absolute unit of combat power. Elements of the Army within a theater that did not contribute to either combat or its direct support would be excluded from the division force. Division forces would vary in size and composition, depending on their missions, the nature of the conflict and theater of operations. The list of units combined to form the forces would be influenced by experience and military judgement, tempered by the impact of new weapons and tactics as well as resource limitations. A type division force could not be defined. Many units in the theater would support more than one, perhaps all, of the divisions so that a particular support unit could not be said to "belong" to any one division force except as a fractional share of the theater pool. The concept of the division force is that it is "the basic major unit of US ground power which would carry only the weight of those elements that could be justified by the requirements of the theater alone." 

The next step was to generalize the concept of the theater division force into a descriptive term that would apply to the Army as a whole. Secretary Vance wanted a method to deal on a systematic basis with the question of the strength of the Army. He suggested to Chief of Staff General George C. Decker, on 6 August 1962, that the most effective procedure would be to separate the function of the Army into components, the first and
"most important" of which would be "Division Forces". The other categories of the Secretary's scheme were subsequently refined, but the controlling idea to isolate the activities of the Army into functional groupings that would indicate their relation to the primary one, the division forces was retained. The revised arrangement was approved and published on 13 August 1962.19

The DFE was approved in early 1965 and was used for force planning by personnel in Office of Assistant Chief of Staff for Force Development. It, like the Land Force Classification System, (LFCS)20 was derived from the building block method of structuring the force as used in the Army Force Development Plans published in 1964 and 1965. The LFCS defined the division forces account as that which includes the division and all combat, combat support and combat service support that is required within a theater to conduct combat operations. The DFE was the method of controlling the LFCS division forces account. In the development of manpower programs, the availability criteria and the distribution of supporting units among the active, reserve and unmanned components, required that the division force be divided into three increments; the Division, the Initial Support Increment (ISI) and the Sustaining Support Increment (SSI). The ISI is an aggregation of units required initially to support the combat operations of the division, while the SSI is an aggregation of additional units required to support combat operations of the division for an indefinite period. The DFE was adopted enthusiastically by OSD
as the means of better managing the Army as it eliminated the problem of constant deliberation by OSD and Army senior staff over the size and composition of divisions.

**DFE Problems**

Dividing DFE's into increments recognizes that certain functions and units may be deferred from entry into theater for some period after the initiation of combat or alert state. This forms the reasonable basis for determining that some increments of a force may be at a lesser state of readiness (some units in the Reserve Components and unmanned units) than other parts of the force. In allocating resources it is necessary to identify what units are in the DFE increments so that the unit can be structured in the correct component and given a priority of resources. Theoretically this is ideal, practically it is difficult to accomplish.

The criteria for defining ISI and SSI have been conflicting, particularly the underlying idea of delaying SSI units yet also defining what units will be in the ISI in more detail. The ISI and SSI have necessarily included units required to support higher headquarters and the time phasing of these units is not related necessarily to the time phasing of the division and its support. Furthermore, the conditions for dividing supporting units into ISI and SSI were assumed erroneously by the layman to be applicable worldwide. However, analysis indicates there are three general cases requiring breakouts of units in ISI and SSI. These cases
exist when:

1. Forces are deployed forward in peacetime with certain units accompanying and other deferred until conflict begins or an alert state is established.

2. Forces are planned for deployment to a hostile area or reinforcement of an ally unable to provide initial support.

3. Forces reinforce an existing force whether US or ally capable of providing initial support.

The delineation between ISI and SSI had to be specifically tailored for each situation. This was particularly true because the Secretary of Defense directed in 1966 that the Active Army divisions would be employed in combat in South East Asia without a call-up of the Reserve Components (RC). This policy was already incorporated in Army planning in that the Army Force Development Plan 1967-1986, (AFD 67-86) stated that the Active Army forces of Army Objective Force are structured to include an initial support increment (ISI) for all divisions and a sustaining support increment (SSI) for all divisions except three NATO-oriented STRAF divisions and three of the new divisions. The RC forces did include six SSI for active divisions. The document continues, "This is a change from previous structuring guidance in which units for the sustaining support increments for the active Army division forces were provided by the Reserve Components."

Periodically adjustments to the force were recommended. The AFDP 69-89 recommended several deletions of unnecessary structure
and the transfer of some units from the division forces account to the Special Mission Account of the Land Forces Classification System to refine the troop list according to the definitions of the LFCS accounts and unit missions.

The concept has provided a useful method of counting the division forces, however, it proved difficult to use for force mobilization. The terms ISI and SSI were dropped in favor of Support Increment (SI) in early 1974. The name change solved no problems and in fact the term SI was less discriminatory than ISI and SSI terms. The SI still contained combat units which confused the uninitiated. A need existed to display clearly the Army forces.

Solution to DFE Problems through a Conceptual Revision

A solution to the DFE problems begins with the redefining of the elements of the DFE. The DFE is the notional portrayal of a typical division and the non-divisional combat, administrative and logistical support deployed in theater to sustain the division in combat. The division remains the basic combat unit and in subdividing the DFE the division stands by itself. The division increment is augmented by a non-divisional combat increment and both these increments receive support from units in the tactical support increment. A better understanding of these changes can be realized through a discussion of principles relating to force development.

The dynamics of theater requirements cause the size of the
force to change constantly, nevertheless the requirement exists to establish a standard planning factor to facilitate overall force planning. This factor will probably be larger than the actual division force size required in combat because the standard force will contain redundancy in units to satisfy the requirement for multi-mission, multi-area capabilities. Commitment of a particular force to a specific theater requires the placing of redundant units in an excess category. However, the planning factor need not be subject to constant change due to force structure variations resulting from doctrinal modifications or technological improvements. It is better to maintain the size of the division force and require an increase in capability. These capability increases can be achieved at a little or no extra cost by improving standard division forces. The standard planning factor disciplines the planning system in that the total number of structure spaces available for division forces is determined by multiplying the number of authorized divisions by the DFE factor. The resulting total structure is then divided among the active, Reserve Components, and unmanned categories according to readiness objectives. Thus, the factor limits the aggregated amount of structure that could be used to support a combat division. The factor also provides a common bond between the desires of the Joint Chiefs as expressed in the Joint Strategic Objectives Plan (JSOP), the approved force as reflected in the accepted program submission, and the authorized forces as it is outlined in the Five Year Defense Plan (FYDP).
Within the force established by the factor and derived from the approved force, one method of determining the required sizing and the separation is to use the Troop Program Sequence Number (TPSN) method as outlined in AR 18-19. The TPSN is a seven position numerical code consisting of five basic positions and if required a two position numerical element sequence (ELSEQ). The TPSN is used to group units by function and size in sequence. For TOE and TDA units the TPSN consists of five basic positions which group organizations first by category, then TOE, branch, and then by type and size. The categorization used to size the force is concerned with the first position code which groups units, activities, and personnel according to their primary mission; as, first position 0 applies to divisions; first position 1 applies to brigades, commands, and regiments; first position 2 includes all nondivisional units organized to perform a tactical combat mission; and first position 3 or above will include all support, both support to combat and supporting forces. Therefore, all units in the division increment will be designated by TPSN first position 0; nondivisional combat increment TPSN first position 1 or 2 and tactical support increment 3 or above.

The next step is to identify the specialization found in the force. This can be accomplished by using the Unit Classification system to stratify the units of the force into 13 categories according to their precise functions within a particular system. Within the systems approach, units that contribute to a specific
output are placed with other units engaged in providing the same output regardless of what they do. For example, the unit classification series 41XX through 46XX to Stratify Command and Control (Signal) includes maneuver brigade headquarters, division headquarters, support command headquarters, corps signal battalions, and military police units supporting Army and Corps.

The systems approach provides the advantage of being able to establish a framework to measure input and output by grouping the units that act together to produce meaningful outputs. This is significant in the optimizing the combat to support ratios. Additionally, units whose support requirement and capabilities are adequately quantified can be programmed correctly. The proper relationship between units requiring support and those satisfying the requirement can be established. The result is the achievement of the elusive "balanced force."

The following display provides an example of a typical DFE of the total force.
The revised DFE by battalion count appears as:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>DIVISION INCREMENT</th>
<th>NON-DIVISIONAL COMBAT INCREMENT</th>
<th>TACTICAL SUPPORT INCREMENT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infantry</td>
<td>7</td>
<td>2**</td>
<td>-</td>
</tr>
<tr>
<td>Armor/Cavalry</td>
<td>4</td>
<td>2**</td>
<td>-</td>
</tr>
<tr>
<td>Field Artillery</td>
<td>4</td>
<td>5**</td>
<td>-</td>
</tr>
<tr>
<td>Air Defense Artillery</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Engineer</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Intelligence</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Command/Control (Signal)</td>
<td>1</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Supply</td>
<td>1</td>
<td>1**</td>
<td>7</td>
</tr>
<tr>
<td>Maintenance</td>
<td>1</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Transportation</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Medical</td>
<td>1</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Administration</td>
<td>1</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Aerial Assault</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>**TOTAL</td>
<td>22</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>(16,000)***</td>
<td>(12,000)***</td>
<td>(20,000)***</td>
</tr>
</tbody>
</table>

* The Battalion equivalents in the tactical support increment aggregated structure spaces in the particular unit classification by the ALO structure strength of the divisional battalion.

** Some of these units may constitute a separate brigade.

*** Structure spaces.
This display together with an abbreviated description of its development was contained in the Army FY 77-81 Program Objectives Memorandum. Prior to POM submission the revision was briefed to the Assistant Secretary of Defense (Manpower and Reserve Affairs) and was accepted by him as a reasonable manner in which to structure the Army's division forces.

The immediate advantages of this revision are that the combat structure of the division increment and the non-divisional combat increment are displayed distinctly and separate from the forces in the tactical support increment. The revision displays the RC brigade and battalion affiliation by aggregating in the non-divisional combat increments the RC brigades and battalions in a notional manner on the basis of on-divisional combat increment per division.

The Defense Planning and Programming Category (DPPC) coding system is, of necessity, replacing the LFCS as the method of describing and accounting for Army forces. During this conversion the DFE concept continues to apply to those units and structure spaces found in the General Purpose Forces, Land Forces, Division Force Category of the DPPC. The concept bridges the gap as the Army transitions between systems.

In association with the Total Force Analysis (TFA), the revised DFE concept serves to control the size of the force. The TFA, by design, develops total force requirements based on doctrinal roundout. The doctrinal roundout for forces structured
for an indefinite combat period in a fully developed theater of operations requires a DFE larger than 48,000. The DFE concept compels the force planner to examine carefully each proponent's claim and recognize only the necessary requirements. These investigations promote the movement toward achieving the balanced force.

The DFE concept will continue to serve the force planner who not only understands its application but is willing to apply its principles professionally toward the achievement of the balanced force.


7. FM 101-10 (Aug 1949, pp. 99-120, Division Slice as planning factor first approved in Draft FM 101-10 (Sep 1946 & Sep 1947).

8. I.B.I.D.


10. I.B.I.D.


13. Appraisal of the 1961 Army Build-up, 22 Jan 1962, prepared by Coord Group, OCS.


18. IBID.

19. Memo, Sec Army for CUSA, undated (delivered on 6 Aug 1962, no subject; Memo, CUSA for Sec Army, 7 Aug 1962, Sub: Data on Army Strength.


Selected Bibliography


   (An excellent source of information on support requirements.)


   (Comprehensive audit of the evolutionary development of Division Force Equivalent.)

6. US Department of the Army, Office of the Chief of Military History, Memorandum For: Chief, War Plans Division, ODCSOPS, Subject: Historical Service Support, 26 June 1964 with inclosures.

   (Provides a 1951 monograph on the Division Slice and its use in comparing US and Soviet Division. It also contains information about 1961 Reorganization of Army Divisions and a Historical Resume of Division Force Structuring, Active and Reserve 1953-1963.)

7. The author is indebted to the unpublished writings of COL John Brinkerhoff (USA, ret), *The Unified Land Forces Planning System*, compiled in 1969.

   (This compilation is an excellent guide to force structuring and provides background relative to the land forces classification system and the DFE.)