ECONOMY OF FORCE: A TOTAL ARMY,
THE ISRAEL DEFENSE FORCE MODEL

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Economy of Force: A Total Army, The Israel Defense Model (U)

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ECONOMY OF FORCE: A TOTAL ARMY, THE ISRAEL DEFENSE FORCE MODEL

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FOREWORD

There are a number of "citizen" armies around the world, yet none receive so much attention as the Israel Defense Force (IDF) ground component. This spotlight not only reflects the intensity of the five wars it has fought in its 54 year history, but also its absolute reliance on its reserve forces and "hand me down" equipment.

The U.S. Army, over its 217 year history, has used other armies as models. During the War for Independence, the Continental Army copied Great Britain's forces. At the end of the Napoleonic wars, study of the French army was the accepted practice until the Franco-Prussian War, when the Prussian army became a model for the U.S. Army. After World War II it became in vogue to marvel at the German Wehrmacht, especially its campaigns in the East against the former Soviet Union.

The author of this report uses the IDF as a model in much the same way the U.S. Army has traditionally examined foreign armies. He describes the force and hones in on the significant aspects such as its force structure and mix, officer corps and equipment. Having examined the model he rejects what may not be transferrable and then lists what his examination has revealed as relevant to today's post-cold war U.S. Army. For each of the diverse yet relevant aspects, the author shows how one might superimpose them on U. S. ground forces and even touches on the significance of the Joint lessons the IDF offers.

With the increasing pressure on the defense budget and growing domestic problems such as drugs, crime and declining industrial base, it may be the time to use new models to break old paradigms.

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The paper you are about to read was written as a result of a number of factors. The first was an intellectual curiosity about an armed force, the Israel Defense Force (IDF), that everyone mentions when discussing the Middle East and modern desert warfare, yet knows very little about when asked about its infrastructure and how it functions. One of the most intriguing characteristics is the reserve which comprises 82.6 percent of its total strength. The second was the U.S. cold war victory which has brought about defense budget cuts that will become even deeper as the 21st century approaches. Lastly, its writing is influenced by the current downsizing of the post-war U.S. Army coupled with the first major reserve call-up since the announcement of the Total Force policy. Both of these events have resurfaced the debate about the proper mix of active and reserve forces.

After examining the IDF, its structure, force mix, weapons, officer corps, women's corps and missions, the conclusion reached is that some aspects of this force could serve as a model for the post-cold war U.S. Army. These aspects are:

- Acceptance and practice of a Total Army concept.
- Flow-through system (active to reserve service).
- Enlisted Service required prior to commissioning.
- National Service.
- Significant equipment modernization through modification.
- Peacetime missions that are domestic nation building in nature.
- Joint organizational structure of the IDF.
- Youthful senior officer leadership.
• Brigade as the basic building block of the Army's force structure.

The list is diverse, but all of the topics have varying degrees of relevance for today's U.S. Army. The problem may not be the topics themselves, but as one Army War College faculty member remarked, "How do we get there from here?" That question probably can best be answered by the senior leadership of the Army, some of whom, like General Frederick M. Franks, Jr., Commander, Training and Doctrine Command, have already begun to lay the foundations.²
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A TOTAL ARMY, THE ISRAEL DEFENSE FORCE MODEL

Introduction.

In seeking to survive as a credible deterrent force in the wake of cold war demobilization, U.S. Army senior leaders may find in the Israel Defense Force (IDF), or Tzava Haganah L’Yisrael, a model of an army which has always operated in an economy of force environment. With this force Israel has rapidly mobilized and always won its wars. A significant reason for both economy of force and for success lies in its reserve. A reserve one might add, that has the capability to rapidly mobilize and, without post-mobilization training, achieve success in combat. The U.S. Army does not require activation of hardly any of its Reserve Components (RC) in the approximately 24 hours the IDF requires, but as the Active Component (AC) becomes smaller, it would seem to require an increase in the missions and mobilization readiness of its RC. Part of the solution to the U.S. Army’s challenge of downsizing at the end of the cold war while retaining an adequate force to accomplish anticipated missions is a new approach to force structure and mix, manning and equipping, and peacetime missions by using selected aspects of the IDF model for the restructuring that needs to take place.

Unlike the U.S. RC, the citizen-soldiers of the IDF are not a "reserve," but very much a part of an integrated total force structure. Because of the integration, regular or Permanent Service (Keva) officers and noncommissioned officers (NCOs) know intimately their reserve forces (Miluimm) because they understand the IDF is a reserve army. The IDF reserve soldier may or may not be issued the latest equipment available. But regardless, many Miluimm units enter combat alongside Keva units. The Miluimm soldier’s number of days on active duty varies a great deal because it depends on the political climate of the region. Yet the type of active duty does not necessarily
equate to training in traditional combat skills because the service may be riot control in Gaza or patrolling the northern border. Even so, the amount of time required each year as a minimum by law in a peacetime environment, 45 days, is close to the 39 drill days of the U.S. Army's RC. Therefore, is it not possible for the U.S. Army's RC to shorten its post-mobilization training time and deploy as part of a contingency force?

The IDF has a number of peacetime missions that make it invaluable to the nation, so much so that if peace were to finally arrive in the Middle East, the IDF would continue to have the full support of the government and the people. From the early beginnings of the nation the IDF has been the vehicle to assimilate very diverse groups of immigrants from all over the globe. The IDF is also responsible for a paramilitary youth scouting organization, and even has a program to take youth gang leaders out of the slums to educate and train them with the expectation that they will return to their homes as positive role models. For the ultra-religious minority there are a host of alternative national service programs ranging from teaching in new towns to hospital work. The Army is also the national educational institution, not only training Israeli youth, but encouraging all ranks to pursue civilian educations, rewarding its soldiers with additional pay for university degrees. Finally, it has been instrumental in the construction of frontier settlements and other environmental projects such as reforestation.

In the Beginning.

In the history of modern warfare there has never been a citizen army that has mobilized as rapidly and fought as effectively as the IDF. The reason is obvious. Few countries in the world face the constant threat to their national security and are at such a geographic disadvantage as the state of Israel. The IDF is unique among the modern armies of the world because, unlike other armed forces, it has developed under the constant pressure of a state of war with its neighbors. Except for some British influence and Swiss force structure and mix adaptation, the IDF evolved on its own. Israel's armed forces created strategic and tactical doctrine as they evolved
through one conflict and then another. From force structure and weapons systems to basic soldier skills, the Israelis have learned through trial and error what is necessary to survive on a modern battlefield. This evolution began in the 1948-49 War for Independence and has continued to the present. In 1949, when the armistice was signed ending Israel’s first war, Chief of Staff Yigal Yadin and his staff were charged by then Prime Minister David Ben Gurion with the task of building a defense establishment capable of providing the means of survival against overwhelming odds. The parameters were clearly defined by a society many of whose members had learned by oppression to distrust standing armies, an economy that would never be able to afford the size armed forces necessary to absolutely guarantee national survival, and a small population from which to draw its manpower. One European nation’s armed forces, Switzerland, appeared to fit the new government’s requirements.

Yadin and other members of the new IDF spent several months in Switzerland studying that country’s citizen army. It became apparent that this tiny nation’s armed forces could serve as a model to suit Israel’s security needs. The Swiss Army, they found, was composed of a small cadre of regular forces primarily responsible for training, long-range planning, and maintenance of a “massive civilian army supported by large qualities (sic) of armor, artillery, air force, etc.” Active service in the Army was mandatory and so was reserve duty. For Israeli purposes the Swiss model required some adaptation, but it was a workable solution for a country whose cultural past, population size, and small economy would not tolerate a large standing army. Yadin proposed a small Permanent Service (Keva) cadre of primarily officers and NCOs; a Compulsory Service (Hova), called National Service by many Israelis, composed of conscripts, both men and women; and a large body of immediately available reserve units and individuals (Miluiim) that would include all soldiers who had completed their initial service obligation.

The nation’s leadership included, in addition to national security, another mission which looms in importance and justifies the force even in peacetime. This second mission is
"national development," that is molding successive waves of immigrants into citizens of the state, most recently the massive immigration of Jews from the former Soviet Union. Prime Minister Ben Gurion, when in office, described the IDF role as a "formidable part in integrating the different immigrant groups . . . ." into the society and as a " . . . great instrument for education . . . ." Even if the Middle East was at peace, Israel would "still continue to depend on the dynamic represented today by the IDF to fulfill a vast assignment of national development."5

The Organization of the IDF.

Prime Minister Ben Gurion approved the creation of a single General Staff (Hamateh Hakial) for all the armed services, Army, Air Force, and Navy. The results were, in some ways, similar to the U.S. Joint Staff (see Figure 1). The Army (Zahal) as the primary service, is commanded by the Chief of Staff (Ra'Mat'KaI), a Lieutenant General, who functions in a role like the U.S. Chairman of the Joint Chiefs in wartime. In peacetime the Navy (Heyl Hayam) and Air Force (Heyl Havir) are controlled by their respective commanders. In war these commanders are General Staff officers who report to the Chief of Staff. The General Staff currently has five branches, each commanded by a Major General: Operations, Quartermaster (Logistics), Manpower (Personnel), Intelligence, and Planning.

The Operations Branch is commanded by the Deputy Chief of Staff, who also is responsible for Research and Development, Training and Doctrine and the Senior Service School. The Manpower (Personnel) Branch is currently divided into six separate commands: Personnel Automated Data Processing Systems, Civil Engineers, Military Police, Civilian Education, and Youth Scouting or GADNA (a Hebrew acronym for Youth Battalions, but more commonly called "Bow and Arrow" for its insignia). The Women's Corps, Heyl Nashim or CHEN (Charm in English) is commanded by a female brigadier general. The Intelligence Branch, although commanded by combat arms Major General who is rotated in and out of the position, has a staff headed by a permanent career intelligence officer. The Quartermaster, or Logistic Branch, controls two
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Figure 1.
subordinate sections, Maintenance and Supply. The Planning Branch conducts strategic, long-range planning.

Also reporting directly to the Chief of Staff are a number of Commands: Communications Command, Civil Defense, the NAHAL or Fighting Pioneer Youth (Noar Halutz Lochaim), and the Ground Forces Command, a training, and tactical doctrine command with the following subordinate commands: Armor, Infantry and Paratroops (to include Commandos or what the United States would now call Special Operations Forces), Artillery, and Combat Engineers (Engineers are also responsible for chemical warfare as they were initially in the U.S. World War I army). These subordinate Ground Force commands organize and train individuals prior to their deployment to one of the territorial commands. They also have a strong say in weapons development and procurement. The NAHAL, an organization that is reminiscent of the early American frontier militia system, provides a combination of military and agricultural training for youth who maintain settlement security while farming the land. Soldiers in NAHAL are also used as a mechanized infantry brigade reinforcement pool to the territorial commands. In addition to these organizations, five functional commands report directly to the Chief of Staff: Judge Advocate General, Supreme Military Court, Medical, Women's Corps, and Chaplains.

Israel is divided into three IDF territorial commands, Northern, Central, and Southern. Their commanders report directly to the Chief of Staff and they function in some ways similar to the U.S. regional Commanders-in-Chief (CINC). These commands provide the administrative and operational framework for the IDF. Each has a Major General commanding and deputy staff officers responsible for operations, training, and supply. Within the boundaries of each territorial command, both Miluimm and Keva officers command divisions and brigades. The territorial commanders are specifically responsible for the defense organization of that particular geographic area including the administration, training and mobilization of the reserve forces. An important aspect, and one that reflects the total force nature of the IDF, is that Miluimm and Keva units (with Hova personnel) and soldiers of
all ranks are intermixed and interchangeable within each command.6

An Integrated Force.

Given this force structure, the most critical and unique aspect of the IDF is the *Miluimm*, which is "its most important operational component rather than just being an appendage to the regular force." Driven by economy of resources in dollars and manpower, the IDF developed an immediately deployable reserve which today comprises 82.6 percent (494,000) of its total military strength of 598,000. The regular force numbers 104,000, of which 88,000 are compulsory service soldiers. These are stunning figures and percentages when one considers the threat and the small margin between victory or defeat for a nation the size of New Jersey.7

No other modern army can duplicate the factors that influence and mold the IDF. Certainly culturally, politically, economically, and geographically the country has little in common with America except for being a democracy and sharing many Western cultural traits. Also, the imminent possibility and nearness of the threat posed by the likes of brutal dictators Saddam Hussein and Hafez al-Asad have never been duplicated in the Western hemisphere. However, some elements in the nature of the IDF may provide a U.S. peacetime army facing significant troop reductions and budget cuts, ideas to improve the mobilization and combat readiness of its Total Army force structure, keep its technological edge, maintain end strength, and become an decisive force in revitalizing the society it serves.

The IDF, as an institution, has a very positive attitude toward its reserve. Obviously, with the bulk of the force being citizen-soldiers, the emphasis has to be there. Part of the IDF emphasis is the reliance on the integration of its components to mold an affordable deterrent force. The IDF’s mix of *Keva*, *Hova*, and *Miluimm* individuals and units within the force structure is a major ingredient for the success of the force in combat. The assignment of *Keva* soldiers to reserve units is accepted as the norm and does not affect career progression.
or signal a terminal assignment as is many times the case in the U.S. Army. In fact the IDF Keva officer's assignment to reserve units may even enhance advancement. Keva officers can be assigned down to battalion level in staff positions in reserve units. This cadre appears to be placed in IDF reserve units with no particular motive other than finding the best officer for the assignment. The element of stability, experience, and knowledge of full time manning personnel is one factor that influences battlefield results for Miluimm units. However, Miluimm officers who show promise can and do command at brigade and division level as well as serve in staff positions and offices throughout the Keva.

**Hova, the IDF Manpower Pool.**

Since national survival depends on the IDF, military service is a significant part of the life of an Israeli. As a consequence, there is an effort to prepare young people for their eventual national service. A majority of Israeli boys and girls at the age of 14 join the GADNA, a paramilitary organization. Early in its history the emphasis of this organization was on small arms training; today it is on physical fitness and sports. However, the purpose is not so much military training, but rather, in addition to physical fitness and outdoor living, it instills in youth a knowledge of the nature of the nation's "special security situation." In one sense, it is citizenship education to an extreme degree bordering on indoctrination, preparing youth to face Israel's political realities and giving meaning to service in the Hova.8

The IDF's manpower pool for the Keva and Miluimm is the Hova, compulsory or national service. From these ranks flow men and women into the Keva and Miluimm. Every Israeli citizen is required to perform military service or an alternative. A nationwide announcement is made every month by birth date for those youth who have reached their 18th birthday. About 92 percent of all males and 60 percent of all females are inducted. The lower percentage for women can be attributed to the exemptions offered: marriage or engagement, religion, and less than 8 years of formal schooling.9 In addition, the mental and physical standards are higher for females than for
their male counterparts. Standard exemptions for religion, conscientious objections, or physical disabilities are given to males although the latter must be extreme and many young people with handicaps still serve in the public sector. One of the most commonly used exemptions is for religion. A very large number of young men of military age are ultra-orthodox Jews attending Yeshiva (religious school). This exemption is a source of contention among secular Jews and is a serious weakness in sharing the military burden in National Service. Non-Jewish citizens, Druze, Christians, and Circassians also have a service obligation. Israeli Arabs are exempted. A small number of Bedouin and Christian Arabs volunteer for military service. The standard service is 3 years for men and 20 months for females. There are nonmilitary options for religious women who wish to serve and there are also special arrangements for those youth attending Yeshiva. The Yeshiva youth are offered a 5-year enlistment which allows school attendance during military service. Open to high school graduates, the inductees are given a 1-year deferment and enrolled in one of 15 special religious schools called "yeshivot hesder." The youth serve two 1-year periods in the army and two 1-year periods at their studies. When their Hova service is completed, they finish their reserve service with no special privileges.10

The new Hova recruits are all sent to Ba'K'UM, the Hebrew acronym for the "Absorption and Assortment Base." Prior to arrival, while still civilians, all conscripts have undergone their initial extensive medical and psychiatric examinations, and batteries of intelligence and aptitude testing. Level of civilian education, Hebrew language ability and personal preferences are also considered. Conscripts are then separated into 14 classifications. However, a review of all the human factors will continue until the new soldier is settled in his or her unit.

Basic training in the IDF is required of everyone, even those earmarked for the Navy or Air Force. The training has so many different tracks that it appears to an outsider that it is tailored to each individual who enters the IDF. The only exemptions for some parts of the demanding combat training under extremely harsh conditions are given to those individuals with very low physical or mental standards. These conscripts will be allowed
to take less demanding and short duration courses prior to being assigned to noncombat specialties. Training dropouts are recycled until they complete the course assigned. There is no waste of any resources, especially human.

Very little time in any of the training schedules is devoted to drill and ceremony. The emphasis is on combat survival skills with large blocks of instruction given to weapons qualification and physical fitness. The IDF conducts much of its training in the field and with live fire whenever possible. The purpose of making training as realistic as possible is because the vast majority of recruits will enter the Miluimm. The IDF, therefore, needs to make the citizen-soldiers' transition from peace to war less traumatic so that they will immediately adjust to the noise and confusion of battle. As for military discipline, it is based on a philosophy of "group consciousness" what Yigal Allon called "internal":

The education for discipline should be oriented towards the activation of conscious and good will. The more the fighter will identify with the mission of the army as a whole and the task of his unit in particular, the stronger and more sincere his discipline will be... The importance of the formal framework [of discipline] should not be dismissed, but woe to the army which has to rely on this exclusively.11

Inductees, if qualified, have the opportunity to select specialties. A number of special qualification jobs exist in the Intelligence corps. Many recruits attempt to join elite units like the paratroops. Any of these voluntary career options extend the Hova service obligation because of the additional training and the cost of the investment in that individual. Officer candidacy, for example, requires one additional year of active service. Those who wish to volunteer for elite units or officer training can only do so if they are in the upper six levels on the classification scale.

The Officer Corps.

No individual can become an officer in the IDF without having trained and served in the Hova as an enlisted soldier. There are no military academies; their creation would have
been unacceptable for the "egalitarian ethos of Israeli life" for such schooling has "connotations of social inequality." However, as modern war and weapons became more sophisticated there was a need to increase the number of college educated officers, especially in the technical branches (in the U.S. Army, Combat Service Support [CSS]). As a consequence an Academic Reserve Program was created.

This program for officer candidates is similar to the Reserve Officer Training Corps in the United States. A deferment is granted for enrollees who continue their university educations. They train during their summer vacations as recruits in basic training and then Squad Commanders' course. After these courses they receive additional officer orientation training and military schooling which emphasize their specialty. The objective of the program is to specifically increase the number of college educated professionals, for example, doctors, attorneys, lawyers, and engineers in the Keva and Miluimm. Upon completion, their total obligation on active duty is extended to 5 years. Unlike the U.S. Army policy, as is the case for medical doctors for example, these specialists are not promoted with minimum time in grade. In fact, the privilege of below the zone promotions is reserved exclusively for combat arms officers.

The only other source of commissioning in the IDF is through the ranks by a careful screening of Hova soldiers that begins at induction. Each soldier is subjected to extensive batteries of tests to determine his or her talents and leadership qualities. Those with the highest motivation and intelligence are usually placed in combat units and programmed for leadership training in all branches of the service. After basic training, those Hova soldiers who by testing, observation, motivation, and desire indicate officer potential are selected for further training. They enter a rigorous program with no guarantee of a commission. There is additional schooling in the branch of service, decided again by batteries of tests, interviews, personal preferences, and needs of the IDF. In a reversal of U.S. Army training schedules in general, those Hova soldiers selected for the combat arms have a lengthier basic training period than those destined for noncombat arms.
specialties. Those potential officer candidates selected for the CSS branches attend schooling in their specialty while their combat arms counterparts are sent directly to units which become their parent unit of assignment (an association similar, in practice, to the defunct U.S. Regimental System). After 5 months all soldiers are evaluated for leadership potential. This evaluation also includes test scores from their initial screening. About 50 percent pass on to the Junior Commanders’ Courses (NCOs) in their respective branches. The courses are rigorous and stressful, and are conducted primarily under field conditions. Interestingly, many instructors are Hova soldiers themselves, many of whom are female, and not Keva. Aside from field training and rotation of command positions, the junior commanders attend classroom seminars to learn about the psychological elements of leadership and command.\textsuperscript{14}

From the ranks of the junior commanders, the final selection for officer candidates is made after even more evaluation. Those who fall by the wayside remain in leadership positions as NCOs. The survivors who become officers reap the benefits from the 2 years or so of enlisted training and experience. This means that later officer training can be focused more on cognitive skills resolving both tactical and leadership problems than on individual basic combat survival skills. Most of the course is conducted in the field and much of it appears similar to the rotation of command responsibility during U.S. Ranger training to develop problem solving and leadership skills. What appears significant is the reliance on a “follow me” type of leadership to an extreme degree. Thus "knowing that he will be able to 'pull' his men after him by being the first to advance, the officer can choose daring tactical solutions which he might otherwise have had to reject." The goal is to instill in the officer intellectual and leadership skills to motivate reluctant soldiers in combat by personal example. This has always been the idealized goal of the IDF from its very beginning.\textsuperscript{15}

In an army that is primarily officer led with NCOs playing a secondary role in day-to-day administration and combat, it is interesting to note that the total officer corps is less than 10 percent of the IDF and in combat units only 6 percent. The IDF sees "regular service primarily as preparation for the extended
reserve service...." However, the cadre nature of this reserve army is reflected in the higher number, 14 percent, of officers in the Keva.16

Perhaps the single most identifiable feature of the IDF officer corps is the youthfulness of its officers, primarily in the Keva. As it became a more professional army after 1967, some attention was given to how to maintain innovative, vigorous, and aggressive leadership. One solution was to grant leave to officers so they could obtain university degrees during their service and not prior to commissioning so that the intellectual stimulation of nonmilitary subjects would generate new thinking upon their return to duty. While many armies bemoan the loss of competent, experienced leaders, the IDF believes that a constant turnover brings new thoughts and a greater willingness to try new concepts when focusing on problems and changing situations. Thus another solution for maintaining an open forum for new ideas was to retire its most senior, and therefore most successful officers early with half pay. It is not so much that new leadership always has new ideas, but that the IDF's "collective capacity to absorb rapid change without disruption derives from the open-mindedness of its young officer corps." In the IDF the senior officers propose innovative changes rather than being the group that traditionally takes a more conservative approach. British Army historian and theorist Major General J.F.C. Fuller, in his short monograph Generalship, Its Diseases and their Cure, would applaud the IDF's recognition of the inherent pitfalls of maintaining an older general officer corps.17

The Keva.

The Permanent Service, or Keva, the IDF's regulars, are only a small fraction of this reserve army. The Keva numbers about 16,000 officers and enlisted soldiers, but is composed primarily of the former. This end strength is the same as the U.S. Regular Army out of a force totaling 8 million in 1945. Its members do not relate to the term careerism given to the U.S. Active Component. Rather, the officers and NCOs see themselves as being motivated primarily by a desire to serve the nation. Currently, many are drawn to the regular
establishment by such things as "its importance, the inherent authority, and the challenge" and not by factors such as promotion and benefits, even though those are significant. For example, Keva officers' pay scale is one of the highest in the nation and the fringe benefits extensive. Yet, on the other hand, the family living conditions, separation, constant danger and the individual's feeling of personal responsibility for national survival are a heavy burden. For officers especially, the time consumed by their jobs even in peacetime is significant and expected as the norm. However, there is a saying in the IDF about office lights burning all night giving the impression of working late, but without anything being accomplished, a practice that can be likened to a U.S. Army tradition.18

Once a new soldier arrives at a Keva unit, yet another screening, as intensive as the entrance evaluation, takes place. Army psychologists are assigned to each unit. They help commanders assign individuals to specialties within the unit and also with the mix of personalities to make up efficient subordinate units. The IDF found, for example, that units composed of exclusively "high achievers" do not necessarily guarantee a more dynamic organization. As a direct result, the goal is to bring together a diverse group to form a section, squad or platoon. The psychologists also oversee peer evaluations. Questionnaires are given to soldiers asking them who in their unit would make a good squad or section leader. Likewise, NCOs are asked which one among them would make a good officer.19

Like the United Negro College Fund slogan, "A mind is a terrible thing to waste," the IDF makes every attempt to gain the maximum potential from every soldier. In most armies undereducated inductees or those lacking basic skills are placed in menial specialties. This is not so in the IDF. These soldiers are singled out in order to "raise their performance levels and capabilities through education." At a minimum, no soldier is released from Hova service until they have at least obtained an elementary school education. This insures that the society will maintain an educated work force pool.20

While the decision to remain on active duty is left to the individual, many receive strong encouragement from their
commanders. The process is very selective and, as a consequence, there is a constant shortage of officers and NCOs. One analysis has noted that in the aftermath of the controversial war in Lebanon, some concern was raised within the IDF "that not necessarily the cream of the crop has chosen to remain on active duty." Those that turn down the opportunity to serve in the Keva, however, cite most often the "enormous stress" they have already experienced in training and the unwillingness to expose themselves to such a demanding career, and not political reasons.\textsuperscript{21}

Implicit in a career in the Keva is the acceptance of the mission to insure the combat readiness of the reserve. This mission includes providing the support structure for the Hova and Miluimm. The Keva, like the U.S. Army AC, is responsible for long-range planning, training and preparation for combat, research and development, and the distribution and maintenance of all materiel. In addition to senior and key operational command positions, all installations and service schools are commanded by Keva officers. Also the Keva contains a great many officer and NCO technical specialists. Since much reserve unit equipment is becoming more sophisticated and must be ready at a moment’s notice, there is a significant need for full-time personnel to provide constant maintenance, repair and supply stockage. Then too, many active duty personnel man the research and development agencies as well as staff positions for planning and all the other functions that need full time attention in any army.

The Miluimm.

An estimated 90 percent of all officers leave the Hova at the end of their required additional 12 months and are assigned to Miluimm units. Because there are Keva junior officer shortages, mainly due to the extremely high standards that are not waived under any circumstance, many of these Permanent Service officers do not have the opportunity to attend the Company Commanders’ Course. As a result, the vast majority of officers in attendance are Miluimm. While training and education continues for Miluimm officers, promotions are slower and, as in any small armed forces, few rise above the
rank of major. It is not, therefore, both a patriotic and second career as in the U.S. RC, but rather an obligation required by citizenship. Beyond service in a unit, some Miluimnicks (reservists) are also part of the IDF pretrained individual manpower pool. As the U.S Army has on occasion, for example, placed U.S. Army Reserve (USAR) Civil Affairs soldiers on Temporary Tours of Active Duty (TTAD) for OPERATIONS URGENT FURY and JUST CAUSE, the IDF will ask for volunteers in specific areas to return to active duty. The IDF also has individual reservists assigned to headquarters and a variety of other organizations who are similar to those who serve in the USAR’s Individual Mobilization Augmentation (IMA) program. All of these assignments are coordinated by a very sophisticated single personnel command system that tracks and maintains the records of all individuals, Hova, Keva, and Miluimm, serving in the IDF.  

Since continued service in the reserve is so much an integral part of the nation’s defense, the 11 months between Hova and the Miluimm is jokingly called "leave." In the Miluimm, men are eligible for mobilization until age 55 and childless women until age 34 although the latter are rarely, if ever, called to active duty. Each reservist is liable by law to be called up for 45 days annually plus time for other training. This additional time is usually one day a month or 3 days every 3 months for enlisted soldiers or 7 days for officers at the discretion of the local brigade commander. This duty may be to relieve a Keva unit or familiarize with a new weapon. At the age of 39 for men and 29 for women, the annual requirement is dropped to 14 days a year for enlisted soldiers while officers and noncommissioned officers can serve an additional 21 days per year. The Minister of Defense has broad discretionary powers to call reservists to active duty for longer periods than stated. However, Miluimnicks do on occasion remind the Minister, through letters, that since a state of war does not exist, their requirement to remain on active duty is not essential for national survival and, having served their required 45 days, they should be released from active duty. At age 45 Miluimm soldiers (officers are strongly encouraged) can join a local defense unit (Haganah Merchavim). Combat unit membership
is restricted to enlisted soldiers under the age of 45 although many, in times of crisis, will voluntarily rejoin their old units.  

Reservists are usually assigned to a unit near their homes in a position to match their military occupational skill. The IDF, through its automated, centralized personnel system, exercises close watch over military skills. If a soldier has a civilian skill that matches a military specialty, the individual is certain to be placed in that specialty when conscripted. If it is likely a certain specialty will be "under strength" in the Miluimm, the IDF will "over strength" it in the active force. The Israelis believe that it is not efficient to change a soldier's specialty once he has acquired the skills on active duty. There are exceptions, but in practice soldiers maintain their initial specialties throughout their service.

According to the International Institute for Strategic Studies, the Miluimm not only provides most of the total IDF end strength, but "the reserve corps forms the bulk of the combat forces of the IDF." According to the Institute's estimates, approximately 65 percent of the IDF's combat units are in the Miluimm. This can be compared to slightly over 50 percent combat units in the U.S. Army's RC. Armor, Artillery and special units are concentrated in only a few locations and necessitate some commuting for training days and mobilization. Each unit has its own armory. Training might be conducted at the armory or at special training centers. Other periods of active duty may find the Miluimm unit relieving a Keva unit on border patrol or performing internal security patrols or familiarizing on a new weapon. Unlike the Swiss system, Miluimm soldiers do not keep their personal weapons at home. Unit equipment is never switched between individuals or crews who perform their own maintenance when training. Since many armories are local, the Miluimnickss live in the same neighborhood and know one another. There is an obvious civilian tone to the Miluimm units and a familiarity not common within the Keva. However, officers at all levels, and all components, know their men personally.

Miluimm soldiers are mobilized in one of three ways. Annual training periods are announced by mail with a 6 week advance notice. For emergency mobilization notification, the radio,
press, and movie theaters are used; each unit has a special call sign. Unit commanders, who are notified by higher headquarters by messenger or telephone, activate teams of soldiers who speed through neighborhoods with alert rosters until the lowest private is notified. As noted previously, armor, artillery, and special or elite unit members are not concentrated in one geographic area and their notification is more difficult. Soldiers, upon receiving notification, report to their units and draw equipment. Some Miluimm unit mobilizations can take place as quickly as 24 hours. Mobilization is one aspect of the IDF's planning that has always worked, even in the confusion of the 1973 Yom Kippur War.26

Unlike the volunteer U.S. Army Selected Reservists, those immediately available for a presidential call-up, the Miluimnick is only paid what amounts to "pocket money." By continuously amended legislation, the Defense Service Law, a reservist receives full wages from his employer. The government compensates self-employed reservists. There is no retirement pay. Although the number of active duty days for training has varied over the years, the most recent being 35 days for enlisted and 42 days for officers until the age of 35, reserve duty can total as many as 60 days a year excluding periods of war.27

The Miluimm unit serves as an extended family and also takes on the characteristics of a traditional regimental system. In other words one might spend an entire military service in one brigade among people the soldier has known for the entire period of service, since there is an effort to assign Miluimnicks to units near their homes. This reduces mobilization time, makes these units extremely cohesive, and also breaks down the formality of military service. Officers, even senior in rank, are known by their first names and there is little saluting. Then too, employers in civilian life may be commanded by one of their employees. However, the relaxed nature of the relationships in no way detracts from the combat readiness of the reserve units.

Even though the IDF is predominantly a reserve establishment, most of its senior officers are in the Keva. Most, but not all, division commanders are Keva while the staffs are
integrated with Miluimm and Keva personnel. Brigade commands within a division are mixed and their staffs integrated. The "rule of thumb," however, is that "reserve officers command reserve units." As in the U.S. RC, Miluimm officers, especially battalion and brigade commanders and their staffs, spend additional hours of their civilian time performing military duties. While many hours are spent at the unit armory or checking subordinate unit training or dealing with higher headquarters, the bulk of the time is usually spent dealing with individual soldiers' problems. The use of Keva as cadre in Miluimm formations seems to be the norm; however, their role appears administrative, training and maintenance oriented, allowing the Miluimm to make good use of training time.²⁸

To support the Miluimm, there are a number of programs. Some service school instructors are also assigned as cadre to Miluimm formations. These soldiers link up with their reserve unit during training periods. Other Keva and Hova personnel are responsible for administration within the Miluimm. For example, a Miluimm brigade has a Keva liaison officer who, with a small staff, functions as personnel manager and maintains contacts with the unit's citizen-soldiers. The liaison officer has a direct line to the battalion commanders and also has counterparts in brigade subordinate units. One of this officer's and the battalion counterpart's most important tasks is as "address-hunting operator[s]." Teams of soldiers regularly hunt through neighborhoods verifying the addresses and phone numbers of unit members. This must be done by face-to-face contact to guarantee the validity of alert roster information. In a way, this procedure is similar to the functions of the Individual Ready Reserve (IRR) Screening program mandated by the U.S. Congress for the U.S. armed services. These teams are also used for clandestine mobilizations.²⁹ The mobilization of Keva personnel with the units they support is the implementation of the Active Guard/Reserve concept in the U.S. Army. The full time manning personnel's expertise is of value in combat and adds to the efficiency of the unit. To relieve the administrative burden on units, each Miluimm brigade has a cadre of Keva and Hova soldiers for day-to-day operations.³⁰
Women in the IDF.

The issue of women in the armed forces of the United States was once again brought to the fore during OPERATION DESERT STORM. The problem of limited manpower pool has always faced the IDF and became more pronounced when the army was expanded as a consequence of the 1973 war. The manpower problem is expected to become more pronounced in the U.S. Army as the number of military age males falls in the near term. As a consequence, it is useful to briefly explore the role of women in the IDF. Also IDF women are more involved in peacetime missions than their male counterparts in the Hova.

As indicated earlier, women serve in the Hova for 20 months as compared to their male counterparts service of 3 years. Also their Miluimm obligation is limited and they are not normally found in Miluimm units. For this reason they have been barred from certain specialties since the train-up time for those jobs was not worth the return. Shortages of manpower have changed this and opened many areas once reserved for males, especially in the Miluimm. Female soldiers, unlike those in the U.S. Army, by Israeli law, do not go with their unit of assignment when it displaces from garrison to combat except for those in "certain sensitive positions."[3]

A number of women merely accept their 20 months and complete their required service. Another group that wants to serve Israel, but cannot do so in the military because of religious beliefs, performs a "nonmilitary" duty that benefits the society. These women, from Orthodox Jewish families, join what amounts to a "teacher corps." They are trained by the IDF as teacher aids. Their assignments are to the families of working class school age children. These "soldiers" are responsible for seeing that the children understand and complete their significant load of school homework. Additionally, to handle the huge influx of Jews leaving the former Soviet Union, 500 female soldiers attended a crash 3 month course learning how to teach Hebrew to the new arrivals in "absorption centers."[32]
Those women who desire more than a teaching or secretarial position in the IDF undergo the same intense screening process as their male counterparts. A heavy concentration of women looking for more challenging assignments is in the area of training. According to the commander of CHEN, Brigadier General Hedva Almog, "if you were to tell Ground Forces Command to remove the great number of women instructors they have and return to using just men, they wouldn't be able to." For example, there is a highly trained group of female instructors at the Ground Forces Armor school. These women attend an instructor course learning to strip, assemble, and fire all organic weapons and pull maintenance on the tanks in the IDF inventory. In classrooms and on the ranges women instructors apply a firm hand, teaching basic trainees how to maintain and operate weapons and supporting systems found in IDF tanks, including the Merkava Mark III. Brigadier General Almog is also seeking positions filled by men for which women could qualify and fill. She discovered a very high turnover rate of operations officers in units deployed on the northern border. As a consequence she had the IDF send qualified women to a course for operations officers. This extended their service requirement for one year, but it eliminated the lack of continuity in operational planning along a very active border.  

IDF female officers face a problem similar to the U.S. Army in having limited senior positions for women. Only in the past few years have training options been expanded for women who wish to become officers. Now, in addition to the basic officers' course, there is the possibility of attending a course for female staff officers. However good the intentions of the leadership, they have yet to open additional positions in maneuver units for women. The current ratio for men advancing from major to lieutenant colonel is 1:1.5, yet for women it is 1:4. At the rank of lieutenant colonel, promotion to colonel is even more pronounced at 1:4 for men and 1:25 for women. As in the U.S. Army, those female officers in the "technological corps" stand a much better chance for promotion. This does not dampen the willingness to try to advance, and in "field units" there are 10 applicants for every available position.
It appears that only in the Miluimm do women have an opportunity to enter nontraditional roles held by men in the Keva; hence the willingness of women to volunteer for the reserves even though, unlike their male counterparts, they rarely are called to serve beyond their Hova tour. Brigadier General Almog believes there are capable female officers who could assume a host of positions within combat units. The Keva usually insists, for example, that brigade adjutants (S-1) and logistics officers (S-4) should come through the ranks (combat command positions, etc.). However, some women have become Miluimm brigade adjutants and a rare few "assistant to a reserve divisional adjutant."35

Force Structure and Mix.

Although the specifics are classified, it may be possible to break down the force structure and mix by using a variety of open sources. The basic combat maneuver formation in the IDF is the brigade. There are three types of brigades: armor, infantry (several of the latter have dual capabilities i.e. mechanized and paratroop), and artillery. Divisions exist and are similar to any other nation's formations when conducting operations; however, in the IDF they are, in practice, brigade group headquarters. These headquarters function when an operation requires more than one brigade and the division is organized for the task at hand. Therefore, there are no permanently assigned brigades to a specific division. Three armored division equivalents are in the Keva. They contain two armor and one artillery brigade. Upon mobilization each is fleshed out with one mechanized infantry brigade. The Miluimm contains nine armored division equivalents composed of from two to three armored brigades. They also have one each artillery and mechanized infantry brigade. About 25 percent of the armor brigades are at full manning level and at least one, perhaps more, are at half strength and the balance are at cadre manning level. The Keva mechanized infantry is formed into five brigades. One brigade is trained as paratroopers, one provides troop support for the NCO school, and a third is the NAHAL. Of the mechanized infantry brigades, about half are manned at half strength and the balance are at half strength.
cadre level. The one mechanized infantry division in the Miluimm has three airmobile/parachute brigades in an arrangement that appears somewhat similar to the now deactivated U.S. 8th Infantry Division (Mechanized) in the 1960s, when the 1st Brigade was composed of two mechanized battalions of the 509th Airborne Infantry. Two parachute brigades are at full complement, one at half and the balance, at least three, are at cadre level. There are three full-strength Keva artillery battalions (203mm M-110 Self-propelled) and one Lance battalion. According to recent news accounts, the IDF has at least 2 operational Patriot missile batteries at full strength. Most, but not all, of the artillery brigades, including those in the divisions, about 16 in all, are at cadre strength. There are ten cadre Miluimm regional infantry brigades assigned specific border sectors commanded by the three regional headquarters, North, Central, and South. Additionally, 2 Corps headquarters exist, but here too, as with the division headquarters in the force structure, they have no permanently assigned units.36

Because of the need to have equipment ready for immediate use and because of modern weapon sophistication, another cadre exists within each Miluimm unit; this cadre is formed by a number of Keva and Hova soldiers who are the day-to-day "maintenance, repair and supply specialists." The physical arrangements in which these full time personnel operate appear to be similar to the U.S. Army's Mobilization and Training Sites/Equipment Concentration Sites (MATES/ECS) and Area Maintenance Support Activities (AMSA). The most significant difference is that the Keva personnel mobilize and support a specific unit during wartime. The number of personnel available is unknown and it is difficult to even speculate at the level involved throughout the IDF. Israeli reserve soldiers take great pride in the fact that during any given inspection an officer can point to a vehicle and the operator can start it immediately. It is to the credit of this full time manning system that the Israelis in the 1973 Yom Kippur War had the ability "to have substantial elements of four reserve divisions fighting actively on both fronts within 30 hours of the surprise Arab offense and is proof of the general
efficiency of the system, and of its overwhelming success in this instance.\textsuperscript{37}

**Equipment.**

As with the success of the U.S. forces in the war with Iraq, much of the IDF’s victories can be attributed to “modern” equipment. A number of unique aspects contribute to the equipping of Israel’s armed forces. Again, the road taken by the IDF is based on the two constants that necessitate the need for a reserve army, tight funding and small manpower pool. In a sense, the Israelis have practiced New England thrift and made it a fine art. Old Yankees never throw anything away and everything in the IDF inventory is used and repaired until it cannot be used for its original purpose or any other. Why else would the IDF still have in its inventory, reported by the International Institute for Strategic Studies, 4,400 U.S. World War II M2/3 half track armored personnel carriers? As late as the 1973 War, the IDF was sending into battle World War II Super Shermans with modified 105mm guns.\textsuperscript{38}

The IDF also fields 1,080 British Centurion World War II tanks that have been upgraded over the years. The most notable changes are a modern engine, an American automatic transmission and a 105mm gun. About 550 Korean War era U.S. M-48A5 are also in the IDF inventory. These have been so modified to actually be M-60s under the armor, the Israelis replacing the 90mm gun with a 105mm version, adding a fire control system and an air cooled diesel engine. Their inventory also includes both 1,000 M-60/A1 and 660 M-60A3s, all modified in some way including the use of reactive armor. But what especially indicates their cost-saving ingenuity is the placing into service of captured Soviet equipment including 488 T-54/55 (350 modified T-67 versions). These modifications include replacing the 100mm gun with a 105mm, a U.S. power train, air conditioning, fire control system (many with night vision devices) and Western European supplied machine guns. Only the World War II German Wehrmacht could equal the IDF in its ability to make effective use of captured weapons, potentially a maintenance and logistic nightmare.\textsuperscript{39}
The Israelis have shown the same resourcefulness when it comes to artillery. In time for the 1973 Yom Kippur War, the Soltam Company placed a U.S. 155mm howitzer on a modified Sherman M-4A3E8 (World War II tank nicknamed "Easy Eight") chassis with a Cummins diesel engine. The result was the L-33, and about 100 currently are in service. Modified U.S. M-109s (M-109AL), about 550, carry a longer barrel increasing the range from 14,600 to 18,000 meters; redesigned elevation and traverse mechanisms and improved torsion bar suspension have also been added. Interior redesign enables the vehicle to carry a larger basic load of ammunition.40

Other weapon systems purchased or captured by the Israelis have also undergone modifications. In addition to the continual improvement of weapon systems, the IDF's research and development branch, in close cooperation with the defense industry, has spawned a number of weapons ranging from the versatile infantry weapon, the Galil, which is used as a rifle, submachine gun and squad light machine gun, to the radically designed and highly sophisticated Merkava main battle tank. The IDF's approach to defense by modification of weapons is complemented by practical engineering efforts to protect the lives of its small manpower pool. For this reason the Merkava became the first Main Battle Tank (MBT) with a front mounted engine and transmission for the purpose of giving added crew protection. There are about 660 Merkava Mark I/II/III MBTs in the IDF inventory. The Merkava Mark III mounts a 120mm gun with three machine guns and a 60mm mortar. It has rifle ports for the nine infantry men it can carry in addition to the crew. Its fire control system has an electronic computer, laser range finder, night vision system, and a stabilized vertical and horizontal line of sight. Additionally, the tank can operate in a chemical environment with its high over-pressure fighting compartment, central filter and crew air conditioning. The Merkava is a remarkable vehicle and an impressive example of a defense industry that has the vision and technical ability to modify a host of purchased and captured equipment while continuing to design and build new weapon systems on a shoestring budget.41
Observations.

The IDF force structure and mix are battle proven. The Israelis have shown that an army with over 80 percent of its total force in its reserve can be molded into an effective fighting force. The Israelis have made such a system work because of the unique political, economic and social pressures placed upon it by history and geography. Their Army's system conserves money, manpower, and time. While the United States will continue to have the luxury of more time to expand its armed forces in the face of a threat, reductions in the size of the Army and the new global environment dictate the need for such an integrated, cost conscious, cost effective force in the future.

It is absolutely essential for the reader to understand that, in general, the two nations, the United States and Israel, are vastly different and that their armies are, as well. However, as indicated previously, there is some value in considering what within the IDF would be useful for a post-cold war U.S. force. Critics of the IDF will say "yes, but look who they have fought." The Israelis have always fought outnumbered, and outgunned. What they possess and hold in common with U.S. forces in the Gulf is superior leadership and a high caliber soldier who serve within the framework of a democratic society's army.

The Parts of the Model That Will Not Fit the U.S. Army.

Obviously the IDF model cannot be superimposed on the U.S. Army. A number of aspects are not only unacceptable to the U.S. Army, but also to the society it represents. Yet, these elements do not detract from those concepts worthy of consideration. After all, this study's purpose is to find ways to build a U.S. deterrent force on decreasing budgets.

It is unlikely, given the current global situation, that the American public would accept peacetime military conscription. The All-Volunteer Total Army, AC and RC, in the public mind, is the only acceptable method to man the force. Even a clear threat like the fall of France in 1940 could not provide rousing support in Congress for a draft, as evidenced by the 1941 extension of the Conscription Act by only one vote.
Many American women could not tolerate the IDF's legal restrictions on placing females anywhere near "the front." Combat units may have CHEN soldiers assigned; however, they are not in combat arms specialties and, with rare exceptions, those assigned to combat units are left in garrison when the unit deploys. Their weapons are for self-defense.

The American public would never tolerate any "scouting" youth organization being administered by the armed forces as a paramilitary, political indoctrination program. The GADNA would not have a chance of acceptance in the United States.

The noncommissioned officer in the U.S. Army has always been the "backbone" of the force. The only exception was during the officer-lead Viet Nam era army, which, all participants would acknowledge, did not function well. Since that time the Army has begun to rebuild the NCO corps to restore it to its traditional level of responsibility. Neither culturally nor on a practical level is an officer-led army without significant NCO participation practical for the U.S. Army.

The Relevant Aspects of the IDF.

There are an number of relevant aspects of the IDF in the general areas of force structure/mix, manning, training, commissioning, peacetime missions, and industrial preparedness that should be examined by the U.S. Army. A critical comparison of these issues may broaden the range of options for enhancing the capability of the U.S. Army in a peacetime environment with dramatic funding and manpower constraints. These alternatives not only may provide for a combat ready downsized army, but also reveal the potential for significant cost savings throughout the Department of Defense. The following areas are not necessarily listed in order of importance, but should be considered:

- Acceptance and practice of a Total Army concept.
- Flow-through system (active to reserve service).
- Enlisted service required prior to commissioning.
- National Service.
• Significant equipment modernization through modification.
• Peacetime missions that are domestic nation building in nature.
• Joint organizational structure of the IDF.
• Youthful senior officer leadership.
• Brigade as the basic building block of the Army's force structure.

Within the context of this study, keeping in mind the differences that separate both societies, their national military strategies and their armed forces, the following narrative considers each of these areas.

Acceptance and Practice of a Total Army Concept. The IDF has never had the U.S. Army's misfortune to be cast aside after a war because the threat to Israel has remained constant. In fact, after the last major war in 1973, "peace" brought a significant expansion of the force. The cost to the small nation has been tremendous. No one could ever suggest that Israel could afford, both financially and in the lost civilian productivity of scarce manpower, a large standing army constantly mobilized for war. Even with U.S. materiel and financial support, this full time readiness state is not attainable.

The solution to the problem was to create an integrated force and, in so doing, an extremely effective combat ready reserve has resulted. Because standards are for one army and the army staff focuses on all aspects of a Total Army, the parts, soldiers and units are interchangeable in battle. The only difference that has to be taken into consideration between the active and reserve components is the matter of hours' difference between arrival times on the battlefield.

The problem for the U.S. Army is how to downsize yet remain a credible deterrent force. The IDF has solved this problem by becoming a reserve army. To compound the U.S. current problem is the box into which the Army is placed in by a citizen-soldier tradition and the specter of Viet Nam. General Creighton Abrams attempted to solve the dilemma during the
demobilization following the war in Viet Nam. He accepted the budget reductions because there was no alternative, but he was very sure that he was not going to allow two things to happen: the progressive disappearance of divisions with no end in sight, and the potential for a lack of public support for a conflict that the Army might be sent to fight in the future. His answer was the 16 division AC structure and, especially, the "Total Force Policy." The planned integration of the RC with the AC solved his two concerns because the 16 divisions required the introduction of the RC roundout concept. These same elements are part of the IDF's strengths. First and foremost, it is a reserve army, which solved the budgetary problems and, second, the use of reserves make it a "citizens'" army.

However, there are problems with the way reserve forces are perceived and utilized by the U.S. Army. Part of the problem is the way the AC perceives these part-time soldiers, compounded by a host of contributing factors such as the lack of experience with, and practical knowledge about, the RC among senior AC officers. There is also a lack of focus on the RC as part of the same army. There has always been a great deal of rhetoric about "One Army," but obviously there is enough friction between the components to indicate that substance has been lacking in the talk about integrating the three components. Why, for example, is there not one standard for training? There are also reserve-unique problems. Can RC large combat formations, brigade and above, be successful in maneuver warfare without significant post-mobilization training? Can the U.S. Army National Guard ever subordinate its political self-interest to recognizing and correcting its internal weaknesses?

Part of the problem for the U.S. Army that is not shared by the IDF is having two reserves, a Federal reserve and a highly politicized National Guard or militia. The IDF has a Federal reserve, but no comparable National Guard. A Federal "home guard" does exist in Israel, but it has no equivalent force in the United States, not even the State Defense Forces of the Governors comes close. The creation of the Federal reserve, the Officer Reserve and Enlisted Reserve Corps, later
consolidated into the Organized Reserve Corps (ORC) by the U.S. Army in 1908, was to overcome the weaknesses of the state militia. The problem that the pre-World War I regulars saw was the distraction caused by state missions, and the inability to enforce one standard across-the-board in training, equipment, and leadership in the militia. The original intent of the Founding Fathers was very clear in defining the role the militia was to play in national defense. The U.S. Constitution describes the militia as a force of last resort available to "... execute the laws of the Union, suppress Insurrection and repel Invasions." Only after legislative changes that were not really finalized until the 1916 National Defense Act and changes in 1920 could the Guard be legally deployed beyond U.S. shores. In fact the entire National Guard was drafted in 1917 to meet the letter of the law. Still, Governors time and again have challenged the Federal control and use of their Guards by the Federal government in the courts as unconstitutional. In essence the militia is an 18th century creation, unwieldy in the 20th, and an anachronism in the 21st century.

The Federal reserve, the USAR, formally the ORC, is a 20th century force more suited to the 21st century than the militia. The USAR not only has units, it has the right units, CS and CSS to marry up with maneuver units of the AC. It has the currently suggested number of separate brigades to be used as roundout. Further, it has the added value of being the only source of pretrained individual manpower. It manages the recently acclaimed IRR (the ARNG does have an IRR but it is composed of individuals within each state in transition who are not centrally managed). The USAR also contains the Individual Mobilization Augmentee program and the Retiree Recall program, both of great value as pretrained manpower pools during OPERATIONS DESERT SHIELD/STORM. It is for its versatility that it lends itself to being part of a contingency ready Federal force.

The IDF model offers a Federal reserve that is held to the same standards as the regular force. Rather than trying to control what amounts to 54 (the number of National Guard Adjutants General) separate armies who answer to a second authority, it would be far easier in a downsized U.S. Army to
restructure itself into a Federal army, AC and USAR, not only for contingency operations, but also for the continental United States (CONUS) force structure including the TDA (Table of Distribution and Allowances) Army. The ARNG could then revert to its intended Constitutional role as a force of last resort for reinforcement and reconstitution. This would certainly please the State Governors for there would be less interference with their Guard units performing state missions. The Guard leadership would be pleased because they then would be able to retain their combat units.

An example of a CONUS-based Federal army is to mold the Training and Doctrine Command (TRADOC) into a fully integrated command. Since a smaller army will require fewer recruits going through initial entry training (IET) and advanced individual training (AIT), why not turn all training over to the USAR Training Divisions who would then be rotated through the few remaining centers for their AT? This would not only save AC slots for combat units, but dollars as well, since not only are all new soldiers trained, but it is done at the same time mobilization training for USAR units is conducted. USAR Forces Schools could also be rotated into TRADOC schools to teach certain short duration Military Occupation Specialty courses. Other, more difficult and lengthy courses would continue to be taught by AC instructors. Since many IDF instructors are Hova and produce quality graduates at the armor school and other ground forces school, why can't the U.S. Army place greater reliance on its expansion-capable Federal reserve force and have it serve a dual role? Of course there would be AC soldiers at all levels as a full-time cadre for scheduling, continuity and the doctrine side of TRADOC, and as in the IDF, it would be, as it is now, primarily AC.

*Flow-through System.* The intended purpose of an IDF Keva is to mold and build a pretrained manpower pool of former regular army soldiers for a reserve of individuals and units. All soldiers entering the Hova, career or reserves, receive the same initial training, education and indoctrination administered by the Keva. Once the training is completed, it is reinforced by active duty with the Keva. This is a simple way to maintain initial
entry standards for training and education. It also breaks down unfamiliarity between the active and reserve components.

While this practice has not always been possible in the U.S. Army because of the greater manpower requirements, it has been more applicable to the USAR than the ARNG, especially in post-war periods following World War I, World War II, Korea, and Viet Nam. A strong argument for a larger active force can be made by the benefits which accrue to the reserve by use of a flow-through system. This system is why the IDF's Keva formations appear to have an abundance of specialties that are over-strength. As indicated above, the reason is to insure that the bulk of the force, the Miluimm, is at full strength and that all positions are filled, to use a U.S. Army term, with Military Occupation Specialty Qualified soldiers who have practiced their skills while on active duty. This process also serves, especially for junior officers, as a weeding out process to insure a quality force as it is done to an extent in the IDF.

Enlisted Service Required Prior to Commissioning. The IDF uses this system for three basic reasons. The society is uncomfortable with a military that is separate and apart from the citizenry, hence there are no military academies. Secondly, the entire process allows the IDF to be extremely selective as to who becomes an officer. The third reason is that officer training is exactly that in the IDF rather than an attempt to teach basic soldier skills and leadership at the same time. Even the Academic Reserve candidates are required to train as enlisted personnel. As any corporate executive or professional will tell you, the best way to learn the business is from the ground up. The IDF NCO corps is not threatened by this advantage for it makes its job easier, allowing the corps to spend more time mentoring soldiers rather than breaking in a constant succession of unseasoned, inexperienced second lieutenants.

National Service. There is no doubt that Israelis consider service to the nation as a requirement of citizenship. As noted, almost every youth, male or female, serves in some capacity: those with religious restrictions, those with low intelligence test scores, and those without formal education. It can be best described as a give and take national service. Individuals in the Hova are required to take civilian education classes. The
minimum standard is an elementary school education and no soldier is released from active duty unless that soldier has obtained a certificate of completion. This guarantees that the population maintains a high literacy rate which, in turn, insures an informed citizenry and a more productive work force. The IDF also provides vocational training in trades that have a military application. This training not only insures the army has soldiers with necessary skills, it also is a boon to the nation’s employers.

In a study prepared for the U.S. Department of Labor, Workforce 2000: Work and Workers For the 21st Century, the trends for type of work and the workforce required are diametrically opposed. The trends indicate a increasingly poorer educated and trained workforce. Yet the greatest growth will be in jobs that require the “highest education and skill levels”: professional, technical, and sales. In all but one category, service occupations, jobs will demand more than a median education level. In a declining military age population, blacks and hispanics are projected to increase as a percentage of that population, the very minority groups trapped in poverty and in under-funded, crime and drug ridden urban school districts. For the United States, with the forecast of such a workforce crisis, National Service would act as a safety net to catch those for whom the public school system has failed.44

The focus or first priority of the Israeli National Service model is military training and service. Since the IDF active force is a conscript force, Americans would reject the model hands down. However, with adaptation, the concept of National Service could have a strong appeal to the general population with additional features such as a new Civilian Conservation Corps (CCC). The program would be the responsibility of any number of existing Federal executive departments, perhaps Education, Labor, or Interior. Initially, it could be voluntary for both males and females. As with the CCC, the Army’s role would be to administer the initial orientation phase, developing hygiene, physical fitness, literacy, citizenship education, confidence building, and leadership skills, and conducting testing and evaluation. At the end of the orientation the participants would move to camps administered by the Army,
primarily former and active military installations. They could select one out of a number of programs to complete their 2-year service. Some examples could be tutoring and teaching especially in the Headstart or adult literacy programs. Others could work in communities removing trash, and constructing playgrounds and urban parks. The criteria for these options is the one the California Conservation Corps uses: a nonprofit agency or community project that is needed but would not be completed because no public money is available. Communities or agencies pay for the materials and an hourly rate for labor. This makes the Corps partially self-funded. Labor unions have no problem with the arrangement because of the criteria. Members of the Corps can be mobilized by the Governor for natural disaster relief work like during the February 1992 flooding in California.45

The California model, like the IDF model, offers opportunities to learn a trade or obtain a high school equivalency diploma. Since California treats the enrollees as government employees, the youth are eligible for medical treatment. There are some youngsters who have yet, in their late teens, to see a doctor or dentist. The same preventive medical care given to members of the California program could apply to a Federal National Service program.

Those individuals who express an interest in military service and qualify both physically and mentally would enter the first available Initial Entry Training cycle of the armed service of their choice. This option would retain the current educational incentives available today. The program could then retain the voluntary nature and quality of the armed services. The individual would go on to complete his 2 years' active service with 6 years' service in the RC.

National Service could also become the vehicle for a melting pot for American immigrants. Learning the language of their adopted country will help the children of immigrants enter the mainstream of society, opening up greater opportunities for advancement when coupled with job training.

National Service in Israel is also citizenship education. Traditional values of American society such as those listed in
the Bill of Rights can be instilled in youth to insure the perpetuation of a democracy in a multicultural society. The very nature of the program implies commitment and dedication to the nation. What better way to bring a diverse society together? The bonding of men who were drafted and served in the eight million man Army in World War II was a very cohesive element of society for decades. National Service would provide that same cohesive cement for a society which lacks the ties that once bound it together.

Significant Equipment Modernization Through Modification. While the U.S. Army and other services have always upgraded equipment and weapons with modifications, the intent was to see the equipment through to the next generation, which during the cold war was usually just around the corner. This is not the driving force behind the IDF’s upgrades of equipment. The decision is a measure of the lengths to which the IDF goes to economize scarce defense dollars. One might add, this is the reason the Israelis have been so successful with their home grown defense industry. The prime example is the Merkava, designed and built to improve upon the MBTs captured or purchased, most of which were designed for primary service on the plains of Central Europe.

The point that can be made is that by thinking, researching, and developing ways to improve upon equipment in the inventory and then putting into production these modifications, the IDF keeps the industrial base warm. One of the greatest industrial mobilization problems facing the United States is keeping the small subcontractors, who are usually one of a kind, in business. Extensive modifications to existing equipment and weapons systems can accomplish this and also keep research and development active with future system designs.46

One of the most significant examples of the Israeli defense industry’s “Yankee thrift” is a 155mm howitzer for a self-propelled artillery piece. The IDF first used the chassis of a World War II U.S. Sherman M4A3E8, the G.I.’s “Easy Eight,” to mount a domestic 155mm howitzer barrel. An improved version of the 155mm howitzer, the M72, was developed several years later. However, this time it was designed within
a self-contained turret that, with some modification, can be placed on almost any contemporary MBT or an older U.S. M48 or British Centurion. This was further improved by developing a longer barrel which extended the range an additional 3,000 meters.47

One of the most striking examples of this "economy of force" is the over 4,000 World War II U.S. M2/3 half tracks still in the inventory, many of which were purchased from scrapyards all over Western Europe after the conflict. If it were not for the fact that these vehicles have seen service in every Middle East War and that the Israelis place such a high value on protection for their soldiers, one could dismiss the number as merely giving the illusion of strength. Not so. The IDF has needed a troop carrier for the local terrain and has not been able to replace these U.S. museum pieces because of tight defense budgets. Obviously a great degree of modification has been made and these upgrades have apparently been sufficient to meet the requirements of modern war 50 years after the vehicles were first used in combat. Now that's economy of force.

All of these modifications, one can be certain, have added to the technical expertise of the Israeli defense industry. Without having the specific details, one can also assume that these changes continued to be incorporated into the design and building of new weapons systems such as the Merkava Mark III. What this implies for a downsized, tight procurement budgeted U.S. Army is greater attention to how exactly equipment and weapons in the current inventory can be continuously upgraded for the foreseeable future. It also means that research and development must take into consideration the need to not only extend the longevity of materiel, but also allow the design to be such that enhancements can be added indefinitely. This will not completely solve the age old problem of wartime requirements for a rapid industrial surge and long-term industrial mobilization, but it would be of comfort to know that such planning is being conducted.

There is one other area of IDF mobilization which should be addressed. As with our Civilian Reserve Aircraft (CRAF)
program, the IDF has available on mobilization all civilian aircraft. However, mobilization means all means of transportation. Reservists driving commercial vehicles report with them, from “low boys” to bakery trucks and buses. Camouflage "paint" for civilian vehicles is mud. While it is difficult to imagine under any circumstances short of invasion that this would be necessary in the United States, it appears that, as a cost saving measure, the Army should be more attuned to purchasing vehicles and other equipment off the shelf rather than the more expensive exclusive military specification requirements. Like the modernization modifications, civilian vehicles purchased for military use could be designed by their manufacturers for the addition of a military modification package.

Peacetime Missions That Are Domestic Nation Building. As Prime Minister Ben Gurion stated, even in peace the IDF has a place in the life of the nation. In the United States the Army has historically always held a similar place, although recently the cold war era was a lengthy departure from that norm. Have current military leaders, who served only in this threat oriented era, become so focused upon warrior missions and exclusive readiness for warfighting that their vision cannot readily accept and actively seek other missions? The resistance to military involvement in the war on drugs is a case in point. However, in the history of this nation the Army has delivered the mail, mapped and explored the continent, acted as a telephone/telegraph company, forecast the weather, run youth camps, conducted paramilitary training for businessmen, built roads and railroads, fought forest fires, performed riot control, enforced Federal laws, guarded the national parks, and in fact done everything the nation expected it to do. West Point, for example, would not have survived to this day, had it not been for the fact that it was justified by the engineers it produced who entered civilian life and helped build the nation.

National Service involvement is but one possibility for a peacetime Army. This program was addressed previously in this study. However, the importance of such a domestic program to the Army as well as the nation needs to be addressed in greater detail. The Army initially objected to being
used to administer Roosevelt’s New Deal program, the Civilian Conservation Corps (CCC). There was good reason to protest. The size of the peacetime army had grown so small, a little over 132,000 officers and men, that the manpower demands would literally bring all military training to a halt. The problem was eventually eased by calling to active duty, officers and NCOs of the Organized Reserve Corps. While the Regular Army administered the districts, for example, George C. Marshall commanded both Fort Screven, Georgia and the CCC District "F". The individual camps were run by junior officers and senior NCOs of the Organized Reserve Corps (ORC). The Infantry Branch acting chief wrote to Marshall expressing the general sentiments of the Regular officer corps:

This work is onerous and probably distasteful to the Army as it is not exactly military work but I feel that it is the salvation of the Army. In fact, it is my opinion that the Army is the only Governmental agency that was able to handle this proposition. I have noticed a cessation of talk of reducing the Army by four thousand officers since we started in on the conservation work.\(^5\)

While this may appear a digression from the issue of peacetime missions, it merely shows that the Army has 1) traditionally dragged its feet at accepting peacetime missions, 2) been expected to perform peacetime missions by the chief executive and members of Congress, 3) reaped unintentional benefits as in 1932 such as preserving end strength, exercising mobilization procedures, providing leadership training to reserve officers and NCOs, and indoctrinating a vast number of military age youth many of whom eventually served during World War II. Most importantly, the CCC took unemployed youth off the streets, gave them self-respect, put discipline and structure into their lives, taught them trades, provided limited educational opportunities, and gave them a sense of community. The government was going to expand the voluntary program at the end of the decade and only the threat of war in Europe brought its termination. Not only did the military benefit from the graduates who flowed into the ranks, but the eventual entrance into the workforce of many of these youth must have certainly assisted industrial mobilization at the beginning of World War II.
A new CCC is but one peacetime mission for the post-cold war Army. Taking a look at the IDF model there are an additional number of tasks that could be assumed by the Army, especially by the U.S. Army Reserve, without harming and in some cases enhancing, mobilization readiness. Army officers and NCOs are, by training and experience, teachers. They could be given "short tours" to teach in inner city schools and rural areas. Training and Doctrine Command CSS schools, for example the Ordnance Center and School, could work with private industry to train unemployed youth and retrain displaced defense industry workers and soldiers in a number of trades. Engineer units could be used for environmental clean-up, rehabilitation of homes and schools in blighted urban areas, destruction of abandoned buildings and construction of parks, playgrounds, and areas for cultivation on the cleared ground. Medical personnel could teach hygiene and prenatal care, inoculate children, and treat minor illnesses. Military police and combat arms soldiers could man drug rehabilitation, and youth first-term offenders "boot camps." USAR Training Division personnel are ideally suited to assist Federal, state, and local corrections officers in the establishment of rehabilitation "boot camps." With coordination, Reserve soldiers could become "big brothers and sisters" to youth offenders rather than a parole officer.

The list is endless. The barriers to the use of Federal military personnel in an all out attack on drug traffickers and dealers are man-made obstacles that could easily be removed by a supportive Congress. After all, the Posse Comitatus legislation was passed by Congress as part of the 1877 election compromise. Its passage, few recall, was to limit the Army's enforcement of the 14th and 15th Amendments and its protection of black Americans from physical intimidation in the former Confederacy.

**Joint Structure of the IDF.** As with institutional foot dragging when it comes to duties such as running the CCC or participation in the war on drugs, the Armed Forces steadily resisted the efforts making them work together under Joint doctrine. Again, it was Congress assisted by a minority of reform minded service members who finally forced the
passage of legislation requiring the services to institute Joint reform. After the problems that have surfaced in every war and the fighting over limited dollars in peace, the new Joint responsibilities were a breath of fresh air. One can only imagine how much more difficult OPERATIONS DESERT SHIELD/DESERT STORM might have been without this much needed reform. Jointness must continue and expand. Think of the waste and duplication of effort that now acts as a strangle hold on keeping the defense establishment as a creditable deterrent force. Why can we not adopt the IDF model? There is not a single reason other than service rivalry that can be cited for the maintenance of the current layers and layers of bureaucratic staff and command structure for each of the services. The Chairman of the Joint Chiefs should be the only Chief of Staff/Chief of Naval Operations/ Marine Corps Commandant. For that matter, why have the size Marine Corps we have today with its own air force? The IDF obviously has no such force because it has no overseas mission or a large navy. But the fact remains, why have a large Marine Corps with little or no staying power unless supported by Army CS and CSS as has been the case since World War I?

The services have made tremendous strides in many areas of Joint doctrine such as logistics, transportation, and medical. However, the pressure on the defense budget will become more and more intense. The dollars saved in making the armed forces a true Joint force similar to the IDF would allow this nation, like the Israelis, to have a strong deterrent force on a smaller budget. The dollars saved can be used to man and equip the most modern armed forces in the world. This may have been the line of reason President George H. Bush was suggesting in August 1990, when he said:

The United States would be ill-served by forces that represent nothing more than a scaled back or shrunken-down version of the ones we possess at present. If we simply pro-rate our reductions—cut equally across the board—we could easily end up with more than we need for contingencies that are no longer likely—and less than we must have to meet emerging challenges. What we need are not merely reductions—but restructuring.51
Youthful Senior Leadership. Although the average age of the senior leadership, full colonels and general officers, has increased since the IDF's formative years, retirement is the norm between 40 and 50. Lieutenant colonels are in their mid-to-late 30s and there are no general officers over the age of 50. Officers do not settle into desk jobs to become part of a bureaucracy. They rotate in and out of assignments much like the average U.S. Army officer; however, because the country is so small geographically, families have a tendency to stay put and the Keva officer commutes to his or her home. This really creates no problem since the hours on the job during the duty week allow no time for family anyway. The IDF assists in the commute because every field grade officer has a driver and no need of a personal vehicle. There is no established formula for retirement although Moshe Dayan, while chief of staff, introduced the concept of retirement early enough to have a full and productive civilian career. Most officers do not reach high rank, nor do they expect to, and most retire in their 30s. As indicated previously in the section on officers, the IDF believes that a younger officer corps is more flexible and creative.

Historically, when the U.S. Army becomes a peacetime establishment, its tendency is to slow down promotions which means that the senior ranks have stagnated the system. The post-cold war Army should increase selectivity at all levels from commissioning through promotions. The IDF practice of no implied length of service should also be adopted. The notion of performing a service to the nation and then returning to civilian careers while still young enough to use the leadership skills to benefit the society should be encouraged. This would not only strengthen numerous areas in the society that are in sore need of talent such as public administration, corporate leadership, and government, but build an informed Army constituency among the general population. General George C. Marshall suggested this role for reservists in his War Department Circular 347 and stated such a constituency was absolutely necessary in peacetime.

Brigade as the Basic Building Block of the Army's Combat Forces. When the Army substituted AC brigades for the ARNG
roundout brigades during the Gulf War, it provided a dynamic example of the IDF force structure model. It showed that a contingency force can be successfully built by independent brigades. A smaller Army cannot have division size units tailored and marked for specific contingency operations because, in the new world order, uncertainty is the only certainty. The use of brigade building blocks for a contingency allows a regional commander-in-chief much greater flexibility in tailoring his force.

Also a CONUS-based force must be a deployable force whose component parts should be fairly self-sustaining, anticipating early deployment for a forced entry or entrance into combat immediately after arriving in country. Brigades, as exhibited by the past use of independent brigades and current U.S. Army force structure and doctrine, can fulfill that requirement.

In a peacetime army composed of brigades, division commanders and their staffs can concentrate on the wartime mission of command and control and the direct coordination of subordinate maneuver elements without acting as another bureaucratic layer for peacetime paperwork. Training of maneuver units works best at the National Training Center at the brigade level.

Conclusions.

For the U.S. Army to survive as a combat ready deterrent force in a peacetime environment of drastically constrained defense spending, new approaches must be taken to problems that have lingered over the past century. While the IDF model may seem extreme to some, it does offer a different perspective on the problems facing the U.S. Army today and that could continue into the 21st century.

The current statement by the U.S. Army's Chief of Staff, General Gordon Sullivan, "no more Task Force Smiths," in reference to the ill-trained, ill-equipped group of men from the 24th Division that were sent to Korea to halt the avalanche of North Korean invaders, can also imply a failure of senior officer leadership in the period 1945 to 1950. From the serving Chiefs
of Staff down, many officers failed to grasp the changing nature of the threat. But worse than that, they failed to keep the Army combat ready. They did not protest the severe budget cuts and did not use their influence to fix what was possible with the resources and the authority they had available.\textsuperscript{54}

The pre-Korean War officer corps needed closer attention from CINCs on down. A number of officers who served in World War II were kept in command because of their past records with no attention given to their lack of potential in future wars. Some, unfortunately, were suffering the psychological effects of long confinement in prisoner of war camps. A few had medical profiles and still more were just not physically fit. There were those who had served beyond their usefulness and by any measure were well beyond their prime.\textsuperscript{55}

Officer training and education were allowed to deteriorate. Training of young soldiers was not rigorous. The senior leadership seemed to have given up to those in the defense establishment who claimed that modern war with nuclear weapons did not require foot soldiers. The plans which Chief of Staff George C. Marshall had for the RC, integration, greater missions, etc. were never forcefully pushed and instead they were left to languish. Why didn’t the senior leaders of the U.S. Army sound the alarm? What makes our officer corps at times neglectful of its past, blind to past lessons and unrealistic when looking to the future?

It is all too clear that if some new innovative thinking about the U.S. Army surviving in a peacetime environment is not presented to the Congress and the American public, the force will again languish on a shoestring budget. This society is facing one of the greatest domestic challenges to its well-being since the Great Depression. The last item people are interested in is even reasonably sized armed forces. Military service budgets are going to decline because now it appears national defense rests more with resolving domestic ills: budget deficits, the economy, jobs, education, the homeless, national health insurance, immigration, decaying transportation system, civil rights, urban blight, crime and drugs than with preparing to fight an enemy or enemies unknown. It is time to rethink the Army’s role in society, the way the Army does business, and the need
to face up to radical Army restructuring to meet the 21st century.

ENDNOTES


12. Luttwak and Horowitz, p. 85.

13. Luttwak and Horowitz, p. 87; Gal, p. 127.


23. Luttwak and Horowitz, pp. 75, 79; Rolbant, pp. 82-83; Gal, pp. 39, 42.

24. Gal, pp. 87-88, 92-94; Rolbant, pp. 82-83.


28. Gal, pp. 34, 42-43 and 139; Rolbant, pp. 83 and 96.

29. Rolbant, p. 83.

30. Rolbant, p. 83.


33. Ibid.


39. Ibid; Hogg, pp. 94-104.


47. Hogg, p. 91.


52. Luttwak and Horowitz, pp 181-182.


