SELECTED MAINTENANCE SKILLS IN THE US ARMY RESERVE -
WHY SHORTFALLS EXIST. (U) ARMY WAR COLL CARLISLE
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SELECTED MAINTENANCE SKILLS IN THE US ARMY RESERVE--WHY SHORTFALLS EXIST AND WHAT ACTIONS HAVE BEEN TAKEN TO CORRECT THEM

BY

COLONEL CHARLES D. BENSON

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US ARMY WAR COLLEGE, CARLISLE BARRACKS, PENNSYLVANIA


# Selected Maintenance Skills in the US Army Reserve—Why Shortfalls Exist and What Actions Have Been Taken to Correct Them

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between 70% and 80%. More importantly, only about two-thirds of the individuals serving in these maintenance specialties are MOS qualified. Consequently, only about one-half of the hard-skill positions have a qualified occupant, despite the fact that the nine units show an overall qualification rate of about 70%.

Clearly, current levels of attrition are having a serious impact on MOS qualification rates. What can be done? Reserve commanders must address the root causes of the problem: poor training, delays in receiving pay, transportation difficulties, and job conflicts. How can the Active Component help? TRADOC and FORSCOM have important programs underway to improve MOS qualification including more effective use of Reserve Forces schools and the addition of regional training centers. In its concluding section the essay reviews these and other initiatives.
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An Individual Essay

by

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ABSTRACT

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SELECTED MAINTENANCE SKILLS IN THE US ARMY RESERVE--

WHY SHORTFALLS EXIST AND WHAT ACTIONS HAVE BEEN TAKEN TO CORRECT THEM

Current retention problems in the reserve components have focused attention on qualification rates for military occupational specialties (i.e., military specialties). Last year 32% of the United States Army Reserve's (USAR) enlisted personnel chose to leave their units. While extensive recruiting efforts have replaced the losses, units are left with large numbers of untrained privates. In many companies less than 70% of the enlisted are qualified for their job. Recently, the impact of personnel losses on unit readiness, particularly of Combat Service Support (CSS) companies, has prompted public expressions of concern by former Army Chief of Staff, LB. Edward C. Meyer and former Assistant Secretary of Defense for Reserve Affairs, James W. West within the Army Reserve the issue of retention has crowded out other matters.

This essay examines one area of the USAR's logistics capability to determine the extent of personnel shortages and review programs that are underway to fill those vacancies. In the opening portion of the paper, I present data on 12 maintenance specialties: unit positions and the percentage of qualified personnel, individual ready reserve (IRR) strengths, training and mobilization requirements as determined at headquarters, Department of the Army (DA). Subsequently, the essay looks at the personnel status of nine units in depth, presenting the views of commanders and strength management officers concerning retention ills. The concluding pages review training efforts underway to improve maintenance skills in the USAR.
The extent of the USAR's training problem has been masked by strength figures that show most major commands at or near 100% of authorized strength. In fact strength data vary widely from unit to unit. Among nine companies studied, four exceeded their authorized strength—one company carrying an extra 30 personnel on their roster. At the other end, two units had less than 75% of their required strength. Within these same units, certain specialties fared much better than others; e.g., the 245th Maintenance Company in Wood River, Illinois, has qualified light wheel-vehicle mechanics in 10 of 12 required spaces but only 12 of 28 power-generator equipment repairmen. Acknowledging the wide variances among units, certain facts stand out in reviewing the status of the Army Reserve's maintenance skills. (See Appendix 1.) First, USAR units are unable to fill these MOS to required levels except for light wheel-vehicle mechanics and equipment records and parts specialists. Secondly, only about two-thirds of those individuals serving in maintenance positions are actually qualified. Adding all USAR units together, one of the twelve specialties shows a qualification rate about 70%; half of the MOS fall below 50%.

While the figures give a bleak picture of individual training readiness, there is a solution at hand. In ten of the twelve MOS, there are more than enough Individual Ready reservists (IRR) to fill unit vacancies. Power-generator mechanics and chemical-equipment repairmen (52D and 63J) remain a problem even with IRR assets applied. In the other specialties available reservists exceed unit requirements. But other requirements will compete for the IRR pool including active and mobilized Guard units, as well as casualty replacements.
Judged in the context of the Army's overall personnel needs, how critical are these particular MOS shortages? Only one of the twelve -- power-generator repairmen -- ranked near the top of the level 1 priority list prepared by the US Deputy Chief of Staff for Operations (LCSU). It came in fourth of 122 MOS with a requirement to train 868 ready reservists in 1987. When you consider that only 18,000 IIAs enlisted were trained in 1986, the size of the allocation gains significance. In fact IIAs received the largest number of training quotas. Three other maintenance skills from the study made the "top-fifty" list including light wheeled-vehicle mechanics (skill levels 2 and 3), utility equipment repairmen, and track vehicle repairmen. The LCSU list emphasizes the importance of the LDW's logistics functions for the Army; among the 50 MOS with the highest training priority, 42 were medical or CES skills. 4

A US Deputy Chief of Staff for Personnel (LCSII) study projecting manpower shortages 90 days after a mobilization provides a second assessment of LDW manpower. Understandably, combat MOS require the largest numbers in anticipation of casualty replacements. Among the 12 maintenance skills, only three present a serious deficit numerically: power generator repairmen with a shortfall of 521C, Q. and chemical equipment-1276, and wheeled vehicle repairmen-930. Two low-density MOS are also significant -- the utilities equipment repair specialty has a deficit of 107 and fuel and electrical systems a shortage of 276. According to the LCSII report, the other seven MOS should be at satisfactory levels 90 days into the war. 5

What generalizations can be drawn from these data? First, maintenance units of the Army Reserve have a serious shortage of qualified personnel.
In hard-skill areas, such as the twelve singled out for this paper, the qualification rate runs about 50%. This situation exists at a time when other U.S. specialties show a surplus in assigned personnel. Among six MOS selected at random (infantrymen - 11P & G, combat engineers - 12E, tactical communications operator - 31V, tank crewman - 15L, bridge crewman - 12C), five are overstrength. MOS qualification rates are correspondingly higher. Secondly, USA assets provide a source of personnel for most of these vacancies. Third, because of greater shortages in other logistics and medical skills, these 12 maintenance MOS are not among the Army's highest training priorities. The LA staff agrees that we need more repairmen for power generators (52L), utilities equipment (52C), and fuel and electrical systems (65F). Beyond that, LCCU recommends more training for light wheeled-vehicle mechanics to redress an imbalance at the 20 and 30 skill levels. LCCU's study also recognizes the overall shortage of repairmen for C& chemical equipment (63C). But what do these data mean in terms of unit readiness? In the next section nine units are examined in some detail.

Maintenance units in the St. Louis area come under the 526th Maintenance Battalion of the 102nd Army Reserve Command (ARCC). At first glance the 102nd's strength figures look good. In September 1986 the ARCC's enlisted ranks stood at 10% of authorized strength, having grown by nearly 50% in the previous year. In the same period, however, the command was experiencing a 15% attrition rate. Of the 1,380 enlisted leaving the ARCC last year, 510 transferred to another Reserve Component unit or opted for active duty. Approximately the same number requested transfer to the ARCC; another
500 were listed as unsatisfactory participants, as they missed nine or more drills during the year. About half of the remainder chose not to reenlist. Letting aside the first group (those who transferred to another Army component or command), the 1RCCh's attrition rate was about 25%. Why did 1470 enlisted personnel choose to leave the 102nd ACR last year? Four reasons were most often cited: poor training, delays in receiving pay, transportation difficulties (the service member lived outside a 50-mile radius or had no vehicle), and job conflicts -- the unit affiliation took up too many hours or weekends. Major Lenis Lappells, strength management officer for the 1RCCh, offers a fifth reason: Obligated service members can quit without fear of punishment. Whatever the reasons, matters have not improved much in 1987. The first quarter saw ACR losses of 485 enlistees, an annual attrition rate of 52%.6

Within the 526th Maintenance Battalion, there are six detachments and three companies. Of the latter units, two show a marginally satisfactory status of qualified personnel, albeit with serious problems in several hard skills. The third is a company in name only. The 424th Light Equipment Maintenance (L.E.M.) Company of St. Charles, Missouri, began operations a year ago and has yet to get on its feet. At 48% of authorized strength, the unit has only one-quarter of its positions filled with a qualified individual. Typically, new units in the Army Reserve take several years to gain community recognition and full strength. The 245th (St. Louis) and the 56th Maintenance Companies (Wood River, Illinois) are representative of many L.E.M. logistics units: at 100% strength, with an NEC qualification rate around 75%, and hard-skill levels closer to 50%. The equipment
concentration site at Fort Leonard Wood, Missouri, probably the best place to train, but involves a three-hour drive from St. Louis. Disatisfaction with weekend training and job conflicts are the two reasons most often given by those leaving the unit.

The qualification figures for the three greater - St. Louis area represent a sharp contrast to the 8801's overall strength of 100. Is the St. Louis recruiting battalion at fault for not matching its enlisted against unit requirements? The Army Reserve enlistment sergeant at St. Louis takes a good case for his battalion. In discussing assignments with perspective recruits, the first consideration is geography. In a metropolitan area like St. Louis, a typical recruit has limited access to transportation. Vacancies in suburban St. Charles go unfilled because there is no bus service from other parts of St. Louis and many recruits have no car. A second consideration is test scores - many applicants simply do not show the aptitude for maintenance specialties. Finally, the individual's desires are taken into account. Since the Army wants a long-term commitment, the recruiting battalion tries to accommodate the young person's wishes. While Reserve Components units create unit vacancy lists quarterly, the recruiters appear to use these printouts as a secondary tool. Their primary goal is to meet enlistment quotas. If they fill critical shortages in hard-skill specialties, then all the better.

At the nearby Wall Center, 20 miles west of downtown Philadelphia, Cpt. Mark Hudson wrestles with training problems similar to those of his peers in the 8822d ARCC. In 1986 Company B, 88th Support Battalion, lost 55% of its enlisted recruiters. (Hudson is quick to point out that his
attrition rate was 15% below the 157th Infantry Brigade's average.) Although the company's strength is above 50%, barely half of the enlisted are total qualified. Currently, 20 members of the unit are attending or waiting initial entry training; a like number are listed as pending losses. What accounts for the brigade's poor retention? Hudson cites strong dissatisfaction with annual training. For two summers the brigade has undergone rigorous non-stop field duty at Fort Pickett, Virginia, with considerable collection of the following drill. The reasons listed by the cadre include: training, pay procedures, transportation problems -- apply equally well to Laymen. Since all equipment is maintained by a civilian contractor, the unit must reserve vehicles and generators for weekend maintenance. Any instance units in the Philadelphia-Baltimore area send personnel to Fort Devens, trouble or one of the Pennsylvania reports for weekend training; hence participates as little as possible, arguing that all activities work against unit cohesion.  

The 35th A.M. Company in State College, Pennsylvania, reflects the condition of many units located adjacent to large universities -- fluctuating strength in a transient environment. Within the past three years, assigned strength has varied from 60 to 100 with present numbers at 60. Authorization covers the unit's 17 enlisted, 20 are awaiting basic or advanced individual training; a like number are recent transfers from other units, encountered in most instances for their new duty assignments. The company has shortages of qualified personnel in most instances, particularly in the electronics skills. As for support from the Harrisburg Recruiting Battalion, Captain Larry Wiltshill states that it is simply not there according to Wiltshill the battalion concentrates its effort on the large metropolitan areas and virtually ignores him.  


The MOS qualifications rate for the 298th Maintenance Company in Altoona, Pennsylvania, took a nosedive in March 1986 when a 104% charge increased unit strength from 131 to 187. The area recruiting office, reduced from three recruiters to one MOS about the same time, has been hard pressed to fill the unit's attrition losses of 27%, much less find 56 additional servicemen. The shortage is particularly acute in 52L, a specialty that doubled in numbers last year. Training opportunities are available at Tobyhanna Depot for 52Ls and 52Ks as well as electronics repairmen. At Indiantown Gap the regional maintenance training center provides training for 63J's. Although the depressed economy in Altoona stimulates enlistments, the unit loses many of its recruits to active duty or unit transfers.

Several conditions contribute to the satisfactory training levels of the 326th Maintenance Battalion in Urbanna, Maryland. The first is geographic: the battalion's three companies draw on the large population of metropolitan Baltimore for recruits. Perhaps more importantly, the three units are within a hour's drive of the Recrue School at Aberdeen Proving Ground where they receive MOS instruction and recruit maintenance personnel from active duty. A second advantage is continuity -- the three have not changed their organization or location for the past ten years. Third, the battalion pursues a conscious policy of overfilling its ranks. Since 1984 the 316th Maintenance Company (It. peace) has averaged 102% of its authorized strength; the units in Westminster and Hagerstown have done nearly as well. The overstrength has helped the three units maintain MOS qualification levels of 75% to 90%, even though one-quarter of their 62Ks are not trained for their duty assignment.
The status of enlisted personnel in the nine units supports several conclusions. First, the unit data mirror the figures in the LIMC-27 report (Appendix 1) which show that 25% to 40% of enlisted members are unqualified. (The hard skills are generally found near the upper limit of that range.) What conditions cause such a high percentage of untrained personnel? The answer lies largely with the USA's attrition rate of 32%. Then why such a high rate? It comes down to a lack of commitment among young service members, no practical way to enforce the service obligation, and inadequate training facilities — compounded by poor utilization of what is available. A second conclusion emanates from the first: four of the nine units fall well short of mobilization readiness, with less than 50% of their IIQI qualify, these units can perform, perhaps, half of their intended workload. A larger survey of guard and reserve service support units, undertaken by the Office of the Assistant Secretary of the Army for Installations and Logistics, produced similar findings.) Finally, satisfactory levels of IIQI qualifications are possible with: one, an aggressive recruiting campaign to overfill units by 10% to 20% of enlisted strength; two, proximity to good training facilities; and three, stability in organization and location.

This essay's concluding section reviews Army efforts to improve IIQI qualification levels in the reserve components. The Department of the Army's current "Action Plan for Reserve Components Training" identifies key issues, including recent initiatives to improve IIQI training thru reserve forces schools and regional training centers. Before looking at these issues in some detail, two recent actions warrant notice. Until recently...
ECC training in the Reserve Components has concentrated on developing leadership to the neglect of ECC-specific skills. Last fall the Training and Doctrine Command (TRADOC) moved to correct this situation by adding ECC-related instruction to its reserve ECC courses. Service schools have been tasked to incorporate technical training (skill level 2-4) into ECC courses, where appropriate, by 1990. A second action concerned the retraining of prior service enlistees. Given the limited number of Reserve Components units in most areas, individuals with prior service are usually reassigned. Before 1986 efforts to retrain these individuals at service schools met with little success. Last year, however, in-service recruiters began promoting the Prior Service Training Program with increased vigor. As a result 126 le qualified for an ECC in their new Reserve duty assignment, a marked increase over previous years. Program funding for the future has been assured through the addition of a discrete line item in the 1988 budget.13

For years Reserve units have qualified service recruiters through supervision on-the-job training (CWO) when no other way seemed available. Never satisfied with this route, TRADOC further restricted its use with the Vice Chief's approval in June 1986. New rules prohibit the qualification of enlisted solely by CWO, dictating that certification programs include some formal training. Any reliance further prejudices the use of CWO where Reserve Forces School programs are available. Finally TRADOC has taken important steps to improve the quality of instruction presented by Reserve Forces schools. An affiliation program linking each Army Service school with a half-dozen Reserve Forces schools provides the means to supervise
training. Service schools will conduct semianual visits, render evaluations at annual training, and provide technical support throughout the year. The addition of 1475 paid drill spaces has allowed the Reserve Forces schools to expand their curriculum and exercise more flexibility in their offerings. 14

Full implementation of the affiliation plan has been delayed by a lack of funds. At this time service schools are training to conduct annual visits. The program's potential is evident, however, in the work of the 2076th Reserve Forces school (Wilmington, Delaware). The 2076th has the good fortune to conduct its instruction at Aberdeen Proving Ground, Maryland. Its affiliation with the Ordnance school formalizes a working relationship that dates back to 1978. Last fall 471 enlisted enrolled in one of the school's LCF programs, either to gain or sustain a military skill. Since October the monthly drills have attracted an average of 515 students. Unit personnel arrive on Friday evening and classes end at noon Sunday, after 12 hours of instruction. Students come from as far away as New York City. (The 102nd Maintenance Company of Brooklyn has 68 of its 138 enrollee.) Obviously, Pennsylvania and Maryland units are major participants. The 2076th provides instruction in the 44, 45 and 62 series of military specialties -- typically the individual must attend two academic years (October thru May) and two periods of annual training (14 days) to earn the LCF. Students can miss one Aberdeen session per year with make-up training at their LCF center. Having run maintenance LCF classes for years, the 2076th has a strong cadre of instructors. When they need administrative or technical support, the Ordnance school lends a hand. 15
As I indicated earlier, the lack of training areas is a major cause of the Reserve Component's high attrition rate. In the past two years Forces Command has made this priority its second highest training priority, just below the National Training Center. With funds identified in the 1987-91 C.O., FCSOCC intends to activate 19 sites for combat arms training. In the same timeframe, the National Guard Bureau expects to acquire 19 similar facilities. 16

In support of combat service support training, FCSOCC and the Guard Bureau are joining with THAOC and the Army Materiel Command to establish 13 regional maintenance training sites. These sites will provide transition training on force-occupation equipment and the opportunity to refresh military skills, i.e., sustain rather than award ICS's. The maintenance site at Fort Irwin, California, is among the earliest in operation, having started up in September 1986. In a typical weekend, 1IC hosts 50 to 75 reservists. Of the five-man team at the site, only one is listed as a trainer. He assists unit personnel, while they take the lead in the weekend's activities. Although the UCP has limited equipment - generators, signal equipment, and an IIC personell carries, the opportunity is there for good training. 17

Reserve forces schools and the prior service training program add significant numbers to the ranks of qualified reservists. If all 51 schools approached the success of the 2676th, LLCB units would add 16,600 qualified enlisted per year. 18The division has the potential to further increase that sum by 1,500 to 2,000. The ultimate solution, however, is to improve
retention. An attrition rate of 33% last year translated to a loss of over 70,000 service members. Until that number comes down, USA units will show unsatisfactory levels of MOS qualification.
# APPENDIX 1

## USAR UNIT PERSONNEL REQUIREMENTS

<table>
<thead>
<tr>
<th>MOS</th>
<th>Number Required</th>
<th>Number Assigned</th>
<th>MOS Fill Rate</th>
<th>Number Qualified</th>
<th>% MOS Qualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>443 Metal Worker</td>
<td>824</td>
<td>761</td>
<td>93.4%</td>
<td>455</td>
<td>95.6%</td>
</tr>
<tr>
<td>462 Machinist</td>
<td>425</td>
<td>783</td>
<td>90.1%</td>
<td>7.7</td>
<td>1.7%</td>
</tr>
<tr>
<td>45K Tank Turret</td>
<td>214</td>
<td>142</td>
<td>66.4%</td>
<td>84</td>
<td>40.3%</td>
</tr>
<tr>
<td>45L Arty. Repair</td>
<td>92</td>
<td>72</td>
<td>73.5%</td>
<td>46</td>
<td>47.0%</td>
</tr>
<tr>
<td>52G Utility Equip. Repair</td>
<td>700</td>
<td>594</td>
<td>84.6%</td>
<td>445</td>
<td>63.1%</td>
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<tr>
<td>52D Power Gen.Equip. Repair</td>
<td>3443</td>
<td>1704</td>
<td>49.4%</td>
<td>1336</td>
<td>43.4%</td>
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<tr>
<td>52S Light Wheel Veh. Mechanic</td>
<td>7252</td>
<td>212</td>
<td>29.4%</td>
<td>617</td>
<td>87.7%</td>
</tr>
<tr>
<td>53G Field Elec. Sys. Repair</td>
<td>339</td>
<td>169</td>
<td>50.3%</td>
<td>98</td>
<td>42.4%</td>
</tr>
<tr>
<td>63M Truck Veh. Repair</td>
<td>1705</td>
<td>1140</td>
<td>67.1%</td>
<td>670</td>
<td>38.8%</td>
</tr>
<tr>
<td>67J 3.5 Sher. Equip. Repair</td>
<td>1212</td>
<td>248</td>
<td>20.5%</td>
<td>144</td>
<td>23.3%</td>
</tr>
<tr>
<td>67L Hvy. Veh. Repair</td>
<td>1315</td>
<td>728</td>
<td>55.6%</td>
<td>470</td>
<td>37.8%</td>
</tr>
<tr>
<td>758 Equip.Rep. Specialist</td>
<td>1571</td>
<td>721</td>
<td>45.8%</td>
<td>607</td>
<td>95.8%</td>
</tr>
</tbody>
</table>

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