DEPARTMENT OF THE ARMY
UNITED STATES ARMY COMBINED ARMS CENTER AND FORT LEAVENWORTH
US ARMY COUNTERINSURGENCY CENTER
804 HARRISON AVENUE
FORT LEAVENWORTH, KANSAS 66027-2310

REPLY TO
ATTENTION OF:

ATZL-CI

20 January 2012

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: FM 3-24, *Counterinsurgency*, Revision Issue Paper #2 - Force Ratios

PURPOSE: This paper recommends changes to the force ratios discussion in the current FM 3-24.

ISSUE: Paragraph 1-67 of FM 3-24 discusses ratios of counterinsurgents to insurgents. The FM cites the numbers for previous conflicts as 10 or 15 friendly troops to 1 insurgent. It then proclaims that a better requirement is 20 to 25 counterinsurgents for every 1,000 residents in an area of operations for effective counterinsurgent operations. How accurately do these numbers reflect counterinsurgent victories in previous conflicts? How well do they reflect ratios in the (about-to-be-concluded) war in Iraq? Should the ratio be based on the total number of insurgents or population in the host nation, the number of insurgents or population in an area of operation, or something else? Should the manual even mention ratios?

DISCUSSION:
1. "Much nonsense is heard on the subject of tie-down ratios in guerrilla warfare—that 10 to 12 government troops are needed to tie down a single guerrilla, for instance. This is a dangerous illusion, arising from a disregard of the facts." (Richard Clutterbuck, *The Long, Long War: Counterinsurgency in Malaya and Vietnam,* 42-43)

2. Two critical components of FM 3-24 paragraph 1-67 are that (1) counterinsurgent security forces include US military, foreign military, and host nation military and police; and (2) the density ratio is based upon area of operations, not the entire country.

3. Although the density figure of 20 troops to 1,000 inhabitants in the FM included the caveat that the figure was "very dependent upon the situation," that caution has been lost on the military, academia, journalists, and government officials. (That number appears to have been derived from a 2003 RAND study of US operations in Bosnia, Kosovo, Somalia, and Haiti.)

4. Results from studies conducted prior to 2010 have different results than the 2010 and 2011 studies cited in paragraphs 5 and 6 below. These studies had different results because several studies based conclusions on the ratio of counterinsurgents to insurgents. The results are skewed because the numbers of insurgents are "guesstimates," and who should be classified as an insurgent is subjective. (For those familiar with the RAND study *Victory Has a Thousand Fathers,* it is not included because it does not address force ratios.) The authors of these studies noted the following:

- Galula, *Counterinsurgency Warfare*, p. 32 (1964) asserted that the French lost in Indochina because they could not achieve a ratio of 10 – 20 counterinsurgents to 1 insurgent.

- Ambassador Maxwell Taylor, in a telegram to Secretary of State Dean Rusk on 7 March 1965, wrote that "historical examples in recent past suggest need of superiority of counterinsurgency forces of order of 10-20:1."

- Cable, *Conflict of Myths*, pp. 81-82 (1986) examined "tie-down ratios" in Malaya. He labeled any such ratio as "claptrap" and "thaumaturgy" (hocus-pocus). Were all counterinsurgent security forces—regardless of mission, capability, or equipment—to be counted, the ratio of counterinsurgent to insurgent would be 49:1. If only trained maneuver counterinsurgency forces were counted, the ratio would be 2:1.

- Quinlivan, "Force Requirements in Stability Operations," (1995) based his ratio on security forces to total population. The ratio of US forces to the population of the Dominican Republic in 1965 was 6.6 to 1,000. In Malaya, the ratio of British and Commonwealth forces to the population was 20 to 1,000. The same ratio was prevalent in Northern Ireland. (This study examined six cases.)

- McGrath, *Boots on the Ground: Troop Density in Contingency Operations*, (2006) examined seven cases and concluded the average ratio of security forces to population in an operational area to be 13.6 to 1,000. Note that the ratio of security forces (US, coalition, contractors, and host nation) in Iraq in September 2005 was 16.73 to 1,000.

- Gompert, *War By Other Means* (2008) examined 89 insurgencies since World War II. This study assessed the ratio of government forces to the number of insurgents. His conclusion was that with a ratio of greater than 9 to 1, government forces prevailed in 7 of 9 insurgencies. With ratios ranging from 3:1 to 9:1, government forces prevailed in 13 insurgencies with nine others essentially being draws. Six insurgencies resulted in government losses.

5. A 2010 study conducted by the Institute for Defense Analyses (IDA) analyzed 41 irregular warfare conflicts with the objective of developing methodologies for estimating force requirements for large-scale stability operations. The study authors determined that counterinsurgency operations were "the most demanding for programming force sizing purposes...." Counterinsurgency operations thus became the basis for the study. The size of the force necessary to protect the population drove the study. Study authors recognized that "[a] follow-on effort would analyze the appropriate role of the military in the 'whole of government' effort and the relationships between military and civilian activities." What effect that study will have on force ratios remains to be seen.

The IDA study concluded that:

- "a force density of 20 troops per 1,000 inhabitants in the area of operations is the *minimum* required…; however, force densities at that level carry significant risks" (p. 5).

- "Force densities on the order of 40 per 1,000 inhabitants provide a significantly higher likelihood of success. Thus the suggestion in FM 3-24 that 20-25 troops per 1,000…was *not* confirmed by the study" (p. 5).

- "Force density is *statistically significant* in predicting successful outcomes for COIN operations…" (p. 5).

    - Analysis of historical examples concluded that when force density was less than 20, counterinsurgents were defeated in 62.5% of the cases (p. 5).

    - Force density of 20 – 40 led to 50% success for counterinsurgents (p. 5).

    - With a force density above 40 troops the counterinsurgent prevailed in 83% of the insurgencies (p. 5).

- Data from Iraq and Afghanistan was limited. Conclusions drawn from available data were that—

    - force density in Iraq during the summer 2007 "provided an overall force density of almost exactly 20 per 1,000 when counting the entire Iraqi population. The ratio for the actual area of operations could not be determined but would be significantly higher.

    - force density in Afghanistan in July 2007 was approximately 5 per 1,000.

6. A 2011 study conducted at the Harvard Kennedy School examined 171 counterinsurgent campaigns since World War I. One conclusion agreed with the IDA study that "troops-per-inhabitant is the best way to measure force size in most cases" (Friedman, p. 13, all page numbers refer to on-line version). Other observations from the study are listed below:

- The current 20 troops to 1,000 inhabitants (FM 3-24) "has no discernible empirical support" (p. 2).

- "There is no reason to think that [any threshold] is a useful way to predict strategic outcomes" (p. 2).

- Regarding whether the counterinsurgents include both foreign and national troops, the study concluded that "indigenous counterinsurgents are on balance more effective, but also less consistent, than their foreign counterparts" (p. 15).

- Study concludes that increases from 5 to 80 troops per 1,000 inhabitants "the probability of success rises by less than fifteen percentage points" (p. 16).

The most striking conclusion of the study is that "manpower is not a particularly decisive factor in predicting counterinsurgency outcomes, and there do not appear to be any meaningful thresholds for success" (p. 19).

RECOMMENDATIONS:
1. Because a force ratio was included in the 2006 version, any attempt to exclude a ratio could be viewed as an attempt to avoid answering questions about the number of troops that might be required.

2. If the decision is to include a ratio, that number should not be based upon the number of insurgents, either within the entire host nation or within a specific area of operation. To use such a number requires a decision of who is counted as an insurgent as well as a degree of specificity on the number of insurgents that is probably impossible to obtain.

3. If the decision is to include a ratio, that number should be based on the population in a specific area of operations because—

- population is relatively easy to determine.

- the latest study of 41 insurgencies found a correlation of success between numbers of counterinsurgents to population in an area of operation.

4. The revised FM 3-24 must make clear that force ratios are not "hard and fast" and will be dependent upon the situation and how they are being employed. For example, are an adequate number of forces being employed to increase the capacity of the host nation security forces?

5. That paragraphs 1-67 and 1-68 (Original FM 3-24) be modified as follows:

1-67. Because of varying levels of training and equipping, as well as limitations on force employment imposed by coalition governments, no level of force based strictly on numbers can guarantee victory for either side. Furthermore, because of the extreme difficulty of determining accurately either who should be counted as an insurgent or the actual number of insurgents, force levels should not be based on such an approach. Rather, force levels should be based on the number of inhabitants in each area of operations. The appropriate force requirement gauge is troop density—the ratio of security forces (including host nation military and police) as well as coalition forces to inhabitants. A ratio of greater than 40 counterinsurgents to 1,000 inhabitants is considered the necessary troop density for effective counterinsurgency operations;

however, as with any fixed ratio, such calculations remain very dependent upon the situation.

1-68. Force ratios may be dependent upon factors other than number of inhabitants or insurgents. Among those factors are the enablers available to the counterinsurgent—such as agricultural development teams, information operations, and other governmental and non-governmental agencies. Commanders also consider the quality of host nation security forces (military and police) as well as the limitations coalition governments may place on their deployed forces. Ratios may also be affected by whether the counterinsurgent is in the clear, hold, or build phase.

REPLY:
Request you provide comments regarding the adequacy of force ratios. You may reply by e-mail to usarmy.leavenworth.cac.mbx.coin@mail.mil.

JOHN M. PAGANINI
LTC, IN
Director, US Army Counterinsurgency Center

REFERENCES:

Cable, Larry E. *Conflict of Myths: The Development of American Counterinsurgency Doctrine and the Vietnam War.* New York: New York University Press, 1986.

Clutterbuck, Richard. *The Long, Long War: Counterinsurgency in Malaya and Vietnam: Counterinsurgency in Malaya and Vietnam.* New York: Praeger, 1966.

Friedman, Jeffrey A. "Manpower and Counterinsurgency: Empirical Foundations for Theory and Doctrine." *Security Studies* 20 (2011): 556-91.

Gompert, David C., and John Gordon. *War by Other Means: Building Complete and Balanced Capabilities for Counterinsurgency.* Santa Monica, CA: RAND Corporation, 2008.

Kneece, R. Royce, David A. Adesnik, Jason A. Dechant, Michael F. Fitzsimmons, Arthur Fries, mark E. Tillman. *Force Sizing for Stability Operations*. Alexandria, VA: Institute for Defense Analysis, March 2010. IDA Paper P-4556.

McGrath, John J. *Boots on the Ground: Troop Density in Contingency Operations*. Ft. Leavenworth, KS: Combat Studies Institute, 1996. Occasional Paper 16.

Quinlivan, James T. "Force Requirements in Stability Operations." *Parameters* (Winter 1995), www.carlisle.army.mil/USASC/parameters/articles/1995/quinliv.htm. Accessed 17 November 2011.