### **INCIDENTAL PAPER**

## Seminar on Command, Control, Communications, and Intelligence

The Rise in Low Intensity Conflict: A Theory John F. McLaughlin

**Guest Presentations, Spring 1988** Rae M. Huffstutler; Richar L. Thornburgh; James R. Locher, III; Robert T. Herres; John F. McLaughlin; Jerry O. Tuttle; Earl F. Lockwood; Robert C. Kingston; Frank J. Breth; Ruth M. Davis

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E-mail: <u>pirp@deas.harvard.edu</u> URL: <u>http://www.pirp.harvard.edu</u> I-89-1

### The Rise in Low Intensity Conflict: A Theory

#### John F. McLaughlin

John F. McLaughlin is Executive Director, Program on Information Resources Policy, Harvard University, and has collaborated with Anthony G. Oettinger in conducting the C<sup>3</sup>I Seminars at Harvard since 1981. He has an A.B. from Princeton in American and Modern European History and was a Presidential Fellow in Systematic Analysis at the Massachusetts Institute of Technology. Mr. McLaughlin spent 16 years with the Federal Aviation Agency and the U.S. Postal Service before joining the Program on Information Resources Policy in 1977.

During our 1988 seminar series I spoke to our students on what I saw as one set of basic forces driving the current and prospective increase in "low intensity conflict." At the end of the semester, I tried to recapture my remarks on paper, and they are reproduced below.

The written version of my remarks has undergone review and comment by numerous colleagues and I have been corrected on any number of points. Some reviewers, for example, thought I had underplayed the importance of accuracy (vs. effective range), the importance of intelligence collection systems, and the use of surrogates and proxies. Others thought I overstated the importance of "firepower" and suggested too much reliance upon incompatible quantitative measures such as mobility and firepower.

I plead guilty to all of the above, but have decided to put my original remarks in this volume. Most reviewers thought that these observations would trigger useful debate. During 1989 I hope to produce a "new and improved" version of my hypothesis that will reflect ongoing review and comment.

-Most of our speakers during this semester have been addressing the intelligence, command and control aspects of special operations forces and low intensity conflict (SOF/LIC). We chose the topic for this year's seminar because it has been receiving a lot of journalistic and political attention, including the new legislation described by Jim Locher.

As some of you already know, I am an occasional student of military history and I have spent some

time thinking about the recent rise in low intensity conflict. I would like to take a few minutes today to present a theory about military technologies which may help explain the current vogue for low intensity conflict.

Let me begin with a qualification, or an assumption. As Earl Lockwood pointed out, special ops and low intensity conflict have been around for a long time. "Terrorists," and thus "antiterrorists," are nothing new, and every major war in history has spawned some variety of special operations forces. Traditionally, of course, terrorists or revolutionaries have engaged in low intensity conflict as a matter of necessity, not choice. If your military assets are few and weak and your opponent's are many and strong, terrorism, "hit-and-run," stealth, deception and spying — unconventional warfare techniques are the means you use to try to even the odds against you.

Historically most military people have been only too willing to switch from unconventional to conventional warfare as the odds improved. Thus in the case of the American Revolution, we might read occasionally about Francis Marion and guerrilla warfare, but very conventional French and American forces settled the issue at Yorktown. Similarly, it was the conventional main force NVA (North Vietnamese Army), not the VC (Viet Cong), that defeated the ARVN (Army of the Republic of Vietnam) in 1975.

Revolutionaries and terrorists will continue to choose unconventional warfare or low intensity conflict as the only avenue open to them in the early stages of a campaign against a stronger enemy. I see nothing new here. What might be new is the increased use of low intensity conflict by major powers as a means to avoid engagement in conventional warfare. I would suggest that we might see more and more low intensity conflict or unconventional warfare because modern technologies are making the cost of conventional warfare — both in terms of money and lives — increasingly prohibitive.

In his 1973 book, *The History of Land Warfare*, Kenneth Macksey\* documented the effective range and projectile weights of various weapons over time. Improvements in the chemical energy of munitions and propellants, coupled with improved accuracy and guidance systems, have resulted in dramatic increases in the lethality of weapons. To illustrate this improvement I have taken Macksey's two measures, effective range and projectile weight, and multiplied them together to produce a single "measure of merit" for various weapons, as shown in figure 1.

I think that figure 1 suggests that we are rapidly approaching the point where a major nation can accurately deliver massive munitions to any point in the world. Actually, we passed that point sometime in the past two decades as the power of nuclear munitions soared and the accuracy of missile systems climbed. But, if much of the 1945–1973 increase in firepower documented by Macksey was a function of increasing nuclear throw weights, continued improvements in accuracy and chemical energy since 1973 mean that one can attain equal lethality without resorting to nuclear weapons. Thus on the offensive side of the military equation we are approaching the perfection once embodied by the phrase, "If we can find 'em, we can kill 'em."

As figure 1 suggests, this increase in firepower is not a new phenomenon. It has been going on for quite some time, and the military world has reacted to it.

The conventional military responses to increasing firepower in the past two centuries have been dispersion of forces and mobility. An army avoided the increasing firepower of an opponent by spreading out and offering few targets of value. "Don't bunch up!" became a continuing litany of troop training. If you dispersed your forces too much, however, you, in turn, could not bring effective firepower to bear against your opponent. Increased mobility was one solution to this dilemma.

\*Kenneth Macksey, *The History of Land Warfare*, New York: The Two Continents Publishing Group, 1974. The development of trains, motor vehicles, and aircraft allowed an army to assemble and deploy forces at critical points before an opponent could assemble his firepower in defense. In figure 2 I have plotted the growth in military mobility over time, again using Macksey's book as my source.

To be fair, figure 2 in this simple form understates the growth in mobility because it measures mobility in linear, unidirectional terms. If we assume that an enemy force can move in any direction from a given starting point, we start getting major increases in the mobility factor. If we assume the average armored battalion can move 20 miles in a day, finding them is easier if we assume they can move only in a single direction. Allowing them to move in any direction increases the battalion's mobility by a factor of  $\pi r^2$ , or, in this case, anywhere within an area of 1,257 square miles.

The addition of a third dimension — depth for submarines, or altitude for aircraft — provides further increases in mobility, but not to the degree envisioned by some early airpower advocates.\* In the real world movement of forces is constrained by terrain, strategy and tactics, logistics, weather and a host of other factors. In figure 3 I have included the mobility curves used in figure 2, plus some theoretical outer bounds reflecting multidirectional movement, but ignoring third dimensional movement. The real potential for military mobility probably lies somewhere between the curves.

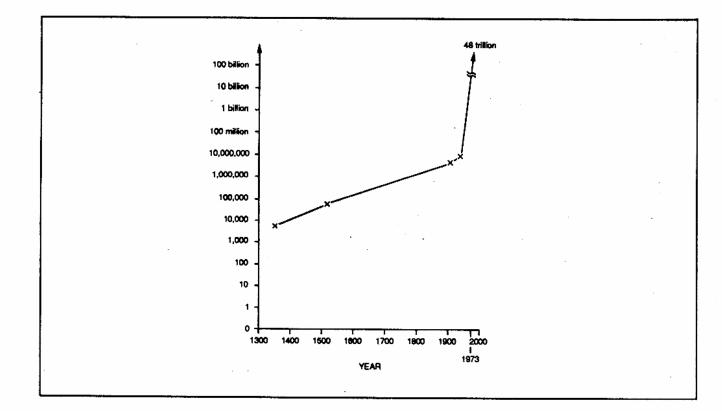
Figure 4 shows my firepower curve from figure 1 compared to the trends in mobility shown on figures 2 and 3.

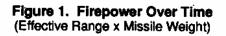
Guess what? Killing power is outrunning mobility.

Before proceeding further I should note that these numbers and graphs are intended to be suggestive, not definitive. One can properly argue about collocating both of these measures on the same scale, or the accuracy of the measures themselves. We know, for example, that Patton's Third Army occasionally had armored units moving more than a hundred miles a day in April 1945, etc., but Macksey's average daily movement figures assume large units moving against an organized enemy. My data and graphs are not intended to suggest any Lanchestrian certainty to warfare, but to indicate relative rates of change in two critical factors of war.

I would suggest, moreover, that the curves shown in figure 4 understate the differential. I talked earlier

<sup>\*</sup>See, for example, E. J. Kingston-McLoughty, War in Three Dimensions, London: 1947.





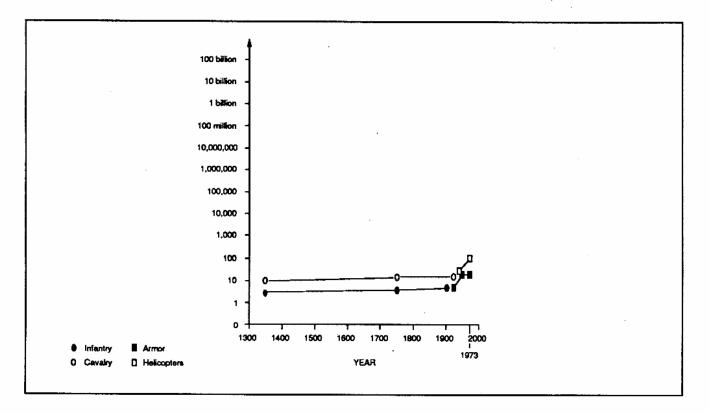


Figure 2. Linear Mobility Over Time (Average Rate of Advance in Miles per Day) about "finding them" and "killing them." My graphs ignore the quantum improvements the world has been witnessing over the past couple of decades in the "finding them" category. You heard Rae Huffstutler talk about that a few weeks ago. Essentially Rae was saying that if you wanted to assemble a militarily significant group — significant in historical, conventional warfare terms — that group would be detectable and therefore destroyable.

All this leads me to suggest that conventional warfare as we've known it is becoming a less practical tool of national policy. I do not mean to sound like a 1918 romantic when I say this; I do not mean to suggest that we have witnessed the war to end all wars. There was a period of time — perhaps 1918 to 1970 — when dispersion, mobility and stealth (in the old sense, not the new one) seemed to be a rational and rewarding response to the increase in killing power. In the past couple of decades the balance seems to have shifted.

I have had the opportunity to talk with participants in the 1973 Yom Kippur War and many people who analyzed that conflict. The impression of participants and analysts tended to be universal; none of them had appreciated the increased lethality of modern "conventional" warfare. Most of these people compared the lethality of that war to their models of nuclear engagements. Both sides lost something like one half of their planes, tanks and heavy guns in the first week of the war. And their crews. That's lethality!

Someone might suggest that the Iran-Iraq War contradicts my argument. Aside from the fact that neither of these nations has a first class war-fighting machine, I would claim that their long-running stalemate supports my argument. Both combatants grossly underestimated the lethality of their opponent's weaponry — with tragic consequences.

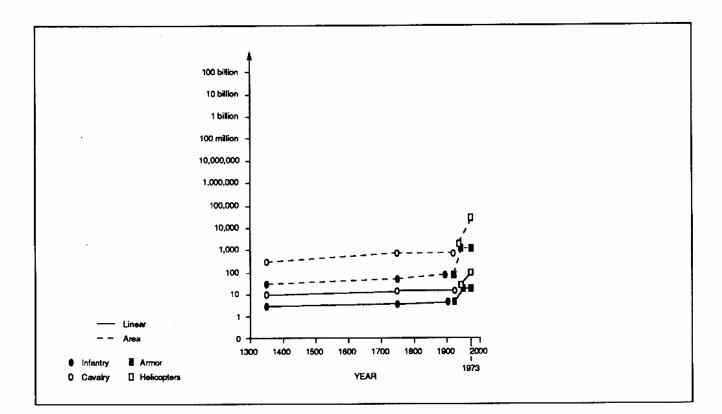
I said before that I am not a 1918 romantic. I expect that nations will still resort to violence to advance or to protect what they perceive to be their vital interests. On the other hand, history suggests that even the most irrational of nations can behave in semi-rational ways when forced to by technology. Neither the Japanese nor the Nazis initiated gas warfare against the Allies in World War II, even in their most desperate straits. Given their behavior in other spheres, this reaction obviously was based less on humanitarian virtues than on fear of Allied retribution; the Allied fire-bomb attacks on Dresden and Tokyo were fearful enough. Can you imagine the results if all of those planes had also been dropping mustard gas?

No nation has used a nuclear weapon since 1945. Except for that strange interlude between 1945 and 1949 when the United States held a nuclear monopoly, government decisions to forswear the use of nuclear weapons have been based on realism, not altruism. No nation wants to run the risk of triggering a nuclear attack against its own forces or homeland.

If nations have forsworn gas warfare (more or less, depending upon your reading of reports from Iraq, Afghanistan and Cambodia) and nuclear warfare, is it conceivable that they will attempt to avoid what we know as conventional warfare? If that is the case, and, if we assume that no one will forswear the use of violence to achieve national objectives, then we have to assume that unconventional warfare - low intensity conflict - is the battleground of the future. The "battleground of the future" probably is a bad phrase in this context; The Economist of March 12, 1988, includes a survey of the 25 "wars" going on around the world today, and with the exception of Iran-Iraq, I think we could agree that the others all fall into the low intensity conflict category.

Personally, I am inclined to believe that the United States is not particularly well prepared for this future, or present, battleground. None of our four services sees unconventional warfare as a major mission; their conventional warfare roles dominate their thinking. The Army prepares for Warsaw Pact forces flooding through the Fulda Gap and the Air Force worries about control of the air, when not worrying about delivering the next Armageddon. The Navy sees "brown-water" service as demeaning when compared to nuclear subs and carrier attack groups, and the Marine Corps, perhaps the most likely home for the unconventional warfare role, has problems thinking about any mission not launched from an amphibious landing craft.

During this semester you will have the opportunity to listen to and question many people who think about conventional and unconventional warfare on behalf of the U.S. government. I hope that you will take the opportunity to question them aggressively about our preparedness in this sphere.





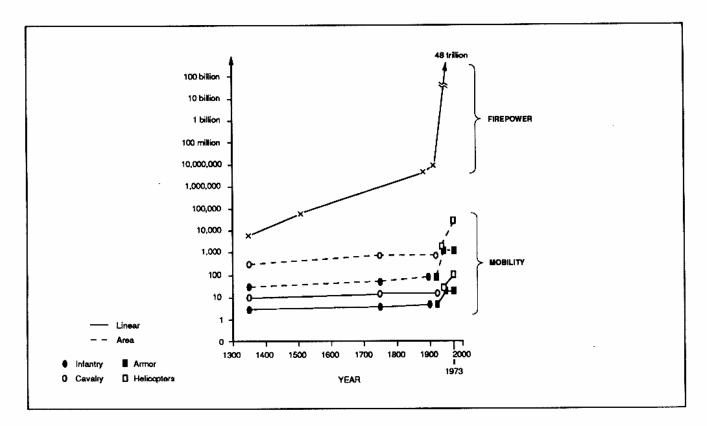


Figure 4. Firepower versus Mobility