The tank for midgets, the aluminum fireball, and other strange tales from the camp of those critics who want only to Give Our Boys the Best.

# THE REFERS

THE United States as a nation does not think carefully about the military, an unsatisfactory situation given the dangers of a heavily armed world and the baffling complexity of military questions. One reason for the lack of disciplined analysis is that an odd group in Washington, calling themselves Military Reformers, manages to corrupt thoughtful debate—chiefly by reducing it to clowning.

The Reformers are diverse, having little in common other than great self-esteem and matching confidence. They include free-lance intellectuals, veterans, employees of the Pentagon, technical men, journalists, men, women, and, if not children, some who are intellectually not much beyond childhood.

By and large (exceptions can be found to any of this), they believe that we need weapons employing older and simpler technology (which they tend to equate) and that most of our equipment today is badly designed and unreliable, doesn't work, or is unrelated to the realities of combat. By virtue of well-developed links with the media, they managed for some years, if not to shape, at least to confuse the debate over genuine military questions. David Evans, the defense writer of the Chicago *Tribune*, is an ardent and active Reformer, having recently hosted, for example, a Reformist caucus on Capitol Hill. The *Trib* is not a minor paper.

There is enough truth in the assertions of the Reformers in some cases and enough doubt in other cases to make these views well worth considering. My objections to the Reformers over the years have not been so much to their ideas but to their slipshod research, chicanery, hermetic pompousness, deceptiveness, emotionalism, and general ignorance. Not all of them exhibit all of these characteristics, but most show most of them. To demonstrate the degree of the problem, permit me to give a few examples.

BY FRED REED

### The Curious Case of the M1 Tank

A Reformer named Dina Rasor, head of the Project on Military Procurement, led the attack in the media on the M1 tank. She obtained early on a set of unflattering test results on the tank and parlayed those results into minor celebrity and funding for her organization. Over the years she has released all sorts of information purporting to show the manifold shortcomings of the M1.

Rather less attention has been paid to the manifold shortcomings of Rasor. In Washington, the unconscious assumption is that anything derogatory to the military must be true and that the motives of the critic must be

She published a book (*The Pentagon Underground*) in 1985, seldom a wise thing for a Reformer to do. In it she tells of going in 1981 with a congressional delegation to Fort Hood, Tex., to see the M1. She recounts that she got into the driver's seat, low in the front of the hull, and discovered—gracious!—that the Army had designed the tank for midgets! People of normal size couldn't fit in the M1. While she was driving, her head bumped against the turret

Then, always alert, she discovered manifestation of the tank's poor design. She is only five feet, six inches tall, she writes, yet "I later had a crew member close the hatch while I was in the driver's seat. In order to fit, I had to dig my chin into my chest and put myself in an almost impossible driving position."

I had the same problem until I adjusted the seat.

At five feet, eleven inches, I have no difficulty fitting in the tank. Not only didn't she know about the adjustable seat, but apparently wasn't interested. The book was published in 1985, and the trip had been made in 1981, allowing ample time to make a telephone call. Her whole book is full of such tales. In one priceless passage, she asserts that Army Public Affairs in the Pentagon couldn't tell her where Fort Hood—a huge base—is located. Thus do we influence policy in Washington.

Now, various aspects of the M1 can be criticized or at least argued about by people who know something about tanks. It is heavy and getting heavier. It uses a lot of fuel. The tracks wear rapidly. How well the electronics will hold up in extended combat is questionable. The turbine exhaust may produce an excessive IR signature. These are adult questions, mostly involving conscious trade-offs that may turn out to have been bad trade-offs. But saying that the driver doesn't fit?

Ignorance of such monumental proportions is habitual among Reformers. Years ago, when I came to the military beat, I was given, at Rasor's outfit, a briefing by Pierre Sprey, a Reformer and universal expert, about the defects of the tank. Sprey proceeded to tell me many terrible things about the M1.

The general tone of his exposition struck me as implausible. I grew up at Dahlgren Naval Weapons Lab, a naval research base, and graduated in 1966 from the Marine Corps light-armor school at Camp Pendleton. Sprey's notions bore no relation either to the military I had been in or to the engineers I had known in high school. On the other hand, I didn't trust the Army. While the services had done little, if any, outright lying to me, on many occasions they had done some pretty heavy interpretation of the evidence.

Having been duly Spreyed, I showed up at Fort Knox

with my calculator, stopwatch, and tape measure, confident that the Army wasn't going to fool me with a rigged acceleration test, and proceeded to badger the Army into letting me actually use the beast—drag-race it over a fifty-foot course, fire it on the move, and the rest. My real purpose was to determine who was peddling nonsense, the Reformers or the Army, so I was careful to distinguish between things I could personally verify and those I couldn't. For example, I trusted the speed of the M1 as I measured it over my acceleration course, because the Army wanted the tank to seem fast. I didn't trust the speed of the older M60, because the Army wanted the M1 to seem superior and therefore might have driven the M60 slowly. This was paranoid on my part, I know now, but then I wasn't trusting anybody.

In every case I could personally verify, from acceleration to effectiveness of turret stabilization, the Army's version proved correct.

Sprey had told me, for example, that the M1 was so dependent on its electronics that, should they fail, the tank couldn't fire. This was typical Reformery. Anything technically more advanced than the weaponry of World War II doesn't work. I turned off the engine, cut the master power, turned the turret with the hand cranks, aimed with the auxiliary sight, and twisted the manual firing handle. The tank fired.

### When in Doubt, Check the Manual

None of this establishes that the M1 is a good, bad, or mediocre tank. It does establish, however, that one should be very careful in accepting what the Reformers say.

Their "misstatements" could easily be avoided. For example, they could have learned that the tank will fire without electronics. They simply hadn't tried very hard to find out. For example, the firing of the gun is explained in the crew's manual, as, for that matter, is the dark and mysterious problem of adjusting the seat. There are detailed drawings. The manual is in the public domain. Before leaving Washington, I had asked Rasor's office for their copy. They didn't have one and had never read it.

Before long, one notices a pattern in the pronunciamentos of the evangelical Reformers. They mix a robust disregard for truth with a well-developed taste for parody. Observe that the Reformers do not accuse the military merely of bureaucratic ineptitude, poor judgment, and inattention in the expenditure of other people's money—the normal foibles of federal agencies. Instead, soldiers are accused of absurdity, of serious unfamiliarity with their profession, of behavior explainable only by clinically substandard intelligence, and of something bordering on lunacy. This is not analysis but a sort of literary cartooning.

Another example of comedic criticism is the assertion that the Army builds combat vehicles of flammable armor. The M2 Bradley, a sort of armored personnel carrier, uses aluminum armor. Various objections may be raised to aluminum armor, particularly in naval use (the Navy uses it extensively), and there are serious reasons for doubting whether the class of vehicles in general or the Bradley specifically is militarily advisable—but these are grown-up questions. The Reformers, seeking to lampoon rather than to describe, have decided that

aluminum burns. (Hah! Dumb Army, makes incendiary vehicles.)

From The Pathology of Power, a remarkably silly book of Reformism by Norman Cousins: "But under the right conditions—namely, a square hit by a mortar shell, a land mine, or even the right kind of grenade—this aluminum armor might ignite and burn fiercely, incinerating the occupants. The thicker such armor, the more intense and devastating the conflagration it would fuel." I have seen this notion in a dozen places. The New York Times, the gray lady of journalism, editorialized that the Bradley would go up "in a fireball."

Now, let's break with all tradition and think about this. Aluminum is an extremely common material whose properties are perfectly understood. If it burns, the Army is deliberately building crematoria for its soldiers to ride in. I like to imagine the decision being made:

"What'll we build it of, General? Firewood?"

"Naw. Gotta paint it."

"How about bundles of highway flares?"

"No. The troops would suspect."

"Well-aluminum?"

"The very thing! Goes up in a fireball!"

Does aluminum armor burn? Of course not. Powdered aluminum burns, yes, as does powdered steel (blow some fine iron filings into a Bunsen burner, and they'll go up like a sparkler: My God, we built our World War II battleships of flammable steel). Solid aluminum does not. My wife often cooks in an aluminum wok on a gas stove, and that wok has yet to go up in a fireball. Put a beer can on a gas stove—I did, for this article—and see whether or not it burns. (The paint will stink up your kitchen.) Ever wrap a potato in aluminum foil and put it in a campfire? Were you incinerated by the resulting conflagration? The publication of such stuff suggests both a weird idea of servicemen and an invertebrate's grasp of chemistry.

### Powerful Hostility Toward Technology

A strand running throughout Reformist thinking is their powerful hostility toward advanced technology. At first, they couch their distaste in terms of reason, pointing to real failures of excessively ambitious projects, the real tendency of industry to promote new technology because they make money at it, the real problems of reliability that have plagued many advanced weapons. Then one notices that they rigorously ignore the benefits of technology, that what they advocate often appears to be the military of World War II: unelectronic, radarless, computerless stamped steel. (If generals prepare for the last war, Reformers prepare for the war before last. To say this is unfair, but not very unfair.) One ends by noticing in them a backward-looking romanticism, a longing for the days when men wore iron and their horses didn't come with 500-page manuals.

The media often seems to accept this stuff without question (or used to accept it; the Reformers seem to be losing credibility), perhaps because reporters believe the Reformers to be engaged in public-service work. They aren't, exactly. Rasor, for example, is a paid advocate—i.e., a flack—as much as any PR man at McDonnell Douglas. Cousins's book royalties depend on sales, and measured discussions of the design of armor don't sell books—splashy allegations do. Gary Hart's Reform-

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ist fulminations (in America Can Win: The Case for Military Reform, a book by Hart with William S. Lind, published in 1986 by Adler & Adler) were going to be used, one supposes, to position him as a defense-minded Presidential candidate before he self-destructed. Further, the attractions of attention are not without weight in Washington, and many Reformers would never again go on television if they ceased to deal in sensational charges. The evangelicals are not without agendas of their own.

Another characteristic of Reformist writing is heavy reliance on the fact that much of their nonsense is obvious only to specialists. For example (I could provide pages of this), Cousins speaks of the Hellcat missile (it doesn't exist), worries that electronic jamming might make a descending ICBM fly back to destroy its country of origin (this would require the repeal of the laws of physics), talks of the superiority of aiming a tank gun with the naked eye (flatly impossible), and admires the virtues of the Belgian Leopold tank (apparently he had heard of King Leopold and figured a Belgian tank must be a Leopold, as indeed it might be, if the Belgians built a tank. Really, it was a Belgian-owned German tank known as Leopard).

With equal insight, Rasor claims to have found that the M1's optical rangefinder works as well as the laser; unfortunately, the M1 doesn't have an optical rangefinder (unless you count reticles on the auxiliary sight, which she wasn't using). She says the tank uses four gallons of fuel per mile, roughly correct; Hart and Lind say more than nine. One number is about like any other, especially if you know that nobody will check it. (Typically, one gets the very high figures by letting the tank idle a great deal, a method that could give nine gallons per mile for a motor scooter. Gallons-per-hour while idling is important, but is deceptive if given as miles per gallon with no mention of time spent idling. Much of Reformery relies on this sort of reporting.)

If I wrote of politics with equal attention to detail speaking, perhaps, of Representative Ted Kennedy of Kentucky, who chaired a nonexistent committee—I would be laughed out of town. The evangelicals get away

with it.

# **Hubris—The Occupational Disease**

The lack of adherence even to high school standards of research is astonishing but monotonously observable in many Reformers whose intellectual credentials would lead one to expect better. Consider DIVAD as described in America Can Win. Lind is a bright and charming fellow, but makes himself comic by an inability to distinguish between what he knows and what he does not know. Hubris is an occupational disease of Reformers. Lind asked me to read the manuscript before it went to the publisher. In it was the familiar story of DIVAD's radar aiming its gun at a latrine fan (again, note the love of the comedic).

I had looked into the tale with some care and concluded that it didn't happen. DIVAD had picked up false targets—i.e., stray returns not corresponding to real targets—emanating, someone had told a reporter, from some oscillating object, as for example maybe a ventilation fan. In the normal growth process of robust stories, this progressively became in the press "did pick up," then "locked on to," then "aimed its guns at," and, finally, so help me, "fired at" the latrine fan.

I noted to Lind that the story had seemed not to be true and said that I assumed he had verified the tale.

In the published version, the story became: "In another demonstration, a DIVAD's radar reportedly mistook a nearby fan in a latrine for a helicopter and aimed the cannon at it." (My italics.) Cute: "Reportedly" allows retention of the derogatory thrust—many readers will of course assume that what has been reported must be true—yet he is covered if anyone calls him on it. This is sheer intellectual dishonesty.

It is not an isolated instance. In writing of the Navy's Aegis antiaircraft cruisers, he says, "The Navy reportedly rigged the tests." (My italics.) If true, the charge is very serious; if not, wildly irresponsible. No evidence is given.

All of this chicanery might be tolerable provided that the prescriptions of the Reformers held up. They frequently don't. As a brief example, from Sprey and others I learned that a good tank should not weigh sixty tons or have a laser rangefinder, a fire-control computer, a stabilized turret, or an automatic transmission (these all

he lack of adherence even to high school standards of research is astonishing but monotonously observable in many Reformers. being characteristics of the M1). What does one find on Israel's home-brew tank, the Merkava? All of these things. The same is true of German tanks, of British tanks, and increasingly of Soviet tanks. Personally, I would hesitate to instruct the Israelis in armored warfare. The Reformers are less timid.

For that matter, the routine prescription of the Reformers is that we build cheap, small, agile fighters with minimal electronics. Now, intelligent men can be found on both sides of this question, which is hardly one that hasn't occurred to the Air Force. I note, however, that the Israelis acquire F-16s with the usual load of electronics and proceed to add more of their own. Further, they engage in the C<sup>3</sup>I-intensive warfare (E-2Cs, drones, F-15s, lots of battle management) that the Reformers dismiss as folly. Instead of acquiring the A-10, touted by Reformers as the ideal close-support plane, they use the F-16. This doesn't necessarily prove the Reformers entirely wrong—but might it not take the edge off their unlimited self-confidence?

No.

# Why They Do as They Do

Why do the Reformers behave as they do? They will tell you they want to Give Our Boys the Best, to promote the national security, to be sure the taxpayer gets what he pays for. (The defense contractors say the same thing. Purity runs in the streets of Washington.) Yet their behavior is inconsistent with these ends. You don't help our boys by making essentially random charges about a highly complex subject whose fundamentals you have made no attempt to master. In fact, it is hard to think of a better way to get troops killed.

Further, the approach of the Reformers is not gauged to persuade, but rather to anger. By their relentlessly sloppy research and cultivated ignorance, they make themselves appear as lightweights, which, in fact, they are, so that any useful ideas they might have are easily ignored. This is not politically serious behavior.

Why, then, do they behave as they do? It depends on the Reformer, of whom there are many. Some, I think—those holding elected office—find that Reformism provides them with a convenient straddle in a time when the country is leaning toward conservatism. By criticizing the military, they win liberal votes, while by talking about improving weaponry they get conservative votes.

But the chief reason, I believe, is that they are not aware that they are dealing in nonsense. The Reformers are zealots of the classic variety, with the usual self-righteousness and the usual hermetically sealed minds. Having become frantically partisan over years of polemical trench warfare, having partitioned the world into Themselves and The Enemy, they are perfectly unconscious of the rolling non sequiturs and athletic leaps of logic that constitute their conversation. If the cause is good, the details aren't important. It doesn't matter whether or not the armor burns so long as your heart's in the right place, and if the tank isn't really too small for humankind, well, it would be just like the Army if it were, and that's close enough.

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