



Senior Officer Professional Digest

Selected readings from the world's military journals

Issue No 5 Date AUGUST 2002

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The Introduction of the SOPD

Professional reading is a commitment to our Army's future. The Senior Officer Professional Digest (SOPD) has been designed to assist you to learn more about the issues that will shape the future of warfare. I commend the SOPD to you and ask that you make the time to read the articles and to reflect on their content.



P.F. Leahy
Lieutenant General
Chief of Army

Article Title: 'Landpower in History'

Author: Brigadier General David T. Zabecki, USAR

Publication Details: *Armed Forces Journal International*, August 2002, Vol. 140, No. 2, pp. 40–2

Synopsis

The author, a Deputy Chief of the US Army Reserve, argues that, despite being the military instrument most capable of producing lasting changes in politics, ground forces are becoming the least understood tool of statecraft. Substituting an airpower-centric approach to war is not an answer to achieving change. For General Zabecki, *'the principal historical lesson that strategists must understand is that physical occupation of territory by ground forces facilitates positive and direct control over the social, political, and economic destiny of that territory in a manner unrivalled by any other instrument of national power'*. Ten maxims of land power are listed:

- Physical Control Gives Strategic Leverage
- Lasting Control Requires Physical Occupation
- Occupation Decisively Signals Intent
- Defensive Occupation Raises the Cost of Conquest
- Occupation Limits [an adversary's] Strategic Choices
- Destruction of Enemy Ground Forces Produces Political Leverage
- Airpower Alone Can Coerce Only Slow and Indecisive Negotiations
- Deterrence is Changing [in the face of new trans-state and sub-state opponents who seek to avoid missile strike]
- Shock Without Manoeuvre is a Fallacy [airpower cannot manoeuvre in the classical sense]
- There are Problems with Proxies [they did not exist in Somalia and were poor in South Vietnam]

General Zabecki concludes that lasting political results, the changing calculus of deterrence and the need to retain the traditional balance of shock and manoeuvre makes ground forces indispensable in American statecraft.

Article Title: 'A Different War: Is the Army Becoming Irrelevant?'

Author: Peter J. Boyer

Publication Details: *The New Yorker*, 1 July 2002, pp. 54–67

Synopsis

This major essay on the future of the US Army was written with a general audience in mind and it is significant that it should appear in *The New Yorker*, one of America's leading journal of politics and ideas. The article is basically an analysis of General Eric K., Shinseki, the current US Army Chief of Staff, and his three-year struggle to reform American land forces. The author suggests that Shinseki has been the Kerensky of Army reform and has probably failed to transform the land force largely due to opposition from Army generals and because, as Chief of Staff, he lost the confidence of the Secretary of Defence, Donald Rumsfeld.

From the outset Shinseki expected resistance to converting the US Army into a more 'nimble, light and lethal' organisation. He used the slogan: '*If you don't like change, you're going to like irrelevance a lot less*' to try to win support within the Army for reform. The article pinpoints the basic philosophical dilemma confronting the US Army. The land force is a heavy force, the force of human decision, but within the Rumsfeld Pentagon the focus on aerospace technological power automatically implies a diminished role for ground forces. In addition, the light combat role has traditionally been fulfilled by the US Marine Corps. In short, the Army's institutional identity is built around its armoured forces such as the Abrams tanks—'a Maginot Line on rollers'—and its Bradley fighting vehicles. Boyer calls this 'the old, heavy Army'. The latter views the Rumsfeld Pentagon with suspicion.

In the wake of Kosovo, Shinseki tried to give the Army a new profile through the creation of the Objective Force that can operate across the spectrum of conflict and move a medium-weight Stryker Brigade anywhere within 96 hours. The author describes the Stryker Brigade as '*Shinseki's Trojan Horse—slipping the Army of the future within the walls of the old Army*'. However, Shinseki's plan to blend elements of the light (airborne/infantry) and heavy (armour) sides of the Army led to fierce opposition from many general officers who believe transformation lacks clarity and purpose.

At the same time, the Rumsfeld Pentagon came to the conclusion that Shinseki had become ineffective as the leader of transformation. He led the defence of the Crusader howitzer that Rumsfeld opposed. The Secretary reacted by turning Shinseki into a lame duck Chief of Staff by naming Shinseki's successor, General John M. Keane, the Vice Chief of Staff, a year in advance. As Boyer puts it: '*Keane is Rumsfeld's man inside the Army, but he's not in charge; Shinseki's in charge, but he bears the onus of the Defense Secretary's no-confidence gesture*'. In this way, Rumsfeld endorsed Army transformation while undoing its creator. For Boyer, Shinseki emerges as the Kerensky of the Army; it remains to be seen whether his successor, General Keane, is its Lenin.



Article Title Deputy Secretary Wolfowitz Interview with *The New Yorker*

Interviewer Peter Boyer

Publications Details: 18 June 2002, *DefenseLink*,
http://www.defenselink.mil/news/Jul2002/t07022002_t0618ny.html

Synopsis

This interview is cited because it is an up-to-date account of the Bush Administration's objectives in bringing about Army transformation. Deputy Secretary Wolfowitz argues that Army transformation is about a great deal more than equipment upgrades. He is highly critical of the Crusader artillery program, pointing out that the money would be better spent on improving longer-term combat capabilities. Wolfowitz argues that fire support in a transformed force will emphasise accuracy rather than the volume of fire promised by Crusader. In any case he argues that the high rate of accuracy touted for Crusader comes not from the gun itself (which has not been produced in prototype yet), but from the Excalibur round.

Wolfowitz suggests that the US Army should be moving to a point where it can insert a relatively light force into an enemy's rear with limited logistical support, but with its own lethal fires as well as the support of networked long-range systems. He argues that the United States requires effective ground forces and comments that:

“you don't win wars just from the air . . . I was astonished that we accomplished as much as we did in Kosovo without ground forces, and I think that was a fluke. There may be . . . some individuals who think that airpower is now so accurate that you don't need armies with artillery or you don't need this or that. I would suggest they study a little more history.”

This interview provides a valuable perspective on the political pressures to produce capability that the US Army is encountering from the Bush Administration.

Article Title: 'The Unresolved Problem of Suppression'

Author: Richard Hart Sinnreich

Publication Details: *ARMY*, July 2002, vol. 52, no. 7, p. 9

Synopsis

The author, a former US Army colonel and distinguished military theorist, points to the recent fighting in the Tora Bora and Shah-i-Kot mountains in Afghanistan as evidence of the need for ground forces to have artillery-suppressive fire. He quotes the US Army Chief of Staff, General Shinseki's testimony to Congress:

'In the first two days of Operation Anaconda, 28 of our 36 casualties were due to indirect fire from mortars. And it would have been in our interest to have turned those guns off . . . and lift the burden of fires falling on our troops'

Sinnreich points out that the real debate is not so much over the utility of the Crusader howitzer system, but the extent to which ground forces can afford to rely exclusively on air-delivered smart weapons for close fire support. Mortars and rockets, he believes, are not an alternative to cannon for area suppression. The effects of suppression tended to last only while fires were in progress and effective suppression required not only area coverage but duration—making artillery pieces the traditional weapons of first choice.

Article Title: 'US Army, Navy Mull Lessons Learned in Afghanistan War'

Author: Amy Svitak

Publication Details: *Defense News*, July 22-28, 2002, Vol. 17, No. 2, p. 38.

Synopsis

This article is a very useful summary of the US Center for Army Lessons Learned (CALL) Report of 25 June 2002 entitled, 'Emerging Lessons, Insights & Observations: Operation Enduring Freedom'. According to CALL the following lessons were derived from operations in Afghanistan:

- **Fire Support:** aerial precision fires do not provide sufficient suppressive fire. There is a continued need for ground forces to possess artillery which was not the case for US forces in Afghanistan. A ground commander must have, at his disposal a full range of fires. According to CALL: *'precision guided munitions are very accurate for specific target coordinates, but not every mission lends itself to the requirement for specific coordinates'*.

- **Apache Weaknesses:** Operation Anaconda: US troops came under heavy mortar fire and lacked organic fire support to suppress the enemy. Close air support from AH-64 Apaches and precision munitions from tactical aircraft were not sufficient. The Apaches (unlike AC-130 gunships) were unable to hover at high-altitude and could only provide running fire while on the move. According to CALL a battery of howitzers could have shut down the enemy mortars.
- **Air-Ground Integration:** ground commanders and aviators developed Close Combat Attack as a TTP in which AH-64s provided directed fires. However, Army forward observers used USAF close air support as the primary means of fire support.
- **Communications:** smaller, more deployable, higher bandwidth palletised communications packages were required for more mobile forces; FM radios were insufficient in Afghan terrain and there was digital system incompatibility.
- **Operational Intelligence:** terrain analysis was critical and more highly mobile reconnaissance forces were needed.
- **UAVs:** ground commanders often used UAVs for command and control rather than intelligence.
- **Engineer Operations:** needed more equipment for rapid runways and required smaller, deployable bobcats, forklifts and concrete saws. The report notes that field sanitation is a 'lost art'.
- **Mine Operations:** Military Mine Action Centres were needed from the outset. Clutter made mine detectors unreliable while the most effective counter-mine measures were Norwegian mine flail (Hydrema), US MCAP and mine-sniffing dogs. US miniflail was not effective.
- **Logistics:** Special Operations Forces planners and conventional planners needed to co-ordinate closely in order to streamline resource needs.
- **Force Protection:** made difficult by noncontiguous terrain and dispersed units. There was a need for wide-angle and vehicle-mounted thermal images, metal detectors and POW detainee equipment. Need for increased training between Military Police and Military Intelligence.
- **Materiel:** small lightweight binoculars, laser range finders and GPS are indispensable.
- **Soldiers:** the soldier's load was around 65–80 pounds but at an altitude of 10,000 feet, the weight felt more like 120 pounds after five minutes of movement.

(Note: LWSC will supply the full US CALL Report with the *Defense News* article)

Article Title	The Bugle Calls: Armour on the Modern Battlefield
Author	Lieutenant Colonel James K. Morningstar, US Army Armor Branch, Washington DC
Publication Details	<i>Armor</i> , May-June 2002, Vol. CXI, No. 3, pp. 12–15.

Synopsis

The article begins by posing the question: Is there a role for armour on the modern battlefield? To answer the question the author, a combat veteran of the 1991 Gulf War, surveys the US Army's employment of armour during the post-Cold War period. The Army's MBT was originally designed to deal with massed attacks of Soviet armour in Europe. The M1 Abrams proved equal to that challenge fighting the Iraqis. However, since 1991 the range of missions that the US Army has taken on calls for lighter formations, which are easily deployable to a wide variety of locations around the world. The US Air Force's largest transport aircraft, the C-5, can carry one 70 ton Abrams. The USAF has 120 C-5s and the Army has 7, 880 M1s.

During the mid-1990s the Army investigated the development of a 25-ton light tank or armoured gun system, the M8. The lighter and thus more easily deployable M8's role would be to provide security, reconnaissance and anti-armour firepower to light infantry formations. The M8 was expected to be used in a wide range of missions, including counter-insurgency, relief operations, urban operations, close support of the infantry and in the absence of an enemy armour threat, standard armour missions. The main problem with this project was that a weapons system capable of conducting all these missions already existed—the M2/3 Bradley Fighting Vehicle. The M8 was, in essence, an M2/3 with a bigger main gun, no TOW launcher and less infantry-carrying capacity. Not surprisingly, the M8 was cancelled both for fiscal reasons and also because the project was aimed at meeting an operational limitation (lift capability) and not an operational requirement (specific threat abilities).

In the changed strategic conditions of the current war on terror, the author argues that tanks can be very persuasive, while the absence of armour can prove to be tragic. In this context he says that the new role of armour is in small detachments working closely with infantry, as a fast-moving assault weapon system or as transport. The conduct of ambushes and raids necessitates changes to the current training of armoured corps personnel. More initiative and independence are required at junior levels. The use of fewer tanks, manned by well-trained crews, will allow the US to make do with the relatively small number of C-5 and C-17 aircraft capable of transporting tanks to operational areas. Along with changes to training of personnel, the author suggests that special deployable tank companies could be held in readiness at key locations in the US and that logistic arrangements could be tailored to the specific operational requirements of these groups once they have been deployed to remote locations.

The article concludes that armour has a vital role to play on the modern battlefield. The author cites events that inspired the film *Black Hawk Down* as an example of the type of operation in which small amounts of armour could make a real difference to the outcome. His final plea is to break the large unit mindset of the Cold War armoured corps in order to give tank crews the ability to support troops engaged in a range of low level operations.

Article Title 'Collapsed Countries, Casualty Dread, and the New American Way of War'

Author Jeffrey Record

Publication Details *Parameters*, Summer 2002, Vol. 32, No. 2, pp. 4–23

Synopsis

Veteran American defence analyst, Jeffrey Record, argues that the combination of failed states, elite casualty phobia and unfolding aerial precision strike is profoundly transforming the US 'way of war'. In the wake of Afghanistan a new way of war—based on advanced airpower, special operations forces and local surrogates—is emerging, aimed at dealing with cases of regime coercion or overthrow in failed states.

The emerging new American way of war has been conditioned by a profound change in the structure of international security away from inter-state conflict towards intra-state war. Weak and failed states have become the primary source of international stability. Record states: '*the substitution of weak for strong states as the primary source of international political instability means that irregular wars within weak states rather than conventional wars among powerful states now dominate*'. For Record, the question is whether the combination of airpower, special forces and local proxies can serve as a new yardstick for a new US strategy of intervention in states that is dangerous to international stability. He notes

'An airpower-dominant way of war in which US ground forces—and small ones at that—are ancillary, functioning mainly as target spotters and liaisons to indigenous proxies, is an inherently attractive way of war, especially for a society that values the individual as highly as America's does'.

Such an approach avoids the 'blood price' traditionally associated with war and failed-state scenarios and seems '*the tailor-made instrument of American warcraft*'. However, the new way of war has three weaknesses:

- First, if technology makes bloodless war possible it may also serve to encourage military over diplomatic solutions.



- Second, the airpower-special forces-proxies way of war has limited value beyond regime coercion or swift overthrow in weak states. Record notes: '*Obviously, our new way of war is of limited value in situations requiring the conquest, occupation, and administration of territory. These missions require "boots on the ground" in sizable numbers*'.
- Third, airpower and the intervention model are also of limited use in peace enforcement and nation-building missions that again require a permanent ground force presence.

Article Title US-Australian Defense Cooperation: A Model for Twenty-First Century Security Arrangements

Author Jonathan O. Gackle

Publication Details *Defense & Security Analysis*, Vol. 18, No. 1, 2002, pp. 39–49. Available on-line at <http://www.mca-marines.org/Gazette/Gackle.html>

Synopsis

Major Gackle is a Marine Corps officer who recently served on exchange with the RAAF. In this article Major Gackle argues that Australia and the US should introduce 'deployment integration'. He uses the forward-deployment of air force squadrons using the same equipment as the US to demonstrate that allies can share responsibility for achieving security objectives by achieving a strategic level of interoperability. Gackle argues that in a three-phase process an Australian squadron could fully integrate into a forward-deployed US Marine Corps formation.

Gackle argues that Australia's choice of the Joint Strike Fighter (JSF) as a replacement platform for its F/A-18 and F-111 would not only enhance the long-term prospect for USMC-RAAF deployment integration, but it would increase the opportunity for future ADF interoperability and/or integration with Marine amphibious task forces. This approach would enhance Admiral Blair's objective of building pluralist security communities in the region. He goes on to argue that an Australian combined arms force—equipped with a JSF tactical air component—could achieve the synergies necessary to wage seamless coalition warfare. The ADF could potentially provide a complementary Marine Expeditionary Unit-sized component able to function within the Marine Corps' operational concept of Expeditionary Manoeuvre Warfare.

While there are clearly political obstacles to attaining this level of interoperability—not least being the implied advance consent to participation in US operations—the author does argue that Army's MOLE concept foreshadows a force structure compatible with that of the Marines. The promotion of technical and tactical synergies suggests ways in which the ADF and US forces will achieve higher levels of operational burden-sharing in the future. The US Marine Corps is probably the most receptive to cooperation with the ADF and is clearly the best place to start.

- Article Title:** 'Infantry Weapons: The Way Ahead'
- Author:** Charles Q. Cutshaw
- Publication Details:** *Jane's International Defense Review*, July 2002,
Vol. 52, pp. 47–53

Synopsis

This article deals with the state of small arms technology (weapons with a bore diameter of 20mm or less and grenade launchers in the 40mm category). It suggests that a future 'revolution in small arms' is only likely when technologies such as directed energy, electromagnetic propulsion and smart bullets allow a significant leap ahead of present capabilities. The following categories are analysed:

- **Sub-machine guns:** The most advanced sub-machine gun available at the moment is the FN Herstal's P90, but as a class SMGs are being overshadowed by compact rifle-calibre carbines largely because the pistol calibre SMG cannot penetrate soft body armour. The US Special Operations community has adopted the 5.56x45mm M4 carbine in place of SMGs.
- **Service rifles:** currently represent only incremental advances in technology including the US Objective Individual Combat Weapon (OICW). Although the OICW has a 'kinetic energy' component via a grenade launcher that gives an air burst, not all soldiers will be equipped with this weapon. The M16 rifle and its variations, is likely to remain the on US inventory as the longest serving rifle in US military history.
- **Precision tactical (sniper and anti-material) rifles:** are benefiting from advances in ceramics, chemistry and metallurgy that have reduced weight.
- **Shotguns:** the semi-automatic tactical shotgun is described as '*the wave of the future*'. The article predicts that, given its versatility, the tactical shotgun and the compact assault rifle/carbine will eventually supplant the sub-machine gun in the military and in law enforcement agencies.
- **Machine guns and grenade launchers:** are described as stable. The latest technological advance is the US OCWS that is in fact more of an automatic grenade launcher than a machine gun.
- **Metal Storm:** the Australian-invented 'Roman Candle' gun and its mitrailleuse system is described as having several advantages over conventional arms including no-moving parts and variable rates of fire. However, its electronics remain vulnerable and there are weaknesses associated with barrel assembly. Nonetheless, Metal Storm has a useful future as an area-denial weapon.

The article predicts the following:

- SMGs will be overshadowed by compact assault rifles and carbines;
- 'Smart' ammunition will make the tactical shotgun attractive to certain areas of the military;
- Existing small arms will benefit by technology upgrades (eg the M16);

- Electronically controlled ‘smart guns’ have tactical and reliability problems which prohibit mass use;
- There will be no ‘revolution in small arms’ in the short-term future;

Article Title Lessons from the War in Kosovo

Author Benjamin S. Lambeth

Publication Details *Joint Forces Quarterly*, Spring 2002, pp. 12–19.

Synopsis

Benjamin Lambeth, a RAND expert in airpower argues that the war in Kosovo was a poor example of joint and coalition warfare that almost ended in disaster. He suggests that though allied air strikes at Serb forces were largely ineffective, Milosevic was ultimately defeated by the forces deployed against him. Kosovo demonstrated that even the most advanced aerospace force still cannot ‘find, fix, track, target and engage any object on the surface of the earth’.

Lambeth’s key point is that airmen need to work to realise the joint potential of airpower, rather than basking in the victory that airpower achieved single handedly. He reluctantly concludes that future conflicts that are fought for non-vital interests with coalition allies will not utilise overwhelming force. Instead warfighters must expect to have their efforts constrained by political factors. Given the limitations of ‘gradualism’ more effort needs to be put into developing strategies that maximise military success in such circumstances.

Lambeth is particularly critical of the well-publicised decision in advance of operations not to deploy ground forces. He argues that the commitment of ground forces would not necessarily have caused more casualties, rather it would have made it easier to target the enemy with airpower. It would certainly have prevented further ethnic cleansing by Serbian forces. The author suggests that: ‘*Although airpower can be surgically precise it is in the final analysis a blunt instrument designed to break things and kill people in pursuit of clear and militarily achievable objectives*’. Without a clear strategy, and without a joint approach, the use of airpower alone risks the war becoming bogged down with little chance of success.

- Article Title** Challenges to US National Security: Protecting America's Land and Maritime Frontiers
- Author** General Barry McCaffrey, USA (Retd)
- Publication Details** *Armed Forces Journal International*, July 2002, pp. 6–10.

Synopsis

General McCaffrey points out that America's land and sea borders are porous and that this poses an enormous threat to American security as well as to its economic growth and political stability. He argues that border security must be enhanced with the passage of emergency powers, greatly increased resources to domestic agencies and a powerful Cabinet-level Department. This department must be grown from the Office of Homeland Security that is headed by Governor Tom Ridge. McCaffrey's point is that it is not enough to have presidential advisers, homeland security must have an equal voice with the other major departments of state.

The author discusses a number of essentially civil aspects of homeland security, such as: the need to fix the gap between the law-enforcement and intelligence communities; the need to build up the Coast Guard; and integrate the Customs Service with the Immigration and Naturalization Service as a single agency.

From a military viewpoint he welcomes the creation of the US Armed Forces Joint Northern Command (NORTHCOM) on 1 October. This is the new combatant command assigned to defend the United States and support military assistance to civil authorities. NORTHCOM's area of operations will include the United States, Canada, Mexico, parts of the Caribbean and the contiguous waters in the Atlantic and Pacific Oceans. The new commander will be responsible for land, aerospace and sea defences of the United States. The command will provide civil support, not only in response to attacks, but for natural disasters. General McCaffrey points out that this will result in more effective planning for post-disaster terrorist consequence management because the Department of Defense will be able to better integrate military support for civil authorities in compliance with legal and presidential directives.



Article Title	Principles of War on the Network-Centric Battlefield: Mass and Economy of Force
Author	Commander Paul Murdock, USN, (Retd)
Publication Details	<i>Parameters</i> , Spring 2002, Vol XXXII, No 1, pp. 86–95.

Synopsis

As the title implies, this article is an examination of the concepts of mass and economy of force as they apply to the principles of war. The author begins by noting that understanding of the concepts, and hence application of the principles, has frequently been poor in the past. Quoting from both the US Army's FM 3-0, *Operations* and Clausewitz, Murdock makes the point that the two concepts are closely related and that the aim of combat forces is the production of shrewd and judicious effects. He follows this up with examples from military history which show that the concentration of forces is not always the best way to achieve mass and that well conducted economy-of-force operations can achieve the same ends.

After pointing out that the increased lethality of weapons has now made it more dangerous to concentrate platforms and manpower, Murdock says that mass should now be defined in terms of effects—such as massing of fires. He believes that in this context operations will take place in a framework of economy-of-force and proposes the idea that in the future forces will employ what he calls network-centric mass. He discusses this concept in two parts:

- The three grids—sensor, information and transaction (or shooter), and
- The idea of parallel warfare.

The discussion of the grids concentrates on how these systems will interlock to produce highly lethal effects. His discussion of the concept of parallel warfare proposes the idea that widely dispersed shooter systems could produce precision mass effects via the enhanced battlespace awareness of the three grids. Murdock states that the power of these systems is potentially so great that they could be used to attack the enemy at the tactical, operational and strategic levels—hence the term parallel warfare. He also suggests that the ability to conduct parallel warfare could lead to a substantial reduction in the quantity of resources required by armed forces to carry out their missions.

The article ends with a discussion of how much mass is required and reaches the conclusion that there is no simple formula for concentrating combat power, especially in the traditional understanding of mass in terms of platforms and manpower. Looking forward, the author suggests that future commanders will need to think in terms of 'decisive' power in which mass and economy of force are carefully balanced. Victory will go to the side that uses technology shrewdly via forces that are smaller, more agile and more lethal.



Article Title Irregular Warfare and the Internet: The Case of the Zapatista Revolution

Author Major Angela Lungu, US Army Psychologist, USAEUR

Publication Details *Strategic Review*, Spring 2001, pp 49–52.

Synopsis

In 1994, the Zapatista rebel group seized town halls across the Mexican state of Chiapas and declared war on the military and the national government. The rebels followed up their assault with an information campaign that targeted national and international news media and used the Internet to mobilize support. Twelve days later, over 100,000 people marched on the main square of Mexico City chanting anti-government slogans and the President was forced to order a cease-fire in Chiapas and begin negotiations with the Zapatistas.

The Zapatista's were the first to use the Internet in irregular warfare, but operations of this type have now become common in other conflicts in Spain, Burma and Kosovo. Analysis of the Zapatista propaganda shows that they used the traditional news media to reach domestic audiences and some major international news agencies, while the Internet was used to target overseas support via webpages and bulletin boards. Broadly, their tactics consisted of reshaping local economic and political issues and adapting national symbols to create messages with broad appeal within Mexican society. The sympathies of international audiences were targeted via information about the national government's economic and social neglect, women's issues and the oppression of indigenous minorities.

The key lesson from this case study is the Zapatistas' innovative use of the Internet to publicize their cause through carefully constructed messages and media releases that targeted a wide range of support. As the author notes, since 1994, in response to this type of psychological and information operation, the US military has made significant changes to doctrine and training.