MODERN WEAPONS FOR NON-NATO CONTINGENCIES

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by James Digby

Over the past two years United States security policies have changed in some important ways. High priorities have been set for the development of forces, weapons, and equipment which can be used in emerging crises in parts of the world where no American forces are now stationed. New evaluations of where the country now stands have been painful, since little funding has gone into the production of modern hardware for this purpose in the past decade. More importantly, American military strategy has neglected third-world confrontations and the projection of power. It has concentrated on just two kinds of conflict: intercontinental nuclear war and the defense of NATO Europe against a massive and relatively unheralded Soviet attack. The procurement of U.S. military forces has been dominated by the same two objectives.

In this talk I plan to put forward some general principles for forces designed to project power and suggest some useful directions for weapons development. But first, to give a foundation for these action-oriented ideas I will discuss trends in strategy (making a few criticisms of past narrowness), say a bit about U.S. power projection forces today, and compare these with Soviet forces, noting the differences in geopolitical positions of the two sides.

STRATEGIC TRENDS

For most of the time since the Soviet Union exploded its first nuclear device in 1949, U.S. force posture design has been dominated by two tasks: first, forces which could threaten to wage intercontinental nuclear war, and, second, forces which could fight alongside

*This talk was prepared for the Conferences on Rapid Deployment Forces of the American Institute of Aeronautics and Astronautics, Washington, 11-12 September 1980, Los Angeles, 4-5 December 1980. It draws on my prior work for the California Seminar on International Security and Foreign Policy and on research carried out with my colleague, E. M. Cesar, Jr.
NATO allies to block a Soviet attack in the center of Europe. Here I
will not go into the postural consequences of the first objective
except to note that in the 1970's nuclear strategic analysis in the
West largely assumed the virtues of detente and related all major
force decisions to the arms limitation process. Meanwhile, even in
those years when the Joint Chiefs of Staff asked for forces for "two-
and-a-half" wars, the conventional force posture was dominated by
designs most appropriate for the two U.S. corps in Central Europe.
Even the long war in Vietnam did little to change this. General
Creighton Abrams, a thoughtful man, returned from Vietnam to be Army
Chief of Staff, presented to Congress as his highest priority the "Big
Five," including the XM-1 tank, MIC-V combat vehicle, and three other
large expensive systems of the sort most appropriate for Europe. The
Navy continued to set a high priority on keeping open the sea lanes to
Europe during a long multi-month buildup, and the Air Force bought the
very high performance F-15 and rather specialized F-16 in preference
to the more general purpose F-111 variants or F-17 (which led to the
F-18).

Even the energy crisis of 1973 did little to change the focus of
official policy or the composition of Service-generated requirement
lists. In retrospect, it now seems fortunate that several groups of
loosely connected analysts began to do serious work on the importance
of defending the flanks of NATO and places outside NATO's official
bounds. On becoming Secretary James Schlesinger's Director of Net
Assessment in 1973, Andrew Marshall called attention to the need to
maintain a centralized reserve which could cope with contingencies that
would be hard to predict when force structures were set. Marshall
referred, with irony, to the "canonical case" of war in Central Europe
with its origins coming from Soviet secret plans rather than as a
development derived from the escalation of a conflict started in the
more incendiary regions of the world.

Then, in 1975, the problems of bringing U.S. and Western military
force to bear on the NATO flanks and outside NATO began to get consis-
tent attention in several related series of workshops, including the
European-American Workshops. Albert Wohlstetter, who heads the
organization which runs the European-American Workshops, would address these sessions with ideas like those he later wrote for one of a series of articles for the Op-Ed page of the New York Times.

Nowhere [are nuclear threats] less relevant than for the troubles in the Middle East and Persian Gulf. In fact, the kind of force we might muster against a massive attack on Europe's center makes a poor fit for some circumstances of attack on NATO's flanks, not to say "lesser contingencies." Still, we persist in treating these contingencies as "lesser included cases" that we can handle separately because some calculations suggest that our forces can deal with an attack on the European center simultaneously with a smaller attack elsewhere. Can't the dog that handles the cat handle the kitten?

Not necessarily. Power comes in many varieties suiting quite different occasions. And even the occasions for the use of power do not line up in a simple order of importance: attack on Western Europe first, on Japan second, and on down through some Arab emirate. *

The question of how far either NATO, as an organization, or the NATO countries, as greatly affected parties, should be involved in U.S. plans or encouraged to act with U.S. leadership in out-of-area crises began to be discussed increasingly. General Alexander Haig, though limited in his actions by his role as SACEUR, began to speak on the need for concerted efforts for out-of-area collaborations. The former U.S. ambassador to NATO, Robert Ellsworth, reviewed the situation in talks at Munich and Los Angeles in 1977:

"... In case of an out-of-area requirement for a Western presence, how fast and how flexible are our procedures for consultation, cooperation, and mutual support? ... How well organized are we to provide other forces to fill in the military lacunae [created when some nations, after consultation deploy some forces out-of-area]? The answers...

after considerable anguish and regret: not at all."*

By mid-1979, the need for a new emphasis in U.S. strategy was more widely recognized, and the National Security Council evidently reached a decision which led to the move to establish a Rapid Deployment Force, announced by Army Chief of Staff General Bernard Rogers in June.** Then the events of late 1979 in Iran and Afghanistan called attention both to the neglect or mishandling of that area in past strategic priority lists and to the great difficulties that would be faced by American or Western forces in the exercise of military power. The next section tells of the progress that has been made in the first half of 1980.

FORCES FOR RAPID DEPLOYMENT

The Rapid Deployment Force (RDF) is being planned and exercised by a Joint Task Force commanded by Lt. General Paul X. Kelley, U.S.M.C., and has its headquarters at MacDill Air Force Base, Florida. At the Defense Department level, special responsibilities for developing its resources were given to Under Secretary Robert Komer. The RDF can draw on units not earmarked for NATO, but will not have a fixed composition.*** Among the Army units it can draw on are the 82nd Airborne Division, the 101st Air Assault Division, the 5th Special Forces Group, and the XVIII Airborne Corps. For light infantry it might call on the 9th Division. For a mechanized division it could call on the 24th, currently being converted to mechanized, which is replacing the 4th Division as a high

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*See Robert W. Ellsworth, New Imperatives for the Old Alliance, California Seminar on Arms Control and Foreign Policy, Santa Monica, 1977, pp. 17-18. In 1967, just before Ellsworth arrived in Brussels, the Harmel Study Group on Future Tasks of the Alliance examined whether NATO should be more than an alliance for the defense of the geographically constrained area of its member nations. The answer was "no," but on this and other occasions the position taken was that "consultation" was desirable and expected.


priority RDF resource.*

The RDF could also call on elements of the three Marine Amphibious Forces (MAFs) each of which has a division (which is essentially foot infantry) and an air wing. General Kelley notes that one of these MAFs is designated with priority to the RDF, and that the 7th Marine Amphibious Brigade has been in desert training at Twentynine Palms.

It could also call on a number of Air Force tactical fighter wings and on the 57th Air Division of SAC. This division has B-52Hs which are particularly suited for low-level penetration.

The RDF has a priority designation for "a number of carrier battle groups, a number of P-3 squadrons," according to General Kelley. Its transport would be drawn from 70 C-5s, 234 C-141s, and 490 C-130s. If the Civil Reserve Air Fleet were on a Stage 3 alert, one would add 213 cargo aircraft and 248 passenger aircraft.** (I note, though, that narrow doors and the lack of floor reinforcements would restrict most of these.) Secretary Brown has asked Congress to approve a legislative proposal which would authorize arrangements with allies to provide air transport. Other provisions are being made: the purchase of 14 special Maritime Prepositioning Ships, the interim contracting for civilian ships to store Marine equipment, the addition of 26 advanced tanker aircraft, and of cargo and tanker surface ships.

U.S. FORCES COMPARED TO SOVIET FORCES IN A PERSIAN GULF CONFRONTATION

In terms of equipment lists and training, the forces that the United States might muster for its RDF look relatively good compared to those which the Soviets might commit to a power projection action. U.S. forces include an excellent transport fleet with a capacity that exceeds that of the Soviets. The U.S. Navy has carrier task forces unmatched by the Soviets and a long tradition of blue-water operations. American data gathering and processing is excellent, although the Soviets cover some functions which the U.S. does not.

But the current concern over energy supplies for the West calls

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* News briefing by LTG P. X. Kelley at the Pentagon, 18 June 1980. This briefing was also the source of the equipment type and number citations which follow.

** Idem.
for a comparison of capability both in the Persian Gulf region and along NATO's South Flank. There the geopolitical situation is quite favorable for the USSR, which plays the role of a central power with interior lines. As Albert Wohlstetter points out, it also has the temperament to initiate, while the Western powers protect a long frontier and would be likely to be a group of somewhat sluggish responders, especially if they tried to move in concert. The Soviet task is to change the azimuth at which forces go forth, but the West must reorient carrier task forces or redeploy ground forces over many miles.*

Of special note is the contrast between Soviet and U.S. airborne divisions. These are likely to be the forces on both sides that can get to a trouble spot most rapidly. In the U.S. case, lead elements of the 82nd Airborne Division could get to Arabia in two days; however, some planners believe that all available U.S. airlift would be occupied for ten days in getting air base equipment to the region, with the first airborne division in place on the 14th day, while Soviet airborne troops could begin to arrive on the 1st day.** In any event, the two are quite divergent in size and equipment. The U.S. division is about twice as large and there is one active division. The Soviets have 8 divisions, one perhaps on training status, and each has 7,500 to 8,000 men. But most importantly, each Soviet division has a large number of 9-ton BMD armored personnel carriers, nine ASU-57 tracked assault guns and 18 ASU-85 light tanks (weighing 14 tons). In recent Afghanistan operations two Soviet airborne divisions were reinforced with 12 Mi-24 Hind helicopter gunships for antitank and ground support uses, an element that saw use in the reported mutiny of the garrison in Ghazni.***

** Idem. The times are from the oral discussion of the paper.
THE TASK AT HAND: PROBLEMS NEEDING SOLUTIONS

What I have said so far is the background. Now I will set forth some problems with the hope that some of you can help with their solution. These solutions are likely to need an understanding of organizational matters as well as technology—but most good engineering does.

The Balance of Forces Over Time is Likely to be Unfavorable

The United States—possibly in collaboration with certain of the other Western powers—could get light forces to threatened locations in the Persian Gulf region in 3 to 5 days. This might well be quick enough. But the problem is that the forces we could deploy on this kind of schedule, with the 82nd Airborne Division an example, would likely be too light for the armored forces they would probably face. As just noted, even the Soviet airborne divisions have quite a lot of armor. For the United States to get substantial heavy forces into position in this region would take at least 4 weeks and more likely 6 to 8 weeks—and this is likely to be too late.

The United States is Likely to Have Problems in Working with Friendly Local Powers

American officials, by and large, have very little experience in working closely with the governments of the Horn of Africa, the Arabian Peninsula, or other governmental or ethnic groups farther to the East. So far we have done a rather poor job, with press releases which make the more experienced British Arabists grit their teeth in dismay. Various leaks intended for home consumption in the United States have come near to alienating Arab leaders, whose wish is to have a strong but silent and steady partner.

There is a Mismatch Between U.S. Equipment and Its Means of Transport

For the past 30 years the design of American land forces has been dominated by the requirements to fight in Central Europe. The arguments for bigger and more complex equipment have dominated, and there has been a general presumption that much of this equipment could be moved to Europe
by sea and replenished by sea. Now that the United States is faced with the need to design a force for rapid deployment there is no developed small modern armored fighting vehicle, little appropriate artillery, and the new U.S. tanks are the largest in the world, so heavy that usually only one can be lifted by the big C5A transport. Moreover, under current plans, the fraction of such "outsize" equipment in an Army division will increase over the next five years. Unless recent Congressional objections prevail, the Defense Department would go further with this philosophy by developing a new CX transport. Each of these aircraft, due to be available in the late 1980's, would cost about $100 million and each would carry only one medium tank. In addition, the reliance on these very large vehicles precludes the extensive use of our more numerous jet transport, the C-141, and likewise precludes the use of the civilian jets of the Civilian Air Reserve Fleet.

There are Opportunities for the Services to Support One Another More Effectively

The navies of the Western powers take on substantial new importance in contingencies in places like the Persian Gulf. Unfortunately, the U.S. Navy and U.S. Air Force have relatively little in their postures to maximize their military effectiveness while working together. For example, there is little appropriate equipment for the Air Force to use for protecting naval vessels with its land-based aircraft, nor does the Air Force have suitable equipment or carry out much practice for offshore surveillance and antisubmarine warfare. Similarly, the U.S. Navy has not emphasized the development of equipment for attacking land-based targets from off-shore. There are organizational problems as well. It does not make mutual support easy if an AWACS aircraft over the Persian Gulf is controlled from Germany, while a destroyer below is controlled from Hawaii.

The West is Deficient in Having Nearby Bases and Means for Protecting Them During Use

Not only the United States, but the other Western powers as well, have had a deteriorating situation with respect to base rights and base development over the past 20 years. (The French are, to some extent,
PRINCIPLES FOR THE DESIGN OF PROJECTION FORCES

The problems I've just reviewed suggest that there is a need to make some changes from having only traditional types of military units to developing some which are better suited for power projection and for a strategy which is more reliant on a central reserve. Fortunately, there is technology available which can be in use by the mid- to late 1980's which makes some changes more practical.

General. I will first suggest some general principles for designing these forces.

A1. It will be important to make full use of information gathering and processing capabilities in order to send forces where they are needed the most. Good information will help U.S. forces to avoid traps. Our technology is relatively advanced in this area, and good systems need not be heavy systems. Moreover, units which capitalize on good reconnaissance, surveillance, and target acquisition (RSTA) can move in and out, not be tied down, and if munitions are aimed well, the weight shipped over great distances can be less than that of munitions for standard units.

A2. Units from all services and all branches of those services need to be able to communicate with each other while they are part of a joint task force. This is not a problem susceptible to back-of-the-envelope communications engineering. Perhaps the answer will lie in adding some RF heads for limited use in cross-service communications, or maybe in providing translators at relay stations. Perhaps both.

A3. Units for power projection should be of modular design from the outset. Most U.S. Army officers will protest that the current Army structure is already modular; certainly it was intended to be so. How-

an exception.) It was only by the narrowest of decisions that we obtained limited rights on Diego Garcia, a base which is about 2300 nautical miles from the Straits of Hormuz. Moreover, prospects seem rather bleak for handling the substantial logistic flows required to sustain traditional forces of a size which might match Soviet forces. The Soviet situation is, of course, much more favorable. If they are able to solidify their position in Afghanistan the disparity will be even greater.
ever, more and more of the best RSTA and C³ gear has been going to di-
vision and to corps, making it difficult (though not impossible) to
shred off the most useful gear to send with an independent brigade or
battalion. In addition, unless battalion- and brigade-size modules
exercise in various combinations independent of their division, they
will have a difficult start-up period if attached to a new task force.

A4. These light—but capable—modular units can be tailored to
fit in C-141 transports or the cargo planes of the Civil Reserve Air
Fleet (CRAF). In the past the procedure has been to design the units
as if surface transport would be used, then perhaps make some adjust-
ments. As a result there is an unsatisfied demand for C-5A transports
to carry "outsize" vehicles. I feel that a better design principle
would be to maximize the military punch that can be carried per C-141;
they are more numerous.

A5. The United States needs to treat most of its assets as part
of a central reserve. The world we live in is full of uncertainties
and it is no longer possible for military planners to concentrate on
just a few "canonical" scenarios. At the same time that Americans are
realizing that their defense establishment does not have the resources
to put most of its units into forward deployments earmarked for just
one locality, technology is facilitating the movement of forces over
great distances and the gathering of information on a global scale.
Readily deployable forces of great power which weigh an order of mag-
nitude less than traditional forces (and require less weight of resupply)
should be possible within a decade.* Admittedly, some skillful political
work must accompany a shift of this sort, but this concept is useful
in defending Europe as well as in defending "third areas." If the U.S.
is successful it will take away much of the geopolitical advantage of
the Soviets as a "central power" that I noted above.

Principles for Working with a Strong Local Ally. Such allies as
Turkey, Norway, and South Korea have highly developed armed forces, with
their military instincts sharpened by years of living next to threatening
neighbors. While the first two are in NATO, there has, over most of the

*Andrew Marshall put forward these ideas upon taking on the job of
past two decades, been a need for the assurance of a strong bilateral relationship with the United States. There are also potential partners like Pakistan which have strong military organizations and traditions of self defense but few resources. The principles which follow seem appropriate for U.S. projection forces which could work with relatively strong partners.

B1. There should be plans--frequently exercised--to share information about dispositions on both sides. This would include both RSTA and intelligence information. The United States has much more capable and far-reaching RSTA systems than its smaller partners can have. Modern data terminals, probably operated by American liaison troops, can keep friendly commanders updated about where hostile forces are and-- in a few years--provide useful targeting data with mobile units.

B2. Modern weapons permit a substantial disruption and attrition by U.S. projection forces. Forces equipped with them could be on the scene in a few days, rather than a few weeks. The ally can concentrate on holding territory, a job for which he is trained and motivated, and which will be facilitated by the disruption and attrition by the U.S. forces.

B3. Joint exercises can serve several important ends: (a) they can demonstrate the information passing noted above and help allied commanders make plans to capitalize on it, (b) they can familiarize both U.S. forces and the allies with the division of duties if the U.S. emphasizes the role noted in 2, above; and (c) they can have political and deterrent effects by making it more believable that a U.S.-local collaboration would work. Joint exercises--even between widely separated U.S. and allied units--can be greatly facilitated by modern communications and information processing technology. These technologies would permit some exercises to take place on a frequent basis without transporting U.S. forces over great distances and they would permit the use of recorded "enemy" movements.

Principles in Working with Less Powerful Local Allies. Particularly in the Persian Gulf region the United States may need to work with one or more countries which do not have substantial military forces or traditions, or where internal situations are not stable (with well-
 entrenched authorities), or where the United States may not be able to count on a steadfast opposition to the threat it went in to confront. Some rather different principles for designing power projection modules apply.

C1. The U.S. force must be prepared to occupy and hold advanced bases, even though it may not control all of the surrounding area. Helicopters and short-field aircraft, modern antivehicular and antiair weapons, together with passive defenses, give some hope of holding such strong points.

C2. Where the situation permits, light but highly mobile forces would operate out of such bases to disrupt and impede an enemy advance. Attacks on enemy airlift and the local airbases he uses would be important.

C3. Full use would be made of the capability of the U.S. Navy and Marine Corps to project power ashore. New stress would be placed on Air Force protection of naval vessels, Navy assistance to Army units, and to the compatibility of tactical information systems.

C4. The ability to extract forces quickly and efficiently should be given substantial weight.

C5. Opportunities would be sought for combined units in which Americans or officers and men from industrialized allies would work with local troops. These units might be especially suited for providing infrastructure: truck transport, airfield construction and repair, water supply, etc.. The heavy equipment for these units could go in well ahead of a crisis. The British and French have many years of experience with such units and might play a role; the U.S. experience in Southeast Asia in the 1960's was useful. There are many risks involved in working with local powers and careful political groundwork is required. Moreover, the decisions to preposition equipment and form combined units would need to be taken on a very selective basis. This has some important implications for the design of infrastructure equipment.

SOME PROMISING KINDS OF WEAPON SYSTEMS FOR POWER PROJECTION

In this part of the talk I will go from principles to an enumeration of some kinds of hardware for the late 1980s that seem consistent with
those principles. Some of these suggestions I put forward more tentatively than others, and you should treat them as ideas that you analyze for yourself.

- An interim Assault Breaker system for contingency operations. For those cases where Western forces may face Soviet-style armor in large numbers, weapons using the Assault Breaker concept offer a way of packing great defensive firepower into each ton of weight. But the present configuration includes some components that may take longer and be much harder to get into operation than others. Tests over the next six months should suggest ways to get this very useful concept into operation without waiting for the best solution to all its design features.

- A relatively cheap carrier for Assault Breaker's sub-munitions; the system will be much more useful if this can be brought in for well under $100,000 a copy.

- Similarly—and perhaps overlappingly—a relatively inexpensive 500-km cruise missile for surface-to-surface or surface-to-air use. In particular, a sea-launched version for use against land targets seems quite useful.

- A lightweight armored vehicle that would readily fit in a C-141. Its weight might be between 14 tons and 22 tons. It should be capable of mounting antitank missiles or a 75-mm gun. The U.S. may also need self-propelled guns comparable to the Soviet airborne divisions, ASU-57's and ASU-85's. Currently the Marines favor a lighter configuration, which could be lifted by CH-53 helicopters. The Army is holding out for a heavier version, to mount a 90-mm gun.

- Air transportable air defense weapons, including a radar that can fit in a C-141 or C-130. The Marine Corp's MSAMS indicates one way to go toward this goal.

- A line of wheeled armored vehicles, capitalizing on both lighter weight and low maintenance possibilities. Armies in sandy
countries have long seen some advantages in wheeled vehicles.*

- Improved munition dispensers for air-to-surface use. A number of designs are available and the real problem may be one of accelerating evaluation and production. There are both unpowered dispensers including the German-designed MN-1 (STREBO) and projects for propelled guided dispensers.**

- "Smart" submunitions and air-deployed mines. Again the problem is not good technology, but accelerating evaluation, production, and system integration.

- Weapon systems which could interdict air transport near its takeoff point, enroute, and as it lands. Much of this function could be taken on by existing types of long-range fighter aircraft and high-performance missiles like Phoenix. But the newer AMRAAM could be fired in volleys, more could be carried on each aircraft, and more could be bought for given funds than of Phoenix. A "harassment drone" version of a cruise missile might also be developed for antitransport attacks.

IN CONCLUSION

In this talk I have noted some extremely challenging problems facing the United States and the West in projecting military power at a distance. I have deplored some narrow-minded strategies and priorities of the 1970's. I have not said as much as I would have liked about the value of political arrangements that dovetail with military postures--that will be treated in a later paper. Nor have I said enough about escalation or the value of having conventional forces that can also have a nuclear capability. And I only scratched the surface in suggesting some ways that technology can help in moving toward more flexi-

* See Col. Raymond E. Bell, Jr., USAR, "The Rapid Deployment Force--How Much, How Soon?" in Army, July 1980, pp. 18-24. This article has useful characterizations of the good and bad points of various division types.

** The usefulness of these systems was suggested by Donald A. Hicks in "U.S./Alliance Contingencies in the Gulf (Options for Posturing)") prepared for the European-American Workshop held at Elvetham Hall, near London, 27-29 June 1980. Hicks also suggested the two points which follow.
ble and more capable postures. But it seems to me that our side has a great deal going for it:

- The total economic strength of NATO and Japan exceeds that of the Soviet Union, and that total is no less because of a focus on the Persian Gulf, but that strength is only potential because it is not converted into military power.
- Even though much of our realized military strength is in the wrong place for some likely confrontations, we have a great potential for making it more flexible and deployable.
- The United States and the West have a substantial advantage over the U.S.S.R. in most aspects of naval posture, have a long tradition and experience in blue-water operations—and naval power could be used to great advantage in the Persian Gulf region.
- We have a good start on the information gathering and data processing systems that can make our actions effective and well-informed.

But most of these are potential advantages. To make them count will require ingenuity, the dropping of parochial attitudes, and a lot of resolute leadership.