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NATO is making major changes in its strategy and force structure. The most significant changes are embodied in decisions to consider participation in operations previously viewed as outside the NATO area, prepare for military operations across the full spectrum of conflict, and form a multinational rapid reaction corps. The corps, known as the Allied Command Europe (ACE) Rapid Reaction Corps (ARRC), will be composed of national unit contributions from ten nations totalling almost ten divisions. The combination of multinationality, the widely varying unit types and capabilities, the broad range of potential tasks, the requirement to be able to deploy rapidly virtually anywhere in the Northern Hemisphere, and the need to fight effectively on arrival will make implementation of all that is expected of the corps more difficult than many of its political sponsors may have anticipated. After examining these factors and discussing applicable United States experiences, the paper concludes that the U.S. Army Combat Training Center model provides an excellent paradigm for building the corps into the type of organization desired. UNCLASSIFIED

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TRAINING THE NATO ALLIED COMMAND EUROPE RAPID REACTION CORPS USING THE U.S. ARMY COMBAT TRAINING CENTER MODEL

AN INDIVIDUAL STUDY PROJECT

BY

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INTRODUCTION

Responding to victory in the Cold war, the collapse of communism and the absence of a manifest threat, NATO has taken steps to reduce force structure by half, reorganize remaining forces, adopt a new strategy, and take on a broad range of new military missions and tasks.¹ As with national forces throughout the western world, NATO is trying to retain enough military capability to provide security and influence in an uncertain world, while saving money on defense. It has become obvious that maintaining the former vast layer-cake of east-oriented national corps deployments is largely irrelevant.² While the inappropriateness of old defense arrangements is recognized, the proper future course of NATO security arrangements is uncertain.³ One of the few commonly agreed upon elements of the future force structures is a trend toward multinationality. By its very nature, the Alliance is multinational. That has always been reflected in echelons above corps and at lower levels in some specialized organizations such as the Allied Command Europe Mobile Force (Land) (AMF(L)) and the NATO Airborne Early Warning Force (AEWF).

What is new is the decision to greatly increase the number of multinational land-force formations at corps level and below, the designation of one multinational corps as a rapid reaction force, and the expansion of the possible tasks of NATO forces to include the entire spectrum of conflict.⁴ This bold new approach to dealing with some of the most complex threats and risks to NATO presents many opportunities and problems.⁵ The Allied Command Europe (ACE) Rapid Reaction Corps (ARRC) is the focus of NATO's attention in trying to implement its new strategy. My purpose is to examine the ARRC to identify potential problems and propose ways to solve those problems using the Combat Training Center concept that has proven effective in the United States Army. Though NATO has other land, sea and air multinational organizations, my discussion is applicable to NATO land reaction forces in general and especially the ARRC.

Most of what has been said and written about the ARRC is speculative. Beyond the fact that it will be formed and that it will be multinational, there is little official NATO policy on the subject. This is the normal situation when a new unit designed to address a wholly new situation is formed. Many military thinkers have presented ideas about the future of the ARRC. From this collection of ideas and others yet to be presented, the ARRC will develop. I will discuss some ideas presented by others and propose some that have not been addressed, but that may prove useful in the ongoing discussion.

BACKGROUND on MULTINATIONALITY

As a result of reduced East-West confrontation, diminishing levels of armed forces, shrinking defense budgets, increasing costs of technology, etc., etc., our nations are having to co-operate more and more, both where procurement and where operations are concerned. No state wants to rely totally on others for its own defence and rôle-specialisation is too restricting an avenue to follow. The answer is therefore multinationality, which is why the topic is so high on current agendas.⁶

Multinationality is currently so popular that it is easy to get the impression that it is the perfect solution to all the problems of NATO. General Sir Brian Kenny, Deputy Supreme Allied Commander Europe, has provided balance in succinctly capturing many of the benefits and difficulties associated with multinationality.

Why the emphasis on multinationality? There are important advantages. The large number of flags deployed by a multinational force increases deterrence by showing alliance cohesion, resolve, and sharing of risks, as an attack on one is an attack on all. Politically, multinational forces reinforce collective defense and argue against the renationalization of defense. Most important, multinational forces will also help to drive interoperability and standardization, both of which are currently so lacking across the Allied Command Europe. But we must recognize the operational disadvantages of multinational forces as well. For example, language differences complicate command and control, particularly at lower levels. Logistic support, which is a national responsibility, also becomes more complex in a multinational force. It therefore makes sense to base highly mobile armored reserve formations on national rather than multinational forces. The coalition in the Gulf war successfully reflected this blends of multinational forces with national ground, air, and sea elements.⁷

Multinationality at corps level and below is not new. NATO has long had a multinational Danish-German Corps. The U.S. Army has participated in several integrated formations including the U.S. VII Corps and the German 12th *Panzer* Division.⁸ These associations were relatively easy to establish and maintain because the units involved were dedicated to the old layer-cake of positional forward defense along the inter-German border. There was little call for dynamic movement. The situation was stable, and there was no need for the plans or flexibility to respond to a wide range of threats. The massive Soviet threat and the defensive strategy and tactics developed in response, made this level of multinationality workable without an extraordinary amount of extra planning, effort, and cost.

NATO has had the AMF(L) since 1960 and "their *raison d'etre* heretofore has been to demonstrate Alliance resolve on the flanks in the event of intimidation."⁹ It could move quickly to the flanks where NATO did not have a vast array of forces deployed, as it did in Germany, to demonstrate NATO resolve. The AMF(L) is an organization of national battalions from eight nations that conducts brigade-size deployments.¹⁰ It has to be rapidly deployable to a wide range of terrain and weather environments. This necessitates a requirement for quick planning and flexibility. The threat the AMF(L) would have been sent to confront was massive mechanized forces of the Soviet Union and Warsaw Pact. Use of a brigade to demonstrate resolve in the face of Soviet hordes made it apparent that their ability to fight well was not of great consequence. The intended message to be conveyed to the Soviets by the presence of the AMF(L) was that they would risk World War III with all of NATO if they attacked the AMF(L). Whether the AMF(L) succeeded or failed, all of NATO would be committed to the fight. The probability that the AMF(L) would have to fight was very low and if they did fight, their performance was scarcely important in the larger scheme of things.

Essentially the opposite situation exists with the ARRC. By design, it could be deployed against a very wide range of threats. Many of the threats are at the low to middle end of the spectrum of conflict. These low-side-of-the-spectrum threats are not likely to generate an all-out NATO response—no matter how roughly they treat the ARRC in a fight. Potentially, adversaries will not be nearly as effectively deterred as was the Soviet Union. A non-superpower adversary will be very likely to use an attrition-oriented, slow-escalation strategy calculated to weaken NATO resolve as casualties accumulate with little positive result. In such a situation, a massive conventional or nuclear response is politically unacceptable. Thus, the ARRC is very likely to have to fight and its performance will be of great importance to it and to NATO.

Gary L. Guertner's comment on how the end of the cold war affects U.S. forces is equally applicable to NATO:

The end of the cold war has dramatically altered the "seamless web" of deterrence and decoupled nuclear and conventional forces. Nuclear weapons have a declining political-military utility once the threshold of deterring a direct nuclear attack against the territory of the United States is crossed.

As a result, the post-cold war period is one in which stability and deterrence of war are likely to be measured by the capabilities

of conventional forces. Ironically, the downsizing of American and Allied forces is occurring simultaneously with shifts in the calculus of deterrence that call for conventional domination of the forces mix.¹¹

Worse than not being able to respond to a crisis, is to respond and fail. It wastes the lives of soldiers and the prestige of the nation or alliance that sends them into battle. NATO must insure that the ARRC is able to acquit itself with distinction against the broad range of threats it could be targeted on.

According to a recent press report, at least one senior European officer, General Klaus Naumann, Chief of Staff of the German Army, is willing to admit that his soldiers are not ready and need some tough training to get ready to handle peacekeeping missions:

GEN Naumann indicated that the German military had, because of the special situation prevailing in the country for most of the past 40 years, grown used to the belief that it would never really have to fight.

In its present condition, he said, the *Bundeswehr* is not capable of taking part in large-scale international peacekeeping missions...

In order to prepare soldiers for the reality of peacekeeping missions, GEN Naumann said that training must be "tough, demanding and battle-like". Troops and officers must be prepared for the "reality of fighting", he said. The pampered life-style that soldiers had grown to expect must be shaken up by a new determination among officers, ordered GEN Naumann.¹²

General Naumann is known for his public candor. I suspect many other European officers would agree that there is a need for tough training. Many European armies have not had combat experience in over 40 years. The forces allocated to the ARRC need to be brought to a state of readiness where they are prepared to be thrust into combat on a few days notice.

<u>COST</u>

Since war is controlled by its political object, the value of this object must determine the sacrifices to be made for it in magnitude and also in duration.

> Carl von Clausewitz, On War, p. 92

An often heard comment is that building a rapid reaction corps and especially the strategic transport, communications and intelligence required to support it will simply cost too much for NATO to be able to do it. Some say that, "[t]here are indications that some politicians have underestimated the practical difficulties, operational effectiveness penalties and financial cost of the initiative."¹³ Whether or not NATO nations are prepared to support the ARRC is a moot point, but they have begun the process of putting it into being and if they are not prepared to bear the cost, the corps will surely fail when it is employed. While preparedness is costly, failure is much more costly in the long run.

As a former Allied Forces Central Europe commander, General von Sandrart has pointed out the "concept of multinationality has costs that the politician must be willing to pay if they expect effectiveness."¹⁴ The monetary costs will begin to come due before the much-anticipated peace dividend has been realized. As Wallace J. Thies observes:

Past peace dividends have proven largely illusory, because the savings have come at the price of diminished readiness and combat capability at the start of the next conflict. Because these shortcomings must be rectified quickly, the cost of doing so is much higher than if a more patient approach had been taken.¹⁵

Many European nations are only now discovering the immediate cost of reducing military structure. The cost of standing up an effective ARRC will be much greater than has been widely anticipated. Politicians, in the short term,

may well find themselves presented with three military bills—old forces, force reduction, ARRC formation—whose total approaches or, in some cases, exceeds the former bill for the old forces alone. It may prove difficult to persuade them to finance the ARRC at the level necessary to make it as truly effective and broadly capable a force as envisioned.

Some European politicians appear to think they can get something for nothing through the magic of multinationality. It is all so simple to conceptualize. Reduce national force structure, take some of the remaining units, group them into multinational formations and there you have it: the defense force of the future. Cost sharing, missions, strategy, tactics, equipment, logistics, training, detailed structure? These are all details. Leave them to the military. Despite the best wishes and good intentions of the politicians, none of the laws of nature or economics have been voided by the concept of multinationality.

So do we leave the problems of bringing effective multinational formations into being to the military? Yes, it is their job to do the planning, development, training and maintenance of readiness. But, even as the job is handed off to the military, there must be a mutual understanding that the politicians will have to pay some costs that they may not have anticipated if they are to truly get the effective force that they think they have given birth to. In the following sections on organization, tasks, and requirements it will become clear that the ARRC as conceived will have some very high costs and the costs will not be in money alone.

<u>ORGANIZATION</u>

Anyone who has participated in the details of planning and developing new units is eventually struck with the amazing degree of complexity involved. It seems so easy at first. Simply layout the structure in a diagram, listing all the types of units needed, and then match the people and equipment to the design. The complexity comes when the details are addressed. Precisely which type of soldier goes where? What are the overlapping and redundant requirements? Who gets what equipment and millions of other details? It can all be quite maddening. Despite the best efforts of the best planners, errors and omissions are always apparent when the unit begins to train or goes into combat. All of this is made much more complex and difficult when multinationality is an added feature. Now the planner must add considerations of nationality, language, politically and socially acceptable mix of personnel, equipment interoperability and varying unit capabilities,¹⁶ to the process.

The most fundamental question in organizing multinational formations is the pattern of multinationality. How will the various national individuals and units be grouped, divided or spread to achieve the desired result? What are the parameters of organization and who provides what? Colonel R. M. Wilde, a former Supreme Headquarters Allied Powers Europe (SHAPE) staff officer, has identified three models of multinationality: Fully Integrated, Framework, and

Combat Support.¹⁷ I have summarized his models in Figure 1 below and added my own Effectively Integrated model.

	T			
	FULLY		COMBAT	EFFECTIVELY
PARAMETER	INTEGRATED	FRAMEWORK	SUPPORT	INTEGRATED
Degree of national	Usually equal or	Nation A makes sig-	Nation A	Usually equal or
combat force con-	similar size	nificantly greater		similar size
tributions		contribution than		
		others		
Share of staff	Equal	Nation A with some	Nation A with some	Equal
		officers from others	officers from others	
Headquarters infra-	Equal	Nation A	Nation A	Equal
structure				
Share of combat	Equal	Nation A most and	Other nations make	Equal
support and combat		all C ³ I, some contri-	contributions that	
service support		bution from others	increase overall op-	
formations			erational resiliency	
Rotation of com-	Yes	No	No	Yes
manders and key				
staff positions				
among participants		·		
Language, proce-	Mutually agreed	Nation A with	Nation A with	Mutually agreed
dures and doctrine	upon at integrated	awareness of capa-	awareness of capa-	upon throughout
used	level. National	bilities, concerns	bilities, concerns	the command
	within national	and doctrines of	and doctrines of	
	formations	others. National	others. National	
		within national	within national	
		formations	formations	
Manpower	National	National	National	National
Basic training	National	National	National	National
Tactical training	National	National	National	Multinational
Logistical support	.National	National	National	Multinational deliv-
				ery, limited use of
				national peculiar
		I		items

Figure 1: Models of Multinationality

Colonel Wilde's models are fine as far as they go and certainly are adequate for the former level of multinationality of NATO units. My problem is with applying even his most robust model, Fully Integrated, to the ARRC. The demands that will be placed on the ARRC are greater than those that have been placed on equivalent national corps. If the ARRC is to have a chance of accomplishing all that has been envisioned for it, it must be organized along lines very close to the Effectively Integrated model.

The current approach to the ARRC is something between the Fully Integrated and the Framework model with the United Kingdom providing the non-rotating corps commander and the largest single national force contribution. This has already caused some grumbling within the Alliance.

In some circles it is considered that multinational corps should be formed with a particular "leading nation". But it does not take a great deal of imagination to foresee that, on the day of the race, that particular nation may have some good reason, politically perhaps, not to participate in a given action. What price then the "leading nation."

Much more preferable, in...[my] opinion, to form a multinational headquarters unit, with a measure of international duplication and even redundancy, for action only in the light of a particular situation requiring European intervention.¹⁸

Later, I will discuss some other reasons why a measure of redundancy in ARRC headquarters staff and associated organizations might be useful.

Initially it was anticipated that "the entire corps of more than 70,000 troops including equipment should be deployable on five to seven days' notice."¹⁹ Since then, the corps has grown to almost ten divisions. It is recognized that a ten-division corps is impractical on the battlefield and there is now no intention of deploying the entire corps. The concept for deployment is to tailor the right combat force and corps troops mix to be committed for the task at hand.²⁰ Considerations in selecting units to deploy include: unit characteristics and capabilities, proximity to the deployment area, mobility and readiness. Similarly, the corps headquarters may remain in place at Bielefeld, Germany or deploy as the situation warrants.²¹

Planning for the ACE Rapid Reaction Corps (ARRC) is not complete but the major work on the corps structure is done. The planners began with a fourdivision corps. Many nations who were not initially involved felt the need to contribute forces. As more nations contributed forces, those that had not already contributed felt an increasing political need to contribute. The corps has grown to almost ten divisions and growth has slowed for now. The combat formation organization is at Figure 2.



Figure 2: ARRC Combat Unit Structure

The commander of the ARRC will be directly subordinate to the Supreme Allied Commander Europe (SACEUR), as is the commander of the AMF(L). While there is some overlap in the possible tasks of the ARRC and the AMF(L), they will remain separate for now.²² Further, there is no plan to make elements of the ARRC immediately deployable as with the AMF(L). Even after the ARRC is fully operational, "the AMF(L) will continue to be the first to deploy, being capable of a 72 hour response time."²³ Thus, in situations requiring the immediate presence of the ARRC, the AMF(L) will most likely deploy first to a secure area or force entry.

<u>TASKS</u>

The massive former Soviet and Warsaw Pact threats were virtually the entire focus of NATO. That threat provided the basis for all NATO force planning. Massive NATO conventional forces, composed mainly of national corps, were designed and developed.²⁴ Many of the continental European forces were so firmly aligned with a specific part of the overall defensive line and were so dependent on existing civilian infrastructure that they could not have functioned effectively in any other situation. They were intended to defend their part of the European front against high intensity mechanized attack including chemical and nuclear warfare. Flexibility to respond to different threats, in a wide variety of places, was simply not a consideration.

The massive threat directed against NATO also had the effect of suppressing lesser potential threats. NATO did not have to concern itself with the possibility of civil war in Yugoslavia or mass civil migration in response to economic hardship. Problems that might develop in Eastern Europe were Soviet problems and the Soviets clearly had the wherewithal to deal with them as they did in Hungary in 1955 and Czechoslovakia in 1968.

Even the possibility of a limited Soviet attack on the flanks, in Norway or Turkey, did not warrant excessive special concern or preparation. Such an attack, without a simultaneous major thrust across the inter-German border, was

viewed as militarily untenable. Now, with the clear potential for further disintegration inside the former Soviet Union, the possibility of remnant forces or refugees entering the flanks must be faced. Greece has expressed great concern about the potential for conflict in Yugoslavia to threaten Greek security. In Turkey; her former Soviet client neighbors, Syria and Iraq, are now seen as possible threats to that flank of NATO. The ARRC will be suitable "to demonstrate NATO solidarity and resolve in support of Norway, Greece, and Turkey."²⁵

NATO now confronts a "security picture where the major threat has been changed to a lower level of risk, the risk spectrum is broader, multi-directional and less predictable than in the past."²⁶ My review of comments about possible tasks for the ARRC revealed the following:

- Humanitarian relief providing assistance in cases of natural or human disaster with little likelihood of armed conflict.
- Demonstration readying or deploying forces to signal alliance cohesion and resolve.
- Dispute mediation providing military mediators to facilitate reaching peaceful agreement between belligerents. This may include civilian mediators or the presence of ARRC forces to show the belligerents that talking is better than fighting.
- Peacekeeping putting forces into an area where conflict seems imminent or where conflict has recently ceased to prevent fighting.
- Crisis management a collective concept including all actions short of fighting to defuse tensions and prevent armed conflict. It may include one or more of the other missions.

- **Contain ethnic or border conflicts** for NATO nations, this generally means keep the conflict from spreading onto NATO territory.
- Crisis management through controlled escalation apparently the idea here is to gradually introduce more forces into the conflict area and gradually increase the level and intensity of fighting with the intent that the belligerent party will eventually get the message and make a peaceful settlement. It sounds dangerously like the United States approach to the Vietnam war.
- **Conflict management** see above.
- **Reinforcement** moving to reinforce a threatened nation or region that already has some NATO forces present.
- Conflict suppression this is simply a euphemism for winning the war.
- **High intensity conflict** all-out war with forces of comparable capability. It could include chemical and nuclear warfare. This is the level of conflict NATO spent over 40 years preparing for.

Some of these tasks sound vague and extremely broad because they are. From the beginning, NATO politicians envisioned the ARRC as a highly flexible unit able to respond within days to virtually any military task. We now know that the range and location of tasks go well beyond the formerly sacred restrictions of, defend if attacked and no out-of-NATO-area operations.

NATO's new strategy, put forward in the document MC-400 approved in December but kept secret until now, foresees the principle of "controlled escalation," according to sources in Brussels. NATO cannot rule out the possibility of having to face the need of raising the level and intensity of fighting gradually and in controlled manner, including on the territory of the aggressor. The document is said to indicate areas of particular interest for the Alliance, like the Suez Canal, the Dardanelles, the Straits of the Bosphorous and of Gibraltar. The areas indicated as potential threat zones to Alliance security would be the territory of the former USSR, the Middle East and the whole of the Mediterranean.²⁷

Taken together, what we can see has developed in pieces is the idea that "multinational forces must be able to respond to the full range of conflict."²⁸ And let us not forget that these forces must be able to respond virtually anywhere in the Northern Hemisphere. NATO is, in concept, building a corps that is intended to have practically the same range of capabilities as the entire U.S. armed forces. Transforming this impressive concept to reality will require extraordinary innovation and effort.

REQUIREMENTS

Moreover, unless nations make a considerable investment in improved interoperability, multinational forces may not be able to meet the emerging requirements for greatly increased operational level maneuver. The challenges inherent in ensuring adequate interoperability of such multinational forces will require considerable time, energy, and resources when all but time are in short supply. For the moment, and unless nations are prepared to devote considerable resources to their improvement, multinational forces provide more a political than military advantage.²⁹

For the ARRC to have any hope of being able to do all the things that NATO, politicians, and commentators have in mind for it in all the far flung locations where trouble may arise, a number of requirements must be met. The following list of requirements is remarkably consistent in that many writers on the subject agree with some or all the items. Differences of opinion tend toward the necessary degree of requirement implementation rather than the fact of the need.

 Operational control — previously, national forces allocated for NATO tasks were overwhelmingly in the category of NATO assigned. They would go to NATO in time of conflict, but otherwise were strictly under national control.

It is generally recognized, by the military, that this is unsatisfactory for reaction forces and that forces allocated for the ARRC should be under the operational command (OPCOM) of the corps commander in peacetime.³⁰ Presently, only the ARRC headquarters and the two multinational divisions are under NATO command.³¹

- Standardized command and control most tasks anticipated for the corps involve rapid deployment on short notice and the potential for hostilities on or shortly after arrival. Also, it is envisioned that the subordinate brigades and perhaps battalions of the corps can be switched among the divisions and brigades based on the tactical situation and intent of the commanders. This demands a very high level of command and control efficiency that is difficult to attain in national forces and can only be attained in multinational forces if command and control are perfectly standardized in all corps forces.³²
- Standardized field standing operating procedures greater and necessary detail on the road to standardized command and control.
- Common system of battle drills and staff work as with standardized command and control, the corps will simply not be able to function in the manner and with the effectiveness anticipated if battle drills and staff work are not done in common.
- Flexibility to move subordinate units between commands this is the resultant capability that can only be achieved by full implementation of the other requirements.
- Common individual training standards the present wide variation in individual training simply will not support the needs of the corps. It is essential that soldiers of the ARRC be trained to the same high standards of

individual soldier skills. In practice, this will probably require a corps-level school of self-paced individual training to evaluate new soldier capabilities and bring all up to a common level before assignment to their operational unit.

This requirement forces the issue of conscripts versus volunteers. The trend in countries that rely on conscripts is toward shorter terms of active service for conscripts. A conscript with less than a three-year term of service will not be able to achieve effectiveness in the skill-intensive environment of the ARRC. Recent attempts by some NATO nations to deploy forces containing conscripts have met with formidable public and political resistance. Deployment of volunteers is usually seen as morally and politically more acceptable and does not generate as much resistance. Many Europeans believe that conscription is no longer a viable method of manning their forces but they are not yet sure how to replace it.³³ Nations that use volunteer forces have had little difficulty getting sufficient high quality volunteers to fill their elite forces. Similarly, the nations that now use conscripts could probably attract sufficient volunteers to man their contributions to the ARRC. The vision of the elite multinational corps with training deployments to a wide range of countries and climes will appeal to many young people. That vision combined with an attractive package of pay and benefits should provide an adequate number of high quality enlistments.

• Common operational language — in theory; NATO's two official languages, English and French, can be used in all Alliance interactions involving more than one nation. The national language is the one used in national formations. In the multinational corps, this will not be satisfactory. "To operate together, multinational forces must employ the same operational lan-

guage..."³⁴ Many interactions will inevitably need to occur between soldiers whose native language is neither English nor French. Since the departure of the French from the military structure of NATO in 1966, the practical dayto-day importance of French in NATO has declined markedly.

Approximately one-third of the forces in the ARRC are native English speaking. English has long been the common language of the air and naval forces that the ARRC must closely coordinate with. English is, by far, the most widely used second language of people in NATO. Therefore despite any objections, English should be made the official language of the corps. Any attempt to bring in bilingual or multilingual solutions must be resisted vehemently. The corps has enough nearly insurmountable problems without the exacerbation of its soldiers not being able to understand each other.

 Common doctrine — the ARRC must develop a common doctrine that is used by all the participating units. The importance of doctrine has long been recognized:

It should be clear, and well worth mature reflection on the part of our officers, that...an absence of doctrine is a serious danger to any military force... Universal understanding and acceptance of common doctrine is necessary before concerted action by a large force engaged in hostilities is possible; it is an essential element of command, and an essential prelude to great success in war.³⁵

Some see an advanced doctrine as an important key to the military being able to accomplish all that is expected of it in the world of the future:

One way for the military to...[devise means to circumvent any possible harm to the nation's security and defense interests] would be to develop superior military doctrines and tactics, coupled with carefully integrated national military strategies. Once such doctrines and tactics are conceived, advanced military training programs could be formulated to amplify the power of the new doctrines. This would assure decisive actions whenever and wherever the use of these strategies might be required.³⁶ The question of how such superior doctrines and tactics might be developed and advanced military training programs applied to the ARRC will be addressed later.

- Capable of implementing the maneuver war concept this implies a direction that doctrine should take and a degree of operational capability. Certainly the success of AirLand battle doctrine—the U.S. Army's maneuver war concept—as applied by the coalition in the Gulf war has lent credibility to this requirement.³⁷
- Knowledge of the terrain, weather, people and host nation support in deployment areas — all military leaders assume this type of knowledge to be highly desirable, if not essential. What is daunting about the prospect for attaining it is that the ARRC has virtually the entire Northern Hemisphere as possible deployment areas. One way to make considerable progress in this direction, particularly regarding terrain and weather, is for the ARRC to train in a wide variety of places.
- Training against standards without training standards, units tend to be classed subjectively as performing well or poorly. This is inadequate. The true ability of a unit can be determined only if it is trained against a set of clearly defined and measurable objective standards.
- Common evaluation system as with training standards, all aspects of unit capability and performance from personnel management to maintenance must be evaluated using a common system that produces a useful evaluation regardless of the national origin of the force evaluated.
- High mobility, strategic and tactical as a practical matter, NATO now has no significant strategic mobility. Strategic mobility is one of the most costly aspects of modern land forces.³⁸ Initially, and into the foreseeable future,

NATO will have to rely on the United States to provide strategic mobility for the ARRC.³⁹ Tactical mobility tends to be a characteristic of each type of combat unit. The ARRC commander must factor the needed tactical mobility into the decision on which forces to deploy to a given contingency.

- Operational and strategic surveillance the ARRC does not have units specifically earmarked for operational surveillance. The need for such units may be validated as training or combat operations experience accumulates. Strategic surveillance beyond the NATO Airborne Early Warning Forces is not now a NATO capability and *z*gain, the United States will have to provide it until NATO can develop its own capability.
- Information and intelligence architecture despite years of effort, this
 was found wanting by many commanders at division level and below in the
 Gulf war. As with the United States, NATO needs to work on this but it may
 be beyond present capability to make it work much better than it has for
 the past few thousand years.
- Prepared and equipped for the full range of contingencies with operations anticipated from north Norway to North Africa and the Atlantic to the Pacific and all points in between, all elements of the corps being ready and equipped for the full range of contingencies may prove to be an impossible and perhaps unnecessary goal.⁴⁰ There is certainly no need imaginable for anything like all the armor and mechanized infantry forces of the corps to deploy to northern Norway. Similarly, straight infantry, airborne and airmobile forces are of limited utility in open steppe or desert terrain. The corps may well have to develop some area-specific force packages, train, and equip them for specific contingencies that the whole corps is not necessarily prepared for.

- Interchangeability of combat supplies it is hard enough to keep a deployed force supplied if they all use the same supplies. NATO is finally going to have to take the obvious but very hard step of making combat supplies fully interchangeable among the units of the ARRC.⁴¹
- Interoperability meeting all the requirements identified here will have provided the long sought holy grail of NATO force interoperability.

This is a daunting list of requirements. Currently, the ARRC has met none of them. Along with the sheer magnitude of effort required to meet these requirements, there are formidable obstacles such as: cost, political and national constraints, and cultural differences. Fundamental to reaching any common goal is getting agreement upon what that goal should be. The grave danger is that virtually endless debate on the specifics of a goal will preclude any progress toward its attainment. In formulance, a simply autocratic solution is not likely to succeed. One possible solution to this dilemma will be presented later.

Collectively, the multitude of tasks, vast physical range of potential deployment areas, and requirement to get there rapidly and operate at a very high level of efficiency, call for the ARRC to be at least as elite a force as the world has ever seen. When its multinational composition is added to the picture, we see that development of an effective ARRC is an unprecedentedly ambitious military undertaking. This is not to say that it is doomed or that it cannot be done, but it does make it absolutely imperative that the best efforts of all the nations and the Alliance as a whole go into the job.

Unfortunately, the most common way of embarking upon a new order of things is to just get started and then muddle through. While it can work in the long run, that technique applied to military units and operations can leave a

trail of dead bodies and failures or often, at best, costly compromises that fall short of what the politician and public expect of their armed forces. Fortunately, as we will see, it is not necessary to just get started and muddle through as problems and failures arise.

U.S. ARMY EXPERIENCE

The U.S. Army's experience from World War II victory, through the Korean war compromise, to Vietnam failure, and then on to an ever more brilliant string of successes in Grenada, Panama, and the Gulf war provides a variety of approaches and outcomes. With this list comes a paradigm for what to avoid and what to embrace on the road to an effective ARRC for NATO.

In World War II, massive forces were employed by both sides. It provided the basic model for how NATO and the Soviets viewed combat in any total war between them. That model is now useless because there is no longer any credible massive threat.

The Korean war surprised an America that was unprepared for ground operations on that scale. Many strategists thought that the victory in World War II assured that no one would again attack America or her allies. Others simply thought that the threat of nuclear war made large scale conventional combat impractical. Perhaps it did, but only if the United States was prepared to use nuclear weapons. First the North Koreans and later the Communist Chinese bet correctly that the United States of did not have the will to play the nuclear card. The result was massive casualties on both sides and a compromise armistice in hostilities, with a corresponding great loss to American prestige. The world found that the nuclear super power could be pushed

around without necessarily bringing on a nuclear response. NATO must make sure that the ARRC does not become the Task Force Smith of some future conflict.

In the Vietnam war, U.S. forces were largely well prepared and ready—they were not beaten on the battlefield—but the enemy did not accept defeat.⁴² The United States was willing neither to use nuclear weapons nor to attack North Vietnam with ground forces. A major constraining fear was the prospect of drawing the Communist Chinese into the fight. After over a decade of muddling around in Vietnam and the death of many thousands, on both sides, the United States slunk out of Vietnam leaving her South Vietnamese allies to their inevitable crushing defeat by the ever persevering North Vietnamese. By the later half of the decade, 1971-1980, United States prestige had fallen very low at home and abroad. The crisis of confidence was extensive within the U.S. armed forces. Many leaders, at all levels, began looking for ways to ensure that the United States would not again experience such humiliation as in Korea and Vietnam.

It was obvious that good training builds good units. What was not at all obvious was that the right kind of training policies and programs could provide the key to improving the entire Army and to getting the necessary budget support from Congress. But between the end of the Vietnam war and the building of the training-based solutions to the Army's readiness problems, there was some muddling.

In the late 1970s, U.S. Army combat unit training was essentially the responsibility of division- and installation-level commanders. These commanders did the best they could with the resources at hand—time, money, equipment, men, ammunition, and training land—to create the highest state of

readiness that they could. The Army as a whole had some training standards, but it was difficult for commanders above division-level to make anything other than a subjective evaluation of the overall state of training in the Army.

The bureaucratic means that the senior leaders used to evaluate units were not based so much on actual training and readiness as they were on thoroughness in ensuring administrative compliance with the rules and regulations. There were embarrassing cases of units getting superior ratings on a maintenance inspection and immediately thereafter not being able to move out of their motor pools. A unit could get an outstanding rating on a training evaluation and not be ready for combat. The problem was not that the evaluators weren't tough or thorough enough or that the combat units weren't trying hard enough. Many inspectors were notorious for a dismaying and rigid attention to the minutest real or imagined detail of standards. Units routinely expended vast amounts of time and effort trying desperately to get every irrelevant detail into compliance before inspections. The problem was that the Army was not checking the right things. It was checking paper readiness and administrative compliance to the detriment of combat readiness.

Most high-level leaders visited units in the field and got an impression of their overall state of readiness. Unfortunately, those impressions were entirely subjective. Each leader based his evaluations on his own experience. By the time subordinates understood precisely what the commander wanted, he was about to rotate to another duty only to be replaced by a commander with different views.

Likewise, within installations and divisions, training evaluations tended to be subjective. Each installation or division commander looked closely at whatever his experience had taught him was most important. With command-

ers rotating approximately every two years, subordinate units usually found themselves with a new set of training priorities just about the time they had come to understand and meet the previous commander's requirements.

Another important problem with training was that training evaluators and the opposing force (OPFOR) were provided on a rotational basis by the units on an installation. In an exercise, a brigade in training was generally opposed by one of its sister brigades on the installation and evaluated by officers and noncommissioned officers from yet another sister brigade. Human nature resulted in a great deal of compromise in the ferocity of the OPFOR and the candor of the evaluators. Individual soldiers were generally less than enthusiastic about their temporary OPFOR duty. OPFOR performance was usually not evaluated. At times, large numbers of OPFOR officers and noncommissioned officers were away from their unit evaluating the unit they were opposing. Lackadaisical OPFOR performance was the norm.

Perhaps most importantly, the OPFOR and the evaluators did not want to be too tough because they were well aware that very soon the tables would be turned and they would be opposed or evaluated by the unit they were helping to train. Getting a good report was more important than doing good training. The report was tangible, but the training was not. It was a "live and let live" environment that did not provide tough uncompromising training and evaluation.

Rotation of the opposing force with every exercise meant that the OPFOR had to use U.S. Army doctrine and combat procedures. The unit playing the OPFOR simply did not have the time and resources to train up for their temporary mission. Consequently, throughout the Army, units were training to fight against other U.S. forces rather than Soviet forces that employed significantly

different doctrine and tactics. The U.S. Army was training, to a haphazard standard, to fight itself.

As bad as the situation was, it was getting worse due to trends in modern warfare. Modernization of old weapons and development of entirely new weapons makes war ever more complex. Officers at all levels were being confronted with an ever more elaborate and detail-intensive battlefield environment. Modern weapons also greatly increase the skill demands on the soldiers manning them. Again, installation- and division-centered training did not provide the resources or capability to deal with these trends.

Modernization has increased the range and lethality of weapons, and the area required to realistically deploy combat units. By the early 1980s a divisional post that had been obtained to adequately train a World War II era division often did not have adequate maneuver space to properly train one mechanized, armor, or airmobile battalion. Many divisional installations had over nine maneuver battalions. Inadequate maneuver space made it very difficult for units to get scheduled for field training and when they could get a training area, it was often for too short a time. Field training events became so infrequent and short that each one was barely adequate to refresh on the basics. There was little opportunity to work on advanced or detailed training requirements.

Modernization of strategic transport made it possible to deploy units on short notice over great distances. Installation based training provided few deployment training opportunities. The Army eventually discovered that deployment needed good training just as surely as combat.

THE ARMY TRAINING CENTER CONCEPT

DESERT STORM was a success because we had a trained and ready Armed Forces. Ten years of investment by wise leaders who had foreseen the need and provided the means, paid off handsomely in Operation DESERT STORM.

> General Colin L. Powell Chairman, Joint Chiefs of Staff⁴³

The most significant U.S. Army initiative toward solving the Army's training problems was the development of the combat training center concept. The Army's first combat training center, the National Training Center (NTC), Fort Irwin, California, began training mechanized and armor battalions in 1981. The NTC was designed to provide what installation- and division-based training could not provide. As the concept developed, it was recognized that a "number of critical parameters must be addressed to achieve the maximum potential from a collective training experience."⁴⁴

- Adequate unfamiliar terrain with nearly 1,000 square miles of maneuver area, the NTC provided sufficient terrain to train several battalions at once in force-on-force engagement simulation in one area while conducting brigade-level live-fire movement to contact exercises in another area. Training is enhanced by terrain that units are not familiar with and no unit could master all the variety offered at the NTC. When units train on familiar home station terrain, they do not learn essential map reading skills. The need to train on unfamiliar terrain is particularly critical for units that may be called upon to deploy on short notice to a place they have never been before.
- Professionally developed, controlled scenarios to a very great extent, the scenario tends to drive the training. Certainly, a poor scenario limits the good that can be achieved in training. Scenarios developed as an additional

duty by amateurs are, as is to be expected, amateurish. It costs a significant amount of money to assemble a permanent scenario writing team and perfect and maintain the necessary set of scenarios but the positive impact on training is well worth the effort. The U.S. Army has had success with assigning this task to officers and NCOs, and civilian contractors.

- Joint and allied operations played or represented recent conflicts have demonstrated a strong trend toward all-force joint operations and coalition operations involving allies. It is best to get the joint players and allies involved in training; but when that is not feasible, their roles must be accurately replicated by personnel permanently assigned to the training center. Again, this role can be performed by military personnel or, in many cases, civilian contractors.
- Stress of continuous operations from receipt of the alert to prepare for deployment, through 11-14 days of continuous, realistic combat training, to the redeployment to home station, the CTC experience provides no administrative time or planned rest for the rotational training unit. It must function under the stress of continuous operations just as it would in combat. It is a level of stress that training at home station cannot provide. As we now know from Panama and the Gulf war, it is a level of stress that units and soldiers are not likely to face even in combat. Of the dozens of officers and NCOs I know who have experienced a CTC training rotation and combat in Panama or the Gulf war, all agree that the CTC experience was more demanding and stressful than combat. That is as it should be. Tough training makes easy combat.

A typical training rotation schedule for a mechanized or armor unit is shown in Figure 3 below. Training rotations for straight infantry, airborne and airmobile forces would be adjusted to their training needs.

D-180	A team of OCs goes to the rotational unit's home station and briefs the brigade and battelian leadership on the CTC con-
	briefs the brigade and battalion leadership on the CTC con- cept, rules and what they can expect.
D-3	An OC team goes to the rotational unit and begins observing
	the actions as the unit gets the warning to deploy. From this
	point on, the unit is considered to be in a real situation and
	there is no administrative time.
D-day	The rotational unit arrives at the CTC with their pre-de-
	ployed heavy equipment or draws heavy equipment simulat-
	ing pre-positioned stocks.
D+1 to 10	The unit moves to the field and begins engagement simula-
	tion combat against the OPFOR
D+10	Engagement simulation ends and the unit conducts a night
	tactical road march to an assembly area in a live fire area.
D+11	Live-fire movement to contact.
D+12	Live-fire defense of a battle position day and night phase.
D+13	Live fire attack.
D+14	Movement to rear area to turn-in heavy equipment. Final
	AAR.

Figure 3: Typical CTC Training Rotation Schedule

Highly capable, professional OPFOR — it only makes sense to train as we plan to fight and perhaps the most important part of that formula is to train against the enemy you plan to fight. Conceptually, designing a force to replicate the Soviets was easy. Soviet doctrine and equipment were well know and we knew that the Soviets and their clients rigidly adhered to their doctrine. Once you have a dedicated OPFOR, schooled in enemy tactics, you get some interesting results. The OPFOR soldiers at all levels tend to take great pride in their unique and elite contribution to training. They work very hard at replicating the best possible enemy as accurately as they can. They evaluate themselves and are evaluated by their superiors on how well

they replicate the enemy. They become as energetic, proficient and dedicated an enemy force as it is possible for them to be given their equipment and doctrine. That is exactly the kind of OPFOR we want our units to train against.

• Uncompromising, objective, professional evaluation to a uniform standard of performance — this is the absolute cornerstone of the CTC training experience. As General Sullivan, the U.S. Army Chief of Staff, put it, "The mission of our CTCs is to bring units up to a common high standard."⁴⁵ The trainers who fill the evaluation role and maintain the standards at the CTC are called Observer-Controllers (OCs). The highly trained observer-controllers join the rotational training unit before it deploys from home station. There is an OC with each platoon and company headquarters, one with each staff section at battalion and brigade level and others as required to get comprehensive evaluation of all significant rotational unit activities. The OCs are with the unit at all times during training. They ride, walk, eat and sleep with the unit they are evaluating. They see the good, the bad and the ugly of the rotational unit's performance. The OCs are masters of applicable doctrine and the standards of performance for the type of unit or staff section they are evaluating. At the end of each key segment of training, such as deployment and the end of every battle, the OCs gather the training unit's key personnel and give them an AAR.⁴⁶ They dispassionately draw our everything that went wrong and right. At first the rotational unit personnel view the OCs as hyper-critical and volunteer little about errors they themselves have recognized. Typically as training progresses, the rotational unit personnel become more open and begin to freely identify deficiencies and
problems associated with the battle in question. Before the end of the rotation, the best unit leaders are able to conduct effective AARs on their own.

The NTC concept and its implementation were driven by a few very senior Army leaders. The concept was initially, and for several years thereafter, opposed in some quarters. Installation and division commanders often didn't like the NTC concept because they saw it as draining training resources that might otherwise come their way. Though few would admit it openly, the prospect of a tough uncompromising evaluation by professional evaluators, of training performance while fighting a professional OPFOR in a highly realistic setting, scared many commanders. They thought there was a chance that they might not come out looking as good as they had under the old system. Results of the early training rotations would prove their fears of poor performance justified.

Not all units or commanders feared or even respected the NTC training experience. Several commanders announced openly that their units would come to the NTC and hand the OPFOR a humiliating defeat. It is interesting that it was units with this attitude that initially and continuing to the present, have experienced some of the most utter and devastating defeats at the hands of the OPFOR.

The first training rotations at the NTC epitomized the darkest days of the Army before its rejuvenation. The first units to go through the NTC training experience were handed nothing but an unbroken series of humbling defeats by the OPFOR. Their performance in the highly realistic and demanding live-fire portion of the training rotation was also very bad.⁴⁷ Some units were so poor at resupply and maintenance that they became completely

combat ineffective and could not function after seven to ten days of continuous realistic training.

If simple defeat wasn't enough to cause people to learn valuable lessons, and just as with real combat it often wasn't, the OCs gathered the leaders after each battle and talked them through the details of their failure and defeat in excruciating detail. Unit leaders were amazed to discover that in the AAR they were not simply criticized for losing but questioned on their own opinion of what they had done wrong. When the unit leaders didn't know why they had failed or had the wrong answer, the OCs would coach them with classes and lessons on U.S. Army doctrine. These After Action Reviews (AARs) were recorded on video tape and given to the unit commander to take home and use as he saw fit. As the NTC concept developed, the AAR became a hallmark of the NTC experience and was soon applied to training at unit home stations.

General Sullivan has pointed out the utility and innovation provided by the AAR:

The payoff for conducting any training are the lessons the soldiers learn and the resultant influence on future performance. The most critical step in this process is the after-action review (AAR). I am convinced the Army's institutionalization of the AAR as an essential part of training is one of the most important training innovations ever. The AAR is essentially our way of being honest about our performance—it is an important ingredient of our professional integrity.⁴⁸

After a few training rotations, senior army leaders began to question the problem of repeated abject failure by units that had previously been considered combat ready. Several theories were expounded for the unanticipated general failure:

• The OPFOR was too good — they were good from the start and got better as time progressed but they were first and foremost a U.S. Army unit replicating a Soviet unit. It was not so much that the NTC OPFOR was too good as that they were much better than the lackadaisical home station OPFOR, using U.S. Army doctrine, that the rotational units were accustomed to overwhelming.

- The OPFOR cheated this was a very popular excuse with the defeated units. They had come and played the game fairly only to have victory stolen by a bunch of low down cheaters. When the impartial OCs looked closely at both sides of the question, they found some cheating on both sides. It was not the main reason for the OPFOR success but it could not be allowed because it provided a plausible, if invalid, excuse that drew the rotational unit's attention away from a proper focus on their own performance deficiencies. Over time, the leadership of the NTC and their agents, the OCs, became ever more ruthless in dealing with OPFOR cheating. It was never eliminated but it was reduced to an insignificant level.
- The OPFOR had an overwhelming advantage of home terrain knowledge — while it was true that the OPFOR had the advantage of home terrain knowledge, it became apparent that this could not be the decisive cause of the poor relative performance of the rotational training units. The OPFOR was winning many battles when they made very poor use of terrain. In any case, the U.S. forces would not be likely to have a terrain knowledge advantage in any contingency area except Germany. U.S. forces needed would usually have to fight with the terrain advantage going to the enemy.
- Soviet doctrine was superior to U.S. Army doctrine as the vastly disproportionate share of OPFOR victories continued, some observers began to wonder if this might not be true. It caused the U.S. Army to take a good hard look at its doctrine. Doctrine for delay in sector did prove to be inade-

quate and the way it was applied in the Army changed as a result of NTC experience. Ultimately, the general superiority of U.S. Army doctrine to Soviet doctrine was validated by the NTC experience and the Gulf war.

• Army units were not generally as well trained as was thought — this proved to be the decisive reason for the poor performance of units at the NTC. As soon as units started taking the humbling message of repeated defeats seriously, real progress was made in reversing the trend. First, one battalion succeeded where all previous had failed. Not only did it succeed but it handed the OPFOR one devastating defeat after another. Incredibly enough, the battalion was from the mechanized division with the lowest priority in the Army for tactical equipment and training resources. The key to its spectacular success was outstanding leadership and professionalism in training the unit to fight effectively using Army doctrine.

Once the problem of early failures was understood, the process of transforming the Army to a far higher level of combat readiness could begin in earnest. It wasn't all completely smooth sailing after that, but the method was proven and destined for expansion. The Army couldn't afford to bring the heavy forces back from Germany for rotations through the NTC. The solution was to develop the Combat Maneuver Training Center (CMTC) at Hohenfels, Germany. It did not have the vast terrain of the NTC but it did incorporate the other essential features. Many of the U.S. Army units stationed in Germany had observed the events in the early days of the NTC with some disdain. They were sure that as forward deployed forces—on the cutting edge of the free world—they could easily handle the NTC OPFOR if given the opportunity. The opening of the CMTC chastened them and enabled them too to get serious about a higher level of training and readiness.

Furthermore, the leadership of the Army realized that the Army's light infantry, airborne, and airmobile forces could profit from an NTC-like training experience.⁴⁹ Some experimentation with incorporating the lighter forces into NTC heavy unit rotations produced unsatisfactory results. The lighter forces needed their own training center tailored to their specific training requirements. The solution was the Joint Readiness Training Center (JRTC) at Fort Chaffee, Arkansas.

With the opening of the JRTC, history repeated itself as some of America's most elite units loudly proclaimed that they would destroy the JRTC OPFOR out-of-hand only to find themselves defeated and humbled at the hands of the JRTC experience. Because there is little transfer of leaders between the heavy and light forces in the U.S. Army, the light forces had largely failed to profit from the earlier experience of the heavy forces. They came to the JRTC as naively as the heavy units had come to the NTC and made virtually the same mistakes, and excuses, but this time the turn around in attitudes and training came more quickly because the senior leadership of the Army knew that better training, not the same old excuses, was the key to success. Together, "the NTC/CTCs developed combat skills to a degree never before possible."⁵⁰

Unit training in preparation for the CTC experience must be tough and realistic. The goal must be to find and correct problems rather than to just go through the motions looking good and feeling good. The CTC experience shows how good a unit really is rather than how good it thinks it is. Bluff and bravado are no substitute for competence.

Small unit tactical training should use the Multiple Integrated Laser Engagement System (MILES) to the maximum extent possible. MILES uses lasers to provide all direct-fire weapons used in all force-on-force battles the ability to

"kill" detector-wearing personnel and equipment they fire at. MILES provides exceptional realism; but, what is more important, it provides for an objective standard of mission accomplishment. Did the unit participating in a two-sided MILES exercise accomplish its mission without suffering excessive casualties? If the unit could not continue with a similar mission immediately after reorganization and resupply then casualties were excessive. No other standard of small unit tactical proficiency is acceptable.

More than anything else, that the CTCs play the logistics game very close to the reality of combat tends to flabbergast unit commanders and bring the unit to its knees. Soldiers frequently go without food or water for dangerously long periods of time. Attacks fail for lack of vehicle maintenance, ammunition, and fuel. Logistics failures commonly weaken combat power more than enemy action. The enemy is ever alert to finish off a unit that has so weakened itself.

One of the early lessons learned from the NTC was that very few soldiers or crews could shoot accurately. The overall performance in the live fire portion of the CTC training rotations was much poorer than expected. It was clear that if the enemy could not be hit, he could not be killed.⁵¹ The solution was more firing practice but modern weapons are very expensive to live-fire and require extensive and expensive range facilities. A big part of the solution was the eventual widespread use of highly realistic simulators that gave tank and infantry fighting vehicle crews "an opportunity to hone their precision gunnery techniques, 'firing' thousands of rounds of 'ammunition' under realistic field conditions."⁵²

The implementation of the CTC concept was the key element in greatly improving the readiness of U.S. Army forces. The senior leadership of the Army realized that the Army "developed the most successful formula for training

combat units in the world at the National Training Center, Fort Irwin."⁵³ Benefits derived from the CTCs included:

- A quality training experience for battalion task forces the training was the most realistic and demanding in the world. Units completing training rotations were as ready to go immediately into combat as any units had ever been.⁵⁴ And this was not just the official view. As experience with CTC training spread through the Army, the notion that it provided the best training possible was common in soldiers from private to general. Every rank in the Army felt that CTCs were providing what they thought the Army needed most.
- Improved home station training units took what they had learned at the CTCs back to their home stations, as did their superiors. Doing well on the next CTC training rotation become the focus of training at home station. Gone was the tyranny of instability caused by always training to the standards of a boss who would leave about the time you got it right. Since units from across the Army were taking back the same training experiences, the CTCs had a tremendous standardization effect. The CTCs used official Army doctrine and they became the most effective way in history of promulgating doctrine throughout the Army. Whatever was done in training at the CTCs truly became the Army standard and it was reinforced with every training rotation. Now a soldier or leader could be transferred to another installation and immediately be effective in his new unit because the whole Army did things the CTC way.

One of the most important discoveries was the importance of home station training at platoon-level and below. It was relatively easy for commanders and staff at company level and above to learn to work effectively

together after they got to the CTC training. But, if the basic skills are not there in platoons, squads, teams, crews and individual soldiers; the best plans simply cannot be executed.⁵⁵ This proved to be extremely fortuitous. For a number of reasons, training at platoon-level and below is much easier to conduct at home stations than is higher level training. Many units had previously done so much higher level training that platoons and below got very few training opportunities. Now the installations and divisions could better implement their training plans within their time, money, facilities and training area constraints. The pattern became: train up on the basic skills at home station and fine tune the complex command and staff interactions at the CTCs.

- Lessons learned the CTCs created an almost overwhelming volume of training observations and lessons learned. These ranged from subjective observations to highly quantifiable, objective statistical data. What eventually made it all manageable and ultimately very useful was the remarkable consistency of the observations. The CTCs proved to be an excellent combat laboratory. The standards were well maintained and the variables were many but finite. Virtually every imaginable idea was tried. What worked and didn't work was fully documented. Finally, performance in combat became a lot more science and a lot less art and voodoo.
- Superior doctrines and tactics now that it was possible to evaluate new doctrines and tactics without having to wait for the next war, progress could be made at a much more rapid rate. Some ideas that seemed brilliant on paper proved to be too complex and difficult to implement in the fog of the training war. They were discarded and better solutions adopted without a single soldier having to die in combat to prove the point.

- Greatly increased readiness at first, most units had a very difficult experience simply deploying to their CTC training exercise. Most units did not have a great deal of real deployment training. As with anything else, repetitious training caused big improvements. As experience and training rotations progressed, an entire Army well trained for deployment and immediate combat was developed. The proof of the accomplishment was the short notice deployment of the U.S. VII Corps from Germany to Saudi Arabia and its immediate entry into combat in Kuwait with spectacular success. VII Corps was not a rapid reaction corps with a mission to be ready for ocean deployment to a desert environment but because all the leaders in the corps had deployed, in many cases several times, to the NTC or the CMTC, they were ready. VII Corps demonstrated the kind of flexibility that the ARRC is striving for.
- Cost reduction the CTCs were expensive in money but cheap in blood. Before the CTCs, the Army had a fairly consistent record of getting badly bloodied in the early stages of each new war. Grenada, Panama and the Gulf war seem to be heralding a new trend. Now when Army forces go into combat, they perform superbly from the start. In the Gulf war most soldiers and officers up to the level of brigade commanders had never before been in combat yet, they handed the Iraqi veterans of many years of war an entirely disproportionate and humiliating defeat. Another great cost saving was in United States prestige around the world.

BENEFITS OF APPLYING THE U.S. ARMY COMBAT TRAINING CENTER MODEL TO TRAINING THE ARRC

The considerable benefits listed above would obviously accrue to the ARRC if it was trained in an environment based on the U.S. Army CTC model. Additionally, the ARRC could obtain some other important benefits from use of a CTC-type training concept.

- Task evaluation and management it appears that the ARRC may have too many tasks to be prepared for. There may be considerable overlap. Running battalions of the ARRC through a number of CTC-type training rotations with scenarios that are tailored to all possible tasks will develop task clarity. Perhaps most importantly, it will clearly determine what the ARRC can and cannot do. This alone could prevent the ARRC being thrust into an impossible mission and pointless destruction as were the U.S. Marines in Beirut in 1982.
- Deployment training the essence of a rapid deployment force is deployment training. "The really crucial element of crisis management is force generation—being able to deploy forces quickly by concentrating them when and where they are required to match any Soviet buildup or other developing threat."⁵⁶ Due to the wide range of potential deployment areas, it will be important for elements of the corps to deploy to training areas that provide the full range of potential terrain and weather.
- Organization evaluation and development the forces that have been provided for the ARRC are predominantly those that the parent nations developed for fighting a major Soviet thrust into Europe. Just as that is no longer the most likely scenario, current unit organizations are probably not best suited to the tasks that the ARRC is likely to be called upon to accom-

plish. As with refining the tasks themselves, a series of CTC-type training exercises will provide precisely the environment needed to determine changes that may be required in ARRC unit force structure and organization.

- Validation of multinationality models current models are based on limited previous experience in environments that are not comparable to what is planned for the ARRC. CTC-type training will place severe stress on the units and flaws will be immediately apparent. Eventually, the right model of multinationality will be revealed.
- Validation of command and control requirements if command and control does not work, units fail quickly and often in a CTC-type environment. Again, the proof of what is needed will be in the training results.
- Development and validation of logistics concepts logistics problems are a major constraint on national combat operations. Multinationality magnifies all logistics problems. Logistics for the ARRC will take years to work out but a CTC-type training environment provides the best opportunity to eventually develop the right solutions.

MINIMUM REQUIREMENTS FOR A U.S. ARMY MODEL COMBAT TRAINING CENTER

The mission of a CTC is to train the combat battalions in skills and to a level that are not possible at the unit's home station. Each battalion should have a training rotation at the a CTC every eighteen to twenty-four months. In theory, that would allow all the officers and NCOs in a battalion to have at least one CTC training experience during their time in the battalion.

If NATO decides to adopt the CTC training model, there are certain minimum requirements that must be met to get the desired training and other related benefits. The most important requirements for an effective CTC training environment are:

- Operations Group Headquarters this is the headquarters that runs the CTC-type training operations. It should be subordinate to the same officer as the ACE Reaction Forces Planning Staff which along with the AMF(L) and ARRC are subordinate to the SACEUR. Subordinates of the Operations Group are listed below.
- Observer-Controller (OC) teams one team is needed for each battalion that will simultaneously be in training. Due to significant differences in doctrine and techniques of employment, different teams are needed for heavy battalions and light battalions. Plans for OCs manning need to provide coverage for support elements such as aviation, artillery, engineers, and maintenance, that train with the combat battalions. The OC teams are the key element to making a CTC-type training experience produce the desired results.⁵⁷ Officers and noncommissioned officers assigned to the duty must be equal to or above the rank of the leaders they will be evaluating and have greater training or combat experience.
- Opposing Force Unit (OPFOR) this is the organization that provides the "enemy" for the unit in training. Due to the extremely broad range of tasks that the ARRC needs to prepare for, specific details of organizing to accurately replicate "opponents" ranging from Soviet mechanized forces to nonhostile victims in a humanitarian assistance situation will require careful planning. The OPFOR should be better than any adversary that may be encountered in combat.⁵⁸ That sets a high standard for the unit in training and quickly makes deficiencies apparent so that they can be addressed.

- Plans and Exercise Maneuver Control Staff is the element that develops training scenarios, plays the training unit and OPFOR higher headquarters, manages battlefield effects, plans and provides overall logistics, records training observations, and produces the training results take-home package for the rotational unit.
- **Instrumentation** at the NTC and to a lesser but significant extent at the JRTC, the U.S. Army has spent many millions of dollars to produce an instrumentation system that records a wide range of rotational unit and OPFOR information such as unit and vehicle positions, rounds fired, near misses, hits, video and audio tapes of significant events, and other data. To the visitor at one of these training centers, this high tech "star wars" aspect of the CTCs is highly visible and often seems to be the a critical element of the overall training environment. Instrumentation is one of the most expensive parts of a CTC but is not necessary to produce highly effective training for the rotational units. Both the NTC and the JRTC initially operated quite effectively without an instrumentation system.⁵⁹ One base line component of instrumentation that is immediately necessary for effective training is MILES or its equivalent. MILES takes the guess work out of evaluating directfire engagements. Without MILES, people tend to train as though they are invulnerable. A false view of reality sets in that trains soldiers to get killed.⁶⁰

It is imperative that the Operations Group be multinational at the level of the individual. It is only through this level of multinationality that national group rivalries can be avoided or minimized. With the exception of the OPFOR, the Operations Group will be composed predominantly of officers and noncommissioned officers. These leaders, including personnel from the ACE

Reaction Forces Planning Staff, will provide the redundancy in leadership and staff that some observers think may be necessary to ensure that the ARRC and the AMF (L) can deploy even if one or two nations choose not to participate in any specific deployment. More important, periodic rotation of personnel between these four organizations will make a strong contribution to cohesion and effectiveness of all the organizations involved in supporting NATO's multinational rapid reaction force strategy

TRAINING AREAS

One of the key parameters for a CTC is adequate, unfamiliar terrain for training. The U.S. Army has used fixed training centers but has experimented with moving the Operations Group and OPFOR to temporary sites for training. The advantages of this are units do not become familiar with a fixed site such as the CMTC or JRTC—this is more of a problem with the relatively small JRTC and CMTC that it is with the huge NTC—and the sites can be chosen to closely match the rotational units potential deployment areas. Training away from a fixed site is more difficult for the Operations Group and the OPFOR and is more costly. If a significant expensive instrumentation is installed at a fixed site and training becomes dependent on it, use of temporary training sites becomes impractical.

There is a wide range of potential training areas for use in training the ARRC battalions. Some are candidates for permanent training and some could only be used on a temporary basis. Initial use of temporary sites would provide NATO with a desirable wide variety of terrain and weather in training areas. After some experience had been gathered, a determination could be made on the need for a permanent training site.

Possible training areas include:

- U.S. Army NTC, JRTC, and CMTC these facilities are in California, Arkansas and Germany respectively. In the past, the U.S. Army has prohibited foreign use of the facilities because it was felt that scheduling did not provide sufficient opportunities for U.S. Army units to train. As the U.S. Army becomes smaller, it may be possible and desirable for NATO units to share time and costs at some of these sites.⁶¹ Even occasional use of these sites would be especially useful in helping NATO develop its own CTC-type training capability. Germany has expressed interest in building a military base in the United States to gain larger training areas for mechanized units.⁶²
- Canada the United Kingdom and Germany already make use of training areas at Suffield, Alberta and Shilo, Manitoba respectively. A potentially important advantage of sites in the United States and Canada is their being "in North America, which is unaffected by CFE I treaty and could conceivably be untouched in a CFE II round of negotiations."⁶³
- Turkey there are significant portions of eastern Turkey that are not heavily populated and that provide the potential for big training areas not far from the home stations of many ARRC units. These areas would provide all the training benefits of real deployments without the expense of going as far as the United States or Canada. Turkey has traditionally resisted presence of large foreign forces on its soil but informal conversation with Turkish officers reveals that this sensitivity is no longer a strong factor. The collapse of the USSR has caused Turkey some concern that it may lose influence if it does not actively seek more involvement with foreign nations.⁶⁴

• Russia — a remark by a Russian, Dr. Alexander Konovalov, "Perhaps multinational forces should train in Russia."⁶⁵ at a 1992 NATO Symposium is an interesting manifestation of the vast changes of the past few years. What provoked the remark was concern that Russia could see the ARRC as a threat. At the very time Russia is getting less able to deploy and threaten NATO, NATO is increasing its ability to deploy. Whether elements of the ARRC training in Russia would calm or enhance fears remains to be seen but, access to Russia's vast training sites is an intriguing possibility.

There is no need to pursue training site selection in detail now. The important point here is that there is a wide range of possible sites to select from.

TIME TABLE

Significant ARRC dates available at the time this was written are shown in Figure 4 below:⁶⁶

01 SEP 92	ACE Reaction Forces Planning Staff operational.
OCT 92	Headquarters of the ARRC formed. Limited corps operational capability.
Spring 93	Reaction Force Air Staff operational
1994	Headquarters of the Multinational Division (Central)
1995	Headquarters of the Multinational Division (South)
1995	Full corps operational capability.

Figure 4: ARRC Planning Time Table

This schedule provides time to form an Operations Group and begin training about the time that the Multinational Division (Central) (MNDC) is becoming operational. The obvious place to conduct initial training rotations for battalions of the MNDC is the U.S. Army CMTC at Hohenfels, Germany.

CONCLUSIONS

The ARRC has a very tough course ahead. Its peacetime duties to prepare are scarcely less daunting than the prospect of being thrust, in a week or less, into an unknown land to do anything from show the flags to fight in high intensity combat. The only land force in the world that has mastered that level of readiness, albeit without the added impediment of multinationality, is the U.S. Army. The major contributor to the U.S. Army's flexibility and effectiveness in combat has been the development and diligent use of the CTC concept.

In a time of declining budgets, senior U.S. Army leadership has repeatedly taken the decision to protect the CTCs from crippling budget cuts. The CTC experience is seen by the senior leadership and the combat units as the penultimate validation of combat capability. Maintaining the CTCs and a continuous database of average unit performance allows sound evaluation of when budget cuts in other areas are beginning to have unacceptable deleterious effects on the combat core of the U.S. Army.

Clearly the ARRC's units need the best training and evaluation they can get. The ARRC needs a laboratory in which to develop its doctrine, tactics, battle drills and logistics procedures. A NATO CTC would, over time, show the way to the best solutions. An individual level of multinationality in the Operations Group would have a dampening effect on the endless, untested debate that nationalism at unit level, and above, can provoke. A NATO CTC will provide the ability to develop the superior doctrines and tactics that could assure success on future battlefields. There is no better alternative on the horizon.

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