

7-4-1984

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Recommended Citation

Gregor, A. J.. "WESTERN SECURITY AND THE MILITARY POTENTIAL OF THE PRC." *The US Army War College Quarterly: Parameters* 14, 1 (1984). <https://press.armywarcollege.edu/parameters/vol14/iss1/14>

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WESTERN SECURITY AND THE MILITARY POTENTIAL OF THE PRC

by

A. JAMES GREGOR

Washington's apparent willingness to move beyond the implicit counterweight strategy with the People's Republic of China toward more active collaboration against the Soviet Union, including the possible sale of weapons and weapon-related technology to Beijing, has precipitated wide-ranging private and public debate in the United States.¹ Other than the diplomatic and political significance such developments might entail, one of the central questions involves the conceivable military consequences of such sales and transfers. To what degree might the sale of weapon systems to the People's Liberation Army of the PRC alter the current military balance along the Sino-Soviet border to the advantage of mainland China and the collateral advantage of the anti-Soviet Western powers? Whatever arguments might be made for the political or diplomatic benefits such transfers might afford, there remains the central concern with the balance of forces along the Sino-Soviet border.

Any effort to respond to such questions necessitates a review of the present military capabilities of the PRC in its prevailing security environment, conjoined with some judgment of its potential for development. What seems clear is the fact that although the armed forces of the PRC are large in absolute terms, they are beset by disabilities of considerable magnitude. Those disabilities afflict every branch of the armed services of

communist China, and their redress appears to be beyond the medium and probably the long-term capabilities of both the Western powers and the Beijing regime itself.

THE ARMED FORCES OF THE PRC

The PLA, which embraces all communist Chinese arms and services, including strategic nuclear, naval, and air defense components, is the largest military organization in the world.² It is composed of approximately 4.7 million men under arms serving in units organized in 11 Military Regions divided into 29 Military Districts. This mass is divided into Main and Local Forces. Main Force divisions are the primary force constituents and are better armed than Local Forces, which are intended to defend local areas and provide troops for border defense and internal security. There are about 190 Main Force divisions in about 40 army corps, including 121 foot infantry, 12 armored, and three airborne divisions. Artillery, engineer, railway, production, and construction corps units make up the remainder of the ground force manpower, and all are commanded by the Ministry of National Defense. Local Force divisions seem to be under the command of the leadership of the military regions. There are approximately 85 infantry divisions and 130 independent regiments in the Local Forces.

In addition there are common militia units, composed of anywhere from 50 to 200 million nominal participants. The People's Militia receives little military training in general, and its common militia units receive little in the way of military equipment. About 15 million members of the common militia are entered into basic organizational units under the leadership of retired PLA officers, who exercise with them once or twice a year with active-duty PLA personnel. Of the 15 million, about five million men and women are selected to provide the manpower for security patrols and for general militia training. Armaments for the select units of the militia are usually restricted to infantry weapons, although some urban militia units have received antitank and anti-aircraft weaponry.

Under combat conditions the Main Force divisions are expected to engage directly the enemy's main forces. The Local Forces serve to provide local self-defense and the leadership for irregular warfare units composed of the best trained of the People's Militia. The general militia forces constitute manpower reserves and simple labor power for field forces.

The overwhelming feature of the PLA is its foot-mobile character. Although the communist Chinese have about 11,000 tanks in inventory—approximately the same number as found in the armed forces of the United States—the ratio of active personnel available to tanks leaves the PLA seriously disadvantaged in any confrontation with Soviet forces. If the category "armored vehicles" is taken to include both tanks and the 3500 armored personnel carriers the PLA has in service, the ratio of personnel to armored vehicles is about 241:1, compared to a Soviet ratio of personnel to armored vehicles of 20:1. In effect, the PLA has very limited strategic and tactical mobility. The 20,000 field guns and rocket launchers, and 6000 heavy mortars, of the PRC armed forces are relatively obsolescent. Given the size of the infantry forces of the PLA, it becomes apparent that the PRC military conspicuously lacks both armored mobility and firepower in the field. These disabilities are compounded

by the fact that the air force of the PLA, while large in absolute numbers (5300 combat aircraft), remains critically deficient in terms of modern weapon platforms, modern weapon systems, and modern electronic warfare ancillaries. Against any modern opponent, it is doubtful whether the air force could contest tactical air control over the battlefield, much less obtain general air supremacy. Without tactical air control, the foot soldiers of the PLA could expect only episodic air support. Hampered by a lack of armored mobility and impaired in terms of firepower, the infantry units of the PLA would suffer grievously from the air strikes that certainly would be launched with relative impunity by any modern adversary.

On the seas, the communist Chinese deploy the world's third largest navy in terms of combatants. None of those combatants, however, is larger than a destroyer—and most are coastal defense craft ranging from gun, torpedo, and missile boats through frigates armed with surface-to-surface missiles. Those surface combatants are supplemented by the world's third largest fleet of attack submarines. The approximately 100 attack boats in the navy of the PRC are conventionally powered, Chinese-constructed replicas of Soviet submarines of the 1950s (there are about 80 *Romeo* and 20 *Whiskey* class diesel-powered boats in inventory).

Other than the surface and subsurface combatants, there are approximately 800 shore-based aircraft assigned to the PLA navy. They provide the air defense for the

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combat vessels of the fleet. The force is composed of about 100 torpedo bombers, 50 light bombers, and 600 fighter aircraft including domestically constructed MiG-15s, MiG-17s, and MiG-19s. The remainder of the force is composed of light transport aircraft and about 40 helicopters.

Beyond the conventional forces available to Beijing, there are strategic nuclear forces under the control of the Second Artillery, the nuclear missile arm of the PLA. At present, the offensive nuclear weapons available to the PRC constitute modest but growing capabilities.

The Second Artillery deploys about 50 CSS-1 *Tong Feng* medium-range ballistic missiles with an estimated range of 1800 kilometers and an explosive impact of 15 kilotons. These are supplemented by about 85 CSS-2 intermediate-range ballistic missiles with an estimated range of 2500 kilometers and an impact of one to three megatons. Four intercontinental ballistic missiles with a range of approximately 7000 kilometers and an impact of one to three megatons, coupled with a few true ICBMs with an estimated range of 13,000 kilometers and an impact of five to ten megatons, make up the strategic nuclear inventory of the PRC.

The PLA is believed to possess a stockpile of several hundred fission and fusion nuclear devices that are available for drops by tactical fighter and bomber aircraft. The air force has about 100 Tupelov-16 (Badger) medium bombers in inventory—with an operational radius of about 3000 kilometers—that could be used for nuclear weapon delivery. Some fighter aircraft are configured for tactical battlefield delivery.

In substance, the military capabilities of the People's Republic of China are not negligible. Like all capabilities, however, the measure of the PLA can only be assessed against the security threats with which it must contend.

THE SECURITY ENVIRONMENT

At the moment, the security environment of the PRC is dominated by the presence of substantial military forces along the Sino-

Soviet border.³ About 25 percent of the conventional forces of the Soviet Union are deployed along the frontiers of communist China. About 38 motorized rifle divisions are in position, supported by about seven armored and two airborne divisions. About 25 of those divisions are deployed in the Soviet Far East Military District, which borders Manchuria. In manpower, they are roughly equivalent to the PLA forces across the border. They are distinct insofar as they are completely motorized, and the concentration of armor is far heavier than that of the PLA. Overall, along the entire border, communist Chinese troops outnumber Soviet forces at a ratio of about two to one.

Estimates of Soviet air power along the communist Chinese border differ, but the force deployed is probably between 1500 and 2500 combat aircraft, and the types of aircraft vary, providing the Soviet ground forces with support by a large and flexible force. Soviet Far Eastern Frontal Aviation, integrated closely with the forward-deployed ground forces, has been extensively modernized, with the MiG-21s becoming the most numerous fighter-interceptors on station, supplemented by MiG-23s and most recently by MiG-25s (capable of Mach 3 speeds at high altitude), MiG-27s, and the most sophisticated ground attack aircraft in the Soviet air force, the Su-19.

At present, one-fourth of the total force of Soviet Long Range Aviation is assigned targets in the PRC. The most recent addition to Soviet Long Range Aviation in East Asia is the Tu-26 Backfire, which significantly enhances the Soviet air command's capabilities with regard to ordnance-carrying, delivery, range, and survivability.

At sea, the Soviet Far East Fleet deploys a force of about 78 major surface combatants—including at least one aircraft carrier, 11 cruisers, 25 destroyers, and 41 frigates, all missile-capable—supported by 700 lesser vessels. Most of the surface combatants have extensive antisubmarine equipment aboard, and Soviet naval aviation attached to the Far East Fleet operates about 200 to 250 antisubmarine aircraft and helicopters.

Other than the surface vessels, the Soviet Far East Fleet operates about 100 submarines, 25 of which are ballistic-missile boats (about 20 of which are nuclear-powered). Almost half the remaining submarines are nuclear-powered attack boats, and almost half that number are equipped to launch antiship guided missiles. The five or six *Charlie* class submarines that make up part of the cruise missile force can launch their antiship cruise missiles while submerged. The remaining *Echo II* cruise-missile-capable submarines launch their missiles on the surface.

About 15 of the remaining nuclear-powered attack boats are configured for a sub-killing role. *Victor I*, *November*, and *Echo I* class boats are armed with anti-submarine torpedoes. Most of the remaining attack submarines are conventional diesel-powered boats and are used for coastal patrol duties and training exercises.

The conventional forces of the Soviet Union are supplemented by a vast nuclear armory. It is estimated that the Soviet Union maintains about 1600 ICBM silos augmented by almost 1000 launchers aboard submarines. How many of these submarine-launched ballistic missiles are targeted on the PRC is unknown, but at least 30 percent of all Soviet strategic missiles are deployed along the Trans-Siberian railway and in nuclear-powered missile-launching submarines assigned to Pacific waters. SS-18 missiles are emplaced outside Novosibirsk, and SS-4, SS-11, and the newest SS-20 intermediate-range ballistic missiles are deployed in the Trans-Baikal and Siberian Military Districts. These sites can deliver about 8000 nuclear warheads on communist Chinese targets anywhere on the mainland of China. Tactical delivery can be effected by Frog-7 nuclear rockets, providing significant theater nuclear capabilities to Soviet Far Eastern forces.

Given the targeting precision of Soviet nuclear weaponry, it is estimated that less than half of the current Soviet inventory targeted on PRC objectives would be required effectively to destroy all "hard" targets and all selected "soft" objectives. The hard targets would include substantially all

PLA launch sites, not excluding those burrowed into mountainsides. Communist Chinese hardening technology, designed to resist nuclear blast effects, is significantly behind that of the West and particularly inferior to that of the Soviet Union. PLA fixed silos have been hardened to about 600 pounds per square inch (psi) overpressure, as opposed to about 1000 psi for those of the United States and 4000 psi for those of the Soviet Union. Similar disabilities afflict other hardened targets housing the military command, control, and communications infrastructure. As a consequence, almost all these targets would be destroyed in a Soviet nuclear attack.

Soft targets would include the 150 communist Chinese airfields capable of servicing jet aircraft. Many of the remaining 450 airfields also might well be targeted and destroyed. Major industrial centers, railheads, and communication hubs would be similarly selected for early destruction, further reducing the PRC's already fragile logistical and communications infrastructure.

It is clear that should the Soviet Union decide on frontal conflict with communist China, a nuclear first strike would constitute a real option. Soviet military manuals insist that in the event of war, "The actions of the troops on the battlefield [would be] coordinated first of all with . . . nuclear strikes and . . . directed toward the exploitation of their results. Nuclear strikes, the destruction of enemy means of nuclear attack, and swift, highly maneuverable actions with the exploitation of gaps, breaches, and intervals in the enemy combat formation form the basis of attack." "Surprise" would be decisive.⁴

Should such an attack be undertaken, it is doubtful that any of the PLA's retaliatory nuclear force would survive.⁵ But even if some of the silos and the available missiles of the PLA did survive, there is grave suspicion that they would have little, if any, military value. In the first place, the PRC's nuclear deterrent system is more than two decades old, and all its known ICBMs are liquid-fueled. Although a recent space satellite launch suggests that the PRC has developed solid-fuel technology for its rocket engines,⁶

its nuclear delivery systems remain liquid-fueled and will remain so for some time to come.

Liquid-fueled missile systems require a relatively long lead time in launch preparation, making them particularly vulnerable. It is reported, for example, that the PRC's CSS-2 missiles require 48 hours of firing preparation before launch.⁷ Moreover, the guidance systems on such vehicles are extremely sensitive and tend to degrade without constant and proper maintenance. Given the shortfall in skilled PLA personnel and the time such delivery systems have been in storage, it is probable that errors and malfunctions would preclude effective launch of a substantial number of the missiles. Those considerations, coupled with the facts that the PLA lacks testing experience and possesses few means of effective target acquisition, suggest that any missiles that might survive Soviet attack to achieve launch would not, in fact, reach their targets.

While the PLA has a small but operational photointelligence capability, the inaccuracy of target data, the questionable target acquisition capabilities, and the primitive guidance properties of the delivery system do not afford Chinese missiles much precision in terms of impact area. The "circular error probable" of PLA missiles is four kilometers—which means that only 50 percent of arriving warheads can be expected to fall within a target circle having a radius as large as four kilometers, making such strikes largely ineffective against any hardened Soviet targets. The comparable figure for Soviet and American missiles is 0.5 kilometers.

Recently, the PRC successfully placed three experimental satellites in orbit at one launching,⁸ suggesting that the Chinese have the potential for developing a multiple independent reentry vehicle (MIRV) program that could be employed with nuclear delivery systems. MIRVing its missiles might be a partial answer to the inaccuracy of PLA targeting. Nonetheless, it will be some considerable time before the PLA can deploy MIRVed missiles in sufficient number to alter

appreciably the present military balance along the Sino-Soviet border.

Smaller PRC nuclear devices, used for tactical strikes, would seem to be of equally little value in any anti-Soviet conflict scenario. If the PLA has significant targeting problems with strategic nuclear missiles, the precision of guidance systems becomes increasingly critical as the size of the target and the yield of the warhead decrease. Given their guidance problems, Chinese tactical nuclear weapons could only be used with any effectiveness against massed troops and materiel rather than opposing launch sites. The problem with such use turns on the fact that the Soviet Union possesses such an overwhelming advantage in numbers and delivery capabilities for tactical nuclear weaponry that any PLA recourse to their use that would not preempt Soviet response would be suicidal.

Finally, for an effective use of any of their nuclear weapons, the PLA would have to insure the survival of its communications, control, guidance, and intelligence systems, something that would be very difficult to accomplish. The Soviet Union possesses one of the most, if not the most, sophisticated electronic warfare systems in the world—one fully capable of rapidly degrading such PRC capabilities.

Under such circumstances, all that would remain to the strategic forces of communist China would be aircraft delivery of nuclear devices. Obsolescent PLA aircraft would have to penetrate Soviet air defenses to effect delivery. The chances of success against some of the world's most sophisticated interceptors and ground defense systems would be marginal at best. The best communist Chinese option would be a massive launch of aircraft carrying a large number of nuclear weapons, flying at low level to evade early radar detection and tracking. But the airfields capable of servicing such a force would be among the first targets of Soviet attack. As a consequence, the proposed air fleet would have to be dispatched from surviving airfields in the communist Chinese interior—a circumstance that would allow Soviet in-

telligence a longer lead time for detection and the preparation of countermeasures. The result would be the near certainty of the total destruction of such a force before a meaningful Soviet target could be destroyed.

Given the Soviet advantages in early warning surveillance, electronic warfare capabilities, surface-to-air missileery, conventional air defense, and interceptor aircraft, any PRC response to a Soviet nuclear attack would have negligible effect on the course of the conflict. In fact, the Soviet Union enjoys so many advantages in any nuclear exchange, whether strategic or tactical, that the Soviet military would probably welcome nuclear first use by the PLA. Given the long lead time necessary for the launch of PLA liquid-fueled vehicles, as well as the doubtful targeting and low probability of delivery that would accompany the attack by a small number of devices, the Soviet military would have ample lead time for countermeasures. Moreover, they would then have every justification for destroying all PLA forces in the forward deployment areas without the political and diplomatic opprobrium that would attend Soviet first use.⁹

In the effort to offset the Soviet nuclear advantage, the PRC has continued to pursue development of a submarine-launched missile. In October 1982 it was reported that an SLBM was successfully test-fired by China's navy from Bo Hai Bay to impact in the waters 1600 kilometers northeast of Taiwan. The submarine-launched missile apparently has the range of the American Polaris A-1.

The platform from which the missile was launched has not been determined. It may have been either a modified *Han* class nuclear-powered boat or a *Golf* class diesel-powered submarine. In any event, the Chinese navy has very few such platforms, either nuclear or traditionally powered, and it is unlikely that any such vessels will be dispatched to patrol duty any distance from mainland Chinese bases. It would be impossible to come to the assistance of any such vessels should there be an emergency, given

the limited blue-water capabilities of the naval forces of the PRC.

Only when China's navy has a minimum of four to six such submarine missile platforms, supported by open-water servicing and assistance capabilities, could such submarine-launched ballistic missiles contribute to the nuclear deterrent capabilities of the communist Chinese armed forces. Until that time, the strategic capabilities of the PRC will contribute little to the strategic nuclear balance. That the United States would devote the substantial sums of money, or the advanced technology, necessary to enhance Beijing's nuclear capabilities is very unlikely.

For the foreseeable future the PLA does not pose a serious nuclear threat to the Soviet Union, and little of the Soviet Union's nuclear capability is employed in covering PRC targets. In fact, it appears that the proportion of the Soviet nuclear arsenal needed to counter the PLA nuclear threat is smaller today than it was a decade ago. Soviet nuclear delivery technology has improved with such rapidity that a counterforce strike against the nuclear potential of the PLA would today involve only a negligible part of Soviet capabilities.

At the time of the normalization of diplomatic relations between the PRC and the United States, some suggested that the strategic forces of the PLA would be rapidly improved to the point where they would have a disabling effect on Soviet strategic planning; such suggestions are now recognized to have been totally unrealistic. Against either of the superpowers, the mainland Chinese could not, under any foreseeable circumstances, put together a survivable land-based nuclear deterrent during the present century. Eventually, the submarine-based ICBMs of the navy could serve as a second-strike threat, but it will probably be decades before mainland China has the technology, the number of platforms, and the blue-water capabilities to provide a minimum deterrent capability against the Soviet nuclear threat.¹⁰ The costs involved will be heavy and will strain current skilled manpower resources.

Such efforts will, of course, affect the attempt to modernize the PRC's retarded economic system.¹¹ Finally, it is obvious that the military systems of the Soviet Union will continue to evolve, and its present anti-submarine capabilities, for example, which are formidable, will improve still further. The PRC may never be able to put together a survivable submarine nuclear deterrent. It seems reasonably clear that the People's Republic of China, for at least the determinate future, offers little in the way of military advantage to the West in terms of its strategic capabilities, and there seems to be very little the West can do, realistically, to alter that fact.

If one considers alternative non-conventional arms such as chemical weapons, the prospects are no less bleak. The Soviet Union possesses overwhelming advantages vis-à-vis the PRC. Soviet commanders have been trained to consider such weapon employments as a matter of course in any conflict, conditional upon tactical and meteorological opportunities.

With the accompanying array of multiple rocket launchers and aircraft for the rapid delivery of persistent and nonpersistent chemical agents such as cyanide or sarin, the large stocks of toxic substances available to the Soviet ground forces would provide the USSR with major battlefield advantages. All reconnaissance units in the Soviet ground forces have components equipped for duty in chemically contaminated areas. Decontamination sprays are held at the company level and above, and every division has complex mass decontamination equipment in inventory.

The evidence from Laos and Cambodia suggests that the Soviet Union (at least through its surrogates) is prepared to use chemical toxins in conflicts. Similar reports have surfaced concerning the use of such toxins in Yemen in the 1960s. Should they be used against the PLA, there is every evidence that the armed forces of the PRC are ill-equipped to counter or neutralize their effects.

If such are the circumstances when one considers the nonconventional capabilities of

the USSR, any assessment of the conventional capabilities available for use by the Soviets against the PRC would afford little occasion for optimism in Beijing. In the threat environment in which the PLA would be forced to operate, there is little to suggest that its vast armies of foot soldiers would offer anything more than cannon fodder for Soviet fire in the course of frontal conflict.

CONVENTIONAL GROUND AND AIR FORCES

Given the present configuration of forces along the Sino-Soviet border, the Soviet Union—even without recourse to non-conventional modes of attack—has an entire repertoire of military options it could exercise with a more-than-reasonable chance of success. Should the Soviet Union undertake attack across the borders of the PRC, the open spaces and the thin population of Sinkiang and Inner Mongolia offer optimum terrain for rapid armored and motorized infantry assaults. Such a campaign would be supported by air strikes against strong points and air cover for ground troops.

The communications system from central China to Sinkiang is very fragile, with major transport threaded through a single rail connection that traverses the Kansu corridor. Sinkiang is a vast arid region, ringed by mountains, which in large measure is similar to the desert reaches of the Middle East. The topography and the thin communications infrastructure make the region susceptible to classic desert warfare maneuvers. Severance of the rail connections through the Kansu corridor would make regeneration of the PLA ground forces extremely difficult, and the Soviet conjoint employment of air supremacy, armored mobility, and mobile firepower would make the entire region all but indefensible.

Soviet aircraft employed in any such attack would have machine and trained-manpower advantages over the obsolescent aircraft of China's air force. The bulk of the communist Chinese air force is still composed of MiG-17s and MiG-19s—both of 30-year-old designs. The small number of Chinese

MiG-21s in service appear to suffer from design impairments and are of doubtful combat usefulness. PRC aircraft possess primitive avionics and navigational capabilities and generally lack effective air-to-air attack radar. At present the three known types of air-to-air missiles carried on PLA aircraft are relatively modern, comparable to the Aim-9B Sidewinder of the US Air Force. How many of the aircraft of China's air force are so equipped, however, is difficult to determine—with the armaments industry of the PRC having commenced series production only in 1982.¹² Against the MiG-23s, MiG-25s, and MiG-27s in service with Soviet Far Eastern Frontal Aviation, it is doubtful that China's air force could long survive.¹³

An effective air defense of the PLA forces is further impaired by the fact that Chinese aircraft, given their obsolescence and the lack of skilled manpower in the PRC military, seem to suffer greater maintenance problems, and consequently suffer more downtime, than aircraft in other air services. The propulsion systems of PLA MiGs, for example, require overhaul after only a hundred hours of flying time, while the F-4s in inventory with Western air forces remain in operation without such major servicing ten times as long. Moreover, supplies of aircraft parts are limited and their delivery is unreliable. Finally, the training of PRC pilots seems singularly inadequate, with less than 100 annual flight hours per pilot scheduled as the norm as late as 1978.¹⁴

In a combat situation, the pilots of China's air force could expect only limited ground intelligence and control assistance. The communist Chinese radar system is notoriously thin. There have been some suggestions of a current attempt at upgrading, but for the time being the system appears to have a very limited capacity for detecting low-flying aircraft. Soviet attack aircraft making entry into PRC airspace under 5000 feet would arrive on target virtually undetected. Chinese pilots would have literally no early warning time. Once they did engage in combat, the lack of onboard electronic countermeasures to deflect Soviet

air-to-air missiles, launched from outside the range of Chinese fire, would rapidly erode the numbers of aircraft available for the continued defense of the homeland.

Chinese aircraft surviving such encounters and attempting to attack Soviet ground formations would have to contend with one of the most formidable anti-aircraft environments of modern times. Surface-to-air missiles launched from Soviet SA-2, SA-6, and SA-9 sites would constitute grave threats to the survival of attacking aircraft. The SA-6 Gainful SAM was employed in the Arab-Israeli war of 1973 and scored some notable successes against the most formidable of the Israeli air units. A fully mobile missile, equipped with sophisticated fire control features including an inflight guidance adjustment capability over the missile-borne semi-active homing system, the SA-6 has a 60-kilometer high altitude range, a 30-kilometer low altitude range, and a high first-shot kill probability. Supplemented by the short-range SA-9 Gaskin and about 10,000 radar-controlled anti-aircraft weapons, the air defenses of any Soviet invasion force would be all but impenetrable to China's air force. In the judgment of Western analysts, "The Chinese air force is likely to prove almost completely ineffective against any concerted air defense." Worse still, it is "unlikely that China's air force could successfully protect the PLA from attack and interdiction [from Soviet aircraft]."¹⁵

With assured air superiority along the entire northern borders of the People's Republic of China, the Soviet forces would use their superiority in armor and mobility to maximum advantage. At the present time Soviet forces enjoy about a three-to-one superiority in tanks and a ten-to-one superiority in armored fighting vehicles and personnel carriers. If calculation is made for qualitative superiority, the differences are even more disheartening.

The Soviet Union has deployed some of its most advanced armor along the communist Chinese border. Soviet T-64/T-72 main battle tanks have been entered into service in Asia. Protected with special laminate armor and armed with smooth-bore

125mm guns, the Soviet tanks outclass the best that the PLA can marshal in opposition. The PLA's present main battle tank, the T-59, is a copy of an obsolescent Soviet T-54 that had been supplied to the PRC by the USSR in the late 1950s and early 1960s. The T-59 is armed with a 100mm gun, but without the power traverse, stabilization of the main weapon, or infrared sighting devices that were standard on the original Soviet models. The gunner and the loader use hand traverse mechanisms which significantly reduce the rate of engagement and compound the difficulties of fire from anything but a flat position. In an open field engagement, where first-hit capability is critically important, such impairment would significantly reduce the survivability of the equipment.¹⁶ In open terrain, characteristic of large expanses of Sinkiang and Inner Mongolia, such armor would have little chance against technologically and numerically superior Soviet tanks. The Soviet T-72, firing armor-piercing, fin-stabilized rounds, could easily breach the shielding of the PLA main battle tanks from stand-off positions beyond the maximum range of the communist Chinese onboard weapons.¹⁷

Recently there have been reports of a new PRC battle tank, the Type 69 MBT, which incorporates some advanced technological features. The T-69 employs the same chassis and turret as the T-59 but has incorporated a weapon platform stabilizer, a 105mm smooth-bore main weapon, an automatic laser range finder, and an infrared night light, all of which are calculated to improve the combat effectiveness of PLA armor. It will be some considerable time before the PLA can replace the older T-59s with the more modern T-69s, however, and even then its armor will remain inferior quantitatively and qualitatively to current Soviet tank formations. Given the continued improvement of the Soviet inventory, the PRC's efforts, at best, will only marginally improve the PRC's position. Exposed to Soviet air strikes and antitank helicopter gunships, the armor of the PLA would suffer grievous attrition rates.

The difficulties the PLA would experience in attempting to contain Soviet

armored thrusts would be compounded by the critical shortfall in antitank weaponry that currently afflicts communist China's armed forces. Present PLA inventory includes largely outdated and ineffective antitank grenade launchers and recoilless rifles—whose limited range and lethality preclude any significant defense against Soviet armor.

The Type 56 antitank grenade launcher, with which PLA units are amply supplied, has a maximum range of 160 yards. Soviet tank crews would have to be singularly inept to allow antitank teams to make so close an approach in open country. In cluttered terrain, such weapons might have some effect, although the current series of Soviet main battle tanks are heavily armored and it is doubtful that such weapons could inflict significant damage. The D-44 85mm antitank gun and the 75mm recoilless rifle in service with the PLA are ineffective except at murderously short range, exposing antitank teams to heavy suppression fire, and even then the shielding of the Soviet main battle tanks would probably defeat them.¹⁸ There are some reports of PRC copies of the Soviet Sagger antitank guided missile having entered PLA service in 1978 or 1979, but the copies are apparently much more primitive than the Soviet original and of dubious effectiveness.¹⁹

In effect, the PLA has little in inventory that could stop a Soviet armored invasion across the extended Sino-Soviet border. Even below the threshold of nuclear exchange, the communist Chinese forces are outclassed by Soviet forces. Bereft of the hope of air support, outgunned and outmaneuvered by mobile forces, and armed with obsolete weapons of minimal effectiveness, the foot soldiers of the PLA would be decimated in any frontal engagements. Any attempt to employ the human wave attacks that proved so costly in Korea would result in a grotesque casualty rate against an aggressor that can lay down about five million pounds of ordnance on a battlefield in 30 minutes.

Any fallback to "people's war" tactics would be all but impossible given the relatively thin population concentrations in Sinkiang and Mongolia. Only in Manchuria might the irregular warfare of classical

Maoist military doctrine make secure occupation more difficult. But it is clear that the Japanese managed to pacify Manchuria in the late 1930s and early 1940s, and there is little reason to believe that the Soviet Union could not accomplish as much.

It seems evident that the thin transport and communications infrastructure of contemporary communist China could not support a modern conflict on its own soil. Transport and communications remain major weaknesses of the PLA. With about one million trucks in service on about 900,000 kilometers of roads, and with the extant rail services on 50,000 kilometers of track, it is doubtful that the General Rear Services Department, responsible for the logistics of the PLA armed forces, could sustain the large-scale mechanized infantry, tank, and artillery formations required to engage an enemy in modern warfare, or provide transport and supplies for the care of casualties and the replenishment of front-line elements.

During the recent "punitive" invasion of the Socialist Republic of Vietnam by the PRC, the periodic lulls in the activities of the PLA strongly suggest that communist China's armed forces had considerable difficulty in maintaining a steady flow of supplies to forward elements. It seems clear that the transport infrastructure of southern China was overloaded by the demands of the three-week conflict in Southeast Asia.

While the Soviet Union would have logistical problems of its own in any conflict along the Sino-Soviet border, it seems apparent that it possesses the requisite supply capabilities to sustain such engagements. In 1945, the Soviet army overwhelmed the Japanese Kwantung Army in Manchuria in a lightning armored attack that averaged a 50-kilometer daily advance. At that time, the Soviet Union had transported a combat-ready force of about 750,000 troops across Siberia in about four months to launch an armored blitzkrieg into Manchuria. Today the Soviet Union has vastly improved capabilities—and while it is clear that the effort would be burdensome, it seems equally evident that the transport, maintenance, and resupply

required for the campaign could be provided. Rail, sea, and airlift capabilities of the present Soviet military are sufficiently robust to afford such a venture the promise of success.

PRC NAVAL FORCES

Finally, under any conceivable set of military circumstances, it is difficult to imagine that the navy of the PRC could in any way alter the outcome of events. Communist China's navy is essentially a coastal defense force, and although its fleet of about 100 attack submarines is large by world standards, the fact that all its underwater craft are Soviet-designed and diesel-powered, and relatively short-ranged, render them ready targets for the sophisticated antisubmarine capabilities of the Soviet navy.

Chinese submarines could possibly cause some episodic interruption in the seaborne flow of supplies to the Soviet armies in East Asia, but it is doubtful that they could have decisive effect. The PLA navy, as has been suggested, has had very little blue-water sailing experience. Chinese submarine crews have never been known to venture outside the immediate coastal waters of mainland China. Both the *Romeo* and *Whiskey* class boats of the Chinese submarine service (which in the Soviet navy serve only as training vessels at the present time) are familiar to Soviet crews, are noisy, have limited range and endurance, and are slow once submerged. All of those drawbacks make them poor candidates for sealane interdiction in any effort to undermine Soviet supply lines in time of conflict.

The submarines of China's navy are ideally suited for shallow-water coastal defense operations where none of those shortcomings would be totally disabling.²⁰ Moreover, in coastal waters, land-based aircraft could provide at least nominal protection against Soviet antisubmarine measures. In fact, in times of conflict, it would be unlikely that the navy of the PRC would attempt to extend itself outside the range of land-based air cover. Without air cover the vessels would be at grave risk

against the multiple air, submarine, and surface weapon systems of the modern Soviet fleet. The combatants of China's navy have virtually no air defense capabilities. An attempt was apparently made to put an anti-aircraft surface-to-air missile system aboard the *Kiangtung* class frigates of the Chinese navy, but the retrofitting was abandoned. More recently, the PRC embarked upon negotiations with Great Britain's Aerospace Dynamics and Vosper Thornycroft to arm eight of its *Luta* class destroyers and some of its frigates with the Sea Dart surface-to-air missile system and electronic countermeasures capable of deflecting incoming missiles, but the order was canceled in early 1983, apparently because of a shortfall in foreign exchange.²¹

As far as is known, the Chinese navy has no operational seaborne defense SAMs, and the machine guns and conventional anti-aircraft weaponry on shipboard would be of marginal use against supersonic and high subsonic air attacks.

China's navy is fully capable of providing substantial coastal defense, but it is very unlikely that the Soviet Union would attempt coastal amphibious assaults or attacks against the shore except as diversionary feints. Whatever the case, in any engagements with Soviet combatants, the vessels of China's navy would be seriously disadvantaged. The only shipboard antiship missile system on PRC units is the communist Chinese version of the Soviet SS-N-2 Styx, with a range estimated to be about 20 nautical miles. These might well be opposed by the Soviet SS-N-3 antiship Shaddock missiles, with a range of about 150 to 250 nautical miles, that operate from *Kresta* class cruisers in service with the Soviet Far East Fleet. Of the approximately 100 boats in the Soviet submarine fleet, about 20 can launch stand-off antiship cruise missiles of various range capabilities. The *Charlie* class submarines can launch SS-N-7 missiles with a range of about 30 nautical miles while submerged. The *Echo-II* class boats can launch the SS-N-3 Shaddock while surfaced.

These vessels are supplemented by Soviet naval aviation that deploys about 85 Tu-16

Badger medium-range bombers that are antiship missile capable. As a strike aircraft the Badger can carry two antiship AS-5 Kelt cruise missiles with a range of about 85 nautical miles, or one AS-2 Kipper with a range of about 115 nautical miles. In turn, these are augmented by a variety of anti-submarine aircraft, including about 150 antisubmarine helicopters, some of which operate from Soviet surface vessels. Of the latter, the KA-25 Hormone is standard for carrier use. Equipped with search radar, dunking sonar, and a towed magnetic anomaly detector array, the Hormone, with relative ease, can search out, identify, and track the noisy underwater boats in service with the Chinese navy. In conjunction with the *Krivak* class antisubmarine destroyers operative with the Soviet Far East Fleet, they constitute critical threats to the survival of PRC submarines outside immediate coastal waters.

The large fleet of fast attack craft available to the Chinese navy, once again, is suitable for coastal defense, but offers little threat to Soviet sea lanes. These vessels would be of little offensive use outside the range of land-based aircraft because of their vulnerability. The *Hola* and *Komar/Hoku* missile-capable fast attack craft make poor launching platforms in rough seas in any case—and the open-ended launchers of the *Komars* make their onboard missiles susceptible to corrosion by open ocean spray. Finally, all the missile-capable Chinese fast attack craft employ Styx missiles with a short range and radio-controlled guidance systems that can be easily jammed by electronic countermeasures. The Israelis used such jamming procedures and succeeded in decimating the similar missile boats of the Egyptian navy in the Yom Kippur War.

The Soviet Union has been gradually phasing out its *Komar* fast attack craft and replacing them with larger and more sophisticated *Nanuchka* boats, armed with the SS-N-9 missile with a normal operating range of at least 50 nautical miles and a reputed maximum range of 170 nautical miles. Unless Chinese fast attack craft could overwhelm the electronic countermeasure

system onboard Soviet naval vessels from dangerously close range, they could inflict little damage on Soviet naval capabilities in any conflict in the open sea.

CONCLUSIONS

However one considers the military capabilities of the PRC in any threat environment involving the Soviet Union, its disabilities are formidable. All the armed services of the PLA suffer from materiel, weapon system, and combat unit obsolescence. The infrastructural support systems in almost every respect are insufficient to sustain modern warfare. The lack of skilled manpower makes maintenance and research and development extremely difficult.

While the Soviet Union has an entire range of options it might successfully pursue, including strategic and tactical nuclear strikes against mainland China, the most plausible military operations would probably include active support, at a variety of gradually escalating levels, for "national liberation" uprisings in Sinkiang, Inner Mongolia, or Manchuria. This might include anything from providing military supplies and sanctuary for insurgents to launching a lightning armored invasion of the border regions to whatever depth chosen. Such activities could be either punitive or designed to afford the Soviet Union bargaining advantage.

All the advantages would accrue to Soviet forces. In much of the region the population is sparse and communications systems very thin. Any suggestions of "people's warfare" under such circumstances would not be feasible. Given the mobility and firepower of Soviet forces, the Chinese defense would have little chance of success. Space would have to be traded for time, and in a region like Manchuria, where Chinese industry and resources are concentrated, such a strategy would be fatal. The People's Republic of China would lose half its confirmed oil resources, a third of its steel-making capability, and about half of its motor vehicle industrial plant. In effect,

The notion that the Chinese at their present stage of development could stop or effectively threaten thereafter a Soviet occupation of Sinkiang and Northeast Manchuria by mass manpower is ingenuous. Climate, terrain, superior Soviet mobility, Soviet air supremacy, and, above all, Soviet nuclear and chemical weaponry preclude any such defense by China as long as the present military equation continues.²²

It has become increasingly clear that the military capabilities of the People's Republic of China offer little that might serve as a counterweight to overall Soviet military advantages. In general, most military analysts are prepared to recognize that "the range of Soviet strategic options regarding China is sufficiently robust to demonstrate that Western nations would be ill-advised to put too many hopes in the deterrent capacity of the Chinese in the years ahead."²³

In substance there is little that the PRC could directly contribute to the military security of the West. In a general conflict the Soviet Union could withdraw troops from the Sino-Soviet border without fear of attack. There is every reason to believe that the communist Chinese would not involve themselves in the conflict unless directly subject to attack. But even were they disposed to attack, there is no way that the PLA could sustain operations outside the borders of China. Against a modern military power, the Chinese military is manifestly and necessarily a defensive force. Whatever offensive capabilities it possesses could not be used to any effect against Soviet defenses.

If mainland China were attacked by the Soviet Union, it is doubtful that the United States, or the West in general, would or could intervene effectively. Any effort to replenish the losses that would be suffered by the PLA would be all but hopeless and would involve astronomical costs. Neither Western inventory nor productive capabilities could provide the mass of weaponry and supplies that would be required to replenish or rehabilitate PLA combat units mauled by superior Soviet forces.

Current American capabilities in these respects are so limited that when the United States found itself compelled to replenish Israeli stocks during the brief Yom Kippur War of 1973, the military command was forced to draw off supplies and weapons, in some cases, from mainline units in the NATO command. That the United States, or the West in general, could restore the integrity of the PLA after Soviet attack by rapid resupply without jeopardizing its own security is unrealistic.

The West, as a consequence, enjoys precious little military profit from its Chinese connection. Substantial Soviet forces will probably remain in East Asia whatever the relationship between communist China and the West, and whatever the measure of rapprochement between communist China and the Soviet Union. The past history of relations between the two communist powers would seem effectively to preclude a drawing down of Soviet forces to the low levels of the 1950s even if the level of mutual hostility between the PRC and the USSR is maximally reduced. Too many current and future Soviet assets are to be found in the eastern territories to imagine that adequate defense of the region will not be maintained.²⁴

Soviet force deployments at the present time appear sufficient to counter any Western or Chinese moves—with a strategic reserve that allows Soviet initiatives in southwest Asia and the Persian Gulf. In the military game between superpowers, the People's Republic of China is an "unarmed giant," incapable of undertaking initiatives against the Soviet Union or adequately defending itself against those by the Soviet Union.²⁵ It is unlikely that the PRC would come to the assistance of the West in any general conflict, and any effort by the West to come to its aid in the event of Soviet attack would undermine Western security without offsetting communist Chinese disabilities.

Several years ago it was estimated that it would require anywhere from \$41 billion to \$63 billion to upgrade the armed forces of the PRC to a "confident capability" that would allow it to deter Soviet attack.²⁶ Today, given the escalation in military costs, that estimate

could be well over \$100 billion. In two of the past three years Beijing's military budget declined about 13 percent per annum; only in 1982 did it increase, and then a meager six percent.²⁷ At the moment, defense is one of the lowest items on the list of priorities for the communist Chinese developmental program.

Beijing has made a few arms-related purchases from the Western powers in the recent past. Some years ago the PRC purchased coproduction rights for domestic manufacture of the British RB.168-25R Spey MK 202 turbofan engine. But credible reports indicate that the mainland Chinese have not been able to undertake local production of the engine, and that there has been a forced cessation of manufacture and the delay or abandonment of indigenous development of an advanced fighter for the Chinese air force.

In January 1983 the PRC ordered a Landsat ground station and data processing equipment from the Systems and Applied Sciences Corporation in the United States.²⁸ The \$10 to \$20 million purchase was calculated to improve the PLA's surveillance and target acquisition capabilities. How successful the technicians of the PLA will be in incorporating these elements in the present system is difficult to determine, however, given the industrial and technological handicaps with which they must work.

Beijing has sent representatives shopping for advanced weapon systems in the West, and they have evinced interest in the British Harrier jump-jet, the British Sea Dart SAMs, the French Exocet surface-to-surface missiles, and the Dassault-Breuguet Mirage 2000 fighters. To date none of these inquiries has matured into purchase and transfer. The PRC appears loathe to pay the price for the very expensive Western weapon systems, may not be able to absorb such systems into its rather primitive military system, and would rather purchase a few samples of any weapon systems and undertake licensed indigenous production (something it will not be able to accomplish for some considerable time).

In effect, it appears very unlikely that the present military balance along the Sino-Soviet border will change appreciably to the

benefit of the PRC for the foreseeable future. Given this circumstance, it is difficult to understand in what sense the People's Republic of China presently constitutes a direct security or military asset to the anti-Soviet West.²⁹ Continued normal relations between the United States and the People's Republic of China may afford some diplomatic, political, and economic benefits—and friendly relations between any two countries are always to be preferred to hostility. But it seems reasonably clear that whatever benefits the relations between the United States and the PRC might deliver, direct strategic and military payoffs are not among them.

NOTES

The author would like to acknowledge the support and assistance of the Institute of International Studies, University of California, Berkeley, and the Pacific Cultural Foundation in the preparation of this study.

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3. Estimates of Sino-Soviet force levels can be found in *The Military Balance 1982-1983* (London: International Institute for Strategic Studies, 1983); Stuart E. Johnson and Joseph A. Yager, *The Military Equation in Northeast Asia* (Washington: Brookings Institution, 1979); Harlan W. Jencks, *From Muskets to Missiles: Politics and Professionalism in the Chinese Army, 1945-1981* (Boulder, Colo.: Westview, 1982); Jonathan D. Pollack, "China as a Military Power," in Onkar Marwah and Jonathan Pollack, eds., *Military Power and Policy in Asian States: China, India, Japan* (Boulder, Colo.: Westview, 1980); Harry G. Gelber, *Technology, Defense, and External Relations in China 1975-1978* (Boulder, Colo.: Westview, 1979), ch. 2; John Franklin Copper, *China's Global Role* (Stanford, Calif.: Hoover Institution, 1980), ch. 5; Kenneth Hunt, "Sino-Soviet Theater Force Comparisons," in Douglas T. Stuart and William T. Tow, eds., *China, the Soviet Union, and the West: Strategic and Political Dimensions in the 1980s* (Boulder, Colo.: Westview, 1982), ch. 7.

4. A. A. Sidorenko, *The Offensive* (Moscow, 1970) (trans. and published by the US Air Force), pp. 41-42. See Lilita Dzirkals, *Soviet Policy and Military Deployments in Northeast Asia* (Santa Monica, Calif.: Rand, 1978), p. 25.

5. See Edward Luttwak, "Military Modernization in the People's Republic of China: Problems and Prospects," *Journal of Strategic Studies*, 2 (May 1979), 6.

6. *Far Eastern Economic Review*, 2 December 1982, p. 43.

7. *Far Eastern Economic Review, Asia 1978 Yearbook*, p. 33.

8. *Beijing Review*, 28 September 1981, p. 5.

9. William V. Kennedy, "The Perceived Threat to China's Future," in Bonds, p. 171.

10. See A. S. Y. Wong-Fraser, "China's Nuclear Deterrent," *Current History*, 80 (September 1981), 275.

11. For a more extensive discussion, see Jonathan Pollack, "China as a Nuclear Power," in William H. Overholt, ed., *Asia's Nuclear Future* (Boulder, Colo.: Westview, 1977).

12. Defense Intelligence Agency, *Allocation of Resources in the Soviet Union and China—1982* (Washington: GPO, 29 June 1982), p. 52.

13. See Bill Sweetman, "The Modernization of China's Air Force," in Bonds.

14. See James B. Linder and A. James Gregor, "The Chinese Communist Air Force in the 'Punitive' War Against Vietnam," *Air University Review*, 32 (September-October 1981), 68-69.

15. Sweetman, p. 142.

16. Harvey W. Nelson, "The Organization of China's Ground Forces," in Bonds, p. 91. There is some evidence that the recent production model of the T-62 is equipped with laser sighting devices (see "Chung-kuo T-62 tank chuang-chih hsien-chin miao-chun-i [China's T-62 Tank Installs an Aiming Instrument]," *Hsien-tai Chun-shih [Commilit]* [April 1979], p. 7), but PLA tank losses in the "punitive" war in Vietnam suggest that these did not significantly alter PRC armor survivability.

17. Kennedy, "The Perceived Threat to China's Future," p. 178.

18. Gelber, pp. 50-51.

19. Jencks, p. 148.

20. L. Bruce Swanson, "The Navy of the People's Republic of China," in Barry M. Blechman and Robert P. Berman, *Guide to Far Eastern Navies* (Annapolis, Md.: Naval Institute Press, 1978), p. 96.

21. *United Daily* (Taipei), 19 April 1983.

22. William V. Kennedy, "China's Role in a New U.S. Deterrence Strategy," in Stuart and Tow, p. 253. See Paul H. B. Godwin, "China's Defense Modernization," *Air University Review*, 32 (November-December 1981), 12.

23. William C. Green and David C. Yost, "Soviet Military Options Regarding China," in Stuart and Tow, p. 143.

24. See the discussion in Harry Gelman, *The Soviet Far East Buildup and Soviet Risk-Taking Against China* (Santa Monica, Calif.: Rand, August 1982), and *Soviet Expansionism in Asia and the Sino-Soviet-US Triangle* (Marina del Rey, Calif.: SeCAP, March 1983).

25. See Drew Middleton, *The Duel of the Giants: China and Russia in Asia* (New York: Scribner's, 1978), ch. 9.

26. Drew Middleton, "Pentagon Studies Prospects of Military Links With China," *The New York Times*, 4 January 1980, p. A2.

27. See Godwin.

28. *Far Eastern Economic Review*, 17 February 1983, p. 9.

29. See Harry Harding, "Playing the China Card: Watch Out for Fast Deals," *New York News*, 13 January 1980, p. 31; Stanley Karnow, "Risks of Getting Too Thick with China," *Washington Star*, 20 January 1980, p. C3; Edward Luttwak, "Against the China Card," *Commentary*, 66 (October 1978), 41.