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# (6) THE CUBAN MILITARY IN AFRICA AND THE MIDDLE EAST: FROM ALGERIA TO ANGOLA

(10) William J. Durch

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# THE CUBAN MILITARY IN AFRICA AND THE MIDDLE EAST: FROM ALGERIA TO ANGOLA

## INTRODUCTION AND SUMMARY

In 1975, when Cuba sent thousands of combat troops to support the Popular Movement for the Liberation of Angola (the MPLA), many observers were taken aback at what they presumed to be a radical and dangerous departure in Cuban foreign policy; the more dangerous because it was assumed to have been in large part dictated to Cuba by the Kremlin, a calling-in of Cuban debts that led Cuban troops to fight as Moscow's "all purpose mercenaries"[1] in a war by proxy. With other potential conflicts looming in Africa, it becomes important to know whether these assumptions are correct; whether the Soviet Union can indeed direct the dispatch of Cuban troops to Third World countries as it wishes.

Neither assumption is well supported by the evidence. Cuban activities in Africa neither began nor ended with Angola; (as figure one shows). Though Angola was unique in some respects, in others it matches a pattern of Cuban military diplomacy established over the past decade and a half. Havana has aided "progressive" regimes and revolutionary movements in Africa at least since 1961. Cuban military advisers fought with guerrilla groups in Zaire and Portuguese Guinea in the 1960s, and trained the "peoples militias" of a number of countries between 1965 and 1977. Cuban military ties with the Angolan MPLA were established a decade

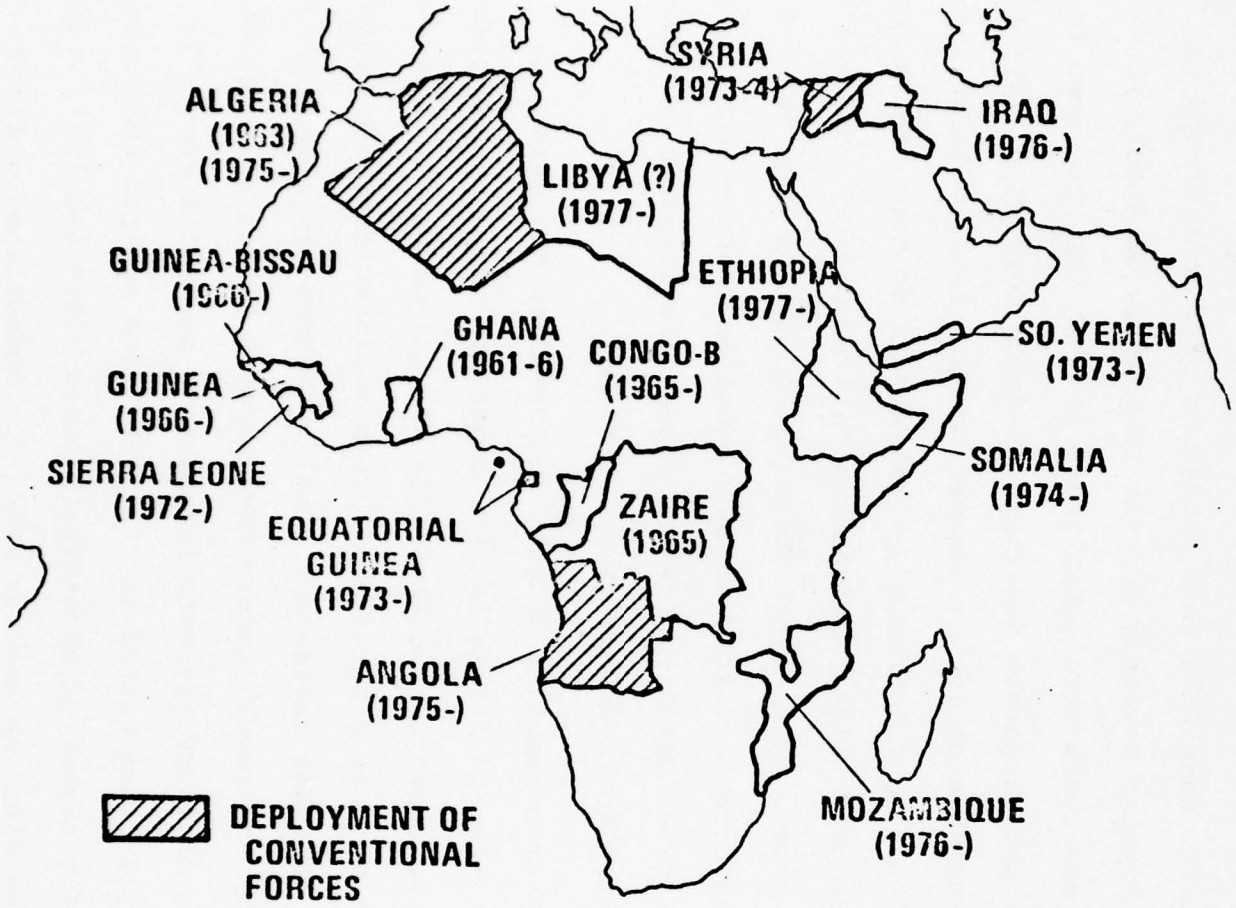



FIGURE 1: CUBAN MILITARY MISSIONS IN AFRICA AND THE MIDDLE EAST SINCE 1961

before the first Cuban combat troops set foot in the country. Training was conducted by the Cuban military mission to Congo-Brazzaville, which in the mid-1960s numbered as many as 700 to 1,000 men.

A key finding which bears on the question of whether or not the Cubans should be considered Soviet surrogates is that, at the lowest point in Cuban-Soviet relations in 1966-67--brought about by differences over Cuba's domestic policies, and Cuban support for guerrilla groups in Latin America--Cuba pursued policies in Africa which are essentially indistinguishable from its policies in the 1970s, a period of growing Cuban-Soviet cooperation. This finding suggests an independently motivated Cuban foreign policy toward Africa. The longevity of that policy further suggests that Cuban activism in the region is unlikely to decline in the near future. This conclusion was reinforced by Fidel Castro's recent tour of Africa.

As to Angola itself, the record suggests that Cuba had ample incentives of its own to send its troops to support the MPLA, apart from any reasons the Soviets may have had, and independent of any Kremlin orders to do so. These included its long association with the MPLA and equally long antipathy for the MPLA's opponents. Research seems to bear out Cuban claims to have sent combat units to Angola only after substantial South African intervention placed its previously-dispatched combat advisory teams in

considerable jeopardy. Focusing on Soviet interests in Angola to the exclusion of Cuban and other interests leads to a characterization of Angola as a war by proxy when it perhaps ought to be characterized as a war conducted by allies, which the Marxist allies won.

To reach these conclusions, this study first reviews Cuban-Soviet relations since 1960, emphasizing major turning points. It then examines Cuban military diplomacy in Africa and the Middle East over the same period, and compares the two records. Insights gained from that comparison, and from the record of Cuban behavior, are then used to analyze Cuban participation in the Angolan civil war, and some of the prospects for Cuban policy in post-Angola Africa.

## A REVIEW OF CUBAN-SOVIET RELATIONS

### Securing Support for the Revolution: 1959-1962

Fidel Castro came to power in January 1959. By mid-year, the growing antipathy of the United States toward the Cuban revolution--prompted, in part, by Castro's apparent efforts to export the revolution to other parts of the Caribbean--led Cuban leaders to seek foreign support as a counterweight to American influence. In the bipolar world of the late 1950s, the obvious candidate was the Soviet Union.

The Soviets did not immediately rush to embrace the Cuban revolution. They approached it cautiously, hesitant to commit themselves to so vulnerable a revolution. Quantities of eastern bloc arms were sent to Havana, but the Soviet press made repeated references to the "Guatemalan tragedy" of 1954 when the leftist Arbenz regime in Guatemala was overthrown by American-trained exiles. When the Cuban regime weathered its own exile invasion in April 1961, the Soviets were impressed.[2]

Another year passed, however, before Moscow acknowledged that Cuba had indeed "embarked upon the path of building socialism."[3] Moscow's caution was dictated in part by the knowledge that, once having admitted Cuba to the socialist camp, the USSR would be obliged, under the tenets of proletarian internationalism, to defend Cuba's interests.[4] However, the decision having been made, Moscow moved at once to increase Cuba's defenses. Beginning in mid-summer 1962, the Soviets stepped up their arms shipments to Cuba. These included Komar missile boats, Mig-21 interceptors, and for reasons only distantly related to Cuban affairs, strategic missiles.[5] The Cuban missile crisis ensued.

Crisis and Accommodation: Late 1962-Early 1965

In the aftermath of the crisis, Cuban-Soviet relations were severely strained. If the Soviets did not think of the missiles primarily in terms of Cuban defense, Castro did, and they

decided to withdraw the missiles without consulting him. Indeed, one former associate claims Fidel learned of the Soviet decision from an Associated Press dispatch.[6] Although the missile crisis did produce a "no invasion" pledge from the United States,[7] the USSR's apparent collapse in the face of "imperialist" threats did not sit well with Castro. Furthermore, a basic disagreement had developed between the Soviets and Cuba over the proper approach to revolution in Latin America. Cuba vigorously supported armed struggle (and was expelled from the Organization of American States (OAS) for that reason). The Soviets preferred to work quietly through the established communist parties. However, their methods proved no more successful than Cuba's, failing to bring Allende to power in Chile, and failing to keep Goulart in power in Brazil.[8]

As a result, by the end of 1964, the new Kremlin leadership was willing to compromise with Castro on the question of armed struggle as a means of advancing the revolution in Latin America, and the November 1964 Conference of Latin American communist parties selectively endorsed armed struggle in six Latin countries, Venezuela among them. Likewise, a Cuban delegation headed by Raul Castro attended the Moscow conference of Communist parties in March 1965.[9]

Conflict and Defeat: 1965-1970

This honeymoon between Castro and Khrushchev's successors

was soon overtaken by world events that made 1965 a year of transition for Cuban foreign policy and Cuban-Soviet relations. In Cuba's eyes, the Soviets failed to respond adequately to American "aggression" against North Vietnam. This was a breach of international solidarity that posed a direct threat to Cuba. If the Soviet Union was not inclined to use either its nuclear power or its troops to defend a socialist country, Cuban security against American attack rested on Cuba's own armed forces--and the "no-invasion" clause. Whatever sense of security the latter may have given probably evaporated when in April 1965 the U.S. intervened in the Dominican Republic.[10] The Soviets made no military response to the Dominican crisis; worse, they moved to normalize relations with a number of anti-Castro Latin Governments. They also stood down--to judge from the pronouncements of the pro-Soviet Latin parties--from the selective endorsement of armed struggle made six months earlier.[11] In short, Brezhnev and Kosygin seemed unwilling, or unable, either to defend their friends or to advance the cause of revolution in the Third World. Like Khrushchev, they backed down.

Cuba thus turned to its own resources to show solidarity with North Vietnam and otherwise take the offensive against imperialism. Its aim was to create "many Vietnams," on the reasonable supposition that U.S. troops bogged down in several countries at once could combat no single insurgency effectively.[12] The Andean

nations targeted for action, however, lacked the equivalent of the Viet Cong. U.S. advisory missions to South America succeeded in establishing effective counter-insurgency programs. The Cuban offensive failed.[13]

This Cuban adventurism did nothing to improve Cban- Soviet relations. Indeed, by the time Kosygin visited Havana in late June 1967, the Soviet ambassador had been recalled to Moscow (and a new ambassador was not appointed until May 1968).[14] Kosygin's visit came on the heels of the Six Day War, which only confirmed Cuba's low opinion of Soviet performance in support of allies in distress. He was accorded a cool reception, and upon his departure, the Cuban press noted only that talks between Kosygin and Cuban leaders had been "frank."[15]

They did little, however, to settle Cuban-Soviet differences. Less than a month after Kosygin's visit, Havana convened the first conference of the Latin American Solidarity Organization (OLAS), whose purpose was the promotion of armed struggle in Latin America. As the conference got underway, Pravda reprinted an article by Chilean communist leader Luis Corvalan that characterized Cuba's approach to revolution as petty bourgeois:

> The revolutionary current which emerges on a petty bourgeois basis usually underrates the proletariat and the communist parties, is more disposed toward nationalism, adventurism, and terrorism, and sometimes permits anti-communist and anti-Soviet attitudes....[16]

But these were not the only anti-Soviet attitudes evident

in Cuban policy. Cuba had had a pro-Soviet communist party of its own, the Popular Socialist Party (PSP), before Castro came to power. By 1965, these "old communists" had been edged out of power by Castro and his supporters.[17] Having consolidated his power over the party apparatus, Castro then declared that, henceforth, Cuba would seek to build socialism and communism simultaneously, and base production on so-called "moral incentives" rather than Soviet-style material incentives. Cuba would, in short, forego the Soviet model of socialist development, and try to move farther and faster along the road to communism than the Soviet Union itself.[18]

The Soviets did not take this challenge lightly: Cuba was the showcase of socialism in the western hemisphere, and represented a considerable Soviet investment--perhaps $2 billion in economic aid, and another half billion in weapons aid.[19] They were not, however, in a position to intervene directly in Cuban affairs, as they were in Eastern Europe. Simply cutting off aid to Cuba--as they had done with the Chinese in the late 1950s--might cause the collapse of the revolution, or perhaps worse, drive Cuba into the Chinese camp. Thus, perhaps as early as 1965, the Soviets began to work through a number of "old communists" to redirect Cuban policy.[20]

Cuban State Security penetrated this "microfaction" of the party, as Castro's people called it, by mid-1966. Its members

were arrested in late 1967. Raul Castro described the microfaction's activities to the Party Central Committee in January 1968, in a lengthy deposition carried by Prensa Latina. He noted that microfaction members considered themselves the "defenders of the policies of the USSR" and that they "even went so far as to seek political and economic pressure by the Soviet Union to force the revolution to draw nearer to that country." In that regard, he recounted one meeting between microfaction members and the second secretary of the Soviet embassy:

> Rudolf (Shliapnikov) said jokingly, "Look here, we only have to say to the Cuban Government that the [oil transshipment] port of Baku is undergoing repairs for three weeks and that is that." Everyone broke out into laughter at this.

With the arrest of the microfaction, the Soviets stopped laughing. Having failed to change Cuban policy by discreet means, Soviet efforts became more direct.

Although sources vary as to the severity of the cutback, it seems clear that the Soviets did curtail deliveries of oil to Cuba in the first quarter of 1968. Parkinson states that the Soviets simply imposed a 2% ceiling on the annual increment of oil available to Cuba. Crozier and Barron suggest that the cutback was more drastic, bringing the Cuban economy slowly to a halt.[21]

Cuba had, however, begun fuel rationing as early as October 1967, and domestic oil exploration programs were given high priority.[22] Cuba owned at least four Soviet-supplied drilling rigs

at this time, but the Soviets evidently did not keep up the supply of spare parts, or provide additional equipment for the Cuban effort.[23] Thus, when they struck what appeared to be a major oil deposit at Guanabo Beach in March 1968, the Cubans turned to Rumania for additional equipment and technical assistance. Castro annonced the barter agreement with Rumania on 20 April--about the time the Soviets curtailed oil shipments to Cuba.[24] Rumanian equipment and personnel began to arrive in December, but by then Cuba and the Soviets had reached an "accommodation," and after a year of relatively intensive press coverage of Cuban oil production and exploration, the subject dropped out of sight. In addition, the promising find at Guanabo Beach paid out within four years.[25]

Castro's support of the Soviet invasion of Czechoslovakia is widely regarded as a signal of Cuban "surrender" to Soviet pressure. Cuba ended its criticism of Soviet behavior, and cut back support for revolutionary groups in Latin America. OLAS was moribund by early 1969, and by early 1970, guerrilla groups in both Colombia and Venezuela condemned Castro for having "betrayed proletarian internationalism" by cutting off arms aid.[26]

It should be noted, however, that the Cuban "surrender" affected only Cuba's foreign policy and then only its policy toward Latin America. Moral incentives were not abolished, and the policy of pursuing socialism and communism jointly continued. If anything

the domestic effort was redoubled, with the declaration of a "Revolutionary Offensive" against all remaining private enterprise in Cuba. Cuba concentrated on developing its biggest cash crop, sugar, aiming at a harvest of 10 million tons by 1970--double the average yield for the 1960s and significantly, double the annual commitment to the Soviet Union.[27]

The entire economy was mobilized for the effort. Non-sugar sectors of the economy were neglected. Fidel himself declared that failure to achieve 10 million tons would be a personal failure for himself, and a moral failure for Cuba. The goal was not met, and Castro took the blame. Moral incentives had failed, and the Cuban economy was a shambles.[28]

Vindicated in its criticisms of Cuban policy, the Soviet Union quickly moved in to pick up the pieces. On December 9, 1970, in Moscow, the Soviet-Cuban Intergovernmental Economic, Scientific, and Technical Cooperation Commission was created.[29] Cuba henceforth would base its economic policies on the Soviet model.

Economic Integration, Policy Concurrence: 1970 Onward

With the establishment of the Cuban-Soviet Intergovernmental Commission in late 1970, restructuring of the Cuban economy began in earnest. Cuba joined CEMA (the socialist bloc's Council on Mutual Economic Assistance) in July 1972. That December, Castro

journeyed to Moscow, where he signed a major new economic agreement with the Soviets, which, among other things, deferred repayment of Cuban debts to 1986 and provided substantial credits to cover Cuba's trade deficits. Cuba began to emphasize production efficiency, and adopted Soviet-style material incentives for workers.[30]

Soviet arms shipments to Cuba also increased in 1971-1972 after having lagged during the late 1960s. The Stockholm International Peace Research Institute shows major weapons deliveries falling off in 1965, and not beginning to recover until 1971. Deliveries in 1972 tripled over 1971, rising to about $25 million.[31]

Cuban-Soviet relations, in brief, grew increasingly close until the Cuban missile crisis, after which they recovered briefly (following Krushchev's ouster), only to begin a long slide that bottomed out in early 1968 with the arrest, trial, and imprisonment of the pro-Soviet "microfaction." Although Soviet economic sanctions were an attempt at ending Castro's criticism of Soviet policy, not until the Cuban economy actually failed did Cuban-Soviet relations enter their current phase.

## CUBAN MILITARY DIPLOMACY IN AFRICA AND THE MIDDLE EAST

Revolutionary Cuba's interest in Africa is longstanding. Cuba's "Latin-African" racial heritage aside, Africa was still emerging from colonialism when Fidel Castro came to power. There were "progressive" states to befriend, and liberation movements to support. As Cuba came to be increasingly isolated from its own region, those states provided political ties for Cuba outside

the socialist bloc, while the liberation movements provided an outlet for Cuba's revolutionary dynamism.

## The Early Period: 1961-1964

### Guerrilla Training

While Cuban military aid to Africa may have begun as early as 1960, with arms and medical personnel for the Algerian National Liberation Front, the first permanent military mission appears to have been established in Ghana, in 1961.[32] That year, a small number of instructors arrived to establish a guerrilla training camp in the northern part of the country, on the border with Upper Volta. The camp remained until Kwame Nkrumah's ouster by the military in 1966.[33] There is some evidence that a similar camp may have operated in Ben Bella's Algeria, 1962-1965.[34] Algeria, the first country in Africa to receive Cuban military aid, was also the first to receive the assistance of Cuban combat troops.

### Algeria-Morocco Border Dispute, 1963

The Cuban arms carrier Aracelio Iglesias was en route to Algeria on October 14, 1963, when a long-simmering border dispute between Algeria and Morocco erupted into war. She docked at the Algerian port of Oran on October 21 with a cargo of Cuban (ex-Soviet) T-34 tanks and 50 Cuban military technicians. Algeria claimed that the arms shipment was part of a previous agreement with Cuba, and unrelated to the fighting. The sequence of events

would seem to bear this out, inasmuch as a twelve-knot transit from Havana to Oran would have taken fourteen days. Indeed, Algeria had very few armoured vehicles before the Cuban shipment, and the outbreak of fighting just before its arrival suggests that Morocco may have wished to press its military advantage before Algeria's armed forces were built up. In any case, if the first Cuban arms shipment was not a response to the crisis, the next ones probably were.[35]

An additional arms shipment, and very likely a battalion of tank troops, arrived aboard the Gonzalez Lines, which docked at Oran on October 28, and on a third ship which probably docked the next day. Additional troops may have been brought in aboard anAir Cubana Britannia--the same type used to transport troops to Angola--which also landed at Oran on or about the 29th.[36] The tank troops were sent because, as the New York Times noted at the time, lack of trained personnel severely limited "the immediate battlefield use of any complicated foreign equipment" that might be sent to Algeria. For its aid to be of any use, Cuba had to commit people as well as equipment. They appear to have sent at least three or four hundred to help Algeria use the 40 tanks, field artillery, mortars, and other equipment shipped from Cuba.[37]

There is little evidence that the Cubans ever engaged Moroccan forces directly in combat. Indeed, a cease-fire was signed in Bamako, Mali, on October 30, the day before Morocco

broke relations with Cuba over the troop issue. Sporadic artillery duels continued for five days, however. If, as some sources suggest, Cuban troops were deployed toward the front, they may have become involved.[38]

The Cuban force probably remained in Algeria until the end of the year, training Algerian troops in the use of the transferred equipment. Evidence for their withdrawal by then comes with the resumption of Moroccan-Cuban diplomatic relations which, presumably, would not have been renewed had more than a token Cuban force remained in Algeria.[39]

This kind of deployment was unique for Cuba in the 1960s. It is not clear whether Cuba secured advance approval from Moscow for the retransfer of Soviet equipment originally shipped to Cuba. Algerian Defense Minister Boumedienne signed a $100 million "industrial loan" agreement with the Soviets in Moscow in the first week of October. The loan had been under negotiation for two months, and given the signatories, probably involved military aid--SIPRI notes that Moscow delivered 100 T-34s and 50 T-54s during 1964.[40] Might Cuba have been directed to provide the initial deliveries from its own stocks? It seems unlikely that Cuba would accept an order to part with that much equipment, much less combat troops, less than a year after the Cuban missile crisis. It seems more likely that Cuba responded on its own initiative to the needs of the one country with which Cuba had the most in common, whose revolution Castro had aided before.

The arms shipments to Algeria were paralleled by smaller shipments, at about the same time, to guerrilla groups working to disrupt the Venezuelan elections scheduled for December 1963.[41] The latter part of 1963 was, in other words, a period of increased Cuban activism. But while its actions in the border war doubtless earned the gratitude of the Algerian government, for its troubles in Venezuela Cuba earned only additional sanctions from the OAS. Repeated defeats in Latin America made Africa look ever more promising.

Cuban interest in Africa remained high through 1964. Cuba sent a high-level delegation, headed by President Osvaldo Dorticos, to the 2nd Conference of Non-aligned Nations, meeting in Cairo, October 5 to 10, 1964. Dorticos declared that Cuba was unaligned with any military bloc, though it was not neutral "toward mankind's greatest problems." A state visit to Algeria, on the anniversary of the border war, followed the Conference.[42]

Shortly thereafter, Che Guevara began a three-month tour of Africa. In his visit one can see the first indications of the new activist phase in Cuban foreign policy that was to follow in the wake of international events in 1965.

From Activism to Retrenchment: 1965-1970

In his tour of Africa from December 1964 to March 1965, Che Guevara visited, among other countries, Algeria, Guinea, Ghana,

and Congo-Brazzaville. He declared Africa to be "one of the most important, if not the most important, battlefield against all forms of exploitation in the world."[43] He addressed himself in particular to the rebellion still under way at that time in Congo-Leopoldville (now, and hereafter in this paper, called Zaire), and urged "the cooperation of all progressive peoples of the world" for "practical support" for Zaire rebels. While in Congo-Brazzaville, just across the river from Zaire, he also conferred at length with leaders of the revolutionary movements of Mozambique, Portuguese Guinea, and Angola.[44]

The meetings seem to have resulted in Cuban agreement to give material aid to all three. Cuban ships delivered arms to Congo-Brazzaville (home base for the Popular Movement for the Liberation of Angola, the MPLA) in mid-1965, and to Guinea (home base for the African Party for the Liberation of Portuguese Guinea and the Cape Verde Islands, the PAIGC) perhaps a year later.[45] Information is sketchier on Cuban support of the Front for the Liberation of Mozambique (FRELIMO) based in Tanzania, but by the late 1960s, Cuban instructors apparently served in several guerrilla training camps in Tanzania.[46]

Castro signalled his willingness to send Cuban troops overseas in support of revolutionary movements in February 1965. He was seconded by the Dputy Minister of the Armed Forces, Juan

Almeida, in a speech publicized on March 23rd.[47] The first known instance of Cuban military advisors serving in the field with guerrilla groups in Africa occurred soon after, with the return of Che Guevara to Zaire.

Zaire, 1965

Guevara entered Zaire via Tanzania with a small band of Cubans some time in the spring of 1965. They were met in July by some 200 other Cubans who had entered the country via Congo-Brazzaville.[48] However, the Cubans found rebel forces unwilling to fight, their leaders corrupt, and after Joseph Mobutu seized power in a military coup in November 1965, the Cuban mission departed. Guevara himself may have remained in Congo-Brazzaville, however, until March 1966 to assist the growing Cuban advisory mission there.[49]

Congo-Brazzaville and the MPLA, 1965-70

When Algerian President Ben Bella was overthrown in a military coup in June 1965, Cuba withdrew its ambassador, Jorge Seguera, in protest. One month later, Seguera was reassigned to Brazzaville. His arrival was followed in short order by a Cuban arms carrier with arms and advisers (noted above) for rebel forces in Zaire. Some of those advisers, however, remained in Brazzaville, where they served as a Presidential Guard for Congolese President Massamba-Debat, and organized and trained a popular militia for the President's ruling party (the Civil Defense Corps, drawn from the youth wing of the party, the Jeunesse). The mission also trained

guerrillas of the Angolan MPLA.[50]

The Brazzaville mission marks a turning point in Cuban military diplomacy in Africa. The years 1965-1966 saw many governments in Africa toppled by military coups. Among these were two of Cuba's best friends in Africa, Algeria's Ben Bella, and Ghana's Nkrumah. With their downfall, Cuba also lost both of its African guerrilla training bases. When new bases were established, in Congo-Brazzaville and Guinea, Cuba devoted more attention to the protection of the host "progressive" governments--consolidating revolutionary gains already made became as important as promoting revolution anew. Cuba's fresh experience in combatting energetic counter-revolutionary activities at home suited it, perhaps uniquely, to that task. Thus, from 1965 on, Cuba devoted a large part of its advisory effort in Africa to the training of popular militias, under the control of ruling parties, as counterweights to the regular armed force. Congo-Brazzaville was the first of these missions.

Cuba did not abandon its support for African revolutionary movements. But after the disaster in Zaire, Castro seems to have focused his attention on the task of liberating the Portuguese colonies, and generally to have left established African governments alone.

As the Cuban mission to Congo-Brazzaville grew from 250 advisers in mid-1965 to nearly 700 by June 1966, under the terms of a wide-ranging technical assistance agreement signed that January

the value of Cuba's protective strategy became apparent.[51] On June 27, the Congolese National Army revolted against efforts of the ruling party (the National Revolutionary Movement, or MNR) to politicize control of the armed forces. Government and party leaders were physically protected for three days by the Cuban Guard and the Jeunesse/CDC. The coup attempt failed, ultimately because the army was not willing to engage the Cubans in combat.[52] Government praise for the Cuban assistance was substantial, and Congo Premier Noumazalay called opponents of the Cuban presence "enemies of the revolution."[53]

That presence continued to grow in the wake of the coup attempt, to perhaps 1,000 men by October 1966, possibly to augment the Presidential Guard while militia training was stepped up. This would have made the Cuban mission half as large as the Congolese Army.[54] The Cubans' higher visibility probably served to deepen Army resentment of the mission as an armed counterweight to Army power, and as mentor of its principal institutional rival, the CDC.

Regional and tribal rivalries, however, also tended to put the Cuban mission in a crossfire. President Alphonse Massamba-Debat, a southerner ruling a government seen dominated by southerners, recognized that foreign troops could be as much a liability as an asset. By mid-1968 he had reduced the mission to no more than 250 men.[55] Since the Cubans were not the primary source of tension in the country, reducing their numbers did not reduce Massamba-Debat's

problems. Ultimately, in August 1968, he lost power to northerner Marien Ngouabi (who ruled the country until his assassination in March 1977). Some sources suggest that the Cuban mission was then ended immediately, others that it was drawn down over time, ending completely by 1971.[56] At the very least, however, a small group of Cubans remained in the country through the end of the decade to train MPLA guerrillas at Dolisie, on the Congo-Cabinda border.[57] There are indications that when the MPLA shifted its main staging bases to Zambia in 1970, Cuban instructors shifted also.[58] Evidence is thin on this point, but a Cuban presence in Zambia without the express consent of the Zambian government would parallel events in Portuguese Guinea, where Cuban advisers joined PAIGC guerrillas operating out of base camps in Senegal.[59] PAIGC headquarters were in Conakry, Guinea, and it is to the Cuban mission in that country that we now turn.

Guinea and the PAIGC, 1966-

Sekou Toure, President of Guinea since its independence in 1958, is nothing if not sensitive to potential threats to his rule. He doubtless noted the wave of coups sweeping Africa in 1965-1966 with alarm. Particularly alarming and close to home was the coup in Ghana in February 1966, after which Kwame Nkrumah took refuge in Guinea.

As early as spring 1966, Toure requested Cuban assistance in setting up his own popular militia, along the lines of the one organized in Brazzaville. The official announcement establishing the militia was made in August.[60] By October, Toure had established his own Cuban Presidential Guard. Unlike its Congolese counterpart, not heard from after 1966, the Guinean guard is still in existence, and still at least partially staffed by Cuban officers. The militia, likewise, is still in existence, and was popularly credited with repulsing the Portuguese raid on Conakry in November 1970. Castro himself arrived in Conakry in May 1972 to dedicate the new militia training center there.[61]

Cuban advisers for the PAIGC evidently arrived along with, or soon after, the militia training mission, as Portuguese military communiques begin mentioning Cuban advisers operating with the guerrillas in February 1967.[62] Cuban Captain Pedro Rodriquez Peralta was captured in Portuguese Guinea in November 1969.[63] (Tried and imprisoned by the Portuguese, he was released after the April 1974 revolution in Portugal, and is now a member of the communist party Central Committee in Cuba, and head of the Interior Ministry's Border Guard Troops.) In short, Cuban support for the PAIGC was uninterrupted through the end of the decade.

Cuban activism in Africa trailed off toward the end of the 1960s. The Brazzaville mission essentially ended, leaving

the mission to Guinea and the PAIGC, and perhaps a small advisory effort with FRELIMO, as the only Cuban military missions on the continent. No new missions were undertaken. When Cuban activism again began to pick up in 1971, Cuba concentrated first on the PAIGC. It was the first to receive additional men, and by 1974 as many as 200 Cubans worked with the guerrillas, essentially taking over logistics, communications, and other technical functions, but suffering casualties as well.[64]

## Renewed Expansion: The 1970s

Cuba increased its military involvement in Africa after 1971, sending missions to Sierra Leone, Equatorial Guinea, Somalia, Algeria, Mozambique, and of course, Angola. Cuban missions were also sent for the first time to the Middle East: to South Yemen, Syria, and Iraq.

### Sierra Leone, 1972-

Cuba and Sierra Leone, Guinea's next-door neighbor to the south, established diplomatic relations in April 1972. Castro made a brief stopover in Freetown in May, in conjunction with his visit to Guinea. In November, the first Cuban ambassador presented his credentials. Soon after that, a Cuban mission arrived to organize and train a 500-man militia known as Internal Security Unit Two (ISU-2).[65] President Siaka Stevens had survived an abortive coup attempt in March 1971, and had entered into a defense agreement with Guinea, under which Guinea provided Stevens with a Presidential Guard. A Cuban-trained militia would provide additional security. The bulk of the mission seems to have been withdrawn after Sierra Leone's May 1973 elections, and ISU-2 was thereafter absorbed into the national police. A small group of Cuban advisers, less than two dozen, remained into the mid-1970s.[66]

### Equatorial Guinea, 1973-(1976)

Diplomatic relations between Cuba and Equatorial Guinea, the only Spanish-speaking country in Africa, were established in

December 1972. A technical assistance agreement, reminiscent of the 1966 Cuba-Congo (Brazzaville) agreement, was signed in October 1973.[67] Once again the emphasis was on the training of militia and the strengthening of internal security elements. Indeed, the new Cuban ambassador to Equatorial Guinea, appointed October 27, was the former national coordinator of Cuba's Committees for the Defense of the Revolution.[68]

By December 1973, there were close to 200 Cuban advisers there, and by November 1974, more than 400. Of these, 80 were military advisors.[69]

The Cuban mission may have ended at the end of March 1976, soon after President Macias issued his compulsory manual labor decrees. These resulted in the impressment of some 20,000 Guineans to work the country's plantations. They replaced Nigerian contract workers who left the country in January amid charges of repression by the Macias regime.[70]

South Yemen, 1973-

Cuban military diplomacy extended to the Middle East for the first time in 1973 with the dispatch of a Cuban advisory mission to South Yemen (the PDRY). The secretary-general of the country's ruling party, the National Liberation Front, Abd Al-Fattah Isma'il, visited Havana at Castro's request in late October 1972. The PDRY at that time supported the Dhofari rebellion in

neighboring Oman, and Isma'il came to request Cuban aid. He departed saying that "our revolution can count on the firm support of the Cuban revolution."[71] At the time of his visit, the PDRY was far from satisfied with the aid it had received from the Soviets, and Cuban aid had been requested despite the presence of a Soviet aid mission. One week after leaving Cuba, Isma'il criticized the Soviet Union's "inadequate" assistance, noting that it compared unfavorably with the "much more extensive" Cuban aid.[72]

That aid materialized in April 1973 with the arrival of about 200 Cuban advisers to provide guerrilla training to the PDRY's army and the Dhofari rebels, and to set up a popular militia.[73] By June, Cuban air force personnel were there, training Yemeni pilots to fly Soviet Migs, while other advisors were helping the government to set up an internal security apparatus modelled on Cuba's Committees for the Defense of the Revolution.[74]

The Cuban mission remained at about its April 1973 level until late in that year, when Iran intervened in the Dhofari rebellion on the side of Oman with 1200 air-mobile Special Forces troops. Over the next six months, the Cuban presence in the PDRY tripled.[75] Some of the additional troops probably arrived in March aboard the Cuban ship Vietnam Heroico which, en route to Aden, stopped at Mogadishio and disembarked the first Cuban military advisers to be sent to Somalia.[76] By mid-1974, there were

-600 to 700 Cubans in the PDRY. That level was maintained in 1975. By spring 1976, however, the Cuban mission had decreased to 200 men, suggesting that Cuba drew on its Yemeni advisory group when the Angolan crisis erupted. It may also have cut its mission in response to South Yemen's ending of its support for the Dhofar rebellion, early in 1976.[77]

Syria, 1973-1974

During the October War, Cuba sent 500 to 750 tank troops toSyria. At first stationed at Damascus, shortly after the war ended they were sent to the Golan Heights, taking part in the sporadic fighting that continued until the disengagement agreement of May 1974.[78] Israeli sources quoted in the Western press maintained that two brigades of Cubans--3,000 to 4,000 men-- served on the Heights.[79] The discrepancy in numbers may be due to the fact that Cuban tank battalions appear to be small by Western or even Soviet standards.[80] Thus a complete Cuban armored brigade, or operational elements of two brigades, could very well have served on the Golan Heights without their numbers exceeding the 500 to 750 cited above.

A small number of Cuban pilots was also sent to Syria to serve as advisers to the Syrian air force. This seems to have been only the second occasion on which Cuban pilots were sent overseas, the first being South Yemen, only months before.[81]

The bulk of the Cuban force appears to have been withdrawn by February 1975. The decision to withdraw was very likely the subject of a six-day visit to Syria by Cuban Chief of Staff Brig. Senen Casas Regueiro in early January 1975.[82]

Syria was the second deployment of conventional Cuban combat forces. As in Algeria ten years before, Cuba came to the aid of a friend in distress, and the deployment was roughly similar in size, although this time the Cubans brought no equipment with them. Cuba had not been the only country to send troops to Algeria in 1963 (Egypt sent a larger number), but on the Golan Heights its troops served alongside Moroccans, Jordanians, and Saudis. Why did Cuba send troops to a country already well served by other countries in the region? The answer would seem to lie partly in revolutionary Cuba's concept of its "international duty"--something that figures in all Cuban missions--and partly in Fidel Castro's own actions just before the war.

In his speech to the Non-Aligned Conference in Algeria in September 1973, Castro emphasized the need for Third World solidarity with "progressive" states and national liberation movements. He vigorously denounced Israel. A few days later, Cuba severed relation with Israel.[83] When the war broke out, it was up to Castro to make good his rhetoric, and to show at least as much solidarity with the beleaguered Syrians as the

"reactionary" Saudis. Thus the Cuban response was in part a matter of principle, and in part a matter of face. One can say much the same thing about Angola.

Somalia, 1974-

Cuba sent a handful of military technicians to Somalia in 1974, as noted above. This increased to perhaps 50 in 1975. In March 1976, several hundred additional military personnel--described variously as "troops" and "technicians"--were flown into Somalia. They included 60 to 70 Cuban pilots and missile technicians.[84] Besides advising the Somali military, the Cubans reportedly trained pro-Somali guerrillas from the French Territory of the Afars and Issas (Djibouti).[85]

Algeria, 1975-

The presence of a small number of Cuban aircraft technicians in Algeria was revealed by Castro himself during a March 1976 visit to that country. Algeria served as a major transit point for the Soviets arms airlift to Angola in late 1975, and Algerian pilots were reportedly sent to man Soviet-built Migs based in Brazzaville during the conflict. The Soviet Union, in what was seen as a quid pro quo for that assistance, extended $450 million in credits to Algeria in November 1975. Havana's assignment of technicians to Algeria may have been the Cuban equivalent.[86]

Mozambique, 1976-

Mozambique gained its independence from Portugal in June 1975. One of the "front line" states in the struggle for Rhodesia, it hosts forces of the Zimbabwe People's Army (ZIPA), much as Toure's Guinea hosted forces of the PAIGC. As in Guinea, Cuban military advisers are training the guerrillas. The first contingent of advisers arrived at Beira, Mozambique, in February 1976. By mid-year, the mission had grown to 250, and according to recent published reports, is still increasing.[87] The final chapter in the struggle for Rhodesia has yet to be written, but one point is worth making here. Although ZIPA combines the forces of ZAPU (the Soviet-supported Zimbabwe African People's Union, led by Joshua Nkomo) and ZANU (the Chinese-supported Zimbabwe African National Union, led by Robert Mugabe), ZANU forces predominate. If the Cubans, in increasing numbers, are indeed training ZIPA, then the Chinese may have been edged out of a leading role in the Rhodesian struggle.[88]

Iraq, 1976-

In August 1976, the Foreign Report of the Economist disclosed the presence of 150 Cuban advisers in Iraq, the bulk of whom arrived between July and August. The Cubans were reportedly sent to "train Iraqi terror squads."[89] Like many of the other countries where Cuban advisors have been stationed in the past

ten years, Iraq maintains a large militia, the People's Army.[90] In September, Baghdad Radio reported on live-fire "special war" exercises carried out by the People's Army, followed by "lectures in political education."[91] Taken together, these sources suggest that Cuba is once again engaged in training a politicized paramilitary force. In previous instances, as we have seen, Cuban assistance to such forces has had as its object the creation or strengthening of the militia as a counterweight to the regular armed forces. Given the fractious nature of Iraqi politics, it is not unreasonable to assume they are following that pattern in this case.

Other Missions, 1975-76

Perhaps 150 Cuban advisers are stationed in Tanzania, though some estimates have ranged as high as 600.[92] The Tanzanian case points up one of the difficulties encountered in developing accurate counts of Cuban military missions overseas (especially those of recent years). The larger estimates probably include Cuban construction workers in Tanzania, who probably form one or more International Construction Brigades. These workers are very likely what Jorge Dominguez, in his recent study of the Cuban military, calls "civic soldiers"--nominal civilians who have had military training.[93] (Most politically reliable individuals in Cuba receive such training, and make up an extensive military reserve to be called on in emergencies. It stands to reason that only politically reliable--hence mostly military-trained--individuals would be sent to serve the revolution overseas.) The International

Construction Brigades are, furthermore, lead by active-duty MINFAR officers.[94] Thus the brigades can be considered military units in a certain sense, and their presence in a number of African countries may account for the wide disagreement among published reports of Cuban mission sizes: some reports count the construction brigades, others do not. I have adopted the latter approach, since to do otherwise would grossly overestimate the size of the Cuban military advisory effort in some Third World countries. However, it is clear that military-trained construction personnel give Cuban missions a good deal of flexibility. For example, should something untoward happen in Angola, most of the Cuban civilian technicians now there could doubtless serve in some military capacity. This would presumably apply to other countries as well.

Bearing this distinction between active military and military-construction missions in mind, it would appear that all but 20 to 25 Cuban military advisers departed Guinea-Bissau after its independence.

Less than 100 Cuban advisers remained in neighboring Guinea-Conakry as of spring 1976, and a number of these may be detailed to support the biweekly Air Cubana flights that come through Conakry on their way to and from Luanda.[95] One source, however, suggests a substantial increase in the mission following the discovery of an anti-Toure "plot" in May 1976, that resulted in a purge of the Cuban-trained Guinean militia.[96]

In mid-1976, after a visit to Brazzaville by Raul Castro, 3000 Cuban troops were reportedly shifted from Angola to Congo-Brazzaville, to "train Congolese troops."[97] It appears that a much smaller Cuban mission remains in the Congo, with roughly 400 troops detailed to support the Cuban effort in Angola and Cabinda (where about 3,000 Cubans are still fighting insurgents and guarding oil installations).[98] At the opposite end of Angola, Cuban troops are training guerrillas of SWAPO, the Southwest Africa Peoples Organization, while across the border in Namibia, South Africa has returned the favor by training and equipping UNITA guerrillas.[99] The fight for southern Africa continues.

Summary

Since 1961, Cuba has deployed conventional combat troops three times: to Algeria (1963), to Syria (1973), and to Angola (1975). In the first two cases, deployments involved perhaps 500 men, and troops were withdrawn when those crises ended. In the case of Angola (covered at length in the next section), deployments were much larger, and fighting continues.

With the exception of these three instances, Cuban military diplomacy in Africa and the Middle East has concentrated on training colonial liberation movements, such as those of Portuguese Guinea, Angola, probably Mozambique, and most recently, Namibia and Rhodesia. It has similarly concentrated on bolstering

"progressive" regimes by training their popular militias and other internal security forces--in Congo-Brazzaville, Guinea, Equatorial Guinea, South Yemen, Iraq and, as will be seen, Angola. Both of these missions were actively undertaken in both the 1960s and 1970s.

In sum, Cuba's foreign policy toward Africa has been fairly consistent for more than a decade. How does this record match the record of Cuban-Soviet relations?

## COMPARING CUBAN-SOVIET RELATIONS WITH CUBAN BEHAVIOR

### The 1960s

During the mid-1960s, as Cuban-Soviet relations cooled, Cuban activism picked up. Indeed, the two phenomena fed on one another. Cuba on the one hand perceived the Soviets to be insufficiently activist in their approach to revolution in the Third World, and on the other, set out to do something about it, thereby crossing Soviet policy in Latin America. Not only did Castro upset Moscow's quiet "united front" strategies, he was publicly critical of them. Cuba's deviationist domestic policies and the declining fortunes of pro-Soviet "old communists" in Cuba further contributed to Moscow's irritation.

Cuban missions to Africa begin to tail off, however, before the arrest of the microfaction and the subsequent Soviet clampdown, suggesting that factors other than Soviet pressure were responsible for this decline. One factor very probably was the decline of the Cuban economy during the period, and the decreasing

availability of funds to support overseas missions. Other, African, factors may have included the desire of the government in Congo-Brazzaville to do away with the embarrassment of a large Cuban misssion. No other "progressive" state was so well located as Congo-Brazzaville for the training of Angolan guerrillas, except perhaps Zambia, but a clandestine presence in Zambia would have necessarily been limited to a handful of instructors. The Nigerian Civil War, very much underway in the late 1960s, might also have made other states in the region reluctant to support a Cuban training camp--the more so since, during the 1968 troubles in Congo-Brazzaville, members of the Cuban-trained militia who defied government orders to disarm themselves reportedly named their final holdout "Camp Biafra."[100]

Thus the Cuban drawdown in Africa in the late 1960s seems to have been independent of Soviet pressure. Indeed, since none of the African countries where the Cubans were active had communist parties, pro-Soviet or otherwise, the Soviets would have had little reason to object to Cuba's activities there. Armed struggle in Africa demolished no "united fronts."

The 1970s

Cuban activities have increased throughout the 1970s, paralleling the increasing closeness of Cuban-Soviet relations. But they have also paralleled, among other things, the resurgence of the Cuban economy in the early part of the decade, increasing

opportunities in Africa, and Fidel Castro's political fortunes. Indeed, deployments parallel Castro's power in the 1960s as well. As Cuban deployments increased in the mid-1960s, Fidel was consolidating his control over the party apparatus. As they bottomed out in 1970, he was accepting the blame for the failure of the Ten Million Tons program. As deployments increased in the 1970s, Fidel's personal clout was growing once again, such that by 1976, when the new Cuban constitution was promulgated, Castro was named not only Prime Minister and First Secretary of the Party, but President of the Republic as well. This is not to suggest one simple cause for Cuban behavior, but only to point out that Castro's personal impact on Cuban military diplomacy is hard to overestimate. Fidel believes in Cuba's "internationalist mission," and Cuban foreign policy is imbued with that belief.[101]

Finally, military institutional factors have encouraged overseas involvement. As Edward Gonzalez notes, in an era when the internal security of Cuba is increasingly assured, and a better-organized civilian sector makes fewer demands upon the resources of the FAR, external missions give the military an additional raison d'être. He argues that this "military mission tendency" has in fact been one of the principal forces behind Cuban foreign policy in this decade.[102] Overseas missions further provide field experience -- and important socialization -- for younger officers, helping to close the generation gap between these men and the former Rebel Army guerrillas who make up Cuba's military elite.[103]

Multiple factors other than Soviet interests and pressure can thus be called upon to account for the variations in Cuban deployments. But even if Cuban-Soviet relations were a better barometer of Cuban deployments, we would be left with the fact that Cuban policy toward Africa seems to have been quite consistent whatever the level of effort at any particular time. While increasing Cuban-Soviet cooperation in the 1970s may have resulted in increased Cuban capabilities--by dint of additional technical training, and assistance in reorganizing the armed forces--it does not seem to have had an appreciable effect on Cuban intentions toward Africa.

The Soviets' position as Cuba's chief arms supplier does, however, allow them to limit Havana's policy options by controlling the supply of certain equipment. For example, Moscow has yet to supply Cuba with military transport aircraft capable of airlifting heavy equipment any distance, even though medium-range transports like the AN-12 were given to countries like India as early as 1961.[104] The Cubans can use their civil aircraft to transport lightly armed troops in a crisis, but must rely on sealift to transport heavy weapons. In short, the Soviets continue to act as a constraint on Cuban policy, much as they did in the 1960s. The Cubans must operate within the parameters set by the Kremlin, and can exceed them only with Moscow's help.

In summary, Cuban foreign policy toward Africa--as evidenced by its non-Angola military aid missions--has been consistent for more than a decade, despite changes in Cuban-Soviet relations. At the height of Cuban-Soviet confrontation in 1966 and 1967, Cuba pursued policies in Africa that are essentially indistinguishable from its policies in the 1970s, a period of increasing Cuban-Soviet cooperation. This suggests an independently motivated Cuban foreign policy. Indeed, the Soviets seem to be less a cause of Cuban behavior than a constraint on it.

We have not yet, however, considered the case of Angola itself. Might Angola be the exception that proves the rule?

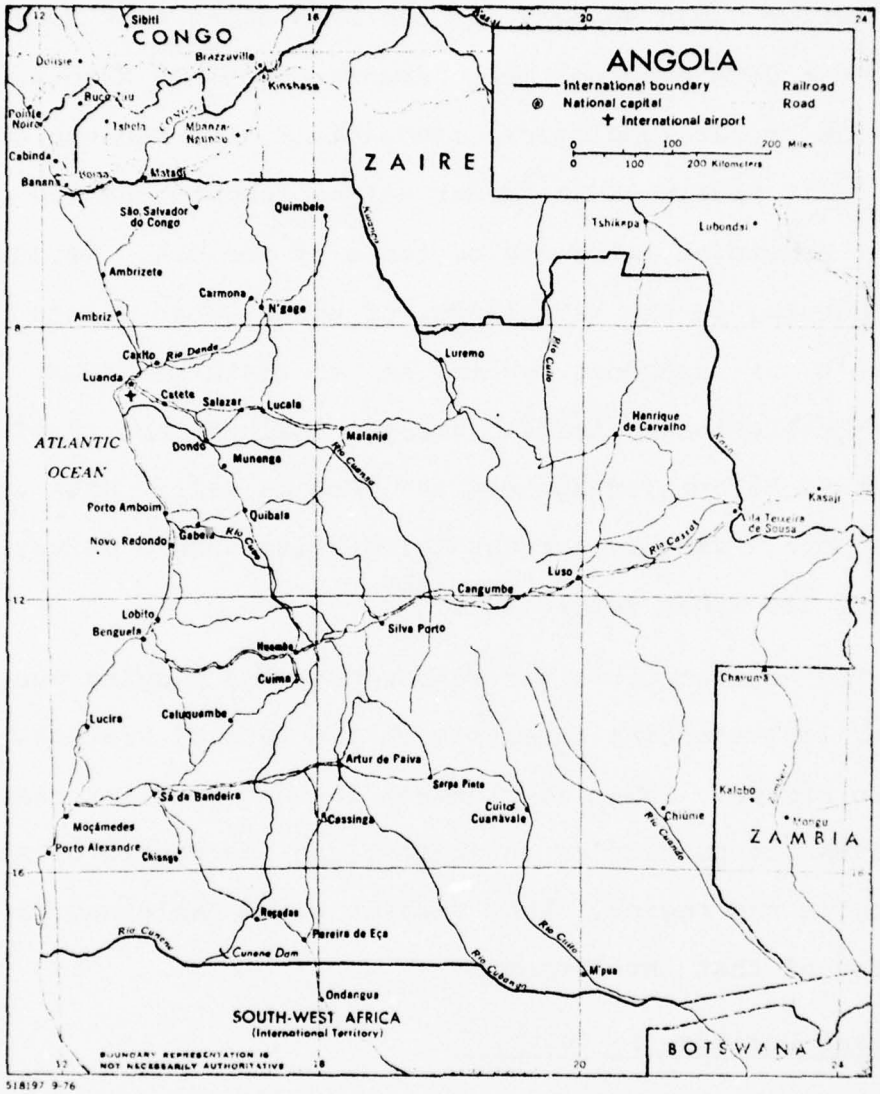
## ANGOLA: CHRONOLOGY, PATTERN-FITTING, AND "PROXY WAR"

Active Cuban support for the MPLA dates back to 1965. That support developed not only because Agostinho Neto and his people had the proper ideological credentials, but because Cuba considered their rivals--FNLA leader Holden Roberto and his patron, President Mobutu of Zaire--to be tools of the CIA. Havana further accused Mobutu, in the late 1960s, of using Cuban exiles both to run Zaire's air transport system, and to train the FNLA. The same "counter-revolutionary forces" arrayed against Cuba itself were thus seen to be arrayed against the MPLA as well. MPLA success would be both a victory against colonialism, and a defeat for the enemies of the Cuban revolution.[105]

The Angolan civil war represented the playing out of these and other long-standing interests in the fate of Portugal's last colony in Africa. Cuban involvement in that conflict was predictable, given its particular interests, and its record of military diplomacy in the region. What remains to be explained is the scale and timing of that involvement.

### The Initial Period: To July 1975

The arms race in Angola began as competition between the USSR and China. Holden Roberto went to Peking in December 1973 to secure Chinese support for his movement. The Chinese sent 125 advisers and 450 tons of military supplies to the FNLA, via Zaire, between June and August 1974, and began training an estimated 5,000




NOTE: The names of the following cities have been changed by the authorities in Luanda. The new name is enclosed in parentheses after the former designation. Carmona (Uige); Sao Salvador do Congo (M'Banza Congo); Ambrizete (N'Zeto); Santo Antonio do Zaire (Sovo); Salazar (Dalatando); Henrique de Carvalho (Suatimo); Sa da Bandeira (Lubango); Pereira de Eca (N'Giva).

Source: U.S. Department of State, "Background Notes, Angola," Publication 7962, Revised October 1976, p. 2.

FNLA troops. Interestingly enough, North Korea also provided arms and 125 instructors for Zaire. This effort in support of the FNLA got underway at least two months before substantial Soviet aid for the MPLA--sharply reduced while Moscow awaited the outcome of leadership fights within the movement--resumed, in October 1974.[106]

By February 1975, Daniel Chipenda and his forces had defected from the MPLA to the FNLA. Fighting broke out between the rival liberation movements in late March. A motorized column of 500 FNLA troops arrived in Luanda March 30--the Chinese/Korean training program was beginning to show some effect.[107]

As the fighting escalated, so did Soviet bloc arms deliveries to the MPLA. The Soviets began to airlift arms to Brazzaville, and thence to MPLA-held airfields inside Angola. At the same time, MPLA-chartered aircraft flew in arms delivered to Dar es Salaam. One of these, a Bristol Britannia with a British crew bound for Serpa Pinto, was forced by weather to land at Luso. Its cargo of arms was first impounded by the Portuguese, but later turned over to the MPLA.[108]

The arms buildup continued through the spring, and MPLA stockpiles grew. But what does a largely illiterate guerrilla force do with a growing inventory of sophisticated weaponry? In May, the MPLA requested Cuban advisory assistance. In June, the

first 230 Cuban advisers arrived to establish four training camps in MPLA-held territory: at Henrique de Carvalho, Salazar, Benguela, and Cabinda.[109] The size of this mission was roughly equal to the one sent to help the PAIGC, or the original mission sent to assist the PDRY--a curious fact given the larger size of Angola, unless the initial deployment was what amounted to a standard training unit.

The scope of the necessary commitment probably became clear soon after this first contingent of advisors arrived. A Cuban mission met with MPLA president Neto in late June, and probably discussed contingency plans for further Cuban involvement in the country. By then, it was clear that additional manpower for the MPLA would have to come from Cuba, and not the Soviet Union, since Neto had received a "chilly" reception in Moscow earlier in the month.[110]

Escalation: Mid-July to Mid-October 1975

In mid-July, the MPLA launched its campaign to control most of Angola's provincial capitals in time for independence day, November 11. In response, the FNLA sought South African assistance, dispatching Daniel Chipenda to Windhoek, Namibia, to confer with South African security officials.[111]

At roughly the same time, South Africa warned the Portuguese High Commissioner in Angola that it was prepared to send troops into Angola to protect the hydroelectric projects on the

Cunene River (on the Angola-Namibia border). South African troops moved across the border on August 11 and 12, as MPLA forces swept south along the Angolan coast. Additional South African troops took Pereira d'Eca and Rocadas, important junctions blocking the main routes to the dam sites from MPLA-held territory, perhaps two weeks later. Perhaps satisfied with a simple show of force, the South Africans seem to have pulled back, allowing the two towns to revert to MPLA control in September.[112]

Meanwhile, in Portugal, the leftist government was on the verge of collapse. Premier Goncalves admitted having trouble governing the country by mid-August, and was removed as premier at the end of the month. The Portuguese government began to swing away from the communists and toward the "bourgeois democracy" Goncalves had condemned.[113]

Cuba responded quickly to these events. Regular Cuban units were apparently canvassed for volunteers for Angola during mid-August. In early September, three Cuban merchant ships left Cuba for Angola.[114]

While this first contingent of Cuban troops was en route, Congo President Marien Ngouabi arrived in Havana for a week-long state visit. The joint communique issued at the conclusion of his visit, on September 19, expressed Cuban-Congolese solidarity for the "heroic combatants" of Angola, struggling against "reactionary elements and imperialist interests." Castro and Ngouabi signed

a bilateral agreement, terms unspecified, just before Ngouabi returned home.[115] A Cuban delegation arrived in the Congo in the first week of October--about the time the first troop ships arrived--to "verify implementation" of the agreement. The delegation went about its business for two weeks before meeting with Ngouabi, suggesting it had less to do with Cuban-Congolese affairs than Cuban-Angolan affairs.[116]

The first Cuban troop ships reached Pointe Noire in late September and early October. Most of these troops were then either taken south aboard an Angolan coaster, or overland to Cabinda. One or more Cuban ships, however, disembarked troops directly to Porto Amboim, south of Luanda.[117] Some of these troops went south to the Cuban training camp at Benguela, while others appear to have joined MPLA units moving toward Nova Lisboa from Lobito.[118] The latter made first contact with South African troops advising UNITA forces at Norton de Matos, on October 6th. They were beaten. By this time, South Africa had, by its own account, apparently air-lifted several small advisory teams into central Angola, along with anti-tank weapons and, after mid-month, armored cars. Daily C-130 flights into Nova Lisboa and Silva Porto kept these forces supplied.[119]

There has been considerable debate about the nature and purpose of the Cuban forces that arrived in Angola in September

and October. Both the Marquez articles* and statements by Cuban leaders differentiate these troops--or "instructors"--from the troops--"combat units"--sent in November and following months. Are the Cubans merely using the South African intervention of October 23 (covered below) as a "post facto rationalization" of their own involvement, as some observers contend; or was there a difference in the character of the Cuban involvement that makes the distinction valid, and important?

There is some reason to believe that the troops sent to Angola in September and October were drawn largely from a unit known as the "prime minister's reserve troops."[120] In his recent work on the Cuban military, M. L. Vellinga notes that the Cuban armed forces' independent Armored Division is also known as the "special reserve of the commander in chief."[121] Fidel Castro, of course, wears both hats. The first Cuban combat troops sent to Angola thus seem to have been "tanquistas"--as in Cuba's previous two conventional combat deployments-drawn from a unit under Fidel Castro's personal control. Indeed, one is tempted to speculate that the division derives its special status from the internationalist component of its mission, which in turn suggests that Algeria (1963) and Syria (1973) were "reserve" missions, and that makes Fidel Castro

*The lengthy series of articles on Cuban involvement in Angola by Colombian author Gabriel Garcia Marquez, first published in the Mexican journal Proceso, January 8, 1977.

loom even larger as the central figure in Cuban military diplomacy.

The sending of tank troops makes intuitive sense in that the MPLA's greatest problem in September, as it attempted to advance, would have been a shortage of trained personnel to operate its mechanized equipment. But does this vitiate the Cuban distinction between "instructors" and "combat units"? I think not, inasmuch as Cuban troops in Angola before November did not appear to operate as separate, integral units. They appeared, rather, to go into the field as advisers to MPLA units. Even the South African account of the fighting seems to refer to Cuban operational units only after the first week in November.[122] Using this distinction, Cuba's account of its involvement would seem to stand up well under scrutiny. By October 23, there were an estimated 1500 Cuban military personnel in Angola.[123]

Final Buildup: Late October to Mid-January 1976

On October 23, a mechanized column crossed the Angola-Namibia border, a mixed group of Portuguese mercenaries, FNLA troops under Daniel Chipenda, and South African regulars. The column took Sa da Bandeira in one day, and Mocamedes, on the coast, four days later without resistance. It moved back to Sa da Bandeira, regrouped, and headed for Benguela and the southernmost Cuban training camp, detouring toward Nova Lisboa on November 1 long enough to catch a Cuban/MPLA force in a pincer between itself and another South African force defending Nova Lisboa. The column then resumed its

movement toward Benguela. Cuban defenders stopped the column on November 4 with concentrated 122-mm rocket fire--the first the South Africans had encountered, prompting them to request heavy artillery that would outrange the rockets. The Cubans fell back from Benguela and Lobito on November 5 and the column resumed its advance. By Independence Day, it was moving on Novo Redondo. Other South African-assisted forces had, by the same time, pushed north from Nova Lisboa to Santa Comba, due east of Novo Redondo.[124]

The appearance of the mechanized column and its rapid advance seem to have triggered the next stage in the Cuban buildup. Four or five Cuban troop ships departed Cuba in late October, and a troop airlift began on November 7. The range limitations of Cuba's Bristol Britannias made refueling stops necessary. Stops were made at Barbados and Bissau before flying on to Brazzaville.[125]

The second wave of Cuban troop ships arrived at Luanda between November 12 and 15. Soviet advisers made their first appearance in Angola on November 13. (Note the attention to legal detail: no Soviet advisers were in Angola until after its formal independence day.)[126]

Cuban and South African forces clashed December 9 to 12 between Santa Comba and Quibala, in what has come to be known as the "Battle of Bridge 14." By all accounts, the Cuban forces were severely mauled. At about the same time, UNITA forces, aided by a fresh South African mechanized unit, captured Luso.[127]

In the wake of these defeats, the rate of Cuban arrivals in Angola, estimated at 400 per week in December, doubled to perhaps 1000 a week in January.[128] When Barbados denied refueling rights to Cuban troop transports, December 18, the Cubans rerouted first to Sal, in the Cape Verde Islands, and then to Santa Maria, in the Azores, using Santa Maria from December 20 to 30. On that date, Portugal banned further stopovers. Cuban planes briefly resumed use of Santa Maria at night on January 10, but Portugal once again denied landing rights on the 13th, leaving the airlift without a refueling stop between Cuba and West Africa. In early January, however, the Soviet Union had sent two Aeroflot IL-62s to Cuba, and these began flying troops from Holguin in eastern Cuba to Luanda. Even these flights had to make refueling stops, however, as the IL-62 lacks the range needed to make such a flight nonstop. Some reports suggest the IL-62s used Bissau, but a more likely stopover was Conakry, a primary refueling stop for the Soviet arms airlift to Angola.[129] (To date, the Cubans have not mentioned this Soviet assistance. Marquez claims that nonstop flights were made in modified Britannias.)[130] The IL-62 airlift continued for two weeks, halting on January 21.[131]

Within a day of the airlift's ending, South Africa ordered its units to pull out of the fight. They withdrew to positions just north of the Angola-Namibia border. On March 27, having obtained guarantees from the MPLA as to the security of the Cunene

hydroelectric projects, South African forces withdrew from Angola.[132] The decision to withdraw was no doubt due to a combination of factors, among the most important the ending of U.S. aid to FNLA and UNITA (by virtue of the Tunney Amendment, passed by the U.S. Senate December 19, and the House January 27), a deteriorating tactical situation as Cuban numbers and firepower continued to increase, and growing domestic pressure to end its involvement. At its peak, the South African commitment in Angola reached perhaps 2,000 men at the front, backed by 4,000 additional troops nearer the Namibian border. Cuban forces in 1976 peaked at perhaps 15,000 to 18,000 combat troops.[133]

Denouement: Guerrilla War and Technical Aid

The IL-62 flights from Cuba to Angola resumed in late February, but at a much reduced rate. With the South African challenge withdrawn, the Cuban response dropped off.[134]

Fighting, however, did not end. Well into 1977, Cuban and MPLA forces were reported still engaged in Southern Angola, fighting UNITA guerrillas. Indeed, continued instability led Castro to commit an additional 4,000 troops to the country.[135] For Castro it has been an ironic turnabout: conventional Cuban armed forces fighting guerrillas in the countryside on their own territory. He no doubt remembers his own words of 1967, when Cuba expected to stand alone against any U.S. invasion:

> a guerrilla never accepts defeat...As long as there is one man left with a gun, the seed of a guerrilla army remains. The phrase "cease fire"...will never be uttered by this country as long as one single inch of our territory is occupied by any invader.[136]

Nevertheless, even if organized guerrilla resistance had died down rather quickly, substantial Cuban forces would have had to remain in Angola simply to keep order, at least until Angolan security forces were organized. Cuban advisers had begun this process by May 1976, training a State Security Corps and a civilian militia.[137]

Cuban technical assistance also extends to the Angolan economy, crushed by the war and the departure of the Portuguese. By mid-year, 3,000 Cuban technicians had arrived in Angola, and the number had doubled by November. Reports that some Cuban military men have simply switched to civilian clothes makes an exact accounting of "civilian" technicians difficult. But if we use the aid mission to Equatorial Guinea as a benchmark (roughly one adviser per 750 population), we would expect a similar advisory mission to Angola to peak at perhaps 7,000 to 8,000, or roughly the level reached by spring 1977.[138]

Angola and the Pattern of Cuban Military Diplomacy

Clearly, the scope of the operations involved makes Angola unique in the history of Cuban military diplomacy, yet it was similar in several respects to missions that preceded it. Cuban intentions, to assist a colonial liberation movement in gaining and keeping power, seem essentially the same in Angola as in Portuguese Guinea. As in Algeria, 12 years before, a friend of Cuba in distress lacked the trained men needed to take advantage of the

sophisticated equipment being made available to it. The long Cuban association with the MPLA, and its equally long antipathy toward Roberto and Mobutu, no doubt created a strong sense of commitment to the ultimate success of the MPLA--a commitment based not only on Cuba's sense of international solidarity, but on the perception that a defeat for the MPLA would be a victory for the enemies of the revolution.

Given the size of the task, the nature of the opposition, and the Cubans' apparent mode of operation--as instructors with MPLA units rather than as separate, integral units of their own--the initial Cuban deployments to Angola do not seem to be a radical departure in Cuban policy, even though the level of effort exceeded any previous Cuban deployments. With the entry of the South African armored column into the war, however, Angola entered a new phase, and became qualitatively different from previous Cuban overseas expeditions. Deployments increased ten-fold, as Cuban troops began to operate as integral units under their own command and control.[139] Angola became Cuba's first conventional war.

Angola and the Concept of War by Proxy

Cuba's interests in Angola, and the particular circumstances of its involvement, seem to cast considerable doubt on the simple proxy model described in the introduction to this study. Cuba had ample incentives of its own to send its troops to Angola, apart from any reasons the Soviets may have had, and independent of any

Kremlin orders to do so. This is not to say that Cuba's behavior did not serve Soviet interests, but only to observe that Soviet behavior equally served Cuban interests--the two sets converged. Focusing on Soviet interests alone leads to a characterization of Angola as a war by proxy--with patron and clients, chessmaster and pawns--when it perhaps ought to be characterized as a war conducted by allies, which the Marxist allies won.

AFTER ANGOLA: THE PAYOFFS AND PITFALLS OF CONTINUED CUBAN ACTIVISM

As one recent (but pre-Angola) analysis of Cuban foreign policy noted, with the growth of detente and the rise of Third World nationalism, Cuba found itself no longer in the vanguard of "progressive" developing countries. It remained tied to and dependent on the USSR when Third World nationalism dictated independence from both superpowers. Without stature as a leader in the Third World, Cuba becomes merely one of many small island states.[140]

Angola may have turned that situation around--not just because of Cuba's commitment of troops, but because of its follow-up commitment to rebuild the country, at a time when Cuba's own economy is financially strapped by declining sugar prices and a prolonged drought.[141] Certainly Havana's having been chosen to host the 1979 Non-aligned Conference indicates that its overseas activities have not hurt its prestige in the Third World. Growing solidarity with other developing countries also may give Cuba

the kind of leverage against the Soviet Union that its original association with the Soviets provided against the United States.[142] That does not mean that Cuban policy will necessarily mellow as a result. Castro's swing through Africa in early 1977 is a case in point.

Castro concentrated on those countries with newer Cuban missions--South Yemen, Somalia, Tanzania, Mozambique, Angola, and Algeria. There were two exceptions. The first was Libya. Castro and Qaddafi reportedly agreed to exchange a Cuban military training mission in Libya for a quarter billion dollar Libyan loan (repayable in sugar--1.9 million tons of it at current prices) to finance Cuban industrial development.[143] Though an interesting development, it does not alter Cuba's economic relationship with the Soviet Union. It does, however, suggest that efforts to decrease dependence on the Soviet Union, to the extent that they produce closer ties with such radical-nationalist states as Libya, may simply reinforce Cuban activism.

The second exception on Fidel Castro's tour was Ethiopia, where the Cuban leader was the first foreign head of state to visit since the overthrow of Haile Selassie in 1974. Castro had been among the first to congratulate Ethiopia's new leader, Col. Mengistu Haile Mariam, after his seizure of power in early February 1977. This expression of support was followed in short order by a Cuban

military delegation, headed by Angolan commander Gen. Arnaldo Ochoa, that arrived in Addis Ababa on February 20 for a week-long visit. Castro's own unannounced, two-day visit in March was made under tight security, and without public appearances.

Castro flew into Addis Ababa from Somalia, prompting suggestions that Castro was engaging in a bit of revolutionary shuttle diplomacy in an effort to bring the two long-time regional enemies together. He failed.[144] However, while in Ethiopia, Castro evidently finalized arrangements for a Cuban mission to train the Ethiopian People's Militia, which the government intends to use against its many enemies, including Somali-backed guerrillas operating in the Ogaden region. An advance party of instructors was in Ethiopia by early May, with an additional 200 expected.[145]

The Ethiopian mission may prove to be the one with the greatest attendant political costs for Cuba because the politics of the Horn of Africa challenge one of the basic premises of Cuban foreign policy: that international socialist solidarity takes precedence over narrow national interests. In the Horn it does not. Cuba found itself with a dilemma: aid the Ethiopians and offend the Somalis, or allow Mengistu's revolution to collapse and violate the principles of solidarity. Having chosen the former course, Cuba may have placed itself in the anomalous position of training security forces to put down insurgencies that, in the Ogaden region at least, may have themselves been aided and abetted by Cuba, by virtue of its mission in Somalia. The com-

plexity of Cuban involvement in the Horn of Africa suggests some of the pitfalls that lie ahead as Castro and Cuba, striving for leadership in the Third World, become increasingly involved in Third World politics, and suggests as well that achieving leadership may well hinge on Cuba's developing a more flexible foreign policy than the straightforward "policy of principle" that has served it up to now.

Fidel Castro's trip to Africa signals continued Cuban interest in the continent. Previous tours by Cuban leaders--Che Guevara's trip of 1964-65, and Castro's trip in 1972--presaged the quantum leaps in Cuban military diplomacy of 1965-66 and 1973. Though Cuba has finite resources, even with Soviet aid, the 1977 trip may prove no exception. Problems no doubt lie ahead, but Cuban policy has weathered setbacks before. Cuban military missions, long a part of African politics, are likely to remain so for the foreseeable future.

NOTES

[1]The appellation comes from a recent article by Robert Moss, editor of the Foreign Report of the Economist. See "Moscow's Next Target in Africa," London Sunday Telegraph, February 20, 1977, p. 8.*

[2]George J. Boughton, "Soviet-Cuban Relations, 1956-1960," Journal of Interamerican Studies and World Affairs 16, No. 4, 1974, p. 436-453; F. Parkinson, Latin America, the Cold War, and the World Powers, 1945-73, Volume 9, the Sage Library of Social Research, (Beverly Hills and London: Sage Publications, 1974). p. 75-77; and Edward Gonzalez, Cuba Under Castro: The Limits of Charisma, (Boston: Houghton Mifflin Co., 1974), p. 122.

[3]Ibid.

[4]Ibid.

[5]Graham T. Allison, Essence of Decision, (Boston: Little, Brown, and Co., 1971) p. 48; and Stockholm International Peace Research Institute, Arms Trade Registers, (Stockholm: Almqvist and Wiksell, 1975), p. 95-96.

[6]Washington Post, October 15, 1976, p. A-15.

[7]Allison, p. 228.

[8]Daniel Tretiak, "Cuba and the Soviet Union: The Growing Accommodation, 1964-1965," Orbis XI, No. 2, 1967, p. 443-444.

[9]Ibid.

[10]Martin D. Gensler, "Cuba's 'Second Vietnam': Bolivia," The Yale Review LX, No. 3, 1971, p. 344, 346.

[11]Gonzalez, p. 134, 137.

[12]Gensler, p. 344.

[13]Victor Marchetti and John D. Marks, The CIA and the Cult of Intelligence, (New York: Dell Publishing Co., 1974), pp. 138-145.

[14]Paris Agence France Presse, June 27, 1967; and Havana Prensa Latina, May 13, 1968.

[15]Havana Domestic Service, June 30, 1967, cited in Foreign Broadcast Information Service (hereafter FBIS) Volume VI, Latin America June 30, 1967, p. H2.

[16]Luis Corvalan, "The Alliance of Revolutionary and Anti-imperialist Forces in Latin America," Pravda, June 30, 1967, cited in FBIS, USSR and Eastern Europe, August 1, 1967, p. BB8.

[17]Gonzalez, p. 104.

[18]Ibid., p. 132-133. In his address to the Central Committee, October 3, 1965, Castro asserted the Party's right to govern Cuba without foreign interference, and irrespective of formal communist doctrine. Cuba Socialista, November 1965, pp. 79-82, cited by Gonzalez at p. 132.

[19]Central Intelligence Agency Research Aid, The Cuban Economy: A Statistical Review, 1968-1976. ER 76-10708, December 1976, p. 14; and SIPRI Arms Trade Registers, p. 154,155.

[20]This and subsequent references to the "microfaction" affair, unless otherwise noted, are taken from the report on the microfaction given by Raul Castro to the Cuban Communist Party Central Committee in late January 1968 and carried by Havana Prensa Latina, January 29-31, 1968.

[21]John Barron, KGB: The Secret Work of Soviet Secret Agents, (New York: Readers Digest Press, 1974), p. 150; Brian Crozier, "The Satellization of Cuba," Conflict Studies No. 35, May 1973, p. 14; Parkinson, p. 225.

[22]Havana Domestic Service, October 13, 1967, cited in FBIS VI, October 18, 1967, p. h4; Havana Domestic, December 2, 1967, cited in FBIS VI, December 4, 1967, p. h1.

[23]Santa Clara, Cuba, Domestic Service, June 17, 1968, cited in FBIS VI, June 19, 1968, p. 06.

[24]Havana Domestic Service, April 20, 1968, cited in FBIS VI, April 22, 1968, p. 017.

[25]Facts on File, 1972, p. 811 A3.

[26]Ibid., 1970, p. 80 D3, and p. 132 E3.

[27]Sergio Roca, "Cuban Economic Policy and Ideology: The Ten Million Ton Sugar Harvest," Sage Professional Paper in International Studies, Vol. 4, No. 02-044, (Beverly Hills and London: Sage Publications, 1976), pp. 9, 11.

[28]Gonzalez, pp. 210-212; Roca, pp. 33-58.

[29]Granma (Havana), December 10, 1970, p. 1.

[30]Edward Gonzalez and David Ronfeldt, "Post-Revolutionary Cuba in a Changing World," a report prepared for the Office of the Assistant Secretary of Defense (International Security Affairs), R-1844-ISA, (Santa Monica: The Rand Corporation, 1975), pp. 15-19.

[31]SIPRI Arms Trade Registers, pp. 154-155

[32]Detroit News, February 8, 1976, p. 1; Manchester Guardian Weekly, February 22, 1976, p. 6;.

[33]Nicolas Lang, "Les Cubains En Afrique Noire," Est et Ouest (Paris), No. 385, June 1-15, 1967, p. 23.

[34]Richard F. Nyrop, et al. Area Handbook for Algeria, DA PAM 550-44, March 1972 (Washington: GPO, 1972), p. 351.

[35]New York Times, October 15, 1963, p. 1; October 28, p. 10; October 30, pp. 1, 3; and October 31, p. 4.

[36]The Times (London), October 28, 1963, p. 10 and October 30, p. 7; Le Monde, (Paris), November 1, 1963, p. 2.

[37]Lang, p. 23; New York Times, October 28, 1963, p. 10 and October 30, p. 3. Le Monde, November 1, 1963, p. 2.

[38]New York Times, November 1, 1963, p. 2; Le Monde, November 3-4, 1963, p. 1 and November 5, p. 1.

[39]New York Times, January 14, 1964, p. 28 and January 23, p. 3.

[40]Nyrop, et al., p. 349; New York Times, October 6, 1963, pp.6, 14; and SIPRI Arms Trade Registers, p. 67.

[41]For example, a Cuban arms cache was discovered in Venezuela's northernmost Falcon province in early November. U.S. air patrols alerted Venezuelan authorities on November 13 to a possible Cuban arms carrier headed toward Venezuela. Robert L. Butterworth, with Margaret E. Scranton, Managing Interstate Conflict, 1945-1974: Data with Synopses, (Pittsburgh: University Center for International Studies, 1976), pp. 371-72; Tad Szulc, "Exporting the Cuban Revolution," in Cuba and the U.S.: Long-Range Perspectives, edited by John Plank (Washington: The Brookings Institution, 1967) p. 84; and Barbara A. Gilmore, Operational Chronology of U.S. Naval Events, Operational History Division, U.S. Naval Archives, Washington, D.C.

[42]Parkinson, p. 190; New York Times, October 13, 1964, p. 15.

[43]Parkinson, p. 217.

[44]Lang, p. 22.

[45]Gabriel Garcia Marquez, "Cuba en Angola: Operacion Carlota," Proceso (Mexico City), January 8, 1977, p. 8, (JPRS, p. 22). The Marquez articles constitute the Cuban version of events in Angola, and also give a partial record of other Cuban military activities in Africa. The articles, as reprinted in Lima's La Prensa, have been translated by the U.S. Joint Publication Research Service (JPRS), No. 68687, Translations on Latin America No. 1613, February 25, 1977. References will hereafter cite the JPRS translation, the version to which most readers will have access. For arms shipments to Guinea, see "Cuban Ambitions in Africa," African Review (Nairobi), October 1973, p. 3.

[46]Anthony R. Wilkinson, "Insurgency in Rhodesia, 1957-1973: An Account and Assessment," Adelphi Paper No. 100, Autumn 1973 (London: International Institute for Strategic Studies, 1973), p. 47.

[47]New York Times, March 24, 1965, p. 3.

[48]Marquez, p. 22; Lang, p. 23; and Marchetti and Marks, p. 139.

[49]Jay Mallin, "Che Guevara: Some Documentary Puzzles at the End of a Long Journey," Journal of Interamerican Studies 10, No. 1, 1968, pp. 77-78; and Wolfgang Berner, "Interventions by Cubans in Africa and Arabia," Aussenpolitik (Hamburg), July-September 1976, pp. 325-331. Translated by JPRS (No. 67990, Translations on Latin America No. 1552), September 29, 1976, p. 94.

[50]Lang, p. 24; Marquez, p. 22; Rene Gauze, The Politics of Congo Brazzaville. Translation, editing, and supplement by Virginia Thompson and Richard Adloff, Hoover Institution Publication No. 129 (Stanford: Hoover Institution Press, 1973), p. 161; and Gordon C. McDonald, et al., Area Handbook for the People's Republic of the Congo, DA PAM 550-91, January 1970 (Washington: GPO, 1970), pp. 210, 212.

[51]Lang, p. 24.; African Review, p. 3; and New York Times, June 29, 1966, pp. 1, 10.

[52]New York Times, June 30, 1966, p. 4; Lang, p. 24; Le Monde, June 30, 1966, p. 5.

[53]Dakar Senegal Radio, June 2, 1966, cited in FBIS V (Middle East and Africa), June 5, 1966, p. 12.

[54]New York Times, October 23, 1966, p. 20; Richard Booth, "The Armed Forces of African States," Adelphi Paper No. 67, May 1970, (London: The Institute for Strategic Studies, 1970), p. 16.

[55]African Review, p. 3.

[56]Ibid.; McDonald, et al, pp. 117, 210. Cuba took pains to disassociate its mission from the Congo's political troubles. See Granma, September 5, 1968, p. 6, cited in FBIS VII September 12, 1968, p. 01.

[57]Gauze, p. 161; and testimony by U.S. Deputy Secretary of Defense Robert Ellsworth before the Senate Foreign Relations Committee, Subcommittee on African Affairs, Angola: Hearings on U.S. Involvement in the Civil War in Angola, 94th Congress, 2nd session, February 1976, p. 83.

[58]Berner, p. 96.

[59]Keesing's Contemporary Archives, 1971, p. 24940.

[60]Berner, p. 94; Horoya (Conakry), August 7-8, 1966, pp. 2-4. Translated in JPRS 37914 (Translations on Africa 439), September 29, 1966. Lang suggests militia training got underway in December 1966 (p. 24).

[61]Lang, p. 24; Time, February 23, 1976. Harold D. Nelson, et al, Area Handbook for Guinea, 2nd edition, DA PAM 550-174 (Washington: GPO, 1975), p. 316; African Review, p. 3; and Prensa Latina, May 7 1972. Reported in FBIS V, May 9, 1972, p. W9.

[62]Lang, p. 24; Paris Agence France Presse, February 24, 1967.

[63]El Mundo (Havana), 16 January 1968, cited in FBIS VI, January 26, 1968, p. h9.

[64]Keesing's Contemporary Archives, 1971, p. 24940; and Africa No. 57 (May 1976), p. 80.

[65]African Review, p. 4; Africa Confidential 15, No. 6, March 22, 1974, p. 7.

[66]"Cuban Troops: Catspaws for Soviet Intrigue," U.S. News and World Report, December 8, 1975, p. 27. (Hereafter cited as "Catspaws".)

[67]Havana Prensa Latina, December 30, 1972; and "Cuba: La Diplomacia Clandestina," Vision (Mexico City), 16-30 November 1974, p. 38. (Hereafter cited as Vision.)

[68]Havana Prensa Latina, 27 October 1973.

[69]Vision, p. 38.

[70]Africa Confidential 17, No. 24, December 3, 1976, p. 5.

[71]Havana Domestic Service, October 30, November 8, 1972, cited in FBIS VI, October 31, 1972, p. O1 and November 9, 1972, p. O1; and the Foreign Report of the Economist, June 26, 1974, p. 6.

[72]From an interview published in Al-Hurriyah (Beirut), cited by Hamburg DPA, November 14, 1972.

[73] "Catspaws", p. 27; Christian Science Monitor, January 14, 1976 p. 1, Foreign Report, March 17, 1976, p. 2.

[74]Facts on File, 1973, p. 752 A2; Foreign Report, June 26, 1974, p. 6.

[75]"Catspaws", p. 27; New York Times, December 31, 1973, p. 2.

[76]Brian Crozier, "The Soviet Presence in Somalia," Conflict Studies No. 54, February 1975, p. 9.

[77]Thomas W. Lippman,"Yemeni Leaders Meet, Tensions Appear Eased," Washington Post, February 22, 1977, p. A10.

[78]New York Times, December 14, 1975, p. IV-1 and February 5, 1976, p. 12; "Catspaws," p. 27; and the Times (London), December 6, 1973.

[79]Foreign Report, March 17, 1976, p. 3 and August 11, p. 7; and New York Times, December 24, 1975, p. 42.

[80]Based on analysis of Cuban press reporting of armed forces maneuvers. See Verde Olivo, December 19, 1976, pp. 12-18, and December 14, 1975, pp. 4-15.

[81]Time, February 23, 1976.

[82]New York Times, February 5, 1976, p. 12; Damascus Radio, December 30, 1974, cited in FBIS VI, December 31, p. H2, January 1, 1975, cited in FBIS VI January 3, p. H1, and January 2 and January 5, cited in FBIS VI, January 6, p. H4.

[83]Havana Domestic Service, September 8, 1973, cited in FBIS V, Supplement 36, October 20, 1973, pp. 17-21; and Havana Prensa Latina, September 10, 1973.

[84]Foreign Report, March 17, 1976, p. 2; New York Times, April 5, 1976, p. 5; and Africa Confidential 17, No. 8, April 16, 1976, p. 6.

[85]Time, March 28, 1977, p. 34; Foreign Report, March 2, 1977, p. 3-4.

[86]Foreign Report, November 26, 1975, p. 8 and March 17, 1976, p. 3.

[87]Washington Post, March 6, 1976, p. A11 and August 12, p. A15; Christian Science Monitor, February 23, 1977, p. 3.

[88]Washington Post, January 26, 1977, p. A14; Africa Confidential 17, No. 24, December 3, 1976; and New York Times, March 13, 1977, p. 3.

[89]Foreign Report, August 11, 1976, p. 2.

[90]The Military Balance, 1976-77 (London: The International Institute for Strategic Studies, 1976), p. 34. The People's Army numbers 50,000 while the regular Iraqi army numbers 140,000.

[91]Baghdad Domestic Service, September 16, 1976, cited in FBIS V, September 17, 1976, p. E5.

[92]Robert Moss, fn. 1; Washington Post, May 15, 1976, p. A15; Christian Science Monitor, February 23, 1977, p. 3.

[93]Jorge Dominguez, "The Cuban Armed Forces and International Order," January, 1977. Revised version of a paper presented to the Conference on the Role of Cuba in World Affairs, November 15-17, 1976, University of Pittsburgh, p. 71.

[94]See, for example, Verde Olivo, September 21, 1975, p. 54-55. Gonzalez and Ronfeldt note that the construction brigades were "detached from the professional military" when the Cuban armed forces were reorganized in the early 1970s, p. 55 (footnote 88).

[95]"Catspaws," p. 27; Time, February 23, 1976; "Official Airline Guide," Worldwide Edition, April 1977 (New York: Reuben H. Donnelly Corporation, 1977), p. 59, 759.

[96]Africa Confidential 17, No. 19, September 24, 1976, p. 4.

[97]New York Times, July 3, 1976, p. 4.

[98]Bruce McColm and David Smith, "Guerrillas Growing Threat in Angola," Washington Post, January 8, 1977, p. A10; Robert Moss (fn. 1).

[99]Africa Confidential 17, No. 16, August 6, 1976, p. 8.

[100]Le Figaro (Paris), September 6, 1968, p. 7, and September 7-8, p. 4, gives a good account of this incident.

[101] See, for example, his concluding address to the 1st Party Congress, December 22, 1975. "One of the first things the revolution did was to send arms to the Algerian combatants who were fighting for their independence...The revolution has been doing this from the beginning, loyal to its internationalist policy of helping where it can help, whenever it can be useful, and whenever its aid is requested...We are fulfilling a simple international duty...." Havana International Radio, December 22, 1975, cited in FBIS VI, December 23, 1975, p. AA11-12.

[102] Edward Gonzalez, "Institutionalization, Political Elites, and Cuban Foreign Policies," July 1977. Revised version of a paper delivered to the Conference on the Role of Cuba in World Affairs, University of Pittsburgh, November 15-17, 1976, p. 28.

[103] M.L. Vellinga, "The Military and the Dynamics of the Cuban Revolutionary Process," Comparative Politics 8, No. 2 (January 1976), p. 253.

[104] SIPRI, Arms Trade Registers, p. 154.

[105] For early Cuban perceptions of Roberto and Mobutu, see "Cuban Counterrevolutionaries Instruct GRAE," Prensa Latina, March 1, 1968; "Counterrevolutionaries Active in Congo," Juventud Rebelde (Havana), May 28, 1968, cited in FBIS VI, June 14, 1968, p. O6; and Havana Radio, September 17, 1968, "Angolan Government in Exile Facts Bared," cited in FBIS VI, September 19, 1968. For corrobation of Cuban perceptions, see the New York Times, September 25, 1975, p. 22.

[106] The Chinese left Zaire in late October, when it became clear that the side they were backing was also backed by South Africa. All but 20 Koreans left Zaire in November. North Korea's $6 million in military aid to Mobutu in 1974-75 was unprecedented. See Kenneth Adelman, "Report from Angola," Foreign Affairs 53, No. 3 (April 1975), p. 568; Washington Post, February 23, 1976, p. C18; Kinshasa (Zaire) Domestic Service, August 18, 1975, cited in FBIS VIII, August 19, 1975, p. D4; Kinshasa AZAP, October 27, 1975, cited in FBIS VIII, October 31, 1975, p. C4; West Africa, No. 305, December 15, 1975. U.S. Senate, "Angola," testimony of Henry Kissinger, p. 17, and Assistant Secretary of State for African Affairs William Schaufele, pp. 175, 184.

[107]"Angola," Strategic Survey 1975, (London: International Institute for Strategic Studies, 1976), pp. 32-33; "Angola," Africa Contemporary Record, 1975-1976, edited by Colin Legum, (New York: Africana Publishing Co., 1976), p. B424.

[108]Strategic Survey, 1975, pp. 31,33; "Angola After Independence: The Struggle for Supremacy," Conflict Studies No 64, November 1975, p. 13; New York Times, September 25, 1975, p. 22; Colin Legum, "Foreign Intervention in Angola," in Africa Contemporary Record, 1975-76, p. A6; Africa Confidential 16, No. 9, May 9, 1975, p. 8.

[109]Facts on File, 1976, p. 16F3; Christian Science Monitor, January 22, 1976, p. 9.

[110]Don Oberdorfer, "Cuban Intervention in Angola Intrigues World Capitals," Washington Post, February 18, 1976, p. A6.

[111]Strategic Survey, 1975, pp. 33-34; Legum, "Foreign Intervention in Angola," p. A8; the Times (London), November 17, 1975, p. 1.

[112]Africa Confidential 16, No. 18, September 12, 1975, p. 8; Paris Agence France Presse, August 29, 1975 and Reuters, August 30, 1975, cited in FBIS VIII (Sub-Saharan Africa), September 2, 1975, p. E2; Keesing's Comtemporary Archives, 1975, p. 24799, and Strategic Survey 1975, p. 33.

[113]New York Times, August 17, 1975, p. 5; August 29, p.3; August 30, p. 1.

[114]Oberdorfer; Marquez, p. 20.

[115]Editorial report, p. Z1, FBIS VI, September 15, 1975; Havana Domestic Service, September 19, 1975, cited in FBIS VI, September 22, 1975; pp. Q2-5.

[116]Brazzaville Domestic Service, October 24, 1975, cited in FBIS VIII, October 30, 1975, p. C3.

[117]Oberdorfer; Agence France Presse, October 24, 1975, cited in FBIS VIII, October 24, 1975, p. E4; Marquez, p. 20.

[118]New York Times, November 6, 1975, p. 37; South African Defense Force, "Nature and Extent of the SADF's Involvement in the Angolan Conflict," press release by Defense Headquarters, Pretoria, South Africa, February 3, 1977, p. 2 (Hereafter cited as "SADF.")

[119]SADF, pp. 2-3; Legum, "Foreign Intervention in Angola," p. A9; the Times (London), September 25, 1975, p. 6.

[120]Not to be confused with the Interior Ministry's Battalion of Special Troops, which was the first "regular" unit committed to Angola in November in the wake of South African intervention, according to Havana. See Marquez, pp. 24-25, and the speech by Fidel Castro marking the 15th anniversary of the Interior Ministry, Havana Radio, June 7, 1976, cited in FBIS VI, June 7, 1976, p. Q11.

[121]Vellinga, p. 249.

[122]SADF refers to "MPLA/Cuban" Forces in October, and "Cuban forces" in November, with first references to Cuban units (battalions, companies) after independence (pp. 2-7 versus 7-10).

[123]Facts on File, 1975, p. 805G2; the Times (London), October 24, 1975, p. 7; Agence France Press (see fn 117).

[124]Strategic Survey, p. 34; Agence France Presse, November 1, 1975, cited in FBIS VIII, November 3, 1975, p. E3; Foreign Report, November 12, 1975, p. 1; SADF, pp. 3-7.

[125]Christian Science Monitor, January 22, 1976, p. 9; U.S. Senate, "Angola," p. 17; Marquez, pp. 24-25.

[126]The Times (London), November 15, 1975, p. 4; Washington Star, November 15, 1975, p. 4; Jim Dingeman, "Angola, Portugal in Africa," Strategy and Tactics No. 56, May-June 1976, p. 28.

[127]SADF, pp. 8-9; Marquez, p. 31; Strategic Survey, p. 36; Dingeman, p. 28; Reuters, December 17, 1975, p. E1; Johannesburg International Service, December 17, 1975, cited in FBIS VIII, December 19, 1975, p. E5; New York Times, December 3, 1975, p. 1.

[128]New York Times, December 18, 1975, p. 16; Christian Science Monitor, January 22, 1976, p. 1.

[129]Washington Post, December 19, 1975, p. 20; New York Times, January 18, 1976, p. 1; Christian Science Monitor, January 22, 1976, p. 9; Washington Post, February 6, 1976, p. 14. For range limitations of the Il-62, see Hugh Mac Donald, Aeroflot: Soviet Air Transport Since 1923, (London: Putnam and Co., Ltd., 1975), p. 219. The Soviet arms airlift to Angola used Algiers, Bamako, Mali, and Conakry as intermediate African transit points. Washington Star, January 3, 1976, p. 1.

[130]Marquez, p. 28.

[131]Oberdorfer.

[132]Charles Corddry, "South Africa Orders Angola Pullout," Baltimore Sun, January 23, 1976, p. 4; Africa Research Bulletin (Political Series) 13, No. 3 (March 1-31, 1976), p. 3962.

[133]New York Times, June 27, 1976, p. 3; Los Angeles Times, June 20, 1976, pp. 1, 7; Washington Post, December 4, 1976, p. A10; Legum, "Foreign Intervention in Angola," p. A31.

[134]Chicago Tribune, February 27, 1976, p. 1.

[135]New York Times, November 28, 1976, p. 1; Washington Post, December 2, 1976, p. A42; McColm and Smith; Leon Dash, "A Long March in Angola," Washington Post, August 7-13, 1977 (seven-part series); and New York Times, September 12, 1977, p. 11.

[136]Havana Domestic Service, July 26, 1967, cited in FBIS VI, July 27, 1967, p. h15.

[137]Washington Post, May 26, 1976, p. A1, July 12, 1976, p. A7; New York Times, June 27, 1976, p. 3.

[138]Washington Post, August 21, 1976, p. A4; Los Angeles Times, June 20, 1976, pp. 1-7; Spanish EFE Press Agency, October 30, 1976, cited in FBIS VI, November 2, 1976, p. Q3; and John Tunney and Gerald Bender, "It's Time for U.S.-Angola Ties," Washington Post, March 27, 1977, p. C2.

[139]Moss outlines the Cuban command organization in Angola (fn. 1), and the SADF account suggests independently-operating units, p. 8-10.

[140]Gonzalez and Ronfeldt, pp. 76-78.

[141]"Sugar Price Slump Cuts Back Cuba's Drive to Prosperity," Washington Post, October 15, 1976, p. A14; Havana Radio, July 15, 1975, described the drought as the worst in Cuba in 30 years. Cited in FBIS VI, July 16, 1975, p. Q1.

[142] Gonzalez argues that this leverage is increased to the extent that Cuban foreign policy successes benefit the Soviet Union as well. They make Castro a valuable ally and lead to increased Soviet support for the Cuban economy. "Institutionalization ...", p. 36.

[143] Foreign Report, March 9, 1977, pp. 3-4; Washington Post, June 28, 1977, p. A14.

[144] David B. Ottaway, "Soviet Wooing of Ethiopia May Push Somalia Toward U.S.," Washington Post, February 28, 1977, p. A20; "Castro Ends Secretive Ethiopian Visit, No Hint on Aid Issue," March 17, 1977, p. A21; "Castro: Playing Kissinger in the Horn?" March 18, 1977, p. A19.

[145] David B. Ottaway, "Ethiopian Military Relies on Peasant Army," Washington Post, March 22, 1977, p. A14; Washington Post, May 8, 1977, p. A12.

## CNA Professional Papers – 1973 to Present*

PP 103
Friedheim, Robert L., "Political Aspects of Ocean Ecology" 48 pp., Feb 1973, published in Who Protects the Oceans, John Lawrence Hargrove (ed.) (St. Paul: West Publ'g. Co., 1974), published by the American Society of International Law) AD 757 936

PP 104
Schick, Jack M., "A Review of James Cable, Gunboat Diplomacy Political Applications of Limited Naval Forces," 5 pp., Feb 1973, (Reviewed in the American Political Science Review, Vol. LXVI, Dec 1972)

PP 105
Corn, Robert J. and Phillips, Gary R., "On Optimal Correction of Gunfire Errors," 22 pp., Mar 1973, AD 761 674

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Stoloff, Peter H., "User's Guide for Generalized Factor Analysis Program (FACTAN)," 35 pp., Feb 1973, (Includes an addendum published Aug 1974) AD 758 824

PP 107
Stoloff, Peter H., "Relating Factor Analytically Derived Measures to Exogenous Variables," 17 pp., Mar 1973, AD 758 820

PP 108
McConnell, James M. and Kelly, Anne M., "Superpower Naval Diplomacy in the Indo-Pakistani Crisis," 14 pp., 5 Feb 1973, (Published, with revisions, in Survival, Nov/Dec 1973) AD 761 675

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Berghoefer, Fred G., "Salaries–A Framework for the Study of Trend," 8 pp., Dec 1973, *(Published in* Review of Income and Wealth, Series 18, No. 4, Dec 1972)

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Augusta, Joseph, "A Critique of Cost Analysis," 9 pp., Jul 1973, AD 766 376

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Herrick, Robert W., "The USSR's 'Blue Belt of Defense' Concept: A Unified Military Plan for Defense Against Seaborne Nuclear Attack by Strike Carriers and Polaris/Poseidon SSBNs," 18 pp., May 1973, AD 766 375

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Ginsberg, Lawrence H., "ELF Atmosphere Noise Level Statistics for Project SANGUINE," 29 pp., Apr 1974, AD 786 969

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Ginsberg, Lawrence H., "Propagation Anomalies During Project SANGUINE Experiments," 5 pp., Apr 1974, AD 786 968

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Maloney, Arthur P., "Job Satisfaction and Job Turnover," 41 pp., Jul 1973, AD 768 410

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Rehm, Allan S., "An Assessment of Military Operations Research in the USSR," 19 pp., Sep 1973, (Reprinted from Proceedings, 30th Military Operations Research Symposium (U), Secret Dec 1972) AD 770 116

PP 117
McWhite, Peter B. and Ratliff, H. Donald,* "Defending a Logistics System Under Mining Attack,"** 24 pp., Aug 1976 (to be submitted for publication in Naval Research Logistics Quarterly), presented at 44th National Meeting, Operations Research Society of America, November 1973, AD A030 454
**University of Florida.*
***Research supported in part under Office of Naval Research Contract N00014-68-0273-0017*

PP 118
Barfoot, C. Bernard, "Markov Duels," 18 pp., Apr 1973, (Reprinted from Operations Research, Vol. 22, No. 2, Mar-Apr 1974)

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Stoloff, Peter and Lockman, Robert F., "Development of Navy Human Relations Questionnaire," 2 pp., May 1974, (Published in American Psychological Association Proceedings, 81st Annual Convention, 1973) AD 779 240

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Smith, Michael W. and Schrimper, Ronald A.,* "Economic Analysis of the Intracity Dispersion of Criminal Activity," 30 pp., Jun 1974, (Presented at the Econometric Society Meetings, 30 Dec 1973) AD 780 538
**Economics, North Carolina State University.*

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Devine, Eugene J., "Procurement and Retention of Navy Physicians," 21 pp., Jun 1974, (Presented at the 49th Annual Conference, Western Economic Association, Las Vegas, Nev., 10 Jun 1974) AD 780 539

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Kelly, Anne M., "The Soviet Naval Presence During the Iraq-Kuwaiti Border Dispute: March-April 1973," 34 pp., Jun 1974, (Published in Soviet Naval Policy, ed. Michael MccGwire; New York: Praeger) AD 780 592

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Petersen, Charles C., "The Soviet Port-Clearing Operation in Bangladash, March 1972-December 1973," 35 pp., Jun 1974, (Published in Michael MccGwire, et al. **(eds)** Soviet Naval Policy: Objectives and Constraints, (New York: Praeger Publishers, 1974) AD 780 540

PP 124
Friedheim, Robert L. and Jehn, Mary E., "Anticipating Soviet Behavior at the Third U.N. Law of the Sea Conference: USSR Positions and Dilemmas," 37 pp., 10 Apr 1974, (Published in Soviet Naval Policy, ed. Michael MccGwire; New York: Praeger) AD 783 701

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Weinland, Robert G., "Soviet Naval Operations–Ten Years of Change," 17 pp., Aug 1974, (Published in Soviet Naval Policy, ed. Michael MccGwire; New York: Praeger) AD 783 962

PP 126 – Classified.

PP 127
Dragnich, George S., "The Soviet Union's Quest for Access to Naval Facilities in Egypt Prior to the June War of 1967," 64 pp., Jul 1974, AD 786 318

PP 128
Stoloff, Peter and Lockman, Robert F., "Evaluation of Naval Officer Performance," 11 pp., (Presented at the 82nd Annual Convention of the American *Psychological Association*, 1974) Aug 1974, AD 784 012

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Holen, Arlene and Horowitz, Stanley, "Partial Unemployment Insurance Benefits and the Extent of Partial Unemployment," 4 pp., Aug 1974, (Published in the Journal of Human Resources, Vol. IX, No. 3, Summer 1974) AD 784 010

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Dismukes, Bradford, "Roles and Missions of Soviet Naval General Purpose Forces in Wartime: Pro-SSBN Operation," 20 pp., Aug 1974, AD 786 320

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Weinland, Robert G., "Analysis of Gorshkov's *Navies in War and Peace*," 45 pp., Aug 1974, (Published in Soviet Naval Policy, ed. Michael MccGwire; New York: Praeger) AD 786 319

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Root, R. M. and Cunniff, P. F.,* "A Study of the Shock Spectrum of a Two-Degree-of-Freedom Nonlinear Vibratory System," 39 pp., Dec 1975, (Published in the condensed version of The Journal of the Acoustic Society, Vol 60, No. 6, Dec 1976, pp. 1314
**Department of Mechanical Engineering, University of Maryland.*

PP 135
Goudreau, Kenneth A.; Kuzmack, Richard A.; Wiedemann, Karen, "Analysis of Closure Alternatives for Naval Stations and Naval Air Stations," 47 pp., 3 Jun 1975 (Reprinted from "Hearing before the Subcommittee on Military Construction of the Committee on Armed Service," U.S. Senate, 93rd Congress, 1st Session, Part 2, 22 Jun 1973)

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## CNA Professional Papers -- 1973 to Present (Continued)

PP 138
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Mahoney, Robert and Druckman, Daniel*, "Simulation, Experimentation, and Context," 36 pp., 1 Sep 1975, (Published in Simulation & Games, Vol. 6, No. 3, Sep 1975)
**Mathematica, Inc.*

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Mizrahi, Maurice M., "Generalized Hermite Polynomials,"* 5 pp., Feb 1976 (Reprinted from the Journal of Computational and Applied Mathematics, Vol. 1, No. 4 (1975), 273-277).
**Research supported by the National Science Foundation*

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Lockman, Robert F., Jehn, Christopher, and Shughart, William F. II, "Models for Estimating Premature Losses and Recruiting District Performance," 36 pp., Dec 1975 (Presented at the RAND Conference on Defense Manpower, Feb 1976; to be published in the conference proceedings) AD A 020 443

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*Horowitz, Stanley and Sherman, Allan (LCdr., USN),* "Maintenance Personnel Effectiveness in the Navy," 33 pp., Jan 1976 (Presented at the RAND Conference on Defense Manpower, Feb 1976; to be published in the conference proceedings) AD A021 581

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Palmour, Vernon E., "Alternatives for Increasing Access to Scientific Journals," 6 pp., Apr 1975 (Presented at the 1975 IEEE Conference on Scientific Journals, Cherry Hill, N.C., Apr 28-30; published in IEEE Transactions on Professional Communication, Vol. PC-18, No. 3, Sep 1975) AD A021 798

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Kessler, J. Christian, "Legal Issues in Protecting Offshore Structures," 33 pp., Jun 1976 (Prepared under task order N00014-68-A-0091-0023 for ONR) AD A028 389

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McConnell, James M., "Military-Political Tasks of the Soviet Navy in War and Peace," 62 pp., Dec 1975 (Published in Soviet Oceans Development Study of Senate Commerce Committee October 1976) AD A022 590

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Horowitz, Stanley A., "The Economic Consequences of Political Philosophy," 8 pp., Apr 1976 (Reprinted from Economic Inquiry, Vol. XIV, No. 1, Mar 1976)

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Mizrahi, Maurice M., "On Path Integral Solutions of the Schrodinger Equation, Without Limiting Procedure,"* 10 pp., Apr 1976 (Reprinted from Journal of Mathematical Physics, Vol. 17, No. 4 (Apr 1976), 566-575).
**Research supported by the National Science Foundation*

PP 153
Mizrahi, Maurice M., "WKB Expansions by Path Integrals, With Applications to the Anharmonic Oscillator,"* 137 pp., May 1976 (Submitted for publication in Annals of Physics). AD A025 440
**Research supported by the National Science Foundation*

PP 154
Mizrahi, Maurice M., "On the Semi-Classical Expansion in Quantum Mechanics for Arbitrary Hamiltonians," 19 pp., May 1976 (To appear in the Journal of Mathematical Physics) AD A025 441

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Squires, Michael L., "Soviet Foreign Policy and Third World Nations," 26 pp., Jun 1976 (Prepared for presentation at the Midwest Political Science Association meetings, Apr 30, 1976) AD A028 388

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Stallings, William, "Approaches to Chinese Character Recognition," 12 pp., Jun 1976 (Reprinted from Pattern Recognition (Pergamon Press), Vol. 8, pp. 87-98, 1976) AD A028 692

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Haskell, LCdr. Richard D. (USN), "Experimental Validation of Probability Predictions," 25 pp., Aug 1976 (Presented at the Military Operations Research Society Meeting, Fall 1976) AD A030 458

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McConnell, James M., "The Gorshkov Articles, The New Gorshkov Book and Their Relation to Policy," 93 pp., Jul 1976 (To be printed in *Soviet Naval Influence: Domestic and Foreign Dimensions*, ed. by M. MccGwire and J. McDonnell; New York: Praeger) AD A029 227

PP 160
Wilson, Desmond P., Jr., "The U.S. Sixth Fleet and the Conventional Defense of Europe," 50 pp., Sep 1976 (Submitted for publication in Adelphi Papers, I.I.S.S., London) AD A030 457

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Melich, Michael E. and Peet, Vice Adm. Ray (USN, Retired), "Fleet Commanders: Afloat or Ashore?" 9 pp., Aug 1976 (Reprinted from *U.S. Naval Institute Proceedings*, Jun 1976) AD A030 456

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## CNA Professional Papers – 1973 to Present (Continued)

PP 174
Mahoney, Robert B., Jr., "A Comparison of the Brookings and International Incidents Projects," 12 pp. Feb 1977 AD 037 206

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Levine, Daniel; Stoloff, Peter and Spruill, Nancy, "Public Drug Treatment and Addict Crime," June 1976, (Published in Journal of Legal Studies, Vol. 5, No. 2)

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Kleinman, Samuel D., "An Evaluation of Navy Unrestricted Line Officer Accession Programs," 23 pp. April 1977, (To be presented at the NATO Conference on Manpower Planning and Organization Design, Stresa, Italy, 20 June 1977)

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Stoloff, Peter H. and Balut, Stephen J., "Vacate: A Model for Personnel Inventory Planning Under Changing Management Policy," 14 pp. April 1977, (To be presented at the NATO Conference on Manpower Planning and Organization Design, Stresa, Italy, 20 June 1977)

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Horowitz, Stanley A. and Sherman, Allan, "The Characteristics of Naval Personnel and Personnel Performance," 16 pp. April 1977, (To be presented at the NATO Conference on Manpower Planning and Organization Design, Stresa, Italy, 20 June 1977)

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Balut, Stephen J. and Stoloff, Peter, "An Inventory Planning Model for Navy Enlisted Personnel," 35 pp., May 1977, (Prepared for presentation at the Joint National Meeting of the Operations Research Society of America and The Institute for Management Science. 9 May 1977, San Francisco, California)

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Murray, Russell, 2nd, "The Quest for the Perfect Study or My First 1138 Days at CNA," 57 pp., April 1977

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Kassing, David, "Changes in Soviet Naval Forces," 33 pp., November, 1976, (To be published as a chapter in a book published by The National Strategic Information Center)

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Lockman, Robert F., "An Overview of the OSD/ONR Conference on First Term Enlisted Attrition," 22 pp., June 1977, (Presented to the 39th MORS Working Group on Manpower and Personnel Planning, Annapolis, Md., 28-30 June 1977)

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Kassing, David, "New Technology and Naval Forces in the South Atlantic," 22 pp. (This paper was the basis for a presentation made at the Institute for Foreign Policy Analyses, Cambridge, Mass., 28 April 1977.)

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Coile, Russell C., "Error Detection in Computerized Information Retrieval Data Bases," July, 1977, 13 pp., To be presented at the Sixth Cranfield International Conference on Mechanized Information Storage and Retrieval Systems, Cranfield Institute of Technology, Cranfield, Bedford, England, 26-29 July 1977

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Mahoney, Robert B., Jr., "European Perceptions and East-West Competition," 96 pp., July 1977 (Prepared for presentation at the annual meeting of the International Studies Association, St. Louis, Mo., March, 1977)

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Holen, Arlene, "Effects of Unemployment Insurance Entitlement on Duration and Job Search Outcome," August 1977, 6 pp., (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 4, Jul 1977)

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Horowitz, Stanley A., "A Model of Unemployment Insurance and the Work Test," August 1977, 7 pp. (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 40, Jul 1977)

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Classen, Kathleen P., "The Effects of Unemployment Insurance on the Duration of Unemployment and Subsequent Earnings," August 1977, 7 pp. (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 40, Jul 1977)

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Ralston, J. M. and Lorimor, O. G., "Degradation of Bulk Electroluminescent Efficiency in Zn, O-Doped GaP LED's," July 1977, 3 pp. (Reprinted from IEEE Transactions on Electron Devices, Vol. ED-24, No. 7, July 1977)

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Durch, William J., "The Cuban Military in Africa and The Middle East: From Algeria to Angola," Sep 1977, 67 pp.