

AD-A047 236

CENTER FOR NAVAL ANALYSES ARLINGTON VA
THE 1967 JUNE WAR: SOVIET NAVAL DIPLOMACY AND THE SIXTH FLEET ---ETC(U)
OCT 77 A R WELLS

F/G 15/7

UNCLASSIFIED

CNA-PROFESSIONAL PAPER-20

NL

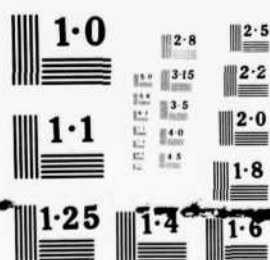
1 OF 1
ADA
047236



END
DATE
FILMED

1- 78
DDC

1 OF 1
ADA
047236



NATIONAL BUREAU OF STANDARDS
MICROCOPY RESOLUTION TEST CHART

2

55 000204.00

6

THE 1967 JUNE WAR: SOVIET NAVAL DIPLOMACY
AND THE SIXTH FLEET - A REAPPRAISAL

10

Anthony R. Wells

14

CNA - Professional Paper No. 264

11

October 1977

12 41p.

DDC
RECEIVED
DEC 5 1977
F

The ideas expressed in this paper are those of the author. The paper does not necessarily represent the views of either the Center for Naval Analyses or the Department of Defense.

AD No. —
DDC FILE COPY

CENTER FOR NAVAL ANALYSES

1401 Wilson Boulevard
Arlington, Virginia 22209

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

077 270

LB

THE 1967 JUNE WAR: SOVIET NAVAL DIPLOMACY AND
THE SIXTH FLEET -- A REAPPRAISAL

by

Lieutenant Commander Anthony R. Wells, Royal Navy*

*The author is currently serving as a member of the
professional staff at the Center for Naval Analyses,
Arlington, Virginia.

THE 1967 JUNE WAR: SOVIET NAVAL DIPLOMACY AND
THE SIXTH FLEET -- A REAPPRAISAL

Introduction

his report discusses the

1. The June War marks a turning point in Soviet deployments to the Mediterranean. The USSR doubled its force during the crisis period and force levels have continued to rise ever since. Furthermore as a direct result of the war the Russians were able to gain access to both Alexandria and Port Said, which had hitherto been denied them on the scale and for the periods which they had desired. Such was the rate of Soviet increase that by the October War in 1973 the United States Sixth Fleet was outnumbered by Soviet units. Unlike in 1967 the Soviets were able to deploy amphibious ships in large numbers and also used anti-carrier tactics. Although Soviet activity was still marginal compared with its later efforts the 1967 war is important because the Soviets were observed attempting to use Naval power in ways which would have been impossible a decade earlier.

2. It is considered that an essential precondition for successful crisis management is the ability to respond quickly to the needs of the situation and to act not only in response to one's client's needs in the light of one's own best interest, but also bearing in mind the efficiency of the opposition's infrastructure and the extent to which this is harmonized with the situation at sea. This

- / -

SECTION OF	File Section	☒	☐
IS	File Section	☐	☐
DC	File Section	☐	☐
INVESTIGATION	File Section	☐	☐
BY	File Section	☐	☐
DISTRIBUTION AND AVAILABILITY	File Section	☐	☐
SP. CIAL	File Section	☐	☐

Strategic

A

is particularly pertinent in fast-moving realtime situations such as the Six Day War, where quick, effective response became the essence of success. This has become even more relevant since the 1967 War with the upheaval of the Naval status quo in the Mediterranean, and the need therefore for tactical and command and control advantages which will enable the West to maintain some advantage in crisis situations. At the same time this may become increasingly a major variable in the calculations of both sides when taking risks which could end in escalation, and thus requires special attention.

Soviet Objectives

3. Let us first look at Soviet objectives. The acquisition of Egyptian bases can be seen both as fulfilling necessary Naval needs and also political goals in an area where United States interests could be countered. To ascribe a "master plan" to the Soviets clearly is unsupportable given the complexity of the Middle East and they, along with Western powers, cannot claim the sort of causal control which must be the hard core of any successful grand design. Beneath the Soviets' pragmatic and opportunist approach was their defense doctrine of the late sixties. The need for warm water bases for launching counter strikes against United States SSBNs and carrier forces was equally as critical as the need to gain influence in the Third World and both needs might have been fulfilled by a Soviet polity to promote Arab interests against the West. Besides

its strategic position the Soviets were acutely aware too of the significance of Middle East oil to the West.

4. The chronology of Soviet visits and arms deals with Egypt reveals just how little the Arabs had been prepared to make concessions to the Soviets.¹ The Nasser regime was equally aware that a Soviet presence and patronage would not necessarily be any more equable, or domestically palatable than the British one had been. At the same time Egypt needed Russian equipment and expertise. Events were to prove that an Arab defeat would in fact force Nasser into a measure of temporary dependency. Even after the large arms deal of June 1963 (two submarines, two destroyers, and over 30 Osa and Komar FPBs) Egypt had still declined Naval facilities. The last major Soviet arms deal with Egypt before the six Day War was in August 1965, and there was only one Soviet port visit to Port Said between the March 1966 visit of five ships from the Black Sea Fleet and the war. The visit of two Sixth Fleet destroyers to Port Said in September 1966 may have been a deliberate counterstroke to the Soviets.

5. Given the Soviets' lack of success in making inroads in Egypt, their vocal and diplomatic support was disproportionately large. Russia regularly claimed that it would support the Arabs if attacked, but disclaimed charges of wishing to start a major military conflict. Ambassador Dimitri Poxhdaev is alleged to have

given excessive encouragement to Nasser's war aims and the information provided by the Russians that the Israelis were planning a pre-emptive strike and the false information that they were massing on the Syrian border in the face of UN observers' disclaimers indicates a desire by the Russians to push Nasser over the brink.² This may be ascribing too much influence to the Russians since the Arabs had very much charted their own course in the weeks before the war. Furthermore the Russians had no control over the other protagonists, and they, not the Russians, controlled Arab responses. This is born out by the Russians disapproval of the Arab closure of the Gulf of Aqaba, despite their propaganda about American Fleet reactions to this. All Nasser probably expected from the Black Sea Fleet was the neutralization of the Sixth Fleet.

6. If the Russians were to fulfill their promises of military assistance should the need arise, they would require prior negotiation for a quick response situation. The fact remains that every western intelligence source expected the Arabs to lose. The Russians own assessments could not have widely differed. In this equation Nasser's view of the Russian role is significant. To maintain credibility Russia would need careful reinforcement plans. This view though runs contrary to the mainstream of Soviet-Arab relations prior to the war. If the Soviets were to give assistance it was much more likely to be on an ad hoc basis, as a direct response to military events.

7. The last thing which the Soviets desired was the liquidation of Israel. This they knew to be highly unlikely, and moreover a situation which the United States would not tolerate. At the same time they had to keep face with the Arabs and show a measure of support. The method and speed of a Russian build-up would then have been paramount, and in certain contexts intervention would risk a general war with the United States.

8. U.S. Objectives: The factors shaping United States policy have been examined elsewhere. These analyses have focused on the U.S.'s problem of Mideast intervention concurrent with the Vietnam War, the interaction of public opinion with decision-making in the White House, the U.S.'s economic interests in the Mideast and her desire to remain on good terms as much with Arab countries such as Saudi Arabia, Kuwait, and Libya as to be Israel's protector, so as to prevent polarization.

9. The United States did have good reasons for avoiding a second involvement, irrespective of domestic pressures, not least of all because her reinforcement capability was reduced (the amphibious capability in the Mediterranean had been much reduced because of Vietnam; a battalion of 2000 Marines was currently on station). Despite this the Joint Chiefs of Staff saw no immediate problems since the Atlantic Fleet, currently containing an attack carrier and ASW carrier, could be dispatched immediately. Within two weeks four carrier task forces and a Marine Brigade could have been sent

to the Mideast. Furthermore, as McNamara said, the United States' opponents could not meet several commitments either.

10. More relevant was the fact that Israel herself was confident and all that she expected from the U.S. when war came was the neutralization of the Black Sea Fleet in the Mediterranean and a reiteration of the guarantee which the U.S. had already given - namely to maintain the sovereignty of the state of Israel. Disregarding internal Jewish influence in the United States, President Johnson was committed to this tenet, as indeed were most Americans. The real problem was how best to demonstrate U.S. support without intimidating the Arabs, at the same time containing the Russians, with the prior knowledge that the whole U.S. and British intelligence community firmly predicted an overwhelming Israeli victory. Restraining the Israelis became one of President Johnson's major problems.

11. The Closure of the Gulf of Aqaba: When Nasser closed the Gulf of Aqaba on 22 May 1967 he posed the United States a thorny problem. Not only was it a violation of international law, a most dangerous precedent, a casus belli in the eyes of Israel, and a test of UN solidarity, it raised the whole question of the bargaining power of the Arab oil producers, particularly for Great Britain. In the event this was to be the only area during the crisis where hostilities at sea could have occurred. A premature move could have upset the balance and would not have directly affected the land battle

situation. The UN's rejection of a multi-maritime force and the speed of events themselves saved the situation. This was equally fortunate for Britain. Not only was she still militarily over-extended she was also economically vulnerable. She was loath to show a lead in lifting the blockade with the Arab threats to cut off her oil hanging over her head. Despite this she was still a factor which the Russians had to consider since she could still deploy on paper three carriers, two commando carriers, and two assault ships with their attendant escorts, although Britain, like the United States and the Soviets, had the normal availability problems. For the moment Britain wanted to appear to be taking no side at all. Although she had not been as demonstrative as the U.S. in supporting Israel, she too would not stand by and see Israel go under.

12. The question remains of the extent to which either U.S. or multi-national intervention in the blockade could have prevented the war. If such a move had been successful Israel would have lost her main casus belli and might have legitimately been castigated as the aggressor, although this is partly annulled by the events of the preceding weeks, with aggressive acts from both sides and the request for the removal of the UN peacekeeping force from the armistice line between the UAR and Israel. All these pointed to a declaration of intent on both sides, and the lifting of the blockade would probably not have altered matters, but merely exacerbated relations between the relievers and the Arabs.

13. Initial Soviet Actions: Throughout 1967 the mean daily Soviet presence in the Mediterranean consisted of 10 major and minor surface units and intelligence-collection ships* (see table 1). Of this total there were usually four to five large units - light cruisers and Guided Missile Destroyers. The minor units consisted of light Destroyers and a mixture of Frigate size and light escort vessels. On most days during that year there would be only two (and occasionally three) missile-armed ships in this area and at most two intelligence-gatherers. The total mean daily deployment of all Soviet vessels totaled only eighteen, and this included all support ships and various categories of oceanographic ships. At no time during the June crisis did Soviet major and minor surface deployments and AGIs exceed eighteen vessels, and the total number of ships at any one time was only twenty seven.

14. On May 22, the day that Nasser began his blockade in the Straits of Tiran, the Soviets notified Turkey that they intended transiting ten warships through the Golden Horn. The Montreux Convention stipulated eight days notice. In the event the transit began on 30 May, and the first groups consisted of support vessels. No further requests were made during the crisis period. The Soviets soon made it clear that they did not intend supporting the United States in raising the blockade so the movement could not be construed as a possible preparation for this. Although the 10 warships

*AGI = Auxiliary General Intelligence

TABLE 1
BLACK SEA FLEET DEPLOYMENT OF SURFACT SHIPS
TO THE MEDITERRANEAN

<u>Type</u>	Mean Daily 1967 deployment ²	<u>May 1967</u>		<u>June 1967</u>	
		<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>
Major combatants					
Missile-armed	2.4	0	2	1	6
(SAM	1.5	0	2	1	4)
(SSM	1.0	0	0	0	2)
Non-missile cruiser/ destroyer	2.0	0	-	2	4
Escort	<u>2.2</u>	<u>3</u>	<u>6</u>	<u>2</u>	<u>6</u>
Total major combatants	6.6	3	9	8	15
Minor combatants	1.4	0	3	2	3
Intelligence (AGI)	1.8	1	2	1	3
Amphibious	1.3	0	0	0	3
Auxiliary	5.4	2	6	5	8
Other ¹	1.4	0	0	0	0
TOTAL	18.5	7	19	18	27

¹/ Base development and scientific ships

²/ Some components do not add to total because of rounding

would double the Soviet Naval contingent, they would not challenge the numerical superiority of the Sixth Fleet, let alone the strength that would be amassed if the British joined with the Americans. Of the total Soviet force deployed in early June six were missile firing, and could pose a tangible threat to the two U.S. carrier groups.

15. What is significant is what the Russians did not send into the Mediterranean. Although their new deployment was a major departure from past patterns, they could have made a much greater show of force. Their Black Sea order of battle in June showed a force of fifty three units, and there was always the possibility of reinforcement from the Northern and Baltic Fleets, particularly of subsurface units. (see table 2).

16. The Soviets had ample time in which to begin a policy which has now become commonplace with them - "contingency scheduling", that is, alerting the Turks to Naval moves yet retaining the option not to deploy. Such a policy enables them to deploy a larger than normal force in the event of a crisis situation. Either the Soviets had not realized the potential of such a policy in May or they were not convinced of the value of such a dramatic surge of Naval power. The latter is much more likely. It is possible that the Russians fully realized that in the last resort any form of Soviet Naval intervention was foolhardy. They had neither the tactical air nor the amphibious capability.

TABLE 2

BLACK SEA FLEET SURFACE-SHIP ORDER OF BATTLE
MAY-JUNE 1967

Old heavy cruiser	1 Kirov
Guided missile light cruiser	1 Sverdlov (1 + 2 SAM)
Light cruiser	3 Sverdlov 1 Chapayev
Guided-missile destroyer	1 Kynda (2 + 4 SSM, 1 + 2 SAM) 5 Kashin (2 + 2 SAM) 2 Krupnyy (2 SSM) 2 Kildin (1 SSM) 1 Kotlin (1 + 2 SAM)
Destroyers	7 Kotlin 9 Skoryy
Escorts	10 Riga 5 Mikka 5 Petya
Minor surface combatants	23 Poti 17 Kronshtadt 6 OSA 10 Komar 184 Other

17. What, then, was the purpose of the initial Soviet response? The additional units may have been deployed in response to the move of the two U.S. strike carriers (SARATOGA and AMERICA) into the Sea of Crete area on 29 May. This is the less likely explanation. The Sea of Crete could be regarded as a normal holding position of the Sixth Fleet for such a situation, and a move therefore could not be construed as a departure from normal operating patterns or a declaration of intent. The Soviet move can be seen as a gesture of support for Nasser, an augmentation of the normal shadowing effort, and a sufficient force to complicate U.S. decision-making, without posing more than a short term threat to the United States in the event of confrontation. The avoidance of confrontation was clearly paramount in Russian thinking. What has to be considered therefore is the extent to which the Soviets assessed the most likely mode of American intervention and how they could best counter this. The role of the eighteen unit Russian force assumes less importance in this context, except that by increasing the shadowing vessels, the Soviets were able to assess American moves (and incidently confirm to the Command that U.S. carrier aircraft were not supporting Israeli land actions, despite public Soviet and Arab claims to the contrary).

18. Since the Russians would not espouse the destruction of Israel and they knew that the U.S. would not intervene unless either this became a possibility or the Soviets themselves intervened, then they could clearly see that the Sixth Fleet could not make long-term gains to United States interest. It would merely preserve them.

The Soviets would align themselves with the Arabs, make great propaganda from this, and probably make considerable tangible gains from an Arab defeat. In this context the Soviet deployment makes sense, and the role of the Sixth Fleet as a transmitter of national intentions towards the Soviets assumes more significance.

19. Soviet shadowing: At no time did the Soviets become aggressive in the sense that they had been in the Sea of Japan on 10 and 11 May when a U.S. destroyer had been harassed and eventually bumped by a Soviet ship. They kept track of all major U.S. and British moves and this was done in full view of the international press as there were many newsmen on board the U.S. carriers. The two carrier groups which had arrived in the Eastern Mediterranean and taken station, one to the northeast of Crete and the other to the southwest, were shadowed throughout. On 3 June, Reuters told the world that a Soviet destroyer had joined the two minesweepers which had arrived off Malta three days earlier and were observing exercises between the British carrier Victorious and four of her frigate escorts. Victorious had left the Suez Canal on 22 May en route for the United Kingdom from the Far East. The British government kept her on station in Malta to await developments. That same 3 June the Turks reported that 3 frigates and two auxiliaries had transited the Bosphorus (part of the Soviet ten ship force). The following day the world learned from the newspapers that a guided missile destroyer had relieved the destroyer tailing the USS AMERICA. The SARATOGA was

being tailed by a Soviet intelligence trawler. The world was kept informed of the Fleet's movements. In 1956 the world knew that the U.S. Fleets had left their normal operating areas. In fact, they were all closing in on Suez and no one knew where they were. In 1967 the Russians were able to observe every move and report it. As the crisis developed, it was in the best interests of the United States that this should be so.

20. The USS INTREPID was transiting the Mediterranean en route for Vietnam. She was deliberately routed well to the south of the main task forces, waiting off Libya for permission to pass through the Suez Canal. The U.S. gave a sure sign to the Soviets that they were holding back and not augmenting the Sixth Fleet. It was made clear to the Russians that she remained under CINCUSNAVEUR's command and not Commander Sixth Fleet. On 31 May she entered the Canal and then headed east. She had been shadowed by the Soviets throughout.

21. Whilst the main shadowing operations were being conducted, other Soviet ships exercised between Sicily and the Ionian Sea. On 4 June the one cruiser which the Soviets had deployed to the Mediterranean and ten other ships were sighted at anchor 100 miles northwest of Crete. In other words, shortly before Nasser was to suffer military humiliation, the small Soviet force was largely inactive, but for shadowers. There were no signs of a tacit blockade of the Israeli

coast or serious intervention with the Sixth Fleet. It was not until 8 June that the Soviets offered any harassment of the USS AMERICA. If the Soviets were going to intervene then it was not going to be from the sea.

22. In this context President Tito's permission for Soviet overflights assumes far more significance. His aim was solely pro-Arab. Tito saw the Israeli attack as an American-inspired move to cause Nasser's downfall. His consistency of policy is shown by the fact that he later advised Nasser to seriously reconsider the wisdom of allowing the Russians into Egypt.

23. Initial U.S. Naval moves: Initial U.S. moves were precautionary and restricted, and designed to indicate a "wait and see" posture to the Soviets. These moves were made known internationally - all routine visits and leave continued, the Marines in Naples left for Malta on 25 May, arriving 29 May, and normal leave was promptly given. The movement of the USS INTREPID has already been mentioned. Despite the somewhat ominous rejection by the Soviets of France's plan for a four-power conference to try to settle the crisis the Sixth Fleet remained passive, with the whole striking force of the Sixth Fleet, except for the 2000 strong Marine Battalion, cruising in the Sea of Crete, a good position for a quick move towards the 200 mile zone off the Eastern Mediterranean coast, and twenty minutes flying time for a Phantom to main Arab targets. There was a Naval force east of Suez patrolling the Gulf, Arabian Sea and Red Sea area. A destroyer

was sent south from the Sixth Fleet at the end of May, and normally a ship from this detachment would have gone north. As a precaution this did not happen, leaving three destroyers in the area and a command ship. This happened on 2 June at the same time that U.S. ASW forces were moving from the North Atlantic into the Mediterranean.

24. Options for the use of the Sixth Fleet: Until the time of the Arab closure of the Gulf of Aqaba the Sixth Fleet was very much neutral. The position which the White House told the Fleet to hold was a natural one for the Sixth Fleet Command given all the factors discussed above. However, there were options which the President could have exercised.

25. He could have kept his force well to the west, increasing air reconnaissance. In fact, air reconnaissance operations were shifted eastwards from Rota in Spain to Sigonella in Sicily and Souda in Crete and accelerated without difficulty. It is unlikely that Israel would have been less belligerent after her initial successes if it was indicated that the U.S. guarantee was not inviolable. At the same time, U.S. absence from the immediate area would not have jeopardized Israeli integrity since a reversal of her military fortunes was most unlikely. Israel would not have been restrained by such a disposition. However, both the Arabs and the Soviets would have been impressed, not necessarily by what might have seemed U.S. timidity, but more by her clear indication that she was not

going along with an Israeli attack on the scale which ensued after the first strikes. Not only would the Arabs have been less critical of U.S. policy after the war and lost propaganda material, the Soviets (and indirectly the Yugoslavs) could not have made capital of the so-called U.S. commitment to Israeli policy. The effect after the war could have been considerable, and the U.S.'s position may not have been eroded as much as it was. Should the war have gone badly for the Israelis, then a sudden surge of U.S. naval power from the Balearics through to eastern Cyprus would have impressed everyone and sent a clear signal, perhaps far more so than the steady-state deployment during the build-up and the crisis itself. A small force could have been left in the eastern Mediterranean with the ostensible role of evacuating U.S. citizens if the need arose, although most evacuation plans centered around airlifts. On 10 June the Greek ship KARENA left Alexandria with U.S. evacuees escorted by two U.S. destroyers from the Sixth Fleet.

26. An alternative option, and one at the other end of the spectrum compared with a western position, would have been to deploy into the Greek islands. This would have reduced the ability of the President to send clear signals to the Soviets of his intentions and would have led to doubts in the Soviet mind as to the true purpose of the Fleet. If this had been associated with U.S. harassing of tattletales and evasive tactics, the tension could have been increased, not reduced.

27. What the above illustrates is not only the options open to the President but also the different responses and results likely to accrue from such moves. At times influence may not be achieved by mere presence, and if anything may even serve to undermine the very aim in mind.

28. U.S. Soviet exchanges: Given the American fire-power available, the Soviets appeared to become onlookers. The early hotline discussions between Moscow and Washington revealed a wait-and-see approach from the Soviets. The latter's rejection of the U.S. plan for a cease-fire and prevarications in the UN indicate several possibilities. Israeli successes, although great, may not have seemed totally conclusive to the Russians. They may have expected an Arab counter-attack. The quality of their intelligence may have been poor, especially when the Arabs themselves became confused and disorganized. The Soviets may well have wished the Arabs to go to the brink of disaster to open the way for Soviet patronage. When the Israelis began their attack on the Golan heights at 0600 on 9 June, Kosygin became more alarmed. Although he knew that the U.S. was not assisting the Israelis and that the Sixth Fleet was passive he now wished the U.S. to put pressure on the Israelis. Kosygin had certainly miscalculated in his assessment of the U.S.'s ability to influence Israel. It was fortunate for all concerned that the Israelis had achieved all that they desired.

29. In Moscow and Washington it clearly seemed that Damascus might fall. After the delivery of a strongly worded note to the Israelis, Kosygin warned Washington of the possibility of Soviet intervention. At this point President Johnson ordered the Sixth Fleet towards the Syrian coast. On the face of it the Russians now had the problem of facing possible massive U.S. and Israeli air attacks if they attempted a paratrooper drop or gave air to ground support, with all the consequences of this starting a general war.

30. The significance of the movement of the Sixth Fleet towards the Syrian coast. The above is a too simple an explanation of the effect of the prima facie move of the Sixth Fleet. An alternative interpretation is that the President's move of the Sixth Fleet was a gesture, and that no tangible political gain stemmed from it, even in terms of message transmission. The Russians probably realized this too, and were not at all concerned that their naval presence was so inferior, the reason being that they saw the crisis in different terms.

31. The Soviets knew, as indeed did the U.S., that the creation by the U.S. in 1967 of an infrastructure with Israel to facilitate military intervention in the event of a crisis was highly dangerous diplomatically. It was also counter to general U.S. policy. The need for "all situation" contingency planning could not support

this. If the UAR/USSR had exposed such a move it would have weakened not only the U.S. but also Israel. It may also have tied the U.S. to Israel in a way which would have been unacceptable. The Soviets knew that the Israelis would go it alone and that the state of U.S.-Israeli relations did not permit this sort of cooperation. In Soviet eyes this may have reduced the role of the Sixth Fleet, and goes some way to explaining the relative inactivity of the Soviet units. The Sixth Fleet's position in the eastern Mediterranean may have been counter productive, in the light of the aftermath of the war.

32. In Soviet eyes any force, in order to be credible, must have the capacity to adjust to changing tactical situations. From the Command control in Moscow how credible did Sixth Fleet intervention appear, and how effective would this be? It must be remembered that the U.S. had always stressed that she would intervene only to save Israel from invasion. Contingency planning in any fast moving situation is difficult. Such planning tends to be on a 24 hour basis, and would be completely ad hoc. The Israelis would tend to be good at this. They have always been well prepared for military eventualities and their Air Force centralized command system would facilitate Sixth Fleet air coordination. Sixth Fleet's real problems may have arisen in its own system. The Seventh Fleet had learnt in Vietnam that when coordinating air strikes in a complex politico-military environment the President and the Secretary of Defense would take virtual command in the initial stages.

The JCS would be transmitting White House orders for the rules of engagement, target and weapon selection, and the timing and frequency of attack. At the same time US-Israeli coordination would have to have quickly embraced such factors as intelligence, target selection, SAR for Sixth Fleet aircraft, frequencies, codewords, call-signs, IFF and air traffic control liaison, EW coordination, and the use of fueling facilities and airfields. The U.S. might insist upon having forward ground controllers. Although the U.S. Navy had had considerable experience of this sort of coordination in Vietnam, and there were several officers on Admiral Martin's staff with this background, the real problems when launching these sort of operations is not technical, but the political risks that they will escalate. The instant creation of a barrier to protect the CVA's against all eventualities would pose a major problem to the fleet staff. The Soviets can see these sorts of dangers as well as the U.S., and would be as fitful of intervention as anyone.

33. The Wider Implications: If the Soviets had sent a token force into Syria in the event of the bombardment of Damascus by Israel it is unlikely that the President of the United States would intervene to support a client who was going beyond the bounds of acceptable gain. In this light the Sixth Fleet takes on less significance in Soviet eyes, except that it calls for a clear understanding between both super powers of each other's position and the extent to which they will support their client. On the other hand, the extent to

which the Soviets would try to restrain the Arabs is a moot point, but they would most certainly not welcome the prospect of the U.S. being forced into intervention to help a beleaguered Israel. McConnell's rules of the game most certainly apply in the context.³ Former Secretary of State Dean Rusk told the author that the President and he assumed that the Soviets would use elements of their airborne forces for intervention should the Israelis have not desisted from their thrust towards Damascus. This was the line which the Soviets could not allow the Israelis to cross, and Washington was well aware of this. Pressure from the U.S. on Israel to accept a ceasefire was very much directed with this in mind as well as concern for Israel's true intentions. As far as is known, the Soviets never placed any of their airborne forces on alert. Helmut Sonnenfeldt, a National Security Council adviser at the time, confirmed that Kosygin's threats were real enough but that it was unlikely that the Soviets would have intervened directly. They were more likely to have increased pressure by announcing such an alert if the Israelis had not stopped. It is a point of conjecture as to what the U.S. would have done in the event of a Soviet intervention to deter a further Israeli advance. Dean Rusk suggested that Sixth Fleet aircraft would most likely have been landed at Israeli airfields but he could not envisage them being used beyond that. He confirmed that there were no contingency plans and certainly no joint U.S.-Israeli plans. The U.S. was steering a most

difficult course, and was to suffer considerable Arab invective in the aftermath for in fact having kept as neutral as was feasibly possible. However, it is the long term which is important, and the benefits of a consistent policy were reaped despite Soviet propaganda when Soviet-Egyptian relations reached their nadir from July 1972 onwards.

34. The War Ends: The Israeli-Syrian peace saved the situation and the Sixth Fleet turned westwards. The Israelis had achieved their aim, and the Syrians wanted peace. The Soviets had been faced with a major decision and, although the peace pre-empted this, the presence of the Sixth Fleet in a now potentially hostile position was a major factor which they could not ignore. At the same time Kosygin's threat to President Johnson that the Soviets would intervene had to be backed by some tangible sign of capability.

35. Conclusions: The size of the Soviet commitment was in keeping with the state of Arab-Soviet relations. It reflected Soviet interest and support, but the capability and deployment pattern showed that they had no intention of using seapower in a belligerent way other than for tracking purposes. A much larger force could have been deployed, but this again would not necessarily have achieved the desired results, but merely antagonized the U.S.

36. The presence of the Sixth Fleet was a major obstacle to any form of Soviet intervention from the sea, either directly or in such a way as to deter the Israelis (e.g. a threat of a blockade).

37. The superpowers became acutely involved once the Israelis had made disproportionate gains in Soviet eyes, and which also seemed counter-productive to Washington. The preponderance of U.S. Naval power may have become less significant to the Soviets in the context of Israeli military success, since the 'Rules of the Game' applied.

38. The Soviets had an alternative contingency available in the form of an air supply. This was not affected by the Naval configuration. As a result they were able to give 'tangible' support to the Arabs and thus maintain credibility. At the same time they were able to claim that they had neutralized the Sixth Fleet. Whatever the Naval realities it was Egyptian perception of Soviet assistance which counted.

39. The Sixth Fleet did have a clear diplomatic role as a fast and effective transmitter of signals. In addition to hot line calls nothing else gave more tangible expression to American intentions.

40. The Soviets could have deployed a much larger Naval force and it remains a point of conjecture of the extent to which such a presence would have assisted the peace negotiations and therefore the possible furtherance of Arab interests.

41. The Soviets were as much concerned with their own interests as Arab. The detail of their later aid programmes and deployments is well known. They achieved their aim-use of Egyptian ports and considerable influence through re-equipping and retraining the defeated Arab armies. TU 16 Badgers with Egyptian markings, but flown by Soviet crews, began maritime reconnaissance of the Sixth Fleet. One month after the war was concluded two Soviet groups entered Port Said and Alexandria. The Russians claimed that they were there to prevent aggression. Not only was this a gesture to the regime, it also acted as a deterrent to further Israeli strikes insofar as damage to Russian ships could act as a casus belli for intervention.

42. Whatever the nature and extent of Soviet propaganda during the crisis the Kremlin was able to assess the extent of the U.S. commitment partly from the posture of the Sixth Fleet. The Soviets knew that the U.S. had not encouraged the Israelis to attack. At the same time the Soviets were able to make propaganda from the disposition of the Sixth Fleet, and curry favor with the Arabs. If the U.S. had maintained a lower profile with the Sixth Fleet and awaited initial military results before assessing its reactions to the Israeli position the post-war position of the U.S. in the Arab world may have been more favorable. Only hindsight allows this sort of speculation.

43. Despite the strong British presence in the Gulf of Aden (a force headed by the carrier HERMES) the British government played a waiting game because of the ramifications of an Arab oil boycott. Lifting the blockade of the Gulf of Aqaba would have made the Israeli strike less justifiable, but would not necessarily have prevented it. The Israeli post-war position would have been the same and Anglo-U.S. intervention would have been seen as another sign of a pro-Israeli posture.

44. It has been said that a superpower may forego support to a client if the latter engages in excesses which produce greater risks of general confrontation than marginal gains and similarly a major threat to the client's vital interests may justify intervention. In the June War the Sixth Fleet could not become directly involved on either count. However, as has been argued earlier, a lower profile for the Sixth Fleet may possibly have produced a better post-war diplomatic position for the U.S.

45. The extent to which a major fleet can augment political goals may not always stem from its avowed military capability. A fleet may be militarily effective but if it is deployed inappropriately it may defeat the very objects of the exercise. This may be true of the use of the Sixth Fleet during the 1967 War. Evacuation of U.S. citizens could have been achieved by a mixture of other means and a limited naval effort in the eastern Mediterranean.

The availability of air power to support other U.S. interests, such as the USS LIBERTY after the attack on her, has to be weighed against the gains made from non-forward deployment. Incidents such as the LIBERTY further increase risks of escalation. In this case carrier aircraft were launched to go to her rescue on the assumption that the UAR had made the attack. The timely message from Tel-Aviv expressing Israel's "abject apologies" for the incident may have forestalled an unfortunate clash of U.S. and Egyptian forces.

46. If forward deployment in a crisis situation is to have credibility in strict military terms, the opposing superpower must perceive one's ability to intervene within time and other constraints. In 1967 the ability of the Sixth Fleet to intervene was limited. Forward deployment in a hostile diplomatic environment without the infrastructure to pose a tangible military intervention within necessary timescales can therefore be counterproductive. Soviet logistical capabilities and their ability to establish a military infrastructure in a client state may be of equal or more significance than the outward demonstration of naval deployment. Political intention and, in the event, military capability, should be assessed as much with these in mind as straightforward naval moves when reviewing the Soviet's ability to use naval power for diplomatic purposes.

47. The narrow time scale of the events leading to the 1967 war and the war itself may have militated against a more flexible deployment policy for the Sixth Fleet. The need to be within quick flying time of the Mideast coast must have seemed like a necessary option to exercise. Holding back was a more difficult decision to make than sailing the Fleet eastwards. However, if the Fleet had been withheld in the west and a sudden surge later found necessary if the situation deteriorated, then the Soviets could have done little to oppose this and neither could they have construed this as being unduly provocative. Hotline calls would have confirmed the necessity for such a move.

48. Later crises reveal the different ways in which Washington can use the Sixth Fleet. The response required in 1973 was surely different from that required in 1967. What the 1967 war tends to show is that the Sixth Fleet should be seen as a much more flexible instrument of diplomacy and that forward deployment is not always synonymous with the most advantageous position, and that non-forward deployment does not necessarily weaken the role of the Fleet or undermine its very *raison d'etre*. It is possible that the operating patterns of the Sixth Fleet could become more variable without jeopardizing its political role in the Mideast. Conversely greater gains might be made from such a policy.

NOTES

¹Dragnich, George S.: The Soviet Union's Quest for Access to Naval Facilities in Egypt prior to the June War of 1967, CNA paper No. 127, July 1974.

²In speeches on 9 June and 23 July 1967 Nasser related the degree of "strategic" intelligence which had been provided by the USSR relating to Israeli plans for a preemptive strike. On 19 June 1967 Kosygin told the same story in the UN.

³"Rules of the game" for superpower naval diplomacy have been formulated by James M. McConnell of the United States Center for Naval Analyses. They can be studied in his Superpower Naval Diplomacy in the Indo-Pakistani Crisis, CNA Professional Paper No. 108, February 1973, Center for Naval Analyses, Arlington, Virginia 22209.

APPENDIX A

Main Political and Naval Events during the June War 1967

POLITICAL

April-May: Israeli villages shelled from Syria. Israeli air raids against Syrian positions.

8 May: Major Syrian terrorist act inside Israel.

NAVAL

24 April: 1 Riga class Soviet destroyer escort in the Mediterranean (24 APR-24 JUN).

10 May: Soviet anti-carrier exercises begins in the eastern Atlantic 10-27 MAY.

10/11 May: U.S. destroyer bumped in the Sea of Japan by a Soviet warship.

11 May: 2 Soviet Mirka II PECs arrive off Gibraltar from the north. They remain in the Mediterranean until 22 JUN.

12 May: 1 Soviet Kirov class cruiser in the Mediterranean until 25 JUN. Soviet Kashin class DLG in the Mediterranean until 23 JUN. 1 Soviet Riga class DE in the Mediterranean until 16 JUN.

POLITICAL (CON'T)

14 May: A UAR Parliamentary delegation leaves the USSR having been given a warning of a possible Israeli strike. Egyptian armour and infantry move into Sinai.

16 May: State of emergency declared in Egypt.

18 May: On request from Cairo the UN withdraws from the armistice line between Israel and the UAR. IDF and IAF reserves are mobilized.

21 May: Israel and Egypt announced the calling up of reserves.

22 May: Nasser closes the Gulf of Aqaba.

23 May: President Johnson's speech calling for restraint.

NAVAL (CON'T)

20 May: 1 Soviet Kotlin class DD in the Mediterranean until 16 JUL.

22 May: The British carrier HMS VICTORIOUS leaves the Suez Canal for Malta. The USSR notifies Turkey of its intent to transit 10 warships through the Straits (8 days notice required).

23 May: USS SARATOGA and the USS AMERICA ordered toward the eastern Mediterranean.

POLITICAL (CON'T)

25 May: Israeli Foreign Minister arrives in Washington. UAR doubles its forces in Sinai. U.S. suggests a multi-national maritime force to keep open the Gulf of Aqaba - this fails.

30 May: Turkey says that she will not allow U.S. bases in Turkey to be used against the Arabs. Egypt and Jordan enter a Defense Pact.

NAVAL (CON'T)

25 May: U.S. Navy delays plans to send the USS INTREPID through Suez en route to Vietnam. The British carrier HMS HERMES is ordered to return to the Red Sea area from her passage to the Far East. The U.S. amphibious task force leaves Naples for Malta.

29 May: USS SARATOGA and the USS AMERICA rendezvous in the Sea of Crete, with the Fleet Commander, Vice Admiral William Martin flying his flag in USS LITTLE ROCK (Cruiser) accompanied by the cruiser GALVESTON and 10 destroyers.

30 May: 1 Soviet submarine tender in the Mediterranean until 8 June. An AGI begins tailing the SARATOGA, and breaks off on 7 June.

31 May: USS INTREPID is ordered through the canal to the Gulf of Aqaba. Other U.S. units remain in the Sea of Crete. Soviet submarine tender arrives in the Mediterranean and remains until 3 October.

POLITICAL (CON'T)

NAVAL (CON'T)

1 June: The USS AMERICA is being tailed by a Soviet destroyer (50 miles south of Crete).

2 June: The USS LIBERTY sails from Rota, Spain for the Mideast. A Soviet destroyer joins 2 minesweepers off Malta tailing the British carrier VICTORIOUS and 4 frigate escorts. The destroyer USS DYESS joins 2 U.S. destroyers and a command ship in the Red Sea. U.S. ASW forces move from the North Atlantic into the Mediterranean. Six frigates and a minesweeper squadron have joined the HERMES near Aden.

3 June: 1 Soviet Kildin class DDGS in the Mediterranean until 31 August, 1 Soviet Kashin class DLG in the Mediterranean until 13 SEP; 1 modified Soviet Kotlin class DD in the Mediterranean until 13 August. Two Soviet auxiliaries also transit from the Black Sea.

4 June: 1 Soviet Krupny class DDGS in the Mediterranean until 31 August. A Soviet GMD relieves the destroyer tailing the AMERICA. The Sixth Fleet

POLITICAL (CON'T)

5 June: 0600 War begins with Israeli air strikes. 0730 King Hussein summons all Heads of Missions and claims that U.S. carriers have been used in a preemptive strike. 1300Z HQ USAEUR and 7th Army Operations Center stand by to implement OPLAN T-3 AE 215.

6 June: Security Council unanimously adopts a resolution for an immediate ceasefire.

7 June: CINCEUR message of 1200Z states "The activities of Soviet military forces do not indicate preparations for direct military

NAVAL (CON'T)

4 June (Con't): is ordered to operate NW of a line from 36° N 28° 30' E and the coast of Libya at 23° E. A Soviet cruiser and 10 other ships are sighted at anchor 100 miles NW of Crete.

5 June: 2 Soviet "W" class submarines sighted at the Kithera anchorage. USS AMERICA 50 miles SE of Crete (370 miles east of Port Said and 540 miles from Haifa. The SARATOGA is 110 miles NW of the AMERICA on the northern side of Crete. Both carriers can steam approximately 800 miles per day. Both carriers are at state 3 of readiness. The LSD USS SHADWELL is sailed from Souda Bay to rejoin the amphibious task force at Malta.

6 June: 1100 local AMERICA 100 miles east of Crete and steaming eastwards at 20 knots. This was Admiral Martin's decision, not the White House's.

7 June: 1200 local USS AMERICA steaming westward 60 miles SE of Crete. USSR announced the indefinite postponement of a visit by a Kashin class guided

POLITICAL (CON'T)

7 June (Con't): participation. Soviet and East European ground and air force training appear to be routine." U.S. ambassador in Amman signals Washington to push for a ceasefire because Hussein regime may fall in Jordan. Jordan stops fighting at midnight, but Israelis continue to attack Jordanian West Bank.

9 June: 0600 the Israelis attack the Golan Heights.

10 June: USSR delivers an ultimatum to Israel. The war ends.

NAVAL (CON'T)

7 June (Con't): missile ship to Portsmouth, England. An AGI leaves the Black Sea to supplement the Mediterranean AGI force.

8 June: The Soviet airlift to the UAR Syria, Algeria, and Iraq begins. Soviet harassment of the USS AMERICA occurs. 1200Z the USS LIBERTY is attacked by Israeli forces. Carrier aircraft are launched to protect her. The amphibious Task Force leaves Malta.

9 June: USS AMERICA and the cruiser LITTLE ROCK are sailing to the rescue of the USS LIBERTY. 1230Z the rendezvous occurs.

10 June: President Johnson orders the Sixth Fleet eastwards, and later fleet reverses course. Kotlin 514 breaks off surveillance of the USS SARATOGA at midday. The U.S. amphibious Task

POLITICAL (CON'T)

15 June: Libya asks the U.S. and Britain to remove bases.

NAVAL (CON'T)

10 June (Con't): Force discontinues passage eastwards.

12-22 June: NATO ASW exercise "Go Ahead" in the Atlantic.

14 June: Force of Soviet combatants east of Cyprus.

30 June: 2 Polocny class LSMs deploy from the Black Sea. 2 Alligator LSTs deploy east of Cyprus.

2 July: Soviet units visit Port Said and Alexandria.

4 May 1968: First Soviet reconnaissance flight against a U.S. CVA in the Mediterranean by Egyptian based Soviet aircraft.

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
- PP 106
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
- PP 109
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)
- PP 110
Augusta, Joseph, "A Critique of Cost Analysis," 9 pp., Jul 1973, AD 766 376
- PP 111
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
- PP 112
Ginsberg, Lawrence H., "ELF Atmosphere Noise Level Statistics for Project SANGUINE," 29 pp., Apr 1974, AD 786 969
- PP 113
Ginsberg, Lawrence H., "Propagation Anomalies During Project SANGUINE Experiments," 5 pp., Apr 1974, AD 786 968
- PP 114
Maloney, Arthur P., "Job Satisfaction and Job Turnover," 41 pp., Jul 1973, AD 768 410
- PP 115
Silverman, Lester P., "The Determinants of Emergency and Elective Admissions to Hospitals," 145 pp., 18 Jul 1973, AD 766 377
- PP 116
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)
- PP 119
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
- PP 120
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.
- PP 121
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
- PP 122
Kelly, Anne M., "The Soviet Naval Presence During the Iraq-Kuwait Border Dispute: March-April 1973," 34 pp., Jun 1974, (Published in *Soviet Naval Policy*, ed. Michael McGwire; New York: Praeger) AD 780 592
- PP 123
Petersen, Charles C., "The Soviet Port-Clearing Operation in Bangladesh, March 1972-December 1973," 35 pp., Jun 1974, (Published in Michael McGwire, 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 McGwire; New York: Praeger) AD 783 701
- PP 125
Weinland, Robert G., "Soviet Naval Operations—Ten Years of Change," 17 pp., Aug 1974, (Published in *Soviet Naval Policy*, ed. Michael McGwire; 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
- PP 129
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
- PP 130
Dismukes, Bradford, "Roles and Missions of Soviet Naval General Purpose Forces in Wartime: Pro-SSBN Operation," 20 pp., Aug 1974, AD 786 320
- PP 131
Weinland, Robert G., "Analysis of Gorskov's *Navies in War and Peace*," 45 pp., Aug 1974, (Published in *Soviet Naval Policy*, ed. Michael McGwire; New York: Praeger) AD 786 319
- PP 132
Kleinman, Samuel D., "Racial Differences in Hours Worked in the Market: A Preliminary Report," 77 pp., Feb 1975, (Paper read on 26 Oct 1974 at Eastern Economic Association Convention in Albany, N.Y.) AD A 005 517
- PP 133
Squires, Michael L., "A Stochastic Model of Regime Change in Latin America," 42 pp., Feb 1975, AD A 007 912
- PP 134
Root, R. M. and Cunniff, P. F.,* "A Study of the Shock Spectrum of a Two-Degree-of-Freedom Non-linear 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)
- PP 136
Stallings, William, "Cybernetics and Behavior Therapy," 13 pp., Jun 1975
- PP 137
Petersen, Charles C., "The Soviet Union and the Reopening of the Suez Canal: Mineclearing Operations in the Gulf of Suez," 30 pp., Aug 1975, AD A 015 376

*CNA Professional Papers with an AD number may be obtained from the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22151. Other papers are available from the author at the Center for Naval Analyses, 1401 Wilson Boulevard, Arlington, Virginia 22209.

CNA Professional Papers – 1973 to Present (Continued)

- PP 138
Stallings, William, "BRIDGE: An Interactive Dialogue-Generation Facility," 5 pp., Aug 1975 (Reprinted from IEEE Transactions on Systems, Man, and Cybernetics, Vol. 5, No. 3, May 1975)
- PP 139
Morgan, William F., Jr., "Beyond Folklore and Fables in Forestry to Positive Economics," 14 pp., (Presented at Southern Economic Association Meetings November, 1974) Aug 1975, AD A 015 293
- PP 140
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.
- PP 141
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
- PP 142
Lockman, Robert F., Jehn, Christopher, and Shugart, 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
- PP 143
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 A 021 581
- PP 144
Durch, William J., "The Navy of the Republic of China – History, Problems, and Prospects," 66 pp., Aug 1976 (To be published in "A Guide to Asiatic Fleets," ed. by Barry M. Blechman; Naval Institute Press) AD A 030 460
- PP 145
Kelly, Anne M., "Port Visits and the "Internationalist Mission" of the Soviet Navy," 36 pp., Apr 1976 AD A 023 436
- PP 146
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 A 021 798
- PP 147
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 A 028 389
- PP 148
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 A 022 590
- PP 149
Squires, Michael L., "Counterforce Effectiveness: A Comparison of the Tsipis "K" Measure and a Computer Simulation," 24 pp., Mar 1976 (Presented at the International Study Association Meetings, 27 Feb 1976) AD A 022 591
- PP 150
Kelly, Anne M. and Petersen, Charles, "Recent Changes in Soviet Naval Policy: Prospects for Arms Limitations in the Mediterranean and Indian Ocean," 28 pp., Apr 1976, AD A 023 723
- PP 151
Horowitz, Stanley A., "The Economic Consequences of Political Philosophy," 8 pp., Apr 1976 (Reprinted from Economic Inquiry, Vol. XIV, No. 1, Mar 1976)
- PP 152
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 A 025 440
*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 A 025 441
- PP 155
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 A 028 388
- PP 156
Stallings, William, "Approaches to Chinese Character Recognition," 12 pp., Jun 1976 (Reprinted from Pattern Recognition (Pergamon Press), Vol. 8, pp. 87-98, 1976) AD A 028 692
- PP 157
Morgan, William F., "Unemployment and the Pentagon Budget: Is There Anything in the Empty Pork Barrel?" 20 pp., Aug 1976 AD A 030 455
- PP 158
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 A 030 458
- PP 159
McConnell, James M., "The Gorskov Articles, The New Gorskov Book and Their Relation to Policy," 93 pp., Jul 1976 (To be printed in Soviet Naval Influence: Domestic and Foreign Dimensions, ed. by M. McGwire and J. McDonnell; New York: Praeger) AD A 029 227
- 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 A 030 457
- PP 161
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 A 030 456
- PP 162
Friedheim, Robert L., "Parliamentary Diplomacy," 106 pp. Sep 1976 AD A 033 306
- PP 163
Lockman, Robert F., "A Model for Predicting Recruit Losses," 9 pp., Sep 1976 (Presented at the 84th annual convention of the American Psychological Association, Washington, D.C., 4 Sep 1976) AD A 030 459
- PP 164
Mahoney, Robert B. Jr., "An Assessment of Public and Elite Perceptions in France, The United Kingdom, and the Federal Republic of Germany, 31 pp., Feb 1977 (Presented at Conference "Perception of the U.S. – Soviet Balance and the Political Uses of Military Power" sponsored by Director, Advanced Research Projects Agency, April 1976) AD A 036 599
- PP 165
Jondrow, James M., "Effects of Trade Restrictions on Imports of Steel," 67 pp., November 1976, (Delivered at ILAB Conference in Dec 1976)
- PP 166
Feldman, Paul, "Impediments to the Implementation of Desirable Changes in the Regulation of Urban Public Transportation," 12 pp., Oct 1976, AD A 033 322
- PP 166 – Revised
Feldman, Paul, "Why It's Difficult to Change Regulation," Oct 1976
- PP 167
Kleinman, Samuel, "ROTC Service Commitments: a Comment," 4 pp., Nov 1976, (To be published in Public Choice, Vol. XXIV, Fall 1976) AD A 033 305
- PP 168
Lockman, Robert F., "Revalidation of CNA Support Personnel Selection Measures," 36 pp., Nov 1976
- PP 169
Jacobson, Louis S., "Earnings Losses of Workers Displaced from Manufacturing Industries," 38 pp., Nov 1976, (Delivered at ILAB Conference in Dec 1976)
- PP 170
Brehling, Frank P., "A Time Series Analysis of Labor Turnover," Nov 1976, (Delivered at ILAB Conference in Dec 1976)
- PP 171
Ralston, James M., "A Diffusion Model for GaP Red LED Degradation," 10 pp., Nov 1976, (Published in Journal of Applied Physics, Vol. 47, pp. 4518-4527, Oct 1976)
- PP 172
Classen, Kathleen P., "Unemployment Insurance and the Length of Unemployment," Dec 1976, (Presented at the University of Rochester Labor Workshop on 16 Nov 1976)
- PP 173
Kleinman, Samuel D., "A Note on Racial Differences in the Added-Worker/Discouraged-Worker Controversy," 2 pp., Dec 1976, (Published in the American Economist, Vol. XX, No. 1, Spring 1976)

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
- PP 175
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)
- PP 176
Felix, Wendi, "Correlates of Retention and Promotion for USNA Graduates," 38 pp., Mar 1977
- PP 177
Lockman, Robert F. and Warner, John T., "Predicting Attrition: A Test of Alternative Approaches," 33 pp. Mar 1977. (Presented at the OSD/ONR Conference on Enlisted Attention Xerox International Training Center, Leesburg, Virginia, 4-7 April 1977)
- PP 178
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)
- PP 179
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)
- PP 180
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)
- PP 181
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)
- PP 182
Murray, Russell, 2nd, "The Quest for the Perfect Study or My First 1138 Days at CNA," 57 pp., April 1977
- PP 183
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)
- PP 184
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)
- PP 185
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.)
- PP 186
Mizrahi, Maurice M., "Phase Space Integrals, Without Limiting Procedure," 31 pp., May 1977, (Submitted for publication in *Journal of Mathematical Physics*)
- PP 187
Coile, Russell C., "Nomography for Operations Research," 35 pp., April 1977, (Presented at the Joint National Meeting of the Operations Research Society of America and The Institute for Management Services, San Francisco, California, 9 May 1977)
- PP 188
Durch, William J., "Information Processing and Outcome Forecasting for Multilateral Negotiations: Testing One Approach," 53 pp., May 1977 (Prepared for presentation to the 18th Annual Convention of the International Studies Association, Chase-Park Plaza Hotel, St. Louis, Missouri, March 16-20, 1977)
- PP 189
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
- PP 190
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)
- PP 191
Sawyer, Ronald, "The Independent Field Assignment: One Man's View," August 1977, 25 pp.
- PP 192
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)
- PP 193
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)
- PP 194
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)
- PP 195
Brechtling, Frank, "Unemployment Insurance Taxes and Labor Turnover: Summary of Theoretical Findings," 12 pp. (Reprinted from *Industrial and Labor Relations Review*, Vol. 30, No. 40, Jul 1977)
- PP 196
Ralston, J. M. and Lorimer, 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)
- PP 199
Durch, William J., "Revolution From A F.A.R. — The Cuban Armed Forces in Africa and the Middle East," Sep 1977, 16 pp.
- PP 201
Durch, William J., "The Cuban Military in Africa and The Middle East: From Algeria to Angola," Sep 1977, 67 pp.
- PP 202
Feldman, Paul, "Why Regulation Doesn't Work," (Reprinted from *Technological Change and Welfare in the Regulated Industries and Review of Social Economy*, Vol. XXIX, March, 1971, No. 1.) Sep 1977, 8 pp.
- PP 203
Feldman, Paul, "Efficiency, Distribution, and the Role of Government in a Market Economy," (Reprinted from *The Journal of Political Economy*, Vol. 79, No. 3, May/June 1971.) Sep 1977, 19 pp.
- PP 204
Wells, Anthony R., "The 1967 June War: Soviet Naval Diplomacy and The Sixth Fleet — A Reappraisal," Oct 1977, 36 pp.
- PP 205
Coile, Russell C., "A Bibliometric Examination of the Square Root Theory of Scientific Publication Productivity," (Presented at the annual meeting of the American Society for Information Science, Chicago, Illinois, 29 September 1977.) Oct 1977, 6 pp.
- PP 206
McConnell, James M., "Strategy and Missions of the Soviet Navy in the Year 2000," 48 pp., Nov 1977, (To be presented at a Conference on Problems of Sea Power as we Approach the 21st Century, sponsored by the American Enterprise Institute for Public Policy Research, 6 October 1977, and subsequently published in a collection of papers by the Institute)
- PP 207
Goldberg, Lawrence, "Cost-Effectiveness of Potential Federal Policies Affecting Research & Development Expenditures in the Auto, Steel and Food Industries," 36 pp., Oct 1977, (Presented at Southern Economic Association Meetings beginning 2 November 1977)
- PP 208
Roberts, Stephen S., "The Decline of the Overseas Station Fleets: The United States Asiatic Fleet and the Shanghai Crisis, 1932," 18 pp., Nov 1977, (Reprinted from *The American Neptune*, Vol. XXXVII, No. 3, July 1977)

