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The Demilitarization of Sinai

Yair Evron

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The Demilitarization of Sinai

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The war of October 1973 and the Geneva Conference on Peace in the Middle East have changed the pattern of relations between Israel and Egypt. The possibility of greater stability in this part of the world has been created. But this stability is beset by complex problems related to several contexts: first, the nature of future political relations between Israel and Egypt, and intimately connected with this, the nature of future military relations between the two countries. Both these questions affect and are affected by the kind of international regime that will emerge in the Middle East if and when negotiations in Geneva are successful. Will it be a self-regulating and flexible international system with minimal superpower involvement, or will it be an externally-driven system with intensive superpower involvement? If the latter system emerges, what pattern will it have — some form of co-management, or some variant of continued competition between the 'Big Two' with intermezzi of confrontations and international crises? These are just some of the possible scenarios, issues, outcomes and problems, all of which are related, in

^{1.} The concept of 'co-management' seems more appropriate than 'condominium,' which has been widely used to describe the various types of intensive joint policy pursued by the superpowers. The elements of a possible co-management system in the Middle East have been analyzed in Yair Evron and Dan Horowitz, Models of Super-Power Involvement in the Middle East, to be published by the Van Leer Institute, Jerusalem. For discussions of the concept of condominium or its applications in the current international system, see, inter alia, Raymond Aron, "Richard Nixon and the Future of American Foreign Policy," Daedalus, Fall 1972, pp. 23-24; Bernard Feron, "Moscou veut regagner à Genève le terrain perdu," Le monde diplomatique 21, no. 244 (July 1974): 3; James O. Goldsborough, "France, the European Crisis and the Alliance," Foreign Affairs 52, no. 3 (April 1974): 541-560; Morton A. Kaplan, "Weakness of the Nonproliferation Treaty," Orbis 12, no. 4 (Winter 1969): 1042-1057; Fritz Stern, "The End of the Postwar Era," Commentary 57, no. 4 (April 1974): 28-29; Jean Pierre Vigier, "Crise de l'énérgie et partage du monde," Le monde diplomatique 21, no. 241 (April 1974): 1-3; S.C. Yuter, "Preventing Nuclear Proliferation Through the Legal Control of China's Bomb," Orbis 12, no. 4 (Winter 1969): 1018-1041. See also Lucious D. Battle, "Peace — Inshallah," Foreign Policy 14 (Spring 1974): 121-124; Tarun Chandra Bose, The Superpowers and the Middle East (New York: Asia Publishing House, 1972), pp. 128-129, 146-148; Jacob C. Hurewitz, "Changing Military Perspectives in the Middle East," in Political Dynamics in the Middle East, ed. Paul Y. Hammond and Sidney S. Alexander (New York: American Elsevier, 1972), pp. 103-105.

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varying degrees and different ways, to the attainment of strategic stability, i.e., stable mutual deterrence between Israel and Egypt. Central to this is the question of the demilitarization of Sinai.

PAST EXPERIENCE: LIMITED DEMILITARIZATION, 1957—1967

The demilitarization of Sinai is not, of course, a new idea. Sinai was in fact demilitarized to a certain extent during the period 1957–1967. This demilitarization was, however, extremely limited. It was not based on a formal agreement; indeed, it was stated quite clearly that there was no such accord.² Rather, this limited demilitarization appears to have been the result of a unilateral decision by Egypt, based on her perceptions of her own security interests. These included, first and most important, Egypt's tacit recognition that a major military build-up, especially in the forward area in Sinai, might invite a strong response from Israel. Although this has never been stated as an official policy by Israel, two Israeli decisionmakers, Yigal Allon and Shimon Peres, indicated in private statements that such an Egyptian concentration would constitute a casus belli. They did not, however, refer to concentrations of Egyptian forces in the heart of Sinai and further away from the Israel border. Second, Egypt recognized that in terms of practical cost-effectiveness it was not sound policy to maintain large forces in Sinai. It was cheaper and more effective to accomplish her military objectives by keeping the majority of Egyptian forces either around the canal or in the western desert. Third, in terms of defending

^{2.} During the negotiations between Israel and the United States about the withdrawal of Israeli forces from Sinai following the Sinai campaign of 1956, only the following two issues were raised: Israel's passage through the straits, and the future of the Gaza Strip. Israel demanded that the United Nations have exclusive control over this strip. In this context see, in particular, Dulles's aide-mémoire of 11 March 1957 given to Abba Eban, Eisenhower's reference to the matter on 25 February 1957, and Mrs Meir's speech in the United Nations General Assembly of 1 March 1957. See also Theodore Draper, Israel and World Politics (New York: The Viking Press, 1967), pp. 19–21, 137–139. Yigal Allon also refers to the lack of even a demand by Israel for demilitarization of Sinai in Masach shel Ḥol [Curtain of Sand] (Tel Aviv, 1960), pp. 355–356.

^{3.} Y. Allon, Masach shel Hol, pp. 343-345; idem, "Hashlav Ha'aharon Bemilhemet Hashihrur" [The Last Phase in the War of Independence], Ot, no. 3-4 (November 1967), p. 5; idem, "Haganah Pe'ila Aruva Lekiumenu" [Active Defence as a Guarantee for our Existence], Molad, July-August 1967, p. 141; Shimon Peres, Ma'arachot, no. 146 (1962), p. 3. For an analysis of Israel's casi belli, see Dan Horowitz, Hatfisah Havisraelit shel Beitahon Leumi [Israel's Concept of National Security], The Eshkol Institute, the Hebrew University (Jerusalem, 1973), p. 25.

the Egyptian heartland and the Suez Canal area against outside attack, it was faulty strategy to deploy large units in the forward areas of Sinai.⁴ For, after all, one of the lessons learned in the 1956 war was that Egypt must prepare herself for an attack, not only from Israel, but also from other, outside powers. Once Egyptian involvement in inter-Arab politics became very intensive, one more reason for keeping Egyptian forces close to home was added: they might be needed for overseas activities. This was fully demonstrated in the Yemeni war which began in the second half of 1962.⁵ Thus a host of reasons combined to impose upon the Egyptian high command a strategy which included a *de facto* partial demilitarization of Sinai.

However, as noted above, this tacit demilitarization was very limited in its application. In the first place, Egyptian regular troops were deployed throughout Sinai during this period; only their numbers were limited. Second, and most important, the Egyptians had built an extensive strategic infrastructure in Sinai. This included airfields, supply depots and a forward system of defensive positions in the more important strategic areas close to the Israel-Egypt border. Apart from that, the network of roads and water

- 4. For an Israeli's appraisal of this Egyptian strategy, see Y. Allon, Masach shel Hol, p. 341.
- 5. At the peak of Egyptian military involvement in Yemen, some 70,000 Egyptian soldiers were stationed there.
- 6. Estimates as to the overall number of Egyptian forces so deployed are various. Estimates in Israel ranged between one division and two divisions, plus varying numbers of tanks (apparently about 250). Only two squadrons of fighters or fighter-bombers were kept permanently in Sinai, and none of them were MIG-21s. See Levi Eshkol's speech in the Knesset, 22 May 1967; Shmuel Segev, Sadin Adom [Red Sheet] (Tel Aviv, 1967), p. 22; Michael Bar-Zohar, Haḥodesh Ha'aroch Beyoter [The Longest Month] (Tel Aviv, 1969), p. 40; interview with Gen. (Res.) Gavish, Yediot Aḥronot, 3 April 1970. The size of the Egyptian forces, as well as the manner and whereabouts of their deployment, were such that Israel felt secure in positioning only one battalion and no more than a few dozen tanks along the southern border.
- 7. The Egyptian defensive positions on the eve of the 1967 war were based on strong defensive lines stretching astride the main three routes through which the Israeli forces could break into Sinai. The Palestinian Division took its position in the Gaza Strip, while Division 7 held the northern route leading from Rafiah to al-'Arish; Division 2 was in the centre with Abu-Ageilah as its pivot, and Division 6 was placed on the southern approach. Other Egyptian units were positioned between and behind these divisions. Each defensive area was based on a strong combination of infantry, artillery and armour arranged in three successive defensive lines. Although the actual deployment of aircraft was minimal (see n. 6), there were five ready airfields which could be activated at short notice: al-'Arish, Jabal Livni, Bir-Gafgafah, Bir-Tamdah and Nahal. Sixteen radar stations were spread throughout Sinai. The network of roads had also been considerably developed during the 1957–1967 period.

pipes covering the Sinai desert made possible the quick build-up of a logistical system essential to large-scale deployment of troops. Furthermore, this road network enabled the Egyptian forces to move quickly from their permanent bases into the critical forward area.

Another factor crucially limiting demilitarization was the absence of any clear-cut formulation of Israel's reaction in case of Egyptian violations. Thus there was no unambiguous definition of the consequences of changing the military situation in Sinai. This ambiguity considerably reduced the credibility of Israel's deterrence posture against such a change. To be sure, as we have pointed out above, some Israeli spokesmen referred to the issue; but it was never formulated by the Israel government as a clear casus belli. There were only two issues which that government formally declared as constituting casi belli: the closure of the Straits of Tiran, and the entrance of Arab armies into Jordan. (The latter issue itself, incidentally, was defined rather ambiguously.8) On one occasion, in 1960, Egypt did move large forces into Sinai in order to deter Israel from attacking Syria. Israel partially mobilized her forces but refrained from using this Egyptian move as a casus belli. Instead she relied on international diplomatic activity, and eventually the crisis was defused.9 In any case, even Allon and Peres, in dealing with such a possibility, referred only to the concentration of troops along the Israel-Egypt border, and not to the Egyptian military build-up inside Sinai.

Another shortcoming of this limited demilitarization was the lack of any formal recognition accompanying it. As a result there was no inspection system. Concomitantly, there were no international guarantees in case Egypt moved large forces into Sinai, nor was there even international acceptance of the fact that such a move would constitute a legitimate casus belli for Israel. Indeed, in 1967 the international community began to regard the situation as critical only when the Straits of Tiran were closed, and not when the Egyptian army had earlier begun concentrating near Israel's border. Israel herself considered the blockade as the final and ultimate casus belli. Of course, she might almost surely have gone to war even without the closure of the straits. In that case she would have done so because the deployment of large numbers of Egyptian forces close to her

^{8.} For the closure of the straits as a casus belli, see T. Draper, Israel and World Politics, p. 21, quoting Mrs Meir's speech in the United Nations on 1 March 1957: see also David Ben-Gurion's interview in Newsweek, 25 March 1957, p. 46; and Y. Allon and S. Peres, as cited in n. 3.

^{9.} See Middle East Record 1 (1960), pp. 202-204; Ezer Weizmann in Yediot Aḥronot, 4 June 1971; M.A. Gilboa, Shesh Shanim, Shisha Yamim [Six Years, Six Days] (Tel Aviv, 1967), pp. 21-22.

^{10.} See n. 2.

^{11.} See nn. 3, 8.

border over a long period of time constituted an impossible situation for her. (Moreover, the entrance of Iraqi forces into Jordan was a threatening military move and, incidentally, another *casus belli* for Israel.) Nevertheless, the formal *casus belli* was the closure of the Straits of Tiran, and this is how Israel presented the issue to the international community.¹²

Indeed, one could imagine a 1967 scenario similar to the 1960 crisis: The Egyptians move forward, declaring their move motivated by the need to deter Israel from attacking Syria, and refrain from closing the straits. After a short while they retreat. In such circumstances it is possible that Israel would not have gone to war at all, and the ambiguity concerning Israel's response to an Egyptian violation of the military situation in the Sinai would have increased considerably.

To summarize, between 1957 and 1967 a partial and very limited demilitarization of Sinai existed. It was limited in terms of the forces deployed, and lacked any formal and unambiguous mechanism for punishment in the event of violations. It was not recognized by the international community and it lacked any system of inspection. Moreover, the strategic infrastructure existed and thus allowed for rapid deployment of a large concentration of troops. Notwithstanding all these tremendous limiting factors on the system of demilitarization, it did serve as a major arms-control measure. It limited the possibility of direct contact between the Israeli and Egyptian forces, thus diminishing the chances of accidental war or of escalation from a local military initiative. It added an important psychological barrier to any Egyptian decision to violate the status quo and supplied a crucial (early) warning period to the Israeli armed forces. This warning period was ample in case of a major attack by ground forces on Israel proper, but not in the event of a surprise air strike on Israeli centres of population or military objectives.¹³

- 12. However, in closed meetings with American decision-makers during the last phase of the 1967 crisis, Israeli diplomats increasingly referred to the concentration of Egyptian forces in Sinai as a threat and a major cause for alarm.
- 13. Egyptian strike aircraft operating from Sinai could reach Israeli centres of population in very short periods:

FLIGHT PERIODS*

AIRFIELDS IN SINAI	al-'Arish—Tel Aviv Qsseima—Beersheba al-'Arish—Beersheba	80	km km km	approx.	9 5 6	minutes ,,
AIRFIELDS IN	al-Maza—Tel Aviv	390	km	,,	24.5	,,,
EGYPT PROPER	al-Maza—Beersheba	350	km	,,	22	,,

^{*} Based on an average speed of 0.8-0.9 Mach, which could be expected of Egyption strike aircraft with a full load of ordnance aiming to strike ground objectives.

Egypt's reluctance to go to war with Israel during the period 1956–1967—a reluctance which stood in contrast to her declared adherence to an extreme anti-Israel position and ideology—probably stemmed from a combination of factors. These included the existence of other and more pressing foreign policy objectives, the deterrent power of the Israeli forces, and Egypt's concern about international reaction. The very limited de facto demilitarization of Sinai constituted an additional consideration.

Moreover, once the Egyptian leadership decided to initiate the moves which led to the crisis of 1967, thus violating the *status quo* in Sinai, it found that the military implications attending this violation favoured Israel. The movement of Egyptian forces into Sinai took several days and gave Israel ample warning. It appears also that, notwithstanding the existence of an elaborate strategic infrastructure, the Egyptians were unable to cope successfully with the enormous logistical problems involved. There is much evidence indicating that when war broke out—three weeks after the Egyptian forces began their movement into Sinai—many Egyptian units suffered from difficulties resulting from inadequate logistical support. Their organizational structure seems to have been adversely affected by the swift move into Sinai.

Thus, even the very limited demilitarization of Sinai during this period provided Israel with many good military cards once the crisis had begun, and helped her even more when the war broke out. Apart from that, the demilitarization made the offensive character of the Egyptian troop movements quite evident to the international community, and this latter factor, coupled with the closure of the Straits of Tiran, made Israel's preventive strike politically more acceptable to the international community, particularly to the United States.

DEMILITARIZATION AS AN ARMS-CONTROL MEASURE

The demilitarization of Sinai should be considered in several contexts, but primary among them—and to be dealt with here—is its nature as an arms-control measure.¹⁶

- 14. The best articulation of this Egyptian position could be found in Muhammad Hasnayn Haykal's article in *al-Ahram*, 25 September 1964.
- 15. On the defects in the Egyptian logistical system in Sinai following the Egyptian deployment of large forces in the peninsula during the crisis preceding the 1967 war, see S. Segev, Sadin Adom, pp. 262–264.
- 16. Discussion of demilitarized zones and their efficacy has usually been conducted in formal, international legal terms. An attempt to include a study of such zones within the framework of arms control can be found in Trevor N. Dupuy and Gay M. Hammerman, eds., A Documentary History of Arms Control and Disarmament

Arms-control measures have several functions, all of them destined to reduce the risk of war or, alternatively, to limit its destructive effects if it should occur. They reduce the probability of accidental war, as well as the possibility of war, by affecting the military capabilities of the opponents or by affecting the areas in which these capabilities are deployed. They allow for the creation of 'cooling-off' periods and 'pauses' during which diplomatic activity may be undertaken and the danger of war averted. Furthermore, arms-control measures can limit the desirability of war by increasing the punishment for aggression.¹⁷ They also limit the readiness of a party to a conflict to 'accept' war, namely, to run the risk of war as the only alternative (according to its perceptions) to an impossible situation. As far as the destructiveness of war is concerned, arms-control measures aim at the control of arms races, at the control of escalations, for instance, from limited to unlimited wars. All these measures together contribute to the evolution of strategic stability in international systems, which, for its own part, contributes to international political stability. 18

The creation of demilitarized zones can serve as a most important arms-control measure. In that sense it is better to compare future demilitarized zones, not necessarily with traditional zones of this type, but with other arms-control measures developed during the last two decades, and to judge the validity and chances of longevity of demilitarized zones by criteria applicable to other arms-control measures.¹⁹ In the case of Sinai, the success of its possible demilitarization could also be judged by comparison to the exercise in limited demilitarization applied to the same area from 1956 to 1967.

From Israel's point of view, there are three questions to be asked about any withdrawal from Sinai which will be followed by its demilitarization: How does it affect the general context of Israel-Egypt relations? What

⁽New York and London: R. R. Bowker; Dunn Loring, Va.: T. N. Dupuy Associates, 1973). Elements of partial demilitarization and 'thinning-out' measures are of course included in current negotiations which have a clear arms-control framework. The most obvious now are negotiations on MFR.

^{17.} The literature on the objectives of arms control is vast, and there is no need to repeat it here. For one (of several) attempts to generalize and theorize about arms control, see David V. Edwards, *Arms Control in International Politics*, 1969.

^{18.} The notion of strategic stability is common in the literature on arms control. For a recent introductory presentation of basic notions of arms control and its history, see James E. Dougherty, *How to Think About Arms Control and Disarmament* (New York: National Strategy Information Center, Inc., 1973).

^{19.} The efficacy of demilitarized zones should therefore be judged by two basic criteria: (a) whether strategic stability, i.e., the diminishing frequency and scope of wars and violence has been enhanced; (b) whether the security interests of both sides have been enhanced.

are the military consequences for Israel if the demilitarization is violated by Egypt? What will be the system of inspection and verification and how credible will it be? (In this paper I shall concentrate mainly on the second question, while touching very briefly on the first and last ones.)

The demilitarization of Sinai following a withdrawal by Israel would create a wide open space serving as a buffer between the two armies. This will immediately lessen the dangers of accidental war and of war caused by miscalculation, thereby increasing strategic stability. Furthermore, so long as Sinai is demilitarized, the readiness to 'accept' war is reduced as well. Thus demilitarization serves as an effective arms-control measure.

Israel's military presence in Sinai and along the Suez Canal was a major irritant and cause for grievance to Egypt. This went far beyond the traditional Arab-Israel conflict and the more specific Israel-Egypt conflict. Until this occupation, Egypt considered Israel one enemy among several ('reactionary' Arab regimes, imperialism, etc.), an enemy whose elimination, while preferable, was not likely to occur, an enemy to be opposed and denounced fiercely on the ideological level, but with whom actual confrontation was deferred.²⁰ After she conquered and held Sinai in 1967, Israel became a deadly enemy and the primary opponent to be defeated at any cost. The Egyptian grievance reached such proportions that Cairo was ready to divert to the war effort almost twice the percentage of her GNP as compared with the period before 1967.²¹ She was

20. The Egyptian regime had formulated several preconditions during 1957–1967 which had to be fulfilled before war against Israel could begin. These included Arab unity under the radical camp leadership; profound developments in the relative military strength of the Arab armies as compared with Israel's strength; and lastly, the neutralization of potential American involvement on the side of Israel. Such far-reaching objectives must have seemed unrealistic even to the Egyptian regime itself, and probably had been formulated precisely because of this. The crisis of 1967, which began because of Egyptian moves, was the result of other factors, primarily the process of escalation between Israel and Syria and Egypt's growing commitment to Syria. Once the crisis began, it assumed a logic of its own. For a discussion of the general background to the 1967 crisis, see, inter alia, Yair Evron, The Middle East: Nations, Super-Powers and Wars (London: Elek Books, 1973). For Israel's decision-making process during the crisis, see Michael Brecher, Decisions in Israel's Foreign Policy, Oxford University Press, 1974, pp. 318–453.

21. On the arms race between Israel and Egypt see, inter alia, Yair Evron, "Arms Races in the Middle East and Some Arms-Control Measures Related to Them," to be published in Systematic Thinking Towards Alternative Solutions to the Arab-Israeli Conflict, ed. G. Sheffer (New York: Humanities Press, forthcoming). In 1965, Egypt spent \$744.4 million on defence, whereas in 1970 she spent \$1,128.5 million. In 1972, the Egyptian defence budget rose to \$1,351 million (see SIPRI, World Armaments and Disarmament, 1974). In terms of percentage of the GNP, in 1965 Egypt spent 12.6% on defence; in 1972, 20.2%.

also ready to give up major interests in order to force Israel to withdraw from the occupied territories and thus eliminate this irritant. (This explains, for example, Egyptian readiness—up to 1972—to allow a large measure of Soviet influence through the presence of Soviet military personnel.)

Last and most important, Egypt's readiness to become involved in war with Israel rose considerably after 1967. Whereas after Israel's war of independence (1948–1949) Egypt refrained from initiating war for nineteen years (in 1956 it was Israel that launched a preventive war), during the short span of six years after 1967, she actually launched two major wars: the war of attrition in 1969–70 and the war of October 1973.

It therefore seems likely that Israel's withdrawal from Sinai will considerably lessen this major irritation and, consequently, the specific Israel-Egypt conflict.

ISRAEL'S PAST STRATEGIC DOCTRINE AND MILITARY CAPABILITY

It is useful to compare two periods of the Israel-Egypt strategic and military relationship in order to reach a better understanding of the implications of demilitarization. The first period is that between 1956 and 1967; the second, between 1967 and 1973.

In the first period Israel's underlying strategic concepts and military doctrine were:²² (a) The concentration of large Egyptian military forces in the forward area of Sinai constitutes a danger to Israel and may serve as a casus belli. This very concentration will also serve as a warning period during which the Israeli reserves will be mobilized. (b) Should such a concentration occur, the Israeli forces must launch a preventive war which would be conducted in the enemy's territory. (c) The objective of this war is the destruction of the Egyptian army in Sinai itself. (d) The war itself should preferably be conducted as a fast, mobile operation, depending primarily on concentrations of armour engaged in large-scale, swift engulfing manoeuvres. (e) Finally, there would be an attempt to limit the war to 'counter-force' operations and avoid, so far as possible,

22. On the basic principles underlying the Israeli perception of national security, see D. Horowitz, *Hatfisah Hayisraelit*, pp. 3–5. See also Michael I. Handel, *Israel's Political-Military Doctrine*, Harvard University Center for International Affairs, Occasional Papers in International Affairs, no. 30 (July 1973). On the notions of 'anticipatory strike,' *blitzkrieg*, and the need to destroy the enemy's military capability as central elements in Israel's strategic doctrine, see Y. Allon, *Masach shel Ḥol*, pp. 52–83.

'counter-value' tactics.²³ (The latter include primarily the strategic bombing of centres of population.) There would be a deliberate attempt to force the Egyptian side to apply only counter-force operations.²⁴ In short, war was seen as an operation aimed at military objectives, with its ultimate goal being—to use Clausewitz's formula—the "disarming" of the enemy. This whole doctrine depended on Israel's ability to move large concentrations of forces quickly from one front to the other—something which only the short lines inside Israel proper allowed.²⁵ Furthermore, the logistical system of the army was prepared for such a war.

The situation obtaining in Sinai during this period favoured this strategy. Sinai was partly and to a limited degree demilitarized, and Egyptian large-scale moves had served as a warning period. Furthermore, any war would be fought inside Sinai, demanding the type of war in which Israeli forces were superior, that is, a fast mobile war. Lastly, there was the possibility of destroying the whole or the greatest part of the Egyptian forces inside Sinai without becoming involved in operations in the densely populated areas of Egypt.

During the period 1967–1973, Israel's strategic doctrine and military thinking underwent a certain change. Once the Suez Canal became the border and Sinai was under Israel's control, the old tactics became untenable. First, the availability of a warning period was lost.²⁶ Second, in order to destroy the Egyptian army, Israel might have to permit the Egyptian forces to cross the canal and go deep into Sinai before a counter-offensive could be mounted. But this would mean, in fact, Israel's withdrawal, in which case the strategic value of Israel's military presence throughout Sinai would become dubious. Alternatively, a counter-offensive could be launched into the heartland of Egypt across the canal or at some other more convenient place. This last approach is, of course, replete

- 23. Israel's preferences for 'counter-force' strategy up to 1970 could be derived from the emphasis on the objective of 'destroying the enemy's forces.' The same strategy had been implied also from the weapons systems procured by Israel. The emphasis was put on the acquisition of fighters and interception aircraft such as Mystère, Supermystère and Mirage III. All these could also serve as bombers, but primarily in the close-support role or—as indeed was proven in the 1967 war—in attacks on military installations such as airfields.
- 24. This had been achieved by warnings about Israel's reaction in the event of such an attack, coupled with Israel's avoidance of counter-value tactics. See also Y. Allon, *Masach shel Ḥol*, pp. 64, 177; and Shimon Peres, *Hashlav Haba* [The Next Phase] (Tel Aviv, 1965), p. 116.
- 25. See D. Horowitz, Hatfisah Hayisraelit, p. 28; H. Laskov, Hayom, 1 May 1968; and Y. Allon, Masach shel Hol, p. 59.
- 26. Moshe Dayan himself admitted it, albeit only after the surprise took place. See Yediot Ahronot, 14 October 1973.

with major difficulties. To begin with, a direct offensive through the Egyptian forces along the canal is very costly in terms of both men and materiel, as indeed such an operation in the October 1973 war proved.²⁷ Second, if successful, this operation would immediately evoke strong international censure and threats of Russian intervention coupled with American pressure. This, again, is what happened in 1973.

The existence of 'red lines' which the Israelis were not to cross in case of their victory has been widely recognized since the beginning of the Israel-Egypt conflict, and Israel tacitly accepted these limitations. Until 1973 these 'red lines' were crossed by Israel only once, in the deeppenetration bombing of 1970 which indeed provoked Soviet military involvement. This very involvement was sufficient to indicate the lengths to which Israel would go to in her operations beyond the canal, and hence reinforced the existence of the 'red lines.' Clearly, an attempt to get closer to the main centres of population and political power in Egypt would result in at least a very strong threat of Soviet involvement. Although the nature and definition of the 'red lines' are dynamic and might change with circumstances, the element of uncertainty concerning their activation is such as to critically inhibit Israel's behaviour. Thus, because of the international constraints, an Israeli strategy based on 'disarming' the Egyptian forces is almost impossible to achieve when the main line of Israel's defence is along the Suez Canal or not far from it. Furthermore, Israel's deep penetration of Egypt with ground forces might involve Israel in operations among large concentrations of civilians, operations which, apart from the predictable outcome in terms of human misery, may also provoke a variant of semi-guerrilla warfare involving the civilian population.

In order to avoid some of these dilemmas, during the period 1967 to 1973 Israel developed a new strategy based on a more defensive notion, namely, the absorption of a first strike and the mounting either of a defensive strategy or, if strategic and international political conditions permit, of a counter-offensive.²⁸ The latter measure would be aimed at seizing Egyptian territory or pushing the Egyptian army off-balance. The defensive posture would have made different variants of an Egyptian 'war of attrition' possible. It also facilitated the type of war which the Egyptians

^{27.} The battle for crossing the canal (15–18 October) is considered the heaviest to have taken place on the southern front. For a description see, inter alia, Haim Herzog's instalments in Yediot Ahronot, 31 January 1975 and 7 February 1975.
28. See D. Horowitz, Hatfisah Hayisraelit, pp. 35–36; Yeshayahu Raviv, "On the Strategic Situation after the Six-Day War" (Hebrew), Ma'arachot, no. 204 (1970), p. 22; Abba Eban, Ma'ariv, 6 June 1968; General Haim Bar-Lev, Davar, 7 June 1974.

actually launched in October 1973, namely, an all-out offensive using all their available military resources, albeit with extremely limited strategic and territorial objectives, which led to a major shift in the political situation.

Thus holding the Sinai Peninsula, or even most of it, created grave strategic and political problems for Israel, and these apparently were not fully comprehended until war actually broke out. However, indirectly these dilemmas did affect Israel's approach to the problems of war and strategy, consequently creating confusion in military thinking. A major paradox emerged: On the level of strategic doctrine, Israel increasingly adopted a defensive and static posture while, on the operational level, the army continued to adhere to the use of large concentrations of armour in fast mobile battle, that is, the offensive mode of operation. This contradiction had its adverse impact on the actual conduct of the 1973 war.²⁹

FUTURE POSSIBILITIES: DEMILITARIZATION AND ITS RAMIFICATIONS

Demilitarization of Sinai can be approached in two ways: according to the depth of the demilitarized zone, and according to the different weapon systems involved. Both these considerations will be discussed in light of their impact on Israel's military situation.

The depth of demilitarized zones could vary as follows: between the Suez Canal and the Mitla and Gidi Passes; between the Suez Canal and a line somewhere in the middle of Sinai; over the whole of Sinai; in parts of Sinai starting from a future Israeli line, either on the old international border or somewhere inside Sinai, but not covering the whole of Sinai, thus allowing an Egyptian military presence in parts of the peninsula; over the whole of Sinai, or parts of it, and some areas inside

29. Because of this contradiction, the size of the actual forces in fortified positions along the Suez Canal and in the Golan Heights was extremely small. Moreover, the size of the artillery was negligible. The whole defensive plan was based on mobile units but without the amount of artillery firepower needed to give sufficient coverage. A deeper contradiction lay in the strategic-political dilemma which the Israeli planners were facing: to allow the Egyptian forces to cross the canal and hold even a narrow strip of land would have meant a major political defeat for Israel. In order to deny such a move, the Israeli forces had to be deployed in strength very near the canal to defeat the actual crossing. But because the emphasis was put on armour and mobile operations (as, incidentally, it should have been, because of the military-operational logic), part of the Egyptian forces should have been allowed to penetrate in depth into Sinai, so that enough space for manoeuvre for the armour would have been created. In the event, a bad mixture of both approaches emerged.

the 'green line' in Israel proper; any of the above possibilities coupled with some demilitarization inside Egypt proper.

In any of the above variants, the assumption is that the demilitarized zones inside Sinai will be returned to Egyptian sovereignty and to Egyptian civilian control, for it is inconceivable that parts of Sinai itself would be kept under Israeli civilian control while being completely demilitarized. After all, Israel's only objective in Sinai is either to have demilitarized zones or to maintain military presence in areas which she — rightly or wrongly — considers essential to her security.

Demilitarization in terms of weapon systems can take the following forms:³⁰ complete demilitarization, including the destruction of the strategic infrastructure; prohibition of aircraft and offensive missile systems (ground-to-ground missiles with ranges sufficient to strike at Israeli centres); prohibition of defensive missile systems; prohibition of armour and artillery; prohibition of infantry; prohibition of naval bases and demilitarization of the territorial waters. (A related subject is the problem of demilitarization of strips of water; this, however, will not be dealt with in this paper.)

If demilitarization does take place, the first problem will be how to deter violations. This deterrence depends on three main factors: the system of guarantees and involvement by the outside powers; the development of a strong positive interest by the two sides in maintaining the demilitarized regime; the development of credible mutual deterrence by the two local parties. Insofar as Israel's security is concerned, an additional important element is that an Egyptian violation would not preclude Israel's military success. Indeed, the military balance between Israel and Egypt under conditions of a demilitarized Sinai, and the possible violation of it by Egypt, should be compared to continued Israel military presence in all or most of Sinai. In other words, if it were found that this proposed new military balance—Israel's withdrawal coupled with demilitarization—was inferior to the preceding one—Israel's military presence in the whole or most of Sinai—then the whole problem of the demilitarization of Sinai, according to the alternative possibilities suggested

30. Historically, there have been several cases of limited demilitarization of territories regarding only some weapon systems and, more commonly, regarding fortifications. Two examples will suffice: In the Treaty of Utrecht (1713), France agreed to destroy her fortifications in Denmark; in the Kuchuk-Kainarji Treaty of 1774 between Turkey and Russia, Turkey took it upon herself not to fortify the Crimean Peninsula, etc. For works on various demilitarization agreements, see T. N. Dupuy and G. M. Hammerman, A Documentary History of Arms Control and Disarmament; H. W. Forbes, The Strategy of Disarmament (Public Affairs Press, 1962).

above, should be reconsidered by the Israeli decision-makers. It therefore follows that Israel's position regarding these categories of alternative possibilities of demilitarization, and indeed the whole question of demilitarization, should be formulated on the basis of the following analytical principles: (a) the increase or at least the maintenance of Israel's 'deterrence by punishment' posture by demilitarization; (b) the increase or at least the maintenance of Israel's 'deterrence by denial' posture by demilitarization; (c) the increase or maintenance of Israel's defence capability by demilitarization; (d) the capability of demilitarization to absorb technological breakthroughs and the introduction of new weapon systems without affecting the deterrence-defence capability of Israel; (e) the increase of strategic stability.

Basically, an Egyptian attack on Israel in a situation of demilitarization of Sinai could take place in one of the following ways: (a) a full-scale offensive against Israel through demilitarized Sinai; (b) partial violations of demilitarization, for example, deploying military units in parts of the demilitarized zones; (c) attacks on Israel which circumvent the demilitarized zone; (d) naval blockade. The effects of demilitarization on Israel's security could be studied by analyzing each of these four possibilities on the background of Israel's deterrence and defence capabilities mentioned above.

To begin with, Israel's 'deterrence by punishment' factor depends on her ability to punish severely either Egyptian society or Egyptian vital interests. Until the October 1973 campaign, and also—although to a somewhat more limited extent—so long as Israeli forces are deployed near the Suez Canal, Israel can theoretically 'punish' Egyptian society or the Egyptian homeland, either by conventional ground systems or by the use of aircraft and ground-to-ground missiles if and when Israel obtained the latter. As the Israeli forces withdraw more deeply from the canal, the *first* means of punishment declines in its effectiveness because it will take much more effort to reach the heartland of Egypt by ground forces (including heliborne troops). The same applies to surface-to-surface missiles whose range is shorter than the depth of any proposed demilitarization of Sinai. This observation must be qualified, first, by the

^{31.} For the distinction between 'deterrence by denial' and 'deterrence by punishment,' see G.H. Snyder, *Deterrence by Denial and Punishment*, Princeton University Center of International Studies, Research Monograph no. 1 (1959). By 'deterrence by denial' Snyder refers to denying the enemy the capacity to achieve control over territory and population (p. 1). In my work I widen this concept to comprise denying the enemy the achievement of military objectives as well (which may include, for example, destruction of military forces).

fact that the international constraints on the use of Israeli ground forces beyond the canal, and certainly in the direction of the centre of Egypt, are enormous. (Commando-type operations are, of course, 'legitimate' from that point of view; however these cannot really serve as an adequate punishment for large Egyptian military operations.) It seems therefore that in most possible future scenarios, Israel's ability to punish the heartland of Egypt by the use of ground forces is critically limited in any case. Second, if, in a major battle inside Sinai, Israeli forces achieved a success similar to the one in 1967 and again reached the Suez Canal, they would, in any case—albeit only in the second stage of the operation—regain the capability to punish the heartland of Egypt with ground forces. If Egypt, violated the demilitarization of Sinai, then such an eventual punishment would be more acceptable to the international community.

The other means of punishment, by aircraft systems and surface-tosurface missiles with ranges beyond the depth of Sinai, would maintain its efficacy. The ability to penetrate the Egyptian skies would depend on the development of air-defence systems on Egypt's side, on the one hand, and penetration-aid systems on Israel's side, on the other.³² Here, however, the difference between the situation in which Israel has bases in Sinai and one in which she does not relates to the warning period allotted to Egypt. It certainly will be longer if Israel's military presence in Sinai does not continue. It should be added, however, that the freedom to operate in the skies of Egypt is—judging from the experience in 1973 —again quite limited. This is so because of international constraints and the recent deployment of effective surface-to-surface missiles (of the Scud family) in Egypt which created, for the first time, an Egyptian deterrent against strategic bombing by Israel.³³ Indeed, both these factors accounted for Israel's apparent decision to desist from strategic bombing of the heartland of Egypt.³⁴ (This decision should not, however, be taken

^{32.} During the October 1973 war, the Israel air force had used several types of electronic counter-measures (ECM) in order to overcome the Egyptian and Syrian air-defence systems. More penetration aids have been mentioned in the international press as being supplied to Israel after the war. See, inter alia, D. R. Tahtinen, The Arab-Israeli Military Balance Since October 1973 (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1974), pp. 3–5; "US Spurs Counter-Measures to Israel," Aviation Week and Space Technology, 27 October 1973, p. 20; Barry Miller, "US Equips Israel with Smart Guided Weapons," ibid., 5 November 1973, p. 18.

^{33.} There have already been many reports on Scud missiles in Egypt, but their exact number is not clear. The International Institute of Strategic Studies (IISS) Military Balance 1974/75 states that there are twenty-four such missiles.

^{34.} See Ze'ev Schief, Ha'aretz, 4 February 1974.

as a constant. If the number of Scud missiles deployed in Egypt remains limited and if interests vital to Israel are threatened, Israel might resort to strategic bombing. But short of extreme cases, it seems that Scud missiles can serve as a credible Egyptian deterrent.)

It follows that Israel's 'deterrence by punishment' would be affected adversely only marginally by the depth of the demilitarized zones. The situation would be different only if the Egyptian air-defence systems reached a remarkable superiority over the penetration capability of Israel's air force, and if Israel did not have surface-to-surface missiles in sufficient numbers with a range longer than the depth of the demilitarized zone.

The lessons of the last war are, however, that punishment of the heart-land of both sides is mutually deterred. Thus it appears that future strategists and planners on both sides will attach less importance to the credibility of a strategy of punishment (the only exception being nuclear weapons). Systems based on such a strategy will be primarily aimed at mutual deterrence of their use by either of the sides. Thus, Israel's posture of 'deterrence by punishment' becomes less credible whether Sinai remains in Israel's hands or is demilitarized.³⁵

There is, however, one variant of 'deterrence by punishment' which is different in nature from the previous one and which could be effective. Suppose the Egyptians seized part of Sinai, say, along the Suez Canal, or increased their military presence in an area in which they were allowed only a limited force. In such an event, Israel could react by seizing part of demilitarized Sinai. The 'punishment' to Egypt is implicit in the fact that her sovereignty over parts of Sinai, a sovereignty which is highly valued by Egypt, will again be lost to Israel. It must be added, however, that should this happen, the situation would be highly unstable and either war or reciprocal withdrawal would be the most probable outcome. It is unlikely that Israel would be ready to allow a large concentration of Egyptian forces close to Israel's lines (the new lines, that is).

Israel's posture of 'deterrence by denial' under conditions of demilitarization is, in most cases, based on her defence capability. In other words, the stronger the defence posture, the more credible is the 'deterrence by denial' posture.

35. In his speech of 16 October 1973, President Sadat referred to possible Egyptian retaliation (with missiles) against Israeli centres of population in case Israel carried out 'punishment' raids on Egypt. On the emerging balance of deterrence by punishment, see also D. R. Tahtinen, *The Arab-Israeli Military Balance*, p. 6; Yediot Ahronot, 17 October 1974, quoting al-Usbu al-'Arabi; Ha'aretz, 15 March 1974, quoting Israel's Chief of Staff.

It would be helpful therefore to discuss first Israel's defensive capability in alternative situations of war in Sinai. (These do not exhaust all possibilities.)

To begin with, there is the possibility of a major offensive by the Egyptian army through the demilitarized zone in Sinai. This would presumably have the objective either of re-occupying the whole of Sinai or, more ambitiously, of launching an attack against Israel proper. For both contingencies, the Egyptians would have to apply more or less the same size of forces, because they would assume that even the first objective would incur a major military reaction on the part of Israel. It is reasonable to assume, therefore, that the Egyptian attack would be carried out by the major part of the Egyptian army and would include primarily armour and fast mobile forces. It is hard to see how they could otherwise hope to achieve even part of their objective.

But a fast-moving force with large elements of armour, coupled with the nature of the terrain in Sinai, dictate to the combatants a certain type of battle, namely, one more or less similar to the battles fought in 1956 and more so in 1967. In such scenarios, Israel has a clear military superiority based on the capability of her command system to successfully manipulate a fast armour battle in largely dispersed areas. This particular superiority was re-emphasized during the October 1973 war, after the Israelis succeeded in forcing their way through the Egyptian static line of defence and penetrated to the western side of the Suez Canal.

Moreover, the Egyptian armour will have to do without the benefit of a large portion of its anti-air system. This system is made up today of anti-aircraft guns and three surface-to-air missile systems: SAM-2, SAM-3, SAM-6. All these elements proved their efficiency against the Israel air force only when they operated together.³⁶ Out of the missile systems only the SAM-6 is mobile, and even it is more effective when stationary.³⁷ Thus, in a very fast battle in large areas, the Egyptians would find themselves without sufficient air-defence support. There is an added element here, namely, that even if the SAM-6 and similar future systems could be really effective even when operating independently

^{36.} SAM-2 is a slow missile with a range of up to 60,000 feet; SAM-3 has a range of up to 40,000 feet, but is mostly effective in very short ranges, thus complementing the SAM-2; SAM-6 is effective in both short- and long-range distances and has a much more developed and credible guidance system. SAM-7 has a very short range and is effective against low-flying aircraft. All four, together with the ZSU-23 four-barrelled gun, create a very effective integrated system.

^{37.} This has been stated by almost all the military observers who studied the October war.

of the stationary systems mentioned above, it is almost impossible to envisage highly mobile anti-air systems which could be supplied in such numbers as to allow sufficient close air-defence support to armoured units widely dispersed in large parts of Sinai. (It took the Egyptians several years to build up the defence system along the canal.) The number of air-defence weapons needed for *effective* defence of the armoured units penetrating into Sinai must therefore be astronomical. To sum up, Israel's air superiority which, in terms of dog fights, was only reconfirmed by the 1973 war but was partly hampered by the air-defence systems, could again be applied in such battles when the Egyptian forces were dispersed throughout Sinai. The Israel air force could then be used in the role of close support and general tactical bombing with much less interference by the defence systems of the Egyptian ground forces.

Lastly, an Egyptian invasion of demilitarized Sinai would create tremendous logistical problems for the invaders. They would have to rely on long and vulnerable supply lines. They would have to divert an even larger part of their armed forces to logistical units and allocate part of their combat units to the defence of their logistical system. Israel, on the other hand, to a greater extent than up to 1973, would be able to allocate more manpower to her combat units.

Indeed, a deep penetration of Sinai by the Egyptian forces would leave large parts of Egypt without appropriate defence. Most of the Egyptian forces would be tied down by the campaign inside Sinai, and there would be opportunities for Israel to use an indirect approach in order to strike Egyptian areas west of the canal zone.

It therefore seems that both Israel's defence capability and consequently her 'deterrence by denial' capability will increase all the more if Sinai is demilitarized. Indeed, the pertinent question will not be the deployment of Israeli forces inside Sinai, but rather the creation of a very wide zone between the two sides in which there is no Egyptian military presence and no strategic infrastructure available for use by Egyptian forces.

The creation of a demilitarized zone will also create both strategic and

^{38.} It would appear reasonable to assume that the Egyptian forces will now concentrate on still more mobile SAM systems and incorporate them into their divisions. However, the number needed in order to supply an effective coverage over large parts of Sinai is enormous.

^{39.} According to *Ordnance*, Israel lost only three planes in dog fights during the October 1973 war (see *Davar*, 7 October 1974; *Aviation Week*, 22 October 1973 claims that in dog fights Israel lost ten percent of her total 105 planes lost during the war).

tactical warning periods. The strategic warning period means that there will be no possibility of a surprise attack on Israel by ground forces. Once the Egyptian forces begin moving into Sinai, there is a lead time allowing the Israeli reserves to mobilize without the pressure of immediate major ground battles with the Egyptians. Demilitarization will also supply a period during which alternative means of reaction could be weighed and the optimal one taken. The tactical warning period concerns the avoidance of surprise attacks on specific Israeli units stationed along the front.

DEFENSIVE AND OFFENSIVE WEAPON SYSTEMS

The apparent change in the balance between defensive systems, such as anti-aircraft missiles and anti-tank missiles, and offensive systems, namely, aircraft and armour, may affect the outcome of future battles in Sinai. It is not clear as yet, however, to what extent this change in the balance has really taken place. The lessons of the 1973 war prove only that in order for the armour to be successful in future thrusts, it should be accompanied by infantry, and that the main breakthrough of the enemy lines should be accomplished only after a much more intensive preparation by artillery. What really happened in the first days of the battle in Sinai in the last war was not a qualitative change in the role of tanks, but rather a failure of the 'doctrine of collapse.' It appears that the Egyptian army, when stationary and equipped with sufficient well-coordinated anti-tank and anti-air defences, will not easily disintegrate. This, as was pointed out above, does not yet disprove the existing superiority of the offence over the defence.

However, some change in the balance has apparently taken place, at least in the sense that the ratio between the offensive troops and the

40. See on this, inter alia, IISS Strategic Survey 1973 (London, May 1974). When discussing the October war, it stresses the importance of the defensive systems but points out that it is not yet clear whether a major change has taken place. The importance of defensive systems as one of the lessons of the war is also pointed out in the report of Secretary of Defence James R. Schlesinger to the Congress on 4 March 1975 (p. 101); but at the same time Schlesinger stresses the need for a balance between the two categories of weapons, noting: "The anti-tank weapon, however, is primarily a defensive weapon and cannot take the place of the more versatile tank, particularly in the offensive role." On the role of defensive systems in the framework of NATO strategy, see also Trevor Cliffe, Military Technology and the European Balance, Adelphi Papers, no. 89 (London: IISS, 1972). It should be added that by the late seventies or early eighties new types of 'precision guided munitions' (PGM) will appear, which may actually increase stability in demilitarized zones. This, however, needs further elaboration.

defensive ones in the critical point of breakthrough must be further changed in favour of the offence. In any case, as has been suggested above, the Egyptian capability to even use the defensive systems effectively would decline considerably if they penetrated the demilitarized zone of Sinai.

LIMITED VIOLATIONS

There remains the possibility of limited violations of the demilitarized zone in Sinai. Will Israel's defence capability (and its posture of 'deterrence by denial') increase in such situations if Sinai is demilitarized? Here the situation will vary according to different battle scenarios. If the Egyptians penetrated a limited area adjacent to that in which they were allowed a military presence, Israel's capability to deny it to them would be much more limited than in the case of continued Israel military presence in Sinai. Israel's effective reaction will have to be punishment: either by occupying other areas in Sinai which have been demilitarized until then, or by the use of weapon systems to strike at sensitive Egyptian areas. In some situations this latter alternative may, however, be strictly limited by international censure (even if the Egyptians are recognized as the initiators of the violation). However, this international censure will be less effective than in the case of hostilities initiated by Egypt under circumstances in which Israel is still present militarily in large parts of Sinai against the wish of the Egyptian government. It seems, therefore, that the most effective means of punishment by Israel will be the re-occupation of parts of Sinai.

There is another deterrent element: the fact that the Egyptians will know that their limited violation of the demilitarized regime may bring about an Israel-initiated full-scale war in the whole of Sinai. Under such circumstances, they will have to try to seize important strategic points inside Sinai. This will again trigger a major war in the whole of Sinai, in which Israel maintains clear superiority.

The Egyptians might certainly use weapon systems which could circumvent the demilitarized zone altogether. This would, for instance, be the case if Egypt succeeded in accumulating a very large number of surface-to-surface missiles with ranges sufficient to reach the main centres of Israeli population.⁴¹ Here, however, Israel's military presence in Sinai will not make any difference anyway. The use of weapon systems with long-range

41. The actual payload of a Scud missile ranges between one-half to three-quarters of a ton of explosives. The accuracy of the missiles is also not very great. It could therefore be argued that even if the Egyptians succeeded in accumulating hundreds of Scud missiles, this in itself would not constitute a major threat to Israeli centres of population. Moreover, the Israel air force is capable of delivering much more

strike capability could be deterred only by the threat of reciprocal punishment by similar weapons or by aircraft. It need only be added that if Egypt launched a first strike against Israeli population centres, the international constraints on a similar strategy by Israel would most certainly vanish.

Egypt could, of course, attack Israel in other ways, such as limited commando-type airborne attacks on objectives inside Israel. These, however, could be dealt with by conventional limited operations. Furthermore, Israel could here too supply some punishment: either re-occupation of parts of demilitarized Sinai—an operation which cannot be stopped by Egyptian forces as these will not be present there—or by small-scale attacks on Egypt itself.

In summary, it seems that in scenarios of large-scale ground attacks on Israel through the demilitarized zone, Israel will enjoy a better military situation than in the period before the October 1973 war. The situation will be all the more advantageous for Israel as the depth of the demilitarized zone increases.

Yet the imposition of a demilitarized status on Sinai will increase the motivation to develop new weapon systems which are capable of circumventing the demilitarized zone. Some of these developments need not necessarily de-stabilize the strategic relationship between Israel and Egypt; others might well do just that. In order to diminish the de-stabilizing tendencies there could (and should) be three areas of activity: armscontrol agreements imposed by the superpowers or agreements reached by the local actors themselves; in certain cases a symmetrical deployment of some weapon systems which, if deployed asymmetrically, could cause instability; lastly, the endorsement of strategic doctrines which would stabilize the strategic relationship.

DEMILITARIZATION OF DIFFERENT WEAPON SYSTEMS

Another aspect of the problem of demilitarization concerns the differentiation between alternative weapon systems. The most effective demilitarization should cover any military presence and all weapon systems. Furthermore, it is essential that the strategic infrastructure in Sinai also be destroyed, including roads and water facilities. If this were indeed accomplished, the ability of both sides to cross the Sinai desert would be greatly

explosives to the other side (see D. R. Tahtinen, *The Arab-Israeli Military Balance*). On the numbers of Scud missiles in Egypt, see n. 32.

^{42.} On the size of the commando troops in the Egyptian army, see IISS The Military Balance 1974/75, p. 82.

restricted. The destruction of the strategic infrastructure will eliminate the possibility of a fast move into Sinai, will thus lengthen the warning period for the attack, and will also put the side penetrating deepest into Sinai at some disadvantage compared with the other side. This will hamper more the side aiming to cross the whole of the demilitarized zone and arrive at the concentration of forces of the other side. It will be somewhat less of a handicap to the side which violated the demilitarization with the objective of gaining military control only over a limited part of Sinai.

The destruction of the strategic infrastructure would, of course, create some political difficulties concerning the civilian population inside Sinai. Fortunately, except for the al-'Arish area on the shores of the Mediterranean, the towns on the Suez Canal itself and the area of the oil fields on the Gulf of Suez (Abu-Rhodeis), there is hardly any civilian population in the whole of Sinai. The population in this area comprises about twenty thousand nomads who scarcely need roads or an economic infrastructure. A more important question relates to the problem of future economic development. It seems probable that such development will create—even if it were not precisely the intention—that part of the strategic infrastructure which would make rapid penetration of Sinai easier than if demilitarization included the infrastructure.⁴³ Israel's strategic vital requirements should therefore comprise total demilitarization, inclusive of the destruction of this infrastructure.

Theoretically, one could distinguish between the various weapon systems in terms of their potential threat to Israel. To begin with, the crucial offensive systems, such as armour and aircraft, should be prohibited. A second priority is defensive systems, primarily anti-aircraft defences. Lastly come the artillery and infantry. It should be noted, however, that infantry units equipped with effective—even hand-portable—anti-tank and anti-aircraft missiles could pose some difficulties to the advance of armour, especially in the mountain passes. Moreover, the inspection of such units and the procedures for verification of their adherence to the limitations imposed by future demilitarization are more difficult than in the case of bigger weapons, especially armour. It therefore follows that effective demilitarization should encompass all these weapon systems and infantry as well. To that extent the separation agreement reached in January 1974 is not the best model, as it allows the gradation of weapon systems along the canal.

Moreover, the 'thinning-out' model is more difficult to inspect and

^{43.} There are four main roads crossing Sinai from east to west, leading from the border with Israel to the Suez Canal.

verify than complete demilitarization. Also, the temptations to adopt 'salami' tactics are stronger within a context of limited demilitarization. If there is a clear line between demilitarized and other areas, the salience of this line exerts a certain psychological impact. It acquires much more importance and salience than a line dividing areas where a little more military presence is allowed and other areas where the military presence is somewhat more limited. This element of salience is important because it makes more credible Israel's (or for that matter, Egypt's) commitment to a certain *casus belli* in cases of violations of this salient line. Hence the deterrence against general violations *and* 'salami' tactics is enhanced.

SOME PROBLEMS OF INSPECTION AND VERIFICATION⁴⁵

The following is a brief discussion of some—out of several—of the issues involved in the inspection of a possible demilitarization of Sinai. To begin with, the creation of an inspection system, if its only objective is the verification of compliance with demilitarization, is comparatively easy to accomplish. The technique of aerial photography, for instance, has undergone tremendous qualitative changes since the development of high-altitude spy planes and, later, of spy satellites. Moreover, if the agreement covering the demilitarization of Sinai allowed for on-the-spot inspection, then teams of observers could inspect the situation in the field, as it were. However, in order to increase the confidence of the parties to the conflict, they must be 'plugged into' any system of inspection and not leave it entirely to third-party observers. Stability would increase if several systems of inspection were to operate simultaneously, with Israel and Egypt parties to at least some of them. The simultaneous operation of unilateral national systems of verification and of third-party systems will certainly

^{44.} The lack of definite and clear-cut lines between demilitarized zones and others where some military presence is allowed invites different versions of 'salami' tactics. Such tactics could, of course, be applied even when the dividing lines are clear and umambiguous, but with less expectation of success. On the possible application of 'salami' tactics in order to test one's opponent's commitments, see, inter alia, Thomas Schelling, Arms and Influence (New Haven: Yale University Press, 1966), pp. 66–69. 45. There is already extensive literature on verification and inspection. For earlier works, see, inter alia, S. Melman, ed., Inspection for Disarmament (New York, 1958), and L.S. Finkelstein, "Arms Inspection," International Conciliation, no. 540. On reconnaissance satellites, see SIPRI World Armaments and Disarmaments Yearbook, 1974, pp. 287–298.

^{46.} On spy satellites, see SIPRI World Armaments and Disarmaments Yearbook, 1974. See also Ted Greenwood, Reconnaissance, Surveillance and Arms Control, Adelphi Papers, no. 88 (London: IISS, June 1972).

increase confidence and also allow for international backing to the party reacting against violations of demilitarization. By doing this it could, of course, somewhat increase deterrence against violations because it could assure international backing to the party violated in situations in which such assurance is necessary and even vital. The international inspection system could have a more significant deterrence value when it is linked to a system of third-party guarantees against violations. Indeed, if some such third parties were to commit themselves unequivocally to the maintenance of the demilitarization of Sinai and indicated their readiness to use force in order to back this commitment, then an important deterrence factor would have been added.

The question remains who these third parties will be. Considering its history of performance, a United Nations guarantee will lack much credibility. For such a guarantee to be invoked, it would first have to be sanctioned by United Nations organs and by the Security Council.⁴⁷ One could envisage a host of political and procedural difficulties hampering invocations of such a guarantee. Another possibility is that several medium powers, under the auspices of the United Nations, will take upon themselves the burden and commitment to intervene when the need arises. In order to make the commitment more credible they will have to send actual forces to the area. These forces will act, among other functions, as a 'tripwire' and thus somewhat increase the deterrence effect. However, even this formula seems to lack the needed credibility. For one thing, medium powers do not have the conventional military capabilities to actually fight one of the local powers without a major mobilization and a major strategic transportation effort. For another thing, such powers will be ready to suffer casualties and possibly political and other losses

47. On the legal basis for the activation of United Nations emergency forces and on the financial, military and political problems involved, see J. M. Boyd, United Nations Peacekeeping Operations: A Military and Political Appraisal (New York: Praeger, 1971). The book includes an extended discussion of the operations of United Nations forces in the Middle East as well as in other parts of the world. The Security Council has primary responsibility for any action which is connected with safeguarding international peace and security. In some cases, however, the U.N. Charter allows actions by the General Assembly when the Security Council is unable to operate. Also, both the General Assembly and the Security Council can delegate powers to the Secretary General. In any case, if the Security Council is not fully in charge, the Secretary General may find himself sometimes without enough backing to change the demilitarized regime. On the other hand, if the Security Council is directly involved, then there could be political and procedural difficulties blocking a council decision to invoke its guarantees. See also R. Higgins, U.N. Peacekeeping 1946–67: Documents and Commentary, I: The Middle East (Oxford: Oxford University Press, 1969).

only if their direct interests are threatened by violation of the demilitarization. It appears that no medium power in the present international system is in such a position.

The only outside powers that are deeply involved in the Middle East, who may also consider violation of demilitarization as affecting their interests adversely (for instance, if it brings them to the brink of an international crisis), and who have the military power to back up their commitments, are the superpowers. From the point of view of the credibility of a deterrence posture against violations, the best measure would be to have actual forces of the superpowers stationed in Sinai with a clear obligation to resist violators. Their presence there would also serve as a 'tripwire' and thus make further military involvement of the superpowers against the violators highly credible.

However, such a system of joint military presence and joint guarantees will require a very high level of political coordination between the superpowers—which does not as yet exist—as well as the acquiescence of Israel and Egypt. There seem to be many obstacles to the accomplishment of such a system. To refer only to a few of them, both Israel and, increasingly, Egypt, do not appear to favour the idea of a Soviet military presence in Sinai. Furthermore, any superpower presence in Sinai, whether separately or jointly, would critically affect the freedom of manoeuvre of both local powers. To be sure, such freedom may not necessarily be conducive to stability; in fact on many occasions it has enhanced instability in the region. Nevertheless, the local powers, each for its own reasons, may not welcome major restrictions on their freedom of manoeuvre. From the point of view of Israel, an added question will be whether the superpower presence in Sinai may not-under some international conditions—limit Israel's capability to react swiftly to Egyptian violations of the demilitarized zone.

An alternative to this model of superpower presence and guarantees could be a bilateral agreement between the local powers to inspect the demilitarization by themselves. Here the deterrence against violations would be inherent in the deterrence postures of both local powers. This system appears at first glance to be superior to the former one, although there may be several obstacles to its accomplishment. To begin with, it requires a high level of understanding and confidence between Israel and Egypt. Secondly, an outside presence is a convenient pretext for not abrogating the demilitarization system if the potential violator is not interested in such abrogation but is put under pressure by other local powers to do just that.

This brief discussion only points to the acute problems involved in this

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subject. They do not, however, nullify at all the importance of the demilitarization of Sinai as a major arms-control measure in the strategic relationship between Israel and Egypt, and also as an essential step on the road towards the limitation or de-escalation of the conflict.

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