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November 19, 1971

MEMORANDUM FOR: DR. KISSINGER
FROM: HAROLD H. SAUNDERS
SUBJECT: The Military "Balance" in the Mid-East

At Tab B is the State Department study which underlay Secretary Rogers' and the Department's recent statements on the military balance.

At Tab A is a memo which you could send to the President if you wish. It points out not too discreetly that the facts in State's own study and even some of its conclusions do not support the Secretary's statement.

If you do not wish to send this to the President, consider it my memo for you because with all the loose talk about the military "balance" you at least should have the facts.

RECOMMENDATION: That you send the memo at Tab A to the President promptly while the press is still talking about the balance and before the President has to decide what he would tell Mrs. Meir.

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reviews
completed.

INFORMATION

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SECRET/NODIS

MEMORANDUM FOR: THE PRESIDENT

FROM: HENRY A. KISSINGER

SUBJECT: Military Balance in Middle East

In view of the recent public statements and reports concerning the military balance in the Middle East and the role of the Soviets, I thought you might be interested in the conclusions reached in recent intelligence studies on this subject.

Following the Egyptian-Soviet communique from Moscow, Secretary Rogers in New York said we would "reconsider" the military balance. Then last week in an interview with US News November 11 he said, "Up to now, the military balance has not shifted" and noted that the Soviets had operated "with some restraint" in shipments over the past four or five months. A few days after that the State Department noted the arrival of TU-16 missile-carrying bombers in Egypt.

I thought you would be interested in the conclusions of the State Department study which, in consultation with CIA and DIA, reviewed and assessed the current balance of Arab and Israeli military forces. The two main conclusions of this study were:

--Israel's military superiority has been reduced because of Egypt's much improved air defense system that would make impossible a pre-emptive air strike such as that in 1967 and make very costly resumption of deep penetration attacks such as those in early 1970. But even larger numbers of additional aircraft would not enable Israel to attack deep into Egypt without suffering "unacceptable" losses.

--Israel does retain the ability to defeat Arab attacks without sustaining "unacceptable" losses, the ability to break up an Egyptian invasion force at the Suez Canal and a "definite edge" in attack capability. Israel is "qualitatively" superior on the ground and at sea and its air force is capable of inflicting "far more damage" on its Arab neighbors than they can inflict on Israel.

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Some of the more important facts that went into the above conclusions were:

-- The Israelis have fewer aircraft but they are superior in terms of performance and the Israelis have more and better combat pilots. Thus, for instance, Israel's jet fighters have an average range-load superiority of about 4:1 over the comparable Egyptian aircraft. While Israel has about three qualified pilots per supersonic jet aircraft and more than one pilot for each jet aircraft in their total jet inventory, it is estimated that it will be as much as two to five years before Egypt has one available or qualified pilot per jet aircraft.

-- Even in the question of absolute numbers, the Israelis received 119 new jet aircraft from the US in 1970 and 1971 while Egypt received 125. While Egypt retains overall numerical superiority, the increase in numbers of aircraft over the past two years has been almost even, and the Israelis have the capacity to put the entire increase to military use while the Egyptians do not.

-- Aircraft overhaul and maintenance capabilities of the Egyptian Air Force are such that only 50-65 percent of its aircraft are operationally ready at any time. The Israelis keep about 85 to 90 percent of their aircraft operational and measure their combat turn-around time in minutes compared to hours for the Egyptians.

-- The Arabs have always outnumbered, out-tanked, and out-gunned Israel but they have never been able to defeat it in battle. The poor record stems from qualitative differences in organization, materiel, manpower and leadership which from "all indications" continue to give Israel a "decisive advantage" today and for a "considerable time" into the future.

-- There has been a "dramatic" improvement in the Egyptian air defense system since early 1970. Determined to deny the Israelis the freedom to fly with impunity in Egyptian air space, the Soviets have deployed extensive air defense equipment including as many as 10,000 Soviet personnel to man air defense units and five of their own fighter squadrons.

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--Israel's air defense system has also improved since 1967 by the installation of new equipment and procurement of additional HAWK launchers and, most important, by retention of the occupied territories which provide strategic depth, added warning time and permit deployment of interceptor aircraft nearer to Egyptian bases.

--The Arab navies pose no significant threat to Israel whose own navy is capable of interdicting Arab naval forces, conducting limited anti-submarine warfare and supporting amphibious operations.

This boils down to three main points:

1. The shift in the balance that has taken place as a result of the Soviet-installed defense capability mainly affects Israel's pre-emptive strike capability. Israel's own defensive capability remains adequate and not in jeopardy. This loss of ability to make a decisive pre-emptive strike is important to Israel because it deprives Israel of the ability to impose a short war. It enhances the Arab ability to prolong a war of attrition, but the Sinai buffer, Israel's defenses and Egyptian offensive inadequacy make it difficult for Egypt to direct such a war at Israel proper. Hence the effect of a war of attrition might be limited.
2. The other important element in the picture is the continuing buildup in the USSR's own position in Egypt. Despite a decline in Soviet shipments this spring--perhaps simply because the massive missile buildup was completed--the Soviets have this year introduced the SA-6 mobile missile system, the Flagon-A supersonic interceptor, the Foxbat reconnaissance aircraft and now the missile-carrying TU-16s. All these improve Soviet capability against the US and even, in an extreme situation, against Israel. While Soviet shipments have declined comparatively in numbers or tonnage, there seems to be a steady qualitative improvement in the Soviet position rather than any significant "restraint."
3. When all the studies of the military balance are complete, the decision now to provide another complement of Phantoms is political--in both the Egypt-Israel and the US-Soviet contexts. Everyone here admits that Israel will need more planes over a 1-3 year span to continue normal modernization and upgrading of its air force. The main question is when those planes will be provided and in what political context.

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DEPARTMENT OF STATE

Washington, D.C. 20520

SECRET

November 16, 1971

MEMORANDUM FOR MR. HENRY A. KISSINGER
THE WHITE HOUSESubject: Review of Arab-Israeli Military
Capabilities

There is enclosed the up-dated review of the Arab-Israeli military balance which the Secretary announced we were undertaking on October 14. It has been prepared by the Department's Bureau of Intelligence and Research after consultation with CIA and the Defense Intelligence Agency on the facts and general assessments contained in it.

The enclosed review is based on all intelligence data available as of November 1 and takes account of the consequences of the Sadat trip to the Soviet Union as best we can evaluate them at this time. It assumes that military balance means insuring that Israel could defeat an Arab attack without suffering severe damage. The paper does not address the effect on the military balance of Soviet participation in large-scale offensive operations against Israel.

The study's main conclusions are: (a) Israel's military superiority has been reduced because of Egypt's improved air defenses but it retains the ability to defeat Arab attacks without suffering unacceptable losses, a definite edge in attack capability, and the ability to break up an invasion force at the Canal. (b) Israel has an adequate defense capability to defend its ceasefire lines even against a combined Arab attack. (c) Israel is qualitatively superior on the ground and at sea; the key to an assessment of the overall arms balance is the respective air force capabilities. (d) Even larger numbers of additional aircraft would not enable Israel to attack deep into Egypt without suffering unacceptable losses.

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(e) It would appear that during Sadat's visit the Soviets agreed to provide additional military assistance to Egypt, but we do not know its nature. As far as we are aware, the Soviets have made no deliveries of aircraft to Egypt during the last four months.

Senator Symington and Representative Hamilton have asked Assistant Secretary Sisco in recent weeks for data on the Middle East military balance. We believe that INR's review will be fully responsive to their requests and are forwarding copies to them in their capacity as Chairmen of the Senate and House Near East Subcommittees.



Theodore L. Eliot, Jr.
Executive Secretary

Attachment:

Review of Arab-Israel
Military Balance

SECRET



RESEARCH STUDY

BUREAU OF INTELLIGENCE AND RESEARCH

November 1, 1971

ARAB-ISRAELI MILITARY CAPABILITIES

This paper assesses the current balance of the respective military forces of selected Arab states and Israel. It addresses primarily, though not exclusively, the balance between the Egyptian and Israeli air forces and Israeli capabilities in the air versus those of Egypt, taking into consideration the impact of Soviet arms shipments to Egypt. It also reviews the ground and naval forces of certain Arab states and Israel, as well as the Egyptian capability to launch a major attack across the Suez Canal.

SUMMARY AND CONCLUSIONS

While Israel's ground forces are much smaller than those of its Arab neighbors, the military capability of its forces is superior to that of the Arab armies. Arab naval forces do not present a viable threat to Israel. Therefore, the respective capabilities of the Israeli and Arab air forces, particularly Egypt's, are the key to an assessment of the overall arms balance in the Middle East.

First of all, it is imperative to define what is meant by "arms balance." To Israel, it means an overwhelming military advantage in Israel's favor. Ideally, Israel would like to have the kind of air superiority (due largely to substantial numbers of vastly better trained pilots) that enabled it to attack at will any target in Egypt, as was the case in 1967.

This report was produced by the Bureau of Intelligence and Research. Aside from normal substantive exchange with other agencies at the working level, it has not been coordinated elsewhere.

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For purposes of this analysis, balance means insuring that Israel could defeat an Arab attack without suffering severe damage. This involves an Israeli capability to defend its pre-June 1967 borders and the occupied territories against even a combined Arab attack, but not necessarily the ability to strike deep into Egypt without much higher losses than was previously the case. This analysis allows for active Soviet participation in Egyptian air defense. It does not, however, address the impact on the Arab-Israeli military balance if the Soviets were to participate in large-scale offensive operations against Israel or Israeli-held territory.

While recognizing that, due to the improved Egyptian air defenses, it cannot regain the absolute superiority it previously enjoyed, Israel wants to come as close as possible to that goal. Therefore it considers substantial additional military assistance necessary. The analysis presented in this paper, however, concludes that Israel now has adequate defense capabilities as defined above.

The maintenance of Israel's defense capability will require careful US monitoring and selective aid on the basis of several factors. Particularly important among these factors will be the nature and timing of continuing Soviet arms deliveries to Egypt, especially in the wake of the assurances Sadat received during his Moscow visit in October 1971. Although the Soviets, according to

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the joint communique, promised to strengthen the "military-might of Egypt," Sadat probably did not receive the offensive arms he sought. It would appear, however, that the Soviets have agreed to provide additional military assistance to Egypt, but it is not yet possible to determine whether this assistance will include increased deliveries of weapons already in the Egyptian inventory, new categories of weapons, or a deeper commitment of Soviet forces to the defense of Egypt. The timing of future Soviet aircraft deliveries is also unclear. In this connection, our intelligence indicates that the Soviets have made no deliveries of aircraft to Egypt in the last four months. (See Table II.) Other factors that will have to be considered in maintaining Israel's defense capability are: 1) any wider Soviet air combat role over the Canal; 2) significantly higher Israeli losses if fighting were to resume; and 3) equipment attrition in the Israeli Air Force. (See Table IV for a list of major items approved for sale to Israel.)

The principal conclusions of this paper are: (1) even larger numbers of additional aircraft would not enable Israel to attack Egypt at will without suffering losses the Israelis would consider unacceptable; and (2) while Israel's overwhelming military superiority has been reduced as a result of Egypt's improved air defenses (supply of missiles, etc., by the Soviets), it has retained both the

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ability to defeat Arab attacks without suffering unacceptable losses, and a definite edge in attack capability: Israel's air force is capable of inflicting far more damage on its Arab neighbors than they can inflict on Israel, even assuming that the Soviet pilots in Egypt fly defensive missions over Egypt. In this connection, we call attention to the chart that compares American and Soviet deliveries on a month-by-month basis during 1970-71 (Table II). This chart shows the substantial effort made by the US and explains why the ratio in numbers of supersonic aircraft between the Arabs and Israelis has been maintained during 1970-71 (Table I).

Thus, although there is perceptible movement away from Israeli air superiority in the Middle East -- especially over Egypt, where active Soviet involvement in Egyptian air defense efforts would prevent Israel from conducting sustained air operations without very heavy losses -- Israel's capability to defend its own borders, as well as the occupied territories, is still unquestioned. Despite the massive Soviet involvement in Egypt, and this includes what the Soviets have done this past year, Egypt's capability to launch an assault across the Canal is still limited. Although Israel would want to deter the Egyptians from a major cross-Canal operation by retaining an obvious capability to launch a pre-emptive air strike against the rear staging areas for an invasion buildup, the Israelis almost certainly no longer have this capability on the same favorable terms that existed before

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Egypt's air defenses were greatly improved and expanded. Israel would, therefore, have to recalculate its probable losses in such an operation and be prepared to accept a much higher rate than would have been the case before the summer of 1970. We believe, however, that Israel remains capable of breaking up an invasion force at the Canal. ✓

INR/Near East and South Asia
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Released by: *DEM*

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Air Forces and Air Defense (See Table I)

The shifting relationships among the Arab states and Arab unwillingness and demonstrated inability in the past to conduct effective combined military planning and operations make difficult an assessment of what Arab forces Israel might have to face if hostilities broke out again. The Egyptian armed forces, however, would offer the greatest opposition, and for that reason, this assessment concentrates on the Israeli-Egyptian military situation.

Aircraft. Both the Egyptian and Israeli air forces have substantially increased their inventories of jet fighters in the past four years. Over 100 supersonic aircraft (MIG-21s and SU-7s) have been delivered to Egypt since September 1970. (See Table II.) Many of these MIG-21s have probably been the late model FISHBED J. Israel has 119 supersonic jet fighters (F-4s and MIRAGE IIIs, including 6 F-4 and 2 MIRAGE photo reconnaissance versions). It has received from the US since September 1970 a total of 79 F-4 and A-4 aircraft. The A-4, although a subsonic aircraft, can carry four times the load of the SU-7 over approximately the same distance. The F-4 enjoys an even greater advantage over any of its MIG-21 competitors. Israel's jet fighters have an average range-load superiority of about 4:1 over the comparable Egyptian aircraft.

Pilots. Although the Egyptian Air Force has been almost completely re-equipped since June 1967, it still suffers from an acute shortage of qualified combat pilots and skilled and experienced unit commanders. Many experienced officers were dismissed for political reasons between the June war and late 1969, and combat and accidental losses since the June 1967 war have also taken a heavy toll of qualified pilots. Consequently, a large percentage of the combat pilots are young officers, who lack sufficient training and operational experience. Despite the increased emphasis on pilot training over the past year, there are probably no more than 320 combat-ready fighter pilots -- not enough to fly all the jet aircraft in inventory -- with an additional 100-120 in training or in units being converted to newer types of aircraft. It may take as much as two to five years before Egypt has available one qualified pilot per jet aircraft. The Egyptian manpower pool thus far has not been able to produce adequate numbers of individuals with the mental, physical, and psychological characteristics that are necessary to assimilate the training required for effective operation of sophisticated fighter aircraft. This deficiency, which is also characteristic of manpower in the other Arab states, has an equally serious impact on efforts to train competent maintenance personnel.

The Israeli Air Force, on the other hand, selects its trainees from an abundant pool of responsive and competent candidates and currently has over 500 combat-ready fighter pilots and 200 more in training. Israel thus has about three qualified pilots per supersonic jet aircraft and more than one pilot for each jet aircraft in the total inventory.

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Air Defense. The improvement of the Egyptian air defense system since early No Objection to Declassification in Full 2012/04/23 : LOC-HAK-18-3-39-6 to fly with impunity in Egyptian air space, the Soviets have deployed extensive air defense equipment to Egypt; as many as 10,000 Soviet personnel may be manning air defense units there. The Egyptian Air Defense Command was established in 1969 and presently is heavily dependent on the expertise of Soviet advisors and technicians.

The precise nature of the Soviet integration into the Egyptian air defense system is not known, but the Soviets almost certainly would be actively engaged in the defense of Egypt. Soviet personnel man five fighter squadrons, totaling about 60 aircraft, mostly MIG-21s (FISHBED J), but possibly including 8-10 FLAGON-A fighters, about 40 SA-3 sites and several SA-6 units,* and an undetermined number of ZSU-23/4 anti-aircraft units; in addition, the Soviets exercise at least a strong influence throughout the command and control networks of the Egyptian air defense system. Moreover, four Soviet-manned FOXBAT aircraft have been deployed to Egypt and are being used in a reconnaissance role. During the latter part of 1970, the surface-to-air missile system in the ceasefire zone was expanded to about 150 SA-2 and SA-3 sites, and now numbers about 180. As many as 40 of these sites are operational. Throughout Egypt about 70 SA-2 sites are manned by Egyptians, and about 10 SA-3 sites have been or are being turned over to them. These are in addition to the 40 SA-3 sites mentioned above that are manned by Soviet personnel. Both high- and low-level early warning radar coverage are of a high standard, with few gaps in the system. Additional dispersal airfields have been constructed, and Egypt now has over 600 hardened hangarages--enough to accommodate about 700 jet fighters.

Israel's air defense system has been improved since the June war by the installation of new equipment and the procurement of additional HAWK launchers and, most important, by retention of the occupied territories, which provide strategic depth and added warning time and permit deployment of air defense interceptors nearer to Egyptian bases. About 230 of Israel's combat aircraft are housed in hardened hangarages and shelters.

Maintenance and Readiness. Egypt relies solely on the USSR for its supply of combat aircraft and associated armaments and ammunition. Unlike Israel, Egypt is not expected to develop a production capability for combat aircraft for many years to come, and the production of associated armaments is not expected to be significant for the next three or four years. Furthermore, aircraft overhaul and maintenance capabilities in the Egyptian Air Force are such that only about 50-65 percent of its combat aircraft are operationally ready at any given time. Israel, despite its continued dependence on the US for major items, produces considerable quantities of a limited variety of aircraft armaments and munitions, as well as some electronic equipment and other militarily significant items. Its excellent support and maintenance

* One surface-to-air missile site is normally manned by one battalion; the number of sites in Egypt exceeds the number of battalions by a factor of almost five because numerous alternate positions have been constructed to permit tactical flexibility.

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✓ facilities enable about 85-90 per cent of its combat aircraft to be operationally ready at any time. Moreover, Israel's combat turnaround time is measured in minutes, compared to that of Egypt, which is measured in hours.

Ground Forces (See Table III)

✓ The Arabs have always outnumbered, out-tanked, and out-gunned Israel, but they have never been able to defeat it in battle. This poor record stems from qualitative differences in organization, materiel, manpower, and leadership. Although these factors are impossible to measure with the same precision that can be achieved by counting the hardware of the respective armies, they were present in 1948, 1956, and 1967. All evidence and analysis indicate that the qualitative differences continue to give Israel a decisive advantage today and for a considerable time to come.

✓ Israel. Active duty strength of the Israeli ground forces is about 88,500. Through mobilization, these forces can achieve a strength of 350,000 within one week. The army has stressed mechanization of its combat elements and has been converting infantry units to mechanized infantry. (Of a total of 32 active and reserve maneuver brigades, 10 are armored, 8 mechanized, 9 infantry, and 5 parachute.)

✓ Israel has the advantages of highly trained manpower under superior leadership. Moreover, modernization, intensive training, and advantages of terrain in the occupied areas give the Israeli Army a greater advantage over the Egyptians than it had in 1967.

✓ Egypt. Egyptian ground forces, with a present strength of 225,000 (with 37 maneuver brigades), have a better defensive capability now than at any time since the 1967 war. Training emphasis has been on defensive operations. The Egyptian Army is not expected to develop a credible offensive capability any time soon. For example, although Egypt is known to have enough bridging equipment and amphibious carriers to conduct a multi-division crossing of the Suez Canal, its forces lack the training, operational capability, and the will successfully to conduct a multi-division crossing. In a Canal crossing situation, the Israelis would retain the options of attacking the assault elements west of the Canal or allowing the Egyptian bridgehead to develop and then destroying the main force after it had crossed into the Sinai.

✓ Egypt poses the greatest threat to Israel from among the Arab states, but the effect of combining the ground forces of selected Arab armies against Israel must also be considered. Egypt and Syria are the most likely of the Arab states to take joint action against Israel. While the two states together have approximately the same military manpower as Israel, with mobilization by all, and about a 2:1 edge in the quantity of tanks and artillery, Israel would still have a clear advantage. The 90,000-man

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Syrian Army has all of the handicaps of the Egyptian Army and more. Since 1967, the capabilities of the Syrian Army have probably not significantly improved in any respect. The Syrian Army, which lacks multi-division offensive capabilities, is not a major addition to the threat to Israel, even in combination with Egypt.

Naval Forces (See Table III)

The Arab navies pose no significant threat to Israel. The most formidable naval force is the 16,500-man Egyptian Navy. Egypt gives highest priority to the personnel and training for its 19 missile-equipped patrol boats of the Komar and Osa classes. The Egyptian submarine force looks impressive on paper, but maintenance of submarines is very poor, and they have been noted only on the surface in their limited training activity. The Egyptian Navy could hinder merchant activity and offer some contest to Israeli naval forces. However, the lack of repair facilities in the Red Sea area (although they exist in the Mediterranean area), a poor logistics system, spare parts shortages, and poor motivation have rendered most units ineffective.

Israel has not, in the past, considered that the Arabs posed a serious naval threat. The Israeli Navy is small but effective. It is capable of interdicting Arab naval forces, conducting limited anti-submarine warfare, and supporting amphibious operations.

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TABLE I

ESTIMATED AIR AND AIR DEFENSE ORDER OF BATTLE: ARAB STATES AND ISRAEL
(October 31, 1971)

Jet Aircraft Inventory

	<u>Total Fighters*</u>	<u>Supersonic Fighters</u>	<u>Bombers</u>	<u>Total*</u>
Egypt	536* ^o	336 (MIG-21; SU-7)*	52*	588*
Syria	281	180 (MIG-21; SU-7)	--	281
Iraq	207	137 (MIG-21; SU-7)	21	228
Jordan	43	17 (F-104)	--	43
Libya	20	20 (Mirage III; F-5)	--	20
TOTALS	1,087	690	73	1,160
Israel	333*^o	119 (F-4; Mirage III)	--	333*

* About 100 of Egypt's fighters are not operationally assigned, but are still flyable. Thirty-five of Israel's subsonic jets were recently placed in storage and would require over 72 hours to reactivate.

^o The Egyptians also have 117 L-29 jet trainers, and the Israelis have 90 Fouga Magister jet trainers. The Fouga Magister aircraft could be used in a combat role in a total air superiority environment, as they were used during the 1967 war. The lack of qualified pilots would limit the ability of the Egyptians to use L-29s in a combat role.

Arab States/Israel Fighter Aircraft Inventory Ratios**

	<u>July 1970</u>	<u>October 1971</u>
Total Fighters Arab States/Israel	3.0:1	3.3:1
Supersonic Fighters Arab States/Israel	5.8:1	5.8:1
Total Fighters Egypt/Israel	1.4:1	1.6:1
Supersonic Fighters Egypt/Israel	2.6:1	2.8:1

Surface-to-Air Missiles

	<u>SA-2</u>	<u>SA-3</u>	<u>Hawk</u>
Egypt	70 battalions	10 battalions	--
Syria	10 battalions	--	--
Israel	--	--	12 battalions

** Gross inventory figures include aircraft not operationally assigned. Arab States include Egypt, Syria, Iraq, Jordan, and Libya.

DELIVERIES OF JET AIRCRAFT TO SELECTED ARAB STATES AND ISRAEL
JANUARY 1970-OCTOBER 1971

<u>Date</u>	<u>Soviet MIG-21/SU-7</u>			<u>Soviet-manned air-</u> <u>craft in Egypt</u>	<u>US F-4/A-4</u>
	<u>Egypt</u>	<u>Syria</u>	<u>Iraq</u>		<u>Israel</u>
<u>1970</u>					
January	-	-	3	-	9
February	-	-	2	-	4
March	15	-	-	60 MIG-21J	4
April	-	1	-	4 TU-16	4
May	-	7	2	-	4
June	-	-	-	-	4
July	-	-	1	-	6
August	-	-	-	-	5
September	10	-	-	-	6
October	-	-	6	-	8
November	-	-	-	-	5
December	18	13	-	-	4
<u>1971</u>					
January	4	-	-	-	4
February	20	-	1	-	9
March	14	-	10	4 FOXBAT	11
April	27	1	1	-	6
May	6	-	-	-	6
June	11	21	-	-	4
July	-	6	-	-	6
August	-	2	1	-	8
September	-	-	-	-	2
October	-	-	-	-	-
TOTAL	125	51	27	68*	119

SOVIET-MANNED EQUIPMENT IN EGYPT (estimate as of October 31, 1971)

- SA-3 Surface-to-Air Missile (about 40 battalions)
- SA-6 Mobile Surface-to-Air Missile (possibly 8-9 units, involving probable maximum of 32 launchers)
- FOXBAT Fighter (4 of the reconnaissance configuration)
- * Fighters: 5 squadrons, with 60 aircraft, mostly MIG-21 FISHBED Js. In addition, 8-10 FLAGON-A fighters may have been delivered in 1971 for Soviet pilot use.
- TU-16 Medium Bombers (10, at least 6 of which are configured for reconnaissance -- these 6 have been based in Egypt since April 1968)
- AN-12 Transport (7, at least one of which is equipped for electronic intelligence collection)
- IL-38 Anti-submarine Warfare Aircraft (4)

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TABLE IIIESTIMATED GROUND AND NAVAL FORCES (OCTOBER 31, 1971)Armies of Israel, Egypt, and Syria

	<u>Israel</u>	<u>Egypt</u>	<u>Syria</u>
Personnel	88,500	225,000	90,000
Mobilization plans	350,000 (M+5 days)	275,000 (M+30)	113,000
*Tanks	1,400	1,655	1,030
APCs	3,150	1,675	975
SP Assault Guns	175	155	130
Artillery	800	1,580	640
Mortars (100-mm and over)	560	205	335

Selected Comparisons

	<u>Israel</u>	<u>Egypt</u>	<u>Egypt, Syria</u>	<u>Egypt, Iraq, Syria</u>	<u>Egypt, Jordan, Syria, Iraq</u>
Army strength	88,500	225,000	315,000	405,000	465,000
Mobilization plans	350,000	275,000	388,000	478,000	567,000
Tanks	1,400	1,655	2,685	3,485	3,920
APCs	3,150	1,675	2,650	3,730	4,135
Artillery and heavy mortars	1,360	1,785	2,760	3,630	3,925

Navies of Israel and Egypt

	<u>Israel</u>	<u>Egypt</u>
Destroyers	1	5
Submarines	3	12
Missile Patrol	12	19

* The US M-60 and M-48 are qualitatively superior to the Soviet T-55, the best tank in the Egyptian or Syrian inventory. Advantages include superior crew comfort, better horsepower to weight ratio, better armament, larger load capacity, less maintenance, and a fire control system that ensures a higher probability of hitting the target.

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TABLE IV

MAJOR END ITEMS APPROVED FOR SALE TO ISRAEL

Air Force

F-4 Phantom	86	(Sales and deliveries through Sept. 1971)
A-4 Skyhawk	137	(Sales and deliveries through Sept. 1971)
	18	(On order for delivery November 1972-June 1973)
EC91	1	
C-130	2	(Delivery scheduled for November 1971)
AN-TPS-43	4	
(3-dimensional radar)		
SHRIKE	180	(60 yet to be delivered; 12 expended)
WALLEYE	100	
CBU	7,050	

Army

M60A1 Tanks	150	Hawk	4 batteries
M48A1 Tanks	100	175mm SP guns	36
M113 APC	450	M109 (155mm SP how)	24

Foreign Military Sales (contracts signed)

FY 1969	\$327.3 million
FY 1970	74.8 million
FY 1971	525 million (estimated)

Directed Commercial Purchases (under munitions licenses approved by USG)

FY 1969	\$ 26 million
FY 1970	63 million
FY 1971	90-100 million (estimated)

End of Year FMS Credits for Israel

\$25 million	Direct DOD credits (10 years at approximately 6 1/2% interest)
\$20 million	DOD guarantee of bank credits (5 years at 6-6 1/2%)

The White House approved the allocation of \$45 million in unused FY 1972 credits to Israel on the condition that this credit, pending a later review of its FY 1972 needs, should be considered an advance against the \$300 million planned for Israel in FY 1972. This brings the total military credits committed in FY 1971 to \$525 million, plus the \$20 million in guaranteed bank credits. DOD has tailored the repayment schedule to allow a lower level of principal payments to DOD over the first 5 years, when repayments on bank credits will be substantial.

TABLE V

Factors in Israel's Qualitative Advantage over Egypt in the Air

I. Pilot/aircraft ratio

Israel has more than two qualified pilots per jet aircraft.

Egypt has not enough qualified pilots to fly its total jet inventory. We estimate it will be two to five years before they have available one qualified pilot per jet aircraft.

II. Proven Combat Proficiency

Since the June war Israel has lost 1 aircraft in air-to-air combat and possibly 2 others. Egypt has lost 89 aircraft in air-to-air combat.

III. Range/load ratio

Israel's jet military aircraft have an average range/load superiority of about 4 to 1 over comparable Egyptian aircraft. For example, the A-4 can carry four times the load of the SU-7 over approximately the same distance. The F-4 enjoys an even better advantage over any competitor.

IV. Aircraft Maintenance

Israel keeps 85-90% of its aircraft operational and measures its combat turnaround time in minutes.

Egypt keeps 50-65% of its aircraft operational and measures its combat turnaround time in hours.

SECRET/NO FOREIGN/CONTROLLED DISSEM