Intelligence Report

Soviet Military Resupply Activities in the Middle East
Soviet Military Resupply Activities
in the Middle East

The Soviet military equipment resupply effort to the belligerent Arab states following the outbreak of hostilities on 6 October was Moscow's largest combined airlift and sealift to date.

- The workhorse of the resupply effort was the Soviet merchant fleet, which completed 40 voyages to Egypt and Syria.

- The airlift consisted of 920 flights by AN-12 and AN-22 transport aircraft, or about 2.5 times the number of flights made during the airlift following the 1967 War.

The Soviet effort concentrated on reequipping, with armored equipment, antitank weapons, and ammunition, those Arab units hardest hit in the fighting. In addition, surface-to-air missile equipment and fighter aircraft sufficient to maintain the air defense umbrella over both the Egyptian and Syrian fronts was provided. The Scud surface-to-surface missile system has been the only totally new weapons system introduced into the area. The Soviet program has been supplemented by deliveries from several East European and Arab countries.

Note: Comments and queries regarding this report are welcomed.
DISCUSSION

Introduction

1. Preliminary analysis of Arab equipment losses sustained during the 6-24 October Arab-Israeli War indicates that at least US $925 million worth of aircraft, armored equipment, surface-to-air missile (SAM) equipment, and naval craft was either destroyed or captured (see Table 1). This estimate does not include a value for ammunition, wheeled vehicles, quartermaster supplies, and military installations because information on these losses is unavailable. When the final tally of war losses is completed it will exceed $1 billion. This is more than twice the estimated cost of the 1967 Arab-Israeli War.

2. A variety of reports from the Middle East have suggested that Moscow has replaced all the Arab equipment lost. More likely, however, the Soviet resupply effort, rather than being a blanket replacement of all

Table 1
Estimated Value of Major Communist Equipment
Losses During the Recent Arab-Israeli War

<table>
<thead>
<tr>
<th></th>
<th>Million US $</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Land armament</td>
<td>925</td>
</tr>
<tr>
<td>Tanks</td>
<td>319</td>
</tr>
<tr>
<td>Personnel carriers, armored and amphibious</td>
<td>229</td>
</tr>
<tr>
<td>Artillery²</td>
<td>41</td>
</tr>
<tr>
<td>Artillery²</td>
<td>49</td>
</tr>
<tr>
<td>Aircraft</td>
<td>310</td>
</tr>
<tr>
<td>Jet fighters</td>
<td>270</td>
</tr>
<tr>
<td>Helicopters</td>
<td>30</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
<tr>
<td>Naval ships</td>
<td>13</td>
</tr>
<tr>
<td>Motor torpedo</td>
<td>2</td>
</tr>
<tr>
<td>Guided missile</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Guided missile systems</td>
<td>283</td>
</tr>
<tr>
<td>Surface-to-air³</td>
<td>283</td>
</tr>
</tbody>
</table>

1. Valued at Soviet export prices, which are generally lower than prices of comparable equipment in the West. The dollar valuation does not indicate the cost of producing comparable items in the United States and cannot be converted into Soviet ruble costs by simply applying the official exchange rate.
2. Including recoiless rifles, rocket launchers, and mortars over 100 mm in size.
3. Including value for missiles expended.
equipment, has concentrated primarily on replacing the tanks, antitank weapons, and ammunition needed to reequip the units hardest hit in the fighting, as well as surface-to-air missile equipment to maintain an air defense umbrella.

Table 2 confirms this. Egyptian and Syrian armored inventories appear to be nearing their pre-war levels, and more surface-to-air missile equipment is in Syria than before hostilities broke out. On the other hand, less than one-third of the Egyptian SAM losses have been resupplied and only about one-half of the Arab fighter aircraft losses appear to have been replaced (see Table 2).

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th></th>
<th>Syria</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Losses</td>
<td>Soviet Replacements</td>
<td>Losses</td>
<td>Soviet Replacements</td>
</tr>
<tr>
<td>Land armament</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanks(^1)</td>
<td>800</td>
<td></td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>Personnel carriers, armored and amphibious</td>
<td>500</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artillery(^2)</td>
<td>300</td>
<td></td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Aircraft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jet fighters</td>
<td>210</td>
<td></td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>Helicopters</td>
<td>35</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Guided missile systems</td>
<td>35</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface-to-air</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Excluding the probable delivery on East European ships of tanks from Poland. In addition, 200 Soviet tanks may have been transferred from Iraq's inventory to Syria.
2. Excluding antiaircraft guns and antitank guns.
3. Number of firing battalions (sites).

3. The equipment provided by the Soviets is generally of the same type as that in Arab inventories prior to the initiation of hostilities. The only totally new weapons system the Soviets have provided — the Scud surface-to-surface missile system — adds a new dimension to the crisis by bringing Tel Aviv within range of Egyptian ground fire for the first time.
Difficulty of Estimating Deliveries

4. Several problems arise in attempting to estimate the types and quantities of weaponry moved in the Soviet airlift and sealift to the Middle East:

- No information is available on the numbers and types of tanks, armored personnel carriers, artillery, large field guns, ships, and aircraft the Soviets planned to send to the Middle East; and

- Little information is available on deliveries out of Yugoslav, Bulgarian, and Romanian ports.

5. Some important factors are known to us, however, that do permit a rough estimate of the arms (both of mix and numbers) that have been delivered by the USSR:

- The number, type, and model of the Soviet transport aircraft involved in the airlift;

- The configuration, destination, deck cargo, and cargo tonnages carried by the suspected Soviet arms carriers.

Also, other intelligence has provided some details on the types of equipment arriving:
The Airlift

6. Between 10 October, when the first Soviet transport aircraft began arriving in the Middle East, and 31 October, when the emergency airlift subsided, some cargo flights were made. These flights were capable of delivering some tons of cargo. During the first week of the airlift the majority of flights went to Syria, where the heaviest fighting had taken place. Thereafter, almost 60% of the flights to known destinations, including virtually all of the AN-22 flights, went to Egypt. Only AN-12 flights arrived in Iraq, some of which were diverted from Syrian airfields.

7. The cargo carried on board almost half of the flights has been tentatively identified and indicates that a wide variety of equipment was delivered by the airlift. Strong circumstantial evidence suggests that as many as AN-12 flights may have been involved in the transport of MIG-21 jet fighters from the USSR to the Middle East. These flights could have carried some MIG-21s. At least Soviet transport flights were made to Lukhovitsy airfield, the flyaway point for aircraft manufactured at the Ministry of the Aviation Industry Plant 30 (Moscow), which produces the export version of the MIG-21 Fishbed J and the MIG-23 Flogger. At least some of these transports flew on to either Kiev, Lvov, or Budapest and it is likely that MIG-21s were taken by these or other aircraft to the Middle East.

Flights also were made to Kubinka airfield near Moscow, which is a fighter and fighter bomber base as well as the location of a plant for modifying aircraft. Some SU-17 Fitter B that were at Kubinka may have been airlifted to Iraq; the first deployment to Iraq of these aircraft was confirmed October at Rashid airfield near Baghdad.

8. In addition, between October, at least AN-12 flights were made from East European airfields where MIG-21s were either stationed or recently flown in. As many as MIG-21s could have been carried aboard the AN-12s. After the cease-fire, several AN-12s flew from the Middle East back to the East European airfields, possibly returning technicians who had been assisting in reassembling aircraft.

9. At least MIG-25 Foxbat reconnaissance aircraft were transported to Egypt aboard AN-22s some time before 22 October. These
aircraft flew reconnaissance missions over the Egyptian-Israeli cease-fire line. Foxbats had been in Egypt previously but were withdrawn as a result of the Soviet expulsion in mid-1972.

10. Large quantities of SAMs, launchers, and support equipment also appear to have been delivered aboard the airlift. Nearly flights leaving Moscow/Shchelkovo airfield, near a factory associated with the production of SA-6 SAM equipment. These flights could have been for the purpose of collecting SA-6 equipment for delivery to the Middle East. In addition, at Cairo airfield on October reported that a variety of SA-2 associated radars and trailers and four amphibious armored reconnaissance vehicles (BRDM-2) with SA-7s mounted on them were being unloaded from Soviet AN-12 and AN-22 transports.

11. Some of the Scud missile equipment delivered to Egypt appears to have arrived via the airlift. A Scud missile, two transports, and other support equipment were identified Cairo airport. Some of the equipment was noted in close proximity to Soviet transport aircraft. AN-12s and AN-22s had flown into Egypt on that date. These aircraft could have carried all of the equipment observed.

12. suggest that antitank missiles and launchers also were high-priority cargo carried by the airlift. In addition, small arms, some artillery ammunition, medical supplies, and support equipment appear to have been airlifted. Analysis of previous Soviet airlifts to the Middle East indicates that the USSR has not transported land armaments, such as tanks, via air when cargo ships were available. (For a discussion of Soviet airlift capability and the capacities of the AN-12 and AN-22 transport aircraft, see Appendix A.)

The Sealift

13. During the one-month period following the outbreak of hostilities, the Soviets mounted a sealift to Egypt and Syria cargoes on the other ships included Styx missile crates, MIG-15 and MIG-17 fuselage crates, aircraft component crates, wheeled vehicles, bridging equipment, and SA-2 oxidizer tanks.
16. Obviously, the types and quantities of equipment actually delivered by sea lie somewhere between the two extremes. Also, some of the equipment delivered was not designed to replace Arab losses. For example, almost immediately after the start of hostilities, Soviet ships began arriving at Middle Eastern ports. At least some of the ships were loaded prior to the war, and a few others may have departed with cargoes scheduled before the war. By 10 October, however, it indicated that some T-54 and T-62 tanks were being loaded on ships presumably for the Middle East.

17. Nikolayev port facilities between October and a pattern of activity suggesting substantial armored vehicle shipments to the Middle East. On October, at least tanks, armored personnel carriers, including BMPs, BTR-152s, and BRDMs, were located in the port area or in a nearby parking field. October suggests a substantial turnover in the armored vehicles in the port area. The vehicles were parked in different positions, and ground scarring in the tank parking area increased dramatically. The tanks seen on October were T-54/55s, and those
observed on the area appeared to be mostly T-62s. The following tabulation indicates other military equipment observed in the port area, some of which probably was delivered:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROG transporter-ejector launchers</td>
<td>8</td>
</tr>
<tr>
<td>SA-6 transporter-ejector launchers</td>
<td>16</td>
</tr>
<tr>
<td>SA-6 transloaders</td>
<td>4</td>
</tr>
<tr>
<td>SA-6 cannister transporter</td>
<td>1</td>
</tr>
<tr>
<td>ZSU-23-4 antiaircraft guns</td>
<td>9</td>
</tr>
<tr>
<td>Styx missile crates</td>
<td>32</td>
</tr>
<tr>
<td>SA-3 missile cannisters</td>
<td>180</td>
</tr>
<tr>
<td>ASU-85 assault guns</td>
<td>7</td>
</tr>
<tr>
<td>BM-21 rocket launchers</td>
<td>21</td>
</tr>
<tr>
<td>Straight Flush radar</td>
<td>2</td>
</tr>
<tr>
<td>Wheeled vehicles</td>
<td>280</td>
</tr>
<tr>
<td>Bridging equipment</td>
<td>Some</td>
</tr>
</tbody>
</table>

Noticeably absent from the area was any sizable number of aircraft crates. Only two probable MIG-17 fuselage crates and one possible MIG-21 fuselage crate were observed.

18. The Alexandria port facilities in Egypt indicates that ground forces equipment and SAM equipment made up the bulk of the Soviet seaborne deliveries. 122-mm artillery pieces, BM-21 rocket launchers, and some SAM cannisters being unloaded from a Soviet ship. Later in the month showed bridging equipment and SA-2 missile cannisters on the docks. A who was in the port area in October reported tanks and armored personnel carriers being unloaded from two Soviet ships.

19. The Soviets also may have delivered military equipment on board Soviet naval landing craft. At least three Alligator-class LSTs and two Polnocny-class LSMs visited Syrian ports between October. These landing craft, which exited the Black Sea in mid-October, could have carried 75 tanks or some 4,000 tons of cargo.
Non-Soviet Deliveries

20. Several East European countries have pledged to provide a wide variety of military equipment to the Arabs.

    indicated that the Yugoslav navy was supervising the loading of heavy equipment, probably tanks, aboard a ship in Rijeka. In late October, trains loaded with Polish military supplies, including tanks,
    transiting Romania and Bulgaria, presumably for shipment to the Middle East through a Bulgarian port.

21. Several of the Arab states, including Algeria, Libya, Saudi Arabia, Sudan, and Morocco, also have provided military equipment to Egypt and Syria. This equipment has consisted mostly of tanks, armored personnel carriers, and fighter aircraft and has been used by the expeditionary forces from these various countries. In addition, Iraq may have transferred 200 of its tanks to Syria.
BLANK PAGE
APPENDIX A

SOVIET AIRCRAFT CAPABILITIES

The AN-12 transport has a cargo carrying capacity of about 10 tons when operating between Europe and the Middle East. There are about 900 of these aircraft in Soviet inventories. Some of the major items that can be airlifted in the AN-12 include fighter aircraft, artillery, certain short-range surface-to-surface missiles, antitank weapons, assault guns, rocket launchers, and aircraft maintenance equipment. The shipment of tanks and other similarly bulky equipment is beyond the capability of the AN-12 Cub.

It is estimated that one Cub is required to carry one MIG-17 Fresco. It would take three Cubs to airlift two complete MIG-21 Fishbed or SU-7 Fitter fighter-bombers.

A three-launcher FROG battalion with a three-day supply of ammunition can be lifted by using 10 to 12 Cubs, except that the trailers and tank recovery vehicles of the battalion could not be accommodated. Vehicle mounted Swatter, Snapper, and Sagger antitank guided missiles also can be lifted, three to an aircraft, along with a three-day supply of ammunition. If these missiles are mounted on a BRDM, two launcher systems and their ammunition can be loaded on one Cub.

There are about 50 AN-22 transports in the Soviet inventory. The AN-22 can carry about 50 tons of cargo when operating between Europe and the Middle East. It was designed for moving bulky and heavy cargo over long distances and can operate from hard natural surface fields. The aircraft is capable of carrying virtually all the SAMs and ground support equipment such as trailers, electronic vans, missile transporters, launchers and handling equipment, as well as Scud SAM equipment and unguided field artillery rockets (FROGs). The following combat vehicles could also be lifted:

<table>
<thead>
<tr>
<th>AN-22 Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quad-22 anti-aircraft gun, ZSU-23-4</td>
</tr>
<tr>
<td>57-mm assault gun, ASU-57</td>
</tr>
<tr>
<td>Twin 57-mm anti-aircraft gun, ZSU-57</td>
</tr>
<tr>
<td>100-mm assault gun, ASU-85</td>
</tr>
<tr>
<td>Amphibious armored personnel carrier, BCP1H</td>
</tr>
<tr>
<td>Armored personnel carrier, BTR-40</td>
</tr>
<tr>
<td>Armored personnel carrier, BTR-152</td>
</tr>
<tr>
<td>Armored personnel carrier, BMP</td>
</tr>
<tr>
<td>Amphibious armored personnel carrier, BTR-60P</td>
</tr>
<tr>
<td>Amphibious armored personnel carrier, BTR-80P</td>
</tr>
<tr>
<td>PT-76 amphibious tank</td>
</tr>
<tr>
<td>T-54 medium tank</td>
</tr>
<tr>
<td>T-55 medium tank</td>
</tr>
<tr>
<td>T-64 medium tank</td>
</tr>
<tr>
<td>SA-6 transport gun system</td>
</tr>
<tr>
<td>Name of Ship</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Kapitan Shantsberg</td>
</tr>
<tr>
<td>Parizhskaya Kommuna</td>
</tr>
<tr>
<td>Fizik Kurchatov</td>
</tr>
<tr>
<td>Khimik Zelinskiy</td>
</tr>
<tr>
<td>Salavat</td>
</tr>
<tr>
<td>Mezhdurechensk</td>
</tr>
<tr>
<td>Sovetsk</td>
</tr>
<tr>
<td>Serebryansk</td>
</tr>
<tr>
<td>Suez</td>
</tr>
<tr>
<td>Okhotsk</td>
</tr>
<tr>
<td>Ho Chi Minh</td>
</tr>
<tr>
<td>Smena</td>
</tr>
<tr>
<td>Sosnogorsk</td>
</tr>
<tr>
<td>Name of Ship</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Bratstvo</td>
</tr>
<tr>
<td>Marneuli</td>
</tr>
<tr>
<td>Parizhskaya Kommuna</td>
</tr>
<tr>
<td>Leninskiy Pioneer</td>
</tr>
<tr>
<td>Yunii Leninets</td>
</tr>
<tr>
<td>Nikolay Gogol</td>
</tr>
<tr>
<td>Nikolay Kremljanskiy</td>
</tr>
<tr>
<td>Matsesta</td>
</tr>
<tr>
<td>Nikolay Burdenko</td>
</tr>
<tr>
<td>Methdurechensk</td>
</tr>
<tr>
<td>Khimik Zelinskiy</td>
</tr>
<tr>
<td>Fizik Kurchatov</td>
</tr>
<tr>
<td>Svetz</td>
</tr>
<tr>
<td>Leninskiy Komsomol</td>
</tr>
<tr>
<td>Ho Chi Minh</td>
</tr>
<tr>
<td>Okhotsk</td>
</tr>
<tr>
<td>Severodonsk</td>
</tr>
<tr>
<td>Gleb Krzhizhanskiy</td>
</tr>
<tr>
<td>Name of Ship</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Roza Lyuksemburg</td>
</tr>
<tr>
<td>Krasnyy Oktyabr</td>
</tr>
<tr>
<td>Matsesta</td>
</tr>
<tr>
<td>Severodvinsk</td>
</tr>
<tr>
<td>Komandarm Matveyev</td>
</tr>
<tr>
<td>November 1973</td>
</tr>
<tr>
<td>Marneuli</td>
</tr>
<tr>
<td>Donetsky Metallurg</td>
</tr>
<tr>
<td>Nikolay Kremlyanski</td>
</tr>
<tr>
<td>Fizik Kurchatov</td>
</tr>
</tbody>
</table>

1. Unless otherwise indicated, cargoes were declared as general cargo.