

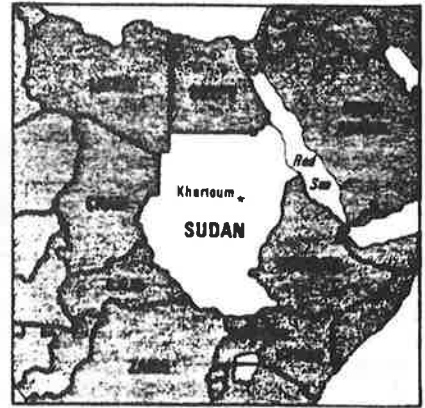
SUDAN

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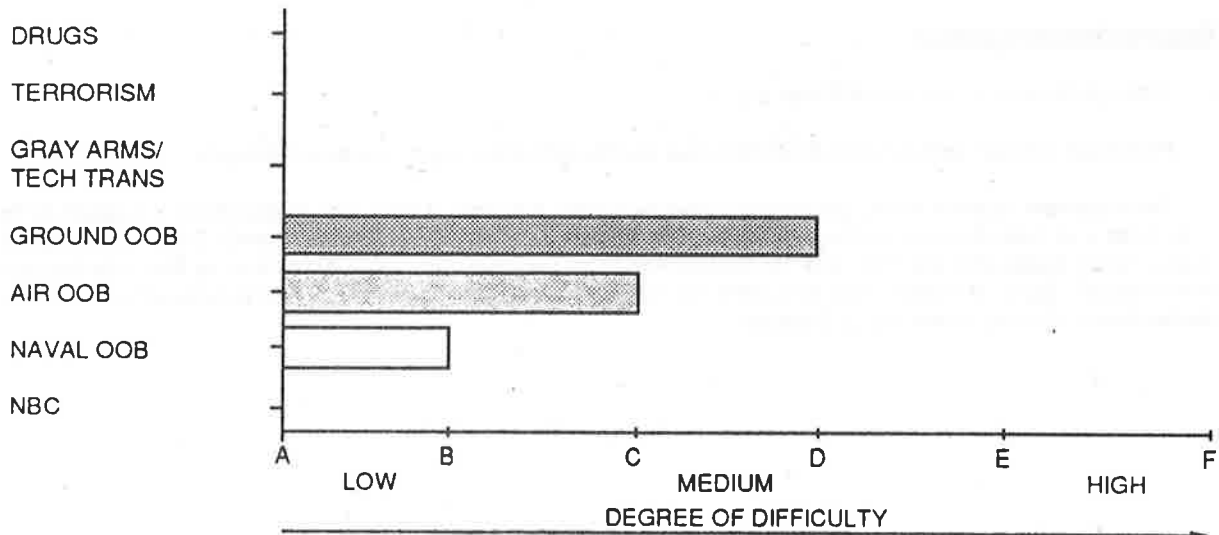


SUMMARY

Sudan is situated to influence both the Arab and African communities. There has been protracted civil war between Government forces and Insurgents backed by Ethiopia and Libya. The U.S. has overall low equity in Sudan, and bilateral relations are good. The U.S. and Saudi Arabia provide a large amount of Sudan's economic assistance. Investment by U.S. companies is about \$187 million. The present drought threatens to cause severe famine and death. Sudan has a 54,000-member army supported by a small air force and navy. The military is hampered by old, poorly maintained equipment left over from Soviet assistance. A U.S. assistance mission is working to upgrade equipment and logistics. Sudan also receives military assistance from Arab and European countries and China. Sudan has a mutual defense treaty with Egypt.

Sudan's population is composed of two cultures, Arab and black African, and effective association between them poses a primary internal problem. Both cultures are different from that of the U.S. Sudan's climate varies from hot and dry in the desert regions of the north to tropical in the south. From south to north, Sudan has three primary zones: tropical forest and savanna; vast swampland, open semitropical savanna, and scrublands; and sandy, arid hills lying between the Red Sea and the Libyan and Sahara Deserts. In the north and central desert areas, cross-country vehicular movement is feasible while the remainder of the country is unsuited. Average standoff distance for engagement by line of sight weapons (intervisibility) is limited to less than 1,000 meters in over half the country due to tropical jungle and covered swampland in the south and the broken terrain in the northeast. NGF platforms can approach the coast within range of targets ashore, but would be out-gunned by Sudanese coastal defense weapons. A shortfall for combat operations is the absence of 1:50,000 scale maps. There are several airfields and one major port with marginal capabilities to accommodate strategic air and sealift. The Pacific ARG would require in excess of six days to reach Sudan. Due to the over 700 potential evacuees, and the 330 nautical miles distance to Khartoum, the probable evacuation site, NEO conducted by a MEU under normal conditions would be quite difficult.

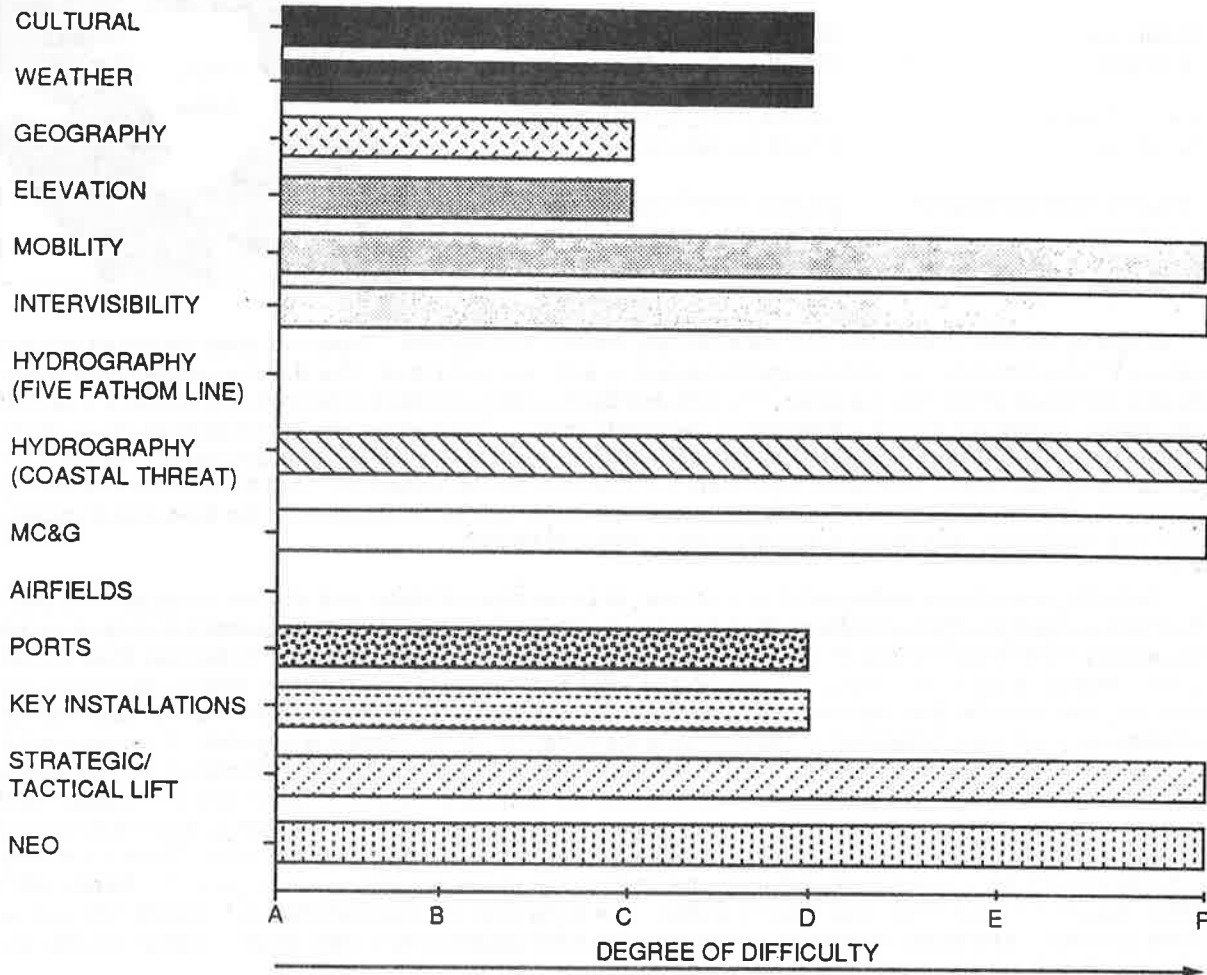
SUDAN - THREAT SUMMARY



Sudan - 1

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SUDAN - TERRAIN AND LOGISTICS SUMMARY



Existing Ongoing Conflicts

- Strategic location in the Arab-African arena.
- Protracted civil war between Government forces and the SPLA insurgents based in Ethiopia.

The important location of this country bordered by Libya, Ethiopia, Chad, and Egypt make it a pawn in the inter-Arab and Arab-African strategic arenas. There is also protracted civil war between Government forces, supported by Egypt and the U.S., and the Sudan People's Liberation Army (SPLA) backed by Ethiopia and to a lesser extent Libya. Between 1983 and 1989, the SPLA has made major military advances throughout southern Sudan from its headquarters inside Ethiopia.

U.S. Equities in Sudan

- Overall U.S. equity is low.

Despite acute instability in the Sudanese Government, relations between the U.S. and Sudan have remained cordial. The U.S., along with Germany, and Saudi Arabia provide most of Sudan's economic assistance. Current investment by U.S. companies is about \$187 million and growing. Sudan's primary resources are agricultural, but extensive petroleum exploration has begun. The present dry conditions and poor crop production threaten, severe starvation and death in the Sudan.

Direct Inv (Mil of \$)	Exports (Mil of \$)	Imports (Mil of \$)	U.S. Aid (Mil of \$)	Total Equity (Mil of \$)	U.S. Citizens	\$ Rating		Total Numerical Rating	Overall U.S. Equity
						1	2		
187	152	23	101	463	740	1	2	3	Low

General Ground OOB

- Fifth largest ground OOB in the region.

Infantry	Tank OOB	Artillery	Army Size (Thousands)	Quality	Total Capability Value	Rating
Reg/Exp	M-60	Bloc	54	4	178	D

Ground OOB consists of 54,000 volunteers. Some training for officers is accomplished at schools within the country. In the past the British and Soviets have at various times provided training. Presently, Egyptian training assistance is predominant. Tanks: M-60A3, T-54, T-55, Type 60; Artillery D-30, D-44, M-46, M-101, M-1944, Sakr MRS.

General Air OOB

Day/VFR Air OOB	Close Air	AAW (IAD)	Air Force Size (Thousands)	Quality	Total Capability Value	Rating
Day/VFR Jets	Day Jet Atk	Bloc	3	4	97	C

Fighter Aircraft: F-5E/F, MiG-21, Shenyang J-4; Close Air: MiG-17; Air Defense: Redeye, SA-2, and SA-7 SAMs and AA guns.

General Naval OOB

Naval OOB	S/S Missiles	Patrol Craft	Navy Size (Thousands)	Quality	Total Capability Value	Rating
Small Surface	None	Lg Gun Boats	1	4	45	B

Ships: none; SSMs: none; Patrol Craft: 3 Large Patrol Craft; 3 Coastal Patrol Craft; 4 Small Patrol Craft.

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Culture (Language and Religion)

Primary language - Arabic (Tribal)
Primary religion - Islam

In the north the population is composed mainly of Arabs while in the south, black Africans prevail. The culture of the Sudan is much different from that of the U.S.

Weather

Average Temperature (Degrees Fahrenheit)	Average Relative Humidity (Percent)	Average Annual Rainfall (Inches)	Rating
71-99	21-57	4-47	Dry/Hot

The climate varies from the hot, dry desert in the north to tropical in the south. Khartoum, situated at the juncture of the White and Blue Nile Rivers, has a desert climate.

General Geographic Conditions

URBAN	DESERT	JUNGLE	MOUNTAINOUS
	X		

Operational Elevation

<2,000 FT	<4,000 FT	<6,000 FT	>6,000 FT	>9,000 FT	>12,000 FT
		X			

From south to north, Sudan has three primary zones: tropical forests and savanna; vast swampland, open semitropical savanna, and scrublands; and sandy, arid hills lying between the Red Sea and the Libyan and Sahara Deserts.

General Cross-Country Mobility

- Parts of Sudan are suitable for cross-country vehicular movement, except during the rainy season.

Cross-country tracked movement in the northeastern uplands--along the maritime approaches of the Red Sea--would be extremely difficult, and in some areas precluded, due to the rugged terrain of the Red Sea Hills. Tracked movement in the remainder of the country is generally feasible except during the wet season (April or May to October).

Intervisibility (Line of Sight)

- Poor, with line of sight distances limited to less than 1,000 meters.

With tropical forests in the south, broken terrain in the northeast uplands, and covered swampland and semitropical savanna elsewhere, line of sight distances would be limited to less than 1,000 meters in over half the country.

Hydrography (Five Fathom Line)

- NGF platforms are able to approach the coast to provide satisfactory support for operations ashore.

DMA Chart #	5 Fathom Line from Shore (Meters)	NFG Rating
62142	1,000	Good

Hydrography (Coastal Threat)

- Significant coastal threat.

Maximum Capability Coastal Defense Weapon	Maximum Range of Weapon (Meters)	Rating (Compared with 5"/54-cal)
Saka MRS	32,000	Threat Advantage

MC&G Shortfalls

- 1:50,000 scale map coverage of **Sudan** is not available.

1:50 New	1:50 Old	Some 1:50	MSI Avail	1:250 New	None
			X		

Airfields

- Highly accessible by air, with more than one airfield that can handle C-5 aircraft.

Number of Airfields	Type Aircraft (C-5, C-141B, C-130) Accommodated	Airfield Utility (Unconstrained/Constrained)	Rating
11	2 C-5 2 C-141B 7 C-130	1/10	>1/C-5

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Airfields	Type Aircraft	Comments
Damazin	C-130	Daylight/VFR only. Low runway WBC.
El Odeid	C-130	Daylight only.
Geneina	C-130	Daylight/VFR only. Low runway WBC.
Juba	C-141B, C-130	Daylight only.
Kassala	C-141B, C-130	Daylight/VFR only.
Khartoum	C-5, C-141B, C-130	-
Malakal	C-130	Daylight/VFR only.
Nyala	C-130	Airfield has obstacles. Daylight/VFR only. Low runway WBC.
Port Sudan	C-130	Low runway WBC.
Wadi Seidna	C-5, C-141B, C-130	Taxiway narrow for C-5s. Daylight/VFR only. Low runway WBC.
Wau	C-130	Daylight/VFR only.

Ports

- One major port with marginal capabilities to receive strategic sealift.

Major Ports	Harbor Size	Channel/Anchorage Depths (Feet)	Cargo Pier Depth (Feet)	Cranes
Port Sudan	Medium	Over 76/36-40	31-35	Yes

Key Installations

Sudan has an inadequate transportation system. The only paved highways run from **Port Sudan** to **Khartoum**. There is one single-track railroad with a feeder line, supplemented by river steamers. There are limited light industrial facilities in **Khartoum**. Hydroelectric power is provided by the **Roseires Dam** on the **Blue Nile** grid.

U.S. Embassy	Communications	Highways	Railroads	Major Ports	Primary Airfields	Pipeline	Oil Field	NBC
Khartoum	- Barely adequate and poorly maintained telecomm - 16 Satellite stations - 5 Radio stations - 2 TV stations	20,000 km	5,516 km	1	11	- Refined products	None (oil refining)	None

Strategic and Tactical Lift

The Pacific ARG with its embarked MEU would require in excess of six days to reach Sudan. The AAF/ACB can arrive within 24 hours but these elements do not possess a forcible entry capability.

NEO

- Due to the over 700 potential evacuees, and the 330 nautical miles distance to the capital Khartoum, the most likely evacuation site, NEO conducted by a MEU under normal conditions in Sudan would be quite difficult.

Embassy Staff	Evacuees	Inland Objective (nm)	Rating
89	740	330 (Khartoum)	F

Note: In Sudan, the following factors are of little significance:

- Drugs
- Terrorism
- Gray Arms/Technology Transfer
- NBC

10.2

