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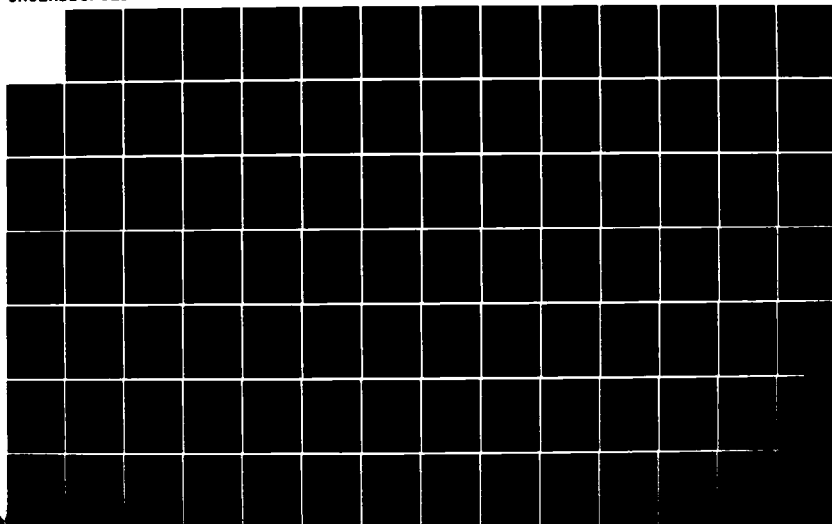
SIMULATION OF CRITICAL MATERIALS RESOURCE STRATEGIES
VOLUME 4 APPENDIX D. (U) TITAN SYSTEMS INC LA JOLLA CA
D SOMERFELD 13 SEP 83 TITAN-DSI-105800-07-03-5F-VOL-4
EMW-C-0906

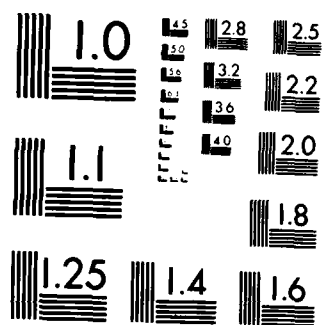
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SIMULATION OF CRITICAL MATERIALS RESOURCE STRATEGIES

AD-A150 263

APPENDIX D - DATA BASE
VOLUME 4
THROUGH SCENARIO 47

FINAL REPORT

CONTRACT EMW-C-0906

ARTICLE III A

Submitted to:

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FEMA

Program Manager

Donohoe Building, Room 617

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Washington, D.C. 20472

September 13, 1983

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19. SUPPLEMENTARY NOTES		
20. KEY WORDS (Continue on reverse side if necessary and identify by block number) Critical Material; Strategic Resources		
21. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report addresses preliminary efforts to quantify strategic relationships of materials to force elements. The results of the preliminary materials are emergency but requires further model development.		

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SCENARIO 36

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WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	2.0	5.0	2.0	6.0
COEF	0.1786	0.1786	0.1250	0.0893	0.1250	0.0357	0.0357	0.0893	0.0357	0.1071

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
Weight	9.0									
COEF	0.1333	0.1333	0.1200	0.0556	0.0933	0.0667	0.0111	0.1067	0.0944	0.0833
COEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
COEF	0.1786	0.1786	0.1786	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
COEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	1	2	3	4	5	6	7	8	9	10
COEF	0.0125	0.0125	0.0170	0.0114	0.0110	0.0046	0.0046	0.0114	0.0046	0.0110

Media 2	1	2	3	4	5	6	7	8	9	10
COEF	0.0171	0.0171	0.0154	0.0069	0.0119	0.0085	0.0017	0.0136	0.0119	0.0065

Media 3	1	2	3	4	5	6	7
COEF	0.0128	0.0228	0.0228	0.0183	0.0137	0.0081	0.0183

Media 4	1	2	3	4
COEF	0.0752	0.0301	0.0150	0.0075

Importance of controlling ANY Region within its Media as compared to the Importance of controlling ANY Region of any other Media

Media 1	1	2	3	4	5	6	7	8	9	10
COEF	0.0039	0.0039	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0050

Media 2	1	2	3	4	5	6	7	8	9	10
COEF	0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0019

Media 3	1	2	3	4	5	6	7
COEF	0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048

Media 4	1	2	3	4
COEF	0.0065	0.0026	0.0013	0.0007

FORCE ELEMENT IMPORTANCE
(LOC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.141	10.000
2	1	AIR INTERDICTION	0.117	8.214
3	3	ARMY GROUND	0.104	7.881
4	16	ATTACK SUBS	0.072	5.143
5	19	SURFACE COMBATANTS	0.060	4.247
6	12	THEATER NUCLEAR WEAPON	0.054	3.817
7	8	RAPID DEPLOY	0.051	3.701
8	6	CAS	0.044	3.183
9	14	ASW(LAND BASED)	0.043	3.080
10	22	AIR SUPERIORITY(LAND BASED)	0.041	2.910
11	15	ASW(SEA BASED)	0.038	2.815
12	23	AIR SUPERIORITY(SHIP BASED)	0.032	2.218
13	21	AIR DEFENSE(SHIP BASED)	0.029	2.045
14	10	STRATEGIC BOMBER	0.025	1.744
15	25	SPEE BASED WEAPON(AIR CNTRL)	0.020	1.410
16	29	ASAT(SPACE BASED)	0.019	0.914
17	18	MINE WARFARE	0.019	0.891
18	2	AMPHIBIOUS ASSAULT	0.011	0.777
19	13	SPECIAL OPERATIONS	0.010	0.725
20	28	ASAT(LAND BASED)	0.007	0.510
21	20	AIR DEFENSE(LAND BASED)	0.004	0.278
22	9	SPEE-BASED WEAPON(LND CNTRL)	0.003	0.211
23	30	SPEE BASED WEAPON(SEA CNTRL)	0.000	0.118
24	27	ABM(SPACE BASED)	0.000	0.000
25	26	ABM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANCE
(LOC 3)

COPPER

AIR INTERDICTION	5.71
ARMY GROUND	4.52
CAS	1.72
ICBM	0.00
STRATEGIC BOMBER	1.77
SLEM	0.00
ASW(SEA BASED)	1.22
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.11
	34.99

TIN

AIR INTERDICTION	5.90
ARMY GROUND	1.91
CAS	1.91
STRATEGIC BOMBER	1.79
ASW(LAND BASED)	3.01
ASW(SEA BASED)	1.11
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASW(LAND BASED)	0.00
	41.18

NICKEL

AIR INTERDICTION	5.60
ARMY GROUND	4.92
CAS	1.72
STRATEGIC BOMBER	1.79
ASW(SEA BASED)	1.71
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
	41.21

FLUORSPAR ACID

AIR INTERDICTION	7.15
AMPHIBIOUS ASSAULT	0.76
ARMY GROUND	3.44
CAF	2.05
ICPM	0.70
STRATEGIC BOMBER	1.75
SLBM	0.60
ASW(LAND BASED)	3.05
ASW(SEA BASED)	1.55
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.21
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SEA BASED)	2.15
INTERDICTION AIRCRAFT	0.00
ARM(LAND BASED)	0.00
	42.57

PYRETHRUM

ARMY GROUND	0.40
CIVIL DEFENSE	1.00
ASW(SEA BASED)	0.00
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.21
	14.60

COMMODITY NORMALIZED IMPORTANCE

NICKEL	10.00	(41.21)
TIN	9.99	(41.18)
FLUORSPAR ACID	9.60	(39.57)
COBALT	8.45	(34.99)
PYRETHRUM	3.54	(14.60)

0084LT		
A-10	CAS	72 7836
0089A	CAS	48 48 1
F-4	AIR INTERDICTION	108 8119
	CAS	7 2784
F-14	AIR INTERDICTION	71 8715
	CAS	40 40 5
ART. ACFT	CAS	8 6867
RADIO KLAY	AIR INTERDICTION	3 1345
	CAS	2 1275
F-111	AIR INTERDICTION	128 7819
A-6	AIR INTERDICTION	38 9144
F-15	AIR INTERDICTION	57 8012
A-7	AIR INTERDICTION	51 7815
F-14	AIR INTERDICTION	48 12 1
F-19	AIR INTERDICTION	71 8715
SH-1	ASW(SEA BASED)	4 17 1
SH-2	ASW(SEA BASED)	15 1937
SH-60B	ASW(SEA BASED)	23 63 1
S-3	ASW(SEA BASED)	34 7284
ATT. SUBS	ASW(SEA BASED)	24 1168
FRIGATES	ASW(SEA BASED)	14 4701
DESTROYERS	ASW(SEA BASED)	8 6821
M-48	ARMY GROUND	37 5659
M-60	ARMY GROUND	61 0181
M-1	ARMY GROUND	67 7836
M-551	ARMY GROUND	0 1181
M-901	ARMY GROUND	54 2384
M-2/M-3	ARMY GROUND	47 4586
M-113	ARMY GROUND	5 2782
MLRS	ARMY GROUND	20 9341
TOWED ART.	ARMY GROUND	27 1192
SELF-PROP	ARMY GROUND	36 1589
PERISHING	ARMY GROUND	18 0795
GLCMs	ARMY GROUND	30 1824
INFANTRY	ARMY GROUND	7 5831
MORTARS	ARMY GROUND	36 9121
POLES LNCH	ARMY GROUND	1 5820

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
A-10	5.6216
F-18	5.5556
M-1	5.2402
M-60	4.7162
F-15	4.4444
M-901	4.1921
A-7	4.0000
COBRA	3.7478
M-2/M-3	3.6681
F-14	3.3333
A-6	3.0000
M-48	2.9345
MORTARS	2.8530
SELF-PROP.	2.7948
S-3	2.6842
GLCMs	2.3290
TOWED ART.	2.0961
ATT. SUBS	1.8640
SH-60B	1.8267
MLRS	1.5721
PERISHING	1.3974
SH-2	1.1743
FRIGATES	1.1184
DESTROYERS	0.6710
INFANTRY	0.5833
SH-1	0.4627
RADIO KLAY	0.4608
M-113	0.4076
ART. ACFT	0.3811
POLES LNCH	0.1824
	0.0000

TIN		
A-10	CAS	71.7334
COBRA	CAS	64.4501
F-4	AIR INTERDICTION	101.5050
	CAS	71.7334
F-16	AIR INTERDICTION	71.8780
	CAS	47.4075
ART. ACFT	CAS	1.6847
RADIO RELAY	AIR INTERDICTION	3.1345
	CAS	1.7175
F-111	AIR INTERDICTION	129.3813
A-6	AIR INTERDICTION	47.6042
F-15	AIR INTERDICTION	57.5013
A-7	AIR INTERDICTION	51.7525
F-14	AIR INTERDICTION	48.5160
F-18	AIR INTERDICTION	80.8433
SH-3	ASW(SEA BASED)	5.2093
SH-2	ASW(SEA BASED)	13.0211
SH-60B	ASW(SEA BASED)	20.2532
S-3	ASW(SEA BASED)	34.7284
ATT. SUBS	ASW(SEA BASED)	14.4701
FRIGATES	ASW(SEA BASED)	14.4701
DESTROYERS	ASW(SEA BASED)	8.4821
M-48	ARMY GROUND	4.2185
M-60	ARMY GROUND	6.7749
M-1	ARMY GROUND	37.6655
M-55	ARMY GROUND	0.0703
M-901	ARMY GROUND	6.7749
M-2/M-3	ARMY GROUND	6.7749
M-113	ARMY GROUND	0.7533
MLRS	ARMY GROUND	10.1497
TOWED ART.	ARMY GROUND	4.5199
SELF-PROP.	ARMY GROUND	6.0243
PERSHING	ARMY GROUND	15.8195
GLCM	ARMY GROUND	26.3139
INFANTRY	ARMY GROUND	60.2649
MORTARS	ARMY GROUND	5.2732
POLES LNCH	ARMY GROUND	0.2240

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
F-18	6.2500
A-10	5.6216
COBRA	4.9970
INFANTRY	4.6579
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.9112
S-3	2.6842
GLCM	2.0376
SH-60B	1.5658
PERSHING	1.2227
FRIGATES	1.1184
ATT. SUBS	1.1184
SH-2	1.0066
MLRS	0.7860
DESTROYERS	0.6710
M-2/M-3	0.5240
M-901	0.5240
M-60	0.5240
SELF-PROP.	0.4658
RADIO RELAY	0.4603
MORTARS	0.4076
SH-3	0.4034
TOWED ART.	0.3493
M-48	0.3271
ART. ACFT	0.2811
M-113	0.0934
POLES LNCH	0.0176

NICHEL

A-10	CAS	72.7316
COBRA	CAS	41.4991
F-4	AIR INTERDICTION	70.6083
	CAS	5.4550
F-16	AIR INTERDICTION	71.8735
	CAS	40.4075
ART. ACFT	CAS	1.4145
RADIO RLY	AIR INTERDICTION	3.2345
	CAS	2.7275
F-111	AIR INTERDICTION	125.3813
A-6	AIR INTERDICTION	33.8144
F-15	AIR INTERDICTION	37.5028
A-7	AIR INTERDICTION	51.7525
F-14	AIR INTERDICTION	43.3130
F-18	AIR INTERDICTION	80.8633
SH-3	ASW (SEA BASED)	6.9451
SH-2	ASW (SEA BASED)	17.3142
SH-60B	ASW (SEA BASED)	27.0109
S-3	ASW (SEA BASED)	34.7254
ATT. SUBS	ASW (SEA BASED)	43.4104
FRIGATES	ASW (SEA BASED)	26.0433
DESTROYERS	ASW (SEA BASED)	15.6273
M-48	ARMY GROUND	42.1854
M-60	ARMY GROUND	67.7531
M-1	ARMY GROUND	75.3311
M-551	ARMY GROUND	0.7533
M-901	ARMY GROUND	47.4534
M-2/M-3	ARMY GROUND	54.2384
M-113	ARMY GROUND	5.2732
MLRS	ARMY GROUND	20.3394
TOWED ART	ARMY GROUND	36.1589
SELF-PROP.	ARMY GROUND	48.2119
PERSHING	ARMY GROUND	13.0795
GLCMs	ARMY GROUND	22.5993
INFANTRY	ARMY GROUND	37.6655
MORTERS	ARMY GROUND	15.8195
ROLES LNCH	ARMY GROUND	0.2260

	NORMALIZED VALUES
F-111	10.0000
F-16	3.6787
F-4	6.4216
F-18	6.2500
M-1	5.8224
A-10	5.6216
M-60	5.2402
F-15	4.4444
M-2/M-3	4.1921
A-7	4.0000
F-14	3.7500
COBRA	3.7478
SELF-PROP.	3.7263
M-901	3.6681
ATT. SUBS	3.3552
M-48	3.2605
A-6	3.0000
INFANTRY	2.9112
TOWED ART.	2.7948
S-3	2.6842
SH-60B	2.0077
FRIGATES	2.0121
GLCMs	1.7467
MLRS	1.5721
PERSHING	1.3974
SH-2	1.3421
MORTERS	1.0027
DESTROYERS	1.2079
SH-3	0.5368
RADIO RLY	0.4603
M-113	0.4074
ART. ACFT	0.1074
M-551	0.0932
ROLES LNCH	0.0100

FLUORSPAR ACID		
A-10	CAS	90.9170
COBRA	CAS	48.4841
F-4	AIR INTERDICTION	129.3813
	CAS	9.0817
F-16	AIR INTERDICTION	89.8481
	CAS	50.5094
ART. ACFT	CAS	3.6367
RADIO RLY	AIR INTERDICTION	3.2345
	CAS	2.7275
F-111	AIR INTERDICTION	161.7266
A-6	AIR INTERDICTION	48.5180
F-15	AIR INTERDICTION	71.8785
A-7	AIR INTERDICTION	64.6904
F-14	AIR INTERDICTION	59.9089
F-18	AIR INTERDICTION	89.8481
SH-3	ASW(SEA BASED)	6.9437
SH-2	ASW(SEA BASED)	17.3642
SH-60B	ASW(SEA BASED)	33.7117
S-3	ASW(SEA BASED)	43.4104
ATT. SUBS	ASW(SEA BASED)	28.9407
FRIGATES	ASW(SEA BASED)	20.2582
DESTROYERS	ASW(SEA BASED)	12.1549
M-48	ARMY GROUND	12.6556
M-60	ARMY GROUND	20.8394
M-1	ARMY GROUND	22.5993
M-551	ARMY GROUND	0.2240
M-901	ARMY GROUND	54.2384
M-2/M-3	ARMY GROUND	54.2384
M-113	ARMY GROUND	6.0245
MLRS	ARMY GROUND	16.9443
TOWED ART.	ARMY GROUND	22.5993
SELF-PROP.	ARMY GROUND	30.1324
PERSHING	ARMY GROUND	15.8195
GLCMs	ARMY GROUND	26.3659
INFANTRY	ARMY GROUND	60.2649
MORTERS	ARMY GROUND	26.3659
ROLES LNCH	ARMY GROUND	0.2260

NORMALIZED VALUES

F-111	10.0000
F-16	8.6787
F-4	8.5622
A-10	5.6216
F-18	5.5556
F-15	4.4444
A-7	4.0000
INFANTRY	3.7263
M-2/M-3	3.3537
M-901	3.3537
F-14	3.3333
A-6	3.0000
COBRA	2.9982
S-3	2.6842
SH-60B	2.0877
SELF-PROP.	1.8682
ATT. SUBS	1.7895
MORTERS	1.6301
GLCMs	1.6303
TOWED ART.	1.5974
M-1	1.5974
M-60	1.2576
FRIGATES	1.2526
SH-2	1.0737
MLRS	1.0480
PERSHING	0.9783
M-48	0.7825
DESTROYERS	0.7514
SH-3	0.4295
M-113	0.3776
RADIO RLY	0.3656
ART. ACFT	0.3320
FLUORSPAR ACID	0.0100

PYRETHRUM		
ATT. SUBS	ASW/SEA BASED)	4.8234
M-48	ARMY GROUND	4.2185
M-60	ARMY GROUND	6.7798
SELF-PROP.	ARMY GROUND	6.0265
INFANTRY	ARMY GROUND	7.5331
MORTERS	ARMY GROUND	5.2732

NORMALIZED VALUES

INFANTRY	10.0000
M-60	9.0000
SELF-PROP.	8.0000
MORTERS	7.0000
ATT. SUBS	6.4024
M-48	5.6000

ALL COMMODITIES

A-10	CAS	3.0912
COBRA	CAS	2.1012
F-4	AIR INTERDICTION	4.1432
	CAS	0.1812
F-16	AIR INTERDICTION	3.0548
	CAS	1.7178
ART. ACRET	CAS	0.1338
RADIO KLAY	AIR INTERDICTION	0.1294
	CAS	0.1091
F-111	AIR INTERDICTION	5.4987
A-6	AIR INTERDICTION	1.6981
F-15	AIR INTERDICTION	2.4439
A-7	AIR INTERDICTION	2.1995
F-14	AIR INTERDICTION	1.9407
F-18	AIR INTERDICTION	3.2345
SH-3	ASW(SEA BASED)	0.2518
SH-2	ASW(SEA BASED)	0.6295
SH-60B	ASW(SEA BASED)	1.0467
S-3	ASW(SEA BASED)	1.4760
ATT. SUBS	ASW(SEA BASED)	1.1576
FRIGATES	ASW(SEA BASED)	0.7514
DESTROYERS	ASW(SEA BASED)	0.4515
M-48	ARMY GROUND	1.0124
M-60	ARMY GROUND	1.6272
M-1	ARMY GROUND	2.0319
M-551	ARMY GROUND	0.0128
M-901	ARMY GROUND	1.6171
K-2/M-3	ARMY GROUND	1.6171
M-113	ARMY GROUND	0.1733
MLRS	ARMY GROUND	0.6780
TOWED ART.	ARMY GROUND	0.9040
SELF-PROP.	ARMY GROUND	1.2456
PERSHING	ARMY GROUND	0.6780
GLCMS	ARMY GROUND	1.0546
INFANTRY	ARMY GROUND	1.7326
MORTERS	ARMY GROUND	0.8964
ROLES LNCH	ARMY GROUND	0.0226

NORMALIZED VALUES	
10.0000	
8.6787	F-111
8.0585	F-16
5.8824	F-4
5.6216	F-18
4.4444	A-10
4.0000	F-15
3.8213	A-7
3.6282	COBRA
3.5294	M-1
3.1510	F-14
3.0882	INFANTRY
2.9592	A-6
2.9592	M-2/M-3
2.9592	M-901
2.6842	M-60
2.3016	S-3
2.1052	SELF-PROP.
1.9180	ATT. SUBS
1.9080	GLCMS
1.8413	SH-60B
1.6440	M-48
1.6303	TOWED ART.
1.3684	MORTERS
1.2330	FRIGATES
1.2330	PERSHING
1.1447	MLRS
0.8210	SH-2
0.4779	DESTROYERS
0.4337	SH-3
0.3151	RADIO KLAY
0.2419	M-113
0.0411	ART. ACRET
0.0226	ROLES LNCH
0.0128	M-551

CRITICALITY OF SHORTFALL
ALL FE's
(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK PILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FE/ COMMODITY IMPORT.	CRITIC- ALITY	NORMALIZED FE'S-SHORTFALL CRITICALITY
COBALT	85.4	43.8	-48.7	402.5	8.5	3418.1	7.8
TIN	42.0	180.6	353.8	0.0	10.0	0.0	0.0
NICKEL	200.0	32.2	-83.9	437.7	10.0	4377.1	10.0
FLUORSPAR ACID	1400.0	895.0	-36.1	389.9	9.6	3744.3	8.6
LYRETHRUM	500.0	0.0	-100.0	453.8	3.5	1607.4	3.7

COMPOSITE IMPORTANCE
(LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	2(1/CI)
FINLAND	1350.	6.43	1.92	0.520	3.343
NORONCO	450.	2.14	1.50	0.667	1.429
BOTSWANNA	250.	1.19	0.71	1.404	1.671
SOUTH AFRICA	150.	0.71	1.19	0.841	0.601
HAIRE	12500.	59.52	0.71	1.404	83.548
ZAMBIA	3500.	16.67	0.71	1.404	23.393
PHILIPPINES	50.	0.24	0.92	1.087	0.258
AUSTRALIA	400.	1.90	0.92	1.087	1.090
NEW CALEDONIA	250.	1.19	0.92	1.087	1.293
CANADA	1100.	5.24	2.95	0.343	1.311
U.S.	1000.	4.76	2.56	0.391	1.863

TOTAL:	21000.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	2(1/CI)
AUSTRALIA	100.	0.15	0.92	1.087	0.161
U.S.	16100.	23.82	2.56	0.391	9.319
THAILAND	5900.	8.73	0.92	1.087	9.483
INDONESIA	5800.	8.58	0.92	1.087	9.322
UK	100.	0.15	1.96	0.510	0.075
BOLIVIA	10300.	15.24	0.92	1.020	15.548
BRAZIL	2400.	3.55	0.86	1.162	4.125
PRC	3000.	4.44	2.47	0.405	1.796
MALAYSIA	23900.	35.36	0.92	1.087	38.414

TOTAL:	67600.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
INLAND	1000.	0.33	1.92	0.520	0.171
SOUTH AFRICA	5000	1.64	1.19	0.841	1.341
PHILIPPINES	5000.	1.64	0.92	1.087	1.781
AUSTRALIA	25000.	8.21	0.92	1.087	8.514
CANADA	150000.	49.29	2.89	0.346	17.054
USSR	88000	29.91	2.56	0.391	11.311
YUGOSLAVIA	600.	0.20	1.96	0.510	0.161
NETHERLANDS	200.	0.07	1.96	0.510	0.084
INDONESIA	100.	0.03	1.96	0.510	0.017
YUGOSLAVIA	500.	0.16	1.96	0.510	0.084
INDONESIA	5000	1.64	0.92	1.087	1.781
INDONESIA	15000.	4.93	1.53	0.656	3.210
INDONESIA	4000	1.31	1.53	0.656	0.841
INDONESIA	5000.	1.64	0.92	1.087	1.781

TOTAL: 304400. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

FLUORSPAR ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	190.	22.36	1.19	0.841	18.119
ITALY	70.	8.70	2.56	0.391	3.402
NETHERLANDS	65.	8.07	1.96	0.510	4.120
SOUTH AFRICA	100.	12.42	1.96	0.510	6.339
NETHERLANDS	25.	3.11	0.71	1.404	4.359
NETHERLANDS	15.	1.86	0.92	1.087	2.025
MEXICO	350.	43.48	2.56	0.391	17.011

TOTAL: 805. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000.	1.01	1.19	0.841	0.852
AUSTRALIA	1500.	0.76	0.92	1.087	0.825
INDONESIA	11000.	5.57	1.96	0.510	2.842
INDONESIA	80000	40.51	0.71	1.404	56.835
INDONESIA	25000.	12.66	0.71	1.404	17.767
INDONESIA	78000.	39.49	0.71	1.404	55.433

TOTAL: 197500. 100.00

SOURCE IMPORTANCE
(LOC 3)

SOURCE	% (1/01) COMP IMP	FE/SHORTFALL CRITICALITY	TOTAL	NORMALIZED TO 100
DEALT				
FINLAND	3.343	7.81	24.11	4.00
MOROCCO	1.429	7.81	11.16	1.71
BOTSWANNA	1.671	7.81	13.05	2.00
SOUTH AFRICA	0.601	7.81	4.69	0.71
ZAIRE	83.548	7.81	652.43	100.00
ZAMBIA	23.393	7.81	182.68	28.00
PHILIPPINES	0.259	7.81	2.02	0.31
AUSTRALIA	2.070	7.81	16.16	2.48
NEW CALEDONIA	1.293	7.81	10.10	1.55
CANADA	1.813	7.81	14.16	2.17
U S	1.863	7.81	14.55	2.23
TEN				
AUSTRALIA	0.161	0.00	0.00	0.00
U S	9.319	0.00	0.00	0.00
THAILAND	9.483	0.00	0.00	0.00
INDONESIA	9.322	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.548	0.00	0.00	0.00
BRAZIL	4.125	0.00	0.00	0.00
FRG	1.796	0.00	0.00	0.00
MALAYSIA	38.414	0.00	0.00	0.00
ONE				
FINLAND	0.171	10.00	1.71	0.26
SOUTH AFRICA	1.381	10.00	13.81	2.11
PHILIPPINES	1.785	10.00	17.85	2.74
AUSTRALIA	8.924	10.00	89.24	13.63
CANADA	17.054	10.00	170.54	26.14
U S	11.311	10.00	113.11	17.34
GREECE	0.101	10.00	1.01	0.15
NETHERLANDS	0.034	10.00	0.34	0.05
FRG	0.017	10.00	0.17	0.03
YUGOSLAVIA	0.034	10.00	0.34	0.05
USSR	1.742	10.00	17.42	2.67
DOM. REPUB.	3.230	10.00	32.30	4.90
GUATAMALA	0.861	10.00	8.61	1.32
INDONESIA	1.785	10.00	17.85	2.74
FLUORSPAR ACID				
SOUTH AFRICA	18.803	8.55	160.85	24.65
U S	3.402	8.55	29.10	4.46
ITALY	4.120	8.55	35.24	5.40
SPAIN	6.338	8.55	54.22	8.31
EAST AFRICA	4.359	8.55	37.29	5.72
THAILAND	2.025	8.55	17.32	2.65
MEXICO	17.011	8.55	145.52	22.30
PYRETHRUM				
SOUTH AFRICA	0.852	3.67	3.13	0.48
AUSTRALIA	0.825	3.67	3.03	0.46
UK	2.842	3.67	10.44	1.60
KENYA	56.855	3.67	208.79	32.00
RWANDA	17.767	3.67	65.25	10.00
TANZANIA	55.433	3.67	203.57	31.20

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

SOURCE	COMMODITY	VALUE
ZAIRE	COBALT	100.00
KENYA	PYRETHRUM	32.00
TANZANIA	PYRETHRUM	31.20
ZAMBIA	COBALT	28.00
CANADA	NICKEL	26.14
SOUTH AFRICA	FLUORSPAR ACID	24.65
MEXICO	FLUORSPAR ACID	22.30
U S	NICKEL	17.34
AUSTRALIA	NICKEL	13.68
RWANDA	PYRETHRUM	10.00
SPAIN	FLUORSPAR ACID	8.31
EAST AFRICA	FLUORSPAR ACID	5.72
ITALY	FLUORSPAR ACID	5.40
DOM. REPUB	NICKEL	4.95
U S	FLUORSPAR ACID	4.46
FINLAND	COBALT	4.00
INDONESIA	NICKEL	2.74
PHILIPPINES	NICKEL	2.74
USSR	NICKEL	2.67
THAILAND	FLUORSPAR ACID	2.65
AUSTRALIA	COBALT	2.48
U S	COBALT	2.23
CANADA	COBALT	2.17
SOUTH AFRICA	NICKEL	2.12
BOTSWANNA	COBALT	2.00
MOROCCO	COBALT	1.71
UK	PYRETHRUM	1.60
NEW CALEDONIA	COBALT	1.55
GUATAMALA	NICKEL	1.32
SOUTH AFRICA	COBALT	0.72
SOUTH AFRICA	PYRETHRUM	0.48
AUSTRALIA	PYRETHRUM	0.46
PHILIPPINES	COBALT	0.31
FINLAND	NICKEL	0.26
GREECE	NICKEL	0.15
YUGOSLAVIA	NICKEL	0.13
NETHERLANDS	NICKEL	0.05
FRG	NICKEL	0.03
MALAYSIA	TIN	0.00
PRC	TIN	0.00
BRAZIL	TIN	0.00
BOLIVIA	TIN	0.00
UK	TIN	0.00
INDONESIA	TIN	0.00
THAILAND	TIN	0.00
U S	TIN	0.00
AUSTRALIA	TIN	0.00

SCENARIO 37

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	2.0	5.0	2.0	6.0
WCOEF	0.1786	0.1786	0.1250	0.0893	0.1250	0.0357	0.0357	0.0893	0.0357	0.1071

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
Weight	9.0									
WCOEF	0.1333	0.1333	0.1200	0.0556	0.0913	0.0667	0.0133	0.1067	0.0913	0.0667
WCOEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
WCOEF	0.1786	0.1786	0.1786	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
WCOEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	1	2	3	4	5	6	7	8	9	10
Region										
WCOEF	0.0229	0.0229	0.0160	0.0114	0.0160	0.0046	0.0046	0.0114	0.0046	0.0160

Media 2	1	2	3	4	5	6	7	8	9	10
Region										
WCOEF	0.0171	0.0171	0.0154	0.0068	0.0119	0.0085	0.0017	0.0136	0.0119	0.0085

Media 3	1	2	3	4	5	6	7
Region							
WCOEF	0.0229	0.0229	0.0229	0.0186	0.0137	0.0091	0.0186

Media 4	1	2	3	4
Region				
WCOEF	0.0752	0.0301	0.0150	0.0075

Importance of controlling ANY Region
within its Media as compared to the Importance
of controlling ANY Region of any other Media

Media 1	1	2	3	4	5	6	7	8	9	10
Region										
WCOEF	0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0050

Media 2	1	2	3	4	5	6	7	8	9	10
Region										
WCOEF	0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0019

Media 3	1	2	3	4	5	6	7
Region							
WCOEF	0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048

Media 4	1	2	3	4
Region				
WCOEF	0.0065	0.0026	0.0013	0.0007

FORCE ELEMENT IMPORTANCE
(LOI 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.141	10.000
2	1	AIR INTERDICTION	0.117	8.266
3	3	ARMY GROUND	0.104	7.382
4	16	ATTACK SUB	0.072	5.133
5	19	SURFACE COMBATANTS	0.060	4.247
6	12	THEATER NUCLEAR WEAPON	0.054	3.811
7	8	RAPID DEPLOY	0.052	3.700
8	6	CAS	0.044	3.132
9	14	ASW(LAND BASED)	0.043	3.083
10	22	AIR SUPERIORITY(LAND BASED)	0.041	2.910
11	15	ASW(SEA BASED)	0.038	2.815
12	27	AIR SUPERIORITY(SHIP BASED)	0.032	2.276
13	21	AIR DEFENSE(SHIP BASED)	0.029	2.065
14	10	STRATEGIC BOMBER	0.025	1.794
15	25	SPACE BASED WEAPON(AIR CNTRL)	0.020	1.416
16	29	ASAT(SPACE BASED)	0.013	0.924
17	18	MINE WARFARE	0.013	0.891
18	2	AMPHIBIOUS ASSAULT	0.011	0.757
19	13	SPECIAL OPERATIONS	0.010	0.725
20	28	ASAT(LAND BASED)	0.007	0.510
21	20	AIR DEFENSE(LAND BASED)	0.004	0.278
22	9	SPACE-BASED WEAPON(LND CNTRL)	0.003	0.210
23	30	SPACE BASED WEAPON(SEA CNTRL)	0.002	0.118
24	27	ABM(SPACE BASED)	0.000	0.000
25	26	ABM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLEM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANCE
(LOC 3)

COBALT

AIR INTERDICTION	5.71
ARMY GROUND	2.77
CAS	1.75
ICBM	0.00
STRATEGIC BOMBER	1.79
SLEM	0.00
ASW(SEA BASED)	1.27
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.51
	23.24

TIN

AIR INTERDICTION	5.90
ARMY GROUND	1.92
CAS	1.91
STRATEGIC BOMBER	1.79
ASW(LAND BASED)	3.08
ASW(SEA BASED)	1.11
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	41.18

NICKEL

AIR INTERDICTION	15.60
ARMY GROUND	4.92
CAS	1.72
STRATEGIC BOMBER	1.79
ASW(SEA BASED)	1.71
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
	41.21

FLUORSPAR ACID

AIR INTERDICTION	7.11
AMPHIBIOUS ASSAULT	0.76
ARMY GROUND	3.69
CAS	2.05
ICBM	0.00
STRATEGIC BOMBER	1.79
SLBM	0.00
ASW(LAND BASED)	3.08
ASW(SEA BASED)	1.62
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	39.57

PYRETHRUM

ARMY GROUND	2.68
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.14
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
	17.08

COMMODITY NORMALIZED IMPORTANCE

NICKEL	10.00	(41.21)
TIN	9.99	(41.18)
FLUORSPAR ACID	9.60	(39.57)
COBALT	8.07	(33.24)
PYRETHRUM	4.14	(17.08)

COBRA		
A-10	CAS	72 7336
COBRA	CAS	49 4891
F-4	AIR INTERDICTION	103 5050
	CAS	7 2734
F-16	AIR INTERDICTION	71 8785
	CAS	40 4075
ART. ACFT	CAS	3 6317
RADIO RLY	AIR INTERDICTION	3 2345
	CAS	2 7275
F-111	AIR INTERDICTION	129 3818
A-6	AIR INTERDICTION	38 8144
F-15	AIR INTERDICTION	57 5028
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	43 1271
F-18	AIR INTERDICTION	71 8785
SH-3	ASW(SEA BASED)	6 0775
SH-2	ASW(SEA BASED)	15 1937
SH-60B	ASW(SEA BASED)	23 6346
S-3	ASW(SEA BASED)	34 7284
ATT. SUBS	ASW(SEA BASED)	24 1169
FRIGATES	ASW(SEA BASED)	14 4701
DESTROYERS	ASW(SEA BASED)	8 6801
M-48	ARMY GROUND	12 6556
M-60	ARMY GROUND	20 3394
M-1	ARMY GROUND	22 5993
M-551	ARMY GROUND	0 2260
M-901	ARMY GROUND	20 3394
M-2/M-3	ARMY GROUND	20 3394
M-113	ARMY GROUND	2 2599
MLRS	ARMY GROUND	20 3394
TOWED ART.	ARMY GROUND	27 1192
SELF-PROP.	ARMY GROUND	36 1589
PERSHING	ARMY GROUND	18 0795
GLCMs	ARMY GROUND	30 1324
INFANTRY	ARMY GROUND	7 5331
MORTERS	ARMY GROUND	36 9122
ROLES LNCH	ARMY GROUND	1 5820

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
A-10	5.6216
F-18	5.5556
F-15	4.4444
A-7	4.0000
COBRA	3.7478
F-14	3.3333
A-6	3.0000
MORTERS	2.8530
SELF-PROP.	2.7948
S-3	2.6842
GLCMs	2.3290
TOWED ART.	2.0961
ATT. SUBS	1.8640
SH-60B	1.8267
M-1	1.7467
M-2/M-3	1.5721
M-901	1.5721
M-60	1.5721
MLRS	1.5721
PERSHING	1.3974
SH-2	1.1743
FRIGATES	1.1184
M-48	0.9782
DESTROYERS	0.6710
INFANTRY	0.5822
SH-3	0.4697
RADIO RLY	0.4608
ART. ACFT	0.2811
M-113	0.1747
ROLES LNCH	0.1223
M-551	0.0175

TIN		
A-10	CAS	72.7336
COBRA	CAS	64.6511
F-4	AIR INTERDICTION	100.5050
	CAS	7.2734
F-16	AIR INTERDICTION	71.8785
	CAS	40.4075
ART. ACFT	CAS	3.6367
RADIO RLAY	AIR INTERDICTION	3.2349
	CAS	2.7275
F-111	AIR INTERDICTION	129.3813
A-6	AIR INTERDICTION	42.6662
F-15	AIR INTERDICTION	57.5028
A-7	AIR INTERDICTION	51.7525
F-14	AIR INTERDICTION	43.5180
F-18	AIR INTERDICTION	80.8633
SH-3	ASW(SEA BASED)	5.2033
SH-2	ASW(SEA BASED)	13.0231
SH-60B	ASW(SEA BASED)	20.2582
S-3	ASW(SEA BASED)	34.7284
ATT. SUBS	ASW(SEA BASED)	14.4701
FRIGATES	ASW(SEA BASED)	14.4701
DSTROYERS	ASW(SEA BASED)	8.6821
M-48	ARMY GROUND	4.2185
M-60	ARMY GROUND	6.7793
M-1	ARMY GROUND	37.6655
M-551	ARMY GROUND	0.0752
M-901	ARMY GROUND	6.7793
M-2/M-3	ARMY GROUND	6.7793
M-113	ARMY GROUND	0.7532
MLRS	ARMY GROUND	10.1697
TOWED ART.	ARMY GROUND	4.5199
SELF-PROP.	ARMY GROUND	6.0265
PERSHING	ARMY GROUND	15.8195
GLCMS	ARMY GROUND	26.3659
INFANTRY	ARMY GROUND	60.2649
MORTERS	ARMY GROUND	5.2732
ROLES LNCH	ARMY GROUND	0.2260

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
F-18	6.2500
A-10	5.6216
COBRA	4.9970
INFANTRY	4.6579
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.9112
S-3	2.6842
GLCMS	2.0378
SH-60B	1.5658
PERSHING	1.2227
FRIGATES	1.1184
ATT. SUBS	1.1184
SH-2	1.0066
MLRS	0.7860
DSTROYERS	0.6710
M-2/M-3	0.5240
M-901	0.5240
M-60	0.5240
SELF-PROP.	0.4658
RADIO RLAY	0.4608
MORTERS	0.4076
SH-3	0.4026
TOWED ART.	0.3493
M-48	0.3261
ART. ACFT	0.2811
M-113	0.0982
ROLES LNCH	0.0175
M-551	0.0038

NICKEL		
A-10	CAS	72 7336
COBRA	CAS	48 4871
F-4	AIR INTERDICTION	77 6338
	CAS	5 4550
F-16	AIR INTERDICTION	71 8785
	CAS	40 4875
ART. ACFT	CAS	2 4245
RADIO RLY	AIR INTERDICTION	3 2340
	CAS	2 7275
F-111	AIR INTERDICTION	129 3313
A-6	AIR INTERDICTION	38 8144
F-15	AIR INTERDICTION	57 5028
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	48 5180
F-18	AIR INTERDICTION	80 8633
SH-3	ASW (SEA BASED)	6 8407
SH-2	ASW (SEA BASED)	17 3642
SH-60B	ASW (SEA BASED)	27 0109
S-3	ASW (SEA BASED)	34 7284
ATT. SUBS	ASW (SEA BASED)	43 4104
FRIGATES	ASW (SEA BASED)	26 0463
DESTROYERS	ASW (SEA BASED)	15 6278
M-48	ARMY GROUND	42 1854
M-60	ARMY GROUND	67 7980
M-1	ARMY GROUND	75 3311
M-551	ARMY GROUND	0 7533
M-901	ARMY GROUND	47 4586
M-2/M-3	ARMY GROUND	54 2384
M-113	ARMY GROUND	5 2732
MLRS	ARMY GROUND	20 3394
TOWED ART.	ARMY GROUND	36 1589
SELF-PROP.	ARMY GROUND	48 2119
PERSHING	ARMY GROUND	18 0795
GLCMs	ARMY GROUND	22 5993
INFANTRY	ARMY GROUND	37 6655
MORTARS	ARMY GROUND	15 8195
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	6.4216
F-15	6.2500
M-1	5.8224
A-10	5.6216
M-60	5.2402
F-15	4.4444
M-2/M-3	4.1921
A-7	4.0000
F-14	3.7500
COBRA	3.7478
SELF-PROP.	3.7263
M-901	3.6681
ATT. SUBS	3.3552
M-48	3.2605
A-6	3.0000
INFANTRY	2.9112
TOWED ART.	2.7948
S-3	2.6842
SH-60B	2.0877
FRIGATES	2.0131
GLCMs	1.7467
MLRS	1.5721
PERSHING	1.3974
SH-2	1.3421
MORTARS	1.2327
DESTROYERS	1.2079
SH-3	0.5348
RADIO RLY	0.4608
M-113	0.4076
ART. ACFT	0.1877
M-551	0.0000
ROLES LNCH	0.0170

FLUORSPAR ACID		
A-10	CAS	90 9170
COBRA	CAS	48 43-1
F-4	AIR INTERDICTION	129 3813
	CAS	9 0917
F-16	AIR INTERDICTION	89 8481
	CAS	50 50-4
ART. ACFT	CAS	3 6367
RADIO RLAY	AIR INTERDICTION	3 2345
	CAS	2 7275
F-111	AIR INTERDICTION	161 7266
A-6	AIR INTERDICTION	48 5180
F-15	AIR INTERDICTION	71 8785
A-7	AIR INTERDICTION	64 6903
F-14	AIR INTERDICTION	53 9089
F-18	AIR INTERDICTION	89 8481
SH-3	ASW(SEA BASED)	6 9457
SH-2	ASW(SEA BASED)	17 3642
SH-60B	ASW(SEA BASED)	33 7637
S-3	ASW(SEA BASED)	43 4104
ATT. SUBS	ASW(SEA BASED)	28 9403
FRIGATES	ASW(SEA BASED)	20 2582
DESTROYERS	ASW(SEA BASED)	12 1547
M-48	ARMY GROUND	12 6556
M-60	ARMY GROUND	20 3394
M-1	ARMY GROUND	22 5993
M-551	ARMY GROUND	0 2260
M-901	ARMY GROUND	54 2384
M-2/M-3	ARMY GROUND	54 2384
M-113	ARMY GROUND	6 0265
MLRS	ARMY GROUND	16 9485
TOWED ART.	ARMY GROUND	22 5993
SELF-PROP	ARMY GROUND	30 1324
PERSHING	ARMY GROUND	15 8195
GLCMs	ARMY GROUND	26 3659
INFANTRY	ARMY GROUND	60 2649
MORTERS	ARMY GROUND	26 3659
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	
F-111	10 0000
F-16	8 6787
F-4	8 5622
A-10	5 6216
F-18	5 5556
F-15	4 4444
A-7	4 0000
INFANTRY	3 7263
M-2/M-3	3 3537
M-901	3 3537
F-14	3 3333
A-6	3 0000
COBRA	2 9982
S-3	2 6842
SH-60B	2 0877
SELF-PROP.	1 8632
ATT. SUBS	1 7895
MORTERS	1 6303
GLCMs	1 6303
TOWED ART.	1 3974
M-1	1 3974
M-60	1 2576
FRIGATES	1 2526
SH-2	1 0797
MLRS	1 0480
PERSHING	0 9782
M-48	0 7825
DESTROYERS	0 7516
SH-3	0 4225
M-113	0 3726
RADIO RLAY	0 3686
ART. ACFT	0 2249
ROLES LNCH	0 0140
M-551	0 0140

HYFETHUM		
ATT. SUBS	ASW (SEA BASED)	14.4701
M-48	ARMY GROUND	29.5278
M-60	ARMY GROUND	47.4536
M-113	ARMY GROUND	5.2732
TOWED ART.	ARMY GROUND	31.6390
SELF-PROP.	ARMY GROUND	42.1854
INFANTRY	ARMY GROUND	75.3311
MORTERS	ARMY GROUND	36.9122

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3000
SELF-PROP.	5.6000
MORTERS	4.9000
TOWED ART.	4.2000
M-48	3.9200
ATT. SUBS	1.9209
M-113	0.7000

ALL COMMODITIES		
A-10	CAS	3.0912
COBRA	CAS	2.1012
F-4	AIR INTERDICTION	4.1412
	CAS	4.9612
F-16	AIR INTERDICTION	3.0548
	CAS	1.7173
ART. ACFT	CAS	0.1333
RADIO RLY	AIR INTERDICTION	0.1294
	CAS	0.1091
F-111	AIR INTERDICTION	5.4987
A-6	AIR INTERDICTION	1.6981
F-15	AIR INTERDICTION	2.4439
A-7	AIR INTERDICTION	2.1995
F-14	AIR INTERDICTION	1.3407
F-18	AIR INTERDICTION	3.2345
SH-3	ASW(SEA BASED)	0.2513
SH-2	ASW(SEA BASED)	0.6295
SH-60B	ASW(SEA BASED)	1.0467
S-3	ASW(SEA BASED)	1.4760
ATT. SUBS	ASW(SEA BASED)	1.2541
FRIGATES	ASW(SEA BASED)	0.7524
DESTROYERS	ASW(SEA BASED)	0.4513
M-48	ARMY GROUND	1.0124
M-60	ARMY GROUND	1.6272
M-1	ARMY GROUND	1.5920
M-551	ARMY GROUND	0.0123
M-901	ARMY GROUND	1.2682
M-2/M-3	ARMY GROUND	1.3560
M-113	ARMY GROUND	0.1959
MLRS	ARMY GROUND	0.6780
TOWED ART.	ARMY GROUND	1.2204
SELF-PROP.	ARMY GROUND	1.6272
PERSHING	ARMY GROUND	0.6780
GLCMs	ARMY GROUND	1.0546
INFANTRY	ARMY GROUND	2.4106
MORTERS	ARMY GROUND	1.2123
ROLES LNCH	ARMY GROUND	0.0226

NORMALIZED VALUES	
F-111	10.0000
F-16	3.6787
F-4	3.0585
F-18	5.8824
A-10	5.6216
F-15	4.4444
INFANTRY	4.3839
A-7	4.0000
COBRA	3.8213
F-14	3.5294
A-6	3.0882
SELF-PROP.	2.9592
M-60	2.9592
M-1	2.9770
S-3	2.6842
M-2/M-3	2.4660
M-901	2.3427
ATT. SUBS	2.2807
TOWED ART.	2.2194
MORTERS	2.2057
GLCMs	1.9180
SH-60B	1.9035
M-48	1.8413
FRIGATES	1.3684
PERSHING	1.2880
MLRS	1.2330
SH-2	1.1447
DESTROYERS	0.8210
SH-3	0.4579
RADIO RLY	0.4337
M-113	0.3562
ART. ACFT	0.2425
ROLES LNCH	0.0411
M-551	0.0233

CRITICALITY OF SHORTFALL

ALL FE'S

(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FE/ COMMODITY IMPORT.	CRITIC- ALITY	NORMALIZED FE/SHORTFALL CRITICALITY
COBALT	85.4	43.8	-48.7	402.5	8.1	3246.9	7.8
CIN	42.0	190.6	353.8	0.0	10.0	0.0	0.0
NICKEL	200.0	32.2	-83.9	437.7	10.0	4377.1	10.0
FLUORSPAR ACID	1400.0	895.0	-36.1	289.9	9.6	3744.3	8.4
MYETHRUM	500.0	0.0	-100.0	453.8	4.1	1830.7	4.1

COMPOSITE IMPORTANCE

(LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
INLAND	1350.	6.43	1.92	0.520	3.343
MOCCO	450.	2.14	1.50	0.667	1.429
OTSWANNA	250.	1.19	0.71	1.404	1.671
SOUTH AFRICA	150.	0.71	1.19	0.841	0.601
LAIRE	12500	59.52	0.71	1.404	83.519
AMBIA	3500.	16.67	0.71	1.404	22.341
PHILIPPINES	50.	0.24	0.92	1.087	0.197
AUSTRALIA	400.	1.90	0.92	1.087	2.070
NEW CALEDONIA	250.	1.19	0.92	1.087	1.293
CANADA	1100.	5.24	2.89	0.343	1.813
US	1000.	4.76	2.56	0.391	1.663
TOTAL:	21000	100.00			

COMPOSITE IMPORTANCE

(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
AUSTRALIA	100.	0.15	0.92	1.087	0.161
US	16100.	23.82	2.56	0.391	9.319
THAILAND	5900.	8.73	0.92	1.087	9.483
INDONESIA	5800.	8.58	0.92	1.087	9.322
UK	100.	0.15	1.96	0.510	0.075
BOLIVIA	10300.	15.24	0.98	1.020	15.543
BRASIL	2400.	3.55	0.86	1.162	4.125
PERU	3000.	4.44	2.47	0.405	1.796
MALAYSIA	23900.	35.36	0.92	1.087	38.414
TOTAL:	67600.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	%(1/CI)
FINLAND	1000	0.33	1.92	0.520	0.171
SOUTH AFRICA	5000	1.64	1.19	0.841	1.301
PHILIPPINES	5000	1.64	0.92	1.087	1.701
AUSTRALIA	25000	8.11	0.92	1.087	1.914
CANADA	150000	48.28	2.89	0.346	17.054
U.S.	88000	28.91	2.56	0.391	11.311
GREECE	600	0.20	1.96	0.510	0.101
NETHERLANDS	200	0.07	1.96	0.510	0.04
FRANCE	100	0.03	1.96	0.510	0.017
YUGOSLAVIA	500	0.16	1.96	0.510	0.014
USSR	5000	1.64	0.94	1.081	1.701
M. REPUB.	15000	4.93	1.53	0.656	3.230
GUATEMALA	4000	1.31	1.53	0.656	0.801
INDONESIA	5000	1.64	0.92	1.087	1.705

TOTAL: 304400. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

FLUORENE ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	%(1/CI)
SOUTH AFRICA	180	22.36	1.19	0.841	18.803
U.S.	70	8.70	2.56	0.391	3.402
ITALY	65	8.07	1.96	0.510	4.100
FRANCE	100	12.42	1.96	0.510	6.338
EAST AFRICA	25	3.11	0.71	1.404	4.307
NETHERLANDS	15	1.86	0.92	1.087	2.025
MEXICO	350	43.43	2.56	0.391	17.011

TOTAL: 805. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	%(1/CI)
SOUTH AFRICA	2000	1.01	1.19	0.841	0.852
AUSTRALIA	1500	0.76	0.92	1.087	0.825
U.S.	11000	5.57	1.96	0.510	2.842
KENYA	80000	40.51	0.71	1.404	56.835
RWANDA	25000	12.66	0.71	1.404	17.767
TANZANIA	78000	39.49	0.71	1.404	55.433

TOTAL: 197500. 100.00

SOURCE IMPORTANCE
(LOC 3)

SOURCE	% (1/01) COMP IMP	FEV SHORTFALL CRITICALITY	TOTAL	NORMALIZED TO 100
ABALY				
FINLAND	3.343	7.42	24.80	4.00
MOROCCO	1.429	7.42	10.60	1.71
BOTSWANNA	1.671	7.42	12.40	2.00
SOUTH AFRICA	0.601	7.42	4.46	0.72
ZAIRE	83.543	7.42	619.76	100.00
ZAMBIA	23.393	7.42	173.53	28.00
PHILIPPINES	0.259	7.42	1.92	0.31
AUSTRALIA	2.070	7.42	15.35	2.43
NEW CALEDONIA	1.293	7.42	9.60	1.55
CANADA	1.813	7.42	13.45	2.17
U.S.	1.863	7.42	13.82	2.23
N				
AUSTRALIA	0.161	0.00	0.00	0.00
U.S.	9.319	0.00	0.00	0.00
THAILAND	9.483	0.00	0.00	0.00
INDONESIA	9.322	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.548	0.00	0.00	0.00
BRAZIL	4.125	0.00	0.00	0.00
FRG	1.796	0.00	0.00	0.00
MALAYSIA	33.414	0.00	0.00	0.00
SOBEL				
FINLAND	0.171	10.00	1.71	0.28
SOUTH AFRICA	1.391	10.00	13.91	2.23
PHILIPPINES	1.785	10.00	17.85	2.88
AUSTRALIA	8.924	10.00	89.24	14.40
CANADA	17.054	10.00	170.54	27.52
U.S.	11.311	10.00	113.11	18.25
GREECE	0.101	10.00	1.01	0.16
NETHERLANDS	0.034	10.00	0.34	0.05
FRG	0.017	10.00	0.17	0.03
YUGOSLAVIA	0.084	10.00	0.84	0.14
USSR	1.742	10.00	17.42	2.81
DOM. REPUB.	3.230	10.00	32.30	5.21
GUATAMALA	0.861	10.00	8.61	1.39
INDONESIA	1.785	10.00	17.85	2.88
QUORSPAR ACID				
SOUTH AFRICA	18.803	8.55	160.85	25.95
U.S.	3.402	8.55	29.10	4.70
ITALY	4.120	8.55	35.24	5.69
SPAIN	6.338	8.55	54.22	8.75
EAST AFRICA	4.359	8.55	37.29	6.02
THAILAND	2.025	8.55	17.32	2.79
MEXICO	17.011	8.55	145.52	23.48
YRETHRUM				
SOUTH AFRICA	0.852	4.30	3.66	0.59
AUSTRALIA	0.825	4.30	3.55	0.57
UK	2.842	4.30	12.21	1.97
KENYA	56.855	4.30	244.29	39.42
RWANDA	17.767	4.30	76.34	12.32
TANZANIA	55.433	4.30	238.18	38.43

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

#	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	39.42
3	TANZANIA	PYRETHRUM	39.42
4	ZAMBIA	COBALT	28.00
5	CANADA	NICKEL	27.52
6	SOUTH AFRICA	FLUORSPAR ACID	25.45
7	MEXICO	FLUORSPAR ACID	23.43
8	U.S.	NICKEL	18.25
9	AUSTRALIA	NICKEL	14.40
10	RUANDA	PYRETHRUM	12.31
11	SPAIN	FLUORSPAR ACID	8.75
12	EAST AFRICA	FLUORSPAR ACID	6.02
13	ITALY	FLUORSPAR ACID	5.69
14	DOM. REPUB.	NICKEL	5.21
15	U.S.	FLUORSPAR ACID	4.70
16	FINLAND	COBALT	4.00
17	INDONESIA	NICKEL	2.88
18	PHILIPPINES	NICKEL	2.59
19	USSR	NICKEL	2.81
20	THAILAND	FLUORSPAR ACID	2.79
21	AUSTRALIA	COBALT	2.48
22	U.S.	COBALT	2.23
23	SOUTH AFRICA	NICKEL	2.23
24	CANADA	COBALT	2.17
25	BOTSWANNA	COBALT	2.00
26	UK	PYRETHRUM	1.97
27	MOROCCO	COBALT	1.71
28	NEW CALEDONIA	COBALT	1.55
29	GUATANALA	NICKEL	1.39
30	SOUTH AFRICA	COBALT	0.71
31	SOUTH AFRICA	PYRETHRUM	0.59
32	AUSTRALIA	PYRETHRUM	0.57
33	PHILIPPINES	COBALT	0.31
34	FINLAND	NICKEL	0.29
35	GREECE	NICKEL	0.16
36	YUGOSLAVIA	NICKEL	0.14
37	NETHERLANDS	NICKEL	0.05
38	FRG	NICKEL	0.03
39	MALAYSIA	TIN	0.00
40	PRC	TIN	0.00
41	BRAZIL	TIN	0.00
42	BOLIVIA	TIN	0.00
43	UK	TIN	0.00
44	INDONESIA	TIN	0.00
45	THAILAND	TIN	0.00
46	U.S.	TIN	0.00
47	AUSTRALIA	TIN	0.00

SCENARIO 38

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 2 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	10.0	2.0	5.0	2.0	4.0
COEF	0.1543	0.1543	0.1094	0.0731	0.1094	0.1543	0.0313	0.0781	0.0313	0.0545

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	10.0	8.0	7.0	5.0
Weight	9.0									
COEF	0.1190	0.1190	0.1071	0.0476	0.0833	0.0595	0.1190	0.0952	0.0833	0.0545
COEF	0.1071									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	10.0	4.0	4.0	10.0
COEF	0.1667	0.1667	0.1667	0.1667	0.1000	0.0667	0.1667

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
COEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS on the Importance of Controlling EACH region within its own Media

Media	Region	1	2	3	4	5	6	7	8	9	10
Media 1	COEF	0.0200	0.0200	0.0140	0.0100	0.0140	0.0200	0.0040	0.0100	0.0040	0.0120
Media 2	Region	1	2	3	4	5	6	7	8	9	10
Media 11	Region	1	2	3	4	5	6	7	8	9	10
Media 11	COEF	0.0152	0.0152	0.0137	0.0061	0.0107	0.0076	0.0152	0.0122	0.0107	0.0076
Media 3	COEF	0.0137									
Media 3	Region	1	2	3	4	5	6	7			
Media 3	COEF	0.0213	0.0213	0.0213	0.0213	0.0129	0.0085	0.0213			
Media 4	Region	1	2	3	4						
Media 4	COEF	0.0752	0.0301	0.0150	0.0075						

Importance of controlling ANY Region within its Media as compared to the Importance controlling ANY Region of any other Media

Media	Region	1	2	3	4	5	6	7	8	9	10
Media 1	COEF	0.0087	0.0087	0.0061	0.0043	0.0061	0.0087	0.0017	0.0043	0.0017	0.0032
Media 2	Region	1	2	3	4	5	6	7	8	9	10
Media 11	Region	1	2	3	4	5	6	7	8	9	10
Media 11	COEF	0.0033	0.0033	0.0030	0.0013	0.0023	0.0017	0.0033	0.0026	0.0023	0.0017
Media 11	COEF	0.0030									
Media 3	Region	1	2	3	4	5	6	7			
Media 3	COEF	0.0056	0.0056	0.0056	0.0056	0.0033	0.0022	0.0056			
Media 4	Region	1	2	3	4						
Media 4	COEF	0.0045	0.0026	0.0013	0.0007						

FORCE ELEMENT IMPORTANCE
(LOC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER-BATTLE GROUP	0.139	10.000
2	1	AIR INTERDICTION	0.110	7.862
3	3	ARMY GROUND	0.095	6.845
4	16	ATTACK SUB	0.073	5.227
5	19	SURFACE COMBATANTS	0.060	4.282
6	8	RAPID DEPLOY	0.058	4.141
7	12	THEATER NUCLEAR WEAPON	0.054	3.858
8	14	ASW(LAND BASED)	0.043	3.093
9	6	CAS	0.040	2.902
10	22	AIR SUPERIORITY(LAND BASED)	0.038	2.731
11	15	ASW(SEA BASED)	0.032	2.312
12	23	AIR SUPERIORITY(SHIP BASED)	0.030	2.165
13	21	AIR DEFENSE(SHIP BASED)	0.027	1.954
14	10	STRATEGIC BOMBER	0.025	1.765
15	25	SPACE BASED WEAPON(AIR CNTRL)	0.017	1.234
16	13	SPECIAL OPERATIONS	0.013	0.950
17	29	ASAT(SPACE BASED)	0.013	0.935
18	18	MINE WARFARE	0.013	0.924
19	2	AMPHIBIOUS ASSAULT	0.010	0.713
20	28	ASAT(LAND BASED)	0.007	0.516
21	20	AIR DEFENSE(LAND BASED)	0.004	0.264
22	9	SPACE-BASED WEAPON(LND CNTRL)	0.003	0.202
23	30	SPACE BASED WEAPON(SEA CNTRL)	0.002	0.118
24	27	ALM(SPACE BASED)	0.000	0.000
25	26	ABM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CEW	0.000	0.000

COMMODITY IMPORTANCE
(LOC 3)

COBALT

AIR INTERDICTION	5.44
ARMY GROUND	2.54
CAS	1.92
ICBM	0.00
STRATEGIC BOMBER	1.76
SLBM	0.00
ASW(SEA BASED)	1.27
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.21
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.52
	32.36

TIN

AIR INTERDICTION	5.62
ARMY GROUND	1.73
CAS	1.77
STRATEGIC BOMBER	1.76
ASW(LAND BASED)	3.09
ASW(SEA BASED)	1.11
ATTACK SUBS	5.23
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.92
SURFACE COMBATANTS	4.23
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00
ASM(LAND BASED)	0.00
	40.47

NICKEL

AIR INTERDICTION	5.33
ARMY GROUND	4.56
CAS	1.60
STRATEGIC BOMBER	1.76
ASW(SEA BASED)	1.71
ATTACK SUBS	5.23
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.92
SURFACE COMBATANTS	4.29
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00
	40.30

FLUORSPAR ACID

AIR INTERDICTION	6.74
AMPHIBIOUS ASSAULT	0.71
ARMY GROUND	3.42
CAS	1.90
ICBM	0.00
STRATEGIC BOMBER	1.76
SLBM	0.01
ASW(LAND BASED)	3.04
ASW(SEA BASED)	1.63
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.14
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	43.00

PYRETHRUM

ARMY GROUND	2.44
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.14
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
	16.92

COMMODITY NORMALIZED IMPORTANCE

TIN	10.00	(40.47)
NICKEL	9.96	(40.30)
FLUORSPAR ACID	9.51	(38.50)
COBALT	8.00	(32.36)
PYRETHRUM	4.18	(16.92)

COBALT		
A-10	CAS	67 4013
COBRA	CAS	44 9311
F-4	AIR INTERDICTION	93 5202
	CAS	6 7403
F-16	AIR INTERDICTION	63 4163
	CAS	37 4460
ART. ACFT	CAS	3 3701
RADIO RLY	AIR INTERDICTION	3 0739
	CAS	2 5276
F-111	AIR INTERDICTION	113 1501
A-6	AIR INTERDICTION	36 9451
F-15	AIR INTERDICTION	54 7345
A-7	AIR INTERDICTION	43 2601
F-14	AIR INTERDICTION	41 0501
F-18	AIR INTERDICTION	63 4163
SH-3	ASW(SEA BASED)	6 0633
SH-2	ASW(SEA BASED)	15 1703
SH-60B	ASW(SEA BASED)	23 5940
S-3	ASW(SEA BASED)	34 6761
ATT. SUBS	ASW(SEA BASED)	24 0307
FRIGATES	ASW(SEA BASED)	14 4434
DESTROYERS	ASW(SEA BASED)	3 6630
M-48	ARMY GROUND	11 7335
M-60	ARMY GROUND	13 8533
M-1	ARMY GROUND	20 9517
M-551	ARMY GROUND	0 2030
M-901	ARMY GROUND	13 8575
M-2/M-3	ARMY GROUND	13 8575
M-113	ARMY GROUND	2 0951
MLRS-	ARMY GROUND	13 8575
TOWED ART.	ARMY GROUND	25 1433
SELF-PROP.	ARMY GROUND	33 5244
PERSHING	ARMY GROUND	16 7622
GLOMS	ARMY GROUND	27 9370
INFANTRY	ARMY GROUND	6 9842
MORTERS	ARMY GROUND	34 2223
ROLES LNCH	ARMY GROUND	1 4667

NORMALIZED VALUES	
F-111	10.0000
F-16	8.5962
F-4	8.5473
F-18	5.5514
A-10	5.4732
F-15	4.4444
A-7	4.0000
COBRA	3.6488
F-14	3.3333
A-6	3.0000
S-3	2.8158
MORTERS	2.7789
SELF-PROP.	2.7222
GLOMS	2.2685
TOWED ART.	2.0417
ATT. SUBS	1.9534
SH-60B	1.9163
M-1	1.7014
MLRS	1.5313
M-2/M-3	1.5313
M-901	1.5313
M-60	1.5313
PERSHING	1.3611
SH-2	1.2319
FRIGATES	1.1732
M-48	0.9528
DESTROYERS	0.7039
INFANTRY	0.5671
SH-3	0.4928
RADIO RLY	0.4502
ART. ACFT	0.2737
M-113	0.1701
ROLES LNCH	0.1191
M-551	0.0170

TIN		
A-10	CAS	67.4124
COBRA	CAS	59.9136
F-4	AIR INTERDICTION	99.5202
	CAS	6.7408
F-16	AIR INTERDICTION	68.4168
	CAS	37.4460
ART. ACFT	CAS	3.3701
RADIO RLAY	AIR INTERDICTION	3.0788
	CAS	2.5276
F-111	AIR INTERDICTION	123.1508
A-6	AIR INTERDICTION	41.5632
F-15	AIR INTERDICTION	54.7380
A-7	AIR INTERDICTION	49.2601
F-14	AIR INTERDICTION	43.1814
F-18	AIR INTERDICTION	76.9689
SH-3	ASW(SEA BASED)	5.2014
SH-2	ASW(SEA BASED)	13.0036
SH-60B	ASW(SEA BASED)	20.2277
S-3	ASW(SEA BASED)	34.6761
ATT. SUBS	ASW(SEA BASED)	14.4484
FRIGATES	ASW(SEA BASED)	14.4484
DSTROYERS	ASW(SEA BASED)	8.6690
M-48	ARMY GROUND	3.9112
M-60	ARMY GROUND	6.2858
M-1	ARMY GROUND	34.9212
M-551	ARMY GROUND	0.0698
M-901	ARMY GROUND	6.2858
M-2/M-3	ARMY GROUND	6.2858
M-113	ARMY GROUND	0.6984
MLRS	ARMY GROUND	9.4287
TOWED ART.	ARMY GROUND	4.1905
SELF-PROP.	ARMY GROUND	5.5874
PERSHING	ARMY GROUND	14.6649
GLCME	ARMY GROUND	24.4449
INFANTRY	ARMY GROUND	55.8740
MORTERS	ARMY GROUND	4.8890
ROLES LNCH	ARMY GROUND	0.2095

	NORMALIZED VALUES
F-111	10.0000
F-16	8.5962
F-4	8.5473
F-18	6.2500
A-10	5.4732
COBRA	4.8651
INFANTRY	4.5371
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.8357
S-3	2.8158
GLCME	1.9850
SH-60B	1.6425
PERSHING	1.1910
FRIGATES	1.1732
ATT. SUBS	1.1732
SH-2	1.0559
MLRS	0.7656
DSTROYERS	0.7039
M-2/M-3	0.5104
M-901	0.5104
M-60	0.5104
RADIO RLAY	0.4552
SELF-PROP.	0.4537
SH-3	0.4224
MORTERS	0.3970
TOWED ART.	0.3403
M-48	0.3176
ART. ACFT	0.2737
M-113	0.0567
ROLES LNCH	0.0170
M-551	0.0017

NICKEL		
A-10	CAS	67 4028
COBRA	CAS	44 9300
F-4	AIR INTERDICTION	73 8900
	CAS	5 0552
F-16	AIR INTERDICTION	68 4159
	CAS	37 4440
ART. ACFT	CAS	12 2468
RADIO RELAY	AIR INTERDICTION	3 0789
	CAS	2 5276
F-111	AIR INTERDICTION	123 1503
A-6	AIR INTERDICTION	36 9451
F-15	AIR INTERDICTION	54 7335
A-7	AIR INTERDICTION	49 2601
F-14	AIR INTERDICTION	46 1814
F-18	AIR INTERDICTION	76 9689
SH-3	ASW (SEA BASED)	6 9310
SH-2	ASW (SEA BASED)	17 3381
SH-60B	ASW (SEA BASED)	26 9703
S-3	ASW (SEA BASED)	34 6741
ATT. SUBS	ASW (SEA BASED)	43 3452
FRIGATES	ASW (SEA BASED)	26 0071
DESTROYERS	ASW (SEA BASED)	15 6043
M-48	ARMY GROUND	39 1118
M-60	ARMY GROUND	62 8582
M-1	ARMY GROUND	69 8425
M-551	ARMY GROUND	0 6984
M-901	ARMY GROUND	44 0008
M-2/M-3	ARMY GROUND	50 2866
M-113	ARMY GROUND	4 8890
MLRS	ARMY GROUND	18 8575
TOWED ART.	ARMY GROUND	33 5244
SELF-PROP.	ARMY GROUND	44 6982
PERSHING	ARMY GROUND	16 7422
GLCMs	ARMY GROUND	20 9527
INFANTRY	ARMY GROUND	34 9212
MORTARS	ARMY GROUND	14 6669
ROLES LNCH	ARMY GROUND	0 2095

NORMALIZED VALUES	
F-111	10 0000
F-16	8 5962
F-4	6 4105
F-18	6 2500
M-1	5 6713
A-10	5 4732
M-60	5 1042
F-15	4 4444
M-2/M-3	4 0834
A-7	4 0000
F-14	3 7500
COBRA	3 6488
SELF-PROP.	3 6296
M-901	3 5729
ATT. SUBS	3 5197
M-48	3 1759
A-6	3 0000
INFANTRY	2 8357
S-3	2 8158
TOWED ART.	2 7222
SH-60B	2 1900
FRIGATES	2 1118
GLCMs	1 7014
MLRS	1 5313
SH-2	1 4079
PERSHING	1 3611
DESTROYERS	1 2671
MORTARS	1 1910
SH-3	0 5632
RADIO RELAY	0 4532
M-113	0 3970
ART. ACFT	0 1877
M-551	0 0567
ROLES LNCH	0 0170

FLUORSEAR ACID		
A-10	CAS	84 2536
COBRA	CAS	44 9311
F-4	AIR INTERDICTION	123 1711
	CAS	8 4254
F-16	AIR INTERDICTION	85 5210
	CAS	43 8070
ART. ACFT	CAS	3 3701
RADIO RLY	AIR INTERDICTION	3 0789
	CAS	2 5276
F-111	AIR INTERDICTION	153 9378
A-6	AIR INTERDICTION	46 1814
F-15	AIR INTERDICTION	68 4168
A-7	AIR INTERDICTION	61 5751
F-14	AIR INTERDICTION	51 3114
F-18	AIR INTERDICTION	89 5210
SH-3	ASW (SEA BASED)	6 9311
SH-2	ASW (SEA BASED)	17 3381
SH-60B	ASW (SEA BASED)	33 7129
S-3	ASW (SEA BASED)	42 3451
ATT. SUBS	ASW (SEA BASED)	28 8941
FRIGATES	ASW (SEA BASED)	20 2277
DESTROYERS	ASW (SEA BASED)	12 1367
M-48	ARMY GROUND	11 7835
M-60	ARMY GROUND	18 8575
M-1	ARMY GROUND	20 9527
M-551	ARMY GROUND	0 2095
M-901	ARMY GROUND	50 2866
M-2/M-3	ARMY GROUND	50 2866
M-112	ARMY GROUND	5 5874
MLRS	ARMY GROUND	15 7146
TOWED ART.	ARMY GROUND	20 9527
SELF-PROP.	ARMY GROUND	27 9370
PERSHING	ARMY GROUND	14 6669
GLOMS	ARMY GROUND	24 4449
INFANTRY	ARMY GROUND	55 8740
MORTERS	ARMY GROUND	24 4449
ROLES LNCH	ARMY GROUND	0 2095

NORMALIZED VALUES	10.0000
F-111	6.5962
F-16	6.5473
F-4	5.5556
F-18	5.4732
A-10	4.4444
F-15	4.0000
A-7	3.6296
INFANTRY	3.3333
F-14	3.2667
M-2/M-3	3.2667
M-901	3.0000
A-6	2.9191
COBRA	2.8158
S-3	2.1900
SH-60B	1.8772
ATT. SUBS	1.8148
SELF-PROP.	1.5880
MORTERS	1.5880
GLOMS	1.3611
TOWED ART.	1.3611
M-1	1.3140
FRIGATES	1.2250
M-60	1.1263
SH-2	1.0208
MLRS	0.9528
PERSHING	0.7834
DESTROYERS	0.7622
M-48	0.4905
SH-3	0.3647
RADIO RLY	0.3630
M-112	0.2184
ART. ACFT	0.0134
ROLES LNCH	0.0134
M-551	0.0134

ATT. SUBS	ASW (SEA BASED)	14	4484
M-48	ARMY GROUND	27	3788
M-60	ARMY GROUND	44	6008
M-113	ARMY GROUND	4	8890
TOWED ART.	ARMY GROUND	29	3338
SELF-PROP.	ARMY GROUND	39	1118
INFANTRY	ARMY GROUND	67	8425
MORTERS	ARMY GROUND	34	2118

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3019
SELF-PROP.	5.6001
MORTERS	4.9000
TOWED ART.	4.2000
M-48	3.9200
ATT. SUBS	2.0487
M-113	0.7000

ALL COMMODITIES

A-10	CAS	2 8646
COBRA	CAS	1 8411
F-4	AIR INTERDICTION	3 9403
	CAS	0 2686
F-16	AIR INTERDICTION	1 9077
	CAS	1 5415
ART. ACFT	CAS	0 1236
RADIO RLY	AIR INTERDICTION	0 1232
	CAS	0 1011
F-111	AIR INTERDICTION	5 2339
A-6	AIR INTERDICTION	1 6143
F-15	AIR INTERDICTION	2 3262
A-7	AIR INTERDICTION	2 0934
F-14	AIR INTERDICTION	1 8473
F-18	AIR INTERDICTION	3 0789
SH-3	ASW(SEA BASED)	0 2514
SH-2	ASW(SEA BASED)	0 6285
SH-60B	ASW(SEA BASED)	1 0411
S-3	ASW(SEA BASED)	1 4737
ATT. SUBS	ASW(SEA BASED)	1 2511
FRIGATES	ASW(SEA BASED)	0 7513
DESTROYERS	ASW(SEA BASED)	0 4503
M-48	ARMY GROUND	0 9137
M-60	ARMY GROUND	1 5086
M-1	ARMY GROUND	1 4667
M-551	ARMY GROUND	0 0113
M-901	ARMY GROUND	1 1943
M-2/M-3	ARMY GROUND	1 2572
M-113	ARMY GROUND	0 1816
MLRS	ARMY GROUND	0 6281
TOWED ART.	ARMY GROUND	1 1314
SELF-PROP.	ARMY GROUND	1 5086
PERSHING	ARMY GROUND	0 6286
GLCMS	ARMY GROUND	0 9778
INFANTRY	ARMY GROUND	2 2350
MORTERS	ARMY GROUND	1 1245
ROLES LNCH	ARMY GROUND	0 0210

NORMALIZED VALUES	
F-111	10.0000
F-16	8.5942
F-4	8.0445
F-18	5.9824
A-10	5.4732
F-15	4.4444
INFANTRY	4.2702
A-7	4.0000
COBRA	3.7204
F-14	3.5294
A-6	3.0882
M-60	2.8824
SELF-PROP.	2.8824
S-3	2.8108
M-1	2.8023
M-2/M-3	2.4020
ATT. SUBS	2.3925
M-901	2.2819
TOWED ART.	2.1618
MORTERS	2.1484
SH-60B	1.9768
GLCMS	1.8682
M-48	1.7935
FRIGATES	1.4355
PERSHING	1.2010
MLRS	1.2010
SH-2	1.2008
DESTROYERS	0.8613
SH-3	0.4803
RADIO RLY	0.4237
M-113	0.3470
ART. ACFT	0.2241
ROLES LNCH	0.0409
M-551	0.0217

CRITICALITY OF SHORTFALL

ALL FE'S

(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT FALL (%)	TRANS- LATES	FE COMMODITY IMPORT.	CRITIC- ALITY	FE SHORT- FALL CRITICALITY
COBALT	85.4	43.8	-48.7	402.5	8.0	3218.4	0.4
TIN	42.0	190.6	353.8	0.0	10.0	0.0	0.0
NICKEL	200.0	22.2	-93.9	437.7	10.0	4358.1	10.0
FLUORSPAR ACID	1400.0	895.0	-36.1	389.9	9.5	3708.3	9.5
PYRETHRUM	500.0	0.0	-100.0	453.8	4.2	1897.6	4.4

COMPOSITE IMPORTANCE

(LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	241/CI
FINLAND	1350.	6.43	1.72	0.589	3.731
MOROCCO	450.	2.14	2.05	0.487	1.043
BOTSWANNA	250.	1.19	1.76	0.569	0.473
SOUTH AFRICA	150.	0.71	2.31	0.432	0.304
ZAIRE	12500.	59.52	1.76	0.569	33.892
ZAMBIA	3500.	16.67	1.76	0.569	9.490
PHILIPPINES	50.	0.24	0.82	1.216	0.269
AUSTRALIA	400.	1.90	0.82	1.216	2.318
NEW CALEDONIA	250.	1.19	0.82	1.216	1.447
CANADA	1100.	5.24	2.61	0.383	2.007
U.S.	1000.	4.76	2.61	0.432	2.059
TOTAL	21000.	100.00			

COMPOSITE IMPORTANCE

(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
AUSTRALIA	100.	0.15	0.82	1.216	0.150
U.S.	16100.	23.82	2.31	0.432	10.299
THAILAND	5900.	8.73	0.82	1.216	10.611
INDONESIA	5800.	8.58	0.82	1.216	10.431
UK	100.	0.15	1.76	0.569	0.084
BOLIVIA	10300.	15.24	0.90	1.117	17.014
BRAZIL	2400.	3.55	0.90	1.117	3.964
PRC	3000.	4.44	2.33	0.429	1.905
MALAYSIA	23900.	35.36	0.82	1.216	42.983
TOTAL	67600.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1000.	0.33	1.72	0.580	0.191
SOUTH AFRICA	5000.	1.64	2.31	0.432	0.710
PHILIPPINES	5000.	1.64	0.82	1.216	1.997
AUSTRALIA	20000.	8.21	0.82	1.216	9.991
CANADA	120000.	49.29	2.61	0.389	19.877
U S	89000.	29.91	2.31	0.432	12.501
GREECE	600.	0.20	1.76	0.569	0.112
NETHERLANDS	200.	0.07	1.76	0.569	0.037
FRG	100.	0.03	1.76	0.569	0.019
YUGOSLAVIA	500.	0.16	1.76	0.569	0.044
USSR	5000.	1.64	0.86	1.160	1.900
DOM REPUE	15000.	4.99	1.39	0.727	3.561
GUATEMALA	4000.	1.31	1.39	0.727	0.955
INDONESIA	5000.	1.64	0.82	1.216	1.997

TOTAL: 304400. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

FLUOREPAR ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	190.	22.36	2.31	0.432	9.619
U S	70.	8.70	2.31	0.432	3.760
ITALY	65.	8.07	1.76	0.569	4.590
SPAIN	100.	12.42	1.76	0.569	7.079
EAST AFRICA	25.	3.11	1.76	0.569	1.768
THAILAND	15.	1.86	0.82	1.216	2.265
MEXICO	350.	42.48	2.31	0.432	18.801

TOTAL: 805. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000.	1.01	2.31	0.432	0.438
AUSTRALIA	1500.	0.76	0.82	1.216	0.923
JK	11000.	5.57	1.76	0.569	3.171
KENYA	80000.	40.51	1.76	0.569	23.063
RWANDA	25000.	12.66	1.76	0.569	7.207
TANZANIA	78000.	39.49	1.76	0.569	22.487

TOTAL: 197500. 100.00

SOURCE IMPORTANCE
(LOC 3)

SOURCE	% (1/01) CONF. 1/2	FEASPORTALL CRITICALITY	TOTAL	NORMALIZED 1/1/02
COBALT				
FINLAND	3.731	7.38	27.55	11.01
MOROCCO	1.043	7.38	7.70	3.08
BOTSWANNA	0.678	7.38	5.01	2.00
SOUTH AFRICA	0.302	7.38	2.28	0.91
ZAIRE	31.822	7.38	250.28	100.00
ZAMBIA	8.430	7.38	70.03	28.03
PHILIPPINES	0.289	7.38	2.14	0.85
AUSTRALIA	2.316	7.38	17.10	6.81
NEW CALEDONIA	1.447	7.38	10.69	4.27
CANADA	2.007	7.38	14.92	5.91
U S	2.056	7.38	15.21	6.08
TIN				
AUSTRALIA	0.180	0.00	0.00	0.00
U S	10.289	0.00	0.00	0.00
THAILAND	10.611	0.00	0.00	0.00
INDONESIA	10.431	0.00	0.00	0.00
UK	0.084	0.00	0.00	0.00
BOLIVIA	17.014	0.00	0.00	0.00
BRASIL	3.864	0.00	0.00	0.00
FRG	1.825	0.00	0.00	0.00
MALAYSIA	42.982	0.00	0.00	0.00
NICKEL				
FINLAND	0.191	10.00	1.91	0.76
SOUTH AFRICA	0.710	10.00	7.10	2.84
PHILIPPINES	1.997	10.00	19.97	7.98
AUSTRALIA	9.985	10.00	99.85	39.84
CANADA	18.877	10.00	188.77	75.42
U S	12.501	10.00	125.01	49.91
GREECE	0.112	10.00	1.12	0.45
NETHERLANDS	0.037	10.00	0.37	0.15
FRG	0.019	10.00	0.19	0.07
YUGOSLAVIA	0.094	10.00	0.94	0.37
USSR	1.905	10.00	19.05	7.61
DOM. REPUB.	3.582	10.00	35.82	14.31
GUATAMALA	0.955	10.00	9.55	3.82
INDONESIA	1.997	10.00	19.97	7.98
FLUORSPAR ACID				
SOUTH AFRICA	9.669	8.51	82.28	32.87
U S	3.760	8.51	32.00	12.73
ITALY	4.597	8.51	39.12	15.63
SPAIN	7.073	8.51	60.19	24.05
EAST AFRICA	1.768	8.51	15.05	6.01
THAILAND	2.265	8.51	19.28	7.70
MEXICO	18.801	8.51	159.98	63.92
PYRETHRUM				
SOUTH AFRICA	0.438	4.35	1.91	0.76
AUSTRALIA	0.923	4.35	4.02	1.61
UK	3.171	4.35	13.81	5.52
KENYA	23.063	4.35	100.42	40.12
RWANDA	7.207	4.35	31.38	12.54
TANZANIA	22.487	4.35	97.91	39.12

SOURCE IMPORTANCE
 RANKED BY SOURCE
 (LOC 3)

#	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	CANADA	NICKEL	70.42
3	MEXICO	FLUORSPAR ACID	63.92
4	U S	NICKEL	49.95
5	KENYA	PYRETHRUM	40.12
6	AUSTRALIA	NICKEL	39.84
7	TANZANIA	PYRETHRUM	39.12
8	SOUTH AFRICA	FLUORSPAR ACID	32.87
9	ZAMBIA	COBALT	28.00
10	SPAIN	FLUORSPAR ACID	24.05
11	ITALY	FLUORSPAR ACID	15.63
12	DOM. REPUB.	NICKEL	14.31
13	U S	FLUORSPAR ACID	12.73
14	RWANDA	PYRETHRUM	12.54
15	FINLAND	COBALT	11.01
16	INDONESIA	NICKEL	7.94
17	PHILIPPINES	NICKEL	7.93
18	THAILAND	FLUORSPAR ACID	7.70
19	USSR	NICKEL	7.61
20	AUSTRALIA	COBALT	6.93
21	U S	COBALT	6.08
22	EAST AFRICA	FLUORSPAR ACID	6.01
23	CANADA	COBALT	5.92
24	UK	PYRETHRUM	5.52
25	NEW CALEDONIA	COBALT	4.27
26	GUATAMALA	NICKEL	3.84
27	MOROCCO	COBALT	3.08
28	SOUTH AFRICA	NICKEL	2.94
29	BOTSWANNA	COBALT	2.00
30	AUSTRALIA	PYRETHRUM	1.61
31	SOUTH AFRICA	COBALT	0.91
32	PHILIPPINES	COBALT	0.80
33	SOUTH AFRICA	PYRETHRUM	0.76
34	FINLAND	NICKEL	0.75
35	GREECE	NICKEL	0.45
36	YUGOSLAVIA	NICKEL	0.37
37	NETHERLANDS	NICKEL	0.15
38	FRG	NICKEL	0.07
39	MALAYSIA	TIN	0.00
40	PRC	TIN	0.00
41	BRAZIL	TIN	0.00
42	BOLIVIA	TIN	0.00
43	UK	TIN	0.00
44	INDONESIA	TIN	0.00
45	THAILAND	TIN	0.00
46	U S	TIN	0.00
47	AUSTRALIA	TIN	0.00

SCENARIO 39

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	2.0	5.0	2.0	10.0
I/CDEF	0.1786	0.1786	0.1250	0.0833	0.1250	0.0357	0.0357	0.0833	0.0357	0.1071

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Region 11										
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
Weight	9.0									
I/CDEF	0.1333	0.1333	0.1200	0.0533	0.0933	0.0667	0.0133	0.1067	0.0933	0.0667
I/CDEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
I/CDEF	0.1786	0.1786	0.1786	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
I/CDEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH Region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0228	0.0228	0.0140	0.0114	0.0160	0.0044	0.0093	0.0114	0.0044	0.0117	

Media 2	Region	1	2	3	4	5	6	7	8	9	10
Media 11											

Region											
I/CDEF	0.0171	0.0171	0.0154	0.0068	0.0119	0.0085	0.0017	0.0136	0.0119	0.0035	
I/CDEF	0.0154										

Media 3	Region	1	2	3	4	5	6	7
I/CDEF	0.0228	0.0228	0.0228	0.0183	0.0137	0.0091	0.0183	

Media 4	Region	1	2	3	4
I/CDEF	0.0752	0.0301	0.0150	0.0075	

Importance of controlling ANY Region within its Media as compared to the Importance of controlling ANY Region of any other Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0040	

Media 2	Region	1	2	3	4	5	6	7	8	9	10
Media 11											

Region											
I/CDEF	0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0019	
I/CDEF	0.0033										

Media 3	Region	1	2	3	4	5	6	7
I/CDEF	0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048	

Media 4	Region	1	2	3	4
I/CDEF	0.0065	0.0026	0.0013	0.0007	

FORCE ELEMENT IMPORTANCE
(LO 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.141	10.000
2	1	AIR INTERDICTION	0.117	8.297
3	3	ARMY GROUND	0.104	7.845
4	16	ATTACK SUBS	0.072	5.113
5	19	SURFACE COMBATANTS	0.060	4.247
6	17	THEATER NUCLEAR WEAPON	0.054	3.811
7	8	RAPID DEPLOY	0.052	3.707
8	6	CAS	0.044	3.113
9	14	ASW(LAND BASED)	0.044	3.099
10	22	AIR SUPERIORITY(LAND BASED)	0.041	2.919
11	15	ASW(SEA BASED)	0.034	2.397
12	23	AIR SUPERIORITY(SHIP BASED)	0.030	2.121
13	21	AIR DEFENSE(SHIP BASED)	0.029	2.049
14	10	STRATEGIC BOMBER	0.010	0.734
15	25	SPACE BASED WEAPON(AIR CNTRL)	0.010	0.716
16	29	ASAT(SPACE BASED)	0.013	0.924
17	18	MINE WARFARE	0.013	0.891
18	2	AMPHIBIOUS ASSAULT	0.011	0.797
19	13	SPECIAL OPERATIONS	0.010	0.721
20	28	ASAT(LAND BASED)	0.007	0.500
21	20	AIR DEFENSE(LAND BASED)	0.004	0.274
22	9	SPACE-BASED WEAPON(LAND CNTRL)	0.003	0.211
23	30	SPACE BASED WEAPON(SEA CNTRL)	0.002	0.113
24	27	ARM(SPACE BASED)	0.000	0.000
25	26	ARM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANT
(LOC 3)

CUBALT

AIR INTERDICTION	5.65
ARMY GROUND	4.51
CAS	1.51
ICBM	0.00
STRATEGIC BOMBER	1.79
SLEM	0.00
ASW(SEA BASED)	1.20
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.51
	34.24

TIN

AIR INTERDICTION	5.90
ARMY GROUND	1.92
CAS	1.61
STRATEGIC BOMBER	1.79
ASW(LAND BASED)	3.08
ASW(SEA BASED)	1.01
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASM(LAND BASED)	0.00
	40.78

NICKEL

AIR INTERDICTION	5.65
ARMY GROUND	4.92
CAS	1.40
STRATEGIC BOMBER	1.79
ASW(SEA BASED)	1.81
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
	41.04

FLUORSPAR ACID

AIR INTERDICTION	7.02
AMPHIBIOUS ASSAULT	0.76
ARMY GROUND	3.41
CAS	1.75
ICBM	0.00
STRATEGIC BOMBER	1.79
SLEM	0.00
ASW(LAND BASED)	3.05
ASW(SEA BASED)	1.54
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.05
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	39.11

PYRETHRUM

ARMY GROUND	2.63
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.22
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
	17.10

COMMODITY NORMALIZED IMPORTANCE

NICKEL	10.00	(41.04)
TIN	9.94	(40.78)
FLUORSPAR ACID	9.58	(39.11)
COBALT	8.43	(34.53)
PYRETHRUM	4.18	(17.15)

CORALT		
A-1A	CAS	35.6012
COBRA	CAS	27.6676
F-4	AIR INTERDICTION	74.6716
	CAS	35.6012
F-16	AIR INTERDICTION	76.3018
	CAS	35.6549
ART. ACFT	CAS	5.9335
RADIO BLAY	AIR INTERDICTION	5.7226
	CAS	4.4501
F-111	AIR INTERDICTION	49.6716
A-6	AIR INTERDICTION	49.6716
F-15	AIR INTERDICTION	76.3018
A-7	AIR INTERDICTION	49.7811
F-14	AIR INTERDICTION	76.3018
F-18	AIR INTERDICTION	76.3018
SP-3	ASW(SEA BASED)	4.5581
SH-2	ASW(SEA BASED)	13.6743
SH-60B	ASW(SEA BASED)	15.1937
S-3	ASW(SEA BASED)	15.6273
ATT. SUBS	ASW(SEA BASED)	36.1754
FRIGATES	ASW(SEA BASED)	21.7052
DESTROYERS	ASW(SEA BASED)	13.0231
M-48	ARMY GROUND	37.9669
M-60	ARMY GROUND	61.0181
M-1	ARMY GROUND	67.7980
M-551	ARMY GROUND	0.2160
M-901	ARMY GROUND	54.2384
M-2/M-3	ARMY GROUND	47.4586
M-113	ARMY GROUND	5.2732
MLRS	ARMY GROUND	20.3394
TOWED ART.	ARMY GROUND	27.1192
SELF-PROP.	ARMY GROUND	36.1589
PERSHING	ARMY GROUND	18.0795
GLCS	ARMY GROUND	30.1324
INFANTRY	ARMY GROUND	7.5331
MORTERS	ARMY GROUND	36.9172
ROLES LNCH	ARMY GROUND	1.5820

NORMALIZED VALUES	
F-16	10.0000
F-4	9.0000
F-18	6.5858
F-14	6.5333
F-15	6.5853
A-6	5.9272
F-111	5.9272
M-1	5.8518
M-60	5.2666
M-901	4.6314
M-2/M-3	4.0962
A-7	3.9515
M-48	3.2770
MORTERS	3.1860
ATT. SUBS	3.1224
SELF-PROP.	3.1210
A-10	3.0728
GLCS	2.6008
COBRA	2.5607
TOWED ART.	2.3407
FRIGATES	1.8734
MLRS	1.7555
PERSHING	1.5605
S-3	1.3489
SH-60B	1.3114
SH-2	1.1803
DESTROYERS	1.1241
RADIO BLAY	0.9790
INFANTRY	0.7502
ART. ACFT	0.5121
M-113	0.4551
COBRA	0.4241
GLCS	0.1365
ROLES LNCH	0.0111

TIN		
A-10	CAS	35.6012
COBRA	CAS	39.5549
F-4	AIR INTERDICTION	68.6716
	CAS	35.6012
F-16	AIR INTERDICTION	76.3019
	CAS	39.5549
ART. ACFT	CAS	5.9335
RADIO RLAY	AIR INTERDICTION	5.7226
	CAS	4.4501
F-111	AIR INTERDICTION	68.6716
A-6	AIR INTERDICTION	77.2555
F-15	AIR INTERDICTION	76.3019
A-7	AIR INTERDICTION	45.7811
F-14	AIR INTERDICTION	85.8395
F-18	AIR INTERDICTION	85.8395
SH-3	ASW(SEA BASED)	3.9049
SH-2	ASW(SEA BASED)	11.7208
SH-60B	ASW(SEA BASED)	13.0231
S-3	ASW(SEA BASED)	15.6278
ATT. SUBS	ASW(SEA BASED)	21.7052
FRIGATES	ASW(SEA BASED)	21.7052
DESTROYERS	ASW(SEA BASED)	13.0231
M-48	ARMY GROUND	4.2185
M-60	ARMY GROUND	6.7798
M-1	ARMY GROUND	37.6455
M-551	ARMY GROUND	0.0702
M-901	ARMY GROUND	6.7798
M-2/M-3	ARMY GROUND	6.7798
M-113	ARMY GROUND	0.7533
MLRS	ARMY GROUND	10.1697
TOWED ART	ARMY GROUND	4.5199
SELF-PROP.	ARMY GROUND	6.0265
PERSHING	ARMY GROUND	15.8195
GLCMs	ARMY GROUND	26.3659
INFANTRY	ARMY GROUND	60.2649
MORTARS	ARMY GROUND	5.2732
ROLES LNCH	ARMY GROUND	0.2260

NORMALIZED VALUES	
10.0000	F-16
9.0000	F-4
7.4090	F-18
7.4090	F-14
6.6681	A-6
6.5808	F-15
5.9272	F-111
5.2016	INFANTRY
3.9515	A-7
3.4142	COBRA
3.2510	M-1
3.0729	A-10
2.2757	GLCMs
1.8734	FRIGATES
1.8734	ATT. SUBS
1.3654	PERSHING
1.3489	S-3
1.1241	SH-60B
1.1241	DESTROYERS
1.0116	SH-2
0.8780	RADIO RLAY
0.8778	MLRS
0.5852	M-2/M-3
0.5852	M-901
0.5852	M-60
0.5202	SELF-PROP.
0.5121	ART. ACFT
0.4591	MORTARS
0.3901	TOWED ART.
0.3641	M-48
0.3372	S-3
0.0630	M-113
0.0185	ROLES LNCH
0.0065	M-551

NICHEL		
A-10	CAS	35.6412
CORRA	CAS	28.4878
F-4	AIR INTERDICTION	51.5037
	CAS	26.7009
F-16	AIR INTERDICTION	76.3018
	CAS	33.3519
ART. ACFT	CAS	3.9557
RADIO RLY	AIR INTERDICTION	5.7226
	CAS	4.4501
F-111	AIR INTERDICTION	68.6716
A-6	AIR INTERDICTION	68.6716
F-15	AIR INTERDICTION	76.3018
A-7	AIR INTERDICTION	45.7811
F-14	AIR INTERDICTION	85.8325
F-18	AIR INTERDICTION	85.8325
SH-3	ASW(SEA BASED)	5.2031
SH-2	ASW(SEA BASED)	15.6278
SH-601	ASW(SEA BASED)	17.8641
S-3	ASW(SEA BASED)	15.6278
ATT. SUBS	ASW(SEA BASED)	65.1157
FRIGATES	ASW(SEA BASED)	39.0694
DESTROYERS	ASW(SEA BASED)	23.4416
M-48	ARMY GROUND	42.1954
M-60	ARMY GROUND	67.7350
M-1	ARMY GROUND	75.3311
M-501	ARMY GROUND	0.7501
M-901	ARMY GROUND	47.4586
M-2/M-3	ARMY GROUND	34.2984
M-113	ARMY GROUND	5.2732
MLRS	ARMY GROUND	20.3214
TOWED ART	ARMY GROUND	36.1589
SELF-PROP.	ARMY GROUND	43.3119
PERSHING	ARMY GROUND	18.0795
GLCME	ARMY GROUND	22.5993
INFANTRY	ARMY GROUND	37.6655
MORTERS	ARMY GROUND	15.8193
ROLES LNCH	ARMY GROUND	0.2260

NORMALIZED VALUES	
F-16	10.0000
F-18	7.4090
F-14	7.4090
F-4	6.7500
F-15	6.5858
M-1	6.5020
A-6	5.9272
F-111	5.9272
M-60	5.8518
ATT. SUBS	5.6203
M-2/M-3	4.6814
SELF-PROP.	4.1613
M-901	4.0962
A-7	3.9513
M-48	3.6411
FRIGATES	3.3722
INFANTRY	3.2510
TOWED ART.	3.1210
A-10	3.0728
CORRA	2.5607
DESTROYERS	2.0233
GLCME	1.9506
MLRS	1.7535
PERSHING	1.5605
SH-60B	1.4987
MORTERS	1.3654
S-3	1.3489
SH-2	1.3489
RADIO RLY	0.8780
M-113	0.4571
SH-3	0.4496
ART. ACFT	0.3414
M-501	0.0650
ROLES LNCH	0.0105

FLUGELSPAR ACFT		
A-10	CAS	44 5015
COBRA	CAS	29 5676
F-4	AIR INTERDICTION	85 8395
	CAS	44 5015
F-16	AIR INTERDICTION	95 3772
	CAS	49 4461
ART. ACFT	CAS	0 9335
RADIO FLAY	AIR INTERDICTION	5 7226
	CAS	4 4501
F-111	AIR INTERDICTION	85 8395
A-6	AIR INTERDICTION	85 8395
F-15	AIR INTERDICTION	95 3772
A-7	AIR INTERDICTION	57 2269
F-14	AIR INTERDICTION	95 3772
F-18	AIR INTERDICTION	95 3772
SH-3	ASW(SEA BASED)	5 2099
SH-2	ASW(SEA BASED)	15 6278
SH-60B	ASW(SEA BASED)	31 7002
S-3	ASW(SEA BASED)	19 5347
ATT. SUBS	ASW(SEA BASED)	43 4104
FRIGATES	ASW(SEA BASED)	30 3873
DESTROYERS	ASW(SEA BASED)	18 2324
M-48	ARMY GROUND	12 6554
M-60	ARMY GROUND	20 3394
M-1	ARMY GROUND	22 5993
M-551	ARMY GROUND	0 2260
M-901	ARMY GROUND	54 2384
M-2/M-3	ARMY GROUND	54 2384
M-113	ARMY GROUND	6 0265
MLRS	ARMY GROUND	16 9490
TOWED ART.	ARMY GROUND	22 5993
SELF-PROP.	ARMY GROUND	30 1324
PERSHING	ARMY GROUND	15 8195
GLCMs	ARMY GROUND	26 3659
INFANTRY	ARMY GROUND	60 2649
MORTARS	ARMY GROUND	26 3659
ROLES LNCH	ARMY GROUND	0 2260

	NORMALIZED VALUES
F-16	10.0000
F-4	9.0000
F-18	6.5858
F-14	6.5858
F-15	6.5858
A-6	5.9272
F-111	5.9272
INFANTRY	4.1613
A-7	3.9515
M-2/M-3	3.7451
M-901	3.7451
A-10	3.0728
ATT. SUBS	2.9975
FRIGATES	2.0982
SELF-PROP.	2.0806
COBRA	2.0485
MORTARS	1.8206
GLCMs	1.8206
TOWED ART.	1.5605
M-1	1.5605
SH-60B	1.4987
M-60	1.4044
S-3	1.3489
DESTROYERS	1.2589
MLRS	1.1704
PERSHING	1.0923
SH-2	1.0791
M-48	0.8739
RADIO FLAY	0.7024
M-113	0.4161
ART. ACFT	0.4097
SH-3	0.3997
ROLES LNCH	0.0154
M-551	0.0136

PYRETHRUM		
ATT. SUBS	ASW(SEA BASED)	21.7052
M-48	ARMY GROUND	29.5742
M-60	ARMY GROUND	47.4586
M-113	ARMY GROUND	5.2732
TOWED ART.	ARMY GROUND	31.6390
SELF-PROP.	ARMY GROUND	42.1854
INFANTRY	ARMY GROUND	75.3311
MORTERS	ARMY GROUND	36.9122

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3000
SELF-PROP.	5.6000
MORTERS	4.9000
TOWED ART.	4.2000
M-48	3.9200
ATT. SUBS	2.8813
M-113	0.7000

ALL COMMODITIES

A-10	CAS	1.5130
COBRA	CAS	1.2876
F-4	AIR INTERDICTION	2.7469
	CAS	1.4240
F-16	AIR INTERDICTION	3.2428
	CAS	1.6812
AFT. ACFT	CAS	0.2176
RADIO FLAY	AIR INTERDICTION	0.2289
	CAS	0.1780
F-111	AIR INTERDICTION	2.9185
A-6	AIR INTERDICTION	3.0044
F-15	AIR INTERDICTION	3.2438
A-7	AIR INTERDICTION	1.9457
F-14	AIR INTERDICTION	3.4366
F-18	AIR INTERDICTION	3.4336
SH-3	ASW(SEA BASED)	0.1908
SH-2	ASW(SEA BASED)	0.5665
SH-60B	ASW(SEA BASED)	0.6729
S-3	ASW(SEA BASED)	0.6642
ATT. SUBS	ASW(SEA BASED)	1.8811
FRIGATES	ASW(SEA BASED)	1.1287
DESTROYERS	ASW(SEA BASED)	0.6772
M-48	ARMY GROUND	1.2656
M-60	ARMY GROUND	2.0339
M-1	ARMY GROUND	2.0339
M-351	ARMY GROUND	0.0123
M-901	ARMY GROUND	1.6272
M-2/M-3	ARMY GROUND	1.6272
M-113	ARMY GROUND	0.2260
MLRS	ARMY GROUND	0.6780
TOWED ART.	ARMY GROUND	1.2204
SELF-PROP.	ARMY GROUND	1.6272
PERSHING	ARMY GROUND	0.6780
GLCMs	ARMY GROUND	1.0546
INFANTRY	ARMY GROUND	2.4106
MORTERS	ARMY GROUND	1.2128
ROLES LNCH	ARMY GROUND	0.0226

NORMALIZED VALUES	10.0000
F-16	8.4706
F-4	6.9732
F-18	6.9732
F-14	6.9732
F-15	6.5858
A-6	6.1015
F-111	5.9272
INFANTRY	4.8956
M-1	4.1307
M-60	4.1307
A-7	3.9515
ATT. SUBS	3.8203
SELF-PROP.	3.3045
M-2/M-3	3.3045
M-901	3.3045
A-10	3.0723
COBRA	2.6109
M-48	2.5702
TOWED ART.	2.4784
MORTERS	2.4631
FRIGATES	2.2922
GLCMs	2.1418
PERSHING	1.3769
MLRS	1.3769
DESTROYERS	1.3753
SH-60B	1.3660
S-3	1.0489
SH-2	1.1504
RADIO FLAY	0.8264
M-113	0.4500
AFT. ACFT	0.4418
SH-3	0.3835
ROLES LNCH	0.0417
M-351	0.0123

CRITICALITY OF SHORTFALL
ALL FE'S
(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK PILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FE/ COMMODITY IMPORT.	CRITIC- ALITY	FE/SHORTFALL CRITICALITY
COBALT	85.4	43.8	-48.7	402.5	8.4	3393.2	7.9
TIN	42.0	150.6	303.8	0.0	9.9	0.0	0.0
NICKEL	200.0	32.2	-83.9	437.7	10.0	4377.7	10.0
FLUORSPAR ACID	1400.0	895.0	-35.1	389.9	9.5	3715.4	8.5
MYRETHRUM	500.0	0.0	-100.0	453.8	4.2	1896.4	4.2

COMPOSITE IMPORTANCE
(LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
INDONESIA	1350	6.43	1.92	0.520	3.043
INDONESIA	450	2.14	1.50	0.667	1.429
BOTSWANA	250	1.19	0.71	1.404	1.471
SOUTH AFRICA	150	0.71	1.19	0.841	0.610
LAOS	12500	59.52	0.71	1.404	83.543
AMERICA	3500	16.67	0.71	1.404	21.343
PHILIPPINES	50	0.24	0.92	1.087	0.259
AUSTRALIA	400	1.90	0.92	1.087	0.070
NEW CALEDONIA	250	1.19	0.92	1.087	1.293
CANADA	1100	5.24	2.89	0.346	1.813
U.S.	1000	4.76	2.56	0.391	1.863
TOTAL:	21000	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
AUSTRALIA	100	0.15	0.92	1.087	0.161
U.S.	16100	23.82	2.56	0.391	9.319
THAILAND	5900	8.73	0.92	1.087	9.483
INDONESIA	5800	8.58	0.92	1.087	9.322
LAOS	100	0.15	1.96	0.510	0.075
OLIVIA	10300	15.24	0.98	1.020	15.543
RAZIL	2400	3.55	0.86	1.162	4.125
ROC	3000	4.44	2.47	0.405	1.796
ALAYSIA	23900	35.36	0.92	1.087	35.414
TOTAL:	67600	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1000.	0.33	1.92	0.520	0.071
SOUTH AFRICA	5000.	1.64	1.19	0.841	1.311
PHILIPPINES	5000.	1.64	0.92	1.087	1.707
AUSTRALIA	25000.	8.21	0.92	1.087	8.8
CANADA	150000.	48.28	2.85	0.346	15.04
U S	88000.	28.91	2.56	0.391	11.311
GREECE	600.	0.20	1.96	0.510	0.111
NETHERLANDS	200.	0.07	1.96	0.510	0.074
FRG	100.	0.03	1.96	0.510	0.027
YUGOSLAVIA	500.	0.16	1.96	0.510	0.034
USSR	5000.	1.64	0.94	1.041	1.741
DOM. REPUB.	15000.	4.93	1.53	0.656	3.13
GUATEMALA	4000.	1.31	1.53	0.656	0.811
INDONESIA	5000.	1.64	0.92	1.087	1.705

TOTAL: 304400. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

FLUORESPAR ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	180.	22.36	1.19	0.841	15.301
U S	70.	8.70	2.56	0.391	3.407
ITALY	63.	8.07	1.96	0.510	4.120
SPAIN	100.	12.42	1.96	0.510	4.335
EAST AFRICA	25.	3.11	0.71	1.404	4.304
THAILAND	15.	1.86	0.92	1.087	2.025
MEXICO	350.	43.48	2.56	0.391	17.011

TOTAL: 805. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000.	1.01	1.19	0.841	0.852
AUSTRALIA	1500.	0.76	0.92	1.087	0.825
UK	11000.	5.57	1.96	0.510	2.842
KENYA	80000.	40.51	0.71	1.404	56.805
RWANDA	25000.	12.66	0.71	1.404	17.767
TANZANIA	78000.	39.49	0.71	1.404	55.493

TOTAL: 197500. 100.00

SOURCE IMPORTANCE
(LOC 3)

SOURCE	% (1-11) COMP INF	FEYSHORTRAIL CRITICALITY	TOTAL	NORMALIZED TO 100
PEALT				
FINLAND	3.343	7.75	25.92	4.00
MOROCCO	1.429	7.75	11.08	1.71
BOTSWANNA	1.671	7.75	12.95	2.00
SOUTH AFRICA	0.601	7.75	4.66	0.71
ZAIRE	83.543	7.75	647.68	100.00
ZAMBIA	23.332	7.75	181.37	28.01
PHILIPPINES	0.259	7.75	2.01	0.31
AUSTRALIA	2.070	7.75	16.04	2.43
NEW CALEDONIA	1.293	7.75	10.03	1.55
CANADA	1.819	7.75	14.05	2.17
U S	1.863	7.75	14.44	2.21
IN				
AUSTRALIA	0.161	0.00	0.00	0.00
U S	9.319	0.00	0.00	0.00
THAILAND	9.483	0.00	0.00	0.00
INDONESIA	9.322	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.543	0.00	0.00	0.00
BRAZIL	4.125	0.00	0.00	0.00
PRC	1.703	0.00	0.00	0.00
MALAYSIA	38.414	0.00	0.00	0.00
IDNEL				
FINLAND	0.171	10.00	1.71	0.26
SOUTH AFRICA	1.381	10.00	13.81	2.13
PHILIPPINES	1.785	10.00	17.85	2.76
AUSTRALIA	8.924	10.00	89.24	13.73
CANADA	17.054	10.00	170.54	26.33
U S	11.311	10.00	113.11	17.46
GREECE	0.101	10.00	1.01	0.16
NETHERLANDS	0.034	10.00	0.34	0.05
FRG	0.017	10.00	0.17	0.03
YUGOSLAVIA	0.034	10.00	0.34	0.13
USSR	1.742	10.00	17.42	2.69
DOM. REPUB.	3.230	10.00	32.30	4.99
GUATAMALA	0.861	10.00	8.61	1.33
INDONESIA	1.785	10.00	17.85	2.76
LUORSPAR ACID				
SOUTH AFRICA	18.803	8.49	159.60	24.64
U S	3.402	8.49	28.83	4.46
ITALY	4.120	8.49	34.97	5.40
SPAIN	6.338	8.49	53.80	8.31
EAST AFRICA	4.359	8.49	37.00	5.71
THAILAND	2.025	8.49	17.19	2.65
MEXICO	17.011	8.49	144.40	22.29
VRETHRUM				
SOUTH AFRICA	0.852	4.33	3.69	0.57
AUSTRALIA	0.825	4.33	3.58	0.55
UK	2.842	4.33	12.31	1.90
KENYA	56.855	4.33	246.33	38.03
RWANDA	17.767	4.33	76.98	11.89
TANZANIA	55.433	4.33	240.17	37.03

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

#	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	38.03
3	TANZANIA	PYRETHRUM	37.08
4	ZAMBIA	COBALT	28.00
5	CANADA	NICKEL	26.33
6	SOUTH AFRICA	FLUORESPAR ACID	24.64
7	MEXICO	FLUORESPAR ACID	22.29
8	U.S.	NICKEL	17.44
9	AUSTRALIA	NICKEL	13.78
10	RWANDA	PYRETHRUM	11.89
11	SPAIN	FLUORESPAR ACID	8.31
12	EAST AFRICA	FLUORESPAR ACID	5.71
13	ITALY	FLUORESPAR ACID	5.40
14	DON. REPUB.	NICKEL	4.99
15	U.S.	FLUORESPAR ACID	4.46
16	FINLAND	COBALT	4.00
17	INDONESIA	NICKEL	2.76
18	PHILIPPINES	NICKEL	2.76
19	USSR	NICKEL	2.69
20	THAILAND	FLUORESPAR ACID	2.65
21	AUSTRALIA	COBALT	2.48
22	U.S.	COBALT	2.28
23	CANADA	COBALT	2.17
24	SOUTH AFRICA	NICKEL	2.11
25	BOTSWANNA	COBALT	2.00
26	UK	PYRETHRUM	1.90
27	MOROCCO	COBALT	1.71
28	NEW CALEDONIA	COBALT	1.55
29	GUATAMALA	NICKEL	1.33
30	SOUTH AFRICA	COBALT	0.72
31	SOUTH AFRICA	PYRETHRUM	0.57
32	AUSTRALIA	PYRETHRUM	0.55
33	PHILIPPINES	COBALT	0.31
34	FINLAND	NICKEL	0.26
35	GREECE	NICKEL	0.16
36	YUGOSLAVIA	NICKEL	0.13
37	NETHERLANDS	NICKEL	0.05
38	FRG	NICKEL	0.03
39	MALAYSIA	TIN	0.00
40	PRC	TIN	0.00
41	BRAZIL	TIN	0.00
42	BOLIVIA	TIN	0.00
43	UK	TIN	0.00
44	INDONESIA	TIN	0.00
45	THAILAND	TIN	0.00
46	U.S.	TIN	0.00
47	AUSTRALIA	TIN	0.00

SCENARIO 40

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	2.0	5.0	2.0	5.0
I/O DEF	0.1786	0.1786	0.1250	0.0833	0.1250	0.0357	0.0357	0.0833	0.0357	0.1171

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
I/O DEF	0.1333	0.1333	0.1200	0.0533	0.0933	0.0617	0.0133	0.1067	0.0933	0.0617
I/O DEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	4.0	4.0	8.0
I/O DEF	0.1786	0.1786	0.1786	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
I/O DEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

or the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/O DEF		0.0228	0.0228	0.0160	0.0134	0.0133	0.0043	0.0043	0.0114	0.0043	0.0137

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/O DEF		0.0171	0.0171	0.0154	0.0068	0.0119	0.0085	0.0017	0.0136	0.0119	0.0085

Media 3	Region	1	2	3	4	5	6	7
I/O DEF		0.0228	0.0228	0.0228	0.0183	0.0137	0.0081	0.0183

Media 4	Region	1	2	3	4
I/O DEF		0.0752	0.0301	0.0150	0.0075

Media 11	Region	1	2	3	4	5	6	7	8	9	10
I/O DEF		0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0015

Media 3	Region	1	2	3	4	5	6	7
I/O DEF		0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048

Media 4	Region	1	2	3	4
I/O DEF		0.0065	0.0026	0.0013	0.0007

Media 11	Region	1	2	3	4	5	6	7	8	9	10
I/O DEF		0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0060

Media 3	Region	1	2	3	4	5	6	7
I/O DEF		0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004

Media 4	Region	1	2	3	4
I/O DEF		0.0065	0.0026	0.0013	0.0007

Media 11	Region	1	2	3	4	5	6	7	8	9	10
I/O DEF		0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0015

Media 3	Region	1	2	3	4	5	6	7
I/O DEF		0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048

Media 4	Region	1	2	3	4
I/O DEF		0.0065	0.0026	0.0013	0.0007

FORCE ELEMENT IMPORTANCE
(LOG 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED NORMALIZED	
			VALUE	VALUE
1	17	CARRIER BATTLE GROUP	0.192	10.000
2	1	AIR INTERDICTION	0.107	5.600
3	3	ARMY GROUND	0.080	4.030
4	16	ATTACK SUB	0.072	3.410
5	19	SURFACE COMBATANTS	0.060	2.500
6	12	THEATER NUCLEAR WEAPON	0.054	2.000
7	8	RAPID DEPLOY	0.052	1.910
8	14	ASW(LAND BASED)	0.043	1.280
9	6	CAS	0.037	1.000
10	22	AIR SUPERIORITY(LAND BASED)	0.034	0.900
11	15	ASW(SEA BASED)	0.033	0.840
12	21	AIR SUPERIORITY(SHIP BASED)	0.032	0.800
13	10	STRATEGIC BOMBER	0.025	0.500
14	21	AIR DEFENSE(SHIP BASED)	0.021	0.400
15	25	SPACE BASED WEAPON(AIR CNTRL)	0.020	0.300
16	23	ASAT(SPACE BASED)	0.017	0.200
17	18	MINE WARFARE	0.013	0.140
18	2	AMPHIBIOUS ASSAULT	0.011	0.080
19	13	SPECIAL OPERATIONS	0.010	0.050
20	28	ASAT(LAND BASED)	0.007	0.040
21	9	SPACE BASED WEAPON(LAND CNTRL)	0.003	0.010
22	20	AIR DEFENSE(LAND BASED)	0.003	0.010
23	30	SPACE BASED WEAPON(SEA CNTRL)	0.002	0.010
24	27	ABM(SPACE BASED)	0.000	0.000
25	26	ABM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CEW	0.000	0.000

COMBILITY INFORMATION
(LOC 3)

COALIT

AIR INTERDICTION	5.57
ARMY GROUND	3.25
CAS	1.07
ICBM	0.00
STRATEGIC BOMBER	1.91
SLEB	0.00
ASW(SEA BASED)	1.35
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.54
	24.13

TIN

AIR INTERDICTION	5.76
ARMY GROUND	1.57
CAS	1.71
STRATEGIC BOMBER	1.91
ASW(LAND BASED)	3.25
ASW(SEA BASED)	1.12
ATTACK SUBS	5.47
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.95
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
ASW(LAND BASED)	0.00
	41.32

NICKEL

AIR INTERDICTION	5.46
ARMY GROUND	4.02
CAS	1.54
STRATEGIC BOMBER	1.91
ASW(SEA BASED)	1.82
ATTACK SUBS	5.47
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.95
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
	40.67

FLUORSEAR ACID

AIR INTERDICTION	8.72
AMPHIBIOUS ASSAULT	0.81
ARMY GROUND	3.0
CAB	1.84
CEB	0.00
STRATEGIC BOMBER	1.51
SLEM	0.00
ASW(LAND BASED)	3.23
ASW(SEA BASED)	1.72
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SEA BASED)	2.43
INTERCEPT AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	39.04

PYRETHRUM

ARMY GROUND	2.14
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.15
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.52
	16.87

COMMODITY NORMALIZED IMPORTANCE

TIN	10.00	(41.62)
NICKEL	9.84	(40.67)
FLUORSEAR ACID	9.45	(39.04)
COBALT	8.26	(34.13)
PYRETHRUM	4.08	(16.87)

COBALT		
A-10	CAS	45 2157
COBRA	CAS	43 4770
F-4	AIR INTERDICTION	100 5134
	CAS	6 5020
F-16	AIR INTERDICTION	70 0947
	CAS	14 2101
AFT. ACRFT	CAS	1 2010
RADIO FLAY	AIR INTERDICTION	3 1543
	CAS	2 4457
F-111	AIR INTERDICTION	124 1710
A-6	AIR INTERDICTION	37 8712
F-15	AIR INTERDICTION	56 0758
A-7	AIR INTERDICTION	50 4682
F-14	AIR INTERDICTION	42 0518
F-18	AIR INTERDICTION	70 0947
SH-3	ASW(SEA BASED)	6 4693
SH-2	ASW(SEA BASED)	14 1732
SH-60B	ASW(SEA BASED)	25 1593
S-3	ASW(SEA BASED)	34 9674
ATT. SUBS	ASW(SEA BASED)	25 6718
FRIGATES	ASW(SEA BASED)	15 4031
DESTROYERS	ASW(SEA BASED)	9 2418
M-48	ARMY GROUND	31 0390
M-60	ARMY GROUND	49 8850
M-1	ARMY GROUND	55 4278
M-551	ARMY GROUND	0 1848
M-901	ARMY GROUND	44 3413
M-2/M-3	ARMY GROUND	38 7940
M-113	ARMY GROUND	4 3111
NLRS	ARMY GROUND	16 6283
TOWED ART.	ARMY GROUND	22 1711
SELF-PROP.	ARMY GROUND	29 5615
PERSHING	ARMY GROUND	14 7808
GLCMs	ARMY GROUND	24 6346
INFANTRY	ARMY GROUND	6 1586
MORTERS	ARMY GROUND	30 1774
ROLES LNCH	ARMY GROUND	1 2933

	NORMALIZED VALUES
F-111	10.0000
F-4	18.5169
F-16	8.4273
F-18	5.5506
A-10	5.1792
F-15	4.4446
M-1	4.3931
A-7	4.0000
M-60	3.9538
M-901	3.5145
COBRA	3.4461
F-14	3.3333
M-2/M-3	3.0752
A-6	3.0000
S-3	2.9300
M-48	2.4601
MORTERS	2.3918
SELF-PROP.	2.3430
ATT. SUBS	2.0347
SH-60B	1.9240
GLCMs	1.9525
TOWED ART.	1.7972
NLRS	1.3179
SH-2	1.2819
FRIGATES	1.2208
PERSHING	1.1716
DESTROYERS	0.7036
SH-3	0.5127
INFANTRY	0.4881
RADIO FLAY	0.4438
M-113	0.2417
AFT. ACRFT	0.1593
ROLES LNCH	0.1025
M-551	0.0146

TIN		
A-10	CAS	65 2197
COBRA	CAS	57 8731
F-4	AIR INTERDICTION	100 9344
	CAS	6 5220
F-16	AIR INTERDICTION	70 0947
	CAS	31 2302
ART. ACFT	CAS	1 2410
RADIO RLY	AIR INTERDICTION	3 1543
	CAS	2 4457
F-111	AIR INTERDICTION	124 1700
A-6	AIR INTERDICTION	42 5826
F-15	AIR INTERDICTION	56 0758
A-7	AIR INTERDICTION	50 4682
F-14	AIR INTERDICTION	47 3140
F-18	AIR INTERDICTION	78 8566
SH-3	ASW (SEA BASED)	5 5451
SH-2	ASW (SEA BASED)	13 8628
SH-60B	ASW (SEA BASED)	21 5643
S-3	ASW (SEA BASED)	36 9374
ATT. SUBS	ASW (SEA BASED)	15 4031
FRIGATES	ASW (SEA BASED)	15 4031
DESTROYERS	ASW (SEA BASED)	9 2418
M-48	ARMY GROUND	3 4438
M-60	ARMY GROUND	5 5416
M-1	ARMY GROUND	30 7932
M-551	ARMY GROUND	0 0416
M-401	ARMY GROUND	3 5423
M-2/M-3	ARMY GROUND	5 5423
M-113	ARMY GROUND	0 6159
MLRS	ARMY GROUND	8 3141
TOWED ART	ARMY GROUND	3 6951
SELF-PROP	ARMY GROUND	4 9269
PERSHING	ARMY GROUND	12 9332
GLCMs	ARMY GROUND	21 5553
INFANTRY	ARMY GROUND	49 2692
MORTARS	ARMY GROUND	4 3111
ROLES LNCH	ARMY GROUND	0 1848

NORMALIZED VALUES	
F-111	10.0000
F-4	8.5169
F-16	8.4273
F-18	6.2500
A-10	5.1692
COBRA	4.5948
F-15	4.4444
A-7	4.0000
INFANTRY	3.9050
F-14	3.7500
A-6	3.3750
S-3	2.9300
M-1	2.4406
SH-60B	1.7091
GLCMs	1.7084
FRIGATES	1.2208
ATT. SUBS	1.2208
SH-2	1.0937
PERSHING	1.0251
DESTROYERS	0.7325
MLRS	0.6590
RADIO RLY	0.4438
SH-3	0.4395
M-2/M-3	0.4393
M-901	0.4393
M-60	0.4393
SELF-PROP	0.3905
MORTARS	0.3417
TOWED ART	0.2929
M-48	0.2731
ART. ACFT	0.2585
M-113	0.0484
ROLES LNCH	0.0146
M-401	0.0019

NICKEL		
A-10	CAS	65.2197
COBRA	CAS	43.4793
F-4	AIR INTERDICTION	75.7603
	CAS	4.8513
F-16	AIR INTERDICTION	70.0947
	CAS	31.2312
ART. ACFT	CAS	2.1740
RADIO RLAY	AIR INTERDICTION	3.1543
	CAS	2.4457
F-111	AIR INTERDICTION	126.1703
A-6	AIR INTERDICTION	37.8512
F-15	AIR INTERDICTION	53.6753
A-7	AIR INTERDICTION	50.4682
F-14	AIR INTERDICTION	47.9140
F-18	AIR INTERDICTION	73.8566
SH-3	ASW(SEA BASED)	7.1335
SH-2	ASW(SEA BASED)	13.4337
SH-60B	ASW(SEA BASED)	29.7524
S-3	ASW(SEA BASED)	33.9674
ATT. SUBS	ASW(SEA BASED)	43.2092
FRIGATES	ASW(SEA BASED)	27.7255
DESTROYERS	ASW(SEA BASED)	16.6353
M-48	ARMY GROUND	34.4984
M-60	ARMY GROUND	55.4176
M-1	ARMY GROUND	61.5365
M-551	ARMY GROUND	0.6117
M-241	ARMY GROUND	33.7995
M-2/M-3	ARMY GROUND	44.3423
M-113	ARMY GROUND	4.3111
MLRS	ARMY GROUND	16.6233
TOWED ART.	ARMY GROUND	29.5615
SELF-PROP.	ARMY GROUND	39.4153
PERSHING	ARMY GROUND	14.7808
GLCMs	ARMY GROUND	18.4759
INFANTRY	ARMY GROUND	30.7932
MORTARS	ARMY GROUND	12.9332
ROLES LNCH	ARMY GROUND	0.1848

NORMALIZED VALUES	
F-111	10.0000
F-16	3.4273
F-4	6.3377
F-18	6.2500
A-10	5.1692
M-1	4.8817
F-15	4.4444
M-60	4.3931
A-7	4.0000
F-14	3.7500
ATT. SUBS	3.6624
M-2/M-3	3.5145
COBRA	3.4461
SELF-PROP.	3.1240
M-901	3.0752
A-6	3.0000
S-3	2.9300
M-48	2.7335
INFANTRY	2.4406
TOWED ART.	2.3430
SH-60B	2.2789
FRIGATES	2.1975
SH-2	1.4650
GLCMs	1.4644
DESTROYERS	1.3185
MLRS	1.3179
PERSHING	1.1715
MORTARS	1.0291
SH-3	0.5869
RADIO RLAY	0.4437
M-113	0.3417
ART. ACFT	0.1723
M-551	0.0633
ROLES LNCH	0.0127

FLUCRSPAR ACID		
A-10	CAS	81.5247
COBRA	CAS	43.4793
F-4	AIR INTERDICTION	124.1710
	CAS	8.1520
F-16	AIR INTERDICTION	87.6184
	CAS	45.2410
ART. ACFT	CAS	3.2610
RADIO RLY	AIR INTERDICTION	3.1543
	CAS	2.4457
F-111	AIR INTERDICTION	157.7131
A-6	AIR INTERDICTION	47.3140
F-15	AIR INTERDICTION	70.0947
A-7	AIR INTERDICTION	63.0853
F-14	AIR INTERDICTION	52.5711
F-18	AIR INTERDICTION	87.6184
S-3	ASW(SEA BASED)	7.3535
SH-2	ASW(SEA BASED)	18.4837
SH-60B	ASW(SEA BASED)	35.9415
S-3	ASW(SEA BASED)	46.2092
ATT. SUBS	ASW(SEA BASED)	30.8061
FRIGATES	ASW(SEA BASED)	21.5643
DESTROYERS	ASW(SEA BASED)	12.9386
M-48	ARMY GROUND	10.3465
M-60	ARMY GROUND	16.6283
M-1	ARMY GROUND	13.4759
M-551	ARMY GROUND	0.1843
M-901	ARMY GROUND	44.3423
M-2/M-3	ARMY GROUND	44.3423
M-113	ARMY GROUND	4.9269
MLRS	ARMY GROUND	13.8570
TOWED ART.	ARMY GROUND	13.4759
SELF-PROP.	ARMY GROUND	24.6346
PERSHING	ARMY GROUND	12.9332
GLCMs	ARMY GROUND	21.5553
INFANTRY	ARMY GROUND	49.2692
MORTERS	ARMY GROUND	21.5553
ROLES LNCH	ARMY GROUND	0.1848

NORMALIZED VALUES	
F-111	10.0000
F-4	8.5169
F-16	8.4273
F-18	5.5556
A-10	5.1692
F-15	4.4444
A-7	4.0000
F-14	3.3333
INFANTRY	3.1240
A-6	3.0000
S-3	2.9300
M-2/M-3	2.8116
M-901	2.8116
COBRA	2.7569
SH-60B	2.2789
ATT. SUBS	1.9533
SELF-PROP.	1.5620
FRIGATES	1.3673
MORTERS	1.3667
GLCMs	1.3667
SH-2	1.1720
TOWED ART.	1.1715
M-1	1.1715
M-60	1.0543
MLRS	0.8786
DESTROYERS	0.8204
PERSHING	0.8200
M-48	0.6560
SH-3	0.4688
RADIO RLY	0.3551
M-113	0.3124
ART. ACFT	0.2069
SELF LNCH	0.0117
M-551	0.0117

PYRETHRUM		
ATT. SUBS	ARMY (SEA BASED)	15 4031
M-45	ARMY GROUND	24 1417
M-60	ARMY GROUND	36 7535
M-113	ARMY GROUND	4 5111
TOWED ART	ARMY GROUND	25 8443
SELF-PROP.	ARMY GROUND	34 4834
INFANTRY	ARMY GROUND	41 5845
MORTERS	ARMY GROUND	30 1774

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3000
SELF-PROP.	5.6000
MORTERS	4.9000
TOWED ART.	4.2000
M-45	3.9200
ATT. SUBS	2.8010
M-113	0.7000

ALL COMMODITIES

A-10	CAS	2 7718
COBRA	CAS	1 3311
F-4	AIR INTERDICTION	4 0375
	CAS	0 2409
F-14	AIR INTERDICTION	2 3250
	CAS	1 5311
ART. ACFT	CAS	0 1196
RADIO RLY	AIR INTERDICTION	0 1262
	CAS	0 0378
F-111	AIR INTERDICTION	5 3622
A-4	AIR INTERDICTION	1 6340
F-15	AIR INTERDICTION	2 3832
A-7	AIR INTERDICTION	2 1448
F-14	AIR INTERDICTION	1 8926
F-15	AIR INTERDICTION	3 1543
SH-3	ASW(SEA BASED)	0 2630
SH-2	ASW(SEA BASED)	0 6700
SH-60B	ASW(SEA BASED)	1 1142
S-3	ASW(SEA BASED)	1 5711
ATT. SUBS	ASW(SEA BASED)	1 3349
FRIGATES	ASW(SEA BASED)	0 8010
DESTROYERS	ASW(SEA BASED)	0 4806
M-48	ARMY GROUND	1 0347
M-60	ARMY GROUND	1 6623
M-1	ARMY GROUND	1 6623
M-551	ARMY GROUND	0 0105
M-901	ARMY GROUND	1 3363
M-2/M-3	ARMY GROUND	1 3303
M-113	ARMY GROUND	0 1848
MLRS	ARMY GROUND	0 5543
TOWED ART.	ARMY GROUND	0 9977
SELF-PROP.	ARMY GROUND	1 1331
PERSHING	ARMY GROUND	0 5543
GLCMs	ARMY GROUND	0 8622
INFANTRY	ARMY GROUND	1 9703
MORTERS	ARMY GROUND	0 9915
ROLES LNCH	ARMY GROUND	0 0185

NORMALIZED VALUES

F-111	10 0000
F-16	8 4273
F-4	8 0159
F-15	5 8824
A-10	5 1692
F-15	4 4444
A-7	4 0000
INFANTRY	3 6733
F-14	3 5294
COBRA	3 5137
M-1	3 1010
M-60	3 1010
A-6	3 0882
S-3	2 9300
ATT. SUBS	2 4895
M-2/M-3	2 4803
M-901	2 4803
SELF-PROP.	2 4803
SH-60B	2 0778
M-48	1 9295
TOWED ART.	1 8606
MORTERS	1 8491
GLCMs	1 6079
FRIGATES	1 4937
SH-2	1 2495
PERSHING	1 0337
MLRS	1 0337
DESTROYERS	0 8962
SH-3	0 4908
RADIO RLY	0 4177
M-113	0 3446
ART. ACFT	0 2239
ROLES LNCH	0 0185
M-551	0 0105

CRITICALITY OF SHORTFALL

ALL FE 3

(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT FALL (%)	TRANS- LATEL	FE/ COMMODITY IMPORT	CRITIC- ALITY	NORM-LIZED FE IMPORT CRITICALITY
SALT	85.4	43.8	-48.7	402.5	8.3	3325.1	7.3
N	42.0	190.6	358.2	0.0	10.0	0.0	0.1
COAL	200.0	32.2	-93.9	437.7	8.3	4307.6	10.0
DIAMOND ACID	1400.0	895.1	-36.1	389.9	8.4	3683.4	8.6
PETHRUM	500.0	0.0	-100.0	453.8	4.1	1852.8	4.3

COMPOSITE IMPORTANCE

(LOC 3)

COBALT

	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOURCE					
INLAND	1350	7.71	1.92	0.520	4.012
ROCCO	450	2.57	1.50	0.667	1.315
TSWANA	250	1.41	0.71	1.404	2.000
OUTH AFRICA	150	0.86	1.19	0.841	0.711
IRE	12500	71.43	0.71	1.404	10.197
ILIPPINES	50	0.28	0.91	1.097	0.111
STRALIA	400	2.29	0.92	1.087	1.431
W CALEDONIA	250	1.43	0.91	1.087	1.510
NADA	1100	6.29	2.89	0.346	1.175
S	1000	5.71	2.56	0.391	1.100
TOTAL	17500	100.00			

COMPOSITE IMPORTANCE

(LOC 3)

TIN

	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOURCE					
STRALIA	100	0.15	0.92	1.087	0.161
S	16100	23.82	2.56	0.391	9.315
HAILAND	5900	8.73	0.92	1.087	9.483
INDONESIA	5800	8.58	0.92	1.087	9.312
	100	0.15	1.96	0.510	0.075
OLIVIA	10300	15.24	0.98	1.020	15.548
RAZIL	2400	3.55	0.86	1.162	4.125
RO	3000	4.44	2.47	0.405	1.796
ALAYSIA	23900	35.36	0.92	1.087	35.414
TOTAL:	67600	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
INLAND	1000.	0.33	1.92	0.520	1.171
SOUTH AFRICA	5000.	1.64	1.19	0.841	1.391
PHILIPPINES	5000.	1.64	0.92	1.087	1.741
AUSTRALIA	2500.	8.21	0.92	1.087	8.914
CANADA	15000.	47.23	2.39	0.343	17.104
US	88000.	28.91	2.56	0.391	11.311
SWEDEN	600.	0.20	1.96	0.510	0.101
NETHERLANDS	200.	0.07	1.96	0.510	0.034
USSR	100.	0.03	1.96	0.510	0.017
YUGOSLAVIA	500.	0.16	1.96	0.510	0.034
PERU	5000.	1.64	0.94	1.061	1.741
CHILE	15000.	4.93	1.57	0.634	3.241
CATAMALA	4000.	1.31	1.53	0.651	0.811
INDONESIA	5000.	1.64	0.92	1.087	1.741
TOTAL: 304400		100.00			

COMPOSITE IMPORTANCE
(LOC 3)

FLUOROSULF. ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	150.	22.34	1.19	0.841	18.911
US	70.	8.70	2.56	0.391	3.432
ITALY	65.	8.07	1.96	0.510	4.110
CHINA	100.	12.42	1.96	0.510	6.338
SOUTH AFRICA	25.	3.11	0.71	1.404	4.359
HAWAII	15.	1.86	0.92	1.087	2.025
MEXICO	350.	43.43	2.56	0.391	17.011
TOTAL: 805.		100.00			

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000.	1.01	1.19	0.841	0.852
AUSTRALIA	1500.	0.76	0.92	1.087	0.825
INDIA	11000.	5.57	1.96	0.510	2.842
KENYA	80000.	40.51	0.71	1.404	56.855
RWANDA	25000.	12.66	0.71	1.404	17.767
TANZANIA	78000.	39.49	0.71	1.404	55.433
TOTAL: 197500.		100.00			

SOURCE IMPORTANCE
(LOC 3)

SOURCE	% (11) COMP IMP	FE SHORTFALL CRITICALITY	TOTAL	DEFICIT TO 100
SALT				
FINLAND	4.012	7.72	30.97	4.00
MOROCCO	1.315	7.72	13.34	1.71
BOTSWANNA	2.005	7.72	15.48	2.00
SOUTH AFRICA	0.721	7.72	5.56	0.72
ZAIRE	110.257	7.72	773.81	100.00
PHILIPPINES	0.310	7.72	2.40	0.31
AUSTRALIA	2.433	7.72	19.17	2.43
NEW CALEDONIA	1.552	7.72	11.38	1.55
CANADA	2.175	7.72	14.79	2.17
U.S.	2.231	7.72	17.24	2.23
TIN				
AUSTRALIA	0.141	0.00	0.00	0.00
U.S.	9.319	0.00	0.00	0.00
THAILAND	9.413	0.00	0.00	0.00
INDONESIA	9.322	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.543	0.00	0.00	0.00
BRASIL	4.127	0.00	0.00	0.00
FRG	1.706	0.00	0.00	0.00
MALAYSIA	35.414	0.00	0.00	0.00
NICKEL				
FINLAND	0.171	10.00	1.71	0.22
SOUTH AFRICA	1.381	10.00	13.81	1.73
PHILIPPINES	1.785	10.00	17.85	2.31
AUSTRALIA	3.914	10.00	39.14	11.57
CANADA	17.054	10.00	170.54	22.04
U.S.	11.311	10.00	113.11	14.61
GREECE	0.101	10.00	1.01	0.13
NETHERLANDS	0.034	10.00	0.34	0.04
FRG	0.017	10.00	0.17	0.02
YUGOSLAVIA	0.034	10.00	0.34	0.11
USSR	1.742	10.00	17.42	2.25
DOM. REPUB.	3.230	10.00	32.30	4.17
GUATAMALA	0.861	10.00	8.61	1.11
INDONESIA	1.785	10.00	17.85	2.31
FLUOREPAR ACID				
SOUTH AFRICA	18.803	8.55	160.73	20.78
U.S.	3.402	8.55	29.09	3.76
ITALY	4.120	8.55	35.23	4.55
SPAIN	6.338	8.55	54.20	7.00
EAST AFRICA	4.359	8.55	37.27	4.82
THAILAND	2.025	8.55	17.31	2.24
MEXICO	17.011	8.55	145.46	18.80
PYRETHRUM				
SOUTH AFRICA	0.852	4.30	3.66	0.47
AUSTRALIA	0.825	4.30	3.55	0.46
UK	2.842	4.30	12.22	1.58
KENYA	56.855	4.30	244.55	31.60
RWANDA	17.767	4.30	76.42	9.87
TANZANIA	55.433	4.30	233.43	30.61

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	31.60
3	TANZANIA	PYRETHRUM	31.81
4	CANADA	NICKEL	22.04
5	SOUTH AFRICA	FLUORSPAR ACID	20.73
6	MEXICO	FLUORSPAR ACID	18.80
7	U.S.	NICKEL	14.62
8	AUSTRALIA	NICKEL	11.53
9	RWANDA	PYRETHRUM	9.87
10	SPAIN	FLUORSPAR ACID	7.00
11	EAST AFRICA	FLUORSPAR ACID	4.82
12	ITALY	FLUORSPAR ACID	4.55
13	DOM. REPUB.	NICKEL	4.17
14	FINLAND	COBALT	4.00
15	U.S.	FLUORSPAR ACID	3.76
16	AUSTRALIA	COBALT	2.48
17	INDONESIA	NICKEL	2.31
18	PHILIPPINES	NICKEL	2.31
19	USSR	NICKEL	2.25
20	THAILAND	FLUORSPAR ACID	2.24
21	U.S.	COBALT	2.23
22	CANADA	COBALT	2.17
23	BOTSWANA	COBALT	2.00
24	SOUTH AFRICA	NICKEL	1.78
25	MOROCCO	COBALT	1.71
26	UK	PYRETHRUM	1.58
27	NEW CALEDONIA	COBALT	1.55
28	GUATEMALA	NICKEL	1.11
29	SOUTH AFRICA	COBALT	0.72
30	SOUTH AFRICA	PYRETHRUM	0.47
31	AUSTRALIA	PYRETHRUM	0.46
32	PHILIPPINES	COBALT	0.31
33	FINLAND	NICKEL	0.22
34	GREECE	NICKEL	0.13
35	YUGOSLAVIA	NICKEL	0.11
36	NETHERLANDS	NICKEL	0.04
37	FRG	NICKEL	0.02
38	MALAYSIA	TIN	0.00
39	PRC	TIN	0.00
40	BRAZIL	TIN	0.00
41	BOLIVIA	TIN	0.00
42	UK	TIN	0.00
43	INDONESIA	TIN	0.00
44	THAILAND	TIN	0.00
45	U.S.	TIN	0.00
46	AUSTRALIA	TIN	0.00

SCENARIO 41

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict & Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	2.0	5.0	2.0	1.0
I/CDEF	0.1736	0.1736	0.1250	0.0833	0.1250	0.0333	0.0333	0.0833	0.0333	0.1736

Level of Conflict & Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
I/CDEF	0.1333	0.1333	0.1200	0.0511	0.0917	0.0467	0.0133	0.1047	0.0917	0.0511
I/CDEF	0.1200									

Level of Conflict & Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
I/CDEF	0.1736	0.1736	0.1736	0.1429	0.1071	0.0714	0.1429

Level of Conflict & Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
I/CDEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0228	0.0228	0.0160	0.0114	0.0160	0.0046	0.0046	0.0114	0.0046	0.0114	

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0171	0.0171	0.0154	0.0069	0.0119	0.0085	0.0017	0.0136	0.0119	0.0069	
I/CDEF	0.0154										

Media 3	Region	1	2	3	4	5	6	7
I/CDEF	0.0228	0.0228	0.0228	0.0183	0.0137	0.0091	0.0183	

Media 4	Region	1	2	3	4
I/CDEF	0.0752	0.0301	0.0151	0.0075	

Importance of controlling ANY Region within its Media as compared to the Importance of controlling ANY Region of any other Media	Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0050		

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0027	0.0027	0.0023	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0015	
I/CDEF	0.0023										

Media 3	Region	1	2	3	4	5	6	7
I/CDEF	0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048	

Media 4	Region	1	2	3	4
I/CDEF	0.0045	0.0024	0.0013	0.0007	

FORCE ELEMENT IMPORTANCE (LPG 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED IMPORTANCE VALUE	
			VALUE	VALUE
1	17	CARRIER BATTLE GROUP	0.132	10.000
2	1	ASST. INTER. SEC. AFF.	0.107	8.000
3	3	ARMY GROUP 1	0.087	6.000
4	16	ATTN. SEC. AFF.	0.072	5.444
5	19	SURFACE COMBATANT	0.060	4.500
6	10	THEATER AIRCRAFT	0.054	4.000
7	8	RAID FORCE	0.051	3.910
8	14	ARMY CORPS	0.041	3.000
9	6	CIF	0.037	2.800
10	22	AIR SURFACANT	0.034	2.500
11	15	ASST. SEC. AFF.	0.033	2.484
12	20	AIR DEFENSE BATT. GROUP	0.031	2.400
13	10	STRATEGIC MISSILE	0.031	2.400
14	21	AIR DEFENSE BATT. GROUP	0.031	2.400
15	15	SPACE BASED WEAPONRY	0.031	2.400
16	23	ASST. SEC. AFF.	0.018	1.360
17	18	MINE WARFARE	0.013	0.944
18	2	AMPHIBIOUS ASSAULT	0.011	0.800
19	19	SPECIAL OPERATIONS	0.010	0.750
20	21	ASST. SEC. AFF.	0.007	0.500
21	9	SPACE-BASED WEAPONRY	0.005	0.370
22	21	AIR DEFENSE BATT. GROUP	0.003	0.200
23	30	SPACE-BASED WEAPONRY	0.002	0.125
24	27	ASST. SEC. AFF.	0.000	0.000
25	26	ASST. SEC. AFF.	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CEW	0.000	0.000

COMMODITY IMPORTANCE
(LDC 3)

COBALT

AIR INTERDICTION	5.97
ARMY GROUND	3.69
CAS	1.51
ICB	5.06
STRATEGIC BOMBER	1.91
SLBM	0.00
ASW(SEA BASED)	1.00
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.00
	4.17

TIN

AIR INTERDICTION	1.06
ARMY GROUND	1.57
CAS	1.02
STRATEGIC BOMBER	1.91
ASW(LAND BASED)	3.29
ASW(SEA BASED)	1.13
ATTACK SUBS	5.47
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.99
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.56
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
ARM(LAND BASED)	0.00
	41.32

NICHEL

AIR INTERDICTION	5.46
ARMY GROUND	4.02
CAS	1.04
STRATEGIC BOMBER	1.91
ASW(SEA BASED)	1.82
ATTACK SUBS	5.47
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.95
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
	40.67

FLUOROPAR ACID

AIR INTERDICTION	6.95
AMPHIBIOUS ASSAULT	0.51
ARMY GROUND	3.02
CAE	1.84
ICBM	0.00
STRATEGIC BOMBER	1.91
SLBM	0.00
ASW(LAND BASED)	3.25
ASW(SEA BASED)	1.73
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.52
AIR SUPERIORITY(LAND BASED)	2.55
AIR SUPERIORITY(SHIP BASED)	2.43
INTERCEPTOR AIRCRAFT	0.00
ARMY(LAND BASED)	0.00
	39.04

PYRETHRUM

ARMY GROUND	2.14
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.15
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.52
	16.87

COMMODITY NORMALIZED IMPORTANCE

TIN	10.00	(41.32)
NICKEL	5.84	(40.67)
FLUOROPAR ACID	9.45	(39.04)
CORAL	8.26	(34.13)
PYRETHRUM	4.08	(16.87)

CORALT		
F-10	CAS	45 5187
COBRA	CAS	43 4712
F-4	AIR INTERDICTION	100 9364
	CAS	4 5111
F-16	AIR INTERDICTION	70 0947
	CAS	36 2312
ART. ACFT	CAS	3 2410
RADIO BLAY	AIR INTERDICTION	3 1512
	CAS	2 4457
F-111	AIR INTERDICTION	101 1715
A-6	AIR INTERDICTION	37 8012
F-15	AIR INTERDICTION	54 0756
A-7	AIR INTERDICTION	50 4682
F-14	AIR INTERDICTION	42 0568
F-18	AIR INTERDICTION	70 0947
SH-3	ASW(SEA BASED)	6 4682
SH-2	ASW(SEA BASED)	14 1731
SH-60B	ASW(SEA BASED)	25 1583
S-3	ASW(SEA BASED)	30 9474
ATT. SUBS	ASW(SEA BASED)	25 6718
FRIGATES	ASW(SEA BASED)	15 4031
DESTROYERS	ASW(SEA BASED)	9 2418
M-48	ARMY GROUND	31 0396
M-60	ARMY GROUND	49 8850
M-1	ARMY GROUND	55 4278
M-551	ARMY GROUND	0 1848
M-901	ARMY GROUND	44 3423
M-2/M-3	ARMY GROUND	38 7995
M-113	ARMY GROUND	4 3111
MLRS	ARMY GROUND	16 6283
TOWED ART.	ARMY GROUND	22 1711
SELF-PROP.	ARMY GROUND	29 5615
PERSHING	ARMY GROUND	14 7808
GLCMs	ARMY GROUND	24 6346
INFANTRY	ARMY GROUND	6 1584
MORTARS	ARMY GROUND	30 1774
ROLES LNCH	ARMY GROUND	1 2983

	NORMALIZED VALUES
F-111	10.0000
F-4	8.5162
F-16	8.4273
F-18	5.5556
A-10	5.1692
F-15	4.4444
M-1	4.3931
A-7	4.0000
M-60	3.9538
M-901	3.5145
COBRA	3.4461
F-14	3.3333
M-2/M-3	3.0752
A-6	3.0000
S-3	2.9300
M-48	2.4601
MORTARS	2.3918
SELF-PROP.	2.3430
ATT. SUBS	2.0347
SH-60B	1.9940
GLCMs	1.9505
TOWED ART.	1.7572
MLRS	1.3179
SH-2	1.2819
FRIGATES	1.2208
PERSHING	1.1715
DESTROYERS	0.7325
SH-3	0.5127
INFANTRY	0.4881
RADIO BLAY	0.4436
M-113	0.3417
ART. ACFT	0.2595
ROLES LNCH	0.1905
M-551	0.0115

TIN		
A-10	CAS	45 2137
COBRA	CAS	52 9771
F-4	AIR INTERDICTION	100 9364
	CAS	4 5220
F-16	AIR INTERDICTION	70 0947
	CAS	31 2332
ART. ACFT	CAS	3 2110
RADIO RLAY	AIR INTERDICTION	3 1543
	CAS	2 4457
F-111	AIR INTERDICTION	111 1705
A-6	AIR INTERDICTION	42 5816
F-15	AIR INTERDICTION	50 0711
A-7	AIR INTERDICTION	50 4632
F-14	AIR INTERDICTION	47 3140
F-18	AIR INTERDICTION	78 8564
SH-3	ASW(SEA BASED)	5 5431
SH-2	ASW(SEA BASED)	13 8623
SH-60B	ASW(SEA BASED)	21 5643
S-3	ASW(SEA BASED)	34 9174
ATT. SUBS	ASW(SEA BASED)	15 4031
FRIGATES	ASW(SEA BASED)	15 4031
DESTROYERS	ASW(SEA BASED)	9 2418
M-48	ARMY GROUND	3 4433
M-60	ARMY GROUND	5 5433
M-1	ARMY GROUND	30 7932
M-551	ARMY GROUND	0 0416
M-901	ARMY GROUND	5 5433
M-2/M-3	ARMY GROUND	5 5433
M-113	ARMY GROUND	0 6139
MLRS	ARMY GROUND	8 3142
TOWED ART.	ARMY GROUND	3 6252
SELF-PROP.	ARMY GROUND	4 9269
PERSHING	ARMY GROUND	12 9332
GLCMs	ARMY GROUND	21 5553
INFANTRY	ARMY GROUND	49 2692
MORTERS	ARMY GROUND	4 3111
ROLES LNCH	ARMY GROUND	0 1848

NORMALIZED VALUES	
F-111	10 0000
F-4	8 5167
F-16	8 4273
F-18	6 2500
A-10	5 1692
COBRA	4 5242
F-15	4 4444
A-7	4 0000
INFANTRY	3 9070
F-14	3 7500
A-6	3 3750
S-3	3 9300
M-1	2 4406
SH-60B	1 7091
GLCMs	1 7084
FRIGATES	1 2203
ATT. SUBS	1 2203
SH-2	1 0987
PERSHING	1 0251
DESTROYERS	0 7327
MLRS	0 6590
RADIO RLAY	0 4433
SH-3	0 4395
M-2/M-3	0 4393
M-901	0 4393
M-60	0 4393
SELF-PROP.	0 3905
MORTERS	0 3417
TOWED ART.	0 2929
M-48	0 2733
ART. ACFT	0 2505
M-113	0 0433
ROLES LNCH	0 0146
M-551	0 0000

NICHEL		
A-10	CAS	65.2107
COBRA	CAS	43.4789
F-4	AIR INTERDICTION	70.7013
	CAS	4.8915
F-16	AIR INTERDICTION	70.0947
	CAS	33.2332
ART. ACFT	CAS	0.1740
RADIO FLAY	AIR INTERDICTION	3.1543
	CAS	2.4457
F-111	AIR INTERDICTION	126.1700
A-6	AIR INTERDICTION	37.8512
F-15	AIR INTERDICTION	56.0758
A-7	AIR INTERDICTION	50.4682
F-14	AIR INTERDICTION	47.3140
F-18	AIR INTERDICTION	78.8066
SH-2	ASW (SEA BASED)	7.3335
SH-2	ASW (SEA BASED)	18.4837
SH-60B	ASW (SEA BASED)	28.7524
S-3	ASW (SEA BASED)	36.9674
ATT. SUBS	ASW (SEA BASED)	46.2092
FRIGATES	ASW (SEA BASED)	27.7255
DESTROYERS	ASW (SEA BASED)	16.6353
M-48	ARMY GROUND	34.4884
M-60	ARMY GROUND	55.4278
M-1	ARMY GROUND	61.5865
M-551	ARMY GROUND	0.6159
M-901	ARMY GROUND	38.7995
M-2/M-3	ARMY GROUND	44.3423
M-113	ARMY GROUND	4.3111
MLRS	ARMY GROUND	16.6283
TOWED ART.	ARMY GROUND	29.5615
SELF-PROP.	ARMY GROUND	39.4158
PERISHING	ARMY GROUND	14.7808
GLCMs	ARMY GROUND	18.4759
INFANTRY	ARMY GROUND	30.7932
MOPTERS	ARMY GROUND	12.9332
ROLES LNCH	ARMY GROUND	0.1848

	NORMALIZED VALUES
F-111	10.0000
F-16	8.4273
F-4	6.3877
F-18	6.2500
A-10	5.1692
M-1	4.8812
F-15	4.4444
M-60	4.3931
A-7	4.0000
F-14	3.7500
ATT. SUBS	3.6624
M-2/M-3	3.5145
COBRA	3.4461
SELF-PROP.	3.1240
M-901	3.0752
A-6	3.0000
S-3	2.9300
M-48	2.7335
INFANTRY	2.4406
TOWED ART.	2.3430
SH-60B	2.2789
FRIGATES	2.1975
SH-2	1.4650
GLCMs	1.4644
DESTROYERS	1.3185
MLRS	1.3179
PERISHING	1.1715
MORTARS	1.0211
SH-3	0.5860
RADIO FLAY	0.4438
M-113	0.3417
ART. ACFT	0.1723
M-551	0.0403
ROLES LNCH	0.0147

FLUORSEAR ACID		
A-10	CAS	81.5247
COBRA	CAS	43.4799
F-4	AIR INTERDICTION	130.1705
	CAS	8.1505
F-16	AIR INTERDICTION	87.6184
	CAS	45.2915
ART. ACFT	CAS	3.2110
RADIO RLY	AIR INTERDICTION	3.1543
	CAS	2.4457
F-111	AIR INTERDICTION	157.7151
A-6	AIR INTERDICTION	47.3140
F-15	AIR INTERDICTION	70.0847
A-7	AIR INTERDICTION	63.0853
F-14	AIR INTERDICTION	52.5711
F-18	AIR INTERDICTION	87.6184
SH-3	ASW(SEA BASED)	7.1935
SH-2	ASW(SEA BASED)	18.4817
SH-60B	ASW(SEA BASED)	35.9405
S-3	ASW(SEA BASED)	41.2092
ATT. SUBS	ASW(SEA BASED)	30.8061
FRIGATES	ASW(SEA BASED)	21.5443
DESTROYERS	ASW(SEA BASED)	12.9386
M-43	ARMY GROUND	10.3445
M-60	ARMY GROUND	16.3211
M-1	ARMY GROUND	19.4759
M-551	ARMY GROUND	0.1843
M-901	ARMY GROUND	44.3423
M-2/M-3	ARMY GROUND	44.3423
H-113	ARMY GROUND	4.9269
MLRS	ARMY GROUND	13.8520
TOWED ART.	ARMY GROUND	18.4759
SELF-PROP.	ARMY GROUND	24.6346
PERSHING	ARMY GROUND	12.9382
GLCMs	ARMY GROUND	21.5553
INFANTRY	ARMY GROUND	49.2492
MORTERS	ARMY GROUND	21.5553
ROLES LNCH	ARMY GROUND	0.1843

NORMALIZED VALUES	
F-111	10.0000
F-4	8.5149
F-16	8.4273
F-18	5.5557
A-10	5.1692
F-15	4.4444
A-7	4.0000
F-14	3.3333
INFANTRY	3.1240
A-6	3.0000
S-3	2.9300
M-2/M-3	2.8116
M-901	2.8116
COBRA	2.7569
SH-60B	2.2739
ATT. SUBS	1.9531
SELF-PROP.	1.5620
FRIGATES	1.3673
MORTERS	1.3667
GLCMs	1.3647
SH-2	1.1720
TOWED ART.	1.1717
M-1	1.1715
M-60	1.0543
MLRS	0.8786
DESTROYERS	0.8204
PERSHING	0.8200
M-43	0.6560
SH-3	0.4633
RADIO RLY	0.3551
M-113	0.3134
ART. ACFT	0.2093
ROLES LNCH	0.0117
M-901	0.0117

PYRETHRUM		
ATT. SUBS	ASW (SEA BASED)	15.4031
M-43	ARMY GROUND	24.1419
M-50	ARMY GROUND	39.7995
M-113	ARMY GROUND	4.3111
TOWED ART.	ARMY GROUND	25.8643
SELF-PROP.	ARMY GROUND	34.4934
INFANTRY	ARMY GROUND	61.5865
MORTERS	ARMY GROUND	30.1774

NORMALIZED VALUES

INFANTRY	10.0000
M-50	4.5000
SELF-PROP.	5.6000
MORTERS	4.9000
TOWED ART.	4.2000
M-43	3.9200
ATT. SUBS	2.5010
M-113	0.7000

ALL COMMODITIES

A-10	CAS	2 7719
COBRA	CAS	1 8941
F-4	AIR INTERDICTION	4 0175
	CAS	0 2408
F-16	AIR INTERDICTION	2 9790
	CAS	1 5399
ART. ACFT	CAS	0 1196
RADIO RLY	AIR INTERDICTION	0 1262
	CAS	0 0978
F-111	AIR INTERDICTION	5 3622
A-6	AIR INTERDICTION	1 6560
F-15	AIR INTERDICTION	2 3890
A-7	AIR INTERDICTION	2 1449
F-14	AIR INTERDICTION	1 8926
F-18	AIR INTERDICTION	3 1543
SH-3	ASW(SEA BASED)	0 2691
SH-2	ASW(SEA BASED)	0 6700
SH-60B	ASW(SEA BASED)	1 1142
S-3	ASW(SEA BASED)	1 5711
ATT. SUBS	ASW(SEA BASED)	1 3342
FRIGATES	ASW(SEA BASED)	0 8010
DESTROYERS	ASW(SEA BASED)	0 4806
M-48	ARMY GROUND	1 0347
M-60	ARMY GROUND	1 6628
M-1	ARMY GROUND	1 6623
M-551	ARMY GROUND	0 0105
M-901	ARMY GROUND	1 3303
M-2/M-3	ARMY GROUND	1 3303
M-113	ARMY GROUND	0 1848
MLRS	ARMY GROUND	0 5543
TOWED ART.	ARMY GROUND	0 9977
SELF-PROP.	ARMY GROUND	1 3303
PERSHING	ARMY GROUND	0 5543
GLCMs	ARMY GROUND	0 8622
INFANTRY	ARMY GROUND	1 9703
MORTERS	ARMY GROUND	0 9915
ROLES LNCH	ARMY GROUND	0 0185

NORMALIZED VALUES

F-111	10.0000
F-16	8.4273
F-4	8.0159
F-18	5.8824
A-10	5.1692
F-15	4.4444
A-7	4.0000
INFANTRY	3.6753
F-14	3.5294
COBRA	3.5137
M-1	3.1010
M-60	3.1010
A-6	3.0882
S-3	2.9300
ATT. SUBS	2.4895
M-2/M-3	2.4808
M-901	2.4808
SELF-PROP.	2.4808
SH-60B	2.0778
M-48	1.9295
TOWED ART.	1.8606
MORTERS	1.8491
GLCMs	1.6079
FRIGATES	1.4937
SH-2	1.2495
PERSHING	1.0337
MLRS	1.0337
DESTROYERS	0.8962
SH-3	0.4928
RADIO RLY	0.4177
M-113	0.2446
ART. ACFT	0.2390
ROLES LNCH	0.0345
M-551	0.0175

CRITICALITY OF SHORTFALL

ALL FE =
(LOC 3)

COMMODITY	COAL (UNITS)	STOCK PILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FE/ CAPACITY IMPORT.	CRITIC- ALITY	NEW FE BAL. EST. CRITICALITY
COBALT	85.4	43.8	-43.7	401.5	8.3	3325.1	7.7
TIN	42.0	190.6	353.8	0.0	10.0	0.0	0.0
NICKEL	200.0	32.2	-83.9	437.7	9.8	4307.6	13.5
FLUOREPAR ACID	1400.0	895.0	-34.1	333.9	5.4	3433.4	9.6
MYRETHRUM	500.0	0.0	-100.0	453.8	4.1	1852.8	4.3

COMPOSITE IMPORTANCE (LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	2/(1/CI)
BOURIE	1350	7.71	1.92	0.520	4.612
FINLAND	450	2.57	1.50	0.667	1.711
MOROCCO	250	1.43	0.71	1.404	2.005
SOUTH AFRICA	150	0.86	1.19	0.841	0.711
LAIRE	9000	51.43	0.71	1.404	72.181
ZAMBIA	3500	20.00	0.71	1.404	28.072
PHILIPPINES	50	0.28	0.92	1.087	0.310
AUSTRALIA	400	2.29	0.92	1.087	2.413
NEW CALEDONIA	250	1.43	0.92	1.087	1.501
CANADA	1100	6.29	2.89	0.346	2.175
USA	1000	5.71	2.56	0.391	2.236

TOTAL: 17500. 100.00

COMPOSITE IMPORTANCE (LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	2/(1/CI)
AUSTRALIA	100	0.15	0.92	1.087	0.161
U.S.	16100	23.82	2.56	0.391	9.218
THAILAND	5900	8.73	0.92	1.087	9.433
INDONESIA	5800	8.58	0.92	1.087	9.377
UK	100	0.15	1.96	0.510	0.075
IVOLIVIA	10300	15.24	0.98	1.020	15.543
BRAZIL	2400	3.55	0.86	1.162	4.125
PRC	3000	4.44	2.47	0.405	1.746
MALAYSIA	23900	35.36	0.92	1.087	39.414

TOTAL: 67600. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1000.	0.33	1.92	0.520	0.171
SOUTH AFRICA	5000	1.64	1.19	0.841	1.337
PHILIPPINES	5000	1.64	0.92	1.087	1.745
AUSTRALIA	25000	8.21	0.92	1.087	9.114
CANADA	150000	48.28	2.87	0.346	17.054
U.S.	33000	29.91	2.56	0.391	11.337
GERMANY	600	0.20	1.96	0.510	0.101
NETHERLANDS	200	0.07	1.96	0.510	1.007
FRG	100	0.03	1.96	0.510	0.017
YUGOSLAVIA	500	0.16	1.96	0.510	0.041
USSR	5000	1.64	0.94	1.061	1.740
DEM. REPUB.	15000	4.93	1.53	0.656	3.260
GUATEMALA	4000	1.31	1.53	0.656	0.851
INDONESIA	5000	1.64	0.92	1.087	1.740
TOTAL	304400	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

FLUOROSULFONIC ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	180	22.36	1.19	0.841	18.801
U.S.	70	8.70	2.56	0.391	3.402
ITALY	65	8.07	1.96	0.510	4.120
SPAIN	100	12.42	1.96	0.510	6.333
EAST AFRICA	25	3.11	0.71	1.404	4.359
THAILAND	15	1.86	0.92	1.087	2.025
MEXICO	350	43.43	2.56	0.391	17.011
TOTAL	805	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000	1.01	1.19	0.841	0.802
AUSTRALIA	1500	0.76	0.92	1.087	0.820
UK	11000	5.57	1.96	0.510	2.842
KENYA	80000	40.51	0.71	1.404	56.850
FRANCE	25000	12.66	0.71	1.404	17.767
TANZANIA	78000	39.49	0.71	1.404	55.433
TOTAL	197500	100.00			

SOURCE IMPORTANCE
(LOC 3)

SOURCE	% (1981) COMPAR	FE SHIPMENT CRITICALITY	TOTAL	NORMALIZED TO 100
SALT				
FINLAND	4.012	7.72	30.97	5.51
MOROCCO	1.715	7.72	13.24	2.38
BOTSWANA	2.005	7.72	15.43	2.73
SOUTH AFRICA	0.711	7.72	5.53	1.01
ZAIRE	72.185	7.72	507.20	100.00
ZAMBIA	23.072	7.72	213.65	35.81
PHILIPPINES	0.310	7.72	2.40	0.43
AUSTRALIA	2.453	7.72	13.17	2.40
NEW CALEDONIA	1.552	7.72	11.53	2.15
CANADA	2.175	7.72	13.73	2.51
U.S.	2.234	7.72	17.23	3.16
X				
AUSTRALIA	0.141	0.00	0.00	0.00
U.S.	9.319	0.00	0.00	0.00
THAILAND	9.453	0.00	0.00	0.00
INDONESIA	9.312	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.548	0.00	0.00	0.00
BRASIL	4.125	0.00	0.00	0.00
FRG	1.734	0.00	0.00	0.00
MALAYSIA	38.414	0.00	0.00	0.00
YEL				
FINLAND	0.171	10.00	1.71	0.31
SOUTH AFRICA	1.331	10.00	13.31	2.42
PHILIPPINES	1.785	10.00	17.85	3.20
AUSTRALIA	3.324	10.00	33.24	6.02
CANADA	17.054	10.00	170.54	30.61
U.S.	11.311	10.00	113.11	20.37
GREECE	0.101	10.00	1.01	0.18
NETHERLANDS	0.034	10.00	0.34	0.06
FRG	0.017	10.00	0.17	0.03
YUGOSLAVIA	0.034	10.00	0.34	0.06
USSR	1.742	10.00	17.42	3.13
DOM. REPUB	3.230	10.00	32.30	5.80
GUATAMALA	0.861	10.00	8.61	1.55
INDONESIA	1.785	10.00	17.85	3.20
UORSFAR ACID				
SOUTH AFRICA	18.803	8.55	160.78	28.86
U.S.	3.402	8.55	29.09	5.23
ITALY	4.120	8.55	35.23	6.32
SPAIN	6.338	8.55	54.20	9.73
EAST AFRICA	4.359	8.55	37.27	6.69
THAILAND	2.025	8.55	17.31	3.11
MEXICO	17.011	8.55	145.46	26.11
YRETHRUM				
SOUTH AFRICA	0.852	4.30	3.66	0.66
AUSTRALIA	0.825	4.30	3.55	0.64
UK	2.842	4.30	12.22	2.19
KENYA	56.855	4.30	244.55	43.29
RWANDA	17.767	4.30	76.42	13.72
TANZANIA	55.433	4.30	238.43	42.71

SOURCE IMPORTANCE
RANKED BY SOURCE
100%

	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	43.89
3	TANZANIA	PYRETHRUM	41.77
4	ZAMBIA	COBALT	33.89
5	CANADA	NICKEL	30.61
6	SOUTH AFRICA	FLUORSPAR ACID	28.86
7	MEXICO	FLUORSPAR ACID	18.11
8	U.S.	NICKEL	16.50
9	AUSTRALIA	NICKEL	14.02
10	RWANDA	PYRETHRUM	13.42
11	SPAIN	FLUORSPAR ACID	9.73
12	EAST AFRICA	FLUORSPAR ACID	6.69
13	ITALY	FLUORSPAR ACID	6.32
14	DOM. REPUB.	NICKEL	5.80
15	FINLAND	COBALT	5.56
16	U.S.	FLUORSPAR ACID	5.21
17	AUSTRALIA	COBALT	3.44
18	INDONESIA	NICKEL	3.20
19	PHILIPPINES	NICKEL	3.20
20	USSR	NICKEL	3.13
21	THAILAND	FLUORSPAR ACID	3.11
22	U.S.	COBALT	3.10
23	CANADA	COBALT	3.01
24	BOTSWANA	COBALT	2.74
25	SOUTH AFRICA	NICKEL	2.48
26	MOROCCO	COBALT	2.31
27	UK	PYRETHRUM	2.18
28	NEW CALEDONIA	COBALT	2.15
29	GUATEMALA	NICKEL	1.55
30	SOUTH AFRICA	COBALT	1.00
31	SOUTH AFRICA	PYRETHRUM	0.66
32	AUSTRALIA	PYRETHRUM	0.64
33	PHILIPPINES	COBALT	0.43
34	FINLAND	NICKEL	0.31
35	GREECE	NICKEL	0.18
36	YUGOSLAVIA	NICKEL	0.15
37	NETHERLANDS	NICKEL	0.06
38	FRG	NICKEL	0.03
39	MALAYSIA	TIN	0.00
40	PRC	TIN	0.00
41	BRAZIL	TIN	0.00
42	BOLIVIA	TIN	0.00
43	UK	TIN	0.00
44	INDONESIA	TIN	0.00
45	THAILAND	TIN	0.00
46	U.S.	TIN	0.00
47	AUSTRALIA	TIN	0.00

SCENARIO 42

WEIGHTS of REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	10.0	2.0	5.0	2.0	5.0
DOEF	0.1513	0.1513	0.1074	0.0751	0.1074	0.1513	0.0113	0.0751	0.0113	0.0751

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	11	11	9.0	4.0	7.0	5.0	10.0	8.0	7.0	5.0
Weight	10.0	10.0	9.0	4.0	7.0	5.0	10.0	8.0	7.0	5.0
DOEF	0.1190	0.1190	0.1071	0.0476	0.0933	0.0595	0.1190	0.0952	0.0813	0.0595
DOEF	0.1071									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	10.0	6.0	4.0	10.0
DOEF	0.1667	0.1667	0.1667	0.1667	0.1000	0.0667	0.1667

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
DOEF	0.0333	0.0333	0.1174	0.0500

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS on the Importance of Controlling EACH region within its Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
DOEF	0.0200	0.0200	0.0143	0.0100	0.0140	0.0200	0.0040	0.0100	0.0040	0.0100	0.0143

Media 2	Region	1	2	3	4	5	6	7	8	9	10
DOEF	0.0152	0.0152	0.0137	0.0061	0.0137	0.0076	0.0152	0.0122	0.0137	0.0076	0.0137
DOEF	0.0137										

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Media 4	1	2	3	4	5	6	7
Region	1	2	3	4	5	6	7
DOEF	0.0213	0.0213	0.0213	0.0213	0.0128	0.0085	0.0213

Media 1	Region	1	2	3	4	5	6	7	8	9	10
DOEF	0.0087	0.0087	0.0061	0.0043	0.0061	0.0087	0.0017	0.0043	0.0017	0.0061	0.0087

Media 2	Region	1	2	3	4	5	6	7	8	9	10
DOEF	0.0033	0.0033	0.0030	0.0013	0.0023	0.0017	0.0033	0.0026	0.0023	0.0017	0.0033
DOEF	0.0030										

+ controlling ANR Region of any other Media										
Media	1									
Region	1	2	3	4	5	6	7	8	9	10
DOEF	0.0056	0.0056	0.0056	0.0033	0.0022	0.0056	0.0056	0.0056	0.0056	0.0056

DOEF	0.0087	0.0087	0.0061	0.0043	0.0061	0.0087	0.0017	0.0043	0.0017	0.0017
edia	2									
egion	1	2	3	4	5	6	7	8	9	10

FORCE ELEMENT IMPORTANCE (LOC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.113	10.000
2	1	AIR INTERDICTION	0.112	9.470
3	3	ARMY GROUND	0.090	6.972
4	16	ATTACK SUB	0.073	5.401
5	19	SURFACE COMBATANT	0.060	4.508
6	8	RAPID DEPLOY	0.056	4.241
7	12	THEATER NUCLEAR WEAPON	0.054	4.082
8	14	ASW(LAND BASED)	0.046	3.141
9	21	AIR SUPERIORITY(LAND BASED)	0.037	2.771
10	6	CAB	0.034	2.587
11	15	ASW(SEA BASED)	0.031	2.311
12	23	AIR SUPERIORITY(SHIP BASED)	0.030	2.274
13	10	STRATEGIC FORCE-	0.027	2.081
14	21	AIR DEFENSE(SHIP BASED)	0.022	1.684
15	25	SPACE BASED WEAPON(AIR CONTROL)	0.017	1.404
16	13	SPECIAL OPERATIONS	0.014	1.061
17	29	ASAT(SPACE BASED)	0.013	0.981
18	18	MINE WARFARE	0.012	0.900
19	2	AMPHIBIOUS ASSAULT	0.010	0.749
20	23	ASAT(LAND BASED)	0.007	0.541
21	30	AIR DEFENSE(LAND BASED)	0.004	0.280
22	9	SPACE BASED WEAPON(LAND CONTROL)	0.003	0.211
23	30	SPACE BASED WEAPON(SEA CONTROL)	0.002	0.114
24	27	ARM(SPACE BASED)	0.000	0.000
25	24	ARM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBM	0.000	0.000

ND-A150 263

SIMULATION OF CRITICAL MATERIALS RESOURCE STRATEGIES
VOLUME 4 APPENDIX D. (U) TITAN SYSTEMS INC LA JOLLA CA
D SOMERFELD 13 SEP 83 TITAN-DSI-105800-07-83-5F-VOL-4
EMW-C-0906

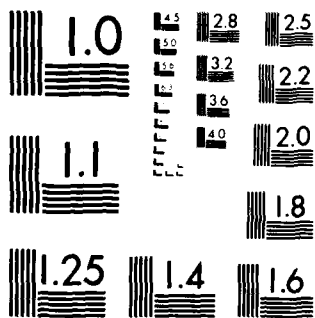
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UNCLASSIFIED

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NL

END



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

COMMODITY IMPORTANCE
(LOC 3)

COBALT

AIR INTERDICTION	5.87
ARMY GROUND	3.90
CAS	1.40
ICBM	0.00
STRATEGIC BOMBER	1.90
SLBM	0.00
ASW(SEA BASED)	1.33
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.27
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.54
	34.45

TIN

AIR INTERDICTION	6.00
ARMY GROUND	1.65
CAS	1.08
STRATEGIC BOMBER	1.55
ASW(LAND BASED)	3.20
ASW(SEA BASED)	1.14
ATTACK SUBS	5.49
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.97
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.27
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	41.57

NICKEL

AIR INTERDICTION	3.73
ARMY GROUND	4.25
CAS	1.42
STRATEGIC BOMBER	1.85
ASW(SEA BASED)	1.79
ATTACK SUBS	5.49
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.97
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.27
INTERCEPTOR AIRCRAFT	0.00
	41.07

FLUORSEAR ACID

AIR INTERDICTION	7.31
AMPHIBIOUS ASSAULT	0.75
ARMY GROUND	3.14
CAS	1.32
ICBM	0.00
STRATEGIC BOMBER	1.85
SLEB	0.00
ASW(LAND BASED)	3.25
ASW(SEA BASED)	1.71
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.37
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	39.31

PYRETHRUM

ARMY GROUND	2.37
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.15
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.51
	16.98

COMMODITY NORMALIZED IMPORTANCE

TIN	10.00	(41.57)
NICKEL	9.88	(41.07)
FLUORSEAR ACID	9.41	(39.31)
COBALT	8.30	(34.49)
PYRETHRUM	4.08	(16.98)

COBALT		
A-10	CAS	60 0798
COBRA	CAS	40 0532
F-4	AIR INTERDICTION	100 0531
	CAS	6 0080
F-16	AIR INTERDICTION	73 6480
	CAS	33 3776
ART. ACFT	CAS	3 0040
RADIO RLAY	AIR INTERDICTION	3 3142
	CAS	2 2530
F-111	AIR INTERDICTION	132 5664
A-6	AIR INTERDICTION	35 7653
F-15	AIR INTERDICTION	58 9184
A-7	AIR INTERDICTION	53 0215
F-14	AIR INTERDICTION	44 1833
F-18	AIR INTERDICTION	73 6480
SH-3	ASW(SEA BASED)	6 2711
SH-2	ASW(SEA BASED)	15 9354
SH-60B	ASW(SEA BASED)	24 7834
S-3	ASW(SEA BASED)	36 4237
ATT. SUBS	ASW(SEA BASED)	25 2942
FRIGATES	ASW(SEA BASED)	15 1765
DESTROYERS	ASW(SEA BASED)	9 1054
M-48	ARMY GROUND	32 7691
M-60	ARMY GROUND	52 6647
M-1	ARMY GROUND	58 5163
M-551	ARMY GROUND	0 1931
M-901	ARMY GROUND	43 8131
M-2/M-3	ARMY GROUND	40 9614
M-113	ARMY GROUND	4 5513
MLRS	ARMY GROUND	17 5549
TOWED ART.	ARMY GROUND	23 4065
SELF-PROP.	ARMY GROUND	31 2037
PERSHING	ARMY GROUND	15 6044
GLCMs	ARMY GROUND	26 0073
INFANTRY	ARMY GROUND	6 5018
MORTERS	ARMY GROUND	31 8539
ROLES LNCH	ARMY GROUND	1 3654

	NORMALIZED VALUES
F-111	10.0000
F-4	3.4532
F-16	8.0734
F-15	5.5556
A-10	4.5321
F-15	4.4444
M-1	4.4141
A-7	4.0000
M-60	3.9727
M-901	3.5313
F-14	3.3333
M-2/M-3	3.0899
COBRA	3.0214
A-6	3.0000
S-3	2.7476
M-48	2.4719
MORTERS	2.4032
SELF-PROP.	2.3542
GLCMs	1.9618
ATT. SUBS	1.9080
SH-60B	1.8699
TOWED ART.	1.7656
MLRS	1.3242
SH-2	1.2021
PERSHING	1.1771
FRIGATES	1.1448
DESTROYERS	0.6869
INFANTRY	0.4905
SH-3	0.4803
RADIO RLAY	0.4200
M-113	0.3433
ART. ACFT	0.2266
ROLES LNCH	0.1930
M-551	0.0147

TIN		
A-10	CAS	60 0798
COBRA	CAS	53 40-2
F-4	AIR INTERDICTION	100 0531
	CAS	6 0080
F-16	AIR INTERDICTION	73 6480
	CAS	33 3776
AE1. ACFT	CAS	3 0040
RADIO RLY	AIR INTERDICTION	3 3142
	CAS	2 2530
F-111	AIR INTERDICTION	132 3664
A-6	AIR INTERDICTION	44 7411
F-15	AIR INTERDICTION	59 9184
A-7	AIR INTERDICTION	53 0265
F-14	AIR INTERDICTION	47 7124
F-18	AIR INTERDICTION	82 8540
SH-2	ASW(SEA BASED)	5 4434
SH-2	ASW(SEA BASED)	13 6539
SH-60B	ASW(SEA BASED)	21 2472
S-3	ASW(SEA BASED)	34 4237
ATT. SUBS	ASW(SEA BASED)	15 1765
FRIGATES	ASW(SEA BASED)	15 1765
DESTROYERS	ASW(SEA BASED)	9 1059
M-48	ARMY GROUND	3 6410
M-60	ARMY GROUND	5 8516
M-1	ARMY GROUND	32 5091
M-551	ARMY GROUND	0 0600
M-901	ARMY GROUND	5 8516
M-2/M-3	ARMY GROUND	5 8516
M-113	ARMY GROUND	0 6502
MLRS	ARMY GROUND	8 7775
TOWED ART.	ARMY GROUND	3 9011
SELF-PROP.	ARMY GROUND	5 2015
PERSHING	ARMY GROUND	13 6538
GLCMS	ARMY GROUND	22 7564
INFANTRY	ARMY GROUND	52 0145
MORTERS	ARMY GROUND	4 5513
ROLES LNCH	ARMY GROUND	0 1951

NORMALIZED VALUES	
F-111	10.0000
F-4	8.4532
F-16	8.0734
F-18	6.2500
A-10	4.5321
F-15	4.4444
COBRA	4.0235
A-7	4.0000
INFANTRY	3.9237
F-14	3.7500
A-6	3.3750
S-3	2.7476
M-1	2.4523
GLCMS	1.7166
SH-60B	1.6028
ATT. SUBS	1.1448
FRIGATES	1.1448
SH-2	1.0303
PERSHING	1.0300
DESTROYERS	0.6869
MLRS	0.6621
M-2/M-3	0.4414
M-901	0.4414
M-60	0.4414
RADIO RLY	0.4200
SH-3	0.4121
SELF-PROP.	0.3924
MORTERS	0.3413
TOWED ART.	0.2943
M-48	0.2747
ART. ACFT	0.2066
M-113	0.0600
ROLES LNCH	0.0147
M-551	0.0000

NICKEL		
A-10	CAS	60.0798
COERA	CAS	40.0532
F-4	AIR INTERDICTION	73.5348
	CAS	4.5080
F-16	AIR INTERDICTION	73.6480
	CAS	33.3776
ART. ACFT	CAS	2.0027
RADIO RLY	AIR INTERDICTION	3.3142
	CAS	2.2530
F-111	AIR INTERDICTION	132.5664
A-4	AIR INTERDICTION	39.7699
F-15	AIR INTERDICTION	58.9194
A-7	AIR INTERDICTION	53.0265
F-14	AIR INTERDICTION	49.7124
F-18	AIR INTERDICTION	82.8540
SH-3	ASW(SEA BASED)	7.2817
SH-2	ASW(SEA BASED)	18.2119
SH-60B	ASW(SEA BASED)	28.3296
S-3	ASW(SEA BASED)	34.4237
ATT. SUBS	ASW(SEA BASED)	45.5296
FRIGATES	ASW(SEA BASED)	27.3178
DSTROYERS	ASW(SEA BASED)	16.3907
M-48	ARMY GROUND	36.4102
M-60	ARMY GROUND	58.5143
M-1	ARMY GROUND	65.0182
M-551	ARMY GROUND	0.6501
M-901	ARMY GROUND	40.9414
M-2/M-3	ARMY GROUND	46.8131
M-113	ARMY GROUND	4.5513
MLRS	ARMY GROUND	17.5549
TOWED ART.	ARMY GROUND	31.2037
SELF-PROP.	ARMY GROUND	41.6116
PERSHING	ARMY GROUND	15.6044
GLCMS	ARMY GROUND	19.5054
INFANTRY	ARMY GROUND	32.5091
MORTERS	ARMY GROUND	13.6533
ROLES LNCH	ARMY GROUND	0.1951

NORMALIZED VALUES

F-111	10.0000
F-16	8.0734
F-4	6.3329
F-18	6.2500
M-1	4.9046
A-10	4.5321
F-15	4.4444
M-60	4.4141
A-7	4.0000
F-14	3.7500
M-2/M-3	3.5313
ATT. SUBS	3.4343
SELF-PROP.	3.1389
M-901	3.0899
COERA	3.0214
A-6	3.0000
S-3	2.7476
M-48	2.7466
INFANTRY	2.4523
TOWED ART.	2.3541
SH-60B	2.1370
FRIGATES	2.0607
GLCMS	1.4714
SH-2	1.3733
MLRS	1.3242
DSTROYERS	1.2364
PERSHING	1.1771
MORTERS	1.0300
SH-3	0.5495
RADIO RLY	0.4200
M-113	0.3433
ART. ACFT	0.1511
M-551	0.0430
ROLES LNCH	0.0127

FLUORSEAR ACID		
A-10	CAS	75.0927
COBRA	CAS	40.3532
F-4	AIR INTERDICTION	132.5664
	CAS	7.5100
F-16	AIR INTERDICTION	92.0600
	CAS	41.7221
ART. ACFT	CAS	3.0040
RADIO RLAY	AIR INTERDICTION	3.3142
	CAS	2.2530
F-111	AIR INTERDICTION	145.7080
A-6	AIR INTERDICTION	49.7124
F-15	AIR INTERDICTION	73.6480
A-7	AIR INTERDICTION	64.2832
F-14	AIR INTERDICTION	55.2360
F-18	AIR INTERDICTION	92.0600
SH-3	ASW(SEA BASED)	7.2947
SH-2	ASW(SEA BASED)	19.2119
SH-60B	ASW(SEA BASED)	35.4119
S-3	ASW(SEA BASED)	45.5296
ATT. SUBS	ASW(SEA BASED)	30.3531
FRIGATES	ASW(SEA BASED)	21.2472
DESTROYERS	ASW(SEA BASED)	12.7483
M-49	ARMY GROUND	10.9231
M-60	ARMY GROUND	17.5549
M-1	ARMY GROUND	19.5054
M-551	ARMY GROUND	0.1951
M-901	ARMY GROUND	46.8131
M-2/M-3	ARMY GROUND	46.8131
M-113	ARMY GROUND	5.2015
MLRS	ARMY GROUND	14.6291
TOWED ART.	ARMY GROUND	19.5054
SELF-PROP.	ARMY GROUND	26.0073
PERSHING	ARMY GROUND	13.6538
GLCMs	ARMY GROUND	22.7564
INFANTRY	ARMY GROUND	52.0145
MORTERS	ARMY GROUND	22.7564
ROLES LNCH	ARMY GROUND	0.1951

NORMALIZED VALUES	
F-111	10.0000
F-4	8.4532
F-16	8.0734
F-18	5.5506
A-10	4.5321
F-15	4.4444
A-7	4.0000
F-14	3.3333
INFANTRY	3.1389
A-6	3.0000
M-2/M-3	2.8250
M-901	2.8250
S-3	2.7476
COBRA	2.4171
SH-60B	2.1370
ATT. SUBS	1.8317
SELF-PROP.	1.5695
MORTERS	1.3733
GLCMs	1.3733
FRIGATES	1.2822
TOWED ART.	1.1771
M-1	1.1771
SH-2	1.0990
M-60	1.0594
MLRS	0.8828
PERSHING	0.8240
DESTROYERS	0.7693
M-49	0.6593
SH-3	0.4396
RADIO RLAY	0.3360
M-113	0.3139
ART. ACFT	0.1817
M-551	0.0118
ROLES LNCH	0.0118

HYPERHEAD		
ATT. SUDE	ASW (SEA BASED)	17.1765
M-43	ARMY GROUND	15.4371
M-60	ARMY GROUND	40.9614
M-113	ARMY GROUND	4.0513
TOWED ART.	ARMY GROUND	17.8076
SELF-PROP.	ARMY GROUND	36.4102
INFANTRY	ARMY GROUND	65.0182
MORTERS	ARMY GROUND	31.8589

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3000
SELF-PROP.	5.6000
MORTERS	4.9000
TOWED ART.	4.2000
M-43	3.9200
ATT. SUDE	2.8342
M-113	0.7000

ALL COMMODITIES		
A-10	CAS	2.5534
COBRA	CAS	1.7334
F-4	AIR INTERDICTION	4.2411
	CAS	0.1403
F-16	AIR INTERDICTION	3.1300
	CAS	1.4136
ART. ACFT	CAS	0.1101
RADIO FLAY	AIR INTERDICTION	0.1326
	CAS	0.0901
F-111	AIR INTERDICTION	5.6341
A-6	AIR INTERDICTION	1.7399
F-15	AIR INTERDICTION	2.5049
A-7	AIR INTERDICTION	2.2536
F-14	AIR INTERDICTION	1.9813
F-18	AIR INTERDICTION	3.3142
SH-3	ASW(SEA BASED)	0.2641
SH-2	ASW(SEA BASED)	0.6402
SH-60B	ASW(SEA BASED)	1.0973
S-3	ASW(SEA BASED)	1.5480
ATT. SUBS	ASW(SEA BASED)	1.3153
FRIGATES	ASW(SEA BASED)	0.7892
DESTROYERS	ASW(SEA BASED)	0.4735
M-48	ARMY GROUND	1.0523
M-60	ARMY GROUND	1.7505
M-1	ARMY GROUND	1.7555
M-551	ARMY GROUND	0.0111
M-901	ARMY GROUND	1.4044
M-2/M-3	ARMY GROUND	1.4044
M-113	ARMY GROUND	0.1951
MLRS	ARMY GROUND	0.5812
TOWED ART.	ARMY GROUND	1.0533
SELF-PROP.	ARMY GROUND	1.4044
PERSHING	ARMY GROUND	0.5852
GLCMS	ARMY GROUND	0.9103
INFANTRY	ARMY GROUND	2.0906
MORTERS	ARMY GROUND	1.0468
ROLES LNCH	ARMY GROUND	0.0195

NORMALIZED VALUES	
F-111	10.0000
F-16	8.0734
F-4	7.9560
F-18	5.8824
A-10	4.5321
F-15	4.4444
A-7	4.0000
INFANTRY	3.6929
F-14	3.5294
M-1	3.1158
M-60	3.1158
A-6	3.0892
COBRA	3.0806
S-3	2.7476
M-2/M-3	2.4927
M-901	2.4927
SELF-PROP.	2.4927
ATT. SUBS	2.3345
SH-60B	1.9484
M-48	1.9387
TOWED ART.	1.8695
MORTERS	1.8590
GLCMS	1.6156
FRIGATES	1.4007
SH-2	1.1718
PERSHING	1.0386
MLRS	1.0386
DESTROYERS	0.8404
SH-3	0.4687
RADIO FLAY	0.3952
M-113	0.3452
ART. ACFT	0.1951
ROLES LNCH	0.0346
M-551	0.0195

CRITICALITY OF SHORTFALL

ALL FE'S

(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FE/ COMMODITY IMPORT	CRITIC- ALITY	NORMALIZED FE'S-TOTAL
COBALT	85.4	43.8	-48.7	402.5	8.3	3339.2	7.7
TIN	42.0	150.6	358.8	0.0*	10.0	0.0	0.0
NICKEL	200.0	32.2	-98.9	437.7	9.9	4324.9	10.0
GLUCOPAR ACID	1400.0	895.0	-36.1	319.9	9.5	3686.5	9.5
PYRETHRUM	500.0	0.0	-100.0	453.8	4.1	1853.2	4.1

COMPOSITE IMPORTANCE

(LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1350.	7.71	1.72	0.580	4.477
MOROCCO	450.	2.57	2.05	0.487	1.252
LESOTHO	200.	1.43	1.76	0.569	0.813
SOUTH AFRICA	150.	0.86	2.31	0.432	0.371
CHINA	12500.	71.43	1.79	0.568	1.670
PHILIPPINES	50.	0.29	0.82	1.216	0.347
AUSTRALIA	400.	2.29	0.82	1.216	2.779
NEW CALEDONIA	250.	1.43	0.92	1.216	1.737
INDIA	1100.	6.29	2.61	0.383	1.409
U.S.	1000.	5.71	2.31	0.432	2.471

TOTAL: 17500. 100.00

COMPOSITE IMPORTANCE

(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
AUSTRALIA	100.	0.15	0.82	1.216	0.190
U.S.	16100.	23.82	2.31	0.432	10.249
THAILAND	5900.	8.73	0.82	1.216	10.611
INDONESIA	5800.	8.58	0.82	1.216	10.491
UK	100.	0.15	1.76	0.569	0.034
BOLIVIA	10300.	15.24	0.90	1.117	17.014
BRAZIL	2400.	3.55	0.90	1.117	3.964
ROC	3000.	4.44	2.33	0.429	1.905
MALAYSIA	23900.	35.36	0.82	1.216	42.983

TOTAL: 67600. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1000.	0.33	1.72	0.580	0.171
SOUTH AFRICA	5000	1.64	2.31	0.432	1.711
PHILIPPINES	5000	1.64	0.82	1.216	1.997
AUSTRALIA	25000.	8.21	0.82	1.216	8.991
CANADA	150000.	49.28	2.61	0.393	18.977
U.S.	88000.	28.91	2.31	0.432	1.501
FRANCE	600.	0.20	1.76	0.569	0.112
NETHERLANDS	200.	0.07	1.76	0.569	0.037
IND.	100.	0.03	1.76	0.569	0.019
YUGOSLAVIA	500.	0.16	1.76	0.569	0.030
C.S.R.	5000	1.64	0.82	1.160	1.911
DOM. REPUB.	15000	4.93	1.38	0.727	3.541
GUATEMALA	4000.	1.31	1.38	0.727	0.915
INDONESIA	5000.	1.64	0.82	1.216	1.997
TOTAL	304400	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

FLUOROPH. ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	180.	22.36	2.31	0.432	9.667
U.S.	70.	8.70	2.31	0.432	3.730
ITALY	65.	8.07	1.76	0.569	4.597
SPAIN	100.	12.42	1.76	0.569	7.073
EAST AFRICA	25.	3.11	1.76	0.569	1.768
THAILAND	15.	1.86	0.82	1.216	2.265
MEXICO	350.	43.48	2.31	0.432	18.801
TOTAL:	805.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000.	1.01	2.31	0.432	0.438
AUSTRALIA	1500.	0.76	0.82	1.216	0.923
U.S.	11000.	5.57	1.76	0.569	3.171
KENYA	80000.	40.51	1.76	0.569	23.043
RUANDA	25000.	12.66	1.76	0.569	7.207
TANZANIA	78000.	39.49	1.76	0.569	22.487
TOTAL:	197500.	100.00			

SOURCE IMPORTANCE
(LOC 3)

SOURCE	W/1/01) COMP IMP	FEVERHOFFALL CRITICALITY	TOTAL	W/1/01) TO 100
SEALT				
FINLAND	4.477	7.72	34.57	11.01
MOROCCO	1.252	7.72	9.66	3.04
BOTSWANNA	0.813	7.72	6.28	2.00
SOUTH AFRICA	0.371	7.72	2.86	0.91
ZAIRE	40.670	7.72	314.02	100.00
PHILIPPINES	0.307	7.72	2.68	0.85
AUSTRALIA	2.779	7.72	21.46	6.83
NEW CALEDONIA	1.737	7.72	13.41	4.27
CANADA	2.408	7.72	18.59	5.92
U.S.	2.471	7.72	17.08	5.51
TIN				
AUSTRALIA	0.180	0.00	0.00	0.00
U.S.	10.289	0.00	0.00	0.00
THAILAND	10.611	0.00	0.00	0.00
INDONESIA	10.431	0.00	0.00	0.00
UK	0.084	0.00	0.00	0.00
BOLIVIA	17.014	0.00	0.00	0.00
BRAZIL	3.964	0.00	0.00	0.00
PERU	1.505	0.00	0.00	0.00
MALAYSIA	42.981	0.00	0.00	0.00
TIO-EL				
FINLAND	0.181	10.00	1.91	0.61
SOUTH AFRICA	0.710	10.00	7.10	2.29
PHILIPPINES	1.997	10.00	19.97	6.34
AUSTRALIA	9.935	10.00	99.35	31.11
CANADA	18.877	10.00	188.77	60.11
U.S.	12.501	10.00	125.01	39.91
GREECE	0.112	10.00	1.12	0.35
NETHERLANDS	0.037	10.00	0.37	0.12
FRG	0.019	10.00	0.19	0.06
YUGOSLAVIA	0.094	10.00	0.94	0.30
USSR	1.905	10.00	19.05	6.07
DOM. REFUE.	3.582	10.00	35.82	11.41
GUATEMALA	0.955	10.00	9.55	3.04
INDONESIA	1.997	10.00	19.97	6.34
FLUORSPAR ACID				
SOUTH AFRICA	9.669	8.52	82.42	26.25
U.S.	3.760	8.52	32.05	10.21
ITALY	4.597	8.52	39.19	12.48
SPAIN	7.073	8.52	60.29	19.20
EAST AFRICA	1.768	8.52	15.07	4.80
THAILAND	2.265	8.52	19.31	6.10
MEXICO	18.801	8.52	160.27	51.04
LYPETHRUM				
SOUTH AFRICA	0.438	4.29	1.88	0.60
AUSTRALIA	0.923	4.29	3.96	1.26
UK	3.171	4.29	13.59	4.38
KENYA	23.063	4.29	98.83	31.47
RWANDA	7.207	4.29	30.86	9.84
TANZANIA	22.487	4.29	96.36	30.69

SOURCE IMPORTANCE
RANKED BY SOURCE
(2013)

	SOURCE	COMMODITY	VALUE
1	ZAMBIA	COBALT	100.00
2	CANADA	NICKEL	60.11
3	MEXICO	FLUORSPAR ACID	51.04
4	U.S.	NICKEL	39.81
5	AUSTRALIA	NICKEL	31.80
6	KENYA	PYRETHRUM	31.47
7	TANZANIA	PYRETHRUM	30.49
8	SOUTH AFRICA	FLUORSPAR ACID	26.20
9	SPAIN	FLUORSPAR ACID	18.20
10	ITALY	FLUORSPAR ACID	12.49
11	DOM. REPUBLIC	NICKEL	11.41
12	FINLAND	COBALT	11.01
13	U.S.	FLUORSPAR ACID	10.01
14	RWANDA	PYRETHRUM	9.84
15	AUSTRALIA	COBALT	6.83
16	INDONESIA	NICKEL	6.64
17	PHILIPPINES	NICKEL	6.36
18	THAILAND	FLUORSPAR ACID	6.10
19	U.S.	COBALT	6.08
20	USSR	NICKEL	6.07
21	CANADA	COBALT	5.41
22	EAST AFRICA	FLUORSPAR ACID	4.90
23	UK	PYRETHRUM	4.32
24	NEW CALEDONIA	COBALT	4.27
25	MOROCCO	COBALT	3.08
26	GUATEMALA	NICKEL	3.04
27	SOUTH AFRICA	NICKEL	2.24
28	BOTSWANA	COBALT	2.00
29	AUSTRALIA	PYRETHRUM	1.26
30	SOUTH AFRICA	COBALT	0.91
31	PHILIPPINES	COBALT	0.85
32	FINLAND	NICKEL	0.61
33	SOUTH AFRICA	PYRETHRUM	0.60
34	GREECE	NICKEL	0.36
35	YUGOSLAVIA	NICKEL	0.30
36	NETHERLANDS	NICKEL	0.12
37	FRG	NICKEL	0.06
38	MALAYSIA	TIN	0.00
39	PRC	TIN	0.00
40	BRAZIL	TIN	0.00
41	BOLIVIA	TIN	0.00
42	UK	TIN	0.00
43	INDONESIA	TIN	0.00
44	THAILAND	TIN	0.00
45	U.S.	TIN	0.00
46	AUSTRALIA	TIN	0.00

SCENARIO 43

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict & Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	10.0	2.0	5.0	2.0	6.0
I/COEF	0.1543	0.1543	0.1094	0.0781	0.1094	0.1543	0.0313	0.0781	0.0313	0.0781

Level of Conflict & Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	15.0	10.0	8.0	7.0	5.0
I/COEF	0.1190	0.1190	0.1071	0.0476	0.0813	0.0595	0.1190	0.0952	0.0831	0.0711
I/COEF	0.1071									

Level of Conflict & Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	10.0	6.0	4.0	10.0
I/COEF	0.1667	0.1667	0.1667	0.1667	0.1000	0.0667	0.1667

Level of Conflict & Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
I/COEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/COEF		0.0200	0.0200	0.0140	0.0100	0.0140	0.0100	0.0040	0.0100	0.0040	0.0100

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/COEF		0.0152	0.0152	0.0137	0.0061	0.0107	0.0076	0.0152	0.0122	0.0107	0.0076

Media 3	Region	1	2	3	4	5	6	7
I/COEF		0.0213	0.0213	0.0213	0.0213	0.0123	0.0085	0.0213

Media 4	Region	1	2	3	4
I/COEF		0.0752	0.0301	0.0150	0.0075

Importance of controlling ANY Region within its Media as compared to the Importance of controlling ANY Region of any other Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/COEF		0.0087	0.0087	0.0061	0.0043	0.0061	0.0037	0.0017	0.0043	0.0017	0.0052

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/COEF		0.0033	0.0033	0.0030	0.0013	0.0023	0.0017	0.0033	0.0026	0.0023	0.0017

Media 3	Region	1	2	3	4	5	6	7
I/COEF		0.0056	0.0056	0.0056	0.0056	0.0033	0.0022	0.0056

Media 4	Region	1	2	3	4
I/COEF		0.0045	0.0026	0.0013	0.0007

FORCE ELEMENT IMPORTANCE
(LOC 8)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.133	10.000
2	1	AIR INTERDICTION	0.112	8.421
3	3	AFLC GROUND	0.095	7.371
4	16	ATTACK SUBS	0.073	5.490
5	19	SURFACE COMBATANTS	0.060	4.508
6	8	RAPID DEPLOY	0.056	4.241
7	12	THEATER NUCLEAR WEAPON	0.054	4.051
8	14	ASW (LAND BASED)	0.043	3.244
9	22	AIR SUPERIORITY (LAND BASED)	0.037	2.778
10	6	CAS	0.034	2.587
11	15	ASW (SEA BASED)	0.032	2.428
12	23	AIR SUPERIORITY (SHIP BASED)	0.011	0.844
13	10	STRATEGIC BOMBER	0.011	0.844
14	21	AIR DEFENSE (SHIP BASED)	0.022	1.684
15	25	SPACE BASED WEAPON (AIR CNTRL)	0.019	1.454
16	13	SPECIAL OPERATIONS	0.014	1.041
17	29	ASAT (SPACE BASED)	0.013	0.982
18	18	MINE WARFARE	0.013	0.970
19	2	AMPHIBIOUS ASSAULT	0.010	0.748
20	26	ASAT (LAND BASED)	0.007	0.540
21	20	AIR DEFENSE (LAND BASED)	0.004	0.295
22	9	SPACE BASED WEAPON (LAND CNTRL)	0.003	0.213
23	30	SPACE BASED WEAPON (SEA CNTRL)	0.001	0.074
24	27	ABM (SPACE BASED)	0.000	0.000
25	28	ABM (LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANCE
(LOC 3)

COBALT

AIR INTERDICTION	5.80
ARMY GROUND	3.90
CAS	1.45
ICBM	0.00
STRATEGIC BOMBER	1.80
SLBM	0.00
ASW(SEA BASED)	1.00
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.27
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.50
	44.49

TIN

AIR INTERDICTION	6.00
ARMY GROUND	1.65
CAS	1.00
STRATEGIC BOMBER	1.80
ASW(LAND BASED)	3.25
ASW(SEA BASED)	1.10
ATTACK SUBS	5.40
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.97
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.27
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	41.57

NICKEL

AIR INTERDICTION	5.73
ARMY GROUND	4.25
CAS	1.42
STRATEGIC BOMBER	1.85
ASW(SEA BASED)	1.79
ATTACK SUBS	5.40
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.97
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	2.27
INTERCEPTOR AIRCRAFT	0.00
	41.07

FLUORSPAR ACID

AIR INTERDICTION	7.51
AMPHIBIOUS ASSAULT	0.75
ARMY GROUND	3.14
CAS	1.70
ICBM	0.00
STRATEGIC BOMBER	1.85
SLBM	0.00
ASW(LAND BASED)	3.25
ASW(SEA BASED)	1.11
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.51
AIR SUPERIORITY(LAND BASED)	2.78
AIR SUPERIORITY(SHIP BASED)	0.07
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	39.31

PYRETHRUM

ARMY GROUND	2.84
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.15
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.51
	16.98

COMMODITY NORMALIZED IMPORTANCE

COIN	10.00	(41.57)
COAL	9.88	(41.07)
FLUORSPAR ACID	9.46	(39.31)
COBALT	8.90	(34.45)
PYRETHRUM	4.08	(16.98)

COBALT		
A-10	CAS	60.0798
COBRA	CAS	40.0582
F-4	AIR INTERDICTION	10.0531
	CAS	6.0080
F-16	AIR INTERDICTION	73.6480
	CAS	33.3776
ART. ACFT	CAS	3.0040
RADIO RLY	AIR INTERDICTION	3.3142
	CAS	2.2530
F-111	AIR INTERDICTION	132.5664
A-6	AIR INTERDICTION	39.7699
F-15	AIR INTERDICTION	58.9184
A-7	AIR INTERDICTION	53.0265
F-14	AIR INTERDICTION	44.1883
F-18	AIR INTERDICTION	73.6480
SH-3	ASW(SEA BASED)	6.3742
SH-2	ASW(SEA BASED)	15.9354
SH-60B	ASW(SEA BASED)	24.7884
S-3	ASW(SEA BASED)	36.4237
ATT. SUBS	ASW(SEA BASED)	25.2942
FRIGATES	ASW(SEA BASED)	15.1765
DESTROYERS	ASW(SEA BASED)	9.1039
M-48	ARMY GROUND	32.7691
M-60	ARMY GROUND	52.6647
M-1	ARMY GROUND	58.5163
M-551	ARMY GROUND	0.1951
M-901	ARMY GROUND	46.8131
M-2/M-3	ARMY GROUND	40.9614
M-113	ARMY GROUND	4.5513
MLRS	ARMY GROUND	17.5549
TOWED ART.	ARMY GROUND	23.4065
SELF-PROP.	ARMY GROUND	31.2087
PERSHING	ARMY GROUND	15.6044
GLCMs	ARMY GROUND	26.0073
INFANTRY	ARMY GROUND	6.5018
MORTERS	ARMY GROUND	31.8589
ROLES LNCH	ARMY GROUND	1.3654

NORMALIZED VALUES	
F-111	10.0000
F-4	8.4532
F-16	8.0734
F-18	5.5556
A-10	4.5321
F-15	4.4444
M-1	4.4141
A-7	4.0000
M-60	3.9727
M-901	3.5313
F-14	3.3333
M-2/M-3	3.0899
COBRA	3.0214
A-6	3.0000
S-3	2.7476
M-48	2.4719
MORTERS	2.4032
SELF-PROP.	2.3542
GLCMs	1.9618
ATT. SUBS	1.9080
SH-60B	1.8699
TOWED ART.	1.7656
MLRS	1.3242
SH-2	1.2021
PERSHING	1.1771
FRIGATES	1.1448
DESTROYERS	0.6869
INFANTRY	0.4905
SH-3	0.4308
RADIO RLY	0.4200
M-113	0.3433
ART. ACFT	0.2272
ROLES LNCH	0.1030
M-551	0.0147

TIN		
A-10	CAS	60 0798
COBRA	CAS	52 4042
F-4	AIR INTERDICTION	106 0531
	CAS	6 0090
F-16	AIR INTERDICTION	73 6480
	CAS	33 3776
ART. ACFT	CAS	3 0040
RADIO RLAY	AIR INTERDICTION	3 3142
	CAS	2 2530
F-111	AIR INTERDICTION	132 5844
A-6	AIR INTERDICTION	44 7411
F-15	AIR INTERDICTION	58 9184
A-7	AIR INTERDICTION	53 0265
F-14	AIR INTERDICTION	47 7124
F-18	AIR INTERDICTION	82 8540
SH-3	ASW(SEA BASED)	5 4836
SH-2	ASW(SEA BASED)	12 6569
SH-60B	ASW(SEA BASED)	21 2472
S-3	ASW(SEA BASED)	34 4137
ATT. SUBS	ASW(SEA BASED)	15 1765
FRIGATES	ASW(SEA BASED)	15 1765
DESTROYERS	ASW(SEA BASED)	9 1059
M-48	ARMY GROUND	3 6410
M-60	ARMY GROUND	5 8516
M-1	ARMY GROUND	32 5071
M-551	ARMY GROUND	0 0850
M-701	ARMY GROUND	5 8516
M-2/M-3	ARMY GROUND	5 8516
M-113	ARMY GROUND	0 6502
MLRS	ARMY GROUND	8 7775
TOWED ART	ARMY GROUND	3 9011
SELF-PROP.	ARMY GROUND	5 2015
PERSHING	ARMY GROUND	13 6538
GLCMs	ARMY GROUND	22 7564
INFANTRY	ARMY GROUND	52 0145
MORTERS	ARMY GROUND	4 5513
ROLES LNCH	ARMY GROUND	0 1951

NORMALIZED VALUES	
F-111	10 0000
F-4	8 4532
F-16	8 0734
F-18	6 7590
A-10	4 5321
F-15	4 4444
COBRA	4 0285
A-7	4 0090
INFANTRY	3 9237
F-14	3 7500
A-6	3 3750
S-3	2 7476
M-1	2 4523
GLCMs	1 7176
SH-60B	1 6078
ATT. SUBS	1 1448
FRIGATES	1 1448
SH-2	1 0303
PERSHING	1 0300
DESTROYERS	0 6869
MLRS	0 6671
M-2/M-3	0 4414
M-601	0 4414
M-60	0 4414
RADIO RLAY	0 4200
SH-3	0 4171
SELF-PROP.	0 3924
MORTERS	0 3434
TOWED ART.	0 2943
M-48	0 2747
ART. ACFT	0 2276
M-113	0 0499
ROLES LNCH	0 0147
(M-51)	0 0000

NICKEL		
A-10	CAS	60 0798
CCRA	CAS	40 0531
F-4	AIR INTERDICTION	79 5313
	CAS	4 5080
F-16	AIR INTERDICTION	73 6483
	CAS	33 3776
ART. ACFT	CAS	1 0017
RADIO BLAY	AIR INTERDICTION	3 3142
	CAS	2 2530
F-111	AIR INTERDICTION	131 5649
A-6	AIR INTERDICTION	33 7499
F-15	AIR INTERDICTION	53 9194
A-7	AIR INTERDICTION	53 0265
F-14	AIR INTERDICTION	49 7124
F-18	AIR INTERDICTION	81 8540
SH-3	ASW(SEA BASED)	7 0817
SH-2	ASW(SEA BASED)	19 2119
SH-60B	ASW(SEA BASED)	29 3296
S-3	ASW(SEA BASED)	36 4237
ATT. SUBS	ASW(SEA BASED)	45 5994
FRIGATES	ASW(SEA BASED)	27 3178
DESTROYERS	ASW(SEA BASED)	16 3907
M-43	ARMY GROUND	36 4101
M-60	ARMY GROUND	53 5163
M-1	ARMY GROUND	45 0182
M-551	ARMY GROUND	0 6502
M-901	ARMY GROUND	40 9614
M-2/M-3	ARMY GROUND	46 8131
M-113	ARMY GROUND	4 5513
MLRS	ARMY GROUND	17 5549
TOWED ART.	ARMY GROUND	31 2087
SELF-PROP.	ARMY GROUND	41 6116
PERSHING	ARMY GROUND	15 6044
GLCMs	ARMY GROUND	19 5034
INFANTRY	ARMY GROUND	32 5091
MORTERS	ARMY GROUND	13 6538
ROLES LNCH	ARMY GROUND	0 1951

NORMALIZED VALUES	
F-111	10.0000
F-16	8.0734
F-4	6.3399
F-18	6.7500
M-1	4.9046
A-10	4.5321
F-15	4.4444
M-60	4.4141
A-7	4.0000
F-14	3.7500
M-2/M-3	3.5313
ATT. SUBS	3.4345
SELF-PROP.	3.1389
M-901	3.0899
CCRA	3.0214
A-6	3.0000
S-3	2.7476
M-43	2.7466
INFANTRY	2.4523
TOWED ART.	2.3542
SH-60B	2.1370
FRIGATES	2.0607
GLCMs	1.4714
SH-2	1.3738
MLRS	1.3242
DESTROYERS	1.2364
PERSHING	1.1771
MORTERS	1.0300
SH-3	0.5195
RADIO BLAY	0.4200
M-113	0.3433
ART. ACFT	0.1511
M-551	0.0199
ROLES LNCH	0.0147

FLUORESPH. ACID		
A-10	CAS	75.0997
COBRA	CAS	40.0532
F-4	AIR INTERDICTION	131.5564
	CAS	7.5100
F-16	AIR INTERDICTION	92.0600
	CAS	41.7121
ART ACFT	CAS	3.0040
RADIO BLAY	AIR INTERDICTION	3.8142
	CAS	2.2530
F-111	AIR INTERDICTION	165.7090
A-6	AIR INTERDICTION	49.7124
F-15	AIR INTERDICTION	73.6480
A-7	AIR INTERDICTION	66.2632
F-14	AIR INTERDICTION	55.2340
F-18	AIR INTERDICTION	92.0600
SH-3	ASW(SEA BASED)	7.1847
SH-2	ASW(SEA BASED)	15.2119
SH-60B	ASW(SEA BASED)	35.4119
S-3	ASW(SEA BASED)	45.5296
ATT. SUBS	ASW(SEA BASED)	30.3531
FRIGATES	ASW(SEA BASED)	21.2472
DESTROYERS	ASW(SEA BASED)	12.7483
M-48	ARMY GROUND	10.9231
M-60	ARMY GROUND	17.5549
M-1	ARMY GROUND	19.5054
M-551	ARMY GROUND	0.1951
M-901	ARMY GROUND	48.8131
M-2/M-3	ARMY GROUND	46.8131
M-113	ARMY GROUND	5.2015
MLRS	ARMY GROUND	14.6291
TOWED ART.	ARMY GROUND	19.5054
SELF-PROP.	ARMY GROUND	26.0073
PERSHING	ARMY GROUND	13.6538
GLCMs	ARMY GROUND	22.7564
INFANTRY	ARMY GROUND	52.0145
MORTERS	ARMY GROUND	22.7544
ROLES LNCH	ARMY GROUND	0.1951

NORMALIZED VALUES	
F-111	10.0000
F-4	8.4532
F-16	8.0734
F-18	5.5556
A-10	4.5321
F-15	4.4444
A-7	4.0000
F-14	3.8333
INFANTRY	3.1389
A-6	3.0000
M-2/M-3	2.8250
M-901	2.8250
S-3	2.7476
COBRA	2.4171
SH-60B	2.1370
ATT. SUBS	1.8317
SELF-PROP.	1.5695
MORTERS	1.3770
GLCMs	1.3733
FRIGATES	1.2832
TOWED ART.	1.1771
M-1	1.1771
SH-2	1.0990
M-60	1.0574
MLRS	0.8828
PERSHING	0.8240
DESTROYERS	0.7493
M-48	0.6597
SH-3	0.4704
RADIO BLAY	0.3930
M-113	0.3120
ART ACFT	0.1813
M-551	0.0193
ROLES LNCH	0.0110

PYRETHALIN

ATT. SUBS	ARMY (SEA BASED)	15.1765
M-48	ARMY GROUND	25.4871
M-60	ARMY GROUND	40.9614
M-113	ARMY GROUND	4.5512
TOWED ART.	ARMY GROUND	27.3076
SELF-PROP.	ARMY GROUND	36.4102
INFANTRY	ARMY GROUND	65.0182
MORTERS	ARMY GROUND	31.3569

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3000
SELF-PROP.	5.6000
MORTERS	4.9000
TOWED ART.	4.2000
M-48	3.9100
ATT. SUBS	2.3347
M-113	0.7000

ALL COMMODITIES

A-10	CAS	2 5534
COBRA	CAS	1 7306
F-4	AIR INTERDICTION	4 2421
	CAS	0 2411
F-16	AIR INTERDICTION	3 1300
	CAS	1 4111
ART. ACFT	CAS	0 1101
RADIO FLAY	AIR INTERDICTION	0 1211
	CAS	0 0901
F-111	AIR INTERDICTION	5 4341
A-6	AIR INTERDICTION	1 7199
F-15	AIR INTERDICTION	2 5040
A-7	AIR INTERDICTION	2 2536
F-14	AIR INTERDICTION	1 9815
F-18	AIR INTERDICTION	3 3142
SH-3	ASW(SEA BASED)	0 2411
SH-2	ASW(SEA BASED)	0 6402
SH-60B	ASW(SEA BASED)	1 0978
S-3	ASW(SEA BASED)	1 5480
ATT. SUBS	ASW(SEA BASED)	1 3108
FRIGATES	ASW(SEA BASED)	0 7812
DESTROYERS	ASW(SEA BASED)	0 4719
M-48	ARMY GROUND	1 0923
M-60	ARMY GROUND	1 7515
M-1	ARMY GROUND	1 7555
M-551	ARMY GROUND	0 0111
M-901	ARMY GROUND	1 4044
M-2, M-3	ARMY GROUND	1 4044
M-113	ARMY GROUND	0 1951
MLRS	ARMY GROUND	0 5812
TOWED ART.	ARMY GROUND	1 0538
SELF-PROP.	ARMY GROUND	1 4044
PERSHING	ARMY GROUND	0 5952
GLCM	ARMY GROUND	0 9108
INFANTRY	ARMY GROUND	2 0806
MORTERS	ARMY GROUND	1 0468
FILES LNCH	ARMY GROUND	0 0195

NORMALIZED VALUES

F-111	10 0000
F-16	8 0734
F-4	7 9560
F-18	5 8824
A-10	4 5321
F-15	4 4444
A-7	4 0000
INFANTRY	3 6929
F-14	3 5294
M-1	3 1158
M-60	3 1158
A-6	3 0882
COBRA	3 0806
S-3	2 7476
M-2/M-3	2 4927
M-901	2 4927
SELF-PROP.	2 4927
ATT. SUBS	2 3345
SH-60B	1 9484
M-48	1 9287
TOWED ART.	1 8495
MORTERS	1 8580
GLCM	1 6156
FRIGATES	1 4007
SH-2	1 1719
PERSHING	1 0386
MLRS	1 0386
DESTROYERS	0 8404
SH-3	0 4787
RADIO FLAY	0 3952
M-113	0 3473
ART. ACFT	0 1951
FILES LNCH	0 0746
M-501	0 0195

CRITICALITY OF SHORTFALL
ALL FEES
(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT- FALL (%)	TRANS- LATED	FEY COMMODITY IMPORT	CRITIC- ALITY	FEY- CRITICALITY
ASBEST	85.4	143.8	-41.0	402.5	8.3	3335.2	7.7
COB	43.0	190.6	373.8	0.0	10.0	0.0	0.0
NICKEL	200.0	32.2	-83.9	1437.7	9.9	4324.8	10.0
FLUORSPAR ACID	1400.0	895.0	-35.1	388.8	9.5	3686.5	8.5
PERETHRUM	500.0	0.0	-100.0	453.8	4.1	1653.2	4.3

COMPOSITE IMPORTANCE
(LOC 3)

ASBEST

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	2/(1/CI)
FINLAND	1350.	7.71	1.72	0.584	4.277
MOROCCO	450.	2.57	2.05	0.487	1.207
BOTSWANNA	250.	1.43	1.76	0.569	0.813
SOUTH AFRICA	150.	0.84	2.31	0.432	0.371
ZAIRE	9000.	51.43	1.76	0.569	29.212
ZAMBIA	3500.	20.00	1.76	0.569	11.355
PHILIPPINES	50.	0.29	0.82	1.216	0.347
AUSTRALIA	400.	2.29	0.82	1.216	1.374
NEW CALEDONIA	250.	1.43	0.82	1.216	1.737
CANADA	1100.	6.29	2.61	0.383	2.454
U.S.	1000.	5.71	2.31	0.432	2.471
TOTAL:	17500.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	2/(1/CI)
AUSTRALIA	100.	0.15	0.82	1.216	0.180
U.S.	16100.	23.82	2.31	0.432	10.244
THAILAND	5900.	8.73	0.82	1.216	10.611
INDONESIA	5800.	8.58	0.82	1.216	10.431
U.S.	100.	0.15	1.76	0.569	0.084
ROMANIA	10300.	15.24	0.90	1.117	17.014
BRAZIL	2400.	3.55	0.90	1.117	3.964
PERU	3000.	4.44	2.33	0.429	1.905
MALAYSIA	23900.	35.36	0.82	1.216	42.981
TOTAL:	67600.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1000	0.33	1.72	0.580	0.101
SOUTH AFRICA	5000	1.64	2.31	0.432	0.712
PHILIPPINES	5000	1.64	0.82	1.216	1.337
AUSTRALIA	25000	8.21	0.82	1.216	1.041
CANADA	150000	49.28	2.31	0.383	13.277
U.S.	83000	28.91	2.31	0.432	12.501
GREECE	400	0.20	1.73	0.569	0.111
NETHERLANDS	200	0.07	1.73	0.569	0.047
FRS	100	0.03	1.73	0.569	0.017
YUGOSLAVIA	500	0.16	1.73	0.569	0.084
USSR	5000	1.64	0.82	1.160	1.337
DEM. REPUB.	15000	4.93	1.33	0.717	2.512
CATAMALA	4000	1.31	1.33	0.717	0.907
INDONESIA	5000	1.64	0.82	1.216	1.337

TOTAL: 304400 100.00

COMPOSITE IMPORTANCE
(LOC 3)

FLUOROSULF. ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	150	22.33	2.31	0.432	0.341
U.S.	70	8.70	2.31	0.432	3.760
ITALY	65	8.07	1.73	0.569	4.597
FRANCE	100	12.42	1.73	0.569	7.673
EAST AFRICA	25	3.11	1.73	0.569	1.768
THAILAND	15	1.86	0.82	1.216	2.265
MEXICO	350	43.43	2.31	0.432	13.911

TOTAL: 805 100.00

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000	1.01	2.31	0.432	0.433
AUSTRALIA	1500	0.76	0.82	1.216	0.929
U.S.	11000	5.57	1.73	0.569	3.171
KENYA	80000	40.51	1.73	0.569	23.063
RWANDA	25000	12.66	1.73	0.569	7.207
TANZANIA	78000	39.49	1.73	0.569	21.487

TOTAL: 197500 100.00

SOURCE IMPORTANCE
(LUC 3)

SOURCE	% (1/01) COST 1978	FEVEREST FALL COST 1978-1979	TOTAL	NORMALIZED 100.00
COBALT				
FINLAND	4.477	7.72	34.57	15.27
MEXICO	1.251	7.72	7.66	4.12
BOTSWANNA	0.810	7.72	4.28	2.78
SOUTH AFRICA	0.371	7.72	2.86	1.27
ZAIRE	22.131	7.72	213.09	100.00
ZAMBIA	11.381	7.72	101.92	38.81
PHILIPPINES	0.347	7.72	2.43	1.19
AUSTRALIA	2.779	7.72	21.43	9.41
NEW CALEDONIA	1.737	7.72	13.41	5.93
CANADA	2.403	7.72	13.51	6.22
U.S.	1.431	7.72	13.09	6.24
TIN				
AUSTRALIA	0.110	0.00	0.01	0.01
U.S.	10.251	0.00	0.00	0.00
THAILAND	10.611	0.00	0.00	0.00
INDONESIA	10.431	0.00	0.00	0.00
UK	0.054	0.00	0.00	0.00
BOLIVIA	17.014	0.00	0.00	0.00
BRAZIL	3.964	0.00	0.00	0.00
FRG	1.905	0.00	0.00	0.00
MALAYSIA	41.981	0.00	0.00	0.00
NICKEL				
FINLAND	0.191	10.00	1.91	0.84
SOUTH AFRICA	0.710	10.00	7.10	3.14
PHILIPPINES	1.997	10.00	19.97	8.83
AUSTRALIA	9.951	10.00	99.55	44.11
CANADA	13.877	10.00	138.77	61.49
U.S.	12.501	10.00	125.01	55.39
GREECE	0.112	10.00	1.12	0.50
NETHERLANDS	0.037	10.00	0.37	0.17
FRG	0.019	10.00	0.19	0.08
YUGOSLAVIA	0.094	10.00	0.94	0.41
USSR	1.905	10.00	19.05	8.42
DOM. REPUB.	3.532	10.00	35.32	15.84
GUATEMALA	0.955	10.00	9.55	4.23
INDONESIA	1.997	10.00	19.97	8.83
FLUOROSPAR ACID				
SOUTH AFRICA	9.669	8.52	82.42	36.46
U.S.	3.760	8.52	32.05	14.13
ITALY	4.597	8.52	39.19	17.33
SPAIN	7.073	8.52	60.29	26.67
EAST AFRICA	1.768	8.52	15.07	6.67
THAILAND	2.265	8.52	19.31	8.54
MEXICO	18.801	8.52	160.27	70.89
ETHRUM				
SOUTH AFRICA	0.433	4.29	1.83	0.83
AUSTRALIA	0.923	4.29	3.96	1.75
UK	3.171	4.29	13.59	6.01
KENYA	23.063	4.29	98.83	45.71
RWANDA	7.207	4.29	30.83	13.66
TANZANIA	22.487	4.29	96.36	42.62

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

SOURCE	COMMODITY	VALUE
1 ZAIRE	COBALT	100.00
2 CANADA	NICKEL	83.49
3 MEXICO	FLUORSPAR ACID	70.85
4 U.S.	NICKEL	53.29
5 AUSTRALIA	NICKEL	44.14
6 KENYA	PYRETHRUM	43.71
7 TANZANIA	PYRETHRUM	42.62
8 ZAMBIA	COBALT	38.11
9 SOUTH AFRICA	FLUORSPAR ACID	36.46
10 SPAIN	FLUORSPAR ACID	26.67
11 ITALY	FLUORSPAR ACID	17.33
12 DOM. REPUB.	NICKEL	15.84
13 FINLAND	COBALT	15.29
14 U.S.	FLUORSPAR ACID	14.18
15 FRANCE	PYRETHRUM	12.64
16 AUSTRALIA	COBALT	9.41
17 INDONESIA	NICKEL	8.83
18 PHILIPPINES	NICKEL	8.45
19 THAILAND	FLUORSPAR ACID	8.54
20 U.S.	COBALT	8.44
21 USSR	NICKEL	8.42
22 CANADA	COBALT	8.22
23 EAST AFRICA	FLUORSPAR ACID	6.67
24 UK	PYRETHRUM	6.01
25 NEW CALEDONIA	COBALT	5.93
26 MOROCCO	COBALT	4.27
27 GUATEMALA	NICKEL	4.23
28 SOUTH AFRICA	NICKEL	3.14
29 BOTSWANNA	COBALT	2.78
30 AUSTRALIA	PYRETHRUM	1.75
31 SOUTH AFRICA	COBALT	1.27
32 PHILIPPINES	COBALT	1.19
33 FINLAND	NICKEL	0.84
34 SOUTH AFRICA	PYRETHRUM	0.83
35 GREECE	NICKEL	0.50
36 YUGOSLAVIA	NICKEL	0.41
37 NETHERLANDS	NICKEL	0.17
38 FRG	NICKEL	0.08
39 MALAYSIA	TIN	0.00
40 PRC	TIN	0.00
41 BRAZIL	TIN	0.00
42 BOLIVIA	TIN	0.00
43 UK	TIN	0.00
44 INDONESIA	TIN	0.00
45 THAILAND	TIN	0.00
46 U.S.	TIN	0.00
47 AUSTRALIA	TIN	0.00

SCENARIO 44

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 1 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	1.0	5.0	2.0	1.0
1/COEF	0.1784	0.1784	0.1250	0.0833	0.1250	0.0357	0.0357	0.0893	0.0357	0.1071

Level of Conflict 2 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
1/COEF	0.1333	0.1333	0.1200	0.0556	0.0933	0.0667	0.0133	0.1067	0.0911	0.0714
1/COEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
1/COEF	0.1784	0.1784	0.1784	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
1/COEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
1/COEF		0.0213	0.0118	0.0140	0.0114	0.0161	0.0040	0.0048	0.0114	0.0041	0.0107

Media 2	Region	1	2	3	4	5	6	7	8	9	10
1/COEF		0.0171	0.0171	0.0154	0.0068	0.0119	0.0085	0.0017	0.0136	0.0119	0.0055

Media 3	Region	1	2	3	4	5	6	7
1/COEF		0.0213	0.0213	0.0211	0.0188	0.0137	0.0071	0.0133

Media 4	Region	1	2	3	4
1/COEF		0.0752	0.0301	0.0150	0.0075

Media 1	Region	1	2	3	4
1/COEF		0.0099	0.0099	0.0070	0.0050

Media 2	Region	1	2	3	4	5	6	7	8	9	10
1/COEF		0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0040

Media 3	Region	1	2	3	4	5	6	7
1/COEF		0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004

Media 4	Region	1	2	3	4
1/COEF		0.0045	0.0026	0.0013	0.0007

Media 1	Region	1	2	3	4	5	6	7	8	9	10
1/COEF		0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0040

Media 2	Region	1	2	3	4	5	6	7	8	9	10
1/COEF		0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0040

Media 3	Region	1	2	3	4	5	6	7
1/COEF		0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004

Media 4	Region	1	2	3	4
1/COEF		0.0045	0.0026	0.0013	0.0007

FORCE ELEMENT IMPORTANCE
(LDC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.141	10.000
2	1	AIR INTERDICTION	0.117	8.29
3	3	AIR GROUP	0.104	7.891
4	16	ATTACK SUB	0.072	5.100
5	18	SURFACE COMBATANT	0.060	4.241
6	12	THEATER NUCLEAR WEAPON	0.054	3.911
7	8	FAREAST DEFENSE	0.052	3.71
8	4	CAS	0.044	3.181
9	14	ARMILAND BASED	0.043	3.081
10	20	AIR SUPERIORITY LAND BASED	0.041	2.911
11	15	ASW (SEA BASED)	0.038	2.815
12	21	AIR DEFENSE (SEA BASED)	0.031	2.176
13	21	AIR DEFENSE (SEA BASED)	0.031	2.176
14	10	STRATEGIC BOMBER	0.025	1.791
15	19	SPACE BASED WEAPON (AIR CONTROL)	0.020	1.411
16	22	ASAT (SPACE BASED)	0.017	0.911
17	11	MINE WARFARE	0.013	0.891
18	2	AMPHIBIOUS ASSAULT	0.011	0.750
19	13	SPECIAL OPERATIONS	0.010	0.715
20	23	ASAT (LAND BASED)	0.007	0.510
21	20	AIR DEFENSE (LAND BASED)	0.004	0.270
22	7	SPACE-BASED WEAPON (LAND CONTROL)	0.003	0.211
23	10	SPACE BASED WEAPON (SEA CONTROL)	0.002	0.118
24	27	ARMOR (SEA BASED)	0.000	0.000
25	14	ARMILAND DEFENSE	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLIM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANCE
LOI 80

COPALT

AIR INTERDICTION	5.71
ARMY GROUND	4.51
CAS	1.72
ICBM	0.00
STRATEGIC BOMBER	1.71
SLBM	0.00
ASW(SEA BASED)	1.71
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASAT(LAND BASED)	0.00
	24.84

TIN

AIR INTERDICTION	5.90
ARMY GROUND	1.91
CAS	1.91
STRATEGIC BOMBER	1.79
ASW(LAND BASED)	1.04
ASW(SEA BASED)	1.11
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASW(LAND BASED)	0.00
	41.18

NICKEL

AIR INTERDICTION	5.60
ARMY GROUND	4.92
CAS	1.72
STRATEGIC BOMBER	1.79
ASW(SEA BASED)	1.71
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
	41.21

FLUORSPAR ACID

AIR INTERDICTION	7.13
AMPHIBIOUS ASSAULT	0.76
ARMY GROUND	3.00
CAC	1.00
ICBM	0.00
STRATEGIC BOMBER	1.75
SLBM	0.00
ASW(LAND BASED)	3.00
ASW(SEA BASED)	1.00
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.20
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SEA BASED)	1.00
INTERCEPT AIRCRAFT	0.00
ABM(LAND BASED)	0.00

	34.57

PYRETHRUM

ARMY GROUND	1.00
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.14
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.20

	17.08

COMMODITY NORMALIZED IMPORTANCE

NICKEL	10.00	(41 21)
TIN	9.99	(41 18)
FLUORSPAR ACID	9.60	(39 57)
COBALT	8.48	(34 99)
PYRETHRUM	4.14	(17 08)

COBALT		
A-10	CAS	72 7331
COBRA	CAS	48 4841
F-4	AIR INTERDICTION	108 5050
	CAS	7 1734
F-16	AIR INTERDICTION	71 8735
	CAS	48 4075
ART. ACFT	CAS	3 6867
RADIO FLAY	AIR INTERDICTION	3 2343
	CAS	2 7275
F-111	AIR INTERDICTION	139 3813
A-6	AIR INTERDICTION	38 8144
F-15	AIR INTERDICTION	57 5028
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	43 1271
F-18	AIR INTERDICTION	71 8735
SH-3	ABW (SEA BASED)	6 0775
SH-2	ABW (SEA BASED)	15 1937
SH-60B	ABW (SEA BASED)	23 6341
S-3	ABW (SEA BASED)	34 7234
ATT. SUBS	ABW (SEA BASED)	24 1169
FRIGATES	ABW (SEA BASED)	14 4701
DESTROYERS	ABW (SEA BASED)	8 6321
M-48	ARMY GROUND	37 9463
M-60	ARMY GROUND	41 0131
M-1	ARMY GROUND	47 7930
M-551	ARMY GROUND	0 2240
M-901	ARMY GROUND	54 2384
M-2/M-3	ARMY GROUND	47 4533
M-113	ARMY GROUND	5 2732
MLRS	ARMY GROUND	20 3394
TOWED ART.	ARMY GROUND	17 1192
SELF-PROP.	ARMY GROUND	36 1539
PERSHING	ARMY GROUND	19 0795
GLCMs	ARMY GROUND	30 1324
INFANTRY	ARMY GROUND	7 5331
MORTARS	ARMY GROUND	36 9122
ROLES LNCH	ARMY GROUND	1 5820

NORMALIZED VALUES	
F-111	10 0000
F-16	8 6787
F-4	8 5622
A-10	5 6216
F-18	5 5556
M-1	5 2402
M-60	4 7162
F-15	4 4444
M-901	4 1921
A-7	4 0000
COBRA	3 7473
M-2/M-3	3 6681
F-14	3 3333
A-6	3 0000
M-48	2 9345
MORTARS	2 8539
SELF-PROP.	2 7948
S-3	2 6842
GLCMs	2 3290
TOWED ART.	2 0961
ATT. SUBS	1 8640
SH-60B	1 8267
MLRS	1 5721
PERSHING	1 3974
SH-2	1 1743
FRIGATES	1 1182
DESTROYERS	0 6710
INFANTRY	0 3822
SH-3	0 4737
RADIO FLAY	0 4603
M-113	0 4076
ART. ACFT	0 1811
ROLES LNCH	0 1213
	0 0110

TIN		
A-10	CAS	72 7388
COBRA	CAS	64 6511
F-4	AIR INTERDICTION	113 5150
	CAS	7 1734
F-16	AIR INTERDICTION	71 8785
	CAS	41 4075
ART. ACFT	CAS	3 6367
RADIO RLY	AIR INTERDICTION	3 2345
	CAS	2 7275
F-111	AIR INTERDICTION	111 3813
A-6	AIR INTERDICTION	43 6462
F-15	AIR INTERDICTION	57 5013
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	43 5110
F-18	AIR INTERDICTION	80 6433
SH-3	ASW(SEA BASED)	5 1043
SH-2	ASW(SEA BASED)	13 0231
SH-60F	ASW(SEA BASED)	20 2511
S-3	ASW(SEA BASED)	34 7284
ATT. SUBS	ASW(SEA BASED)	14 4701
FRIGATES	ASW(SEA BASED)	14 4701
DESTROYERS	ASW(SEA BASED)	8 6821
M-48	ARMY GROUND	4 2135
M-60	ARMY GROUND	6 7723
M-1	ARMY GROUND	37 6455
M-551	ARMY GROUND	0 0753
M-901	ARMY GROUND	6 7798
M-2/M-3	ARMY GROUND	6 7798
M-113	ARMY GROUND	0 7533
MLRS	ARMY GROUND	10 1697
TOWED ART.	ARMY GROUND	4 5199
SELF-PROP.	ARMY GROUND	6 0265
PERSHING	ARMY GROUND	15 3135
GLCMs	ARMY GROUND	26 3659
INFANTRY	ARMY GROUND	60 2649
MORTARS	ARMY GROUND	5 2732
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
F-18	6.2500
A-10	5.6216
COBRA	4.9970
INFANTRY	4.6579
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.9112
S-3	2.6842
GLCMs	2.0373
SH-60F	1.5658
PERSHING	1.2227
FRIGATES	1.1184
ATT. SUBS	1.1184
SH-2	1.0066
MLRS	0.7860
DESTROYERS	0.6710
M-2/M-3	0.5240
M-901	0.5240
M-60	0.5240
SELF-PROP.	0.4652
RADIO RLY	0.4603
MORTARS	0.4076
SH-3	0.4076
TOWED ART.	0.3493
M-48	0.3241
ART. ACFT	0.2811
M-113	0.0632
ROLES LNCH	0.0135
M-551	0.0051

NICHEL		
A-10	CAS	72 7326
COBRA	CAS	41 2331
F-4	AIR INTERDICTION	77 6133
	CAS	5 4550
F-16	AIR INTERDICTION	71 6715
	CAS	41 4110
ART ACFT	CAS	2 4245
RADIO RLY	AIR INTERDICTION	3 2345
	CAS	2 7175
F-111	AIR INTERDICTION	123 3813
A-6	AIR INTERDICTION	33 8144
F-15	AIR INTERDICTION	57 5012
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	43 5180
F-18	AIR INTERDICTION	80 8833
SH-3	ASW (SEA BASED)	6 9477
SH-2	ASW (SEA BASED)	17 3641
SH-60B	ASW (SEA BASED)	27 0101
S-3	ASW (SEA BASED)	34 7134
ATT SUBS	ASW (SEA BASED)	43 4104
FRIGATES	ASW (SEA BASED)	26 0433
DESTROYERS	ASW (SEA BASED)	15 6278
M-48	ARMY GROUND	42 1854
M-60	ARMY GROUND	67 7980
M-1	ARMY GROUND	75 3211
M-551	ARMY GROUND	0 7533
M-901	ARMY GROUND	47 4586
M-2/M-3	ARMY GROUND	54 2344
M-113	ARMY GROUND	5 2732
MLRS	ARMY GROUND	20 3394
TOWED ART	ARMY GROUND	36 1599
SELF-PROP	ARMY GROUND	48 2119
PERSHING	ARMY GROUND	19 0795
GLCMs	ARMY GROUND	22 5993
INFANTRY	ARMY GROUND	37 6655
MORTARS	ARMY GROUND	15 8135
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	6.4216
F-18	6.2500
M-1	5.8224
A-10	5.6216
M-60	5.2402
F-15	4.4444
M-2/M-3	4.1921
A-7	4.0000
F-14	3.7500
COBRA	3.7478
SELF-PROP.	3.7263
M-901	3.6681
ATT. SUBS	3.3552
M-48	3.2605
A-6	3.0000
INFANTRY	2.9112
TOWED ART.	2.7948
S-3	2.6842
SH-60B	2.0877
FRIGATES	2.0131
GLCMs	1.7467
MLRS	1.5721
PERSHING	1.3974
SH-2	1.3421
MORTARS	1.2227
DESTROYERS	1.2071
SH-3	0.5373
RADIO RLY	0.4309
M-113	0.4076
ART ACFT	0.1921
M-551	0.0000

FLUORSEAR ACID		
F-10	CAS	31 9171
C10-4	CAS	42 4841
F-4	AIR INTERDICTION	129 3813
	CAS	4 3817
F-16	AIR INTERDICTION	31 9411
	CAS	50 5044
ART. ACFT	CAS	3 6347
RADIO RLAY	AIR INTERDICTION	3 2345
	CAS	2 7175
F-111	AIR INTERDICTION	141 7144
A-6	AIR INTERDICTION	43 5180
F-15	AIR INTERDICTION	71 8783
A-7	AIR INTERDICTION	64 6906
F-14	AIR INTERDICTION	53 9034
F-18	AIR INTERDICTION	31 8411
SH-3	ASW(SEA BASED)	6 9407
SH-2	ASW(SEA BASED)	17 3442
SH-601	ASW(SEA BASED)	33 7637
S-3	ASW(SEA BASED)	43 4104
ATT. SUBS	ASW(SEA BASED)	28 9403
FRIGATES	ASW(SEA BASED)	20 2532
DESTROYERS	ASW(SEA BASED)	12 1544
M-48	ARMY GROUND	12 6556
M-60	ARMY GROUND	20 3334
M-1	ARMY GROUND	22 5993
M-551	ARMY GROUND	0 2260
M-901	ARMY GROUND	54 2334
M-2/M-3	ARMY GROUND	54 2334
M-113	ARMY GROUND	6 0265
MLRS	ARMY GROUND	16 9495
TOWED ART.	ARMY GROUND	22 5993
SELF-PROP.	ARMY GROUND	30 1334
PERSHING	ARMY GROUND	15 8195
GLCM	ARMY GROUND	26 3677
INFANTRY	ARMY GROUND	60 2649
MORTERS	ARMY GROUND	26 3659
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	10 0000
F-111	8 6787
F-16	8 5622
F-4	5 6216
A-10	5 5556
F-18	4 4444
F-15	4 0000
A-7	3 7263
INFANTRY	3 3537
M-2/M-3	3 3537
M-901	3 3333
F-14	3 0000
A-6	2 9982
COBRA	2 6842
S-3	2 0877
SH-60B	1 8632
SELF-PROP.	1 7895
ATT. SUBS	1 6303
MORTERS	1 6303
GLCMs	1 3974
TOWED ART.	1 3974
M-1	1 2576
M-60	1 2526
FRIGATES	1 0737
SH-2	1 0480
MLRS	0 9782
PERSHING	0 7825
M-48	0 7516
DESTROYERS	0 4295
SH-3	0 3776
M-113	0 3484
RADIO RLAY	0 334
ART. ACFT	0 0140
ROLES LNCH	0 0140
M-551	0 0140

HYDRETHUM

ATT SUBS	ASW/SEA BASED	12 4701
M-48	ARMY GROUND	10 5208
M-60	ARMY GROUND	47 4886
M-113	ARMY GROUND	5 2732
TOWED ART	ARMY GROUND	31 6390
SELF-PROP	ARMY GROUND	41 1854
INFANTRY	ARMY GROUND	75 3111
MORTERS	ARMY GROUND	26 9122

NORMALIZED VALUES

INFANTRY	10.0000
M-60	1.3000
SELF-PROP	5.6000
MORTERS	4.9000
TOWED ART	4.2000
M-48	3.5200
ATT SUBS	1.9209
M-113	0.7000

ALL COMMODITIES

A-10	CAS	3 0912
F-16	CAS	2 1012
F-4	AIR INTERDICTION	4 1402
	CAS	0 2909
F-16	AIR INTERDICTION	3 0943
	CAS	1 7173
ART. ACFT	CAS	0 1323
RADIO RLY	AIR INTERDICTION	0 1234
	CAS	0 1071
F-111	AIR INTERDICTION	5 4917
A-6	AIR INTERDICTION	1 6531
F-15	AIR INTERDICTION	2 4439
A-7	AIR INTERDICTION	2 1895
F-14	AIR INTERDICTION	1 9407
F-18	AIR INTERDICTION	3 2147
S-3	ASW/SEA BASED	0 2513
SH-2	ASW/SEA BASED	0 6295
SH-60B	ASW/SEA BASED	1 0427
S-3	ASW/SEA BASED	1 4760
ATT. SUBS	ASW/SEA BASED	1 2541
FRIGATES	ASW/SEA BASED	0 7524
DESTROYERS	ASW/SEA BASED	0 4515
M-48	ARMY GROUND	1 2652
M-60	ARMY GROUND	2 0339
M-1	ARMY GROUND	2 0339
M-551	ARMY GROUND	0 6113
M-901	ARMY GROUND	1 6272
M-2/M-3	ARMY GROUND	1 6272
M-113	ARMY GROUND	0 2260
MLRS	ARMY GROUND	0 6730
TOWED ART.	ARMY GROUND	1 2204
SELF-PROP.	ARMY GROUND	1 6272
PERSHING	ARMY GROUND	0 6780
GLCMs	ARMY GROUND	1 0543
INFANTRY	ARMY GROUND	2 4106
MORTARS	ARMY GROUND	1 2123
ROLES LNCH	ARMY GROUND	0 0226

NORMALIZED VALUES

F-111	10.0000
F-16	6.6757
F-4	8.0585
F-18	5.8874
A-10	5.6216
F-15	4.4444
INFANTRY	4.3839
A-7	4.0000
COBRA	3.9213
M-1	3.6989
M-60	3.6989
F-14	3.5294
A-6	3.0882
SELF-PROP.	2.9592
M-2/M-3	2.9592
M-901	2.9592
S-3	2.6842
M-48	2.3016
ATT. SUBS	2.2807
TOWED ART.	2.2194
MORTARS	2.2057
GLCMs	1.9180
SH-60B	1.9035
FRIGATES	1.3624
PERSHING	1.2330
MLRS	1.2330
SH-2	1.1447
DESTROYERS	0.8210
SH-3	0.4579
RADIO RLY	0.4337
M-113	0.4110
ART. ACFT	0.2475
ROLES LNCH	0.0411
M-501	0.0213

CRITICALITY OF SHORTFALL

ALL FE'S
(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FE COMMODITY IMPORT	CRITIC- ALITY	NORMALIZED FE SHORTFALL CRITICALITY
COBALT	85.4	43.8	-48.7	402.5	8.5	3418.1	7.1
TIN	42.0	190.6	353.8	0.0	10.0	10.0	0.0
NICKEL	200.0	32.2	-33.9	437.7	10.0	4377.1	10.0
FLUORSPAR ACID	1400.0	895.0	-34.1	399.9	9.6	3744.3	8.1
PYRETHRUM	500.0	0.0	-100.0	453.8	4.1	1880.7	4.3

COMPOSITE IMPORTANCE (LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1350	6.43	0.71	1.404	9.013
MOROCCO	450	2.14	1.53	0.667	1.400
BOTSWANA	250	1.19	0.71	1.404	1.371
SOUTH AFRICA	100	0.71	1.19	0.841	0.601
ZAIRE	10500	59.52	0.71	1.404	83.548
ZAMBIA	3500	16.67	0.71	1.404	23.393
PHILIPPINES	50	0.24	0.92	1.087	0.151
AUSTRALIA	400	1.90	0.92	1.087	1.050
NEW CALEDONIA	250	1.19	0.92	1.087	1.103
CANADA	1100	5.24	2.89	0.343	1.313
U.S.	1000	4.76	2.50	0.391	1.313
TOTAL	21000	100.00			

COMPOSITE IMPORTANCE (LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
AUSTRALIA	100	0.15	0.92	1.087	0.141
U.S.	16100	23.82	2.56	0.391	9.313
THAILAND	5900	8.73	0.92	1.087	9.488
INDONESIA	5800	8.58	0.92	1.087	9.322
U.	100	0.15	1.96	0.510	0.075
BOLIVIA	10300	15.24	0.98	1.020	15.548
BRAZIL	2400	3.55	0.86	1.162	4.125
PERU	3000	4.44	2.47	0.405	1.796
MALAYSIA	23900	35.36	0.92	1.087	38.414
TOTAL	67600	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICHEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
FINLAND	1000	0.33	0.71	1.404	0.404
SOUTH AFRICA	5000	1.64	1.19	0.841	1.301
PHILIPPINES	5000	1.64	0.92	1.087	1.73
AUSTRALIA	25000	8.21	0.92	1.087	9.411
CANADA	150000	49.28	2.82	0.346	17.134
U.S.	88000	28.91	2.56	0.391	11.311
GREECE	600	0.20	1.96	0.510	0.101
NETHERLANDS	200	0.07	1.96	0.510	0.034
FRG	100	0.03	1.96	0.510	0.017
YUGOSLAVIA	500	0.16	1.96	0.510	0.034
USSR	5000	1.64	0.94	1.081	1.541
D. R. CONGO	15000	4.93	1.53	0.656	3.201
GUATEMALA	4000	1.31	1.53	0.656	0.801
INDONESIA	5000	1.64	0.92	1.087	1.733
TOTAL:	304400	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

FLUOROSULFONIC ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	100	22.96	1.19	0.841	18.301
U.S.	70	8.70	2.56	0.391	3.401
ITALY	65	8.07	1.96	0.510	4.023
SPAIN	100	12.42	1.96	0.510	4.023
EAST AFRICA	25	3.11	0.71	1.404	4.314
THAILAND	15	1.86	0.92	1.087	2.025
MEXICO	350	43.48	2.56	0.391	17.011
TOTAL:	805	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	% (1/CI)
SOUTH AFRICA	2000	1.01	1.19	0.841	0.852
AUSTRALIA	1500	0.76	0.92	1.087	0.825
U.S.	11000	5.57	1.96	0.510	2.842
KENYA	80000	40.51	0.71	1.404	56.855
RWANDA	25000	12.66	0.71	1.404	17.767
TANZANIA	78000	39.49	0.71	1.404	55.433
TOTAL:	197500	100.00			

SOURCE IMPORTANCE
(LDD 3)

SOURCE	WORLDWIDE COMP IMP	FEEDBACK CRITICALITY	TOTAL	WORLDWIDE TOTAL
FRUIT				
FINLAND	9.017	7.81	70.46	10.81
MOROCCO	1.427	7.81	11.16	1.71
BOTSWANNA	1.671	7.81	13.05	2.00
SOUTH AFRICA	0.101	7.81	4.69	0.71
ZAIRE	83.543	7.81	682.43	100.00
ZAMBIA	23.393	7.81	182.68	25.00
PHILIPPINES	0.259	7.81	2.02	0.31
AUSTRALIA	2.070	7.81	16.16	2.41
NEW CALEDONIA	1.293	7.81	10.10	1.55
CANADA	1.919	7.81	14.16	2.17
USA	1.801	7.81	14.55	2.23
HERB				
AUSTRALIA	0.161	0.00	0.00	0.00
USA	9.319	0.00	0.00	0.00
THAILAND	9.483	0.00	0.00	0.00
INDONESIA	9.301	0.00	0.00	0.00
BR	0.075	0.00	0.00	0.00
BOLIVIA	15.543	0.00	0.00	0.00
BRASIL	4.125	0.00	0.00	0.00
PERU	1.731	0.00	0.00	0.00
MALAYSIA	38.414	0.00	0.00	0.00
WHEAT				
FINLAND	0.461	10.00	4.11	0.71
SOUTH AFRICA	1.381	10.00	13.81	2.12
PHILIPPINES	1.731	10.00	17.85	2.74
AUSTRALIA	8.914	10.00	89.24	13.68
CANADA	17.054	10.00	170.54	26.14
USA	11.311	10.00	113.11	17.34
GREECE	0.101	10.00	1.01	0.15
NETHERLANDS	0.034	10.00	0.34	0.05
FED	0.017	10.00	0.17	0.03
YUGOSLAVIA	0.084	10.00	0.84	0.13
USSR	1.742	10.00	17.42	2.67
DOM. REPUB.	3.230	10.00	32.30	4.95
GUATEMALA	0.861	10.00	8.61	1.32
INDONESIA	1.785	10.00	17.85	2.74
FLUORSPAR ACID				
SOUTH AFRICA	18.803	8.55	180.85	24.65
USA	3.402	8.55	29.10	4.46
ITALY	4.120	8.55	35.24	5.40
SPAIN	6.338	8.55	54.22	8.31
EAST AFRICA	4.359	8.55	37.29	5.72
THAILAND	2.025	8.55	17.32	2.65
MEXICO	17.011	8.55	145.52	22.30
PYRETHRUM				
SOUTH AFRICA	0.852	4.30	3.66	0.56
AUSTRALIA	0.825	4.30	3.55	0.54
UK	2.842	4.30	12.21	1.87
KENYA	56.855	4.30	244.29	37.44
RWANDA	17.767	4.30	76.34	11.70
TANZANIA	55.433	4.30	238.18	36.51

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	37.44
3	TANZANIA	PYRETHRUM	36.51
4	ZAMBIA	COBALT	28.00
5	CANADA	NICKEL	24.14
6	SOUTH AFRICA	FLUORSPAR ACID	24.65
7	MEXICO	FLUORSPAR ACID	22.31
8	U.S.	NICKEL	17.84
9	AUSTRALIA	NICKEL	12.69
10	RWANDA	PYRETHRUM	11.70
11	FINLAND	COBALT	10.80
12	SPAIN	FLUORSPAR ACID	8.11
13	EAST AFRICA	FLUORSPAR ACID	5.72
14	ITALY	FLUORSPAR ACID	5.40
15	DOM. REPUB.	NICKEL	4.95
16	U.S.	FLUORSPAR ACID	4.44
17	INDONESIA	NICKEL	2.74
18	PHILIPPINES	NICKEL	2.74
19	USSR	NICKEL	2.07
20	THAILAND	FLUORSPAR ACID	1.15
21	AUSTRALIA	COBALT	2.41
22	U.S.	COBALT	2.23
23	CANADA	COBALT	2.17
24	SOUTH AFRICA	NICKEL	2.12
25	BOTSWANA	COBALT	2.00
26	U.S.	PYRETHRUM	1.17
27	MOROCCO	COBALT	1.71
28	NEW CALEDONIA	COBALT	1.10
29	GUATEMALA	NICKEL	1.37
30	SOUTH AFRICA	COBALT	0.72
31	FINLAND	NICKEL	0.71
32	SOUTH AFRICA	PYRETHRUM	0.54
33	AUSTRALIA	PYRETHRUM	0.54
34	PHILIPPINES	COBALT	0.31
35	GREECE	NICKEL	0.15
36	YUGOSLAVIA	NICKEL	0.13
37	NETHERLANDS	NICKEL	0.05
38	FRG	NICKEL	0.03
39	MALAYSIA	TIN	0.00
40	FRG	TIN	0.00
41	BRAZIL	TIN	0.00
42	BOLIVIA	TIN	0.00
43	UK	TIN	0.00
44	INDONESIA	TIN	0.00
45	THAILAND	TIN	0.00
46	U.S.	TIN	0.00
47	AUSTRALIA	TIN	0.00

SCENARIO 45

WP16-18 on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	10.0	2.0	5.0	2.0	1.0
I/COEF	0.1561	0.1513	0.1084	0.0781	0.1084	0.1513	0.0113	0.0781	0.0113	0.011

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	10.0	8.0	7.0	5.0
I/COEF	0.1190	0.1190	0.1071	0.0476	0.0933	0.0595	0.1190	0.0952	0.0933	0.0595
I/COEF	0.1071									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	10.0	6.0	4.0	10.0
I/COEF	0.1667	0.1667	0.1667	0.1667	0.1000	0.0667	0.1667

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
I/COEF	0.5881	0.2333	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS on the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/COEF	0.0200	0.0200	0.0140	0.0100	0.0140	0.0200	0.0040	0.0100	0.0040	0.0100	0.0100

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/COEF	0.0152	0.0152	0.0137	0.0061	0.0107	0.0076	0.0152	0.0122	0.0107	0.0107	0.0107

Media 3	Region	1	2	3	4	5	6	7
I/COEF	0.0213	0.0213	0.0213	0.0213	0.0128	0.0085	0.0213	0.0213

Media 4	Region	1	2	3	4
I/COEF	0.0752	0.0301	0.0150	0.0075	

Media 11	Region	1	2	3	4
I/COEF	0.0752	0.0301	0.0150	0.0075	

Importance of controlling ANY Region within its Media as compared to the Importance of controlling ANY Region of any other Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/COEF	0.0087	0.0087	0.0061	0.0043	0.0061	0.0087	0.0017	0.0043	0.0017	0.0051	0.0051

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/COEF	0.0033	0.0033	0.0030	0.0013	0.0023	0.0017	0.0033	0.0026	0.0023	0.0017	0.0017

Media 3	Region	1	2	3	4	5	6	7
I/COEF	0.0056	0.0056	0.0056	0.0056	0.0033	0.0022	0.0056	0.0056

Media 4	Region	1	2	3	4
I/COEF	0.0065	0.0026	0.0013	0.0007	

FORCE ELEMENT IMPORTANCE
(LOC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED	NORMALIZED
			VALUE	VALUE
1	17	CARRIER BATTLE GROUP	0.139	10.000
2	1	AIR INTERDICTION	0.110	7.841
3	3	ARMY GROUND	0.095	6.845
4	16	ATTACK SUBS	0.073	5.227
5	19	SURFACE COMBATANTS	0.060	4.292
6	8	RAPID DEPLOY	0.058	4.141
7	12	THEATER NUCLEAR WEAPON	0.054	3.835
8	14	ASW (LAND BASED)	0.043	3.093
9	6	CAS	0.040	2.902
10	22	AIR SUPERIORITY (LAND BASED)	0.038	2.712
11	15	ASW (SEA BASED)	0.032	2.312
12	23	AIR SUPERIORITY (SHIP BASED)	0.030	2.106
13	21	AIR DEFENSE (SHIP BASED)	0.027	1.954
14	10	STRATEGIC BOMBER	0.025	1.765
15	25	SPACE BASED WEAPON (AIR CNTRL)	0.019	1.364
16	13	SPECIAL OPERATIONS	0.015	1.050
17	29	ASAT (SPACE BASED)	0.013	0.935
18	18	MINE WARFARE	0.013	0.924
19	2	AMPHIBIOUS ASSAULT	0.010	0.713
20	28	ASAT (LAND BASED)	0.007	0.516
21	20	AIR DEFENSE (LAND BASED)	0.004	0.264
22	9	SPACE BASED WEAPON (LNI CNTRL)	0.003	0.202
23	30	SPACE BASED WEAPON (SEA CNTRL)	0.002	0.118
24	27	ABM (SPACE BASED)	0.000	0.000
25	26	AIM (LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANCE
(LOC 3)

COBALT

AIR INTERDICTION	5.44
ARMY GROUND	4.19
CAS	1.4
ICBM	0.00
STRATEGIC BOMBER	1.76
SLEB	0.00
ASW(SEA BASED)	1.17
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.29
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00
APT(LAND BASED)	0.12

	13.9

TIN

AIR INTERDICTION	5.61
ARMY GROUND	1.78
CAS	1.77
STRATEGIC BOMBER	1.76
ASW(LAND BASED)	3.09
ASW(SEA BASED)	1.11
ATTACK SUBS	5.23
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.51
SURFACE COMBATANTS	4.29
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00
ARM(LAND BASED)	0.00

	40.47

NICKEL

AIR INTERDICTION	5.33
ARMY GROUND	4.56
CAS	1.60
STRATEGIC BOMBER	1.76
ASW(SEA BASED)	1.71
ATTACK SUBS	5.23
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.92
SURFACE COMBATANTS	4.29
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00

	40.30

FLUORSPAR ACID

AIR INTERDICTION	4.74
AMPHIBIOUS ASSAULT	0.71
ARMY GROUND	3.42
CAS	1.90
ICBM	0.00
STRATEGIC BOMBER	1.76
SLBM	0.00
ASW(LAND BASED)	3.09
ASW(SEA BASED)	1.00
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.29
AIR SUPERIORITY(LAND BASED)	2.73
AIR SUPERIORITY(SHIP BASED)	2.16
INTERCEPTOR AIRCRAFT	0.00
ARM(LAND BASED)	0.00
	38.50

PYRETHRUM

ARMY GROUND	2.49
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.14
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.29
	16.92

COMMODITY NORMALIZED IMPORTANCE

TIN	10.00	(40.47)
NICKEL	9.96	(40.30)
FLUORSPAR ACID	9.51	(38.50)
COBALT	8.40	(33.99)
PYRETHRUM	4.18	(16.92)

COBALT		
A-10	CAS	67 4128
COBRA	CAS	44 9312
F-4	AIR INTERDICTION	98 5102
	CAS	6 7411
F-16	AIR INTERDICTION	68 4168
	CAS	37 4460
ART ACFT	CAS	3 3701
RADIO BLAY	AIR INTERDICTION	3 0749
	CAS	1 5176
F-111	AIR INTERDICTION	123 1503
A-6	AIR INTERDICTION	38 9451
F-15	AIR INTERDICTION	54 7335
A-7	AIR INTERDICTION	49 2601
F-14	AIR INTERDICTION	41 0501
F-18	AIR INTERDICTION	68 4168
SH-3	ASW(SEA BASED)	6 0683
SH-2	ASW(SEA BASED)	15 1708
SH-60B	ASW(SEA BASED)	13 5940
S-3	ASW(SEA BASED)	34 6761
ATT. SUBS	ASW(SEA BASED)	14 0317
FRIGATES	ASW(SEA BASED)	14 4434
DESTROYERS	ASW(SEA BASED)	8 6690
M-48	ARMY GROUND	35 2006
M-60	ARMY GROUND	56 5714
M-1	ARMY GROUND	62 8582
M-551	ARMY GROUND	0 2087
M-901	ARMY GROUND	50 2314
M-2/M-3	ARMY GROUND	44 0011
M-113	ARMY GROUND	4 8990
MLRS	ARMY GROUND	18 9515
TOWED ART.	ARMY GROUND	25 1433
SELF-PROP.	ARMY GROUND	33 5244
PERSHING	ARMY GROUND	16 7622
GLCMs	ARMY GROUND	27 9370
INFANTRY	ARMY GROUND	6 9842
MORTERS	ARMY GROUND	34 2223
ROLES LNCH	ARMY GROUND	1 4667

NORMALIZED VALUES	
F-111	10.0000
F-16	8.5962
F-4	8.5473
F-18	5.9506
A-10	5.4732
M-1	5.1047
M-60	4.5928
F-15	4.4414
M-901	4.0834
A-7	4.0000
COBRA	3.6488
M-2/M-3	3.5729
F-14	3.3333
A-6	3.0000
M-48	2.8583
S-3	2.8108
MORTERS	2.7789
SELF-PROP.	2.7222
GLCMs	2.2685
TOWED ART.	2.0417
ATT. SUBS	1.9554
SH-60B	1.9143
MLRS	1.5313
PERSHING	1.3611
SH-2	1.2319
FRIGATES	1.1732
DESTROYERS	0.7039
INFANTRY	0.5671
SH-3	0.4928
RADIO BLAY	0.4572
M-113	0.3970
ART ACFT	0.3717
ROLES LNCH	0.1191
M-551	0.0110

TIN		
A-10	CAS	67 4029
COBRA	CAS	50 9156
F-4	AIR INTERDICTION	98 5000
	CAS	6 7403
F-16	AIR INTERDICTION	68 4168
	CAS	32 4440
APT. ACFT	CAS	3 3701
RADIO RLAY	AIR INTERDICTION	3 0798
	CAS	2 5276
F-111	AIR INTERDICTION	103 1503
A-6	AIR INTERDICTION	41 5682
F-15	AIR INTERDICTION	54 7325
A-7	AIR INTERDICTION	49 2601
F-14	AIR INTERDICTION	43 1814
F-18	AIR INTERDICTION	76 9699
SH-3	ASW(SEA BASED)	5 2014
SH-2	ASW(SEA BASED)	13 0031
SH-60B	ASW(SEA BASED)	20 1177
S-3	ASW(SEA BASED)	34 6761
ATT. SUBS	ASW(SEA BASED)	14 4484
FRIGATES	ASW(SEA BASED)	14 4484
DESTROYERS	ASW(SEA BASED)	8 6690
M-43	ARMY GROUND	3 9112
M-60	ARMY GROUND	6 2808
M-1	ARMY GROUND	34 9112
M-551	ARMY GROUND	0 0698
M-501	ARMY GROUND	6 2858
M-270-3	ARMY GROUND	6 2858
M-113	ARMY GROUND	0 6984
MLRS	ARMY GROUND	9 4237
TOWED ART.	ARMY GROUND	4 1905
SELF-PROP.	ARMY GROUND	5 5874
PIERHING	ARMY GROUND	14 6669
GLCMs	ARMY GROUND	14 4449
INFANTRY	ARMY GROUND	55 8740
MORTERS	ARMY GROUND	4 8890
ROLES LNCH	ARMY GROUND	0 2095

	NORMALIZED VALUES
F-111	10.0000
F-16	8.5962
F-4	8.5473
F-18	6.2500
A-10	5.4732
COBRA	4.8611
INFANTRY	4.5311
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.8337
S-3	2.8158
GLCMs	1.9870
SH-60B	1.6425
PIERHING	1.1910
FRIGATES	1.1732
ATT. SUBS	1.1732
SH-2	1.0559
MLRS	0.7676
DESTROYERS	0.7039
M-270-3	0.5104
M-501	0.5104
M-60	0.5104
RADIO RLAY	0.4552
SELF-PROP.	0.4537
SH-3	0.4234
MORTERS	0.3970
TOWED ART.	0.3400
M-43	0.3176
APT. ACFT	0.2737
M-113	0.0767
ROLES LNCH	0.0120
	0.0017

NICKEL		
A-10	CAS	67 4018
COBRA	CAS	41 9311
F-4	AIR INTERDICTION	73 5102
	CAS	5 0511
F-16	AIR INTERDICTION	68 4168
	CAS	37 4445
ART. ACFT	CAS	1 2413
RADIO BLAY	AIR INTERDICTION	3 0731
	CAS	2 5276
F-111	AIR INTERDICTION	123 1503
A-6	AIR INTERDICTION	36 9451
F-15	AIR INTERDICTION	54 7335
A-7	AIR INTERDICTION	49 2601
F-14	AIR INTERDICTION	46 1814
F-18	AIR INTERDICTION	76 9685
SH-3	ASW (SEA BASED)	6 9312
SH-2	ASW (SEA BASED)	17 3381
SH-60B	ASW (SEA BASED)	26 9701
S-3	ASW (SEA BASED)	34 6741
ATT. SUBS	ASW (SEA BASED)	43 3401
FRIGATES	ASW (SEA BASED)	24 0071
DESTROYERS	ASW (SEA BASED)	15 6043
M-48	ARMY GROUND	39 1118
M-60	ARMY GROUND	62 8511
M-1	ARMY GROUND	69 8425
M-551	ARMY GROUND	0 6984
M-901	ARMY GROUND	44 0008
M-2/M-3	ARMY GROUND	50 2886
M-113	ARMY GROUND	4 8890
MLRS	ARMY GROUND	18 8573
TOWED ART.	ARMY GROUND	31 5144
SELF-PROP.	ARMY GROUND	44 6992
PERSHING	ARMY GROUND	16 7621
GLCMs	ARMY GROUND	20 9517
INFANTRY	ARMY GROUND	34 9212
MORTARS	ARMY GROUND	14 6669
ROLES LNCH	ARMY GROUND	0 2095

NORMALIZED VALUES	
F-111	10.0000
F-16	16.5962
F-4	6.4105
F-18	6.2500
M-1	5.6713
A-10	5.4732
M-60	5.1042
F-15	4.9444
M-2/M-3	4.0834
A-7	4.0000
F-14	3.7500
COBRA	3.6488
SELF-PROP.	3.6226
M-901	3.5726
ATT. SUBS	3.5197
M-48	3.1759
A-6	3.0000
INFANTRY	2.8257
S-3	2.8158
TOWED ART.	2.7232
SH-60B	2.1900
FRIGATES	2.1118
GLCMs	1.7014
MLRS	1.5313
SH-2	1.4079
PERSHING	1.3611
DESTROYERS	1.2671
MORTARS	1.1910
SH-3	0.9632
RADIO BLAY	0.4552
M-113	0.3970
ART. ACFT	0.1824
M-551	0.0767
ROLES LNCH	0.0170

7. ACID		
A-10	CAS	85 2534
COBRA	CAS	42 9371
F-4	AIR INTERDICTION	123 1503
	CAS	8 4134
F-16	AIR INTERDICTION	37 5111
	CAS	48 8173
ART ACFT	CAS	3 3701
RADIO BLAY	AIR INTERDICTION	3 0743
	CAS	2 5276
F-111	AIR INTERDICTION	153 9313
A-6	AIR INTERDICTION	46 1914
F-15	AIR INTERDICTION	68 4168
A-7	AIR INTERDICTION	61 5751
F-14	AIR INTERDICTION	51 3126
F-18	AIR INTERDICTION	85 5210
S-3	ASW(SEA BASED)	6 4251
SH-2	ASW(SEA BASED)	17 3381
SH-60B	ASW(SEA BASED)	37 7119
S-3	ASW(SEA BASED)	43 3452
ATT. SUBS	ASW(SEA BASED)	28 9943
FRIGATES	ASW(SEA BASED)	20 2277
DESTROYERS	ASW(SEA BASED)	12 1367
M-48	ARMY GROUND	11 7335
M-60	ARMY GROUND	18 8575
M-1	ARMY GROUND	20 9527
M-551	ARMY GROUND	0 2095
M-901	ARMY GROUND	50 2846
M-2/M-3	ARMY GROUND	50 2846
M-113	ARMY GROUND	5 5874
MLRS	ARMY GROUND	15 7146
TOWED ART	ARMY GROUND	20 9527
SELF-PROP.	ARMY GROUND	27 9370
PERSHING	ARMY GROUND	14 6669
GLCMs	ARMY GROUND	24 4449
INFANTRY	ARMY GROUND	55 8740
MORTARS	ARMY GROUND	24 4449
ROLES LNCH	ARMY GROUND	0 2095

NORMALIZED VALUES	
F-111	10.0000
F-16	8.5962
F-4	8.5473
F-18	5.5515
A-10	5.4732
F-15	4.4444
A-7	4.0000
INFANTRY	3.6296
F-14	3.3833
M-2/M-3	3.2667
M-901	3.2667
A-6	3.0000
COBRA	2.9191
S-3	2.8158
SH-60B	2.1900
ATT. SUBS	1.8772
SELF-PROP.	1.8148
MORTARS	1.7880
GLCMs	1.5880
TOWED ART.	1.3611
M-1	1.3611
FRIGATES	1.3140
M-60	1.2250
SH-2	1.1268
MLRS	1.0208
PERSHING	0.9528
DESTROYERS	0.7834
M-48	0.7677
SH-3	0.4505
RADIO BLAY	0.3647
M-113	0.3630
ART ACFT	0.2137
ROLES LNCH	0.0174
ML-951	0.0132

HYPERTRUM		
ATT SUBS	ASW/SEA BASED)	14 44 14
M-48	ARMY GROUND	1 00 00
M-60	ARMY GROUND	44 00 00
M-113	ARMY GROUND	4 00 00
TOWED ART	ARMY GROUND	14 00 00
SELF-PROP.	ARMY GROUND	1 00 00
INFANTRY	ARMY GROUND	14 00 00
MORTERS	ARMY GROUND	14 00 00

NORMALIZED VALUES

INFANTRY	10.0000
M-60	0.3000
SELF-PROP.	5.6000
MORTERS	4.0000
TOWED ART.	4.0000
M-48	3.9200
ATT SUBS	2.0833
M-113	0.7000

ALL COMMODITIES

A-10	CAS	2	8646
COBRA	CAS	1	9472
F-4	AIR INTERDICTION	2	9401
	CAS	0	1670
F-16	AIR INTERDICTION	2	9677
	CAS	1	5915
ART ACFT	CAS	0	1136
RADIO FLAY	AIR INTERDICTION	0	1232
	CAS	0	1011
F-111	AIR INTERDICTION	5	2339
A-6	AIR INTERDICTION	1	6163
F-15	AIR INTERDICTION	2	3042
A-7	AIR INTERDICTION	2	0936
F-14	AIR INTERDICTION	1	8474
F-18	AIR INTERDICTION	3	0786
SH-3	ASW (SEA BASED)	0	2514
SH-2	ASW (SEA BASED)	0	6115
SH-60B	ASW (SEA BASED)	1	0450
S-3	ASW (SEA BASED)	1	4717
ATT SUBS	ASW (SEA BASED)	1	2521
FRIGATES	ASW (SEA BASED)	0	7513
DESTROYERS	ASW (SEA BASED)	0	4508
M-48	ARMY GROUND	1	1734
M-40	ARMY GROUND	1	8857
M-1	ARMY GROUND	1	8807
M-551	ARMY GROUND	0	0113
M-901	ARMY GROUND	1	5134
M-2/M-3	ARMY GROUND	1	5086
M-113	ARMY GROUND	0	1075
MLRS	ARMY GROUND	0	6236
TOWED ART	ARMY GROUND	1	1314
SELF-PROP.	ARMY GROUND	1	5086
PERISHING	ARMY GROUND	0	6236
GLCM	ARMY GROUND	0	9778
INFANTRY	ARMY GROUND	2	2350
MORTERS	ARMY GROUND	1	1145
FIELD LNCH	ARMY GROUND	0	0210

NORMALIZED VALUES

F-111	10.0000
F-16	18.5962
F-4	8.0445
F-18	5.8374
A-10	5.4732
F-15	4.4444
INFANTRY	4.2702
A-7	4.0000
COBRA	3.7204
M-1	3.6030
M-60	3.6030
F-14	3.5294
A-6	3.0832
M-2/M-3	2.8824
M-901	2.8824
SELF-PROP.	2.8824
S-3	2.8158
ATT SUBS	2.3925
M-48	2.2418
TOWED ART.	2.1613
MORTERS	2.1484
SH-60B	1.9948
GLCMs	1.8682
FRIGATES	1.4355
PERISHING	1.2010
MLRS	1.2010
SH-2	1.2008
DESTROYERS	0.8613
SH-3	0.4803
RADIO FLAY	0.4235
M-113	0.4093
ART ACFT	0.2341
FIELD LNCH	0.0400
M-551	0.0210

CRITICALITY OF SHORTFALL
ALL FEES
(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHORT FALL (%)	TRANS- LATED	FEES COMMODITY IMPORT	CRITICALITY	CRITICALITY ALITY	FEES SHORTFALL (UNITS - 10)
COBALT	40.4	40.8	-40.7	40.8	6.4	3378.8		
TIN	40.0	190.6	353.8	0.0	10.0	40.0		
NICKEL	100.0	32.2	-30.8	40.7	10.0	4358.1	10.0	
P. DORSER ACID	1400.0	895.0	-34.1	339.9	9.5	3709.3	4.5	
PURETHRUM	500.0	0.0	-100.0	450.8	4.2	1897.6	4.2	

COMPOSITE IMPORTANCE
(LOC 3)

COBALT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% 1/01
FINLAND	1350	6.43	1.76	0.569	3.610
MOROCCO	450	2.14	2.05	0.487	1.040
ETSWANNA	250	1.19	1.76	0.569	0.378
SOUTH AFRICA	150	0.71	2.31	0.432	0.100
ZAIRE	12500	59.51	1.76	0.569	33.841
ZAMBIA	3500	16.67	1.76	0.569	8.200
PHILIPPINES	50	0.24	0.82	1.216	0.044
AUSTRALIA	400	1.90	0.82	1.216	2.316
NEW CALEDONIA	250	1.19	0.82	1.216	1.447
CANADA	1100	5.24	2.61	0.389	2.000
U.S.	100	4.76	2.31	0.432	1.030
TOTAL	21000	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% 1/01
AUSTRALIA	100	0.15	0.82	1.216	0.130
U.S.	16100	23.82	2.31	0.432	10.289
THAILAND	5900	8.73	0.82	1.216	10.611
INDONESIA	5800	8.58	0.82	1.216	10.431
U.S.	100	0.15	1.76	0.569	0.084
BOLIVIA	10300	15.24	0.90	1.117	17.014
BRAZIL	2400	3.55	0.90	1.117	3.964
P.C.	3000	4.44	2.33	0.429	1.900
MALAYSIA	23900	35.36	0.82	1.216	42.993
TOTAL	67600	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
FINLAND	1000	0.33	1.76	0.569	0.187
SOUTH AFRICA	5000	1.64	2.31	0.432	0.710
PHILIPPINES	5000	1.64	0.82	1.216	1.917
AUSTRALIA	25000	8.21	0.82	1.216	1.917
CANADA	150000	49.28	0.41	0.397	13.877
U.S.	88000	28.91	2.31	0.432	12.501
GREECE	600	0.20	1.76	0.569	0.112
NETHERLANDS	200	0.07	1.76	0.569	0.037
FRG	100	0.03	1.76	0.569	0.019
YUGOSLAVIA	300	0.10	1.76	0.569	0.034
USSR	5000	1.64	0.86	1.160	1.905
DOM. REPUBLIC	15000	4.93	1.33	0.727	3.582
GUATEMALA	4000	1.31	1.33	0.727	0.957
INDONESIA	5000	1.64	0.82	1.216	1.917
TOTAL:	304400	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

FLUORENE-ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
SOUTH AFRICA	180	22.34	2.31	0.432	9.619
U.S.	70	8.70	2.31	0.432	3.780
ITALY	65	8.07	1.76	0.569	4.597
SPAIN	100	12.42	1.76	0.569	7.073
EAST AFRICA	25	3.11	1.76	0.569	1.769
THAILAND	15	1.86	0.82	1.216	2.265
MEXICO	350	43.48	2.31	0.432	19.801
TOTAL:	805	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
SOUTH AFRICA	2000	1.01	2.31	0.432	0.432
AUSTRALIA	1500	0.76	0.82	1.216	0.913
U.S.	11000	5.57	1.76	0.569	3.171
KENYA	80000	40.51	1.76	0.569	23.063
RWANDA	25000	12.66	1.76	0.569	7.207
TANZANIA	78000	39.49	1.76	0.569	21.497
TOTAL:	197500	100.00			

SOURCE IMPORTANCE
(LOC 3)

SOURCE	N(1/01) CUMPLIFE	FEVSHORTFALL CRITICALITY	TOTAL	NORMALIZED 10/101
TOTAL				
FINLAND	3.669	7.76	33.32	10.81
MOROCCO	1.049	7.76	8.02	3.01
BOTSWANNA	0.678	7.76	5.26	2.00
SOUTH AFRICA	0.307	7.76	2.40	0.91
ZAIRE	33.892	7.76	261.85	100.00
ZAMBIA	8.481	7.76	73.61	23.00
PHILIPPINES	0.289	7.76	2.24	0.85
AUSTRALIA	2.316	7.76	17.96	6.81
NEW CALEDONIA	1.447	7.76	11.21	4.27
CANADA	2.007	7.76	15.51	5.11
U.S.	2.052	7.76	15.97	5.08
TAN				
AUSTRALIA	0.180	0.00	0.00	0.00
U.S.	10.290	0.00	0.00	0.00
THAILAND	10.611	0.00	0.00	0.00
INDONESIA	10.431	0.00	0.00	0.00
UK	0.084	0.00	0.00	0.00
BOLIVIA	17.014	0.00	0.00	0.00
BRAZIL	3.944	0.00	0.00	0.00
FRG	1.915	0.00	0.00	0.00
MALAYSIA	42.983	0.00	0.00	0.00
NICHEL				
FINLAND	0.117	10.00	1.97	0.71
SOUTH AFRICA	0.710	10.00	7.10	2.73
PHILIPPINES	1.997	10.00	19.97	7.60
AUSTRALIA	9.985	10.00	99.85	37.44
CANADA	18.877	10.00	188.77	71.82
U.S.	12.501	10.00	125.01	47.51
GREECE	0.112	10.00	1.12	0.43
NETHERLANDS	0.037	10.00	0.37	0.14
FRG	0.019	10.00	0.19	0.07
YUGOSLAVIA	0.094	10.00	0.94	0.36
USSR	1.905	10.00	19.05	7.25
DOM. REPUB	3.582	10.00	35.82	13.63
GUATAMALA	0.955	10.00	9.55	3.63
INDONESIA	1.997	10.00	19.97	7.60
FLUORESPAR ACID				
SOUTH AFRICA	9.669	8.51	82.28	31.30
U.S.	3.760	8.51	32.00	12.17
ITALY	4.597	8.51	39.12	14.88
SPAIN	7.073	8.51	60.19	22.90
EAST AFRICA	1.768	8.51	15.05	5.72
THAILAND	2.265	8.51	19.28	7.33
MEXICO	18.801	8.51	159.98	60.87
PYRETHRUM				
SOUTH AFRICA	0.438	4.35	1.91	0.73
AUSTRALIA	0.923	4.35	4.02	1.53
UK	3.171	4.35	13.81	5.25
KENYA	23.063	4.35	100.42	38.21
RWANDA	7.207	4.35	31.38	11.94
TANZANIA	22.487	4.35	97.91	37.25

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 1)

#	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	CANADA	NICKEL	71.82
3	MEXICO	FLUORSPAR ACID	60.87
4	U S	NICKEL	47.58
5	KENYA	PYRETHRUM	38.21
6	AUSTRALIA	NICKEL	37.84
7	TANZANIA	PYRETHRUM	37.25
8	SOUTH AFRICA	FLUORSPAR ACID	31.80
9	ZAMBIA	COBALT	23.00
10	SPAIN	FLUORSPAR ACID	22.80
11	ITALY	FLUORSPAR ACID	14.88
12	DOM. REPUBLIC	NICKEL	13.6
13	U S	FLUORSPAR ACID	12.17
14	RWANDA	PYRETHRUM	11.94
15	FINLAND	COBALT	10.80
16	INDONESIA	NICKEL	7.60
17	PHILIPPINES	NICKEL	7.60
18	THAILAND	FLUORSPAR ACID	7.33
19	USSR	NICKEL	7.25
20	AUSTRALIA	COBALT	6.83
21	U S	COBALT	6.08
22	CANADA	COBALT	5.41
23	EAST AFRICA	FLUORSPAR ACID	5.72
24	UK	PYRETHRUM	5.13
25	NEW CALEDONIA	COBALT	4.27
26	GUATEMALA	NICKEL	3.83
27	MOROCCO	COBALT	3.08
28	SOUTH AFRICA	NICKEL	2.70
29	BOTSWANA	COBALT	2.00
30	AUSTRALIA	PYRETHRUM	1.53
31	SOUTH AFRICA	COBALT	0.91
32	PHILIPPINES	COBALT	0.88
33	SOUTH AFRICA	PYRETHRUM	0.73
34	FINLAND	NICKEL	0.71
35	GREECE	NICKEL	0.43
36	YUGOSLAVIA	NICKEL	0.36
37	NETHERLANDS	NICKEL	0.14
38	FRG	NICKEL	0.07
39	MALAYSIA	TIN	0.00
40	PRC	TIN	0.00
41	BRAZIL	TIN	0.00
42	BOLIVIA	TIN	0.00
43	UK	TIN	0.00
44	INDONESIA	TIN	0.00
45	THAILAND	TIN	0.00
46	U S	TIN	0.00
47	AUSTRALIA	TIN	0.00

SCENARIO 46

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	2.0	2.0	5.0	2.0	4.0
I/CDEF	0.1786	0.1786	0.1250	0.0833	0.1250	0.0357	0.0357	0.0833	0.0357	0.1471

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
Weight	9.0									
I/CDEF	0.1333	0.1333	0.1200	0.0533	0.0933	0.0417	0.0133	0.1067	0.0933	0.0667
I/CDEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
I/CDEF	0.1786	0.1786	0.1786	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	1.0	1.0
I/CDEF	0.5882	0.2353	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0213	0.0229	0.0160	0.0114	0.0160	0.0046	0.0046	0.0114	0.0046	0.0117	

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0171	0.0171	0.0154	0.0068	0.0119	0.0085	0.0017	0.0136	0.0119	0.0035	

Media 3	Region	1	2	3	4	5	6	7
I/CDEF	0.0228	0.0228	0.0128	0.0133	0.0137	0.0091	0.0133	

Media 4	Region	1	2	3	4
I/CDEF	0.0752	0.0301	0.0150	0.0075	

Media 11	Region	1	2	3	4
I/CDEF	0.0037	0.0037	0.0033	0.0015	

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0030	

Media 2	Region	1	2	3	4	5	6	7	8	9	10
I/CDEF	0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0019	

Media 3	Region	1	2	3	4	5	6	7
I/CDEF	0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048	

Media 4	Region	1	2	3	4
I/CDEF	0.0065	0.0026	0.0013	0.0007	

Media 11	Region	1	2	3	4
I/CDEF	0.0037	0.0037	0.0033	0.0015	

Media 1	Region	1	2	3	4	5	6	7
I/CDEF	0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048	

Media 2	Region	1	2	3	4
I/CDEF	0.0065	0.0026	0.0013	0.0007	

FORCE ELEMENT IMPORTANCE
(LOC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.141	10.000
2	1	AIR INTERDICTION	0.117	8.266
3	3	ARMY GROUND	0.104	7.380
4	16	ATTACK SUBS	0.072	5.130
5	19	SURFACE COMBATANTS	0.060	4.249
6	12	THEATER NUCLEAR WEAPON	0.054	3.812
7	8	RAPID DEPLOY	0.052	3.706
8	6	CAB	0.044	3.100
9	14	ASW(LAND BASED)	0.042	3.031
10	22	AIR SUPERIORITY(LAND BASED)	0.041	2.910
11	15	ASW(SEA BASED)	0.033	2.315
12	23	AIR SUPERIORITY(SHIP BASED)	0.032	2.278
13	21	AIR DEFENSE(SHIP BASED)	0.027	1.905
14	10	STRATEGIC BOMBER	0.025	1.754
15	25	SPACE BASED WEAPON(AIR CNTRL)	0.020	1.414
16	24	ASAT(SPACE BASED)	0.018	0.924
17	18	MINE WARFARE	0.013	0.891
18	2	AMPHIBIOUS ASSAULT	0.011	0.757
19	13	SPECIAL OPERATIONS	0.010	0.725
20	28	ASAT(LAND BASED)	0.007	0.510
21	20	AIR DEFENSE(LAND BASED)	0.004	0.278
22	9	SPACE-BASED WEAPON(LND CNTRL)	0.003	0.210
23	30	SPACE BASED WEAPON(SEA CNTRL)	0.002	0.118
24	27	ADM(SPACE BASED)	0.000	0.000
25	26	ADM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLBM	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBM	0.000	0.000

COMMODITY IMPORTANCE
(LOG 3)

COBALT

AIR INTERDICTION	5.71
ARMY GROUND	4.50
CAS	1.71
ICBM	0.00
STRATEGIC BOMBER	1.71
SLBM	0.00
ASW(SEA BASED)	1.27
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.25
INTERCEPTOR AIRCRAFT	0.00
ASST(LAND BASED)	0.51
	34.91

TIN

AIR INTERDICTION	5.90
ARMY GROUND	1.92
CAS	1.91
STRATEGIC BOMBER	1.79
ASW(LAND BASED)	3.00
ASW(SEA BASED)	1.11
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ASM(LAND BASED)	0.00
	41.18

NICKEL

AIR INTERDICTION	5.60
ARMY GROUND	4.92
CAS	1.72
STRATEGIC BOMBER	1.79
ASW(SEA BASED)	1.71
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
	41.21

FLUOREPAR ACID

AIR INTERDICTION	7.13
AMPHIBIOUS ASSAULT	0.74
ARMY GROUND	3.68
ASW	2.05
ICBM	0.01
STRATEGIC BOMBER	1.78
SLBM	0.00
ASW(LAND BASED)	3.03
ASW(SEA BASED)	1.43
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.20
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	39.57

PYRETHRUM

ARMY GROUND	3.68
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.14
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.20
	17.08

COMMODITY NORMALIZED IMPORTANCE

NICKEL	10.00	(41.21)
TIN	9.99	(41.18)
FLUOREPAR ACID	9.60	(39.57)
COBALT	8.49	(34.99)
PYRETHRUM	4.14	(17.08)

COASTAL		
A-10	CAS	71 7333
COBRA	CAS	43 4111
F-4	AIR INTERDICTION	103 5050
	CAS	7 2734
F-16	AIR INTERDICTION	71 8735
	CAS	41 4177
ART. ACFT	CAS	3 6367
RADIO FLAY	AIR INTERDICTION	3 2345
	CAS	1 7178
F-111	AIR INTERDICTION	129 3313
A-6	AIR INTERDICTION	33 8144
F-15	AIR INTERDICTION	57 5013
A-7	AIR INTERDICTION	51 7535
F-14	AIR INTERDICTION	43 1271
F-18	AIR INTERDICTION	71 8735
SH-3	ASW (SEA BASED)	6 0775
SH-2	ASW (SEA BASED)	15 1937
SH-60B	ASW (SEA BASED)	23 6346
S-3	ASW (SEA BASED)	34 7284
ATT. SUBS	ASW (SEA BASED)	24 1169
FRIGATES	ASW (SEA BASED)	14 4701
DESTROYERS	ASW (SEA BASED)	8 6321
M-43	ARMY GROUND	37 9669
M-60	ARMY GROUND	61 0132
M-1	ARMY GROUND	67 7930
M-551	ARMY GROUND	0 2130
M-901	ARMY GROUND	54 2334
M-2/M-3	ARMY GROUND	47 4536
M-113	ARMY GROUND	5 2732
MLRS	ARMY GROUND	20 3394
TOWED ART.	ARMY GROUND	27 1192
SELF-PROP.	ARMY GROUND	36 1539
PERSHING	ARMY GROUND	18 0795
GLCMs	ARMY GROUND	30 1324
INFANTRY	ARMY GROUND	7 5331
MORTARS	ARMY GROUND	36 9122
POLES LNCH	ARMY GROUND	1 5820

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
A-10	5.6216
F-18	5.5556
M-1	5.2402
M-60	4.7162
F-15	4.4444
M-901	4.1921
A-7	4.0000
COBRA	3.7478
M-2/M-3	3.6681
F-14	3.3333
A-6	3.0000
M-43	2.9345
MORTARS	2.8530
SELF-PROP.	2.7948
S-3	2.6842
GLCMs	2.3290
TOWED ART.	2.0961
ATT. SUBS	1.8640
SH-60B	1.8267
MLRS	1.5721
PERSHING	1.3974
SH-2	1.1743
FRIGATES	1.1184
DESTROYERS	0.6710
INFANTRY	0.3822
SH-3	0.4697
RADIO FLAY	0.4608
M-113	0.4076
ART. ACFT	0.2811
POLES LNCH	0.1222
M-551	0.0115

TIN		
A-10	CAS	72.7334
COBRA	CAS	64.6521
F-4	AIR INTERDICTION	103.5050
	CAS	7.2734
F-16	AIR INTERDICTION	71.8785
	CAS	40.4075
ART ACFT	CAS	3.6317
RADIO FLAY	AIR INTERDICTION	3.1345
	CAS	2.7275
F-111	AIR INTERDICTION	129.3813
A-6	AIR INTERDICTION	43.6111
F-15	AIR INTERDICTION	57.5123
A-7	AIR INTERDICTION	51.7515
F-14	AIR INTERDICTION	43.5180
F-18	AIR INTERDICTION	60.9133
SH-3	ASW(SEA BASED)	5.2093
SH-2	ASW(SEA BASED)	13.0231
SH-60B	ASW(SEA BASED)	21.2731
S-3	ASW(SEA BASED)	32.7234
ATT SUBS	ASW(SEA BASED)	14.4711
FRIGATES	ASW(SEA BASED)	14.4701
DESTROYERS	ASW(SEA BASED)	8.6821
M-48	ARMY GROUND	4.2185
M-60	ARMY GROUND	6.7749
M-1	ARMY GROUND	37.6455
M-551	ARMY GROUND	0.0753
M-901	ARMY GROUND	6.7749
M-2/M-3	ARMY GROUND	6.7749
M-113	ARMY GROUND	0.7533
MLRS	ARMY GROUND	10.1617
TOWED ART	ARMY GROUND	4.5199
SELF-PROP	ARMY GROUND	6.0235
PERSHING	ARMY GROUND	15.8195
GLCMs	ARMY GROUND	26.3619
INFANTRY	ARMY GROUND	60.2649
MORTERS	ARMY GROUND	5.2732
ROLES LNCH	ARMY GROUND	0.2230

NORMALIZED VALUES	
F-111	10.0000
F-16	0.6787
F-4	0.5622
F-18	6.2500
A-10	5.6216
COBRA	4.6970
INFANTRY	4.6579
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.9112
S-3	2.6842
GLCMs	2.0378
SH-60B	1.5658
PERSHING	1.2227
FRIGATES	1.1184
ATT. SUBS	1.1184
SH-2	1.0066
MLRS	0.7860
DESTROYERS	0.6710
M-2/M-3	0.5240
N-901	0.5240
M-60	0.5240
SELF-PROP.	0.4653
RADIO FLAY	0.4603
MORTERS	0.4076
SH-3	0.4076
TOWED ART	0.3493
M-48	0.3241
ART ACFT	0.2511
M-113	0.0583
ROLES LNCH	0.0175
M-551	0.0062

NICHEL		
A-10	CAS	72 7184
COBRA	CAS	48 4141
F-4	AIR INTERDICTION	77 6018
	CAS	5 4501
F-16	AIR INTERDICTION	71 8788
	CAS	40 4078
ART ACFT	CAS	2 4148
RADIO RELAY	AIR INTERDICTION	3 1348
	CAS	2 7178
F-111	AIR INTERDICTION	128 8818
A-6	AIR INTERDICTION	38 8144
F-15	AIR INTERDICTION	57 5128
A-7	AIR INTERDICTION	51 7528
F-14	AIR INTERDICTION	48 5188
F-18	AIR INTERDICTION	81 8188
SH-3	ASW(SEA BASED)	6 9457
SH-1	ASW(SEA BASED)	17 3642
SH-60F	ASW(SEA BASED)	37 0109
S-3	ASW(SEA BASED)	34 7284
ATT SUBS	ASW(SEA BASED)	43 4104
FRIGATES	ASW(SEA BASED)	26 0463
DESTROYERS	ASW(SEA BASED)	15 6278
M-48	ARMY GROUND	42 1854
M-60	ARMY GROUND	67 7980
M-1	ARMY GROUND	75 3311
M-551	ARMY GROUND	0 7503
M-901	ARMY GROUND	47 4536
M-24M-3	ARMY GROUND	54 2334
M-113	ARMY GROUND	5 2732
MLRS	ARMY GROUND	20 3374
TOWED ART	ARMY GROUND	38 1589
SELF-PROP	ARMY GROUND	48 2119
PERSHING	ARMY GROUND	18 0795
GLCMs	ARMY GROUND	11 5133
INFANTRY	ARMY GROUND	37 6655
MORTERS	ARMY GROUND	15 8193
PILES LUNCH	ARMY GROUND	0 2160

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	6.4216
F-18	6.2500
M-1	5.8224
A-10	5.6216
M-60	5.2402
F-15	4.4444
M-2/M-3	4.1921
A-7	4.0000
F-14	3.7500
COBRA	3.7478
SELF-PROP.	3.7263
M-901	3.6681
ATT. SUBS	3.3552
M-48	3.2605
A-6	3.0000
INFANTRY	2.6119
TOWED ART.	2.7948
S-3	2.6242
SH-60B	2.0877
FRIGATES	2.0131
GLCMs	1.7467
MLRS	1.5721
PERSHING	1.3974
SH-2	1.3421
MORTERS	1.7227
DESTROYERS	1.2079
SH-3	0.5268
RADIO RELAY	0.4403
M-113	0.4076
ART ACFT	0.1874
PILES LUNCH	0.0582
	0.0175

F-111	AIR INTERDICTION	90 9170
A-10	CAB	48 4891
COBRA	CAB	128 3813
F-4	AIR INTERDICTION	9 0917
	CAB	87 8411
F-16	AIR INTERDICTION	50 5094
	CAB	9 8367
ART. ACFT	CAB	3 3119
RADIO PLAY	AIR INTERDICTION	2 7275
	CAB	141 7284
F-111	AIR INTERDICTION	48 5180
A-6	AIR INTERDICTION	71 8780
F-15	AIR INTERDICTION	64 6906
A-7	AIR INTERDICTION	51 9019
F-14	AIR INTERDICTION	87 8431
F-18	AIR INTERDICTION	6 9457
SH-3	ASW(SEA BASED)	17 3442
SH-2	ASW(SEA BASED)	33 7137
SH-60E	ASW(SEA BASED)	43 4104
S-3	ASW(SEA BASED)	28 9403
ATT. SUBS	ASW(SEA BASED)	20 2532
FRIGATES	ASW(SEA BASED)	12 1549
DESTROYERS	ASW(SEA BASED)	11 6556
M-48	ARMY GROUND	20 3314
M-60	ARMY GROUND	11 5793
M-1	ARMY GROUND	0 2260
M-551	ARMY GROUND	54 2334
M-901	ARMY GROUND	54 2314
M-2/M-3	ARMY GROUND	6 0165
M-113	ARMY GROUND	16 9495
MLRS	ARMY GROUND	20 5813
TOWED ART	ARMY GROUND	30 1324
SELF-PROP	ARMY GROUND	15 8195
PERSHING	ARMY GROUND	26 3459
GLCMs	ARMY GROUND	60 2449
INFANTRY	ARMY GROUND	26 3609
MORTERS	ARMY GROUND	0 2260
POLES LNCH	ARMY GROUND	

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
A-10	5.6216
F-18	5.5556
F-15	4.4444
A-7	4.0000
INFANTRY	3.7263
M-2/M-3	3.3537
M-901	3.3537
F-14	3.3333
A-6	3.0000
COBRA	2.9982
S-3	2.6347
SH-60E	2.0877
SELF-PROP.	1.8487
ATT. SUBS	1.7895
MORTERS	1.6303
GLCMs	1.6303
TOWED ART.	1.3974
M-1	1.3974
M-60	1.2576
FRIGATES	1.2526
SH-2	1.0737
NLRS	1.0480
PERSHING	0.9782
M-48	0.7925
DESTROYERS	0.7516
SH-3	0.4205
M-113	0.3776
RADIO PLAY	0.3257
ART. ACFT	0.2260
POLES LNCH	0.0140
M-551	0.0120

HYDROPLAN		14 4701
ATT SUBS	ARM (SEA BASED)	24 5205
M-48	ARMY GROUND	27 4553
M-60	ARMY GROUND	5 1712
M-113	ARMY GROUND	31 4890
TOWED ART	ARMY GROUND	42 1854
SELF-PROP	ARMY GROUND	75 3311
INFANTRY	ARMY GROUND	36 9122
MORTARS	ARMY GROUND	

NORMALIZED VALUES

INFANTRY	10.0000
M-60	6.3000
SELF-PROP	5.6000
MORTARS	4.5000
TOWED ART	4.2000
M-48	3.5200
ATT SUBS	1.9209
M-113	0.7000

ALL COMMODITIES

A-10	CAS	3.0812
COBRA	CAS	2.1012
F-4	AIR INTERDICTION	4.1411
	CAS	0.1808
F-16	AIR INTERDICTION	3.0548
	CAS	1.7173
ART ACFT	CAS	0.1333
RADIO RLY	AIR INTERDICTION	0.1294
	CAS	0.1091
F-111	AIR INTERDICTION	5.4887
A-6	AIR INTERDICTION	1.6981
F-15	AIR INTERDICTION	2.4419
A-7	AIR INTERDICTION	2.1995
F-14	AIR INTERDICTION	1.9407
F-18	AIR INTERDICTION	0.2345
SH-3	ASW(SEA BASED)	0.2511
SH-2	ASW(SEA BASED)	0.6285
SH-60B	ASW(SEA BASED)	1.0467
S-3	ASW(SEA BASED)	1.4760
ATT. SUBS	ASW(SEA BASED)	1.2541
FRIGATES	ASW(SEA BASED)	0.7524
DESTROYERS	ASW(SEA BASED)	0.4515
M-48	ARMY GROUND	1.2656
M-60	ARMY GROUND	2.0332
M-1	ARMY GROUND	2.0333
M-551	ARMY GROUND	0.0123
M-901	ARMY GROUND	1.6272
M-2/M-3	ARMY GROUND	1.6272
M-113	ARMY GROUND	0.2260
MLRS	ARMY GROUND	0.6780
TOWED ART.	ARMY GROUND	1.2204
SELF-PROP.	ARMY GROUND	1.6272
PERISHING	ARMY GROUND	0.6780
GLCMs	ARMY GROUND	1.0546
INFANTRY	ARMY GROUND	2.4106
MORTERS	ARMY GROUND	1.2128
ROLES LNCH	ARMY GROUND	0.0226

NORMALIZED VALUES

F-111	10.0000
F-16	0.6787
F-4	0.0585
F-18	5.8824
A-10	5.6216
F-15	4.4444
INFANTRY	4.3839
A-7	4.0000
COBRA	3.8213
M-1	3.6989
M-60	3.6989
F-14	3.5294
A-6	3.0832
SELF-PROP.	2.9592
M-2/M-3	2.9592
M-901	2.9592
S-3	2.6842
M-48	2.3017
ATT. SUBS	2.2807
TOWED ART.	2.2124
MORTERS	2.2057
GLCMs	1.9180
SH-60B	1.9035
FRIGATES	1.3684
PERISHING	1.2330
MLRS	1.2330
SH-2	1.1447
DESTROYERS	0.8210
SH-3	0.4579
RADIO RLY	0.4337
M-113	0.4110
ART ACFT	0.2425
ROLES LNCH	0.0411
M-551	0.0226

CRITICALITY OF SHIPFALL
ALL FE'S
(LOC 3)

COMMODITY	GOAL (UNITS)	STOCK FILE (UNITS)	SHIPFALL (%)	TRANS- LATED	FE CRITICALITY IMPORT.	CRITICALITY	NOT CRITICAL FE SHIPFALL CRITICALITY
COAL	85.4	43.8	-47.7	401.8	8.5	3418.1	7.5
COPPER	42.0	190.4	353.8	6.0	10.0	10.0	10.0
NICKEL	200.0	32.2	-81.8	437.7	10.0	4377.1	10.0
FLUOSPAR ACID	1400.0	875.0	-36.1	333.8	9.6	3744.3	8.6
FLUETHRUM	500.0	0.0	-100.0	433.8	4.1	1830.7	4.1

COMPOSITE IMPORTANCE
(LOC 3)

COPAL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
MEXICO	450.	2.29	1.50	0.667	1.519
BOTSWANA	250.	1.27	0.71	1.404	1.766
SOUTH AFRICA	150.	0.76	1.18	0.841	0.642
ZAMBIA	12500.	63.61	0.71	1.404	87.148
ZAMBIA	3500.	17.61	0.71	1.404	28.041
PHILIPPINES	50.	0.25	0.92	1.087	0.276
AUSTRALIA	400.	2.04	0.92	1.087	2.212
NEW CALEDONIA	250.	1.27	0.92	1.087	1.111
CANADA	1100.	5.60	2.88	0.343	1.937
U.S.	1000.	5.00	2.56	0.391	1.991
TOTAL	19650.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
AUSTRALIA	100.	0.15	0.92	1.087	0.161
U.S.	16100.	23.82	2.56	0.391	9.319
TAIWAN	5900.	8.73	0.92	1.087	9.433
INDONESIA	5800.	8.58	0.92	1.087	9.322
UK	100.	0.15	1.96	0.510	0.975
BOLIVIA	10300.	15.24	0.98	1.020	15.548
BRAZIL	2400.	3.55	0.86	1.162	4.125
PERU	3000.	4.44	2.47	0.405	1.734
MALAYSIA	23900.	35.36	0.92	1.087	38.414
TOTAL	67600.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	%(1/CI)
SOUTH AFRICA	5000.	1.65	1.19	0.841	1.331
PHILIPPINES	5000.	1.65	0.92	1.087	1.791
AUSTRALIA	25000.	8.24	0.92	1.087	8.951
CANADA	150000.	48.44	2.89	0.346	17.110
U.S.	80000.	25.00	2.56	0.391	11.348
GREECE	600.	0.20	1.96	0.510	0.101
NETHERLANDS	200.	0.07	1.96	0.510	0.034
FRG	100.	0.03	1.96	0.510	0.017
YUGOSLAVIA	500.	0.16	1.96	0.510	0.034
USSR	5000.	1.65	0.94	1.061	1.741
DOM. REPUB.	15000.	4.94	1.53	0.656	3.241
GHATANALA	4000.	1.32	1.53	0.656	0.864
INDONESIA	5000.	1.65	0.92	1.087	1.791
TOTAL:	303400.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

FLUORSPAR ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	%(1/CI)
SOUTH AFRICA	180.	22.36	1.19	0.841	18.808
U.S.	70.	8.70	2.56	0.391	3.402
ITALY	65.	8.07	1.96	0.510	4.120
SPAIN	100.	12.42	1.96	0.510	6.338
EAST AFRICA	25.	3.11	0.71	1.404	4.358
THAILAND	15.	1.88	0.92	1.087	2.028
MEXICO	350.	43.48	2.56	0.391	17.011
TOTAL:	805.	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/CI	%(1/CI)
SOUTH AFRICA	2000.	1.01	1.19	0.841	0.852
AUSTRALIA	1500.	0.76	0.92	1.087	0.825
UK	11000.	5.57	1.96	0.510	2.842
KENYA	80000.	40.51	0.71	1.404	56.825
RWANDA	25000.	12.66	0.71	1.404	17.767
TANZANIA	78000.	39.49	0.71	1.404	55.438
TOTAL:	197500.	100.00			

SOURCE IMPORTANCE
(LOC 3)

SOURCE	W/1/11 CUMF IMP	FEV/NORTFALL CRITICALITY	TOTAL	NORMALIZED TO 100
SALT				
MOROCCO	1.528	7.81	11.93	1.71
BOTSWANNA	1.736	7.81	13.95	2.00
SOUTH AFRICA	0.642	7.81	5.01	0.71
ZAIRE	80.283	7.81	697.25	100.00
ZAMBIA	25.001	7.81	195.13	28.00
PHILIPPINES	0.276	7.81	2.16	0.31
AUSTRALIA	2.212	7.81	17.27	2.48
NEW CALEDONIA	1.382	7.81	10.79	1.55
CANADA	1.937	7.81	15.13	2.17
U S	1.991	7.81	15.55	2.21
TIN				
AUSTRALIA	0.161	0.00	0.00	0.00
U S	9.319	0.00	0.00	0.00
THAILAND	9.483	0.00	0.00	0.00
INDONESIA	9.322	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.543	0.00	0.00	0.00
BRASIL	4.125	0.00	0.00	0.00
PER	1.796	0.00	0.00	0.00
MALAYSIA	33.414	0.00	0.00	0.00
TUNGSTEN				
SOUTH AFRICA	1.384	10.00	13.36	1.94
PHILIPPINES	1.791	10.00	17.91	2.57
AUSTRALIA	8.953	10.00	89.53	12.84
CANADA	17.110	10.00	171.10	24.54
U S	11.348	10.00	113.48	16.28
GREECE	0.101	10.00	1.01	0.14
NETHERLANDS	0.034	10.00	0.34	0.05
FRG	0.017	10.00	0.17	0.02
YUGOSLAVIA	0.084	10.00	0.84	0.12
USSR	1.748	10.00	17.48	2.51
DOM REPUBLIC	3.241	10.00	32.41	4.65
GUATEMALA	0.864	10.00	8.64	1.24
INDONESIA	1.791	10.00	17.91	2.57
FLUOROSULFURIC ACID				
SOUTH AFRICA	18.803	8.55	160.85	23.07
U S	3.402	8.55	29.10	4.17
ITALY	4.120	8.55	35.24	5.05
SPAIN	6.338	8.55	54.22	7.73
EAST AFRICA	4.359	8.55	37.29	5.35
THAILAND	2.025	8.55	17.32	2.48
MEXICO	17.011	8.55	145.52	20.87
PERETHRUM				
SOUTH AFRICA	0.852	4.30	3.66	0.52
AUSTRALIA	0.825	4.30	3.55	0.51
UK	2.842	4.30	12.21	1.75
KENYA	54.855	4.30	244.29	35.04
RWANDA	17.767	4.30	76.34	10.95
TANZANIA	55.433	4.30	238.18	34.16

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOG 3)

	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	35.04
3	TANZANIA	PYRETHRUM	34.16
4	ZAMBIA	COBALT	28.00
5	CANADA	NICKEL	24.54
6	SOUTH AFRICA	FLUORSPAR ACID	23.07
7	MEXICO	FLUORSPAR ACID	20.87
8	U.S.	NICKEL	18.28
9	AUSTRALIA	NICKEL	12.84
10	RWANDA	PYRETHRUM	10.95
11	SPAIN	FLUORSPAR ACID	7.75
12	EAST AFRICA	FLUORSPAR ACID	5.05
13	ITALY	FLUORSPAR ACID	5.05
14	DOM. REPUBLIC	NICKEL	4.15
15	U.S.	FLUORSPAR ACID	4.17
16	INDONESIA	NICKEL	2.57
17	PHILIPPINES	NICKEL	2.57
18	USSR	NICKEL	2.51
19	THAILAND	FLUORSPAR ACID	2.48
20	AUSTRALIA	COBALT	2.49
21	U.S.	COBALT	2.23
22	CANADA	COBALT	2.17
23	BOTSWANNA	COBALT	2.00
24	SOUTH AFRICA	NICKEL	1.77
25	UK	PYRETHRUM	1.75
26	MOROCCO	COBALT	1.71
27	NEW CALEDONIA	COBALT	1.55
28	GUATAMALA	NICKEL	1.24
29	SOUTH AFRICA	COBALT	0.72
30	SOUTH AFRICA	PYRETHRUM	0.52
31	AUSTRALIA	PYRETHRUM	0.51
32	PHILIPPINES	COBALT	0.31
33	GREECE	NICKEL	0.14
34	YUGOSLAVIA	NICKEL	0.12
35	NETHERLANDS	NICKEL	0.05
36	FRG	NICKEL	0.02
37	MALAYSIA	TIN	0.00
38	FRG	TIN	0.00
39	BRAZIL	TIN	0.00
40	BOLIVIA	TIN	0.00
41	UK	TIN	0.00
42	INDONESIA	TIN	0.00
43	THAILAND	TIN	0.00
44	U.S.	TIN	0.00
45	AUSTRALIA	TIN	0.00
46	THAILAND	TIN	0.00

SCENARIO 47

WEIGHTS on REGION by LEVEL of CONFLICT and MEDIA

Level of Conflict 3 Media 1

Region	1	2	3	4	5	6	7	8	9	10
Weight	10.0	10.0	7.0	5.0	7.0	1.0	2.0	5.0	1.0	
I/COEF	0.1786	0.1786	0.1250	0.0833	0.1250	0.0357	0.0357	0.0893	0.0357	0.1071

Level of Conflict 3 Media 2

Region	1	2	3	4	5	6	7	8	9	10
Region	11									
Weight	10.0	10.0	9.0	4.0	7.0	5.0	1.0	8.0	7.0	5.0
Weight	9.0									
I/COEF	0.1333	0.1333	0.1200	0.0533	0.0933	0.0667	0.0133	0.1067	0.0933	0.1000
I/COEF	0.1200									

Level of Conflict 3 Media 3

Region	1	2	3	4	5	6	7
Weight	10.0	10.0	10.0	8.0	6.0	4.0	8.0
I/COEF	0.1786	0.1786	0.1786	0.1429	0.1071	0.0714	0.1429

Level of Conflict 3 Media 4

Region	1	2	3	4
Weight	10.0	4.0	2.0	1.0
I/COEF	0.5832	0.2352	0.1176	0.0588

INFLUENCE COEFFICIENTS OVER ALL LEVEL OF CONFLICTS

on the Importance of Controlling EACH region within its own Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/COEF		0.0228	0.0228	0.0160	0.0114	0.0160	0.0046	0.0046	0.0114	0.0046	0.0187

Media 2	Region	1	2	3	4	5	6	7	8	9	10
Media 11											

Region	1	2	3	4	5	6	7	8	9	10
I/COEF	0.0171	0.0171	0.0154	0.0068	0.0119	0.0085	0.0017	0.0136	0.0119	0.0095
I/COEF	0.0154									

Media 3	Region	1	2	3	4	5	6	7
I/COEF		0.0228	0.0228	0.0228	0.0183	0.0137	0.0091	0.0103

Media 4	Region	1	2	3	4
I/COEF		0.0752	0.0301	0.0150	0.0075

Importance of controlling ANY Region within its Media as compared to the Importance of controlling ANY Region of any other Media

Media 1	Region	1	2	3	4	5	6	7	8	9	10
I/COEF		0.0099	0.0099	0.0070	0.0050	0.0070	0.0020	0.0020	0.0050	0.0020	0.0060

Media 2	Region	1	2	3	4	5	6	7	8	9	10
Media 11											

Region	1	2	3	4	5	6	7	8	9	10
I/COEF	0.0037	0.0037	0.0033	0.0015	0.0026	0.0019	0.0004	0.0030	0.0026	0.0019
I/COEF	0.0033									

Media 3	Region	1	2	3	4	5	6	7
I/COEF		0.0060	0.0060	0.0060	0.0048	0.0036	0.0024	0.0048

Media 4	Region	1	2	3	4
I/COEF		0.0065	0.0026	0.0013	0.0007

FORCE ELEMENT IMPORTANCE
(LOC 3)

RANKING	ELEMENT NUMBER	FORCE ELEMENT NAME	CALCULATED VALUE	NORMALIZED VALUE
1	17	CARRIER BATTLE GROUP	0.141	10.000
2	1	AIR IN EDITION	0.117	8.244
3	3	ARMY GROUND	0.104	7.380
4	13	ATTACK SUBS	0.072	5.135
5	19	SURFACE COMBATANTS	0.060	4.247
6	12	THEATER NUCLEAR WEAPON	0.054	3.812
7	8	RAPID DEPLOY	0.052	3.706
8	6	CAS	0.044	3.13
9	14	ASW(LAND BASED)	0.043	3.083
10	22	AIR SUPERIORITY(LAND BASED)	0.041	2.910
11	15	ASW(SEA BASED)	0.033	2.315
12	23	AIR SUPERIORITY(SHIP BASED)	0.032	2.276
13	21	AIR DEFENSE(SHIP BASED)	0.029	2.065
14	10	STRATEGIC BOMBER	0.025	1.784
15	25	SPOE BASED WEAPON(AIR CNTRL)	0.020	1.416
16	29	ASAT(SPACE BASED)	0.013	0.924
17	18	MINE WARFARE	0.013	0.891
18	2	AMPHIBIOUS ASSAULT	0.011	0.757
19	13	SPECIAL OPERATIONS	0.010	0.725
20	28	ASAT(LAND BASED)	0.007	0.510
21	20	AIR DEFENSE(LAND BASED)	0.004	0.273
22	9	SPOE-BASED WEAPON(LND CNTRL)	0.003	0.211
23	30	SPOE BASED WEAPON(SEA CNTRL)	0.001	0.119
24	27	ABM(SPACE BASED)	0.000	0.000
25	26	ABM(LAND BASED)	0.000	0.000
26	24	INTERCEPTOR AIRCRAFT	0.000	0.000
27	11	SLEB	0.000	0.000
28	7	ICBM	0.000	0.000
29	5	CIVIL DEFENSE	0.000	0.000
30	4	CBW	0.000	0.000

COMMODITY IMPORTANCE
(LOC 3)

COBALT

AIR INTERDICTION	5.71
ARMY GROUND	4.52
CAS	1.70
ICBM	0.00
STRATEGIC BOMBER	1.73
SLBM	0.00
ASW(SEA BASED)	1.27
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ABAT(LAND BASED)	0.51
	34.04

TIN

AIR INTERDICTION	5.90
ARMY GROUND	1.92
CAS	1.91
STRATEGIC BOMBER	1.73
ASW(LAND BASED)	3.08
ASW(SEA BASED)	1.11
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ABM(LAND BASED)	0.00
	41.18

NICKEL

AIR INTERDICTION	5.60
ARMY GROUND	4.92
CAS	1.72
STRATEGIC BOMBER	1.79
ASW(SEA BASED)	1.71
ATTACK SUBS	5.13
CARRIER BATTLE GROUP	10.00
MINE WARFARE	0.89
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
	41.21

FLUORSPAR ACID

AIR INTERDICTION	7.13
AMPHIBIOUS ASSAULT	0.76
ARMY GROUND	3.61
CAS	2.05
ICBM	0.00
STRATEGIC BOMBER	1.75
SUBM	0.00
ASW(LAND BASED)	3.08
ASW(SEA BASED)	1.65
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.25
AIR SUPERIORITY(LAND BASED)	2.91
AIR SUPERIORITY(SHIP BASED)	2.28
INTERCEPTOR AIRCRAFT	0.00
ARM(LAND BASED)	0.00
	39.57

PYRETHRUM

ARMY GROUND	2.65
CIVIL DEFENSE	0.00
ASW(SEA BASED)	0.14
CARRIER BATTLE GROUP	10.00
SURFACE COMBATANTS	4.20
	17.05

COMMODITY NORMALIZED IMPORTANCE

NICKEL	10.00	(41.21)
TIN	9.99	(41.15)
FLUORSPAR ACID	9.60	(39.57)
COBALT	8.45	(34.99)
PYRETHRUM	4.14	(17.08)

CODALIT		
A-10	CAS	72 7316
COBRA	CAS	43 4811
F-4	AIR INTERDICTION	103 5050
	CAS	7 1714
F-16	AIR INTERDICTION	71 8785
	CAS	41 4675
ART ACFT	CAS	3 6337
RADIO RLY	AIR INTERDICTION	3 2345
	CAS	2 7175
F-111	AIR INTERDICTION	129 3813
A-6	AIR INTERDICTION	33 8144
F-15	AIR INTERDICTION	57 5023
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	43 1221
F-18	AIR INTERDICTION	71 8725
SH-3	ASW(SEA BASED)	4 0715
SH-2	ASW(SEA BASED)	15 1237
SH-60B	ASW(SEA BASED)	23 6346
S-3	ASW(SEA BASED)	34 7234
ATT. SUBS	ASW(SEA BASED)	24 1149
FRIGATES	ASW(SEA BASED)	14 4701
DISTROYERS	ASW(SEA BASED)	8 6121
M-48	ARMY GROUND	37 9669
M-60	ARMY GROUND	61 0112
M-1	ARMY GROUND	67 7931
M-551	ARMY GROUND	0 1160
M-901	ARMY GROUND	54 1034
M-2/M-3	ARMY GROUND	47 4536
M-113	ARMY GROUND	5 2732
MLRS	ARMY GROUND	20 3394
TOWED ART.	ARMY GROUND	27 1192
SELF-PROP.	ARMY GROUND	36 1539
PERSHING	ARMY GROUND	18 0795
GLCMs	ARMY GROUND	30 1124
INFANTRY	ARMY GROUND	7 5331
MORTERS	ARMY GROUND	34 9122
ROLES LNCH	ARMY GROUND	1 5820

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
A-10	5.6216
F-18	5.5556
M-1	5.2402
M-60	4.7162
F-15	4.4444
M-901	4.1921
A-7	4.0000
COBRA	3.7473
M-2/M-3	3.6681
F-14	3.9333
A-6	3.0000
M-48	2.9345
MORTERS	2.8520
SELF-PROP.	2.7943
S-3	2.6847
GLCMs	2.9220
TOWED ART.	2.0961
ATT. SUBS	1.8640
SH-60B	1.8267
MLRS	1.5721
PERSHING	1.3274
SH-2	1.1743
FRIGATES	1.1197
DISTROYERS	0.6710
INFANTRY	0.1937
SH-3	0.4697
RADIO RLY	0.4609
M-113	0.4076
ART. ACFT	0.1311
ROLES LNCH	0.1322
M-901	0.0116

TIN		
A-10	CAS	72 7336
COBRA	CAS	64 6511
F-4	AIR INTERDICTION	103 5051
	CAS	7 2734
F-16	AIR INTERDICTION	71 8785
	CAS	48 4075
ART ACFT	CAS	3 6867
RADIO BLAY	AIR INTERDICTION	3 2343
	CAS	2 7175
F-111	AIR INTERDICTION	129 3913
A-6	AIR INTERDICTION	43 6662
F-15	AIR INTERDICTION	57 5029
A-7	AIR INTERDICTION	51 7525
F-14	AIR INTERDICTION	43 5180
F-19	AIR INTERDICTION	80 8633
SH-3	ASW(SEA BASED)	5 2093
SH-2	ASW(SEA BASED)	13 0211
SH-60B	ASW(SEA BASED)	
S-3	ASW(SEA BASED)	34 7284
ATT SUBS	ASW(SEA BASED)	14 4701
FRIGATES	ASW(SEA BASED)	14 4701
DESTROYERS	ASW(SEA BASED)	8 6821
M-48	ARMY GROUND	4 2195
M-60	ARMY GROUND	6 7798
M-1	ARMY GROUND	37 6655
M-551	ARMY GROUND	0 0703
M-901	ARMY GROUND	6 7798
M-2/M-3	ARMY GROUND	6 7798
M-113	ARMY GROUND	0 7513
MLRS	ARMY GROUND	10 1697
TOWED ART	ARMY GROUND	4 5199
SELF-PROP.	ARMY GROUND	6 0265
PERSHING	ARMY GROUND	15 8195
GLCS	ARMY GROUND	26 3619
INFANTRY	ARMY GROUND	60 2649
MORTERS	ARMY GROUND	5 2782
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	8.5622
F-18	6.2500
A-10	5.6216
COBRA	4.9970
INFANTRY	4.6579
F-15	4.4444
A-7	4.0000
F-14	3.7500
A-6	3.3750
M-1	2.9112
S-3	2.6842
GLCS	2.0373
SH-60B	1.5658
PERSHING	1.2227
FRIGATES	1.1184
ATT. SUBS	1.1184
SH-2	1.0066
MLRS	0.7860
DESTROYERS	0.6710
M-2/M-3	0.5240
M-901	0.5240
M-60	0.5240
SELF-PROP.	0.4658
RADIO BLAY	0.4608
MORTERS	0.4076
SH-3	0.4026
TOWED ART.	0.3493
M-48	0.3261
ART. ACFT	0.2811
M-113	0.0502
GLCS LNCH	0.0175
M-551	0.0050

NICHEL		
A-10	CAS	72.7386
COBRA	CAS	48.4891
F-4	AIR INTERDICTION	77.6289
	CAS	5.4550
F-16	AIR INTERDICTION	71.8785
	CAS	40.4075
ART. ACFT	CAS	2.4219
RADIO RLY	AIR INTERDICTION	3.2840
	CAS	2.7275
F-111	AIR INTERDICTION	129.3913
A-6	AIR INTERDICTION	38.8144
F-15	AIR INTERDICTION	57.5029
A-7	AIR INTERDICTION	51.7525
F-14	AIR INTERDICTION	49.5180
F-18	AIR INTERDICTION	80.8633
SH-3	ASW (SEA BASED)	6.3477
SH-2	ASW (SEA BASED)	17.3642
SH-60B	ASW (SEA BASED)	27.0109
S-3	ASW (SEA BASED)	34.7294
ATT. SUBS	ASW (SEA BASED)	43.4104
FRIGATES	ASW (SEA BASED)	26.0463
DESTROYERS	ASW (SEA BASED)	15.6278
M-48	ARMY GROUND	42.1854
M-60	ARMY GROUND	67.7980
M-1	ARMY GROUND	75.3311
M-551	ARMY GROUND	0.7573
M-901	ARMY GROUND	47.4934
M-2/M-3	ARMY GROUND	54.2384
M-113	ARMY GROUND	5.2731
MLRS	ARMY GROUND	20.3894
TOWED ART.	ARMY GROUND	36.1589
SELF-PROP.	ARMY GROUND	48.2119
PERSHING	ARMY GROUND	18.0795
GLCMs	ARMY GROUND	22.5893
INFANTRY	ARMY GROUND	37.6655
MORTARS	ARMY GROUND	15.8195
ROLES LNCH	ARMY GROUND	0.2260

NORMALIZED VALUES	
F-111	10.0000
F-16	8.6787
F-4	6.4216
F-18	6.2500
M-1	5.8224
A-10	5.6216
M-60	5.2402
F-15	4.4444
M-2/M-3	4.1921
A-7	4.0000
F-14	3.7500
COBRA	3.7478
SELF-PROP.	3.7263
M-901	3.6681
ATT. SUBS	3.3552
M-48	3.2605
A-6	3.0000
INFANTRY	2.9112
TOWED ART.	2.7948
S-3	2.6847
SH-60B	2.0877
FRIGATES	2.0131
GLCMs	1.7467
MLRS	1.5721
PERSHING	1.3974
SH-2	1.3421
MORTARS	1.2227
DESTROYERS	1.2079
SH-3	0.5268
RADIO RLY	0.4604
M-113	0.4076
ART. ACFT	0.1874
M-551	0.0582
ROLES LNCH	0.0175

FLUDREPAP ACID		
A-10	CAS	90 9170
COERA	CAS	43 4311
F-4	AIR INTERDICTION	121 3513
	CAS	9 0917
F-16	AIR INTERDICTION	89 8481
	CAS	50 5014
ART AIRFT	CAS	3 6317
RADIO BLAY	AIR INTERDICTION	3 2345
	CAS	2 7275
F-111	AIR INTERDICTION	141 7216
A-6	AIR INTERDICTION	48 5180
F-15	AIR INTERDICTION	71 8785
A-7	AIR INTERDICTION	64 6906
F-14	AIR INTERDICTION	53 9089
F-18	AIR INTERDICTION	89 8481
SH-3	ASW(SEA BASED)	6 9457
SH-2	ASW(SEA BASED)	17 3641
SH-60B	ASW(SEA BASED)	33 7687
S-3	ASW(SEA BASED)	43 4164
ATT SUBS	ASW(SEA BASED)	28 9403
FRIGATES	ASW(SEA BASED)	20 2582
DESTROYERS	ASW(SEA BASED)	12 1549
M-48	ARMY GROUND	12 6556
M-60	ARMY GROUND	20 3394
M-1	ARMY GROUND	22 5993
M-551	ARMY GROUND	0 2260
M-901	ARMY GROUND	54 2384
M-2/M-3	ARMY GROUND	54 2384
M-113	ARMY GROUND	6 0265
MLRS	ARMY GROUND	16 9495
TOWED ART.	ARMY GROUND	22 5993
SELF-PROP.	ARMY GROUND	30 1324
PERSHING	ARMY GROUND	15 8195
GLCMs	ARMY GROUND	26 3659
INFANTRY	ARMY GROUND	60 2649
MORTERS	ARMY GROUND	26 3659
ROLES LNCH	ARMY GROUND	0 2260

NORMALIZED VALUES	
F-111	10 0000
F-16	8 6787
F-4	8 5622
A-10	5 6216
F-18	5 5556
F-15	4 4444
A-7	4 0000
INFANTRY	3 7243
M-2/M-3	3 3537
M-901	3 3537
F-14	3 3333
A-6	3 0000
COERA	2 9982
S-3	2 6842
SH-60B	2 0877
SELF-PROP.	1 8632
ATT. SUBS	1 7895
MORTERS	1 6313
GLCMs	1 6203
TOWED ART.	1 3674
M-1	1 3974
M-60	1 2575
FRIGATES	1 2526
SH-2	1 0797
MLRS	1 0480
PERSHING	0 9782
M-48	0 7825
DESTROYERS	0 7517
SH-3	0 4995
M-113	0 3724
RADIO BLAY	0 3636
ART AIRFT	0 3271
ROLES LNCH	0 0100
M-551	0 0100

FYEETHRUM

ATT SUBS	ABWSEA BASED	14 4701
M-49	ARMY GROUND	17 3347
M-60	ARMY GROUND	47 4586
M-113	ARMY GROUND	5 2732
TOWED ART	ARMY GROUND	31 6240
SELF-PROP	ARMY GROUND	41 1854
INFANTRY	ARMY GROUND	75 3311
MORTERS	ARMY GROUND	33 9122

NORMALIZED VALUES

INFANTRY	10 0000
M-60	6 3000
SELF-PROP	5 6000
MORTERS	4 9000
TOWED ART	4 2000
M-49	3 9200
ATT SUBS	1 5000
M-113	0 7000

ALL COMMODITIES

A-10	CAS	3 0912
COBRA	CAS	2 1012
F-4	AIR INTERDICTION	4 1402
	CAS	0 1911
F-16	AIR INTERDICTION	3 0548
	CAS	1 7173
ART ACFT	CAS	0 1323
RADID BLAY	AIR INTERDICTION	0 1234
	CAS	0 1091
F-111	AIR INTERDICTION	5 4987
A-6	AIR INTERDICTION	1 6551
F-15	AIR INTERDICTION	2 4429
A-7	AIR INTERDICTION	2 1995
F-14	AIR INTERDICTION	1 9407
F-18	AIR INTERDICTION	3 2345
SH-3	ASW(SEA BASED)	0 2511
SH-1	ASW(SEA BASED)	0 6095
SH-60	ASW(SEA BASED)	1 0447
S-3	ASW(SEA BASED)	1 4760
ATT SUBS	ASW(SEA BASED)	1 2541
FRIGATES	ASW(SEA BASED)	0 7524
DESTROYERS	ASW(SEA BASED)	0 4513
M-48	ARMY GROUND	1 2656
M-60	ARMY GROUND	2 0339
M-1	ARMY GROUND	2 0339
M-551	ARMY GROUND	0 0123
M-901	ARMY GROUND	1 6272
M-111-2	ARMY GROUND	1 6211
M-112	ARMY GROUND	0 2260
MLRS	ARMY GROUND	0 6780
TOWED ART	ARMY GROUND	1 1204
SELF-PROP	ARMY GROUND	1 6272
PERSHING	ARMY GROUND	0 6780
GLCMs	ARMY GROUND	1 0544
INFANTRY	ARMY GROUND	2 4106
MORTERS	ARMY GROUND	1 2128
ROLES LNCH	ARMY GROUND	0 0226

NORMALIZED VALUES	
F-111	10 0000
F-16	8 6787
F-4	8 0585
F-15	5 8824
A-10	5 6216
F-14	4 4444
INFANTRY	4 3839
A-7	4 0000
COBRA	3 8213
M-1	3 6989
M-60	3 6989
F-14	3 5296
A-6	3 0882
SELF-PROP	2 9592
M-2/M-3	2 9592
M-901	2 9592
S-3	2 6842
M-48	2 3016
ATT SUBS	2 2807
TOWED ART	2 2106
MORTERS	2 2057
GLCMs	1 9180
SH-60	1 9085
FRIGATES	1 0684
PERSHING	1 2030
MLRS	1 2330
SH-2	1 1447
DESTROYERS	0 0210
SH-3	0 4579
COBRA	0 0226

CRITICALITY OF SHORTFALL
ALL FEES
LOC 37

COMMODITY	GOAL (UNITES)	STOCK PILE (UNITES)	SHORT FALL (UNITES)	TRANS- LATER (UNITES)	FE- COMMODITY IMPORT.	CRITIC- ALITY	NORMALIZED FE SHORTFALL CRITICALITY
SODIUM	3000	4000	-1000	4000	8.5	3418.1	1.0
TIN	4000	1900	2100	0.0	10.0	0.0	1.0
NICHEL	2000	3200	-1200	437.7	10.0	4377.1	1.0
FLUOREPAR ACID	14000	9900	4100	380.9	5.6	3741.3	1.0
PYRETHRUM	5000	0	5000	453.8	4.1	1890.7	1.0

COMPOSITE IMPORTANCE
LOC 37

COMMIT

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
FINLAND	13500	6.47	1.92	0.510	3.347
MOROCCO	450	2.16	1.50	0.647	1.440
BOTSWANNA	250	1.20	0.71	1.404	1.691
ZAIRE	12500	58.85	0.71	1.414	84.44
ZAMBIA	3500	16.79	0.71	1.404	23.500
PHILIPPINES	50	0.24	0.92	1.087	0.210
AUSTRALIA	400	1.92	0.92	1.087	2.147
NEW CALEDONIA	250	1.20	0.92	1.087	1.303
CANADA	1100	5.28	2.89	0.346	1.821
U.S.	1000	4.80	2.56	0.391	1.877
TOTAL:	20350	100.00			

COMPOSITE IMPORTANCE
LOC 37

TIN

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
AUSTRALIA	100	0.15	0.92	1.087	0.161
U.S.	16100	23.82	2.56	0.391	9.119
THAILAND	5000	8.73	0.92	1.087	9.493
INDONESIA	5800	8.58	0.92	1.087	9.321
UK	100	0.15	1.96	0.510	0.075
BOLIVIA	10300	15.24	0.98	1.020	15.543
BRAZIL	2400	3.55	0.86	1.162	4.125
PRC	3000	4.44	2.47	0.405	1.713
MALAYSIA	23900	35.36	0.92	1.087	35.414
TOTAL:	67600	100.00			

COMPOSITE IMPORTANCE
(LOC 3)

NICKEL

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
FINLAND	1000.	0.33	1.92	0.520	0.174
PHILIPPINES	5000.	1.67	0.92	1.087	1.017
AUSTRALIA	15000.	5.05	0.92	1.087	5.073
CANADA	150000.	50.10	2.89	0.346	17.340
U.S.	88000.	29.39	2.56	0.391	11.510
GREECE	600.	0.20	1.96	0.510	0.110
NETHERLANDS	200.	0.07	1.96	0.510	0.034
FRG	100.	0.03	1.96	0.510	0.017
YUGOSLAVIA	500.	0.17	1.96	0.510	0.035
USSR	5000.	1.67	0.94	1.061	1.771
DOM. REPUE	15000.	5.01	1.53	0.656	3.284
GUATAMALA	4000.	1.34	1.53	0.656	0.876
INDONESIA	5000.	1.67	0.92	1.087	1.815

TOTAL: 299400. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

FLUOROPAR ACID

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
U.S.	71.	11.20	2.56	0.391	4.390
ITALY	65.	10.40	1.96	0.510	5.308
SPAIN	100.	16.00	1.96	0.510	8.164
EAST AFRICA	25.	4.00	0.71	1.404	5.614
FINLAND	15.	2.40	0.92	1.087	2.609
MEXICO	350.	56.00	2.56	0.391	21.911

TOTAL: 625. 100.00

COMPOSITE IMPORTANCE
(LOC 3)

PYRETHRUM

SOURCE	AMOUNT SUPPLIED	% OF TOTAL	COMPOSITE IMPORTANCE	1/01	% (1/01)
AUSTRALIA	1500.	0.77	0.92	1.087	0.834
UK	11000.	5.63	1.96	0.510	2.871
KENYA	80000.	40.92	0.71	1.404	57.436
TANZANIA	25000.	12.79	0.71	1.404	17.949
INDONESIA	78000.	39.90	0.71	1.404	56.000

TOTAL: 195500 100.00

SOURCE IMPORTANCE
(LOS 3)

SOURCE	% (1/01) CUMF IMP	FE/SHORTFALL CRITICALITY	TOTAL	NORMALIZED TO 100
LOCAL				
FINLAND	3.367	7.81	26.30	4.00
MOROCCO	1.440	7.81	11.24	1.71
BOTSWANNA	1.693	7.81	13.14	2.00
ZAIRE	84.144	7.81	657.12	100.00
ZAMBIA	23.542	7.81	183.99	28.00
PHILIPPINES	0.261	7.81	2.03	0.31
AUSTRALIA	2.084	7.81	14.23	2.43
NEW CALEDONIA	1.303	7.81	10.17	1.50
CANADA	1.816	7.81	14.24	2.17
U S	1.877	7.81	14.63	2.20
TIN				
AUSTRALIA	0.161	0.00	0.00	0.00
U S	9.319	0.00	0.00	0.00
THAILAND	9.483	0.00	0.00	0.00
INDONESIA	9.322	0.00	0.00	0.00
UK	0.075	0.00	0.00	0.00
BOLIVIA	15.548	0.00	0.00	0.00
BRAZIL	4.125	0.00	0.00	0.00
PERU	1.756	0.00	0.00	0.00
MALAYSIA	38.414	0.00	0.00	0.00
NICKEL				
FINLAND	0.174	10.00	1.74	0.26
PHILIPPINES	1.815	10.00	18.15	2.76
AUSTRALIA	9.073	10.00	90.73	13.81
CANADA	17.343	10.00	173.33	26.34
U S	11.500	10.00	115.00	17.50
GREECE	0.102	10.00	1.02	0.15
NETHERLANDS	0.034	10.00	0.34	0.05
FRG	0.017	10.00	0.17	0.03
YUGOSLAVIA	0.085	10.00	0.85	0.13
USSR	1.771	10.00	17.71	2.70
DOM. REPUB.	3.284	10.00	32.84	5.00
GUATAMALA	0.876	10.00	8.76	1.33
INDONESIA	1.815	10.00	18.15	2.76
FLUORSPAR ACID				
U S	4.382	8.55	37.49	5.70
ITALY	5.306	8.55	45.39	6.91
SPAIN	8.164	8.55	69.83	10.63
EAST AFRICA	5.614	8.55	48.03	7.31
THAILAND	2.608	8.55	22.31	3.39
MEXICO	21.911	8.55	187.43	28.52
PYRETHRUM				
AUSTRALIA	0.834	4.30	3.58	0.55
UK	2.871	4.30	12.34	1.88
KENYA	57.436	4.30	246.78	37.56
RWANDA	17.949	4.30	77.12	11.74
TANZANIA	56.000	4.30	240.62	36.62

SOURCE IMPORTANCE
RANKED BY SOURCE
(LOC 3)

#	SOURCE	COMMODITY	VALUE
1	ZAIRE	COBALT	100.00
2	KENYA	PYRETHRUM	37.56
3	TANZANIA	PYRETHRUM	34.62
4	MEXICO	FLUORSPAR ACID	28.52
5	ZAMBIA	COBALT	28.00
6	CANADA	NICKEL	26.29
7	U S	NICKEL	17.50
8	AUSTRALIA	NICKEL	13.91
9	RWANDA	PYRETHRUM	11.74
10	SPAIN	FLUORSPAR ACID	10.63
11	EAST AFRICA	FLUORSPAR ACID	7.31
12	ITALY	FLUORSPAR ACID	6.91
13	U S	FLUORSPAR ACID	5.70
14	DOM. REPUB.	NICKEL	5.00
15	FINLAND	COBALT	4.01
16	THAILAND	FLUORSPAR ACID	3.38
17	INDONESIA	NICKEL	2.76
18	PHILIPPINES	NICKEL	2.76
19	USSR	NICKEL	2.70
20	AUSTRALIA	COBALT	2.48
21	U S	COBALT	2.28
22	CANADA	COBALT	2.17
23	BOTSWANNA	COBALT	2.00
24	UK	PYRETHRUM	1.88
25	MOROCCO	COBALT	1.71
26	NEW CALEDONIA	COBALT	1.55
27	GUATAMALA	NICKEL	1.33
28	AUSTRALIA	PYRETHRUM	0.55
29	PHILIPPINES	COBALT	0.31
30	FINLAND	NICKEL	0.26
31	GREECE	NICKEL	0.16
32	YUGOSLAVIA	NICKEL	0.13
33	NETHERLANDS	NICKEL	0.05
34	FRG	NICKEL	0.03
35	MALAYSIA	TIN	0.00
36	PRC	TIN	0.00
37	BRAZIL	TIN	0.00
38	BOLIVIA	TIN	0.00
39	UK	TIN	0.00
40	INDONESIA	TIN	0.00
41	THAILAND	TIN	0.00
42	U S	TIN	0.00
43	AUSTRALIA	TIN	0.00

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