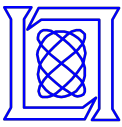




# Central Africa

- **Current Threat Conditions**
- **U.S. National Security Objectives**
  - CINC Operational Objectives
- **IPB Overview**
  - Battlespace Environment
  - Impacts on the Battlespace Environment
  - Tactics, Techniques, Procedures Analysis
  - Opposition Course of Action Analysis
- **Blue Force Course of Action Analysis**
  - Force Structure
  - Force Employment

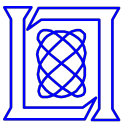


# Central Africa – Today



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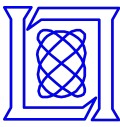
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# Current Threat



- The D.R.C. is a lawless land unable to capitalize on its huge store of valuable natural resources
  - Years of conflict have left the D.R.C. in economic turmoil and incapable of assembling the resources necessary to control its borders or the multiple factions inside the country

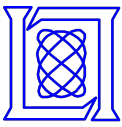


# Current Threat



*Democratic  
Republic  
of Congo*

- Strapped for the cash needed to deal with their enemies, D.R.C. has shown a willingness to deal with rouge nations & terrorist organizations
- D.R.C. has been the object of terror states and organizations to obtain nuclear materials for “dirty bombs” and fissionable material to generate WMD



# Nuclear Fuel Cycle - 101

## Mining

Uranium Dioxide Ore ( $UO_2$ )

## Milling

Uranium Oxide ( $U_3O_8$ ) – Yellow cake

## Conversion

Uranium Hexafluoride ( $UF_6$ ) - Gas

## Enrichment

Enriched  $UF_6$  ( $EUF_6$ ) - Gas

## Fabrication

High or Low Enriched Uranium Dioxide (HEU or LEU) in the form of fuel pellets & rods

Power/Research Reactors



Weapons Grade Production

Recovered Uranium

Recycling

Spent Fuel Storage

Permanent Waste Storage



WMD



Plutonium

Plutonium



# Vulnerability of the Nuclear Fuel Cycle

**Mining**

Uranium Dioxide Ore ( $UO_2$ )

**Milling**

Uranium Oxide ( $U_3O_8$ ) – Yellow cake

**Conversion**

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Permanent Waste Storage



WMD



Plutonium



Weapons Grade Production

Recovered Uranium

Recycling

- Nuclear material for “dirty bombs”
- Fissionable material for a simple 10kt – 250kt plus nuclear weapon



# D.R.C. Link with the Nuclear Fuel Cycle

**Mining**

Uranium Dioxide Ore ( $UO_2$ )

**Milling**

Uranium Oxide ( $U_3O_8$ ) – Yellow cake

**Conversion**

Uranium Hexafluoride ( $UF_6$ ) - Gas

**Enrichment**

Enriched  $UF_6$  ( $EUF_6$ ) - Gas

**Fabrication**

High or Low Enriched Uranium Dioxide (HEU or LEU) in the form of fuel pellets & rods

Power/Research Reactors

Spent Fuel Storage

Recycling

Recovered Uranium

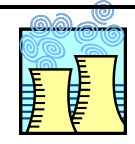
Permanent Waste Storage

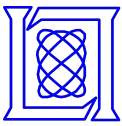
WMD

Plutonium

Weapons Grade Production

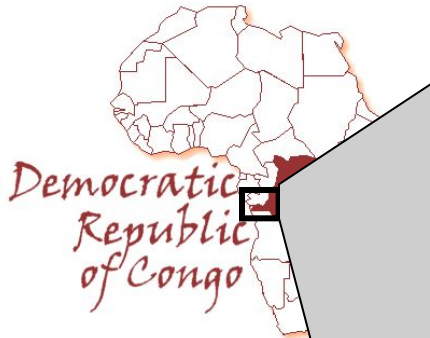
- Nuclear material for “dirty bombs”
- Fissionable material for a simple 10kt – 250kt plus nuclear weapon
- D.R.C.’s link to the fuel cycle





# Current Threat – Fissionable Material

## University of Kinshasa Nuclear Research Reactor CONGO



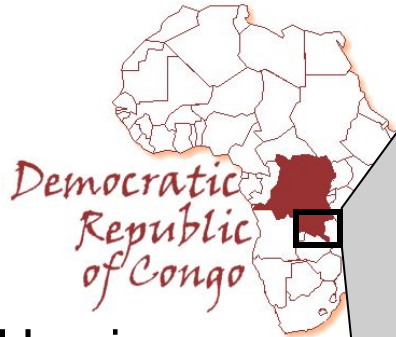
- Built in 1959 via President Eisenhower's "Atoms for Peace" program
- Refurbished in 1972 and uses HEU fuel rods



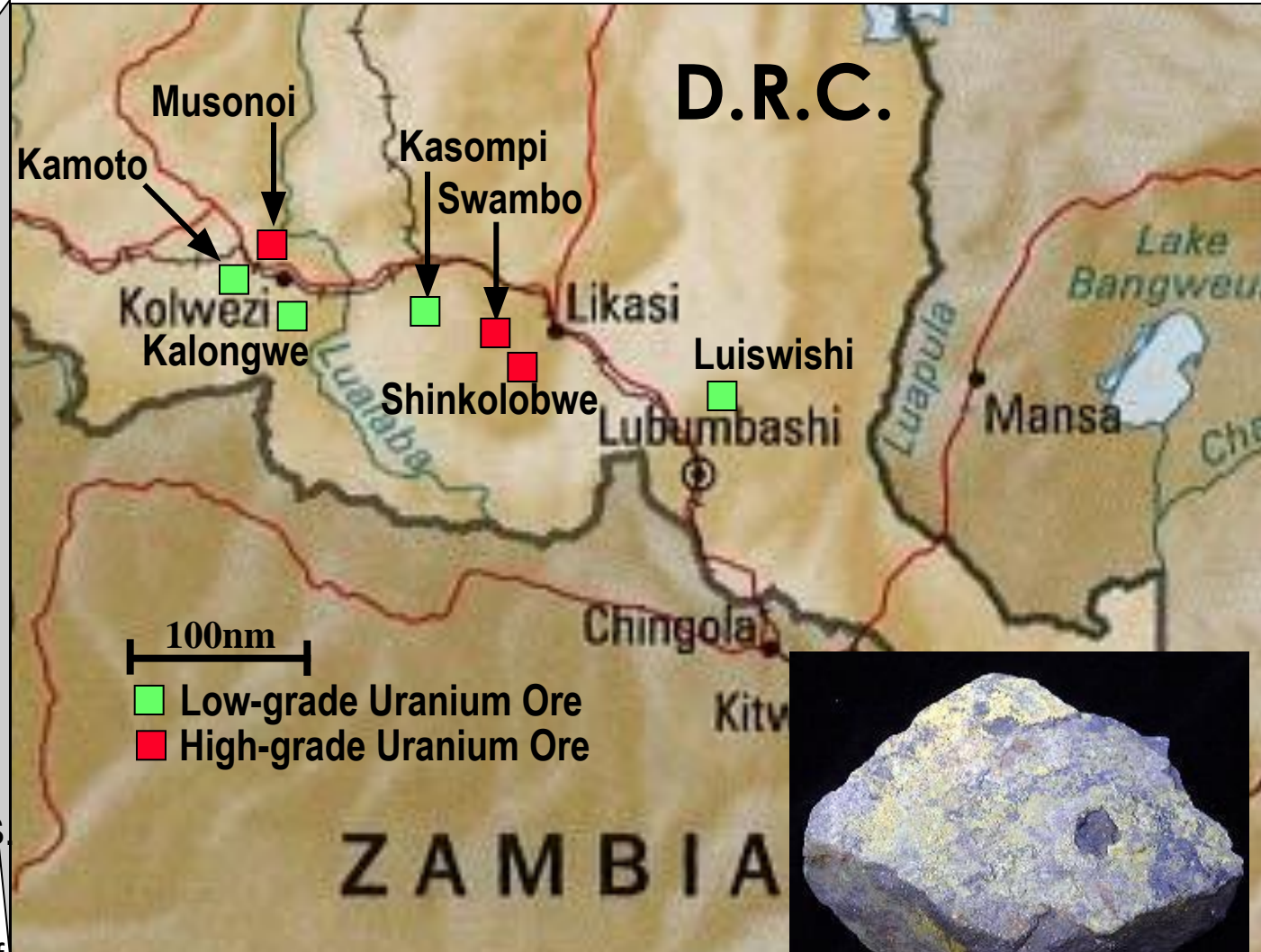


# Current Threat – Nuclear Material

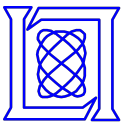
## D.R.C. Uranium Mines



Democratic  
Republic  
of Congo

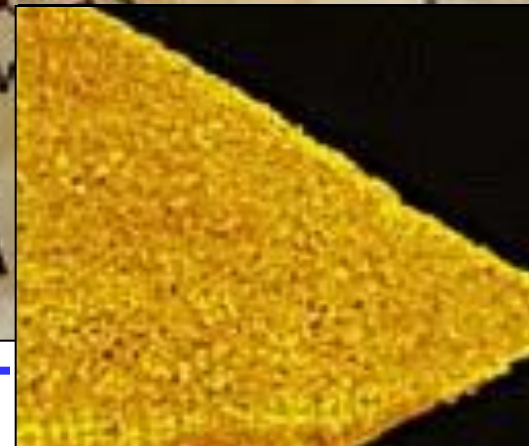
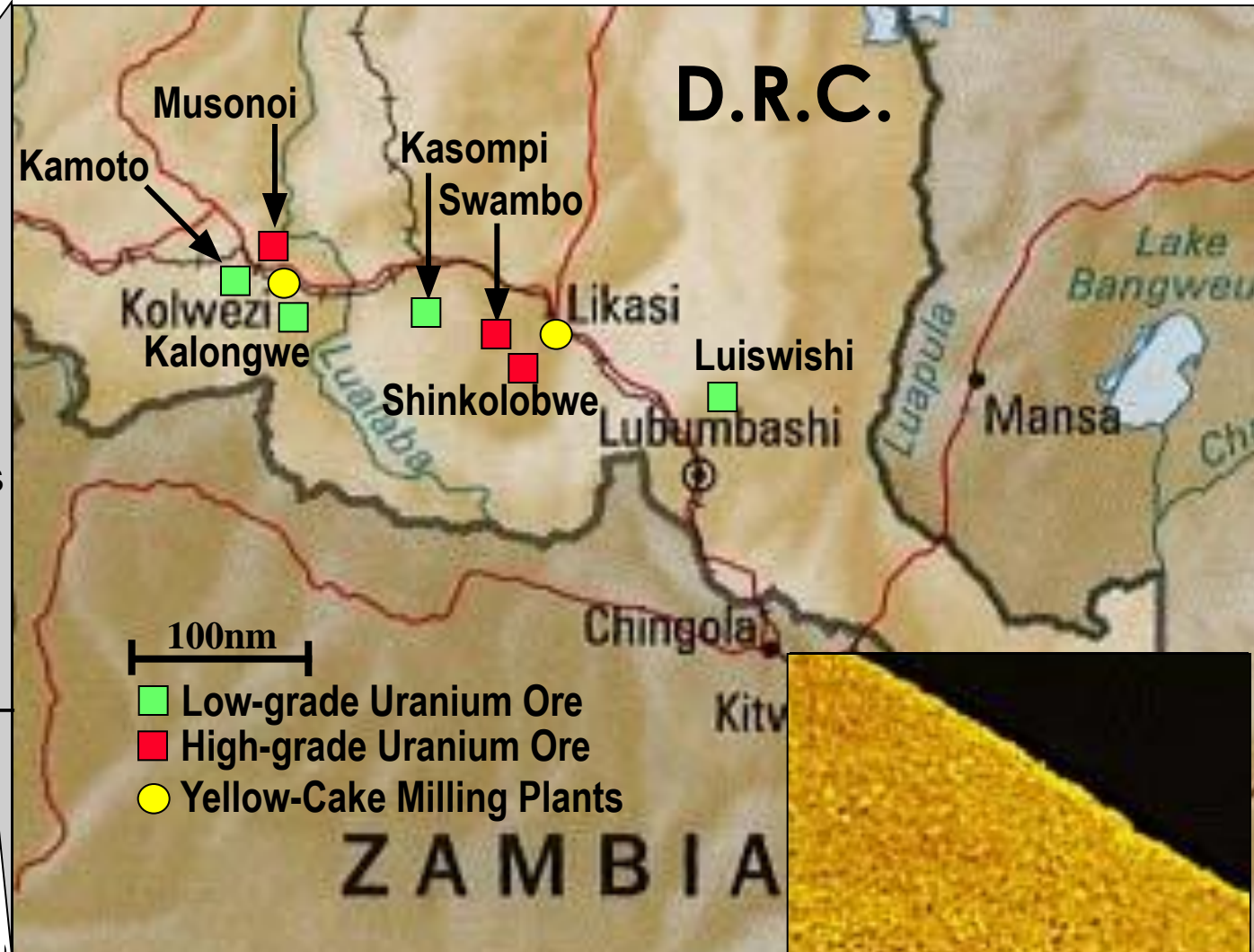
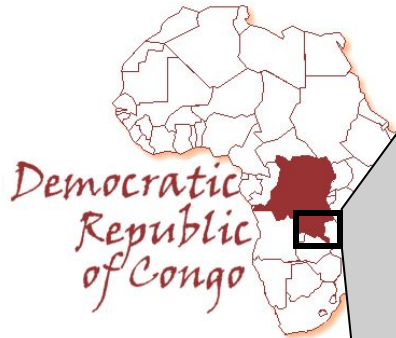


- Uranium Dioxide ( $UO_2$ )
  - 1 ton of ore contains 0.6% uranium
- Mines closed or converting to Copper or Cobalt
  - Shinkolobwe Mine has rich vein of  $UO_2$ 
    - Supplied U.S. ore for our first generation of nuclear weapons

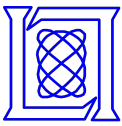


# Current Threat – Nuclear Material

## D.R.C. Uranium Mines



- Uranium Oxide ( $U_3O_8$ ) – Yellow Cake
  - Milling process takes place close to the mine
  - Yellow cake contains 60% 85% uranium
- $U_3O_8$  milling was done at Kolwezi and Likasi



# Current Threat – Nuclear Materials Trafficking

- Two HEU fuel rods stolen in 1998
  - Rods recovered in Italy with 13 Italian mafia arrested trying to sell material to Mid-east agents
- U.S. negotiations w/ D.R.C. for the return of all HEU fuel rods have been unsuccessful

- Kenya detains 5 Iraqis traveling on Indian passports trying to get to D.R.C. in 2001

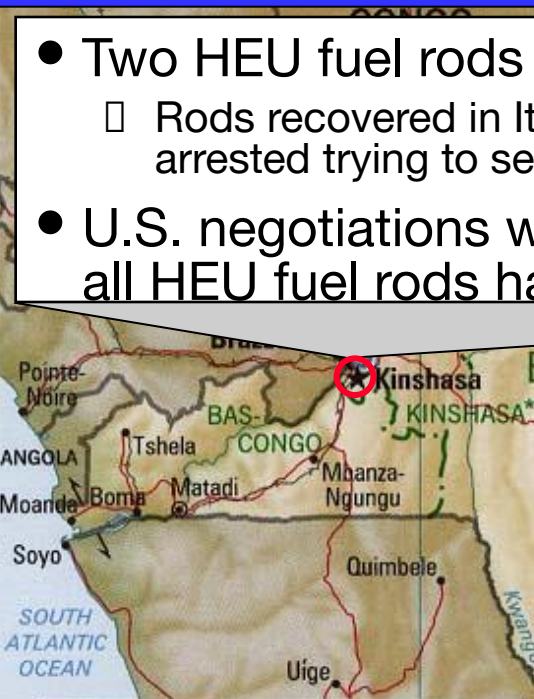
- Tanzania seizes 5 containers of yellow-cake in Kigoma in Feb

- Tanzania seizes 110kg of yellow cake in Sumbawanga in Nov '02

- North Korean mine engineers & military training cadre caught in the Katanga mine region in 1999

- Exchanging military training for access to D.R.C.'s high-grade uranium mines

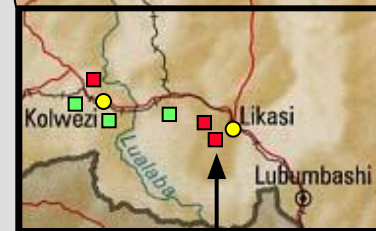
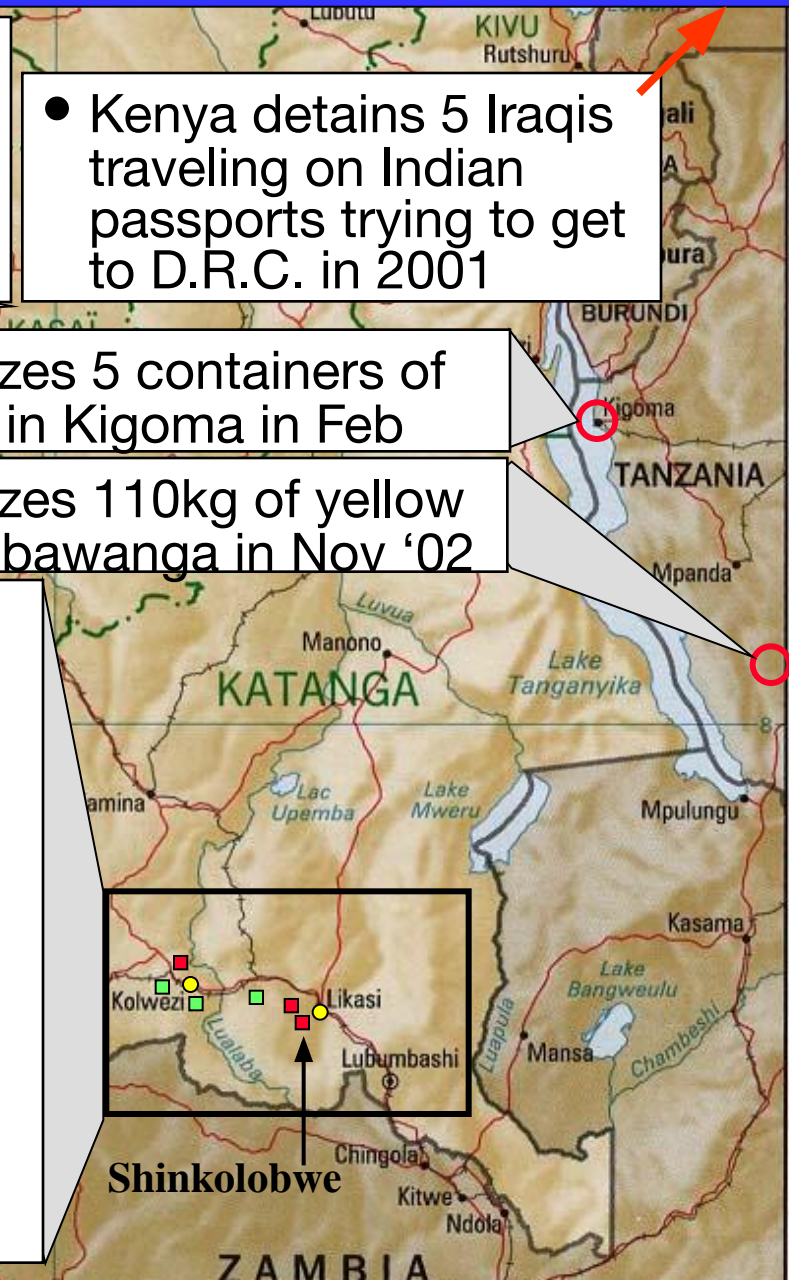
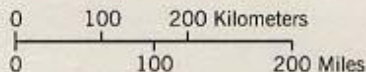
- Diplomatic pressure on D.R.C. resulted in North Korea's departure in 2000



## Democratic Republic of the Congo

- International boundary
- - - Province boundary
- ★ National capital
- ⊙ Province capital
- +—+ Railroad
- Road

\*Kinshasa (Ville de Kinshasa) has status equal to that of a province.



Shinkolobwe



# Current Intelligence



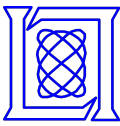
● A CIA electronic surveillance in the Gecamines building (the D.R.C. state mining company) in Lubumbashi captured the following:

– Le gâteau a été payé. Préparer le chargement. Le cobalt va dans trois semaines.

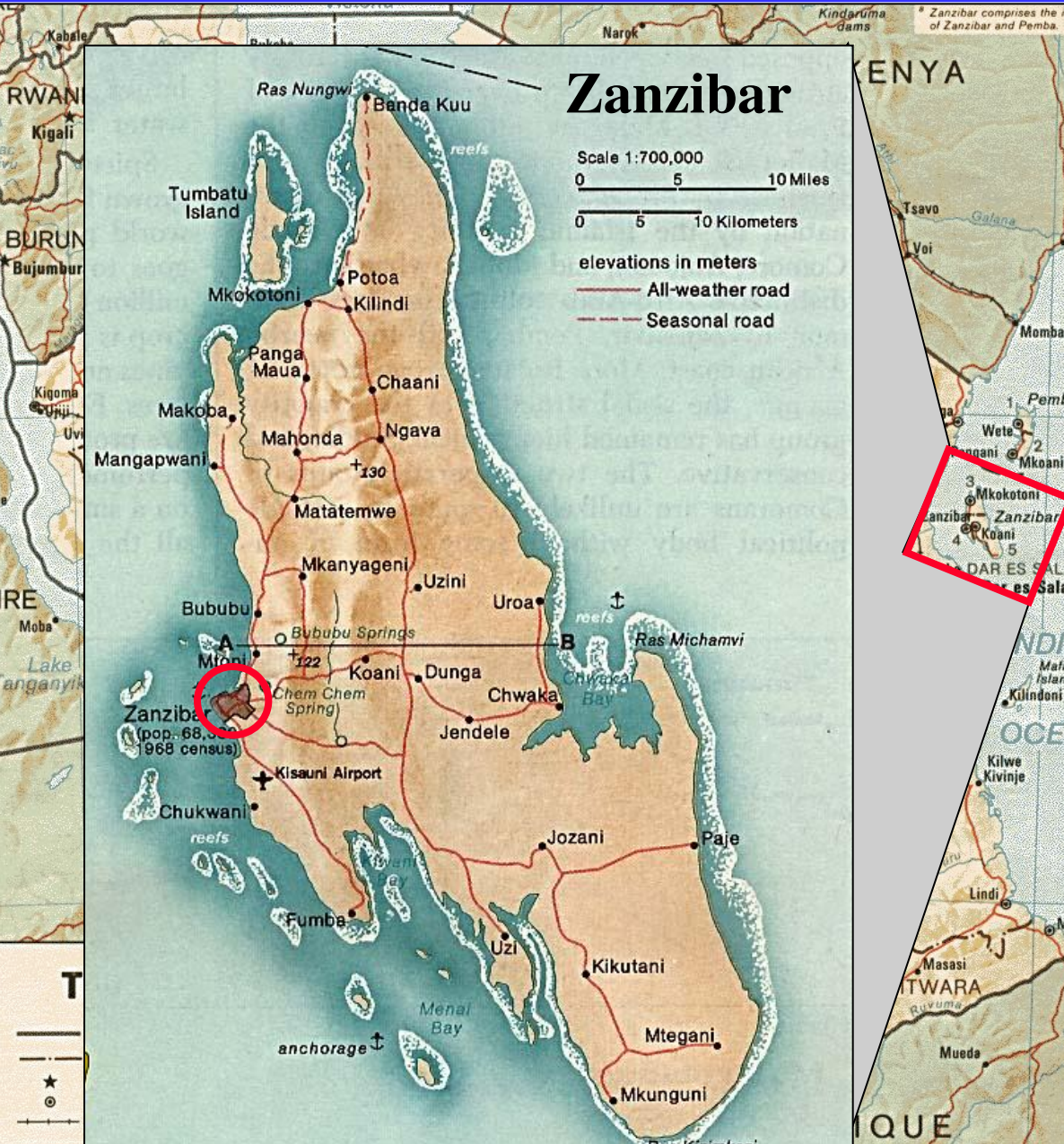
Translation:

– The cake has been paid for. Prepare the shipment. The cobalt goes in three weeks.

● DTG: 171740ZApr03



# Current Intelligence



- The CIA in Zanzibar, Tanzania tracking elements of Al Qaeda have intercepted communications indicating a “priority shipment” is imminent
- The intercept defined the shipment as:
  - “...key to the Jihad”
  - “...will cripple the eagle”
  - “...send the team in
- The call was traced to Zanzibar City
- DTG: 171830ZApr03



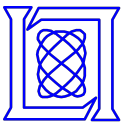
# Summary of the NSC Situation Brief

- Cumulative CIA evidence suggests Al Qaeda is working directly with Gecamines and the D.R.C. government to acquire yellow-cake from the Katanga mine region
  - The shipment will depart the mine region in three weeks
    - Exact location of the yellow-cake is unknown
  - How the yellow-cake will be shipped is tentative
    - Possibly buried in a shipment of Cobalt already scheduled for export
  - The destination of the yellow-cake is unknown
    - An Al Qaeda cell in Zanzibar is involved



# Summary of the NSC Situation Brief (2)

- CIA proposes a black operation to:
  - Find the yellow-cake prior to shipment
  - Track the shipment to its final destination
  - Identify and maintain surveillance on the members of the Al Qaeda network and the D.R.C. government linked with the smuggling operation
  - At the designated time, pick-up the Al Qaeda operatives and responsible D.R.C. government officials, and
  - Seize the yellow-cake
- CIA proposes SOCOM lead operation with CIA operatives providing additional in-country support



# Summary of the NSC Situation Brief (3)

- The President agreed with the CIA proposal and made the following decisions:
  - The operation will be covert
  - Diplomatic coordination will be made only with the host nation(s) needed to help position and provide support to our assets on the ground
    - **Eritrea, Ethiopia, and Uganda** were the only African nations that publicly endorsed the U.S. war against Iraq and may be willing to support a black operation
    - **Tanzania and Kenya** should be considered as allies as they have stymied other yellow-cake shipments, and are struggling with Muslim extremists in their countries
    - Zambia, pinched between Angola and Zimbabwe who have lent military forces to defend D.R.C., can not be seen by their neighbors as openly working against D.R.C.





# Summary of the NSC Situation Brief (4)

- The President's decisions continued:
  - SOCOM will assume operational command of all forces used for this operation...“Operation Cakewalk”
  - CENTCOM, EUCOM, USCINCPAC, USSTRATCOM, and USTRANSCOM will be supporting commands
  - In addition, the President has directed simultaneous contingency planning for an assault on the Kinshasa Nuclear Research reactor
    - The objective is to determine the operational feasibility and identify the resources required to seize and transport the HEU fuel rods out of D.R.C. where the fissionable material can be controlled
    - The planning effort is named “Operation Hot Rod” and maybe executed in conjunction with seizing Al Qaeda and D.R.C. operatives under Operation Cakewalk



# National Objectives

- The President's stated the following national objectives for Operation Cakewalk:
  - Ensure nation states and terror organizations located in Central and East Africa are unable to threaten the U.S. or our allies with weapons of mass destruction
    - Stop the on-going, illicit trafficking of nuclear materials materials within D.R.C.
    - Improve the safety of the U.S., our allies, and the world by securing the fissionable materials in D.R.C.
    - Improve the stability of Central and East African nations by removing terrorist organizations and subversive government agents bent on obtaining and using weapons of mass destruction



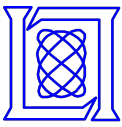
# CINC Objectives

- Find, track, and stop D.R.C. shipment(s) of nuclear materials (yellow-cake )
- Identify the terrorist and nation state network illicitly trafficking nuclear materials from D.R.C.
- Capture or otherwise neutralize this trafficking network
  - Includes D.R.C. Government officials involved in supplying and providing cover for the trafficking of nuclear material
  - Includes middle men and members of terrorists organizations that support the trafficking of nuclear materials and the development of WMD
- Place U.S. forces in a position that leads D.R.C. to peacefully turn over the fissionable fuel rods from the Kinshasa reactor or have them removed by force

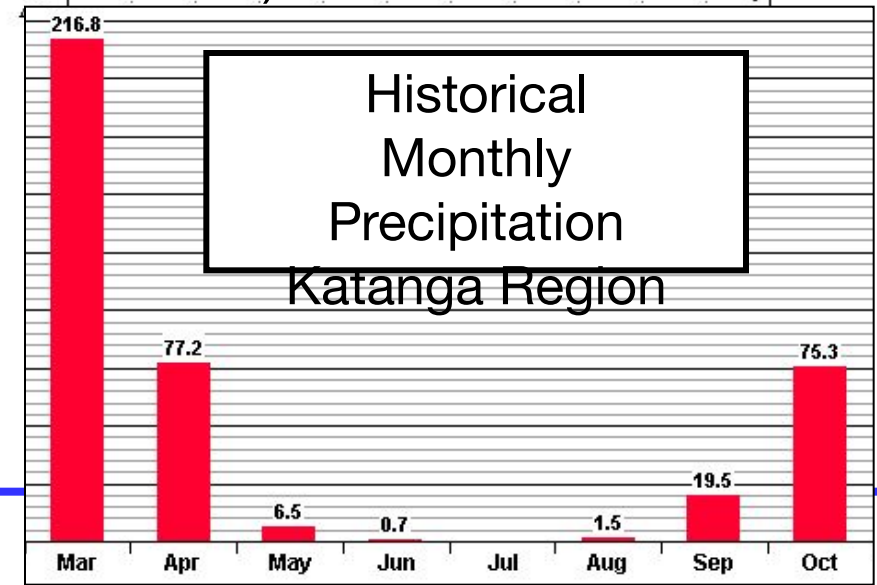
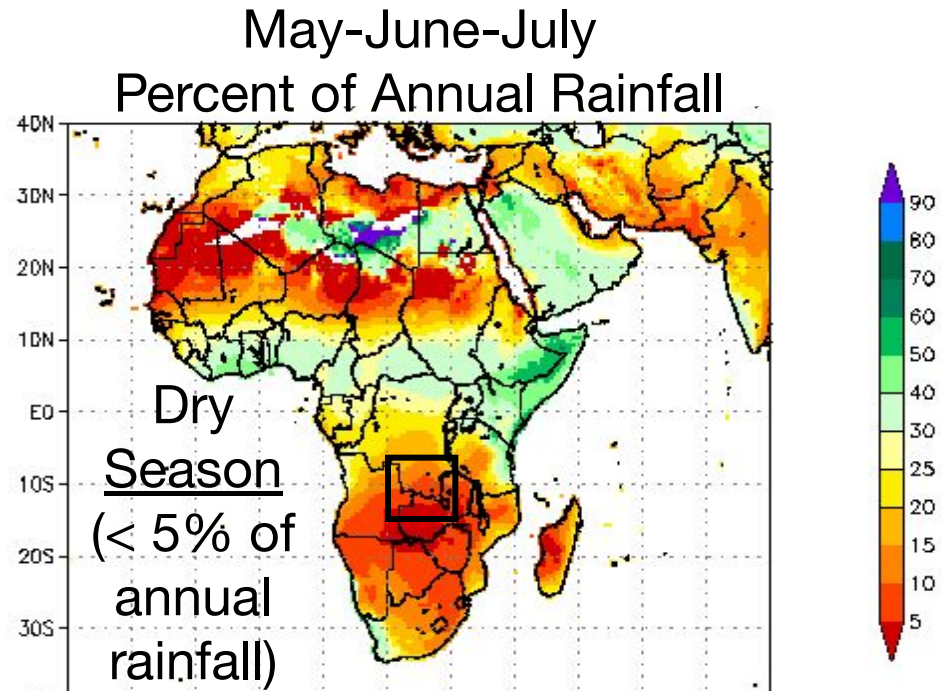
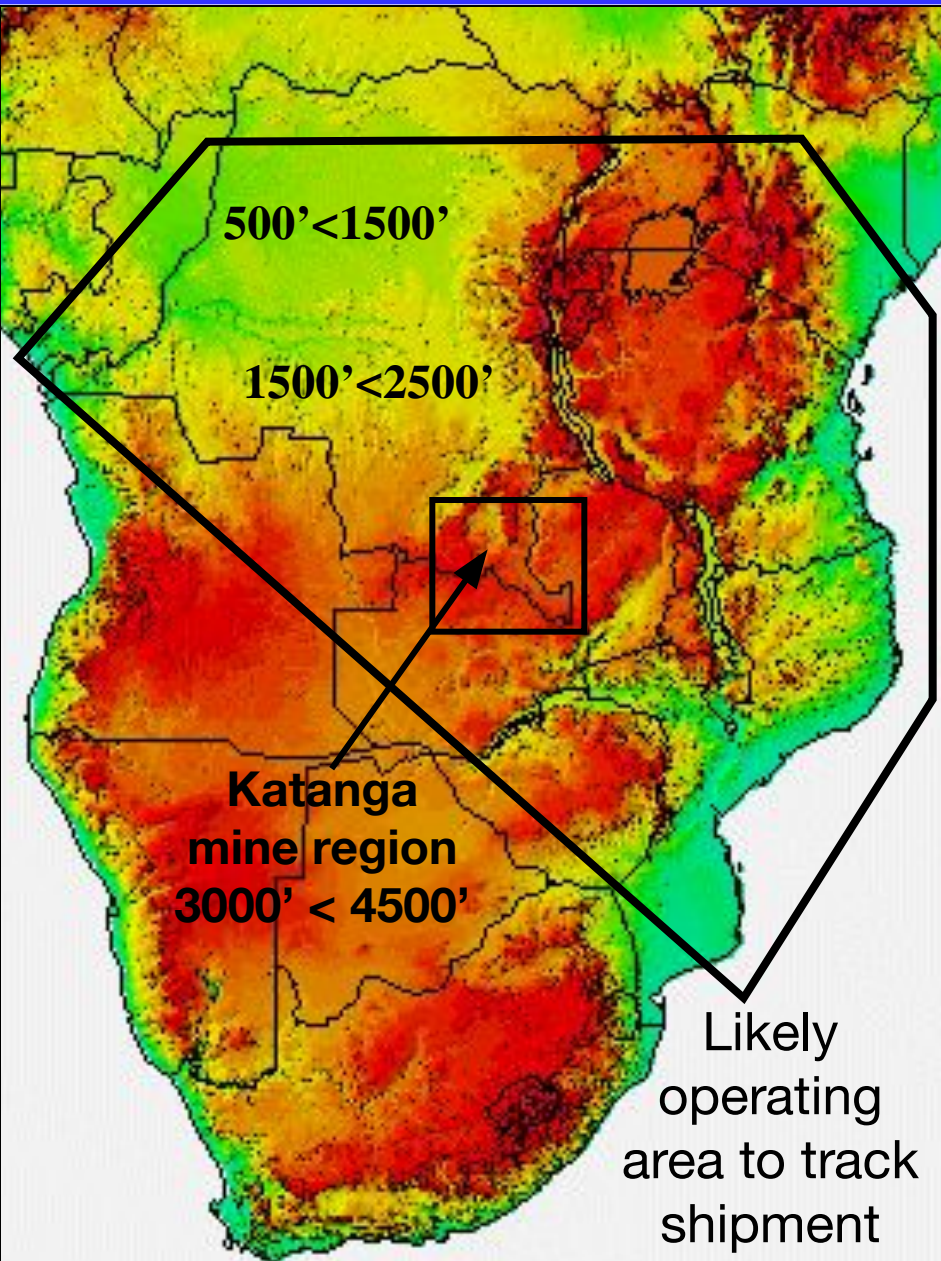


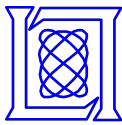
# Operation Cakewalk – IPB

- Define the Environment
  - Terrain, weather, infrastructure, demographics
  - History, political relationships, economics
- Evaluate Tactics, Techniques, & Procedures (TTP)
  - Gecamines mining and product delivery practices
  - Kinshasa Nuclear Research Reactor operations
  - Al Qaeda cell operating techniques
- Assess Environment Impacts on TTP
- Anticipated Opposition COAs

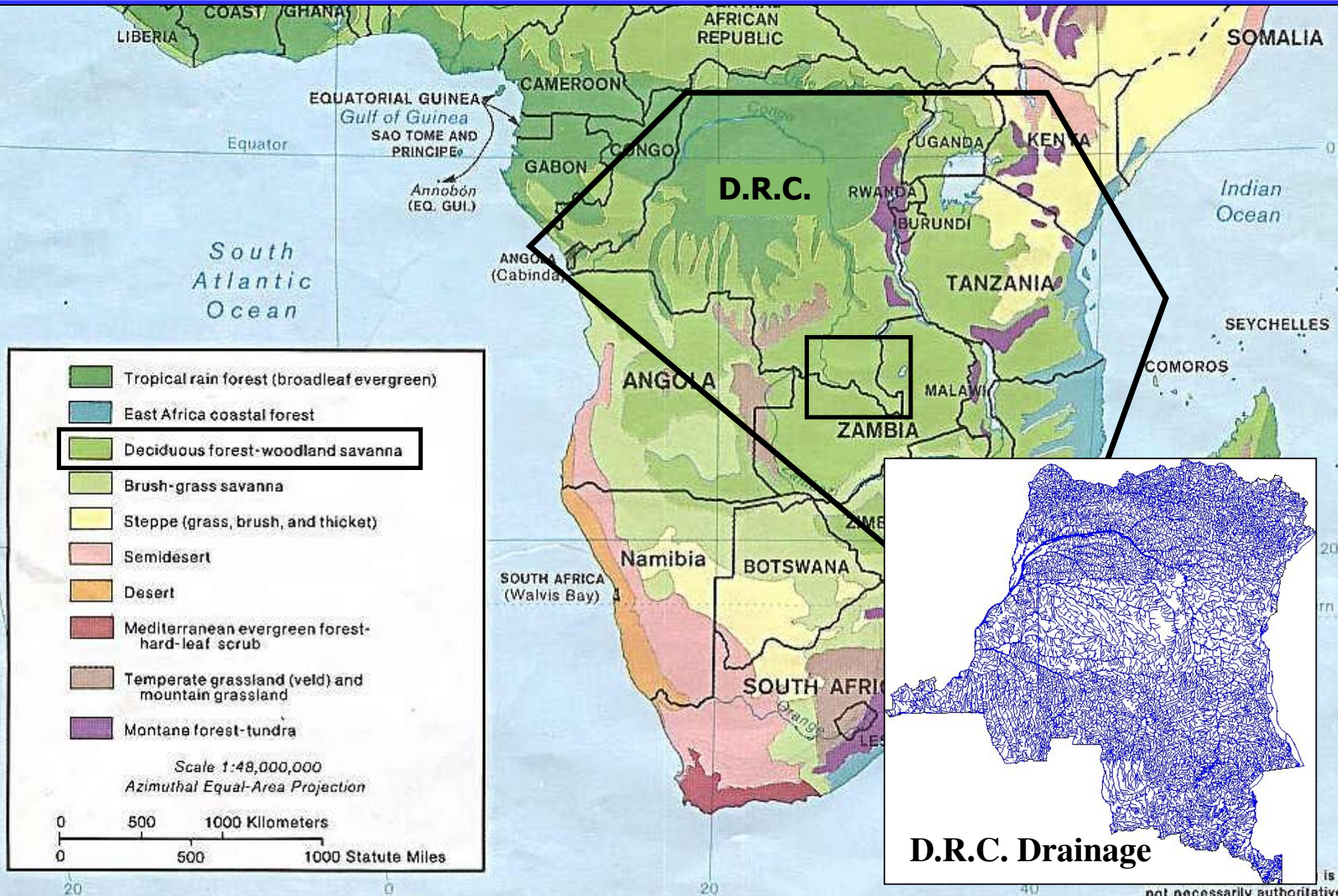


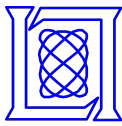
# Southern Africa – Terrain & Weather



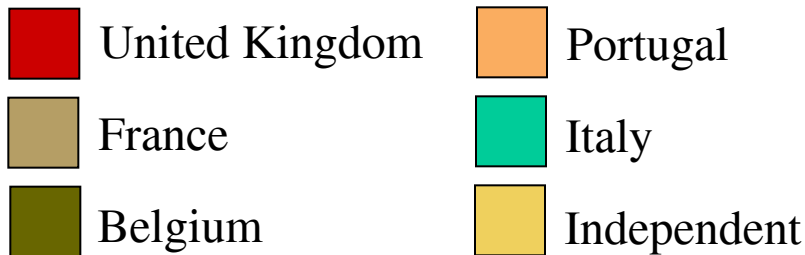
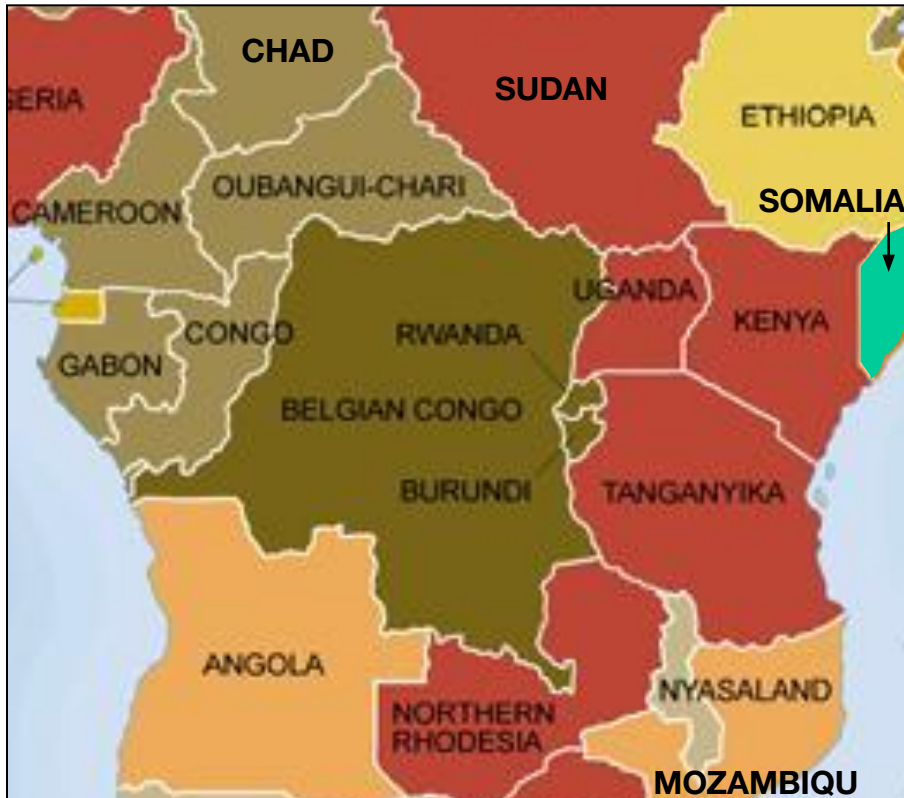


# Southern Africa - Vegetation

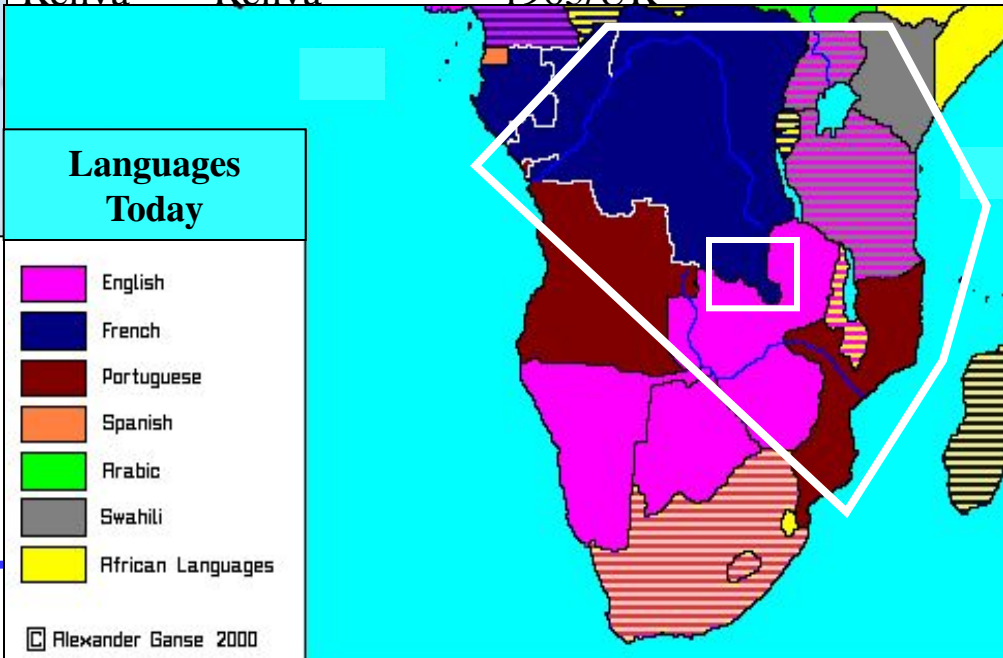


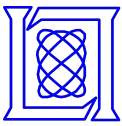


# Central Africa – Colonization/Languages

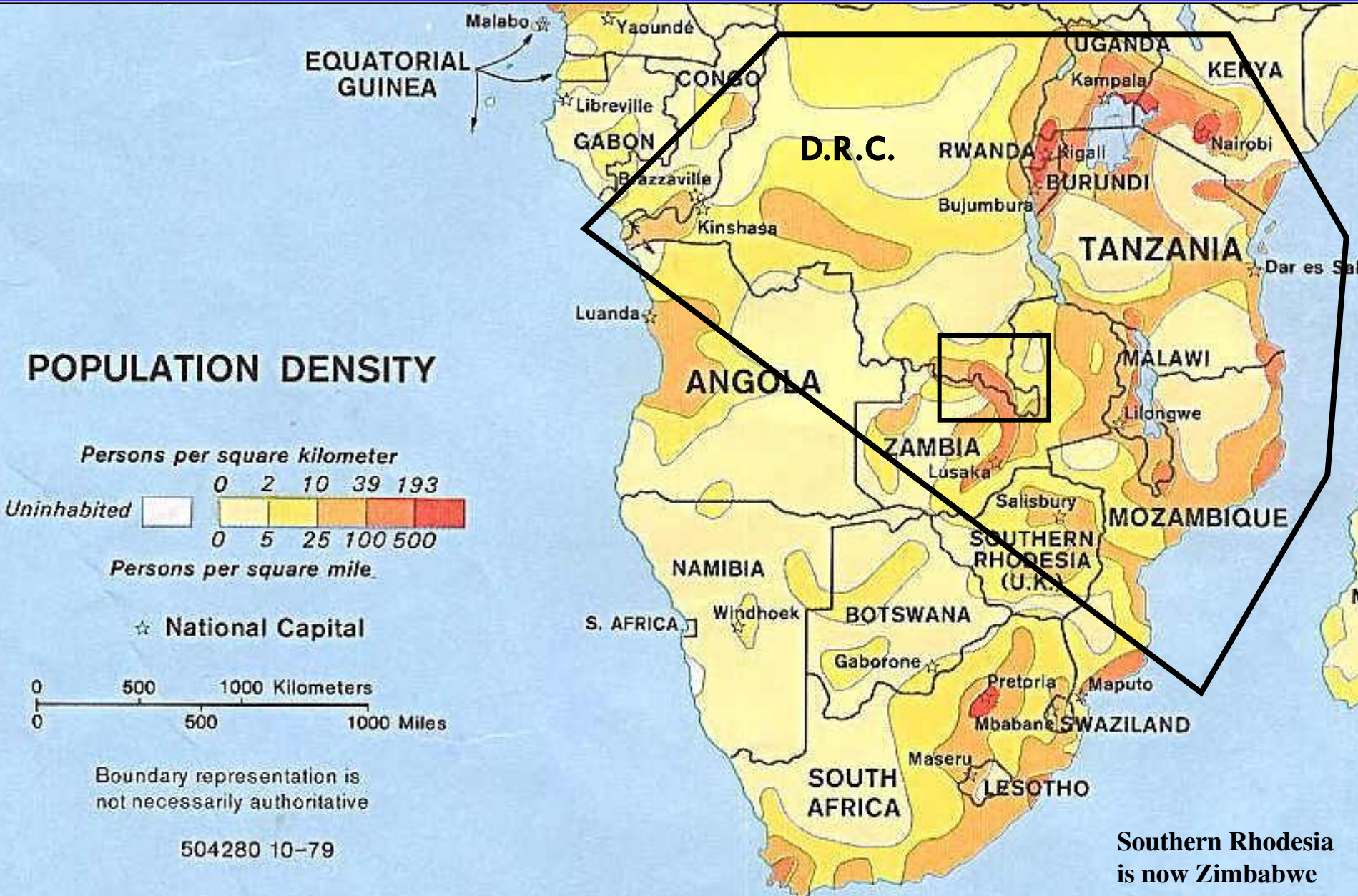


<u>Colonial Name</u>	<u>Current Name</u>	<u>Independence</u>
Ougangui-Chari Republic	Central African Republic	1960/FRA
Sudan	Sudan	1956/UK
Somalia	Somalia	1960/ITA
Congo	Congo	1960/FRA
Belgian Congo	Democratic Republic of Congo	1965/BEL
Uganda	Uganda	1962/UK
Rwanda	Rwanda	1962/BEL
Burundi	Burundi	1962/BEL
Kenya	Kenya	1963/UK





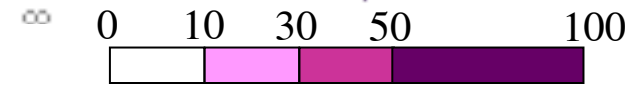
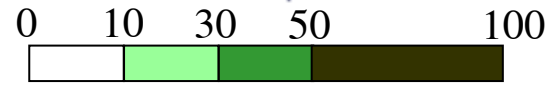
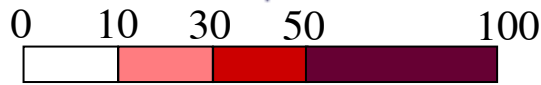
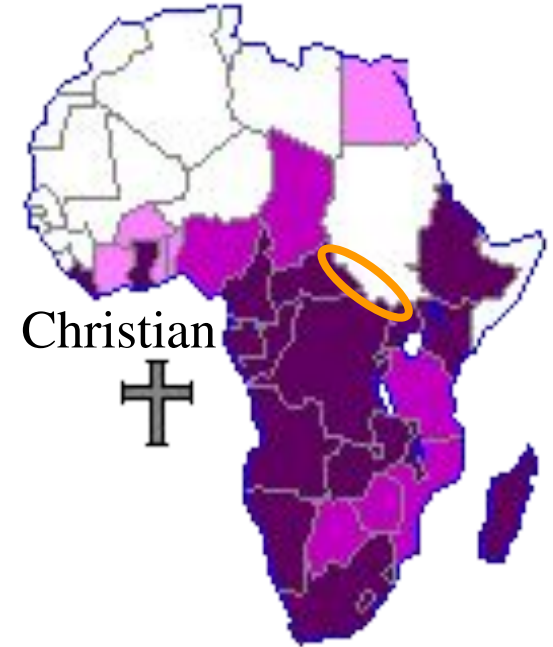
# Southern Africa – Population Density



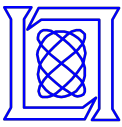




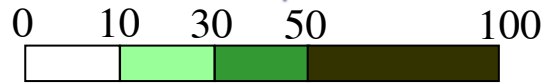
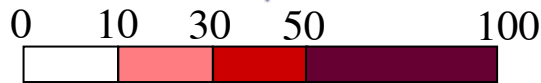
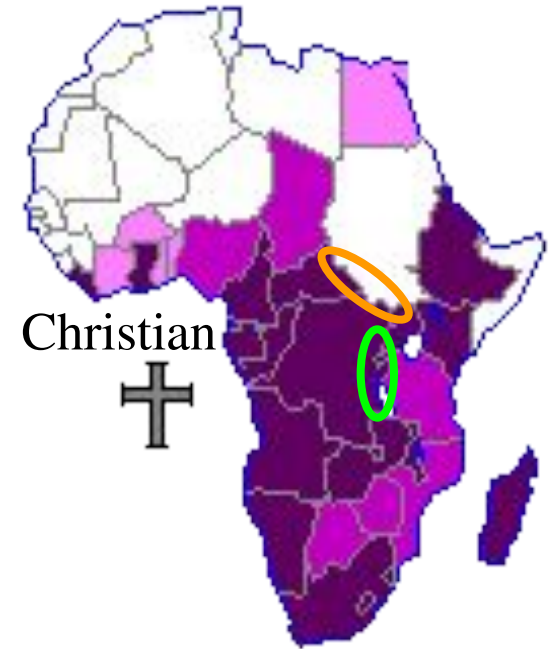
# Religions of Central Africa



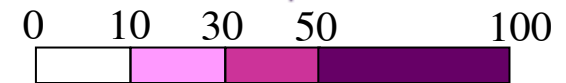
- Sudan's border with C.A.R., D.C.R., and Uganda represents a sharp divide between the density of Muslim and Christian people



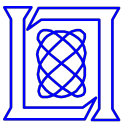
# Religions of Central Africa



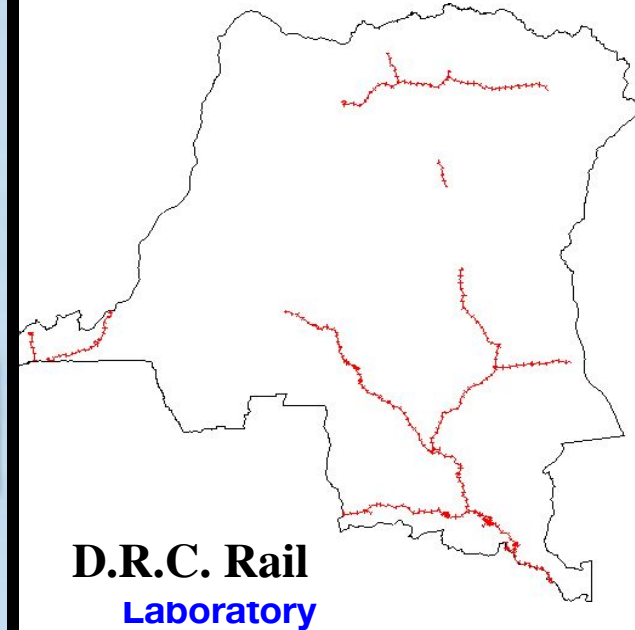
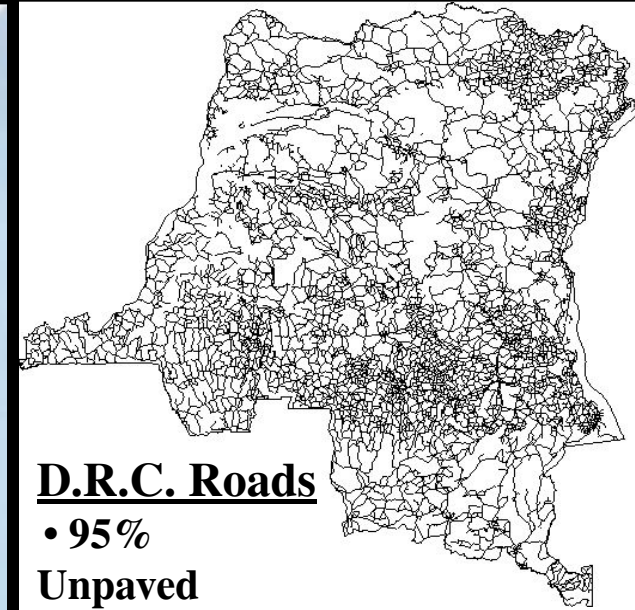
Matthew White

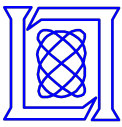


- Sudan's border with C.A.R., D.C.R., and Uganda represents a sharp divide between the density of Muslim and Christian people
- Tanzania is divided into religious sectors with traditional African religions dominating the west, Christians in the center, and Muslims along the coast
  - D.R.C.'s eastern border with Tanzania, and to a lesser extent with, Uganda, Rwanda, and Burundi, represents a significant divide between the density of Christians and traditional African religions



# Southern Africa – Infrastructure





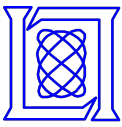
# Central Africa – Regional Conflict



## Sudan vs SPLA



The **Sudanese** Government is engaged in a religious conflict with the Sudan People's Liberation Army (SPLA)

- Islam vs SPLA Christians
- SPLA finds refuge across Sudan's borders
- Fighting on going since 1955



# Central Africa – Regional Conflict



-  Sudan vs SPLA
-  C.A.R. vs Rebel Military

The **C.A.R.** government has endured continuous coup attempts

- 1996 – three failed coups
- 1997 – French Foreign Legion pulls out of C.A.R.
- 1998 – U.N. police-keeping force of 1400 maintain order in Bangui, the capital
- 2001 – Two failed coups
- Oct 2002 – U.S. Gov't personnel ordered to leave the country
- No travel outside of capital without armed escort



# Central Africa – Regional Conflict



- Sudan vs SPLA
- C.A.R. vs Rebel Military
- Congo vs Ninja Rebels





The **Congo** has been in various states of civil war since 1993

- The fighting is along ethnic/tribal lines and has left over 800,000 homeless
- Ninja rebels have closed the Ubangi River, which forms the northern half of the Congo – D.R.C. border
- U.S. Embassy operations in Brazzaville, Congo were suspended in 2002
  - Functions moved to D.R.C. capital of Kinshasa just across the Congo River



# Central Africa – Regional Conflict



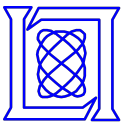
-  Sudan vs SPLA
-  C.A.R. vs Rebel Military
-  Congo vs Ninja Rebels
-  D.R.C.– Safe Haven

**Rwanda's** 4-year civil war between the Tutsi and Hutus tribes ended in 1994

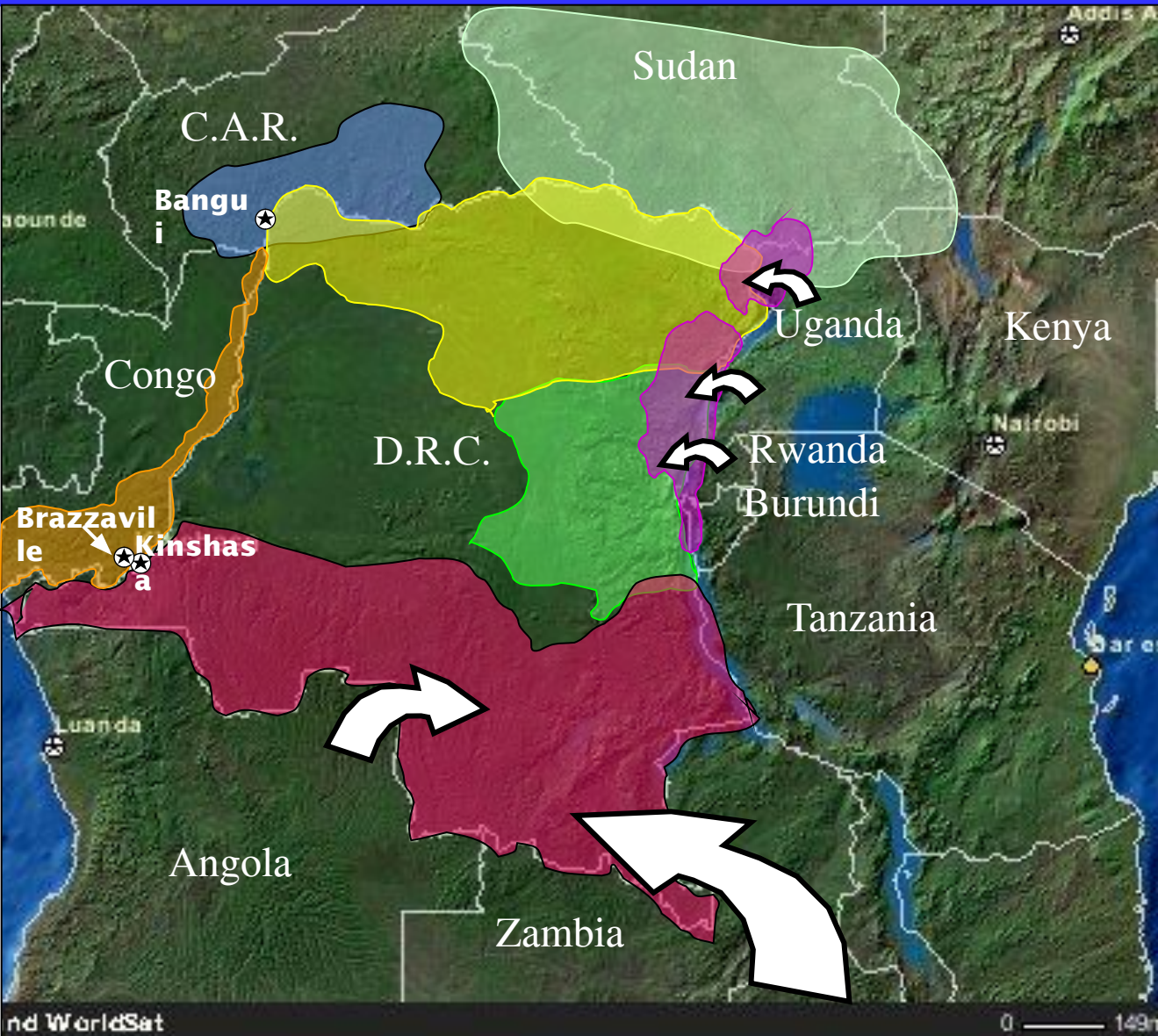
- 1-million dead; 2-million Hutus refugees spilled into D.R.C.
- Hutus rebels (15,000 strong) have been launching attacks against Rwanda from D.R.C. ever since

Over 300,000 **Ugandan** refugees have fled to D.R.C. and include:

- Hutus tribe members and
- Those running from the Lord's Resistance Army (LRA) operating in Sudan and Northern Uganda
  - 100,000 displaced by Ugandan authorities in Oct '02
  - LRA accused of enslaving children after raids



# Central Africa – Regional Conflict



- Sudan vs SPLA
- C.A.R. vs Rebel Military
- Congo vs Ninja Rebels
- DRC – Safe Haven
- DRC vs MLC CRD

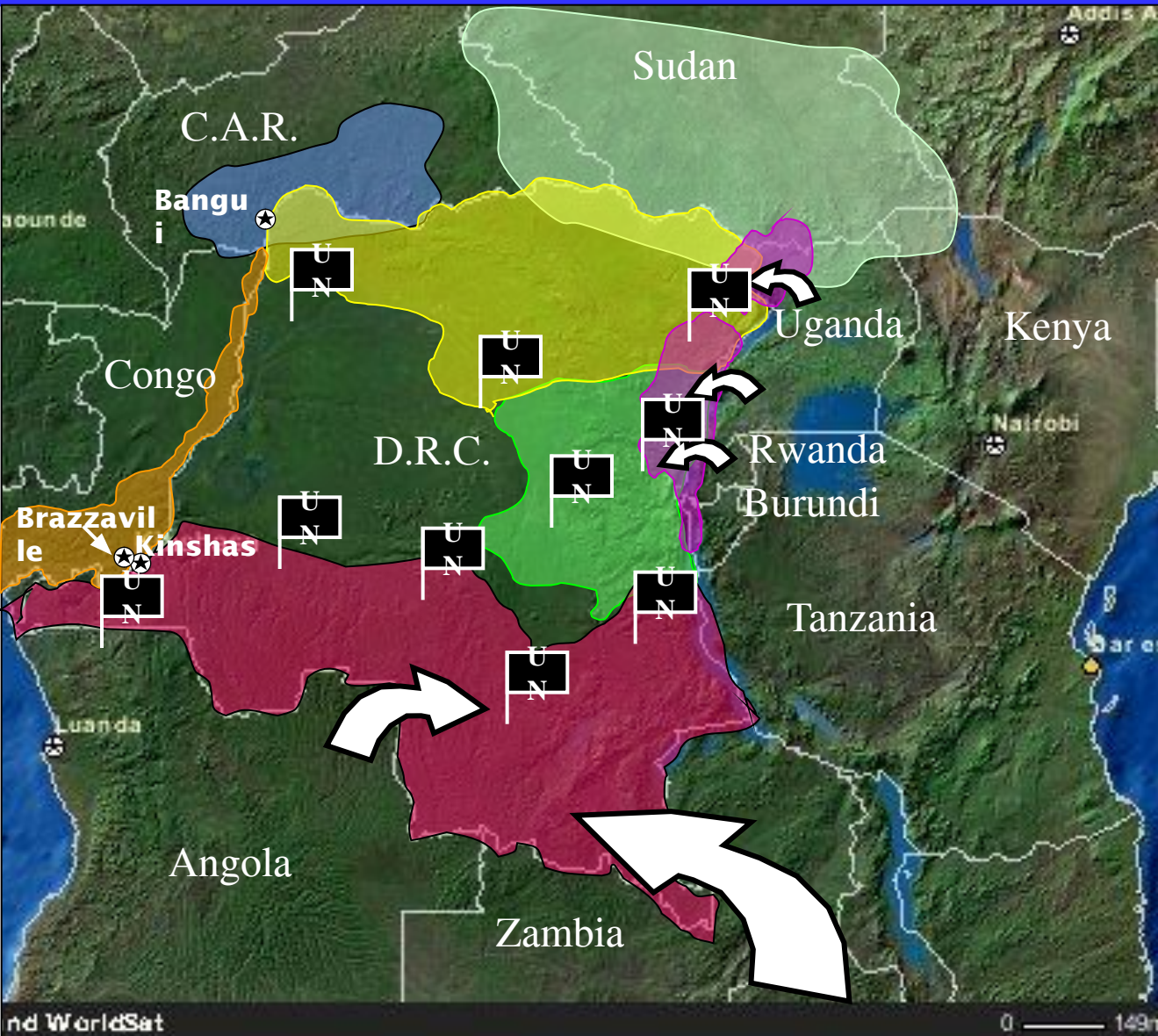
**D.R.C.** has been fending off the Movement for the Liberation of the Congo (**MLC**) and the Congolese Rally for Democracy (**CRD**) since 1997 when Laurent Kabila became President by overthrowing the MLC backed regime









- In 1998 Uganda and Rwanda forces back the MLC & CRD
- Zimbabwe, Angola, & Namibia send troops to prop up the D.R.C. Government
- Jan '01 Laurent Kabila is assassinated and his son Joseph named head of state





# Central Africa – Regional Conflict

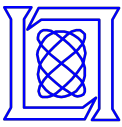


-  Sudan vs SPLA
-  C.A.R. vs Rebel Military
-  Congo vs Ninja Rebels
-  DRC – Safe Haven
-  DRC vs  MLC  CRD
-  U.N. Peace Keepers

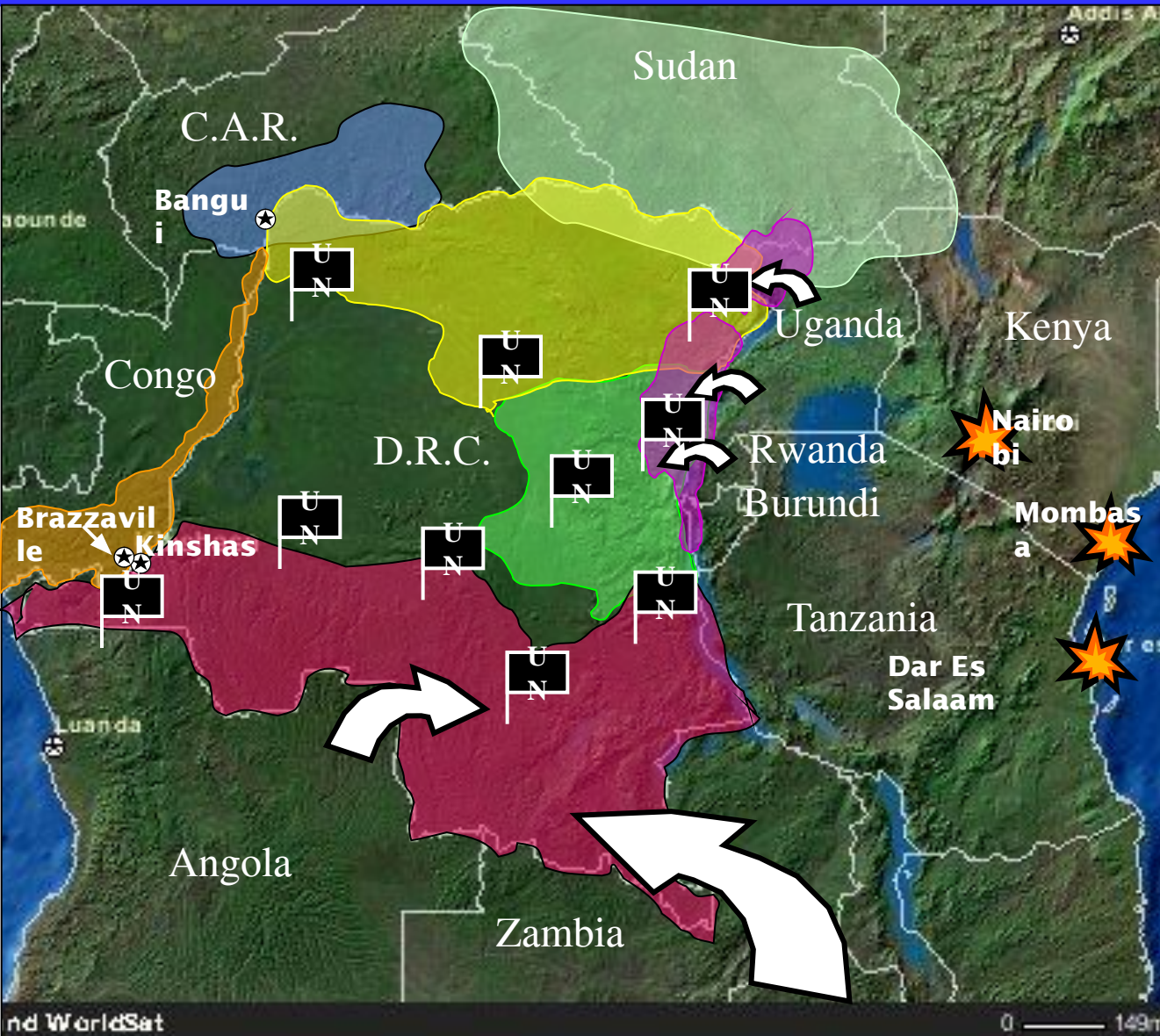
The **United Nations** has over 500 observers and 5,000 peacekeeping troops in D.R.C. since \_\_\_\_\_. Nations providing peacekeepers include:

- 1
- 2
- 3
- 4

While fighting can abruptly appear anywhere in the country, even the capital of Kinshasa, UN personnel tend to monitor the no-man lands between the factions



# Central Africa – Regional Conflict



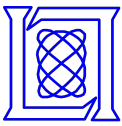
- Sudan vs SPLA
- C.A.R. vs Rebel Military
- Congo vs Ninja Rebels
- DRC – Safe Haven
- DRC vs MLC CRD
- U.N. Peace Keepers
- Terrorist Activity

U.S. Embassy bombings by Al Qaeda operatives in **Dar Es Salaam, Tanzania** and **Nairobi, Kenya**

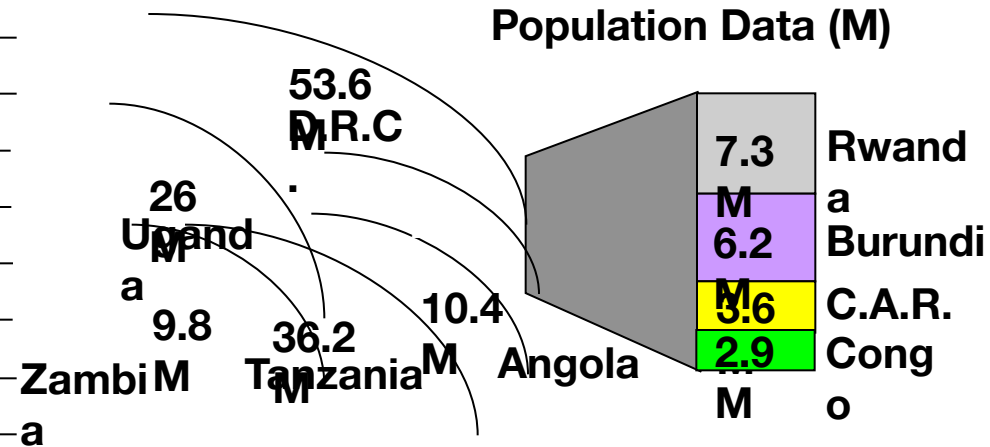
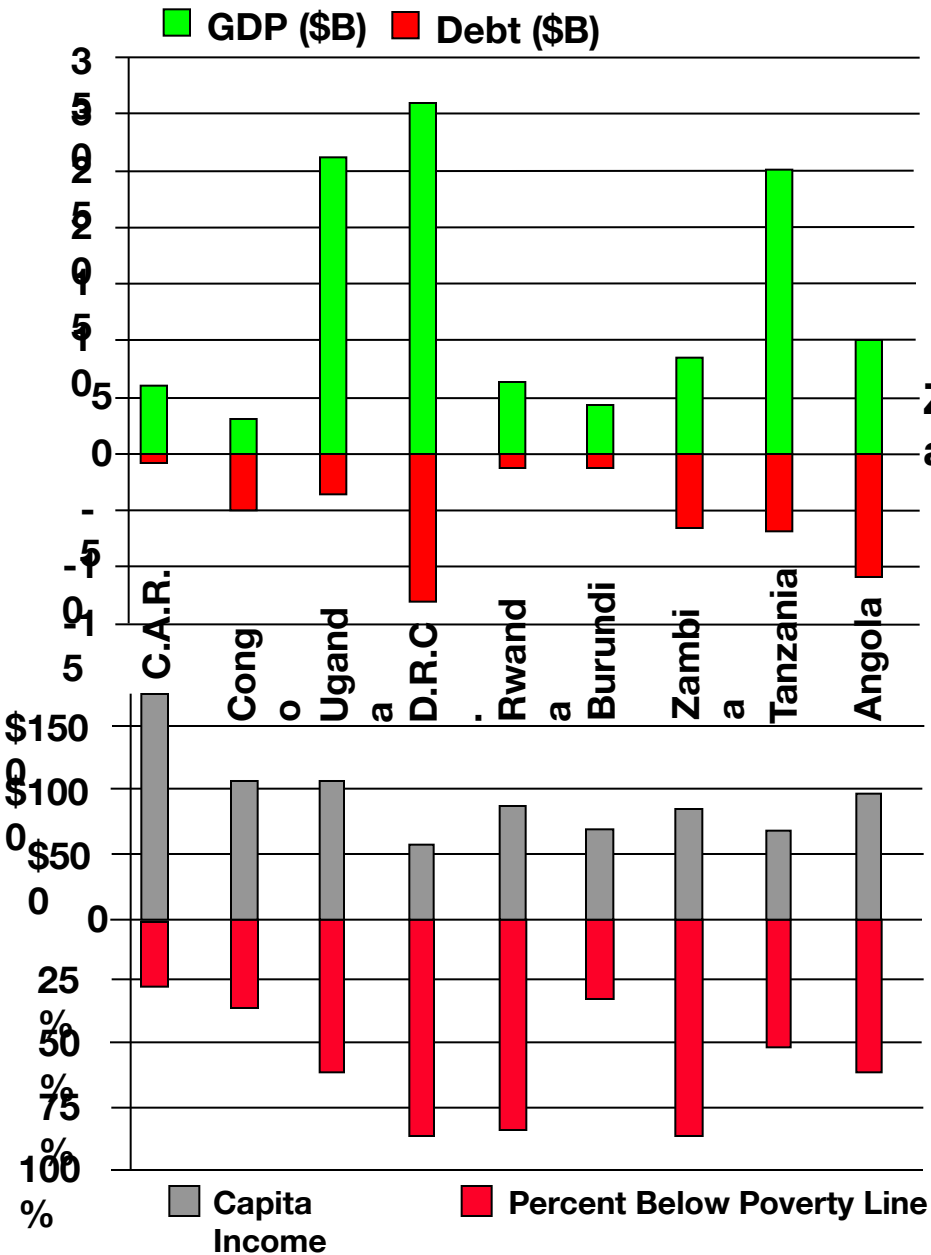
- 250 dead, including twelve Americans
- Over 5,000 injured

Al Qaeda terrorist activity in **Mombasa, Kenya**

- Bombing killed 12 in Nov '02
- Attempted shoot down of Israeli charter aircraft the same day



# Central Africa – Economic Status



- Continuous conflict has made Central Africa one of the poorest regions of the world
- D.R.C. is poorest of the poor:
  - D.R.C. has the largest disparity in the distribution of its wealth
    - Only \$600.00 per capita income/year – 77% of population below poverty line
    - \$31.1B in annual Gross Domestic Product
  - D.R.C. has the highest national debt - \$12.4B



# Opposition TTP

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- To be supplied
  - DRC Mining practices
  - Kinshasa reactor operations
  - Al Qaeda cell practices



# Shipment COA Analysis

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## Shipment Options

- Rail COA
- Road COA
- Rail/Road COA
- Air COA



# Opposition COA Analysis – Rail



Kolwesi To:	Dist (Km)	# Days
Lobito	1450/@	1

@ - Not operational

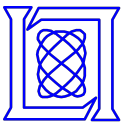


# Opposition COA Analysis – Rail



Kolwesi To:	Dist (Km)/ # Days	Border X-ings
Lobito	1450/@ 1	
Dar es Salaam	2125/4 2	

@ - Not operational



# Opposition COA Analysis – Rail



Kolwesi To:	Dist (Km)/ # Days	Border X-ings
Lobito	1450/@ 1	
Dar es Salaam	2125/4 2	
Mombasa	2315/6*	3

- @ - Not operational
- \* - Requires transload from 1.000m gauge track to 1.067m gauge track



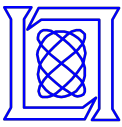


# Opposition COA Analysis – Rail



Kolwesi To:	Dist (Km)/ # Days	Border X-ings
Lobito	1450/@ 1	
Dar es Salaam	2125/4 2	
Mombasa	2315/6*	3
Beira	2459/5 3	

- @ - Not operational
- \* - Requires transload from 1.000m gauge track to 1.067m gauge track

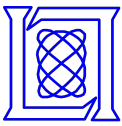


# Opposition COA Analysis – Rail



Kolwesi To:	Dist (Km)/ # Days	Border X-ings
Lobito	1450/@ 1	
Dar es Salaam	2125/4 2	
Mombasa	2315/6*	3
Beira	2459/5 3	
<b>Durban</b>	<b>2936/6 4</b>	

- @ - Not operational
- \* - Requires transload to 1.067 gauge track



# Transportation Options: Rail



Kolwesi To:	Dist (Km)/ # Days	Border X-ings
Lobito	1450/@ 1	
Dar es Salaam	2125/4 2	
Mombasa	2315/6*	3
Beira	2459/5 3	
Durban	2936/6 4	
<b>Cape Town</b>	<b>3611/7</b>	<b>4</b>

- @ - Not operational
- \* - Requires transload to 1.067 gauge track

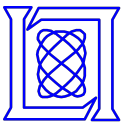


# Transportation Options: Rail

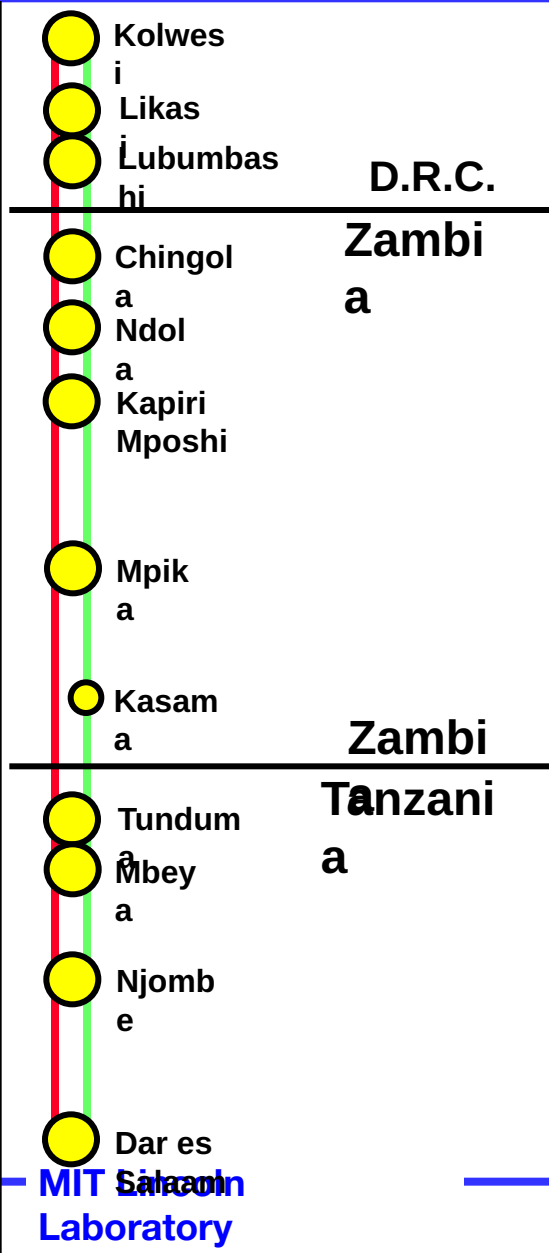
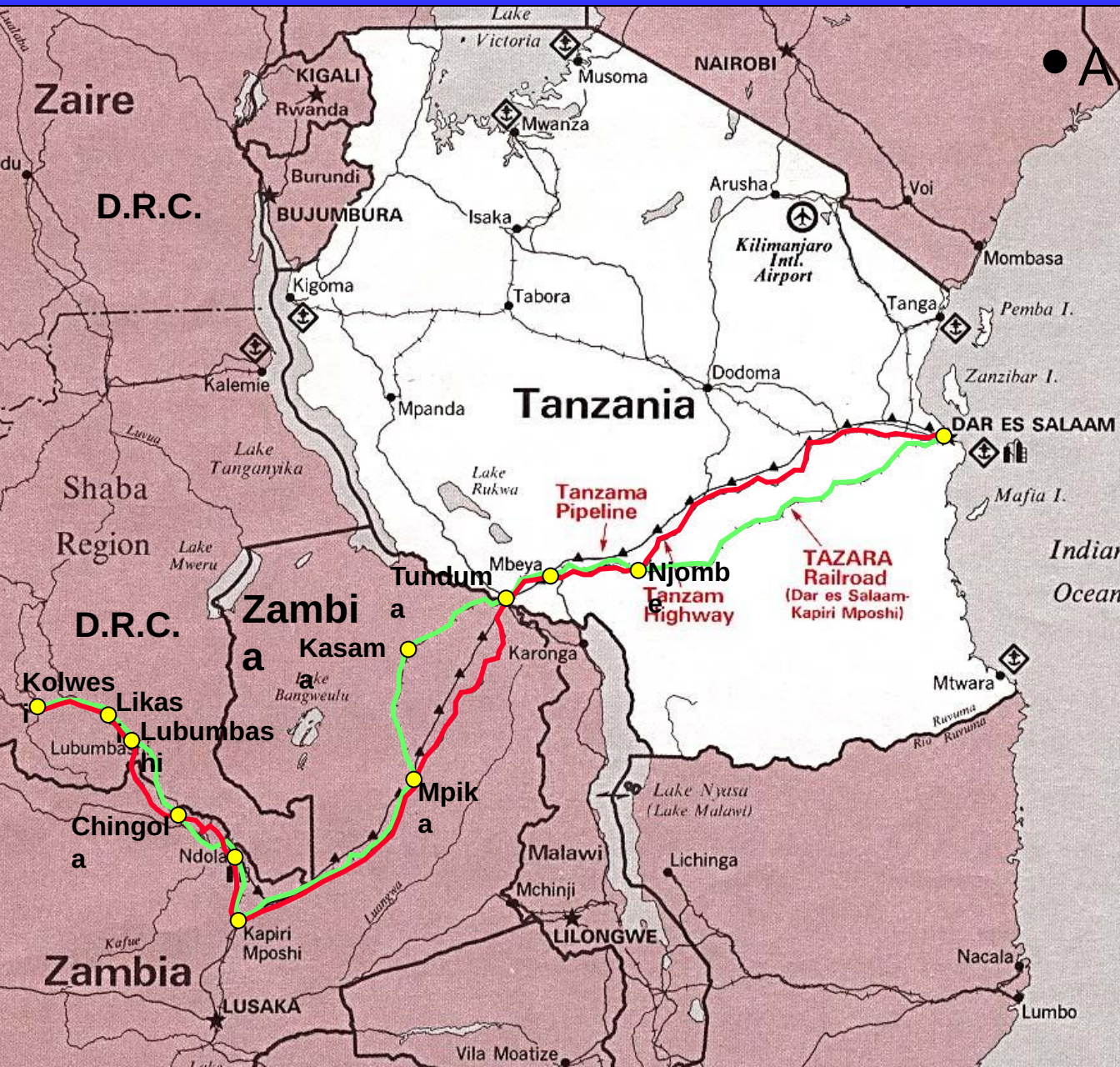


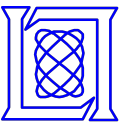
Kolwesi To:	Dist (Km)/ # Days	Border X-ings
Lobito	1450/@ 1	
Dar es Salaam	2125/4 2	
Mombasa	2315/6*	3
Beira	2459/5 3	
Durban	2936/6 4	
Cape Town	3611/7 4	

@ - Not operational  
 \* - Requires transload to 1.067 gauge track



# Most Likely Railroad COA





# Shipment COA Analysis – Road

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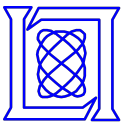
- To be supplied



# Shipment COA Analysis – Air

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- To be supplied



# Opposition COA Analysis – Air

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To be supplied....

- **Blue Force Course of Action Analysis**
  - **Force Structure**
  - **Force Employment**