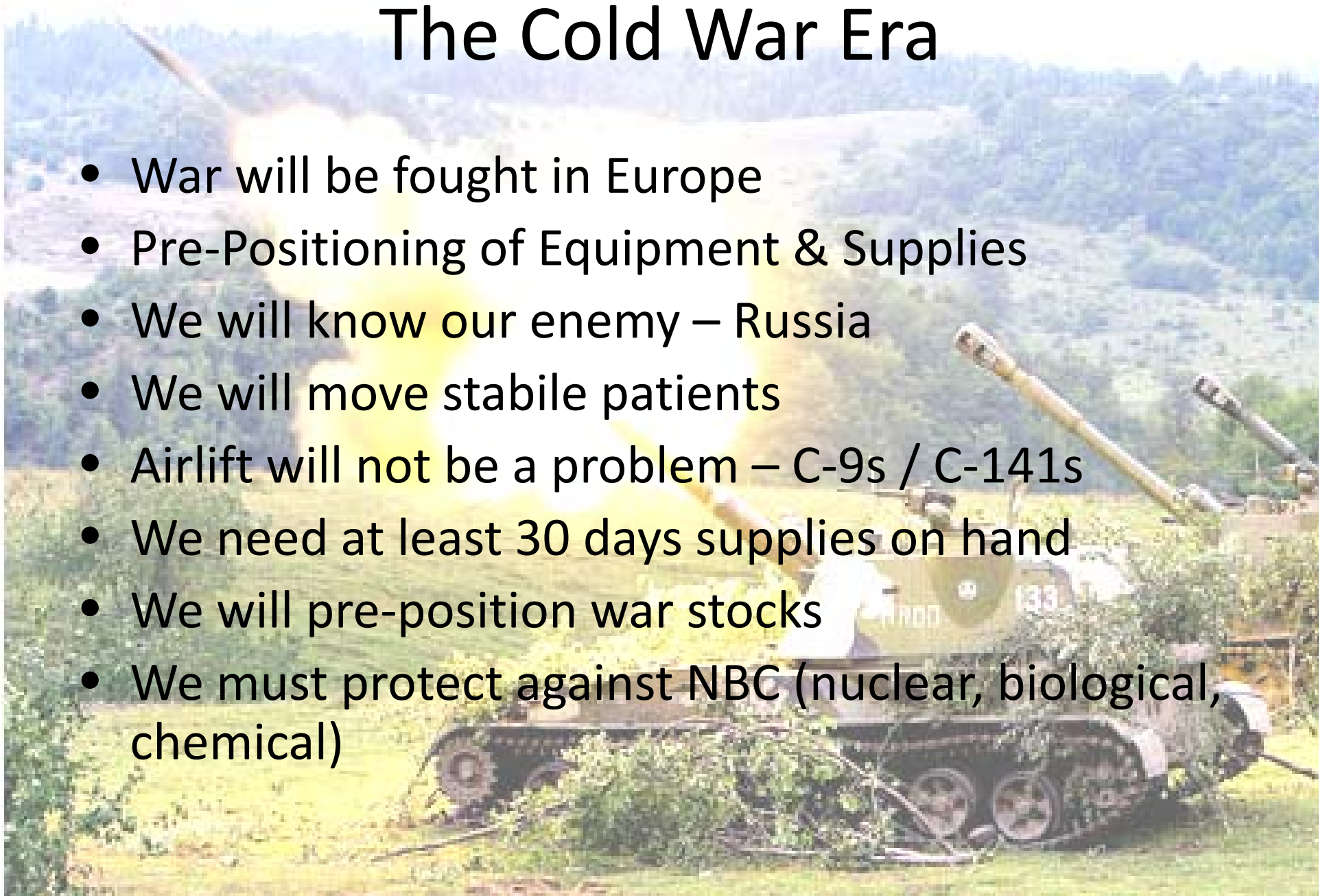


Reachback: The Supply Chain When There Is No Supply Chain

Marc Sager, CMRP

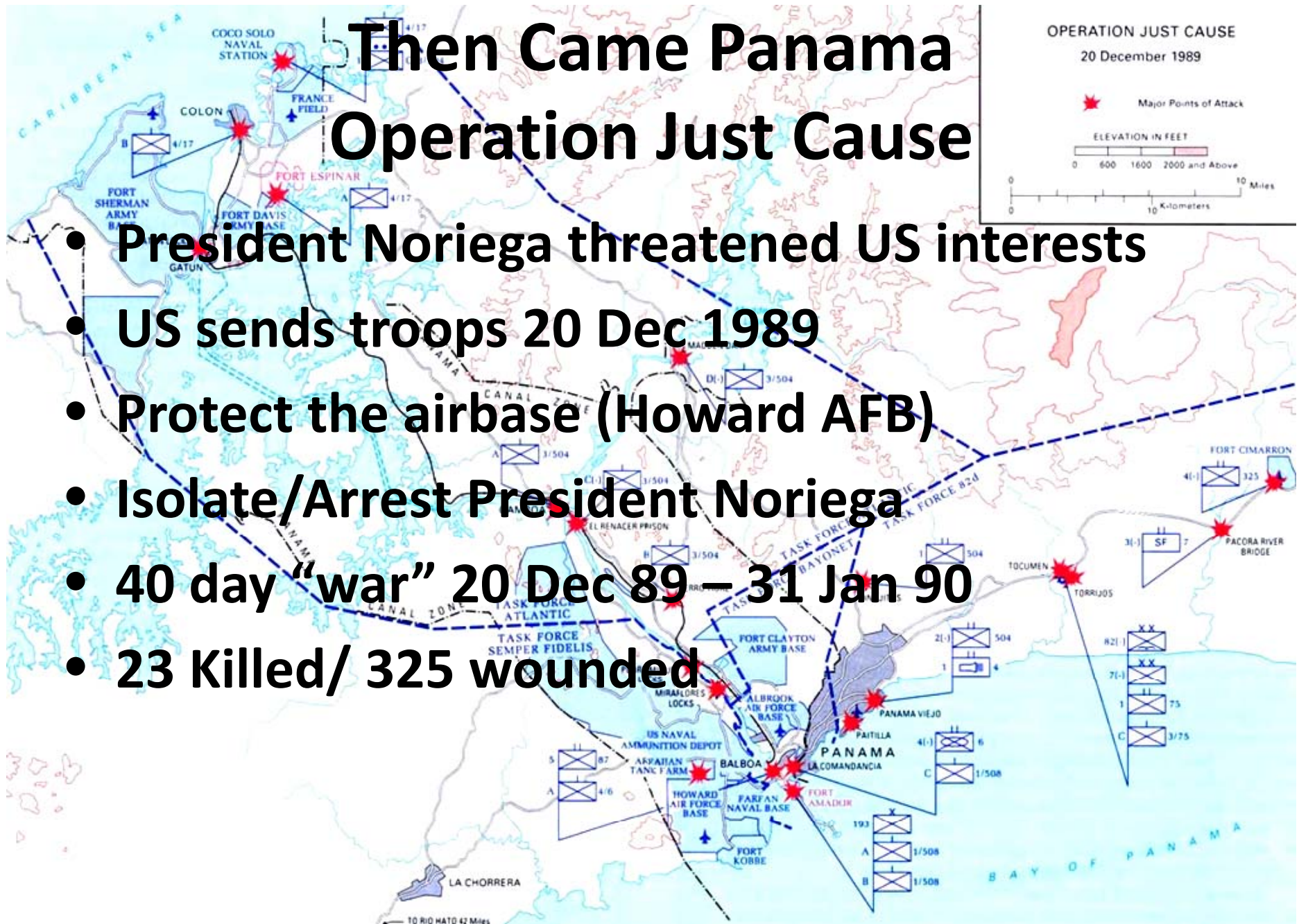
The Cold War Era

- War will be fought in Europe
- Pre-Positioning of Equipment & Supplies
- We will know our enemy – Russia
- We will move stable patients
- Airlift will not be a problem – C-9s / C-141s
- We need at least 30 days supplies on hand
- We will pre-position war stocks
- We must protect against NBC (nuclear, biological, chemical)



Then Came Panama Operation Just Cause

- President Noriega threatened US interests
- US sends troops 20 Dec 1989
- Protect the airbase (Howard AFB)
- Isolate/Arrest President Noriega
- 40 day "war" 20 Dec 89 – 31 Jan 90
- 23 Killed/ 325 wounded



Lessons Learned

- Rapid build up/no time to deploy ATH
- No pre-positioned war stocks in Panama
- Lots of civilians/few military casualties
- Patients were evacuated directly to San Antonio...patient info transmitted in the clear
- Not enough airlift/Medical lower priority
- Speed/Flexibility/Modularity would be needed



The Problem

- Desert Storm 1991 showed us the Air Transportable Hospital was the right solution to the wrong war
- Too large
- Inflexible
- Non- transportable
- Did not reflect the patients being seen

Too Big to Move



- 55 pallets and 6 C-141 dedicated to movement
- 15 ATHs support Desert Storm
- ATH supports 4,000 personnel
- 100 personnel assigned
- Not deployed near forward operating base

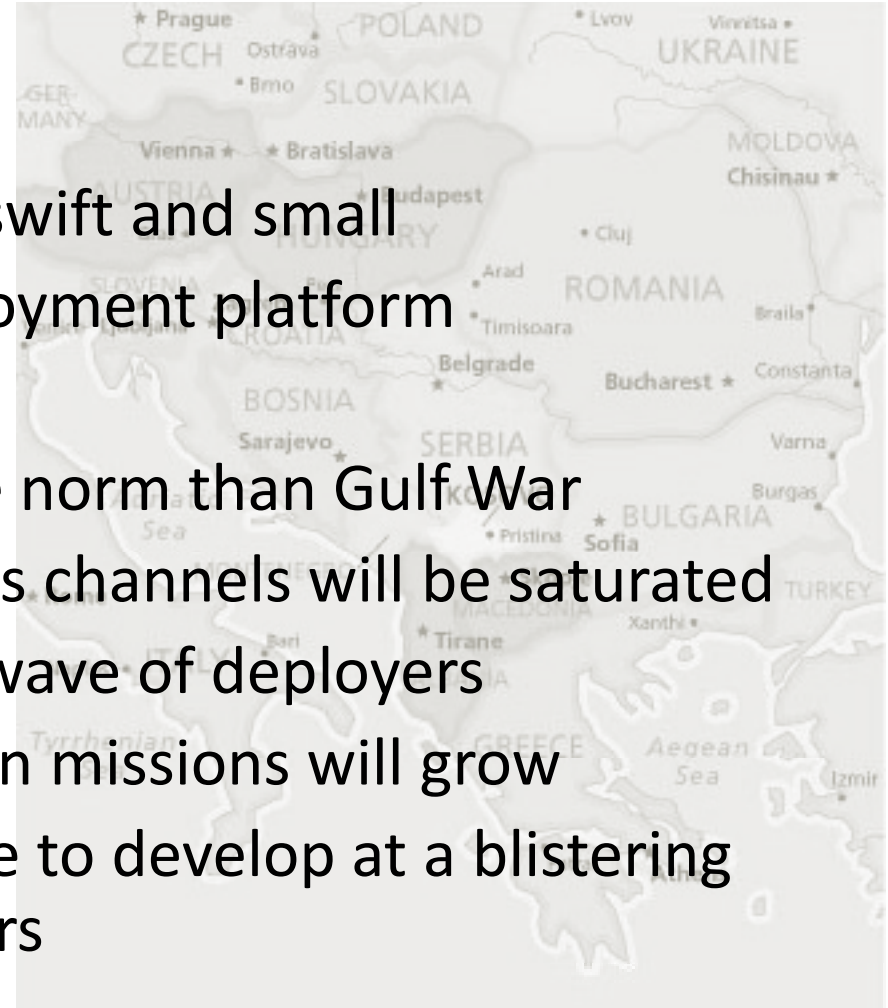
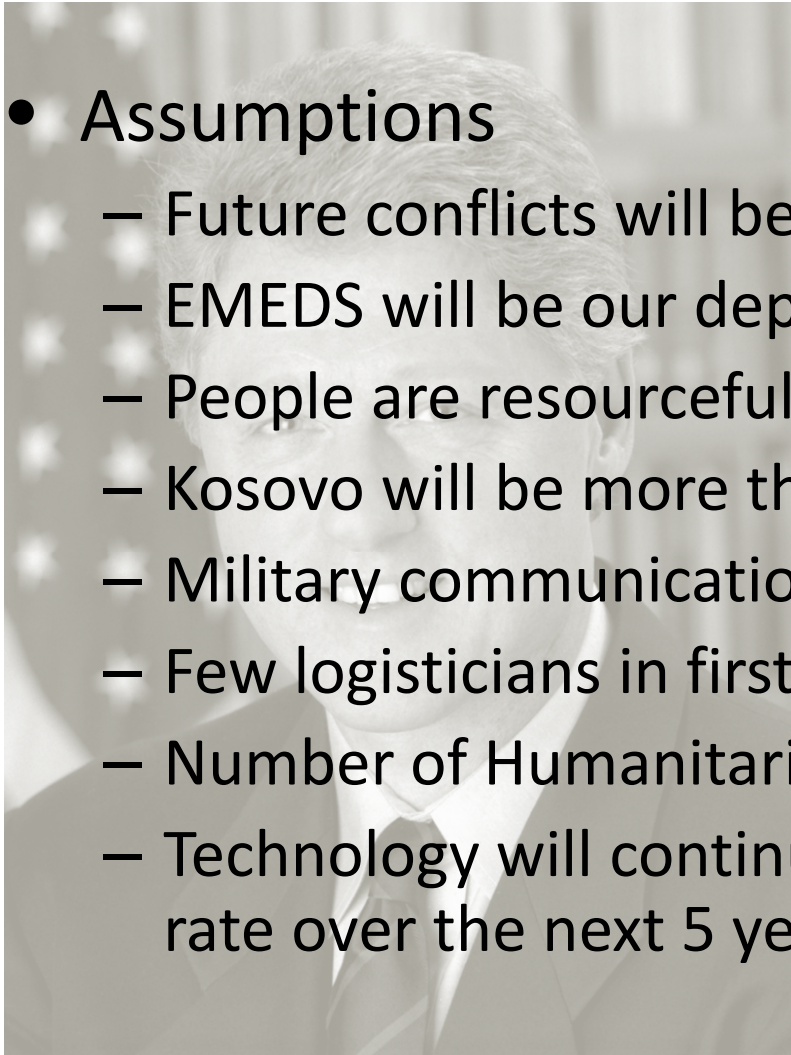
How Air Force Changed

- Strategic vision from LGen P.K. Carlton
- Small/light/scalable/flexible
- Expeditionary Medical System (EMEDS)
- From backpack surgical capability to 25 bed hospital
- Built in “Lego” building blocks
- Logistics was the “long pole in the tent”

New Assumptions as of 1999

- Assumptions

- Future conflicts will be swift and small
- EMEDS will be our deployment platform
- People are resourceful
- Kosovo will be more the norm than Gulf War
- Military communications channels will be saturated
- Few logisticians in first wave of deployers
- Number of Humanitarian missions will grow
- Technology will continue to develop at a blistering rate over the next 5 years



Basic Problem

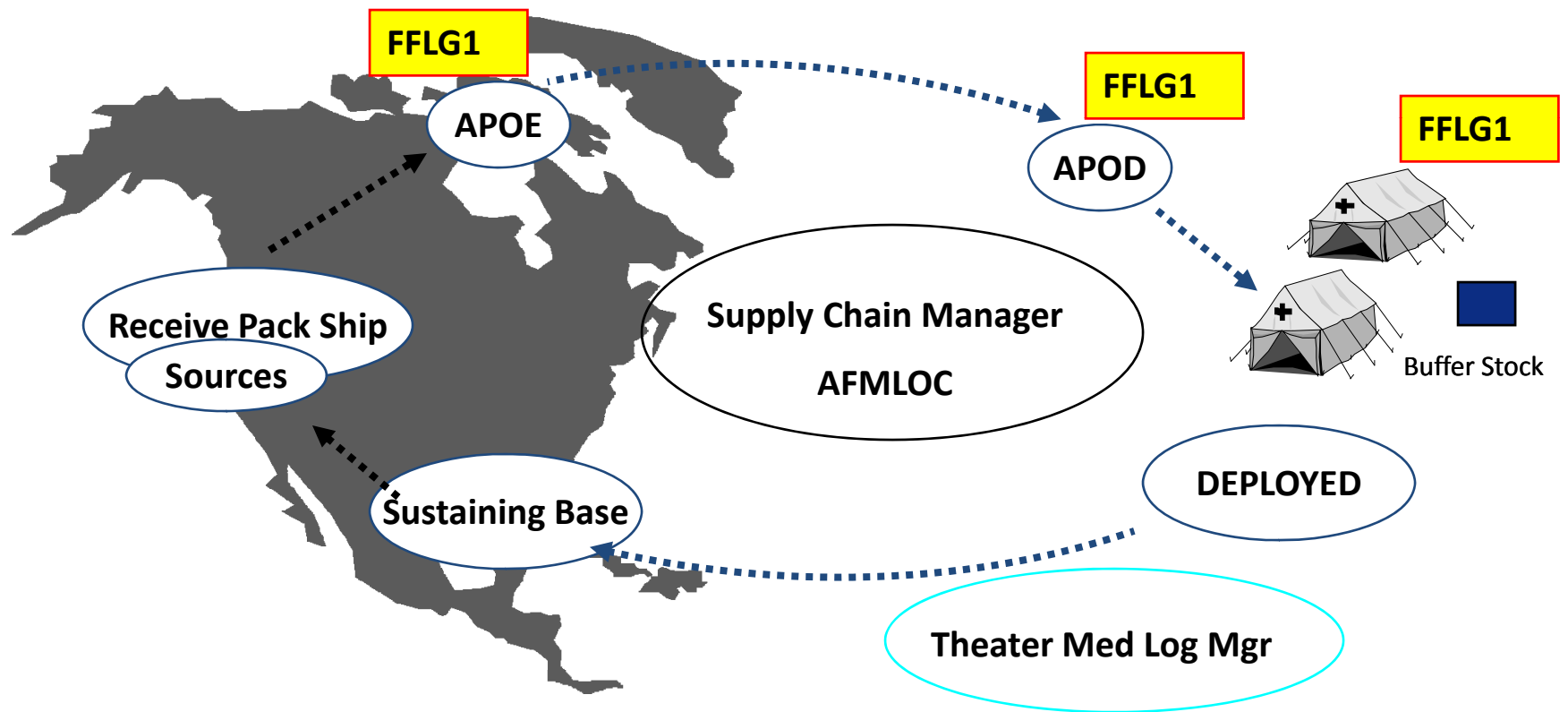
- It is one thing to get it there.... It is another to keep the supply chain flowing
- Develop a Logistics “Supply Chain” that is equally flexible and responsive



Logistical Support

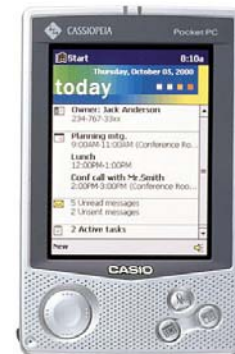
- Change from “pull” to “push” system
- Deploy with 10 days of supply on hand
- “Push” resupply package right behind before demand established
- Lots of “little bites” instead of one “big” one
- Small and Light is the Key
- Establish communications immediately
- Kosovo taught us UPS/DHL deliver anywhere/anytime

Reachback Model



Training Opportunities

- Houston Floods 2001
 - Tropical Storm floods downtown Houston
 - Hospital basements flooded
 - EMEDS deployed to support
- Davis-Monthan Deployment
 - Test “reachback” using Casio/Satellite Phone/Excel
- MEDCEur in Romania 2001 overseas test
- Bright Star 2001 (Egypt)



Then Came 9/11

- Closest support from Pirmasens Ger
USAMMC-E (U. S. Army Med Mat Center –
Eur)
- Afghanistan is a long way from anywhere
- Quickly took Kandahar and Baghram as key
positions
- Money talks...Negotiated for bases in
Kyrgyzstan, Turkmenistan, Uzbekistan

Supply Chain Challenge

Southern Asia



What it Looked Like in Dec 2002

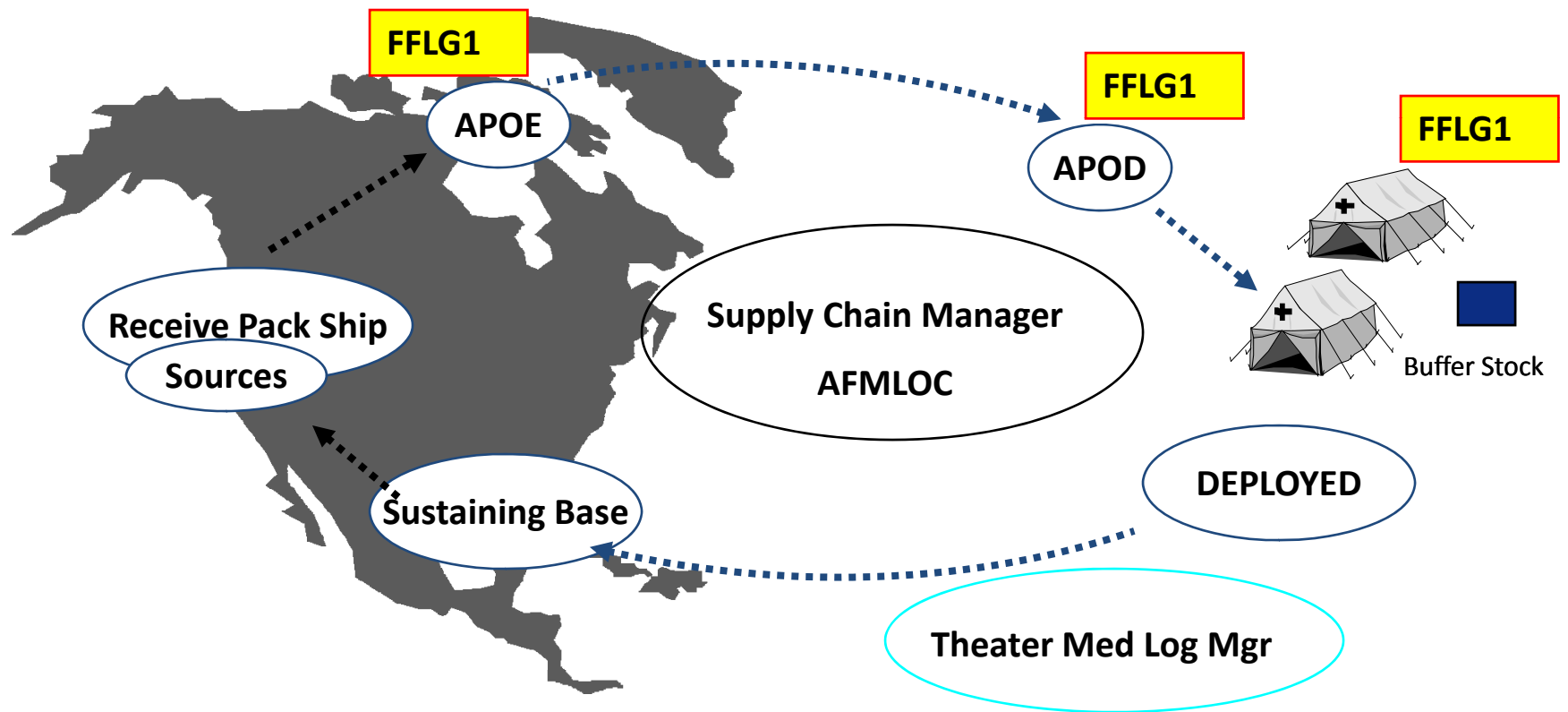
Seeb
Masirah Is
Al Udeid
Shaikh Isa
Bishkek
Jacobabad
Diego Garcia



The “book” Answer

- Per Military Doctrine – SIMLM established within 60 days (Single Integrated Medical Logistics Manager)
 - One Service (Army) responsible to support war fighters in the theater
 - Avoid multiple supply chains
 - Focus logistics support
- Users will only use “approved” supplies/equipment
 - Providers use what they know/like/trust
 - Standardized items were often outdated/ technologically inferior
 - First medical deployers were Air Force...not known for following directions

Reachback Model



How Did the Reachback Supply Chain Work?

- Requirement identified
 - Use/shortfall/preference/expiration
- Logistics creates Excel Spreadsheet with requirement
- Spreadsheet sent as an email attachment in the clear to USAMMCE and Wilford Hall Med Center (San Antonio)
- If USAMMCE had it they filled...if not Wilford Hall

How Did It Work?

- If available from WHMC Prime Vendor (PV) bought there
- If not, bought Open Market
- Delivered/Packed/Shipped from San Antonio
- If possible, shipped through Kelly AFB on Military Air
- If not, shipped UPS/DHL

How Did It Work?

- Shipped to Oman (Seeb or Masera Island)
- Learned NOT to ship to Saudi Arabia/Turkey
 - Customs took all inbound items and held them
 - Bribery would expedite release
 - Non-payment would delay up to 2 weeks
- Large tertiary hospital at Seeb
- Afghanistan had smaller air evacuation sites not large trauma hospitals

How Did It Work?

- “pipeline” time was called CWT (Customer Wait Time)
- Statistics from Mar – Nov 2002
 - Oman 17 days
 - Diego Garcia 19 days
 - Total Avg of 11 sites....16.5 days
 - Sales of almost \$3M
 - DHL Shipping Cost... \$140K

How Did It Work?

- Sep 2001 – 31 Dec 2002 (15 months)
 - Items Requested 13,939
 - USAMMCE 9,310
 - WHMC 4,635
 - Avg number of days to buy 1.2 days
 - Avg number of Days to Receive 18.5
- Apr 2003 – 17 Jan 2004 (9 months)
 - Items Requested 1,455
 - USAMMCE 224
 - WHMC 1,223
 - Avg number of days to buy .39 days
 - Avg number of Days to Receive 8.4 days

How we Deployed EMEDs

- Small & Light had its' own set of problems
 - Dedicated airlift required 15 Tons at once
 - Most increments were less than 15 Tons
 - Deployment sites became political – 50 embarkation locations
 - Often single EMEDS broken into several pieces
 - Didn't always arrive in order
 - Placed "Expeditors" at major hubs (FFLG1)
 - It still gets down to relationships



"lost" EMEDS increment at Kirkuk Iraq

Wasn't Perfect

- Too many shipment sites
- Medical was 10th out of 14 in priority
- Cold Chain management was a huge challenge
- Modern medicine was not designed around combat situations
- Army and AF used different logistics systems early on..MOMEDLOG vs TCAM
- Equipment breakdown in extreme conditions
- No one could foresee a 9 year war

“Reachback” to SIMLM

- SIMLM called for Nov 01
- Operational in May '02
- First EMEDS transfers from Reachback to SIMLIM Oct '02 (1 yr later)
- US Army Medical Material Center – Southwest Asia opened March '03
- Iraq invaded March 20, 2003

Perspective

- People are resourceful
- Solutions are situational
- Where there is a will there is a way
- Industry was phenomenal in their support
- Industry heroes were DHL and Owens&Minor
- Reachback is still used today
 - Hard to find
 - High Priority
 - Provider Preference items

Questions?

