

Carrier Operations

Looking Toward the Future--Learning from the Past

Christine H. Fox

D0020669.A1/Final
27 May 2009

Contributors:

Richard Brody

Alan Brown

Mary Lauer

Mike McDevitt

Igor Mikolic-Torreira

Yolanda Peterson Jones

Greg Suess

CNA's briefings are either condensed presentations of the results of formal CNA studies that have been further documented elsewhere or stand-alone presentations of research reviewed and endorsed by CNA. These briefings represent the best opinion of CNA at the time of issue. They do not necessarily represent the opinion of the Department of the Navy.

APPROVED FOR PUBLIC RELEASE. DISTRIBUTION UNLIMITED.

Copies of this document can be obtained through the Defense Technical Information Center at www.dtic.mil or contact CNA Document Control and Distribution Section at 703-824-2123.

Copyright © 2009 CNA

Outline

- Introduction: some current perceptions of carriers
- Some recent examples of important operations involving carriers
- How carrier deployment patterns have changed
- How Navy response to contingency operations has changed
- What about small carriers?
- Conclusion and recommendations

Current U.S. carrier perceptions

- Carriers are **Cold War** relics
- Carriers are **MCO** platforms
- We have **plenty** of carriers to meet the need
 - Low likelihood of conducting an MCO
- Carriers have too many **vulnerabilities** to be used in MCOs

Are these perceptions accurate?

Recent Examples

Carrier role in recent operations

- Without aircraft carriers, many recent operations would not have been as effective or even possible
 - Because of **seabasing**, carriers (and TLAM) enabled first night surprise attacks in Desert Fox that led to operational success
 - Because of **basing and overflight restrictions**, carriers provided majority of air support to SOF units in Enduring Freedom that resulted in toppling the Taliban regime
 - Because of **basing restrictions**, carriers enabled SOF and other small ground units in Northern Iraq during Iraqi freedom, keeping Iraq divisions tied down
- Carriers have been **significantly reconfigured** twice since 2001 to support large scale operations
 - Seabased support of SOF in Enduring Freedom
 - Seabased humanitarian relief to Indonesia after Tsunami

Recent examples—Desert Fox

- Desert Fox—December 1998, Strikes into Iraq
 - Navy conducted **surprise** attacks first night of operation leading to significant results
 - Only TACAIR and TLAM **from the sea** allowed on first night
 - **COCOM decision**
 - **Routine carrier presence** enabled surprise

I can say that we had several buildings, especially the ones we hit on the first night, that didn't have the opportunity to disperse valuable pieces of machinery and equipment. Others hit later on that moved a good deal of equipment out, was dispersed out, and ...so was not affected.

General Zinni, 8 Jan

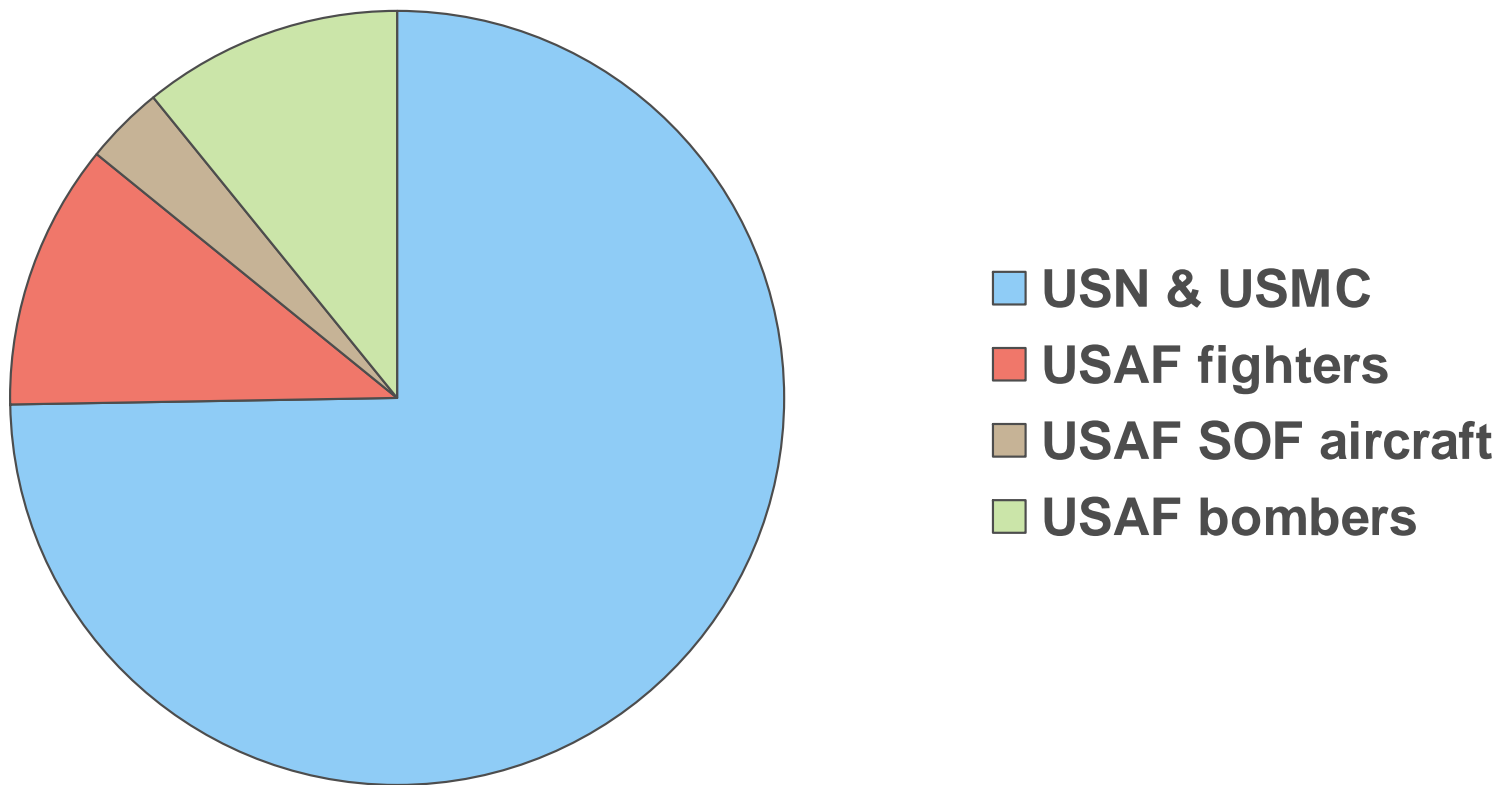
1999

Recent examples—Enduring Freedom

- Enduring Freedom—Fall 2001, Operation in Afghanistan
 - Major operation using **precision strike to enable small SOF units** operating with indigenous forces
 - **Very limited base access and overflight rights** *despite huge international support for the U.S. and invocation of NATO article V.*
 - Practical TACAIR basing options not available at start of OEF
 - Carriers provided majority of air support
 - **Only viable option given basing and overflight constraints**
 - Kitty Hawk provided an **afloat staging base for SOF**
 - Kitty Hawk quickly reconfigured to SOF-support role

OEF air support

OEF Strike Sorties Through December 2001 by Service¹



¹From: *Air Power Against Terror: America's Conduct of Operation Enduring Freedom*, B.S. Lambeth, RAND, 2005

Recent examples – Iraqi Freedom

- Iraqi Freedom—March-April 2003
 - 5 carriers participated with **very different roles**
 - 2 carriers supported the northern fight:
 - **Persistent long-range, armed “presence” mission**
 - Provided on-call fire support for small, independent ground units
 - Required keeping 8 armed strike fighters overhead troops “24/7”
 - Orbits approx 700nm from carriers, maintained for 27 days
 - ***Carrier only TACAIR option due to lack of access to suitable bases***
 - 3 carriers supported the southern fight
 - Collectively exercised **full range of airpower missions**
 - Strike, Interdiction, SEAD, JCAS, SCAR, FAC-A, ISR, CAP, DCA, OCA, SUCAP, ABCC, EW, Tanking
 - One carrier dedicated to JCAS missions - ***required to relieve tanker shortfall***
 - Conducted **organically-tanked**, single-cycle JCAS for units in the south
 - **5 days of intense surge ops followed by 23 days of 12+ hour fly days**
 - 1150 sorties, 958 ground support sorties

Recent examples – Unified Assistance

- Operation Unified Assistance (Tsunami relief)
 - USS *Abraham Lincoln* and escorts (CSG 9) conducted relief operations from carrier
 - **Redistributed** Strike Group helicopters to concentrate 18 on the carrier (16 H-60 and 2 H-46 airframes)
 - **Reconfigured** helicopters themselves to maximize payload capacity
 - **Reorganized** flight deck for sustained helicopter operations
 - Carrier was an afloat staging base for command and control, aircraft, and medical capabilities
 - Carrier conducted desalinization operations—extremely power intensive even for a CVN
 - Carrier projected helicopter assets ashore for redistribution of shore-based supplies

When Abe Lincoln sailed in and brought much needed support after the tsunami, it raised our opportunities in Indonesia and Mrs. Clinton is building on this.

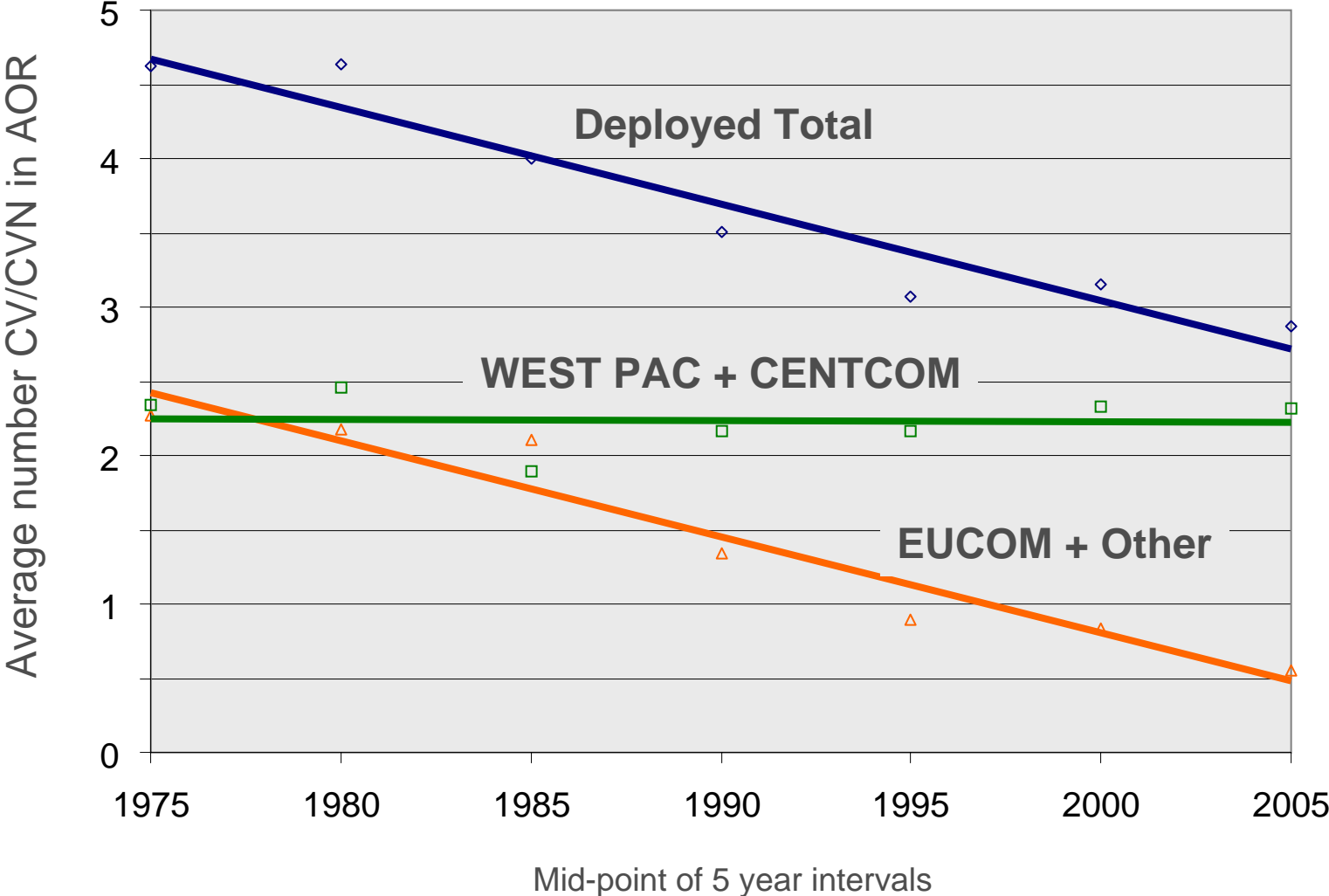
Douglas Paal speaking at CNA Defense Advisory Committee discussion of Secretary Clinton's recent trip to Indonesia

Deployment Patterns

CV/CVN deployment patterns 1975-present—Effort and Risk

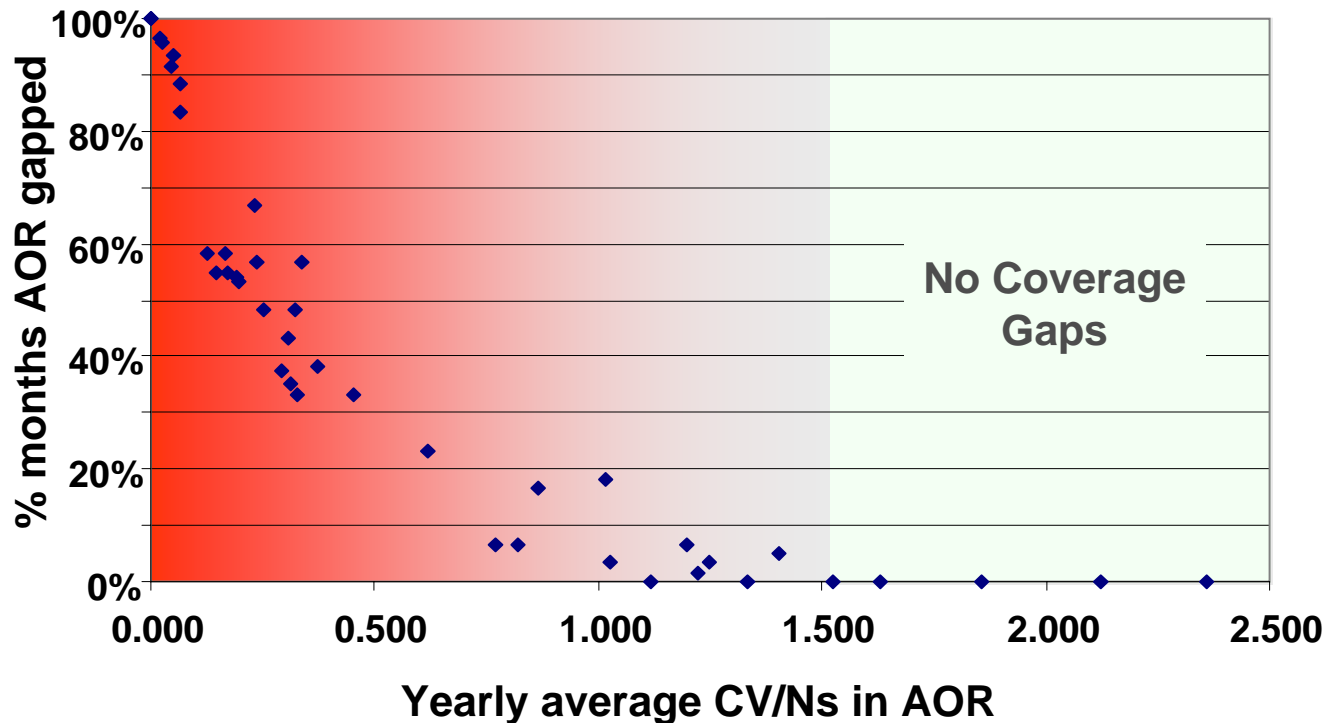
- **Average number of deployed CV/CVNs steadily decreased between 1975 and 2005**
 - Yearly average of the number of CV/CVNs deployed per month dropped from 4.5 to 2.8 between 1975 and 2005
 - Decrease due to fall in total CV/CVNs and carrier deployment policies
- **EUCOM plus near-CONUS deployments absorbed entire deployment loss**
- **WESTPAC deployments decreased as CENTCOM CV/CVN presence increased**
 - Between 1975 and 1990 average CENTCOM presence ramped up from zero to 1.1
 - Correspondingly, WESTPAC presence dropped from 2.2 to 1.1 from 1975 to 1990
 - Average WESTPAC and CENTCOM presence each steady at about 1.1 from 1990 – 2005
- **No “reserve” left**
 - Further decrease in CV/CVN deployment numbers will decrease CENTCOM and/or WESTPAC presence and increase CV/CVN gaps signaling **greater acceptance of risk** in CENTCOM and/or WESTPAC

CV/CVN deployment patterns

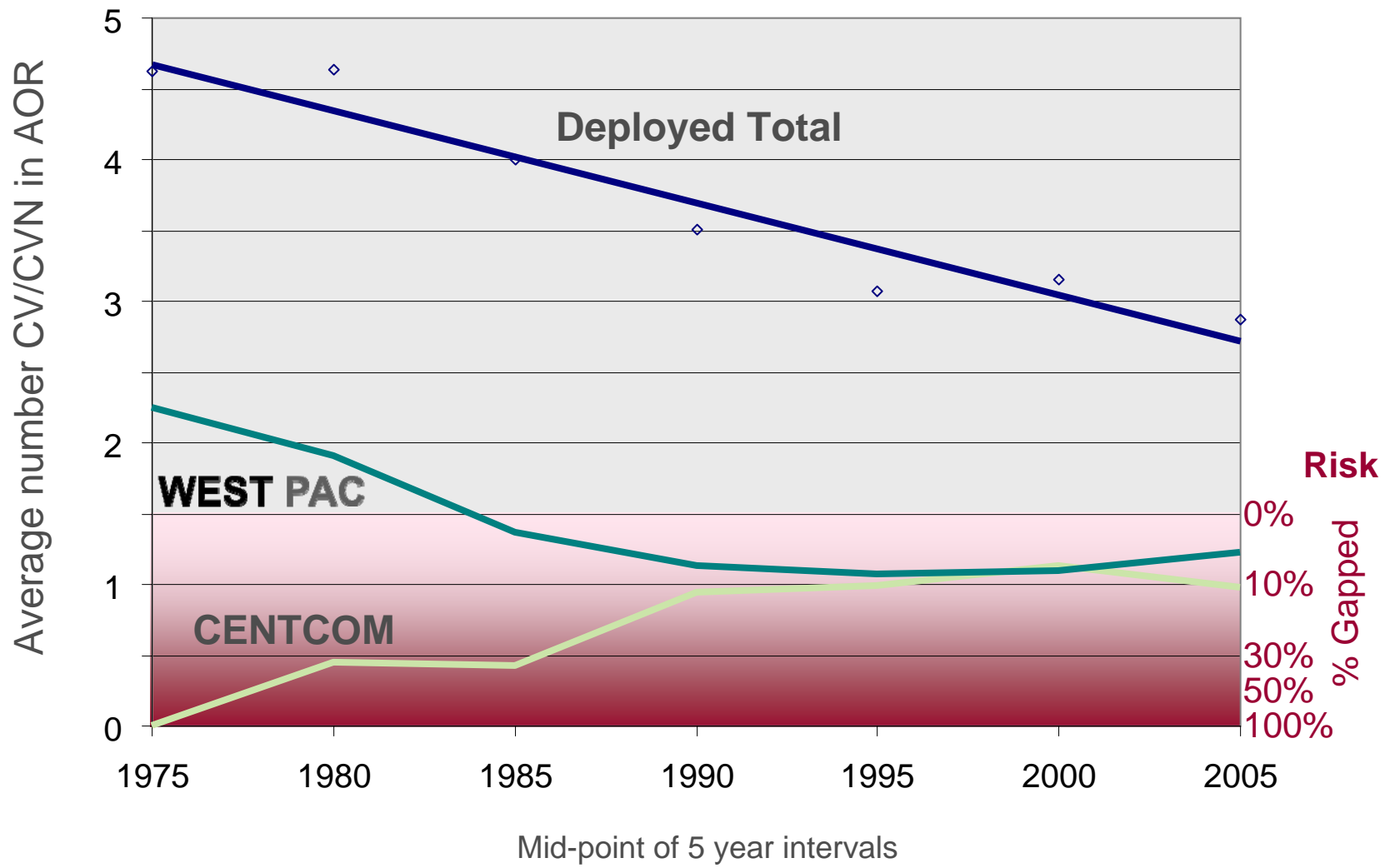


Risk – CV/N level of effort and gaps

- Historical relationship between number of CV/Ns in AOR and % months gapped
- “Perfect” scheduling could achieve 0% gaps with 1.0 CV/N coverage
- “Real-world” scheduling requires greater than 1.5 CV/N coverage for no gaps



Risk in the Pacific and Middle East

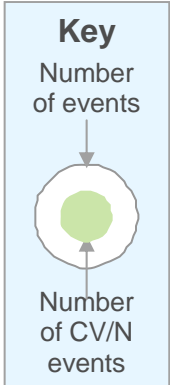
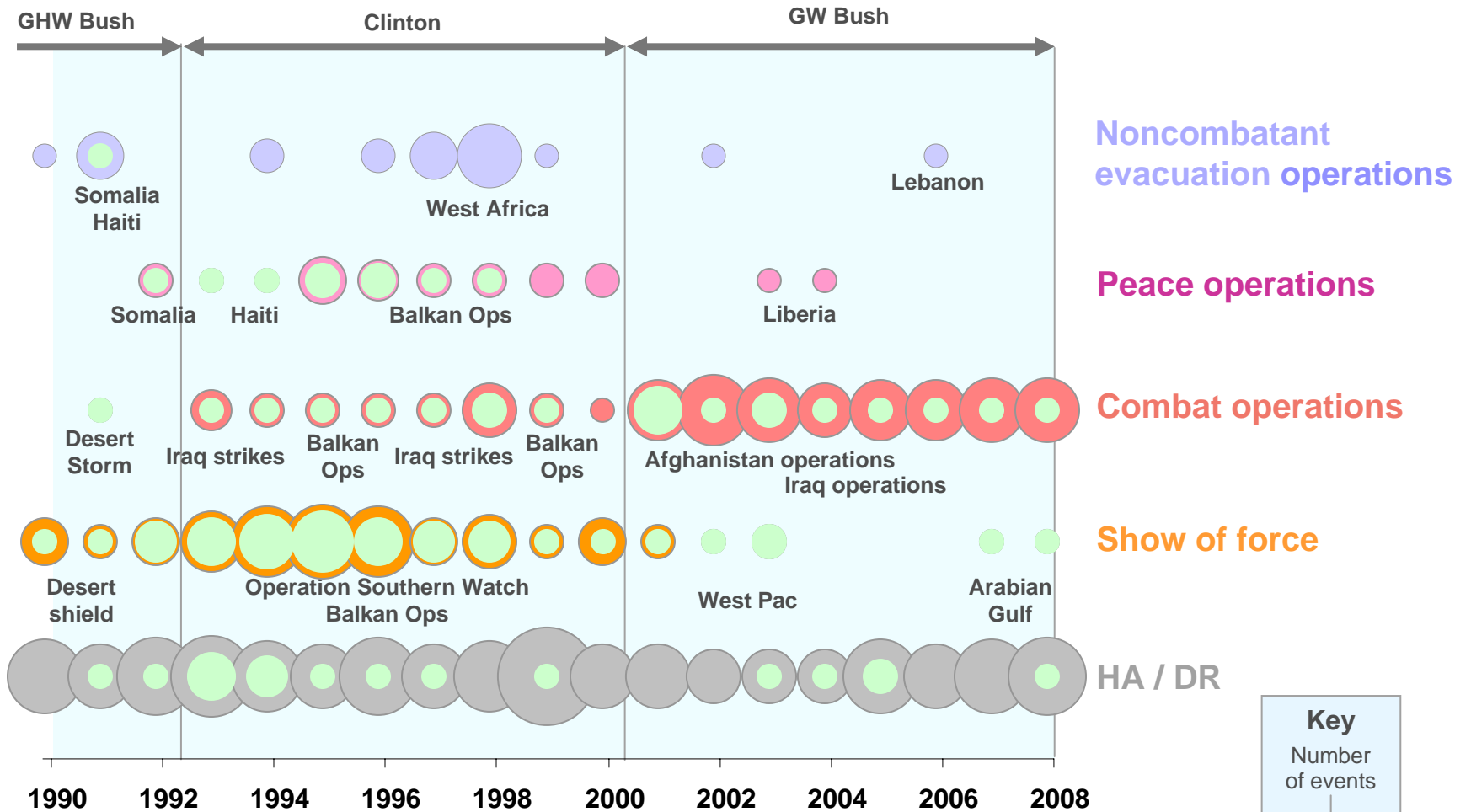


Contingency operations

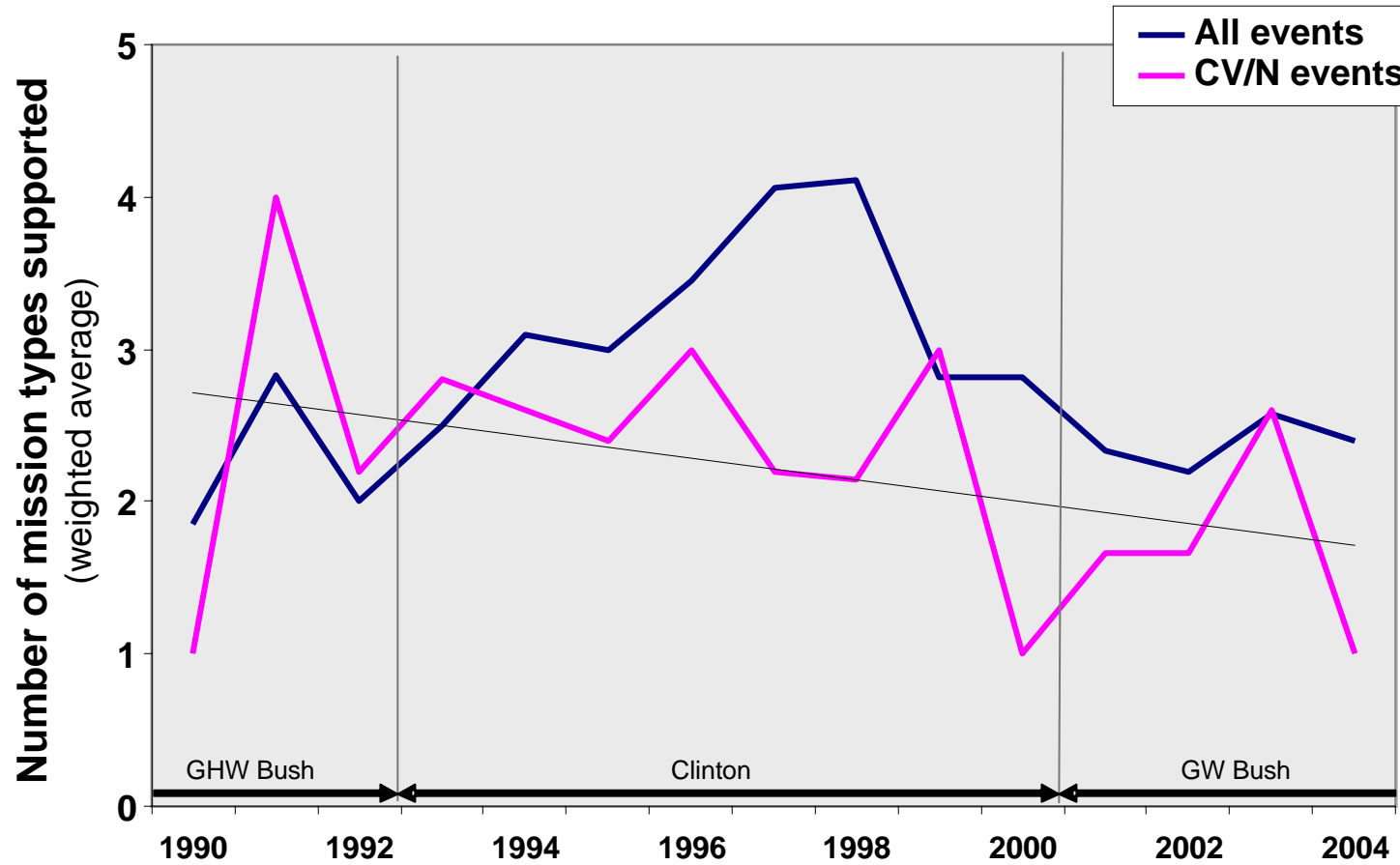
Types and numbers of contingencies has changed

- Prior to 2001, Navy and especially carriers, supported numerous diverse contingency operations
 - Navy supported combat, shows of force, peace operations and NEOs throughout the 1990s
 - Contingencies occurred simultaneously across theaters
 - Carriers used in all missions—although rarely in NEOs
- Post 2001, Navy support has shifted to combat, especially for carriers
 - Occasional participation in show of force or humanitarian mission
 - OIF/OEF demands, PACOM presence requirements, and shrinking carrier availability **leave little room for other missions**

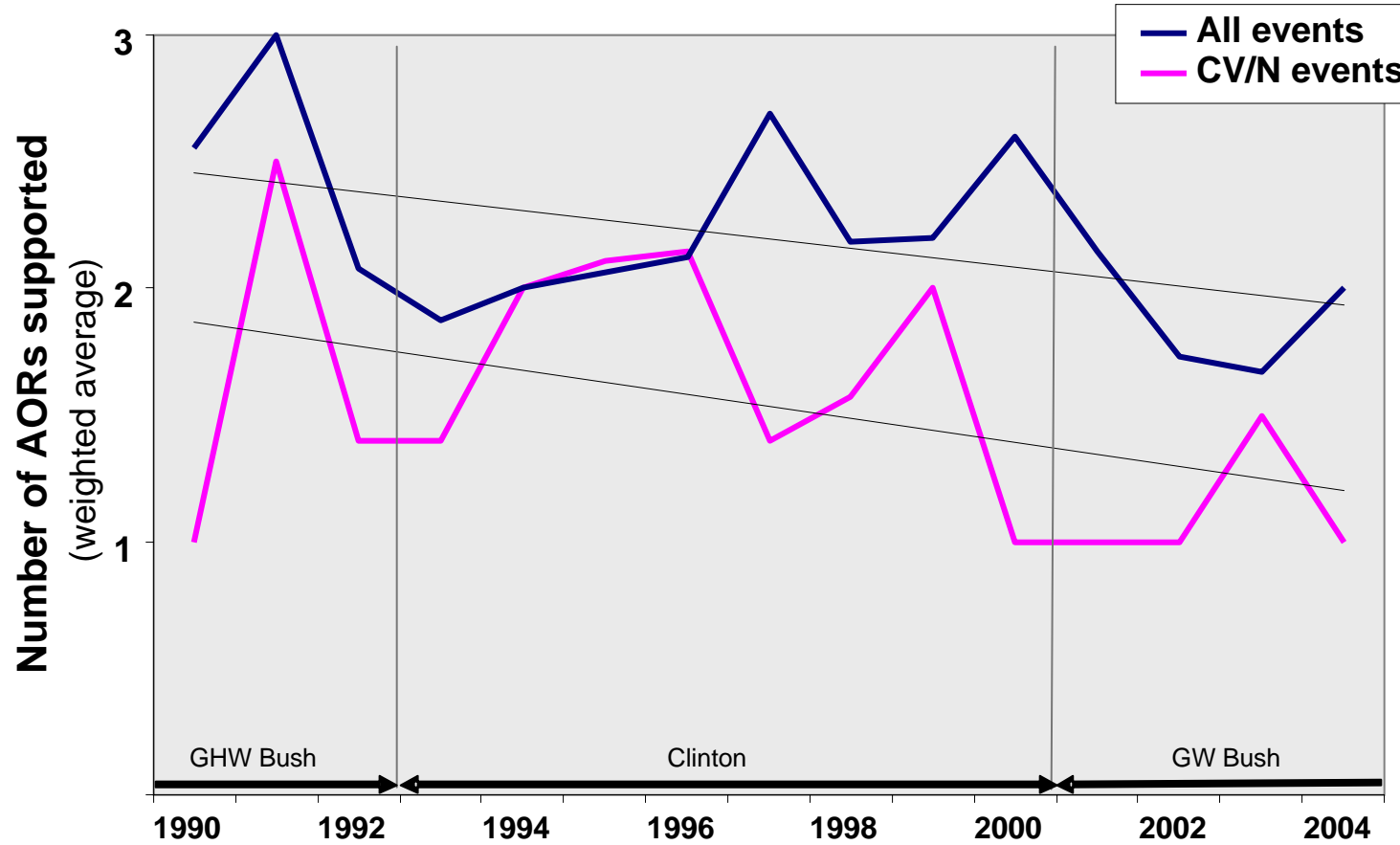
Contingencies Navy supported



Types of contingencies supported by Navy



Number of AORs with contingencies supported by Navy



What does Secretary Gates tell us about the future?

From Secretary Gates recent article in Foreign Affairs.....

- Strategy is to use **indirect approach** when possible
 - Capacity building
 - Preventing festering problems from becoming crises
- Important to **institutionalize** counter insurgency, stability and capacity building while maintaining our traditional edge against other militaries
- Important to retain traditional service expertise while being **open to change** in order to accomplish today's missions
- The Long War will continue
 - A prolonged, **world wide irregular campaign**
 - Direct military force is required, but cannot kill or capture our way to victory

Unlikely to repeat another Iraq or Afghanistan any time soon

What carrier missions does this suggest?

- Capacity building – presence and engagement
- Prevent crises – engagement and deterrence (show of force)
- Institutionalize counter-insurgency – precision strike in support of SOF
- Maintain traditional edge – combat capability across a spectrum of threats
- Prolonged, **world wide** irregular campaign
 - Irregular warfare
 - Precision strike support to small ground units
 - Battle space dominance against asymmetric threats

Carriers have conducted all of these missions—
But not simultaneously across theaters since the 1990's.

What about small CVs

- Expected warfare scenarios of the near future....

- irregular warfare
- support to small ground units
- battle space dominance against asymmetric threats

...all share one characteristic: *they require aircraft airborne on-station continuously for extended periods of time*

- Target kill rate is not an appropriate metric for these missions

- This is a very challenging mission for small carriers

- Requires either high sortie rates or “chain-gang” of aircraft for persistence at long ranges
- **Small carriers lack sufficient numbers and types of aircraft** to perform these missions
 - Only 2 stations can be sustained at 250NM; none can be sustained beyond 300NM
 - During OIF, two carriers from EMED sustained 4 stations at ranges of 700NM
 - No E-2 for early warning or command and control
- **Small carrier could not have performed recent missions**

Conclusions

- Carriers have played a versatile role across a spectrum of operations for a long time
 - **Global** reach
 - Significant **power** recognized in show of force operations
 - Provides **sovereign territory** in combat and relief operations
 - **Reconfigurable** for varied missions from SOF support to humanitarian assistance
- Ability of carriers to play this global role is related to
 - **Number** of carriers and number of aircraft
 - Decisions regarding carrier/airwing **operating patterns** (turn around ratio)
 - Number and duration of **ongoing operations**
 - **Willingness and creativity** of Navy in flexible use of CVN

US is accepting risk in carrier availability for contingency response today.

Recommendations

- Change the dialogue on carriers
 - They are not “Cold War relics” – they are flexible platforms that give the United States an edge that no other country has (but many want).
 - They are not only MCO platforms – this has not been their traditional use.
 - We do not have plenty of them – we are accepting risk today.
- To keep a strong carrier fleet
 - **Solve the strike fighter shortfall**
 - Carriers without airplanes (or unmanned aircraft) are just big, floating (expensive) hotels
 - Find ways to make the capability **cheaper**
 - Gates: Focus more on 75% solutions vice 99% “exquisite” systems
 - Aggressively work to **counter** emerging anti-carrier technologies

D0020669.A1/Final



4825 Mark Center Drive, Alexandria, VA 22311-1850 703-824-2000 www.cna.org