

Road to ARI

The Army started OEF in 2001 with 19 Combat Aviation Brigades (CAB), 11 in the Active Component (AC) and 8 in the National Guard (NG)

As a result of persistent conflict in 2 Areas of Operation with high demand for rotary wing support, the AC stood up an additional CAB, continued to lobby for and was approved to add a second CAB. It only came online in April 2014 for a total of 13 CABs in the AC.

ARI proposes to reduce the AC to 11 CABs by cutting 2 of the AC CABs and making one CAB an equipment set only (no manning). Also, ARI will eliminate all CABs in the NG replacing them with Aviation Brigades (AB) that have no Attack or Recon capability. These ABs would be used in DOMOPs and selected OCONUS Contingency Operations (non-combat) only.

If the Army needed 19-21 CABs to prosecute OIF/OEF, a long term, low intensity conflict against non-sophisticated, non-peer enemies, how will only 10 CABs be capable of a future long-term high intensity conflict against a sophisticated, peer state enemy?

In light of all the current threats in the world to US national security, how is this plan in the best interests of the defense of the nation and its citizens?

ARI is driven by shrinking defense budgets but enhancements to ARI can also meet Army Aviation modernization needs, provide a more robust force structure preserving the strategic & operational reserve of the National Guard CABs **AND** help to reduce the overall defense budget.

ARI Myths and Facts

The Army claims ARI will make large cuts to the AC Aviation Force Structure. However, in 2001 the AC had 11 CABs and with ARI, they will end up with 11 CABs.

The Army claims the AC is taking a large cut in part due to the loss of Ft. Rucker's training fleet. The OH-58D Kiowa Warrior (KW) and TH-67 Creek on this TRADOC Post support all 3 Compos - AC, NG and USAR. These aircraft are not just an AC loss. Also, TH-67s are being replaced by the purchase of LUH-72s.

The next claim is that as the AC divests its KWs, there is a large loss of aircraft from their CABs. However, there were only 9 ARS with 30 KW each in the AC CABs as 4 of the 13 CABs were Heavy CABs with 2 ARB and no ARS. So the loss is only 270 KW (9X30) and they are replacing them with 264 (11X24) Apaches of which 192 come from the NG and 96 (4X24) from their 2 deactivated Heavy CABs. This will be virtually no loss in airframes to the AC CABs and actually a gain for their non-operational fleet. Additionally, they do not take into account the increase in Un-manned Aerial Systems (UAS) the AC CABs will gain with ARI.

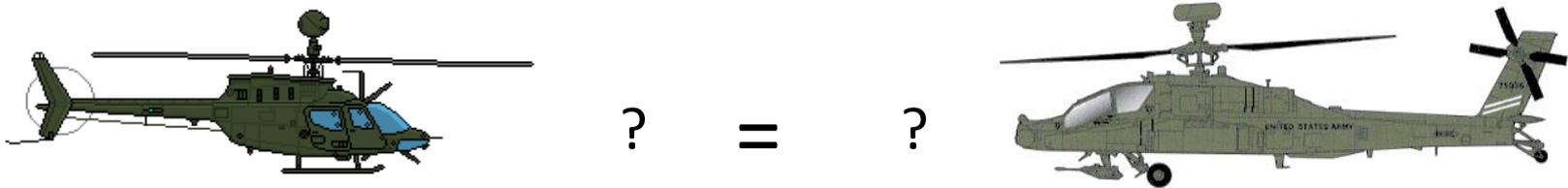
With 48 Apaches and 24 UAS, the 11 AC CABs from ARI are vastly more capable than their 11 CABs of 2001

The Army also counts as a loss the newest AC CAB that just came online in early 2014. Although mathematically accurate, the reality is they are going from 12 to 11 CABs, as the 13th CAB really wasn't used during OEF/OIF.

With the increases in airframes to the USAR, the enhancements to the AC CABs through increases in Apaches and UAS, the replacement of the TH-67 with new LUH-72 at Ft. Rucker, the only real bill payer in ARI is the National Guard CABs.

Other Options to Enhance ARI

Kiowa Warrior vs Apache: A Comparison of Relative Combat Capability



What analysis of relative combat capability led the Army to determine the number of additional Apaches needed in the AC Combat Aviation Brigades to fill the void created by divestiture of the OH-58D?

Default Ratio of Combat Capability



X 30 = X 24



Attack/Reconnaissance Squadron (ARS)



Attack/Reconnaissance Battalion (ARB)

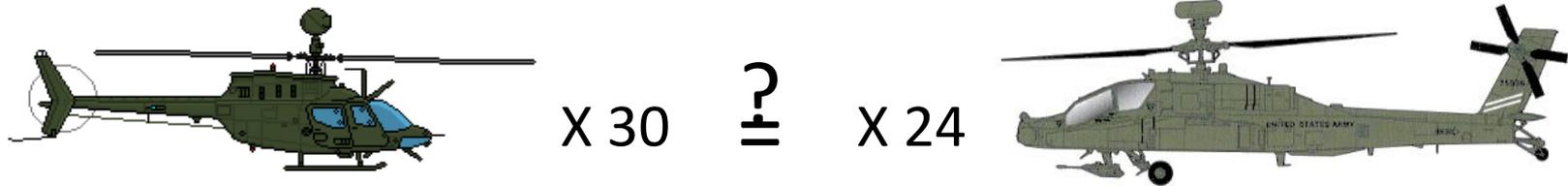
ARI proposes to replace 30 OH-58D KW with 24 AH-64 Apache (AH) in the AC CABs. These additional 24 Apaches per AC CAB would come from the National Guard CABs leaving the NG with no CABs and no Apaches

24 AH in for 30 KW out creates a ratio to **.8 KW to 1 AH**

The purchase price of a KW is \$11m while the purchase price of an Apache is \$35m. This creates a ratio of **.3KW to 1 AH**

If a Kiowa Warrior is 30% the purchase cost compared to an Apache, but it is 80% as capable as an Apache, why did we buy any Apaches in the first place?

What analysis was done that led to a Ratio of Relative Combat Capability?



No analysis of relative combat capability led to the development of ARI.

The only answer to the question - How many Apaches will it take to replace the KW fleet? was:
Every one the National Guard has, not one less, not one more.

5* Factors of Attack/Recon Combat Capability should have been Analyzed:

1. **Weapons Delivery**
2. **Station Time/Range**
3. **Performance – High, Hot and Heavy**
4. **Sensors for Weapons, Recon and Pilotage**
5. **Survivability of Aircraft and Crew**

*Comparison of combat capability on the follow page uses data from the TM 1-1520-248-10 OH-58D Kiowa Warrior Operators Manual, TM 1-1520-251-10-2 AH-64D Apache Operators Manual and the TC 1-400, Brigade Aviation Element Handbook.

Comparison of Combat Capability

Kiowa Warrior (\$11M)

500 Rounds .50 Caliber (12.75mm), **or**
 14 - 2.75" Rocket, **or**
 4 – Hellfire Missiles, **or**
 Combo of 50% of any 2 above

2.5 hours or
 200 mile range

7,500' combat ceiling
 80 Kts cruise speed

1 FLIR - targeting only **17 X** Mag
 1 DTV – targeting only **25 X** Mag
 NVG - targeting/pilotage
 LZMUMS- (UAV)

Single Engine
 Low energy absorbing skid gear
 Single crew station
 Cockpit Airbag system

1- Weapons

330* Rounds 30mm (High Explosive), **&**
 38 - 2.75" Rocket, **&**
 8 – Hellfire Missiles
 *(1200 Rds 30mm with 1 hr less of fuel)

2- Station Time

3.5 hours (w/330 Rds 30mm) or
 350 mile range

3- Performance

12,000' combat ceiling
 100 Kts cruise speed

4- Sensors

2 FLIR targeting/pilotage **36 X** Mag
 1 DTV targeting only **126 X** Mag
 NVG - targeting/pilotage
 MUM-T (UAV)
 Fire Control Radar - targeting

5- Survivability

Dual Engine
 High energy absorbing landing gear
 2 Separate crew stations w/blast shield
 Backup Control System (BUCS)

Apache (\$35M)

3 Hypothetical
 Ratios of Relative
 Combat Capability :

Ratio A

1- .1 KW to AH
 2- .6 KW to AH
 3- .5 KW to AH
 4- .5 KW to AH
 5- .3 KW to AH
 Total - **.4** KW to AH

Ratio B

1- .2 KW to AH
 2- .7 KW to AH
 3- .6 KW to AH
 4- .6 KW to AH
 5- .4 KW to AH
 Total: - **.5** KW to AH

Ratio C

1- .3 KW to AH
 2- .8 KW to AH
 3- .7 KW to AH
 4- .7 KW to AH
 5- .5 KW to AH
 Total - **.6** KW to AH

COA A - Ratio of Relative Combat Capability = .4 KW to 1 AH

Using a .4 ratio the following is a possible enhancement to ARI



$$X 30 = X 12$$



Attack/Reconnaissance Squadron (ARS)



Attack/Reconnaissance Squadron (New ARI ARS)

AC CAB X 10*
10 ARB @ 24 AH = 240
10 ARS @ 12 AH = 120
Total AC CAB
Operational Fleet= 360**

*This COA eliminates the need for the 11th AC CAB equipment set
**All ARS and ARB cross level to 18 AH per ARB/ARS

Training Fleet = 70
Test Fleet = 10
Boeing Line = 22
Other ORF= 12
Total Non-Operational Fleet=114
(NG provide additional 24 A/C To Boeing Line for total of 46)

NG CAB X 6***
6 ARB @ 24 AH = 144
6 ARS @ 12 AH = 72
Total NG CAB
Operational Fleet= 216**

**All ARS and ARB cross level to 18 AH per ARB/ARS

***TNARNG KW ARS, MSARNG ARC, 2 current NG ARBs as well as USAR ARBs from TX and KY all convert to new NG ARS, other current 6 NG ARBs remain ARB.

COA A Provides:

- 60% **Operational/Strategic Reserve** by keeping 6 of 8 NG CABs
- Cost savings of \$144m/yr by reducing the current AC operational fleet from 408 AH to 360 or an equivalent of 2 ARB at \$77m/yr
- Current NG AH operational fleet increases from 192 to 216 or an equivalent of 1 ARB at a cost increase of \$32m/y
- Net savings of **\$112m/y** over ARI

COA B - Ratio of Relative Combat Capability = .5 KW to 1 AH

Using a .5 ratio the following is a possible enhancement to ARI



X 30 = X 15



Attack/Reconnaissance Squadron (ARS)



Attack/Reconnaissance Squadron (New ARI ARS)

AC CAB X 10*
10 ARB @ 24 AH = 240
10 ARS @ 15 AH = 150
Total AC CAB
Operational Fleet= 390**

*This COA eliminates the need for the 11th AC CAB equipment set
**ARB fielded at 21 AH and ARS at 18 AH

Training Fleet = 70
Test Fleet = 10
Boeing Line = 15
Other ORF= 10
Total Non-Operational Fleet=105
(NG provide additional 30 A/C To Boeing Line for total of 45)

NG CAB X 5***
5 ARB @ 24 AH = 120
5 ARS @ 15 AH = 75
Total NG CAB
Operational Fleet= 195**

**ARB fielded at 21 AH and ARS at 18 AH

***TNARNG KW ARS, MSARNG ARC, 3 current NG ARBs all convert to new NG ARS, other current 5 NG ARBs remain as ARB.

COA B Provides:

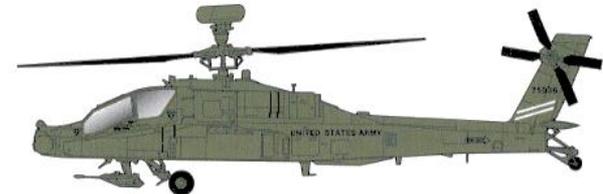
- 50% Operational/Strategic Reserve by keeping 5 of 8 NG CABs
- Cost savings of \$51m/yr by reducing the current AC operational fleet from 408 AH to 390 or an equivalent of 2/3 ARB (1 ARB costs \$77m/yr)
- Current NG AH operational fleet increases by 3 AH with no real cost increase
- Net savings of \$51m/y over ARI

COA C - Ratio of Relative Combat Capability = .6 KW to 1 AH

Using a .6 ratio the following is a possible enhancement to ARI



$$X 30 = X 18$$



Attack/Reconnaissance Squadron (ARS)



Attack/Reconnaissance Squadron (New ARI ARS)

AC CAB X 10*
10 ARB @ 24 AH = 240
10 ARS @ 18 AH = 180
Total AC CAB
Operational Fleet= 420**

*This COA eliminates the need for the 11th AC CAB equipment set
**All ARS and ARB cross level to 21 AH per ARB/ARS

Training Fleet = 70
Test Fleet = 10
Boeing Line = 12
Other ORF= 10
Total Non-Operational Fleet=102
(NG provide additional 32 A/C To Boeing Line for total of 44)

NG CAB X 4***
4 ARB @ 24 AH = 96
4 ARS @ 18 AH = 72
Total NG CAB
Operational Fleet= 168**

**All ARS and ARB cross level to 21 AH per ARB/ARS
***4 current NG ARB convert to ARS, other 4 NG ARBs remain ARB.

COA C Provides:

- 40% **Operational/Strategic Reserve** by keeping 4 of 8 NG CABs
- Cost increase of \$38m/yr by increasing the current AC operational fleet from 408 AH to 420 or an equivalent of 1/2 ARB (1 ARB costs \$77m/yr)
- Current NG AH operational fleet decreases by 24 AH or equivalent of 1 ARB for a savings of \$32m/y
- Essentially **cost neutral**

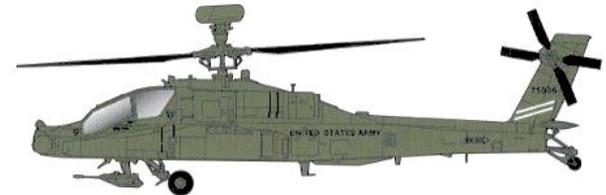
ARI- Ratio of Relative Combat Capability = .8 KW to 1 AH



Attack/Reconnaissance Squadron (ARS)

ARI erodes the Constitutional role of National Guard as Combat Force. With no reserve, it increases risk and is irreversible if Army later changes mind and needs NG attack aviation

X 30 ~~≠~~ X 24



Attack/Reconnaissance Squadron (New ARI ARS)

AC CAB X 10
10 ARB @ 24 AH = 240
10 ARS @ 24 AH = 240
Total AC CAB
Operational Fleet= 480

Training Fleet = 80
Test Fleet = 15
Boeing Line = 54
Other ORF = 13
11th CAB Equip Set = 48
Total Non-Operational Fleet=210

NG CAB X 0*

*8 current NG ARB convert to Blackhawks, 8 Current NG CABs convert to Aviation Brigades for non-combat missions

Mitigate Risks of ARI through:

-Buying 72 additional Apaches for AC CABs rather than take 192 from NG

or

-Reducing from 10 to 8 AC CABs and keeping 6 NG CABs (14 total)
Nets savings of \$108m/yr
(AC CAB = \$666m/yr, NG = \$204m/yr)
while keeping 14 CABs is a 40% increase in capability over ARI

Results of current ARI proposal:

- 19-21 AC/NG CABs used to execute OIF/OEF (11-13 AC/8 NG CABs)
- ARI= Only 10 AC CAB available for all future contingencies with 1 addition CAB equip set
- No Operational/Strategic Reserve in NG
- AC operational fleet only increases from 408 AH to 480
- Entire NG AH operational fleet of 192 AH eliminated to fill need of 72 AH in 10 AC operational CABs – Cuts into savings from KW divestiture
- Most NG AH (120) will fill non-operational role within AC

Use an Accurate Ratio of Relative Combat Capability – KW to AH

By using Course Of Action A, B or C, Army Aviation will:

- Retain a significant Operational/Strategic Reserve of Combat Aviation Brigades within the NG (4-6 additional CABs over ARI)
- Retain or improve the cost savings from ARI
- Provide a means for Army Aviation to keep the skills of Apache pilots after they leave Active Duty
- Eliminate the cost of re-training current NG Apache pilots
- Preserve Force Structure if a modern Scout/Recon aircraft is acquired in the future
- Maintain force structure and extensive ground equipment in NG to assist Governors with DOMOPS

Strategic Air/Sea lift cannot move all AC CABs into theater during the 1st 60 days of conflict. By then, the 1st NG units will be ready to deploy. So why is the taxpayer funding the high cost of full time units when they will not get to theater any faster than less expensive NG units could?