

Input for GAO Report on ARI Stemming from the NDAA

Why the California National Guard Conducted This Study

Section 1057 of the National Defense Authorization Act (NDAA) directs the Government Accountability Office to provide a report by March 1, 2015, to the defense committees of Congress assessing the Army's Aviation Restructure Initiative (ARI) and any of the National Guard Bureau or Department of Defense Cost Assessment and Program Evaluation Office proposals that could serve as alternatives to ARI.

ARI would adjust the structure and mix of combat aviation forces among the Active Component Army, Army Reserve and Army National Guard. The California National Guard (CNG) is submitting this report to the GAO to ensure that it has the most accurate picture of the issues pertinent to ARI. This report:

- (1) Utilizes data from the Department of Defense Cost Assessment and Program Evaluation (CAPE) Office to compare the assumptions, constraints and limitations of the Aviation Restructure Initiative, the Chief of the National Guard Bureau's proposal and the States' Alternative Proposal drafted by National Guard aviators.
- (2) Assesses the models used to estimate future costs and cost savings associated with the above proposals for allocating Army aviation platforms among the Active and Reserve Components.
- (3) Demonstrates that the States' Alternative Proposal drafted by National Guard aviators is more cost-efficient than ARI or the NGB proposal; maintains an effective operational reserve; retains adequate combat capability in the Active Component; and complies with regulatory authorities.

Scope and Methodology

CNG staff analyzed the Aviation Restructure Initiative, the Chief of the National Guard Bureau's proposal, the DoD CAPE reports and an alternative restructuring proposal for compliance with policy and U.S. Code, costs and mission-effectiveness. The staff reviewed data and factors bearing on Army Aviation deployments, performance and costs. Appendix 1 fully addresses objectives, scope and methodology.

Recommendations

This study recommends that DoD (1) pursues an alternative to both ARI and the Chief of the National Guard Bureau's proposal; this third option, referenced in this document as the States' Alternative Proposal, would reduce the overall size of the aviation fleet, address the Active Component's requirements for its operational fleet and reduce the number of Combat Aviation Brigades (CAB) in the Army National Guard, while still providing a strategic reserve; (2) include Combatant Commander requirements for Combat Arms as a factor in evaluating combat force structure and the Active/Reserve component mix. Congress should consider assessing the authorities for determining

roles and missions among the components and ensure that they are accounted for in force structure changes. Congress should also consider appointing a non-DoD/non-Guard agency to validate the cost models and accuracy of data sources for estimating costs associated with force restructuring initiatives.

Contents

p. 3	Background
p. 3	The relationship of the Department of Defense Cost Assessment and Program Evaluation (CAPE) reports to ARI, the CNGB Proposal and the States' Alternative
p. 4	Drivers for ARI
p. 6	Summary of the Aviation Restructuring Initiative (ARI)
p. 7	ARI assumptions, limitations and constraints
p. 10	ARI would violate DoD Directive 1200.17 and Title 32 U.S.C.
p. 13	Summary of the National Guard Bureau Proposal
p. 13	NGB assumptions, limitations and constraints
p. 15	Summary of The States' Alternative Proposal
p. 17	Appendix 1 Objectives, Scope, and Methodology
p. 19	Appendix 2 2013 DoD CAPE Report on Unit Cost and Readiness for the Active and Reserve Components of the Armed Forces
p. 20	Appendix 3 AC/RC Tiger Team briefing on Aviation Restructure Initiative to the Council of Governors
p. 21	Appendix 4 Council of Governors Response to AC/RC Tiger Team Briefing on ARI
p. 22	Appendix 5 Department of Defense Directive 1200.17, Managing the Reserve Components as an Operational Force
p. 23	Appendix 6 Demand on Forces
p. 24	Appendix 7 Summary of Army National Guard ARB combat performance
p. 25	Appendix 8 Army National Guard AH-64 Operational Readiness Rates
p. 26	Appendix 9 Historical Army National Guard AH-64 deployment chart
p. 27	Appendix 10 Operations and Sustainment Comparison between Army National Guard and Active Component
p. 29	Appendix 11 Comparison of Combat Capability, Kiowa and Apache

Background

The 2015 NDAA directs the GAO to provide a report by March 1, 2015, to the defense committees of Congress assessing the Aviation Restructure Initiative (ARI). This task is one of several discrete examinations into measures that military services are considering in response to the Budget Control Act, a changing security environment and economic and political pressures.

Army Aviation must solve the following problem: What combat capability is needed to fill the role previously assigned to the retiring OH-58 Kiowa given a \$10.5B budget reduction and an uncertain security environment?

To address this issue the Active Component created ARI, which suggests that consolidating combat aviation assets in the Active Component would provide the nation with the most modernized fleet and the most available combat power. ARI would affect Combat Aviation Brigades (CABs), the placement of AH-64D Apache helicopters and other airframes, and several related personnel and force generation issues affecting Army National Guard Infantry Divisions and Brigade Combat Teams.

The National Guard Bureau and the States' National Guard have each provided alternative proposals that retain Apache force structure in the National Guard at reduced numbers.

The Relationship of the Department of Defense Cost Assessment and Program Evaluation (CAPE) Reports to ARI, the CNGB Proposal and States' Alternative

There are two Department of Defense Cost Assessment and Program Evaluation (CAPE) reports that inform the analysis on ARI, the Chief of the National Guard Bureau proposal and the States' alternative. The first of these is the CAPE report produced in 2013 which has been central to the Reserve Component's cost argument (Appendix 2 Unit Cost and Readiness for the Active and Reserve Components of the Armed Forces). CAPE is an advisory council to the Secretary of Defense, producing analysis and formulating alternatives for DOD assessments such as the Quadrennial Defense Review (QDR). Reserve Component advocates, notably the National Guard Association of the United States (NGAUS) and Reserve Forces Policy Board refer to this document in their efforts to prove the economic value of the Guard and Reserve in the total force Army. These advocates point to the report's findings that the costs for Army National Guard personnel and units are one third the cost of the Active Component when in dwell¹, and nearly as expensive as the Active Component when deployed.² The National Guard Bureau (NGB) proposal that counters ARI uses this same CAPE report to support its position.

¹ 2013 CAPE report: "The observed trend is that when not in use, RC personnel are about 15 percent the cost of AC." P. 31

² 2013 CAPE report: "When use, RC personnel cost range from 80 to 95 percent the cost of AC personnel." p.31

The second CAPE document is the AC/RC Tiger Team briefing on Aviation Restructure Initiative to the Council of Governors dated December 2nd, 2014 (Appendix 3). The states are critical of the composition, accomplishments, methodology and data input of this team—NGB participants in particular. As a result, the “agreed upon” items in the report reflect consensus with NGB and do not reflect the states’ analysis or views.³ Appendix 1 Objectives, Scope, and Methodology provides additional analysis and context of this CAPE report. Appendix 4 Council of Governors Letter lists *their* concerns with CAPE’s conclusions and assumptions.

As comprehensive as they are, the CAPE reports are still only two pieces of analysis necessary to examine ARI and its alternatives. There is an abundance of research and analysis on how each component justifies its value. The inputs to the National Commission on the Structure of the Air Force provide such examples. Though many of these sources are accurate, their major limitation is that they are generally only accurate for the discrete question to which they address such as the RAND Reshaping the Army’s Reserve and Active Components, and Assessing the Army’s Active-Reserve Component Force Mix. There are a myriad of ways to account for costs associated with personnel, units, readiness, training, operations and maintenance in both peace time and mobilization. These costs must be viewed in context with other factors that sometimes outweigh a dollar figure in isolation or calculated for a specific set of circumstances for either Active or Reserve Components.

Drivers for ARI

While the disposition of the Army’s Apache helicopters is a central issue in the ARI debate, the issue is much more complex. Parochial component interests, acquisition history, technological developments and joint doctrine all contribute to stakeholders’ positions.

A cursory understanding of the CAB’s role and the Apache gives some historical context behind ARI. The cornerstone of Army Aviation, the combat aviation brigade (CAB) is the forward attack element used by the Army to shape the battlefield. CABs have been among the first elements to engage the enemy in all conflicts during the past two decades, and the Apache is an essential element of the CAB. Army Aviation, in any platform or configuration provides the most important enabling capability to Soldiers on the ground.

Ideally the CAB’s mix of aircraft and their technologies is equally balanced and matched to their respective roles – that is, one aircraft is not generations ahead of other aircraft that perform complementary or supporting roles. The Army, however, found itself with just this type of unequal pairing – the Apache and the Kiowa – as the result of some

³ For example, there are \$192M of “other costs” attached to both ARI and the CNGB proposal. There is no explanation of the \$420M of remanufacturing costs attributed to the One-Time Cost of the CNGB plan. The FORCES cost model to which this Tiger Team refers does match or explain the delta between its figures for AC and Guard manpower and that reported in the Deputy Assistant Secretary of the Army for Cost and Economics (DASA–CE) Forces Cost Estimate Model (FCM) for AH64D Battalion; Base Year 2014, Version: 2012.050913 (Appendix 5)

procurement issues that date back to the 1980s.⁴ Combat operations in Iraq and Afghanistan then prompted the Army to continue using the Kiowa far beyond its intended retirement date. As a result, the Army now has a sizeable but obsolete inventory of Kiowas and a large modernized fleet of Apaches.

Because the Apache outperforms the Kiowa – albeit at a higher cost – the Army now intends to use the Apache to fill the aerial scout mission.⁵ Army aviators laud the aircraft’s ability to conduct missions prescribed to attack/reconnaissance helicopters: Reconnaissance, Security Attack (Interdiction and Close Combat Attack), and Movement to Contact.⁶ The Army’s own Field Manual (3.04.126) in fact makes no distinction between the missions the Apache and the Kiowa conduct. Organizationally though, the Army separates these aircraft by assigning Kiowas to Attack Reconnaissance Squadrons (ARS) and placing Apaches in Attack Reconnaissance Battalions (ARB). The number of aircraft assigned to each of these formations factors into how ARI and its alternatives were developed.

Though the Apache outperforms the Kiowa in many ways, it should be noted that the Apache cannot replace the Kiowa at Fort Rucker, Alabama, where it is used as a training helicopter for Active Component, National Guard and Army Reserve pilots. The Army instead will use the LUH-72 Lakota to replace the retiring Kiowa and TH-67S Creek training platforms.

The rise of unmanned aerial systems (UAS), or remotely piloted vehicles (RPAs), also affects the future of Army CABs. The placement of these assets within Army aviation formations adds another dimension to reconnaissance, intelligence and maneuver operations, but they have not supplanted any manned aircraft for Army attack or reconnaissance missions. Other services’ employment of UAS technology does not negate the Army’s need to use these systems as a complement to manned aircraft supporting formations down to small unit level that are performing full spectrum operations or Decisive Action Operations.⁷

The services must provide strategic depth to these full-spectrum operations, and per Department of Defense Directive 1200.17 (Appendix 5)⁸, this depth must come from the Reserve Component. Appendix 6 illustrates the general historical trend for demand on

⁴ Army doctrine during the Cold War required a cavalry/scout helicopter to complement the heavy attack Apache in its operations combining land and air combat systems, but the Army was unsuccessful in procuring a next-generation aircraft to fill this role. The Kiowa was therefore used in that role. Later, combat operations in Iraq and Afghanistan prompted the Army to retain the Kiowa far beyond its intended retirement date.

⁵ Factors for evaluating combat capability for these aircraft are: weaponry, station time/range, sensors, survivability. Appendix 9 provides data on how these two aircraft compare in these categories.

⁶ Army Field Manual 3.04.126, Attack Reconnaissance Helicopter Operations.

⁷ “Decisive Action Operations” is a newer term for “full spectrum operations.” Full spectrum operations will be used throughout this paper however to maintain consistency with the language in DoD Directive 1200.17.

⁸ DoD Directive 1200.17 “. . . establishes the overarching set of principles and policies to promote and support the management of the Reserve Components (RCs) as an operational force.” ARI would defy several provisions in the Directive which assign responsibilities of managing RCs as an operational force, providing strategic depth through RCs, and integrating RCs across the full spectrum of missions to the Secretaries of the Military Departments.

forces over time to meet homeland defense (domestic operations), forward presence and surge phases in support of the National Military Strategy.

Prior to the issuance of DoD Directive 1200.17 in 2008, the Army's components fought for roles, missions and funding for their units in the Combat Arms, Combat Support and Combat Service Support branches. Seven years into two major conflicts in Iraq and Afghanistan, the DoD formally addressed the discrepancies between what it was asking of the Reserve Component — to be an operational reserve — and what it was organizing, training, equipping and funding it with. However, neither the Reserve Component's performance in Operation Iraqi Freedom and Operation Enduring Freedom nor directives like DoD 1200.17 did much to abate the quarrel between the Active Component and Reserve Component, especially during times of budget restriction. ARI is one of the many latest disputes over how to meet service obligations with limited resources.

The recent Budget Control Act (BCA) and the threat of sequestration have highlighted the challenges associated with balancing the Army's force structure, arraying its major equipment, and remaining a lethal, ready and sustainable land combat force for the future. There is constant tension among the inputs to this process; doctrine, technology, security threats, fiscal constraints and component loyalties all shape the Army. The need to scrutinize this process is greatest when addressing capital-intensive programs and capabilities like aviation in a time of necessary national fiscal restraint.

SUMMARY OF THE AVIATION RESTRUCTURE INITIATIVE (ARI)

The ARI timeline begins in FY16 and would be fully realized by about 2025. ARI reduces the size of the Army Aviation force and redistributes capabilities and capacities across the components.

By airframe, ARI would allocate AH-64 Apaches in the following manner:

480	20 Active Component ARBs and ARSs with 24 aircraft each
80	Ft. Rucker flight school
48	Equipment set
15	Research and Test
67	Floats (54 Boeing remanufacturing line, 6 Depot maintenance, 3 pending attrition, 4 theater spares)
690	Total

- Transfer all 192 Apaches from the Army National Guard to the Active Component
- Transfer 111 of the Active Component's UH-60L Black Hawk helicopters to the Army National Guard
- Divest 600 aircraft, including 330 Kiowas
- Integrate unmanned aerial systems (UAS) into Active Component Army aviation formations
 - RQ-7 Shadows would be integrated into Active Component attack reconnaissance squadrons

- RQ-1 Grey Eagles would be integrated into Active Component attack reconnaissance battalions

By personnel ARI would:

- Cut approximately 4,085 Army National Guard soldiers

By formation ARI would:

- Deactivate three of the 13 Active Component CABs and two of the eight Army National Guard CABs.⁹
 - One of the remaining 10 Active Component CABs is equipment set only, with no personnel.
- The remaining CABs in both components would reorganize
 - Active Component CABs would include
 - 10 Attack Reconnaissance Battalions (ARB) with 24 Apaches each
 - 10 Attack Reconnaissance Squadrons (ARS) with 24 Apaches
 - The Army National Guard would only have Support Aviation Brigades
 - ARI would cut three command/brigade headquarters, nine battalion headquarters and 38 companies from the National Guard.¹⁰

ARI assumptions, constraints and limitations

In order to expedite a solution to the Army's fleet inventory problem, the Active Component made several assumptions while constructing its plan to distribute aviation capabilities across the components.

Assumptions

ARI Assumption 1: The Active Component CABs will take a large loss in capacity with the divestiture of the OH-58D Kiowas.

- Active Component CABs would lose 270 Kiowas and gain 192 Apaches from the Guard
- This would represent virtually no loss in airframes for Active Component CABs and would represent a gain for the Active Component's non-operational fleet.
- Additionally, Active Component CABs would gain capability under ARI through the addition of unmanned aerial systems.

ARI Assumption 2: Replacing each retired Kiowa with an Apache will maintain capability for the Active Component.

- Each Apache actually brings much greater capability than a Kiowa, meaning the Active Component would increase its overall capability through ARI.
 - The Apache has faster speed, greater range, higher combat ceiling, longer station time, better sensors, greater munitions payload and survivability.
 - Difference in capability is demonstrated by difference in price: \$35 million vs. \$11 million.

⁹ Pre-9/11 the Active Component had 10 CABs and increased to 12 during OIF and OEF. The Army activated an additional CAB in April 2014 which brought that number to 13, but did not move resources into the unit.

¹⁰ These cuts to Army National Guard formation come as a result of the loss of the Army National Guard CABs.

- In building the States' Alternative Proposal, aviators estimated the Kiowa's capabilities equal 60 percent of an Apache, which they considered generous to the Kiowa.

ARI Assumption 3: The AC can count the loss of its newest formed CAB. The Active Component CAB established in April 2014 did not receive full resourcing and has not been used in contingency operations. The unit had no utility during recent conflicts and therefore does not represent a loss in capability.

ARI Assumption 4: Aircraft divested from the training fleet at Fort Rucker should count as losses from the Active Component inventory alone.

- In actuality the fleet at Fort Rucker supports all Army National Guard and Army Reserve pilot training in addition to Active Component training, so losses should not count against any one component.

ARI Assumption 5: Guard aviation units cannot conduct complex operations without prohibitive pre-deployment preparation.

- Army National Guard units successfully accomplished every mission to which they were assigned in Operation Iraqi Freedom, Operation Enduring Freedom, Operation Noble Eagle and Operation New Dawn.
 - Army National Guard ARBs routinely performed high-intensity, high-complexity, high-danger missions and garnered several unit and individual awards. (E.G. Twelve pilots from 1-149th Aviation, Texas Army National Guard, received the Distinguished Flying Cross during their 2006-2007 deployment to Iraq.) Appendix 7 provides a short summary of Army National Guard ARB combat performance.
 - Appendix 8 tracks ARNG AH-64 Operational Readiness Rates and factors bearing those rates

ARI Assumption 6: Army National Guard Aviation is not accessible.

- The Army National Guard has successfully responded to every Request for Forces it received.¹¹
- Only DoD and Department of the Army Headquarters policy have prevented more extensive use of Army National Guard Aviation. Appendix 9 lists historical Army National Guard Apache deployments.

ARI Assumption 7: Army Aviation can meet future demands with a 46 percent reduction in attack-reconnaissance units.

- The Army Training and Doctrine Command Analysis Center and CAPE support the notion that ARI can meet known demands. Future demands related to emerging threats, however, would stress the proposed aviation force and capabilities distribution.
 - ARI reduces the number of attack helicopter formations from 37 to 20 with no strategic depth. It is necessary to differentiate between combatant

¹¹Army National Guard ARB tasks included requests for 12 Battalions and 5 separate Companies.

commanders' demands, and the speed required to provide that response. The recent major conflicts demonstrate the need for a combat reserve to meet combatant commanders' demands in a sustainable way, regardless of how quickly an initial response is warranted. In addition, the air and sea lift required to move aviation formations into theater are a limiting factor in how many ARBs are fielded.

ARI Assumption 8: The Army National Guard's mobilization-to-dwell ratio will remain fixed at 1:4.

ARI Assumption 9: The Army National Guard needs more utility helicopters.

- The Army National Guard has approximately 849 Black Hawk helicopters spread across the 54 states and territories, which have been and continue to be adequate for civil support missions, according to the individual states and the National Guard Bureau.¹²
 - States' use of the Emergency Management Assistance Compact and regional memoranda of understanding have been effective in meeting states' requests for assistance for domestic operations.
- The 111 Black Hawks that ARI would transfer to the National Guard would be desirable to the states for civil support missions, but not at the expense of losing all of its Apaches.
- The NGB proposal requests only 60 more Black Hawks for the National Guard, because that is the maximum number of aircraft the states can currently support.

Constraints

ARI Constraint 1: ARI's benefit of about \$12 billion in savings can only be realized if the Army does not procure a new scout aircraft to replace the Kiowa. These savings would accrue outside the FY6-20 Program Objective Memorandum. None of the \$12B savings comes from transferring the AH-64 Apaches from the ARNG.

Limitations

ARI Limitation 1: ARI limits the Army's ability to retain trained and experienced Apache pilots in both the Active and Reserve components.

- Under ARI, the nation would lose any National Guard Apache pilots who cannot or do not cross-train to become Black Hawk pilots.
- Lacking a combat reserve, Active Component CABs would experience a higher deployment frequency under ARI. Similar stress on the force in the 1990s prompted the Army to offer a retention bonus to Apache pilots.
 - ARI would not only create conditions that could stress the force, it would eliminate the Army's ability to mitigate that stress with a combat reserve.

¹² Per current MTOE (Modified Table Of Equipment) and TDA (Table of Distribution and Allowances) authorizations.

ARI would violate DoD Directive 1200.17 and Title 32 U.S.C. ARI would violate DoD Directive 1200.17, the 2015 National Defense Authorization Act and Title 32 of the U.S. Code.

Department of Defense Directive 1200.17

Policy Provision:

- a. The Reserve Components provide operational capabilities and strategic depth to meet U.S. defense requirements across the full spectrum of conflict including under sections 12301, 12302, 12304, and 12306 of Reference (a).¹³

Service Secretary Responsibility:

- b. Manage their respective Reserve Components as operational forces such that the Reserve Components provide operational capabilities while maintaining strategic depth to meet U.S. military requirements across the full spectrum of conflict.
- c. Ensure that the Reserve Components participate across the full spectrum of missions at home and abroad in providing operational capabilities according to the national defense strategy, their service force management plans, and operational requirements. To the extent practicable and consistent with the services' organizational constructs, ensure unit integrity is maintained, to include unit leadership positions when Reserve Component units are utilized to fulfill operational requirements.

ARI would transfer all of the AH-64 Apaches in the Army National Guard to the AC, thereby converting all ARNG CABs into Support Aviation Brigades with no combat mission.¹⁴ In this arrangement, the Army would maintain all of its attack reconnaissance capability in the AC. While OIF and OEF provided ample combat exposure to Support Aviation Brigades flying UH-60 variants, they do not fill the same roles as scout and attack aircraft prescribed in Army doctrine, nor do they fulfill an Infantry Division's or Brigade Combat Team's (BCT) requirements to train and conduct joint unified land operations. Thus, the ARNG cannot provide "operational capabilities and strategic depth to meet U.S. defense requirements across the full spectrum of conflict" with only Support Aviation Brigades.

Policy Provision:

- b. The Active Components and Reserve Components are integrated as a total force based on the attributes of the particular component and individual competencies.

Service Secretary responsibility:

- d. Ensure that, while providing strategic depth, Reserve Component units and individuals train and are available for missions in accordance with the national defense strategy.
- g. Ensure sufficient depth of Reserve Component unit and individual capabilities

¹³ Reference (a) in the Directive is Title 10, United States Code.

¹⁴ Current ARNG Attack/Recon units reside in ID, UT, AZ, TX, MO, MS, NC, SC, PA

to meet established DoD force utilization goals.

Restructuring the Total Army under ARI would produce cascading effects in other Army branches and create integration and training problems. Infantry brigade combat teams (BCT), for example, require complex air-ground integration training with CABs. Removing CABs from the National Guard would create inefficiencies and training challenges for BCTs, which must complete this training. Furthermore the Active Component's ability to quickly respond to defense requirements and the Reserve Component's ability to provide an operational combat reserve as a follow-on force would be minimized if an entire capability – combat aviation in this instance – were concentrated in one component.

Policy Provision:

e. The continuum of service is utilized to enhance the effectiveness of and sustain the all volunteer force with flexible service options that are attractive to a broad population.

Service Secretary responsibility:

h. Ensure force rebalancing is conducted on a continuing basis to adjust force structure and individual skill inventories to meet full spectrum operations while moderating excessive utilization of the total force. Such rebalancing shall result in a force mix that takes into account Active Component and Reserve Component capabilities and capacities.

i. Integrate Active Component and Reserve Component organizations to the greatest extent practicable, including the use of cross-component assignments, both Active Component to Reserve Component and Reserve Component to Active Component. Such assignments should be considered as career enhancing and not detrimental to a Service member's career progression.

ARI addresses disposition of aircraft among the components but does not submit a plan for associated National Guard Apache pilots, maintenance and support personnel. Presumably some would cross-train into the Black Hawk system. However, the distribution of these aircraft is not one-for-one in the states losing Apaches. The continuum of service for these National Guard personnel under ARI would not likely enhance the effectiveness of these volunteers nor provide flexible service options for them.

Policy Provision:

f. Utilization rules are implemented to govern frequency and duration of activations. Since expectation management is critical to the success of the management of the Reserve Components as an operational force, these rules enhance predictability and judicious and prudent use of the Reserve Components.

Service Secretary responsibility:

j. Align, to the extent practicable, force structure with established DoD goals for

frequency and duration of utilization for unit and individuals.

o. Accelerate modernization while balancing the need for restoring immediate readiness through recapitalization with the imperative to prepare for future conflicts with more advanced adversaries.

2015 NDAA

The 2015 National Defense Authorization Act emphasizes those tenets of DoDD 1200.17 that provide for the strategic depth and regeneration capacities of the Army and the Army National Guard's role as its combat reserve. Section (f) of the 2015 NDAA stipulates the following certification:

The certification referred to in subsection (e) is a certification by the Secretary of Defense in writing to the congressional defense committees that the commencement of preparations to transfer AH-64 Apache helicopters pursuant to the exception provided by subsection (e) (1) or a transfer of AH-64 Apache helicopters pursuant to the exception provided by subsection (e) (2) would not create unacceptable risk

- (1) to the strategic depth or regeneration capacities of the Army; and
- (2) to the Army National Guard in its role as the combat reserve of the Army.

In NGB's view, an initial transfer of 48 Apaches still provides for (1) and (2) above, but some states question at what number above that creates unnecessary risk.

Title 32, U.S.C.¹⁵

Section 104, Title 32, U.S.C. – b mandates:

“Except as otherwise specifically provided by this title, the organization of the Army National Guard and the composition of its units shall be the same as those prescribed by the Army, subject, in time of peace, to such general exceptions as the Secretary of the Army may authorize...”

To comply, the secretary of the Army would have to argue that the condition to which ARI would bring the National Guard – one dissimilar to the Active Component and without a CAB – is a general exception that is absolutely necessary.

Some of ARI's major limitations are its conflicts with DoD Directive 1200.17 and Section 104, Title 32, U.S.C. This directive and law evolved from difficult lessons over several years and have since made for a more lethal, ready, efficient and sustainable force.

¹⁵ <http://uscode.house.gov/download/annualhistoricalarchives/pdf/2011/2011usc32.pdf>

SUMMARY OF THE NATIONAL GUARD BUREAU (NGB) PROPOSAL

The National Guard Bureau proposal calls for an independent study due not only to the scale and long-term impacts of ARI, but also because it views the redistribution of aviation capabilities and capacities across the components as a precursor to additional inter-component conflicts in competition for roles and missions. The Army National Guard is concerned that the type of logic and hastiness behind ARI will carry over to reorganizations of other branches as well.

NGB proposes the following as a counter to ARI:

By airframe the NGB proposal would:

- Divest 30 ARNG OH-48D Kiowas
- Retain all 212 ARNG UH-72s
- Allocate AH-64 Apaches in the following manner:
 - 432 AC Modified Table Of Equipment (MTOE)
 - 120 ARNG Modified Table of Equipment (MTOE)
 - 48 Equipment Set
 - 80 Ft. Rucker Flight School
 - 15 Research and Test
 - 37 Float (37 in the Remanufacturing Line)
 - 732 Total

By formation the NGB proposal would consist of:

- No less than six AC CABs (containing ARBs and ARSs with AC AH-64 Apaches)
 - Comes from reducing AC ARB/ARSs from 20 to 18
- Two Multi-Component CABs (containing ARNG AH-64 Apaches)
 - Would come from converting 2 AC CABs and forming the above multi-component CAB
- Two ARNG CABs (containing ARBs and ARSs with ARNG AH-64 Apaches)
- Nine ARNG Combat Aviation Support Battalions
 - Retains all ARNG UH-72s (212 aircraft) and Security and Support structure with a Domestic Operations focus

NGB Proposal assumptions, constraints, and limitations

Assumptions

NGB Assumption 1: A large float account is not necessary. Historical attrition rates show a loss of about one Apache per year, which forms a basis for the NGB plan.

- ARI assumes an annual attrition rate of about three Apaches.

NGB Assumption 2: Any aircraft transfers between the components will be permanent.

- The funding for lost Guard units, aircraft and personnel has already been cut from the budget.
- Historical indicators suggest such transfers are irreversible.

NGB Assumption 3: Moving the Army's most expensive aircraft into its most expensive component is not cost-efficient.

- While cutting the total number of Apache battalions from 27 to 20 would save money, NGB claims the DoD would save more money by making cuts to the Active Component instead of the National Guard.
- The annual cost to operate an Apache battalion at an Active Component unit's home station is \$77 million as compared with \$32 million for a National Guard Apache battalion. See Appendix 10.

NGB Assumption 4: National Guard Apache battalions can be ready for mobilization as soon as required.

- The Guard mobilization process brings Apache battalions to combat-ready status within 120 days.
 - This is a shorter time span than would be required to deploy the Active Component's 20 attack reconnaissance battalions and attack reconnaissance squadrons.

NGB Assumption 5: The Office of the Secretary of Defense and/or Headquarters Department of the Army would fund replacement of a portion of the Army's training fleet.

Limitations

NGB Limitation 1: The Army would lack a large non-operational Apache fleet.

SUMMARY OF THE STATES' ALTERNATIVE PROPOSAL

The States' Alternative Proposal is based on the capability of the Apache to exceed the Kiowa's in fulfilling the role of attack reconnaissance. As demonstrated below, the States' Alternative Proposal posits that a Kiowa can do the job of 0.6 Apaches.

Under the States' Alternative Proposal:

By airframe, AH-64 Apache allocation would be:

420	AC Modified Table Of Equipment (MTOE)
168	ARNG Modified Table Of Equipment (MTOE)
70	Ft. Rucker Flight School
10	Research and Test
12	Boeing remanufacturing line
10	Other Operational Ready Fleet
690	Total

The Army National Guard fleet would comprise 168 Apaches under this plan, including 32 the Boeing remanufacturing line. The Apaches would be organized into four attack reconnaissance battalions of 24 aircraft and four attack reconnaissance squadrons of 18 aircraft.

By formation, the States' proposal would organize:

- 10 AC CABs
 - 10 ARBs with 24 Apaches each
 - 10 ARSs with 18 Apaches each¹⁶
- 4 ARNG CABs
 - 4 ARBs with 24 Apaches each
 - 4 ARSs with 18 Apaches each

The Active Component Army has claimed it needs all 690 of the Army's Apaches in the Active Component, including 210 in its non-operational fleet. Accurate assessment of the Kiowa's capabilities as compared with the Apache, however, show the Army could perform its missions with 420 Apaches.

¹⁶ 18 was the standard number for a squadron throughout the 1990s

The table below shows the Apache has faster speed than the Kiowa as well as greater range, higher combat ceiling, longer station time, better sensors and survivability. That difference in capability is demonstrated by the difference in the price as well.

Metric	Kiowa	Apache
Cost	\$11M	\$35M
Station Time	2 hours 140 Mile Range	3.5 Hours 360 Mile Range
Performance	7,500 Foot Combat ceiling 95 knots Cruise Speed	12,000 Foot Combat Ceiling 120 Knots Cruise Speed
Sensors	1 FLIR - Targeting Only, 3XMag	2 FLIR targeting/pilotage, 36XMag
Survivability	Single Engine	Dual Engine

Appendix 11 lists a more detailed comparison that also includes weapons loads.

These metrics demonstrate that the Active Component Army can perform its mission with about 40 percent fewer Apaches than Active Component leaders have stated.

States’ Alternative Proposal assumptions, constraints and limitations

1. Assumption 1: Assuming risk in the non-operational fleet is more prudent than assuming risk in the operational fleet.

- This proposal would increase the size of the operational fleet and decrease the non-operational fleet.

States’ Alternative Proposal Assumption 2: It is unlikely the Army’s entire Apache fleet would ever be deployed at once.

- Throughout the wars in Afghanistan and Iraq the entire Apache fleet was never deployed; only portions were deployed.
- Most of the time since 2001, there were more Apaches in the United States than there were in Afghanistan and Iraq combined.

States’ Alternative Proposal Assumption 3: Apaches have a far greater mission-ready rate than Kiowas.

- Kiowa fleets often have up to 40 percent of their aircraft grounded for maintenance issues, while Apaches often have less than 20 percent grounded.

States’ Alternative Proposal Assumption 4: Leaving 48 Apaches in an equipment only set for rotating units is not cost-efficient.

- ARI would leave an entire CAB’s equipment outside the U.S. for use by a rotating brigade of Soldiers.
 - This means there would be always be 48 Apaches in the United States that are unmanned and unused.

Appendix 1 Objectives, Scope, and Methodology

Section 1057 of the National Defense Authorization Act (NDAA) directs the Government Accountability Office to provide a report by March 1, 2015, to the defense committees of Congress assessing the Army's Aviation Restructure Initiative (ARI) and any of the National Guard Bureau or Department of Defense Cost Assessment and Program Evaluation (CAPE) Office proposals that could serve as alternatives to ARI. This task is one of several discrete examinations into measures the services are considering in response to the Budget Control Act, a changing security environment and economic and political pressures.

As a contribution to this effort the California National Guard analyzed the Aviation Restructure Initiative, the Chief of the National Guard Bureau's proposal, the DOD CAPE reports and an alternative proposal drafted by National Guard aviators. We identified sources, where available, that communicate each competing proposal. These sources include Army and National Guard briefings, white papers and National Guard committees' correspondence on the topic produced over the past year.

We also identified the data upon which each proposal is built, such as deployment history, unit performance, operational readiness rates, demand for forces and cost data. These data generally cover the period between 2001 and 2014.

We reviewed data and factors bearing on Army Aviation deployments, performance and costs. We conducted interviews with and compiled data from Army National Guard combat aviation brigade personnel, the 1106th Theater Aviation Support Maintenance Group in California¹⁷ and the State Army Aviation Officer Advisor Council (SAAOAC). Additionally, we identified policies and legal codes that govern the Army's Active, Reserve and Guard components.

To the extent possible we described and compared each proposal as directed by Section 1057 of the NDAA. Though ARI, the NGB proposal and the States' Alternative Proposal all refer to CAPE Reports and the Deputy Assistant Secretary of the Army for Cost and Economics Forces Cost Estimate Model for an Apache battalion, there are significant differences in how each initiative accounts for and presents data from these sources.

We also considered the OSD CAPE's AC/RC Tiger Team on Aviation Restructure Initiative briefing to the Council of Governor's, but acknowledge that the data and "agreed upon" items therein do not reflect the view of the states and the State Army Aviation Officer Advisor Council (SAAOAC). The states, the SAAOAC and NGB have dissenting opinions and bias on the background, sources and methodology used to

¹⁷ There are four Theater Aviation Support Maintenance Groups (TASMG) in the country which service aircraft in both the AC and RC. TASMGs are responsible for all intermediate and depot level maintenance for rotary wing aircraft. The CA TASMG services thirteen western states including CA, OR, WA, ID NV, AZ, UT, MT, WY, CO, NM, AL and HI.

develop, analyze and evaluate each initiative. To summarize, CNGB's proposal does not wholly represent the states' interests.

We were unable to accurately compare military and civilian personnel requirements associated with each option because the proposals do not include rigorous studies of those projections. The proposals also do not include detailed plans to address personnel losses, transfers and other expenditures associated with the restructuring. ARI also fails to articulate how contractor maintenance would be used to support the Active Component. Estimates associated with each initiative are generalized and based upon the aforementioned data sources.

Appendix 2 Unit Cost and Readiness for the Active and Reserve Components of the Armed Forces¹⁸

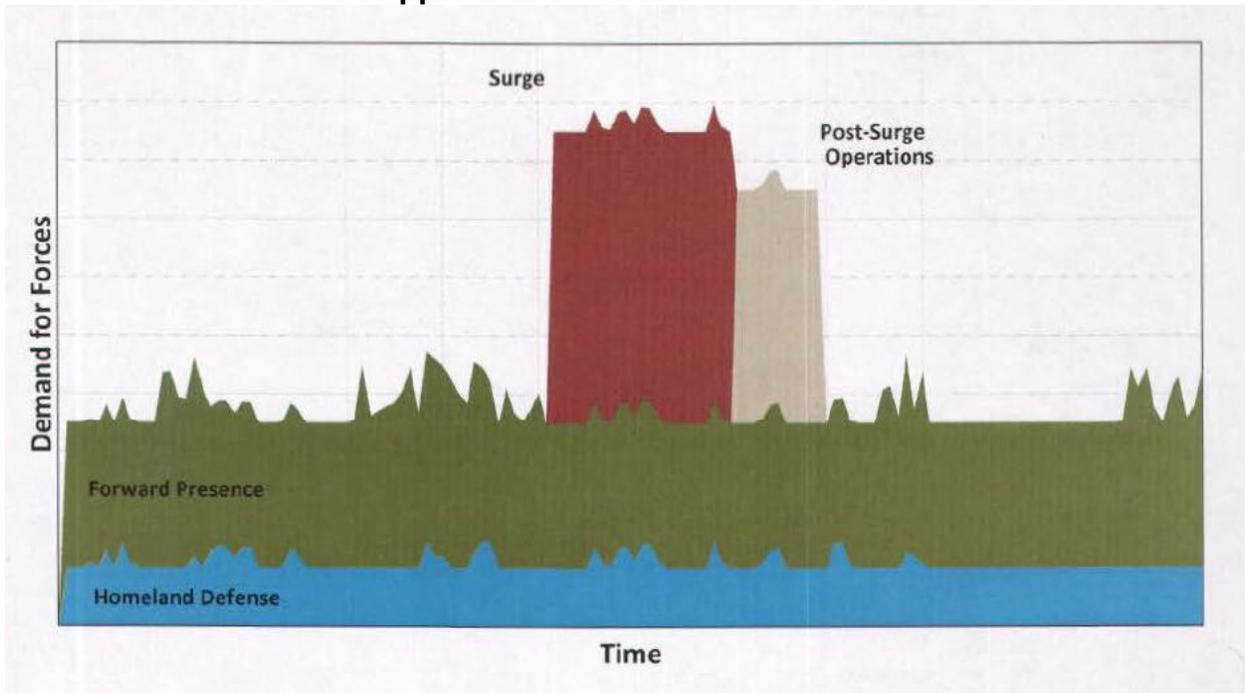
¹⁸ The origin of this report is a congressional mandate that the Department of Defense report on, “. . . Active and Reserve Components, describing unit costs, force mix, demand for forces, and readiness.” In 2013, the Secretary of Defense fulfilled this requirement with this report to Congress.

**Appendix 3 Office of the Secretary of Defense for CAPE’s AC/RC Tiger Team on
ARI briefing to the Council of Governors**

Appendix 4 Council of Governors Response to AC/RC Tiger Team Briefing on ARI

**Appendix 5 Department of Defense Directive 1200.17, Managing the Reserve
Components as an Operational Force**

Appendix 6 Demand on Forces¹⁹



¹⁹ Office of the Secretary of Defense Report to Congress, Unit Cost and Readiness for the Active and Reserve Components of the Armed Forces, Oct 11, 2013; RefID: 7-949E552.

Appendix 7 Summary of ARNG ARB combat performance

ARNG Attack-Recon Battalion and Air Cavalry Squadrons fulfilled every deployment which included Kosovo, Bosnia, Operation Iraqi Freedom, Operation Enduring Freedom and Operation New Dawn. In these theaters, ARNG Attack and Air Cavalry Aviation formations excelled at the same mission sets as their AC counterparts. In comparing ARNG and AC FORSCOM ARMS results, 75% of ARNG ARBs (6 of 8) scored overall satisfactory from 2011-2013, while 36% of AC report ARBs (4 of 11) scored satisfactory, and 54% of AC reporting ARBs (6 of 11) scored unsatisfactory or lower for the same period.²⁰

ARNG ARBs conducted the same combat missions as the AC

- 1-151 SC (OND) – largest Avn Bn TF in Iraq ever: 667 Pax, 50 acft
- 1-211 UT (OEF) – split based between Kunduz, MeS, and Shindand
- 1-285 AZ (OEF) – OCFI DS, Air Assault Escort, QRF, Deliberate Attacks

ARNG ARBs engaged in direct combat

- 1-149 TX (OIF) - >120 engagements, 18 battle-damaged aircraft
- 1-135 MO (OEF) – 33 engagements

ARNG ARBs were innovative in combat

- 1-211 UT (OEF) – used close-in CCA and off-axis gun to support SOF (AC: fixed-forward gun, hi-altitude runs only)
- 1-151 SC (OND) – developed new overwater TTP; arguably the most proficient overwater Aviation unit in the Army

ARNG ARBs were courageous in combat

- 1-149 TX (OIF) – Valorous Unit Award; 12 DFCs, 39 Air Medals for Valor
- 1-211 UT (OEF) – German Presidential Unit Streamer
- 1-135 MO (OEF) – 100 Air Medals for Service/Achievement

ARNG ARBs were commended by AC leaders for their combat performance

- 1-151 SC (OND) – 3USA CG LTG V. Brooks: “1-151 ARB is the best Apache battalion in the Army.”
- 1-104 PA (OEF) – 101st CG MG J. McConville: “You are doing things that would not have happened just a few years ago (re: support of SOF).”
- 1-211 UT (OEF) – By-name recognition by DES, following their in-theater visit.

List of terms:

QRF = Quick Reaction Force

OCFI = Other Than Conventional Forces - Iraq

CCA = Close Combat Attack

TTP = Tactics, Techniques & Procedures

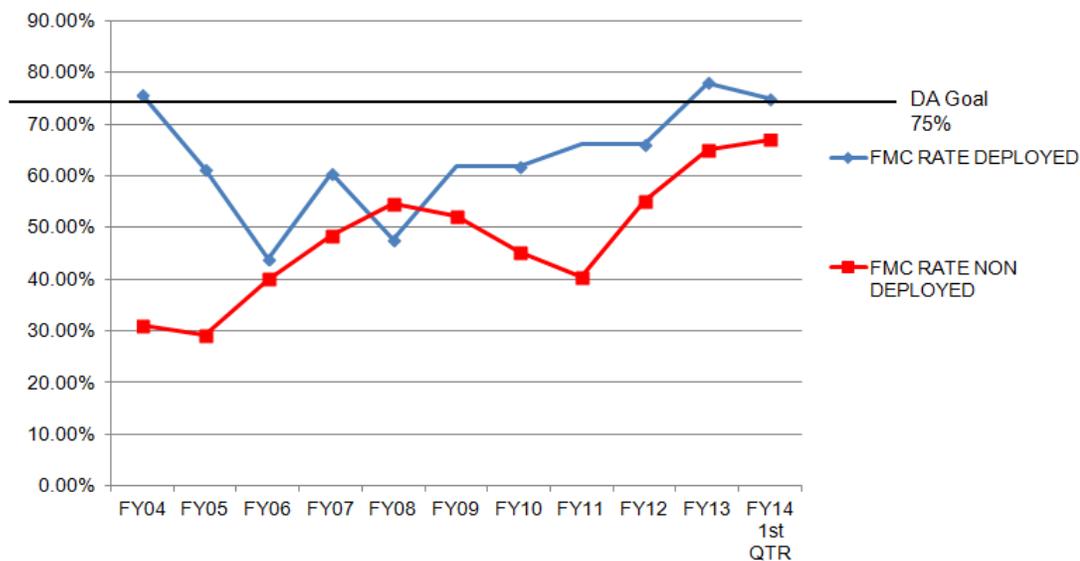
DFC = Distinguished Flying Cross

DES = Directorate of Evaluations and Standardization

²⁰ FORSCOM ARMS is a comprehensive study of aviation operational systems, with emphasis on safe and efficient management of aviation resources. FORMSCOM ARMS teams inspect thirteen functional areas to assess whether units and facilities are in compliance with Army standards.

Appendix 8 ARNG AH-64 Operational Readiness Rates²¹

The data below tracks Fully Mission Capable (FMC) rates from FY04 through 1st Quarter of FY14.



ARNG AH-64 Operational Readiness Rates have been historically below that of the AC, but have improved over the last few years despite the following contributing factors.

The AC was fielded with significantly more new airframes during OEF/OIF and handed down its war worn aircraft to the ARNG.²² When an AC unit returns from theater, they swap their fleet and reset time does not count against their OR rate. The ARNG upon redeployment however cannot swap out their aircraft which is reflected in their OR rate.

AC aviation units depend on contract maintenance whereas the ARNG has significantly less contractor support. AC maintainers cannot perform without contractor support whereas ARNG maintainers can perform AH-64 maintenance autonomously and exceptionally well. As an example, in 2012 the 1-211 Aviation Regiment, Utah Army National Guard, conducted all their own maintenance phases in Afghanistan and did one each for 12th CAB and 101st CAB (both Active Duty units) without an Aviation Support Battalion (ASB) or contractor involvement.

At home station, AC units are 100% manned while ARNG units are only manned 30%-50% with full-time personnel. Additionally, AH-64 “parts windows” are located on AC installations affording those units immediate access to parts. The best that ARNG aviation units can access these same parts is through next-day shipping.

²¹ There were no ARNG AH-64s deployed in FY09 or FY11. OIF Surge and Draw-down between July 2007 and January 2011 largely excluded ARNG ARBs due to revised theater requirements and slow pace of ARNG modernization.

²² Utah ARNG’s 1-211th received 24 of its aircraft after AC had flown them for 28 months in combat.

Appendix 10 Operations and Sustainment Comparison between ARNG and Active Component²³

Operations & Sustainment	\$31,799,548	Operations & Sustainment	\$76,777,682
Direct Equipment Parts & Fuel Cost	\$20,030,362	Direct Equipment Parts & Fuel Cost	\$31,728,436
Training Operations	\$18,096,896	Training Operations	\$26,357,575
Aircraft Operations	\$17,637,046	Aircraft Operations	\$25,130,168
Reparables	\$11,954,754 OMNG	Reparables	\$17,024,064 OMA
Consumables	\$4,196,207 OMNG	Consumables	\$5,966,276 OMA
POL	\$1,486,086 OMNG	POL	\$2,139,827 OMA
Ground/Afloat Operations	\$446,495	Ground/Afloat Operations	\$1,191,944
Reparables	\$73,936 OMNG	Reparables	\$264,637 OMA
Consumables	\$312,305 OMNG	Consumables	\$795,548 OMA
POL	\$60,254 OMNG	POL	\$131,759 OMA
Non-OSMIS Equipment Operating Cost	\$13,356 OMNG	Non-OSMIS Equipment Operating Cost	\$35,464 OMA
Training Ammunition & Missiles	\$1,933,465 AMMO	Training Ammunition & Missiles	\$5,370,861 AMMO
Post Production Software Support	\$101,298	Post Production Software Support	\$101,298
Annual Maintenance Cost	\$10,488 OMNG	Annual Maintenance Cost	\$10,488 OMA
Modernization Amortized Cost	\$90,809 OPA2	Modernization Amortized Cost	\$90,809 OPA2
Indirect Support Cost	\$1,110,818	Indirect Support Cost	\$1,462,027
Transportation of Things	\$27,114 OMNG	Transportation of Things	\$72,868 OMA
Supplies and Equipment	\$478,728 OMNG	Supplies and Equipment	\$416,451 OMA
Contractual Services - Field	\$15,675 OMNG	Contractual Services - Field	\$76,681 OMA
Mission Travel	\$63,972 OMNG	Mission Travel	\$187,255 OMA
Equipment Leases	\$16,522 OMNG	Equipment Leases	\$43,213 OMA
Contractual Services	\$233,856	Contractual Services	\$383,406
ADP	\$8,049 OMNG	ADP	\$47,873 OMA
Other	\$225,807 OMNG	Other	\$335,533 OMA
Purchased Equipment	\$108,455 OMNG	Purchased Equipment	\$184,289 OMA
Admin Travel	\$13,981 OMNG	Admin Travel	\$31,774 OMA
Civilian Labor	\$139,805 OMNG	Civilian Labor	\$52,957 OMA
Other	\$12,710 OMNG	Other	\$13,133 OMA
Personnel	\$8,889,029	Personnel	\$35,246,718
Replacement Personnel Training	\$231,768	Replacement Personnel Training	\$589,256
Training Through Initial MOS	\$214,816	Training Through Initial MOS	\$544,201
Military Pay Funded	\$82,894 NGPA	Military Pay Funded	\$209,997 MPA
O&M Funded	\$122,560 OMNG	O&M Funded	\$310,485 OMA
Other Funded	\$9,363 AMMO	Other Funded	\$23,719 AMMO
Clothing Initial Issue	\$16,952 NGPA	Clothing Initial Issue	\$45,055 MPA
PCS Travel: Military & Dependents	\$0 N/A	PCS Travel: Military & Dependents	\$2,027,019 MPA
Military Personnel	\$8,657,261	Military Personnel	\$32,630,444
Basic Pay and Allowances	\$7,779,376 NGPA	Basic Pay and Allowances	\$25,929,334 MPA
BAH/OHA	\$271,374 NGPA	BAH/OHA	\$6,135,388 MPA
COLA	\$0 NGPA	COLA	\$0 MPA
Special/Incentive/Hazardous Duty Pay	\$606,511 NGPA	Special/Incentive/Hazardous Duty Pay	\$565,722 MPA
Other Unit Support	\$1,668,042	Other Unit Support	\$8,239,204
Installation Services	\$1,493,800	Installation Services	\$4,035,718
Housing	\$424 N/A	Housing	\$64,395 AFH
Command Support	\$61,006 OMNG	Command Support	\$140,229 OMA
Human Resources Management	\$424 OMNG	Human Resources Management	\$67,784 OMA
Infrastructure Support	\$722,752 OMNG	Infrastructure Support	\$1,403,986 OMA
Information Technology	\$204,624 OMNG	Information Technology	\$149,126 OMA
Logistics	\$61,853 OMNG	Logistics	\$474,915 OMA
Mission Support	\$70,750 OMNG	Mission Support	\$671,066 OMA
Natural Infrastructure Supt	\$216,063 OMNG	Natural Infrastructure Supt	\$526,177 OMA
Soldier & Family Support	\$59,735 OMNG	Soldier & Family Support	\$294,439 OMA
Security	\$96,169 OMNG	Security	\$95,746 OMA
Tng Aids Devices Simulations	\$0 OMNG	Tng Aids Devices Simulations	\$147,855 OMA
Defense Health Program	\$174,241 OMD	Defense Health Program	\$4,203,485 OMD

ARNG

Active

²³ Deputy Assistant Secretary of the Army for Cost and Economics (DASA-CE) Forces Cost Estimate Model (FCM) for AH64D Battalion; Base Year 2014, Version: 2012.050913

Data for comparing annual costs to own/operate ARNG and AC Attack-Recon Battalions is listed above. ARNG cost is \$31.8M/year vs. AC cost at \$76.8M/year. The ARNG plan reduces the cost of re-training aircrews and maintainers into new aircraft. ARNG maintainers provide a greater continuity of experience over the life-cycle of the airframe while reducing the need for contractors to conduct scheduled and unscheduled maintenance activities.

Appendix 11 Comparison of Combat Capability, Kiowa and Apache

<u>Kiowa Warrior (\$11M)</u>	1- Weapons	<u>Apache (\$35M)</u>
500 Rounds .50 Caliber (12.75mm), or		330* Rounds 30mm (High Explosive), &
14 - 2.75" Rocket, or		38 - 2.75" Rocket, &
4 – Hellfire Missiles, or		8 – Hellfire Missiles
Combo of 50% of any 2 above		*(1200 Rds 30mm with 1 hr less of fuel)
	2- Station Time	
2 hours or		3.5 hours (w/330 Rds 30mm) or
140 mile range		360 mile range
	3- Performance	
7,500' combat ceiling		12,000' combat ceiling
95 Kts cruise speed		120 Kts cruise speed
	4- Sensors	
1 FLIR - targeting only 3 X Mag		2 FLIR targeting/pilotage 36 X Mag
1 DTV – targeting only 12 X Mag		1 DTV targeting only 126 X Mag
NVG - targeting/pilotage		NVG - targeting/pilotage
LZMUMS- (UAV)		MUM-T (UAV)
		Fire Control Radar - targeting
	5- Survivability	
Single Engine		Dual Engine
Low energy absorbing skid gear		High energy absorbing landing gear
Single crew station		2 Separate crew stations w/blast shield
Cockpit Airbag system		Backup Control System (BUCS)