



ARROYO CENTER

The Army's 2013 Aviation Restructure Initiative

Summary of Research for the National
Commission on the Future of the Army

Gian Gentile, Joshua Klimas, Celeste Ward Gventer,
Stephanie Young, R. William Thomas, Michael E. Linick,
Raphael S. Cohen, Jennifer Kavanagh, Todd Nichols,
Jerry M. Sollinger, Zachary J. Steinborn

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Preface

The Army's 2013 Aviation Restructure Initiative (ARI) was a major force redesign effort that rebalanced aviation assets across the Army's total force. The Army asked RAND to describe and assess how the Army developed the ARI, as part of a broader context related to budget constraints, strategic guidance, force structure and modernization programs, and Regular Army and reserve component force mix. The full report documenting RAND's research and findings is marked For Official Use Only (FOUO) based on source material and is not available for public distribution. This document provides a summary of RAND's research and findings appropriate for limited public release, as well as appendixes on the origins of the ARI and a timeline of key events. The analysis and findings presented in this abridged version are the same as in the full report.

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Abbreviations

AAS	armed aerial scout
AH-64	Apache Attack Helicopter
AH-64D	Apache Long Bow Attack Helicopter
AH-64E	Apache Guardian Attack Helicopter
ALT POM	Alternative Program Objective Memorandum
ARH	Armed Reconnaissance Helicopter
ARH-70	Arapahoe Armed Reconnaissance Helicopter
ARI	Aviation Restructure Initiative
ARNG	Army National Guard
BCA	Budget Control Act
BCT	brigade combat team
CAB	combat aviation brigade
CAPE	Cost Assessment and Program Evaluation
CASUP	Cockpit and Sensor Upgrade Program
CH-47	Chinook Cargo Helicopter
CNGB	Chief, National Guard Bureau
COTS	commercial-off-the-shelf
CSA	Chief of Staff of the Army
Deploy:Dwell	years deployed:years home station
DoD	U.S. Department of Defense
DSG	Defense Strategic Guidance
EXORD	execute order
FDV	Force Development—Aviation
FY	fiscal year
FYDP	Future Years Defense Program
HQDA	Headquarters, Department of the Army

IPR	in-progress review
MOB:Dwell	years mobilized: years not mobilized
NGB	National Guard Bureau
NORTHCOM	U.S. Northern Command
OH-58 A/C	Kiowa Observation Helicopter
OH-58D	Kiowa Warrior Observation Helicopter
OSD	Office of the Secretary of Defense
PBR	program and budget review
POM	program objective memorandum
RAH-66	Comanche Reconnaissance and Attack Helicopter
RC	reserve component
RQ-7	Shadow Unmanned Aerial System
SCMR	Strategic Choices and Management Review
SLEP	service life extension program
TAB	theater aviation brigade
TAG	The Adjutant General
TH-67	Training Helicopter
TRAC	TRADOC Analysis Center
TRADOC	U.S. Training and Doctrine Command
UH-1	“Huey” Utility Helicopter
UH-60	Black Hawk Utility Helicopter
UH-72	Lakota Light Utility Helicopter
USAACE	U.S. Army Aviation Center of Excellence
USAR	U.S. Army Reserve

Summary of RAND's Research and Findings

The sequestration provision of the 2011 Budget Control Act (BCA) went into effect in March 2013. As a result, the Army had to make substantial cuts to its fiscal year (FY) 2013 and 2014 budgets and its FY 2015–2019 program. Because it has high-cost equipment and units, Army aviation sustained a significant portion of these cuts. The Army's first approach—often referred to as the “Salami Slice”—was to look at across-the-board cuts to existing aviation force structure, rather than to conduct a fundamental reconsideration of how aviation forces were designed. In particular, this approach did not address the aviation modernization program, which was now unaffordable under sequestration. From July through October 2013, the Army aviation community developed an alternate approach that would (1) place force structure and modernization programs on a fiscally sustainable path, (2) rebalance capabilities across the Regular Army and reserve components to maximize capacity for meeting combatant command and homeland demands, and (3) preserve as many of the Army's most modern and capable systems as possible.¹ This plan, approved by the Secretary of Defense in early 2014, became known as the Aviation Restructure Initiative (ARI).

The element of the ARI that has proved most controversial involves the transfer of all Attack Helicopter (AH)-64 attack/reconnaissance helicopters from the ARNG to the Regular Army. The ARNG and the National Guard Bureau (NGB) objected to this transfer, asserting that the ARNG should mirror the capabilities of the Regular Army, that their alternate plan submitted in late 2013 would achieve comparable results in terms of cost and ability to meet global demands, and that they were not fully consulted in the process of developing the ARI and including it in the Army's FY 2015–2019 program.

Purpose and Approach

As a result of this controversy, Headquarters, Department of the Army (HQDA) asked RAND to describe and assess how the Army developed the ARI, including the factors

¹ The Army's two reserve components are the U.S. Army Reserve (USAR) and the Army National Guard (ARNG).

that brought it about and the process by which it was developed as a plan for Army and Office of the Secretary of Defense (OSD) senior leader approval. This report first and foremost describes why and how the Army developed the ARI to shed light on the details of what happened and when. Second, this report uses three considerations to assess the ARI's development—transparency, collaboration, and analytical rigor—within the context of the overall strategic, budgetary, and programmatic environment in which the Army made significant cuts across the force. It emphasizes the period from mid-summer 2013 until early 2014, during which time the ARI went from a concept initiated by HQDA aviation planners to a plan that was developed under the control of the U.S. Army Aviation Center of Excellence (USAACE) and approved by Army senior leaders and the Secretary of Defense. It describes the procedures employed, options and alternatives considered, and analyses conducted by various stakeholders, and uses this information to form qualitative assessments against the three considerations listed above. It looks in particular at proposals and decisions regarding the disposition of the Army's AH-64 fleet. It also describes long- and short-term factors that influenced the development of the ARI and describes key developments between early 2014 and the present.

Chronology

To help understand the origins of the ARI, Figure 1 presents a chronology of significant events, decisions, planning processes, and analyses that took place between 2011 and mid-2013, at which point HQDA aviation began to develop the ARI as a concept. We summarize events throughout the first portion of this section, then describe how the Army matured the ARI into a detailed plan and got approval from the OSD to include the ARI as part of the Army's FY 2015–2019 program.

The origins of the ARI arose from the enormous budget pressures created by sequestration, a provision of the 2011 BCA that ultimately took effect on March 1, 2013. Cost-cutting decisions resulting from sequestration prompted first a cost-cutting plan called the Salami Slice, and later the ARI. However, other factors also influenced the Army's development of the ARI; among the most important was the Army's ongoing search to replace its older and less capable OH-58D fleet in the armed aerial scout (AAS) role. Between 2009 and 2011, U.S. Army Training and Doctrine Command (TRADOC) conducted an "Armed Aerial Scout (AAS) Analysis of Alternatives."² The study found that the AH-64E met most of the performance attributes for an AAS that the study team had identified. Where there were limitations inherent to the AH-64E's design, the study found that some could be at least partially mitigated through manned-unmanned teaming. The study also found that the AH-64E was among the

² TRADOC Analysis Center, *Armed Aerial Scout (AAS) Analysis of Alternatives (AoA)*, December 2011.

most costly manned options, primarily because the Army would have to buy expensive new aircraft to fill the AAS requirement. However, with force structure cuts brought about by sequestration, HQDA aviation planners concluded that it was possible to use existing AH-64s to fill the AAS requirements in Regular Army units if the Army also transferred AH-64s from the ARNG.

While sequestration was the primary cause for the major force restructuring decisions affecting Army aviation in 2013, some in the Regular Army aviation community had begun to question how best to balance the regular-reserve force mix in a way that accounted for differences in Regular Army and reserve component (RC) cost and output even before sequestration. This reassessment was at least partially related to the overall reductions to the Army's end strength, force structure, and long-term budget prospects, which the Army began to experience as the nation began to draw down operations in Iraq and Afghanistan. Army aviation escaped the force structure cuts announced in 2011 and 2012, at least in part because aviation was among the most demanded capabilities in the Army's supply of forces. However, it was clear that if cuts continued aviation would eventually be targeted for reductions, just like most other Army capabilities.

In October 2011, the Army asked RAND to examine how the Army could structure its rotary-wing aviation forces to meet future demand most cost-effectively. RAND's findings were generally consistent with the eventual ARI decision to expand the number of lift and medevac units in the reserve components, while rebalancing attack/reconnaissance toward the Regular Army.

In parallel with RAND's work, HQDA aviation planners began to examine options for rebalancing RC attack/reconnaissance and lift/medevac capabilities. These efforts culminated in June 2013, when HQDA issued Execution Order (EXORD) 103-13, directing the ARNG and USAR to each convert two AH-64 battalions into Utility Helicopter (UH)-60 battalions. Staffing of the EXORD involved the entire Army aviation community, including ARNG planners. Most of the planning that led to EXORD 103-13 took place before March 2013, and thus predated sequestration. Analysis supporting the EXORD indicated that Regular Army AH-64 battalions were more cost-effective in meeting global demands and that the Army did not need these four RC AH-64 battalions to meet the demands of the 2012 Defense Strategic Guidance (DSG) at acceptable risk. At the same time, the order had the purpose of increasing the supply of ARNG and USAR medium-lift aircraft that were available to support both combatant commands and homeland authorities. The EXORD noted that future force structure decisions might result in the Army further reducing the number of AH-64 battalions assigned to the ARNG.

In January 2013, the USAACE—in coordination with stakeholders from across the Army aviation community—began an aviation force structure analysis to determine the force design and total force mix (total number and Regular Army/ARNG/USAR distribution) of aviation units needed in the future. The USAACE regularly

reported interim findings to the Chief of Staff of the Army (CSA). The study process continued throughout 2013 and into 2014, and after mid-August 2013 it would become the venue for developing HQDA's ARI concept into a detailed plan in collaboration with the broader Army aviation community.

Between January 2013 and the Secretary of Defense's initial decision to approve the ARI in January 2014, a series of decisions affected Army aviation force structure and aircraft inventories across the Regular Army and reserve components. Table 1 depicts these decisions and the changes associated with them; in particular, changes to the AH-64 fleet are highlighted in blue. Each decision is briefly described following Table 1.

In early 2013, there were 13 aviation brigades in the Regular Army and 12 in the reserve components (USAR and ARNG).³ These brigades contained different mixes of subordinate aviation units and aircraft; modernized AH-64 heavy attack/reconnaissance aircraft and older Observation Helicopter (OH)-58Ds for light attack/reconnaissance; and heavy and medium lift aircraft (Cargo Helicopter [CH]-47s and UH-60s, respectively). Each of the Army's three components contained some number of these aircraft types (except that there were no OH-58Ds in the USAR). In addition, the ARNG was also equipped with commercial-off-the-shelf (COTS) light-utility UH-72s, which were suitable for homeland missions but did not have the military capabilities to deploy to hostile environments. Finally, the Army used older Training Helicopter (TH)-67s and OH-58A/Cs as training helicopters and, in the latter case, for other non-operational missions. In total, the Regular Army had a requirement for 2,951 aircraft, 570 of which were AH-64s. The ARNG had a requirement for 1,444 aircraft, 192 of which were AH-64s. Finally, the USAR had a requirement for 178 aircraft, 48 of which were AH-64s.

Note that the numbers shown in Table 1 are requirements. In some cases, as with AH-64s, the Army did not have enough aircraft on hand to fill all requirements. In other words, the planned force in January 2013 had a requirement of 810 AH-64s (although not shown in the table, this would be a mixed force of 690 AH-64Es and 120 AH-64Ds). In 2013, however, the Army only had between 730 and 740 on hand, and no program in place to procure up to 810.

In June 2013, HQDA issued EXORD 103-13, directing the ARNG and USAR to each convert two AH-64 battalions into UH-60 battalions. As a result, the ARNG and USAR each lost 48 AH-64s and received in exchange 50 and 48 UH-60s, respectively, as shown in the second row of Table 1. This left the ARNG with six AH-64 battalions (144 aircraft) and the USAR with no AH-64s. This change reduced the Army's total AH-64 requirement by 96 aircraft to 714 in total, a number roughly consistent

³ One of the Regular Army brigades was still in the process of activating. The count of 12 RC brigades does not include the 63rd Aviation Brigade, which was assigned to the ARNG to support U.S. Northern Command (NORTHCOM) and was not available to meet global demands outside of NORTHCOM.

Table 1
Major Changes to Distribution of Aircraft Under Different Options

Option	Regular Army	ARNG	USAR
January 2013	Total: 2,951 a/c, inc. 570 AH-64	Total: 1,444 a/c, inc. 192 AH-64	Total: 178 a/c, inc. 48 AH-64
EXORD to convert some RC AH-64 units to UH-60 units, June 2013* (Changes are from January 2013)	No change	Losses: -48 AH-64 Gains: +50 UH-60 Net: +2 a/c	Losses: -48 AH-64 Gains: +48 UH-60 Net: 0 a/c
Salami Slice included as Part of Army's initial FY 2015–2019 POM submission, September 2013** (Changes are from EXORD)	Losses: -72 AH-64 -106 UH-60 -24 CH-47 -30 OH-58D Net: -232 a/c	Losses: -72 AH-64 -106 UH-60 -24 CH-47 -32 UH-72 Net: -234 a/c	No change
ARI approved by Secretary and Chief of Staff of the Army, October 2013; alternative to the Salami Slice (Changes are from EXORD)	Losses: -338 OH-58D -159 UH-60 -228 OH-58A/C -182 TH-67 Gains: +120 AH-64 +104 UH-72 Net: -683 a/c	Losses: -144 AH-64 -30 OH-58D -104 UH-72 Gains: +61 UH-60 Net: -217 a/c	No change
ARI approved by Secretary of Defense, January 2014*** (Changes are from October ARI)	Losses: -4 UH-72 Net: -4 a/c	Gains: +104 UH-72 Net: +104 a/c	No change
Total aircraft post–Secretary of Defense 2014 decision (Changes are from EXORD)	Total: 2,264, inc. 690 AH-64 Net: -687 a/c	Total: 1,333, inc. 0 AH-64 Net: -113 a/c	Total: 178, inc. 0 AH-64 Net: 0 a/c

NOTES: a/c=aircraft; inc.=including; numbers of AH-64s are highlighted in blue.

* EXORD 103-13 was signed in June 2013, after sequestration began that March; however, most of the analysis and staff work leading to the order was done in 2012, so in that sense it predated sequestration and served as the baseline from which changes due to sequestration were made.

** Although the Salami Slice was included in the Army's initial program submission for FY 2015–2019 (which took place in September 2013), most of the details were developed prior to July 2013.

*** Changes are shown in relation to the October 2013 version of the ARI rather than the EXORD in order to highlight the specific changes to the ARI that the Secretary of Defense directed.

with on-hand quantities. The force structure resulting from the EXORD serves as the baseline for considering changes under the ARI and other proposals.⁴

In March of 2013, sequestration took effect. The FY 2013 budget that the Army was in the process of executing immediately became unaffordable. The Army had to cut funding to most activities, including suspending much of its ongoing training and furloughing civilian employees. Moreover, the Army also needed to cut both its FY 2014 budget that was awaiting congressional action and its FY 2015–2019 program objective memorandum (POM), which was under development throughout calendar year 2013. (The FY 2015–2019 POM would form the basis for the President's FY 2015 budget submission, which would take place early in calendar year 2014.) Programs that could not be maintained under sequestration would need to be canceled as soon as possible so the Army could divert the funding to other programs that would survive but faced funding challenges under sequestration.

OSD provided the Army with fiscal guidance for implementing sequestration on July 2, 2013. For aviation, the Army's initial approach to taking these cuts was to look at across-the-board reductions to existing aviation force structure—a proposal that came to be known as the Salami Slice. The Army had begun developing the Salami Slice proposal during the spring of 2013 as part of the OSD-led Strategic Choices and Management Review (SCMR). The purpose of the SCMR was to develop options for military service force structure and end strength based on budget projections related to full or partial sequestration. The Salami Slice proposal cut three Regular Army and two ARNG aviation brigades, including three of the six remaining AH-64 battalions assigned to the ARNG.⁵ Changes to AH-64 and other aircraft under the Salami Slice are shown in the third row of Table 1. These changes are shown in comparison to the force resulting from EXORD 103-13, because this force served as the Army's baseline for making changes in response to sequestration.

HQDA aviation planners saw the Salami Slice as critically flawed, for two reasons. First, it cut many of the Army's most modern and capable aircraft—144 AH-64s, 212 UH-60s, 48 CH-47s, and 32 UH-72s—while keeping most of the Army's older and less capable OH-58Ds. Second, the Army would have significant problems funding planned modernization programs going forward. Specifically, the Army faced the following challenges:

⁴ While the force resulting from EXORD 103-13 serves as the baseline for examining cuts under sequestration, most outside the Army aviation community are unfamiliar with changes made under the EXORD. Since the pre-EXORD force is more broadly understood—in particular, the number of RC AH-64 battalions that existed in the force prior to the EXORD—we felt it worthwhile to discuss both the pre-EXORD force as well as the changes to RC aviation brought about by the EXORD.

⁵ The details on the Salami Slice presented here are based on HQDA records and are meant to provide information on how HQDA initially planned to address sequestration-level budget cuts. We have not examined in detail the degree to which ARNG officials were included in or informed of the planning, and we do not mean to imply that ARNG officials concurred with cuts described in the Salami Slice.

- Slow ongoing modernization programs for its AH-64s, UH-60s, and CH-47s, which would increase per-unit costs.
- Fund upgrades and extend the service life of its less capable OH-58Ds.
- Fund either a service life extension for existing training aircraft or procure new trainers.

Despite these problems associated with the Salami Slice, the Army submitted this plan to OSD in September 2013 as part of its overall FY 2015–2019 POM submission.

In July 2013, HQDA aviation planners began to develop an alternative approach to address the critical flaws they saw in the Salami Slice; this came to be called the Aviation Restructure Initiative.⁶ The ARI sought to restructure Army aviation in a way that would (1) place force structure and modernization programs on a fiscally sustainable path, (2) rebalance capabilities across the Regular Army and reserve components to maximize capacity for meeting combatant commander and homeland demands, and (3) preserve as many of the Army's most modern and capable systems as possible (AH-64s, UH-60s, UH-72s, and CH-47s). In its final approved form, the ARI cut three of 13 Regular Army aviation brigades but kept the total number of RC aviation brigades at 12 while redesigning these units.⁷ Notably, the ARI cut all AH-64s from the ARNG force structure. The loss of the AH-64s would become a major sticking point for the ARNG/NGB leadership, in part because they were reluctant to agree to any net reductions in aircraft assigned to the ARNG and in part because this meant the loss of the ARNG's role in the Army attack aviation mission.

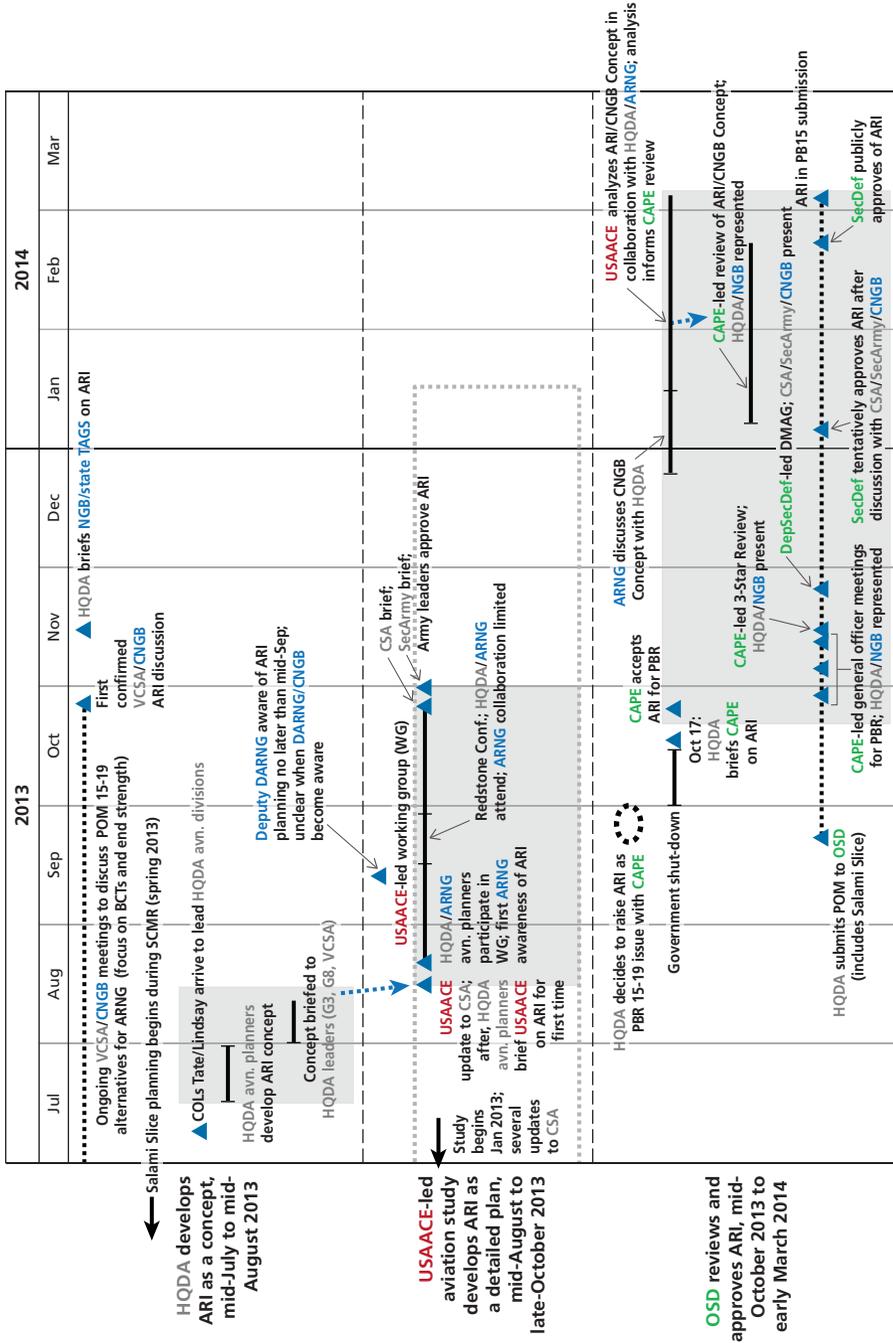
The development of the ARI occurred across three broad time periods. The three periods and the events associated with them are depicted in Figure 2. The first period runs from the middle of July to the middle of August 2013. At the start of July, Colonels Frank Tate and John Lindsay assumed the leadership of the two key aviation planning divisions in HQDA. In short order and acting largely on their own initiative, they assembled a team of HQDA aviation planners to examine alternatives to the Salami Slice. By the end of July, this team had developed the ARI as a *concept* and received the approval from their leadership to introduce it to the broader Army aviation community.

The second period lasted from the middle of August until the ARI was presented to the Secretary of the Army and the CSA as a detailed plan in late October 2013. The maturation of the ARI during this period occurred under the auspices of the ongoing aviation force structure study led by USAACE, which was reporting to the CSA. This study effort involved members of the broader Army aviation community across all components. On August 14, 2013, USAACE provided an update to the CSA on its

⁶ The plan that would become known as the ARI had other names throughout its development, but we will refer to it as ARI for ease of reference throughout this document.

⁷ As with the Salami Slice, all aircraft associated with one of the three deactivated Regular Army brigades would remain in the force as an equipment set to support rotations to the Korean peninsula.

Figure 2
ARI Sequence of Events from Initial Concept to Approval by Secretary of Defense



ongoing work, at which point the CSA directed USAACE to develop a five-year aviation plan by the end of October. At this point, HQDA first discussed the ARI with the USAACE leadership. USAACE agreed to consider the ARI as one alternative, and the ARI soon became the primary option for consideration. At a two-week planning conference conducted during the second half of September at Redstone Arsenal—attended by the major stakeholders in the Army aviation community, including the ARNG—the ARI was developed into a detailed five-year aviation plan. The Secretary of the Army and the CSA approved the plan for further implementation in late October 2013.

The third period of the ARI's development lasted from the end of October 2013 until early March 2014. During this period, the ARI was reviewed as part of the OSD-led program and budget review and approved by Secretary of Defense Chuck Hagel for inclusion in the President's FY 2015 budget submission. When it became apparent by the end of September 2013 that the ARI was developing into a mature plan that would provide important advantages over the Salami Slice, the Army leadership asked OSD to consider the ARI in OSD's FY 2015–2019 program and budget review (PBR).⁸ PBR would begin at the end of October and culminate with a mid-November review by the deputy's Management Action Group, chaired by then Deputy Secretary of Defense Ashton Carter. The HQDA leadership made this request in the hope of rapidly achieving an OSD-level decision on the ARI. Such a decision would in turn permit the Army to begin diverting hundreds of millions of dollars in the FY 2014 budget (subject to congressional approval) and the FY 2015–2019 POM from programs that would not survive under sequestration to programs that would. Several ARNG/NBG leaders stated they were surprised by the Army's decision to ask OSD to consider the ARI in the FY 2015–2019 PBR.

During the summer and early fall of 2013, ARNG/NGB and HQDA senior leaders held regular meetings to discuss how budget cuts would affect ARNG end strength and brigade combat team (BCT) force structure. However, the ARI does not appear to have been a topic of discussion until late October, after OSD agreed to accept the ARI as an issue for the FY 2015–2019 PBR. While ARNG personnel up through the deputy director of the ARNG were aware of the ARI much earlier, they appear to have expected that the ARI would not become an issue until the development of the FY 2016–2020 POM in calendar year 2014. As a result, ARNG aviation planners participating in the USAACE-led study were directed to limit their collaboration and not offer formal proposals or recommendations.

The ARI was debated during PBR, with ARNG/NGB representatives having opportunities to voice their concerns and present their views. Ultimately, the Deputy

⁸ PBR is a process in which OSD resolves important issues with the POMs for each major defense entity, including the services, prior to finalizing the U.S. Department of Defense's (DoD's) program and budget for the next fiscal year.

Secretary of Defense endorsed the ARI, and Secretary of Defense Hagel tentatively approved it in early January 2014. Around the middle of December 2013, the Chief of the National Guard Bureau (CNGB) formally proposed an alternative plan, which came to be known as the CNGB Concept. After additional USAACE and OSD Cost Assessment and Program Evaluation (CAPE)-led analysis comparing the ARI and CNGB Concept, Secretary of Defense Hagel formally approved the ARI at the end of February and it was included in the President's March 4, 2014, budget submission for FY 2015.

Content of the ARI

As previously noted, the ARI sought to allow the Army to retain as many of its most capable aircraft as affordable, while solving two fundamental modernization challenges (discussed below). To accomplish this, the ARI proposed the following changes to the Army's fleets of rotary-wing aircraft (in addition to changes directed under EXORD 103-13):

- Divest all of the Army's older TH-67 initial entry training aircraft, which needed an expensive service life extension program (SLEP) to remain in use over the mid-term.
- Divest all of the Army's older OH-58A/C aircraft, which served both for training and supporting non-operating force units.
- Divest all of the older OH-58Ds and cancel the associated Cockpit and Sensor Upgrade Program (CASUP), allowing the funds to be redirected into other aviation programs.
- Transfer all AH-64s from the ARNG to the Regular Army to replace the older OH-58Ds and team them with unmanned aerial systems to provide the reconnaissance capabilities OH-58Ds previously provided.
- Transfer additional UH-60s to the ARNG to increase the number of medium lift units and helicopters available to support both overseas and homeland operations.
- Use a combination of existing and new-procurement UH-72s as the new initial entry training aircraft.

The fourth row of Table 1 quantifies the changes in aircraft supplies brought about under the version of the ARI approved by Army senior leaders in October 2013. This plan proposed to transfer 104 UH-72s from the ARNG (and repurpose some of the Regular Army's UH-72s) for use as the new initial entry training aircraft. OSD subsequently directed the Army to instead procure 100 new UH-72s for the training mission, in order to leave the fleet of 212 UH-72s in the ARNG untouched. The fifth

row of Table 1 highlights this change, which resulted in the final version of the ARI that was included in the President's FY 2015 budget submission.

Overall, the most significant changes that the ARI proposed were to the training and attack/reconnaissance fleets.

The Training Fleet

The first fundamental modernization challenge involved the Army's training fleet. The ARI proposed divesting of older TH-67s and OH-58A/Cs and replacing them with new UH-72s. The reason for this proposal was to avoid future costs, because the existing training fleets would eventually need either replacement or SLEPs—expenses that the Army would be hard-pressed to fund. While the ARI initially proposed transferring some UH-72s from the ARNG, OSD's January 2014 decision to procure new UH-72s instead removed this issue as a point of contention between HQDA and the ARNG.

The Attack/Reconnaissance Fleets

The second fundamental modernization challenge involved the OH-58D fleet of light attack/reconnaissance aircraft. The OH-58D was already suffering capability shortfalls and was undergoing a CASUP that was intended to alleviate *some* of these long-standing capability gaps—at a total estimated cost of about \$3.5 billion. In addition, the OH-58D would also eventually require an even more expensive SLEP sometime after FY 2019. Estimated at a cost of around \$7 billion, the SLEP would still not fundamentally address the OH-58D's inherent capability gaps. Thus, the Army faced the prospect of spending over \$10 billion to keep the OH-58D fleet in service, but without fixing all of its capability gaps. With the decrease in overall funding under sequestration, HQDA aviation planners argued that funding for OH-58D modernization could be better used for other purposes, such as allowing the Army to maintain its planned multiyear schedule for modernizing AH-64s and UH-60s.

This decision was not just about longer-term cost avoidance, but also about saving money immediately. The Army had budgeted \$258 million for CASUP in FY 2014 and planned to fund around \$250 million more in FY 2015. If CASUP were terminated in time to affect the FY 2014 and 2015 budgets and OSD allowed the Army to reinvest the funds, it would help alleviate major aviation modernization challenges. In short, if CASUP was going to be canceled, it was highly desirable that happen as soon as possible. Moreover, achieving these savings was a "package deal." The Army could not ask Congress to approve changes to CASUP funding requests for FY 2014 if CASUP termination was not also included in the FY 2015–2019 POM.

Canceling CASUP made little sense if the Army was going to retain the OH-58D for an extended period. However, TRADOC's 2011 analysis of alternatives had identified the AH-64E teamed with the RQ-7B unmanned aerial system as a capable alternative to the OH-58D. The major challenge for this course of action was cost, under

the assumption that the Army would need to procure additional AH-64Es to replace the OH-58Ds. However, force structure cuts resulting from sequestration meant that some of the AH-64Es the Army already planned to buy for its attack fleet could instead be used to replace OH-58Ds in the AAS role, if they could be transferred from the ARNG to the Regular Army. This would allow the Army to cancel CASUP and divest the OH-58D, replacing it in the Regular Army with modern and highly capable AH-64Es teamed with unmanned aerial systems.

In addition to the cost savings and modernization issues, the ARI also sought to maximize capacity and responsiveness for meeting combatant command demands by placing all attack/reconnaissance aircraft in the Regular Army and focusing RC brigades on lift and medevac capabilities that could support both combatant command and homeland demands. In considering this issue, HQDA planners leveraged existing analysis that showed Regular Army attack/reconnaissance units were (1) more cost-effective in meeting sustained rotational demands, such as those in Iraq and Afghanistan, and (2) more ready for rapid deployment in a short-warning overseas crisis, given the substantial post-mobilization preparation times historically associated with RC attack/reconnaissance units. Moreover, the AH-64 had virtually no role in homeland support missions.⁹

In sum, the transfer of AH-64s from the ARNG to the Regular Army under the ARI was not a stand-alone proposal; it was explicitly related to the proposal to reduce costs by divesting older and less capable OH-58Ds and repurposing associated CASUP funding to support other elements of aviation portfolio, including maintaining modernization schedules and costs for AH-64 and UH-60 fleets, and to improve responsiveness to combatant command and homeland needs.

The ARI in Comparison to the Salami Slice

Compared with the Salami Slice, the ARI in its final form made the following changes to total Army aircraft inventories (shown in Table 2). The ARI divested the Army's entire fleets of older OH-58Ds, OH-58A/Cs, and TH-67s—338, 228, and 182 aircraft, respectively. In terms of the most modern and capable aircraft, the ARI preserved 120 AH-64s, 114 UH-60s, and 48 CH-47s, as well as 32 UH-72s that would otherwise have been divested under the Salami Slice (and OSD ultimately directed the Army to procure 100 additional UH-72s rather than transferring any from the ARNG).¹⁰

⁹ On March 13, 2014, NORTHCOM commander GEN Charles Jacoby, Jr., testified to the Senate Armed Services Committee that “speaking as the NORTHCOM commander . . . I do not have an attack helicopter requirement in the homeland.” GEN Jacoby endorsed the ARI overall. (Charles H. Jacoby, Jr., “Statement of General Charles H. Jacoby, Jr., United States Army Commander, United States Northern Command and North American Aerospace Defense Command, Before the Senate Armed Services Committee,” Washington, D.C., March 13, 2014.)

¹⁰ Some aircraft from Regular Army units cut under the ARI were transferred so they could be used for other purposes. For example, the Regular Army transferred UH-60s left over after cuts to the operating force to back-

Table 2
Difference in Aircraft Between the ARI and the Salami Slice

Aircraft	Regular Army	ARNG	USAR	Total
AH-64	+192	-72	n/a	+120
OH-58D	-308	-30	n/a	-338
UH-60	-53	+167	0	+114
CH-47	+24	+24	0	+48
UH-72	+100	+32	n/a	+132
TH-67	-182	n/a	n/a	-182
OH-58A/C	-228	n/a	n/a	-228
Total	-455	+121	0	-334

NOTE: n/a indicates the component did not contain any aircraft of the given type. UH-72s reflect the OSD decision to procure 100 additional aircraft rather than transferring any from the ARNG.

Under the final version of the ARI, the ARNG retained 121 more aircraft that it would have lost under the Salami Slice. These included 24 CH-47s, 32 UH-72s, and 106 UH-60s that would have otherwise been divested, and the Regular Army transferred an additional 61 UH-60s to the ARNG under the ARI. However, under the ARI, the ARNG lost 72 additional AH-64s and all 30 OH-58Ds. In summary, *compared with the Salami Slice*, the ARNG lost a larger number of attack/reconnaissance aircraft—which were focused on overseas combat missions and had virtually no role in homeland support—but gained an even greater number of lift and medevac aircraft that could support both combatant command and homeland missions.

Cost is notably absent from the comparisons above. This is because the Salami Slice, by construction, met the budget reduction targets due to sequester. The ARI did as well. We return to cost below when we discuss the CNGB's proposal and how it compares with the ARI.

National Guard Opposition to the ARI

To HQDA aviation planners, the ARI was about how best to restructure Army aviation within emerging budget constraints to meet the missions outlined in the DSG. The ARI proposed many changes, some of which were unpopular with various stakeholders throughout the Army's aviation community.

The most pointed and long-standing disagreement to elements of the ARI came from some within the National Guard who were reluctant to agree to any net reduc-

fill generating force units whose UH-72s were repurposed for use as training aircraft.

tions in aircraft assigned to the ARNG and in particular opposed the transfer of all AH-64s from the ARNG to the Regular Army.¹¹ For many in NGB/ARNG, opposition to the transfer of all AH-64s to the Regular Army was most fundamentally about their belief that the ARNG's proper role is that of a combat reserve to the Regular Army. According to this view, the ARNG is not like the USAR, which provides specific types of support and logistics units to augment the Regular Army. Instead, in this line of thinking, the ARNG should provide the full range of combat and combat support units that can fight and operate, when deployed across the entire spectrum of future operations, with the Regular Army as an equal partner. In this view, therefore, the loss of all attack/reconnaissance aircraft diminished the ARNG as a true combat reserve. Moreover, the loss raised the possibility of a slippery slope; if all AH-64s were lost, what other combat capabilities might also eventually be targeted in the name of budget savings? To the CNGB, General Frank Grass, the ARI required confronting the fundamental question: "Does the nation want a combat reserve?"¹²

Assessing the ARI: Transparency, Collaboration, and Analytic Rigor

The ARI was developed as part of a larger and highly contentious decision process about how to reduce the Army's overall budget and programs across all equities, and, most importantly for this analysis, about the proper (and affordable) size and structure of the Army's total force across all components. Our interviews and discussions with various stakeholders led the study team to identify three sets of considerations that would help Army leaders of all components understand the validity and rigor of the process under which the ARI fell. These considerations involved issues of transparency, collaboration, and analytic rigor:

1. *Was the ARI developed as part of a transparent process?* Were stakeholder organizations informed of developments in the ARI planning and decisionmaking processes, and when? Among stakeholder organizations, what echelons of personnel were informed (e.g., senior leaders versus lower-level action officers)? If there were shortcomings, what factors caused them, and do they appear to have significantly affected the outcome?
2. *Was the process collaborative?* Did those leading the process seek the involvement and consider the perspectives of key stakeholders? Through what forums and at what echelons (e.g., senior leaders compared with lower-level action officers) did they do so? Did they do so at a time when stakeholder input could still affect

¹¹ Many also strongly objected to the loss of UH-72s under the original ARI proposal, although this objection was addressed when OSD decided to direct the Regular Army to instead procure additional UH-72s.

¹² General Frank Grass, Chief National Guard Bureau, interview with RAND researchers, CNGB Office Pentagon, October 16, 2014.

the final proposal and decisionmaking processes? If there were shortcomings, what factors caused them, and do the shortcomings appear to have significantly affected the outcome?

3. *Was the ARI subjected to a rigorous analysis?* Did the analysis of the measurable aspects of the ARI (e.g., cost, force sufficiency) use appropriate models? Were data inputs and assumptions explicit, and did they conform to OSD guidance? Did the analysis make use of related studies where appropriate? Were potential alternatives considered? If there were shortcomings, what factors caused them, and do the shortcomings appear to have significantly affected the outcome?

These three considerations can be assessed using critical qualitative analysis across the three time periods described above, but are not readily susceptible to quantitative scoring, either individually or collectively, because no clear, measurable standard exists for staffing major decisions in the Pentagon. Individuals may disagree on their relative importance, as well as on what constitutes a sufficient level of performance. Moreover, the context or environment in which decisions are made shapes the process in terms of what is possible given time and other constraints, and therefore must shape any judgments about it. Deficiencies in certain areas do not necessarily invalidate a decision-making process as a whole. For instance, it may be preferable to make timely decisions based on a “good” process even if a “better” process would lead to decisions delayed and scarce resources wasted.

Table 3 summarizes our assessment of the ARI development process across these three considerations and time periods. Discussions of each follow.

ARI Development as a Concept, Mid-July to Mid-August 2013

The context that caused HQDA aviation planners to begin to develop the ARI in the first place is important. The status quo—the Salami Slice—provided a quick solution to the immediate demand to cut the budget, but at the cost of many of the Army’s most modern and capable aircraft, and without addressing funding challenges under sequestration for planned modernization programs. Recognizing the deficiencies of the Salami Slice, HQDA aviation planners acted on their own initiative to develop the ARI as an alternative concept. During this period, the development of the ARI as a concept within HQDA lacked transparency and collaboration with the broader Army aviation community. This does not seem exceptional, however. Policy and programmatic proposals are often developed within small staff elements that then seek senior leader support before being taken to a broader community of stakeholders for further development. No Army senior leaders made decisions about the ARI during the period from mid-July to mid-August. There is also no evidence that the lack of transparency while the initial concept was being developed was intended to exclude any one party. Indeed, the ARNG was not the only stakeholder that was not informed during this initial period; USAACE was also not informed, for example. Overall, the lack of trans-

Table 3
RAND's Assessment of the ARI Development Process

		Time Period	
Consideration	HQDA develops the ARI as a concept, mid-July to mid-August 2013	USAAACE-led aviation study develops the ARI as a detailed plan, mid-August to late-October 2013	OSD reviews and approves the ARI, late October 2013 to early March 2014
Transparency	<p>Assessment: There was lack of transparency and collaboration within the broader Army aviation community—but this was not a significant shortcoming because:</p> <ul style="list-style-type: none"> • The effort was focused on initial concept development. • Such proposals are often initially developed within smaller staff elements. • The ARI still needed to compete as part of USAAACE-led aviation study in next period. 	<p>Assessment: The study was generally transparent but had some shortcomings:</p> <ul style="list-style-type: none"> • There was a lack of direct discussions between HQDA and ARNG/NGB senior leaders about ARI prior to Army senior leader decisions. • HQDA did not inform ARNG/NGB when HQDA decided to ask CAPE to accept ARI for FY 2015–2019 PBR. 	<p>Assessment: Both PBR and the CAPE/USAAACE analysis of the CNGB Concept in comparison with the ARI were transparent and collaborative.</p>
Collaboration		<p>Assessment: USAAACE invited collaboration, but ARNG collaboration was limited because:</p> <ul style="list-style-type: none"> • ARNG leaders chose to limit collaboration of ARNG aviation planners. 	
Rigorous Analysis	<p>Assessment: HQDA's development of the ARI was rigorous, but focused on developing a single course of action—this was not a significant shortcoming because:</p> <ul style="list-style-type: none"> • The USAAACE-led aviation study was the venue for considering different alternatives. • USAAACE would not be constrained to only assessing the ARI concept. 	<p>Assessment: The study was analytically rigorous in evaluating the ARI, but limited in terms of evaluating a range of potential alternatives because:</p> <ul style="list-style-type: none"> • There was no analysis of an alternative proposal acceptable to the ARNG/NGB prior to the October 2013 Army senior leader decisions. 	<p>Assessment: USAAACE conducted a rigorous cost and force sufficiency analysis of the ARI, the CNGB Concept, and other alternatives developed by HQDA.</p>

parency and collaboration with the broader Army aviation community during this period does not seem to be a shortcoming, given that during the next period the ARI would compete with other proposals and be developed as a detailed plan under the leadership of the USAACE-led aviation study. This process would be a transparent and collaborative one that included stakeholders from across the Army aviation community. In short, despite the lack of transparency and collaboration, we do not view this as a significant shortcoming during this phase of the process, given that (1) this phase of the process focused only on initial concept development, (2) such development is often initially limited to small staff elements, and (3) the subsequent development of the ARI from a concept into a detailed plan was conducted as part of a transparent and collaborative USAACE-led study.

In developing the ARI concept, HQDA planners leveraged a large body of existing analysis to develop a defensible proposal. In this respect, the development of the ARI concept within HQDA during this period demonstrated analytic rigor—particularly since the goal was not to develop a final plan at this point, but rather was to develop an initial concept that could be further refined and revised after it entered the USAACE-led study process. However, HQDA planners were not interested in developing a range of alternatives. They were interested in developing a specific course of action that could be refined rapidly for a decision. In their view, there was sufficient existing analysis to develop a good course of action that would support a timely and sound senior leader decision. The USAACE-led aviation study was not constrained to assessing only HQDA's ARI concept. At least initially, it considered other courses of action as well, although it did quickly adopt the ARI as the preferred course of action.

ARI Development as a Detailed Plan, Mid-August to Late October 2013

Regarding transparency, two matters during this second period are important. The first involves the development of the ARI as a detailed plan as part of the USAACE-led aviation study, leading to briefings to the Secretary of the Army and CSA at the end of October. The second involves the decision to inject the ARI into OSD's FY 2015–2019 PBR.

The development of the ARI as part of the established USAACE-led aviation study was a transparent process within the Army aviation community, including the ARNG. Transparency came soonest and was greatest at the action officer level. As shown in Figure 2, ARNG aviation planners participated in weekly meetings for the USAACE-led aviation study as well as the September Redstone conference. USAACE made clear beginning on August 21 that the CSA had directed them to return to him with a five-year aviation plan by the end of October. Senior leaders in the ARNG Directorate of NGB were aware of the ARI at least by the time of the September Redstone conference, although precise dates are difficult to establish. On the other hand, it is unclear exactly when the CNGB and NGB Joint Staff became aware of the USAACE-led aviation study, or at least of its significance; it may not have been until sometime

in October. If that was indeed the case, then neither the ARNG nor HQDA raised the issue with the NGB senior leadership until the ARI was reaching Army senior leaders for approval. The transparency of the process would have been enhanced by direct discussions between HQDA and ARNG/NGB senior officers on the developing ARI prior to the Secretary of the Army/CSA decisions on the ARI at the end of October.

The second matter regarding transparency during this period involved the decision to inject the ARI into OSD's FY 2015–2019 PBR. This issue is important because, even though ARNG leaders and action officers were aware of the USAACE-led aviation study and the fact that USAACE would present a recommendation to Army senior leaders at the end of October, it did not necessarily follow that senior leader approval would mean that the ARI would be injected into the FY 2015–2019 PBR. Indeed, it appears there was a general belief within the ARNG that the real decisions on the ARI would not occur until development of the Army's FY 2016–2020 program during calendar year 2014. This assumption, which proved incorrect, may have affected how the ARNG Directorate chose to collaborate with the USAACE-led aviation study, as well as when it decided to brief the CNGB on the ARI, although the record does not allow drawing definite conclusions. The record does indicate that HQDA aviation planners hoped that the ARI could be developed as a detailed plan quickly enough to affect the FY 2014 budget and FY 2015–2019 program. It appears as well that, at least by the time of the mid-September Redstone conference, ARNG aviation planners understood there was a *possibility* that the ARI could affect the FY 2015–2019 POM. However, neither HQDA nor ARNG aviation planners knew for certain that the plan would mature in time or that Army leaders would ask OSD CAPE to consider the ARI as an issue in the FY 2015–2019 program review. What does seem clear is that sometime around the end of September (the exact date is uncertain), Army leaders did decide to raise the issue with CAPE and did not inform ARNG or NGB leaders of this. ARNG and NGB officials learned of it only after CAPE accepted the ARI on October 24 as an issue for the FY 2015–2019 PBR. In August and early September, communications about efforts to inject the ARI into the October program review likely would have been speculative, since the Army leadership had made no decision in this regard. After the Army decided to approach CAPE by the end of September, this lack of communication did amount to a lack of transparency. However, it is unclear that greater communication would have changed the course of events. Even if ARNG/NGB senior leaders had clearly understood from late August onward that there was a significant chance that the ARI could be a program review issue, it is uncertain whether this possibility would have encouraged ARNG/NGB senior leaders to support a greater degree of collaboration from ARNG aviation planners as part of the USAACE-led study process. By the end of September, when HQDA officials actually decided to approach CAPE, the Redstone conference was complete, and it seems unlikely that there would have been any major changes to USACCE's recommendations prior to briefing the CSA and Secretary of the Army at the end of October. Nonetheless, the transparency of the process

would have benefited from better communication on the part of HQDA leaders to ARNG/NGB senior officials about the possibility that the ARI could become an issue in the FY 2015–2019 program review after the Army had decided to approach CAPE.

During this period, the USAACE-led planning process invited collaboration from all stakeholders in the Army aviation community, including those in the ARNG. Most of the collaboration occurred at the colonel and action officer level, but this is typical of planning processes. ARNG leaders who were aware of ARI planning in August and September appear to have expected that major ARNG aviation force structure decisions would be discussed as part of an eventual HQDA-NGB senior leader forum, just as ARNG end strength and BCT structure were being discussed. In the meantime, ARNG aviation planners participating in the USAACE-led effort were told by their leadership to provide informal input, but not to concur or offer formal positions. The process would have benefited from a greater degree of ARNG collaboration in the USAACE-led planning.

The USAACE-led aviation study was analytically rigorous in evaluating the ARI. It assessed the ARI with respect to organizational design and personnel, impacts on equipping programs and modernization, sustainment, training, operational impacts/force sufficiency, and cost. While the USAACE-led analysis was rigorous, it was limited in its analysis of potential alternatives. The USAACE-led working group initially considered a range of separate courses of action. By the time of the Redstone conference, however, the USAACE had selected the ARI concept as the primary course of action for consideration based on initial cost and force sufficiency analysis. The conference largely focused on validating the ARI as the course of action to be presented to the Army leadership in October. It would have been useful to have analyzed in detail at least one alternative course of action acceptable to the ARNG prior to the October 2013 Army senior leader decisions. However, it may not have been possible for HQDA and USAACE planners to identify such a course of action at the time, given that ARNG aviation planners participating in the USAACE working group had been directed to not offer formal positions. In any case, the lack of an alternative proposal was eventually resolved in December 2013, when the CNGB provided an alternative for assessment against the ARI (discussed below). In light of subsequent analysis of the CNGB Concept, an analysis of an alternative acceptable to the ARNG/NGB at the time of the Redstone conference likely would not have (1) produced a substantially different outcome in terms of final recommendations nor (2) eliminated National Guard criticism of the ARI.

ARI Enters the President's FY 2015 Budget and FY 2015–2019 POM: October 2013 to March 2014

After the Secretary of the Army and CSA approved the ARI, it was subject to OSD-led reviews. The first review occurred in October and November 2013, when the ARI was considered as an issue in OSD's FY 2015–2019 PBR. This review was transparent

and collaborative, including participation from HQDA and NGB. It provided a forum for NGB to identify for OSD areas of opposition to the ARI. Although NGB highlighted areas of disagreement, it did not at this time submit a formal counter-proposal. The ARI was tentatively approved by Secretary of Defense Hagel in early January 2014, at which time OSD also directed the Army to procure 100 additional UH-72s for its training needs rather than transferring any from the ARNG—leaving only the ARNG's loss of AH-64s as an issue of dispute.

In mid-December, the ARNG/NGB developed an alternative proposal termed the CNGB Concept. Although detailed analysis of this proposal occurred after Secretary Hagel's initial decision in favor of the ARI, which occurred in early January 2014, the decision was not publicly announced until the end of February. In the interim, Secretary Hagel directed OSD CAPE to review the CNGB Concept in comparison with the ARI, which took place from January to middle February 2014. The CAPE review was transparent and collaborative, and it included participation from HQDA and NGB, among others. At the same time, HQDA requested USAACE to lead an analysis of the CNGB concept and compare it with the ARI. This analysis also informed the CAPE review. This analysis was rigorous, building on the models and methods used during the September Redstone conference (with some modifications to address the specifics of the CNGB Concept). The USAACE-led analysis largely focused on comparing the ARI and CNGB alternatives, although HQDA proposed some additional excursions for analysis as well. The USAACE-led analysis found that the CNGB Concept (1) increased costs over the ARI, (2) was no better in terms of overall demand satisfaction, and (3) increased operational risk by increasing the number of demands that could not be met with a full-strength aviation brigade. CAPE once again endorsed the ARI prior to its formal inclusion in the President's FY 2015 budget submission on March 4, 2014.

RAND's Overall Assessment of the ARI Process and Decision

The ARI restructured Army aviation in response to the significant resource constraints imposed by sequestration, and did so in a way that improved upon the initial Army proposal known as the Salami Slice. In doing so, it addressed long-term problems in the Army's attack/reconnaissance and training fleets and allowed the Army to mitigate slowdowns and cost increases in AH-64 and UH-60 modernization resulting from sequestration. The ARI rebalanced capabilities across the Regular Army and reserve components to maximize capacity for meeting combatant command and homeland demands. Finally, as shown in Table 2, the ARI preserved as many of the Army's most modern and capable systems as possible (AH-64s, UH-60s, UH-72s, and CH-47s).

The process that led to the ARI was rigorous and the decision in favor of the ARI was analytically sound, despite certain shortcomings noted previously. The ARNG was provided an opportunity to collaborate in the development of the ARI once the proposal was presented to the broader Army aviation community for consideration,

and the ARNG/NGB had opportunities to propose alternatives. When NGB eventually did propose its alternative, the CNGB Concept did not perform as well as the ARI; it cost more than the ARI and, depending on the assumptions, offered the same or less total force capacity.¹³ Two OSD CAPE reviews resulted in decisions in favor of the ARI. Overall, we find that the decision in favor of the ARI was analytically sound, despite the shortcomings we identify.¹⁴

Finally, two important notes: First, despite several analyses that favored the ARI over the CNGB Concept and Secretary Hagel's decision, National Guard objections remain. Second, a major source of the disagreement hinges on what role the National Guard should serve. This is an issue for U.S. military policy rather than analysis. Simply put: Does the nation want the ARNG to be a "combat reserve" that mirrors the Regular Army in every respect, or should the ARNG focus on those capabilities for global and homeland missions where it provides best value based on its particular attributes in terms of readiness, availability, access authorities, and cost, among other factors?

¹³ The USAACE analysis also identified areas of increased operational risk with the CNGB proposal.

¹⁴ OSD CAPE conducted another review of the ARI and the CNGB Concept, in response to a July 2014 request from the Council of Governors. This review again included participants from HQDA and NGB, among others. In the end, CAPE found that the CNGB Concept provided the same or less capacity as the ARI (depending on specific assumptions used) but at higher cost.

Background and Origins of the 2013 ARI

A number of short- and long-term factors influenced the Army's development of the ARI in 2013. The most important of these was the sequestration provision of the 2011 BCA, which took effect in March 2013 and forced \$1.2 trillion in across-the-board federal spending cuts in the nine years between FY 2013 and FY 2021. Sequestration led to significant cuts in current and projected funding for Army aviation and caused some in the Army aviation community to look for innovative ways to implement the cuts with the least negative impact to the capabilities that Army aviation provided.

Two key long-term factors that influenced the 2013 ARI were (1) the Army's ongoing search to replace the older and less capable OH-58D in the AAS role and (2) the evolution of the AH-64 as a helicopter that (particularly when teamed with unmanned aerial systems) could operate effectively as a replacement for the OH-58D. In addition to these, challenges with the Army's fleet of aviation training aircraft and questions about how to best balance aviation units across the Regular Army and reserve components contributed as well. Even without sequestration, it is possible that these long-term factors may have led the Army aviation community to consider a fundamental force redesign similar to the ARI at some point. However, it was the magnitude and immediacy of the sequester provision—along with the uncertainty as to whether Congress would ultimately modify its implementation, in whole or in part—that directly stimulated the decisionmaking process that ultimately resulted in the ARI.

The Army's Search for an Armed Aerial Scout Helicopter

The OH-58 Kiowa fleet originally entered Army service as a light observation helicopter in 1969. In the mid-1970s, the Army developed requirements for a more capable AAS helicopter, one that could effectively team with the Army's planned advanced attack helicopter (which was then in prototype and eventually entered service in the early 1980s as the AH-64A Apache). As an interim replacement until the Army could field an AAS helicopter, the Army funded a series of upgrades to the OH-58 over the 1970s, 1980s, and 1990s. However, the upgraded OH-58s still lacked many of the capabilities that the Army desired for its AAS.

This Army's initial effort to develop a purpose-built AAS helicopter developed into what became the RAH-66 Comanche program. The Comanche would leverage the most sophisticated technologies, including stealth and improvements in range and payload. The Army planned for the Comanche to completely replace the Kiowa. The Comanche program, however, suffered major delays, cost overruns, and technical challenges. In 2004, DoD canceled the Comanche program and redirected the planned funds to modernization of the various existing fleets of Army aircraft.¹

Comanche's cancellation did not eliminate the requirement for an AAS in the Army's aviation fleet. As a result, the aviation community developed a concept for an Armed Reconnaissance Helicopter (ARH) that could be built quickly using COTS technologies. The Army selected a Bell helicopter, and the program became the ARH-70 Arapahoe, but after multiple schedule delays and cost overruns, DoD canceled this program as well in 2008.

As the Army continued to look at options to replace the OH-58D, it also continued to develop the capabilities that the AH-64 provided. In early 2013, for example, the Army began converting its D-model AH-64s into AH-64E Apache Guardians. Among other things, the AH-64E offered the ability to team with unmanned aerial systems as part of the manned-unmanned teaming concept. This improved the AH-64E's ability to operate in the reconnaissance role.²

With the Arapahoe's cancellation, OSD directed TRADOC to initiate an "Armed Aerial Scout (AAS) Analysis of Alternatives" to determine how the Army could perform the scout mission in the future. The resulting study took over two years, involved multiple organizations within the Army and beyond, and conducted several workshops, including hundreds of simulations, operational scenarios, and vignettes. The analysis looked at several possible alternatives, including a range of both manned and unmanned systems, as well as manned-unmanned teaming. In terms of manned systems, the study looked at the OH-58F (a planned upgrade version of the OH-58D) and the AH-64E, as well as the possibility that the Army could either purchase and modify an existing off-the-shelf platform or develop a new aircraft entirely. For unmanned systems, the study considered the cheaper but less capable RQ-7B and the more capable but expensive MQ-1C. In terms of results, the study recommended against either pure manned or unmanned options, finding that manned-unmanned teaming provided the best options when weighing both capability and cost. The study found that the AH-64E met most of the performance attributes for an AAS that the study team had identified. Where there were limitations, the study found that some could be at least partially mitigated through manned-unmanned teaming. On the other hand, the AH-64E had certain shortcomings in terms of cockpit visibility, response times

¹ Robert Burns, "Army Cancels Comanche Helicopter Program," *The Washington Post*, February 23, 2004.

² Thom Shanker, "At Odds With the Air Force, Army Adds Its Own Aviation Unit," *New York Times*, June 22, 2008; "US Army Fields First AH64E Apache Guardian Helicopters," *Army Technology.Com*, March 14, 2013.

from a cold engine start, and deployment by air transportability that were inherent to its design. More importantly, the study found that the AH-64E was the most costly manned option (in part because the study assumed new procurement aircraft would be needed, but also because the AH-64 had high annual support costs). The study also assumed that the AH-64E could not be a viable replacement for the OH-58D until the mid-2020s, because the study assumed that the Army would complete the planned number of AH-64Es needed for attack battalions before procuring additional quantities for the reconnaissance mission. Based on these factors, and even though the study noted that “significant benefits exist when a paired team includes a manned platform with flight characteristics similar to or greater than the (AH-64E), and an unmanned platform in quantities equivalent to the RQ-7B,” the study recommended that other alternatives provided a better mix of capability and cost. The study recommended one of two options: (1) continue to accept some operational risk by continuing with the planned OH-58F, paired with RQ-7Bs, or (2) accept little to no operational risk and issue a request for proposal to industry for a purpose-built manned aircraft and an unmanned aircraft similar to the RQ-7B.³

The Army retained the requirement for a purpose-built armed aerial scout aircraft. For the time being, however, the Army chose to continue funding upgrades to the OH-58D, while pursuing research that could eventually result in an armed aerial scout replacement. The Army funded a CASUP program that was designed to address some of the aircraft’s capability gaps and to reduce its weight to allow it to carry an increased mix of fuel or weapons, at a cost of about \$3.5 billion going forward. Even with these upgrades, the Army would eventually need to fund an expensive SLEP to keep the aircraft flying until a replacement could eventually be found.

The Army began to experiment with manned-unmanned teaming options using the OH-58D and RQ-7B. The Army designed the 101st Combat Aviation Brigade (CAB) as a “full-spectrum CAB” (FSCAB) and modified its attack/reconnaissance squadron to contain a mix of 21 OH-58Ds (rather than the normal 30) and eight RQ-7Bs. The Army used this CAB to experiment with manned-unmanned teaming concepts when it deployed to Afghanistan in 2012. The USAACE led a study of the experiment (including additional modeling and simulation), to assess effectiveness and capture lessons learned. The study was published in June 2013. The study found that “the overarching conclusion reached by study members and field commanders is that the FSCAB organizational design is effective and warrants further fielding.” It also recommended that the preferred design for an attack reconnaissance squadron was 24 manned aircraft and three RQ-7B platoons of four aircraft each—the same design that the 2013 ARI ultimately adopted, only using AH-64Es in place of OH-58Ds.⁴

³ TRADOC Analysis Center, 2011.

⁴ U.S. Army Aviation Center of Excellence, *Full Spectrum Combat Aviation Brigade Study*, Fort Rucker, Alabama, June 20 2013.

The Army's Aviation Training Base

In the late 1980s, the Army conducted initial entry rotary-wing training for new aviators using UH-1 Hueys left over from Vietnam. Though tactical training needed to be done on the OH-58A/C Kiowa, initial training could use the Huey. By the early 1990s, the Army looked for COTS helicopters to replace the aging Huey fleet as training aircraft and chose Bell's TH-67 in 1993. The new aircraft were not only more comfortable than the combat-designed Hueys, but promised to be cheaper to operate.⁵

The TH-67 was provided on a contract basis, and the Army planned simply to contract for a new COTS training aircraft when the TH-67s no longer served its needs. The Army, however, invested in infrastructure (most notably simulator systems) for the TH-67 and delayed identifying a replacement. Eventually, the TH-67 became an Army program of record. The TH-67, however, had its limitations. It is not a multi-engine or glass cockpit (i.e., digital display) helicopter, meaning it is suitable only for initial flight training. Bell Helicopter also ceased to manufacture the TH-67.⁶ As a result, by 2019 or 2020, the Army would once again need to find a suitable replacement or invest in a SLEP for the TH-67. In either case, the Army had not yet programmed funding for this purpose as of 2013.

Incidentally, in 2006 the Army took initial delivery of the UH-72A Lakota utility helicopter, built by EADS, North America, and designed for search and rescue in permissive environments, evacuation, counterdrug, and other noncombat roles. The company delivered the COTS helicopters in near-record time, and the Army ultimately planned to field 345 of these aircraft by 2017. Importantly for the upcoming 2013 ARI, some individuals in the army aviation enterprise in 2008 were already considering the possibility of using the Lakota as the Army's training helicopter to replace the TH-67.⁷

Reconsidering the Regular Army–Reserve Component Force Mix Based on Cost and Output

Before the 1990s, mobilizations of RC units and personnel for overseas deployments were infrequent. During Operations Desert Shield and Desert Storm, on the other hand, substantial numbers of RC units and personnel—particularly those providing combat support and logistics capabilities—were mobilized and deployed in support of operations. The trend toward the increased use of the reserve components as an operational force continued throughout the 1990s, and then grew substantially after 2002

⁵ Marti Gatlin, "TH-67 Soars to Historic Aviation Milestone," U.S. Army, February 22, 2007.

⁶ Mark Huber, "Bell Ceases Production of Its 40-Year-Old Jet Ranger," *Aviation International News*, September 21, 2010.

⁷ Colonel Frank W. Tate (P), HQDA Office of the Deputy Chief of Staff of the Army, Programs and Resources (G8), interview with RAND researchers, September 30, 2014.

and 2003 in support of operations in Iraq, Afghanistan, and elsewhere. This trend toward the increased operational deployment of RC forces altered the traditional RC readiness paradigm, in which—on average—RC units were manned, equipped, and modernized to a much lower standard than their Regular Army counterparts. With the regular operational deployment of RC forces to Iraq and Afghanistan, the resources dedicated to RC readiness increased substantially. This in turn increased the relative cost of RC aviation units relative to Regular Army units.

On one hand, even with the increase in resources dedicated to RC readiness, when not mobilized one RC aviation battalion still cost less than one comparable Regular Army battalion (when mobilized, RC and Regular Army costs were similar). On the other hand, DoD policy permitted RC units to deploy less often than Regular Army units; this meant that it took multiple RC units to provide the same deployed output as one Regular Army unit. In January 2007, for example, Secretary of Defense Robert Gates announced planning objectives for the deployment of Regular Army and RC forces. The planning objective for Regular Army units was one year deployed out of every three years. This equated to a *deployment* to dwell time ratio of 1:2 Deploy:Dwell (one year deployed for every two years at home station). The planning objective for RC units was one year involuntarily mobilized out of every six. This equated to a *mobilization* to dwell time ratio of 1:5 MOB:Dwell (one year mobilized to five years not mobilized).⁸ Note that Deploy:Dwell and MOB:Dwell metrics measure different activities and should not be used interchangeably. Because RC units generally need to complete at least some predeployment training after they mobilized, RC units spend less time deployed than they spend mobilized. For example, if one assumes an RC unit is mobilized for one year but deployed for only nine months of that year, then 1:5 MOB:Dwell equates to 1:7 Deploy:Dwell for RC units. Converting MOB:Dwell to Deploy:Dwell is important in order to understand how many RC units it takes to provide the same output as Regular Army units. At 1:2 Deploy:Dwell, it takes three Regular Army units to meet a sustained demand for one on the ground. At 1:7 Deploy:Dwell, it takes eight RC units to meet the same sustained demand for one unit on the ground. In other words, it takes 2.7 times as many RC units to provide the same output as Regular Army units at Secretary of Defense–approved planning rates.⁹ In recent operations, some types of Regular Army and RC units were called on

⁸ Robert M. Gates, “Utilization of the Total Force,” Secretary of Defense memorandum, Washington, D.C., January 19, 2007.

⁹ The 1:5 MOB:Dwell can be converted to Deploy:Dwell as follows. Assume a reserve unit mobilization of 12 months, of which nine months are spent deployed and three months are spent on a combination of pre-deployment training/preparation and post-deployment demobilization activities. Over a notional 72-month period, a unit will spend 12 months mobilized and 60 months in dwell ($12:60 = 1:5$). Focusing only on the portion of time the unit is deployed and performing an operational mission in theater, this yields nine months deployed and 63 months not deployed, as the three months spent on pre- and post-deployment activities are counted as “not deployed” ($9:63 = 1:7$). The overall result is that to sustain one unit deployed forward requires seven units not deployed, for a total of eight RC units.

in practice to deploy more frequently than outlined in the DoD planning objectives in order to meet the high levels of demand in theater. In such cases, however, Regular Army units of a given type were still subject to more frequent deployment than RC units of the same type.

Given the higher costs associated with an increasingly operational RC force, along with the limits on RC output compared with Regular Army units (these included limits on how rapidly RC units could deploy overseas in a crisis given the need for additional training after mobilization, as well as limits on how frequently RC units could deploy to operations like Operations Iraqi Freedom and Enduring Freedom) some in the Regular Army aviation community began to question how best to balance the regular-reserve force mix in a way that accounted for differences in Regular Army and RC cost and output. This question became increasingly relevant as the Army faced the prospect of substantial future budget reductions.

In October 2011, for example, the Army asked RAND to examine how the Army could structure its rotary-wing aviation forces to meet future demand most cost-effectively. RAND's findings were generally consistent with the eventual ARI decision to expand the number of lift and medevac units in the reserve components, while rebalancing attack/reconnaissance toward the Regular Army.

In June 2013—prior to the development of the ARI concept—the Army issued HQDA EXORD 103-13, which resulted in the conversion of two USAR and two ARNG AH-64 battalions into UH-60 battalions. The ARNG and USAR each lost 48 AH-64s; in exchange, the ARNG and USAR gained 50 and 48 UH-60s, respectively. This left the ARNG with six AH-64 battalions (144 aircraft) and the USAR with no AH-64s. Although the ARNG initially non-concurred with portions of the EXORD, both the ARNG and USAR ultimately provided their concurrence. The EXORD noted that future force structure decisions might result in the Army further reducing the number of AH-64 battalions assigned to the ARNG.

Changing Strategic and Budgetary Environment, 2011 to Mid-2013

The factors described above may have led the Army aviation community to consider a fundamental force redesign initiative at some point. However, the near-term origins of the Army's 2013 ARI are found first and foremost in the enormous budget pressures resulting from the BCA's sequester provision, which took effect in March 2013 and forced \$1.2 trillion in across-the-board federal spending cuts between FY 2013 and FY 2021. In this section, we describe overall developments affecting DoD strategy, budgets, and force structure planning between 2011 and mid-2013, which ultimately led the Army to reassess its aviation force structure.

End Strength and Budget Reductions, January 2011

In 2011, the U.S. government was beginning to transition from a decade of war to a postwar footing. The “surge” in Afghanistan—the major increment of which was announced in 2009—led to a peak troop level in June 2011, but this level would only be maintained for a short period. The military planned for a nearly complete withdrawal of forces from Iraq by the end of 2011, and for a handover of primary security responsibilities in Afghanistan by the end of 2014.

The drawdowns in Iraq and Afghanistan coincided with a period of increased national debate over the federal government’s long-term debt burden. In February 2010, President Obama issued an executive order creating a bipartisan National Commission on Fiscal Responsibility and Reform, commonly called the Bowles-Simpson Commission, after its eventual co-chairs. The President tasked the commission with preparing a report by December 2010 on how to balance the budget, excluding interest payments on the debt, by 2015. The President’s intent was that the commission’s final report go to Congress. However, issuance of a final report required the approval of at least 14 of the 18 commission members; only 11 members ultimately approved, so no final report was actually issued. As the Bowles-Simpson group worked through 2010, certain outside organizations recommended defense budget topline reductions of between \$100 billion and \$133 billion through 2015, and \$350 billion to \$1 trillion over ten years. These recommendations included personnel end strength reductions.¹⁰

At the start of 2011, the Regular Army’s permanent authorized end strength stood at around 547,000 personnel; the ARNG was around 358,000 and USAR was around 205,000, with planned USAR growth to 206,000. By comparison, in 2003 the Regular Army’s permanent authorized end strength stood at around 480,000 personnel, with the ARNG at 350,000 and the USAR at 205,000. In 2010, the Army also received an additional temporary increase in Regular Army end strength of 22,000

¹⁰ “Mullen: Debt Is Top National Security Threat,” *CNN*, August 27 2010; Barack Obama, “Executive Order 13531—National Commission on Fiscal Responsibility and Reform,” Washington, D.C.: White House Press Office, 2010; Sustainable Defense Task Force, *Debt, Deficits, & Defense: A Way Forward*, Washington, D.C., June, 2010; Lawrence J. Korb and Laura Conley, *Strong and Sustainable: How to Reduce Military Spending While Keeping Our Nation Safe*, Washington, D.C.: Center for American Progress, 2010; Benjamin H. Friedman and Christopher Preble, *Budgetary Savings from Military Restraint*, Washington, D.C.: Cato Institute, Policy Analysis No. 667, 2010; National Commission on Fiscal Responsibility and Reform, “Co-Chairs’ Proposal,” 2010; Pete Domenici and Dr. Alice Rivlin, *Restoring America’s Future: Reviving the Economy, Cutting Spending and Debt, and Creating a Simple, Pro-Growth Tax System*, Washington, D.C.: Bipartisan Policy Center, November, 2010; Michael O’Hanlon, *Defense Budgets and American Power*, Washington, D.C.: Brookings Institution, No. 24, 2010; Gordon Adams and Matthew Leatherman, “A Leaner and Meaner Defense: How to Cut the Pentagon’s Budget While Improving Its Performance,” *Foreign Affairs*, Vol. 90, No. 1, 2011; Mackenzie Eaglen and Julia Pollak, *How to Save Money, Reform Processes, and Increase Efficiency in the Defense Department*, Washington, D.C.: Heritage Foundation, Backgrounder No. 2507, 2011; Paul Ryan, *Path to Prosperity: Restoring America’s Promise—Fiscal Year 2012 Budget Resolution*, Washington, D.C.: House Committee on the Budget, April, 2011; Congressional Budget Office, *Reducing the Deficit Spending and Revenue Options*, Washington, D.C., 2011; David Barno, Nora Bensahel, and Travis Sharp, *Hard Choices: Responsible Defense in an Age of Austerity*, Washington, D.C.: Center for a New American Security, 2011.

personnel. The Army expected this temporary increase to be phased out by 2013, at which time the Army would have returned to the 547,000 level. At that point, the Army planned to have a total of 25 aviation brigades of various types—13 CABs in the Regular Army plus eight CABs and four theater aviation brigades (TABs) spread across the two reserve components, with the majority of units in the ARNG.¹¹

In January 2011, Secretary Gates announced that the President's FY 2012 budget request proposed to reduce the Regular Army's permanent end strength from approximately 547,000 to 520,000 personnel by 2015.¹² This was part of an overall package of decisions designed to save approximately \$78 billion between FY 2012 and FY 2016. Table A.1 summarizes changes in total Army authorized end strengths between 2003 and 2011, along with levels planned for 2013 and 2015 as of January 2011.

Secretary Gates's decision still left the Regular Army larger than in 2003 by approximately 40,000 personnel. Secretary Gates's proposals made no changes to ARNG or USAR end strengths at that time. In addition, the Army planned to make no significant changes to its rotary-wing aviation force structure at this point, retaining its 25 aviation brigades. In other words, while these cuts presaged an era of increasing budget pressures for the Army and DoD as a whole, there was no obvious direct linkage between this initial round of cuts to Army end strength and the eventual ARI.

The Budget Control Act, August 2011

Of far greater consequence to the eventual 2013 ARI was the BCA, signed in August 2011. The BCA was the product of intense negotiations over raising the federal debt

Table A.1
Army Historical and Planned End Strength Levels as of January 2011

Authorized End Strength	2003 (Actual)	2011 (Actual)	2013 (Planned)	2015 (Planned)
Regular Army	480,000	569,000	547,000	520,000
USAR	205,000	205,000	206,000	206,000
ARNG	350,000	358,000	358,000	358,000

NOTES: Authorized end strengths have been rounded to the nearest thousand. Actual end strengths may have differed from authorizations. The Regular Army—authorized end strength for 2011 includes a temporary end strength increase of 22,000, which the Army planned to eliminate by 2013.

¹¹ In addition, a 5th RC TAB headquarters with limited subordinate elements has focused on providing support to NORTHCOM.

¹² See Andrew Feickert, *Army Drawdown and Restructuring: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, February 28, 2014. See also Robert M. Gates and Mike Mullen, "DOD News Briefing with Secretary Gates and Admiral Mullen from the Pentagon," U.S. Department of Defense news transcript, January 6, 2011; Robert Hale and Larry Spencer, "DOD News Briefing by Under Secretary Hale and Lt. Gen. Spencer from the Pentagon on the Fiscal 2012 Budget Proposal," U.S. Department of Defense news transcript, February 14, 2011.

ceiling. To raise the ceiling, the BCA mandated large decreases in overall federal spending. Total reductions were to be on the order of \$2.1 trillion, spread more or less evenly between national security and other accounts. The BCA contained two major provisions. First, the BCA required an initial reduction of \$917 billion in total federal spending covering fiscal years 2012 to 2021.¹³ Second, the BCA created the Joint Select Committee on Deficit Reduction—commonly known as the “super committee”—which had the goal of identifying an additional \$1.5 trillion in debt reduction over ten years, which the Congress was in turn to approve by December 23, 2011. Failing this, the BCA would trigger an automatic “sequestration” of \$1.2 trillion in across-the-board spending cuts over the same ten-year period, beginning on January 2, 2013.¹⁴ The super committee failed to achieve the necessary compromises by the November 2011 deadline, triggering the sequester provision of the BCA. The BCA’s initial \$917 billion in mandated spending cuts were a matter of law that would affect the President’s FY 2013 budget submission due in February 2012.

Defense Strategic Guidance, January 2012

To provide a strategic blueprint for the coming budget reductions, President Obama directed a review of U.S. interests to identify spending priorities going forward. President Obama introduced the new DSG document, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*.¹⁵ The document’s intent was to stipulate program and budget guidance for the next ten years.

The DSG made clear that the Obama administration envisioned an end to the stability and counterinsurgency operations that had occupied the nation for more than a decade. Nevertheless, the DSG allowed that stabilization and counterinsurgency missions of at least some magnitude and duration remained relevant to force planning. In particular, U.S. force levels should be sufficient to “secure territory and populations and facilitate a transition to stable governance on a small scale for a limited period using standing forces and, if necessary, for an extended period with mobilized forces.”¹⁶

¹³ On April 13, 2011, borrowing from the draft proposals developed by the Bowles-Simpson Commission, President Obama proposed an 11-year multi-trillion-dollar deficit reduction program. This program included cutting defense spending by approximately \$400 billion over 12 years. With the BCA, those proposed cuts to defense were essentially incorporated into the initial reduction of \$917 billion in total federal spending (about half of which would fall on national defense budget accounts writ large), rather than being in addition to the \$400 billion that President Obama proposed in April. See White House Press Release, “Remarks by the President on Fiscal Policy,” April 13, 2011, as of December 15, 2014.

¹⁴ Bill Heniff, Jr., Elizabeth Rybicki, and Shannon M. Mahan, *The Budget Control Act of 2011*, Washington, D.C.: Congressional Research Service, 2011.

¹⁵ U.S. Department of Defense, *Sustaining U.S. Leadership: Priorities for 21st Century Defense*, U.S. Department of Defense, January, 2012.

¹⁶ Leon E. Panetta, “Statement as Prepared by Secretary of Defense Leon E. Panetta on the Defense Strategic Guidance,” Arlington, Virginia, January 5, 2012; U.S. Department of Defense, 2012, pp. 4, 6.

Moreover, the DSG emphasized that the United States would rebalance toward the Asia-Pacific region; while U.S. forces would maintain “presence and capabilities in the Middle East,” “the U.S. military will increase its institutional weight and focus on enhanced presence, power projection, and deterrence in Asia-Pacific.”¹⁷ In addition, the new DSG called for a smaller military, increasingly reliant on international partners and institutions, and special operations forces; intelligence, surveillance, and reconnaissance; space; and cyber assets. The two-war force-sizing requirement, a long time determinant of the U.S. military size and structure, would be replaced by a new construct that sized the military to “fully deny a capable state’s aggressive objectives in one region,” while “denying the objectives of, or imposing unacceptable costs on—an opportunistic aggressor in a second region”—what one might refer to as a “defeat-deny” strategy.¹⁸

Shaping force mix would be a key outcome of the strategy, but the guidance did not provide specific instructions for how that mix should change. While U.S. forces would be smaller, DoD would avoid “wholesale divestment of the capability to conduct any mission.”¹⁹ The new strategy called on DoD to “manage the force in ways that protect its ability to regenerate capabilities that might be needed to meet future, unforeseen demands.”²⁰ The strategy also prioritized readiness.

End Strength and Budget Reductions Announced in January 2012

On January 26, 2012, Secretary of Defense Leon Panetta and Chairman of the Joint Chiefs of Staff Gen. Martin Dempsey outlined major recommendations that would be included in the President’s FY 2013 budget submission.²¹ DoD’s FY 2013 budget reflected the impact of the BCA’s first provision, which reduced total federal spending by \$917 billion over ten years—\$487 billion of which would come from DoD. Specifically, since DoD’s FY 2013 request covered a five-year period, it included \$259 billion in cuts (over and above those announced by Secretary Gates the previous year). However, DoD’s FY 2013 submission did not reflect any cuts related to sequestration, which was scheduled to take effect in January 2013. DoD’s position was that the FY 2013 submission followed Office of Management and Budget fiscal guidance, “which did not anticipate the sequester.”²²

¹⁷ Obama, Barack, Leon E. Panetta, and Martin E. Dempsey, “Defense Strategic Guidance Briefing from the Pentagon,” U.S. Department of Defense news transcript, January 5, 2012.

¹⁸ U.S. Department of Defense, 2012, p. 4.

¹⁹ U.S. Department of Defense, 2012, p. 6.

²⁰ U.S. Department of Defense, 2012, p. 6.

²¹ Leon E. Panetta and Martin E. Dempsey, “Major Budget Decisions Briefing from the Pentagon,” U.S. Department of Defense news transcript, January 26, 2012.

²² Robert Hale and Larry Spencer, “DOD News Briefing by Under Secretary Hale and Lt. Gen. Spencer from the Pentagon on the Fiscal 2013 Budget Proposal,” U.S. Department of Defense news transcript, February 13, 2012.

As part of a package of decisions designed to achieve the necessary reductions in spending, Secretary Panetta announced that Regular Army end strength would be reduced to 490,000 by FY 2017 (compared with the reduction to 520,000 by FY 2015 that Secretary Gates had announced the previous January).²³ This level was roughly equivalent to the Regular Army's 2003 end strength of around 480,000. The Army subsequently began to plan to reduce the ARNG's end strength from about 358,000 to about 350,000, and to cancel plans to grow the USAR from about 205,000 to about 206,000. The Army would include these changes in its FY 2014 budget submission.

As with its prior-year budget, the Army planned to make no significant changes to its rotary-wing aviation force structure and continued to retain its 25 aviation brigades. In other words, as with the cuts that Secretary Gates announced in 2011, there was no obvious direct linkage between the initial round of BCA spending cuts and the eventual ARI. On the other hand, even without sequestration, fiscal pressures on the Army's force structure and modernization accounts were mounting, and the Army faced long-term challenges in modernizing its light attack/reconnaissance and training fleets. These trends may in turn have led the Army to consider a fundamental aviation force redesign at some point down the road. Of much greater immediacy, however, was sequestration—which still hung over DoD as a possibility beginning in FY 2013, and department planners remained uncertain of how to cope with it.

Sequestration Implemented in 2013

Throughout 2012, it remained uncertain whether Congress would intervene to replace or modify sequestration. Any potential compromise in this regard likely required Congress to pass an alternative set of deficit reduction proposals. If sequestration went into effect, it would force DoD to make deep cuts very quickly, with little flexibility about where to take risks and what to prioritize. For DoD, the suddenness of the cuts rather than their depth would make sequestration very difficult to manage. While reducing infrastructure, pay or benefit reform, or cutting civilian or military end strength could yield significant savings, such cuts could not be made quickly enough to meet sequestration targets.²⁴

Throughout 2012, senior military and civilian DoD officials stressed the damaging effects that sequestration would have on military readiness and capabilities. Officials noted that sequestration would reduce DoD's FY 2013 budget by \$41 billion. The President's Budget submission for FY 2014 did not reflect sequestration. The FY 2014 DoD budget submission did cut \$34 billion between FY 2014 and FY 2018 over and above spending levels in the FY 2013 budget, but these were far short of what seques-

²³ Panetta and Dempsey, 2012.

²⁴ Suzy Khimm, "The Sequester Explained," Washington Post Wonkblog, September 14, 2012; Elisabeth Bumiller, "Despite Threat of Cuts, Pentagon Officials Made No Contingency Plans," *New York Times*, November 22, 2011.

tration would impose; sequestration would reduce the FY 2014 budget by \$52 billion in that year alone—and by a total of \$500 billion over ten years—compared with the President's request. Under the FY 2014 budget, the Army still planned to retain all 25 aviation brigades.²⁵ Sequestration ultimately went into effect on March 1, 2013.

The reductions that the BCA and other funding cuts produced were substantial. The President's FY 2011 budget requested \$549 billion in base budget funding for DoD (not including funding for overseas contingency operations), although Congress ultimately approved only \$528 billion as part of an April 2013 deficit reduction deal that narrowly averted a government shutdown.²⁶ The same FY 2011 budget request *projected* that spending would rise to \$582 billion in FY 2013 and \$598 billion in FY 2014.²⁷ The President's *actual* FY 2013 base budget request for DoD was \$525 billion before sequestration; the enacted amount after sequestration fell to \$495 billion. Similarly, the President's actual FY 2014 base budget request was \$527 billion before sequestration; the enacted amount after sequestration fell to \$496 billion—almost \$100 billion (17 percent) less than projected in the FY 2011 budget submission.²⁸ Table A.2 summarizes projected and actual DoD base budget levels between FY 2011 to FY 2014 in nominal dollars.

Table A.3 provides data on the percentage real change (adjusted for inflation) in congressionally enacted DoD base budget levels between FY 2011 and FY 2014. Enacted levels are shown in FY 2015 dollars. Between FY 2011 and FY 2014, DoD's base budget declined in real terms by 10.5 percent—from \$563 billion in FY 2015 dollars to \$504 billion.

The reductions to the Army's base budget were even more substantial. For the Army, the President's FY 2011 base budget request was \$143 billion, and Congress ultimately approved \$136 billion. The President's actual FY 2013 base budget request for the Army was \$135 billion before sequestration; the congressionally enacted amount after sequestration fell to \$128 billion. The President's actual FY 2014 base budget request was \$130 billion before sequestration; the enacted amount after sequestration

²⁵ Office of the Under Secretary of Defense Chief Financial Officer, "Overview: United States Defense Department Fiscal Year 2014 Budget Request," Washington, D.C.: U.S. Department of Defense, April 2013; Robert Hale and Mark Ramsay, "The Fiscal 2014 Defense Budget Proposal from the Pentagon," briefing delivered at the Pentagon, Arlington, Virginia, April 10, 2013.

²⁶ Office of the Under Secretary of Defense Chief Financial Officer, "Fiscal Year 2011 Budget Request," Washington, D.C.: U.S. Department of Defense, February 2010; Office of the Under Secretary of Defense Chief Financial Officer, "Fiscal Year 2013 Budget Request," Washington, D.C.: U.S. Department of Defense, February 2012; Carl Hulse, "Budget Deal to Cut \$38 Billion Averts Shutdown," *New York Times*, April 8, 2011.

²⁷ Numbers in this paragraph are in nominal dollars not adjusted for inflation, as that is the primary method of presentation in DoD budget materials.

²⁸ Ashton Carter and James A. Winnefeld, Jr., "Prepared testimony of Deputy Secretary of Defense Ashton B. Carter and Vice Chairman of the Joint Chiefs of Staff James A. Winnefeld Jr.," testimony before the U.S. House Armed Services Committee, Washington, D.C., August, 1 2013.

Table A.2
Projected and Actual DoD Base Budget, FY 2011–2014 (nominal \$ billion)

Category	FY 2011	FY 2012	FY 2013	FY 2014
Projected request from FY 2011 President’s Budget	549	562	582	598
Actual President’s budget request for the FY	549	553	525	527
Congressionally enacted amount for the FY	528	530	495	496
Percentage difference between enacted and FY 2011 President’s Budget projection	–3.8%	–5.7%	–14.9%	–17.1%

NOTES: The level of inflation projected in the FY 2011 President’s Budget submission for future FYs may not have matched actual levels; therefore, the percentage difference between the FY 2011 President’s Budget projection for future FYs and the actual levels enacted for those FYs is an approximation rather than a precise calculation. The table shows base budget levels only; supplemental funding for overseas contingency operations is not included.

Table A.3
Actual DoD Base Budget, FY 2011–2014 (FY 2015 \$ billion)

Category	FY 2011	FY 2012	FY 2013	FY 2014
Congressionally enacted amount for the FY	563	556	544	504
Percentage real change from prior FY	N/A	–1.2%	–2.2%	–7.3%
Percentage real change from FY 2011	N/A	–1.2%	–3.4%	–10.5%

SOURCE: FY 2015 Green Book.

NOTE: We use the FY 2015 Green Book because the FY 2014 Green Book did not include enacted levels for 2014. Table shows base budget levels only; supplemental funding for overseas contingency operations is not included.

fell to \$122 billion—almost \$31 billion (20 percent) less than projected in the FY 2011 Green Book.²⁹ Table A.4 summarizes projected and actual Army base budget levels between FY 2011 to 2014 in nominal dollars.

Table A.5 provides data on the percentage real change (adjusted for inflation) in congressionally enacted Army base budget levels between FY 2011 and FY 2014. Enacted levels are again shown in FY 2015 dollars.

Between FY 2011 and FY 2014, the Army’s base budget declined in real terms by 15.5 percent—from \$142 billion in FY 2015 dollars to \$120 billion. That is, the Army’s percentage reduction exceeded the overall DoD reduction of 10.5 percent shown in Table A.3.

²⁹ Office of the Under Secretary of Defense Chief Financial Officer, 2013; Office of the Under Secretary of Defense Chief Financial Officer, “Overview: United States Defense Department Fiscal Year 2015 Budget Request,” Washington, D.C.: U.S. Department of Defense, March 2014.

Table A.4
Projected and Actual Army Base Budget, FY 2011–2014 (nominal \$ billion)

Category	FY 2011	FY 2012	FY 2013	FY 2014
Projected request from FY 2011 President's budget	142	148	151	153
Actual President's budget request for the FY	142	143	135	130
Congressionally enacted amount for the FY	136	136	128	122
Percentage difference between enacted and FY 2011 President's budget projection	-4.2%	-8.1%	-15.2%	-20.3%

SOURCE: Green Books for FYs 2011, 2012, 2013, and 2014.

NOTES: The level of inflation projected in the FY 2011 President's Budget submission for future FYs may not have matched actual levels; therefore, the percentage difference between the FY 2011 President's Budget projection for future FYs and the actual levels enacted for those FYs is an approximation rather than a precise calculation. Table shows base budget levels only; supplemental funding for overseas contingency operations is not included.

Table A.5
Actual Army Base Budget, FY 2011–2014 (FY 2015 \$ billion)

Category	FY 2011	FY 2012	FY 2013	FY 2014
Congressionally enacted amount for the FY	142	137	123	120
Percentage real change from prior FY	N/A	-3.5%	-10.2%	-2.4%
Percentage real change from FY 2011	N/A	-3.5%	-13.4%	-15.5%

SOURCE: FY 2015 Green Book.

NOTE: We use the FY 2015 Green Book because the FY 2014 Green Book did not include enacted levels for 2014. Table shows base budget levels only; supplemental funding for overseas contingency operations is not included.

Strategic Choices and Management Review and the FY 2015 Budget

On March 1, 2013, sequestration became a reality for the FY 2013 budget that DoD was then executing. DoD components thus needed to make a series of difficult decisions as to how they would adjust their ongoing spending midstream. Sequestration remained a near certainty for FY 2014, despite the fact that the President's budget request, submitted in April 2013, did not reflect sequestration. Not knowing whether Congress would ultimately amend sequestration, DoD components had to plan for scenarios for what their actual FY 2014 budgets would be. Most important for understanding the ARI, DoD had to plan for what sequestration could mean for its FY 2015 budget and FY 2015–2019 program, which DoD was in the process of developing for submission in early calendar year 2014. Wise and timely decisions were now critical. If the Army delayed in making decisions until after the FY 2015 budget was formulated, this could mean the Army would be wasting money on the near-term programs that would not survive in the long term. In its view, decisions were needed as soon as pos-

sible using the best available analysis. In this environment, analytical processes needed to conform to the realities of the budget cycle.

On March 15, 2013—two weeks after the sequester went into effect—Secretary of Defense Hagel directed DoD to undertake a SCMR, which would frame his guidance for the FY 2015 budget and form the foundation for the 2014 Quadrennial Defense Review. Results of the SCMR were due back to him by May 31, 2013. DoD remained uncertain as to the level of funding it could expect over its FY 2015–2019 Future Years Defense Program (FYDP). Would the BCA be fully implemented, or would Congress grant at least a partial reprieve? The SCMR was to present options to the President based on different possible budget projections related to a full or partial sequestration. The SCMR would assess force structure requirements in the context of the DSG’s “defeat-deny” strategy that avoided sizing U.S. forces for large-scale, prolonged counterinsurgency and stability operations. There was open talk of cutting the Regular Army to as low as 380,000 and the ARNG to 250,000.³⁰

SCMR convened representatives from the military services, the Joint Chiefs of Staff, the combatant commands, and OSD. Senior leaders met 18 times over three months and more frequent staff engagements broken out into 17 working groups. Participants considered three fiscal scenarios:

1. The President’s FY 2014 budget request, which would reduce DoD spending by about \$150 billion over ten years across FY 2014–2023—mostly in later years—in comparison to the FY 2013 budget (the “sustain” the DSG option);
2. The sequestration level caps written into the BCA that would reduce DoD funding by about \$500 billion over ten years in comparison with the FY 2013 budget (“break” the DSG); and
3. An in-between scenario, amounting to \$250 billion over ten years in comparison to the FY 2013 budget (“bend” the DSG).³¹

In August 2013, senior DoD leaders discussed SCMR findings with members of Congress. DoD leaders outlined potential end strength reductions across the services, depending on whether sequester-level funding was fully or only partially implemented. For the Army, depending on the level of funding, Regular Army end strength would be reduced from 490,000 to somewhere between 450,000 and 420,000 personnel—and potentially as low as 380,000. Combined RC end strength for the ARNG and USAR would be reduced from 555,000 to between 490,000 and 530,000. Notably, the SCMR found that, even at the President’s FY 2014 budget level, the Army could be reduced to no more than 450,000 in the Regular Army and 530,000 in the reserve

³⁰ Chuck Hagel, “Strategic Choices and Management Review (SCMR),” Secretary of Defense memorandum to the secretaries of the military departments, Washington, D.C., March 15, 2013; Andrew Tilghman, “Hagel: Budget Cuts Will Shrink Pay, Benefits and Force,” *Army Times*, July 31, 2013.

³¹ Carter and Winnefeld, 2013.

components and still be able to meet the missions outlined in the DSG.³² In other words, even if Congress eliminated sequestration entirely, the SCMR findings indicated that OSD would seek to cut Army force structure again and invest the savings in other service accounts.

The CSA testified in November 2013 before the Senate Armed Services Committee that an end strength of 450,000 for the Regular Army was “the absolute minimum size to fully execute” the defense strategy. He added that the FY 2014 request still accepted risk with respect to strategic surprise and future modernization objectives. However, if the Army was forced to build its program at the BCA budget levels, the Army would not be able to execute the DSG requirement to defeat an adversary in one major combat operation and deny another’s objectives in another theater. “It is imperative that Congress not implement the tool of sequestration,” General Raymond Odierno testified.³³

Due to funding uncertainty created by the BCA and the multiple budget scenarios that SCMR was assessing, the FY 2015–2019 POM process was extremely abbreviated. In the normal planning, programming, budget, and execution cycle, the Army has about eight months to develop its POM before submitting it to OSD for review. The abbreviated schedule for FY 2015–2019 began with the director of the Office of Management and Budget issuing the FY 2015 Budget Guidance. Instead of the usual February/March date, DoD did not receive the Office of Management and Budget’s fiscal guidance until May 29, 2013. In turn, OSD did not issue detailed fiscal guidance to the military departments and defense agencies until July 2, 2013. Moreover, the Administration mandated that two programs be developed—the “base POM” and the “ALT POM.” The base POM guidance fell within the revised BCA totals for 2015, but not for the out years in the FYDP. The lower ALT POM fiscal guidance fell within the BCA limits through the out years of the FYDP to 2019. Complicating things even more, the furlough of DoD civilians began in July. For most Pentagon civilian workers, this took the form of a four-day week with Fridays off without pay. They were also unable to work overtime or work on Friday without compensation because of the restrictions of the Anti-Deficiency Act.³⁴

Because of the compressed cycle, the Deputy Secretary of Defense gave the services a limited relief from the normal August POM submission date and ordered that POM briefings be provided by September 16, 2013, while the data were due by September 23, 2013. The initial Army POM reduced most elements of Army force structure. The Regular Army took the largest end strength cut, with a reduction from 490,000 to 450,000 by fiscal year 2019 in the base POM, and a further reduction to

³² Carter and Winnefeld, 2013.

³³ Raymond T. Odierno, “Briefing Before the U.S. House Armed Services Committee,” Washington, D.C., 2013.

³⁴ “Hagel Announces Reduction in Civilian Furlough Days,” *American Forces Press*, August 6, 2013.

420,000 by fiscal year 2019 in the ALT POM. These were cuts of 8 and 14 percent, respectively. The ARNG and the USAR were reduced to 530,000 in the base POM (335,000 for the ARNG and 195,000 for the USAR) and 500,000 (315,000 for the ARNG and 185,000 for the USAR) in the ALT POM. The cuts for the ARNG were cuts of 4 percent in the base POM and 10 percent in the ALT POM. For the USAR, they were 5 percent in the base POM and 10 percent in the ALT POM. The Secretary of the Army had directed that, under any scenario, the Regular Army should take the greatest share of cuts.³⁵

The cuts reshaped Army ground maneuver forces. Under the base POM, the Regular Army would be reduced from 33 BCTs in the FY 2014 budget to 28 BCTs by fiscal year 2017, while the number of BCTs assigned to the ARNG would be reduced from 28 to 24 (no BCTs are in the USAR). Under the ALT POM, the Regular Army would be further reduced to 24 BCTs, while the ARNG would fall to 22 BCTs. The general uncertainty surrounding the FY 2015–2019 POM process made programmatic decisions difficult in the extreme. Until the SCMR was complete and the Secretary of the Defense released his budget guidance, the military departments lacked the near-term direction needed to adequately plan future levels for personnel end strengths and major force elements—in the Army’s case, BCTs. In turn, until these decisions were made, the military departments were challenged to make additional decisions affecting other elements of force structure, modernization accounts, and other resourcing decisions. For the Army, this latter set of decisions included the aviation portfolio.

Army Begins to Assess Its Future Aviation Force Structure

In this environment, nearly all types of Army forces faced the prospect of cuts. Army aviation faced a particular challenge, however. The cost of Army aviation within the overall Army budget is substantial. Soldiers in aviation units constitute about 11 percent of the total Army end strength. In the pre-sequestration FY 2014–2018 POM, Army aviation received about 21 percent of the Army’s Research, Development, Test, and Evaluation (RDTE) and procurement budget, a combined total of \$33.7 billion. Under sequestration, Army aviation faced the prospect of a 20 percent reduction in funding, or about \$6.7 billion. Moreover, the Army faced long-term challenges in its aviation modernization programs. First, the Army had failed twice during the 2000s to procure a new AAS helicopter. In response, the Army had programmed expensive cockpit and sensor upgrades (CASUP) for its aging OH-58D fleet, also called the Kiowa Warrior (upgraded Kiowas would be designated as OH-58Fs). In addition, the OH-58D/F fleet would require an expensive SLEP at some point in the post-POM future unless replaced by a new AAS. Second, the Army needed either to replace or

³⁵ Raymond Odierno and John McHugh, memorandum to Tim Walz, November 15, 2013.

extend the life of its aging fleet of TH-67s, which it used (along with OH-58A/Cs) for initial entry flight training. At the same time, the Army was implementing expensive modernization programs for its AH-64, UH-60, and CH-47 fleets. Given the severity of the budget outlook, the Army aviation community faced the potential of across the board cuts to its force structure and modernization programs—cuts that would indiscriminately target its most modern and capable aircraft (AH-64s, CH-47s, and UH-60s) while preserving its smaller yet aging fleets of OH-58s and TH-67s. With this as the backdrop, various organizations within the Army began to assess options for the future of Army aviation under sequestration.

In the full For Official Use Only (FOUO) version of this document, the remainder of this section discusses analysis led by USAACE, initial assessments for aviation redesign and restructuring conducted by the HQDA G-8 Aviation Division, and the Army's development of the Salami Slice as its initial response to sequestration-induced aviation cuts for the FY 2015–2019 POM submission. Given the large amount of FOUO content associated with these topics, we have removed them from this version of the document. However, the reader can refer to the main portion of this document for general discussion of the USAACE analysis and the Salami Slice.

Conclusion

Army aviation faced several long-standing issues that may have eventually led to a major force redesign initiative. Those issues included the need to either replace or extend the service life of the Army's aging OH-58D AAS and its TH-67 training aircraft. Moreover, between 2011 and 2013, the Department of the Army faced increasing fiscal pressures, as well as changes to the strategic environment and defense planning guidance. Most important was the BCA's sequester provision, which took effect in March 2013. The magnitude and immediacy of the cuts forced DoD to move rapidly toward decisions about the amount of end strength and force structure that was affordable under different funding scenarios. Under sequestration, timely force structure and modernization decisions based on the best available analysis became critical. The Army aviation portfolio faced sizable cuts. The Army's initial response—developed in the HQDA force management community but with limited input from HQDA aviation planners—was to look at across-the-board cuts to aviation force structure. What concerned HQDA aviation planners the most about this approach was that it preserved many older and less capable aircraft such as OH-58Ds while cutting some of the most modern and most capable AH-64s, UH-60s, UH-72s, and CH-47s. In addition, while the proposed cuts would have paid the immediate bills required under sequestration, they would have left the Army significantly challenged to fund planned modernization programs going forward. Despite these limitations associated with the Salami Slice, the Army submitted this plan in September 2013 as part of its overall FY 2015–2019 POM

submission. Barring a change, this is the plan that would have been implemented in response to sequestration-level budget cuts. In short, even with sequestration, the ARI may never have come about without the specific actions of certain key aviation planners within HQDA beginning in July 2013.

ARI Major Events Chronological Timeline

This timeline lists the major events in the development and socialization of the ARI, including its development as a concept within HQDA, its development as a detailed five-year aviation plan as part of the USAACE-led planning effort, and its presentation to senior Army leaders. The timeline also includes major events in OSD's series of reviews of both the ARI and the CNGB counter-proposal. The timeline covers the period between January 2013 and December 2014.

Table B.1
ARI Timeline

Month	Event
January 2013	<ul style="list-style-type: none"> January 2: Sequestration postponed by American Taxpayers Relief Act January 28: TRADOC memo initiates USAACE-led aviation force structure analysis
March 2013	<ul style="list-style-type: none"> March 1: Sequestration goes into effect March 15: SCMR initiated
May 2013	<ul style="list-style-type: none"> HQDA G-8 FDV (Force Development—Aviation) examines using AH-64s as replacement for OH-58Ds in attack/reconnaissance squadrons HQDA G-3 FM (Force Management) develops "Salami Slice" proposal as initial aviation force structure position for FY 2015–2019 POM May 29: Office of Management and Budget fiscal guidance sent to DoD May 31: SCMR results to Secretary of Defense May 31: USAACE conducts in-progress review (IPR) with CSA on aviation force structure analysis
June 2013	<ul style="list-style-type: none"> HQDA issues EXORD 103-13 directing ARNG and USAR to each convert two AH-64 battalions into UH-60 battalions (CSA had approved the action in December 2012)
July 2013	<ul style="list-style-type: none"> July 2: DoD issues fiscal guidance to DoD components for FY 2015–2019 POM Early July: Colonels Tate and Lindsay take over HQDA aviation divisions (G-8 FDV and G-3 AV, respectively) Mid-July: Colonels Tate and Lindsay form HQDA-internal work group to develop concept that will become ARI Late July–early August: COLs Tate and Lindsay begin briefing HQDA senior leaders on ARI concept

Table B.1—Continued

Month	Event
August 2013	<ul style="list-style-type: none"> • August 14: USAACE conducts IPR with CSA on aviation force structure analysis and CSA directs USAACE to develop five-year aviation plan and brief him again in 60 days; COLs Tate and Lindsay then discuss ARI concept with USAACE for the first time • August 21: USAACE conducts first weekly IPR focused on developing five-year aviation plan for CSA; first time ARNG aviation planners are briefed on ARI • August 27: HQDA presents ARI concept to aviation program managers at Redstone Arsenal Conference
September 2013	<ul style="list-style-type: none"> • September 16–27: USAACE-led Redstone Conference to refine courses of action and recommendations to CSA on five-year aviation plan; ARI validated as the recommended course of action [also attended by HQDA and ARNG aviation planners] • September 16–23: Army submits FY 2015–2019 POM to OSD; includes Salami Slice proposal for aviation force structure • Late September: HQDA leaders decide to request that OSD CAPE accept the ARI as an issue for the FY 2015–2019 program review
October 2013	<ul style="list-style-type: none"> • October 1–16: U.S. government shutdown and civilian furloughs • October 16: COLs Tate and Lindsay pre-brief CSA on ARI • October 17: COLs Tate and Lindsay and BG Ferrari brief OSD CAPE on ARI for the first time • October 21: First CAPE-led Army Program Balance Issue Team meeting for FY 2015–2019 program review; ARI is not discussed • October 24: CAPE accepts ARI as an issue for the FY 2015–2019 program review • October 24: USAACE briefs CSA; CSA approves five-year aviation plan based on ARI • October 25: CNGB meets with Vice CSA; ARI is discussed • October 28: Second CAPE-led Army Program Balance Issue Team meeting; ARI is discussed • October 30: USAACE briefs Secretary of the Army; Secretary approves five-year aviation plan based on ARI
November 2013	<ul style="list-style-type: none"> • November 6 and 12: Additional CAPE-led Army Program Balance Issue Team meetings; ARI is discussed • November 14: CAPE-led 3-Star Programmers Review of Army FY 2015–2019 POM; ARI discussed • November 15: HQDA briefs TAGs on ARI for the first time • November 21: Deputy Secretary of Defense Ashton Carter chairs Deputy's Management Action Group review of Army FY 2015–2019 POM; ARI discussed
December 2013	<ul style="list-style-type: none"> • HQDA planners start early outreach to house and senate staffer members on ARI • December 23: ARNG planners first brief HQDA on draft version of CNGB Concept
January 2014	<ul style="list-style-type: none"> • January 6: Secretary of Defense tentatively approves ARI for inclusion in President's FY 2015 budget; OSD directs Army to procure 100 additional UH-72s rather than transferring any from the ARNG • January 14: ARNG planners provide HQDA with revised version of CNGB Concept; shortly thereafter, HQDA requests TRAC and USAACE to conduct force sufficiency and cost analyses comparing the CNGB Concept and the ARI • Secretary of Defense directs CAPE to lead tiger team review of the ARI and CNGB Concept

Table B.1—Continued

Month	Event
February 2014	<ul style="list-style-type: none"> • First CAPE tiger team completes its review; CAPE endorses the ARI • February 24: Secretary of Defense formally recommends ARI for inclusion in President's FY 2015 budget
March 2014	<ul style="list-style-type: none"> • March 4: President submits FY 2015 budget request to Congress; includes ARI
July 2014	<ul style="list-style-type: none"> • Council of Governors ask for a second OSD review of the ARI
August 2014	<ul style="list-style-type: none"> • Second CAPE tiger team review of the ARI and CNGB concept begins
December 2014	<ul style="list-style-type: none"> • December 2: CAPE briefs Council of Governors on results from second tiger team review

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