Future of Vertical Lift at Boeing

Neil Patel
Vertical Lift (VL) Business Development

30 October 2025

Meeting Objectives

- ☑ Informational
- ☐ Decisions

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Authentic Brand Statement & Developing APQ's

I am a Developing Leader who showcases to the world why Boeing is the top aerospace Manufacturer.

I lead by doing… continuing to help win int'l campaigns and proving to the world that if it isn't Boeing, I ain't going.

I give this by having strong passion for aviation and prioritizing the importance of radiating positive energy.



Confidence



Clarity

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Audience

- **Meeting:** Informational / Status Update



- **BDS Senior Vertical Lift Team – KJ Jolivette, Mark Ballew**
- **BDS Vertical Lift Strategy – Jason McClain, Melissa Fischer**
- **General Audience**

***Personality Type:* Point Planner *Common Interests:* 1. Success for VL 2. Continued Growth**

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Attention-Getting Opening



AH-6 Little Bird

Early 1980's



MH-139

Late 2010's



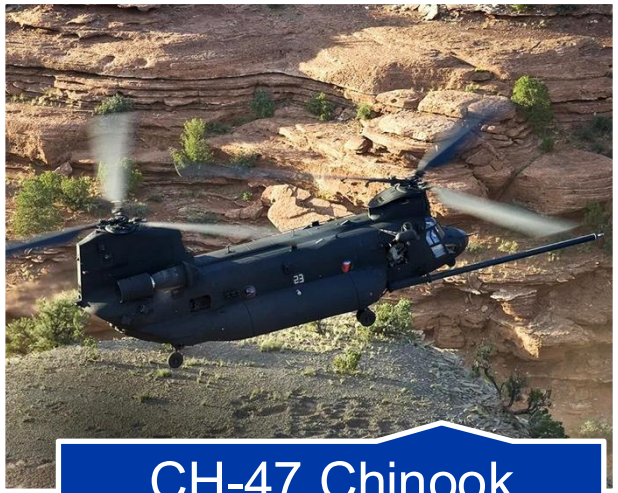
V-22 Osprey

1980's



AH-64 Apache

Late 1970's



CH-47 Chinook

1950's

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Attention-Getting Opening



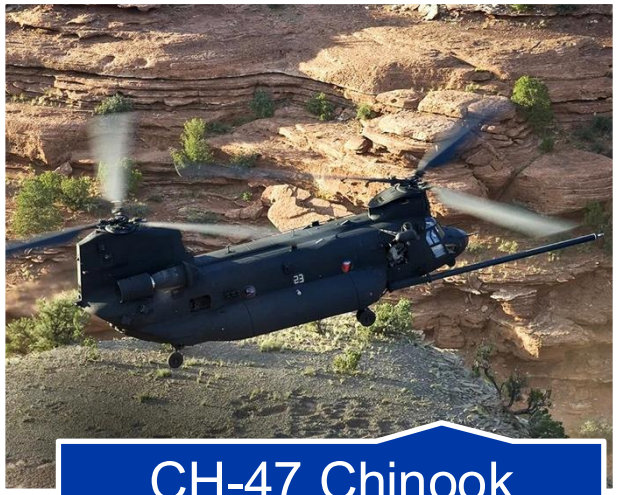
MH-139

Late 2010's



AH-64 Apache

Late 1970's



CH-47 Chinook

1950's

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Attention-Getting Opening

"It's easy to come up with new ideas; the hard part is letting go of what worked for you two years ago but will soon be out of date".

Steve Jobs, co-founder of Apple

Executive Summary

- ✓ Update on current status of VL
- ✓ Communicate importance of investing in future

Purpose



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Executive Summary

- ✓ Increased ROI opportunity as new customer demand is met
- ✓ Global Military Helicopter market is roughly $25B
- ✓7,000 employees

Motivation



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Executive Summary

- ✓ Keep Boeing leadership aligned with the current state of VL
- ✓ Obtain future buy in from senior leadership on cont'd investments

Action



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Agenda

i. New Business Funds (NBF) Breakdown

ii. Failed Past Opportunities / Competition

iii. Future Manned / Autonomous Rotorcraft Opportunities

iv. Closing

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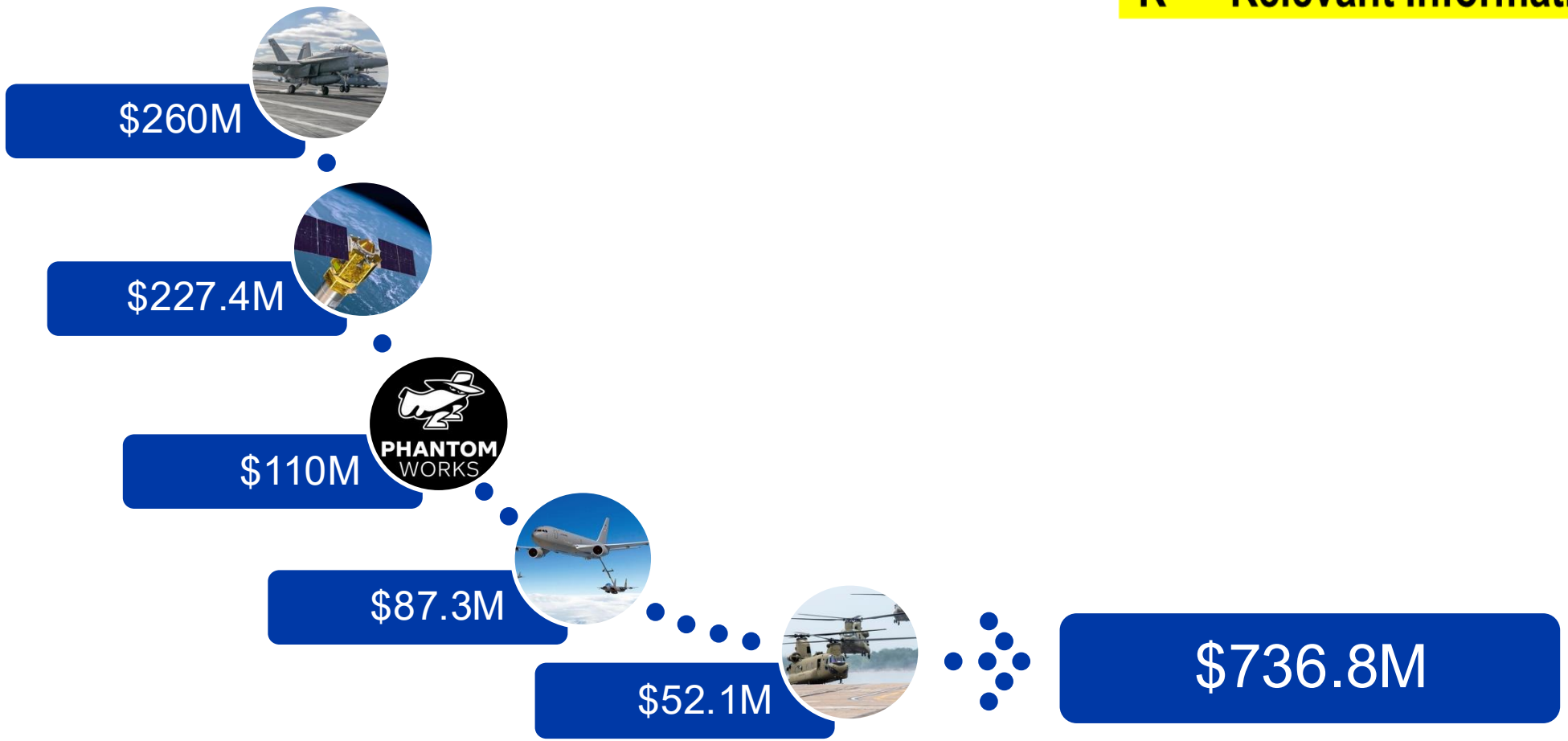
BDS New Business Funds (NBF) Breakdown

"H" = Highlight the Point
"O" = OK, So What
"R" = Relevant Information



7% of total NBF is allocated to Vertical Lift

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"H" = Highlight the Point
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Failed Past Opportunities

RAH-66 Comanche



- A partnership program between Boeing and Sikorsky (Lockheed Martin Company)
- Developed a stealth attack and reconnaissance helicopter (aimed to be the “F-35” of helicopters)
- After 22 years and $7B the program was terminated…never reaching production phase

Future Long-Range Assault Aircraft



- Developed in partnership with Sikorsky, The Defiant X
- Army was looking for a replacement for all their Black Hawks in service
- After 8 years and over $6B the Boeing-Sikorsky team lost to Bell Helicopter’s V-280 Valor

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”E” = Ease to the Next Point

Now it’s time to utilize the lessons learned from our failures…
we need to keep on advancing since competition won’t slow down!

What is our competition doing?







The customer mission requirements continue to evolve

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Future Manned Rotorcraft Opportunities

"H" = Highlight the Point

"O" = OK, So What

"R" = Relevant Information

- **Next Generation Rotorcraft Capability (NGRC)**
  - Boeing partnering with Leonardo Helicopters (Based in Italy)
  - A significant amount of the medium assets currently in service with NATO Allies will reach the end of their lifecycle in the 2035-40 period and beyond



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Future Autonomous Rotorcraft Opportunity

"H" = Highlight the Point
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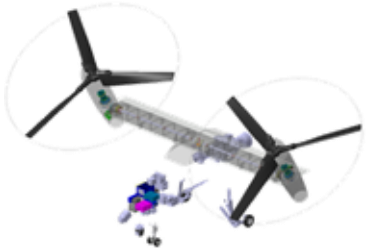
"R" = Relevant Information

CxR UAS Family of Systems

Collaborative Transformational Rotorcraft



CxR Common Modular Core

Rotor | Drive | Propulsion | Wing | Nacelle | LG |
Core VMS, Autonomy & Mission Systems



CCR
Collaborative Combat Rotorcraft



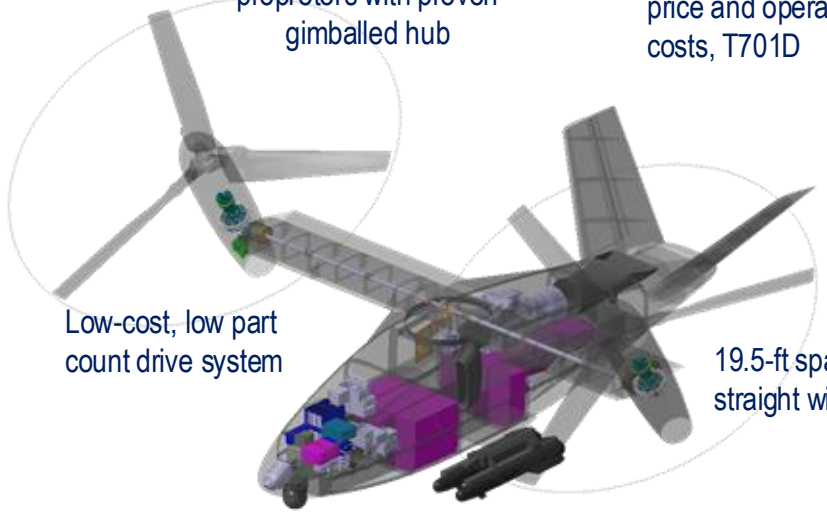
CLR
Collaborative Logistics Rotorcraft

Collaborative Combat Rotorcraft

Walk-around

(2) 14.5-ft diameter proprotors with proven gimballed hub

Single engine for lower price and operating costs, T701D

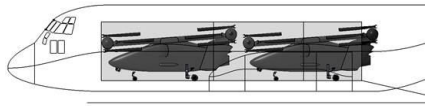


Low-cost, low part count drive system

19.5-ft span low-cost straight wing

MOSA to enable rapid, low-cost upgrades

(2) Stores pylons able to carry kinetic effects, LEs, modular podded payloads (shown with Hellfires)



Transportable in C-130 or ISO container

- **Collaborative Transformational Rotorcraft (CxR)**
  - US Army Autonomous VTOL/STOL (runway independent) Aircraft to replace MQ-1 Gray Eagle
- **Autonomous Chinook**



Heavy Uncrewed Logistics Capability H.U.L.C

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Finish Strong Close/Summary

Call to Action



- Keep our leadership aligned on the importance of Boeing's footprint in the Vertical Lift market
- Understanding the continuous/increased funding is needed for the success of Vertical Lift

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Finish Strong Close/Summary



AH-64 Apache



MH-139



CH-47 Chinook

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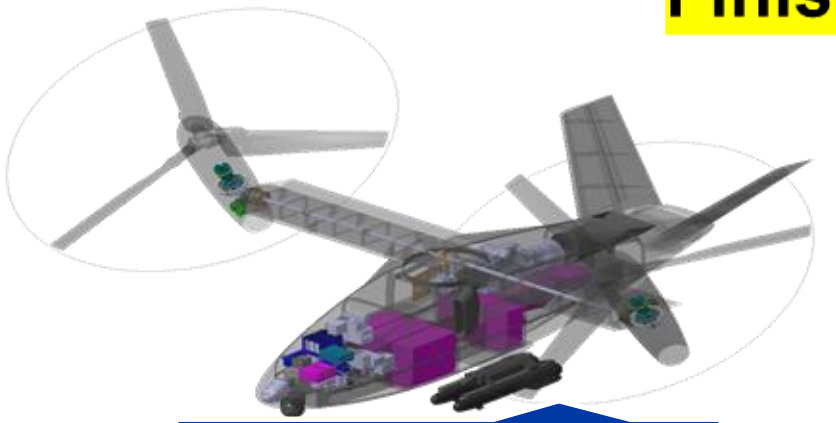
Finish Strong Close/Summary

NGRC

Next Generation Rotorcraft Capability

NGRC



CxR



Autonomous Chinook



AH-64 Apache



MH-139



CH-47 Chinook

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