



# *Helicopter Dynamic Components Project*

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*Presented at:  
HCAT Meeting  
20-21 July 2004*

# *Contracts with Sikorsky, Boeing Philadelphia and Bell Helicopter*

- *Contracts awarded to Sikorsky (H60); Boeing (H46/H47) and Bell (UH-1/AH-1) in 2003*

## *OEMs Performed Following Tasks:*

- *Conducted analysis of helicopter dynamic components onto which hard chrome is applied by OEM or in repair*
- *Identified materials and rig tests that would be required to qualify HVOF coatings as replacement for chrome on their components*
- *Submitted reports on results of analysis and designation of required tests*
- *Participated in stakeholders meeting to complete Joint Test Protocol and discuss potential component rig tests*

# *Stakeholders Meeting*

- *Meeting held 17-18 March 2004 at BWI Airport Sheraton*
- *25 attendees representing three OEMs, NAVAIR, NADEP Cherry Point, Army AMCOM, Army Research Lab, HCAT, Hill AFB, NAVFAC, thermal spray experts*
- *OEMs made presentations related to hard chrome usage on their helicopters, material test requirements, and component test requirements*
- *NADEP Cherry Point made presentation on scheduled component testing*
- *Extensive discussion on materials testing that will make up Joint Test Protocol*

***Keith Legg has put together draft JTP that will be distributed to all stakeholders***

# *Component Testing*

- *H1 brake disk adapter flange and tail rotor control tube (Bell)*
- *H-46 generator gears (Boeing and NADEP Cherry Point)*
- *H-46 forward carrier shaft and aft vertical shaft (Boeing and NADEP Cherry Point)*
- *H-47 transmission test (Army)*
- *H-60 dummy gearbox test (Sikorsky)*
- *H-60 tail takeoff flange, rotor flange sleeve and swash plate guide for lead-the-fleet flight testing (Sikorsky and NAVAIR)*