

## **Excerpt from U.S. Naval Institute Report: Common Parts for Better Aircraft Maintenance**

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“It’s amazing how uncommon today’s systems are, to the point where if you open the maintenance manuals on two Army helicopters made by different manufacturers in different programs, they use different words to describe the same systems, so the maintainers have to learn a different vocabulary to move from Aircraft A to Aircraft B.”

We envision a common cockpit, and potentially a common engine, that would be provided as DoD-furnished equipment to whoever builds the family of helicopters. Such commonality would make it much easier for maintainers to work on multiple type/model/series.

“We think that commonality goes all the way back to the point where the maintainers have the same basic trouble-shooting charts, the same basic trouble-shooting procedures, and it is not a strange thing to open up a page in the electronic maintenance manual and read the maintenance manual for Aircraft A as opposed to Aircraft B and find that they are roughly the same, and that it didn’t take a total retrain to use that system” Today, the Army’s helicopters are so different that a mechanic on one platform might not even be able to diagnose a problem in another, let alone fix it. The basic system design, the tools, and even the language to talk about the hardware differ between platforms today.

What we would like to see is commonality – not necessarily identity, a family of helicopters that are enough alike that personnel can move seamlessly from one to the next. Like components may have different part numbers, but they would perform the same function, and therefore a mechanic would understand how the system behaves even if his background is in another platform within the family.

Marine Corps’ H-1 attack and utility helicopters are a small-scale example of what we hope to see. Even though the frames are different to support different missions, they still have about 80-percent commonality in spare parts, which is a great benefit to shipboard parts storage.

“That might serve as a small model of what we’re describing to a much larger degree.”