NGRC Gathers Steam

By Dan Gettinger, Managing Editor

At a NATO meeting on June 16, the defense ministers of six countries committed to launching the next phase of NATO’s Next Generation Rotorcraft Capability (NGRC) project. The six countries — France, Germany, Greece, Italy, the Netherlands and the United Kingdom — pledged €26.7M ($27.2M) to initiate the concept definition phase of the project. The US and Spain are participating in the project as observers.

The NGRC project aims to develop a common medium multi-role helicopter suitable for land, air and maritime operations. There are over 900 medium helicopters in NATO service that are expected to reach the end of their life cycle between 2035 and 2040. NATO originally initiated talks on a new medium helicopter in 2012, before formally launching the NGRC project on Nov. 19, 2020 (see “NATO Plans Next-Generation Medium Rotorcraft for 2035,” Vertiflite, March/April 2021). NGRC is one of 18 NATO High Visibility Projects, a framework for focusing investments in advanced technologies and equipment.

The concept phase, which is expected to last three years, will develop a common set of requirements for the NGRC. It will be executed by the NATO Support and Procurement Agency (NSPA) and will build on previous work by NATO experts over the past decade, which resulted in a list of preliminary requirements for the NGRC released at an industry day in May 2021.

“I think the most important thing in an industrial base is to indicate what the customer wants,” Ben Wallace, the UK’s Secretary of State for Defence, said in remarks on June 16. “To me, it is not about not having competition, it’s... being very clear over a period of time about what requirements we would like.”

In addition to the dimensions and performance expected of the NGRC, the NSPA team is also expected to consider the suitability of a range of technological attributes. Some of these include the potential for hybrid propulsion, advanced teaming with uncrewed aircraft, and a modular suite of digital systems.

For industry, NATO’s push to define requirements for the NGRC is a welcome move. Airbus officials warned during a press briefing in November 2021 — and again in May of this year — that should NATO continue to view high speed as a priority, it would significantly increase the maximum take-off weight, complexity and costs of the aircraft. Airbus has said that its Racer, which it is developing as part of the European Union’s Clean Sky 2 project, could be a good fit for NGRC, but that faster speeds would incur a significantly greater penalty (“Racer” originally stood for “Rapid and Cost-Effective Rotorcraft”).

The requirements for the NGRC are expected to resemble those of the US Future Vertical Lift (FVL) program. On July 20, the US and the Netherlands signed an agreement to share information on FVL and collaborate on future rotorcraft research. The US and UK signed a similar agreement in February. "One of the pitfalls from the past was that we were focusing too much on national requirements instead of Alliance or coalition requirements,” Maj. Gen. Andre Steur, National Capability Director in the Dutch Defence Ministry, said in a statement.

US firms are also paying increasingly close attention to developments in Europe. Boeing officials told Jane’s in June that they envision potentially partnering with one or more European firms should the NGRC project progress to the concept proposals stage. Meanwhile, in a press briefing at Farnborough Air Show in July, Sikorsky representatives said that a version of the company’s X2 technology, which it has applied to its rotorcraft offerings for FVL, would be ideal for a future NGRC platform.

“[Future Long Range Assault Aircraft (FLRAA)] will be, and this may lead to a possible third iteration of a platform that sits between [the Future Attack Reconnaissance Aircraft (FARA)] and FLRAA for European interest,” Luigi Piantadosi, Sikorsky’s director, FVL International said at Farnborough in July.

Whatever its precise characteristics, the NGRC is sure to demonstrate the wealth of technological advances achieved by rotorcraft community in recent years. For many of the participating countries, the concept definition phase couldn’t have come soon enough.