

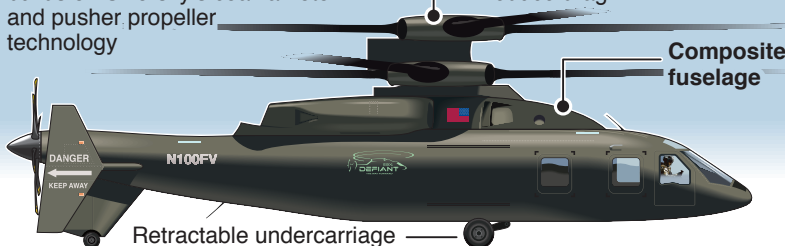
SB-1 Defiant helicopter set for take-off

The Sikorsky-Boeing *SB-1 Defiant* prototype, in competition with the Bell *V-280 Valor* to replace the U.S. Army's *UH-60 Black Hawk* and *AH-64 Apache* helicopters, is to make its maiden flight

SB-1 DEFIANT: Flight demonstrator builds on Sikorsky's coaxial rotor and pusher propeller technology

Rotor fairings
Reduce drag

Composite fuselage



Retractable undercarriage

Coaxial rotors: Two rotors spin in opposite directions, offsetting each other's torque – eliminates need for tail rotor to produce stable flight conditions

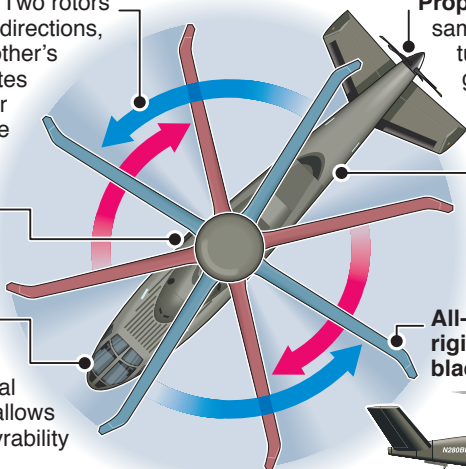
Engine
Lycoming/
Honeywell T55

Fly-by-wire
Electronic flight-control system with digital engine controls allows greater manoeuvrability

Propeller: Driven by same gear box that turns main rotors, generates thrust in similar way to fixed-wing aircraft

Active vibration control:
Reduces rotor shake

All-composite rigid rotor blades



Specifications comparison

	<i>UH-60 Black Hawk</i>	<i>V-280 Valor</i>	<i>SB-1 Defiant</i>
Speed	280km/h	520km/h	463km/h
Combat radius	600km	1,480km	426km*
Payload	4,540kg	5,440kg	Tbc
Crew	4	4	4
Troops	11	14	12

*Achieved with forthcoming FATE powerplant

Tiltrotor technology allows V-280 to be more fuel-efficient in long-range flight

Bell and Sikorsky both claim their aircraft is more agile – crucial when landing troops in tight spaces