



Increased top speed and high-altitude performance was the design goal of Vought Sikorsky proposal VS-331, which, in Navy designation became the XF4U-3. Under the direction of Contract Number 198, Lot One, Item Four, two F4U-1As were ordered to be modified into XF4U-3 configuration with the addition of larger, more powerful engines, turbosuperchargers, and four-blade Hamilton Standard Hydromatic propellers replacing the -1's three-blade props. Each F4U-1A cost \$98,385.96 and Chance Vought was awarded another \$98,884.93 to complete the conversions to XF4U-3 configuration.

The most visible external difference of the XF4U-3 was its four-blade Hamilton Standard

propeller and the turbosupercharger's air-intake scoop located on the aircraft centerline just ahead of the lower cowl flaps. Plans called for the installation of Pratt & Whitney XR-2800-16 engines and Birmann-type XTT13-14 turbosuperchargers in both aircraft. The Birmann-type turbosuperchargers were sealed units — unlike the exposed General Electric turbosuperchargers carried on the Lockheed P-38, Republic P-47, and Boeing B-17.

At military power, the turbosupercharged XR-2800-16 could develop 2000-hp, continuous, or 2700-hp maximum at 25,000-ft versus the F4U-1's water-injected R-2800-8W, which could deliver 2250-hp continuous, or 2700-hp maximum at 22,500-ft.

The first of the two Corsairs to be converted, BuNo

17516, received the XR-2800-16. This aircraft, designated XF4U-3A #1, made its first flight on 26 March 1944, with Chance Vought test pilot William "Bill" Horan at the controls.

Delivery of the second prototype was held-up due to delays in delivering additional XR-2800-16 radials. Chance Vought suggested to the Bureau of Aeronautics that the R-2800-14W engine be substituted. The water-injected R-2800-14W could develop 2100-hp continuous,

and 2800-hp maximum at 28,500-ft at military power settings. Although the -14W engine did not have the performance rating of the -16 radial, it

CHANCE VOUGHT'S
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EXAMINE THAT
AIRCRAFT WHILE
ALSO PRESENTING SEVERAL LESSER-KNOWN CORSAIR VARIANTS

FORGOTTEN CORSAIRS

BY NICHOLAS A. VERONICO



Left side, rear, three-quarter view of XF4U-3B BuNo 49664 shows an aircraft that looks similar to a standard F4U-1 with the exception of the four-blade propeller. While the speeds of the non-turbosupercharged Corsairs decreased at altitude, the Birmann turbo-supercharger-equipped XF4U-3 attained speeds of 480-mph at 40,000-feet. (Vought)