



Bubble Nebula

This ball of gas and dust, playfully named the “Bubble Nebula” and officially designated NGC 7635, surrounds a star 45 times more massive than our Sun. The star, which burns at extremely high temperatures, creates outflows of hot gas that blast into the surrounding cosmos at over 4 million miles per hour. This hot gas plows into the cooler interstellar gas in its path, forming the outer edge of the bubble much like a snowplow piling up snow as it drives. The star itself is about 4 million years old and is now fusing helium fuel, having expended most of its hydrogen.

This image of the Bubble Nebula was taken in visible light. Each color corresponds to a different detected element: blue represents oxygen, green represents hydrogen, and red represents nitrogen. All three Wide Field Planetary Cameras have imaged this object over Hubble’s history, a distinction achieved by only a handful of objects.

Hubble Space Telescope – Wide Field Camera 3
NASA, ESA, and the Hubble Heritage Team (STScI/AURA)