



**Chandra X-ray
Observatory Center**

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DB01-42, DB00-58 & DB00-6: Star clusters in the direction of the Galactic Center.
(Credit: X-ray: NASA/CXC/Northwestern U./C.Law & F.Yusef-Zadeh; Infrared:
2MASS/UMass/IPAC-Caltech/NASA/NSF; Radio: NRAO/AUI/NSF/F.Zadeh et al.)

Caption: This montage shows three clusters of bright, young stars in X-ray (blue) and infrared (green) light. The stars in the clusters are difficult, if not impossible, to see with an optical telescope because of interstellar dust that blocks the visible light. The cluster DB01-42 is located near the Galactic Center, about 26,000 light years from Earth. The two bright X-ray sources near the center of this cluster are probably both double star systems. In these systems, collisions between high-speed stellar winds are heating gas to temperatures of millions of degrees Celsius. Similar processes are likely producing the X-radiation from DB00-58 and DB00-6 which are foreground objects that lie between Earth and the Galactic Center. The infrared radiation from most of the stars in all three clusters comes from their relatively cool (thousands of degrees) surfaces.

Scale: DB01-42: 4.2 arcmin per side; DB00-58: 2.8 arcmin per side; DB00-6: 3.1 arcmin per side

Chandra X-ray Observatory ACIS image.

CXC operated for NASA by the Smithsonian Astrophysical Observatory