

Wide-field Infrared Survey Explorer (WISE) NEOWISE Restart

Image Quality Comparison



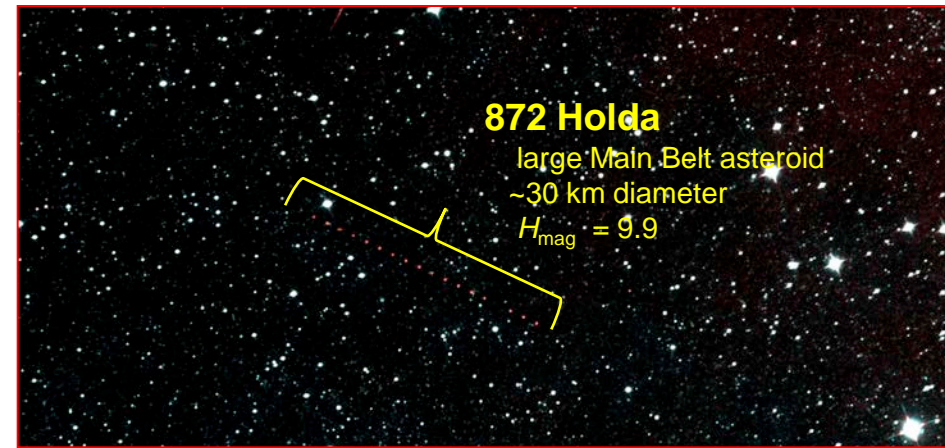
Cryogenic WISE mission

Post-cryo prime NEOWISE mission

NEOWISE Restart mission

An intermediate spiral galaxy, NGC 4654, in the constellation of Coma Berenices. This galaxy is ~55 million light years away (imaged in $3.4 \mu\text{m}$ [W1] and $4.6 \mu\text{m}$ [W2]). There is almost no degradation in image quality!

An Initial Reactivation Image



872 Holda

large Main Belt asteroid
~30 km diameter
 $H_{\text{mag}} = 9.9$

New NEO Discovery Talley

Designation	Size (m)	Albedo
2013 YP ₁₃₉	660	0.01
2014 AQ ₄₆	860	0.03
2014 AA ₅₃	710	0.06
2014 BG ₆₀	770	0.02
2014 BE ₆₃	600	0.02
2014 CY ₄	510	0.04
2014 CF ₁₄	790	0.16

1st NEO Discovery
(post NEOWISE reactivation)



Detection of a potentially hazardous asteroid 2013 YP₁₃₉

- Minimum approach distance of only 1 lunar distance
- Preliminary estimate of characteristics: 650 (± 230) meters, 1-3% albedo, $H_{\text{mag}}=21.6$
- Velocity 3.2° per day across the sky at time of discovery
- NEOWISE made 6 detections in 0.4 days

Plus, new comet (C/2014 C3, aka 'Comet NEOWISE')