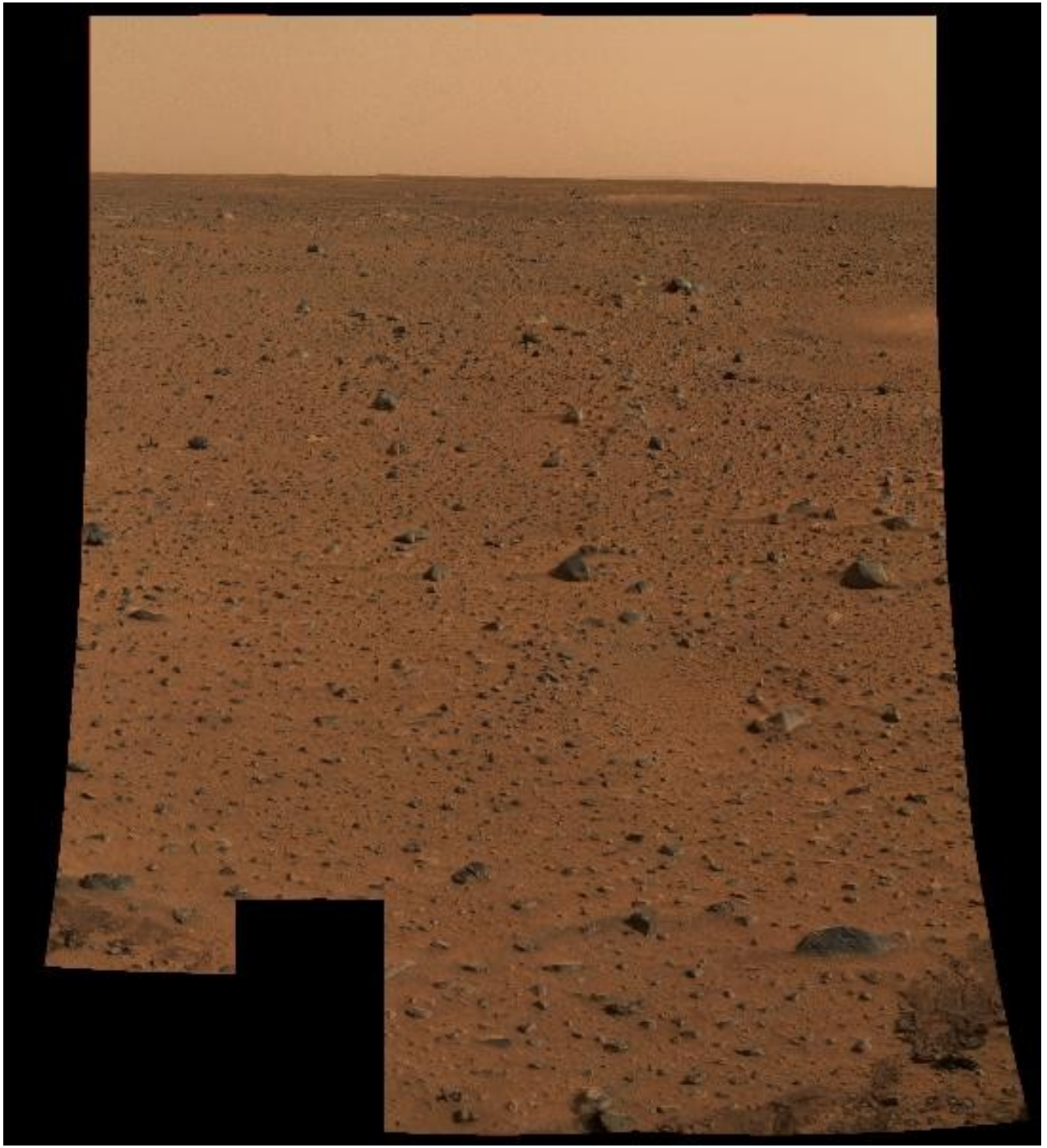
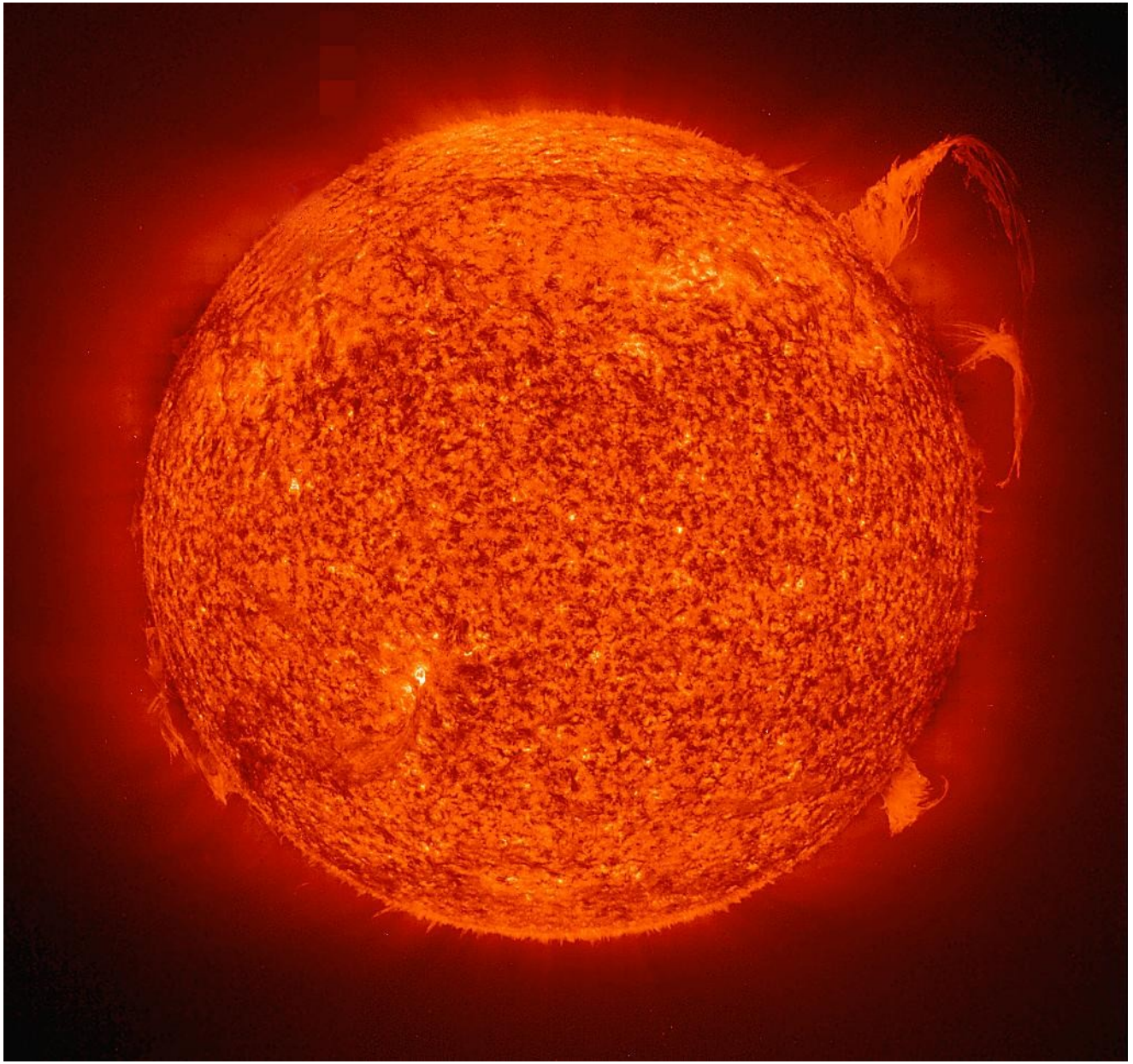
You are here

Earthrise over the Moon: 1969

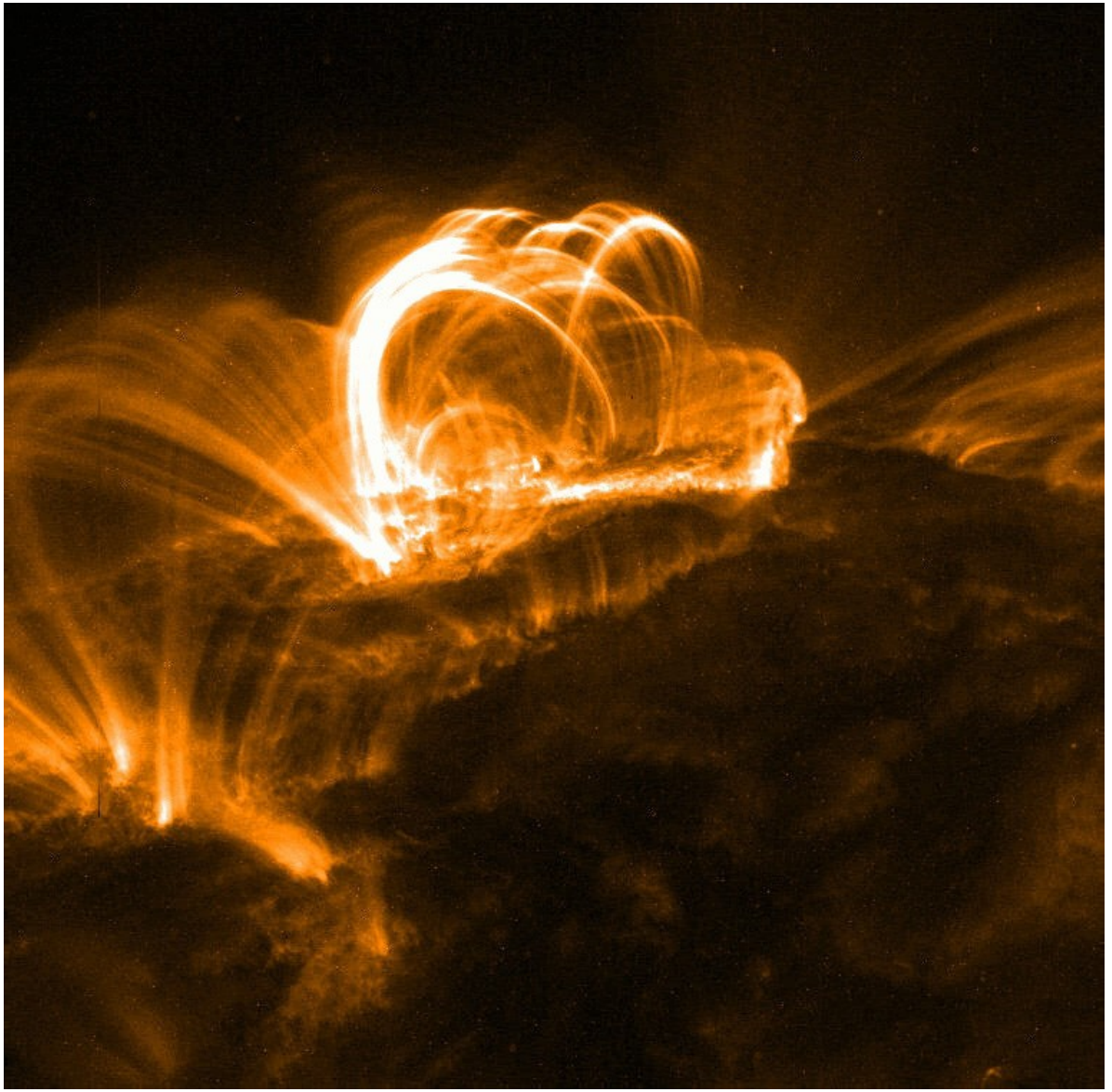
1.3 seconds away at the speed of light



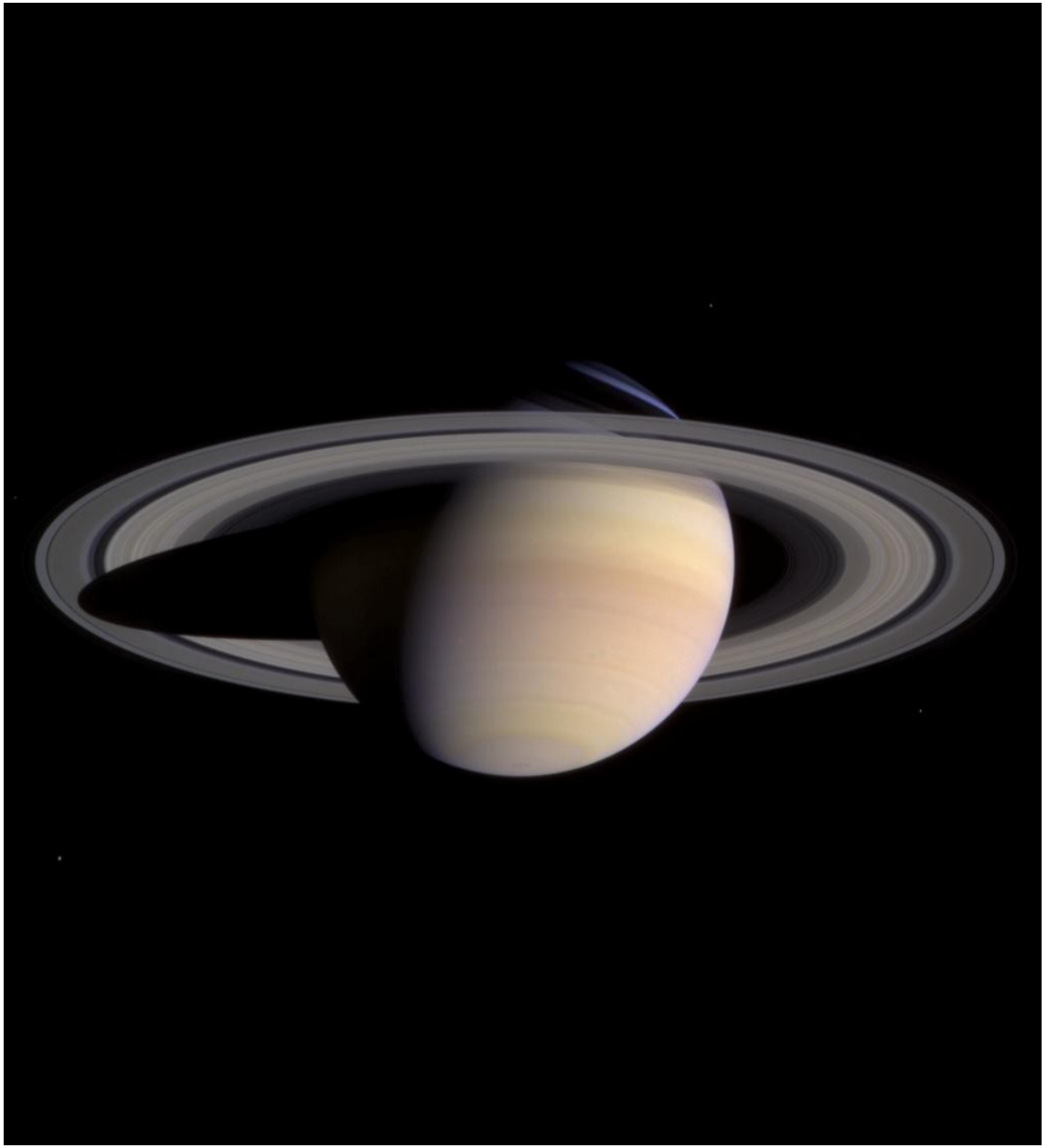
Columbia Station at Gusev Crater: 5min 30sec away



The Sun: 8 minutes away



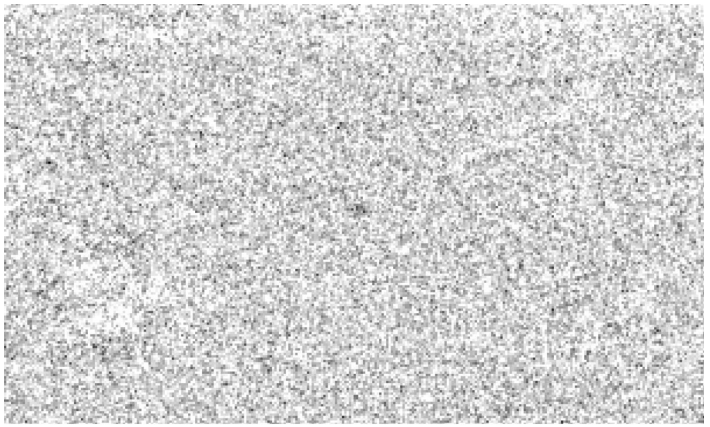
Surface of the Sun



Saturn: 1 hour 15 min away

Comet Halley: as seen in 1986, 10 minutes away

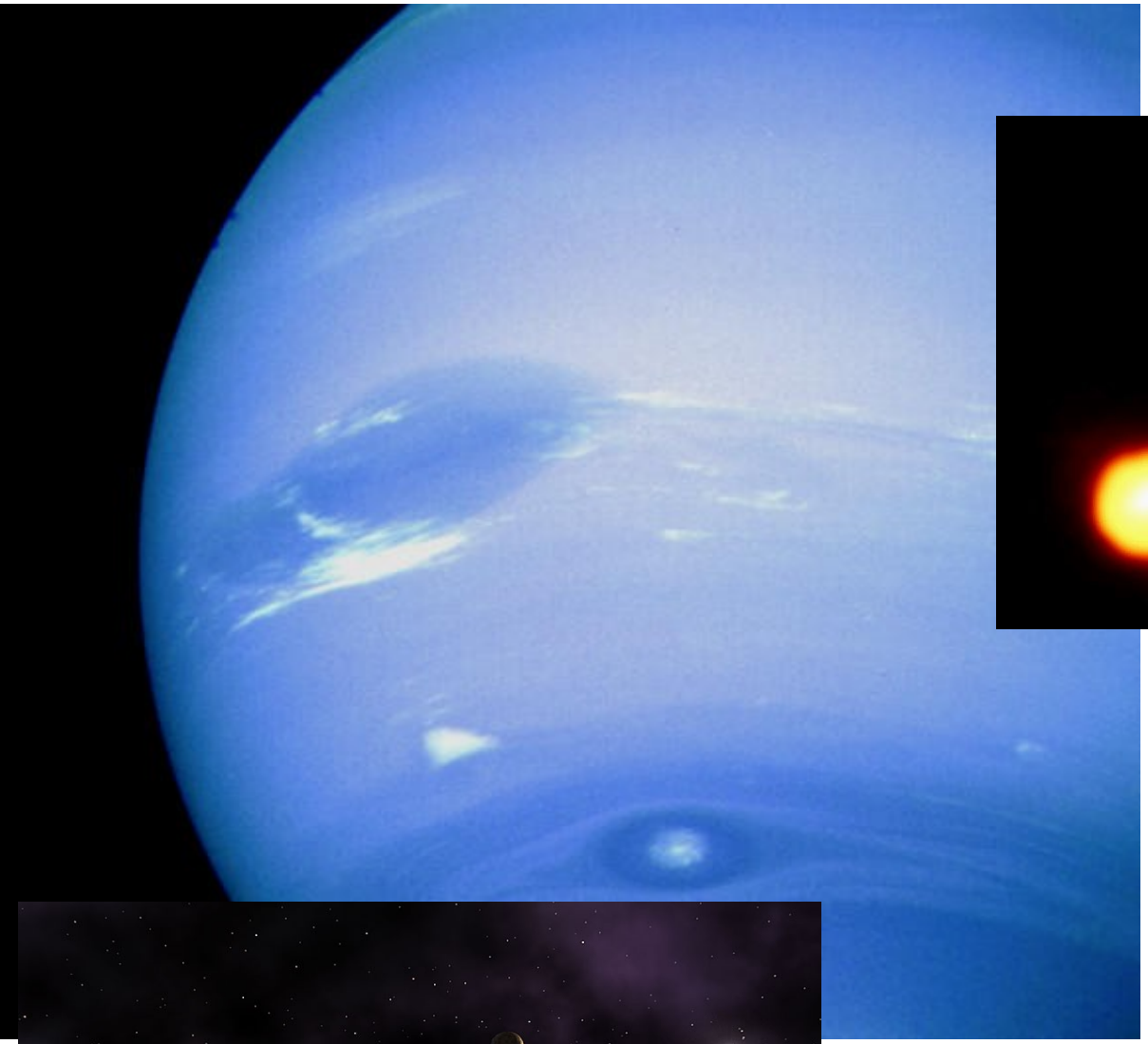
Halley in 2003 at 4 hours distance
ESO Very Large Telescope, Chile



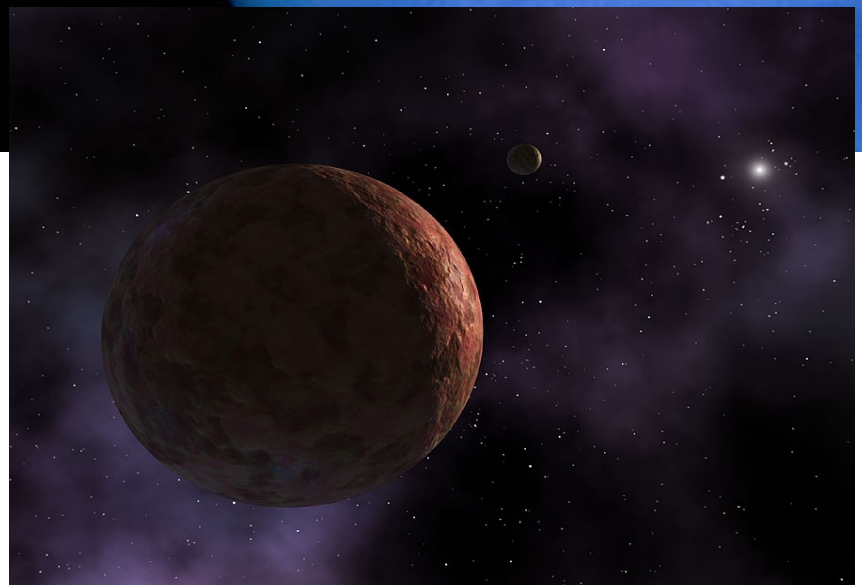
Comet Halley at 28 AU Heliocentric Distance
(VLT ANTU/FORS1 + MELIPAL/VIMOS + YEPUN/FORS2)

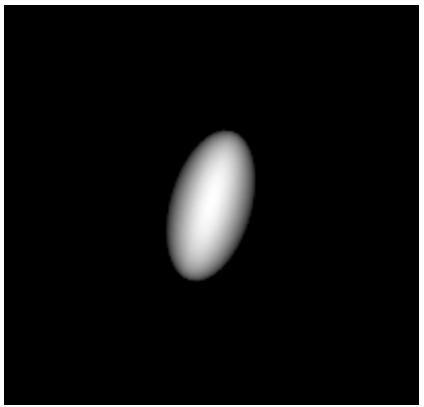
ESO PR Photo 27a/03 (1 September 2003)

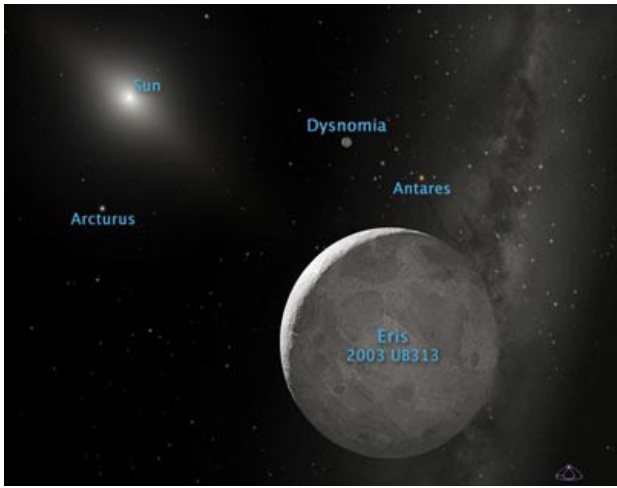
Halley in 1986 from 600 km (2 millisec)
European Space Agency 'Giotto' probe



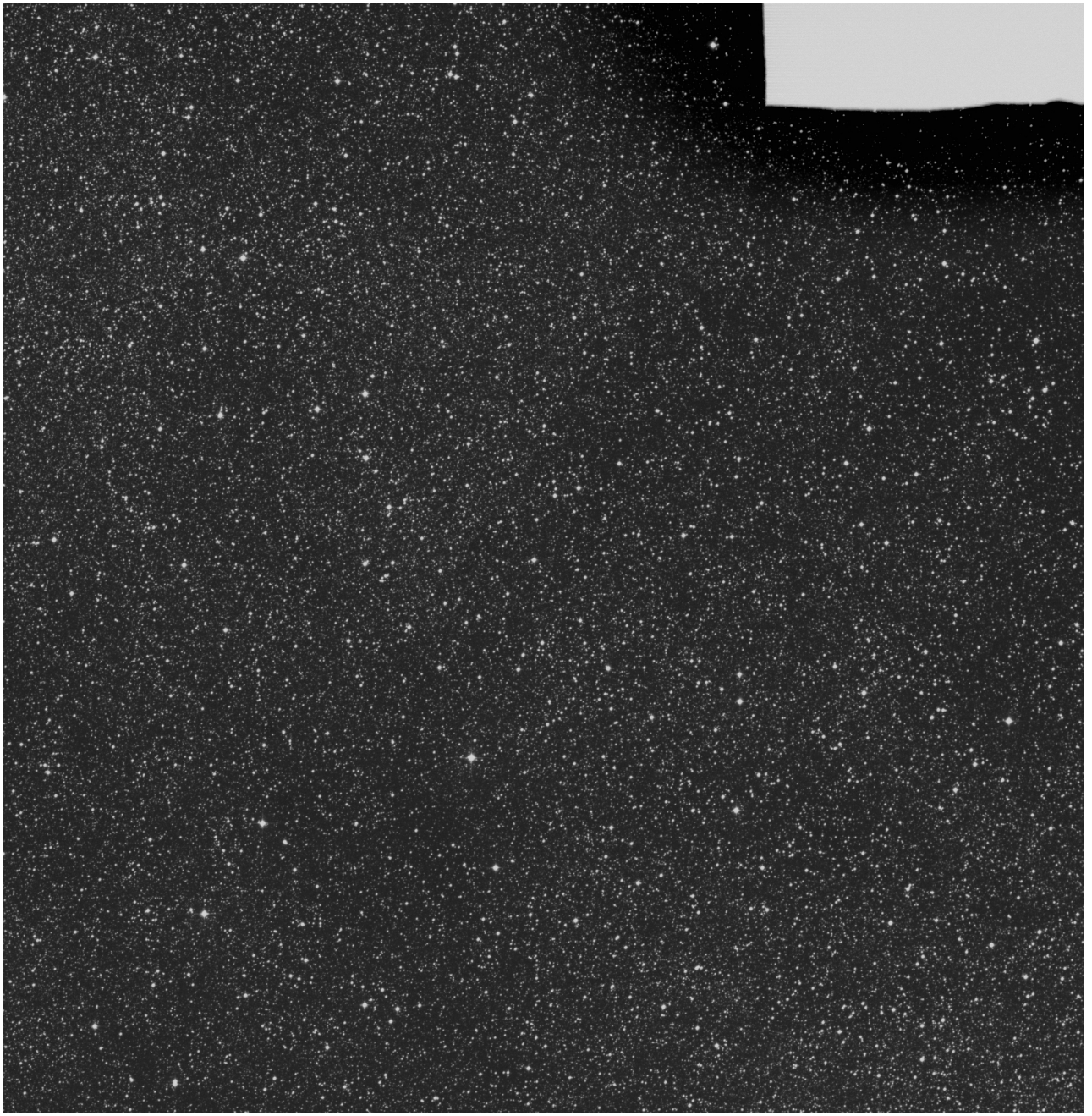
VIII Neptune:	4 hours	50000 km
134340 Pluto:	4h 24min	2300 km
136108 Haumea:	7h 4 min	1960 x 1000
136472 Makemake:	7h 13 min	1500 km?
136199 Eris:	13h 23 min	2600 km







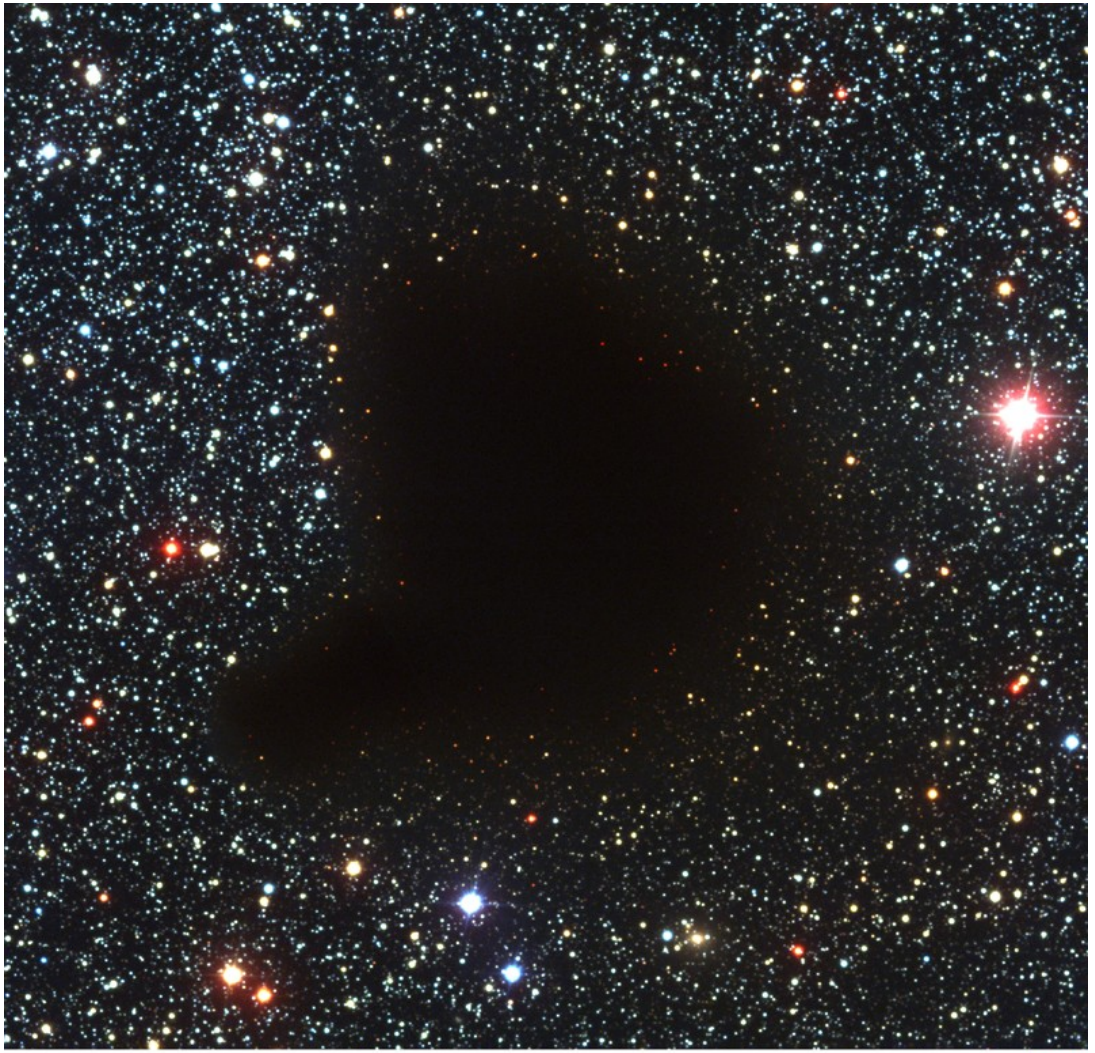
Spacecraft Voyager 1: the most distant human artifact
15 hours 32 minutes away



Proxima Centauri: 4.2 years away
We are seeing Proxima as it was in November 2005

Pleiades Star Cluster in Taurus: 440 years away

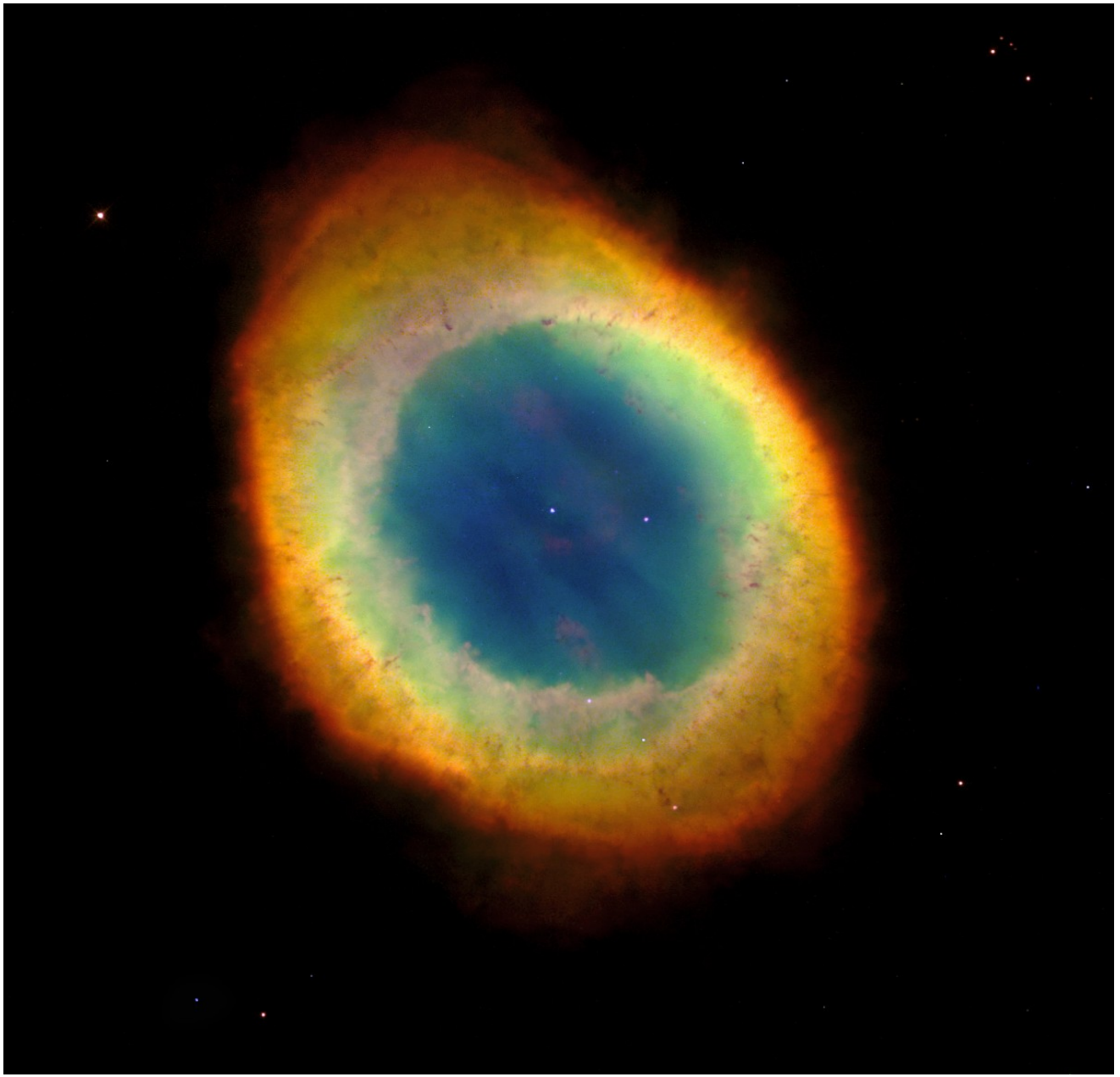
Seen as it was when Shakespeare was a child



Barnard 68 Dark Cloud in Ophiuchus: 500 years away
Seen as it was during the Tudor dynasty

Orion Nebula
1500 years away

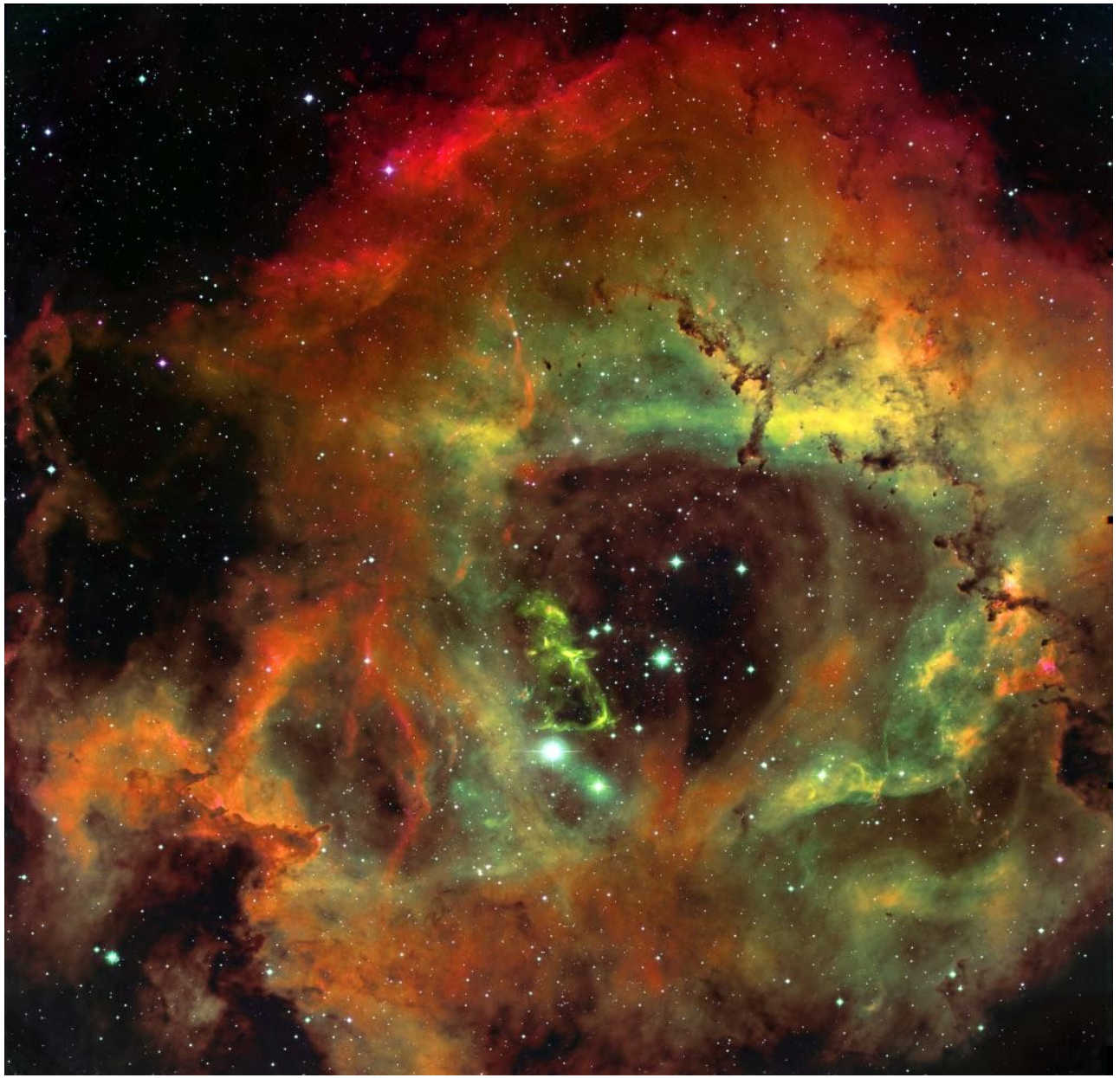
Seen as it was when Arthur was King of the Britons (maybe..)



Ring Nebula in Lyra: a dying star, 2300 years away

Seen as it was when the Roman Republic was first expanding into Italy

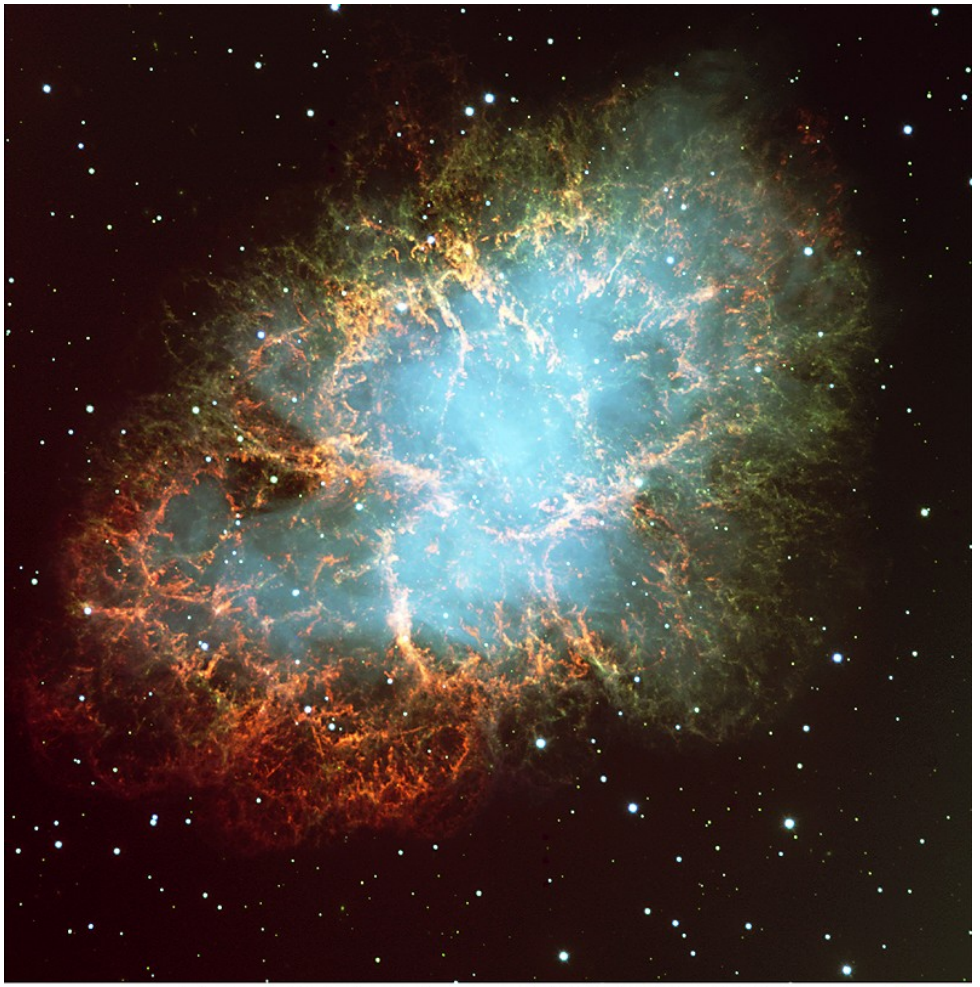
NGC 2440 (planetary nebula) in Puppis: 4000 years away
We see it as it was when Stonehenge was new



Rosette Nebula in
Monoceros
4900 years away

Seen as it was when the first pyramids were built in Egypt

Supernova remnant
IC443 in Puppis
5000 years away



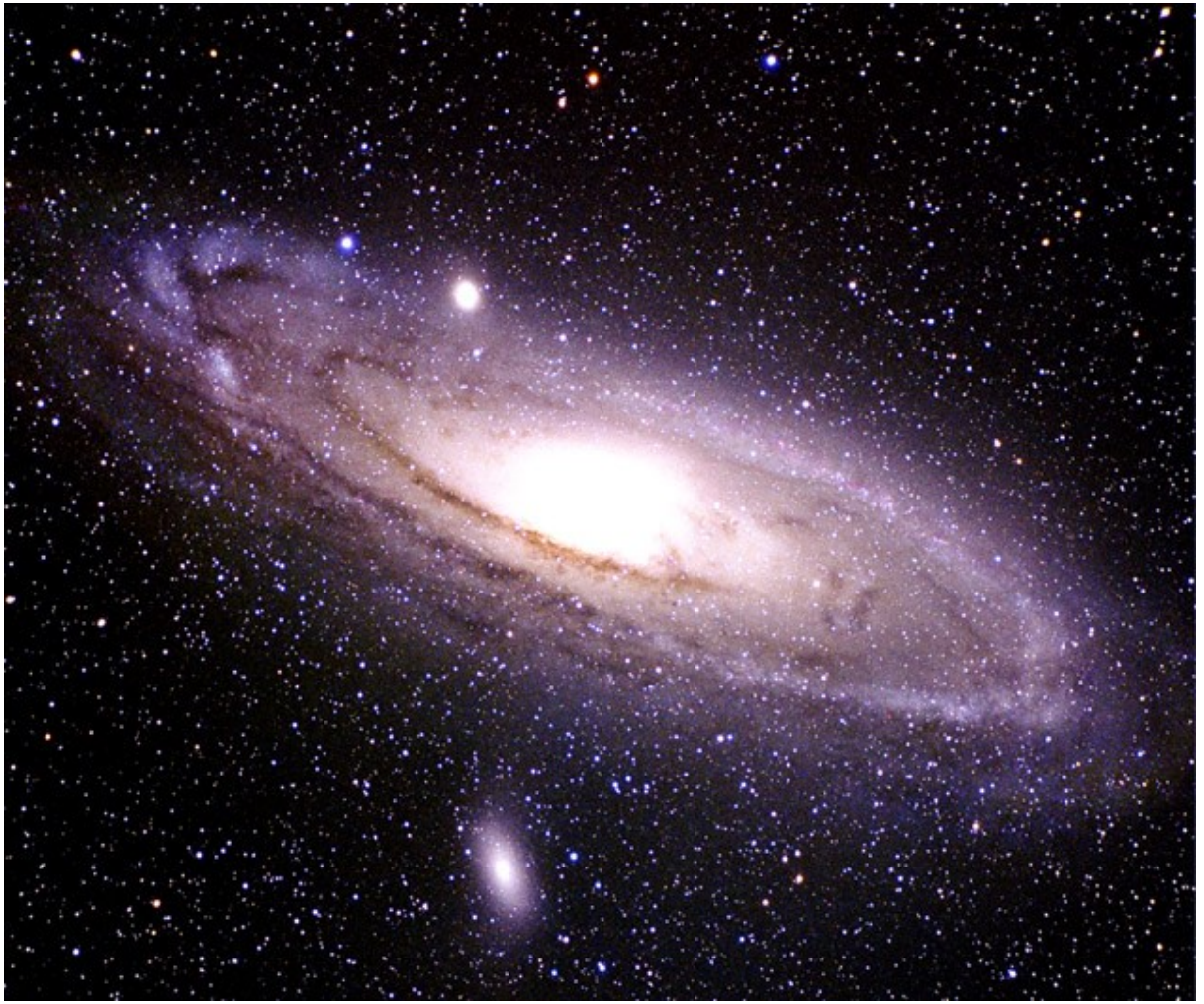
The Crab Nebula in Taurus (VLT KUEYEN + FORS2)

ESO PR Photo 40f/99 (17 November 1999)

Crab Nebula in Taurus, 6500 years away

Seen as it was in the Neolithic

Milky Way in Sagittarius: 30000 Years Away
Seen as it was when modern humans had just evolved

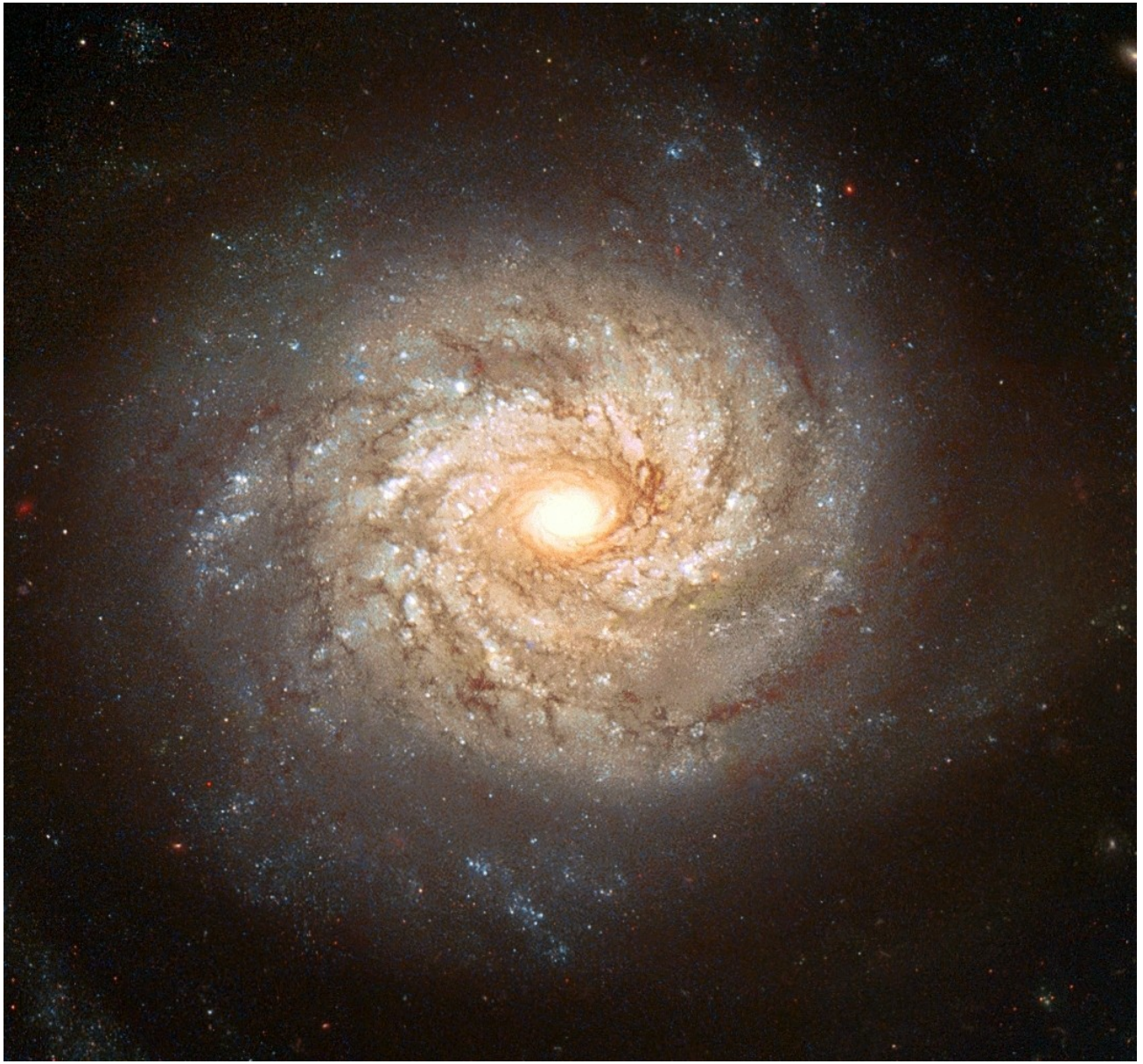


Great Galaxy in Andromeda (M31): 2 Million Years Away

Seen as it was in the Pleistocene

Sculptor Galaxy NGC 253
10 Million Years Away

Miocene era



Galaxy NGC 3982 in Ursa Major – 60 Million Years Away

Tertiary (K-T boundary)

NGC 2207 and IC 2163 in Canis Major

114 million years away

Cretaceous period on Earth

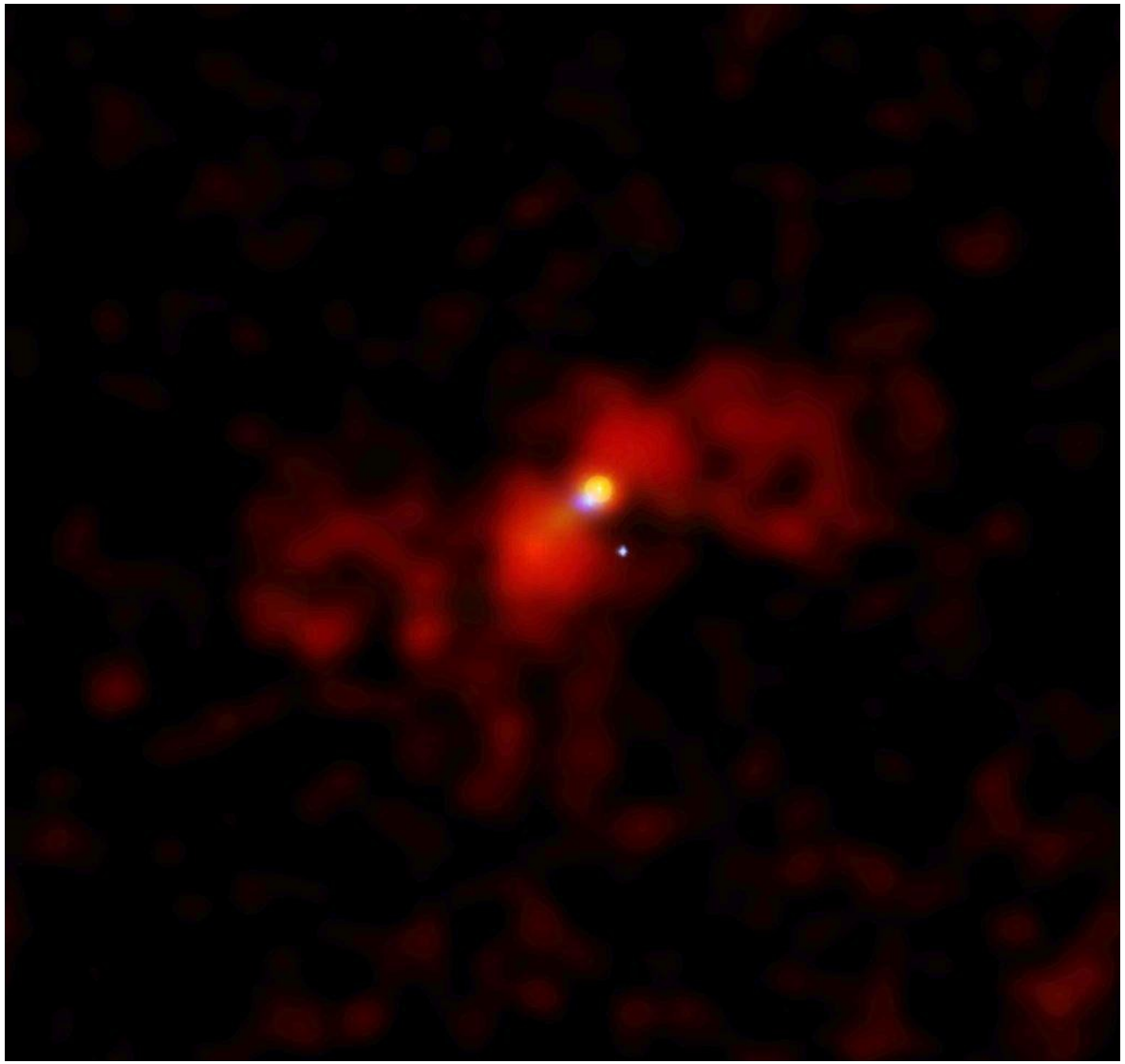
Spiral Galaxy ESO 269-57
(VLT ANTU + FORS1)

ESO PR Photo 20c/99 (30 April 1999)

Galaxy ESO 269-57
in Centaurus

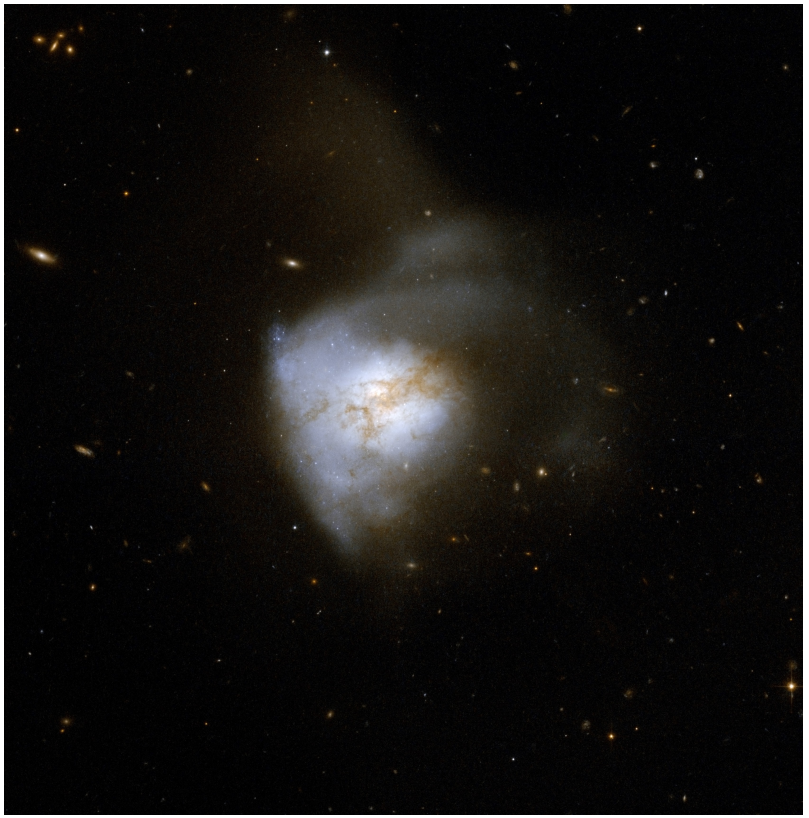
150 M yr away

We see it as it was
in the Jurassic
period



Arp 220 in Serpens, 248 M yr away (Early Triassic)

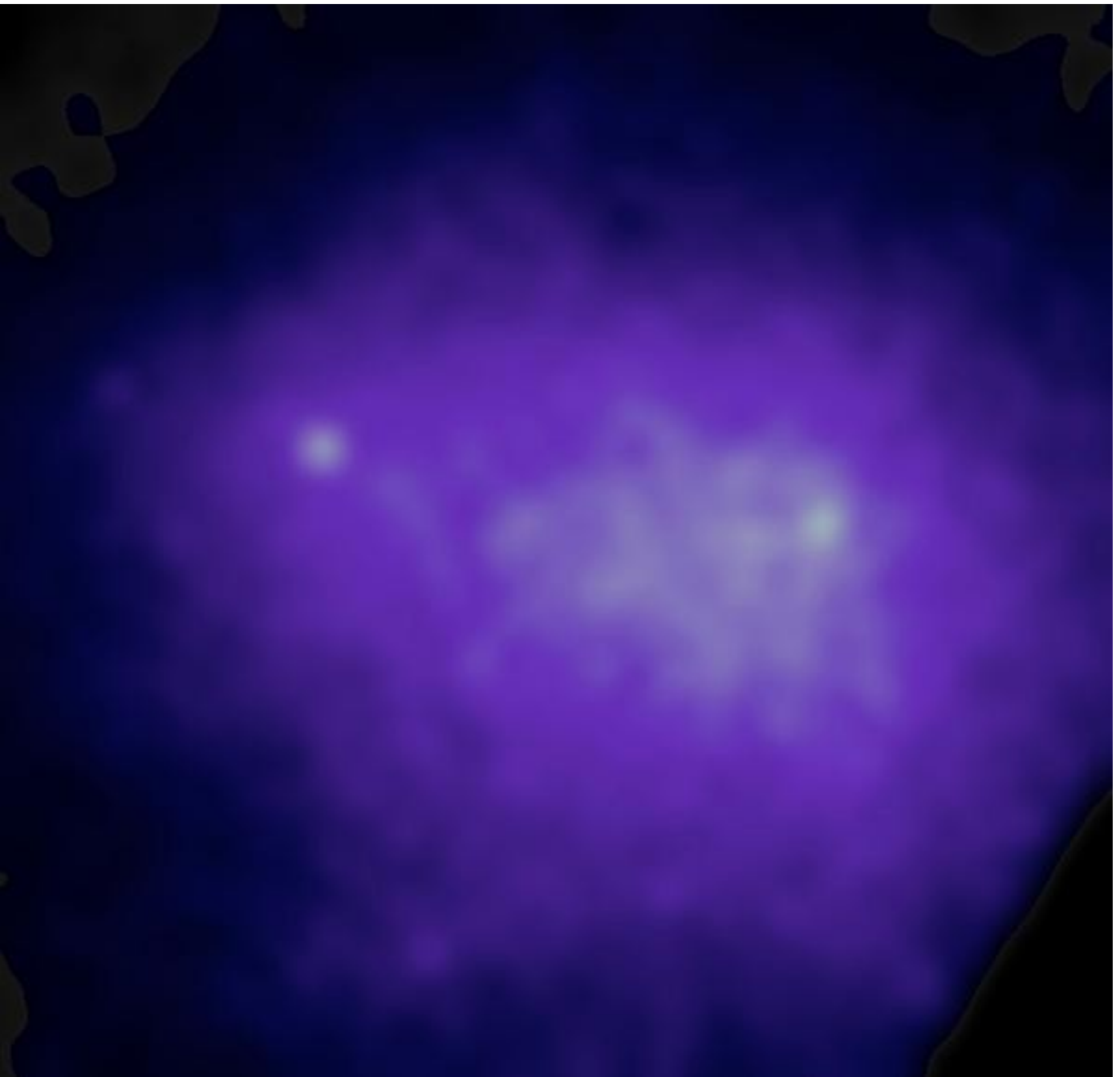
Chandra image: J McDowell/D Clements



The Coma Cluster
of Galaxies

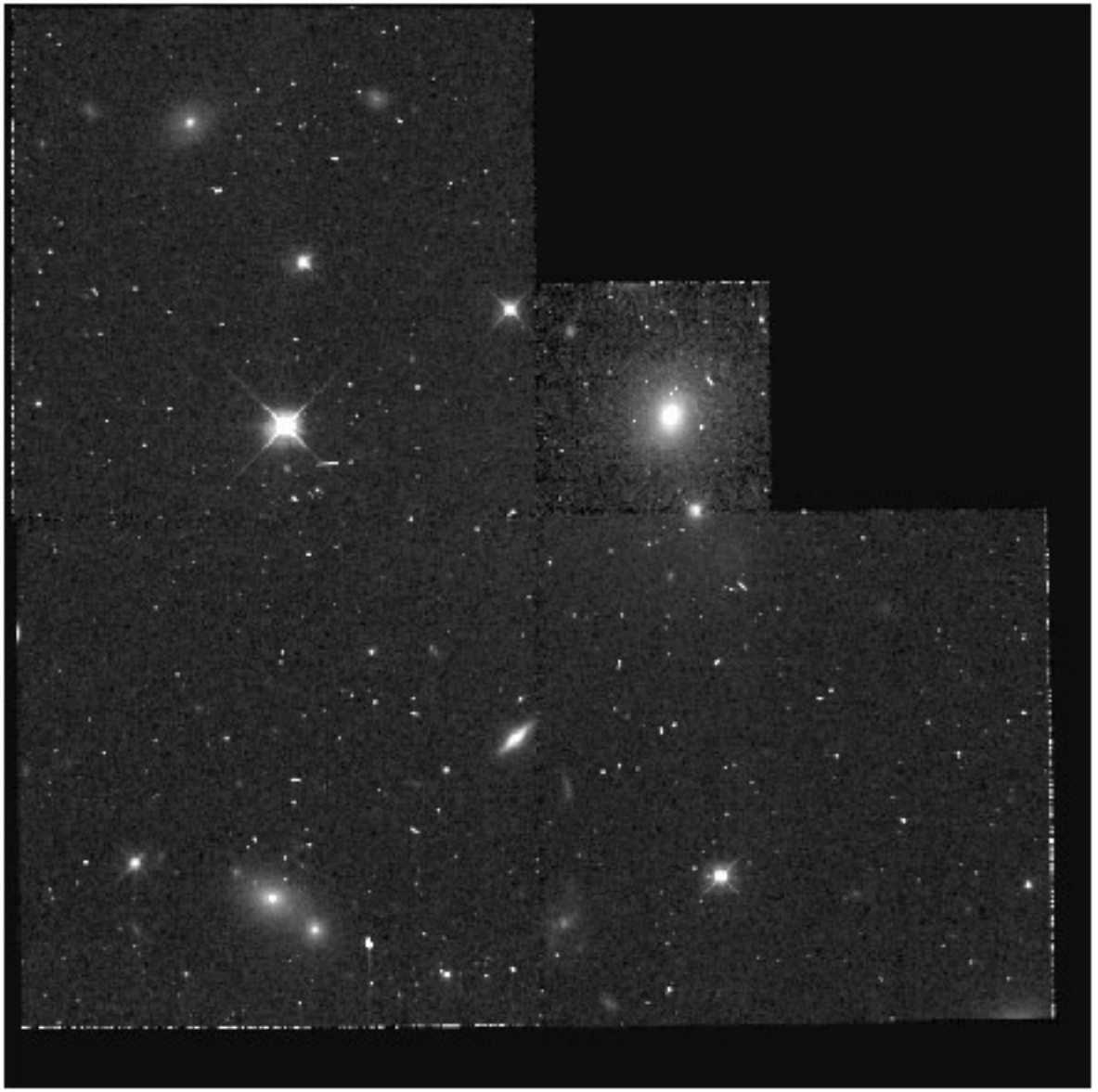
340 Million Years

Carboniferous
period on Earth



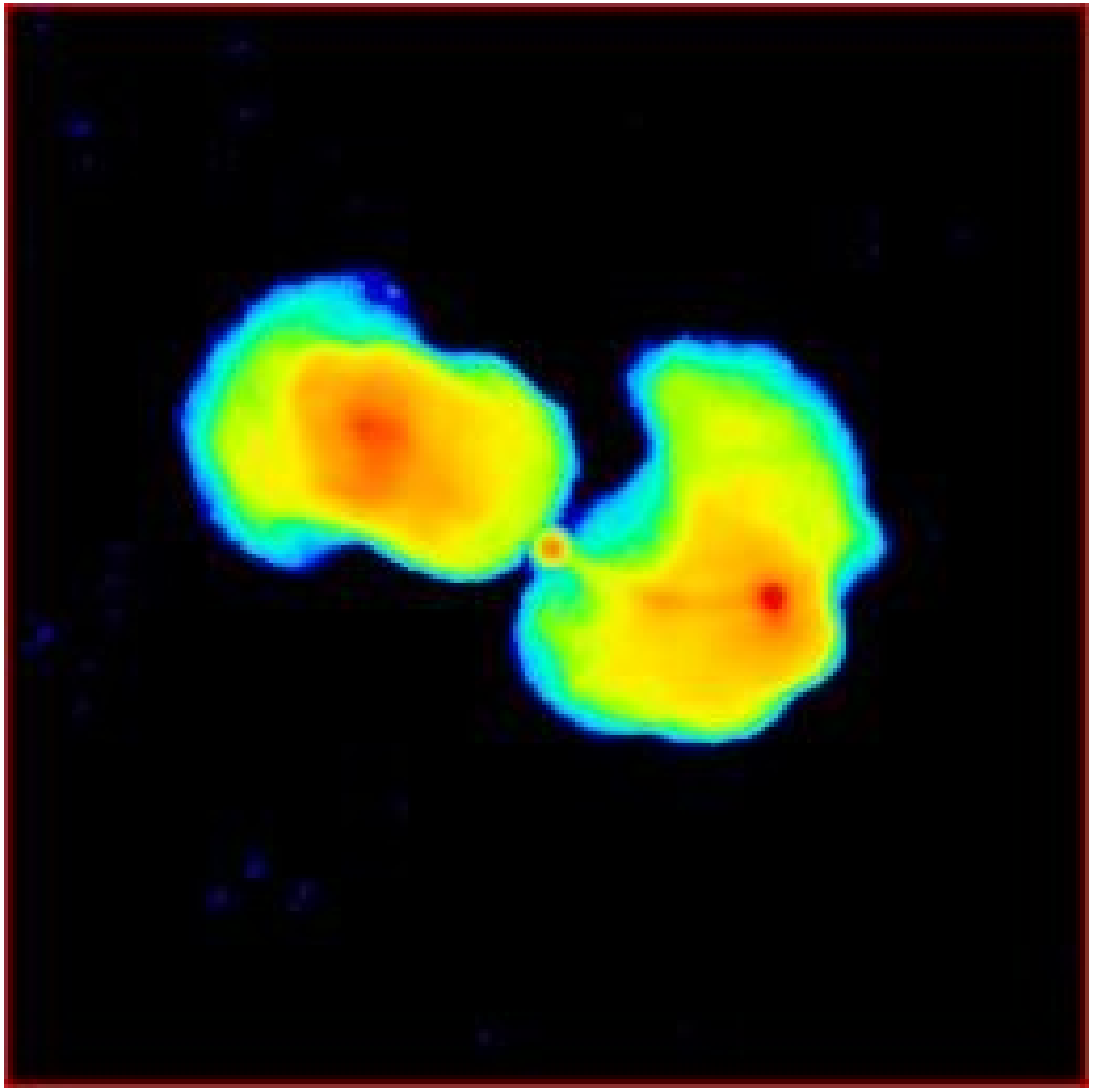
Coma in X-rays

X-rays and optical



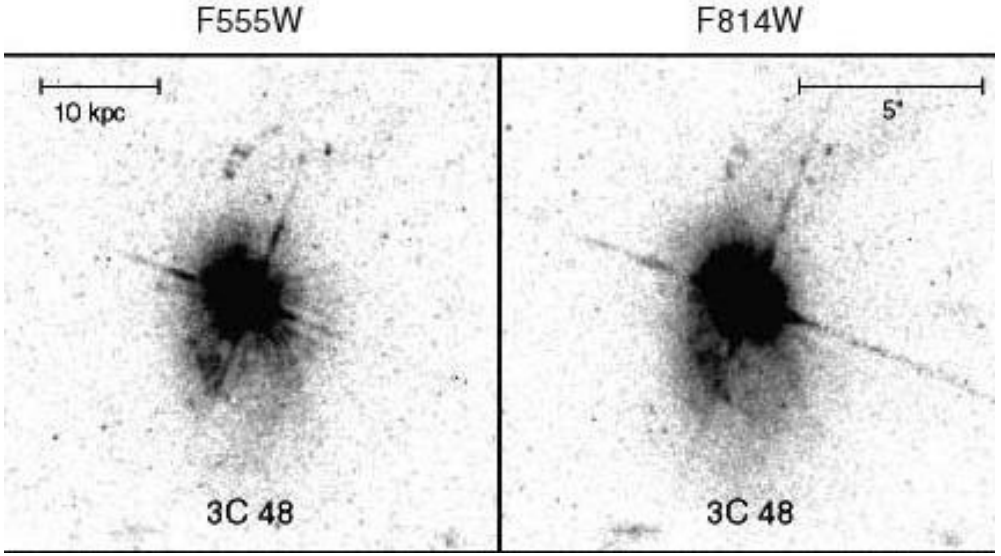
Cluster Abell S549 in Columba
Distnace 539 Million years (Early Cambrian era)

Top right: Quasar PKS 0548-322, 905 Million years
(on Earth in the Tonian era, supercontinent Rodinia is breaking up)



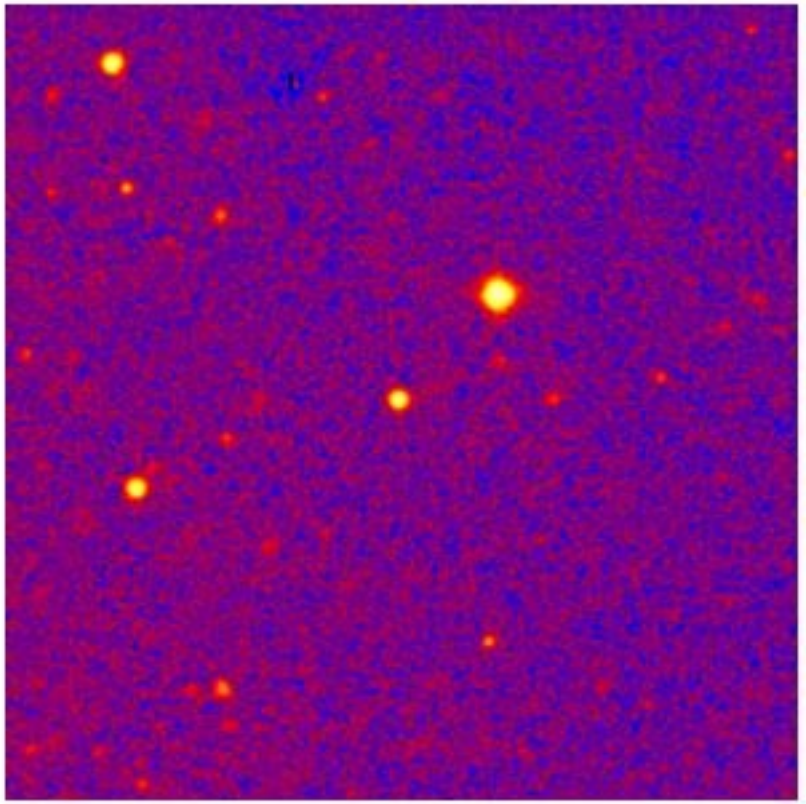
Radio Galaxy 3C 388 in Lyra, with powerful jets
Distance 1175 Million Years

We see it as it was when Rodinia was forming during Earth's Mesoproterozoic era



Quasar 3C48 in Triangulum
3983 Million Years

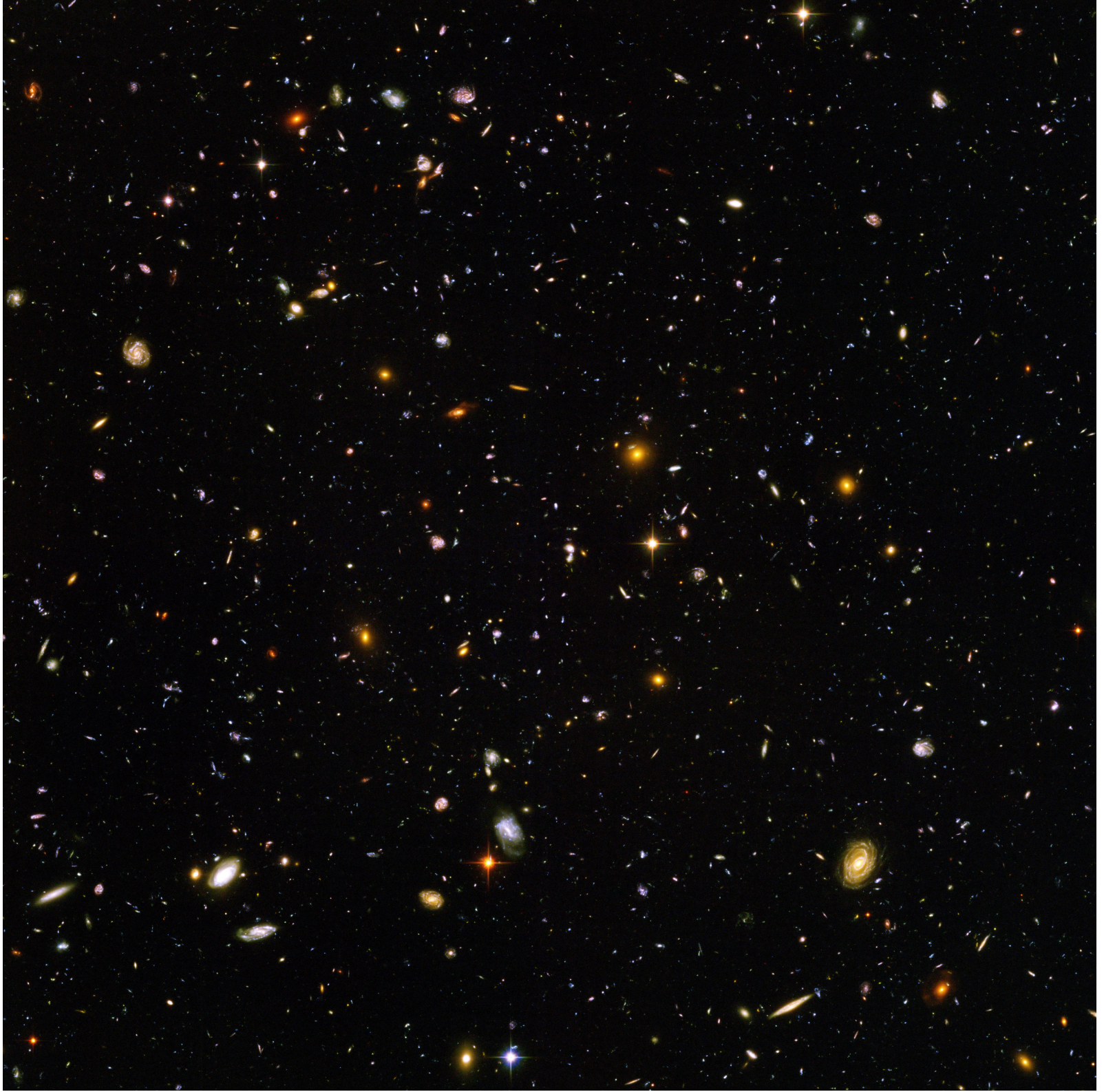
Hadean Era on Earth, Late Heavy Bombardment of solar system



Quasar PG1407+265 in Bootes

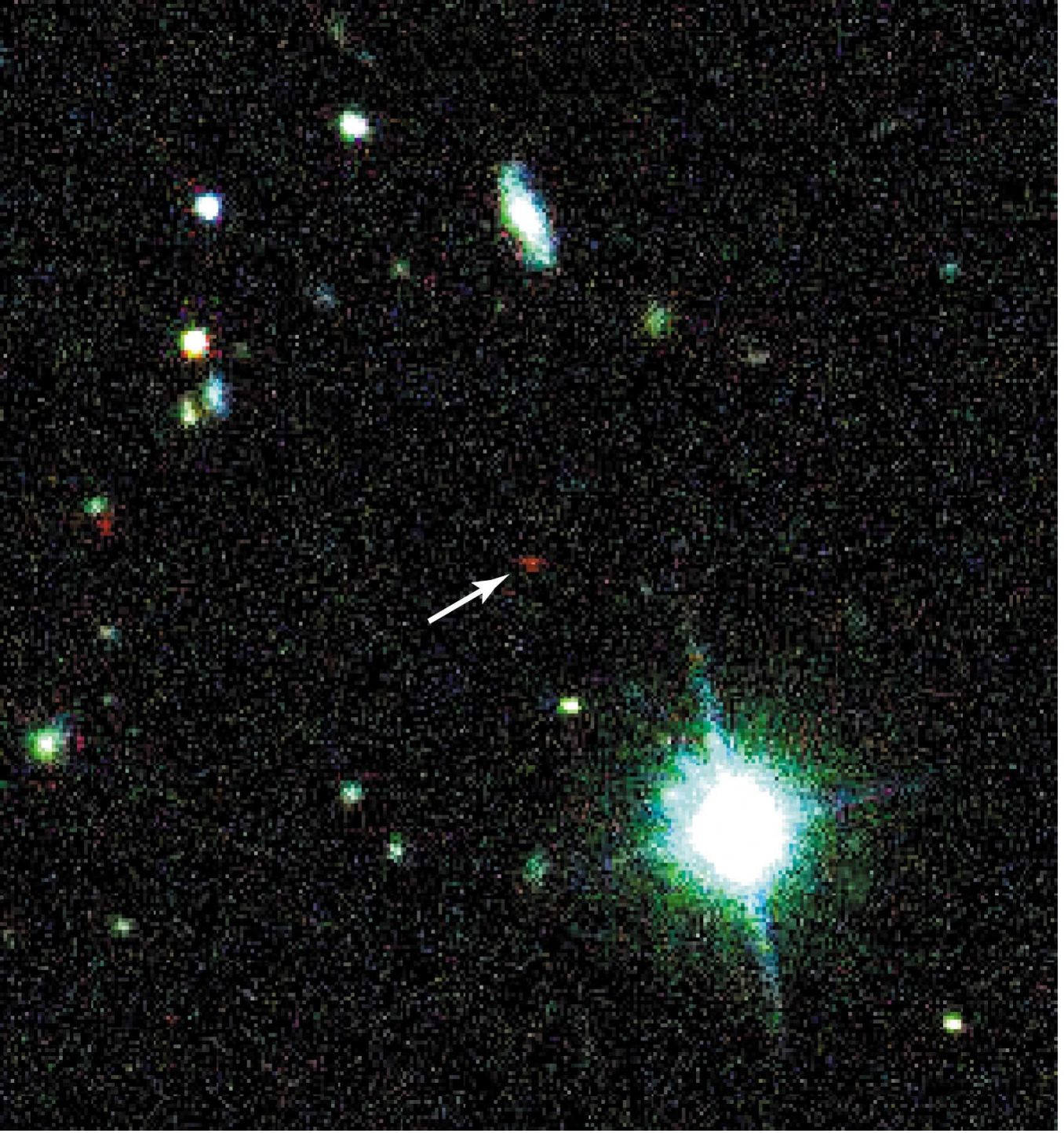
Distance 7500 Million years

We see it as it was 3 billion years before
the formation of the Earth



Hubble Ultra Deep Field in Fornax

Galaxies at redshift 1 to 3
7 to 11 billion years ago

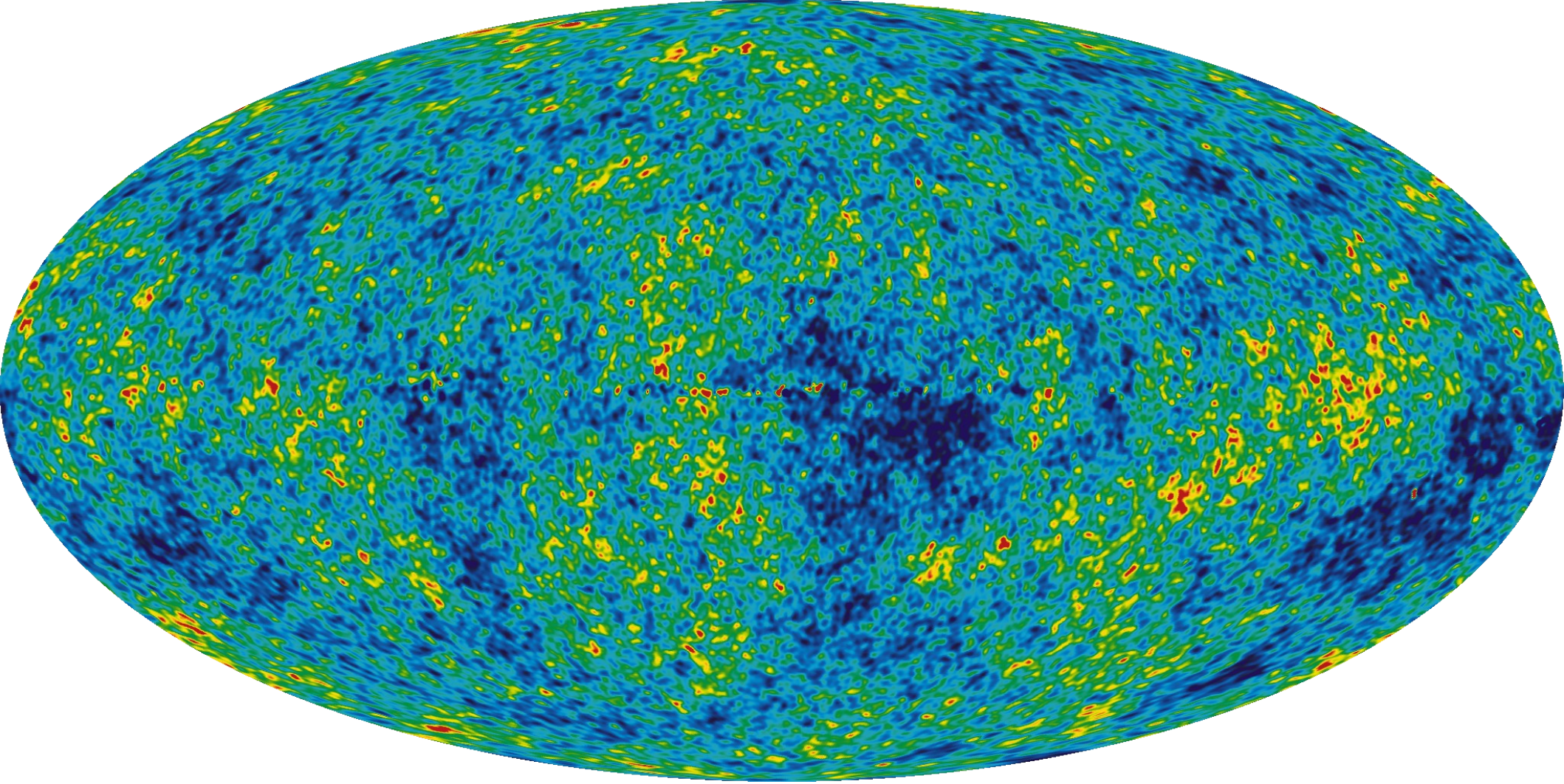


Quasar SDSSp J103027.10+052455.0 in Sextans

Redshift 6.8

12.8 Billion Years away

800 Million Years after the Big Bang



The Big Bang Fireball: 13.67 Billion Years Away

200000 years after the singularity, the universe becomes transparent