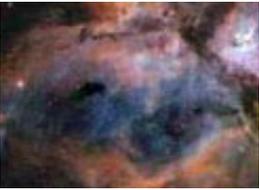
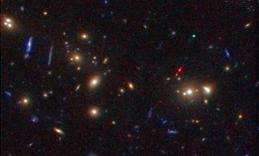


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<p>Heic0312 Video News Release, v.3 Mega starbirth cluster is biggest, brightest and hottest ever seen</p>		
<p>[Different star-forming regions in the Milky Way, 0:00-0:15]</p> <p>The drama of starbirth unveils itself all around us in our own Milky Way. But stars did not always form in the way we see them today...</p> <p>[Hubble zooms on the Lynx Cluster, 0:15-0:52]</p> <p>A unique and tantalising object was recently found and studied with an array of major X-ray, optical and infrared telescopes, including the NASA/ESA Hubble Space Telescope and the Keck Telescopes.</p> <p>The mysterious arc of light found behind a distant cluster of galaxies in the northern constellation of Lynx has turned out to be the biggest, brightest and hottest star-forming region ever seen in space.</p>		   

[Interview with Bob Fosbury from the Space Telescope-European Coordinating Facility/European Southern Observatory in Germany, 0:52-1:13]

"One Friday afternoon a colleague walked in waving a sheet of paper vigorously. The plot showed a spectrum of a mysterious arc in the Lynx cluster. It had already been passed around to the members of the cluster collaboration, but nobody was able to recognize the type of object".

[Bob Fosbury shows spectrum, 1:13-1:32]

An unidentified spectrum is a real and rare challenge to an observational astronomer.

Bob Fosbury:

"We thought we would have this cracked before the weekend and had no inkling that this single computer plot was to guide us along a two year journey of discovery."

[Zooming on the Lynx arc, blending to Artist's impression, pans and zooms on the illustration 1:32-2:24]

The so-called Lynx arc is one million times brighter than the well-known Orion Nebula, a nearby prototypical starbirth region visible in small telescopes. The newly identified mega-star cluster contains a million blue-white stars that are twice as hot as similar stars in our Milky Way galaxy.

Bob Fosbury:

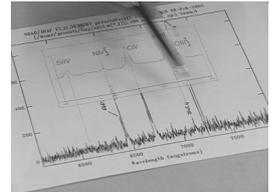
"A unique object... They only live for a blink of an eye on the cosmic timescale..."

[Gravitational lens animation, light ray is bent by cluster of galaxies, 2:24-2:38]

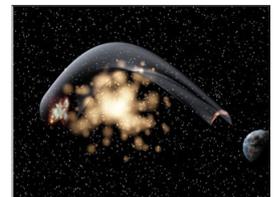
The arc is the stretched and magnified image of the mega-star cluster about 12 billion light-years away, far beyond the galaxy cluster. This means that the remote source existed when the Universe was less than 2 billion years old.

[Gravitational lens animation, changing view, arc is bent to an arc, 2:38-2:50]

The arc only became visible thanks to the gravitational telescope formed by the cluster of galaxies. The huge mass hidden in the cluster magnifies and bends the light from the Lynx arc behind it.



ARTIST'S IMPRESSION

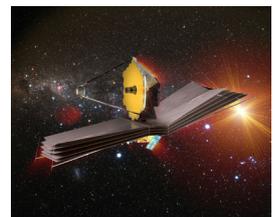


[Interview with Bob Fosbury, zooms pans on the Orion Nebula, 2:50-3:32]

"This was not some exotic form of quasar or new class of object. It was more like the familiar Orion Nebula, a star-forming region in our own Milky Way. But what a stunningly spectacular Orion Nebula analogue this was! The Orion Nebula has four very bright, hot stars - the familiar "Trapezium" - that provide the ultraviolet light to illuminate (and ionize) the nebula. We calculated that the Lynx Arc must contain around a million such massive, hot stars!"

[The NASA/ESA/CSA James Webb Space Telescope, 3:32-3:50]

The desire to find and study the first luminous objects in the Universe is the main scientific drive behind the construction of the NASA/ESA/CSA James Webb Space Telescope, scheduled for launch in 2011.



Shotlist

TIMECODE	DESCRIPTION
	A-ROLL
10:00:40	Different star-forming regions in space
10:00:55	Hubble zooms on Lynx Cluster
10:01:32	Interview with Bob Fosbury from the Space Telescope-European Coordinating Facility/European Southern Observatory in Germany: <i>A Friday afternoon discovery</i>
10:01:53	Bob Fosbury shows spectrum
10:02:01	Interview with Bob Fosbury: <i>A 2 year long voyage of discovery</i>
10:02:12	Zooming on the Lynx arc, blending to Artist's impression
10:02:26	Zoom/pan on artist's impression
10:02:40	Interview with Bob Fosbury: <i>A unique object as they only live for a blink of eye</i>
10:03:04	Gravitational lens animation, light ray is bent by cluster of galaxies
10:03:18	Gravitational lens animation, changing view, star-forming region is bent to an arc
10:03:30	Interview with Bob Fosbury: <i>Related to the Orion Nebula</i>
10:03:47	Zooms/pans on the Orion Nebula
10:03:59	Interview with Bob Fosbury: <i>A stupendous Orion Nebula</i>
10:04:12	The NASA/ESA/CSA James Webb Space Telescope
10:04:30	END A-ROLL
	B-ROLL
10:04:40	A-roll animations and footage unedited
10:10:59	Hubble Space Telescope stock animations
10:14:31	Additional interview questions
10:16:25	END B-ROLL