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<p><b>Video Podcast</b> <b>Episode 3:</b> <b>Celebrating Hubble's 17<sup>th</sup> birthday with violent stellar fireworks</b></p> <p><b>FOR IMMEDIATE RELEASE 15:00 (CET)/9:00 AM EST 24 April, 2007</b></p>	
<p><b>00:00</b> <b>[Visual starts]</b></p> <p><b>00:02</b> <b>[Narrator]</b> The NASA/ESA Hubble Space Telescope celebrates its 17<sup>th</sup> birthday with one of the largest panoramic images ever taken. The violent stellar fireworks of the Carina Nebula.</p> <p><b>00:13</b></p> <p><b>00:23</b> <b>[Woman]</b> This is the Hubblecast!</p> <p>News and Images from the NASA/ESA Hubble Space Telescope.</p> <p>Travelling through time and space with our host Doctor J a.k.a. Dr. Joe Liske.</p> <p><b>00:39</b> <b>[Dr. J]</b> Welcome to the Hubblecast!</p> <p>On 24<sup>th</sup> of April Hubble celebrated its 17<sup>th</sup> anniversary in space. In these 17 years of exploring the heavens it has made nearly 800,000 observations of more than 25,000 celestial objects. It takes pictures of the Universe as it is orbiting the Earth with a speed of 28,000 kilometres per hour.</p>	<p>Best zoom/pan on the Carina Nebula</p> <p>Image explosion</p> <p>Hubblecast Logo + web site</p> <p>Presented by ESA and NASA</p> <p>TITLE Slide: Episode 3: Celebrating Hubble's 17th birthday with violent stellar fireworks</p> <p>Virtual studio. Dr J on camera</p> <p>Nametag</p> <p>Hubble in the</p>

<p>In 17 years that makes nearly 100,000 trips around our planet. That is 4 billion kilometres, equivalent to a round trip to Saturn!</p> <p>Today we are celebrating Hubble's 17<sup>th</sup> birthday by releasing a stunning 50 light-year-wide Hubble image of the tumultuous central region of the Carina Nebula where a maelstrom of star birth - and death - is taking place.</p> <p><b>01:28</b> <b>[Narrator]</b> In the southern sky, not far from the Southern Cross, we find the constellation Carina, the Keel.</p> <p>Here, 8,000 light-years away, the immense Carina Nebula is located. Hubble's new view of the Carina Nebula shows the process of star birth at a new level of detail.</p> <p>The bizarre landscape of the nebula is sculpted by the action of outflowing winds and scorching ultraviolet radiation from the monster stars that inhabit this inferno.</p> <p>In the centre of the nebula we find Eta Carinae, which is estimated to be 100 times more massive than our Sun. It is in the final stages of its brief eruptive lifespan, as shown by two billowing lobes of gas and dust that presage its upcoming explosion as a titanic supernova.</p> <p>Eta Carinae was the site of a giant outburst about 150 years ago, when it temporarily became one of the brightest stars in the southern sky. The star remains one of the great mysteries of stellar astronomy.</p> <p><b>02:23</b> <b>[Dr. J]</b> Looking closer at the nebula we find a number of very interesting features. Pillars of dust and gas reveal unequivocal evidence that stars are being born inside the columns.</p> <p>Streamers of gas shoot out from the pillars and plough into surrounding gas like a fire hose hitting a wall of sand. The jets are being launched from newly forming stars hidden inside the columns.</p> <p>Everywhere we find small nuggets of cold molecular hydrogen and dust, called Bok globules that are silhouetted against the nebula. The glowing edges indicate that the globules are being irradiated by the hottest stars around. It has been hypothesized that stars may form inside such dusty cocoons.</p> <p><b>03:02</b> <b>[Narrator]</b> Since February 2007, Hubble has been running with reduced capability after one of its main cameras suffered a short circuit. A fifth Servicing Mission is, however, planned for September 2008 using NASA's Space Shuttle. Two new instruments will be installed and several other upgrades will be made.</p> <p><b>03:20</b></p>	<p>background</p> <p>Carina Nebula Image appears</p> <p>ZOOM</p> <p>Virtual studio. Dr J on camera</p> <p>Zoom on jets</p> <p>Zoom on Bok Globules</p> <p>Hubble in space</p>
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<p><b>[Dr J]</b>  The Carina Nebula is just one example of what Hubble can do. Every day Hubble generates 10 gigabytes of data - more than 30 terabytes over 17 years. The Hubble data archive is a goldmine to astronomers in Europe and the US. Every day about 66 gigabytes are downloaded from the archives and everyone can get access to these riches via the Internet.</p> <p>More than 7,000 scientific papers have been published based on the Hubble observations, which makes Hubble one of the most productive scientific instruments in history.</p> <p>This is Dr. J signing off for the Hubblecast.</p> <p>Once again nature has surprised us beyond our wildest imagination ...</p> <p><b>04:00</b>  <b>[Outro]</b>  Hubblecast is produced by ESA/Hubble at the European Southern Observatory in Germany. The Hubble mission is a project of international cooperation between NASA and the European Space Agency.</p> <p><b>04:18 END</b></p>		<p>Virtual studio. Dr J on camera</p> <p>Hubble transmit data to the ground</p>
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