

# Script for ESOcast 184 Light: Super-Earth Orbiting Barnard's Star

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| ESOcast Light 184  |   |
| [Visual starts]<br>New ESOcast intro   | New ESOcast introduction  |
| <b>Title: Super-Earth Orbiting Barnard's Star</b>  |   |
| 1. Astronomers have discovered compelling evidence for <b>another exoplanet in our close neighbourhood...</b>  |   |
| 2. ...using <b>ESO's planet-hunting instrument HARPS</b> and other facilities around the world.  |   |
| 3. Our new neighbour is a <b>little over 3 times the mass of the Earth...</b>  |   |
| 4. ...and is a <b>freezing, shadowy world.</b>   |   |
| 5. The host star's weak light means the planet's surface is an <b>intensely cold -170°C.</b>   |   |
| 6. It orbits Barnard's Star, a <b>cool, low-mass red dwarf only 6 light-years away</b> , and the closest single star to our Sun.                             |   |
| 7. The <b>motion of Barnard's star gave the planet away.</b><br><br>The star turns in tiny circles due to the <b>orbiting planet's gravitational pull...</b> |   |
| 8. ...causing the <b>colour of starlight to change</b> due to the Doppler effect.  |   |
| [Outro]  | <i>Produced by ESO, the European Southern Observatory.<br/>Reaching new heights in Astronomy.</i> |

