Clip 2: Comet Research - Transcript

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| 01:05:10 |  | NARRATOR:Finding Rosetta is a massive challenge. The spacecraft is but a tiny speck in infinite space. Its core is no bigger than a family sized SUV; its solar panels shorter than the length of two semi-trailer trucks. But inside this tightly packed bundle is a marvel of engineering; an automated laboratory full of scientific equipment and cameras and at its centre, a washing machine sized lander called Philae.  |
| 01:05:40 | **GRAPHICS ONSCREEN:**PHILAE |  |
| 01:05:45 |  | NARRATOR:Rosetta is going to try and plant Philae on one of the most enigmatic objects in space.  |
| 01:05:53 |  | NARRATOR:Comets are primordial city sized boulders of ice and dust that roam the outer solar system beyond the planets. But sometimes, one of these distant comets gets knocked off course and comes much closer to Earth. As they do so, they put on an incredible display. These are the comets we see in the night sky. |
| 01:06:20 |  | NARRATOR:Rosetta will follow one of these icy travellers as it becomes active, on its journey round the sun.  |
| 01:06:28 |  | PROFESSOR MARK MCCAUGHREAN:To get next to a comet and accompany this comet as it barrels into the inner solar system, that’s difficult; So that’s a first.  |
| 01:06:36 |  | DR. MATT TAYLOR:This is the first time we have ever deployed a lander on a comet. We’re gonna scratch and sniff the surface to get a real idea of what the comet is made of.  |
| 01:06:46 |  | DR. CLAUDIA ALEXANDER:Rosetta has got to be a ten out of ten in terms of the challenges that we face, among the missions I’ve ever been involved with. |
| 01:06:49 | **GRAPHICS ONSCREEN:**DR CLAUDIA ALEXANDERROSETTA PROJECT SCIENTIST, NASA |  |
| 01:06:54 |  | NARRATOR:Rosetta presents a once in a lifetime opportunity to answer some fundamental questions. What are comets made of? What can they tell us about how our solar system evolved? |
| 01:07:08 |  | NARRATOR:And, most importantly, do they contain the essential ingredients of life? |
| 01:07:14 |  | PROFESSOR MARK MCCAUGHREAN:Comets are, more or less, unaltered since the birth of the solar system. They’ve got water in them, dust in them, maybe even complex organic molecules; the origin of the building blocks of life. |