ESOcast Episode 41: Going South **Special 50th anniversary episode #1**		
00:00 **[Visuals and intro start]**		**Images:**
00:40 **[Narrator]** 1. This is the story of an epic adventure… A story of cosmic curiosity, courage and perseverance... The story of how Europe went South to explore the stars.		Timelapse sequences showing the observatories and the night sky.
01:55 **[Narrator]** 2. Welcome to ESO, the European Southern Observatory. Fifty years old, but more vital than ever.		Time-lapse movies of VLT: nightfall, rotating sky, rotating enclosures, AO lasers
02:12 **[Narrator]** 3. ESO is Europe's portal to the stars. Here astronomers from fifteen countries join forces to unravel the secrets of the Universe. How? By building the largest telescopes on Earth. Designing sensitive cameras and instruments. Scrutinising the heavens.		Footage of astronomers and technicians, working on design and construction, busy with telescope operation, pointing at screens in control room, etc. Assembly hall at HQ, control room at night, technician inside UT, etc.
02:34 **[Narrator]** 4. Their work has looked at objects near and far, from comets traversing the Solar System, to distant galaxies at the very edge of space and time, giving us fresh insights and an unprecedented view of the		Astronomical images, starting with the Moon, comet McNaught, changing into a deep field view, succeeded by stills chosen for their visual impact

Universe. A Universe of deep mysteries and hidden secrets. And staggering beauty.		
03:27 **[Dr J]** 5. From remote mountaintops in Chile, European astronomers are reaching for the stars.		Dr J; VISTA and VLT in background
03:34 **[Dr J]** 6. But why Chile? What made the astronomers go South?		Close up of Dr J
03:40 **[Narrator]** 7. The European Southern Observatory has its Headquarters in Garching, Germany.		Waving flags of ESO member states; dolly motion to reveal ESO Headquarters in Garching
03:49 **[Narrator]** 8. But from Europe, only part of the sky can be seen. To fill in the gaps, you have to travel south.		Animation of an Earth globe showing which part of the sky you can see in the north and in the south
04:05 **[Narrator]** 9. For many centuries, maps of the southern sky showed extensive blank areas – the Terra Incognita of the heavens.		Pan over Albrecht Dürer's star maps (first northern hemisphere, then southern hemisphere)
04:15 **[Narrator]** 10. 1595. For the first time, Dutch traders set sail to the East Indies.		Footage of tall ships on rough sea;
04:27 **[Narrator]** 11. At night, navigators Pieter Keyser and Frederik de Houtman measured the positions of more than 130 stars in the southern sky.		3D animation of astrolabe
04:43 **[Narrator]** 12. Soon, celestial globes and maps showed twelve new constellations, none of which had ever been seen before by any European.		Images of 1598 celestial globe of Jodocus Hondius, and of maps from Johann Bayer's Uranometria
04:53 **[Narrator]**		Historical view of the Cape Observatory

13. The British were the first to construct a permanent astronomical outpost in the southern hemisphere. The Royal Observatory at the Cape of Good Hope was founded in 1820.		
05:06 **[Narrator]** 14. Not much later, John Herschel built his own private observatory, close to South Africa's famous Table Mountain.		Images of John Herschel and his South Africa telescope
05:15 **[Narrator]** 15. What a view! Dark skies. Bright clusters and star clouds high overhead. Little wonder that Harvard, Yale and Leiden observatories followed suit with their own southern stations. But the exploration of the southern sky still took lots of courage, passion and perseverance.		Time-lapse movie of impressive, rotating southern sky
05:44 **[Dr J]** 16. Until fifty years ago, almost all major telescopes were located north of the equator.		Dr J with globe
05:50 **[Dr J]** 17. So why is the southern sky so important?		Dr J with globe
05:55 **[Dr J]** 18. First of all, because it was largely uncharted territory. You just can't see the whole sky from Europe.		Dr J and planet Earth on the background
06:03 **[Dr J]** 19. A prominent example is the centre of the Milky Way, our home galaxy. It can hardly be seen from the northern hemisphere, but from the south, it passes high overhead.		Dr J and planet Earth on the background, moving towards the centre of the Milky Way
06:14 **[Dr J]** 20.		Dr J and the Magellanic Clouds

And then there are the Magellanic Clouds – two small companion galaxies to the Milky Way. Invisible from the north, but very conspicuous if you're south of the equator.		
06:26 **[Dr J]** 21. And then finally, European astronomers were hindered by light pollution and poor weather. Going south would solve most of their problems.		Dr J and astronomical objects in the background
06:37 **[Narrator]** 22. A scenic boat trip in the Netherlands, June 1953.		Historic-looking stills
06:43 **[Narrator]** 23. It was here, on the IJsselmeer, that the German/American astronomer Walter Baade and the Dutch astronomer Jan Oort told colleagues about their plan for a European observatory in the southern hemisphere.		Historic-looking stills
07:00 **[Dr J]** 24. Individually, no one European country could compete with the United States. But together, they might.		Dr J close up; ESO sites in the background
07:06 **[Dr J]** 25. Seven months later, twelve astronomers from six countries gathered here, in the stately Senate Room of Leiden University. They signed a statement, expressing the desire to establish a European observatory in South Africa.		Dr J turns out to be in the Senate Room of Leiden University (with original signed statement in his hand)
07:22 **[Dr J]** 26. This paved the way for the birth of ESO. But hang on!… South Africa?		Dr J close up again, very surprised
07:29 **[Narrator]** 27. Well, it made sense, of course. South Africa already had the Cape Observatory,		Zoom and pan over South Africa map with observatory locations

and, after 1909, the Transvaal Observatory in Johannesburg. Leiden Observatory had its own southern station in Hartebeespoort.		
07:47 **[Narrator]** 28. In 1955, astronomers set up test equipment to find the best possible spot for a big telescope. Zeekoegat in the Great Karoo. Or Tafelkopje, near Bloemfontein.		Old photos of site testing expeditions in South Africa
08:02 **[Narrator]** 29. But the weather was not all that favourable.		Stills: Tent in the rain, car stuck in mud etc.
08:06 **[Narrator]** 30. Around 1960, the focus shifted to the rugged landscape of northern Chile. American astronomers were also planning their own southern hemisphere observatory here. Harsh horseback expeditions revealed much better conditions than in South Africa.		Combination of maps and photos of site testing expeditions in Chile (horseback).
08:26 **[Dr J]** 31. In 1963, the die was cast. Chile it would be. Six months later, Cerro La Silla was picked as the future site of the European Southern Observatory.		Dr J
08:38 **[Dr J]** 32. ESO was no longer a distant dream.		Dr J
08:41 **[Narrator]** 33. In the end, five European countries signed the ESO Convention, on 5 October 1962 — the official birthday of the European Southern Observatory. Belgium, Germany, France, the Netherlands and Sweden were firmly committed to jointly reach for the southern stars.		Flags of 5 countries: Belgium, Germany, France, the Netherlands and Sweden
09:03		Undeveloped La Silla plus surroundings; views of

[Narrator] 34. La Silla and its surroundings were bought from the Chilean government. A road was built in the middle of nowhere. ESO's first telescope took shape, at a steel company in Rotterdam.		road construction; Photo of ESO 1-metre telescope
09:19 **[Narrator]** 35. And in December 1966, the European Southern Observatory opened its first eye on the sky. Europe had embarked on a grand voyage of cosmic discovery.		Old photos
09:36		**[Outro]**

10:48 END