



Take-off for the stars

Just reaching the space port is an odyssey. It will take you about 24 hours to get from Munich to Baikonur – in the middle of nowhere, some 200 kilometers east of the North Aral Sea. Close to the city, with a population of 60 000, a handful of decent hotels and some good restaurants, the Cosmodrome has been launching rockets since 1957 – first Soviet, now Russian. Over the years, many a dream has literally gone up in smoke here, but many have also come true. July 13, 2019, is a case in point. At 2.31 p.m. Central European Summer Time, a three-stage Proton-M rocket thundered into the flawless blue sky above the 43 °C hot Kazakh steppe. Watching from the ground: scientists from the Max Planck Institute for Extraterrestrial Physics. Stowed in the rocket's nose: *eRosita*.

This X-ray telescope, developed and constructed by a consortium of German research facilities headed by the Institute in Garching, Germany, flew piggyback with the Russian space observatory *Spektr-RG* to its observation location at a distance of one-and-a-half million kilometers from Earth. Out there, way beyond and behind the Moon, the probe from Earth will scan the entire firmament over the next four years to produce the first complete map in the mid X-ray range.

It was a nail-biting wait for the watching scientists; due to technical issues with the rocket, the launch had to be postponed three times. In the end, the launch on July 13 was exemplary. *eRosita* survived the lift-off unscathed and then set course for its destination as planned. There was a slight delay in commissioning the observatory, but since October 13, all seven modules of the X-ray telescope have been observing the sky simultaneously, its custom-made CCD cameras operating flawlessly. The first composite images show the neighbor of our Milky Way, the Large Magellanic Cloud, as well as two interacting clusters of galaxies at a distance of about 800 million light years away. The astronomers are jubilant – their long journey to the steppe at the end of the world was worth its while.