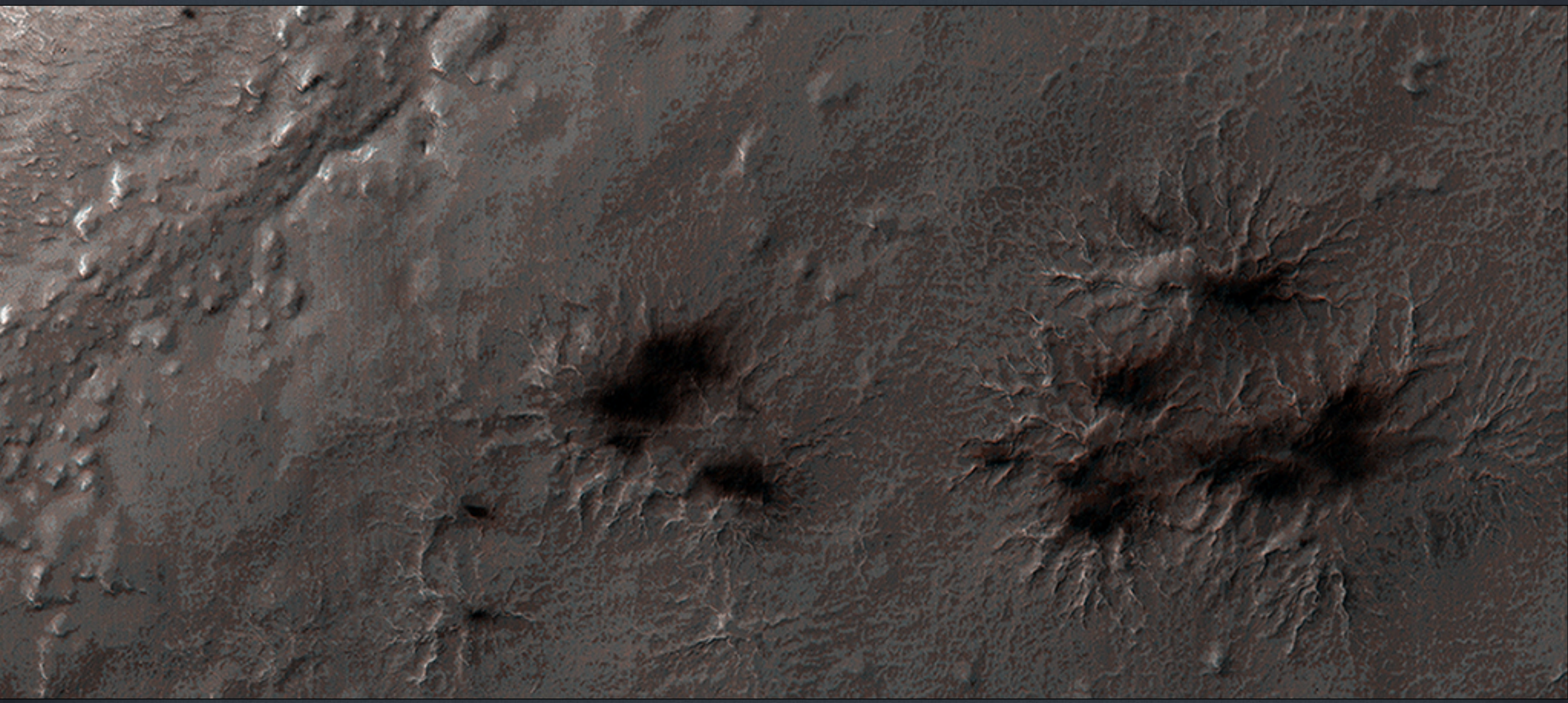


Spring in Inca City I

This region is known informally as Inca City, and it has a series of distinctive ridges. On the floor between the ridges are radially organized channels, known colloquially as spiders, more formally called “araneiforms.” The channels have been carved in the surface over many years by the escaping pressurized gas. Every spring they widen just a bit.

HIRISE

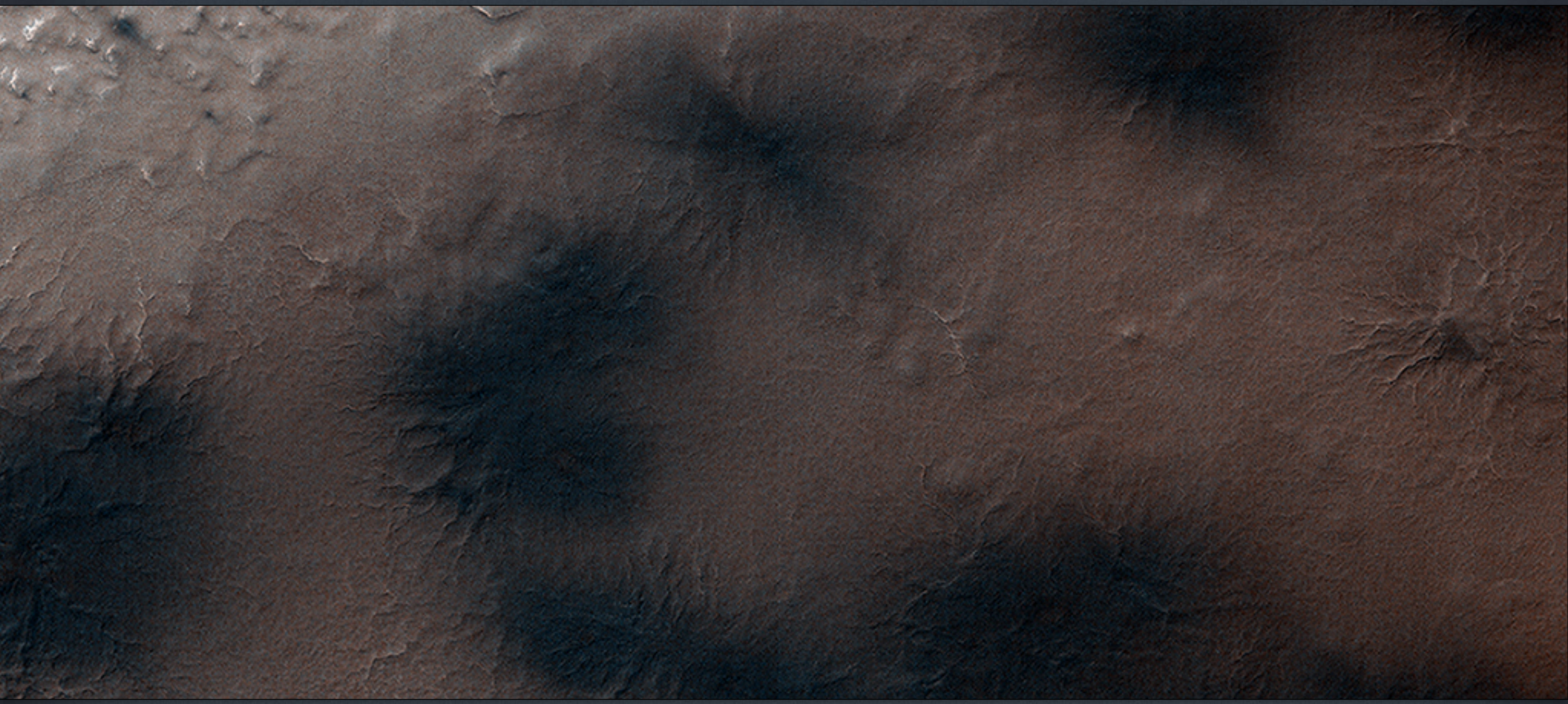
uahirise.org/ESP_037626_0985

Spring in Inca City II

It is about two weeks later (see ESP_037626_0985) in Inca City and the season is officially spring. Numerous changes have occurred. Large blotches of dust cover the araneiforms. Dark spots on the ridge show places where the seasonal polar ice cap has ruptured, releasing gas and fine material from the surface below.

HIRISE

uahirise.org/ESP_037811_0985



Spring in Inca City III

In Inca City another week has passed, and there are a few more fans on the ridge. We see how the number of fans and blotches depends on the thickness of the ice layer and how high the sun is in the sky.

HIRISE

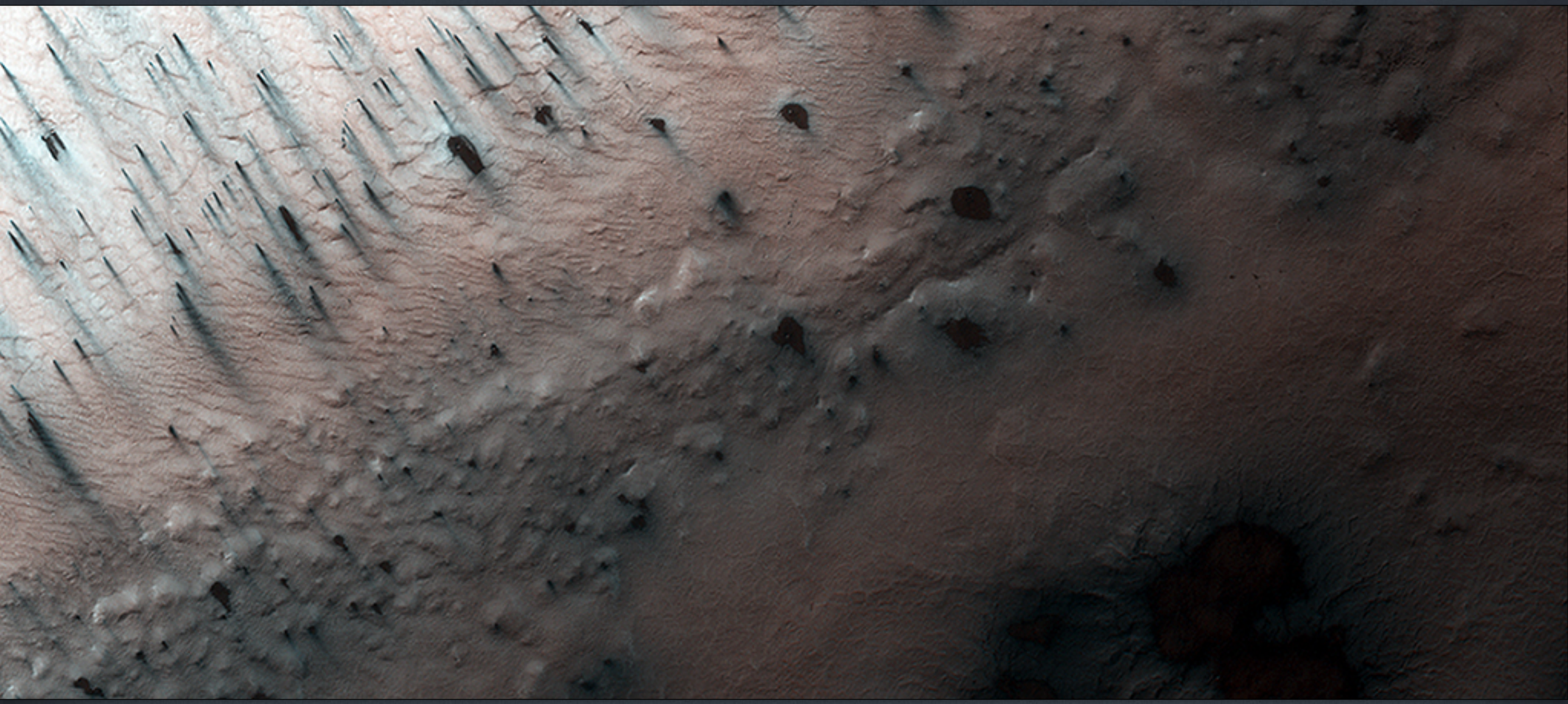
uahirise.org/ESP_037877_0985

Spring in Inca City IV

At certain times in spring, fans take on a gray or blue appearance. This is the time in Inca City when this phenomenon happens. Two theories have been suggested: perhaps fine particles sink into the seasonal layer of ice so they no longer appear dark. Or, maybe the gas that is released from under the ice condenses and falls to the surface as a bright fresh layer of frost. It is quite likely that both of these theories are correct.

HIRISE

uahirise.org/ESP_038022_0985



Spring in Inca City V

A significant event has occurred in Inca City. The layer of seasonal ice has started to develop long cracks. This is visible in the orange-colored band adjacent to the araneiforms. Fans of dust are emerging from long linear cracks.

HIRISE

uahirise.org/ESP_038299_0985