

Spring Fans ESP_029577_0925



At high latitudes every winter carbon dioxide condenses from Mars' atmosphere onto the surface forming a seasonal polar cap. In the spring, the Sun shines through this semi-translucent layer of dry ice and heats the ground below. The ice sublimates (goes directly from ice to gas) on the underside of the seasonal ice layer and the gas is trapped. When the pressure is high enough the ice cracks and ruptures allowing the gas to escape. When the conditions are optimal this gas may condense locally near the source, forming a bright fan.