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China Is Launching Weather-Control Machines Across An Area The Size Of Alaska



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Science



A Chinese worker fires rockets for cloud seeding in an attempt to make rain in Huangpi, central China's Hubei province on May 10, 2011. The drought plaguing central China for months has left more than one million people without proper drinking water and crimped output of hydroelectric power, China's second-biggest energy source, as water levels at nearly 1,400 reservoirs in Hubei province have fallen below the operational level, according to government figures. (STR/AFP/Getty Images)

China is launching the world's largest weather-control machine, with the ability to modify the weather in an area similar to the size of Alaska. China has never

shied away from doing things on a massive scale and this is yet another example of the Chinese government working on an unprecedented scale.

China's state-owned Aerospace Science and Technology Corporation is implementing a plan to send thousands of rain-inducing machines across the Tibetan Plateau to increase rainfall along the region.

The Tibetan Plateau is the source of much of China's water, running down from the mountainous highlands via the massive Yangtze, Mekong, and Yellow rivers. These rivers, which originate on the Tibetan Plateau, are fed by glacial and snow meltwater and drain down into the fertile Chinese farmlands.



The mountains and grasslands of the Tibetan Plateau are seen from the air in the Yushu Tibetan Autonomous Prefecture of Qinghai province. The festival held since the 1990s lasts for around five days. It was suspended for several years following a 2010 earthquake in Yushu which killed some 2,700 people. (NICOLAS ASFOURI/AFP/Getty Images)

The practice of artificially inducing rainfall in China is not new, the country manipulated the weather over Beijing just before and during the [2008 Beijing Olympics to ensure a rain-free event](#). The practice has only grown in scale as part of the [Sky River Project](#) aimed at increasing China's water resources for its billions of people.

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China is installing tens of thousands of chambers across the Tibetan Plateau and mountains. These machines will produce very fine silver iodide particles that are then lifted into the atmosphere with upwelling winds. As these particles are dispersed into the atmosphere they act as the nucleating point of condensed water.



Yaks walk on the grasslands of the Tibetan Plateau in the Yushu Tibetan Autonomous Prefecture of Qinghai province. The festival held since the 1990s lasts for around five days. It was suspended for several years following a 2010 earthquake in Yushu which killed some 2,700 people. (NICOLAS ASFOURI/AFP/Getty Images)

In order for water vapor (humidity) in the air to form clouds and eventually rain, it requires a nucleating particle. Typically, this is a tiny particle of dust which en masse produces the clouds we see in the sky. By artificially "seeding" the Tibetan Plateau with silver iodide particles the Chinese government is inducing the

formation of clouds where there weren't any before. Once the clouds become unstable, this leads to artificially induced rainfall.

Each rain machine (chamber) is expected to create a 3-mile long strip of billowing clouds. When multiplied by the thousands of chambers China is installing along the Tibetan Plateau, it is estimated that China will be artificially controlling the weather over an area similar to the size of Alaska.



A rocket launcher used to seed clouds to induce rain is seen at a station of the Beijing Meteorological Bureau in Beijing, China, Thursday, July 19, 2007. Beijing regularly uses cloud-seeding techniques to improve the local weather conditions and the bureau has been tasked to ensure optimum weather conditions for the 2008 Olympic Games. (AP Photo/Ng Han Guan)

China plans to monitor the system through weather satellites and supplement with silver iodide particles deployed from planes and shot out of ground artillery. In total, the [Chinese government expects](#) the system, which will span 620,000 square miles, to produce up to 10 billion cubic meters of rainfall each year.

If the system works as expected, it would equal roughly 7 percent of China's annual water consumption, helping China quench the thirst of its 1.4 billion people.

I am a geologist passionate about sharing Earth's intricacies with you. I received my PhD from Duke University where I studied the geology and climate of the Amazon. I am the founder of Science Trends, a leading source of science news and analysis on everything from climate ... **MORE**

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