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A Science Service Feature

? WHY THE WEATHER ?

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## FOGGY SEPTEMBER

September is the foggiest month in the interior of eastern North America, though along the coast it is fairly clear. At the beginning of summer, just the reverse is true: the interior is likely to be clear and the coast foggy.

In early autumn the lengthening night allows more time for the air to cool between sunset and sunrise. On clear nights, particularly, when there is no protecting cloud blanket, the temperature falls rapidly. When the lower air is chilled it readily becomes foggy, for it is well supplied with water vapor from vegetation and warm ponds and lakes, and the cooling condenses some of the vapor. Even in the early evening you can sometimes see little streams of cold foggy air draining out of small valleys. By morning, the whole surfaces of lakes may be "steaming", so warm is the water relative to the cool damp air. From a mountain top the lowlands are marked with sheets of fog. Often these lowland or radiation fogs are 20 to 50 feet in thickness and quite dense. Indeed, the clearer and colder the night the denser the fog over a lake and the better the prospect of a clear day.

Near the ocean the case is different. The presence of a large body of moderately warm water prevents such marked cooling of the air as occurs inland. And the ocean does not "steam" as readily as a lake, because its surface is not so warm and because it is salt.

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(Tomorrow: Weather and Sound)



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