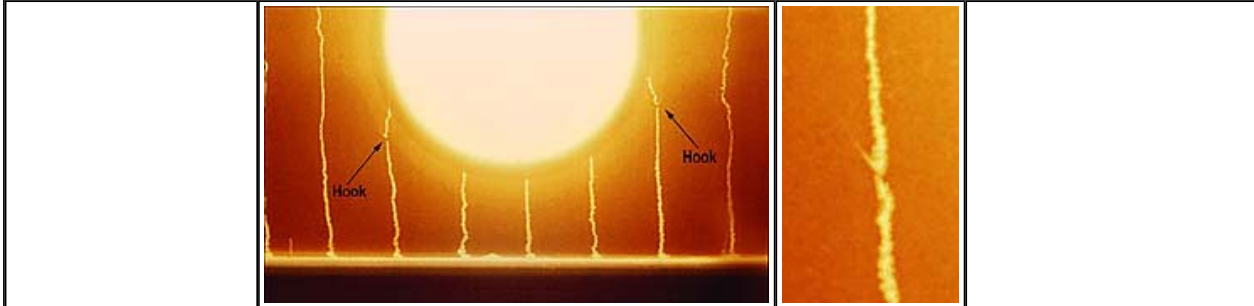




Atomic Smoke Trails - what are they?



People are always asking: "what are the smoke trails around some atomic bomb tests?" Well, here's the answer.

In order to study the velocity of the shockwave front, rocket trails were located perpendicular to the line of site and the shockwave was photographed as it passed in front of these trails. The progress of the shockwave was then followed by observing the "hooks" in the rocket trails at the shock front. These hooks are due to the change in the index of refraction of the air at the shock front.

The rockets were fired at 85 degree angles radially away from their respective photostations in order that the trails would appear as straight lines on the recording films.

Other methods of recording the shockwave effect included "jatos" and mortar puffs. The Jetos were smoke generators located along a line 500 ft from the blast line and parallel to it. These were timed so as to set up a column of smoke before arrival of the shock wave.

The mortar puffs were essentially a type of commercial fireworks, sometimes known as aerial salutes, the only change being that the yellowish smoke burst was replaced by a white smoke for better visibility.

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