

By the time this newsletter is published we expect the California Wildfire to be extinguished and the situation under control. After such an ordeal we know our friends and supporters in Los Angeles feel traumatized. We pray that the contents of this newsletter, and the newsletters that follow, does not cause them additional grief or nightmares.



By April of 1945 it became apparent to the American military leadership that B29 crews, dropping conventional bombs, would not disable the Japanese factories. This reality forced them to develop of a new strategy. Someone suggested using *fire*.

The engineers from the National Defense Research Council developed a new substance they called "jellied gasoline." It had the viscosity of applesauce, but was as sticky as honey. They packed 3 pounds of this highly flammable gasoline into a fabric sock, then slid that semi-liquid glob into a special metal canister measuring 20 inches long and 3 inches wide. They called their creation the "M69."



Workers assembling M69 fire bomblets

The M69 firebomb was much more than just a tube filled with jellied gasoline, it was actually a well engineered and sophisticated device. Each bomblet had a strip of fabric attached which trailed behind as it fell. The fabric streamer guided its fall just like feathers on an arrow. The M69 struck its target precisely on its end which ignited a spark that lit a fuse, and five seconds later the M69 exploded, throwing burning gasoline seventy-five feet.

Thirty-eight of these M69 bomblets were grouped together and tightly packed inside a metal shell. The bomblets were neatly arranged, like peas in a pod. This entire unit was called "E-46."



This museum exhibit shows an E46 bomb, but with its outer shell cut-away, to show the thirty-eight M69 bomblets packed inside.

The E-46 was dropped at 5,000 feet. After falling 2,500 feet a small explosive charge detonated which broke the bands that held it together. The shell opened and all thirty-eight bomblets tumbled to earth.

a. Pattern Density	
The bombs from a single ship must be spaced so as to assure a merging of the fires started by each bomb	
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Diagram from a National Defense Research Council handbook

It's easy for us to visualize the coverage of each E46. If one bomb were dropped directly above the centerline of a football field, the entire field, including end zones, would be ablaze.



In the foreground two bomb technicians prepare E46 for loading. Parked in the background are several massive B29s ready for another mission.



A B29 munitions crew winches an E-46 up and into the bomb bay. Each Superfortress carried forty such bombs which gave them the capacity to deliver 1520 individual bomblets over their target.

The fire bomb was a perfect solution for destroying Japan's military factories because, unlike conventional bombs, the E-46 did not require pinpoint accuracy from the flight crews. The M69 was the game changer.

After the B29 bombers delivered their payloads the flight crews could feel confident that their target had been burned to the ground. The Japanese would soon lose their ability to replenish their army and navy with planes, ships and guns, and without this hardware the war would soon come to an end.

Coming next.... Part Three: **Mission Creep**