

# Why do American jet engines emit red flames while Russian jets emit blue flames?

Most of the engines of Russian fighter jets when afterburning to take off or to accelerate usually emit blue flame, while American jet engines emit red and yellow flames.

This color difference makes many people wonder. Many Russian pilots often joke that the extremely eye-catching blue flare is created because they burn vodka in the engine room.



Aviation expert David Cenciotti offers an explanation for this discrepancy. According to him, the reason is due to the technology and manufacturing methods of jet engines of two different countries.

All fuel in Russian fighters has been burned cleanly in the chamber, molecules in the air are ionized at high temperatures combined with fuel waste after burning to create blue flame pants.

There are some cases where Russian fighters, when they are old, will still emit red or yellow flames due to the inefficient combustion system, not being able to burn all the fuel injected into the engine.



With American fighters, when burning after the fire, the red-yellow glow is due to their engine manufacturing technology that does not allow to completely burn the fuel in the combustion chamber. Basically, red yellow is the color of fire when it is burning because excess fuel mixes with the air that is blown out after the plane burns inside.

However, the performance of the engine of the American fighter jet is as good as or even better than that of the Russian jet engine, although it does not burn all the fuel. Nor does it rule out the possibility, the type of gasoline that the US and Russia use for their jets are different.

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