

A.R.E.S. Safety Around Jet Aircraft  
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As regular citizens, we are constantly surrounded by transportation vehicles of various types. As A.R.E.S. / R.A.C.E.S members deployed out, we encounter numerous vehicle types in emergency and disaster situations. This training file is intended to make our folks a bit more aware of some of the dangers present around some of the vehicles that could be encountered.

## Jet Aircraft

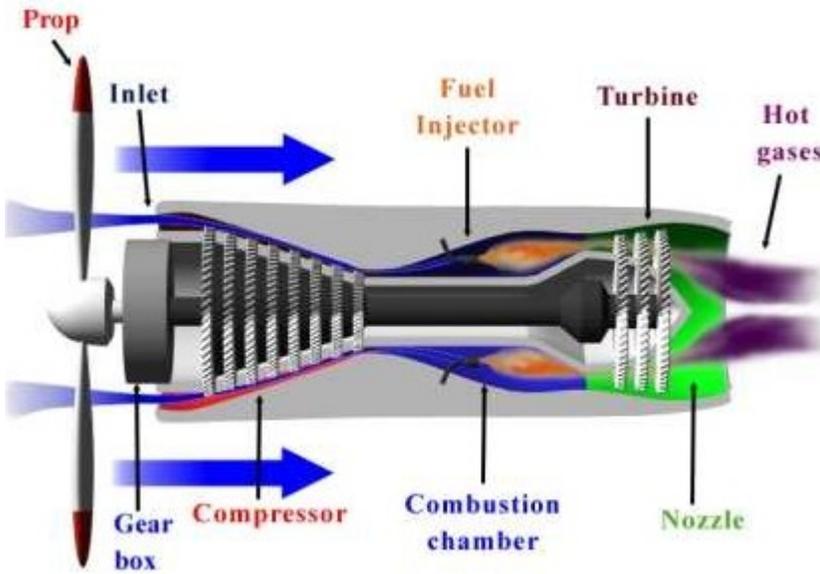
Jet aircraft are amazing, Jet aircraft are fast. Jet aircraft are impressive. Jet aircraft are indispensable. Jet aircraft are common and we need to make sure that we are safe when we are around jet aircraft as we can easily get injured or killed if we get careless.

If you see a jet aircraft with it's flashing lights on, the aircraft battery is on or the aircraft has power to it and it can start at any time and we need to exercise caution.

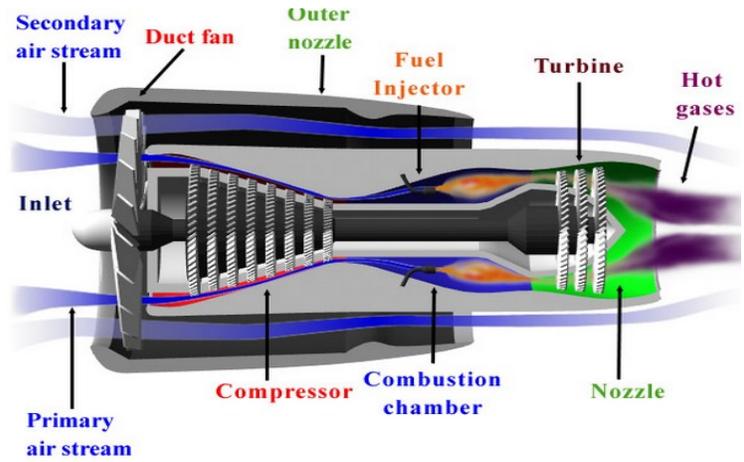


Notice the green and red lights on the wingtips. Notice the red flashing strobe light on the top of the jet fuselage (body). Notice the white lights on the front wheel and wing near the fuselage. If lights are on, there is power to the aircraft.

There are numerous types of jet engines.



Turboprop jet engine



Turbofan jet engine

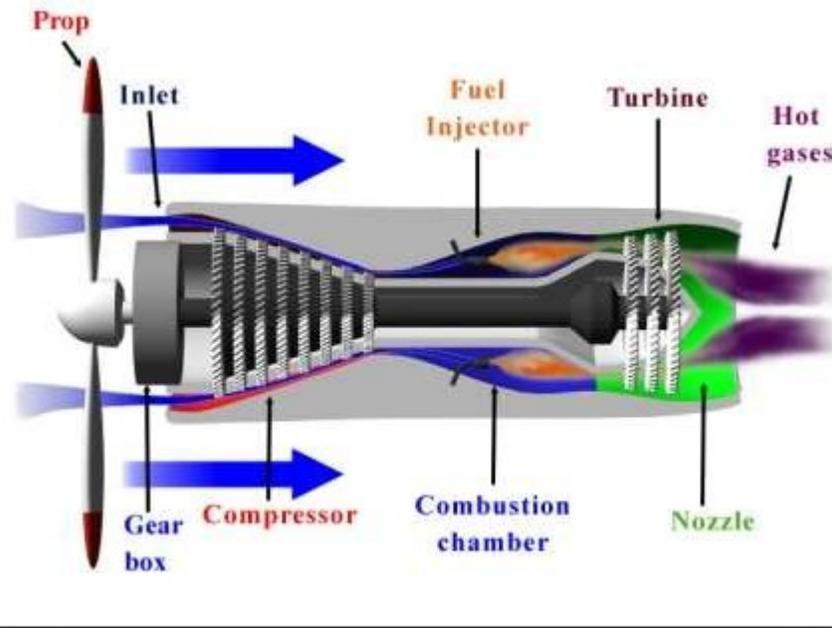
Take a careful look at these two jet engines. Notice that they are quite similar. The jet engine on the left turns an external propeller. The jet engine on the right does not turn an exterior propeller as does the engine on the left, but it turns an internal high speed spinning compressor(duct fan). Notice that out the back of both jet engines (nozzle) are ejected hot exhaust gases. These hot exhaust gases can cause burns, start fires, stir up dust and debris, and even knocking over people and vehicles.



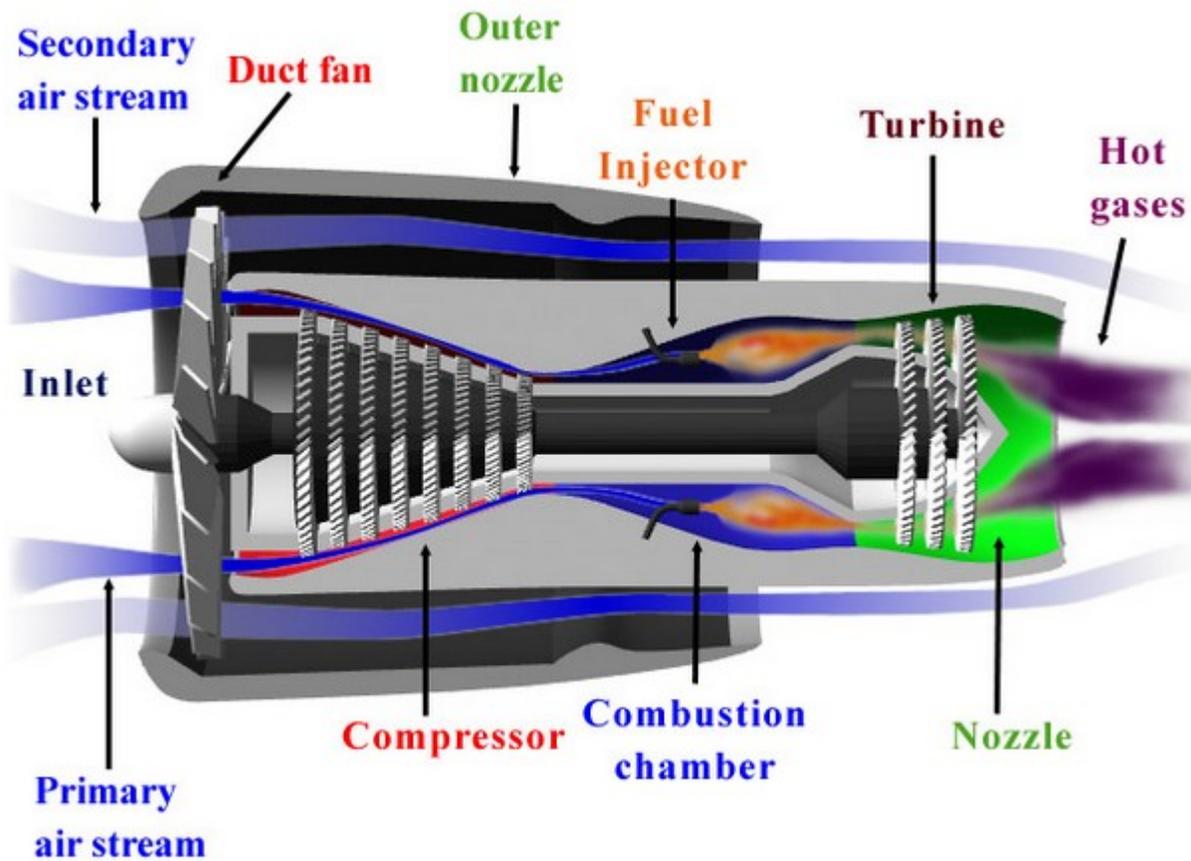
The picture says it all



Vehicle sent tumbling due to jet engine blast



With the turbojet engine one must be careful both of the propeller at the front and the hot gases expelled from the nozzle at the back of the jet engine.



This turbofan jet engine creates a tremendous intake suction of massive quantities of air

at the front of the engine as well as expelling hot spend gases and tremendous volumes of hot air out the back of the engine (nozzle)



Here, we see a large luggage container which a Delta jet engine is attempting to eat. We all know how heavy luggage is. As heavy as that luggage container is, this jet engine seems to have had no trouble sucking it into the air intake. Jet engines will eat people and animals this same way also. Please do not feed the jet engine anything but the correct jet fuel.

Jets can have a single engine, twin engine, or multi engine



Smallest single person jet. BD5 single jet small turbofan engine. Fun!!!



Antonov AN250. VERY LARGE cargo plane powered by 6 large turbofan jet engines.  
IMPRESSIVE!!!



SR-71 Blackbird (US spy plane). Two engine ramjet aircraft (rocket?)  
Can fly over 3 times the speed of sound. Top speed: STILL CLASSIFIED  
UNBELIEVABLE!!!

Do not go near aircraft unless authorized or invited. Be very aware and cautious when aircraft are operating nearby. Let's enjoy flying on and watching these magnificent machines. Be safe!!! 73