

WHAT WERE THEY THINKING?

You can't just strap a turbine engine to a chassis. It takes a lot of science to build a jet dragster that's fast and safe.



HUMAN FACTORS ADRENALINE

Both the driver and the team have a surge of adrenaline during a pass down the track, although the reasons for the surge are different. The adrenaline will increase their heart rate, increase their breathing rate, cause muscle contractions and more.



THRUST
Thrust is a force exerted on the rocket by the expulsion (exiting) of mass in one direction or the combusted fuel exiting the rocket's afterburners.

MASS FLOW RATE

the amount (or mass) of fuel that passes from the manifolds/nozzles through the engine and afterburners each second.

NASA photo



MOMENTUM

The higher the momentum, the harder it is to stop the dragster.

VERSUS

ACCELERATION

How quickly the jet dragster will increase its velocity.

ATTIRE

The driver wears a SFI 15 rated firesuit with a carbon fiber helmet and head sock for additional fire safety.

CUSTOMIZATION

The size of the driver's arms, hands and fingers all influence the placement of the throttle and key switches.

G-FORCE

Drivers experience up to 5 Gs as they cross the finish line, followed by a 12 G transition to -7 Gs upon parachute deployment.



DOWNFORCE

There are two ways to produce down force to keep the car on the ground and not "lift off": the engine and the wing.

The wing is mounted on the front and is turned upside down compared to the mounting position on an aircraft.

The engine is pointed downward at a set angle.



FINE TUNING

Shock diamonds form when the supersonic exhaust is slightly over-expanded, meaning that the static pressure of the gases exiting the nozzle is less than the ambient air pressure. In the world of jet dragsters, they indicate a well-tuned turbine.