**What are the reasons to launch?**

1. Distance to the final point

As Earth’s and satellite’s direction of rotation aren’t usually the same, the distance between spaceport and reaching point always changes. So, to pick the window, where the least amount of fuel is needed, astronomers calculate time when traveling distance is the smallest. Orbit usually depends on what area will be observed (one with the most visits per day).

1. Proximity to the equator

The closer the launch site to the equator, the easier it is to launch to equatorial orbit, and the more help you get from Earth's rotation for a prograde orbit. Unless launching to a polar orbit, there's at least some benefit to launching from as close to the equator as you can get.

1. Safety

* Downrange safety

You want to be sure that spent stages dropped along the launch path or failed launches don't fall on people or property. As every country (except Israel) launch rockets to the East, Eastern coasts are good for that, if you can exclude marine and air traffic along the launch path.

* Launch site safety

There needs to be an exclusion zone of some size (depending on the size of your vehicle) in all directions around your launch site to keep unauthorized people away from your launch facility, and keep things/people out of harm's way if the vehicle has a catastrophic failure at or close to the launch pad. Even if all goes well, exhaust from a big rocket can do serious damage to things on the ground from just the acoustic energy (shock waves, vibration).

1. Proximity to the transportation infrastructure

Your launch site needs to be well clear of anything a failed launch can damage, but still close enough to roads/rails/docks to be able to bring people and material to or from it in support of launch activities.

1. Weather

Lightning and wind are the primary concerns when launching a rocket. Of course, it should go without saying that you don’t want to launch a rocket during a hurricane or tornado, either.

**What are the most common causes of scheduling changes in launches?**

There are different requirements for different rockets, but in average launch must be cancelled if:

* Sustained wind at the 162 feet (49 m) level of the launch pad in excess of 30 knots (56 km/h; 35 mph)
* Upper-level conditions containing wind shear[quantify] that could lead to control problems for the launch vehicle.
* Launch through a cloud layer greater than 4,500 feet (1,400 m) thick that extends into freezing temperatures
* Launch within 19 km (10 nmi) of cumulus clouds with tops that extend into freezing temperatures,
* Within 19 km (10 nmi) of the edge of a thunderstorm that is producing lightning within 30 minutes after the last lightning is observed.
* Within 19 km (10 nmi) of an attached thunderstorm anvil cloud
* Within 9.3 km (5 nmi) of disturbed weather clouds that extend into freezing temperatures
* Within 5.6 km (3 nmi) of a thunderstorm debris cloud,
* Through cumulus clouds formed as the result of or directly attached to a smoke plume,
* Field mill instrument readings within 9.3 km (5 nmi) of the launch pad exceed +/- 1,500 volts per meter, or +/- 1,000 volts per meter