

SpaceX Falcon 9 Rocket Launch on May 23, 2019. S&T, March, 2020.

https://www.cnbc.com/video/2020/01/07/watch-spacex-successfully-launch-itsthird-batch-of-starlink-satellites.html



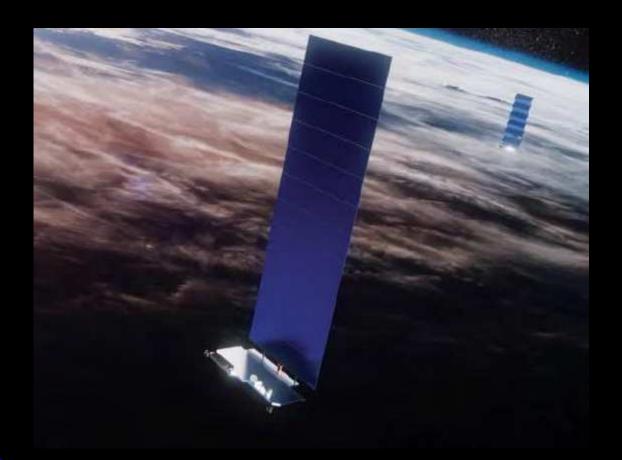
60 Starlink Satellites before launch.

S&T, March, 2020.



60 Starlink Satellites ready to be released.

Total number of satellites is now 2218, along with 900,000 pieces of space junk.



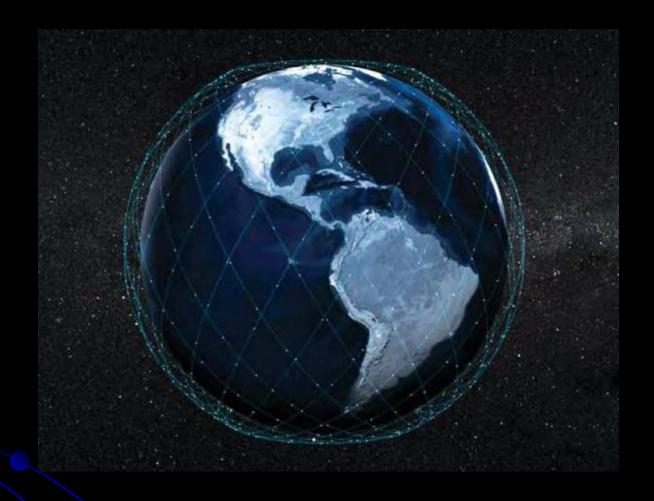
#### The Satellite's Solar Array.

These 60 were painted Black – 3.5 magnitude - but will still be visible. S&T, March, 2020.



May 24th, Marco Langbroek captures a video of the satellite train. <a href="https://www.youtube.com/watch?v=ytUygPqjXEc">https://www.youtube.com/watch?v=ytUygPqjXEc</a>

Note: 5 satellites are missing and 10 did not reach orbit!



Initial Phase of the Starlink Constellation: *Used for Internet Access*. 1,584 satellites in 24 orbital planes at 550 km.

S&T March 2020.



Nov. 18th, 2019. Starlink satellites at 280 km crossed over the Dark Energy Camera on the 4-meter Blanco Telescope, at the Cerro Tololo Inter-American Observatory in Chile. This six-minute exposure of the Large Magellanic Cloud was designed to look for new dwarf galaxies in the Milky Way's but instead saw the Starlink satellite train.

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February 17, 2020, SpaceX launched the 5th group of 60. StarLink now has 300 low orbit satellites.

How will this effect our own photographs?

Here are examples...



Tim Hunter, IDA Co-Founder, AL Reflector, March, 2020.

Left: US Army RQ-7 Shadow Drone making two passes.

Right: Two satellite trails and an RQ-7 Shadow Drone pass.





Tim Hunter, IDA Co-Founder, AL Reflector, March, 2020.

Left: US Air Force UAV MQ1C Sky Warrior.

Right: US Army RQ-7 Shadow Drone.



Al Sheidler, 2-29-2020. Satellite lower left. M42\_M43\_Orion Nebula DSC\_2556aK



Al Sheidler, 2-29-2020. Meteor center, satellite below it.

The Flame Nebula DSC\_2557Z