

The 5G Roll Out of 20,000 Telecom Satellites. Cosmic Junk

By [Richard Gale](#) and [Dr. Gary Null](#)

Global Research, November 11, 2019

Theme: [Environment](#), [Intelligence](#), [Science](#)
[and Medicine](#)

For years, scientists have warned about the dangers of enormous amounts of debris orbiting our planet. Aside from wrenches and other tools used by astronauts, plastic bags, and yes even a toothbrush, according to the federally-funded [Areospace organization](#), the greater dangers are obsolete spacecraft, portions of damaged and disabled satellites, rocket fragments, flywheels, and nuclear reactor cores that have broken up or collided with various other objects. Yet even a screwdriver traveling at an average of 17,500 mph, with an impact velocity of 21,000 mph, can be very destructive if it were to crash into a satellite, rendering it inoperable. And this simply adds to more useless junk, now estimated at 128 million small bits of debris under 1cm and the 34,000 larger pieces, floating above our heads. Imagine [being hit with a piece of space scrap](#) the size of a sugar cube is “equivalent of standing next to an exploding hand grenade.”

A [Business Insider story](#) about space debris noted that the US government already tracks 23,000 objects regularly, including China’s bus-size Tiangong-1 space station that incinerated in orbit. [In February of 2011](#), a Russian military satellite collided with an American Iridium commercial satellite. The former disintegrated into hundreds of thousands of pieces of debris while the latter spun out of control. Approximately 2,000 of these larger objects are being tracked regularly. Three thousand large objects from the [Chinese anti-satellite weapon FY-1C](#), which the Chinese military deliberately blew up, also have to be routinely monitored. As more and more satellites, space stations, rocket and missile remains, and a variety of other orbiting technologies are shot into space, the more frequent these accidents will occur.

This has raised serious concerns among space agencies that we may be heading towards the creation of a “debris belt” that might lead to a critical climax known as a Kessler Syndrome event. The Kessler Syndrome, named after Donald Kessler, a scientist at NASA’s Johnson Space Center in Houston, who warned about such an event in a 1978 [paper published](#) in the *Journal of Geophysical Research*, refers to the exponential increase in space junk leading to a tipping point that would in turn trigger a cascade of collisions between orbiting objects. This could make lower orbital space inaccessible for hundreds of years. In addition, it would dramatically impair, and likely disengage, telecommunication operations, weather forecasting, interfere with airline and GPS navigation, and military and national security surveillance and operations. There are no international treaties in place to deal with this crisis nor concerted collaborative efforts to limit the further trashing of space. In the meantime the US government spends enormous amounts of money simply monitoring 24/7 potential collisions and to maneuver functioning satellites out of harm’s way.

Since the launch of the first satellite, the Soviet Union’s Sputnik in 1957, there have only been 8,378 satellites lofted into the heavens thus far. That may not seem to be many over

the course six decades, nevertheless the threats posed by space debris is becoming an issue of growing concern as satellite launches steadily increase annually. According to the [UN's Office for Outer Space Affairs](#), there were slightly under 5,000 satellites in the Earth's orbit at the start of 2019. However the [Union of Concerned Scientists estimated](#) that only 1,957 of these are actually operative. In other words, over 75 percent of orbiting satellites are revolving clutter.

If some space scientists are worried today about the potential of a Kessler Syndrome cascade, the implementation of 5G technology, the global installation of the "internet of things," is going to accelerate the probability of this catastrophe astronomically.

Speaking before a [5G conference](#) in Oslo last October, United Nation's staff member Claire Edwards warned of the 5G efforts to dramatically colonize the lower orbital space with a minimum of 20,000 5G satellites by 2022. Without our governments' and the Big Telecom Industry's impatience to engulf the planet in 5G, and with the full support of the military and intelligence complexes, there would be absolutely no need for this kind of expansive satellite colonization of the Earth's lower orbit.

Orbiting technologies and satellites are not only threatened by collisions with high velocity cosmic junk. Additional threats, which humans have absolutely no control over, are solar activities such as solar winds, coronal holes, coronal mass ejections or CMEs and solar flares. During [the 2003 geomagnetic storm](#), "10 percent of the world's satellite fleet suffered malfunctions." [In a Scientific American article](#), "Solar Storms: Effects on Satellites," a super solar storm could cause years' worth of damage and wear on a satellite within a few hours. The article states, "a recurrence of the 1859 solar superstorm would be a cosmic Katrina, causing billions of dollars damage to satellites, power grids and radio communications." [Financial Times estimated](#) the cost of a plasma storm would be in the trillions and knock out our most critical satellite systems. Such a massive coronal mass ejection from the sun's thermonuclear reactor, known as a Carrington Event and containing up to 10 billion tons of solar plasma, gas and magnetic radiation, would kill the 5G internet. It could be the end game for years before becoming operable again.

The type of satellite that connects signals to your cell phone is a Low Earth Orbit satellite or LEO. These are the most susceptible to impact with space debris. [Professor Richard Horne](#) from the British Antarctic Survey, a scientific research project that relies on satellite-generated measurements for monitoring climate changes at the southern pole, has warned that the negligence in the commercial satellite sector, which is betting on gigantic profits from the 5G Dream, could have serious consequences. "People are trying to use more commercial off-the-shelf components," says Prof. Horne, "rather than components made to operate in space." He continues, "many systems have not been tested in a major [solar] storm so there is a lot of uncertainty about what might happen."

[Elon Musk's SpaceX](#) is planning to install 12,000 satellites alone, including 1,585 in low earth orbits (LEO) and 7,518 positioned at very low earth orbits (VLEO). He expects to control 50 percent of all internet traffic. [Last month](#), SpaceX widened its ambitions to seek permission to launch an additional 30,000 satellites thereby raising the commercial space industry's total to 53,000 — twenty-six times more than now orbiting the Earth. The Institute of Electric and Electronics Engineers (IEEE) [estimates that the combined mass](#) of Musk's adventure will be ten times greater than the International Space Station. SpaceX is betting on the uncertain promise that when these Tesla Model-3 automobile sized VLEO satellites reach

their final days, they will burn up during their descent through the atmosphere before reaching the Earth's surface. The science shows otherwise. Much debris will remain in addition to reaching the Earth's surface.

Besides satellites being damaged and inoperative from space clutter and solar storm events, satellites are not immortal. They have a limited lifespan. An LEO satellite's average life is between 5-8 years above our atmosphere. In other words, starting in another eight years, all of these satellites will need to be replaced, further adding to the ocean of electronic waste. In addition., during the course of their life in orbit, many will malfunction or be damaged and need to be replaced. We have already trashed our oceans, so what is preventing us from doing the same in space?

Furthermore, despite what pro-5G voices wish us to believe, the roll out and ongoing maintenance of the 5G global blanket is not green and climate friendly. The steady launch of thousands of suborbital rockets will "create a persistent layer of black carbon particles in the northern stratosphere that could cause potentially significant changes in the global atmospheric circulation and distributions of ozone and temperature," according to a paper released by the Aerospace Corporation. This will likely deplete the ozone by 1 percent and the polar ozone layer by as much as 6%. The [report concludes](#) that "[A]fter one decade of continuous launches, globally averaged radiative forcing from the black carbon would exceed the forcing from the emitted CO2 by a factor of about 10 to the fifth power." [Back in 1991](#), Aleksandr Dunayev at the Russian Space Agency was quoted by the *New York Times*, if there are "about 300 launches of the space shuttle each year [it] would be a catastrophe and the ozone layer would be completely destroyed." And for several years, even with Musk's Falcon Heavy rocket potentially carrying 100 satellites for a single launch, this would still exceed Dunayev's calculations. In other words, 5G is going to have a perilous carbon footprint at a time when we must drastically reduce our greenhouse gas emissions.

Although there are no conclusive directly caused risks to human health or the environment from orbiting telecom satellites, the [entire 5G network](#) will require millions of base stations and an estimated 200 billion transmitting objects blanketing the nations that sign on to this monstrous technological experiment. The number of EMF transmitting objects is expected to increase to over a trillion several years after full deployment. The human and environmental health risks of EMF emitting 5G base stations and transmitters have been reported extensively. Eight years ago the World Health Organization had already classified wireless as a Group 2B carcinogen and further medical evidence continues to pile up. There are now [over 10,000 studies](#) supporting the evidence of genetic and cellular damage to humans, animals, insects and plants, a variety of cancers, cardiovascular disease, neuropsychiatric disorders, reproductive dysfunction, and general EMF hypersensitivity symptoms such as chronic headaches, learning difficulties, sleep problems, fatigue and depression, etc.

Government telecommunication departments and the private telecom industry have absolutely no credible independent scientific studies in their arsenal to deny the volumes of evidence against wireless EMF risks; therefore, they follow the all-too-common game of pathological denialism and generate propaganda to attack and denounce 5G's critics as conspiracy alarmists. The International Appeal to Stop 5G now has over 176,000 signatures from scientists, academics, and medical and environmental organizations' advocates representing 208 nations and territories. Yet no precautionary measures, which are recognized by many international laws and treaties, are being followed.

The full assault of 5G is dependent upon the satellite programs from companies such as

SpaceX, OneWeb, Boeing, Iridium, Telesat Canada and Amazon collaborating in league with the telecom giants. The commercial space industry is an intricate factor in the 5G infrastructure estimated to be worth \$32 billion. The wolves following behind 5G's trashing of space is the recent appearance of a [space debris removal industry](#), which is expected to be valued \$2.9 billion by 2022. Key corporate vendors in this emerging business include Airbus, Astroscale, Boeing and Lockheed Martin. In our dystopian civilization, where one technological disaster leads to the creation of another for-profit industry, this is called job growth. Clearly, all the pieces are being put into place for a 5G deep state, a powerful edifice committed to the massive surveillance of every person and human activity.

*

Note to readers: please click the share buttons above or below. Forward this article to your email lists. Crosspost on your blog site, internet forums. etc.

***Richard Gale** is the Executive Producer of the Progressive Radio Network and a former Senior Research Analyst in the biotechnology and genomic industries.*

***Dr. Gary Null** is the host of the nation's longest running public radio program on alternative and nutritional health and a multi-award-winning documentary film director, including *The War on Health, Poverty Inc and Silent Epidemic*.*

The original source of this article is Global Research
Copyright © [Richard Gale](#) and [Dr. Gary Null](#), Global Research, 2019

[Comment on Global Research Articles on our Facebook page](#)

[Become a Member of Global Research](#)

Articles by: [Richard Gale](#) and
[Dr. Gary Null](#)

Disclaimer: The contents of this article are of sole responsibility of the author(s). The Centre for Research on Globalization will not be responsible for any inaccurate or incorrect statement in this article. The Centre of Research on Globalization grants permission to cross-post Global Research articles on community internet sites as long the source and copyright are acknowledged together with a hyperlink to the original Global Research article. For publication of Global Research articles in print or other forms including commercial internet sites, contact: publications@globalresearch.ca

www.globalresearch.ca contains copyrighted material the use of which has not always been specifically authorized by the copyright owner. We are making such material available to our readers under the provisions of "fair use" in an effort to advance a better understanding of political, economic and social issues. The material on this site is distributed without profit to those who have expressed a prior interest in receiving it for research and educational purposes. If you wish to use copyrighted material for purposes other than "fair use" you must request permission from the copyright owner.

For media inquiries: publications@globalresearch.ca