



The Kremlin “would really enjoy getting democratic governments tied up in fights over 5G’s environmental and health hazards,” said Molly McKew, head of Fianna Strategies, a consulting firm in Washington, D.C., that seeks to counter Russian disinformation.

RT’s assaults on 5G technology are rising in number and stridency as the American wireless industry [begins to erect](#) 5G systems. In March, [Verizon said](#) its service will soon reach 30 cities.

RT America aired its first program assailing 5G’s health impacts last May, its only one in 2018. Already this year, it has run seven. The most recent, on [April 14](#), reported that children exposed to signals from 5G cellphone towers would suffer cancer, nosebleeds and learning disabilities.

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The network distributes its programming by cable, satellite and online streaming. It also posts individual stories on [Facebook](#) and [YouTube](#). A [declassified U.S. intelligence report](#), released early [in 2017](#), said that RT videos on YouTube have averaged 1 million views per day, “the highest among news outlets.”

Hundreds of blogs and websites [appear to be picking up](#) the network’s 5G alarms, seldom if ever noting the Russian origins. Analysts call it a treacherous fog.

[Anna Belkina](#), RT’s head of communications in Moscow, defended the network’s coverage of 5G. “Unlike many other media, we show the breadth of debate,” she said in an email exchange.

Asked if Mr. Putin’s promotion of 5G technology in Russia conflicted with the health alarms raised by RT America, she said the U.S. network focused on local 5G issues, not “the roll-out in Russia.”

“Our American audience expects us to bring American concerns to the front, first and foremost,” Ms. Belkina said.

## **The 5G Playbook**

The Office of the Director of National Intelligence, in the 2017 report, described the network as “the Kremlin’s principal international propaganda outlet.” The report noted that RT’s most popular video on Hillary Clinton during the 2016 election campaign stated that 100 percent of the Clintons’ charity “Went to ... Themselves.” The video was viewed more than 9 million times.

Later that year, the [national security division](#) of the Justice Department [forced RT America](#), formerly Russia Today, to register as a foreign agent.

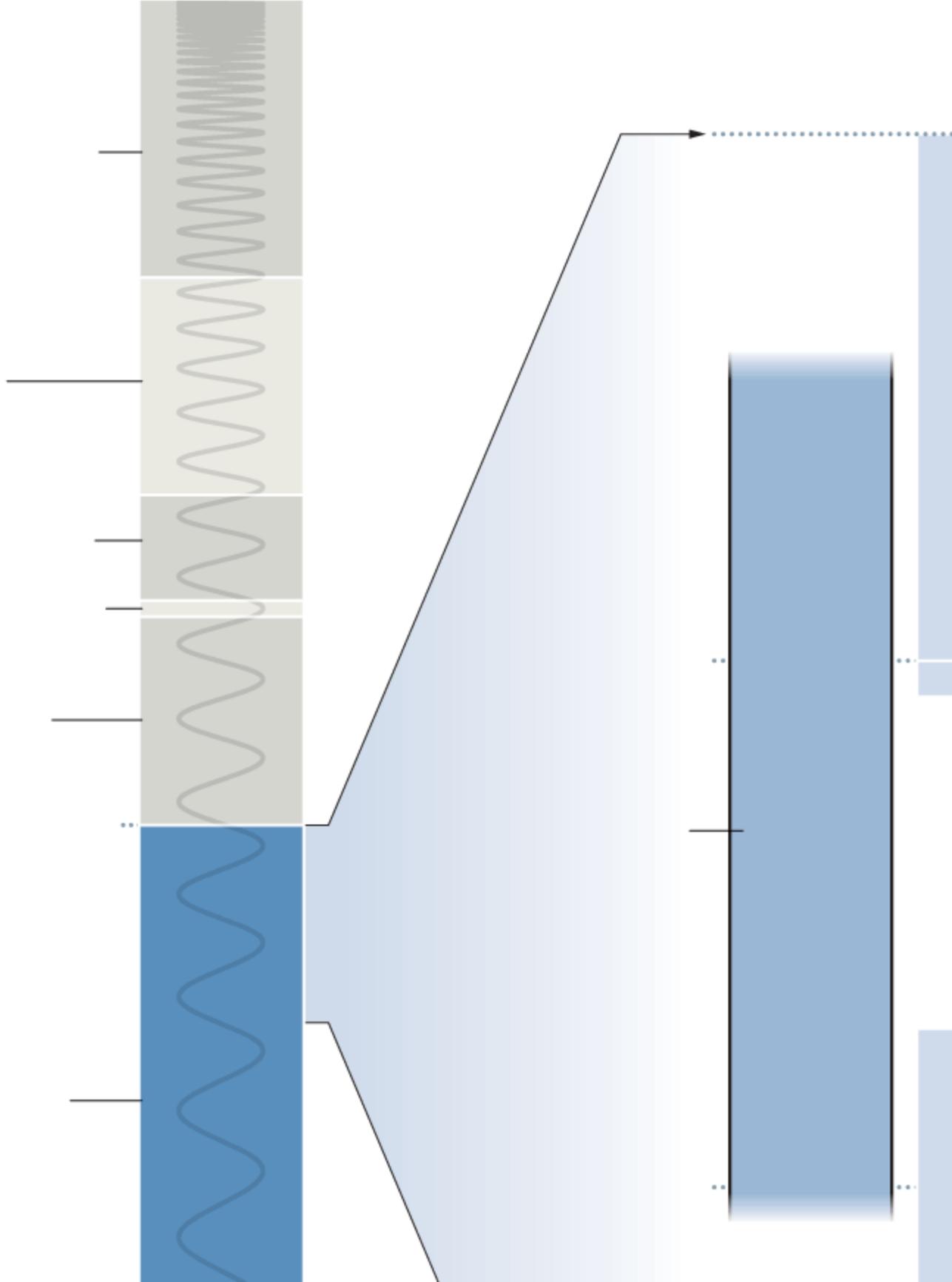
Moscow's goal, experts say, is to destabilize the West by undermining trust in democratic leaders, institutions and political life. [To that end, the RT network](#) amplifies voices of dissent, to sow discord and widen social divides. It gives the marginal a megaphone and traffics in false equivalence. Earlier campaigns took aim at [fracking](#), [vaccination](#) and [genetically modified organisms](#). One show [called designer tomatoes](#) "good-looking poison."

The network is now applying its playbook against 5G by selectively reporting the most sensational claims, and by giving a few marginal opponents of wireless technology a conspicuous new forum.

All cellphones use radio waves. RT America tends to refer to the signals as "radiations," seemingly associating them with the very strong rays at the far end of the electromagnetic spectrum, such as X-rays and ultraviolet rays, which in high doses can damage DNA and cause cancer.

## **5G's Place in the Spectrum**

The newest generation of cellphones, 5G, will operate near the highest frequencies of the radio wave spectrum. Its range overlaps with other devices — including a novel class of health therapies used in Russia and China.



## Electromagnetic spectrum

FREQUENCY

300 GHz  
GAMMA RAYS  
Novel EHF therapies  
X-RAYS  
ULTRAVIOLET  
VISIBLE LIGHT  
30 GHz  
INFRARED  
Airport scanners

300 GHz  
**5G**

### RADIO WAVE SPECTRUM

3 GHz  
Existing cellphones

3 KHz

ULTRA LOW  
FREQUENCY  
Broadcast television (UHF)  
300 MHz

Sources: National Aeronautics and Space Administration, National Academies of Sciences, National Institute of Environmental Health Sciences, Congressional Research Service, Institute of Electrical and Electronics Engineers  
By The New York Times

But the radio waves used in cellphone communication lie at the opposite end of the spectrum, between radio broadcasting frequencies and the rainbow colors of visible light.

The frequencies employed in 5G are higher than those of past cellphones, allowing more information to be relayed more rapidly. [Many other devices](#) are expected to follow, including robots, drones and cars that send traffic information to one another.

Wireless high-speed communication could transform the news industry, sports, shopping, entertainment, transportation, health care, city management and many levels of government. In January, [The Times announced](#) a joint venture with Verizon to build a 5G journalism lab.

Over the years, plenty of careful science has scrutinized wireless technology for potential health risks. Virtually all the data contradict the dire alarms, according to public officials, including those at [the World Health Organization](#).

Opponents of 5G claim the technology's high frequencies will make the new phones and cell towers extraordinarily harmful. "The higher the frequency, the more dangerous it is to living organisms," a RT reporter [told viewers](#) recently.

The truth is exactly the opposite, [scientists say](#). The higher the radio frequency, the less it penetrates human skin, lowering exposure of the body's internal organs, including the brain.

“5G emissions, if anything, should be safer than previous generations,” said Dr. [Marvin C. Ziskin](#), a medical doctor and emeritus professor of radiology and medical physics at the Temple University School of Medicine.

Health concerns were raised last year when a large [federal study](#) showed that 2G signals could produce brain cancer in male rats. But officials discounted a direct link to humans, saying people received smaller doses.

Nonetheless, RT has taken an active role in stirring up apprehension, casting the debut of 5G in biblical terms. The caption superimposed on [a January show](#) read, “5G Apocalypse.” The anchor reported that doctors, scientists and environmental groups were now calling for its ban.

RT America taps the ranks of existing anti-cellular activists to wage its 5G campaign. Some have railed for decades against cellphones, power lines and other everyday sources of electromagnetic waves. Much of their work appears not in reputable science journals but little-known reports, publications and self-published tracts, at times with copious notes of dubious significance. They tend to cite each other's research.

It's unclear how many RT experts realize they are aiding a Russian network or that it acts as Mr. Putin's mouthpiece. At times, RT simply mines existing videotape and print materials, editing them to reflect its perspective. And the [intelligence report noted](#) that some network staffers fail to disclose their RT affiliation when conducting interviews.

Even so, private analysts see the 5G attacks as reaching perhaps millions of online viewers — terrifying some, infuriating others.

“RT successfully feeds the conspiracy-oriented ecosystem,” said John Kelly, chief executive of [Graphika](#), a network analytics firm. “This effort is having a real impact. It's bearing fruit.”

## A “Firehose of Falsehood”

RT America began its assault last year with [a news show](#) captioned “Wireless Cancer.” The featured guest was Dr. David O. Carpenter, a prominent 5G critic.

Dr. Carpenter, 82, received his medical degree from Harvard in 1964 and [has published](#) hundreds of scientific papers. For decades, he has warned of cancer risks for

people living near high-voltage power lines, although federal studies have [failed to find credible evidence](#) that would support his claims.

“The rollout of 5G is very frightening,” Dr. Carpenter [told RT America](#). “Nobody is going to be able to escape the radiation.”

Dr. Carpenter’s scariest alarms have been “widely dismissed by scientific bodies the world over,” according to David Robert Grimes, a cancer researcher at the University of Oxford, and his colleague, Dorothy V. M. Bishop, also of Oxford. They challenged Dr. Carpenter [in a journal article](#) that ran months before the RT program aired, calling his main claims “scientifically discredited.”

In an interview, Dr. Carpenter defended his work as having “served a major purpose” by revealing a global health threat. He said he was unaware that he had been featured on RT America. “I speak my mind to whomever I talk with,” he said.

RT America’s attacks on 5G have multiplied this year. On Jan. 14, [the network aired](#) “A Dangerous ‘Experiment on Humanity,’” which again featured Dr. Carpenter. RT followed [a day later](#) with “How to Survive Dangers of 5G.”

On Feb. 7, [a segment claimed](#) that “5G Tech is ‘Crime under International Law.’” Its featured expert was Arthur Firstenberg, who once charged that a neighbor’s wireless gear had hurt his health. He sued for \$1.43 million in damages but [lost after pressing his claim](#) for five years.

The drumbeat continued. “‘Totally Insane’: Telecomm Industry Ignores 5G Dangers,” was the title of [a segment](#) that aired March 6.

A program [on March 14](#) was aimed squarely at parents: “Could 5G Put More Kids at Risk for Cancer?” The RT reporter told of a California elementary school that recently churned with fear of radiation from a nearby cellphone tower, and how angry parents [kept home 200 students](#).

Even as RT America has worked hard to damage 5G, the scientific establishment in Russia has embraced a contrary and questionable position: that the high frequencies of 5G communications are actually good for human health. It [recommends their use](#) for healing wounds, boosting the immune system and treating cancer. Millions of Russian patients [are said to have undergone](#) such high-frequency therapies.

Beauty clinics in Moscow use these high frequencies for skin regeneration, [according to a scientific study](#). One company [says the waves](#) can remove wrinkles and fight hair loss.

A [Rand study](#) once called RT America’s approach a “Firehose of Falsehood.” For its part, Moscow has repeatedly denied allegations of meddling in the 2016 presidential election and has [strongly defended](#) RT’s news coverage as socially constructive.

Likewise, RT America strongly defended its position on the potential health risks of 5G technology.

“Nothing I’ve seen says the book is closed,” [Rick Sanchez](#), an RT anchor on many of the 5G episodes, said in an interview. “I think there’s lots of unanswered questions. Before we commit to something on this scale, shouldn’t we consider if people could possibly be hurt?”

Mr. Fox, the operations chief of [New Knowledge](#), the technology firm, said the network’s aggressive spin on 5G suggests Moscow is less interested in serving the public than dulling Washington’s edge in the global race for the digital future.

“It’s information warfare,” he said.

*Additional reporting by Sophia Kishkovsky in Moscow.*