

## Ukraine SitRep – October 7

### Description

via [Moon of Alabama](#) (Except)

The Russian army is leading globally in its abilities to wage electronic warfare. It can disable ground based radio traffic on any frequency. It has now found ways to also disable ground to satellite connections as used by the Starlink constellation.

At the beginning of the war the Ukrainian military was supplied with thousands of Starlink ground terminals that can connect to the swarms of small Starlink satellites, which were financed by the Pentagon, but managed by Elon Musk's companies. They allowed for communication between Ukrainian ground units as well as for general command and control of larger operations. Without Starlink the Ukrainian command will depend on cable based field telephone, runners and couriers. All of which are extremely vulnerable in an artillery rich environment.

Since 2001 Russia developed the [Tirada 2](#) electromagnetic system which can disable ground to satellite traffic in specific areas.

Russian military in the near future can get into service systems that can disable enemy communication satellites, an informed Interfax interlocutor in the military-industrial complex said 05 January 2018. "One of the projects is Tirada 2. Development work was started back in 2001," he said. According to him, this complex will be able to disable communication satellites from the ground. "He acts by electronic suppression. This is a multi-million dollar project," he said. The fact that the Russian Federation is working on the creation of weapons to suppress satellites was announced on November 30 last year by Oleg Achasov, deputy head of the Federal State Budgetary Institution "46 Central Scientific Research Institute".

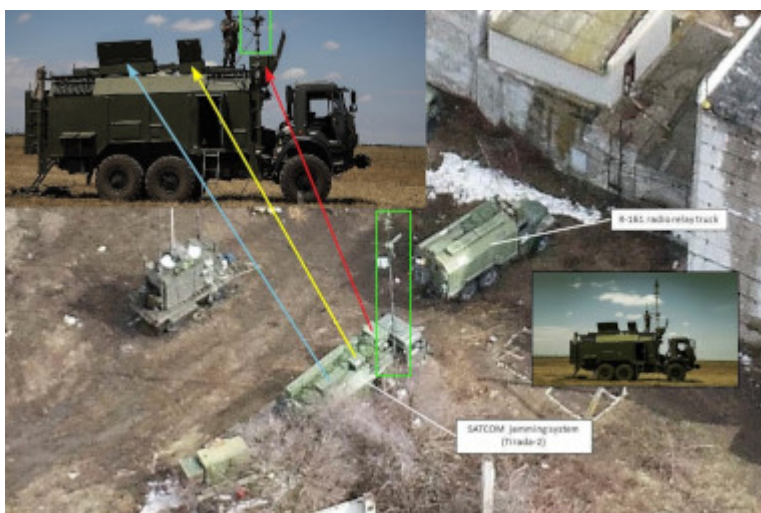
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In November 2018, the FSB called the "threat to national security" a project to cover the globe with high-speed satellite Internet.



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In 2019 an OSCE observer drone took pictures of a Tirada complex in the Donbas region.



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The disablement of the Starlink communication traffic was only a question of time. The traffic had to be analyzed to identify the frequencies and algorithms used by the transmitter and receiver. Software had to be written to implement a matching radio jamming pattern. The hardware of the Tirada system was likely already sufficient to emit the appropriate patterns on the identified frequencies.

As this system has now been proven to be effective in the field it will likely be made available on a wider scale. Russian electronic warfare equipment can already disable all ground radio traffic in specific areas. Soon all frontline communications of the Ukrainian forces will be disabled.

This is catastrophic for Ukrainian operations. Forward observers will no longer be able to correct artillery missions. Platoons and companies at the front will have no way to call for support. Higher command will have no way to coordinate larger operations in real time.