

# Op-ed | Russian aggression underscores need for greater U.S. space leadership

spacenews.com (<https://spacenews.com/op-ed-russian-aggression-underscores-need-for-greater-u-s-space-leadership/>) · by Christian Zur, Scott Kordella · April 4, 2022

With the fracturing of America's longtime civil space partnership with Russia over the war in Ukraine, commercial space companies are adjusting to this new reality, as OneWeb recently experienced first-hand at the Baikonur Cosmodrome in Kazakhstan.

During this period of uncertainty, the space sector should surely abide by the same behaviors as all industries by pulling back from Russian economic participation until events allow for normalization. However, even before invading Ukraine, Russia's commitment to the good of the order was questionable. NASA recently noted there are approximately 25,000 objects tracked on-orbit, of which 6,100 have a perigee below 600 kilometers, which puts them at risk of debris generating collisions with the majority of all operating satellites and human spacecraft. Disturbingly, debris from a November 2021 Russian weapons test has created what Dan Oltrogge of COMSPOC calls "conjunction squalls," which further threaten these systems rotating in the same altitude bands and occasional orbital plane.

In light of Russia's reckless behavior, which even endangered its cosmonauts aboard the International Space Station, the U.S. and European roles in space governance become more imperative. Rocket Lab CEO Peter Beck often remarks, there is a need to ensure the democratization of space and allow all participants, big and small, to have equal access to orbit. Thus, stewardship of the domain is no longer a future responsibility but an urgent one, especially concerning pollution

and potential overuse of low-Earth orbit (LEO). Unfortunately, at present, only three percent of conjunction alerts involve active on active systems, and 67 percent are among inactive or uncontrolled satellites or fragments. Logically, the frequency of impact between these derelict objects increases with each successive collision, thereby creating more debris.

While future LEO environmental remediation will surely occur as technology enables practical solutions, the immediate task is deconfliction. For that to occur, improved tracking and conjunction screening are key. Beyond warning, the complete end-to-end spatial mitigation process will require establishing robust information-sharing procedures that function at the speed of machines. Efforts are proceeding in the right direction, albeit at the pace of government rather than innovation. Not surprisingly, implementation of the 2018 Space Policy Directive 3 (SPD-3), which directed the transition of the monitoring and alert function from SPACECOM's 18th Space Control Squadron to the National Oceanic and Atmospheric Administration (NOAA), has proceeded slowly due to the development of a government-built pilot program in place of relying upon commercially available data services.

Importantly, within the National Space Council (NSpC), the political will exists to back this critical move. Chirag Parikh, who leads the NSpC staff, continues the path set forth by his predecessor, Scott Pace, in seeking to shift this critical function from a military to a civilian role better aligned to support the growth of the commercial space sector. However, progress has been sluggish in large part because Congress stepped in to require a pre-decisional study by the National Academy of Public Administration (NAPA). The final report fully endorsed SPD-3 and the Department of Commerce's role, although Congress authorized only \$10 million in FY2021 to examine options for an open architecture data repository (OADR). While the funding was inadequate to the tasking, Congress well understood these capabilities already reside in the private sector, where companies provide Space Situational Awareness (SSA) services to space operators.

Critically, this notional OADR capability is envisioned to expand far beyond the SPACECOM catalog and include orbital data from all U.S. operators in addition to international commercial and governmental entities. While the OADR is only one of many potential tools to mitigate calamitous collisions in low-Earth orbit, it will allow for future development of rules of conduct for active operators.

No different from all industrial sectors, a mature space economy will depend on predictability and transparency. A robust, accessible tracking database is one small but essential step in that direction. Rather than delay further, federal agencies can leverage commercially available services far beyond the baseline capabilities currently envisioned for the OADR. Such a move to lead the world in SSA would advance U.S. economic and national security interests as the space sector grows during these uncertain times.

*Christian Zur and Scott Kordella are founding members of the newly formed Commercial Space Initiative (CSI), a non-profit organization dedicated to predictable and sustainable uses of outer space.*

## ***Related***

[spacenews.com \(https://spacenews.com/op-ed-russian-aggression-underscores-need-for-greater-u-s-space-leadership/\)](https://spacenews.com/op-ed-russian-aggression-underscores-need-for-greater-u-s-space-leadership/) · by Christian Zur, Scott Kordella · April 4, 2022