



A Space Race, But On Russia's Terms

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In order to maintain its space superiority, the United States currently relies on Russian technology – so much so, in fact, that every once in a while American claims to space superiority seem rather hollow. This state of affairs has been brought into sharp focus in recent weeks.

On August 27, the Kremlin's English-language television channel, Russia Today, reported that the Security Council of the Russian Federation was considering an export ban of the venerable RD-180 rocket engine. This engine is sold exclusively to the U.S. launch firm United Launch Alliance to power its Atlas V rocket. The vehicle is considered by many industry insiders, analysts and casual observers to be the workhorse of the U.S. Launch fleet, and is regularly contracted to lift NASA, National Reconnaissance Office and United States Air Force payloads into orbit.

The Russian decision, therefore, would be potentially disastrous from a national security standpoint. Losing the RD-180 would have a serious effect on the United States' ability to access space, thereby impacting everything from military communications and control to the intelligence and commercial satellites enabling the United States to effectively pursue and protect its interests on the world stage.

For the moment, there is little reason to believe that Moscow's deliberations are serious. There is no demand for the RD-180 domestically. Russia's NPO Energomash, one of their older and more experienced engine design and production houses, currently manufactures the RD-180 purely for export. In other words, demand for the RD-180 comes only from ULA and other American launch firms. For this reason, it is hard to imagine that the export ban will come in to effect. It would make little sense for the Russians to initiate an export ban, as it would be detrimental to NPO Energomash.

The noises out of the Kremlin are nonetheless significant, intended as they are to remind the United States that it maintains its access to space at Russia's pleasure. It's a reminder worth heeding. In the aerospace industry, politics has often trumped cooperation, and this could very well be the case today – a reflection of the sorry state of bilateral ties between Moscow and Washington that prevails currently.

Or it could be more. Putin's Russia has made military modernization an important domestic priority, and the country's space sector looks to be one of the beneficiaries. Earlier this year, Putin pledged nearly \$60 billion for his nation's civil space program. This funding bump is intended to buy Russia a new Cosmodrome, Vostochny, located in Russia's Far East, as well as bring the new Angara rocket to full service, replacing the aging Soyuz. As a result, Russia may soon find itself with a resurgent space program, opening up the possibility for domestic demand for the RD-180 (or similar) engines – demand that would mitigate the effects of NPO Energomash's financial dependence on the American civil, intelligence and military space programs.

The larger issue here is American dependency. Even if the positive spirit of bilateral cooperation in space survives the current, tumultuous state of U.S.-Russian relations, we must consider the fact that Russia is not a stable country. Were the Russian Federation to once more fall in to disarray, as it has in the past, there is no reason to believe the American launch industry would be able to count on the RD-180 any longer.

Thus, for Washington, now reconsidering the feasibility of a real "reset" in relations with Moscow, the suddenly-uncertain future of the RD-180 should provide a wake-up call about the current, sorry state of American space power – and of the dependencies which currently drive it, with deleterious effects for U.S. national security.

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