

## A handshake in space changed US-Russia relations: how long will it last?

July 20 2015, by Monica Grady



Frenemies? Credit: NASA

Exactly 40 years ago, a historic handshake took place between Russian cosmonaut <u>Aleksey Leonov</u> and US astronaut <u>Tom Stafford</u> during a



joint <u>USSR-American docking mission</u>, kicking off a successful collaboration between the two countries in space. That cooperation has lasted, even when relationships on the ground deteriorated. But now that there are more international entrants in the field of space exploration, how firm will the US-Russia bond hold, especially as political tensions rise?

For now, however, US and Russia are working together. Some 400 km above us, the International Space Station (ISS) is orbiting with <a href="mailto:three">three</a> crew members on board: two Russians and one American. Next week, a rocket launched from the Russian launch facility in Baikonur, Kazakhstan, will carry a Japanese astronaut, plus a third Russian and a second American.

The <u>crew of six</u> will work together until just before Christmas, when they will return to Earth. The ISS is a great example of how international relations should work, and is an active manifestation of the <u>Global Space Exploration Strategy</u>, established in 2007. This is a roadmap for robotic and human exploration of space, endorsed by 14 separate space agencies, including NASA, the European Space Agency and the Russian, Japanese and Chinese counterparts.

## From competition to co-dependency

This is a very different picture of <u>space exploration</u> from 50 years ago, when the USA and the USSR were firmly gripped in a Cold War and a space race. In 1965, the USA was lagging behind the Soviet competition. Still smarting from <u>losing out to Sputnik</u> (the first artificial satellite, launched in 1957), Yuri Gagarin (<u>first man in space, 1961</u>) and Valentina Tereshkova (<u>first woman in space, 1963</u>), America focused its efforts on sending a man to the moon.

Part of the drive behind the space race was its mirroring of poor

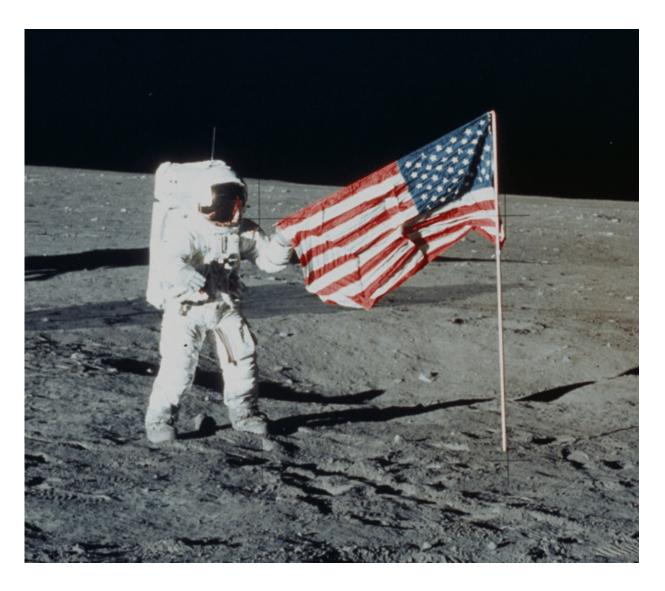


international relations between the US and USSR superpowers. While not actively engaged in direct conflict, the Cold War, the Cuban Missile crisis and war in Vietnam all provided opportunities for tension between the two nations. How, then, did we move from international competition to collaboration?

It only took a decade for matters to change dramatically. By 1975, the US had gained international accolades for the achievements of the Apollo astronauts, and was leading the world in exploration of other planets. In contrast, the USSR had had more limited success with its series of probes to Venus and Mars, and was concentrating much of its efforts on its Salyut programme of Earth orbiters and long duration flights.

Although <u>international relations</u> between the superpowers were still frosty, there was an easing in dialogue brought about by <u>mutual visits</u> by the presidents of each country. Threat of nuclear war was diminished following signing of the <u>Strategic Arms Limitation Treaty</u> (SALT), and trading embargoes were lifted.





Home of the brave. Credit: NASA

The handshake between Stafford and Leonov, televised across the globe, was one of the major symbols of the new détente between America and USSR. It started with a bit of to-ing and fro-ing, a quick eye contact, then a handshake. But the overwhelming significance was where this took place: 230 km above the Earth's surface.

Leonov, the Russian Commander, was an experienced cosmonaut, the



first man to undertake a space walk. Stafford, the US Commander, had been Commander of Apollo 10, which all but landed on the Moon. The two men spoke in Russian and English, and exchanged flags. It meant that, not quite 20 years after it had begun, the <u>space race</u> had officially come to an end and an era of four decades of close collaboration in space would follow.

## Trouble on the horizon?

In the last few years, however, the political situation has been getting more fraught as Russia continues its conflict with Ukraine. While scientists are hoping this won't affect the space exploration relationship, this is not something that can be taken for granted. In response to sanctions from the US, Russia's deputy prime minister Dmitry Rogozin said in 2014 that the country would reject a US request to extend the use of the ISS beyond 2020.

In February this year, however, Russia agreed to remain part of the ISS until 2024, <u>before setting up its own space station</u>. But just a month later, Russian sources reported that <u>Russia and the US had made plans to build a new joint space station</u> after the ISS – something that <u>the US never confirmed</u>.

Exactly what is going to happen is hard to say but the stakes are high. Although the ISS is an international facility, it is reliant on the Russian Soyuz system to deliver and collect astronauts. Russia, however, has suffered a series of launch failures in recent years, prompting concerns that its space industry may be struggling At the same time, the end of NASA's Space Shuttle Programme, and delay of its successor, the Orion Crewed Vehicle, has meant that the US no longer has the capacity to launch people into space.

However one development that could put an end to these uncertainties is



the rise of <u>private companies</u> involved in space exploration. Commercial companies have already been <u>awarded contracts</u> to supply the ISS – but not (yet) to carry astronauts.

Another significant change in recent years are the new entries into the human spaceflight business: ESA has had an astronaut training programme for many years, and is a major partner in the ISS. But it, too, is dependent on Russia for astronaut transport.

While it is hoped that the US and Russia continue their successful partnership in space, they are eventually going to have to make room for several other players. The biggest new independent player at the table is China, rapidly making great strides in progress, following the successful launch of the first 'taikonaut' in 2003.

In the same way that, in the past USSR kept many of its space technology developments (and failures) secret, China tends not to announce its plans ahead of the game, so it is possible that China might be building the capacity to establish a more permanent base in orbit around the Earth. As of now, because of security concerns, NASA researchers are not allowed to work with Chinese citizens affiliated with a Chinese state organisation. This has prevented Chinese astronauts visiting the ISS, and is regretted.

In recent years, despite political upheavals, changes in administrations and re-alignment of national space priorities, there has been a great deal of international good will towards the ISS. This is as much because of what it stands for, as what it does. The ISS is a clear representation that human spaceflight has to be co-operative and that no single nation can go it alone.

As larger numbers of countries become involved in <u>space</u> exploration, the ISS, representing as it does the "final frontier", could act as a buffer



zone from international politics, where confrontation once again gives way before handshakes between colleagues.

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