A modern space race

The next generation

Private businesses and rising powers are replacing the code-war duopoly

Some 4,500 satellites circle Earth, providing communications services and navigational tools, monitoring weather, observing the universe, spying and doing more besides. Getting them there was once the business of the superpowers’ armed forces and space agencies. Now it is mostly done by companies and the governments of developing countries

During the early years of the space race reaching orbit was hard. Between 1957 and 1962, 32% of American launches and 30% of Soviet ones failed. Accidents still happen: on October 11th a Russian rocket aborted its ascent shortly after launch (both crew members landed unharmed). Only states could assume such risks—and even if American firms had wanted to bear them, its government would not let them on national-security grounds. Companies eager to send objects into space, including telecoms firms, had to hitch a ride with NASA.

This changed when European countries started building launchers through a mostly state-owned company called Arianespace, which touted for custom among satellite-makers around the world. When the space shuttle Challenger exploded in 1986, NASA got out of the satellite-launching business. It and, later, the Pentagon became new customers for private launch firms, alongside the satellite operators.

In the past decade the West’s space-launch market has become more competitive thanks to an innovative new entrant, SpaceX. But state-run programmes still lead the way in emerging markets. In 2003 China became the third country to put a person into orbit; India plans to follow suit in 2022. Both sell launch services to private clients. China did legalise private space flight in 2014, but no companies based there have yet reached orbit on their own.

Like their cold-war predecessors, these Asian titans have strategic goals as well as a thirst for publicity. They need independent access to space for communication, intelligence and navigation. However commercialised space gets, the competition will never be solely economic.

duopoly n.两强争霸的局面 innovative adj.创新的，革新的

satellites n.卫星 entrant n.参加者，新加入的

monitor n/v.监测，监控 predecessor n.前任，前辈

spy n.间谍，间谍活动 strategic adj.战略性的

abort v/n.流产，失败 commercialised adj.商业化的

ascent n.上坡，上升

crew n.全体船员（乘务员）

chew n/v.咀嚼

unharmed adj.为受伤的

assume v.承担，假定，设想

hitch v/n.猛拉，勾住

tout n/v.兜售，招徕

shuttle n/v.航天飞机，梭子，穿梭式的运送