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WAR IN SPACE: STRATEGY, SPACEPOWER, GEOPOLITICS

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Argument

- Spacepower in the international system is increasingly multipolar

- Space dominance cannot be assumed; only a useful concept/aspiration in wartime

- Spacepower is in a *necessary* supporting role in war

- Wars may or may not begin in space; may not be decided there either

- Space powers on Earth are like continental sea powers; operating in a cosmic coastal region

- EU becoming a 'hard' spacepower, a military-grade backbone

- Small states have forum shopping opportunities

- EU-ESA 2020s – watch this space!

What is spacepower?

'Spacepower refers to a diverse collection of activities and technologies in space or to do with outer space; it is a concept defined by how any actor can use outer space and what it possesses or can effectively call upon to enable it to do so…

'Spacepower – a range of space technologies and activities in space – can be deployed and sought by states for the purposes of war, development, and prestige.'

A conceptual equivalent to seapower and airpower.

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A Second Space Age?
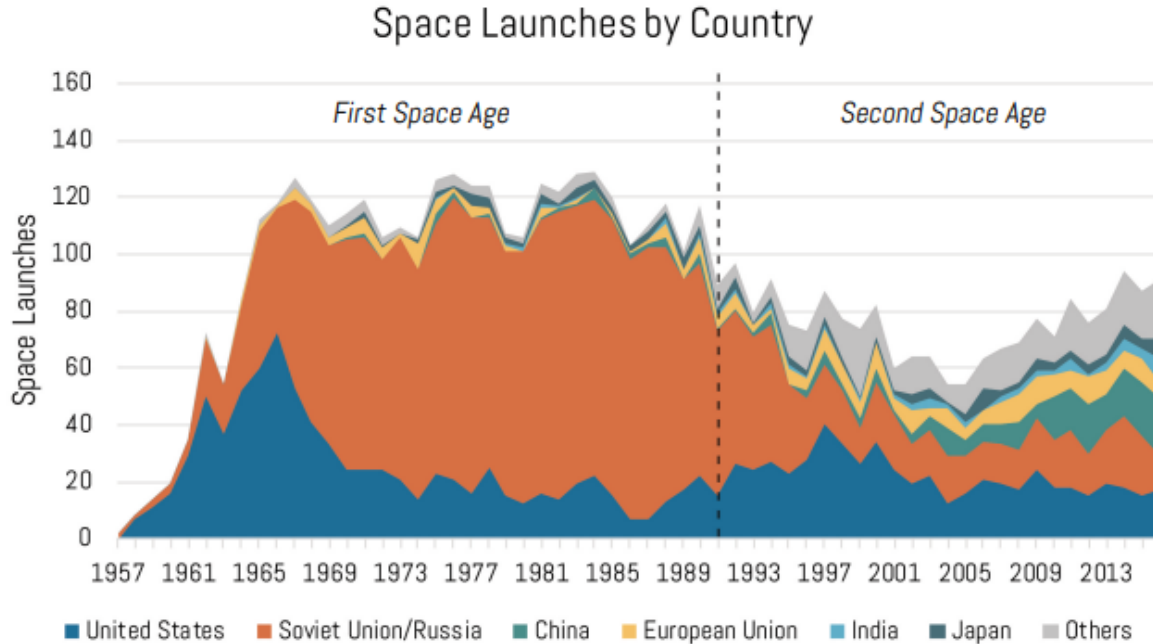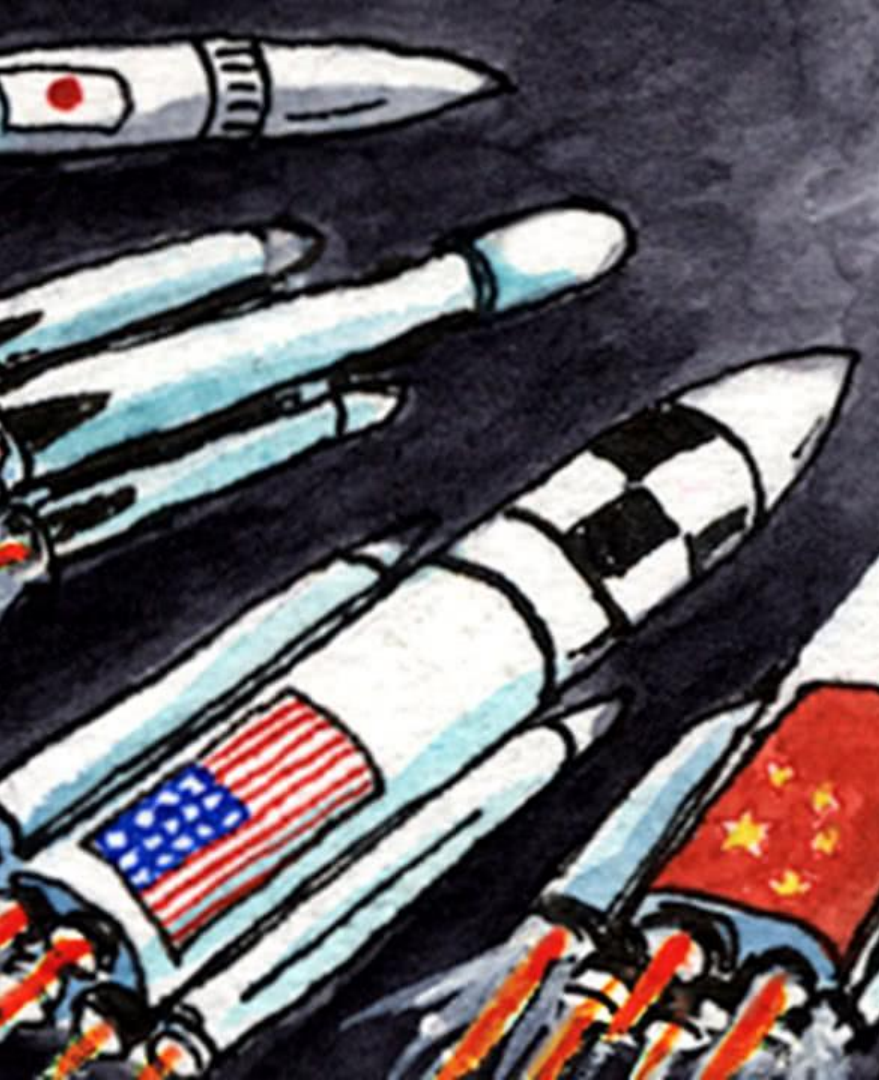

Space Launches by Country

Figure 1: Space Launches by Country. This figure describes the total number of space launches completed per year for the United States, the Soviet Union and Russia, China, the European Union, India, Japan, and all other nations combined. For more information, refer to Appendix A. Source: Space-Track.org.

CSIS, *Escalation and Deterrence in the Second Space Age*

MULTIPOLARITY

- Multiple space powers are developing strategically vital space capabilities as well as attracting or developing commercial companies and economic capabilities in space.

- They have been doing so *for decades*.

- The state is still essential in space, despite 'New Space' hype

- How to measure space power?

The Distribution of Spacepower

- Total number of operating satellites: 2,218

- United States: 1,007

- Russia: 164

- China: 323

- Other: 724

- UCS Satellite Database, **January 2020**

- **Bold: fundamental space capabilities which are not highly proliferated**

- Crewed spaceflight: 3 (PRC, RF, USA)

- **Hard-kill ASAT states: 4** (US, RF, PRC, IND)

- **GNSS states: 4** (US, RF, PRC, EU)

- **PNT states: GNSS 4 + 3** (JPN, IND, AUS)

- **Heavy lift GEO launcher states: 4** (US, RF, PRC, EU)

- **Launcher states: 9**

- **States with >20 Mil/Int/Gov satellites: 6 (including EU/ESA)**

- MILSATCOM, EO states: Many

- Commercial SATCOM and EO holdings: Many but US-centric

- SSA contributing states: Many

- Soft-kill ASAT states: Many

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Power and the international system

- Where does the current balance of power lie?

- Thermonuclear revolution and spacepower proliferation

- Where there is power, there is resistance (Foucault)

- Space warfare is the continuation of Terran politics by other means

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'Power is indivisible; and the military and economic weapons are merely different instruments of [political] power.' - EH Carr, *The Twenty Years' Crisis*

Space and the influence of history

- Will the next major war begin in space?

- Will wars be decided by what happens in space?

- What will space warfare look like?

- What difference will space warfare make to that on Earth?

'Let us be masters of the [the English Channel] for six hours and we shall be masters of the world.'

'he who controls low-Earth orbit controls near-Earth space. Who controls near-Earth space dominates Terra. Who dominates Terra determines the destiny of humankind'

'The aerial field becomes decisive if and when the Air Force can defeat the enemy.'

'Whoever controls space, controls the world.'

'Control of space will be decided in the next decade. If the Soviets control space they can control earth, as in past centuries the nation that controlled the seas has dominated the continents.'

A new spacepower theory

I.   Space warfare is waged for the command of space

II. Spacepower is uniquely infrastructural and connected to Earth

III. The command of space does not equate to the command of Earth

IV. The command of space manipulates celestial lines of communication

V.   Earth orbit is a cosmic coastline suited for strategic manoeuvres

VI. Spacepower exists within a geocentric mindset

VII. Spacepower is dispersed and imposes dispersion on Earth

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EU-ESA-NATO

- EU becoming a significant hard power actor in space
  - Galileo, Copernicus, GOVSATCOM, MUSIS, SST
- NATO has no direct assets, coordinating role instead
- ESA separate to EU, but EU is biggest single contributor to ESA revenues
- EU space programme 2021-2027 may enhance the role of a new 'EU Agency for the Space Programme'
- ESA concerned about an EU space agency since Maastricht

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SO WHAT? SMALL STATES IN SPACE

- More potential for forum-shopping than ever before

- Incrementally decreased cost of access (IT miniaturisation) brings more space activities within smaller budgets

- Industry, commerce, applications

- Exploration, science

- Larger alliances provide enabling space infrastructure

- Military counter-space measures and adaptations

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Summing up

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'Even with only a cursory glance at space history, it is very much a multinational one, if not multipolar, when considering the spread of new strategic technologies and the pursuit of industrial modernisation.'

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Thank you!

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