

# Responding to The Changing Nature of Space Actors

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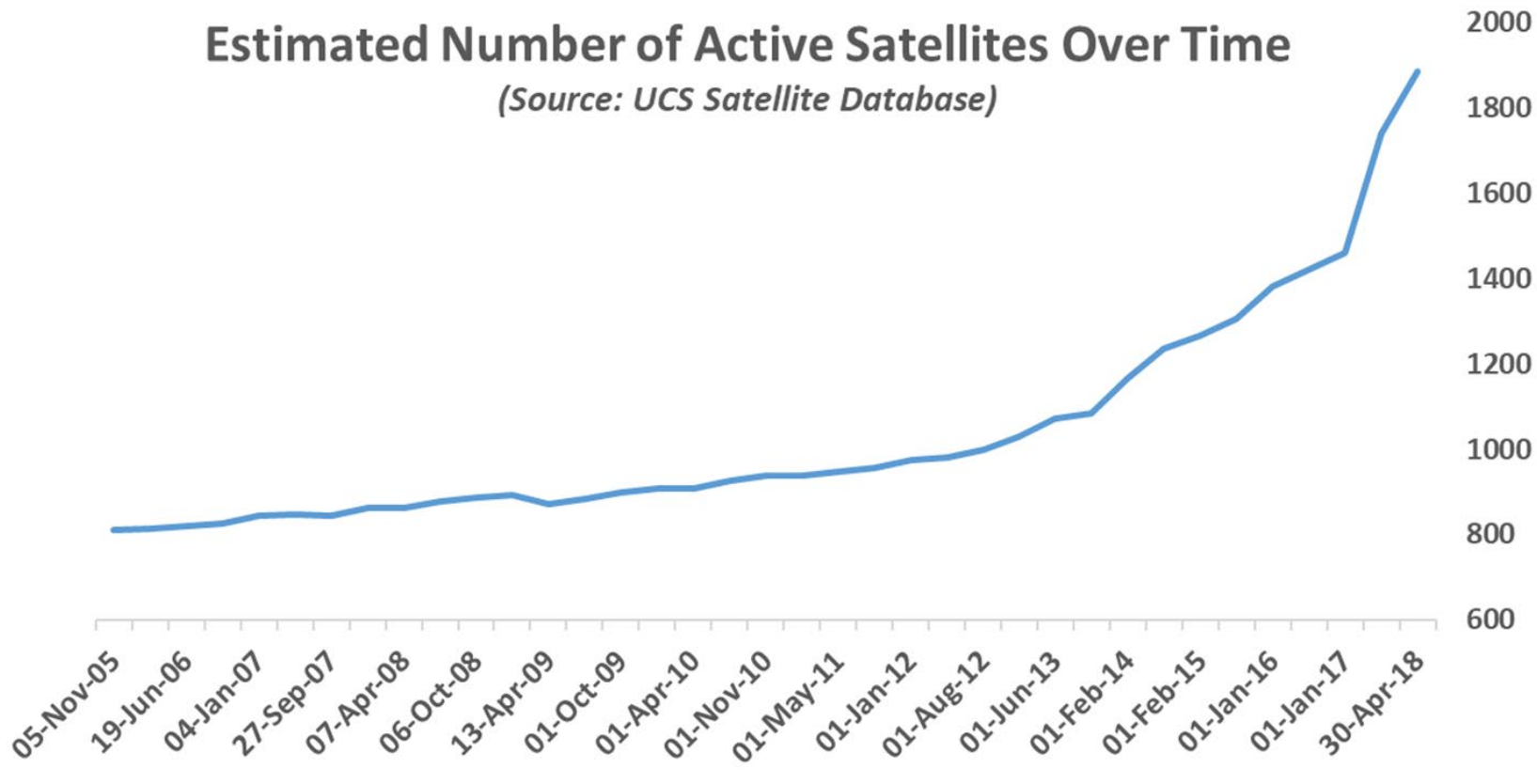
Secure World Foundation

# Which Side of the Escalator?

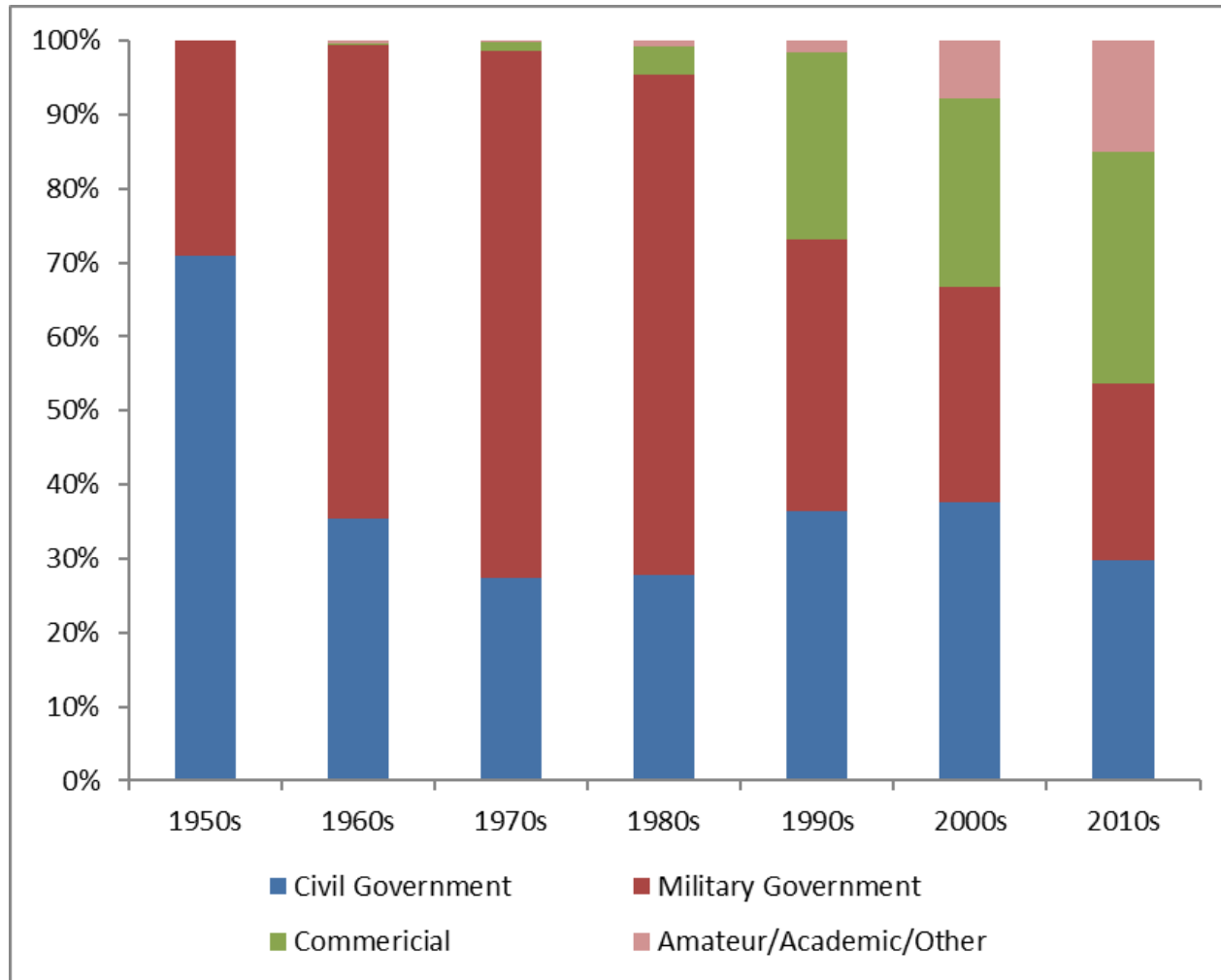


# A Fundamental Change?

**Estimated Number of Active Satellites Over Time**  
*(Source: UCS Satellite Database)*



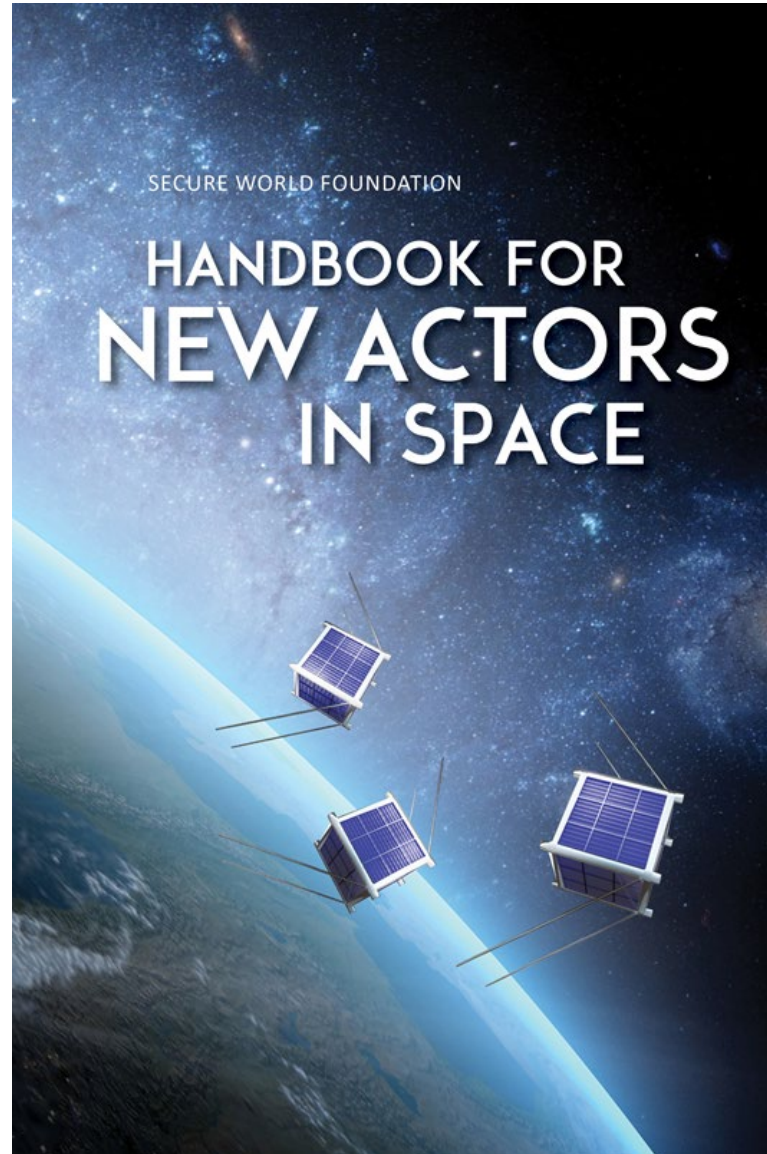
# A Private Sector Driven Domain



**Share of Satellites Launched per Decade, by Operator Type**

Source: McDowell, Jonathan C, 2017—*Satellite Statistics*  
[http://www.planet4589.org/space/log/stats2/own\\_categ.txt](http://www.planet4589.org/space/log/stats2/own_categ.txt)

# Knowledge of Existing Practice



# Approaches to Novel Applications



NISHIMURA  
& ASAHI



UNIVERSIDADE  
CATÓLICA  
DE SANTOS



# Approaches to Novel Applications

## CONFERS Objectives



- Independent, self-sustaining industry forum to advocate and promote on-orbit satellite maintenance, servicing, and rendezvous operations
- Collaborate to research, develop, and publish voluntary, consensus technical and safety standards
- Engage with governments on policy and oversight of satellite servicing activities
- Open to participation by private sector stakeholders in the international satellite servicing community
- Initially supported by DARPA, CONFERS intends to transition to full private-sector funding over a period of several years

# Principles and Guidelines



The United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) in June 2018 agreed to 21 Long-Term Sustainability (LTS) of Outer Space Activities



Leading efforts to develop *Best Practices for Sustainable Space Activities* document: “a consensus-based best practice guidelines focused on preserving sustainability for the various commercial, and other peaceful, uses of space”



Forthcoming *Space Sustainability Rating* announced at IAC 2018



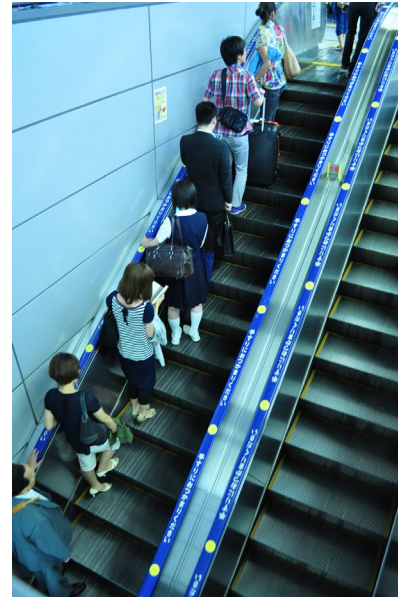
# Norms of Behavior

Osaka



Historically –  
stand on right,  
walk on left

Tokyo



Historically –  
stand on left,  
walk on right

**How governments and the private sector can work together to ensure sustainability of the domain.**