Novel and Important Signals to Watch: Threats and Opportunities

• States are investing in dual-use AI technologies
  - States increasingly recognize the strategic value of a competitive AI ecosystem. Euractiv; Deutsche Welle; Quartz
  - As public interest and investment in private-sector R&D picks up, normative differences define national growth & innovation strategies. Stratfor; Sinopsis
  - What does an EU approach that fosters AI innovation while protecting core values look like?

• Espionage is driving technological convergence between states
  - Various states engage in the theft of technologies with dual-use attributes, often with an eye towards furthering civil-military integration. Quartz; IISS; China Digital Times (1)
  - Rapid capability development in some states can be partially attributed to the theft and/or emulation foreign inventions. CSIS; Maritime Executive; China Digital Times (2)
  - Does the EU’s market entry assessment framework sufficiently correct for corporations’ role in state espionage?

• The space race is on, as nuclear weapons make their return
  - Space is militarized, with a growing number of states launching military assets into orbit. The Drive; Quartz; The Diplomat
  - States are aggressively updating their nuclear capabilities by procuring ‘tactical’ nukes, introducing nuclear-capable hypersonic missiles and investing in Theatre Missile Defense (TMD). CFR; War is Boring; The National Interest; CSIS
  - Does European strategic autonomy entail a European nuclear capability?

• Strategic rivalry is on the rise in Africa
  - Several countries have constructed, or are planning to construct, military infrastructure on the continent. SWP; CrisisGroup (1); Quartz
  - Rivalry is not limited to great power competition; middle powers are increasingly active, especially within the Horn of Africa. CrisisGroup (2)
  - Does the Netherlands’ conditional involvement on the continent put it at a strategic or political disadvantage vis-a-vis the US and China?

• Climate change opens the door to the strategic use of geo-engineering
  - Countries can weaponize geo-engineering under the veil of addressing climate change. RSIS; Climate Home News
  - Low entry barriers raise the risk of a ‘tug-of-war’ in (counter-)geo-engineering. Guardian; AAG; Earth’s Future; Harvard
  - How can Europe and the Netherlands prepare for the military implications of geo-engineering?
### Long-Term Trends: Interstate Military Competition

Multi-factor Trend Assessment (10-year timespan)

<table>
<thead>
<tr>
<th>Trends</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>Perceptions of Military Competitions in Defense Strategy Documents</td>
</tr>
<tr>
<td></td>
<td>Negative Military Rhetorical Assertiveness</td>
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<tr>
<td>Capacity</td>
<td>Military Spending</td>
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<td>Defense R&amp;D and Procurement</td>
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<tr>
<td>Activity*</td>
<td>Interstate Wars</td>
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<td></td>
<td>Violent Crises</td>
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<td></td>
<td>Internationalized Intrastate Conflicts</td>
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</tbody>
</table>

*▲ Increase  ▼ Decrease  ● Increase threat  ■ Decrease threat*

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*While not military in nature, hybrid conflict - a fusion of different political, military economic/financial, social and information means combined with conventional, irregular and disruptive/criminal methods to achieve political objectives - may in the future become a new reality of military competition. We are in the process of developing a metric to assess hybrid conflict.*
Novel and Important Signals to Watch: The International Order

- International actors are beginning to acknowledge the importance of regulating space
  - Space is both strategically and commercially important; public and private sector entities alike could initiate future conflicts. [UN; POLITICO](https://www.politico.com)
  - As access to space becomes more financially viable, there is widespread concern that current legislation inadequately limits entities’ agency within it. [The Strategist](https://www.thestrategist.com)

- Initiatives to regulate (military) AI internationally are gaining traction
  - Disagreement remains on the definition of [LAWS](https://www.globaltradelegislation.org), even as countries express concerns over these technologies’ likely contribution to conflict risk. [Euractiv; The Verge](https://www.euractiv.com)
  - Much of suggested international regulation comes from Western countries, and typically assumes the US’ continued position as an innovation leader. [Global Trade Law](https://www.globaltradelaw.com)

- The international nuclear non-proliferation regime faces erosion
  - Continued modernization of nuclear arsenals negatively impacts the salience of existing regulation. [The War Zone; The Conversation](https://www.thewarzone.com)
  - Existing structures encouraging non-use of nuclear weapons are upset as a result of increasing asymmetry between states’ nuclear capabilities. [NPR](https://www.npr.org)

- The active promotion of alternative governance models is challenging the liberal world order
  - States are more often linking technological (including military) and ideological exports. [The Drive; Times of India; DefenseNews](https://www.thedrive.com)
  - Alliance formation and dispute resolution efforts are increasingly progressing without the involvement of Western liberal democracies. [Times of India; ASPI; Deutsche Welle; Brookings](https://www.timesofindia.indiatimes.com)

- Civilian-sector entities are circumventing international law in service of state interests
  - State-linked private sector entities are actively engaging in espionage, blurring the line between corporate and state espionage. [Quartz; BBC; Bloomberg; CSIS](https://www.bbc.com)
  - Private entities’ role in spearheading efforts at state espionage complicates prosecution under international law. [Lawfare](https://www.lawfare.in)
  - Does state reliance on civilian-sector entities for strategic objectives expand European regulators’ toolkits?
## Long-Term Trends: Development of the International Order
### Multi-year Regime Analysis (10-year timespan)

<table>
<thead>
<tr>
<th>Norms</th>
<th>Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>States ought not to use or develop nuclear weapons</td>
<td>The degree to which states comply with international law as codified in treaty and/or customary and/or domestic law in the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Intermediate-range Nuclear Forces (INF) Treaty, UN Chapter VII Resolutions 1540 and 1977, the New Strategic Arms Reduction Treaty (New START), US and Russia.</td>
</tr>
<tr>
<td>States ought to adhere to conventional arms control regimes</td>
<td>The degree to which states comply with regimes such as the Nuclear Suppliers Group, the Zangger Committee, the International Atomic Energy Agency (IAEA), UN Sanctions Resolution 1540.</td>
</tr>
<tr>
<td>States ought not to engage in threatening behavior</td>
<td>The degree to which states comply with International law such as set out in the Protocol I to the Geneva Conventions of 1977 Art. 39, the Open Skies Treaty, the Treaty on Conventional Armed Forces in Europe (CFE), the Arms Trade Treaty, Vienna Documents, Missile Technology Control Regime (MTCR), the UN Register of Conventional Arms (UNRCA), and Guiding Principles by the 2018 Group of Governmental Experts on Lethal Autonomous Weapons (LAW).</td>
</tr>
<tr>
<td>States ought to respect territorial sovereignty and inviolability</td>
<td>The degree to which states comply with Art. 2(4) of the UN Charter, in which states have agreed to refrain from threat or use of force.</td>
</tr>
<tr>
<td>States ought not to develop chemical or biological weapons</td>
<td>The degree to which states comply with not only Art. 2(4) of the UN Charter, but also with the articles pertaining to lawful intervention as can be declared by the UN Security Council (in compliance with – among others (but first and foremost) – Arts. 1, 39, 51, as well as states’ compliance with agreements such as the (non-binding) Helsinki Final Act.</td>
</tr>
</tbody>
</table>

### Trend
- ▲ Increase
- ▼ Decrease
- ■ Increase threat
- △ Stable

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For a general methodological justification of horizon-scanning click [here](#) and for the methodology document specific to IMC click [here](#).

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