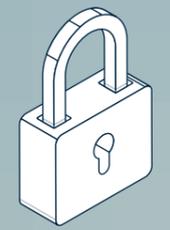


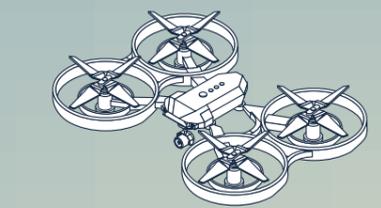
# Five modes of grey zone

## Deniable attacks



**Scenario: Cyber-attack on utilities**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Manual pen testing</li> <li>- Dependence on national grid</li> <li>- Dependence on mobile networks</li> </ul>	<ul style="list-style-type: none"> <li>- Machine learning driven pen testing</li> <li>- Standalone power generation and storage</li> <li>- Encrypted push to talk handsets</li> </ul>



**Scenario: Drones shut down airport**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Eyewitness reports</li> <li>- Hard kill measures (nets and projectiles)</li> </ul>	<ul style="list-style-type: none"> <li>- 3D radar for early detection</li> <li>- Directed RF counter drone system</li> </ul>

**Scenario: EM attack on bank**

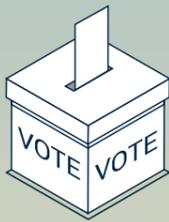
EMP

Existing	Adapted
<ul style="list-style-type: none"> <li>- GNSS clocks</li> <li>- Manual identification of attack</li> </ul>	<ul style="list-style-type: none"> <li>- Atomic clocks</li> <li>- EM detection system</li> </ul>

**Scenario: Assassination by poisoning**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Disparate information shared</li> <li>- Manual CCTV monitoring</li> </ul>	<ul style="list-style-type: none"> <li>- Disparate information fused</li> <li>- Smart sensing and AI-driven CCTV review</li> </ul>

## Information operations



**Scenario: Foreign electoral intervention**

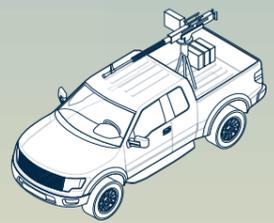
Existing	Adapted
<ul style="list-style-type: none"> <li>- Manual fact checking to identify disinformation</li> </ul>	<ul style="list-style-type: none"> <li>- Human-machine teaming to identify disinformation</li> </ul>



**Scenario: False text messages**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Unsecured personal devices</li> <li>- 4G networks</li> </ul>	<ul style="list-style-type: none"> <li>- Secure handsets</li> </ul>

## Use of proxy forces



**Scenario: Proxy fighting force enters city**

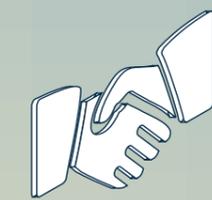
Existing	Adapted
<ul style="list-style-type: none"> <li>- Drones for visual surveillance</li> <li>- Detectable explosives to disable comms</li> </ul>	<ul style="list-style-type: none"> <li>- Drones for signals intelligence</li> <li>- Undetectable directed energy weapons to disable comms</li> </ul>



**Scenario: Terrorist attack on office**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Manual web monitoring</li> <li>- Armed response teams for hostage situations</li> </ul>	<ul style="list-style-type: none"> <li>- AI-based web monitoring</li> <li>- Novel covert weapons to reduce risk to hostages</li> </ul>

## Economic coercion



**Scenario: Adversary purchases and turns off oil refinery**

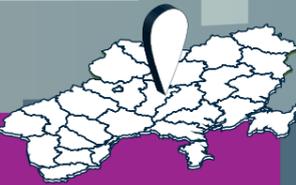
Existing	Adapted
<ul style="list-style-type: none"> <li>- Military force employed to seize control</li> </ul>	<ul style="list-style-type: none"> <li>- Capability overmatch deters adversary from initial purchase</li> </ul>

## Territorial encroachment



**Scenario: Adversary seizes sea lane**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Radar tracking of vessels in area</li> <li>- Manned patrol vessels conduct reconnaissance</li> </ul>	<ul style="list-style-type: none"> <li>- UAV signals intelligence to assess vessels' intent</li> <li>- Covert unmanned vehicles operated at standoff distance</li> </ul>



**Scenario: Annexation of sovereign territory**

Existing	Adapted
<ul style="list-style-type: none"> <li>- Few signals intelligence sources</li> <li>- Destroy enemy infrastructure using explosives or projectiles</li> </ul>	<ul style="list-style-type: none"> <li>- Multiple intelligence sources fuse data to build tactical picture</li> <li>- Covert disabling of enemy infrastructure using directed energy weapons handsets</li> </ul>