Creating the prerequisites to win

Deception is a state of mind

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The challenge



All warfare is based on deception

⁶⁶ Hence;

If you are capable, show incapability If you have resources, show shortage If you are close, show distance If you are distant, show presence If the enemy is greedy, tempt him If the enemy is in disorder, attack him If the enemy is stable, prepare for him If the enemy is strong, avoid him If the enemy is strong, avoid him If the enemy is veek, dominate him If the enemy is resting, disturb him If the enemy is gathered, divide him Attack him where he is least prepared Appear where he doesn't expect you to

– Sun Tzu, The Art of War

兵者, 诡道也。 故能而示之不能, 用而示之不用, 近而示之远, 远而示之近。 利而诱之, 乱而取之, 实而备之,强而避之, 怒而挠之, 卑而骄之, 伏而劳之, 亲而离之, 攻其无备, 出其不意。 此兵家之胜, 不可先传也。 夫未战而庙算胜者,得算多也; 未战而庙算不胜者, 得算少也。多算胜少算, 而况于无算乎!吾以此观之, 胜负见矣。





What is Deception?

DECEPTION

Conscious active and passive measures taken in order to give the enemy the wrong decision stimuli to make the opponent use their recourses in vain or take imprecise actions.

ACTIVE DECEPTION

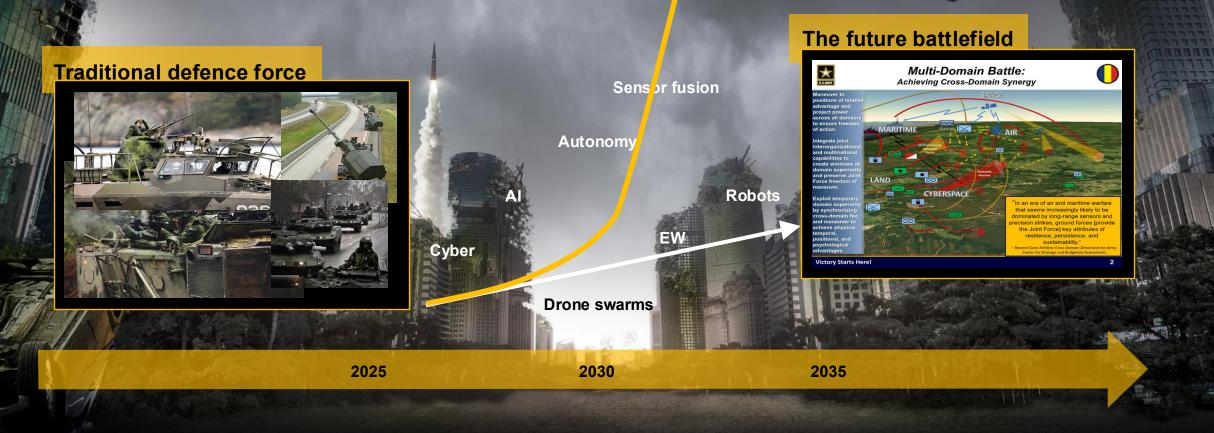
Exemplified by Decoys and False activities

> PASSIVE DECEPTION Exemplified by Signature lanagement and consealment



Transformation of the battlefield

Development is exponential – most things happen sooner rather than later.





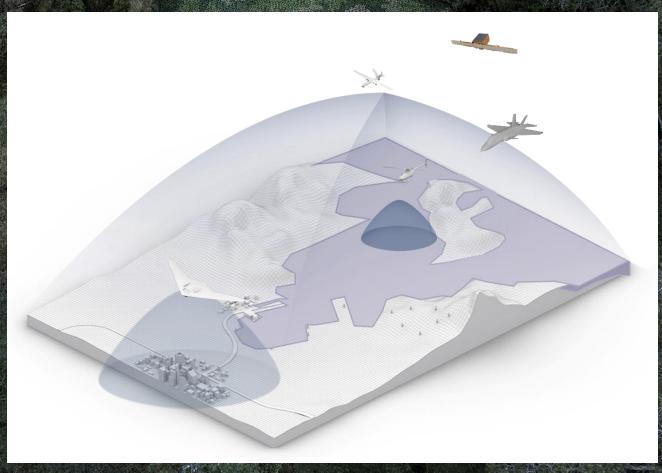
The observed and transparent battlefield

Satellites with high resolution EO&SAR, GOV and Commercial

High-altitude, fixed-wing UAVs with EO & SAR-sensors, AEW-C, Airplanes

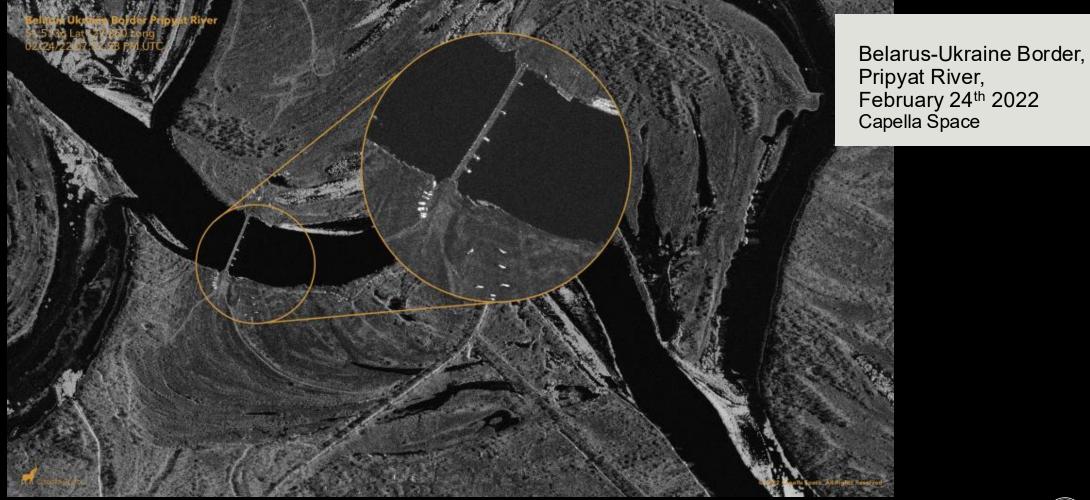
Medium-range, fixed-wing UAVs with EO- & SAR-sensors, Helicopters

Rotary-wing UAVs with EO & (SAR)-sensors



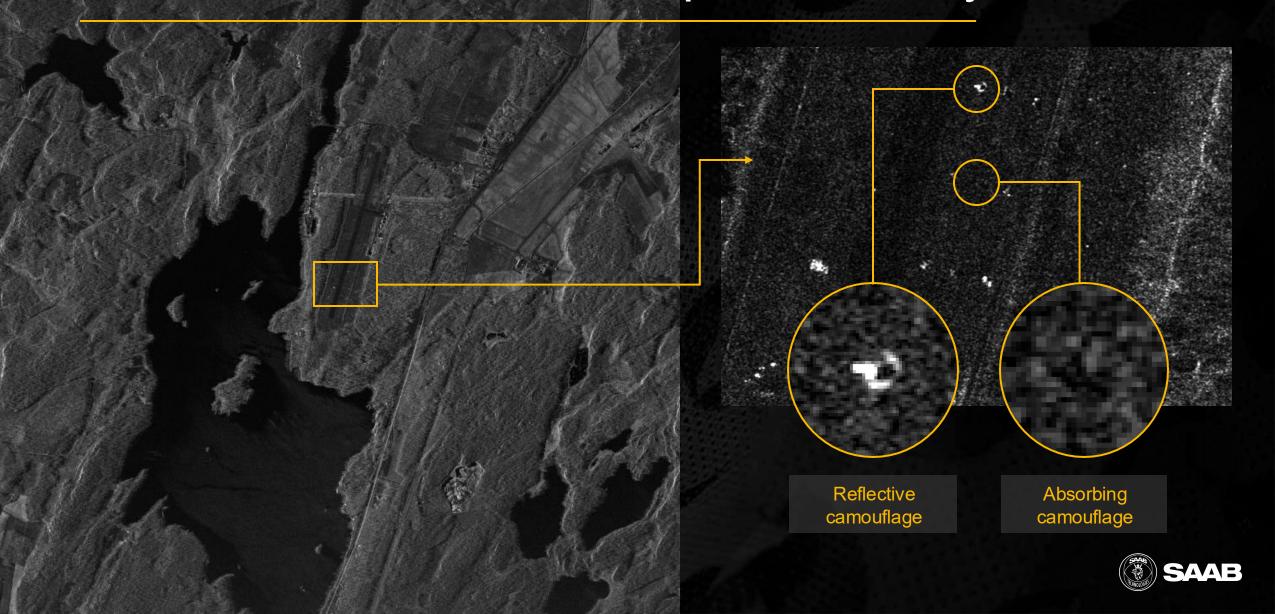


Radar surveillance from space – Yesterday





Radar surveillance from space – today



Recent experiences from High-Intensity conflicts

- Increased vertical threat
- 75-85% of casualties are from long-range fire (surface-to-surface, air-to-surface, sea-to-surface)
- Sensor-enabled kill-chains
- Sensor fusion Al
- Most detected targets are engaged
- All emissions (IR, radio, radar, mobile phone) are positioned





System-of-systems approach

Technology doctrine:

- Deception is theatre-coherent
- Multispectral/passive/absorbing
- Active and Passive capability



A decoy needs to give multispectral emissions and reflections





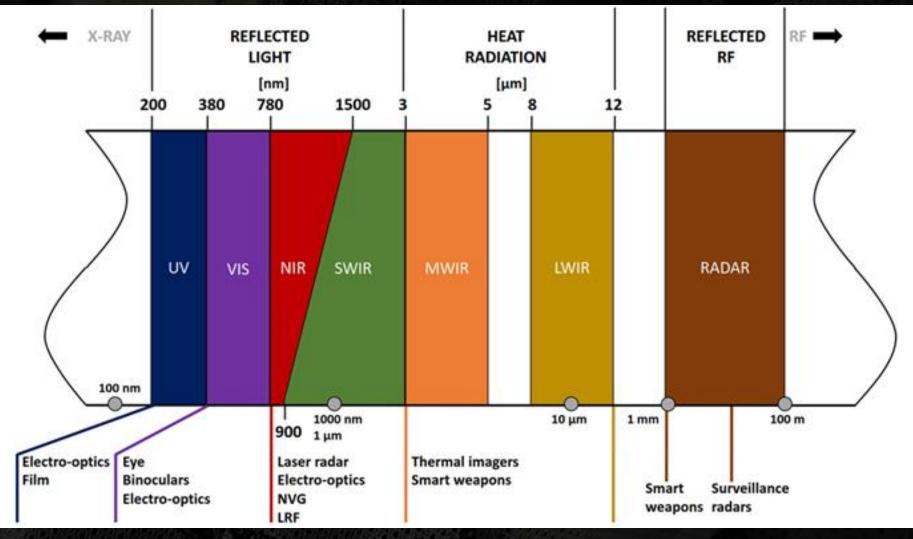
Examples from the Barracuda product portfolio



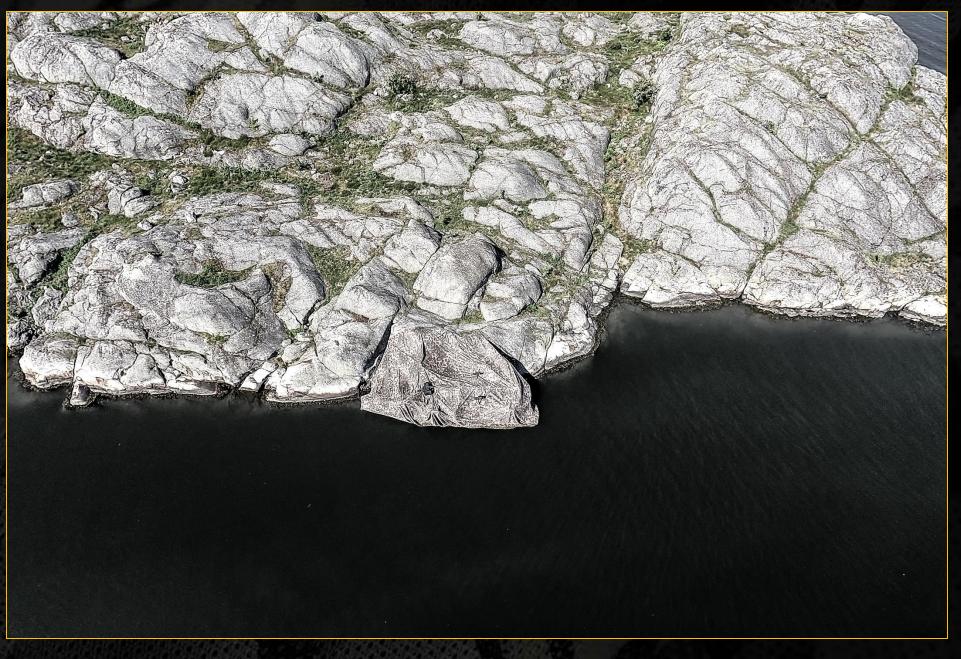




System-of-systems approach













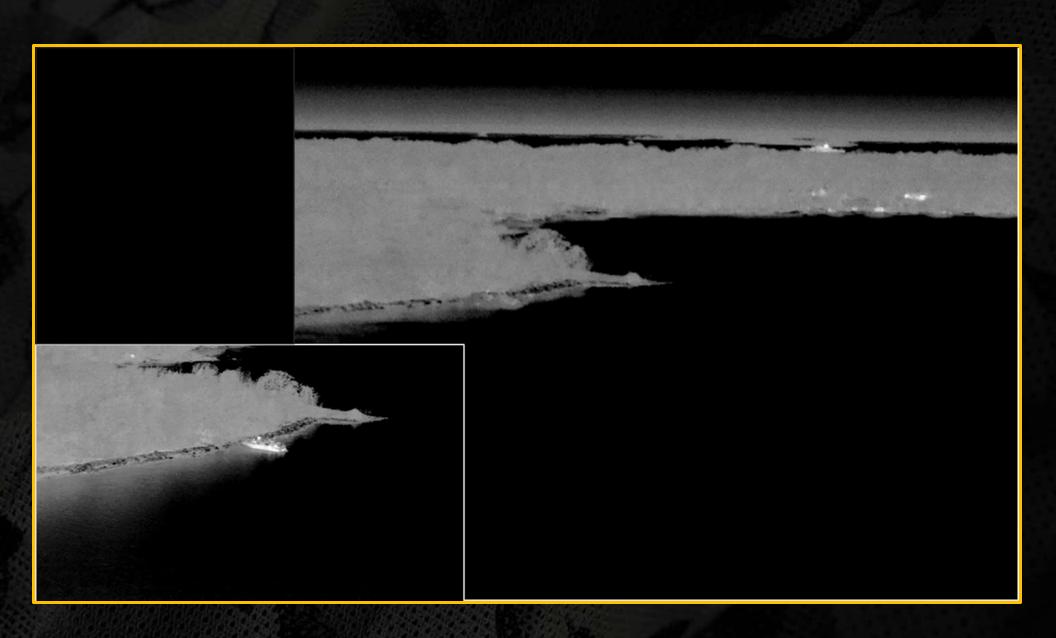






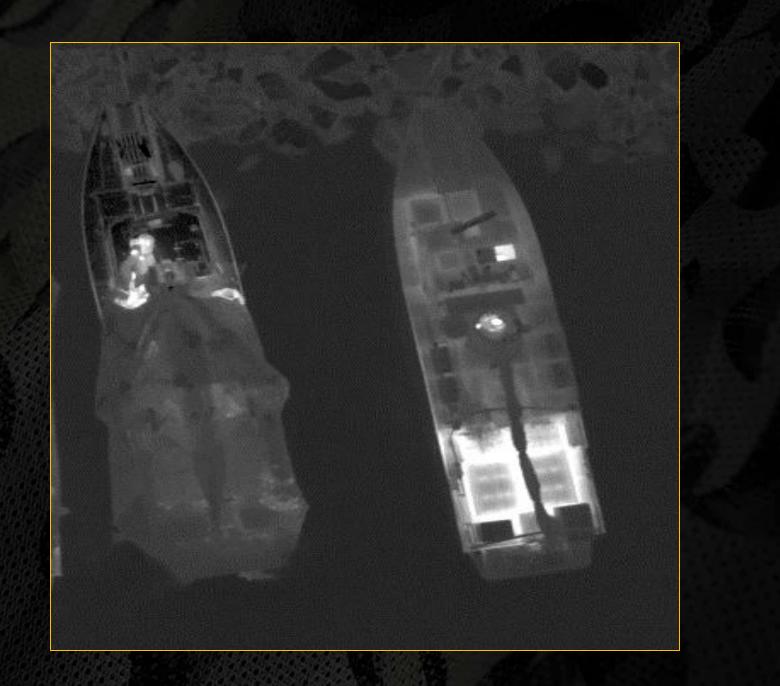


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Radar, SAR





Questions?

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