



UKRAINE V. RUSSIA

War in 3-D

A MESSAGE FROM ANONYMOUS

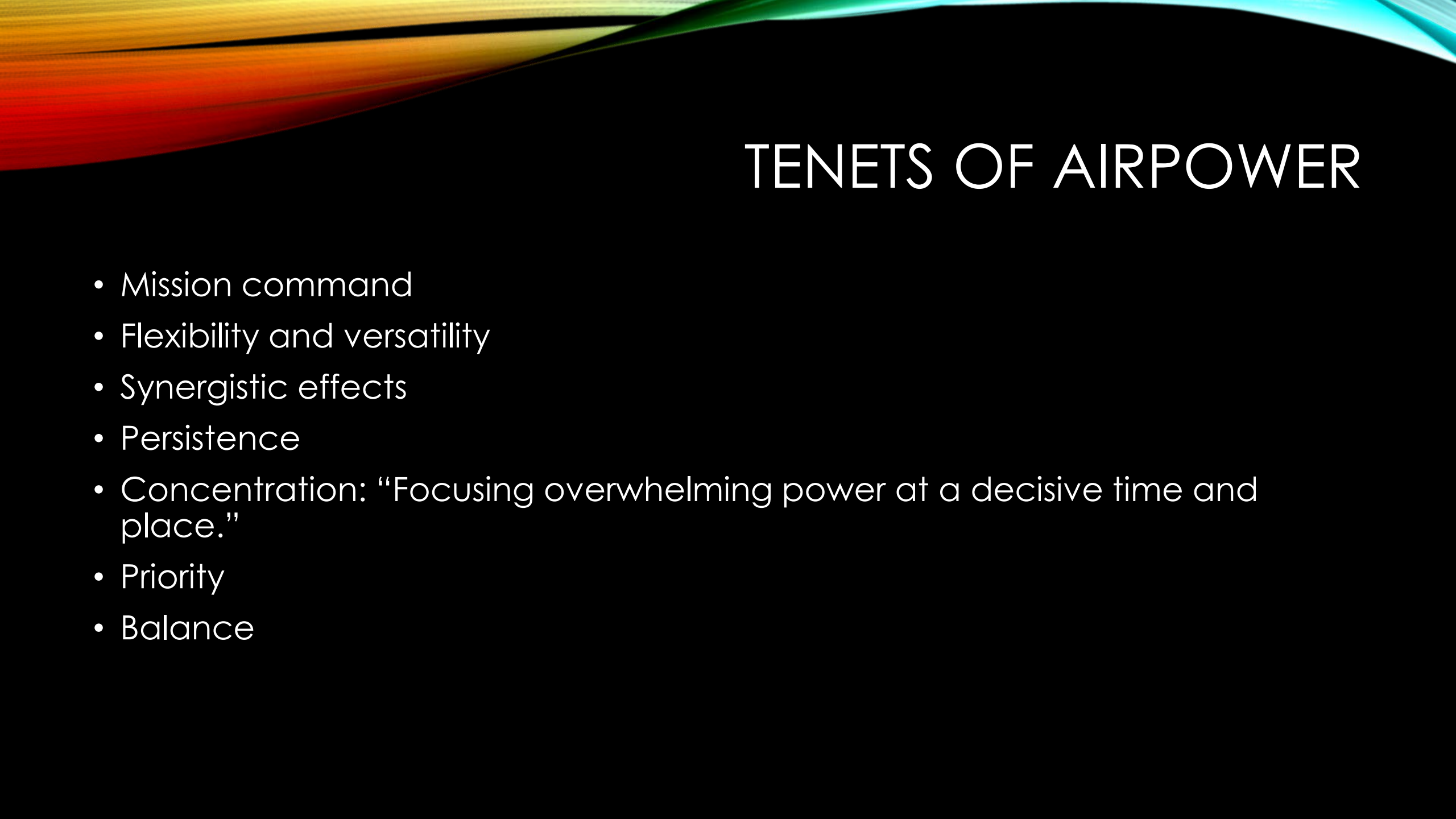
Operation Russia



Defend Ukraine

OVERVIEW

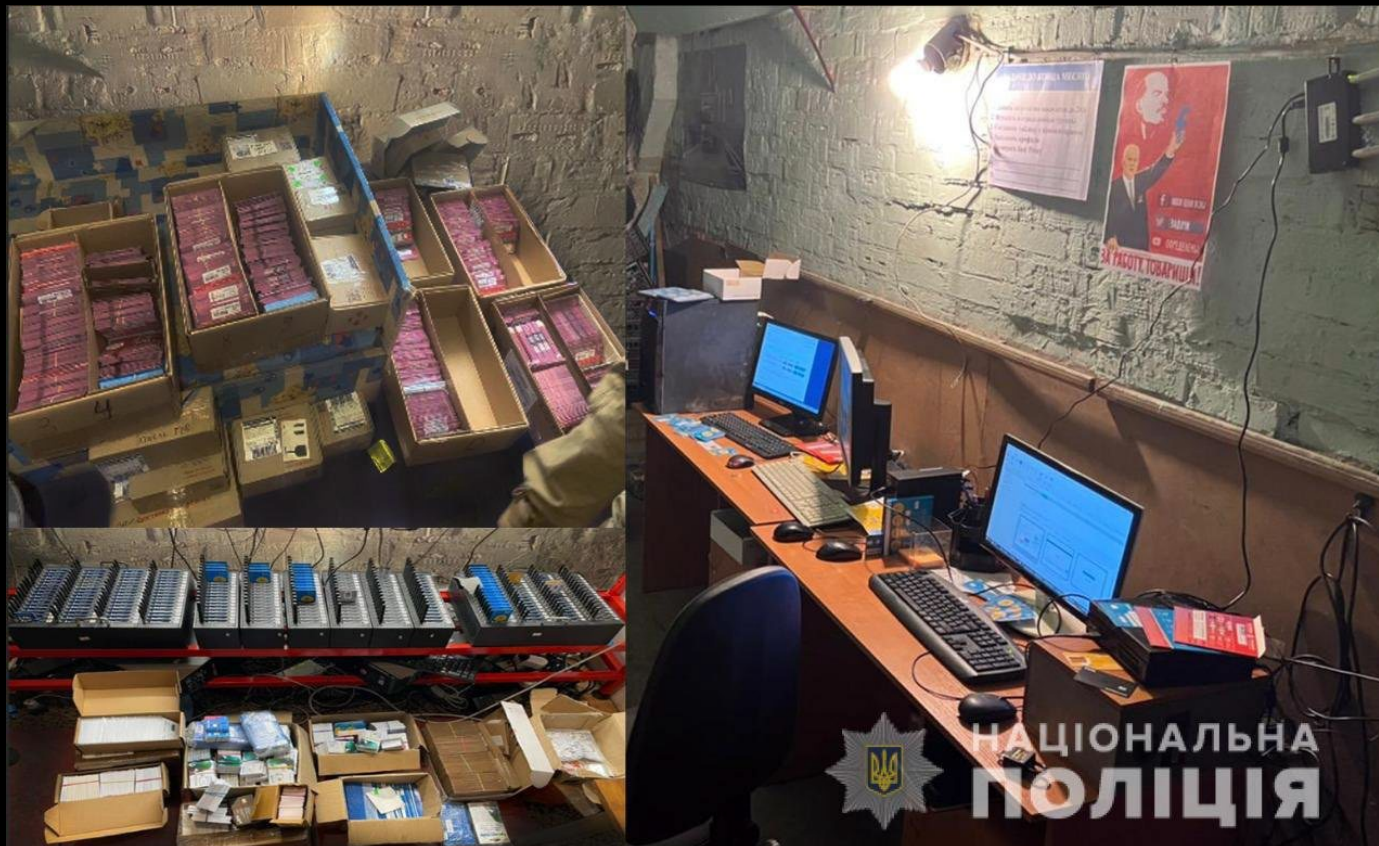




TENETS OF AIRPOWER

- Mission command
- Flexibility and versatility
- Synergistic effects
- Persistence
- Concentration: “Focusing overwhelming power at a decisive time and place.”
- Priority
- Balance

RUSSIAN BOT FARM



RUSSIAN CYBERATTACKS

- Operation "Armageddon", 2013
- Operation "Snake", February 2014]
- Attacks on the automated system "Elections", June 2014
- Ukraine power grid hack, December 2015. Second Ukraine power grid hack, December 2016.[11][12]
- Paralysis of the State Treasury of Ukraine, December 2016
- Supply Chain cyberattacks on Ukraine, (2017)
- 2022 Ukraine cyberattack, attacks on Ukrainian government websites, January 2022,
- Attacks in February 2022, after Russian troops invaded eastern regions of Ukraine,

UKRAINE CYBERATTACKS

- Operation "Prikormka (Groundbait)", May 2016
- Operation "May 9", 2016 (9 successful hacks of the sites of the separatist group "Donetsk People's Republic"
- "Channel One" break, June 2016
- The Surkov Leaks, October 2016 — a leak of 2,337 e-mails and hundreds of attachments, which reveal plans for seizing Crimea from Ukraine
- The IT Army of Ukraine was established by Mykhailo Fedorov, the First Vice Prime Minister and Minister of Digital Transformation, on 25 February 2022.

THE AIR WAR



THE AIR WAR

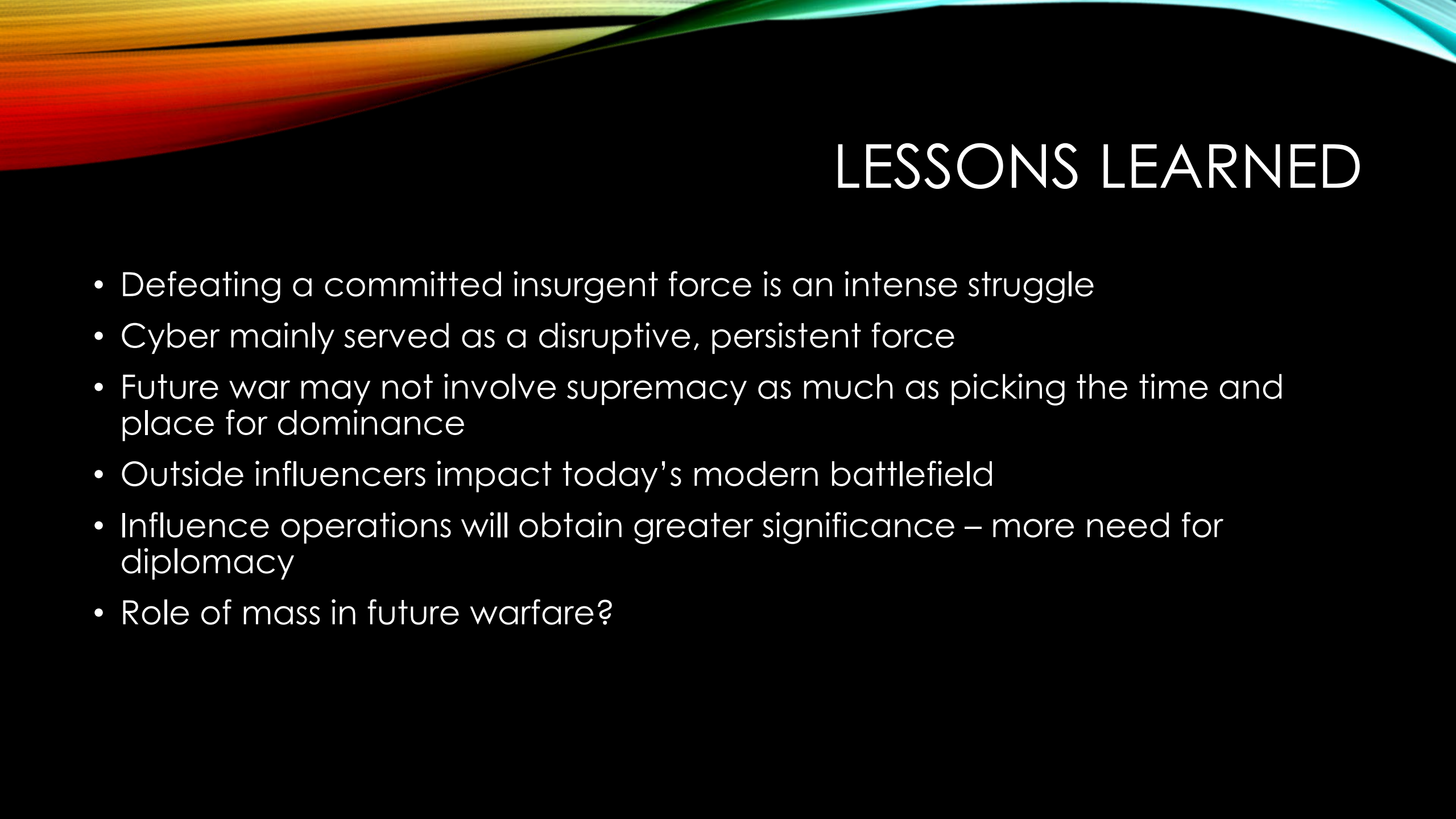
- After five months of fighting, neither Russia nor Ukraine has achieved air superiority in Ukraine.
- Russia's air force has had a surprisingly limited role and Ukraine's has outperformed expectations.
- These are the jets both forces are using to wage that often intense aerial struggle.
 - On February 24, Ukraine's inventory of flyable combat aircraft amounted to about 37 MiG-29s, 34 Su-27s, 31 Su-25s, and 14 Su-24Ms.
 - The most up-to-date Russian combat aircraft seen in Ukraine are the Su-30, Su-35, and Su-34
- Douhet's Command of the Air versus Corbett's Limited Command

UKRAINE'S AIR DEFENSE FORCES



CROWDSOURCED WEAPONS SYSTEMS





LESSONS LEARNED

- Defeating a committed insurgent force is an intense struggle
- Cyber mainly served as a disruptive, persistent force
- Future war may not involve supremacy as much as picking the time and place for dominance
- Outside influencers impact today's modern battlefield
- Influence operations will obtain greater significance – more need for diplomacy
- Role of mass in future warfare?

QUESTIONS

