

Left: Anṣār al-Tawḥīd firing their al-Hamīm IRAMs (al-Manṣūrah, Syria, 2019) From, "Pulling the Trigger" (Video, Anṣār al-Tawḥīd, 2019) (Source: Telegram)
 Right: HTS SVBIED (Idlib, Syria, 2020) From, "300 Days Between the Trenches & Rifles" (Video, Amjād Foundation for Media Production, 2020) (Source: Amjād Website)



Jury-Rigged Jihād

Improvised Weapons in Syria and Iraq

Andrew Coco



Left: Islamic State's Weaponized Skywalker X8 UAS (Mosul, Iraq) From, "Knights of the Departments" (Video, Wilāyat Ninawa, 2017) (Source: Telegram)
 Right: HTS SVBIED (Idlib, Syria) From, "300 Days Between the Trenches & Rifles" (Video, Amjād Foundation for Media Production, 2020) (Source: Amjād Website)

Research Question

Are increasingly advanced and accessible improvised weapons systems a key causal factor behind modern sub-state armed groups (SSAGs) operating in an increasingly conventional way?

Background

Attrition vs. Maneuver Warfare

- Attrition: damage maximization
- Maneuver: optimization of damage inflicted/damage taken
- Contemporary Understanding of SSAGs: highly asymmetric & rely on Attrition Warfare due to vast capability gap

Up-Armored Suicide Vehicle-Borne IED (SVBIED)

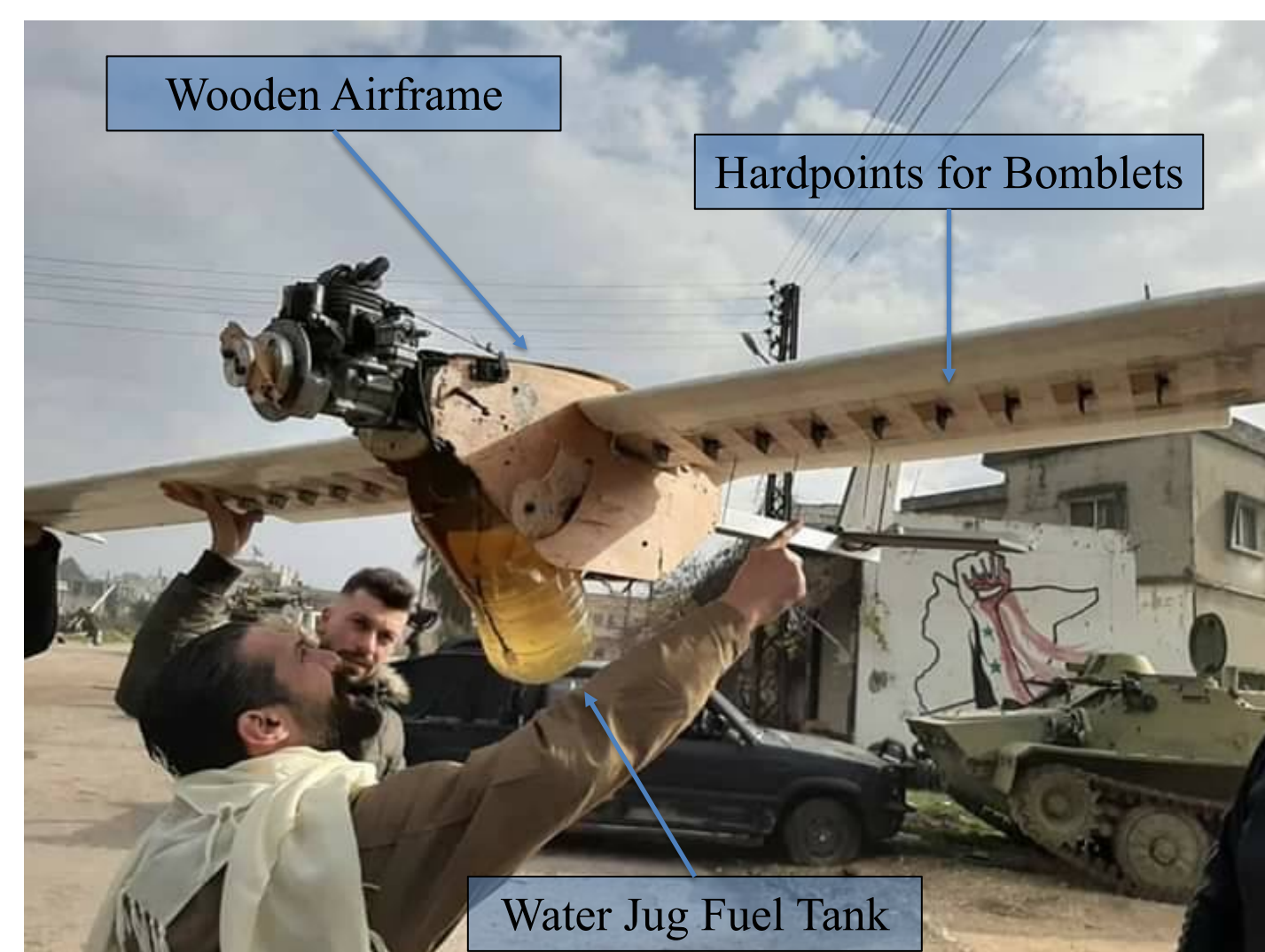
- Conversion to a frontline weapon in Iraq & Syria
- High survivability, large payload, major psychological impact
- Employed like a heavy Precision Guided Munition (PGM)

Improvised Unmanned Aerial System (UAS)

- Fully craft-made or modified commercial UAS
- ISR or Strike roles
- Most threatening emerging technology for SSAGs

Improvised Rocket Assisted Munition (IRAM)

- Craft-made rocket artillery
- Payload & quality can vary significantly
- Low-intensity conflict standoff weapon



Left: Craft-Made Strike UAS (Hamāh, Syria, 2019) (Source: HTS Affiliated Twitter Acct)
 Right: Islamic State IRAM workshop (Fallūjah, Iraq) From, "Fisual Report on the Manufacture of the al-Fatah Missile" (Video, Wilāyat al-Fallūjah, 2017) (Source: Telegram)



Research Design

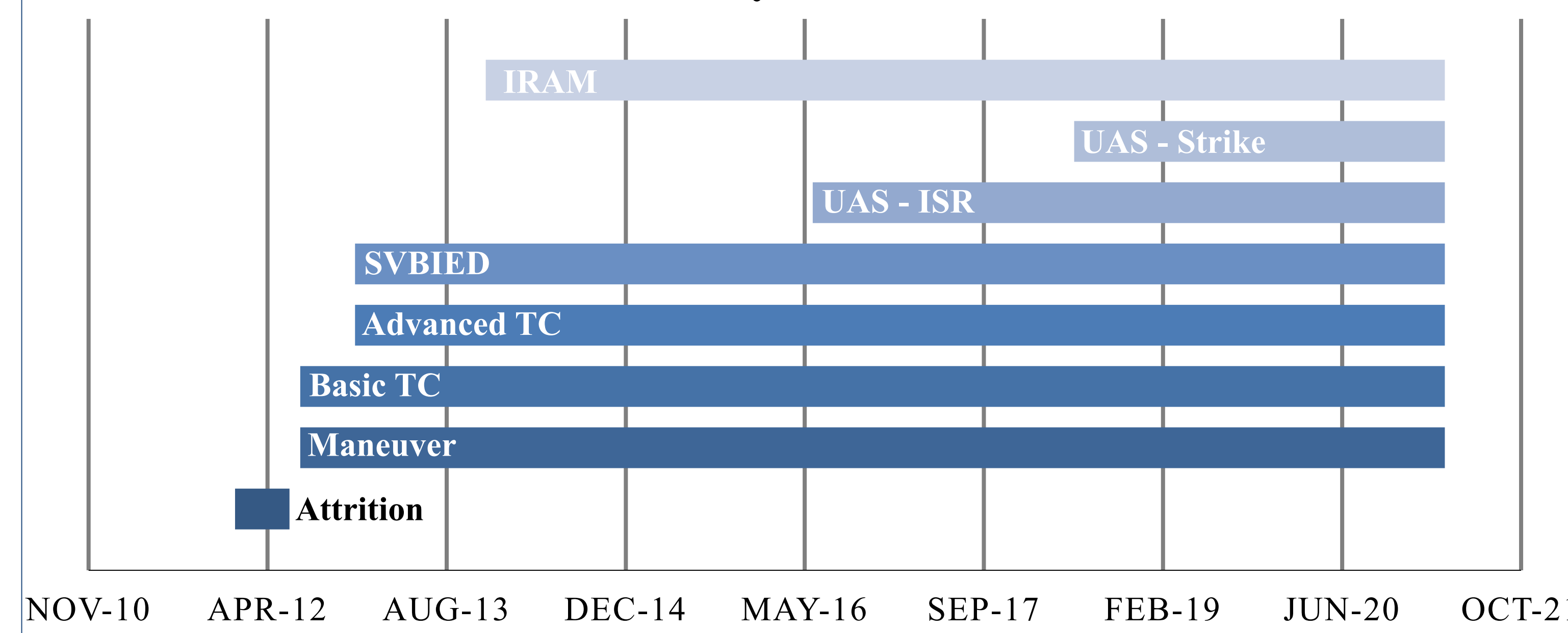
- Comparative case-study of 4 SSAGs in Syria & Iraq
- Analysis of all visual media releases from each group from their entrance into Syria to April 2021
- Independent Variable: Improved Weapons capability
- Proxy: production capacity & design quality over time
- Dependent Variable: Primarily Maneuver or Attrition
- Proxy: Attack profile; territory capture; organization
- 4 Cases: Hay'at Tahrīr al-Shām, Islamic State, Anṣār al-Tawḥīd, Anṣār al-Islām

Hypothesis

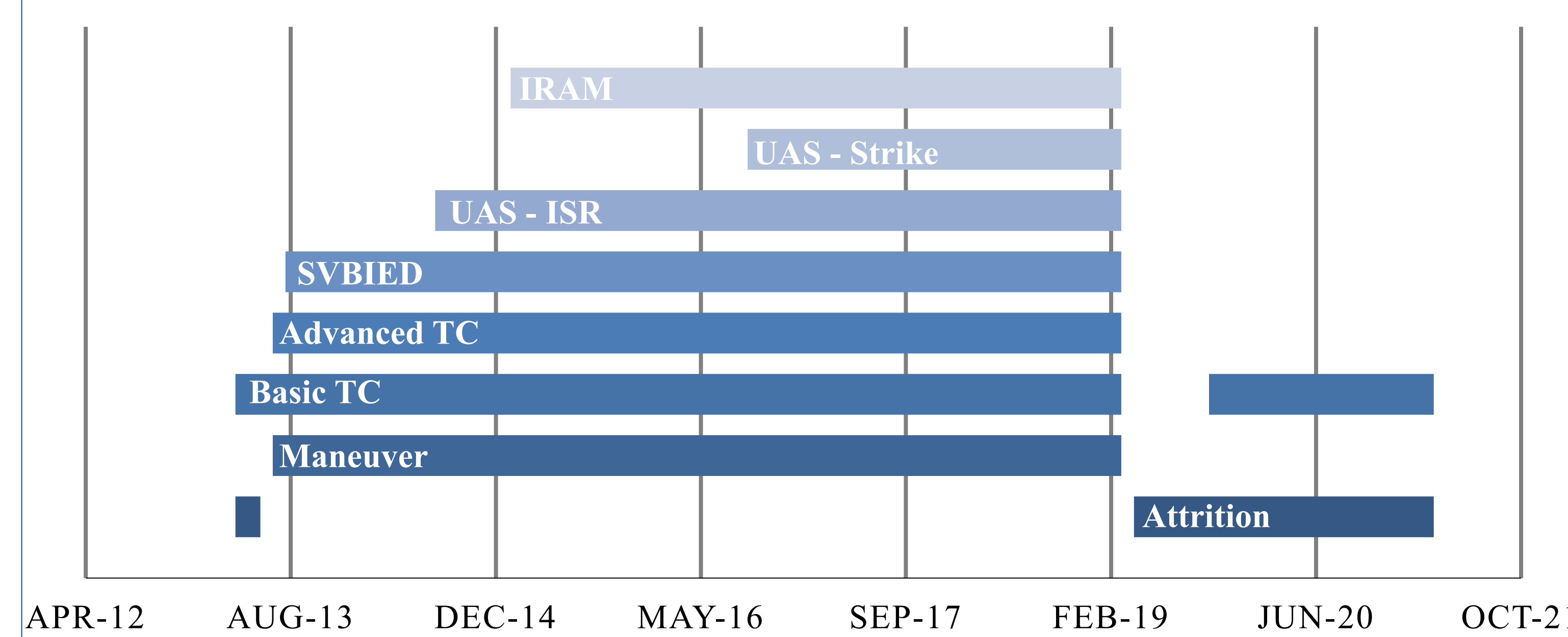
Improvised Weapons usage is as important a causal factor as territory capture in an SSAG's transition from an asymmetric force engaging in Attrition Warfare, to a more conventional force engaging in Maneuver Warfare.

Findings

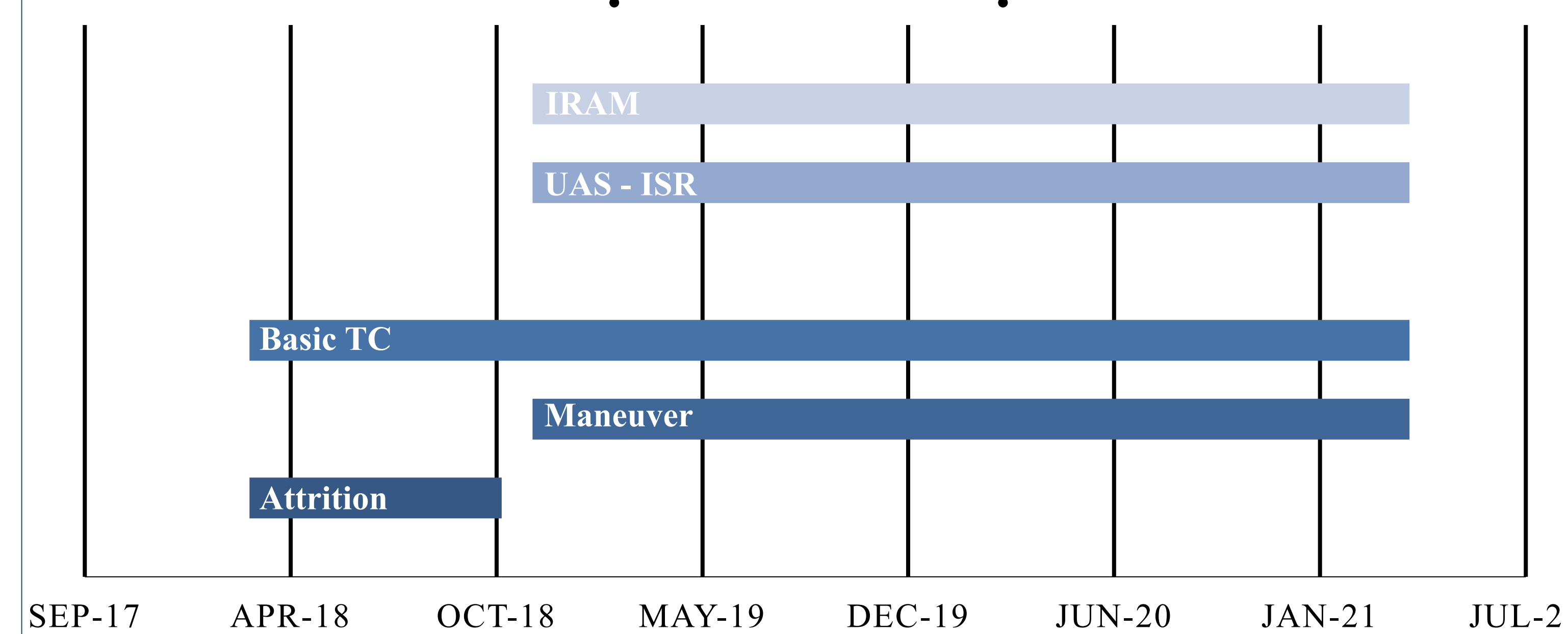
HAY'AT TAHRİR AL-SHĀM



ISLAMIC STATE



ANṢĀR AL-TAWḤĪD



Anṣār al-Islām

- Weakest SSAG in sample
- Not as close with HTS as Anṣār al-Tawḥīd
- Hobbyist UAS increase artillery precision enough for use under a broader Maneuver Warfare approach

Videos of Anṣār al-Islām using a DJI Mavic Pro to spot for artillery & mortars



"Earthquake of the Aggressors," Anṣār al-Islām. Idlib, 2020 (Source: Telegram)
 "The War of Sparring," Incite the Believers Ops Room. Idlib, 2020 (Source: Telegram)

Analysis

Types of Territorial Control

- *Basic*: Freedom of operation, staging area, established front lines
- *Advanced*: Basic control, but with dominance over territory and the ability to exploit resources

Limiting Factors on Improvised Weapons Usage

- Material Requirements
- Technical Requirements (knowledge)
- Necessity

	SVBIED	Improvised UAS - ISR	Improvised UAS - Strike	IRAM
Material Requirements	High	Low	Low	Moderate
Technical Requirements	Moderate	Low	Moderate	Moderate
Enhancing or Enabling	Enhancing	Enabling	Enhancing	Both

Conclusion

- Basic Territorial Control is a critical causal factor
- Improved Systems only required in the absence of sufficient captured conventional systems
- Improved Systems only enabling under conditions of Basic Territorial Control
- Improved UAS in an ISR role likely most important
- Future research should focus on smaller SSAGs