Prof. Karl Christian Kaltenthaler

Professor and Director of the Center for Intelligence and
Security Studies at the University of Akron

Professor. Karl Kaltenthaler's research and teaching focuses on
security policy, political violence, political psychology, public
opinion and political behavior, terrorism, counterterrorism, and
xenophobia. He is currently researching the radicalization process
and recruitment into violent political extremism as well as ways to
counter this process (Countering Violent Extremism). This work has
resulted in academic publications and presentations as well as
reports and briefings for the U.S. government. His research has
been published in three books, multiple book chapters, as well as
articles in International Studies Quarterly, Political Science
Quarterly, Studies in Conflict and Terrorism, as well as other
journals.

Terrorist Organizations' Use of Unmanned Aerial Systems

Dr. Karl Kaltenthaler

Director

Center for Intelligence and Security Studies

University of Akron, USA

Scope

- Analysis focuses on Unmanned Aerial Systems (UASs) used by terrorist organizations

- A terrorist organization defined here as one designated such by the U.S. Department of State

Key Takeaways

- UASs have multiple attractive features for terrorist organizations that make their use increasingly likely

- UASs have been used in surveillance, kinetic strikes, and information warfare roles by terrorists

- Hezbollah, ISIS, Hayat Tahrir al Sham, HAMAS, and Iran-aligned Shia militias in Iraq have all used drones in terrorist attack operations

- The diffused technology marrying UAVs and artificial intelligence will be a force multiplier for terrorist organizations

Why Are UAVs Attractive to Terrorist Organizations?

- Easy to purchase or acquire technology

- Easy to modify to meet group needs

- Difficult to counter

- Improve deniability

- Big propaganda payoff for the money

What do UASs Allow Terrorist Organizations to Do?

- ISR operations

- Kinetic strikes

- Smuggling

- Signal Jamming

- Information Warfare (Propaganda)

What Terrorist Organizations Have Used Drones?

Hezbollah
- Program started in 1997
- ISR, propaganda, lethal kinetic strikes
- Most sophisticated terrorist group drone program
- Iran supported

ISIS
- Program started in 2013
- ISR, propaganda, many lethal kinetic strikes
- Unsophisticated, commercial drones

Hayat Tahrir al Sham
- Program started in 2014
- ISR, propaganda, limited lethal kinetic strikes
- Unsophisticated, commercial drones

What Terrorist Organizations Have Used Drones?

HAMAS
- Program started in 2003
- ISR, propaganda, attempted kinetic strikes
- Not very sophisticated
- Iran supported

Iran-aligned Shia militias in Iraq
- Program started in 2014
- ISR, propaganda, many lethal kinetic strikes
- Sophisticated
- Iran supported

Terrorist Groups That Have Had Drone Capacity But Have Not Successfully Deployed Them

- Aum Shinrikyo

- FARC

- Lashkar-e-Taiba

- Haqqani Network

- Al Qaeda

Sources of Concern about Future Terrorist Drone Use

- Global demand is driving growing supply

- Blurred lines between commercial UAVs and weaponization will continue

- International cooperation on limiting drone availability to terrorists is limited

- Likely impossible to keep increasingly sophisticated drones out of terrorists' hands

Artificial Intelligence Will Change the UAV Paradigm

- Terrorist groups will have access to artificial intelligence guided drones

- Increases the terrorist UAS threat by many magnitudes

- Will allow terrorists to use swarms of loitering munitions more effectively

- Will allow terrorist to more effectively target elites and crowds

- Will allow terrorists to stay further away from targets in both time and space

Questions?