



The American Osteopathic College of Occupational and Preventive Medicine 2024 Midyear Educational Conference

Psychiatric Issues in Military Drone Operators

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1

Disclosures and Conflict of Interest

No financial
disclosures or
conflicts of interest

2

Disclaimer

While I do have past personal
experience caring for drone
operators in the US military, the
majority of this material is taken
directly from the references
cited at end of this presentation.

3

Objectives

- 1. Understand the unique stressors that are placed upon remote piloted aircraft (RPA) operators in the military work environment.
- 2. Identify risk factors for psychiatric illness in RPA operators and team members in the military environment.
- 3. Learn how to identify RPA operators that may have or likely will have psychiatric or emotional symptoms.
- 4. Discuss common psychiatric diagnoses and treatment options for RPA operators.

4

RPA (Drone) Operations

Used by over 70 nations at the current time

More than 30 have weaponized drones

Offer tactical advantage in combat
environment with much lower risk to pilots

Can be much more precise due to length of
surveillance and loitering time of the drone

5

RPA Team

Ground crew at control site

Maintenance personnel

Pilot

Sensor operator

Mission intelligence coordinator

Other intelligence analysts

6



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Types of Drones Used by US Military

US Air Force

- MQ-1 Predator (phasing out)
- MQ-9 Reaper
- RQ-3 Dark Star
- RQ-4 Global Hawk
- RQ-170 Sentinel (also used by CIA)
- RQ-12 Wasp – hand launched, local control

US Navy

- MQ-4C Triton
- MQ-8 Fire Scout (helicopter)
- X-47B

US Army

- RQ-7 Shadow – hand launched, local control

US Marine Corps

- RQ-11 Raven – hand launched, local control



RQ-7 Shadow

7

8



RQ-4 Global Hawk

9

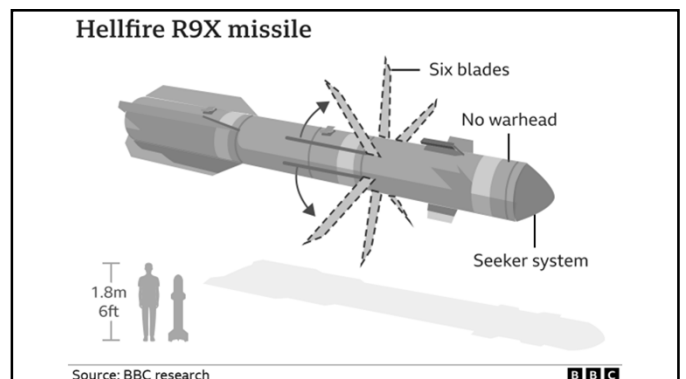


MQ-9 Reaper

10



11



12



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telegraph.co.uk

13

USAF Drone Pilot 1U0X1

- Largest number of pilots on the Air Force
- Pilots must now be officers
- Enlisted personnel can be Flight Engineers, Sensor Operators, Maintenance Techs
- Requirements
 - Start training before age 29
 - Have a Bachelor's degree
 - Graduate from Air Force Academy, AFROTC, or AFOTS
 - Meet physical standards set in AF 48-123 for RPA pilots
 - Complete 3 months of Initial Flight Training in Pueblo, CO
 - Complete 4 months of RPA Undergraduate Training at Randolph AFB
 - Complete 3 months of Formal Unit Training at Beale AFB

14

Drone operator work environment

- Usually inside an enclosed space for long shifts
- Typical control space is equivalent to a cargo shipping container
- Large amounts of screen time
- Often rotating shift schedule
- Sleep deprivation
- Although usually at a military base outside of the conflict, they witness the details of combat without censorship



15

Drone operator work environment

- Often witness entire events unfold over several hours
- Do not "commute" to the battlefield
- Go home to their families at the end of shift
- Do not typically have the camaraderie typical of combat units
- Often do not get the awards or recognition of combat personnel



16

MQ-1 Predator Pilot

militaryfactory.com



17

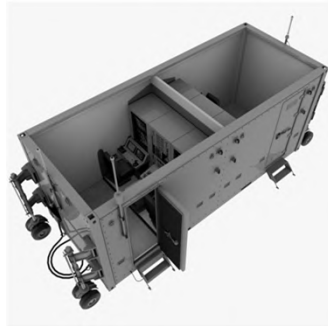


18



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Ground
Control
Station



19

Typical drone
operator

Overly intellectual
Obsessive
Introverted
Often seen as 'nerdy'
Undue interest in highly technical or abstract things
'Video gamers'
'PlayStation mentality' using joysticks and triggers

20

Duties of the
drone
operator

Identifying, tracking, targeting, and killing enemy combatants

Destroying enemy assets

Surveillance of enemy military and intelligence activities

Directing and protecting US and allied ground forces

Safeguarding convoys

Surveying post-strike battle damage

21

Reality of the
Environment

Although not deployed to the combat zone, they are fully involved in the realities of combat, including killing the enemy and protecting US ground personnel

Often must continue to watch not only the strike, but the uncensored aftermath of the event

Missions continue 24 hours a day, 7 days a week

Typical shifts can exceed 12 hours

Usually work rotating shifts

22

What about local
operators?

- Are in the field of battle
- All the stress of the combat environment with added stress of RPA aircraft
- Usually not trained to same level as larger RPA pilots



US Army

23

Events witnessed by RPA operators

Live uncensored video of the death of targets (88%)
Live uncensored video of the death of US personnel or our allies
Civilian deaths, including bystanders, children, and family members of targets (54%)
Real time the torture of civilians and US personnel
Uncensored grief reactions of family members in real time
First responders recovering bodies or body parts
Mortuary and burial services

24



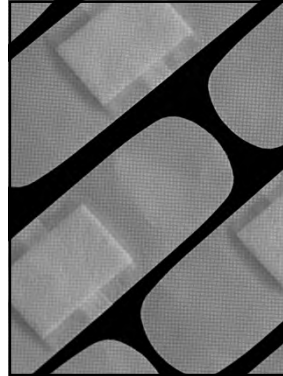
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Self-Reported Issues with RPA Operators

- Emotional disengagement
- Exhaustion
 - Physical
 - Emotional
- Burnout
- Cynicism

25



Individual effects of combat on RPA operators

- Survivor guilt
- Sleep deprivation from excessively long work hours and rotating shifts
- No definitive "end in sight"
- Effectively have continual deployment
- May feel 'trapped' or 'stuck' in the situation

26

Individual effects of combat on RPA operators

- High percentage of PTSD!
 - Rates for deployed combat troops with PTSD range from 7.6% to 34.8%
 - Rates for RPA operators are poorly studied, but are at least 4.5% (likely *much* higher) despite only 1% actually diagnosed by military with PTSD
 - Cited studies show up to 4.5% actually meet DSM criteria for PTSD
 - Although many did not fully meet DSM criteria, up to 46-48% had psychiatric symptoms severe enough to effect job performance

27

Most common symptoms in RPA operators

- Trouble falling or staying asleep
- Avoiding memories, thoughts, or feelings related to experience
- Irritable behavior
- Angry outbursts
- Acting aggressively
- Difficulty concentrating
- Feeling distant or cut off from other people
- Feeling upset when reminded of stressful event

28

Common psychiatric disorders in RPA pilots

- Adjustment Disorders
- Depressive disorders
- PTSD
- Relationship problems
- Life circumstances requiring counseling

29

Moral Injury

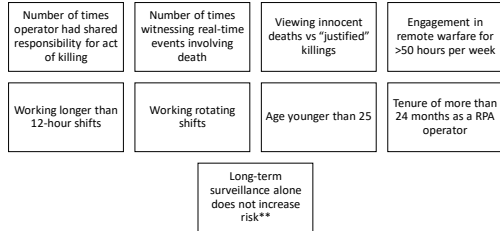
- New concept
- Results from experiences that involve 'perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations'
- Characterized by feelings of:
 - Guilt
 - Betrayal
 - Feeling of being changed by exposure to death
 - Disturbances in relationships
 - Spiritual difficulties
 - Social alienation

30



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Risk factors for PTSD



31

Additional Considerations

- Factors that may increase risk:
 - Female gender
 - Conscientious personality
 - Low resilience of hardness
- Factors that may reduce risk:
 - Classic 'Type B' personality (passive, easy going, relaxed)

32



How do we identify problems?

33

Treatment?

- Identify problem
- Screen for substance use disorders
- Full psychological evaluation
- Counseling
- Psychotherapy
 - Cognitive Behavioral Therapy (CBT)
 - Cognitive Processing Therapy (CPT, special form of CBT)
 - Exposure Therapy
 - Eye Movement Desensitization and Reprocessing (EMDR)
- Medications
 - Sertraline and paroxetine approved by FDA
- Consider reassignment

34



35

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36