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CS349

UNMANNED WARFARE

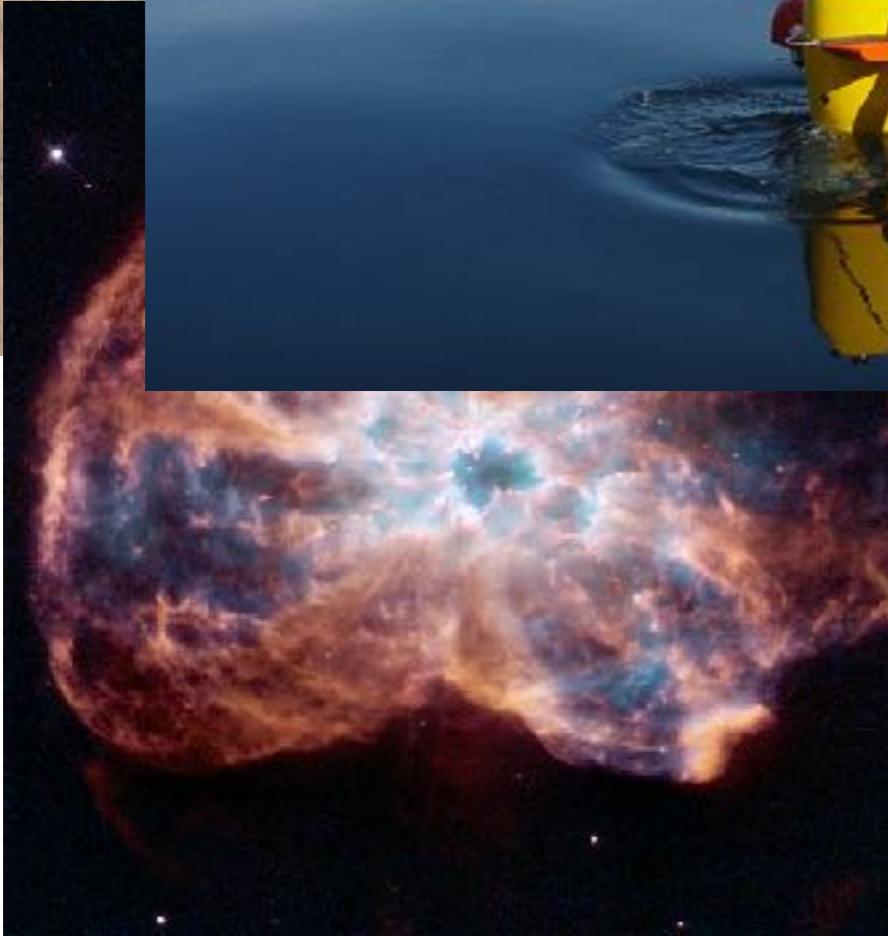
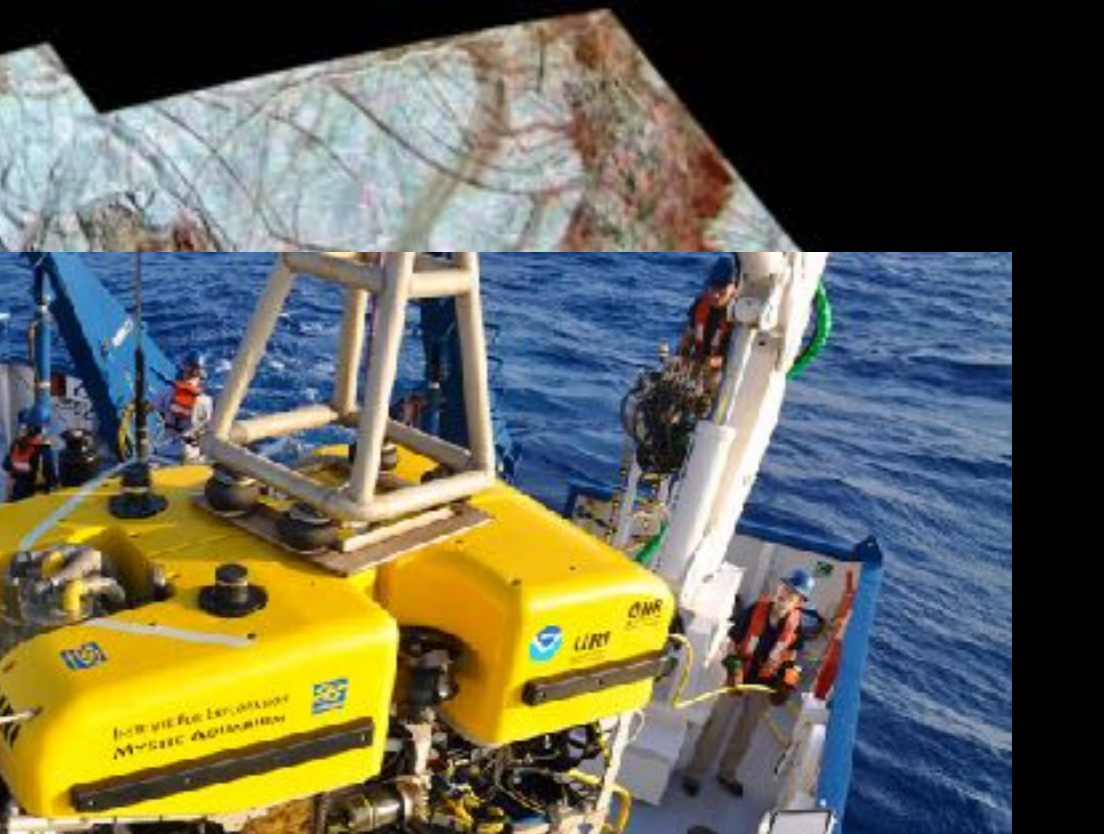
WAR HAS CHANGED...



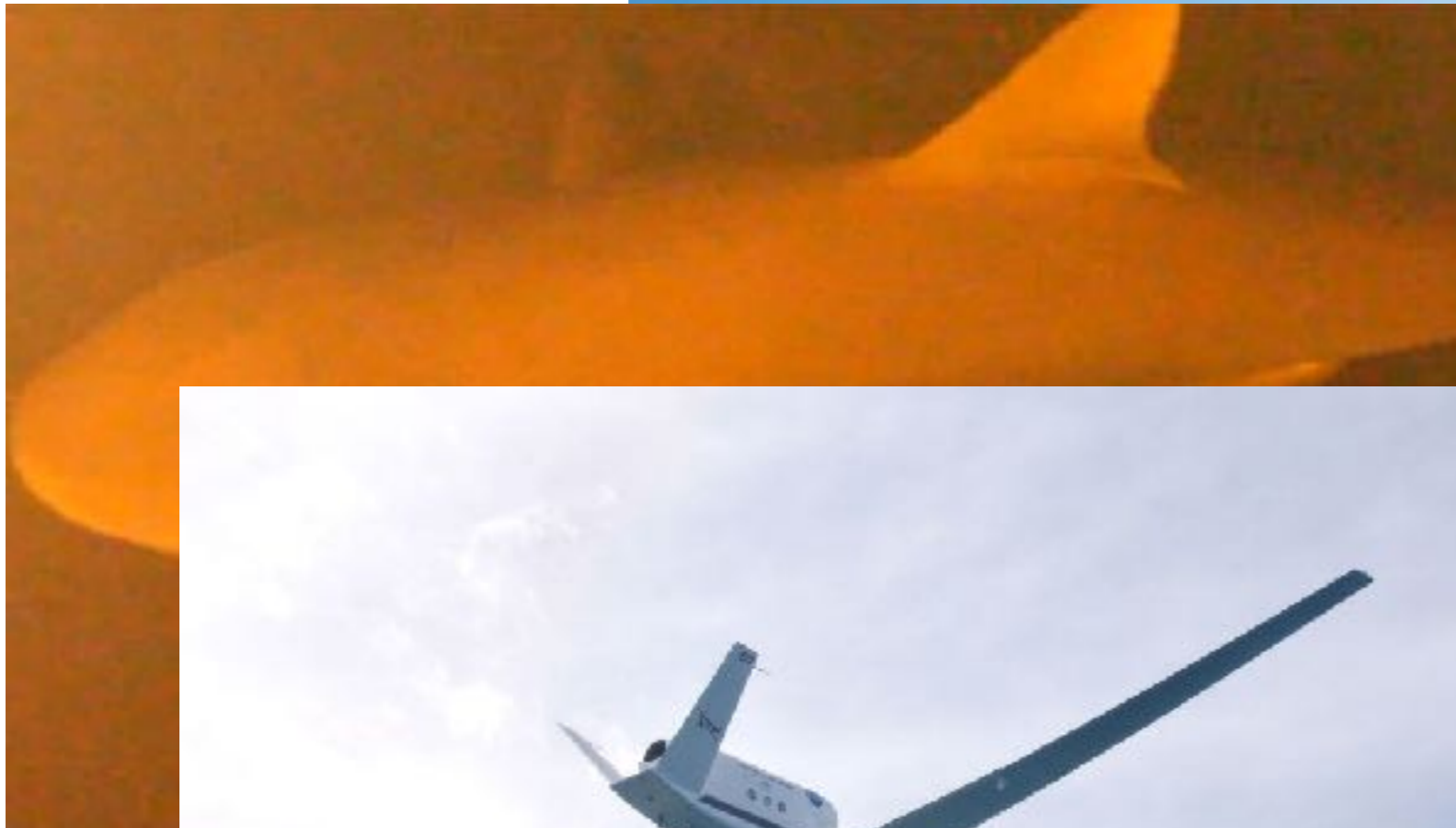
RISE OF UNMANNED VEHICLES

- ▶ Not just applications in warfare!
- ▶ Uses in:
 - ▶ Exploration
 - ▶ Scientific studies
 - ▶ Search and rescue
 - ▶ Dangerous and difficult jobs

EXPLORATION



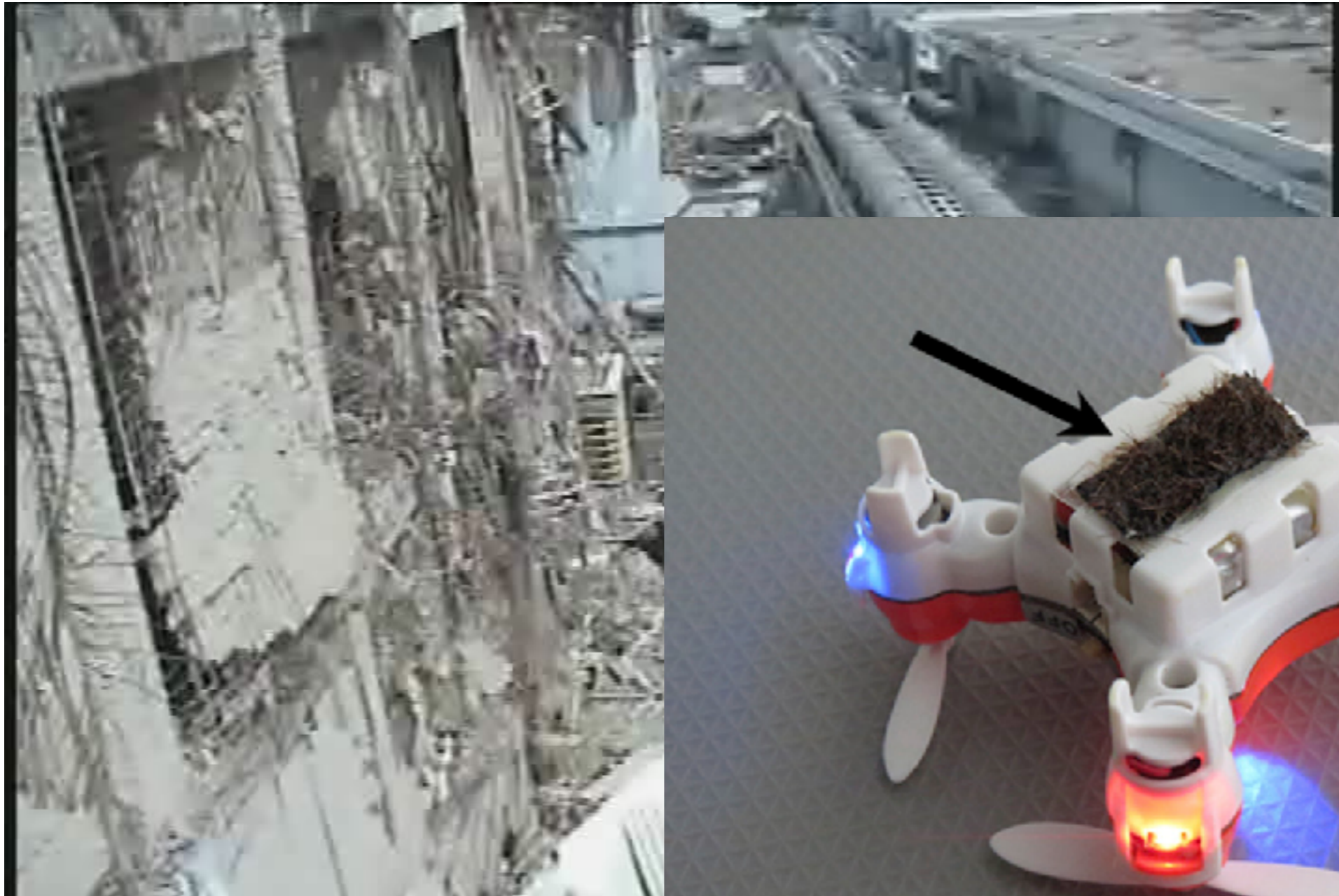
SCIENTIFIC STUDIES



SEARCH AND RESCUE



DANGEROUS AND DIFFICULT JOBS



RISE OF UNMANNED VEHICLES

- ▶ Uses in:
 - ▶ Exploration
 - ▶ Scientific studies
 - ▶ Search and rescue
 - ▶ Dangerous jobs
- ▶ ...but also warfare...

HISTORY OF UNMANNED AERIAL VEHICLES

- ▶ First recorded use of unmanned aerial vehicles (UAVs) in 1849
 - ▶ Austrians attacked Venice with balloons loaded with explosives
- ▶ Used during WWI and WWII, primarily for reconnaissance and supplies
- ▶ In 1982, Israel used UAVs against Syrian air force and for reconnaissance
- ▶ In 1990s, miniature and micro UAVs developed
- ▶ Predator drones used for surveillance and reconnaissance since 1995
- ▶ In 2014, commercial drones gain in popularity for recreational use

SPYING

- ▶ Predator is first unmanned vehicle to allow for video feed while flying
 - ▶ Provided 60-mile panorama of landscape
 - ▶ Flown in 12-hour shifts
- ▶ Used to locate Osama bin Laden in Afghanistan in 2000
 - ▶ Al Qaeda connected to 1993 World Trade Center bombing and 1998 bombings of US embassies in Africa

THEN SOMETHING HAPPENED...



WEAPONIZED PREDATORS

- ▶ After 9/11, Predators armed with Hellfire missiles and deployed to Afghanistan
- ▶ Predator view linked to global telecommunication systems allowing pilots to work from within the US
 - ▶ Previously pilots were stationed in the region

THE ETHICS OF REMOTE WARFARE

- ▶ “Drones are the most discriminating use of force that has ever been developed. The key principles of the laws of war are necessity, distinction and proportionality in the use of force. Drone attacks and targeted killings serve these principles better than any use of force that can be imagined.”

– Richard Pildes, professor of constitutional law at NYU’s School of Law

So there are no ethical issues, right?

DRONE COLLATERAL DAMAGE

- ▶ In 2016, Obama administration released report saying between 64 and 116 civilians were killed in counterterrorism drone and air strikes between 2009 and 2015
 - ▶ During the targeting of 24 people in Pakistan, there were 874 deaths (an estimated 124 of those being children)
 - ▶ In Yemen, 17 people were targeted resulting in 273 deaths (7 children), and 4 of the targets survived
- ▶ Analysis by Council on Foreign Relations estimates the 500 drone strikes outside of Iraq and Afghanistan killed 3,674 people
- ▶ Intelligence leaks suggest that 90% of the people killed in recent (2017) drone strikes were not the intended targets

WHY IS DETERMINING A CASUALTY COUNT SO HARD?

- ▶ Intelligence operations have no transparent process for counting deaths or determining if victim was target or not
 - ▶ Analysts must rely on local media and reporting
- ▶ Some evidence of name confusion leading to targeting of civilians
- ▶ Strikes are not formally reported or claimed
 - ▶ Governments can play "blame game" accusing each other of unintended civilian casualties

DRONE PILOTS AND PTSD

- ▶ Drone pilots are as likely to suffer from post-traumatic stress disorder (PTSD) as ground combatants
- ▶ Issue has been known for a while but is just now reaching the attention of the military
 - ▶ Pilots not necessarily as respected as ground combatants
 - ▶ Considered an easy, safe job
- ▶ Constant exposure to the horrors of war leads to stress disorders and desensitization

A MODERN APPROACH TO WAR

- ▶ What are these strikes accomplishing?
- ▶ What impact do drones have on the US and the world?
- ▶ How does remote warfare affect public perception of war?



DRONES AND US CITIZENS

- ▶ Domestic spying on non-military missions in the US began in 2006
 - ▶ Relatively limited scope and uses
 - ▶ In compliance with existing laws
- ▶ US drone strikes have also killed a number of US civilians
 - ▶ Some were hostages killed as collateral damage
 - ▶ Some were terrorist suspects killed in other attacks, including 16-year old Abdulrahman al-Awlaki
 - ▶ Anwar al-Awlaki only known US citizen to be directly targeted
- ▶ In 2014, Justice Department released a secret 2011 memo explaining legal justification for killing US citizens suspected of terrorism without a trial

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