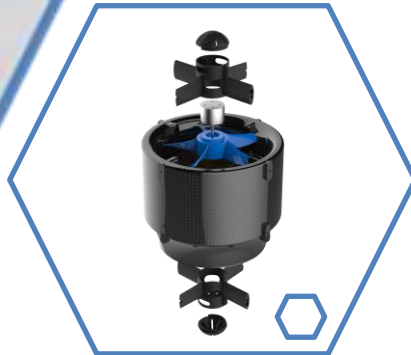




**Heavy Lift**  
**Transport & logistics**  
**UAVs**  
***USE CASES***



# DRONES WITH ROTORS MEAN FREE BLADES :

## POTENTIAL DANGER & RISK INCREASE

- FREE BLADES CAN INJURE PERSONNEL
- FREE BLADES CAN DAMMAGE ASSETS OR INSTIGATE SPARK



*Full Personnel safety when flying ...*



## SWITCH TO ELECTRIC DUCTED FANS FOR SAFETY FIRST COLLISION TOLERANT DRONES

### SAFER for HUMANS & ASSETS

- **SAFE : No Free Blades Rotating**
- **POWERFULL : Higher Thrust for Same Surface Area Footprint**





# Transport Scenario

## *Aerial Bridge - Precision Landing*

*We provide ultra-fast on-site transportation for small packages (5kg to 50kg)*



Return to ground station

3



Vertical Land Off

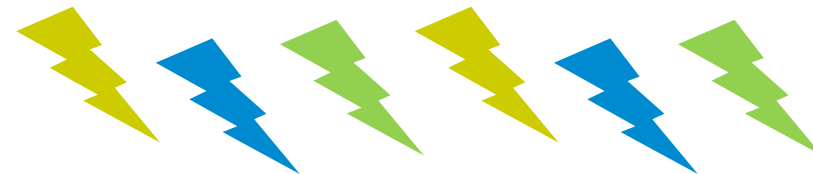
2

Vertical Take Off

1



4



*Complex Access*



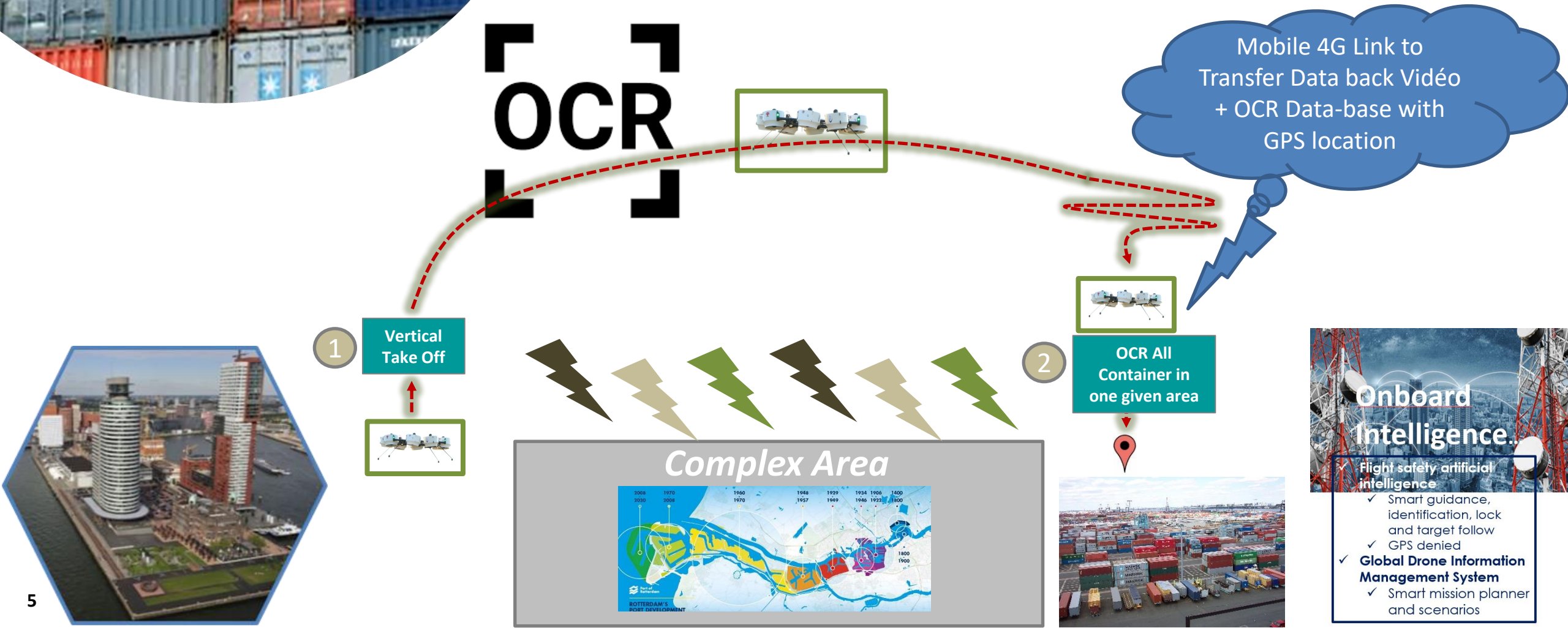




# Tracking OCR Containers



*We provide container OCR ID  
identification & localization*

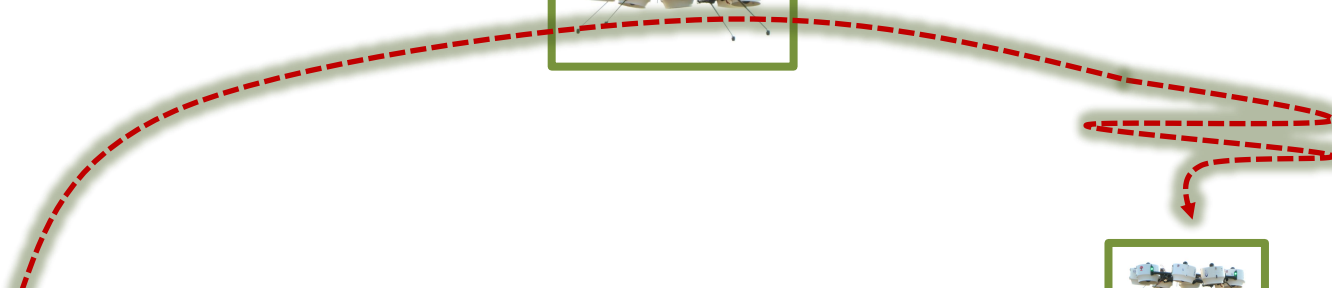
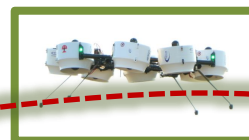




# Asset Inventory Management



*We provide assets localization,  
tagging & management*



1

Vertical  
Take Off



2

OCR All  
Container in  
one given area



## Onboard Intelligence..

- ✓ Flight safety artificial intelligence
  - ✓ Smart guidance, identification, lock and target follow
  - ✓ GPS denied
- ✓ Global Drone Information Management System
  - ✓ Smart mission planner and scenarios





# Emergency Rescue Scenario

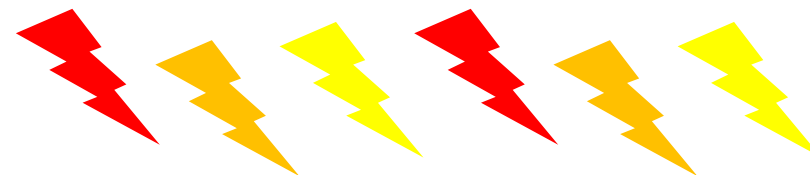
## Aerial Bridge - Precision Landing

*We provide 24/7 support to  
emergency & rescue teams*



1

Vertical  
Take Off



*Complex Access Emergency Area*



2

Vertical  
Land Off



Return to ground  
station

3





# Emergency Rope Delivery

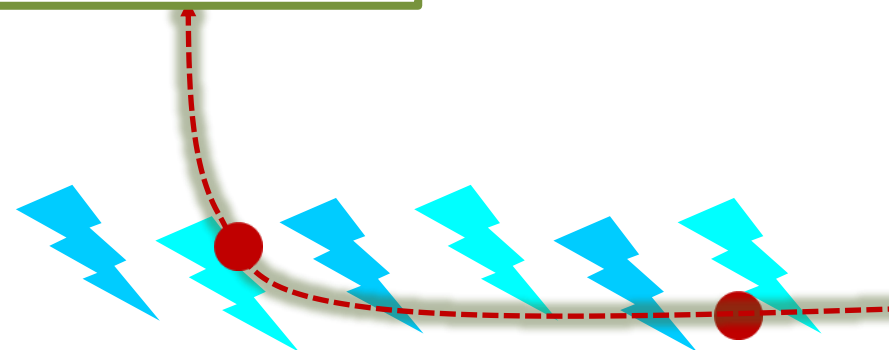
## Bank to Bank river crossing



*We provide 24/7 support to  
emergency & rescue teams*



Ground Delivery  
Rope System –  
attached to  
Firefighter truck



*Complex Access Emergency Area*



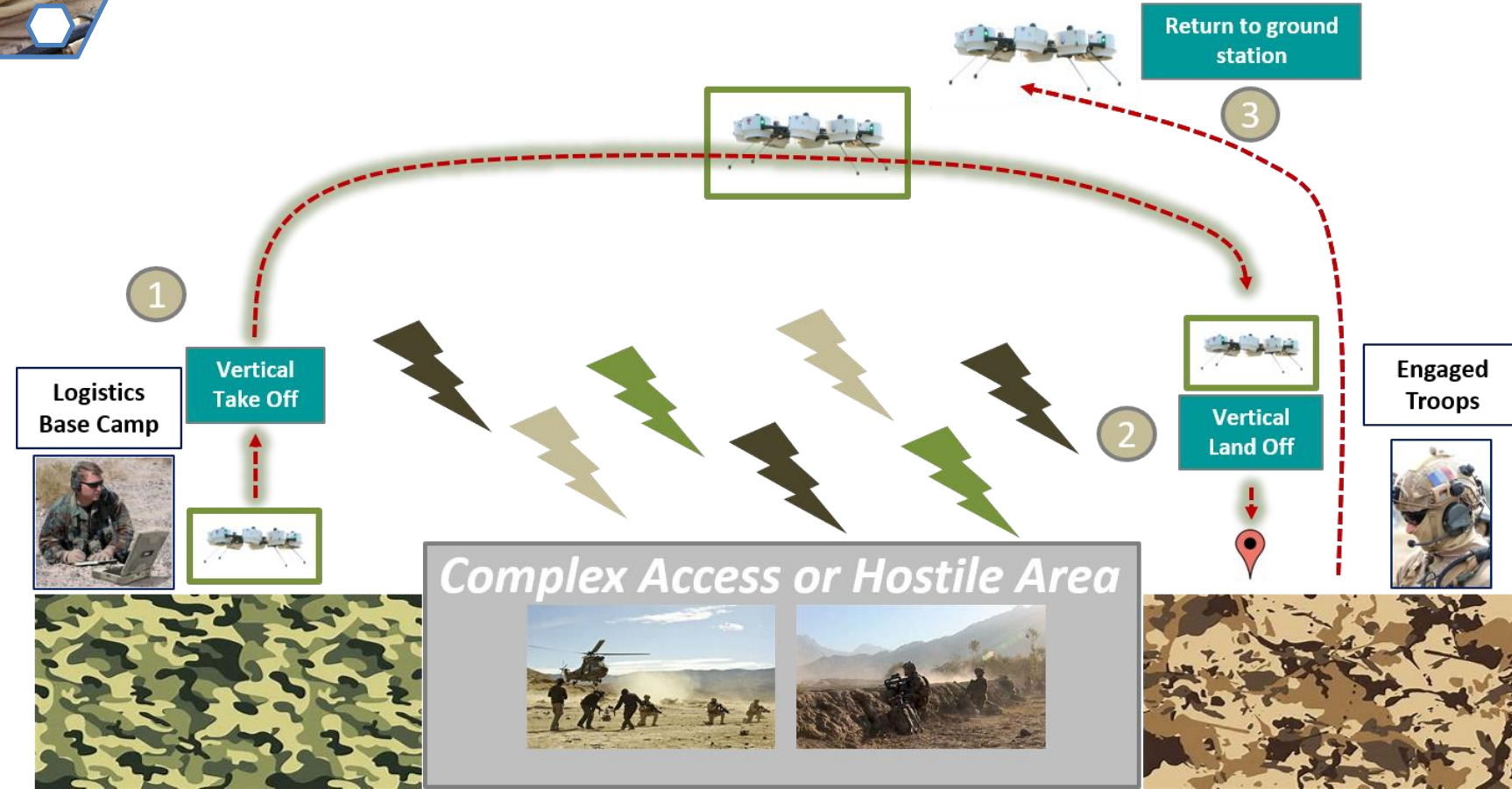
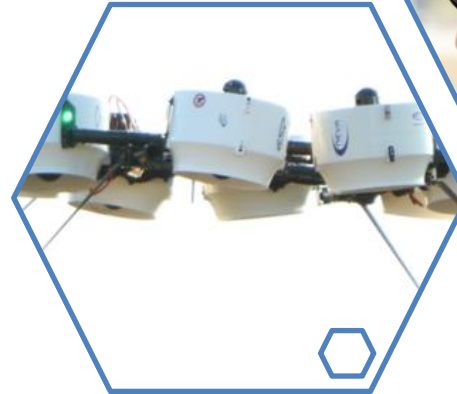


# Defence Supply Bridge

## Automated Aerial Bridge

*We provide 24/7 support to engaged troops*

Precision landing based on GPS coordinates – Radio/4G link



### ○ AERIAL SUPPLY BRIDGE:

Active combat theatre support (Ammunition & Misc refill)

### ○ TROOP ASSISTANCE:

Medical Aid (defibrillator, first aid packs)

### ○ TACTICAL COMMUNICATIONS:

Rapid secured communication link deployment.



# Multi-Copter vs Turbo-drone



## Multi-Copter

- Multi-copter flight time is less than 25% per the year due to weather restriction.
- Heavy Multi-copter cannot land when loaded if wind are higher than 10knot as they land facing the wind and their rotor may touch the ground.
- Heavy Multi-copter requires on-site maintenance specific knowledge to change propellers and motors and ESC.
- Heavy Multi-copter are dangerous due to the many free blades and propellers

## Turbo-drone

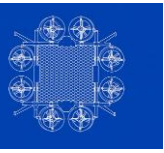
- Turbo-drone can fly 75% of the year more than 6000 hours a year!
- Heavy Turbo-drone are collision tolerant while landing and can land while loaded with wind up to 25 Knot and 30knot gusts.
- Turbines on Heavy turbo Drone can be changed by a non professional operator in less than 15min without any calibration.
- Heavy turbo-drones are completely safe and tolerant to collision with human and objects.

**Turbo-drone WINS**





# Helicopter vs Turbo-drone



## Helicopter

- Helicopter flight time is less than 50% per the year due to maintenance restriction.
- Helicopters have only one rotor and one or two motor. Safety is provided by high maintenance schedule and certification.
- Helicopter TCO is very high : from €200/hr (small-size) to €4000/hr (heavy helicopter).
- Helicopter are expensive to purchase and finance from €250,000 to €15,000,000.

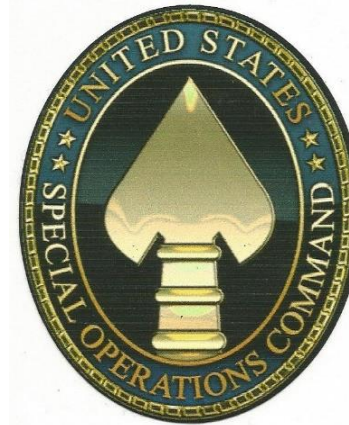
## Turbo-drone

- Turbo-drone can fly 75% of the year more than 6000 hours a year!
- Turbo-drones have many redundant turbines which provide a higher safety. Turbines are electrical and maintenance is lower.
- Turbo-drone TCO is affordable: from €15/hr to €200/hr dependent on financing and run-time.
- Heavy turbo-drones cost from €100,000 to €500,000. For the same budget one can buy many turbo-drones.

**Turbo-drone WINS**

# Client's References & Use Case

- **AeroCorp US**, AERO began as the "special projects" division of InterMedia Development Corp. For the last 20 years, IDC continues to provide innovative "mission impossible" technical services and engineering support for the Department of Defense and has received a continuous 100% approval rating to date. IDC continues today to develop advanced technology systems and software in support of the U.S. Navy Headquarters, NavAir, and **U.S. Special Operations Command (SOCOM)**.
- **M. J. Ratner, Technical Director of Aero-Corp US:** *"We integrated turbo-drone Wohler-b series in our fleet. Using static thrust EDFs provides a higher safety and allow for more flexibility for drone design. We recommend such solutions".*





# Client's References & Use Case

- **Royal Canadian Mounted Police**

– R&D Dpt provides support to RCMP Special Operations and Missions.

- **Mr. M. Salitter, R&D at RCMP:** "We have tested several Neva's electric turbines and we are pleased with their compact dimensions and their thrust density. Neva's technology is key to improve the safety for heavy drone propulsion. I recommend the use of such product to improve drone safety".





Video:

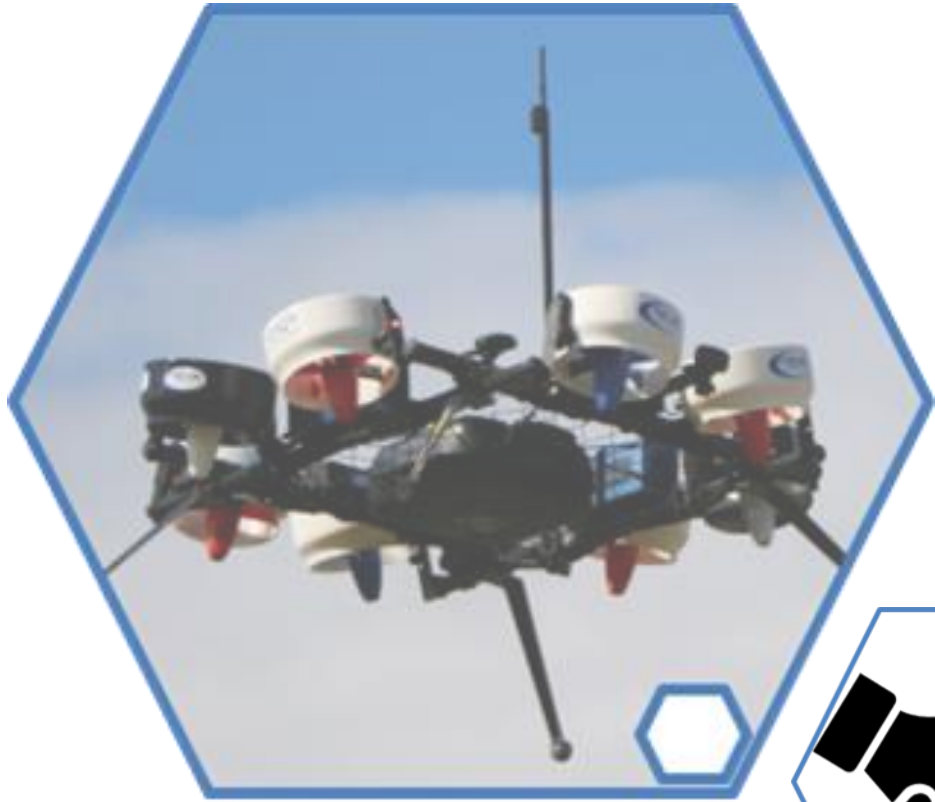
<https://vimeo.com/353325976>

<https://vimeo.com/353325976>





***Focus on what you do best ...***  
***Rely on us to keep them flying...***



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