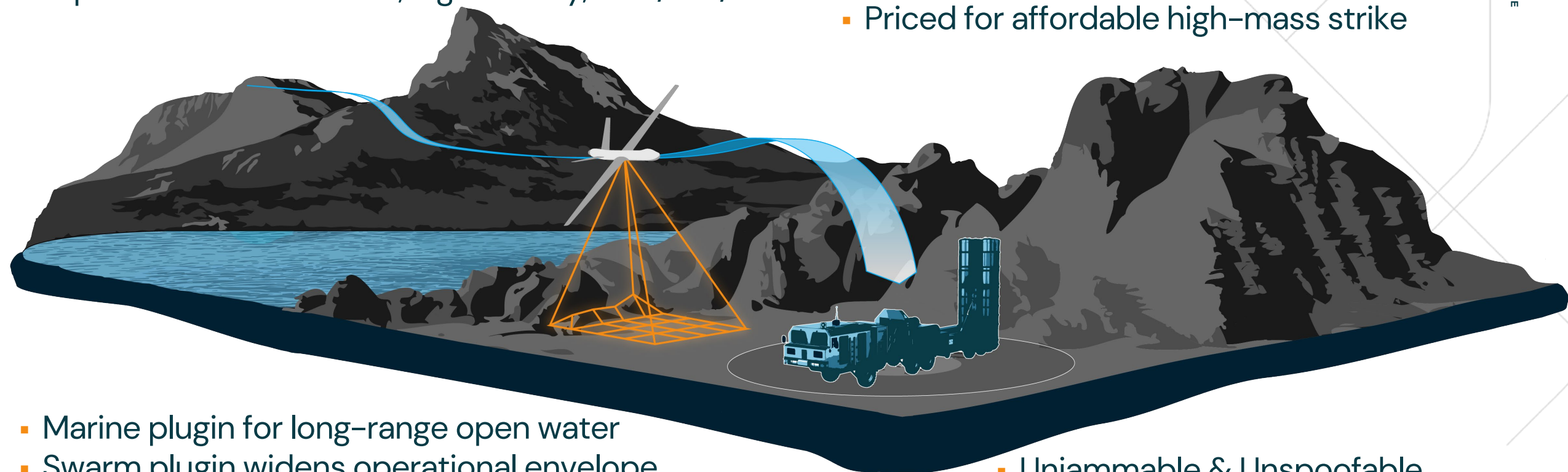


# Affordable High-mass Strike All-Terrain GPS-free Navigation

- 10m CEP, 30kn to 500kn, 30 to 1,000ft height
- Optimised for low & fast, night or day, land/sea/ice

- No cameras or comms
- Small, light automotive components
- Priced for affordable high-mass strike

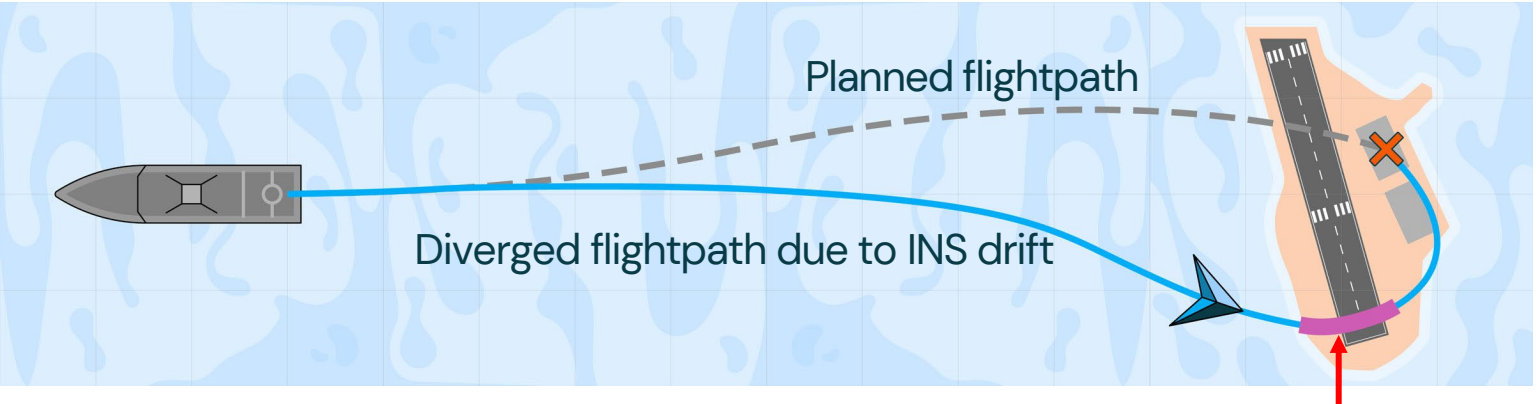


- Marine plugin for long-range open water
- Swarm plugin widens operational envelope
- Terminal Guidance plugin for target interception

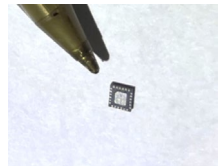
- Unjammable & Unspoofable
- Excels where machine vision struggles

# Unique Capability: GNSS-free Open Ocean Small-Island High-Mass Strike

COMMERCIAL IN CONFIDENCE

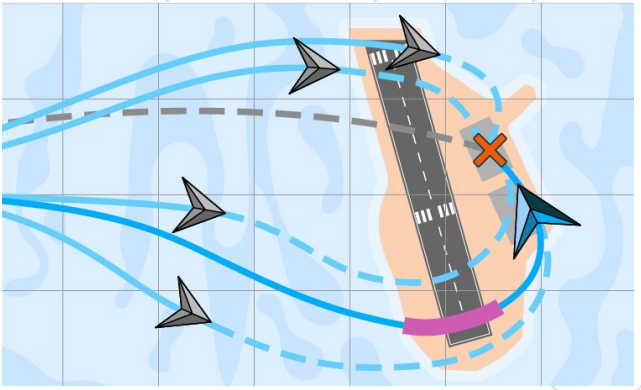
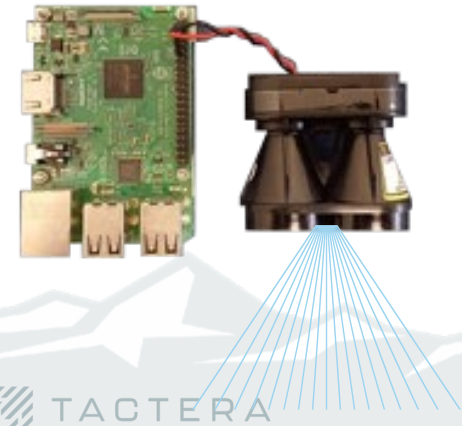


1. **Tactera Marine** gives enhanced INS linear drift over open-ocean of about 6km in 1 hour on a baseline \$5 IMU and getting better. 1km drift in 10 mins.



So at 500kn you can fly over 166km of ocean in 10 mins and get 1km CEP, small enough to fly over even a small island

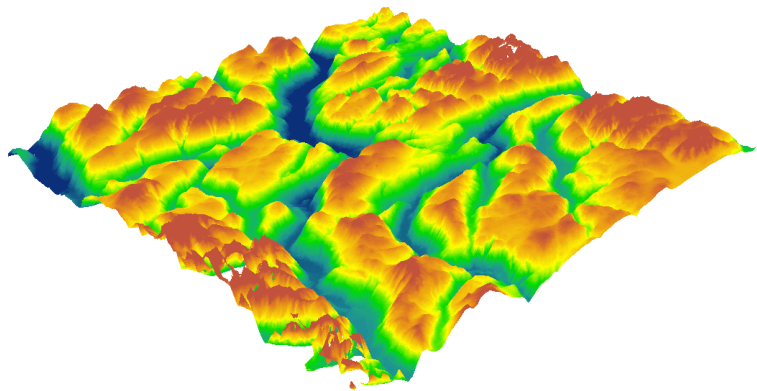
**Tactera** resets error to around 10m CEP as soon as it sees terrain so the one-way-effector can strike the original location



**Tactera Swarm** lets the first effector that sees the island update all others immediately, so they can instantly strike the original location

# Tactera interface: Bolt-on system

**Before launch** DEM terrain map  
(2m resolution commercial map) is  
loaded



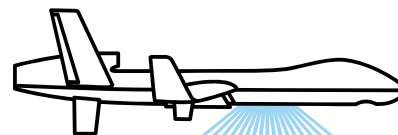
**During flight** the onboard  
Tactera calculates current position

≈130mm



≈170g

Evaluation system shown



## To autopilot:

- Lat/Lon position every 1-2 seconds with around 10m accuracy
- MAVLINK message used (others available)
- Can provide 3D wind (not airspeed) vector measurement in real time

# Tactera readiness: prototype now, launch late 2025

Current test flights of 55km @40kn gives  
25m error over uneven terrain right now



## TRL6/7 now

- Moving onto operational platforms soon

## Test flights ongoing

- Flying over terrain in several countries

## Product launch end 2025

- Giving around 10m CEP at 400kn over uneven terrain

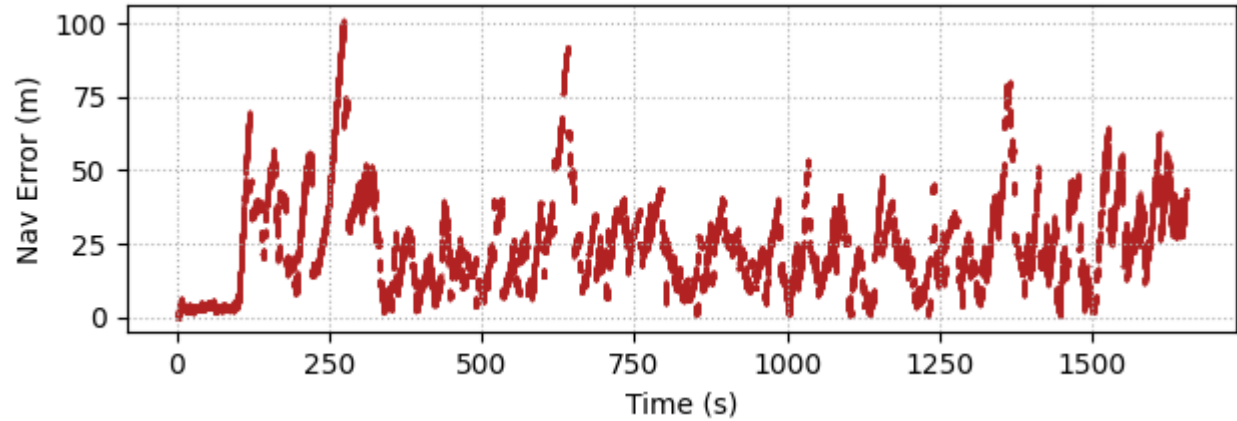
## Tactera demonstration on our platform:

- Ready now (in UK or Spain)

## Tactera evaluation units on your platform:

- Ready August 2025.

Aiming for 10m end of 2025.





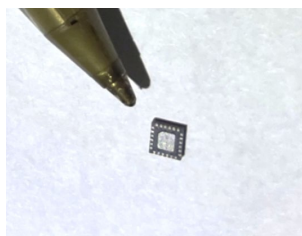
# Tactera Marine: Long-range water/ice crossing



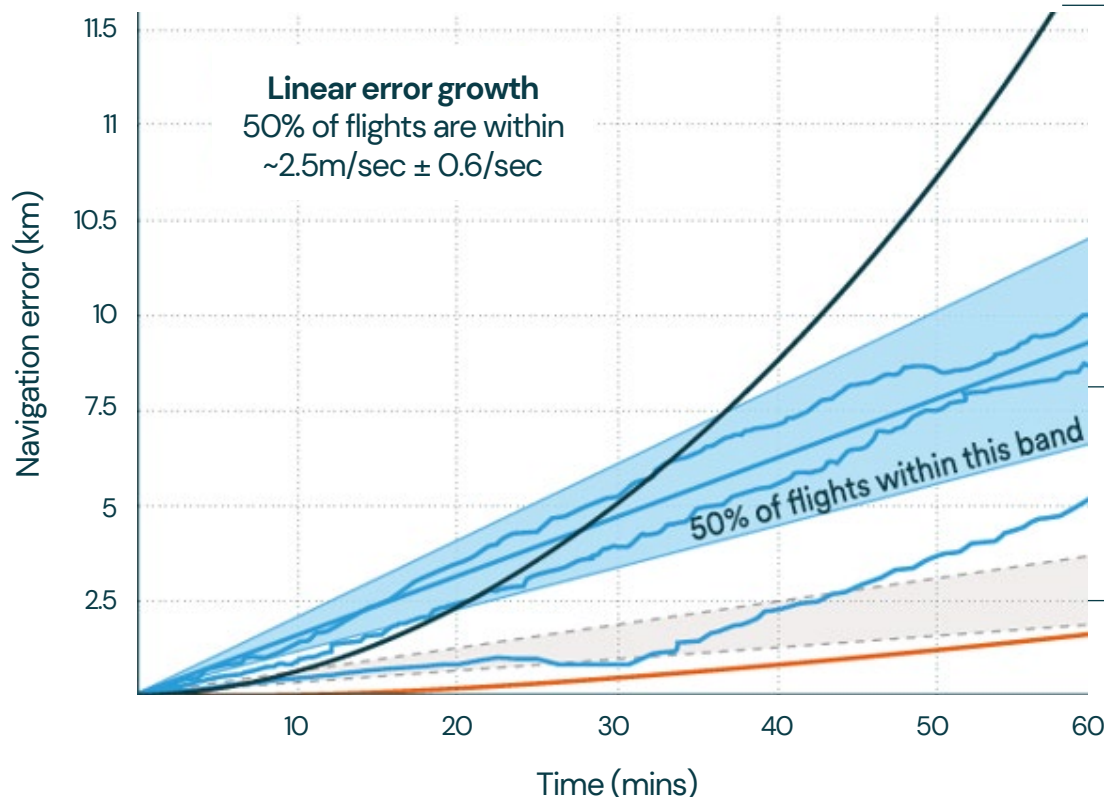
COMMERCIAL IN CONFIDENCE



Runs on a Raspberry Pi...



...and \$5 IMU or better (testbed chip shown but we work on whatever you have fitted).



## Tactical Grade INS:

- \$10k, 0.3lbs
- 19km of drift in hour 1
- Error runs away

## Tactera Marine: Tactical to navigation performance from a MEMS IMU

## As fitted to Cube Orange:

- \$5, 0.7g
- 8km of drift in hour 1
- Error does not run away

## Navigation Grade INS:

- \$100k, 6lbs
- 1.7km of drift in hour 1
- Error runs away

## TRL7 now (as a standalone system, without Tactera)

- On operational platforms

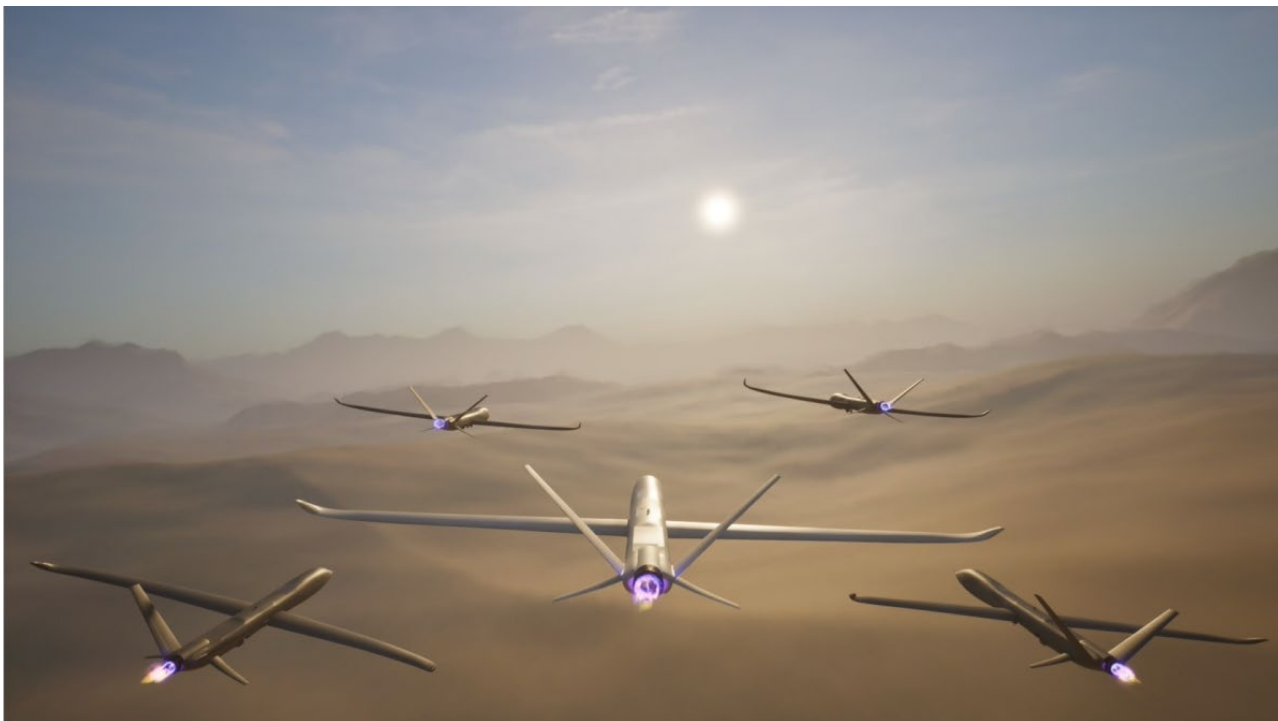
## Onboarding

- Around 1 month modelling phase for that type of UAS
- After that it can be installed on any UAS of that type

# Tactera Swarm: Groups of UAS, minimal comms



COMMERCIAL IN CONFIDENCE



## Test flights ongoing

- Flying over terrain in several countries

## Communications

- Only needs intermittent, low data-rate comms between UAS

## Operation

- Multiple UAS seeing the terrain gives better performance over a wider range of terrain types
- Entire group gets the improvement even though individual UAS are not navigation specialists

## Product launch Q1 2026

- Giving around 10m CEP at 400kn in all terrain

## Tactera demonstration on our platform:

- Ready Summer 2025

## Tactera evaluation units on your platform:

- Ready End 2025.



# Flight tested in realistic range conditions over land and sea



COMMERCIAL IN CONFIDENCE

## Testing over land (Tactera)



## Testing over sea (Tactera Marine)



- Realistic low-altitude flight with a manoeuvring UAS
- Flown against military-grade GNSS jammers on military test ranges
- Flown on operational platforms & a range of testbeds, including swarms



- Nearing 100 hour-long flights
- Gusts, plains, mountains, sea in several countries
- Tested on 6 different platform types so far (fixed wing and VTOL)
- Including wet-fueled long-range fixed wing

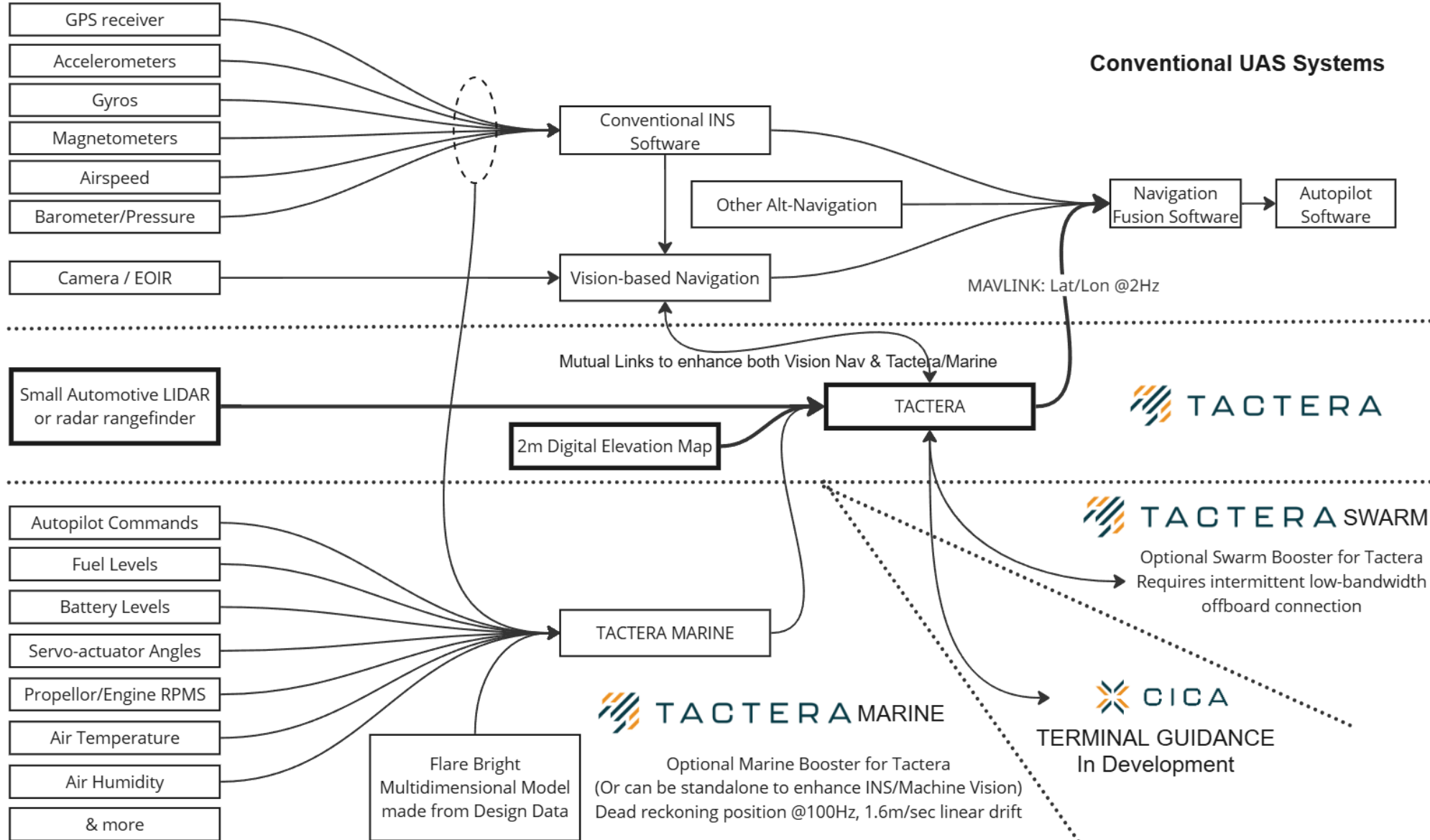


# System of Systems gives Mutual Enhancement, Rapid Iteration



COMMERCIAL IN CONFIDENCE

Onboard Sensor Hardware ← | → Software/Data/Models

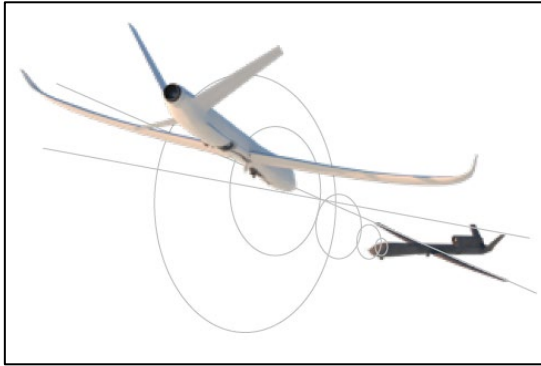




# CICA Terminal Guidance plugin provides full kill-chain



COMMERCIAL IN CONFIDENCE



## Based on our proven navigation system

- Sensors point forwards instead of down

## Automotive components boosted by software

- Optimised for high mass battlespace operations

## Wide range of aerial and protruding targets

- Bridges, pylons and towers
- Counter-Ship or landing barge
- Counter-Cruise missiles
- Counter-Helicopter

## Performance

- Sub-metre accuracy depending on target

## Proof of concept demonstration:

- Available late 2025

# Tactera succeeds where others struggle



COMMERCIAL IN CONFIDENCE

	Low (10-100m) & Fast (400- 500kn)	Night and/or bad weather	Rugged terrain	Flat terrain	Open Ocean	Low to no EM emissions	Land Strike Accuracy (<10m CEP)
INS ( Navigation grade)	Yes	Yes	Yes	Yes	Yes	Yes	No
Machine Vision	Struggles	Struggles	Struggles	Yes	No	Yes	Yes
Radar Terrain Navigation	Yes	Yes	Yes	Struggles	No	No	Yes
Tactera (LiDAR Terrain Navigation)	Yes	Yes	Yes	Struggles	No	Yes	Yes
Tactera Marine	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tactera Swarm	Yes	Yes	Yes	Yes	Yes	Yes	Yes

35 brilliant people, \$10M revenue and  
growing quickly, founded 2015

Flying on operational platforms



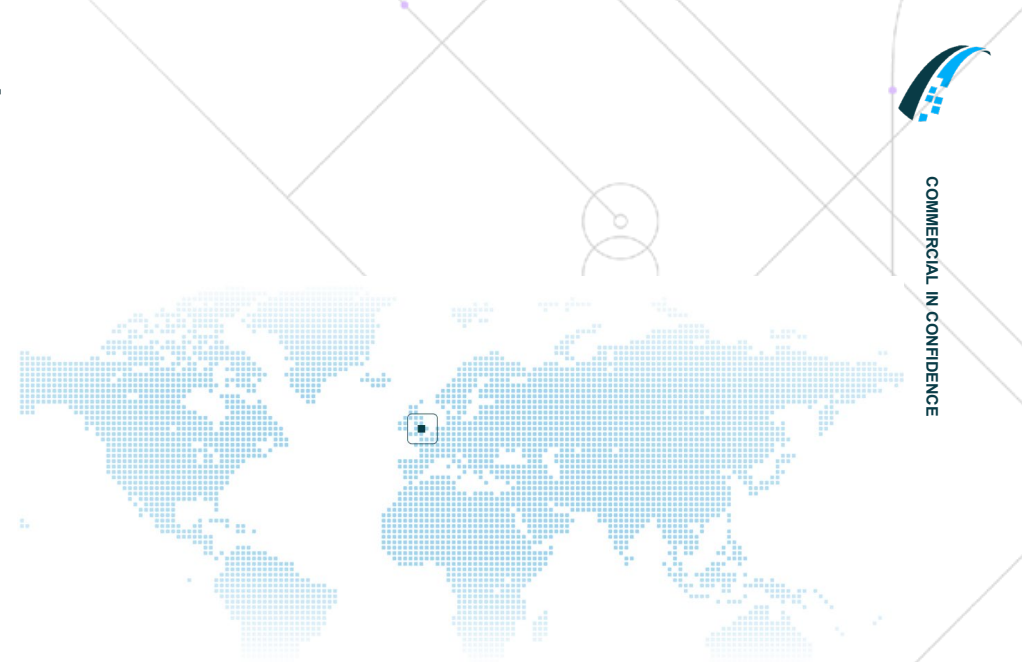
ITAR-free, UK Sovereign Capability

Technology evaluated by UK Ministry of  
Defence & US Department of Defense



UK Tel: +44 (0) 1865 589973

[flarebright.com](https://flarebright.com)  
[sales@flarebright.com](mailto:sales@flarebright.com)



### Head Office:

Westcott Venture Park, HP18 0XB, UK  
Nearest rail station: Bicester Village



### London Office:

Imperial College, London, W12 0BZ, UK  
Nearest tube: White City / Wood Lane



**International Offices & Sales Agents  
coming soon**