



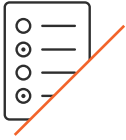
AERONAUTICS™

# ORBITER FAMILY





YOUR EDGE IN THE FIELD



# EXECUTIVE SUMMARY

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## **Transfer of Technology/Local Industry Corporation**

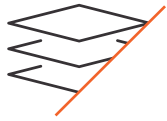
Being a well experienced UAS OEM for the past 3 decades, Aeronautics' system architecture and commercial approach fully supports any local industry engagement and transfer of know how. From local maintenance and support competencies and up to Customer furnished equipment integration, Aeronautics had accumulated vast experience in both. Some examples of such may be the integration of Customer Furnished Equipment such as the **FLARM safety system, legacy payloads and up to actual local production and assembly of subsystems** such as warheads, avionics and more.

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## **Vast Operational, Technical and Engineering Experience**

The ORBITER Tactical UAS Family is a ground-breaking multi-layer solution. From the Highly Tactical, electrical ORBITER 2 STUAS through its bigger electrical brother ORBITER 3, ideal for special forces operations, up to the long endurance & high end capabilities of the ORBITER 4 alongside with the long endurance powerful ORBITER 5, the ORBITER family provides the user with an easy solution for every layer. All share the same Ground Control segment and HMI, making it a cost-effective A-to-Z solution.



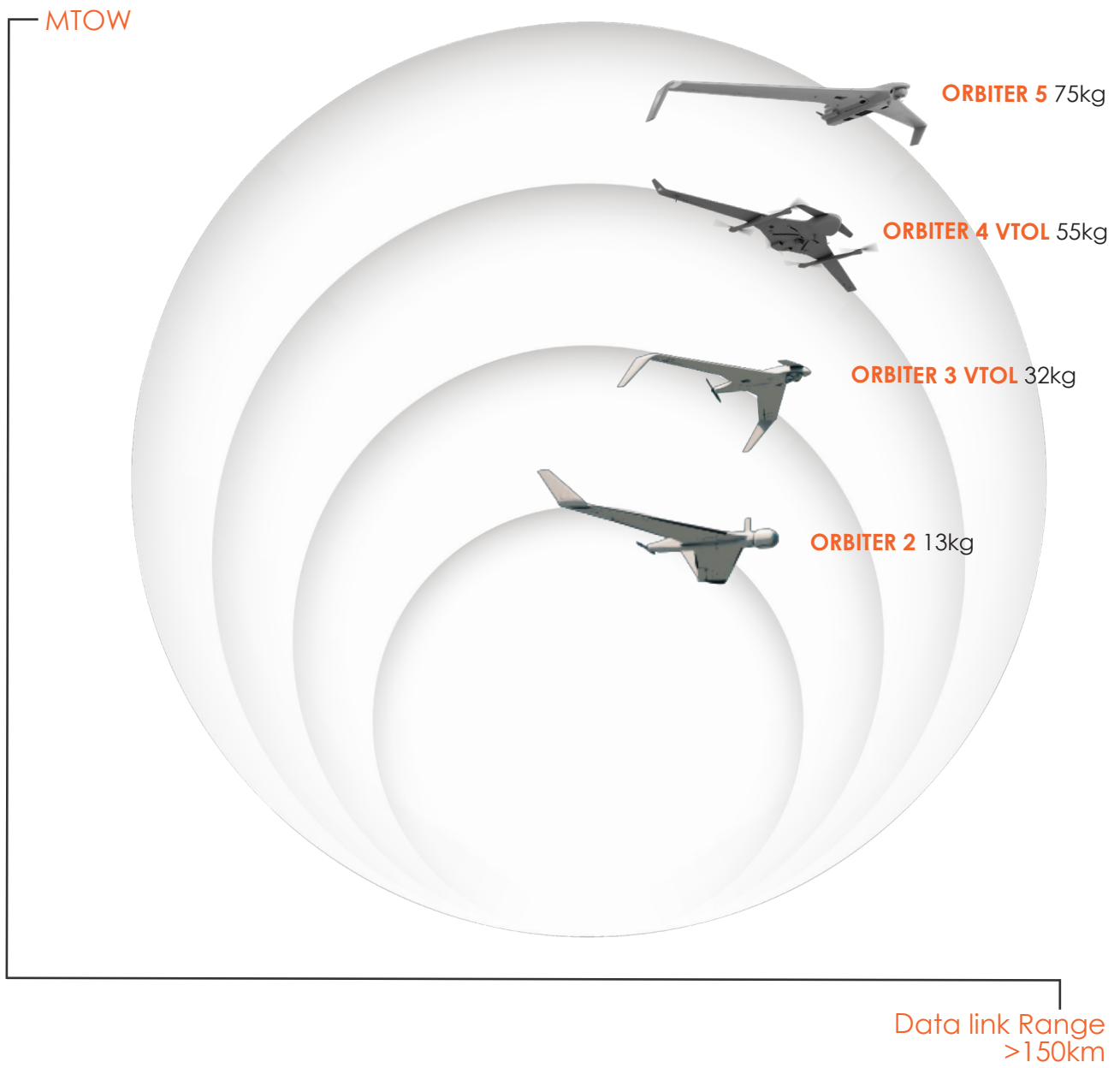


# MULTI LAYERED, COMBAT PROVEN ORBITER TUAS

Incorporating more than a Generation of combat gained experience, Aeronautics' ORBITER family of Fixed Wing, Tactical UAS is the ideal means for enabling highly available, cost effective, Forward Observed/Sensor to shooter enabler at the tactical level. **Sharing a communal Ground segment**, the ORBITER family is the ideal, real-time, cost-effective and flexible, tactical ISR provider. **This communal approach enables a significant Growth potential as well as the adaptation of a communal array's maintenance, support and training concepts**, while enabling different users to utilize diverse aerial platforms, according to the designated mission and level of deployment. In addition to the IDF, the ORBITER family has been successfully deployed by dozens of Defense forces around the world. Hundreds of ORBITER systems had been delivered in the past 15 years including to several NATO member countries.

Platform	MTOW (kg)	Useful Payload (kg)	Endurance	Propulsion
ORBITER 2 ISR/LM	13	3	Up to 2.5 hrs	
ORBITER 3/VTOL	32	5.5	Up to 10/6 hrs	
ORBITER 4/VTOL	55	12	Up to 24/12 hrs	
ORBITER 5	75	25	Up to 25 hrs	

YOUR EDGE ON THE FIELD

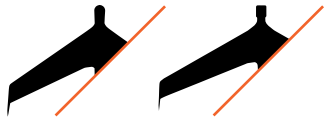


  
Corps

  
Battalion/Company/  
Platoon/Squad

  
Division

  
Brigade



# ORBITER 2® ISR/LM



The ORBITER 2 ISR/LM is a highly tactical, electrically propelled UAS that provides superior ISR performance suited to a variety of tactical missions on the Company/Battalion level. The ORBITER 2LM, offers a unique Loitering Munition capability. With its integrated Tungsten warhead, the LM is an ideal Sensor to shooter partner.



ORBITER 2®ISR



ORBITER 2®LM



**MTOW**

13 kg



**Wingspan**

2.9 m | Length: 1.4 m



**Endurance**

Up to 2.5 hrs



**Max Speed**

50 kts



**Service ceiling**

18,000 ft.ASL



**Warhead Weight (2LM)**

3 kg



**Encrypted Data Link range**

LOS Up to 50 km



**Loitering Speed**

38 kts



**Operational in GPS**

Degraded or Denied Areas

YOUR EDGE ON THE FIELD



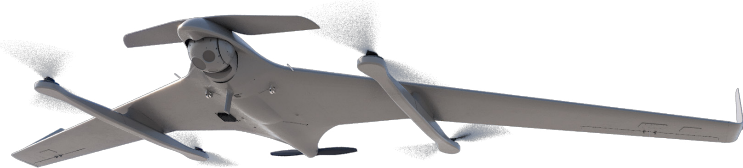
# ORBITER 3®/VTOL



The ORBITER 3 is a combat proven, fully electric and runway independent UAS with advanced Group 2 capabilities and high operational flexibility in challenging weather conditions. It is characterized by high payload capacity, and reduced logistics footprint. It is highly suited for ISR missions such as cooled IR and Laser designation requiring stealth-increased.



ORBITER 3®



ORBITER 3® VTOL



**MTOW**

32 kg



**Wingspan**

4.4 m | Length: 1.5 m



**Endurance**

Up to 10 hrs/  
6 hrs with VTOL



**Max Speed**

70 kts



**Service ceiling**

18,000 ft.ASL



**Encrypted Data Link range**

LOS Up to 150 km



**Payload Weight**

Up to 5.5 kg



**Operational in GPS**

Degraded or Denied Areas



# ORBITER 4<sup>®</sup>/VTOL



The ORBITER 4 on both launcher or VTOL configuration provides ISR Group 4 capabilities with a runway-independent Group 2 logistic footprint. It is large enough to carry and operate multiple payloads simultaneously, can be provided in VTOL configuration (kit installation is determined on the "operator level") and offers high endurance with critical systems redundancy.



ORBITER 4<sup>®</sup>



ORBITER 4<sup>®</sup>VTOL



## MTOW

55 kg



## Wingspan

5.2 m | Length: 2.2 m



## Endurance

Up to 24 hrs/  
12 hrs with VTOL



## Max Speed

70 kts



## Full redundancy

Avionics System  
& Sensors



## Encrypted Data Link range

LOS Up to 150 km or BLOS



## Payload Weight

Up to 12 kg



## Operational in GPS

Degraded or Denied Areas

YOUR EDGE ON THE FIELD



# ORBITER 5®



The ORBITER 5 UAS platform sets a new standard by providing medium-altitude long-endurance (MALE) capabilities in a tactical UAS. With an MTOW of 75 kg, the largest of the ORBITER family, is highlighted by superior performance, particularly in its extended range and ability to operate with a large variety of payloads. It contains an assortment of payload types, along with the ability to operate them simultaneously.



ORBITER 5®



## MTOW

75 kg



## Wingspan

6.4 m | Length: 2 m



## Endurance

Up to 25 hrs



## Encrypted Data Link range

LOS Up to 150 km or BLOS



## Max Speed

70 kts



## Payload Weight

Up to 25 kg



## Electrical Power for Missions & Payloads

Up to 600 Watts



## Full redundancy

Avionics System & Sensors



## Operational in GPS

Degraded or Denied Areas



# UNIFIED GROUND SEGMENT

## Data Links

All ORBITER family platforms are controlled by a dedicated, mobile and easily deployed Ground Control Station and Data Link.

Designed for compliance with MIL-STD, the Ground Data Link is available in 2 versions depending on intended range of operation (Medium range antenna up to 50 km, long range antenna up to 150 km). It serves as the uplink/downlink between the UAS and the operator.

## Ground Control Station & User Interface

Aeronautics' Unified, Proprietary Ground Control Station and Graphical User Interface handle all functions and built-in testing required for full operation of each of the ORBITER family of platforms. It supports planning, managing and reviewing the mission, in addition to all aspects of safe, real time operation and is available both as a stand-alone ruggedized mobile unit or integrated into a MIL-STD shelter, and is communal to all the ORBITER Family of platforms.



YOUR EDGE ON THE FIELD



# INTEGRATED LOGISTIC SUPPORT

## \*GSE- Minimized Logistic Footprint

The entire ORBITER Family is characterized by a unique and minimized logistic footprint, **where only 3 main elements are required to execute a mission (\*GCS-Launcher or VTOL - \*GDT)**, the ORBITER family is an ideal means for maneuvering forces, enabling a rapid deployment and turnaround time.

\* GSE-Ground  
Support Equipment

\* GDT-Ground  
Data Terminal

\* GCS-Ground  
Control Station



## \*ILS & Maintenance Concept

For almost three decades, Aeronautics offering includes all peripheral elements and services required to ensure its End Users with system and crew's availability and currency, throughout the systems life time. Depending on the End User's specific requirements and competencies, Aeronautics ILS deliverables usually include:

\* ILS- Integrated  
Logistic Support

- Ground Support Equipment and Simulator
- O and I-level: Training, Support and Test Equipment, Spare Parts, Operational & Technical Documentation
- Technical Help Desk and On-site Service trips

The ORBITER systems design and concept, alongside its supporting maintenance concept and associated technical training, which may include the deployment of spare parts of vital components stored at local facilities, can ensure cost-effective life-cycle support for the system and guarantees operational system availability.

### **Operating Crew, Training & Support**

Designed to be deployed and operated by infantry soldiers, at the tactical level, **by a minimal crew of 2-3**, O/I-level operators, the ORBITER UAS training is rapid, based on real and simulative flights and lasts for 3/4 weeks, for the ORBITER 2/3 and up to 6 weeks for the ORBITER 4/5. A Train the trainer course can be delivered, thus allowing the User self-sufficiency in currency and training.



YOUR EDGE ON THE FIELD



ORBITER 2®ISR/LM



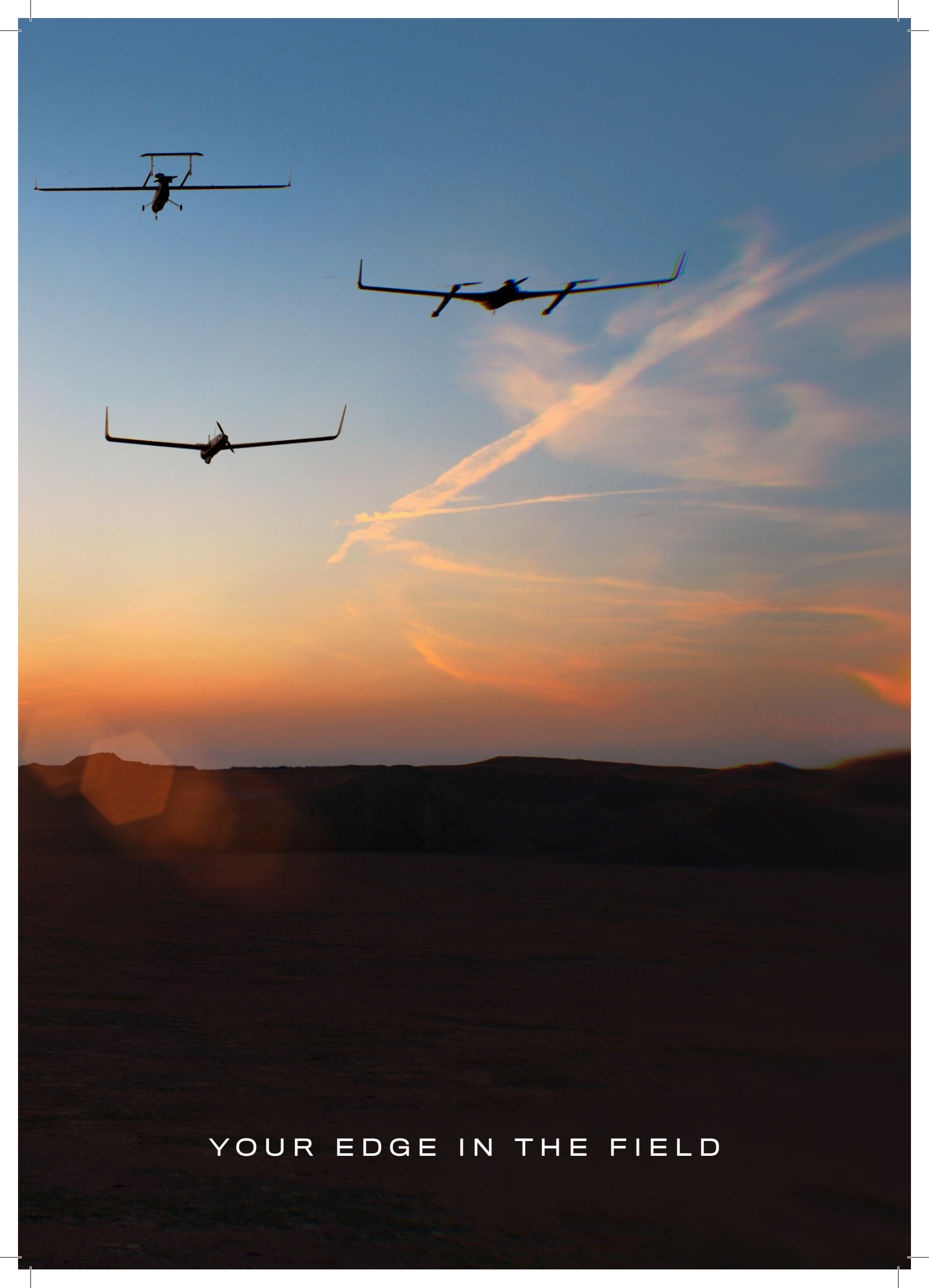
ORBITER 3®VTOL



ORBITER 4®VTOL



ORBITER 5®



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