



The first commercial cargo drone operational across Europe

Speaker: Thomas Markert, Head of Operations



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Our Mission





Be the worldwide leader in cargo drones for safety-critical applications.















Moritz Moroder CEO

Helicopter and Drone Pilot Member of various working groups developing Aviation Standards & Regulations



Matthias Moroder CTO

Helicopter and Drone Pilot 7y experience in Drone Design Bsc. Software Engineer

FlyingBasket[®]



Marta Cejuela Head of Airworthiness

Senior Aviation Engineer UAV Engineer at Airbus



Thomas Markert Head of Operations

Drone Pilot, Aerospace Engineer



Sergio Moura Head of Sales

Service Sales Manager, Business Development at





















FB3 drone - Technical data







Max Speed 30 m/s

70kg empty weight





Fully electric with swappable Li-ion battery



From 10 to 25 minutes flight time



Maximum altitude: 3000 m confirmed, designed for over **5000 m**

European Operations

- Located in northern Italy FlyingBasket has served customers in Italy, Austria, Germany and Switzerland
- ENAC granted FlyingBasket Operational Authorisation in Italy

2.1 5

- LBA (Germany) and Austro Control (Austria) confirmed the OA for operations in specific locations
- As Switzerland is outside EU FlyingBasket acquired separate authorisations

Autorizzazione Operativa Operational Authorization 1. Autorità Competente 1.1 Stato dell'Operatore UAS Italia State of the UAS operator 1.2 Autorità Competente Ente Nazionale per l'Aviazione Civile (ENAC 2.4 Numero Autorizzazione 2021/007/AO 3. Dati UAS 3.1 Costruttore FlyingBasket 3.2 Modello FB3 3.3 Certificato di Omologazione di Tipo (CO) (se richiesto) 3.4 Numero di Serie o Marche di S/N 002 Registrazione (per IIAS Certificati)

	austro
BESTÄTIGUNG gemäß Art. 13 Abs. 2 Durchfultrungsverordnung (EU) 2019/947 CONFRMATION acc. to Art 13 para. 2 Implementing Regulation (EU) 2019/947	
1. AUSSTELLENDE BEHÖRDE AUTHORITY RELEASING THE CONFIRMATION	
usstellende Behörde: 7 autenty:	Austro Control Österreichische Gesellschaft für Zivilluftfahrt mbH Väggranner Str. 19 1220 Wien Austha
efristung der Bestätigung: en of the confirmation:	Die Bestäftigung gilt vom Tag der Zustellung bis 15.05.2021. 7he confirmation is valid from the date of zervice until 15.05.2021.
2. DATEN UAS-BETREIBER LAS OPERATOR DATA	
taat des UAS Betreibers: of the UAS operator:	Italien taly









EU regulations



- UAS regulations in EU are major milestone for UAS industry
 - Common framework (design and operational requirements) enable to operate the same UAS type design in the 27 EU Member States
 - Administrative effort for UAS operation in multiple EU member states significantly reduced
 - Important step for creating a real European UAS ecosystem
- Further harmonisation with non-EU countries will finally unlock full potential of UAS
 - > Think of civil aviation without globally harmonised regulations and standards

EU regulations – outlook



- Amendments to regulations must take into account the limited resources of UAS manufacturers/operators as well as of the authorities
 - For example, NPA 2021/09 requires tests of contingency procedures cover whole flight envelope for SAIL III and number of test flights to be agreed with authorities
 - Huge effort for UAS operator considering all dimensions of the flight envelope (payload, speed, temperature, wind, altitude...)
 - Additional iteration with authorities to agree on number of flights will increase the processing time of Operational Authorisations
 - Doesn't seem proportional for SAIL III medium risk UAS operation
 - Definition of Special Condition and Means of Compliance for Design Verification should reflect the limited risk of SAIL III and IV and not be a "Type Certification light"
 Too demanding requirements to comply with will hinder UAS industry in Europe
 - to grow and fulfil the expectations

EU cross-border operation



- Article 13 of regulation 2019/947 important to create a common European UAS services market
- Operational authorisation recognised in all EU member states, only confirmation by NAA for specific location required
- Initial application of was a learning process for industry and authorities
 - Significantly improved in the meantime, processing time two weeks or less

Improvements required

- Despite having a general Operational Authorisation (e.g. for sparsely populated areas) only specific locations are confirmed for cross-border operation
 - Additional lead time and costs reduces the number of feasible use cases
- In some cases significant fees for cross-border confirmation charged making one-time (demos, small customers) operations economically unfeasible
 - Fees for cross-border confirmation should be limited relative to the fees for operational authorization in the same member state (1/5 or less?)





I-UASK

The future of transportation is **now**.