

# Civil Aviation Authority of Israel; Composite Certification Activities

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### Scope

- 1. CAAI Introduction
- 2. CAAI Engineering Activities
- 3. Current, future, and ongoing composite certification activities



#### CAA Law, 2005



CAAI should achieve an acceptable level of aviation safety while maintaining an efficient aviation environment and promoting Israeli aviation.

Tasks include **certification** (aircraft design and manufacture), **licensing** (aircraft, personnel, airports, schools), **inspection**, **enforcement**, **management of air rights and conventions**, and an **aviation knowledge center**.



#### **CAAI Overview**

- ~130 employees.
- Located adjacent to Ben-Gurion International Airport (TLV), between Jerusalem and Tel-Aviv.





#### **CAAI Structure CAAI Director General** Legal council Aviation safety Administration & HR COO Personnel Licensing **International Relations Operations** Infrastructure Airworthiness **Engineering Department** Manufacturing Department Hardware & Mechanical Systems Test Pilot Cabin Safety & Reliability Software Mechanical Avionics & Loads & Flutter Flight Tests **Electrical Systems** Systems Composite Materials' Aircraft Systems' Flight Sciences Structure Strength Structures Reliability Section & Fatigue Continued Power Plant & **Operational Safety Fuel Systems** oses only



Adapted 14CFR Part 21

#### Air Navigation Law, 2011

#### **Air Navigation Regulations**

- Operation
- Documentation *certification*
- Airports
- Maintenance & Repair
- Licensing
- Accident Investigation
- ...

- Administrative
- Technical

14CFR Part 23 Normal, utility, etc. airplanes

14CFR Part 25 Transport category airplanes

14CFR Part 26 Continued airworthiness

14CFR Part 27 Normal category rotorcraft

14CFR Part 29 Transport category rotorcraft

14CFR Part 31 Manned balloons

14CFR Part 33 Aircraft engines

14CFR Part 35 Propellers

British CAR Section S LSA

EASA CS-22 Gliders

NATO STANAG 4671 UAS

#### **Advisory Material**

FAA

AC

EASA

AMC

STANAG AMC



## **Engineering Activities**

- Type Certification (TC) of Israeli products,
- Supplemental Type Certification (STC) of Israeli products,
- Validation of foreign TC's and STC's of imported products,
- Issue Experimental Certificates of Airworthiness,
- Continued Airworthiness of Israeli products.











### **Engineering Activities**

- Aeronautical Product Approval (TSOi),
- Continued Operational Safety of Israeli fleet and Israeli designed products,
- Engineering support of CAAI departments Manufacturing, Airworthiness, Operations ...
- DER Approval & Monitoring,
- · Write procedures, regulations, aviation law,
- Support & maintain international bilateral & working agreements,
- Certification of UAS.









# **Composite Certification Activities**



## **Current Composite Activities**

- Final stages of fatigue certification test approval for IAI/Gulfstream business jet G280.
- TSO C127 Certification of rotorcraft seats produced by RTM.
- Many STC projects including large radomes.









### **Current Composite Activities**

- Type Certification of large UAS to STANAG 4671,
- Conversions of manned aircraft to UAS,
- Approval of UAS under Special Certificates of Airworthiness:
  - New UAS,
  - Legacy UAS programs (pre-CAAI authority).









#### **Expected Composite Activities**

"Prediction is very difficult, especially if it's about the future"

(Niels Bohr)

- Type Validation of Boeing 787-8/9 (order placed by major Israeli carrier)\*
- Type Certification of a new Part 23 Composite aircraft\*\*
- Certification of RTM parts to replace conventional metallic & composite parts.

<sup>\*</sup> Boeing Statement, August 2015

<sup>\*\*</sup> Flightglobal web site, July 2015



## Additional ongoing activities

- Assistance to CAAI Manufacturing Department with audits of Composite fabricators.
- Participation in CMH-17 meetings and FAA workshops.





Advisor to national AM Consortium on certification aspects:

Process qualification, allowables development, etc.







# Thank you for your attention

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