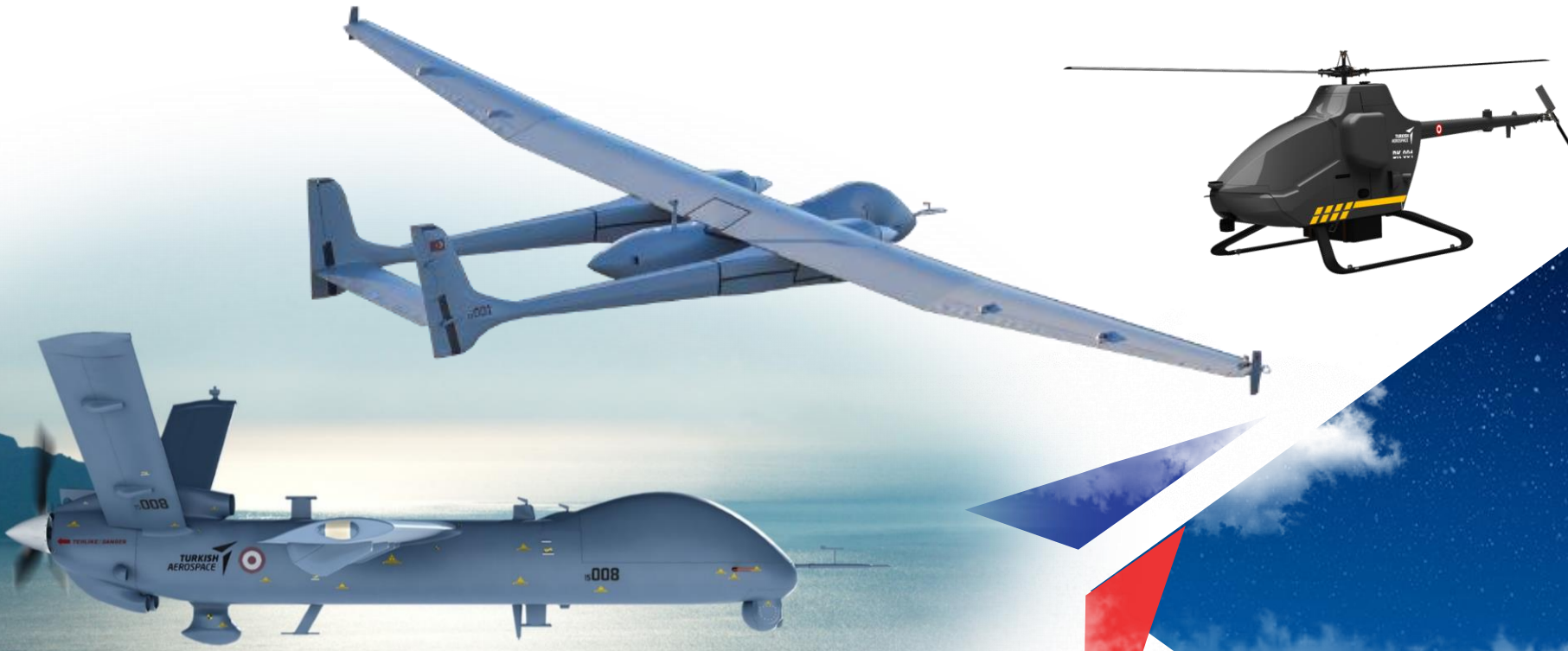




15. GLOBAL HUMANITARIAN AVIATION CONFERENCE & EXHIBITION

TURKISH AEROSPACE UAV SYSTEMS IN HUMANITARIAN AVIATION

Ömer YILDIZ



TUSAS MALE/MALE+ CLASS UAV SYSTEMS HISTORY & PRODUCT FAMILY



BLOCK-A

2010



BLOCK-B

2015



ANKA-S

2017



AKSUNGUR

2019



ANKA+

2020

200.000+ Operational Flight Hours...



- ✦ *MULTI ROLE MALE UAS*
- ✦ *SERVICE CEILING: 30,000 FT*
- ✦ *ENDURANCE: 30 HOURS*
- ✦ *LONG RANGE OPERATION:*
 - LOS +250 KM*
 - BLOS +5000 KM*
- ✦ *MTOW: 1700 KG*
- ✦ *PAYLOADS: 350+ KG (EO/IR Camera, Radar, Relay Station etc.)*

- ✦ *MULTI ROLE MALE+*
- ✦ *GCS AND DATALINK COMPATIBILITY WITH ANKA UAS*
- ✦ *ALTITUDE: 40,000 FT*
- ✦ *ENDURANCE: 50+ HOURS*
- ✦ *MTOW: 3,300 KG*
- ✦ *LONG RANGE OPERATION:*
 - LOS +250 KM*
 - BLOS +5000 KM*
- ✦ *PAYLOADS: 750+ KG (EO/IR Camera, Radar, Relay Station, Wide Area Surveillance System etc.)*





QUICK RESPONSE TO EMERGENCIES - EARTHQUAKE SUPPORT AND DAMAGE DETECTION

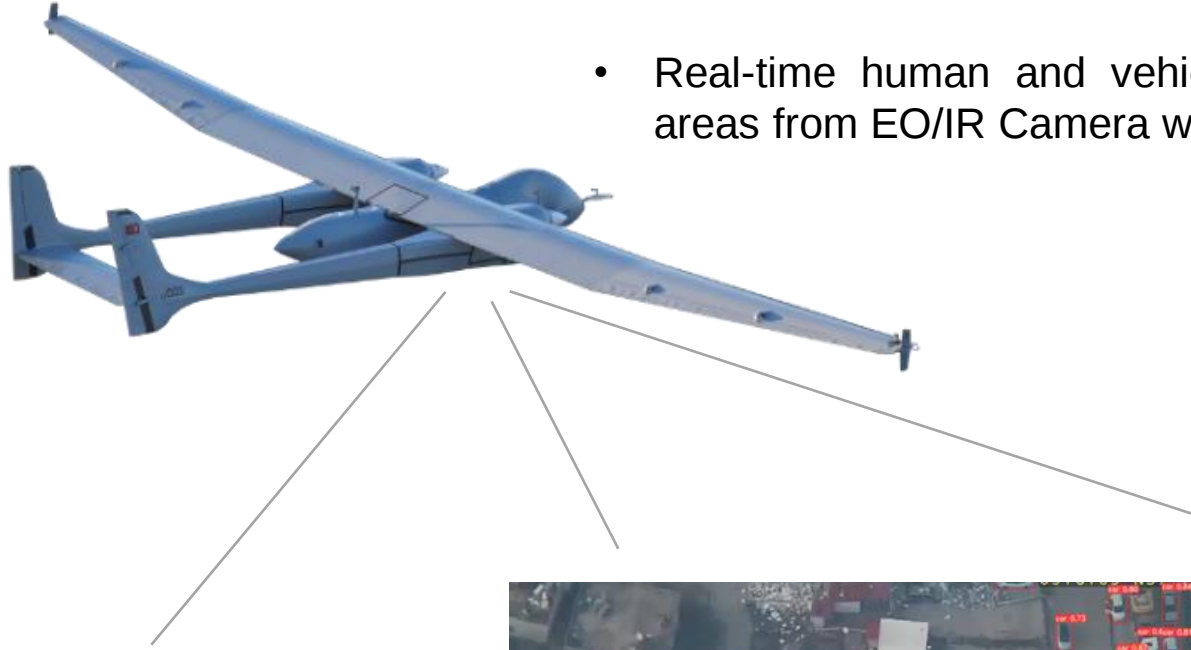
- Real-time damage information day and night with EO/IR Camera.
- Quick decision-making for emergency situations.
- Damage Information under cloudy conditions with radar.
- Rapid identification of damaged buildings with artificial intelligence.





QUICK RESPONSE TO EMERGENCIES – HUMAN AND VEHICLE DETECTION IN AREA

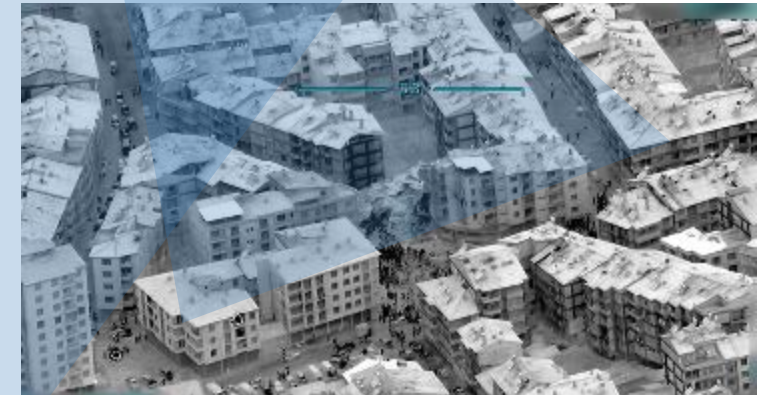
- Real-time human and vehicle detection information on disaster or local areas from EO/IR Camera with artificial intelligence.





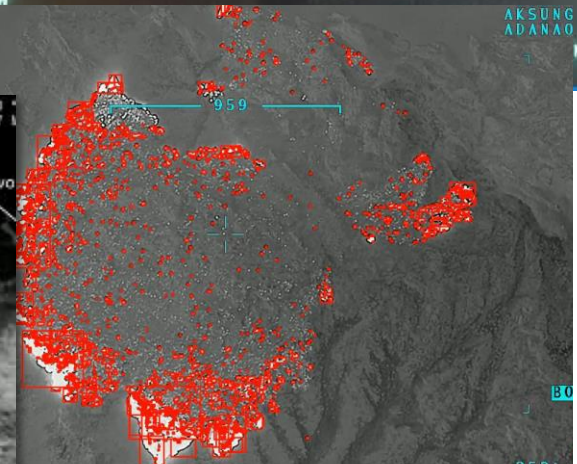
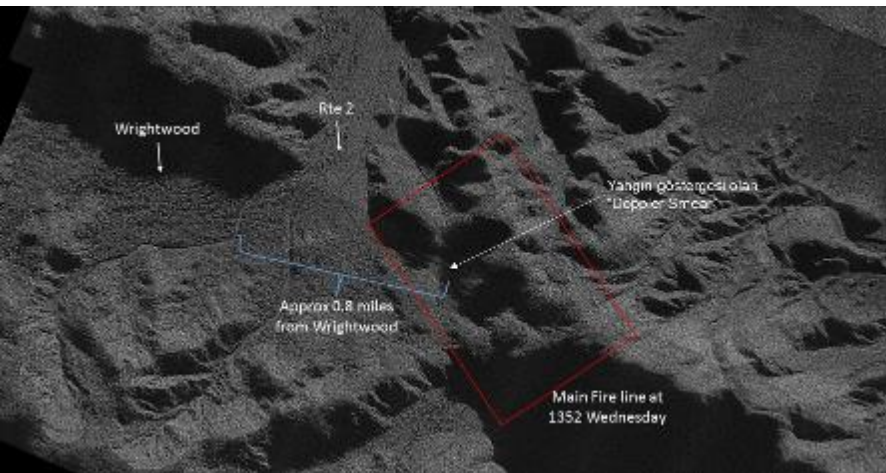
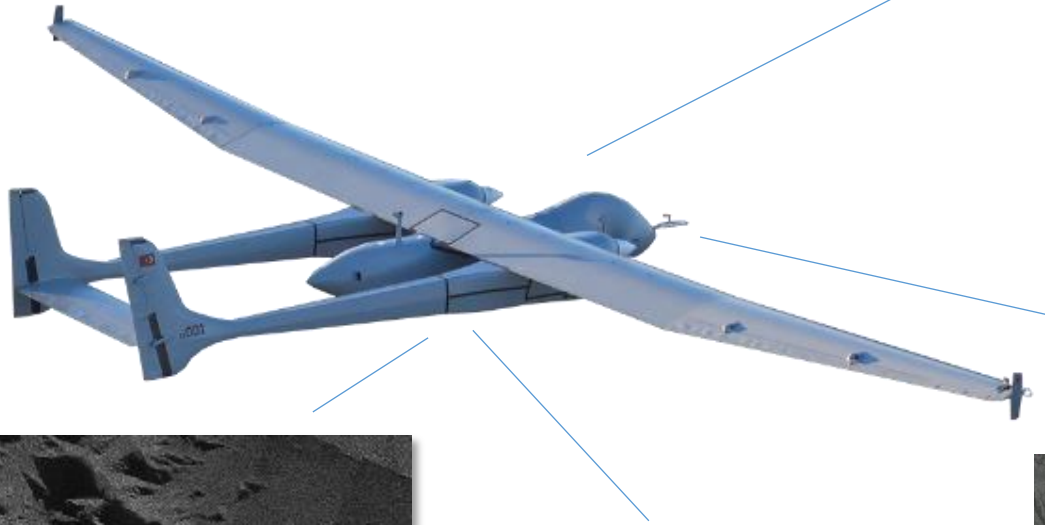
QUICK RESPONSE TO EMERGENCIES – COMMUNICATION RELAY

- Air Base Station (Mobile Network) mission for civil and military operations in case of loss of communication due to a disaster.
- Communication relay (Radio) between Air-to-Air, Air-to-Ground and Ground-to-Ground bases.
- Range extension with relay function.

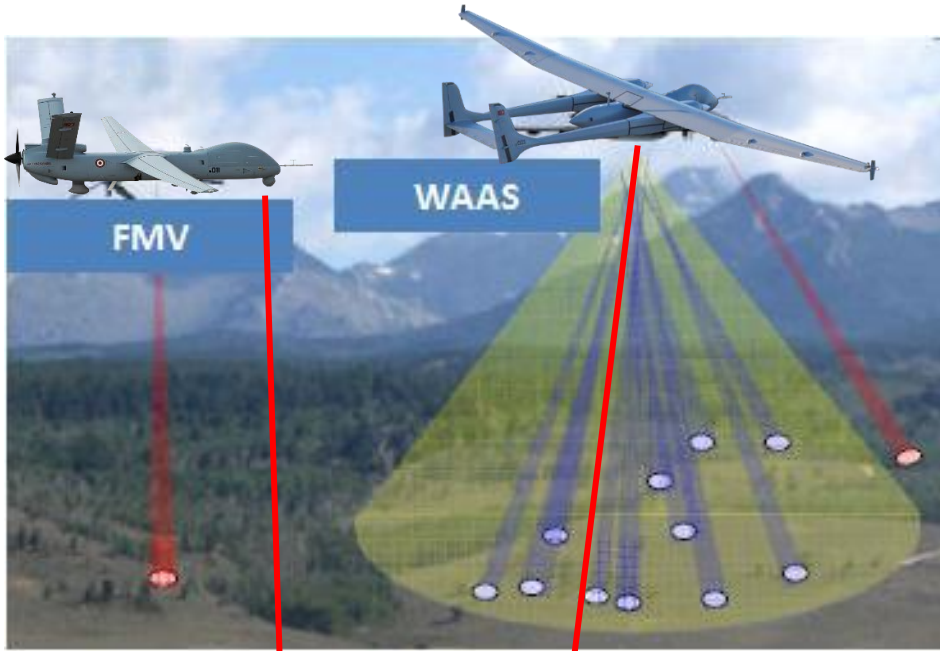


QUICK RESPONSE TO EMERGENCIES – FIRE DETECTION

- Real-time fire information day and night with EO/IR Camera.
- Quick decision-making for emergency situations
- Fire detection with artificial intelligence.
- Rapid identification of damaged areas

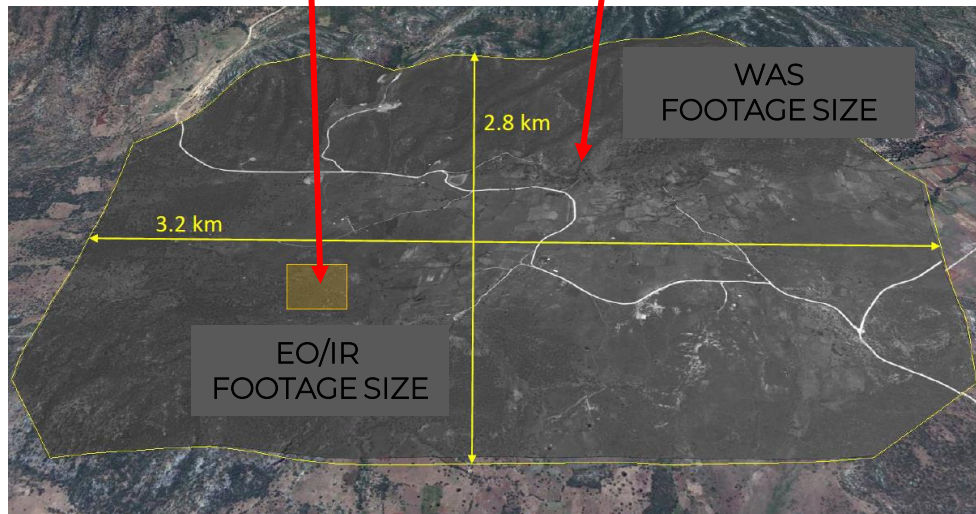


QUICK RESPONSE TO EMERGENCIES – PLANNED SYSTEMS AND FEATURES



WIDE AREA SURVEILLANCE SYSTEM (WAS)

- Real-time monitoring in a very large geographic area (compared to EO/IR) affected by a disaster such as earthquakes, hurricanes or floods.
- Detecting and tracking activities, objects or individuals over expansive regions





QUICK RESPONSE TO EMERGENCIES – PLANNED SYSTEMS AND FEATURES



Turkish Aerospace Rotary UAS

- **Cargo Carrying Capacity** for logistic support in case of emergency (medical supply, food etc.)
- **Full Autonomous Flight** from take-off to landing
- **EO/IR Camera** for surveillance and locating survivors in disaster scenarios
- **Relay Function** to establish communication networks in areas with disrupted infrastructure
- **NRBC Sensors**
(Nuclear/Radioactive/Biological/Chemical) to collect samples from suspected area.
- **Ambulance option** for emergency situations, to land unprepared vertiport at disaster area and to take injured for transferring to hospital immediately.

THANK YOU

