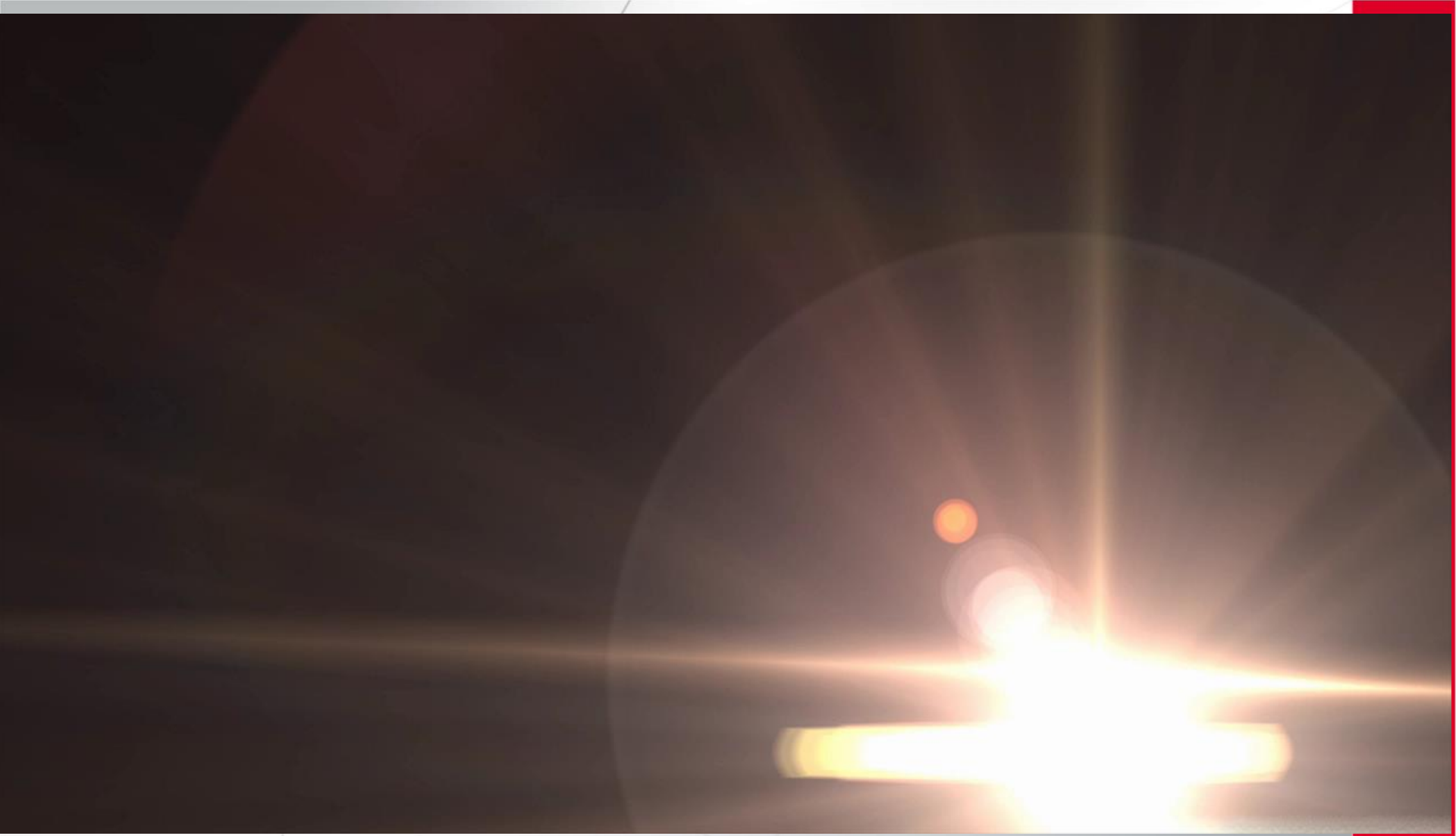




Sistema di sorveglianza Falco

Roma 29/03/2017

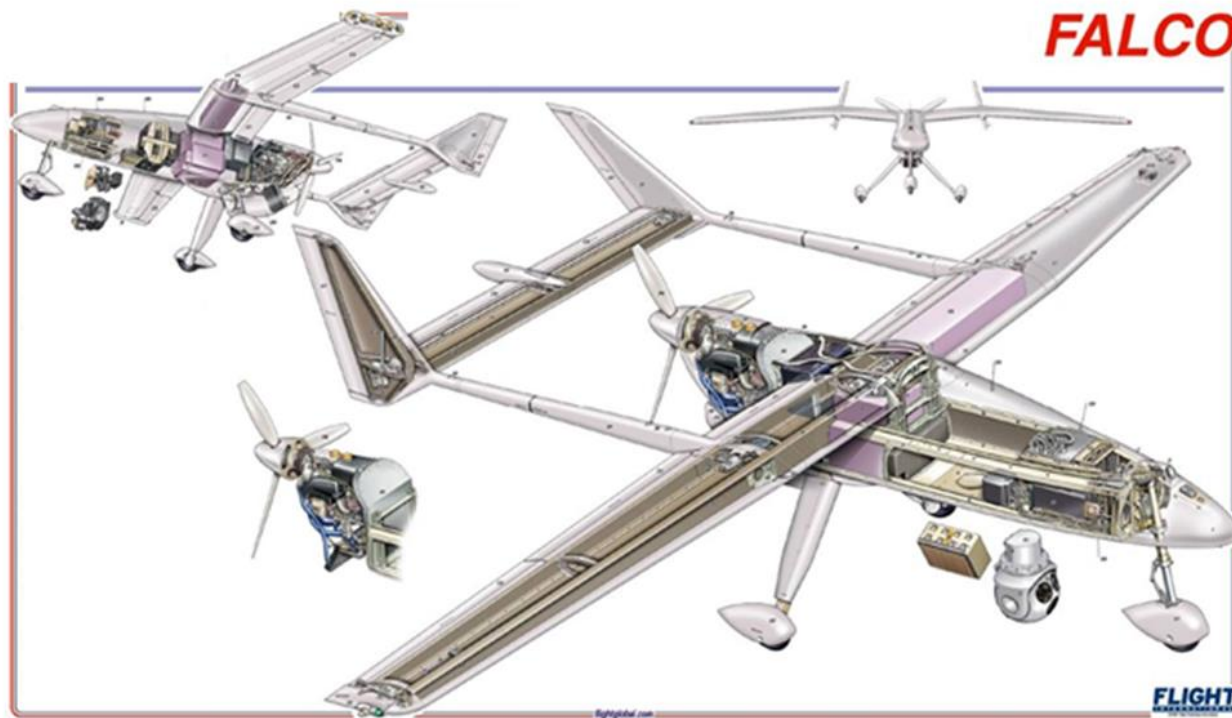




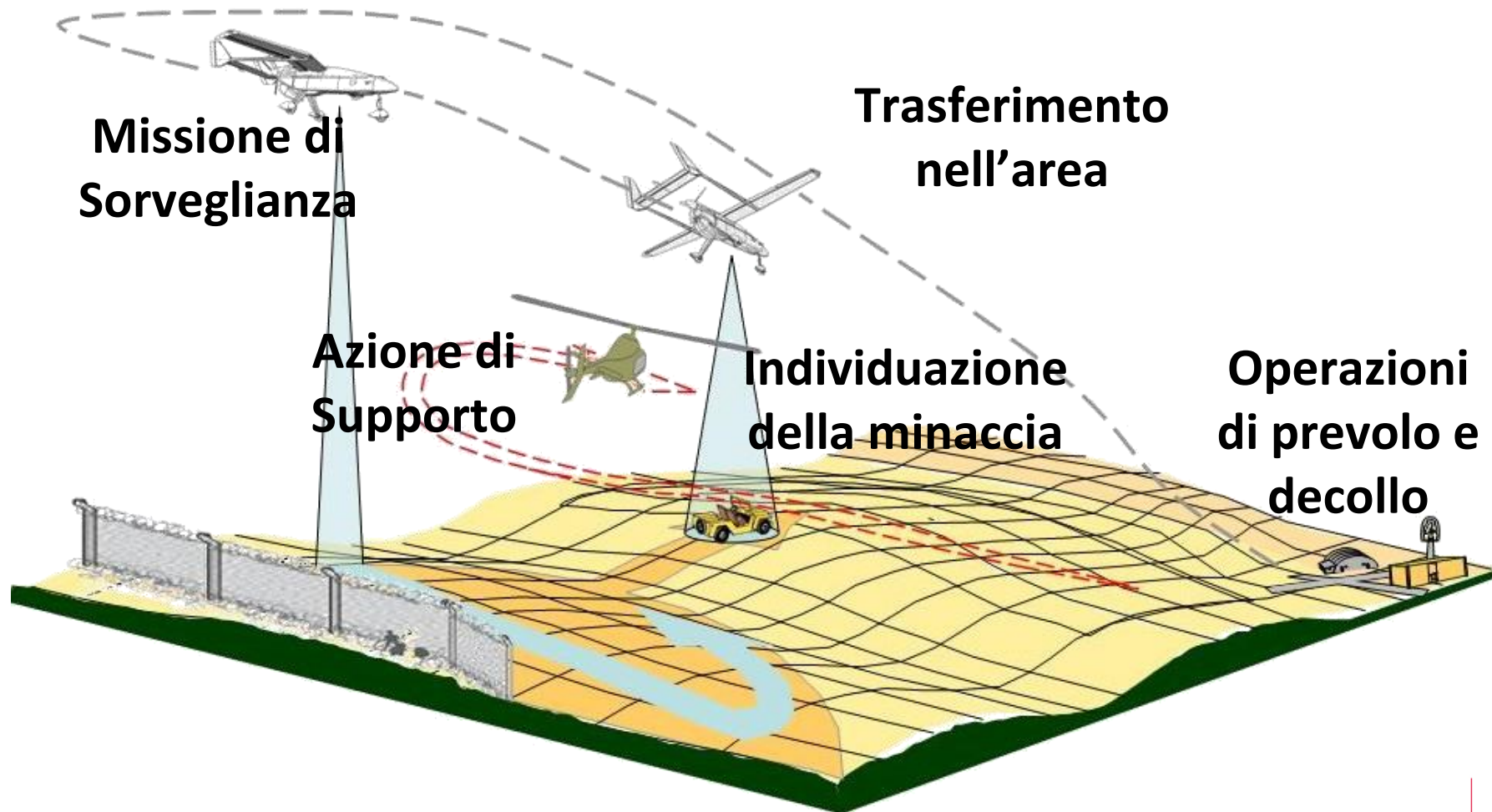
LEONARDO

AIRBORNE & SPACE SYSTEMS

Falco: Aeromobile a Pilotaggio Remoto (APR) per applicazioni di sorveglianza. Disponibile in diverse configurazioni, in funzione della missione da effettuare, può imbarcare sensori multipli fino ad un massimo di 70 kg di carico utile. Grazie all'autonomia di 14 ore ed una quota massima di 6000 m, effettua missioni di sorveglianza in un raggio di azione superiore ai 200 km dalla stazione di controllo a terra. Missioni tipiche sono: sorveglianza dei confini, search and rescue, ricognizione, prevenzione delle attività illegale e monitoraggio ambientale



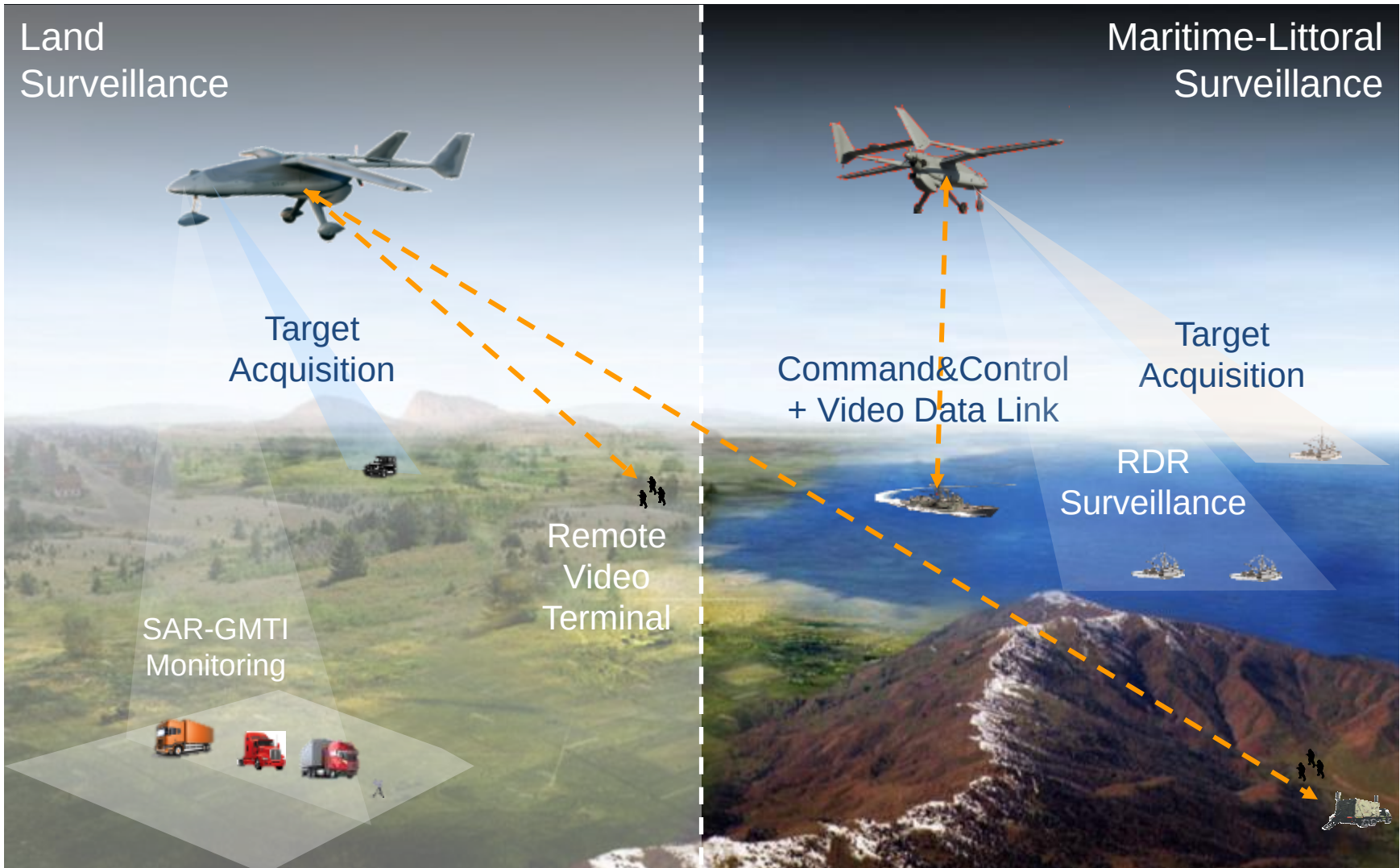
FALCO: MISSIONE TIPICA



FALCO FAMILY: APPLICATIONS AND CAPABILITIES



FALCO SYSTEM ISR CAPABILITIES



FALCO: PERFORMANCE BASIC XN & “EVO”



	XN CONFIGURATION	EVO CONFIGURATION
MTOW	490Kg	650 Kg
Max Payload (Multiple Sensing Capability)	70 Kg	120 Kg
Max endurance with basic payload	Up to 14 hours	Up to 20 hours
Endurance with multi-payload	8 to 12 hours	12 to 18 hours
Max transfer speed	125 Kts (229 Kmh)	120 Kts (222 Kmh)
Typical operational speed	80 Kts (146 Kmh)	60 Kts (111 Kmh)
Max operational altitude	18000 ft	> 21000 ft
Max Link range in Line of Sight, according to Ground Data Terminal	>200 Km	
System Operating Temperatures - SL - (STANAG 4370): + 49°C – 21 °C		

FALCO: MULTI PAYLOAD PLATFORM

The following sensors have already been integrated onto the Falco:

- Leonardo EOST 380
- Leonardo PicoSAR
- Leonardo Gabbiano T20N
- Leonardo SAGE 300
- TAMAM Pop 300 EO/IR
- Flir System Family (SFII, SSIII, BS)
- Wescam Family (MX15, MX10)
- Wescam MX10HD Family
- Novasol HS Swir



Onboard payloads



COMINT



SAGE ESM/ELINT



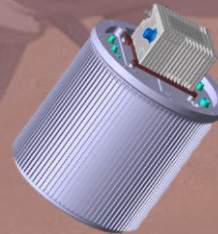
PicoSAR/GMTI



Gabbiano
Multimode Radar



AIS Receiver



SPHYDER
Hyperspectral System

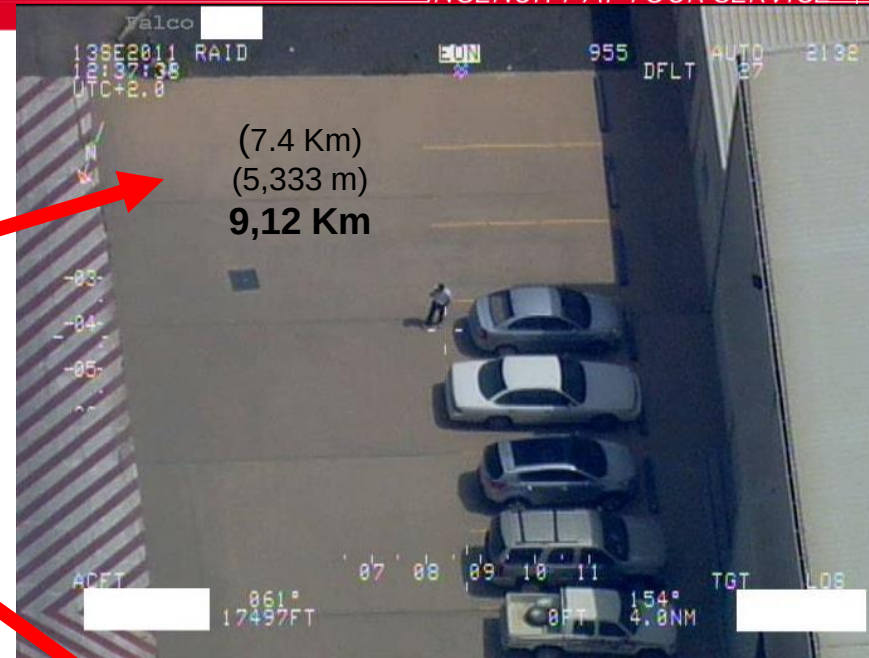


EO/IR/LRF/Spotter
Stabilized Turret

E/O PAYLOAD: TV CAMERA



(slant range)
(height)
target distance



E/O PAYLOAD: INFRARED CAMERA

IR CAMERA CIGARETTE DETAIL



VIS&IR CAMERA PIPELINE

SAR/GMTI : PICOSAR



PicoSAR Antenna

Radar Modes:

- Strip map SAR (selectable resolution)
- Spot SAR (selectable resolution)
- GMTI

Key Radar Parameters:

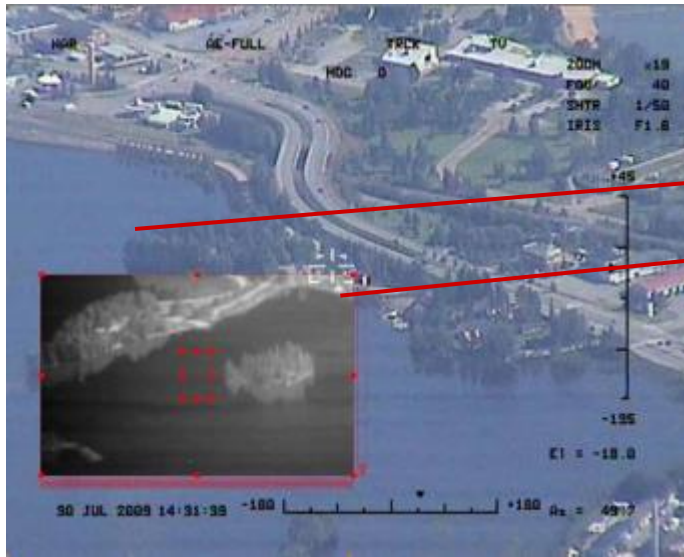
Operating Frequency	X-Band
RF Bandwidth	1500 MHz
Field of Regard (repositionable)	90 degs



PicoSAR Processor



EO/IR and PicoSAR images



Esempio di sorveglianza incendi in Bulgaria



Falco UAV - Volo del 14 settembre 2006



Chesnegirovo, Bulgaria



THANK **YOU** FOR YOUR ATTENTION

