



SAFE SKIES

ADVANCED AERIAL DRONE DETECTION SYSTEM

ESCALATION IN DRONE COLLISIONS

Drones can be easily purchased on the high street or online and are relatively cheap and easy to operate. With limited regulations, drone hobbyists have created safety issues for aircraft and helicopters. Numerous incidents of drones straying into commercial airspace have amplified the urgency for a comprehensive solution to the drone threat. Drones pose a significant threat not only to airport security, but also aircraft during takeoff and landing. Flying at lower altitudes, helicopters are particularly vulnerable to drones and the number of collisions has increased alarmingly over the last decade.





SAFE SKIES: OPERATIONAL CONCEPT

SYKLOCK is a leading provider of anti-drone systems with proven experience in delivering anti-drone solutions worldwide. To meet the growing civil aviation threats SKYLOCK has developed SAFE SKIES, a revolutionary drone detection system designed to protect the helicopter and crew during flight. SAFE SKIES alerts pilots of all drones within a 1km radius, providing them sufficient time to make a collision-avoiding maneuver.

SYSTEM COMPONENTS

The SAFE SKIES System incorporates 3 primary components:



Belly POD



SDR Receiver



Display

SYSTEM HIGHLIGHTS

1. The SD receiver gathers RF signals from the systems antennas.
2. The SDR analyzes all incoming signals to detect approaching drones.
3. The system identifies the incoming drone, highlighting its location on the display and allowing the helicopter to avoid collision.

RF DETECTION SPECIFICATIONS

DETECTION SYSTEM RF SENSING	
Frequency Range	70 - 6,000 MHz
Frequency Resolution	5 MHz
Frequency Accuracy	+/- 1ppm
Aging	0,5×10 Exp-6/year
Synthesizer Setter Time	Better than 10ms
Oscillator Phase Noise	<-92dBc/Hz at 10KHz offset
Antenna input	N-Type 50Ω
RF Attenuation	30dB Manual
Sensitivity, Overall Noise Figure	(-)112dBm, typ. 10 dB
Demodulation	FFT - Up to 32,768 Point
IF Bandwidth	5 MHz
Squelch	(-)112dBm, to (-) 30 dBm
Typical Noise Figure	6 dB