

**A modern advanced, yet simple concept for performing real time surveillance missions, using light airplane in unmanned or manned configuration**

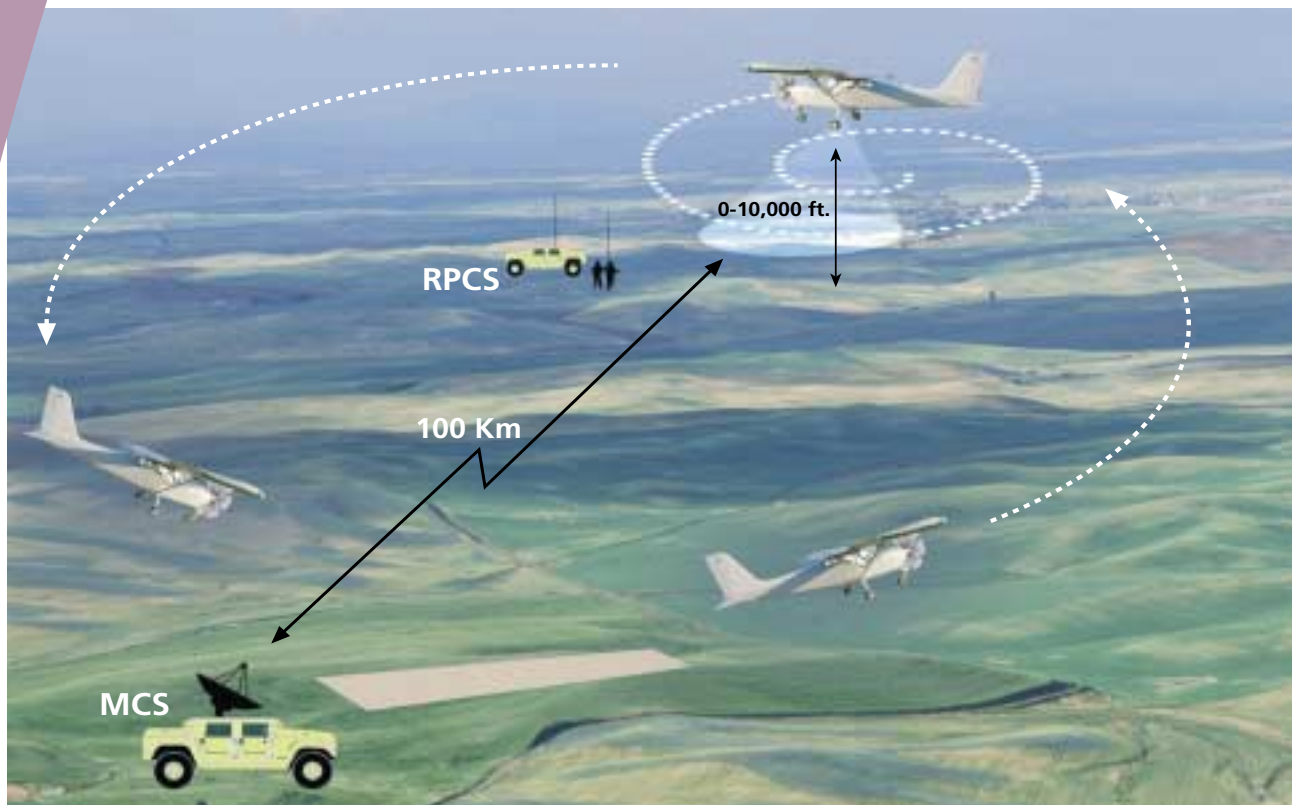


- **P-92 Echo Super airplane** equipped with Electro-Optical Day\Night observation payload, mission avionics, data-link and other supporting sub-systems.
- **In unmanned configuration**, the airplane and payload are fully controlled by the Mission Control Station like a conventional UAV.
- **In manned configuration**, the airplane is flown by a pilot and the payload is operated by the same Mission Control Station. Alternatively, payload can be operated by the aerial observer, providing independent mission capability and overcoming data link range line of sight limitation (flying below clouds and behind terrain obstacles).
- **Conversion from manned configuration to a UAV**, is implemented by removing several loose pilots supporting items including seats from the cockpit, connecting existing servo actuators to the controls cables \ linkages, and installing auxiliary large fuel tank inside the cockpit (or additional payloads).

### The benefits of this concept:

- Airplane is commercial off the shelf, needs no special equipment, nor infrastructure, and can be maintained and operated by any light airplane facility.
- Cost effective in acquisition and in operation.
- Very low noise signature enabling undetected close surveillance.
- Operated from short unpaved runways.
- Most of the missions where pilots lives are at no risk may be performed by manned system, thus increasing substantially system reliability, and reducing operating cost.
- May be operated in civil aviation environment overcoming UAV operational limitation.
- Short training time and quick deployment.





System operating scenario (manned or unmanned)

## Technical data for manned \ unmanned configurations

Parameter	Manned	Unmanned
Wing span	8.7 m	8.7 m
Length	6.4 m	6.4 m
Weight empty	306 kg	306 kg
Weight takeoff	550 kg	550 kg
Fuel volume	100 liter	Up to 280 liter
Payload weight	15 kg	Up to 150 kg (fuel tradeoff)
Payload type	EO/IR stabilized	EO/IR, COMMINT, DF, EW
Speed stall	38 kts flaps down	38 kts flaps down
Speed loiter	55 kts	55 kts
Speed dash	120 Kts	120 kts
Service ceiling	12,000 ft	15,000 ft
Rate of climb	1,000 ft\min	1,000 ft\min
Endurance	5 hours	5 to 20 hours
Controlled range	>100 km.	>100 km.

## System configuration

A typical system is configured of the following equipment:

- Aerial vehicles: 1 - 3 planes fully equipped with payload, airborne MIAS avionics (see brochure) and data link.
- Mission Control Station (MCF): 1 each, composed of 2 consoles with ground MIAS (see brochure) and data link terminal.
- Remote Payload Control Station (RPCS): 1 - 3 each, laptop computer and data link terminal.
- Integrated Logistics Support: Documentation, Training, GSE, Spare parts.

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