



RPAS

High grade light RPAS for observation and surveillance



AERTEC Solutions has developed a complete family of RPAS (Remotely Piloted Aerial Systems). The TARSIS aerial platforms stand out among most fixed-wing unmanned aerial vehicles of similar size. The TARSIS family of RPAS are versatile fixed wing solutions capable of performing different missions with a variety of configurations mainly designed for observation and surveillance. AERTEC Solutions has currently two operative solutions:

	<i>TARSIS 25</i>	<i>TARSIS 75</i>
MTOW	25 kg	75 kg
Maximum payload	5 kg	12 kg
Maximum endurance	8 hours	12 hours
Maximum flight altitude	4 000 MASL	5 000 MASL
Operational video range	40 km / 150 km	70 km / 150 km
Wingspan	4 m	5.2 m

Both solutions are capable of operating in diverse weather conditions. The platforms are equipped with a primary nominal communications system along with a secondary redundant system. The primary real time video/data link has optional configurations in range (40, 70 and 150 km). The secondary data link connects via satellite, and has an unlimited range. The communication frequency can be adapted to local operating requirements.



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Guidance, Navigation and Control (GNC) System

The GNC developed by AERTEC Solutions calculates an optimal trajectory based on a predictive algorithm that takes into account the flight's attitude and direction along with surrounding environment inputs. The Mission System includes an optimal flight trajectory generator based on:

- Reference point configuration
- Interpolation of altitude and flight plan patterns
- Return to base mode options
- Lineal and helical ascents and descents
- Orderly planned tasks to perform loiter/contingency/emergency maneuvers

Ground Control System (GCS)

AERTEC Solutions has a proprietary technology GCS that is compatible with any other type of RPA. It allows the development of new dedicated applications as well as it serves as a single interface between operator and system with the corresponding advantages on crew training and formation.

High technology surveillance

AERTEC Solutions works with sensors that can be used to develop different types of operations over 24 hours (day/night). This technology allows clear and stable images to be received, transmitted in real time and with complete pan/tilt movements of up to 120° per second. Real and demonstrable high technology.

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