

Company Profile

Automation Innovation

S-PLANE is an internationally recognised aerospace company delivering proven certification-ready Automation, Simulation, Communication and Ground Control Solutions for civilian and military fixed- and rotary-wing aircraft. S-PLANE combines its own and other market-leading products with system engineering, integration and testing support services to customise and deliver these Solutions. Most notably, S-PLANE Solutions are used to create Unmanned Aerial Systems (UAS) and Optionally Piloted Systems (OPS), as well as Manned ISR Aircraft that are easily upgraded to become UAS or OPS.





Innovation
Pushing Technology
Boundaries



Excellence
Competence,
Commitment, Precision



Integrity
Responsibility, Respect,
Relationships, Trust



Efficiency
Modern, Pragmatic,
Goal-Oriented



**Manned Aircraft
Systems**
Manned fixed- and rotary-wing
aircraft, Upgradeable to OPS or
UAS, Certified



**Optionally Piloted
Aircraft Systems**
Manned or unmanned
operation, Exceptional
versatility, Certification-ready



**Unmanned
Aircraft Systems**
Unmanned fixed- and rotary-
wing aircraft, Mini, Tactical,
MALE and HALE UAS and
converted manned aircraft,
Certification-ready



Automation
State-of-the-art UAS and OPS, Safety-critical and
Standards-based Design, Certification-ready



Communication
Long range LOSCom, High bandwidth, Redundant,
Reliable, SatCom equipment and Data Services



Simulation
Flight and Mission Simulation, Hardware-In-the-Loop
Integration and Testing Stations, Integral to GCS



Ground Control Stations
Command and Control, Remote Piloting, Payload Operator, Common Operating Picture,
Safety-critical and Standards-based Design, Easy to use, Complete Integration

Values

Selected
Products

Applications

S-PLANE
AUTOMATION (PTY) LTD

Solutions

Services

Development Services

Standards-based: RTCA, STANAG &
MIL-STD, Customisation of Products to
meet System Requirements



X-SERIES

X-KIT for OPS/UAS Conversion, X-FCU,
Tactical/MALE/HALE/Manned airframe
Automation



NX-SERIES

NX-FCU, Integrated Flight Control,
Sensors and Communication, Mini/
Tactical airframes



Paragon

User-friendly ParagonC2, ParagonISR,
ParagonCOP, Multi-vehicle operation



LOSCom

Rugged TRACKER with integrated links
and antennas, 150km to 300km range,
High BW MIMO Diversity Mesh links,
S/C-band and UHF



SatCom

Inmarsat and Iridium, L/K-band,
Equipment and Data Services,
Bandwidth Management



HILS-203R

High fidelity HIL Simulator,
Integration and Testing,
Automated ATPs



System Architectures

Requirements, Architectures/System
Designs, V&V, Standards-based: ARP
& RTCA with DAL assessments



Aviation Services

Requirements analysis, Architectures/
System Designs, Aircraft Selection,
Airworthiness



**Environmental
Qualification**

RTCA DO-160G, MIL-STD-461F,
MIL-STD-810G



Training Services

Operation, Deployment, Maintenance,
Engineering Skills

Applications

S-PLANE's Aircraft Automation, Communication and Ground Control Solutions, combined with suitable sensor payloads, are integrated onto rotary-wing and fixed-wing manned aircraft in order to create powerful Manned, Optionally Piloted and Unmanned airborne Systems. Integration can be performed for new aircraft or as modernisation and upgrade projects for existing fleets. Manned airborne Systems created with S-PLANE technology are seamlessly upgraded to state of the art certification-ready Optionally Piloted or Unmanned Systems. These Solutions also apply to dedicated Unmanned platform designs.



Solutions



AIRCRAFT AUTOMATION SOLUTIONS

Airframes designed for manned or for unmanned operation are fully automated to become Unmanned or Optionally Piloted Vehicles (UAS and OPS). The typical MTOWs of these aircraft range between 100 kg and more than 50 000 kg. The primary building blocks are S-PLANE's state of the art, reliable and redundant NX-FCU and X-KIT certification-ready products, combined with system engineering, integration, flight testing and certification support.



COMMUNICATION SOLUTIONS

Manned and unmanned aircraft enjoy exceptional RF link connectivity in both Line of Sight (LOS) and non-LOS environments. Building blocks include S-PLANE's TRACKER 100+ integrated antenna tracker and industry-leading Satellite and Line-of-Sight communication links. S-PLANE provides system engineering, integration, flight testing and certification support in order to realise complete Solutions.



GROUND CONTROL SOLUTIONS

Multi-vehicle Ground Control is provided via a rugged and transportable Tactical Deployment Unit (TDU) serving as the heart of any ISR Ground Control Station (GCS). S-PLANE's TDU, combined with our Operator Stations, provides complete Command and Control (C2) functionality, connectivity between the payload operator in the GCS and the on-board pilot (if the aircraft is manned), and mission and payload situational awareness to the aircraft and payload operators via S-PLANE's ParagonC2 and ParagonISR appliances.



SIMULATION SOLUTIONS

Simulation Solutions include Flight and Mission Simulation and Hardware-In-the-Loop Simulation (HILS). Flight and Mission Simulation is integral to S-PLANE's Tactical Deployment Unit (TDU), normally installed within a GCS. Simulation is used for training and to allow operators to optimise and practice real missions before they are flown. At S-PLANE, HILS supports automated execution of acceptance tests as part of an efficient system engineering tool chain for customer integration, testing and maintenance.



Contact Details

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