

LaunchPADS™ (P/N 062305) is a powerful and adaptable mission planner for the planning, execution and analysis of cargo and personnel airdrop operations. Fully integrated with MMIST Precision Aerial Delivery Systems, it can also be tailored to customer specific parachute equipment and supports HALO and HAHO deployments for both steerable gliding and drag only (non-gliding) parachute operations. It provides comprehensive release point planning, including Launch Acceptability Region (LAR) calculations for individual or teams of steerable gliding parachutes, and Calculated Aerial Release Points (CARP) for individual or groups of drag only (non-gliding) parachutes.

LaunchPADS™ + SkyLink™

LaunchPADS interfaces with SkyLink, MMIST's free-fall navigation and situational awareness system, enabling planners to manage both personnel and accompanying autonomously guided cargo in a single mission, which enhances coordination, situational awareness, and operational efficiency in mixed deployments.

LaunchPADS™ + Drop Sonde™

The Drop Sonde system provides real-time wind data to each of MMIST's LaunchPADS and SkyLink products, enabling aircrews to evaluate local wind conditions prior to an airdrop. This information improves the accuracy of Launch Acceptability Regions (LAR) and Calculated Aerial Release Points (CARP).



LaunchPADS™ + Sherpa™

LaunchPADS is an intuitive tool for calculating and visualizing a Sherpa's Launch Acceptability Region (LAR), enabling release point planners to select optimal release points while accounting for wind conditions, terrain, airspace constraints and potential failure areas such as ballistic impact zones and guidance failure footprints. Operators can adjust key mission parameters right up until deployment from the aircraft, including the aircraft's run-in heading, the Sherpa release point location, and the parachute opening altitude for programmable systems. LaunchPADS can connect wirelessly to multiple parachute guidance units at once or interface with a single unit through a wired link and automatically verifies all data uploaded to each guided parachute to ensure transmission integrity and mission readiness.

LaunchPADS™ 3D GIS

LaunchPADS interfaces with a wide range of Geographic Information System (GIS) data and supports full 3D visualization, allowing operators to identify terrain constraints that may affect a proposed flight path. When working with steerable gliding parachutes (e.g. Sherpa cargo systems or SkyLink equipped parachutists), LaunchPADS operators can adjust deployment points or add waypoints so the parachutes can steer around obstacles or avoid flying over specific areas. Landing points can be adjusted directly on the 3D map overlay or entered numerically using latitude/longitude, UTM or Military Grid Reference System (MGRS) coordinates. The software operates on the Microsoft operating system and is fully upgradeable through future firmware updates when purchased with optional annual support. The system includes a rugged PC equipped with a factory installed GPS receiver and a high-altitude capable solid-state drive (SSD). To maintain security, the system incorporates features that prevent unauthorized access and is tested in accordance with military standards for environmental durability and electromagnetic interference (EMI) compliance. LaunchPADS connects to optional MMIST devices via wired or wireless links (802.11b/g with a 90-meter range) and is supplied with EMI/EMC shielded cables for enhanced reliability.

Product Highlights

Feature	Description
Release Point Planning (LAR Planning)	Determines and visualizes Launch Acceptability Region (LAR) for steerable (gliding) parachutes, accounting for environmental conditions (wind, temperature, pressure), aircraft deployment characteristics (altitude, run-in angle, airspeed). Determines and visualizes failure footprints so that mission planners can adapt release point selection and/or aircraft deployment characteristics to minimize the risk associated with parachute failures.
Release Point Planning (CARP Planning)	Determines and visualizes precise Calculated Aerial Release Points for drag only (non-gliding) parachutes, accounting for environmental conditions (wind, temperature, pressure), aircraft deployment characteristics (altitude, run-in angle, airspeed). Determines and visualizes failure footprints so that mission planners can adapt landing points and/or aircraft deployment characteristics to minimize the risk associated with parachute failures.
Green Light Point Planning	Determines the point where the Green Light is turned ON so that the release (i.e. deployment of the parachute system from the aircraft) occurs at the intended Release Point, taking parachute system station, deck angle, and cargo bay delays into account.



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2D/3D GIS Maps	Supports detailed map overlays using imagery, scenery and DTED terrain data, enabling operators to visualize terrain challenges, elevation changes, and potential hazards in both 2D and fully immersive 3D views.
Wireless/Wired Mission Upload	Allows mission planning data to be transferred to parachute guidance systems using either wireless or wired connections, ensuring flexibility in different aircraft and operational environments.
Easy Parameter Updates	Enables rapid adjustment of key mission parameters, such as release points, altitudes and headings, right up to deployment, improving responsiveness to changing conditions.
Real-Time Sherpa Status	Displays live health and diagnostic information for Sherpa guided parachutes, allowing operators to verify system readiness and identify issues before deployment.
Real-Time Remote Monitoring	Allows operators to remotely observe system status and performance during operations, enhancing situational awareness and supporting real-time decision-making.
Aircraft Payload Manager	Provides dedicated tools for managing aircraft payload configurations, ensuring proper planning for cargo loads, jumper coordination and mixed-deployment missions.
Mission Playback	Offers mission playback capability for post-mission review, analysis and training.
Weather Integration	Connects to external online weather forecasting services to incorporate up-to-date meteorological data into mission planning for improved accuracy and safety.
Multi-Parachute Support	Supports a broad range of parachute systems, including ram-air, high-glide and round canopies, ensuring flexibility across diverse mission profiles.
Deployment Settings	Provides configurable options for deployment using time delays, pressure triggers, or altitude settings to match mission requirements and safety protocols.

Operational Performance and Limits

Operational Aspect	Performance or Limit
Pressure Altitude	Up to \approx 25,000 ft (\approx 7 600 m) MSL (absolute)
Thermal Operating Range	-29 °C to +63 °C (-20 °F to 145 °F)
Thermal Storage Range	-51 °C to +71 °C (-60 °F to 160 °F)
Battery Endurance	Up to 41 h using two active hot-swappable batteries, allowing replacement without shutdown

Interfaces

Interface	Description
GNSS	Multi-constellation support (GPS, GLONASS, Galileo, BeiDou)
Mission Planning	Wired (USB) and wireless (Wi-Fi 6/7; backward compatible with 802.11 b/g/n)
Bluetooth	Bluetooth 5.x for peripheral connectivity (headsets, sensors, controllers)
Ethernet	Integrated Gigabit Ethernet (RJ-45) for secure wired networking
USB Ports	Multiple USB-A and USB-C/Thunderbolt ports for data transfer and accessories
HDMI / Video Out	HDMI port for external display or mission briefing screens

Qualifications

Qualification Aspect	Standard
ESD	MIL-STD-461G, CS118
Pressure	MIL-STD-810H 500.6, Procedures & II
Radiated Emissions	MIL-STD-461G CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103
Sand and Dust Ingress	MIL-STD-810H 510.7, Procedures I & II; IPx6
Shock	MIL-STD-810H 516.8, Procedures I, II, & IV
Water Ingress	IEC 60529, 14.2.6 IPx6

Plan with confidence. Execute with precision.



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