



LaunchPADS is a powerful and versatile mission planning software that allows users to plan, perform and study all types of cargo airdrop and parachute operations. It is fully integrated with MMIST Precision Aerial Delivery Systems but may also be used for customer-specific parachute equipment in support of both ram air or round parachute operations. It provides full mission planning support for the determination of Calculated Aerial Release Points (CARP) and supports HALO/HAHO operations of parachutes.

LaunchPADS + Sherpa

With LaunchPADS, operators have access to an intuitive tool that can calculate and display the Launch Acceptability Region (LAR), aiding in the selection of the release point while accounting for wind, terrain, airspace restrictions, and potential failure areas such as the ballistic impact area and guidance failure footprint.

Operators can adjust the aircraft run-in heading, release point location, deployment altitude, and parachute opening altitude (for programmable HALO systems) and make changes to mission plans up until the system is deployed from the aircraft. LaunchPADS can wirelessly connect to multiple parachute guidance units simultaneously or be wired to a single guidance unit. The mission planner automatically verifies that all information downloaded to the guided parachute has been correctly received.

LaunchPADS + SkyLink

LaunchPADS is fully integrated with SkyLink, MMIST's parachutist navigational and situational awareness system used by military personnel for free fall insertion operations. Mission planning of both cargo payloads and personnel is concurrently performed and displayed to aid in effective and safe deployments and combo-type flights.

LaunchPADS + Dropsonde

The Dropsonde system provides real-time wind data collection, which helps to determine the optimal release point. As the Dropsonde descends (at a rate of approximately 25 m/s or 5000 ft/min), it uses GPS satellite information to determine its location under the influence of horizontal winds. The Dropsonde system works in conjunction with LaunchPADS and SkyLink, allowing aircrew to measure local winds before an airdrop, thereby improving the accuracy of the Calculated Aerial Release Point for a cargo airdrop or parachutist jump.

Software

LaunchPADS software interfaces with a wide range of Geographic Information Systems (GIS) data and supports full 3D visualization. It allows one to identify any terrain constraints that may impact the proposed flight path. With guided parachutes or SkyLink, the operator can select new deployment points or impose waypoints to avoid obstacles. Similarly, the landing points may be modified using either the 3D map overlay or numerically using coordinates in latitude/longitude, UTM, or military grid reference (MGRS) formats.

LaunchPADS operates with the Microsoft operating system. It is provided with an unlimited user license and is fully upgradeable through future firmware updates when purchased with optional annual support.

Hardware

The LaunchPADS system includes a fully rugged PC with a factory-installed GPS receiver and an SSD that can function well at high altitudes. To ensure security, the system comes with features that prevent unauthorized access. Additionally, the system is tested in accordance with military standards for environmental and EMI compliance. The LaunchPADS mission manager connects with other optional MMIST devices via wireless or wired connections (802.11b/g, 90m range). The system also comes with EMI/EMC shielded cables.

Computer Specifications

- Size and weight:
 - 11.9"(L) x 13.9"(W) x 2.1"(H) – 30cm(L) x 35cm(W) x 5.3cm(H)
 - 7.4 lbs [3.4kg]
- Power:
 - Li-Ion battery: 15 hours; user-replaceable
 - Battery charging time: 3 hours
 - AC Adapter: AC 100V-240V worldwide power
- Intel® Core™ i5-1145G7 vPro® processor
- Display:
 - 14.0" FHD 1920 x 1080 capacitive gloved touch
 - 1-1200 nit
 - Anti-reflective (AR) screen treatment
 - Intel® UHD Graphics
 - AMD dedicated graphics (optional)
- Storage and Memory
 - 1 TB SSD
 - 16 GB RAM
- Environment IAW MIL-STD 810H:
 - Shock: functional, transportation, transit drop, bench handling
 - Vibration: general, operating, random
 - Rain: blowing, drip, humidity
 - Sand and dust
 - Altitude: storage, operating
 - Temperature: high, low, storage, operation, shock, freeze/thaw, solar radiation
 - Contamination by fluids, Salt fog
 - Explosive atmosphere
- EMI/EMC IAW MIL-STD-461 G
- IP66
- Wi-Fi, Bluetooth
- Windows 10 Pro

LaunchPADS Multi-Mission Manager

- Full mission planning for determination of Calculated Aerial Release Points (CARP) for both HALO/HAHO operations
- Full 2D/3D GIS map overlay (imagery, scenery and DTED)
- Wireless or wired upload of mission planning data
- Simple update of mission parameters
- Real-time Sherpa health status
- Remotely monitor system status in real time
- Aircraft payload manager
- Mission simulation and playback ability
- Interface to online weather forecasting systems
- Multi-parachute support (ram air, high-glide, round)
- HALO function enabled using time or pressure delay, altitude



Item	Description
1	Mission Planning Cables (where applicable)
2	Toughbook with MMIST LaunchPADS™: Mission Management Software
3	Power Adapters