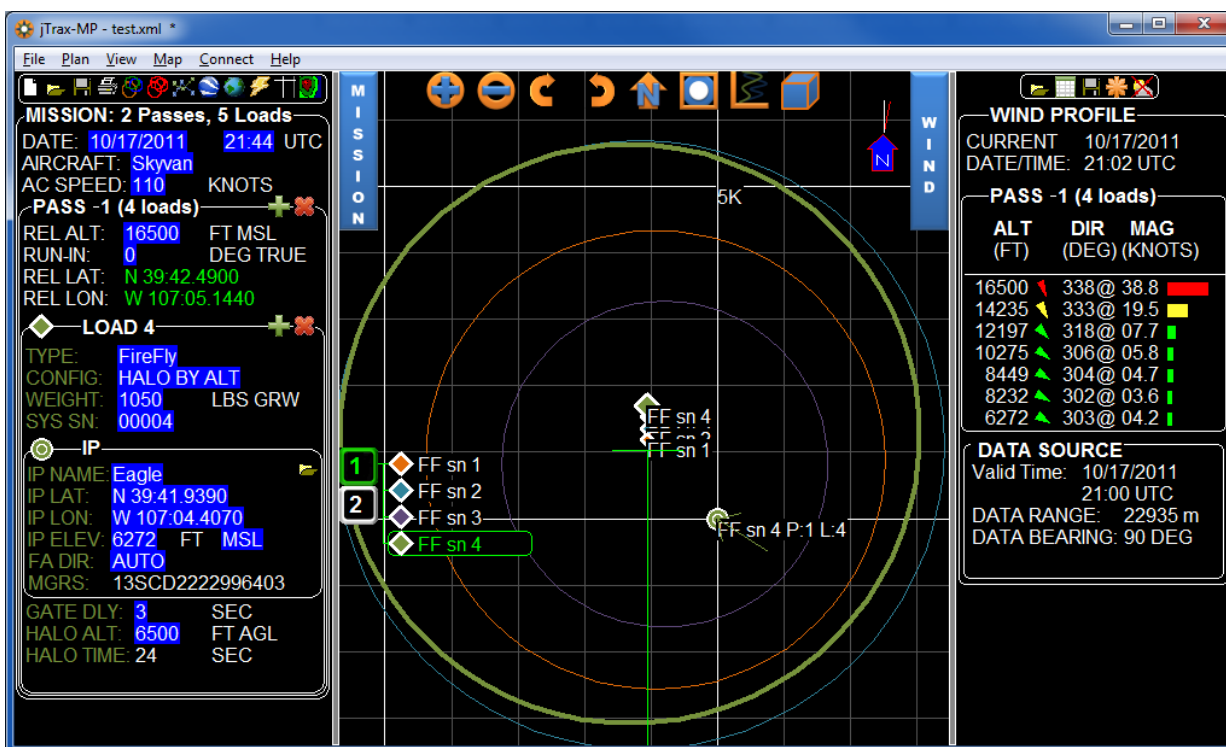


JTRAX MISSION PLANNER

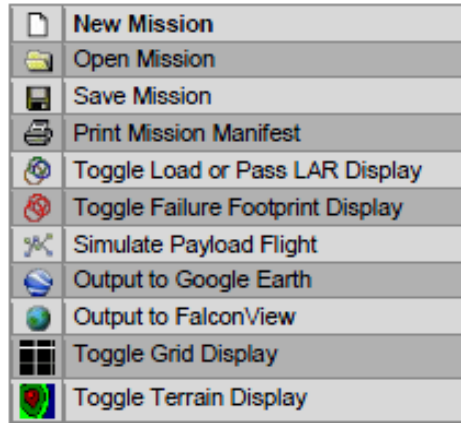
The jTrax Mission Planner (jTrax-MP) is a Windows based software used to support the planning, simulation/rehearsal, programming of GPADS missions. The Mission Planner module provides the capability to accurately plan guided precision aerial delivery (GPADS) mission for Airborne Systems' family of precision airdrop systems: MicroFly, 2K FireFly, and 10K DragonFly, as well as Military Free Fall and "Combo" missions. The jTrax-MP is a stand-alone application but supports output of mission planning data to FalconView (version 3.3.1 SP5 or higher) and Google Earth (version 6.0 or higher).

jTrax-MP has several Preference settings which allow operators to configure jTrax-MP as desired. It supports several unit conventions for altitude, Range, Coordinates, Weight, Speed, and LAT-LON or MGRS.

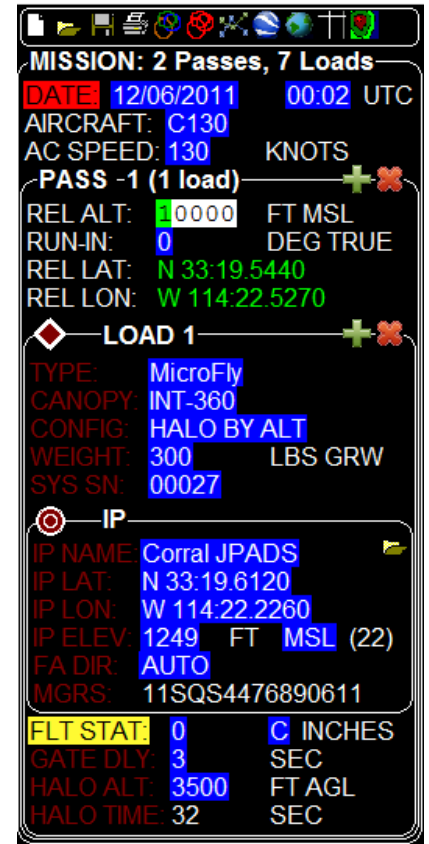
The user interface is divided into 3 frames. The left frame is the input area for all mission planning data. On the right, the wind profile for each pass in the mission is displayed. Both the left and right frames can be hidden to maximize the center display area where the launch acceptability regions, release points, failure footprints, terrain, and simulated ground tracks are depicted. The three dimensional grid can be zoomed, panned or rotated. The view is controlled by the icons along the top center of the screen or through mouse and keyboard inputs.



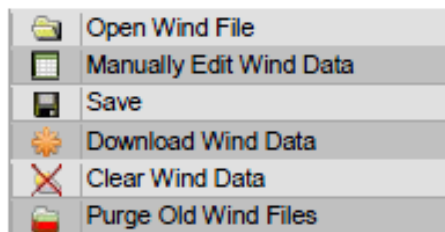
The Mission Frame is used to input all mission data. Conventional file icons are provided across the top of the frame for New, Save, Open, and Print of a mission file. In addition, icons are displayed for the most common mission planning activities.



The mission data is intuitively organized in a nested hierarchy. Each mission has the common attributes of Date/Time, and Aircraft. Then the mission can have multiple Passes, each with common but unique attributes of Aircraft Speed, Release Point Altitude, Aircraft Run-In Bearing, and Release Point Coordinates. Every pass can then have multiple payloads (or jumpers), each with system unique attributes, such as Type, Canopy, Weight, etc.



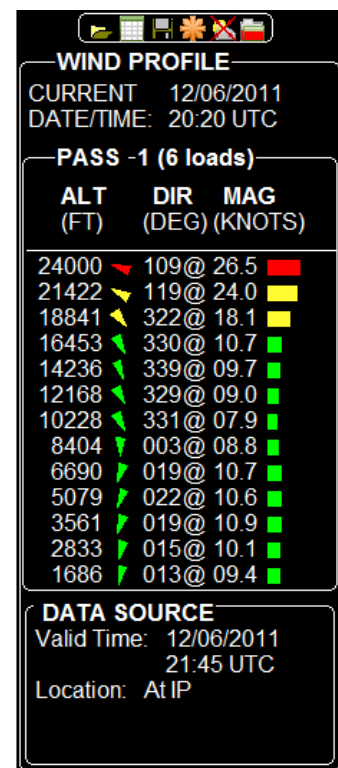
The wind profile is displayed in the right frame of the user interface. jTrax-MP supports unique wind data for each pass in the mission. This may be necessary if the passes have impact point locations that are far apart. There are 6 buttons at the top of the frame for managing wind data.



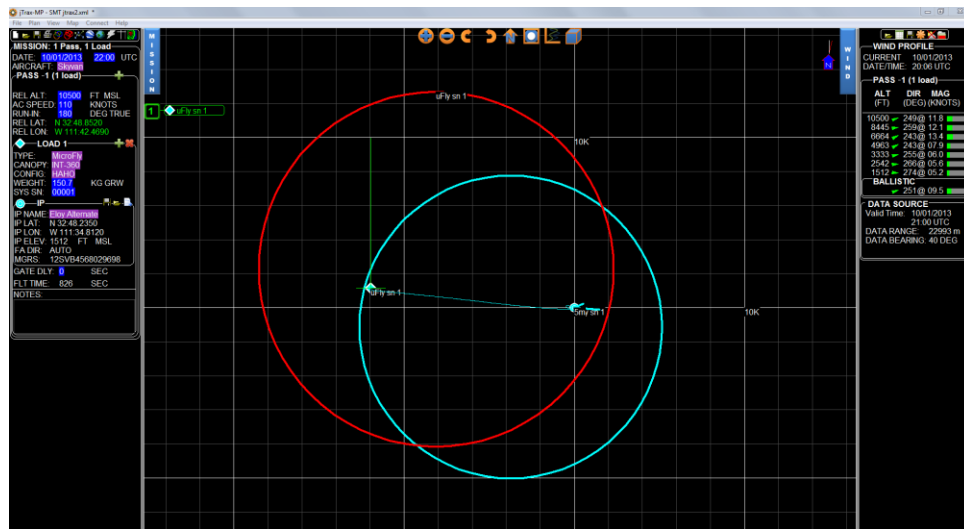
The jTrax-MP accepts wind forecast data files from a variety of sources.

jTrax-MP will also accept manual input of a wind table. The resolution (distance between altitude layers) varies depending on the weather product.

The wind forecast can be downloaded into jTrax-MP from NOAA for any location in the world.



Once the mission has been entered in the Mission Frame and wind forecast has been input into the Wind Frame, the Launch Acceptability Region (LAR) and Failure Footprint solutions for each payload will be calculated and the results plotted in the center Mission Data display area of the application. Note that the LAR and failure footprint calculations are automatically updated whenever any mission, pass, load, or wind profile data is changed. The failure footprint calculated by jTrax-MP represents the worst case GPADS failure mode of a complete failure of the navigation system (guidance, navigation and control software and/or AGU) and a fully open main canopy flying at maximum glide on an arbitrary heading. The size of the failure footprint is based on main canopy performance and drop altitude, while the location is based on the selected release point and the forecast wind conditions. Based on the location of the failure footprint, it may be necessary to change the release point location, altitude, or pass configuration in order to safely execute the GPADS mission.



jTrax-MP has a built-in capability to simulate the expected flight profile for each GPADS system in the mission plan. The simulation will be based on the selected release point, forecast wind conditions, system type/canopy, and final approach criteria and use the actual guidance, navigation, and control algorithms used by Airborne Systems GPADS platforms that are currently in the field.

The jTrax-MP supports output and display of all mission data to both Google Earth and FalconView.

