GeoSpatial Expeditionary Planning Tool (GeoExPT)
Supporting DOD Engineers with Expeditionary Planning Tools

GeoExPT (Geospatial Expeditionary Planning Tool) is designed to be a decision support tool for planners, providing the means to create geospatially accurate base layout plans, meet bed-down requirements, automate aircraft parking, and analyze and repair airfield damage for optimal selection of the Minimum Airfield Operating Strip (MAOS) for the airfield.

GeoExPT provides the engineer with automated planning processes to provide operators with an interactive tool for rapid development of base layout plans and airfield damage repair (ADR). GeoExPT includes templates, advanced placement and layout tools, constraints analysis, predefined units, sets, components, aircraft, and reports. GeoExPT uses the appropriate military and US Air Force standards to create automated aircraft parking plans on designated surfaces with flexible options and multiple solutions.

In addition, GeoExPT allows the user to plot airfield damage and produce multiple MAOS solutions for an airfield. Along with automated MAOS selection, GeoExPT also has the ability to assist in creating the corresponding Repair Quality Criteria (RQC) worksheets.

DS2 has been the only developer of GeoExPT and has worked on the product for over 15 years, including the development and testing of the Rapid Airfield Damage Assessment System (RADAS) and Airfield Damage Repair (ADR) capabilities.
Helping Our Military with the Power of GIS
Tools for Military Planning and Civil Engineering Communities

GeoExPT was developed based on the Esri ArcObjects API and Microsoft C# targeted to run with an ArcEngine License. GeoExPT is currently being used by the US Air Force, US Army, National Guard, NATO countries, and other federal agencies.

GeoExPT provides planners with the ability to accomplish many task that were previously time consuming and labor intensive:

- Leverages the enterprise database and the spatial data maintained by AF installations
- Maintains military guidelines and restrictions for rapid base deployment, aircraft parking, and airfield damage repair
- Allows the creation and management of all assets and resources required for tent city bed-down planning for forward operating locations
- Automatically creates parking plans based on established aircraft parking standards and AFI guidelines
- Provides rapid runway repair capabilities required to determine and manage Minimum Airfield Operating Strip (MAOS) selection
- Plots airfield damage and produce multiple MAOS solutions for rapid runway use
- Automatically calculates RQC value for airfield repair
- Creates corresponding RQC worksheets
- Generates Labor, Aircraft Parking, ADR, MOS, and MAOS Reports