

## **ANDREW FEATHERSTONE**

### **SUMMARY:**

A results oriented GIS technician with experience in the Surveying, GIS Applications, and the utilities industry. Special expertise in the following areas:

- Datum
- Land Surveying
- Flora/Fauna Communities
- GIS (Geodetic Information System)
- GPS(Global Positioning Systems)
- Mobile GPS testing
- GPS data collection

### **EXPERIENCE**

#### **Utility Locations – The Pinehills, Plymouth, Massachusetts**

Role: Survey Crew Chief/GIS Chief Technician (06'-08')

Description: Oversaw the update of the existing GIS Land Base for NSTAR Electric Distribution Service area, which included updating a GIS layering system of Pinehills and its 5 districts by combining the NSTAR GIS Land Base, hard copy/digital subdivision plans and NSTAR street nomenclature to support digitizing street line information, building footprints, foreign utilities, NSTAR utilities, etc. Responsible for GIS office services, installation of primary and secondary electrical features and attributes which included location and also using field work order records provided by the client.

#### **Land Base Update – Martha's Vineyard, Massachusetts**

Role: GIS Chief Technician/Survey Crew Chief (07'-08')

Description: Responsible for the update of the GIS layering system of Martha's Vineyard and its districts by combining the NSTAR GIS Land Base, hard copy/digital subdivision plans and NSTAR street line information, building footprints, foreign utilities, NSTAR utilities, etc. Other responsibilities include overseeing field crews performing ground-truthed locations of specific subdivisions in the surrounding area of Martha's Vineyard. Ground-truthed locations were providing using real-time GPS of all primary and secondary electrical utilities which included customer switching stations, utility poles, transformers, multi-taps, electrical meters, etc.

#### **NSTAR Electric & Gas Corporation – Multi locations, Massachusetts**

Role: GIS Chief Technician/Survey Crew Chief (05'-09')

Description: Responsible for updating the GIS Electric Service Network Database for the Largest privately owned utility company in MA including over 56 cities and towns in the Greater Boston and Cape Cod area. Performing continual data maintenance for the duration of the contract. Ground truthing primary and secondary electrical utilities using real time GPS and Total Station surveys to update NSTAR GIS Database. Installation of primary and secondary electrical utilities (surface/subsurface) on NSTAR GIS Database (CAD Image/ArcInfo Based).

#### **Beta-Testing Topcon Mobile GIS Application – Multiple locations, MA/RI/CT**

Role: Beta Tester (07'-09')

Description: Topcon Positioning Systems developed a state-of-the-art mobile GIS application which can locate features with sub meter/centimeter accuracy along tying in a mapping GIS application. Other software extensions and hardware were introduced as

the beta-testing went on. Testing such as introducing external antennas to improve the accuracy of the data that was being collected, improve interface design, creating more user friendly, QAQC, etc. This gave me prevalent experience with mobile GIS technologies. The equipment used was Topcon GMS2/GMS2 Pro series units, mobile for correcting QAQC of data being collected on-the-fly.

### **National Tropical Botanical Gardens, Kalaheo, Kauai, Hana, Maui, Hawaii**

Role: Senior Surveyor/GIS Chief Technician (Nov 01'-May 02')

Description: Project focused on improvement methodologies in GPS and GIS with natural communities at Lawai-Kai, McBryde, and Kahanu Gardens on the islands of Kauai and Maui, HI. Created a GIS database which consisted of natural flora/fauna communities (specific types of species that have been cultivated all around the world for specific medicinal research) along with full topographical survey in and around the gardens. All field data was collected using real time GPS. Coded data dictionaries were created for all features. Geodatabase was created along with fields and attributes to house over 1000's of different species. All GIS analysis was done using ArcGIS v.8 software.

### **Soil Development Project – Canyonlands National Park, Utah**

Role: Survey Crew Chief/GIS Technician (Dec 00'-Mar 01')

Description: Project development to determine crypto biotic soil development in certain surface areas of Canyonlands National Park. Creation of soil moisture models used to determine crypto biotic soil development in inter/inter-shrub/shrub areas (vegetation was identified and numerically coded). All field data was logged using real time GPS. GIS analysis was completed using ArcVIEW v.3 software.

### **Thematic Accuracy Needles District Pilot Study – Canyonlands National Park, Utah**

Role: Survey Technician/GIS Technician (Dec 98' - Mar 99')

Description: Responsible for project development, assessment methodology and sampling procedures for determining user and producer levels of vegetation map accuracy GAP vegetation maps. Sample data was ground truthed using differential GPS for navigation and data collection to a set of 296 points for 8 different vegetation classes covering an area of 25,436 hectares in the Needles District, Canyonlands National Park. All GIS analysis was provided using ArcINFO v.3 software.

### **Champion Lands Project – Ferdinand, Vermont**

Role: Survey Crew/GIS Technician (Sep 97'-Dec 97')

Description: Project focused on determining and identifying special treatment areas in and around Champion Lands. Special treatment areas were reserved for non-timber cuts and protection of unique natural communities for study purposes done by The Nature Conservancy. Field data was logged using real time GPS, analyzed and corrected (if needed) in Pathfinder Office, then the information was uploaded in ArcVIEW v.3.

### **WIN Study Project – Bingo Brook Watershed, Rochester, Vermont**

Role: Survey Crew/GIS Technician (Mar 97' – Apr 97')

Description: Project purpose was to ground truth/locate Watershed Improvement Needs for the U.S. Forest Service and the National Wildlife Federation in an effort to monitor erosion and sedimentation points along old/new temporary timber haul forest service skid trail roads. Data consisted of road surfaces, types, and the status along with WIN point features that described the extent of erosion/sedimentation, and potential erosion/sedimentation sites. GPS collections were analyzed using Pathfinder Office to determine pre/post location corrections along with all GIS information were analyzed using ArcVIEW v.3 software.

**Education**

Lyndon State College  
BS, Recreation Resource Management  
Concentration, GIS Mapping/Planning

**Professional Associations**

Geospatial Information and Technology  
Association (New England Chapter)

**Seminars**

ArcGIS v.9 I/II (ESRI certified)  
ArcGIS v.9 Geodatabases (ESRI certified)  
Autodesk Land Desktop (Autodesk certified)

**Special Project**

Senior Thesis: Student Research on Quasi-  
Experimental Design on Global Positioning  
System Multi-Pathing Error.

**Equipment Experience**

Topcon/Pentax Total Stations  
Trimble Pro XR/XRS GPS Units  
Topcon Hiper Series GPS Units  
Topcon GMS2/GMS2 Pro  
TDS Controllers

**Software Experience**

ESRI ArcGIS v.'s 3/8/9  
Autodesk Land Desktop  
Topcon Tools  
TopSurv/ArcMAP  
Field Tools for ArcPAD  
TDS Land Suvey/GPS