

## ATTACHMENT B

**Ric Williams**

**Senior GIS Analyst**

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### **Professional Summary**

I have more than 13 years experience in natural resources management utilizing state-of-the-art Geographic Information System (GIS) equipment and software. I currently serve as a Senior GIS Analyst for 95ABW/CETM Edwards Air Force Base, CA. I have developed professional expertise primarily in the deserts and mountains of Southern California and the Southern San Joaquin Valley. I was active in the development of the Mojave Desert Ecosystem Program and spent 8 years as a technical lead in multiple natural resources management programs at Edwards Air Force Base (EAFB), California. More recently Mr. Williams developed and implemented innovative strategies using the latest in GIS and GPS technology for numerous large-scale projects including the Coachella Valley Canal Ecosystem Modeling Project, Santa Clara River Invasive Exotics Eradication Project, EAFB Bird Aircraft Strike Hazard (BASH) Avoidance Model, West Mojave Coordinated Management Plan and other large projects.

### **Technical/Software Skills**

Advanced knowledge of the following: ArcGIS 9.1 (including Spatial Analyst, 3D Analyst, Geostatistical Analyst, and Network Analyst extensions), ArcView 3.3, ERDAS Imagine 8.5 and Virtual GIS, ArcIMS, Geomedia Pro 6, AutoDesk Map 5, Microstation 95 and SE, and Photoshop 6.0. Extensive knowledge of the following database programs: Access, Oracle 9, SQL Server, and dBase. Familiar with GPS receivers such as Trimble GeoXT and XM series, TDC data collectors, Pathfinder Pro XRS, Pathfinder Office post processing software, and Leica Total Station.

### **Education**

BS, Biology, California State University, Bakersfield, 1991

AA, Biology, Bakersfield Community College, 1988

### **Related Coursework**

#### **Intergraph**

Introduction to MGE

MGE Analyst

Geomedia Pro

#### **ESRI**

Introduction to ArcView

Working with ArcView Spatial Analyst

Introduction to Desktop Arc/Info 8

#### **ERDAS**

Introduction to Imagine 8.5 and VirtualGIS

#### **Ecological Statistics**

Line Distance Sampling

Working with DISTANCE

## **Professional Experience**

***Department of Defense, Air Force***  
**95 ABW/CETM**  
**225 North Rosamond Boulevard**  
**Edwards Air Force Base, CA 93524**  
**Senior GIS Analyst.**

As a member of the Civil Engineering GIS section, I am involved in a wide range of duties. Primarily I am responsible for maintenance of GIS feature layers comprising an enterprise system relational GIS database illustrating and describing utility, transportation, structure, and flightline feature classes and sub-classes. Conduct constant updates in order to maintain effective and dedicated system capable of supporting mission specific goals at Edwards AFB. I conduct field checks and verify locational data of system features with GPS (Trimble GeoXM and Pathfinder Office). I correct discrepancies and implement updates to the Oracle database on a daily basis. Additional work includes GIS support of the UCC, cartographic support of Air Force detachments with high quality maps; provide graphic support to engineers and associates, produce digging permits, and other work as assigned.

***AMEC Earth and Environmental***  
**403 East H Street**  
**Tehachapi, CA 93215**  
**Senior Biologist/Senior GIS Analyst.**

Employed in a dual role as a Biologist and GIS Analyst. Core tasks included project support by providing Natural Resource and GIS related services to government clients (Federal, State, County, Municipal) and private firms. Other tasks included: project management, marketing, business development, proposal writing and budgeting. Successfully managed several projects in excess of \$100,000 each and provided services to clients such as Southern California Edison, U.S. Forest Service, Bureau of Land Management, U.S. Air Force, Nevada Army National Guard, Ventura County Resource Conservation District, and the Coachella Valley Water District. Developed project goals and GIS tasking workflows for clients and other project managers. Primary tasks included data acquisition in varied formats, coordination with clients/agencies on data requirements, implementing existing datasets into uniform project specific databases, creating custom interfaces in Access and ArcGIS for querying spatial and tabular data. Conducted complex modeling projects using Spatial Analyst & 3D Analyst, performed supervised and unsupervised image analysis utilizing ERDAS Imagine 8.5, integrated field generated maps into ArcMap spatial environment employing innovative self-developed methodologies, and developed complex project specific grid based datasets utilizing algebraic and statistical functions.

***Charis Corporation***  
**Senior System Engineer, Information System Support**

Functioned as technical liaison integrating EAFB Geographic Information System (GIS) data with regional GIS projects. Routinely used Intergraph Modular GIS Environment (MGE), Geomedia Pro 4, ArcView 3.2 (with support extensions) and ArcInfo 8.02. Compiled and analyzed tabular and graphic data in diverse formats from numerous sources to determine technical and scientific relevance and limitations. Coordinated data transfers submitted to the Air Force Flight Test Center (AFFTC) by Federal, State, and county agencies, contractors, and academic research groups. Reviewed data using error-checking routines. Reconciled data discrepancies ensuring receipt of complete and accurate data. Managed issues related to data, database design and structure, and data formats. Regulated data standardization, organization, compatibility, and evaluation. Identified customer needs for GIS and non-GIS products as a participant in regional resource management plans including the Mojave Desert Ecosystem Program (MDEP) and the West Mojave Coordinated Management Plan (WEMO). Regulated internal and external metadata in compliance with FGDC and Tri-Services standards. Reviewed and reported on resource planning documents. Tested and reviewed products for integration in GIS work flow. Produced documents and GIS products in support of internal Air Force Natural Resource Management. Reviewed GIS deliverables for contractual compliance. Conducted staff training in the use of GPS and GIS. Conducted training in field survey techniques. Represented Air Force interests at regional inter-agency meetings. Represented the Air Force on MDEP working groups (Data Management Team, Science Team, and Restoration Team).

## **Computer Sciences Corporation**

### ***GIS Specialist/Natural Resources***

Provided technical support for implementation of GIS in support of natural resource management goals using Intergraph (MGE and Geomedia 2), Bentley (Microstation 95), and ESRI (ArcView 3.0) applications. Performed comprehensive reviews of GIS product deliveries for quality and content. Consulted with contractors to assure seamless integration of GIS deliveries with AFFTC schemas. Supervised remedial efforts for unacceptable data deliveries. Designed and implemented multi-source data acquisition and integration process. Trained field crews in the use of GPS for data collection.

## **Intergraph Corporation**

### ***GIS Applications Administrator***

Contributed technical expertise in support of GIS implementation for Natural Resource Manager. Achieved proficiency with the MGE product suite for spatial analysis and use of Microstation 95 in the design and production of cartographic products. Conducted, prepared, and delivered an analysis of baseline AFFTC Natural Resource data. Analysis included critical review of database structure, organization, and design. Implemented database reconstruction, data corrections and user enhancements including GIS query automation. Standardized data acquisition protocols and methodologies for field biologists to assure seamless integration of field data with enterprise GIS data. Attained substantial experience with a full range of Microsoft products and Windows NT. Worked with both Access and Oracle databases.

## **List of Recent Projects**

New Utility Installation Analysis (SCE)  
Coachella Valley Canal Ecosystem Modeling Project (CVWA)  
Santa Clara River Invasive Exotics Removal Analysis (VCRCD)  
Bark Beetle Infected Tree Removal Analysis (SCE)  
Tehachapi Wind Power Transmission System Project (SCE)  
Surprise Canyon EIS (BLM)  
Underwater Archaeology Analysis, San Nicolas Island EIS (USN)  
West Mojave Coordinated Management Plan (BLM)  
Vandenberg AFB Missile Bridge Install (USAF)  
Edwards AFB Bird Air Strike Hazard (Bash) Avoidance Model (USAF)  
Edwards AFB Road Closure and Monitoring (USAF)