

JOB DESCRIPTION:

Imagery Analyst

Introduction

Imagery is a photographic or digital image of any natural or man-made feature, object or activity on the Earth's surface. Imagery can be collected by satellites, airborne platforms and unmanned aerial vehicles. Rather than being just a picture of a surface feature, imagery also has the characteristic of identifying the location of imaged features. In this sense imagery is a geospatial (mapped) as well as photographic information source. DIGO is responsible for the tasking, collection, processing, dissemination and archiving of imagery used by the ADF and other government agencies.

Intelligence Analysis: performs complex analysis of imagery collected by a range of sensors and platforms. Intelligence analysts combine imagery with all other sources of information, and forms of intelligence, to analyze information and visualization products in support of military, Department of Defense and other Government customers.

- observe and monitor global activity relevant to our national security;
- visualize, understand and exploit the physical environment in defense of our national interests;
- Provide context to complex data
- formulate and execute national and military strategy; and
- Effectively utilize modern military command support environments, platforms and weapons systems.

The Science of Imagery Analysis

Remote Sensing

Remote sensing is the process of acquiring and exploiting information about material objects from measurements made at a distance, without coming into physical contact with the objects. An image is a pictorial representation of an object or a group of objects obtained via remote sensing.

The Art of Imagery Analysis

Imagery analysis is a discipline which uses some of the most sophisticated science and technology available. An Imagery Analyst is a person with a well-rounded education, an inquisitive and analytical mind, and a highly developed mental skill and knowledge set.

The Work of an Imagery Analyst

Imagery Analysts work in both strategic and tactical environments. Strategic imagery intelligence is concerned with understanding the longer-term military, industrial, telecommunications, transport systems and infrastructure of foreign powers. Detailed information is required and the time frame for reporting may be long-term. Tactical imagery intelligence normally deals with immediate threats or rapidly required and time critical information needed to assist friendly-force deployments within a specific geographic area. Tactical imagery intelligence normally concerns hostile activity.

At Civil Air Patrol, the volunteer auxiliary of the U.S. Air Force, we're helping develop tomorrow's aerospace workforce.

Image Reading vs. Imagery Analysis

There is a clear distinction between Image Reading and Imagery Analysis:

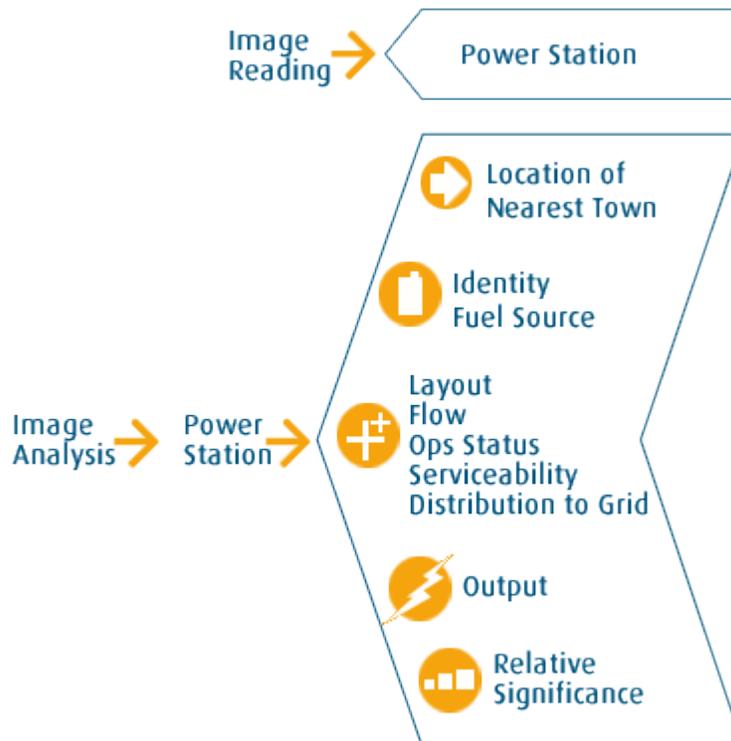
- **Image Reading**

This is the simple identification or description of objects depicted on an image. This skill requires the ability to recognize objects depicted on an image, the orientation of the image and the determination of distances and direction. Image Reading is frequently conducted in correlation with a map. Limited training is required.

- **Image Analysis**

This employs the use of systems, techniques and processes to analyze imagery to produce significant, reliable and detailed information relating to the natural and 'man-made' objects (features) depicted on the imagery. Imagery Analysis is the process of recognition, identification and interpretation (analysis) of objects on imagery and the determination of their significance and implications in the geographic area in which they are imaged. In the case of military forces intent - ability to deploy/move/mount an attack - would be assessed. Extensive training is required.

The distinction is better explained with the following example:



An image depicts a large installation with tall stacks and electrical switchyards. An "Imagery Reader" would simply identify the installation as a power station. An "Imagery Analyst" would also identify the installation as a power station but would then value add. He/she would locate the station in relation to the nearest town; identify the type of power station by determining the fuel source, the layout, the flow, the serviceability, the operational status and the distribution of the generated power to a grid. He/she would also determine the output of the power station and assess its significance within the local area, region and country power grids.

Function of an Imagery Analyst

The primary function of an Imagery Analyst is to identify objects depicted on imagery that are of intelligence interest. Once found these objects must be assessed (analyzed) for their significance, their exact location and interaction within their environment. The findings are then collated and presented in reports.

Role of an Imagery Analyst

The role of an Imagery Analyst is to produce intelligence through the analysis of all forms of imagery and to disseminate the results of that analysis to a wide range of users. Such reporting must be timely and thorough. Processes adopted within the Australian Intelligence Community provide for a system of imagery intelligence reporting standards that meet the needs of various intelligence customers. The use of such standards speeds up the production process and assists customers in the use of intelligence products.

Test your skills

http://www.defence.gov.au/digo/Imagery_Analysis/imageryQuizT3.htm

<http://www.earthworks-jobs.com/remotese.htm>

http://members.tripod.com/airfields_freeman

Courtesy: [Northrop Grumman, defence.gov.au]