



Applied Science Job Task Analysis Executive Summary



Background

The National Geospatial-Intelligence Agency has a responsibility to provide the products and services that decision makers, military service members, and first responders need, when they need it most. As a member of the Intelligence Community and the Department of Defense, NGA supports a unique mission set. We are committed to acquiring, developing and maintaining the proper technology, people and processes that will enable overall mission success.

Geospatial intelligence, or GEOINT, is the exploitation and analysis of imagery and geospatial information to describe, assess and visually depict physical features and geographically referenced activities on the Earth. GEOINT consists of imagery, imagery intelligence and geospatial information.

To ensure a proficient and capable workforce, NGA engaged in a large-scale workforce development effort in 2010, identifying ten GEOINT tradecraft areas, developing competency sets for each tradecraft area, and completing job analyses to identify and validate the tasks performed and the competencies required for each tradecraft area. NGA developed formal certifications for each tradecraft area based on the job analysis results. NGA updated the competencies 2013 to 2015 for each of the ten GEOINT tradecraft areas. NGA developed a comprehensive competency set in 2016 for the Applied Science tradecraft area.

Current Project

The goal of this project was to update the work and worker characteristics required to successfully perform in the Applied Science tradecraft area. A structured and repeatable process was employed to capture the critical work activities, tasks, knowledge areas, and skills. This process included updating job content information used during previous efforts, soliciting Subject Matter Expert (SME) feedback to review and refine job content, and collecting and analyzing job analytic data from Applied Science incumbents.

Process

To begin, the project team prepared content based on the results of previous job analyses and subsequent competency development efforts. The team then solicited preliminary SME input to indicate whether or not each of the work activities, tasks, knowledge areas, and skills were relevant to the tradecraft. In addition, the SMEs were asked to provide recommendations to edit or update the content to ensure currency, clarity, and relevancy. Finally, SMEs were asked to identify critical work activities, tasks, knowledge areas, or skills that were missing from the draft lists.

After gathering and compiling the SME input, the team updated the draft content, and then facilitated a structured SME Job Content Review Panel to review and finalize the job content.

To validate the job content information, the project team administered a job analysis survey to incumbents within the tradecraft area across all populations. Respondents were asked to rate the importance of each task, knowledge area, and skill. The team analyzed the data to identify the tasks, skills, and knowledge areas that were critical to successful performance in the Applied Science tradecraft area. The final job content that was derived from this analysis can be found in the final JTA.

Outcomes

As a result of the job analysis, the team identified key work activities (not rated during the survey), tasks, knowledge areas, and skills necessary for successful performance in the Applied Science tradecraft area at NGA. Across the overall Applied Science workforce, 14 work activities, 69 tasks, 51 knowledge areas, and 37 skills were identified. The results of this project may serve as a foundation for certification efforts and be used to inform training development activities, pre-hire assessments, and work roles updates.