



NOTES FROM THE:

Auditor General of the Air Force

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Automated Auditing Techniques

Dramatic changes are occurring in the way the Air Force Audit Agency (AFAA) provides internal audit service to the Air Force. For years auditors manually sampled and reviewed documents supporting client-generated transactions. Generally, sampled items were a small portion of the total transactions and required auditors to statistically project the results to the overall universe. That process is largely obsolete in today's highly automated environment. Auditors now operate in a predominately paperless environment where electrons have replaced paper documentation. The AFAA is using Computer Assisted Audit Tools and Techniques (CAATTs) to operate in that world of electrons.

Using cutting-edge automated tools such as Microsoft Access, Audit Command Language, and Geographic Information System software, auditors can analyze large databases or complex report files without cumbersome samples or piles of paper. Applying computer-assisted techniques, auditors can assess complete sets of data and focus their efforts on transactions that are unusual, anomalous, or exceed established thresholds and limits. These efforts result in more comprehensive reviews that provide management with better, more focused conclusions and recommendations.

Recognizing the need for and long term potential of these powerful tools, AFAA stepped up efforts to incorporate the various automation techniques into the auditor "tool kit". Specifically, AFAA (1) developed a comprehensive training course designed to increase auditor computer audit skills, (2) followed the training with focused effort to incorporate the new skills into daily audit work, and (3) partnered with the DoD Inspector General and the Association of Defence Auditors (ADA) to share and expand knowledge and capabilities (Note: ADA includes auditors from the United States, Great Britain, Canada, Australia, New Zealand, and South Africa).

The AFAA developed a training course that not only improved auditor capability but also received positive attention throughout the government. For example, the Graduate School, United States Department of Agriculture (USDA), recently awarded the *W. Edwards Deming Outstanding Training Award* to the AFAA for its CAATTs training course. The USDA presents this prestigious award annually to a Federal government unit or department that has successfully completed an innovative employee development and training initiative.

Applying the training to audit work is paying dividends for the AFAA and the Air Force. Nearly, 25 percent of the audit projects accomplished in FY 2002 incorporated computer tools and techniques. For example, AFAA used computer assisted audit techniques to analyze more than 2.7 million Air Force purchase card transactions (literally all transactions for FY 2000). Even with the immense quantity of data involved, the computer-assisted approach quickly isolated questionable transactions, and allowed the Air Force to take quick, decisive corrective action where needed. AFAA also used computer tools and techniques to help Air Force managers quickly solve resource allocation problems associated with the Aerospace Expeditionary Force (AEF). Specifically, with Air Force planners under tight time constraints to implement AEF resource plans, the Agency applied advanced Microsoft Access and Audit Command Language techniques to provide near real-time assistance to identify and correct manpower and equipment inconsistencies and shortages among the various AEFs. AFAA auditors not only provided Air Force managers with the needed information but also provided them with automated methodology to perform future analyses.

As illustrated by the AEF analysis, the future potential is not just to provide better audit results but to also share the computer tools and techniques used to accomplish the audit work. Managers can then incorporate these powerful tools into their day-to-day management.

AFAA is not alone in the increased use of computer assisted audit techniques. All DoD audit organizations (DoD, Army, and Navy) are actively utilizing computer assisted tools and techniques and are sharing their experiences with both management and their audit counterparts. Further, the defense auditors from six countries recently met in Canada to share and expand this computer assisted audit knowledge.

Yesterday's analytical methods will not work in today's highly automated environment. Recognizing this need to transform, AFAA has become a leader in the use of computer assisted audit techniques. As a result, AFAA can provide far more comprehensive reviews that Air Force leaders can use to better manage Air Force resources.