

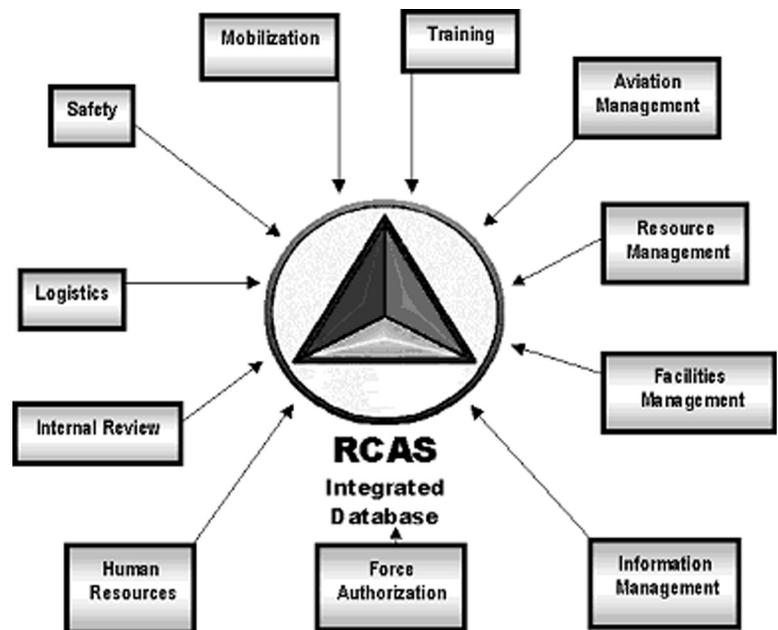
## Reserve Component Automation System (RCAS)

The Reserve Component Automation System (RCAS) is a scalable, open-systems environment, automated information system that supports commanders with information needed for Reserve Component mobilization and day-to-day administrative operations. It is a sustaining base networked system of workstations, primarily employing commercial-off-the-shelf (Microsoft Office® and Windows NT®, JetForms®, etc.) and government-off-the-shelf software applications (Unit Level Logistics System, Standard Property Book System-Redesigned, and Standard Installation/Division Personnel System Version 3, etc.). RCAS will interface with numerous Department of Defense and Army systems, and certain National Guard and Army Reserve designated standard systems. RCAS will not deploy with mobilized units, but will supply data to support mobilization.

The current acquisition plan calls for the RCAS to be developed and deployed in eight increments. Computer hardware was deployed with the first Increment in 1996, and software Increments 1 through 6 were operationally tested between 1996 and 2000 in reserve units from the lowest level to the Army National Guard and Army Reserve Headquarters. These first six increments of RCAS were found effective and suitable, and were approved for fielding.

### TEST & EVALUATION ACTIVITY

- The Army Test and Evaluation Command (ATEC) executed an operational test (labeled a Limited User Test) for RCAS Increment 7 from March 27, to May 17, 2002. The objective of the test was to determine the effectiveness and suitability of RCAS with the addition of Increment 7 software. Primary among the enhancements of Increment 7 software were three United States Army Reserve-only applications, and two general RCAS applications. The United States Army Reserve applications were related to force authorization management (RADPER), civilian personnel (CIVPER 1.0), and personnel, training and resource management functions at the regional level (RLAS Client). The other two more generalized applications were the Mobilization Planning Data Viewer (MPDV-1) and enhancements to the Safety and Occupational Health module (SOH Version 2).
- The general test concept was to observe users performing typical actions in their normal operational environment, and collect user inputs regarding the new RCAS functionalities using web-based questionnaires and direct user interviews. Additional data was collected by server-installed monitoring software and tester reviews of relevant logs, reports, and other documentation.
- The operational test units and sites for this test were the same Operational Installation Sites as were used by ATEC to evaluate Increments 4/5 and 6. Test units included the National Guard and Army Reserve Headquarters, Delaware Army National Guard (DE ARNG) and sites of the 99<sup>th</sup> Army Reserve Regional Support Command (RSC) in Pennsylvania and West Virginia.
- Regression testing was conducted on all six previous software releases to ensure that Increment 7 did not adversely affect the system's



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# ARMY PROGRAMS

operation. A limited Continuity of Operations Plan (COOP) was exercised and evaluated for the United States Army Reserve at the 99<sup>th</sup> RSC.

## TEST & EVALUATION ASSESSMENT

A TEC found that the RADPER, RLAS Client, SOH, and CIVPER applications operated properly during the Limited User Test (LUT). Although two interfaces for SOH performed very poorly, those interfaces (Defense Civilian Personnel Data System (DCPDS) and Occupational Health Manager (OHM)) are no longer required – they have been replaced or discontinued. However, the performance of the MPDV application was below expectations. Although the MPDV application showed no major internal flaws, it failed to improve the mobilization process as intended; in fact, mobilization efficiency was degraded when MPDV was implemented. There were two principal shortcomings observed in the operation of MPDV during the LUT: a confusing delay between soldier-entered personnel data into the local database and the appearance of the correct data in the MPDV system. This systematic delay in the automatic transfer of data from the user input into the MPDV caused some dissatisfaction of the users. Also, MPDV-I users expressed dissatisfaction regarding the relatively incomplete (31 percent) automatic population of the Soldiers Processing Checklist (SPC) by RCAS; this was exacerbated because the user had not updated much of the needed medical data prior to the test.

A TEC testers noted a significant concern with interfaces to applications needed to support mobilization: the overall success rate was only 53 percent when exchanging information with those external applications, excluding the discontinued interfaces for DCPDS and OHM. However, many of the unsuccessful transfers occurred due to a properly working data integrity filter which rejected improperly formatted data from the external interfaces. The recorded data only shows failed data exchanges, of which some could be due to other reasons. It is apparent, however, that the holders of these external interface applications need to clean up their databases, so that RCAS can reliably retrieve needed data to populate its databases.

To follow up the limited COOP effectiveness test exercise involving a ARNG unit during the Increment 6 LUT, a similar exercise was conducted for the 99<sup>th</sup> RSC, which was successful. Regression tests against previous increments' functionalities showed no degradation. A TEC raised the issue of the upcoming termination of Microsoft developer support for Windows NT<sup>a</sup>, the operating system currently used by RCAS, in June of 2003. The Program Manager and Program Executive Officer-RCAS have satisfactorily addressed this issue.

DOT&E supports the A TEC finding that RADPER, RLAS Client, SOH, and CIVPER are operationally effective, suitable, and survivable. However, DOT&E found the MPDV application operationally suitable and survivable, but only potentially effective, pending demonstrated improvements in data entry and auto-population of the SPC.