

## HALON ALTERNATIVE SELECTION TOOL SOFTWARE

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The United States Military is the largest user of Halon 1301 for fire protection applications. Current Army policy requires that all facilities be free of Class 1 Ozone-depleting Chemicals (ODC) by the end of FY 2003. The conversion of these systems will require significant effort in terms of time and resources for evaluation of the large number of systems and will require cost estimates for future budget planning. In addition, good engineering and business practice require that a host of engineering factors be considered in the selection of the most cost-effective alternatives that will meet the needs of the end-user. **An** automated software selection tool would greatly assist installation staffs **as** they survey systems and make decisions on alternatives to Halon 1301.

The Halon Alternative Selection Tool (HAST) was developed to meet those requirements. The software was written in Visual Basic™ to provide a user-friendly interface. The program accepts input data that can be easily obtained from a “walk-down” of the hazard and from those knowledgeable about and responsible for the system. The flow of the program and the data entry screens have been designed to limit data entry, thus minimizing time spent in the field. The software is designed to be used for occupancies such as computer rooms, flight simulators, telecommunication rooms, and flammable liquid storage. **A** selection model was developed that takes into account the cost of the installed system, the cost of maintenance and inspection over the life of the system, the cost of false actuations, the relative fire damage due to flames and smoke, the system’s reliability, mission criticality, equipment replacement time, and redundant functions or facilities. The software also includes a database for managing the buildings and room data relative to base facilities around the world. The software is able to print out a number of reports that provide relevant data including tracking quantities of Halon 1301 in current use. Reports can be generated by site, building, or individual room. In addition, a rationale for the decision of which alternative was selected is provided. **This** process provides **a** standardized decision process for the selection of halon alternatives and strives for more uniform cost estimates for the elimination of Halon 1301 throughout Army facilities.