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# ADVISORY CIRCULAR

## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

**SUBJECT:** FAA COMPUTER SOFTWARE QUALITY PROGRAM

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1. PURPOSE. This circular describes the Federal Aviation Administration (FAA) Computer Software Quality Program and the mechanics of implementation. It is intended for guidance and information only.
2. REFERENCE DOCUMENTS.
  - a. FAA-STD-018 "Computer Software Quality Program Requirements"
  - b. FAA-STD-013 "Quality Control Program Requirements"
  - c. FAA-STD-016 "Quality Control System Requirements"

(Copies of these documents and other applicable FAA specifications, standards, and drawings may be obtained from the Contracting Officer in the Federal Aviation Administration Office issuing the invitation for bid or request for proposal. Requests should fully identify material desired, i.e., specification, standard, amendment, and drawing numbers and dates. Requests should cite the invitation for bid, request for proposal or the contract involved or other use to be made of the requested material. Copies may also be obtained from the U. S. Department of Transportation, Publications Section, TAD-443.1, Washington, DC 20591).

3. DESCRIPTION OF FAA PROGRAM. The requirements described in FAA-STD-018 will be applicable to NAS systems and equipment acquisitions which involve a computer software development period of at least one year duration and which also involve computer software of such complexity and/or criticality as to benefit from the "prevention" type of controls described therein. Such acquisitions may pertain to computer software combined with hardware or to computer software alone. The following are involved in implementing FAA-STD-018:
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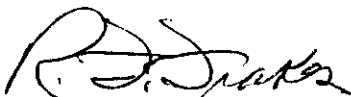
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- a. A Contractor Program. The contractor is required to establish and maintain a computer software quality program to assure that all computer software delivered to the FAA meets the contractual requirements. The program shall provide quality assurance controls throughout all computer software operations from design through delivery, including development, inspection, test and documentation.

In the event that a contract involves both hardware and computer software, the software quality program will normally be integrated with the hardware quality program, and it may utilize common controls when applicable, such as, configuration controls and sub-contractor controls.

- b. A Contractor Plan. The contractor is required to describe his computer software quality program in a documented Computer Software Quality Control Program Plan (CSQPP) which complies with the requirements of FAA-STD-018. The CSQPP shall be delivered to the FAA in accordance with the solicitation requirements, which will normally specify due dates as follows:
1. After contract award and concurrent with the Quality Control Program Plan (QCPP), when FAA-STD-013 "Quality Control Program Requirements" is contractually applicable.
  2. Before contract award and concurrent with the Quality Control System Plan (QCSP), when FAA-STD-016 "Quality Control System Requirements" is contractually applicable.
- c. An FAA Evaluation. The FAA will evaluate each proposed plan against the requirements of FAA-STD-018. Corrective action as required to remedy non-compliance shall be taken by the contractor.
- d. FAA Integration. After acceptance by the FAA, the CSQPP will be incorporated into the contract.
- e. An FAA Representative. An FAA Quality and Reliability Officer assigned by the Contracting Officer will monitor the Contractor's compliance with the CSQPP and will verify the acceptability of the resulting computer software.



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