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# ADVISORY CIRCULAR

## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

**SUBJECT:** QUALITY ASSURANCE SYSTEMS ANALYSIS REVIEW (QASAR) PROGRAM  
MANUFACTURERS/SUPPLIERS

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1. **PURPOSE.** This advisory circular explains the objectives and concept of the agency's Quality Assurance Systems Analysis Review (QASAR) program.
2. **REFERENCE.** FAR Parts 21 and 37.
3. **GENERAL.**
  - a. The Quality Assurance Systems Analysis Review program is a new approach to the conduct and accomplishment of the agency's responsibilities for surveillance of manufacturers and their suppliers. It utilizes a systems approach to the conduct and accomplishment of the agency's responsibilities for evaluation, inspection, and surveillance of a manufacturer's total quality control system and that of their suppliers.
  - b. The systems approach is utilized at all types of manufacturers and suppliers regardless of their certification status, size, or complexity, and includes manufacturers and suppliers of parts, processes, assemblies, components, etc. of a critical and/or proprietary nature. This includes manufacturers applying for or holding a Production Certificate, Approved Production Inspection System, Parts Manufacturing Approval, or Technical Standard Order.
4. **PROGRAM OBJECTIVES.** The objectives are to provide for:
  - a. Efficient utilization of manpower through use of team approach to the accomplishment of programmed and special evaluations with a corresponding reduction in the local or principal inspector surveillance.
  - b. Uniform method of evaluating manufacturing firms' quality control systems for compliance with FARs and FAA policy.

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- c. Assurance of uniform and effective FAA inspections of all manufacturing activity throughout the aircraft industry.
- d. Positive detection and correction of deficiencies and noncompliances in a quality control system.

#### 5. CONCEPT.

- a. QASAR places greater reliance on the manufacturer's total quality control system. It de-emphasizes detail conformity of parts and eliminates the previous Manufacturing Control Area (MCA) method of evaluating a facility. The program also eliminates the Triennial Production Certification Board and the Semi-annual and Annual Inspections of manufacturing activities conducted by the local inspector on a day-to-day basis. These are replaced by an evaluation by a QASAR team approximately every 18 months as an assist to the local inspector.
- b. The local inspector will reduce his evaluation to quality control data changes, type certification inspections, airworthiness certification inspections, and investigation of Service Difficulties and any reported or suspected noncompliance with FARs and FAA policy on an as-needed basis. These evaluations will be accomplished as part of his certificate management responsibilities.

#### 6. ANALYSIS METHODS.

- a. Each region will employ at least one QASAR team which will conduct these evaluations as an assist to the local inspector. These evaluations will be conducted in two separate phases (Phase I and Phase II).
  - (1) Phase I is the evaluation of the quality control data for compliance with FARs and FAA policy.
  - (2) Phase II is an in-depth examination of each System's Functions at the manufacturer/supplier facility. This analysis will be to determine compliance with the quality control data (FARs and FAA policy) as it is actually practiced in the facility. It will include determining that all the System's Functions tie-in-together to produce the end product without voids in the system which might allow noncompliance and/or nonconformity in the end product.
- b. The procedures governing the conduct of these analyses are designed to encourage an objective and professional approach by the team to assure that good communication channels are maintained with the manufacturer/supplier. Prior to the start of an evaluation, the team and the local inspector will meet with the manufacturer/

supplier to explain the purpose and scope of the analysis and to identify the functions to be evaluated.

- c. The team will function as a fact-finding arm of the local inspector. Any conclusion, recommendation, or required correction action will be transmitted to the manufacturer by the local inspector who will accomplish any necessary follow-up action.

7. **IMPLEMENTATION.** The transition from the previous method of surveillance/inspection to the QASAR program is being accomplished on a gradual and orderly basis. Teams are being established in the regions gradually. The program will not be completely implemented until all inspectors (QASAR team members and local inspectors) in turn are fully trained in the system analysis concept. The target date for full implementation is September 1972.



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