The enhanced zonal analysis procedure (EZAP) is a method of analyzing airplane zones, with an emphasis on wiring systems. Developed by an industry team chartered by the Aging Transport Systems Rulemaking Advisory Committee, the EZAP consists of four basic steps:

1. For a given airplane zone, the analyst identifies all systems (including wiring systems), structures, components, and any present or possible combustible materials (e.g., fuel vapors, dust or lint particles, contamination).

2. The analyst determines whether the zone contains both wiring and combustible materials.

3. If the zone contains both wiring and combustible materials, the analyst will determine whether it is possible to define an applicable and effective task with an appropriate maintenance interval to remove or minimize the buildup of combustible materials in the zone (e.g., a cleaning task to remove the dust or lint particles).

4. If the zone contains both wiring and combustible materials, the analyst also will determine whether it is possible to define an applicable and effective task for inspecting the zone. To accomplish this, the analyst must determine the appropriate level of inspection (e.g., a general visual inspection [GVI] of the entire zone, a GVI of specific wiring within the zone, or a detailed inspection of specific wiring in the zone) and associated maintenance intervals. Factors to consider when determining the level of inspection and maintenance intervals include the types of wire in the zones, the size and density of the zone, the potential effects of a fire within a zone, environmental effects, and the likelihood of accidental damage.

For effective application of the EZAP, it is highly recommended that the analyst have direct access to the airplane. This allows the analyst to determine what is installed in the zone and understand other key features of the zone (e.g., size, density, environmental effects). The EZAP is well suited to maintenance programs with a dedicated zonal inspection program because any GVIs of an entire zone resulting from the EZAP may be consolidated into an existing zonal task. For maintenance programs without a dedicated zonal inspection program, the EZAP may result in additional tasks in the systems and power plant maintenance program.

Boeing has applied the EZAP as part of an effort to update the 727 maintenance program to the latest Maintenance Steering Group Level 3 standards. Boeing will continue to use the EZAP on all in- and out-of-production airplanes. Any resulting enhanced wiring inspections will be referenced in revisions to associated maintenance planning documents.

For further details of the EZAP, please refer to the following documentation:

of future maintenance procedures for airplane wiring systems. FlightSafety Boeing Training International (FSBTI) offers an FAA-approved training course in Boeing airplane wiring systems that is tailored to airplane and avionic technicians, engineering staff, and other personnel with access to the airplane.

The course, Airplane Wiring Systems, incorporates lecture, discussion, and demonstration to teach students how to inspect the condition of the airplane wiring properly, use the Boeing Standard Wiring Practices Manual, implement standard wire and connector repairs, understand and apply the processes and procedures in the Wiring Diagrams Manual, and apply standard wire system troubleshooting procedures. The seven-module curriculum meets Air Transport Association Level IV standards for the development of training materials to be used by airlines in training airplane maintenance personnel.

For further information, contact FSBTI by e-mail at trainingrequests@fsbti.com or by mail at P.O. Box 34787, Seattle, WA 98124-1787, USA. Course schedules, locations, and dates are available on the FlightSafety Boeing web site on the World Wide Web at http://www.fsbti.com.