File 20091112.1300: Notes from DO-178B/C training today: the instructors were Tim King, DDC-I; and Bill St Clair, LDRA. Mr King was the better speaker.

DO-178B design assurance:

- Level A has 66 objectives and is used for software that if it failed, people would die.
- ..
- Level E has no objectives; for example, software that collects maintenance data.

Dead code is considered a design error in DO-178B and must be removed. Two-way traceability of requirements to design and vice versa is required. Every block and branch of C code, it appeared, was decorated with a sub-requirement.

Have to show that every requirement is tested and there is no extraneous code [code with no associated requirement].

MCDC: Modified Condition/Decision Coverage is the test coverage standard they are held to. It is defined in DO-178B. Ask Wikipedia for an explanation if you don't want to read DO-178B.

DO-178C is coming soon and will allow object-oriented languages other than C to be used effectively.

References