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# METHOD AND APPARATUS FOR RADIOGRAPHIC INSPECTION OF AIRCRAFT FUSELAGES



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## ABSTRACT OF THE DISCLOSURE

A system (10) and method for radiographic inspection of an aircraft fuselage (12) includes a radiation source (16) located on one side of the fuselage (12) and a plurality of radiation detectors (18) located on another side of the fuselage (12). The radiation detectors (18) are located in known positions relative to the radiation source (16) so as to receive radiation from the radiation source (16) at different angles. The system (10) further includes manipulators for moving the radiation source (16) and the radiation detectors (18) in a coordinated fashion. The system (10) processes the radiation detected by the radiation detectors (18) so as to display stereoscopic images of areas of interest of the fuselage (12). The stereoscopic images are obtained by first irradiating the fuselage (12) and the radiation detectors (18) with the radiation source (16) to detect a first set of images of the fuselage (12) from multiple angles, repositioning the radiation source (16) and the radiation detectors (18) with respect to the fuselage (12), and then irradiating the fuselage (12) and the radiation detectors (18) with the radiation source (16) to detect a second set of images of the fuselage (12). The multiple sets of images are used to produce the stereoscopic images.

Figure 1