

To: Patent Cooperation Treaty/International Search Authority-European Patent Office
In attn: Authorized officer Van Ouytsel, Krist'l
Authorized officer Paredes Sanchez, Luis-Miguel

Ref: International application no. PCT/RO2015/000002

Notification

Regarding the Written Opinion of the International Searching Authority, please receive the following:

Re Item VIII

With respect to your consideration about the application not meeting the requirements of Article 6 PCT, because claim 1 is not clear, in particular the wording "the boom is positioned on top of the inspected aircraft" leading to believe that the boom is in contact with the aircraft, the wording "the boom is positioned on top of the inspected aircraft" was not meant to lead to believe that the boom is in contact with the aircraft, as shown below:

The expression "the boom is positioned on top of the inspected aircraft" means that the radiation source is positioned above the inspected aircraft without ever being in contact with the inspected aircraft, as in page 5 paragraph 2 of the description of the present invention "The scanning frame that generates a substantially vertical projection (top view) consists of a mechanical boom made up of one or more segments, which is connected at one end to the mobile scanning unit, and having at the other end mounted a penetrating radiation source which in scanning mode is positioned above the inspected aircraft, thus the beam of radiation emitted by the radiation source is directed towards the ground, in a substantial vertical plane and from an array of detectors installed on the ground, positioned under the inspected aircraft, so that the detectors are exposed to the radiation source beam over which the inspected aircraft is passing, towed by the mobile unit.", allowing the inspected aircraft to be towed through the scanning portal as shown in the figure 3 below:

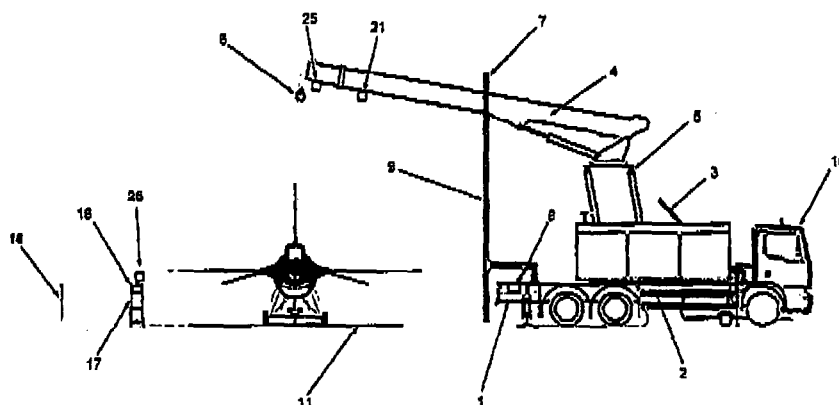


Figure 3

Furthermore for a better understanding of claim 1 the applicant would like to amend this claim by replacing the wording "on top of" with "above" as follow:

Amended claim 1:

A mobile nonintrusive system inspection for aircraft consisting of:

- a. Mobile scanner unit 1 that is carrying the components of the inspection system and which is used for unloading and positioning of components in order to scan an inspected aircraft.
- b. A tugging device 15
- c. A mobile control center 22 which is placed outside of the exclusion area.
- d. A first scanning frame used to obtain a radiographic image of the inspected aircraft through a substantially vertical projection, (top view) consisting of:
 - i. A mechanical boom 4, consisting of one or more telescopic segments that are assembled in a variable angle in the mobile scanning unit 1 having at the free end mounted a penetrating radiation source 6 and in the scanning mode the boom is positioned ~~on top~~ above of the inspected aircraft so that the beam of radiation from penetrating radiation source 6 is oriented towards the ground, passing through the fuselage of the inspected aircraft, in a vertically substantially plane;
 - ii. A detector line 11, installed on the ground, provided with an array of detectors 14 is positioned under the inspected aircraft so as to be exposed to the beam of the penetrating radiation source 6, aligned with this beam, over the detector line the inspected aircraft is towed;
- e. A second scanning frame used to obtain a radiographic image of the inspected aircraft through a substantially horizontal projection, view, consisting of:
 - i. a hinged boom 7 consisting of one or more segments of linear sections, bends, or combined, mechanically oscillating coupled with the mobile scanning unit 1, hinged boom in which an array of radiation detectors 9 is installed which in the scanning process has a substantially vertical position, at a variable angle, on the side towards the scanned aircraft, and during transport is folded along the platform of mobile scanning unit.
 - ii. A relocatable radiation source 16, located on the side of the inspected aircraft on the opposite side from the hinged boom 7, so its beam of radiation is directed towards the hinged boom 7, passing through the fuselage of the inspected aircraft, and expose to radiation the array of detectors 9, aligned with the radiation beam;
- f. A subsystem for the acquisition, processing and displaying of data provided by the radiation detectors and to control the scanning process 23 characterized by the fact that the mobile tugging device 15 is towing the inspected aircraft through the two scanning frames, the movement is synchronized with the activation of penetrating radiation sources and data acquisition from radiation detectors, in order to obtain at least two radiographic images of the aircraft from different angles.

Taking into account all the above mentioned, it is respectfully submitted that the amendment made to claim 1 could meet your requirements and overcome the objections in the International Search Report and, therefore, it is assumed that said new claim is now allowable. The applicant respectfully submit a clear copy of the amended pages of claim 1.

In view of the foregoing, a favorable examiner's opinion is earnestly solicited.

Respectfully submitted,

Mircea TUDOR

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What is claimed:

1. A mobile nonintrusive system inspection for aircraft consisting of:
 - a. Mobile scanner unit 1 that is carrying the components of the inspection system and which is used for unloading and positioning of components in order to scan an inspected aircraft.
 - b. A tugging device 15
 - c. A mobile control center 22 which is placed outside of the exclusion area.
 - d. A first scanning frame used to obtain a radiographic image of the inspected aircraft through a substantially vertical projection, (top view) consisting of:
 - i. A mechanical boom 4, consisting of one or more telescopic segments that are assembled in a variable angle in the mobile scanning unit 1 having at the free end mounted a penetrating radiation source 6 and in the scanning mode the boom is positioned above of the inspected aircraft so that the beam of radiation from penetrating radiation source 6 is oriented towards the ground, passing through the fuselage of the inspected aircraft, in a vertically substantially plane;
 - ii. A detector line 11, installed on the ground, provided with an array of detectors 14 is positioned under the inspected aircraft so as to be exposed to the beam of the penetrating radiation source 6, aligned with this beam, over the detector line the inspected aircraft is towed;
 - e. A second scanning frame used to obtain a radiographic image of the inspected aircraft through a substantially horizontal projection, view, consisting of:
 - i. a hinged boom 7 consisting of one or more segments of linear sections, bends, or combined, mechanically oscillating coupled with the mobile scanning unit 1, hinged boom in which an array of radiation detectors 9 is installed which in the scanning process has a substantially vertical position, at a variable angle, on the side towards the scanned aircraft, and during transport is folded along the platform of mobile scanning unit.
 - ii. A relocatable radiation source 16, located on the side of the inspected aircraft on the opposite side from the hinged boom 7, so its beam of radiation is directed towards the hinged boom 7, passing through the fuselage of the inspected aircraft, and expose to radiation the array of detectors 9, aligned with the radiation beam;

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- f. A subsystem for the acquisition, processing and displaying of data provided by the radiation detectors and to control the scanning process 23 characterized by the fact that the mobile tugging device 15 is towing the inspected aircraft through the two scanning frames, the movement is synchronized with the activation of penetrating radiation sources and data acquisition from radiation detectors, in order to obtain at least two radiographic images of the aircraft from different angles.
2. The mobile nonintrusive inspection system of aircraft according to claim 1, wherein the mechanical boom 4 of the first scanning frame is connected to the scanning unit 1 through a deformable parallelogram shaped support 5, which in transport mode is folded on the platform of the mobile unit, and in scanning mode is raised, so the attached mechanical boom 4 is positioned at an appropriate height for easy scanning of aircraft and collision avoidance with the wingtip of the scanned aircraft.
 3. The mobile nonintrusive inspection system of the aircraft according to claim 1, characterized in that the hinged boom 7, consists of one or more linear segments or bends and is mounted in a joint 8, with one degree of freedom, the boom equipped with an array of detectors 9 and being able to be folded for transport by rotation, towards the driver's cabin by at least 90 degrees, until it reaches a substantial parallel position to the structure 2.
 4. The mobile nonintrusive inspection system of the aircraft according to claim 1 characterized in that the mobile remote control center 22 is positioned outside the exclusion area a and is designed to remotely manage all the processes involved in the nonintrusive inspection.
 5. The mobile nonintrusive inspection system of the aircraft according to claim 1, wherein a computerized management subsystem 19 is contained in a mobile control center 22, interconnected with an external computerized system for monitoring and operating the inspection system, in order to oversee the process from another geographic location relative to the place of scanning.

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