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13/860,533	04/11/2013	Joshua M. Kusnitz	12-1836-US-NP	8033
77028	7590	07/21/2015	EXAMINER	
NovaTech IP Law 1001 Ave. Pico, Suite C500 San Clemente, CA 92673			MCFALL, NICHOLAS A	
			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### DETAILED ACTION

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale or otherwise available to the public before the effective filing date of the claimed invention.

3. Claims 1-3, 7-14, 17, 19 and 20 are rejected under 35 U.S.C. 102(a) (1) as being anticipated by Jones (US Publication Number 20060208132).

4. Regarding claim 1, Jones discloses a refueling system comprising a refueling hose as claimed (Figure 2 element 208), a refueling drone attached to the hose aft end and being deployable as claimed (Figures 1 and 2 elements 108a-b) with the refueling drone being configured to engage a receiver aircraft and transfer fuel (Figure 1 elements 106 and 111 and Figure 2 element 210).

5. Regarding claims 2 and 3, Jones discloses the above refueling system wherein the refuel drone includes an outwardly pivotable and telescopically extendable boom (Figure 1 element 111) with a fitting configured to mate with a receptacle of the receiver aircraft (Paragraph 18).

6. Regarding claim 7, Jones discloses the above refueling system further comprising a drogue mounted on the aft end of the refueling drone (Figure 1 element 106).

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7. Regarding claims 8-10, Jones discloses the above refueling system further comprising a plurality of outwardly pivotable, independently controllable control surfaces mounted on the refueling drone (Figure 1 element 109) such that the control surfaces provide pitch, yaw and roll control (Paragraph 14).

8. Regarding claim 11, Jones discloses an aerial refueling system comprising a refueling hose as claimed (Figure 1 unlabeled hose and Figure 2 element 208, Paragraph 19), a refueling drone attached to the hose aft end and being deployable from the wing pod as claimed (Figures 1 and 2 elements 108a-b), a refueling boom pivotable as claimed (Figure 1 element 111, Paragraph 18) and a plurality of control surfaces as claimed (Figure 1 element 109, Paragraph 114).

9. Regarding claim 12, Jones discloses a method of refueling comprising extending a hose (Figure 1 unlabeled hose and Figure 2 element 208, Paragraph 19) from a tanker aircraft (Figure 1 element 102), towing a refueling drone coupled as claimed (Figures 1 and 2 elements 108a-b), engaging the drone with a receiver aircraft and transferring fuel as claimed (Figure 1, Paragraph 2).

10. Regarding claims 13 and 14, Jones discloses the above method further comprising pivoting and telescopically extending a boom from the drone and mating a fitting on the drone with a receptacle of the receiver aircraft (Figure 1 element 111, Paragraph 18).

11. Regarding claim 17, Jones discloses the above method further comprising deploying a drogue as claimed and generating aerodynamic drag from the drogue

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(Paragraph 14). The examiner notes that any body placed in an airflow will generate drag.

12. Regarding claims 19 and 20, Jones discloses the above method further comprising deploying a control surface mounted on the drone, maneuvering and controlling the pitch, roll and yaw of the drone as claimed (Figure 1 element 109, Paragraph 14). The examiner notes that the claim only requires that control surface be deployed, but not in any particular manner. As such even a fixed control surface can be considered deployed when it is deployed with the drone.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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15. Claims 4-6, 15-16 and 18 are rejected under 35 U.S.C. 103 as being unpatentable over Jones as applied to claims 1 and 12 above, and further in view of Schroeder (US Publication 20060038076).

16. Regarding claims 4 and 5, Jones discloses the above refueling system comprising a wing pod mounted to a wing of the tanker (Figure 2 element 202) that is configured to contain the refueling hose when the drone is retracted (Figure 2, Paragraph 19), but fails to teach of the drone being extendable out of or retractable into the pod.

However, Schroeder teaches of a refueling system with a drone that is stored in a wing pod (Figures 1-3 element 150, Paragraph 25).

Regarding claims 4 and 5, it would have been obvious for a person having ordinary skill in the art at the time of filing to modify the refueling system of Jones with the drone storage of Schroeder for the predictable result of reducing drag when the drone and hose are retracted.

17. Regarding claim 6, Jones as modified by Schroeder discloses the above refueling system wherein the refueling drone is deployable from an aircraft interior (Schroeder, Figures 1 elements 111 and 150, Paragraph 25).

18. Regarding claims 15 and 16, Jones discloses the above method further comprising the step of deploying a drone from a wing pod (Figures 1 and 2) and storing the refueling hose in the wing pod (Figure 2, Paragraph 19), but fails to teach of storing the drone in the wing pod.

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However, Schroeder teaches of a method where a drone that is stored in a wing pod (Figures 1-3 element 150, Paragraph 25).

Regarding claims 15 and 16, it would have been obvious for a person having ordinary skill in the art at the time of filing to modify the method of Jones with the drone storage step of Schroeder for the predictable result of reducing drag when the drone and hose are retracted.

19. Regarding claim 18, Jones as modified by Schroeder discloses the above method wherein the refueling drone is deployed from an interior of the tanker (Schroeder, Figures 1 elements 111 and 150, Paragraph 25).

### ***Conclusion***

20. The applicant is invited to contact the examiner regarding the current rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS MCFALL whose telephone number is (571)270-5769. The examiner can normally be reached on M-F 0800-1600.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy D. Collins can be reached on (571)272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/NICHOLAS MCFALL/  
Examiner, Art Unit 3644