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(54) Title: SYSTEM AND METHOD FOR MANAGING A SWARM OF UNMANNED AERIAL VEHICLES

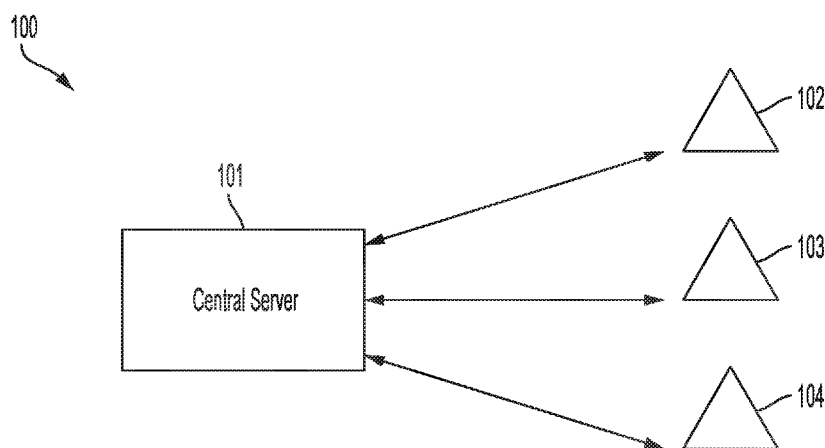


FIG. 1

(57) Abstract: Systems and methods for managing communication of a plurality of unmanned aerial vehicles. The present invention can include a central server and a plurality of unmanned aerial vehicles including a master and secondary unmanned aerial vehicle. The master and secondary unmanned aerial vehicles can communicate with the central server and each other. The master and secondary unmanned aerial vehicle can deliver packages to different locations. In doing so, the master and secondary unmanned aerial vehicle can form a swarm that at least partially share a route for delivery of the packages to their destinations. The master unmanned aerial vehicle can be configured to: (i) receive delivery information for the master and secondary unmanned aerial vehicles, (ii) monitor communication between the swarm, and (iii) determine if the swarms encounters a risk.





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A. CLASSIFICATION OF SUBJECT MATTER

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CPC - G05D 1/0027; B64C 37/02; G08G 5/0047; G08G 5/0069; H04W 84/20 (2019.02)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 701/3; 701/14; 701/15; 701/16; 701/17 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y --- A	US 2016/0378108 A1 (AMAZON TECHNOLOGIES, INC.) 29 December 2016 (29.12.2016) entire document	1-4, 6-8, 12, 13 --- 9-11 --- 14-20
Y --- A	WO 2018/004681 A1 (INTEL CORPORATION) 04 January 2018 (04.01.2018) entire document	9-11 --- 14-20
A	BIAN et al. "A secure communication framework for large-scale unmanned aircraft systems", 2013 Integrated Communications, Navigation and Surveillance Conference (ICNS), retrieved on [18.03.2019] Retrieved from internet <URL:http://www.mengjunxie.org/papers/ICNS_2013.pdf> entire document	14-20
A	US 9,524,648 B1 (AMAZON TECHNOLOGIES, INC.) 20 December 2016 (20.12.2016) entire document	1-20
A	US 2014/0249693 A1 (DISNEY ENTERPRISES, INC.) 04 September 2014 (04.09.2014) entire document	1-20

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☐ See patent family annex.

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