PATENT COOPERATION TREATY

From	the	INTERNATIONAL	SEARCHING	AUTHORITY

To: LARRY HARRIS ATHORUS, PLLC P.O. BOX 990 SEATTLE, WA 98111	PCT NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION		
	(PCT Rule 44.1) Date of mailing		
	(day/month/year) 2 9 DEC 2014		
Applicant's or agent's file reference 1100408	FOR FURTHER ACTION See paragraphs 1 and 4 below		
International application No. PCT/US2014/058497	International filing date (day/month/year) 30 September 2014		
Applicant AMAZON TECHNOLOGIES, INC.			
Authority have been established and are transmitted here Filing of amendments and statement under Article 19 The applicant is entitled, if he so wishes, to amend the co When? The time limit for filing such amendments is no search report.):		
1211 Geneva 20, Switzerland, Facsimile No.: For more detailed instructions, see PCT Applicant's C	+41 22 338 82 70		
 The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith. With regard to any protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that: 			
request to forward the texts of both the protest and	s been transmitted to the International Bureau together with any d the decision thereon to the designated Offices. applicant will be notified as soon as a decision is made.		
to the International Bureau. These comments will be ma International Bureau will send a copy of such comments examination report has been or is to be established. Shortly after the expiration of 18 months from the priorit International Bureau. If the applicant wishes to avoid or p application, or of the priority claim, must reach the Internatio	on the written opinion of the International Searching Authority de available to the public after international publication. The to all designated Offices unless an international preliminary y date, the international application will be published by the international application of the international nal Bureau before the completion of the technical preparations for		
examination must be filed if the applicant wishes to postpone date (in some Offices even later); otherwise, the applican prescribed acts for entry into the national phase before the time limit of 30 months (or later) will apply even if no dema limits, Office by Office, see www.wipo.int/pct/en/texts/time_l	of some designated Offices, a demand for international preliminary the entry into the national phase until 30 months from the priority at must, within 20 months from the priority date, perform the se designated Offices. In respect of other designated Offices, the nd is filed within 19 months. For details about the applicable time limits.html and the <i>PCT Applicant's Guide</i> , National Chapters.		
out by a different International Searching Authority that of	y request that a supplementary international search be carried offers this service (Rule 45bis.1). The procedure for requesting Applicant's Guide, International Phase, paragraphs 8.006-8.032.		
Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 Telephone No. PCT OSP: 571-272-7774		

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

FOR FURTHER ACTION as well	see Form PCT/ISA/220 I as, where applicable, item 5 below.
International filing date (day/month/year) 30 September 2014	(Earliest) Priority Date (day/month/year) 26 October 2013
ten prepared by this International Searching and transmitted to the International Bureau. s of a total of sheets. a copy of each prior art document cited in this	Authority and is transmitted to the applicant report.
the international search was carried out on the bedication in the language in which it was filed. International application into	which is the language of ules 12.3(a) and 23.1(b)).
omitted by the applicant. ed, according to Rule 38.2, by this Authority a om the date of mailing of this international sear e published with the abstract is Figure No. 1 applicant. Authority, because the applicant failed to sugge	ch report, submit comments to this Authority.
	International filing date (day/month/year) 30 September 2014 cen prepared by this International Scarching agransmitted to the International Bureau. So of a total of

Form PCT/ISA/210 (first sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No. PCT/US2014/058497

Box No.	II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This inter	rnational search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2.	Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3.	Claims Nos.: 2-5, 7-11, 13-15 because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box No.	Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This Inter	rnational Searching Authority found multiple inventions in this international application, as follows:
1.	As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.	As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3.	As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4.	No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark	The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee. The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation. No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (2)) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.

		PCT/US20	
IPC(8) - CPC -	SSIFICATION OF SUBJECT MATTER G01C 21/36 (2014.01) G01C 21/36 (2014.11) o International Patent Classification (IPC) or to both national classification	and IPC	
B. FIEL	DS SEARCHED		
IPC(8) - G0°	ocumentation searched (classification system followed by classification symbol C 21/36; G06Q 10/00, 50/00; G06F 3/048 (2014.01) /3; 705/34, 333	s)	
CPC - G010	ion searched other than minimum documentation to the extent that such docum 2 21/36; G06Q 10/00, 50/00; G06F 3/048 (2014.11) (keyword delimited)		
Electronic da	ata base consulted during the international search (name of data base and, when	e practicable, search te	erms used)
	it, Google Patents s used: unmanned, aerial vehicles, automatic, pickup, delivery, goods		
C. DOCU	MENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the rel	evant passages	Relevant to claim No.
Y	US 2010/0169199 A1 (FULLER et al) 01 July 2010 (01.07.2010) entire doc	ument	1, 6, 12
Y	US 2011/0084162 A1 (GOOSSEN et al) 14 April 2011 (14.04.2011) entire	locument	1, 6, 12
Α	US 2013/0072228 A1 (NAGUIB et al) 21 March 2013 (21.03.2013) entire d	ocument	1, 6, 12
Α	US 2013/0240673 A1 (SCHLOSSER et al) 19 September 2013 (19.09.201	3) entire document	1, 6, 12
<u></u>	r documents are listed in the continuation of Box C.		
"A" docume	nt defining the general state of the art which is not considered date and not in		national filing date or priority ation but cited to understand nyention
	pplication or patent but published on or after the international "X" document of p	articular relevance; the	claimed invention cannot be ered to involve an inventive
cited to	nt which may throw doubts on priority claim(s) or which is step when the establish the publication date of another citation or other "Y" document of p	locument is taken alone articular relevance; the	claimed invention cannot be
	nt referring to an oral disclosure, use, exhibition or other combined with		step when the document is locuments, such combination at art

"&" document member of the same patent family

Authorized officer:

PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Date of mailing of the international search report

29 DEC 2014

Blaine R. Copenheaver

Facsimile No. 571-273-3201 Form PCT/ISA/210 (second sheet) (July 2009)

Name and mailing address of the ISA/US

16 December 2014

document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHOR	ORITY		
To: LARRY HARRIS ATHORUS, PLLC P.O. BOX 990		PCT	
SEATTLE, WA 98111		WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY	
			(PCT Rule 43bis.1)
		Date of mailing (day/month/year)	29 DEC 2014
Applicant's or agent's file reference		FOR FURTHER ACTION	
1100408		See paragraph 2 below	
International application No.	International filing date	(day/month/year)	Priority date (day/month/year)
PCT/US2014/058497	30 September 2014	!	26 October 2013
International Patent Classification (IPC) o IPC(8) - G01C 21/36 (2014.01) CPC - G01C 21/36 (2014.11)	r both national classificat	tion and IPC	
Applicant AMAZON TECHNOLOGI	ES, INC.		
Box No. IV Lack of unity of Reasoned states citations and ex Box No. VI Certain documed Box No. VII Certain defects Box No. VIII Certain observations and extended Box No. VIII Certain observations are served.	inion ment of opinion with regard finvention ment under Rule 43bis. 1(applanations supporting supporting supports cited in the international applications on the internationa	rd to novelty, inventive a)(i) with regard to now the statement cation I application	e step and industrial applicability velty, inventive step or industrial applicability; considered to be a written opinion of the
International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220.			
Name and mailing address of the ISA/US	Date of completion of the	his opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	16 December 201	4	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300

Facsimile No. 571-273-3201
Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US2014/058497

Вох	No. I	Basis of this opinion
1.	With r	egard to the language, this opinion has been established on the basis of:
	\boxtimes	the international application in the language in which it was filed.
		a translation of the international application into which is the language of a
		translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2.		This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3.		egard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been shed on the basis of a sequence listing filed or furnished:
	a. (m	1
	F	on paper
		in electronic form
	b. (tir	ne)
	È	in the international application as filed
		together with the international application in electronic form
		subsequently to this Authority for the purposes of search
4.		In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5.	Additi	onal comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2014/058497

Box No.	III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
	stions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be indistrially le have not been examined in respect of:
	the entire international application.
\boxtimes	claims Nos. 2-5, 7-11, 13-15
bassa	
becau	the said international application, or the said claims Nos. relate to the following
	subject matter which does not require an international search (specify):
\boxtimes	the description, claims or drawings (indicate particular elements below) or said claims Nos. 2-5, 7-11, 13-15
Claims 2	arc so unclear that no meaningful opinion could be formed (specify): 5, 7-11, 13-15 are multiple dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4
(a).	5, 7-11, 13-13 are multiple dependent claims and are not draited in accordance with the second and filling sentences of Rule 6.4
	the claims, or said claims Nos are so inadequately supported
	by the description that no meaningful opinion could be formed (specify):
\boxtimes	no international search report has been established for said claims Nos. 2-5, 7-11, 13-15
	a manningful animing applied not be formed with antibour all animals about 10 and 10 and 10 animals are 10 and 10 animals and 10 animals are 10 and 10 animals are 10 anima
	a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative
	Instructions, and such listing was not available to the International Searching Authority in a form and mannacceptable to it.
	furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrativ
	Instructions, and such listing was not available to the International Searching Authority in a form and mannacceptable to it.
	pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rule 13ter.1(a) or (b).
	See Supplemental Box for further details.
	••

Form PCT/ISA/237 (Box No. III) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US2014/058497

citations and explanati		ng such statement	
1. Statement			
Novelty (N)	Claims	1, 6, 12	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1, 6, 12	NO
Industrial applicability (IA)	Claims	1, 6, 12	YES
	Claims	None	NO

Reasoned statement under Rule 43 bis 1(a)(i) with regard to novelty inventive sten or industrial annicability:

Citations and explanations:

Claims 1, 6, 12, lack an inventive step under PCT Article 33(3) as being obvious over Fuller et al., hereinafter referred to as Fuller in view of Goossen et al., hereinafter referred to as Goossen.

Regarding claim 1, Fuller discloses a system for delivery of items to a destination location, (figs.1 & 3 shows a method 300 wherein the truck arrives at the first cargo delivery location and delivers the cargo to a desired location pursuant to instructions provided in the cargo delivery data set, para 0067, 0072) comprising: a plurality of vehicles, each of the plurality of vehicles configured to transport items (fig. 1 shows a system 100 that comprises a host trucking management system 110 and plurality of truckload trucks 102, 104, 106 and 108 used for cargo delivering, para 0046, 0047); a vehicle management system configured to at least: receive a request to deliver an item to a destination location (instructions are sent from a trucking company headquarters through the host trucking management system 110 to the communication module in the vehicle, to automatically provide pickup location and driving directions, para 0048, 0049); and send to a vehicle of the plurality of the vehicles, delivery parameters identifying a source location that includes the item and a destination location (fig.8A is a screen of a dispatch message 800A sent from the trucking management system to a driver, the dispatch message comprises ting. A is a screen of a dispatch message countries tracking management system to a driver, the dispatch message countries the cargo pickup location which is in Washington, W. Va and the cargo delivery location is in Virginia Beach, Va., para 0114, 0115); wherein the vehicle, in response to receiving the delivery parameters, is further configured to at least: navigate a navigation route to the destination location (the driver of the truck receives a first cargo pick-up location 210, as the driver begins to move his truck the communications module provides navigational instructions that are automatically generated, the instructions are in the form of a visual maps, para 0060, 0061); and disengage the item (the first cargo delivery location 220 is reached and the load is entirely unloaded at the delivery location 220, para 0062), but lacks the teaching of a system for aerial delivery of items to a destination location, comprising: a plurality of unmanned aerial vehicles, each of the plurality of unmanned aerial vehicles configured to aerially transport items; an unmanned aerial vehicle management system configured; wherein the unmanned aerial vehicle, is further configured to at least: navigate to the source location; engage the item located at the source location.

Gooseen is in the field of an unmanned aerial vehicle for making partial deliveries of cargo (abstract) and teaches a system for aerial delivery of items to a destination location (the unmanned aerial vehicle (UAV) 20 approaches the first supply location 27 and under autonomous control lands at the first supply location, and the UAV 20 deposits the cargo by dropping it at that location, para 0032), comprising: a unmanned aerial vehicles configured to aerially transport items (the UAV 20 approaches the first supply location 27 and under autonomous control lands at the first supply location, and the UAV 20 deposits the cargo by dropping it at that location, para 0032); an unmanned aerial vehicle management system configured (fig.2 shows the UAV with attached autonomous payload parsing management system, para 0029, 0030) wherein the unmanned aerial vehicle, is further configured to at least: navigate to the source location; engage the item located at the source location (the UAV 20 fly's from the first supply location 27 to a second supply location 21 autonomously and approaches a second supply location 31, where additional cargo is loaded into the UAV 20, the cargo provisions include food, clothing or ammunitions, the UAV 20 pickups the cargos and flys away from the second supply location, para 0034-0038). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Gooseen to incorporate a system for aerial delivery of items to a destination location, comprising: a unmanned aerial vehicles configured to aerially transport items; an unmanned aerial vehicle management system configured, wherein the unmanned aerial vehicle, is further configured to at least: navigate to the source location; engage the item located at the source location into the invention of Fuller. The motivation would have been

to reduce the chances of detection and destruction by enemy forces and fuel costs (see Gooseen para 0010).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US2014/058497

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Regarding claim 6, Fuller discloses a method, comprising: receiving a request to deliver an item to a destination location (instructions are sent from a trucking company headquarters through the host trucking management system 110 to the communication module in the vehicle, to automatically provide pickup location and driving directions, para 0048, 0049); selecting a vehicle (fig.8A is a screen of a dispatch message 800A sent from the trucking management system to a driver, the dispatch message comprises the cargo pickup location which is in Washington, W. Va and the cargo delivery location is in Virginia Beach, Va., para 0114, 0115); sending delivery parameters to the selected vehicle (the driver of the truck receives a first cargo pick-up location 210, as the driver begins to move his truck the communications module provides navigational instructions that are automatically generated, the instructions are in the form of a visual maps, para 0060, 0061) and delivering the item from a source location to the destination location with the selected vehicle (the driver of the truck receives a first cargo pick-up location 210, as the driver begins to move his truck the communications module provides navigational instructions that are automatically generated, the instructions are in the form of a visual maps, para 0060, 0061), but lacks the teaching of selecting an unmanned aerial vehicle and autonomously delivering the item from a source location to the destination location with the selected unmanned aerial vehicle.

Gooseen is in the field of an unmanned aerial vehicle for making partial deliveries of cargo (abstract) and teaches an unmanned aerial vehicle (the unmanned aerial vehicle (UAV) 20 approaches the first supply location 27 and under autonomous control lands at the first supply location, and the UAV 20 deposits the cargo by dropping it at that location, para 0032) and autonomously delivering the item from a source location to the destination location with the selected unmanned aerial vehicle (the UAV 20 fly's from the first supply location 27 to a second supply location 21 autonomously and approaches a second supply location 31, where additional cargo is loaded into the UAV 20, the cargo provisions include food, clothing or ammunitions, the UAV 20 pickups the cargos and flys away from the second supply location, para 0034-0038). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Gooseen to incorporate an unmanned aerial vehicle and autonomously delivering the item from a source location to the destination location with the selected unmanned aerial vehicle into the invention of Fuller. The motivation would have been to reduce the chances of detection and destruction by enemy forces and fuel costs (see Gooseen para 0010).

Regarding claim 12, Fuller discloses a system for transport of items using vehicles (figs.1 & 3 shows a method 300 wherein the truck arrives at the first cargo delivery location and delivers the cargo to a desired location pursuant to instructions provided in the cargo delivery data set, para 0067, 0072), comprising: a plurality of vehicles, each of the vehicles configured to at least (fig.1 shows a system 100 that comprises a host trucking management system 110 and plurality of truckload trucks 102, 104, 106 and 108 used for cargo delivering, para 0046, 0047): wirelessly receive information from a vehicle management system (instructions are sent from a trucking company headquarters through the host trucking management system 110 to the communication module in the vehicle, to automatically provide pickup location and driving directions, para 0048, 0049); and navigate between a source location and a destination location along a navigation path (the driver of the truck receives a first cargo pick-up location 210, as the driver begins to move his truck the communications module provides navigational instructions that are automatically generated, the instructions are in the form of a visual maps, para 0060, 0061); and a vehicle management system configured to wirelessly communicate with each of the plurality of vehicles (fig.8A is a screen of a dispatch message 800A sent from the trucking management system to a driver, the dispatch message comprises the cargo pickup location which is in Washington, W. Va and the cargo delivery location is in Virginia Beach, Va., para 0114, 0115), but lacks the teaching of a system for aerial transport of items using unmanned aerial vehicles, comprising: wirelessly receive information from an unmanned aerial vehicle management system; selectively engage and disengage inventory items;

lacks the teaching of a system for aerial transport of items using unmanned aerial vehicles, comprising: wirelessly receive information from an unmanned aerial vehicle management system; selectively engage and disengage inventory items;

Gooseen is in the field of an unmanned aerial vehicle for making partial deliveries of cargo (abstract) and teaches a system for aerial delivery of items to a destination location (the unmanned aerial vehicle (UAV) 20 approaches the first supply location 27 and under autonomous control lands at the first supply location, and the UAV 20 deposits the cargo by dropping it at that location, para 0032), comprising: a unmanned aerial vehicles configured to aerially transport items (the UAV 20 approaches the first supply location 27 and under autonomous control lands at the first supply location, and the UAV 20 deposits the cargo by dropping it at that location, para 0032; fig.2 shows the UAV with attached autonomous payload parsing management system, para 0029, 0030) selectively engage and disengage inventory items (the UAV 20 fly's from the first supply location 27 to a second supply location 21 autonomously and approaches a second supply location along are additional cargo is loaded into the UAV 20, the cargo provisions include food, clothing or ammunitions, the UAV 20 pickups the cargos and flys away from the second supply location, para 0034-0038) and aerially navigate between a source location and a destination location along a navigation path (the UAV 20 fly's from the first supply location 27 to a second supply location 21 autonomously and approaches a second supply location 31, where additional cargo is loaded into the UAV 20, the cargo provisions include food, clothing or ammunitions, the UAV 20 pickups the cargos and flys away from the second supply location, para 0034-0038). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Gooseen to incorporate a system for aerial delivery of items to a destination locatio

Claims 1, 6, 12, meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.