

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **See form PCT/ISA/210**

Applicant's or agent's file reference BCT150140 PL		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/FR2015/051196	International filing date (day/month/year) 05.05.2015	Priority date (day/month/year) 13.05.2014
International Patent Classification (IPC) or both national classification and IPC B64B1/66 B64F1/14		
Applicant A-NTE (AERO-NAUTIC TECHNOLOGY & ENGINEERING)		

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be 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 66.1bis(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 Form 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.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

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Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - 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. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material
 - on paper
 - in electronic form
 - c. time of filing/furnishing
 - contained in the international application as filed
 - filed together with the international application in electronic form
 - furnished 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 and/or table(s) relating thereto 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. Additional comments:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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1. Statement			
Novelty (N)	Claims	1-9	YES
	Claims	_____	NO
Inventive step (IS)	Claims	1-9	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims	_____	NO

2. Citations and explanations:	
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Reference is made to the following documents:

D1 US 4 842 221 A (BEACH GLENN R [US] ET AL) 27
June 1989 (1989-06-27)

D2 DE 646 279 C (DEMAG AG) 11 June 1937 (1937-06-11)

D3 US 2 723 833 A (FRANK BURFEIND HENRY) 15
November 1955 (1955-11-15)

D1, which is considered to be the prior art closest to the subject matter of claim 1 (see column 3, lines 5-16), discloses a facility 20 for retaining an aerostat 10, comprising:

- a platform mounted rotatably about a vertical axis, said platform comprising a winch 24 for winding and unwinding a cable 14 to which said aerostat is attached,

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- a boom 22 that extends substantially horizontally from the platform, and

- a pulley 26 suitable for guiding the cable coming from the winch.

Therefore, the subject matter of claim 1 differs from this known facility in that said facility further comprises:

- a pulley support for supporting the pulley, said pulley support being mobile with respect to the boom, and

- an elastic member that connects said pulley support to the boom, the pulley support and the elastic member being arranged to move the pulley and reduce a transverse torque (My) applied to the platform (2);

said subject matter is therefore novel.

The problem addressed by the present invention can therefore be considered that of perfecting facilities of this type, in particular to better adapt to the wind.

The solution to this problem, as proposed in claim 1 of the present application, is considered to involve an inventive step (PCT Article 33(3)), for the following reasons:

Because of the presence of the elastic member, the

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transverse torque M_y can be reduced by a term that is proportional to k , that is to say, to the stiffness of the elastic member, with respect to a facility without a mobile pulley. Thus, swinging of and/or damage to the platform in extreme wind conditions are prevented. Through this arrangement, the pivot link 10 can be of a smaller size, undergoing less static stresses and less dynamic stresses and thus being less costly.

Documents D2 and D3 describe facilities for retaining an aerostat that have a pulley support to support the pulley for guiding the cable, said pulley support being mobile with respect to the stationary structure of the facility, and an elastic member that connects said pulley support to the stationary structure. However, there are no indications that the pulley support is mounted on a platform mobile in rotation about a vertical axis. Moreover, said elastic support is arranged to reduce the tension on the cable via the retroactive control of the motor for winding/unwinding. The facilities of D2 and D3 are thus different, and a person skilled in the art probably would not take said facilities into consideration. Furthermore, even a combination of the features of D1 and D2 (or D3) would not lead to the subject matter of the invention.