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(54) Title: VORTEX GENERATORS ON ROTOR BLADES TO DELAY AN ONSET OF LARGE OSCILLATORY PITCHING MOMENTS AND INCREASE MAXIMUM LIFT

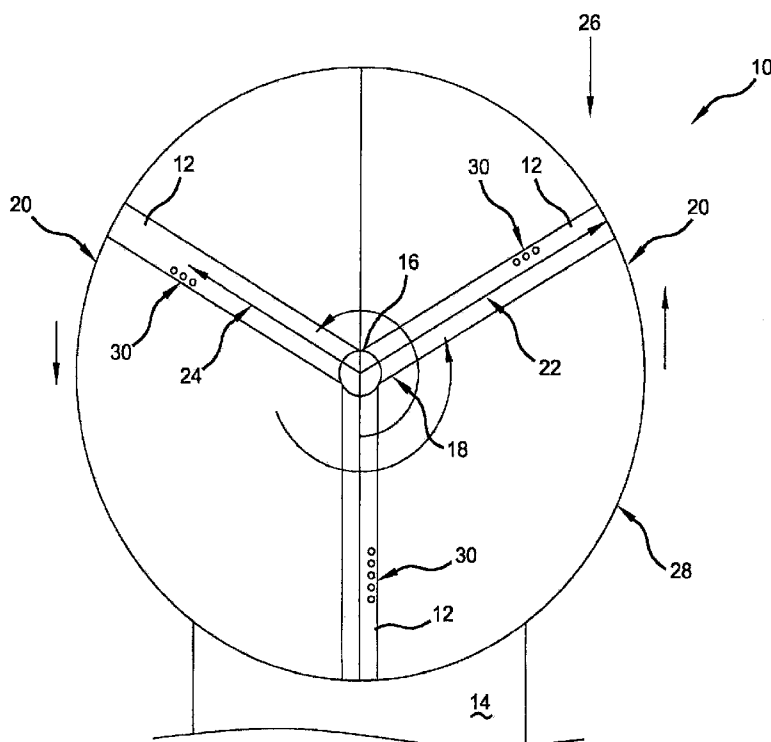


FIG 1

(57) Abstract: An airborne mobile platform (10) generally includes a plurality of rotating rotor blades (12) operating in an airflow that forms a boundary layer on each of the rotor blades. At least one of the rotor blades includes a section that encounters the airflow that includes an unsteady subsonic airflow having at least a varying angle of attack. At least one of the rotor blades also includes one or more vortex generators (30) on the at least one of the rotor blades that generate a vortex that interacts with the boundary layer to at least delay an onset of separation of the boundary layer, to increase a value of an unsteady maximum lift coefficient and to reduce a value of an unsteady pitching moment coefficient for the section.

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PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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

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

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 481 661 A (WESTLAND HELICOPTERS [GB]) 22 April 1992 (1992-04-22)	1-4, 7, 10, 11, 16, 19-21
Y	column 1, lines 16-26 column 3, line 15 - column 4, line 15 column 4, line 58 - column 5, line 46 column 6, line 47 - column 7, line 12 column 8, lines 39-47 figures ----- -/--	5, 8, 9, 12, 13, 17

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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A document defining the general state of the art which is not considered to be of particular relevance

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T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EP 1 714 869 A (DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]) 25 October 2006 (2006-10-25) paragraphs [0001] - [0003] paragraphs [0010], [0011] paragraphs [0015] - [0017] paragraphs [0020] - [0022] figures</p>	<p>1,2,16, 19,20</p>
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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