



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.03.2007 Bulletin 2007/13

(51) Int Cl.:
G08G 5/00 (2006.01) G06F 15/00 (2006.01)

(43) Date of publication A2:
07.06.2006 Bulletin 2006/23

(21) Application number: **04257729.6**

(22) Date of filing: **13.12.2004**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR LV MK YU

- **Davis, Don**
Calgary, Alberta T3A 1S9 (CA)
- **Krause, James**
Beaumont, Alberta T4X 1C9 (CA)
- **Cooper, Ken**
Kelowna, B.C. V1Y 9S5 (CA)
- **Musclow, Ralph**
Ottawa, ON K1Y 3T8 (CA)
- **Beasley, Patrick**
Kanata, ON K2K 2J9 (CA)

(30) Priority: **03.12.2004 CA 2489122**

(71) Applicant: **NAV Canada**
Ottawa, ON, K1P 5L6 (CA)

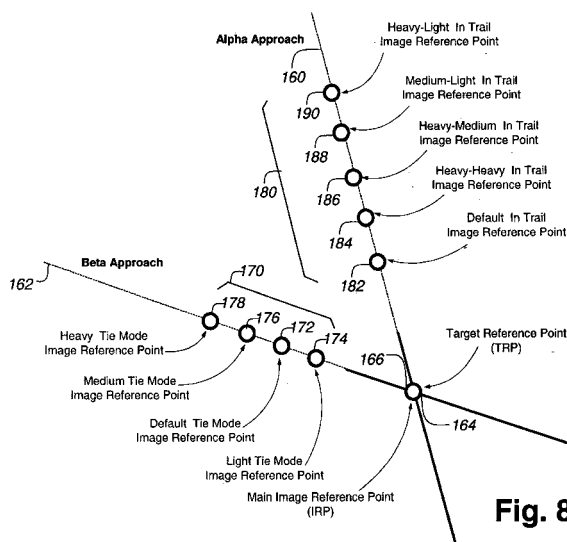
(72) Inventors:
• **Burnett, Kevin**
Ottawa, Ontario K1V 1P5 (CA)
• **Scully, Gregg**
Surrey, BC V4A 3L7 (CA)

(74) Representative: **Skone James, Robert Edmund**
Gill Jennings & Every LLP
Broadgate House
7 Eldon Street
London EC2M 7LH (GB)

(54) **Visual aircraft spacing system and method**

(57) An air traffic display aid and method that uses parameters for defining a heading for an alpha approach and a beta approach. These can be intersecting or converging runways, dependent or independent parallel runways or airways in en-route configurations. A target reference point is determined in dependence upon the alpha

and beta approaches. And an image reference point is determined in dependence upon at least one of the target reference point, a difference between the headings, a characteristic of the beta approach and an offset. Single target mirror ghosting, in-trail ghosting on demand, associated configurations and user selectable resynchronization spacing is also supported.





European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 04 25 7729 shall be considered, for the purposes of subsequent proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	MUNDRA A D ET AL: "Capacity enhancements in IMC for converging configurations with down-link of aircraft expected final approach speeds" 20TH DASC. 20TH DIGITAL AVIONICS SYSTEMS CONFERENCE. PROCEEDINGS 14-18 OCT. 2001 DAYTONA BEACH, FL, USA, vol. 2, October 2001 (2001-10), pages 7.E.7-1-7.E.7-13, XP002419905 20th DASC. 20th Digital Avionics Systems Conference (Cat. No.01CH37219) IEEE Piscataway, NJ, USA ISBN: 0-7803-7034-1 * page 1, left-hand column, paragraphs 3,4 * * page 5, left-hand column, paragraph 1 * * page 6, right-hand column, paragraph 4 * * page 7, left-hand column, paragraphs 1,2 * * page 8, right-hand column, paragraphs 2,3 * * page 9, right-hand column * * figure 5 *	1-5,9, 10, 16-20, 24-26	INV. G08G5/00 G06F15/00
Y	----- -/-	11-15, 27-31	TECHNICAL FIELDS SEARCHED (IPC) G08G G06F G01C
INCOMPLETE SEARCH The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search Munich		Date of completion of the search 14 February 2007	Examiner FLORES-JIMENEZ, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

4
EPO FORM 1503 03/82 (P04C07)

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 2003/200024 A1 (POREDA STANLEY J [US]) 23 October 2003 (2003-10-23) * page 1, paragraph 7 * * page 2, paragraph 13-15 * * page 3, paragraph 35 * * page 5, paragraph 49 * * page 6, paragraphs 53,58 * -----	1-6, 16-21	<div>TECHNICAL FIELDS SEARCHED (IPC)</div>
D,Y	US 4 890 232 A (MUNDRA ANAND D [US]) 26 December 1989 (1989-12-26) * column 3, line 66 - column 4, line 8 * * column 6, lines 5-19 * -----	11-15, 27-31	
D,A	BURNETT, K, BEASLEY, P., MUNDRA, A.: "Converging Runway Display Aid as a Means to Increase Airport Capacity" ATAC ANNUAL MEETING, October 2000 (2000-10), pages 232-236, XP009078976 * the whole document * -----	1-31	



Claim(s) searched incompletely:
1-31

Claim(s) not searched:
-

Reason for the limitation of the search:

The scope covered by the claims does not correspond to that of the description; all embodiments falling within the scope of the claims should be technically enabled by the description but in the present application, the description does not contain the required technical teaching but exclusively one particular embodiment, partially written in pseudo-code for its computer implementation; therefore the search has been limited to the claims as supported, that is, to the scope as exemplarily disclosed in the description.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 25 7729

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-02-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003200024 A1	23-10-2003	AT 320058 T	15-03-2006
		AU 2003234154 A1	10-11-2003
		CA 2483013 A1	06-11-2003
		DE 60303924 T2	14-12-2006
		EP 1497808 A1	19-01-2005
		JP 2005524157 T	11-08-2005
		WO 03091967 A1	06-11-2003
<hr/>			
US 4890232 A	26-12-1989	CA 1299290 C	21-04-1992
<hr/>			