

1) Family number: 56826032 (US2014188332A)

© PatBase

Title: AUTOMATED DIAGNOSTIC INSPECTION OF MECHANICAL CONTROLS

Priority: US20120731974 20121231 EP20130155319 20130214

Family:	Publication number	Publication date	Application number	Application date
	CA2837629 AA	20140630	CA20132837629	20131217
	CA2837629 C	20160816	CA20132837629	20131217
	DE602013006613 D1	20160602	DE201360006613T	20130214
	EP2749979 A1	20140702	EP20130155319	20130214
	EP2749979 B1	20160420	EP20130155319	20130214
	US2014188332 AA	20140703	US20120731974	20121231
	US9227738 BB	20160105	US20120731974	20121231

Probable Assignee: TEXTRON INNOVATIONS INC

Assignee(s):(std): BELL HELICOPTER TEXTRON INC ; TEXTRON INNOVATIONS INC

Assignee(s): WITTMAAK JOHN R JR ; BELL HELICOPTER TEXTRON INC FORT WORTH ; CONVINGTON CHARLES ERIC ; FENNY CARLOS ; GONZALEZ JAYME

Inventor(s):(std): FENNY CARLOS ; GONZALEZ JAYME ; COVINGTON CHARLES ERIC ; WITTMAAK JOHN R ; WITTMAAK JR JOHN R ; WITTMAAK JOHN R JR ; CONVINGTON CHARLES ERIC

Inventor(s): COVINGTON CHARLES ERIC COLLEYVILLE ; FENNY CARLOS ARLINGTON ; WITTMAAK JOHN R NEWARK ; GONZALEZ JAYME NORTH RICHLAND HILLS

Agent(s): NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; GILLE HRABAL; LAWRENCE JOHN; JAMES E

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class (IPC 8-9): B64C13/26 B64C27/59 B64F5/00 G01M17/00 G05B23/02 (Advanced/Invention)

CPC: G05B23/0256 B64F5/60

US class: 1/1 701/33.1 701/34.4

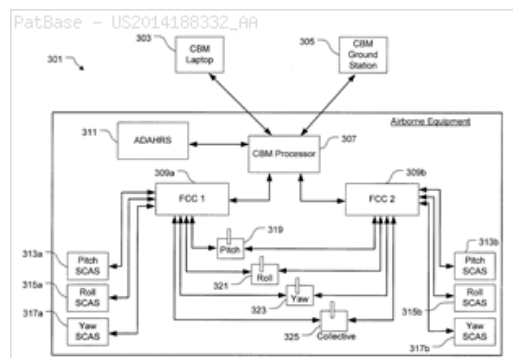
[Classification Explorer](#)

Cited documents: US6349601 BA, US4782292 A, US4782292 A, US4274438 A, US2010076716 AA, US2010076716 AA, US2009222124 AA, US2009222124 AA, US2009192659 AA, US2009192659 AA, EP1160423 A2, EP1160423 A2, CN102591320 A, CN102591320 A,

Forward Citations: US2014191079, US10377473,

Abstract:

A system and method to diagnosis an actuator of a flight control system. The system and method includes interfacing a diagnostic computer to the flight control system, commanding movement of an actuator with the diagnostic computer via the flight control system, measuring performance of the actuator via the diagnostic computer, and comparing the measured performance of the actuator with allowable performance values.



2) Family number: 28449035 (US2003093187A)

© PatBase

Title: PFN/TRAC SYSTEMTM FAA UPGRADES FOR ACCOUNTABLE REMOTE AND ROBOTICS CONTROL TO STOP THE UNAUTHORIZED USE OF AIRCRAFT AND TO IMPROVE EQUIPMENT MANAGEMENT AND PUBLIC SAFETY IN TRANSPORTATION

Priority: US20010325538P 20011001 US20010330085P 20011019 US20020260525 20021001
WO2002US30857 20021001 US20050086494 20050323

Family:	Publication number	Publication date	Application number	Application date
	AU2002334708 AA	20030414	AU20020334708	20021001
	US2003093187 AA	20030515	US20020260525	20021001
	US2005187677 AA	20050825	US20050086494	20050323
	US6965816 BB	20051115	US20020260525	20021001
	WO03029922 A2	20030410	WO2002US30857	20021001
	WO03029922 A3	20050217	WO2002US30857	20021001

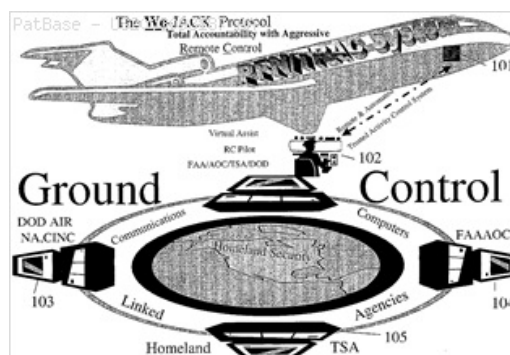
Probable Assignee:	KLINE AND WALKER LLC
Assignee(s):(std):	KLINE AND WALKER LLC ; WALKER RICHARD C
Inventor(s):(std):	WALKER RICHARD C ; RICHARD C WALKER
Inventor(s):	WALKER RICHARD
Agent(s):	WILMER CUTLER PICKERING HALE AND DORR LLP; IRAH H
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
International class (IPC 8-9):	B64C13/20 B64D45/00 G07C5/00 (Advanced/Invention)
International class (IPC 1-7):	G06F19/00 G06F7/00
CPC:	B64D45/0031 B64D45/0053 B64D45/0059 G07C5/008 B64C13/20 B64D45/0015 G08B13/1965 G08B27/008 G08B31/00 Y02T50/44
European class:	B64C13/20 B64D45/00H G07C5/00T G08B13/196L3A G08B27/00T G08B31/00 L64D45/00H2A L64D45/00H3 L64D45/00H5 Y02T50/44
US class:	244/189 340/961 340/961S 701/1 701/16 701/16P 701/1P 701/2 701/3 701/36 701/36S 701/3S
Classification Explorer	
Cited documents:	US6965816 A, US2004021581 AA, US2003128122 AA, US2003090382 AA, US2003062447 AA, US2003055541 AA, US2003055540 AA,
Forward Citations:	WO19132750, WO18067375, WO18009872, WO15175440, WO15069228, WO13134590, WO13134590, WO13103403, WO13074843, WO13049851, WO12142203, WO12142203, WO12039776, WO11142751, WO11053340, WO11009109, WO11009109, WO10144105, WO10144105, WO10015984, WO10015984, WO10014284, WO09155671, WO09145904, WO09045580, WO09026572, WO09019699, WO09019699, WO09009202, WO09009202, WO08157755, WO08124902, WO08124902, WO08085584, WO08076177, WO08064191, WO08064191, WO08063238, WO08063238, WO08024236, WO08024236, WO07076262, WO07076262, WO07055811, WO07030237, WO07008923, WO07008923, WO07001660, WO07001660, WO06130129, WO06088916, WO06088916, WO06086259, WO06086259, WO06017219, WO05089097, WO05089097, USRE47474, USRE45416, USRE43386, USRE43157, USRE42546, USD863268, US9998204, US9989366, US9986035, US9984522, US9973608, US9973263, US9969508, US9967704, US9961411, US9958875, US9956966, US9955298, US9944408, US9942705, US9940161, US9939526, US9924427, US9923863, US9914535, US9912640, US9896222, US9883360, US9881190, US9875406, US9868527, US9864370, US9856036, US9854402, US9854394, US9849979, US9848391, US9845734, US9829886, US9828113, US9828108, US9828107, US9826288, US9823654, US9821910, US9798325, US9797920, US9793978, US9791866, US9786189, US9786188, US9769674, US9766337, US9759917, US9749790, US9748980, US9742729, US9742441, US9736618, US9733644, US9733349, US9719799, US9713675, US9709982, US9707845, US9702704, US9701422, US9701419, US9697714, US9686238, US9679456, US9671781, US9667627, US9663078, US9654921, US9653796, US9651944, US9650153, US9633206, US9619682, US9615204, US9607522, US9607502, US9606534, US9596685, US9585191, US9584960, US9583020, US9565076, US9562974, US9562788, US9561868, US9558547, US9554275, US9553467, US9550583, US9546005, US9546003, US9535563, US9535414, US9529437, US9520005, US9519894, US9514648, US9511729, US9495015, US9491574, US9485266, US9485038, US9482552, US9474712, US9467832, US9467221, US9462036, US9454921, US9454752, US9445449, US9445280, US9434473, US9410870, US9406237, US9403593, US9397782, US9392413, US9390229, US9384586, US9383740, US9374659, US9366862, US9354633, US9351096, US9350202, US9348914, US9342988, US9342481, US9341843, US9340301, US9340283, US9336634, US9329689, US9329083, US9324043, US9323248, US9319172, US9318024, US9311760, US9310221, US9309009, US9306637, US9295032, US9295006, US9285589, US9281909, US9273981, US9269205, US9266610, US9264126, US9260182, US9256994, US9256225, US9255804, US9254363, US9254256, US9253616, US9250630, US9250320, US9237685, US9237683, US9232345, US9229227, US9225765, US9223134, US9213972, US9202382, US9202184, US9193441, US9185522, US9183044, US9182596, US9182480, US9173332, US9167558, US9163909, US9144398, US9134534, US9129295, US9128281, US9122983, US9119288, US9116239, US9097891, US9097890, US9091851, US9091559, US9084116, US9083738, US9082208, US9079555, US9079494, US9076275, US9068844, US9067047, US9061102, US9056669, US9051043, US9049216, US9047770, US9044543, US9042916, US9038160, US9037321, US9036493, US9031880, US9031581, US9028467, US9024719, US9013881, US8998886, US8998884, US8996332, US8996168, US8992511, US8988884, US8983682, US8983100, US8982561, US8977441, US8971196, US8968274, US8966565, US8965695, US8960541, US8957790, US8949070, US8948935, US8947860, US8944373, US8942913, US8938402, US8936590, US8933941, US8930044, US8924310, US8924044, US8914022, US8909391, US8906000, US8903587, US8902154, US8892495, US8892349, US8882747, US8874360, US8872646, US8868787, US8862289, US8856646, US8855906, US8850552, US8838463, US8832731, US8831635, US8830687, US8825712, US8825237, US8824731, US8823554, US8823496, US8816881, US8811720, US8811265, US8803683, US8798647, US8798645, US8798593, US8791823, US8788121, US8788118, US8788096, US8787193, US8784309, US8768534, US8760886, US8751512, US8751242, US8750898, US8749988, US8736482, US8731862, US8725626, US8724335, US8719562, US8712955, US8712441, US8708231, US8706835, US8700250, US8688293, US8676692, US8670921, US8656944, US8656162, US8655480, US8645056, US8643507, US8639395, US8632007, US8631014, US8626855, US8626429, US8625293, US8625292, US8620353, US8618928, US8617141, US8616456, US8616446, US8613033, US8600890, US8600889, US8600888, US8600887, US8600588, US8600583, US8599568, US8595037, US8593821, US8585684, US8583522, US8583145, US8578039, US8572269, US8571952, US8571747, US8570990, US8570757, US8568388, US8568310, US8560451, US8555282, US8554915, US8554677, US8548927, US8543990, US8543507, US8543263, US8539587, US8538458, US8533180, US8532619, US8529551, US8521412, US8509140, US8498126, US8493906, US8493739, US8489513, US8484248, US8484045, US8477509, US8467916, US8467420, US8463872, US8463538, US8463468, US8458312, US8457627, US8452276, US8447438, US8442704, US8442661, US8442519, US8437909, US8433658, US8432298, US8428594, US8423476, US8402268, US8401860, US8391839, US8385964, US8384519, US8380385, US8380367, US8376284, US8374737, US8374733, US8370016, US8369967, US8368583, US8367003, US8364136, US8358677, US8352577, US8352072, US8349261, US8346802, US8346409, US8340902, US8340842, US8335790, US8332136, US8331888, US8326484, US8322605, US8321468, US8314507, US8306528, US8301126, US8296281, US8294552, US8289136, US8285344, US8284674, US8284559, US8284025, US8279042, US8275498, US8274424, US8273075, US8273071, US8272037, US8265801, US8255099, US8255097, US8254914, US8233881, US8229622, US8225014, US8223955, US8219496, US8218765, US8214299, US8214144, US8204802, US8204677, US8193970, US8192390, US8190147, US8188905, US8187182, US8180341, US8172833, US8165809, US8160759, US8155619, US8154445, US8151311, US8150578, US8145582, US8140989, US8140289, US8135740, US8133089, US8132155, US8121786, US8120894, US8114065, US8112176, US8109923, US8107412, US8103393, US8102869, US8089402, US8087165, US8083710, US8082275, US8078350, US8074889, US8073443, US8064475, US8060083, US8055603, US8051124, US8046588, US8044857, US8035976, US8032300, US8031196, US8027843, US8027763, US8027349, US8022986, US8016191, US8014907, US8010423, US8009163, US8001545, US7991516, US7990286, US7988038, US7980001, US7978065, US7975011, US7973533, US7970345, US7960700, US7957853, US7957735, US7945360, US7942867, US7930262, US7925381, US7920945, US7908052, US7907067, US7905415, US7904194, US7899938, US7896868, US7894807, US7889846, US7889052, US7886157, US7881689, US7877799, US7865876, US7856471, US7853645,

US7853611, US7853377, US7841103, US7840317, US7835755, US7835734, US7817982, US7817157, US7814332, US7813871, US7813729, US7811150, US7801093, US7797170, US7796054, US7793845, US7792774, US7792615, US7788203, US7774112, US7769620, US7765181, US7761526, US7756902, US7751815, US7748137, US7747382, US7746228, US7739043, US7738884, US7734046, US7733659, US7729263, US7725427, US7722470, US7720479, US7705773, US7705732, US7698983, US7698025, US7693628, US7690577, US7686680, US7684421, US7676758, US7668750, US7668744, US7668613, US7664581, US7647165, US7639116, US7637434, US7627472, US7599995, US7597265, US7596438, US7594612, US7578448, US7576691, US7558654, US7555383, US7555297, US7551086, US7548961, US7545269, US7543738, US7533827, US7530493, US7523860, US7519603, US7510115, US7506819, US7506818, US7506806, US7505941, US7500616, US7497375, US7494058, US7489992, US7484169, US7467370, US7467069, US7465236, US7451925, US7451924, US7445149, US7444238, US7438234, US7416123, US7414567, US7411941, US7406368, US7394381, US7379819, US7376974, US7373243, US7363504, US7360689, US7356336, US7355168, US7341181, US7328012, US7325724, US7324901, US7318550, US7314165, US7314164, US7303120, US7302698, US7302312, US7299152, US7280955, US7275973, US7263715, US7251550, US7243840, US7218277, US7216527, US7212896, US7200536, US7197720, US7188331, US7188026, US7174151, US7161527, US7159210, US7158887, US7152117, US7143363, US7139818, US7121471, US7120540, US7118272, US7118272, US7110866, US7110866, US7099745, US7076655, US7076655, US7076336, US7062382, US7060030, US7059531, US7044742, US7010398, US6975923, US6950731, US6919808, US6917349, US6889118, US6886653, US6847872, US6771972, US6668218, US2019055028, US2018241463, US2018148007, US2018138733, US2018113606, US2018052657, US2018013589, US2018012433, US2017371355, US2017346840, US2017287242, US2017259931, US2017247112, US2017214454, US2017212604, US2017196087, US2017168507, US2017154538, US2017149806, US2017141839, US2016370236, US2016337407, US2016299501, US2016297543, US2016176539, US2016140847, US2016131765, US2016122036, US2016117869, US2016117536, US2016095001, US2016075339, US2016050265, US2016036916, US2016036513, US2016033281, US2016016672, US2016001877, US2015369626, US2015367963, US2015367586, US2015350862, US2015317905, US2015285917, US2015269280, US2015253357, US2015230280, US2015215899, US2015165990, US2015146197, US2015135271, US2015123622, US2015120188, US2015120097, US2015092696, US2015070165, US2015046387, US2015011170, US2015006067, US2014342686, US2014304801, US2014302775, US2014277917, US2014277827, US2014259111, US2014244078, US2014236470, US2014200688, US2014162533, US2014160920, US2014146171, US2014103867, US2014092803, US2014003659, US2013345897, US2013336095, US2013246574, US2013238171, US2013211702, US2013182790, US2013170107, US2013138338, US2013138263, US2013124018, US2013124010, US2013080042, US2013073192, US2013070622, US2013070608, US2013064096, US2013054320, US2013016896, US2013016184, US2013004282, US2012303252, US2012303145, US2012287804, US2012268590, US2012253551, US2012221175, US2012215384, US2012197447, US2012194552, US2012173120, US2012171995, US2012146815, US2012130564, US2012123680, US2012123616, US2012109428, US2012065817, US2012041951, US2012022719, US2012020191, US2012016541, US2012013478, US2012007981, US2012001788, US2011313652, US2011301719, US2011295486, US2011257873, US2011246176, US2011238306, US2011221565, US2011215158, US2011207475, US2011196881, US2011196564, US2011172909, US2011159852, US2011156886, US2011144862, US2011144828, US2011142024, US2011118906, US2011102199, US2011099371, US2011071975, US2011050497, US2011046840, US2011040428, US2011030538, US2011022250, US2011015816, US2011009075, US2011001604, US2011033212, US2010332055, US2010318794, US2010292871, US2010286824, US2010281411, US2010277345, US2010269649, US2010250033, US2010232295, US2010231601, US2010213318, US2010211897, US2010202623, US2010191754, US2010191458, US2010174424, US2010159967, US2010152924, US2010133383, US2010131402, US2010121520, US2010120422, US2010094484, US2010089470, US2010076415, US2010063677, US2010063654, US2010056872, US2010033308, US2010030693, US2010030185, US2010023602, US2009322567, US2009319341, US2009318138, US2009318137, US2009316755, US2009306837, US2009306836, US2009302174, US2009298436, US2009292720, US2009281676, US2009248398, US2009222148, US2009213781, US2009212975, US2009198458, US2009197595, US2009192668, US2009184574, US2009172080, US2009164347, US2009164122, US2009162249, US2009157252, US2009150022, US2009144791, US2009141669, US2009135043, US2009133112, US2009123902, US2009115638, US2009113028, US2009110289, US2009103473, US2009103452, US2009088870, US2009082951, US2009082013, US2009051569, US2009050692, US2009041041, US2009040963, US2009024685, US2009024553, US2009012823, US2009006056, US2009005727, US2009005004, US2008320552, US2008313265, US2008313129, US2008305762, US2008300748, US2008299940, US2008294692, US2008294459, US2008288927, US2008288315, US2008274734, US2008272196, US2008258885, US2008254750, US2008238617, US2008237402, US2008233946, US2008231428, US2008211814, US2008208814, US2008204233, US2008204232, US2008201024, US2008195426, US2008173561, US2008150784, US2008140727, US2008133029, US2008120031, US2008119969, US2008117858, US2008114507, US2008109970, US2008083338, US2008078881, US2008077463, US2008071423, US2008065480, US2008065181, US2008064332, US2008063159, US2008061963, US2008059954, US2008056476, US2008049949, US2008049919, US2008049914, US2008049910, US2008046167, US2008036624, US2008027596, US2008010107, US2008010005, US2008010004, US2007294025, US2007288138, US2007285310, US2007285240, US2007282710, US2007281645, US2007276681, US2007271029, US2007239480, US2007236350, US2007225993, US2007223658, US2007219812, US2007219810, US2007219679, US2007219426, US2007199047, US2007193834, US2007192668, US2007189246, US2007174612, US2007156496, US2007143079, US2007143023, US2007142980, US2007139261, US2007138272, US2007126560, US2007114280, US2007111701, US2007109190, US2007088467, US2007081637, US2007073459, US2007073458, US2007063848, US2007055651, US2007055417, US2007055414, US2007050088, US2007043482, US2007037468, US2007032922, US2007030173, US2007027623, US2007026818, US2007023210, US2007021117, US2007018881, US2007018807, US2007018806, US2007016900, US2007015460, US2007005244, US2006284763, US2006280149, US2006247833, US2006206246, US2006192110, US2006184295, US2006183474, US2006179475, US2006178894, US2006178794, US2006174230, US2006173782, US2006171538, US2006155425, US2006154476, US2006149776, US2006149443, US2006143202, US2006140210, US2006107036, US2006095175, US2006074559, US2006058106, US2006052921, US2006052108, US2006049977, US2006047414, US2006039465, US2006039464, US2006036838, US2006032978, US2006016871, US2006015556, US2006007308, US2006005050, US2005274794, US2005273211, US2005261843, US2005256637, US2005252273, US2005248454, US2005246101, US2005229653, US2005228675, US2005228558, US2005223221, US2005222755, US2005219064, US2005216139, US2005195801, US2005187677, US2005165554, US2005162422, US2005148327, US2005116024, US2005111421, US2005090933, US2005087382, US2005078806, US2005075769, US2005071079, US2005058978, US2005027579, US2005021186, US2005004759, US2004268295, US2004232223, US2004230373, US2004217228, US2004213320, US2004204801, US2004167685, US2004161728, US2004135809, US2004133341, US2004120417, US2004093299, US2004093289, US2004093243, US2004092258, US2004044605, US2004038185, US2003233637, US2003225495, US2003222887, US2003217179, US2003172109, US2003171846, US2003169173, US2003145235, US2003130708, US2003128123, US2003084338, US2003071743, US2002194496, US2002194482, US2002194241, US2002194132, US2002194086, US2002124052, US2002120876, US2002118165, US2002087296, US2002023212, US10546164, US10539787, US10535237, US10514689, US10513350, US10507933, US10502584, US10501178, US10491639, US10467460, US10464530, US10461842, US10447061, US10432430, US10426393, US10424105, US10407181, US10399674, US10392918, US10389820, US10382393, US10375632, US10373409, US10373404, US10371819, US10361802, US10353068, US10347136, US10345803, US10341809, US10341808, US10336467, US10324178, US10320908, US10318877, US10316497, US10313826, US10310517, US10309784, US10299071, US10298521, US10297100, US10295349, US10279759, US10278046, US10277070, US10269254, US10268888, US10261598, US10250067, US10249201,

US10248737, US10244405, US10244389, US10239638, US10234562, US10228694, US10228460, US10216180, US10200811, US10200520, US10198582, US10198246, US10190287, US10187402, US10181010, US10180572, US10173526, US10172078, US10165059, US10163328, US10149092, US10138000, US10132930, US10129703, US10127747, US10127443, US10111199, US10106270, US10106263, US10102755, US10095486, US10079710, US10075228, US10074284, US10074226, US10074223, US10073811, US10066944, US10065643, US10049508, US10037704, US10026325, US10025307, US10021619, US10021577, US10019000, US10005564, TWI618440, TWI525332, RU2652058, RU2622508, RU2556462, RU2538509, RU2527189, RU2509444, RU2487393, JP4642866, JP2012514553, JP2012051551, JP2008545283, JP2007517731, GB2534856, EP2823258, EP2780869, EP2311275, EP2281285, EP2137829, EP2062365, EP1854311, EP1791655, EP1661061, EP1661061, EP1591296, EA019778, CN108337359, CN107959525, CN107896315, CN107896315, CN107231185, CN107133186, CN106226762, CN106027177, CN105264860, CN104205138, CN104205138, CN102890882, CN102884531, CN102624506, CN102624506, CN102497393, CN102497393, CN102461118, CN102461118, CN102194084, CN102194084, CN102138343, CN102077650, AU2012340399, AU2004201918,

Abstract:

This invention, a Protected Primary Focal Node PFN is a Trusted Remote Activity Controller TRAC and mobile communication router platform that provides accountable remote and robotics control to transportation vehicles by interfacing with the vehicles E/E systems. It connects each vehicle either on the earth's surface or near the earth's surface with application specific intranets for air, sea and land travel, via either host commercial servers or agency providers through wireless communication gateways and then further interfaces these vehicles in a larger machine messaging matrix via wireless and IP protocols to further coordinate movement assess and manage equipment use and impact on the world resources, societies infrastructure and the environment. This filing focuses directly on PFN/TRAC System use to augment and upgrade public safety and security in the Airline Industry and restrict any unauthorized use of an aircraft. Additionally, this application and related filings teaches the PFN/TRAC System(TM) use for all vehicle platforms to increase safety and security in a free society like the United State of America. The other related filings instruct in the technology's use for robust and accountable remote control for personal applications, stationary equipment and standalone functions, and coordinates them and interfaces them within the communication matrix. The TRAC controller also performs translation and repeating functions across a wide variety of communication protocols to complete a more mobile flexible matrix or web. This connected communication matrix of computers and humans provides an enhanced Human Machine Interfacing HMI scenario both locally and systemically in real-time for improve equipment management and world stability.



3) Family number: 60977070 (US2015344128A)

© PatBase

Title: DEVICE FOR WARNING A ROTORCRAFT PILOT BY MEANS OF TACTILE SIGNALS AND MAKING USE OF A TRIM ACTUATOR CONNECTED TO A FLIGHT CONTROL MEMBER

Priority: FR20140001235 20140528 EP20150168476 20150520

Family:	Publication number	Publication date	Application number	Application date
	DE602015000161 D1	20160908	DE201560000161T	20150520
	EP2952431 A1	20151209	EP20150168476	20150520
	EP2952431 B1	20160727	EP20150168476	20150520
	FR3021627 A1	20151204	FR20140001235	20140528
	FR3021627 B1	20160610	FR20140001235	20140528
	US2015344128 AA	20151203	US20150723537	20150528
	US9868513 BB	20180116	US20150723537	20150528

Probable Assignee: AIRBUS HELICOPTERS

Assignee(s):(std): AIRBUS HELICOPTERS

Inventor(s):(std): SANDRI FLORENCE

Inventor(s): FLORENCE SANDRI

Agent(s): POUILLOT LAURENT PIERRE PAUL; GPI AND ASSOCIES; BROOKS KUSHMAN PC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class (IPC 8-9): B64C13/10 B64C13/18 B64C13/46 B64C27/56 B64D31/00 B64D43/00 G08B6/00 (Advanced/Invention)

CPC: B64C13/18 G08B6/00 B64C27/56 B64C13/507 B64C13/0421 B64C13/0427 B64C13/10 B64C13/345

US class: 1/1 244/223

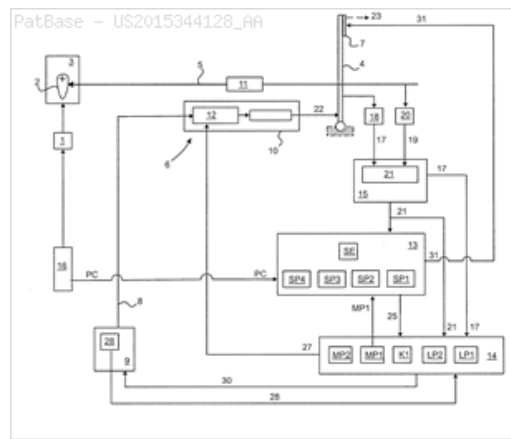
[Classification Explorer](#)

Cited documents: US8594864 BB, US7262712 BB, US7262712 BB, US7098811 BB, US7098811 BB, US6735500 BB, US6695264 BB, US4106728 A, US2010123045 AA, US2010123045 AA, US2006071817 AA, US2006071817 AA, US2005004721 AA, US2005004721 AA, EP2631172 A2, EP2631172 A2,

Forward Citations: US9914536, US9868522, US2016375994, US2016052628, EP3569497,

Abstract:

A method of using a tactile signal warning device forming part of a human-operated flight control member of a rotorcraft. The warning device makes use of an anchorable motorized trim actuator for generating a resisting force against movement of the flight control member. The warning device comprises a warning unit that, as a function of a power margin (MP1) calculated by a predictor unit in compliance with a current regulation rating of the power plant and on condition that state data indicates that an autopilot is activated in a higher operating mode, acts to generate an order to activate the trim actuator depending on the conditions under which the flight control member is being moved as identified by a force management unit.



4) Family number: 71970156 (US2018334245A)

© PatBase

Title: METHOD OF CONTROLLING AN ARTIFICIAL FORCE FEEL GENERATING DEVICE FOR GENERATION OF AN ARTIFICIAL FEELING OF FORCE ON AN INCEPTOR OF A VEHICLE CONTROL SYSTEM

Priority: EP20170400028 20170518 EP20180170148 20170518

Family:	Publication number	Publication date	Application number	Application date
	DE602017005048 D1	20190725	DE201760005048T	20170518
	DE602017005081 D1	20190725	DE201760005081T	20170518
	EP3403926 A1	20181121	EP20170400028	20170518
	EP3403926 B1	20190703	EP20170400028	20170518
	EP3403927 A1	20181121	EP20180170148	20170518
	EP3403927 B1	20190703	EP20180170148	20170518
	US2018334245 AA	20181122	US20180980795	20180516

Probable Assignee: AIRBUS HELICOPTERS DEUTSCHLAND GMBH

Assignee(s):(std): AIRBUS HELICOPTERS DEUTSCHLAND GMBH

Inventor(s):(std): GROHMANN BORIS ; ROHR THOMAS

Agent(s): GPI AND ASSOCIES

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class (IPC 8-9): B64C13/04 B64C13/10 B64C13/28 B64C13/46 B64C13/50 B64F5/60 (Advanced/Invention)

CPC: B64C13/04 B64C13/46 B64C13/50 B64C13/10 B64C13/22 B64C13/345 B64F5/60

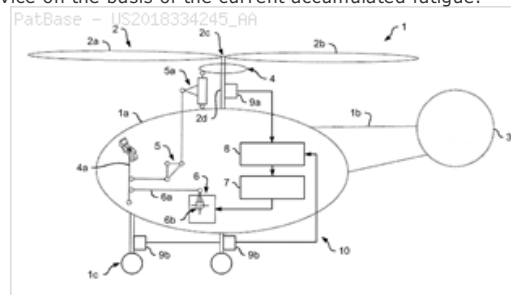
US class: 1/1 244/223

[Classification Explorer](#)

Cited documents: US2016096616 AA, US2016096616 AA, US2015108281 AA, US2015108281 AA, US2010123045 AA, US2010123045 AA, EP3069990 A1, EP3069990 A1, EP2821873 B1, EP2821873 B1, EP2821873 A2, EP2374714 A2, EP2374714 A2, EP2311729 A1, EP2311729 A1, EP2266878 B1, EP2266878 B1,

Abstract:

A method of controlling an artificial force feel generating device for generation of an artificial feeling of force on an inceptor that is adapted for controlling a servo-assisted control unit of a vehicle control system, wherein the artificial force feel generating device comprises at least one force generating device that is mechanically connected to the inceptor for generating a tactile cue force acting in operation on the inceptor, and wherein a safety device is provided for limiting authority of the at least one force generating device, the method comprising at least the steps of: monitoring usage of the safety device during operation of the artificial force feel generating device, determining a current accumulated fatigue of the safety device on the basis of the monitored usage, and re-configuring the at least one force generating device on the basis of the current accumulated fatigue.



5) Family number: 29225172 (US6257529B)

© PatBase

Title: SERVO ACTUATOR APPARATUS AND AIRCRAFT CONTROL APPARATUS

Priority: JP19990074427 19990318

Family:	Publication number	Publication date	Application number	Application date
	EP1036734 A2	20000920	EP19990204286	19991213
	EP1036734 A3	20020213	EP19990204286	19991213

JP2000264291 A2	20000926	JP19990074427	19990318
JP3012644 B1	20000228	JP19990074427	19990318
US6257529 BA	20010710	US19990461744	19991216

Probable Assignee: KAWASAKI JUKOGYO KK

Assignee(s):(std): ADVANCED TECHNOLOGY INST OF CO ; COMMUTER HELICOPTER SENSIN GI ; INST ADV TECH HELICOPTER LTD

Assignee(s): KAWASAKI JUKOGYO KK ; COMMUTER HELICOPTER SENSIN GIJUTSU KENKYUSHO KK ; ADVANCED TECHNOLOGY INST OF COMMUTER HELICOPTER LT ; ADVANCED TECHNOLOGY INST OF COMMUTER HELICOPTER LTD ; ADVANCED TECHNOLOGY INSTITUTE OF COMMUTER HELICOPT ; ADVANCED TECHNOLOGY INSTITUTE OF COMMUTER HELICOPTER LTD ; ADVANCED TECHNOLOGY INST

Inventor(s):(std): YOSHIHARU KUBO ; TOMIO TAKESHI ; HISAYOSHI YOSHIHARU ; KUBO YOSHIHARU

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

International class (IPC 8-9): B64C13/00 B64C13/38 B64C13/42 B64C27/57 (Advanced/Invention); B64C13/00 B64C27/00 (Core/Invention)

International class (IPC 1-7): B64C13/00 B64C13/04 B64C13/38 B64C13/42 B64C13/50 B64C27/57 F15B20/00 F15B9/09 G05D1/00 G05D3/00

CPC: B64C13/42

European class: B64C13/42

US class: 244/194 244/221 318/564 701/4

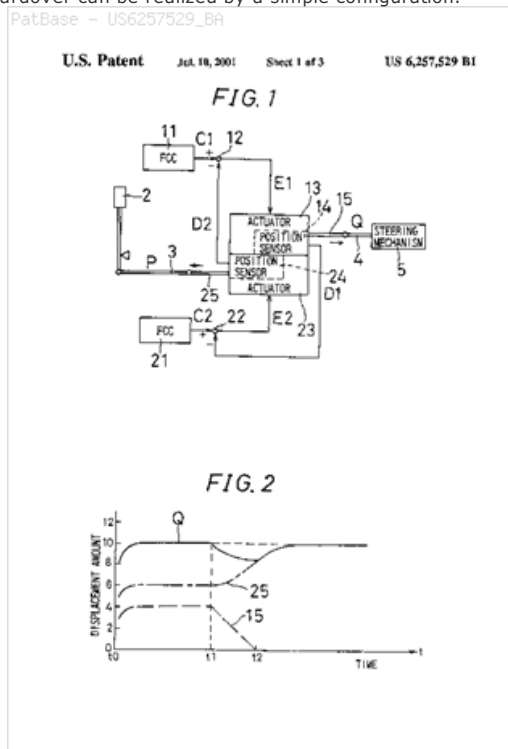
[Classification Explorer](#)

Cited documents: WO9619380 A1, US4628752 A, US4599698 A, US4209734 A, US4095763 A, US4078750 A, US4035705 A, US3920966 A, US3719336 A, US3500149 A, US3454852 A, US3395615 A, US3309588 A, JPH10510782, JP59209997 A2, JP51116600 A2, JP3016896 A2, JP10510782 T2,

Forward Citations: WO13058171, WO06097418, WO0206910, WO0206910, US9971407, US9921652, US9535501, US9327825, US9031718, US8628046, US8604741, US8382027, US8235327, US8070091, US7883059, US7857262, US6650973, US2012032031, US2010237199, US2010084517, US2009212167, US2007262197, US2006102777, US10503258, US10183739, JP5791460, JP2013086761, JP2012126389, JP2012046169, FR2949921, FR2883257, EP3598263, EP2415669, EP2293429, EP2293429, EP1858756, AU2016202805,

Abstract:

A servo actuator apparatus has: an actuator which relatively displaces an operation unit on the basis of an input signal E1; a position sensor which detects a relative position of the operation unit and outputs a detection signal D1; an actuator which relatively displaces an operation unit on the basis of an input signal E2; a position sensor which detects a relative position of the operation unit and outputs a detection signal D2; a difference calculation unit which subtracts the detection signal D2 from a command signal C1 supplied from a flight control computer, to output the input signal E1; and a difference calculation unit which subtracts the detection signal D1 from a command signal C2 supplied from a flight control computer, to output the input signal E2, where a positive displacement direction of the operation unit is reverse and series to that of the operation unit, and the body units of the actuators are integrally movable, and the actuators can always operate while mutually monitoring the actual operation, and have a function that, when one of the actuators fails and falls in hardover, the other actuator immediately corrects the hardover. In this way, prevention of a hardover or suppression of the degree of a hardover can be realized by a simple configuration.



6) Family number: 51960380 (US2012241563A)

© PatBase

Title: EMERGENCY PILOTING BY MEANS OF A SERIES ACTUATOR FOR A MANUAL FLIGHT CONTROL SYSTEM IN AN AIRCRAFT

Priority: EP20110290147 20110325

Family:

Publication number	Publication date	Application number	Application date
EP2502825 A1	20120926	EP20110290147	20110325
KR101323836 B1	20131031	KR20120023849	20120308
US2012241563 AA	20120927	US20120417667	20120312

Probable Assignee: AIRBUS HELICOPTERS

Assignee(s):(std): AIRBUS HELICOPTER DEUTSCHLAND GMBH ; AIRBUS HELICOPTERS ; CHADUC BRUNO ; EUROCOPTER FRANCE ; KROK KARSTEN ; HELLIO PATRICK ; GEMMATI BERNARD ; EUROCOPTER DEUTSCHLAND

Assignee(s): EUROCOPTER DEUTSCHLAND GMBH ; EUROCOPTER ; AIRBUS HELICOPTERS DEUTSCHLAND GMBH

Inventor(s):(std): GEMMATI BERNARD ; CHADUC BRUNO ; HELLIO PATRICK ; KROK KARSTEN

Agent(s): GPI AND ASSOCIES; BROOKS KUSHMAN PC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class (IPC 8-9): B64C13/28 B64C13/30 B64C13/42 B64C13/50 B64C27/58 B64C27/68 G05D1/00 (Advanced/Invention)

CPC: Y02T50/44 B64C27/58 B64C13/30

European class: B64C13/30 B64C13/42 B64C27/58

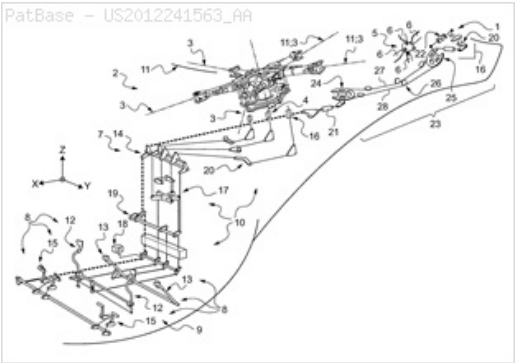
US class: 244/17.13 244/196 244/99.4

[Classification Explorer](#)

Cited documents: US8197212 BB, US8196857 BB, US7969110 BB, US7764035 BB, US7229046 BB, US6929222 BB, US6913226 BB, US5489830 A, US4529155 A, US4492907 A, US4170147 A, US2011121126 AA, US2011031346 AA, US2010072322 AA, US2009317252 AA, US2004200928 AA, FR2946620 A1, FR2946317 A1, FR2931132 A1, FR2920744 A1, FR2912375 A1, FR2407130 A1,

Forward Citations: US9868522, US9470248, US8888036, US2016052628, US2013168501, US10377478, US10279896, US10006375, US10000275, KR101750538, EP2947005, EP2947005, EP2848521, EP2848521, CN105526324, CN105526324,

Abstract:
For emergency piloting of a manual flight control system (7) of an aircraft (1), in the event of flexible connection means (26) breaking, an upstream control device (8) takes authority over the electronic control unit (29) of series actuator (21). An output pivoting quadrant (25) is subjected by a centering rod (22) to a blocking and centering action. In the event of the system breaking, the output pivoting quadrant (25) forms a bearing point for the series actuator (21), so that an emergency control actuate a airfoil surface (11).



7) Family number: 63943485 (US2016325830A) © PatBase

Title: TAIL ROTOR FAILURE RECOVERY CONTROLLER

Priority: US20150157651P 20150506 US20160145264 20160503

Family:

Publication number	Publication date	Application number	Application date
US2016325830 AA	20161110	US20160145264	20160503
US10124889 BB	20181113	US20160145264	20160503

Probable Assignee: SIKORSKY AIRCRAFT CORP

Assignee(s):(std): SIKORSKY AIRCRAFT CORP

Inventor(s):(std): WALTNER PETER JAMES ; KNAUST GLEN

Agent(s): CANTOR COLBURN LLP

International class (IPC 8-9): B64C13/16 B64C27/57 B64C27/605 B64C27/82 B64D25/00 G05D1/08 (Advanced/Invention)

CPC: B64C27/82 G05D1/0858 B64C13/16 B64C27/57 B64C27/605 B64D25/00 G05D1/0072

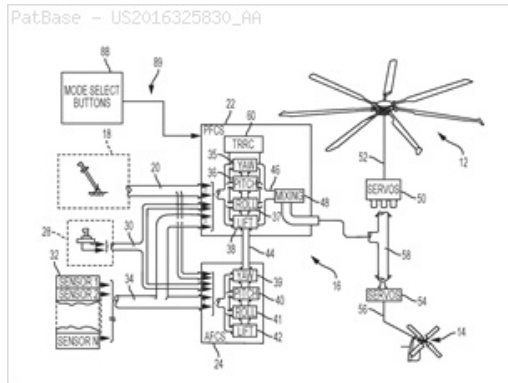
US class: 1/1 701/4

[Classification Explorer](#)

Cited documents: US8794565 BB, US8430353 BB, US8231077 BB, US8196855 BB, US5239468 A, US4347997 A, US3744743 A, US3241791 A, US3138349 A, US3129904 A, US2842867 A, US2771143 A, US2014374534 AA, US2012292433 AA, US2011172855 AA, US2009177292 AA, US2009101753 AA, US2009012658 AA,

Forward Citations: US10315780, US10006375,

Abstract:
A tail rotor recovery control system has a detection module configured to detect a loss of tail rotor drive from a tail rotor sensor of an aircraft; and a regulation module configured to augment or deactivate manual flight control signals and transmit automated signals to control modules of a primary flight control system. The automated signals facilitate the aircraft to attain or maintain a preset tip path plane level, attain or maintain a preset aircraft state, or to execute an automated recovery to forward flight.



8) Family number: 63037573 (US2016221685A)

© PatBase

Title: DEVICE FOR MONITORING A POWER TRANSMISSION SYSTEM OF AN AIRCRAFT, AN AIRCRAFT PROVIDED WITH THE DEVICE, AND THE METHOD USED

Priority: FR20150000166 20150129 EP20160151796 20160119

Family:	Publication number	Publication date	Application number	Application date
	CA2918640 AA	20160729	CA20162918640	20160121
	CA2918640 C	20171107	CA20162918640	20160121
	DE602016000015 D1	20170504	DE201660000015T	20160119
	EP3050806 A1	20160803	EP20160151796	20160119
	EP3050806 B1	20170322	EP20160151796	20160119
	FR3032176 A1	20160805	FR20150000166	20150129
	US2016221685 AA	20160804	US20160007298	20160127
	US9815568 BB	20171114	US20160007298	20160127

Probable Assignee: AIRBUS HELICOPTERS

Assignee(s):(std): AIRBUS HELICOPTERS

Assignee(s): LEYDER SAMUEL ; TAHERI SETAREH ; VALLART JEAN BAPTISTE

Inventor(s):(std): TAHERI SETAREH ; VALLART JEAN BAPTISTE ; LEYDER SAMUEL

Inventor(s): JEAN BAPTISTE VALLART ; SETAREH TAHERI ; SAMUEL LEYDER

Agent(s): FASKEN MARTINEAU DUMOULIN LLP; GPI AND ASSOCIES; BROOKS KUSHMAN PC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class B64C27/08 B64C27/12 B64C27/82 B64D31/00 B64D31/06 B64D35/04 B64D45/00 G01M13/02
(IPC 8-9): G01M15/14 (Advanced/Invention);
B64C27/12 B64C27/82 (Advanced/Non-invention)

CPC: B64C27/14 B64C27/82 B64D31/06 B64D2045/0085 B64C27/08 B64C27/12 B64D45/00 G01M13/02

US class: 1/1 73/115.02

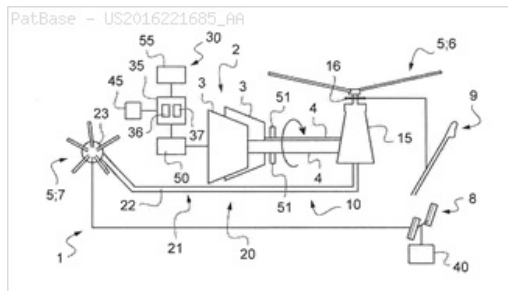
[Classification Explorer](#)

Cited documents: US9193453 BB, US5775090 A, US5775090 A, US4522025 A, US3930366 A, US2017144752 AA, US2017066541 AA, US2016376017 AA, US2016001880 AA, FR2541725 A1, FR2541725, FR2278576 A1, FR2278576, EP2749496 A1, EP2749496 A1, EP1310646 A3, EP1310646 A2, EP1310646 A2,

Forward Citations: FR3082504,

Abstract:

A method of monitoring a power transmission system of an aircraft, the aircraft including at least one main rotor driven in rotation by a rotor mast and an auxiliary unit having an auxiliary rotor. Control means control the auxiliary rotor. A power relationship is determined providing a first reduced power parameter of the auxiliary unit as a function of a position (POS) of the control means. A setpoint limit is set for a second power parameter for the rotor mast. A current position (POSACTU) of the control means is determined and a calculated value (Vcal) is also determined at least by applying the current position (POSACTU) to the power relationship. A limit value that is not to be exceeded by a power plant is determined, with the limit value being equal to the sum at least of the setpoint limit plus the calculated value.



9) Family number: 11656666 (US5339244A)

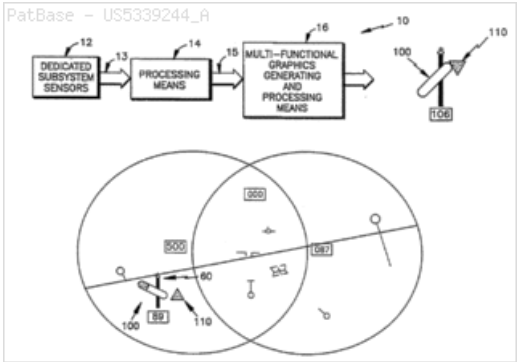
© PatBase

Title: Integrated time/limit exceedance cue system

Priority: US19920929323 19920813

Family:	Publication number	Publication date	Application number	Application date
	US5339244 A	19940816	US19920929323	19920813
Probable Assignee:	UNITED TECHNOLOGIES CORP			
Assignee(s):(std):	UNITED TECHNOLOGIES CORP			
Inventor(s):(std):	LAPPOS NICHOLAS D ; STILES JR LORREN ; WRIGHT GREGORY P			
International class (IPC 8-9):	G05D1/00 (Advanced/Invention); G05D1/00 (Core/Invention)			
International class (IPC 1-7):	G06F15/50			
CPC:	G05D1/0066			
European class:	G05D1/00D4			
US class:	340/113 340/945 340/963 701/14			
Classification Explorer				
Cited documents:	US5136516 A, US5119305 A, US5050081 A, US4954974 A, US4847785 A, US4763285 A,			
Forward Citations:	US9457914, US9205931, US9135793, US8594864, US8339284, US6608568, US6262674, US6150959, US6043757, US5986580, US5886649, US5742920, US5739769, US5730394, US2009231163, US2007266332, EP3193139,			

Abstract:
 An integrated time/limit exceedance cue system including a plurality of dedicated subsystem sensors, a processing unit, and a graphics generating/processing unit that is operative to generate an event dependent, time varying visual cue indicative of the exceedance of an established normal operating limit of a specific aircraft subsystem and operation thereof in a time critical exceedance condition. The time varying visual cue provides a relative indication of the elapsed time of operation of the specific subsystem in the time critical exceedance condition. The time varying visual cue is a symbolic image in the form of an outline, having a predetermined length, that defines a void region. The void region is proportionately opaqued or "filled in" in correspondence with the elapsed time of operation of the specific subsystem in the time critical exceedance condition. The outline of the visual cue may be shaped and/or have a spatial orientation that is cognitively connected to the particular subsystem and/or to a symbolic image or display representing the specific generated status data provided by the dedicated subsystem sensors for monitoring the operation of the particular subsystem. The cue system may provide a corrective action cue in conjunction with the time varying visual cue that provides information as to the appropriate recovery procedure to restore the particular subsystem to operation within its established normal operating range.



10) Family number: 30421682 (US4599698A)

© PatBase

Title:	Aircraft trim actuator shutdown monitor system and method			
Priority:	US19830490698 19830502			
Family:	Publication number	Publication date	Application number	Application date
	BRPI8402037 A	19841211	BR1984PI02037	19840502
	DE3416243 A1	19841108	DE19843416243	19840502
	DE3416243 C2	19900621	DE19843416243	19840502
	GB2140174 A1	19841121	GB19840010987	19840430
	GB2140174 B2	19870225	GB19840010987	19840430
	GB8410987 A0	19840606	GB19840010987	19840430
	IT1173944 A	19870624	IT19840020762	19840502
	IT8420762 A0	19840502	IT19840020762	19840502
	JP2058905 C3	19960610	JP19840089184	19840502
	JP59209997 A2	19841128	JP19840089184	19840502
	JP7074039 B4	19950809	JP19840089184	19840502
	US4599698 A	19860708	US19830490698	19830502
Probable Assignee:	UNITED TECHNOLOGIES CORP			
Assignee(s):(std):	UNITED TECHNOLOGIES CORP			
Assignee(s):	UNITED TECHNOLOGIES CORP HARTFORD CONN US			
Inventor(s):(std):	WILLIAM CHRISTIAN FISCHER ; WRIGHT STUART C ; VERZELLA DAVID JOHN ; VERZELLA DAVID J ; WRIGHT STUART CAMMETT ; UIRIAMU SHII FUITSUSHIYAA ; SUCHIYUAATO SHII RAITO ; DON LUIS ADAMS ; DAVID JOHN VERZELLA ; FISCHER WILLIAM C ; FISCHER WILLIAM CHRISTIAN ; DON RUISU ADAMUSU ; DEBUITSUDO JIYON BUAAZERA ; ADAMS DON L ; ADAMS DON LUIS			
Inventor(s):	CHRISTIAN FISCHER WILLIAM ; CAMMETT WRIGHT STUART ; ADAMS DON LUIS FAIRFIELD CONN US ; ADAMS DON LUIS FAIRFIELD CONN ; DAVID J VERZELLA ; FISCHER WILLIAM CHRISTIAN MONROE CONN ; STUART C WRIGHT ; WRIGHT STUART CAMMETT MILFORD CONN US ; WILLIAM C FISCHER ; VERZELLA DAVID JOHN GUILFORD CONN US ; JOHN VERZELLA DAVID ; LUIS ADAMS DON ; FISCHER WILLIAM CHRISTIAN MONROE CONN US ; VERZELLA DAVID JOHN GUILFORD CONN ; WRIGHT STUART CAMMETT MILFORD CONN			
International class (IPC 8-9):	B64C13/00 B64C13/08 B64C13/18 B64C13/44 B64C27/56 B64C27/57 G05B9/03 G05D1/08 (Advanced/Invention); B64C13/00 B64C27/00 G05B9/03 G05D1/08 (Core/Invention)			

International class (IPC 1-7): B64C13/18 B64C13/44 B64C27/54 B64C27/56 B64C27/57 G05B23/00 G05B9/03 G05D1/00 G05D1/08 G05D23/02 G06F15/20

CPC: G05B9/03 G05D1/0858

European class: G05B9/03 G05D1/08B4

US class: 244/194 318/565 701/12

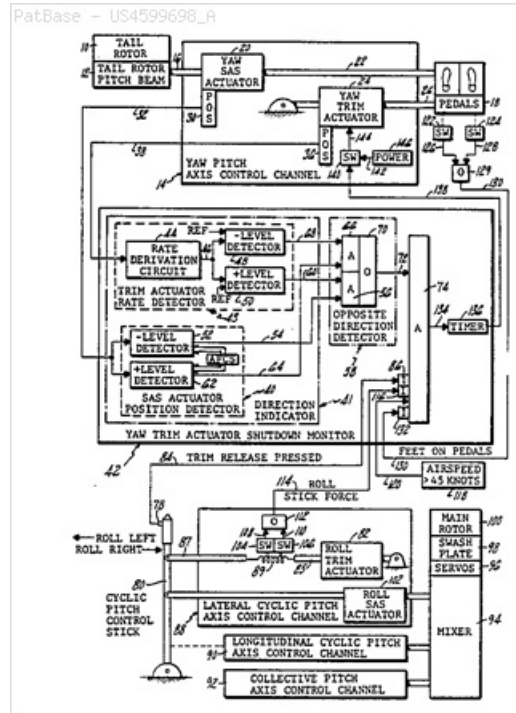
[Classification Explorer](#)

Cited documents: US4472806 A, US4374423 A, US4337516 A, US4095763 A, US4043526 A, US3969664 A, GB1159742 A, DE1302519 B,

Forward Citations: WO15162541, US9108722, US8014906, US7949440, US7857088, US7774106, US7740099, US6512344, US6334592, US6257529, US5863012, US5746398, US5738310, US5638491, US5224664, US5214362, US5025378, US4823063, US2014191087, US2010222994, US2009326745, US2008149778, US2008147251, US2007296170, US10315779, US10216561, GB2237660, GB2237660, FR2741855, FR2728541, FR2728536, EP3456627, EP2479107, EP2479107, EP0718734, EP0718733, CN106233216,

Abstract:

The directions of travel of an inner and an outer loop actuator are monitored for movement in opposite directions within selected ranges and the outer loop actuator is disabled under selected conditions. These conditions may include movement of both the inner and outer loop actuators in opposite directions, any one of which has been detected moving at a rate greater than a selected rate or to a position outside a selected range. The invention is particularly suited for an aircraft trim actuator shutdown monitor system.



11) Family number: 63579795 (US2016304190A)

© PatBase

Title: ARTIFICIAL FORCE FEEL GENERATING DEVICE FOR A VEHICLE CONTROL SYSTEM OF A VEHICLE AND, IN PARTICULAR, OF AN AIRCRAFT

Priority: EP20150400013 20150320 KR20160032920 20160318

Family:	Publication number	Publication date	Application number	Application date
	DE602015001287 D1	20170302	DE201560001287T	20150320
	EP3069990 A1	20160921	EP20150400013	20150320
	EP3069990 B1	20170111	EP20150400013	20150320
	KR101750538 B1	20170623	KR20160032920	20160318
	KR20160113052 A	20160928	KR20160032920	20160318
	PL3069990 T3	20170630	PL20150400013T	20150320
	US2016304190 AA	20161020	US20160071657	20160316

Probable Assignee: AIRBUS HELICOPTERS DEUTSCHLAND GMBH

Assignee(s):(std): AIRBUS HELICOPTERS DEUTSCHLAND GMBH

Inventor(s):(std): ROHR THOMAS ; GROHMANN BORIS ; KLAUBERT JENS

Agent(s): GPI AND ASSOCIATES

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class (IPC 8-9): B63H25/02 B63H25/04 B63H25/10 B64C13/08 B64C13/22 B64C13/46 B64C27/04 B64C27/54 B64C27/57 B64C27/59 B64C27/605 B64C27/64 B64C27/68 (Advanced/Invention)

CPC: B64C27/54 B63H25/02 B63H25/04 B63H25/10 B64C27/57 B64C27/59 B64C27/68 B64C2700/628 B64C2700/6284 B64C2700/6294 B64C13/22 B64C27/04 B64C27/605 B64C27/64 Y02T50/44 B64C13/507 B64C13/0421 B64C13/0427 B64C13/044 B64C13/08 B64C13/341 B64C13/505

US class: 1/1 244/223

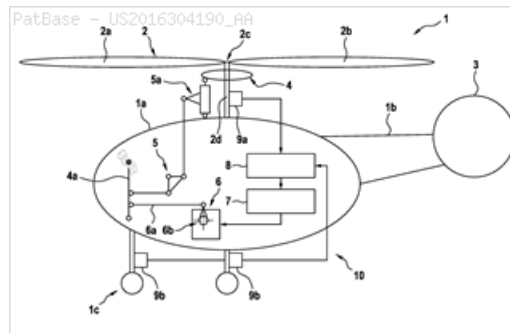
[Classification Explorer](#)

Cited documents: WO03081554 A1, WO03081554 A1, US2010123045 AA, US2010123045 AA, KR20140067934, KR101323836 B1, EP2311729 A1, EP2311729 A1, EP2266878 B1, EP2266878 B1,

Forward Citations: WO18156618, US9963225, US9915954, US2017017241, US10507908, US10474237, US10246183,

Abstract:

An artificial force feel generating device for generation of an artificial feeling of force on an inceptor of a vehicle control system, the inceptor being adapted for controlling a servo-assisted control unit of the vehicle control system via a mechanical linkage, wherein at least one first force generating device and at least one second force generating device are mechanically connected to the inceptor, the first force generating device being provided for generating a nominal force acting in operation on the inceptor and the second force generating device being provided for generating a tactile cue force acting in operation on the inceptor, the first and second force generating devices being arranged in parallel. The invention relates further to an aircraft comprising such an artificial force feel generating device.

**12) Family number: 61539921** (US2016026190A)

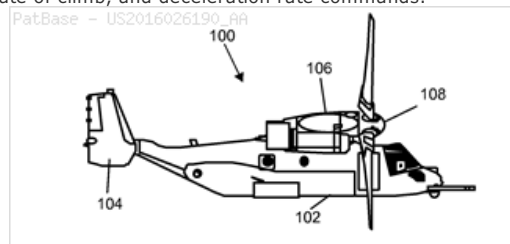
© PatBase

Title: ADAPTABLE AUTOMATIC NACELLE CONVERSION FOR TILT ROTOR AIRCRAFT**Priority:** US20140341582 20140725**Family:**

Publication number	Publication date	Application number	Application date
US2016026190 AA	20160128	US20140341582	20140725
US9377784 BB	20160628	US20140341582	20140725

Probable Assignee: BOEING CO**Assignee(s):(std):** BOEING CO**Inventor(s):(std):** SEMINOLE ROBERT T ; GRILL IVAN ; KOWALSKI JACOB**Agent(s):** OSTRAGER CHONG FLAHERTY AND BROITMAN PC**International class** B64C27/52 B64C29/00 G01C23/00 G01P5/18 G05D1/08 (Advanced/Invention)
(IPC 8-9):**CPC:** G05D1/0808 G01C23/005 G01P5/18 B64C29/0033 G05D1/0858**US class:** 1/1 701/7[Classification Explorer](#)**Cited documents:** US7693620 BB, US7571879 BB, US6644588 BB, US6328256 BA, US5054716 A, US2015197335 AA, US2014339372 AA,**Forward Citations:** US9815566, US2016270145, US10266252, US10173771, US10011349, EP3296202, EP3243750, CN109270947,**Abstract:**

Systems and methods for displaying to a tilt rotor aircraft pilot an optimum nacelle position and/or automatically controlling movement of the nacelles for the pilot. An automatic nacelle conversion function employs an active flight director speed mode to provide a current desired speed and a final speed. When the automatic nacelle conversion function is in a passive (uncoupled) mode of operation, the pilot follows visual cues, manually achieving the commanded nacelle position by rotating a thumbwheel. When in an active (coupled) mode of operation, the automatic nacelle conversion function provides a fully automatic nacelle controller requiring no pilot input. This automatic nacelle controller provides a variable nacelle rate along with several angle versus speed schedules tailored for different guidance speed modes and a wide range of aircraft configurations. The automatic nacelle conversion function is improved through the inclusion of altitude, rate of climb, and deceleration rate commands.

**13) Family number: 3330963** (EP0407179A1)

© PatBase

Title: AIRCRAFT HEALTH AND USAGE MONITORING SYSTEMS. GESUNDHEITS- UND BENUTZUNGSUEBERWACHUNGSVORRICHTUNG EINES FLUGZEUGES. <**Priority:** GB19890015406 19890705 CA19902020362 19900704**Family:**

Publication number	Publication date	Application number	Application date
AU199058685 A1	19910110	AU19900058685	19900705
CA2020362 AA	19910106	CA19902020362	19900704
EP0407179 A1	19910109	EP19900307335	19900705
GB2233798 A1	19910116	GB19900014882	19900705
GB8915406 A0	19890823	GB19890015406	19890705
GB9014882 A0	19900822	GB19900014882	19900705

IE902432 A1	19910619	IE19900002432	19900704
JP3129600 A2	19910603	JP19900179379	19900705
NO903003 A	19910107	NO19900003003	19900705
NO903003 A0	19900705	NO19900003003	19900705
NO903003 L	19910107	NO19900003003	19900705
PT94600 A	19920131	PT19900094600	19900704

Probable Assignee: BRISTOW HELICOPTERS

Assignee(s):(std): BRISTOW HELICOPTERS ; BURISUTOU HERIKOPUTAAZU LTD

Assignee(s): COGAN MICHAEL E ; BRISTOW HELICOPTERS LIMITED ; BRISTOW HELICOPTERS LTD ; BARRY LIONEL S

Inventor(s):(std): RAIONERU SUCHIYUAATO BARI ; MAIKERU YUUIJIN KOOGAN ; COGAN MICHAEL E ; BARRY LIONEL S ; COGAN MICHAEL EUGENE ; BARRY LIONEL STUART

Inventor(s): MICHAEL EUGENE COGAN ; LIONEL STUART BARRY

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; FETHERSTONHAUGH AND CO

Designated states: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

International class (IPC 8-9): B64D43/00 B64F5/00 G07C3/00 G08G5/00 (Advanced/Invention); G08G5/00 (Advanced/Non-invention); B64D43/00 B64F5/00 G07C3/00 G08G5/00 (Core/Invention)

International class (IPC 1-7): B64C B64D43/00 B64D47/00 B64F5/00 G05B G06F15/20 G06F15/74 G07C3/00 G07C5/00 G07C5/08 G08G5/00

CPC: B64D43/00 B64F5/60 G07C3/00

European class: B64D43/00 B64F5/00D G07C3/00

[Classification Explorer](#)

Cited documents: WO8602750 A1, WO8502281 A1, US4733361 A, US4646241 A, US3461429 A, GB2192723 A1, GB2181250 A1, GB2020432 A1, FR1564106 A,

Forward Citations: WO18234523, WO18054590, WO13120103, WO08101167, WO08101167, WO07065659, WO06012266, WO0208057, WO0146014, WO0055770, USRE40479, US9816897, US9797801, US9766619, US9576404, US9459609, US9446861, US9367970, US9284048, US9239578, US9191053, US9152146, US9120581, US9026336, US9026279, US9026273, US8996201, US8744372, US8682509, US8666569, US8478479, US8402844, US8392045, US8351927, US8351926, US8209159, US8180750, US8131420, US8106753, US8068997, US7945360, US7774112, US7769376, US7755512, US7620374, US7595739, US7546123, US7456756, US7444146, US7430483, US7428412, US7426388, US7426387, US7328012, US713852, US6990319, US6943699, US6930610, US6775545, US6745010, US6522867, US6408258, US6353734, US6308045, US6308044, US6289289, US6246341, US6219597, US6173159, US6167239, US6167238, US6163681, US6160998, US6154637, US6154636, US6148179, US6108523, US6104914, US5838261, US10496787, US10311659, US10069843, TWI301111, RU2543111, KR101084527, JP5656358, JP4508475, JP2020001591, JP2010247602, JP2009505224, JP2002370697, GB2481488, GB2457789, GB2457789, GB2384080, GB2384080, GB2340469, GB2340469, GB2340468, GB2340468, GB2321889, GB2321889, FR3060120, FR3031968, FR2972712, FR2935187, FR2900745, FR2785066, FR2778766, FR2757331, FR2742897, EP3404592, EP3336510, EP3336510, EP3222516, EP3222516, EP3147734, EP2933931, EP2933931, EP2821873, EP2812661, EP2784616, EP2784616, EP2500267, EP2500267, EP2390742, EP2241948, EP2241948, EP2109839, EP2109839, EP1957365, EP1018641, EP0780746, EP0774724, EP0774724, DE102016218031, DE102007022672, CN110162074, CN103797347, CN103797347,

Abstract:

The disclosure relates to an aircraft health and usage monitoring system comprising a computer system (D.A.P.U.) for processing data relating to both flight profiles and selected indicators (SENSORS) of health and usage of an aircraft and means to monitor the flight profile and the selected indicators to supply corresponding data to the computer system. The computer system has predetermined thresholds therein in respect of the selected indicators and is arranged to record the duration and extent by which any threshold is exceeded in use of the aircraft. The indicators of the health and usage of the aircraft are selected from the following: engine health, transmission health, airframe health, aircraft systems health.

