

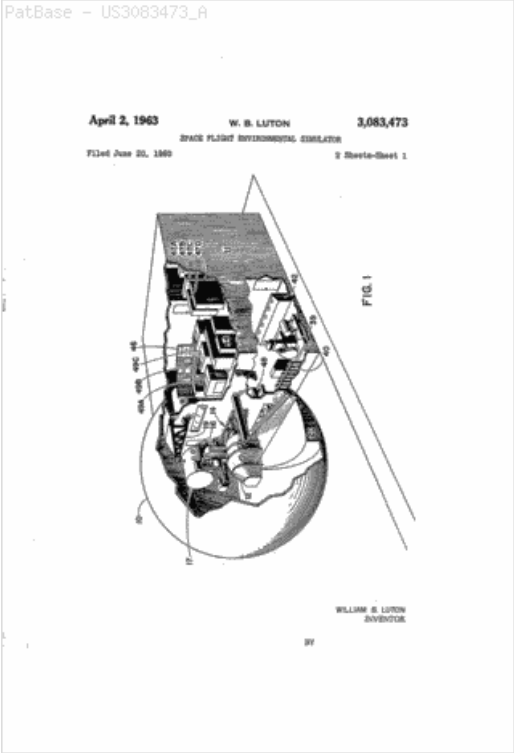
Search history

Search 1: FT=(FLIGHT~ AND SIMULATOR~) (Results 8157)
Search 2: 1 and dome (Results 314)
Search 3: 2 and real* (Results 276)
Search 4: 3 and tetrahedron (Results 11)
Search 5: 2 and real (Results 208)
Search 6: 5 and tetrahedron (Results 3)
Search 7: 5 (Results 208)

Title: SPACE FLIGHT ENVIRONMENTAL SIMULATOR

Abstract: (Claim 1) A space flight simulator comprising, a gondola, support structure, a yoke having a central portion and a pair of forwardly extending arms mounted on said support structure for rotation about a transverse axis extending through the forward ends of the yoke arms, a gimbal structure mounting said gondola on the central portion of said yoke in a position extending forwardly from the yoke central portion between the yoke arms, means associated with said gimbal structure for rotating said gondola about pitch and yaw axes extending through said gimbal structure at of said gondola whereby movement of the gondola about the pitch and yaw axes is adapted to provide simulation of the short period oscillatory accelerations associated with the short period flight dynamics of an entire space vehicle larger than said gondola, and means for rotating said yoke and said gondola about the transverse axis whereby the gravity axis of the gondola may be positioned in the direction of the acceleration fields to be encountered in space flight.

Classifications:
International (IPC 8-9): B64G7/00 G09B9/08 (Advanced/Invention);
B64G7/00 G09B9/02 (Core/Invention)
International (IPC 1-7): B64G7/00 G09B9/00
CPC: B64G7/00 B64G2007/005 G09B9/08
European: B64G7/00 G09B9/08 L64G7/00A
US: 434/34 73/865.6



Family:

Publication number	Publication date	Application number	Application date
US3083473 A	19630402	US19600037265	19600620

Priority:
US19600037265 19600620

Probable Assignee: LING TEMCO VOUGHT INC
Assignee(s): (std): LING TEMCO VOUGHT INC
Inventor(s): (std): LUTON WILLIAM B

Title: **Flight simulators**

Abstract: 1,075,678. **Flight simulators.** STANDARD TELEPHONES and CABLES Ltd. Dec. 13, 1963 [Dec. 17, 1962], No. 49439/63. Heading B7W. A **flight simulator** comprises a television camera 2 moved in response to control signals to produce for at least part of the simulated **flight** an electrical analogue of a simulated view from an aircraft, said view having a first surface 4 simulating the earth's surface, e.g. a seascape and a second surface, **dome** 3 simulating the sky, the camera 2 and the **dome** 3 being movable together in at least the direction Z corresponding to altitude and the camera being movable in at least one other direction X. As shown, camera 2 may be moved along axis Z which represents altitude by carriage 10 and moved along axis X by carriage 9. The camera may be rotated about an axis 13 parallel with axis Z as shown by the arrow. Model 1 supported on carriage 6 may move parallel to the axis Y. The rotation of the camera about axis 13 causes rotation of the viewing axis 15 and simulates alterations of heading of the aircraft. At 16, the extremity of the camera, is placed a 45 degrees mirror constituted by a rotatable isosceles rectangular prism which when rotated simulates pitch of the aircraft. Between position 16 and the target electrode of the camera is placed a Wollaston prism which is adapted to rotate about the Z-axis and simulates the roll of the aircraft. Supported by the camera is an horizon system 21 one face 21a of which is frosted while face 21b is clear. When holder 22 leaves the vertical position face 21a covers up the object of the camera simulating during rotation of holder 22 the passage of the aircraft in a cloudy region. The horizon line defined by the intersection of celestial **dome** 3 and the sea scenery 4 is displaced according to the altitude function Z through link 24 attached to **dome** 3 and a slider 25 linked to part 10. Reference has been directed by the Comptroller to Specification 993,289.

Classifications:

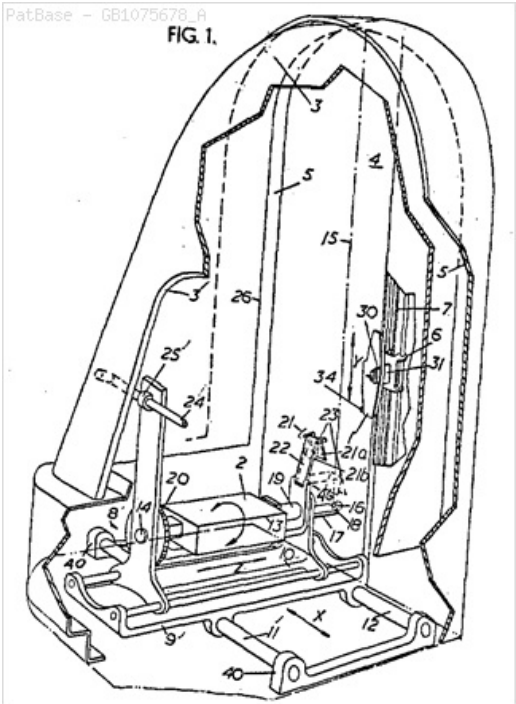
International (IPC 8-9): G09B9/30 (Advanced/Invention);

G09B9/02 (Core/Invention)

International (IPC 1-7): B64FA G09B9/30

CPC: G09B9/305

European: G09B9/30D



Family:

Publication number	Publication date	Application number	Application date
CH420871 A	19660915	CH19630015439	19631217
CH440993 A	19670731	CH19640006318	19640514
ES294605 A1	19640416	ES19630294605	19631217
FR1356950 A	19640403	FR19620918846	19621217
FR84272 E	19650108	FR19630935287	19630517
GB1075678 A	19670712	GB19630049439	19631213

Priority:

FR19620918846 19621217 FR19630935287 19630517

Probable Assignee: MATERIEL TELEPHONIQUE

Assignee(s): (std): MATERIEL TELEPHONIQUE ; STANDARD ELECTRICA SA ; STANDARD TELEPHONE AND RADIO SA ; STANDARD TELEPHONES CABLES LTD

Assignee(s): LE MATERIEL TELEPHONIQUE ; STANDARD TELEPHONE ET RADIO S A ; STANDARD TELEPHONES AND CABLES LIMITED ; STANDARD ELECTRICA SOC ANENIMA ; STANDARD ELECTRICA SOCIEDAD ANENIMA

Inventor(s): (std): BOUILLLOT RENE ; EDMOND MARIELLE ; HERONDELLE GUY LEOPOLD HENRI ; LEOPOLD HENRI HERONDELLE GUY ; MARIELLE EDMOND ; POOLE SAXON MACLEAN ; RENE BOUILLLOT ; SAXON MACLEAN POOLE

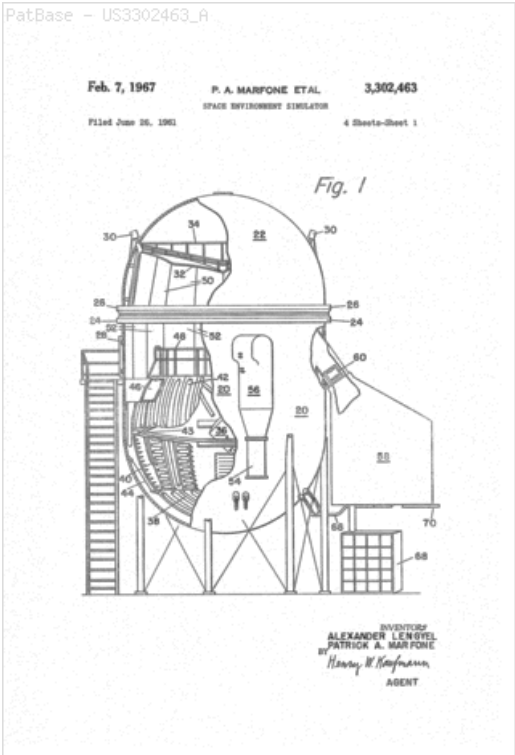
Inventor(s): MACLEAN POOLE SAXON ; HENRI HERONDELLE GUY LEOPOLD

Title: SPACE ENVIRONMENT **SIMULATOR**

Abstract: (Claim 1) 1. A space environment **simulator** comprising: a hermetically sealable chamber; a test piece station in said chamber; refrigerated panels MOLinted in the said chamber in poor thermal contact therewith and partially surrounding the said test station and presenting to the said test station radiation absorbin, faces and having refrigerable stirfaces; mechanical exhaust means connected to the said chamber; a radiation sotirce - rossly simulatin, the spectral distribution of solar radiation; optical means located at least in part in the said clamber substantially collimating the said radiation to fall upon the said test piece stition and directin- noncollimated radiation froiii the said i-efrigerated panels toward the said test piece station.

Classifications:

International (IPC 8-9): B64G7/00 (Advanced/Invention);
B64G7/00 (Core/Invention)
International (IPC 1-7): G01M13/00 G09B9/00
CPC: B64G7/00 B64G2007/005 F21S8/006
European: B64G7/00 L64G7/00A R21S8/00M
US: 73/865.6



Family:

Publication number	Publication date	Application number	Application date
US3302463 A	19670207	US19610119387	19610626

Priority:

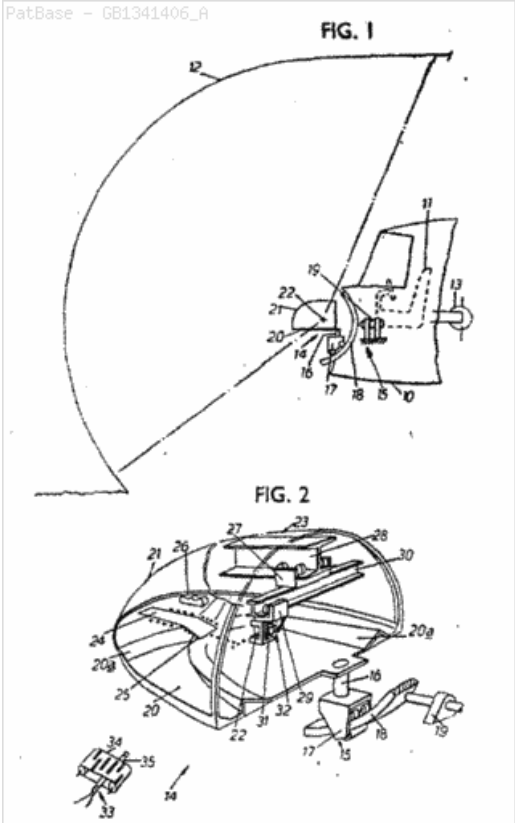
US19610119387 19610626

Probable Assignee: GEN ELECTRIC
Assignee(s): (std): GEN ELECTRIC
Assignee(s): GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY
Inventor(s): (std): ALEXANDER LENGYEL ; ANTHONY MARFONE PATRICK
Inventor(s): LENGYEL ALEXANDER ; MARFONE PATRICK ANTHONY

Title: **FLIGHT SIMULATOR** APPARATUS

Abstract: 1341406 **Flight simulator** BRITISH AIRCRAFT CORP Ltd 10 March 1972 [23 Dec 1970] 61008/70 Heading B7W A **flight simulator** includes a substantially part-spherical concave screen 12, Fig. 1, and a simulated cockpit 10 and pilot's station 11 generally equidistant from all parts of the screen and a projection device 14 comprising a translucent member which is shaped and tinted so that a light source 22, which is movable in three perpendicular directions by a system 23, Fig. 2, to simulate changes in aircraft position, projects sky and ground scenes on to the screen. The translucent member comprises a base 20 and a **dome** 21 of partly clear and partly blue tinted acrylic sheet, and there may be cutouts 24, 25 on the base for representing a daylight scene, or a movable perforated steel band (36), Fig. 3 (not shown) for simulating airport lights at night. The cockpit is tiltable about three perpendicular axes by a gimbal system 13 and the projection device is mounted so as to be tiltable about three perpendicular axes with respect to the cockpit on a system 15 comprising a shaft 16 rotatably mounted on a trolley 17 movable on an arcuate track 18 pivotable in bearings 19 on either the front (Fig. 1) or the roof (not shown) of the cockpit. If, for example, a control command corresponding to aircraft bank is given, the cockpit tilts, while the projection device tilts about the bearings 19 so as to remain level with respect to the screen; then as the bank angle is held the cockpit is slowly returned to level, the projection device remaining fixed with respect to the cockpit so that an appropriate simulated horizon angle is maintained. If the cockpit is of the kind having two pilot seats then inaccuracy of perspective may be corrected by providing windscreens which are prismatic, for example tapered tanks filled with liquid paraffin.

Classifications:
International (IPC 8-9): G09B9/32 (Advanced/Invention);
G09B9/02 (Core/Invention)
International (IPC 1-7): G09B9/08
CPC: G09B9/32
European: G09B9/32



Family:

Publication number	Publication date	Application number	Application date
GB1341406 A	19731219	GB19700061008	19701223

Priority:

GB19700061008 19701223

Probable Assignee: BRITISH AIRCRAFT CORP LTD
Assignee(s): (std): BRITISH AIRCRAFT CORP LTD
Assignee(s): BRITISH AIRCRAFT LTD CORP

Title: ANTI-AIRCRAFT TARGET TRAINING APPTS. - HAS DISC COMPUTER FOR STORING AIRCRAFT SILHOUETTES PROJECTED ONTO ROTATING PANORAMIC **DOME**

Abstract: A target training device which superimposes the silhouette of various types of aircraft into a background includes a viewing device attached to a weapon behind which is also mounted a set for the person controlling the gun. The device includes a television monitoring screen connected in a film mixing unit which receives signals from a television camera inside a **dome** forming a panorama representation device. Also connected to the mixer is a disc memory and a viewing screen unit for selecting the series of silhouettes. The silhouette is projected onto a segment of the **dome** without moving, and the **dome** itself is rotated.

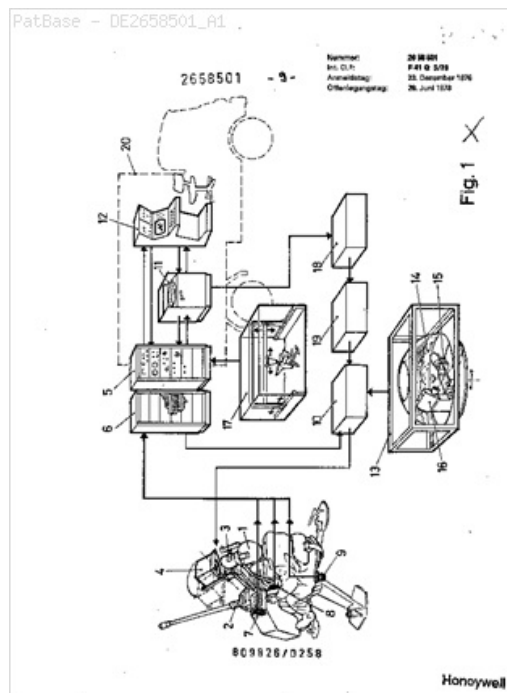
Classifications:

International (IPC 8-9): F41G3/26 (Advanced/Invention);
F41G3/00 (Core/Invention)

International (IPC 1-7): F41G3/26

CPC: F41G3/2644 F41G3/2694

European: F41G3/26C1C F41G3/26C2



Family:

Publication number	Publication date	Application number	Application date
DE2658501 A1	19780629	DE19762658501	19761223
DE2658501 B2	19800410	DE19762658501	19761223
DE2658501 C3	19801211	DE19762658501	19761223

Priority:

DE19762658501 19761223

Probable Assignee: HONEYWELL GMBH

Assignee(s): (std): HONEYWELL GMBH

Assignee(s): HONEYWELL GMBH 6000 FRANKFURT

Inventor(s): (std): BECKER MANFRED ; ZIMMERMANN WINFRIED ING GRAD

Inventor(s): ZIMMERMANN WINFRIED ING GRAD 6368 BAD VILBEL ; BECKER MANFRED 6050 OFFENBACH ;
ZIMMERMANN WINFRIED ING

Title: Basic **simulator** unit

Abstract: A **flight simulator** which abandons the traditional aesthetic preference for an aircraft-like **flight** compartment exterior in favor of an open strut cockpit construction affording convenient access to cockpit equipment for maintenance purposes. The simulated **flight** compartment, electronic equipment, a visual display and maintenance walkway are all enclosed within an octagonal enclosure and mounted on a motion system.

Classifications:

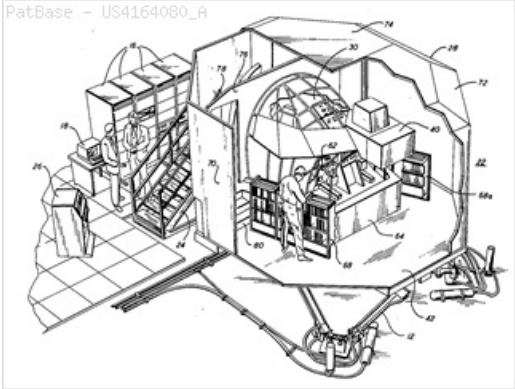
International (ipc 8-9): G09B9/02 G09B9/05 G09B9/06 G09B9/08 G09B9/10 G09B9/12 G09B9/14 G09B9/16 G09B9/28 G09B9/30 G09B9/32 (Advanced/Invention); G09B9/02 G09B9/04 (Core/Invention)

International (ipc 1-7): G09B9/02 G09B9/08

CPC: G09B9/14 G09B9/16 G09B9/165 G09B9/32

European: G09B9/14 G09B9/16 G09B9/16B G09B9/32

US: 35/12P 434/38 434/55



Family:

Publication number	Publication date	Application number	Application date
CA1106498 A1	19810804	CA19780300111	19780330
DE2818883 A1	19781123	DE19782818883	19780428
FR2390787 A1	19781208	FR19780013842	19780510
JP53140135 A2	19781206	JP19780054902	19780509
US4164080 A	19790814	US19770795519	19770510

Priority:

US19770795519 19770510 CA19780300111 19780330

Probable Assignee: MICROFLITE SIMULATION INT CORP

Assignee(s): (std): SINGER CO

Assignee(s): SINGER CO THE ; SINGER CY ; THE SINGER CO ; SINGER COMPANY THE ; TRUSSLER ALAN A ; AAI MICROFLITE SIMULATION INT ; AAI MICROFLITE SIMULATION INT A MD CORP ; BICOASTAL CORP ; KOSYDAR GERALD M ; MICROFLITE SIMULATION INT ; MICROFLITE SIMULATION INT CORP ; RIDER ALBERT J

Inventor(s): (std): JIERARUDO MAIKURU KOSUIDAA ; KOSYDAR GERALD M ; KOSYDAR GERALD MICHAEL ; RIDER ALBERT J ; RIDER ALBERT JAMES ; TRUSSLER ALAN A ; TRUSSLER ALAN ANTONY ; ARAN ANTONII TORUSUSURAA ; ARUBAATO JIEEMUSU RAIDAA

Inventor(s): JAMES RIDER ALBERT ; ANTONY TRUSSLER ALAN ; MICHAEL KOSYDAR GERALD

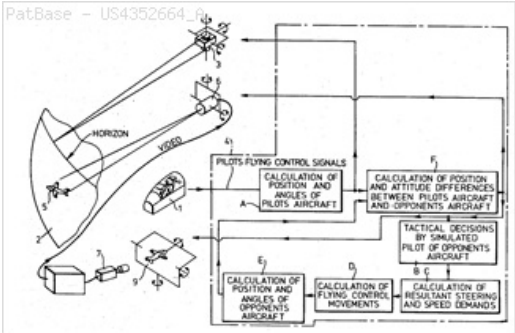
Agent(s): BARRIGAR AND MOSS

Title: **Simulator** having two independently servo-controlled projection systems

Abstract: An air combat **simulator** including a part spherical screen, a remotely controlled horizon projector positioned so as to project onto the screen a scene consisting of sky and ground terrain, and a t.v. projection system for projecting onto the screen an image of an opponent's aircraft. A simulated manned aircraft consisting of a pilot's control station is positioned to view the screen and has **flight** controls arranged to generate **flight** control signals and a computer is arranged to control the horizon projector and opponent's aircraft image projector in dependence upon the **flight** control signals and upon a tactical decision making process programmed into the computer. To simulate range variation the size of the opponent's aircraft is varied by controlling the raster dimensions of a t.v. picture formed in the t.v. projection system, which system does not include a zoom lens.

Classifications:

International (IPC 8-9): F41G3/26 F41G3/28 G09B9/00 G09B9/30 G09B9/32 (Advanced/Invention); F41G3/00 G09B9/00 G09B9/02 (Core/Invention)
International (IPC 1-7): F41F27/00 F41J9/00 G03B29/00 G06F15/62 G09B9/08 H04N7/18
CPC: F41G3/2694 F41G3/28 G09B9/003 G09B9/305 G09B9/326
European: F41G3/26C2 F41G3/28 G09B9/00B G09B9/30D G09B9/32C
US: 348/123 434/14 434/20 434/44



Family:

Publication number	Publication date	Application number	Application date
DE2837240 A1	19790301	DE19782837240	19780825
DE2837240 C2	19890907	DE19782837240	19780825
FR2401474 A1	19790323	FR19780024728	19780825
FR2401474 B1	19840406	FR19780024728	19780825
GB2003103 A1	19790307	GB19780033413	19780815
GB2003103 B2	19820106	GB19780033413	19780815
US4352664 A	19821005	US19790090494	19791101

Priority:

GB19770036094 19770827 US19780936849 19780825

Probable Assignee: BRITISH AEROSPACE PUBLIC CO LTD

Assignee(s): (std): BRITISH AEROSPACE ; BRITISH AIRCRAFT CORP LTD

Assignee(s): BRITISH AEROSPACE PLC ; BRITISH AEROSPACE PLC LONDON GB ; BRITISH AEROSPACE PUBLIC CO LTD ; BRITISH AIRCRAFT CORP

Inventor(s): (std): DIXON STANLEY RONALD EVERARD ; MORRISON JEFFREY ; WARTON AERODROME PRESTON ; DIXON STANLEY R E ; BARNES ARTHUR G ; BARNES ARTHUR GEORGE

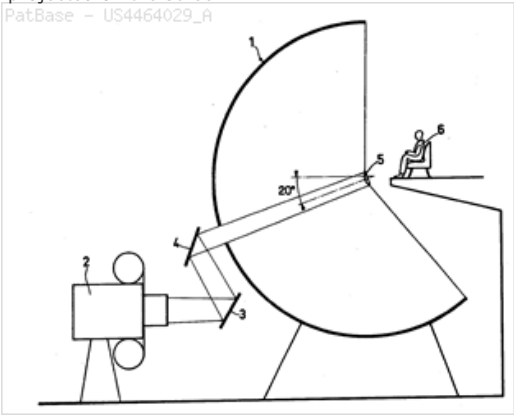
Inventor(s): BARNES ARTHUR GEORGE WARTON AERODROME PRESTON LANC ; BARNES ARTHUR GEORGE WARTON AERODROME PRESTON... ; AERODROME WARTON ; EVERARD DIXON STANLEY RONALD ; GEORGE BARNES ARTHUR ; JEFFREY MORRISON STANLEY R E DIXON ET ARTHUR G BAR ; JEFFREY MORRISON STANLEY R E DIXON ET ARTHUR G...

Title: Wide angle film shooting and projection of truncated images

Abstract: Wide angle film shooting and projection of images on the inside of a spherical screen is accomplished by first shooting a scene using a "fish-eye" lens to obtain truncated circular images with their truncations along a common edge of the film. The images are projected onto the concave screen through a tele-objective, and a convex mirror in the center of the screen so that truncated portions of the film images correspond to the upper portion of the screen, which is of least significance to a viewer. Images of diameter greater than the width of the film can thus be used without loss of significant information. Images with an angular field as great as 220 DEG can be projected on the screen.

Classifications:

International (IPC 8-9): G03B21/00 G03B37/06
G09B9/30 (Advanced/Invention);
G03B37/00 G09B9/02 (Core/Invention)
International (IPC 1-7): G03B19/18 G03B21/00 G03B21/32
G03B37/00 G03B37/06 G03C1/96 G09B9/08
CPC: G03B37/06 G09B9/304
European: G03B37/06 G09B9/30C
US: 352/132 352/43 352/69



Family:

Publication number	Publication date	Application number	Application date
CA1118249 A1	19820216	CA19780311732	19780921
DE2841117 A1	19790329	DE19782841117	19780921
FR2404243 A1	19790420	FR19770028510	19770921
FR2404243 B1	19821210	FR19770028510	19770921
GB2004660 A1	19790404	GB19780037411	19780920
GB2004660 B2	19820630	GB19780037411	19780920
IT1100817 A	19850928	IT19780027951	19780921
IT7827951 A0	19780921	IT19780027951	19780921
US4464029 A	19840807	US19820377396	19820512

Priority:

FR19770028510 19770921 CA19780311732 19780921 US19800943557 19800918
US19800207465 19801117

Probable Assignee: JAULMES P
Assignee(s): (std): JAULMES P ; JAULMES PHILIPPE ; JAULMES PHILPPE
Inventor(s): (std): JAULMES PHILPPE ; JAULMES PHILIPPE
Agent(s): SWABEY OGILVY RENAULT

Title: Projection system and process

Abstract: A projector casts light rays upon a reflective surface to produce a focused scene, and within the periphery of the scene the reflective surface has a small aperture. Behind the aperture is a concave mirror which is positioned to intercept the projected rays that pass through the aperture. The mirror reflects these rays onto a small screen which is located adjacent to the aperture. The arrangement is such that the reflected rays come into focus at the small screen, producing a focused image of that portion of the scene seemingly lost at aperture. Light from this image is in turn reflected by the mirror so as to create a **real** image, the location of which is the aperture in the reflective surface. Thus, the **real** image of the small screen is observed at the void left in the reflective surface by the aperture and blends in with the remainder of the scene on that surface. As a result, the aperture is practically indiscernible. Another projector may be located behind the reflective surface to project a different scene through the aperture and onto another reflective surface located opposite the first reflective surface. A retractive optical system may be used in lieu of the mirror.

Classifications:

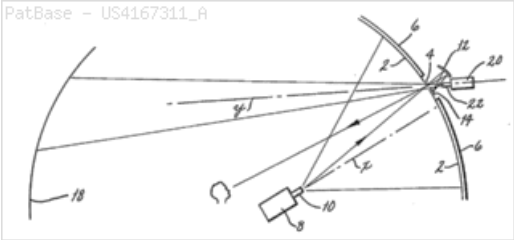
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International (IPC 1-7): G03B21/28 G03B21/56

CPC: G03B21/00 G03B21/28

European: G03B21/00 G03B21/28

US: 353/122 353/94 353/99 359/449 359/451



Family:

Publication number	Publication date	Application number	Application date
US4167311 A	19790911	US19780895601	19780412

Priority:

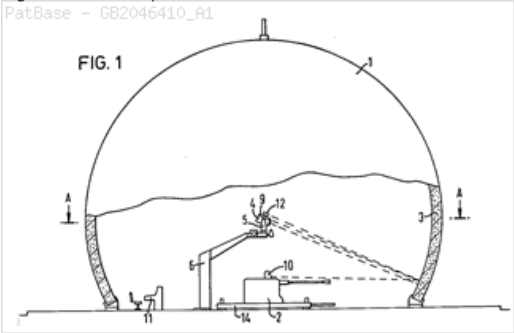
US19780895601 19780412

Probable Assignee:	MC DONNELL DOUGLAS CORP
Assignee(s): (std):	MC DONNELL DOUGLAS CORP
Assignee(s):	MCDONNELL DOUGLAS CORP
Inventor(s): (std):	PUND MARVIN L

Title: TARGET APPARATUS

Abstract: A target apparatus for use in the training of weapon direct fire is provided suitable for use in the training of anti-aircraft and naval gunnery and missile launching. The apparatus includes a dome structure 1 in which a weapon can be placed. The structure 1 forms a screen 3 of concave truncated spherical shape. At least one target image projector 4 is provided, preferably a T.V. video projector, for projecting a target image onto the screen, which projector is mounted for universal movement, preferably on a gimballed mounting 5, for moving the projected target image over the screen.; Means 9 for projecting a beam of radiation, preferably infra-red radiation, onto the screen 3 at a selected position relative to the projected target image are provided with the selected position corresponding to the position at which the weapon should be aimed to produce a hit on the target image when fired. A radiation detector means 10 is provided which is movable with the weapon for registering a hit or miss by detecting whether or not the weapon is aimed at the selected position when fired. Optionally a laser projector 12 can be provided in conjunction with the projectors 4 and 10 to give a visual indication on the screen of the invisible infra-red radiation point on the screen constituting the selected position.

Classifications:
International (IPC 8-9): F41G3/26 (Advanced/Invention); F41G3/00 (Core/Invention)
International (IPC 1-7): F41G3/26
CPC: F41G3/2611 F41G3/2627
European: F41G3/26B1 F41G3/26C1B



Family:

Publication number	Publication date	Application number	Application date
GB2046410 A1	19801112	GB19800011089	19800402
GB2046410 B2	19830907	GB19800011089	19800402

Priority:
GB19790011799 19790404 GB19800011089 19800402

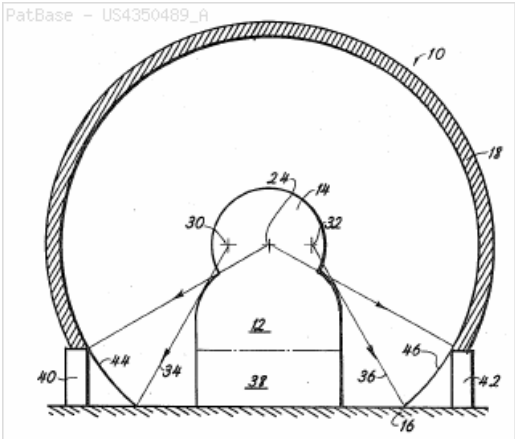
Probable Assignee: DETRAS TRAINING AIDS LTD

Assignee(s): (std): DETRAS TRAINING AIDS LTD

Title: **Dome** field of view scene extenders

Abstract: In a vehicular **simulator** including a cockpit and visual system wherein the visual system includes a hollow, partial spherical screen 18 surrounding a cockpit 14, and wherein both the cockpit 14 and spherical screen 18 are supported by a base support structure 16 such that the nominal eye point 24 of a pilot operator sitting in the cockpit 14 is at or near the center of the spherical screen 18. Improvement apparatus is provided comprising a first base means or structure 38 for providing a selected increase of the distance between the nominal eye point 24 and base platform 16. A second spacing means 40 and 42 are also provided which maintains the same selected distance increase between the spherical center of the screen 18 and the base platform 16. Left and right curved screen panels 44 and 46 having a spherical surface with the same diameter as the spherical screen are provided to the left and right of cockpit 14 such that bottom edge of spherical screen 18 is increased in selected areas by the panels.

Classifications:
International (IPC 8-9): G09B9/32 (Advanced/Invention);
G09B9/02 (Core/Invention)
International (IPC 1-7): G09B9/08
CPC: G09B9/32
European: G09B9/32
US: 434/40



Family:

Publication number	Publication date	Application number	Application date
US4350489 A	19820921	US19800213521	19801205

Priority:

US19800213521 19801205

Probable Assignee: L 3 COMMUNICATIONS CORP

Assignee(s): (std): SINGER CO

Assignee(s): THE SINGER COMPANY ; HUGHES AIRCRAFT CO ; L 3 COMMUNICATIONS CORP ; LINK FLIGHT SIMULATION CORP

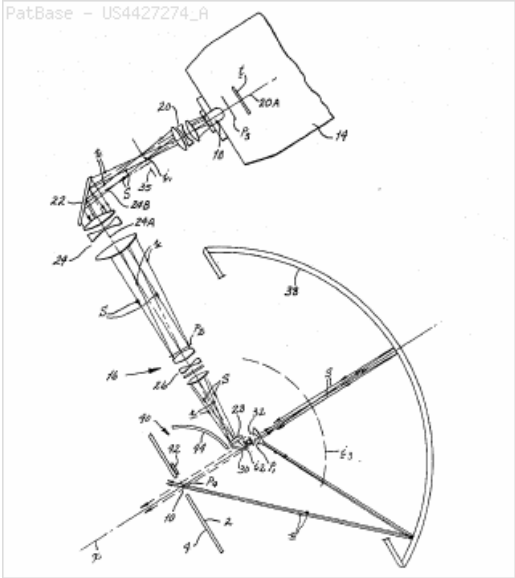
Inventor(s): (std): GDOVIN DAVID P

Title: Wide angle projection system

Abstract: A projection system that is particularly suited for simulating aircraft flight includes a large dome and a projector and optical system that are located outside of the dome. The dome has a diffuse reflective surface that is presented inwardly. The projector produces a pattern of light which is redirected by the optical system such that it passes through an aperture in the dome, and is cast upon a wide area of the diffuse reflective surface as an image of a scene, particularly a scene that one might encounter from the cockpit of an aircraft. The optical system includes a concave mirror that is presented toward the aperture, a wide angle lens that is along the axis of the mirror, and a system of lens and folding mirrors for transmitting the light from the projector to the wide angle lens. The wide angle lens is located such that its pupil upon being reflected from the concave mirror reforms or comes into focus at the aperture in the dome. Thus, the light upon diverging from the wide angle lens reflects from the concave mirror and concentrates at the aperture through which it passes, diverging beyond the aperture to come into focus on the diffuse reflective surface, where it forms an image of the scene developed at the projector.

Classifications:

International (IPC 8-9): G03B37/00 G09B9/32 (Advanced/Invention); G03B37/00 G09B9/02 (Core/Invention)
International (IPC 1-7): G03B21/28 G03B21/56
CPC: G03B37/00 G09B9/326
European: G03B37/00 G09B9/32C
US: 353/122 353/94 353/99 434/44



Family:

Publication number	Publication date	Application number	Application date
US4427274 A	19840124	US19810254417	19810415

Priority:

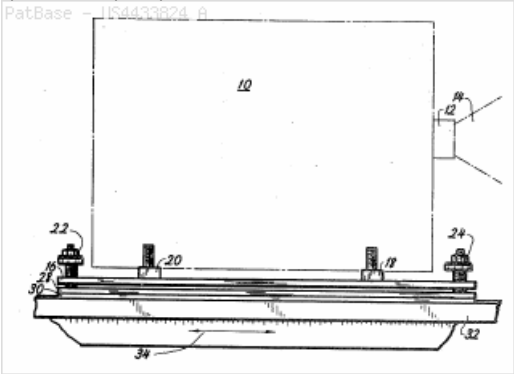
US19810254417 19810415

Probable Assignee: MC DONNELL DOUGLAS CORP
Assignee(s): (std): MC DONNELL DOUGLAS CORP
Assignee(s): MCDONNELL DOUGLAS CORP ; KWIKSET CORP
Inventor(s): (std): PUND MARVIN L ; VANHOOGSTRATE JR JOHN A

Title: VIDEO PROJECTOR ADJUSTABLE SUPPORT

Abstract: Alignment and adjustable support structure for video projector is disclosed. The support structure includes the base plate 16 and at least three apertures for receiving three jack screws 22, 24 and 26. The jack screws have a length greater than the selected thickness of the base plate such that the base plate can be adjusted with respect to a post plate 28. Each of the jack screws includes an aperture 72 therethrough along its longitudinal axis. Post plate 28 includes at least three apertures such as aperture 68 for receiving a fastening means 70 which extends through aperture 68 and through aperture 72 of jack screw 26. Fastening means 70 is suitable for securing the post plate 28 in a selected position with respect to base plate 16 as is determined by the allowable motion of jack screw 26. A rolling plate 30 includes a top surface for receiving the bottom surface of post plate 38. The bottom surface of rolling plate 30 includes guideways 94 and 98 suitable for receiving a pair of parallel guides 96 and 100 such that the combination roller plate 30, post plate 28 and base plate 16 may be moved in a desired direction. There also is included a pin 102 for securing roller plate 30 to post plate 28.

Classifications:
International (IPC 8-9): F16M11/04 (Advanced/Invention); F16M11/02 (Core/Invention)
International (IPC 1-7): F16M1/00
CPC: F16M11/12 F16M11/2014 F16M11/2092
European: F16M11/04 F16M11/12 F16M11/20A1 F16M11/20C
US: 248/188.4 248/662



Family:

Publication number	Publication date	Application number	Application date
US4433824 A	19840228	US19800220585	19801229

Priority:

US19800220585 19801229

Probable Assignee: L 3 COMMUNICATIONS CORP

Assignee(s): (std): SINGER CO

Assignee(s): THE SINGER COMPANY ; LINK FLIGHT SIMULATION KIRKWOOD INDUSTRIAL PARK BI ; SINGER CO A CORP OF NJ ; LINK FLIGHT SIMULATION KIRKWOOD INDUSTRIAL PARK BINGHAMTON NY 13902 1237 A DE CORP CORP ; CAE LINK A CORP OF DE CORP ; CAE LINK CORP ; HUGHES AIRCRAFT CO ; L 3 COMMUNICATIONS CORP ; LINK FLIGHT SIMULATION CORP

Inventor(s): (std): KOOSHA MANSOUR

Title: Spherical projection-type screen for use in a vehicle **simulator**

Abstract: A geodesic **dome** structure is described, i.e., a structure having a mathematically-derived surface. This new **dome** structure is formed of a single, one-piece layer of synthetic material and provides a one-piece, seamless screen to permit the viewing of a scene in a vehicle **simulator** in order to achieve a maximum of **realism** matching substantially **real** world conditions. One form of the structure for this geodesic **dome** is described with the single, one-piece layer of synthetic material bonded to a generally **dome**-shaped geodetic structure in order to provide sufficient strength for a free-standing structure. However, another form of the geodesic **dome** is described with the synthetic material formed of sufficient thickness to be strong enough to provide a free-standing structure, and the synthetic material may even be reinforced if desired. The method described of achieving this geodesic **dome** includes erecting a generally **dome**-shaped geodetic structure and applying a coating of a predetermined thickness of synthetic material to the inner surface of such a structure. Thereafter, this synthetic material is smoothed to provide the seamless screen for viewing a scene from a vehicle **simulator**. The method described also includes a tool stand erected in order to locate positively a pivot point from which a tool boom is movable in order to achieve the accuracy desired for the inner, smooth, one-piece, seamless screen surface.

Classifications:

International (IPC 8-9): E04B1/16 E04B1/32 E04B1/35 E04B7/10 E04D13/03 E04H3/22 G03B21/56 G09B27/00 G09B9/02 G09B9/08 G09B9/30 G09B9/32 (Advanced/Invention); E04H3/10 G03B21/56 G09B27/00 (Core/Invention)

International (IPC 1-7): B24B5/00 B29C17/12 B29D27/04 E04B1/16 E04B1/32 E04B7/10 E04D13/03 E04H3/22 G03B21/56 G09B27/00 G09B9/00 G09B9/02 G09B9/08

CPC: E04B1/164 E04B1/3211 E04B1/35 E04B2001/3217 E04B2001/3229 E04B2001/3258 E04B2001/3264 G09B9/32

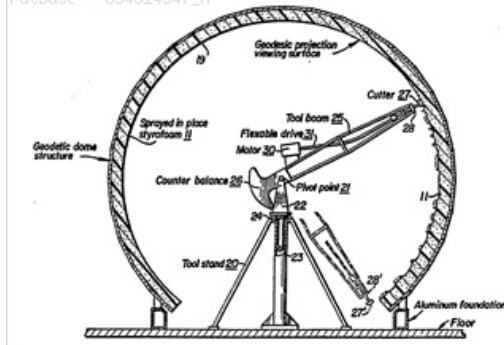
European: E04B1/16C E04B1/32C E04B1/35 G09B9/32 P04B1/32H P04B1/32L P04B1/32N P04B1/32N1

US: 264/162 264/269 264/32 264/46.6 264/46.9 434/40 451/159 451/280 451/361 51/2R 52/81.1 52/81.6

JP F-Term: 2C028 2C029 2C029/BB03 2C029/BB04 2C029/EE11 2C032 2C032/EB00 2E004 2E026 2E121 2H021 2H021/AA05 2H021/AA08

JP F-Index: E04B1/32 E04H3/22 G03B21/56/Z G09B27/00/B G09B9/02 G09B9/08 G09B9/30

PatBase - US4514347_A



Family:

Publication number	Publication date	Application number	Application date
CA1203361 A1	19860422	CA19830443780	19831220
EP0131019 A1	19850116	EP19840900347	19831205
EP0131019 A4	19850610	EP19840900347	19831205
JP1749268 C3	19930408	JP19840500400	19831205
JP4035077 B4	19920609	JP19840500400	19831205
JP60500147 T2	19850131	JP19840500400T	19831205
JP60500147 T2	19850131	JP19840500400	19831205
US4514347 A	19850430	US19820451985	19821221
US4631867 A	19861230	US19850685823	19850219
WO8402548 A1	19840705	WO1983US01911	19831205

Priority:

US19820451985 19821221 WO1983US01911 19831205 CA19830443780 19831220
US19850685823 19850219

Probable Assignee: HUGHES AIRCRAFT CO

Assignee(s): (std): SINGER CO

Assignee(s): THE SINGER COMPANY ; SINGER COMPANY THE ; LINK FLIGHT SIMULATION KIRKWOOD INDUSTRIAL PARK BI ; SINGER CO THE ; REED JOHN T ; CAE LINK A CORP OF DE CORP ; CAE LINK CORP ; HUGHES AIRCRAFT CO ; L 3 COMMUNICATIONS CORP ; LINK FLIGHT SIMULATION CORP

Inventor(s): (std): REED JOHN T

Agent(s): RIDOUT AND MAYBEE LLP

Designated states: DE FR GB JP SE

Title: Visual target simulator for outdoor field training.

Abstract: A visual target **simulator** for field training in which a target image appears to a trainee via a beam-splitter display so as to be superimposed on a "real world" background. The **simulator** includes a central processing unit coupled to a position sensor system for detecting the orientation of the beam-splitter, to a video disc player containing video images of a target together with information regarding the attitude and trajectory of the target, to a video processing unit for placing the target image at a particular point on the trainee's beam-splitter, to a memory containing data regarding the sector at which images are stored in the video disc player, and to an instructor interface. An instructor can input a target scenario by means of the interface, whereafter the central processing unit accesses the corresponding target images from the video disc based upon data from the memory. The image is displayed to the trainee at a location on the beam-splitter calculated from the display's orientation, the target trajectory and the image size. An audio system is also provided for delivering stereo audio to the trainee indicative of the orientation of the target relative to the trainee to assist in pointing the weapon in the direction of the target image.

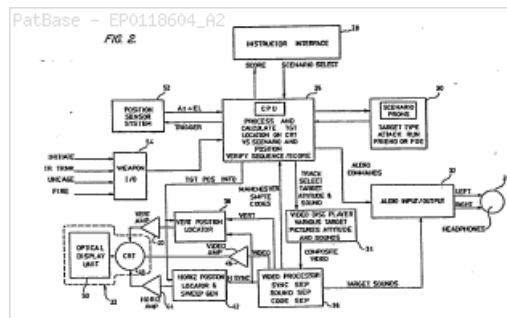
Classifications:

International (IPC 8-9): F41G3/26 (Advanced/Invention)

International (IPC 1-7): F41G3/26 F41J9/00

CPC: F41G3/2694 G02B27/017 G02B27/0189 G02B2027/014

European: F41G3/26C2 G02B27/01C S02B27/01A11 S02B27/01E



Family:

Publication number	Publication date	Application number	Application date
EP0118604 A2	19840919	EP19830111520	19831117

Priority:

US19820442183 19821116

Probable Assignee:

BRUNSWICK CORP

Assignee(s): (std):

BRUNSWICK CORP

Inventor(s): (std):

AMOUR SEAN

Designated states:

DE FR GB

Title: Visual **simulator** and display screen for said **simulator**

Abstract: A visual **simulator** has a display screen forming a vault. Back-projectors are arranged outside of the screen vault which is transparent to project the image, such as an environment image into the vault which holds a training cockpit for training pilots or tank commanders. The screen is made of a single layer film or skin of plastic material having at least one projection field with a surface structure forming a Fresnel type collecting or converging lens having an optical axis pointing toward the cockpit. The screen may be supported by excess pressure in the vault. A self-supporting foldable tent may be provided inside the vault between the cockpit and the screen for providing access into the vault under the tent while still pressure supporting the screen skin, for example, for exchanging one type of cockpit against another.

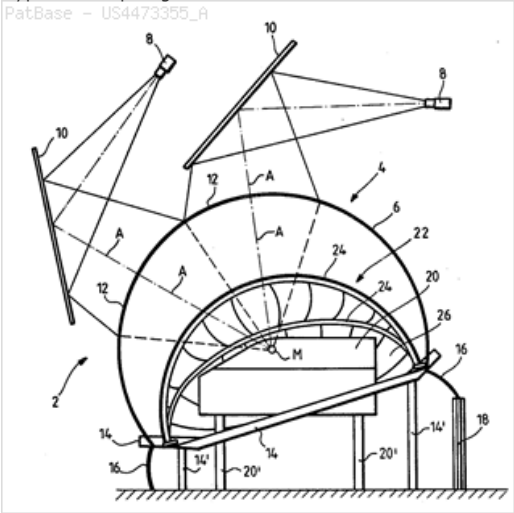
Classifications:

International (IPC 1-7): G03B21/13 G03B21/60 G09B9/04 G09B9/08

CPC: G09B9/32

European: G09B9/32

US: 359/451 359/454 434/44



Family:

Publication number	Publication date	Application number	Application date
DE3417058 A1	19850117	DE19843417058	19840509
GB2142443 A1	19850116	GB19840015642	19840619
GB8415642 A0	19840725	GB19840015642	19840619
US4473355 A	19840925	US19830509788	19830630

Priority:

US19830509788 19830630

Probable Assignee: MESSERSCHMITT BOELKOW BLOHM

Assignee(s): (std): MESSERSCHMITT BOELKOW BLOHM

Assignee(s): MESSERSCHMITT BOELKOW BLOHM GES ; MESSERSCHMITT BOELKOW BLOHM GESELLSCHAFT MIT BESCHRAENKTER HAFTUNG ; MESSERSCHMITT BOELKOW BLOHM GMBH 8012 OTTOBRUNN DE ; MESSERSCHMITT BOLKOW BLOHM GMBH ; MESSERSCHMITT BOLKOW BLOHM GESELLSCHAFT MIT BESCHRANKTER HAFTUNG

Inventor(s): (std): PONGRATZ HANS WOLFGANG DIPL IN ; PONGRATZ HANS WOLFGANG

Inventor(s): PONGRATZ HANS WOLFGANG DIPL ING 8028 TAUFKIRCHEN D ; HANS WOLFGANG PONGRATZ ; PONGRATZ HANS WOLFGANG DIPL ING

Title: Eye line-of-sight responsive wide angle visual system

Abstract: Visual system (37) for providing high detail, high resolution imagery anywhere a trainee is looking throughout a wide field of view. An image generation system (38) of visual system (37) accepts inputs from a helmet mounted oculometer system (30) which determines a trainee's instantaneous eye line-of-sight. The image generation system (38) provides a foveal view of high detail, high resolution imagery at the eye line-of-sight. The foveal view is projected on a screen (46) by a foveal projection system (40). The image generation system (38) further provides a peripheral view of low detail, low resolution imagery that is projected on screen (46) by a peripheral projection system (42). The foveal view is merged with the peripheral view by a merge electronics system (44).

Classifications:

International (IPC 8-9): G09B9/30 (Advanced/Invention);

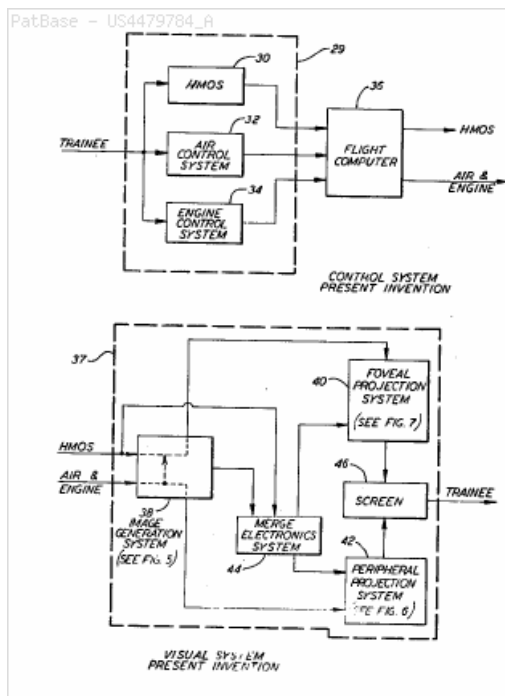
G09B9/02 (Core/Invention)

International (IPC 1-7): G09B9/08

CPC: G09B9/302 G09B9/307

European: G09B9/30B2 G09B9/30E

US: 434/43 434/44



Family:

Publication number	Publication date	Application number	Application date
US4479784 A	19841030	US19810239942	19810303

Priority:

US19810239942 19810303

Probable Assignee: L 3 COMMUNICATIONS CORP

Assignee(s): (std): SINGER CO

Assignee(s): THE SINGER COMPANY ; CAE LINK CORP ; HUGHES AIRCRAFT CO ; L 3 COMMUNICATIONS CORP ; LINK FLIGHT SIMULATION CORP

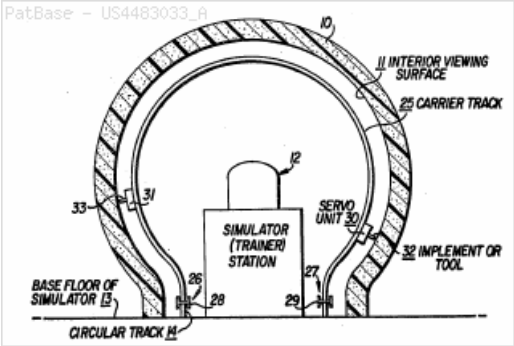
Inventor(s): (std): PETERS DAVID L ; MECKLENBORG RICHARD A ; MALLINSON RICHARD B ; LAKSHMINARAYANASETTY KADAM S

Title: SERVICE DEVICE FOR THE INTERIOR VIEWING SURFACE OF A **SIMULATOR DOME**

Abstract: The specification describes a device that admits of performing a variety of servicing, inspection and maintenance functions on the viewing surface of a **simulator dome**. The structural arrangement of such device includes a circular track supported by the base floor of the **simulator** and at least one arcuate carrier track extending from one end at the circular track, upwardly in a plane perpendicular to the circular track and at a constant distance from the viewing surface, to the opposite end at the circular track 180 degrees from the end. A servo unit, carrying a desired implement to perform some function on the viewing surface, is indexed along the arcuate carrier track after the arcuate carrier track is turned 360 degrees. Suitable wheels support each end of the arcuate carrier track on the circular track.

Classifications:

International (IPC 8-9): E04G1/36 (Advanced/Invention);
E04G1/36 (Core/Invention)
International (IPC 1-7): E04G3/14
CPC: E04G1/362 E04G1/36
European: E04G1/36
US: 15/3 15/49.1 15/49R 182/36



Family:

Publication number	Publication date	Application number	Application date
US4483033 A	19841120	US19820451982	19821221

Priority:

US19820451982 19821221

Probable Assignee: HUGHES AIRCRAFT CO NOW KNOWN HUGHES ELECTRONICS AS

Assignee(s): (std): SINGER CO

Assignee(s): LINK FLIGHT SIMULATION CORP ; THE SINGER COMPANY ; HUGHES AIRCRAFT CO NOW KNOWN HUGHES ELECTRONICS AS ; LINK FLIGHT SIMULATION KIRKWOOD INDUSTRIAL PARK BINGHAMTON NY 13902 1237 A DE CORP CORP ; CAE LINK A CORP OF DE CORP ; CAE LINK CORP ; HUGHES AIRCRAFT CO ; HUGHES AIRCRAFT CO (NOW KNOWN HUGHES ELECTRONICS) AS

Inventor(s): (std): GEBERT FRANK X

Title: METHOD AND APPARATUS FOR TEXTURE GENERATION

Abstract: A method and an apparatus for texture generation for a digital image generator of an aircraft **flight simulator** is disclosed in which (a selected two of the three) coordinates of each pixel of an image are inverse transformed to earth coordinates (112-124, in Fig. 11) from which addresses are developed (126, 128 and 130) for accessing a texture table (132 and 134) to retrieve elements from which an appropriate pixel intensity is developed (140). The table stores near (132) and far (134) texture, the far texture elements being interpolated to avoid a checkerboard effect, stores a limited number of texture types, the elements of selected texture types being combined (132 and 134) to develop additional texture types, and stores levels of detail (degrees of filtering) the appropriate levels being accessed (126) to avoid aliasing (scintillation of a scene), adjacent levels being mixed (136 and 138) to provide smooth detail level transition.

Classifications:

International (IPC 8-9): G06T1/00 G06T15/00 G06T15/04 G06T15/20 G06T15/50 G06T15/80 G06T17/40 G06T19/00 G09B29/10 G09B9/02 G09B9/05 G09B9/06 G09B9/08 G09B9/30 G09B9/34 (Advanced/Invention); G06T1/00 G06T15/00 G09B29/10 G09B9/02 (Advanced/Non-invention); G06T1/00 G06T15/00 G06T15/10 G06T15/50 G06T17/40 G09B29/10 G09B9/02 G09B9/04 (Core/Invention)

International (IPC 1-7): G06F15/62 G06F15/72 G09B29/10 G09B9/08 G09B9/30 H04N7/18

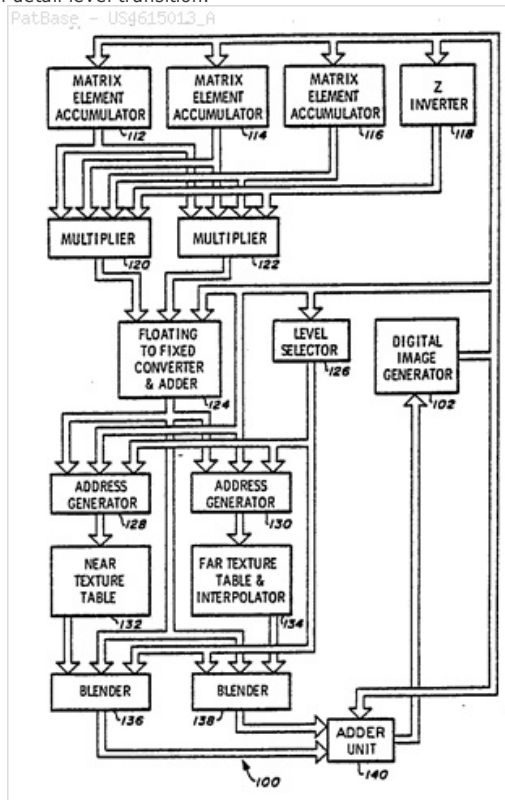
CPC: G06T15/80 G06T15/04 G09B9/301

European: G06T15/04 G06T15/80 G09B9/30B

US: 345/427 345/428 345/582 348/123 358/104 364/521

JP F-Term: 2C028 2C029 2C029/EE04 2C029/EE11 2C032 2C032/GC00 2C032/HA17 2C032/HC23 5B050 5B050/AA06 5B050/BA08 5B050/EA07 5B050/EA09 5B050/EA12 5B050/EA13 5B050/EA15 5B050/EA19 5B050/EA20 5B050/EA22 5B050/EA23 5B050/EA27 5B050/EA28 5B050/EA30 5B050/FA02 5B050/FA05 5B080 5B080/AA09 5B080/AA14 5B080/AA15 5B080/BA00 5B080/BA04 5B080/CA09 5B080/DA06 5B080/DA07 5B080/DA08 5B080/FA02 5B080/FA08 5B080/FA14 5B080/FA15 5B080/GA22 2C029/BB04 5B050/BA10 5B050/CA03 5B050/CA07 5B050/EA14 5B050/EA24 5B050/GA08

JP F-Index: G06F15/62/360 G06F15/72/450/A G06T15/00/100/A G06T15/00/501 G06T17/40/E G06T19/00/E G06T19/00/300/B G09B29/10/Z G09B9/08 G09B9/30 G06F15/62 G06T1/00 G09B9/02/511 G09B9/02/514 G09B9/05/E G09B9/06/C G09B9/34/Z

**Family:**

Publication number	Publication date	Application number	Application date
AU198433968 A1	19850312	AU19840033968	19840723
AU571012 B2	19880331	AU19840033968	19840723
CA1217861 A1	19870210	CA19840458717	19840712
DE3481952 D1	19900517	DE19843481952	19840723
EP0160660 A1	19851113	EP19840903502	19840723
EP0160660 A4	19860120	EP19840903502	19840723
EP0160660 B1	19900411	EP19840903502	19840723
JP6037939 U1	19940520	JP19930027170U	19930426
JP60501922 T2	19851107	JP19840503488T	19840723
US4615013 A	19860930	US19830519602	19830802
WO8500913 A1	19850228	WO1984US01153	19840723

Priority:

US19830519602 19830802 CA19840458717 19840712 WO1984US01153 19840723

Probable Assignee: L 3 COMMUNICATIONS CORP

Assignee(s): (std): SINGER CO ; CAE LINK CORP

Assignee(s): CAE LINK CORP BINGHAMTON N Y US ; CHEN LISH YANN ; HUGHES AIRCRAFT CO ; CAE LINK A CORP OF DE CORP ; LINK FLIGHT SIMULATION CORP ; L 3 COMMUNICATIONS CORP ; YAN JOHNSON K ; SZABO NICHOLAS S ; LINK FLIGHT SIMULATION KIRKWOOD INDUSTRIAL PARK BINGHAMTON NY 13902 1237 A DE CORP CORP ; SINGER CO A NJ CORP ; SINGER CO THE

Inventor(s): (std): LISH YANN CHEN ; SZABO NICHOLAS S ; YAN JOHNSON K ; YAN K ; SZABO S ; CHEN LISH YANN

Inventor(s): CHEN LISH YANN MILIPITAS CA 95035 US ; NICHOLAS S SZABO ; JOHNSON K YAN

Agent(s): GRIFFITH HACK; RIDOUT AND MAYBEE LLP

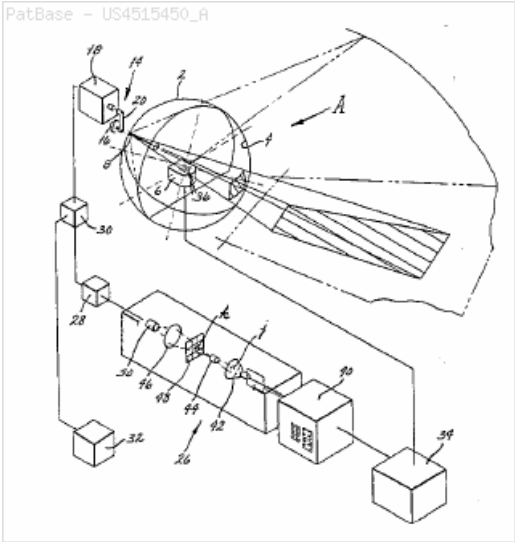
Designated states: AU DE FR GB JP SE

Title: Transparency for use with a flying spot scanner to generate images

Abstract: A transparency that is used in a flying spot scanner to generate imagery for simulated **flight** contains a rectangular center section and eight peripheral sections, four of which lie along the side boundaries of the center section, while the remaining four are at the corners of the center section such that their edges are contiguous to the edges of the side peripheral sections. Each of the nine sections is laid out such that corresponding terrain features lie along opposite margins. This coupled with the fact that all nine sections are identical enables all of the sections to blend together into a mosaic so that the section boundaries within the interior of the mosaic are barely, if at all, discernible. As a consequence, the terrain pattern along any boundary of the center section is repeated along the opposite boundary. A projected raster moves essentially within the center section in response to commands issued from a simulated cockpit. Whenever the projected raster reaches one of the boundaries for the center section, it indexes instantaneously to a corresponding point on the opposite boundary and thereafter continues generally in the same direction of advance. Since the terrain features are identical at the two boundaries, the change is imperceptible, and accordingly, the imagery that is observed from the cockpit gives the illusion of continuous **flight**.

Classifications:

International (ipc 8-9): G09B9/30 G09B9/32
G09B9/34 (Advanced/Invention);
G09B9/02 (Core/Invention)
International (ipc 1-7): G03B21/28
CPC: G09B9/34 G09B9/302 G09B9/32
European: G09B9/30B2 G09B9/32 G09B9/34
US: 353/120 353/122 353/5



Family:

Publication number	Publication date	Application number	Application date
US4515450 A	19850507	US19820428169	19820929

Priority:

US19820428169 19820929

Probable Assignee:

MC DONNELL DOUGLAS CORP

Assignee(s): (std):

MC DONNELL DOUGLAS CORP

Assignee(s):

MCDONNELL DOUGLAS CORP

Inventor(s): (std):

ARRAZOLA IGNACIO M