IADS Model information User Guide

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1. Introduction

This document describes the information necessary to create a 3-D model control include: Base model and/or 3-view diagram, specified articulated surfaces, landing gear information and photographic images.

2. 3-D Model Formats

The quickest way to create an IADS ActiveX model control is with an existing model. It does not need to have the exact measurements, but the more accurate the starting model the more realistic it will appear. Supported 3-D file formats are listed in the table below.

3D Metafile	*.3dmf, *.3md
3D Studio Mesh	*.3ds
3D Studio Shape	*.shp
3D Studio Max DCOM	*.max
AutoCAD File	*.dwg
AutoCAD DXF File	*.dxf
Direct X Model	*.x
igs Files	*.ige, *.igs, *.iges
Imagine Object	*.iob
IRIS Inventor	*.iv
Lightscape	*.ls, *.vm, *.lp
Lightwave Object	*.lwo, *.lw
Lightwave Scene	*.lws
Maya Image File	*.iff
Open Flight Scene	*.flt
Polygon File Format	*.ply
Power Render Object	*.pro
Rhinoceros File Format	*.3dm
Softimage dotXSI Scene	*.xsi
trueSpace Object	*.cob
trueSpace Scene	*.scn
VRML Worlds	*.wrl, *.vrml
Wavefront Object	*.obj
WMF Files	*.wmf
XGL	*.xgl

Figure 2-1 IADS Supported 3-D File Formats

3. Diagrams

If a 3-D model is not available, a diagram showing the top, front, and side views can be used to create one. An example diagram is shown below.

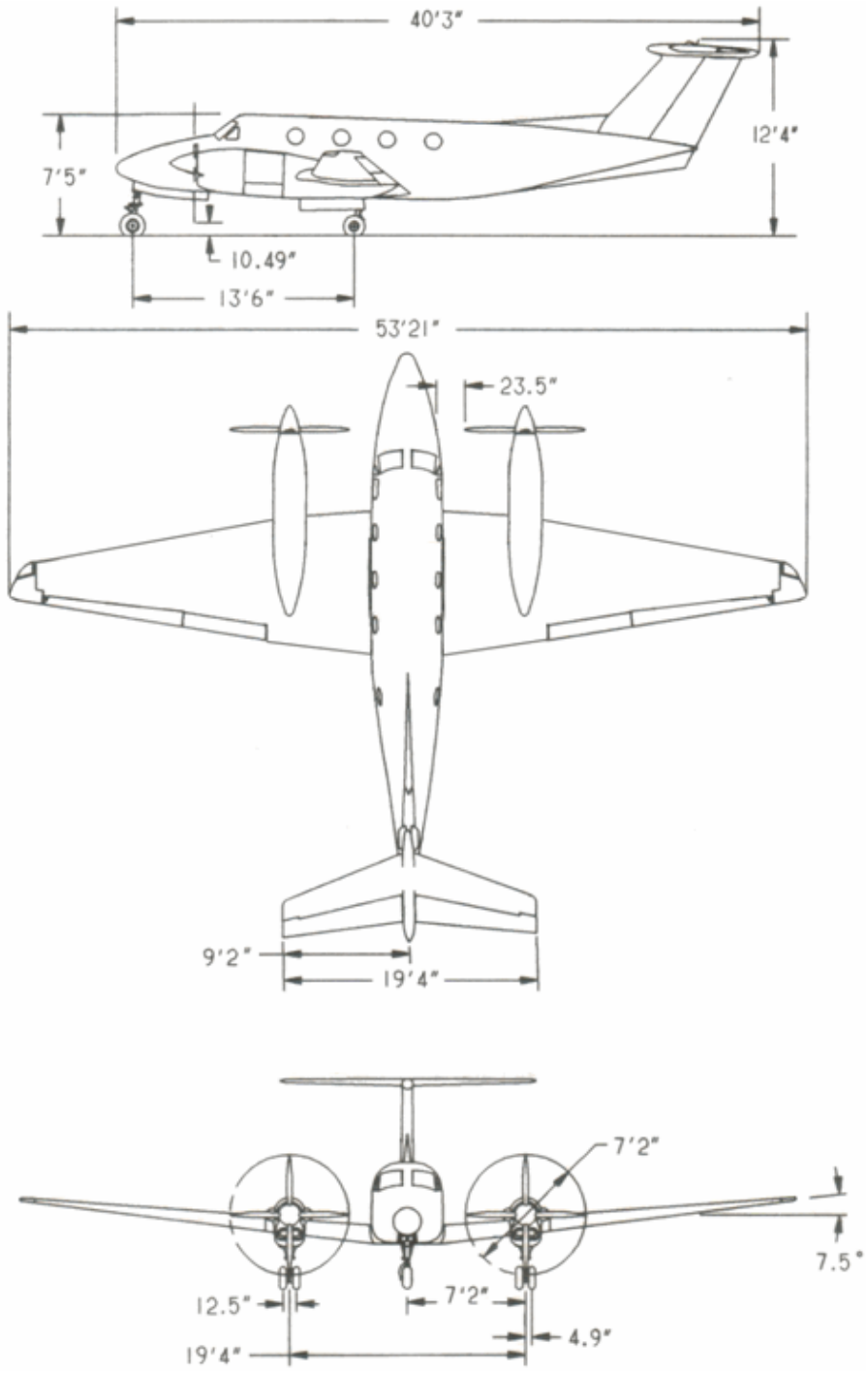

Figure 3-1 3-View Diagram (top, front and side) with Measurements

3.1. Articulated Surfaces

Prove information about any articulated surfaces that need to be modeled along with its name (i.e. flaps, ailerons, landing gears, doors, hatches, speed brakes, etc.). An example diagram is shown below.

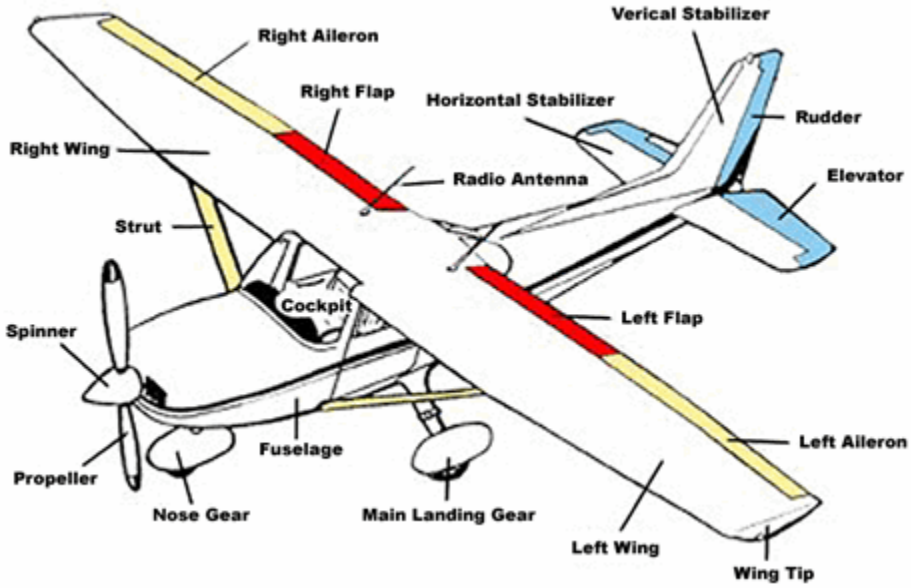

Figure 3-2 Labeled Articulated Surfaces

3.2. Landing Gears and Doors

Landing gears are the hardest parts to model. Information on “how they open and hinge points” (Figure 3-3), “angles and pivots” (Figure 3-4), and “where they are located in relation to the vehicle” (Figure 3-1) are not easily interpreted from still images and pictures. Even though the gears and doors modeled are representative, providing this information is very helpful.

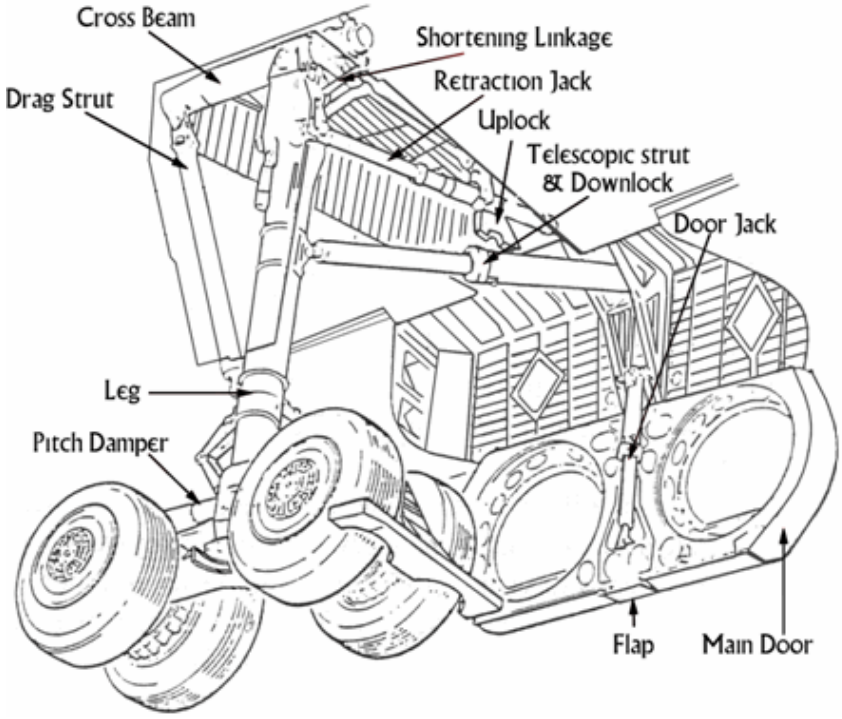

Figure 3-3 Hinge and Shape Openings

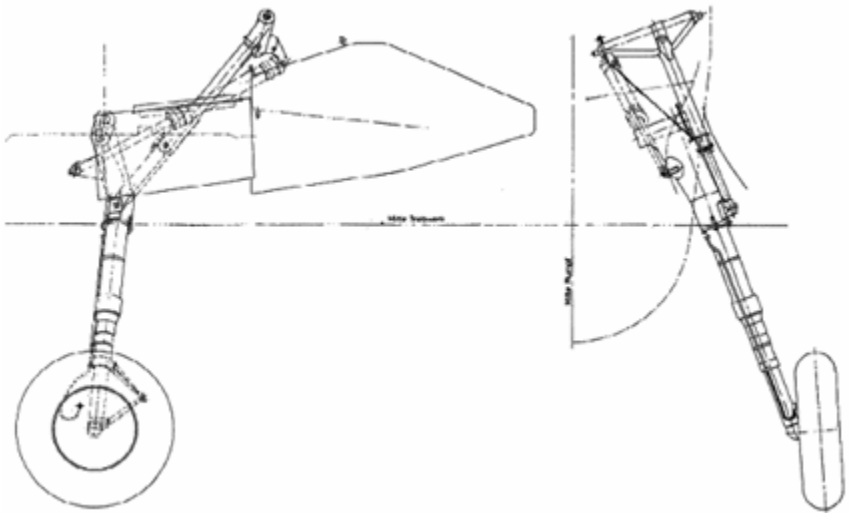

Figure 3-4 Gear and Angle Pivots

3.3. Photographic Images

Providing images are also useful in creating a 3-D model and sometimes necessary, especially if the vehicle is unique, modified from the standard, experimental, or conceptual. In some situations, images not yet been released to the public or images that are not obtainable because of proprietary reasons. Any images that can be provided will be helpful (especially in JPG and BMP formats, but hard-copy prints are equally as useful).

4. Accessing the 3-D Model in IADS

To create a 3-D Model in IADS:

1) Click the **Display Builder** Dashboard button.
2) Click the **ActiveX Controls** tab.
3) If the 3-D control does not exist add the **Iads3DModel** control to the ActiveX Controls tab.
4) Click **OK.**
5) Drag and drop the

control onto the Analysis Window,
6) Right-click in the display > **Properties.**
7) Click in the *FileName* property to navigate to your 3-D Model file. See the table in section 2.0 for a list of supported 3-D model file formats.