**DATE:** *YYYY-MM-DD (date of submittal)*

**REVISION:** - *(Use Revision -, A, B, C, etc. Make sure to update date of submittal above for each revision)*

**TO:** Greg Marien, AE460 Instructor

**FROM:**

*TEAM NAME*

*AUTHOR NAME*

*PROJECT MANAGER (initial next to name to acknowledge review)*

**SUBJECT:** Wing and Stabilizer Layout for (fill in blank with project)

# OBJECTIVE

Using TM-5 tail volume as a basis for the layout, use a CAD program to create a planform and side view of the main wing and vertical and horizontal stabilizers. Print the drawing and drawing table on a single 11x17 sheet (1 page only) and attach to this memo. Only model one side of aircraft and it only needs to be a “stick figure” drawing.

**Show the following on the drawing:**

Aircraft Coordinate System (ACS) (0,0,0) location on each view
Apex location, FS, BL and WL (in)
Root chord (in)
Tip chord (in)
MAC (in)
Sweep: LE, .25c, max thickness line, .50c, TE
Wing LE MAC location from FS0 (one panel only)
Moment arm length between the .25c of surfaces (used for tail volume calculation)

**Show the following in a drawing table:**

Wing:

Planform Area, S (ft2)
Reference Span, b (ft)
Taper ratio
Aspect ratio

Horizontal/Canard Stabilizer

Planform Area, S (ft2)
Reference Span, b (ft)
Taper ratio
Aspect ratio
Tail Volume Ratio

Vertical Stabilizer

Planform Area, S (ft2)
Reference Span, b (ft)
Taper ratio
Aspect ratio
Tail Volume Ratio

# SUMMARY

(this section is the author’s summary that answers the OBJECTIVE. It should be a clear and concise section that allows the reviewer to avoid reading the SUPPORTING DOCUMENTATION below. This section is reviewed by program managers and customers to convey a final message, without getting into the weeds)

# SUPPORTING DOCUMENTATION

(This section contains the details that supports the SUMMARY. Your lead engineer, and often the chief engineer, is the reviewer of this section to ensure the technical content is correct. They will “sign-off” on the memo before it is released and disseminated to the program and customers. Include as many pages as required. To ensure minimum rework, this memo shall be written IAW the Statement of Work (SOW) and Report Content Requirements (RCR). In theory, this could be cut and pasted into the final report with no changes.)