

AERO 3220 3DOF Information Spring 26

1. The 3DOF simulation files are due Friday, 27 Mar 26, at 5:00 p.m. CDT. Late submissions will not be accepted. Submit your MATLAB m-files via Canvas. Submit files in a zipped (compressed) folder.
 - a. Place your last name in the header of the main script. For example:

```
%% * Speakman Interceptor 3DOF Mar 26*  
%% Executive  
clear all; clc;
```
2. You've had a chance to find parameter values that work and are reasonable. For evaluation purposes, use the following values:
 - Velocity pursuit guidance gain = 0.5
 - Blind range = 2 m.
 - Acquisition range = 5000 m.
 - Lateral acceleration limit = 40 gees.
 - Time after missile launch to initiate VP guidance = 0.5 sec.
 - ProNav gain in terminal guidance mode = 4;
 - Commit time = 50 sec.
 - Missile initial elevation angle = 40°
3. Produce the following plots
 - a. Target & missile trajectories vertical plane (x versus z)
 - b. Target speed versus time
 - c. Missile speed versus time
 - d. Missile Mach number versus time
 - e. Missile acceleration magnitude versus time since missile launch