

# COURSE PREPARATION: YOUR FIRST TRAINING ASSIGNMENT

- PRIOR TO ARRIVAL AT APS:
  - Review the contents of this manual and the mission profiles pertinent to your course of training.
  - Recovery techniques (below) for All-Attitude Upset Recovery and NASA Standard Spin Recovery must be **100% memorized** prior to arrival for training.
- All recoveries will be executed airborne using the “Say & Do” technique that will be explained during your training.
- Each exercise in this manual contains thought provoking questions that will be answered during your training.
- Be well rested, hydrated and dressed comfortably. We provide headsets for your training. Sunglasses, jackets, gloves and meals are your responsibility.
- Come with an open mind and expect to learn a lot while having fun with our team.

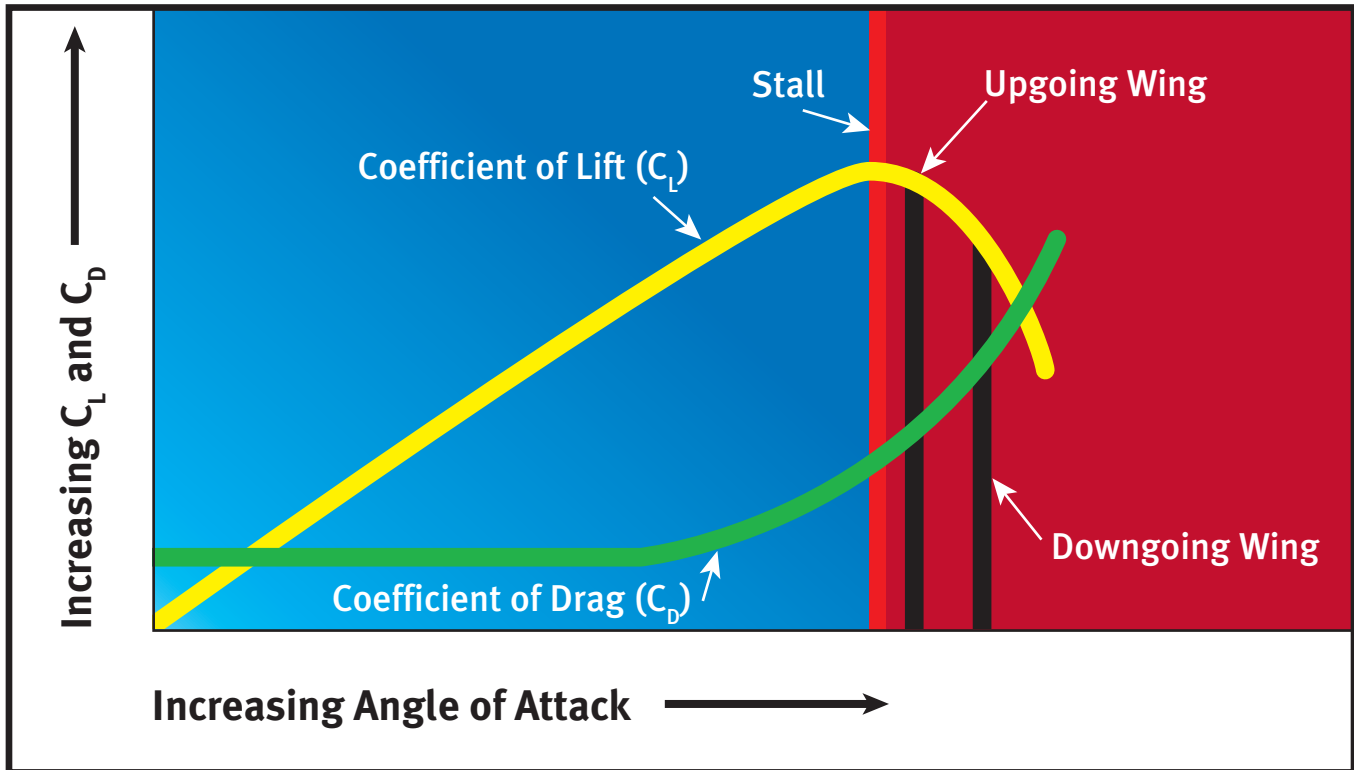
## RECOVERIES AND PHILOSOPHY

Overall Recovery Objectives:	Proficiency Through:
<ol style="list-style-type: none"> <li>1. Regain / Maintain Control</li> <li>2. Minimize Altitude Loss</li> </ol>	<ol style="list-style-type: none"> <li>1. Recognition of Flight Condition</li> <li>2. Sequential Application of Recovery Checklist</li> </ol>
<p><b>Flight Conditions</b></p> <p><b>1. Airplane Upset</b>  <b>Unusual Attitudes</b></p> <ul style="list-style-type: none"> <li>• Overbanks, Spiral Dive,</li> <li>• Rolling Upsets, Nose High UA,</li> <li>• Nose Low UA, Wake Turbulence</li> </ul> <p><b>Stall Recovery</b></p> <ul style="list-style-type: none"> <li>• Power Off / On Stalls</li> <li>• Accelerated Stall</li> <li>• Cross-Controlled Stall                             <ul style="list-style-type: none"> <li>• Slipping / Skidding</li> </ul> </li> <li>• Incipient Spin (Aggravated Stall)</li> </ul> <p><b>2. Spin</b></p> <ul style="list-style-type: none"> <li>• Upright Spin</li> <li>• Inverted Spin</li> <li>• Aggravated Spin</li> <li>• Flat Spin</li> <li>• Accelerated Spin</li> <li>• Flat Accelerated Spins</li> <li>• Knife Edge Spins / Tumbles</li> </ul>	<p><b>Recovery Checklist</b></p> <p><b>1. All-Attitude Upset Recovery™ *</b>  <b>CENTRALIZE / ANALYSE:</b> Recognize the flight condition  <b>DISCONNECT:</b> Disconnect Auto-pilot (if equipped)  <b>RECOVER:</b> From memory, verbalize &amp; sequentially apply the recovery:</p> <ul style="list-style-type: none"> <li>Push</li> <li>Power</li> <li>Rudder</li> <li>Roll</li> <li>Climb</li> </ul> <p><b>2. NASA Standard Spin Recovery *</b></p> <ul style="list-style-type: none"> <li>Power</li> <li>Ailerons</li> <li>Rudder</li> <li>Elevator</li> <li>----- SPIN / YAW STOPS -----</li> <li>Rudder</li> <li>Elevator</li> </ul> <p><small>* Procedures to be memorized</small></p>

# APS EMERGENCY MANEUVER TRAINING

## KEY AERODYNAMIC CONCEPTS

### COEFFICIENTS OF LIFT ( $C_L$ ) & DRAG ( $C_D$ ) VERSUS "AOA"



### V-G DIAGRAM: SAMPLE NORMAL CATEGORY AIRCRAFT

