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OF STABILITY; LONGITUDINAL STATIC STABILITY; STATIC MARGIN;  
 STABILITY AND TRIM; MANOEUVRABILITY AND MANOEUVRE MARGIN;  
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 DEFINITION OF THE ANGLE OF PITCH , THE ANGLE OF BANK AND  
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 DETERMINATION OF THE GRAVITATIONAL FORCES; ANGLES OF YAW  
 AND SIDESLIP; DETERMINATION OF THE AERODYNAMIC FORCES;  
 SEPARABILITY OF LONGITUDINAL AND LATERAL MOTION; AXIS SYSTEMS  
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 DERIVATIVES (LONGITUDINAL); NON-DIMENSIONAL AERODYNAMIC  
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 VELOCITY COMPONENTS; PITCHING MOMENT DERIVATIVES  $M_u$ ,  $M_w$ ;  
 DERIVATIVES DUE TO RATE OF PITCH  $X_q$ ,  $Z_q$ ,  $M_q$ ; DERIVATIVES DUE TO  
 RATE OF CHANGE OF DOWNWARD VELOCITY  $X'w$ ,  $Z'w$ ,  $M'w$ ; CONTROL  
 DERIVATIVES; NON-DIMENSIONAL FORMS OF THE AERODYNAMIC  
 DERIVATIVES USED IN AMERICA; AMERICAN NON-DIMENSIONAL FORCE-  
 VELOCITY DERIVATIVES  $c_{xu}$ ,  $c_x$ ,  $c_{zu}$ ,  $c_z$ ; AMERICAN NON-  
 DIMENSIONAL PITCHING MOMENT DERIVATIVES  $C_{mu}$ ,  $C_{ma}$   
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 $c_{xq}$ ,  $c_{zq}$ ,  $c_{mq}$ AMERICAN NON-DIMENSIONAL DERIVATIVES DUE TO  
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 DERIVATIVES DUE TO RATE OF ROLL; DERIVATIVES DUE TO RATE OF  
 YAW; CONTROL DERIVATIVES; DERIVATIVES DUE TOAILERONS;  
 DERIVATIVES DUE TO RUDDER  
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 PHUGOID (LONG PERIOD) OSCILLATION; PROBLEMS; Chapter 6.  
 LONGITUDINAL DYNAMIC STABILITY; INTRODUCTION; STICK FIXED  
 DYNAMIC STABILITY; THE GENERAL SOLUTION OF THE EQUATIONS OF  
 MOTION; TYPES OF MOTION CORRESPONDING TO THE ROOTS OF THE  
 CHARACTERISTIC EQUATION  
 ANALYSIS OF THE ROOTS OF THE CHARACTERISTIC EQUATION

## Sommario/riassunto

Aircraft Dynamic Stability and Response deals with the fundamentals of dynamic stability in aircraft. Topics covered include flight dynamics, equations of motion, and lateral and longitudinal aerodynamic derivatives. Basic lateral and longitudinal motions are also considered. A non-dimensional system of notation is used, and problems are included at the end of chapters. This book is comprised of 13 chapters and begins with an introduction to aircraft static stability and maneuverability, with emphasis on the theoretical basis of flight dynamics and the technical terms used. The physical backgr