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6 REPORT NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

airplane—continued.

pusher airplane—An airplane with the propeller or propellers aft of the main supporting surfaces.

tailless airplane—An airplane in which the devices used to obtain stability and control are incorporated in the wing.

tractor airplane—An airplane with the propeller or propellers forward of the main supporting surfaces.

airport—A tract of land or water which is adapted for the landing and take-off of aircraft and which provides facilities for their shelter, supply, and repair; a place used regularly for receiving or discharging passengers or cargo by air.

air scoop—A scoop or hood designated to catch the air and maintain the air pressure in ballonets, internal-combustion engines, ventilators, etc. (See fig. 3)

airship—An aerostat provided with a propelling system and with means of controlling the direction of motion.

nonrigid airship—An airship whose form is maintained by the internal pressure in the gas bags and ballonets (fig. 3).

pressure-rigid airship—An airship combining the principle used in both rigid and nonrigid airships to maintain shape and skin tautness.

rigid airship—An airship whose form is maintained by a rigid structure (fig. 6).

semirigid airship—An airship whose shape is maintained by means of a rigid or jointed keel in conjunction with internal pressure in the gas containers and ballonets (fig. 4).

airship shed—See DOCK

airship station—(1) The complete assembly of sheds, masts, gas plants, shops, landing fields, and other equipment required to operate airships and supply their needs. (2) The base from which airships are operated.

air speed—The speed of an aircraft relative to the air.

air-speed head—An instrument which, in combination with a gage, is used to measure the speed of an aircraft relative to the air. It usually consists of a pilot-static tube or a pilot-venturi tube.

air volume—See AERODYNAMIC VOLUME.

airway—An air route along which aids to air navigation, such as landing fields, beacon lights, radio direction-finding facilities, intermediate fields, etc., are maintained.

airworthiness—The quality of an aircraft denoting its fitness and safety for operation in the air under normal flying conditions.

altigraph—A recording altimeter.

altimeter—An instrument that measures the elevation of an aircraft

airplane—continued.

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airworthiness—The quality of an aircraft denoting its fitness and safety for operation in the air under normal flying conditions.

altigraph—A recording altimeter.

altimeter—An instrument that measures the elevation of an aircraft above a given datum plane.

altitude—The height of an aircraft above the earth.

altitude—continued.

critical altitude—The minimum altitude at which a supercharger can maintain a pressure in the intake manifold of an engine equal to that existing during normal operation at rated power and speed at sea level.

density altitude—The altitude corresponding to a given density in a standard atmosphere.

pressure altitude—(1) The altitude corresponding to a given pressure in a standard atmosphere. (2) The altitude at which the gas bags of an airship become full.

altitude measure control—See AIRFRAME CONTROL SYSTEM.

ambulance—An airplane designed to rise from and alight on either land or water.

angle—

adverse angle—The angular displacement of an aileron from its neutral position. It is positive when the trailing edge of the aileron is below the neutral position.

blade angle—The acute angle between the chord of a section of a propeller or a rotary wing system, and a plane perpendicular to the axis of rotation.

camber angle—The average angle between the span axis of a blade or wing of a rotary wing system and a plane perpendicular to the axis of rotation.

chordal angle—The acute angle between a line perpendicular to the plane of symmetry and the projection of the wing axis on a plane perpendicular to the longitudinal axis of the airplane.

If the wing axis is not approximately a straight line, the angle is measured from the projection of a line joining the intersection of the wing axis with the plane of symmetry and the aerodynamic center of the hull-wing or other body of the plane of symmetry. (See fig. 5.)

downwash angle—The angle through which an air stream is deflected by any lifting surface. It is measured in a plane parallel to the plane of symmetry.

drift angle—The horizontal angle between the longitudinal axis of an aircraft and its path relative to the ground.

effective blade angle—The angle of the blade described by a particular point on a propeller blade as the airplane moves forward through air otherwise undisturbed.

elevator angle—The angular displacement of the elevator from its neutral position. It is positive when the trailing edge of the elevator is below the neutral position.

flapping angle—The difference between the mean angle and the instantaneous angle of the span axis of a blade of a rotary wing system relative to the plane perpendicular to the axis of rotation.

above a given datum plane.

altitude:

absolute altitude—The height of an aircraft above the earth.

altitude—continued.

critical altitude—The maximum altitude at which a supercharger can maintain a pressure in the intake manifold of an engine equal to that existing during normal operation at rated power and speed at sea level.

density altitude—The altitude corresponding to a given density in a standard atmosphere.

pressure altitude—(1) The altitude corresponding to a given pressure in a standard atmosphere. (2) The altitude at which the gas bags of an airship become full.

altitude mixture control—See MIXTURE CONTROL, ALTITUDE.

amphibian—An airplane designed to rise from and alight on either land or water.

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blade angle—The acute angle between the chord of a section of a propeller, or of a rotary wing system, and a plane perpendicular to the axis of rotation.

coning angle—The average angle between the span axis of a blade or wing of a rotary wing system and a plane perpendicular to the axis of rotation.

dihedral angle—The acute angle between a line perpendicular to the plane of symmetry and the projection of the wing axis on a plane perpendicular to the longitudinal axis of the airplane. If the wing axis is not approximately a straight line, the angle is measured from the projection of a line joining the intersection of the wing axis with the plane of symmetry and the aerodynamic center of the half-wing on either side of the plane of symmetry. (see fig. 5)

downwash angle—The angle through which an air stream is deflected by any lifting surface. It is measured in a plane parallel to the plane of symmetry.

drift angle—The horizontal angle between the longitudinal axis of an aircraft and its path relative to the ground.

effective helix angle—The angle of the helix described by a particular point on a propeller blade as the airplane moves forward through air otherwise undisturbed.

elevator angle—The angular displacement of the elevator from its neutral position. It is positive when the trailing edge of the elevator is below the neutral position.

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