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AERONAUTICAL RECOMMENDED PRACTICE

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NOMENCLATURE, AIRCRAFT AIR CONDITIONING EQUIPMENT

1. AFTERCOOLER (CABIN PRESSURIZING)	A cooler designed to reduce the temperature of compressed air delivered by the final stage of a supercharger.
2. AIR, CONDITIONED	Conditioned air is air which has been physically changed or controlled to serve a specific purpose.
3. AIR FLOW, (VOLUMETRIC)	The amount of air flowing by volume; usually measured in cubic feet per minute at a specified temperature and pressure.
4. AIR FLOW, (WEIGHT)	The amount of air flowing by weight; usually measured in pounds per minute.
5. AIR RAM, STATIC (INLET)	The maximum differential between the static pressure within the inlet, and the static pressure of the undisturbed stream (ambient atmosphere).
6. AIR RAM, TOTAL (INLET)	The maximum differential between the total pressure within the inlet, and the static pressure of the undisturbed stream (ambient atmosphere).
7. ALTITUDE, EQUIVALENT (CABIN)	The equivalent or cabin altitude is the pressure altitude maintained in the pressurized cabin.
8. ALTITUDE, STANDARD	The altitude corresponding to temperature and pressure as tabulated by NACA in Technical Report #218.
9. ANTICIPATOR	Sensitive element combined in controls designed to respond to a change in pressure or temperature and react on a pressure or temperature controlling instrument to counteract the tendency of a controlling system to hunt.
10. BOILER	That part of the heating system in which a source of heat is utilized to vaporize a liquid heat transfer medium.
11. CABIN, PRESSURIZED	An airplane cabin which is constructed, sealed, and equipped with an auxiliary system so as to maintain a pressure within the cabin greater than that of the surrounding atmosphere.

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12. CABIN, UNPRESSURIZED	An airplane cabin which is not designed or equipped for pressurizing.
13. CENTRIFUGE	A device utilizing centrifugal force for eliminating water and/or impurities in the air intake system of an airplane.
14. CONDENSER	That part of a heating system utilized as a heat exchanger in which a vapor is condensed to a liquid state.
15. CONDUCTANCE, AIR SPACE	The coefficient which takes into account the heat transfer due to radiation from wall to wall across an air space, convection, surface film conductance and the conductivity of the air itself, usually given in BTU's per square foot, per hour, per degree Fahrenheit, per specified width of gap.
16. CONDUCTIVITY, THERMAL	A coefficient denoting the heat transfer of any given material, usually given in BTU's per square foot, per hour, per degree Fahrenheit, per inch thickness.
17. CONTROL, AUTOMATIC	A control device that by means of electrical, hydraulic, pneumatic or mechanical means regulates some part of the air conditioning system automatically.
18. CONTROL, MANUAL	A control device regulated by hand.
19. CONTROL, MODULATING	A proportioning type of control.
20. DAMPER	A device for controlling air flow.
21. DECIBEL	The decibel is a logarithmic scale unit of sound and may be defined by the statement: The sound intensity I_1 is N decibels higher in "intensity level" than the reference sound intensity I_o if $N = 10 \log_{10} \frac{(I_1)}{(I_o)}$ The reference intensity level is usually taken as 1.0 x 10-16 watts per sq.cm.
22. DIFFUSER	A device for converting the velocity head of a fluid stream into pressure head, usually accomplished by efficiently reducing the velocity of the air flow.

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23.	DISTRIBUTION SYSTEM	That combination of ducts, cabin inlet openings and individual air inlet vents which distribute air conditioning supply to the cabin.
24.	EXHAUST HOT AIR TYPE HEATER	An exhaust hot air type heater, (system) as used for airplane heating is one that utilizes by means of a heat exchanger the heat of the exhaust gasses from the engine for the purpose of directly heating the air being supplied to the airplane.
25.	EXHAUST SYSTEM (VENTILATING)	As relates to cabin ventilation, that combination of air discharge ducts, vents and outlet grills utilized for the discharge of air from the cabin to the outside.
26.	FILTER, AIR	A device for removing the dust or other foreign particles from air.
27.	FIREPROOF	The property of a material which enables it to resist deterioration by fire.
28.	FLAMEPROOF	The property of a material which prevents it from supporting combustion.
29.	FLIGHT AIR CONDITIONING	A term used for describing the operation of supplying air of the proper temperature and/or pressure and/or humidification to the occupants of an airplane while in flight.
30.	HEAT EXCHANGER	The heat exchanger is an apparatus in which the transfer of heat from one medium to another is accomplished without mixing of the media.
31.	HEAT TRANSFER COEFFICIENT, OVERALL	The overall heat transfer coefficient is the reciprocal of the sum of the reciprocals individual coefficients of the various parts that comprise the section under consideration.
32.	HEAT TRANSFER COEFFICIENT, SURFACE	The surface heat transfer coefficient is the conductance coefficient of the thin layer of medium immediately adjacent to the surface.
33.	HIGH PRESSURE AREA	Any region in which the static pressure is greater than that of the true static pressure of the undisturbed air stream.
34.	HUNTING	Hunting is the term applied to the undesirable oscillation of a control device resulting in a poor degree of control.

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35. INDUCTION SYSTEM (VENTILATING)	That combination of scoops and ducts which introduces outside air to the air distribution equipment of the airplane.
36. INLET, AIR	Air inlets through which air is supplied to space to be conditioned.
37. INTENSIFIER TUBE	An intensifier tube, as commonly applied to heating, refers to a tube passing within the ducts or pipes carrying the engine exhaust gasses and so designed as to impart heat to the air being passed through interior of intensifier tube.
38. INTERNAL COMBUSTION TYPE HEATER	An internal combustion type heater is one that utilizes the heat produced by combustion of a fuel within the heater itself.
39. INTERCOOLER, CABIN PRESSURIZING	A cooler designed to reduce the temperature of air between two stages of air compression.
40. ISOTHERMAL REGION	Region of constant temperature.
41. LOW PRESSURE AREA	Any region in which the static pressure is less than that of the true static pressure of the undisturbed air stream.
42. MASS DENSITY	Mass Density is the mass of any substance per unit of volume. The standard mass density of air is 2.378×10^{-3} slugs per cubic feet at 59°F and 29.92 Hg. dry air.
43. MUFF, HEATER	A muff type heater is a heater designed to surround the duct or pipe carrying the engine exhaust gasses. Heat will in this way be transferred to air passed between the annular space between the exhaust pipe and the muff.
44. OUTLET, AIR	Openings through which air is removed from the space being conditioned.
45. PRE-FLIGHT AIR CONDITIONING	A term used in describing the operation of supplying air of desired temperature and/or moisture content to the airplane while on the ground.
46. PRESSURE ALTITUDE	The altitude corresponding to a given pressure in a standard atmosphere.

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47.	PRESSURE DROP, NON-RECOVERABLE	The loss of total pressure between two points of a fluid stream. (Equal to the total-pressure differential).
48.	PRESSURE RISE, DYNAMIC	The maximum static pressure increase developed by the momentum of a fluid stream when its velocity is reduced to zero.
49.	PRESSURE, STATIC	The lateral pressure of a fluid as indicated by a pressure measurement taken normal to the direction of motion of the fluid.
50.	PRESSURE, TOTAL	The sum of the static pressure and the dynamic pressure at any point in a fluid stream.
51.	PRESSURE DIFFERENTIAL, STATIC	The difference between the static pressures of two points in a fluid stream.
52.	PRESSURE DIFFERENTIAL, TOTAL	The difference between the total pressures at two points in a fluid stream.
53.	PRESSURIZING (CABIN)	Increasing the air pressure in a sealed compartment.
54.	RADIANT HEATER	A device which accomplishes heating by means of direct radiation.
55.	RADIATOR	A heat exchanger used for the final dissipation of heat to air.
56.	RADIATOR, GASEOUS	A radiator in which the primary heat transfer medium employed is gas.
57.	RADIATOR, LIQUID	A radiator in which the primary heat transfer medium employed is a liquid.
58.	RADIATOR, STREAM	A radiator in which the primary heat transfer medium employed is steam.
59.	RECIRCULATED AIR	A quantity of air already supplied to the interior of the airplane which is recirculated by fans or other means.
60.	REGULATOR, TEMPERATURE	A device for automatically controlling the temperature in a given region.
61.	SCOOP	An inlet so designed and placed as to collect air by impact due to movement of the airplane.

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