

## Pressurization Systems

power will not have to be cut back. For the same reason, pilots should be careful not to run a fuel tank dry in a pressurized aircraft. Depending on the amount of uncontrolled cabin leakage, cabin altitude may rise faster than you can switch tanks and get the engine running again.

### CABIN AIR TEMPERATURE

When air is compressed, it increases in temperature. Turbine-engine bleed air is so hot it always requires cooling before entering the cabin, even if warm air is desired. Larger turbine-powered aircraft run the pressurized bleed air through either air-conditioning packs or a vapor cycle air-conditioning system prior to cabin entry. Air from a reciprocating-engine turbocharger may require cooling only on warm days when the aircraft is flying at lower altitudes. This typically is accomplished by routing the air through a heat exchanger where the pressurized air ducting is cooled by ambient ram air. At very cold ambient temperatures, when considerable heat is required in the cabin, the pressurized air may not be warm enough and a cabin heater will be required.

*Table 12-1 Standard Atmospheric Pressure*

Altitude (feet)	Pressure (psi)	Altitude (feet)	Pressure (psi)
Sea level	14.7	18,000	7.3
1,000	14.2	19,000	7.0
2,000	13.7	20,000	6.8
3,000	13.2	21,000	6.5
4,000	12.7	22,000	6.2
5,000	12.2	23,000	5.9
6,000	11.8	24,000	5.7
7,000	11.3	25,000	5.5
8,000	10.9	26,000	5.2
9,000	10.5	27,000	5.0
10,000	10.1	28,000	4.8
11,000	9.7	29,000	4.6
12,000	9.3	30,000	4.4
13,000	9.0	35,000	3.6
14,000	8.6	40,000	2.7
15,000	8.3	50,000	1.7
16,000	8.0		
17,000	7.6		