

Thunderstorms, with their jagged bursts of lightning and roaring thunder, are actually one of nature's primary mechanisms for transferring heat from the surface of the earth into the atmosphere. A thunderstorm starts when low-lying pockets of warm air from the surface of the earth begin to rise. The pockets of warm air float upward through the air above that is both cooler and heavier. The rising pockets cool as their pressure decreases, and their latent heat is released above the condensation line

(5) Line

(10) What will happen with these clouds depends on the temperature of the atmosphere. In winter, the air temperature differential between higher and lower altitudes is not extremely great, and the temperature of the rising air mass drops more slowly. During these colder months, the atmosphere, therefore, tends to remain rather stable. In summer, however, when there is a high accumulation of heat near the earth's surface, in direct contrast to the considerably colder air higher up, the

(15) cumulus clouds aggregate into a single massive cumulonimbus cloud, or thunderhead.

(20) a large-scale collision between cold air and warm air masses during the summer months, a squall line, or series of thunderheads, may develop. It is common for a squall line to begin when an

(25) line, which can be hundreds of miles long and can contain fifty distinct thunderheads, is a magnificent force of nature with incredible potential for destruction. Within the squall line, often near its southern end, can be found supercells, long-lived rotating storms of exceptional strength that serve as the source of tornadoes.

(A) the development of thunderstorms and squall lines

42. "Mechanisms" in line 2 are most likely

(A) machines
(B) motions
(C) methods
(D) materials

(A) harmless
(B) beneficial
(C) ferocious
(D) spectacular