What is claimed is:

1. A satellite having a plurality of solid radiator panels for radiating, to an external environment, heat that is generated by electronics contained in the satellite, wherein the satellite includes a passive thermal system, and wherein the passive thermal system comprises:

at least one of the solid radiator panels; and

a plurality of heat pipes disposed on the at least one radiator panel, wherein there are no other structural reinforcements disposed on the surface of the radiator panel.

2. An apparatus comprising a passive thermal system, wherein the passive thermal system comprises:

a solid radiator panel; and

at least one structural heat pipe disposed on a surface of the solid radiator panel.

3. The apparatus of claim 2 wherein the structural heat pipe has two straight fins that extend away from the solid radiator panel from a position proximal to a top of a main body of the structural heat pipe.

4. The apparatus of claim 2 wherein the structural heat pipe has one straight fin.

5. The apparatus of claim 3 wherein the structural heat pipe has two fins, and wherein the two fins collectively form a v-shape, the v-shape defining an acute angle.

6. The apparatus of claim 2 wherein the structural heat pipe comprises an L-shape member, the L-shape member having a first portion extending away from the solid radiator panel and from a position proximal to a top of a main body of the structural heat pipe.

7. The apparatus of claim 6 the first portion of the L-shape member is oriented orthogonally with respect to the solid radiator panel.

8. The apparatus of claim 6 wherein a second portion of the L-shape member is oriented in parallel with respect to the solid radiator panel.

9. The apparatus of claim 2 wherein the structural heat pipe comprises a t-shape member having a first portion extending away from the solid radiator panel and from a position proximal to a top of a main body of the structural heat pipe.

10. The apparatus of claim 9 wherein the first portion of the t-shape member is oriented orthogonally with respect to the solid radiator panel.

11. The apparatus of claim 9 wherein a second portion of the t-shape member is oriented in parallel with respect to the solid radiator panel.

12. The apparatus of claim 2 wherein the apparatus is a satellite.

13. The apparatus of claim 2 wherein there are at least two structural heat pipes disposed on the surface of the radiator panel, wherein the at least two structural heat pipes are not parallel with respect to one another.

14. The apparatus of claim 2 wherein the at least one structural heat pipe is not straight.

15. A satellite comprising a plurality of solid radiator panels, wherein at least one of the radiator panels is configured as a passive thermal system wherein one or more structural heat pipes are disposed on a surface of the solid radiator panel.

16. The satellite of claim 15 wherein at least two of the radiator panels are configured as passive thermal systems wherein one or more structural heat pipes are disposed on each of the at least two radiator panels.

17. The apparatus of claim 4 wherein the one straight fin extends from a top of a main body of the structural heat pipe and aligns with a midpoint between a left side and a right side thereof.

18. The apparatus of claim 17 wherein the fin is orthogonal to the solid radiator panel.

19. The apparatus of claim 6 wherein the first portion aligns with a midpoint between a left side and a right side of the main body of the structural heat pipe.

20. The apparatus of claim 9 wherein the first portion aligns with a midpoint between a left side and a right side of the main body of the structural heat pipe.