What is claimed is:

1. A system for dispensing a plurality of satellites, comprising:

a plurality of rail assemblies (320), wherein each rail assembly comprises two spaced-apart rails (322) and at least four couplings (324) that are attached to the rails and disposed orthogonally thereto, and wherein the couplings are arranged in pairs, and further wherein each pair of couplings is dimensioned and arranged to couple to a satellite (600) such that the four couplings of each rail assembly are capable of coupling to at least two satellites; and

a payload dispenser (100), the payload dispenser including a shell (102), wherein the shell is physically adapted to securely engage the plurality of rail assemblies.

2. The system of claim 1 wherein the shell (102) comprises a cylindrical tube, and further wherein the cylindrical tube comprises a plurality of openings (110) arranged in plural columns along a length of the cylindrical tube, wherein at least some of the plurality of openings in a respective column are positioned to receive a respective fastening member extending from each coupling (324) in a respective rail assembly (320).

3. The system of claim 2 wherein the cylindrical tube has an outer diameter in a range of about 1 meter to about 2 meters.

4. The system of claim 3 wherein the cylindrical tube has a length in a range of about 3 meters to about 5.5 meters.

5. The system of claim 1 wherein the rails and the couplings comprise aluminum.

6. The system of claim 1 wherein the shell comprises a carbon-composite solid laminate.