What is claimed is:

1. A method for communications via a communications satellite (120) having an antenna assembly (121) with a plurality of antenna feed elements (128), the method comprising:

providing a communications service via a first plurality of beamformed spot beams (125), the first plurality of beamformed spot beams (125) based at least in part on a first beamforming configuration arranged to provide flexible locations of respective spot beam coverage areas (126) and on a first native antenna pattern (220) of the antenna assembly (121), the first native antenna pattern (220) based at least in part on a first defocused position of a feed array assembly of the antenna assembly relative to a reflector of the antenna assembly, andthe first native antenna pattern comprising a composite of first native feed element patterns (210) of the plurality of antenna feed elements (128);

commanding the communications satellite (120) to change from the first native antenna pattern (220) of the antenna assembly (121) to a second native antenna pattern (220) of the antenna assembly (121), the second native antenna pattern (220) based at least in part on a second defocused position of the feed array assembly relative to the reflector, and the second native antenna pattern comprising a composite of second native feed element patterns (210) of the plurality of antenna feed elements (128), wherein a given antenna feed element (128) of the plurality of antenna feed elements (128) is associated with one of the first native feed element patterns (210) and one of the second native feed element patterns (210), and wherein the one of the second native feed element patterns (210) is different from the one of the first native feed element patterns (210); and

providing the communications service via a second plurality of beamformed spot beams (125), the second plurality of beamformed spot beams (125) based at least in part on a second beamforming configuration arranged to provide flexible locations of respective spot beam coverage areas (126) and on the second native antenna pattern (220).

2. The method of claim 1, wherein commanding the communications satellite (120) to change from the first native antenna pattern (220) to the second native antenna pattern (220) comprises:

commanding an actuator (124) of the communications satellite (120) to provide the change from the first native antenna pattern (220) to the second native antenna pattern (220).

3. The method of claim 2, wherein commanding the actuator (124) to provide the change from the first native antenna pattern (220) to the second native antenna pattern (220) comprises:

commanding a spatial adjustment between the reflector (122) of the antenna assembly (121) and the feed array assembly (127) of the antenna assembly (121) comprising the plurality of antenna feed elements (128).

4. The method of claim 3, wherein the actuator (124) is coupled between the reflector (122) of the antenna assembly (121) and the feed array assembly (127).

5. The method of claim 3, wherein commanding the communications satellite (120) to change from the first native antenna pattern (220) to the second native antenna pattern (220) comprises:

commanding a linear actuator (124) coupled between the reflector (122) and the feed array assembly (127) to change from a first length to a second length.

6. The method of claim 5, further comprising:

commanding a secondary actuator (2540) coupled between the feed array assembly (127) and the reflector (122) to provide the second native antenna pattern (220), the commanding of the secondary actuator (2540) causing a change in relative position between the feed array assembly (127) and the reflector (122) about an axis different from an axis of the linear actuator (124).

7. The method of claim 1, wherein one or both of the first defocused position or the second defocused position is associated with one or more of the plurality of antenna feed elements (128) being located between the reflector (122) and a focal region (123) of the reflector (122).

8. The method of claim 2, wherein commanding the actuator (124) to provide the change from the first native antenna pattern (220) to the second native antenna pattern (220) comprises:

commanding an adjustment to a focal region (123) of the reflector (122) of the antenna assembly (121).

9. The method of any of claims 1 to 8, wherein the first native antenna pattern (220) is associated with a first boresight direction of the antenna assembly (121), and the second native antenna pattern (220) is associated with a second boresight direction of the antenna assembly (121) that is different from the first boresight direction.

10. The method of any of claims 1 to 9, wherein the first native antenna pattern (220) is associated with a first native feed element pattern beamwidth of the given antenna feed element (128), and the second native antenna pattern (220) is associated with a second native feed element pattern beamwidth of the given antenna feed element (128) that is different from the first native feed element pattern beamwidth.

11. The method of any of claims 1 to 10, wherein the first native antenna pattern (220) is associated with a first amount of overlap of native feed element patterns (210) of two or more antenna feed elements (128) of the antenna assembly (121), and the second native antenna pattern (220) is associated with a second, different amount of overlap of the native feed element patterns (210) of the two or more antenna feed elements (128) of the antenna assembly (121).

12. The method of any of claims 1 to 8, further comprising:

adjusting an orbital characteristic of the communications satellite (120), wherein providing the communications service via the second plurality of beamformed spot beams (125) comprises providing the communications service according to the adjusted orbital characteristic.

13. The method of any of claims 1 to 8, wherein the communications satellite (120) is at a same geostationary orbital position while providing the communications service via the first plurality of beamformed spot beams (125) and while providing the communications service via the second plurality of beamformed spot beams (125).

14. The method of any of claims 1 to 8, wherein:

the communications satellite (120) is at a first geostationary orbital position while providing the communications service via the first plurality of beamformed spot beams (125);

commanding the communications satellite (120) to change from the first native antenna pattern (220) to the second native antenna pattern (220) comprises commanding the communications satellite (120) to move from the first geostationary orbital position to a second, different geostationary orbital position; and

the communications satellite (120) is at the second geostationary orbital position while providing the communications service via the second plurality of beamformed spot beams (125).

15. The method of any of claims 1 to 14, wherein the communications satellite (120) comprises a second antenna assembly (121) with a second plurality of antenna feed elements (128), the method further comprising:

providing the communications service via a third plurality of beamformed spot beams (125) using the second antenna assembly (121), the third plurality of beamformed spot beams (125) based at least in part on a third beamforming configuration and a third native antenna pattern (220) of the second antenna assembly (121), the third native antenna pattern (220) comprising a composite of third native feed element patterns (210) of the second plurality of antenna feed elements (128).

16. The method of any of claims 1 to 15, wherein providing the communications service via the first plurality of beamformed spot beams (125) or providing the communications service via the second plurality of beamformed spot beams (125) comprises one or both of:

providing a first plurality of signals between a plurality of access node terminals (130) and the communications satellite (120); and

providing a second plurality of signals between the communications satellite (120) and a plurality of user terminals (150).

17. The method of any of claims 1 to 16, wherein the first beamforming configuration comprises applying a first beamforming weight set to a first plurality of feed element signals carried via the plurality of antenna feed elements (128), and the second beamforming configuration comprises applying a second beamforming weight set to a second plurality of feed element signals carried via the plurality of antenna feed elements (128), different from the first beamforming weight set.