CLAIMS:

1. A tilting and telescoping mast assembly comprising:

a mast having a longitudinal axis; and

a tilt mechanism supporting the mast assembly for pivoting about a tilt rotation axis between a first position and a second position;

wherein the tilt rotation axis is perpendicular to and spaced from the longitudinal axis of the mast;

whereby the mast is displaced in a horizontal direction as the tilt mechanism rotates the mast assembly between the first and second positions;

wherein the tilt mechanism includes a base mountable to a surface, first and second side walls extending from the base, and a tilt frame supported between the first and second side walls for movement between a horizontal orientation and a vertical orientation, and wherein the mast is supported by the tilt frame; and

the tilting and telescoping mast assembly further comprises a locking mechanism for securing the tilt frame in at least one of the first position or the second position, wherein the locking mechanism includes a lock wedge supported on a rod of the tilt frame and configured to engage an adjustable height lock block supported on an outside of one of the side walls to restrict movement of the tilt frame relative to the side wall, the lock wedge being rotatable between a release position and an engaged position.

2. The tilting and telescoping mast assembly of claim 1, further comprising bearings received in each side wall for supporting the tilt frame for pivoting.

3. The tilting and telescoping mast assembly of claim 1, wherein at least one of the side walls includes an opening through which the rod extends, the rod configured to move within the opening as the tilt frame pivots between the first and second positions.

4. The tilting and telescoping mast assembly of claim 3, further comprising an actuator operatively coupled to the lock wedge to rotate the lock wedge between the release position and the engaged position.

5. The tilting and telescoping mast assembly of claim 4, further comprising a tilt actuator operatively coupled to the tilt frame to rotate the tilt frame.

6. The tilting and telescoping mast assembly of claim 5, wherein the tilt actuator includes a leadscrew coupled to the tilt frame, the leadscrew operative to rotate the tilt frame from the horizontal orientation to the vertical orientation when turned in a first direction.

7. The tilting and telescoping mast assembly of claim 6, wherein the leadscrew includes a threaded shaft and a carriage threadedly engaged with the threaded shaft such that rotation of the leadscrew in a first direction advances the carriage along the shaft and rotation of the leadscrew in a second direction opposite the first direction retracts the carriage along the shaft, and wherein the carriage is coupled to the tilt frame by a cable.

8. The tilting and telescoping mast assembly of claim 7, further comprising a horizontal lock block, a vertical lock block and an intermediate lock block, wherein each of the lock blocks are mounted to a common sidewall adjacent the opening in the sidewall, and wherein the lock wedge is separately engageable with any one of the lock blocks when the lock block is in a first orientation to secure the tilt frame against rotation, and wherein the lock wedge, in a second orientation, passes freely by the intermediate lock block as the tilt frame moves between the horizontal and vertical orientations, whereby the lock wedge and the intermediate lock block function as a silent ratchet mechanism.

9. A tilt mechanism for supporting an associated mast for pivoting between a first position and a second position about a tilt rotation axis, the tilt mechanism comprising a tilt frame supported for rotation about the tilt rotation axis, wherein the tilt

rotation axis is perpendicular to and spaced from a longitudinal axis of the associated mast;

whereby the associated mast is displaced in a horizontal direction as the tilt mechanism rotates the associated mast between the first and second positions;

the tilt mechanism further comprising: a base mountable to a surface, and first and second side walls extending from the base, wherein the tilt frame is supported between the first and second side walls for movement between a horizontal orientation and a vertical orientation, and wherein the associated mast is supported by the tilt frame; and

a locking mechanism for securing the tilt frame in at least one of the first position or the second position, wherein the locking mechanism includes a lock wedge supported on a rod of the tilt frame and configured to engage an adjustable height lock block supported on an outside of one of the side walls to restrict movement of the tilt frame relative to the side wall, the lock wedge being rotatable between a release position and an engaged position.

10. The tilt mechanism of claim 9, further comprising bearings received in each side wall for supporting the tilt frame for pivoting.

11. The tilt mechanism of claim 9, wherein at least one of the side walls includes an opening through which the rod extends, the rod configured to move within the opening as the tilt frame pivots between the first and second positions.

12. The tilt mechanism of claim 11, further comprising an actuator operatively coupled to the lock wedge to rotate the lock wedge between the release position and the engaged position.

13. The tilt mechanism of claim 12, further comprising a tilt actuator operatively coupled to the tilt frame to rotate the tilt frame, wherein the tilt actuator includes a leadscrew coupled to the tilt frame, the leadscrew operative to rotate the tilt frame from the horizontal orientation to the vertical orientation when turned in a first

direction, and wherein the leadscrew includes a threaded shaft and a carriage threadedly engaged with the threaded shaft such that rotation of the leadscrew in a first direction advances the carriage along the shaft and rotation of the leadscrew in a second direction opposite the first direction retracts the carriage along the shaft, and wherein the carriage is coupled to the tilt frame by a cable.

14. A method of deploying a tilting and telescoping mast assembly comprising:

supporting a mast having a longitudinal axis with a tilt mechanism configured to pivot the mast between a first position and a second position about a tilt rotation axis perpendicular to and spaced from the longitudinal axis of the mast, wherein the tilt mechanism includes a base mountable to a surface, first and second side walls extending from the base, and a tilt frame supported between the first and second side walls for movement between a horizontal orientation and a vertical orientation, the mast being supported by the tilt frame;

pivoting the mast using the tilt mechanism;

whereby the mast is displaced in a horizontal direction as the tilt mechanism rotates the mast between the first and second positions; and

securing the tilt frame in at least one of the first position or the second position with a locking mechanism, wherein the locking mechanism includes a lock wedge supported on a rod of the tilt frame and configured to engage an adjustable height lock block supported on an outside of one of the side walls to restrict movement of the tilt frame relative to the side wall, the lock wedge being rotatable between a release position and an engaged position.