WHAT IS CLAIMED IS:

1. A pedestal for a tracking antenna for obtaining rotational stabilization of the antenna about three axes, said pedestal comprising:

a horizontal isolation assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base ring;

a hub assembly including a support mounted on the horizontal isolation assembly rotatably supporting a rotating frame about a first azimuth axis;

a vertical isolation assembly including an upright frame and a cross-level axis support slidably interconnected with a linear bearing assembly, the linear bearing assembly having a profiled rail slidably received within a complementary shaped bearing block, wherein the profiled rail can not twist axially relative to the bearing block;

a cross-level frame pivotally mounted on the cross-level axis support about a second cross-level axis; and

an elevation frame assembly supporting the tracking antenna and pivotally mounted on the cross-level frame about a third elevation axis.

2. The pedestal of claim 1, wherein the horizontal isolation assembly includes a base and a support plate interconnected by a wire rope assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base;

wherein the wire rope assembly includes upper and lower elongated members respectively mounted on the base and support plate, and a wire rope interconnecting the upper and lower elongated members; and

wherein one of the upper and lower elongated members is longer than the other of the upper and lower elongated members whereby a fastening aperture of said one elongated member is spaced from and does not face said other elongated member.

3. The pedestal of claim 2, wherein

the upper and lower elongated members each include a plurality of transverse through-bores, and wherein the wire rope is threaded through all but a central one of the through-bores.

4. The pedestal of claim 1, wherein

wherein the support of the hub assembly includes a collar fixedly mounted on the support plate of the horizontal isolation assembly.

5. The pedestal of claim 1, wherein

the linear bearing assembly is offset from and substantially parallel to the first axis, and the second and third axis intersect one another substantially along the first axis.

6. The pedestal of claim 1, wherein

the base of the vertical isolation assembly includes a counterweight diametrically opposed from the linear bearing assembly with respect to the first azimuth axis.

7. The pedestal of claim 6, wherein

the counterweight includes material that has been removed from a support plate of the horizontal isolation assembly.

8. The pedestal of claim 1, wherein

the vertical isolation assembly further includes a support spring and a dampener interconnecting the upright frame and cross-level axis support.

9. The pedestal of claim 8, wherein

the support spring and dampener are arranged in parallel with one another.

10. The pedestal of claim 8, wherein

the dampener is a pneumatic cylinder open to atmosphere.

11. The pedestal of claim 1, wherein

the horizontal isolation assembly further includes a driven gear affixed to the support plate; and

the vertical isolation assembly further includes an azimuth-axis drive motor operably connected to the driven gear.

12. The pedestal of claim 11, wherein

the driven gear is a sprocket, and wherein a drive chain located between the vertical isolation assembly and the horizontal isolation assembly operably connects the azimuth-axis drive motor to the sprocket.

13. A pedestal for a tracking antenna for obtaining rotational stabilization of the antenna about three axes, said pedestal comprising:

a horizontal isolation assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base;

a hub assembly including a support mounted on the horizontal isolation assembly rotatably supporting a rotating frame about a first azimuth axis;

a vertical isolation assembly including an upright frame and a cross-level axis support slidably interconnected with a linear bearing assembly, the vertical isolation assembly further including a support spring and a dampener interconnecting the upright frame and cross-level axis support to dampen relative movement between the cross-level axis support and the upright frame;

a cross-level frame pivotally mounted on the cross-level axis support about a second cross-level axis; and

an elevation frame assembly supporting the tracking antenna and pivotally mounted on the cross-level frame about a third elevation axis.

14. The pedestal of claim 13, wherein the horizontal isolation assembly includes a base and a support plate interconnected by a wire rope assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base;

wherein the wire rope assembly includes upper and lower elongated members respectively mounted on the base and support plate, and a wire rope interconnecting the upper and lower elongated members; and

wherein one of the upper and lower elongated members is longer than the other of the upper and lower elongated members whereby a fastening aperture of said one elongated member is spaced from and does not face said other elongated member.

15. The pedestal of claim 14, wherein

the upper and lower elongated members each include a plurality of transverse through-bores, and wherein the wire rope is threaded through all but a central one of the through-bores.

16. The pedestal of claim 13, wherein

wherein the support of the hub assembly includes a collar fixedly mounted on the support plate of the horizontal isolation assembly.

17. The pedestal of claim 13, wherein

the linear bearing assembly is offset from and substantially parallel to the first axis, and the second and third axis intersect one another substantially along the first axis.

18. The pedestal of claim 13, wherein

the base of the vertical isolation assembly includes a counterweight diametrically opposed from the linear bearing assembly with respect to the first azimuth axis.

19. The pedestal of claim 18, wherein

the counterweight includes material that has been removed from a support plate of the horizontal isolation assembly.

20. The pedestal of claim 18, wherein

the dampener is a pneumatic cylinder open to atmosphere.

21. The pedestal of claim 13, wherein

the linear bearing assembly having a profiled rail supporting the cross-level axis support and being slidably received within a complementary shaped bearing block affixed to the upright frame, wherein the profiled rail can not twist axially relative to the bearing block.

22. A pedestal for a tracking antenna for obtaining rotational stabilization of the antenna about three axes, said pedestal comprising:

a horizontal isolation assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base, the horizontal isolation assembly including a driven gear affixed to the support plate;

a hub assembly including a support mounted on the horizontal isolation assembly rotatably supporting a rotating frame about a first azimuth axis;

a vertical isolation assembly including an upright frame and a cross-level axis support slidably interconnected with a linear bearing assembly, the vertical isolation assembly further including an azimuth-axis drive motor operably connected to the driven gear;

a cross-level frame pivotally mounted on the cross-level axis support about a second cross-level axis; and

an elevation frame assembly supporting the tracking antenna and pivotally mounted on the cross-level frame about a third elevation axis.

23. The pedestal of claim 23, wherein

the driven gear is a sprocket located between the vertical isolation assembly and the horizontal isolation assembly, and wherein and a drive chain operably connects the azimuth-axis drive motor to the sprocket.

WHAT IS CLAIMED IS:

1. A pedestal for a tracking antenna for obtaining rotational stabilization of the antenna about three axes, said pedestal comprising:

a horizontal isolation assembly dimensioned and configured to isolate a support plate from horizontal vibration and shock of a base ring;

a hub assembly including a support mounted on the horizontal isolation assembly rotatably supporting a rotating frame about a first azimuth axis;

a vertical isolation assembly including an upright frame and a cross-level axis support slidably interconnected with a linear bearing assembly, the linear bearing assembly having a profiled rail slidably received within a complementary shaped bearing block, wherein the profiled rail can not twist axially relative to the bearing block;

a cross-level frame pivotally mounted on the cross-level axis support about a second cross-level axis; and

an elevation frame assembly supporting the tracking antenna and pivotally mounted on the cross-level frame about a third elevation axis.

2. The pedestal of claim 1, wherein the horizontal isolation assembly includes a base and a support plate interconnected by a wire rope assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base;

wherein the wire rope assembly includes upper and lower elongated members respectively mounted on the base and support plate, and a wire rope interconnecting the upper and lower elongated members; and

wherein one of the upper and lower elongated members is longer than the other of the upper and lower elongated members whereby a fastening aperture of said one elongated member is spaced from and does not face said other elongated member.

3. The pedestal of claim 2, wherein

the upper and lower elongated members each include a plurality of transverse through-bores, and wherein the wire rope is threaded through all but a central one of the through-bores.

4. The pedestal of claim 1, wherein

wherein the support of the hub assembly includes a collar fixedly mounted on the support plate of the horizontal isolation assembly.

5. The pedestal of claim 1, wherein

the linear bearing assembly is offset from and substantially parallel to the first axis, and the second and third axis intersect one another substantially along the first axis.

6. The pedestal of claim 1, wherein

the base of the vertical isolation assembly includes a counterweight diametrically opposed from the linear bearing assembly with respect to the first azimuth axis.

7. The pedestal of claim 6, wherein

the counterweight includes material that has been removed from a support plate of the horizontal isolation assembly.

8. The pedestal of claim 1, wherein

the vertical isolation assembly further includes a support spring and a dampener interconnecting the upright frame and cross-level axis support.

9. The pedestal of claim 8, wherein

the support spring and dampener are arranged in parallel with one another.

10. The pedestal of claim 8, wherein

the dampener is a pneumatic cylinder open to atmosphere.

11. The pedestal of claim 1, wherein

the horizontal isolation assembly further includes a driven gear affixed to the support plate; and

the vertical isolation assembly further includes an azimuth-axis drive motor operably connected to the driven gear.

12. The pedestal of claim 11, wherein

the driven gear is a sprocket, and wherein a drive chain located between the vertical isolation assembly and the horizontal isolation assembly operably connects the azimuth-axis

drive motor to the sprocket.

13. A pedestal for a tracking antenna for obtaining rotational stabilization of the antenna about three axes, said pedestal comprising:

a horizontal isolation assembly dimensioned and configured to isolate a support plate from horizontal vibration and shock of a base;

a hub assembly including a support mounted on the horizontal isolation assembly rotatably supporting a rotating frame about a first azimuth axis;

a vertical isolation assembly including an upright frame and a cross-level axis support slidably interconnected with a linear bearing assembly, the vertical isolation assembly further including a support spring and a dampener interconnecting the upright frame and cross-level axis support to dampen relative movement between the cross-level axis support and the upright frame;

a cross-level frame pivotally mounted on the cross-level axis support about a second cross-level axis; and

an elevation frame assembly supporting the tracking antenna and pivotally mounted on the cross-level frame about a third elevation axis.

14. The pedestal of claim 13, wherein the horizontal isolation assembly includes a base and a support plate interconnected by a wire rope assembly dimensioned and configured to isolate the support plate from horizontal vibration and shock of the base;

wherein the wire rope assembly includes upper and lower elongated members respectively mounted on the base and support plate, and a wire rope interconnecting the upper and lower elongated members; and

wherein one of the upper and lower elongated members is longer than the other of the upper and lower elongated members whereby a fastening aperture of said one elongated member is spaced from and does not face said other elongated member.

15. The pedestal of claim 14, wherein

the upper and lower elongated members each include a plurality of transverse through-bores, and wherein the wire rope is threaded through all but a central one of the through-bores.

16. The pedestal of claim 13, wherein

wherein the support of the hub assembly includes a collar fixedly mounted on the support plate of the horizontal isolation assembly.

17. The pedestal of claim 13, wherein

the linear bearing assembly is offset from and substantially parallel to the first axis, and the second and third axis intersect one another substantially along the first axis.

18. The pedestal of claim 13, wherein

the base of the vertical isolation assembly includes a counterweight diametrically opposed from the linear bearing assembly with respect to the first azimuth axis.

19. The pedestal of claim 18, wherein

the counterweight includes material that has been removed from a support plate of the horizontal isolation assembly.

20. The pedestal of claim 18, wherein

the dampener is a pneumatic cylinder open to atmosphere.

21. The pedestal of claim 13, wherein

the linear bearing assembly having a profiled rail supporting the cross-level axis support and being slidably received within a complementary shaped bearing block affixed to the upright frame, wherein the profiled rail can not twist axially relative to the bearing block.

22. A pedestal for a tracking antenna for obtaining rotational stabilization of the antenna about three axes, said pedestal comprising:

a horizontal isolation assembly dimensioned and configured to isolate a support plate from horizontal vibration and shock of a base, the horizontal isolation assembly including a driven gear affixed to the support plate;

a hub assembly including a support mounted on the horizontal isolation assembly rotatably supporting a rotating frame about a first azimuth axis;

a vertical isolation assembly including an upright frame and a cross-level axis support slidably interconnected with a linear bearing assembly, the vertical isolation assembly further including an azimuth-axis drive motor operably connected to the driven gear;

a cross-level frame pivotally mounted on the cross-level axis support about a second cross-level axis; and

an elevation frame assembly supporting the tracking antenna and pivotally mounted on the cross-level frame about a third elevation axis.

23. The pedestal of claim 22, wherein

the driven gear is a sprocket located between the vertical isolation assembly and the horizontal isolation assembly, and wherein and a drive chain operably connects the azimuth-axis drive motor to the sprocket.