CLAIMS

1. A tethered wing traction system including:

- a traction wing (2) adapted to generate a traction force because of the effect of the wind;
- a flying trajectory control device (5) attached to the traction wing (2) by suspension lines (4);
- a base platform (8) on which is mounted a structure for deploying and retracting the traction wing (2);
- a traction line (6) connecting the flying trajectory control device (5) to the base platform (8);

this tethered wing traction system being characterized in that:

- it includes a stand (12) which comprises a fixing base (13) on a traction support, this stand (12) further including an internal storage space (20) for the traction wing (2);
- the base platform (8) is mounted to rotate on the stand (12) by means of a pivot connection;
- the base platform (8) includes a storage window (45) opening into the internal storage space (20), this storage window (45) being situated at the base of the deployment and retraction structure.

2. The traction system as claimed in claim 1 characterized in that the base platform (8) includes a support (10) for the flying trajectory control device (5), this support (10) being arranged at the periphery of the storage window (45).

3. The traction system as claimed in either one of the preceding claims characterized in that it includes a winch (9) adapted to wind in or to release the traction

line (6), this winch (9) being mounted on the base platform (8).

4. The traction system as claimed in any one of the preceding claims characterized in that it includes a storage neck (17) formed of a cylinder portion providing access to the storage window (45), this cylinder being fixed to the base platform (8).

5. The traction system as claimed in any one of the preceding claims characterized in that it includes a guide funnel (11) for folding the traction wing (2) extending in the direction of the storage window (45).

6. The traction system as claimed in claim 5 characterized in that the guide funnel (11) includes a guide hook (24) for guiding the suspension lines (4) of the traction wing (2).

7. The traction system as claimed in any one of claims 4 to 6 characterized in that the storage neck (17) includes a notch (30) through which the suspension lines (4) of the traction wing (2) pass.

8. The traction system as claimed in any one of claims 4 to 7 characterized in that it includes a cover (18) for closing the storage neck (17).

9. The traction system as claimed in any one of the preceding claims characterized in that the deployment and retraction structure passes through the storage window (45).

10. The traction system as claimed in claim 9 when dependent on claim 8 characterized in that the cover includes a cut-out (28) through which the deployment and retraction structure passes.

11. The traction system as claimed in any one of the preceding claims characterized in that it includes a wing receptacle (21) that is attached to the base platform (8) and arranged in the internal storage space (20).

12. The traction system as claimed in claim 11 when dependent on claim 4 characterized in that the wing receptacle (21) includes an upper opening (35) fixed by its perimeter to the internal walls of the storage neck (17).

13. The traction system as claimed in either one of claims 11 or 12 characterized in that it includes means for driving in rotation a lower part of the wing receptacle (21).

14. The traction system as claimed in any one of claims 11 to 13 characterized in that the wing receptacle (21) includes a lateral opening (31) for access to the deployment and retraction structure.

15. The traction system as claimed in any one of the preceding claims characterized in that it includes a device for driving rotation of the base platform (8) on the stand (12) including a toothed ring (42) with which at least one gear (43) meshes.

16. The traction system as claimed in any one of the preceding claims characterized in that it includes retaining blocks (44) for holding the base platform (8) against the stand (12).

17. The traction system as claimed in any one of the preceding claims characterized in that it includes a retaining leg structure (16) connecting the deployment and retraction structure to the base platform (8) over the storage window (45).

18. The traction system as claimed in claim 17 when dependent on claim 5 characterized in that the guide funnel (11) is formed of at least one barrier (22) attached to the retaining leg structure (16).

19. The traction system as claimed in any one of the preceding claims characterized in that the deployment and retraction structure includes a mooring mast (7) fixed

to the base platform (8) and adapted to moor the traction wing (2) by its leading edge.

20. The traction system as claimed in claim 19 characterized in that the deployment and retraction structure includes carriages (46) for manipulating the suspension lines (4), said carriages (46) being adapted to slide along the mooring mast into the internal storage space (20).

21. A method for deployment or retraction of a traction wing of a traction system as claimed in any one of the preceding claims characterized in that it includes a step of rotating the base platform (8) on the stand (12) to orient the deployment or retraction device relative to the wind.

22. A method of folding a traction wing as claimed in claim 21 characterized in that it includes the following steps:

- the carriages (46) catch the traction wing (2) by its suspension lines (4);
- the carriages (46) descend along the deployment and retraction structure into the internal storage space (20).