Claims:

1. A training apparatus, comprising:

at least one gas turbine engine fan stage having a plurality of fan rotor blades attached to a disk, the at least one gas turbine engine fan stage having a first axially extending centerline, and the disk mounted for rotation about the axially extending centerline; and

a stand configured to support the at least one gas turbine engine fan stage;

wherein the plurality of fan rotor blades includes at least one learning fan rotor blade having an airfoil, the airfoil has a geometric configuration with at least one preexisting geometric deviation, the at least one preexisting geometric deviation being deviant from a design geometric configuration of a reference fan rotor blade; and

wherein the at least one learning fan rotor blade comprises a first material, and a remainder of the plurality of fan rotor blades comprise a second material, wherein the second material is different from the first material.

2. The training apparatus of claim 1, further comprising an inlet section in communication with the at least one gas turbine engine fan stage, disposed forward of the at least one gas turbine engine fan stage.

3. The training apparatus of claim 1, further comprising a casing that at least partially encloses the at least one gas turbine engine fan stage.

4. The training apparatus of claim 3, wherein the casing includes at least one access port.

5. The training apparatus of claim 3, wherein the casing is configured as a split casing having a first portion and a second portion.

6. The training apparatus of claim 1, further comprising a fan stage rotational resistance device, which device is configured to adjustably resist rotation of the at least one gas turbine engine fan stage.

7. The training apparatus of claim 1, wherein the at least one preexisting geometric deviation is disposed proximate a leading edge of the airfoil.

8. The training apparatus of claim 1, wherein the plurality of fan rotor blades includes at least one learning fan rotor blade having an airfoil and at least one selectively replaceable section, the at least one selectively replaceable section having at least one preexisting geometric deviation, the at least one preexisting geometric deviation being deviant from a design geometric configuration of a reference fan rotor blade.

9. The training apparatus of claim 8, wherein the at least one learning fan rotor blade airfoil is configured to receive the at least one selectively replaceable section, and the at least one selectively replaceable section is configured such that when the at least one selectively replaceable section is received on the airfoil, the airfoil substantially conforms to a design configuration of the reference fan rotor blade.

10. The training apparatus of claim 9, wherein the at least one selectively replaceable section is configured to form at least a portion of a leading edge of the at least one learning fan rotor blade airfoil.

11. The training apparatus of claim 10, wherein the at least one selectively replaceable section is attached to the airfoil by fasteners.

12. The training apparatus of claim 8, wherein the at least one learning fan rotor blade comprises a first material, and a remainder of the plurality of fan rotor blades comprise a second material, wherein the second material is different from the first material.

13. The training apparatus of claim 8, wherein the at least one learning fan rotor blade comprises a first material, and the at least one selectively replaceable section comprises a second material, wherein the second material is different from the first material.

14. A training apparatus, comprising:

a first gas turbine engine fan stage mounted on a first rotatable shaft, the first gas turbine engine fan stage having a plurality of first fan rotor blades attached to a first disk, the first gas turbine engine fan stage having a first axially extending centerline, and the first disk mounted for rotation about the first axially extending centerline; and

a second gas turbine engine fan stage mounted on a second rotatable shaft, the second gas turbine engine fan stage having a plurality of second fan rotor blades attached to a second disk, the second gas turbine engine fan stage having a second axially extending centerline, the second disk mounted for rotation about the second axially extending centerline;

wherein the first gas turbine engine fan stage and the second gas turbine fan stage are rotationally independent of one another; and

a stand configured to support the first gas turbine engine fan stage and the second gas turbine engine fan stage, the stand including at least one post having a base end and a distal end, the distal end of the post including a flange to which one or more bearing assemblies supporting the first rotatable shaft and the second rotatable shaft are attached.

15. The training apparatus of claim 14, wherein the first gas turbine engine fan stage and the second gas turbine engine fan stage are oppositely positioned; and

the training apparatus further comprises a casing that at least partially encloses the first gas turbine engine fan stage and the second gas turbine engine fan stage.

16. The training apparatus of claim 15, wherein at least one of the plurality of first fan rotor blades or the plurality of second fan rotor blades, includes at least one learning fan rotor blade having an airfoil, the airfoil has a geometric configuration with at least one preexisting geometric deviation, the at least one preexisting geometric deviation being deviant from a design geometric configuration of a reference fan rotor blade.

17. The training apparatus of claim 15, wherein at least one of the plurality of first fan rotor blades or the plurality of second fan rotor blades, includes at least one learning fan rotor blade having an airfoil and at least one selectively replaceable section, the at least one selectively replaceable section having at least one preexisting geometric deviation, the at least one preexisting geometric deviation being deviant from a design geometric configuration of a reference fan rotor blade.