CLAIMS

1. A gas turbine engine comprising:

a compressor section including a first compressor section and a second compressor section;

a combustor in fluid communication with the compressor section;

a turbine section in fluid communication with the combustor, the turbine section including a fan drive turbine including a plurality of turbine rotors and coupled to drive the first compressor section through a first shaft, and a second turbine coupled to drive the second compressor section through a second shaft;

a fan including a plurality of blades rotatable about an axis and a ratio between the number of fan blades and the number of fan drive turbine rotors is between about 2.5 and about 8.5; and

a speed change system driven by the fan drive turbine for rotating the fan about the axis;

wherein the fan drive turbine includes a first aft rotor attached to the first shaft and the second turbine includes a second aft rotor attached to the second shaft and the second turbine includes at least two stages and the fan drive turbine includes more than two stages; and

wherein a first bearing assembly is disposed axially aft of a first connection between the first aft rotor and the first shaft, and a second bearing assembly is disposed axially aft of a second connection between the second aft rotor and the second shaft.

2. The engine as recited in claim 1, wherein the first bearing assembly and the second bearing assembly comprise roller bearings.

3. The engine as recited in claim 1, wherein the first bearing supports an aft portion of the first shaft and the second bearing supports an aft portion of the second shaft.

4. The engine as recited in claim 3, wherein a forward portion of each of the first and second shafts are supported by a thrust bearing assembly.

5. The engine as recited in claim 1, wherein the speed change system comprises a gearbox, and wherein the fan and the fan drive turbine both rotate in a first direction about the axis and the second turbine section rotates in a second direction opposite the first direction.

6. The engine as recited in claim 1, wherein the speed change system comprises a gearbox, and wherein the fan, the fan drive turbine section, and the second turbine section all rotate in a first direction about the axis.

7. The engine as recited in claim 1, wherein the speed change system comprises a gearbox, and wherein the fan and the second turbine section both rotate in a first direction about the axis and the fan drive turbine rotates in a second direction opposite the first direction.

8. The engine as recited in claim 1, wherein the speed change system comprises a gearbox, and wherein the fan is rotatable in a first direction and the fan drive turbine, and the second turbine section rotates in a second direction opposite the first direction about the axis.

9. The engine as recited in claim 1, wherein the speed change system comprises a gear reduction having a gear ratio greater than about 2.3.

10. The engine as recited in claim 1, wherein the fan delivers a portion of air into a bypass duct, and a bypass ratio being defined as the portion of air delivered into the bypass duct divided by the amount of air delivered into the compressor section, with the bypass ratio being greater than about 6.0.

11. The engine as recited in claim 10, wherein the bypass ratio is greater than about 10.0.

12. The engine as recited in claim 1, wherein a fan pressure ratio across the fan is less than about 1.5.

13. The engine as recited in claim 1, wherein the fan has 26 or fewer blades.

14. The engine as recited in claim 1, wherein said first turbine section has between about 3 and 6 stages.

15. The engine as recited in claim 1, wherein a pressure ratio across the first turbine section is greater than about 5:1.