It should be understood that the invention is not limited to the particular embodiments shown and described herein, but that various changes and modifications may be made without departing from the spirit or scope of this novel concept as defined by the following claims.

I claim:

1. A propulsor adapted to abate noise at its source comprising a duct, a fan rotatably mounted within the duct, means including a turbine type power plant for driving said fan at a rotational speed such that the velocity of the tips of said fan is less than sonic, an antiswirl stator disposed in the duct downstream of the fan supporting said ducts and having substantially less number of vanes than the number of fan blades, and means to operate said fan in a noise spectra, such that the fundamental blade passage frequency for all operational conditions is less than 2,500 Hertz.

2. A propulsor as claimed in claim **1** including means for rotating the blades of the fan about their longitudinal axes for effectuating pitch change movement.

3. A propulsor as claimed in claim **1** including means for maintaining the pressure ratio of the fan between 1.05 and less than 1.30.

4. A propulsor as claimed in claim **1** wherein the stator vanes are spaced at least 2 fan blade widths from the blades of the fan.

5. A propulsor as claimed in claim **1** wherein the number of stator vanes is substantially one-half the number of fan blades.

6. A prop-fan comprising a multi-bladed fan rotatably mounted in a duct, swirl recovery vanes in said duct axially spaced downstream of said fan, the number of stator vanes being substantially less than the number of fan blades, means for rotating the blades of said fan such that the tip speed of said blades is less than sonic, and the fan pressure ratio being between 1.05 and less than 1.30.

7. A prop-fan as claimed in claim **6** wherein the number of stator vanes is substantially one-half the number of fan blades.

8. A prop-fan as claimed in claim **7** wherein the space between said stator and fan is equal to at least two fan blade widths.

9. The method of operating a propulsor of the type that includes a duct, a fan driven by an engine in said duct, antiswirl vanes in said duct downstream of said fan;

rotating said fan at tip speed less than sonic,

pressurizing the air ingested by said fan at a value such that the pressure ratio is between 1.05 and less than 1.30,

and generating noise such that the fundamental blade passage frequency and its predominant multiples fall below 2,500 Hertz.

10. The method of operating a propulsor for powering aircraft of the type that includes a duct, a fan driven by an engine in said duct, anti-swirl vanes in said duct downstream of said fan;

rotating said fan at tip speed less than sonic,

pressurizing the air ingested by said fan at a value such that the pressure ratio is between 1.05 and less than 1.30,

and generating noise at all of the operating conditions of said aircraft such that the fundamental blade passage frequency falls below 2,500 Hertz.

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