CLAIMS

1. A method of determining a use for substantially the same gas turbine engine components and comprising the steps of:

(a) receiving manufacturing information about a plurality of gas turbine engine components;

(b) classifying each of the plurality of gas turbine engine components into at least two categories, with a first category being components closer to a specification than a second category;

(c) recommending a suggested future use for the first category on aircraft that will operate in more challenging flight conditions and for the second category on aircraft that will operate in less challenging flight conditions,

wherein the recommended future use includes a suggestion to utilize component of said first and second categories on particular type flights, the particular type flights are on an engine having a particular thrust rating and are for use on an aircraft flying routes having distinctly different ambient temperature,

wherein said component:

has outer geometric features which are measured, and said classification is done, at least in part, based upon said outer geometric features;

includes a cooling cavity, and said classification is also done, at least in part, based upon a wall thickness from said internal cooling cavity to an outer wall; and

has an outer coating, and said classification is also done, at least in part, on a thickness of said coating.

2. The method as set forth in claim 1, wherein said thrust ratings of all said engines at sea level take-off are plus or minus 25%.

3. The method as set forth in claim 1, wherein said component includes an internal cooling cavity, and said classification is done, at least in part, based upon a shape of said internal cooling cavity.

4. The method as set forth in claim 1, wherein said component has an outer coating, and said classification is done, at least in part, based upon on a thickness of said coating.

5. A system comprising:

a ground-based system programmed to perform the following steps:

(a) receiving manufacturing information about a plurality of gas turbine engine components;

(b) classifying each of the plurality of gas turbine engine components into at least two categories, with a first category being components closer to specification than a second category;

(c) recommending a suggested future use for the first category on aircraft that will operate in more challenging flight conditions and for the second category on aircraft that will operate in less challenging flight conditions,

wherein the recommended future use includes a suggestion to utilize component of said first and second categories on particular type flights, the particular type flights are on an engine having a particular thrust rating and are for use on an aircraft flying routes having distinctly different ambient temperature,

wherein said component:

has outer geometric features which are measured, and said classification is done, at least in part, based upon said outer geometric features;

includes a cooling cavity, and said classification is also done, at least in part, based upon a wall thickness from said internal cooling cavity to an outer wall; and

has an outer coating, and said classification is also done, at least in part, on a thickness of said coating.

6. The method as set forth in claim 5, wherein said thrust ratings of all said engines at sea level take-off are plus or minus 25%.

7. The system as set forth in claim 5, wherein said component includes an internal cooling cavity, and said classification is done, at least in part, based upon a shape of said internal cooling cavity.

8. The system as set forth in claim 5, wherein said component has an outer coating, and said classification is done, at least in part, based upon on a thickness of said coating.

9. The system as set forth in claim 8, wherein said component has outer geometric features which are measured, and said classification is done, at least in part, based upon said outer geometric features.

10. The system method as set forth in claim 9, wherein said component includes an internal cooling cavity, and said classification is also done, at least in part, based upon a shape of said internal cooling cavity.

11. The system method as set forth in claim 8, wherein said component includes an internal cooling cavity, and said classification is also done, at least in part, based upon a shape of said internal cooling cavity.