WHAT IS CLAIMED IS:

1. A system for locating probes within a gas turbine engine, the system comprising:

a plurality of location transmitters, each location transmitter of the plurality of location transmitters being respectively positioned within an access port of the gas turbine engine such that each location transmitter of the plurality of the location transmitters are at a known location relative to the gas turbine engine;

a probe inserted through an access port of the gas turbine engine that is different than the access ports into which the location transmitters of the plurality of location transmitters are positioned, the probe including a probe tip and a location signal receiver, the location signal receiver being configured to receive location-related signals transmitted from the plurality of location transmitters; and

a computing device communicatively coupled to the probe, the computing device being configured to:

determine a current location of the probe tip within the gas turbine engine based on the location-related signals received by the location signal receiver and the known locations of the plurality of location transmitters;

identify a virtual location of the probe tip within a three-dimensional model of the gas turbine engine corresponding to the current location of the probe tip within the gas turbine engine; and

provide for display the three-dimensional model of the gas turbine engine, wherein the virtual location of the probe tip is displayed as a visual indicator within the three-dimensional model.

2. The system of claim 1, wherein the plurality of location transmitters comprises at least three location transmitters positioned relative to the gas turbine engine.

3. The system of claim 1, wherein the computing device is configured to determine a distance defined between the probe tip and each location transmitter of the plurality of location transmitters based on the location-related signals.

4. The system of claim 3, wherein the computing device is further configured to determine the current location of the probe tip within the gas turbine engine using a trilateration technique based on the distances defined between the probe tip and the plurality of location transmitters and the known locations of the plurality of location transmitters.

5. The system of claim 1, wherein the computing device is configured to determine a respective angle defined between the probe tip and each location transmitter of the plurality of location transmitters based on the location-related signals.

6. The system of claim 5, wherein the computing device is further configured to determine the current location of the probe tip within the gas turbine engine using a triangulation technique based on each respective angle and the known locations of the plurality of location transmitters.

7. The system of claim 1, wherein the computing device is further configured to determine an updated location of the probe tip within the gas turbine engine as the probe is being moved within the gas turbine engine.

8. The system of claim 7, wherein the computing device is configured to adjust a position of the visual indicator within the three-dimensional model based on the updated location of the probe tip.

9. The system of claim 1, wherein the probe corresponds to one of a borescope, a videoscope or a fiberscope.

10. The system of claim 1, wherein the probe includes a light source for illuminating an interior of the gas turbine engine.

11. The system of claim 1, wherein the probe is configured to perform a repair procedure on an internal engine component of the gas turbine engine.

12. The system of claim 1, wherein the computing device is further configured to receive image data associated with a plurality of images obtained by the probe of an interior of the gas turbine engine.

13. The system of claim 12, wherein the image data is configured to be inspected to identify any defects or damage within the gas turbine engine.

14. The system of claim 12, wherein the computing device is configured to provide for display both the three-dimensional model of the gas turbine engine and the image data obtained from the probe.

15. The system of claim 1, wherein the access port through which the probe is inserted is defined through a portion of a compressor of the gas turbine engine.

16. The system of claim 1, wherein at least one of the plurality of access ports through which the plurality of location transmitters are respectively positioned within is defined through a portion of a turbine of the gas turbine engine.

17. The system of claim 1, wherein the computing device is configured to identify an internal component of the gas turbine engine located adjacent to the probe tip.