Furthermore, the description is not intended to limit the invention to the form disclosed herein. Consequently, variations and modifications consistent with the above teachings and with the skill or knowledge of the relevant art are within the scope of the present invention. The embodiments described hereinabove are further intended to explain the best modes known for practicing the invention and to enable other skilled in the art to utilize the invention in such, or, other embodiments and with various modifications required by the particular applications or uses of the present invention. It is intended that the appended claims should be construed to include alternative embodiments to the extent permitted by the prior art.

What is claimed is:

1. A method for locating a first emitter comprising the steps of:

receiving at a first platform and a second platform at a first point in time a first signal from the first emitter;

determining at least one of a first angle of arrival and a first time of arrival of the first signal at the first platform at the first point in time;

determining at least one of a second angle of arrival and a second time of arrival of the first signal at the second platform at the first point in time;

receiving a first altitude estimate for the first emitter, wherein the first altitude estimate is an estimate of an altitude of the first emitter in relation to a predetermined altitude reference;

determining a first location estimate of the first emitter using said first altitude estimate for the first emitter and at least one of the first angle of arrival and the first time of arrival of the first signal at the first platform at the first point in time and said at least one of the second angle of arrival and the second time of arrival of the first signal at the second platform at the first point in time.

2. A method as claimed in claim **1**, wherein said first altitude estimate is independent of said first and second angles of arrival.

3. A method as claimed in claim **1**, wherein said receiving the first altitude estimate comprises the step of:

determining a coarse location estimate of the first emitter;

retrieving the first altitude estimate from a terrain database based on the first course location estimate.

4. A method as claimed in claim **1**, further comprising the steps of:

receiving at the first and second platforms a second signal from the first emitter, the second signal different from the first signal;

determining at least one of a first angle of arrival and a first time of arrival of the second signal at the first platform;

determining at least one of a second angle of arrival and a second time of arrival of the second signal at the second platform;

determining a second location estimate of the first emitter using said at least one of the first angle of arrival and the first time of arrival of the second signal at the first platform, said at least one of the second angle of arrival and the second time of arrival of the second signal at the second platform and said first location estimate.

5. A method as claimed in claim **1**, wherein said determining said first location estimate step comprises performing one of a least squares analysis and a Kalman filter analysis using said at least one of the first angle of arrival and the first time of arrival of the first signal at the first platform and said at least one of the second angle of arrival and the second time of arrival of the first signal at the second platform.

6. A method as claimed in claim **1**, further comprising the step of:

receiving an initial location estimate for the first emitter.

7. A method as claimed in claim **6**, wherein said determining said first location estimate step further comprises using said initial location estimate.

8. A method as claimed in claim **6**, wherein said receiving said initial location estimate step comprises performing one of the steps of:

determining said initial location from a first intersection of said first and second angles of arrival of said first signal at the first and second platforms, respectively, the first platform being remote from the second platform;

determining said initial location from a second intersection of said first angle of arrival and a third angle of arrival of said first signal at the first platform and a third platform, respectively, the first platform being remote from the third platform;

determining said initial location from a third intersection of said third angle of arrival and a fourth angle of arrival of said first signal at the third platform and a fourth platform, respectively; and

determining said initial location from first and second azimuths of first and second angles of arrival of said first signal at the third platform at first and second times, respectively.

9. A method as claimed in claim **6**, wherein said receiving said initial location estimate step comprises performing one of the steps of:

determining said initial location from a first intersection of said first angle of arrival and a second angle of arrival of said first signal at the first and second platforms;

determining said initial location from a second intersection of a first angle of arrival and a second angle of arrival of said first signal at a third platform; and

determining said initial location from a third intersection of a third and a fourth angle of arrival of said first signal at the third and a fourth platform.

10. A method as claimed in claim **6**, wherein said receiving said initial location estimate comprises performing one of the steps of:

determining said initial location from a first intersection of a first pointing direction with a ground surface, said first pointing direction corresponding to a first azimuth and a first elevation of said first angle of arrival of said first signal at the first platform; and

determining said initial location from a second intersection of a second pointing direction with the ground surface, said second pointing direction corresponding to a first azimuth and a first elevation of a third angle of arrival of said first signal at a third platform.

11. A method as claimed in claim **10**, wherein, said predetermined altitide reference is sea level.

12. A method for locating a first emitter comprising the steps of:

receiving an initial location estimate of the first emitter;

receiving a first altitude estimate of the first emitter, wherein the first altitude estimate is an estimate of an altitude of the first emitter above sea level in relation to a predetermined altitude reference;