CLAIMS

1. A method of operating a timed array from a plurality of phased arrays, the method comprising:

phase steering each phased array to a desired direction;

applying processing to signals received from at least one of the phased arrays, wherein:

the signals have a signal bandwidth frequency, a symbol frequency, and a carrier frequency, and

applying processing to the signals comprises applying, based on a reference, an adjustment to the signals from at least one of the phased arrays; and

combining the processed signals from each of the phased arrays,

wherein:

the adjustment varies based at least in part on the desired direction and relative location of the phased arrays, and

applying the adjustment comprises:

a gross time alignment to the order of the signal bandwidth frequency or the symbol frequency; and

a fine alignment as a phase shift of the carrier frequency.

2. The method according to claim 1, wherein the adjustment comprises a time delay and a phase adjustment.

3. The method according to claim 2, wherein the time delay and/or the phased adjustment are obtained from the processing of signal received from the phased arrays.

4. The method according to claim 1, wherein the phased arrays are contiguous.

5. The method according to claim 1, wherein the phased arrays are distributed.

6. The method according to claim 1, wherein applying processing to the signals requires no a priori knowledge of temporal differences between the signals received from each of the phased arrays.

7. The method according to claim 1, wherein applying processing to the signals includes correlating information within each signal to information in the each of the signals from each of the plurality of phased arrays.

8. The method according to claim 1, wherein the gross time alignment is achieved by digital processing.

9. The method according to claim 8, wherein the signals from each of the phased arrays are formed into a series of digital samples.

10. The method according to claim 9, wherein the digital processing includes representing each of the signals from each phased array as a uniform series of digital samples.