United States District Court,
D. Delaware.

TRUEPOSITION, INC., and KSI, Inc,
Plaintiffs.
v.
ALLEN TELECOM, INC,
Defendant.

No. Civ.A. 01-823 GMS

June 23, 2003.

ORDER

SLEET**, J.**

Having considered the submissions of the parties and following oral argument on the matter, IT IS HEREBY ORDERED, ADJUDGED and DECREED that the court construes the disputed claims of the patents-in-suit as follows:

U.S. Patent No. 6,119,013***:***

1. Claim 1: "An apparatus for locating a mobile radio communications transceiver in an operating environment served by a wireless communications system, comprising...."
"Comprising" shall be construed consistently with the court's construction of the other disputed terms of claim 1. Otherwise, the word requires no construction.

2. Claim 1: "... two sensor stations of known location that receive a radio signal from the mobile transceiver...."

"Two sensor stations" is construed to mean "a first antenna and an associated receiver, and a second antenna and an associated receiver."

3. Claim 1: "... a source of collateral information related to a location of the mobile transceiver...."

"Collateral information" is construed to mean "transceiver location information that is supplementary to time of signal arrival information."

4. Claim 1: "... a processing unit that determines time difference of signal arrival information based on the time of signal arrival information determined by each said signal characterization and processing unit...."

"Each said signal characterization and processing unit" is construed to mean "a processing unit that

determines time difference of arrival information based on the difference between the time of arrival of a radio signal at the first sensor station and the time of arrival of the radio signal at the second sensor station."

5. Claim 1: "... a processing unit that determines a probable position of the mobile transceiver based on the time difference of signal arrival information and the collateral information."

The phrase is construed to mean "a processing unit that determines a probable location of a mobile transceiver from the following information: (1) the difference between the time of the arrival of the signal at the first sensor station and the time of the arrival of the signal at the second sensor station; and (2) the collateral information."

6. Claim 7: "... determining a locus of points along the surface of the earth based on a ratio of said first time of arrival and said second time of arrival...."

"Ratio" is construed to mean "the fixed or approximate relation of one thing to another or between two or more things, such as quantity, amount, or size."

U.S. Patent No. 6,047,192*:*

1. Claim 15: "... and a timing mechanism to time-tag an identified, representative instant of the received signal to produce time-tagged received signal data...."
"Time-tagged" is construed to mean "corresponding to or associated with a time marker."

"Received signal data" requires no construction.

2. Claim 15: "... each correlation and measurement extraction processing unit performing matched-replica correlation processing with the time-tagged received signal data...."

"Matched-replica correlation processing" is construed to mean "comparing the received signal data with replicated signal data for similarities or differences."

3. Claim 15: "... the communications system communicates the reduced time-tagged received signal data between at least the first sensor station and the second sensor station...."

"Reduced time-tagged received signal data" requires no construction.

4. Claim 15: "... the signal replica unit at at least the second sensor station comprises a reconstruction mechanism to reconstruct the reduced time-tagged received signal data and to use the reconstructed time-tagged received data as the replicated signal data ....."

"Reconstructed time-tagged received data" requires no construction.

U.S. Patent No. 4,728,959*:*

1. Claim 3: "... means for measuring a direction angle of the mobile radio transmitter station from at least two land stations by phase difference measurement...."
This phrase is construed to mean "a structure, *i.e.* a receiver, an amplifier, an analog-to-digital converter, and a processor, that is capable of determining an angle of arrival of a transmitted radio signal by

measurements from an antenna array" and equivalents.

2. Claim 3: "... means for performing a phase sensitive weighted integration of a complex conjugate product of an equivalent analytic signal wave form of the RF electrical signal in each antenna element...."

"Phase sensitive" is construed to mean "having a phase."

"Weighted" is construed to mean "having been assigned more or less importance based on identity, amplitude, phase, or other characteristics."

"Integration" is construed to mean "a summing."

"Equivalent analytic signal" is construed to mean "a frequency-translated complex value pair."

"Complex conjugate product" is construed to mean "the result of a multiplication of a complex pair and its conjugate."

3. Claim 3: "... means for processing said direction angle measurements from said at least two land stations to determine a location for the mobile radio transmitter."

This phrase is construed to mean "a structure, *i.e.* a processor, that is capable of determining the location of the target mobile radio transmitter through the non-linear relation of the location coordinates for at least two angles of arrival" and equivalents.

4. Claim 8: "... measuring a direction angle of the mobile radio transmitter station from at least two land stations by performing a phase difference measurement...."

This phrase is construed to mean "ascertaining the direction of signal arrival of the target mobile radio transmitter from the difference between the phase of the signal at one antenna element and the phase of the signal at a second antenna element."

5. Claim 8: "... integrating a phase sensitive weighting function having a complex conjugate product of an equivalent analytic signal wave form of the RF electrical signal in each antenna element...."

This phrase shall be construed consistently with the court's construction of the disputed terms of claim 3. Otherwise, it requires no construction.

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