Remarks

These remarks are submitted in response to the Non-Final Office Action of January 22, 2016. At the time of the Office Action, claims 1-20 were in the application; claims 17-20 were previously withdrawn from consideration. No new matter has been added.

I. Objection to the Drawings

The drawings were objected to under 37 CPR 1.83(a); the Examiner stated that the recited claim features "a first set of coordinates" and "an alternate location" were not shown in the claims. The Examiner's attention is respectfully directed to FIGs. 36 and 38. FIG. 36 schematically illustrates a mobile device 3601 receiving coordinates 3605, which include coordinates of a location where an improved signal from base station 3610 is available. FIG. 38 illustrates a procedure in which the device 3601 navigates to an alternate location 3852 in order to obtain an improved signal. (*See* specification, paragraphs [0186] and [0190] – [0192]; paragraph [0186] has been amended for greater clarity.)

Withdrawal of the objection is respectfully requested.

II. Claim Rejections Under 35 U.S.C § 112

Claims 1 and 4 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner stated that "improved quality of communications" in claim 1 and "improved communications" in claim 4 were subjectively determined terms. In response to the Examiner's comments, claim 1 has been amended to recite that the communications device has a quality of communications associated with its location, and that an improved quality of communications is provided to the communication device at an alternate location. (*See* specification, paragraphs [0190] – [0191].) Claim 4, dependent from claim 1, has been amended to recite that the quality of communications is associated with communications between the communication device and the base station, and that improved communications between the communication device and the base station are provided at the alternate location.

Based on the amendments to claims 1 and 4, withdrawal of this rejection is respectfully requested.

III. Claim Rejections Under 35 U.S.C § 102

Claims 1 - 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al (US Pat Pub No. 2008/0091350).

Independent claim 1 recites a method comprising detecting, by a base station, a location of a communication device. Claim 1, as amended, also recites that the communication device has a quality of communications associated with the location. Claim 1 also recites determining a set of coordinates corresponding to an alternate location, and that an improved quality of communications is provided to the communication device at the alternate location. Claim 1, as amended, further recites that the alternate location is different from a location of the base station and the location of the communication device. (*See* specification, paragraphs [0190] – [0191] and FIG. 38, showing that device location 3851 and location 3852 are different from the location of base station 3610.)

Smith discloses a system in which devices comprising independent sources of navigation data are integrated to provide a user with reliable navigation data (paragraph [0055]). In particular, the system of Smith provides a position fix for a user's receiver. Smith teaches (paragraph [0050]) that if one of the data sources fails to provide reliable data, the system software switches to another data source, in a process transparent to the user, to assure a continuous position fix. Smith discloses (paragraphs [0078] – [0091]) a procedure for calculating the receiver's position, based on a range signal from a transmitter. However, Smith does not disclose providing coordinates for an alternate location (that is, a location different from those of the transmitter and receiver). Smith teaches that coordinates for the receiver's location may be calculated and re-calculated (paragraph [0091], reproduced below):

> **[0091]** The overall locating algorithm, illustrated in FIG. 12, unlike in GPS, may be either a 2-D or 3-D type, based on the available data sets. Since with all land-based transmitters TPS in its basic form can only be used as a "planar" or 2-D locating system, often the data will only support 2-D calculations, since the normal 3-D algorithms will usually experience poor convergence (overly long solution times) when the data sets have little deviations in one dimension; this is the result of the high DOP conditions and can result in no solution at all if convergence of the computations fails. The first block 1201 in the algorithm thus selects the appropriate procedure (2-D or 3-D), and then performs the conversion (1202) to translate latitude-longitude-height (LLH) coordinates of the transmitters and initial receiver location estimate to the standard earth-centered, earth-fixed (ECEF) format. Next, the straight-line point-to-point (chord) distances are determined (1203) from the standard geometric equations and corrected for the great-circle (arc) distances (1204), assuming a near-spherical earth. Thus, the effective positions of the transmitters are shifted radially outward from the presumed receiver location to account for both the curvature of the earth's surface and the propagation speed of the RF signals over the earth's surface, including soil, water, and variations thereof. Once the effective distances have been determined (1205), the positioning algorithm (either a Newton-Raphson routine, a Kalman filter, or other method) 1206 then is employed to solve the set of simultaneous linear (or linearized) equations to find the receiver's actual location in ECEF coordinates. Generally, these are re-converted to LLH format (1207) and displayed for the TPS user (1208).

According to Smith, coordinates for the receiver's location may be recalculated and converted, while the location remains unchanged. Smith thus does not disclose determining coordinates for a different alternate location, as recited in claim 1.

Claim 1, as amended, therefore is not anticipated by Smith, and accordingly is allowable. Claims 2-10 depend from claim 1 and are also allowable, at least by virtue of their dependency.

Independent claim 11 recites a machine-readable storage medium comprising instructions; a processor, responsive to executing the instructions, performs operations. The operations comprise detecting a location of a communication device communicating with a base station, and determining a set of coordinates corresponding to an alternate location to improve a communications service quality provided to the communication device. Claim 11, as amended, further recites that the alternate location is different from a location of the base station and the location of the communication device. As explained above with regard to claim 1, these claim elements are not disclosed in Smith. Claim 11, as amended, therefore is not anticipated by Smith, and accordingly is allowable. Claims 12-16 depend from claim 11 and are also allowable, at least by virtue of their dependency.

IV. Conclusion

This application is in condition for allowance, which action is respectfully requested. It is respectfully requested that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion. Please charge any deficiencies or credit any overpayment to Deposit Account No. 50-5199.

Respectfully submitted,

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