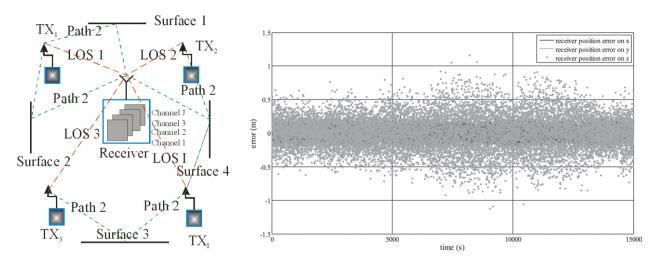




Giftet Global Navigation Solutions

GIFTET GLOBAL NAVIGATION MISSION STATEMENT



Giftet® Global Navigation Solutions are aimed towards developing, marketing, and distributing Giftet Navigator®, Giftet Aeronautical Navigator®, and Giftet Maritime Navigator® for Indoor Geolocation Systems, Geolocation of RF Signals, Geospatial, Geo-Information, Geo-Intelligence, Geo Referencing, GPS, GLONASS, Galileo, QZSS, and other Global Satellite and/or Pseudolite Navigation (or Positioning and/or Timing) Systems based on customer's needs.

Ensuring the highest level of customer's satisfaction and at the same time the highest level of the professionally engineered, designed, developed, and delivered global navigation solutions.

GIFTET GLOBAL NAVIGATION SOLUTION PROJECTS

Giftet is currently developing **Giftet Navigator**®, **Giftet Aeronautical Navigator**®, and **Giftet Maritime Navigator**® for three types of indoor geolocation systems

- (1) C-CDMA pseudolite indoor geolocation system
- (2) MC-CDMA pseudolite indoor geolocation system
- (3) OFDMA pseudolite indoor geolocation system.

First, the requirements of a C-CDMA pseudolite indoor geolocation system include







emer clobar navigation coloners

(1) C-CDMA System requirements

[http://www.giftet.com/Giftet_Global_Navigation_Solutions_files/C_CDMA_requirements.p d]

- (2) C-CDMA Pseudolite (or transmitter) requirements
- [http://www.giftet.com/Giftet_Global_Navigation_Solutions_files/C_CDMA_requirements.p d]
- (3)C-CDMA Receiver requirements

[http://www.giftet.com/Giftet_Global_Navigation_Solutions_files/C_CDMA_requirements.p d]

Second, the requirements of an OFDMA pseudolite indoor geolocation system include

- (1) OFDMA system requirements
- [http://www.giftet.com/Giftet_Global_Navigation_Solutions_files/OFDMA_requirements.pd f]
- (2) OFDMA pseudolite (or transmitter) requirements [http://www.giftet.com/Giftet_Global_Navigation_Solutions_files/OFDMA_requirements.pd f]
- (3) OFDMA receiver requirements [http://www.giftet.com/Giftet_Global_Navigation_Solutions_files/OFDMA_requirements.pd f]

ILLUSTRATION OF A GLOBAL NAVIGATION SOLUTION

[An illustration of a global navigation solution is the VZ NavigatorSM which provides all the features of an advanced navigation system on your mobile phone at a fraction of the price of other Global Positioning Services (GPS) devices and systems. VZ Navigator provides: heads-up, voice-prompted turn-by-turn directions (with auto-rerouting if you miss a turn); local search of nearly fourteen million points of interest (POIs) in the U.S.A.; and detailed color maps that can be quickly panned and zoomed. With VZ Navigator you will know where you are, know what's around you, and know how to get there. 2008 © Verizon Wireless.]

GIFTET NAVIGATOR®

Giftet would like to collaborate with Giftet Government Agencies and Giftet Industry Partners such as Microsoft, Verizon Wireless, Qualcom, LG, and Motorola etc. in developing **Giftet Navigator**[®]. Giftet Navigator[®] will have the ability to read Digital Terrestrial Chart (or Map) as well as GPS/GNSS/Pseudolite data and provide worldwide [terrestrial] cm level position accuracy 99.9% of the time using Giftet Intellectual Property (IP) Global Navigation







Solution system and enable safe and extremely accurate terrestrial navigation for the US Army, Federal and State Law enforcement, US Department of Homeland Security, Government (Federal or State) agencies and government/US Military sponsored contractors however under the worst case scenario conditions such as (heavy multipath, lack of GPS signals, interference, jamming etc.) for which currently any GPS devices and/or systems offer ~100 m position accuracy.

The requirements of Giftet Navigator®

- (1) Giftet Navigator® system requirements
- (2) Giftet Navigator® signal requirements
- (3) Giftet Navigator® receiver requirements.

GIFTET AERONAUTICAL NAVIGATOR®

Giftet Aeronautical Navigator® will have the ability to ability to read **Digital Aeronautical Chart**® anywhere from the 29 Digital Aeronautical Chart geographic regions, contained between 90° North latitude and 90° South latitude, and support a variety of Geographic Information System applications and also process GPS/GNSS/Pseudolite data and enable safe and very accurate aeronautical navigation for the US Air Force, US Navy, Government agencies and government/US military sponsored contractors. It is also anticipated that **Giftet Aeronautical Navigator**® will enable public sale of **Digital Aeronautical Chart**® in US airspace and worldwide.

The requirements of Giftet Aeronautical Navigator®

- (1) Giftet Aeronautical Navigator® system requirements
- (2) Giftet Aeronautical Navigator® signal requirements
- (3) Giftet Aeronautical Navigator® receiver requirements

GIFTET MARITIME NAVIGATOR®

Another example of Giftet® Global Navigation Solutions is **Giftet Maritime Navigator®** which will have the ability to read Digital Nautical Chart® anywhere from the 29 Digital Nautical Chart geographic regions, contained between 90° North latitude and 90° South latitude, and support a variety of Geographic Information System applications and also GPS/GNSS/Pseudolite data and enable safe and accurate maritime navigation for the US Navy, US Coast Guard, Government agencies and government/US military sponsored contractors. It is also anticipated that **Giftet Maritime Navigator®** will enable public sale of Digital Nautical Chart in US waters and worldwide.

The requirements of **Giftet Maritime Navigator**®







- (1) Giftet Maritime Navigator® system requirements
 - (2) Giftet Maritime Navigator® signal requirements
 - (3) Giftet Maritime Navigator® receiver requirements

GLOBAL NAVIGATION SOLUTION TUTORIALS

Global Navigation Solution tutorials are indicated below

Indoor Geolocation Systems [http://www.comsoc.org/livepubs/tutorials/progri/index.html] includes: (1) Introduction to Indoor Geolocation Systems; (2) C-CDMA Indoor Geolocation Systems; (3) OFDMA Indoor Geolocation Systems; (4) MC-CDMA Indoor Geolocation Systems; and (5) Hands on lab examples which cover intermediate realistic geolocation problems on indoor geolocation systems. Available for purchase at US\$200 for Communications Society Members and US\$250 for Non-Members. Important: Check system requirements before purchasing.

Geolocation of RF Signals [http://www.radarcon09.org/tutorials_program18.html] includes (1) Description the RF signals, the RF signal spectrum from 100 MHz – 66 GHz and the geolocation requirements per application; (2) Description the geolocation techniques; (3) Blind adaptive signal processing; (4) Geolocation and digital beam-forming; (5) Hands on lab illustrations which cover intermediate realistic geolocation of RF signals problems. Available for purchase at US\$200 for IEEE AESS Members and US\$250 for Non-Members. Important: contact Giftet Inc to purchase.

GIFTET FEATURED PRESENTATIONS, TUTORIALS, BOOKS

November 13, 2012, Dr. Progri, Giftet Inc. Chairman, CEO, and President gave a fabulous tutorial **Progri**, **I.**, *Geolocation of RF Signals—Principles and Simulations*, Tutorial IEEE HST'12, Waltham, MA, Nov. 2012, http://ieee-hst.org/.

April 26, 2012, Dr. Progri, Giftet Inc. Chairman, CEO, and President gave an outstanding presentation on **Progri, I.,** "On generalized multi-dimensional geolocation modulation waveforms," *in Proc. IEEE/ION-PLANS 2012*, Myrtle Beach, SC, pp. 919-951, Apr. 2012. [URL: http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6236835].

November 15, 2011, Dr. Progri, Giftet Inc. Chairman, CEO, and President gave a fabulous tutorial **Progri**, **I.**, Geolocation of RF Signals—Principles and Simulations, Tutorial IEEE HST'11, Waltham, MA, Nov 2011 http://ieee-hst.org/.

Progri, **I.**, *Geolocation of RF Signals—Principles and Simulations*. 1st ed., New York, NY: Springer Science & Business Media, LLC, 330 pp., Jan. 2011, [URL: http://www.springer.com/engineering/electronics/book/978-1-4419-7951-3].







May 4, 2010, Dr. Progri, Giftet Inc. Chairman, CEO, and President gave an outstanding presentation on **Progri, I.,** "Wireless-enabled GPS indoor geolocation system," *in Proc. IEEE/ION-PLANS 2010,* Palm Spring, CA, pp. 526-538, May 2010.

December 4, 2009, Dr. Progri, Giftet Inc. President and CEO, gave the fabulous tutorial on "Indoor Geolocation Systems: Theory and Applications" at the Superb IEEE Globecom 2009 of the IEEE ComSoc at the fabulous Hilton Village Hotel, Honolulu, HI, from 2:00 AM until 5:30 PM.

May 8, 2009, Dr. Progri, Giftet President and CEO, attended the fifth fabulous day of the IEEE RadarCon 2009 from 8:00 AM until 12:00 PM in the newly renovated Pasadena Convention Center, Pasadena, CA 91105. During the fifth day, Dr. Progri, gave his world renowned tutorial on "Geolocation of RF Signals."

December 4, 2008, Giftet Inc. gave the first tutorial on "Indoor Geolocation Systems" at one of the IEEE Communications Society (ComSoc)'s flagship conferences, IEEE GLOBECOM 2008, in New Orleans, LA. [http://www.ieee-globecom.org/tutorial19.html]

December 2, 2008, Dr. Progri, the President and CEO of Giftet Inc., recorded the "Indoor Geolocation Systems" tutorial with the TutorialsNow with the IEEE Communications Society at the Hilton, New Orleans, LA at the IEEE GLOBECOM 2008. [http://www.comsoc.org/livepubs/tutorials/progri/index.html]

November 7, 2008, Dr. Progri, Giftet Inc. President and CEO gave the first fabulous tutorial on "OFDMA Indoor Geolocation Systems" at one of the Cal Poly Pomona's flagship conferences, BTS 2008, in Cal Poly Pomona, Pomona, CA. This was made possible through the outstanding support of the IEEE Foothill Section and SWIFT Chapter.

November 4, 2008, Giftet Inc. to give the first tutorial on "Geolocation of RF Signals" at one of the IEEE AeroSpace and Electronic Systems Society (AESS)'s flagship conferences, IEEE RadarCon 2009, in Pasadena, CA, on May 8, 2009.

 $[http://www.radarcon09.org/tutorials_program.html] \\$

July 29, 2008, Giftet Inc. to give the first tutorial on "Indoor Geolocation Systems" at one of the IEEE Communications Society (ComSoc)'s flagship conferences, IEEE GLOBECOM 2008, in New Orleans, LA, on December 4, 2008. [http://www.ieee-globecom.org/tuts2.html]

