



# CenterPoint **RTX** Marine

FAQ

# About CenterPoint RTX

## What are Trimble RTX Correction Services?

Trimble RTX® represents a family of GNSS correction services that provide customers with high-accuracy positioning via Satellite or the Internet. While stand-alone GNSS positioning without corrections provide horizontal accuracies that are typically more than 1 meter, Trimble RTX correction services can provide horizontal accuracies better than 2 cm. CenterPoint® RTX correction service is a flagship product of the Trimble RTX product portfolio.

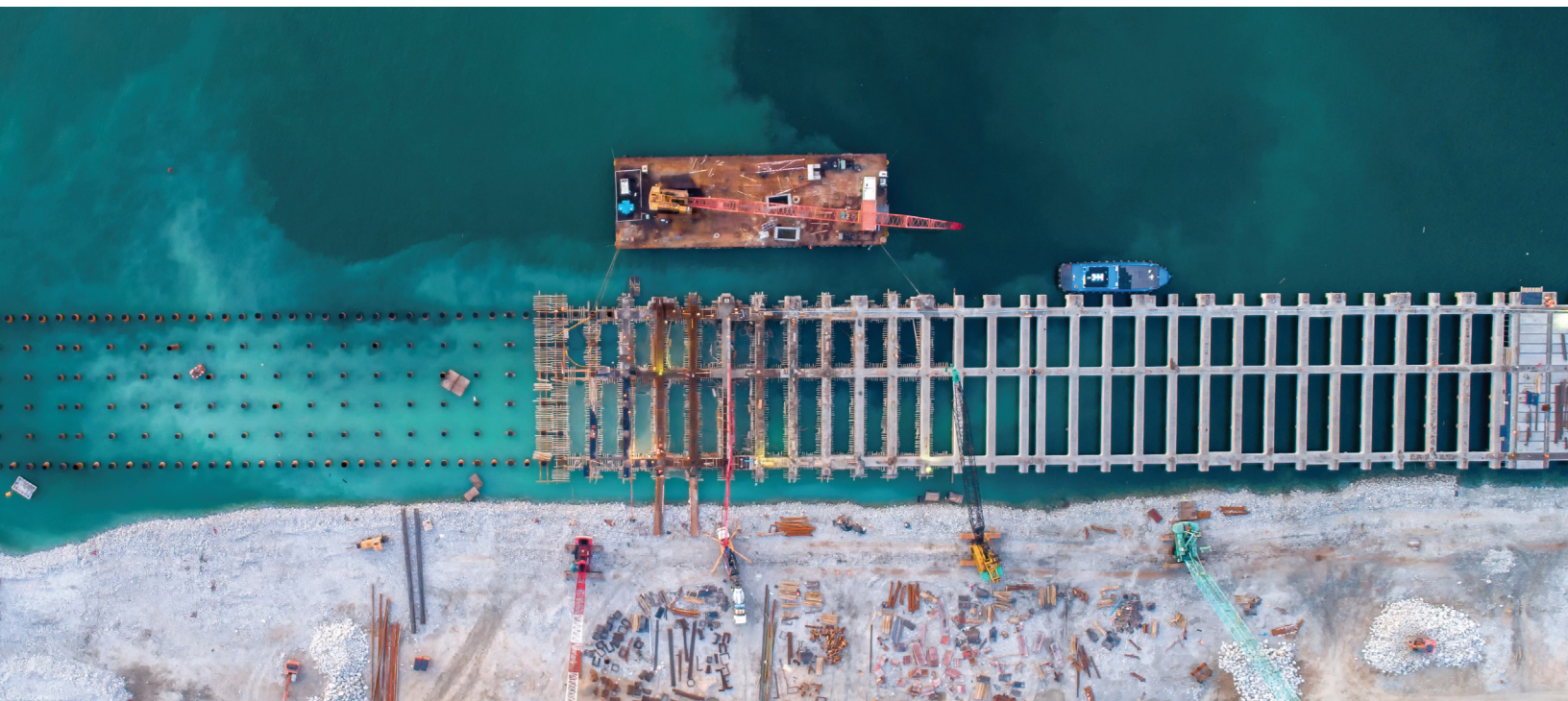
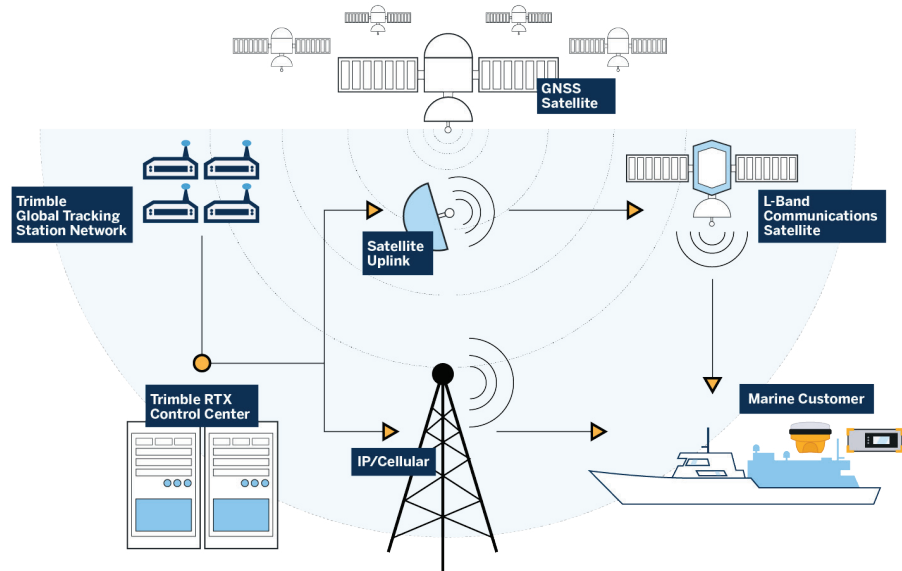
CenterPoint® RTX Marine is a real-time correction service, using an absolute positioning technique to model and correct GNSS biases, including clock errors, satellite orbit errors, and atmospheric delays, for construction and geospatial applications in the Marine sector.

## What does RTX mean?

RTX stands for Real Time eXtended. It is the technology that powers Trimble RTX correction services.

## How does Trimble RTX technology work?

Trimble RTX utilizes real-time satellite measurements from a global network of tracking stations, along with highly accurate atmospheric models and algorithms to generate Trimble RTX corrections. These corrections are then broadcast to the receiver via a set of geostationary satellites or over the Internet, which the receiver uses to improve the accuracy of its GNSS positions.



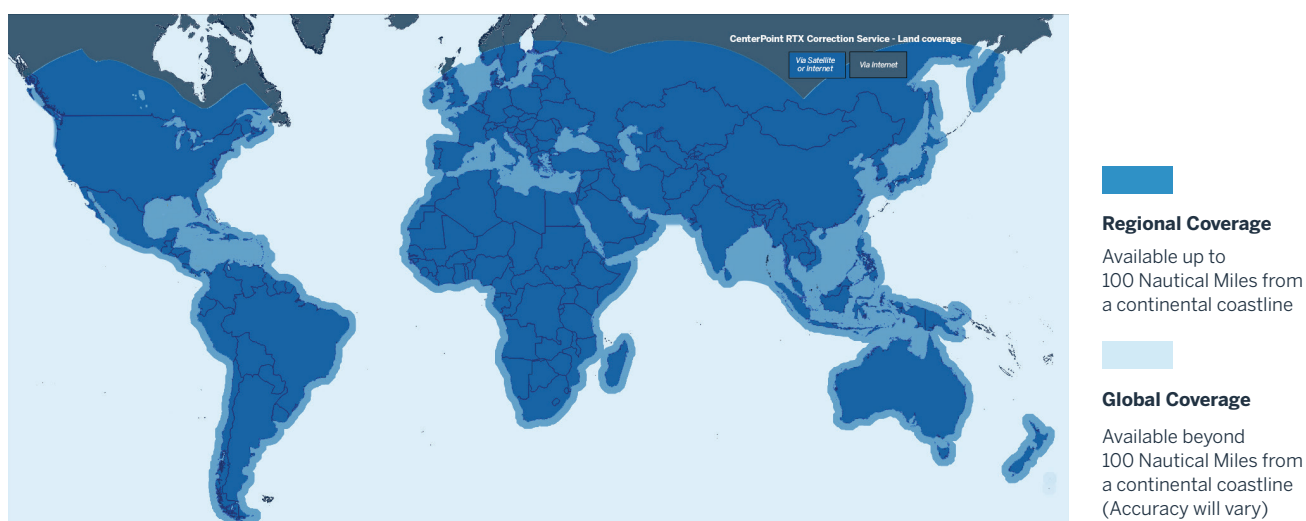


# About Trimble CenterPoint RTX Marine

## What is CenterPoint® RTX Marine coverage area?

The coverage area for CenterPoint RTX Marine delivered via L-band satellite extends to 100 Nautical Miles (200 kilometers) off all continental coasts (with the exception of the Western Coast of North America). Coverage has been expanded further in high interest areas including but not limited to the North Sea, Baltic Sea, Bay of Bengal, Gulf of Mexico. Please see the coverage map below for the full extent of coverage.

### Trimble CenterPoint RTX Satellite Correction Services - Expanded Marine Coverage



## What are the specifications for CenterPoint RTX Marine?

The expected horizontal and vertical accuracy within 100 Nautical Miles of a given coastline is 2 cm and 5 cm (RMS) respectively. Outside of this range the accuracy may degrade. Corrections delivered via internet (NTRIP) are available outside of the 100 NM constraint, again the accuracy will vary due to satellite and internet quality as well, as distance increases from the Trimble reference stations.

Service	Regions	Horizontal	Vertical	Convergence*
CenterPoint RTX Marine	Trimble RTX Fast regions	2 cm RMS	5 cm RMS	< 1 min
	Trimble RTX Standard regions	2 cm RMS	5 cm RMS	< 3 min

\*Trimble CenterPoint RTX Marine Fast Regions. Convergence performance will vary when working outside of 100 NM from shore. Trimble ProPoint™ receivers will have < 3 min convergence time outside of Fast Regions.

Accuracy and Convergence Time - Table 1.0

**Note:** We expect high levels of accuracy will be obtainable in many areas outside of the 100 Nautical Mile limit. Customers can receive a free trial to test the accuracy in their area of interest if they will operate outside the 100 Nautical Miles limit.

## What about CenterPoint RTX Marine compatibility with hardware and software?

The following Trimble and Applanix products are compatible with CenterPoint RTX Marine correction service:

### HARDWARE:

**Trimble Integrated Receivers:** R780

**Trimble Modular Receivers:**  
R750, MPS865, SPS855, BX992, Next Gen MPS566

**Applanix Modular Receivers:**  
POS MV Hardware (BD992, BD982)

**Recommended Antennas for modular receiver:**  
Rugged Zephyr 3, 540 AP, GA830

### SOFTWARE:

Trimble Marine Construction System for Positioning (TMC)  
PosPac MMS (Applanix)



## What is initialization?

Initialization (also known as convergence) is the process of calculating your position to a desired accuracy level. When a receiver's position reaches full accuracy, then it is considered to be fully initialized.

## How long does initialization or convergence take?

Trimble RTX correction services have different initialization times based on the region as noted in the Table 1.0.

## How long will I need to wait for initialization if I temporarily lose the Trimble RTX correction stream or GNSS satellites?

The GNSS receiver will rapidly re-initialize to specified accuracies after the loss of GNSS signals and/or the Trimble RTX correction stream. The Trimble RTX correction stream may be lost for up to 200 seconds, while GNSS signals may be lost for up to four minutes before the receiver requires full re-initialization.

## In which coordinate reference frame are Trimble RTX positions calculated and stored?

Trimble RTX coordinates are computed in ITRF2014 current epoch; these coordinates will be transformed to a fixed epoch dependent on the receiver and field software. Both Trimble Business Center and Trimble Access™ will transform the coordinates of an Trimble GNSS receiver using Trimble RTX to most regional reference frames, such as NAD83(2011) static or not.

## Which GNSS constellations do Trimble RTX corrections support?

Trimble RTX correction services support GPS, GLONASS, Galileo, QZSS and BeiDou.

# Subscriptions

## How is CenterPoint RTX Marine correction service activated?

Trimble CenterPoint RTX Marine correction service is activated via a subscription. These subscriptions can be activated either Over-The-Air (OTA) or through a manual passcode entry.

- **Over-The-Air Activation:** This is an activation that is sent via satellite and/or Internet directly to the receiver. Once this activation is received, the service will be ready to use.
- **Manual Activation:** With manual activation, an activation passcode is emailed to you when you purchase a CenterPoint RTX Marine subscription. You then key this passcode into your receiver to activate your subscription, which can be used right away.

## I missed the over-the-air activation. What can I do?

If you received a passcode, you may manually enter the passcode into the receiver. You may resend the OTA activation yourself at [resend.trimble.com](https://resend.trimble.com). You may also contact your local Trimble reseller or Correction Services Customer Care and request the activation broadcast be re-sent. Please have your account information and/or serial number on hand when contacting Customer Care.

## Does Trimble automatically renew my subscription?

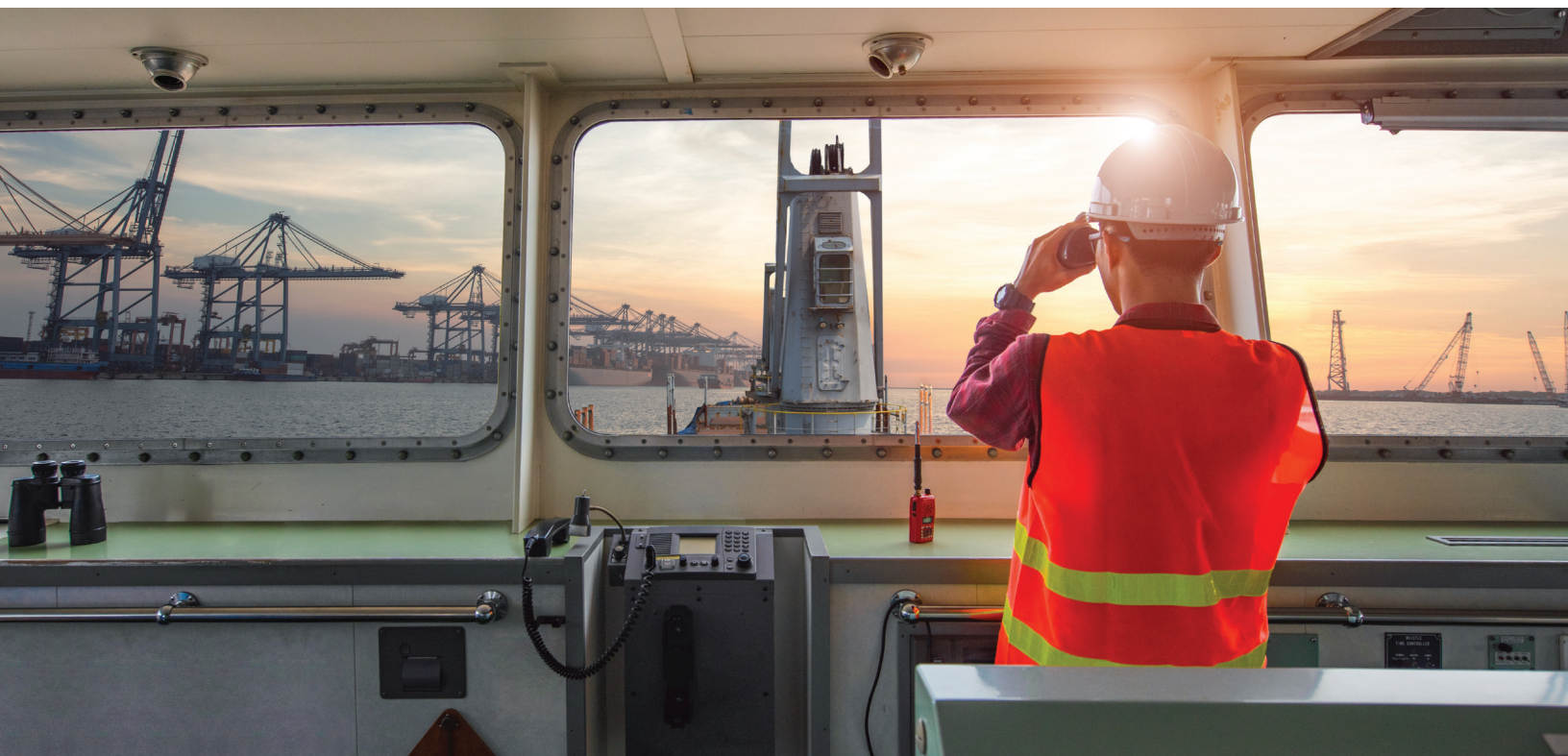
Your subscription will automatically renew if you are enrolled in Automatic Renewal. For more information, contact Correction Services Customer Care. If you are not enrolled in Automatic Renewal, you'll need to renew your subscriptions by going to [tpsstore.trimble.com](https://tpsstore.trimble.com) or contacting Correction Services Customer Care.

More information about auto-renewal can be found in our Terms & Conditions: [trimble.com/TPS\\_Terms](https://trimble.com/TPS_Terms)

## How will I know when my current subscription will expire?

You will receive a renewal notice about 4-6 weeks before your subscription is due to expire advising you of your expiration date and the renewal process. All subscription information is also available by logging into your account on [tpsstore.trimble.com](https://tpsstore.trimble.com)

Most receivers will show the expiration date on the display or user interface. If you are unsure on how to find this, you can contact Correction Services Customer Care and a member of our team will be able to advise you.





# Purchasing and Support

## Are CenterPoint RTX Marine demo subscriptions available?

Free 30-day demo subscriptions are available for all compatible receivers. This can be generated at [30daytrial.trimble.com](https://30daytrial.trimble.com) or by contacting Correction Services Customer Care

## How do you purchase CenterPoint RTX Marine services?

You can purchase CenterPoint RTX Marine correction services through the [online store](#), through a local [Trimble dealer](#) or by contacting [Trimble Customer Care](#) by phone or email. Subscriptions can be managed directly through the online store.

## How much will CenterPoint RTX Marine services cost for my device?

Pricing is available on the Positioning Services online store at: [tpsstore.trimble.com](https://tpsstore.trimble.com)

Please contact your local Trimble dealer or Correction Services Customer Care for any further details.

## What kind of customer support is available for CenterPoint RTX Marine correction services?

With regional offices worldwide, phone and email support is available anytime.

For more information and contact details, refer to [www.trimble.com/positioning-services/contact-us](https://www.trimble.com/positioning-services/contact-us)

**Trimble RTX<sup>®</sup>**  
CORRECTION SERVICE

