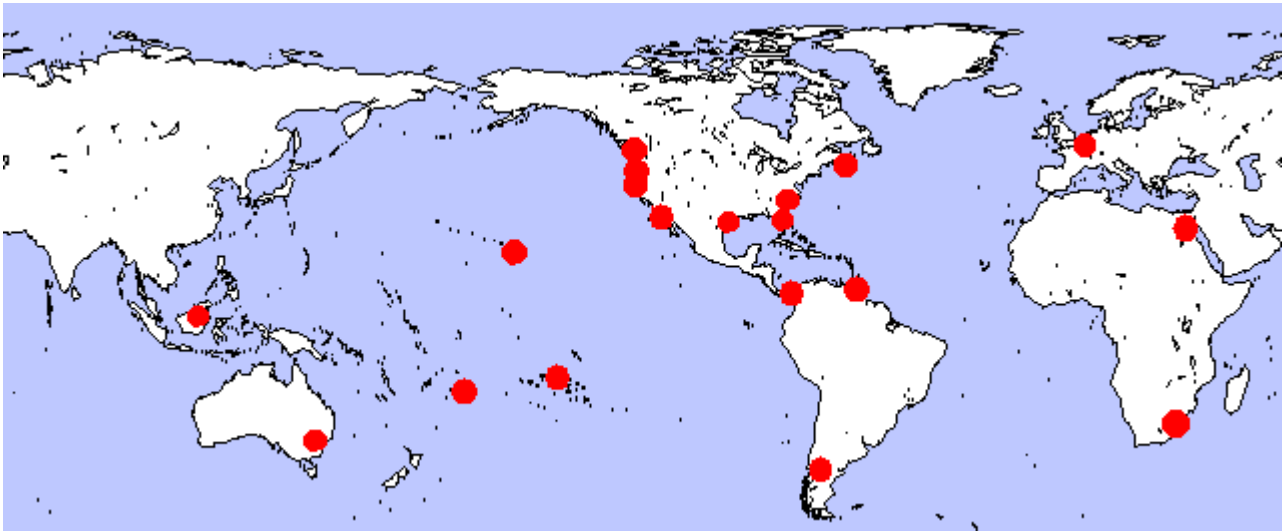


# SailMail

SailMail Email Service for Yachts via Iridium,  
Inmarsat, or SSB

## SSB-Pactor Station Locations Worldwide



### News:

Pickup SailMail messages via any type of Internet access:

Airmail software allows SailMail members to easily take advantage of SailMail's efficient email protocol, compression, and spam/virus/attachment filtering over any communications system that provides access to the Internet (e.g. Iridium, Inmarsat, Globalstar, WiFi, 3G, GPRS, cellular...) in addition to providing email communications via SailMail's own worldwide network of SSB-Pactor radio stations. To get details see [www.sailmail.com/saildocs/internet](http://www.sailmail.com/saildocs/internet) or send a blank email to [internet@saildocs.com](mailto:internet@saildocs.com)

If members want to receive an email that will automatically update the information on SailMail stations and frequencies that is used in their AirMail software, send an email to [stations@saildocs.com](mailto:stations@saildocs.com)

---

# SailMail

---

The SailMail Association is a non-profit association of yacht owners that operates and maintains an email communications system for use by its members. SailMail email can be transferred via SailMail's own world-wide network of SSB-Pactor radio stations, or via satellite (Iridium, Inmarsat, Globalstar) or any other method of internet access (cellular networks, WiFi). The SailMail system implements an efficient email transfer protocol that is optimized for use over communications systems that have limited bandwidth and high latency. Satellite communications systems and SSB-Pactor terrestrial radio communications systems both have these characteristics. The SailMail email system's custom protocol substantially reduces the number of link-turn-arounds and implements compression, virus filtering, spam filtering, and attachment filtering. The combination of the protocol, compression, and filtering dramatically improves communications efficiency.

The SailMail Association also maintains its own world-wide network of SSB-Pactor private coast stations in the Maritime Mobile Radio Service. Email that is sent to a SailMail member's email address can be seamlessly retrieved via SSB radio, via satellite, or via any other access to the internet.

Many budget-conscious SailMail members primarily use SailMail's network of SSB private coast stations to enjoy the most cost-effective email communications worldwide. Other than the membership fee to join the SailMail Association and the initial hardware cost of a SSB and Pactor modem, there is no cost per message for use of the SailMail radio network.

Other SailMail members use the SailMail's world-wide network of SSB-Pactor radio stations, but also carry Iridium or other satellite communications in addition as a backup and for urgent communications in times of difficult HF propagation.

Finally, some SailMail members primarily access the SailMail email system via their satellite system, taking advantage of SailMail's efficient communications protocol, compression, and filtering to minimize their satellite time and cost. Some of these members also carry a Pactor modem for use with their SSB as a backup communications system to their satellite system.

The SailMail Association's network of HF private coast stations provides worldwide coverage. Every SailMail station provides service in Pactor, Pactor-II and Pactor-III. SailMail's stations and their frequencies are as follows:

<b>Location</b>	<b>Callsign</b>	<b>Frequencies in kHz</b>
Palo Alto, California, USA	WRD719	5881.4, 7971.4, 10343, 13971, 13986, 18624
San Diego California, USA	WQAB964	2759, 5740, 7380, 10206, 13874, 18390, 23060
San Luis Obispo, California, USA	WHV861	2800.4, 5861.4, 8020.4, 10320, 10982, 13915, 13946, 18296
Friday Harbor, Washington, USA	WHV382	2794.4, 5830, 7995, 10315, 13940, 18277
Honolulu, Hawaii, USA	KUZ533	2701.4, 5836, 7957.4, 10325, 13930, 18264
Rockhill, South Carolina, USA (three transceivers)	KZN508	2656.4, 5876.4, 7961.4, 7981.4, 10331, 13998, 18618, 18630
Lunenburg, Nova Scotia, Canada	XJN714	4805, 7822, 10523, 13937, 14436.2, 18234, 21866
Firefly, NSW, Australia (five transceivers)	VZX	2824, 4162, 5085.8, 6357, 7498, 8442, 8684.5, 10476.2, 12680, 13513.8, 14436.2, 16908, 18594, 22649
Maputo, Mozambique, Africa	RC01	5212, 7957.4, 10335, 10522, 12689*, 12694, 13930, 13992*, 14588*, 18264, 18630*, 22212* (* these frequencies use a directional antenna pointed NE into the Indian Ocean)
Brunei Bay, Brunei Darussalam (four transceivers)	V8V2222	5212, 6305, 7962, 8399, 10323, 11174, 13426, 14987, 16786, 18893, 20373, 22352
Brugge, Belgium (four transceivers)	OSY	6330.5, 8422, 12580.5, 16684.5
Corpus Christi, Texas, USA	WPTG385	2720.8, 5808.8, 5859.4, 7941.4, 10361.4, 13906.4, 13926.4, 18376.4, 22881.4
South Daytona, Florida, USA	WPUC469	2807.8, 5897.4, 8009.4, 10366.4, 13921.4, 18381.4, 22961.4
Chiriqui, Panama	HPPM1	4075, 5735, 8185, 10450, 13880, 18240, 18440, 23050
Chiriqui,	HPPM2	2650, 5870, 10329, 13980, 18610, 22643

Panama		
Los Lagos, Chile	CEV773	2828.5, 5266.5, 10620, 10623, 13861.5, 13875
Abu Tig Marina, El Gouna Egypt	SSM678	2824.5, 4162.5, 6239.5, 8325.5, 12394.5, 16598.5, 18866.5, 22645.5
Chaguaramas, Trinidad	9Z4DH	2212, 5005, 7405, 10150, 13548, 17103, 18172, 20528
Manihi Atoll, Polynésie Française	FOHXM	1919, 4206.5, 6222.4, 8289.4, 12576, 16785.5
Niue	ZKN2SM	4168, 6241.5, 8308.5, 12373.5, 16563.5, 18856.5

(if members want to receive an email that will automatically update the information on SailMail stations and frequencies that is kept in their AirMail software, send an email to [stations@saildocs.com](mailto:stations@saildocs.com))

**[For registration and other information, scroll down this webpage or click here.](#)**

## **Background of SailMail**

Stan Honey WA6IVA organized the SailMail Association, obtained the necessary FCC licenses, begged, borrowed, and bought the necessary equipment, wrote the internet gateway/multiple-station synchronization software, and assembled and installed the initial SailMail radio stations. Jim Corenman KE6RK wrote the AirMail program that serves as the email client running on PC's aboard member vessels and also is used at the SailMail stations. Jim and Sue Corenman installed the stations in Rockhill, Honolulu, Texas, Florida, and Chile. Steve Chamberlin was the first member and user of the SailMail system and helped finance the founding of the association. Shea Weston of [Offshore Outfitters](#), one of SailMail's most experienced dealers, provides SailMail's tech support phone and email service (see the [Contact-Us](#) page on this site), and provides much of the hardware maintenance for SailMail's US stations. Sally Lindsay Honey, Jo Boynton, and Sue Corenman manage membership registration and help run the network. The current directors of the SailMail Association are Stan Honey, Jim Corenman, Sally Lindsay Honey, Steve Chamberlin, Sue Corenman, and Shea Weston.

All users of the SailMail service must join the SailMail Association in order send and receive email via the SailMail system and to access the stations. The SailMail Association pro-rates the expenses for the email system and station operation among the members of the Association. The membership assessment is \$250 per vessel, per year. This assessment is subject to change in the future as the number of members,

the cost of station operation, and the cost of setting up additional stations vary. Any membership assessments received by the Association in excess of the funds required will be refunded to the members, pro-rata to each member's paid-in fee's.

The SailMail Stations could not be operating now without support from Chuck Hawley and the Rockhill, Palo Alto, Honolulu, Corpus Christi, South Daytona, and San Diego staffs of [West Marine](#), Shea Weston of [Offshore Outfitters](#), Mark Robinson of [Pactor Communications Australia](#), Richard Spindler of [Latitude 38](#), Don Melcher of [HF Radio On Board](#), [ICOM](#), Sally Lindsay Honey of [Spinnaker Shop](#), Eric Steinberg of [Farallon Electronics](#), and Martin (DL1ZAM) of [SCS Inc](#). Please take lots of business to these companies in thanks for their support of SailMail.

Many thanks to the operators of overseas stations that handle SailMail traffic: Derek and Jeanine Barnard of [Penta Comstat](#) in Firefly NSW Australia, Justice Malanot of [Bushmail](#) in South Africa, William Latter of LMR Communications in Lunenburg Nova Scotia, Allan Riches of [Brunei Bay Radio](#) in Brunei Darussalam, Philip Cazaerck in Belgium, Craig Owings commodore of the (late) Pedro Miguel Boat Club in Panama, Ian and Maggy Staples in [Los Lagos Chile](#), Philip Jones and his staff at the [Abu Tig Marina](#) in Egypt, Aaron Hutchinson in Trinidad, Xavier Michel in the Tuamotus, and Garry Clarke, the NZ Met Service, and the Niue Met Service in support of the station in Niue. We would also like to thank Mark Robinson who has been instrumental in setting up many of SailMail's international stations.

In addition, a number of others contributed to the effort: Jim Jennings W5EUT, Hans Kessler N8PGR, and Steve Waterman K4CJX were supportive and their work on Netlink, Winlink, and the Ham networks paved the way for the SailMail Association system.

## **What are the advantages of using the SailMail email system and AirMail software via my Iridium, Inmarsat, or Globalstar system?**

SailMail's email system implements a communications protocol that is optimized for low-bandwidth and high-latency communications systems. Satellite and SSB-Pactor communications both have these characteristics. The SailMail protocol minimizes the number of link-turn-arounds, provides virus/spam/attachment filtering, and compresses the data. The result of this processing is a dramatic increase in the efficiency of email communications over satellite. The SailMail protocol can transfer about 10 times the email messages in the same satellite time as can a conventional pop3/smtp communications protocol.

The use of the SailMail email system over satellite is seamless with email communications using SailMail's worldwide network of SSB-Pactor radio stations. This means that you can pick up or send messages to or from your SailMail email address via any of SailMail's worldwide SSB-Pactor stations or via any satellite communications system or via any other system providing internet access. You do not need to check multiple email addresses.

## **What kind of email services does SailMail provide over the SSB-Pactor radio network?**

Depending on propagation, the quality of your radio (especially grounding system) installation, the type of equipment used, and the distance from the station, members are able to send and receive internet email at a rate varying from 10 to 500 characters per second using Pactor-III. These rates approximately compare to sending and receiving text on a PC using a modem of between 110 and 4800 baud (remember those days?).

Clearly this does not allow "browsing the Internet." The objective of the SailMail station is not to provide "Internet Access" in any general sense but instead to allow sailors to send and receive Internet email from the high seas. These transfer rates, while stunningly slow by modern standards, are sufficient for sending and receiving email messages. For example an email message that could fit on one half of a type-written page would comprise about 1000 characters, and would take 2 to 90 seconds to transfer.

A half-page email is plenty long enough to send an update to family and friends, to order parts, to arrange travel, or to handle other logistical issues. A half-page email is a typical example, but the station will allow email messages that are up to 10kBytes in length for members using Pactor-III. For reference, 10kBytes is about 5 type-written pages. There is no additional cost beyond the membership fee; i.e. there are no per-message fees. Members are required, however, to limit their use of the SailMail stations to a running average of 90 minutes per week, calculated over the previous week. Members can send email to any Internet email address, and can receive email from anyone, addressed to: [CALLSIGN@sailmail.com](mailto:CALLSIGN@sailmail.com) (where CALLSIGN is your boat's marine callsign which should look something like WXY1234)

For example a typical email address for a SailMail member vessel could be:  
[WXY1234@sailmail.com](mailto:WXY1234@sailmail.com)

The SailMail Association has frequency allocations from 2 to 22 MHz at the stations. These frequencies provide communications at distances up to about 5000 miles from each station. SailMail has worldwide coverage and a number of members of the SailMail Association have circumnavigated and have used SailMail throughout their circumnavigation.

## **What does it cost to join the SailMail Association and to use the email system and the stations?**

All users of the SailMail service must join the SailMail Association in order to use the system. The SailMail Association pro-rates the expenses for email system and station operation among the members of the Association. The membership assessment is \$250 per vessel, per year. This assessment is subject to change in the future as the number of members, the cost of station operation, and the cost of setting up additional stations vary. Any membership assessments received by the

Association in excess of the funds required will be refunded to the members, pro-rata to each member's paid-in fee's.

There is no per-message fee or connect-time fee for the use of SailMail's radio stations, although members must limit their usage of the SailMail radio stations to 90 minutes per week.

There is no per-message fee and no limit on the number of messages sent through the SailMail email system and picked up via satellite or other internet access, although the member will have to pay separately for their satellite time and/or for their internet access.

Membership assessments pay for membership for one year from the date that the assessment is received.

Memberships are only available for one year periods, and are not refundable for any reason, including changes in a members cruising plans, or difficulties in using SailMail.

### **Can I receive weather information via the SailMail system?**

Yes, there are lots of options.

You can use the SailMail system itself to receive text or grib weather forecasts at no charge. The easiest way (free) is to use SailDocs.com For information send an empty email to [info@saildocs.com](mailto:info@saildocs.com) . It is also possible to request no charge text forecasts directly from the US National Weather Service. For information, send an email to [ftpmail@ftpmail.nws.noaa.gov](mailto:ftpmail@ftpmail.nws.noaa.gov) and in the first and only line of the message put "help".

Several commercial services format and email text and grib weather forecasts for a fee. BuoyWeather, Oceans, MaxSea, MovingWeather, Météo-France, and many others are in that business.

You can use SailMail to communicate with a meteorologist or commercial weather service (e.g. Commanders Weather), who can advise you on reasonable departure dates and routes, and can send you periodic routing advice during your passage. We highly recommend this, particularly for new cruisers who have not yet become confident in their ability to interpret weather data. See the FAQ section of the SailMail Primer for a list of meteorologists and commercial weather services who are expert at advising cruisers.

Finally, there are fax weathermaps and SITOR text weather forecasts that are broadcast by the US Coast Guard and by other HF stations around the world. Your SCS PTC-II modem can be used in conjunction with your laptop to receive these broadcasts. See the FAQ section of the SailMail Primer, and the Downloads page of this website for more details.

## How do I sign up or renew my membership?

1. Read the [Terms and Conditions of the SailMail Association](#).
2. Download and print copies of the [FCC Licenses for the US SailMail stations](#), and keep the copies aboard. While you are at it download and print a copy of the [SailMail Primer](#) and any relevant Application Notes from the Primer and keep them aboard for reference.
3. Go to the [Application Form](#) on this website and follow the instructions.
4. When your account is set up or renewed, you will receive a confirming email to your internet email address and to your SailMail address. This often takes up to a week; sometimes shorter when things work out conveniently, and sometimes longer when the sysops are out of town on their day jobs or off sailing themselves (it is only fair). Do not leave registration or renewal until the last minute. It is easier to do your installation when your registration is already complete and you can immediately test your system.
5. If you are renewing, there is no advantage in waiting until the last minute. Your membership will be extended for one year from the time that it would have otherwise expired.

## How do I contact the SailMail Association?

See the [Contact Us](#) page on this website.

## How do I set up the gear to access the SailMail SSB-Pactor stations?

You need to acquire a Pactor-modem, which is basically a special modem available from ham radio or marine electronics dealers that is designed to transfer data over radio. The SailMail system works best with the SCS PTC-IIpro or SCS PTC-IIusb. The SCS PTC-IIex is cheaper but does not have the ability to set the frequency on your radio, which is handy. The PTC-IIpro, costs approximately \$1200 (including a Pactor-III license). Both the PTC-IIpro and IIusb have a radio control output which enables those modems to remotely set the frequency on certain radios (i.e. Icom 700Pro, Icom 710, Icom 802, Sea235, SGC2000). If you have one of these radios and want your laptop to set the frequency on it (highly recommended) you should buy the PTC-IIpro or IIusb. If you get a PTC-IIex and want your laptop to remotely set the frequency on your radio, you will need to go through the hassle of adding a second serial port to your laptop (the first serial port is used by the SCS PTC-IIex itself). Any PTC-II modem (II, IIe, IIex, IIpro, IIusb) can be licensed for a fee (to an SCS dealer or to SCS, not to SailMail) to use the Pactor-III protocol. If licensed to use Pactor-III, the modems are capable of data transfer rates up to 500 characters per second. There are no other differences between the modems and elsewhere in this documentation the terminology PTC-II will be used to refer to both modems. Note that SCS used to build a modem with the model designation SCS PTC-II (with no suffix). This modem

also includes a radio interface with most of the features of the SCS PTC-IIpro (and IIusb), but with different wiring on the radio remote control cable.

Members should limit their use of the SailMail stations to 90 minutes per week. So if you intend to send or receive more than one or two short emails per day you will need to use Pactor-III. SCS PTC-II modems that have been licensed to use Pactor-III transfer data 3-5 times faster than Pactor-II. Finally, the SCS PTC-II modems make terrific DSP-based weatherfax demodulators, using software that is available off of the internet (see the downloads page on the SailMail Website).

Once you buy your Pactor-modem, there is still much to do: you will need hook up the Pactor-modem with your radio and laptop, download the [AirMail software](#), set it up, and learn how to operate the system. This can be tricky unless you get help.

You have two choices:

1. You can buy the Pactor-modem yourself, figure out and make the interface cables, download the software, read the documentation, and sort it all out. If you want to take this approach, there are instructions on this website in the [SailMail Primer](#) and in application notes referenced from the SailMail Primer. Alternatively...
2. you can get help from your marine/ham radio dealer who will sell you the Pactor-modem, supply the special cables to connect it to your radio, hook it up, load the AirMail software in your laptop, and show you how to operate it. The radio-specific cables with ferrites etc. and installation will typically cost about \$200-300. **Even if you take this approach, you should print out the [SailMail Primer](#), and keep it aboard as a reference.**

Unless you either **like** sorting out details of interfacing laptops and radios, or you are bored to tears and looking for a challenge, we suggest that you contact your marine/ham radio dealer. It may turn out that you will need changes made in the configuration of your marine SSB in any event. If this is the case, then you will need the help of a licensed marine radio technician to make these changes. If you (sensibly) decide to get the help of a dealer, you may find it helpful to refer to the [SailMail Installation Checklist](#), when you contract with your dealer, to make sure that no steps are overlooked.

There are many radio dealers who can sell and install an Pactor-modem for you. They will obviously charge you for their services to do the installation, but they are earning their money; the installation requires skill. Some of these dealers are:

## CANADA

- Richmond BC, Vancouver Marine Equipment +1 800-863-8646 Brian Stilling  
<[jbvanmar@netcom.ca](mailto:jbvanmar@netcom.ca)>
- Duncan BC, [White Squall Consulting Inc](#) +1 250-748-6642 Martin Dunsmuir  
<[dunsmuir@whitesquallconsulting.com](mailto:dunsmuir@whitesquallconsulting.com)>
- Victoria BC, Victoria Marine Electric Ltd +1 250-383-9731 Brian Stilling  
<[brian@victoriamarine.com](mailto:brian@victoriamarine.com)>

- Markham ON, [Stand Sure Marine](#) +1 416 409 4089 David Anderson <[info@standsuremarine.com](mailto:info@standsuremarine.com)>
- Whitby ON, [Durham Radio](#) +1 905-665-5466 Keith Carcasole <[info@durhamradio.com](mailto:info@durhamradio.com)>
- Lunenburg NS, Oceanside Communication Systems +1 902-634-4430 William Latter <[oceanview1@ns.sympatico.ca](mailto:oceanview1@ns.sympatico.ca)>

## UNITED STATES

- San Diego CA, [Offshore Outfitters](#), +1 619 225 5690, Shea Weston [sales@offshoreoutfitters.com](mailto:sales@offshoreoutfitters.com)
- Sausalito CA, [Farallon Electronics](#) +1 415 331 1924 Eric Steinberg <[pactor@yachtwire.com](mailto:pactor@yachtwire.com)>
- Alameda CA, [HF Radio Onboard](#) +1 510 814 8888 Don Melcher <[info@hfradio.com](mailto:info@hfradio.com)>
- San Diego CA, [Downwind Marine](#) +1 619 224 2733 Chris or Linda <[info@downwindmarine.com](mailto:info@downwindmarine.com)>
- Santa Cruz CA, Maritime Electronics +1 800-582-1333 Terence M. Boland <[MESCUSA@att.net](mailto:MESCUSA@att.net)>
- Sausalito CA, [Maritime Electronics](#) +1 415 332 5086 Brian Backer <[brian@maritimeelectronics.com](mailto:brian@maritimeelectronics.com)>
- Dana Point Harbor CA, [RadioDana Maritime](#) +1 949 275-5514 Paul Robert <[radiodana@bellsouth.net](mailto:radiodana@bellsouth.net)>
- Punta Gorda FL, [DockSide Radio](#) +1 941 661 4498 Gary Jensen
- Lantana FL, [Lamplighter Marine](#) +1 561 588 9176 Dave LaLonde <[Dave@lamplightermarine.com](mailto:Dave@lamplightermarine.com)>
- Ft Lauderdale FL, [Concord Electronics](#) +1 954 779 1100 Michael Robilio <[info@concordelectronics.com](mailto:info@concordelectronics.com)>
- Jacksonville FL, [Miller Marine](#) +1 904 388 3690 Al Meunier <[info@millermarine.com](mailto:info@millermarine.com)>
- Portland OR, [Rodgers Marine Electronics](#) +1 503 287 1101 Marty Kirk <[mkkirk@rodgersmarine.com](mailto:mkkirk@rodgersmarine.com)>
- Portsmouth RI, [Custom Navigation](#) +1 401 683 6005 Steve Gill <[sggill@compuserve.com](mailto:sggill@compuserve.com)>
- Galveston TX, [SeaTech Systems](#) +1 800 444 2581 Steven Bowden <[navcom@sea-tech.com](mailto:navcom@sea-tech.com)>
- Washington DC, [Cruising Services & Supplies](#) +1 202 342-0191 Dick Juppenlatz <[CruisingServices@aol.com](mailto:CruisingServices@aol.com)>
- Salford PA, [TechYacht](#) +1 610 287 0703 Tim Hasson <[thasson@techyacht.com.com](mailto:thasson@techyacht.com.com)>
- Mamaroneck NY, Innovative Marine Services +1 914 698 4959 David Fontaine <[ims.mail@verizon.net](mailto:ims.mail@verizon.net)>
- Mamaroneck NY, RadCom Technologies +1 914 698 6800 Murray Cohen <[RadComMarine@AOL.COM](mailto:RadComMarine@AOL.COM)>
- Portsmouth RI, [Cay Electronics Inc](#) +1 401 683 3520 Phil Lee, [phil@cayelectronics.com](mailto:phil@cayelectronics.com)
- Portland ME, [Marine Computer Systems](#) +1 207 871 1575 Dan Piltch <[dpiltch@marinecomputer.com](mailto:dpiltch@marinecomputer.com)>
- Thomaston ME, Midcoast Marine Electronics +1 207 354 0012 Kevin Boughton <[kevinb@midcoast.com](mailto:kevinb@midcoast.com)>
- Mukilteo WA, [Windward Communications](#) +1 425 353 6520 Chip Adams [chip@windwardcommunications.com](mailto:chip@windwardcommunications.com)
- Anacortes WA, [Anacortes Marine Electronics](#) +1 360 293 6100 Bryan Hennessy <[info@anacortesmarine.com](mailto:info@anacortesmarine.com)>
- Seattle WA, Offshore Store, +1 206 632 3025 Brian Rickard [sales@offshorestore.com](mailto:sales@offshorestore.com)
- San Francisco, CA, [Cal Marine Electronics](#), +1 415 391 7550, Fred King, [fred@calmarineelectronics.com](mailto:fred@calmarineelectronics.com)

## CARIBBEAN

- St John British Virgin Islands, [Cay Electronics Ltd](#) Rob Wassell +1 284 494 2400, <[caybvi@candwbvi.net](mailto:caybvi@candwbvi.net)>
- Chaguaramas Trinidad, Navtech Electronics Ltd, Aaron Hutchinson, +1 868 6341231, <[navigationalelectron@tstt.net.tt](mailto:navigationalelectron@tstt.net.tt)>

## EUROPE

- Bursledon Hampshire UK, [SailCom Marine](#) +44 1489 565100 Bob Smith <[sales@sailcom.co.uk](mailto:sales@sailcom.co.uk)>

- Weymouth Dorset UK, [JG Technologies Ltd](#) +44 1305 787788 John Grandshaw  
<[sales@jgtech.com](mailto:sales@jgtech.com)>
- Enkhuizen The Netherlands, [Shiptron](#) +31 228 317437 Jugo Baya  
<[jb@shiptron.nl](mailto:jb@shiptron.nl)>
- Hamburg & Aachen Germany, [MOECOM](#) +49 162 217 16 99 Thomas Möllers  
<[Thomas@moecom.de](mailto:Thomas@moecom.de)>
- Düsseldorf Germany, [Lunatronic](#), +49 176 21895735 Michael Wnuk, [michael.wnuk@lunatronic.net](mailto:michael.wnuk@lunatronic.net)
- Hamburg Germany, [Funk & Datensysteme](#), +49 40 7008909 Kay-Uwe Held [held21629@arcor.de](mailto:held21629@arcor.de)
- Manguio France, SUD Communication +33 4 6750 9852 Jean-Marc Montariol  
<[sudcom@wanadoo.fr](mailto:sudcom@wanadoo.fr)>
- Beinwil am See Switzerland, [Ingenieurbüro für Telekommunikation](#) +41 62 771 23 55 Robert  
Grisch <[rgrisch@seefunk.ch](mailto:rgrisch@seefunk.ch)>
- Weston super Mare England, Mactra Marine, +44 1934 517288 [info@mactrashop.co.uk](mailto:info@mactrashop.co.uk)
- Gallipoli Italy, Elettronica Navale, Enrico De Rosa, +39 0833 202251 [ederosa@libero.it](mailto:ederosa@libero.it)
- Lignano Italy, [Dehler Italia](#) +39 0431 723276 Antonio Pezzoni [info@nextboat.it](mailto:info@nextboat.it)
- Capannoli Pisa, [Arno Elettronica](#), +39 0587 606122, Marco Menozzi,  
[assistenza@arnoelettronica.com](mailto:assistenza@arnoelettronica.com)
- Slovenia [UScom I.t.d.](#) +386 1200 6040 [info@uscom.si](mailto:info@uscom.si)
- Serbia, [Aluxom I.t.d.](#) +381 11 3477 981 [info@aluxom.com](mailto:info@aluxom.com)

## AFRICA

- Dar es Salaam Tanzania, [Plustronics Communications Ltd](#), Robin Moseley <[info@pluscoms.com](mailto:info@pluscoms.com)>
- Cape Town South Africa. [Business Marine cc](#) +27 21 511 1430 Bryn Reeves <[bryn@bmarine.co.za](mailto:bryn@bmarine.co.za)>
- Cape Town South Africa, [C-dynamics](#) +27 21 555-3232 Bruce Robinson <[bruce@c-dynamics.co.za](mailto:bruce@c-dynamics.co.za)>
- Cape Town South Africa, Duxbury Networking +27 21 423 7115 Robert Ravensberg  
<[robert@duxbury.co.za](mailto:robert@duxbury.co.za)>
- Cape Town South Africa, Radio Holland South Africa +27 (0)21 511 0864 Martin Hulme  
<[mhulme@rhcpt.co.za](mailto:mhulme@rhcpt.co.za)>
- Durban South Africa, Radio Holland South Africa +27 (0)31 2055309 Martin Taylor  
<[mtaylor@rhdbn.co.za](mailto:mtaylor@rhdbn.co.za)>

## SOUTH PACIFIC

- Sydney NSW Australia, [PCA.cc](#) +61 2 8011 4928, +61 4 2525 4928 Marc Robinson <[marc@pca.cc](mailto:marc@pca.cc)>
- Darwin NT Australia, Navcom +61 8 8981 1311 Bob Stroud <[Bob.Stroud@navcom.com.au](mailto:Bob.Stroud@navcom.com.au)>
- Bundaberg QLD Australia, Rampant Marine Elect. +61 7 4159 5344 Dave Dee  
<[rampantmarine@queenslander.net.au](mailto:rampantmarine@queenslander.net.au)>
- Mackay QLD Australia, MME Electronics +61 7 4955 5101 Patrick Mee  
<[mmelectronics@commander360.com](mailto:mmelectronics@commander360.com)>
- Townsville QLD Australia, [Seabourne Electronics](#) +61 747 714210 Paul Weldon  
<[seabourne@ozemail.com.au](mailto:seabourne@ozemail.com.au)>
- Melbourne VIC Australia, Nautek Marine Services +61 4 1039 8400 MichaelFizallen  
<[nautekms@bigpond.com](mailto:nautekms@bigpond.com)>
- Melbourne VIC Australia, Offshore Marine Electronics +61 3 9597 0528 Colin Miller  
<[colin@offshore.net.au](mailto:colin@offshore.net.au)>
- Adelaide SA Australia, Intl. Comms. Systems +61 8 8447 3688 John Moffat  
<[intcom@picknowl.com.au](mailto:intcom@picknowl.com.au)>
- Cairns Queensland Australia, [Endless Technology](#), +617 40410990 +61407125459, Xenek  
Stoehr, [xenek@endtech.com.au](mailto:xenek@endtech.com.au)
- Auckland New Zealand, [Calvotech](#) +64 9 415 0454 Jacques Calvo <[jacques@calvotech.co.nz](mailto:jacques@calvotech.co.nz)>
- Auckland New Zealand, [Crystal Electronics](#) +64 9 579 3726 Bruce Lowrie <[sales@crystal.co.nz](mailto:sales@crystal.co.nz)>

- Auckland New Zealand, Sailboat Accessories +64 9 412 6949 Leslie Egnot <[leslie.egnot@ihug.co.nz](mailto:leslie.egnot@ihug.co.nz)>
- Auckland New Zealand, [Seatrak Electronics](#) +64 09 373 2400 Chris Bowler [info@seatrak.co.nz](mailto:info@seatrak.co.nz)
- Whangarei New Zealand, [Steelcom Electronics](#) +64 9 438 4644 Murray MacFadyen <[murray@steelcom.co.nz](mailto:murray@steelcom.co.nz)>
- Whangarei New Zealand, Waypoint Electronics +64 9 438 2650 Wayne Limbrick <[waypoint.wayne@xtra.co.nz](mailto:waypoint.wayne@xtra.co.nz)>
- French Polynesia, [LSAC](#) +689 20 45 87 Luc Callebaut [lucseawalker@gmail.com](mailto:lucseawalker@gmail.com)

## ASIA

- Brunei Darussalam, Borneo, [Brunei Bay Radio](#) +673 8 723702 Allan Riches, [allanr@bruneibay.net](mailto:allanr@bruneibay.net)

Again, if you do use a dealer and arrange for a professional installation, be sure to refer to the [Installation Checklist](#) that is posted on this website. Discuss with your dealer in advance the cost and which steps on the checklist he or she intends to complete. Be sure to watch the installation and checkout to gain familiarity with the system and installation.

## How does SailMail's SSB-Pactor radio network compare to Ham Radio?

SailMail is not a Ham Radio system. You do not need a Ham license. All you need is to have a properly licensed marine SSB and join the SailMail Association (see the [Terms and Conditions](#) for eligibility).

The Pactor-modem that you purchase, however, can be used on digital networks run by Ham Radio operators. Thus if you are a Ham, or if you become one, you can use your Pactor-modem on the Ham networks as well. Many SailMail members have developed an interest in radio from their use of SailMail and have subsequently become licensed Hams and use the Ham WinLink system as well as SailMail. Conversely, many Hams who use the Ham WinLink system have joined SailMail in order to use SailMail for business-related communications that cannot be handled via Ham radio.

SailMail members use the AirMail software to access the SailMail network, which is the same software that is used by Hams to access the WinLink network. Therefore cruisers who use both SailMail and WinLink can conveniently keep all of their messages in the same set of folders on their onboard PC, and only have to deal with one software program.

The Ham networks offer greater geographic coverage and contain more stations than SailMail or any other HF network. Further, the ham networks do not have any limits on connect-time, and permit users to send and receive file attachments like images and binary executables. By comparison, SailMail has usage limits of 90 minutes per week and only passes certain attachments (e.g. weather data). Note, however, that while it is appropriate to send business-related messages over the SailMail system, business messages are not permitted on the Ham networks.

The SailMail system does not incorporate either a Ham Radio style bulletin board system or a land-line bulletin board system. Instead, the SailMail system only forwards plain-text internet email messages (and certain attachments) via SSB radio. (Note, however, that SailMail can be used to retrieve weather data by using the SailDocs auto-responder)

The SailMail stations are set up in the same configuration as that used on the Ham Radio digital networks for many years; each transceiver is hooked through an automatic antenna tuner to a single antenna. Each transceiver scans a dedicated set of frequencies and can connect to only one user at a time.

### **Can I use my Pactor-modem on other commercial marine email systems?**

Yes, the SCS Pactor Modems can be used for other commercial radio networks in addition to the Ham networks. KielRadio modems can be used on the SailMail system if set up correctly. See the application note on the SailMail Primer.

### **I want to run my business from my cruising boat and need reliable communications throughout the day; is SailMail the right solution?**

In part. Use SailMail for the email processing, filtering, and compression, but also get either an Iridium or Inmarsat system because there are some times of day where propagation is not suitable to allow SSB communications, depending on your distance from the nearest stations.

Iridium offers voice and 2400 baud data service worldwide for about \$2.00 per minute.

KVH Tracphones are a good choice for Inmarsat. The KVH Fleet33 Inmarsat system has nearly worldwide coverage and costs about \$33 per Megabyte of data transferred. The KVH FB250 Inmarsat system covers the Atlantic and Indian Oceans now, and will have Pacific Ocean coverage in the fall of 2008. It costs about \$13 per Megabyte of data transferred.

Globalstar, in spite of their name, only offers terrestrial and coastal coverage (i.e. on land or within 200 miles of land). Globalstar offers voice and 9600 baud data access for about \$1.00 per minute.

Whichever satellite system you use, consider joining the SailMail Association and using the SailMail system and AirMail software to send and receive your email via satellite. The efficient protocol, compression, and virus/spam/attachment filtering of the SailMail system will dramatically reduce your satellite costs. If you additionally install a SCS Pactor modem for use with your SSB you can also send and receive email via SailMail's network of SSB-Pactor stations at zero cost per message as a backup to satellite or to reduce your communications cost.

# Installation Checklist

---

This checklist is provided for use by professional installers to aid them in providing complete service. It also may be useful to SailMail members, to help in their discussions with their installer to be sure that their installation is complete. For technical details on the specific steps mentioned below see the SailMail Primer.

## A Professional Installation Generally Includes:

1. Interface the radio to the Pactor-modem in the technically "best" fashion. If there is an "accessory" jack available on the radio that includes the necessary signals, it should ALWAYS be used. The use of the "Mic" jack should be avoided. A Pactor-modem to SSB cable should be provided that has shields connected on both ends and that has ferrites installed on both ends.
2. If the radio is capable of remote control, provide the remote control cable. If necessary for the PTC-IIe or PTC-IIex, provide and install a USB-serial adapter. If necessary for Icom, provide the CI-V or Icom OPC-478 level shifter for the pin jack. See details in the Application Notes.
3. Update the firmware in the SCS PTC modem to the latest version. Upgrade the modem to include an electronic serial number (ESN) if necessary (old PTC-II and old PTC-IIe modems only).
4. Install ferrites at both ends of all cables including the RS232 cable between the Pactor-modem and the PC, the remote control wire to the radio, the audio/PTT cable between the Pactor-modem and the radio, and the tuner control wire. Install a Line Isolator (next to the tuner) in the coax from radio to tuner (for details see the SailMail Primer).
5. Check and if necessary improve the ground system and the ground connection to the tuner. **(Do not compromise on this item.)**
6. Check and if necessary improve the routing of the antenna wire from the tuner to the backstay. Make sure that the antenna wire has stand-offs supporting it at least 2 inches from any grounded wires or stanchions.
7. Adjust the audio modulation levels on the modem using a directional power meter. See the application note in the SailMail Primer on level setting for details.
8. Evaluate the system for RF self-modulation problems.
9. Evaluate the boat's other equipment (inverters, motors etc) for interference with the SSB. Either install filters or inform the owner of what gear needs to be shut off before using SailMail (probably inverters).
10. Provide a printed copy of the latest SailMail Primer, T&C's, and the SailMail FCC licenses.
11. Provide a backup copy of the AirMail download from the SailMail website download page, on floppy disks.
12. Test the system and demonstrate the use of the system to the customer.