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RTU - Frequently Asked Questions:

1. General Requirements

1.1. Which charts can I update via the RTU service?

Subscribers to C-MAP CM-93 edition 3 charts and subscribers to official ENC charts in CM-93/3 SENC format can update via the RTU service. The C-MAP CM-93 edition 2 format is not supported by the RTU service.

1.2. Can I update a purchased C-MAP chart database via the RTU service?

No. It is only subscribers that pay an annual fee for the C-MAP CM-93/3 professional or ENC databases that can use the RTU service.

1.3. Which ECS/ECDIS systems support the RTU service?

All systems that have implemented the latest C-MAP Software for CM-93/3 should be able to update at least by e-mail. If you have doubts about your system supporting the RTU service, please contact your system provider or us.

1.4. How frequently does C-MAP send out updates?

The updates are sent only upon the receipt of a request from the user. The users send a request either directly via HTTP/Internet or by e-mail and C-MAP replies with the necessary updates. The updates are not distributed otherwise, for example via a mailing list, for security reasons.

2. Chart Update data

2.1. Does the RTU service replace the CD/DVD update?

No. The RTU service is meant as an intermediate service in between CD/DVD updates. RTU only offers updates to chart editions that are currently installed on the system. To receive new chart editions/new charts, you will have to update the database by CD/DVD.

2.2. Can I update official ENC via the RTU service?

Yes, ENC subscribed in the C-MAP CM93/3 SENC format is supported by the RTU service. C-MAP also provides ENC in the S57 format, but the RTU service does not support this. Than we send it by physical media.

2.3. What is the size of the updates?

The size of the updates depends on the chart coverage and the time between the updates. Updates for a global chart database will be larger than updates for one C-MAP zone or area, but one Zone can contain more updates than another. The table below shows approximate sizes of monthly and weekly updates for the global chart database and for an average number of charts subscribed to by C-MAP customers:

	Weekly	Monthly
Global	150-200KB	750-800KB
Typical	40-50KB	150-200KB

3. HTTP/Internet

3.1. How do I connect and log on to C-MAP server?

You only need to establish an Internet connection from your system. If you are a C-MAP CM-93/3 Professional or ENC subscriber using a system enabled for RTU you are automatically configured to log on to the update server. The updates are then received at a click of a button. There is no need for a web browser, logon from a website, username or password. Contact your system provider to find out if your system can be connected to the HTTP/Internet and how to establish the connection.

3.2. I do not receive any updates when pushing the button for HTTP/Internet updating, only an error message saying: 'Communication Error' ?

This means that there is a problem connecting your system to the C-MAP update server. Make sure that your system is connected and configured for Internet and that the connection is established before downloading the updates.

4. E-mail (updates@c-map.no)

4.1. How do I subscribe to your mailing list to receive the updates?

The RTU service does not offer an option whereby the updates are sent out by e-mail to the customer, instead the user has to send an e-mail with an attached order file generated by their system to updates@c-map.no. The update server will automatically reply to the request within 10 min. This means that the user can update whenever suitable. C-MAP recommends carrying out this procedure on weekly basis.

4.2. I sent the order file to updates@c-map.no but did not receive any update file. What can be wrong?

Are you using a proprietary e-mail/hub service for your ship-shore e-mail traffic? The problem is caused most probably by the file size limitations set by your system or because the senders are being blocked by the system. In any case, you should receive a reply from C-MAP update server independent of whether the update is successful or not. Even if the update server receives wrong file types, no file is attached or there is an error in the order file, it will reply with an error message. If you do not receive anything at all you should check your e-mail configuration with your office or e-mail/hub service provider.

4.3. What does file size limitation mean and how does this affect the RTU service?

It is quite common for vessels to use special proprietary e-mail/hub service solutions for the ship-shore data traffic (e-mail). Such solutions have some common standard functions. One of them is to set up a list of sender addresses that are allowed to get through to the vessels. Another is to set a maximum file size the vessel is allowed to receive. The main benefit of these functions is cost saving. So, if the update file(s) is larger than this limit, and if the e-mail program is not set to receive updates from the e-mail address updates@c-map.no they will not get through. This issue is largely related to the initialisation of the RTU service. If it has been a while since receiving the last CD chart database, the first update request can generate update files larger than the file size limitations. By updating weekly, you can avoid this problem. C-MAP can split the first update and return it in several e-mails in order to get started.

5. Communication

5.1. Can we use Inmarsat-C terminal for the RTU service?

No, Inmarsat C is not suitable to transfer the updates. It is limited to 32 KB file transfer. But Inmarsat A,B,Fleet,M&Mini-M are excellent carriers of the service. Furthermore, all kinds of Vsat, Iridium, Global Star, Thuraya, GSM and fixed lines support the service.

5.2. Do I need extra special equipment in order to receive the updates?

No special equipment is required besides your chart system and one of the above mentioned communication lines. These are the most common communication solutions onboard vessels today.

6. Cost

6.1. How much does C-MAP charge for the RTU service?

Absolutely nothing. The RTU is a value added service free of charge for all CM-93/3 Professional and ENC subscribers.

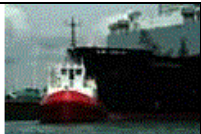

6.2. What are the costs of using the RTU service?

C-MAP does not charge anything for the service but there are indirect costs associated with it. The indirect cost is very individual based on the following factors:

- Coverage of subscribed charts
- Communication solution
- Communication traffic fees

In the table below you can see the estimated cost for customers with global and typical chart coverage using the most common communication solutions:

Equipment.(bit/s):			Typical subscriber Time/min & cost/USD:		Worldwide subscriber Time/min & cost/USD:	
Iridium	2400		2,1 MIN	USD 2,88	10,4 MIN	USD 9,98
Mini-M	2400		2,1 MIN	USD 2,02	10,4 MIN	USD 14,25
Inmarsat-A	9600		0,6 MIN	USD 1,69	2,6 MIN	USD 7,33
Inmarsat-B	9600		0,6 MIN	USD 1,20	2,6 MIN	USD 5,20
Inmarsat-A	64kb		0,1 MIN	USD 0,66	0,4 MIN	USD 2,64
Inmarsat-B	64kb		0,1 MIN	USD 0,66	0,4 MIN	USD 2,64
Inmarsat-Fleet	64kb		0,1 MIN	USD 0,62	0,4 MIN	USD 2,47
Inmarsat-Fleet	MPDS		Pr.Data	USD 1,24	0,4 MIN	USD 6,19
Vsat	2Mb		0,004 MIN	Fixed	0,02 MIN	Fixed
GSM	9600		0,6 MIN	USD 0,08	2,6 MIN	USD 0,33
GSM	44kb		0,15 MIN	USD 0,02	0,6 MIN	USD 0,08

7. Regulation & Security

7.1. Is the RTU service exposed to hackers and viruses?

No. Security of the update server is of great concern for C-MAP. The update server is structured in such a way as to provide mariners with a secure, unfettered access to updating services. The integrity of all data stored on the server is enabled by a combination of hardware devices and software tools. The server is protected by the most recent and advanced anti-virus technologies and is located behind a secure system of hardware firewalls. Moreover, the update server only transmits update files, i.e. data, whereas viruses can only spread through executable code. In addition, the client part of the updating engine (which is part of the CM-93/3 Software Development Kit, and therefore embedded in the OEM's system) would reject any data other than update files received during the updating transaction.

7.2. Is ECDIS allowed to be connected to Internet?

Yes. It is not only allowed but also encouraged by regulative authorities as, IMO, IHO, and IEC. (You can find more specific info in the regulation document.)