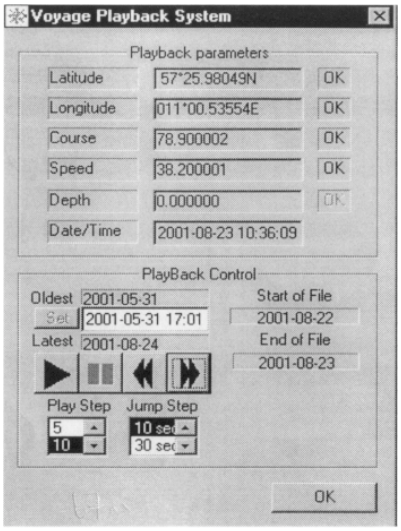
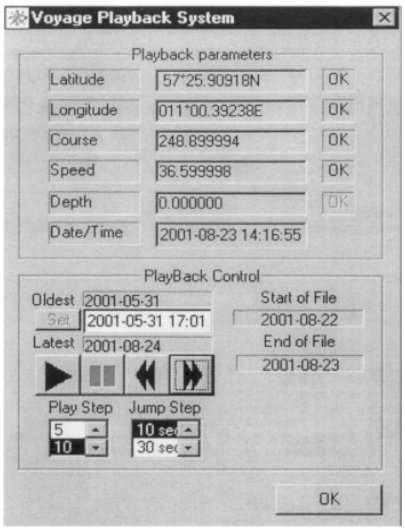
Bilag 1
GPS dataudskrifter fra Stena Carisma ved passage af målefelt

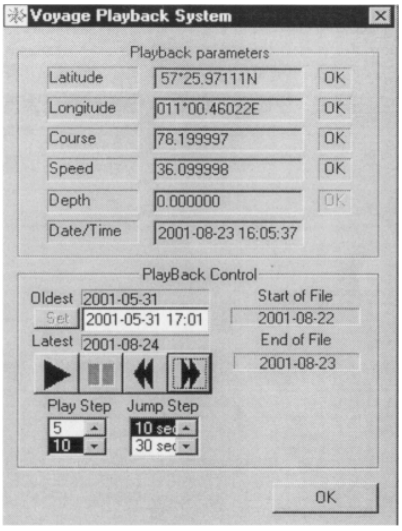
Passage 1



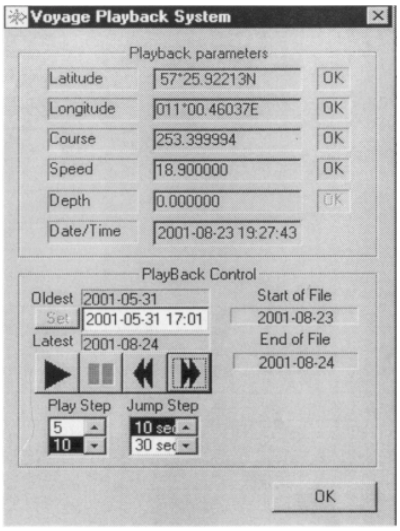
Passage 2



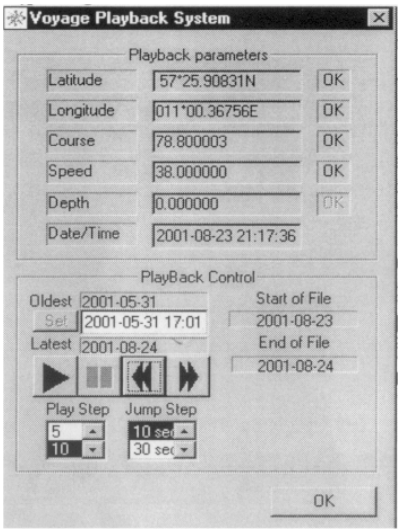
Passage 3



Passage 4



Passage 5



Bilag 2
Engelsk beskrivelse af S4-måleren

InterOcean S4 Current Meter

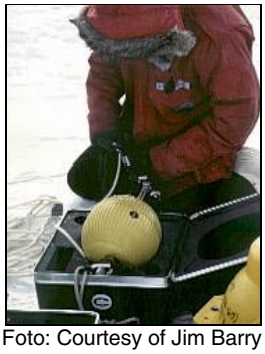


Foto: Courtesy of Jim Barry

The S4 Electromagnetic Current Meter measures the voltage resulting from the motion of a conductor (water flow velocity) through a magnetic field according to Faraday's law of electromagnetic induction. Simply stated, Faraday's law defines the voltage produced in a conductor as the product of the speed of the conductor (water flow velocity) times the magnitude of the magnetic field times the length of the conductor. In the case of the S4, the conductor length is the effective path between the sensing electrodes. The magnetic field intensity is generated by a circular coil, internal to the S4, driven by a precisely regulated alternating current. The use of an alternating magnetic field and synchronous detection techniques to measure the voltage at the sensing electrodes provides an extremely stable, low noise current measurement. Two orthogonal pairs of electrodes and an internal flux gate compass provide the current vector.

The S4 Solid-State Memory

Data obtained by the S4 is stored internally in solid-state, highly reliable, non-volatile memory. From this memory data is retrieved through an RS-232-C port to the user's terminal, computer or other storage device without the need to open the instrument housing. This eliminates the need for unreliable tape readers or removable memory cartridges. Turnaround time for data retrieval is short so instruments may be redeployed almost immediately.

The S4 is Software Controlled

The EPROM-formatted microprocessor affords unprecedented flexibility and simplicity of use. The low power CMOS microprocessor of the S4 performs true vector averaging, burst sampling and adaptive sampling. The instrument can alter its recording format in response to oceanographic events. Customized programs can be developed to meet the special needs of researchers.

The S4 is equipped with extensive internal software which permits the operator to select many operational features such as intermittent or continuous operation, time on, time off, numbers of samples for vector averaging, high speed, high resolution and adaptive sampling.

The S4 is Solidly Built

All electronics and power necessary for operation of the current meter are contained within the compact 10 inch (25 cm) diameter sphere. This sphere is made of a durable, high strength, dimensionally stable, corrosion proof plastic. There is nothing to break or foul. Connection to a mooring is by means of an axial titanium load bearing shaft. The only other metal parts in contact with water are the titanium electrodes. This combination of materials provides the user with a rugged, easy to use current meter that can take extended deployment in harsh seawater environments, without fear of corrosion or bio- logical attack. Additionally, the chances of handling damage are minimized.

Bilag 3A
Sten og tilhørende algevækst i ramme 1 før og efter færgepassager


Før færgepassage


Efter 1. færgepassage


Efter 2. færgepassage

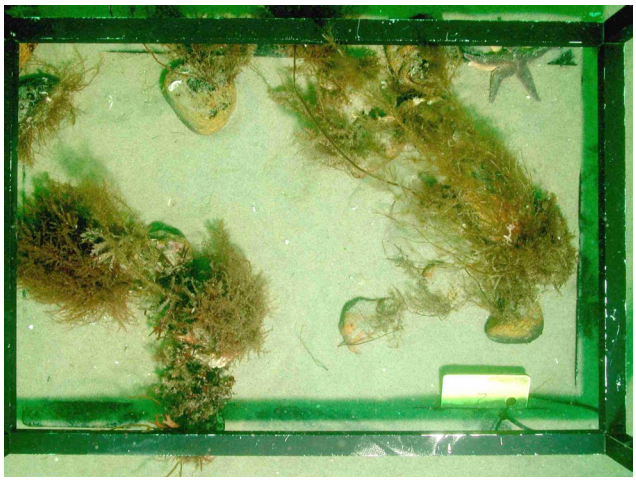

Efter 3. færgepassage

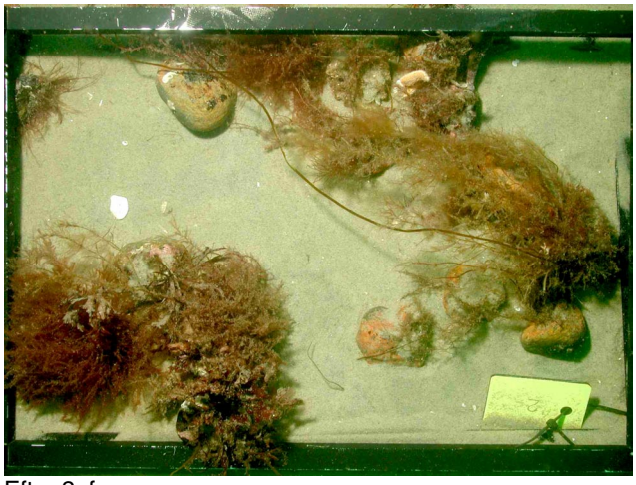

Efter 4. færgepassage


Panorama efter 4. passage

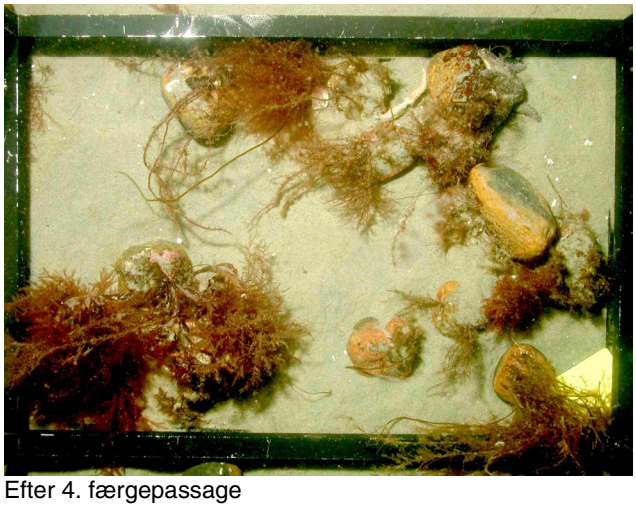
Bilag 3B
Sten og tilhørende algevækst i ramme 2 før og efter færgepassager

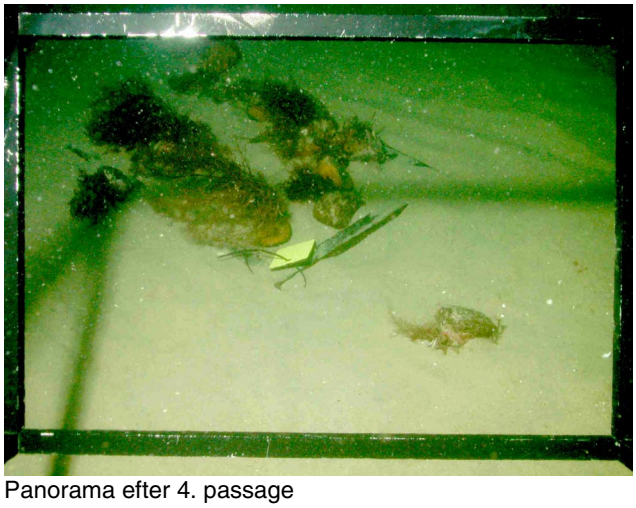

Før færgepassage


Efter 1. færgepassage


Efter 2. færgepassage


Efter 3. færgepassage

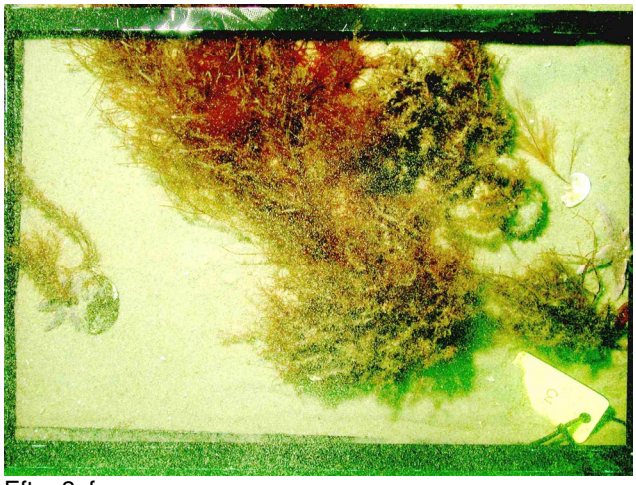

Efter 4. færgepassage


Panorama efter 4. passage

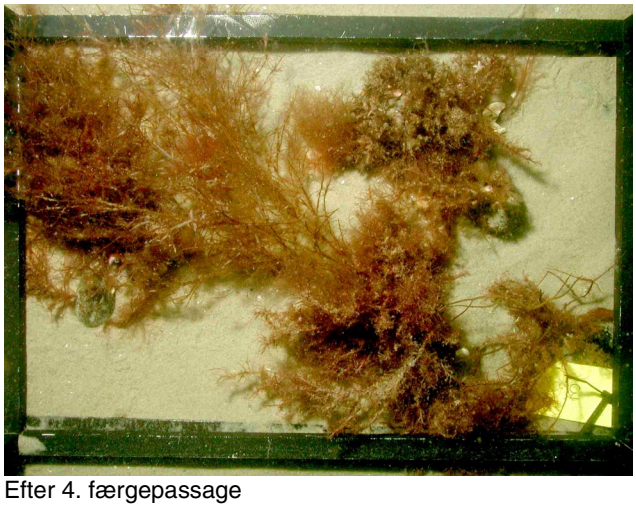
Bilag 3C
Sten og tilhørende algevækst i ramme 3 før og efter færgepassager


Før færgepassage


Efter 1. færgepassage


Efter 2. færgepassage


Efter 3. færgepassage


Efter 4. færgepassage

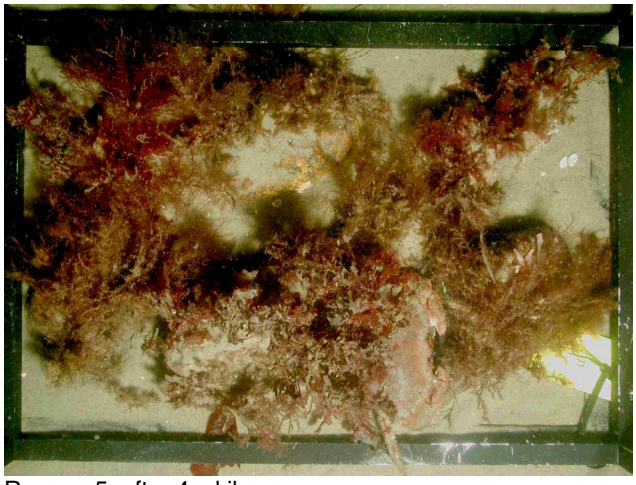

Panorama efter 4. passage

Bilag 3D
Sten og tilhørende algevækst i ramme 4-9 før færgepassager og efter 4. passage


Ramme 4: før skibspassage


Ramme 4: efter 4. skibspassage


Ramme 5: før skibspassage

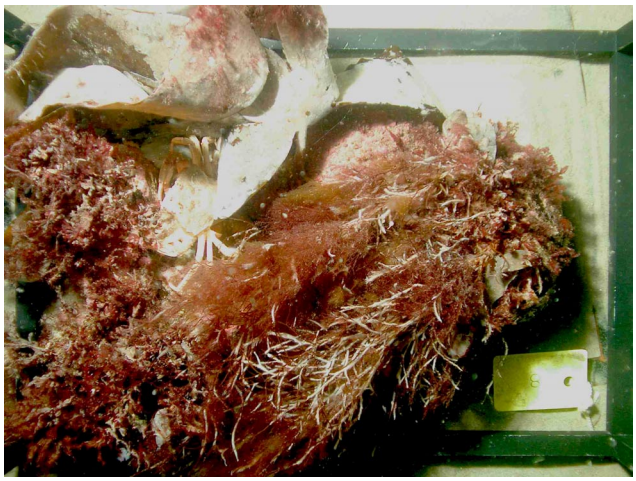

Ramme 5: efter 4. skibspassage


Ramme 6: før skibspassage (dårligt belyst)

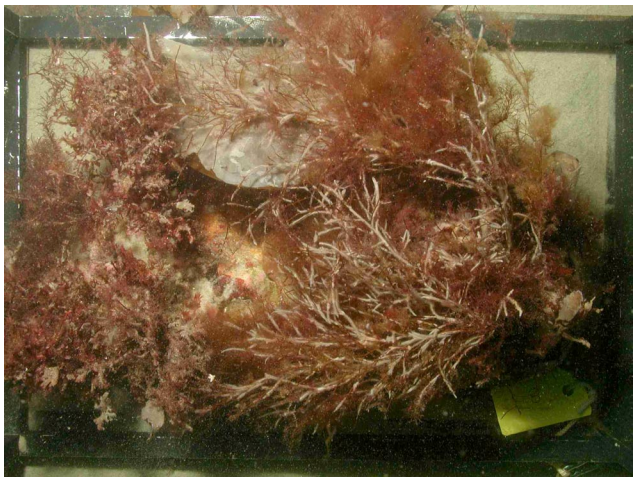

Ramme 6: efter 4. skibspassage

Ramme 7: før skibspassage

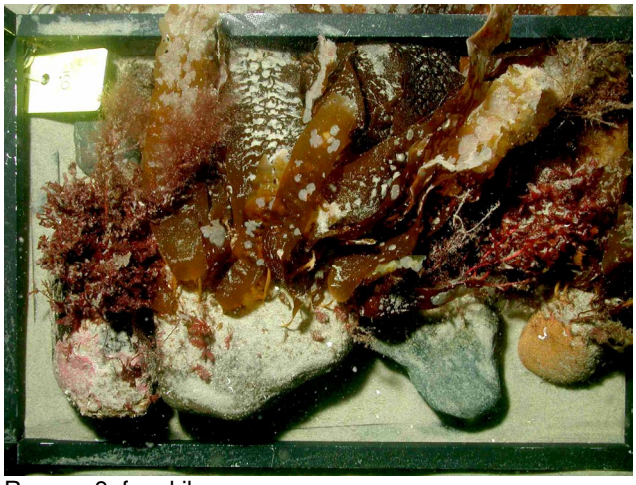
Ramme 7: efter 4. skibspassage



Ramme 8: før skibspassage



Ramme 8: efter 4. skibspassage



Ramme 9: før skibspassage

Ramme 9: efter 4. skibspassage

[tom side]