

# FloaTEM kit and add-ons

Options for upgrading a tTEM 3x3 system  
for water-borne operations

Options for FloaTEM system configuration

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## 1. INTRODUCTION

FloaTEM is in general terms a tTEM system adapted to the aquatic environment. A FloaTEM system is used to characterize the interaction between river and lake water bodies and the groundwater system or to characterize sea bottom sediments below shallow saltwater.

The FloaTEM kit converts a tTEM system to be used on freshwater. For saltwater application an add-on is necessary to increase the power of the system.

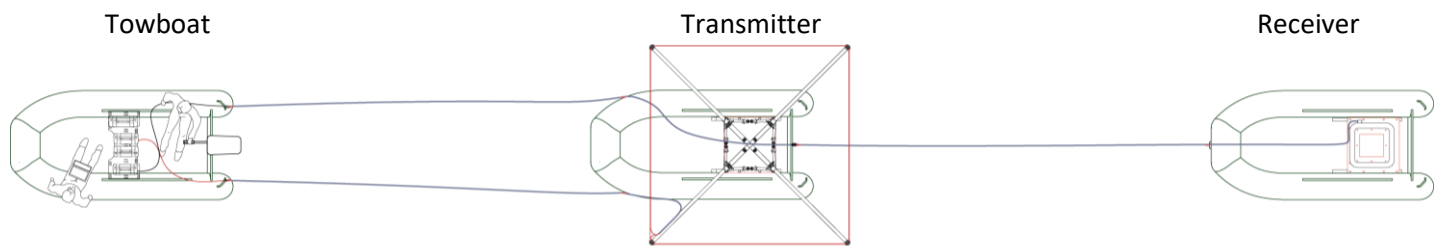


Figure 1. The Figure shows the FloaTEM system. Instruments are placed in the front tow boat and tTEM transmitter and receiver systems are placed in special designed rubber boats. The distance between the transmitter and the receiver is the same as for tTEM. The transmitter coil can be expanded from 9 m<sup>2</sup> to 16 m<sup>2</sup> to obtain a larger transmitter moment on saltwater.

### 1.1 FloaTEM 3x3 basekit

The FloaTEM 3x3 base kit contains all components required to make a 3x3 tTEM system water-borne. In FloaTEM operations, the distance between the instruments and transmitter platform is increased by 3 m, to avoid data being disturbed by the engine of the towing boat and to make it easier to place the instruments in the towing boat. A towing boat is not included in the base kit.

The base kit includes the following units:

- 2 durable rubber boats for transmitter and receiver platform.
- 1 set of towing ropes for FloaTEM operations.
- 2 receiver cables.
- 1 transmitter coil (choice of 331, 333 or 443, two first digits is the side length of the coil, third digit is the number of turns).

### 1.2 Additional transmitter coil(s) add-on

The FloaTEM 3x3 basekit comes with 1 transmitter coil (choice of 331, 333 or 443).

The 331 (1 turn) and 333 (3 turns) transmitter coils fit the 3x3 platform, while the 443 transmitter coil require changing the tTEM wings to span a 4 m x 4 m coil.

The area of the transmitter coil directly affects the depth of investigation, with larger area resulting in deeper penetration at the loss of shallow resolution. For surveys on highly conductive saltwater, we recommend 333 or 443 coils.

The additional transmitter coil comes with a system-specific system calibration and system description.

### 1.3 4x4 FloaTEM wing add-on

This add-on contains a set of wings, that increases the base area of the transmitter coil from 9 m<sup>2</sup> to 16 m<sup>2</sup>, increasing the transmitter moment.

The add-on does not include a 443 transmitter coil, which must either be chosen as a part of the base kit or purchased as an additional transmitter coil.

### 1.4 Depthsonder add-on

For the processing and interpretation of FloaTEM data, knowledge of the depth of the water column is quite important. The water depth information can either come from external bathymetry grids or be collected during the FloaTEM survey using a depth sounder compatible with the FloaTEM system. This add-on includes a depth sounder that is compatible with the tTEM transmitter.

## 2. PRICING

FloaTEM 3x3 basekit	9.200 EUR
Additional transmitter coil(s) add-on, pr. coil	3.200 EUR
4x4 FloaTEM wing add-on	1.800 EUR
Depth sounder add-on	3.350 EUR