

## Current speed

**1 Hour = 3600 sec**

Speed = distance over time.

Speed based on feet per second e.g.

If the point on the boat took 4 seconds to move 20 ft it is moving at 5 feet per second. If it took 2 seconds it is moving 10 fps.

Or

If it took a 20 ft boat 4 seconds to move past a fixed object it is moving at 5 feet per second. If it took 2 seconds it is moving 10 fps.

**1 Statute Mile = 5280 ft**

5 feet per second =  $(3600 \times 5 = )18000$  feet per hour =  $(18000/5280=)$  **3.4 Miles per hour**

10 fps = 36000 fph = **6.8 mph**

15fps = 54000 fph = **10.2 mph**

**1 Nautical Mile = 6076 ft**

5 fps = **3 kts**

10 fps = **6 kts**

15 fps = **9 kts**

**1 Kilometer = 1000 m**

1 meter per second = 3600 meters per hour = **3.6 kmh**

2 ms = **7.2 kmh**

3 ms = **10.4 kmh**

A 16 ft sea kayak or canoe passing a fixed object in 4 sec is moving at 4 feet per second or 2.4 kts

An 18 ft sea kayak or canoe passing a fixed object in 4 sec is moving at 4.5 feet per second 2.7 kts

A 16 ft sea kayak or canoe passing a fixed object in 3 sec is moving at 5.3 feet per second 3.1 kts

An 18 ft sea kayak or canoe passing a fixed object in 3 sec is moving at 6 feet per second 3.6 kts

A 16 ft sea kayak or canoe passing a fixed object in 2 sec is moving at 8 feet per second 4.7 kts

An 18 ft sea kayak or canoe passing a fixed object in 2 sec is moving at 9 feet per second 5.3 kts

Although not 100% accurate "3 is 4 and 4 is 3" (3 seconds = 4 kts and 4 seconds = 3 kts) rule for an 18ft seakayak is easy to remember and as close as you are likely to get with the type of measuring you are likely to be doing. "3 is 3" seems pretty close for a 16 ft boat but unfortunately "4 is 2.5" doesnt

An 8 ft white water kayak passing a fixed object in 4 sec is moving at 2 feet per second or 1.4 mph

An 8 ft white water kayak passing a fixed object in 3 sec is moving at 2.7 feet per second or 1.8 mph

An 8 ft white water kayak passing a fixed object in 2 sec is moving at 4 feet per second or 2.7 mph

An 8 ft white water kayak passing a fixed object in 1 sec is moving at 8 feet per second or 5.5 mph

A 2.5 meter white water kayak passing a fixed object in 4 sec is moving at 0.625 ms or 2.25 kmh

A 2.5 m white water kayak passing a fixed object in 3 sec is moving at 0.8 ms 2.9 kmh

A 2.5 m white water kayak passing a fixed object in 2 sec is moving at 1.25 ms 4.5 kmh

A 2.5 m white water kayak passing a fixed object in 1 sec is moving at 2.5 ms 9 kmh