

2018 NOAA/AOML/HRD Hurricane Field Program - IFEX

APPENDIX G

Systems of Measure and Unit Conversion Factors

Table G-1. Systems of measure: Units, symbols, and definitions

Quantity	SI Unit	Early Metric	Maritime	English
<i>length</i>	meter (m)	centimeter (cm)	foot (ft)	foot (ft)
<i>distance</i>	meter (m)	kilometer (km)	nautical mile (n mi)	mile (mi)
<i>depth</i>	meter (m)	meter (m)	fathom (fa)	foot (ft)
<i>mass</i>	kilogram (kg)	gram (g)		
<i>time</i>	second (s)	second (s)	second (s)	second (s)
<i>speed</i>	meter per second (m s ⁻¹)	centimeter per second (cm s ⁻¹)	knot (kt) (nm h ⁻¹)	miles per hour (mph)
		kilometers per hour (km h ⁻¹)		
<i>temperature -sensible</i>	degree Celsius (°C)	degree Celsius (°C)	---	degree Fahrenheit (°F)
<i>-potential</i>	Kelvin (K)	Kelvin (K)	---	Kelvin (K)
<i>force</i>	Newton (N) (kg m s ⁻²)	dyne (dy) (g cm s ⁻²)	poundal (pl)	poundal (pl)
<i>pressure</i>	Pascal (Pa) (N m ⁻²)	millibar (mb) (10 ³ dy cm ⁻²)	inches (in) mercury (Hg)	inches (in) mercury (Hg)

Table G-2. Unit conversion factors

Parameter	Unit	Conversions
<i>length</i>	1 in	2.540 cm
	1 ft	30.480 cm
	1 m	3.281 ft
<i>distance</i>	1 n mi (nautical mile)	1.151 mi 1.852 km 6080 ft
	1 mi (statute mile)	1.609 km 5280 ft
	1° latitude	59.996 nm 69.055 mi 111.136 km
<i>depth</i>	1 fa	6 ft 1.829 m
<i>mass</i>	1 kg	2.2 lb
<i>force</i>	1 N	10 ⁵ dy
<i>pressure</i>	1 mb	102 Pa
		0.0295 in Hg
	1 lb ft ⁻²	4.88 kg m ⁻²
<i>speed</i>	1 m s ⁻¹	1.94 kt 3.59 kph
		10 kt
	1° lat. 6 h ⁻¹	