KNOW YOUR KNOTS
DECK SEAMANSHIP
Deck Seamanship

The skills used in the conduct of shipboard evolutions such as cargo handling, underway replenishment, and mooring, requiring the use of lines, anchoring gear, and other such equipment.
Marlinspike Seamanship

The skills and knowledge about the use and care of fiber line used at sea
Rope — A strong, thick line or cord, commonly composed of twisted or braided strands of hemp, flax, or the like, or of wire or other material

Line — Fiber rope that has been uncoiled and cut for use
Fibers are twisted from left to right to form the yarn.

Yarns are twisted from right to left to form the strand.

Strands are then twisted from left to right to form the line.
Most line used on board ship is THREE-STRAND, PLAIN-LAID line with a RIGHT-HAND twist or lay.
RIGHT-LAID line must always be coiled Down RIGHT-HANDED or CLOCKWISE.
Clockwise

In the direction of the rotation of the hands of a clock as viewed from the front or above; circularly to the right from a point taken as the top
BRAIDED INNER ROPE  

BRAIDED OUTER ROPE  

SINGLE-or DOUBLE-BRAIDED LINES  

LINES made by braiding yarns rather than twisting them.
Braided Line

• Used for hoisting signal flags (halyards)

• Will not unlay or twist
Halyard

Any of various lines or tackles for hoisting a spar, sail, flag, etc., into position for use
LENGTH - Measured in fathoms (1 fathom = 6 feet)

SIZE - Measured in circumference
Circumference

The outer boundary, especially of a circular area; perimeter
Hawser is the name given to any rope in the Navy larger than 5 inches in circumference.
Small Stuff

Line 1 3/4 inches or less in circumference and identified by the number of threads in the line
Three types of small stuff:

- Marline
- Seizing stuff
- Small white line
Methods for laying down a fiber line:

- Coiling
- Faking
- Flemishing
COILING DOWN A LINE
A FLEMISHED LINE
Stowage and Care of Fiber Rope

• Most ropes and lines are stowed in the boatswain’s locker.

• Coils of rope are stored uncovered on shelves or platforms clear of the deck to stay dry.

• Small stuff is stored on a shelf in order of size.
Always whip the bitter end of line to prevent it from unlaying or fraying.
BIND THE END WITH A COUPLE OF TURNS

LAY THE OTHER END ON

BIND IT WITH THE BIGHT

A COUPLE MORE TURNS

PULL THIS ONE TIGHT
The bitter end is usually secured by taping each strand, then taping the strands together and fusing the end of the line with a hot iron or torch.
A good rule to remember with any line is that all loose ends must be cut or tucked.
Square Knots

They form “eyes” or are used to secure a cord or line around an object such as a package.

Clove Hitch

Overhand Knots
Hitches

- Half Hitch
- 2 Half Hitches
- Round Turn & 2 Half Hitches
- Clove Hitch
- Timber Hitch
- Timber & Half Hitch
- Rolling Hitch

Used to bend a line to or around an object or another piece of line or to form a loop or noose in a line.
Bends

Studdingsail Tack Bend
Studdingsail Halliard Bend
Fisherman’s Bend
Carrick Bends

Single
Double

Used to secure lines together
Bight

The loop or bent part of a rope, as distinguished from the ends.
Guess what! Learning knot-tying procedures is FUN!
Square Knot

- Also called a reef knot
- Best-known knot for bending two lines together
- Will not slip
- Can jam under heavy strain
Square Knot

A common knot in which the ends come out alongside of the standing parts
A landlubber trying to tie a square knot often comes out with a granny knot.
Bowline

- Does not slip or jam
- Has many variations
- Can also secure a line to an object or bend two lines together
- Usually used to form an eye
Bowline

A knot used to make a non-slipping loop on the end of a rope
Memory aid: The rabbit comes out of his hole, looks around and goes around behind the tree and back down his hole.
Tying a Bowline to a Spar

A. Hold loosely
B. Pull back & up
C. Pass end under standing part & up through loop
D. Loop will form
   End now to left of standing part
   Finished bowline pull tight
Tying a French Bowline

GO THROUGH HERE TWICE INSTEAD OF ONCE

LIKE THIS

THEN FINISH AS IN A PLAIN BOWLINE
Bowline on a Bight

- Produces two loops
- Used to hoist a person

PASS THESE THROUGH THE EYE

LIKE THIS
Becket Bend

- Used to bend together two lines of different sizes
- As good as a square knot and easier to untie after strain
If the strain on the line is to be great, Use a DOUBLE BECKET BEND.
Becket Bends

Becket Bend:
- Around behind
- Up through from under
- Back under itself once

Single Becket Bend:
- Around again
- Back under

Double Becket Bend:
- Around again
- Back under
Clove Hitch

- The best all-around knot for bending to a round object
- Will not jam and will rarely pull out
- Can be secured with a half hitch
Tying a Clove Hitch

- **STANDING PART**
- **RUNNING PART**
- **UNDER ITSELF**

1. **AROUND ONCE**
2. **OVER AND AROUND AGAIN**
Tying a clove hitch so you can slip it over an object

Form two underhand loops

Lay the second loop on top of the first

Tying a clove hitch so you can slip it over an object
CLOVE HITCH WITH ONE HALF HITCH
CLOVE HITCH WITH TWO HALF HITCH
Round Turn with Two Half Hitches

- Will not slip around the object to which it is secured
- Used when angle of pull is acute
- Grips tightly and holds its position
Tying a Round Turn with Two Half Hitches
NEVER UNDERESTIMATE THE POWER OF THE SEA!

• Use knots, bends, and hitches to secure equipment.
When working with lines and wires,

REMEMBER—SAFETY FIRST!