

# HMCS Haida Bridge Book



**By David Golding**  
**Version 3 : June 6/25**



## Director Control Tower



## THE BRIDGE

Open Bridge, all-round view

Command, Control,  
Communication

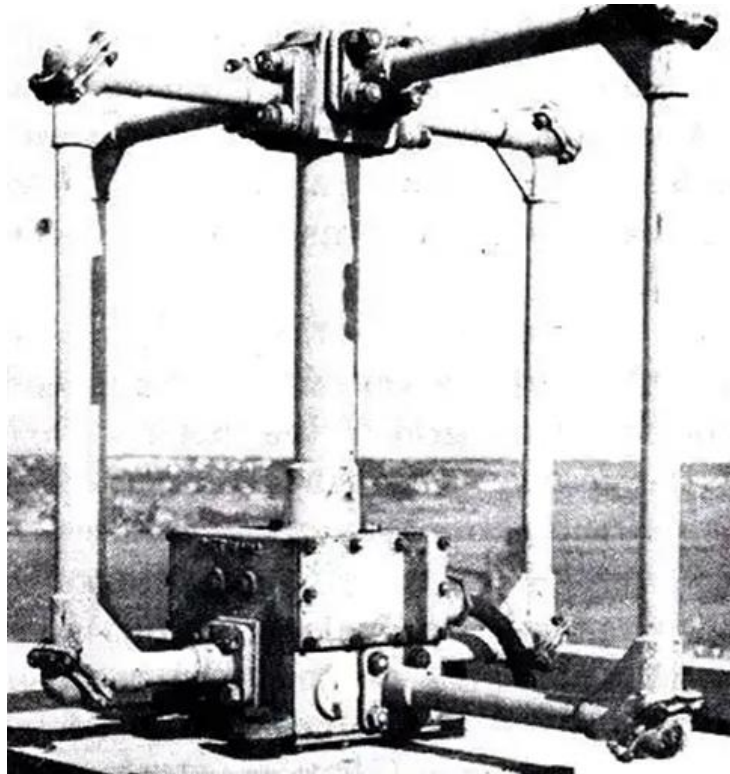
The Captain controls and fights  
the ship from here





## MF/DF

### Medium Frequency Direction Finding antenna

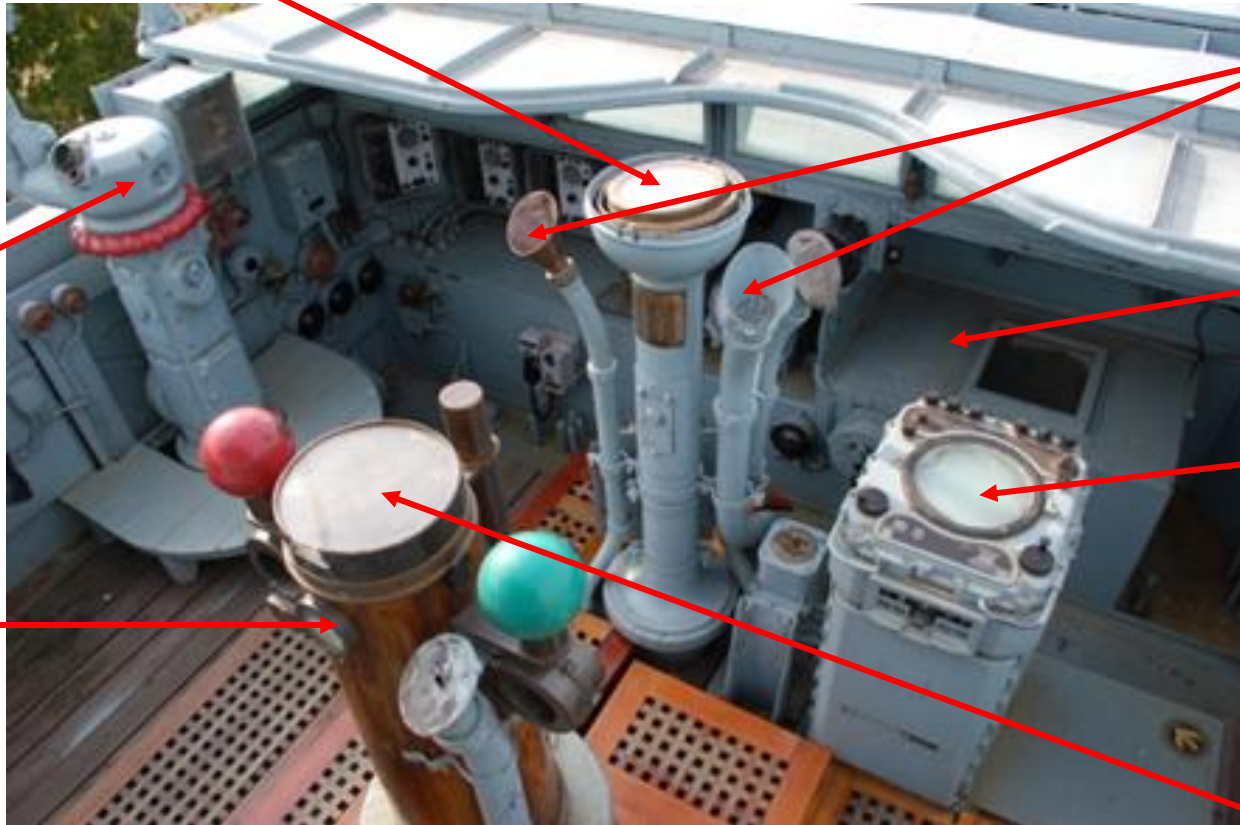




## Gyroscopic Compass Repeater

Port  
Target  
Bearing  
Indicator

Binnacle



Voice-pipes

Chart Table

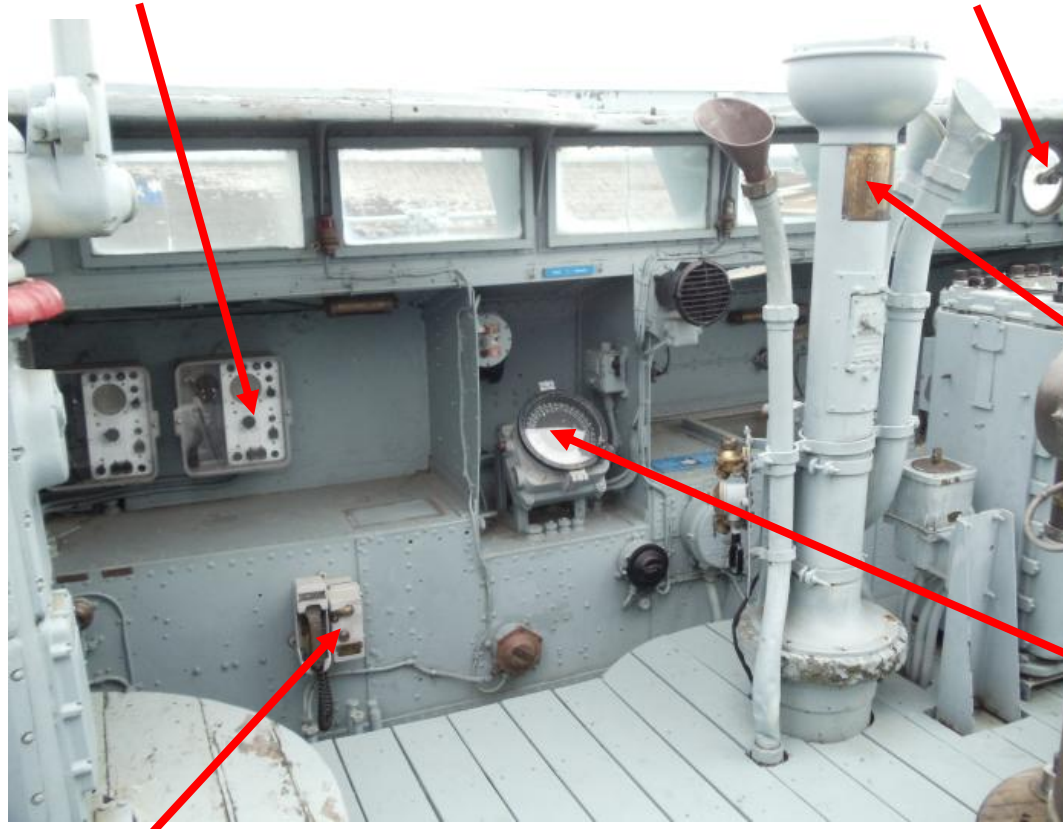
Radar  
Repeater  
AN/SPA-4

Magnetic  
Compass



**Radio Remote Control Unit**

**Kent Clear-View Screen (Spins)**



**RPM to  
Knots Table**

**Torpedo  
Bearing  
Indicator**

**Voice Powered Telephone**



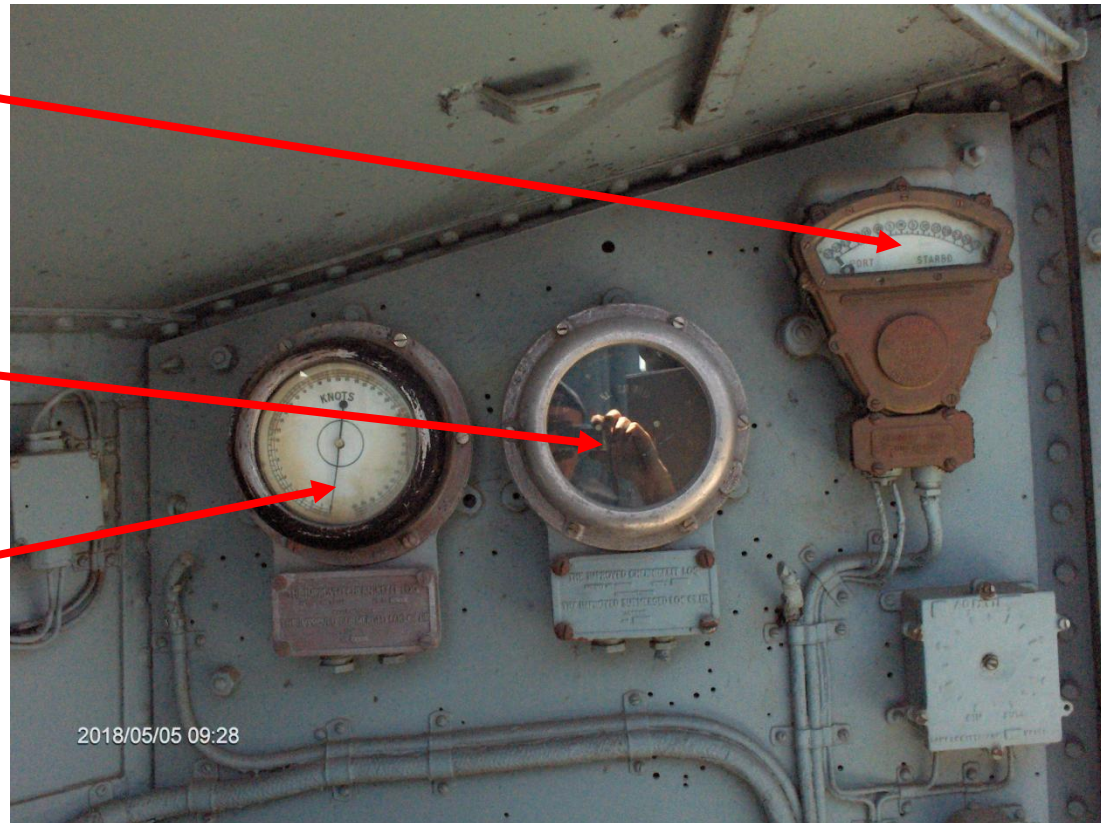


## On Starboard Bulkhead

Rudder Indicator in  
Degrees Port  
to Starboard

Distance through  
water, in Nautical  
Miles

Speedometer  
In Knots



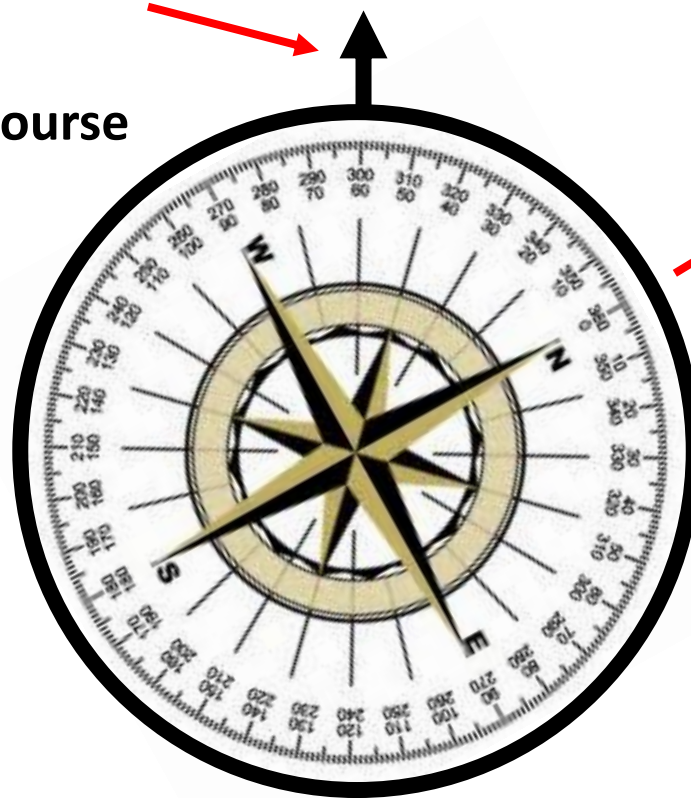


**Gyroscopic Compass Repeater**  
**It is so tall to see over the forward bridge screen.**



**Lubber Line i.e. The Ship's Head**

**Ship is steering a course  
of 300 degrees**



**North  
Pole**

**Observer's View**





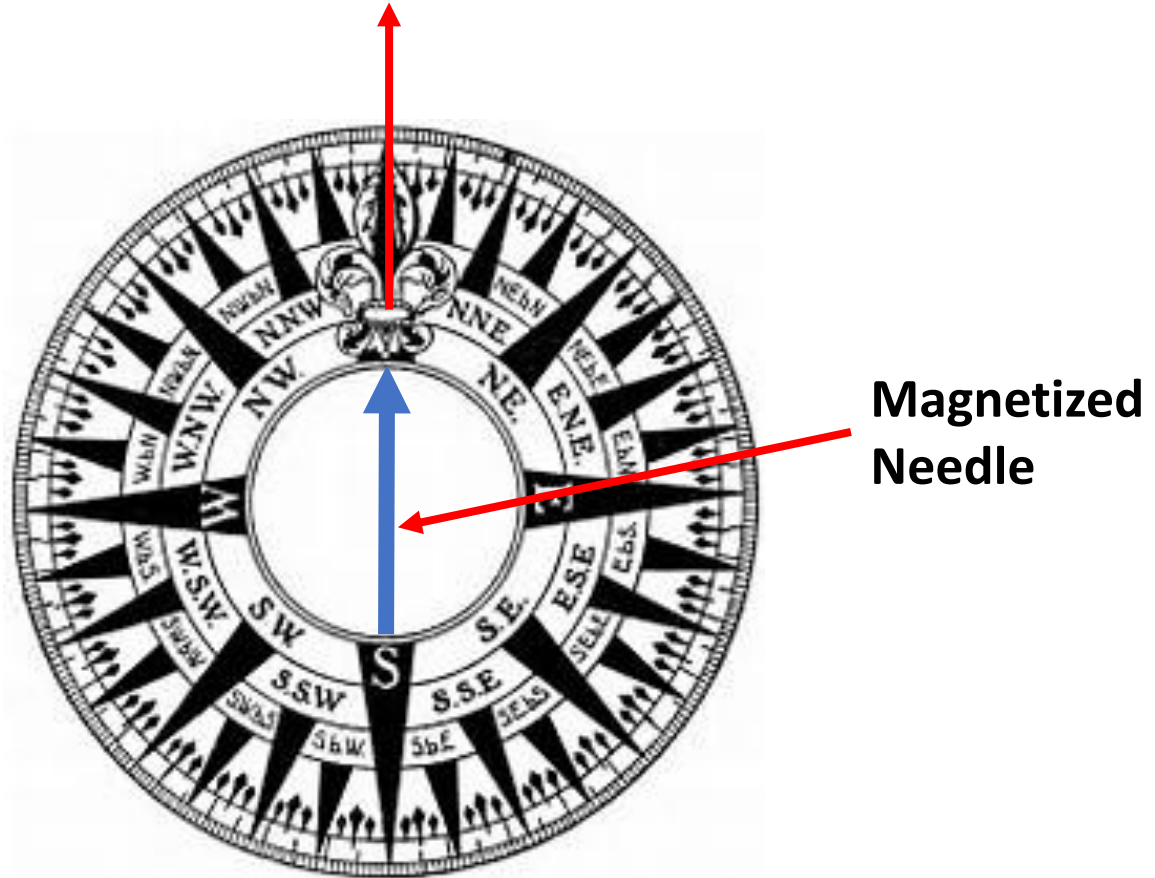
**Magnetic Compass**

**Binnacle**  
Wood non-magnetic

**Inclinometer**  
Shows size of roll in  
degrees



**Magnetic North Pole**



**But there is a problem!**



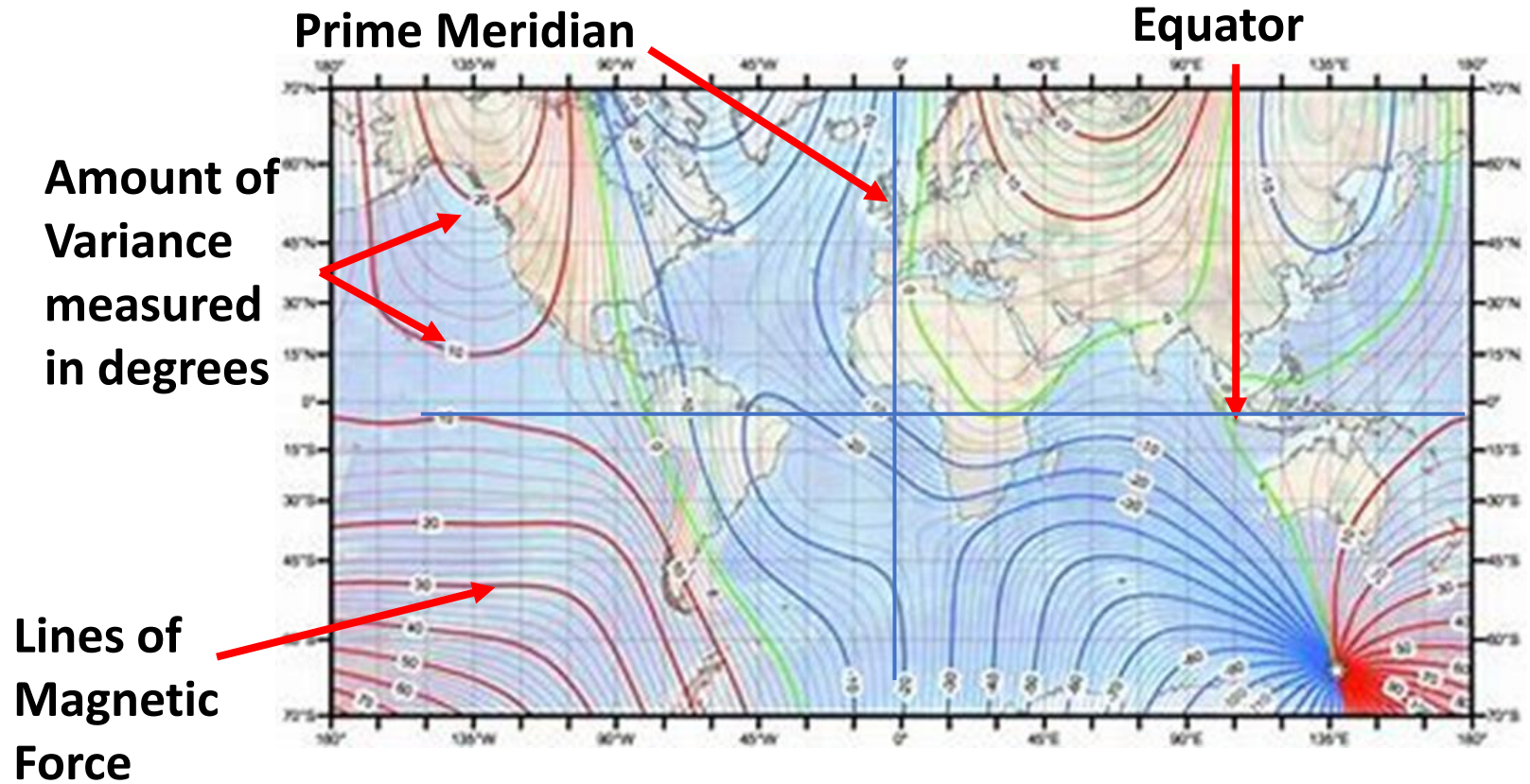
**Magnetic North Pole**

**Meridians of Longitude**



**Parallels of Latitude**





**Lines of Magnetic Variation**

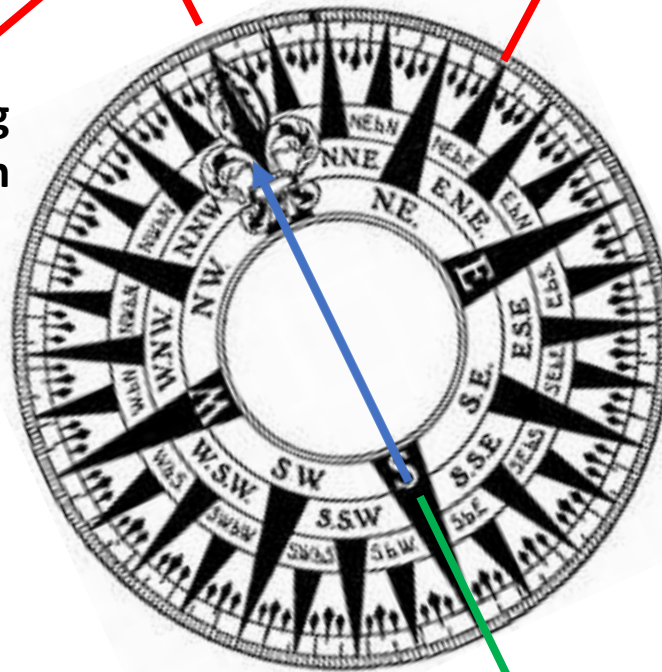


**Apparent Magnetic North**

**True Magnetic North**

**True Geographic North**

**Variation (or error)  
Caused by Magnetic  
Lines of Force pointing  
away from True North**



**Magnetic  
Line of Force**





**BUT there is another major problem!**

**Magnets are attracted to metal**

**Ships are made of metal**

**Haida is almost 2,000 tons of metal**

**She will affect the compass needle!**

**Also, it will vary depending upon which way the ship is pointing**

**What can be done?**

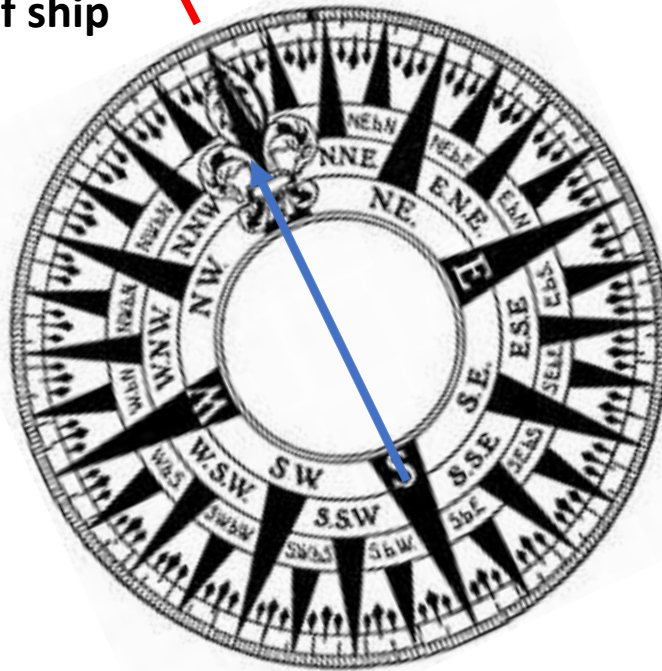




Apparent Magnetic North

True Geographic North

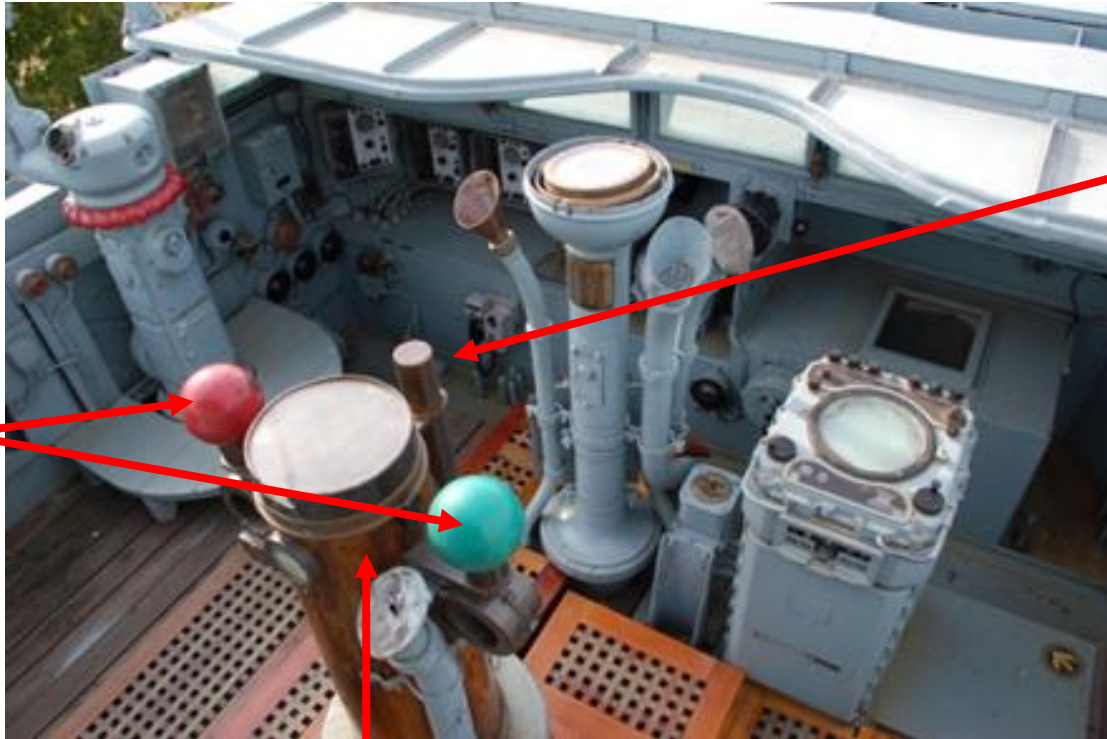
Deviation (or error)  
Caused by metal of ship





## How ship's metal effect on the Compass is lessened

**Kelvin's  
Soft  
Iron  
Balls**



**Flinders Bar  
– Hard Iron  
Magnet**

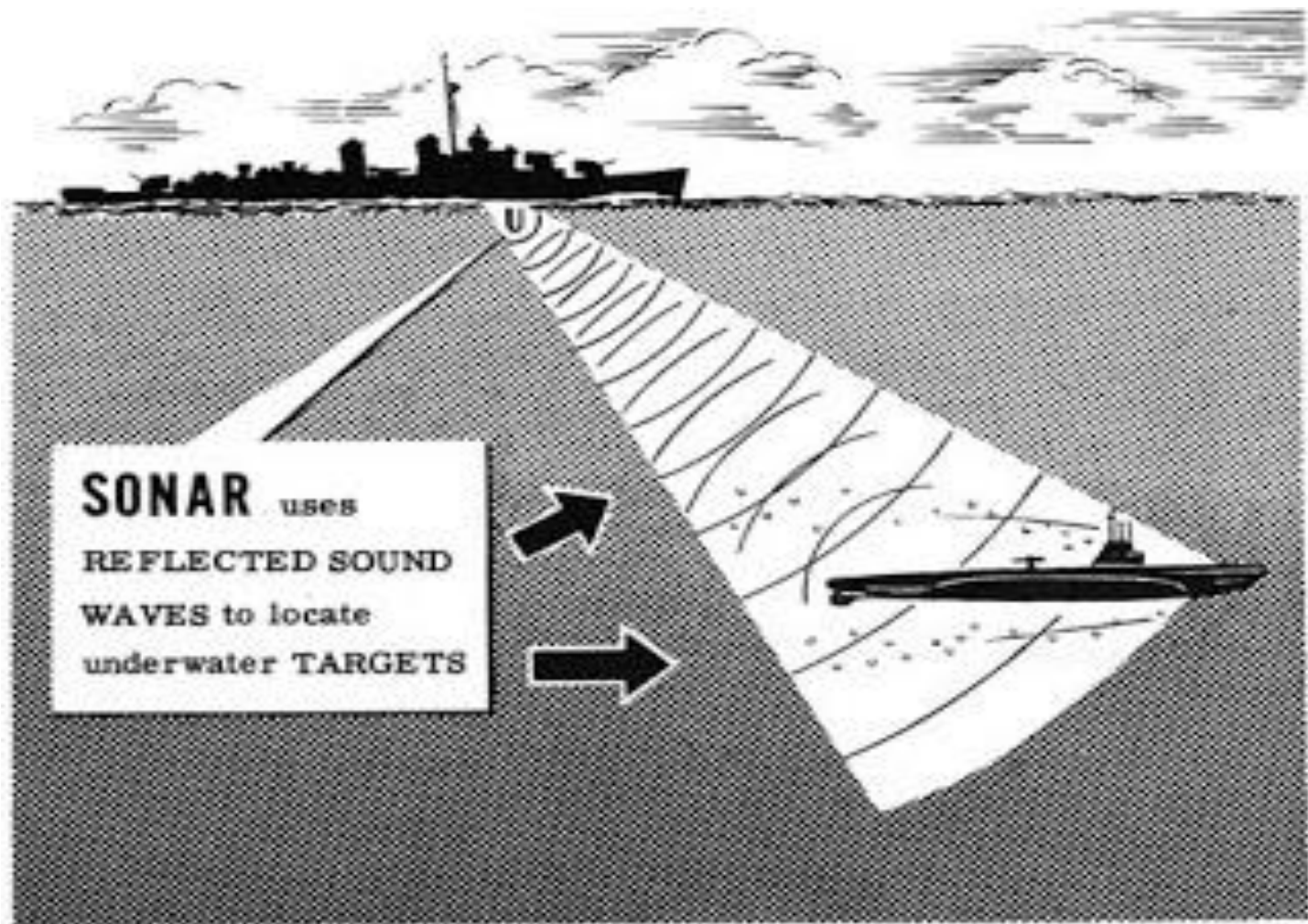
**Other Magnets inside Binnacle**

- **Worthy of mention are the compass compensating coils on the binnacle underneath the soft iron spheres or, as we used to say, Nelson's balls.**
- **After the ship was swung and a deviation table prepared, the energizing of the degaussing coils rendered it useless. The compensating coils created an electric field at the binnacle to neutralize the effect of degaussing. Since the compensating coils were not perfect, the ship had to be swung twice; once without degaussing and then once with.**



**Torpedo Bearing Indicator**







**All-round  
Signal  
Lights**

**10 inch  
Signal  
Projector**



**20 inch  
Searchlight  
/Signal  
Projector**

**Starboard  
Navigation  
Light  
(Green)**



## Morse Code Chart

A	• —	N	— •	1	• — — — —
B	— • • •	O	— — —	2	• • — — —
C	— • — •	P	• — — •	3	• • • — —
D	— • •	Q	— — • —	4	• • • • —
E	•	R	• — •	5	• • • • •
F	• • — •	S	• • •	6	— • • • •
G	— — •	T	—	7	— — • • •
H	• • • •	U	• • —	8	— — — • •
I	• •	V	• • • —	9	— — — — •
J	• — — —	W	• — —	0	— — — — —
K	— • —	X	— • • —		
L	• — • •	Y	— • — —		
M	— —	Z	— — • •		



**Flag Halyards**

**Flag Locker**



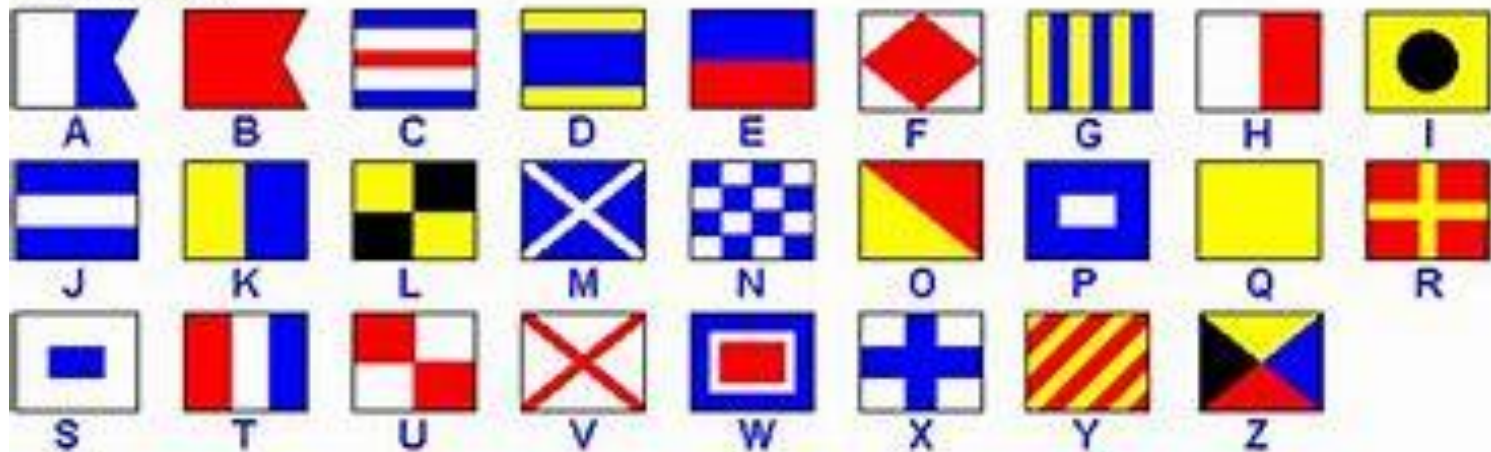
**Flag Deck Port Side**



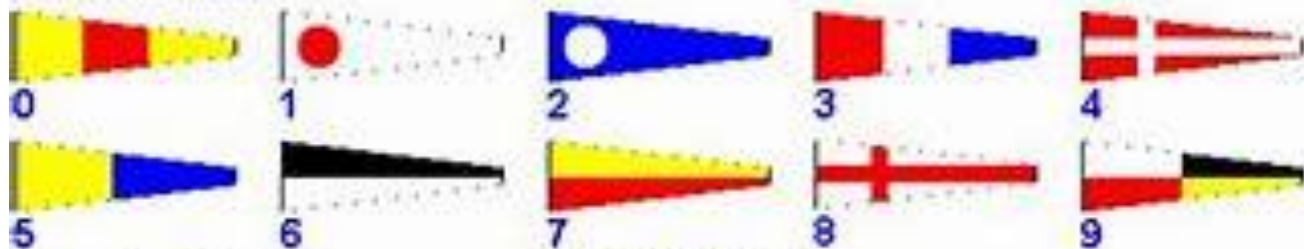


## Marine Signal Flags

### Alphabet Flags



### Numeric Pennants



### Answering Pennant



### Substitute Pennants











**Flag Hoist Starboard Yardarm**



## **HMCS Haida- International Call Sign/Identification**

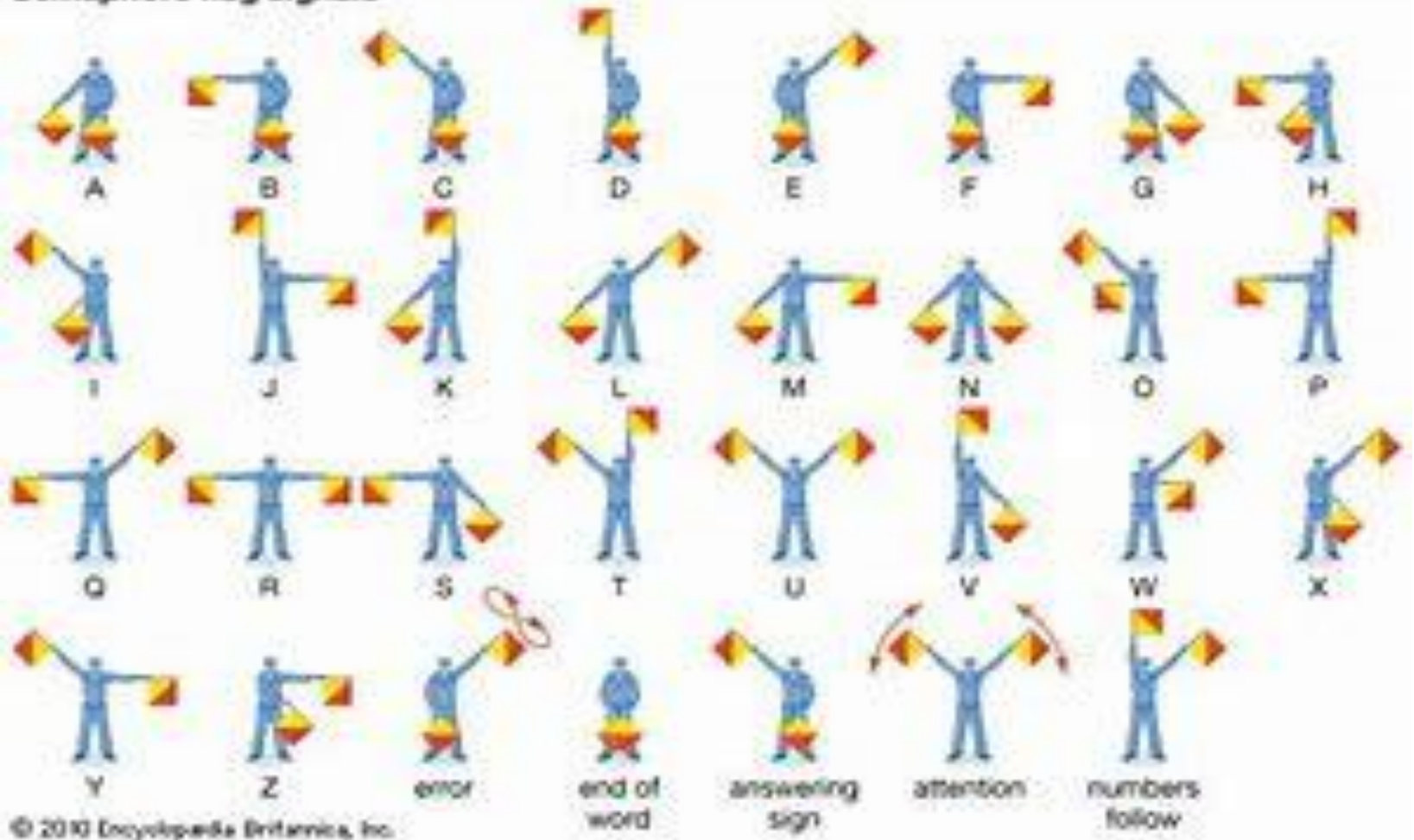
Flag		Letter	Meaning in Hoist
		Charlie	Identifies HMCS Haida as a Canadian vessel
		Golf	Together with the C (CG) identifies HMCS Haida as a Canadian warship
		Juliet	Two alphabetic letters, that together with the CG creates a uniquely identifying group for the Haida alone (CGJD)
		Delta	

**The flag hoist is used to visually identify Haida to a port or another ship.**





## Semaphore flag signals



## Semaphore System