



OPTRONIX

- Conduct all round looks on the periscope
- Check down bearings reported by Sonar
- Report the contact ATB, Range and Classification
- Provide additional information when available

Initial contact report	All positions Optix. I have a contact visual. Bearing xxx Possible merchant/warship/fishing vessel
Update report	All positions Optix. Update on Sonar X Bearing xxx ATB is XX (Port or Starboard) Range is xxxx yards

CONTACT	VISUAL AT...	SPEED
Merchant vessel	14 kyds	7 – 15 knots
Merchant B	19 kyds	7 – 15 knots
Merchant C	18 kyds	7 – 15 knots
Warship	18 kyds	Up to 24 knots
Fishing vessel	8 kyds	Up to 8 knots
Friendly		
Unknown		

TMA 1

- Select contact according to the priorities set by the track manager
- All initial solutions are heading towards you at a range of 20 kyds and at 10 knots
- Estimate the Range, Course and Speed from information received. Enter into the trial solution via the solution tote or speed strip
- Check bearing rates match
- Make report

Initial solution report	“Watch Leader TMA. Initial solution Sonar X Bearing xxx Range xxxx yards Course XXX Speed xx knots Bearing rates match”
Update report	“Watch Leader TMA. Update on Sonar X Bearing xxx Range xxxx yards Course XXX Speed xx knots Bearing rates match”

CONTACT	VISUAL AT...	SPEED
Merchant vessel	14 kyds	7 – 15 knots
Merchant B	19 kyds	7 – 15 knots
Merchant C	18 kyds	7 – 15 knots
Warship	18 kyds	Up to 24 knots
Fishing vessel	8 kyds	Up to 8 knots
Friendly		
Unknown		

TMA 2

- Select contact according to the priorities set by the track manager
- All initial solutions are heading towards you at a range of 20 kyds and at 10 knots
- Estimate the Range, Course and Speed from information received. Enter into the trial solution via the solution tote or speed strip
- Check bearing rates match
- Make report

Initial solution report	“Watch Leader TMA. Initial solution Sonar X Bearing xxx Range xxxx yards Course XXX Speed xx knots Bearing rates match”
Update report	“Watch Leader TMA. Update on Sonar X Bearing xxx Range xxxx yards Course XXX Speed xx knots Bearing rates match”

CONTACT	VISUAL AT...	SPEED
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Friendly		
Unknown		

SONAR 1

- Look/Listen for all contacts within sensor range
- Assign the initial solution
- Report the initial solution
- Analyse the trace and classify
- Provide an amplifying report
- Provide additional information when available
- Annotate the broadband display

Initial contact report	“All positions, Sonar holds a new Contact, Bearing XXX, held [CA] and / or [FA], initial bearing rate X.X, designated Sierra[SCID]”
Amplifying report	“All positions, Amplifying report Sonar [SCID], now bearing XXX, held [CA] and / or [FA] (bearing movement) (right/left), classified possible Merchant”

CONTACT	VISUAL AT...	SPEED
Merchant vessel	14 kyds	7 – 15 knots
Merchant B	19 kyds	7 – 15 knots
Merchant C	18 kyds	7 – 15 knots
Warship	18 kyds	Up to 24 knots
Fishing vessel	8 kyds	Up to 8 knots
Friendly		
Unknown		

SONAR 2

- Look/Listen for all contacts within sensor range
- Assign the initial solution
- Report the initial solution
- Analyse the trace and classify
- Provide an amplifying report
- Provide additional information when available
- Annotate the broadband display

Initial contact report	“All positions, Sonar holds a new Contact, Bearing XXX, held [CA] and / or [FA], initial bearing rate X.X, designated Sierra[SCID]”
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TRACK MANAGER

- Assign contacts to the TMAs as appropriate
- Prioritise contacts according to their threat
- Monitor TMA workload and adjust as needed
- Monitor the solutions from TMA and provide advice to how to improve them
- Annotate CEP of all events
- Facilitate team communication. When required:
 - Request clarification from others for TMA
 - Prompt for reports or repeating reports
 - Repeat information which may not have been heard
 - Remind team of priority contacts

THREAT ASSESSMENT

RANGE	Closer contacts > More distant contacts
CLASSIFICATION	Sub > Warship > Fishing > Merchant
COURSE	Closing > Opening
BEHAVIOUR	Zigging > Not zigging

HELPING TMA

If TMA solution is LEADING	FINER <ul style="list-style-type: none"> • Alter ATB towards 000 or 180 FURTHER <ul style="list-style-type: none"> • Increase range SLOWER <ul style="list-style-type: none"> • Decrease speed
If TMA solution is LAGGING	BROADER <ul style="list-style-type: none"> • Alter ATB towards 090 CLOSER <ul style="list-style-type: none"> • Decrease range FASTER <ul style="list-style-type: none"> • Increase speed

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