## Radar operator practical exam

#	Competencies	Description
1.	1.2.2.2c.	switch on, adjust and control the functioning of navigational radar installations
2.	1.2.2.2c.	switch on, adjust and control the functioning of rate-of-turn indicator;
3.	1.2.2.2c.	interpret the radar display correctly by setting the range, resolution, brightness, gain, contrast, other connected apparatus, centre and tune;
4.	1.2.2.2c.	use the rate-of-turn indicator e.g. by setting the rate-of-turn in accordance with maximum rate-of- turn of the craft;
5.	1.4.2.2a.	identify the position of the antenna on the screen and the heading line, the setting of position, course and turning direction of the own craft and the determining distances and reach;
6.	1.4.2.2b.	interpret the behaviour of other traffic participants (stationary craft, oncoming craft and craft heading the same direction);
7.	1.4.3.3a.	analyse the information supplied by radar such as heading line, electronic bearing line, range rings, and variable range marker, target trails, decentring and parallel lines and to explain the radar picture;
8.	1.6.2.2b.	reduce disturbances coming from the own craft by checking antenna, by reducing shadows and multiple reflections e. g. in the area of holds;
9.	1.6.3.3b.	take action to reduce disturbances from the environment by reducing influence from rain and waves, by correctly dealing with scattered fields (e.g. from bridges), false/ghost echoes from power transmission lines and cables as well as with shadowing and multipath effects;
10.	1.6.4.4b.	remove disturbances coming from other navigational radar installations by using interference rejection;
11.	1.8.2.2e.	correctly attribute tasks to deck crew members;
12.	1.8.2.2e.	ensure cooperation between the person at helm and the person using navigational radar installations according to visibility and the features of the wheelhouse;
13.	1.8.2.2c.	use rate-of-turn indicators and inland ECDIS or similar displays in combination with radar;
14.	1.8.2.2a.	act according to police regulations in case of reduced visibility and in case of good visibility;
15.	1.8.2.2a.	use radio, sound signals and to agree on course by using information supplied by radar;
16.	1.8.2.2e.	give commands to the person at helm including checking the person's required knowledge and skills
17.	1.10.2.2b.	take appropriate measures in high traffic density;

18.	1.10.2.2d.	take appropriate measures in the case of failure of devices;
19.	1.10.2.2f.	react appropriately in unclear or dangerous traffic situations.

Examiners are free to decide about the content of the individual examination elements. Examiners shall test elements 1-16 and at least one of the elements 17 to 19. Applicants must reach a minimum of 7 out of 10 points in each element.

**Technical requirements for craft used for practical examination** A craft used for a practical examination shall be covered by Article 2 of Directive (EU) 2017/2397. Craft used for practical exams to assess the competence of a boatmaster sailing with aid of radar shall fulfil the technical requirement laid down in Article 7.06 of standard ES-TRIN 2017/1 (1). Craft shall be equipped with an operable inland ECDIS or a comparable device for displaying electronic charts.