„MIRCEA CEL BATRAN" NAVAL ACADEMY
NAVIGATION AND NAVAL MANAGEMENT FACULTY
NAVIGATION AND NAVAL TRANSPORT DEPARTMENT

PLANETARIUM

Practical activities of Astronomical Navigation are carried out in the Planetarium. This cabinet has the following objectives:

The general objective:

Forming and developing the capability of orientation at sea with the help of stars, and the capacity of determining the celestial fix

Specific objectives:

The following elements can be simulated in the planetarium:

- ✓ the solar system
- ✓ the planet Jupiter with 4 satellites: Io, Europa, Callisto and Ganymede;
- ✓ the zodiac sign system
- ✓ the elements of the celestial sphere according to position of the observatory on the terrestrial sphere
- ✓ systems of celestial coordinates
- ✓ the position spheric triangle: formation, elements, and their variation in the daylight motion
- ✓ the daylight motion of the celestial sphere, presentation of characteristics, consequences, and particular cases
- ✓ the annual motion of the Sun
- ✓ the apparent motion of the Moon and of the planets
- ✓ the identification of stars and constellations by direct observation using the alignment method (using poles), or by diapositives

The capabilities of the Planetarium are in accordance with I.1, A-II/1, competence , model course 7.03.

The system is of ZK – P2 type and can accommodate 36 people
The planetarium can simulate nearly 6.000 stars which are visible with the naked eye from both hemispheres.

List of laboratory activities carried out in the planetarium:

1. Simulation of celestial sphere elements and of the celestial coordinates system.
2. Simulation of celestial sphere daylight motion, presentation of characteristics, consequences, and particular cases
3. Simulation of teh annual apparent motion of the Sun, presentation of characteristics, consequences, and particular cases
4. Simulation of the apparent motion of the Moon, and planets, respectively, presentation of characteristics, consequences, and particular cases
5. Identification of stars by direct observation, using the alignment method