

# PROJECT 20382

Small Patrol Ship/Corvette



## Mission

Project 20382 small patrol ship (corvette) is intended to destroy enemy submarines, surface ships, and air attack assets, autonomously or in cooperation with other naval forces, as well as to guard state border and exclusive economic zone.

## Features

- Hull and superstructure made of shipbuilding steel with extensive use of stealth technologies, advanced design materials and innovative manufacturing techniques;
- Diverse powerful weapon systems housed in relatively small displacement ship;
- Options for replacing certain weapon systems with their analogues.

## Basic specifications

Displacement, full load, t	1,700
Basic dimensions (length x beam x draught), m	94.0 x 13.0 x 3.5
Propulsion plant	CODAG two-shaft
Gas turbines total output at +15°C, kW	2x10,000
Diesels total output at +20°C, kW	2x3,750
Electric power sources	three diesel generators
Total electric power, kW	3x600
Number of propellers	2
Speed, kts:	
maximum	27
economical	14
Range, at economical speed with max fuel, n.miles	4,000
Endurance, days	15
Complement	85

## Main propulsion plant

The ship is powered by a CODAG two-shaft plant comprising two diesel gas turbines.

## Armament & Equipment

- Yakhont anti-ship missile system (2x4 launchers, fire control system, 8 missiles in TLCs), or Uran-E anti-ship missile system (4x4 launchers, 3R60UM fire control system, 16 missiles in TLCs)
  - 100mm A-190E artillery system with Puma-E 5P-10E fire control radar (80 rounds); or 76.2 mm AK-176M gun mount with the MR-123-02Ts fire control radar (152 rounds)
  - Kashtan air defence gun/missile system comprising one command and control module and one combat module (8 SAMs, 1,500 rounds)
  - 32 Igla MANPADS
  - two 14.5mm naval pedestal machine gun mounts (2,000 rounds)
  - two 533mm twin-tube torpedo launchers (four torpedoes)
  - anti-saboteur system including DP-64 grenade launcher (240 grenades) and Pallada sonar
  - one helicopter can be carried onboard
- The ship is fitted with various electronic and sonar equipment to support efficient accomplishment of a wide range of tasks assigned.

# KORVET-Class

2,000-tonne Displacement Ship



## Mission

Korvet-class 2,000-tonne displacement ship is designed to destroy enemy surface ships and submarines in oceanic and sea theatres-of-war, and to counter raids of enemy air attack assets, both independently and as an escort ship assigned to a naval task force to escort, protect and support with fire landing assault units, as well as to perform patrol and border guard missions in territorial waters and exclusive economic zone.

## Armament & Equipment

### Missile weapons

- Kalibr-NKE missile system comprising unified launcher, missile/torpedo fire control system, eight anti-ship or anti-submarine missiles in TLCs

### Air defence weapons

- Shtil ADM system (24 SAMs)
- 12 Igla-1E MANPADS

### Artillery weapons

- 100mm A-190E artillery system (80 rounds)
- two 30mm Palash gun mounts (6,000 rounds)

### Torpedo weapons:

- two 533mm twin-tube torpedo launchers (4 SET-65KE/53-65KE torpedoes)

### Anti-saboteur weapons

- two DP-64 anti-saboteur grenade launchers

### Aviation weapons

- Ka-28/Ka-31 helicopter

### Electronic equipment

- Fregat-MAE radar system
- Garpun-Bal-E target detection and designation radar system
- MR-212/201-1 navigation radar
- Irbis-K ESM equipment
- Podzagolovok-24E mutual interference avoidance system
- MGK-335EM-03 sonar system
- combat information management system

### Communications means

- Buran-E automated communications system
- Global maritime communications system for disaster relief operations
- P-405 intercom system

### Navigation equipment:

- Ladoga inertial navigation and stabilization system
- GKU-5 gyrocourse indicator
- LI2-1ME electromagnetic log
- KM 115 magnetic compass
- NEL-20K navigational echosounder
- ECS 1000 electronic mapping unit
- Briz-K and KPI-9F Baltika radionavigation receiver-indicators

### EW systems

- TK-25 multifunctional ECM system
- PK-10 close-range decoy system (four KT-216 launching units, 60 rounds)

## Main propulsion plant

The ship is powered by a two-shaft CODAG power plant comprising two M504-type cruising diesels and one main M90-type gas-turbine unit. Maximum shaft power of the geared-diesel is 4,700 hp, and of the main gas-turbine unit – 20,400 hp.

Electric power is supplied by four 450kW 12V183TE52-type diesel generators.

### Basic specifications

Displacement, full load, t	1,760
Basic dimensions (length x beam x draught), m	89.8 x 12.3 x 3.0
Main propulsion plant	two-shaft, CODAG
Main propulsion plant overall power, hp	29,800
Electric power supply units	four diesel-generators
Power, electric power supply units, kW	4x450
Number of propellers	2
Speed, kts:	
maximum	27
economical	14
Cruising range at economical speed, with full fuel tanks, n.miles	3,500
Endurance, days	15
Complement	100

# KORVET XXI-1, 2, 3, 4 Class

2,000-tonne Displacement Ships

## Mission

Ships of the Korvet XXI-1, 2, 3, 4 class are designed to engage surface, underwater and air targets in sea and oceanic areas autonomously or making part of a naval task force.

## Features

Multirole ships of the class are armed with powerful weapon systems, highly protected, stealthy and survivable. They feature good seaworthiness.

Korvet XXI-1 and Korvet XXI-2 ships are powered by two-shaft CODAG, and Korvet XXI-3 and Korvet XXI-4 – by two-shaft diesel power plants. The ships are fitted with two stand-by 250hp VDRK-185 engines providing speeds of up to 8-9 knots.

## Armament & Equipment

Attack missile systems

- Kalibr-NKE (Club-N)/Yakhont/Uran-E anti-ship missile system

AD missile systems

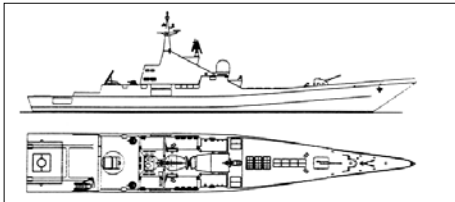
- Rif-M/Klinok air defence missile system
- Kashtan air defence gun/missile system
- ASW weapons
- 91RE ASW missiles of Kalibr-NKE missile system
- UMG-1ME torpedoes

Artillery systems

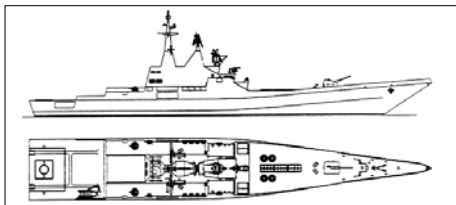
- 100mm A-190-5P-10 Universal-Puma-Palma versatile artillery system
- 30mm AK-630M rapid-fire gun mounts

Electronic equipment

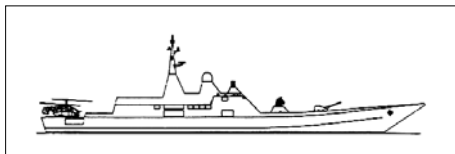
- Fregat-MAE radar
  - Fregat-M2 EM radar
  - MR-212/201-1 navigation radar
- Sonar equipment
- Zarya-ME sonar system
  - sonar station with Vinyetka long-size flexible towed antenna
- Combat information management system
- Sigma-E system



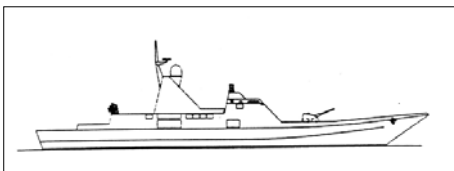
Korvet XXI-2



Korvet XXI-1



Korvet XXI-3



Korvet XXI-4

Basic specifications				
	Korvet-XXI-1	Korvet-XXI-2	Korvet-XXI-3	Korvet-XXI-4
Displacement, normal, t	1,930	1,980	1,500	1,000
Basic dimensions (length x beam x draught), m	115.0 x 15.0 x 5.6	115.0 x 15.0 x 5.7	112.0 x 13.6 x 7.3	98.0 x 11.8 x 5.7
Speed, kts:				
full	30	30	29	31.5
economical	14	14	14	14
Range, at economical speed, n.miles	4,000	4,000	4,000	4,000
Main propulsion plant type	CODAG	CODAG	diesel	diesel
Main propulsion plant power, hp	31,600	31,600	10,000	10,000
Endurance, days	15	15	15	15
Armament:				
Attack missile systems, number of launchers	24	24	8	8
Long-range AD missile systems, number of launchers	32	16	-	-
Short-range AD missile systems, number of launchers	32	32	8	8
324mm torpedo systems, number of torpedo tubes	8	8	8	8
100mm gun mounts, pcs	1x1	1x1	1x1	1x1
30mm six-barrel gun mounts	2x6	2x6	2x6	2x6
Helicopters	1	1	1	-
Complement	90	90	90	70

# 1,000-1,500-TONNE DISPLACEMENT ESCORT SHIP

## Mission

The ship is designed to detect and destroy enemy submarines, to escort and guard friendly ships and communications and to counter air attacks, both independently and within naval groups, as well as to protect and support with fire landing assault units, to carry out border guard patrol missions.

## Main propulsion plant

The ship is powered by a two-shaft CODAG-type propulsion plant comprising two 10D49-type geared cruising diesels and one main M90FR-type gas-turbine unit.

Electric power is supplied by four BMD87-type 315kW diesel generators (three-phase AC, 380V, 50Hz).

## Armament & Equipment

### Missile weapons

- Kalibr-NKE missile system comprising unified underdeck launcher, missile and anti-submarine weapons control system, four anti-ship or ASW missiles in TLCs

### AD weapons

- Kashtan air defence gun/missile system with one control and two combat modules (48 missiles and 4,000 rounds)
- eight Igla MANPADS

### Artillery systems

- 100mm A-190E gun mount (80 rounds) with 5P-10E/MR-123-02 fire control radar system



### ASW systems

- MPT-34E small-size ASW torpedoes in TLCs
- Paket-E/NK anti-torpedo protection system comprising four small-size anti-torpedoes in TLCs, target designation sonar and automatic fire control system

### Anti-saboteur weapons

- two DP-65 anti-saboteur grenade launchers Rotary-wing craft
- Ka-28 ASW helicopter with 72 RGB-16 radio/sonobuoys

### Electronic equipment

- Pozitiv-ME/Monument-E air/surface target acquisition/designation radar
- Pal-N navigation radar
- Podzagolovok-24E mutual interference avoidance system
- MGK-33SEM-03 sonar system
- Vinyetka-E sonar system with long-size flexible towed antenna

### Combat information management system

- Sigma-E system

### Navigation equipment

- Ladoga inertial navigation and stabilisation system
- GKU-5 Gyuis gyrocompass
- LIZ-1 electromagnetic log
- ECS 1000 electronic chart display system
- KM115-04 magnetic compass
- NEL-20K navigation echosounder
- Briz K GPS receiver-indicator
- MT 150/140 tyfon

### ECM systems

- TK-25 ECM system
- PK-10 close-range decoy system (four KT-216 launchers, 80 rounds)

### Communications equipment

- Buran 6E automated communication system
- SM001-03 radio communication system
- P-405 intercom equipment

## Basic specifications

Displacement, full load, t	1,250
Basic dimensions	
(length x beam x draught), m	84.5 x 13.0 x 2.5
Main propulsion plant	two-shaft, CODAG
Main propulsion plant total power, hp	30,000
Electric power supply units	four diesel generators
Power, electric power supply units, kW	4x315
Number of propellers	2
Speed, kts:	
maximum	30
economical	14
Cruising range at economical speed, with max fuel stock, n.miles	4,000
Endurance, days	15
Complement	84

# PROJECT 12300 SCORPION

Missile Boat



## Mission

Project 12300 Scorpion missile boat is designed to engage enemy surface ships, boats, and transports both autonomously and in cooperation with naval attack forces.

## Features

The boat's hull and superstructure are slanted (seven to ten degrees and more), and other stealth technologies are also employed to reduce its radar signature.

## Main propulsion plant

The boat can be powered by two MTU 16V1163TB93 diesels, or one GTU-12 gas turbine and two M530/MTU 16V 4000 M90 diesels.

Electric power is supplied by one DGF2A 100/1500 and two DGR2A 200/1500 diesel generators. It also has two 1EKPV 15/150 electric compressors.

## Armament & Equipment

Attack missile systems

- Yakhont anti-ship missile system with two twin launchers and 3R50E-12300 fire control system (four missiles in TLCs), or Uran-E anti-ship missile system (eight 3M-24E missiles in TLCs) with two quadruple 3S-24E launchers and 3R-60UE fire control system)
- Kashtan-1 air defence gun/missile system (four SAMs, 2,000 rounds plus option of surplus 1,000 rounds)
- 100mm A-190-5P-10E versatile artillery system, comprising A-190 gun mount (80 rounds) and 5P-10E fire control radar
- two DP-64 anti-saboteur grenade launchers
- PK-10 decoy system with two/four KT-216 launchers

Electronic equipment

- Monument-E/Pozitiv-ME target detection/designation radar
- TK-25E-1 ECM system
- IFF system
- Podzagolovok-24E mutual interference avoidance system
- Combat information management system
- Sigma-E Sonar equipment
- Pallada combat swimmer detection sonar
- Navigation equipment
- Ladoga-ME navigation system
- Gyuis gyrocompass
- LEM2-1 log
- NEL-20K navigation echosounder
- SN-3103 satellite navigation equipment
- KM115-07 magnetic compass

## Basic specifications

Displacement, full load, t	about 460
Max length, m	about 57
Max beam, m	about 10.3
Depth, midship, m	about 5.3
Draught, midship, full load, m	about 2.5
Speed, kts:	
maximum, with diesels	about 33
maximum, with diesels and gas turbine	about 40
economical	12-13
Range at economical speed, n.miles:	
full fuel	about 1,500
max fuel	about 2,000
Endurance, days	10