

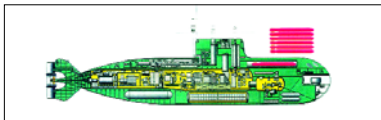
## SMALL-SIZE SUBMARINES



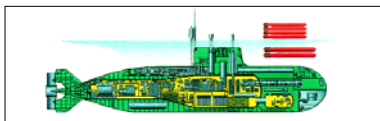
### Mission

Small-displacement submarines are intended to defend seacoast, sea borders and lines of communications, as well as to carry out stealthy patrol missions in shallow waters. They are capable of:

- destroying enemy surface combatants, vessels and submarines of different types and classes;
- landing special forces ashore, providing comprehensive support to their operations, and taking them back on board;
- providing target designation data for friendly forces;
- carrying out minelaying and electronic reconnaissance missions;
- causing damage to enemy stationary sea-based and coastal installations;
- evacuating personnel and equipment from potentially hazardous areas;
- monitoring sea borders and exclusive economic zones to counter violations, such as piracy, smuggling, poaching, drug trafficking, etc.



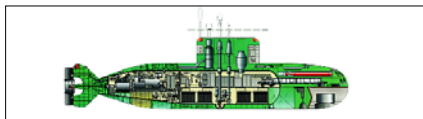
P-130



P-170



Project 865 Piranya



Piranya-T



Piranya-2

Basic specifications (1)					
	P-130	P-170	Project 865 Piranya	Piranya-T	Piranya-2
Normal displacement, cu.m	130	170	218	250	400
Basic dimensions, m:					
length	31.0	30.0	28.3	33.4	31.0
beam	3.0	4.0	4.8	5.1	5.8
draught	5.2	5.1	5.1	5.1	5.4
Main propulsion plant	DG+SB	DG+SB	DG+SB	DG+SB	DG+ECG
Max diving depth, m	200	200	200	200	200
Max underwater speed, kts	12	12	6,65	12	12
Max range, n.miles	2,000	2,000	250	2,000	1,200
Endurance, days	20	20	10	20	20
Complement	4	4	9	4	4
Combat swimmers	6	6	6	6	6
Armament:					
cruise missiles in standard launchers	*	*	–	–	–
533mm torpedoes (missiles) in torpedo tubes	*	2	–	2	–
400mm torpedoes	6	4	2	5	2-8
mines in mine dispensers	*	*	–	4	6
Igla MANPADS	–	–	–	–	–
Sirena-UM swimmer delivery vehicle	2**	2**	2	–	2

DG – diesel generator

CCDG – closed cycle diesel generator

ECG – air-independent propulsion plant with electro-chemical oxygen-hydrogen generators

SB – storage battery

\* – additional munitions can be accommodated in special clip-on containers

\*\* – in special clip-on containers

Small submarines are capable of carrying out missions in shallow and confined water areas both independently and within naval groupings comprising submarines, combatants and naval aircraft, in cooperation with stationary surveillance systems.

### Features

Modern small-size submarines are characterised by fairly high (for the given class) speed and manoeuvrability, reduced displacement, operational stealth, and great underwater range owing to introduction of new air independent power units based on oxygen-hydrogen electrochemical generators or closed-cycle diesel-generators. These submarines have various offensive, defensive

and land-attack weapon systems, state-of-the-art radars and sonars, automated command and control system, and corrosion-resistant hull and equipment.

Small subs feature improved survivability owing to titanium alloys and glass-reinforced plastic used in the hull structure, and reduced acoustic, magnetic and electromagnetic fields as a result of special design solutions.

These submarines embody cutting-edge underwater technologies, high-level automation and integration allowing fewer crew to control submarine movement and weapons/equipment employment.

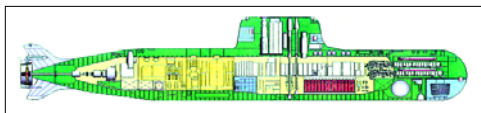
Small subs can be built within shorter time at a reduced cost.



P-550



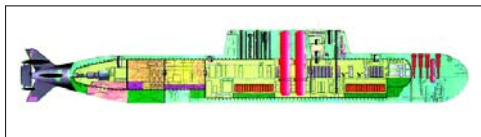
P-650B



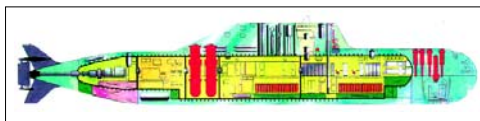
P-650E



P-750



P-750B



P-750E

### Basic specifications (2)

	P-550	P-650B	P-650E	P-750	P-750B	P-750E
Normal displacement, cu.m	650	760	760	860	920	920
Basic dimensions, m:						
length	51.0	57.0	57.0	62.0	68.0	69.5
beam	6.4	6.4	6.4	6.4	6.4	6.4
draught	6.3	6.3	6.3	7.3	7.3	7.3
Main propulsion plant	DG+SB	DG+ CCDG+SB	DG+ ECG+SB	DG+SB	DG+ CCDG+SB	DG+ ECG+SB
Max diving depth, m	300	300	300	300	300	300
Max underwater speed, kts	16	16	16	17	17	17
Max range, n.miles	2,500	2,500	2,500	4,500	4,500	4,500
Endurance, days	20	20	20	30	30	30
Complement	9	9	9	9	9	9
Combat swimmers	6	6	6	6	6	6
Armament:						
cruise missiles						
in standard launchers	–	–	–	4	4	4
533mm torpedoes (missiles)						
in torpedo tubes	4	4	4	4	4	4
400mm torpedoes	8	8	8	8	8	8
mines in mine dispensers	12	12	12	12-24	12-24	12-24
Igla MANPADS	4	4	4	4	4	4
Sirena-UM diver propulsion vehicle	–	–	–	–	–	–

DG – diesel generator power plant

CCDG – closed cycle diesel power plants

ECG – air-independent propulsion plant with electrochemical oxygen-hydrogen generators

SB – storage battery

\* – additional weapons can be accommodated in special clip-on containers

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