

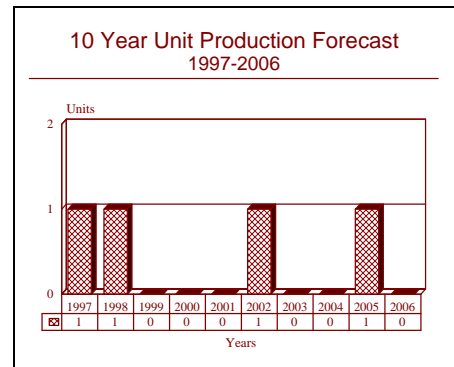
# ARCHIVED REPORT

For data and forecasts on current programs please visit  
[www.forecastinternational.com](http://www.forecastinternational.com) or call +1 203.426.0800

## Sovremenny Class (Project 956) - Archived 4/98

### Outlook

- Production at slow rate for Russian navy
- Variants offered on export market
- Chinese buying two ships, probably last to be built in Russia
- Modified version possibly becoming new class by the early 2000s



### Orientation

**Description.** A guided-missile destroyer, primarily functioning as a surface strike combatant. Usually referred to in Russian documentation as a light rocket cruiser (Raketny Kreysler) or an Esminec (destroyer), in respect for its general-purpose capabilities.

#### Sponsor

Severnoe Project Design Bureau  
 St. Petersburg  
 Russia  
 (Design authority)

#### Rosvooruzhenie

18/1, Ovchinnikovskaya Emb.  
 Moscow 113324  
 Russia  
 Tel: +7 95 231 0049  
 Fax: +7 95 233 0272  
 (Export authority)

#### Contractor

Northern Shipyard JSC  
 1 Korabelnaya St.  
 St Petersburg 198097  
 Russia  
 Tel: +7 812 184 8233 or 184 9416

**Licensee.** No production licenses have been granted, although there are reliable reports of negotiations in process with China.

**Status.** Production and service.

**Total Produced.** A total of 16 Project 956 and two 956A versions are believed to be in service; two 956As are under construction.

### Platform

Name	Builder	Ordered	In Service
618 <i>Sovremenny</i>	Zhadanov North	1974	8/1980
417 <i>Otchayanny</i>	Zhadanov North	1975	5/1982
705 <i>Otlichnyy</i>	Zhadanov North	1975	5/1983
676 <i>Osmotritelnyy</i>	Zhadanov North	1976	6/1984
455 <i>Bezuprechnyy</i>	Zhadanov North	1976	6/1985
796 <i>Boyevoy</i>	Zhadanov North	1977	6/1986

Name	Builder	Ordered	In Service
719 <i>Stoikyy</i>	Zhadanov North	1977	9/1986
424 <i>Okrylennyy</i>	Zhadanov North	1978	9/1987
671 <i>Burnyy</i>	Zhadanov North	1979	9/1988
439 <i>Gremyashchiy</i>	Zhadanov North	1979	11/1988
770 <i>Bystryy</i>	Zhadanov North	1980	2/1989
420 <i>Rastoropnyy</i>	Zhadanov North	1980	12/1989
672 <i>Bezboyaznennyy</i>	Zhadanov North	1981	9/1990
435 <i>Bezuderzhannyy</i>	Zhadanov North	1981	2/1991
<i>Bespokoynyy</i> <sup>(a)</sup>	Zhadanov North	1984	11/1991
610 <i>Nastoychivy</i> <sup>(a)</sup>	Zhadanov North	1985	11/1992
694 <i>Besstrashnyy</i> <sup>(a)</sup>	Zhadanov North	1985	2/1994
<i>Vnushitelnyy</i> <sup>(b)</sup>	Nikolayev	1986	1997 (est.)
<i>Vedushchiyy</i> <sup>(b)</sup>	Nikolayev	1986	1998 (est.)
<i>Sobrazitelny</i> <sup>(a)</sup>	Zhadanov North	1987	1994
<i>Buynyy</i> <sup>(a)</sup>	Zhadanov North	1987	1996
<i>Vdumchivy</i> <sup>(a)</sup>	Zhadanov North	1988	1997 (est.)
<i>Vazhnyy</i> <sup>(a)</sup>	Zhadanov North	1989	1998 (est.)

Note: All Russian pennant numbers change frequently and the above list is liable to change without notice.

<sup>(a)</sup> Project 956A

<sup>(b)</sup> These two ships were restarted after being suspended since 1987; it is reported that they are the ones sold to China. Extensive remedial work on the hulls is required before they are ready for delivery — both have virtually been hulks since construction was suspended. An alternative scenario is that the two sold to China are the *Sobrazitelny* and the *Buynyy*. In that case, those started by the Nikolayev shipyard would likely not be completed at all, and the future of the rest of the class is questionable as well.

**Application.** These ships are tasked with anti-ship operations, including medium- and short-range attacks on heavily defended groups of enemy shipping. Although not a primary role, these ships do have minelaying rails and can carry up to 40 mines each. This minimal ASW role is primarily for self-defense purposes, complementing the ASW-capable *Udaloy* class.

**Price Range.** The manufacturer is quoting prices for these ships ranging from US\$450 million to US\$800 million. The former price is believed to represent the completion cost of a hull already under construction, the latter of a new-build hull to customer specifications.

## Technical Data

### Characteristics

<i>Speed, cruising:</i>	18 kts
<i>Speed, maximum:</i>	32 kts
<i>Range:</i>	5,200 nm at 18 kts, 1,600 nm at 32 kts
<i>Crew:</i>	30 officers, 296 enlisted

<b>Dimensions</b>	<b>Metric</b>	<b>US</b>
<i>Length, overall:</i>	155.7 m	510.8 ft
<i>Length, waterline:</i>	145.0 m	475.7 ft
<i>Beam, overall:</i>	16.8 m	55.2 ft
<i>Beam, waterline:</i>	12.2 m	40.0 ft
<i>Draft, normal:</i>	6.0 m	19.7 ft
<i>Draft, maximum:</i>	8.8 m	28.9 ft
<i>Displacement, standard:</i>		6,300 tons
<i>Displacement, full load:</i>		7,850 tons

<b>Armament</b>	<b><u>Type</u></b>	<b><u>Quantity</u></b>
<b>Guns:</b>		
Medium caliber:	AK-130 130 mm L70	2x2
Point defense:	AK-630 30 mm Gatling	4
<b>Missiles:</b>		
SSM:	Chelomey P-80 Zubr	8
SAM:	Altair 9M-38M1 Smerch	48
<b>Torpedoes:</b>		
Tubes:	53 cm	2x2
Torpedoes:	TEST-71ME anti-ship	4
	TEST-96 anti-submarine	4
Mine rails:		2
Mines/depth charges:		40
Aircraft:	Ka-27 Helix	1
<b>Electronics</b>		
<b>Radar:</b>		
Air/surface search:	MR-760 Fregat-MP	1
P-80 fire control:	Ehkran	1
Smerch fire control:	Orekh	6
130 mm fire control:	MR-184 Uragan	1
30 mm fire control:	MR-105 Turem	2
Navigation:	MR-212 Volga	3
<b>Sonar:</b>		
Hull mounted:	MG-335 Platina	1
<b>Electronic warfare:</b>		
Surveillance ESM:	Start	2
OTH ESM:	Wine Glass	4
Barrage jammers:	Krab-13	2
Deception jammers:	Krab-14	2
SIGINT:	Cross Loop	1
COMINT HF/DF	Sprage Star	1
COMINT MF/DF	Muff Dive	1
Decoy launchers:	RK-2 for active decoys	2x2
	RK-10 chaff/flares	8x10
Anti-torpedo system:	RBU-1000	2
Laser warner:	Spektr-E	10
<b>Command &amp; Control Systems:</b>		
Datalinks:	Light Bulb	2
	Bell Crown	2
IFF:	Nichrom	1
	Salt Pot	2
Command system:	Second Captain	1
<b>Propulsion</b>		
Steam turbines:	TV-12	2x50,000 shp
Boilers:	Pressure-fired	4
Auxiliary power:	Diesels	6x800 kW
Propellers	4-bladed, fixed pitch	2
	Transverse thrusters	2

**Design Features.** The Sovremenny (codename 956) class is a direct derivation of the preceding Kresta-II (Project 1134A) class BPKs. It retains the hull lines and powerplant arrangements of the older design and much

of the internal layout. The primary visual differences are the enlargement of the foredeck into a proper forecastle, significantly larger and more capacious superstructure areas and, most noticeably, the

installation of two twin automatic AK-130 130 mm L70 gun mounts, one forward and one aft.

The hull design is a standard Russian full waterplane design with exaggerated sheer and flare to the bows. The forecastle deck ends abeam of the bridge where the two very large quadruple launchers for P-80 Zubr missiles are located. Extensive shielding from rocket blast is located at this point. A telescopic helicopter hangar is located on the 02 level, 3/4 aft. In common with other, similar, installations, this hangar is mechanically unreliable and leaks badly. The helicopter deck itself is located too high in the ship and is subject to excessive ship motion. For these reasons, the Ka-27 helicopter intended for these ships is rarely carried, and the helicopter deck is used by the crew for sporting and other recreational activities. The hull terminates in a squared-off stern section.

Internally, watertight cross-deck bulkheads are restricted to the minimum number required for structural integrity. Where a Western design would have additional watertight bulkheads for additional strength and damage control capability, the Sovremenny has non-loadbearing wooden partitions. Damage control capabilities are strictly limited with only a single fire hose point amidships, no fog nozzles or sprinkler systems and no centralized damage control station. Fires on Russian warships frequently spread out of control very quickly and become ship-threatening. Construction standards are very variable with extremely crude welding evident at many points and many castings being left rough. In contrast, critical areas show very high construction standards.

Living accommodations are surprisingly good with the enlisted crew being provided with sleeping compartments for between 6 and 13 sailors. Senior ratings get the smaller compartments. Officers are provided with two- or three-berth staterooms. The mess decks have the ability to feed 110 members of the crew at a single sitting. In contrast to the days of the Soviet Union, the food served to the officers is now identical to that served to enlisted personnel. One of the mess decks can be converted into a movie theater. A Volna-S antenna system probably including an omnidirectional COMINT receiver is now known to be a wideband television receiver that feeds TV sets in the recreation areas for the officers and enlisted personnel.

Propulsion machinery is the standard steam turbine layout adopted by the Project 1134 and 1134A classes. Four pressure-fired boilers, operating at 640 kg/cm<sup>2</sup> and 500 °C (915 psi and 930 °F) drive two TV-12 steam turbine sets, each generating 50,000 shp. The ship has two shafts, each with a four-bladed, fixed-pitch screw. The Sovremenny class is probably the last major surface

combatant to be built with steam turbine propulsion. The lower temperature and pressure conditions used probably result in a safer and more reliable installation than the notorious US 1,200 psi plant.

**Operational Characteristics.** The primary armament of the Sovremenny class is the battery of eight SSN-22 Sunburn missiles (codename Chelomey P-80 Zubr, 3M-82), held in two quadruple launchers abreast of the bridge. No reloads are carried. The P-80 is a rocket-powered anti-ship missile weighing 4,500 kg, of which 250 kg is the warhead. This consists of a shaped charge situated behind a fuel tank with the intention of blasting burning fuel into the crater made by the warhead detonation.

Other warhead options include a submunitions dispenser and, possibly, a nuclear warhead. The P-80 has a range of 130 km when employing ship's sensors and 250 km when using mid-point guidance correction. The missile has a speed of Mach 2.5 and is equipped with an adaptive radar altimeter enabling it to skim at altitudes of between 7 and 20 m, depending on the sea state.

The P-80 Zubr has an ISAR guidance system which uses inverse synthetic aperture radar technology to form an image of a proposed target and relay it back to the launch platform for confirmation. The image is displayed on a console in the weapons control room where the operator can either confirm the target or order the missile to select and image the next nearest ship.

Only two such consoles are provided, limiting the ship to firing a pair of missiles at a time. At least some ships carry the Raduga P-270 (3M-80, NATO codename SSN-22) Moskit, in place of the P-80. This is an active radar homing fire-and-forget weapon. In this case, the missiles are believed to be fired in ripples of four.

The secondary anti-ship armament is provided by two twin AK-130 130 mm L70 gun mounts. These are fully-automatic, water-cooled guns with a sustained rate-of-fire exceeding 65 rounds per minute per barrel and a short-duration burst capability of 90 rounds per minute. This latter option causes extremely rapid barrel wear. The AK-130 fires a 27 kg shell to a range of 28 km. Magazine capacity is 500 rounds. Munitions options include semi-armor-piercing explosive, semi-armor-piercing incendiary, proximity-fuzed explosive, fragmentation and light-cased explosive.

There is also an electronic jamming shell which carries a jammer with an effective radius of 700 m and operating between 1.5 and 120 MHz. The guns are controlled by an MR-184 Lev (NATO codename Kite Screech) combined electro-optic and radar fire control system. The full system of guns and fire control is designated

Yakhond-M, Yakhond being the combination of MR-145 and 100 mm gun.

Air defense is provided by the Altair 9M-387M1 Smerch (NATO codename SAN-7 Gadfly) missile system. This is a developed version of the land-based 9K-37 Gang (NATO codename SA-11) and can be loosely compared with the US Navy Standard SM-1MR/New Threat Upgrade. A simplified export version is designated 9M-38ME Shtil and lacks the features associated with NTU. The Smerch missile is a single-stage weapon with a speed of Mach 3 and a range of up to 25 km for approaching targets and up to 6 km for crossing targets. Maximum attainable altitude is 15,000 m with a minimum engagement altitude of 10 m. The Smerch weighs 690 kg with a warhead of 70 kg. It uses combined programmable autopilot command and semi-active radar homing guidance (semi-active only in Shtil). Maximum target speed is 3,000 kph (1,867 mph).

The magazine arrangement consists of two oval 12-missile carousels which feed a single-rail launcher. The carousel is loaded via two dedicated hatches to the rear of the launcher assembly. The launcher itself has a rate of fire of one round every six seconds. Six Orekh guidance radars (NATO codename Front Dome) are provided. Time from cold condition to ready-to-fire is less than three minutes. The missile fire control system has an automatic handover system which allocates targets leaking through the defense screen to the point defense systems.

Point defenses consist of four AK-630M2 Gatling guns controlled by two MR-105 Turem (Bass Tilt) fire control radars. These have a maximum range of 4,000 m — effective range is less than 1,500 m — and a rate-of-fire of 4,000 rpm. The guns work in two pairs with the fire control system attempting to place the target in a crossfire from the two guns. Ammunition stowage is 8,000 rounds.

The final component of the main armament is two twin 53 cm torpedo tubes, one on each side of the ship. These may fire either TEST-71ME passive homing anti-ship torpedoes or TEST-96 active/passive homing anti-submarine torpedoes. Official literature lists the outfit as being four of each, but it is not clear whether the ship actually carries reloads for its tubes; it may well be that the two sets of four are alternatives. A wake-homing alternative guidance system to the TEST-96 is under development; it will be suited to anti-ship work. The TEST-71ME is 7.935 m long, weighs 1,820 kg and has a warhead weighing 205 kg. It is electrically powered, has a range of 15 km and a speed of 35 kts. It is probable that this weapon is a self-defense torpedo and fulfills much the same function as the US ASROC. The time-to-distance figures are quite similar allowing for

ASROC's long set-up time. There are also two sets of rails on the stern which can be used either for minelaying or for dropping depth charges and two RBU-1000 anti-torpedo rocket launchers with 120 rounds.

The anti-submarine equipment is cued to target by a MG-335 Platina sonar, a hull-mounted medium frequency set very similar to the US SQS-56 or the British Type 2016. This is primarily a defensive system and acts as a close-in controller for the 53 cm torpedo tubes and also warns of approaching hostile torpedoes. A last-ditch anti-torpedo defense is provided by the two RBU-1000 rocket launchers which are intended to countermine the approaching torpedo. There are, apparently, no torpedo decoys similar to those deployed by Western navies, Russian doctrine preferring hard kill for this role.

The radar suite includes a MR-760 Fregat MP (NATO: Top Plate) 3-D radar operating in the E/F band. This consists of two canted phased arrays used for air search. The Fregat complex also feeds situational data to the Second Captain. Fregat operates with a 30 kW peak power when pulse-compressed and has a 4 sec data rate. Maximum elevation is 55 degrees. Maximum range against an air target is 130 km. The associated Poima automatic data extraction computer can carry up to 20 target tracks.

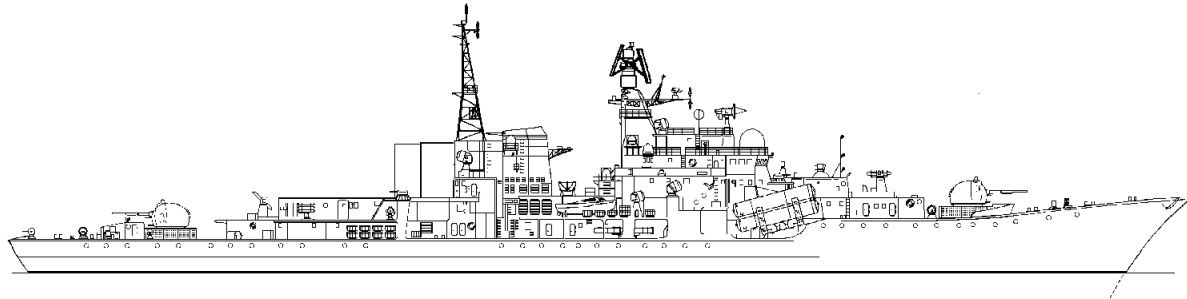
Fire control for the Chelomey P-80 Zubr missiles is provided by an Ehkran (Band Stand) combined radar/datalink system. The version installed on the Sovremenny class operates in the D-band and both tracks the outbound missiles and receives ISAR telemetry from them. The NATO codename Band Stand refers to the radome cover only; the radar underneath is highly variable, depending on class and installation.

The electronic warfare suite on the Sovremenny comprises four large Wine Glass ESM antennas. These are high-resolution systems intended to provide over-the-horizon-targeting (OTHT) information to the P-80 missiles. The primary defensive ESM suite is controlled by two Start (Bell Shroud) ESM systems intended to provide early warning of hostile radars and situational data to the Second Captain. The jammers are the well-known Krab-13 (Bell Squat A) noise jammers and Krab-14 (Bell Squat B) deception jammer. The ship is equipped with two RK-2 150 mm twin-barreled decoy launchers, firing a parachute-deployed offboard radiating decoy similar in concept to the British Siren or US/Australian NULKA systems, or chaff rounds cut to size in a below-decks chaff cutting room. There are also eight RK-10 10-barrelled 120 mm decoy launchers firing SR-50 chaff rounds, SOM-50 IR flare/anti-laser

aerosol rounds and SK-50 cartridges which dispense a mixture of chaff, flares and anti-laser smoke.

The Light Bulb datalink is the Russian equivalent of Link 16/JTIDS. It received targeting data from the divisional and relayed from brigade flagships. Reportedly, it is not the receiver datalink from the P-80

missiles. On brigade flagships Light Bulb operates in both receive and transmit mode, while in other ships it operates in receive-only mode. It is not apparent whether this is a difference in the equipment or simply in tactical usage. Bell Crown is the Russian equivalent of Link 11 and is primarily used for communication with aircraft and helicopters.



Project 956

Source: Forecast International

## Variants/Upgrades

**Project 956A.** The most recent units of the Sovremenny class differ from the preceding 14. The anti-ship missile tubes are longer and have a significantly modified end-cap. This reflects the adoption of a new anti-ship missile, intended to replace the Chelomey P-80. Two missiles are competing for this role, a ramjet-powered derivative of P-80 with an extended and widened forebody and an annular intake similar to the old US Talos anti-aircraft missile and an enlarged and improved version of the Raduga P-270/ 3M-80 with extended range. The Chelomey missile retains the ISAR homing system and 250 kg warhead, the Raduga weapon having a 320 kg warhead and an active radar homing system.

Both missiles will cruise to target at Mach 2.5 and accelerate to Mach 4.5 for the final attack run to target. Range has been increased from the 250 km maximum of P-80 Zubr to over 300 km. The 956A also carries a modernized version of the 9K-37 Smerch missile with extended range. This is the naval equivalent of the land-based SA-17 missile. Hulls 15 to 21 will be built to 956A standards.

**Project 956E.** Export derivative of the Sovremenny, differing in that it is armed with the Raduga P-270 Moskit anti-ship missile, lacks the Light Bulb data link system and has a Harpun radar in place of the Ehkran set under the Band Stand antenna radome.

**Project 956M.** The technical description of this variant appears identical with that of 956A. However, the A suffix indicates an armament change, the M suffix a

modification or modernization program. A calculated guess is that 956M is applied to older ships brought up to 956A standards.

**Project 956U.** Drastically modernized version of the Sovremenny intended for the 22nd and subsequent ships, in which the hangar and helicopter platform are enlarged and lowered one deck, the aft AK-130 turret and 9K-37 launcher removed and a 64-round vertical launch system interchangeable with the US Mk.41 VLS installed. The Russians claim that this launcher can fire versions of the 9K-37 missile and the P-100 folding-fin variant of P-80 as well as all US missiles compatible with the Mk-41 VLS, specifically including Tomahawk, Harpoon, VL-ASROC and Standard SM-2 Block III and IV. They also state that the vertical launch derivatives of 9K-37 and P-100 are fully compatible with the US Mk.41. The forward single rail launcher is removed and replaced by a second VLS box, probably 16 or 32-round capacity. The large box launchers beside the bridge are also to be eliminated and replaced by an extended bridge structure offering enlarged command and control spaces.

**Project 956.1.** A rather odd export variant of 956U, apparently a 956/956U hybrid. This design has the cleared stern and aft VLS of Project 956U combined with the single rail launcher forward and box launchers beside the bridge from 956. No additional superstructure volume is included. This variant has not been seen since it was announced during the 1993 Abu Dhabi Defense Exhibition and may have represented a hurried attempt to have a VLS-equipped ship available

at that show. The sales prospects of this variant are not convincing.

**Minor variants.** The first three Sovremenny ships mount the older MR-700 Fregat radar rather than MR-760 Fregat-MP, while numbers four and five mount an interim system designated Fregat-M. This reflects the nonavailability of the older systems. Some ships also do not have the Wine Flask ESM system, again reflecting production problems. Future ships may well have their AK-630M2 systems replaced by the Kortika CIWS.

An undesignated design, released in early 1995, shows reloadable tubes for P-270 Moskit missiles abreast the

bridge with an extended superstructure aft to hold the reload magazine. It is not known if this represents a real design or only a theoretical proposal.

The Chinese are reported to be negotiating for the purchase of two Sovremenny class ships and for a production license. It is possible that such ships will mount the Chinese C-802 anti-ship missile rather than P-80 or its successors. It is not known if the ships to be sold to China will be the last two of the series that were originally destined for the Russian Navy, or whether they are of the upgraded type.

## Program Review

**Background.** The Sovremenny class was initiated in 1964 at a time when the Raketny Kreysler (rocket cruiser) divisions were the centerpiece of the Russian fleet. The Tactical-Technical Requirement (TTR) that led to their development was formulated in 1964 and envisaged the development of a new generation of Raketny Kreyslers to replace those built under the 1957 Fleet Plan. Two distinct types were envisaged, following on from the pattern established in the 1957 Fleet Plan. These were the Project 964, a heavy cruiser, armed with P-35 (SSN-12 Sandbox) long-range, nuclear-tipped missiles and the Sovremenny, a light cruiser armed with an advanced follow-on to the P-50 (SSN-9 Siren).

At a very early stage in the design process, a tactical revolution in Russian naval strategy switched emphasis and building priority from Raketny Kreyslers to what is called in Russian Bolshoi Protivolodochny Korables (large anti-submarine ships, or BPKs), aimed at escorting the Yankee class (codename Project 667A) SSBNs through the GIUK gap. This mission was designated as PSW (Pro-Submarine Warfare) and later evolved into protecting the Russian SSBNs in their bastions. The PSW forces were given absolute priority and took over many ships intended for other fleet arms. These included the 21 Project 934 Raketny Kreyslers being built under the 1957 plan. They were renumbered as Project 1134 and emerged as the Project 1134 (Kresta I), Project 1134A (Kresta II) and Project 1134B (Kara) classes.

The Project 964 and 956 cruisers were effectively suspended. Their designs were continually fine-tuned with new weapons and systems being incorporated as they became available. In order to justify continued development, Project 964 was renumbered in the BPK series, becoming Project 1164 and eventually emerging as the Slava class. Project 956 remained in the Raketny Kreysler numbering series, probably because a purpose-

designed BPK, the Udaloy class Project 1155, already existed and the obvious duplication would have led to the elimination of Project 956.

By 1972, the emergency PSW programs were showing fruit, and enough capable BPKs were entering service to allow attention to be refocused on the Raketny Kreyslers. Russian naval opinion was that the Vietnam War had left the US Navy paralyzed and incapable of serious offensive action. A window of opportunity therefore perceived to exist to rebuild the Raketny Kreysler forces. Both Project 1164 and Sovremenny were returned to the building program, with the first ships ordered in 1974.

Meanwhile, the Sovremenny lass had undergone substantial modification. The original SAN-3 twin launchers and Head Lights guidance radars had been replaced by single rail launchers for the new 9K-37 missiles with their Orekh guidance radars. This new rapid-fire system represented a substantial advance in ship defense capability. The most obvious modification was the abandonment of a missiles-only policy. The 1957 Plan Project 934B class, destined to be the heavy cruisers for the Pacific Fleet and armed only with missiles had been hurriedly modified with 76 mm guns as part of their conversion to the BPK role.

The new ships carried two large twin 130 mm guns, one turret forward, one aft. It would appear that this installation was originally developed for a gun-armed fire support ship intended to support amphibious operations. This would have mounted three of the new turrets, an air defense system and salvo rocket launchers on a 5,000 ton hull. In 1970/71 this program was merged with the Project 956 effort.

The most important change, though not immediately obvious, was the introduction of the new Chelomey P-80 Zubr anti-ship missile. The imaging guidance system on these missiles solved the long-standing problem of

target identification as the light cruisers closed on the US formations disrupted by the nuclear-tipped P-35 salvoes. The P-80 suffered some problems in its development program and would not be available until at least 1976. In fact, it was not available for service until 1980 but this was not significant since the first Sovremenny would not be available until that time.

The first Sovremenny class ship was laid down in 1975 and started to run trials in 1980. Four brigades, each of seven ships, were planned, two for the Northern Fleet, two for the Pacific Fleet. The Northern Fleet, at least, was also to have received a single brigade of seven Project 1164 Slava classes but only four Project 1164s were ever completed, the rest being a victim of the spreading collapse of the Russian industrial infrastructure. The Pacific Fleet was to have received a heavy brigade of Kirov (Project 1144) class rocket cruisers but these were redesigned as RKR fleet flagships. The same problems caused the construction times of the Sovremennys to stretch out, increasing from five years to ten.

The construction pattern established was for each brigade flagship to be ordered in one year with the three two-ship battalions to be ordered in successive years. This pattern was followed for the first two brigades, all of which are now in service. There then followed a three-year gap while an improved version of the design was prepared. The construction cycle started again in 1984 with orders for the first of the Project 956A class. These suffered very serious delays and the ships are only now beginning to appear.

Two ships being built on the Black Sea were suspended in 1987 due to overload at this yard. They were left untouched until November 1993 when preparations for construction restarted. The work carried out to date can be described as being ambiguous and could reflect remedial work on time-induced deterioration or the hulks being scrapped.

In 1991, the construction rate on this class slowed to an almost complete standstill. This partly reflected the then-critical decay of the Russian military/industrial infrastructure and partly the rapidly-accelerating political crisis.

This situation remained unchanged until the new Russian Navy announced its 10-year fleet reconstruction plan in August 1993. Under this, the old functional divisions between the Anti-ship, PSW, ASW, Amphibious and service forces were abolished and a more conventional unified fleet structure adopted. The Sovremenny would continue in production as the major surface combatant of the Russian fleet, with the rival Udaloy class (Project 1155) BPK program being terminated. The program for 28 Sovremenny hulls at least

at that time remained as a final objective. Following this decision work restarted on the existing Sovremenny hulls.

The Sovremenny class was released for export early in 1993, with diagrams of the ship being shown at the Abu Dhabi Defense Exhibition. One new variant shown at that time had a modified stern section incorporating a clone of the US Mk-41 VLS that is capable of handling both Russian and US missiles. These export efforts appear to have met with some success. The Chinese are reported to have concluded an agreement for the purchase of the two Sovremenny units being built on the Black Sea and for a local production license, although the latter remains unconfirmed. A number of other customers are believed to be at a less advanced stage of interest. The Chinese did eventually finalize the deal for two ships during Premier Li Peng's visit to Moscow in late December 1996.

The structure of the Sovremenny program became a little clearer during 1994. The third brigade of the class would receive the new Project 956A variant, while the final group of seven ships would be equipped with the Project 956U version. This had its dedicated AAW anti-aircraft and anti-ship missile launchers replaced by two VLS systems, a small nest at the bows probably for ASW missiles, and a large battery at the stern with 64 silos. This would accommodate 24 of the new anti-ship missiles and 40 anti-aircraft weapons.

Export versions of the ships also became more defined. The current version offered for export is Project 956E, a simplified variant of the original 956 armed with the P-270 Moskit missile in place of the P-80 Zubr and with a revised radar fit. The Project 956.1 variant exhibited at Abu Dhabi appears to have been discontinued — in any case, it bore every mark of being very much an *ad hoc* solution — and there are reports it may be replaced with a version having an enlarged helicopter facility aft and a VLS forward.

Early in 1996, Russia supported the US-sponsored peace initiative in Bosnia, by the deployment of a naval battle group centered around the TAKR *RFK Kuznetsov*, which was screened by the Project 956A class destroyer *RFK Besstrashnyy* and the Project 1135 frigate *RFK Pylkyy*. In addition to their role in providing fire support and utility services to the US forces in Bosnia, the Kuznetsov battlegroup will be conducting a large number of port visits to different countries while deployed to the Adriatic. This is reportedly part of a concerted effort to interest potential buyers in the Mediterranean in both the Sovremenny and 1135 as well as their equipment.

More recently, however, it has become unclear whether the program will ever see the completion of the



intended 28 units. It is very questionable, in light of Russia's economic hardships, and the likelihood of China having bought the last two ships that were originally intended for the Russian navy is greater than

Russia going ahead with its original procurement plans anymore. If China does decide to take up license production of this ship type, it will not show in actual products until after the turn of the century.

## Recent Contracts

<u>Contractor</u>	<u>Award (\$ millions)</u>	<u>Date/Description</u>
Northern Shipyard	800.0	<i>December 1996</i> — Two Sovremenny class destroyers for Chinese People's Liberation Army Navy

## Timetable

	1964	Design studies started
	1972	Decision to initiate construction taken
	1974	First ship laid down
	1980	First ship completed
	1981	Trials completed
	1984	Upgraded Project 956A initiated
	1991	Construction activity suspended
Aug	1993	Construction of class resumed
Dec	1996	Chinese purchase of two ships; production for Russian navy uncertain

## Worldwide Distribution

**China.** (two hulls purchased, production license probably being negotiated)

**Russia.** (18 in service)

## Forecast Rationale

The Sovremenny class is a undeniably a substantial design. It is well equipped and well armed, yet the hull size is enough to carry its armament without ill effects on seakeeping. Ships serving with the Northern Fleet are reported to have been able to accommodate the heavy seas and adverse weather conditions encountered in the Arctic and mid-winter North Atlantic. Living conditions onboard these ships are reputed to be comparatively good, a major reason for their retention at a time when the Russian navy is moving to an all-volunteer structure.

The limitations of the design are also marked, however. The retention of a steam turbine powerplant limits the appeal of the ships on manpower requirement and safety grounds. Normally, steam turbine ships have large crews in comparison with gas turbine equivalents; this is not the case with Sovremenny, though, implying that the steam plant is highly automated. This is risky, although the ships have never had a catastrophic machinery accident in spite of being run hard. This record suggests that the Russians use care in running

these ships; whether an export customer would execute similar caution is questionable.

The sonar/ASW fit of these ships is focused on self-defense. Effectively, these ships have far less ASW capability than the American FFG-7 class destroyers. The MG-335 Platina sonar can be loosely compared to the US SQS-56 on the FFG-7s, while their 53 cm torpedo tubes fall between the US Mk.32 and ASROC in capability. There is no provision for a towed array and no internal volume for the processing equipment associated with such sensors. In the new Russian navy, the Sovremenny class ships will be escorted by the Neustrashimy class (Project 1154) and the existing Udaloy class (Project 1155) BPKs. Export customers may require a more well-rounded capability in what will probably be the largest and most expensive ships in their fleet.

The design is, thus, well suited to forming the backbone of the Russian navy for the next decade. As the larger surface combatants of the Kirov (Project 1144) and

Slava (Project 1164) class are laid up, mainly due to their excessive manpower requirements, the Sovremenny will provide the main source for anti-ship firepower, foreign deployments and courtesy visits. The current deployment to the Adriatic could well presage the sight of these ships cooperating with US, British and other task groups in support of UN initiatives becoming commonplace.

The Chinese purchase of two Sovremenny class ships in December 1996, and the impending license agreement, could be perceived by China's neighbors as posing a threat to the balance of power in the region. Such a situation could prove to be profoundly destabilizing. Until now, Chinese naval power projection has been largely discounted on the grounds that the ships, although numerous, were so poorly armed and equipped that they presented little real threat. The largest surface ship in the Chinese People's Liberation Army Navy (PLA Navy) has been the 4,200-ton Luhu class destroyer. The presence of the 7,000-ton Sovremenny class ships completely reverses this assessment: China will have substantial surface ship power for sea control at its avail. There will be no effective surface combatants to counter this force anywhere in the Far East or Southeast Asia until the Thai air-capable ship *Chakkrinareubet* enters service with its group of Harrier V/STOL aircraft.

The apparent threat of this situation, however, may be lessened by the fact that the Chinese are buying a

reduced-capability derivative of the Sovremenny. The replacement of the Smerch missile system with the export Shtil effectively reduces the AAW capability of the ships to a level comparable to those equipped with the Sea Sparrow. There are also suggestions that the Chinese ships may be equipped with the C-802 anti-ship missile in place of the P-80 Zubr, or its successors. This, again, will reduce the threat projected by the Chinese ships to more manageable proportions. The number of missiles could be as high as 24, as opposed to the standard eight per ship, however.

Nevertheless, the response is likely to be a major upswing in naval construction in the region, already seen in the sudden resurgence of interest in submarine and patrol boat construction in the Southeast Asian region.

The ships bought by the Chinese are either purpose-built for the client, or, more likely, the last two units of the original Russian procurement plan. At any rate, they are probably of the 956A variation. Since the work was discontinued for a few years, the ships are now in poor condition, They need substantial remedial work to adapt to Chinese needs, and will probably not be delivered before 1997 or 1998. There will then be a long delay while the technology necessary for the ships is installed and long-lead items ordered. Licensed construction is unlikely to start before 1999, suggesting that the first Chinese-built ships would enter service around 2005.

## Ten-Year Outlook

		ESTIMATED CALENDAR YEAR PRODUCTION											
		<u>High Confidence Level</u>					<u>Good Confidence Level</u>				<u>Speculative</u>		Total
Designation	Application	thru 96	97	98	99	00	01	02	03	04	05	06	97-06
SOVREMENNY CLASS RKR (CHINA)	(956)	0	0	0	0	0	0	0	0	0	1	0	1
SOVREMENNY CLASS RKR (RUSSIA)	(956)	18	1	1	0	0	0	1	0	0	0	0	3
Total Production		18	1	1	0	0	0	1	0	0	1	0	4