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Russian Naval Power in the Pacific:
Today and Tomorrow

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ABSTRACT

This working paper has been written to address the gap in knowledge of commentators with regard to the continuing presence of the Russian Navy in the Pacific region. There is a common impression that the Russian Pacific Fleet consists primarily of rusting hulks in the harbour of Vladivostok. While there are a large number of former Soviet vessels that are decommissioned or awaiting scrapping, this impression fails to take into account the ongoing maintenance and activity of the active portion of the fleet. The current Fleet is smaller than its Soviet parent, but comprises more modern and combat-capable combatants, particularly within the attack submarine force. The Pacific Fleet remains a vital element of the defensive system of the Russian Far East.

Russian naval strategy in the Pacific has a strong littoral-orientation, including defence of immediate maritime approaches to Russia's Far Eastern shores, protection of its economic interests, safeguarding maritime borders, and participation in diplomatic and peacekeeping operations. The Pacific Fleet has the largest area of responsibility of the four Russian fleets, covering the entire Pacific and Indian Oceans and extending to the Persian Gulf. Recent years have seen the resumption of long-range attack submarine patrols of the Pacific Ocean and engagement with regional navies.

Overall, despite the numerical reductions and the reduced funding for naval activity, the Pacific Fleet remains operational. What happens politically in the next five years will affect the future configuration and mission of the Pacific Fleet. Even should there be a reduction in its strategic nuclear component, the Pacific Fleet will retain its strategic significance due to the critical role it plays in the system of Russia's security in the Far East.

ABBREVIATIONS AND ACRONYMS

AD	Air defence
AF/AD	Air force/air defence
AGI	Intelligence gatherer
ASCM	Anti-ship cruise missile
ASW	Anti-submarine warfare
CAP	Command-and-post
C-in-C	Commander-in-Chief
C^3	Communications, command and control
CG	Guided missile cruiser
CGN	Guided missile cruiser - nuclear-powered
CIS	Commonwealth of Independent States
CTR	Cooperative Threat Reduction
CVBG	Carrier battle group
DDG	Guided missile destroyer
EEZ	Exclusive Economic Zone
FFG	Guided missile frigate
IFV	Infantry fighting vehicle
JDW	Jane's Defence Weekly
KZ	*Krasnaya Zvezda* - The Red Star: Russia's daily newspaper of the Ministry of Defence
LPD	Landing platform dock
MBT	Main battle tank
MRL	Multiple rocket launcher
MS	*Morskoi Sbornik* - Naval Herald: monthly journal of the Russian Navy
MTVD	*Morskoi Teatr Voennykh Deistviy* - Maritime Theatre of Military Operations: Russia's defence abbreviation
NATO	North Atlantic Treaty Organisation
NG	*Nezavisimaya Gazeta* - Independent Newspaper: Russia's daily newspaper
NVO	*Nezavisiomoe Voennoe Obozrenie* - Independent Military Review: Russia's independent weekly analytical defence source
NRP	Naval repair plant/shipyard
PDSS	*Protivodiversionnye Sily i Sredstva* - Counter-Sabotage Forces and Means: Russia's defence

	abbreviation applicable to naval special forces
PFNA	Pacific Fleet Naval Aviation
PFHQ	Pacific Fleet Head quarters
RNI	Russian Naval Infantry
RFAF	Russian Federation Air Force
RPF	Russian Pacific Fleet
SAG	Surface action group
SAM	Surface-to-air missile
SAR	Search-and-rescue
SBCM	Sea-based cruise missile
SLCM	Submarine-launched cruise missile
SLOC	Sea lines of communications
SSBN	Nuclear-powered ballistic missile submarine
SSGN	Nuclear-powered cruise missile submarine
SSK	Diesel-electric attacks submarine
SSN	Nuclear-powered attack submarine
START	Strategic Arms Reductions Treaty
TVD	*Teatr Voennykh Deistviy* - Theatre of Military Operations: Russia's defence abbreviation
UN	United Nations
USN	United States Navy

INTRODUCTION

For decades, the Asia-Pacific community and the rest of the world witnessed the growth of Soviet naval power in the area. Beginning in the 1960s, the Pacific Fleet emerged as the largest and strongest single fleet in the Soviet Navy. After the collapse of the Soviet Union in 1991, followed by a worsening of the socioeconomic situation in Russia, the strength and capability of the Russian Pacific Fleet (RPF) has been significantly reduced. Nonetheless, the RPF today remains the key element of Russia's power in the Asia-Pacific region, and the principal power tool of Russia's involvement in regional affairs. Despite the deterioration of Russian naval power in the Far East, the Pacific Fleet remains a powerful force. Currently, the Fleet's order of battle comprises fewer but more capable warships. Its new naval strategy emphasises littoral defence and the protection of Russia's Exclusive Economic Zone (EEZ). At the same time, it recognises the need for limited open-ocean operations. The need for blue-water sea-denial operations is based on the assessment of continuous maritime threat to Russian security that is posed by the USA and other maritime powers. This paper examines the current strategy of the Russian Pacific Fleet, its war-fighting capabilities, the post-Cold War development and current state of the primary combat arms of the Pacific Fleet, its surface warships, submarines, naval aviation, amphibious forces, and secondary and support forces. For a continental naval power, the composition of its navy demonstrates the country's ability to contest with maritime powers at non-strategic (conventional warfare) and strategic (nuclear warfare at sea) levels. Possible future trends of development of Russian naval power in the Pacific are also examined.

Historical Overview

The history of Russian naval power in the Pacific can be traced as far back as the 1600s, when Russian explorers first reached Siberia's eastern coastline and founded a seaport at Okhotsk in 1647. On 21 May 1731, Okhotsk gained the status of a naval port. The Okhotsk Flotilla, the first Russian naval formation in the Pacific Ocean, was formed under the command of G. Skornyakov-Pisarev, beginning the Russian naval presence in the Pacific and laying the foundation for the future development of Russian naval power in the Pacific. [1]

The development of Russian naval power in the Pacific since its creation in 1731 until the present time can be divided into three major time periods:

- The establishment of Russian permanent naval presence in the Pacific maritime theatre (1731-1945).

- The expansion of the Soviet naval power in the Pacific during the Cold War (1945-1991).

- Post-Cold War reformation and restructuring (1991-2001)

The Cold War years, especially the period of 1970s-1980s, saw a rapid quantitative and qualitative improvement of Soviet naval capabilities in the Pacific. Such an improvement gave the Soviet Union the ability to project its military power in the Asia-Pacific region beyond its historic spheres of influence. By the time of the collapse of the Soviet Union, the Pacific Fleet was possibly the strongest of the four Soviet fleets with only the Northern Fleet coming close to approximating its power. Both the Pacific and Northern Fleets had two *Kiev* class aircraft carriers (those of the former being the *Minsk* and *Novorossiysk*) which, together, supported the Soviet strategic submarine force, the sea-based component of Soviet nuclear triad. The Pacific Fleet, however, had more major surface combatants, large amphibious ships (including two *Ivan Rogov* class LPDs), mine warfare ships, approximately 30 percent of the total Soviet Naval Aviation aircraft inventory, and the largest contingent of the naval infantry in the Soviet Navy. The Fleet had the largest concentration of strategic and strike submarines of any Soviet MTVD.

All these forces gave support to Soviet national interests and supported Soviet foreign policy in the Pacific and Indian Oceans. By the late 1980s the Pacific Fleet was well positioned in the region for the first time in the history of its existence. Its forces had access to ports in Vietnam, Ethiopia, Yemen, the Seychelles and other regional states. This enabled them to station ships, aircraft and supplies in the key areas of the Asia-Pacific and the Indian Ocean regions, improving the strength and speed of responses to the changes of situation in those areas. Although in the mid-1980s there was a shift in Soviet naval activity in the Pacific, resulting in the growing emphasis on littoral operations, the Pacific Fleet continued to maintain its forward presence in South-East Asia and the Indian Ocean region (the 17th and 8th operational squadrons respectively). However, the collapse of the Soviet Union, the rapid deterioration of

economic conditions in the new Russia, and the easing of tensions in the Pacific and Indian oceans made significant alterations to the original plans.

The Troubled 1990s

The reduction of immediate maritime threats as a result of the end of the Cold War reduced Russia's need to maintain large standing naval force. Changes in Russia's political orientation and the abandonment of the communist ideology of internationalism no longer required maintaining forward naval presence in support of the ideologically-based foreign policy in the Asia-Pacific region and elsewhere. Moreover, the rapid decline of the Soviet economy in the late 1980s and the eventual Soviet break-up in 1991 brought about a swift and accelerating reduction of the ex-Soviet Navy. The Pacific Fleet was no exception. Since the early 1990s, there has been a significant reduction in the zones of operational activity of the fleet, together with large cuts in strength and personnel.

In the first months of 1992, the former Soviet Pacific Fleet officially declared to be an asset of the newly formed Commonwealth of Independent States (CIS). Its location within the Russian Federation, and the domination of Russian personnel, effectively made the CIS Pacific Fleet the *de facto* property of the Russian Federation. Consequently, it came as no surprise in July 1992 when the CIS Pacific Fleet became the Russian Pacific Fleet (RPF).[2] Initially representing a sizeable portion of the entire ex-Soviet Navy, the RPF had dramatically changed since 1991 both in its appearance and composition. In 1997, Admiral Mikhail Zakharenko, then Chief of Staff of the fleet, admitted that it was incapable of accomplishing tasks it was assigned just fifteen or even ten years previously, due to the decreased capabilities and changes in the geo-political situation in the Asia-Pacific region.[3]

By the end of 1991 Russian warships left the Indian Ocean and South-East Asian waters and both the 8th and 17th operational squadrons, which were deployed in those areas, were disbanded. In-area operations became the main form of naval activity of the Pacific Fleet. By 1992 the permanent basing of Russian surface warships, submarines, and naval aircraft at Cam Ranh Bay had ended and some installations were handed over to the Vietnamese authorities.

Facing harsh economic realities and new geo-political circumstances, swift and accelerating reductions occurred in the primary combat arms such as surface fleet, submarines, amphibious

forces, naval aviation, naval infantry and coastal defence troops. Within the decade, secondary and support forces, such as mine-warfare, and auxiliary forces, such as the maritime guard service, also significantly shrank in numbers and capabilities. By mid-2000, the overall strength of the Pacific Fleet was only 60 percent of that in 1991, and the number of ships and personnel was reduced by more than half. Whereas in 1990 the total numerical strength of the Pacific Fleet was 108,000 personnel, by 1997 this figure had dropped to 54,000. At the same time the number of operational ships was reduced from 335 in 1992 to 140 at the end of 1996.[4] Some major combat groupings, such as the 4th Submarine Flotilla and the 10th Operational Squadron, were disbanded altogether along with more than a 100 other combat and support units.[5]

Current Tasks and Missions

The RPF occupies a special place in the system of national security, being the keystone of the security and defence of the Russian Far East and its coastline, which stretches for more than 13,000km from the North Korean border to the Bering Strait. Moreover, the RPF has the largest operational zone of responsibility within the Russian Navy, which extends from the Bering Sea and the western coast of the United States to the eastern coast of Africa and the Persian Gulf. A total area of more than 90 million square kilometres.[6] Additionally, the strategic nuclear component of the RPF is still part of Russia's strategic deterrent forces.

In Peacetime

At the turn of the new millennium, Russian naval forces in the Pacific were to fulfil tasks set generally for the Russian Navy, with some additional tasks and compositional changes relevant to the specific nature of the Pacific maritime theatre. In peacetime, the fleet is responsible for a number of tasks in all three operational sea zones: distant, intermediate and near. Currently, the Pacific Fleet is assigned to fulfil the following goals in peacetime:

- Creation of a favourable for Russia maritime regime in littoral seas and protection of the nation's Far Eastern maritime flanks.
- Maintaining high degree of readiness of the sea-based strategic nuclear arm of the Fleet (SSBN force) and participating in strategic deterrence.
- Protection of merchant shipping and guaranteed access to the resources of the World Ocean.

- Protection of areas of Russia's industrial maritime activity and its exclusive economic zone against unsanctioned use by other states.
- Supporting Russia's foreign policy in the region through naval presence and 'showing the flag' policy.
- Participation in peace-keeping operations, sanctioned by the United Nations (UN).[7]

Greater emphasis may be given to counter-piracy and counter-terrorist maritime operations in the Fleet's zone of responsibility. These post-Cold War missions reflect the overall tasks of the Russian Navy, and illustrate the shift in emphasis from high-seas activity to littoral-area operations. While the operational tempo may increase in the next couple of years, the fleet's operations will be mainly carried out in littoral areas. On the other hand, the geographic circumstances of the Pacific MTVD did not change, leaving the Pacific Fleet with the largest zone of responsibility. The unchanged area of responsibility presupposed the presence of the 'force projection' tasks and missions (points 3, 4 and 5), reflecting the natural need for blue-water naval capabilities in the Pacific.[8]

In Wartime

The Pacific Fleet Staff and the Directorate of Combat Training plan that in wartime the fleet will be concentrating on two principal missions: naval strategic warfare (support of SSBN operations) and maritime defence of eastern Russia. Depending on its significance, these missions can be divided into three levels of tasking:

- Strategic level tasks – area defence of SSBNs operating areas and, if the need arises, trategic strike and limited strategic ASW warfare (operations against enemy SSBNs).

- Operational-tactical (theatre) level tasks – operations against enemy advancing battle groups and ASW operations against nuclear-powered attack submarines (carriers of SLCMs).

- Tactical (local) level tasks – local ASW, anti-SLOC warfare, mine warfare, coastal defence and limited amphibious operations.

In many ways the last two are intended to support defence of the 'homeland' mission. To accomplish all three-task levels, forces of the fleet will have to be ready to wage a number of naval operations such as:

- Strategic strike.
- Anti-submarine warfare.
- Anti-carrier warfare.
- Surface strike warfare.
- Mine warfare.
- Amphibious warfare.

In reality, however, in wartime the tasks and operational activities of the Pacific Fleet will be limited to sea control operations in the near sea zone.[9] Current Russian naval strategy in the Pacific attaches greater importance to short and medium range operations, up to 300 and 2,000 kilometres respectively away from the Far Eastern coastline, corresponding with distance configurations of the inner and outer defensive perimeters. Russia's reorientation from open-ocean defence towards the defence of littoral waters has meant a greater awareness for Russian naval strategists of the need to defend the seas of Okhotsk and Japan.[10]

From the military-strategic perspective, Russia's current 'disregard' for long-range operations can in part be explained by the concentration of SSBN operations in littoral seas and home waters. The remaining *Delta III* class SSBNs operate primarily in Russia's home waters, as will be discussed later in this paper, thus reducing the need for conventional naval operations on the high seas. Other reasons include the reduction of the USN SSBN combat patrols in the Pacific, resulting in decreased importance of the so-called ocean ASW defence beyond the outer perimeter, the loss of the developed network of overseas shore support facilities, and a relatively small share of ocean-going combatants.

A lack of appropriate air support and air defence of the Russian task groups in forward areas is another major obstacle. By the beginning of 2003, the Pacific Fleet Naval Aviation (PFNA) was able to provide an air umbrella only to the fleet's naval bases and vital installations, and to the main zones of the fleet's operational activity. Such as parts of the Okhotsk Sea (in which SSBNs could operate), the Sea of Japan, and areas along the Kurile Islands chain. Therefore, in the present geo-strategic environment. The fleet can successfully operate only with the air cover of the land-based Naval Aviation aircraft and the Russian Air Force units with a maximum effective range of 300km, thus creating a new inner defence perimeter within the 1500-2000 mile perimeter which has existed since the Soviet times. Obviously such an environment greatly

reduces Russia's ability to deploy substantial naval forces far away from friendly shores, where they can come under enemy aerial attack.

At the same time, there is a continuous need for limited open-ocean operations. This need was influenced by the increasing number of USN submarines and surface warships equipped with *Tomahawk* SBCMs with a range of around 2,500km. Based on the experience of the Second Gulf War of 1990–91 and the 1999 air campaign against Yugoslavia. Russian naval experts believe that one of the main tasks of the Russian Navy in wartime will be the defence of Russia's territory against possible massive SBCM strikes. Carried out by the USA or NATO naval forces against targets inside Russia. Carrier-based fixed-wing strike aircraft and strategic bombers, capable of launching their weapons (mainly cruise missiles) at a range of up to 2,500km from their targets, represent a potential threat to Russia's security.[11] While the Pacific Fleet would not be able to establish control over those forward areas located beyond the outer perimeter defensive zone. It still has capability to deny the use of the above-mentioned areas to the enemy, primarily through the use of nuclear-powered attack submarines armed with SLCMs, followed by naval strike aviation.[12]

Sea-control operations in the inner-defensive perimeter zone can be supported by limited sea denial operations in the intermediate zone. These would include submarine and air attacks against enemy carriers and amphibious invasion forces, engagement of enemy submarines nearing seas of Okhotsk and Japan and the Kamchatka Peninsula, and probably some offensive mining. Air attacks against enemy shore installations (primarily in Japan) can be combined with limited amphibious operations. Therefore, repulsion of the attack of an enemy, rather than the full invasion of foreign territories, would the ultimate objective.

Organisational Structure and Order of Battle

At the beginning of the 21st Century, the RPF was regarded as the second largest of Russia's four fleets in terms of strength and combat potential. It consisted of sea-based strategic deterrent forces, general-purpose surface and submarine forces, naval aviation, naval infantry and coastal defence, ground forces, air defence and special purpose units, as well as support units. At the end of 2002 the Fleet's total strength was approximately 45,000 active personnel, among them around 10,000 officers and approximately another 10,000

warrant officers. The average age of an officer is 31.[13] Its order of battle was five strategic submarines (SSBNs), 18 multi-purpose attack submarines (SSGNs, SSNs, SSKs), 20 principal surface combatants (including two guided-missile cruisers), approximately 28 smaller and other-purpose combatants, some 57 auxiliaries, 55 combat aircraft, and 26 combat helicopters. Additionally, the maritime border guard service in the Pacific has a fleet of seven principal surface combatants, and 72 smaller sea and river going armed patrol units, which can be integrated in the fleet's order of battle in times of crisis or war.[14]
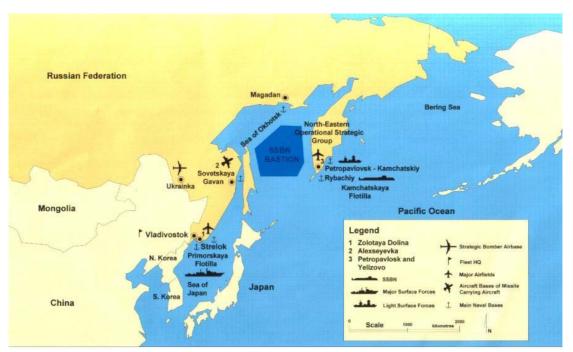

Figure 1: Russian Fleet operating and support bases. The Pacific Fleet Bases are split between the western group in the vicinity of Vladivostok and the eastern group on the Kamchatka Peninsula in the vicinity of Petropavlovsk.

In terms of organisational structure of the naval component the Fleet is divided into two flotillas (Primorskaya and Kamchatskaya) and a number of naval bases, made of divisions (*diviziya*), brigades, independent battalions, divisions (*diviziony*) and squadrons. Admiral Viktor Fyodorov is the current Commander of the Pacific Fleet.

Major Surface Combatants

The majority of major surface combatants are based in the Maritime Province and assigned to the Primorskaya Flotilla of the Different-Purpose Forces (*Primorskaya Flotiliya Raznorodnykh Sil*). They include the only operational cruiser (the *Varyag*) and all *Sovremenny* and *Udaloy* class destroyers. These are the only surface units of the Pacific Fleet capable of conducting open ocean operations.

At the beginning of 2003 the Pacific Fleet had two guided-missile

Figure 2: Udaloy Class DDG – The Udaloy class is the core of Russia's surface long-range capabilities in the Pacific. Optimised for open-ocean ASW, this class receives high priority in maintenance and is often used for out-of-area operations in the Pacific and Indian Oceans.

cruisers, the *Admiral Lazarev*, and the *Varyag*, both optimised for surface-strike action. The *Admiral Lazarev* is a 24,000ton *Ushakov* Class (known in the West as the *Kirov* Class) heavy nuclear-powered missile cruiser (CGN), the most powerful surface warship the Pacific Fleet has ever had.[15] Currently, the *Lazarev* is non-operational and is based at the Strelok naval base. Should the *Admiral Lazarev* eventually go to sea again, the striking capabilities of the Pacific Fleet would be significantly increased.[16]

The only currently operational Russian cruiser in the Pacific is the *Moskva* Class (known in the West as the *Slava* Class) guided missile cruiser *Varyag* (formally *Chervona Ukraina*).[17] A relatively young ship, commissioned in 1989, it was transferred to the Pacific in October 1990.[18] The *Moskva* class is only second to the *Ushakov* class as the most powerful surface ship in the Russian Navy.[19] A *Moskva* class CG would be used as the centrepiece of the fleet's surface action group (SAG) with a primary task of attacking carrier battle groups. It could also be used as a formidable escort to other ships, screening them with its comprehensive multi-echeloned air defence system.[20]

The RPF operates two types of large ocean-going DDGs: the *Sovremenny* class and the *Udaloy* class. The deployment of the two new types of destroyers was part of the Fleet's policy to modernise and standardise its surface fleet, and improve its blue-water fighting capabilities, rather than numerically expand it. The *Sovremenny* class is optimised for surface warfare, whilst the *Udaloy* class is an excellent ASW combatant, both are designed for open-ocean operations. The Russian Navy has the practice of operating a pair of *Udaloys* in an ASW task group. The *Sovremenny* class are essential components of the Fleet's SAG.

At present, two *Sovremenny* class and four *Udaloy* class DDGs are operational and active, the rest are in reserve or undergoing refit (see table 1). With little prospect of seeing new combatants joining the Pacific Fleet in the near future. It may be assumed that the Fleet command will try its best not only to maintain in operational condition combat-ready units, but will also make attempts to bring up to operational status some of those warships, which are now in reserve. For example, *Admiral Tributs* was brought back to operational status in 1999, after being in reserve since 1994.[21] Operational units are intensively in use, and participate in most of the Fleet's activities.

Type/Class	Name/Number
Cruisers: 1 (1) **Ushakov** class **Moskva class**	*Admiral Lazarev** *Varyag*
Destroyers: 6 (3) **Sovremenny** class **Udaloy** class	*Bezboyaznenny*, Boyevoy*, Burny, Bystry* *Admiral Panteleev, Admiral Spiridonov,* Admiral* *Tributs, Admiral Vinogradov, Marshal Shaposhnikov*
Frigates: 9 +7 *Krivak-I* class *Krivak-III* class** *Grisha-III/V* class	*Letuchy* *Anadyr, Dzerzhinskiy, Kedrov, Menzhinskiy, Orel,* *Pskov, Vorovskiy* 8 vessels
Missile Corvettes: 16 *Nanuchka-III* class *Tarantul-III* class	*Moroz, Razliv, Smerch,* + 1 *R-79* (825), 924, 937, 946, 954, *R-18* (971), 978 + 5

Table 1: Major Surface Combatants of the Pacific Fleet Order of Battle 2002-2003.

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* non-operational/in reserve/in refit
** under control of maritime border guards

In 2003 the Fleet has only one *Krivak-I* class FFG (the *Letuchy*) and eight *Grisha-III/V*-class FFLs now available for combat duty (see table 1).[22] Their primary function is the provision of immediate defence to the Russian SSBNs, based at Rybachiy and operating in the Okhotsk and Bering Seas, and ASW operations within the littoral defensive perimeter.

In wartime, or under other special circumstances, the Pacific Fleet will be able to rely on seven *Krivak-III* FFGs, currently belonging to Russia's border guards but still effectively under naval control. Given the age of these ships it is likely that the *Letuchy* will leave operational service before 2005.[23] The *Letuchy* and some *Grishas* are assigned to the Kamchatskaya Flotilla and based in Petropavlovsk-Kamchatskiy, the remaining *Grishas* are with the Primorskaya Flotilla and primarily based in Vladivostok. Their likely primary function in wartime will be defence of the immediate approaches to Petropavlovsk-Kamchatskiy and Rybachiy naval bases, and escort roles within the littoral zone. Any operations beyond the 300km safety's zone are unlikely due to their limited air defence and surface warfare capabilities.

With the sharp decline of Russian naval blue-water capabilities, and the growing attention on the defence of littoral seas, the role of light missile craft in the Russian Navy considerably increased.[24] At the beginning of 2003, the Pacific Fleet had sixteen missile guided-missile corvettes in its order of battle: the *Nanuchka-III* and *Tarantul-III* class boats. [25] The remaining four *Nanuchkas* were assigned to the Kamchatskaya Flotilla and based at the Petropavlovsk-Kamchatskiy naval base. All twelve *Tarantul-III* class corvettes were concentrated in the naval bases of the Maritime Province, primarily at Strelok.

Submarines

The Russian Navy values submarines for their strike capabilities, mobility, stealthy deployment, and their ability to implement successfully the navy's primary task—to deny the use of the sea to the enemy.[26] In the Far East, attack submarines, complemented by the missile-carrying strike aviation, continue to be regarded as the primary means of 'sea denial' of the Pacific Fleet. However, financial hardships have affected even this arm of service—once the most prestigious of all.

Type/Class	Name/Number
SSBNs: 4 (1) *Delta-III* class	*Komsomolsk-na-Amure*,* *Petropavlovsk-Kamchatskiy* (K 211), *Podolsk* (K 223), *Svyatoy Georgiy Pobedonosets* (K 433), *Zelenograd* (K 506)
SSGNs: 4 (1) *Oscar-II* class	*Chelyabinsk* (K 442), *Krasnoyarsk* (K 173), *Omsk* (K 186), *Tomsk* (K 526), *Viliuchinsk* (K 456)*
SSNs: 3 (11) *Akula* class *Victor-III* class	*Barnaul* (probably formerly *Kit* K 391),* *Bratsk* (probably formerly *Del'fin* K 263),* *Kuzbass (*K 419), *Magadan* (K 331), *Samara* (K 295) 8-9 laid up in reserve/refit/non-operational. All *Victor-III* class units will be scrapped in the near future.
SSKs: 4 (4) *Kilo* class	BN 345, BN 507, BN 521, BN 529 + 4

Table 2: Submarines of the Pacific Fleet Order of Battle 2002-2003.

To manage the impact of its resource problems, the Pacific Fleet, in the early and mid–1990s, made a series of hard choices aimed at preserving its core submarine force capabilities. These included early retirements of older and less-capable units, strict controls on operating tempo, and maintenance on its most modern submarines.

With the decommissioning of the last *Delta-I* class SSBN in 2002, at the beginning of 2003 the sea-based component of Russia's strategic deterrent forces in the Far East consisted of *Delta-III* class SSBNs (see table 2). All *Delta-IIIs* are assigned to the 45th Submarine Division, part of the 2nd Red Banner Submarine Squadron (*eskadra*), successor of the 2nd Submarine Flotilla.

In the 1990s, the operational tempo of Russia's SSBNs was reduced significantly compared to the previous decade. At present, the Sea of Okhotsk is the main area of Russian SSBN patrols in the Pacific, where the Russian Navy systematically deploys up to two strategic submarines. Additionally, at least one SSBN remains in a state of full alert and preparedness for strategic missile launch at the *Delta-III* home base at Rybachiy (the so-called pier-side alert). There are also reports of occasional SSBN deployments (one boat) to the Bering Strait.[27]

Compared to the period of the 1980s, the Pacific Fleet today has a smaller but more effective attack submarine force. These submarines give the Russian naval forces in the Pacific a substantially improved capability in anti-submarine and anti-ship warfare.

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* non-operational/in reserve/in refit

The most significant improvement of the Pacific Fleet sea-denial

Figure 3: Delta-III Class SSBN near Kamchatka Peninsula. The Pacific Fleet retains its strategic capability through a small force of Delta-III SSBNs. The force is expected to remain operational in the Pacific Fleet until at least 2005.

capabilities in the 1990s was the introduction and continuous deployment of the *Oscar-II* class SSGNs. While the *Oscar-II* is an attack submarine, its impressive size and striking capabilities single out this class from other Russian attack submarines. These huge submarines (nearly 14,000 tonnes in surface displacement) are the second largest submarines in the world (after the *Typhoon* class SSBNs) and a powerful and effective anti-shipping platform. Designed to attack CVBGs, *Oscars* are considered by the Russian Navy as vital elements of the maritime defence of the State.[28] A single *Oscar-II* is capable of damaging a strike aircraft carrier and destroying half of its escorts (4-6 warships) at the same time.[29]

Currently the *Oscar* class submarines are the main striking element of the Pacific Fleet. The first submarine of this class was introduced in the Pacific Fleet's order of battle on 21 September 1990.[30] Throughout the 1990s the number of *Oscar-IIs* was growing, despite the economic setbacks and radical reduction in the naval construction. Between 1991 and 1998 four *Oscar-II* class were transferred to the Pacific. These submarines are based at Rybachiy. Pacific Fleet *Oscars* remain relatively active and are routinely deployed. The availability of five SSGN units in the Pacific MTVD is almost optimal, allowing two submarines to remain deployed or

ready for action at any given time, while maintaining a normal cycle for maintenance and training.[31]

Besides *Oscars*, the RPF currently operates two main types of attack submarines: the nuclear-powered *Akula* and the conventional *Kilo* class boats. With all *Victor-III* class submarines placed in reserve, *Akulas* remain the only operational SSNs of the fleet. Most of the Pacific Fleet *Akulas* were commissioned before the collapse of the Soviet Union,[32] with the exception of the seventh *Akula*-class (*Drakon,* pennant K267), which joined the Fleet on 29 July 1995.[33] The new *Akula-II* class SSN, *Nerpa*, under the construction in Komsomolsk-na-Amure since 1994, may be commissioned sometime in 2004. Like the *Oskars*, all *Akulas* are based at Rybachiy.

The Pacific Fleet has the largest contingent of *Kilos* in the Russian Navy. Formed into a brigade of conventional submarines, the eight Pacific *Kilos* consist of five older design (type 877EKM), whilst three boats are believed to be of an advanced (type 636) design.[34] It
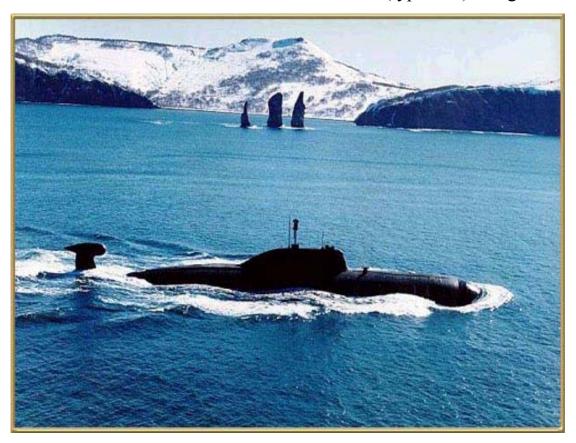

Figure 4: Akula-I Class SSN deploys to sea. The Oscar-II Class SSGNs and Akula Class SSNs are the main striking force of the Pacific Fleet and continue providing Russia with open-ocean sea denial capabilities. Both Oscars and Akulas routinely conduct long-range patrols.

is believed that only four *Kilos* are operational, the rest are in reserve

(see table 2). *Kilos* operate at sea for up to 45 days and have a capability to penetrate a screen of US surface ships and get close enough to attack even a nuclear-powered carrier. The *Kilos* are primarily based at Strelok.

Naval Aviation

The Naval Aviation of the Pacific Fleet (PFNA) is an essential component of the Fleet's combat potential. The PFNA is completely subordinate to the Fleet Command. The air power of the Pacific Fleet at the beginning of 2003 consisted of some 55 fixed-wing combat aircraft and 26 combat helicopters, most of which are shore-based (table 3). It is organised into one division comprising a number of regiments and separate squadrons. While the majority of aircraft are suited for operations within the inner perimeter, some critical elements, including the Tu-22M-3 missile strike and the Tu-142 and Il-38 ASW aircraft, may be involved in long-range operations.

The air arm of the Pacific Fleet currently has five basic missions: anti-ship strike, fighter attack, reconnaissance and surveillance, anti-submarine warfare, and search-and-rescue. However, at present it largely performs only ASW and reconnaissance missions, which can be partially explained by the significant reductions in strength and size starting in 1992. The growing shortage of spare parts and the absence of funds to upgrade equipment led to the decommissioning of many aeroplanes and helicopters between 1992 and 1996. A number of regiments and squadrons were disbanded, other units decreased in size, and a number of air bases and airfields were abandoned or transferred to the civilian authorities.

The most powerful PFNA strike component is the missile carrying fixed-wing aircraft element. At the beginning of 2003 the PFNA had two regiments equipped with some twenty Tu-22M-3 aircraft (see table 3). Both regiments are based at the Alekseyevka air base. The PFNA also has one regiment of Su-24 tactical strike aircraft and two regiments of fixed-wing ASW aircraft: one is equipped with the long-range Tu-142, whilst the other has medium-range Il-38 aircraft at its disposal. The PFNA also operates a fleet of the shore-based and ship-borne Ka-27 and Mi-14 ASW helicopters. All remaining Tu-142s are based at Alekseyevka, while most of Il-38s are stationed near Petropavlovsk-Kamchatskiy. A number of Il-38 are also based at the Zolotaya Dolina naval air base, located some 35 kilometres away from Nakhodka, Maritime Province.[35]

A squadron of medium-range Su-24M/MR aircraft is responsible for aerial reconnaissance, whilst electronic reconnaissance is performed by the few remaining short-range An-12RR aircraft.[36] Given the limited capabilities of the Su-24s, medium and long-range reconnaissance missions are largely carried out by missile carrying and ASW aircraft, which do not truly satisfy the requirements of naval command.[37]

Joint Operations with the Air Force

It is important to note that, in the event of any military conflict in the Pacific MTVD, the PFNA will stage joint operations with the strategic and tactical elements of the Russian Federation Air Force (RFAF) stationed in the Far East. In particular, the 73rd Heavy Bomber Division of Russia's Long-Range Aviation (strategic

Figure 5: Ka-27 Helix-A ASW helicopter. With the decommissioning of the Kiev Class VTOL carriers Minsk and Novorossiysk, the Fleet's ship-borne air capability rests with some 20 Ka-27 helicopters, which can be based on the cruiser Varyag, the Udaloy and Sovremenny Class DDGS, and Krivak-III Class FFGs. Some Helix are based ashore.

bomber force), equipped with the Tu-95 MS and Tu-22-M-3 long-range bombers, based at the Ukrainka strategic air base (Far East). Is likely to join the missile-carrying aircraft of the PFNA in operations

against enemy CVBGs or amphibious forces.[38] Russian long-range bombers have been increasingly involved with PFNA forces in simulated air attacks against carrier and surface warfare battle groups, as illustrated by their joint training exercises staged in September 1999, September 2001, and May 2003.

Type	Number
Strike Tu-95MS Bear H/Tu-22M-3 Backfire C Tu-22M-3 Backfire C Su-24 Fencer E Su-25 Frogfoot	42 -units of the 73rd Heavy Bomber Division (Ukrainka). 20 97* 60*
ASW Tu-142 *Bear F* Il-38 *May* Ka-27 *Helix A* Mi-14 *Haze*	10 15 20 3
Fighters/Interceptors Su-27 *Flanker*, MiG-31 *Foxhound*	111*
Reconaissance/EW Su-24MR *Fencer D* An-12RR *Club B*	51* 10
Combat Assault Ka-29 *Helix B* Mi-24 *Hind*	3 unknown
Transport Mi-8 *Hip*	unknown

Table 3: Naval Aviation of the Pacific Fleet Order of Battle 2002-2003.

The 11th AF/AD Army provides the principal air defence to the Pacific Fleet bases and its ground installations. Throughout the 1990s the 11th Air Army modernised, replacing large numbers of outdated aircraft with smaller numbers of modern planes.[39] In early 2003 the Army had 97 Su-24M tactical bombers, 60 Su-25 ground attack aircraft, 111 Su-27 interceptors, and 51 Su-24MR reconnaissance aeroplanes (see table 3).[40] Many air bases with fighter aircraft are located near main bases of the Pacific Fleet.[41] Besides providing air cover and air defence of the fleet forces and ground network, fighter aircraft of the 11th Air Army will participate also in PFNA airborne offensive operations. In particular, fighters will accompany naval missile-carrying and bomber aircraft in their raids against maritime and shore-based targets. Tactical strike

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* form order of battle of the 11th AF/AD Army

aircraft of the 11th Air Army (Su-24 bomber and Su-25 ground attack) are likely to be used against enemy naval forces in the inner perimeter defensive zone, and to provide airborne support to Russian amphibious operations. Elements of the 11th Air Army are also involved in medium-range maritime reconnaissance. For example, on 17 October 2000 two pairs of the Su-24MR reconnaissance aircraft escorted by Su-27 fighters intercepted the carrier *USS Kitty Hawk* and its escorts in the Sea of Japan and photographed the *Kitty Hawk* CVBG.[42]

Amphibious and Special Forces

The amphibious and special operations component of the Pacific Fleet currently includes three major elements: the naval infantry (marines) and naval special forces (naval *spetsnaz* and other special-purpose units), coastal missile artillery, and the amphibious sealift element. The amphibious forces, comprising units of naval infantry and their sealift assets, are the main element of Russian power projection capabilities in the Pacific.

Russian naval infantry (RNI) in the Pacific is represented by one nominal Naval Infantry Division (the 55th Division), which mostly plays a defensive role. Pacific marines are assigned to participate in sea-borne assault operations, guerrilla warfare behind enemy lines on its maritime approaches, the defence of vital coastal installations, and operations against enemy amphibious assaults. RNI is the core of Russia's Mobile Forces in the Far East.

According to the open sources, the estimated current strength of the 55th Division is approximately 2,500 personnel, with three naval infantry cadre regiments (probably of a battalion size), a tank battalion, and an artillery battalion. The division's airborne component consists of at least one assault battalion. Pacific Fleet marines are heavily armed, possessing around 30 T-72 MBTs, 215 pieces of artillery (among them BM-21 MRLs and 100mm MT-12 *Rapira* anti-tank guns), and 18 152-mm 2S3 *Akatsya* heavy self-propelled howitzers.[43] Companies of the infantry regiments are equipped with approximately 200 fighting vehicles, including amphibious BTR-80 APCs, BMP-2 IFVs, and MT-LB APCs. Division has independent AD capabilities, provided by the short-range ZSU-23-4 *Shilka* self-propelled anti-aircraft guns and SA-9 *Gaskin* SAMs, and supplemented by 20 short-to-medium-range SA-8 SAMs.[44]

The Coastal Defence Force, or coastal troops, comprises field army infantry formations, missile and gun units. Until mid-2002, the largest component of the Pacific Fleet coastal defence force was the 22nd Motor-Rifle Division. However, in June that year it was reduced and reorganised into a motor-rifle brigade.[45] The core capabilities of the coastal defence arm of the Pacific Fleet lies with its missile and gun units, responsible for defence of major naval bases and selected areas of the coastline against enemy amphibious assault forces. By the mid-1990s, most of fixed coastal gun batteries were retired,[46] leaving the coastal troops of the Pacific Fleet with missile battalions armed with the *Redut* stationary missile complex comprising the P-35 (SS-C-3 *Styx*) ASCM and a launcher capable of engaging enemy forces at a distance of up to 300km.[47] Several divisions (*diviziony*) are equipped with mobile *Rubezh* missile complexes armed with the P-15M *Termit* ASCM (80km range). Every mobile missile launcher carries a container with two missiles. *Rubezh* is designed to provide flexible anti-amphibious defence to the naval bases and important

Figure 6: Amphibious landing operation of the Pacific Fleet marines. About one-third of Russia's naval infantry force is concentrated in the Pacific. Russian marines are heavily armed and have various amphibious equipment at their disposal, such as the BTR-80 APC (pictured). The Pacific Fleet has a more limited power projection capability than existed during the Soviet period.

parts of the coast,[48] allowing the fleet to concentrate a number of

these mobile complexes in one place if the need arises. The Pacific Fleet Coastal Defence Force has a number of regiments equipped with the *Redut* and *Rubezh* complexes, disposed between the Maritime Region and the Kamchatka Peninsula.

Apart from a contingent of naval infantry, the Pacific Fleet also has units of special-purpose forces such as the reconnaissance-diversion teams (naval *spetsnaz*), and the detachment of the PDSS (*protivodiversionnye sily i sredstva*), counter-diversion unit. While both units consist of the so-called combat swimmers (*boyevye plovtsy*), their tasks are quite different. The PDSS detachment (estimated strength 100 men) is assigned to protect naval bases, surface combatants and submarines against the enemy's sabotage teams (SEAL units for example). Naval special forces are sometimes mistakenly identified with either PDSS units, or reconnaissance marine units. However, naval special forces (also known as frogman units) play a very special role in the Russian Navy. Members of the naval *spetsnaz* are highly trained and motivated. Personnel are equipped with special underwater weapons, including a number of small underwater delivery vehicles (ie. midget submarines).[49] It is likely that the main missions of the naval *spetsnaz* include deep reconnaissance of strategic targets, destruction of strategically important command-control-and-communications (C^3) facilities, destruction of strategic weapon delivery systems, demolition of important bridges, transportation routes and hydraulic networks, destruction of naval and merchant ships, and other tasks as allocated.[50] The base of the Pacific Fleet *spetsnaz* is on Russkiy Island near Vladivostok.[51]

In early 2003 the total number of large amphibious ships in the Pacific was six: four *Ropucha I/II* and one *Alligator* class (*Nikolai Vilkov*).[52] The existing amphibious capability allows the RPF to deploy overseas approximately a reinforced battalion of naval infantry comprising 500 marines, 20 MBT, and 24 IFVs. Even at this limited size Russia has an invaluable instrument for supporting its national interests in the region during crisis situations.[53] It should be also kept in mind that in wartime the Russian naval command would inevitably mobilise the merchant fleet, which would give the Pacific Fleet additional transport capacity for amphibious operations, especially in areas adjacent to Russia. Merchant ships, many of which were designed with military specifications, will be probably used for transporting the second-wave ground troops during amphibious assaults.

Secondary and Auxiliary Forces

Secondary forces of the Russian Navy have always occupied a special place in the Russian Navy. The activities of the secondary forces make a substantial contribution to the everyday activities of the Russian fleets. They can be divided into two main categories: support combatants and special and supply vessels. The first category includes mine warfare and border guards units, whilst the second category embraces intelligence gatherers, cargo ships and icebreakers, general maintenance ships and missile transports, repair, salvage and store vessels, tugs, and other vessels.

At the beginning of 2003 the Pacific Fleet had eight mine warfare ships (three *Nadia-I* class ocean-going and five *Sonya* class coastal minesweepers). The Fleet's activities are supported by some 22 intelligence-gatherers (AGI) and specialised research ships, among them the *Vishnya* class AGI *Kurily* (pennant SSV 208), the 24,500 ton *Marshal Nedelin* missile range ship, three light training ships, and some 25 support and replenishment units. The most significant operational support units are: two 23,450 ton *Boris Chilikin* class replenishment ships (*Boris Butoma* and *Vladimir Kolechitskiy*) and the hospital ship *Irtysh*. The Pacific nuclear submarine force is supported by two *Amga* class missile-support ships (*Vetluga* and *Daugava*), assigned to the Kamchatskaya Flotilla, and the *Malina* class nuclear submarine support ship PM 74.[54] All auxiliaries are distributed among the principal naval bases and stations of the Pacific Fleet: Vladivostok, Strelok, Sovetskaya Gavan, and Petropavlovsk-Kamchatskiy.

Part of the auxiliary support force forms the search-and-rescue (SAR) service of the Pacific Fleet,[55] which in 2002-2003 consisted of specialised units such as the long-range submarine-rescue ship *Alagez*,[56] and the *Mikhail Rudnitskiy* class salvage vessels *Georgiy Kuzmin* and *Sayany*.[57] The *Kursk* tragedy showed how badly the Russian naval SAR service was affected by constant under funding. To overcome the limited abilities of Russian naval SAR, in August 2000 President Putin ordered the creation of specialised SAR centres for all Russian fleets.[58]

More than half of the Pacific Fleet auxiliaries are over 20 years old, and more than 20 percent of the support vessels have already exceeded their service life, which in the Russian Navy is 30 years.[59]

Creation of the Kamchatka Operational Strategic Group

In 1997 and 1998 the first two operational strategic groups were created in Russia's most remote and yet strategically important regions: the Kaliningrad enclave in the west, and the Kamchatka Peninsula in the east. The primary objective of the Kamchatka Group is the protection of the Pacific SSBNs, stationed in the area of Petropavlovsk-Kamchatskiy. As the then Navy Chief of Staff Admiral Igor Kasatonov emphasised, the reason for the creation of the Kamchatka Group of forces was the "assurance of the combat stability of the sea-based strategic nuclear forces, and besides that, more reliable and firm management of all troops and forces, concentrated there."[60] The basing of all operational Pacific SSBNs at Rybachiy and their operations in the Sea of Okhotsk had played a decisive role in preventing any significant reductions in the past nine years, during which the overall strength of the Russian military was squeezed to the limit.

The Kamchatka Group, like the Kaliningrad Group, is directly subordinated to the command of the local naval force, the Pacific Fleet Headquarters (PFHQ) in Vladivostok. The Commander of the Kamchatka Flotilla holds responsibilities as the Group Commander and has three deputies/chiefs of troops to command: the naval forces, the ground and coastal defence troops, and the air force and air defence of the area.[61] After its creation, the Kamchatka Group united warships of the Kamchatskaya Flotilla, the 2nd Submarine Squadron, the 40th Motor-Rifle Brigade, an independent AF/AD Division (*divizia VVS i PVO*), coastal defence missile units, and logistic and other different-purpose elements. The centralisation of management structures under naval command certainly raised the status of the Pacific Fleet as the operational-strategic entity of the Russian Armed Forces in the east of the country. There is little doubt that the creation of the operational strategic group in the Russian north-east increases the role and place of the Pacific Fleet in the system of the country's security in the Far East.

Main Bases

With the closure of Cam Ranh Bay in 2002, the main naval bases of the Russian Navy in the Far East were Vladivostok, Strelok, Petropavlovsk-Kamchatskiy, Rybachiy, Sovetskaya Gavan', and Magadan. The bulk of the surface fleet (including the majority of its

major surface combatants) is dispersed in bases located in the Maritime Province, whilst almost all its nuclear-powered submarines are concentrated at Rybachiy. More bases, of lesser significance, are located in the Khabarovsk Region, including two main naval river bases in Khabarovsk and Komsomolsk-na-Amure (the Amur River).

To the present day, Vladivostok remains the main naval base of the Pacific Fleet. The city accommodates PFHQ, and it continues to function as the home port of some major surface combatants, such as the *Udaloy* class destroyers (all *Udaloys* are based at the 33rd Pier, near the Fleet's HQ), some amphibious warfare ships, maritime guard units, and other miscellaneous and auxiliary vessels. Several

Figure 7: Russian Udaloy Class DDGs at Cam Ranh Bay, early 2001. Throughout the 1990s Russia retained its forward support base at Cam Ranh Bay (Vietnam). With Russia's rare deployments to South-East Asia and the Indian Ocean, the base remained largely inactive (with the exception of the SIGINT complex). The Russian Navy utilised Cam Ranh in 2001 during a deployment of the Pacific Fleet task force to the Indian Ocean. Russia abandoned the base in mid-2002.

bays of Vladivostok are used to station dozens of decommissioned warships and support vessels, classified by the Russian Navy as the so-called sediment ships (*korabli otstoya*)—a common factor in many Russian naval bases. For example, in 2002 there were at least twenty sunken decommissioned warships in the bays of Vladivostok.[62] In fact, the visible presence of numerous decommissioned rusting hulls at Russian naval bases contributes to a false impression about the state of disrepair of the Russian Navy. Vladivostok has a well-developed shore support infrastructure, including the *Dalzavod* shipyard, capable of refitting major surface combatants and diesel-electric submarines, and a number of other shipbuilding and repair facilities.

The second most important Russian naval base in the Maritime Region is the Strelok naval base (sometimes identified in Western sources as Racovaya), located some 65km south-west of Vladivostok and 10km south-west of Bol'shoi Kamen' in the bay of Strelok. The base is attached to the enclosed city of Fokino (also referred to as Shkotovo-17) located on the Shkotovo Peninsula and is part of the large and comprehensive Strelok naval complex. The Strelok naval base itself has at least two major points of basing for warships. They are Abrek Bay (at the northern end of the Bay of Strelok) and Pavlovskogo Bay (at the eastern end). Currently, the guided-missile cruisers *Varyag* and *Admiral Lazarev*, the *Sovremenny* class destroyers, *Tarantul-III* class corvettes, some *Grishas* and several amphibious warfare ships are home ported there. A number of *Kilos* are also stationed at Strelok.

Whilst many Western and Russian sources usually identify Petropavlovsk-Kamchatskiy as the second most important base of the Pacific Fleet, this classification is not entirely accurate. Russian naval forces, stationed in Kamchatka are dispersed across several bays of the large Avachinskaya Bay. Petropavlovsk naval base is the home port of a group of surface combatants, including the remaining *Krivak-I* class *Letuchy* and all *Nanuchkas*, minor combatants and auxiliaries. The main nuclear submarine base of the Pacific Fleet is located some 15km south-west of Petropavlovsk-Kamchatskiy, across Avachiskaya Bay at Rybachiy (Vilyuchinsk-3).[63] Rybachiy is one of suburbs of the closed city of Vilyuchinsk (Petropavlovsk-50), the so-called submarine capital of Kamchatka, and is located on the shores of Krasheninnikova Bay (referred to in the West as Tarya Bay). The submarine base at the Krasheninnikova Bay has at least four major points of basing. Units based here include all the *Delta-*

III class SSBNs, the *Oscar-II* class SSGNs and the *Akula* class SSNs. The submarine support shipyard *Gornyak* NRP is located in Primorskiy (Petropavlovsk-35), in Vilyuchinsk. *Gornyak* is responsible for the refuelling and repairs of all nuclear-powered submarines based in Rybachiy.[64] Rybachiy is an inspectable submarine base under the START-I Treaty. A growing number of decommissioned nuclear submarines are docked at the base. Other bays and harbours of Avachinskyaya Bay became anchorages for decommissioned naval units, with the largest concentration in Yuzhnaya Harbour.[65]

Problems with Decommissioned Nuclear-Powered Submarines

One of the major concerns of the Pacific Fleet today is the problem of dismantling nuclear submarines. Russia has faced an economic crisis with a number of lingering issues that were of little concern to the former Soviet leadership. One such issue was the safe management of radioactive waste and spent fuel derived, in particular, from the decommissioning of nuclear-powered submarines. By 1998, Russia had decommissioned 152 nuclear-powered submarines, with 62 units taken out of the Pacific Fleet.[66] By the end of the year 2000, this figure increased to 184 (74) (see table 4).

Such a large number of decommissioned submarines has overwhelmed the Russian Navy's limited funds and its capacity for processing them. In 1991 the US Congress directed the Department of Defence to help secure former Soviet weapons of mass destruction and speed up their decommissioning. Since 1991 Congress has provided $US 2.3 billion to support the Cooperative Threat Reduction (CTR) efforts, also known as the Nunn-Lugar Program.[67] CTR's main goal is to assist in dismantling 31 Russian SSBNs: seventeen from the Northern and fourteen from the Pacific fleets. They include one *Yankee*, 26 *Deltas* (primarily *Delta-I/II* classes), and five *Typhoons*.[68] In 1998, the Far Eastern *Zvezda* Naval Repair Plant (NRP) in Bolshoi Kamen was able to decommission two retired *Delta-I* class SSBNs under the CTR Program. The 1999 contract presumed the scrapping of another four SSBNs. The first out of the planned four submarines was towed to *Zvezda* in early October 1999.[69] By August 2001, five decommissioned *Delta-III* class SSBNs were undergoing the dismantlement process at *Zvezda*.

Currently, the *Zvezda* NRP has the capacity to scrap up to eight decommissioned strategic submarines a year.[70]

	Total Russian Fleet	Northern Fleet	Pacific Fleet
Decommissioned submarines	184	110	74
Decommissioned defueled submarines	73	44	29
Decommissioned non-defueled submarines	111	62	49
Scrapped submarines	53	35	18

Table 4: Decommissioned Russian nuclear-powered submarines at the end of 2000.

In October 1999 Japan announced that it too could help Russia to dismantle laid-up nuclear-powered submarines of the Pacific Fleet. The support program includes the de-fuelling of decommissioned submarines, a feasibility study for a nuclear fuel retrieval facility, dismantling studies for a *Victor-III* class SSN at the *Zvezda* NRP, and the rehabilitation and the conversion of the *Belyanka* Class special tanker *Pinega* for use in transporting containers of spent nuclear fuel.[71] Japan has also funded the construction of a specialised floating facility for processing liquid radioactive waste from nuclear-powered submarines.[72] Built by the *Amurskiy* Shipyard in Komsomolsk-na-Amure at a cost of $US 25 million, the complex became operational in August 2001. The *Zvezda* NRP will run the facility.[73] It is anticipated that the shipyard will be involved in the dismantling of the decommissioned strategic submarines for the next six to seven years.[74]

Current Trends In Naval Training – Exercise Activity in 2001-2003

Due to the severe financial restrictions and the subsequent lack of logistic support, there was a continuous decline throughout the 1990s in a number of days ships spent at sea in training. By 2000 a Russian warship spent 1-2 days at sea practicing a particular drill, compared to 10-15 days in the previous decade.[75] Overall, in 2000 Russian warships spent on average 6.4 days at sea per ship, including 4.4 days of exercise training for individual naval units, 1.5 days of training for tactical groups, and 0.5 days of training for multi-purpose task forces.[76] By comparison, each Soviet warship spent at least two weeks at sea every year. In 1999 warships of the

Pacific Fleet spent on average 3-6 days at sea, but some naval units and formations, like those attached to the Sovetskaya Gavan' naval base, were only able to send their ships to sea for one day a year.[77]

Growing financial and economic problems and a change from three to two years in the term of conscription in the navy in 1992, created a situation where the navy had to adjust their practices of combat training in an effort to prevent a dangerous decline in the combat readiness of its forces. Emphasis was given to so-called base training (*bazovaya podgotovka*), where crews develop their skills through classroom learning, and with a more detailed study than previously taught of the ship's equipment and weaponry. A special system of base training, developed by the Russian Navy in the 1990s, somehow compensated for the dramatic reduction of time crews could spend at sea. In 1994 all Russian fleets introduced the practice of multi-purpose deployments of their operational units in which ships are able to exercise independently or in tactical groups. Since 1996 the navy has increased the intensity of multi-purpose deployments by adopting a policy of so-called *sbor-pokhod* – large-scale deployment of different fleet formations.[78] During *sbor-pokhod* the naval command has the opportunity of creating more complexity in the fleet's combat training by the use of engagement situations between several tactical groups, or by organising coordinated operations of different-purpose formations such as major surface strike and ASW combatants, light missile craft, attack submarines and naval aviation. *Sbor-pokhod* usually takes place in spring and autumn, at the culmination of base-training periods of winter and summer respectively.

According to the Deputy Chief of Combat Training of the Pacific Fleet, Captain First Rank Yury Koshelev, *sbor-pokhod* is usually organised in three main stages:

- 1st Stage – preparation (3-4 week period), which usually includes the preparation of staff and forces at the naval base. This involves repeated check ups of the state of readiness of individual ships, their crews, naval units and formations, and their staff. It also includes detailed preparation of plans of forthcoming exercises.
- 2nd Stage – preliminary tests in the near vicinity of the naval base (1.5-2 days). At this stage the fleet's forces are brought into a state of high combat readiness. Ships practice in the base harbour and at the roadstead. Practice usually includes the

testing of all elements of the ship's defences and communication systems, and local ASW exercises. Ships are then gathered into areas for the coming exercises.

- 3rd Stage – *sbor-pokhod* (2-3 days) is the most active phase of *sbor-pokhod*, when naval units perform individual and group exercises, and tactical groups and multi-purpose forces are engaged in various simulated combat situations.[79]

Figure 8: TU-22M-3 Backfire C strike aircraft. Together with multi-purpose attack submarines, the missile-carrying aircraft of the Pacific Fleet Naval Aviation provide the Fleet with powerful striking capabilities. The main mission of the Tu-22M-3 is to attack enemy carrier battle groups. In wartime, the PFNA will stage joint assault operations with units of the 73rd Heavy Bomber Division (Ukrainka) of the 37th Air Army.

In comparison with 2000, in 2001 Russian exercise activity in the Pacific intensified. In mid-February PFNA Tu-22M-3 aircraft were involved in the strategic command-and-post exercise (CAP), together with elements of the 37th Air Army, practicing simulated air strikes against CVBGs in the north-eastern Pacific near Japan. The exercise was marred by Japan's accusations that Russian aircraft violated its national airspace.[80] The first major naval exercise of the 2001 training year was held at the end of March, and involved five warships and submarines of the Primorskaya Flotilla, alongside two

destroyers, the *Admiral Vinogradov* and *Admiral Panteleev*, that were returning from deployment to the Indian Ocean. Naval aircraft and units of the 11th AF/AD Army and coastal defence troops were also involved in the exercise.[81] At the same time, a number of nuclear- powered submarines of the Kamchatskaya Flotilla were also exercising at sea.[82] At the end of April the Primorskaya Flotilla staged another naval exercise.[83] The second major deployment was staged at the end of August by forces of the Primorskaya Flotilla. The summer *sbor-pokhod* involved more than ten surface combatants and submarines, including the destroyers *Admiral Vinogradov* and *Admiral Tributs*, naval aviation, and amphibious forces.[84] In the first half of September PFNA missile strike aircraft, together with elements of the 11th Air Army, took part in a large-scale exercise by the 37th Air Army in the Kamchatka area. As part of the exercise in the Pacific, naval Tu-22M-3 fired cruise missiles at practice targets designated as enemy carriers. This exercise followed the August large-scale exercise of the Kamchatskaya Flotilla.[85] On 18 September 2001 the *Delta-III* class SSBN *Podolsk* conducted a strategic missile test, part of the annual check up of the readiness of Russia's strategic deterrent forces.[86] The *Oscar-II* class *Tomsk* was successful in conducting SLCM test, and received a special trophy from the C-in-C of the Russian Navy.[87] Altogether, in 2001 the Pacific Fleet staged two large-scale exercises, which included forces of the Primorskaya Flotilla and the Kamchatka Group (including the Kamchatskaya Flotilla), more than seventy smaller-scale exercises, sixty ASW and seven hundred artillery and missile drills.[88] Carefully planned training activities of the Fleet's forces enabled it to maximise the use of available fuel and other supplies and achieve positive results in combat training. As a result, in 2001 the Pacific Fleet was considered the best-prepared fleet in the Russian Navy.[89]

In 2002 the positive trends of the previous year continued to develop. Improvements in organisation and conduct of combat training were supported by increased allocations of fuel and other vital supplies which enabled the Fleet's command to expand the scale of training by involving more personnel and force elements.[90] In early July that year forces of the Primorskaya Flotilla staged large-scale CAP exercises in the Sea of Japan involving a large number of warships and auxiliaries, including the destroyers *Admiral Tributs* and *Marshal Shaposhnikov,* and several *Kilo* class submarines.[91] In the autumn annual period of combat training the Primorskaya and Kamchatskaya flotillas each staged large-scale

sbor-pokhods involving dozens of warships, aircraft, and shore-based units. The forces involved conducted more than 150 various exercises. In 2002 the Fleet experienced the highest intensity of combat training in many years.[92] The 2002 training year demonstrated that the Fleet was able not only to maintain the positive tendencies of intensification of naval combat training that emerged in 1999, but also to significantly improve the tempo and scale of its exercise activities, which were planned to further improve in 2003.

A further intensification of training activities of the Pacific Fleet was observed in the first half of 2003. In mid-April the Primorskaya Flotilla staged large-scale manoeuvres in the Sea of Japan. The forces involved included the cruiser *Varyag*, the destroyer *Admiral Tributs*, two *Sovremenny* class destroyers, four minesweepers, four *Grisha-V* frigates and *Tarantul-III* class corvettes, *Kilo* class

Figure 9: Kilo Class SSK. Designed for medium-range sea denial operations, the Kilo Class submarines play an important role in maritime defences of the Russian Far East. The Pacific Fleet has the largest contingent of Kilos in the Russian Navy. In 2002 Kilos commenced long-range deployments in the Pacific.

submarines, naval aviation and amphibious forces.[93] These manoeuvres were shortly followed by large-scale exercises of the Kamchatskaya Flotilla. In May Russia's LRA and the PFNA conducted joint exercises in the Western Pacific involving two pairs of the Tu-22-M-3 missile-carrying aircraft. They practiced coordinated attacks against the USN *Carl Vinson* CVBG.[94]

Apart from traditional objectives, the main purpose of these manoeuvres was to prepare fleet forces for the large-scale manoeuvres codenamed *Vosktok-2003* scheduled for 18-27 August this year. These manoeuvres will comprise 45 various tactical

episodes, and involve 68 warships and 42 auxiliaries, units of the PFNA, the 11th AF/AD Army, LRA, border guards, internal troops and emergency personnel.[95] Altogether, approximately 30,000 personnel will be involved. These will be the largest naval manoeuvres in the past fifteen years.

Major Trends in Operational Activity 1992-2002

Currently, two of the most effective ways to maintain the state of combat readiness of Russian naval forces in peacetime are combat service at sea and combat duty (*boyevoe dezhurstvo*) of ships and aircraft at basing and station points. The main components of combat service are combat patrols (*boyevoe patrulirovanie*) and combat duty at a naval base. Combat service is performed by sea-based strategic nuclear forces (SSBNs) and by general-purpose forces (surface combatants and attack submarines). Combat naval aircraft are also involved in combat duty.

In the 1990s, the scale and intensity of combat service in the Pacific theatre dramatically declined. The Pacific Fleet currently does not have the resources to deploy its battle groups to distant areas on a permanent basis. Nevertheless, it would be premature to believe that combat service, as a form of operational activity of the Fleet, is no longer effective. Ships continue to perform missions related to combat service. Attack submarines were periodically deployed to distant areas throughout the 1990s, and the operations of intelligence gatherers and special-purpose ships remains relatively high. For example, at the end of 2002 Fleet Command acknowledged the good performance of crews of the *Oscar-II* class SSGN *Tomsk,* the *Delta-III* class SSBN *Zelenograd*, the *Udaloy* class DDG *Marshal Shaposhnikov*, and the intelligence gatherer *Kurily*, all of which were involved in combat service activities that year.[96]

Currently, missions related to combat service usually include the screening of major exercises of foreign navies and 'showing the flag' activities. The latter is conducted by surface combatants and special auxiliaries, and involves visits to foreign ports and participation in international naval exercises outside Russian territorial waters. Both types of deployment have recently been conducted as part of international peacekeeping forces. The most vivid examples of such deployments are the Russian naval activity in the Persian Gulf and adjacent areas in the first half of the 1990s, as well as visits to ports of East Asian and North-East Asian countries.

Long-range Submarine Operations in the Pacific

In 1997, the US Chief of Naval Intelligence, Rear Admiral Michael Cramer, reported to the US Senate Armed Services Committee that the Russian submarine force "was not suffering at all" the same hardships as other assets of Russia's Armed Forces. According to Cramer's testimony, Russian submarines are being deployed to the sea more often than the surface fleet.[97] His judgement about the Russian submarine force was probably partially based on the reports about the increased activity of Russian nuclear-powered attack submarines in both the Atlantic and the Pacific oceans and, in some cases, in the relative vicinity of the American coast. In recent years Russia has returned to the blue-water deployment strategy, moving submarines deep into the ocean. According to the First Deputy Chief of the Russian Naval Staff, Vice-Admiral Vladislav Ilyin, at the beginning of 2001 approximately 10-12 multi-purpose nuclear-powered submarines (including SSBNs) were either on combat patrols at sea or on combat duties at their home bases. This comprises fifteen percent of the entire Russian submarine force.[98]

From 1994 nuclear-powered attack submarines of the Pacific Fleet resumed the practice of routine long-range deployments, mainly to screen USN CVBGs. At least once a year one *Oscar-II* class vessel has been sent to the western or central Pacific. The Russian submarines are usually engaged in intelligence collection operations, as well as ship targeting. Most of these deployments coincided with the Pacific Ocean transit of an USN CVBG. In July-August 1994 the *Oscar-II* class submarine *Chelyabinsk* (pennant K-442) conducted a long-range patrol in the Pacific.[99] According to USN information, an unidentified *Oscar-II* tracked the *Independence* and *Abraham Lincoln* CVBGs in September-November 1995 in the western and central Pacific. These battle groups were operating at a distance of more than 7,000km from the Russian eastern coast.[100] USN officials also confirmed the reports that in December 1995 a Pacific Fleet *Akula* was monitoring the *Trident* class SSBNs at their base at Bangor, from international waters in the north-western Pacific.[101] In July 1997 the *Chelyabinsk* shadowed several US carriers off the western coast of the USA. Later in September another *Oscar-II* screened the deployment of the *Constellation* CVBG in the north-eastern Pacific. In 1999 the *Oscar-II* class SSGN *Omsk* (then pennant K-150, renumbered 186 in 2002) staged a long-range deployment. As had happened in 1995, the long-range operations of the Pacific Fleet *Oscar* coincided with similar deployment of the

Northern Fleet *Oscar-II* class submarine *Kursk* (pennant K-141) to the Mediterranean Sea.[102] *Omsk* reportedly operated in the vicinity of Hawaii and then spent a week off San Diego following the carrier *USS John C. Stennis* and the amphibious landing ship *USS Essex*.[103] In 2002, after a six-year break the Pacific Fleet resumed long-range SSK patrols. In the second half of 2002 a *Kilo* class submarine conducted a long-range patrol.[104] This deployment of a *Kilo* class SSK, as well as routine long-range deployments of the *Oscars* and *Akulas,* shows the relative high intensity, as well as the growing diversification, of Russian submarine operations in the Pacific.

Naval Operations in the Indian Ocean and Persian Gulf

Between 1991 and 1995 warships of the Pacific Fleet were routinely

Figure 10: Oscar-II Class SSGNs. In recent years the Oscar-II submarines of the Pacific Fleet have conducted routine long-range patrols in the western and central Pacific, collecting intelligence and shadowing US carrier battle groups. These large submarines possess a potent sea denial capability and, together with the Akula Class SSNs, comprise the main striking force of the Pacific Fleet.

deployed to the Indian Ocean and the Persian Gulf. The main reason for their deployment at that time was to support the implementation of the UN sanctions against Iraq and to protect Russian merchant shipping in the area. The period 1996-2000 saw the virtual end of Russian naval activity in the area. In 2001 the Fleet sent another task group to the Indian Ocean, thus signalling the recommencement of periodic deployments to this area.

In October 1992 the Pacific Fleet sent its first naval group to the Gulf since the demise of the permanent Soviet naval presence in the Indian Ocean region. The group, which consisted of the destroyer *Admiral Vinogradov* and the auxiliary *Boris Butoma*, spent 122 days in the area. During its operations in the Gulf *Admiral Vinogradov* took part in the multinational naval exercise *Gulfeks-15*, and twice visited ports in Bahrain and the United Arab Emirates. In December 1992 another destroyer, the *Admiral Tributs*, was sent to the Gulf to replace the *Admiral Vinogradov* and *Boris Butoma*.[105] By the end of 1993 another Pacific Fleet naval group comprising the destroyer *Admiral Vinogradov*, the amphibious ship *Nikolai Vilkov*, and the replenishment ship *Vladimir Kolechitskiy* were deployed to the Gulf. During the deployment Russian warships participated in several naval exercises with foreign navies. On 25-29 December 1993 Russian warships held their first joint naval exercise with the naval forces of Kuwait. At the end of the exercise Russian warships visited the Kuwaiti capital, Al Kuwait.[106] On 7-9 February 1994 the *Admiral Vinogradov* took part in the multinational naval exercise *Gulfeks-22*, together with warships from the USA, the United Kingdom and France. After the end of *Gulfeks-22* the Russian naval group sailed to the Indian naval base of Mumbai (Bombay), near which on 18-19 February Russian and Indian warships staged their first joint naval exercise.[107] In 1995 another task force, comprising the destroyers *Admiral Tributs* and *Admiral Vinogradov* and the amphibious ship *Nikolai Vilkov,* was deployed to the area.[108] After the 1995 deployment the Russian Navy virtually had ceased its naval activity in this area.

However, resumption of a Russian naval presence in the area remained one of Russia's priorities. In the first half of 2001 Russia resumed the practice of long-range deployments to the Indian Ocean region. On 15 January 2001 a Pacific Fleet task force, comprising the destroyers *Admiral Panteleev* and *Admiral Vinogradov* and the replenishment ship *Vladimir Kolechinskiy*, left Vladivostok for an extended deployment to the area. During the 74-day deployment the

task force paid official visits to Mumbai in India and Danang in Vietnam.[109] Russian warships staged a number of exercises during the deployment and, on their way back to Vladivostok, screened operations of the *Kitty Hawk* CVBG.[110]

Two years later in April-June 2003 the Russian Navy again returned to the Indian Ocean. This was the largest post-Soviet naval deployment to the area. It involved nine warships and auxiliaries of the Black Sea and Pacific Fleets, among them the missile cruiser *Moskva*, the destroyers *Admiral Panteleev* and *Marshal Shaposhnikov*, the frigates *Pytlivy* and *Smetlivy*, and the amphibious ship *Tsezar Kunikov*. Between 11-17 May Russian naval forces in the Arabian Sea staged exercises in conjunction with units of the LRA (two Tu-160 and four Tu-95MS strategic bombers), which conducted missile launches.[111] In late May a Russian task force conducted joint exercises with the Indian Navy. While the resumption of periodic naval operations in the Indian Ocean region remains one of the high priorities for the Russian Navy, the re-establishment of a permanent naval presence in the area is now not on agenda.[112]

Visits to Ports of East Asian Neighbours as Part of Combat Service

Apart from deployments to the Indian Ocean and the Persian Gulf area, the Pacific Fleet conducted several long-range deployments to other areas such as South-East Asia and the Western Pacific, as part of its policy of expanding international links and supporting bilateral agreements and programs with foreign counterparts. However, most significant were the visits to ports of Russia's East Asian neighbours: China, Japan and South Korea.

In the 1990s the practice of visits to foreign ports of East Asian neighbours began. In late August-early September 1993 Russian warships visited the South Korea ports of Pusan and Tsyndao[113] for the first time as a mark of the growing ties between the two countries.[114] The task group included the destroyers *Bystry* and *Admiral Panteleev* and the replenishment tanker *Pechenga*. In February 1997 the Pacific Fleet sent the cruiser *Varyag* on a friendly visit to the South Korean port of Inchon.[115] In June 1997 the destroyer *Admiral Vinogradov* paid an official visit to Tokyo.[116] In September 1999 another destroyer, the *Admiral Panteleev*, visited Yokosuka naval base, the first visit of a Russian warship in 260 years.[117] In early October 1999 a group of Pacific Fleet combatants,

including the flagship *Varyag* and the destroyer *Burny*, under the flag of Admiral Zakharenko, visited the Chinese port of Shanghai for the first time since 1956.[118] Russian ships participated in a joint exercise with warships from China's Eastern Fleet, the first Sino-Russian naval exercise since 1949. In September 2001 the destroyer *Admiral Tributs* visited the Japanese naval base in Sasebo.[119] In October 2002 the Pacific Fleet sent a detachment of warships comprising the cruiser *Varyag*, the *Kilo* class SSK *BN-345* and the *Tarantul-III* class corvette *R-18* to Japan to take part in the Japanese Maritime Self-defence Force's (JMSDF) 50th anniversary celebrations.[120] Furthermore, at the end of 2002 the destroyer *Marshal Shaposhnikov* and a *Tarantul-III* class corvette visited the South Korean port of Pusan.[121]

Russian Naval Operations against Pirates in the Pacific

In the 1990s the combat service provided by Pacific Fleet warships in distant areas also included special operations against local pirates. Since 1992 the number of pirate attacks in the area had increased sevenfold.[122] In 1993 Russian merchant ships were threatened or attacked by pirates sixteen times out of twenty piracy incidents in total, fourteen of these incidents occurred near Chinese territorial waters.[123] In response to these attacks, the Pacific Fleet deployed a task force to the East China Sea consisting of the *Kara* class cruiser *Petropavlovsk*, the training ship *Borodino,* and several auxiliaries, with orders to protect merchant shipping in the area.[124] The anti-piracy operations of the Russian naval group were considered successful, with three pirate vessels allegedly destroyed.[125] Since then the number of pirate attacks against Russian merchant shipping have dramatically declined. On 20 March 1994 the Pacific Fleet conducted a joint exercise with the USN in the East China Sea to practice joint operations against local pirates. The exercise involved the destroyer *Admiral Vinogradov* and USN P-3C *Orion* maritime patrol aircraft.[126] Participation in the above-mentioned activities allowed the Pacific Fleet command to gain valuable expertise in combating local piracy.

These efforts were an efficient, if temporary, deterrent to piracy in the region and demonstrated the potential of the Russian Navy as an effective partner in a wider regional effort to contain local pirates. To combat piracy on a wider scale, the Pacific Fleet could assemble, for example, a special task force, consisting of an *Udaloy* class destroyer with two helicopters and a *Ropucha* class amphibious landing ship with several hundred marines aboard. Such a force

would be an effective deterrent tool for patrolling one of the regional trouble spots, including the Hainan-Luzon-Hong Kong triangle, if given an international mandate to protect commercial shipping. With the mounting war on terror, the possible growth of special counter-terrorist operations in the Asia-Pacific region (one of key areas of activities of the *Al-Qaeda* international terrorist network and its associated organisations and groups) and the growing danger of maritime terrorism. It is quite possible that the Russian and American navies, possibly in cooperation with regional counterparts, may resume their joint anti-piracy exercises, or become involved in joint maritime anti-terrorist operations.

Changes in the security environment in the Asia-Pacific region after 1991 raised new objectives for the Pacific Fleet. The force is trying to play a more active, cooperative role in regional affairs by participating in international maritime activities. As discussed earlier, Russian naval forces in the Pacific have participated in the UN peacekeeping operations in the Persian Gulf and in special operations against local pirates. The Pacific Fleet has also intensified bilateral and multilateral dialogue with regional navies, and encouraged various forms of cooperation, such as the exchange of warship visits, joint communications and SAR exercises, exchanges of delegations of naval personnel, and the introduction of hotlines. One of the most vivid examples of new forms of cooperation is the visit of foreign warships to Vladivostok. Between 1992, when the city was opened to foreigners, and 2002 warships of Australia, France, Japan, Mexico, South Korea, the United Kingdom, the USA and other countries have visited the base.[127] The most intensive naval cooperation in the 1990s was with the US, Chinese, Indian, Japanese and South Korean navies. For example, since 1996 the Russian Navy and the Japanese Maritime Self Defence Force have initiated a practice of annual exchanges of warship visits.

Future Trends

The Russian Navy's near-term strategy during the transition period in the Pacific is to preserve its sea-based strategic deterrent forces, to keep significant levels of operational readiness in its attack submarine force, and to maintain the ocean-going component of the surface fleet. The overall reductions of the Russian Navy's personnel will affect the Pacific Fleet by 2005 its peacetime numerical strength will decrease but will probably stay above the 30,000 personnel level. In wartime, however, the fleet will be able to double or even

triple its personnel strength through the mobilisation of its organised reserve. No dramatic changes should be anticipated in the composition of the Pacific Fleet and its order of battle before 2005. The fleet will retain its current organisational structure of sea-based strategic nuclear forces (SSBN), surface fleet, submarine forces (SSN and SSK), naval aviation, coastal defence troops (including amphibious forces), air force and air defence units, and ground troops. While the Pacific Fleet will retain significant combat potential to influence the strategic balance of forces in North-East Asia, its power projection capability in other areas of the Pacific and the Indian Ocean will remain limited.

In the next few years the strategic nuclear component of the Pacific Fleet will be concentrated at Rybachiy. The planned modernisation of all operational *Delta IIIs* and the extension of their service will keep the Pacific Fleet SSBNs active until 2005. The nucleus of the general-purpose forces will remain practically unchanged, although some units placed in reserve may be scrapped. The most noticeable addition in the next few years will probably be the commissioning of the *Akula-II* class SSN *Nerpa*. In addition, if plans to refit and modernise the CGN *Admiral Lazarev* were implemented, the combat potential of the surface fleet would significantly increase. Single units of the new-generation Type 20380 (*Steregushchiy* class) and Type 12300 (*Scorpion* class) corvettes, Type 667 SSK (*St. Petersburg* class) and Type 885 SSN (*Severodvinsk* class) may be fielded with the fleet before 2010. Nevertheless, these additions will not largely affect the overall combat potential of the Pacific Fleet.

And Further Ahead?

There is no doubt that the state of the Russian economy will affect the pace and scale of the future development of Russian naval power in the Pacific. Hoping for an improvement in the national economic situation, Russia's naval command had planned in 1995 to restore and even expand the Pacific Fleet capabilities:

> The basis of the fleets in the North and the Far East, from our point of view, would comprise multi-purpose nuclear submarines, aircraft-carrying and missile-carrying combatants, naval aviation and coastal troops. The specifics of the Pacific theatre require more scaled development of mobile forces for operations in the strait and island zones, in particular, specifically-designed amphibious assault ships.[128]

Russian naval experts believe that the Pacific Fleet should have at least the same number of strategic and non-strategic multi-purpose submarines as it now has. In 1995 Admiral Aleksin and Captain 1st Rank Shevelev presented their views on the possible composition of the surface component of the Pacific Fleet. Saying that it should include two aircraft carriers, 12 cruisers, 2-3 destroyers, and 2-3 frigates, complemented by a significant number of light missile, ASW, patrol and minesweeping craft.[129] At the end of 2000 Rear-Admiral Sidorenko gave a more detailed outline of the future Pacific Fleet. In his view, the future order of battle of both the Northern and Pacific fleets should consist of 8-10 SSBNs, 20-25 SSGNs/SSNs, 85-95 major surface combatants (including 2-3 carriers), and up to 300 naval aircraft.[130] Given the scale and circumstances of the Pacific theatre, the operational zone of responsibility of the fleet, and the growing importance of the Asia-Pacific region for Russia in terms of its economic prosperity and military security. It is quite reasonable to assume that at least one-third of future Russian naval forces would be based in the Far East. However, in the near-term and interim-term futures this goal will be impossible to realise for Russia.

Several factors will inevitably impact on the fleet's future posture and capabilities. They include:

- Realisation of the growing strategic importance of the country's Far Eastern regions and the Pacific.

- Assessment of geo-strategic challenges in the Asia-Pacific, especially in its north-eastern part, and adequate response measures.

- Foreign policy interests and priorities in the area.

- The need to protect sea-based strategic nuclear forces, the Russian EEZ, mineral and biological resources.

- The economic capacity of the state to support naval development.

Under the current socio-economic circumstances, however, the funding problem is likely to be the principal determinant of the future of Russian naval power in the Pacific, unless sudden changes in the geo-political and geo-strategic environment in the area call for drastic responsive measures. Two main scenarios of the future development of the Pacific Fleet can be elaborated: a pessimistic and a cautiously optimistic scenario.

Pessimistic Scenario

If the Russian Navy continues to be financed at the levels of 1998 and 1999 (13 and 9 percent respectively), Russian naval power will deteriorate further in the first decade of the 21st Century. For the Pacific Fleet, by 2005 the operational life of the majority of major surface combatants and submarines, built in the 1980s, will come to an end. Unless the financial situation in the Russian Navy improves in the next few years, the strength of the Pacific Fleet will be significantly reduced. Even to the point when the remainder of the fleet will have limited capabilities to provide coastal defence of selected areas around Vladivostok, Nakhodka and, perhaps, Petropavlovsk-Kamchatskiy. While it may retain the status of being the fleet, and not being downgraded into a flotilla. Its ability to effectively control and defend such vast Far Eastern coastlines and large water areas, such as the Japan, Okhotsk and Bering Seas, will be out of reach for the weakened Russian naval forces in the Pacific. Policing of local waters and the EEZ will be left to the maritime border guard. The remains of the Pacific Fleet would then lose its blue-water capability, with the exception of few operational nuclear-powered attack submarines, and would be unable to operate outside its home waters.

Cautiously Optimistic Scenario

If President Vladimir Putin and his government continue to provide support to the navy and even, as planned, increase it, Russian naval power will be eventually restored. The adoption of the 'World Ocean' program, *Russian Naval Policy – 2000*, and the development and approval by the president of the Maritime Doctrine in 2001, sets up legal foundations for the serious reconstruction of Russian naval power. Since it is unlikely that large-scale naval construction will be resumed before 2010, in the next ten years or so the fleet's order of battle will remain largely unchanged. Even if a massive rearmament of the navy commenced in 2010, its first results would be felt in the Pacific no earlier than 2020, since it usually takes 7-10 years to build a single naval unit and bring it to operational status. The arrival of new-generation large surface combatants, such as destroyers, cruisers and aircraft carriers, should not be expected before 2025. Consequently, any substantial improvements in strength and capability should be expected in the second half of 21st Century.

CONCLUSION

Throughout the 1990s the Russian Pacific Fleet was continuously reformed as part of the overall reforms of the Russian Armed Forces. The Fleet is much smaller today than it was even ten years ago. In the past ten years the force was halved due to a number of factors discussed earlier in this paper. While many naval units were taken out of service since they were outdated or had outlived their operational lives, many other warships and auxiliaries were lost due to lack of funds to maintain and service them and to conduct much needed refits. Major surface combatant force, naval aviation, and secondary and support forces of the Pacific Fleet have also suffered some significant losses. As a result many unnecessary management structures have been dissolved. At the same time, a large number of combat units, some of which had been the pride of the Pacific Fleet for decades (eg. the 10th Operational Squadron) were disbanded.

Despite these reforms and reductions, in early 2003 the Pacific Fleet was ranked second in terms of strength and combat potential among Russia's four naval fleets. The almost unstoppable process of reducing the fleet's strength has come to an end. The primary combat arms of the Pacific Fleet were restructured and optimised. Currently, the Fleet is build around a force of smaller but more modern and combat-capable combatants. Whilst a significant number of warships and aircraft were decommissioned, those that remained operational were relatively young (10-15 years old) and possess some significant fighting capabilities. They form the so-called 'combat nucleus' of the fleet. Some new acquisitions of armaments and equipment have taken place, although on a limited scale. The most noticeable qualitative growth has occurred within the attack submarine force. It is clear that the Pacific Fleet remains a vital element of the defensive system of the Russian Far East. The Fleet's units, naval infantry in particular, form the core of Russia's mobile forces in the Far Eastern TVD. The creation of the Kamchatka Operational Strategic Group provided the fleet command with enhanced mobility and extended command and control flexibility to carry out military operations in the area, thus raising the overall profile of the Fleet within Russian military posture in the Pacific.

Russian naval strategy in the Pacific calls on more littoral-oriented activities in peacetime and wartime. The defence of immediate maritime approaches to Russia's Far Eastern shores, protection of its

economic interests, safeguarding maritime borders and Russia's EEZ, showing the flag and participation in peacekeeping operations are now primary missions of the Pacific Fleet. At the same time, realisation by Russian defence planners of a potential long-distance maritime threat, on par with others also coming from the Pacific and the Indian Ocean theatres, demands that the fleet have the capability to counter this threat in areas of its origin. The Pacific Fleet has the largest area of responsibility of around 90 million square kilometres, covering the entire Pacific and Indian Oceans, and extending to the Persian Gulf. It maintains the capability to carry out 'defence of the homeland' operations and retains the force structure for out-of-area submarine and surface combatant operations. Additionally, the Fleet continued to bolster its long-range sea-denial capabilities by commissioning new *Akula* and *Oscar-II* class nuclear-powered attack submarines. They continue to demonstrate proven capabilities in test SLBM launches and long-range attack submarine patrols of the Pacific Ocean.

The new socioeconomic realities have made the fleet command reassess its priorities. Since State support was insufficient to keep the fleet intact and ready for duty, the naval command was forced to seek alternative ways of raising money for its activities. Many ships, especially auxiliaries, have been operating in commercial or charter freight or passenger service, raising much-needed funds. At present, the fleet is allocating all its available resources to maintain the naval units and aircraft of the 'combat nucleus' in operational order. Funding priority has also been given to the strategic component of the Pacific Fleet, its SSBN force, which has been kept on a minimum-required level. The anticipated retirement of all the Pacific SSBNs did not occur. Instead, the operational status of *Delta-III* class submarines was prolonged until the year 2005. The fleet has a number of warships, including major fleet units, which are currently non-operational and laid up pending refit. However, these naval units are listed since they could return to service if funding became available. Overall, despite the numerical reductions and the reduced funding for naval activity, the Pacific Fleet remains operational. While the number of 'out-of-area' deployments remains limited, the fleet has intensified its exercise activity in littoral waters.

There are plans to rebuild Russian naval might in the first half of the 21st Century. However, without an immediate influx of substantial funding it is difficult to see how the Russian Navy will be able to achieve these goals. Despite the obvious progress made in the long

process of the Russian economic recovery after 1999, the continuous inadequate funding of defence programs, including naval construction, will certainly postpone the near-future realisation of some projects and will force a re-evaluation of strategies and development programs. What happens politically in the next five years will affect the future configuration and mission of the Pacific Fleet. If the Russian military-political leadership decides to continue SSBN operations in the Pacific MTVD after 2005, and starts fielding new-generation SSBNs with the Pacific Fleet, its general-purpose forces will have to be strengthened to ensure survivability of the strategic nuclear component. If, on the other hand, Russia's sea-based strategic nuclear forces are to be concentrated only in the Arctic theatre, the Pacific Fleet will not be on the high priority force development list, unless a sudden deterioration of the geo-political situation in region requires an immediate response. Even without its strategic nuclear component the fleet will retain its strategic significance due to the critical role it plays in the system of Russia's security in the Far East. Russia's economic and geo-strategic interests in the Asia-Pacific region should ensure the Pacific Fleet retains its blue-water capability and continues, with the Northern Fleet, to be one of Russia's ocean-going fleets.

Notes

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5   Zakharenko, 'Na Dal'nevostochnykh Rubezhakh Rossii', p. 21.

6   Richard F. Staar, *The New Military in Russia. Ten Myths That Shaped the Image*, Annapolis: Naval Institute Press, 1996, p. 52, G. Jacobs, 'Growth in Strength of Soviet Pacific Fleet', *JDW*, 8 July 1989, p. 34.

7   Admiral I. Khmelnov, 'Sokhranenie Boevogo Yadra TOF - Fundament Ego Dal'neishego Razvitya' [Preservation of the Pacific Fleet Combat Nucleus is the Foundation of its Further Development], *MS*, N 4 1996, p. 4, Admiral Vladimir Kuroyedov in 'Vizhy Tikhookeankiy Flot Obnovlennym' [I See the Pacific Fleet Restructured], *MS*, No. 9 1996, p. 19.

8   The fact that the Russian fleets still have zones of responsibilities, covering areas well-beyond home waters indicates Russia's ongoing intention to preserve its status of global maritime power, even if under current circumstances this status is more nominal now rather than realistic.

9   Boris Makeev, 'Naval Aspects of Russia's National Security', *European Security*, 4 (1), Spring 1995, p. 103.

10   Ebata, 'CIS Spells Out Defensive Plan', p. 1050.

11   Rear-Admiral V. Aleksin, captain 1st Rank (ret.) E. Shevelev, 'Sud'by Rossii i Flota Nerazdelimy' [Fates of Russia and the Navy are Inseparable], *MS*, N 6 1996, p. 11, Admiral Kuroyedov, 'My – Derzhava Okeanskaya', *Krasnaya Zvezda* (*KZ*), 27 July 2002, p. 1.

12   Since mid-1996 the Pacific Fleet routinely deployed its nuclear-powered attack submarines to the western Pacific, which signalled about Russia's attempts to somehow counter these growing threats.

13   Data is collected by the author.

14   *Jane's Fighting Ships 2002-2003*, Jane's Information Group, 2002, pp. 567-616, *The Military Balance 2002-2003*, International Institute for Strategic Studies, 2002, p. 92, data collected by the author from Russia's open defence sources (*Krasnaya Zvezda*, *Morskoi Sbornik*: issues 2002-2003).

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[15] The Russian naval designation is *tyazhely atomny raketny kreiser* (TARKR). *Admiral Lazarev* was renamed in 1992 by the special Presidential Decree after the collapse of the USSR. *Lazarev's* sister-ships received the following names: *Kirov - Admiral Ushakov, Kalinin - Admiral Nakhimov, Yuri Andropov - Piotr Velikiy*. The *Ushakov* class is a new name given to the former *Kirov* class.

[16] One of the most difficult and painful problems the Pacific Fleet is currently facing is the uncertain future of the *Admiral Lazarev*. The ship was taken out of operational service in 1992 and placed in reserve. The nuclear-powered cruiser needs refuelling and a major refit and modernisation, which would cost the navy several billion rubles. Despite a severe lack of financial resources for the service and refits of operational ships, the Pacific Fleet continues to make efforts to fund the *Lazarev's* refit. According to Rear-Admiral Tsvirko, it is more cost effective to bring the ship back to operational service rather than to scrap it and re-allocate funds to repair, for example, several destroyers, "It is efficient to refit the cruiser from the point of view of its economy and range. It is a nuclear-powered [cruiser], thus does not require much fuel". Nikolai Litkovets, 'Remont v Dolg' [Refit on Credit], *KZ*, 19 May 2000, p. 2. Prior to 1999, it was almost certain that *Admiral Lazarev* would be decommissioned and scrapped together with its sister-ship *Admiral Ushakov* in the Northern Fleet. In 1999, however, repair work began on two Northern Fleet CGNs *Admiral Ushakov* and *Admiral Nakhimov*, raising the possibility that a refit of *Admiral Lazarev* would commence shortly. Alexey Muraviev, 'Second Wing for the Russian Kirov Class', *Jane's Intelligence Review*, Vol. 12, No. 1, January 2000, pp. 20-21. In July 1999, Russia's Deputy Prime Minister Ilya Klebanov, responsible in the Russian government for the military-industrial complex, supported the proposal to provide state funding for *Lazarev's* refit. 'Kreiser 'Admiral Lazarev' Budet Vozvrachshen v Stroi' [Cruiser 'Admiral Lazarev' Will Return to Operational Service], *KZ*, 24 July 1999, p. 1. The idea of refitting the cruiser also found some public support. One non-government organisation, known as the all-Russia Movement for Support of the Army and Navy, organised a public fund-raising to help the navy to bring *Lazarev* back to operational service. Nonna Chernaykova, 'Group Passes Hat to Save Nuclear Batlleship', *Vladivostok News* (el.), 12 November 1999. In 2000, the Fleet was able to allocate several dozen million rubles to start the repair work. Litkovets, 'Remont v Dolg' p. 2. However, at this stage, it is still uncertain whether the government and the navy will be able to provide stable funding for completion of *Lazarev's* major refit.

[17] The ship is the former *Chervona Ukraina* and has the honour title of 'Guards', which means that a unit of the same name distinguished itself in the Great Patriotic War of 1941-45.

[18] Currently, *Varyag* is the most powerful surface unit in the Pacific Fleet's order of battle.

[19] The Russian naval designation is *raketny kreiser* (RKR). **P.S.** Unlike the older *Moskva* and the *Marshal Ustinov* sister-ships (with a main

armament of 16 ASCM P-500 *Bazalt* with a maximum range of 500km), *Varyag* is equipped with the advanced SSM complex P-1000 *Vulkan* (with a maximum range of up to 1,000km). The *Vulkan* was introduced with the Russian Navy in 1987. Vladimir Gundarev, 'Ravnenie na Kreiserskiy Poraydok' [Equalisation on Cruiser's Order], *KZ*, 24 July 2002, p. 1. The advanced range of the P-1000 enables *Varyag* to be more effective in engaging any enemy surface vessel, including aircraft carriers. The capability of the *Moskva* class to destroy an aircraft carrier gave this series of ships the nickname in the West 'carrier-killer'.

[20] Air defences of a *Moskva* class CG comprise the long-range S-300F *Fort* (SA-N-6, capacity of 64 missiles), two medium-range *Osa-F* (SA-N-4, capacity of 48 missiles) and artillery systems. A. Minaev (ed.), *Sovietskaya Voennaya Moshch. Ot Stalina do Gorbacheva* [Soviet Military Might. From Stalin to Gorbachev], Moskva, Voenny Parad, 1999, p. 373. **P.S.** The S-300F is the ship-borne version of the famous S-300 theatre-level AD complex.

[21] There was some scepticism in the West about the fate of *Admiral Tributs* after the ship suffered a fire in 1994. Until 1999 *Jane's Fighting Ships* considered that *Tributs* would never see sea again. *Jane's Fighting Ships 1994-95 – 1997-98*, Jane's Information Group.

[22] *Krivak I* entered service in the mid-1970s.

[23] In the second half of 2002, the *Krivak-I* class FFG *Storozhevoi* was decommissioned.

[24] Although missile corvettes usually are not identified as major surface combatants, they play, nevertheless, a significant and important role in the Russian Navy. Indeed, the Soviet Navy heavily relied on its "mosquito" fleet of light missile craft. The development of such light but heavily armed coastal ships allowed the Soviet naval command to commit more large surface combatants for out-of-area deployments. For example, brigades of missile corvettes deployed in the Baltic and Black seas are now the main strike element of the Russian naval forces in these maritime theatres.

[25] *Jane's Fighting Ships 2002-2003*, p. 598.

[26] Vice-Admiral V. Patrushev, 'Nashi Podvodnye Sily Segodnia' [Our Submarine Forces Today], *MS*, No. 3 1997, p. 3.

[27] P. Podvig (ed.), *Strategicheskoye Yadernoe Vooruzhenie Rossii* [Russia's Strategic Armaments], Moskva: IzDat, 1998, p. 230.

[28] Minaev (ed), *Sovietskaya Voennaya Moshch*, pp. 374-75. **P.S.** The *Oscars* strategic significance for Russia's maritime defence explains desperate attempts of the Russian Navy to raise the sunken *Oscar-II* class *Kursk*, and the unprecedented protective measures the Northern Fleet had undertaken to guard the sunken submarine between late August 2000 and October 2001.

[29] *Nezavisimaya Gazeta* (*NG*), 15 August 2000, p. 2.

[30] V. Ermakov, 'Dal'nevostochny Forpost' [The Far Eastern Outpost], *MS*, N 8 2002, p. 19.

[31] A pair of combat-ready *Oscars* provides the Pacific Fleet with a capability to engage one CVBG in the Pacific theatre, which seems sufficient enough in peacetime.

[32] *Oscars's* production rests at the Severodvinsk shipyard, whilst Pacific *Akulas* were built at Komsomolsk-na-Amure, with the first *Akula* commissioned as early as 1986. That was the first boat of the *Akula* class series. A. Alekseev, L. Samarkin, 'Barsy' Stavyat Problemy' [*Bars* Are Setting Up Problems], *MS*, N 4 1997, p. 55.

[33] 'Drakon' Tikhookeantsam Ponravilsya' [The Pacific Fleet Seamen Liked 'Drakon'], *KZ*, 11 August 1995, p. 1, 'Akula Commissions', *JDW*, 5 August 1995, p. 14. Note that in 2000 the *Drakon* was renamed *Samara* and renumbered K-295.

[34] The Type 636 is considered to be one of the quietest diesel submarines in the world. It is said to be capable of detecting an enemy submarine at a range 3 to 4 times greater than it can be detected itself.

[35] Earlier reports suggested that this air base was abandoned by the military. But an article about the base, published in *Krasnaya Zvezda* in August 2000 confirmed that the air base was still operational, and accommodated one mixed ASW regiment, comprising Il-38 aircraft and Ka-27 helicopters. Natalya Kuzmina, Nikolai Litkovets, 'Letchiki Zolotoi Doliny' [Pilots of the Golden Valley], *KZ*, 17 August 2000, p. 2.

Lieutenant-Colonel (ret.) M. Chevychelov, 'Nad Okeanom' [Above the Ocean], *MS*, No. 1, 1998, p. 40.

[36] 'Razvedka Kak Ona Est'' [Reconnaissance As It Is], *MS*, N 3 1995, p. 46, Colonel-General V.G. Deineka (ed.), *Aviatsiya Rossiiskogo Flota* [Aviation of the Russian Navy], St. Peterburg, Sudostroyenie, 1996, p. 248.

[37] The PFNA has a separate squadron of the search-and-rescue (SAR) aircraft (An-12ps, An-26, and Mi-14ps). An-12ps aircraft came as a replacement for the Tu-16s to the Pacific Fleet in 1985. **P.S.** Russian abbreviations, meaning *poiskovo-spasatel'ny* (search-and-rescue). Apparently, the Pacific Fleet is the only one to have a specially formed SAR squadron. The other Russian fleets also have SAR units, that form part of the units and formations of the ASW aviation. Deineka (ed.), *Aviatsiya Rossiiskogo Flota*, p. 249.

[38] For more information about the 73rd Heavy Bomber Division and Russia's LRA see Alexey D. Muraviev, 'Russia's Long-Range Aviation: An Airborne Spear of the Nation', *Defense Analysis*, Vol. 17, N 1, 2001, pp. 89-98.

[39] For example, the unspecified Red Banner fighter regiment located on the outskirts of Vladivostok replaced its ageing fleet of MiG-23 aircraft with modern Su-27 *Flanker* heavy interceptors. *KZ*, 20 August 1998, p. 2.

[40] *The Military Balance 2002-2003*, p. 93.

41 For example, the above-mentioned fighter regiment, equipped with Su-27, based on the outskirts of Vladivostok, another fighter regiment of MiG-31 is based at the Yelisovo naval air base near Petropavlovsk-Kamchatksiy.

42 Russian Air Force Command was so impressed by the results of the interception that decided to award the pilots. Apparently, later the Russians Emails two photographs of the *Kitty Hawk* to the carrier. Valeriy Aleksin 'Amerikanskie Manevry Pod Kolpakom' [American Manoeuvres Are Under Cover], *Nezavisimoe Voennoe Obozrenie* (*NVO*), N 43 2000, p. 1, *KZ*, 17 November 2000, p. 1.

43 There is no precise data in the open sources on the equipment of the 55th Division. As a consequence, figures are approximate and are based on data, available in *The Military Balance* and Russia's open defence sources.

44 The assessment of the division's equipment is based on the data from the *Military Balance 2002–2003*, and reports from *Krasnaya Zvezda* (issues 2000-2003).

45 'Proverki Prodolzhautsya' [Inspections Continue], *NVO*, N 9 2002, p. 3.

46 For example, in 1997, the Pacific Fleet abandoned its most famous 305-mm gun battery located on the Russkiy Island. The battery was converted into the museum. Natalya Kuzmina, Nikolai Litkovets, 'Ostrov Russkiy' [The Russkiy Island], *KZ*, 28 August 1999, p. 2.

47 Minaev (ed), *Sovetskaya Voennaya Moshch*, p. 386.

48 Ibid, pp. 385-86.

49 Russian naval *spetsnaz* forces can be compared to the USN SEALS or the Israeli Navy's 13th Flotilla.

50 A. Budnev, 'Morskoi Spetsnaz' [Naval Special Forces], *MS*, N 10 1996, p. 45.

51 Maxim Kalashnikov, *Slomanny Metch Imprerii* [The Broken Sword of the Empire], Moskva, Krymskiy Most 9D, Paleia, Forum, 1999, p. 435.

52 The *Ivan Rogov* class LPD *Aleksandr Nikolayev* officially was still in reserve. According to *Jane's Fighting Ships* At the end of 2002, the *Aleksandr Nikolayev* was undergoing refit at Valdivostok. *Jane's Fighting Ships 2002–2003*, p. 602.

53 Troop lift capacity refers only to the standard schedule of an amphibious ship. A considerably larger number of troops can be embarked in all class of amphibious ships for short transits.

54 While there is no information about the place of basing of PM 74, it can be assumed that the vessel is also assigned to the Kamchatskaya Flotilla, since all operational nuclear-powered submarines are based near Petropavlovsk-Kamchatskiy.

55 In Russian: *Avaryino-Spasatelnaya Sluzhba Tikhookeanskogo Flota*, ASS TOF.

56 With 22,500 tons in full displacement, *Alagez* is the largest operational rescue ship of the Russian Navy.

57   *MS*, N 1 1998, p. 24. There were reports in the Russian press that the tug *Krylov* was sold illegally to the Greek company. Besik Pipiya, 'Korabl Otdali za Groshi' [The Ship Was Sold For Pennies], *NG*, 23 August 2000, p. 2. The Russian Navy officials did not comment these reports.

58   Russian information site *SMI.Ru* (el.), 25 August 2000.

59   Nikolai Litkovets, 'Kto Pomozhet Vspomogatel'nomu Flotu?' [Who Will help the Auxiliary Fleet], *KZ*, 6 January 1998, p. 1, Captain 1st Rank A. Piskunov, 'Flot – Vspomogatel'ny. Zadachi- Boevye' [The Auxiliary Fleet with Combat Tasks], *MS*, N 8 1999, p. 15.

60   I. Kasatonov, 'Kamchatskoe Napravlenie' [The Kamchatka Direction], *MS*, N 7 1998, pp. 5-6.

61   Sergei Boeikov, 'Kamchatka: Novaya Sistema Upravleniya Voiskami' [Kamchatka: a New System of Forces' Control], *KZ*, 21 March 1998, p. 1.

62   'Inventarizatsiya Morskogo 'Kladbichsha' [Inventory of a Maritime Cemetery], *NVO*, N 20, 2002, p. 1.

63   Joshua Handler, 'Russia's Pacific Fleet – Submarine Bases and Facilities', *Jane's Intelligence Review*, Vol. 6 (4), April 1994, p. 170.

64   Ibid, p. 170, Podvig (ed), *Strategicheskoe Yadernoe Vooruzhenie Rossii*, p. 219.

65   In early 1999, at least 76 decommissioned units were kept there. Captain 3rd Rank Evgeniy Ustinov, 'U Zolotogo Dna' [Near Golden Bed], *KZ*, 3 March 1999, p. 1.

66   Valeriy Baberdin, 'U Poslednego Prichala' [Alongside the Last Pier], *KZ*, 17 January 1998, p. 5.

67   See CTR home page in the Internet. Also see, James Clay Moltz, 'Russian Nuclear Submarine Dismantlement and the Naval Fuel Cycle', *The Nonproliferation Review*, Spring 2000, pp. 78-87, Igor Korotchenko, 'Utilizatsya Pod Patronazhem SShA' [The Utilisation Under the USA Patronage], *NVO*, N 29 2001, p. 8.

68   Moltz, 'Russian Nuclear Submarine Dismantlement and the Naval Fuel Cycle', p. 79. Also see the 1999 report of the Belona Foundation 'International Co-operation in the Russian Navy'. The report is available at the Belona Web Site: www.bellona.no. P.S. There is a serious doubt that the Russian Navy will agree to scrap its *Typhoon* class SSBNs. The very fact that *Typhoons* are currently undergoing major refit and rearmament suggests that the navy plan to keep its largest SSBNs operational in the near future.

69   Korotchenko, 'Utilizatsya Pod Patronazhem SShA', p. 8.

70   Ibid, p. 8.

71   Robert Karniol, 'Japan to Study Russian Submarines', *JDW*, 13 October 1999, p. 18.

72   'Waste Facility in Final Build Phase', *JDW*, 8 April 1998, p. 6.

73   Korotchenko, 'Utilizatsya Pod Patronazhem SShA', p. 8.

74   Ibid, p. 8.

75 Mikhail Khodarenok, 'Cherny God Rossiiskogo Flota' [The Russian Navy's Black Year], *NVO*, N 7 2001, p. 3.

76 Ibid, p. 1.

77 Nikolai Litkovets, 'Prizovoi Fond' [The Trophy Fund], *KZ*, 24 November 1999, p. 2.

78 Captain 1st Rank V. Tymel, 'Kak Gotovit' Korabli' [How to Exercise Ships], *MS*, N 5 1996, p. 42.

79 Yury Koshelev, 'Neuteshitel'nye Itogi' [Discomforting Results], *MS*, N 12 1998, p. 39.

80 Mikhail Khodarenok, 'Minoborony VVS Rossii Otritsayut Fakt Peresecheniya Granitsy Yaponii' [Russia's Ministry of Defence and the Air Force Deny the Fact of Border Violation], *Nezavisimaya Gazeta*, 15 February 2001, p. 2. Sergei Sokut, 'Rossiya Pobedila v Voine' [Russia Won the War], *NG*, 24 February 2001, p. 1.

81 Ilya Kedrov, 'Ucheniya Flota' [The Fleet's Exercises], *NVO*, N 11 2001, p. 1.

82 The exercise involved *Oscar II* class SSGNs. *KZ*, 3 April 2001, p. 1.

83 Nikolai Litkovets, 'U Tikhookeantsev Proverka' [The Pacific Fleet Seaman Are Under Inspection], *KZ*, 24 April 2001, p. 2.

84 Lieutenant-Colonel Aleksandr Stepanovskiy, 'Kompleksny Vykhod v More' [Complex Deployment to the Sea], *KZ*, 30 August 2001, p. 2. Andrei Gavrilenko, 'Tikhookeantsy ne Podvedut' [Pacific Fleet Seamen Will Not Fail], *KZ*, 31 August 2001, p. 2.

85 '37-ya Vosdushnaya Armiya Otrazhaet Kosmicheskoe Napadenie na Kamchatku' [The 37th Air Army Repel of the Aero-Space Attack on Kamchatka], *Gazeta.Ru*, 10 September 2001. After the terrorist attacks in New York and Washington on 11 September 2001, Russia decided to suspend this exercise.

86 Captain 1st Rank M. Sazhaev, 'Slavnaya Pleyada Shturmanov 'Podolska' [A Famous Generation of Pilots of the 'Podolsk'],*MS*, N 2, 2002, p. 19.

87 Ermakov, 'Dalnevostochny Forpost', p. 19.

88 Captain 1st Rank S. Mozhaev, 'Tikhookeantsy Traditsiyam Verny' [The Pacific Fleet Seamen Are Holding to Traditions], *MS*, N 3 2003, p. 28.

89 'Ne Ostanavlivat'sya na Dostignutom' [Do Not Stop on the Accomplished], *MS*, N 1, 2002, pp. 29-30, Nikolai Litkovets, 'Desyat Prizov i Problemy' [Ten Trophies and Problems], *KZ*, 6 March 2002, p. 2.

90 Captain 1st Rank Viktor Shcherbina, 'Ataka 'Chernogo Printsa' [Attack by a Victor class], *KZ*, 20 July 2002, p. 2, Vladimir Gundarov, 'Udachny God na TOF' [A Productive Year for the Pacific Fleet], *KZ*, 24 August 2002, p. 1.

91 'Bolshie Manevry' [Large Manoeuvres], *NVO*, N 23, 2002, p. 3.

92 *MS*, N 12 2002, p. 5, Gundarov, 'Udachny God na TOF', p. 1.

93 Russian information site Utro.Ru (el.), 15 April 2003.

94   Igor Korotchenko, 'Potentsial Sokhranen' [The Potential is Preserved], *NVO*, N 17 2003, p. 3.

95   Vitaliy Denisov, 'Baltika Eksportiruyet Stabilnost' [The Baltic Sea Exports Stability], *KZ*, 1 July 2003 (el.).

96   *MS*, N 3 2003, p. 13.

97   'Russian Subs 'Not Suffering' Says US Navy', *JDW*, 16 April 1997, p. 5.

98   *NVO*, N 10 2001, p. 1.

99   Ermakov, 'Dalnevostochny Forpost, p. 19.

100   In August 1995, the Northern Fleet *Oscar II* tracked the operations of the US *America* in the mid-Atlantic. Barbara Starr, 'US Navy Details Russia's Future Long-Range Threat', JWD, 3 April 1996 p. 6; 'Submarine Operated Off USA', JWD, 3 January 1996, p. 6.

101   Ibid, p. 6.

102   See 'Itogi i Perspektivy' [Results and Perspective], *MS*, No. 12 1999, pp. 2-3.

103   Data is collected by the author.

104   Nikolai Litkovets, 'Iz Dal'nego Pokhoda' [From a Long-Range Deployment], *KZ*, 28 November 2002, p. 1.

105   'Pod Flagom Rossii' [Under Russia's Ensign], *MS*, N 3 1993, pp. 65–66, 'Helix Lands on US Ships', *JDW*, 24 October 1992, p. 8.

106   'Russia, Kuwait Plan Exercise', *JDW*, 18 December 1993, p. 9, 'Pervye Rossiisko-Kuveitskie Ucheniya' [First Russia-Kuwait Exercises], *MS*, N 2 1994, p. 18.

107   'Ukreplyaya Voenno-Morskoe Sotrudnichestvo' [By Strengthening Naval Cooperation], *MS*, N 3 1994, p. 16.

108   Khmel'nov, 'Sokhranenie Boyevogo Yadra TOF – Fundament Ego Dal'neishego Razvitiya', p. 4.

109   Valeriy Aleksin, 'Rossiya Vozvrashchaetsya v Indiiskiy Okean' [Russia is Returning to the Indian Ocean], *NG*, 18 January 2001, p. 2, Nikolai Litkovets, Andrei Gavrilenko, 'Pod Andreevskim Flagom' [Under the Flag of St. Andrew], *KZ*, 29 March 2001, p. 3.

110   'Korabli Gotovyatsya k Pokhodu' [Ships Are Preparing for the Deployment], *NVO*, N 10 2001, p. 1.

111   Russian information site Strana.ru (el.), 15 May 2003, Korotchenko, 'Potentsial Sokhranen', pp. 1, 3.

112   During his visit to Mumbai in early 2001 Admiral Kuroyedov ruled out the possibility of the re-establishment of permanent Russian naval presence in the Indian Ocean since "there is no necessity for it." 'Oboidemsya bez Indiiskogo Okeana' [We Can Live Without the Indian Ocean], *NVO*, N 7 2001, p. 1.

113   *Asia-Pacific Defence Reporter*, Vol. 20 (4/5), October-November 1993, p. 22.

114 Details about this visit were received by the author from Russia's naval journal *Morskoi Sbornik* upon his request.

115 *Ria Novosti*, 9 February 1997.

116 *MS*, N 11 1997, pp. 17-18.

117 Aleksandr Khrolenko, 'Otkrytie Yokosuki' [The Discovery of Yokosuka], *KZ*, 4 November 1999, p. 3.

118 *KZ*, 7 October 1999, p. 3, *NVO*, N 40 1999, p. 3.

119 Captain 1st Rank V. Ostapenko, 'Andreevskiy Flag v Bukhte Sasebo' [The Flag of St. Andrew in the Bay of Sasebo], *MS* N 12, 2001, pp. 37-45.

120 Nikolai Litkovets, 'Varyag' Idet v Yaponiyu' ['Varyag' Goes to Japan], *KZ*, 3 October 2002, p. 1, *MS*, N 12 2002, p. 5.

121 *MS*, N 2 2003, p. 8.

122 Stanley B. Weeks, 'Law and Order at Sea: Pacific Cooperation in Dealing with Piracy, Drugs and Illegal Immigration', in Sam Bateman and Stephen Bates (eds), *Calming the Waters: Initiatives for Asia Pacific Maritime Cooperation*, Strategic and Defence Studies Centre, Research School of Pacific and Asian Studies, ANU, Canberra, 1996, p. 47.

123 Ibid, p. 51, *MS*, N 4 1994, p. 16.

124 'Russian Shipping Given China Sea Escort', *JDW*, 31 July 1993, p. 7.

125 *Ria Novosti*, 13 May 1998.

126 *MS*, N 4 1994, p. 16.

127 Data is collected by the author.

128 Admiral N. Khmel'nov, 'Rossiiskiy VMF: Na Poroge Chetvertogo Stoletiya' [The Russian Navy on the Threshold of the Fourth Century], *MS*, N 8 1996, p. 17.

129 V. Aleksin and E. Shevelev, 'O Reformirovanii Nashego VMF' [On Reform of Our Navy], *MS*, N 3 1995, p. 17.

130 'Kakoi Flot Nuzhen Rossii' [What Navy Does Russia Needs], *KZ*, 23 November 2000, p. 1.