The Russian Navy in Transition

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Cold Wars 2016

Admiralty Trilogy Seminar
Outline

◆ The Lost Decade and a Half: 1995 – 2010
  – Low production, select maintenance --- Dramatic losses in OOB
◆ The Beginning of the Transition
◆ New Russian Naval Doctrine
◆ The Four Fleets
  – Caspian Sea Flotilla
◆ Shipbuilding Plans
  – Modernizations
  – New construction
  – Long term aspirations
  – Super weapons?
◆ Syrian LACM strike
◆ Conclusions
The Soviet Union fell apart on 26 December 1991

Throughout the early 1990s, production coasted down
- Submarines coasted longer than surface ships
- Maintenance was largely curtailed, SSBN overhauls were the exception – (Project 667BDR and 667BDRM)
- By 1996, new production had essentially ceased

By 1999, Russian naval funding had plummeted
- Overall defense spending was down between 75% to 88%
- Ship and submarine deployments severely cut back
- Dramatic reduction in naval order of battle

The Lost Decade and a Half: 1995 - 2010
The Lost Decade and a Half: 1995 - 2010

- Project 949A Oscar II submarine *Kursk* sinks from an internal explosion on 12 August 2000 – All hands lost
  - Explosion due to poor maintenance of a 65-76 torpedo
- By 2005 funding levels start to improve, but a lot of work has been put off, infrastructure problems aren’t helping
- New production tries to get off the ground
  - Project 955 *Yuri Dolgoruky* rolled out in April 2007
  - Project 885 *Severodvinsk* rolled out in June 2010
- 2008 Military reforms transferred aviation strike assets to the Russian Air Force (completed by 2011)
- 2008 South Ossetia War – Minor naval action
- In 2010 Russian Navy fleets were transferred to joint military district control – effectively no longer a separate branch of the armed forces
The return of Vladimir Putin as President of the Russian Federation in 2012, and with a new Russian Navy CINC, signaled major changes were about to be made
- Some improvements had started a little earlier

Admiral Viktor Chirkov was tasked with essentially overhauling and rebuilding the Russian Navy
- 51 new modern surface ships and 24 new submarines by 2020
- Putin allocates significant resources toward the shipbuilding plan
- Recently announced his retirement due to ill health

Rapid series of new keel layings and major overhauls are started over the next three years
New Russian Naval Doctrine

◆ New maritime doctrine announced by Putin on 26 July 2015
  – “Maritime Doctrine 2015”
  – Driven by NATO expansion, changes in international situation
  – Largely similar to the doctrine of the Soviet Navy

◆ Six regional areas – Atlantic, Arctic, Antarctic, Caspian, Indian Ocean, and Pacific

◆ Main navy responsibilities:
  – Ensuring nuclear deterrent
  – The defense of the islands, the coast, and the interior of the country against attack from the sea - Defend the Homeland
  – Participation in the protection of marine and offshore natural resources, including in the disputed areas – the Arctic
  – Provide “power projection” in all corners of the world – Syria

◆ Shipbuilding section was added, aggressive goals
  – Long-range production plan – submarines and ships
  – Robust worldwide C2 and unmanned vehicles
Status of the Four Fleets

- **Northern Fleet – The “best” off of the four**
  - Most of the surface combatants and nuclear submarines
  - Keeping ships maintained has been a real challenge

- **Pacific Fleet – The neglected brother**
  - Has only two operating(?) SSBNs, very few SSNs and SSGNs
  - Project 955 SSBN *Alexander Nevsky* arrived in Sept 2015, *Vladimir Monomakh* to transfer in 2016
  - Only a handful of warships are still operational
Status of the Four Fleets

◆ Baltic Fleet – Plodding along
  – Second “best” fleet, but mostly small patrol craft
  – Starting to receive new Project 20380/20381 Steregushchy corvettes

◆ Black Sea Fleet – Red haired, bastard step-child
  – Withered soon after the dissolution of the Soviet Union
  – Annexing Crimea described as securing Black Sea Fleet base
  – Starting to receive new Project 21631 Buyan-M corvettes and Project 636.3 Kilo submarines
Caspian Sea Flotilla

- Actually doing pretty good –received a number of new platforms
  - Two Project 11661 Gepard-class frigates
  - Three Project 21630 Buyan-class patrol boats
- Surprised the world with Kalibr-NK strike in October 2015
The Russian Navy is carefully examining a number of platforms to determine which will receive major upgrades and modernize their capabilities – Capital Repair

- Project 949AM – Four hulls identified in contracts thus far
  - Northern Fleet: *Orel*
  - Pacific Fleet: *Irkutsk, Chelyabinsk, Tver*

- Major upgrade in electronics, sensors, combat system and a tripling of their missile load out
  - Overhaul of the propulsion plant, reactors being recored

- Select Project 971 Akula-class SSNs will also be modernized, Project 945/945A Sierra I/II SSNs will not (recent budget woes)

- Project 1144 *Admiral Nakhimov* placed in front of Hall 50 at the Severodvinsk Shipyard in October 2014 to begin a major modernization with new sensors and weapons
The Russian Navy has “announced” a rather impressive new construction plan to essentially rebuild the fleet

- 49 of the 51 new ships to be built in Russian yards
  - The other two were the French *Mistral*-class LHD – *Canceled*
  - Project 23560? Leader destroyers
  - Project 22350 Gorshkov frigates
  - Project 11356M Grigorovich frigates
  - Project 20380 Steregushchy corvettes
  - Project 20385 Gremyashchy corvettes
- 24 new submarines are to be produced
  - 8 Project 955/955A Borey/Borey-A SSBNs
  - 6 Project 885/885M Yasen/Yasen-M SSGNs
  - 6 Project 636.3 Kilos SS
  - 4? Project 677 Lada SS – *Canceled after 3 hulls*

Well, that’s the plan…
Project 949AM Oscar II

SM-225A launcher w/ 1 x 3M45 Granit (SS-N-19)

UKSK launcher based on SM-315 launcher w/ 3 x 3M55 Onyx (SS-N-26) or Klub family

 Increases an Oscar II’s load out to 72 missiles!
Port shaft pulled – full propulsion train overhaul

Probable outline of REPS-324 Barrier system (SPETS) similar to those on Severodvinsk
Admiral Nahkimov Overhaul
Replace 20 3M45 Granit (SS-N-19) launchers with 80 UKSK launchers for 3M55 Onyx (SS-N-26) and Kalibr family of ASCMs, LACMs, and ASW missiles – an increase by a factor of 4!

No change to B-203 SAM launchers, but missile and directors changed to the S-300FM/SA-N-20
Three Project 955 submarines completed

Four Project 955A submarines on the building ways
  - *Emperor Alexander III* laid down on 18 December 2015

Eight total 955/955A SSBNs to be built
Severodvinsk accepted into service on 23 December 2013
  - Acceptance delayed by numerous production issues

Project 885M lead unit, Kazan, roll out delayed to 2016

Three more Project 885M units under construction
  - Fourth unit, Arkhangelsk, laid down on 19 March 2015
Project 677 Lada SS

- Lead unit, *Saint Petersburg*, commissioned in May 2010
  - Significant delays, transferred to Northern Fleet in October 2013
- Two more under construction
  - *Kronshtadt* and *Velikiye Luki* also having problems, delayed to 2019
- Additional units effectively canceled in January 2016
  - Pacific Fleet looking to get six Project 636.6 Kilos instead
Lead unit, *Admiral Gorshkov*, still in sea trials
  - Development problems with S-350 Redut SAM system
  - Poliment AESA radar also delayed

Three more units under construction, hulls 3 & 4 are experiencing delays due to a lack of gas turbines
  - Marine gas turbines are imported from Ukraine
Six units ordered for the Black Sea Fleet

- *Admiral Grigorovich* commissioned on 11 March 2016, second unit undergoing sea trials, a third is still on the ways
- Based on *Talwar* frigate design built for India

Second batch of three on hold due to a lack of gas turbines

- Ukrainian state-owned enterprise Zorya-Mashproekt refuses to deliver ordered engines
- Russian now considering selling last three ships to India
Future Aspirations

- Nuclear-powered aircraft carrier
- Project 23000 Shtorm
  - 90,000 to 100,000 tons
  - 80 to 90 aircraft
- Sometime after 2025?
Future Aspirations

- New large destroyer design revealed in May 2015
- Project 23560 Leader (Lider)
  - 15,000 – 18,000 tons
  - Gas turbine or perhaps nuclear powered
  - Possibly 200+ vertical launch cells
- Construction to begin around 2019
Future Aspirations

- Project 22160 stealthy corvette
  - 1,500 to 1,800 tons
  - Kalibr-NK missiles
  - 57mm gun
- Three units reported to be under construction
5th generation submarines are in the initial design phase at Rubin and likely Malachite design bureaus

- New SSN could be smaller and less costly than Project 885/885M
- New SSBN to use many of the same components to reduce cost
- Project Kalina conventional submarine to have AIP
- Construction to begin around 2020
Super Weapons?

- Status-6 long-range, nuclear-powered, nuclear armed coastal attack torpedo
  - Leaked(?) photo on Russian TV in November 2015
This beast is big…really big

Status-6 torpedo (aka Project Kanyon)
- Length: 24 meters
- Diameter: 1.6 meters
- Range: 10,000 km
- Speed: 100 knots
- Payload: multi-megaton nuclear warhead
Original Project 627 design was to have a single large tube for the T-15 coastal attack torpedo

- Length: 23.5 meters
- Diameter: 1.5 meters
- Range: 40 km
- Payload: 100 MT nuclear warhead
Large carrier submarine
- 10,000 tons (surface displacement)
- Larger than a Project 971 Akula class SSN
- Potentially up to six Status-6 weapons

Laid down at Severodvinsk Shipyard on 27 July 2014

Project 09852 Belgorod also a potential carrier
Two strike missions with 3M-14 Kalibr LACMS

First attack from Caspian Sea on 7 October 2015
- Project 1166.1 Gepard frigate - *Dagestan*
- Three Project 21631 corvettes – *Grad Sviyazhsk, Uglich, Veliki Ustyug*

26 x Kalibr-NK LACMs fired at eleven ISIS targets
- Four reportedly crashed in Iran

Missiles flew about 1,500 km
Project 636.3 Kilo, *Rostov-on-Don*, launched four to six 3M-14 Kalibr LACMs against two ISIS positions on 8 December 2015.

Strike conducted from the Mediterranean Sea:

- First LACM attack by a Russian submarine
The Russian Navy had a very hard 15 years after the fall of the USSR, during which the fleet underwent a radical depopulation. Between a lack of funding, poor planning, an old and worn out infrastructure, and bad luck, the navy lost many ships and subs – possibly up to 80% of the surface fleet was lost, 66% of the submarine force, and all its strike aircraft transferred.

Putin’s return to power in 2012 is driving a 180 degree course change – he is putting significant resources to rebuild the navy. Putin is using the navy to help demonstrate Russia’s power.

While it is still too early to tell if this fleet revitalization plan will work, the initial indicators suggest they’re giving it a good try. Sanctions and the drop in oil prices are having a negative impact on the military’s budget – 5% reduction for 2017. Surface ship construction especially affected by the loss of Ukrainian marine gas turbine propulsion plants.