



# *The Russian Navy in Transition*

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*Cold Wars 2016*

*Admiralty Trilogy Seminar*





# Outline

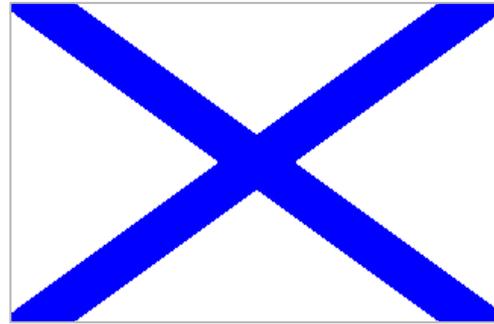
- ◆ **The Lost Decade and a Half: 1995 – 2010**
  - **Low production, select maintenance --- Dramatic losses in OOB**
- ◆ **The Beginning of the Transition**
- ◆ **New Russian Naval Doctrine**
- ◆ **The Four Fleets**
  - **Caspian Sea Flotilla**
- ◆ **Shipbuilding Plans**
  - **Modernizations**
  - **New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



Project 1144 Kirov



# The Lost Decade and a Half: 1995 - 2010



- ◆ **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

- ◆ **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 Beginning of the Transition

- ◆ **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



Project 20381 *Soobrazitelny*



# 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**



Project 21631 Volgodonsk



# Modernization Plans

- ◆ **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**



# Shipbuilding Plans

- ◆ **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

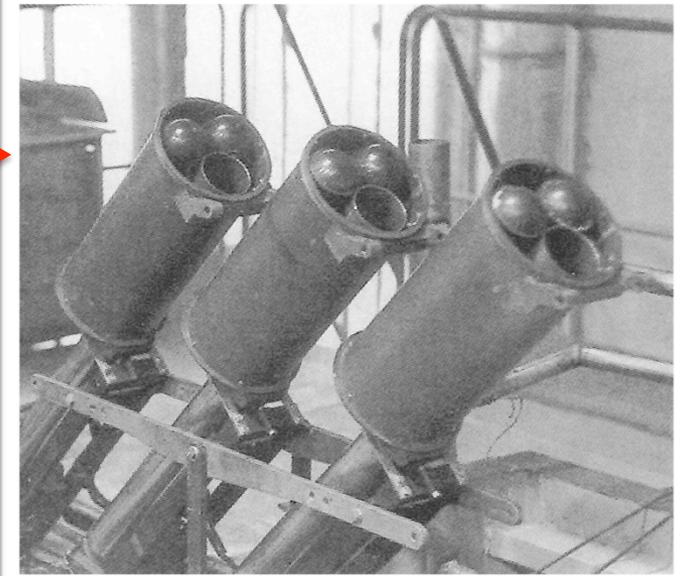
Project 949AM *Orel*



**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!***





# Orel Fire in April 2015



Port shaft pulled – full propulsion train overhaul

Probable outline of REPS-324 Barrier system (SPETS) similar to those on *Severodvinsk*



# *Admiral Nahkimov Overhaul*





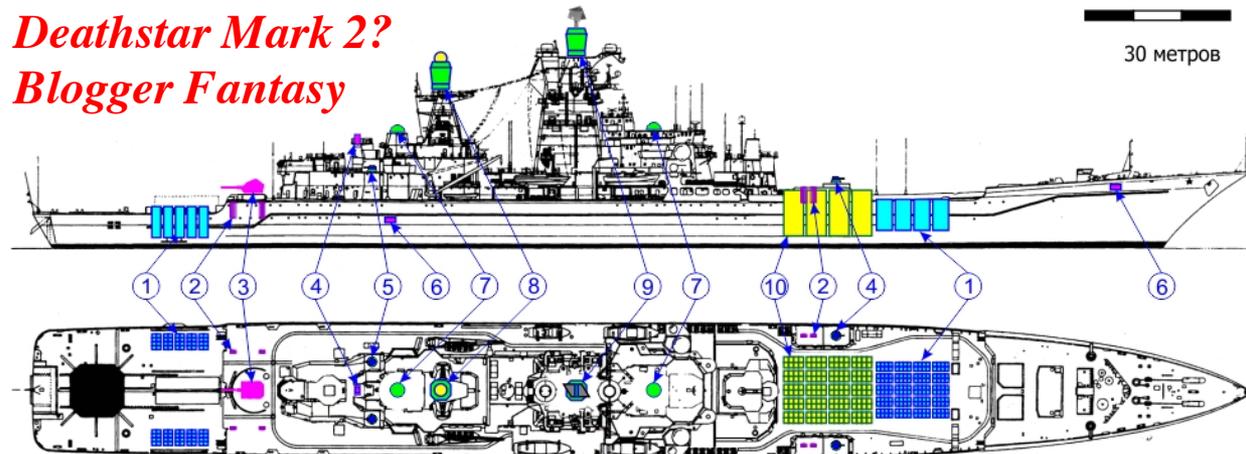
# Admiral Nahkimov Overhaul



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

## Deathstar Mark 2? Blogger Fantasy



- |                                                         |                                                                                    |
|---------------------------------------------------------|------------------------------------------------------------------------------------|
| 1) ЗРК "Полимент-Редут" (30 x 8 )                       | 7) РЛС ЗРК БД "Морфей" (2)                                                         |
| 2) ЗРК БД "Морфей" (8 x 8)                              | 8) РЛС "Фуркэ" и РЛС "Полимент", интегрированный в мачту (3 неподвижные ФАР)       |
| 3) Универсальная артиллерийская установка А-190 (1 x 1) | 9) РЛС "Фрегат М2ЭМ" и РЛС "Полимент", интегрированный в мачту (4 неподвижные ФАР) |
| 4) СУАО "Пума-02"                                       | 10) UKSK (20 x 8)                                                                  |
| 5) ЗАК АК-630 (4 x 1)                                   |                                                                                    |
| 6) Четырёхтрубные ТА ПТЗ "Пакет-НК" (4 x 4)             |                                                                                    |



# Project 955/955A Borey SSBN

- ◆ 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





# Project 885/885M Yasen SSGN

- ◆ ***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





# Project 20350 Gorshkov FFG

- ◆ **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





# Project 11356M Grigorovich FFG

- ◆ **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

Project 11356M Adm Grigorovich





# 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**





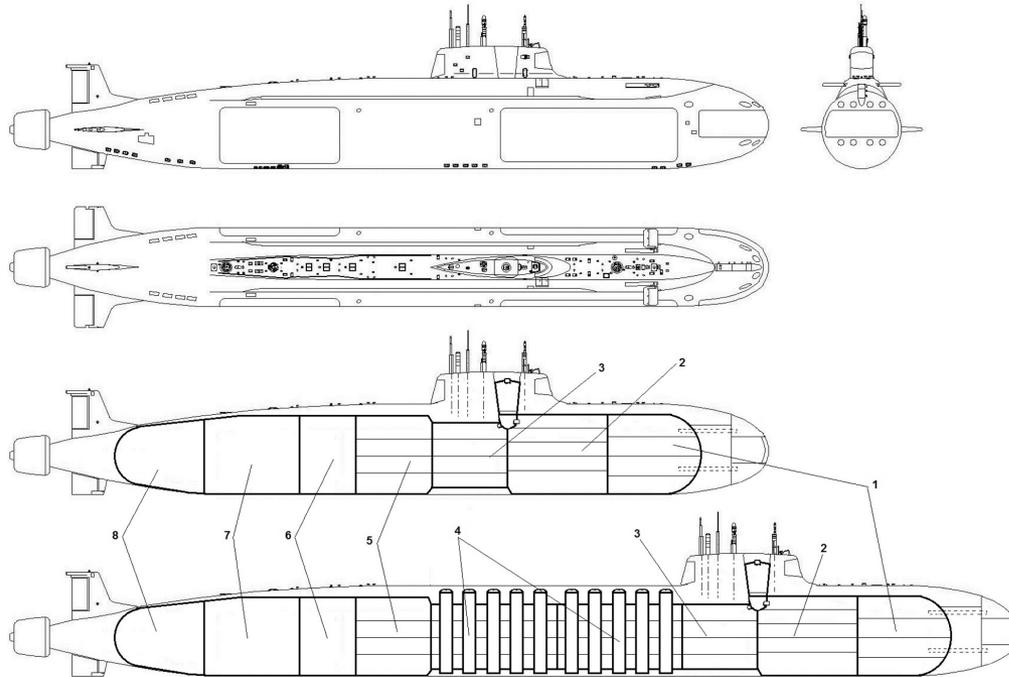
# Future Aspirations

- ◆ **Project 22160 stealthy corvette**
  - **1,500 to 1,800 tons**
  - **Kalibr-NK missiles**
  - **57mm gun**
- ◆ **Three units reported to be under construction**





# Future Aspirations

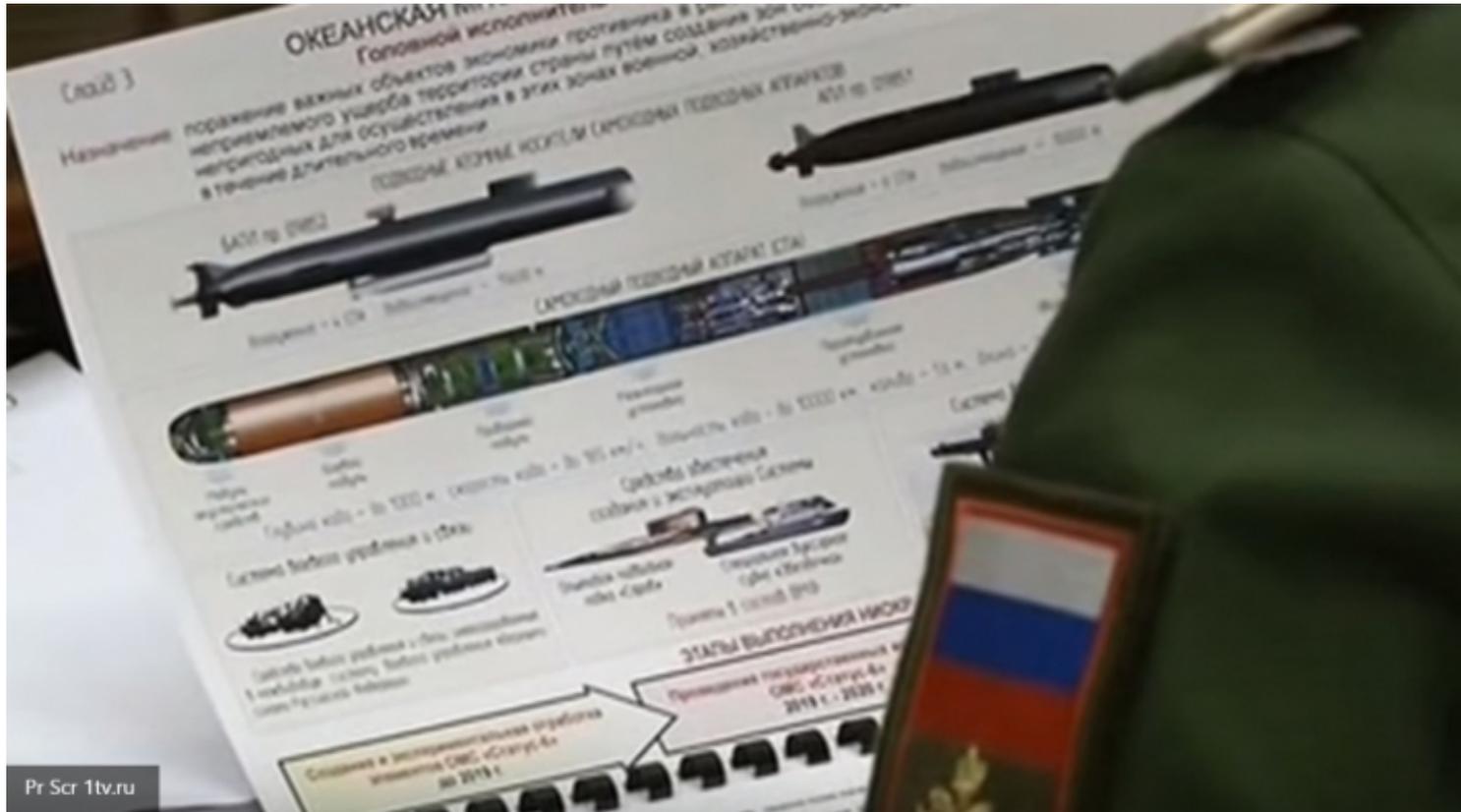


1 - Торпедный отсек; 2 - отсек ЦП; 3 и 5 - жилые отсеки; 4 - ракетные отсеки; 6 - реакторный отсек; 7 - турбинный отсек; 8 - отсек вспомогательного энергетического оборудования

- ◆ **5<sup>th</sup> 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**



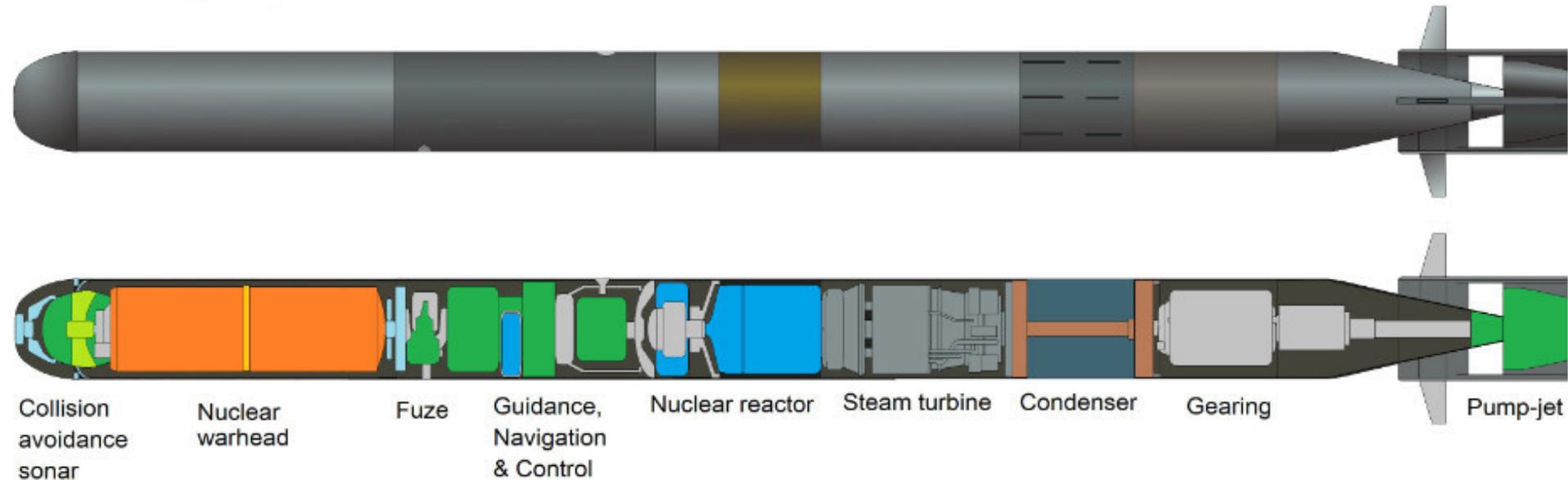
# Super Weapons?



- ◆ **Status-6 long-range, nuclear-powered, nuclear armed coastal attack torpedo**
  - **Leaked(?) photo on Russian TV in November 2015**



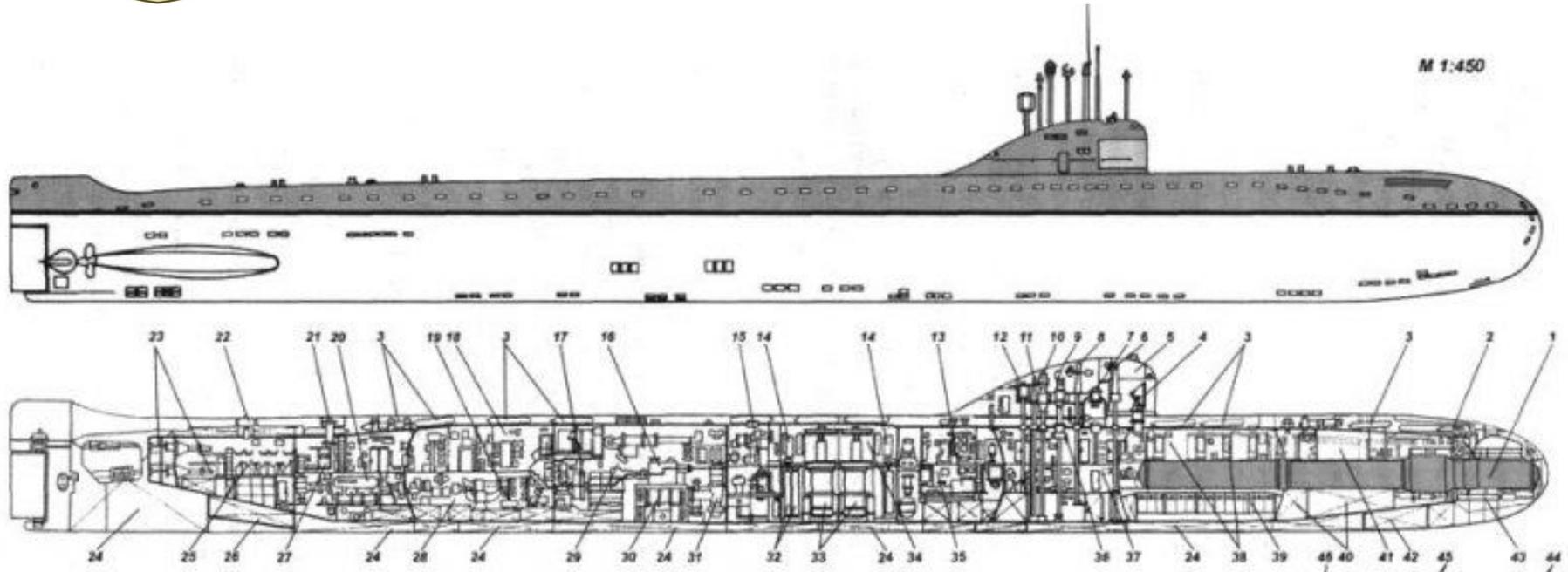
# Status-6 Torpedo



- ◆ **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**



# No, this isn't new...



◆ **Original Project 627 design was to have a single large tube for the T-15 coastal attack torpedo**

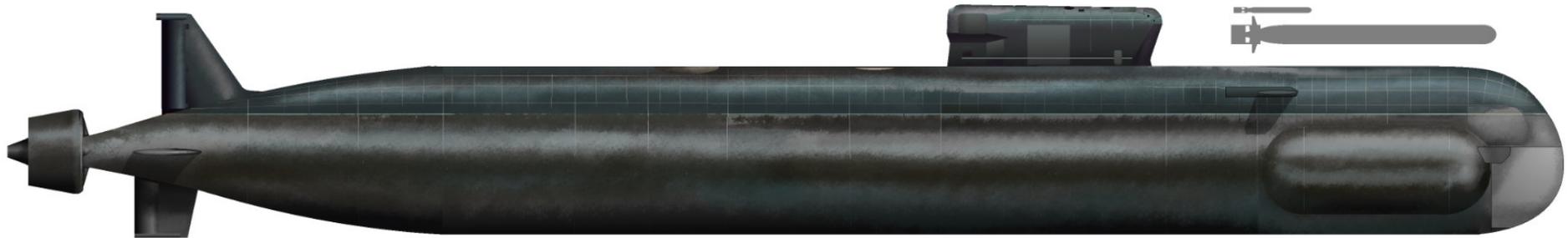
- **Length: 23.5 meters**
- **Diameter: 1.5 meters**
- **Range: 40 km**
- **Payload: 100 MT nuclear warhead**



# Project 09851 Khabarovsk

Project 09851 KHABAROVSK

COVERT SHORES  
www.hisutton.com



- ◆ **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**



# Syria LACM Strikes



- ◆ **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**



# Syria LACM Strikes

- ◆ **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**





# Conclusions

- ◆ **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**