



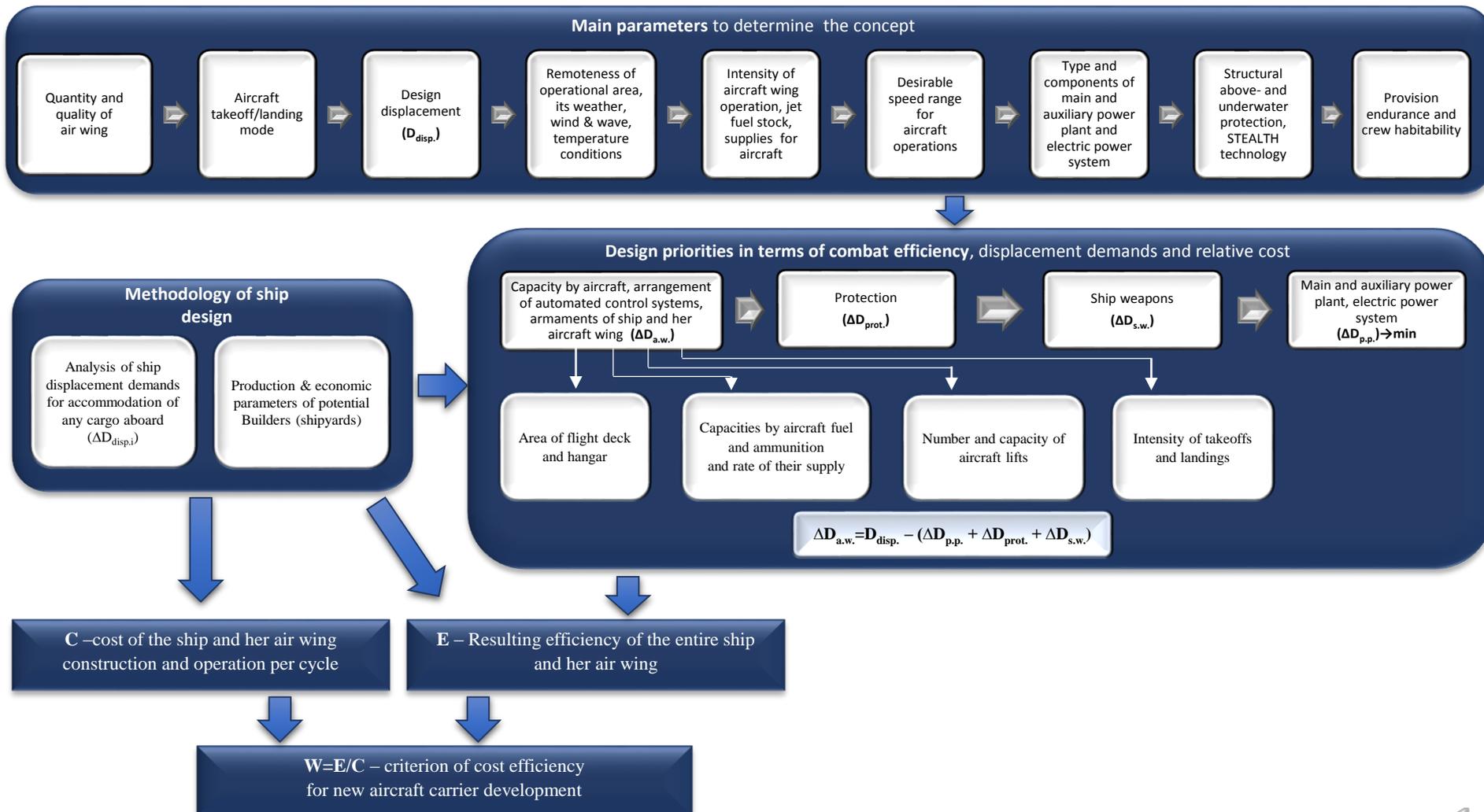
Krylov State Research Centre

Conceptual design of advanced aircraft carrier



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Conceptual methodological approach to aircraft carrier development



Scientific and technical capabilities of Krylov Centre in development of future aircraft carrier

Optimization of hull shape allowing up to 15% gain in ship power

Minimization of superstructure areas with optimal arrangement of functional rooms

Optimization of dimensions and arrangement of the bow take-off ramp and application of mixed takeoff system

Optimization of aircraft lifts arrangement and number (4 units)

In terms of armaments: integration of superstructure with radar system and its interfacing with Automated Control System

Selection of optimal main power plant and propulsion system

Missions of the future aircraft carrier



Warfare in the ocean



Engagement of land, coastal and sea targets



Enhancement of combat robustness for naval forces



Anti-aircraft defense of amphibious assaults

Performance data for the future aircraft carrier

Full displacement, tons: abt. 95 000

Principal dimensions, m:

Length – 330.0; beam – 42.0; draught – 11.0

Beam of flight deck, m: 85

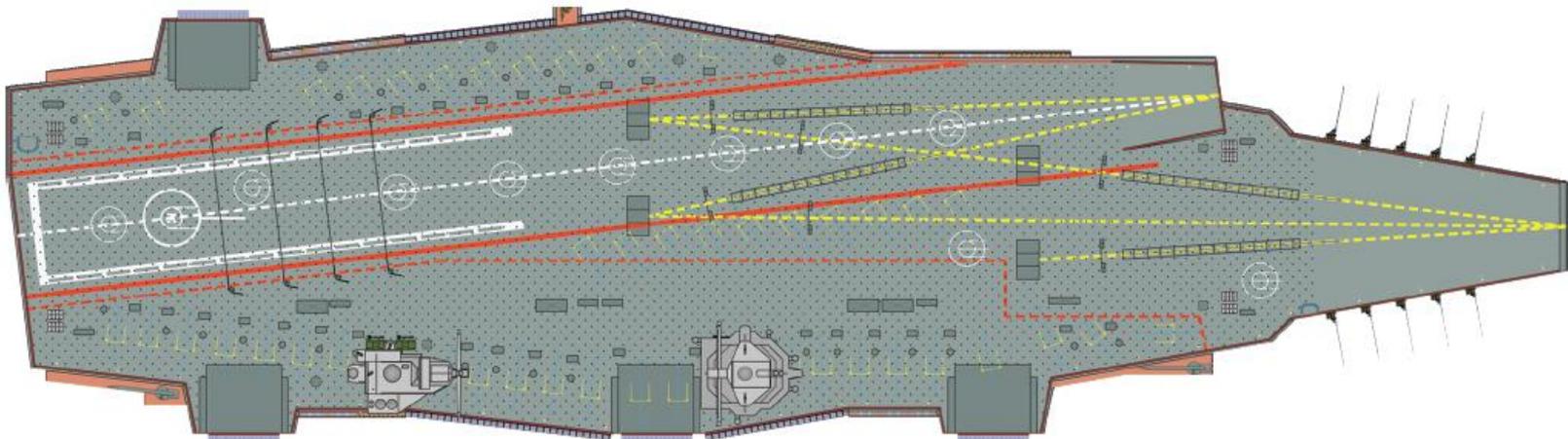
Full speed, knots: up to 28

Endurance, days: 90 (provision)

Jet fuel supply, t: up to 6000

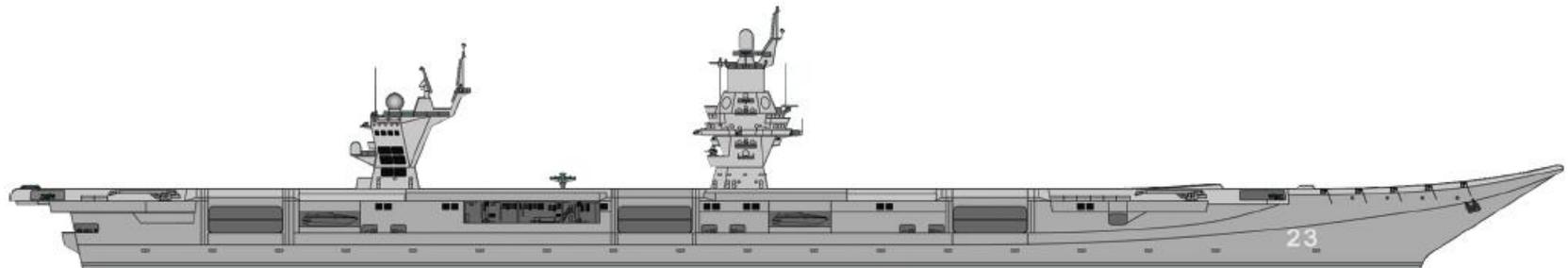
Seakeeping, sea state: 6–7 (for air wing)

Crew: up to 4000

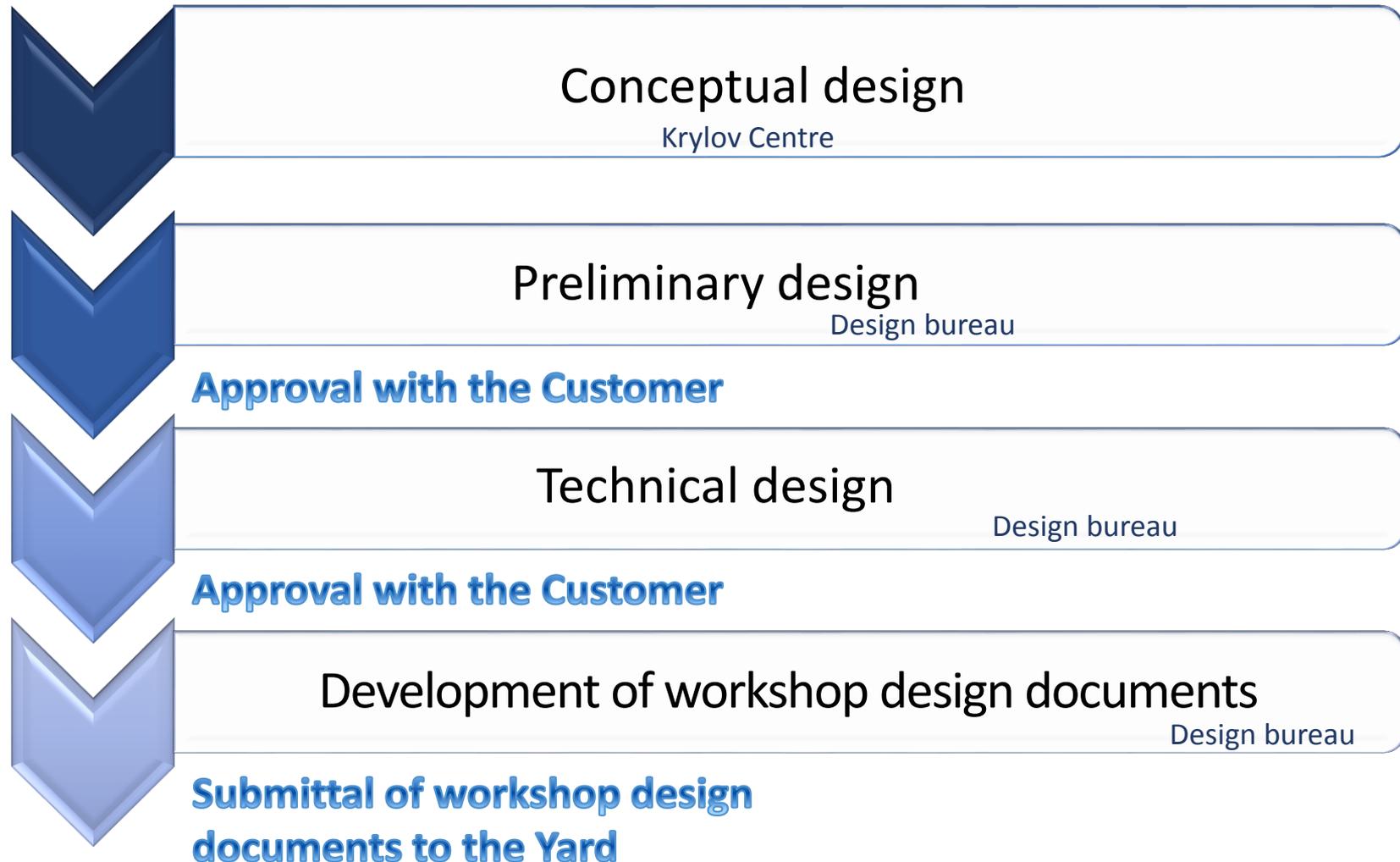


Ship armaments

- Integrated combat control system
- Aircraft of various classes: up to 65 units (including air drones)
- Air ammunition (air bombs and guided missiles): up to 3000 units.
- Aviation-technical equipment:
 - take-off ramps;
 - electro-magnetic aircraft launching systems (EMALS) (or conventional)
 - arrester.
- Self-defense:
 - AA close-in missile and artillery system;
 - anti-torpedo system.
- Electronic warfare system:
 - multi-purpose integrated radar system based on phased arrays;
 - integrated electronic countermeasures system;
 - integrated communications system.



Stage-by-stage design process



Conceptual design

Krylov Centre

Preliminary design

Design bureau

Approval with the Customer

Technical design

Design bureau

Approval with the Customer

Development of workshop design documents

Design bureau

**Submittal of workshop design
documents to the Yard**