



WATER · CS-320

THE LAST KILOMETRE BELONGS TO THE QUIET

A soft pulsed-jet payload carrier — slower than the current on purpose.

PULSE · DRIFT · EMLACE · LISTEN — NO RADIO, NO GPS, BY PHYSICS

PATENT PENDING

EXPORT-CONTROLLED — INTERNATIONAL TRANSFER SUBJECT TO CANADIAN GOVERNMENT PERMITS

CARRIER, NOT A MUNITION — SIX NON-KINETIC CARTRIDGES ONLY

~12 KG DISPLACEMENT CLASS — KG / L	0.25 M/S CREEP SPEED — SLOWER THAN MOST TIDES ON PURPOSE	~7.5 DAYS LOITER CLASS AT SCREENING SPEED	0 RADIOS, PROPELLERS OR ENERGETIC MATERIALS ABOARD
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OVERVIEW

A PAYLOAD CARRIER THAT WINS BY ARRIVING UNNOTICED.

Part of the 2-system Water line — shares its envelope and doctrine with Orca.

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Jellyfish CS-320 is a ~12 kg / ~12 L soft-bodied underwater carrier built around one idea: below a certain speed, the quietest machine in the water is the one that barely moves. It creeps at 0.25 m/s on a pulsed elastomeric jet bell — no propeller, no cavitation, no blade-rate line, no wake.

It is the most-plastic platform in the fleet: a cast elastomer bell that is propulsor, fairing and compliance in a single moulded part, free-flooded polymer everywhere else, and minimal metal by design. Designed for low signature — and stated honestly: that is a design goal, not a measured property. Nothing on this page will ever be called undetectable.

In the family, it is the Orca's tool for the close work. The mothership does the tens-of-kilometres transit and releases the creeper at a surveyed start point; Jellyfish does the last, quietest kilometre and places a ~2 kg / 2 L non-kinetic cartridge exactly where it is needed.

THE NAMESAKE

SLOWER THAN THE CURRENT — LIKE ITS NAMESAKE, IT RIDES THE WATER.

At 0.25 m/s the Jellyfish cannot fight a tide, and it doesn't try. It times its transit to the water, drifts the corridor, and pulses only for cross-set and final positioning. The current is treated as transit energy, not as a disturbance to overcome.

HOW IT WORKS

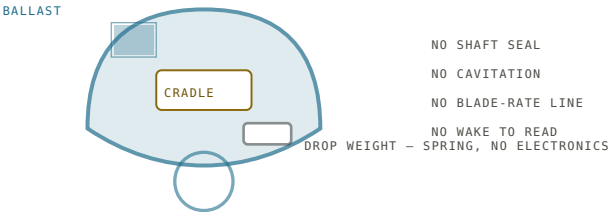
MECHANISM

ONE SOFT PART DOES THE SWIMMING

The bell is the machine: a cast elastomeric dome that contracts on a slow stroke, expels a ring of water, and refills on the recovery — 0.5 to 2 Hz, over and over, for days.

There is no shaft to seal, no gearbox to whine, no blade tip to cavitate. Propulsor, outer fairing and structural compliance are one moulded part, which is the manufacturing thesis speaking again: the cheapest way to build this vehicle is also the quietest shape it could take. Depth is held by a small pumped ballast tank and moving-mass trim; the abort is a spring-released drop weight with no electronics in the release path — the one subsystem that must work when nothing else does.

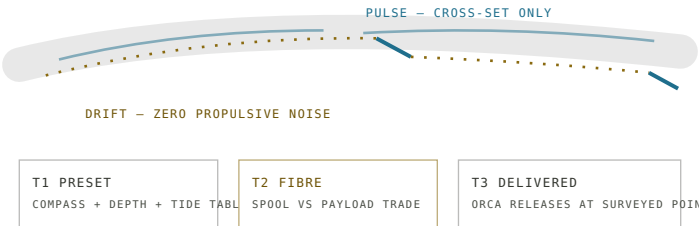
CONTRACT · EXPEL · REFILL — 0.5-2 HZ



"NO SCREW NOISE" IS NOT "QUIET" UNTIL MEASURED

CS-320 · THE BELL — PROPULSOR, FAIRING AND COMPLIANCE IN ONE MOULDING

TIME THE TIDE · DRIFT THE CORRIDOR · PULSE THE CROSS-SET



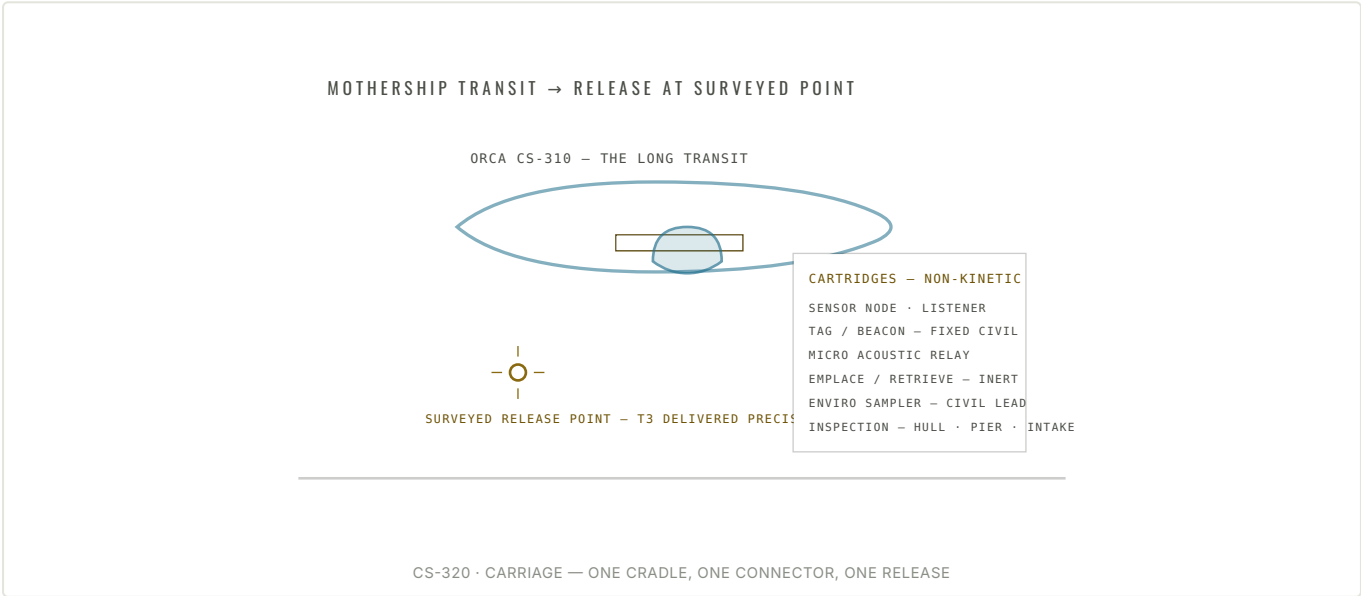
CS-320 · DRIFT DOCTRINE — THE CURRENT IS THE ENGINE, NOT THE ENEMY

HOW IT WORKS · CARRIAGE & CARTRIDGES

ALREADY A CARTRIDGE IN THE ORCA'S BAY

At ~12 kg / ~12 L, the Jellyfish fits the Orca CS-310's 20 kg / 20 L wet-bay envelope with margin — the creeper rides the mothership as one more cartridge on the define-once interface.

Its own payload cradle takes one ~2 kg / 2 L module from a six-cartridge, non-kinetic catalogue: passive sensor node, seabed tag or beacon, micro acoustic relay, covert emplace-and-retrieve of a small inert package, environmental sampler, or an inspection package for hulls, piers, intakes and outfalls — the nearest-term civil fit. One cradle, one connector, one release: a new payload is tooling, not redesign. It also launches by hand from a small boat or the shore, and a slow soft body is easy to net on recovery.



SPECIFICATIONS

CAPABILITIES & SPECIFICATIONS

JELLYFISH CS-320	
DIMENSIONS & MASS	
Displacement class	~12 kg / ~12 L
Payload	~2 kg / 2 L
Design depth	30 m — harbour / pier / intake work band
PERFORMANCE	
Creep speed	0.25 m/s · ~0.5 m/s burst
Best-range speed	~0.17 m/s still-water screening
Loiter (screening)	~7.5 days · ~180 h / ~65 km at 0.10 m/s · ~77 h / ~69 km at 0.25 m/s
PROPULSION & NAVIGATION	
Propulsion	Pulsed-jet bell · cast elastomeric, 0.5–2 Hz stroke — no screw, no cavitation
Guidance tiers	Tier 1 preset drift-nav · Tier 2 fibre-guided teleop · Tier 3 delivered precision via mothership
Communications	No radio, no GPS — silent running is the default; micro acoustic modem is an option, never a baseline
Abort	Spring-released drop weight, no electronics in the release path
PAYLOAD & EFFECT	
Payload cradle	One ~2 kg / 2 L module, six non-kinetic cartridges
Cartridge catalogue	Passive sensor node · seabed tag or beacon · micro acoustic relay · covert emplace-and-retrieve (inert) · environmental sampler · inspection package (hull, pier, intake, outfall)
Mothership carriage	Orca CS-310 wet bay — fits the 20 kg / 20 L cartridge envelope with margin
MATERIALS & CONSTRUCTION	
Propulsor/fairing	Cast elastomeric bell — propulsor, fairing and structural compliance in one moulded part
Chassis	Free-flooded moulded polymer, rPET-eligible — the most-plastic platform in the fleet
Energy storage	0.2 kWh Li-ion class pack
SIGNATURE & POWER	
Signature	Designed for low signature — a design goal, not yet a measured property
Power budget	Hotel-load dominated — a 0.5 W saving roughly doubles loiter
COMPLIANCE	
Patent status	Patent pending
Export control	Export-controlled — international transfer subject to Canadian government permits; export posture is counsel-first. The covert emplace-and-retrieve cartridge is treated as export-sensitive in its own right.
Munitions classification	Carrier, not a munition — six non-kinetic cartridges only; no warhead, no fuze, no energetic material, no attachment to a vessel, no mechanism whose purpose is harm

ENDURANCE AND BEST-RANGE FIGURES FOLLOW FROM STILL-WATER SCREENING CALCULATIONS, NOT TRIAL RESULTS — A RANGE FIGURE WITHOUT ITS CURRENT ASSUMPTION IS NOT ONE OF OURS.

THE TRADES, STATED

PHYSICS ENFORCES THE DOCTRINE. THE JELLYFISH JUST AGREES WITH IT.

Seawater conductivity kills RF outright — the same way rock kills it underground. The fleet's no-radio, no-GPS doctrine costs nothing here, because the ocean enforces it for every side equally. Nothing to jam. Nothing to spoof.

The Jellyfish takes that free advantage and compounds it: where the doctrine removes the radio, the design removes the screw, the wake and most of the metal. What remains is a machine whose whole survivability case is that there is very little of it to find — and whose honesty case is that we will not claim even that until it is measured.

And the boundary is stated with unusual force: this is a carrier, not a munition. The limpet-mine framing is rejected outright — no warhead, no fuze, no energetic material, no attachment to a vessel, no mechanism whose purpose is harm. The creeper emplaces sensors, samplers, relays and inspection tools. That is the whole list.

DEPLOYMENT

ONE QUIET KILOMETRE, START TO FINISH.

A representative mission profile — a harbour-infrastructure inspection run, the nearest-term commercial fit. A design walkthrough of the intended use, illustrative of how the Jellyfish is deployed, not a mission record.

01 · ARRIVE

CARRIED, OR HAND-LAUNCHED

Charged and mission-loaded shoreside, pre-dive. Then one of two doors into the water: the Orca's wet bay for a delivered start at a surveyed point, or a one-person hand launch from small boat or shore. The transit window is chosen from the tide table, not fought.

02 · WORK

DRIFT, PULSE, INSPECT

The creeper drifts the corridor, pulsing only to hold the line, and settles into the work band — hull plates, pier piles, intake screens, outfall crowns — with days of hotel-limited loiter to do it slowly and well. Silent by default: no link, no telemetry, human authority in the plan.

03 · RECOVER

NETTED, DOCKED, OR DROPPED HOME

Nominal end is a slow rise at the recovery point — a soft body at creep speed is easy to net from a small boat. Off-nominal, the spring drops the lead and the vehicle surfaces itself. Data offloads shoreside; the cradle re-cartridges and turns around in minutes.

THE FAMILY

RELATED SYSTEMS

CS-310 · MOTHERSHIP

ORCA

The long transit and the wet-bay carrier that gets the Jellyfish to its start point.

THE HOUSE THESIS

BUILD FOR COST, AND YOU BUILD FOR STEALTH.

A cast bell and a moulded chassis from the fleet's own tooling make the Jellyfish cheap enough to field in numbers — and the same mouldings are what leave so little signature to read. Sovereign manufacturing and quiet arrival are one engineering decision, made once.

Jellyfish CS-320 · patent pending · export-controlled — international transfer requires Canadian government permits; export posture is counsel-first. Six non-kinetic cartridges only — no warhead, no fuze, no energetic material, no attachment to a vessel, no mechanism whose purpose is harm. A carrier, not a munition, in every variant.



THE LAST KILOMETRE BELONGS TO THE QUIET

JELLYFISH · WATER · CS-320

Build for cost, and you build for stealth.

01

REQUEST A TECHNICAL EXCHANGE

A working session with engineering, not sales — bring your engagement problem, we bring the mechanism.

02

REQUEST THE WATER FAMILY DATA PACK

Drawings, tolerances and test basis for Jellyfish and its siblings, gated behind export screening.

03

DISCUSS A TRIAL QUANTITY

Tell us end-user, jurisdiction, quantity band and timeline — we respond against your program, not a price list.

SALES

sales@cdnshield.ca

GENERAL

info@cdnshield.ca

WEB

cdnshield.ca

Direct lines, named points of contact and facility details are shared with qualified programs following screening — not withheld, sequenced.

Canadian Shield is a defence and industrial drone company, backed by SIG: four-domain uncrewed systems built for jammed, GPS-denied environments — no-radio by design, manufactured for cost and salvo depth.

Jellyfish CS-320

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