

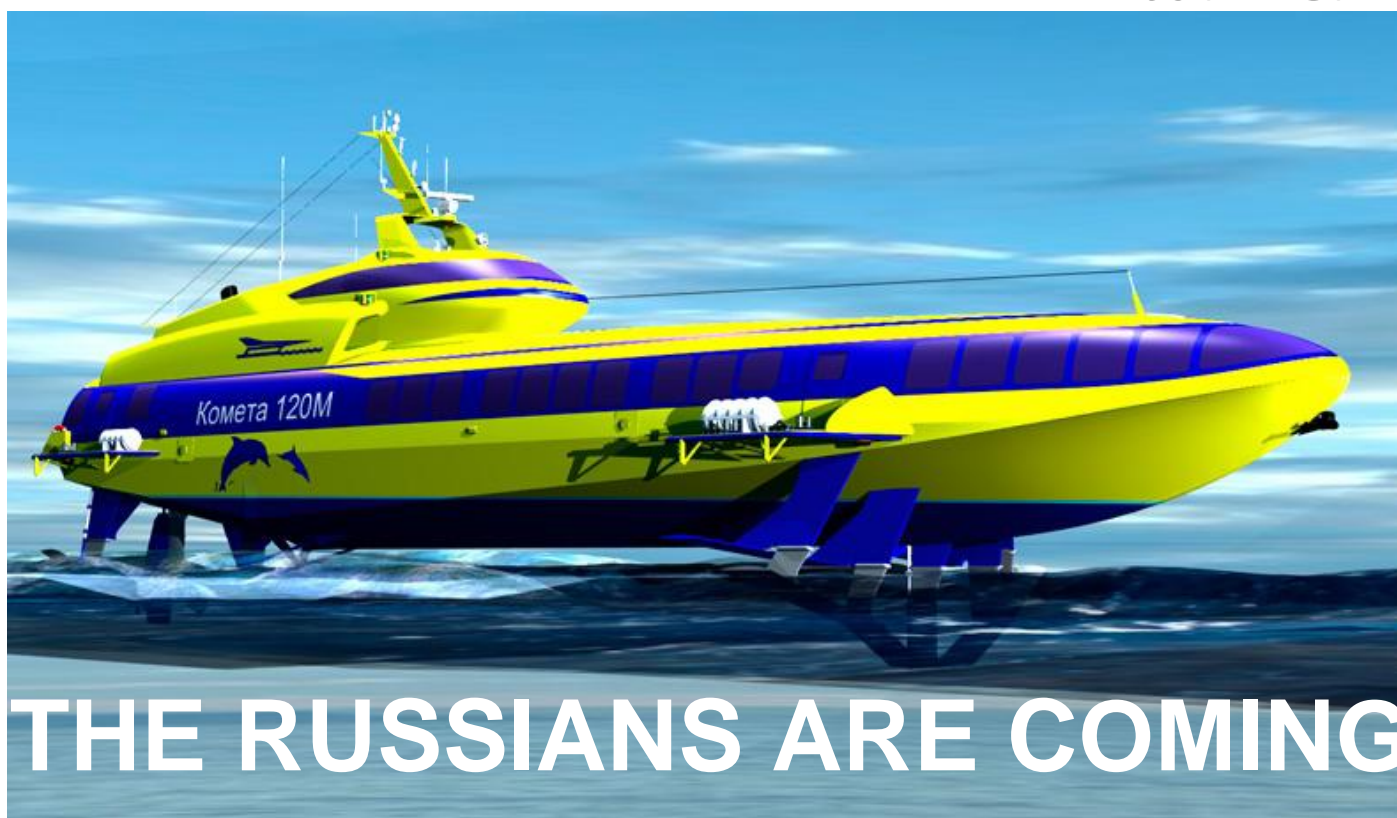
classic fast ferries

TSIKLON:
one
of a kind



LITHUANIAN raketas
pt.150s in the BALTIC

but first...



THE RUSSIANS ARE COMING

IT IS NOT ONLY in Italy that a new hydrofoil design is under construction (CFF News September 2013).

Earlier this year Vympel Shipyard of Rybinsk, approximately 275 kilometres north of Moscow, laid down the first Kometa 120M hydrofoil in a ceremony which was attended by several key persons within the shipbuilding industry and Russian federal transport sector. Established in 1930, this is the first time Vympel is constructing a hydrofoil.

Contrary to in the past, only a few hydrofoil newbuildings have been delivered since the collapse of the USSR. These include a pair of Morye Feodosiya Olympias in 1993–94, four Volga Shipyard Katrans,

similar to the Kolkhida design, in the mid-1990s, a single Almaz Marine Super Foil 40 foil assisted catamaran in 2002 and two Volga Lastochka M hydrofoils, basically a twin engine version of the Voskhod, in 2004.

In addition, some more or less completed vessels on stock, which had either been built ahead of order or the order was cancelled due to the general decline in hydrofoil operations, have been sold overseas. Connexion Fast Flying Ferry in the Netherlands thus acquired three partly

Above : *Impression of the Kometa 120M, the first of which is currently under construction at Vympel Shipyard in Russia*
/ VYMPEL SHIPYARD photo

Right : *Exhibited at the ceremony at Vympel earlier this year were several hydrofoil models, obviously including the Kometa 120 M but also the Cyclone 250M (behind). Whether any plans exist to build also this in the future, at Vympel or another shipyard, is unclear.*

Also see the story on the Tsiklon on page 4
/ VYMPEL SHIPYARD photo



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THE ORIGINAL PERIODICAL ABOUT THE HISTORY OF HYDROFOILS, HOVERCRAFT, CATAMARANS AND SURFACE EFFECT SHIPS, THEIR BUILDERS AND OPERATORS WORLDWIDE.

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COVER : TSIKLON DELFINI XXX OFF DELOS, GREECE IN 1999. PHOTO: COSTAS SARLIS.

finished Voskhod 2M hydrofoils from Morye in Ukraine in 2002 and a fourth in 2007. Also exported during the 1990s were a large number of hydrofoils previously operated in the Soviet Union. Many, if not most, of these – as well as those remaining in Russia and Ukraine – are now beyond coming of age and need replacing by newer models.

KOMETA 120 M

The Kometa 120M, as the designation suggests, is based on the former Kometa as well as the Kolkhida/Katran designs, however completely re-styled. Like the former, the Kometa 120M is a coastal hydrofoil but is also suited for operation on large rivers. It will feature an automatic stabilization system and be fitted with German MTU engines.

In its standard configuration the 35 m vessel will carry 120 passengers in two saloons, 98 in economy and 22 in business class, or according to customer specification, all of which on one deck. Again, as is the case with its predecessors, except for the Tsiklon (see story starting on page 4), but opposed to the new Italian design currently being built in Sicily for Ustica Lines.

The sleek lines of the Kometa 120M bear a strong resemblance to the Onyx, a design released by Sudoexport already in 1991. Likewise intended for river and coastal routes, with a length overall of 30 m and carrying 71 passengers this is smaller than the Kometa 120M.

Two areas in which the Transport Ministry believes the new Kometa 120M will attract interest from operators are the Black and Baltic Seas. It is probably safe to assume that an eye is also kept on other export markets such as Greece, where a number of aging Meteors and Kometas are bound to be retired in a not too distant future.



SEA TECH

One other company having revealed hydrofoil projects in recent years is Sea Tech of Novgorod near St. Petersburg.

These include the Alfa-40 and Alfa-70 designs. The smaller Alfa-40 has a length overall of 16 m, beam of 3.9 m and can accommodate 40 passengers. Corresponding figures for the Alfa-70 are 22 m, 6.0 m and 70 passengers.

One significant difference to most previous Soviet designs is that the Sea Tech craft feature surface piercing foils that retract above the waterline where need be, the bow foil forward and the rear foil aft. Hence, the vessels can dock in rather shallow waters.

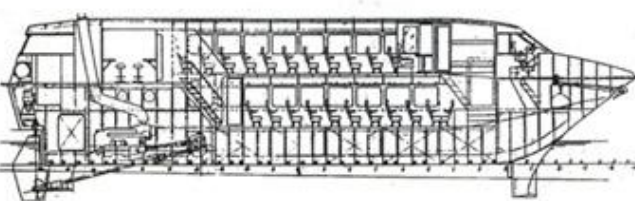
On the Alfa-40 the draught with the foils up is 0.65 m and 1.55 m with them down in hullborne mode, when foilborne draught is a mere 0.8 m

On Alfa-70 the draught with the foils up is 0.85 m and 2.05 m with them down in hullborne mode, when foilborne draught is 1.1 m

Both designs can be laid out as a ferry, pleasure craft or crew boat and similar.

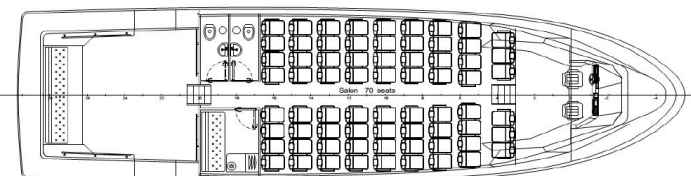
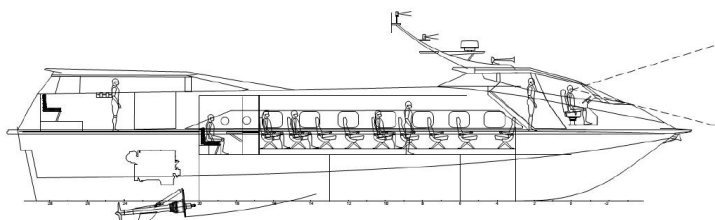
Another interesting Sea Tech design is the Vostok, a 27 m twin deck seagoing hydrofoil.

In addition to projecting new hydrofoils, Sea Tech has presented outlines for a refitted Kolkhida/Katran M. **cff**

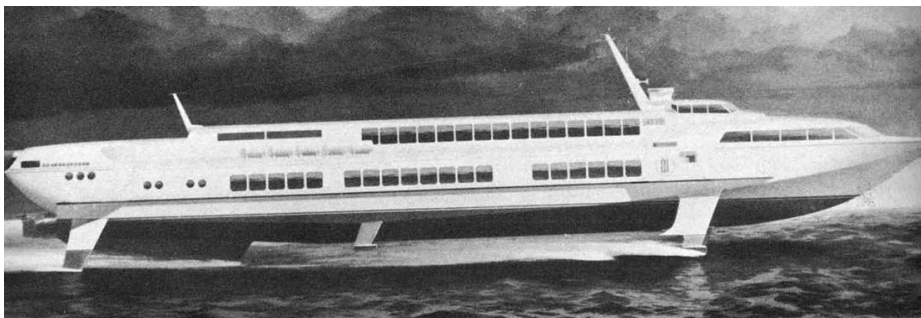


Above : The Sea Tech twin deck Vostok ...

Below + bottom : ... and the smaller 22 m 70-seat Alfa-70 from the same designers
/ SEA TECH photo, all



Right : Early artist's impression of the Tsiklon. The actual craft differed somewhat from this as is seen below



Above : The only Tsiklon built on builder's trials in the Black Sea in 1987 /MORYE FEODOSIYA photo

a **LONG WITH** the Italian RHS 200 and Swiss PT.150 designs, undoubtedly the most impressive commercial hydrofoil built to date is the Tsiklon.

A Soviet design, developed by the Central Hydrofoil Design Bureau founded in 1955 by Rotislav Alexeyev, the first details of the seagoing Tsiklon, at least outside the USSR, were revealed around the same time as the first Supramar PT.150 entered service in the late 1960s. However, it is probably safe to assume that the Bureau had outlines ready much earlier than this as already in 1963 the Swiss hydrofoil design firm had announced a 150 tonnes PT.150, to be powered by two 8,700 hp gas turbines, offering the 300 passengers a ride at 45 knots above the sea surface.

Originally the 140 tonnes Tsiklon too was to be powered by a pair of gas turbines and have waterjet propulsion, giving the twin deck vessel a service speed of 42-43 knots and maximum speed of 45-50 knots. On the final vessel this had been substituted with a single M37 gas turbine, based on a unit developed for the Soviet Navy, and traditional propulsion, however, the service speed remained the same. The dimensions, exterior lines and arrangement of the passenger areas on the prototype also differed to those on the early sketches.

Right : The upper deck amidships saloon on Liisa while operating with Tallink Express
/ GRYGORY KLEBANOV photo

Below : The kinship with the smaller Kolkhida is evident
/ DIRK JANKOWSKY photo



As delivered, the prototype Tsiklon was laid out for 250 passengers, about a third of which in the amidships saloon on the main deck and the remainder distributed in three saloons on the upper deck. Also on the main deck were the entrance foyer, toilets, store rooms, crew rest rooms and engine room aft.

Designing and building hydrofoils with passenger accommodation on two decks never became tradition in the Soviet Union, as opposed to the case in Western Europe and the USA. So far the Tsiklon is the only such having entered service, yet it differs from the designs developed by Supramar and Rodriquez in that it does not feature a lower

deck as such, i.e. with passenger cabins in the V-hull, but rather an upper deck, much as on the Jetfoil.

TSIKLON

It would be seventeen years from the announcement of the first Tsiklon to the actual vessel appeared in 1986. Built in Ukraine by Feodosiya Shipbuilding, later known as Morye, the majestic 44 m vessel, *Tsiklon*, underwent an extensive trials programme in the Black Sea during the summer and autumn 1987, visiting all major ports. It entered service with Black Sea Shipping Company between Yalta and Odessa in late 1987. The 217 nautical mile route, mostly in open seas,





Above : Delfini XXX off Rafina in 1998 / COSTAS SARLIS photo

was covered in 4 hours 25 minutes. Smaller hydrofoils such as the Kometa and Kolkhida are not suited for the route during the winter months as sea states in the Black Sea can prove rather rough at times, and here was the perfect opportunity for the Tsiklon to prove itself. The Tsiklon was designed to operate foilborne in waves up to 3.5 m but has been known to cope with waves considerably bigger than that.

It was believed that once in series production, incorporating the necessary changes and improvements inevitable to any new design, the Tsiklon would become a relevant competitor to Aeroflot on certain routes and also be attractive to customers in markets outside the USSR. Especially when considering the cost, which would be considerably less than for the Rodriguez RHS 200 or Boeing Jetfoil. The Supramar PT.150 was a less probable competitor as no such had been delivered since the three units in 1968–71, all by Westermoen, which did no longer build hydrofoils. Rodriguez on the other hand had discontinued the collaboration with Supramar years back and was now only building hydrofoils of the RHS series developed by the shipyard.

Modifications on the production Tsiklon-M were to include the fitting of two engines, probably still gas turbines, instead of one, easier access to the engine room, upgraded navigational equipment and improved passenger comfort. Work on the first of these did indeed commence at Morye but came to a halt in connection with the structural changes and uncertainty resulting from the break-up of the Soviet Union in 1991.

It was not until only recently that the wind appears to have shifted and there is serious talk about a revival of the hydrofoil building industry, and indeed the shipbuilding industry on the whole.

GULF OF FINLAND

In 1991 *Tsiklon* was transferred west to the Gulf of Finland to operate between Tallinn, Estonia and Kotka, Finland with Inreko Festa Line, based in Tallinn. The positioning trip from the Black Sea was made under its own power, via the Bosphorus, Mediterranean, Gibraltar, Biscay, Kiel Canal and Baltic – a mere 6,000 nautical mile excursion covered in 140 operating hours.

The Kotka route survived for only a short time. Instead, Inreko, now trading as Estonian New Line, introduced the hydrofoil on the more lucrative route between Tallinn and Helsinki. During the 1992 season the vessel made in the region of 1,000 single trips carrying 60,000 passengers.

The following year Inreko pooled sources with another operator on the route, Tallink, and formed Tallink Express and the hydrofoil was renamed *Liisa*. Also in the fleet was a pair of Kolkhida hydrofoils and the first Olympia built by Morye that same year. To respond to the need for more luggage stowage space, the number of seats on *Liisa* was reduced to 220.

Journey time for the 45 nautical mile route between the two capitals was scheduled at 90 minutes, although with the extra power at hand and its higher cruising speed, *Liisa* could easily cover the distance in 65–70 minutes. This was of course only welcomed by passengers, whereas if the official timetable was based on the fastest



hydrofoil in the fleet this would be less accepted by those travelling on the other vessels. A seasonal route, the hydrofoils were normally operated from early April to late October, a situation which is still in effect.

With the introduction into service of a second Olympia in 1995, Linda Line, as the company was now known, found itself with one hydrofoil too many (the Kolkhidas had been sold off in 1993) and some consideration was made to use one of the vessels on another route or sell one of the hydrofoils. The introduction of a second route was never realized, but the 1997 season was to be the last in the Gulf of Finland for *Liisa*.

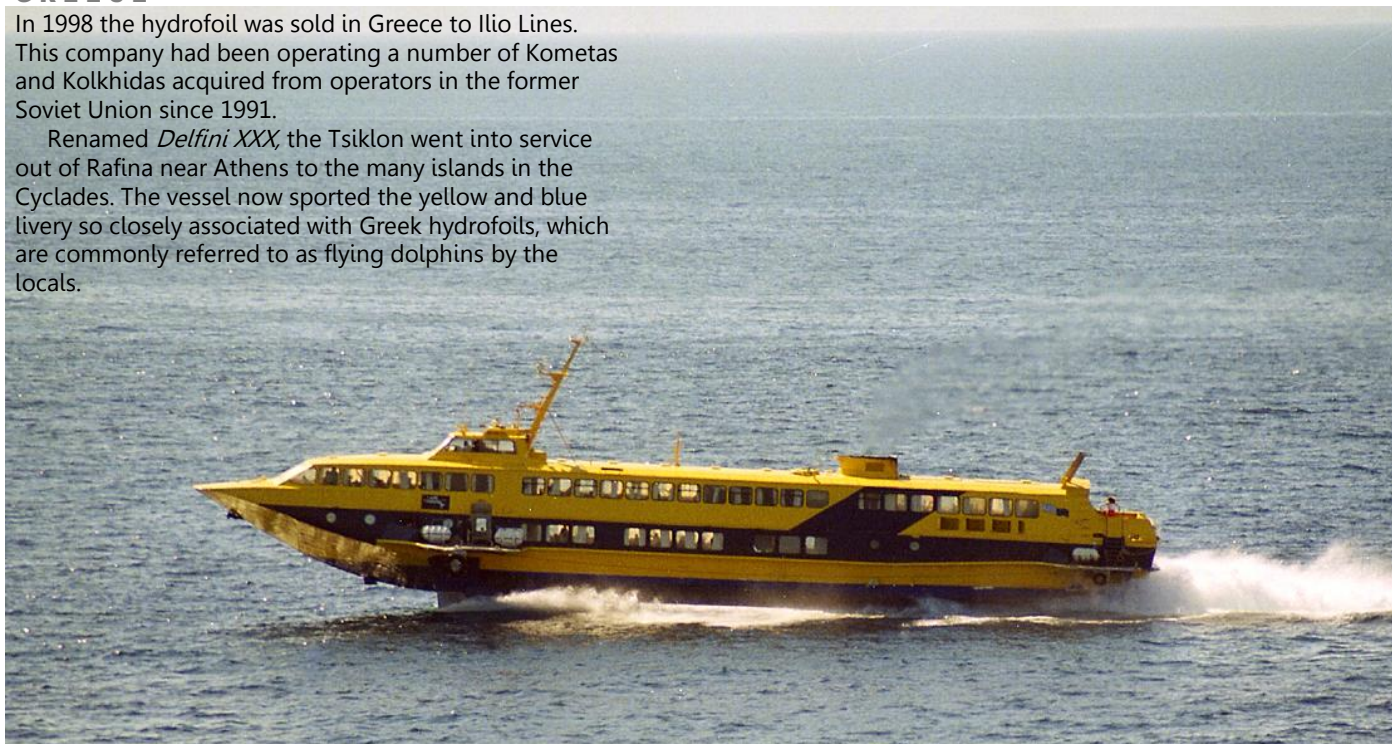
Having been repainted in the rather loud Ilio Lines company colours of yellow and red, between July and October 1999 *Delfini XXX* was based in Crete to operate between Heraklion and the Cyclades island of Syros. Far from a non stop service, the hydrofoil would make numerous calls en route including at Santorini, Naxos, Paros, Mykonos and Tinos. One daily roundtrip was made, leaving Heraklion in the early morning and returning in the evening.

Above + Below : *Delfini XXX* off the island of Delos in the Cyclades in 1999, and off Tinos the year before when the *Tsiklon* first entered service with Ilio Lines
/ COSTAS SARLIS photo, both

GREECE

In 1998 the hydrofoil was sold in Greece to Ilio Lines. This company had been operating a number of Kometas and Kolkhidas acquired from operators in the former Soviet Union since 1991.

Renamed *Delfini XXX*, the *Tsiklon* went into service out of Rafina near Athens to the many islands in the Cyclades. The vessel now sported the yellow and blue livery so closely associated with Greek hydrofoils, which are commonly referred to as flying dolphins by the locals.





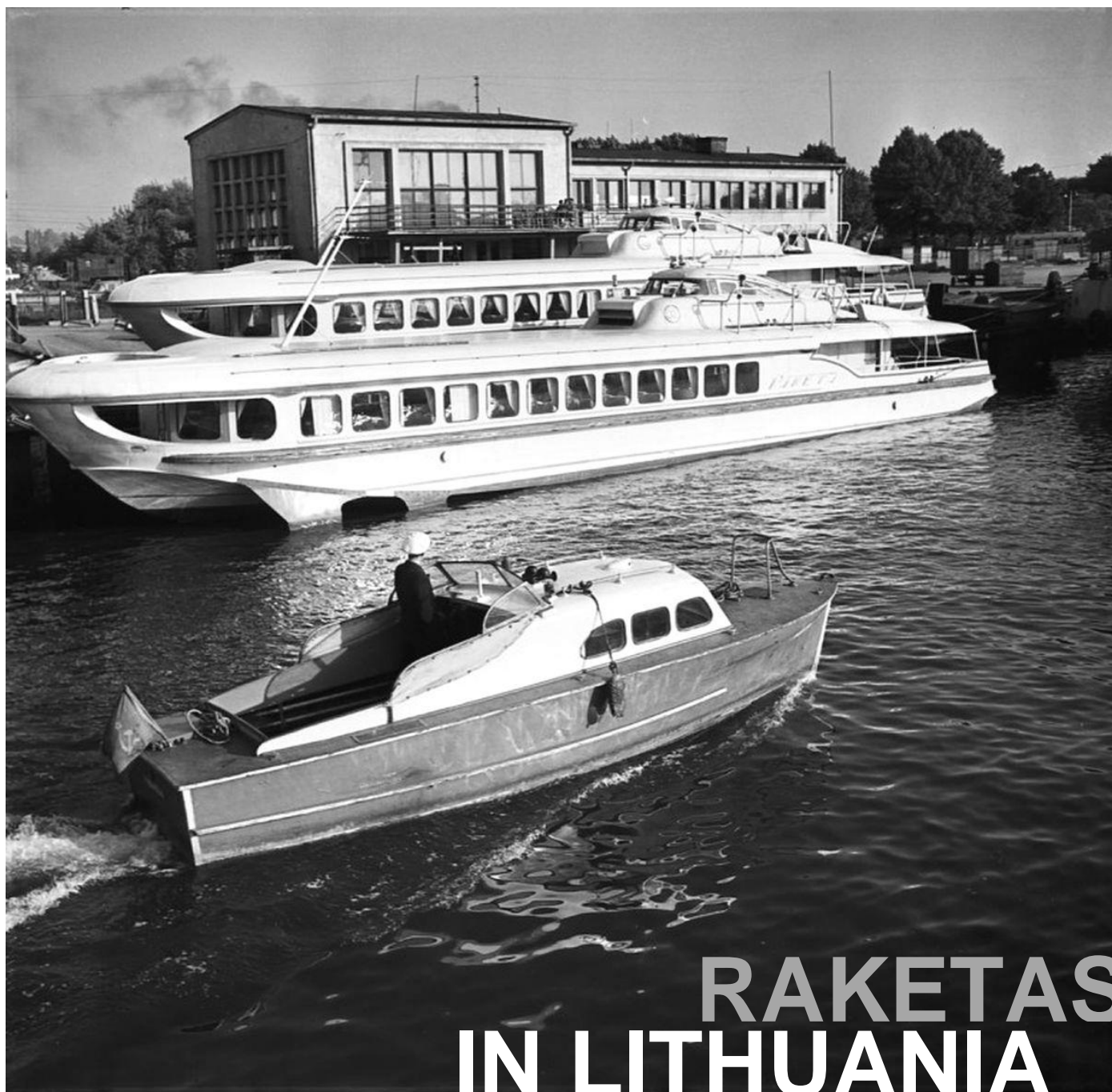
In 2000 or 2001 *Delfini XXX* had a collision, reportedly with a breakwater wall, in which the aft foil was damaged. Decision was made to take the vessel to Morye for repairs or possible replacing of the damaged foil, and also some modernization work was required on the craft, including refurbishing of the interior which was rather worn by now. However, various complications arose, involving among others the Ukrainian Customs and a new Russian owner of the hydrofoil, and the planned modification work came to a standstill. In 2002 the *Tsiklon* was reported being for sale for approximately USD 2,5 million, *as is, where is*.

At the time of writing, the vessel remains in the Morye shipyard. **cff**

Above : The former *Delfini XXX* at Morye circa 2004. Why anyone would want to paint a hydrofoil, or any fast ferry, dark blue always was a mystery to us

Below : The *Tsiklon* sitting in the Morye shipyard next to the Black Sea / GRYGORY KLEBANOV photo, both





RAKETAS IN LITHUANIA

ONE AREA NOT previously covered in *CFF* is Lithuania.

Although it has been more than twenty years since the decomposition of the USSR, still very few details are available on the supposedly several hydrofoils having been operated in the Baltic countries of Estonia, Latvia and Lithuania in the past. The lack of photo documentation in particular is perhaps not surprising.

Thus, we are delighted to bring to you these gems taken by Gena Anfimov in 1972 in Klaipeda, Lithuania, showing *Raketa* and *Raketa 03* on river Dange.

Back in those days there were five *Raketa* hydrofoils in the country, operating between Kaunas and Nida, Nida and Klaipeda and Kaunas and Klaipeda.

More recently, in 2010, a company tried to infuse fresh life into the hydrofoil in Lithuania by

introducing two refurbished *Raketas*, *Kristé* and *Aisté*, built in 1961 and 1963, on a seasonal service between Kaunas and Nida. Trip time was in the region of four hours. The service did not return in 2011 and the vessels were put on the market. **cff**

/ GENA ANFIMOV photo, both





A ROYAL VISIT TO THE BALTIC

Above : PT.150 Queen of the Waves and Princess of the Waves
shortly after arrival in Stockholm in June 1972
/ MONNE SAHLBERG photo

AS MENTIONED IN *Hydrofoil revival in Sweden* (CFF News November 2013, pages 2–3), the large Supramar PT.150 design was briefly operated in the Baltic Sea in the summer of 1972.

A total of three 250-seat PT.150s were completed between 1968 and 1971, all of which by Westermoen Hydrofoil, Norway. The second and third craft were delivered to domestic shipping company Johs. Presthus Rederi in October 1970 and March 1971.

The first of these, *Queen of the Waves*, left Norway for the Canary Islands under its own power in October 1970, making several promotional presentations en route.

Also known by its Spanish names *Reina de las Olas* and *Reina del Mar*, the vessel went into service in December between Gran Canaria and Tenerife. A 90-minute journey, four daily roundtrips were operated.

The second Presthus vessel, *Princess of the Waves*, entered service in April the following year, not in the Canary Islands but in the Balearics,

linking Mallorca and Ibiza and València and Alicante on mainland Spain. Sub-named *Princesa de las Olas*, this was joined in June by *Queen of the Waves* / *Reina de las Olas* which had been transferred from the Canary Islands service.

While popular with passengers in both areas when the vessels did run, a series of teething troubles of technical nature resulted in a lot of trips being cancelled, often at last minute. Also, in the case of the Canary Islands operation in particular, weather conditions were not always favourable.

Both craft stayed in the Mediterranean until May 1972 when they were repositioned north to the Baltic Sea to operate with a newly established Finnish company, Princess Line, between Stockholm and Mariehamn in the island of Åland and Turku on the Finnish mainland. The vessels arrived in Stockholm at the beginning of June and the service was inaugurated shortly thereafter. A test roundtrip to Turku via Mariehamn was carried out by *Princess of the Waves* on June 13 for crews to get acquainted with the route and docking procedures.



Above : PT.150 Princess of the Waves in full flight inbound for Stockholm in 1972
/ MONNE SAHLBERG photo

Initially two daily roundtrips were operated to Mariehamn; Turku was served only on certain days. The scheduled trip time was 2½ hours on each leg. The Turku service was discontinued at the end of June, reportedly due to, in part, *Queen of the Waves* becoming unserviceable for technical reasons. However, by this time an agreement had already been signed between Johs. Presthus and Swedish shipping firm Rederi AB Nordö to introduce *Queen of the Waves*

across the Straits of Oresund between Malmö and Copenhagen. This service commenced in early July.

Princess of the Waves continued operating on the Stockholm–Mariehamn route until the service closed down on August 21, leaving a reported loss of FIM 1 million, whereupon this PT.150 too was taken to Malmö.

More on the widely travelled but perhaps not overly used PT.150 hydrofoils is to follow in a forthcoming issue of *CLASSIC FAST FERRIES*. **cff**



Right : Princess of the Waves alongside at Turku, Finland on the vessel's first visit here on June 13, 1972.

/ JARI LAINE photo,
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TURUN SANOMAT

last but not least ...



THE ITALIANS NEVER GO OUT OF **STYLE**

Above : While indeed smaller than the Tsiklon and PT.150, at just under 36 m Superjumbo looks smaller than it actually is. It is seen here approaching Napoli on a crossing from Capri in 2006

/ EUSTACHIO PATALANO photo

Right : Superjumbo arriving in Capri nineteen years earlier, in 1987. Some changes to the superstructure have been done since
/ TIM TIMOLEON photo



WHAT MORE LOGICAL than closing this issue with the Italian contribution to the largest commercial hydrofoils built, the RHS 200.

Two were delivered, *Superjumbo* in 1981 and *Stretto di Messina* in 1984, both of which to Aliscafi SNAV.

Superjumbo came five years before the Tsiklon and thirteen years after the first PT.150. It is the only of them all still in service.

As always, details on the RHS 200 design were released much earlier than this, in 1970, and likewise as more often than not, the actual craft looked different from the initial drawings.

More RHS 200s may have been ordered/built if it had not been for the RHS 160F which appeared in 1985. Somewhat smaller than the RHS 200, this seemed to respond better to market requirement of the time.

The RHS 160F in turn was superseded by the Foilmaster in 1994. **cff**