

ANALYTICAL MATERIALS

**"The resumption of a deep-water navigable canal
the Danube – the Black Sea along the Ukrainian
part of the Danube river delta "**

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THE HISTORY OF THE NAVIGATION ON THE DANUBE RIVER AND ITS IMPORTANCE FOR THE EUROPEAN COUNTRIES

The history of the Danube navigation makes up an essential part of a centuries-old history of nations which used to inhabit the banks of the river since olden times.

Nowadays the Danube river from its source to its firth flows through the territory of ten countries: FRG, Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria, Romania, Moldova and Ukraine.

Among all the rivers which nourish the Black Sea, the Danube takes first place by its extension - 2783 km, by its drainage area - 817 thousand square km and by its annual flow - 210 cubic km (57,2% of all the rivers which nourish the Black Sea). The extension of the basin from west to east - 1690 km, its width - 820 km. Besides the ten riverside countries, the Danube basin covers a part of the territory of another eight countries – Poland, the Czech Republic, Switzerland, Italy, Slovenia, Bosnia and Herzegovina, Albania and Macedonia.

In the Schwarzwald Mountains, near the town of Donaueschingen on the territory of FRG, there are two mountain streams flowing together, which are Brege (extension - 48 km) and Brigach (43 km). From this very place at the height of 678 m above sea level originates the Danube, the largest river in Central and the South-Eastern Europe.

On its lower reach the Danube branches out, forming a spacious, marked by a vast net of channels, swampy delta, which is 75 km long from west to east and 65 km wide from north to south. The top of the delta is situated on Cape Izmailsky Chatal, 80 km from its firth, where the main Danube riverbed divides into two channels: Kiliysky and Tulchinsky branches. After 17 km downstream Tulchinsky branch divides into Georgievsky and Sulinsky channels. The

Danube flows into the Black Sea by the three main channels: Kiliysky (the northern), Georgievsky (the southern) and Sulinsky, which is situated between the first two. The last two are situated on the Roumanian territory.

For many riverside countries the Danube River serves a natural frontier in some areas. Within the borders of some countries the total Danube extension is from 1 (Moldova) to 1075 km (Romania). The extension of the Ukrainian part of the Danube is 170 km, 54 km of which is the main riverbed and the rest 110 km is Kiliysky channel.

Taking into account a straight 1630 km long distance between its source and its firth (Sulina), the sinuosity index of the Danube River is 1,71. An average river fall is 24,4 sm per 1 km. About 120 feeders of the Danube form a hydrographic net of its basin. According to the complex of its physiographic characteristics, the Danube is divided into:

- The Upper Danube (992 km) – from its source (2783 km) to Genju village(1791 km);
- The Middle Danube (860 km) – from Genju village to Turnu-Severin (931 km);
- The Lower Danube (931 km) – from Turnu-Severin to the Sulinsky channel.

Shipping becomes possible downstream the city of Ulm (2588 km), nevertheless the section up to the city Kelham (2415 km) is accessible only for the boats with the carrying capacity of no more then 300 tones. Regular goods transportations by large-tonnage boats take place from Kelham and further downstream.

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Unique possibilities of a navigable communication of the Danube called forth a rise of important commercial, distributing and shipping centres on the banks of the river, including dozens of great cities and four European capitals in particular: Vienna – the capital of Austria, Budapest – the capital of Hungary, Bratislava – the capital of Slovakia and Belgrade – the capital of Serbia and Montenegro. Three more capitals, situated on the feeders of the Danube are: Zagreb, the capital of Croatia, Ljubljana, the capital of Slovenia (both on Savva), Sofia, the capital of Bulgaria (on Istra), and Munich, the capital of Bavaria, federal land of Germany (on the feeder Izar). On the Ukrainian part of the Danube the following cities are situated: city of Reni (23 thousand of inhabitants), Izmail (30 thousand), Kylia (25 thousand), Vilkovo (11 thousand). The Danube's outlet to the Black Sea has been estimated as strategic during all the historical times. It had been a reason of numerous political and military conflicts. During different time periods the course of different times the Danube delta has been under the Roman, the Byzantine, the Ottoman, the Russian and the Dual Empires. The defeat of Russia in the Crimean War (1853-1856) furthermore resulted in its loss of the outlet to the Danube. The Treaty of Paris, signed by Russia, Turkey, Great Britain, France, Sardinia, Austria and Prussia declared the Black Sea to be open for merchant ships and the Danube to be an international river with free navigation on its channels. In 1856 the Paris Treaty organized the European Danube Commission (EDC), which was to carry out the cleaning of the Danube channels. The members of the EDC were the representatives of the countries which had signed the Paris Treaty. In 1921 the Paris Convention decreed the Danube navigation to be free and open for the ships of all the flags on the terms of total equality

of rights along the navigable part from the city of Ulm to the Black Sea.

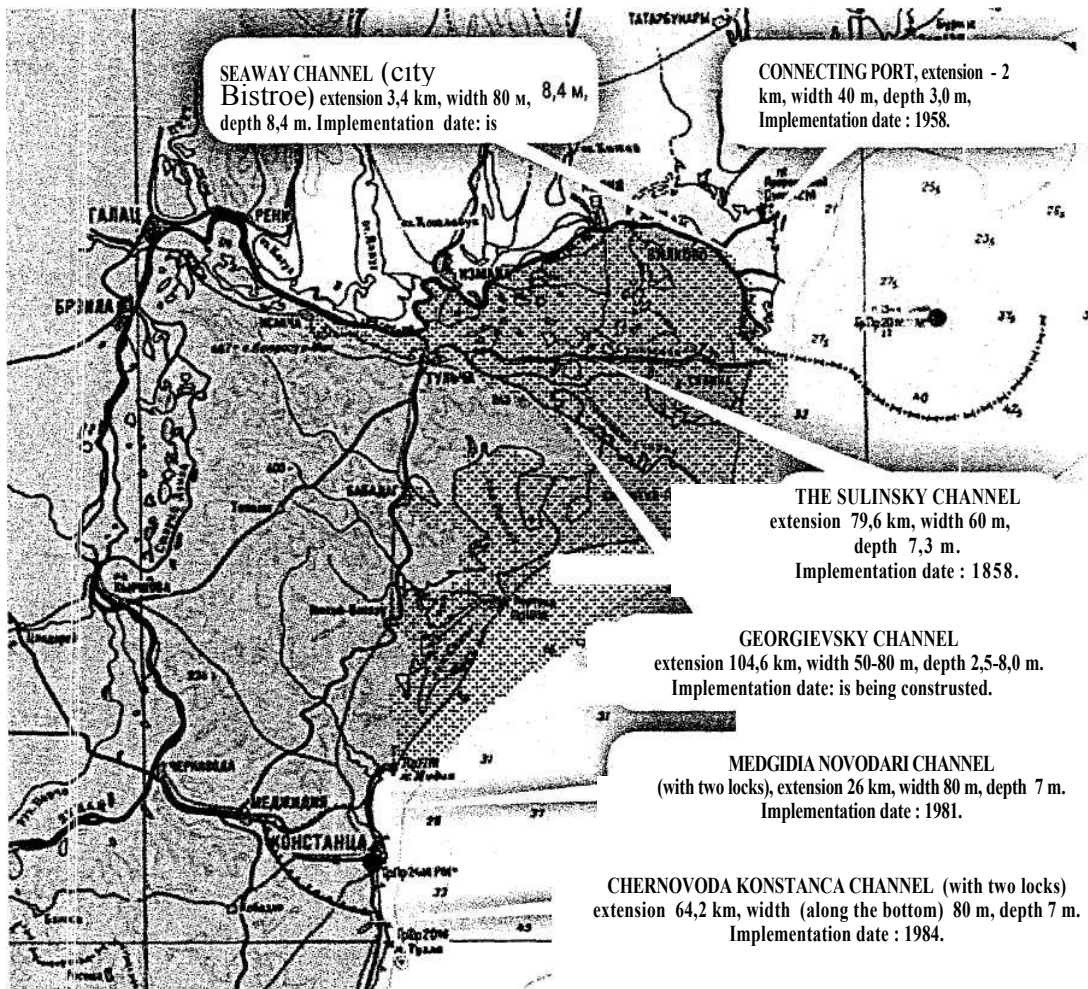
The Danube is an extremely important shipping waterway of Central and Western Europe. Besides interbasin transportations, there are some interbasin canal tracks functioning, such as the Danube – the Main – the Rhine – the North Sea, the Danube – the Oder – the Elbe. Nevertheless, the richest freight flow is concentrated on the canal track the Danube – the Black Sea. This waterway has an outlook for extension in the industrial regions of Eastern countries direction (Russia, Kazakhstan, Azerbaijan, Uzbekistan, Iran etc.) through the Black Sea, Kerch-Yenical Channel, the Sea of Azov, the Volga-Don Canal, the Volga River and the Caspian Sea. Owing to its great importance, the Danube waterway gained the status of the International Transport Corridor (ITC) №7. It is on the list of 10 the most important Paneuropean transport corridors. It is harmoniously connected with other functioning shipping tracks of international importance.

Issue of the navigable communication insurance of the Danube with the Black Sea

The main difficulties of the navigation realization on the Lower Danube have arise of overcoming of channel sand-bars on the sea coast. In 2005 it was 148 years since the first practical actions aimed at the amelioration of navigable conditions in the channels of the Danube delta took place.

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A great deal of financial and material resources have been aimed at the solution of this extremely important international problem. During XIX - XX centuries Roumania set up the conditions for the navigation realization by dint of the construction of channels on its territory. This insured the monopoly on passage of the ships on the Danube – the Black Sea connection. The amount of investments and credits, granted to Romania for the provision of the Danube – the Black Sea navigable connection come up to billions US dollars.

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Nº	The name of a channel, general data	Implementation date (year)	Extension/ width of the navigable channel/ depth (km/m/m)	Cost \$ mln.
	Sulinsky Channel flows through Sulinsky horn on a biospheric reserve territory , is an artificially constructed international navigation canal which is under the jurisdiction of the Danube Commission and destined for the navigation of seagoing crafts and "river-sea" ships. The construction of the canal was began in 1857. Main works were completed during 24 years, repair and dredging work is still being proceeded. 25 mln. 243 thd. cubic metres of soil have been withdrawn. The extension of constructed canals exceeded 31 km, 10 reaches of the channel have been straightened and 27 bends have been cut. As a result, the length of this branch shortened for a quarter from 84,9 to 63 km and it became almost rectilinear. In 1902 on the Cape Izmalsky Chatal the VDK built a rock-fill streamlining dam, the estension of which was enlarged to 430 m. till 1968. It blocked more than a tierce of the Danube and directed an additional water flow to Romanian water system.	1858	63/60/7,3	
	Chernovode – Constanta – South - Artificially constructed canal with two locks.	1984	64,2/80/7,0	2 000
	Midia - Novodari - artificially constructed canal, links the port of Novodari to Chernovoda-Constanta Channel in the area of the port of Midia .	1988	26	1500
	Saint George flows through Georgievsky horn on a biospheric reserve territory , essentially rectified natural channel. According to some estimates, the construction is being completed, the amount of investments comes up to more than 7 milliards of leus.	is being constructed	121,6	7000

Despite the projects fulfilled by Romania, it is too early to say that the navigation problem in a channel area of the Danube has been fundamentally solved. Navigation canals constructed in Romania have some considerable inconveniences. First of all this has to do with high passage tariffs, due to a high cost of artificial hydraulic structures and maintenance assessments

Sulinsky channel, which is in the state of natural degradation, is constantly flooding and it explains the necessity to fulfill an annual dredging work in order to maintain the navigation depth on the fairways. Furthermore, a great range of works is being fulfilled on the sea access duct for its clearing and the construction of check dams preventing sea dereliction.

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At present a sea part of the channel has reached the extension of more than nine kilometres. The financing of repair work will arouse the necessity of fixing high channel dues tariffs. Furthermore, Sulinsky channel secures one-way navigation traffic only in the daytime which leads to considerable financial costs on unjustified stoppages and time loss. Available lock canals such as Chernovoda – Constantza and Midia - Novodari don't solve the problem either.

In the beginning of the 80th years of the XX century a Romanian part began the construction of the second navigation canal in the delta, which is canal Georgievsky, in order to secure a two-way craft passage from the Black Sea. Here is the description of this channel in "Lotsia of the Danube River from its firth to the port of Breil" (Administration of hydrography MO USSR, 1971):

"Georgievsky Canal – is one of the southern branches which form the Danube River Delta, flows into the Black Sea in 17 miles on the south of Sulinsky channel. The extension of the branch is 109 km, its width - 250-400 m. The depth of the branch is mostly 7-8 m. Nevertheless very often its depth is less than 3m. on the section of 90-100 km (1963). The access to the branch is blocked from the sea by a bar. At the outlet to the branch there is a northern part of a dereliction-formed Sakalin Island. In 4 km from Georgievsky Canal there's a small delta – numerous islands are situated there. Out of three main channels of the Danube River, Georgievsky Canal is the most inconvenient for navigation due to its sinuosity and its inaccessibility for seagoing crafts because of

its shallow depth on the bar. It is used mainly for the communication between some riverside villages and with the port of Tulcha".

By now the construction of an artificial channel on the Georgievsky branch has been already completed. It is being constructed per sample of Sulinsky channel – its sinuous river-bed is being straightened. With that end in view the canal track is being built by land, banks are being fortified and a channel with check dams is being constructed on the branch bar. During some decades Romania is going to bring about the programme of economic and social development of Tulchinsky district, the main object of which is Georgievsky Canal. Apart from a range of hydraulic structures, this project is aimed at the construction of transport network and many other objects. The amount of financing assets invested is about 7 mlrd. leus. Consequently, despite existent natural hydrologic problems, the disposal of Sulinsky and Georgievsky branches of the Danube in the bounds of a greatly important natural complex - on the UNESCO biospheric reserve territory, Romania has fully used all the existent possibilities to guarantee its national interests concerning navigable connection of the Danube with the sea.

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**■ Technical research and navigation on the
Danube Kiliysky delta**

As far as Kiliysky branch was appropriate for navigation due to its great depths and low sinuosity index of its main arms, from the middle of the XIXth century various projects of providing its navigable conditions have been considered by EDC. But taking into account tense relations with Russia and the frontier between Russia and Romania along this branch, the track of an artificial canal has been laid along Sulinsky branch by political reasons particularly.

From the book: "Materials for the description of Russian commercial ports and the history of their construction". Edition № 25. Kiliysky branch of the Danube River. The results of a research conducted in 1894-1895. Author – Rummel V.U. Saint Petersburg, 1898.

"If a free outlet for navigation from Kiliysky branch to the sea is made, it will shorten the distance between our Danube ports and Odessa by 100 versts. Such outlet would provide the Danube navigation a position, independant of Romanian quarantines and some other inconvenient conditions we face while passing Sulinsky channel when improving the ways of goods supplying from reach South Bessarabia to Izmil or Kili. Therefore, there is no doubt it will stimulate a great revival of commerce in our Danube ports. And since we will have a shorter and more convenient outlet and cargo, coasting shipbuilding will develop itself by the example of a rapid creation of our coal fleet (12 steamers) on the the Sea of Azov

edition
COMMETTE OF COMMERCIAL PORTS' ARRANGEMENT

**MATERIALS
for the description of Russian
commercial ports and the history
of their construction.**

Edition XXV. KILIYSKY BRANCH OF THE
DANUBE RIVER.

The results of a research conducted in 1894—1895 .

AUTHOR

RUMMEL V.U.

SAINT PETERSBURG.

with the increase of necessity of Russian coal and with the construction of the port of Mariupol. In 1856 while choosing the Danube branch for its adaptation to maritime navigation, the European Danube Commission selected Sulinsky branch following the proposal of engineer Gartley. Then was also being discussed the issue of adaptation for the same purpose of Kiliysky branch, more convinient due to its depth and sea road. But as it is well known this suggestion was rejected, not so much for the reason of existent technical hardship, as mainly for political reasons, as it seems.

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The reason for that was the project of arrangement of a port on Gebriyanovskiy roadstead which was drew up in 1869 and 1873 on proposal of Romanian government by engineer Gartley, who invented insuperable difficulties for adaptation of one of the Kiliyskiy branches for navigation. Despite scanty financial resources of the principedom at that time, in 1875 the Chamber of Deputies recognized almost unanimously the urgency of the project drawn by engineer Gartley, without grudging an enormous sum of about 16 mln. francs. These facts illustrate to what extent Romania realized all the advantages and benefits of arranging a port in the firth of Kiliyskiy branch. Only the change in the course of political events, as a result of which South Bessarabia and the firths of Kiliyskiy branch passed on to Russia, prevented this project from being carried out. The expectancies of Roimania were quite accountable. The turnover of goods in Danube ports was increasing, in particular: an overall turnover of goods which in 1892 made up 5,3 million poods, in 1894 already run up to 16,5 million poods, 12,5 million poods falling to the lot of foreign supply. Trading activities in Russian Danube riverside ports, including Prussian freight, can make up no less

then 20 million poods a year". Navigation on Novostambulsky canal (Bistriy) was carried out from 1830. There is an archival map, charted by lieutenant commander E. Mangary and other last century's charts and sailing directions which prove this fact. Navigation of merchant ships on that branch had been carried out till 1958.

The most scaled freight traffic activity on Bistriy branch took place in the 50th years of XX century when the Soviet Danube Steamship Line organized a separate line connecting Danube ports with Black Sea ports. The flow of traffic on Bistroe branch by the fleet of the Soviet Danube Steamship Line alone was commensurable by that time with the flow of traffic on Sulinsky channel. Thus, from 1950 to 1957 the Soviet Danube Steamship Line had ferried by Bistroe branch 4 mln. tones of ore traffic only. If mineral, building and oil traffic considered, a total amount of the flow of traffic comes up to 6 mln. tones. According to statistic reference book of the Danube Commission, from 1950 to 1957 6 123 thousand tones of freight had been transported by Sulinsky canal.

Freight traffic activity on Sulinsky canal and on a natural river-bed of Bistriy branch

Thousand tones/year	1950	1951	1952	1953	1954	1955	1956	1957	Sum.	%
Sulinsky canal *	216	338	351	561	767	1280	1201	1409	6123	61
Bistriy branch **	160	351	199	197	516	851	819	991	3929	39

* statistic reference book of the Danube Commission for 1950-1974 .

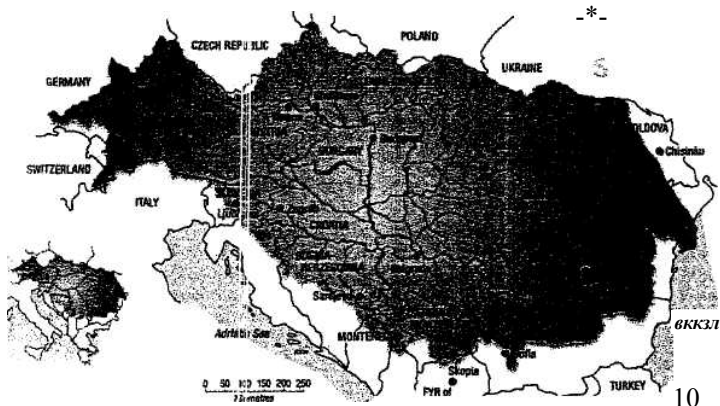
** statistic data of RDDP for 1945 -1966.

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In 1957 with the aim of improving a carrying capacity on the river-sea communication, the construction of an artificial canal in the area of Kiliysly delta sea bar was began. A canal track of navigable connection with the sea was chosen to be laid by Prorva branch for political reasons only, instead of following an optimum alternative to lay it by Bistriy branch, which was closed for public shipping. Taking into account political events in Hungary and Czechoslovakia, Bistroe branch was reserved for passage of the USSR warships only from the Black Sea to Budapest and from Prague to Vienna. Thus, there are many documents which prove the fact of navigation on Bistriy branch. This gives the right to affirm that nowadays Ukraine is not constructing a new navigable channel but reviving the one which used to function for ages.

Countries of the basin.
Riverside countries (with stream): Germany, Austria, Slovakia, Hungary, Croatia, Serbia and Montenegro, Roumania, Bulgaria, Moldova, Ukraine.
Additional: Poland, the Czech Republic, Switzerland, Italy, Slovenia, Bosnia, Herzegovina, Albania, Macedonia.



International legal regulation of the Danube.

Up-to-date international legal regulation of the Danube, which is an international river, was conceived after World War II. Nowadays by international rivers are implied the rivers which have a direct navigable communication with the sea, flow through the territory of several countries and the regulations of which foresee a free navigation of merchant ships of all the states, both riverside and noncoastal (International law. Legal literature. 1982). Belgrade Convention Concerning the Regime of Navigation on the Danube (18.08.1948.) approved a new statute of a first-rate international channel of the European continent and became the legal basis for signing numerous agreements in the field of technical, commercial and other cooperation conditions between riverside countries during the following years. The Convention was signed by the representatives of Bulgaria, Hungary, Romania, the USSR, Czechoslovakia, Ukraine and Yugoslavia and came into effect on 11.05.1949.

In the preamble of the Convention it is mentioned that the main aim of the Convention is to provide a free navigation on the Danube in accordance with interests and sovereign rights of all the riverside countries, as well as for the purpose of strengthening economic and cultural relations of riverside countries between themselves and with other countries. It applied the principle of international law, according to which the navigation on this important route is regulated on the basis of a mutual agreement between the riverside countries. In the same time the regime established by the Convention doesn't make any exceptions for the ships of all the other countries.

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According to the first article of the Convention, navigation on the Danube is free and open for citizens, merchant ships and goods of all the countries on basis of 'harbour and navigable dues' and merchant shipping conditions' equality.

The regime established by the Convention covers a navigation part of the Danube from Ulm to the Black Sea with the outlet to the sea through Sulinsky channel.

According to the article 3 of the Convention, the riverside countries are under the obligation to keep their parts of the Danube in a navigable state and to carry out all the necessary works with the aiming at navigable conditions improvement.

It is emphasized in the 3rd Chapter that navigation in the lower reaches of the Danube shall be carried out in accordance with navigation regulations established by the local authorities. In the regions where the Danube banks belong to two separate countries, the regulations co-ordinated by the both countries shall be applied.

If observing the regulations established by the corresponding countries, ships may touch at a port, carry out freight and unloading operations, boarding and debarkation of passengers as well as to refill a fuel margin, provision reserves etc.

Hydraulic work aimed at the ensuring of proper navigable conditions shall be financed by the corresponding countries on their parts of the Danube (article 34). According to the article 36 of the Convention, costs on providing navigation and works carried out by the local authorities shall be covered by funds collected in the courts of local area. The sums of special, navigation and separate dues collected by the DC, riverside countries and local authorities shall not make any profit (article 37).

According to the article 39, carrying out of works and the distribution of costs for these works on the section of the Danube which form a frontier shall be regulated according to the agreement established between the two corresponding frontier countries.

Port charges from ships shall be collected by the authorities of the corresponding riverside countries. At the same time any

national discrimination on ships, their origins and destination stations or for any other reason shall not be allowed (article 40). According to the article 42, any transit dues shall not be set.

Articles 20 and 21 of the Convention foresee the creation of special river administrations for carrying out hydraulic works and navigation control on complex navigable river sections, such as the section from the firth of Sulinsky channel to the port of Breil inclusive in particular. In December 1953 the USSR and Romania signed an agreement concerning the creation of a Special river Administration in the lower reaches of the Danube. In 1954 the Administration proceeded to business. In 1957 under the agreement of Romania the USSR dropped out of the Administration membership. At the same time functions of the Administration remain the same.

Concerning the firth part of the Danube, the Convention regarding the Regime of Navigation covered Sulinsky branch. Ships didn't pass through the USSR part of the Danube. But after setting up of proper conditions, foreign ships navigation was allowed on a Soviet part of the Danube Delta (Prorva branch, connecting channel of the Ust-Danube port, Ochacovsky branch) to the port of Reni. It is mentioned in the "Guide to entering of the ships to Soviet ports of the Black Sea and the Sea of Azov" (Administration hydrographic service Navy of USSR, 1964). Thus, there was provided a possibility of foreign ships calling from the sea to the Danube not only through Sulinsky, but through Kiliyskiy branch as well.

2

Socio-economic and political aspects concerning the renewal of the Danube – the Black sea navigable canal

The Ukrainian navigable canal as the factor of the national politics concerning the Ukrainian transport networks integration to the international Eurasian conveying system.

During the inauguration of 23.01.2005 at the Independence Square the President of Ukraine Viktor Yushenko has underlined: „The Ukrainians will occupy a fitting place in the world community. Ukraine will be neither a buffer, nor somebody’s competition field. We are ready to respect interests of other countries. But the national interests of Ukraine are above all for me as well as for you. We are greeting with good and respect all our neighbors both in the East and in the West. I’ll do everything to develop the stable collaboration with every country.

Our road to the future is the road of the United Europe. Together with its nations we belong to one civilization, share the same values. People’s history, economic prospects and interests give a

clear answer to the question – where should we look for our fortune. Our place is in the European Union. My target is Ukraine in the United Europe.” In the program under the name „Toward people”, approved by the Verkhovna Rada on 04.02.2005, the new Government of Ukraine engages to accelerate the entering of our country into the world economic system, that will provide the stable development and the national economics efficacy increase. To solve this problem the Government intends to stir up the process of the efficacious transport corridors creation, collaboration with the EU and separate European countries as to the trans-European transport corridors projects realization. In the context of program realization in the foreign-economic policy Ukraine tends to take measures to obtain the status of a market economy country and to enter the World Trade Organization.

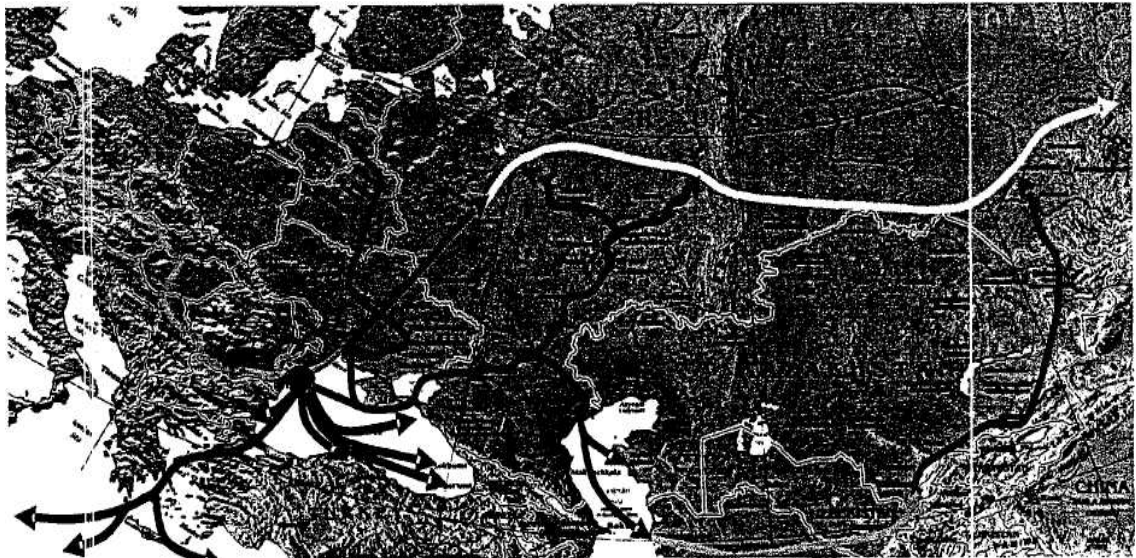
These decisions are supported by the international community.

In particular, the President of the USA George Bush asked the Congress of his State the resources to strengthen democratic institutes, civil society and economic initiatives in Ukraine that could improve the trade process and the economy and reform growth. Taking into consideration an additional inquiry Ukraine takes now the first place among the CIS countries as to the volume of the American financial support (\$165,5 million). The USA called upon their colleagues from the G7 to do the same. The USA President Administration will do everything possible to increase the aid to Ukraine and it is ready to strengthen the relations with Ukraine after the abolition of Jackson-Venik's correction to the USA Trade Regulation. The United States support the entering of Ukraine into the World Trade Organization.

The European Commission has elaborated and directed to the Council

program „Ukraine – European Union”. They concern the agreement about partnership and collaboration, particularly, in the area of foreign policy, security and trade. Besides, the European Commission is ready to accelerate the process of studying the issue about the creation of free trade area „Ukraine – EU” and strengthening of the collaboration in the area of energy, transport and preservation of the environment.

Therefore the resumption of the Danube – the Black sea deep-water navigable canal is of a vital, strategic and national interest of Ukraine as the State heading for the intensification of relations with the international community and promotes the filling of this heading with the real economic relations assisted with new branch of the international transport corridor №7. The Danube – the Black sea DNC has not only economic importance for Ukraine, but also geo-economic (on the



of Europe new supplements to the

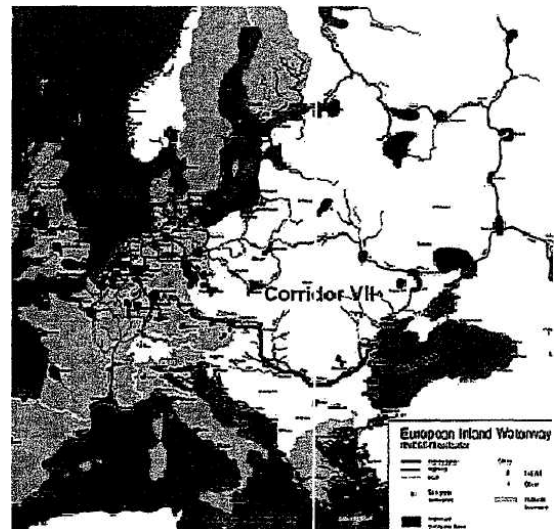
scale of the world economy) and

geopolitical one. The matter concerns the near future attachment of two important transport corridors – „the Danube waterway” (ITC №7) and ITCTRASECA – „Europe-Caucasus-Asia”. For the moment the traffic on the Ukrainian part of ITCTRASECA averages 1 million tons/year, and its expected increase will run up to 20 million tons. After the renewal of navigation over Danube the Ukrainian shipping companies – USE, „Ukrferry” and „UKRRICHFLOT” together with the Russian partners tend to develop an outlet through the Volga – Don canal deep in Russia to the Caspian region.

Ukraine is situated in the geographical center of Europe; therefore it has a very favorable geopolitical position in the Eurasian space as to the barter optimization between the European and Asian countries. According to the results of the English institute Rendell researches Ukraine takes first place in Europe by the coefficient of the transit ton-meter. The conveying system integration of the Eurasian space countries by the shortest track along the West-East is the interest of Europe first of all because of its product promotion in the Russian and Asian markets and for the cheap primary goods getting. According to the EU experts valuations the freight carriage between Europe and Asia values 100 billion dollars USA at the minimum.

As compared with the railway, motor and air transport modes the water transport infrastructure has considerable reserves of its carrying capacity increase, while the waterways modernization is cheaper and has relatively short payback period of the investments.

It is worth to underline that the intention to renew the navigation at the proper part of the Danube river delta is caused not only by the Ukrainian national interests. The development of competition at the water transport market by the Danube – the Black sea navigable waterway is also the objective interest of the Central and Eastern Europe, the Middle East and the Azov basin countries, which export-import transactions are traditionally related with the greatest European waterway.



It is known that the EU countries take measures to use acting transport services and to optimize the new ones. Toward this end the development programs elaboration of the transport

corridors (EU TINA, UNO EEC, UNO ESCAP) by the East–West and the North– South vectors and the EU and Asiatic conveying systems integration are being conducted. The same is in Russia, Kazakhstan and other countries of the Middle and Eastern Asia (creation of the ITC „the North – the South”, the National program of the Russian Federation „Russian conveying system modernization (2002-2010)”, the conference dedicated to the taking confidence measures in Asia, Alma-Ata, 4.06.2002, the Kazakhstan, Azerbaijan state programs etc.). As used here the Ukrainian actions directed to the market democratization at the problem part of the 7th ITC navigable seaway can influence essentially the international economy development.

Besides, the EU pays special attention to the inland waterways use. In 2000 on the EU countries transport Ministers meeting the program of the strategic re-orientation of freights transportation from the land-based vehicles for the water ones was adopted taking into account economical and ecological characteristics. The same decisions are stated in the Declaration of the European conference dedicated to inland water transport, Rotterdam, 5-6 September 2001. The Danube – the Black sea Ukrainian DNC is an additional possibility to pursue the stated course to the freight flow distribution from the motor and railway

transport for the water one as the most economic and nonpolluting. One of the most important transit traffic waterways in Eurasian space is the Pan-European international transport corridor №7 that unites 18 European countries and passes through the inland water ways and river canals of Rhine, Main and Danube.

This waterway unites the North sea with the Black sea and tends to be continued along the East countries (Russia, Kazakhstan, Uzbekistan, Iran and others) through the Black sea, the Kerch-Yenical strait, the sea of Azov, the Volga-Don canal, the Volga River and the Caspian sea.

There is also the prospective possibility for Ukraine to integrate the inland waterway track on the Dnipro river from the ITC №7 for the import-export freight transportations in forward and reverse directions from/to the industrial-agrarian regions of Kyiv, Dnipropetrovs’k, Zaporozhye, Donetsk, Kherson and Nikolaev that are situated in the Dnipro and the South Bug river basins.

Taking into consideration the petroleum market adversity, the reduction of the atomic energetic in the European countries and of the coal production level in Europe, first of all in Germany and Poland (the principal coal producers in Europe), the Ukrainian coking coal export and the Kuzbas Bachatsk slit transit are considered to be prospective. The total

need of Europe in coal is approximately valued at 110 million tons.

Traditionally the Danubian countries demand for the building materials including cement, reinforcement metal, structural stock and sheet products is high. Within the next few years grain will remain one of the competitive Ukrainian goods in the world market including Europe. An edible and fodder maize, wheat, sunflower seeds, rape and mixed fodder can become the main exported cargo. As predicted it is possible an increase of the freight flow through Danube port by 2010: 5,5 million tons (export mainly) of the export-import cargoes and about 20 million tons of the transit ones. In fact it is million tons for 2004.

The necessity of having an own Ukrainian navigable the Danube – the Black sea fairway is caused by:

- Objective integration processes with the EU.
 - Economic relations between European and the East countries.
 - Priority of the West-East-West direction among the international transport corridors.
 - Requirement to increase the volumes of transportations over Danube in two-three times by 2015 year.
 - Participation of the Ukrainian fleet in transportations over Danube (the tonnage destiny is 24,1%).
 - Opportunities of the Danube transport complex to process more than 20 million tons of cargoes per year.
- Necessity of infringement of monopoly of one country in connection the Danube – the Black sea for creation of civilized market conditions in transportation of cargoes between the East and the West through the track of the VII international transport corridor.

So the navigation renewal on the Ukrainian part of Danube can become one of the first practical measures of the European integration direction declared by Ukraine.

The national socio-political importance of the Danube – the Black sea DNC

The Ukrainian Danube region (the Bolgrad, the Izmail, the Kiliya, the Reny provinces of the Odessa region) stands out for its special geopolitical and geo-economic position. Therefore it is marked in different international projects and integrations, such as economical, transport, ecological and political. On the Lower Danube many different interest (not only Ukrainian, Moldavian and Rumanian, but also of many other countries, in particular of the west-European, Balkan countries, Turkey and Russia) become joined and intersect.

The historical condition of the Danube trade track in the Black sea determined extensively the development level of the economical area in the Ukrainian Danube region and provided its functioning. The enormous material and financial assets,

work of many generations of the region's population were put into the transport infrastructure creation. In this way in the early fifties of the XX century there were made the Izmail port reconstruction, of the Reny port and the Ust'-Danube port, the new construction of the shipbuilding facilities and shipyards in Izmail and Kiliya, the supply with the transport tracks and other connections for the purpose of the cargo transover increase. There were made many investments (to the amount of about 100 million rubles) into the conveying systems development. Nowadays the transport complex includes the most important Ukrainian carrier of cargo over Danube – the Ukrainian Danube steam navigation (the joint stock company „USE”), ATE „UKRRICHFLOT”, 3 ports (Reny, Izmail, Ust'-Danube), 2 port stations (Kiliya, Vilkovo) and 3 shipbuilding facilities-shipyards (Izmail, Kiliya, Vilkovo). Until to Danube through navigation cessation as a result of the bridge destruction near the Serbian town Novi Sad the USI transported about 12,5 million tons of cargoes, while the general cargo handling of the ports was more than 21 million tons.

In this way the created Danubian conveying system has to become the national common property of the Ukrainian nation. It should be used not only for the national economy development, but for the eurointegration processes in general.

The transport complex that benefits geographically the Danube waterway is one of the most important factors of the Danubian towns' development. It provides the population with the employment while its financial assessments form the local budget. In order to solve the problem of the cargo turnover increase on the river-sea way in the Ochakovskiy mouth of the Kiliyskiy horn there were built flumes Prorva and the Ust'-Danube technological connecting port.

In the Soviet Union time the navigable canal track in the degenerative Ochakovskiy mouth was chosen from the political considerations without taking into account the morphological and hydrological factors . In 1957 the research cut has been created in a mouth of the Prorva sleeve which gave the possibility for the vessels of the river-sea type to proceed into the Ochakovskiy and Kiliyskiy estuaries. Intensive pounding processes have provoked at first the passable depths reduction and then the total cessation of the heavyweight navigation on the Ukrainian part of the Danube delta in 1994. At the same time the existent economic needs made turning again to the Prorva canal renewal (it was partly reconstructed in September 1997 but has become shallow in December of the same year; then it was reconstructed in March 1998 and in October the canal depth was 0,8m). The Ust'-Danube

connecting port constructed for the lighter platform trailing is unfit for sea shipping because of its processing characteristics (about 2,5 g of through sediments, a few turns for more than 120°). Therefore it can operate only miscellaneous functions.

From the early nineties the Ukrainian tonnages used the Sulinskyi canal (Rumania) that was amount to about \$6 million per a year for our state along with the factor and indirect costs of users and different patterns of ownership. Ukraine has lost the strategic possibility to affect the export-import and transit freights on one of the most important Eurasian transport corridors track because of absence of the Ukrainian sea outlet. There was an extremely gross reduction of the USI fleet services, ports, shipyards and sea-service complex enterprises quantity. It caused the workplaces reduction and, as the result, the social tension in the Danubian region where the national minorities in the common amount of population make about 80%. Delay with the decision of question concerning the renewal of the activity that is traditional for the local population, can result in the

international relations aggravation. Crisis of economy and falling of the Danubian life standard get symptoms of the humanitarian catastrophe related to the absence of necessary conditions for the large-tonnage trade navigation. Such a conclusion does not raise any objections in Ukraine or abroad.

Thus, the renewal of the Ukrainian part of the Danube – the Black sea navigable canal fits with the strategic and political interests of our state as to the influence on the Danube region, and also has an important national socio-economic value. This extremely difficult exigent problem should be solved by means of the State Program of complex development of the Ukrainian part of Danube in the period from 2004 till 2010. This program was authorized by the Decision of the Cabinet of Ukraine from 11.03.2004 №428. The base element determining the possibility of successful implementation of many other directions of this program is the Danube – the Black sea DNC creation.

3. THE DANUBE DELTA NATURAL COMPLEX AND NAVIGATION PROBLEM ISSUES

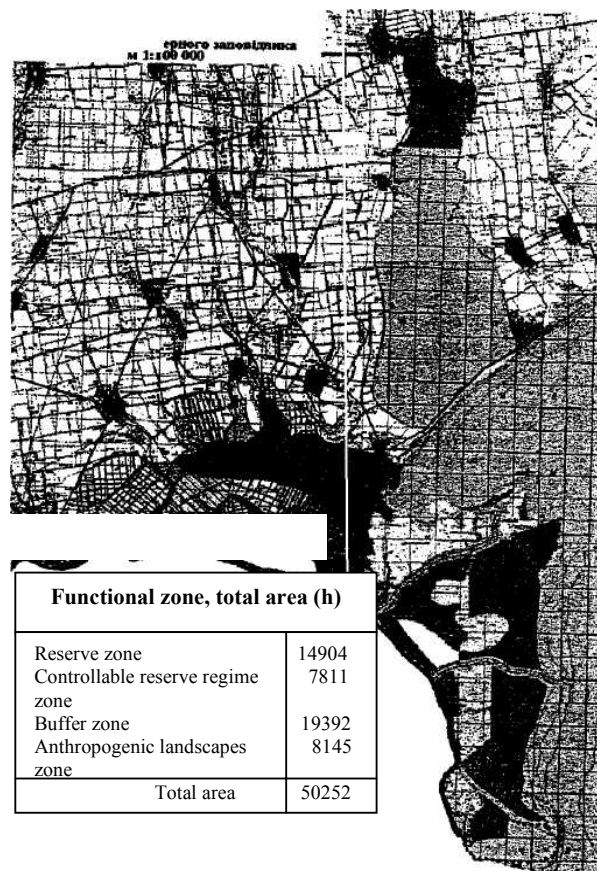
General issues of delta ecological state

The Danube Delta, making up 580 000 hectares of water-marsh grounds, is a world unique object. There are 300 bird species, 160 species of fish, 100 species of animals, 5000 insect species, and 600 species of plants there. The Danube delta forms symbolic triangle with the vertexes in inhabited localities as Tulcha, Vilково and Sfintu-George. It is divided by Romanian-Ukrainian border in 4:1 ratio. The Romanian part is under protection of specially created State Biosphere Reserve “The Danube Delta”. In 1991 it was put on the list of UNESCO World Heritage. Based on existent wildlife preservation “The Danube Overflow Land” The Danube Biosphere Wildlife Preservation was created on the Ukrainian territory. Since 1998 it is under the aegis of UNESCO as a part of Romanian-Ukrainian Biosphere Wildlife Preservation “Delta Dunarea”.

Estimating the condition of Ukrainian part of the Danube Delta (The Kiliyskiy Canal), scientists stress on actual existence of serious anthropogenic ecological problems there. They are concerned not only with Ukrainian revival navigation project. It is known that water flowing mode and the delta morphology are mainly dependant of water distribution in its peak – near the Izmail Chatal Cape, which separates The Large Danube for Kiliyskiy and Tulchynskiy outfalls.

The Danube biospheric reserve zoning map
Scale: 1:100000

According to 1850-1900 researches



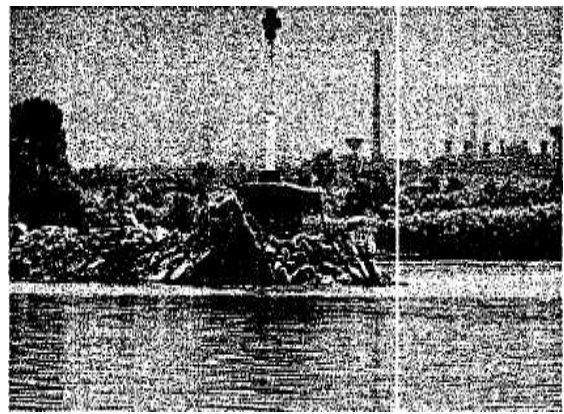
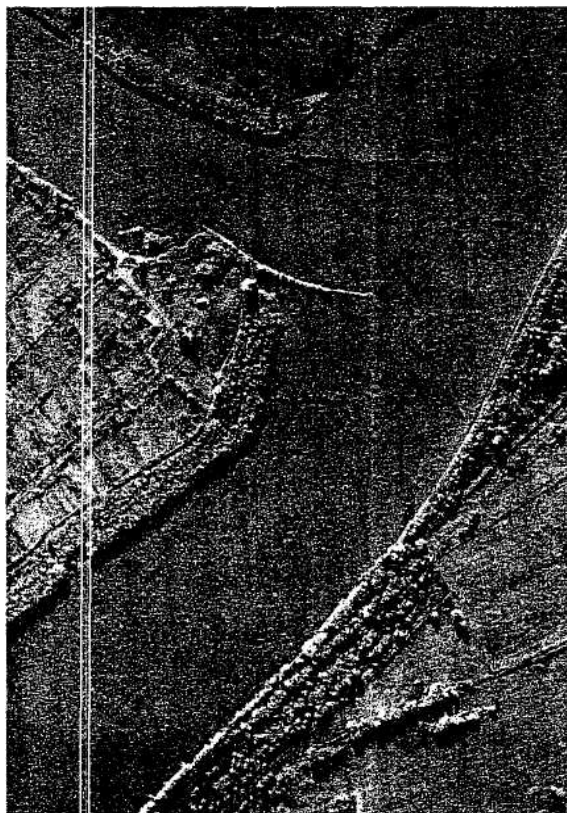
natural tendencies to Kiliyskiy horn water flow increase and Tulchynskiy, Sulinskiy, and especially Georgievskiy horns water flow decrease were discovered. The Danube water flow distributed between Kiliyskiy and horns in 7:3 ratio. Average perennial Danube water use in both horns made up 6300 m³ per second, in particular, in Kiliyskiy horn – 4400 m³/s, in Tulchynskiy – 1900 m³/s.

Nevertheless, in 1857 construction on the Romanian territory of Sulinskiy Canal and its artificial riverbed had started. In 1902 the Danube European Commission built 300 meters water flow directing stone dam on the

Izmail Chatal cape. It cut off more than a third part of Danube water flow and directed an additional water flow to Tulchynskiy horn system. The reconstruction and topping of dike is still conducting till present.

To reduce flooding in see part of Sulinskiy canal in early forties of the 20th century Romania had built the stone canal embankment on the sand-bar of Old Istanbul horn (Ukrainian territory at present).

From "Sailing directions of the Danube river outfall to the Breila port" (Hydrograph Administration of Ministry of Defense USSR, 1971): "Risks. The underwater directing dam is situated towards the East from the peak of Kurilskiy Island. The dam length is 1900 m, covered with stones. There is swash above the dam. This dam redirects the river flow and prevents from sediments in direction to Sulinskiy canal".



There are far more large works at Georgievskiy canal construction, than that earlier at the Sulinskyi canal. Thus the meanders straightening at Georgievskiy canal resulted in shortening of this horn for 50%. This caused canal water level inclines. As a result, flow velocity rose generally for 30% more than it naturally should be. And in consequence of artificial interference and contrary to natural processes nowadays Georgievskiy canal is intensively increasing hydrologic- morphological activity by reducing the Kiliyskiy horn water flow.

That is why it should be confidently mentioned that construction of numerous hydroengineering installations aimed at ensuring of the Sulinskiy and Georgievskiy canals navigation has significant transboundary influence on the Ukrainian delta of Danube. These works resulted in the Danube water flow redistribution to Romanian water system. In accordance with 1990-2001 observations materials the Kiliyskiy horn long termed water expense reduced for 28% and makes up 3400 m³/s. The stated data is given in table 3.

Construction of hydroengineering structures by Romanian part resulted in water flow reduction in Kiliya delta and in bottom scurf increase. It correspondingly will lead to river bed resistance increase and further strengthening of this process. Water discharge repartition intensity during last 8 years increased in 4,1 times in favour of Romanian Tulchynska horn system.

Such changes were also “accelerated” with the fact that during the last years Romania has been throwing down soil into the Kiliyskiy horn, downstream after the water flow directing dam. According to Main International Center of Romania information only in 2003 about 300 000 m. cub of soil were thrown down to the river bed at 40-41 mile of Tulchinskiy horn by suction dredge “Dunareya”, making dredging works. Durind 2002-2004 there was 204 runs of “Dunareya” to river outlet places at 114 km and 57 mile. As Romanian part informed, every 2-3 years the silt is forming there in volume terms of 2 million of m³, which should be cleaned up in order to ensure the necessary depths of navigable canal. It is very expensive to take this silt to the sea. Therefore the decision was to take it to the natural pit (114-116 km) at fairway Kiliyskiy canal. Transboundary influence of this soil dump and its hydrological and ecological consequences were not separately estimated by Romanian side. The works were not agreed with Ukraine. It is well founded to assert, that significant part of this soil is further carried with stream and in the course of time it is deposited on the rifts and sand-bars of the Kiliyskiy horn. These are right the

occurrences noticed during the sounding works.

Until the 80-es of the XIX century the main peculiarity of the Kiliyskiy horn evolution was predominance of new horns formation before the old ones destruction. There were 2 horns in 1775 and 8 horns in 1880, 20 – in 1856, and 56 – in 1883. But after 14 years, in 1897 there were only 36 horns in Kiliyskiy delta and the tendency of the horns reduction concurs with Sulinskiy canal construction works. The quantity of canals is continuously reducing and there are only 14 of them. Therefore due to artificial water flow redistribution between main delta horns to the favour of Romanian ones the main regularity of delta evolution changed. In the middle 80-es of the XX century the depths at Ukrainian part of Kiliyskiy delta reduced sharply. New Islands appeared, the old ones are constantly growing. The Izmailskiy port berths floods increased and navigable canal at the Danube river has started shifting etc. Fast shoaling of city channels and Belgorodskiy canal in Vilkoovo is observed. Due to canals drying the alkali soils approach the city.

Today observing the flora and the fauna of the delta only with considerable reservations it can be appreciated as the natural complex. Appreciably it is the result of human's violence over the nature. If there wouldn't be Sulinskiy and Georgievskiy channels Kiliyskiy delta in all probability had been completely another, it had had more horns, its area had been much bigger and its natural world had been richer in quantity and species. Uncoordinated actions of the Romanian side

lead to entirely possible ecocatastrophe in the Ukrainian part of the Danube delta.

Essential negative influence was inflicted to the Danube natural complex because of the NATO's military actions in Yugoslavia. Due to the bomb attacks oil-processing and chemical factories in the cities of Belgrade, Novi Sad, Panchevo and Prah, petroterminals of Smederevo and Prah ports were destroyed. As a result of these actions the Danube ecosystem endured rigid deformation.

There are chemical agents in the concentrations which exceed maximum permissible norms in ground adjournment of the delta. During all the historical development of countries in the Danube river basin natural and human's produced substances including harmful – mineral manures, chemicals, industrial and household waste was being washed off in the Danube and its inflows and by fast current in the form of the suspended substances were transported into the delta which consists exclusively of these adjournments. The special role in pollution of the Danube should be allocated to Romania – only during 2000-2004 more than 10 extreme situations on its enterprises were fixed in consequence of which harmful substances got into water.

In connection with stated Ukrainian part of the delta suffered much essentially because the Danube Killian branch as the most full-flowing in a greater measure transfers the suspended substances accumulating them in the delta canals and on the sea bars. Now Ukraine is compelled to feel the consequences of so-called effect "at the end of the tube". Due to

lots of physical and chemical factors avalanche sedimentation – quick concretion of the suspended substances and their transfer into ground adjournment occurs.

On consideration of the question it is necessary to state the information about the activity of the International Committee of the Danube river protection (ICDP) in more details. On the conference which took place on 13-14 December of 2004 in Vienna the ministers of the environment preservation of the countries-participants of ICDP had summed up ten years' work and discussed urgent ecological problems of the region. For today thirteen countries including Ukraine united their efforts for control of the ecological situation on the Danube. The last to join the agreement was Bosnia and Herzegovina.

Speaking at the conference the secretary of ICDP Catherine Day accentuated that the Danube "doesn't know frontiers": "This river flows from the very heart of the European Union to the Danube delta which is divided by Romania and Ukraine. Danube basin is the largest in the European Union; 18 million people live on its territory. The river gives drinking water to the each fourth inhabitant of this region. The basin of the river includes 18 countries".

It was mentioned that mineral manures, chemicals and household waste overburden the Danube. For example the million city Belgrade doesn't have the system of clearing of sewer drains at all. All the garbage produced by the Serbian capital gets to the river after particularly mechanical clearing. Therefore is necessary to introduce to the Danube the European standards which provide two-level clearing and use of

chemical means. These activities have to promote that water which is merged into the Danube or its tributaries could be clean. These standards are introduced gradually, as long ago as 25 years for example the drains of Swiss city Basel were get into the Rhine after particularly mechanical clearing. Nowadays in accordance with the international arrangements standard of three-level clearing: mechanical, biological and chemical is put into operation on the Rhine. It is still a long way off on the Danube especially on its lower reach.

Sewer drains of the big cities are only the one of the many essential problems of the Danube. The conference of the ministers of the environment preservation of the Danube countries determined ecological threats in the region.

On the basis of analysis of the river's condition which was introduced on the conference a plan of action on the following five years will be worked out.

The standards which are introduced by the general instruction of the European Union in respect of water consumption will be basis for this document. It is a long time since these standards function in Germany and Austria and of late in the UN's new Danube countries – Hungary and Slovakia. All novices of the European Community share responsibility of ecological safety of the continents prime water artery. It is necessary to point out that five-year plan of activity foresees introduction of European standards of water use by the Czech Republic and Slovenia too. Large Danube's tributaries flow along the territory and that is why observance of the European

standards by these countries is important for the common cause.

According to announced on the conference results of researches the Danube's waters were becoming more and more pure during the last years. It however speaks that after breakdown of the socialist camp in South-East Europe industry and agriculture fell into decay. Now when the economy of the region swiftly develops it is necessary to make efforts that manufacture would not cause damage to the environment.

One of the main topics which had been discussing on the conference in Vienna was general plan of actions directed on prevention of flooding.

Recently the interests of Ukraine in the Danube delta didn't find necessary understanding. It has occurred after the Ukrainian government decided to renovate the navigation canal. The neighbouring Romania with which Ukraine shares the Danube delta, some conservancy organizations and a number of representatives of the UN countries pass strictures on the Ukrainians.

Though the Danube gets to the Ukrainian territory in the end of its current Ukraine is highly responsible to the partners of the Danube region. It was accented by the councillor of the minister of the environment preservation, the chairman of German delegation on the conference in Vienna Fritz Golzvar: "We want to achieve close cooperation with Ukraine in solution of problems on this river. Thus we take into consideration that Ukraine is interested in building of the canal in the Danube delta but we are interested in attracting of Ukraine into

solving of ecological problems where the headwaters of the rivers account to its territory". The ICDP partners expect Ukraine as the member of this organization will discuss all the risks for the environment which can arise during realization of scale projects. In particular it refers to the "controversial" canal in the Bystroe entry. Fritz Golzart welcomes first steps of the members of Ukrainian government in directions of open cooperation regarding to problems of the canal: And in the further we need clarity in this project. It is important that this topic to be the order of the day, that Ukraine to observe agreement and the second step could be granting of further information".

Fritz Golzart is sure that Ukraine's openness in all-round cooperation of the Danube protection can be one of the positive impulses for its European integration:

"It is entirely obvious to the commission that cooperation on the Danube is European cooperation. If Ukraine wants to get prospect of entry into the European Council it has to prove earnestly its practical concernment in this interaction. Thus euro integration is an important argument both from political and preservation of the environment viewpoint. This argument is in favour of intensification of cooperation with Ukraine".

Concerning to the stated it is necessary to empathise that all the questions of interaction with the ICDP and other international organizations in sphere of preservation of the environment meet complete consent and support in Ukraine.

But Ukraine is equitable member of the ICDP and must insist for having equal demands

particularly concerning renovation of navigation with activity of other countries. Consequences of realization of the Ukrainian project have to be appreciated not individually but in all complexes of factors of man-caused influence because nature of the delta is unified organism for which is not important who and on what territory harms it. The conclusive factor is exceptionally ecological consequences of occurrence.

Thus system droppings of soil by the Romanian country which are measured in millions of cubic metres and pollute natural environment for some reason don't cause concern. At the same time works of the Ukrainian country on renovation of the navigable depths are considered as very threatening.

It is necessary to comment that these works were being fulfilled even earlier during the 20th century. They were interrupted exceptionally because of absence of necessary facilities and stopping of navigation on the Prorva mouth. In contrast to dropping of soil into the Danube by the Romanian country Ukrainians use dump places which are specially prepared on the riverbed of their territory. They are to be recultivated and secure strengthening of anti flood dams.

Many questions from the viewpoint of preservation of the environment have to be asked to the atomic factories, chemical and metallurgical industry of Romania and also a new project of building of the mineral oil terminal on the Danube river near the village of Dzurdzuleshti on the Moldavian territory.

This object which is being built on the very frontier with Ukraine above the Reni port

poses a potential threat as to the Reni port as to the whole Danube during the emergency situation. It poses heightened fire danger for vessels which are on the road of the Reni port because normative fire-prevention 5000 metres distance from tank park to port road is not supplied. Accommodation of mooring constructions in narrowness of navigating channel constrains manoeuvring of vessels. It raises doubts in possibility of secure mooring operations of tanker fleet especially vessels of 10000 tons displacement taking into account absence of free zone for manoeuvre and swift current in the narrowness. These circumstances practically exclude opportunity of gathering of mineral oil during the emergency pour out. Decisions of sewage treatment which are accepted in the project seem to be unreal. Thus drainage with concentration which exceeds the mark can be thrown into the Danube. The building in Dzurdzuleshti is planned to begin in 2005. The project power of the petroleum-refining factory on the first stage is 2 millions tones of petroleum per year. The basic part of mineral oil (crude oil, mineral oil) is planned to go on export.

According to the resulted it is absolutely obvious that Ukrainian project of renewal of navigation with using of the Bystroe entry is not single and not the most essential factor of human influence on the natural environment of the Danube delta. Continuation of building or even its full stopping can not fundamentally change the ecological situation. In particular it is important to accentuate that Ukrainian project doesn't concern to using of harmful substances which pollute the environment as for example objects which are situated in

Romania and are being built in Moldova. But exactly it for some reason gives heightened anxiety of some international experts.

Concerning hydrology, monitoring researches in 2004-2005 did not fix any evident change of drainage as a result of cut of the bar in the Bystroe entry. At the same time according to materials of long-term observations during 1990-2001 works made by the Romanian side led to artificial decrease of average long-term water consumption in the Killian branch by 28%. Moreover it is impossible to confront the scales of technogenic influence of works made in the bounds of the biosphere reserve during the building of navigation canals in Romania (Sulinskiy, Georgievskiy entries) and in Ukraine exceptionally on the sea bar.

Providing all the data relative to realization of Ukrainian project of deep-water navigation pass on demands of the Romanian country Ukraine at the same time did not get the information of what works are carried out on the Romanian territory of joint Romanian-Ukrainian biosphere reserve of the UNESCO, what expert examinations are made and what conclusions are gotten according to transboundary influence of constructed objects on the environment.

In this connection it is urgent to elaborate common standards and demands under control and coordination of the UNESCO and other international organizations of preservation of the environment and provide the data exchange about all factors of anthropogenic influence and first of all relative to objects activity of which influences on the biosphere reserve of the UNESCO in the Danube delta.

For this purpose it is important to establish an international group of experts with representatives of all interested parties which could inspect whole complex of the delta – Kiliyskiy, Tulchinskiy, Sulinskiy and Georgievskiy horns and could announce its conclusions. Ukraine as the initiator of these actions can set an example, to be the first who renders all necessary conditions for work of such group. These measures of course will promote grounded evaluation of the delta condition in existence and will be useful for the European Union and preserve its most valuable parts of the natural environment.

According to proposition which were worked out during such international actions as scientific-practical seminar “International result examination of monitoring of realization of the first turn of renovation of deep-water navigation pass “The Danube – the Black sea” with taking into account influence of other kinds of economic activity on the Danube delta natural complexes” (Odessa 27-28 March 2005) and scientific-practical conference “Preservation and stable development of the Danube delta” (Odessa 26-28 February 2006) the following was accepted.

■ **The participants of the conference came to:**

1. Support the creation of group of experts under supervision of the ICDP for preparation and realization of plan of management of the Danube delta river basin which is based on methods of the Frame Instruction of the European Union water use.

This group will engage in the following questions:

- Coordination of present mechanism for decrease of river pollution by other Danube countries;
- securing of public access to information which refers to water use and working up of acceptable mechanisms of public participation;
- working up of general mechanism of monitoring of water quality, its naturalness, water distribution and influence of human activity on it.

According to report of the Committee on inquiry of the ESPOO Convention (July 2006) which was published on official Internet site of the ESPOO Convention “The Commission, realising that the Navigation Route is and will be a political issue, recommends to organise a Bilateral Research programme related to activities with transboundary impacts in the framework of the bilateral cooperation under the ESPOO Convention”.

■ **The purpose of creation of group of experts:**

- Working up of single method for the environment preservation problems and creating of united system of ecological monitoring on the whole Danube delta.
- Working up and putting into operation of single methodology of assessment of influence onto the environment in transboundary context of fulfilled and scheduled projects on the whole Danube delta. Such methodology has to be based on the ESPOO Convention and other existent methodologies.
- For working up of the Programme of combined ecological monitoring of the whole Danube delta with the assistance of

representatives of the scientific society of Romania and Moldova assume as a basis the Programme of combined ecological monitoring under renovation of the deep-water navigation pass "The Danube – the Black sea" through the Bystroe entry.

During the work of the Committee on inquiry with attracting of international experts twenty four possible transboundary influences were examined and evaluated. Only six of them are determined as such which probably can have considerable negative transboundary influence.

In the paragraph 1, subparagraphs 1,2,3,5 and 6 of the "Conclusion" issue of the "Opinion of the Inquiry Commission on the 'Bystroe Canal' Project" which refer to "possible considerable negative transboundary influences" is talked about influences which probably will be concerning on fish resources and partly on conditions of birds existence, but there is no word about influence directly on the territory of Romania which from the point of view of Ministry of preservation of the environment of Ukraine can not be considered as a victim of Ukraine's actions during the renovation of the deep-water navigation pass because all the aspects of indicated "possible considerable negative transboundary influences" concern not to its territory but to the natural resources.

Moreover on the meeting of the Ministers for Foreign Affairs which took place in Odessa on the 4th of July of 2006 the parties also came to agreement to establish the special group of experts with the purpose of working up of common approaches to problems of

preservation of the environment and creating of united system of ecological monitoring.

Last time essential influence on the environmental territories of the Ukrainian Danube biosphere reserve is made by commercial structures which commit the moving of rush with using of heavy-duty machinery. Thus according to acts of control which was conducted in March-April of 2004 under reference of inhabitants of Primorskoe village in Odessa region on the territory of Stentsovsko-Zhebriyanovskiy overflow land burning outs on the area of 1000 hectares, lack of water, large quantity of combine and tractor tracks when storing up the rush and garbage dumps are fixed.

On the basis of investigations Constant Committee of ecology questions of Odessa regional council confirmed to consider the prevalent ecological situation on Stentsovsko-Zhebriyanovskiy overflow of the Danube biosphere reserve as unsatisfactory. In connection with necessity of taking of urgent measures Committee applied to the National Academy of Sciences of Ukraine with request to conduct a complex control of activity of the Danube biosphere reserve on preservation of the flora and the fauna of the overflows with attracting of independent science experts. Furthermore annual fires also happen on other territories of the reserve.

According to information of Viktor Korotetskiy the chairman of coordinating council of enterprises and organizations of fish industry during last 10 years quantity of sturgeons became three times less while the general catch in comparison with 2000 became five times less. Only during last two years private

employers had gotten 500 licenses to fishing. More than five thousand breaches were revealed nevertheless fish department did not annul any license. Vilkovskiy plant on the Danube had gotten licenses and shares for special using of "live water sources" illegally in consequence of which 60 tones of the Danube herring were fished out with breaking of the law. Criminal case is raised, an investigation is held.

The stated is evidence that commercial activity inside the Danube biosphere reserve which connected with mowing of the rush and fishing demands supplementary study and settlement.

The Danube is the river which unites 18 countries of Europe. Therefore common efforts of Ukraine, Romania and international organizations of complex assessment of present situation of the whole natural complex of the Danube delta and guaranteeing of its constant monitoring as on the territory of Ukraine as in Romania are necessary. Only operating in this direction the unique world of the UNESCO Danube biosphere reserve can be retained.

According to the article 6 of the Water code of Ukraine water bodies are referred exceptionally to property of the Ukrainian nation. Therefore canals and storage ponds did not belong to lands of the preserve as it was confirmed by the decree of Odessa Economic court (24.11.2003 № 25/ 222-03-7434) and left without changes by the decree of Economic court of Appeal.

Functioning of navigable pass through the Bystroe entry till 1958 and pass through the Prorva entry since 1957 till 1994 did not provoke objections from direction of

ecological community, neighboring state of Romania and international organizations of preservation of the environment which nowadays allude to position of the Ramsar Convention and the Seville Strategy for biosphere reserves. On the basis of researches it can be concluded that from the juristic point of view creation of deep-water navigation pass does not contradict to regulations of the Ramsar Convention and completely fits letter and meaning of the Seville Strategy for biosphere reserves.

Particularly article 2 of "The Convention about water-paludal rights..." (Ramsar, 02.02.1971) read as follows: "p.3. – Registration of water-paludal rights does not prejudice singular sovereign rights of contracting party on whose territory holding is situated. p.5 – Each of the side pieces has a right to register additional water-paludal rights which are situated on its territory, expand the borders of holdings which are already registered or in connection with public interest delete from list or decrease the borders of water-paludal rights which are already registered". The Seville Strategy which was accepted on 25.03.1995 on the International conference of the UNESCO biosphere reserves envisages that biosphere reserves have to be not only the feature which allows local population to develop in balance with natural environment but also assist satisfaction of society needs at all showing the way to stable future development. Global net of biosphere reserves has to be the instrument of integration which allows achieving of more wide solidarity among people and nations of whole the world. Exactly such approaches of harmonization of

relations between mankind and natural environment which were accepted by the international society are realized in the project of renewal of deep-water navigation pass “the Danube – the Black sea”.

■ **The implementation of techno-economic justification of investments (TEJI)**

On the ground of protocolary decision of the first vice-prime minister of Ukraine (Y.I Ehanurov) of the 1st of December of 2000 the task of assurance of reliable and safe navigation in communication “the Danube river – the Black sea” on the Ukrainian part of the delta is vested on the Ministries of Transport, Ecological Resources, Justice and other appropriate central organs of executive power.

In accordance with indicated decision and order of the Ministry of Transport of Ukraine № 710 of 15.12.200 the state-run enterprise “Delta-pilot” is determined as the customer of building of deep-water navigation pass “the Danube – the Black sea”.

Carrying out the set tasks of the “Delta-pilot” enterprise complex design and survey works including geodesic, topographic, fathom and project works were are conducted. A task group which posed concrete problems and conducted the former analysis of results was established to coordinate the activity. The experienced specialists from the scientific institutions and enterprises who had experience in projecting, building and operating of hydro engineering constructions formed the group.

The choosing of variant of passing of fairway route in the Danube delta had been fulfilled according to legislation of Ukraine and

international obligations Ukraine had taken upon itself. It is necessary to accentuate that firstly on the stage of projecting, nowadays on the stage of building and in future during the exploitation of the deep-water there was and will be one of the main priorities – the complex of measure of preserving of bio-variety of water-paludal rights of the Danube biosphere preserve. The project had been worked out with special diligence and with careful fulfillment of all procedure of reaching a decision provided by law just because of recognition of great value of this natural complex.

The techno-economic justification of investments (TEJI) “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta” is fulfilled under general leadership of Ukrainian River Transport Project with Attracting of 18 profile national institutes. Particularly by recommendation of the National Academy of Sciences of Ukraine such scientific institutions as Institute of hydromechanics, Institute of hydrobiology, Odessa branch of Institute of biology of South seas and the Danube biosphere reserve were taken for preparation of the section “The assessment of influence on the environment”. On basis of intensive study and analysis of historical materials and projects (10) which were worked up earlier scientists took into account total experience of arrangement of navigable connection of the Danube with sea through the Killian delta.

The complex state expert examination of the TEJI is fulfilled in accordance with Order which is approved by Resolution of the Cabinet of Ministers of Ukraine of 11.04.02

№483 and consists of State investment expert examination, State sanitation expert examination, State ecological expert examination and State expert examination of protection of labor. Moreover Agreement of State fleet inspectorate of Ukraine; Confinement by choice of direction of deep-water navigation pass “the Danube – the Black sea” on the Ukrainian part of the delta of the professor of geographical faculty of Moscow State University, Doctor of Geographical Science, honoured worker of the Russian Federation V.M. Mihaylov; Confinement about choice of effective navigable horn in the Killian part of the Danube delta inside borders of Ukraine of the professor of Odessa National University, Doctor of Geographical Science Y.D. Shuyskiy are gotten.

By the decree of Cabinet of Ministers of Ukraine of 13.10.2003 № 508-r, techno-economic substantiation of investments of building of the deep-water navigation pass “the Danube river – the Black sea” in the Ukrainian part of the delta was confirmed and became the ground of working out of the production project.

■ The Resolution of working seminary of international experts “Renovation of transit navigation in the Ukrainian part of the Danube delta under conditions of existence of the biosphere reserve at the heart of international experience”

16-20.10.2003

The specialists who have wide experience of the international research in sphere of ecology, biochemistry, ichthyology,

hydrology, geomorphology, economy of nature management, litho dynamics, hydraulics, reserving and study and modeling of processes in entry and riverside were invited to seminary.

The experts got acquainted with available information, physical data and summary scientific materials according to assessment of conditions of naturally-geographical complex of the Danube delta where navigation, fishing and agriculture are traditional occupation of local population and extensively determine social, economic and demographic conditions of the Danube countries. The publications which were in press are considered and international experience of the navigation organization in deltas of the Danube, the Volga, the Mekong, the Niamunas, the Odra, the Thames, the Mississippi and other rivers which are the reserved territories of different states are summarized.

Particular attention is paid to discussion of conclusions of complex state expert examination of Ukraine (including ecological) with regard to variant of creation of navigation pass through the Bystroe (Novostambulskoe) entry.

As a result of wide discussions working seminary of international experts establishes that represented materials are sufficiently informative and allow drawing such conclusion of the problem being discussed:

1. Ukraine as an independent state which integrates into world community acting according to legal regulations informed appropriate international organizations about working out of

project “Creation of the deep-water navigation pass “the Danube – the Black sea” on the Ukrainian part of the Danube river” through the Bystroe (Novostambulskoe) entry.

2. Longstanding world practice proved the possibility of transport using of mouth reaches of river parts without essential loss to the nature of these territories (Great Britain, Vietnam, Canada, Lithuania, Poland, USA, Russia, Romania and other).
3. Agree with conclusions of complex expert examination of Ukraine (including the ecological) which recommends variant of navigation pass through the Bystroe entry as optimal direction which complies with analogues of world practice of equipment of navigation passes in the preserved territories.
4. The variant of navigation pass through the Bystroe (Novostambulskoe) entry is ecologically less disadvantageous and the most profitable among all of suggested variants economically. Support the conception of stage-by-stage equipment of the navigation pass through the Bystroe (Novostambulskoe) entry with strict observance of the preservation actions and improvement of the monitoring system of the environment which will be realized with taking into

account of international experience.

5. Recommend to make alterations into the structure of the Danube biosphere reserve with its construction of clustered type with creation of some preserved kernels in the most valuable places.

The decision was signed by: Nguen van Ki, Artegi Komianou, Shalva Dzhaoshvili, Olegas Pustelnikovas, Stanislav Museliak, Evgeniy Ignatov, Yuriy Shuyskiy, Galina Vyhovanets, Viktor Morozov, Anatoliy Ustiugov.

■ Production project “the Creation of the deep-water navigation pass “the Danube river – the Black sea” on the Ukrainian part of the delta. 1st stage”

Production project “the Creation of the deep-water navigation pass “the Danube river – the Black sea” on the Ukrainian part of the delta. 1st stage” is worked out according to national and international standards. It came through the procedure of expert examination where international experts who have international certificates worked after which it was confirmed by decree of the Cabinet of Ministers of Ukraine since 12.05.2004 №283-r.

The scientific ecologically-expert estimation of working plan “Creation of the deep-water navigation pass “the Danube river – the Black sea” on the Ukrainian part of the delta. 1st stage”. The concluding (evaluative-resumptive) part:

1. Appealing to materials of preceding expert examinations it can be concluded that there

are no dangerous ecological consequences in realization of project. The main argument against building was the territory status on which the building is held. Because of the decree of the President of Ukraine №117 from 02.02.2004 the channel of the Bystroe horn was transferred into structure of anthropogenic landscapes, last formal reason of prohibition of building was annulated.

During the period of building influence is exerted from works of constructing of sea underwater canal, during exploitation – passing of vessels. According to the article 18 of the Law of Ukraine about nature-preserve recourses of Ukraine such economic activity in the zone of anthropogenic landscapes is not an infringement of nature-preserving legislation and does not threaten to existence of the preserve as the object of nature-preserve recourses.

2. The territory of “The Danube Overflow land” is really unique but it is necessary to note that since its first days of functioning it had not been considered as entire and whole territory; thanks to numerous corrections area of the Danube biosphere preserve was noticeably enlarged but according to list of the UNESCO which includes “The Danube Overflow land” preserve, only three isolated zones of the preserve are included to the net of international biosphere reserves; but they are not situated in zone of influence of building of navigation pass “The Danube – the Black sea”.

3. The analysis of stock and cartographic materials showed that plant and animal species which are near the canal of deep-water navigation pass including species which demand preservation are not unique

and have a wide distribution in bounds of the Danube biosphere preserve. Thus building and exploitation of the navigation pass will not entail essential changes of quantity and specific composition of the flora and the fauna of the Danube biosphere preserve.

4. The materials of the Assessment of Influence on the Environment of the working project testify that its realization will have no transboundary influence on the neighboring states and will not cause negative consequences on the territories contiguous with Ukraine.

5. The collective of experts after thorough analysis of inferences, letters, appeals of public representatives came to conclusion that observations which are held there are not of structural nature but give just verbal conclusions about negative influence of creation of the deep-water navigation pass “The Danube – the Black sea” on the Ukrainian part of the delta.

6. General analysis of materials of the Assessment of Influence on the Environment of the working project “The Creation of the deep-water navigation pass “The Danube River – the Black sea” on the Ukrainian part of the delta. 1st stage” testifies that its realization is ecologically permissible and project itself is worth of favourable reception. We consider that decision about its practical realization under condition of constant author’s supervision and absolute maintenance of all decisions which refer to questions of preservation of the environment.

■ The Assessment of Influence on the Environment

The scientific-research work "The Assessment of Influence on the Environment" (AIE) amounting to the production project "The Creation of the deep-water navigation pass "The Danube River – the Black sea" on the Ukrainian part of the delta. 1st stage" is fulfilled by the Ukrainian scientific-research institute of ecological problems of the Ministry of ecology and nature resources of Ukraine and is confirmed in summary complex conclusion of Ukrainian State Expert Examination №121/03 from 20.04.2004. The conclusion of AIE points out that:

- Natural conditions of the Danube delta allow Ukraine to have a deep-water navigation pass on its territory what satisfies requirements of first-rate international class of the waterways. This opportunity is provided with presence of the deepest Killian horn of the Danube and sufficient stability of the most active part of the delta. Absence of the deep-water navigation pass seriously cripples to Ukraine economically, strategically and socially what testifies to objective necessity of its creation.

- A great quantity of variants of direction of the deep-water navigation pass was examined in details on the stage of TEJI what allows to draw a number of fundamental conclusions about main factors of influence of the navigation pass in the Danube delta on the environment.

According to all variants more than 90% of length of line of the deep-water navigation pass on the territory of Ukraine consists of channel of the Killian horn the length and predominant depths of which conform the

demands which are presented to waterways of the highest international class. According to all variants outlet of the line of the deep-water pass to the sea crosses the territory of overflow land which are unique for Ukraine because of its flora and fauna and are registered in the international list of water-paludal rights which demand special preservation.

All variants of the deep-water navigation pass line on this district touch the interests of the Danube biosphere preserve. In the borders of the overflow land variants of lines vary in direction and in way of construction of the navigation pass through dug up canals with sluices or through natural delta horns.

At an outlet to the sea all variants of creation of the deep-water navigation pass provide the construction of the sea lock-approach canal; it connected with necessity of a great deal of dredging operations as during the period of building as during exploitation.

- Lock canals inflict the worst harm on the environment during the periods of building because the size of excavation in the time of their creation greatly increases the standards of fairways which pass through the natural channels. Besides such canals artificially divide the delta territory and change water regime on great areas. At the same time there is no necessity in constant operational channel dredging on section of the deep-water navigation pass which is equipped with locks.

- Among all the horns on which construction of the deep-water navigation pass is possible the Bystroe horn is most optimal according both to technologically-economic and ecologic criterions. Its width, slight sinuosity

and above all greater depth practically completely meet the conditions of opening of the deep-water navigation pass without conducting of dredging operations. Besides present variant of the line has the chain of advantages which allow counting on successful exploitation of the deep-water navigation pass lasting a long time:

- the most slow in comparison with other parts of ledge of the delta sea side;
- water drainage permanently increases;
- transference of bulk of the pumps from the horn to the other side of seashore;
- comparatively quick extension of sea depths beyond the sea-bar.
- The comparative assessment of influence on the environment of the line variant through the Bystroe horn and proposed alternative variant of going of the deep-water navigation pass through the lock canal “the Solomonov horn – the Zhebrianskaja bay” which was conducted on the stage of the TEJ showed the preference of the first variant as such which make a less impact upon the ecosystem of the Danube biosphere preserve, its flora and fauna.
- The materials of the AIE of production project confirm that construction and exploitation of the deep-water navigation pass according to the project “Creation of the deep-water pass “the Danube – the Black sea” on the Ukrainian part of the delta. 1st stage” will not have a transboundary influence upon the neighbouring states and

will not cause negative ecological consequences on the adjacent to Ukraine territories.

■ The programme of complex ecological monitoring of the environment which is subject to influence during building and exploitation of the deep-water navigation pass

All the main complexes of the environment which are influenced by building and exploitation of the deep-water navigation pass and in its turn influence on the conditions of its exploitation: the geopolitical environment, the air environment, the surface waters, the soil, the flora and the fauna are under monitoring in the context of the Programme. Such researches as hydrochemical, hydrobiological, hydrometeorological, sanitary-epidemiological, ichthyological, of the littoral biotypes, of the air environment for presence of the polluting substances including heavy metals which embrace all the specter of the executed works are carried out. The scientific level of ecological monitoring conforms to demands of the highest international standards and the range of researches can be fulfilled only by the group of scientific institutions the work of which is coordinated by the Ukrainian scientific-research institute of ecological problems of Ministry of preservation of the environment of Ukraine of the city of Kharkov. More than 10 profile scientific organizations and institutes including organizations of the National Academy of Sciences of Ukraine: the Institute of biology of South Seas, the Danube biosphere preserve, the Institute of hydrobiology, the Institute of hydromechanics

and others form a part of joint participants of monitoring works.

The experts note that they used methodologies which are proper in Ukraine and abroad. Practically all the main operation factors of the environmental conditions in the working region and the background meanings outside the zone of the work influence are traced. System of the monitoring includes:

1. Conducting of regular observing according the standard programmes in the net of active meteorological stations, hydrological posts and ranges and in the points of control of pollution of the environment.

2. Organization of additional points of standard observing of the elements of hydrometeorological, hydromechanical and sanitary-hygienic regimen.

3. Organization and conducting of profound observing and researches particularly expeditional, mathematic and physic modelling for studding of natural and anthropogenic tarnish of hydrometeorological, morphological, hydrodynamical, hydrochemical and biological processes and phenomena.

The data which are gotten today testify that fears of the ecologists were groundless: reconstruction of the deep-water navigation pass through the Bystroe entry has minimal consequences for the environment. Moreover the results of the monitoring point that the prediction estimates in some cases were even more strict then those which are gotten as a result of observing. Thus actual results of the scientific researches prove the conclusions of complex state expert examination once more – the chosen variant of reconstruction of the navigable connection

of the Danube with the Black sea through the Bystroe entry from the ecological point of view is the most appropriate because its influence on the nature of the Danube biosphere preserve is minimal in comparison with all possible variants.

■ At present time works in realization of the first stage continue. Operational plan for the whole development is worked out.

The questions about negative ecological influence of the stated project emerged on the all stages of it.

Taking into account that partially Ukrainian deep-water navigation pass “the Danube – the Black sea” passes by near the natural complexes of the Danube biosphere preserve national and international experience of creation of hydro technical constructions in preserves were taken into account; complex scientific-research works were conducted previously; mathematical and physical models of the project were worked up; the line of the fairway passes by the deep-water part of the delta channels which do not belong to the territory of the preserve what is confirmed by decisions of courts of all instances; caring out of major building works is not foreseen by the project while basic dredging works have to be done on the sea bar; outlet to the sea is chosen in the delta’s less active part where the width of the sea bar is minimal, all the works including warehousing of the soil are conducted according to national and international demands of preserving of the environment.

Numerous expert examinations and conclusions of leading ecology experts including international, visiting of the places

of realization of the project by national and international ecologic organizations and diplomatic persons did not find out harmful ecologic influence on the environment.

Some ecological organizations brought suits of discrepancy to the ecologic standards of the state expert conclusions to courts of different levels. All court decisions declared that this project agrees with the marks.

National ecological expert examination regarding to the project documentation

(which was rendered by State Enterprise “Ukrainian Agro Invest Expert” in Ministry of preservation of the environment in August of 2004) about construction of the deep-water navigation pass, was realizing in 3 stages (documentation was elaborating in the same way) in the context of complex state expert examination with calling in preliminary expert consideration by specialized institutions.

During the process of state ecological expert examination project documentation was completing with observations of Ministry of preserving of the environment and expert institutions for the purpose of its harmonizing with the requirements of the nature preservative legislation on each stage.

According to the results of consideration of completed materials of assessment of influence on the environment of the techno-economic justification (TEJ) of investments “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta” and their scientific ecology-expert assessment and project materials with results of scientific ecology-

expert assessment of the operational project “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta. 1st stage” the stated documentation got an appreciation of the state ecological expert of the ministry.

The project documentation of the operation project “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta. Full development” was sent back for revision by conclusions of the state ecological expert twice (of 30.08.2005 №290 and of 22.02.2006 №324).

After consideration of the debugged by the “Rivertransproject” institute project materials Ministry of preservation of the environment by the confinement of additional state ecological expert examination № 345 of 19.04.2006 gave an appreciation to the project documentation as that realization of which can be recognized as ecologically permissible in the context of observance of fixed project decisions.

Let us note that any conclusion of ecologic expert examination which is carried out with using of official form and approved by functionary of Ministry supervisory personnel with corresponding record on the last page of text and noted with registration number of chancellery of headquarters is an active conclusion of Ministry of preservation of the environment and final for reaching a decision with regard to further realization of object of ecological expert examination by corresponded organ and is obligatory for realization.

3. THE DANUBE DELTA NATURAL COMPLEX AND NAVIGATION

PROBLEM ISSUES

General issues of delta ecological state

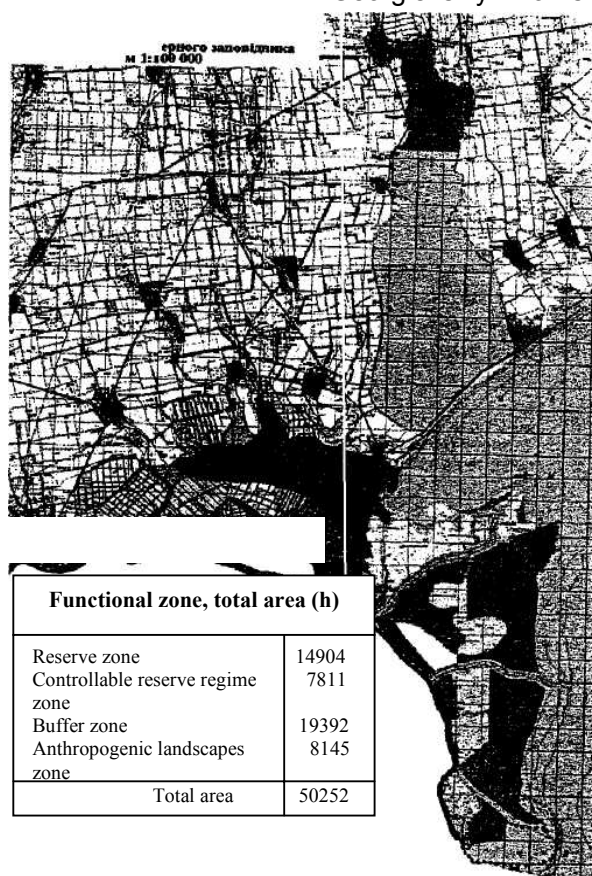
The Danube Delta, making up 580 000 hectares of water-marsh grounds, is a world unique object. There are 300 bird species, 160 species of fish, 100 species of animals, 5000 insect species, and 600 species of plants there. The Danube delta forms symbolic triangle with the vertexes in inhabited localities as Tulcha, Vilkovo and Sfintu-George. It is divided by Romanian-Ukrainian border in 4:1 ratio. The Romanian part is under protection of specially created State Biosphere Reserve “The Danube Delta”. In 1991 it was put on the list of UNESCO World Heritage. Based on existent wildlife preservation “The Danube Overflow Land” The Danube Biosphere Wildlife Preservation was created on the Ukrainian territory. Since 1998 it is under the aegis of UNESCO as a part of Romanian-Ukrainian Biosphere Wildlife Preservation “Delta Dunarea”.

Estimating the condition of Ukrainian part of the Danube Delta (The Kiliyskiy Canal), scientists stress on actual existence of serious anthropogenic ecological problems there. They are concerned not only with Ukrainian revival navigation project. It is known that water flowing mode and the delta morphology are mainly dependant of water distribution in its peak – near the Izmail Chatal Cape, which separates The Large Danube for Kiliyskiy and Tulchynskiy outfalls. According to 1850-1900 researches natural tendencies to Kiliyskiy horn water flow increase and Tulchynskiy, Sulinskiy, and

especially

Georgievskiy horns

The Danube biospheric reserve zoning map
Scale: 1:100000



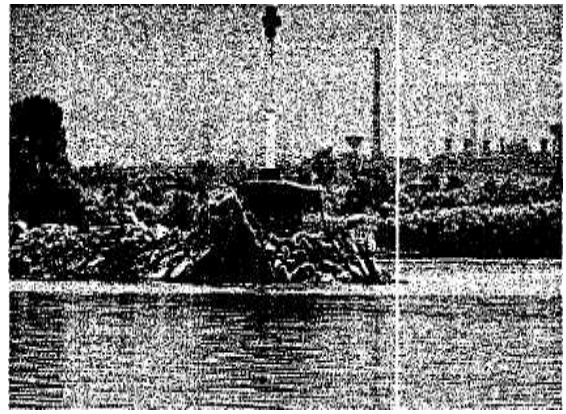
water flow decrease were discovered. The Danube water flow distributed between Kiliyskiy and horns in 7:3 ratio. Average perennial Danube water use in both horns made up 6300 m³ per second, in particular, in Kiliyskiy horn – 4400 m³/s, in Tulchynskiy – 1900 m³/s.

Nevertheless, in 1857 construction on the Romanian territory of Sulinskiy Canal and its artificial riverbed had started. In 1902 the Danube European Commission built 300 meters water flow directing stone dam on the Izmail Chatal cape. It cut off more than a third part of Danube water flow and directed an additional water flow to Tulchynskiy horn

system. The reconstruction and topping of dike is still conducting till present.

To reduce flooding in see part of Sulinskiy canal in early forties of the 20th century Romania had built the stone canal embankment on the sand-bar of Old Istanbul horn (Ukrainian territory at present).

From “Sailing directions of the Danube river outfall to the Breila port” (Hydrograph Administration of Ministry of Defense USSR, 1971): “Risks. The underwater directing dam is situated towards the East from the peak of Kurilskiy Island. The dam length is 1900 m, covered with stones. There is swash above the dam. This dam redirects the river flow and prevents from sediments in direction to Sulinskiy canal”.



There are far more large works at Georgievskiy canal construction, than that earlier at the Sulinskyi canal. Thus the meanders straightening at Georgievskiy canal resulted in shortening of this horn for 50%. This caused canal water level inclines. As a result, flow velocity rose generally for 30% more than it naturally should be. And in consequence of artificial interference and contrary to natural processes nowadays Georgievskiy canal is intensively increasing hydrologic- morphological activity by reducing the Kiliyskiy horn water flow.

That is why it should be confidently mentioned that construction of numerous hydroengineering installations aimed at ensuring of the Sulinskiy and Georgievskiy canals navigation has significant transboundary influence on the Ukrainian delta of Danube. These works resulted in the Danube water flow redistribution to Romanian water system. In accordance with 1990-2001 observations materials the Kiliyskiy horn long termed water expense reduced for 28% and makes up 3400 m³/s. The stated data is given in table 3.

Construction of hydroengineering structures by Romanian part resulted in water flow reduction in Kiliya delta and in bottom scurf increase. It correspondingly will lead to river bed resistance increase and further strengthening of this process. Water discharge repartition intensity during last 8 years increased in 4,1 times in favour of Romanian Tulchynska horn system.

Such changes were also “accelerated” with the fact that during the last years Romania has been throwing down soil into the Kiliyskiy horn, downstream after the water flow directing dam. According to Main International Center of Romania information only in 2003 about 300 000 m. cub of soil were thrown down to the river bed at 40-41 mile of Tulchinskiy horn by suction dredge “Dunareya”, making dredging works. Durind 2002-2004 there was 204 runs of “Dunareya” to river outlet places at 114 km and 57 mile. As Romanian part informed, every 2-3 years the silt is forming there in volume terms of 2 million of m³, which should be cleaned up in order to ensure the necessary depths of navigable canal. It is very expensive to take this silt to the sea. Therefore the decision was to take it to the natural pit (114-116 km) at fairway Kiliyskiy canal. Transboundary influence of this soil dump and its hydrological and ecological consequences were not separately estimated by Romanian side. The works were not agreed with Ukraine. It is well founded to assert, that significant part of this soil is further carried with stream and in the course of time it is deposited on the rifts and sand-bars of the Kiliyskiy horn. These are right the

occurrences noticed during the sounding works.

Until the 80-es of the XIX century the main peculiarity of the Kiliyskiy horn evolution was predominance of new horns formation before the old ones destruction. There were 2 horns in 1775 and 8 horns in 1880, 20 – in 1856, and 56 – in 1883. But after 14 years, in 1897 there were only 36 horns in Kiliyskiy delta and the tendency of the horns reduction concurs with Sulinskiy canal construction works. The quantity of canals is continuously reducing and there are only 14 of them. Therefore due to artificial water flow redistribution between main delta horns to the favour of Romanian ones the main regularity of delta evolution changed. In the middle 80-es of the XX century the depths at Ukrainian part of Kiliyskiy delta reduced sharply. New Islands appeared, the old ones are constantly growing. The Izmailskiy port berths floods increased and navigable canal at the Danube river has started shifting etc. Fast shoaling of city channels and Belgorodskiy canal in Vilkoovo is observed. Due to canals drying the alkali soils approach the city.

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Today observing the flora and the fauna of the delta only with considerable reservations it can be appreciated as the natural complex. Appreciably it is the result of human’s violence over the nature. If there wouldn’t be Sulinskiy and Georgievskiy channels Kiliyskiy delta in all probability had been completely another, it had had more horns, its area had been much bigger and its natural world had been richer in quantity and species. Uncoordinated actions of the Romanian side

lead to entirely possible ecocatastrophe in the Ukrainian part of the Danube delta.

Essential negative influence was inflicted to the Danube natural complex because of the NATO's military actions in Yugoslavia. Due to the bomb attacks oil-processing and chemical factories in the cities of Belgrade, Novi Sad, Panchevo and Prah, petroterminals of Smederevo and Prah ports were destroyed. As a result of these actions the Danube ecosystem endured rigid deformation.

There are chemical agents in the concentrations which exceed maximum permissible norms in ground adjournment of the delta. During all the historical development of countries in the Danube river basin natural and human's produced substances including harmful – mineral manures, chemicals, industrial and household waste was being washed off in the Danube and its inflows and by fast current in the form of the suspended substances were transported into the delta which consists exclusively of these adjournments. The special role in pollution of the Danube should be allocated to Romania – only during 2000-2004 more than 10 extreme situations on its enterprises were fixed in consequence of which harmful substances got into water.

In connection with stated Ukrainian part of the delta suffered much essentially because the Danube Killian branch as the most full-flowing in a greater measure transfers the suspended substances accumulating them in the delta canals and on the sea bars. Now Ukraine is compelled to feel the consequences of so-called effect "at the end of the tube". Due to

lots of physical and chemical factors avalanche sedimentation – quick concretion of the suspended substances and their transfer into ground adjournment occurs.

On consideration of the question it is necessary to state the information about the activity of the International Committee of the Danube river protection (ICDP) in more details. On the conference which took place on 13-14 December of 2004 in Vienna the ministers of the environment preservation of the countries-participants of ICDP had summed up ten years' work and discussed urgent ecological problems of the region. For today thirteen countries including Ukraine united their efforts for control of the ecological situation on the Danube. The last to join the agreement was Bosnia and Herzegovina.

Speaking at the conference the secretary of ICDP Catherine Day accentuated that the Danube "doesn't know frontiers": "This river flows from the very heart of the European Union to the Danube delta which is divided by Romania and Ukraine. Danube basin is the largest in the European Union; 18 million people live on its territory. The river gives drinking water to the each fourth inhabitant of this region. The basin of the river includes 18 countries".

It was mentioned that mineral manures, chemicals and household waste overburden the Danube. For example the million city Belgrade doesn't have the system of clearing of sewer drains at all. All the garbage produced by the Serbian capital gets to the river after particularly mechanical clearing. Therefore is necessary to introduce to the Danube the European standards which provide two-level clearing and use of

chemical means. These activities have to promote that water which is merged into the Danube or its tributaries could be clean. These standards are introduced gradually, as long ago as 25 years for example the drains of Swiss city Basel were get into the Rhine after particularly mechanical clearing. Nowadays in accordance with the international arrangements standard of three-level clearing: mechanical, biological and chemical is put into operation on the Rhine. It is still a long way off on the Danube especially on its lower reach.

Sewer drains of the big cities are only the one of the many essential problems of the Danube. The conference of the ministers of the environment preservation of the Danube countries determined ecological threats in the region.

On the basis of analysis of the river's condition which was introduced on the conference a plan of action on the following five years will be worked out.

The standards which are introduced by the general instruction of the European Union in respect of water consumption will be basis for this document. It is a long time since these standards function in Germany and Austria and of late in the UN's new Danube countries – Hungary and Slovakia. All novices of the European Community share responsibility of ecological safety of the continents prime water artery. It is necessary to point out that five-year plan of activity foresees introduction of European standards of water use by the Czech Republic and Slovenia too. Large Danube's tributaries flow along the territory and that is why observance of the European

standards by these countries is important for the common cause.

According to announced on the conference results of researches the Danube's waters were becoming more and more pure during the last years. It however speaks that after breakdown of the socialist camp in South-East Europe industry and agriculture fell into decay. Now when the economy of the region swiftly develops it is necessary to make efforts that manufacture would not cause damage to the environment.

One of the main topics which had been discussing on the conference in Vienna was general plan of actions directed on prevention of flooding.

Recently the interests of Ukraine in the Danube delta didn't find necessary understanding. It has occurred after the Ukrainian government decided to renovate the navigation canal. The neighbouring Romania with which Ukraine shares the Danube delta, some conservancy organizations and a number of representatives of the UN countries pass strictures on the Ukrainians.

Though the Danube gets to the Ukrainian territory in the end of its current Ukraine is highly responsible to the partners of the Danube region. It was accented by the councillor of the minister of the environment preservation, the chairman of German delegation on the conference in Vienna Fritz Golzvar: "We want to achieve close cooperation with Ukraine in solution of problems on this river. Thus we take into consideration that Ukraine is interested in building of the canal in the Danube delta but we are interested in attracting of Ukraine into

solving of ecological problems where the headwaters of the rivers account to its territory". The ICDP partners expect Ukraine as the member of this organization will discuss all the risks for the environment which can arise during realization of scale projects. In particular it refers to the "controversial" canal in the Bystroe entry. Fritz Golzart welcomes first steps of the members of Ukrainian government in directions of open cooperation regarding to problems of the canal: And in the further we need clarity in this project. It is important that this topic to be the order of the day, that Ukraine to observe agreement and the second step could be granting of further information".

Fritz Golzart is sure that Ukraine's openness in all-round cooperation of the Danube protection can be one of the positive impulses for its European integration:

"It is entirely obvious to the commission that cooperation on the Danube is European cooperation. If Ukraine wants to get prospect of entry into the European Council it has to prove earnestly its practical concernment in this interaction. Thus euro integration is an important argument both from political and preservation of the environment viewpoint. This argument is in favour of intensification of cooperation with Ukraine".

Concerning to the stated it is necessary to empathise that all the questions of interaction with the ICDP and other international organizations in sphere of preservation of the environment meet complete consent and support in Ukraine.

But Ukraine is equitable member of the ICDP and must insist for having equal demands

particularly concerning renovation of navigation with activity of other countries. Consequences of realization of the Ukrainian project have to be appreciated not individually but in all complexes of factors of man-caused influence because nature of the delta is unified organism for which is not important who and on what territory harms it. The conclusive factor is exceptionally ecological consequences of occurrence.

Thus system droppings of soil by the Romanian country which are measured in millions of cubic metres and pollute natural environment for some reason don't cause concern. At the same time works of the Ukrainian country on renovation of the navigable depths are considered as very threatening.

It is necessary to comment that these works were being fulfilled even earlier during the 20th century. They were interrupted exceptionally because of absence of necessary facilities and stopping of navigation on the Prorva mouth. In contrast to dropping of soil into the Danube by the Romanian country Ukrainians use dump places which are specially prepared on the riverbed of their territory. They are to be recultivated and secure strengthening of anti flood dams.

Many questions from the viewpoint of preservation of the environment have to be asked to the atomic factories, chemical and metallurgical industry of Romania and also a new project of building of the mineral oil terminal on the Danube river near the village of Dzurdzuleshti on the Moldavian territory.

This object which is being built on the very frontier with Ukraine above the Reni port

poses a potential threat as to the Reni port as to the whole Danube during the emergency situation. It poses heightened fire danger for vessels which are on the road of the Reni port because normative fire-prevention 5000 metres distance from tank park to port road is not supplied. Accommodation of mooring constructions in narrowness of navigating channel constrains manoeuvring of vessels. It raises doubts in possibility of secure mooring operations of tanker fleet especially vessels of 10000 tons displacement taking into account absence of free zone for manoeuvre and swift current in the narrowness. These circumstances practically exclude opportunity of gathering of mineral oil during the emergency pour out. Decisions of sewage treatment which are accepted in the project seem to be unreal. Thus drainage with concentration which exceeds the mark can be thrown into the Danube. The building in Dzurdzuleshti is planned to begin in 2005. The project power of the petroleum-refining factory on the first stage is 2 millions tones of petroleum per year. The basic part of mineral oil (crude oil, mineral oil) is planned to go on export.

According to the resulted it is absolutely obvious that Ukrainian project of renewal of navigation with using of the Bystroe entry is not single and not the most essential factor of human influence on the natural environment of the Danube delta. Continuation of building or even its full stopping can not fundamentally change the ecological situation. In particular it is important to accentuate that Ukrainian project doesn't concern to using of harmful substances which pollute the environment as for example objects which are situated in

Romania and are being built in Moldova. But exactly it for some reason gives heightened anxiety of some international experts.

Concerning hydrology, monitoring researches in 2004-2005 did not fix any evident change of drainage as a result of cut of the bar in the Bystroe entry. At the same time according to materials of long-term observations during 1990-2001 works made by the Romanian side led to artificial decrease of average long-term water consumption in the Killian branch by 28%. Moreover it is impossible to confront the scales of technogenic influence of works made in the bounds of the biosphere reserve during the building of navigation canals in Romania (Sulinskiy, Georgievskiy entries) and in Ukraine exceptionally on the sea bar.

Providing all the data relative to realization of Ukrainian project of deep-water navigation pass on demands of the Romanian country Ukraine at the same time did not get the information of what works are carried out on the Romanian territory of joint Romanian-Ukrainian biosphere reserve of the UNESCO, what expert examinations are made and what conclusions are gotten according to transboundary influence of constructed objects on the environment.

In this connection it is urgent to elaborate common standards and demands under control and coordination of the UNESCO and other international organizations of preservation of the environment and provide the data exchange about all factors of anthropogenic influence and first of all relative to objects activity of which influences on the biosphere reserve of the UNESCO in the Danube delta.

For this purpose it is important to establish an international group of experts with representatives of all interested parties which could inspect whole complex of the delta – Kiliyskiy, Tulchinskiy, Sulinskiy and Georgievskiy horns and could announce its conclusions. Ukraine as the initiator of these actions can set an example, to be the first who renders all necessary conditions for work of such group. These measures of course will promote grounded evaluation of the delta condition in existence and will be useful for the European Union and preserve its most valuable parts of the natural environment.

According to proposition which were worked out during such international actions as scientific-practical seminar “International result examination of monitoring of realization of the first turn of renovation of deep-water navigation pass “The Danube – the Black sea” with taking into account influence of other kinds of economic activity on the Danube delta natural complexes” (Odessa 27-28 March 2005) and scientific-practical conference “Preservation and stable development of the Danube delta” (Odessa 26-28 February 2006) the following was accepted.

■ **The participants of the conference came to:**

1. Support the creation of group of experts under supervision of the ICDP for preparation and realization of plan of management of the Danube delta river basin which is based on methods of the Frame Instruction of the European Union water use.

This group will engage in the following questions:

- Coordination of present mechanism for decrease of river pollution by other Danube countries;
- securing of public access to information which refers to water use and working up of acceptable mechanisms of public participation;
- working up of general mechanism of monitoring of water quality, its naturalness, water distribution and influence of human activity on it.

According to report of the Committee on inquiry of the ESPOO Convention (July 2006) which was published on official Internet site of the ESPOO Convention “The Commission, realising that the Navigation Route is and will be a political issue, recommends to organise a Bilateral Research programme related to activities with transboundary impacts in the framework of the bilateral cooperation under the ESPOO Convention”.

■ **The purpose of creation of group of experts:**

- Working up of single method for the environment preservation problems and creating of united system of ecological monitoring on the whole Danube delta.
- Working up and putting into operation of single methodology of assessment of influence onto the environment in transboundary context of fulfilled and scheduled projects on the whole Danube delta. Such methodology has to be based on the ESPOO Convention and other existent methodologies.
- For working up of the Programme of combined ecological monitoring of the whole Danube delta with the assistance of

representatives of the scientific society of Romania and Moldova assume as a basis the Programme of combined ecological monitoring under renovation of the deep-water navigation pass "The Danube – the Black sea" through the Bystroe entry.

During the work of the Committee on inquiry with attracting of international experts twenty four possible transboundary influences were examined and evaluated. Only six of them are determined as such which probably can have considerable negative transboundary influence.

In the paragraph 1, subparagraphs 1,2,3,5 and 6 of the "Conclusion" issue of the "Opinion of the Inquiry Commission on the 'Bystroe Canal' Project" which refer to "possible considerable negative transboundary influences" is talked about influences which probably will be concerning on fish resources and partly on conditions of birds existence, but there is no word about influence directly on the territory of Romania which from the point of view of Ministry of preservation of the environment of Ukraine can not be considered as a victim of Ukraine's actions during the renovation of the deep-water navigation pass because all the aspects of indicated "possible considerable negative transboundary influences" concern not to its territory but to the natural resources.

Moreover on the meeting of the Ministers for Foreign Affairs which took place in Odessa on the 4th of July of 2006 the parties also came to agreement to establish the special group of experts with the purpose of working up of common approaches to problems of

preservation of the environment and creating of united system of ecological monitoring.

Last time essential influence on the environmental territories of the Ukrainian Danube biosphere reserve is made by commercial structures which commit the moving of rush with using of heavy-duty machinery. Thus according to acts of control which was conducted in March-April of 2004 under reference of inhabitants of Primorskoe village in Odessa region on the territory of Stentsovsko-Zhebriyanovskiy overflow land burning outs on the area of 1000 hectares, lack of water, large quantity of combine and tractor tracks when storing up the rush and garbage dumps are fixed.

On the basis of investigations Constant Committee of ecology questions of Odessa regional council confirmed to consider the prevalent ecological situation on Stentsovsko-Zhebriyanovskiy overflow of the Danube biosphere reserve as unsatisfactory. In connection with necessity of taking of urgent measures Committee applied to the National Academy of Sciences of Ukraine with request to conduct a complex control of activity of the Danube biosphere reserve on preservation of the flora and the fauna of the overflows with attracting of independent science experts. Furthermore annual fires also happen on other territories of the reserve.

According to information of Viktor Korotetskiy the chairman of coordinating council of enterprises and organizations of fish industry during last 10 years quantity of sturgeons became three times less while the general catch in comparison with 2000 became five times less. Only during last two years private

employers had gotten 500 licenses to fishing. More than five thousand breaches were revealed nevertheless fish department did not annul any license. Vilkovskiy plant on the Danube had gotten licenses and shares for special using of "live water sources" illegally in consequence of which 60 tones of the Danube herring were fished out with breaking of the law. Criminal case is raised, an investigation is held.

The stated is evidence that commercial activity inside the Danube biosphere reserve which connected with mowing of the rush and fishing demands supplementary study and settlement.

The Danube is the river which unites 18 countries of Europe. Therefore common efforts of Ukraine, Romania and international organizations of complex assessment of present situation of the whole natural complex of the Danube delta and guaranteeing of its constant monitoring as on the territory of Ukraine as in Romania are necessary. Only operating in this direction the unique world of the UNESCO Danube biosphere reserve can be retained.

According to the article 6 of the Water code of Ukraine water bodies are referred exceptionally to property of the Ukrainian nation. Therefore canals and storage ponds did not belong to lands of the preserve as it was confirmed by the decree of Odessa Economic court (24.11.2003 № 25/ 222-03-7434) and left without changes by the decree of Economic court of Appeal.

Functioning of navigable pass through the Bystroe entry till 1958 and pass through the Prorva entry since 1957 till 1994 did not provoke objections from direction of

ecological community, neighboring state of Romania and international organizations of preservation of the environment which nowadays allude to position of the Ramsar Convention and the Seville Strategy for biosphere reserves. On the basis of researches it can be concluded that from the juristic point of view creation of deep-water navigation pass does not contradict to regulations of the Ramsar Convention and completely fits letter and meaning of the Seville Strategy for biosphere reserves.

Particularly article 2 of "The Convention about water-paludal rights..." (Ramsar, 02.02.1971) read as follows: "p.3. – Registration of water-paludal rights does not prejudice singular sovereign rights of contracting party on whose territory holding is situated. p.5 – Each of the side pieces has a right to register additional water-paludal rights which are situated on its territory, expand the borders of holdings which are already registered or in connection with public interest delete from list or decrease the borders of water-paludal rights which are already registered". The Seville Strategy which was accepted on 25.03.1995 on the International conference of the UNESCO biosphere reserves envisages that biosphere reserves have to be not only the feature which allows local population to develop in balance with natural environment but also assist satisfaction of society needs at all showing the way to stable future development. Global net of biosphere reserves has to be the instrument of integration which allows achieving of more wide solidarity among people and nations of whole the world. Exactly such approaches of harmonization of

relations between mankind and natural environment which were accepted by the international society are realized in the project of renewal of deep-water navigation pass “the Danube – the Black sea”.

■ **The implementation of techno-economic justification of investments (TEJI)**

On the ground of protocolary decision of the first vice-prime minister of Ukraine (Y.I Ehanurov) of the 1st of December of 2000 the task of assurance of reliable and safe navigation in communication “the Danube river – the Black sea” on the Ukrainian part of the delta is vested on the Ministries of Transport, Ecological Resources, Justice and other appropriate central organs of executive power.

In accordance with indicated decision and order of the Ministry of Transport of Ukraine № 710 of 15.12.200 the state-run enterprise “Delta-pilot” is determined as the customer of building of deep-water navigation pass “the Danube – the Black sea”.

Carrying out the set tasks of the “Delta-pilot” enterprise complex design and survey works including geodesic, topographic, fathom and project works were are conducted. A task group which posed concrete problems and conducted the former analysis of results was established to coordinate the activity. The experienced specialists from the scientific institutions and enterprises who had experience in projecting, building and operating of hydro engineering constructions formed the group.

The choosing of variant of passing of fairway route in the Danube delta had been fulfilled according to legislation of Ukraine and

international obligations Ukraine had taken upon itself. It is necessary to accentuate that firstly on the stage of projecting, nowadays on the stage of building and in future during the exploitation of the deep-water there was and will be one of the main priorities – the complex of measure of preserving of bio-variety of water-paludal rights of the Danube biosphere preserve. The project had been worked out with special diligence and with careful fulfillment of all procedure of reaching a decision provided by law just because of recognition of great value of this natural complex.

The techno-economic justification of investments (TEJI) “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta” is fulfilled under general leadership of Ukrainian River Transport Project with Attracting of 18 profile national institutes. Particularly by recommendation of the National Academy of Sciences of Ukraine such scientific institutions as Institute of hydromechanics, Institute of hydrobiology, Odessa branch of Institute of biology of South seas and the Danube biosphere reserve were taken for preparation of the section “The assessment of influence on the environment”. On basis of intensive study and analysis of historical materials and projects (10) which were worked up earlier scientists took into account total experience of arrangement of navigable connection of the Danube with sea through the Killian delta.

The complex state expert examination of the TEJI is fulfilled in accordance with Order which is approved by Resolution of the Cabinet of Ministers of Ukraine of 11.04.02

№483 and consists of State investment expert examination, State sanitation expert examination, State ecological expert examination and State expert examination of protection of labor. Moreover Agreement of State fleet inspectorate of Ukraine; Confinement by choice of direction of deep-water navigation pass “the Danube – the Black sea” on the Ukrainian part of the delta of the professor of geographical faculty of Moscow State University, Doctor of Geographical Science, honoured worker of the Russian Federation V.M. Mihaylov; Confinement about choice of effective navigable horn in the Killian part of the Danube delta inside borders of Ukraine of the professor of Odessa National University, Doctor of Geographical Science Y.D. Shuyskiy are gotten.

By the decree of Cabinet of Ministers of Ukraine of 13.10.2003 № 508-r, techno-economic substantiation of investments of building of the deep-water navigation pass “the Danube river – the Black sea” in the Ukrainian part of the delta was confirmed and became the ground of working out of the production project.

■ The Resolution of working seminary of international experts “Renovation of transit navigation in the Ukrainian part of the Danube delta under conditions of existence of the biosphere reserve at the heart of international experience”

16-20.10.2003

The specialists who have wide experience of the international research in sphere of ecology, biochemistry, ichthyology,

hydrology, geomorphology, economy of nature management, litho dynamics, hydraulics, reserving and study and modeling of processes in entry and riverside were invited to seminary.

The experts got acquainted with available information, physical data and summary scientific materials according to assessment of conditions of naturally-geographical complex of the Danube delta where navigation, fishing and agriculture are traditional occupation of local population and extensively determine social, economic and demographic conditions of the Danube countries. The publications which were in press are considered and international experience of the navigation organization in deltas of the Danube, the Volga, the Mekong, the Niamunas, the Odra, the Thames, the Mississippi and other rivers which are the reserved territories of different states are summarized.

Particular attention is paid to discussion of conclusions of complex state expert examination of Ukraine (including ecological) with regard to variant of creation of navigation pass through the Bystroe (Novostambulskoe) entry.

As a result of wide discussions working seminary of international experts establishes that represented materials are sufficiently informative and allow drawing such conclusion of the problem being discussed:

6. Ukraine as an independent state which integrates into world community acting according to legal regulations informed appropriate international organizations about working out of

project “Creation of the deep-water navigation pass “the Danube – the Black sea” on the Ukrainian part of the Danube river” through the Bystroe (Novostambulskoe) entry.

7. Longstanding world practice proved the possibility of transport using of mouth reaches of river parts without essential loss to the nature of these territories (Great Britain, Vietnam, Canada, Lithuania, Poland, USA, Russia, Romania and other).
8. Agree with conclusions of complex expert examination of Ukraine (including the ecological) which recommends variant of navigation pass through the Bystroe entry as optimal direction which complies with analogues of world practice of equipment of navigation passes in the preserved territories.
9. The variant of navigation pass through the Bystroe (Novostambulskoe) entry is ecologically less disadvantageous and the most profitable among all of suggested variants economically. Support the conception of stage-by-stage equipment of the navigation pass through the Bystroe (Novostambulskoe) entry with strict observance of the preservation actions and improvement of the monitoring system of the environment which will be realized with taking into

account of international experience.

10. Recommend to make alterations into the structure of the Danube biosphere reserve with its construction of clustered type with creation of some preserved kernels in the most valuable places.

The decision was signed by: Nguen van Ki, Artegi Komianou, Shalva Dzhaoshvili, Olegas Pustelnikovas, Stanislav Museliak, Evgeniy Ignatov, Yuriy Shuyskiy, Galina Vyhovanets, Viktor Morozov, Anatoliy Ustiugov.

■ Production project “the Creation of the deep-water navigation pass “the Danube river – the Black sea” on the Ukrainian part of the delta. 1st stage”

Production project “the Creation of the deep-water navigation pass “the Danube river – the Black sea” on the Ukrainian part of the delta. 1st stage” is worked out according to national and international standards. It came through the procedure of expert examination where international experts who have international certificates worked after which it was confirmed by decree of the Cabinet of Ministers of Ukraine since 12.05.2004 №283-r.

The scientific ecologically-expert estimation of working plan “Creation of the deep-water navigation pass “the Danube river – the Black sea” on the Ukrainian part of the delta. 1st stage”. The concluding (evaluative-resumptive) part:

1. Appealing to materials of preceding expert examinations it can be concluded that there

are no dangerous ecological consequences in realization of project. The main argument against building was the territory status on which the building is held. Because of the decree of the President of Ukraine №117 from 02.02.2004 the channel of the Bystroe horn was transferred into structure of anthropogenic landscapes, last formal reason of prohibition of building was annulated.

During the period of building influence is exerted from works of constructing of sea underwater canal, during exploitation – passing of vessels. According to the article 18 of the Law of Ukraine about nature-preserve recourses of Ukraine such economic activity in the zone of anthropogenic landscapes is not an infringement of nature-preserving legislation and does not threaten to existence of the preserve as the object of nature-preserve recourses.

2. The territory of “The Danube Overflow land” is really unique but it is necessary to note that since its first days of functioning it had not been considered as entire and whole territory; thanks to numerous corrections area of the Danube biosphere preserve was noticeably enlarged but according to list of the UNESCO which includes “The Danube Overflow land” preserve, only three isolated zones of the preserve are included to the net of international biosphere reserves; but they are not situated in zone of influence of building of navigation pass “The Danube – the Black sea”.

3. The analysis of stock and cartographic materials showed that plant and animal species which are near the canal of deep-water navigation pass including species which demand preservation are not unique

and have a wide distribution in bounds of the Danube biosphere preserve. Thus building and exploitation of the navigation pass will not entail essential changes of quantity and specific composition of the flora and the fauna of the Danube biosphere preserve.

4. The materials of the Assessment of Influence on the Environment of the working project testify that its realization will have no transboundary influence on the neighboring states and will not cause negative consequences on the territories contiguous with Ukraine.

5. The collective of experts after thorough analysis of inferences, letters, appeals of public representatives came to conclusion that observations which are held there are not of structural nature but give just verbal conclusions about negative influence of creation of the deep-water navigation pass “The Danube – the Black sea” on the Ukrainian part of the delta.

6. General analysis of materials of the Assessment of Influence on the Environment of the working project “The Creation of the deep-water navigation pass “The Danube River – the Black sea” on the Ukrainian part of the delta. 1st stage” testifies that its realization is ecologically permissible and project itself is worth of favourable reception. We consider that decision about its practical realization under condition of constant author’s supervision and absolute maintenance of all decisions which refer to questions of preservation of the environment.

■ The Assessment of Influence on the Environment

The scientific-research work "The Assessment of Influence on the Environment" (AIE) amounting to the production project "The Creation of the deep-water navigation pass "The Danube River – the Black sea" on the Ukrainian part of the delta. 1st stage" is fulfilled by the Ukrainian scientific-research institute of ecological problems of the Ministry of ecology and nature resources of Ukraine and is confirmed in summary complex conclusion of Ukrainian State Expert Examination №121/03 from 20.04.2004. The conclusion of AIE points out that:

- Natural conditions of the Danube delta allow Ukraine to have a deep-water navigation pass on its territory what satisfies requirements of first-rate international class of the waterways. This opportunity is provided with presence of the deepest Killian horn of the Danube and sufficient stability of the most active part of the delta. Absence of the deep-water navigation pass seriously cripples to Ukraine economically, strategically and socially what testifies to objective necessity of its creation.

- A great quantity of variants of direction of the deep-water navigation pass was examined in details on the stage of TEJI what allows to draw a number of fundamental conclusions about main factors of influence of the navigation pass in the Danube delta on the environment.

According to all variants more than 90% of length of line of the deep-water navigation pass on the territory of Ukraine consists of channel of the Killian horn the length and predominant depths of which conform the

demands which are presented to waterways of the highest international class. According to all variants outlet of the line of the deep-water pass to the sea crosses the territory of overflow land which are unique for Ukraine because of its flora and fauna and are registered in the international list of water-paludal rights which demand special preservation.

All variants of the deep-water navigation pass line on this district touch the interests of the Danube biosphere preserve. In the borders of the overflow land variants of lines vary in direction and in way of construction of the navigation pass through dug up canals with sluices or through natural delta horns.

At an outlet to the sea all variants of creation of the deep-water navigation pass provide the construction of the sea lock-approach canal; it connected with necessity of a great deal of dredging operations as during the period of building as during exploitation.

- Lock canals inflict the worst harm on the environment during the periods of building because the size of excavation in the time of their creation greatly increases the standards of fairways which pass through the natural channels. Besides such canals artificially divide the delta territory and change water regime on great areas. At the same time there is no necessity in constant operational channel dredging on section of the deep-water navigation pass which is equipped with locks.

- Among all the horns on which construction of the deep-water navigation pass is possible the Bystroe horn is most optimal according both to technologically-economic and ecologic criterions. Its width, slight sinuosity

and above all greater depth practically completely meet the conditions of opening of the deep-water navigation pass without conducting of dredging operations. Besides present variant of the line has the chain of advantages which allow counting on successful exploitation of the deep-water navigation pass lasting a long time:

- the most slow in comparison with other parts of ledge of the delta sea side;
- water drainage permanently increases;
- transference of bulk of the pumps from the horn to the other side of seashore;
- comparatively quick extension of sea depths beyond the sea-bar.
- The comparative assessment of influence on the environment of the line variant through the Bystroe horn and proposed alternative variant of going of the deep-water navigation pass through the lock canal “the Solomonov horn – the Zhebrianskaja bay” which was conducted on the stage of the TEJ showed the preference of the first variant as such which make a less impact upon the ecosystem of the Danube biosphere preserve, its flora and fauna.
- The materials of the AIE of production project confirm that construction and exploitation of the deep-water navigation pass according to the project “Creation of the deep-water pass “the Danube – the Black sea” on the Ukrainian part of the delta. 1st stage” will not have a transboundary influence upon the neighbouring states and

will not cause negative ecological consequences on the adjacent to Ukraine territories.

■ The programme of complex ecological monitoring of the environment which is subject to influence during building and exploitation of the deep-water navigation pass

All the main complexes of the environment which are influenced by building and exploitation of the deep-water navigation pass and in its turn influence on the conditions of its exploitation: the geopolitical environment, the air environment, the surface waters, the soil, the flora and the fauna are under monitoring in the context of the Programme. Such researches as hydrochemical, hydrobiological, hydrometeorological, sanitary-epidemiological, ichthyological, of the littoral biotypes, of the air environment for presence of the polluting substances including heavy metals which embrace all the specter of the executed works are carried out. The scientific level of ecological monitoring conforms to demands of the highest international standards and the range of researches can be fulfilled only by the group of scientific institutions the work of which is coordinated by the Ukrainian scientific-research institute of ecological problems of Ministry of preservation of the environment of Ukraine of the city of Kharkov. More than 10 profile scientific organizations and institutes including organizations of the National Academy of Sciences of Ukraine: the Institute of biology of South Seas, the Danube biosphere preserve, the Institute of hydrobiology, the Institute of hydromechanics

and others form a part of joint participants of monitoring works.

The experts note that they used methodologies which are proper in Ukraine and abroad. Practically all the main operation factors of the environmental conditions in the working region and the background meanings outside the zone of the work influence are traced. System of the monitoring includes:

1. Conducting of regular observing according the standard programmes in the net of active meteorological stations, hydrological posts and ranges and in the points of control of pollution of the environment.

2. Organization of additional points of standard observing of the elements of hydrometeorological, hydromechanical and sanitary-hygienic regimen.

3. Organization and conducting of profound observing and researches particularly expeditional, mathematic and physic modelling for studding of natural and anthropogenic tarnish of hydrometeorological, morphological, hydrodynamical, hydrochemical and biological processes and phenomena.

The data which are gotten today testify that fears of the ecologists were groundless: reconstruction of the deep-water navigation pass through the Bystroe entry has minimal consequences for the environment. Moreover the results of the monitoring point that the prediction estimates in some cases were even more strict then those which are gotten as a result of observing. Thus actual results of the scientific researches prove the conclusions of complex state expert examination once more – the chosen variant of reconstruction of the navigable connection

of the Danube with the Black sea through the Bystroe entry from the ecological point of view is the most appropriate because its influence on the nature of the Danube biosphere preserve is minimal in comparison with all possible variants.

■ At present time works in realization of the first stage continue. Operational plan for the whole development is worked out.

The questions about negative ecological influence of the stated project emerged on the all stages of it.

Taking into account that partially Ukrainian deep-water navigation pass “the Danube – the Black sea” passes by near the natural complexes of the Danube biosphere preserve national and international experience of creation of hydro technical constructions in preserves were taken into account; complex scientific-research works were conducted previously; mathematical and physical models of the project were worked up; the line of the fairway passes by the deep-water part of the delta channels which do not belong to the territory of the preserve what is confirmed by decisions of courts of all instances; caring out of major building works is not foreseen by the project while basic dredging works have to be done on the sea bar; outlet to the sea is chosen in the delta’s less active part where the width of the sea bar is minimal, all the works including warehousing of the soil are conducted according to national and international demands of preserving of the environment.

Numerous expert examinations and conclusions of leading ecology experts including international, visiting of the places

of realization of the project by national and international ecologic organizations and diplomatic persons did not find out harmful ecologic influence on the environment.

Some ecological organizations brought suits of discrepancy to the ecologic standards of the state expert conclusions to courts of different levels. All court decisions declared that this project agrees with the marks.

National ecological expert examination regarding to the project documentation

(which was rendered by State Enterprise “Ukrainian Agro Invest Expert” in Ministry of preservation of the environment in August of 2004) about construction of the deep-water navigation pass, was realizing in 3 stages (documentation was elaborating in the same way) in the context of complex state expert examination with calling in preliminary expert consideration by specialized institutions.

During the process of state ecological expert examination project documentation was completing with observations of Ministry of preserving of the environment and expert institutions for the purpose of its harmonizing with the requirements of the nature preservative legislation on each stage.

According to the results of consideration of completed materials of assessment of influence on the environment of the techno-economic justification (TEJ) of investments “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta” and their scientific ecology-expert assessment and project materials with results of scientific ecology-expert assessment of the operational project “Creation of deep-water navigation pass the

Danube river – the Black sea on the Ukrainian part of the delta. 1st stage” the stated documentation got an appreciation of the state ecological expert of the ministry.

The project documentation of the operation project “Creation of deep-water navigation pass the Danube river – the Black sea on the Ukrainian part of the delta. Full development” was sent back for revision by conclusions of the state ecological expert twice (of 30.08.2005 №290 and of 22.02.2006 №324).

After consideration of the debugged by the “Rivertransproject” institute project materials Ministry of preservation of the environment by the confinement of additional state ecological expert examination № 345 of 19.04.2006 gave an appreciation to the project documentation as that realization of which can be recognized as ecologically permissible in the context of observance of fixed project decisions.

Let us note that any conclusion of ecologic expert examination which is carried out with using of official form and approved by functionary of Ministry supervisory personnel with corresponding record on the last page of text and noted with registration number of chancellery of headquarters is an active conclusion of Ministry of preservation of the environment and final for reaching a decision with regard to further realization of object of ecological expert examination by corresponded organ and is obligatory for realization.

PARTICIPATION OF THE PUBLIC IN DISCUSSION OF THE PROJECT

On the stages of planning and creation of DNC unfolded statements about ecological consequences of realization of the project were published (03.07.03 "Odessa news"; 20.01.04 "Voice of Ukraine" #10; 20.08.04 "Voice of Ukraine" #155; 23.11.04 "Voice of Ukraine" #220).



Provided close cooperation with international nature protection organizations to which was given the most detailed information about the project decisions and building motion, and also a possibility to visit place of ship motion building (visited over 10 different international delegations). In participation with representatives of international Conventions the detailed scientific discussions were repeatedly conducted with specialists by the developers of project. On the initiative of local

administrations public listening was twice conducted on a project renewals of DNC on Ukrainian area of delta: 03.03.04 in Vilkovo and 17.12.2004 in Ismail.

Problems related to the choice of variants of DNC track and its influence on the natural environment of the Danube biosphere preserve were discussed and continue to come into question. During 2004 this problems retained high actuality for society, what is confirmed by numerous publications and telecasts. There were different opinions, both "after" and "against" creation of deep-water navigable canal through "Bystroe" mouth. At the same time the majority of mass media consider that the grand opening of deep-water navigable canal is an important historical event not only on regional, but also on national scale. Leaders of the states, departments and establishments of Ukraine, representatives of foreign missions and international nature protection organizations took part in actions related to renaissance of navigable communication Danube-Black Sea. It's natural that this events and outcome of running of the DNC gave rise to the intensity of dataflow and to favourable reception. As a whole positive information dominates in 2004, making up about 80% of total amount. Some civil society organizations, subdivisions of Ukrainian National Academy of Sciences (the Danube biosphere preserve is under its jurisdiction) declare against. Opposite position is based on emotional thoughts and assertions about inevitable death of natural complex of delta in case creation of deep-water navigable

PARTICIPATION OF THE PUBLIC IN DISCUSSION OF THE PROJECT

canal through "Bystroe" mouth. This assertions have no scientific background and were repeatedly denied by the analysis materials. The population of the Danube region stands "after". Numerous letters from inhabitants, public organizations and resolutions of Public sessions in town Vilkovo (03.03.2004) and Ismail (17.12.2004) which were adopted by the majority of official representatives nominated by territorial communities of the Danube region. Resolutions express their support and requirements concerning the realization of building of DNC Danube-Black Sea through "Bystroe" estuary.

Resolution of public sessions on the creation of DNC Danube-Black Sea through Bystri Estuary 03.03.2004 Vilkovo Town (extract).

We, the representatives of the collectives of workers, and public organizations consider that the restoration of navigation channel in the Ukrainian part of delta will be a great political and strategic importance both -for social and economic development of Danube Region and for Ukraine as a whole. Putting into operation DNC Danube-Black Sea as the Ukrainian portion of the VII-th international transport corridor will allow to use the potential of the transport and industrial complex in the Danube

Region and Ukraine, optimize the transport system for national and transit cargoes, develop shipbuilding and ship repair, more effectively and comprehensively use all transport ways of Ukraine in favor of social and economic development of Ukraine and also to raise money for local and state budgets. Some public organizations ("Pechenegi", "Siberian Ecological Center", "Front" "New Wave", "Zelenaya Dubna", "MAMA-86", Environmental and Social Union, "Ecopravo-Lviv" and others) address letters to President of Ukraine and the Government of Ukraine requesting to protect nature and Danube biosphere reserve. In this connection the questions arise: from whom and from what the reserve is to be protected? From navigation which in the united Europe is considered the most environmentally pun type of transport and recommended for development, or -from the negligent managers of the Danube preserve. As a result of their "management" the severe violations of Ukrainian legislation and falsification took place when assigning channels and inner water reservoirs to permanent use of land for DBC, ungrounded inclusion of them into the core of the reserve. By the decision of economic and subsequently - appeal courts, such actions were declared illegal and the previously issued land certificates were canceled. At that, the most valuable natural complexes of Zhibriyansk Coastal bank and Stentsifsko-Zhibriyansk flooded area turned into abandoned zones. As a result, general degrading and loss of value for fishing and hunting and traditional industries for local inhabitants took place.

PARTICIPATION OF THE PUBLIC IN DISCUSSION OF THE PROJECT

Becoming aware of personal responsibility for further development of Ukraine, its integration into international community the participants of public sessions expressing the will of their collectives and organizations have decided:

- To support legal actions of the bodies of executive power on expedient use of territories in compliance with the provisions of Sevilla Strategy for biosphere reserves and development of Ukrainian navigation channel on the Danube.
- To address with the request to speed up the solution of the issue related to the approval of the working project for the construction of the first stage DNC "Danube Black Sea" according to the version developed by the Ministry of the Transport and Communications of Ukraine and its immediate implementation.
- Taking into account the systematic non-fulfillment of decrees of President of Ukraine No 861/98, 502/2003, 117/2004 and the Prime Minister of Ukraine No 3557/2003 and other orders of Cabinet of Ministers of Ukraine by the National Academy of Science of Ukraine we address with the request to transfer the control over the Danube biosphere reserve to a specially authorized central body of executive power in the field of environmental protection reserve stock.

The resolution was adopted by overwhelming majority of delegates and participants in public sessions. Voted: "after"-173; "against"-12.

■ Appeal to the political parties, citizens and civil society organizations of Ukraine, May 2006 (extract).

During the last 10 years a long discussion regarding the construction of deep-water navigation channel "Danube-Black Sea" has been carried out with the participation of state functionaries, deputies, experts, scientists of Ukraine - what precisely version of the channel should be chosen, how to satisfy capricious and endless demands of so-called partisans of nature, who by conceal of the slogans on nature protection are inflicting a significant economic damage to Ukraine.

The organizers of protest actions, allegedly as a whole, are not against the construction and even put forward their own alternative version of lock channel through Zhebriyansk coastal sea bank from Bazarchuk bay to Zhebriyuansk bay. But this natural complex, according to scientist's conclusion is considered the most valuable from the point of view of species diversity in the Northern Black Sea region, which makes any intervention of bulldozer, use of reinforced concrete in this fragile and tender landscape and flora treasures of our native region inadmissible and immoral. In particular - the dredging of sea approach channel through banks and shallow waters of Zhebriyuansk bay, which unconditionally will destroy this important cell of spawning and finishing areas of the young sturgeon, kefal and other ichtyfauna. It is well known to those striving to draw Ukraine in the new endless century-long construction -

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to build out on the land tremendous sea lock channel, which will contaminate native nature by piles and construction wastes. Only taking into account ecological component without considering non-competitiveness and long duration of the implementation, this version is nothing but cynical and intends to drag on the implementation of nation need of navigation on the Danube.

During XX century Romania has built 3 channels and now with the help of UNESCO quietly continues the fourth navigation channel, which will pass within the limits of the Romanian state reserve "Danube Delta". These channels have taken one-fifth of the water stream capacity of the Danube, deteriorating water balance on the Ukrainian part of the delta and not allowing refilling the Danube lakes flooded areas and bays with water. It inflicts damage to nature and many economies. The steam of domestic and transit cargoes has practically ceased to exist at the ports of Reni, Izmail, Kiliya and Vilково. Sea-going vessels of Ukrainian Danube Shipping have no possibility to return to native berths, to quay at the ship repair yards. Looking for employment, the inhabitants abandon native places and means of production. Factually, the Ukrainian Danube region is degrading economically and socially.

Nowadays there is no real care of reserves of nature in the Danube delta, supply of drying-up areas with water, which as never before are suffering from fires and are abandoned, put by the DBC in the interests of commercial groups.

These led to spring fires, massive mechanized cane harvesting a massive destruction of nesting and liquidation of habitats for helpless animals. What other catastrophes, are necessary to open eyes of those responsible for the protection of the reserve according to their duties for whom so far do not see fires and smoke at the horizon? Instead of a thorough salvation work they fight stubbornly for their political interests impeding the implementation of Ukrainian interests on the Danube. We, the representatives of the social and political organizations of Odessa region:

- address to the Ministry of the Environment and other State authorities in environmental issues with the request to stop disorder and destruction of nature within the DBC immediately;

- Support decisive action by the Government of Ukraine, Odessa State administration, all authorities and other organizations on the restoration of large-tonnage navigation on the Ukrainian portion of the Danube River and a permanent social and economic development on the Danube River region.

- Appeal to all authorities, conscious citizens of Ukraine by word and actions to support these state objectives. Don't let them to mislead you - protests against the construction of the DNC "Danube- Black Sea" through Bystryi Estuary is not the care of environment, but on-purpose counteraction against the

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development of Ukrainian economy in the Danube region, its important component of maritime economic complex. Further dragging in this respect is admissible, the deepwater navigation channel should exist this year.

The appeal was signed by the representatives of social and political organizations of Odessa Region: **Black Sea Kossak Voisko, "Zelenyi Mir", Ukrainian Republican Party "Sobor", All-Ukrainian Political Party "UNA", Socialist Party of Ukraine, NDP, Agrarian Party of Ukraine, Party of Manufacturers and Entrepreneurs of Ukraine, Party of Regions.**

Presentation of the DNC “Danube- Black Sea” to the leaders of diplomatic missions (10.09.2004) Bystryi Estuary, motor ship “Crimea Strela”.

The leaders of foreign diplomatic missions are present: Federal Republic of Germany, Netherlands, Portugal, Slovenia, Finland, Korea, Russia, Kazakhstan, European Commission, Sweden, Slovakia, Latvia, Poland, Lithuania, Czech Republic, Croatia, Hungary, USA, Japan, Bulgaria, Rumania, Israel, Moldova. Chief leaders of foreign diplomatic missions and representatives of leading Ukrainian ministries spent over eight hours aboard the motor ship “Crimea Strela”. Representatives examined marine and river parts of the new navigable channel, listened to the expert report. It was a serious talk –

including numbers, facts, numerous questions and discussions. Opinions of the participants:

**Monic Patricia Antyanetta Franc –
Ambassador of the Netherlands in
Ukraine:**

It was very important for me to come and see everything in person. It was a discovery that before construction there were a lot of variants of construction of the new navigable channel which were carefully examined and the best variant had been chosen. Unfortunately, before my arrival I thought that the DNC “Danube- Black Sea” is a unique canal in the delta of Danube. Now I know that there are three canals in Romania and my opinion considering the construction had changed significantly.

**Ian Tindall Boug – head of representation of the
European Commission in Ukraine:**

I want to note that in European Commission there is no critical attitude concerning this project. We only had some questions and today we received the answers. We are more anxious to discuss plans of Ukrainian government for construction of the second turn rope than those works which are already done. It was very important for us to see the facts and to receive documents, to see with our own eyes what is going on here. So we will carry on the dialogue. But there is no and there won't be any negative from us.

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Sergey Polyakov – Minister of preservation of the environment of Ukraine:

For all that we had to clean the sand-bar part because in few years it would be silted. Such phenomena constantly take place in the Danube delta and cause fish kill and ruinous changes for biodiversity in this region. And it would have been a threat not only for us, but also for the neighboring countries. Everything what takes place here now serves in favor of the people, in favor of our countries and in favor of our natural environment. I want to mark that in all countries nature protection departments exist in order to minimize those ecological losses which provide economic growth of every country. And we also do it today. We are glad that representatives of European Commission came here and we thank them for their visit. They saw what is going on in this region today. I think they will have positive impressions.

Business trip of the representatives of international Conventions (06-08.10.2004).

Representatives of influential international conventions in the field of conservation of natural resources (European Commission, Ramsar, Bern, Orhyz Conventions, International Commission for protection of the Danube river) had a business trip to Ukraine during October 6-8, 2004. The program of visit included the review of DNC route, presentation of the project and systems of safety of navigation in PRDS “Vilkovo”, discussion about estimation of project influence on the natural environment, scientific discussion of scientists and monitoring group.

A principled stand of Ukraine was straightforwardness for such inspections. That’s why European specialists were satisfied with the discussions which were held with participation of the leaders of state departments and specialists of scientific institutions.

After careful study and discussion the leader of European Commission delegation, Saledat Blanks, resumed: *we understand that the project of building of ship navigable canal has a global character. It means that it refers not only to the ecological aspects but also to the economic and social aspects. That’s why we are convinced that you must finish this project and harmonize the problems of defense of natural environment with the necessity of social development of the region. We realize it and want to dispose complete information on how Ukraine adheres to this primary objective.*

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International expert's examination of the DNC renascence.

Ukraine enabled wide acquaintance of international experts with the documents, preparatory works and all leadthrough works during all stages of implementation of the project: October 16-20, 2003 a working seminar “Renascence of transit navigation in Ukrainian part of the Danube delta in conditions of existence of biosphere preserve on the basis of international experience” was held in Odessa with participation of independent international experts. Experts in the field of ecology, biochemistry, ichthyology, hydrology, geomorphology, hydraulics, preserves and specialists on the study and design of estuarine and waterside processes were involved. A seminar adopted a resolution: “To agree with the conclusion of the complex state examination of Ukraine which recommends construction of ship navigable canal through the Bystroe (Novostambylskoe) mouth as a best variant that corresponds to the analogues in world practice of the building of ship motions on nature protection territories.”

October 27-31 2003 international experts – chairman of Czech national MAB committee Doctor Yan Kvet and coordinator of the Ramsar convention bureau in Europe Tobias Salate visited the place of construction of the DNC. 11.06.2004 a

meeting of Ukrainian delegation (represented by the Ministry of transport and

communications of Ukraine, Ministry of Ecology and State enterprise “Delta-Locman”) with chief specialists for ecological programs – Jane Robertson Vernee and Mirel Zharde was held in the main office of UNESCO. Ukrainian delegation informed the representatives of UNESCO about project-researches works performances and expert conclusions which



preceded the beginning of the DNC construction. Documents and maps which provided a basis for technical and economic assessment were represented. 22-25.07.2004 Council of Europe secretariat representatives – Eladio Fernandes-Galiano and Evre Letier had a business visit to Ukraine

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The program included examination of the Danube biosphere preserve, works on building DNC “Danube-Black Sea” along Bystroe mouth and also alternative variant of the route (“Solomonov Rykav – Zhebrianskaa buhta”). Meetings with the representatives of scientific institutions and builders of canal were held. A round-table discussion took place in town Vilkovo with the participation of stakeholders: Ministry of natural environment, NALU, administration of the preserve, civil society organizations, local authorities and inhabitants. 16.08.2004 on invitation of the Ministry of foreign affairs of Ukraine ambassador of Romania Alexandry Cornea together with the diplomats carried out a departure to the places of channel dredging in marine and river parts of the future ship motion. Press-service of the MFA marks that both sides are satisfied by cooperation. Mr. Kornea said: “An acquainting visit to the place to the place of recovery works in marine and river parts of Ukrainian deep-water navigable canal went well and all explanations concerning the cycle of restorations works had been given and shown”.

Consecration of the “Danube – Black Sea” canal.

In October 2006 orthodox inhabitants of the Odessa region made a religious procession along the bank of the Danube River. During

religious procession the believers carried a main secret object –the Blessed Virgin Mary

icon. According to the legend during Crimea war inhabitants prayed to the Blessed Virgin Mary and she helped to prevent the attack of hostile fleet on Odessa. In October 28, 2004 in Vilkovo by which the navigable canal opened after a long-term interruption at common collection of inhabitants a solemn ceremony took place. Out of doubt, the renewal of navigation on the



Ukrainian canal “Danube- Black Sea” is a pleasing business to God. Odessa-Ismail priests who carried out consecration of the canal are convinced in it. Orthodox public and Odessa metropolitan want to support mentally those people who build the canal. Such support for builders and sea-folks is very appropriate. Ukrainian canal passes a difficult stage of construction.

Resolution of the public listening concerning renewal of the DNC according to the complete development project (extract). 17.12.2004, Ismail

We, the representatives of labor collectives and public organizations are the participants

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public listening concerning questions of creation of the deep-water navigable canal through “Bystroe” mouth consider that renewal of ship motion on the Ukrainian part of delta will have great political and strategic importance for socio-economic development of the Pre-Danube region and Ukraine as the whole. Putting into operation DNC “Danube – Black Sea” as the Ukrainian area of the 7th international transport corridor will allow to involve industry and transport complex of the Pre-Danube region and Ukraine to develop and optimize the processes of national and transit cargo transportations, shipbuilding and shipboard repair, to use more effectively and fully all the Ukrainian transporting ways to the socio-economic region development and also to increase the local and state budgets. Long-term world practice (Canada, the USA, Lithuania, Great Britain, Poland, Russia) proved the possibility of using the river estuarine regions for transporting and other economic aims without a substantial damage to the nature of these territories.

Every action of the Ukrainian government, the customer of the SI “Delta-Lotsman” works was directed on harmonic unification of the valuable natural complexes development and their rational (stable) use according to the national and international rights. Being conscious of the responsibility as to further development of Ukraine and its integration into the international community, the public listening participations have expressed the wish of their collectives and organizations and decided the following:

1. Transport complex that takes the geographical advantage of the Danube waterway, serves as the basic factor of development of the Danubian towns.

2. Navigation decreasing on the Ukrainian part of Danube because of long period precariousness of necessary depths on the Prorva canal results in industrial and transport centers degradation. The DNF creation is the necessary condition of resumption of these leading fields of the region economy.

3. The creation of own deep-water navigable fairway is one of actual geopolitical and economical tasks for Ukraine without the solving of which Ukraine will finally lose one of branches of transport corridor and the navigable connection of Danube - the Black sea will fully be monopolized by Romania. It will inflict a great economic damage to not only Ukraine, but also other European countries, above all the Danubian.

4. According to the complete development project the DNF waterway over the Bystryi sleeve suits all necessary requirements and is reasonable, scientifically grounded compromise variant that allows to provide the effective economic use of the navigable fairway at the minimum negative environmental impact.

5. Working draft elaboration as to the complete development parallelly to the realization of the first stage project allowed, from one side, to shorten the period of negative impact on the environment due to the works acceleration, and from other side, to promote the renewal ecosystem processes intensification and to keep to a full degree the possibility of using the results of the DNF experimental exploitation at further project realization.

6. The first months of the DNF exploitation have demonstrated the efficiency of chosen variant of the navigation renewal on the Ukrainian part of the Danube delta. All works were executed in obedience to the technology recommended by the project.

7. To recognize the necessity of the environment state monitoring during the DNF building and experimental exploitation. According to the results of the conducted full-scale observations, the accepted technology work does not have considerable negative influence on the working area ecosystem.

8. To support the legal actions of the Ukrainian authorities as to the rational use of the guarded territories in correspondence with clauses of the Sevilsky strategy on biosphere reserves and the Ukrainian DNF Danube – the Black sea development according to the project on complete development. Not to let the stop of works on the renewal of the navigable fairway because of political reasons.

9. To attract the attention of the government of Ukraine on the necessity of taking measures on normalization of the water allocation situation

between Kiliyskyi and Tulchinskyi mouth of Danube with the purpose of non-admission of degradation of the Ukrainian part of the Danube delta, with bringing in of international nature-conservative and specialized structures, above all things the European Union.

10. To develop and realize the monitoring programs of the whole Danube delta together with the Romanian side under an aegis of EU nature-conservative organizations with bringing in of international experts with the purpose of the stable balanced development of the Danube delta taking into account careful nature management.

11. To organize constantly operating Ukrainian-Romanian coordinating council with participation of the EU nature-conservative structures with the purpose of elaboration and realization of nature-conservative measures as to the protection of the Danube delta and the Danube river within the framework of transboundary biosphere reserve and to direct this question to the International committee of the Danube river defense.

12. Expressing public disturbance of the Ukrainian Danubian community, to appeal to the National scientific academy with a request to give estimation of influence of dike building on the izmailskyi Chatal cape on the drain redistribution for benefit of Romania.

13. To appeal to the Danube region community with a request to support the actions of the Ministry of transport of Ukraine on further realization of the project of the Danube – the Black sea DNF renewal through the Bystryi mouth on the complete development. **Voted: "for" - 203, "against" - 2, "abstained" -1.**

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The resolution of public hearings concerning the reconstruction of navigation on the water-way of Kiliyskiy mouth of the Danube delta according the project " Deep-water navigable canal creation the Danube river - the Black sea along the Ukrainian part of the delta. Complete development" 20.12.2001), Izmail

We are the representatives of labour collectives and public organizations, participants of public hearings concerning the resumption of navigation on the water-way of Kiliyskiy mouth of the Danube delta according to the project " Deep-water navigable canal creation the Danube river - the Black sea along the Ukrainian part of the delta. Complete development". We consider that reconstruction of navigable canal along the Ukrainian part of the delta will have great political and strategic importance as for socio-economic development of Danubian region, and so for Ukraine in the whole.

The necessity of its creation is conditioned by series of objective factors:

- Integration processes in Eurasian space;
- Traditional trade and economic ties between the countries of the East - the West;
- Conclusions of EU experts, that the seventh International (Danube) transport corridor (ITC) is the most priority transport corridor in directions of the West - the East - the West ;

- Rough estimates of EU experts relatively the multiplying of cargo transportations in 2-3 times till 2012 along the route of the seventh ITC ;

- Availability of one of the largest river fleets - Ukrainian Danube steamship line, providing cargo transportations along the route of the seventh ITC, where tonnage share is 24,1%;

- Availability of powerful Ukrainian Danube marine ports for the overload of cargos (not less 20 millions ton) in the river-sea communication;

- The necessity of creation of civilized market (competition) conditions on transportation and treatment of cargos between the countries of Europe and Asia in the river-sea communication by the diminishing of the monopolistic influencing of transport infrastructures of one country – Romania;

- Loading necessity of powers of shipbuilding and ship-repair factories, enterprises of transport field and other enterprises, that will considerably improve the socio-economic condition of Ukrainian Danube;

- Non-admission of socio-economic slump and degradation of Danubian region.

Primary purposes and task of project:

- Receipt of the proper geopolitical character levers on Eurasian space in presence of national competitive navigable canal in the river-sea communication

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for barter optimization between the countries of the West and the East;

- Solving of economic and political security in Ukraine problems;
- Creation of terms for modernization and building of new transport infrastructures (fleet and terminals) on the route of water-ways of Ukraine;
- Creation of terms for further industry development (metallurgical, shipbuilding and machine-building) taking into account development of national transport infrastructures;
- Solving of socio-economic character problems for the population of Ukrainian Danube.

In connection with suspending of building and long-lasting intensive spring – summer flood and three extreme floods of rain in July – September 2005, it was intensive silting of unfinished fairway and navigation became impossible (flow of pumps of Bistriy mouth in 2005 formed more than 97% of total pump flow of this mouth for the last three years).

Suspending of building more than 2 years reduced to considerable negative economic consequences, namely:

- loss of the facilities mastered in 2004 on digging of opening on a marine bar within the framework of the first stage;
- receiving less of profits from channel, pilot and other collection in 2005;

- receiving less of profits from the port charges of Ukrainian ports, above all things ports of Danube;

- receiving less of profits from shifting works by Ukrainian ports;

- losses for courts passing of the Ukrainian navigable companies through the Romanian Sulinskiy channel.

To consequential damages it is possible to deliver losses of national and other companies of marine business, and also losses on the contracts of foreign companies which lost possibility to use more effective and more cheap passage-way. Considerable consequential damages were borne by the proprietors of cargo and national and foreign carriers.

The unused possibility to load on complete power the industry-transport complexes of the Danube, the Dniپر - Bug region, the Kerch channel and the sea of Azov behaves to the negative social consequences. For today there are ten marine ports, seven river ports and piers, two navigable companies (Ukrainian Danube steamship line and Ukrainian river fleet), seven factories of shipbuilding and ship-repair, other enterprises of Ministry of transport and communication of Ukraine.

- water-way of Ukrainian DNC passes practically fully along natural river-beds: Kiliyskiy mouth of the first order,

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Starostambulskiy and Bistriy mouths of the second order;

- natural depth and width of these mouths are sufficient for the safe passage-way of maritime and river courts in a direct and reverse order, that is confirmed by long-term marine and river navigation;

- according to the legislation, earths of water area of these mouths and 100 meters waterside bar behave to earths of water fund, and these earths do not enter in the complement of the Danube biosphere preserve;

- question of natural complexes saving and those territories that behave to the Danube biosphere preserve (DBP) must be provided with participation of city community;

- works on development of zoning project for the Danube biosphere preserve in accordance with the norms of Ukraine legislation and by the requirements of Ukraine President Decree № 117/2004 dated 2.02.2004 "About expansion of Danube biosphere preserve" have not been done the works by the administration of DBP ; Conscious own responsibility after further development of Ukraine, its integration in international association, for stability of socio - economic development territorial communities, participants of public listening, expressing will of territorial communities, the collectives and organizations, decided:

1. Creation of own deep-water navigable canal for Ukraine is one of actual tasks of geopolitical and economic importance, without the decision of which Ukraine will lose one of branches of a transport corridor finally, and navigable connection of Danube with the Black sea will be fully monopolized by Romania.

2. DNC tracks along Bistriy hom according the project on complete development satisfies with needs to the ecological requirements and is the scientifically grounded compromise variant which allows to minimize the negative affecting environment and provide the maximally effective economic use of natural channels for a navigation.

3. By the purpose of saving unique natural complex of Danube region, including the Danube biosphere preserve, at implementation of build works it is necessary strictly to adhere to the normative requirements on the guard of environment and ratified decisions of projects.

4. To provide organization of the constantly operating ecological monitoring during building and exploitation of DNC. During realization of monitoring to set the proper contacts with the Romanian side.

5. To pay attention of government of Ukraine to the necessity of measures' conducting on normalization of situation on a watershed between

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Kiliyskiy and Tulchinskiy mouths of Danube with the purpose of non-admission of the Ukrainian part of Danube delta degradation because of conducting works on territory of Romania. To conduct monitoring through this question with bringing in of international structures of nature protections and specialized, above all things European Union.

6. To pay attention of Ukrainian government to the necessity of the detailed consideration at an international level of consequences of building ecologically dangerous petroleum terminal on territory of Moldova – the village Djurdjuleshti. Creation of this complex carries a serious danger both for nature of the Danube delta and economic threat for ports of Ukrainian Danube.

7. To make a request to the public of Ukraine and the Danubian region to support operating of Government and Ministry of transport and communication of Ukraine under realization of project of renewal of the Ukrainian water-way on the route of natural mouths (Kiliyskiy, Starostambulskiy and Bistriy) of Ukrainian part of delta of the Danube river, within the framework of realization the project "Danube - the Black sea", complete development.

Resolution is accepted by absolute majority of public listening participants .

Chairman	Mr. A. Semenov
Secretary	Mr. I. Ognev
Izmail	the 20 - th of December 2006

The address to the President of Ukraine, the Verkhovna Rada of Ukraine, the Cabinet of Ukraine

Relatively the problem of completion of tasks in a hand from creation of Ukrainian deep-water navigable canal along the Bistriy mouth on Danube (extract) 26.01.2005

Ecological public organization EUROCOAST - UKRAINE presenting Ukraine in the non-government European organization – the Federation Eurocoast, was founded and registered in 1994 by the group of Odessa scientists (marine environmentalists and legists) with the purpose of mobilization domestic and foreign intellectual, industrial– and-technical, financial potentials for the practical solving of the whole block of ecological–and-economic and social problems of nature management optimization in the Odessa area of Ukrainian Prichernomor'ya.

Taking into account the above-mentioned information, it is reasonable, that prosecution of extremely sharp problem solving of creation by Ukraine its own optimized deep-water waterway on Danube yet from 1995 has been one of the main activity Association priorities .

Accumulated for today scientific, scientific - technical and other types of information related to this problem allow to do three basic and, in our view, on principle important, strategic conclusion, which we have to bring to the notice of the renewed guidance of country. The first from them touches validity of begun in past year of hydro technical works on provision of the necessary facilities of Ukrainian ship motion on the river Danube, the second - collisions round the indicated works and the reasons of their

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origins, the third - optimum way overcame last.

Conclusion I. Selected variant of sovereign Ukraine creation on its territory own deep-water ship motion within bounds of the Danube biosphere preserve (DBP) of UNESCO on the Bistriy mouth in the folded terms is optimum in all respects. It is necessary to continue hydro technical tasks in a hand with absolute completion in obedience to a project on complete development in the planned terms - to the end of current year.

Conclusion II. By primary cause of existing for today active resistance above-mentioned, extremely important for our state, works from the side of some part of domestic and foreign ecological public, separate specialists, organizations, government and intergovernmental institutions, etc., is erroneous, antistate position.

Conclusion III. The most effective way of complex decision of this and a number of other similar actual problems is the creation of International center of complex nature management in the pool of the Black sea by the instrumentality of financial participating of world association. The direct participating of international specialists in joint actual developments automatically will take off a lot of the concomitant annoying misunderstanding and superfluous questions.

Yours faithfully,

Mr. Aleksandr Cokur

Vice-president of Association EVROBEREG-UKRAINE,
candidate of biological sciences

Separate attention is deserved the information, printed in the Romanian newspaper "Zurnalul Nacional": **"As all diplomatic and ecological efforts of Romania and European Concord to convince Ukraine to halt the building of navigable canal were ignored by Kiev, Romania examines an alternative variant to build a new canal on the territory of Romania.**

This canal would swallow up the greater part of waters of Kiliyskiy branch, because of what the Ukrainian Bistriy canal will be useless for navigation from the decline of water level... it will be the best answer on the action of Ukrainians. ... then, if Ukrainian side stops building of the canal, it could be closed".

The resulted information presents, that all realizable measures by Romania, related to the attempts to compel Ukraine to give up building of DNC "Danube – the Black sea", have little in common with the nature protection, and are the display of fight against a successful competitor. Ukrainian DNC opens such economic aspects which push Romanian administration of navigable canals to such sharp statements and even consideration of global project redistributed gully of Danube - to one of the most abounding in water world rivers. Realization of the offered variant will have catastrophic consequences for the natural complexes of all delta not only in Ukrainian, but also in its Romanian part.

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Scientific-and-practice seminar

"International examination of monitoring realization results of the first turn of restoration works of deep-water navigable canal "Danube - the Black sea" taking into account the influence of other economic activity types on the natural complexes of the Danube delta". Odessa, the 27-28-th of April, 2005.

The Ministry of transport and communications of Ukraine, Ministry of Foreign Affairs of Ukraine and Ministry of environment preservation of Ukraine in accordance with the decision of working group meeting on preparation of international scientific-and-practice conference in questions of saving and stable development of the Danube river delta, dated the 15-th of March, 2005. International scientific-and-practice seminar "International examination of monitoring realization results of the first turn of restoration works of deep-water navigable canal "Danube - the Black sea" taking into account the influence of other economic activity types on the natural complexes of the Danube delta" was conducted on the 27-28-th of April in Odessa.

were invited for participating in the seminar National and international specialists, having a large experience of international researches in the area of natural environment ecology - the representatives of the Ukrainian research institutes, UNESCO, European Commission, UNO, Danube commission, International commission of the Danube river protection, nature protection conventions, Fund of wild nature saving

and other international ecological non-governmental organizations and also Ukrainian and Romanian biosphere preserve "The Danube Delta" management.

In the process of seminar work experts familiarized with project information and present information, facts and current scientific materials on results of complex ecological monitoring of natural environment at renewal of deep-water navigable canal "Danube - the Black sea" (2004), which were executed by the collectives of scientific establishments under the direction of Ministry of environment preservation of Ukraine.

The representatives of international organizations marked positive development of situation around the realization of Ukrainian project. In particular it was accentuated the openness of Ukraine, its willingness to co-operate with Romania, and also understanding by Ukrainian side of saving importance of the Danube delta ecosystem in the whole.

The Romanian participants of seminar valued highly the possibility to familiarize with the results of the ecological monitoring of the Ukrainian project and found out availability to general work with the purpose of the Danube delta unique ecosystem saving .

1. The governments of Ukraine and Romania must pay attention to the necessity of taking measures on prevention of degradation of the Danube delta and guaranteeing of the water proper distributing in the delta, with bringing in of international nature protection organizations, primarily from the European Union.

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2. Ukrainian and Romanian sides will have to develop and to execute the international program of the Danube delta monitoring, including the estimation of deep-water ship motion influence. It is expedient to execute the program under an aegis of international nature protection organizations, mainly from the European Union, attracting the international experts.

3. It was decided, that the Ukrainian-Romanian commission would be created with participation of national and international nature protection organizations and European Union with the purpose of development and implementation of nature protection measures on saving of the Danube delta and the Danube river.

From appearances of international experts:

Tobias Salate (Senior expert of Ramsarskiy convention):

Thanks to the Ministries of Ukraine for organization of this seminar, for invitation of different international organizations. I consider that it is positive development. Since the plan of navigation way was developed in the Danube delta, Ukraine showed that could execute works in accordance with international agreements, and also ready to co-operate with its neighbors - in this case - with Romania with which it divides a border along the Danube river.

Water-bog lands are the system, and system approach must be used to them.

The ecological aspects of these territories were examined within the framework of convention which was signed by 55 countries. Ukraine takes active part in this direction. Its part - Kilyyskaya - was one of the first in the lists of earths, getting under the action of Convention. Last year Ukraine added to its list and other water-bog lands, and presented the strategy in this question, what showed a good example other countries.

The estimation of economic changes within the framework of Ramsar convention is based on specific criterias, touching three basic components - population, habitats and natural processes. That, what we wanted to estimate, it is functioning of all these processes. And I would like, that our judgments were based on to the monitoring results, scientific researches today. It is from one side . From other side, we would like to show, how compensation was measured which had to be executed.

Now you are on the earliest stage. Sure, some aspects will arise up in the future, and that is why it is very difficult to make decisions now, to draw certain conclusions about the consequences.

The basic object of attention of natural sciences is a morphological dynamics, directly relating to the streams of water, to its quality and quantity, to development of waterside and riverside territories .

Also we have not to forget about a man, about that influence which he exerts on ecosystem. People live in different economic terms, and in each of cases it is needed to search the approach.

PUBLIC PARTICIPATION IN DISCUSSION OF THE PROJECT

It is necessary to talk about strategies, about the estimation of economic situation in the Danube delta. I suppose that Ukrainian government is agree with us in this task.

When I am talking about the Danube delta, I have in view not only Ukrainian part but also those territories, which divide Ukraine and Romania, and also overhead part, and it touches Moldova republic. There are multilateral agreements between the organs of management, and I would like to invite sides to discuss the great number of details and to make a final bargain.

These works will proceed on the basis of all-embracing plan on the Danube delta. Thus, to continue in complex-taking into account natural ecological descriptions and people which live and work in this region. And we have not to forget in products - fishing, ways of navigations, connecting the river to the Black sea in the framework of existent conventions.

Erve Let'er (Consul of Europe Council):

We are talking about international cooperation, and everybody has seen today, what considerable progress has been done in this direction. Therefore it would be well to talk that in the near future, possibly, we already will have general aims relatively the development of delta. Work which has been already done and is doing now, will be for us as a basis for an international conference in September.

Very serious conference will be conducted relatively this question in June.

Biologists will gather at the conference for conducting joint work in part of the natural saving of the Danube delta.

As our seminar is concentrated on an ecological aspect, I would like to ask you to include in monitoring social questions. As known, there are a lot of types of economic activity in Vilkovo, and it is very important, that this moment will be explored.

Ferents Laslo (International commission on defence of the Danube river):

We very value monitoring efforts which have been put on a navigable channel in the Danube delta. And we support both sides in displaying of such initiative. We consider that it is important to extend the spectrum of monitoring activity in the Danube delta with attracting of the special expert group of our commission.

PUBLIC PARTICIPATION IN DISCUSSION OF THE PROJECT

International scientific-and-practice conference "Saving and stable development of the Danube delta", Odessa the 26-th of February – the 1 of March, 2006.

On the instruction of the President of Ukraine №1-1/860 dated the 22 of Augusts, 2005 Ministry of transport and communications of Ukraine, Ministry of Foreign Affairs of Ukraine and Ministry of environment preservation of Ukraine, State Committee on Water Economy and National Academy of Sciences of Ukraine with the assistance of UNESCO, International the Danube defense commission and a number of international organizations have held International scientific-and-practice conference "Saving and stable development of the Danube delta".

National and international experts with the proper experience in area of environment preservation, representatives of the Ukrainian research institutes, UNESCO, European Commission, Council of Europe,

ICPDR, Ramsar Wetland Convention, WWF DCP, UNDP-GEF DRP, Wetlands International and other nongovernmental agencies, including the leaders of administration of the Romanian and Ukrainian biosphere preserve "the Danube Delta", representatives of NGO are presented at the conference.

Preparation for the conference.

Ministry of transport and communications of Ukraine, Ministry of Foreign Affairs of Ukraine and Ministry of environment preservation of Ukraine, State Committee on Water Economy and National Academy of Sciences of Ukraine held scientific-and-practice national seminar on questions of preparation to the International scientific-and-practice conference "Saving and stable development of the Danube delta " in accordance with the decision of international organizational committee meeting on preparation of international scientific-and-practice conference of the 15-th of December, 2005.

PUBLIC PARTICIPATION IN DISCUSSION OF THE PROJECT

Conference holding

The followings questions were discussed during the holding :

- Social, economic and ecological conditions and advantages of the Danube delta region
- Stable development of the Danube river - specific and basic problems;
- The perspective seeing of the problem of the Danube delta development and development of the program of stable economic development;
- Basic problems and threats for the stable system of the region development ;
- Possible international, national and local institutional mechanisms, necessary for achieving of the assigned goals;

National reports of Ukraine, Romania and Moldova were heard and discussed.

Conclusion formation of the Conference was executed on the basis of resolution of preparatory seminar with active participant of organizational committee members and generalized during the work of working group on development of final documents in the second day of the Conference.

Participants of the conference, chairman of ICDPR - Mr.Philip Veller, representative of UNESCO – Mr.Robertson expressed special gratitude to the organizers of the Conference, Ministry of Transport and Communications of Ukraine, delegations of Ukraine, Moldova and Romania, international institutes for active participant in discussions on problems of the Danube delta stable development and preparedness to take strong measures of inexhaustible development.

Description and engineering data of DNC

The description of the project „deep-water navigable canal the Danube – the Black sea” that passes through the clear-way of the river Danube, through the Kiliyskyi, Starostambulskyi and Bystryi river branches.

The projected navigable canal belongs to the ways of international value as to its characteristics; as to the waterway class it is super main waterway of the VII class according to the European waterways classification.

The depth of the navigable canal is determined by the design craft passage conditions - at the predicted water levels on the main waterway. Lower design navigable level accepted at the 99% supply as to the daily perennial water measurements on shipping season.

Crafts dimensions accepted in working draft are the following:

- THE LENGTH IS 125M;**
- THE DEPTH IS 17 M;**
- THE DRAFT IS 7, 20 M.**

That is the possibility to let pass through the navigable canal such kinds of sea crafts as CO-5G (length -124,30 m; width -15,80 m; draft with a load - 5,50 m; dead-weight - 5590 tons), mixed type „river-sea” crafts such as the "Bug" (length -127,0 m; width -16,0 m;

draft with a load - 4,85 m; dead-weight – 6300 tons) and perspective crafts (length - 125,0 m, width -17,0 m, draft with a load - 7,20 m, dead-weight - 8000-10000 tons).

Deep-water navigable fairway (DNC) "Danube –Black sea" by general length of 172,36 km consists of such parts:

- **seaway access duct;**
- **sea – Vilkovo;**
- **Vilkovo – Izmail Chatal;**
- **Izmail Chatal – Reny (the Ukrainian frontier).**

In addition, the navigable canal composition includes projects of the seaway access duct levee, flow-leading levee, bank paving, marine soil dump, coast and channel earth deposit, navigation equipment.

Seaway access duct with the length 3,432 km, width on a bottom 100m, depth 9, 52-13,72m at the lowest navigable water level minus 0,48m of BS. Design canal invert mark is minus 10, 00; 9, 50 and 9, 20 m of BS. Sides' occurrence -1:9. Seaway route direction is 128°-308°. Navigation over the access duct is considered to be one-way. The fine sand formations lay 5, 0 m beneath the seaway access duct route, and below are loams.

Part of the navigable canal sea - Vilkovo (1,534 -20,555 km) is projected on the Bystryi mouth (1,534km - 10,000

km) and on the Starostambulskyi and Kiliyskyi sleeves (10,000 km -20,565 km). Part of navigable canal on the Bystryi mouth is projected to have a depth on a bottom 60 m (one-way navigation). **There are foreseen clear-way bottom cleaning to 4 and 6 km and two-way navigation on the Starostambulskyi and Kiliyskyi sleeves (width on a bottom is 120m).** At the Bystryi mouth input from the Starostabmulskyi sleeve the accepted turning radius is 800 m while the other turning radiuses are 1000 m and more.

At this part there are provided natural depth and width of navigable canal - except for the Bystryi mouth input from the Starostabmulskyi sleeve, which riffle clearing is considered to reach the mark minus 8,66 m of BS, and also partial clearing of the Starostabmulskyi sleeve right-bank side below the Bystryi mouth head. Rifts in the bounds of clearing depths are represented by loamy silt with sand bands.

Part of the navigable canal Vilково-Izmail Chatal (20,555 km - 116,00 km) passes through the Kiliyskyi sleeve. The navigable canal is two-way and has a project width 120m. Turnings curve radiuses -1000 m and more, except for a 98 km turn by the radius of 700m.

Clearing of 11 rifts is foreseen on this part. Design reference marks on the cut bottom vary from minus 8,64 m of BS to minus 8,23 m of BS. The sides occurrence is 1:6, on loams it makes 1:1,5. Sandy pound, hard-ball loams and clays are subject to the excavation on rifts.

Part of the navigable canal Izmail Chatal – Reny (1115,00 km - 170,36 km)- navigation is provided on an existent

fairway, in accordance with the Danube pilot chart. The navigable canal is two-way while its design width is 120 m. There is foreseen clearing of two rifts - for 142,40-139,70 km to the design reference mark minus 8,13 m of BS and 153,40-152,50 km to the design reference mark minus 8,03 m.

Order of the Ministry of transport and communication of Ukraine from 17.08.2004 №740 has approved "**the temporal navigation sequence on the seaway access duct, the Bystryi mouth and sea road in the mouth reach of the Bystryi mouth**". According to the temporal order under the favorable hydrological conditions the navigation on the seaway access duct is allowed for crafts long up to 150 m with the settlement in fresh water up to 5,85 m. night navigation is allowed for sea crafts and mixed-type navigation crafts long to 135 m with 4,5 m settlement.

Taking into account passing of the DNC route along the Danube biosphere reserve boundaries in the seaway access duct and in the Bystryi mouth on the part from the receiving sea buoy to the distance mark "11 km" one-way navigation was introduced. Navigation speed must not exceed 7 knots for crafts going upwards against current, and 8 knots for courts going downstream.

DNC corresponds to the international safety standards and requirements of navigation and preservation of the environment.

The navigation equipment by the floating caution beacons of access duct and seaway approaches to the navigation area corresponds to the Beacon service international association system - region A. Navigation equipment by floating beacons

of the Danube river navigation part upstream from 0 km of the Bystryi mouth corresponds to the Danube navigation fundamentals.

Pilotages are obligatory on the seaway access duct and on the Bystryi mouth. Pilot maintenance of crafts is carried out by the Ukrainian state sea pilots of the state enterprise "Delta-lotsman" only.

Every seaway craft and mixed-type "river-sea" navigation craft, regardless of flag which they walk under, must have a state sea pilot aboard:

- at the navigation upstream to the Ukrainian ports or downstream from the Ukrainian ports or cargo trans-shipment points at all the area from the receiving buoy of the seaway access duct to the Reny port and counter;

- at the transit navigation from the sea on the seaway access duct and on the Bystryi mouth upstream and downstream without touching the Ukrainian ports - on the part from the receiving buoy of the seaway access duct to the Reny port road and counter.

Pilot maintenance of crafts is carried out round-the-clock, if the DNC Temporal navigation order, stringent ports regulations didn't set some navigation limitations, or navigation is forbidden because of unfavorable hydrometeorological conditions. DNC "the Danube –the Black sea" is served by the Regional navigation control service (RNCS) "Danube" of SI "Delta-lotsman". Its responsibility area includes the Danube part from the Prut river mouth to the sea outlet on the Kiliyskyi sleeve (including the sleeves of Ivanesh't, Solomonov and Priamoi), the Starostambulskyi sleeve, the

Bystryi mouth, the seaway access duct and is limited on east by the circle arc of 12 nautical mile radius, drawn from the point with the co-ordinates of 45°18,6"N 29°49,3'E (seaway access duct receiving buoy).

Navigation on the sea road, seaway access duct and in the Bystryi mouth is controlled by the Navigation control Center (NCC) "Vilkovo", which is the "Danube" RNCS part. NCC "Vilkovo" carries out crafts maintenance round-the-clock and provides the following activities in its area:

- organization and control of navigation;

- crafts information service by means of the meteorological and hydrological information transfer, information about variations of navigation equipment facilities, information about navigation state and factors which complicate the traffic, warnings in case of possible dangerous rapprochement with other crafts and advices as to their prevention;

- control of the crafts location on anchorages in coverage and warnings transmission to the crafts in case of dangerous drift at anchor;

- assistance in wrecking, towing, dredging and other special operations.

DNC economic characteristic

The navigable canal engineering data were chosen according to their possibility to

provide its competitiveness as compared to the existent Romanian canal. The Ukrainian navigable way can be competitive under the following conditions only:

- Navigable canal engineering data and navigation conditions must satisfy operating requirements and standards of navigation safety, approved by the EU and by the Danube commission, namely: navigation safety providing due to the technical systems of navigation equipment and navigation control system (NCS), introduction of combined system of electronic cards and craft positioning satellites facilities; providing with the mobile pilot service;

- Main engineering data of the navigable canal (canal width and passing draft of design craft) must be not less, than that existing at the operating deep-water Sulinskyi canal;

- canal artificial part must be considerably less, than the similar length of the Romanian canals;

- operating costs on support of the canal nameplate dimensions must be on 60% less;

- canal tallages must be on 50% less of the Romanian ones;

- construction cost and further operating costs must be covered by the canal tallages taking into account necessary budgetary payments on coverage of ecological damage, and also accumulation of corresponding funds for the capital assets renewal;

- introduction (90% supply) of two-way navigation in case of organization of one common navigation scheduling and

also providing with round-the-clock pilot pilotage.

These conditions are foreseen by the design solutions. Activity success of the DNC "the Danube - the Black sea" is based on natural conditions of the route passing (width, clear-way minor tortuosity, major depths located practically along the whole length satisfy the navigation conditions). It is founded also upon the introduction of modern systems of navigation control and safety.

The competitiveness of the project is conditioned by the following factors:

- Actual absence of navigation limitations as to the weather conditions and navigation speed.

- Present ability of the passing drafts increase in order to extend the craft batch.

- Around-the-clock work during all the year.

- Two-way navigation possibility

Total length of the canal artificial part is only 3,4 km, that is considerably less, than the Romanian ones. All of this provides more optimal carrying capacity of the Ukrainian navigable canal along 98% of the whole route length. While there is one-way navigation on the whole route of the Sulinskyi canal and it is carried out only in summer time that means the substantial restriction of navigation and causes additional losses for shipowners because of unproductive stoppages.

From 0.6 to 1.1 thousand crafts passed over the Sulinskyi canal route in 1990-2000 every year under the flags of 42 states, and the cargo transportations

volume in both directions made from 1.1. to the 3.9 million tons. In record 1987 year the Sulinskyi canal was passed by 3497 crafts with 10,1 million tons of cargoes in both directions including 2,9 million tons of river-sea transportations, and 7,2 million tons counter. According to the Danube Commission data 891 crafts passed over the Sulinskyi canal under the flags of 42 countries in 1999. The Ukrainian quota in total volume of transportations was 12,9% ("ChernomorSRIProekt" source). In 2003 the Sulinskyi canal was passed by 1846 crafts. On every market segment the Danube - the Black sea DNC has a rival – the Sulinskyi canal Administration (Sulinskyi canal (mouth).

Every Romanian canal has carrying capacity limitation: one-way navigation, speed limitation, day navigation, large length by comparison to the Danube – the Black sea DNC (the Sulinskyi canal is 79,6 km, Medgydiya-Novodary is 26 km, Cherna voda-Konstantsa is 64,2 km (for comparison the Danube – the Black sea DNC length is 3,5 km).

For the nameplate characteristics maintenance of these canals the heavy capital investments are needed. So, for example, the necessary capital investments volume for canals of Cherna voda-Konstantsa and Medgydiya-Novodary amount \$2,8 and \$ 1,5 milliards for the Sulinskyi canal (on comparison - for the Danube – the Black sea DNC creation the volume of necessary capital investments makes approximately \$ 60 millions). At the same time the profitability is minimal. In the recent years passage rate increased to 50-70% on average.

The SWOT-analysis has shown that the Ukrainian DNC „the Danube - the Black sea” can potentially occupy the navigation market share on the Danube delta at the rate of 64,69% on the foreign shipowners segment and 81,29% - on the domestic shipowners segment.

In order to provide competitiveness the Danube - the Black sea DNC fixed tallages were set below, than on the Sulinskyi canal. Pilot and canal tallages payment for passage „the Black sea – Reny - Black sea” on the Ukrainian navigable canal is 48,5-52,5% from the Sulinskyi canal passage for different crafts.

№	Navigable canal	Craft volume, m ³	Canal tallage, USD \$	Pilot tallage, USD \$	Sum total, USD \$
1.	DNC „the Danube-the Black sea”-Reny - DNC „the Danube-the Black sea”	6391	1789,48	1307,60	3097,08
	The Sulinskyi canal-Reny-the Sulinskyi canal		3744,00	2642,00	6386,00
2.	DNC „the Danube-the Black sea”-Reny - DNC „the Danube-the Black sea”	8568	2399,04	1753,01	4152,05
	The Sulinskyi canal-Reny-the Sulinskyi canal		5148,00	2762,00	7910,00

The canal tallage charge for every one-way passage of craft for 1m³ is carried out on rates 0,140 (in \$ USD). The pilot tallage rates make 0,0011 (in \$ USD/m³-mile). UAH 63666,8 thousands were spent in 2004. According to the decision of complex state commission of experts the full growth cost makes UAH 344969,3 thousands. To finish the first and second (11 months term) phases UAH 281302,5 thousands are needed.

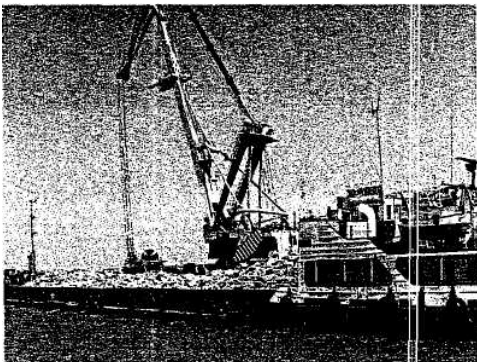
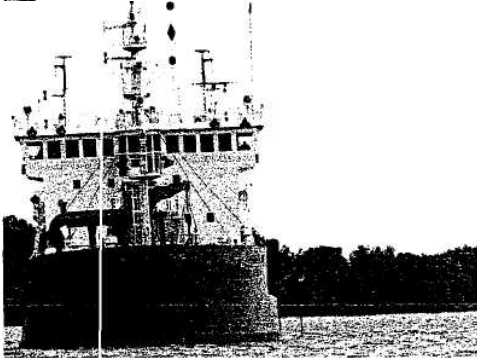
Actually the state project will be realized out of proceeds of credit and circulating assets of one state enterprise „Delta-lotsman” supporting by the Ministry of transport and „Ukrmorrichflot”. The budgetary financing in 2004 was foreseen, but it was not carried out.

Budgetary offers on 2005 year are given in accordance with established procedure, but declined by the Government. Taking into account the real circumstances as to the financing procedure execution it is planned to finish the project in the first half of 2006 year.

The Danube – the Black sea

DNC building

The DNC building was executed by the company „Miobius” (Germany) and Ukrainian companies.



7

Navigation equipment and results of the Danube – the Black sea DNC operation

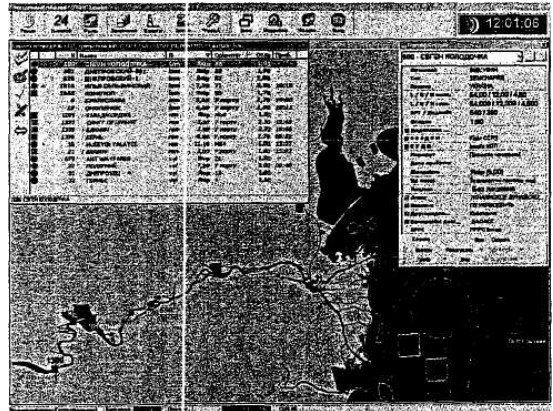
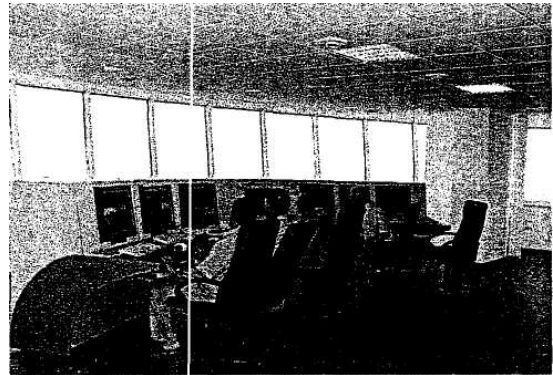
Navigation and safety systems

The entire DNC route is supplied by the modern navigation and safety systems. The navigation equipment of seaway approaches corresponds to the International association of lantern services system - region A, the navigation area river part equipment corresponds to the Basics about the Danube navigation.

Safety of navigation is provided by linear pilots and pilots-operators from the state enterprise "Delta-lotsman", which behaves to management sphere of Ministry of transport and communication of Ukraine.

Navigations services are equipped by the modern specialized crafts, differential GPS (DGPS) maritime stations, waterside navigation Automatic Intercept Systems (AIS), and computer-aided radar offices.

All objects are integrated into the common regional system of navigation control of the "Danube" crafts, which provides not only navigation safety, but also considerably improves the navigation stream efficiency. The navigation participants get operative meteorological and hydrological information, information about the traffic state, factors complicating the navigation and others.

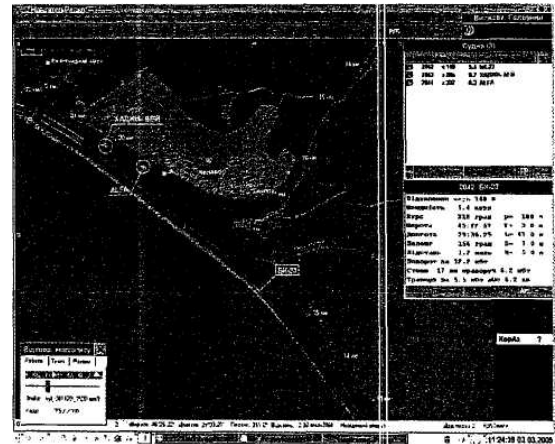


The results of the Danube – the Black sea DNC operation

The advantages of new Danube - the Black sea deep-water navigable canal on the route: seaway access duct – the Bystryi mouth – the Starostambulskyi – the Kiliyskyi - Danube are already confirmed by the first results of its operation. It has already allowed to decrease substantially one of the most burning issues of the main international European transport waterway –it has provided a safe navigable canal „the Black sea – the Danube river”.

Navigators from 20 countries of world, which have chosen the Ukrainian DNC, mark that growth of depths near the Bystryi mouth, bank which protects the DNC entrance and navigation equipment provide the comfortable, safe and round-the-clock navigation during all the year. Practically the whole route passes on the natural Danube clear-way – its widest and deepest Kiliyskyi sleeve. Two-way navigation from Vilkovo to Reny is carried out day and night. Width, slight tortuosity of the navigable canal and its depth conform to the European classification requirements of the highest international class of inland waterways.

Navigation renewal has already positive impact upon the Danubian transport-industrial infrastructure. The joint-stock company „Ukrainian Danube steam navigation” has renewed the transit linear grain haulage and other loads transportations from Central Europe. Four seaway crafts of steamship line by deadweight 4600-6100 tons work on this direction, that allowed to transport over 100 thousand tons of loads additionally last year.



**Comparison table over the period from August 27, 2007 to
March 28, 2006**

	Bystryi seaway canal		The Sulinskyi seaway canal Number of navigation passages (no module data)	The Ust'-Danube navigable canal Number of navigation passages (no module data)
	Navigation module	Number of navigation passages		
August 2004		10	8	55
September 2004	391200	44	47	36
October 2004	509005	73	73	45
November 2004	430960	57	56	34
December 2004	489502	65	76	12
In all 2004	1820667	249	260	182
January 2005	252103	33	59	12
February 2005	278860	37	73	0
March 2005	402370	57	117	17
April 2005	456141	87	106	21
May 2005	648205	133	110	10
June 2005	313554	48	89	25
July 2005	200577	37	102	15
August 2005	296013	54	122	24
September 2005	203614	44	99	28
October 2005	176020	37	99	11
November 2005	158757	41	125	21
December 2005	229404	36	139	2
In all 2005	3615618	644	1240	186
January 2006	181837	19	92	1
February 2006	121435	17	143	0
March 2006	219802	25	107	10
In all 2006	1260258	61	342	11
Sum total	5959359	954	1842	379

During the current year the transportations volume through the canal is considered to reach the level of 250 thousands of tons. And 350 - 400 thousand of tons growth is forecast in 2006 - 2007 years. With the canal complete development it is planned to attract to the Ukrainian Danube TN the CIS countries freight flow - from the basins of Volga, Don and Kaspyi, which go to the countries of Central Europe. It is possible to expect that the Ust'-Danube navy quota in maintenance of this freight flow will be 50%, and inland water transport - from 90 to 100%.

The certain improvement of industrial and financial-economic indicators of the Danubian ports is marked. On results of 2004 year the cargo handling grew on 17,4% in the Izmail port, on 12,1% in Reny and on 82,1% in port of Ust'-Danube. The treated crafts number was has increased, in particular in the Ust'-Danube port. During 10 months of the last year 276 crafts were treated here, that is in three times more than the year before last index. The Ust'-Danube port has become profitable and began to get profit from its economical activity. Freight in transit treatment by the Kiliyskyi port point grew twice (the rate of growth was 201,6%).

The unprofitableness of the Reny seaway commercial port grows short.

The crafts building for the Ukrainian Danube steamship line is begun at the cost of centralized state investments. So, only in the last year five grain carrier-barges to the total sum of 2 million UAH were built on the Kiliya shipbuilding - dockyard and handed over to the customer. The means assignments are foreseen and building of two seaway dry cargo

carriers is begun. At the beginning of 2007 year it is presumed the passenger navigation start by the first-born shipbuilder of the independent Ukraine - the new passenger ship built at the Kiliya shipbuilding plant.

