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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

Working Party on Inland Water Transport  
(Forty-eighth session, 19-21 October 2004,  
agenda item 6 (d))

**ESTABLISHMENT OF SEA-RIVER AND COASTAL ROUTES  
IN THE CONTEXT OF THE AGN AGREEMENT**

**Submitted by the Governments of Belarus, Moldova, the United Kingdom,  
Slovakia and Ukraine and by the Danube Commission**

Note: At its forty-sixth session, the Working Party took note of the proposal of the Governments of the Russian Federation and Ukraine on the development of a sea-river route: River Don-Sea of Azov-Black Sea-Dnieper-Danube (TRANS/SC.3/2003/3) and invited Governments to formulate similar proposals on other sea-river routes within the context of the AGN Agreement. The delegation of Ukraine offered to prepare and submit for consideration by the Working Party a model structure for further proposals by Governments on sea-river routes (TRANS/SC.3/161, para. 20).

The proposal of Ukraine and the proposals and comments of a number of other Governments on the development of sea-river routes in the context of the AGN Agreement are reproduced below.

## **BELARUS**

1. With regard to the development of specific sea-river routes in the context of the AGN Agreement, Belarus still thinks that the waterway Dnieper-Visla-Oder and the development of the route Dnieper-Black Sea-Danube have good potential. In this regard, Belarus supports the intention of the delegation of Ukraine to prepare and submit for consideration by the Working Party a model structure for proposals on sea-river routes.

## **MOLDOVA**

2. In our view, at its session, the Working Party on Inland Water Transport should accord attention, consider and discuss the issues related to the development of sea-river routes that would connect ports on the Danube and on the Dniestr with ports in the basins of the Black Sea and the Sea of Azov.

3. The competent authorities of Moldova support the joint proposal of the representatives of the Russian Federation and Ukraine on the route: River Don-Sea of Azov-Black Sea-Dnieper-Danube (Dniestr) (TRANS/SC.3/2003/3) because Moldovan potential suppliers and shipping companies are interested in using this route.

## **SLOVAKIA**

4. Our point of view is based on the fact that, in the European Agreement on Main Inland Waterways of International Importance (AGN), coastal routes E 60 (from Gibraltar to Arkhangelsk and waterways accessible from this route) and E 90 (from Gibraltar to the Caspian Sea and waterways accessible from this route) are listed under the category "trunk waterways". Thus, combined river-sea navigation vessels should be included and classified in accordance with the table "List of European Inland Waterways of International Importance". Combined river-sea navigation vessels can, of course, also be operated on waterways of classes IV-VII.

5. On the other hand, inland water vessels and combined river-sea vessels can be of different types and used for different purposes, ranging from non-self-propelled barges (lighters) to self-propelled cargo vessels and pushed convoys, the lighters of which are usually transported in coastal waters by feeder-type LASH ships. In addition to cargo vessels, the category of combined vessels includes passenger vessels, pleasure boats, factory ships, service vessels, auxiliary ships and, in general, many types of vessels. Wind and wave conditions - with waves usually exceeding 2 metres (i.e. higher than prescribed for inland navigation vessels in navigation area 1) - are the main limiting parameters at sea.

6. The limiting factors on inland waterways are: the length and width (usually, of locks), draught (usually, in the shallows of a river) and the minimum height under bridges. The latter parameter of the combined navigation vessel is usually dealt with by means of a retractable

pilothouse. Moreover, a combined river-sea vessel navigating inland waterways may be limited by manoeuvrability criteria (passage through narrow, shallow and sluggish river sections with a minimum radius of waterway).

7. With regard to the parameters, we would also like to comment on **the classification of combined river-sea navigation vessels**.

**A. Sea sections E 60 and E 90 and the main adjacent waterways and their branches**

8. For the purpose of classification, we suggest separating navigable sections into zones by wind and water conditions depending on the distance from the coast, havens and the reliability of weather forecasts and other weather conditions (ice, current, etc.)

**B. River sections under the AGN Agreement**

9. The technical and operational characteristics of inland waterways of international importance (annex III to AGN) can be taken as the basic parameters. Only for waterways of class IV can the minimum draught be 2.5 metres. For classes Va-VII, the minimum draught must be 3.5 metres. In addition, sections where, at certain times of the year, the minimum draughts are not available should be listed, and the limiting parameters of the waterway should be included: radius of curve, width, depth and the speed of current in specific river sections (for example, by updating the “Blue Book” (TRANS/SC.3/144 and Add.1-3).

10. In conclusion, it must be mentioned that specific combined river-sea routes depend primarily on the commercial situation and the relations between cargo owners and transport companies. Their intentions cannot be easily predicted, but current moves to develop combined river-sea transport, especially without trans-shipment, are certainly promising and economically profitable. We thus support the proposal of the delegations of the Russian Federation and Ukraine to develop the river-sea route: River Don-Sea of Azov-Black Sea-Dnieper-Danube.

11. Since combined river-sea navigation vessels must be classified by recognized classification societies, we agree with the decision of the Working Party not to consider further the standardization of these vessels in accordance with the PIANC proposal (TRANS/SC.3/WP.3/1999/21).

**UNITED KINGDOM**

12. At the forty-seventh session of the Working Party, the delegation of the United Kingdom asked about the definition of the term “sea-river routes”. It turned out that there was no such definition.

13. The consideration of such routes seems to have been initiated by the joint proposal from the delegations of the Russian Federation and Ukraine on the development of routes between the River Don, Sea of Azov, Black Sea, River Dnieper and River Danube (TRANS/SC.3/2003/3).

The delegation of the United Kingdom considers it necessary to elaborate a clear definition and criteria for sea-river routes in order to have a unified approach to the understanding of this term in the event that member States submit proposals for other sea-river routes.

## **UKRAINE**

14. In the foreseeable future, river-sea transport could become one of the main focuses of the development of inland water navigation. This type of navigation has been given attention in the action plan for the implementation of decisions of the Pan-European Conference on Inland Water Transport (UNO ECE ITC resolution No. 250, document ECE/TRANS 139, annex 2). Under the plan, interested States will produce proposals to establish specific sea-river routes in the context of the AGN Agreement, including the route River Don-Sea of Azov-Dnieper-Danube, in which Ukraine is also interested. A working paper on some aspects of the establishment of this route was presented by the Russian Federation (document TRANS/SC.3/2003/3). This marked the start of detailed consideration of the development of sea-river routes by the Working Party SC.3. The route specified is far from the only promising river-sea transport route of interest to several countries. We can agree with the European River-Sea-Transport Union (ERSTU) that river-sea transport as a component of inland and coastal shipping promotes the establishment of a Pan-European ring of waterways around the whole of Europe that would include high-speed coastal waterways and the deepwater network of waterways in European Russia (document TRANS/SC.2/2002/7/Add.1). Moreover, various combinations of local rings of waterways including inland waterways and sections of coastal sea routes may emerge, linked by inter-basin connections between trunk rivers, both the existing ones (Rhine-Main-Danube, Volga-Don, Mittellandkanal) and those selected for future development (Danube-Oder-Elba, Daugava-Dnieper).

15. By way of example, we could mention the circular route, of great interest to many countries, called the European Waterway Network (table 1). The route mentioned above which was initially explored by experts from the Russian Federation forms part of it. The European Waterway Network, which passes through or along the coasts of 16 European countries, is particularly attractive because river-sea vessels can enter the Caspian Sea via the Volgograd-Astrahan branch (river Volga). As a result, its zone of influence extends to countries in Asia - Kazakhstan, Turkmenia, Iran and Azerbaijan. Under the AGN Agreement, the Caspian Sea ports of these countries are also connected by coastal routes, but transport operating conditions there significantly differ, for example, from operating conditions on coastal routes in the Black Sea-Sea of Azov basin.

16. The European Network of Waterways best illustrates the variety of factors that must be considered when organizing water transport operations on specific river-sea routes that connect several water (river and sea) basins.

17. Despite the fact that table 1 does not include such important parameters as height under bridges on rivers and wave height on open bodies of water (lakes, reservoirs), the characteristics listed in the table give enough of an idea of the considerable differences in navigation conditions

between different sections of the circular route. Likewise, there are differences in the international legal provisions governing shipping and in the information services available in individual basins, in the organization of river-sea traffic and the commercial law governing cargo transport, admittance and servicing of vessels in ports and so forth.

18. Understandably, all these parameters have to be thoroughly evaluated when developing concrete river-sea routes. However, the economic advisability of establishing a route, the presence of a sufficient cargo base and concrete interest in the route on the part of all participants in the transport process, particularly cargo- and vessel-owners, will be the determining factors in river-sea transport organization. (The delegation of Slovakia has already pointed out that these factors are essential.)

19. Thus, the unified list of parameters to be considered is the initial model structure on the basis of which Governments will address the issue of organizing a specific river-sea route, while the decision, as such, to create the route can be based only on a comprehensive evaluation of the technical aspects, economics and international-law implications of the scheme. In cases when the creation of a route concerns primarily the interests of one country, the decision can be taken by this country (for example, organizing cargo transport by vessels under the Ukrainian flag from ports on the Dnieper to Black Sea ports of other countries). In all other cases, and especially when the transit route passes via inland waterways in two or more countries, experts from all interested countries and representatives of international organizations must participate in the feasibility study.

20. Table 2 contains a general outline for the elaboration of proposals to develop a specific river-sea route. The list of initial parameters in the third column constitutes the backbone of the model structure, on the basis of which the comprehensive study on the advisability of developing (creating) the route should commence.

21. If the Working Party SC.3 approves the proposed unified plan for the development of river-sea routes, individual items in the third column of the table will have to be worked out in detail to prepare a model structure (questionnaire) for obtaining the basic information from the interested Governments.

22. The comprehensive nature of the investigation of specific river-sea routes should help detect the problems that will have to be resolved in order to develop these routes in the general context of the AGN Agreement. While focusing on river-sea transport without trans-shipment, investigations must not overlook the possibility of cargo transport involving reloading from river- to sea-going vessels (or vice versa) in ports at the mouth of trunk rivers.

23. Simultaneously, in the framework of the Working Party SC.3, work could be conducted to unify the technical requirements for river-sea vessels, taking into account their use on coastal routes.

**Table 1**  
**Main parameters of the European Network of Waterways**

Waterway	Departure and arrival points	Distance, km	Fairway depth, m	Fairway width, m	Class of waterway	Number of locks	Dimensions of locks			Main ports (country)
							Length	Width	Depth at sills	
River Danube	Sulina-Kelheim	2 411	1.75-7.30	150-1 300	Vb, Vlb, Vlc, VII	18	190-310	12-34	3.5-5.0	Izmail, Reni (Ukraine); Galati, Brăila (Romania); Ruse, Lom (Bulgaria); Beograd, Novi Sad (Yugoslavia); Vukovar (Croatia); Dunaujváros, Budapest (Hungary); Komarno, Bratislava (Slovakia); Vienna, Linz (Austria); Regensburg, Kelheim (FRG)
Main-Danube canal	Kelheim-Bamberg	171	2.70	36-39	Vb	16	190	12	4.0	Nuremberg, Bamberg (FRG)
River Main	Bamberg-Mainz	385	2.5-2.9	36-50	Vb	34	295-345	11.5-12.0	3.0	Aschaffenburg, Frankfurt (FRG)
River Rhine	Mainz-Rotterdam	536	2.1-5.0	120-210	Vlb, Vlc	-	-	-	-	Cologne, Dusseldorf, Krefeld, Duisburg, Schwelgern, Walsum (FRG)
North Sea	Rotterdam-Brunsbüttel	515	Sea section			-	-	-	-	Rotterdam (Netherlands); Brunsbüttel (FRG)
Kiel canal	Brunsbüttel-Kiel	99	11.3	104	Vlb	4	300	42	14.0	-
Baltic Sea	Kiel-St. Petersburg	1 437	Sea section			-	-	-	-	Kiel (FRG); St. Petersburg
Volga-Baltic waterway	River Neva	74	4.0-12.0	250 and more	Vb	-	-	-	-	-
	Lake Ladoga	147	Up to 70	-	Vb	-	-	-	-	-
	River Svir	221	4.0-16.6	70-500	Vb	2	265	21.5	4.6-6.9	Podporozhye (Russian Federation)
	Onezhskoe Ozero	54	Up to 35	-	Vlb	-	-	-	-	-
	Volga-Baltic canal	368	5.0-15.0	90 and more	Vb	8	265	17.8	4.2-5.5	Vytegra, Belozersk, Cherepovets
Rybinsk reservoir	Cherepovets-Rybinsk	69	Up to 30	-	Vlc	1	290	30.0	4.1	Rybinsk (Russian Federation)
River Volga	Rybinsk-Krasnoarmeysk	2 206	Up to 41.0	-	Vlc	5	278.8- 290.0	29.6-30.0	3.5-5.5	Yaroslavl, Kostroma, Nizhny, Novgorod, Kazan, Ulyanovsk, Samara, Saratov, Volgograd (Russian Federation)
Volga-Don canal	Krasnoarmeysk-Lock No. 13	101	4.00	38	Va	13	145	17.8	4.0	-
River Don	Lock No. 13-Azov	483	3.60	50-120	Va	4	145	17-18	3.4-4.0	Kalach-na-Donu, Rostov-na-Donu (Russian Federation)
Sea of Azov	Azov-Kerch	350	Sea section			-	-	-	-	Azov (Russian Federation)
Black Sea	Kerch-Sulina	617	Sea section			-	-	-	-	Sulina (Romania)
<b>Total</b>		<b>10 244</b>				<b>105</b>				

**Table 2**

**Initial parameters and basic stages in the development of government proposals  
for the development of river-sea routes**

Stage	Investigation	Basic parameters and subjects for investigation	Final output
1	2	3	4
1	General characteristics of route and navigation conditions on different sections	Overall length of route, including length of individual sections (river, sea) Current navigation conditions on specified sections: on inland waterways (fairway dimensions - length, depth, radius of curve etc.; speed of current; presence of locks and lock dimensions; height under bridges; meteorological conditions - icing, wave height, etc.; navigable period; classification of individual sections, etc.); on sea sections (recommended courses and distance from the coast; depth; swell and other meteorological conditions; navigation regime; sheltered ports, etc.)	List of concrete parameters, overall layout of route. Identification of limiting factors on individual sea and river sections with a view to formulation of recommendations to eliminate or take account of them in developing the route
2	Navigation safety	Existing navigational aids (onshore and floating), arrangements for the regulation and monitoring of shipping movements, radio communications, river information service (RIS), use of electronic charts on individual sections, etc.; environmental safety (discharge facilities for waste from vessels, etc.)	Assessment of how well existing conditions conform to requirements for safe navigation over the route; recommendations to optimize conditions
3	Port and other onshore facilities	Basic technical characteristics of corresponding sea and river ports along the route: type of cargo handled, moorage, depth, storage areas, basic trans-shipment facilities and operating equipment; transport links (rail, road); availability of bunkering, servicing and supply facilities; availability and basic parameters of free-port zones. Current freight turnover and capacity of port facilities to handle basic cargo types. Availability of ship-repair services along the route, nature of work undertaken. Places where vessels can overwinter and be laid up, and their basic characteristics	Assessment of current state of port and other onshore facilities along the route and how well they conform to requirements for route development
4	Fleet and shipping arrangements	Intended purpose and operating characteristics of the principal types of vessel currently operating on the route in question, how well they are suited in terms of seaworthiness, safety of carriage, environmental safety, port reception and handling, etc., to conditions along the route (with due regard for the requirements of international conventions). Shipping arrangements (on sea sections; through transport without trans-shipment or transport involving trans-shipment of cargo in estuary ports, use of non-self-propelled vessels for transport on river sections, etc.).	Assessment of how well suited the operating fleet is to real conditions on sea and river sections of the route, vessel-handling conditions in ports and safe cargo-handling requirements. Fleet compliance with standards set in international conventions. Justification for requirements applicable to fleet operating along the route

**Table 2 (continued)**

Stage	Investigation	Basic parameters and subjects for investigation	Final output
1	2	3	4
5	Legal conditions governing fleet operation and international cooperation along the route	International law regime governing shipping on individual sections of the route; regulations governing carriage under third-party flags on specific sections; bilateral and multilateral agreements on cooperation in water transport among the countries concerned	Assessment of current international legal conditions governing shipping on individual sections, prospects for bilateral and multilateral cooperation among the countries concerned in developing the route, role of international organizations in this process
6	Freight traffic	Current freight flows in the directions under investigation, and their breakdown by mode of transport. Notional (hypothetical) freight traffic along the route by main categories of goods with due regard for the competitiveness of water transport in directions where alternative transport solutions are possible	Determination of hypothetical freight flows as a basis on which to forecast fleet composition and operating arrangements along the route
7	Comprehensive evaluation of technical aspects, economics and international-law implications, and formulation of proposals for development of the route	Interpretation and combined evaluation of findings from the preceding investigations. Formulation of proposals for development of the route	Set of proposals for development of the route (onshore and fleet-related components), related costs, recommendations to parties concerned, draft bi- or multilateral agreement on cooperation along the route

**DANUBE COMMISSION**

24. We welcome moves to facilitate shipping, inland water transport and carriage along new transport routes, but account must also be taken of all conditions affecting such routes, in particular technical and economic conditions, protection of the environment and the ecological consequences.

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