



KÖZLEKEDÉSBIZTONSÁGI  
SZERVEZET

TRANSPORTATION SAFETY  
BUREAU

## **FINAL REPORT**

**2009-060-6**

**SERIOUS MARINE CASUALTY**

**Solt, River Danube, river km 1557.5**

**10 October 2009**

**Self-propelled cargo boat with one pushed barge**

**47000166 / 03110134**

The sole objective of the technical investigation is to reveal the causes and circumstances of marine casualties, serious and very serious casualties as well as marine incidents, and to initiate the necessary technical measures and make recommendations in order to prevent similar cases in the future. It is not the purpose of this activity to apportion blame or liability.

## **This present investigation was conducted on the basis of**

- Act XLII of 1995 on marine transport,
- SOLAS 1974/1978 and Act XI of 2001 on its proclamation,
- Act CLXXXIV of 2005 on the technical investigation of aviation, railway and marine accidents and incidents (hereinafter referred to as Kbv.),
- Decree 9/2006 (II.27.) of Ministry of Economy and Transport (MET) on the detailed rules regarding technical investigation of serious marine casualties and incidents.
- In absence of other related regulation of the Kbv., the Transportation Safety Bureau of Hungary conducted the investigation in accordance with Act CXL of 2004 on the general rules of administrative authority procedure and service,
- The competence of the Transportation Safety Bureau of Hungary is based on Government Decree 278/2006 (XII. 23.).

## **Under the aforementioned regulations**

- The Transportation Safety Bureau of Hungary shall investigate serious marine casualties.
- The Transportation Safety Bureau of Hungary may investigate marine incidents which - in its judgement - would have resulted in casualties in other circumstances.
- The technical investigation is independent of any administrative, infringement or criminal procedures.

In addition to the aforementioned laws, the A.849 IMO Code (Code for the Investigation of Marine Casualties and Incidents) is applicable.

Incompatibility did not stand against the members of the IC.

Persons participating in the technical investigation did not act as experts in other procedures concerning the same case and shall not do so in the future.

This present final report shall not be binding, nor shall an appeal be lodged against it.

The IC shall safe keep the data having come to their knowledge in the course of the technical investigation. Furthermore, the IC shall not be obliged to make the data – regarding which the owner of the data could have refused its disclosure pursuant to the relevant act – available to other authorities.

## **This present final report**

is based on the draft report prepared by the IC and accepted by the Director-General of TSB. The draft report was sent to the relevant parties - defined by law - for reflections.

## ABBREVIATIONS

rkm	river kilometre
MET	Ministry of Economy and Transport
GKM	(Gazdasági és Közlekedési Minisztérium)
HSZH	Notifications for Skippers (Hajósoknak Szóló Hirdetmény)
IMO	International Maritime Organization
TSB	Transportation Safety Bureau
Kbvt.	Act CLXXXIV of 2005 on the technical investigation of aviation, railway and marine s and incidents
MTW	Ministry of Transport, Telecommunication and Water
KHVM	(Közlekedési, Hírközlési és Vízügyi Minisztérium)
ms.	motor ship
NAVINFO	Marine Emergency Assistance and Information System
NTA	National Transport Authority
RSOE	National Association of Radio Distress-signalling and Infocommunications
SOLAS	Safety of Life at Sea
IC	Investigating Committee

## SUMMARY

<b>Occurrence category</b>		serious marine casualty
<b>Vessel St Nicholas ms. self- propelled boat</b>	<b>manufacturer</b>	Spaarndam-H (rebuilt here too)
	<b>type</b>	self-propelled cargo
	<b>flag</b>	Bulgarian
	<b>registration</b>	47000166
	<b>serial number</b>	–
	<b>owner</b>	Rubiships O.O.D. Bulgaria Russe
	<b>operator</b>	Rubiships O.O.D. Bulgaria Russe
	<b>charterer</b>	–
<b>Vessel Rubiships 9 barge</b>	<b>manufacturer</b>	Spaarndam-H / rebuilt Vooruit
	<b>type</b>	pushed barge
	<b>flag</b>	Bulgarian
	<b>registration</b>	03110134
	<b>serial number</b>	–
	<b>owner</b>	Rubiships O.O.D. Bulgaria Russe
	<b>operator</b>	Rubiships O.O.D. Bulgaria Russe
	<b>charterer</b>	–
<b>Occurrence</b>	<b>Date and time</b>	10 October 2009 at 12:30
	<b>location</b>	Danube, rkm 1557.5
	<b>fatalities</b>	0
	<b>number of seriously injured</b>	0
<b>Extent of damage to St Nicholas ms. self-propelled boat</b>		none
<b>Country of registry</b>		Republic of Bulgaria
<b>Registration authority</b>		Morska Administracia Bulgaria Russe
<b>Authority supervising manufacturing</b>		unknown
<b>Extent of damage to barge Rubiships 9</b>		none
<b>Country of registry</b>		Republic of Bulgaria
<b>Registration authority</b>		Morska Administracia Bulgaria Russe
<b>Authority supervising manufacturing</b>		unknown
<b>Competent investigating body (according to the location of the occurrence)</b>		<b>TSB</b>

### Reports and notifications

The casualty was reported to the duty services personnel of TSB by the officer on duty of the competent police at 15 hours 30 minutes on 10<sup>th</sup> October 2009.

The on duty personnel of TSB reported the occurrence to TSB's head of department on duty at 15 hours 35 minutes on 10th October 2009.

### Investigating Committee

The Director-General of TSB assigned the following Investigating Committee (hereinafter referred to as IC) on 10<sup>th</sup> October 2009 to investigate the serious marine casualty:

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Investigator-in-Charge	Gábor Wimmer	accident investigator
Member of IC	László Kiss	accident investigator

### **Synopsis of the investigation**

The IC arrived at Solt wharf at 20 hours 50 minutes and could get onto the boat around 21.00. The IC interviewed the captain and the boatswain, took records and photographs as well as making photocopies of the documents of the boat and of the crew's certificates. It also received a copy of the captain's report and of the lay-out of the site. The IC finished the site-survey at 22 hours.

### **Synopsis of the occurrence**

St Nicholas ms. self-propelled cargo boat departed from Mohács and was sailing upstream on the Danube - slightly on the right from the middle of the waterway - with a barge tied in front of it. At river km 1557.5, the bow of the first (Rubiships 9) barge ran aground. The barge was unhooked after the grounding. In the course of the refloating manoeuvres, the boat also grounded and the barge turned sideways at rkm 1557.5 blocking almost the entire navigable waterway. The boat finished its attempts at refloating at 14 hours 30 minutes, when the occurrence was reported to NAVINFO. The NTA ordered the full closure of the waterway. St. Nicholas ms no longer tried to refloat the barge the same day, but another Bulgarian boat - Olimpi Panov - arrived at the scene the following day and attempted to help refloat the barge without success. Two other boats - Rubiships VI. ms. and Rubiships III. ms - also tried to assist in refloating the barge that day, which efforts proved unsuccessful. Eventually the grounded barge refloated on 12<sup>th</sup> October 2009.

## 1. FACTUAL INFORMATION

### 1.1 The course of the occurrence

St Nicholas ms. self-propelled cargo boat with a barge (Rubiships 9) tied in front of it departed from Mohács at 00:15 on 9<sup>th</sup> October 2009. It sailed upstream towards unloading ports (Wien, Krems, Regensburg). According to the draught records, it sailed with 1.8 m draught, with a cargo of 612.000 tonne rolled steel on the boat and a barge of 2.15 m draught loaded with 782.551 tonne rolled steel. The given ford depth for the day of the occurrence between rkm 1557.5 and 1558.5 was 20 dm and 22 dm beside the green buoy. Prior to the accident, the ford depth between rkm 1554.6 and 1555.8, was given at 22 dm on the 9<sup>th</sup> October and 23 dm on the 10<sup>th</sup>. The boat sailed through this reach of the river with some luck. According to the captain, the convoy sailed without problems slightly on the right from the middle of the waterway, on the reach of the Danube before the Dunaföldvári bridge. Before passing under the bridge, at rkm 1557.5, the bow of the first (Rubiships 9) barge ran aground approximately at 12:30 on 10<sup>th</sup> October 2009. The crew unhooked the barge from the boat and started to refloat it. At that time the occurrence was not yet reported to the authorities, it was only reported 2 hours later, at about 14:30 when the crew stopped the unsuccessful refloating manoeuvres. In the course of the refloating manoeuvres, the boat also grounded and the barge turned sideways at rkm 1557.5 blocking almost the entire navigable waterway. Only 10-15 metres of the waterway remained unblocked. As soon as the NTA was notified about the occurrence, it ordered full closure of the waterway at the given reach of the Danube. The refloating manoeuvres were discontinued and were only started again the next day when another Bulgarian boat (Olimpi Panov ms.) arrived at the scene. However, the refloating attempts still proved unsuccessful even though two other boats (Rubiships VI. ms. and Rubiships III. Ms) also tried to assist. Eventually, the grounded boat and barge refloated on 12<sup>th</sup> October thanks to the 15 cm rise in the water level.

### 1.2 Injuries to persons (Pluton ms and Sopron ms)

Injuries	Crew	Passengers	Others
Fatal	0	0	0
Serious	0	0	0
Minor	0	0	0
None	5	0	0

### 1.3 Damage to ships

The vessels did not sustain damage.

### 1.4 Other damage

The IC did not receive any information on other damage by the completion of the investigation.

## 1.5 Personnel information

### 1.5.1 The captain of the boat

<b>Age, gender, citizenship</b>		51-year-old Bulgarian man
<b>Qualifications</b>	<b>Certificate valid</b>	Captain Danube (between 0-2414 rkm)
	<b>Medical certificate valid</b>	20 November 2012
	<b>Other certificate(s)</b>	Radar operator certificate, Radio operator certificate
<b>Date of embarkation</b>	<b>Period of time in service on the given boat</b>	2 years
	<b>in the last 12 months</b>	continuously, in shifts
	<b>in the last 30 days</b>	continuous

### 1.5.2 Chief engineer (mechanic)

<b>Age, gender, citizenship</b>		38-year-old Bulgarian man
<b>Qualifications</b>	<b>Certificate valid</b>	2 <sup>nd</sup> class mechanic
	<b>Medical certificate valid</b>	23 January 2011
	<b>Other certificate(s)</b>	–
<b>Date of embarkation</b>	<b>Period of time in service on the given boat</b>	3 years
	<b>in the last 12 months</b>	continuously, in shifts
	<b>in the last 30 days</b>	continuous

### 1.5.3 Other personnel (Captain II.)

<b>Age, gender, citizenship</b>		46-year-old Bulgarian man
<b>Qualifications</b>	<b>Certificate valid</b>	Captain II. Danube (between 374.1-2414 rkm)
	<b>Medical certificate valid</b>	15 May 2014
	<b>Other certificate(s)</b>	Radar operator certificate, Radio operator certificate
<b>Date of embarkation</b>	<b>Period of time in service on the given boat</b>	2 years
	<b>in the last 12 months</b>	continuously, in shifts
	<b>in the last 30 days</b>	continuous

## 1.6 Vessel data (St Nicholas ms.)

<b>Place of manufacturing</b>	construction / reconstruction: Össwag Wert Linz
<b>Year of manufacturing</b>	1954 / 1969
<b>Date and place of last survey</b>	Russe
<b>Operability certificate valid</b>	7 January 2011

### 1.6.1 Vessel data - barge (Rubiships 9)

<b>Place of manufacturing</b>	construction / reconstruction:
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	Spaardnam/ Vooruit
<b>Year of manufacturing</b>	1924
<b>Date and place of last survey</b>	Russe
<b>Operability certificate valid</b>	4 August 2010

### 1.6.2 Hull data (St Nicholas ms.)

<b>Last underwater inspection</b>	unknown
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### 1.6.3 Hull data, barge (Rubiships 9)

<b>Last underwater inspection</b>	unknown
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### 1.6.4 Main engine data

<b>Year of manufacturing</b>	1954	
<b>Manufacturer</b>	Deutz GmbH	
<b>Engine type</b>	RBV 8 M 545	
<b>Operation time</b>	unknown	
<b>Operation</b>	<b>Since last overhaul</b>	3 850 hours
	<b>Since last maintenance</b>	345 hours

### 1.6.5 Data of the faulty equipment

n.a.

### 1.6.6 Vessel loading data (St Nicholas ms.)

<b>Net weight</b>	402 998 kg
<b>Weight of fuel</b>	18 000 kg
<b>Weight of cargo</b>	612 300 kg
<b>In total</b>	1 033 298 kg
<b>Displacement tonnage</b>	1275 848 kg
<b>Permitted maximum draught</b>	2.15 m
<b>Draught at the time of the occurrence</b>	1.8 m

### 1.6.7 Vessel loading data, barge (Rubiships 9)

<b>Net weight</b>	237 374 kg
<b>Weight of fuel</b>	0
<b>Weight of cargo</b>	782 551 kg
<b>In total</b>	1 019.925 kg
<b>Displacement tonnage</b>	1 132.164 kg
<b>Permitted maximum draught</b>	2.32 m
<b>Draught at the time of the occurrence</b>	2.15 m

## 1.7 Meteorological information

- The weather was dry in the Carpathian Basin at the time of the casualty, the clouds had broken by midday.

- The air temperature was around 17°C ( $\pm 1^\circ\text{C}$ ), dry air and excellent visibility (20-30 km). Light easterly wind (1-2 m/s).
- Ford depth: 20 dm; and 22 dm beside the green buoy
- Water level: -128 cm at Dunaföldvár

The weather conditions did not have an effect on the occurrence, therefore their further detailed description is not required.

## **1.8 Aids to navigation**

The navigation equipment did not have an effect on the occurrence, therefore its detailed description is not required.

## **1.9 Communications**

Communications equipment had no effect on the occurrence, therefore their detailed description is not required

## **1.10 Port information**

The parameters of the port had no effect on the occurrence, therefore its detailed description is not required.

## **1.11 Data recorders**

The vessels did not have a data recorder on board.

## **1.12 Wreckage information**

There was no wreckage.

## **1.13 Medical and pathological information**

Medical and pathological examination was not necessary.

## **1.14 Fire**

There was no fire.

## **1.15 Survival aspects, the process of the rescue**

The occurrence was not life-threatening, therefore the survival aspects were not analysed.

## **1.16 Test and research**

The IC did not conduct and test or research.

## **1.17 Organisational and management information**

The characteristics of the organizational and management environment had no effect on the course of events therefore their analysis was not required.

## **1.18 Additional information**

The IC did not receive other relevant information and it does not intend to publish additional information other than the factual information above.

## 1.19 Useful or effective investigation techniques

The investigation did not require techniques differing from the traditional approach.

## 2. ANALYSIS

According to the data on the Hidroinfo website - updated daily and also announced verbally by NAVINFO at least twice a day - the ford depth on the Danube between rkm 1557.5 and 1558.5 was 20 dm and 22 dm at the green buoy on 10<sup>th</sup> October 2009. The captain of the boat had the possibility to obtain the necessary information and data. He also knew that the draught of his barge was 21.5 dm (according to the draught records). In all probability, the captain thought that if he sails on the right side of the waterway, he would be able to get through the ford without problems. The obligatory minimum 1 dm extra draught defined by HSZH 1/Du/2008 and 008/Du/2009 was not kept. Although the captain was probably aware of the ford depths, he did not estimate the situation correctly; he only trusted his luck and took too high risk.

The IC was not able to establish whether the captain took the risk and made his decision on his own account or was pressurised by the owner, operator of the boat.

## 3. CONCLUSIONS

### 3.1 Factual statements directly connected to the occurrence of the casualty

According to HSZH 1/Du/2008 and 008/Du/2009 issued by the NTA on the basis of 1.11, General Provisions in Part II Chapter I of the Appendix of MET Decree 39/2003. (VI.13.) on the regulations of water navigation, the pushed barge-combination should not have sailed at the reach of the river where the casualty occurred with the given water level.

The obligations on the clearance sizes of waterways at different reaches are included in section (1) of § 3 (referring to Appendix 2) of MTW Decree 17/2002. (III.7.), It prescribes a 2-3-decimetre safety distance - depending on the structure of the riverbed - between the bottom of the vessel and the riverbed. This is a stricter regulation than that of HSZH 1/Du/2008 and 008/Du/2009 for the given reach. The classification of navigable waterways - included in section (5) of § 3 referring to Appendix 3 - divides the reach of the Danube in Hungary into the following two parts:

VI B: between rkm 1812 and 1641 and VI C: between rkm 1641 and 1433.

**Appendix 2 to MTW (KöViM) Decree 17/2002. (III. 7.)****Clearance sizes of different navigable waterways**

	A víziút osztálya									
	I	II	III	IV	V/A	V/B	VI/A	VI/B	VI/C	
A hajóút legkisebb űrszelvénymagassága HNV-nél híd, illetve egyéb térzsin feletti létesítmény alatt, m	4,50	4,50	5,25	6,40-	7,00-	7,00-	7,00-	7,00-	7,00-	7,00-
	6,40	6,40	6,40	7,00	9,50	9,50	9,50	9,50	9,50	9,50
A hajóút legkisebb szélessége egy-, illetve 30 több nyílásos híd 18	35	44	50	55	60	120	180	180	180	180
nyílásában, m	25	30	35-45	40-50	45-60	80-100	80-100	80-100	80-100	80-100
A hajóút legkisebb űrszelvénymagassága HNV-nél távközlési vezeték és feszültségmentes kábelek alatt, m	16,5	16,5	16,5	16,5	16,5	16,5	16,5	16,5	16,5	16,5
A hajóút legkisebb űrszelvénymagassága HNV-nél felső vezetésű komp kötele alatt, m	15	15	15	15	Új nem létesít- hető	Új nem létesít- hető	Nem létesít- hető	Nem létesít- hető	Nem létesít- hető	Nem létesít- hető
A hajóút legkisebb űrszelvénymagassága HNV-nél elektromos távvezeték alatt:										
110 kV feszültségig, m	19,00	19,00	19,00	19,00	19,00	19,00	19,00	19,00	19,00	19,00
	19,00	+19,00	+19,00	+19,00	+19,00	+19,00	+19,00	+19,00	+19,00	+19,00 +
110 kV feszültség felett, m	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm	kilovol- tonként +1 cm
A hajószilip hasznos méretei -60x10,070x12,0	85x12,0	90x12,0	120x12,0	190x12,0	230x24,0	295x36,0	295x36,0	295x36,0	295x36,0	295x36,0
LxB, m										
Hajószilipnél a legkisebb küszöbmélység - H, m	2,5	3,0	3,0	4,5	4,5	4,5	4,5	4,5	4,5	4,5
A mederanyag minőségétől függő biztonsági távolság, dm										
Sziklás mederfenék esetén	3	3	3	3	3	3	3	3	3	3
Laza, illetve lágy szerkezetű mederfenék esetén	2	2	2	2	2	2	2	2	2	2

**Appendix 3 to MTW (KöViM) Decree 17/2002. (III. 7.)****Classification of navigable waterways**

Name of waterway	Length of navigable waterway, river kilometre	Distance (km), area of water surface (km <sup>2</sup> )	Class of waterway
1. Duna (international waterway)	1812-1641	171	VI/B
2. Duna (international waterway)	1641-1433	208	VI/C
3. Mosoni-Duna	14-2	12	III
4. Mosoni-Duna	2-0	2	VI/B
5. Szentendrei-Duna	32-0	32	IV
6. Ráckevei-Duna	58-0	58	III
7. Sió-csatorna	121-23	98	IV/időszakosan
8. Sió-csatorna	23-0	23	IV
9. Dráva	198-70	128	II
10. Tisza	685-612	73	I
11. Tisza	612-544	68	III
12. Tisza	544-403	141	III
13. Tisza	403-254	149	II
14. Tisza	254-160	94	IV
15. Bodrog	51-0	51	III
16. Sebes-Körös	10-0	10	II
17. Kettős-Körös	23-0	23	II
18. Hármás-Körös	91-0	91	II
19. Balaton			IV
20. Fertő tó			II
21. Velencei-tó			II
22. Keleti-főcsatorna	45-0	45	II
23. Hortobágy-Berettyó-főcsatorna	7-0	7	II

Figure 1: tables of Appendix 2 and 3

**4. SAFETY RECOMMENDATIONS**

Such occurrences can be avoided by complying with the relevant regulations, therefore the IC does not wish to issue safety recommendations.

**5. APPENDICES**

Photographs

Water level tables

Excerpts from HSZH 1/Du/2008 and HSZH 008/Du/2009 (in Hungarian only)

Budapest, ..... March 2010

\_\_\_\_\_  
Gábor Wimmer  
Investigator-in-Charge

\_\_\_\_\_  
László Kiss  
Member of IC



**Figure 2: The sinking of the grounded barge**



**Figure 3: The grounded barge turned sideways**

## Annual water level table

Állomás kód: 442029

Vízállás 06 GMT

15. oldal

Állomás név: Dunaföldvár

[cm]

m é r t

Folyó név: Duna

Listázás: 2010-Jan-13 15:33:42

év: 2009.

NAP	JAN	FEB	MÁR	ÁPR	MÁJ	JÚN	JÚL	AUG	SZE	OKT	NOV	DEC
1	-42	-78	-32	220	107	151	545	82	7	-103	-27	-78
2	-62	-86	16	281	130	166	553	61	26	-102	-40	-79
3	-78	-91	89	281	130	167	562	53	-3	-101	-58	-83
4	-85	-98	127	291	115	135	545	42	-29	-104	-76	-78
5	-86	-102	141	323	103	110	496	24	-37	-108	-66	-69
6	-90	-100	154	348	98	90	448	53	-24	-108	-42	-59
7	-96	-95	198	359	93	64	416	180	38	-111	-12	-63
8	-102	-92	252	364	92	45	384	206	105	-120	4	-66
9	-107	-86	274	371	93	37	367	168	87	-131	-1	-65
10	-111	-73	279	376	102	56	360	133	50	-128	-17	-64
11	-112	-49	274	372	105	68	353	101	21	-119	-24	-58
12	-109	-32	276	360	103	60	317	77	-4	-113	-29	-38
13	-113	-32	275	358	112	49	269	72	-21	-105	-42	-6
14	-127	-24	275	348	123	33	227	90	-18	-96	-24	36
15	-129	-11	271	328	150	23	192	83	3	-72	-12	46
16	-119	-24	283	302	183	11	157	65	0	-48	-20	39
17	-118	-51	277	279	191	-3	133	58	-3	-32	-42	19
18	-118	-81	271	265	194	-7	120	58	7	-37	-54	-3
19	-112	-89	270	253	183	18	114	32	0	-53	-55	-23
20	-115	-90	255	245	162	49	130	10	-6	-52	-57	-38
21	-127	-94	221	231	168	58	222	-9	-10	-34	-57	-43
22	-125	-96	192	220	180	73	283	-15	-20	-31	-47	-50
23	-117	-98	164	211	176	140	279	-27	-33	-29	-51	-63
24	-93	-94	133	195	157	158	250	-31	-51	-29	-60	-82
25	-61	-97	103	174	141	218	204	-24	-64	-22	-72	-76
26	-46	-87	98	158	137	325	171	-10	-69	3	-59	-38
27	-42	-64	109	146	141	414	160	-11	-70	27	-62	11
28	-54	-38	98	123	147	478	174	-25	-78	26	-70	67
29	-54		98	101	142	527	159	-40	-87	11	-66	89
30	-60		117	98	146	543	126	-44	-94	-5	-68	59
31	-74		153		154		106	-46		-15		31
Átlag:	-93	-73	184	266	137	141	284	44	-12	-62	-43	-26
Min.:	-129	-102	-32	98	92	-7	106	-46	-94	-131	-76	-83
Max.:	-42	-11	283	376	194	543	562	206	105	27	4	89

Évi á t l a g: 63 cm  
 minimum : -131 cm  
 maximum : 562 cm

Figure 4: Annual water level table

## Ford depths on the Danube

2009.10.10.10:00

No.	Kezdeté [fkm]	Vége [fkm]	Mélysége [dm]	Szélessége [m]	Hossza [m]	Helye	Mélysége [dm]	Szélessége [m]	Hossza [m]	Egyéb kód
1	1808.1	1807.6	27	120	500	PU	29	60	500	
2	1799.2	1798.8	HU	100	400					
3	1797.4	1796.7	HU	90	700					
4	1796.3	1795.3	HU	90	1000					
5	1795.1	1795	31	120	100	KO	23	60	100	
6	1792.1	1791.8	27	120	300	ZU	32	60	300	
7	1789	1788.4	16	90	600	PU	21	90	600	
8	1764.3	1764	26	150	300					
9	1757.1	1756.7	26	150	400					
10	1740.2	1739.8	26	150	400					
11	1735.5	1733.7	19	100	1800	PU	21	60	1800	
12	1732.4	1731.9	26	150	500					
13	1726	1724.7	24	130	1300					
14	1714.3	1713.9	22	100	400					
15	1711.3	1710.3	21	100	1000					
16	1701	1700	21	100	1000					
17	1698.9	1697.8	19	100	1100	ZU	20	50	1100	
18	1694.2	1693.8	HU	120	400					
19	1684.4	1684.2	HU	90	200					
20	1680.4	1679.8	HU	80	600					
21	1675.5	1675.3	HU	90	200					
22	1667.5	1666.8	21	100	700	PU	19	20	700	
23	1653	1651.8	22	100	1200					
24	1638.4	1637.4	21	50	1000					
25	1623.6	1622.6	HU	90	1000					
26	1618.5	1617.8	22	110	700					
27	1615.9	1615.1	19	100	800					
28	1590.7	1590.1	21	80	600					
29	1581.5	1580.5	21	110	1000					
30	1567.3	1566.4	22	100	900	ZU	19	30	900	
31	1561	1560	22	60	1000					
32	1559.8	1559.7	23	160	100	BP	26	60	100	
33	1558.5	1557.5	20	100	1000	ZU	22	50	1000	
34	1555.8	1554.6	23	100	1200					
35	1551.5	1551.4	HU	130	100					
36	1529.5	1528.5	HU	150	1000					
37	1522	1521.5	HU	120	500					
38	1512.5	1511.8	26	160	700					
39	1493.5	1492.5	HU	140	1000					
40	1483.5	1482.5	HU	150	1000					
41	1480.1	1479.1	HU	140	1000					
42	1472.5	1471.5	HU	150	1000					
43	1469	1468	HU	130	1000					
44	1461	1460	HU	160	1000					
45	1451.5	1450.5	HU	140	1000					

46	1439.5	1438.5	HU	150	1000					
47										

No.	Kezdeté [fkm]	Vége [fkm]	Mélysége [dm]	Szélessége [m]	Hossza [m]	Helye	Mélysége [dm]	Szélessége [m]	Hossza [m]	Egyéb kód
1	403.2	403.1	5	10	100	HSz				
2	367.5	366.5	8	40	1000					
3	326.5	325.3	9	40	1200					
4	297	296.7	17	40	300					

HU -hajóút-szűkület; HV – hajókaravánok találkozása tilos; HS -hajózás szünetel; ET -éjszakai hajózás tilos; PU -piros úszó mellett; ZU -zöld úszó mellett; KO -középen; BP -balpart mellett; JP -jobbpart mellett

**Figure 5: Ford depths on the Danube on 10th October 2009**



Nemzeti  
Közlekedési  
Hatóság

Központi Hivatal

**008/Du/2009. Hajósoknak Szóló Hirdetmény**  
**A Duna 1811 – 1433. fkm szakaszának kiegészítő közlekedési rendjéről**  
*(Schiffahrtspolizeiliche Anordnung 3/Du/2006.*  
*über die Verkehrsregelung der Donaustrecke Km 1811-1433.)*

A víziközlekedésről szóló 2000. évi 42. törvény 56.§ -nak, valamint a 39/2003.(VI.13.) GKM rendelet mellékleteként kiadott Hajózási szabályzat (a továbbiakban: **HSZ**<sup>1</sup>), II. rész 1.11 cikk 4. bekezdésének megfelelően, az alábbi tájékoztatást teszem közzé:

A Duna Szap – Bok (1811-1433. fkm) szakaszán történő áthajózás során a hajók és kötélékek méreteit az alábbi szabályok szerint kell megállapítani:

1. Az egyes szakaszokon - ha azt jogszabály vagy átmeneti rendelkezés másként nem rendel - az alábbiakban megjelölt méreteket meg nem haladó kötéllel megengedett az áthajózás.
2. A HSZ II. rész 1.04 cikke 2. pontja alapján a gázlókon történő áthaladás „*a hajózásra alkalmas, illetőleg hajózásra alkalmassá tehető természetes és mesterséges felszíni vizek víziúttá nyilvánításáról*” szóló 17/2002. (III. 7.) KöViM rendelet 2. melléklete szerint, de

**legalább 1 dm biztonsági távolság**  
*(bei Fehltiefe muß man Kielwasser halten: min. 1 dm)*

tartásával megengedett, amelyet a kitűzött, vagy kijelölt hajóút teljes szélességében (illetve a hajóúton belül kijelölt - a teljes hajóútszélességben jelzettnél - nagyobb mélységű területen belül) be kell tartani.

3. A gázlójelző táblán, rádióközleményben, vagy hajósoknak szóló tájékoztatóban jelzett gázlókon és szűkületeken a II. részben meghatározott szabályok szerint megengedett az áthajózás.
4. A táblázatokban megjelölt hossz méret vontatmány esetében a vontató és csatoló kötelek hosszát nem tartalmazza (csak az egymás után csatolt hajók összes hosszát, beleértve a vontató hajót is).

**1/Du/2008. számú Hajósoknak szóló hirdetmény**  
**A magyarországi Duna-szakasz gázlóiról és hajóútszűkületeiről**  
**(Über die Fehltiefen und Fahrwasserengen an der ungarischen Donaustrecke)**

A víziközlekedésről szóló 2000. évi 42. törvény 56.§ -nak, valamint a 39/2003.(VI.13.) GKM rendelet mellékleteként kiadott Hajózási szabályzat (a továbbiakban: **HSZ**), I. rész 1.06 cikkének, továbbá II. rész 1.04. és 1.11 cikkének megfelelően, az illetékes vízügyi szervezetek adatai alapján az alábbi hirdetményt és tájékoztatót teszem közzé:

## II. A magyarországi Duna-szakasz hajóútszűkületeiről

A magyarországi Duna-szakaszon végzett új felmérések alapján a gázlok és szűkületek mélységi, szélességi jellemzőit a mellékletben adom közre.

Felhívom a hajók vezetőinek figyelmét a HSZ által előírt **biztonsági távolság** (II. rész 1.04 cikk) szigorú betartására (legkevesebb 1 dm a hajótest és a meder között), valamint a mederérintés elkerülésére **alkalmas sebesség** megválasztására.

A mellékletben közölt adatok a mederváltozások során módosulhatnak, ezért a napi hivatalos jelentések figyelemmel kísérése minden esetben szükséges.

Die neuen Fahrwasser-Abmessungen an der ungarischen Donaustrecke befinden sich in der Anlage. Man muss ein Flottwasser halten (min. 1 dm). Die aktualisierte Tageswasserstand- und Fehltiefedaten befinden sich <http://www.datanet.hu/hydroinfo/vituki/vizduna.htm> (Wasserstand) <http://www.datanet.hu/hydroinfo/vituki/gazlok.htm> (Fehltiefe) und NAVINFO Funkstelle

### 1.11 cikk - Átmeneti rendelkezések

1. Az I. rész 1.22 cikke szerinti átmeneti rendelkezés azonnali végrehajtását a hajózási hatóság a hajózás, a vízi út vagy a vízi közlekedésben résztvevők biztonsága érdekében, közvetlen veszélyhelyzet fennállása hiányában is elrendelheti (hajósoknak szóló hirdetmény).
2. Vízen végzett, a hajózást nem zavaró tevékenység meghirdetésétől a hajózási hatóság határozatában vagy szakhatósági állásfoglalásában eltekinthet.
3. Hajózást érintő kísérlethez az illetékes hajózási hatóság eltérést engedélyezhet a Szabályzat rendelkezéseitől, amennyiben ezzel a személyek és a hajózás biztonságát, a forgalom folyamatosságát, a víz minőségét és a környezetet nem veszélyeztetik.
4. A vízi út korlátozott jellemzői következtében szükséges időszakra az átmeneti közlekedési rendet, továbbá az egyes vízterületek közlekedési rendjének a Szabályzatban nem érintett részletes helyi szabályait hajósoknak szóló hirdetményben a hajózási hatóság állapítja meg.
5. Hajósoknak szóló hirdetmény, illetve tájékoztató iránti kérelmet - a szükséges mellékletekkel együtt - legalább 5 munkanappal a meghirdetés tervezett időpontja előtt kell a hajózási hatósághoz benyújtani.

6. sz. ábra: A 008/Du/2009 sz. és az 1/Du/2008 sz. HSZH-k részletei.