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LEAGUE OF NATIONS

REPORT

ON

DANUBE NAVIGATION

SUBMITTED TO THE

ADVISORY AND TECHNICAL COMMITTEE
FOR COMMUNICATIONS AND TRANSIT
OF THE LEAGUE OF NATIONS

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(with the aid of Major Brehon Somervell)

It is understood that a mixed commission similar to the one on the Drave is contemplated for handling the improvement and maintenance work. Present conditions would seem to indicate the necessity for its prompt organisation.

THE BEGA.

This tributary of the Tisza, joining the larger river 11 km. above its confluence with the Danube, is especially important, as it serves a very highly developed agricultural region. The navigable section of this stream extends as far as Temesvar, the upper part having been canalised by means of six locks and dams. Of these, two lie in Roumania and four in the S. H. S. Kingdom. The feeder canal is entirely in Roumania. The width of the navigable canal varies from 20 to 30 meters, and its depth is now as little as 1.5 — according to navigation companies sometimes less. This condition is due to the fact that from the beginning of the world-war the canal has no longer been dredged. So far, no arrangement has been made between Roumania and the S. H. S. Kingdom for the maintenance of the channel. This accounts for some of the loss in Danube traffic.

THE SAVE.

The next tributary of importance is the Save, which empties into the Danube at Belgrade. This river is the principal tributary of the Danube and now forms part of the territorial waters of the S.H.S. Kingdom. It is understood that the river has been improved to some extent by permanent works and by dredging. There is a bar of considerable dimensions a short distance above Belgrade which seriously interferes with navigation. Since the war, the S. H. S. Kingdom has undertaken a survey of the river, has established aids to navigation and has done considerable dredging in it in an effort to keep it open for barges of the Danube type. This has not been altogether successful, and the Serbs, Croats and Slovenes are talking of adopting a new type of barge for the special service on this river. Full information on conditions here was not obtained.

THE PRUTH.

Moving downstream, the last navigable tributary of any importance which is encountered is the Pruth, which lies wholly within Roumania. This river is navigable from its mouth to Nemptzeni, located 370 km. above. From the mouth to Leova, 227 km. upstream, the river can be used by barges up to 500 tons capacity of not more than 1½ m. draught. From Leova to Nemptzeni, barges of not more than 300 tons can be used with a draught of not more than 60 cm.

The width of the stream varies from 80 to 120 meters ; its depth is variable, sometimes dropping to as little as two or three feet. The course of the river is very sinuous, its total length to Nemptzeni being 50 % greater than the air-line distance.

Going upstream, barges are hauled by special tow-boats or by oxen on the tow-path. Downstream the barges descend with the current, which varies from 0.4 to 0.6 meters per second. Ice is expected during the same months as for the Danube, *i.e.* from December 1st to March 1st (90 days). Low water generally occurs from July 1st to October 1st. The smallest radius of curvature is as little as 50 meters. The banks and bed are, in general, clay, rarely sand and gravel. Such improvement as has been undertaken has been done by means of dredging. Snags are sometimes found in the Pruth and are removed by the " Service Hydraulique " of Roumania.

AIDS TO NAVIGATION.

Aids to navigation have been established throughout the course of the river. The number, type and efficiency varies greatly in the different countries and with the condition of the channel offered to navigation. In the upper sections, where navigation is most difficult, the aids are few, as there has been practically no movement at night. What the movement would be with suitable lights and signals is, of course, difficult to prophesy.