Beaumps-Beaupré’s research campaigns in the eastern Adriatic in 1806 and 1808 – 1809 and their significance for the development of Adriatic hydrography

Summary
French hydrograph Charles François Beaumps-Beaupré performed a hydrographic survey of the major part of the eastern Adriatic, conducting two campaigns: in 1806 and in 1808 – 1809. It was the first scientific hydrographic research of the Adriatic, which has had a crucial impact to the development of Adriatic hydrography and marine cartography during the next two centuries.

Abstract
This paper deals with hydrographic survey of the eastern Adriatic made by a French hydrograph Charles François Beaumps-Beaupré, performed in two campaigns, in 1806 and 1808 – 1809, and their influence to the development of Adriatic hydrography and maritime cartography.

Napoleon’s imperial ideas included also the Adriatic. After numerous battles, the peace treaty in Bratislava in 1805 allowed the French government to occupy the eastern Adriatic: from Istria to Boka Kotorska. Being a military strategist of broad comprehension, Napoleon was aware that possessing any territory primarily assumes thorough geographic knowledge about it. Therefore, in early spring of 1806, he instructed a world famous hydrograph Charles François Beaumps-Beaupré to perform three activities: first, to do a hydrographic survey and other related maritime scientific researches of the most outstanding ports, bays and channels, because it had never been scientifically conducted before. Secondly, to present cartographically the obtained data, and thirdly, to evaluate the same aquatorium from the naval point of view, with a special consideration of micro locations which could be optimal ports, military bases, warehouses or outposts useful for the French navy.

The basis for that comprehensive and, in war circumstances, dangerous task, had already been set. In 1796 the Topographic Bureau was founded in Milan, similar to previously established bureau in Paris. In 1803 it was given a higher rating and called Military Store. Thus Beaumps-Beaupré had a quality support for topographic and cartographic tasks, but the Arsenal and other Venetian institutions were available as

1 Napoleon had expanded the French government to the Adriatic even earlier. It was the war that started in 1796 to conquer the north of Italy. By 1797 he conquered all the northern Italy, including the western Adriatic Coast that had previously been under the government of the Venice Republic. However, the fortunes of war temporarily changed in favour of Austria, so the French government could not reach the eastern Adriatic coast. According to the peace treaty in Campoformio on 17th October 1797, which abolished Venice, the area to the east of the Adige river came under Austrian rule, therefore, Istria, Dalmatia and Boka Kotorska, in the period of 1797 to 1805 were under the so-called first Austrian government. Fortunes of war acted again on many European battlefields and the situation changed after the peace treaty in Bratislava on 22nd December 1805, when the eastern Adriatic coast came under the French government. It lasted until 1814 – 1815 when, by the Vienna Congress resolution, the coast again came under the Austrian rule. A relatively short period of the French rule over the eastern Adriatic (1805-1806, 1814-1815) was characterised first by the fights with Russia and then with England, which added significant complexity to the circumstances in which first C. F. Beaumps-Beaupré realised his scientific researches.
well. However, he soon learned that Venetian documents were of little use. In fact, he hoped that the Venetians could provide quality marine charts based on previously performed scientific hydrographic survey. As such surveys had never been done on the Adriatic before, he had only one choice: to conduct the survey himself and, despite the war circumstances, with his associates do the survey of the most important ports, bays and channels of the eastern Adriatic. From March to September 1806 he systematically explored the bay of Piran, Umag, the port of Mirna, the Channel of Lim, Pula water area, Zadar and Pašman straits, Šibenik water area, Rogoznica and Split. Violent battles held on 22<sup>nd</sup> September 1806 interrupted the first campaign, as he thought it was necessary to protect the results of the research completed during the presence of Russian ships. He considered it a better choice than starting the same survey again with the enemy approaching the Adriatic. Therefore he heads via Pula to Piran, as his fellows assistants assured him that it was a safe route to Venice, regardless of the number and position of the surrounding ships. Doing so, he ended his first campaign in 1806.

The next year Russian fleet left Boka Kotorska and the Adriatic and the situation calmed down during 1808 – 1809. Beauméps-Beaupré continued with hydrographic survey of Boka Kotorska and the area around Dubrovnik, from the peninsula of Pelješac to the peninsula of Molunat.

He prepared special “reports” for both campaigns and their originals were immediately sent to Napoleon. The “reports” were accompanied by charts: form regional charts to maps and panoramic views of particularly interesting sections of the coast. Napoleon managed to fortify some of the places in this aquatorium, respecting Beauméps-Beaupré’s ideas about military estimation, but French government was short and ended in 1814 – 1815, so more ambitious plans were not realised. The decisions made at the Vienna Congress brought the whole coast under the Austrian government in 1815, and the French “episode”, together with Napoleon, became history.

Adriatic hydrography benefited form Beauméps-Beaupré’s researches, as he was using the resources of the Milan Military and Geographic Institute, which held the copies of all his “reports” and cartographic works. As early as 1815, the Institute was transferred to Vienna and continued its activities under a new name: Imperial-Royal Military and Geographic Institute. After the French government the local employees remained, trained in hydrography by Beauméps-Beaupré himself, and Milan Military and Geographic Institute and its personnel made the basis for the completion of the first hydrographic survey of the Adriatic, organised and supported by the Austrian Navy in from 1816 to 1821.  

At the same time, 1820 – 1821 experts in Paris completed and published for the first time marine charts based on Beauméps-Beaupré’s surveys in 1806 and 1808 – 1809. Based on those published Beauméps-Beaupré’s charts and his earlier manuscripts, the results of the new survey and systematic evaluation of all available material, the album <span>Carta di cabottaggio del mare Adriatico</span> was produced in the Milan Military and Geographic Institute between 1822 – 1824, followed by <span>Portolano del Mare Adriatico</span> in 1830. Those two works: cartographic presentation and first navigational manual of the Adriatic were later followed by new modified and updated editions, and became the basis of Adriatic navigation for the following forty years.*

In the year 1832 the western Adriatic coast was characterised by a political movement organised for the unification of Italy, which led to a war and resulted in reducing the areas under Austrian government. The Milan Military and Geographic Institute was transferred to Vienna in 1839 and continued its activities under a new name: Imperial-Royal Military and Geographic Institute.

In the meantime C. F. Beauméps-Beaupré grew older and it urged his associates to publish for the first time in the first issue of the French <span>Annales hydrographiques</span>, Paris, 1849, the integral material of his “reports” for both campaigns. Suddenly, the material written exclusively for Napoleon became available to

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2 Some British Navy experts were also engaged, for instance, Captain William Henry Smyth, later to become British admiral.

3 The State Archive in Zadar holds a copy of the album <span>Carta di cabottaggio del mare Adriatico</span>, Milan, 1822-1824, and copies of <span>Portolano del Mare Adriatico</span>, Milan, 1830, are kept in the Croatian Hydrographic Institute Split and the Scientific library in Zadar.

wide public. Austrian high officials obviously only then “discovered” him, although the copies had been for
decades kept first in Milan, and since 1839 in the Military and Geographic Institute in Vienna. The reaction
came fast, and the very next year, in 1850, an Austrian general Lazar Mamula, according to the instructions
from Vienna, started the systematic military fortifying of Boka Kotorska, which transformed it into the main
Austrian (later Austro-Hungarian) navy base. Similar was done in the north Adriatic in Pula: in accordance
with the idea of vice-admiral Hans Birch Dahlerup, in 1853 Pula was proclaimed the main naval port of the
Austrian Navy, and in 1856 the construction of the arsenal began.5

Soon afterwards, for the same reasons, Trieste hosted the Naval College and the Naval Library from
Venice, and in 1851 the College was transformed into the Naval Academy, whose educational quality turned
it into a significantly more respectable institution.6 This needs to be emphasised, as the Naval Library had the
most important charts and reference books which were the basis for all subsequent researches, and the Naval
Academy had personnel competent for the researches. As a result, in 1860 a new institution was established
in Trieste: Hydrographic Bureau. As in the meantime Pula developed the appearance of a real naval port, in
1863 a part of hydrographic, cartographic and other material was transferred from the Trieste institution to
Pula. Three years later the Trieste Bureau was closed, and all the equipment and other material were
transferred to the Store in Pula which then was named the Hydrographic Bureau of the Imperial-Royal Navy.
The Pula Bureau operated under the name until 1918, i.e. to the end of Austro-Hungarian government in the
eastern Adriatic. At the same time, between 1866 and 1869 a new hydrographic survey was conducted by the
Commander Tobias Österreicher, with the participation of Austro-Hungarian Navy and Pula Hydrographic
Bureau.7 The results were published in the new marine chart completed and printed in the Military and
Geographic Institute in Vienna.8 The revision of the earlier hydrographic survey of the Adriatic conducted by
Austro-Hungarian Navy and Pula Hydrographic Bureau was made between 1880 and 1885, and new marine
charts and plans made were published. Finally, in 1893 the first edition of Austro-Hungarian “Adriatic Pilot”
(Segelhandbuch für das Adriatische Meer, Pola, 1893) was published. The second edition was entitled
Segelhandbuch der Adria, Pula, 1906.*

Due to earlier geopolitical changes that caused the relocation of the Hydrographic Institute from
Trieste to Pula, the same happened during the 20th century. Since the Italian government occupied Pula in
1918, a part of the personnel and the remaining few items of the saved equipment and maps, along with the
material collected on the remaining part of the eastern Adriatic became the basis of the newly established
Hydrographic Bureau in Tivat in 1922, the true legal successor of the Pula Institute. But, in 1923 it was
transferred to Dubrovnik because of the Maritime Academy that was opened there. It was then relocated to
Split on 1st October 1929, where it has remained until the present days, except for a few changes of the
location.

It is important that the new organization, qualified personnel and increased demands in 1937 resulted
in greater importance of this hydrographic institution. Since then, after operating for 77 years it has worked
under the name of Hydrographic Institute, to add the attribute Croatian only recently. Today, after 146 years
of organized functioning and few short breaks due to war circumstances, it has been worldly recognised as
the Croatian Hydrographic Institute.

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7 ÖSTERREICHER, T., Die Österreichische Küstenaufnahme im Adriatischen Meere, Trieste, 1873. (University library
– Pula).
8 Production and printing of marine charts of the Adriatic during the second Austrian government in the eastern Adriatic
from 1815 to 1839 was always done in the Military and Geographic Institute, first in Milan (1815-1839), and then in
Vienna (1839-1918). The Institute’s activities were always military cartography, primarily topographic charts. Because
of the vast territory of the Austro-Hungarian Monarchy the production was enormous. As the expert cartographers
were rare, and printing equipment expensive, the whole cartographic production, both inland and maritime, was
concentrated in the same Institute. On the other hand, it should not be forgotten that Austro-Hungarian Monarchy was
primarily a land military power, and most of the resources were directed to the land forces. In regard to the fact, the
decision to print marine charts in Vienna was reasonable.