

Global food security threatened by bombing of Ukrainian trading ports

Sentinel-2 MSI acquired on 21 July 2023 at 08:56:01 UTC
Sentinel-1 CSAR IW acquired on 24 July 2023 from 04:05:10 to 04:05:35 UTC
Sentinel-2 MSI acquired on 28 July 2023 at 08:46:01 UTC
Sentinel-1 CSAR IW acquired on 29 July 2023 from 04:13:43 to 04:14:08 UTC
Sentinel-2 MSI acquired on 03 August 2023 at 09:06:01 UTC

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Keyword(s): Food security, marine traffic, Ukraine, Romania, Russia



[2D Layerstack](#)

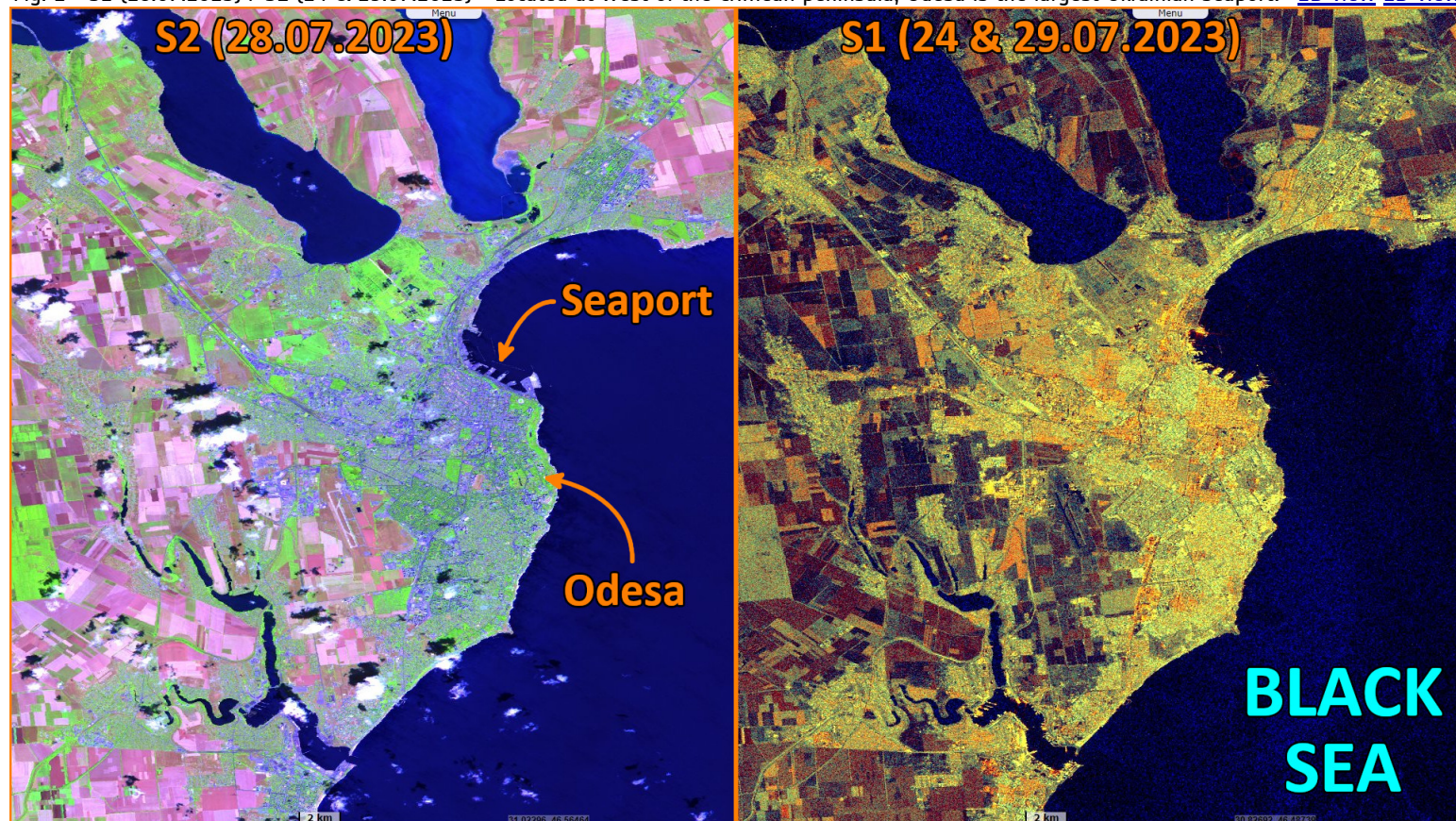
Fig. 1 - S1 (24 & 29.07.2023) - View of the main ports on the north-west shore of the Black Sea and the corridor to Danube ports.

[2D view](#)



The 2022 Russian invasion of Ukraine led to a complete halt of maritime grain shipments from Ukraine, previously a major exporter via the Black Sea. This resulted in a rise in world food prices and the threat of famine in lower-income countries.

Fig. 2 - S2 (28.07.2023) / S1 (24 & 29.07.2023) - Located at west of the Crimean peninsula, Odesa is the largest Ukrainian seaport. [2D view](#) [2D view](#)



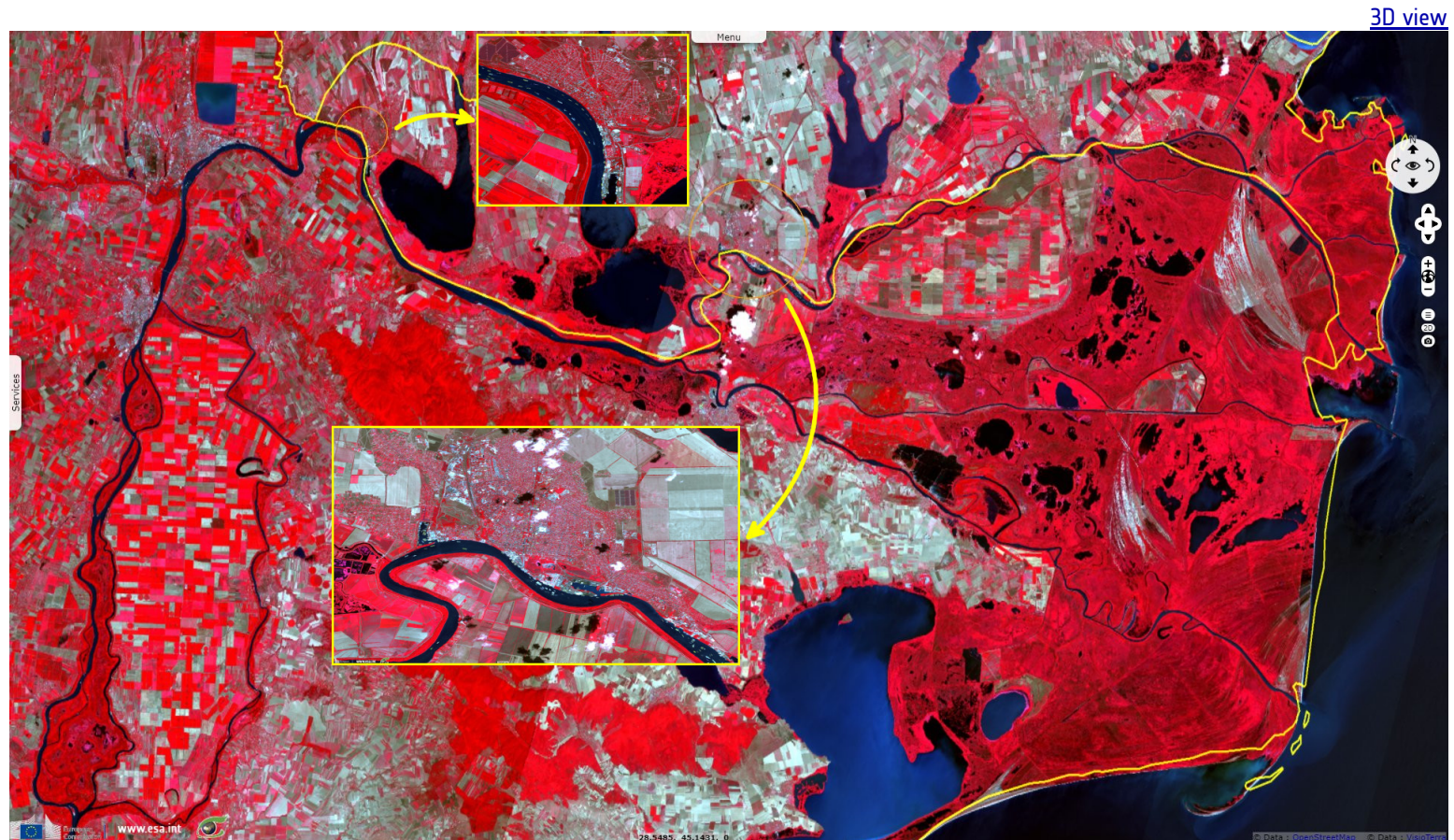
Odesa is one of the largest ports in the Black Sea basin, with a total annual traffic capacity of 40-50 million tonnes. It is the only port of Ukraine capable of accepting Panamax class vessels. With the annexion of Marioupol seaport and tensions in the Black Sea, two Ukrainian ports on the Danube became critical. Izmil Sea Commercial Port is capable of handling up to 8.5 million tons of cargo per year. In 2022, the Reni seaport increased the cargo transshipment by 6.5 times compared to the previous year – up to 6.8 million tons.

Fig. 3 - S1 (29.07.2023) - Izmil and Reni ports are located on the Danube, downstream of the port of Galati in Romania. [3D view](#)















Owing to the Black Sea Grain Initiative, by mid-July 2023, more than 1000 voyages had successfully left Ukrainian ports carrying nearly 33 million tonnes of grain and other food products to 45 countries.

Fig. 4 - S2 (21.07.2023 & 03.08.2023) - These ports have been bombed since the expiration of the deal, jeopardizing the exportations of Ukrainian cereals.



The war in Ukraine has an global impact on food price and food security as Russia threatens again Ukrainian exportations of cereals toward the rest of the World since it withdrew from the Black Sea Grain Initiative. Russia attacks on Ukrainian Ports hit the ports of Odesa on the Black Sea as well as Reni and Izmail on the Danube River, damaging warehouses used to export grain.

*The views expressed herein can in no way be taken to reflect the official opinion of the European Space Agency or the European Union.
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