

ФГБУН «Морской гидрофизический институт РАН»

**ПРОЦЕССЫ И ЯВЛЕНИЯ В МРАМОРНОМ МОРЕ
ПО ДАННЫМ ДИСТАНЦИОННОГО ЗОНДИРОВАНИЯ**

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2019

MPAMOPHOE MOPE



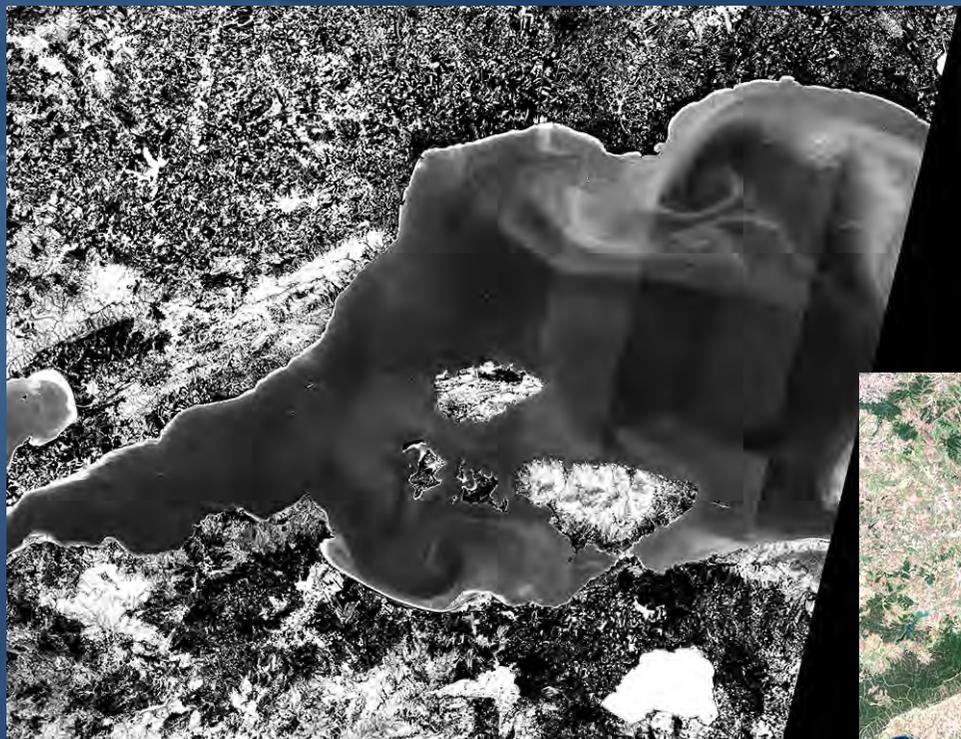
Какова роль Мраморного моря в системе водообмена «Черное море – Мраморное море – Эгейское море»?

Какие явления и процессы могут быть обнаружены по оптическим спутниковым снимкам?

ИСПОЛЬЗОВАННЫЕ ДАННЫЕ

- **Спутниковые снимки высокого и среднего разрешения:**
 - Sentinel 2
 - Landsat 8
 - MODIS Aqua
 - SUOMI NPP
- **Данные о концентрации хлорофилла, температуре и ветре:**
 - MODIS Aqua Level 3 Global Monthly Mapped 4 km Chlorophyll a
 - MODIS Aqua – Sea Surface Temperature at 11 microns (Day) monthly 4 km
 - Данные о полях ветра NCEP и NOMADS (NOAA)

ВИХРЕВЫЕ СТРУКТУРЫ В МРАМОРНОМ МОРЕ



Landsat - 8

03.07.2018



MPAMOPHOE MOPE (23.04.2018)

Sentinel-2

09:13:56 UTC



MPAMOPHOE MOPE (23.04.2018)



MPAMOPHOE MOPE (12.07.2018)

Sentinel-2

09:13:56 UTC



ВИХРЕВЫЕ СТРУКТУРЫ - 2018 (май-сентябрь)



ВИХРЕВАЯ ЦЕПОЧКА (21.08.2018)



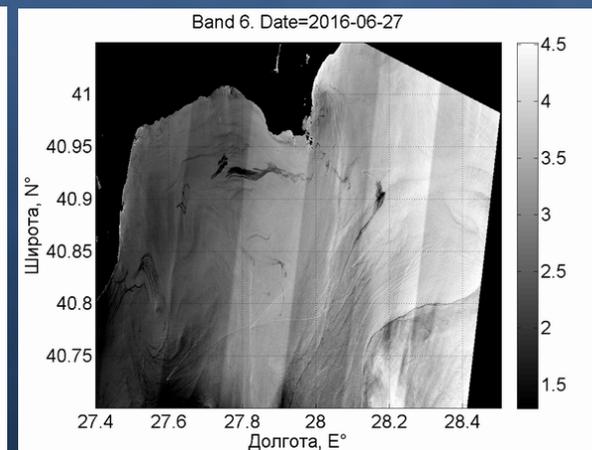
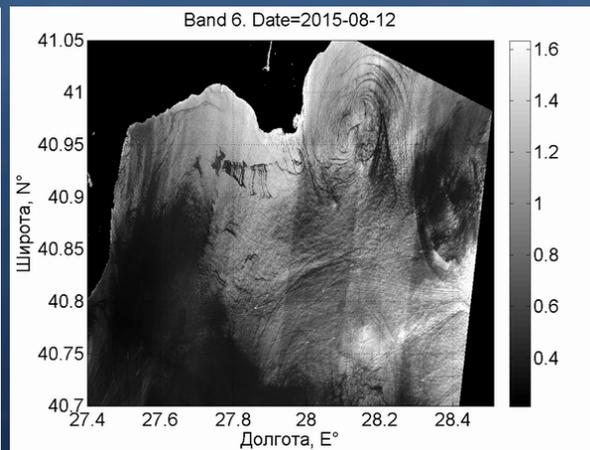
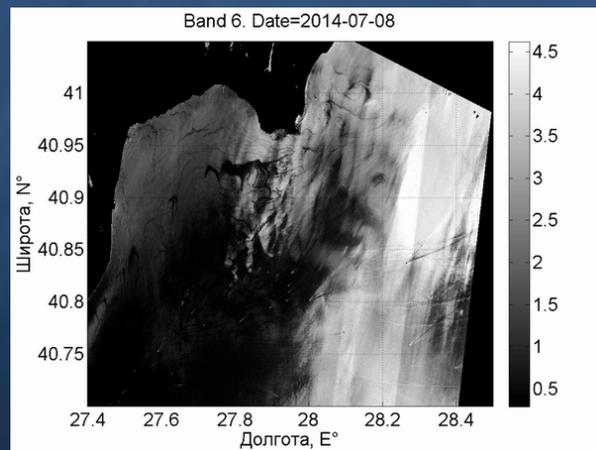
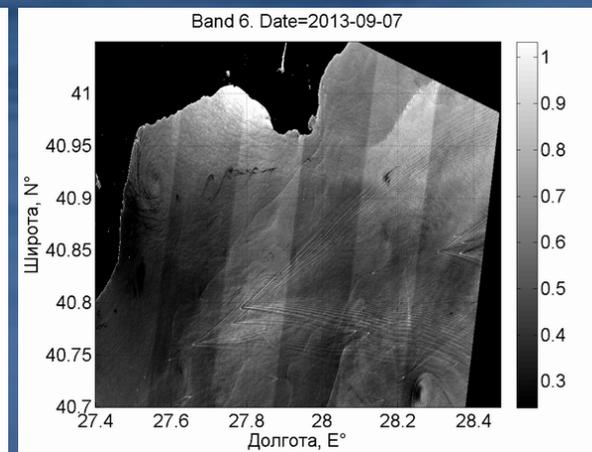
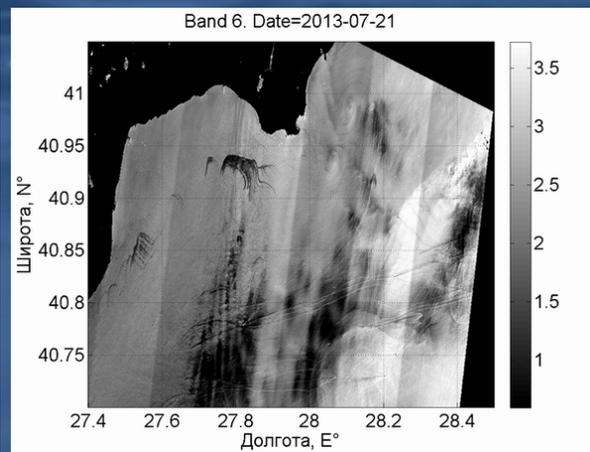
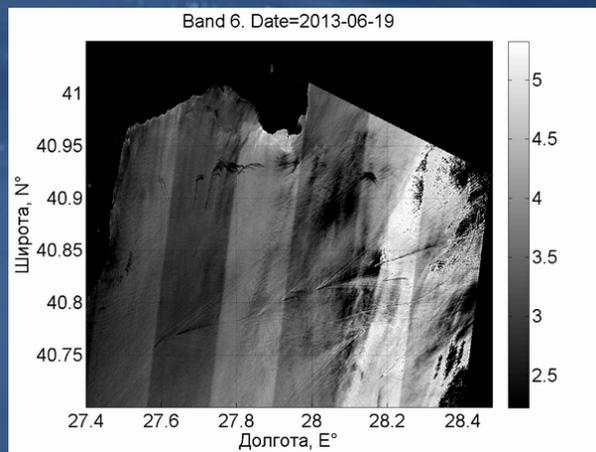
MPAMOPHOE MOPE (26.08.2018)



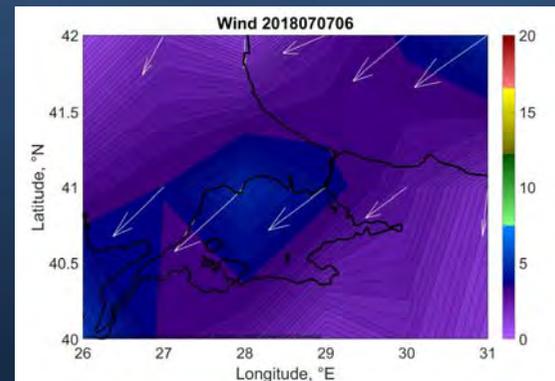
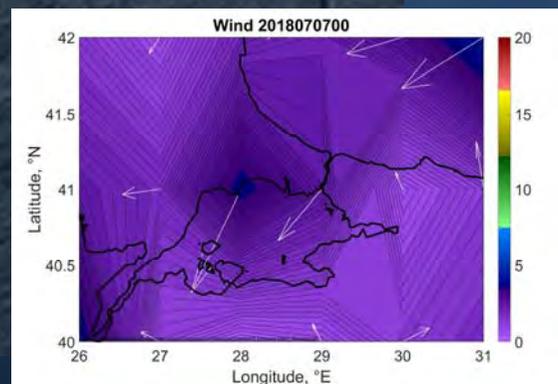
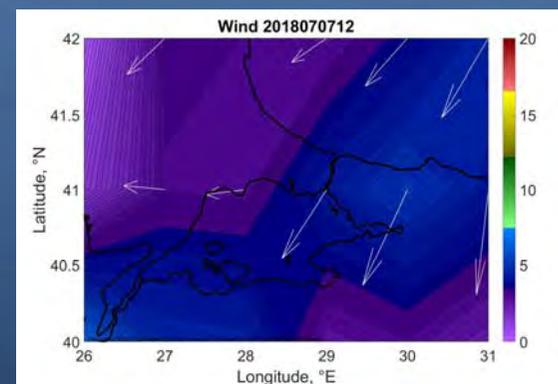
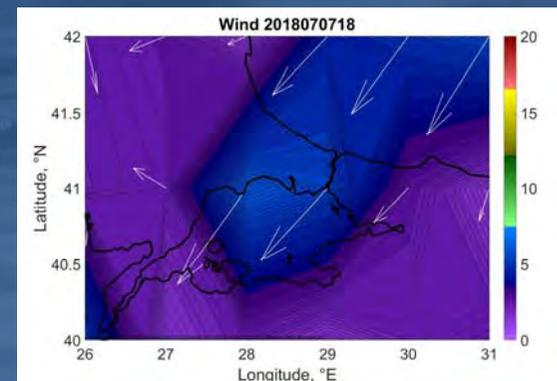
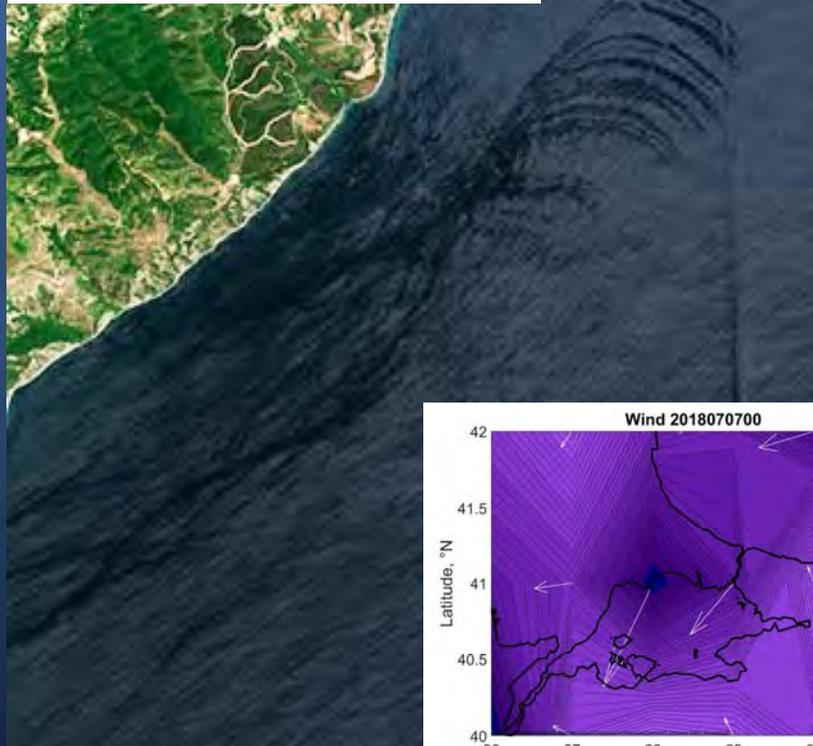
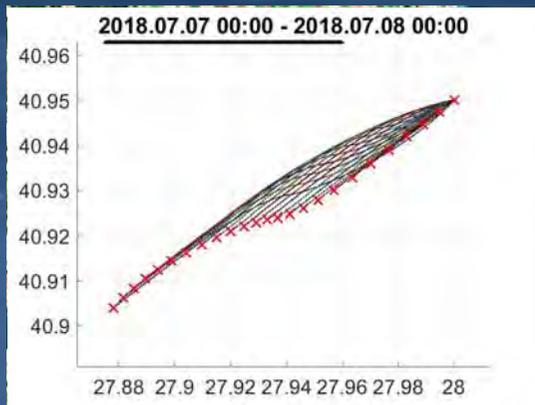
ПЛЕНОЧНЫЕ ЗАГРЯЗНЕНИЯ (2018, SENTINEL-2)



УГЛЕВОДОРОДНЫЕ ПРОЯВЛЕНИЯ (LANDSAT-8)



ПЛЕНОЧНЫЕ ЗАГРЯЗНЕНИЯ (07.07.2018)



ВНУТРЕННИЕ ВОЛНЫ (13.05.2018)



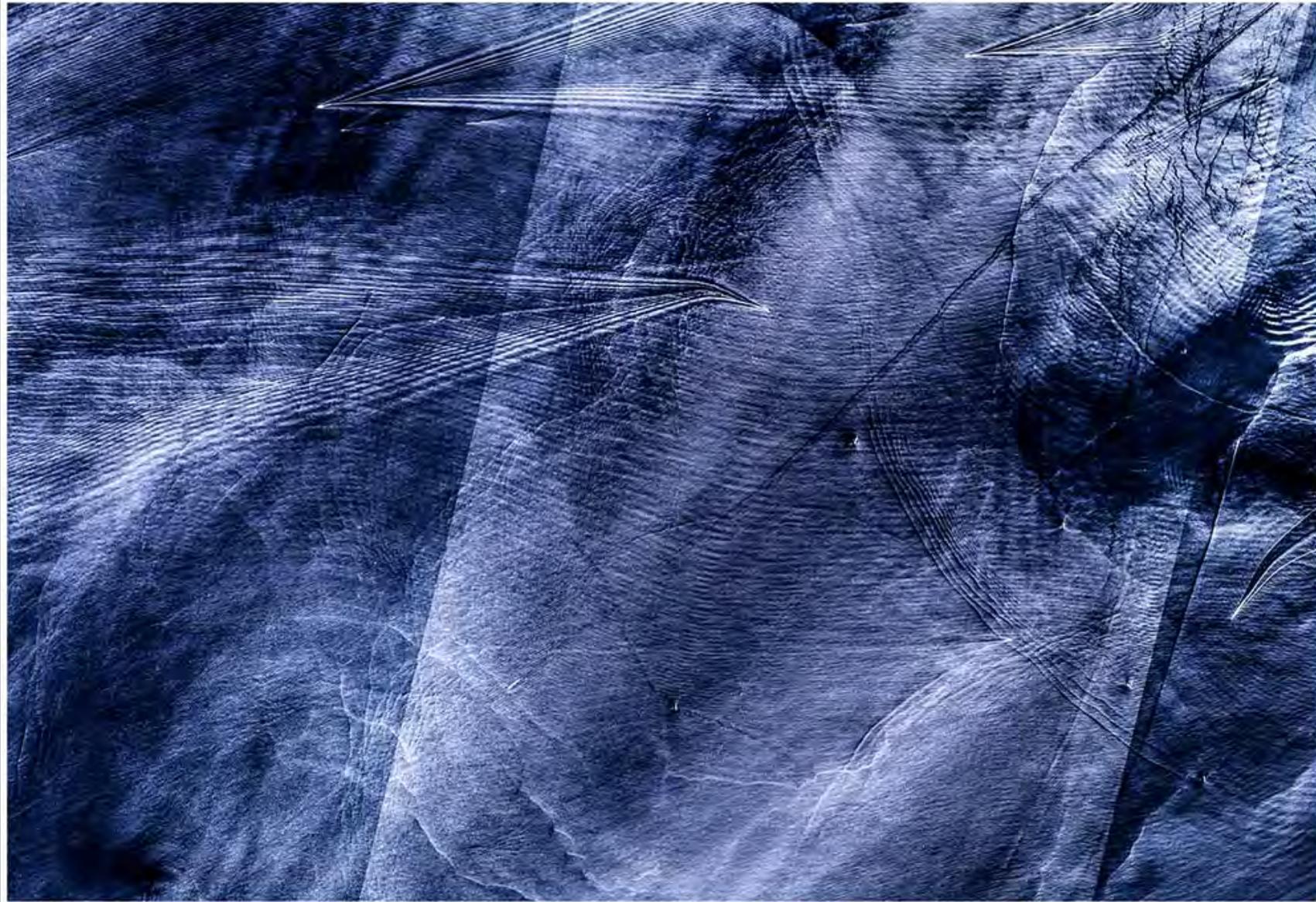
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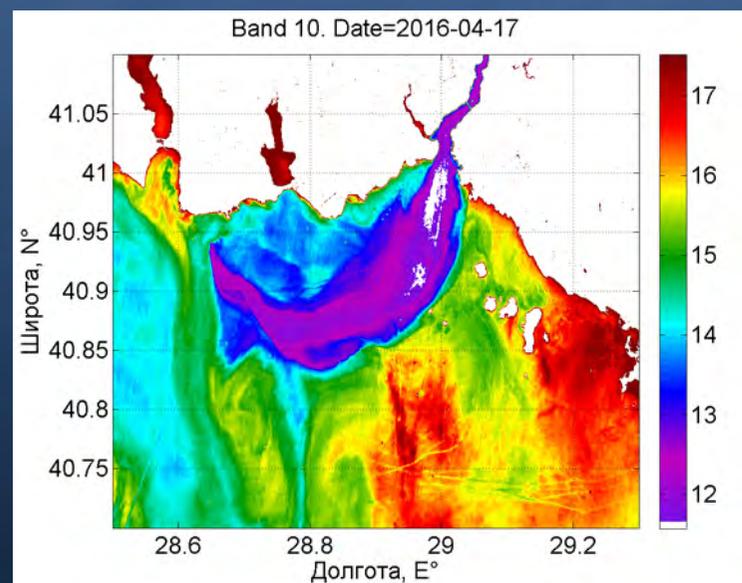
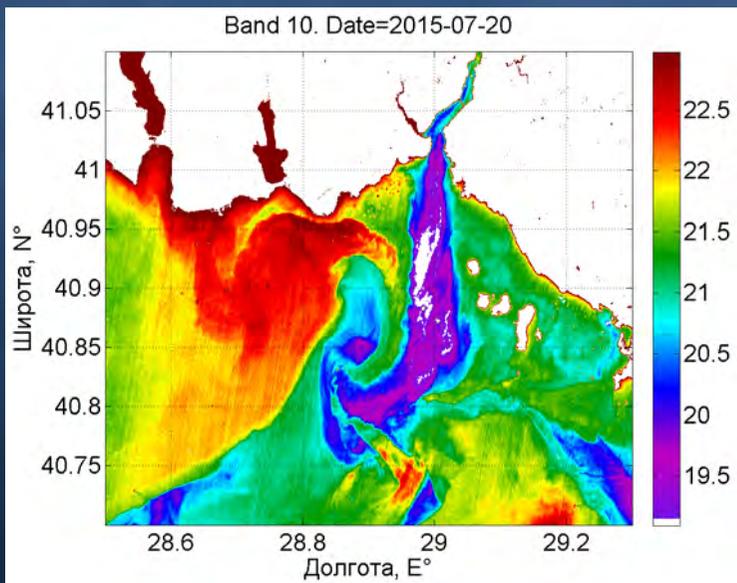
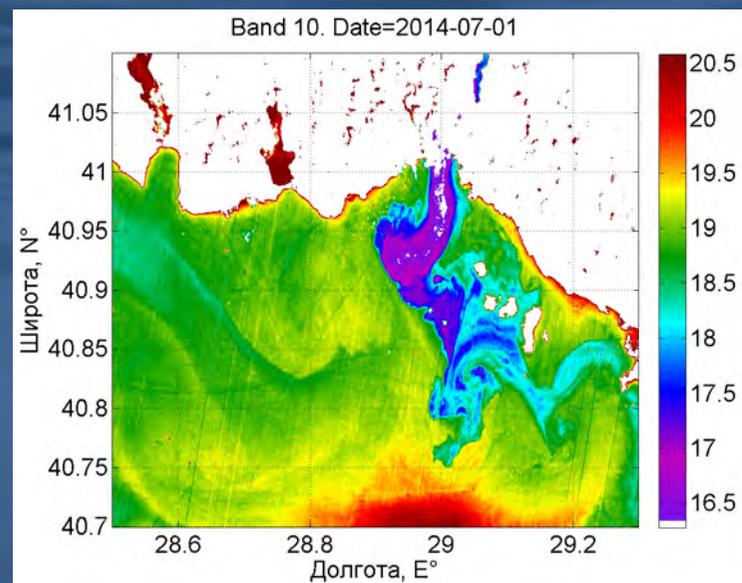
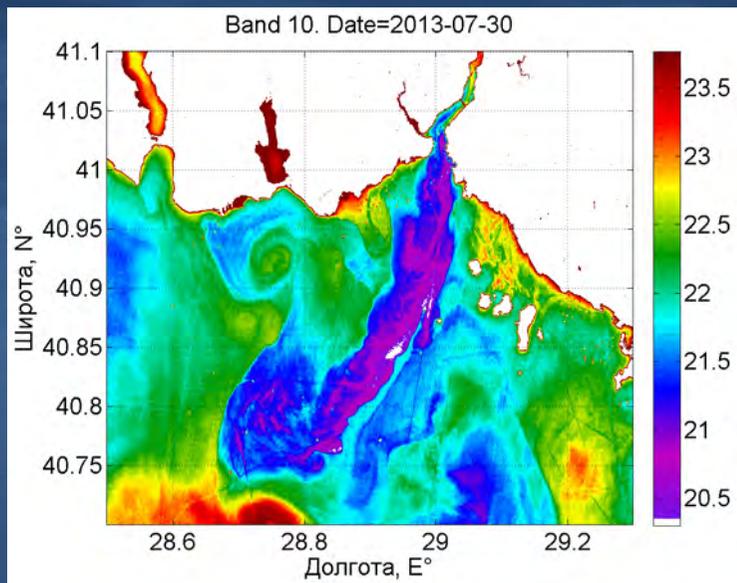
ВНУТРЕННИЕ ВОЛНЫ (31.08.2018)



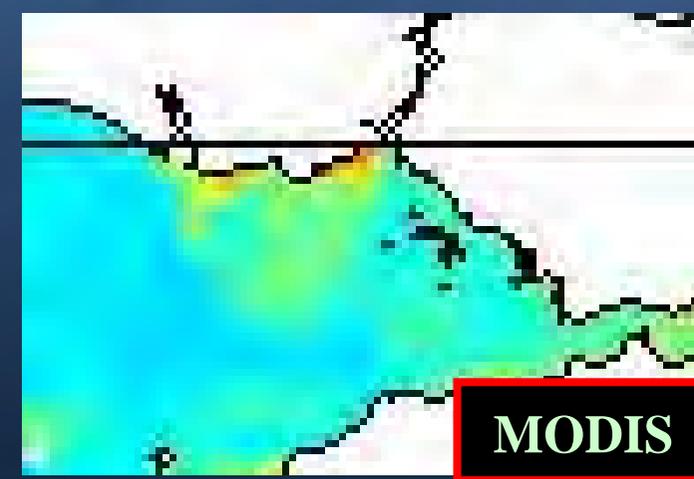
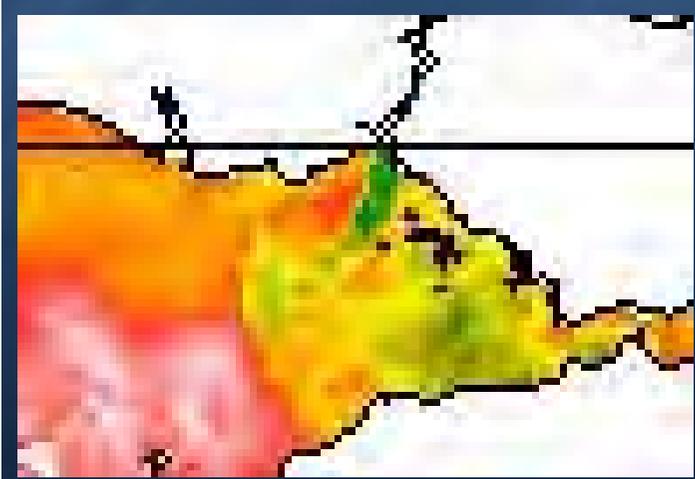
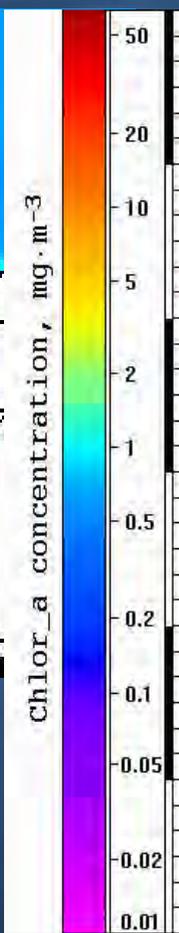
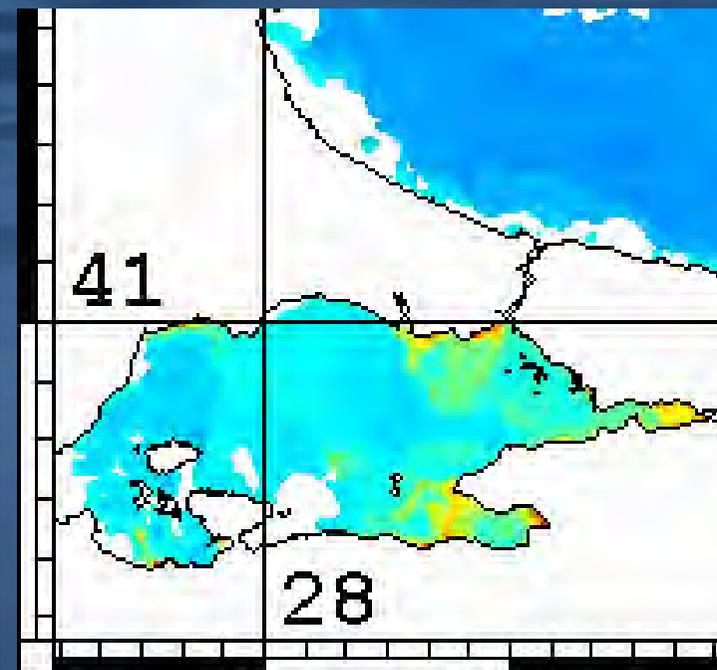
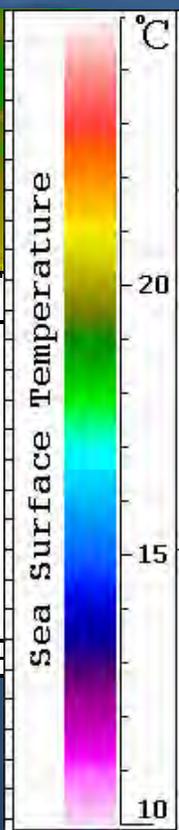
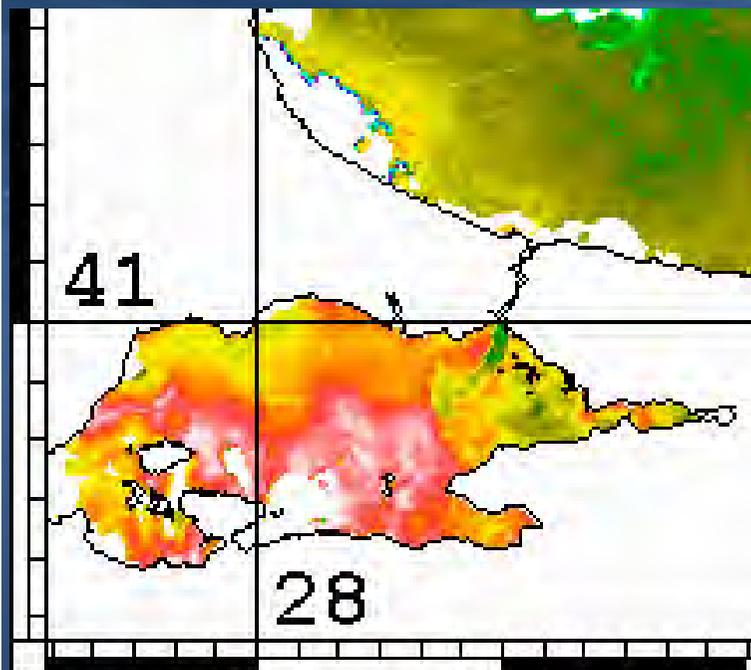
ВНУТРЕННИЕ ВОЛНЫ (31.08.2018)



ХАЛИННЫЙ АПВЕЛЛИНГ

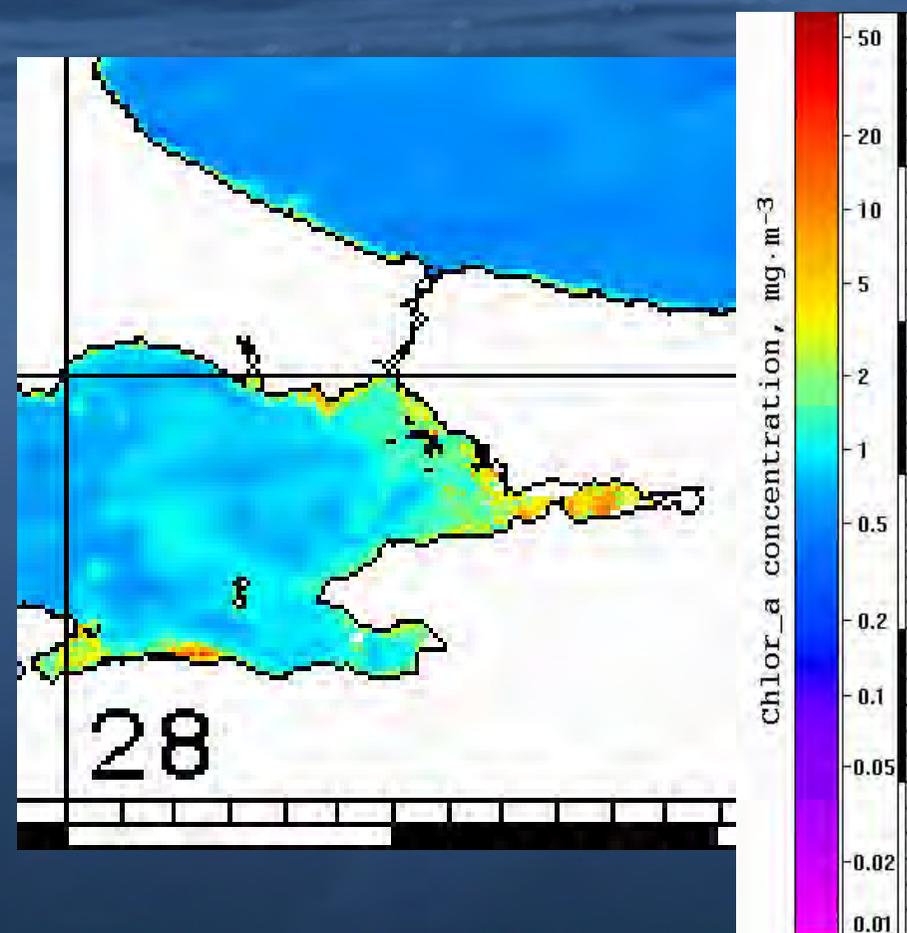
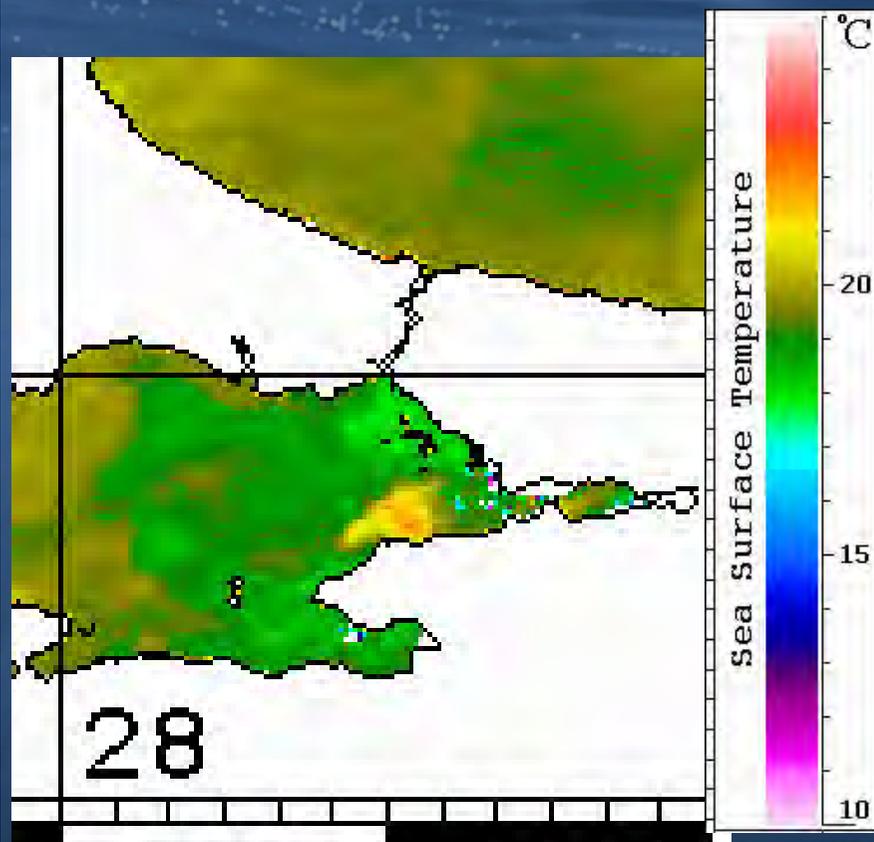


ЧЕРНОМОРСКИЕ ВОДЫ В МРАМОРНОМ МОРЕ (02.06.2017)



MODIS Aqua

ЧЕРНОМОРСКИЕ ВОДЫ В МРАМОРНОМ МОРЕ (28.08.2017)



SUOMI NPP

MODIS AQUA - 16.05.2010

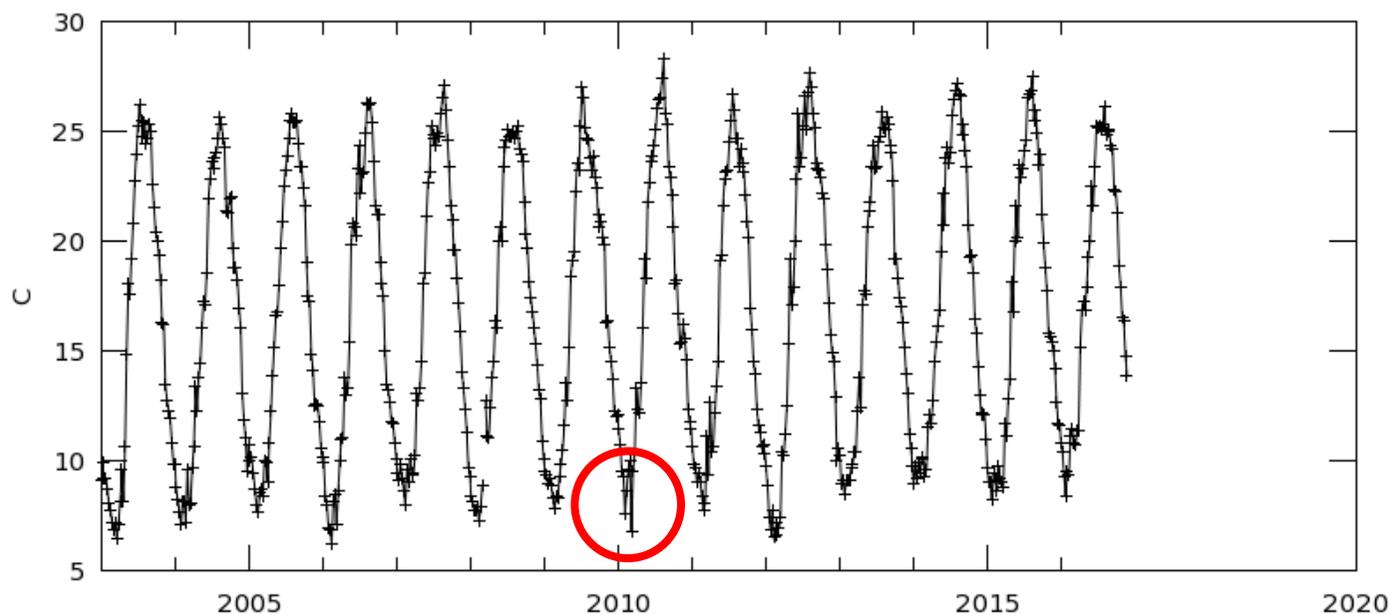


MODIS AQUA - 26.05.2010



ТЕМПЕРАТУРА ВОД (MODIS AQUA)

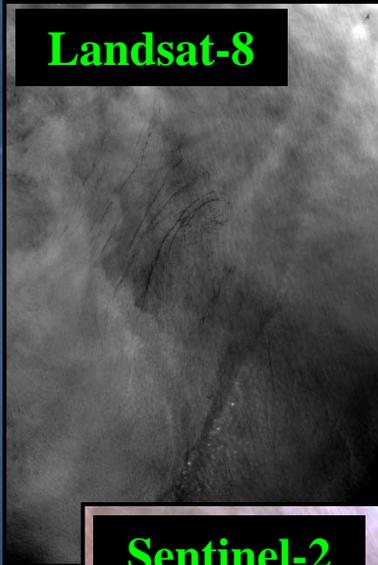
Time Series, Area-Averaged of Sea Surface Temperature at 11 microns (Day) 8-daily 4 km [MODIS-Aqua MODISA_L3m_SST_8d_4km v2014] C over 2002-12-27 00:35:06Z - 2016-12-02 02:05:08Z, Region 26.8231E, 40.0745N, 29.9652E, 41.1621N



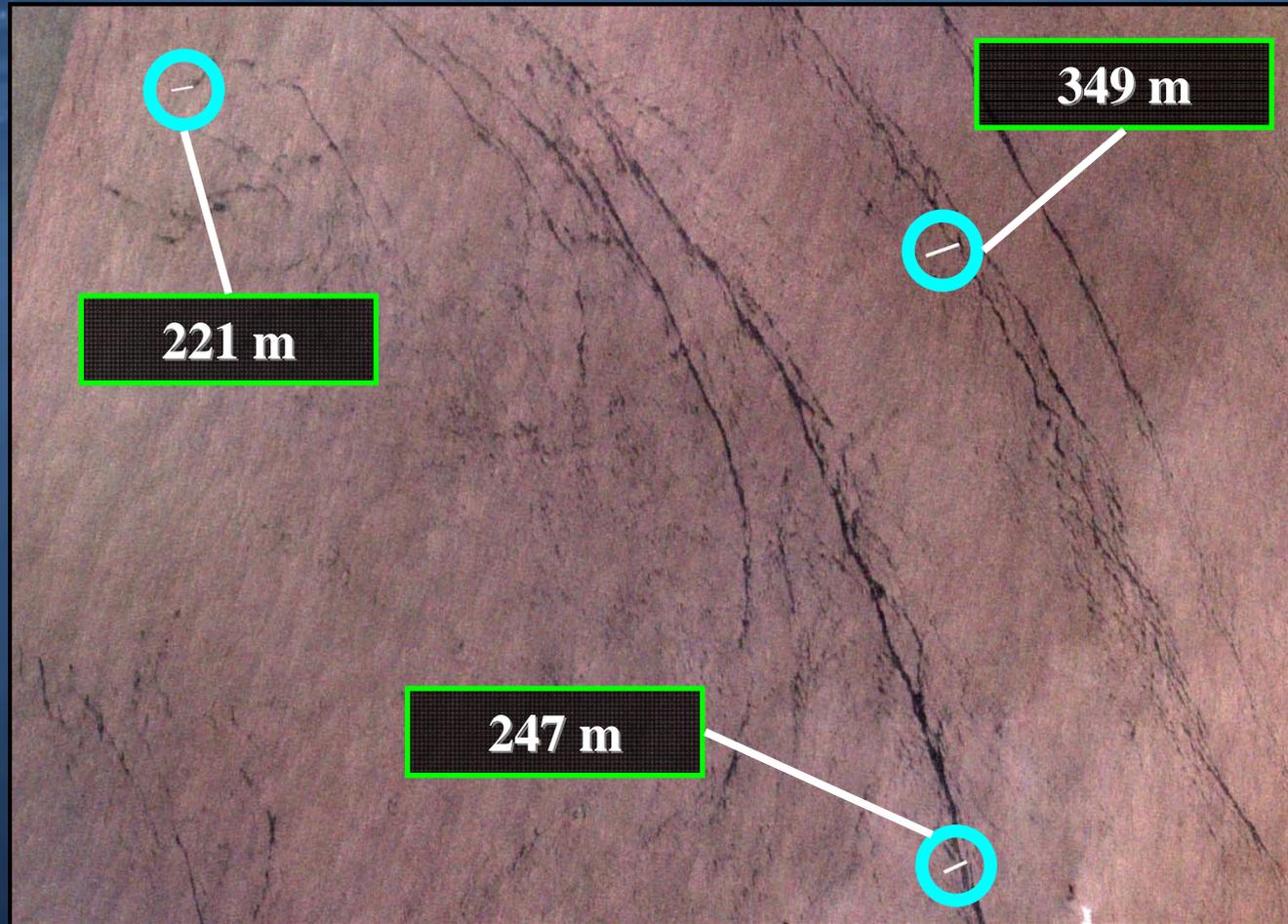
- The user-selected region was defined by 26.8231E, 40.0745N, 29.9652E, 41.1621N. The data grid also limits the analyzable region to the following bounding points: 26.8542E, 40.1042N, 29.9375E, 41.1458N. This analyzable region indicates the spatial limits of the subsetting granules that went into making this visualization result. - Selected date range was 2002-12-31 00:00:00Z - 2016-11-30 23:59:59Z. Title reflects the date range of the granules that went into making this result.

LANDSAT-8 И SENTINEL-2 (16.08.2015)

Landsat-8



Sentinel-2



Feature tracking methods

МРАМОРНОЕ МОРЕ (13.08.2018)

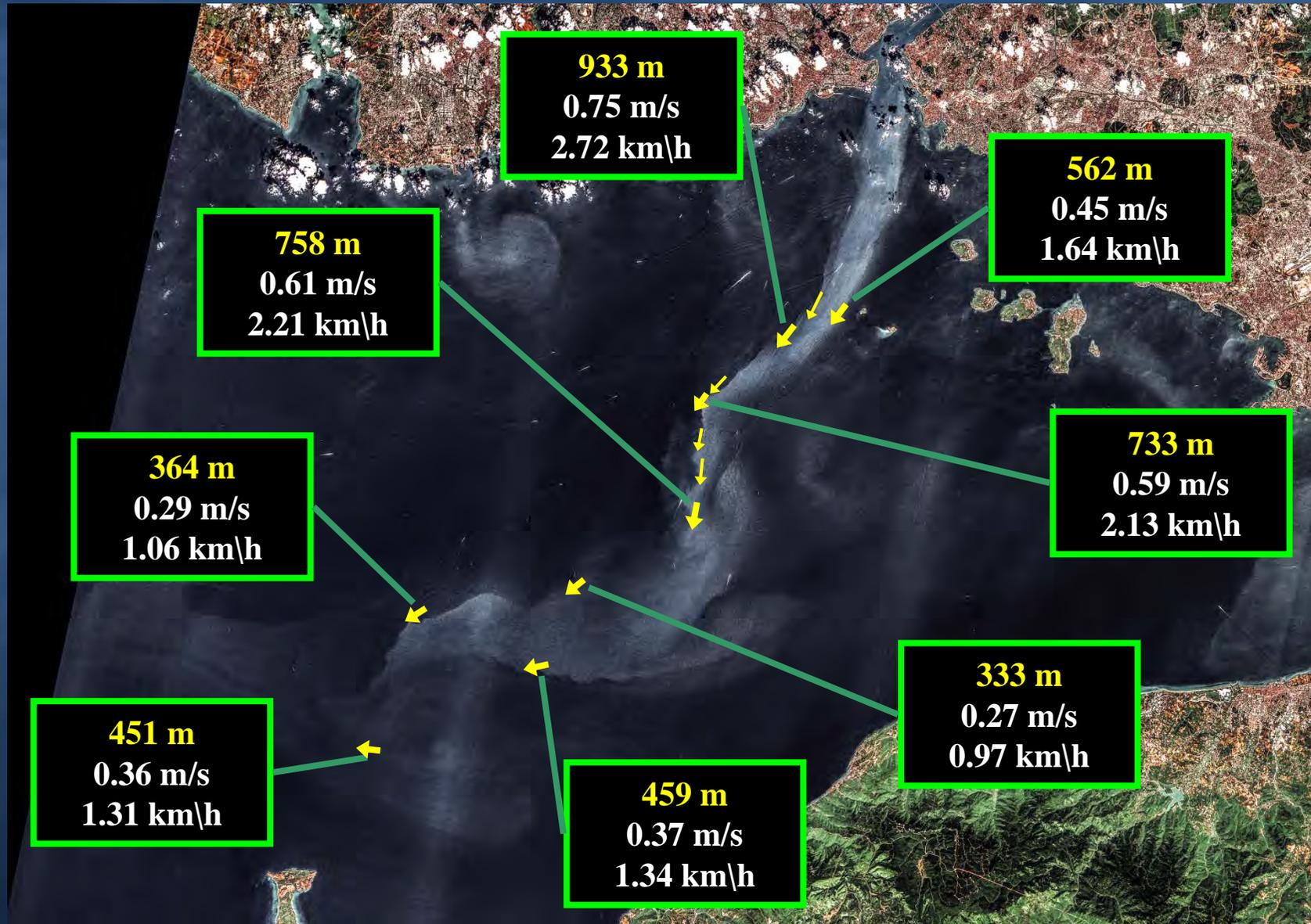
Sentinel-2

09:05:23 UTC



Временной интервал =
20 мин. 36 сек.

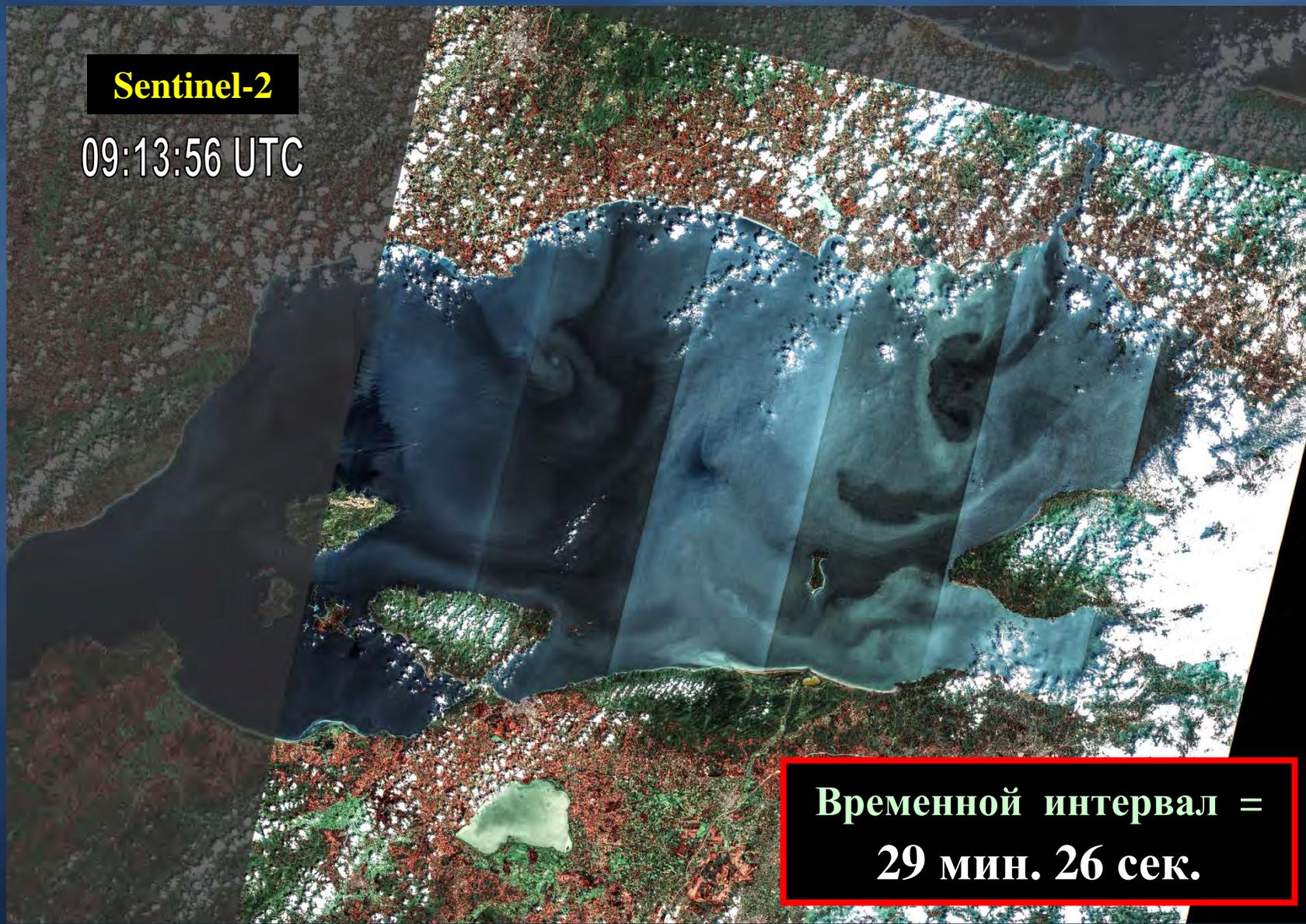
MPAMOPHOE MOPE (13.08.2018)



МРАМОРНОЕ МОРЕ (12.07.2018)

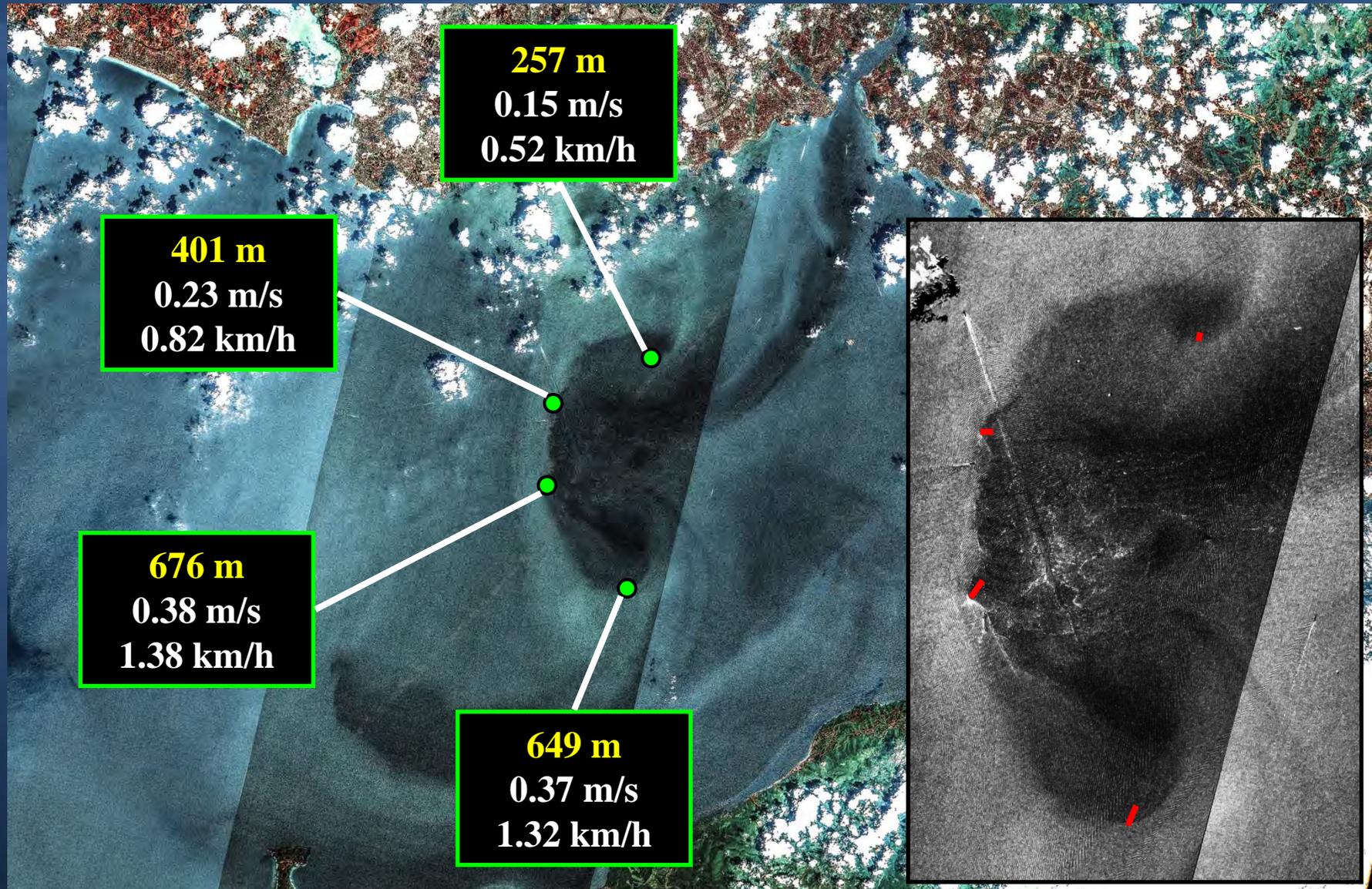
Sentinel-2

09:13:56 UTC



**Временной интервал =
29 мин. 26 сек.**

MPAMOPHOE MOPE (12.07.2018)



The background of the slide is a close-up photograph of blue water with gentle ripples and small waves, creating a textured and serene visual effect.

СПАСИБО ЗА ВНИМАНИЕ

ВОДООБМЕН МЕЖДУ МОРЯМИ

