

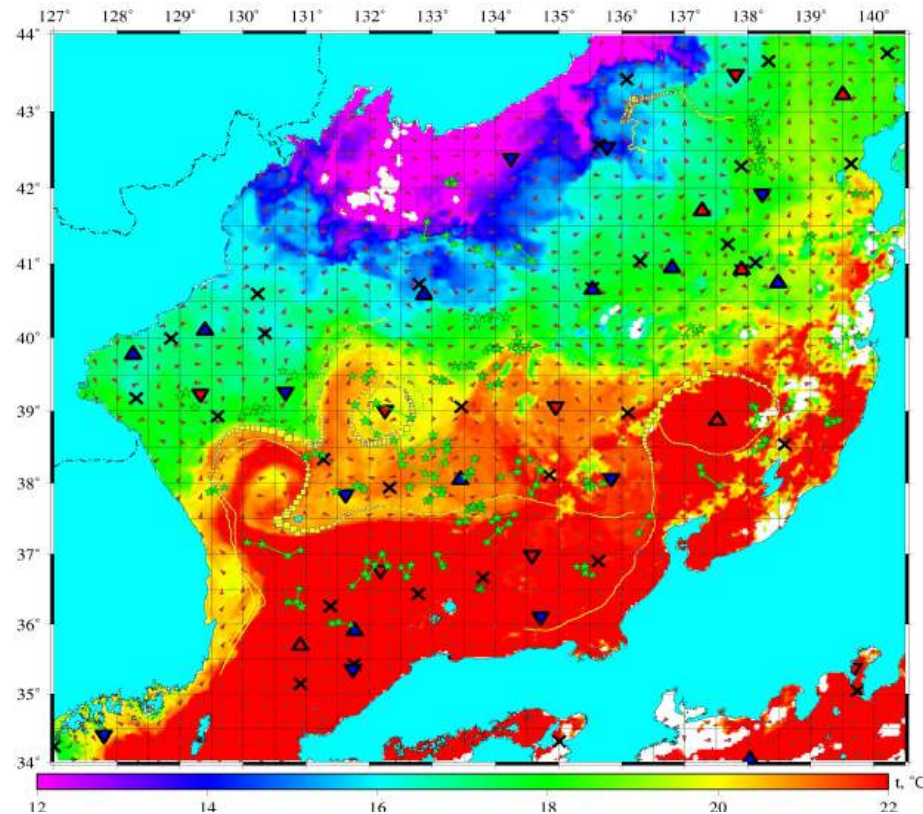
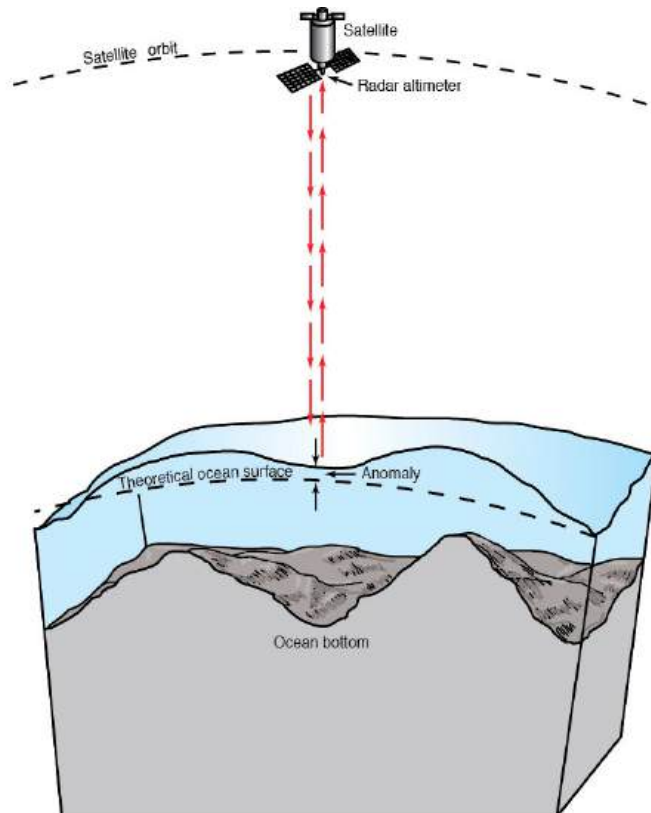
ПЕРЕНОС РАДИОАКТИВНОГО ЗАГРЯЗНЕНИЯ ОТ АЭС “ФУКУСИМА” ЧЕРЕЗ СТРУЮ КУРОСИО НА ОСНОВЕ ДАННЫХ AVISO

Будянский М.В., Дидов А.А., Лебедева М.А., Пранц С.В., Лобанов В.Б., Сергеев А.Ф.



ЦЕЛЬ И ЗАДАЧИ:

ЛАГРАНЖЕВО МОДЕЛИРОВАНИЕ КРОСС-ФРОНТАЛЬНОГО ПЕРЕНОСА НА ЮЖНЫЙ ФЛАНГ СТРУИ КУРОСИО ПОТЕНЦИАЛЬНО ЗАГРЯЗНЕННОЙ ВОДЫ ОТ АЭС "ФУКУСИМА"



РАЙОН ИССЛЕДОВАНИЯ

Contents lists available at ScienceDirect

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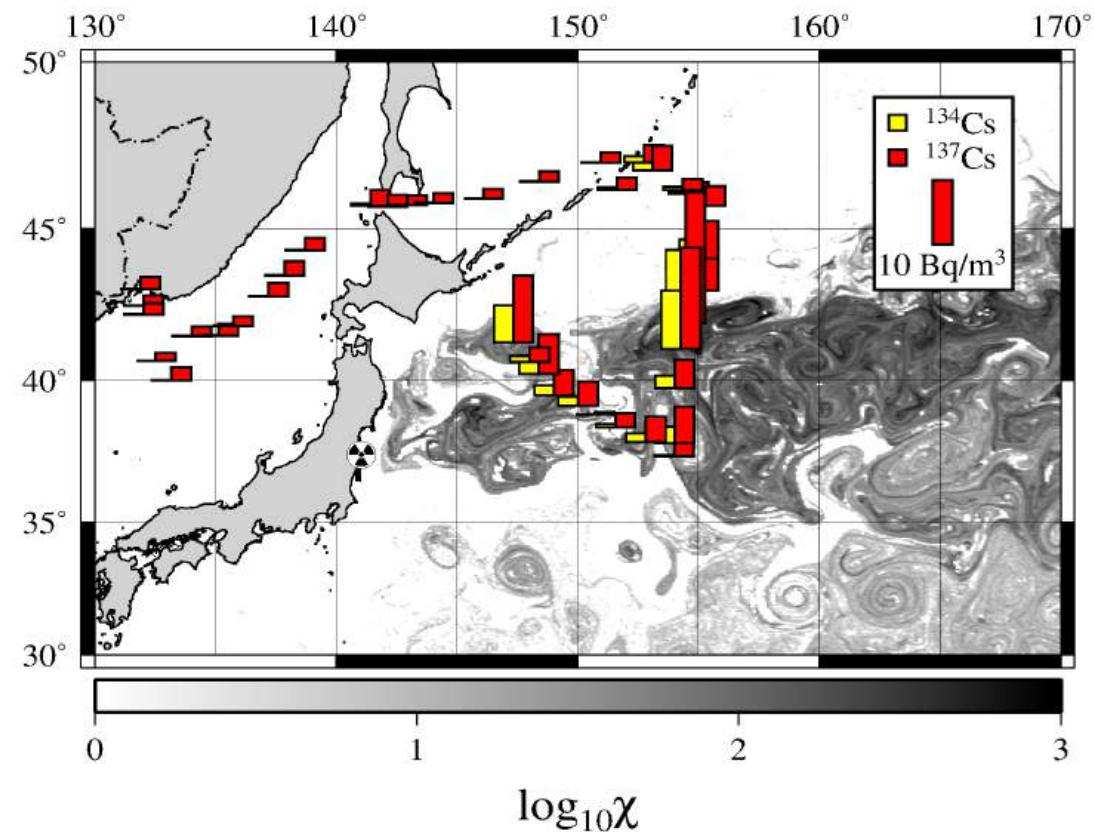
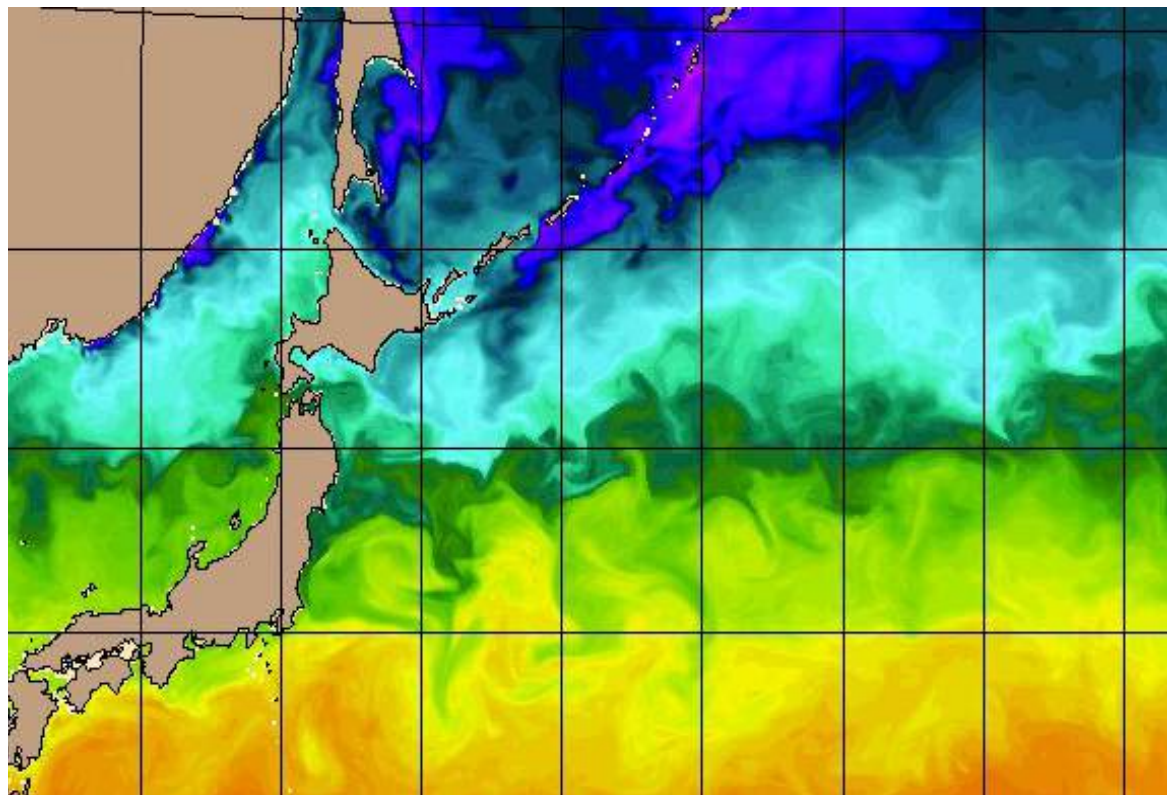
Deep-Sea Research I

journal homepage: www.elsevier.com/locate/dsri

Role of mesoscale eddies in transport of Fukushima-derived cesium isotopes in the ocean

M.V. Budyansky, V.A. Goryachev, D.D. Kaplunenko, V.B. Lobanov, S.V. Prants*, A.F. Sergeev, N.V. Shlyk, M.Yu. Uleysky

CrossMark



Распределение концентрации радионуклидов на 30 апреля 2012 г.

Numerical simulation of propagation of radioactive pollution in the ocean from the Fukushima Dai-ichi nuclear power plant


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Doklady Earth Sciences

 Sergey Prants ·  M. Yu. Uleysky ·  Maxim Budyansky

Lagrangian study of surface transport in the Kuroshio Extension area based on simulation of propagation of Fukushima-derived radionuclides

Article Full-text available August 2013

 Nonlinear Processes in Geophysics

 Sergey Prants ·  Maxim Budyansky ·  M. Yu. Uleysky

ОЦЕНКА ЗАГРЯЗНЕНИЯ ВОД ЮЖНО-КУРИЛЬСКОЙ РЫБОЛОВНОЙ ЗОНЫ РОССИИ РАДИОАКТИВНЫМИ ВОДАМИ АЭС «ФУКУСИМА-1» НА ОСНОВЕ ЛАГРАНЖЕВА МОДЕЛИРОВАНИЯ

New Article Full-text available

September 2024

Доклады РОССИЙСКОЙ АКАДЕМИИ НАУК Науки о Земле

 Maxim Budyansky ·  Maria Lebedeva ·  Aleksandr Udalov ·  Tatyana Belonenko

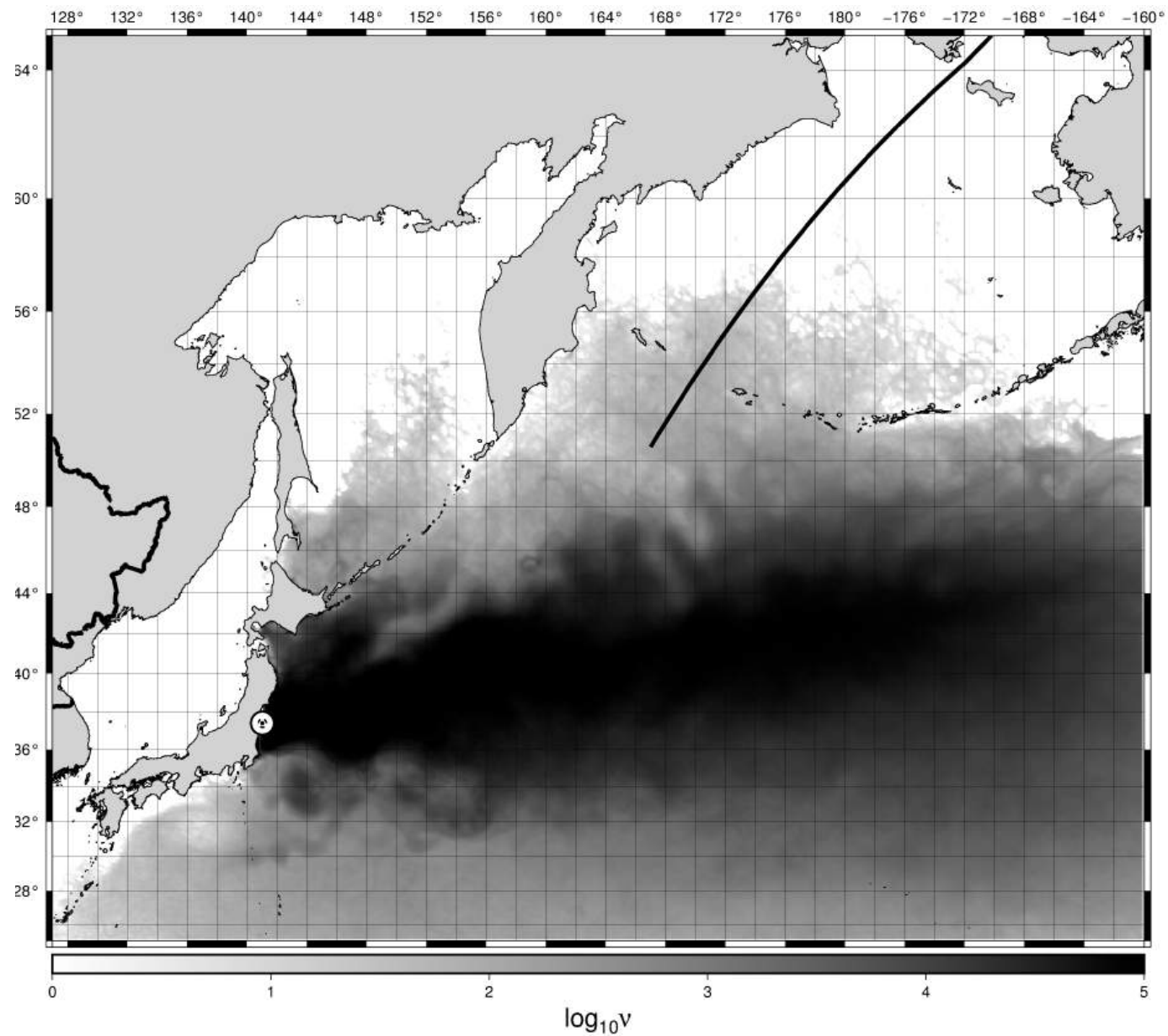


RUSSIAN JOURNAL of EARTH SCIENCES

SURFACE TRANSPORT OF TECHNICAL WATERS FROM FUKUSHIMA NPP TO THE SOUTH KURIL FISHING ZONE

M. V. Budyansky^{1,2*} , T. V. Belonenko¹ , M. A. Lebedeva^{1,2} , and A. A. Udalov² 

ДАЗИМЕТРИЧЕСКАЯ КАРТА



ХАОТИЧЕСКАЯ АДВЕКЦИЯ

J. Fluid Mech. (1984), vol. 143, pp. 1–21
Printed in Great Britain

Stirring by chaotic advection

By HASSAN AREF

Division of Engineering, Brown University, Providence, Rhode Island 02912

(Received 30 March 1983)

In the Lagrangian representation, the problem of advection of a passive marker particle by a prescribed flow defines a dynamical system. For two-dimensional incompressible flow this system is Hamiltonian and has just one degree of freedom.

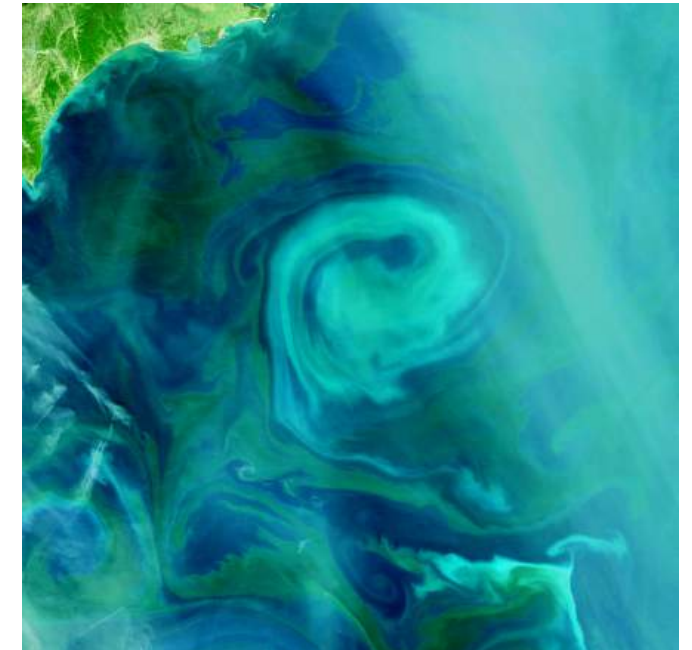
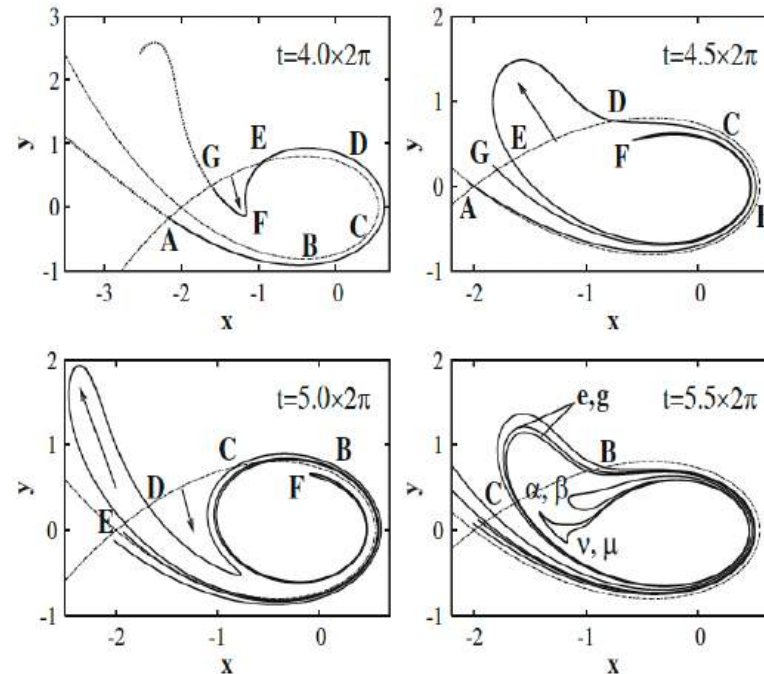


Хассан Ареф

The term “chaotic advection” has been coined by Aref [9, 10] who realized that advection equations for two-dimensional flows may have a **Hamiltonian form**. For incompressible planar flows, the velocity components can be expressed in terms of a stream function. The equations of motion (1.3) have now the Hamiltonian form

$$\frac{dx}{dt} = u(x, y, t) = -\frac{\partial \Psi}{\partial y}, \quad \frac{dy}{dt} = v(x, y, t) = \frac{\partial \Psi}{\partial x}, \quad (1.4)$$

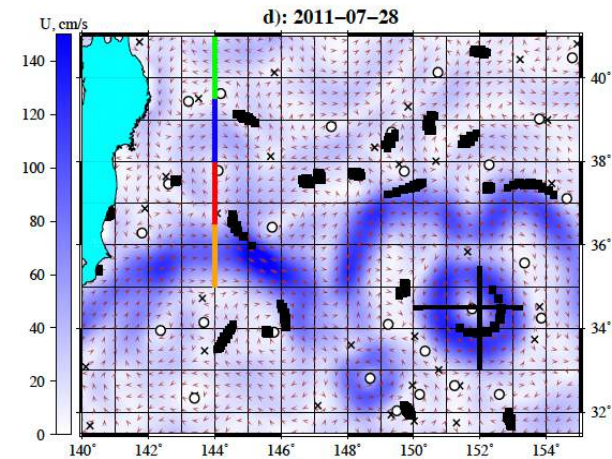
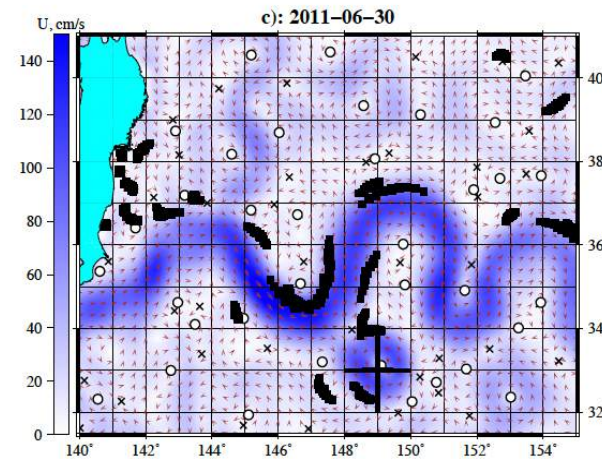
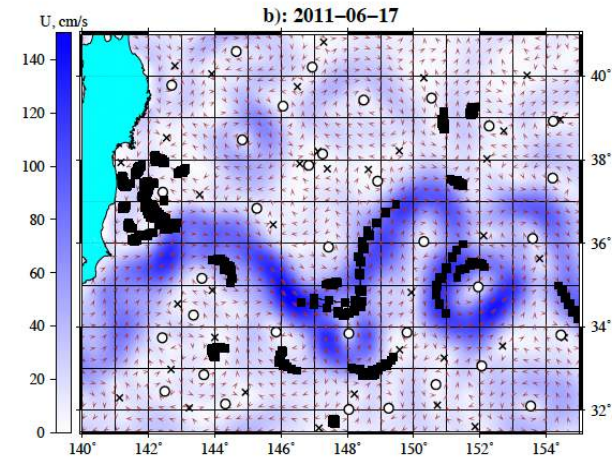
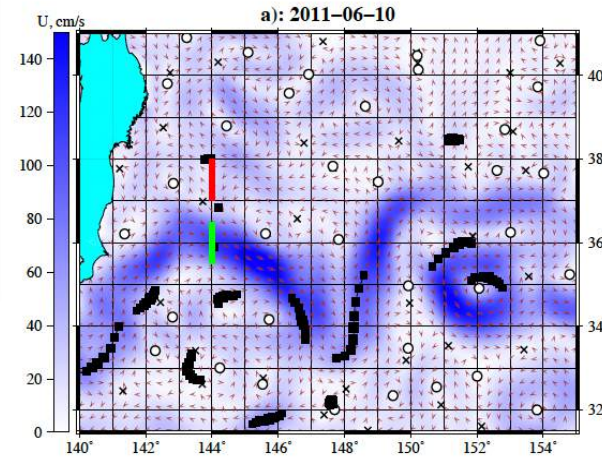
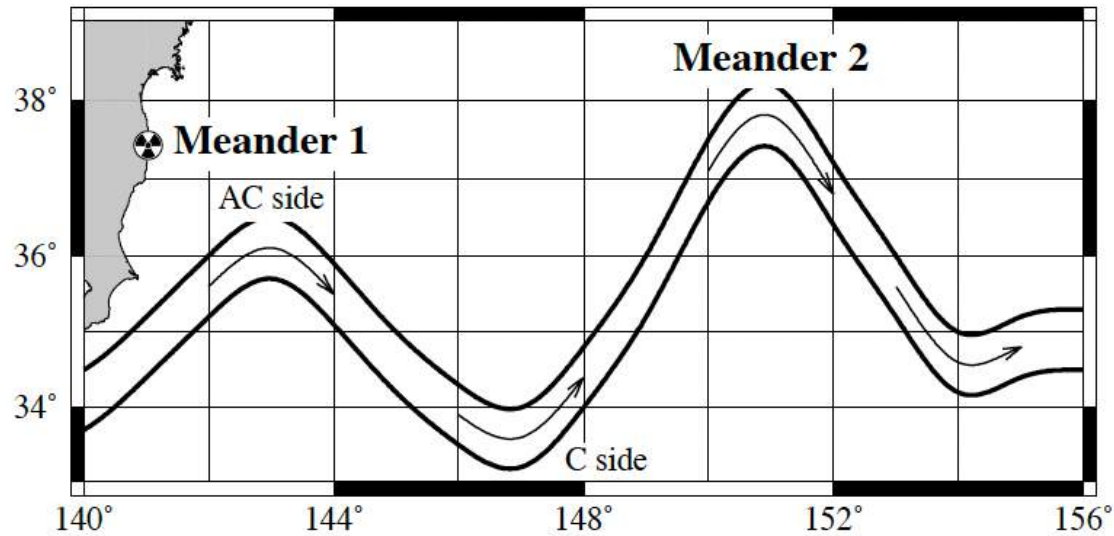
with the stream function Ψ playing the role of a Hamiltonian. The coordinates (x, y) of a particle are canonically conjugated variables. All time-independent one-degree-of-freedom Hamiltonian systems are known to be integrable. It means that all fluid





Lagrangian study of surface transport in the Kuroshio Extension area based on simulation of propagation of Fukushima-derived radionuclides

S. V. Prants, M. V. Budyansky, and M. Yu. Uleysky



Chaotic mixing and transport in a meandering jet flow

Article

Full-text available

October 2006

 Sergey Prants ·  Maxim Budyansky ·  M. Yu. Uleysky ·  G M Zaslavsky




Detecting barrier to cross-jet Lagrangian transport and its destruction in a meandering flow

Article

Full-text available

June 2009

Physical Review E




 Maxim Budyansky ·  M. Yu. Uleysky ·  Sergey Prants

Cross-Frontal Chaotic Transport in Oceanic Jet Currents

Article

Full-text available

May 2009

 Maxim Budyansky ·  M. Yu. Uleysky ·  Sergey Prants

Mechanism of destruction of transport barriers in geophysical jets with Rossby waves

Article

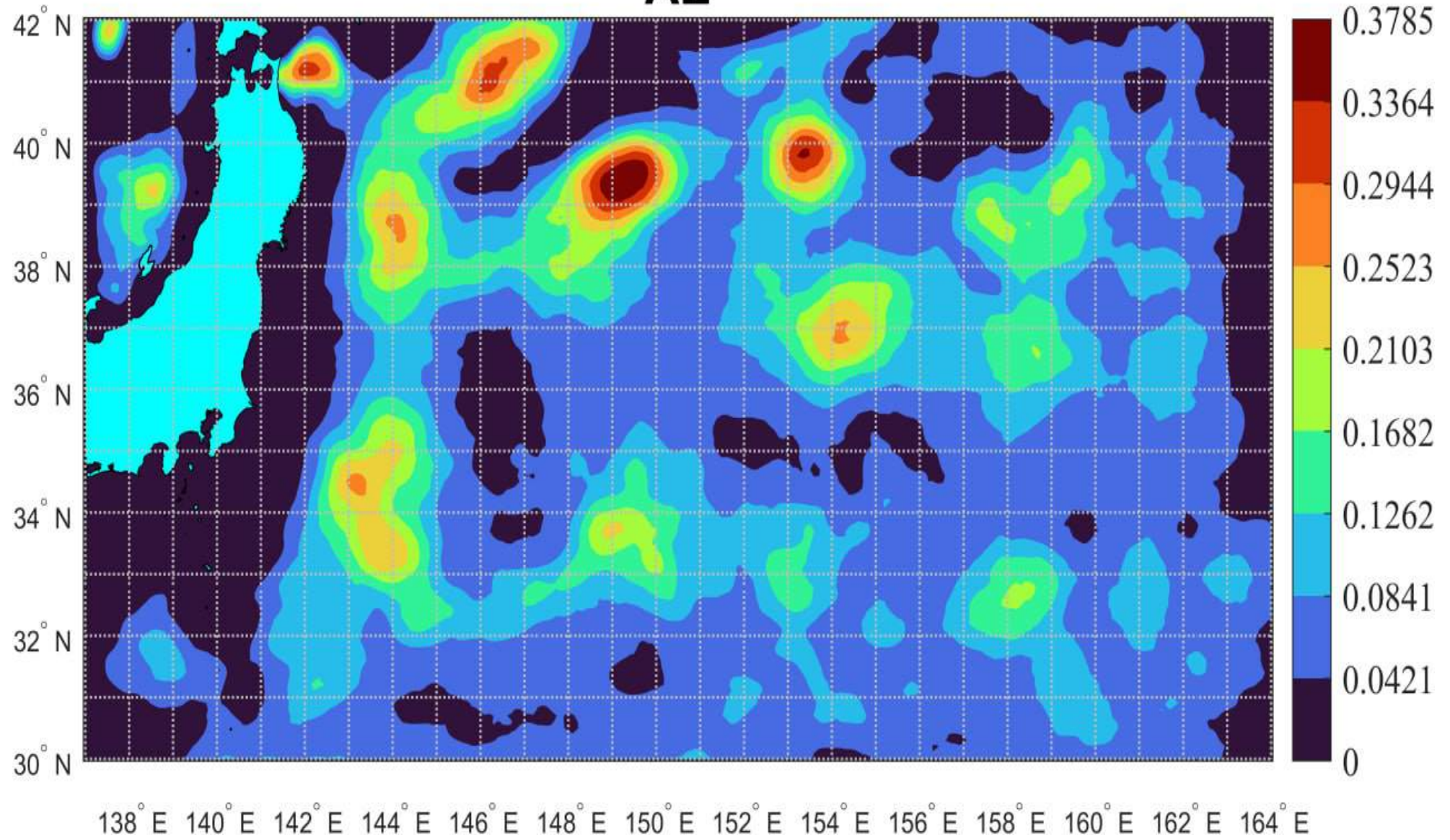
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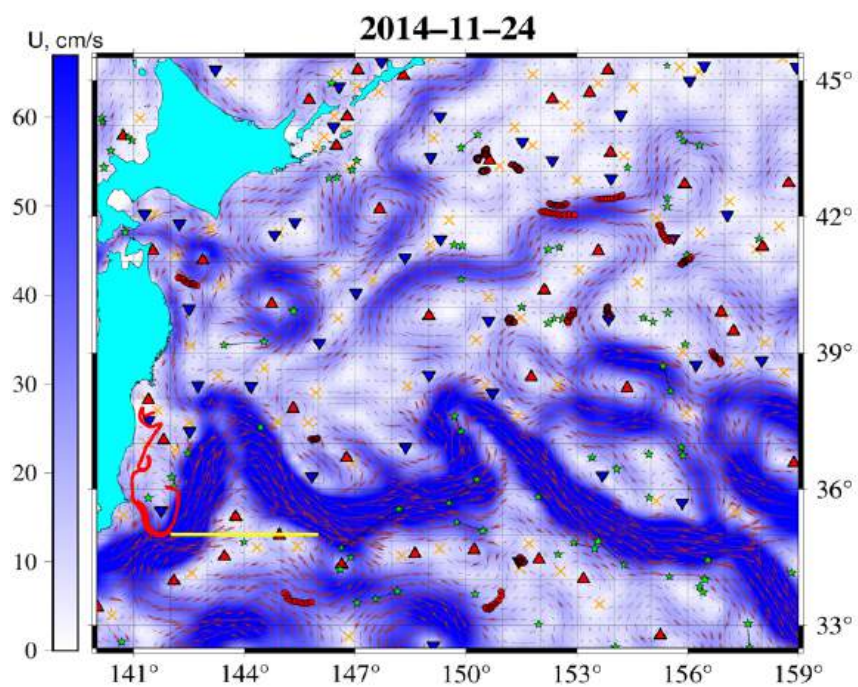
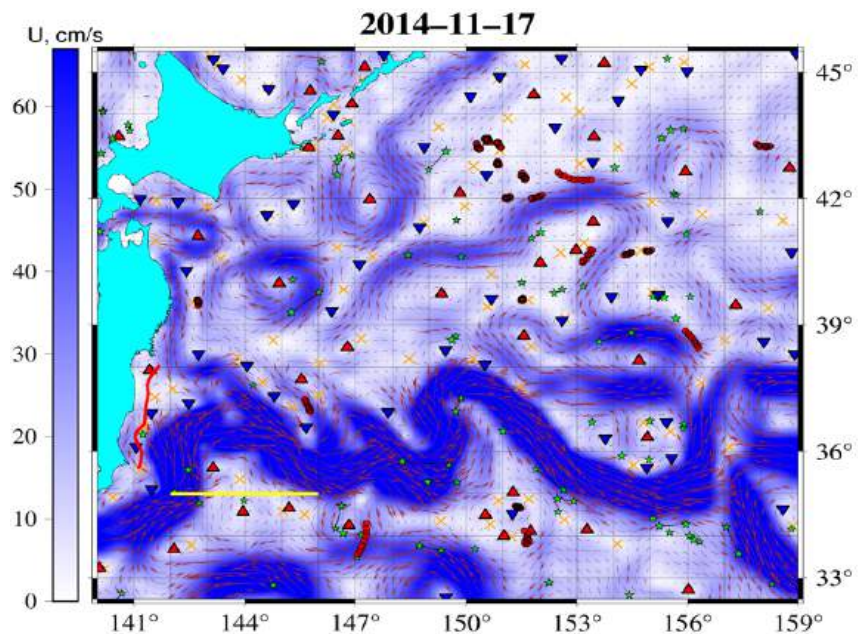
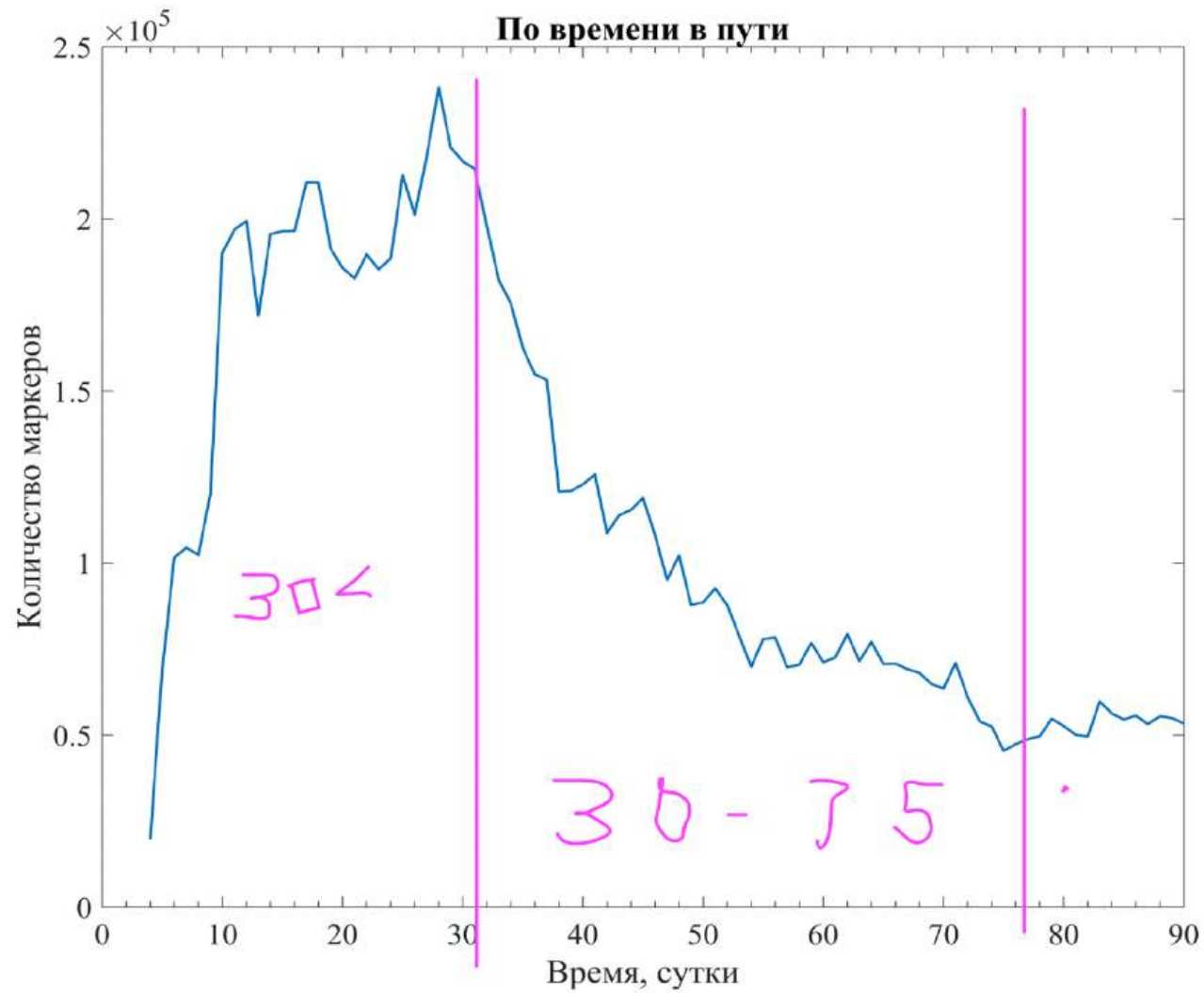
January 2010

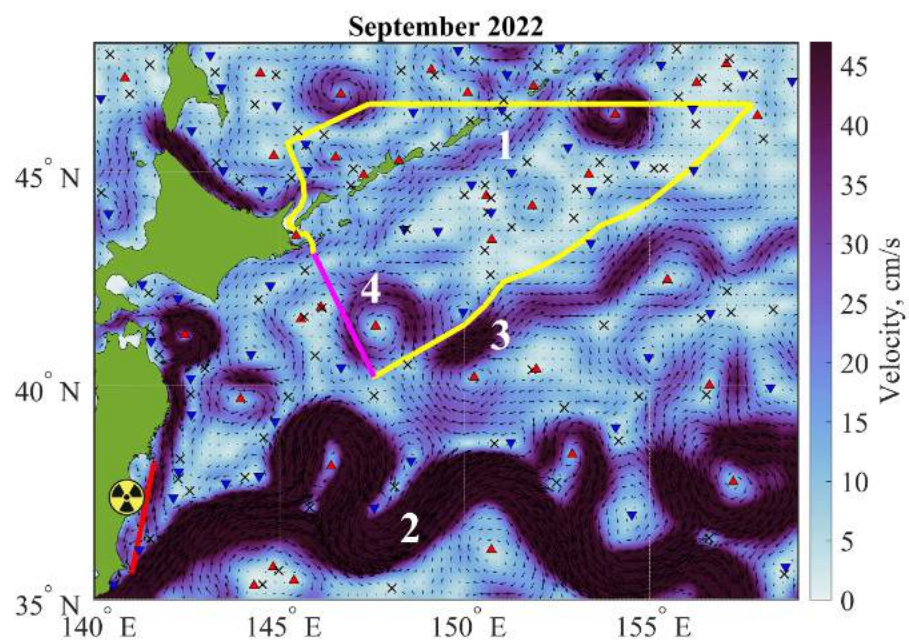
Physical Review E

 M. Yu. Uleysky ·  Maxim Budyansky ·  Sergey Prants

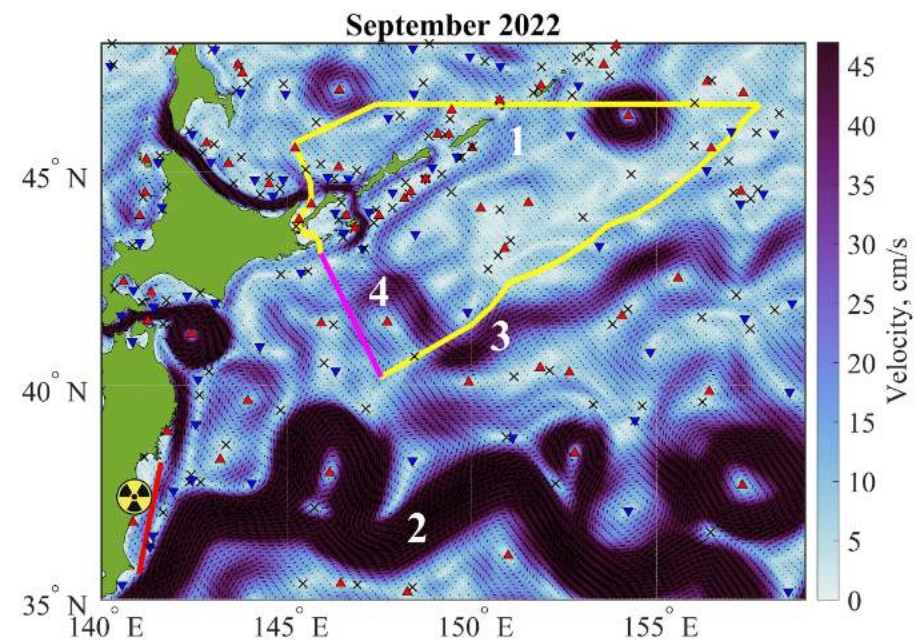
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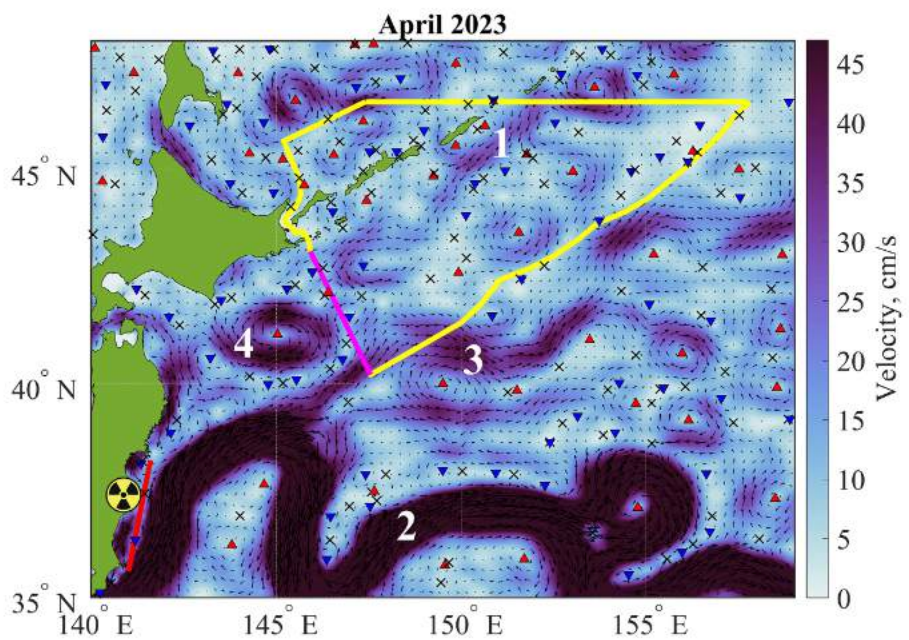




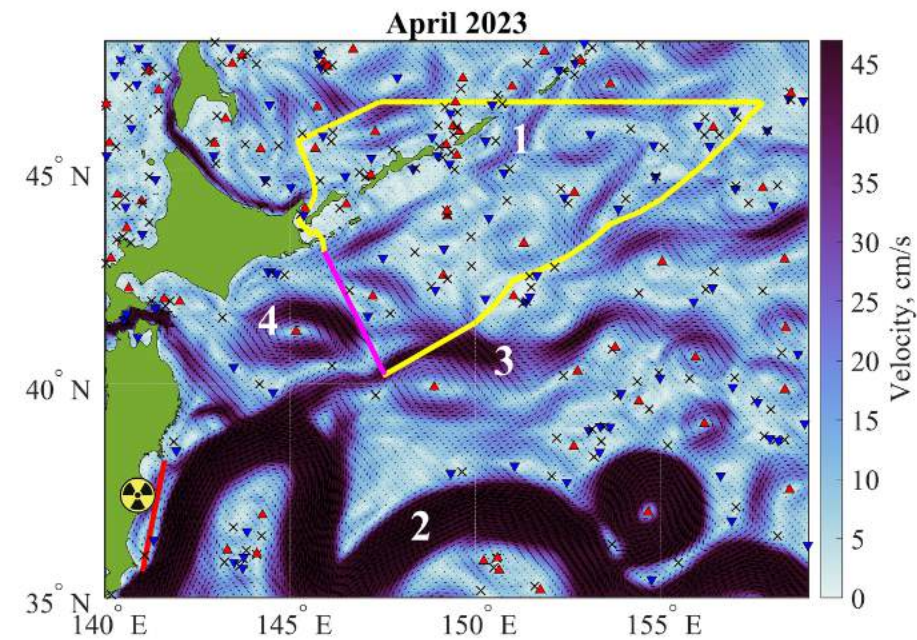
(a)



(b)

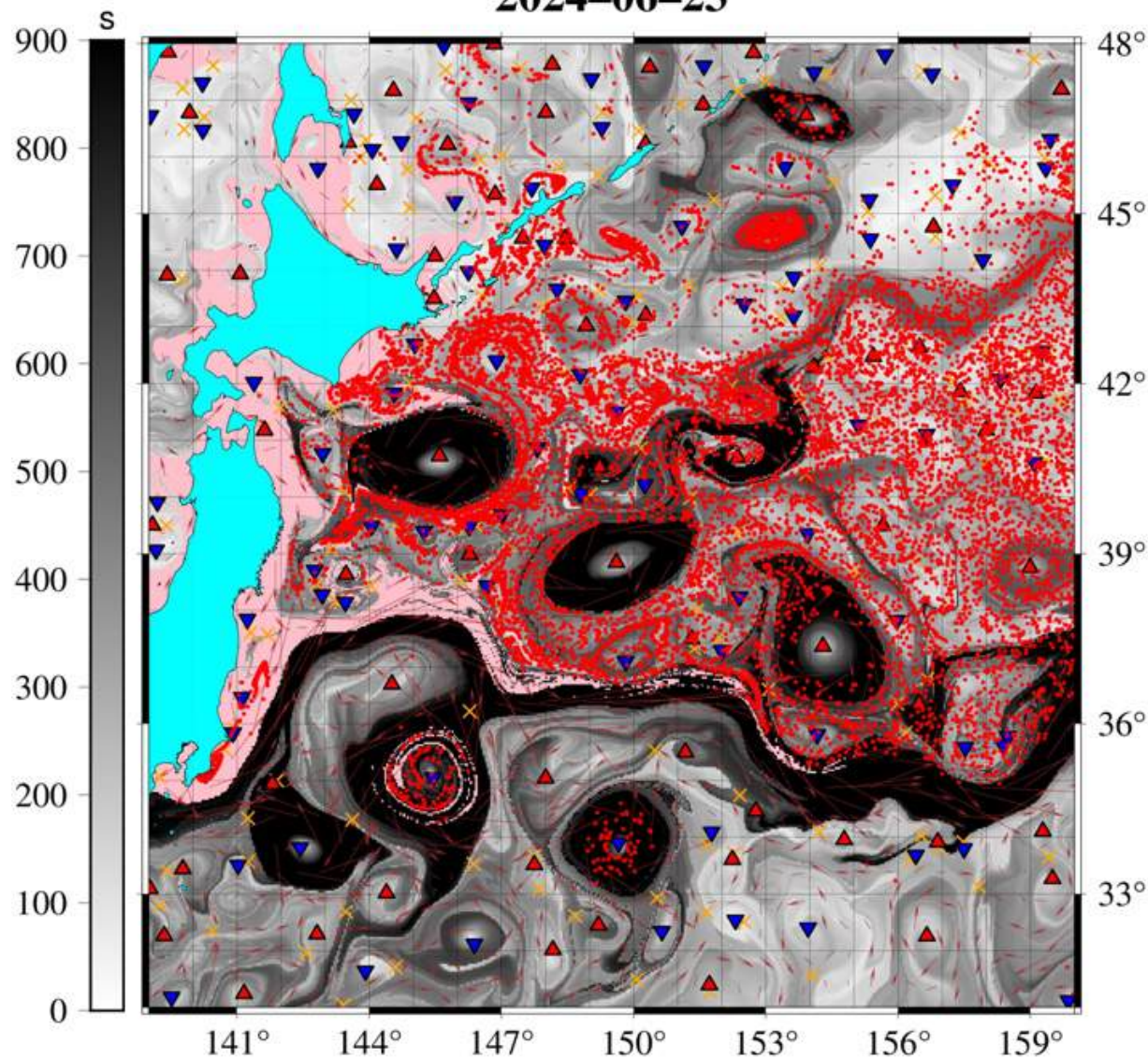


(c)

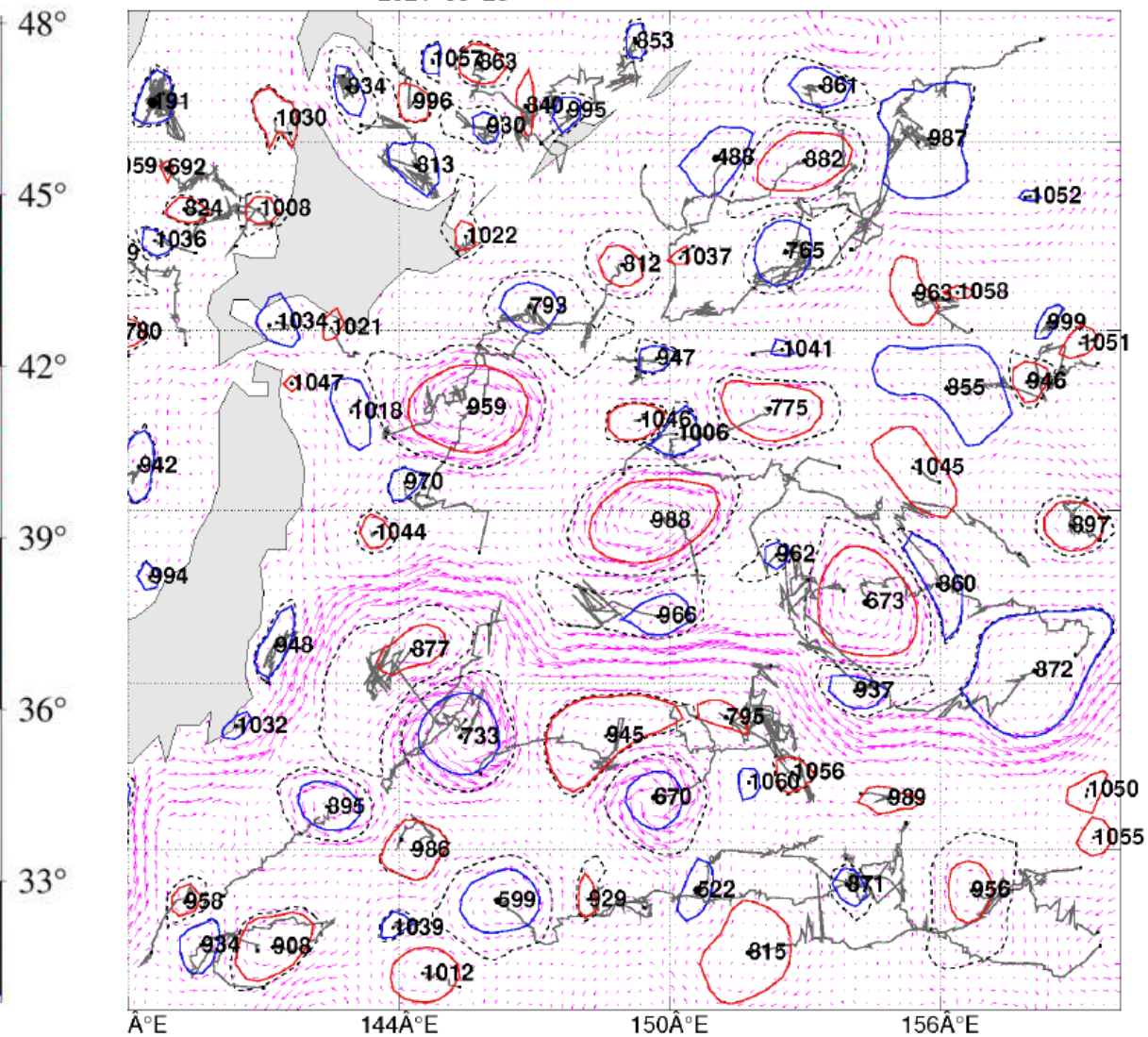


(d)

2024-06-23



2024-06-23



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1й 24 августа - 11 сентября	red
2й 05-23 октября 2023 г	magenta
3й 02-20 ноября 2023 г	blue
4й 28 февраля - 16 марта	black
5й 19 апреля - 7 мая	green
6й 17 мая - 4 июня	orange
7й 28 июня – 16 июля	yellow
8й 8-25 августа 2024 года	

