Operational Satellite Oceanography
A perspective on current status

Professor Ralph Rayner
NOAA IOOS and London School of Economics
We celebrate the past to awaken the future.

John F. Kennedy
Operational Ocean Observations from Space

OCEANS 2020
Science, Trends, and the Challenge of Sustainability

J. O. Field,
G. Hempel,
C. P. Summerhayes
Challenges

• Innovation in the technologies to enable sustained observations
• Data management
• Assimilation into operational ocean models
• Sustainability of satellite missions
• Data access policies
• Data access mechanisms
• Successful advocacy scheme in support of Jason 3
  • Online petition
  • Advocacy letters
• Subsequent coordinated campaign of support lobbying individual nations for commitments
Achieving optimal value from publicly funded marine information resources

by

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A report prepared by the UK Marine Information Council Working Group on Data Access*

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This report represents the views of the Working Group and not necessarily those of all of the members of UKMIC.
• Operational processing chain
• Sustainability of key missions
• Assimilation into operational ocean modeling systems
• Operational delivery mechanisms
• Continuing development and launch of new sensors
• Ecosystem of public and private intermediate service providers
‘Making predictions is difficult, especially about the future’
Iron fertilization of sea

Shoot aerosols to stratosphere

Place giant reflectors in orbit

Grow trees

Genetically engineer crops

Pump liquid CO₂ to deep sea

Pump liquid CO₂ into rocks

Greening of deserts