1. Record Nr. UNINA9910816755903321 Autore Vallis Geoffrey K Titolo Climate and the oceans / / Geoffrey K. Vallis Pubbl/distr/stampa Princeton,: Princeton University Press, c2012 **ISBN** 1-283-26748-9 9786613267481 1-4008-4062-7 Edizione [Course Book] Descrizione fisica 1 online resource (244 p.) Collana Princeton primers in climate Disciplina 551.5/246 Soggetti Oceanography - Research Ocean circulation Ocean-atmosphere interaction Climatic changes Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Frontmatter -- Contents -- Preface -- 1. Basics of Climate -- 2. The Oceans: A Descriptive Overview -- 3. A Brief Introduction to Dynamics -- 4. The Ocean Circulation -- 5. The Ocean's Overall Role in Climate -- 6. Climate Variability from Weeks to Years -- 7. Global Warming and the Ocean -- Notes -- Further Reading -- Glossary -- References --Index The oceans exert a vital moderating influence on the Earth's climate Sommario/riassunto system. They provide inertia to the global climate, essentially acting as the pacemaker of climate variability and change, and they provide heat to high latitudes, keeping them habitable. Climate and the Oceans offers a short, self-contained introduction to the subject. This illustrated primer begins by briefly describing the world's climate system and ocean circulation and goes on to explain the important ways that the oceans influence climate. Topics covered include the oceans' effects on the seasons, heat transport between equator and pole, climate variability, and global warming. The book also features a glossary of terms, suggestions for further reading, and easy-to-follow mathematical treatments. Climate and the Oceans is the first place to

turn to get the essential facts about this crucial aspect of the Earth's

climate system. Ideal for students and nonspecialists alike, this primer offers the most concise and up-to-date overview of the subject available. The best primer on the oceans and climate Succinct and self-contained Accessible to students and nonspecialists Serves as a bridge to more advanced material