

Transmissions from abroad for correspondents in the United States and territory subject to its jurisdiction are distributed under frank by registered mail, a record first having been made of the name of the sender and of the address of each package.

The Smithsonian Institution assumes no responsibility in the transmission of packages, and does not solicit contributions for its correspondents, but at all times uses its best endeavors to forward promptly to destination exchanges entrusted to its care.

The rules governing the Smithsonian International Exchange Service are as follows:

1. Packages intended for transmission through the Institution should be addressed "Smithsonian Institution, International Exchanges."

2. The Institution and its agents will not knowingly receive for any address purchased books; apparatus or instruments of any description, whether purchased or presented; nor specimens of any nature except when special permission from the Institution has been obtained, and then only under the following conditions:

(a) Specimens in fluid will not be accepted for transmission.

(b) Botanical specimens will be transmitted at the rate of 8 cents per pound.

(c) All other specimens will be transmitted at the rate of 5 cents per pound.

3. In forwarding exchanges the sender should address a letter to the Institution, stating by what route the consignment is being shipped to Washington, and the number of boxes or parcels of which it is composed.

4. Packages should be legibly addressed, using the language of the country for which they are intended when practicable, and avoiding all abbreviations. When packages are intended for societies and other establishments, names of individuals should be omitted from labels in order to avoid any possible dispute as to ownership.

5. Packages should be securely wrapped in stout paper and, when necessary, tied with strong twine.

6. No package to a single address should exceed one-half of one cubic foot.

7. Letters or other written matter are not permitted in exchange packages.

8. Exchanges must be delivered to the Smithsonian Institution or its agents with all charges paid.

9. If donors desire acknowledgments, each package should contain a blank receipt to be signed and returned by the establishment or individual addressed; and if publications are desired in exchange, the fact should be stated on the card or package.

Following is a list of bureaus or agencies through which the distribution of exchanges is effected. Those in the larger and in many of the smaller countries forward to the Smithsonian Institution reciprocal contributions for distribution in the United States.

Algeria: *via* France.

Angola: *via* Portugal.

Argentina: Sección de Depósito, Reparto y Canje de Publicaciones, Biblioteca Nacional, Buenos Aires.

Austria: K. K. Statistische Central-Commission, Vienna.

Azores: *via* Portugal.

Barbados: Imperial Department of Agriculture, Bridgetown.

Belgium: Service Belge des Echanges Internationaux, Brussels.

Bermuda: sent by mail.

Bolivia: Oficina Nacional de Inmigración, Estadística y Propaganda Geográfica, La Paz.

Brazil: Serviço de Permutações Internacionais, Bibliotheca Nacional, Rio de Janeiro.

<sup>1</sup>British Colonies: Crown Agents for the Colonies, London.

British Guiana: Royal Agricultural and Commercial Society, Bridgetown.

British Honduras: Colonial Secretary, Belize.

Bulgaria: Institutions et Bibliothèque Scientifiques de S. A. R. le Prince de Bulgarie, Sofia.

Canada: sent by mail.

Canary Islands: *via* Spain.

Cape Colony: Government Stationery Department, Cape Town.

Chile: Universidad de Chile, Santiago.

China: Zi-ka-wai Observatory, Shanghai.

Colombia: Oficina de Canjes Internacionales y Reparto, Biblioteca Nacional, Bogota.

Costa Rica: Oficina de Depósito y Canje de Publicaciones, San José.

Cuba: sent by mail.

Denmark: Kongelige Danske Videnskabernes Selskab, Copenhagen.

Dutch Guiana: Surinaamsche Koloniale Bibliotheek, Paramaribo.

Ecuador: Ministerio de Relaciones Exteriores, Quito.

Egypt: Director-General, Survey Department, Cairo.

France: Service Français des Echanges Internationaux, Paris.

Friendly Islands: sent by mail.

Germany: Karl W. Hiersemann, Königsstrasse 3, Leipzig.

Great Britain and Ireland: Messrs. William Wesley & Son, 28 Essex street, Strand, London.

Greece: Bibliothèque Nationale, Athens.

Greenland: *via* Denmark.

Guadeloupe: *via* France.

Guatemala: Instituto Nacional de Guatemala, Guatemala.

Guinea: *via* Portugal.

Haiti: Secrétaire d'Etat des Relations Extérieures, Port au Prince.

Honduras: Biblioteca Nacional, Tegucigalpa.

Hungary: Dr. Julius Pikler, Municipal Office of Statistics, City Hall, Budapest.

Iceland: *via* Denmark.

India: India Store Department, India Office, London.

Italy: Ufficio degli Scambi Internazionali, Biblioteca Nazionale Vittorio Emanuele, Rome.

Jamaica: Institute of Jamaica, Kingston.

Japan: Department of Foreign Affairs, Tokyo.

Java: *via* Netherlands.

Korea: shipments temporarily suspended.

Liberia: American Colonization Society, Washington, D. C.

Lourenço Marquez: Government Library, Lourenço Marquez.

Luxemburg: *via* Germany.

Madagascar: *via* France.

Madeira: *via* Portugal.

Mexico: sent by mail.

Mozambique: *via* Portugal.

Natal: Agent-General for Natal, London.

Netherlands: Bureau Scientifique Central Néerlandais, Bibliothèque de l'Université, Leyden.

Newfoundland: sent by mail.

New Guinea: *via* Netherlands.

New Hebrides: sent by mail.

New South Wales: Board for International Exchanges, Public Library, Sydney.

New Zealand: Colonial Museum, Wellington.

Nicaragua: Ministerio de Relaciones Exteriores, Managua.

Norway: Kongelige Norske Frederiks Universitet Bibliotheket, Christiania.

Paraguay: Ministerio de Relaciones Exteriores, Asuncion.

Persia: Board of Foreign Missions of the Presbyterian Church, New York City.

Peru: Oficina de Reparto, Depósito y Canje Internacional de Publicaciones, Ministerio de Fomento, Lima.

Portugal: Serviço de Permutações Internacionais, Bibliotheca Nacional, Lisbon.

Queensland: Board of Exchanges, Brisbane.

Roumania: *via* Germany.

Russia: Commission Russe des Echanges Internationaux, Bibliothèque Impériale Publique, St. Petersburg.

Saint Christopher: sent by mail.

Salvador: Museo Nacional, San Salvador.

Santo Domingo: sent by mail.

Servia: *via* Germany.

Siam: Minister for Foreign Affairs, Bangkok.

South Australia: Public Library of South Australia, Adelaide.

Spain: Depósito de Libros, Cambio Internacional y Bibliotheca General del Ministerio de Instrucción Pública y Bellas Artes, Madrid.

Sumatra: *via* Netherlands.

Sweden: Kongliga Svenska Vetenskaps Akademien, Stockholm.

Switzerland: Service des Echanges Internationaux, Bibliothèque Fédérale Centrale, Bern.

Syria: Board of Foreign Missions of the Presbyterian Church, New York.

Tasmania: Royal Society of Tasmania, Hobart.

Transvaal: Government Library, Pretoria.

Trinidad: Victoria Institute, Port of Spain.

Tunis: *via* France.

Turkey: American Board of Commissioners for Foreign Missions, Boston.

United States of America: Smithsonian Institution, Washington, D. C.

Uruguay: Oficina de Depósito, Reparto y Canje Internacional, Montevideo.

Venezuela: Biblioteca Nacional, Caracas.

Victoria: Public Library of Victoria, Melbourne.

Western Australia: Public Library of Western Australia, Perth.

Zanzibar: sent by mail.

WASHINGTON, D. C., February 1, 1908.

#### WATERSPOUT AT BEAUFORT, N. C.

By BARTGIS MCGLONE, Ph. D. Dated Beaufort, N. C., July 4, 1908.

During the passage of a squall from southeast to northeast, on Thursday afternoon, July 2, 1908, two waterspouts formed. The coast here at Beaufort, N. C. extends east and west. The

<sup>1</sup>This method is employed for communicating with several of the British Colonies with which no medium is available for forwarding exchanges direct.

laboratory is situated about 1½ miles from the inlet on an island.

The second spout was very interesting in as much as a hollow cone could be observed. To describe this in detail: A very slender cone descended from the general cloud mass, nearer and nearer to the waves. Then from the ocean a mist appeared, this was cylindrical in shape and of much greater diameter than the cloud mass. The conical cloud mass and the cylindrical mist met. The breaking up of the spout started with the disjunction of the cloud and mist and the absorption of the cone into the general cloud mass. After the spout broke, and as the cone ascended, protrusions formed at two points on the spout. As the phenomenon was at least 5 miles distant I could not secure more accurate information.

A few years ago a waterspout crost the harbor near the laboratory, but I was not an observer.

**AUSTRALIAN WEATHER.**

By DAVID J. MARES, Meteorologist. Dated Sydney, N. S. W., January 15, 1908.  
[Reprinted from the Sydney Morning Herald of January 15, 1908.]

The lines drawn over the map are isobars, or lines of equal barometric pressure. The telegrams received during the course of a day by the meteorologist consist of a variety of data from the chief towns of the Commonwealth, and comprise chiefly the 9 a. m. readings of the barometer, temperature, wind, and weather. These are plotted in their respective positions on the chart, with symbols to denote the character of the wind and weather, and figures to show the readings of the barometer and temperature.

When all the barometer readings are plotted, lines are drawn through those stations reporting equal barometric pres-

The low pressures, depressions, or cyclones, as they are variously termed, are the exact converse of the "highs" as regards weather features; for whereas in the "high" the greatest readings are in the center, in the depressions the smallest readings are found there. The high pressures or

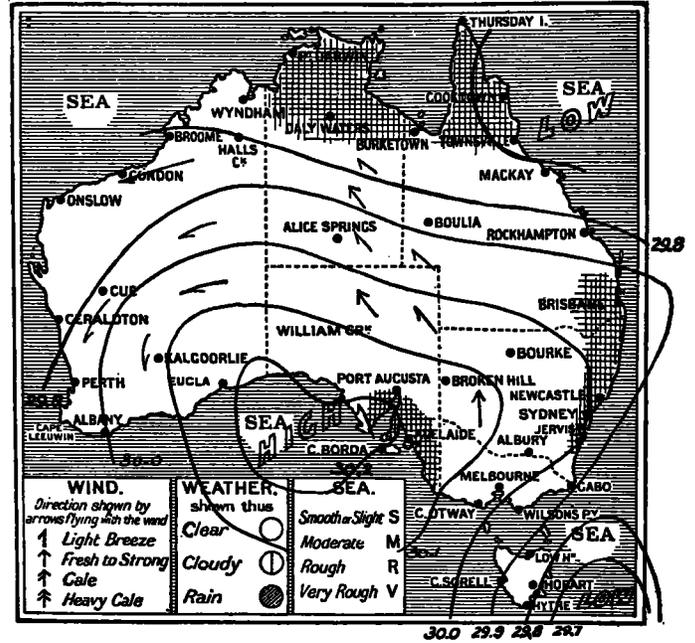


FIG. 2.—Summer anticyclones. These usually put in an appearance at about Albany, and thence travel eastward:

anticyclones, as they are sometimes termed, enter Australia on the west coast at about Geraldton in winter (see fig. 1); and on the average near Albany in the southwest in summer (see fig. 2). They travel from west to east at an average rate of about 400 miles per day, and in due course pass over the eastern coast, so that they control the weather of the land sur-

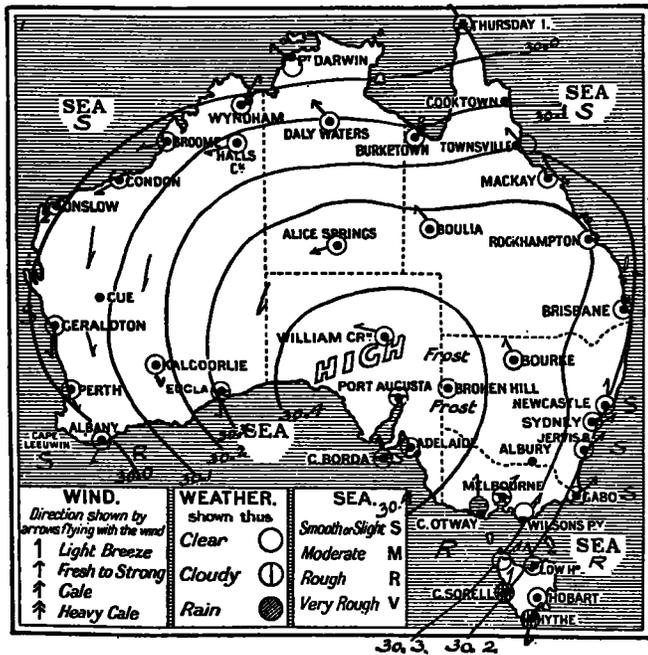


FIG. 1.—Winter anticyclones or high pressures. A type showing Australia under anticyclonic control and fine-weather conditions.

sure. Thus we obtain various shapes, and the highest values constitute the high pressure, and the lowest readings the low pressure, as shown on the weather map; an area of low pressure being always located between two highs.

There are certain marked characteristics in these two types of pressure as regards wind and weather. In the "high" which has the greatest pressure in the center, the winds blow spirally outward, and as a rule its presence is associated with fine, dry weather in summer, and fine weather, with fogs, frosts, and dews, in winter.

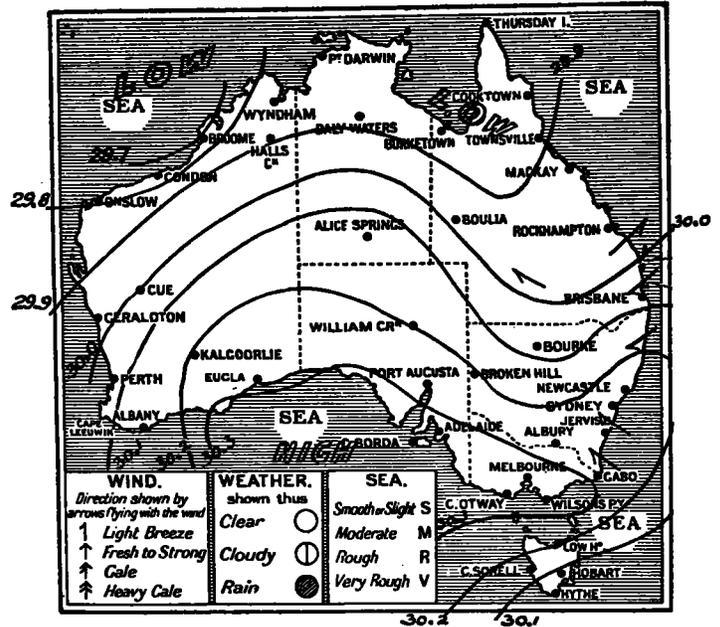


FIG. 3.—Anticyclone favoring coastal and highland rainfall. This type may be considered as a rain producer in both summer and winter.

faces which they traverse for about five days. On rare occasions this velocity of movement exceeds 1,000 miles per day, while at other times it decreases almost to stagnation.