

C. Major Developments During the Period

5. Mapping Activities of Foreign Countries During the 1955-56 Season

Foreign Mapping -- The principal countries to engage in some form of mapping activity in Antarctica during the 1955-56 season were Great Britain, the Soviet Union, Australia, and Argentina. Chile and France may also have carried on activities related to mapping.

Because of unfavorable weather conditions, the air survey mission being undertaken on behalf of the British Falkland Islands Dependencies Survey photographed only 1,000 square miles of the projected coverage of 50,000 to 60,000 square miles in the South Shetland Islands and Palmer Peninsula. Ground control was established in the same area by parties transported from ship to inland positions by helicopter. The Canso amphibious aircraft used for the photographic missions were equipped with airborne magnetometers, and presumably some geological survey work was undertaken. The air survey will be resumed again next season. An eastern anchor for the project British Commonwealth Weddell Sea-Ross Seas transcontinental expedition was established at Shackleton Base, Vahsel Bay, on Weddell Sea; and an 8 man party is wintering there. As planned, the expedition starting from this base next season will establish astro-positions and make surveys along the route.

The presence of an Aerial Surveying Section -- one of four in the Continental Group of the Soviet Antarctic Expedition -- emphasizes the

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importance of surveying and mapping in Soviet activities. In the middle of April, it was reported that 15,000 sq. kms. (5,790 sq. mi.) had been photographed "to compile a geographic map of the area where the Soviet Expedition operates...." It is not clear whether this figure includes those parts of the Bunger Hills area, the Wilhelm II Coast, or Drygalski Island where surveying or ground control work of some type were reported previously. In addition, hydrographic surveying or charting was performed by the Ob in the course of its oceanographic activities after departing from Mirnyy at the end of February. Various references suggest that some form of surveying has been done for the Davis Sea, the approaches to Mirnyy, the Shackleton Ice Shelf, the off-shore islands of the Knox Coast, and the Budd Coast.

The Australians penetrated the hinterland to the west and south of their base at Mawson to distances of about 300 miles, carrying out surveys and geological reconnaissance. In addition, a ship-based aircraft photographed approximately 1,000 miles off the coastline of Wilkes Land westward from Mawson Base. The personnel of the Argentine Antarctic expedition for the current season included topographers, geodetic and gravimetric observers, and geologists. The general area of activity embraced the Palmer Peninsula and adjacent island groups and the Belgrano base on the southern coast of the Weddell Sea. It is stated that important topographical and geological work was accomplished. The Argentine flotilla included the hydrographic ship Chiriguano.

Chile has had a program of aerial photography under way in the Palmer Peninsula area in previous years, and it is possible that further work was accomplished this year.

The French established a base in their claimed area of Adelie Coast in preparation for the IGY. The personnel of the base was to include a geodesist and a gravimetrist, but no information regarding any mapping that may have been undertaken is available.