

## History of the Newfoundland Weather Centre at Gander

The history of the Newfoundland Weather Centre (NWC) of environment Canada (formerly Meteorological Branch of the Ministry of Transport) in Gander is tied very closely to the growth of commercial aviation in the 1930s. The rapid advances in commercial aviation in the early 1930s indicated a requirement for a large airport to be located as far east as possible on the North American continent and preferably on the Great Circle route from New York to London. A site was cleared in 1936 and by 1938 the international airport of Gander was operational.

The history of the Newfoundland Weather Centre in Gander dates from November 30, 1938, however, actual weather observations had begun in February 1937 during construction. Also, prior to starting in Gander, meteorological and communications staff worked in Botwood during the summer months to assist flying boat operations.

The Canadian government had the responsibility for meteorological services in Gander. A group of highly qualified meteorologists from Canada came to Gander to work. Their speciality at that time was transatlantic forecasting. With the outbreak of the Second World War meteorological staff in Gander increased significantly and the expertise in transatlantic forecasting was used in support of RCAF anti-submarine patrols and the delivery by air of Hudson, Flying Fortress and Liberator planes to Europe.

After the war the public weather program came into its own. In addition to the service to aviation, the Meteorological Service in Gander began issuing weather forecasts and weather warnings for the general public and mariners for Newfoundland.

Today, the Newfoundland Weather Centre in Gander is one of eight major weather centres in Canada operated by the Atmospheric Environment Service (AES) of Environment Canada. Each weather centre is equipped with an in-house computer which is used to plot maps, display and analyze data, input and transmit forecasts on AES meteorological circuits. Each office is equipped to receive satellite pictures, radar displays and a facsimile system for transmission and receipt of actual and forecast weather maps. The Canadian Meteorological Centre (CMC) in Montreal with its Gray computer, supplies each of the weather centres with national scale analysis and prognostic charts to assist the weather centre in the preparation of their regional forecasts.





George MacMillan, service technician, takes wind measurements in the observation room.

The Newfoundland Weather Centre is the major weather centre in the province of Newfoundland and Labrador. Meteorologists issue four public and marine forecasts each day for Newfoundland, three inland and two marine forecasts for Labrador and two sea state forecasts each day. Agricultural and forestry forecasts are issued daily (on a seasonal basis). Aviation forecasts for the region are issued four times a day as well as two per day for the offshore. Weather prognostic charts for Newfoundland and Labrador are produced twice daily. In addition to the regular forecasts the NWC issued weather warnings and advisories for the general public, mariners and aviation users.

In addition to the production of forecasts, the NWC also offers briefing and consultative service to the general public and the aviation community. Weather Services specialists at the NWC handle on the average

of 150 phone calls per day. These phone calls are from a variety of users such as, fishermen, radio stations, the general public or pilots. These specialists also prepare on the average documentation for 15-20 international flights each day. Weather broadcasts for the local radio stations are also prepared by the weather specialists.

The NWC also provides briefing and consultative services to Search and Rescue. The weather specialist has a direct line to Search and Rescue and through closed-circuit TV conducts daily weather briefings for them. Search and Rescue also has a direct line to the NWC computer for receipt of aviation weather reports and forecasts.

Both the Canadian and U.S. Coast Guard ice patrols operate out of Gander during the spring months. NWC weather specialists brief these crews regularly during the ice season.

The NWC is also responsible for providing up-to-the-minute weather forecasts and reports on Environment Canada's Weatherradio. The Weatherradio transmits information continuously over VHF-FM radio to satisfy the needs of fishermen, boaters, campers, skiers, farmers and others. Weatherradio, with the main transmitter located at Gander, operates 24 hours a day, seven days a week through a network of repeater stations across the island.

The Weather Centre also has an up-to-date communications system. Communicators on shift monitor the computer and communications to ensure the user in a timely manner. Computer specialists also ensure that the programming is up to date and maintain the computer system in

the office.

The weather observing for Gander International Airport is located at the Newfoundland Weather Centre. The Weather Observer takes hourly and special weather observations which are transmitted by the in-house computer for national or international distribution.

The Newfoundland Weather Centre of Environment Canada, with a staff of 44, offers a full range of services to the people of Newfoundland and Labrador.



Jim Freake collects weather data and prepares it for national transmission.