

REPORT ON RESOURCE MATERIAL  
FOR THE  
RECONSTRUCTION OF FOREST VEGETATION,  
NATURAL AND HARVESTING DISTURBANCE  
WITHIN THE MODEL FOREST AREA

*Prepared by  
Jim Gosse*

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## Overview

Research was conducted through various Newfoundland and Labrador government departments, Sir Wilfred Grenfell College and the Corner Brook Museum.

The purpose of this research was to find, resource material which is available in the form of:

1. Older aerial photography
2. Forest type maps
3. Historical harvesting maps

Corner Brook Pulp and Paper Company had donated a large quantity of historical aerial photography, maps, photographs and other forest related material to the Corner Brook Museum.

The museum was contacted and all forest related material such as the aerial photographs, maps, reports, etc. was passed on to the Sir Wilfred Grenfell College.

The Corner Brook Museum has in its possession older photographs showing the construction of the mill, city of Corner Brook, Deer Lake Power House and forest harvesting operations.

The material which they have in their possession is of little value for this proposal project.

## Aerial Photography

Aerial photography flown as early as 1934 and subsequent years up to 2002 was found to be in the possession of various agencies at different locations.

This earlier photography is in excellent condition and was flown at different scales. The photography is also stored in two locations - Corner Brook and St. John's. Documentation such as photo index maps are not readily available.

Aerial photography flown in the 1960's and up to the year 2002 is well documented and available in Corner Brook. This photography was flown for the provincial forest inventory programs.

An explanation of the various types of aerial photography is as follows:

### Year 1934

This is black and white photography flown in late May/June of 1934 at a scale of 1:12,000. It is in excellent condition.

Since it was flown in May, there are areas where snow cover was still present and also, the hardwood trees do not have full foliage.

The print size of this photography is seven inches by nine inches. This is an odd size when compared to the standard print size of nine inches by nine inches.

A large portion of this photography has not been documented in the form of aerial photo index maps. There has been some photo index maps developed by the provincial Crown Lands Division of the Department of Government Services and Lands in St. John's (Appendix I).

From researching this year of photography it was found that a large portion of Newfoundland was flown and was later given to Bowater's (Corner Brook Pulp & Paper Ltd.), Anglo Newfoundland Development Co (Abitibi Price) and Newfoundland government.

There may be only one copy of this photography and there are no negatives available for reproduction.

Crown Lands office in St. John's are conducting a program of indexing the photography flown in 1934 and later years but it will not be completed until the year 2003.

Sir Wilfred Grenfell College in Corner Brook and the Crown Lands Division in St. John's have this photography. To obtain coverage for the Model Forest area, both agencies need to be contacted. Crown Lands does not permit photography to be removed from their offices. They have suggested that there be no problem in viewing the photography at their office or purchasing laser photo copies (price list included - Appendix III). As a note, laser copies are not a good quality for photo interpretation.

### **Year 1945 and 1947**

This is black and white aerial photography flown by the RCAF and the scale is possibility 1:15,840.

This photography is also stored at Sir Wilfred Grenfell College in Corner Brook.

No documentation such as photo index maps were found.

Additional work will be needed to find out exactly what coverage of the Model Forest area is available. This photography is in excellent condition and appears to have been flown during the summer season.

### Year 1949 and 1950

This also is black and white aerial photography flown by the RCAF. It was flown at various scales which include 1:30,000; 1:31,000 and 1:39,600 and was also flown in the summer season.

This photography is stored at the Crown Lands office located in St. John's. It is well documented on photo index maps. (Appendix I).

### Year 1955

Again, it is black and white photography.

It is stored at Sir Wilfred Grenfell College and Crown Lands office in St. John's. Additional work is required to find out what coverage there is of the Model Forest area and scale of the photography.

### Year 1967/68

Black and white aerial photography flown at scales of 1:15,840 and 1:50,000. This photography was flown for the provincial Global Inventory program. It has been well documented in the form of photo index maps.

It is available at a number locations including the Newfoundland Forest Service in Corner Brook, Crown Lands office in St. John's and there are prints stored with Sir Wilfred Grenfell College.

Crown Lands can also re-print copies as they have negatives of this photography. (See price list included - Appendix III).

### Years 1976, 1985 and 2001/02

This is true color aerial photography flown at a scale of 1:12,500.

It was flown for the provincial forest management inventory program and is available at the Newfoundland Forest Service in Corner Brook.

It is also available at the Crown Lands office in St. John's. Crown Lands can also re-print (see enclosed price list).

### Photo Mosaics

These are large size black and white photo prints (approx. 30 inches by 30 inches) at a scale of 1:12,000.

This is part of the material given to Sir Wilfred Grenfell College from Corner Brook Pulp and Paper Company.

These mosaics were used by the paper company for planning and mapping harvesting blocks. There are also other disturbances such as forest fires mapped on these mosaics.

There are index maps available which show the areas covered by each print.

### Summary of Photography

There is a large amount of older aerial photography coverage for the Western Newfoundland Model Forest area. It is in excellent condition, but the biggest problem in documentation, there are very few photo index maps available for the older photography.

A large portion of this older photography is stored at the Sir Wilfred Grenfell College at Corner Brook. For historic purposes this photography is priceless.

This photography is sorted and stored in filing cabinets at Grenfell College in a general storage area with all types of office furniture and equipment.

To sort and index this older photography will require a big effort of time. In its present condition, it is very difficult to use unless it is indexed. This could be a co-operative project with the Crown Lands office in St. John's as they are presently indexing copies in their possession.

The Librarian at Sir Wilfred Grenfell College was very cooperative and suggested that there would be no problem using the material in the future.

## FORESTRY MAPS

There are forest inventory maps available at the Newfoundland Forest Service office in Corner Brook. These were maps produced for the global inventory program in the late 1960's. Scale of these maps are 1:15,840 and 1:50,000. These maps are produced on "mylar" clear plastic and require "blue print" machine for reproduction. The Newfoundland Forest Service does not presently have such a copy machine, but Agrifoods Division has one.

Monitoring insect infestations prior to the 1980's was conducted by the Canadian Forest Service. Additional investigation is required with CFS as to the extend of mapping insect infestation and viewing any records they may have.

Newfoundland Forest Service also have maps which show insect infestations since the 1980's. There are also a number of filing cabinets given to Sir Wilfred Grenfell College by Corner Brook Pulp and Paper Company which may contain older forest survey material. Again, it requires a person to sort through these cabinets and determine what is there.

## **TIMBER HARVEST MAPS**

The Western Newfoundland Model Forest completed a project of mapping older harvest areas.

Some of this data may have been mapped on the photo mosaics which Sir Wilfred Grenfell College has in its possession.

The Newfoundland Forest Service, also has a set of historic harvest maps in its office at the Fortis Building.

## SUMMARY

There is a large amount of historic resource material available in the form of aerial photography and older harvest maps.

Additional work will be needed to check exactly what coverage is available for the older 1934 and 1945/47 aerial photography.

The photography from this period could serve as a base line to forest conditions seventy years ago or possibility earlier.

There also appears to be photography for every ten to fifteen year period up to the present date.

As was explained previously, to obtain complete coverage of the older photography a co-ordinate effort will be needed between the Sir Wilfred Grenfell College in Corner Brook and the Crown Lands office in St. John's.

A preliminary interpretation was completed using the 1934 photography for the Pinchcut Lake, Gull Pond and Corner Brook Lake areas. There were no signs of insect infestation in the area. This same area was harvested in the late 1930's and early 1940's.

As another note, this area presently appears to be in the same bio-physical condition today as it was seventy years ago. The area recovered very well naturally after it was harvested except for the road and trail system.

**APPENDIX I**

**LIST OF PHOTO INDEX MAPS**

- 2 - Copies 1:50,000 scale topographic maps showing the 1934, 1:12,000 scale black and white photography: One for Corner Brook (12 A/13) and one for George's Lake (12B/16)
  
- 2 - Copies at 1:250,000 scale topographic maps showing the 1949/50, 1:30,000 scale black and white aerial photography. One of Red Indian Lake (12A) and one of Stephenville (12B)
  
- 1 - Copy at 1:250,000 scale topographic maps showing the 1950, 1:39,600 scale black and white photography of Sandy Lake (12H)
  
- 1 - Copy at 1:250,000 scale topographic map showing the 1949, 1:31,000 scale black and white aerial photography of Sandy Lake (12H)

## APPENDIX II

### LIST OF RESOURCE AGENCIES & MATERIAL

- 1 - Newfoundland Forest Service, Department of Forest Resources and Agrifoods - Forest Inventory Section. 4<sup>th</sup> floor Fortis Building, Corner Brook
  - \* Aerial photography for 1960's to 2002
  - \* Forest type maps from Global Inventory to present Management Inventory
  - \* Historic cut maps
  
- 2 - Sir Wilfred Grenfell College, Library department, Corner Brook
  - \* Aerial photography from 1934 to 1960's
  - \* Photo mosaics, showing harvesting black and other disturbances
  - \* Possible historic timber surveys
  
- 3 - Provincial Department of Government Services and Lands, Crown Lands Division, Higgins Line, St. John's
  - \* Aerial photography from 1930's to present date 2002
  - \* Aerial photo index maps
  
- 4 - Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Centre, Corner Brook
  - \* Historic insect infestations
  
- 5 - Corner Brook Pulp and Paper Company Ltd., Woodlands Division, Corner Brook
  - \* Support for material donated to the Sir Wilfred Grenfell College
  
- 6 - Western Newfoundland Model Forest
  - \* Historical harvesting maps.

**APPENDIX III**

Price listing of aerial photography, maps and other services.