



## Fire Lookouts

### Sofa Mountain Fire Lookout

Fire management techniques used today in Waterton have evolved over decades to incorporate not only new technologies but also a changing philosophy.<sup>1</sup> Unchanged in principle, however, is the knowledge that early detection of forest fires can offer the best chance for timely suppression.

It was with that in mind that fire lookouts designed for fire detection were built in some of the Rocky Mountain national parks, the first as early as the 1920s.<sup>2</sup> Sofa Mountain lookout, the first of two in Waterton, was not built until 1942-1943,<sup>3</sup> the probable result of a 1941 survey by summer employee, Arvid V. Backman, a University of British Columbia School of Forestry student, hired by the Dominion Forest Service.<sup>4</sup> The delay between the year of the survey and the start of construction was due to wartime circumstances which included manpower and financial shortages as well as approvals for access to construction materials.<sup>5</sup>



*Sofa Mountain Fire Lookout was the first such facility built in Waterton and was situated at that location in accordance with an expert's advice. (Photo: WLNP Archives)*

The new lookout, set on a concrete base, was a 13 by 13 foot building constructed of milled lumber and topped with a hip roof. It was erected on a rocky bluff<sup>6</sup> at ground level, as opposed to the mountain's summit,<sup>7</sup> to facilitate installation of the telephone line which linked the lookout to the Belly River warden station, which in turn was connected to park headquarters. The lookout was five miles by trail off the Chief Mountain International Highway. The trail began a quarter mile west of the Belly River warden station.<sup>8</sup> A combination workplace and accommodation, with an outhouse nearby, this lookout was rustic at best. The lookout man was expected to chop his own firewood, prepare his own meals from provisions and water brought in by pack horse on a regular basis.<sup>9</sup>

The large windows on three sides offered a spectacular view which included Chief Mountain in Glacier National Park (Montana) to the southwest, a portion of the Blood Indian Timber Limit to the northeast and vast reaches of mountains and forest in between.

As a rule, the lookout was manned only during the dry months of July and August but in exceptional years it was possible for an observer to be stationed at the lookout into September. There were no reports of major fires during the lifetime of this lookout.



*After the lookout was decommissioned, it was sometimes used as a patrol cabin. (Photo: Chris Morrison)*

Frank Lightbound of Lethbridge was among those who manned this fire lookout.<sup>10</sup> He applied for the position after discovering the lookout while he was a member of the park trail crew.<sup>11</sup> Later, he said, he was sure he got the job simply because nobody else wanted



*The most efficient way to get rid of the lookout was to set it ablaze. (Photo: WLNPA Archives)*

it. Working conditions were somewhat less than inviting, calling for 10 hour days watching for lightning strikes and/or smoke. The lookout building had no electricity, only a coal oil lamp and cooking was done on a wood-burning stove. The pay, he recalled, “wasn’t much.”

On a clear day, Lightbound could see the white concrete grain terminal building in Lethbridge, the tallest structure in the city, 100 kilometres away.<sup>12</sup> But during lightning storms, Mother Nature’s show was both magnificent and frightening. The lookout was equipped with a primitive lightning deflection system. The lightning, Lightbound said, caused a stream of sparks to appear inside the building as

they jumped across the gap between the open knife-switch on the telephone line and the crank phone itself. In addition, the lookout was grounded by a cable attached to the stove and a leg of the steel bed frame with a rubber mat on the floor. One summer working at the lookout proved to be enough for Lightbound who moved on to other work in the park.

In 1955 Bob Hand, chief park warden, noted in his annual report, “the only lookout in the park has been abandoned since it only serves what used to be the east end of the park. This area has been taken off the park and turned over to the provincial government. During periods of high fire hazards, lookouts have been carried out by warden of the district by taking advantage of suitable high locations within his district. There are (155 kilometres) of fire trails in the park, all in good condition.”<sup>13</sup>

Two boundary reductions on the east side of the park had been made since the Sofa Mountain Lookout was put into service: one in 1947 and another in 1955.<sup>14</sup> The redrawing of the eastern boundary in particular minimized the need for the lookout.

The Sofa Mountain lookout, out of public view, was shuttered and locked but occasionally served as a warden patrol cabin. When it was finally decided the structure was surplus to the park’s needs, it was purposely burnt to the concrete foundation May, 1975 while snow still lay on the ground.<sup>15</sup>

### **Chief Mountain Highway Lookout<sup>16</sup>**

Waterton’s second fire lookout, above the Chief Mountain Highway, near today’s Two Flags Viewpoint,<sup>17</sup> was begun in 1958 and completed in 1959.<sup>18</sup> The lookout was an entirely different style from the Sofa Mountain lookout. This was a steel tower rising 60 feet above the ground which supported a working area inside circular metal frame capped by a plywood cupola.<sup>19</sup> The tower man reached his job site by climbing a steel ladder that rose straight up from the ground. A log cabin and outdoor privy were provided for the tower man near the base of the tower. The site could be reached by a new unpaved road less than a kilometre long which negated the need for provisions to be delivered by a pack horse. Rather than depending on a telephone for communication, the tower man reported to headquarters via a VHF radio.<sup>20</sup>



*The view from the fire tower took in a wide area looking north. (Photo: Foster Collection, WLNPA Archives)*

The new tower was built at a cost of \$2,200.<sup>21</sup> The site, 1,664 metres above sea level, gave the tower man a range of vision of 144 kilometres overlooking the heavier travelled areas of the park: a view up the Akamina Valley, into the Belly River area, up Pass Creek towards Red Rock and into the townsite. After being given training on the job, the tower man started his 10 hour days which lasted about 12 weeks.<sup>22</sup> His seasonal wage for the period was \$1,684.80.<sup>23</sup> During the course of a five-year period from 1966 to 1970, an average of only three fires a summer were detected and those were outside the park boundary.<sup>24</sup> Little has been recorded about the individuals who were assigned to the Chief Mountain Highway tower such as where they came from and where they went. Only four are named in the surviving documents: A Mr. Rogers worked at the tower in 1970, Tom Davidson in 1971, K. Urton, in 1972, and I. Wells in 1973 who was the final employee at the tower. Although continued use of a fire tower was recommended and a new, unspecified location was advised, it was not to be.<sup>25</sup> The lookout was closed permanently on September 14, 1973, marking an end to lookouts in the park.



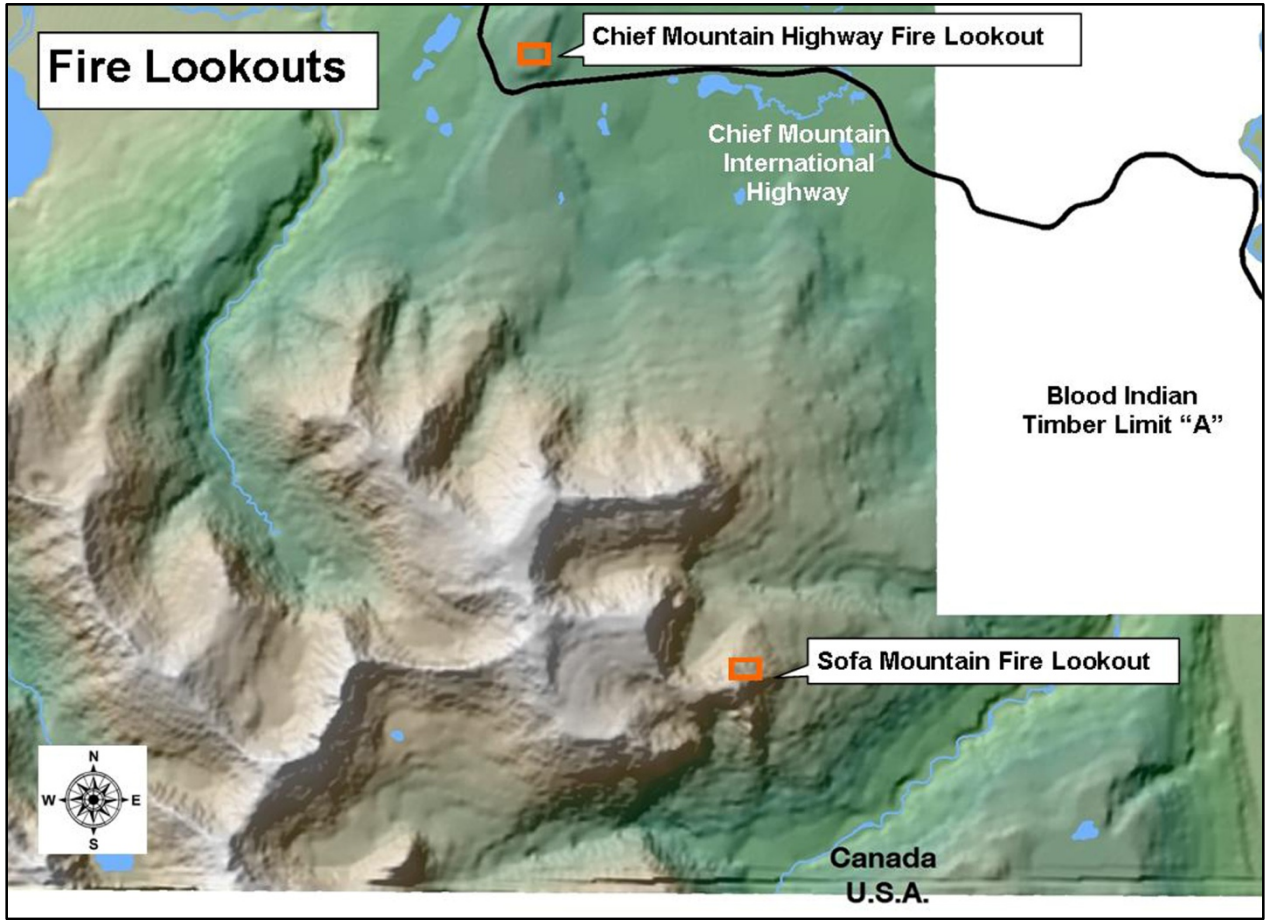
*The view looking straight down from the fire lookout. Access to the working area was possible only by ladder. (Photo: Foster Collection WLNP Archives)*

The famous Waterton wind had not been kind to this prominently exposed steel tower which, over time, caused structural damage and brought about the lookout's demise. Frank Campbell, general works manager, who annually examined the tower, advised the park superintendent in writing of its poor condition which had vertical supports that were "badly distorted."<sup>26</sup> Campbell obtained an estimate from Dominion Bridge Co. Ltd. of Calgary for the cost of a tower inspection, report of condition and plans which came in at \$700, nearly one third the total cost to build the facility.<sup>27</sup> Based on Campbell's advice and the cost estimate for the inspection, the superintendent decided the lookout would no longer be used and would be dismantled."<sup>28</sup>

It was not until November 14, 1979<sup>29</sup> that a call for public tenders was made to have the tower removed.<sup>30</sup> The final restorations of both the site and the access road were completed in 1991 after the accompanying log cabin and the tower's concrete foundations were removed.<sup>31</sup>

Fire lookouts in all of Canada's national parks began to gradually fall out of favor in the 1970s and became obsolete.<sup>32</sup> The expense of building and maintaining a network of lookouts required structures, equipment and staffing, at a formidable cost.<sup>33</sup> More efficient fire detection could be done by road and by satellite sensing.<sup>34</sup> By 1998<sup>35</sup> all but

three of 47 operational lookouts in the western national parks had been removed.<sup>36</sup> Fire officials in Parks Canada revised their fire management philosophy, stepped up research and examined the need for unjustified fire suppression while embracing strategic planning and use of both local and inter-agency co-operation on the ground to tackle one of nature's most dramatic forces.<sup>37</sup>



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<sup>1</sup> Stephen J. Pyne, *Awful Splendour A Fire History of Canada*, (Vancouver: UBC Press, 2007), 331; 361-371.

<sup>2</sup> C. J. Taylor, *Yoho Fire Lookouts: Built Heritage Resource Description and Analysis*, Parks Canada, July, 1998, 1. WLNP Archives, Box 130, Item 4.

<sup>3</sup> Superintendent's Reports, 1942, 6; and Superintendent's Report, 1943, 4. WLNP Archives, Box 207, Items 2 and 3.

<sup>4</sup> C. J. Taylor, *Yoho Fire Lookouts: Built Heritage Resource Description and Analysis*, Parks Canada, July, 1998, 2. WLNP Archives, Box 130, Item 4. "Wonderful Waterton," *Lethbridge Herald*, Sept. 16, 1941, 11. WLNP Archives, Box 130, Item 4.

<sup>5</sup> Construction materials during wartime were under the jurisdiction of the Controller of Construction as per Order in Council P.C. 660/42.

<sup>6</sup> The location was also known locally as "Chop Off Butte," according to Ken Goble who helped to construct the facility. Ken E. Goble, *Waterton Park History* (unpublished manuscript), 1981, 152-153. WLNP Archives, Box 115, Item 8.

<sup>7</sup> C. J. Taylor, *Yoho Fire Lookouts: Built Heritage Resource Description and Analysis*, Parks Canada, July, 1998, 4.

<sup>8</sup> Appendix to the 1949 Superintendent's Report, "Mileage and Location of Trails," WLNP Archives, Box 207, Item 9.

<sup>9</sup> Notes from a telephone interview by Chris Morrison with Frank Lightbound, Jan. 20, 2014, Lethbridge, AB. WLNP Archives, Box 130, Item 4.

<sup>10</sup> Only one other person's name was found related to staff of the Sofa Mountain Lookout. Peter E. Tasker came to Canada in 1948 and left Waterton in 1949 before being transferred to Banff that year. This information appears in Rob Watt's *Warden Service History to 1970*, unedited, unpublished, version of June 1, 1993.

<sup>11</sup> Notes from a telephone interview by Chris Morrison with Frank Lightbound.

<sup>12</sup> Email query from Chris Morrison to Andrew Chernevych, archivist, Galt Museum and Archives, Lethbridge Alberta: The grain terminal was built in 1931 at what is now Highway No. 3 and 28<sup>th</sup> Street South. Now owned by Cargill, it remains a Lethbridge landmark and is still the city's tallest structure at 59 metres (17 stories). Box 130, Item 4.

<sup>13</sup> Annual Report on fire protection for 1954, WLNP Archives, Box 238, No item number.

<sup>14</sup> In 1947 the boundaries of Waterton were reduced by 16 square miles on the east side of the park to facilitate administration. This was noted in the Superintendent's report of 1948 (WLNP Box 207, Item 8). The land was turned over the Province of Alberta and became a community pasture known as Poll Haven.

An additional reduction was brought about by Bill 261, an Act to amend the National Parks Act, which was passed by the House of Commons April 25, 1955. It formalized the transfer of 753 acres of land from the park to the province with the intention that it would be transferred to the Dept. of Indian Affairs in exchange for a right of way related to the building of the Chief Mountain International Highway. WLNP Archives, Box 229, No item number.

<sup>15</sup> Annual Resource Conservation Report for 1975, 48. WLNP Archives Box 114, Item 6.

The winter had been one with a heavy snowfall allowing for the May burn. The following month was one marked by a major flood in the park.

<sup>16</sup> In later years this lookout was sometimes referred to as Valley View Lookout.

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<sup>17</sup> The tower's exact location was Latitude 49 degrees, 64' Long; 113 degrees, 47' (or Section 27, range, 29, Twp 1, west of the 4<sup>th</sup> Meridian).

<sup>18</sup> Superintendent's Report, September, 1958, WLNP Archives, Box 208, Item 2.

<sup>19</sup> Fire Tower Questionnaire, December 8, 1970, WLNP Archives, Box 134, Item 7.

<sup>20</sup> The tower served as the park's radio repeater until one was installed on Mount Crandell.

<sup>21</sup> The name of the company that built the tower is not known but it may have been steel specialist Dominion Bridge Co. Ltd. which is no longer in business. No drawings were found in the WLNP Archives.

<sup>22</sup> Historically the latter part of May and early June are considered the "rainy season" in Waterton and fire hazard is low. This anecdotal information is based on the author's experience over more than four decades.

<sup>23</sup> "Fire Tower Lookout Questionnaire," December 8, 1970, WLNP Archives, Box 134, Item 7.

<sup>24</sup> "Fire Tower Lookout Questionnaire," December 8, 1970, WLNP Archives, Box 134, Item 7.

<sup>25</sup> "Fire Towers Regional Summary," 1970, WLNP Archives, Box 134, Item 7.

<sup>26</sup> Memorandum to Superintendent T.W. Smith from Frank Campbell, Nov. 1, 1973.

<sup>27</sup> Letter to Frank Campbell from L. A. Pearce for Director of Western Region, Parks Canada, Dec. 3, 1973, WLNP Archives, Box 134, Item 7.

<sup>28</sup> Letter to Mr. McCracken of Dominion Bridge from T. W. Smith, superintendent, December 5, 1973, WLNP Archives, Box 134, Item 7.

<sup>29</sup> "Public Notice Canada Public Works," *Lethbridge Herald*, Nov. 14, 1979, 43; WLNP Archives, Box 130, Item 4.

<sup>30</sup> It is not known who purchased and removed the tower or if it met some other end.

<sup>31</sup> Environmental Assessment and Review screening report, July 5, 1991, Box 162, Item 57.

<sup>32</sup> C. J. Taylor, *Yoho Fire Lookouts: Built Heritage Resource Description and Analysis*, Parks Canada, July, 1998, 2. WLNP Archives, Box 130, Item 4.

<sup>33</sup> Stephen J. Pyne, *Awful Splendour A Fire History of Canada*, (Vancouver: UBC Press, 2007), 313.

<sup>34</sup> C. J. Taylor, *Yoho Fire Lookouts: Built Heritage Resource Description and Analysis*, Parks Canada, July, 1998, 7. WLNP Archives, Box 130, Item 4.

<sup>35</sup> C. J. Taylor, *Yoho Fire Lookouts: Built Heritage Resource Description and Analysis*, Parks Canada, July, 1998, 2. The three lookouts remaining in Yoho are historically significant but are no longer in use. 7. WLNP Archives, Box 130, Item 4.

<sup>36</sup> Fire Towers: Regional Summary, circa 1970. WLNP Archives, Box 134, Item 7.

<sup>37</sup> Stephen J. Pyne, *Awful Splendour A Fire History of Canada*, (Vancouver, UBC Press, 2007), 368, 448.