

THE LATE GREAT PUGET SOUND MERIDIAN. Washington State's Own Principal Meridian

by Denny DeMeyer

Pausing briefly in a clearing in the forest while ascending a ridge just south of Bellingham, the surveyors were able to sight south back down their survey line to an island they had crossed earlier, located north of the Skagit River, 19 miles away. "I find by an observation . . . that the line to this point is correct in direction."

The date was June 30, 1859, the surveyors were U.S. deputy surveyors Isaac Williams Smith and his partner, Jared S. Hurd, the instrument was a Burt's Improved Solar Compass and the line was the Puget Sound Guide Meridian. While only one of nine guide meridians in the state of Washington (the others being the Coast, Columbia, Colville, Kettle River, San Poil, Moses, Ruby and Joseph), the Puget Sound was probably the most important. It certainly had the most prestigious origin. I will explain.

Upon being appointed the first surveyor general of the Washington Territory in 1854 and shortly after his much delayed arrival in Olympia in March of 1855, James Tilton struck upon a novel idea. It was the responsibility of most surveyors general to adopt a principal meridian for the survey of their territories and since the Oregon-based Willamette Meridian inconveniently ran into the waters of Puget Sound, Mr. Tilton decided to establish a new principal meridian for all future surveys of the Washington Territory; the Puget Sound Meridian. In a letter to the John Wilson, commissioner of the General Land Office, dated May 22nd, 1855 Tilton alerted that office of his decision.

"This (a sketch he had made) is to illustrate the necessity existing to terminate the Willamette Meridian at Township 20 North . . . and erect a new Meridian which I have called the 'Puget Sound Meridian'. I also propose . . .to extend the 5th Standard Parallel West to a convenient point between the shore of the Sound and the Pacific and erect a Coast Meridian, numbering the Townships from the Base line of the Willamette Meridian but Ranging East and West from the Puget Sound and Coast Meridian" [makes sense, sort of].

Earlier that spring, surveyor general Tilton had awarded G.L.O. survey contract no. 3 to Mr. Thomas A. Frost, who was given the following instructions:

“You will commence at the northeast corner of Township 20 North, Range 1 East, Willamette Meridian and run due East 24 miles upon the 5th Standard Parallel north of Base line. Upon arriving at termination of 24th mile, commence ‘Puget South Meridian’, marking the point of starting the new Meridian by erecting a prominent and distinguishing monument.” Besides being given instructions covering half a page on how to “chamfer” off the top of his posts, he was also instructed to “provide yourself with seed of varieties not indigenous to the county such as apple, peach, locust, walnut, asage orange or other hardy trees and comply with the printed instructions relative to the depositing of the same at the Town & Sectional courses.” Surveyor Frost was to run north on the new principal meridian 24 miles to the 6th standard parallel, thence west along said parallel to Seattle and Puget Sound. All markings on the posts and bearing trees would reflect the numbering of townships and ranges based upon this new Puget Sound Meridian. Tilton went on to say when surveyor Frost returned his field notes “if there are any blots, blurs or [can’t read his word] in your original field notes, you will be required to make a full and correct copy of the same . . .”

Shortly thereafter, survey contract no. 13 was awarded to deputy surveyor John K. Hall for the extension of the Puget Sound Meridian from the 6th to the 7th standard parallel and the running of the 7th standard parallel westerly through the southern part of Whidbey’s Island. Again, all marks on the section and ¼ corner posts, together with their respective bearing trees were to reflect the new township and range numbers based upon the new initial point of the Puget Sound Meridian near the Muckleshoot Prairie. But this new principal meridian for the survey of the public lands in the Washington Territory would prove to be very short lived.

Upon receiving the plats of Thomas Frost’s survey for approval, the acting commissioner of the General Land Office, George C. Whiting, [they changed depending on whatever political party was in power] first became aware of this new principal meridian of Mr. James Tilton. On July 18th, 1855 he sent an urgent letter to surveyor general Tilton that in effect immediately invalidated the Puget Sound Meridian and further, gave him instructions on how to correct it. Mr. Tilton’s reply of September 1st to this letter from Commissioner Whiting is interesting so I will quote portions of it.

“Sir:

Your letter of the 18th of July disapproving of my actions to the establishment of the Puget Sound Meridian is received... In reply I state: I have taken the necessary steps for obliterating the marks referring to the Puget Sound Meridian and will consider it as you order, a Guide Meridian. In reply to your query as to

whether 24 miles is meant as the distance from the Willamette Meridian to the 'Puget Sound' or Guide Meridian, I would state that 30 miles is meant and so imperfect is the map of Mr. Preston of that part of the then Territory of Oregon, that the Eastern Shore of the sound is at least 10 miles too much to the West and the whole shape of the sound and Islands is distorted." (John B. Preston was the first surveyor general of the Oregon Territory that included all of present day Washington, Idaho, Oregon, and portions of Montana and Wyoming).

"I had contract with Mr. J.K. Hall for the extension of the 'Puget Sound' or Guide Meridian 24 miles north to the 7th standard parallel and the 7th S.P. west through the southern part of Whidbey's Island, as otherwise he could not survey the Meridian and Standard Parallel at the price of \$20 per mile, he will correct the numbering on the posts to conform with your order. I can not get the Willamette Meridian extended to Whidbey's Island at the price of \$20 per mile, as the county is exceedingly difficult. I conceive the best mode of surveying the Island to be from the Guide Meridian, as the expanse of water traversed by the Willamette Meridian is too great, and so will continue the arrangements with Mr. Hall, but of course number the Townships from the Willamette Meridian."

"Did I wait for further orders from Washington City [Washington D.C.] the season for surveying would have elapsed and nothing could be done until next summer. I also [am] desirous of keeping in the field the party of Mr. Hall."

"No new Deputy Surveyors will now take work for not one who has taken a contact form this office has made any money [sound familiar?], and such is the exceeding difficulty of labor and provision that several Deputies have been broken up in prosecuting the work".

"Just now the newly discovered Gold mines near Fort Colville have taken so many men off as to enable the few left to demand from \$3 to \$5 per day for their services."

"I am endeavoring to get the Willamette Meridian extended 24 miles north, which is as far as it is needed this year."

Surveyor general Tilton did manage to get the Willamette Meridian extended to the 6th Standard Parallel in 1855. It was surveyed by deputy surveyor John L. Lafitte under contract no. 14 for the princely sum of \$348.00. This was Mr. Lafitte's only contract. It was not until the spring of 1857 that Tilton found a surveyor to extend the Willamette Meridian to Whidbey Island. Deputy surveyor William H. Carlton [together with Thomas F. Berry] triangulated across Admiralty Inlet and ran the Willamette through Township 31 North to where it just hits the western shore of Whidbey Island under their joint contract no. 26. No contracts

were ever awarded after this time to extend the Willamette. All surveys in western Washington north and east of this point would be surveyed from the Puget Sound Guide Meridian and not from a continuation of the Willamette. It just crossed too much water.

Now back to Mr. Tilton's Puget Sound Meridian. It was not until the summer of 1857 that the marks on the posts and bearing trees were corrected, although it wasn't for a lack of trying. In a letter to the new Commissioner of the General Land Office [remember I told you they changed depending on whatever political party was in power], Mr. Thomas A. Hendricks, dated November 6th, 1857, Tilton stated:

"An attempt was made by this office to obey the instructions [from Commissioner Whiting] during the autumn of 1855, but the examiner of surveys [Edward Gibson] was driven in by the hostile savages inhabiting the region traversed by the Guide Meridian and it has not been safe or practical for any white man, except in armed parties to penetrate the country in that direction until this summer." This was in reference to the 1856-57 Indian Wars.

On August 24th, 1857, Tilton again tried to correct the marks on the 5th and 6th standard parallels and the 48 miles of mis-marked Puget Sound Meridian. In his instructions to deputy surveyor and examiner of surveys, Edward Gibson [Note: Edward Gibson, chief draftsman at the GLO office in Olympia was quite a character, being arrested once for "displaying a firearm and gesturing in a dangerous manner"], Tilton stated:

"You will employ one white man as assistant and one Indian as packman and proceed to [the] Muckleshoot Prairie, find the south end of the Guide Meridian at [the SE] corner of T.21 N, Ranges 5 and 6 East of the Willamette Meridian, traverse it for it's extent of 48 miles north correcting the marks upon the stakes and bearing trees so as to conform to the distance of the Guide Meridian east of the Willamette Meridian, also correct the marks upon the Standard Parallel lines and obliterate the present marks, or in the words of the letter of the Commissioner, General Land Office to me dated July 18th 1855: 'These corner boundaries will have to be changed in respect to their marks and figures so as to make them refer both as to number and position of their ranges to the Willamette Meridian and lying of course to the East of that Meridian.'"

On September 23rd, 1857 examiner Edward Gibson made his report. "In accordance with your instructions . . . I proceeded immediately to make the necessary corrections upon the 5th and 6th Standard Parallel and the Guide Meridian. Being unable to procure the services of a white man, I employed two Indians as packman and assistant. I corrected the marks on the posts and

bearing trees as per instructions from the 5th to 7th Std. Parallels North. on the Guide Meridian and the 5th Std. Par. From R. 1 E. to the [Puget Sound] Guide Meridian and the 6th Std. Par. From the Guide Meridian west through Ranges 5, 4 and 3 East to Seattle. The lines were blazed and marked well and the corners well established, the posts were all standing with one exception. The length of time (26 days) occupied in this duty and owing to the exceeding denseness of the forest and the difficulty experienced in crossing the streams, having in most cases to construct rafts. The Indians were peaceable and offered no hindrance to the work.”

For walking over 90 miles of survey line, changing the marks on over 540 bearing trees and 180 corner posts, examiner and deputy surveyor Gibson received the outrageous sum of \$229.00.

In 1859, contract no. 45 was awarded to deputy surveyors Isaac W. Smith and Jared Hurd to extend the Puget Sound Guide Meridian north to the International Boundary between the United States and Canada. Beginning at the SE corner of Township 28 North, Range 5 East, they ran north 12 miles, then west 12 miles, then north 12 miles, then west 6 miles, then north again for 72 miles through what is now Western Washington University in Bellingham and ending just short of the US/Canada border. They could not tie into the International boundary because the joint American and British survey team had not finalized its location. It was from this meridian and not the Willamette, that standard parallels were extended and Snohomish, Skagit and Whatcom counties surveyed.

Why hadn't deputy surveyor Thomas Frost gone back and made the necessary corrections to his own work? Born on December 2, 1828 in Boston, Massachusetts, he was educated as a civil engineer and had been employed as a railroad engineer in Massachusetts, Vermont and Indiana before coming to Olympia with surveyor general Tilton. He was employed there as chief draftsman, survey examiner and deputy surveyor. Described as having “few acquaintances and while courteous to all, a melancholy seemed to sit upon him as a cloud along the sky and those pleasures which such a feeling gave, seemed to abstract him from the world”. Deputy surveyor Thomas Frost died of typhoid fever on November 9, 1855 at the age of 27 and is buried in the Union Pioneer Cemetery, just months after completing his survey of Washington's own principal meridian, the Puget Sound Meridian.

NOTE: a brass plaque is planned for installation at the above gravesite. Proposed wording is below:

THOMAS A. FROST, UNITED STATES DEPUTY SURVEYOR.

SURVEYOR OF WASHINGTON TERRITORY'S PUGET SOUND MERIDIAN.

IN 1855 THE FIRST SURVEYOR GENERAL OF THE GENERAL LAND OFFICE (GLO) FOR WASHINGTON TERRITORY, JAMES TILTON, DECIDED TO ABANDON THE WILLAMETTE MERIDIAN (THAT BEGAN IN OREGON) AS THE BASIS FOR ALL LAND SURVEYS IN WASHINGTON TERRITORY AND REPLACE IT WITH HIS OWN PRINCIPAL MERIDIAN; THE PUGET SOUND MERIDIAN.

IN THE SPRING OF THAT YEAR, TILTON AWARDED GLO CONTRACT NO. 3 TO YOUNG SURVEYOR, THOMAS A. FROST. COMMENCING AT A POINT NEAR THE NORTHEAST CORNER OF WHAT IS NOW THE MUCKLESHOOT INDIAN RESERVATION, U.S. DEPUTY SURVEYOR FROST RAN THE NEW PRINCIPAL MERIDIAN FOR WASHINGTON TERRITORY NORTH AS FAR AS THE AREA OF LAKE SAMMAMISH BEFORE THE COMMISSIONER OF THE GENERAL LAND OFFICE IN WASHINGTON D.C. OVERRULED SURVEYOR GENERAL TILTON. TILTON WAS TOLD TO DESTROY THE MARKS MADE ON THIS MERIDIAN AND REINSTATE THE WILLAMETTE MERIDIAN FOR THE BASIS OF ALL SURVEYS IN WASHINGTON TERRITORY. TO THIS DAY, ALL LAND DESCRIPTIONS IN OUR STATE ARE REFERENCED TO OREGON'S WILLAMETTE MERIDIAN AND NOT TO OUR OWN SHORT-LIVED PUGET SOUND MERIDIAN. SURVEYOR FROST WAS NOT ABLE TO GO BACK AND CORRECT HIS MARKS ON THE LINE HIMSELF. HE DIED IN OLYMPIA OF TYPHOID FEVER ON NOVEMBER 9, 1855, AGED 27 YEARS, ONLY A FEW MONTHS AFTER COMPLETING HIS SURVEY OF WASHINGTON'S OWN PRINCIPAL MERIDIAN; THE PUGET SOUND MERIDIAN.

**LAND SURVEYORS'
ASSOCIATION OF WASHINGTON
HISTORICAL SOCIETY**