



U.S. Army Corps
of Engineers
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper – Eagle City and Eagle Village, Alaska

Current as of January 21, 2008

Community Information

The City of Eagle, population 110, is on the Taylor Highway, 6 miles west of the Alaska-Canadian border, and 200 miles from Fairbanks. Eagle is incorporated as a 2nd class city in the unorganized borough. The Village of Eagle, population 70, is 3 miles upriver from the city along the left bank of the Yukon River. The Village of Eagle is unincorporated and is also within the unorganized borough.

Description of Erosion Problem

City of Eagle. Ice formation and melting, ice jams in the spring, river flow, wind, gully runoff during swift spring thaws over the bluff, and high river stages all contribute to bank erosion on the Yukon River. Notable erosion was reported by the city for 1927, 1934, 1972 and 1992. Prior to 1994, an estimated 75 feet had been lost off the end of the runway and the old U.S. Army parade grounds for Fort Egbert over a 40 year period.

Village of Eagle. Ice jams from spring break up are the primary cause of bank erosion. The eroding area is estimated to be 1,690 feet in length with the height of the eroding bank estimated at 25 to 40 feet. The old village area was in the 40-year floodplain where slow erosion continues to occur, however a new community development has begun to take place 5 miles back from the river. The risk from river bank erosion is reportedly low and the bank has not eroded much in recent years.

Potential Damages

City of Eagle. An approximately 950-foot-long sheet pile retaining wall was installed in 1994, which reduced the erosion rate in the area. Six hundred feet of riverbank downstream from the end of the sheet pile is currently eroding, however the upstream end of the sheet pile appears to be controlling the erosion. The sheet pile retaining wall was constructed at a cost of about \$1.3 million as an Emergency Watershed Protection project. Structures and facilities presently threatened by the approximately 600-foot eroding area along the river bank downstream from the sheet pile structure include the Episcopal Church, the airstrip, and the National Park Service Yukon-Charley Rivers National Preserve headquarters buildings.

Village of Eagle. Several residences, some outbuilding and sheds, the community well house, Charlie's Hall community building, Front Road, the clinic, the tribal work force office, the church, and the remains of the historic school house are all estimated at less than 100 feet from the top of the bank. Items identified farther back from the river include fuel storage tanks, and a

junk yard behind the clinic. A site of archeological importance along Mission Creek and Eagle Bluff is an estimated 50 feet from the river bank. No protection measures have been implemented to reduce potential erosion damage, however several old buildings have reportedly been moved in past years.

Photos and Diagrams

Photos of erosion provided by the division of homeland security and emergency management are attached. Diagrams depicting the linear extent of erosion in the city and village are attached.

References

USACE. 1976. *Section 14 Bank Erosion Reconnaissance, Eagle, Alaska.* Alaska District, U.S. Army Corps of Engineers.

USACE. 2008. *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 administered to Joyce Roberts, Eagle traditional council tribal administrator and Barry Westphal, tribal environmental coordinator on January 16, 2008, and Jerry Nelson, Eagle Mayor on January 15, and John Borg 40-year resident on January 21, 2008.

Additional Information

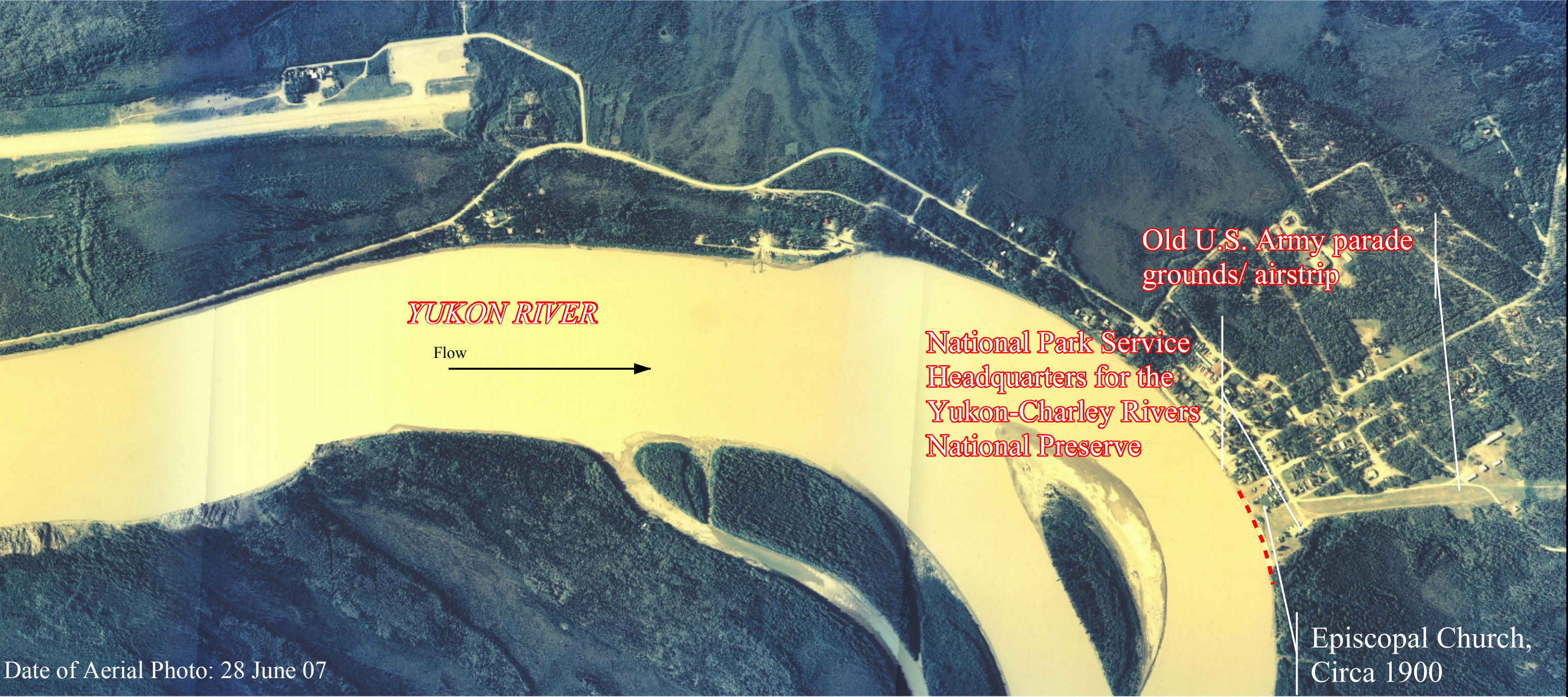
This information paper, as well as those for other communities, can be accessed on the internet at www.alaskaerosion.com. For more information please contact the Corps of Engineers, project manager at (907) 753-5694 or email Alaska.Erosion.POA@usace.army.mil



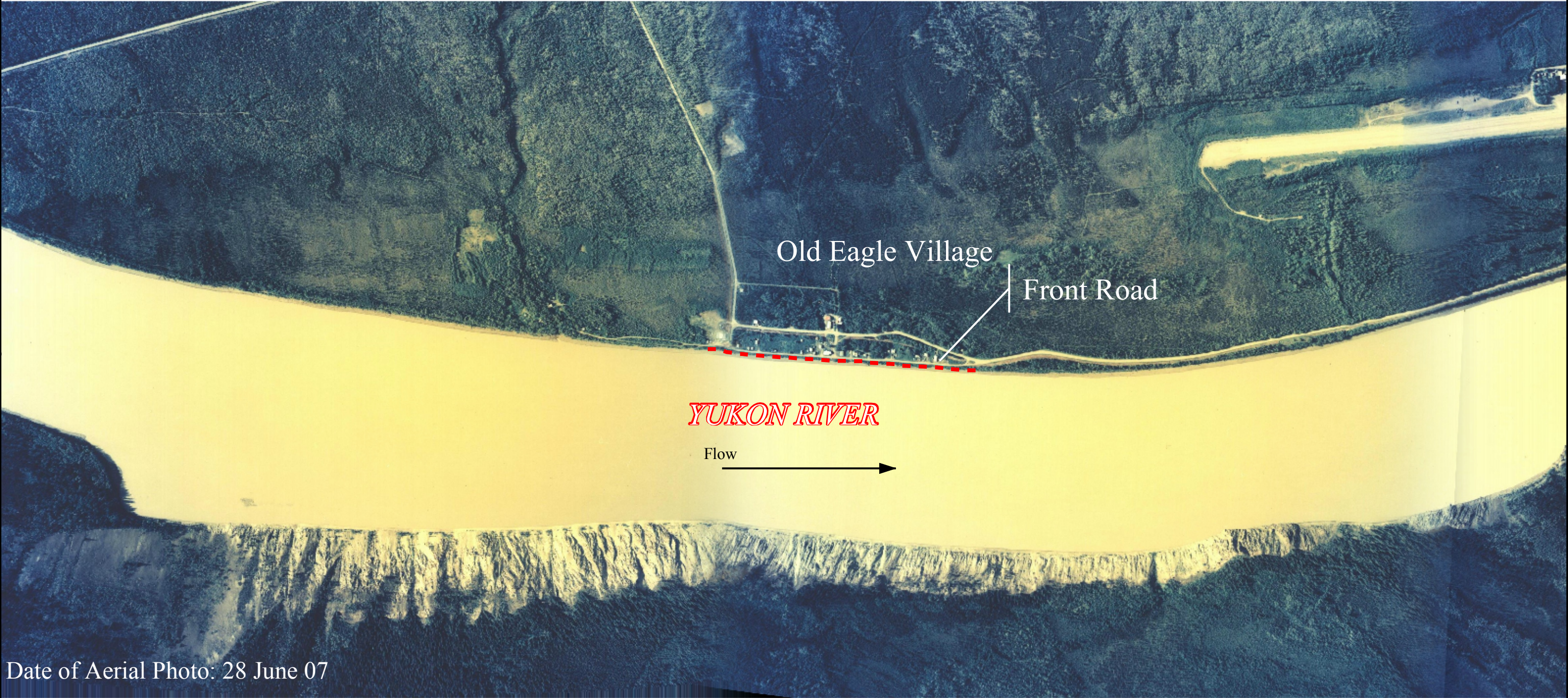
Photo 1: In Eagle village some homes are located close to the Yukon River shoreline; photo courtesy of the Division of Homeland Security and Emergency Management, 2001.



Photo 2: Sheet pile retaining wall along the city of Eagle shoreline protects the bank from erosion. The unprotected high bluff area is in the background, beyond the end of the sheet pile wall; photo courtesy of the Division of Homeland Security and Emergency Management, 2001.



NOTE: The extent of erosion shown on this figure is based on interviews with the community. This data has not been field verified. This figure is only intended to show areas of erosion, not rates or severity of erosion



Date of Aerial Photo: 28 June 07

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--- Linear Extent of Erosion
Part 2



Alaska Baseline Erosion
Eagle, Alaska