

# Operating from Cooper Island, Alaska (VE3LYC/KL7, NA-172)

*By Cezar Trifu (VE3LYC)*

Cooper Is. is part of the Plover group, which includes a chain of barrier islands in the Beaufort Sea to the east of Barrow, the northernmost city in Alaska. The group was named after HMS Plover, which sailed in the summer of 1850 to the western end of the Northwest Passage in search of Franklin's lost expedition. The British named Cooper Is., located 40 km from Barrow, after one of their officers.



**In front of Chukchi Sea, near the old whale station in Barrow.**

About 5 km long and half a kilometer wide, the island is the summer breeding ground for a black guillemot colony. For the past 42 years, Dr. George Divoky spent every summer studying their habits, from nesting to fledging. The birds feed exclusively on cod, which needs cold waters to grow, reproduce and survive. The gradual warming of the Arctic has limited considerably the icepack, and thus the cod supply. In the past 25 years, the colony on Cooper Is. has reduced to half, numbering just over 100 mating pairs today. Additionally, the climate change led to the softening of the permafrost, in turn leading to considerable shore erosion, both on the island and on the mainland.



**The research camp on Cooper Island**

Known as NA-172 to the IOTA Program, this island group was in demand by 92.6% of IOTA chasers. This IOTA reference had been previously activated once, 24 years earlier, and was ranked #28 on the Most Wanted IOTA Listing World-Wide. In terms of rarity, this corresponded to #8 on the Most Wanted DXCC List (as there were 340 DXCC and 1122 IOTA activated at the time).

I operated for four and a half days between 3 and 7 August 2016 from George's camp on Cooper Is. My landing on the island coincided with the arrival of a moderate emission of charged particles originating from a solar flare. This caused a serious disturbance of the geomagnetic field, which triggered poor propagation conditions to most regions around the world. To compensate, I spent a considerable amount of time on the radio monitoring the bands from 17 to 40 m.



**Operating VE3LYC/KL7**

I used an Icom IC-7000 with a multi-band vertical wire antenna. Power was provided by a deep-cycle battery, charged through several solar panels. The outside temperature was around 1°C during the day, and -3°C at night. Most of the time there blew a 40 km/h wind with gusts up to 56 km/h, creating a windchill of -7°C. The operating tent offered protection from the elements, but wasn't heated and required warm clothing at all times.

Despite the poor propagation conditions, a total of 1890 QSOs were logged with 1651 stations in 55 DXCCs on 6 continents. All contacts were on 20 m, of which 96% in CW and 4% in SSB. The continental distribution of stations was EU 55%, NA 23%, AS 21%, and OC, SA, and AF at 1% total. The top five DXCCs by number of stations and number of QSOs were K, JA, DL, UA, and I, accounting for 63% of all stations and 62% of all QSOs logged, followed by UR, SM, UA0, F and SP.



Taking a rest

Table 1. Top DXCCs by number of stations logged.

Nr.	DXCC	STN	%	QSO	%
1	K	324	19.6	356	18.8
2	JA	295	17.9	323	17.1
3	<b>DL</b>	<b>164</b>	<b>10.0</b>	<b>196</b>	<b>10.4</b>
4	UA	148	8.7	165	8.7
5	I	110	6.7	136	7.2
6	UR	63	3.8	73	3.9
7	SM	56	3.4	63	3.3
8	UA0	46	2.8	48	2.5
9	F	40	2.4	48	2.5
10	SP	39	2.4	44	2.3



Solar panels for the radio station

I am deeply grateful to George for allowing me to share his camp. In return, I provided his non-profit foundation *Friends of Cooper Island* with a donation meant to cover the costs of transportation, accommodation, and meals during my stay on the island. My thanks to Billy Adams who drove me in his brother's 250 hp open canoe Wild Thing, and to Jim Gamache for his logistical support with solar power. Maury (IZ1CRR) is thanked for website design and George (VE3GHK) for his technical assistance.

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Antenna in the wind



Black guillemot pair



Electric bear fences

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