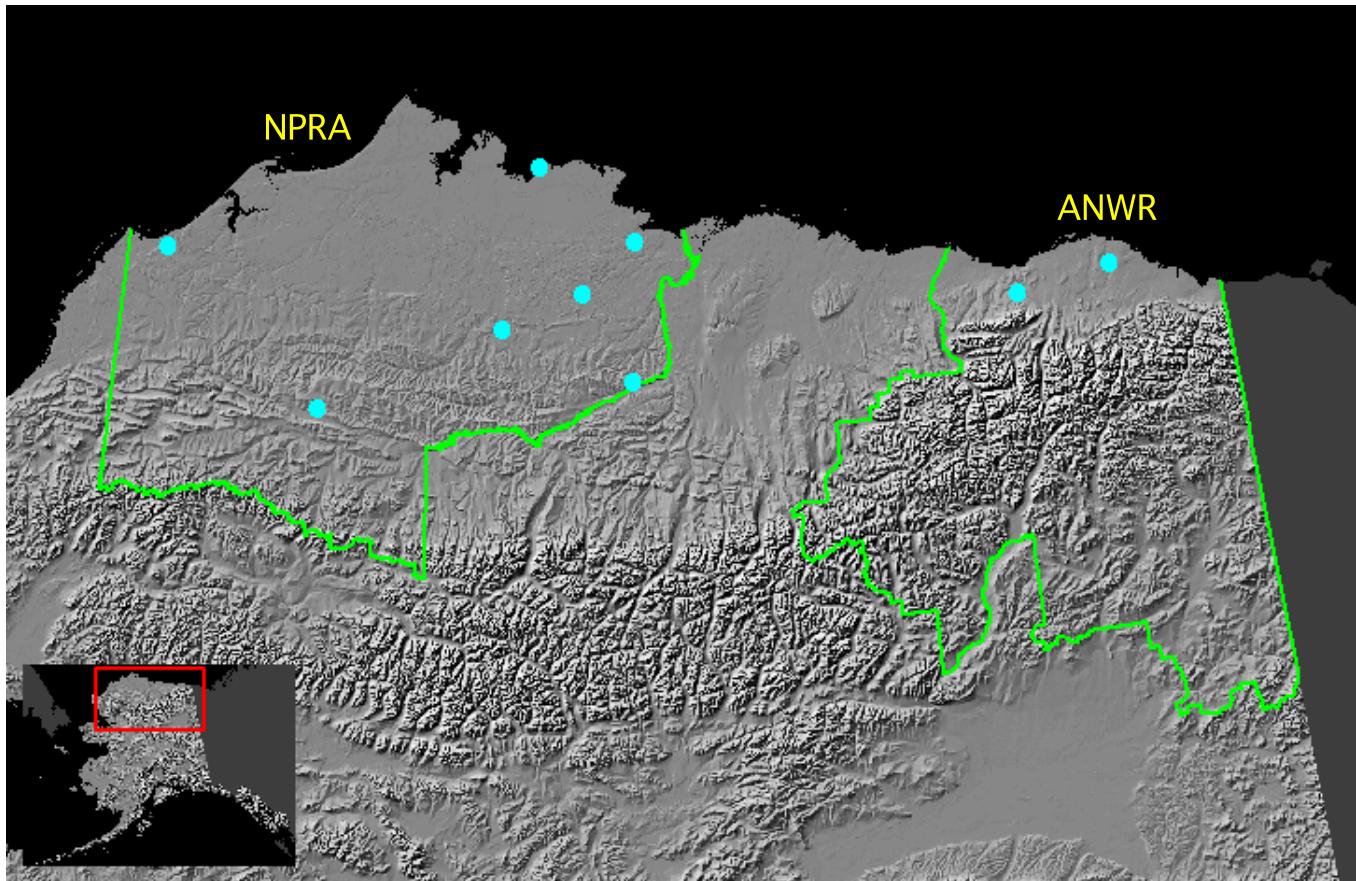


## Results from the DOI/GTN-P<sup>†</sup> Active-Layer Monitoring Network



DOI's active-layer monitoring network, largely installed during the summer of 1998, spans federal lands in the National Petroleum Reserve Alaska (NPRA) and the Arctic National Wildlife Reserve (ANWR). This network is part of a global network of permafrost stations (GTN-P) designed to monitor for changes in the solid-earth component of the Earth's cryosphere. Most of DOI's active-layer stations are co-located with deep boreholes used to monitor the thermal state of deep permafrost.

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<sup>†</sup> DOI/GTN-P results from a collaboration between the U.S. Geological Survey, the U.S. Bureau of Land Management, and the U.S. Fish and Wildlife Service. USGS is the lead agency. For more information, contact Gary Clow, USGS, 1-303-236-5509 (email: [clow@usgs.gov](mailto:clow@usgs.gov)).

**Table 1.** Location of DOI's GTN-P active-layer monitoring stations.

Station Name	USGS Code	Latitude	Longitude	Elevation (m)	Landform	Installation Date
Awuna	AK103	69° 10.226 N	158° 00.402 W	110	foothills, Brooks Range	19 AUG 1998
Drew Point	AK100	70° 51.872 N	153° 54.405 W	5	arctic coastal plain	18 AUG 1998
Fish Creek	AK102	70° 20.114 N	152° 03.120 W	31	arctic coastal plain	18 AUG 1998
Inigok	AK101	69° 59.377 N	153° 05.630 W	53	arctic coastal plain	17 AUG 1998
Koluktak	AK106	69° 45.096 N	154° 37.054 W	60	arctic coastal plain	27 AUG 1999
Marsh Creek	AK108	69° 46.657 N	144° 47.595 W	260	arctic coastal plain	03 AUG 2001
Niguanak	AK107	69° 53.363 N	142° 59.037 W	84	arctic coastal plain	18 AUG 2000
Tunalik	AK105	70° 11.756 N	161° 04.687 W	26	arctic coastal plain	20 AUG 1998
Umiat	AK104	69° 23.741 N	152° 08.568 W	201	foothills, Brooks Range	20 AUG 1998

**Table 2.** Current Station Instrumentation.

Ground temperature at 10 depths (5–120 cm)  
 Air Temperature  
 Downwelling shortwave radiation  
 Upwelling shortwave radiation  
 Snow depth



Active-layer monitoring station (Umiat, AK104).

**Table 3.** Mean summer (JJA) air temperature (°C). Sites sorted by distance from the coast.

Station	1998	1999	2000	2001	2002	2003	2004	2005
Drew Point		3.83	4.13	3.90				
Tunalik		7.58	5.90	5.64				
Fish Creek			5.93	5.28				
Niguanak				5.28				
Marsh Creek								
Inigok		8.16	7.24	7.43				
Koluktak								
Umiat		9.30	8.19	7.60				
Awuna		9.50	8.52					

**Table 4.** Maximum active layer thaw depth (cm).

Station	1998	1999	2000	2001	2002	2003	2004	2005
Drew Point	36	35	32	30				
Tunalik	47	48	42	41				
Fish Creek	29	30	29	28				
Niguanak			18	29				
Marsh Creek				34				
Inigok	68	61	43	41				
Koluktak		> 120	118	120				
Umiat	39	38	32	32				
Awuna	36	35	32	34				

