



Proposal¹ for the Declaration of a Marine Protected Area: “Botanical Reserve of National Importance, Small Phyllophora Field of Karkinitsky Bay”

This document has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of the Environmental Collaboration for the Black Sea Project and can in no way be taken to reflect the views of the European Union

¹ The purpose of this document is to provide the necessary information and justifications for the declaration of a marine protected area for the Small Phyllophora Field that exists in Karkinitsky Bay, situated between Kherson Oblast and Autonomous Republic of Crimea



This project is funded by the EU
Этот проект финансируется ЕС

This project is implemented by a Consortium of Euroconsult Mott MacDonald (the Netherlands), Mott MacDonald Ltd (UK) and Milieu Ltd (Belgium).
Project regional office in Kyiv: 21 Khreschatyk str., office 34
Kyiv 01001 UKRAINE
Tel/Fax: + 38 044 279 0482
Tel: + 38 044 229 1158
E-mail: ecbsea@ecbsea.org
<http://www.ecbsea.org>

Content

1. Introduction	3
2. Legal Basis for Declaration of Marine Protected Area	3
3. Ecological Features and Natural Resources to be Conserved	5
Small Phyllophora Field	5
Black Sea Habitats	5
Keystone and Threatened Species Present	6
4. Socio-Economic and other Outcomes of Declaring a Marine Protected Area	6
5. Financial Implications	6
6. Main Points of the Marine Protected Area Decree	6
Status	7
Boundaries	7
Management Plan	7
Management Authority	7
Figure 1: Proposed Boundary of the Small Phyllophora Field marine reserve in Karkinitsky Bay	8
ANNEX	9
Coordinates for the boundary of the Proposed Small Phyllophora Field marine reserve in Karkinitsky Bay	

This document was prepared by Paul Goriup, ECBSea Key Expert on Biodiversity and MPA in cooperation with Richard Lisovsky, National Expert (UkrSCE)

1. Introduction

The purpose of this document is to provide the necessary information and justifications for the declaration of a marine protected area for the Small Phyllophora Field that exists in Karkinitzky Bay, situated between Kherson Oblast and Autonomous Republic of Crimea.

The Black Sea has a rich and to some extent unique biodiversity resulting from its semi-enclosed geography and inputs from several major rivers. In particular, the Black Sea shores of Ukraine have extensive wetland ecosystems which form transitional zones that extend out to the limit of submerged marine vegetation (from 6 to 20 m depth), connecting the vast terrestrial drainage basin and the Black Sea itself. These wetlands are dynamic and highly productive ecosystems that until the mid-1970s supported a very high diversity of flora and fauna, including abundant fishery resources. Unfortunately, wild species and their habitats have been, and continue to be, under massive human pressure, including transformation of natural shore areas for resorts/recreation areas, pollution from shipping, and spread of exotic species. At the last count, in the mid-1990s, over 3,770 species had been identified in the Black Sea, including 1,619 fungi, algae and higher plants; 1,983 invertebrates; 168 fish; and four native mammals. Of these species, 126 are recognised as threatened – in various stages of decline or in actual danger of extinction – including 10 plants; 38 fish; 22 birds, and all the mammals.

In order to conserve the remaining natural resources for the future, and to enable the restoration of fully functioning marine ecosystems which can once again provide benefits and services for the people of Ukraine (and the wider Black Sea region), it is necessary to establish protected areas in those areas of the highest importance for their biodiversity. Among these are concentrations of Phyllophora, a red alga that has commercial value for harvesting and extraction of agar; helps to oxygenate marine water; and provides habitat for more than 110 species of invertebrates and 47 species of fish.

The world's largest area of Phyllophora, Zernov's field, once covered some 11,000 km² of the northwest shelf of the Black Sea and had a biomass of 7 – 10 million tons. By the early 1990s, this field had shrunk to 500 km² and its biomass to under 0.5 million tons. According to Presidential Decree 1064/2008 of 21 November 2008, an area covering 400,000 ha of this field was declared a State Botanical Reserve. The establishment of a marine protected area for the Small Phyllophora Field (SPF) in Karkinitzky Bay would be a complementary action that would strengthen the protection and sustainable management of Phyllophora and permit both fields to remain inter-connected and biologically viable.

2. Legal Basis for Declaration of Marine Protected Area

The Small Phyllophora Field (SPF) is located to the east of Bakalsky Spit and Bakalsky banks in the shallow inshore part of Karkinitzky Bay. The whole area is included in the List of Wetlands of International Importance under the Ramsar Convention. In addition, there are already five existing protected areas established within Karkinitzky Bay, namely:

- Tendrovsky Spit, 70 km in length – part of the Black Sea Biosphere Reserve of NASU, established in 1927;
- Dzharylgachsky National Botanical Reserve, 340 ha, established in 1974;
- Bakalsky spit, lake and coastal complex: nature monument of local significance;
- Karkinitzky Bay ornithological sanctuary of national importance, 2,764 ha, established in 1957;
- Lebyazhie Islands – 9,612 ha, part of the Crimean Nature Reserve, established in 1957.

The establishment of a protected area for the Small Phyllophora Field in Karkinitsky Bay would accord with international as well as national environmental protection legislation and policies. The idea of creating marine protected areas for conserving the unique fields of Phyllophora that have regional significance for the Black Sea was proposed in the Black Sea Transboundary Analysis (1997) and adopted in the Black Sea Strategic Action Plan under the Bucharest Convention.

The Decree of the Cabinet of Ministers (No 439/1997) "On the concept of conservation of biodiversity in Ukraine" provides the basis for a national programme to establish an ecological network between 2000 and 2015. The Small Phyllophora Field in Karkinitsky Bay is included in two elements of the state environmental network: the Black Sea nature region (14) and the near coastal nature corridor (IV).

There are a number of species of plants and animals occurring in the Small Phyllophora Field (see below) that are listed in the Red Data Book of Ukraine and require special protection measures.

Other relevant legislation includes:

Convention on the Protection of the Black Sea Against Pollution (ratified by Decree of Verkhovna Rada N3939-12).

Protocol on Conservation of the Biological Diversity and the Black Sea Landscapes, which was ratified by Law of Ukraine dated 22.02.2007 N685-V.

Article 53 of the Law of Ukraine dated 16.06.1992 N 2456-XII "On Nature-Reserve Fund of Ukraine".

Social and legal relationships within the territories and bodies of nature-reserve fund are regulated by Law of Ukraine dated 16.06.1992 N 2456- "On Nature-Reserve Fund of Ukraine".

Relationships in the field of sustainable use of reserves nature resources are regulated by Laws of Ukraine dated 25.06.1991 N1264- "On the Environmental Nature Protection"; dated 21.09.2000 N1989- "On National Programme of the Establishment of National Environment Network for 2000-2015"; dated 09.04.1999 N 591- V "On Flora"; dated 07.02.2002 3055- "On the Red Book of Ukraine", as well as the Code of Land of Ukraine dated 25.10.2001 N 2768- ; Code of Water of Ukraine dated 06.06.1995 N 213/95- , Regulation on Green Book of Ukraine and by-laws of Ukraine.

The nature territories (water body) are announced reserves (zakaznik) with the aim of protection and recreation of the nature complexes or their components.

The right for the Black Sea water area disposal as the water body of the national importance belongs to the Cabinet of Ministers of Ukraine with regard to the Article 14 of Water Code of Ukraine

3. Ecological Features and Natural Resources to be Conserved

Small Phyllophora Field

The outstanding natural feature of Karkinitsky Bay is the so-called Small Phyllophora Field (SPF), which covers a large part of the inner part of the bay. This field is regarded as “small” only in relation to the Large (Zernov’s) Phyllophora Field (ZPF) which once covered much of the north-western shelf of the Black Sea, an area of about 11 million ha. However, owing to increasing eutrophication in this area, Zernov’s field had shrunk by the early 1990 to 500,000 ha. Some 400,000 ha of the Zernov field was designated as a national botanical reserve by Decree of the President of Ukraine in November 2008.

A survey of Karkinitsky Bay by the Institute of Biology of the Southern Sea (Odessa Branch) in September 2008 found that the central part of the bay was covered with extensive aggregations of unattached (spherical form) *Phyllophora crispa* with an overall extent of about 35,000 ha and total biomass of some 750,000 tonnes. The stock of *Phyllophora* in 2008 was therefore at about the same the level as in the 1970s, before the period of intensive primary eutrophication occurred and much of the original SPF disappeared. The main reason for this recovery is the sheltered location of the bay, with fewer land-based sources of pollution (no industrial or urban centres) and rivers.

The *Phyllophora* stock in the SPF is recovering more vigorously than in the ZPF. Consequently, the SPF represents an ecological refuge for a distinctive community of plants, benthic organisms and fish. It also serves as a source from which the community can spread to other areas in the northwest shelf as the level of eutrophication diminishes. The SPF is therefore not only a crucial asset for marine biodiversity conservation, but also assists the rebuilding of economic resources, especially fisheries. Furthermore, it plays an important role as a source of dissolved oxygen that improves water quality which is vital for the coastal tourism industry.

Black Sea Habitats

A classification of Black Sea habitats has been developed by the Black Sea Commission, in line with the Protocol on Black Sea Biodiversity and Landscape Conservation of the Bucharest Convention (of which Ukraine is a Signatory). The following habitats of Black Sea importance occur in Karkinitsky Bay:

Sandbanks which are slightly covered by sea water all the time
Mudflats and sandflats not covered by seawater at low tide
Large shallow inlets and bays
Reefs

The Bakalsky Bank is a particularly important geomorphological feature in that it creates a division between the inner (eastern) and outer (western) waters of Karkinitsky Bay. The inner waters are more sheltered from currents, have a somewhat lower salinity, and the bank acts as a rim confining the mobile *Phyllophora* beds. Any destruction of this feature (e.g. sand extraction) could have significant adverse effects on the habitats and communities of the inner part of Karkinitsky Bay.

A second significant habitat that has only recently been described in the Black Sea is reefs composed of accretions of oyster shells. These reefs may be several metres high and provide habitat for a range of specialised species.

Keystone and Threatened Species Present

The sea-grass *Zostera marina* is listed in Annex 1 of the Bern Convention as a threatened species. In addition, species of the algae *Cystoseira* and *Phyllophora* are keystone links in Black Sea benthic macrophyte communities and have been included in the Black Sea Red Data Book (Black Sea Commission, 1999).

The oyster *Ostrea edulis*, hairy crab *Pilumnus hirtellus*, green crab *Carcinus aestuarii* and mudprawn *Upogebia pusilla* are all listed in the Red Data Book of Ukraine.

The great sturgeon *Huso huso*, Atlantic sturgeon *Acipenser oxyrinchus*, and Black Sea salmon *Salmo (trutta) labrax* are all globally threatened fish species; however they have not been recorded recently from Karkinitsky Bay.

Karkinitsky Bay is situated in one of the most important European migration corridors for birds. A total of 67 species of wetland birds have been recorded on the territory adjoining Karkinitsky Bay, of which 52 species breed. These include many species of conservation concern, in particular the white pelican *Pelecanus onocrotalus* which is included in the Red Data Book of Ukraine. The largest colonies of pelicans, herons and seagulls are situated on the Lebyazhie Islands where some 12,000-14,000 pairs of birds nest; a large number of birds also winter here. In general, the islands support a total of some 20,000 birds at various times of the year.

4. Socio-Economic and other Outcomes of Declaring a Marine Protected Area

The declaration of a marine protected area for the Small *Phyllophora* Field in Karkinitsky Bay will not have any negative socio-economic impacts. Previous activities such as harvesting *Phyllophora* for agar production and fishing have long ceased to be important in the bay as a result of declining resources since the 1970s, as well as reduced market demand and investment.

In fact, the marine protected area will have a positive effect for restoring good ecological conditions in the bay for marine biodiversity and water quality. This will support the growing tourism and recreation industry which is already generating economic benefits for places such as Portovoye and Skadovsk. In time, the fish resources should also improve as additional spawning and nursery grounds are provided in the *Phyllophora* beds.

5. Financial Implications

The establishment of a marine protected area for the Small *Phyllophora* Field in Karkinitsky Bay would not require additional financing on state budget as its management and monitoring can be incorporated in the ongoing programmes of existing state organisations.

6. Main Points of the Marine Protected Area Decree

The Presidential Decree to establish a marine protected area for the Small *Phyllophora* Field in Karkinitsky Bay should cover the following main points.

Status

The marine protected area should be established as a zakaznik.

Boundaries

The boundary of the zakaznik should lie along the Bakalsky Bank to the west, and enclose the inner part of Karkinitsky Bay in order to cover the main area of Phyllophora. The inner boundary should follow the coastline, lying 200 m offshore (see Figure 1). The coordinates are set out in the Annex.

The total area of this proposed marine protected area is 125,881 ha.

The boundary does not impact on any existing activities within its area. The navigation channel leading from the outer part of Karkinitsky Bay to Skadovsk may remain open. However, existing legislation preventing pollution from shipping will have to be enforced.

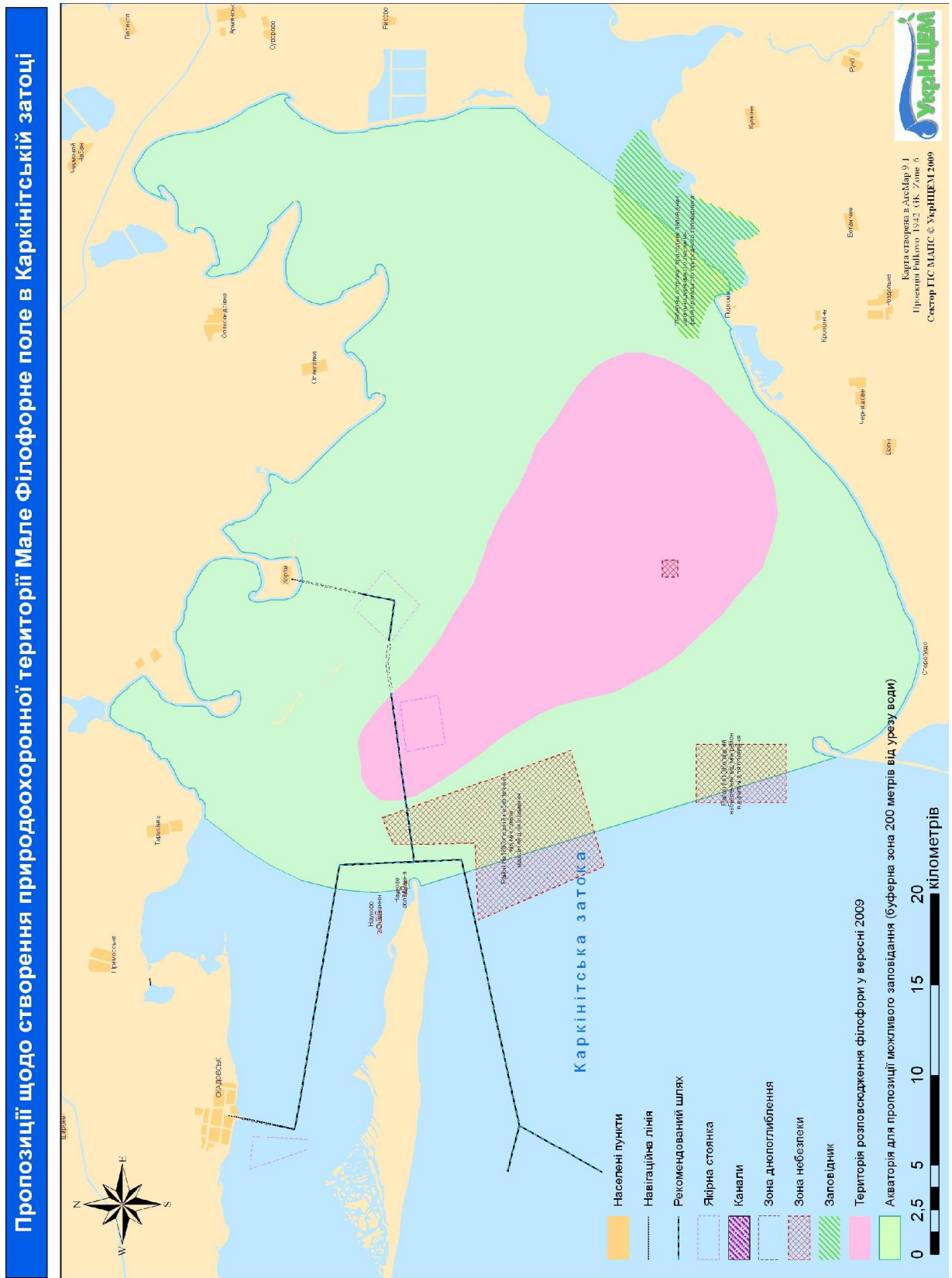
Management Plan

The management plan for the marine protected area should be prepared under the supervision of the Ukrainian Scientific Centre for Ecology of the Seas. This body is already responsible for the management plan for the Zernov Phyllophora Field.

Management Authority

The implementation of the management plan should be undertaken by the Crimean Nature Reserve. This body already manages Lebyazhie Islands reserve and can expand its operations to the wider area of Karkinitsky Bay.

Figure 1: Proposed Boundary of the Small Phyllophora Field marine reserve in Karkinitzky Bay



ANNEX
Coordinates for the boundary of the Proposed Small Phyllophora Field
marine reserve in Karkinitsky Bay

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
0	33.0731	46.0351	45	33.1431	46.1267	90	33.1619	46.1396
1	33.0758	46.0558	46	33.1432	46.1267	91	33.1666	46.1415
2	33.0821	46.0737	47	33.1433	46.1267	92	33.1666	46.1415
3	33.0929	46.0889	48	33.1470	46.1279	93	33.1667	46.1416
4	33.1045	46.1024	49	33.1470	46.1279	94	33.1668	46.1416
5	33.1180	46.1150	50	33.1472	46.1280	95	33.1687	46.1426
6	33.1269	46.1234	51	33.1473	46.1280	96	33.1688	46.1426
7	33.1269	46.1234	52	33.1474	46.1281	97	33.1689	46.1427
8	33.1270	46.1234	53	33.1475	46.1281	98	33.1690	46.1428
9	33.1271	46.1233	54	33.1476	46.1282	99	33.1691	46.1429
10	33.1316	46.1230	55	33.1477	46.1283	100	33.1692	46.1429
11	33.1316	46.1230	56	33.1477	46.1284	101	33.1693	46.1430
12	33.1318	46.1230	57	33.1478	46.1285	102	33.1693	46.1431
13	33.1350	46.1230	58	33.1479	46.1285	103	33.1694	46.1432
14	33.1351	46.1230	59	33.1480	46.1286	104	33.1695	46.1433
15	33.1352	46.1230	60	33.1480	46.1287	105	33.1695	46.1434
16	33.1353	46.1230	61	33.1481	46.1288	106	33.1696	46.1435
17	33.1371	46.1234	62	33.1481	46.1290	107	33.1696	46.1436
18	33.1371	46.1234	63	33.1482	46.1291	108	33.1697	46.1437
19	33.1372	46.1234	64	33.1482	46.1292	109	33.1697	46.1439
20	33.1373	46.1234	65	33.1482	46.1293	110	33.1697	46.1440
21	33.1374	46.1235	66	33.1483	46.1294	111	33.1697	46.1441
22	33.1375	46.1235	67	33.1483	46.1295	112	33.1697	46.1442
23	33.1375	46.1235	68	33.1483	46.1296	113	33.1697	46.1443
24	33.1393	46.1244	69	33.1483	46.1298	114	33.1697	46.1444
25	33.1394	46.1244	70	33.1483	46.1299	115	33.1697	46.1446
26	33.1395	46.1245	71	33.1482	46.1300	116	33.1697	46.1446
27	33.1396	46.1246	72	33.1482	46.1301	117	33.1694	46.1457
28	33.1397	46.1246	73	33.1482	46.1302	118	33.1694	46.1457
29	33.1398	46.1247	74	33.1481	46.1303	119	33.1694	46.1458
30	33.1398	46.1248	75	33.1481	46.1304	120	33.1693	46.1459
31	33.1399	46.1249	76	33.1480	46.1305	121	33.1693	46.1460
32	33.1400	46.1250	77	33.1480	46.1306	122	33.1707	46.1468
33	33.1400	46.1251	78	33.1479	46.1307	123	33.1708	46.1468
34	33.1401	46.1252	79	33.1478	46.1308	124	33.1709	46.1469
35	33.1402	46.1253	80	33.1477	46.1309	125	33.1709	46.1469
36	33.1402	46.1254	81	33.1477	46.1310	126	33.1744	46.1493
37	33.1402	46.1255	82	33.1476	46.1311	127	33.1760	46.1503
38	33.1403	46.1257	83	33.1487	46.1328	128	33.1777	46.1506
39	33.1403	46.1258	84	33.1500	46.1346	129	33.1801	46.1509
40	33.1403	46.1259	85	33.1517	46.1357	130	33.1802	46.1509
41	33.1403	46.1260	86	33.1537	46.1368	131	33.1803	46.1510
42	33.1403	46.1261	87	33.1575	46.1382	132	33.1805	46.1510
43	33.1403	46.1262	88	33.1617	46.1395	133	33.1806	46.1510
44	33.1430	46.1267	89	33.1618	46.1396	134	33.1806	46.1511

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
135	33.1814	46.1514	184	33.1974	46.1710	233	33.2162	46.1468
136	33.1814	46.1514	185	33.1975	46.1711	234	33.2161	46.1468
137	33.1815	46.1515	186	33.1976	46.1712	235	33.2160	46.1468
138	33.1816	46.1515	187	33.1977	46.1713	236	33.2159	46.1468
139	33.1817	46.1516	188	33.1978	46.1714	237	33.2158	46.1469
140	33.1818	46.1517	189	33.1978	46.1714	238	33.2157	46.1469
141	33.1819	46.1518	190	33.1979	46.1715	239	33.2155	46.1469
142	33.1820	46.1519	191	33.1986	46.1719	240	33.2154	46.1469
143	33.1821	46.1519	192	33.1986	46.1719	241	33.2153	46.1469
144	33.1821	46.1520	193	33.1987	46.1719	242	33.2152	46.1468
145	33.1822	46.1521	194	33.1988	46.1720	243	33.2151	46.1468
146	33.1822	46.1522	195	33.1989	46.1721	244	33.2151	46.1468
147	33.1823	46.1524	196	33.1990	46.1721	245	33.2138	46.1465
148	33.1823	46.1525	197	33.1991	46.1722	246	33.2137	46.1464
149	33.1823	46.1525	198	33.1992	46.1723	247	33.2136	46.1464
150	33.1827	46.1535	199	33.1993	46.1724	248	33.2135	46.1463
151	33.1832	46.1539	200	33.2005	46.1724	249	33.2134	46.1463
152	33.1860	46.1548	201	33.2071	46.1721	250	33.2133	46.1462
153	33.1861	46.1548	202	33.2084	46.1709	251	33.2133	46.1462
154	33.1862	46.1549	203	33.2084	46.1709	252	33.2120	46.1453
155	33.1863	46.1550	204	33.2085	46.1708	253	33.2120	46.1453
156	33.1864	46.1550	205	33.2086	46.1708	254	33.2119	46.1452
157	33.1865	46.1551	206	33.2087	46.1707	255	33.2118	46.1452
158	33.1866	46.1552	207	33.2088	46.1707	256	33.2103	46.1438
159	33.1866	46.1552	208	33.2088	46.1706	257	33.2103	46.1437
160	33.1867	46.1553	209	33.2103	46.1699	258	33.2102	46.1437
161	33.1868	46.1554	210	33.2104	46.1699	259	33.2101	46.1436
162	33.1869	46.1555	211	33.2105	46.1699	260	33.2101	46.1435
163	33.1869	46.1556	212	33.2105	46.1699	261	33.2100	46.1434
164	33.1869	46.1556	213	33.2120	46.1694	262	33.2085	46.1410
165	33.1874	46.1565	214	33.2187	46.1641	263	33.2085	46.1409
166	33.1875	46.1566	215	33.2187	46.1641	264	33.2085	46.1409
167	33.1875	46.1567	216	33.2188	46.1640	265	33.2072	46.1387
168	33.1876	46.1568	217	33.2214	46.1622	266	33.2072	46.1386
169	33.1890	46.1608	218	33.2247	46.1589	267	33.2071	46.1385
170	33.1901	46.1632	219	33.2281	46.1550	268	33.2071	46.1384
171	33.1912	46.1645	220	33.2281	46.1546	269	33.2071	46.1383
172	33.1927	46.1660	221	33.2281	46.1544	270	33.2070	46.1381
173	33.1927	46.1661	222	33.2256	46.1529	271	33.2070	46.1381
174	33.1928	46.1662	223	33.2227	46.1513	272	33.2065	46.1348
175	33.1928	46.1663	224	33.2226	46.1513	273	33.2065	46.1347
176	33.1929	46.1664	225	33.2226	46.1513	274	33.2065	46.1346
177	33.1930	46.1665	226	33.2206	46.1501	275	33.2065	46.1345
178	33.1930	46.1666	227	33.2205	46.1500	276	33.2065	46.1315
179	33.1930	46.1666	228	33.2205	46.1500	277	33.2065	46.1314
180	33.1937	46.1684	229	33.2173	46.1478	278	33.2065	46.1313
181	33.1942	46.1690	230	33.2172	46.1477	279	33.2068	46.1295
182	33.1973	46.1709	231	33.2171	46.1476	280	33.2068	46.1258
183	33.1973	46.1710	232	33.2171	46.1476	281	33.2064	46.1239

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
282	33.2057	46.1228	331	33.2048	46.1061	380	33.2174	46.1074
283	33.2046	46.1218	332	33.2049	46.1061	381	33.2173	46.1075
284	33.2018	46.1205	333	33.2050	46.1060	382	33.2173	46.1076
285	33.2018	46.1205	334	33.2051	46.1060	383	33.2172	46.1077
286	33.2017	46.1205	335	33.2051	46.1060	384	33.2171	46.1078
287	33.2016	46.1204	336	33.2081	46.1047	385	33.2171	46.1079
288	33.2015	46.1204	337	33.2082	46.1047	386	33.2170	46.1079
289	33.2003	46.1195	338	33.2083	46.1047	387	33.2169	46.1080
290	33.2002	46.1195	339	33.2085	46.1046	388	33.2168	46.1081
291	33.2001	46.1194	340	33.2086	46.1046	389	33.2167	46.1081
292	33.2001	46.1193	341	33.2086	46.1046	390	33.2166	46.1082
293	33.2000	46.1192	342	33.2119	46.1043	391	33.2165	46.1082
294	33.1999	46.1191	343	33.2119	46.1043	392	33.2164	46.1083
295	33.1998	46.1190	344	33.2120	46.1043	393	33.2163	46.1083
296	33.1998	46.1189	345	33.2122	46.1043	394	33.2161	46.1083
297	33.1997	46.1188	346	33.2123	46.1043	395	33.2160	46.1084
298	33.1997	46.1188	347	33.2137	46.1044	396	33.2159	46.1084
299	33.1990	46.1172	348	33.2155	46.1046	397	33.2158	46.1084
300	33.1989	46.1172	349	33.2155	46.1046	398	33.2153	46.1084
301	33.1989	46.1170	350	33.2156	46.1046	399	33.2145	46.1103
302	33.1988	46.1169	351	33.2158	46.1047	400	33.2133	46.1144
303	33.1988	46.1168	352	33.2159	46.1047	401	33.2133	46.1144
304	33.1988	46.1168	353	33.2159	46.1047	402	33.2132	46.1146
305	33.1986	46.1154	354	33.2164	46.1049	403	33.2132	46.1147
306	33.1985	46.1153	355	33.2165	46.1049	404	33.2131	46.1148
307	33.1985	46.1152	356	33.2166	46.1050	405	33.2131	46.1148
308	33.1985	46.1151	357	33.2167	46.1050	406	33.2113	46.1178
309	33.1985	46.1150	358	33.2168	46.1051	407	33.2108	46.1207
310	33.1985	46.1148	359	33.2169	46.1052	408	33.2108	46.1207
311	33.1985	46.1148	360	33.2170	46.1052	409	33.2106	46.1220
312	33.1988	46.1131	361	33.2171	46.1053	410	33.2110	46.1242
313	33.1988	46.1130	362	33.2171	46.1054	411	33.2119	46.1259
314	33.1988	46.1129	363	33.2172	46.1055	412	33.2135	46.1271
315	33.1989	46.1128	364	33.2173	46.1056	413	33.2163	46.1285
316	33.1989	46.1127	365	33.2173	46.1057	414	33.2193	46.1297
317	33.1997	46.1108	366	33.2174	46.1058	415	33.2250	46.1312
318	33.1997	46.1107	367	33.2175	46.1059	416	33.2250	46.1312
319	33.1997	46.1106	368	33.2175	46.1060	417	33.2296	46.1326
320	33.1998	46.1105	369	33.2175	46.1061	418	33.2354	46.1332
321	33.1998	46.1104	370	33.2176	46.1062	419	33.2411	46.1336
322	33.1999	46.1103	371	33.2176	46.1063	420	33.2411	46.1336
323	33.1999	46.1103	372	33.2176	46.1065	421	33.2412	46.1336
324	33.2014	46.1084	373	33.2176	46.1066	422	33.2413	46.1336
325	33.2015	46.1083	374	33.2176	46.1067	423	33.2443	46.1341
326	33.2016	46.1083	375	33.2176	46.1068	424	33.2443	46.1341
327	33.2016	46.1082	376	33.2176	46.1069	425	33.2444	46.1341
328	33.2017	46.1081	377	33.2175	46.1070	426	33.2445	46.1342
329	33.2018	46.1080	378	33.2175	46.1072	427	33.2447	46.1342
330	33.2019	46.1080	379	33.2175	46.1073	428	33.2447	46.1342

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
429	33.2472	46.1353	478	33.3120	46.1089	527	33.2863	46.1000
430	33.2472	46.1353	479	33.3113	46.1029	528	33.2862	46.1000
431	33.2514	46.1372	480	33.3104	46.1005	529	33.2861	46.1000
432	33.2535	46.1379	481	33.3092	46.0981	530	33.2860	46.1000
433	33.2597	46.1381	482	33.3077	46.0960	531	33.2859	46.1001
434	33.2642	46.1354	483	33.3069	46.0958	532	33.2846	46.1001
435	33.2643	46.1354	484	33.3069	46.0958	533	33.2845	46.1000
436	33.2644	46.1353	485	33.3034	46.0950	534	33.2844	46.1000
437	33.2645	46.1353	486	33.2997	46.0941	535	33.2843	46.1000
438	33.2645	46.1352	487	33.2965	46.0936	536	33.2841	46.1000
439	33.2673	46.1342	488	33.2932	46.0938	537	33.2840	46.1000
440	33.2673	46.1342	489	33.2904	46.0948	538	33.2840	46.1000
441	33.2674	46.1341	490	33.2884	46.0963	539	33.2830	46.0996
442	33.2676	46.1341	491	33.2884	46.0963	540	33.2829	46.0996
443	33.2677	46.1341	492	33.2885	46.0964	541	33.2828	46.0995
444	33.2702	46.1338	493	33.2885	46.0965	542	33.2827	46.0995
445	33.2702	46.1338	494	33.2886	46.0966	543	33.2826	46.0994
446	33.2703	46.1337	495	33.2887	46.0967	544	33.2825	46.0993
447	33.2703	46.1337	496	33.2887	46.0968	545	33.2824	46.0993
448	33.2740	46.1336	497	33.2888	46.0969	546	33.2823	46.0992
449	33.2757	46.1328	498	33.2888	46.0970	547	33.2823	46.0991
450	33.2757	46.1328	499	33.2888	46.0971	548	33.2822	46.0990
451	33.2758	46.1328	500	33.2889	46.0972	549	33.2822	46.0990
452	33.2759	46.1328	501	33.2889	46.0973	550	33.2814	46.0979
453	33.2760	46.1327	502	33.2889	46.0974	551	33.2814	46.0979
454	33.2761	46.1327	503	33.2889	46.0976	552	33.2813	46.0978
455	33.2781	46.1324	504	33.2889	46.0977	553	33.2813	46.0977
456	33.2781	46.1324	505	33.2889	46.0978	554	33.2812	46.0976
457	33.2783	46.1324	506	33.2889	46.0979	555	33.2812	46.0974
458	33.2784	46.1324	507	33.2888	46.0980	556	33.2811	46.0973
459	33.2842	46.1324	508	33.2888	46.0981	557	33.2811	46.0972
460	33.2863	46.1313	509	33.2888	46.0982	558	33.2811	46.0972
461	33.2863	46.1313	510	33.2887	46.0984	559	33.2808	46.0956
462	33.2896	46.1298	511	33.2887	46.0985	560	33.2808	46.0955
463	33.2896	46.1297	512	33.2886	46.0986	561	33.2808	46.0954
464	33.2918	46.1287	513	33.2885	46.0987	562	33.2808	46.0953
465	33.2919	46.1287	514	33.2885	46.0987	563	33.2808	46.0952
466	33.2920	46.1286	515	33.2884	46.0988	564	33.2808	46.0951
467	33.2920	46.1286	516	33.2879	46.0993	565	33.2811	46.0925
468	33.2975	46.1269	517	33.2879	46.0994	566	33.2811	46.0925
469	33.3021	46.1251	518	33.2878	46.0994	567	33.2811	46.0924
470	33.3037	46.1243	519	33.2877	46.0995	568	33.2811	46.0922
471	33.3074	46.1218	520	33.2876	46.0996	569	33.2812	46.0921
472	33.3092	46.1201	521	33.2875	46.0996	570	33.2812	46.0921
473	33.3110	46.1178	522	33.2874	46.0997	571	33.2821	46.0895
474	33.3118	46.1157	523	33.2873	46.0997	572	33.2823	46.0881
475	33.3125	46.1132	524	33.2872	46.0998	573	33.2823	46.0818
476	33.3122	46.1108	525	33.2871	46.0998	574	33.2823	46.0817
477	33.3120	46.1089	526	33.2870	46.0998	575	33.2823	46.0815

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
576	33.2823	46.0814	625	33.3122	46.0750	674	33.3244	46.1080
577	33.2824	46.0813	626	33.3123	46.0751	675	33.3244	46.1080
578	33.2824	46.0812	627	33.3124	46.0751	676	33.3245	46.1080
579	33.2824	46.0812	628	33.3125	46.0752	677	33.3245	46.1081
580	33.2832	46.0791	629	33.3126	46.0753	678	33.3273	46.1100
581	33.2832	46.0790	630	33.3126	46.0754	679	33.3273	46.1100
582	33.2832	46.0789	631	33.3127	46.0755	680	33.3305	46.1124
583	33.2833	46.0788	632	33.3128	46.0756	681	33.3325	46.1136
584	33.2834	46.0787	633	33.3128	46.0757	682	33.3329	46.1133
585	33.2834	46.0786	634	33.3129	46.0758	683	33.3357	46.1112
586	33.2835	46.0785	635	33.3130	46.0759	684	33.3362	46.1105
587	33.2835	46.0785	636	33.3130	46.0760	685	33.3362	46.1092
588	33.2853	46.0766	637	33.3130	46.0761	686	33.3362	46.1091
589	33.2853	46.0765	638	33.3133	46.0769	687	33.3362	46.1089
590	33.2854	46.0764	639	33.3133	46.0770	688	33.3362	46.1088
591	33.2855	46.0764	640	33.3133	46.0771	689	33.3362	46.1087
592	33.2856	46.0763	641	33.3133	46.0772	690	33.3363	46.1086
593	33.2857	46.0762	642	33.3133	46.0773	691	33.3363	46.1085
594	33.2887	46.0745	643	33.3133	46.0774	692	33.3364	46.1084
595	33.2887	46.0745	644	33.3133	46.0776	693	33.3364	46.1083
596	33.2888	46.0744	645	33.3133	46.0777	694	33.3365	46.1082
597	33.2889	46.0744	646	33.3133	46.0777	695	33.3365	46.1081
598	33.2890	46.0743	647	33.3131	46.0796	696	33.3366	46.1080
599	33.2930	46.0730	648	33.3131	46.0796	697	33.3367	46.1079
600	33.2930	46.0730	649	33.3131	46.0796	698	33.3368	46.1078
601	33.2931	46.0729	650	33.3123	46.0843	699	33.3369	46.1078
602	33.2932	46.0729	651	33.3123	46.0843	700	33.3370	46.1077
603	33.2947	46.0726	652	33.3118	46.0871	701	33.3371	46.1076
604	33.2947	46.0725	653	33.3118	46.0898	702	33.3372	46.1076
605	33.2948	46.0725	654	33.3122	46.0909	703	33.3373	46.1075
606	33.2949	46.0725	655	33.3138	46.0936	704	33.3380	46.1072
607	33.2969	46.0723	656	33.3154	46.0955	705	33.3382	46.1069
608	33.2970	46.0723	657	33.3155	46.0956	706	33.3384	46.1047
609	33.2971	46.0723	658	33.3155	46.0957	707	33.3384	46.1046
610	33.2978	46.0723	659	33.3156	46.0958	708	33.3385	46.1045
611	33.2979	46.0723	660	33.3156	46.0959	709	33.3385	46.1044
612	33.2981	46.0724	661	33.3157	46.0960	710	33.3385	46.1043
613	33.2981	46.0724	662	33.3157	46.0961	711	33.3393	46.1020
614	33.3001	46.0727	663	33.3158	46.0962	712	33.3393	46.1020
615	33.3061	46.0736	664	33.3158	46.0963	713	33.3393	46.1019
616	33.3061	46.0736	665	33.3158	46.0965	714	33.3394	46.1018
617	33.3099	46.0743	666	33.3158	46.0965	715	33.3394	46.1017
618	33.3099	46.0743	667	33.3161	46.0986	716	33.3395	46.1016
619	33.3100	46.0743	668	33.3161	46.0986	717	33.3395	46.1015
620	33.3101	46.0743	669	33.3163	46.1019	718	33.3396	46.1014
621	33.3118	46.0748	670	33.3168	46.1037	719	33.3416	46.0990
622	33.3119	46.0749	671	33.3182	46.1047	720	33.3416	46.0990
623	33.3120	46.0749	672	33.3208	46.1060	721	33.3417	46.0989
624	33.3121	46.0750	673	33.3209	46.1060	722	33.3437	46.0968

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
723	33.3437	46.0968	772	33.3670	46.0812	821	33.4205	46.0305
724	33.3438	46.0967	773	33.3670	46.0811	822	33.4206	46.0304
725	33.3439	46.0967	774	33.3669	46.0810	823	33.4206	46.0304
726	33.3440	46.0966	775	33.3668	46.0809	824	33.4229	46.0292
727	33.3440	46.0966	776	33.3668	46.0808	825	33.4230	46.0291
728	33.3465	46.0950	777	33.3668	46.0808	826	33.4231	46.0291
729	33.3465	46.0950	778	33.3660	46.0793	827	33.4232	46.0290
730	33.3467	46.0949	779	33.3660	46.0792	828	33.4233	46.0290
731	33.3468	46.0949	780	33.3659	46.0791	829	33.4234	46.0290
732	33.3468	46.0949	781	33.3659	46.0789	830	33.4235	46.0290
733	33.3498	46.0936	782	33.3659	46.0788	831	33.4235	46.0289
734	33.3499	46.0936	783	33.3659	46.0787	832	33.4250	46.0288
735	33.3499	46.0936	784	33.3659	46.0786	833	33.4251	46.0288
736	33.3545	46.0921	785	33.3658	46.0785	834	33.4252	46.0288
737	33.3565	46.0910	786	33.3658	46.0776	835	33.4254	46.0288
738	33.3586	46.0895	787	33.3659	46.0775	836	33.4254	46.0288
739	33.3587	46.0895	788	33.3659	46.0774	837	33.4272	46.0289
740	33.3588	46.0894	789	33.3659	46.0773	838	33.4272	46.0290
741	33.3589	46.0894	790	33.3659	46.0771	839	33.4273	46.0290
742	33.3606	46.0885	791	33.3659	46.0770	840	33.4275	46.0290
743	33.3606	46.0885	792	33.3660	46.0769	841	33.4276	46.0290
744	33.3607	46.0884	793	33.3660	46.0768	842	33.4277	46.0291
745	33.3608	46.0884	794	33.3661	46.0767	843	33.4278	46.0291
746	33.3609	46.0884	795	33.3661	46.0766	844	33.4279	46.0292
747	33.3611	46.0883	796	33.3671	46.0751	845	33.4280	46.0292
748	33.3612	46.0883	797	33.3671	46.0750	846	33.4281	46.0293
749	33.3613	46.0883	798	33.3672	46.0750	847	33.4282	46.0294
750	33.3614	46.0883	799	33.3673	46.0749	848	33.4283	46.0295
751	33.3622	46.0883	800	33.3674	46.0748	849	33.4283	46.0295
752	33.3623	46.0883	801	33.3674	46.0748	850	33.4284	46.0296
753	33.3624	46.0883	802	33.3691	46.0730	851	33.4285	46.0297
754	33.3625	46.0883	803	33.3692	46.0730	852	33.4285	46.0298
755	33.3626	46.0884	804	33.3693	46.0729	853	33.4286	46.0299
756	33.3627	46.0884	805	33.3715	46.0712	854	33.4287	46.0300
757	33.3648	46.0890	806	33.3715	46.0711	855	33.4287	46.0302
758	33.3673	46.0895	807	33.3716	46.0711	856	33.4287	46.0303
759	33.3692	46.0895	808	33.3843	46.0618	857	33.4288	46.0304
760	33.3721	46.0890	809	33.3940	46.0545	858	33.4288	46.0305
761	33.3724	46.0890	810	33.4004	46.0495	859	33.4288	46.0306
762	33.3724	46.0889	811	33.4038	46.0468	860	33.4288	46.0307
763	33.3724	46.0888	812	33.4065	46.0439	861	33.4288	46.0311
764	33.3724	46.0887	813	33.4065	46.0439	862	33.4294	46.0316
765	33.3724	46.0887	814	33.4125	46.0378	863	33.4294	46.0316
766	33.3721	46.0874	815	33.4165	46.0337	864	33.4295	46.0317
767	33.3716	46.0857	816	33.4165	46.0336	865	33.4296	46.0318
768	33.3697	46.0840	817	33.4166	46.0335	866	33.4297	46.0319
769	33.3696	46.0839	818	33.4167	46.0335	867	33.4297	46.0320
770	33.3696	46.0839	819	33.4204	46.0305	868	33.4298	46.0321
771	33.3671	46.0813	820	33.4204	46.0305	869	33.4299	46.0322

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
870	33.4299	46.0323	919	33.4487	46.0392	968	33.4651	46.0495
871	33.4299	46.0324	920	33.4488	46.0393	969	33.4673	46.0482
872	33.4300	46.0325	921	33.4489	46.0393	970	33.4704	46.0455
873	33.4300	46.0326	922	33.4489	46.0393	971	33.4741	46.0421
874	33.4300	46.0328	923	33.4517	46.0406	972	33.4742	46.0421
875	33.4300	46.0329	924	33.4517	46.0406	973	33.4742	46.0420
876	33.4300	46.0330	925	33.4518	46.0406	974	33.4787	46.0384
877	33.4300	46.0337	926	33.4519	46.0407	975	33.4787	46.0384
878	33.4300	46.0338	927	33.4520	46.0408	976	33.4835	46.0345
879	33.4300	46.0339	928	33.4545	46.0426	977	33.4835	46.0345
880	33.4300	46.0340	929	33.4576	46.0447	978	33.4836	46.0344
881	33.4300	46.0342	930	33.4577	46.0447	979	33.4837	46.0344
882	33.4299	46.0343	931	33.4578	46.0448	980	33.4879	46.0318
883	33.4299	46.0344	932	33.4579	46.0448	981	33.4879	46.0318
884	33.4299	46.0345	933	33.4579	46.0449	982	33.4880	46.0317
885	33.4298	46.0346	934	33.4586	46.0456	983	33.4881	46.0317
886	33.4297	46.0347	935	33.4587	46.0456	984	33.4935	46.0291
887	33.4297	46.0347	936	33.4588	46.0457	985	33.4936	46.0291
888	33.4292	46.0354	937	33.4588	46.0458	986	33.4937	46.0290
889	33.4292	46.0355	938	33.4589	46.0459	987	33.4938	46.0290
890	33.4292	46.0355	939	33.4590	46.0460	988	33.4985	46.0275
891	33.4291	46.0356	940	33.4590	46.0461	989	33.4986	46.0274
892	33.4290	46.0357	941	33.4591	46.0462	990	33.4987	46.0274
893	33.4289	46.0357	942	33.4591	46.0463	991	33.4988	46.0274
894	33.4288	46.0358	943	33.4592	46.0464	992	33.4988	46.0274
895	33.4287	46.0359	944	33.4592	46.0465	993	33.5031	46.0269
896	33.4286	46.0359	945	33.4592	46.0466	994	33.5032	46.0269
897	33.4285	46.0360	946	33.4592	46.0468	995	33.5033	46.0269
898	33.4284	46.0360	947	33.4592	46.0469	996	33.5083	46.0269
899	33.4283	46.0361	948	33.4592	46.0470	997	33.5084	46.0269
900	33.4282	46.0361	949	33.4592	46.0471	998	33.5084	46.0269
901	33.4281	46.0361	950	33.4592	46.0472	999	33.5122	46.0272
902	33.4280	46.0362	951	33.4592	46.0473	1000	33.5123	46.0272
903	33.4279	46.0362	952	33.4591	46.0475	1001	33.5124	46.0272
904	33.4277	46.0362	953	33.4591	46.0476	1002	33.5124	46.0272
905	33.4267	46.0362	954	33.4590	46.0477	1003	33.5156	46.0279
906	33.4266	46.0362	955	33.4590	46.0478	1004	33.5176	46.0283
907	33.4266	46.0362	956	33.4589	46.0479	1005	33.5176	46.0283
908	33.4262	46.0372	957	33.4588	46.0480	1006	33.5177	46.0283
909	33.4262	46.0374	958	33.4588	46.0481	1007	33.5178	46.0283
910	33.4275	46.0380	959	33.4587	46.0482	1008	33.5179	46.0284
911	33.4304	46.0385	960	33.4586	46.0482	1009	33.5181	46.0284
912	33.4373	46.0387	961	33.4585	46.0483	1010	33.5181	46.0284
913	33.4455	46.0388	962	33.4584	46.0484	1011	33.5198	46.0293
914	33.4456	46.0388	963	33.4583	46.0484	1012	33.5199	46.0293
915	33.4457	46.0388	964	33.4582	46.0485	1013	33.5200	46.0294
916	33.4484	46.0392	965	33.4582	46.0485	1014	33.5200	46.0294
917	33.4484	46.0392	966	33.4597	46.0491	1015	33.5210	46.0301
918	33.4485	46.0392	967	33.4630	46.0498	1016	33.5211	46.0302

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1017	33.5212	46.0302	1066	33.5147	46.0345	1115	33.5090	46.0793
1018	33.5213	46.0303	1067	33.5146	46.0347	1116	33.5149	46.0800
1019	33.5214	46.0304	1068	33.5146	46.0348	1117	33.5215	46.0801
1020	33.5214	46.0305	1069	33.5145	46.0349	1118	33.5255	46.0800
1021	33.5215	46.0306	1070	33.5144	46.0350	1119	33.5332	46.0781
1022	33.5216	46.0307	1071	33.5144	46.0350	1120	33.5399	46.0761
1023	33.5216	46.0308	1072	33.5143	46.0351	1121	33.5399	46.0761
1024	33.5217	46.0309	1073	33.5142	46.0352	1122	33.5501	46.0729
1025	33.5217	46.0310	1074	33.5141	46.0353	1123	33.5502	46.0729
1026	33.5217	46.0311	1075	33.5140	46.0353	1124	33.5503	46.0729
1027	33.5218	46.0313	1076	33.5130	46.0360	1125	33.5533	46.0722
1028	33.5218	46.0314	1077	33.5130	46.0361	1126	33.5533	46.0722
1029	33.5218	46.0315	1078	33.5129	46.0361	1127	33.5534	46.0722
1030	33.5218	46.0316	1079	33.5128	46.0362	1128	33.5535	46.0722
1031	33.5218	46.0317	1080	33.5127	46.0362	1129	33.5536	46.0722
1032	33.5218	46.0318	1081	33.5127	46.0362	1130	33.5576	46.0720
1033	33.5218	46.0320	1082	33.5114	46.0367	1131	33.5577	46.0720
1034	33.5217	46.0321	1083	33.5105	46.0380	1132	33.5577	46.0720
1035	33.5217	46.0322	1084	33.5081	46.0416	1133	33.5615	46.0722
1036	33.5217	46.0323	1085	33.5044	46.0481	1134	33.5615	46.0722
1037	33.5216	46.0324	1086	33.5044	46.0481	1135	33.5616	46.0722
1038	33.5216	46.0325	1087	33.5043	46.0482	1136	33.5616	46.0722
1039	33.5215	46.0326	1088	33.5043	46.0483	1137	33.5641	46.0725
1040	33.5214	46.0327	1089	33.5030	46.0500	1138	33.5642	46.0725
1041	33.5214	46.0328	1090	33.5030	46.0501	1139	33.5644	46.0726
1042	33.5213	46.0329	1091	33.5029	46.0502	1140	33.5644	46.0726
1043	33.5212	46.0330	1092	33.5028	46.0502	1141	33.5661	46.0731
1044	33.5211	46.0330	1093	33.5027	46.0503	1142	33.5662	46.0731
1045	33.5210	46.0331	1094	33.5026	46.0504	1143	33.5663	46.0732
1046	33.5209	46.0332	1095	33.5025	46.0505	1144	33.5664	46.0732
1047	33.5208	46.0332	1096	33.5024	46.0505	1145	33.5665	46.0733
1048	33.5207	46.0333	1097	33.5023	46.0506	1146	33.5666	46.0733
1049	33.5206	46.0333	1098	33.5022	46.0506	1147	33.5667	46.0734
1050	33.5205	46.0333	1099	33.5022	46.0506	1148	33.5668	46.0735
1051	33.5205	46.0333	1100	33.4996	46.0516	1149	33.5669	46.0736
1052	33.5185	46.0339	1101	33.4979	46.0527	1150	33.5670	46.0736
1053	33.5184	46.0339	1102	33.4966	46.0538	1151	33.5671	46.0737
1054	33.5182	46.0339	1103	33.4960	46.0553	1152	33.5671	46.0738
1055	33.5181	46.0339	1104	33.4950	46.0582	1153	33.5672	46.0739
1056	33.5180	46.0339	1105	33.4950	46.0582	1154	33.5672	46.0740
1057	33.5165	46.0339	1106	33.4950	46.0583	1155	33.5673	46.0741
1058	33.5164	46.0339	1107	33.4936	46.0616	1156	33.5673	46.0743
1059	33.5163	46.0339	1108	33.4936	46.0628	1157	33.5674	46.0744
1060	33.5162	46.0339	1109	33.4940	46.0644	1158	33.5674	46.0745
1061	33.5160	46.0339	1110	33.4947	46.0665	1159	33.5674	46.0746
1062	33.5160	46.0339	1111	33.4965	46.0696	1160	33.5674	46.0747
1063	33.5150	46.0336	1112	33.4989	46.0722	1161	33.5674	46.0748
1064	33.5147	46.0344	1113	33.5019	46.0752	1162	33.5674	46.0749
1065	33.5147	46.0344	1114	33.5062	46.0781	1163	33.5674	46.0751

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1164	33.5674	46.0752	1213	33.5475	46.0894	1262	33.5218	46.1154
1165	33.5674	46.0753	1214	33.5474	46.0893	1263	33.5219	46.1153
1166	33.5673	46.0754	1215	33.5474	46.0893	1264	33.5220	46.1152
1167	33.5673	46.0755	1216	33.5471	46.0891	1265	33.5221	46.1151
1168	33.5672	46.0756	1217	33.5464	46.0889	1266	33.5221	46.1150
1169	33.5672	46.0757	1218	33.5444	46.0894	1267	33.5222	46.1150
1170	33.5671	46.0758	1219	33.5444	46.0894	1268	33.5223	46.1149
1171	33.5671	46.0759	1220	33.5443	46.0894	1269	33.5224	46.1149
1172	33.5670	46.0760	1221	33.5407	46.0903	1270	33.5226	46.1148
1173	33.5669	46.0761	1222	33.5362	46.0921	1271	33.5227	46.1148
1174	33.5668	46.0762	1223	33.5303	46.0950	1272	33.5228	46.1147
1175	33.5667	46.0763	1224	33.5266	46.0969	1273	33.5229	46.1147
1176	33.5667	46.0763	1225	33.5211	46.1001	1274	33.5230	46.1147
1177	33.5649	46.0775	1226	33.5186	46.1024	1275	33.5231	46.1147
1178	33.5617	46.0799	1227	33.5173	46.1041	1276	33.5232	46.1147
1179	33.5617	46.0800	1228	33.5165	46.1058	1277	33.5247	46.1147
1180	33.5545	46.0850	1229	33.5160	46.1073	1278	33.5249	46.1147
1181	33.5529	46.0862	1230	33.5153	46.1116	1279	33.5250	46.1147
1182	33.5526	46.0870	1231	33.5153	46.1116	1280	33.5251	46.1147
1183	33.5526	46.0870	1232	33.5153	46.1117	1281	33.5288	46.1154
1184	33.5525	46.0871	1233	33.5152	46.1118	1282	33.5345	46.1162
1185	33.5525	46.0872	1234	33.5140	46.1158	1283	33.5345	46.1163
1186	33.5524	46.0873	1235	33.5136	46.1181	1284	33.5393	46.1171
1187	33.5523	46.0874	1236	33.5139	46.1194	1285	33.5393	46.1171
1188	33.5523	46.0875	1237	33.5150	46.1211	1286	33.5394	46.1171
1189	33.5522	46.0876	1238	33.5154	46.1217	1287	33.5421	46.1178
1190	33.5522	46.0876	1239	33.5171	46.1208	1288	33.5422	46.1178
1191	33.5509	46.0888	1240	33.5192	46.1193	1289	33.5423	46.1179
1192	33.5509	46.0889	1241	33.5193	46.1193	1290	33.5424	46.1179
1193	33.5508	46.0889	1242	33.5193	46.1193	1291	33.5425	46.1180
1194	33.5507	46.0890	1243	33.5211	46.1182	1292	33.5426	46.1180
1195	33.5506	46.0891	1244	33.5211	46.1182	1293	33.5427	46.1181
1196	33.5505	46.0891	1245	33.5212	46.1181	1294	33.5428	46.1182
1197	33.5504	46.0892	1246	33.5213	46.1181	1295	33.5428	46.1182
1198	33.5503	46.0892	1247	33.5218	46.1179	1296	33.5445	46.1195
1199	33.5502	46.0892	1248	33.5215	46.1169	1297	33.5457	46.1203
1200	33.5489	46.0896	1249	33.5215	46.1168	1298	33.5471	46.1212
1201	33.5489	46.0896	1250	33.5215	46.1167	1299	33.5472	46.1212
1202	33.5488	46.0896	1251	33.5214	46.1166	1300	33.5473	46.1213
1203	33.5487	46.0896	1252	33.5214	46.1165	1301	33.5474	46.1214
1204	33.5485	46.0896	1253	33.5214	46.1163	1302	33.5475	46.1214
1205	33.5484	46.0896	1254	33.5215	46.1162	1303	33.5475	46.1215
1206	33.5483	46.0896	1255	33.5215	46.1161	1304	33.5476	46.1216
1207	33.5482	46.0896	1256	33.5215	46.1160	1305	33.5477	46.1217
1208	33.5481	46.0896	1257	33.5215	46.1159	1306	33.5477	46.1218
1209	33.5480	46.0896	1258	33.5216	46.1158	1307	33.5485	46.1230
1210	33.5478	46.0895	1259	33.5216	46.1157	1308	33.5485	46.1230
1211	33.5477	46.0895	1260	33.5217	46.1156	1309	33.5485	46.1231
1212	33.5476	46.0895	1261	33.5217	46.1155	1310	33.5486	46.1232

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1311	33.5486	46.1233	1360	33.5662	46.1362	1409	33.5779	46.1461
1312	33.5487	46.1235	1361	33.5663	46.1362	1410	33.5778	46.1461
1313	33.5487	46.1236	1362	33.5665	46.1363	1411	33.5777	46.1461
1314	33.5487	46.1236	1363	33.5665	46.1363	1412	33.5776	46.1462
1315	33.5490	46.1252	1364	33.5702	46.1377	1413	33.5775	46.1462
1316	33.5490	46.1252	1365	33.5703	46.1377	1414	33.5774	46.1462
1317	33.5490	46.1254	1366	33.5704	46.1377	1415	33.5772	46.1462
1318	33.5490	46.1255	1367	33.5705	46.1378	1416	33.5771	46.1462
1319	33.5490	46.1256	1368	33.5730	46.1392	1417	33.5770	46.1461
1320	33.5490	46.1257	1369	33.5730	46.1392	1418	33.5769	46.1461
1321	33.5489	46.1258	1370	33.5731	46.1392	1419	33.5768	46.1461
1322	33.5489	46.1259	1371	33.5732	46.1393	1420	33.5768	46.1461
1323	33.5489	46.1261	1372	33.5732	46.1393	1421	33.5768	46.1461
1324	33.5488	46.1262	1373	33.5754	46.1410	1422	33.5738	46.1451
1325	33.5488	46.1263	1374	33.5783	46.1429	1423	33.5719	46.1446
1326	33.5487	46.1264	1375	33.5784	46.1429	1424	33.5719	46.1446
1327	33.5487	46.1265	1376	33.5784	46.1430	1425	33.5718	46.1445
1328	33.5486	46.1266	1377	33.5785	46.1430	1426	33.5717	46.1445
1329	33.5485	46.1267	1378	33.5786	46.1431	1427	33.5716	46.1444
1330	33.5485	46.1268	1379	33.5787	46.1432	1428	33.5715	46.1444
1331	33.5484	46.1268	1380	33.5788	46.1433	1429	33.5705	46.1439
1332	33.5483	46.1269	1381	33.5788	46.1434	1430	33.5705	46.1439
1333	33.5482	46.1270	1382	33.5789	46.1435	1431	33.5704	46.1438
1334	33.5481	46.1270	1383	33.5790	46.1436	1432	33.5703	46.1437
1335	33.5480	46.1271	1384	33.5790	46.1437	1433	33.5702	46.1436
1336	33.5479	46.1271	1385	33.5791	46.1438	1434	33.5701	46.1436
1337	33.5478	46.1272	1386	33.5791	46.1439	1435	33.5700	46.1435
1338	33.5476	46.1272	1387	33.5791	46.1440	1436	33.5699	46.1434
1339	33.5475	46.1272	1388	33.5791	46.1441	1437	33.5699	46.1433
1340	33.5474	46.1273	1389	33.5791	46.1443	1438	33.5690	46.1421
1341	33.5473	46.1273	1390	33.5792	46.1444	1439	33.5689	46.1420
1342	33.5456	46.1274	1391	33.5791	46.1445	1440	33.5693	46.1426
1343	33.5455	46.1281	1392	33.5791	46.1446	1441	33.5694	46.1427
1344	33.5457	46.1293	1393	33.5791	46.1447	1442	33.5694	46.1428
1345	33.5465	46.1308	1394	33.5791	46.1448	1443	33.5695	46.1429
1346	33.5479	46.1331	1395	33.5791	46.1450	1444	33.5714	46.1466
1347	33.5492	46.1346	1396	33.5790	46.1451	1445	33.5735	46.1499
1348	33.5501	46.1354	1397	33.5790	46.1452	1446	33.5765	46.1530
1349	33.5511	46.1358	1398	33.5789	46.1453	1447	33.5802	46.1555
1350	33.5529	46.1360	1399	33.5788	46.1454	1448	33.5836	46.1570
1351	33.5553	46.1358	1400	33.5788	46.1455	1449	33.5864	46.1575
1352	33.5575	46.1357	1401	33.5787	46.1456	1450	33.5864	46.1575
1353	33.5575	46.1356	1402	33.5786	46.1456	1451	33.5865	46.1575
1354	33.5577	46.1356	1403	33.5785	46.1457	1452	33.5867	46.1576
1355	33.5624	46.1356	1404	33.5784	46.1458	1453	33.5868	46.1576
1356	33.5625	46.1356	1405	33.5784	46.1459	1454	33.5868	46.1576
1357	33.5626	46.1357	1406	33.5783	46.1459	1455	33.5885	46.1584
1358	33.5627	46.1357	1407	33.5781	46.1460	1456	33.5909	46.1585
1359	33.5661	46.1362	1408	33.5780	46.1460	1457	33.5924	46.1581

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1458	33.5947	46.1568	1507	33.6433	46.0833	1556	33.6355	46.0785
1459	33.5948	46.1568	1508	33.6439	46.0813	1557	33.6354	46.0784
1460	33.5948	46.1568	1509	33.6439	46.0802	1558	33.6354	46.0784
1461	33.5980	46.1552	1510	33.6433	46.0792	1559	33.6334	46.0770
1462	33.6025	46.1530	1511	33.6412	46.0775	1560	33.6334	46.0770
1463	33.6044	46.1520	1512	33.6410	46.0774	1561	33.6334	46.0769
1464	33.6054	46.1514	1513	33.6411	46.0775	1562	33.6311	46.0752
1465	33.6075	46.1493	1514	33.6411	46.0776	1563	33.6310	46.0751
1466	33.6075	46.1493	1515	33.6411	46.0777	1564	33.6291	46.0735
1467	33.6076	46.1493	1516	33.6412	46.0778	1565	33.6267	46.0718
1468	33.6099	46.1472	1517	33.6412	46.0780	1566	33.6266	46.0717
1469	33.6115	46.1450	1518	33.6412	46.0781	1567	33.6265	46.0717
1470	33.6129	46.1425	1519	33.6412	46.0782	1568	33.6264	46.0716
1471	33.6139	46.1405	1520	33.6412	46.0783	1569	33.6264	46.0715
1472	33.6155	46.1364	1521	33.6412	46.0784	1570	33.6263	46.0714
1473	33.6165	46.1312	1522	33.6412	46.0785	1571	33.6263	46.0714
1474	33.6167	46.1278	1523	33.6412	46.0787	1572	33.6253	46.0700
1475	33.6167	46.1277	1524	33.6412	46.0788	1573	33.6252	46.0699
1476	33.6167	46.1276	1525	33.6411	46.0789	1574	33.6252	46.0699
1477	33.6168	46.1275	1526	33.6411	46.0790	1575	33.6240	46.0680
1478	33.6180	46.1226	1527	33.6411	46.0791	1576	33.6222	46.0654
1479	33.6180	46.1226	1528	33.6410	46.0792	1577	33.6222	46.0654
1480	33.6180	46.1225	1529	33.6409	46.0793	1578	33.6222	46.0653
1481	33.6181	46.1224	1530	33.6409	46.0794	1579	33.6222	46.0653
1482	33.6193	46.1191	1531	33.6408	46.0795	1580	33.6200	46.0614
1483	33.6193	46.1191	1532	33.6407	46.0796	1581	33.6178	46.0583
1484	33.6193	46.1190	1533	33.6406	46.0797	1582	33.6177	46.0583
1485	33.6206	46.1162	1534	33.6405	46.0797	1583	33.6177	46.0582
1486	33.6206	46.1162	1535	33.6404	46.0798	1584	33.6176	46.0581
1487	33.6207	46.1161	1536	33.6403	46.0799	1585	33.6176	46.0581
1488	33.6224	46.1130	1537	33.6402	46.0799	1586	33.6159	46.0544
1489	33.6224	46.1130	1538	33.6401	46.0800	1587	33.6158	46.0543
1490	33.6225	46.1129	1539	33.6400	46.0800	1588	33.6158	46.0542
1491	33.6250	46.1091	1540	33.6399	46.0800	1589	33.6158	46.0541
1492	33.6250	46.1090	1541	33.6398	46.0801	1590	33.6157	46.0540
1493	33.6250	46.1090	1542	33.6397	46.0801	1591	33.6157	46.0539
1494	33.6275	46.1057	1543	33.6396	46.0801	1592	33.6155	46.0524
1495	33.6275	46.1057	1544	33.6394	46.0801	1593	33.6155	46.0523
1496	33.6276	46.1056	1545	33.6393	46.0801	1594	33.6155	46.0522
1497	33.6308	46.1018	1546	33.6392	46.0801	1595	33.6154	46.0521
1498	33.6309	46.1018	1547	33.6391	46.0801	1596	33.6154	46.0478
1499	33.6309	46.1017	1548	33.6390	46.0800	1597	33.6155	46.0476
1500	33.6338	46.0987	1549	33.6389	46.0800	1598	33.6155	46.0475
1501	33.6344	46.0978	1550	33.6388	46.0800	1599	33.6160	46.0435
1502	33.6364	46.0943	1551	33.6374	46.0795	1600	33.6165	46.0390
1503	33.6364	46.0942	1552	33.6373	46.0794	1601	33.6165	46.0390
1504	33.6364	46.0941	1553	33.6371	46.0794	1602	33.6165	46.0389
1505	33.6392	46.0900	1554	33.6370	46.0793	1603	33.6165	46.0388
1506	33.6414	46.0866	1555	33.6370	46.0793	1604	33.6165	46.0387

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1605	33.6166	46.0386	1654	33.6261	45.9948	1703	33.5386	45.8748
1606	33.6171	46.0373	1655	33.6261	45.9948	1704	33.5371	45.8748
1607	33.6171	46.0373	1656	33.6271	45.9929	1705	33.5361	45.8741
1608	33.6171	46.0372	1657	33.6272	45.9928	1706	33.5355	45.8731
1609	33.6172	46.0371	1658	33.6272	45.9927	1707	33.5345	45.8725
1610	33.6172	46.0370	1659	33.6287	45.9905	1708	33.5335	45.8718
1611	33.6183	46.0355	1660	33.6302	45.9880	1709	33.5329	45.8707
1612	33.6187	46.0321	1661	33.6302	45.9880	1710	33.5320	45.8690
1613	33.6187	46.0321	1662	33.6302	45.9879	1711	33.5313	45.8687
1614	33.6187	46.0319	1663	33.6302	45.9878	1712	33.5303	45.8690
1615	33.6188	46.0318	1664	33.6313	45.9863	1713	33.5295	45.8687
1616	33.6188	46.0318	1665	33.6320	45.9842	1714	33.5291	45.8682
1617	33.6200	46.0276	1666	33.6320	45.9841	1715	33.5286	45.8670
1618	33.6207	46.0225	1667	33.6320	45.9840	1716	33.5279	45.8662
1619	33.6207	46.0224	1668	33.6321	45.9839	1717	33.5266	45.8660
1620	33.6215	46.0186	1669	33.6321	45.9838	1718	33.5255	45.8660
1621	33.6215	46.0186	1670	33.6322	45.9837	1719	33.5248	45.8652
1622	33.6215	46.0185	1671	33.6323	45.9836	1720	33.5238	45.8640
1623	33.6215	46.0183	1672	33.6323	45.9835	1721	33.5231	45.8628
1624	33.6215	46.0183	1673	33.6324	45.9834	1722	33.5218	45.8623
1625	33.6230	46.0141	1674	33.6324	45.9789	1723	33.5209	45.8624
1626	33.6237	46.0102	1675	33.6322	45.9760	1724	33.5200	45.8610
1627	33.6237	46.0085	1676	33.6322	45.9759	1725	33.5189	45.8600
1628	33.6233	46.0074	1677	33.6322	45.9758	1726	33.5160	45.8550
1629	33.6233	46.0073	1678	33.6322	45.9736	1727	33.5144	45.8531
1630	33.6232	46.0072	1679	33.6322	45.9735	1728	33.5119	45.8534
1631	33.6232	46.0071	1680	33.6324	45.9688	1729	33.5113	45.8523
1632	33.6232	46.0070	1681	33.6324	45.9616	1730	33.5100	45.8513
1633	33.6232	46.0069	1682	33.6320	45.9604	1731	33.5026	45.8493
1634	33.6232	46.0068	1683	33.6316	45.9596	1732	33.5026	45.8493
1635	33.6232	46.0066	1684	33.6293	45.9577	1733	33.5025	45.8494
1636	33.6232	46.0065	1685	33.6293	45.9577	1734	33.5024	45.8495
1637	33.6232	46.0064	1686	33.6293	45.9577	1735	33.5023	45.8496
1638	33.6232	46.0063	1687	33.6269	45.9555	1736	33.5022	45.8496
1639	33.6233	46.0062	1688	33.6240	45.9537	1737	33.5021	45.8497
1640	33.6233	46.0061	1689	33.6240	45.9537	1738	33.5020	45.8497
1641	33.6234	46.0060	1690	33.6239	45.9536	1739	33.5007	45.8502
1642	33.6237	46.0052	1691	33.6238	45.9536	1740	33.5007	45.8502
1643	33.6239	46.0031	1692	33.6226	45.9525	1741	33.5006	45.8503
1644	33.6239	46.0031	1693	33.6211	45.9513	1742	33.5005	45.8503
1645	33.6240	46.0029	1694	33.6210	45.9513	1743	33.5004	45.8504
1646	33.6240	46.0029	1695	33.6210	45.9512	1744	33.5003	45.8504
1647	33.6247	45.9998	1696	33.6209	45.9511	1745	33.5002	45.8504
1648	33.6252	45.9974	1697	33.6204	45.9506	1746	33.4992	45.8505
1649	33.6252	45.9973	1698	33.6193	45.9499	1747	33.4990	45.8507
1650	33.6253	45.9971	1699	33.5540	45.8871	1748	33.4987	45.8512
1651	33.6253	45.9971	1700	33.5435	45.8785	1749	33.4991	45.8541
1652	33.6260	45.9950	1701	33.5406	45.8766	1750	33.4991	45.8541
1653	33.6261	45.9950	1702	33.5394	45.8755	1751	33.4991	45.8542

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1752	33.4991	45.8543	1801	33.4934	45.8577	1850	33.4576	45.8465
1753	33.4991	45.8545	1802	33.4933	45.8577	1851	33.4509	45.8444
1754	33.4991	45.8546	1803	33.4932	45.8577	1852	33.4509	45.8444
1755	33.4991	45.8547	1804	33.4931	45.8576	1853	33.4459	45.8428
1756	33.4990	45.8548	1805	33.4930	45.8576	1854	33.4459	45.8428
1757	33.4990	45.8549	1806	33.4930	45.8576	1855	33.4404	45.8411
1758	33.4990	45.8550	1807	33.4910	45.8569	1856	33.4404	45.8411
1759	33.4989	45.8551	1808	33.4909	45.8569	1857	33.4403	45.8410
1760	33.4989	45.8552	1809	33.4807	45.8529	1858	33.4386	45.8404
1761	33.4988	45.8553	1810	33.4807	45.8529	1859	33.4300	45.8379
1762	33.4987	45.8554	1811	33.4806	45.8528	1860	33.4299	45.8379
1763	33.4987	45.8555	1812	33.4771	45.8513	1861	33.4298	45.8379
1764	33.4986	45.8556	1813	33.4771	45.8512	1862	33.4298	45.8379
1765	33.4985	45.8557	1814	33.4770	45.8512	1863	33.4258	45.8361
1766	33.4984	45.8558	1815	33.4769	45.8511	1864	33.4257	45.8361
1767	33.4983	45.8558	1816	33.4768	45.8511	1865	33.4256	45.8360
1768	33.4982	45.8559	1817	33.4756	45.8503	1866	33.4255	45.8360
1769	33.4981	45.8560	1818	33.4739	45.8493	1867	33.4213	45.8334
1770	33.4980	45.8560	1819	33.4739	45.8492	1868	33.4189	45.8320
1771	33.4979	45.8560	1820	33.4738	45.8491	1869	33.4189	45.8320
1772	33.4979	45.8561	1821	33.4737	45.8491	1870	33.4188	45.8320
1773	33.4979	45.8561	1822	33.4736	45.8493	1871	33.4187	45.8319
1774	33.4979	45.8562	1823	33.4736	45.8493	1872	33.4186	45.8318
1775	33.4978	45.8563	1824	33.4735	45.8494	1873	33.4163	45.8299
1776	33.4978	45.8564	1825	33.4734	45.8495	1874	33.4163	45.8299
1777	33.4978	45.8565	1826	33.4733	45.8496	1875	33.4162	45.8298
1778	33.4978	45.8567	1827	33.4732	45.8497	1876	33.4162	45.8298
1779	33.4977	45.8568	1828	33.4731	45.8497	1877	33.4108	45.8241
1780	33.4977	45.8569	1829	33.4730	45.8498	1878	33.4077	45.8214
1781	33.4976	45.8570	1830	33.4729	45.8499	1879	33.3973	45.8138
1782	33.4976	45.8571	1831	33.4728	45.8499	1880	33.3931	45.8111
1783	33.4975	45.8572	1832	33.4727	45.8499	1881	33.3867	45.8073
1784	33.4974	45.8573	1833	33.4726	45.8500	1882	33.3866	45.8072
1785	33.4973	45.8574	1834	33.4725	45.8500	1883	33.3865	45.8072
1786	33.4972	45.8574	1835	33.4724	45.8500	1884	33.3793	45.8019
1787	33.4972	45.8575	1836	33.4722	45.8500	1885	33.3793	45.8019
1788	33.4971	45.8576	1837	33.4721	45.8500	1886	33.3792	45.8018
1789	33.4970	45.8576	1838	33.4720	45.8500	1887	33.3763	45.7993
1790	33.4969	45.8577	1839	33.4719	45.8500	1888	33.3735	45.7973
1791	33.4968	45.8577	1840	33.4718	45.8500	1889	33.3706	45.7960
1792	33.4966	45.8578	1841	33.4698	45.8497	1890	33.3706	45.7960
1793	33.4965	45.8578	1842	33.4698	45.8497	1891	33.3705	45.7959
1794	33.4964	45.8578	1843	33.4697	45.8496	1892	33.3693	45.7952
1795	33.4963	45.8579	1844	33.4667	45.8489	1893	33.3692	45.7952
1796	33.4962	45.8579	1845	33.4667	45.8489	1894	33.3691	45.7952
1797	33.4961	45.8579	1846	33.4627	45.8479	1895	33.3691	45.7951
1798	33.4951	45.8579	1847	33.4627	45.8479	1896	33.3654	45.7925
1799	33.4949	45.8579	1848	33.4627	45.8479	1897	33.3623	45.7905
1800	33.4949	45.8579	1849	33.4577	45.8465	1898	33.3582	45.7887

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
1899	33.3550	45.7873	1948	33.2718	45.7600	1997	33.1723	45.7906
1900	33.3549	45.7873	1949	33.2717	45.7600	1998	33.1724	45.7918
1901	33.3549	45.7873	1950	33.2691	45.7585	1999	33.1729	45.7927
1902	33.3507	45.7852	1951	33.2657	45.7570	2000	33.1738	45.7935
1903	33.3468	45.7837	1952	33.2639	45.7563	2001	33.1738	45.7935
1904	33.3431	45.7823	1953	33.2619	45.7558	2002	33.1739	45.7936
1905	33.3377	45.7806	1954	33.2590	45.7555	2003	33.1740	45.7937
1906	33.3376	45.7805	1955	33.2589	45.7555	2004	33.1741	45.7938
1907	33.3376	45.7805	1956	33.2589	45.7555	2005	33.1741	45.7939
1908	33.3331	45.7790	1957	33.2569	45.7551	2006	33.1742	45.7940
1909	33.3330	45.7789	1958	33.2568	45.7551	2007	33.1743	45.7941
1910	33.3330	45.7789	1959	33.2567	45.7551	2008	33.1743	45.7942
1911	33.3305	45.7779	1960	33.2534	45.7543	2009	33.1743	45.7942
1912	33.3305	45.7779	1961	33.2500	45.7539	2010	33.1748	45.7954
1913	33.3267	45.7761	1962	33.2500	45.7539	2011	33.1749	45.7955
1914	33.3267	45.7761	1963	33.2499	45.7539	2012	33.1749	45.7956
1915	33.3267	45.7761	1964	33.2467	45.7534	2013	33.1749	45.7958
1916	33.3237	45.7745	1965	33.2466	45.7534	2014	33.1749	45.7959
1917	33.3212	45.7734	1966	33.2465	45.7534	2015	33.1749	45.7959
1918	33.3173	45.7724	1967	33.2464	45.7533	2016	33.1751	45.7975
1919	33.3173	45.7724	1968	33.2439	45.7525	2017	33.1753	45.7978
1920	33.3173	45.7724	1969	33.2410	45.7524	2018	33.1755	45.7979
1921	33.3123	45.7710	1970	33.2367	45.7525	2019	33.1768	45.7982
1922	33.3069	45.7696	1971	33.2327	45.7535	2020	33.1769	45.7982
1923	33.3004	45.7682	1972	33.2326	45.7536	2021	33.1770	45.7982
1924	33.3004	45.7682	1973	33.2325	45.7536	2022	33.1771	45.7983
1925	33.3002	45.7682	1974	33.2264	45.7546	2023	33.1772	45.7983
1926	33.3002	45.7682	1975	33.2215	45.7558	2024	33.1772	45.7983
1927	33.2987	45.7676	1976	33.2214	45.7558	2025	33.1789	45.7992
1928	33.2986	45.7676	1977	33.2191	45.7563	2026	33.1790	45.7993
1929	33.2986	45.7676	1978	33.2163	45.7576	2027	33.1791	45.7993
1930	33.2956	45.7662	1979	33.2162	45.7576	2028	33.1792	45.7994
1931	33.2921	45.7649	1980	33.2162	45.7577	2029	33.1793	45.7994
1932	33.2888	45.7642	1981	33.2127	45.7590	2030	33.1805	45.8005
1933	33.2850	45.7635	1982	33.2126	45.7591	2031	33.1806	45.8005
1934	33.2831	45.7632	1983	33.2125	45.7591	2032	33.1807	45.8006
1935	33.2830	45.7632	1984	33.2125	45.7591	2033	33.1807	45.8007
1936	33.2829	45.7631	1985	33.2106	45.7596	2034	33.1808	45.8008
1937	33.2828	45.7631	1986	33.2077	45.7606	2035	33.1808	45.8008
1938	33.2827	45.7631	1987	33.2061	45.7613	2036	33.1812	45.8013
1939	33.2791	45.7617	1988	33.2026	45.7630	2037	33.1820	45.8015
1940	33.2758	45.7609	1989	33.2026	45.7630	2038	33.1821	45.8015
1941	33.2746	45.7607	1990	33.2026	45.7630	2039	33.1822	45.8016
1942	33.2745	45.7607	1991	33.1979	45.7652	2040	33.1823	45.8016
1943	33.2745	45.7607	1992	33.1941	45.7676	2041	33.1824	45.8016
1944	33.2722	45.7602	1993	33.1901	45.7702	2042	33.1825	45.8017
1945	33.2722	45.7602	1994	33.1863	45.7729	2043	33.1826	45.8018
1946	33.2721	45.7601	1995	33.1831	45.7759	2044	33.1827	45.8018
1947	33.2720	45.7601	1996	33.1810	45.7781	2045	33.1832	45.8021

Point	dec. °E	dec. °N	Point	dec. °E	dec. °N	Point	dec. °E	dec. °N
2046	33.1832	45.8022	2095	33.1759	45.8074	2144	33.0835	46.0137
2047	33.1833	45.8023	2096	33.1758	45.8074	2145	33.0836	46.0138
2048	33.1834	45.8023	2097	33.1757	45.8074	2146	33.0836	46.0139
2049	33.1835	45.8024	2098	33.1756	45.8073	2147	33.0837	46.0141
2050	33.1836	45.8025	2099	33.1755	45.8073	2148	33.0837	46.0142
2051	33.1836	45.8026	2100	33.1755	45.8072	2149	33.0837	46.0143
2052	33.1837	45.8027	2101	33.1737	45.8062	2150	33.0837	46.0144
2053	33.1837	45.8028	2102	33.1736	45.8062	2151	33.0837	46.0145
2054	33.1838	45.8029	2103	33.1736	45.8061	2152	33.0837	46.0146
2055	33.1838	45.8030	2104	33.1735	45.8060	2153	33.0837	46.0148
2056	33.1839	45.8031	2105	33.1734	45.8059	2154	33.0836	46.0149
2057	33.1839	45.8033	2106	33.1733	45.8058	2155	33.0836	46.0150
2058	33.1839	45.8034	2107	33.1732	45.8058	2156	33.0835	46.0151
2059	33.1839	45.8035	2108	33.1732	45.8057	2157	33.0835	46.0152
2060	33.1839	45.8036	2109	33.1731	45.8056	2158	33.0835	46.0152
2061	33.1839	45.8037	2110	33.1719	45.8035	2159	33.0834	46.0153
2062	33.1839	45.8038	2111	33.1718	45.8035	2160	33.0829	46.0162
2063	33.1839	45.8039	2112	33.1718	45.8034	2161	33.0829	46.0162
2064	33.1837	45.8055	2113	33.1718	45.8033	2162	33.0829	46.0163
2065	33.1836	45.8055	2114	33.1700	45.7993	2163	33.0828	46.0164
2066	33.1836	45.8056	2115	33.1700	45.7992	2164	33.0827	46.0165
2067	33.1836	45.8058	2116	33.1700	45.7991	2165	33.0827	46.0165
2068	33.1836	45.8058	2117	33.1699	45.7991	2166	33.0826	46.0166
2069	33.1833	45.8065	2118	33.1690	45.7961	2167	33.0825	46.0167
2070	33.1833	45.8066	2119	33.0777	46.0112	2168	33.0824	46.0168
2071	33.1832	45.8067	2120	33.0781	46.0112	2169	33.0823	46.0168
2072	33.1832	45.8068	2121	33.0783	46.0112	2170	33.0822	46.0169
2073	33.1831	45.8069	2122	33.0784	46.0112	2171	33.0821	46.0169
2074	33.1831	45.8070	2123	33.0785	46.0113	2172	33.0820	46.0170
2075	33.1830	45.8071	2124	33.0785	46.0113	2173	33.0819	46.0170
2076	33.1829	45.8072	2125	33.0802	46.0116	2174	33.0817	46.0170
2077	33.1828	45.8072	2126	33.0804	46.0116	2175	33.0816	46.0171
2078	33.1827	45.8073	2127	33.0805	46.0117	2176	33.0816	46.0171
2079	33.1826	45.8074	2128	33.0806	46.0117	2177	33.0798	46.0172
2080	33.1825	45.8074	2129	33.0806	46.0117	2178	33.0798	46.0172
2081	33.1824	45.8075	2130	33.0818	46.0122	2179	33.0796	46.0172
2082	33.1823	45.8075	2131	33.0819	46.0123	2180	33.0795	46.0172
2083	33.1822	45.8076	2132	33.0820	46.0123	2181	33.0795	46.0172
2084	33.1821	45.8076	2133	33.0821	46.0124	2182	33.0775	46.0171
2085	33.1820	45.8076	2134	33.0822	46.0124	2183	33.0774	46.0171
2086	33.1819	45.8077	2135	33.0829	46.0129	2184	33.0773	46.0170
2087	33.1817	45.8077	2136	33.0830	46.0130	2185	33.0773	46.0170
2088	33.1816	45.8077	2137	33.0831	46.0131	2186	33.0762	46.0168
2089	33.1794	45.8077	2138	33.0832	46.0131	2187	33.0731	46.0351
2090	33.1793	45.8077	2139	33.0832	46.0132			
2091	33.1763	45.8075	2140	33.0833	46.0133			
2092	33.1763	45.8075	2141	33.0834	46.0134			
2093	33.1762	45.8075	2142	33.0834	46.0135			
2094	33.1760	45.8075	2143	33.0835	46.0136			

