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Harbors and Democracy

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John Gerring, Tore Wig, Andreas Forø Tollefsen, and Brendan Apfeld



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Harbors and Democracy^{*}

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Abstract

Although geography is widely viewed as an important factor in long-term development, little attention has been paid to its role in democratization. This study focuses on the possible impact of a feature of littoral geography: natural harbors with access to the sea. By virtue of enhancing connections to the wider world, we argue that harbors foster (a) development, (b) mobility, (c) naval-based defense forces, and (d) diffusion. Through these pathways, operative over secular-historical time, areas blessed by natural harbors are more likely to develop democratic forms of government. This argument is tested with a unique database measuring distance to natural harbors throughout the world. We show that there is a robust negative association between this measure and democracy in country and grid-cell analyses, and in instrumental variable models where harbor distance is instrumented by ocean distance.

Introduction

Recent years have seen a revival in the study of geography, with numerous studies focused on the impact of soil, climate, topography, natural resources, or native flora and fauna on social and economic development, conflict, or governance (e.g., Buhaug & Gates 2002; Diamond 1992; Mayshar, Moav & Neeman 2017; Mellinger, Sachs & Gallup 2000; Michalopoulos 2012; Nunn & Puga 2012).

Amidst this groundswell relatively little attention has been paid to possible connections between geography and regime type. To be sure, many studies address the resource curse (Haber & Menaldo 2011; Ross 2012); however, this is usually viewed as a contemporary phenomenon, perhaps limited to the late twentieth century (Andersen & Ross 2014).

Geographic factors operating over the long-run have been explored in a few recent papers. Bentzen, Kaarsen & Wingender (2016) find support for Wittfogel's (1957) theory about the authoritarian legacy of state-run irrigation schemes. Midlarsky (1995) identifies ocean borders and rainfall as predictors of democracy, which he understands as a product of reduced exposure to warfare. On a grander scale, Elis, Haber & Horrillo (2017) theorize that both economic development and democracy arise from a number of geographic features – including a navigable waterway, flat terrain, fertile soils, regular rainfall, and a temperate non-malarial climate – that they summarize as a "transactional" complex adaptive system.

In this study, we focus on the role of natural harbors with access to the sea. By virtue of enhancing connections to the wider world, we argue that harbors fostered development, mobility, naval-based defense forces, and global diffusion. Through these pathways, operative over many centuries, geography placed its imprint on political institutions. As a consequence, areas blessed with natural harbors are more likely to develop democratic forms of government in the modern era.

Section I introduces the argument. Section II discusses general issues of research design. Next, we test the thesis empirically – first at the grid-cell level (Section III) and then at country levels (Section IV). Section V explores possible mechanisms. A concluding section offers final reflections.

I. Argument

Prior to the development of motorized transport long-distance travel was laborious, and overland routes especially so. It was costly and slow to convey persons and goods across territory, especially if the ground was rugged, heavily forested, or prone to flooding (Bulliet 1975; Lopez 1956). Consequently, most lives and livelihoods were local, contained within the compass of a small area.

Rivers and oceans offered an escape from this circumscribed existence, opening up the world to travel, trade, and conquest on a larger scale.¹ It is estimated that water transport was ten to fifteen times cheaper than land transport in the pre-modern era (Evan Jones 2000; Leighton 1972: 157-65; Pounds 1973: 414-17; Skempton 1953: 25; Smith 1776: 15-16). According to Diocletian's Edict on Prices (quoted in McCormick 2001: 83), it cost less "to ship grain from one end of the Mediterranean to the other than to cart it 75 miles." Geography thus structured mobility. Where people lived within close proximity to navigable rivers and oceans they could transport themselves, and their goods, further and more efficiently than those constrained to move across overland routes. Not surprisingly, waterways were the preferred mode of carrying goods and people from place to place for most of recorded history.

Over time, oceans gained preeminence over rivers. While riverine systems could connect markets within a landmass only oceans could connect those markets with the rest of the world. Archeological evidence, coupled with replication experiments, suggests that seafaring voyages were undertaken during the Early Pleistocene era (Bednarik 2014: 1). As seafaring technology advanced it was possible to make longer journeys, on rougher waters, with improvements in speed, cargo bulk and weight, reliability, and regularity (Bentley 1999: 218; Casson 1995; Leighton 1972; Lewis & Runyan 1985; McGrail 2014; Pryor 1992; Ronnback 2012). By 1000 CE, sailing vessels plied most of the world's archipelagoes and seas – the Caribbean, the North Sea, the Mediterranean, Southeast and northeast Asia, the Indian Ocean, the South Pacific – generally hugging close to the shore (Manning 2005: 101). After 1500, long-distance voyages from Europe reached regularly across the Atlantic, opening up the Americas to sea-going travel and inaugurating direct interconnections on a global scale (Butel 1999).

Oceans connect. However, having an ocean nearby does not entail easy access to that turbulent body of water for large ships carrying heavy freight. Docking is possible only if there is a working port, and working ports are difficult to construct unless there is a natural harbor. Prior to the twentieth century, nearly all ocean ports built upon these features, and it is still true today

¹ This section builds on a large body of work, listed in Appendix A.

that most ports are situated in, or near, natural harbors. This means that some coastlines are better suited than others to harvest the fruits of the sea.

Because of their privileged access to the sea, natural harbors and their hinterlands are likely to have enjoyed a central location in international networks for quite some time, i.e., since the development or diffusion of shipping technology in their region of the world. Even after the displacement of ships by other modes of transport and communications – railroads, airplanes, telephones, the internet – harbor regions tended to retain their positions as central nodes in international networks.

Consider the history of Amsterdam, founded on a natural harbor, which established itself as a port city in the fourteenth century and developed gradually into a rail, road, and airway hub in subsequent centuries. Although shipping plays a minor role in the city's economy today, the investments required to establish and maintain other forms of transport arose (in part) because of the city's initial geographic advantage – its central location along the waterways of Holland. In this fashion, natural harbors carry a powerful legacy effect (Bleakley & Lin 2012; Krugman 1991). The special connectivity of port cities built around natural harbors persists through other infrastructural channels such that high-connectivity areas in the pre-modern era are also likely to be highconnectivity areas in the modern era.

We argue that, over time, this special connectivity fosters (a) development, (b) mobility, (c) naval-based defenses, and (d) international diffusion. As a result, areas situated close to harbors were more likely to evolve in a democratic direction over the past several centuries than areas surrounded by large land masses or inaccessible coasts.²

Development

Oceans nurture commerce, especially long-distance commerce, aka trade (Acemoglu, Johnson & Robinson 2005; Daudin 2017; Smith 1776; Tracy 1990; Weber 1922: 354). Ports serve as points of trans-shipment, connecting hinterlands with coastal areas and with the world abroad (Bosker & Buringh 2016; Parkins & Smith 1998). Industries associated with the ocean lure people – initially fishermen, then merchants, later longshoremen and manufacturers, and finally highly skilled workers and entrepreneurs who form the backbone of post-industrial service economies (Lawton & Lee 2002). As port cities grow, they are well-positioned to realize gains from agglomeration (Fujita & Mori 1996; Krugman 1991, 1993), making them central nodes in the global economy. The growth of commerce and cities is synergistic.

² Our theory re-weaves a familiar set of contrasts – between merchant/commercial/trading/coastal/maritime polities and land-based/inland/mainland/agrarian/aristocratic polities (Benda 1962; Clark 1995; Fleck & Hanssen 2006; Fox 1971; Kautsky 1982; Leur 1955; Tilly 1992).

Of particular interest is the concentration of human capital in port cities and their hinterlands. Ports serve as conveyor belts for migration (Feys et al. 2007) and migrants are often highly skilled or in search of skills. Port cities encourage the clustering of occupations that prize human capital, and facilitate spillover from person to person and industry to industry in an environment of dense settlement and regular interaction (Audretsch & Feldman 1996). Human capital, in turn, has a recursive effect on city development, serving to attract investment and inmigration (Glaeser 2000). Thus, from the birth of oceanic transport to the present day harbors have nurtured urban settlement, human capital, and economic growth – features that we treat together as components of *development*.³

These features, in turn, are likely to have positive implications for democracy (Boix 2015; Lipset 1959). In Europe, cities were instrumental in developing concepts of citizenship and freedom (Clark 2009: 13; Ertman 1997; Pirenne 1925; Weber 1922). The etymological evidence inscribed in Latin and Germanic languages supports this thesis: citizen derives from city (Latin: civitas), and terms for middle class in French and German (bourgeois, Burger) originally referred to denizens of a city. Freedom within a European city had a very specific meaning insofar as citizens were free of feudal ties and direct subjugation to a lord (Friedrichs 2000: 4) - hence, the well-worn medieval phrase, Stadtluft macht frei. Relative to landlords and peasants, the dominant classes in the countryside, middle classes seem to place greater value on individual freedom, property rights, and rule of law. In these respects, it seems fair to regard the bourgeoisie (Moore 1966) and trading communities in particular (Fox 1977: ch 5; Mauro 1990) as harbingers of democracy (Ansell & Samuels 2014).⁴ It is probably not coincidental that all early democracies were *city*-states. The rise of trade and the enrichment of merchants may also have a beneficial effect on political institutions (Acemoglu, Johnson & Robinson 2005). Communities with active trading ports often develop high levels of economic specialization and complementarities that reduce zero-sum competition between social and ethnic groups, which should be conducive to democratic forms of governance (Jha 2013).

To be sure, not all cities were cradles of democracy, and in some empires they served as bureaucratic arms of the state (Norena 2015: 197). Nonetheless, we anticipate that urban areas are more likely to develop political institutions that constrain the power of rulers than rural areas. In

³ Our argument may be regarded as an extension of work linking development to water access (Henderson et al 2016; Mellinger, Sachs & Gallup 2000; Rappaport & Sachs 2003), since harbors are the mechanism by which oceans become accessible.

⁴ Although the history of urbanization in Europe is different in important respects from other regions of the world (Blockmans & 't Hart 2013: 424-26; Liverani 2013: 170-78), urban regions throughout the world began to take on characteristics of their European brethren in the modern era – the era of trans-national capitalism and the global bourgeoisie. Thus, in some respects we are justified in speaking of a coherent urbanization experience (Glaeser 2011; Knox & McCarthy 2012).

the latter, citizens are generally less educated, less wealthy, and less inter-connected (because more diffusely settled and more distant from transport networks). As a result, it is difficult to create and to maintain civil and political institutions. In their absence, power is likely to be monopolized in the hands of a landlord, chief, priest, boss, or other agrarian-based patron with little effective popular control. This dynamic is exacerbated in the presence of economic disparities rooted in control of land or divisions of caste, race, or ethnicity, which are characteristic of rural societies throughout the world (Albertus 2017; Blinkhorn & Gibson 1991; Huber & Safford 1995).

Mobility

While both rivers and oceans facilitate mobility, the former is easier to control. A single fort or armed ship at the mouth of a river or at the junction of two rivers offers a point of surveillance and control over all traffic that passes along that waterway, allowing officials to exact taxes, interdict contraband, and prevent the movement of dissidents, slaves, or foreigners. In a river valley, where the river is central to transport and to economic life generally and where much of the population lives along the banks of a few rivers, governments can easily project their power. They may even organize vast irrigation projects, further entrenching their authority (Bentsen et al. 2016; Wittfogel 1957). Thus, where a single river system traverses a large territory – as in Egypt (Nile), Northern China (Yellow), in southern Mexico/Guatemala, where the Mayan civilization arose (Usumacinta), or Vietnam/Cambodia (Mekong) – it is not surprising to see the development of highly centralized polities (Benda 1962; Feinman 2017; Feinman & Marcus 1999; Hall 2011: ch 1; Trigger 2003).

Oceans, by contrast, are wide open and harder to contain. Andaya (1992: 97) notes that although a seventeenth-century ruler of Java tried to constrain foreign travel this edict was unlikely to have been successful since it would have involved surveillance over a coastline stretching across hundreds of miles and including countless nearby islands in the Indonesian archipelago. In this environment, rulers are at pains to restrict the movement of peoples and goods. Of course, they may exact heavy tariffs, quotas, or other barriers; but such regulations are apt to be met by piracy and smuggling, and may be ineffective in the long run (Anderson 1995). As a rule, the greater the number of natural harbors, the freer the flow of trade. This, in turn, may foster greater openness within a society (Liu & Ornelas 2014; Pirenne 1925).

Accessible oceans also serve as platforms for the dissemination of opposing views and the transport of political dissidents. Persons, weapons, and written material are easy to slip on and off an oceangoing vessel. Note also that sea merchants have the means (their boats, their crews, and their seafaring skills) and the motive (a desire for free trade, aka 'freedom') to resist overweening

state control. It is not surprising that they are often to be found at the forefront of movements for liberty and independence (Magra 2009; Nash 1986).

Relatedly, communities located on the sea, and living off the sea, share a social ethos that might be characterized as rugged individualism. Those living in these environments – including merchants, mariners, pirates, naval recruits, renegades, exiles, gamblers, revolutionaries, and other adventurers, often of polyglot origin – seem to have been less inclined to respect (or even to understand) gradations of status and power than their land-lubber cousins. This, too, stemmed from their greater mobility. Mariners moved freely, or comparatively freely, through the world, inhabiting a liminal space where hierarchies were apt to be less defined, or at least more circumscribed. Authority on a ship was tight but did not extend to the shore. Indeed, port cities are often described as libidinal, anarchic locations where persons of every heritage and description intermingled, and illicit behavior thrived. Accounts by historians, ethnographers, authors of fiction, and world travelers share these common themes, which seem to define life in areas bordering the sea in all regions of the world (Gunda 1984; Hamilton-Paterson 2011; Horden & Purcell 2000; Mah 2014; Paine 2013; Redford 2013; Rediker 1987).

Leaving aside traders, rebels, and individualists, let us consider the role of migration. Where harbors abound, one can expect more frequent re-location of people. This is a feature of available technology – the ability to hop on and off seagoing vessels – and also of the extensive social networks available in port cities. Recall that residents of port cities are often immigrants from somewhere else or are connected to foreign locations through religious, ethnic, family, or clan ties – connections they can draw upon when pondering resettlement. Diaspora communities foster trade and lower barriers to migration (Curtin 1984).

With greater mobility, citizens of coastal states have greater leverage than those living in the hinterland. Rulers have to work hard to retain coastal citizens or to attract new citizens – an essential consideration in the pre-modern era, when people were scarce and human labor power was required for most tasks. In 1747, the ruler of Palembang (Sumatra) remarked, "It is very easy for a subject to find a lord, but it is much more difficult for a lord to find a subject" (quoted in Andaya 1992: 97).

There is evidence, in short, of a Tieboutian dynamic (Tiebout 1956) in which rulers of states with ocean access adopted a conciliatory attitude toward citizen demands, including granting special rights. This dynamic was undoubtedly enhanced with respect to commercial classes. Commerce is likely to be highly prized by the state since it brings considerable pecuniary reward, and merchants are extremely mobile, raising the threat of exit (Bates & Lien 1985; Landes 1969: 15), and also the enticement of entry.

Note, finally, that in order to serve an entrepot function, ports needed to maintain openness to the outside world, to provide an effective guarantee of property rights (for both native and foreign investors), and to limit resource extraction by revenue-hungry leaders. A port without these features would attract little business, prompting merchants to move elsewhere. Under the circumstances, it is not surprising that port cities were often granted special privileges, establishing a sanctuary where markets could operate with limited interference from the state. In 8th century China, a government representative commented on the governance of the lucrative port city, Guangzhou:

The merchants of distant kingdoms only seek profit. If they are treated fairly they will come; if they are troubled, they will go. Formerly, [Guanzhou] was a gathering place for merchant vessels; now, suddenly they have changed to Annam. If there has been oppressive misappropriation over a long period of time, then those who have gone elsewhere must be persuaded to return; this is not a matter of litigation, but of changing the attitudes of officials (quoted in Paine 2013: 304).

In early-modern Europe, Hoffman & Norberg (1994: 308) judge that "even a grasping despot would be better off negotiating with merchants over taxes rather than imposing levies by force and then watching their assets slip away." Many examples of this bargaining dynamic can be found in ancient and early modern eras, e.g., the Aztec and Maya civilizations (Chapman 1957: 116), the Mediterranean (Revere 1957), Persian Gulf (Floor 2006), Indian Ocean (Wink 2002), West Africa (Arnold 1957; Curtin 1984: 42), Southeast Asia (Reid 1980: 248; Reid 1993: 246-47), and Asia atlarge (Broeze 1989, 1997; Gipouloux 2011).⁵

Thus, for a variety of reasons connected to their open borders, states built around natural harbors were able to reap the benefits of affluence without resorting to expropriation. Sometimes, there was an explicit exchange of revenue for representation, paving the way for constitutional governance (Bates & Lien 1985; Kiser & Barzel 1991; Moore 2004). Importantly, revenue raised through negotiation generally offered a higher yield than revenue raised from coercion (Dincecco 2009; Hoffman & Norberg 1994; Kiser & Barzel 1991), reinforcing a dynamic of bargaining and consent.

By contrast, in regions distant from natural harbors resources were comparatively thin and wealth took the form of land, an inherently immobile form of capital. A territorial state has no incentive to cater to landholders and no reason to encourage new landed classes to immigrate. It

⁵ For general discussion see Pearson (1991), Polanyi (1968: 239). An echo of this ancient pattern persists today in the form of "free ports" (MacElwee 1925: ch xvii) and export-processing zones.

also has dire need to raise revenue, for the country is likely to be poor on a per capita basis. For both reasons, leaders are incentivized to develop a coercive apparatus for collecting revenue, one that heightens the state's control over property and people (Ringrose 1989; Tilly 1992).

Defense

To survive and to prosper, states must establish sovereignty over a defined territory, maintaining order and protecting borders from external threats. The approach taken to this fundamental task varies, however, according to the landscape.

Ocean exposure means that states are vulnerable to attack and incapable of pursuing trade opportunities unless they negotiate international agreements, join confederations, and/or develop their own naval capacities. Fortunately, even the smallest states may protect against external threats and project power abroad using efficient naval technology to compensate for manpower shortages (Mahan 1891). States with many natural harbors are poised to become naval powers.

Navies are small (relative to armies) and depend upon ships, which cannot be deployed across the countryside. It follows that a polity dependent on naval power for defense may find it difficult to employ that technology for internal repression. For similar reasons, naval fleets are not well-positioned to execute coups, and thus are less likely to serve as a vehicle for military interference in politics.

By contrast, land-based states must work hard to establish a monopoly of physical violence across the territory and to defend lengthy borders that may have few natural defensive features. This necessitates a large standing army, which subsequently serves as the coercive arm of the state and an instrument for extracting revenue. Alternatively, the central government may delegate power to landed classes or local bosses, generating another species of dispersed authoritarian rule.

In this light, it is not surprising that writers over the centuries have associated naval power with democratic rule and land-based armies with autocracy (Aristotle 1932; Downing 1992; Gibler 2007; Hintze 1975; Moore 1966: 32; Rodger 2017; Russett & Antholis 1993; Zolberg 1980).⁶ China, threatened through most of its history by invaders from Central Asia, was in a different position

⁶ Of course, we are not saying that the development of a navy, by itself, makes democracy more likely. We are saying, rather, that *if* a state develops military power, a navy is more propitious to democratic outcomes than an army. The cases of Athens and Rhodes, democratic thalassocracies in ancient Greece, must be distinguished from our argument. Insofar as naval power fostered democracy in ancient Greece this relationship seems to hinge on the integration of lay citizens in the defense of their city-state as rowers in a fleet of trireme (Hale 2009; Robinson 2011: 230-37). Later naval powers were not so labor intensive; indeed, they were highly efficient, so they could not serve to induct the common man into the military, and hence into political power. Nonetheless, it may be significant that the geo-political power of city-states lying in and about the Mediterranean was generally rooted in naval power. In this respect, the experience of ancient Greece is consistent with later eras.

than England, where danger came in the form of overseas attacks (initially by Vikings and later by continental powers).

Diffusion

Ports are exposed to the forces of international diffusion insofar as they serve as points of entry for trade, tourism, religious pilgrimage, migration, conquest, and colonization (Feys et al. 2007). Summing things up, a recent book on the history of port cities is entitled *Vanguards of Globalization* (Mukherjee 2014).

By virtue of greater exposure, we expect to find greater acceptance of innovation, greater tolerance of difference (ideological, ethnic, linguistic, or religious), and a more cosmopolitan outlook (Driessen 2005; Gipouloux 2011: ch 11; Hall 2011: 340; Reid 1999).⁷ These attitudes, in turn, should be conducive to democracy, where differences of opinion and identity are intrinsic.⁸

One must also consider the *content* of ideas that have diffused across the world over the past several centuries. While hierarchy may have held sway through the pre-modern era, in the modern era democracy and associated concepts such as equality, rule of law, and personal rights came to the fore (Israel 2010). According to one version of the story, these ideas developed in Europe, from whence they diffused to the rest of the world – via colonization (Olsson 2009), trade (Parry 1971), religion (Woodberry 2012), and legal norms (La Porta et al. 1999). Natural harbors served as entry-points for European conquerors, traders, missionaries, and jurists, meaning that harbors and their hinterlands were subject to the most intensive European influence.

After the demise of European hegemony, the idea of democracy continued to gain status throughout the world until it became – at the present time – virtually the only legitimate form of rule. Nearly all countries now proclaim themselves democratic, even if they are manifestly not. In this discursive environment, where a single ideal holds sway, port cities are especially exposed by virtue of their network centrality. Insofar as democracy spreads by diffusion (Brinks & Coppedge 2006), it stands to reason that citizens living in the vicinity of harbors are more likely to adopt democratic norms, making it more difficult for rulers to restrict popular rule.

⁷ Driessen (2005: 131) summarizes a perspective contained in Homer's Odyssey, and ingrained in Mediterranean societies through subsequent centuries: "the sea…stood for freedom and adventure, its connections yielding access to opportunities offered by the wider world. For them, the coast-interior opposition was one between openness, sophistication and progress versus isolation, backwardness and stagnation." Jha (2013) finds that complementary trade networks, extending back to the medieval period, attenuates ethnic conflict in Indian port cities today. ⁸ The origins of democracy cannot be credited to diffusion since this form of government arose independently in many parts of the world (Hansen 2000: 612).

II. Research Design

We have argued that littoral geography matters. Areas with natural harbors develop differently than landlocked areas or areas where a good deal of investment and technological know-how is required in order to construct a working port. We argued, further, that four interconnected features are likely to play a mechanismic role, connecting the existence of a natural harbor to the eventual development of democracy: development, mobility, defense, and diffusion.

Granted, fixed geographic features cannot explain why representative democracy developed at one moment in history and why transitions to and from democracy occurred at particular moments thereafter. However, geographic features can shed light on why democracy arose earlier in some places than in others and why it has been more persistent in some places than in others. Spatial variation, not temporal variation, is the outcome of theoretical interest.

To provide an adequate test of the main thesis – that natural harbors encourage democracy – we must engage a number of methodological issues. This includes (a) the measurement of regime type, (b) the identification of natural harbors, (c) the measurement of harbor distance, (d) the identification of an instrument for harbor distance, and (e) the identification of units of analysis.

Regime type

The outcome of interest, regime type, may be conceptualized and measured in many ways (Coppedge, Gerring et al. 2011). We focus on the electoral and liberal components of democracy since these are usually front-and-center in policy discussions and academic debates. (Additional tests, available upon request, focus on other components of democracy, as identified by the Varieties of Democracy project. They suggest that similar patterns across most other dimensions of democracy.)

As a primary measure, we employ the Lexical index of electoral democracy (Skaaning et al. 2015). This ordinal scale (0-6) is highly correlated with other widely used indices while providing comprehensive coverage of sovereign and semi-sovereign states from 1800 to the present. As secondary measures, we enlist the Polyarchy index from the Varieties of Democracy project (Teorell et al. 2016) and the Polity2 index from the Polity IV project (Marshall, Gurr & Jaggers 2014).

Natural Harbors

To identify natural harbors we rely on the World Port Index, aka "WPI" (NGIA 2017), which describes the characteristics and locations of 3,669 ports globally. These are differentiated into eight harbor types: (A) coastal natural (N=1302), (B) coastal breakwater (N=776), (C) coastal tide

gates (N=34), (D) river natural (N=674), (E) river basin (N=85), (F) river tide gates (N=55), (G) canal or lake (N=73), (H) open roadstead (N=659), and (I) typhoon harbor (N=4). All but the last are illustrated in Figure 1. In addition to these 3,662 ports, seven ports are not given a classification by the WPI and consequently excluded.

We classify four of these harbor types as "natural" – (A) coastal natural, (D) river natural, (E) river basin, and (G) lake/canal. This generates a total of 2,134 natural harbors, listed individually in Table B1. "Natural," in this context, means that the features of a coastline provide shelter and anchorage without need for additional breakwaters, favoring the eventual development of a working port. A natural harbor on the coast, for example, is "sheltered from the wind and sea by virtue of its location within a natural coastal indentation or in the protective lee of an island, cape, reef or other natural barrier" (NGIA 2017: xxvi). Natural harbors located on rivers feature "waters of which are not retained by any artificial means" and are situated "parallel to the banks of the stream, or piers or jetties which extend into the stream" (NGIA 2017: xxvi). Historical studies suggest that the existence of these geographic characteristics were usually critical to the establishment of working ports sufficient to load and unload merchandise from ocean-going vessels, especially in pre-modern eras when engineering solutions – i.e., the creation of a manmade harbor – were not well known and difficult to implement (Morgan 2017; Weigend 1958).

Figure 1: Harbor Types



Typology of harbor types from the WPI (NGIA 2017: xxvi).

Natural harbors (following our definition) are arrayed on a world map in Figure 2. It will be seen that Europe, North America, the Caribbean, and Southeast Asia are well-endowed. Other regions are characterized by shores that are rocky or sandy (Africa) or ice-bound through much of the year (present-day Canada and Russia). Asia and Africa have large masses and are largely bereft of navigable rivers, limiting their access to the ocean. Figure 2 also reveals substantial variability *within* continental land masses, which may help to account for micro-level variation in our outcome of interest. These patterns are somewhat easier to perceive in maps focused on particular regions, included in Appendix B.

It is difficult to say how long these natural harbors may have been in use, especially those with long histories. In Oceania (Bednarik 2014: 209; Denoon & Meleisea 1997; Irwin 1994) and Southeast Asia (Christie 1995; D'Arcy 2006; Kirch 2017; Manguin 2004; Shaffer 1995), where ocean-going travel has a very long history, harbors were probably in use several centuries BCE. Seafaring in the Mediterranean and Atlantic (Casson 1995; Cunliffe 2001; Simmons 2014), the Indian Ocean (Chaudhuri 1985; Chittick 1980; Deloche 1983; Hourani 1995; Pollard & Ichumbaki 2017), and East Asia (Deng 1999) was certainly not far behind. By contrast, maritime activity and port development did not take off in the New World until European settlement, i.e., the 17th-19th centuries. The timeline of natural harbors is therefore indistinct, though – in most regions of the world – quite old (McGrail 2004; Paine 2013).

One should also bear in mind that the spatial location of a harbor along a coastline may shift over time as rivers realign, silt accumulates, or new docks are constructed. This was especially the case in the South Asian continent, where harbors regularly went in and out of active use in the ancient and early modern eras (Arasaratnam 1994). However, such shifts in location generally involved alternative harbor sites in fairly close proximity to each other, meaning that the location of natural harbors today is a reasonable proxy for the location of natural harbors in history. Measurement errors of this sort may be regarded as random, rather than systematic, and as such may have a slight attenuating effect on causal estimates.

A second potential measurement problem concerns regional biases. The WPI is an English-language publication and one might worry that it over-represents ports in English-speaking countries or, more broadly, "the west." This would surely be an issue with respect to topics that are cultural, political, or economic in nature, or issues that depend upon primary sources with uneven accessibility. Our topic, however, is nautical. As such, the information needed to judge inclusion or exclusion of a port is factual in nature and should be readily available to sailors and harbormasters who ply the seas or manage ports. Information provided in the WPI is of vital

interest to all sailors and shippers – whose business is, after all, global – and is designed to have global coverage that is even across regions, using standard definitions and standard thresholds.

A third issue concerns possible slippage between ports (included in the WPI) and natural harbors (the topic of theoretical interest). A natural harbor that has not become an active port, or that falls below the WPI's definition of "major," is not represented in our sample. We expect that there are plenty of examples of this sort along coastlines blessed with myriad natural harbors such as Norway, with its countless fjords, or Indonesia, with its dense archipelago. Some natural harbors are redundant, and therefore unlikely to be developed. This sort of omission has slight impact on the coding of our main variable of interest, harbor distance (discussed below), because omitted harbors lie close to included harbors. It seems unlikely that a natural harbor located *at some remove* from other natural harbors would remain undeveloped in the twenty-first century. Ocean ports are extremely useful, and there is scarcely any coastal portion of the world that is so diffusely settled, or so bereft of resources, that it could not benefit from at least one port capable of handling ocean-going traffic. Thus, we regard errors of omission on a grand scale as extremely unlikely, given the rather minimal threshold conditions for inclusion in the WPI.

Of course, measurement error is to be expected in a global, historical project of this nature. To assure that results do not hinge on arbitrary coding decisions – by the WPI or the authors – we conduct robustness tests with several alternate measures: (a) a narrower definition of natural harbor, counting only ports of type A and D (see Figure 1), (b) a broader definition including all ports included in the WPI, and (c) an even broader definition including all ports listed in Lloyd's Maritime Atlas from 1890 to the present, as coded by the ERC World Seastems project (Ducruet et al. 2018). (Results, shown in Table D4, are robust.) Leaving aside issues of measurement, there are assumptions about exogeneity contained in the notion of a "natural harbor" that can only be resolved through instruments that are clearly exogenous, as discussed below.



Figure 2: Natural Harbors of the World

Harbor Distance

We turn now to the construction of the variable of theoretical interest, *harbor distance*. The PRIO grid-cell database divides up the world into 259,200 cells, each of which is 0.5 x 0.5 decimal degrees, i.e., approximately 50x50 km at the equator (Tollefsen, Strand & Buhaug 2012). To gauge the probable impact of harbors on the development of political institutions we measure the geodesic (great-circle) distance (kilometers) from the centroid of each grid-cell to the nearest natural harbor. For additional tests based on differently sized grid-cells, we aggregate up from the PRIO cells to larger cells, as discussed below.

To construct a *country-level* measure of harbor distance, we begin by gathering GIS polygons for countries across the world back to 1789. We rely on Cshapes (Weidman et al. 2010) for the 1946-2015 period. To extend the set of country-polygons back to 1789, we rely on other polygon datasets such as Euratlas (www.Euratlas.com) and the digitization of existing maps from sources such as GeaCron (http://geacron.com/the-geacron-project/). Combining these sources, we are able to generate a set of country-polygons for sovereign and semisovereign polities from 1789 to the present. Next, we take the arithmetic mean of harbor distance calculated for all grid-cells falling within a country's polygon. This provides a country-level measure of harbor distance. For reference, a list of all countries and their scores is displayed in Table C3.

A third measure of harbor distance discounts the distance of a natural harbor to each gridcell by mountainous terrain, under the assumption that the distance to a port is amplified if the distance traveled includes traversing a mountain. We regard this as a secondary measure, as the incorporation of topography introduces another geographic element into the analysis, generating a compound treatment that is more difficult to interpret.

Histograms of the main harbor-distance variables – calculated by PRIO grid-cell and country – can be found in Figures D1 (grid-cells) and C1 (countries). Both reveal a strong right skew, with many areas having low scores and a few registering very high scores. However, we see no theoretical or empirical reason to abandon assumptions of linearity. Tests show that the relationship between harbor distance and democracy is robust when harbor distance is transformed by the natural logarithm as well as when extreme cases on the right tail are removed.

A related concern is potential collinearity with other geographic predictors of long-run economic and political development. Fortuitously, inter-correlations with other variables employed as covariates in the following analyses show that none have an especially strong relationship (see Tables D4 and C4). That is, harbor distance is empirically distinct from most

other geographic factors that might be viewed as causes of democracy. This is also apparent in the stability of the estimates from regression analyses presented below.

Ocean Distance

To alleviate concerns about exogeneity with respect to the location of natural harbors we conduct several instrumental variable analyses. The chosen instrument is distance from the nearest ocean. An ocean is understood to include the major global oceans as well as the Mediterranean Sea and the Black Sea. This variable is constructed at the grid-cell level and then aggregated up to the country level, following the procedure described above.

The resulting variable is clearly exogenous and highly correlated with natural harbors (Pearson's r=0.47 in the grid-cell dataset and r=-.77 in the country dataset). In addition to being relevant this instrument should also be valid, though we need to consider possible violations of the exclusion restriction (see Section IV).

Units of Analysis

Grid-cells may be regarded as the "treated" units in this study. By virtue of being closer or further from a natural harbor it should be more or less likely that a democratic form of rule will develop on that territory. Grid-cells are also stable over time, which is important for a causal process that unfolds over centuries. People, by contrast, come and go, and their comings and goings are presumably conditioned (among other things) by their geographic location, which means that population movements are (partly) endogenous in our causal story.

Grid-cells are subject to several problems, however. First, they are arbitrary, and hence subject to the modifiable areal unit problem (Openshaw 1984: 3). Second, they may affect each other, violating the stable unit treatment (SUTVA) assumption (Rubin 1986).

To mitigate these issues, we conduct sensitivity tests in which the size of grid-cells is adjusted so that robustness under various assumptions can be assessed. Even so, grid-cells suffer from a clustering problem. All grid-cells located within a country receive the same democracy score (as long as they lie within the same country), which means they are not fully independent. Regimetypes, after all, are an attribute of polities. Since the boundaries of polities are fairly stable in the modern era one might decide to treat countries as exogenous, a very different sort of spatial unit. Of course, countries are not entirely exogenous. Worryingly, changes in country borders through time may be a product of the outcome (regime type) or of the causal factor of theoretical interest (harbor distance). Since there is no single solution to these unit problems we approach the issue in a multimethod fashion. Section III employs grid-cells as spatial units, while Section IV employs countries.

Analyses encompass the entire modern era, beginning in 1800, when democracy comes to the fore as a common regime type. Since many countries change geographic configurations during this long period of observation, and *all* countries change regime type (according to our differentiated measures), it is appropriate to regard each year as a separate test. Units of analysis are therefore grid-cell years or country-years.

Of course, annual data do not provide entirely independent tests. To mitigate the problem of non-independence through time standard errors are clustered at the unit level – grid-cells for grid-cell level tests and countries for country-level tests. We also provide a cross-sectional test centered on a single year that lies near the end of the period of observation.

Variable definitions and descriptive statistics can be found in Appendix D (for PRIO gridcell level variables) and Appendix C (for country-level variables).

III. Grid-cell Analyses

We begin with a series of micro-level tests using PRIO grid-cells (50x50 km) as spatial units. Here, democracy is regressed on our key independent variable, harbor distance, in the modern era (1800-), including all country-years for which data is available. These may be regarded as reduced-form models insofar as a contemporary outcome is regressed against a distal cause. All models include annual dummies to control for time-effects and robust errors are clustered by grid-cell.

Model 1, our benchmark, regresses the Lexical index against harbor distance with no additional covariates (aside from annual dummies). Model 2 repeats the format with data from harbors drawn from the Lloyds dataset, which provides decennial observations from 1890 to 2008. Model 3 repeats the format with data from WPI that is discounted by the degree of mountainous terrain in the affected grid-cells (between the natural harbor and the grid-cell being coded). These models all show a negative relationship between harbor-distance and democracy.

Period effects are explored in the next tests. Model 4 is restricted to the nineteenth century, Model 5 to the twentieth century, and Model 6 to a single recent year (2000). Point estimates across these tests are similar, though somewhat higher for the contemporary period. This may reflect modest period effects or a changing sample, as discussed in the next section.

The next set of tests focus on a variety of geographic covariates that might be expected to affect democracy and thus might serve as confounders. Model 7 includes distance from the equator. Model 8 includes precipitation, measured as average annual rainfall and its quadratic, as suggested by Elis, Haber & Horrillo (2017; see also Tvedt 2015: ch 8). Model 9 includes an index measuring the distance of each grid-cell from the nearest navigable river, which we discussed in Section I as an alternate mode of water-borne transport. Model 10 includes a measure of irrigation potential drawn from Bentzen et al. (2016), as discussed in Section I. Model 11 includes a measure of mean temperature, which should proxy for the deleterious effects of tropical climates on economic and human development and other climatic factors. Model 12 includes a vector of agricultural zones, measuring the portion of a country that is classified as boreal, temperate desert, tropical and sub-tropical desert, dry temperature, polar, subtropics, tropics, water, or wet temperature. The final model includes all the foregoing variables in a single specification.

Estimates for the variable of theoretical interest are remarkably consistent across these analyses. Harbor distance is negatively associated with democracy, and highly significant (t statistics range from \sim 70 to \sim 140, though this is to be expected given the gargantuan size of the sample). Other covariates show results in the expected direction, though their relationship to democracy is not nearly as strong as harbor distance (judging by t statistics).

Time period	All	1890-2008	All	1800-1899	1900-2013	2000	All	All	All	All	All	All	All
Harbor source	WPI	Lloyds	WPI	WPI	WPI	WPI	WPI	WPI	WPI	WPI	WPI	WPI	WPI
Model	1	2	3	4	5	6	7	8	9	10	11	12	13
Harbor	001***	006***		001***	002***	001***	001***	001***	001***	001***	001***	001***	-001***
distance	(-140.04)	(-271.09)		(-95.57)	(-142.12)	(-68.79)	(-139.49)	(-119.24)	(-134.56)	(-139.83)	(-134.07)	(-124.29)	(-100.09)
Harbor distance*			012*** (-129.47)										
Equator			. ,				.004***						.015***
							(12.35)						(16.40)
Precipitation								.001***					.003***
								(14.02)					(25.66)
Precipitation ²								000***					-1.04e-6***
								(-7.93)					(-11.51)
River									.053***				.047***
distance									(13.44)				(9.02)
Irrigation										000***			-1.88e-6*
potential										(-5.96)			(-1.89)
Temperature											004***		005***
											(-7.88)		(-3.47)
Agric. zones												\checkmark	\checkmark
Countries	194	193	194	46	194	186	194	194	194	194	182	172	172
Grid-cells	65,026	65,028	65,026	39,389	65,026	64,842	65,026	64,612	65,026	64,669	62,410	59,949	59,783
Years	214	117	214	100	114	1	214	214	214	214	214	214	213
Observations	9,159,370	6,459,779	9,159,370	2,758,290	6,401,080	64,842	9,159,370	9,117,863	9,159,370	9,124,576	8,911,430	8,632,838	8,610,452
K2	0.3272	0.0945	0.3260	0.2682	0.18/6	0.0723	0.3282	0.3295	0.3286	0.3276	0.3263	0.3461	0.3605

Table 1: Initial Tests (PRIO Grid-cells)

Outcome: Lexical index of electoral democracy (Skaaning et al. 2015). *Spatial units:* PRIO grid-cell. *Harbor distance:* distance from nearest natural harbor (km). *: distance from nearest natural harbor (km) discounted by mountainous terrain. Covariates described in text and in Table D1. *Not reported:* constant, annual dummies (all models), agricultural zones (Models 12-13). Ordinary least squares analysis, standard errors clustered by grid-cell, t statistics in parentheses. * p < .05 *** p < .01

In Table 2, we conduct two instrumental-variable analyses intended to mitigate concerns about exogeneity in the regressor of theoretical interest. The chosen instrument is ocean distance, as discussed in the previous section. Model 1 replicates the benchmark specification in Table 1, including only the variable of theoretical interest, the instrument, and a trend variable. (Year dummies are not tractable in the IV analysis.) Model 2 replicates the full specification (Model 13 in Table 2), including all covariates tested previously. Both analyses confirm the benchmark results. Indeed, we find remarkable consistency in estimates between reduced-form and IV models.

Model	-	1	2		
Estimator	OLS	2SLS	OLS	2SLS	
Harbor distance		002*** (-56.35)		002*** (-53.84)	
<i>IV:</i> Ocean distance	.228*** (91.34)	()	.249*** (84.00)	()	
Year (trend var)	.315*** (24.59)	.019*** (404.04)	379*** (-29.34)	.020*** (335.75)	
Equator		. ,	-11.86*** (-52.87)	004*** (-3.00)	
Precipitation			-1.785*** (-26.59)	.001*** (5.83)	
Precipitation ²			.001*** (11.54)	3.36-e7 (0.20)	
River distance			27.01*** (19.53)	.105*** (17.57)	
Irrigation potential			-3.04e-4	2.72e- 06***	
Temperature			(13) -3.756*** (-10.93)	(4.90) 027*** (-16.49)	
Agricultural zones			✓	\checkmark	
Countries	19	94	172		
Grid-cells	65,	026	59,783		
Years	2	14	214		
Observations	9,159,370		8,610,452		
R2	0.2103	0.2949	0.4110	0.3029	

Table 2: IV Regressions (PRIO Grid-cells)

Outcome: Lexical index of electoral democracy. *Spatial units:* PRIO grid-cells. *Harbor distance:* distance from nearest natural harbor (km), based on the WPI. Covariates described in text and in Table D1. *Not reported:* constant. Two-stage least squares, standard errors clustered by grid-cell. t statistics in parentheses. * p < .00 ** p < .05 *** p < .01

We noted that results from a grid-cell analysis may hinge on the chosen size of the gridcells, an arbitrary feature of the analysis. To guard against this threat, we conduct sensitivity analyses that vary the size of grid-cells. Specifically, we create eight sets of grid-cells corresponding to different sizes. For each unit of analysis, the benchmark model (Model 1, Table 1) is reestimated. Figure 3 plots the estimated coefficient for harbor distance for each analysis, with the size of the cells and the number of observations listed on the *Y*-axis. The larger the cells, the lower the number of observations, meaning that the precision of the resulting estimates is likely to attenuate due to smaller samples.

This exercise demonstrates that our results are robust even in the face of potential arealroot problems. The exercise also demonstrates a (virtually) monotonic relationship between gridcell size and the strength of the relationship. As the size of grid-cells increases, the estimated coefficient for harbor distance increases. Specifically, the estimate from the final analysis in Figure 3, where grid-cells are 9900x9900 km, are roughly *five times* the size of the estimates from the first analysis, where grid-cells follow the PRIO template of 50x50km.

This, in turn, may be interpretable as the by-product of another threat to inference – spillover across units. Note that the smaller the grid-cell the more likely it is that events in one unit will affect events in another, introducing a violation of SUTVA, as mentioned in Section II. In some cases, SUTVA violations bias the analysis in favor of the hypothesis. In this case, however, we anticipate that SUTVA violations exert a downward bias. Consider that social, economic, and political developments occurring over a long historical period within a large region – say, a continent – are tightly linked. What happens in England affects what happens in France, and vice-versa. This means that the geographic features of England can also be expected to exert a causal effect on France, and vice-versa. And this, in turn, suggests that we are more likely to obtain an unbiased estimate of the influence of geography by observing very large spatial units than very small units. We have greater confidence in the final estimate in Figure 3 than than the earlier estimates.

To be sure, in the modern era the entire world is interconnected (to varying degrees) so it is impossible to entirely overcome SUTVA problems – an issue that bedevils virtually any long-term analysis based on spatial units. Nonetheless, it seems reasonable to conclude that larger units are *less* susceptible to SUTVA problems than smaller units. Whatever spillover biases exist should attenuate as units grow in size. This means that coefficients listed in Table 1 may grossly underestimate the true impact of harbor distance on democracy.





Estimated coefficients for different grid-cell-sizes

IV. Country Analyses

Regime types vary by country, providing another approach to our question of interest. This is a very different mode of aggregation than we have used up to now. Note that where grid-cells are treated as units of analysis Russia carries 600,000 times the weight of Tuvalu, but where countries are units of analysis they receives precisely the same weight (in years where both are present in our sample of independent countries).

Table 3 presents a series of crossnational tests in which democracy is regressed against harbor distance. All models include annual dummies to control for time-effects, and robust errors are clustered by country, as previously.

In Model 1, the benchmark, the Lexical index is regressed against harbor distance with no additional covariates (aside from year dummies). Subsequent models explore alternate measures of democracy – the Polyarchy index in Model 2 and the Polity2 index in Model 3. These tests show similar effects relative to the benchmark, though the varying scales of these indices mean that coefficients are not directly comparable.

Period effects are explored in the next series of tests. Model 4 is restricted to the nineteenth century, Model 5 to the twentieth century, and Model 6 to a single recent year (2000). (Tests conducted with other single-year cross-sections, e.g., 1995 or 2005, show very similar results.) Point estimates across these tests are nearly identical to the benchmark, suggesting that there are no (or very minimal) period effects.

In a more refined analysis, shown in Figure C2, we run consecutive models on a moving half-century window beginning in 1800-1850 and ending in 1960-2010. Coefficients for harbor distance, flanked by 95% confidence intervals, are graphed for each time-period. We include the entire available sample of countries in one set of analyses and a sub-sample of 45 countries with data stretching back to 1900 (so the sample is relatively constant across the observed period) in a second set of analysis. The small (constant) sample shows a strengthening relationship between harbor distance and democracy across the two-century period, while the full (changing) sample shows a u-shaped relationship, weakest at the beginning and end of the period. It is difficult to know which sample offers a better representation of the true causal relationship, but it is encouraging to see that all of the estimates are statistically significant and none fall very far from the benchmark.

The following tests focus on a wide variety of geographic covariates that might be expected to affect democracy, and thus might serve as confounders. Some of these factors replicate features tested in the previous section, and thus require little commentary; others are specific to this analysis. Note that many factors that might be relevant to economic and political development are measured at country levels but not grid-cell levels. Consequently, specification tests in Table 3 are considerably more extensive than those in Table 1.

Model 7 includes Island (a dummy indicating whether a country is separated by water from a major continent), which a number of studies suggest may foster democracy (e.g., Anckar 2008). Model 8 includes Area (square kilometers, log), which is sometimes regarded as an impediment to democracy (Stasavage 2010). Model 9 includes precipitation, measured as average annual rainfall and its quadratic. Model 10 includes a measure of distance to navigable rivers. Model 11 includes a measure of irrigation potential drawn from Bentzen et al. (2016). Model 12 includes a measure of the "resource curse," understood as the total income per capita drawn from oil resources (Haber & Menaldo 2011).

Next, we test a number of factors that have been identified as geographic influences on economic development, social diversity, and/or state capacity (Mellinger, Sachs & Gallup 2000; Michalopoulos 2012; Nunn & Puga 2012) – and hence, potentially, on democracy (insofar as these factors may affect regime type). This includes latitude (distance from equator, logged), landlock (a

dummy indicating whether the country has no direct access to the sea), tropical climate (share of territory that is classified as tropical), temperature (average annual temperature), frost (number of days per annum that the temperature dips below 0 celsius, averaged across a country), fertile soil (share of territory), desert (share of territory), elevation (average), ruggedness (terrain ruggedness index), agricultural suitability (taking into account a variety of climatic, topographic, and soil-related features), and a vector of agricultural zones. These tests are displayed in Models 13-23.

As a final geographic control we include a vector of regions (dummies for each region of the world), as shown in Model 24. Regions have no clear theoretical justification and may be defined in a variety of ways. Nonetheless, insofar as unmeasurable geographic factors are likely to be related by distance, a regional dummy may help to identify them. In a separate analysis, displayed in Table C5, we remove each region (seriatim) from the sample, replicating the benchmark model with each sub-sample. Results show that the exclusion of regions has virtually no impact on the estimated coefficient for harbor distance.

Table 3 displays results for all covariates listed above except agricultural zones and regions, which are unwieldy due to their number. Some geographic factors demonstrate a relationship to regime type that is theoretically plausible and statistically significant; others do not. Our purpose, in any case, is not to provide a comprehensive test of possible geographic influences on democracy but rather to test the robustness of one particular factor, encapsulated in the harbor distance variable. Results are encouraging, as this key variable maintains its (negative and highly significant) relationship to democracy in all specifications. Remarkably, the estimates are also very similar (with the exception of Models 2-3, where the outcome is measured along different scales), suggesting that the relationship is not sensitive to model specification.

Outcome Time period	Lexical All	Polyarchy All	Polity2 All	Lexical 1800-1899	Lexical 1900-2009	Lexical 2000	Lexical All	Lexical All	Lexical All	Lexical All	Lexical All	Lexical All
Covariate							Island	Area	Precipitation	River distance	Irrigation potential	Oil resources
Model	1	2	3	4	5	6	7	8	9	10	11	12
Harbor	002***	-2.76e-4***	006***	002***	002***	002***	002***	002***	002***	002***	002***	002***
distance	(-7.18)	(-6.06)	(-6.38)	(-3.96)	(-6.57)	(-3.81)	(-6.38)	(-6.27)	(-5.68)	(-7.11)	(-5.03)	(-7.44)
Covariate							.563 (1.54)	007 (09)	.003* (1.85)	.0001 (0.52)	-1.827*** (-4.11)	-2.07e-4*** (-8.71)
Covariate ²									000* (-1.74)			
Countries	193	172	169	46	193	186	185	191	193	193	176	164
Years	210	210	210	100	110	1	210	210	210	210	210	207
Observations	15,088	12,726	13,995	3,144	11,944	186	14,602	15,035	15,088	15,088	14,522	13,095
R2	0.2431	0.2357	0.1765	0.2257	0.1747	0.0700	0.2454	0.2440	0.2516	0.2449	0.2891	0.2390
Outcome	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical	Lexical
Time-period	All	All	All	All	All	All	All	All	All	All	All	All
Covariate	Latitude	Landlock	Tropical	Temperature	Frost days	Fertile soil	Desert	Elevation	Ruggedness	Agricultural suitability	Agricultural zones	Regions
Model	13	14	15	16	17	18	19	20	21	22	23	24
Harbor	002***	003***	002***	002***	002***	002***	002***	002***	002***	002***	001***	001***
distance	(-7.08)	(-5.92)	(-8.01)	(-8.09)	(-7.91)	(-6.51)	(-6.74)	(-6.46)	(-7.88)	(-6.70)	(-3.67)	(-3.13)
Covariate(s)	.824*** (3.73)	.352 (.90)	006** (-2.12)	.074*** (-4.90)	.040*** (3.18)	.009 (1.56)	037*** (-3.41)	-1.72e-4 (-0.70)	046 (0.69)	.043 (0.08)		
Countries	191	164	173	173	146	173	173	173	173	164	171	193
Years	210	210	210	210	210	210	210	210	210	210	210	210
Observations	15,044	10,639	14,278	14,278	13,096	14,278	14,278	14,278	14,278	13,972	14,246	15,088
R2	0.2754	0.2891	0.2723	0.3300	0.3024	0.2690	0.2803	0.2628	0.2624	0.2556	0.3187	0.4684

Table 3: Minimal Specifications (Country-level)

Spatial units: countries. Harbor distance: distance from nearest natural harbor (km), mean value across all grid-cells in a country. Covariates described in the text and in Table C1. Not reported: constant, annual dummies (all models), agricultural zones, region dummies. Ordinary least squares analysis, standard errors clustered by country. t statistics in parentheses. * p<.05 *** p<.01

To get a sense of the impact represented in the benchmark model we plot predicted values for democracy as harbor distance varies, holding other factors (in this case, year dummies) at their means. Figure 4 shows that an increase in harbor distance of 500 km translates into a drop of roughly one point on the seven-point Lexical scale, e.g., from Vietnam to Eritrea or from Malaysia to Morocco (based on scores in 2015). Moving from a harbor distance score of close to zero to a score of 1800 (near the maximum observed value) would entail a drop in democracy of over three points. This is a substantial effect, though it explains a modest portion of the total variability in regime-type, as judged by model-fit statistics.



Figure 4: Harbors and Democracy, Predicted Values

Estimated impact of a change in distance to natural harbor (km) on the Lexical index of electoral democracy, based on Model 1, Table 3, with 95% confidence intervals.

In Table 4, we provide specification tests that combine various factors included in Table 3. Model 1 includes all factors previously tested except vectors of agricultural zones and geographic regions, neither of which have a clear theoretical justification. Model 2 retains only those variables that bear a statistically significant relationship to democracy (in the expected direction) in Table 3. Again, the estimated relationship of harbor distance to democracy is robust, and virtually unchanged from the benchmark model in Table 3.

Model	1	2
Harbor distance	002***	002***
	(-2.68)	(-5.15)
Latitude	.989*	.896*
	(1.93)	(1.70)
Island	.566	
	(1.18)	
Landlock	.062	
	(0.17)	
Area	.530	
	(0.50)	
Precipitation	.005	
	(1.51)	
Precipitation ²	-1.74e-6	
	(-0.57)	
River distance	1.25e-4	
	(0.50)	
Irrigation potential	203	980
	(-0.29)	(-1.37)
Tropical	009	.001
	(-1.38)	(0.15)
Temperature	104*	
	(-1.79)	
Frost days	076*	.011
	(-1.92)	(0.44)
Soil	.006	
	(1.10)	
Desert	012	008
	(-1.09)	(-0.64)
Elevation	1.47e-4	
	(0.24)	
Ruggedness	281	
	(-1.21)	
Agricultural suitability	941	
	(-1.62)	
Oil resources	-3.54e-5	1.56e-7
	(-0.47)	(0.00)
Countries	142	142
Years	193	207
Observations	11,832	11,990
R2	.3890	.3298

Table 4: Maximal Specifications (Country-level)

Outcome: Lexical index of electoral democracy. *Spatial units:* countries. *Harbor distance:* distance from nearest natural harbsor (km), mean value across all grid-cells in a country. Covariates described in the text and in Table C1. *Not reported:* constant, annual dummies (all models). Ordinary least squares analysis, standard errors clustered by country. t statistics in parentheses. * p < .05 *** p < .01

In Table 5, we conduct an instrumental variable analysis using distance from the nearest ocean as an instrument for natural harbors. Model 1 replicates the benchmark, including only the variable of theoretical interest, the instrument, and a trend variable. Model 2 replicates Model 2 in Table 4, including all covariates that show a statistically significant relationship to democracy in the expected direction in minimal-specification tests shown in Table 3. Both analyses confirm our benchmark results. Again, coefficient estimates for harbor distance are virtually identical to the benchmark (Model 1, Table 3).

As always, one must consider carefully any possible violations of the exclusion restriction. It is possible, for example, that oceans affect democracy by securing borders and thus attenuating the threat of war, as argued by Midlarsky (1995). To gauge this possible, we replicate the benchmark IV model with an additional covariate measuring conflict involvement, drawing on the Correlates of War dataset. Results, shown in Model 3, indicate that the estimate for harbor distance is stable and that conflict bears no relationship to democracy. Peace/conflict is apparently not an important mediator in the relationship between oceans and democracy.

	1		2	2	3		
Harbor distance	OLS	2SLS 002*** (-4.12)	OLS	2SLS 002*** (-3.87)	OLS	2SLS 002*** (-4.12)	
<i>IV:</i> Ocean distance	.661***		.637***		.651***		
	(8.56)		(11.98)		(9.33)		
Year (trend)	.651*** (3.78)	.016*** (10.32)	.323** (2.36)	.020*** (12.46)	.081 (0.70)		
Latitude			-139.77** (-2.06)	.494 (1.06)			
River distance			.019 (1.26)	3.48e-4** (2.07)			
Irrigation			136.88 (1.55)	478 (-0.69)			
Tropical			-2.19*** (-3.71)	.002 (0.32)			
Temperature			20.62*** (3.60)	121** (-2.38)			
Frost days			12.13*** (3.03)	063* (-1.71)			
Desert			.789 (0.34)	003 (-0.21)			
Oil wealth			006 (-0.92)	-6.79e-5 (-0.76)			
Conflict					-74.957*** (-4.93)	238 (-1.26)	
Countries	193		14	42	193		
Years	210		20)7	210		
Observations	15,	088	11,	990	15,088		
R2	0.6863	0.1943	0.8241	0.195	0.602	0.195	

Table 5: Instrumental Variable Analysis (Country-level)

Outcome: Lexical index of electoral democracy. *Spatial units:* countries. *Harbor distance:* distance from nearest natural harbor (km), mean value across all grid-cells in a country. Covariates described in the text and in Table C1. *Not reported:* constant. *Estimator:* two-stage least squares (2SLS), standard errors clustered by country. t statistics in parentheses. * p < .00 ** p < .05 *** p < .01

V. Mediation Analysis

Previous tests indicate a robust association between harbor distance and democracy: areas close to harbors are more likely to be democratic than areas situated far away. We now probe whether there is evidence for the four theoretical mechanisms laid out in Section I: development, mobility, defense, and diffusion. For this purpose, we enlist five indicators: (a) per capita GDP (log), a measure of development; (b) imports as share of GDP (log), a measure of economic mobility; (c) share of population speaking a European language, a measure of diffusion; (d) distance from nearest university (log, stock), regarded as a measure of development as well as of diffusion, and (e) a measure of the relative strength of naval-to-land forces. All variables are described in Table C1.

For each measure we perform a mediation analysis, drawing on the procedure developed by Imai et al (2011). This approach, grounded in the potential outcomes framework, decomposes the total average treatment effect (ATE) into the average direct effect (ADE), which yields the portion of the ATE that is not mediated via the mediator, and the average causal mediation effect (ACME), which represents the portion of the ATE that is attributed to mediation.⁹ Analyses are conducted on countries rather than grid-cells as most of the mediators are measurable only at a country level. Specifications follow the benchmark model in Table 3 (Model 1) except that decade dummies are substituted for annual dummies in order to render the analysis tractable.

Table 6 reports estimates for each of the five mediators, as shown in Models 1-5. Note that because mediators overlap, these analyses are likely to over-estimate the impact of each variable. There is no easy way around this problem. A conservative approach is to generate a single factor that measures the common latent dimension of these mediators, as determined by a principal components factor analysis (see Table E1). Estimates from this variable are shown in Model 6, though it should be noted that this estimate probably *under*-estimates the combined impact of the five mediators.

The first thing to note from Table 6 is that all the ACME's are in the expected direction (negative) and fairly precisely estimated. This suggests that a significant portion of the ATE runs through our five specified mediators. Second, we find strong and expectedly signed coefficients for the ADE in all of our mediation analyses. In two analyses – focused on imports and universities, respectively – the ADE is considerably stronger than the ACME. As the table makes clear, the common factor produces the largest mediation effect, accounting for roughly 63% of the total effect of harbor distance on democracy, suggesting that the proposed mechanisms can account for a significant portion of the relationship between harbor distance and democracy.

Although the relationship between port-distance and democracy is not fully explained by the mediators, these analyses provide some evidence that the mechanisms proposed in Section I are at work, while not excluding the possibility that other – as yet unidentified – mechanisms may also be at work in explaining the distal relationship between harbor distance and democracy.

⁹ The mediation analysis estimates a model of the outcome, a model of the mediator, and then simulates the outcome for different combinations of treatment and mediator states, incorporating relationships between the treatment and the mediator, the mediator and the outcome and the treatment and the outcome. Repeated simulations of this gives us the Average Causal Mediation Effect (ACME), which represents the effect of the treatment that is mediated, the Average Direct Effect (ADE) which represents the direct effect of the treatment that does not flow through the mediator, and the total effect, which is a combination of ACME and ADE. This also allows us to calculate the proportion of the total effect that is mediated through the mediator.

Mediator	GDP pc	Universities	European language	Trade	Naval/ Land power	Common factor
Model	1	2	3	4	5	6
ACME	001***	0006***	-0.001***	-0.0003***	0003***	-0.0013***
ADE	001***	001***	-0.001***	-0.002***	0018***	-0.0007***
Total effect (ATE)	002***	002***	-0.002***	-0.002***	002***	-0.0021***
Proportion mediated	0.49	0.29	0.50	0.13	0.158	0.634
Years	210	210	210	140	145	145
Countries	193	189	187	182	168	168
N	15054	14941	14905	11884	10905	10265

Table 6: Mediation analysis

Spatial units: countries. Outcome: Lexical index of electoral democracy (Skaaning et al. 2015). Exogenous cause: harbor distance. Mediators: (1) GDP per capita (log), (2) distance from nearest university (log, stock), (3) percent speaking European language, (4) imports as a share of GDP, (5) naval/land power index, (6) common factor from principal components analysis. Specification: based on Model 1, Table 3, where decade dummies replace annual dummies. Estimator: Imai et al. (2011), standard errors clustered by country. * p<.10 ** p<.05 *** p<.01. ACME: average causal mediation effect. ADE: average direct effect. Total effect: ACME + ADE, i.e., impact of harbor distance on democracy through all channels. Not reported: constant, decade dummies (all models).

VI. Discussion

To understand democratization and democratic consolidation scholars have explored a wide array of possible causes – economic, cultural, demographic, sociological, political, and international (Coppedge 2012; Møller & Skaaning 2012). Geography has thus far received scant attention – with the notable exception of short-term factors such as the resource curse and diffusion. Long-term geographic factors, which we understand as factors those whose impact is measurable in centuries rather than years or decades, have only recently come into focus (see works cited at the outset).

It should be apparent that the influence of soil, climate, topography, and waterways on democracy is intrinsically important. We need to know how much of the variability in current-day regimes is a product of these deeply rooted causal factors. Arguably, the force of geography – a static characteristic – is partly responsible for the oft-noted stickiness of regimes through time, with some countries being persistently democratic and others persistently autocratic. Geographic factors may also help to explain regional disparities in regime-type as regions tend to share similar geographic characteristics.

Geography is important, secondly, as a supporting feature of studies focused on other causal factors. Note that any crossnational analysis that does not impose unit fixed-effects depends upon identifying appropriate background variables in order to reach causal inference. Ascertaining what these variables might be is critical, therefore, to any analysis that does not rely entirely on variation through time. If the arguments and evidence of this study are persuasive, a measure of
harbor distance belongs on the right side of any (non-fixed effect) causal model, as it is exogenous in any specification we can imagine. We have not explored whether, or to what extent, this respecification affects extant findings, a matter we leave for future study.

Finally, it is important to understand the impact of natural harbors on outcomes *other than* democracy. This includes factors identified as potential mechanisms in Part I, e.g., economic development, mobility, defense (the relative strength of naval versus land forces), and (long-term) diffusion, as well as other outcomes of interest such as peace and war, internal conflict, property rights, social cohesion/social trust, and political attitudes. If the placement of natural harbors affects the long-run course of democracy it seems plausible to suppose that it might also matter for other aspects of social and political development.

VII. References

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Appendix A: Bibliography

Note: This extensive bibliography focuses on the intertwined topics of harbors, port cities, water transport, diffusion, trade, and geography. These topics are mostly treated from a historical perspective, in keeping with our secular-historical narrative. The first sections include a variety of primary sources, followed by secondary sources.

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Appendix B: Harbors

Table B1: Natural Harbors

CODE KEY

HARBOR SIZE	HARBOR TYPE	SHELTER AFFORDED	MAX SIZE VESSEL
L - Large	Cn - Coastal Natural	E - Excellent	L - Over 500'
M - Medium	Cb - Coastal Breakwater	G - Good	Length
S - Small	Ct - Coastal Tide Gate	F - Fair	M - Up to 500'
V - Very Small	Rn - River Natural	P - Poor	Length
	Rb - RIVER BASIN N - NONE	N - None	
	Rt - River Tide Gate		
	Lc - Lake or Canal		
	Or - Open Roadstead		
	Th - Typhoon Harbor		

Country	Port	Lat.	Long.	Туре	Size	Shelter
Albania	Shengjin	41.82	19.60	CN	V	F
Albania	Vlores	40.47	19.50	CN	V	F
Algeria	Collo	37.00	6.58	CN	V	G
American Samoa	Pago Pago Harbor	-14.28	-170.67	CN	S	G
Angola	Lobito	-12.33	13.57	CN	S	G
Angola	Luanda	-8.80	13.25	CN	S	Е
Angola	Soyo Angola Lng Terminal	-6.12	12.33	RN	V	F
Antarctica	Admiralty Bay	-62.08	-58.42	CN	V	G
Antarctica	Andersen Harbor	-64.32	-62.93	CN	V	Р
Antarctica	Ellefsen Harbor	-60.73	-45.03	CN	V	G
Antarctica	Mcmurdo Station	-77.85	166.65	CN	S	G
Antarctica	Melchior Harbor	-64.32	-63.00	CN	V	Р
Antarctica	Port Foster	-62.95	-60.63	CN	V	F
Antarctica	Port Lockroy	-64.82	-63.50	CN	V	Р
Antarctica	Scotia Bay	-60.75	-44.72	CN	V	Р
Argentina	Bahia Blanca	-38.78	-62.27	CN	V	G
Argentina	Campana	-34.15	-58.97	RN	S	G
Argentina	Colon	-32.22	-58.13	RN	V	Е
Argentina	Concepcion Del Uruguay	-32.48	-58.23	RN	S	Е
Argentina	Concordia	-31.40	-58.03	RN	V	Е
Argentina	Diamante	-32.07	-60.65	RN	V	Е
Argentina	La Plata	-34.83	-57.88	RB	Μ	Е
Argentina	Parana	-31.72	-60.53	RN	V	Е
Argentina	Puerto Deseado	-47.75	-65.90	RN	V	G
Argentina	Puerto Gallegos	-51.62	-68.97	RN	V	G
Argentina	Puerto Galvan	-38.78	-62.30	CN	V	G
Argentina	Puerto Ibicuy	-33.75	-59.18	RN	V	Е
Argentina	Puerto Ingeniero White	-38.80	-62.27	CN	S	G
Argentina	Puerto Madryn	-42.77	-65.03	CN	S	Е
Argentina	Puerto Nacional	-38.80	-62.28	CN	V	G
Argentina	Puerto San Julian	-49.32	-67.70	CN	V	G
Argentina	Puerto San Martin	-32.72	-60.73	RN	V	Е
Argentina	Puerto Santa Cruz	-50.02	-68.52	RN	V	G
Argentina	Ramallo	-33.48	-60.02	RN	V	Е
Argentina	Rio Grande	-53.78	-67.68	RN	V	G
Argentina	Rosario	-32.95	-60.63	RN	Μ	Е
Argentina	San Blas	-40.57	-62.23	CN	V	F

Argentina	San Lorenzo	-32.75	-60.73	RN	V	Е
Argentina	San Nicolas	-33.33	-60.23	RN	V	Е
Argentina	San Pedro	-33.58	-59.82	RN	V	E
Argentina	San Sebastian Bay	-53.17	-68.50	CN	S	F
Argentina	Santa Fe	-31.65	-60.70	RN	S	E
Argentina	Ushuaia	-54.82	-68.30	CN	S	F
Argentina	Villa Constitucion	-33.23	-60.33	RN	V	Е
Argentina	Villa Constitucion	-33.30	-60.33	RN	V	F
Argentina	Zarate	-34.08	-59.03	RN	S	G
Australia	Albany	-35.03	117.88	CN	S	Е
Australia	Ballina	-28.87	153.57	RN	S	G
Australia	Batemans Bay	-35.70	150.17	CN	V	G
Australia	Beauty Point	-41.15	146.82	CN	S	Е
Australia	Botany Bay	-34.00	151.23	CN	S	G
Australia	Brisbane	-27.47	153.03	RN	L	Ē
Australia	Broome	-17.97	122.23	CN	S	Е
Australia	Bundaberg	-24.87	152.35	RN	v	G
Australia	Cairns	-16.92	145.78	RN	S	Ğ
Australia	Darwin	-12.47	130.85	CN	M	Ē
Australia	Devonport	-41.18	146 37	RB	S	Ē
Australia	Dover	-43.32	147.03	CN	V	Ē
Australia	Geelong	-38.15	144 37	CN	Ň	E
Australia	Gladstone	-23.85	151 25	RN	S	E
Australia	Hobart	-42.88	147 33	RN	M	E
Australia	lervis Bay	-35.12	150.80	CN	V	G
Australia	Karumba	-17.48	140.83	RN	v	G
Australia	Launceston	-41 45	147.12	RN	S	E
Australia	Melbourne	-37.83	144.97	CN	L	E
Australia	Mourilyan Harbour	-17.60	146.13	CN	S	G
Australia	Port Adelaide	-17.00	138 50	RN	M	E
Australia	Port Alma	-23 58	150.50	RN	V	G
Australia	Port Dalrymple	-41.13	146.83	CN	Ň	G
Australia	Port Hedland	-20.32	118 58	RN	S	E
Australia	Port Huon	-20.52	146.98	RN	V	G
Australia	Port Pirie	-33.18	138.02	RN	S	E
Australia	Sydney	-33.87	151.02	CN	T	E
Australia	Thevenard	-32.17	133.65	CN	S	E
Australia	Thursday Island	-10.58	142.22	CN	S	G
Australia	Weina	-12.67	141.87	CN	V	G
Australia	Welshpool	-38.70	146.47	CN	V	G
Australia	Western Port	-38 35	145.23	CN	V	G
Australia	Wyndham	-15.47	128.10	RN	V	G
Bahamas	Freeport	26.52	-78 78	RB	S	F
Bahamas	Nassau	25.08	-77.35	CN	M	G
Bahamas	South Riding Point	25.00	-78.22	CN	V	F
Bahrain	Al Manamah	26.02	50.58	CN	S	F
Bahrain	Mina Salman	26.20	50.63	CN	M	F
Bangladesh	Chittagong	20.20	91.82	RN	M	G
Bangladesh	Mongla	22.52	89.60	RN	S	E
Belgium	Bruges	51.23	3.22		V	F
Belgium	Chent	51.07	3.73	LC	v M	E
Belgium	Nieuwpoort	51.07	2.75	LC	V	C I
Bermuda	Hamilton	32.30	64.78	CN	v S	E O
Bermuda	St George's	32.30	64.68	CN	S	C E
Brozil	Anore Dos Pois	32.38 23.02	-04.00	CN	S	C C
Diazii	Aligia Dos Keis	-23.02	49.52		S M	G
Brozil	Cabadala	-1.43	-40.30	ININ DNT	IVI C	- G E
Brozil	Capedelo	-0.7/	-34.83	ININ DNT	o V	F C
Brozil	Cuaiba Island Torminal	-2.90	-40.83	INN CN	v c	- С п
DIAZII	Guaida Island Terminal	-23.02	-44.03		3 17	P P
Drazil Drazil	Impituba	-28.23	-48.0/		V 17	P E
DIAZII	Itacoattara	-3.13	-38.43	KIN DNT	V N	E
DIAZII	Itajai	-20.92	-40.00	KIN	IVI	G

T U	. .			O 1	0	0
Brazıl	Itaqui	-2.57	-44.37	CN	S	G
Brazil	Laguna	-28.50	-48.78	RN	V	F
Brazil	Macae	-22.37	-41.77	RN	V	F
Brazil	Manaus	-3.13	-60.02	RN	S	E
Brazil	Natal	-5.78	-35.20	RN	S	G
Brazil	Niteroi	-22.88	-43.12	CN	S	Е
Brazil	Paranagua	-25 50	-48 52	CN	Š	G
Brazil	Pelotas	25.50 31.78	52.33	RN	V	G
Diazii	Dout Do Aronoin	-51.70	-52.55	DNI	v S	
Drazii	Port De Aracaju	-10.92	-57.05		5 M	Г
Brazil	Porto Alegre	-30.03	-51.23	KN	M	E
Brazıl	Porto Do Forno	-22.97	-42.02	CN	V	F
Brazil	Porto Santana	-0.05	-51.18	RN	V	G
Brazil	Rio De Janeiro	-22.90	-43.17	CN	L	E
Brazil	Rio Grande	-32.05	-52.08	RN	L	G
Brazil	Santa Clara	-20.88	-51.37	CN	V	F
Brazil	Santos	-23.95	-46.30	CN	L	G
Brazil	Sao Francisco	-26.25	-48.63	RN	S	Р
Brazil	Tutoja	-2.78	-42.28	RN	V	Ē
Brozil	Vila Do Conde	1.55	12.20	RN	V	E
Diazii	Vita Do Conde	-1.55	-40.73	DNI	v	E E
Drazii		-20.32	-40.55	KIN	M	E
British Virgin Islands	Road Harbor	18.42	-64.62	CN	M	G
Brunei	Bandar Seri Begawan	4.88	114.88	RN	S	G
Brunei	Kuala Belait	4.63	114.20	CN	V	G
Brunei	Muara Harbor	5.03	115.07	CN	S	G
Cambodia	Phsar Ream	10.50	103.60	CN	V	F
Cameroon	Douala	4.05	9.68	RN	Μ	G
Canada	Ahousat	49.28	-126.07	CN	V	F
Canada	Alberton	46.80	-64.07	CN	V	G
Canada	Alert Bay	50.58	126.03	CN	v	E
Canada	Alliford Pow	52.30	121.00	CN	v V	
Canada	Annord Bay	33.22	-131.98		v	G T
Canada	Amherstburg	42.10	-83.10	KIN	5	E
Canada	Annapolis Royal	44.75	-65.52	RN	V	E
Canada	Argentia	47.30	-53.98	CN	Μ	F
Canada	Arichat	45.52	-61.02	CN	V	G
Canada	Baie Comeau	49.23	-68.13	RN	S	G
Canada	Bamberton	48.55	-123.52	CN	V	F
Canada	Batchawana Bay	46.92	-84.60	CN	V	E
Canada	Beaubarnois	45.32	-73.88	IC	V	E
Capada	Bella Bella	52.17	128.15	CN	v	E E
Canada	Polla Coole	52.17	126.00	CN	v V	E E
Canada	Della Coola	32.37	-120.80		v	Г
Canada	Belleville	44.15	-//.40	CN	5	E
Canada	Bergh Cove	50.53	-127.62	CN	V	G
Canada	Bernard Harbor	68.78	-114.77	CN	S	F
Canada	Blanc Sablon	51.42	-57.13	RN	V	F
Canada	Blind River	46.18	-82.95	CN	V	F
Canada	Brockville	44.58	-75.67	CN	V	E
Canada	Bruce Mines	46.28	-83.78	CN	V	F
Canada	Burgeo	47.60	-57.62	CN	V	G
Capada	Butedale	53.17	128.68	CN	v	E
Canada	Bung Inlat	45 77	-120.00 20.57	CN	v V	г Б
Canada		43.77	-00.37		V	E
Canada	Cambridge Bay	69.12	-105.07	CN	V	G
Canada	Campbell River	50.02	-124.23	CN	V	G
Canada	Canso	45.33	-61.00	CN	V	G
Canada	Caraquet	47.80	-64.93	CN	S	G
Canada	Carbonear Bay	47.73	-53.22	CN	V	F
Canada	Cardinal	44.78	-75.38	LC	V	E
Canada	Carillon	45.57	-74.37	RN	V	E
Canada	Catalina Harbor	48 50	-53.08	CN	Ś	G
Canada	Charlottetown	46.23	_63.13	CN	s	G
Canada	Chamainus	40.23	102.70	CNT	5 17	U E
Canada	Chatianana	48.93	-123./2		V 17	F P
Canada	Cheticamp	46.63	-01.00		V	P
Canada	Chicoutimi (Port Saguenay)	48.43	-/1.0/	KN	8	G

Canada	Churchill	58.78	-94.18	RN	S	F
Canada	Chute A Blondeau	45.58	-74.47	RN	V	Ē
Canada	Clarenville	48.15	-53.95	CN	S	G
Canada	Clavoquot	49.15	-125.92	CN	V	F
Canada	Coal Harbor	50.60	-125.52 -127.58	CN	V	G
Canada	Cockburg	45.05	83.32	CN	V	E
Canada	Cockbull	40.7	-03.32	CN	v	r C
Canada	Comox Harbor	49.07	-124.92	CN	5 1/	- G - E
Canada	Conche	50.88	-55.90	CN	V	F
Canada	Contrecour	45.88	-73.20	RN	V	_
Canada	Coppermine	67.80	-115.05	RN	V	F
Canada	Corner Brook	48.95	-57.95	CN	S	G
Canada	Cornwall	45.02	-74.73	LC	V	Е
Canada	Coteau Landing	45.25	-74.20	LC	V	Ε
Canada	Courtright	42.82	-82.47	RN	V	Е
Canada	Cowichan Bay	48.75	-123.62	CN	V	F
Canada	Crofton	48.87	-123.63	CN	V	F
Canada	Cumberland	45.52	-75.40	RN	V	Е
Canada	Depot Harbour	45.32	-80.10	CN	V	E
Canada	Desbarats	46.33	-83.92	RN	v	E
Canada	Digby	44.62	65.72	CN	S	E
Canada	Dupgen Bay	50.07	125.29	CN	V	
Canada	E and an alt Hawken	10.07	-123.20	CN	v	r C
Canada	Esquimalt Harbor	48.43	-123.43		5	G F
Canada	Fassett	45.65	-/4.8/	KN	V	E
Canada	Fortune Harbor	49.53	-55.23	CN	S	F
Canada	Fraser Mills	49.22	-122.87	RN	V	F
Canada	Gananoque	44.33	-76.17	RN	V	Ε
Canada	Ganges	48.85	-123.48	CN	V	F
Canada	Gargantua	47.57	-84.97	CN	V	G
Canada	Gaspe	48.83	-64.48	CN	S	G
Canada	Gatineau	45.48	-75.65	RN	V	Е
Canada	Georgetown	46.18	-62.53	RN	S	G
Canada	Gold River	49.68	-126.12	RN	V	F
Canada	Goldsboro	45.18	-61.65	CN	V	G
Canada	Goose Bay	53 37	-60.30	CN	v	p
Canada	Gore Bay	45.92	-82.47	CN	V	F
Canada	Coulais Bay	46.73	84.50	CN	v	E
Canada	Grand Narrows	45.05	60.78	CN	v	
Canada	Grand Natiows	45.95	-00.76		V	
Canada	Grenville	45.05	-/4.00	KIN	V	E
Canada	Guysborougn	45.40	-01.50	CN	V	E
Canada	Halifax	44.65	-63.58	CN	L	E
Canada	Hamilton	43.25	-79.85	CN	М	E
Canada	Harbor Grace	47.68	-53.22	CN	S	G
Canada	Harmac	49.13	-123.85	CN	V	F
Canada	Havre St Pierre	50.23	-63.60	CN	V	G
Canada	Hawkesbury	45.62	-74.62	RN	V	Е
Canada	Heron Bay	48.65	-86.32	CN	\mathbf{V}	F
Canada	Hilton	46.25	-83.88	CN	V	G
Canada	Honora	45.87	-82.17	CN	V	Е
Canada	Hope Bay	48.80	-123.28	CN	V	F
Canada	Hudson	45.47	-74.13	RN	V	Е
Canada	Hull	45.43	-75 70	RN	V	Ē
Canada	Kagawong	45.92	-82.25	CN	v	F
Canada	Kemano Bay	53.48	128.13	PR	v	G
Canada	Kemino Day	15 00	-120.13	CN	V V	
Canada	Key marbour	45.00	-00.75	CN	V	
Canada	Nillarney	45.9/	-81.52		V T	E
Canada	Kingston	44.23	-/6.50	CN	V	E
Canada	Kitimat	54.00	-128.68	CN	8	F
Canada	Klemtu	52.60	-128.52	CN	V	G
Canada	La Baie (Port Alfred)	48.33	-70.88	RN	S	G
Canada	Lady Franklin Point	68.48	-113.27	CN	V	F
Canada	Little Bay	49.62	-56.00	CN	V	G
Canada	Little Bras D Or	46.25	-60.30	CN	V	Е

Canada	Little Current	45.98	-81.93	CN	S	Е
Canada	Liverpool (Brooklyn)	44.03	-64.65	CN	S	G
Canada	Louisburg	45.92	-59.97	CN	V	Е
Canada	Lower Lakes Terminal	44.73	-75.47	RN	S	Е
Canada	Lunenburg	44.38	-64.32	CN	S	Е
Canada	Lyall Harbor	48.80	-123.20	CN	V	F
Canada	Manitowaning	45.75	-81.80	CN	V	Е
Canada	Masset Harbor	54.02	-132.15	CN	V	G
Canada	Masson	45.53	-75.42	RN	V	Е
Canada	Matane	48.85	-67.53	RN	V	G
Canada	Meldrum Bay	45.93	-83.12	CN	V	G
Canada	Michipicoten	47.97	-84.90	CN	V	Р
Canada	Midland	44.75	-79.92	CN	S	Е
Canada	Millhaven	44.20	-76.73	CN	V	Е
Canada	Mingan	50.28	-64.02	CN	V	G
Canada	Mission City	49.12	-122.25	RN	V	G
Canada	Montebello	45.65	-74.93	RN	V	Е
Canada	Montreal	45.52	-73.55	RN	L	G
Canada	Musquodoboit Harbour	44.78	-63.15	CN	V	Е
Canada	Nanaimo	49.17	-123.93	CN	S	G
Canada	Nanoose Harbor	49.27	-124.15	CN	V	Е
Canada	New Westminster	49.20	-122.92	RN	Μ	F
Canada	Niagara	43.25	-79.07	RN	V	Е
Canada	North Sydney	46.22	-60.25	CN	S	Е
Canada	Oka Sur Le Lac	45.47	-74.08	RN	V	Е
Canada	Ottawa	45.43	-75.70	RN	S	Е
Canada	Owen Sound	44.58	-80.93	RN	S	Е
Canada	Padloping Island	67.03	-62.73	CN	V	F
Canada	Pangnirtung	66.13	-65.75	CN	V	F
Canada	Papineauville	45.62	-75.02	RN	V	Е
Canada	Parry Sound	45.33	-80.03	CN	S	Е
Canada	Paulatuk	69.35	-124.08	CN	S	F
Canada	Pearce Point	69.82	-122.75	CN	V	G
Canada	Pelee I North Wharf	41.82	-82.67	CN	V	F
Canada	Penetanguishene	44.77	-79.93	CN	V	Е
Canada	Picton	44.02	-77.13	CN	V	Е
Canada	Pictou	45.67	-62.72	CN	S	G
Canada	Point Edward	43.00	-82.42	RN	S	Е
Canada	Pointe Noire	50.17	-66.48	RN	S	G
Canada	Police Point	70.18	-124.75	CN	V	F
Canada	Porpoise Harbor	54.22	-130.28	CN	V	G
Canada	Port Alberni	49.23	-124.82	RN	S	G
Canada	Port Alice	50.38	-127.45	CN	S	G
Canada	Port Aux Basques	47.57	-59.13	CN	S	F
Canada	Port Bayside Nb	45.15	-67.13	RN	V	
Canada	Port Cartier	50.03	-66.78	RN	V	Р
Canada	Port Clements	53.68	-132.18	CN	V	F
Canada	Port Colborne	42.88	-79.25	LC	S	Е
Canada	Port Coquitlam	49.27	-122.78	RN	V	G
Canada	Port De Becancour	46.40	-72.38	RN	V	Е
Canada	Port Dover	42.78	-80.20	RN	V	Е
Canada	Port Hardy	50.72	-127.48	CN	V	G
Canada	Port Hastings	45.65	-61.40	CN	V	Е
Canada	Port Hawkesbury	45.62	-61.37	CN	V	G
Canada	Port Maitland	42.85	-79.58	RB	S	Е
Canada	Port Mcneill	50.58	-127.08	CN	V	F
Canada	Port Menicoll	44.75	-79.80	CN	V	Е
Canada	Port Mellon	49.52	-123.48	CN	V	F
Canada	Port Moody	49.28	-122.88	CN	V	Е
Canada	Port San Juan	48.55	-124.43	CN	V	G
Canada	Port Severn	44.80	-79.72	RN	V	Е
Canada	Port Simpson	54.57	-130.43	CN	V	Е

Canada	Port Stanley	42.67	-81.20	RN	V	G
Canada	Port Union	48.50	-53.08	CN	V	G
Canada	Prince Rupert	54.32	-130.33	CN	Μ	G
Canada	Quebec	46.82	-71.22	RN	Μ	G
Canada	Quebec Harbour	47.70	-85.80	CN	V	Е
Canada	Queen Charlotte	53.25	-132.08	CN	V	G
Canada	Queenston	43.17	-79.07	RN	V	Е
Canada	Resolute Bay	74.68	-95.90	CN	V	F
Canada	Richards Landing	46.30	-84.03	CN	V	Е
Canada	Rimouski	48.45	-68.52	RN	S	G
Canada	Riviere Du Loup	47.83	-69.52	RN	S	F
Canada	Rockland	45.55	-75.30	RN	V	Е
Canada	Rockport	44.38	-75.93	RN	V	Е
Canada	Roddickton	50.87	-56.13	CN	S	F
Canada	Rondeau	42.27	-81.90	CN	S	F
Canada	Sachs Harbor	71.97	-125.25	CN	V	Р
Canada	Sambro	44.47	-63.60	CN	V	Р
Canada	Sarnia	42.98	-82.42	RN	S	Е
Canada	Sault Ste Marie	46.52	-84.35	RN	S	E
Canada	Seal Cove	49.93	-56.38	CN	V	G
Canada	Sept Iles	50.20	-66.38	RN	Μ	G
Canada	Shediac	46.22	-64.55	CN	V	G
Canada	Sheguiandah	45.90	-81.92	CN	V	Е
Canada	Shippegan	47.75	-64.70	CN	V	G
Canada	Sidney	48.65	-123.38	CN	V	F
Canada	Sointula	50.63	-127.02	CN	V	F
Canada	Sombra	42.72	-82.48	RN	V	Е
Canada	Sonora	45.07	-61.92	RN	V	Е
Canada	Sorel	46.05	-73.12	RN	S	G
Canada	South Lancaster	45.13	-74.50	RN	V	Е
Canada	Springdale	49.50	-56.07	CN	S	Ν
Canada	Squamish	49.68	-123.15	RN	V	F
Canada	St Andrews East	45.57	-74.33	RN	V	Е
Canada	St Anicet	45.13	-74.37	RN	V	Е
Canada	St Catherine	43.18	-79.28	LC	V	G
Canada	St George's	48.45	-58.45	CN	S	G
Canada	St John's	47.57	-52.70	CN	S	Е
Canada	St Placide	45.53	-74.20	RN	V	Е
Canada	St Zotique	45.25	-74.25	LC	V	Е
Canada	Steveston	49.13	-123.18	RN	V	F
Canada	Stewart	55.93	-130.00	CN	V	Р
Canada	Stormont	45.22	-61.72	CN	V	G
Canada	Summerside	46.40	-63.78	CN	S	G
Canada	Sydney	46.15	-60.20	CN	Μ	Е
Canada	Tadoussac	48.15	-69.72	RN	S	G
Canada	Tahsis	49.92	-126.67	CN	V	Е
Canada	Thorold	43.08	-79.72	LC	S	G
Canada	Thurso	45.60	-75.23	RN	V	Е
Canada	Tiffin	44.75	-79.85	CN	V	Е
Canada	Tobermory	45.27	-81.67	CN	V	Е
Canada	Toronto	43.62	-79.38	CN	Μ	Е
Canada	Trenton	44.10	-77.57	RN	S	Е
Canada	Trepassey Harbor	46.73	-53.40	CN	V	G
Canada	Trois Rivieres	46.35	-72.55	RN	Μ	G
Canada	Tuktoyaktuk	69.45	-133.00	CN	V	F
Canada	Twillingate Harbor	49.67	-54.77	CN	V	Р
Canada	Tysoe Point	69.60	-120.75	CN	V	Р
Canada	Ucluelet	48.95	-125.55	CN	V	F
Canada	Vancouver	49.28	-123.12	CN	L	Е
Canada	Vaudreuil	45.40	-74.03	RN	V	Е
Canada	Victoria Harbour	44.75	-79.82	CN	V	Е
Canada	Walpole Island	42.62	-82.52	RN	V	Е
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Canada	Waubaushene	44 77	-79.72	CN	V	E
Canada	Welland	43.00	79.25	IC	s	G
Canada	We attack Care	40.79	-79.23 E(()	CN	5 V	
Canada	westport Cove	49.78	-30.02	CN	V	P
Canada	Whitehaven Harbor	45.23	-61.18	CN	V	G
Canada	Whycocomagh	45.97	-61.13	CN	V	E
Canada	Wiarton	44.75	-81.13	CN	V	Е
Canada	Windsor	45.00	-64.15	RN	V	E
Canada	Windsor	42.32	-83.03	RN	Μ	E
Canada	Wolfe Island	44.20	-76.43	RN	V	E
Canada	Varmouth	43.83	-66.12	CN	S	Ē
Cana Vordo	Porto Crando	16.09	25.00	CN	V	
Clape Verue	Dahia Assa Essana	E2 20	-25.00	CN	V V	г Б
Chile	Dama Agua Fresca	-55.56	-/0.9/		v	Г
Chile	Bahia De Valdivia	-39.80	-/3.25	KN	8	E
Chile	Bahia Harris	-53.85	-70.45	CN	V	F
Chile	Bahia San Vicente	-36.73	-73.17	CN	V	F
Chile	Caleta Clarencia	-52.90	-70.10	CN	V	F
Chile	Caleta Mina Elena	-52.68	-71.90	CN	V	F
Chile	Caleta Patillos	-20.73	-70.20	CN	V	F
Chile	Coquimbo	-29.95	-71.33	CN	V	G
Chile	Coronel	-37.03	-73 17	CN	S	Ē
Chile	Lirauen	36.72	72.98	CN	V	G
Chile	Late	-50.72	72.15	CN	V V	
Chile		-57.10	-/5.15		v	P
Chile	Mejillones	-23.10	-/0.4/	CN	8	G
Chile	Penco	-36.72	-73.00	CN	V	G
Chile	Port San Juan De La Juan	-53.63	-70.92	CN	V	F
Chile	Puerto Caldera	-27.05	-70.83	CN	V	F
Chile	Puerto Calderilla	-27.08	-70.87	CN	V	G
Chile	Puerto Castro	-42.48	-73.77	CN	V	E
Chile	Puerto Chacabuco	-45.47	-72.83	RN	V	F
Chile	Puerto Chanaral	-26.35	-70.65	CN	V	F
Chile	Puerto De Corral	-39.87	-73.43	CN	V	F
Chile	Puerto Montt	-41.48	-72.97	CN	S	F
Chile	Puerto Quemchi	-42.15	-73.48	CN	V	Е
Chile	Puerto Sara	-52.63	-70.20	CN	v	F
Chile	Puerto Vartou	53.88	70.15	CN	V	F
Chile	Teleshuano	-55.00	73.10	CN	S	G
Chile	Taltal	-30.70	70.49	CN	V	U E
Chile Cl.		-25.40	-/0.40		V	Г Г
China	Ankingcheng	30.52	117.05	KIN	V	Г Г
China	Chaozhou	23.62	11/.08	CN	M	F T
China	Chung Ching	29.57	106.63	RN	V	F
China	Dagu Tanggu	38.97	117.67	RN	V	F
China	Dongshan	23.75	117.52	CN	S	F
China	Fang-Cheng	21.75	108.35	RN	Μ	G
China	Fuzhou	26.08	119.30	RN	V	G
China	Gaogang	32.28	119.85	RN	S	F
China	Guangzhou	23.12	113.23	RN	М	G
China	Haikou	20.05	110.28	CN	V	F
China	Haimen	28.68	121 45	RN	V	G
China	Hankow	30.58	114.28	RN	, M	F
China	Нистори	23.08	113.42	RN	S	F
China	Iluangpu	23.00	112.50	DNI	S	C I
China		23.03	114.50	CN	5 V	G E
China	Huiznou	22.72	114.52		V C	F T
China	Jiangyin	31.92	120.23	KN	8	F T
China	Longkou Gang	37.63	120.28	CN	S	F
China	Nanjing	32.08	118.75	RN	V	F
China	Nantong	32.00	120.80	RN	S	F
China	Ningbo	29.88	121.55	RN	S	G
China	Penglai	37.82	120.83	CN	V	F
China	Qinzhou	21.73	108.58	CN	V	F
China	Quanzhou	24.88	118.60	CN	S	F
China	Rizhao	35.38	119.57	CN	V	Р
China	Shan T Ou	23.37	116.68	RN	S	E
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China	Shanghai	31.22	121.50	RN	L	G
China	Shekou	22.47	113.87	CN	М	G
China	Tianjin Xin Gang	38.97	117.83	RN	L	Е
China	Wanxian	30.82	108.43	RN	V	G
China	Weihai	37.50	122.10	CN	М	Е
China	Wenzhou	28.02	120.65	RN	М	G
China	Wu Hu	31.33	118.37	RN	S	F
China	Xiamen	24.45	118.07	RN	М	G
China	Yangzhou	32.27	119.43	RN	S	F
China	Yantian	22.58	114 27	CN	Š	Ē
China	Zhanoijangang	31.97	120.40	RN	Š	F
China	Zhangzhou	24.68	118.15	CN	S	F
China	Zhanijang	21.00	110.19	RN	S	G
China	Zhen Hai	29.95	121.70	RN	V	G
China	Zhenijang	32.22	119.43	RN	Š	F
China	Zhoushan	30.00	122.10	CN	S	G
Christmas Island	Elving Fish Cove	-10.42	105.70	CN	M	E E
Colombia	Barranquilla	10.92	-74 77	RN	M	F
Colombia	Buepaventura	3.88	77.07	CN	S	E
Colombia	Cartagena	10.42	75.53	CN	M	F
Colombia	El Bosque	10.42	75.53	CN	S S	C L
Colombia	Santa Marta	10.40	74.22	CN	S	G
Congo Vinshasa	Banana	5.09	-/4.22		S V	G
Congo - Kinshasa	Dallalla	-3.96	12.30		v	G E
Congo - Kinshasa	Doma Matadi	-5.65	12.05		S	Г
Congo - Kinshasa		-5.62	15.45	CN	S V	G
Cook Islands	Avadu Galfata	-21.20	-139.70		v	G
Costa Rica	Golfito Decente Cel·lene	8.0 <i>3</i>	-83.17		5 V	G E
Costa Rica	Puerto Caldera	9.92	-84./2		V	Г
Costa Rica	Puerto Quepos	9.43	-84.17		V	P E
Cote D'ivoire	Abidjan	5.25	-4.02	LU CN	L	E
Croatia	Bakar	45.30	14.55	CN	5 W	F
Croatia	Brsica	45.03	14.05	CN	V	G F
Croatia	Dubrovník	42.67	18.08	CN	5	F
Croatia	Dugi Rat	43.45	10.05	CN	V	F
Croatia	Korcula	42.93	17.13	CN	V	F
Croatia	Omisalj	45.22	14.55	CN	5	F
Croatia	Ploce	43.05	17.43	CN	V	F
Croatia	Rijeka Luka	45.33	14.43	KB		G
Croatia	Senj	44.98	14.90	CN	V	F
Croatia	Sibenik	43.73	15.88	CN	S	F
Croatia	Zadar	44.12	15.22	CN	S	G
Croatia	Zaliv Rasa	45.05	14.07	CN	V	F
Cuba	Antilla	20.83	-/5./3	CN	L	E
Cuba	Cabanas	23.00	-82.97	CN	M	F
Cuba	Casilda	21.75	-79.98	CN	M	F
Cuba	Cienfuegos	22.15	-80.45	CN	L	E
Cuba	Felton	20.73	-75.60	CN	S	E
Cuba	Manati	21.37	-76.82	RN	S	G
Cuba	Matanzas	23.05	-81.55	CN	S	G
Cuba	Nicaro	20.72	-75.55	CN	S	Е
Cuba	Nuevitas Bay	21.55	-77.27	CN	L	F
Cuba	Puerto Guantanamo	19.98	-75.13	CN	L	F
Cuba	Puerto Padre	21.28	-76.53	CN	S	G
Cuba	Santiago De Cuba	20.02	-75.83	CN	Μ	Е
Denmark	Alborg	57.05	9.93	RN	S	G
Denmark	Augustenborg	54.95	9.87	CN	S	G
Denmark	Esbjerg	55.47	8.45	CN	S	G
Denmark	Faborg	55.10	10.25	CN	S	G
Denmark	Fredericia	55.57	9.77	CN	S	G
Denmark	Haderslev	55.25	9.50	RB	S	G
Denmark	Hadsund	56.72	10.12	CN	V	G
Denmark	Hals	56.98	10.32	RN	V	G

Denmark	Hobro	56.63	9.80	RN	V	Е
Denmark	Kolding	55.48	9.50	RB	S	Ē
Denmark	Mariager	56.65	9.98	CN	V	Ē
Denmark	Naestved	55.03	11 75	RB	S	E
Denmark	Nakskov	54.83	11.73	CN	S	E
Denmark	Nykobing (Falster)	54.77	11.15	RN	S	G
Denmark	Odense	55.42	10.39		S	E U
Denmark	D	55.42	10.56	LC DNI	S	E
Denmark	Randers	50.47	10.05	KIN	5	G E
Denmark	Sakskoding	54.80	11.65		5	E
Denmark	Sonderborg	54.92	9.78	KN	5	G
Denmark	Studstrup	56.25	10.35	CN	М	G
Denmark	Svendborg	55.07	10.62	CN	S	E
Denmark	Vejle	55.72	9.55	CN	S	G
Denmark	Vordingborg	55.00	11.90	CN	V	F
Djibouti	Djibouti	11.60	43.13	CN	S	G
Djibouti	Doraleh	11.60	43.08	CN	S	
Dominica	Portsmouth	15.57	-61.47	CN	V	F
Dominica	Roseau	15.30	-61.40	CN	V	F
Dominican Republic	La Romana	18.42	-68.97	RN	V	G
Dominican Republic	Las Calderas	18.22	-70.52	CN	S	G
Dominican Republic	Puerto Botado	19.20	-69.45	CN	V	F
Dominican Republic	Puerto De Haina	18.42	-70.02	RN	S	G
Dominican Republic	San Pedro De Macoris	18.45	-69.32	RN	S	G
Dominican Republic	Santa Barbara De Samana	19.20	-69.33	CN	S	Ğ
Dominican Republic	Santa Cruz De Barahona	18.20	-71.08	CN	S	G
Dominican Republic	Santa Cluz De Dalanolla Santo Domingo	18.47	69.88	RN	M	E E
Equador	Esmeraldas	1.00	-07.00	RN	V	E
Equador	Cuevernil	2.20	70.00	DNI	v S	
Ecuador	Brantz Balizzar	-2.20	-/9.00		S V	G
Ecuador	Puerto bolivar	-3.27	-80.00	KIN DNI	V S	G E
Ecuador	Puerto Maritimo De Guayaquii	-2.28	-/9.90	KIN	5	E
Egypt	Bur Said (Port Said)	31.27 20.07	32.30 22.47	LC	L	E
Egypt	El-Adabiya	29.87	32.47	CN	5	E
Egypt	El Ghardaqa	27.22	33.85	CN	V	F
Egypt	El Ismailiya	30.58	32.28	LC	S	E
Egypt	El Tur Harbor	28.23	33.62	CN	V	F
Egypt	Nuweiba El Muzeima	28.97	34.65	CN	V	F
Egypt	Ras Abu Zanimah	29.03	33.12	CN	S	F
El Salvador	La Union	13.33	-87.83	CN	V	G
Equatorial Guinea	Cogo	1.08	9.70	RN	V	Р
Equatorial Guinea	Luba	3.50	8.57	CN	V	F
Equatorial Guinea	Malabo	3.75	8.78	CN	S	F
Eritrea	Assab	13.00	42.75	CN	S	F
Estonia	Osmussaar	59.30	23.37	CN	V	G
Estonia	Parnu	58.38	24.50	RN	S	G
Falkland Islands	Stanley	-51.70	-57.83	CN	Μ	G
Faroe Islands	Fuglafjordur	62.25	-6.80	CN	V	G
Faroe Islands	Klaksvik	62.23	-6.58	CN	V	G
Faroe Islands	Runavik	62.12	-6.72	CN	V	F
Faroe Islands	Sorvagur	62.08	-7.25	CN	V	G
Faroe Islands	Tvorovri	61.55	-6.80	CN	V	F
Faroe Islands	Vagur	61.48	-6.80	CN	V	F
Faroe Islands	Vestmanna	62.15	-7.17	CN	V	Е
Fiii	Levuka	-17.68	178.83	CN	S	G
Fiii	Suva Harbor	-18.13	178.42	CN	Š	Ğ
Finland	Ekenas	59.98	23.43	CN	S	G
Finland	Hamina	60.57	23.43 27.20	CN	S	C C
Finland	Himanka	64.00	27.20	CN	c	0 5
Finland	Inhoo	60.0 2	23.03	D D	U S	г Г
Finland	Inkou	62.69	20.92 00.67	ND CN	V NJ	Г р
Finland	Jakobstau	03.08	22.07		1VL N7	P
Finland	Jussaro	59.85	23.57		V N.F	G
Finland	Kaskinen	62.38	21.23	UN CN	M	G
Finland	Kemi	65.73	24.57	CΝ	5	F

Finland	Kokkola	63.85	23.02	CN	L	F
Finland	Kristinestad	62.28	21.40	CN	Μ	G
Finland	Loviisa	60.45	26.23	CN	V	G
Finland	Mariehamn	60.10	19.92	CN	S	G
Finland	Naantali	60.47	22.02	CN	V	F
Finland	Nykarleby	63.52	22.53	RB	V	G
Finland	Oulu	65.02	25.40	RN	L	F
Finland	Pargas	60.28	22.07	CN	V	G
Finland	Pori	61.48	21.80	CN	Ĺ	Ğ
Finland	Porkkala	60.08	24.38	CN	V	Ğ
Finland	Porvoo	60.30	25.63	RN	v	Ğ
Finland	Sionilskar	60.20	19.33	CN	v	F
Finland	Torina	65.20	24.17	RN	S	F
Finland	Turku	60.45	27.17 22.23	RB	M	G
Finland	Vassa	63 10	21.29	CN	M	G
Finland	Veitsiluoto	65.70	21.50	CN	S	G
France	Ambes	45.02	0.53	RN	S	E U
France	Bayoppe	43.50	-0.55	RN	M	E
France	Blavo	45.50	-1.47	DN	IVI S	
France	Barifaria	45.15	-0.07	CN	S V	
Глансе	Dominacio Cala:	41.30	9.17		V	E
France	Calvi	42.57	8./5	CN	V S	F
France	Cannes	43.55	7.02		5	G
France	Deauville	49.37	0.08	LC	V	F
France	Dieppe	49.93	1.08	LC	S	G
France	Donges	47.30	-2.07	KN L O	S	E
France	Fecamp	49.77	0.37	LC	S	F
France	Le Verdon	45.55	-1.05	RN	S	F
France	Les Sables D' Olonne	46.50	-1.80	RB	Μ	F
France	Lorient	47.75	-3.35	RN	Μ	E
France	Montoir	47.30	-2.13	RN	Μ	G
France	Nantes	47.20	-1.57	RN	Μ	F
France	Ouistreham	49.28	-0.25	LC	V	G
France	Pauillac	45.20	-0.75	RN	S	Е
France	Port-La-Nouvelle	43.02	3.07	LC	S	G
France	Port De Caen	49.18	-0.35	LC	S	Е
France	Port Of Rouen	49.45	1.07	RN	L	Е
France	Port Saint Louis Du Rhone	43.38	4.82	LC	S	F
France	Porto Vecchio	41.58	9.28	CN	V	G
France	Tonnay Charente	45.93	-0.90	RN	S	Е
France	Treguier	48.78	-3.23	RN	V	F
French Guiana	Degrad Des Cannes	4.85	-52.27	RN	V	F
French Polynesia	Atuona	-9.82	-139.03	CN	V	G
French Polynesia	Baie Taiohae	-8.93	-140.08	CN	V	G
French Polynesia	Papeete	-17.53	-149.58	CN	S	Е
French Polynesia	Port Rikitea	-23.12	-134.97	CN	V	F
French Polynesia	Uturoa	-16.73	-151.45	CN	V	F
Gabon	Port Gentil	-0.70	8.80	CN	М	Е
Gambia	Baniul	13.45	-16.57	RN	V	F
Germany	Brunsbuttel Canal Terminals	53.90	9.15	LC	S	Ē
Germany	Brunsbuttel Elbahafen	53.88	9.17	RN	V	Ē
Germany	Busum	54.13	8.87	CN	v	F
Germany	Cuxbaven	53.87	8.72	RB	Ň	Ġ
Germany	Eckernforde	54.48	9.83	RB	S	G
Germany	Elepsburg	54.80	9.03	RB	S	G
Germany	Hamburg	53 55	0.03	IC	T	U F
Germany	Husum	55.55	9.95	DVI DVI		E E
Germany	Itzahoa	52.02	9.00	IVIN DVI	V V	Г Г
Cormony	Kappala	55.9Z	9.5Z	IVIN DNT	V V	F C
Germany	Kappeni	54.0/	9.93 10.12	KIN DD	V T	6
Germany		54.32	10.13	КĎ		G
Germany	Lubeck	53.88	10.70	LC	M	G
Germany	Ludeck-1 ravemunde	53.9/	10.88	KIN	5	G
Germany	Neuhaus	53.80	9.03	KN	V	F

Germany	Neustadt	54.10	10.82	RN	V	G
Germany	Nordenham	53.48	8.48	RN	S	G
Germany	Oldenburg	53.12	8.22	RN	V	G
Germany	Papenburg	53.10	7.38	LC	S	G
Germany	Rendsburg	54.30	9.68	LC	S	Ē
Germany	Rostock	54.10	12.13	RN	L	G
Germany	Wismar	53.90	11.47	CN	S	G
Germany	Wolgast	54.05	13.78	RN	V	Ğ
Greece	Achladi	38.90	22.82	CN	v	F
Greece	Andros	37.83	24.95	CN	v	F
Greece	Argostolion	38.18	20.52	CN	v	F
Greece	Astakos	38.48	21.10	CN	S	F
Greece	Avios Nikolaos	35.20	25.72	CN	V	1
Greece	Chalkis	38.47	23.60	CN	S	F
Greece	Dhiavlos Steno	38.45	23.60	CN	V	G
Greece	Gavrio	37.88	24.73	CN	v	F
Greece	Kali Limenes	34.93	24.83	CN	v	F
Greece	Kalimnos	36.95	26.98	CN	v	P
Greece	Kymassi	38.83	23.47	CN	v	F
Greece	Lagos	41.00	25.47	CN	v	F
Greece	Lakki	37.13	26.85	CN	v	G
Greece	Larimpa	38 57	20.05	CN	V	G
Greece	Mikopos	37.45	25.20	CN	V	D D
Greece	Miliana	30.17	23.33	CN	v	G
Greece	Milos	36.72	24.45	CN	v	G
Greece	Ormos Mikro Vathi	38.12	24.4J 23.60	CN	V	E O
Greece	Dilor	36.00	25.00	CN	V	г Е
Greece	Porthmos Euripou	38.47	21.07	CN	V	C I
Greece	Porumos Evipou	38.05	20.75	CN	V V	U E
Greece	Fieveza Somoo	27.75	20.75	CN	V V	г Б
Greece	Samos	25.75	20.97	CN	V	Г Г
Greece	Soudha	25.22 25.40	20.15	CN	V M	Г
Greece	Soudha	20 02	24.10	CN	IVI IVI	G E
Greece	Sulls	20.92 40.52	22.02	CN	V	Г Г
Greece	Stratom These legiti	40.52	23.03	CN	V M	Г
Greece		40.05	22.93	CN	IVI V	G E
Greece	I shigen	20.00	22.00	CN	V V	Г
Greece	V rakholiisis Kallollis	39.00 40.07	20.00	CN	V V	G E
Greece	Aggingt	40.27	23.47 53.97	CN	v c	Г
Greenland	Addia	67.05	-52.07	CN	S V	G E
Greenland	Attu	07.95	-33./3	CN	V V	Г Б
Greenland	Gronnedai (Kangliinnguit)	01.23	-48.10	CN	V	F F
Greenland	Inulissat (Jakobshavn)	09.22	-51.10	CN	5 V	F F
Greenland	Kajalleq Opernavik	/2.15 (E.92	-33.33	CN	V V	F C
Greenland	Kangamiut	05.82	-53.30	CN	V	G
Greenland	Kangerluarsoruseq	65.70	-51.55	CN	V	- G E
Greenland	Kangerlusuaq	66.97	-50.95	CN	V	F C
Greenland	Kusanartoq	61.//	-42.22	CN	5	G
Greenland	Maniitsoq	05.4Z	-52.92	CN	V	F D
Greenland	Nanortalik Havn	60.12	-45.20	CN	V	P
Greenland	Narsaq	60.92	-46.05	CN	V	P E
Greenland	Narsarssuaq	01.15	-45.45	CN	V	F C
Greenland		04.18	-51./5	CN	5	G
Greenland	Paamuit (Frederikshad)	62.00	-49.67	CN	5 V	F C
Greenland	Pituffik (Inule Air Base)	/0.55	-08.8/	CN CN	V V	G F
Greenland	Qaqurtoq	60.72	-40.05	UN CN	V • • •	F
Greenland	Qasigiannguit-Christianshab	68.82	-51.18	CN	V	G
Greenland	Qeqertarsuaq	69.23	-53.53	CN	5	G
Greenland	Qutdleq	61.52	-42.22	CN	V	G
Greenland	Sisimiut	66.92	-53.70	CN	S	F
Greenland	Upernavik	72.77	-56.15	CN	V	F
Greenland	Uummannaq Harbor	70.68	-52.15	CN	S	F
Grenada	St George's	12.05	-61.75	CN	S	F

Guadeloupe	Gustavia	17.90	-62.85	CN	V	Е
Guadeloupe	Pointe A Pitre	16.23	-61.53	CN	Μ	G
Guatemala	Santo Thomas De Castilla	15.70	-88.62	CN	S	G
Guinea	Benti	9.17	-13.20	RN	V	G
Guinea	Kamsar	10.63	-14.62	RN	V	F
Guinea	Victoria	10.82	-14.57	RN	V	G
Guinea-Bissau	Bissau	11.87	-15.63	RN	V	G
Guinea-Bissau	Rio Cacheu	12.28	-16.23	RN	V	G
Guyana	Georgetown	6.83	-58.17	RN	М	G
Guvana	Linden	6.00	-58.30	RN	V	Е
Guvana	New Amsterdam	6.25	-57.52	RN	V	G
Honduras	Coxen Hole	16.32	-86.55	CN	V	G
Honduras	Puerto De Hencan	13.40	-87.45	RN	V	F
Honduras	Puerto Este	16.08	-86.90	CN	V	G
Hong Kong	Hong Kong	22.27	114.20	CN	L	Ē
Iceland	Akurevri	65.68	-18.08	CN	V	F
Iceland	Bildudalur	65.68	-23.60	CN	v	F
Iceland	Budir	64.93	-14.02	CN	v	F
Iceland	Diupiyogur	64.67	-14 28	CN	v	F
Iceland	Eskifiordhur	65.07	-14.02	CN	v	F
Iceland	Hafnarfiordur	64.07	-21.95	CN	v	F
Iceland	Hornabiordur	64.25	_15.23	CN	V	F
Iceland	Husavik	66.03	_17.33	CN	V	P
Iceland	Isafiordur	66.07	23.12	CN	v	G
Iceland	Kopaskar	66.28	-25.12	CN	V	D
Iceland	Neskaupstadur	65.15	-10.45	CN	v V	I F
Iceland	Olefeficerdhur	66.08	-13.00	CN	V V	T D
Iceland	Paufarhofo	66.45	-16.05	CN	V V	r D
Leoland	Sandarkrahur	65.75	-13.93		V	r D
	Saudarktokur	05.75	-19.07		v	P E
	Seyanisijoranur	05.2/	-14.00		5 V	Г Г
	Signifornurd	00.15	-18.92		V	Г С
	Skagastrond	65.85	-20.32	CN	V	G
	Skerjafjordur	64.15	-22.02	CN	V	G
	Straumsvik	64.05	-22.05	CN	V	F F
Iceland	l hingeyn	65.88	-23.48	CN	V	E
Iceland	Vestmannaeyjar	63.43	-20.28	CN	5	E
Iceland	Vopnatjordhur	65./5	-14.83	CN	V	F D
India	Azhikal (Azhikkal)	11.92	/5.30	KN	V	Р
India	Bedi	22.52	70.03	RN	V	G
India	Calcutta	22.55	88.33	RN	L	G
India	Haldıa Port	22.02	88.08	RN	V	F
India	Kandla	23.03	70.22	RN	S	F
India	Kochi (Cochin)	9.97	76.23	CN	Μ	G
India	Magdalla	21.15	72.75	RN	V	G
India	Marmagao	15.43	73.80	RN	S	G
India	Okha	22.47	69.08	CN	V	G
India	Panaji	15.50	73.82	CN	V	Р
India	Pipavav Bandar	20.92	71.52	CN	S	G
India	Port Blair	11.68	92.75	CN	S	G
India	Ratnagiri	16.98	73.28	CN	V	Р
Indonesia	Amamapare	-4.82	136.97	CN	S	F
Indonesia	Ambon	-3.68	128.17	CN	S	F
Indonesia	Balikpapan	-1.25	116.82	CN	S	Ε
Indonesia	Banjarmasin	-3.33	114.58	RN	V	Ε
Indonesia	Baubau	-5.47	122.62	CN	V	G
Indonesia	Belawan	3.78	98.68	RN	Μ	G
Indonesia	Bengkalis	1.47	102.10	CN	V	G
Indonesia	Benoa	0.98	117.97	RN	V	G
Indonesia	Benoa	-8.75	115.22	CN	V	F
Indonesia	Bitung	1.43	125.18	CN	V	Е
Indonesia	Blinyu	-1.63	105.78	CN	V	F
Indonesia	Bontang Lng Terminal	0.10	117.48	CN	V	F

Indonesia	Celukan Bawang	<u>8</u> 1 8	11/83	CN	S	E
	Celukali Dawalig	-0.10	100.00	CN	Т	r E
Indonesia	Cilacap	-/./3	109.00	CN		E
Indonesia	Dumai	1.68	101.45	RN	М	F
Indonesia	Ende	-8.83	121.65	CN	V	F
Indonesia	Fakfak	-2.93	132.28	CN	V	F
Indonesia	Gunung Batu Besar	-2.62	116.30	RN	V	G
Indonesia	Iavapura	-2.53	140.72	CN	S	G
Indonesia	Kendari	-3.97	122 58	CN	V	Ğ
Indonesia	Kiiopa	0.85	104.60	RN	v	G
Trada a serie	IXijang IZ-1	1.09	104.00	CN	v V	U E
	Kolollodale	-1.96	121.55	CN	V	Г
Indonesia	Kota Baru	-3.23	116.22	CN	V	G
Indonesia	Kumai	-2.75	111./2	RN	V	G
Indonesia	Kupang	-10.17	123.58	CN	S	F
Indonesia	Manado	1.50	124.83	CN	S	Р
Indonesia	Manokwari Road	-0.87	134.08	CN	V	G
Indonesia	Merak Mas Terminal	-5.92	105.98	CN	Μ	F
Indonesia	Merauke	-8.48	140.38	RN	V	F
Indonesia	Miei	-2.73	134 50	CN	V	F
Indonesia	Muntok	2.75	105.17	CN	V	F
Indonesia	Namlas	-2.07	103.17	CN	v V	L L
	Inamiea	-3.20	127.00		V	Г
Indonesia	Palembang	-2.98	104.//	KN	M	E
Indonesia	Panarukan	-7.70	113.93	CN	V	Ν
Indonesia	Pangkalansusu	4.12	98.22	CN	V	F
Indonesia	Panjang	-5.47	105.32	CN	V	G
Indonesia	Patani	0.37	128.75	CN	V	F
Indonesia	Pomalaa	-4.17	121.60	CN	V	F
Indonesia	Pontianak	-0.02	109.33	RN	V	Е
Indonesia	Pulau Sambu	1.17	103.90	CN	S	F
Indonesia	Sailolof	-1.25	130.75	CN	V	F
Indonesia	Salawati	-1.35	130.98	RN	S	Р
Indonesia	Samarinda	-0.52	117.12	RN	V	G
Indonesia	Sampit	-2.52	113.00	RN	v	Ğ
Indonesia	Saumlaki	7.92	131.30	CN	v	G
Indonesia	Sami	-7.90	136.25	CN	V	E E
Indonesia	Scholee	-1.90	00.23	CN	v V	L L
	Sibolga	1.75	90.// 116.15		V	Г Г
Indonesia	Stagen	-5.50	110.15		V	F
Indonesia	Sungaigerong	-2.98	104.83	KN	V	G
Indonesia	Sungaipakning	1.35	102.17	CN	S	F
Indonesia	Tahuna	3.62	125.48	CN	V	G
Indonesia	Tanah Merah	-1.82	116.17	CN	V	Р
Indonesia	Tanjung Arang (Bunyu)	3.47	117.83	CN	V	F
Indonesia	Tanjung Balai Karimun	0.98	103.43	CN	V	Р
Indonesia	Tanjung Benete	-8.90	116.75	CN	V	Р
Indonesia	Tanjung Santan	-0.10	117.53	CN	V	Р
Indonesia	Tanjung Sekong	-5.92	106.00	CN	V	F
Indonesia	Taniungredeb	2.15	117.48	RN	S	G
Indonesia	Tanjunguhan	1.07	104.22	CN	V	Ē
Indonesia	Tarempah	3 22	106.22	CN	v	F
Indonesia	Table Bao	1 23	126.78	CN	V	D
Indonesia	Walac	4.2J	120.70	CN	v V	I E
		-2.70	129.50		V	Г
Indonesia	widuri Marine Terminal	-4.07	100.05		V	P
Iran	Abadan	30.33	48.28	KIN	M	G
Iran	Bandar-E Mahshahr	30.47	49.18	RN	S	G
Iran	Bandar Taheri Offshore Terminal	27.65	52.35	CN	V	Р
Iran	Bushehr	28.98	50.83	CN	М	F
Iran	Chah Bahar	25.27	60.62	CN	V	F
Iran	Jask	25.63	57.77	CN	V	
Iran	Khorramshahr	30.43	48.18	RN	Μ	G
Iran	Khosrowabad	30.17	48.42	RN	V	G
Iraq	Al Basrah	30.52	47.83	RN	М	G
Iraq	Khawr Al Zubair	30.18	47.90	RN	V	F
Iraq	Khawr Al Zubair Lng Terminal	30.13	47.92	RN	V	F
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Iraq	Umm Qasr	30.02	47.95	RN	S	Е
Ireland	Bantry	51.68	-9.45	CN	V	Е
Ireland	Castletown Bearhaven	51.65	-9.92	CN	V	F
Ireland	Cobh	51.85	-8.30	RN	Μ	Е
Ireland	Cork	51.85	-8.27	RN	Μ	Е
Ireland	Drogheda	53.72	-6.30	RB	V	F
Ireland	Fenit	52.27	-9.87	CN	V	G
Ireland	Foynes	52.62	-9.12	RN	L	G
Ireland	Greenore	54.03	-6.13	CN	V	G
Ireland	Killybegs	54.63	-8.45	CN	V	E
Ireland	New Ross	52.38	-6.95	RN	S	F
Ireland	Rathmullan	55.10	-7.53	CN	V	E
Ireland	Sligo	54.27	-8.47	RB	V	E
Ireland	Tarbert	52.58	-9.37	RN	V	G
Ireland	Valentia	51.93	-10.30	CN	V	F
Ireland	Waterford	52.27	-7.12	RN	V	G
Ireland	Westport	53.80	-9.53	CN	V	Ē
Israel	Elat	29.55	34.95	CN	S	F
Italy	Fiumicino	41.77	12.23	LC	V	F
Italy	Gioia Tauro	38.42	15.90	LC	Ś	Ē
Italy	La Maddalena	41.20	9.42	CN	S	G
Italy	Lipari	38.48	14 97	CN	V	F
Italy	Monfalcone	45.78	13 55	RB	Ň	G
Italy	Olbia	40.92	9.50	CN	S	p D
Italy	Porto Di Chioggia	45.22	12.30	RB	V	G
Italy	Porto Di Corsini	44 50	12.30		Ň	G
Italy	Porto Di Malamorco	45.33	12.20	LC	V	G
Italy	Porto Di Oristano	30.87	8 5 5	CN	Š	U
Tany	Kingston	17.07	76 78	CN	M	Б
Jamaica	Ocho Bios	18.42	-70.78	CN	V	D
Jamaica	Port Antonio	10.42	-77.12	CN	v S	C I
Jamaica	Aioi	34.78	134.47	CN	V	E O
Japan	Atsumi	34.70	137.07	CN	V	D
Japan	Chashi	35.72	140.95		V V	I E
Japan	Eulari Ko	36.19	140.05	DNI	v M	Г
Japan	Fukurko	30.10	130.10	CN	M	C
Japan		34.43	133.43	CN	IVI IVI	U E
Japan	Happan Ko	34.42	131.40	CN	v S	г Б
Japan		34.47	133.33	CN	S V	г Б
Japan	Libitingda	34.43	130.93	CN	V	г Б
Japan	I HDIKIHAda	33.93	121.02	CN	v	г Б
Japan	I likali	33.93	127.95	CN	S V	г Б
Japan	Limme Kawa	24.80	107.00	CN	V	г Б
Japan	HITATA KO	24.60 26.50	125.20		V	Г Г
Japan		22.29	140.03		V	Г Г
Japan	IIIIan Ishinomalyi Ka	33.20 29.40	141 22	ΓN CN	V	Г Г
Japan	Isninomaki Ko	38.40 24.20	141.52	CN	V	Г Б
Japan	Izunara Kanashina Ka	34.20 21.59	129.30	CN	V M	F C
Japan	Kagoshima Ko	31.38	130.57	CN	M	G E
Japan	Kamaishi Ko	39.27	141.90		5	F E
Japan	Kanazawa	36.6Z	130.00	KB	5 V	F C
Japan		<i>33.</i> /8	131.02	CN	V	G
Japan	Kanokawa Ko	34.18	132.43	CN	V	G
Japan	Karatsu	33.48	129.97	CN	5 V	G
Japan	Kashiwazaki	37.37	138.55	CN	V	F
Japan	Kesennuma Ko	38.8/	141.60		V	G
Japan	Kinuura Ko	34.85	136.95	KN	5	F
Japan	Kochi Ko	33.50	133.57	CN	M	P
Japan	Kudamatsu	34.00	131.87	CN	5	G
Japan	Kure	34.23	132.55	CN	M	G
Japan	Maizuru Ko	35.52	135.33	CN	S	F
Japan	Matsusaka	34.60	136.57	CN	8	F
Japan	Mishima-Kawanoe Ko	34.00	133.55	CN	S	F

Japan	Misumi Ko	32.60	130.47	CN	S	F
Japan	Mitsukojima	34.18	132.52	CN	V	F
Japan	Miyazu	35.53	135.20	CN	Μ	F
Japan	Mizushima Ko	34.50	133.75	CN	Μ	G
Japan	Moji Ko	33.95	130.97	RN	Μ	G
Japan	Muroran Ko	42.35	140.97	CN	Μ	G
Japan	Nagasaki	32.72	129.85	CN	L	F
Japan	Nanao Ko	37.05	136.98	CN	S	G
Japan	Niigata Ko	37.92	139.05	RB	М	F
Japan	Noshiro Ko	40.22	140.00	CN	V	F
Japan	O0kihama	34.75	134.57	CN	V	F
Japan	Ofunato	39.05	141.73	CN	S	G
Japan	Onomichi-Itozaki	34.38	133.17	CN	L	G
Japan	Owase Ko	34.07	136.22	CN	V	F
Japan	Ryotu Ko	38.08	138.57	CN	V	F
Japan	Sakai Ko	35.55	133.25	CN	S	F
Japan	Sakaide Ko	34.33	133.85	CN	V	F
Japan	Sakaiminato	35.53	133.23	CN	V	F
Japan	Sasebo	33.17	129.72	CN	M	G
Japan	Sendai-Shiogama	38.32	141.03	CN	S	F
Japan	Shimizu Ko	35.02	138 50	CN	Š	F
Japan	Shimminato	36.77	137.12	RB	V	F
Japan	Shimonoseki	33.93	130.93	CN	S	G
Japan	Tagonoura Ko	35.13	138.70	RB	M	G
Japan	Takuma	34.22	133.68	RB	S	G
Japan	Tanahe Ko	33.72	135.00	CN	V	E E
Japan	Tatevama Ko	35.00	139.80	CN	V	F
Japan	Toba	34.48	136.85	CN	S	F
Japan	Tobata	33.02	130.82	CN	V	D D
Japan	Tobro Ko	35.72	130.02	CN	v T	I C
Japan	Lehiura	35.52	135.75	CN		D
Japan	Uno Ko	31.18	133.05	CN	v	I F
Japan		34.40	133.93	CN	V	Г Б
Japan	Uraga Ko	33.23	139.72	CN	V	T D
Japan	Waltamatan Ko	33.22	132.37	CN	v T	г Б
Japan	Wakamatsu NO	33.90 22.97	130.02		L S	Г Г
Japan	I allala Vatavahina Va	33.07 32.50	130.62	ND DNI	S	Г
Japan	Tatsushiro Ko Vawatahama	32.30	130.33	CN	S V	G
Japan	I awatanania Voltooulta Ko	33.43 25.29	132.42		V M	G
Japan	I OKOSUKA KO	33.20 2.27	139.07		NI S	G E
Kenya	Lamu Malia Ji	-2.27	40.90		S	Г Г
Kenya Visih sti	Frankin	-3.22	40.15		S V	Г Г
KinDau Vaaraa		5.65 20.25	-139.57		V	Г
Kuwait	AI Kuwayt	29.55	47.93	CN	V	P
Kuwait	Dona Harbor	29.38	47.80		V	P E
Latvia	Lieupe	57.00	23.43	KIN	V	F F
Latvia	Kiga	56.95	24.10	KIN		F F
Latvia	Salacgriva	57.70	24.37	KIN	V	F F
Liberia	Greenville	4.98	-9.05	CN	V	F N
Libya	Abu Khammash	33.07	11.82	CN	V	N
Libya	Khoms	32.67	14.25	CN	V	F
Lithuania	Klaipeda	55.72	21.12	KN CN	M	6 E
Madagascar	Antsohim Bondrona	-13.08	48.83	CN	V	F
Madagascar	Iharana	-13.35	50.00	CN	V	6 E
Madagascar	Manajanga	-15.72	46.30	CN	V N	F
Malaysia	Bakapit	4.95	118.58	CN	V	F
Malaysia	Bintangor	2.17	111.63	KN	V	F
Malaysia	Johor	1.43	103.90	KN	L	F
Malaysia	Kemaman Harbor	4.25	103.47	CN	V	G
Malaysia	Kota Kinabalu	5.98	116.07	CN	Μ	F
Malaysia	Kuala Trengganu	5.35	103.13	RB	V	G
Malaysia	Kuching	1.57	110.35	RN	S	Е
Malaysia	Lahad Datu	5.02	118.32	CN	V	G

Malazzia	Lumerat	1.22	100 62	DNI	17	E
Nalaysia		4.23	100.03		V	Г
Malaysia	Melaka	2.20	102.25	KN	8	G
Malaysia	Miri	4.38	113.97	RN	S	F
Malaysia	Muar	2.05	102.57	RN	V	F
Malaysia	Pelabuhan Bass	6.32	99.83	CN	V	G
Malaysia	Pelabuhan Sandakan	5.83	118.12	CN	S	G
Malaysia	Port Klang	3.00	101.40	CN	L	G
Malaysia	Pulau Pipapa	5.00	100.35	CN	M	Ğ
Malaysia	Samangan Day	5.42	116.12	CN	S S	E
Nalaysia	Sapangar Day	0.08	110.12		3	r C
Malaysia	Sarikei	2.13	111.55	KIN	V	G
Malaysia	Sibu	2.28	111.82	RN	V	G
Malaysia	Tanjung Pelepas	1.35	103.55	RB	Μ	G
Malaysia	Tawa	4.25	117.88	CN	V	F
Malaysia	Teluk Anson	4.02	101.02	RN	V	F
Malaysia	Tg. Mani	2.15	111.35	RN	V	F
Malavsia	Victoria	5.28	115.23	CN	S	Е
Maldives	Male	4 17	73 50	CN	V	F
Malta	Marsavlokk	35.82	14 55	CN	S	G
Malta	Wallotta Harbora	35.02	14.53	CN	M	E E
M	Valietta Harbors	33.90	14.52	CN		E C
Mauntania	Nouadhibou	20.92	-17.05		IVI IVI	G
Mauritius	Port Mathurin	-19.68	63.42	CN	V	F
Mexico	Acapulco	16.85	-99.93	CN	М	E
Mexico	Altamira	22.48	-97.85	RB	V	Р
Mexico	Coatzacoalcos	18.15	-94.42	RN	S	G
Mexico	Frontera	18.53	-92.65	RN	V	G
Mexico	La Paz	24.17	-110.32	CN	S	G
Mexico	Lazaro Cardenas	17.93	-102.17	RB	S	G
Mexico	Mazatlan	23.20	-106.42	RN	Μ	G
Mexico	Minatitlan	17.90	-94.58	RN	V	E
Mexico	Nanchital	18.07	-94 42	RN	V	Ē
Mexico	Puerto Madero	14 70	-92.45	RB	v	F
Mexico	Puerto Vallarta	20.62	-105.27	RB	Š	Ġ
Mexico	Tampico	20.02	07.87	RN	M	G
Movico	Tanalahampa	25.60	100.07	CN	S S	E E
Maria	Topolobalipo	20.05	-109.07		л М	
Mexico	Tuxpan	20.95	-97.40	KIN CNI	IVL N	E
Micronesia	Colonia	9.52	158.15		V	G
Micronesia	Lele Harbor	5.33	163.03	CN	V	F
Micronesia	Pohnpei Harbor	6.98	158.20	CN	S	F
Montenegro	Kotor	42.42	18.77	CN	V	F
Morocco	Essaouira	31.50	-9.78	CN	V	F
Morocco	Kenitra	34.30	-6.60	RN	S	Е
Mozambique	Beira	-19.83	34.83	CN	Μ	G
Mozambique	Chinde	-18.57	36.50	RN	S	F
Mozambique	Ibo	-12.33	40.62	CN	V	F
Mozambique	Inhambane	-23.92	35.40	RN	S	G
Mozambique	Maputo	-25.97	32.58	LC	M	Ē
Mozambique	Mocambique	-15.03	40.73	CN	S	F
Mozambique	Nacala	14.53	40.67	CN	V	G
Mozambique	Debane	-17.55	20.07	DN	v S	E E
Managah	Oralizzation	-1/.2/	26.00		5 V	Г С
Mozambique	Quelimane	-1/.88	30.88	KIN	V O	G
Myanmar (Burma)	Bassein	16.78	94./3	KIN	8	G
Myanmar (Burma)	Mergui	12.43	98.60	RN	8	E
Myanmar (Burma)	Moulmein Harbor	16.48	97.62	RN	S	G
Myanmar (Burma)	Rangoon	16.77	96.17	RN	S	G
Namibia	Walvis Bay	-22.95	14.50	CN	S	G
Netherlands	Amsterdam	52.37	4.90	LC	L	E
Netherlands	Den Helder	52.97	4.78	RB	S	G
Netherlands	Dordrecht	51.82	4.65	RN	Μ	G
Netherlands	Eemshaven	53.45	6.83	RB	S	F
Netherlands	Europoort	51.95	4.12	LC	М	G
Netherlands	Hoek Van Holland	51.95	4.13	RB	V	Ğ
Netherlands	Maassluis	51.92	4.25	LC	V	Ğ
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Netherlands	Rotterdam	51.90	4.48	RB	L	F
Netherlands	Schiedam	51.90	4.40	RB	V	G
Netherlands	Vlaardingen	51.90	4.35	RB	V	G
Netherlands	Vlissingen	51.45	3.60	RN	Μ	G
Netherlands	Zaandam	52.43	4.83	LC	S	Е
New Caledonia	Noumea	-22.28	166.43	CN	S	Е
New Zealand	Akaroa	-43.80	172.97	CN	V	G
New Zealand	Auckland	-36.85	174.77	RN	L	Е
New Zealand	Collingwood	-40.68	172.67	CN	V	G
New Zealand	Gisborne	-38.67	178.03	RB	S	G
New Zealand	Greymouth	-42.43	171.22	RN	V	G
New Zealand	Manukau Harbor	-36.93	174.78	CN	Μ	G
New Zealand	Opua	-35.32	174.12	RN	V	G
New Zealand	Otago Harbor	-45.82	170.63	RB	S	G
New Zealand	Picton	-41.28	174.02	RB	S	G
New Zealand	Tarakohe	-40.85	172.90	CN	V	F
New Zealand	Tauranga	-37.63	176.17	CN	S	Е
New Zealand	Wanganui	-39.95	175.03	RN	V	G
New Zealand	Wellington	-41.28	174.78	CN	L	Е
New Zealand	Westport	-41.75	171.60	RN	V	Е
New Zealand	Whangarei	-35.80	174.43	RN	S	G
New Zealand	Whangaroa	-35.05	173.77	CN	V	Е
Nicaragua	Corinto	12.48	-87.17	RN	S	G
Nicaragua	El Bluff	12.00	-83.70	CN	V	
Nigeria	Bonny	4.45	7.17	RN	М	G
Nigeria	Burutu	5.35	5.50	RN	V	G
Nigeria	Calabar	4.97	8.32	RN	V	E
Nigeria	Forcados	5.37	5.43	RN	V	F
Nigeria	Koko	6.00	5.47	RN	V	F
Nigeria	Lagos	6.40	3.40	RN	L	G
Nigeria	Okrika	4.72	7.08	RN	V	F
Nigeria	Onne	4.68	7.15	RN	V	F
Nigeria	Port Harcourt	4.77	7.00	RN	V	F
Nigeria	Sapele	5.90	5.68	RN	V	F
Nigeria	Tin Can Island	6.35	3.35	RN	V	F
Nigeria	Warri	5.52	5.73	RN	V	G
Niue	Alofi	-19.03	-169.93	CN	V	G
North Korea	Ch'ongiin	41.77	129.82	CN	S	F
North Korea	Kvomip'o	38.73	125.62	RN	V	F
North Korea	Naiin	42.23	130.30	RB	S	F
North Korea	Nampo	38.72	125.40	RN	S	F
North Korea	Senbong	42.33	130.40	CN	S	F
North Korea	Wonsan	39.17	127.45	CN	S	G
Northern Mariana Is	Saipan	15.20	145.68	CN	S	Р
Norway	Alta	69.97	23.25	CN	V	G
Norway	Andalsnes	62.57	7.68	CN	V	F
Norway	Ardalstangen	61.23	7.72	RN	V	F
Norway	Ballstad	68.07	13.70	CN	V	F
Norway	Batsfiorden	70.63	29.73	CN	S	G
Norway	Berg	65.37	12.20	CN	V	F
Norway	Bergen	60.40	5.32	CN	М	Е
Norway	Brattholmen	60.35	5.17	CN	V	G
Norway	Bredvik	70.58	22.13	CN	V	G
Norway	Brettesnes	68.23	14.85	CN	V	G
Norway	Brevik	59.07	9.70	CN	S	G
Norway	Bronnovsund	65.47	12.20	CN	V	Ğ
Norway	Diupviken	63.78	11.45	CN	S	G
Norway	Drag	68.05	16.08	CN	v	F
Norway	Egersund	58.45	6.00	RN	V	Ġ
Norway	Espevaer	59.58	5.15	CN	V	G
Norway	Farsund	58.08	6.82	ČŇ	v	G
Norway	Fauske	67.25	15.37	CN	V	Ğ
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Norway	Finnsnes	69.23	17 97	CN	V	F
Norway	Flekkefiorden	58.30	6.67	RR	s	F
Norway	Fire dullasta d	50.50	10.07		5	
Norway	Fredrikstad	59.20	10.95	KIN	5	G
Norway	Gibostad	69.35	18.08	CN	V	F
Norway	Glomfjord	66.82	13.98	CN	V	G
Norway	Halden	59.12	11.38	RN	S	G
Norway	Hammerfest	70.67	23.67	CN	Μ	G
Norway	Harovsund	62.90	6.97	CN	S	G
Norway	Harstad	68.80	16 55	CN	M	Ğ
Norway	Hangagund	50.42	5 27	CN	C IVI	E
Notway	I laugesuild	59.42	12.60		5 17	E C
Norway	Hemnesberget	66.23	13.62	CN	V	G
Norway	Hommelvík	63.42	10.80	CN	V	G
Norway	Honningsvag	70.98	26.00	CN	S	F
Norway	Horten	59.42	10.50	CN	Μ	G
Norway	Kambo	59.47	10.68	CN	V	G
Norway	Kirkenes	69.73	30.05	CN	S	G
Norway	Kierringov	67 52	14 77	CN	V	Ē
Norway	Vielleforder	70.05	1 T .//	CN	V	C I
Norway	Kjoherjorden	/0.95	27.33		V	G
Norway	Korsnes	68.25	16.07	CN	V	F
Norway	Kristiansand	58.15	8.00	CN	S	G
Norway	Kristiansund	63.12	7.73	CN	S	Е
Norway	Kvalsund	70.50	23.98	CN	V	F
Norway	Lakselv	67.37	15.60	CN	S	G
Norway	Langstein	63 53	10.90	CN	V	Ğ
Norway	Laingit	50.78	5 50	CN	v	G
Norway		(2.75	11.20		V V	G
Norway	Levanger	03.75	11.50	KIN	V	G
Norway	Lilandsgrunnen	68.48	16.88	CN	V	G
Norway	Litle Ballangen	68.33	16.85	CN	V	G
Norway	Lodingen	68.42	16.00	CN	V	G
Norway	Malm	64.07	11.23	RN	V	G
Norway	Malov	61.93	5.12	CN	S	G
Norway	Mandal	58.02	7.47	RN	V	G
Norway	Medby	68.92	17 73	CN	v	P
Norway	Meling	50.72	5 1 2	CN	v	C I
Norway	Mellig	39.76	5.12		v	G
Norway	Molde	62.73	/.1/	CN	8	G
Norway	Moldtustranda	62.30	5.65	CN	V	G
Norway	Mosjoen	65.83	13.20	RN	V	E
Norway	Moss	59.45	10.67	CN	S	G
Norway	Mosterhamn	59.70	5.40	CN	V	G
Norway	Muruvik	63.43	10.85	CN	V	G
Norway	Namsos	64 47	11 50	CN	S	G
Norway	Norheimsund	60.37	6.15	PR	V	E
Norway		60.57	0.15	DD	V V	E E
Norway		00.08	0.55		V V	Г
Norway	Okstjord	/0.23	22.35	CN	V	G
Norway	Ornes	66.87	13.72	CN	V	F
Norway	Orstav	62.20	6.13	CN	S	F
Norway	Oslo	59.92	10.75	CN	L	G
Norway	Porsgrunn	59.15	9.67	RN	S	E
Norway	Reine	67.93	13.10	CN	V	F
Norway	Rekefiord	58 33	6.27	RN	V	G
Norway	Risor	58 72	9.23	CN	v	Ğ
Norway	Deenen	67.10	15 40	CN	V	- С Е
Norway	Nogilari	67.10	13.42		V	E
Norway	Korvík	64.8/	11.25	CN	V	G
Norway	Sagvag	59.77	5.38	CN	V	G
Norway	Salsbruket	64.80	11.87	CN	S	G
Norway	Sandefjorden	59.12	10.23	RB	S	G
Norway	Sandnes	58.85	5.75	RB	V	G
Norway	Sandnessioen	66.02	12.63	CN	V	F
Norway	Sampshorg	59 27	11 10	RN	v	Ģ
Norman	Sanda	50.65	6 25	CN	1 7	
Norman	Source	59.05	17.02		V 17	0 D
INOIWAY	Sjovegan	00.00	17.00		v	Р -
INOrway	Skien	59.20	9.60	KN	S	E

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Norway	Skrova Havn	68.17	14.67	CN	V	G
Norway	Sortland	68.70	15.42	CN	V	G
Norway	Sorvaer	70.63	21.98	CN	V	Р
Norway	Stamsund	68.12	13.85	CN	V	F
Norway	Steinkjer	64.02	11.50	CN	V	G
Norway	Storsteilene	59.82	10.60	CN	V	G
Norway	Strandvik	60.17	5.67	CN	V	G
Norway	Sunndalsora	62.68	8.55	RB	V	G
Norway	Svelvik	59.62	10.40	CN	V	G
Norway	Svolvaer	68.23	14.58	CN	S	G
Norway	Talvik	70.05	22.97	CN	v	Ğ
Norway	Thamshamm	63.32	9.88	CN	S	G
Norway	Tiotta	65.83	12.00	CN	V	E E
Norway	Tofte	50.55	10.57	CN	V	I F
Norway	Tonsherg	50.28	10.37		V	C C
Norway	Trannosot	59.20	5.02	CN	v c	C C
Notway	There are	00.42	15.02	CN	5 V	U U U U
Norway		08.18	15.07		V	Г Г
Norway	Trondneim	63.43	10.40		M	E
Norway	lvedestrand	58.62	8.93	RB	5	F
Norway	Ulv1k	68.57	16.27	RN	V	F
Norway	Vaksdal	60.48	5.73	RN	S	G
Norway	Vardo	70.37	31.12	CN	S	E
Oman	Khawr Khasab	26.22	56.23	CN	S	F
Pakistan	Gwadar	25.13	62.30	CN	Μ	F
Pakistan	Karachi	24.78	66.98	CN	Μ	G
Pakistan	Muhamamad Bin Qasim	24.77	67.35	CN	S	G
Panama	Almirante	9.30	-82.40	CN	V	G
Panama	Bahia De Las Minas	9.40	-79.82	RN	S	F
Panama	Balboa	8.95	-79.57	LC	Μ	G
Panama	Pedregal	8.35	-82.43	RN	S	G
Papua New Guinea	Alotoa	-10.32	150.45	CN	V	F
Papua New Guinea	Bialla	-5.30	150.98	CN	V	F
Papua New Guinea	Discovery Bay	-10.42	150.42	CN	V	G
Papua New Guinea	Hamburg Harbor	-1.63	149.97	CN	V	F
Papua New Guinea	Kavieng Harbor	-2.58	150.80	CN	S	Е
Papua New Guinea	Kieta	-6.22	155.63	CN	S	F
Papua New Guinea	Kimbe	-5.13	150.53	CN	v	F
Papua New Guinea	Longan Island	-1 22	144 30	CN	v	p
Papua New Guinea	Madang	-5.22	145.82	CN	v	G
Papua New Guinea	Oro Bay	-8.88	148.48	CN	v	G
Papua New Guinea	Queen Carola Harbor	-5.17	154.55	CN	v	G
Papua New Guinea	Rabaul	-3.17	152.18	CN	S	E E
Papua New Guinea	Samarai	-4.20	150.67	CN	V	E E
Papua New Guinea	Suloza Harbor	-10.02	152.77	CN	V V	L L
Papua New Guinea	Vanimo	-).22	1/1/1/2	CN	v S	
Papua New Guinea	Puerto De Asuncion	-2.00	5770		S V	
Paraguay	Fuerto De Asunción	-23.27	-57.00		V C	
Peru	Iquitos	-3./3	-/3.23	KIN CNI	5 V	E
Peru	Puerto De Chimbote	-9.08	-/8.02	CN	V	G F
Peru	l alara	-4.58	-81.28	CN	5	F
Philippines	Basco	20.45	121.97	CN	V	F
Philippines	Bugo	8.52	124./5	CN	V	G
Philippines	Butuan City	8.95	125.53	RN	V	E
Philippines	Cagayan De Oro	8.50	124.67	CN	Μ	G
Philippines	Claveria	18.62	121.08	CN	V	F
Philippines	Davao	7.07	125.62	CN	S	G
Philippines	General Santos	6.12	125.18	CN	V	G
Philippines	Gingoog	8.83	125.10	CN	V	Р
Philippines	Guiuan	11.03	125.72	CN	V	F
Philippines	Hinatuan	8.37	126.33	CN	V	F
Philippines	Jimenez	8.33	123.87	CN	V	G
Philippines	Laoang	12.57	125.02	RN	V	F
Philippines	Lazi	9.13	123.63	CN	V	F

Philippines	Mangagoy	8.23	126.32	CN	S	G
Philippines	Margosatubig	7.58	123.17	CN	V	Е
Philippines	Mariveles	14.43	120.48	CN	V	F
Philippines	Masao	9.00	125.42	CN	V	Р
Philippines	Masbate	12.37	123.62	CN	S	Е
Philippines	Masinloc	15.55	119.95	CN	V	G
Philippines	Nasipit Port	8.98	125.33	RN	V	F
Philippines	Nasugbu	14.08	120.62	CN	V	Р
Philippines	Pagadian	7.83	123.43	CN	V	G
Philippines	Palompon	11.05	124.38	CN	V	G
Philippines	Port Holland	6.55	121.87	CN	V	G
Philippines	Port Romblon	12.58	122.27	CN	V	F
Philippines	Port San Vicente	18.52	122.13	CN	V	F
Philippines	Puerto Princesa	9.73	118.73	CN	S	G
Philippines	Santa Clara	7.78	122.68	CN	V	F
Philippines	Siasi	5.55	120.82	CN	V	Р
Philippines	Sorsogon	12.97	124.00	CN	v	Ē
Philippines	Subic Bay	14.80	120.27	CN	M	Ē
Philippines	Tacloban	11.25	125.00	CN	S	Ğ
Philippines	Virac	13.58	124.25	CN	V	Ğ
Poland	Darlowo	54 43	16.42	RB	v	Ē
Poland	Gdansk	54 35	18.67	LC	T.	Ē
Poland	Kolobrzeg	54 22	15.55	RN	V	E
Poland	Nowy Port	54 42	18.67		S	F
Poland	Police	53 57	14.57	CN	S	E E
Poland	Swipouiscie	53.97	14.27	RN	S	G
Poland	Szczecip	53.72	14.55	RN	M	G
Poland	Ustka	54 58	16.85	RN	S	E E
Portugal	Apara Do Heroismo	38.65	27.22	CN	V	г Б
Portugal	Aveiro	40.65	-27.22	RN	v M	Г С
Portugal	Douro	40.03	-0.03	RN	V	G
Portugal	Earo	41.13	-0.07	DN	V	0 C
Portugal	Figueira Da Foz	40.15	-7.93	DN	V	G
Portugal	Lisher	40.13	-0.03	DN	V T	С Б
Portugal	Lisboa Draia Da Vitoria	30.70	-9.17	CN		E E
Portugal	Prata De Vitoria	30.72 20 E2	-27.05		V S	г Б
Portugal	Vila Da Darta	36.32 36.03	-0.90	CN	3 V	
Portugal	Vila Do Porto	27.19	-25.15		V	Г
Portugal	Vila Real De 5 Antonio	37.10 25.29	-/.40 51 52	CN	V S	G E
Qatar	Dona	23.20	20.42		3 V	Г
Romania Democratic	Dasaradi Durile	44.17	20.43		V	P
Romania		45.25	27.98		V	G D
Romania	D 1 D 1 C 1	44.33	28.05	KIN	V	P
Romania	Danube-black Sea Canal	44.27	20.10	LC DNI	INL C	P
Romania	Galati	43.4Z	28.08	KIN LC	5 V	G D
Komania		44.25	28.27	LC DN	V	P
Komania		45.17	29.67	KIN DNI	V	G
Komania		45.17	28.82	KN CN	V	F
Kussia	Ambarchik	69.63	162.32		V	F
Kussia	Arkhangels'k	64.53	40.53	KN	M	G
Kussia	AZOV	47.10	39.43	KN	V	6
Russia	Belomorsk	64.53	34.80	CN	8	F
Russia	Bolshaya Piryu Guba	66.67	34.37	CN	8	G
Russia	Bukhta Gaydamak	42.87	132.68	CN	V	P
Russia	Bukhta Nagayeva (Magadan)	59.57	150./2	CN	S	E
Kussia	Bukhta Vanino	49.08	140.28	CN	V	F
Kussia	De Kastri	51.47	140.78	CN	M	P
Russia	Dudinka	69.40	86.17	RN	M	G
Russia	Gavan Vysotsk	60.62	28.57	LC	S	G
Russia	Gelendzhik	44.55	38.07	CN	V	F
Russia	Igarka	67.48	86.60	RN	S	G
Russia	Kaliningrad	54.70	20.48	RB	Μ	Ε
Russia	Kandalaksha	67.13	32.42	RN	V	F

Russia	Keret	66.28	33.57	CN	S	F
Russia	Kovda	66.68	32.87	CN	V	G
Russia	Lomonosov	59.92	29.77	CN	V	F
Russia	Mezen	65.83	44.18	CN	S	G
Russia	Moskal Vo	53.58	142.50	CN	V	F
Russia	Murmansk	68.98	33.05	RN	L	G
Russia	Mys Abram	68.98	33.03	CN	V	F
Russia	Mys Novyv Port	67.67	72.90	RN	V	F
Russia	Nakhodka	42.80	132.88	CN	S	F
Russia	Nar Yan-Mar	67.65	53.00	RN	v	F
Russia	Nikol Skove	55.20	165.98	CN	v	P
Russia	Nikolavevsk Na Amur	53. <u></u> 20	140.73	RN	v	G
Russia	Okha	53 55	1/3.00	CN	v	E
Russia	Okhotsk Iv Revd	50.35	143.00	RN	V	F
Russia		63.00	38.10	RN RN	v V	C I
Russia	Onega Ostrovnov Cromikha	68.05	20.52	CN	v S	C
Russia	Detroperderel	52.05	15075	CN	S V	G
Russia	Petropaviovsk Danala	55.05	130.05		V V	G
Russia	Pever	09.7Z	170.50	CN	V	G
Kussia	Port Dikson	/ 3.50	80.52	CN	V V	G
Kussia	Posyet	42.65	150.80	CN	V	F
Russia	Provideniya	64.42	-1/3.23	CN	V	G
Russia	Rabocheostrovsk	64.98	34.78	CN	5	F
Russia	Reka Luga	59.67	28.32	RN	V	F
Russia	Rostov-Na-Donu	47.17	39.72	RB	S	G
Russia	Severodvinsk	64.57	39.78	CN	S	F
Russia	Shakhtersk	49.17	142.07	CN	V	F
Russia	Shakotan	43.87	146.83	CN	V	G
Russia	Slavyanka	42.87	131.38	CN	S	G
Russia	Sovetskaya Gavan	48.97	140.28	CN	S	G
Russia	Temryuk	45.35	37.35	RN	V	F
Russia	Tiksi	71.63	128.87	CN	S	F
Russia	Ust-Port	69.67	84.43	RN	V	G
Russia	Vitino	67.08	32.32	CN	V	Р
Russia	Vladivostok	43.12	131.90	CN	L	G
Russia	Vyborg	60.72	28.75	CN	М	G
Russia	Zarubino	42.63	131.08	CN	V	F
Samoa	Apia	-13.82	-171.77	CN	V	G
São Tomé & Príncipe	Santo Antonio	1.65	7.45	CN	V	F
Saudi Arabia	Sharmah	27.93	35.25	CN	V	Р
Senegal	Karabane	12.57	-16.67	RN	V	G
Senegal	Lyndiane	14 17	-16.17	RN	v	F
Seneral	St Louis	16.02	-16.52	RN	s	G
Sevehelles	Victoria	162	55.45	CN	V	E E
Sierra Leone	Bonthe	7 53	12 50	RN	V	G
Sierra Leone	Freetown	8.50	13.23	CN	s	E E
Sierra Leone	Papal	8.50	-13.25	DN	V	Г С
Siegeneere	Feper	0.30	-13.05	CN	V T	G
Singapore	Jurong Island	1.20	103.75	CN		G
Singapore	Reppei - (East Singapore)	1.28	103.85	CN		G
Singapore	Serangoon Harbor	1.40	103.95	CN	V	G
Sint Maarten	Phillipsburg	18.02	-63.05	CN	5	F T
Slovenia	Koper	45.55	13./3	CN	8	F F
Solomon Islands	Gizo Harbor	-8.10	156.85	CN	V	E
Solomon Islands	Ringgi Cove	-8.12	157.10	CN	5	F
Solomon Islands	Tulaghi	-9.10	160.15	CN	V	G
Solomon Islands	Yandina	-9.08	159.22	CN	V	G
South Africa	East London	-33.03	27.92	RN	S	Е
South Georgia & South	Grytviken	-54.27	-36.50	CN	V	F
Sandwich Islands				UT N	v	1,
South Georgia & South	Prince Olav Harbor	-54.03	-37.15	CN	17	C
Sandwich Islands				UN	v	G
South Georgia & South	Stromness Harbor	-54.15	-36.70	CN	17	F
Sandwich Islands				UN	v	Г

South Korea	Chinae	35.13	128.65	CN	S	F
South Korea	Gwangyang Hang	34.85	127.80	CN	М	G
South Korea	Inchon	37.47	126.62	RB	L	G
South Korea	Kunsan	35.98	126.62	RN	S	F
South Korea	Masan	35.18	128.57	CN	Μ	G
South Korea	Mokpo	34.78	126.38	RN	М	G
South Korea	Pyeongtaek Hang	37.00	126.80	RN	М	F
South Korea	Ulsan	35.45	129.40	RN	М	Е
Spain	Aguilas	37.40	-1.57	CN	V	F
Spain	Aviles	43.60	-5.93	LC	S	Е
Spain	Burriana	39.88	-0.05	RN	V	F
Spain	Ferrol	43.48	-8.23	RN	М	Е
Spain	Hornillo	37.40	-1.55	CN	V	F
Spain	Huelva	37.25	-6.95	RN	Μ	G
Spain	La Coruna	43.37	-8.40	CN	S	Е
Spain	Mahon	39.88	4.27	RB	V	Р
Spain	Puerto De Pasajes	43.33	-1.93	RN	М	F
Spain	Ribadeo	43.53	-7.03	RN	V	G
Spain	Rosas	42.27	3.18	CN	V	G
Spain	San Ciprian	43.70	-7.43	CN	V	F
Spain	Santander	43.47	-3.78	RN	М	G
Spain	Sevilla	37.37	-6.00	LC	М	G
Spain	Villagarcia De Arosa	42.60	-8.77	CN	V	Е
Sri Lanka	Trincomalee Harbor	8.55	81.22	CN	Μ	G
St. Lucia	Castries	14.02	-61.00	CN	S	G
St. Lucia	Grand Cul De Sac Bay	13.98	-61.02	CN	S	G
St. Lucia	Vieux Fort	13.72	-60.97	CN	V	G
St. Vincent & Grenadines	Kingstown	13.15	-61.23	CN	S	F
Sudan	Al Khair Oil Terminal	19.58	37.25	CN	S	
Sudan	Sawakin Harbor	19.13	37.35	CN	S	
Suriname	Moengo	5.63	-54.42	RN	V	Е
Suriname	Nieuw Nickerie	5.95	-57.00	RN	V	F
Suriname	Paramaribo	5.83	-55.17	RN	S	Е
Suriname	Paranam	5.62	-55.10	RN	V	E
Svalbard & Jan Mayen	Barentsburg	78.07	14.23	CN	V	F
Svalbard & Jan Mayen	Longyearbyen	78.20	15.70	CN	V	G
Svalbard & Jan Mayen	Ny Alesund	78.92	11.95	CN	V	F
Sweden	Ahus	55.93	14.32	RB	S	G
Sweden	Bollstabruk	63.00	17.70	CN	V	G
Sweden	Bovallstrand	58.48	11.33	CN	V	F
Sweden	Brannfors	65.02	21.38	CN	V	G
Sweden	Brofjorden	58.38	11.42	CN	S	Р
Sweden	Domsjo	63.27	18.73	CN	V	G
Sweden	Farosund	57.92	19.05	CN	S	F
Sweden	Figeholm	57.37	16.50	CN	V	F
Sweden	Fjallbacka	58.60	11.28	CN	V	G
Sweden	Gavle	60.68	17.17	CN	S	G
Sweden	Grebbestad	58.68	11.27	CN	V	G
Sweden	Grisslehamn	60.10	18.82	CN	V	F
Sweden	Gumbodahamn	64.23	21.10	RB	V	G
Sweden	Gustavsberg	59.32	18.38	CN	V	E
Sweden	Gustavsvík	62.83	17.88	CN	V	G
Sweden	Hallstavík	60.05	18.58	RB	V	E
Sweden	Hargshamn	60.18	18.45	CN	V	E
Sweden	Harnosand	62.63	17.93	CN	S	E
Sweden	Hudiksvall	61.73	17.12	RB	S	G
Sweden	Hunnebostrand	58.43	11.30	CN	V	G
Sweden	Husum	63.33	19.15	CN	V	G
Sweden	Iggesund	61.65	17.08	CN	V	Е
Sweden	Kagehamn	64.83	21.03	CN	V	G
Sweden	Karlsborg	65.80	23.28	CN	М	G
Sweden	Karlshamn	56.17	14.87	RN	Μ	G

Sweden	Karskar	60.68	17.27	CN	V	G
Sweden	Kopmanholmen	63.17	18.58	CN	V	G
Sweden	Kramfors	62.93	17.80	CN	V	Ğ
Sweden	Landskrona	55.87	12.83	CN	S	G
Sweden	Lulea	65.58	22.03	CN	M	G
Sweden	Lunda	62.88	17.88	CN	V	G
Sweden	Manaturand	02.00 57.00	11.00	CN	V V	C
Sweden		57.00	11.30		V	G
Sweden	Nordmaling	63.57	19.48		V	G
Sweden	Norrkoping	58.58	16.20	KN	M	G
Sweden	Norrsundet	60.93	17.17	CN	V	G
Sweden	Nykoping	58.75	17.02	RB	S	G
Sweden	Nynashamn	58.90	17.97	CN	S	E
Sweden	Obbola	63.70	20.33	CN	V	Е
Sweden	Oskarshamn	57.27	16.45	CN	S	G
Sweden	Oxelosund	58.67	17.12	CN	S	G
Sweden	Pitea	65.32	21.48	CN	S	G
Sweden	Ronehamn	57.12	18.50	CN	S	F
Sweden	Ronneby	56.18	15.30	RN	S	G
Sweden	Rundvik	63.53	19.45	CN	V	G
Sweden	Sandarne	61.27	17.18	CN	S	G
Sweden	Sandhamp	50.28	18.02	CN	V	G
Sweden	Sandwilz	65.73	23.77	CN	V	E E
Sweden	Stallaftabarar	64.69	23.77	CN	v	
Sweden		04.00	21.23		5	G
Sweden	Skutskar	60.65	17.40		5	G E
Sweden	Soderhamn	61.30	17.08	KN	8	E
Sweden	Sodertalje	59.18	17.65	LC	S	G
Sweden	Solvesborg	56.05	14.58	CN	S	E
Sweden	Soraker	62.50	17.50	CN	V	G
Sweden	Stocka	61.90	17.35	CN	V	G
Sweden	Stockvik	62.33	17.38	CN	V	G
Sweden	Sundsvall	62.38	17.35	CN	Μ	E
Sweden	Torehamn	65.90	22.65	CN	V	G
Sweden	Uddevalla	58.35	11.92	RB	Μ	G
Sweden	Ulvvik	62.67	17.87	CN	V	G
Sweden	Utansio	62.77	17.93	CN	V	G
Sweden	Vaia	62.98	17.72	RN	V	G
Sweden	Vallvik	61.18	17 17	CN	S	Ē
Sweden	Vasteras	59.62	16 55	IC	M	G
Sweden	Verkeback	57.73	16.53	CN	V	G
Sweden	Vinstoner	62.48	17 35	CN	V	G
Taiwan	Dana Ily Vana	02.40	110.52	CN	v	
	T CL V	25.56	119.55		5	Г
l aiwan	Tai-Chung Kang	24.30	120.50	LU	5 V	G
laiwan	Tan-Shui	25.18	121.40	KN	V	Р
lanzania	Chake Chake	-5.25	39.//	CN	8	F
Tanzania	Dar Es Salaam	-6.82	39.30	CN	Μ	E
Tanzania	Mikindani	-10.27	40.13	CN	V	F
Tanzania	Tanga	-5.08	39.12	CN	S	F
Tanzania	Zanzibar	-6.17	39.18	CN	S	G
Thailand	Bang Saphan	11.18	99.60	CN	V	F
Thailand	Bangkok	13.75	100.50	RN	L	G
Thailand	Kantang Harbor	7.40	99.52	RN	V	G
Thailand	Khanom	9.20	99.90	CN	V	F
Thailand	Krabi	8.07	98.92	RN	V	G
Thailand	Pattani	6.95	101.30	CN	S	F
Thailand	Songkhla Harbor	7 22	100.58	RN	v	F
Timor-Leste	Dili	_8 53	125 58	CN	Ś	Ģ
Tonga	Nejafu	-0.55	_173.08	CN	v	
Tonga	Nultu Alofa	-10.03	175.20	CN	V 17	G C
Tonga		-21.13	-1/3.20		V 17	G E
Tonga	rangai	-19.80	-1/4.33		V • • •	F
Irinidad & Lobago	Cnaguaramas	10.68	-61.65	CN	V	G
Irinidad & Tobago	Point Lisas Industrial Port	10.40	-61.50	CN	S	G
Trinidad & Tobago	Point Lisas Port	10.38	-61.48	КB	S	F

Trinidad & Tobago	Port Of Spain	10.65	-61.52	CN	М	Е
Tunisia	Mahdia	35.50	11.07	CN	V	Р
Tunisia	Menzel Bourguiba	37.15	9.80	LC	S	G
Tunisia	Tunis	36.80	10.25	LC	М	G
Turkey	Aksaz Limani	36.83	28.38	CN	S	
Turkey	Ambarli	40.97	28.70	CN	V	G
Turkey	Ayvalik	39.32	26.70	CN	V	G
Turkey	Bodrum	37.03	27.43	CN	V	F
Turkey	Borusan Fertilizer Jetty	40.42	29.10	CN	V	F
Turkey	Canakkale	40.15	26.40	LC	S	G
Turkey	Defterdar Burnu	41.05	29.03	CN	V	F
Turkey	Eceabat	40.18	26.37	LC	V	F
Turkey	Erdek	40.38	27.80	CN	V	F
Turkey	Gelibolu	40.40	26.67	LC	V	F
Turkey	Istanbul	41.02	28.97	LC	L	F
Turkey	Istinve	41.12	29.05	CN	V	F
Turkey	Izmir	38.43	27.13	CN	L	F
Turkey	Izmit	40.77	29.92	CN	S	F
Turkey	Kaba Burnu	40.77	29.53	CN	V	F
Turkev	Karabiga	40.40	27.32	CN	V	F
Turkev	Kusadasi	37.87	27.25	CN	V	P
Turkey	Tekirdag	40.98	27 52	LC	v	F
Tuvalu	Funafuti Atoll	-8.52	179.13	CN	v	G
US Virgin Islands	Christiansted	17 75	-64 70	CN	v	F
US Virgin Islands	Cruz Bay	18.33	-64.80	CN	Ś	P I
Ukraine	Balaklava	44.50	33.60	CN	V	G
Ukraine	Belgorod-Dnestrovsky	46.18	30.37	CN	V	E E
Ukraine	Chornomors Ke	45.52	32 70	CN	V	P
Ukraine	Henichesk	46.17	34.82	CN	V	F
Ukraine	Izmavil	45.33	28.85	RN	V	G
Ukraine	Khorly	46.08	33.28	CN	V	E E
Ukraine	Mykolaviy	46.95	31.98	RB	Ś	F
Ukraine	Port Oktyabrek	46.83	31.03	CN	V	F
Ukraine	Reni	45.43	28.30	RN	V	F
Ukraine	Sevastopol	44.62	20.50	CN	v T	G
Ultraine	Sudak	44.85	34.08	CN		E E
Ukraine	Ust Duppick	45.47	29.70	CN	V	D D
Ukraine	Vevpatoriva	45.20	22.70	CN	V	E I
Ukraine	Vuzbovy	46.60	31.02	RB	s	F
United Arab Emirates	Al Jazeera Port	25.72	55.78	CN	S	1
United Arab Emirates	Khowr Folden	25.72	56.38	CN	M	F
United Arab Emirates	Umm Al Ogywaya	25.55	55 58	CN	S	D
United Arab Emirates	Umm An Nar	23.30	54.48	RN	V	C I
United Kingdom	Abardaan	24.4J 57.15	2.09		v M	0 C
United Kingdom	Ardolass	54.27	-2.00	CN	V	D
United Kingdom	Ardrishaia	56.02	-5.02	CN	v V	I F
United Kingdom	Are	55.02	-5.45	DR	V V	
United Kingdom	Ayı Banacır	54.65	-4.03		V V	G E
United Kingdom	Balfast	54.03	-5.07		V T	г Б
United Kingdom	Denast	54.02	-3.90		L S	
United Kingdom	Bind Dont	51.05	-4.20	DNI	S V	0 D
United Kingdom	Bluth	55.12	-2.97	DN	v M	r C
United Kingdom	Bowling	55.12	-1.50		IVI V	G
United Kingdom	Bridometer	55.95	-4.40		V	G
United Kingdom	Broadford Pay	51.15	-5.00	CN	V	B B
United Kingdom	Burghood	5/.25 E7.70	-3.88		V V	P
United Kingdom	Coorport	57.70	-3.50		V C	6
United Kingdom	Caernarvon	53.15	-4.27	KB	3	G
United Kingdom	Campbeltown	55.43	-5.60		5	G
United Kingdom	Castle Bay	56.95	-/.48	UN DD	V	G
United Kingdom	Chatham Docks	51.40	0.55	KB	5	G
United Kingdom	Colchester	51.88	0.92	KN	V	G
United Kingdom	Coleraine	55.13	-6.67	КN	S	E

United Kingdom	Corpach	56.85	-5.12	CN	S	F
United Kingdom	Cowes Harbour	50.77	-1.30	RN	S	G
United Kingdom	Craignure	56.47	-5.70	CN	V	F
United Kingdom	Crinan (Canal)	56.08	-5.57	LC	V	G
United Kingdom	Dartmouth Harbour	50.35	-3.62	RN	S	Е
United Kingdom	Dundee	56.47	-2.95	RB	L	Е
United Kingdom	Eyemouth	55.87	-2.08	RN	V	G
United Kingdom	Falmouth Harbour	50.15	-5.07	CN	Μ	G
United Kingdom	Fawley Marine Terminal	50.82	-1.33	RN	S	F
United Kingdom	Felixstowe	51.95	1.32	RN	V	F
United Kingdom	Finnart Oil Terminal	56.12	-4.83	RN	S	G
United Kingdom	Fort William	56.82	-5.12	RB	V	F
United Kingdom	Fowev Harbour	50.33	-4.63	RN	S	Е
United Kingdom	Gairloch	57.72	-5.68	RN	V	F
United Kingdom	Glensanda	56.57	-5.53	RN	V	G
United Kingdom	Gravesend	51.45	0.37	RN	S	Ē
United Kingdom	Great Yarmouth	52.62	1.73	RN	Š	Ē
United Kingdom	Greenock	55.95	-4.75	CN	M	F
United Kingdom	Harwich	51.95	1.28	RN	S	F
United Kingdom	Havle	50.18	-5.42	RB	V	G
United Kingdom	Howdendyke	53.73	-0.88	RN	v	F
United Kingdom	Inverness	57.48	-4.23	RN	Ś	G
United Kingdom	Isle Of Grain	51.43	0.70	CN	S	E E
United Kingdom	Kettletoft	59.23	2.60	CN	V	D
United Kingdom	Killzeel	54.05	-2.00	CN	v	I F
United Kingdom	Kilroot	54.05	-5.90	CN	v S	г Б
United Kingdom	Kulaaliin	57.73	-3.72	CN	S V	Г Б
United Kingdom	Langastor	54.05	-3.75	DR	v	Г Б
United Kingdom	Lancaster	54.05	-2.70	KD CN	S V	Г Г
United Kingdom	Largs	55.60 E4.9E	-4.0/	CN	V S	Г
United Kingdom	Lame	54.65	-5.60	CN	л м	G E
United Kingdom	Lerwick	50.13 50.78	-1.15		IVI IVI	Г
United Kingdom	Littlenampton Harbour	50.78 EC EE	-0.55		V	G E
United Kingdom		50.55	-3.//	KD CNI	V	Г
United Kingdom	Lochdoisdale	57.15	-7.30	CN	V	P C
	Lochmaddy	57.60	-/.1/		V	- G E
	London	51.50	-0.08	KD DNI		E
	Londonderry	55.00	-7.32	KIN	M	E
United Kingdom	Lyness	58.83	-3.20	CN	M	F F
United Kingdom	Mallaig	57.00	-5.82		V	F F
United Kingdom	Milford Haven	51./2	-5.03	KN	M	F F
United Kingdom	Miliport	55./5	-4.92	CN	5	F
United Kingdom	Montrose	56.70	-2.4/	KN	V	G
United Kingdom	Mostyn	53.32	-3.27	CN	V	F
United Kingdom	Neath	51.63	-3.83	CN	V	G
United Kingdom	Newhaven Harbour	50.78	0.05	KN	V	G
United Kingdom	Oban	56.42	-5.47	CN	S	E
United Kingdom	Old Kilpatrick	55.92	-4.47	RN	V	F
United Kingdom	Ornsay	57.15	-5.80	CN	V	F
United Kingdom	Padstow	50.55	-4.93	RN	V	E
United Kingdom	Perth	56.40	-3.45	RB	S	E
United Kingdom	Pierowall	59.30	-2.98	CN	S	G
United Kingdom	Plockton	57.33	-5.65	CN	V	F
United Kingdom	Plymouth	50.37	-4.15	CN	М	E
United Kingdom	Poole Harbour	50.68	-1.95	RN	S	Ν
United Kingdom	Portree Harbor	57.42	-6.20	CN	V	F
United Kingdom	Renfrew	55.88	-4.38	RB	V	G
United Kingdom	Rothesay Dock	55.90	-4.40	RN	V	F
United Kingdom	Rye Harbour	50.93	0.77	RN	V	F
United Kingdom	Scalloway	60.13	-1.28	CN	V	G
United Kingdom	Scapa Bay	58.95	-2.98	CN	S	G
United Kingdom	Sharpness	51.72	-2.48	LC	S	G
United Kingdom	Sheerness	51.45	0.75	CN	V	F

United Kingdom	Shoreham Harbour	50.82	-0.25	LC	V	G
United Kingdom	South Ness	58.80	-3.20	CN	V	F
United Kingdom	Southampton	50.90	-1.40	RB	L	Е
United Kingdom	St Margarets Hope	58.83	-2.95	CN	V	G
United Kingdom	Stornoway Harbor	58.18	-6.37	CN	V	F
United Kingdom	Stranraer	54.90	-5.03	RB	V	G
United Kingdom	Sullom Voe	60.47	-1.30	CN	S	G
United Kingdom	Tarbert	57.90	-6.82	CN	V	F
United Kingdom	Teignmouth Harbour	50.55	-3.50	RN	V	F
United Kingdom	Thamesport	51.43	0.70	RN	S	G
United Kingdom	Tobermory	56.62	-6.07	CN	V	Ğ
United Kingdom	Lig	57.58	-6.35	CN	v	G
United Kingdom	Warkworth Harbour	55 33	-1 58	RN	v	F
United Kingdom	Warren Point	54 10	-6.25	CN	v	p
United Kingdom	Weymouth Harbour	50.62	-2.45	CN	Ś	G
United Kingdom	Whitehall	59.13	-2.60	CN	V	p
United Kingdom	Whitstable	51.13	1.03	RN	S	F
United Kingdom	Wishech	52.67	0.15	LC	S	G
United States	Aberdeen	46.98	-123.82	RN	S	F
United States	Akutan Harbor	54.13	165.80	CN	V	G
United States	Alameda	37 78	122.27	CN	Š	E E
United States	Albapy	42.65	73 75	RN	M	G
United States	Alcan Harbor	72.03 52.73	174.07	CN	V	E
United States	Alexandria	38.80	77.03	RN	s S	г Е
United States	Alexandria Bay	14 33	75.02	RN	V	E
United States	Algoma	44.55	-75.92 97.42	DN	V	E
United States	Algonia	44.00	-07.43 92.52	DN	V	
United States	Algona	42.02	-02.52	CN	v	C E
United States	Append	49.07	-00.42	CN	S	U E
United States	Anabamaa	40.52	-122.02	CN	S	E
United States	Anonolis	20.00	-149.90		S V	г Б
United States	Antioph	20.90	-/0.40		V	
United States	Antioch	20.72	-121.60		V	
United States	Apalachicola	29.72	-84.98	KIN CNI	V S	IN C
United States	Ashiand	40.00	-90.87		5	G E
United States	Ashtabula	41.90	-80.80	KD DNI	5	E
United States	Astoria Atlantia Cita	40.20	-123.83	KIN CNI	5 V	E
United States	And Salar	39.37	-/4.42		V	G E
United States	Auszah	44.40	-83.32	KIN DNI	V	E
United States	Augusta	44.32	-09.//	KIN CNI	V	G E
United States	Avalon	20.07	-118.32		V	F
United States	Baltimore	39.27	-/0.58	KIN DNI		G E
United States	Bandon	43.12	-124.42	KIN DNI	V C	E
United States	Bangor	44.80	-68.//	KN CN	5	G
United States	Bar Harbor	44.38	-68.20	CN	V	F
United States	Baraga	46.78	-88.48	CN	V	G
United States	Baralof Bay	55.23	-160.53	CN	V	F
United States	Barnegat	39.77	-/4.10	CN	V	G
United States	Bass Harbor	44.23	-68.35	CN	V	F
United States	Bath	43.92	-69.82	RN	S	G
United States	Baton Rouge	30.45	-91.18	RN	S	G
United States	Bay City	43.60	-83.87	RN	S	E
United States	Bay City	46.87	-124.07	RN	V	E
United States	Bay Of Pillars	56.60	-134.23	CN	V	G
United States	Bayboro	35.15	-/6.//	KN	V	G
United States	Baytield	46.80	-90.82	CN	V	P
United States	Bayonne	40.68	-74.10	RN	M	G
United States	Baytown	29.73	-95.02	CN	V	G
United States	Bayway	40.63	-74.20	RN	V	G
United States	Bear Island	58.45	-152.68	CN	V	F
United States	Beaufort	34.72	-76.67	CN	V	G
United States	Beaufort	32.43	-80.67	RN	V	G
United States	Beaumont	30.08	-94.08	RN	Μ	G

United States	Belfast	44.42	-69.00	RN	V	F
United States	Belbaven	35.62	-76.62	RN	v	G
United States	Bellingham	10 7E	122.50	CN	v S	
United States	Deminghan	40.75	-122.50		5	
United States	Benicia	38.05	-122.15	CN	V	E
United States	Berkeley	3/.8/	-122.30	CN	V	E
United States	Bethel	60.82	-161.72	RN	V	F
United States	Beverly	42.53	-70.88	CN	V	G
United States	Big Port Walter	56.38	-134.73	CN	V	G
United States	Biloxi	30.38	-88.88	CN	V	E
United States	Blaine	49.00	-122.75	CN	V	G
United States	Boca Grande	26.70	-82.33	CN	V	Е
United States	Bodega Bay	38.33	-123.05	CN	V	F
United States	Boothbay Harbor	43.87	-69.58	CN	v	F
United States	Boston	42.35	-71.05	CN	, T	F
United States	Bremerton	47.57	122.65	CN	M	E
United States	Bristol	40.10	74.95	DN	NI V	
United States	Dristol D : (1	40.10	-/4.03		V XZ	E
United States	Bristol	41.67	-/1.2/	CN	V	G E
United States	Brooklin	44.2/	-68.58	CN	V	F T
United States	Brooklyn	40.67	-/4.02	RN	L	E
United States	Brownsville	25.95	-97.40	LC	S	G
United States	Brunswick	31.15	-81.50	RN	S	G
United States	Bucks Harbor	44.33	-68.73	CN	V	G
United States	Bucksport	44.57	-68.78	RN	V	G
United States	Burlington	40.08	-74.87	RN	V	Е
United States	Burnett Inlet	56.07	-132.47	CN	V	F
United States	Camas	45.58	-122.40	RN	V	Е
United States	Camden	39.95	-75.13	RN	М	Е
United States	Camden	44.22	-69.07	CN	V	F
United States	Canaveral Harbor	28.70	-80.62	CN	v	Ē
United States	Capperv Bay	53.70	-166.75	CN	v	F
United States	Cape Charles	37.77	76.02	CN	v	F
United States	Carpintorio	31.27	110.52	CN	V V	D
United States	Carpintena	20.9F	-119.52		V V	Г N
United States	Carrabelle	29.85	-84.07	KIN	V	N
United States	Carteret	40.58	-/4.22	KN	8	G
United States	Castine	44.38	-68.73	CN	V	G
United States	Catskill	42.22	-//3.85	RN	V	G
United States	Charleston	32.78	-79.92	RN	S	G
United States	Charlevoix	45.32	-85.27	LC	V	G
United States	Chatham	57.52	-134.93	CN	V	F
United States	Chaumont	44.07	-76.13	CN	V	Е
United States	Cheboygan	45.65	-84.47	RN	S	Ε
United States	Cherry Point	48.87	-122.75	CN	V	F
United States	Chester	39.85	-75.35	RN	L	G
United States	Chignik	56.30	-158.40	CN	V	Р
United States	Chrome	40.57	-74.22	RN	S	G
United States	City Island	40.85	-73.78	CN	V	G
United States	Clayton	14.23	76.05	RN	v	E
United States	Coal Point	59.60	151 42	CN	V	E
United States	Cold Pay	55.00	-151. 4 2	CN	v V	г Б
United States	Cold Bay	35.20	-102.70		V X7	Г
United States	Columbia	35.92	-/0.25	KIN	V	6 5
United States	Conneaut	41.9/	-80.55	KN	8	E
United States	Constantine Harbor	51.40	179.30	CN	V	F
United States	Convent	30.02	-90.83	RN	S	F
United States	Coos Bay	43.37	-124.22	CN	S	Е
United States	Copper Harbor	47.47	-87.87	CN	V	F
United States	Cordova	60.55	-145.77	CN	S	G
United States	Corea	44.40	-67.97	CN	V	F
United States	Cornucopia	46.87	-91.10	RB	V	F
United States	Corpus Christi	27.82	-97.40	CN	М	G
United States	Coupeville	48.23	-122.68	CN	V	Е
United States	Courtland	38.33	-121.57	RN	V	Ē
United States	Crab Bay	60.07	-148.00	CN	V	F
	2					

United States	Craig	55.47 -133.1	5 CN	V	G
United States	Creosote	47.62 -122.5	0 CN	V	Ε
United States	Crockett	38.05 -122.2	2 CN	V	Ε
United States	Cundy Harbor	43.78 -69.9	0 CN	V	F
United States	Cushman	43.98 -124.0	7 RN	V	Ε
United States	Darien	31.37 -81.4	3 RN	V	G
United States	Davisville Depot	41.62 -71.4	0 CN	V	F
United States	Deepwater Point	39.70 -75.5	2 RN	V	G
United States	Deer Park	29.75 -95.3	3 RN	V	G
United States	Depere	44.45 -88.0	7 RN	V	G
United States	Depoe Bay	44.80 -124.0	7 CN	V	G
United States	Destrehan	29.95 -90.3	7 RN	V	Ν
United States	Detroit	42.33 -83.0	3 RN	L	Е
United States	Dillingham	59.03 -158.4	8 CN	V	F
United States	Drift River	60.55 -152.1	3 CN	V	F
United States	Dry Spruce Bay	57.93 -153.0	3 CN	V	G
United States	Dupont	58.23 -134.2	7 CN	V	F
United States	Dutch Harbor	53.90 -166.5	3 CN	S	Р
United States	Eagle Harbor	47.47 -88.1	7 CN	V	Р
United States	East Bremerton	47.57 -122.6	2 CN	V	Е
United States	Eastport	44.90 -66.9	8 CN	V	F
United States	Edenton	36.05 -76.6	2 CN	V	F
United States	Edgartown	41.38 -70.5	0 CN	V	G
United States	Edgewater	40.82 -73.9	8 RN	V	Ğ
United States	Edwards Point	47.80 -122.4	0 CN	v	Ğ
United States	Egegik	58.20 -157.3	7 CN	v	F
United States	Elfin Cove	58.20 -136.3	5 CN	v	G
United States	Elizabeth City	36.30 -76.2	2 RN	v	Ē
United States	Elizabethoort	40.65 -74.1	8 CN	S	G
United States	Ellsworth	44 55 -68 4	2 RN	V	F
United States	Empire	43.40 -124.2	8 CN	Ň	Ē
United States	Erie	42 15 -80 1	O CN	S	E
United States	Escanaba	45.77 -87.0	5 CN	S	G
United States	Essex	41 35 -72 3	8 RN	V	E
United States	Fureka	40.80 -124.1	8 CN	S	G
United States	Everett	48.00 -122.2	2 CN	S	E
United States	Excursion Inlet	58.42 -135.4	5 CN	V	G
United States	Fairport	41 77 -81 3) RN	S	E
United States	Fall River	41.70 -71.1	7 CN	V	E
United States	Falmouth	41 55 -70 6	2 CN	v	F
United States	Fernandina Beach	30.68 -81.4	7 RN	Ś	G
United States	Fields Landing	40.72 -124.2	2 CN	V	G
United States	Fishermans Harbor	55.97 -133.8	1 CN	v	G
United States	Florence	43.97 -124.1	2 RN	v	E E
United States	Fort Bragg	39.45 -123.8	2 CN	v	G
United States	Fort Diage	27.47 -80.3	2 CN	v	E E
United States	Fort Ward	47 58 122 5	2 CN	V	E
United States	Frankfort	44.63 -86.2	5 CN	Ś	F
United States	Fredericksburg	38.30 -77.4	5 RN	V	F
United States	Freeport	28.95 95.3	3 RN	V	G
United States	Frenchhoro	44.12 68.3	7 CN	V	E E
United States	Friday Harbor	48.53 123.0	2 CN	V	F
United States	Friendship	43.97 69.3	$\frac{2}{3}$ CN	V	G
United States	Funter	58 25 134 9	1 CN	V	G
United States	Calveston	20.32 04.7	CIN	v T	G
United States	Gardiper	427.52 -94.7 1270 1011	D DIN		G E
United States	Cardinar	43.72 - 124.1	7 DNT	V V	
United States	Gaorge Inlet	++.23 -09./ 55 20 121 /	7 CN	V V	G E
United States	George Inlet	22.27 -121.4 22.27 - 70.2		V V	Г С
United States	Cladatore	33.3/ -/9.2 AE 0E 07.0	D = KIN	V 17	
United States	Glausione Clan Covo	43.83 - 87.0	2 CN	V V	
United States	Glenada Clanada	40.08 -122./		V 17	
United States	Gienada	43.9/ -124.1	∠ KIN	v	E

United States	Gloucester	39.90	-75.13	RN	S	Е
United States	Gloucester	42.60	-70.67	CN	S	G
United States	Grand Haven	43.07	-86.23	RN	S	F
United States	Grand Isle	29.23	-90.00	CN	V	Ν
United States	Grand Marais	47.75	-90.33	CN	V	Е
United States	Grasselli	40.62	-74.20	RN	S	G
United States	Green Bay	44.52	-88.02	RN	S	G
United States	Greenwich	41.02	-73.62	CN	V	E
United States	Gretna	29.92	-90.07	RN	V	E
United States	Gulfport	30.35	-89.08	CN	S	Е
United States	Gulfport Si	40.63	-74.20	RN	S	G
United States	Haines	59.23	-135.43	CN	V	G
United States	Hamilton	62.90	-163.92	RN	V	F
United States	Hana	20.75	-155.98	CN	V	Р
United States	Harbor Springs	45.43	-84.98	CN	V	Е
United States	Havre De Grace	39.53	-76.08	RN	V	G
United States	Hawk Inlet	58.12	-134.75	CN	V	G
United States	Havmark Terminal	30.13	-93.32	RN	V	Ν
United States	Hertford	36.18	-76.47	RN	V	Е
United States	Hidden Inlet	54.95	-130.33	LC	V	F
United States	Hoboken	40.75	-74.02	RN	М	G
United States	Hogg Island	58.47	-152.68	CN	V	F
United States	Holland	42.78	-86.13	RN	S	F
United States	Homer	59.60	-151.42	CN	V	F
United States	Hood Bay	57.40	-134.50	CN	V	G
United States	Hoodsport	47.42	-123.13	CN	V	Ē
United States	Hoonah	58.12	-135.45	CN	V	G
United States	Hoquiam	46.97	-123.90	RN	S	Ē
United States	Houghton	47.12	-88.57	LC	Š	Ē
United States	Huron	41.40	-82.55	RN	Š	Ē
United States	Hvannis	41.65	-70.28	CN	V	Ē
United States	Hydaburg	55.20	-132.83	CN	V	F
United States	Hyder	55.92	-130.00	CN	V	P
United States	Ilwaco	46.30	-124.05	RN	V	Ğ
United States	Isleton	38.17	-121.60	RN	V	Ē
United States	Isthmus Cove	33.45	-118.50	CN	V	F
United States	Ivanof Bay	55.80	-159.47	CN	V	F
United States	Iacksonville	30.32	-81.65	RN	M	Ē
United States	Jersev City	40.72	-74.03	RN	М	G
United States	Ionesport	44.53	-67.62	CN	V	G
United States	Juneau	58.30	-134.42	CN	S	G
United States	Kailua	19.63	-156.00	CN	V	F
United States	Kalama	46.02	-122.85	RN	V	Е
United States	Kamalo	21.05	-156.88	CN	V	Р
United States	Kasaan	55.53	-132.40	CN	V	Е
United States	Kauhako Bay	19.38	-155.90	CN	V	F
United States	Kenai	60.55	-151.27	CN	V	F
United States	Kennebunkport	43.37	-70.47	RN	V	F
United States	Ketchikan	55.33	-131.65	CN	S	G
United States	Kev West	24.55	-81.82	CN	Š	Ğ
United States	Kevport	47.70	-122.62	CN	V	Ē
United States	Kiholo	19.87	-155.95	CN	V	F
United States	Kimshan Cove	57.68	-136.12	CN	V	G
United States	King Cove	55.05	-162.32	CN	V	p
United States	Kingston	41.93	-73.97	RN	S	Ğ
United States	Kiska	51.97	177.55	CN	v	F
United States	Klawock	55.55	-1.33.10	CN	v	Ġ
United States	Kodiak	57.78	-152.40	CN	Ś	G
United States	Koggiung	58.97	-156.92	CN	v	F
United States	Kotlik	63.03	-163 55	RN	, V	F
United States	Kotzebue	66.92	-162.58	CN	v	F
United States	Kwiguk	62.73	-164 47	RN	v	F
cinted outeo		04.15	101.17		,	1

United States	L Anse	46.77	-88.47	CN	V	F
United States	La Pointe	46.78	-90.78	CN	V	Р
United States	La Push	47.90	-124.63	RN	V	G
United States	Lake Charles	30.22	-93.25	RN	S	Ν
United States	Larsen Bay	57.53	-153.98	CN	V	G
United States	Latouche	60.05	-148.07	CN	V	G
United States	Lazy Bay	56.90	-154.25	CN	V	Р
United States	Leonardo	40.43	-74.07	CN	S	F
United States	Letnikof Cove	59.18	-135.40	CN	V	G
United States	Little Port Walter	56.38	-134.63	CN	V	G
United States	Longview	46.13	-122.93	RN	S	Е
United States	Lorain	41.47	-82.18	RN	S	Е
United States	Loring	55.60	-131.63	CN	V	F
United States	Lubec	44.87	-66.98	CN	V	G
United States	Ludington	43.95	-86.45	RN	S	E
United States	Lvnn	42.45	-70.95	CN	V	G
United States	Machias	44.72	-67.47	RN	V	G
United States	Machiasport	44.70	-67.40	CN	V	G
United States	Mackinaw City	45.78	-84.72	LC	V	P
United States	Madisonville	30.40	-90.15	RN	v	Ē
United States	Mahukona	20.18	-155.90	CN	v	Ē
United States	Manistee	44 25	-86.32	RN	Š	Ē
United States	Manitowoc	44 10	-87.65	RN	M	F
United States	Marblebead	42.50	-70.85	CN	V	Ġ
United States	Marcus Hook	39.82	-75.42	RN	Š	G
United States	Mare Island	38.10	-122.27	CN	S	E
United States	Marine City	42 72	-82 50	RN	V	E
United States	Mariners Harbor Si	40.63	-74 17	CN	S	G
United States	Marinette	45.08	-87.60	RN	S	E E
United States	Martinez	38.03	-122.13	CN	V	E E
United States	Massacre Bay	52.83	173.23	CN	V	E E
United States	Maurer	40.53	-74 25	RN	V	G
United States	Mavport	40.55 30.40	-81.43	RN	V	E E
United States	Mayport	57.15	153.20	CN	v	G
United States	Menominee	45.10	-135.20 87.60	RN	Š	G
United States	Miami	+5.10 25.78	-07.00	CN	S	E U
United States	Milbridge	25.78 44.53	67.88	RN	V	G
United States	Milwaukee	43.03	-07.00	RN	M	E U
United States	Minturp	44.15	68.45	CN	V	G
United States	Mobile	30.68	-00.45	RN	v T	E E
United States	Monhegan	43.77	60.12	CN	V V	D D
United States	Monroe	43.77	-09.32 83.33	RN	v	I E
United States	Monterey	41.00	121.88	CN	v S	C E
United States	Morehead City	34.72	-121.00	CN	V	G
United States	Morgan City	29 70	-70.70	RN	v	N
United States	Mors Landing	29.70	121 78	CN	v	G
United States	Mount Desert	J0.80 44 37	-121.70	CN	v	E U
United States	Multiltoo	44.37	-06.55	CN	V	г Б
United States	Munising	47.93	-122.30	CN	V	
United States	Muslagen	40.42	-60.05		v S	С Б
United States	Mustie	45.25	-60.27	DN	S V	
United States	Nebcotta	41.55	-/1.9/	CN	V	
United States	Nahoota	40.30	-124.03		V	
United States	INaliilla Nalionali	43.63	-00.07		V	Г Г
United States	Nakilek	J0.72 41.29	-137.02		V	Г
United States	Napospos	41.28	-/0.10 155.02		V V	G E
United States	Napoopoo	19.48	-155.95		V	
United States		41.03	-70.92		5 17	E F
United States	New Cert	55.10 20.65	-//.US	КD DN	V T	F C
United States	INEW CASTIE	39.65	-/3.5/	KIN	V T	G
United States	New Harbor	43.8/	-09.48	UN DN1	V	F F
United States	New London	41.35	-/2.08	KIN DN 1	5 т	E E
United States	INew Orleans	29.95	-90.05	KIN	L	E

United States	New York City	40.70	-74.02	RN	L	Е
United States	Newark	40.70	-74.15	RB	Μ	G
United States	Newburgh	41.50	-74.00	RN	V	G
United States	Newburyport	42.82	-70.87	RN	V	G
United States	Newport	44.63	-124.05	RN	V	Е
United States	Newport	41.50	-71.33	CN	S	Е
United States	Newport Beach	33.62	-117.90	CN	V	E
United States	Newport News	36.97	-76.43	CN	Μ	G
United States	Nikiski	60.68	-151.40	CN	V	F
United States	Ninilchik	60.05	-151.68	CN	V	G
United States	Nisqually Head	47.12	-122.75	CN	V	E
United States	Noank	41.32	-71.98	CN	V	F
United States	Norfolk	36.85	-76.30	RN	L	Е
United States	Norsworthy	29.73	-95.20	RN	V	G
United States	North Bend	43.40	-124.22	CN	V	Е
United States	North Haven	44.13	-68.87	CN	V	G
United States	Northeast Harbor	44.30	-68.28	CN	V	F
United States	Norwalk	41.10	-73.42	RN	V	E
United States	Norwich	41.52	-72.08	RN	V	Е
United States	Oakland	37.82	-122.33	CN	L	Е
United States	Ocean City	38.33	-75.08	CN	V	Е
United States	Oconto	44.90	-87.83	RN	V	G
United States	Ogdensburg	44.70	-75.50	RN	S	Е
United States	Oleum	38.05	-122.27	CN	V	Е
United States	Olympia	47.05	-122.90	CN	S	Е
United States	Ontonagon	46.88	-89.33	RN	V	G
United States	Orange	30.08	-93.73	RN	V	Ν
United States	Orca	60.58	-145.72	CN	V	G
United States	Orcas	48.60	-122.93	CN	V	Е
United States	Oscoda	44.42	-83.32	RN	V	Е
United States	Oswego	43.47	-76.52	RN	S	Е
United States	Ouzinkie	57.92	-152.50	CN	V	F
United States	Palacios	28.68	-96.22	CN	V	G
United States	Palisades Point	52.23	-174.17	CN	V	F
United States	Palm Beach	26.77	-80.05	CN	V	Е
United States	Panama City	30.13	-85.65	CN	S	Ν
United States	Pasadena	29.72	-95.22	RN	V	G
United States	Pascagoula	30.35	-88.57	RN	S	Е
United States	Patchogue	40.75	-73.02	RN	V	G
United States	Paulsboro	39.85	-75.25	RN	V	G
United States	Pelican	57.97	-136.23	CN	V	G
United States	Pemaquid Beach	43.87	-69.53	CN	V	F
United States	Pensacola	30.40	-87.22	CN	S	Ν
United States	Perth Amboy	40.50	-74.27	RN	S	G
United States	Petersburg	56.82	-132.95	CN	S	G
United States	Philadelphia	39.95	-75.13	RN	L	G
United States	Pilot Point	57.57	-157.60	CN	V	F
United States	Piney Point	38.13	-76.53	RN	V	Е
United States	Pinole Point	38.02	-122.37	CN	V	G
United States	Pittsburg	38.03	-121.88	RN	V	Е
United States	Platinum	59.02	-161.83	CN	V	F
United States	Plymouth	35.87	-76.75	RN	V	G
United States	Plymouth	41.95	-70.67	CN	V	F
United States	Point Richmond	37.92	-122.37	CN	S	Е
United States	Point San Pablo	37.97	-122.43	CN	V	Е
United States	Point Wells	47.78	-122.40	CN	V	G
United States	Port Alexander	56.25	-134.65	CN	V	G
United States	Port Angeles	48.12	-123.43	CN	S	G
United States	Port Aransas	27.83	-97.05	CN	V	G
United States	Port Armstrong	56.30	-134.67	CN	V	G
United States	Port Arthur	29.83	-93.97	LC	Μ	G
United States	Port Ashton	60.07	-148.05	CN	V	G
United States	Port Chester	41.00 -73.67	RN	V	G	
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United States	Port Chilkoot	59.23 -135.43	CN	V	G	
United States	Port Clinton	41.52 -82.93	RN	V	Ε	
United States	Port Clyde	43.92 -69.25	CN	V	G	
United States	Port Conclusion	56.25 -134.68	CN	V	G	
United States	Port Costa	38.05 -122.18	CN	V	E	
United States	Port Everglades	26.10 -80.12	CN	Μ	E	
United States	Port Gamble	47.85 -122.58	CN	V	E	
United States	Port Graham	59.35 -151.82	CN	V	G	
United States	Port Heiden	56.88 -158.70	CN	V	F	
United States	Port Hobron	57.17 -153.17	CN	V	G	
United States	Port Huron	43.00 -82.43	RN	V	Ε	
United States	Port Ingleside	27.82 -97.18	CN	V	G	
United States	Port Isabel	26.08 -97.20	CN	V	G	
United States	Port Lavaca	28.62 -96.62	CN	V	G	
United States	Port Moller	55.98 -160.57	CN	V	F	
United States	Port Neches	30.00 -93.95	RN	S	G	
United States	Port Obrien	57.73 -153.32	CN	V	G	
United States	Port Oconnor	28.45 -96.40	CN	V	G	
United States	Port Of Memphis	35.07 -90.17	RN	S	E	
United States	Port Orchard	47.53 -122.63	CN	V	E	
United States	Port Orford	42.73 -124.50	CN	V	F	
United States	Port Reading	40.57 -74.23	RN	S	G	
United States	Port Richmond Si	40.65 -74.13	CN DN	S	G	
United States	Port Royal	32.37 -80.68	RN	V	G	
United States	Port San Luis	35.17 -120.75	CN	V	G	
United States	Port Socony	40.55 -74.25	RN ON	S	G	
United States	Port St Joe	29.82 -85.32		5	N	
United States	Port Sulphur	29.48 -89.68	KN CN	V	E	
United States	Port Townsend	48.12 -122./5	CN CN	5 V	G	
United States	Port Vita	58.07 -153.07	CN CN	V	G	
United States	Port William	58.48 -152.58	CN CN	V M	G E	
United States	Portland	45.67 -70.23		M	E	
United States	Portiand	45.52 -122.07	KIN DNI	L	E	
United States	Portsmouth	45.06 -70.75	D NIN	S S	G E	
United States	Poughkeepsie	41 70 73 95	RIN RN	S V	E G	
United States	Poulsbo	47.73 122.65	CN	v V	E E	
United States	Prosper	43 15 124 37	RN	V	E	
United States	Providence	41.80 -71.40		M	G	
United States	Provincetown	42.05 -70.18	CN	V	E	
United States	Prudhoe Bay	70.33 -148.42	CN	v	р Р	
United States	Put In Bay	41.65 -82.82	CN	v	Ġ	
United States	Quartermaster Harbor	47.38 -122.47	CN	v	Ĕ	
United States	Quincy	42.25 -70.97	RN	S	Ē	
United States	Ouonset Point	41.58 -71.40	CN	V	F	
United States	Rainier	46.08 -122.93	RN	V	Е	
United States	Raymond	46.68 -123.73	RN	S	Е	
United States	Redwood City	37.53 -122.20	RN	V	E	
United States	Reedsport	43.70 -124.10	RN	V	Ε	
United States	Rensselaer	42.65 -73.75	RN	V	G	
United States	Reserve	30.05 -90.55	RN	V	Ν	
United States	Richardson	48.45 -122.90	CN	V	E	
United States	Richmond	37.53 -77.42	RN	V	Е	
United States	Rio Vista	38.15 -121.70	RN	V	Е	
United States	Robinhood	43.85 -69.73	RN	V	G	
United States	Roche Harbor	48.62 -123.17	CN	V	Ε	
United States	Rochester	43.27 -77.60	RN	S	Ε	
United States	Rockport	28.02 -97.05	CN	V	G	
United States	Rockport	44.18 -69.07	CN CN	V	G	
United States	Rose Inlet	54.95 -132.97	CN	V	G	
United States	Rouge River	42.28 -83.12	RN	S	Ε	

United States	Sabine	29.72	-93.87	CN	V	Ν
United States	Sabine Pass	29.73	-93.90	CN	V	N
United States	Sackets Harbor	43.95	-76.12	CN	V	E
United States	Saco	43.50	-70.45	RN	V	E
United States	Sacramento	38 58	-121 50	RN	S	F
United States	Saciantento	43.43	83.03	RN	S	E
United States	Salam	40.40	-05.95	CN	5	
United States		42.32	-/0.00		3 17	G E
United States	Salem Nj	39.07	-/3.48	KIN	V	E
United States	Salisbury	38.3/	-/5.60	KN	V	E
United States	Samoa	40.82	-124.18	CN	V	G
United States	San Diego	32.72	-117.18	CN	Μ	E
United States	San Francisco	37.82	-122.42	CN	L	E
United States	San Juan Cannery	60.05	-148.07	CN	V	G
United States	Sand Point	55.33	-160.53	CN	V	F
United States	Sandusky	41.45	-82.72	CN	S	Е
United States	Sandypoint	44.52	-68.82	RN	V	F
United States	Santa Cruz	36.97	-122.02	CN	V	F
United States	Saugatuck	42.67	-86.20	RN	V	G
United States	Sault Ste Marie	46.50	-84.35	RN	S	E
United States	Sausalito	37.85	-122.48	CN	V	G
United States	Savannah	32.08	-81.08	RN	М	G
United States	Savreville	40.47	-74.37	CN	V	G
United States	Searsport	44 45	-68.92	RN	S	Ğ
United States	Seattle	47.60	_122.33	CN	T	E
United States	Selvin	48.27	124.30	CN	L V	E E
United States	Seldovia	40.27 50.43	151 72	CN	v	Г Б
United States	Semieleman	49.09	122.77	CN	v	
United States	Semiannoo	40.90	-122.77	CN	v	
United States	Seward	00.10 40.55	-149.45		S V	P C
United States	Sewaren	40.55	-/4.23	KIN	V	G
United States	Sheboygan	43./5	-8/./0	KN	5	F T
United States	Shelton	47.22	-123.10	CN	V	E
United States	Shishmaret	66.25	-166.08	CN	V	F
United States	Silverdale	47.65	-122.70	CN	V	E
United States	Sinco	29.72	-95.23	RN	V	G
United States	Sitka	57.05	-135.33	CN	S	G
United States	Skagway	59.45	-135.33	CN	V	F
United States	Skoot Cove	52.72	174.07	CN	V	F
United States	Slidell	30.27	-89.78	LC	V	Е
United States	Snug Harbor	60.10	-152.58	CN	V	G
United States	Sodus Bay	43.27	-76.98	CN	V	E
United States	Solomons Island	38.32	-76.45	RN	V	E
United States	Sorrento	44.47	-68.18	CN	V	F
United States	South Amboy	40.48	-74.27	CN	S	G
United States	South Bend	46.67	-123.78	RN	S	E
United States	South Bristol	43.87	-69.55	CN	V	F
United States	South Harpswell	43.73	-70.02	CN	V	F
United States	South Haven	42.40	-86.28	RN	V	F
United States	South Valleio	38.08	-122.25	CN	S	E
United States	Southport	33.92	-78.02	RN	V	G
United States	Southport	41.13	-73.28	RN	V	Ğ
United States	Southwest Harbor	44.28	-68 32	CN	v	Ğ
United States	Southwest Pass	28.45	-90.70	RN	S	N
United States	St Augustine	29.90	-81.32	CN	V	F
United States	St Clair	42.82	82.48	RN	V	E E
United States	St Helens	45.87	122.40	RN	v	E
United States	St Tracco	4J.0/ 1E OF	-122.00 QA 70	CN	v V	E E
United States	St Ignace	40.60	-04./Z		v	Г Г
United States	St Joseph	42.12	-00.48		3	F C
United States	St Petersburg	27.77	-82.62	UN	5	G
United States	St Kose	29.95	-90.32	KIN	V	N
United States	St. James	29.98	-90.93	KN	S	F
United States	St. James Harbor	45./3	-85.52	CN	V	F
United States	Stamtord	41.03	-/3.55	КN	V	E

United States	Stapleton Si	40.63 -	-74.07 CN	S	G
United States	Steamboat Bay	55.53 -1	33.63 CN	V	G
United States	Stockton	37.95 -1	21.30 RN	S	Ε
United States	Stonington	41.33 -	-71.90 RN	V	G
United States	Stonington	44.15 -	-68.67 CN	V	G
United States	Sturgeon Bay	44.83 -	-87.38 LC	S	Ε
United States	Swans Island	44.13	-68.45 CN	V	G
United States	Swansboro	34.68	-77.13 CN	V	F
United States	Tacoma	47.28 -1	22.42 CN	М	Е
United States	Tampa	27.92	-82.45 CN	М	Е
United States	Tanani Point	59.28 -1	35.45 CN	V	F
United States	Tarpon Springs	28.15	-82.77 CN	V	Ν
United States	Tawas City	44.27	-83.50 CN	V	Р
United States	Tenakee Springs	57.78 -1	35.20 CN	V	F
United States	Tern Island	23.87 -1	66.28 CN	V	P
United States	Texas City	29.38	-94.92 CN	S	Ġ
United States	The Dalles	45.60 -1	21.18 RN	V	E
United States	Thomaston	44.07	-69.18 RN	v	G
United States	Three Saints Bay	57.12 -1	53.50 CN	v	G
United States	Tiverton	41.63	-71.22 RN	Ś	G
United States	Todd	57.47 _1	35.05 CN	V	E E
United States	Toledo	44.62 -1	23.03 CIV	V	F
United States	Toledo	41.70	-83.47 RN	M	F
United States	Tompkingville Si	40.63	74.07 CN	M	G
United States	Tonawanda	43.03	78.88 RN	S S	E E
United States	Tongue Point	45.00 -	23.75 RN	V	E
United States	Trap Point	40.20 -1 57.00 1	54.15 CN	v V	C E
United States	Traverse City	J7.00 -1 44.77	85.62 CN	v V	E E
United States	Trenton	44.77 -	83.17 RN	v V	Г Б
United States	Trenton	42.13 -	7477 DN	v V	E
United States	Tri City Dort	40.20 -	00.20 PN	V T	
United States	Troy		73.70 RN	L V	C E
United States	Hanshik	42.73 -	5742 DN	V V	
United States	Upalasha	52.07 1	66.53 CN	V V	T D
United States	Union Bay	55.07 -1	22.22 CN	V V	r C
United States	Union Day	57.62 1	54.00 CN	V V	
United States	Uyak Valdaz	57.03 -1 61.12 -1	46.25 CN	V V	Г С
United States	Vandez	01.12 -1	40.23 CIN	v M	
United States	Vancouver	45.05 -1	22.00 KIN	IVI V	
United States	Venilhavan	41.45 -	-02.37 KIN	V V	
United States	Weldport	44.05 -	-00.05 CN	V V	G
United States	Walant Crows	44.43 -1	24.07 CN	V V	G E
United States	Wand Cave	56.25 -1	21.32 KN	V V	
United States	Ward Cove	55.40 -1 46.17 1	31./3 UN	V V	G E
United States	Warrenton	40.1/ -1	25.92 KIN	V C	E
United States	Warwick Washington	37.43 - 46.67	-//.42 KIN	S V	E
United States	Washburn W/ 1	46.6/ -	·90.88 CN	V	F
United States	Washington	35.55 - 56.72 1	·//.05 KIN	V	G
United States	Washington Bay	56./3 -1	34.35 CN	V	G F
United States	Washington D.C.	38.8/ -	•//.03 KN	5	E
United States	Washington Harbor	47.92 -	-89.15 CN	V	E
United States	Washougal	45.58 -1	22.35 KN	V	E
United States	Weehawken	40.// -	-/4.02 RN	5	G F
United States	West Point	37.53 -	·/6.80 KN	V	E
United States	Westhaven Cove	46.92 -1	24.12 KN	V	E
United States	Westport	46.13 -1	23.38 RN	V	E
United States	White Lake	43.38	86.35 RN	S	E
United States	Whittier	60.83 -1	48.67 CN	V	G
United States	Willapa Harbor	46.68 -1	23.75 RN	V	E
United States	Wilmington	34.23 -	77.95 RN	М	G
United States	Wilmington	39.73 -	·75.55 RN	Μ	G
United States	Wilson Cove	33.00 -1	18.55 CN	V	F
United States	Winchester Bay	43.68 -1	24.18 RN	V	E

United States	Winslow	47.62	-122.52	CN	V	Е
United States	Winter Harbor	44.38	-68.08	CN	V	G
United States	Winterport	44.63	-68.85	RN	V	F
United States	Womens Bay	57.72	-152.52	CN	V	G
United States	Woods Hole	41.52	-70.67	CN	V	G
United States	Wrangell	56.47	-132.38	CN	S	G
United States	Wrightsville	34.22	-77.82	CN	S	G
United States	Wyandotte	42.20	-83.15	RN	S	Е
United States	Wyman	44.52	-67.87	CN	V	G
United States	Yakutat	59.55	-139.73	CN	V	G
United States	Yerbabuena Island	37.82	-122.37	CN	V	Е
United States	Yes Bay	55.92	-131.80	CN	V	G
United States	Yonkers	40.93	-73.90	RN	S	Е
United States	Yorktown	37.23	-76.50	RN	V	Е
United States	Youngstown	43.25	-79.05	RN	V	Е
Uruguay	Fray Bentos	-33.12	-58.32	RN	V	G
Uruguay	La Paloma	-34.65	-54.15	CN	V	G
Uruguay	Nueva Palmira	-33.88	-58.42	RN	V	G
Uruguay	Paysandu	-32.32	-58.07	RN	S	G
Vanuatu	Luganville	-15.52	167.17	CN	Š	Ğ
Venezuela	Bahia De Pertigalete	10.23	-64.57	CN	Š	Ē
Venezuela	Baio Grande	10.52	-71.63	LC	V	F
Venezuela	Caripito	10.15	-63.03	RN	V	Ē
Venezuela	Catia La Mar	10.60	-67.02	CN	V	G
Venezuela	Ciudad Bolivar	8.13	-63.55	RN	S	Ğ
Venezuela	La Salina	10.37	-71.47	LC	Š	F
Venezuela	Palua	8.37	-62.68	RN	V	p
Venezuela	Puerto Borburata	10.48	-67.98	CN	v	F
Venezuela	Puerto Cabello	10.48	-68.00	CN	M	Ē
Venezuela	Puerto Chichiriviche	10.92	-68.27	CN	V	G
Venezuela	Puerto Miranda	10.77	-71.57	LC	S	Ē
Venezuela	Puerto Ordaz	8.35	-62.72	RN	Š	F
Venezuela	Punta De Palmas	10.78	-71.58	LC	V	F
Venezuela	San Lorenzo	9.78	-71.07	LC	V	F
Vietnam	Cat Lai	10.75	106.78	CN	V	F
Vietnam	Da Nang	16.10	108.22	RN	S	F
Vietnam	Duong Dong	10.22	103.97	RN	V	F
Vietnam	Hai Phong	20.92	106.68	RN	S	G
Vietnam	Mui Vung Tau	10.32	107.07	CN	V	Ē
Vietnam	Nghe Tinh	18.77	105.77	RN	S	F
Vietnam	Phu My	10.58	107.03	RN	V	F
Vietnam	Oui Nhon	13.77	109.23	CN	V	F
Vietnam	Thanh Ho Chi Minh	10.77	106.72	RN	M	Ē
Vietnam	Thanh Hoa	10.82	106.77	CN	V	F
Vietnam	Vinh Cam Ranh	11.88	109.17	CN	S	G
Vietnam	Vung Tau	10.35	107.07	RN	Š	Ē
Western Sahara	Ad Dakhla	23.70	-15.92	RN	V	G
Western Sahara	Laavoune	27.08	-13.43	CN	V	
Yemen	Aden	12.78	44.95	CN	M	G
Yemen	Al Mukha	13.32	43.25	CN	M	P
Yemen	Ash Shihr Oil Terminal	14.73	49.50	CN	V	P
Yemen	Nishtun	15.82	52.20	CN	v	F
	Johnston Atoll	16.75	-169.52	CN	v	F
	Wake Island	19.28	166.62	CN	V	F



Figure B1: Natural Harbors in Africa, MENA, South Asia



Figure B2: Natural Harbors in Europe



Figure B3: Natural Harbors in North America, Caribbean

Figure B4: Natural Harbors in Asia





Figure B5: Natural Harbors in South America



Figure B6: Natural Harbors in Southeast Asia, Australia

Appendix C: Country Data

Table C1: Variable Definitions

- **Agricultural suitability**. Geographic endowments favoring agricultural production including climate, soil, and terrain. *Source:* Agro-Ecological Zones system (GAEZ), developed by the Food and Agriculture Organization of the United Nations (FAO), downloaded (October 2017) from http://gaez.fao.org/Main.html#. *Scale:* logarithmic. *suita_GAEZ_ln*
- Agricultural zones. Share of territory classified as crop, pasture, forest, grass, shrub, savanna, barren, water, and mountains. *Source:* Tollefsen, Strand and Buhaug (2012). A vector of interval variables. *crop pasture forest grass shrub savanna barren water mountains*
- **Desert**. Share of territory classified as desert. *Source:* Tollefsen, Strand and Buhaug (2012). *Scale:* interval. *desert*
- Elevation. Mean elevation. Source: Nunn & Puga (2012). Scale: interval. eleva
- **European language**. Share of population (%) speaking a European language. *Source*: authors. *Scale*: interval. *eur_lang_pct*
- Frost days. Number of frost days per annum (mean). Source: authors. Scale: interval. Frstdays
- **GDP per cap**. Gross domestic product per capita in constant 1990 dollars, based on data from the Maddison Project (Bolt & van Zanden 2014), supplemented by estimates from Bairoch (1976), Broadberry (2015), Broadberry/Klein (2012), Gleditsch (2002), and the WDI (World Bank 2016), which are combined in a dynamic, three-dimensional latent trait model. *Source:* Fariss et al. (2017). *Scale:* logarithmic. *Maddison_gdppc_1990_estimate_ln*
- **Irrigation potential**. Areas where irrigation could make a big impact on agricultural productivity, as measured by statistics gathered by the FAO Global Agro-Ecological Zones (GAEZ) 2002 database. *Source:* Bentzen et al. (2016). *Scale:* interval. *irri_impact5*
- **Island**. Indicates whether a country is attached to a continental land mass or not. *Source:* authors. *Scale:* binary. *Island*
- Land area. Land area of country. *Source:* Agro-Ecological Zones system (GAEZ), developed by the Food and Agriculture Organization of the United Nations (FAO), downloaded (October 2017) from http://gaez.fao.org/Main.html#. Extra data linearly imputed with data from WDI (World Bank 2016). *Scale:* logarithmic. *area_GAEZ_ln_imp*
- Landlock. Coded 1 for landlock, 0 otherwise. Source: authors. Scale: binary. landlock
- Latitude. Distance from equator. Source: QoG (Teorell et al. 2016). Scale: logarithmic. Latitude_ln
- Lexical index of electoral democracy. An ordinal index measuring the electoral components of democracy in a cumulative fashion. That is, to qualify for a given level (0-6) all previous conditions must be satisfied. 0 = No elections. (Elections are not held for any policymaking offices. This includes situations in which elections are postponed indefinitely or the constitutional timing of elections is violated in a more than marginal fashion.) 1 = Elections with no parties or only one party. (There are regular elections but they are non-partisan or only a single party or party grouping is allowed to participate.) 2 = Multi-party elections for legislature. (Opposition parties are allowed to participate in legislative elections and to take office.) 3 = Multi-party elections. 4 = Minimally competitive elections for both executive and legislature. (The chief executive offices and the seats in the effective legislative body are – directly or indirectly – filled by elections characterized by uncertainty, meaning that the elections are, in principle, sufficiently free to enable the opposition to win government power.) 5 = Male or female suffrage. (Virtually all adult male *or* female citizens are allowed to vote in elections.) 6 = Universal suffrage. (Virtually all adult citizens are allowed to vote in elections.) *Source:* Skaaning, Gerring & Bartusevičius (2015). *Scale:* ordinal. *lexical_index*

- **Naval/land forces**. The relative strength of naval-to-land forces. Naval strength proxied by naval tonnage (Crisher & Souva 2014). Land forces proxied by total military personnel (National Material Capabilities, COW v 5.0; Singer 1987). Step 1: missing values for both variables replaced by minimum values. Step 2: both variables transformed by the natural logarithm. Step 3: ratio variable calculated as naval forces index. *Source:* Authors. *totton_milper*
- **Ocean distance**. Distance from ocean (km), averaged across all grid-cells in a country. *Source:* Authors. *Scale:* interval. *ocdistance_abs*
- **Oil wealth**. The aggregated real value of a country's petroleum production, as a share of total population. *Source:* Haber & Menaldo (2011). *Scale:* interval. *e_Total_Oil_Income_PC*
- **Polity2.** A weighted additive aggregation procedure across five sub-components: competitiveness and openness of executive recruitment, competitiveness and regulation of political participation, and constraints on the chief executive. *Source:* Polity IV database (Marshall, Gurr & Jaggers 2014). *Scale:* ordinal. *e_polity2*
- **Polyarchy**. Electoral democracy index. *Source:* V-Dem (Coppedge et al. 2017; Teorell et al. 2016). *Scale:* interval. *v2x_polyarchy*
- **Population**. Official population of a country, counting only those acknowledged as citizens. This is based on data from the Maddison Project (Bolt & van Zanden 2014), supplemented by estimates from Broadberry/Klein (2012), Gleditsch (2002), Singer et al. (1972), and WDI (World Bank 2016), which are combined in a dynamic, three-dimensional latent trait model. *Source:* Fariss et al. (2017). *Scale:* logarithmic. *Maddison_pop_estimate_ln*
- Precipitation. Average annual rainfall. Source: Tollefsen, Strand and Buhaug (2012). Scale: interval. prec_gpcc
- **Regions**. A vector of dummies: Eastern Europe and Central Asia (including Mongolia), Latin America, Middle East & North Africa, Sub-Saharan Africa, Western Europe and North America, East Asia, South-East Asia, South Asia, the Pacific, and the Caribbean. *Source:* QoG (Teorell et al. 2013). *Scale:* nominal. *e_regionpol*
- **River distance**. Distance from nearest navigable river (km), averaged across all grid-cells in a country. *Source:* Authors. *Scale:* interval. *rivdist_abs_new*
- Soil. Share of territory with fertile soil. Source: Nunn and Puga (2012). Scale: interval. Soil
- **Temperature**. Mean temperature. *Source:* Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the yearly mean temperature (in degrees Celsius) in the cell, based on monthly meteorological statistics from GHCN/CAMS, developed at the Climate Prediction Center, NOAA/National Weather Service. This indicator contains data for the years 1948-2014." (Tollefsen et al., 2015) . *Scale:* interval. *tmean*
- Tropical. Share of territory classified as tropical. Source: Nunn & Puga (2012). Scale: interval. Tropical
- **Trade openness**. Imports as a share of GDP, transformed by the natural logarithm. *Source:* COW. *Scale:* interval. *e_micowimp_ln*
- **University distance**. Distance from nearest university, transformed by the natural logarithim and then calculated as a stock variable with one percent annual depreciation. *Source:* authors. *Scale:* interval. *nearest_univ_dist_ln_stock_1*
- Urbanization. Share of population living in urban areas (%). Source: V-Dem (Coppedge et al. 2017). Scale: interval. e_miurbani

Table C2: Descriptive Statistics

	N	mean	sd	min	max
Year	70,866	1911.492	62.60319	1800	2020
GPD per capita, logged	26,789	7.627987	1.148447	3.867741	14.39896
Polity2	15,903	-0.4534365	7.034963	-10	10
Resource curse	14,729	343.042	2645.721	0	78588.8
Region	43,905	4.494181	2.637572	1	10
Island	38,772	0.2251883	0.4177116	0	1
Area, logged	42,025	11.22119	2.788484	2.227413	18.12596
Mountains	25,001	0.2446408	0.2313265	0	1
Temperate desert	37,195	3.635914	11.46183	0	77.27952
English legal origin	40,791	0.3350984	0.4720306	0	1
Muslim	41,008	23.29454	35.98266	0	99.9
Protestant	41,037	12.73146	22.9273	0	98
Landlock	14,333	0.1777018	0.3822749	0	1
Temperature (mean)	37,195	291.6356	8.250032	266.1685	301.4587
European language	45,873	41.46264	42.85845	0	100
Agricultural transition	31,681	4.694562	2.362826	0.362	10.5
State history, pre-1500	31,681	0.3498069	0.3102367	0	1
Colonial duration	31,681	1.086582	1.306815	0	4.75
Polyarchy	22,503	0.2743346	0.261941	0.009118	0.9462654
Harbor distance	25,487	323.8099	302.9637	4.126243	1986.001
Lexical index	18,142	2.743248	2.347634	0	6
Precipitation	43,741	303.1041	229.7638	5.295	1175.661
River distance	25,487	5.235944	1.421037	2.413911	9.014229
Irrigation	39,487	0.1722618	0.2991123	0	1
Tropical	37,195	39.89051	45.19102	0	100
Frost days	31,681	9.37872	10.4626	0	29.79718
Soil	37,195	38.95034	25.16922	0	100
Elevation	37,195	577.731	528.1944	33.82365	2983.332
Rugged	37,368	1.31679	1.236425	0.0028978	6.740056
Agricultural suitability	35,260	0.4193231	0.2655323	0	0.9647972
Latitude, logged	42,979	-1.096001	0.5270561	-2.302585	-0.1957446
Ocean distance	25,487	256.7532	360.6284	0	1856.696

Table C3: Harbor Distance, 2000

Singapore	4.13	Tunisia	156.99	Lebanon	425.87
Bahrain	12.91	Chile	157.24	Egypt	427.58
Dominica	23.94	Belize	165.56	Peru	430.52
Grenada	27.66	Bangladesh	166.80	Canada	434.54
Saint Vincent	27.75	Barbados	167.19	Cameroon	435.60
Malta	31.10	Guatemala	167.78	Cyprus	441.26
Saint Lucia	32.32	Liberia	168.19	Australia	448.78
Brunei	37.25	Papua New Guinea	168 35	Belarus	449.96
Denmark	40.57	Sri Lanka	169.42	Micronesia	450.64
United Kingdom	42.27	France	171.84	Saudi Arabia	451.85
Ireland	42.27	Moldova	172.10	Namibia	468.84
Norway	49 59	Fiii	174 31	Madagascar	471.92
Oatar	54.08	Bulgaria	175.34	Kepya	475.34
Tripidad and Tobaro	54.00	Bahamas	177.95	Nigoria	493.64
Kuwait	54.15	Capa Varda	178.12	Brozil	405.04
Kuwan	55.00	Solomon Jalanda	1/0.12		403.31
Lamaiaa	55.09	Suringer	103.11	Dalau	493.79
Albania	57.55	Summarile	104.10	Tanzania	501.04
Albania	57.85	Senegal	195.14	Tanzania	504.71
Greece	59.68	Haiti	195.90	Georgia	508.24
Gambia	59.94	Vanuatu	206.70	Iran	513.29
Netherlands	66.72	Tuvalu	206.78	Angola	517.88
Samoa	67.44	Germany	213.22	Mauritius	519.47
Djibouti	68.76	Thailand	218.78	South Africa	522.53
Dominican Republic	69.08	Guyana	221.41	India	526.31
Guinea-Bissau	72.43	Serbia/Montenegro	221.99	Slovakia	528.59
Saint Kitts and Nevis	72.72	Maldives	225.16	Congo, Rep	528.83
Costa Rica	79.34	Yemen	229.03	Malawi	540.34
Estonia	82.66	Luxembourg	231.18	Zimbabwe	553.84
Tonga	82.73	Morocco	233.09	Bhutan	560.69
Korea_South	83.42	Mozambique	234.19	Somalia	565.42
Equatorial Guinea	83.88	Israel	234.19	Mauritania	600.92
Malaysia	86.02	Cambodia	234.89	Ethiopia	612.23
Cuba	87.47	Austria	239.24	Pakistan	650.84
Belgium	88.62	Poland	251.10	Russia	673.16
Slovenia	89.36	Romania	260.74	Svria	675.13
Sweden	90.19	Sevchelles	261.55	Armenia	741.58
Philippines	92.02	Venezuela	263.93	Bolivia	758.84
Japan	92.63	Iordan	274.51	Libva	765.65
Croatia	96.00	Gabon	287.01	Nauru	766.17
Antiqua and Barbuda	98.11	Guinea	287.84	Marshall Islands	767 79
Taiwan	98.43	Argentina	288.00	Burkina Faso	772 31
Korea North	102.61	Mexico	292.18	Nepal	788.40
Latvia	104.19	Ukraine	298.86	Algeria	814.83
United Arab Emirates	104.17	Eritrea	315.89	Botswana	832.87
Dortugal	110.50	Laos	317.60	Kiribati	979.19
Danama	110.39	Equador	222.62	China	0/0.10 201 22
Fanania El Salas de s	114.33		325.05		091.22
El Salvador	114.82	Ivory Coast	320.97	Azerbaijan	918.72
Bosnia and Herzegovina	118.12	Switzerland	529.64		995.84
Sierra Leone	120.19	Paraguay	344.91	Afghanistan	995.95
Finland	122.46	Comoros	351.95	Uganda	1002.13
Vietnam	128.77	Burma	360.81	Sudan	1035.52
Macedonia	131.10	Togo	364.13	Burundı	1048.91
Uruguay	133.26	United States	368.02	Rwanda	1069.55
Swaziland	133.96	Colombia	375.45	Mali (French Sudan)	1083.66
Sao Tome	134.20	Oman	378.62	Congo, Dem Rep	1131.82
New Zealand	137.50	Benin	381.61	CAR	1229.29
Honduras	139.97	Lesotho	396.19	Niger	1230.50
Nicaragua	147.65	Czech Rep	399.71	Turkmenistan	1315.36
Indonesia	148.36	Turkey	407.52	Chad	1417.02
Spain	152.20	Ghana	412.40	Mongolia	1502.91
Lithuania	155.49	Hungary	424.99	Tajikistan	1575.03
		0,		,	

Uzbekistan	1658.32
Kazakhstan	1765.19
Kyrgyzstan	1986.00



Figure C1: Histogram of Harbor Distance, 2000

	Harbor
	Distance
Year	0.1080
GDP per capita, logged	-0.3059
Polity2	-0.2381
Resource curse	-0.0493
Urbanization	-0.2459
Island	-0.2559
Area, logged	0.2765
Mountains	0.0538
Temperate desert	0.3058
English legal origin	-0.0705
Muslim	0.2486
Protestant	-0.0599
Landlock	0.5660
Temperature	-0.0671
European language	-0.3303
Agricultural transition	0.0770
State history, pre-1500	0.0263
Colonial Duration	-0.2156
Polyarchy	-0.2338
Lexical index	-0.2431
Precipitation	-0.2759
River distance	-0.0913
Irrigation	0.3070
Tropical	-0.2278
Frost days	0.0245
Soil	-0.3381
Elevation	0.5041
Ruggedness	0.0367
Agricultural suitability	-0.2683
Latitude, logged	-0.0933
Ocean distance	0.7768
Crop	-0.0866
Pasture	0.2808
Forest	-0.3445
Grass	-0.1356
Shrub	0.1591
Savanna	0.2883
Barren	0.2410
Water	-0.3958
Mountains	0.0538

<i>i abic 04</i> , inter-correlations	Table	<i>C4:</i>	Inter-correlations
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Pearson's r correlation of Harbor distance and other variables.

Table C5: Subtracting Regions

Excluded region	Eastern Europe	Latin America	MENA	Sub- Saharan Africa	Western Europe, N. America	East Asia	Southeast Asia	South Asia	Pacific	Caribbean
Model	1	2	3	4	5	6	7	8	9	10
Harbor	002***	002***	002***	002***	001***	002***	002***	002***	002***	002***
distance	(-6.95)	(-6.84)	(-7.28)	(-5.74)	(-5.51)	(-7.09)	(-7.50)	(-6.45)	(-7.51)	(-6.63)
N	13,584	12,061	13,476	12,615	11,610	14,580	14,371	14,371	14,694	14,430
R-squared	0.2319	0.2426	0.2712	0.2599	0.2663	0.2397	0.2583	0.2298	0.2478	0.2250

Outcome: Lexical index of electoral democracy. *Not reported:* constant, annual dummies (all models). Ordinary least squares analysis, standard errors clustered by country in parentheses. * p < .05 *** p < .01



Figure C2: Temporal Changes

Subset analyses with all available countries (orange) or countries whose histories are continuous from 1900 to the present (blue). For each sample of countries, we replicate the benchmark model (Model 1, Table 3) in a series of regressions focused on a moving 50-year window beginning in 1800-1849 and ending in 1961-2010. The estimate, surrounded by a 95% confidence interval, is graphed on the mid-point of each window. Thus, the first year is 1825 – midway between 1800 (the first year in our sample) and 1849.

Appendix D: Grid-cell Data

Table D1: Variable Definitions

- **Barren.** Taken from and interpolated to cover the time-series: "gives the percentage area of the cell covered by barren area, based on ISAM-HYDE landuse data. To measure the coverage of barren areas we include the percentage barren areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute <u>barren ih</u> we aggregate using the following lansuse classes: "Tundra", "Desert", "PdRI". In PRIO-GRID, this indicator is available for the years 1950, 1960, 1970, 1980, 1990, 2000, and 2010." *Source:* PRIO-GRID (Tollefsen et al. 2015).
- **Crop.** Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the percentage area of the cell covered by agricultural area, based on ISAM-HYDE landuse data. To measure the coverage of agricultural areas we include the percentage agricultural areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute agri_ih we follow the land cover classification system used by ISAM-HYDE and aggregate to the category "Total cropland" (landuse classes "C3crop", "C4crop"). In PRIO-GRID, this indicator is available for the years 1950, 1960, 1970, 1980, 1990, 2000, and 2010."

Equator distance. Kilometer distance from grid-cell centroid to equator.

- Forest. Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the percentage area of the cell covered by forest area, based on ISAM-HYDE landuse data. To measure the coverage of forest areas we include the percentage forest areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute <u>forest_ih</u>we follow the land cover classification system used by ISAM-HYDE and aggregate to the category "Total forest" (landuse classes "TrpEBF", "TrpDBF", "TmpEBF", "TmpENF", "TmpDBF", "BorDNF", "SecTrpEBF", "SecTrpDBF", "SecTmpEBF", "secTmpEBF", "SecTmpEBF", "SecTmpEBF", "SecTmpEBF", "SecTmpEBF", "SecTmpEBF", "SecTmpEBF", "SecTmpDBF", "Se
- **Grass.** Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the percentage area of the cell covered by grasslands, based on ISAM-HYDE landuse data. To measure the coverage of grasslands we include the percentage grassland areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute grass_ih we follow the land cover classification system used by ISAM-HYDE and aggregate to the category "Total grassland" (landuse classes "C3grass", "C4grass"). In PRIO-GRID, this indicator is available for the years 1950, 1960, 1970, 1980, 1990, 2000, and 2010."

Harbor distance. Kilometer distance from grid-cell centroid to nearest (natural) harbor.

- **Irrigation.** Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "measures the area equipped for irrigation within each cell (in hectares). The data is taken from the Historical Irrigation dataset v.1, which indicates pixelated data on areas equipped for irrigation across time. Specifically we used the AEI_EARTHSTAT_IR dataset, which reports irrigation based on subnational sources and Earthstat historical landuse data. In PRIO-GRID, this indicator is only available for the years 1950, 1960, 1970, 1980, 1985, 1990, 1995, 2000, and 2005.."
- **Lexical index of electoral democracy**. An ordinal index measuring the electoral components of democracy in a cumulative fashion. That is, to qualify for a given level (0-6) all previous conditions must be satisfied. 0 = No elections. (Elections are not held for any policymaking offices. This includes situations in which elections are postponed indefinitely or the constitutional timing of elections is violated in a more than marginal fashion.) 1 = Elections with no parties or only one party. (There are regular elections but they are non-partisan or only a single party or party grouping is allowed to participate.) 2 = Multi-party elections for legislature. (Opposition parties are allowed to participate in legislative elections and to take office.) 3 = Multi-party elections for executive. (The executive is chosen directly or indirectly by an elected legislature through elections. 4 = Minimally competitive elections for both executive and legislature. (The chief executive offices and the seats in the effective legislative body are directly or indirectly filled by elections characterized by uncertainty, meaning that the elections are, in principle, sufficiently free to enable the opposition to win government power.) 5 = Male or female suffrage. (Virtually all adult male *or* female citizens are allowed to vote in elections.) *Source:* Skaaning, Gerring & Bartusevičius (2015). *Scale:* ordinal. *lexical_index*

Mountains. Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "measures the proportion of mountainous terrain within the cell based on elevation, slope and local elevation range, taken from a high-resolution mountain raster developed for UNEP's Mountain Watch Report. The original pixel values are binary, capturing whether the pixel is a mountain pixel or not based on the seven different categories of mountainous terrain in the report."

Ocean distance. Kilometer distance from grid-cell centroid to nearest coastline.

- **Pasture.** Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the percentage area of the cell covered by pasture area, based on ISAM-HYDE landuse data. To measure the coverage of pasture areas we include the percentage pasture areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute pasture_ih we follow the land cover classification system used by ISAM-HYDE and aggregate to the category "Total pastureland" (landuse classes "C3past", "C4past"). In PRIO-GRID, this indicator is available for the years 1950, 1960, 1970, 1980, 1990, 2000, and 2010."
- **Precipitation.** Yearly total amount of precipitation (millimeters) in a grid-cell, based on monthly meteorological statistics from 1946 to 2013, as maintained by the Global Precipitation Climatology Centre. Interpolated across the time-series, 1800-2009. *Source:* PRIO-GRID (Tollefsen et al. 2015).
- **River distance.** Distance from grid-cell centroid to nearest river. Rivers that are identified from the Aquastat database, developed by the Land and Water Division of the Food and Agriculture Organization, which includes information about rivers' hydrological regime indicating its rank based on connectivity and hierarchy, ranging from 1 to 7, where 1 is a small stream (a leaf without children), while 7 indicates a major navigable river. We use rivers with Strahler Stream order 3 to 7. *Source:* FAO (2016).
- Savanna. Area (percentage) of a grid-cell covered by grasslands, based on ISAM-HYDE landuse data. To measure the coverage of savanna we include the percentage savanna areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute savanna_ih we follow the land cover classification system used by ISAM-HYDE and aggregate to the category "Savanna" (landuse class "Savanna"). Data available for 1950, 1960, 1970, 1980, 1990, 2000, and 2010. Missing data interpolated across the time-series, 1800-2009. *Source*: PRIO-GRID (Tollefsen et al. 2015).
- **Shrub.** Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the percentage area of the cell covered by grasslands, based on ISAM-HYDE landuse data. To measure the coverage of grasslands we include the percentage grassland areas in a cell extracted from the ISAM-HYDE historical landuse dataset. To compute <u>grass_ih</u> we follow the land cover classification system used by ISAM-HYDE and aggregate to the category "Total grassland" (landuse classes "C3grass", "C4grass"). In PRIO-GRID, this indicator is available for the years 1950, 1960, 1970, 1980, 1990, 2000, and 2010."
- **Temperature.** Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "gives the yearly mean temperature (in degrees Celsius) in the cell, based on monthly meteorological statistics from GHCN/CAMS, developed at the Climate Prediction Center, NOAA/National Weather Service. This indicator contains data for the years 1948-2014." (Tollefsen et al., 2015).
- Water. Taken from PRIO-GRID (Tollefsen et al., 2015) and interpolated to cover the time-series: "measures the coverage of water areas in each cell, extracted from the Globcover 2009 dataset v.2.3. To compute <u>water_gc</u> we follow but deviate slightly from the FAO land cover classification system used by Globcover and aggregate only to the "Natural/Artificial water bodies" class excluding the "Permanent snow and ice" class (landuse class 2010). The value indicates the percentage area of the cell covered by water area. This indicator is a snapshot for the year 2009 only." (Tollefsen et al, 2015) We have imputed the data to cover all years.

Year. Calendar year

Variable	Obs	Mean	Std. Dev.	Min	Max
Lexical index	9,159,599	2.559053	2.381439	0	6
Harbor distance	10,612,105	560.8152	472.3182	0	2627.493
Ocean distance	10,612,105	951.3854	941.218	0	4652.497
Equator distance	10,612,435	40.58365	21.57135	0.25	83.25
Precipitation	10,535,407	187.4875	193.7354	0	2485.532
River distance	10,612,105	5.299403	1.681804	-6.905046	9.058401
Irrigation	10,546,150	1583.985	7772.676	0	194828.4
Temperature	10,275,081	7.918489	14.22879	-24.16667	46.615
Crop	9,928,570	7.158055	16.7278	0	100
Pasture	9,928,570	12.89841	19.38145	0	100
Forest	9,928,570	26.56133	35.36224	0	100
Grass	9,928,570	14.21533	23.34734	0	100
Shrub	9,928,570	10.82942	18.9201	0	100
Savanna	9,928,570	5.331672	16.63445	0	99.85
Barren	9,928,570	19.49826	34.36253	0	100
Water	9,928,570	3.419221	9.502301	0	90.49
Mountains	10,559,704	0.2425667	0.3610302	0	1
Year	10,612,656	1924.998	57.18853	1800	2020

Table D2: Descriptive Statistics



Figure D1: Histogram of Harbor Distance

	Harbor
	distance
Lexical index	-0.2703
Ocean distance	0.4740
Equator distance	0.0368
Precipitation	-0.2839
River distance	0.1592
Irrigation	-0.0217
Temperature	-0.1104
Crop	-0.1057
Pasture	0.2010
Forest	-0.1299
Grass	0.1466
Shrub	0.0549
Savanna	-0.0073
Barren	-0.0066
Water	-0.1670
Mountains	0.0264
Year	0.0218

Table D3: Inter-correlations

Pearson's r correlation of Harbor distance and other variables.

Table D4: Alternate Port Definitions

Ports	All	All	Coast & river natural	Coast & river natural	All	All
Source	WPI	WPI	WPI	WPI	Lloyd's	Lloyd's
Model	1	2	3	4	5	6
Port distance	-0.001***	-0.001***	-0.001***	-0.001***	-0.006***	-0.007***
	(-139.10)	(-100.78)	(-110.02)	(-92.13)	(-271.09)	(-7.21)
Covariates	Ν	Υ	Ν	Y	Ν	Υ
Countries	194	194	194	194	193	193
Grid-cells	65,026	65,026	65,026	65,026	65,028	65,028
Years	214	214	214	214	117	117
Ν	9,159,370	9,159,370	9,159,370	9,159,370	6,459,779	6,459,779
R2	0.325	0.361	0.265	0.301	0.094	0.190

Outcome: Lexical index of electoral democracy (Skaaning et al. 2015). *Spatial units:* PRIO grid-cells. *Port distance:* distance from nearest port (km), as defined. Covariates (following Model 13, Table 1): Equator, Precipitation, Precipitation², River distance, Irrigation potential, Temperature, Agricultural zones (vector). *Not reported:* constant, annual dummies (all models). *Estimator:* ordinary least squares, standard errors clustered by grid-cell, t statistics in parentheses. * p < .10 ** p < .05 *** p < .01

Appendix E: Mediation Analysis

	Factor loadings		
Trade	0.696 ***		
Navy	0.350 ***		
European language	0.290 ***		
Universities	-0.506***		
GDP	0.921***		
Explained variance	.36		

Table E1: Factor analysis of mediation variables for the mediation analysis

Factor analysis estimated using varimax rotation.

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