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THE STRATEGIC SIGNIFICANCE OF THE AZORES

by

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Biography

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Abstract

This paper discusses the changes in the strategic relevance of the Azores as a function of technological trends and geopolitics. The nine islands of the Azores archipelago have quietly played an outsized role in world affairs and great power competition for the past six centuries. The islands facilitated Portuguese ascendancy during the 15th and 16th centuries, maintaining incredible significance as a bargaining chip in Portugal's struggle to keep its empire afloat until its transition to democracy in the 1970s. Use of the Azores during the World Wars saved Great Britain from certain collapse and aided Israel during the 1973 October War. Allied presence there kept Nazi bombers from darkening American skies in the 1940s and Soviet bombers from ranging the US Capitol in the 1970s. The paper proceeds through a chronological history from the 1400s to 1800s then shifts to looking at trends in the technologies of transportation, communication, and energy production against the backdrop of world affairs from the 1800s to modern times, with special attention upon American involvement in both World Wars and the turbulent 1970s during Portugal's revolution. The paper concludes that the strategic significance of the Azores spikes as new technologies need the islands to solve problems of distance. As technology maturation overcomes problems imposed by distance, the commercial use of the islands declines, but the military utility increases.

Key words: Lajes, Azores, Portugal, Carnation Revolution, Atlantic Strategy, Technology, Geopolitics, Agile Combat Employment, Strategic Competition, World War I, World War II, Roosevelt, Kennan

Introduction

The Azores archipelago sits geographically unmoving and indifferent to the storms and cold tides of the North Atlantic, but forever in motion in strategic relevance as currents of technology and geopolitics drift the islands in and out of focus for global powers. The nine islands hovered at the edge of European consciousness for millennia, sporadically appearing on maps, distant rumors of verdant but uninhabited volcanoes, nearly devoid of animal life. The isles sprang into sudden relevance and European hands during the Age of Discovery, convenient and vital links between the four continents bounding the Atlantic. Their prominence fluctuated with technological trends in transportation, from the astrolabe to the airplane; technological trends in global communication, from seaborne cables to spaceborne satellites; and technological trends in energy production as whale oil lanterns flickered, faded, and guttered out while fossil-fuel engines roared to life, accelerating the ricocheting course of humanity. The Azores served for centuries as an outpost of the Old World in its exploration and exploitation of the New, before becoming a vital link for American participation in Europe's wars and beyond, both hot and cold. The fate of empires sometimes pivoted, teetering from the inertia of history and weight of the future, upon this tiny toehold in the vast ocean. This paper examines the history of the islands to arrive at the strategic relevance of the Azores, as a function of technology and geopolitics, with special attention upon American interests in the periods of the World Wars, Portugal's Carnation Revolution, and possibilities for the future.

The paper proceeds through a broad introduction that covers the natural and human history of the islands, as well as the Azorean relationships with mainland Portugal, especially the

central government in Lisbon and America. This necessary background information sets the stage for discussing how technological and geopolitical trends influence the strategic significance of the Azores. The recurring themes that emerge are how the islands solve the problems imposed by distance for global powers employing nascent technology, before technological advancement eclipses the use of the islands as a mandatory stopping point but increases their utility as a base for power projection and protection of the increasingly valuable transatlantic trade. This makes the islands especially relevant during periods of conflict. Although commercial use of the islands fluctuates, the military relevance is persistent, leading to an enduring American presence since World War II, a presence that is growing in importance as strategic competition intensifies.

The islands initially served to accelerate Portugal's ascendancy as a maritime empire, giving them a distinct logistics advantage, which they could also leverage diplomatically by sharing it with other great powers. The Portuguese Succession Crisis of 1580 and their failure to industrialize left Portugal with an empire in a long decline from the 1600s until the Portuguese revolution in 1974, a situation Portugal sought to reverse by leveraging access to the islands for diplomatic favor even more heavily. The geostrategic significance of access to the islands and Portugal's sometimes precarious position made the islands the subject of intrigue and plotting from Whitehall to the Whitehouse, the Kremlin to the Reichstag, and as far away as Zonghnanhai in the shadows of the Forbidden City.

Thesis

The strategic relevance of the Azores fluctuates as a function of technological trends and Geopolitics. The islands solve the problems imposed by distance for global powers employing nascent technology, before technological advancement eclipses the use of the islands as a mandatory stopping point but increases their utility as a base for power projection and protection of the increasingly valuable transatlantic trade. This makes the islands especially relevant during periods of conflict. Although commercial use of the islands fluctuates, the military relevance is persistent, leading to an enduring American presence since World War II, a presence that is growing in importance as strategic competition intensifies.

Background: Natural History, Demographics, and Discovery

The nine islands of the Azores sat empty for most of human history, springing to relevance during the Age of Discovery. They originated from volcanic activity spanning 7.5 million to 500,000 years ago. Occasional eruptions still add land to the islands, most recently the Capelinhos Volcano on Faial in 1957.¹ There are still three volcanologically active sites in the archipelago.² There is a sizeable Azorean Diaspora (around 1 million Azoreans and their descendants reside in the US alone), and the infrequent but devastating effects of volcanos and earthquakes are one of the reasons Azoreans emigrate, especially to the United States, sending waves of islanders abroad when disasters like the 1980 earthquake left 5% of the archipelago homeless.³ The islands are spread across three groups and range in size from 750 square kilometers to a mere 17 square kilometers. The highest point in the Azores is mount Pico ('peak' in Portuguese) which, measuring 2,351 meters, is actually the highest peak in Portugal. There are approximately 240,000 residents of the Azores, roughly half living on the largest island of São Miguel, a quarter living on the second largest island of Terceira (also home to the US Air Base at Lajes Field), and the remainder scattered across the other seven islands, with tiny Corvo having a

mere 400 residents.

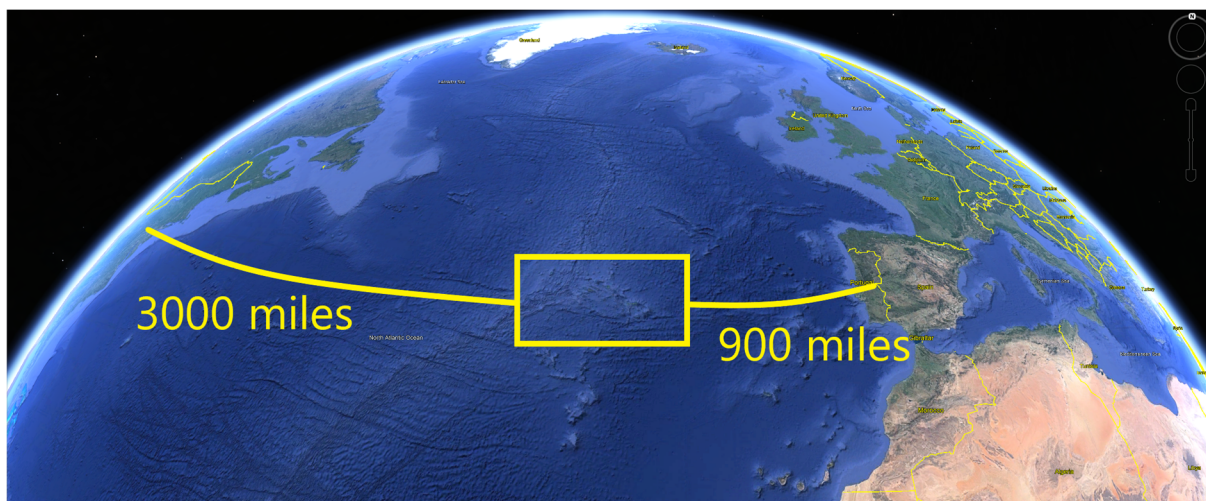


Figure 1: The Location of the Azores Archipelago, with reference distances to New York and Lisbon. Generated by the author using Google Earth.

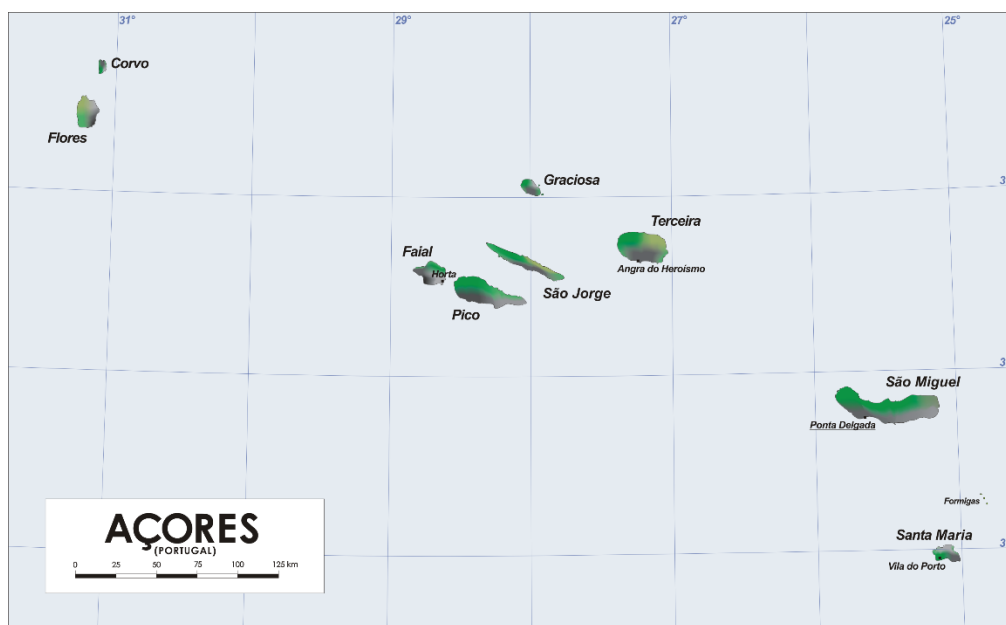


Figure 2: “Azores-Map.Png (2960×1808).” Accessed April 10, 2022.
<https://upload.wikimedia.org/wikipedia/commons/5/5a/Azores-map.png>.

European settlers began continuous inhabitation of the Azores nearly six centuries ago but details of the discovery are shrouded in mystery and uncertainty. Discovery is often credited to Goncalo Velho Cabral, a Portuguese explorer blown off course while returning from Africa, in 1432.⁴ However, numerous maps already in existence indicate a reliable, though imperfect, awareness about the location and composition of the archipelago predating Cabral's landings. Record of their actual discovery is lost to history, the sporadic presence on maps from 13th and 14th century maps likely arose from abandoned attempts to colonize various islands centuries to millennia prior to the Portuguese.⁵ The islands' possible discovery by ancient Mediterranean seafaring people, alleged to have temporarily settled two of the islands, endured as a legend, which was recently (2013), although not conclusively, substantiated by archaeological discoveries.^{6,7} The scant, disputed evidence exists alongside entirely intangible claims that a fabled, ancient statue, engraved with an unknown language, of a mounted figure pointing west awaited the arrival of Portuguese settlers on the farthest island of Corvo. Common explanations for this statue myth revolve around Carthaginians,⁸ but cartographic evidence in China and Korea led to fanciful interpretations that the statue may have been of East Asian provenance.⁹ The likelier explanation for the appearance of these far flung isles in the cartographic corpus revolved around Norse explorers.¹⁰ Archaeological anthropology and zoological evidence published in 2021 compellingly support evidence of Norse settlements around 700 years before Portuguese settlement.¹¹

Background: Early Settlement, Relationships with Mainland Portugal and the United States

The historical record of the Azores' settlement is not much more complete than that of its discovery, the one thing that emerged clearly from the fog of history was the advantage possessing the islands conveyed upon Lisbon – a one-sided relationship emerged as the central government used the islands to further its own ends. Notable British historian Sir Charles Raymond Beazley tidily captures the fogginess of the historical record covering the Azores' early days and uses in Portuguese hands, "At this day we have only a few traces of the first colonization, but of two things we may be pretty certain. First, that the Azores were all found and colonised in [Prince Henry the Navigator's] lifetime, and for the most part between 1430 and 1450. Second, that no definite purpose was formed of pushing discovery beyond this group across the waste of waters to the west, and so of finding India from the "left" hand."¹² Settling the Azores was never about colonization for the purpose of demographic growth or exploitation for wealth. They lacked the size and resources. However, they offered a waystation to facilitate expansion abroad. Their practical utility has always been aspects of their strategic position, which in the 1400s age of sail was a position along prevailing easterly wind and ocean currents. Prior to the discovery of the Americas, this meant accelerating the return voyages to India around Africa. All this was part of a larger, developing patchwork of trade outposts at specific points around the globe to support a Portuguese maritime empire that sought to, "control the sea and strategic access to it, rather than conquering large populations over grand expanses of non-Portuguese territory."¹³

The discovery of the New World considerably amplified the strategic significance of the Azores. Columbus famously stopped on the island of Santa Maria on his return voyage, making

the Portuguese governor there the first European to hear of Spain's new route to a New World. The meeting turned unfriendly, ending in an armed standoff and attempts to arrest each other over accusations of piracy levied at Columbus and kidnapping levied against the Azorean governor for his detention of Columbus' shore party.¹⁴ This set an immediate precedent for centuries of Spanish and Portuguese competition for colonies and influence in the Americas. The papally arbitrated, bilateral Treaty of Tordesillas in 1494 helped to keep outright conflict to a minimum but the race was on, and non-signatories of the treaty like the British, Dutch, and eventually, the French joined the fray. The islands no longer served merely as a convenient highway stop for merchants returning from the Indies around the Cape of Good Hope. Their position on the currents of the Atlantic Gyre put them at 12 o'clock on the clockwise traffic of the Atlantic superhighway, turning them into an outpost vital to both trade and power projection. The technology of the day, sailing vessels, with their dependence on wind and ocean currents, and attendant needs for resupply, repair, and safe harbor, coupled with the geopolitical situation, mark the first precipitous change in the strategic relevance of the islands.

Lisbon not only leveraged the unique geography of the Azores during the Age of Discovery to expand and support their own maritime empire but began the enduring Portuguese practice of trading access to the islands for favors and influence from other countries. Portugal profited immensely from this arrangement. However, most of the wealth generated by access to the islands went directly into the coffers on the mainland. Lisbon relegated the islands to service as a stopover point, a square on the global chessboard and bargaining chip in the games of European intrigue.¹⁵ The Dutch, French, and English all enjoyed access to the islands at times in return for supporting Portuguese trade and defending against Portugal's oft-time enemy Spain, who viewed the Azores as critical to their strategy of New World resource extraction.¹⁶ The

islands came under Spanish mastery when the entire kingdom of Portugal fell under the house of Castille's control from 1580-1640 – Spain gained control during a succession crisis that followed the surprisingly ill-advised, unsurprisingly ill-fated, and personally fatal attempt by the Portuguese king Dom Sebastião to invade Morocco. Spanish treatment of the Azoreans exceeded their accustomed standard, and the Spaniards left many lasting improvements to the islands, especially on Terceira.¹⁷ Portugal recovered the islands in 1642, shortly after the Portuguese Duke of Braganza (Crowned King João IV) successfully launched the Portuguese Restoration War in 1640. Although restored as an independent empire, Portugal never fully recaptured its former glory and started a slow descent in prestige and power. But the Azores, still an important fixture in connecting the Atlantic, remained significant in its importance.¹⁸

One could observe that Portuguese leveraging of the islands is indirectly related to the strength of the Portuguese central government relative to its competitors. The better Portugal's position in the world, the better the conditions for the Azoreans. As Lisbon's grip on overseas territories slipped, or the Portuguese lost ground relative to a competitor, the tighter the Iberian state clutched the Azores and the more heavily leveraged them to advance their position abroad. The Azores are in a small, unique group of overseas European holdings, in that Portugal added them to their kingdom after a strong Portuguese identity already existed on the mainland, and without having to displace any rival inhabitants or indigenous population from the islands.¹⁹ This gave the islands somewhat of a dual nature in the sense that their only history is Portuguese, but they are geographically distant latecomers to the unfolding story of Portugal. So they received the worst of both worlds – as loyal subjects of Portuguese stock, they were expected to share equally in every struggle of the Portuguese people and kingdom but as “otherly” junior partners

the Empire exploited them more heavily in times of need and forgot them more readily in better times. Although part of the empire, Lisbon treated the Azores like a colony.

While the Azores played a significant role in Lisbon's relationship with other nations, their relations with the islands themselves cannot be overlooked – Portuguese habits of constraining the economic wellbeing of the Azoreans has fueled Azorean desires for independence for centuries.²⁰ Lisbon mediated the islanders' transactions when it came to the repair and resupply of ships, and some limited agricultural exports, thereby limiting what the Azoreans could earn.²¹ Unsurprisingly, this meant that most of the profits went to the mainland. However, politically and administratively, the Azores enjoyed significant autonomy, from their original colonization until the 1760s, under a Captain Donatary system. A Captain Donatary ruled each island, interacting with the others for mutual support and the mainland for individual issues. Provided that they met Lisbon's strategic ends (both economic and political), the Captain Donataries had large say in the internal matters of their island. Autonomy over internal political affairs ameliorated angst over their economical heteronomy, but tighter control under the Pombaline reforms of the 1760s-1770's led to revocation of the Captain Donotary system and a central government for the islands on Terceira, the intent being to facilitate Lisbon's tighter and more efficient control of the archipelago. These reforms came at a period when Portugal's empire continued to fade, with Spanish incursions on the mainland, unrest in Brazil, and diminishing resources with which to confront these challenges as extraction exhausted the gold and diamond mines in Brazil. The desperate need for reforms as the rest of the European world began to industrialize derived in part from the existence of the gold and diamond mines of Brazil. The unsustainable wealth they afforded allowed Portugal to ignore trends in industrialization, setting them behind when these exhaustible resources were depleted.²² The

tighter controls emplaced during the Pombaline reforms serves as further evidence of desperation tightening Lisbon's grasp on those possessions they firmly controlled to extract and consolidate power to deal with proximate threats. The intent versus outcome vis-à-vis the Azores was that the governmental consolidation and economic reforms meant to confront immediate problems for the empire accelerated longer term problems between the mainland and the Azoreans. The islands were now administratively united, contributing to the growth of a shared identity, which in turn gave greater mass to shared discontent, and a shared view of Lisbon's policies as the root of their problems.

This use of the islands to gain a better deal for Lisbon without sharing the spoils with the islands themselves has kept musings about whether the islands can get a better deal for themselves by themselves or as part of another country an open question, and there are numerous countries that would eagerly incorporate the islands. Geographic reality put the Azores at the crossroads of the Atlantic and in the crosshairs of other kingdoms. Many countries and empires have jealously eyed the Azores over the centuries, within the last 100 years, their allure motivated the British, Americans, and Germans to craft plans for seizing the Azores for their exclusive use. They nearly fell into the Russian sphere of influence in the 1970s, and China is eagerly demonstrating interest in the islands with Chairman Xi Jinping and other high-level officials visiting the Azores.²³ America, who long welcomed immigrants from the archipelago, was equally welcoming of voluntary permission to use some of the islands during World War I and again in World War II, while Portugal maintained a fuzzy neutrality. The United States eagerly negotiated to stay afterwards and remained as Portugal became a formal ally as a member of NATO. This did not keep them from flirting with the idea, during WWII and the Cold War, as late as the mid-1970s, of taking the islands for themselves if their invitation

appeared in danger of revocation, a calculus partially favored by the history of America's direct relationship with the islands and the islands' frayed relationship with Lisbon.

The history between America and the Azores is long and unique, with a mutual affinity that has, at times, nearly broken the Old World's administrative relationship with the islands in favor of the practical relationship between the nine-island archipelago and their tenth island, America. Some of the many threads of fate that led to America's independence originate from and interweave with the islands'. The Continental Congress utilized the islands to facilitate the travels of envoys to Europe to solicit support for the American War of Independence (1775-1783).²⁴ Following the war, the United States continued using the Azores to shuttle emissaries across the Atlantic, resulting in the establishment of a permanent diplomatic post. America's oldest, continuously operated diplomatic post in the world, opened in 1795, sits in Ponta del Gada on the Azorean island of São Miguel.²⁵ The ties between the US and the Azores transcended modest diplomatic postings, when, beginning in the 1800s and continuing into the 1970s, the economics of the whaling industry brought Azoreans with centuries of experience in their cetacean-rich waters aboard American ships and into American ports, creating a beachhead for their fellow islanders to seek the better life that America offered. This draw extended beyond whalers and their families, Azoreans arrived on both coasts in such great numbers that the diaspora in the US outnumbers those still in the islands, exact figures are hard to come by, but there are somewhere around 1,000,000 people of Azorean extraction in the US today, and the US received around 350,000 immigrants from the islands, leading to America being dubbed the "tenth island".^{26, 27} Azorean communities in areas of Massachusetts are so dense that signs are written in and business is conducted in Portuguese. Azorean proficiency in agriculture led to prominence in the strawberry and dairy industries of America, particularly in New England and

California.^{28,29} The Azorean diaspora stays in particularly close contact with their roots, sending remittances and often returning to the islands for visits or retirement.³⁰ The political impacts of this legacy in the US are seen in the Portuguese American Congressional Caucus, three of 25 of whom trace their ancestry to the Azores, as well as the Friends of Portugal in the Senate, one of eight of whom trace their ancestry to the Azores; every member of the legislative branch with Portuguese heritage traces that heritage through the Azores. Both groups often advocate on behalf of the interests of the islands.

Examining the history of the archipelago's individual relations with mainland Portugal and America helps to understand the strategic relevance of the Azores, but the more illuminating analysis is the interactive system of relationships amongst these three actors. Enduring American interests in islands with growing autonomy, but still controlled by the US's NATO ally Portugal, creates a complicated triangle. As Alexander Cooley aptly observes in *Base Politics*: In general, island bases hosting the US military have a distinct political identity, with a center versus periphery tension between the capital and the islands that the US finds themselves occasionally exacerbating.³¹ America sometimes finds themselves in the middle of this awkward triangle with mainland Portugal and the Azores, a particularly illustrative case being during the Portuguese revolution in 1974-1975. Ambassador Robert Barbour, one-time Portuguese desk officer and later USDoS Director of Western European Affairs during the revolution remarked,

...the Azores were giving us lots and lots of concern because of an Azorean independence movement. It wanted to break away from pro-communist Portugal and attach themselves to the United States, or at least under the American umbrella. And it wasn't only awkward politically, but we had an important base in the Azores, Terciera [sic] Island, the largest. And the Azorean movement was to some degree financed by wealthy Portuguese Americans. So they were saying things that caused some people to bite their fingernails, and the revolutionaries in Portugal were saying other things, remove the rest of the fingernails, or generate other kinds of worries.³²

The Azores' rather rocky history with their parent government in Lisbon, stands in sharp contrast to their relationship with America and the longstanding (since 1943) American military presence on the island of Terceira. Although occasionally troubled, this presence is mutually beneficial to all parties since it advances the Azorean economy, facilitates US security, and brings concessions to the Portuguese government. The origin story of American presence in the Azores is not one of battlefield liberation or triumphant occupation, and is part of a longer, larger, consistent history of a positive, steady relationship, with a common thread of democratic aspirations.³³ Even before Portugal's turbulent transition from a dictatorship, American relations with Lisbon were often tense and frequently coercive, on both sides, but important enough for both countries to cave on core interests. Continued access to the Azores was contingent upon America excepting Portugal from its pressure on European nations to decolonize in the decades after the Second World War, reversing America's rhetoric, and even promising covert arms supplies to assist Portugal's desperate efforts to suppress growing wars for independence in Africa and hold onto its vestiges of empire in Angola, Guinea-Bissau, and Mozambique.³⁴ President John F. Kennedy notably reversed his administration's attacks on Portugal in the UN over both its refusal to decolonize and its brutal wars against freedom fighters in their African colonies so that the US could keep access to the Azores.³⁵ Portugal's dictator Marcello Caetano allowed his country to bear the brunt of an OPEC embargo, all other European nations succumbed to OPEC's pressure, at a time when they could ill afford economic stress (40% of their budget was funding their wars in Africa³⁶) to support America's basing needs for use of the Azores in its resupply of Israel during the 1973 October War.³⁷

Before transitioning to a more focused discussion of the strategic significance of the Azores, perhaps a fitting note to conclude this hastily synopsisized but colorful backdrop of Azorean history and relationships with is to share the curious fact that Portugal was a founding member of NATO, the democratic bulwark against autocratic communism, while still a fascist dictatorship – NATO made this exception to their principles almost exclusively to ensure access to the Azores.³⁸ The Azores has quietly played an outsized role in world affairs and great power appetites for its entire history. They facilitated Portuguese ascendancy during the 15th and 16th centuries, maintaining incredible significance as a bargaining chip in Portugal's struggle to keep its empire afloat and then on life support until their transition to democracy in the 1970's. Their use saved Great Britain from certain collapse in two World Wars and Israel during the 1973 October War. Allied presence there kept Nazi bombers from darkening American skies in the 1940s or Soviet bombers from ranging the US Capitol in the 1970s. This small collection of islands has truly been a lynchpin in world history, and may resume that role again as the continuing changes of technology and geopolitics modulate the strategic significance of the Azores.

The Influence of Technological Trends and Geopolitics

Trends in technology and geopolitics have either amplified or diminished the relevance of the Azorean archipelago over the past millennium. While the islands have always maintained a baseline, inherent relevance due to their geographic location, the overall relevance beyond that baseline has been anything but fixed. The primary drivers of this fluctuation appear to be technology and geopolitics, not just as independent but as interactive forces. The demand for

technology to facilitate power expansion drives innovation but cannot always dictate the form of the response, so the coincidence of what innovators supply influences the form that power can manifest. The coincidence of what governments can best leverage feeds back into the system to foster symbiotic technological-political developments that coalesce around technologies uniquely suited to the unique character of a nation.

A quick vignette will help to illustrate: Portugal's geographically determinative position led to a desire for more power via more wealth via access to more resources and trade routes, incentivizing innovations in the range, speed, and capacity of ships. It is unsurprising that the symbiotic technological-political response was innovations in sails, hull shapes, and navigation techniques that produced the revolutionary caravels and carracks that gave Portugal its maritime empire in the 15th and 16th centuries.³⁹ The broader geopolitical situation factors in with England's willingness to provide the maritime muscle to militarily protect Portuguese interests and balance against their mutual adversary, Spain. This single example illustrates how changes in technology and geopolitics are so interpenetrating that is impossible to entirely divorce the two for an analysis by superposition. In order to progress, we will let technology be the organizing function and interleave geopolitics as we look at how changes in the technologies of transportation, communication, and energy production altered the strategic relevance of the Azores. Having touched upon the development of the islands and their relationships from their discovery through the 1800's in the preceding section, the following geopolitical illustrations are weighted towards intersections with the United States.

Trends in Transportation: Surface and Sky

Two trends in transportation have dramatically altered the relevance of the Azores: normalization of trans-oceanic travel by surface vessel and by aircraft. Regardless of the reason — commercial, personal, or martial — changes in the modalities of moving people and things were the source of both increases and decreases in the islands' strategic significance.

Technological development met the European drive for overseas colonies and trade, and the 1400s saw the Age of Exploration begin the phenomenon of overseas expansion, and islands like the Azores played a key role. There are a host of accompanying technologies that enabled Europeans to succeed in their expansion, especially technological asymmetries vis-à-vis indigenous populations, like in weaponry; however, this paper focuses on the technology required for the journey, versus what happened at the destination, since it intersects more completely with the Azores. The technologies with primary relevance for the Azores are those that enabled better ships, like lateen sails, and navigation, and like the magnetic compass.⁴⁰

New technological developments greatly expanded the reach of voyages but still required intermediate points for reliable transoceanic travel. The oceans were rife with the dual threats of nature and mankind, where a rival nation or greedy privateer might interfere with vessels transiting the Atlantic, treasure fleets returning to Europe made especially lucrative targets. Island possessions along the way provided significant risk reduction for the arduous and dangerous passage across the ocean. They were easily defensible from adversaries and provided harbors that allowed both sheltering from enemies as well as for power projection into the ungoverned and permeable wilds of the sea. However, not every island holds the same benefit. The location relative to prevailing wind and ocean currents as well as the composition of the islands themselves are relevant. The Azores sit at an exceptional position atop the Atlantic Gyre, meaning that they allow vessels returning from the Americas access to the most favorable wind

and ocean currents. Additionally, their fertile nature and deep water ports allow the Azores to produce surplus food that make ready stores for passing ships to avail themselves of. Starting in the 1400s, natural access to the Atlantic and possessing the technology to cross it changed the power dynamics in Europe, it eroded the relative power of Mediterranean seafarers like the Venetians and the Ottoman Empire, marking the rise of the Spanish, Portuguese, Dutch, English, Flemish, and French. These countries fiercely competed for geographic and economic expansion. Portugal and Spain's early entry into this game gave them solid holds on most of the Atlantic Islands in the Northern Hemisphere (Azores, Madeira, Canaries, Cape Verdes). The long and complex geopolitical history of the shifting alignments leading into and through the Age of Exploration is beyond the scope of this paper, but one notable occurrence is the alliance relationship between Portugal and England that began with a treaty in 1373 and matured into the Treaty of Perpetual Friendship signed between them in 1386.⁴¹ This treaty was part of the pretext for "neutral" Portugal to allow British (and by extension American) use of the Azores during World War II, as they sensed that the Allies were now capable of winning.⁴²

Just as advances in sailing technology increased the relevance of the Azores, the next iteration of naval innovation decreased their relevance. The advent of coal fired, and later petroleum driven, vessels, improvements in refrigeration and food preservation, and improved weather forecasting all combined to reduce the reliance of surface transportation upon island stopover points. Voyages now occurred with greater speed and reliability, decreasing many of the risks that strategic islands like the Azores previously mitigated. Since the Portuguese central government never allowed the Azores to flourish as a place where goods were exchanged, they were merely a stopover for trading vessels, the traffic to the islands dropped precipitously in the late 19th and early 20th century as merchants went steaming by instead of sailing in. Even though

the percentage of stopovers in the Azores decreased, the volume of people and goods moving across the Atlantic increased as part of the early trends of globalization.

The First World War and the introduction of submarine warfare gave the Azores a pivotal role in protecting shipping. Wilhelmine Germany settled upon unrestricted submarine warfare as a method of trying to starve Britain into submission and out of the War by attempting to sink, as a goal they exceeded, 600,000 tons of shipping per month.⁴³ This returned and, for the duration of the war, redoubled lost strategic relevance for the Azores, as they now helped to generate forces for area control in the Azorean seas and protection for shipping keeping the oceanic lifeline to Britain going. An American destroyer squadron sent to the Azores in 1917, without formal permission from Portugal, began the task of securing the Azorean Seas and dashed German hopes for a base of operations. The formal agreement that established a naval base at Ponta del Gada in January 1918 extended the operational reach of surface combatants into the critical area between Madeira, Lisbon, the Canary Islands, and the African coast. This curtailed u-boat operations and increased the survivability of commercial ships traveling outside of convoys.⁴⁴ The utility of possessing the islands at this period is undeniable. Almost as important as having them was ensuring that the enemy did not. World War I German general, Von Reuter, is quoted as saying: “If Germany had had possession of the Azores, she would have won the war”.⁴⁵ While proving this is impossible, what is unmistakable is the impression that appears in great power attitudes, during the First World War and several other junctures in the 20th century, regarding access to the Azores as the key upon which their success or survival pivots.

The introduction of airplanes to the islands marks another inflection point in the role of transportation technologies upon the strategic relevance of the islands. The rise and fall in the significance of the archipelago as a function of mankind’s access to the air follows much the

same pattern as that of shipping but on a dramatically compressed timeframe. The initial range and reliability of aircraft necessitated stopover points like the Azores to make a cross Atlantic journey, period. Indeed, the first transatlantic flight followed shortly after The Great War when Navy Lieutenant Commander Albert C. Read and his crew stopped in the Azores enroute to Lisbon aboard their Curtiss NC-4 flying boat. They were the only one of three planes that attempted the crossing to succeed in their goal, reaching Lisbon after 27 hours underway.⁴⁶ With the rapid technological improvements in aviation, in a span of only a few decades, nonstop flights began from North America to Europe, the first of which occurred in October 1945.⁴⁷ Unless the islands themselves were the destination, they transitioned from a stop of necessity to one of convenience and eventually to a stop by exception for aircraft in extremis.

Warfare, again, changed this situation in much the same way for military aircraft as it does for military ships operating from the Azores. In contrast to civilian air or watercraft, where the relevance of range is for going along a line from one point to another, the relevance of range for military craft is the number of decisive lines or points within an area that they can attack, threaten, or defend. For the Azores, this allowed securing the immensely important Mid-Atlantic Gap as well as reinforcing the Greenland-Iceland-UK gap. During World War I, America established a Marine aviation presence on the islands of Sao Miguel and Faial that flew 978 anti-submarine warfare (ASW) sorties in the Mid-Atlantic Gap.⁴⁸ While the Azores saw a surge in relevance during the early days of air travel, that relevance faded as supervening advances in aircraft range and reliability obviated the need for stopovers in transatlantic journeys. Although now of marginal importance for commercial air traffic, the Azores retain enormous, latent strategic potential for military aviation that becomes acutely apparent during periods of crisis and

conflict, illustrating the interpenetrating effects of aircraft technology and geopolitics upon the strategic relevance of the islands.

Trends in Communication: Subsurface to Space

Advances in communications technology introduced another wave in the rise and fall of the Azores' strategic relevance. The islands played a pivotal role in connecting the world as communication technology advanced, especially with the laying of undersea communication cables. This followed the now familiar pattern, from the discussion of transportation technology, of the islands enabling a breakthrough that skyrocketed their strategic significance, which dissipated as further advances in technological capability supplanted the role the Azores played in overcoming the tyranny of distance in the mid-Atlantic. For most of history, communications technology and transportation technology evolved symbiotically, with transportation playing the role of host and communications the symbiont. The faster and further people could travel, the faster and further they could send a message – communications technologies like writing, printing, and encryption changed the reliability, information density, and security of messages – but the messages relied almost entirely on physical transportation.⁴⁹ Around 1830, the relationship got complicated. Telecommunications arrived with the advent of the telegraph.⁵⁰ The succeeding century saw a rapid divergence in development between the previously inseparable fields of communication and transportation. Messages now traveled faster by themselves, and the erstwhile messengers on land or aboard ships and aircraft now found themselves outpaced by news of their movements or information to aid their journeys traveling at the speed of light. This unfolding divorce intersected with the Azores in the last decade of the 19th century as global powers competed for mastery of the first truly global communication network.

The Azores gained a significant amount of prestige and significance in the late 1800s with the pervasion of undersea communication lines. By the mid-1800s, improvements in creating and placing submarine cables made it possible to span the Atlantic. However, this nascent technology lacked the power and enabling technology to effectively meet the intense demand for intercontinental communications across the Atlantic without above-water relay stations, the Azores became the crown jewel of the network when cables connected them to Europe in 1890-1893 and to North America by 1897. Dr. Ana Paula Silva's excellent article "Portugal and the Building of Atlantic Telegraph Networks" offers several exceptional insights into the role of the Azores in the interaction of technology and geopolitical competition.

19th century submarine cable technology had a constraint – the need for relay. Therefore, although the worldwide submarine cable network could be mastered by a few powerful states it could only be built by using other countries to land the cables. This inherent transnational feature of the submarine cable network created new links between European nations, shaping both their national and international strategies as well as the relationship between the so-called central and peripheral countries.⁵¹

Portugal, which was continuing its centuries long slide into peripheral status, could offer Lisbon, Madeira, and the Azores to the current and emerging world powers to "land" their cables. The English, French, and Germans all sought relative advantages of controlling communications and the Americans sought their own link to Europe to expand their interests there without surveillance by European competitors. Portugal dealt with all of them.⁵² Portugal did not deal with all these powers in equal measure or with equal degrees of leverage. The Portuguese had long been beholden to the British for security and were compelled to offer them the best deals. The Azores, once again, arose as the optimal solution to the distance problem that the powerful faced and the solution to the power problem that Portugal faced.

The Zimmerman telegram is a case in point that illustrates how technology and access to the Azores affected the rise and fall of empires. In the runup to World War I, Great Britain compelled Portugal to at times disrupt, then later to restore and allow surveillance of, German cables running through the Azores. Portugal eventually severed Germany's access in its entirety, resulting in the ironic necessity of using American and British cables to transmit the encrypted Zimmerman Telegram and rely upon encryption to keep the message secret. This allowed its interception and decryption by the British and their further inducing of America into the First World War.⁵³ The Zimmerman Telegram is an illuminating anecdote about how the Azores played a pivotal role in the rise and fall of empires. While undersea cables are probably not what Von Reuter had on his mind when he bemoaned Germany's loss of World War I due to lack of possession of the Azores, it is obvious that access to the islands provided an enhanced ability to facilitate friendly action or complicate adversary action.

As technology matured, it overcame the problems distance previously posed to global communication, diminishing the relevance of the Azores. Cables became more reliable, the advent of fiberoptics diminished the need for relays, and the network diversified into dozens of major undersea cable routes. The further development of communication technology, like the increasing availability of space-based communication or quantum communication stands to make the residual significance of cables routed through the Azores even less relevant.

Trends in Energy Production: Undersea to Underground

Advances in the technology required for energy production modulated the strategic significance of the Azores as demand for whale oil shifted to petroleum, with the islands' proximity to whales and distance from oil equating to a loss of relevance. During the 1800s, the Atlantic provided an incredibly valuable source of whale oil. Whale oil supplied the world with a

combustible for the highest quality of illumination for lighting, as well as serving as an industrial lubricant for precision machinery, an ingredient in producing military explosives, and a host of other applications. The Azores sit at the nexus of several migration patterns for whales, making them both a rich hunting ground and a source of expert whalers. As demand for whale oil skyrocketed in the mid 1800s, growing by a factor of 14 between 1816 and 1850, the Azoreans' centuries of experience in cetacean hunting put them at the heart of the whaling industry.⁵⁴ America leveraged their expertise. Demand for whale oil grew as the supply shrunk, making whale oil an ever more expensive commodity. This, coupled with technological advancements in petroleum extraction, and rising labor costs for whaling led to America's abandonment of whaling in the Atlantic.⁵⁵ This source of Azorean strategic importance ebbed away, and many Azoreans with it, as the shift in the island's economic situation drove many to settle in the American harbors they frequented as whalers.

Changes in energy production also led to a decreased of sailing vessels, reducing the strategic value of the Azores. Coal and petroleum allowed the construction of larger and faster vessels that did not need to stop mid voyage. Although the Azores no longer served a prominent role as a strategic stopping point, as the volumetric flow of trade ($\frac{volume}{time}$) across the Atlantic increased, the more important it became to protect it, especially during war time. Thus, the military importance of the islands continued to grow. During past and prospective future wars, the islands gain even greater importance as the flow of military personnel and materiel across the ocean presents long and vulnerable lines of communication, whose throughput heavily influences the outcome of the war.

To summarize the recurring themes of how technology and geopolitics interactively cause ebbs and flows in the strategic significance of the Azores: new technologies make the

Azores important to use, improvements in these technologies decreases the islands' commercial usage but increases their military utility. While in their nascency, changes in transportation, communication and energy technologies all relied upon the islands, eventually eclipsing the need for physically stopping in the archipelago but never escaping the necessity of requiring protection for the increasingly valuable flow of trade across the wide expanses of ocean. The islands solved problems of overcoming distance to achieve strategic goals of economic and demographic expansion for Portugal in its ascendancy, then for whatever powers they parlayed access to the islands to, while buying time for Portugal's unsuccessful efforts to reverse the decline of its empire. The fate of many nations became entangled with the Azores, and we will conclude the historical portion of the paper by filling in a few gaps with America's salient experiences during World War I, World War II, and the period around the Portuguese Revolution in the 1970s.

America and the Azores: World War I

The occupation of the Azores, was of great strategic value from the mere fact that had it been in possession of the enemy, it would have formed an ideal base for submarines, and as our convoy routes passed north and south of the islands an enemy base would have been a very serious obstacle for the successful transport across the ocean of troops and supplies.⁵⁶

– Admiral Herbert Dunn (Azores Detachment, Atlantic Fleet)

The Azores possessed immense significance for the Allied Powers during World War I. Britain's ability to remain in the war hung in the balance as Imperial Germany's unrestricted submarine warfare ravaged ships carrying much needed food imports. As the United States began contemplating the logistical feat of sending an expeditionary army across a heavily contested ocean, it was initially compelled to use a secret, mobile oil base at sea to provide the

range their destroyers needed. Discovery of this base would have crippled American operations in the Atlantic. Adding bases in the Azores allowed a shift from this precarious situation and provided a secure location to stop for fuel, provisions, and repairs.⁵⁷ Beginning in 1917, America constructed a naval base at Ponta Delgada on Sao Miguel and maintained a presence at Horta on Faial. The United States capitalized upon the new technology of airplanes and constructed several fortifications, gun emplacements, and an airfield in the islands.⁵⁸ Prior to the American arrival, German U-boats frequented Azorean waters, even shelling the harbor at Horta in 1916. After constructing the bases on the Azores and accompanying shore defenses, Germany ceased approaching the islands, granting a much needed mid-Atlantic haven.⁵⁹ America retained a major presence in the islands for the duration of the war, drawing down their forces and completely departing by 1919.⁶⁰ One notable visitor during this period was then Assistant Secretary of the Navy, Franklin D. Roosevelt in 1918, who was enroute to Europe to help determine the timing of the eventual American drawdown.⁶¹ He made the stopover to personally assess the islands' importance and observed the allied spirit of several nations cooperating. The stop made a significant impression upon Roosevelt and confirmed his notions of the strategic importance of the islands. A painting commemorating his arrival in the Azores aboard the USS Dyer still hangs in FDR's personal study. He shared his impressions during a toast at a state dinner in Ponta Delgada, "The principal problem of the Navy Department of the United States is how to transport the troops to the front... Taking into consideration the matter of transporting the troops across the Atlantic, we see the importance of the strategical position of the Azores. With the developing of this war, the importance of these islands, which have been great, will increase steadily."⁶² FDR was impressed enough by the strategic significance of the Azores that he made plans to resume American use of the islands in the Second World War.



Figure 3: Inset: Charles Ruttan's Painting of The USS Dyer with Assistant Secretary of the Navy (FDR) Arriving in Ponta Delgada (1918). Background: the Painting Still Hangs in FDR's Personal Study

America and the Azores: World War II

*The Azores and the Cape Verde Islands, if occupied or controlled by Germany, would directly endanger the freedom of the Atlantic and our own physical safety. Under German domination they would become bases for submarines, warships, and airplanes raiding the waters which lie immediately off our own coasts... Anyone with an Atlas and a reasonable knowledge of the sudden striking force of modern war, knows it is stupid to wait until a probable enemy has gained a foothold from which to attack. Old-fashioned common sense calls for the use of a strategy which will prevent such an enemy from gaining a foothold in the first place.*⁶³

– Franklin Delano Roosevelt, radio address “Proclamation of an Unlimited National Emergency,” 27 May 1941

Both the Axis and Allies had designs upon the Azores during the Second World War, and the islands proved as pivotal as both sides assumed to the outcome of the war. Nazi leader Adolf

Hitler and the head of the German Luftwaffe, Hermann Goering, had grand plans in 1940 to take the Azores and use them to shield their much expanded borders and as a base for striking the United States.⁶⁴ Führer Directive No. 18 laid these plans out in detail.⁶⁵ However, Admiral Raeder and the Luftwaffe convinced Hitler that they lacked the seapower, even if they attempted a combined arms feat, to take the islands.⁶⁶ Roosevelt, despite the fact that the United States was not yet in the war, already had plans to invade the Azores and take them into protective custody. Military planners completed a detailed plan by May of 1941, dubbed Operation Alacrity, for 25,000 troops, mimicking German sea-air successes in Norway, to take the islands.⁶⁷

Fortunately, the British were able to secure an invitation from the Portuguese government to begin using the islands for military operations. This transpired despite staunch public assertions of neutrality from Portugal. The romantic version of this story is that British Prime Minister Winston Churchill invoked the 1373 Treaty of Perpetual Friendship between the UK and Portugal to secure cooperation for usage of the archipelago. The deeper story is that Portugal's Fascist dictator Antonio Salazar was dealing with both sides in the war, trading very profitably for critical war material and extracting resources and concessions from both. Portugal eventually allowed America access to the islands during World War II, in part, for assurance that the US would assist Portugal in recovering their Pacific colony of Timor from the Japanese.⁶⁸ Such concessions, along with Portugal's traditional reliance on British protection, the sense that the Allies could win the war, and a complicated calculus that Hitler could not spare the resources to punish Portugal for assisting the Allies led Salazar to open the Azores to the British (and later Americans). Publicly waving the treaty of 1373 in the air was a convenient pretext to help excuse their actions to the irate Nazis.^{69,70} Britain's foot in the door in the Azores proved a sufficient

opening for the United States to begin using the islands as well, although under conditions ranging from discretion to outright deception to cover their presence.

America's, in particular Roosevelt's, experience from the First World War left them convinced of the Azores' centrality for any plans to reverse the Axis inertia built from the beginning of the war until 1941. The United States was prepared to take the islands if needed, and many military planners preferred this course of action since it came without further strictures upon the scope and scale of their operations.⁷¹ However, America relied upon diplomacy first, seeking a mutually agreeable arrangement with Salazar, although the State Department planned some diplomatic escalation space to transition to a compellence strategy. American Diplomat George Kennan, then the little-known chargé d'affaires in Portugal, coincidentally was charged with negotiating with a fascist dictator to fight against fascism, under pressure from a dictatorial Pentagon, whose wishes were conveyed by an underinformed State Department, with the reality that America might attack "neutral" Portugal, thereby triggering a war with their mutual ally Great Britain, who would be compelled to honor the Treaty of Perpetual Friendship, which they had just finished heralding the enduring strength of as their public justification for using the Azores.⁷² Kennan's attempts to navigate the complex landscape before him resulted in an abrupt recall to Washington, a meeting with the secretary of war, secretary of state and the top generals of the US military, where he was berated and dismissed, after witnessing Secretary of War Henry Edward Stimson asking Secretary of State Stettinius to replace Kennan. Their plans for the Azores so dramatically exceeded what Portugal could offer that diplomacy stood no chance of succeeding. Kennan managed a long-shot meeting with President Roosevelt, who sided with Kennan, telling him "Oh, don't worry about all those *people* over there," and gave him a personal note to smooth dealings with Salazar. Roosevelt felt that his reputation of dealing in

good faith with respect to the Azores after the First World War would also help. Kennan succeeded in negotiating the US use of the Azores during his personal meeting with Salazar, then got sacked anyways.⁷³

One significant note about the early stage of American basing in the Azores is the speed with which operations began, and how this sets a precedent for solutions to contemporary problems. The Army Air Forces set up operations on Terceira within one month of concluding an agreement in December 1943, discretely operating alongside the British. They covertly set up a base on Santa Maria within six months, operating under strict secrecy at the request of Salazar, with American military construction workers operating under cover as Pan Am employees to supervise construction of a base code named “Project 111.”⁷⁴ During the first three months of British operation in 1943, submarine hunters sank 53 subs. American operations from the islands from 1944 onward further contributed to a precipitous drop in German U-boat activity. The combined efforts of the British and American airmen operating from the archipelago are credited with turning the tide of the battle in the Atlantic.⁷⁵

America and the Azores: The Turbulent 70’s

The strategy of dangling the Azores for influence directly contributed to the collapse of the Portuguese government, the loss of their last vestiges of empire, the nadir of their 400-year slide from pre-eminence, and a fear that Portugal might become the first Communist member of NATO. Declassified CIA documents reveal that in 1960, Portugal quietly but very candidly threatened to pull out of NATO and break the Lajes agreement if the United States supported the Congolese in their disputes or rebellion against Portugal.⁷⁶ America overlooked Portugal in their stance on decolonization, eventually even promising Portugal economic and military aid to prop

up the faltering Caetano regime as they faced extreme economic straits and internal unrest. Diverting money to increasingly violent colonial wars created a vicious cycle wherein Portugal's economy suffered, which created greater dissatisfaction with the government and a perceived imperative to win the wars to return Portugal's colonies to positive contributors to the balance sheet – the more money Portugal spent on their war, the more the economy suffered, prompting greater expenditures to end the war. The government eventually spent 40% of their annual funds on the war.⁷⁷ This unsustainable scenario led Portugal to gamble the Azores for American assistance. Caetano allowed the United States to use Lajes as an intermediate point to supply Israel during the 1973 War. Portugal suffered for this. The Organization of Petroleum Exporting Countries (OPEC) threatened an oil embargo against any European country that directly or indirectly aided Israel. Portugal alone risked the embargo, and allowed the United States to use Lajes Field on the Island of Terceira to facilitate the resupply effort of Israel. The resulting OPEC embargo was a consequence Lisbon risked in order to gain more leverage with America. Lisbon needed legitimacy and weapons to continue their colonial wars in Africa. A December 1973 meeting between Secretary of State Henry Kissinger and his Portuguese counterpart revealed the increasing desperation of the Caetano regime for more assistance from America, they pressed very hard for transport aircraft, missiles, and anti-tank weapons.⁷⁸ The Caetano regime collapsed barely four months later during the 1974 Carnation Revolution, causing a panic within NATO about continued access to the Azores when the new government tilted towards communism.

In 1973, the Azores showed their strategic utility during conflict yet again as the sole midway point America could use in resupplying Israel during the 1973 War, a resounding win for America in the Cold War. With this fresh reminder of the islands' utility, the Azores became

the subject of discussion in Moscow and NATO following the revolution that ousted the Portuguese dictatorship. The initial domination of communist elements in the turbulent early months of the post-dictatorship government left the world wondering if NATO might have its first communist member, and whether the Russians might displace America from the Azores. The strategic significance of the islands catalyzed a CIA covert influence campaign inside Portugal, offers of weapons to democratic revolutionaries, and presumably a contemplation of taking the Azores into a military custodianship.⁷⁹ Secretary of Defense Frank Carlucci, the US Ambassador to Portugal during the tensest moments of the revolutionary period, personally attested to the centrality of the Azores to any Middle East strategies, and how this fact, coupled with the threat of a communist takeover in Portugal led him to personally oversee covert influence campaigns within the country. Elements within congress went so far as considering backing Azorean separatists that would either align with America or even hope to formally join the United States.⁸⁰

America and the Azores: Contemporary Issues and Interests

The following discussion of contemporary issues and interests for America weaves in events from the last few decades to focus upon where things stand today and to set up a final discussion on where the future could go. The same trends observed thus far in Azorean history hold true, that technological changes introduce sudden, slowly dissipating spikes in the importance of the islands, and that geopolitical turbulence, during moments of crisis or conflict, introduce similar spikes in the relevance of the Azores. As America completes its transition into a mindset of strategic competition against China and Russia, the importance of the islands is reemerging.

The residual American presence on the islands, Lajes Airbase on the island of Terceira hosts the longest runway in Europe and is America's second largest overseas fuel storage facility with over

65,000,000 gallons of gas.⁸¹ The base there serves primarily to facilitate the travel between the Continental United States and military destinations in Europe, Africa, and the Middle East. It notoriously served as the site of a meeting between President George W. Bush (U.S); Prime Minister Tony Blair (U.K.); Prime Minister Jose Manuel Durao Barroso (Portugal); and Prime Minister Jose Maria Aznar (Spain), which concluded with joint statements about their “Vision for Iraq and the Iraqi People.” The Iraq war began four days later on 20 March 2003.⁸²

The US presence in the Azores declined as a result of the end of the Cold War and domestic budgetary pressures. A decision announced January of 2013 reduced the 65th Air Base Wing to the 65th Air Base Group, resulting in the cutting of roughly 400 of the 580 military positions on the island and the departure of 700 family members, the local workforce of 700 Azoreans remained largely intact. Given the security and fiscal environment at that time, the possibility of saving \$35M per year outweighed maintaining the traditional force posture. The field handled transit of 3,000 aircraft a year from the US and 20 allied nations.⁸³ That operations tempo continued with diminished capacity to serve surges of aircraft. The economic impact to the islands generated some ill will, as the presence of the base was the second largest source of economic income for the islands and the loss of over 1,000 Americans from the island of 50,000 people cut the economy of the island nearly in half.

In a return to past behavior of the central government utilizing access to the Azores for their own gain, the “payment” for US access to the islands changed from direct payments to the islands to a mixture of payments to the islands and transfer of military equipment to the central government.

The current situation in the North Atlantic is aptly captured in Admiral James Foggo III’s, commander of US Naval Forces Europe-Africa, characterization that, “We’ve entered what I call the Fourth Battle of the Atlantic.” A period in which Russia increasingly deploys submarines in to the Atlantic and China increasingly searches for influence. At one point in October 2019, the Russians simultaneously

deployed 10 submarines in the North Atlantic.⁸⁴ Former Chairman of the Joint Chiefs of Staff General Joseph Dunford commented that the current environment of not focusing upon Europe left us with the inability to move forces across the Atlantic. There is a renewed sense that geography matters, especially if Russia penetrates the GIUK Gap (Greenland-Iceland-UK Gap), and that the ability to protect undersea cables requires presence in the mid-Atlantic.⁸⁵ Russia's increasingly assertive actions in the Atlantic demonstrate the utility of the Azores and potentially herald renewed interest in their use for antisubmarine warfare (ASW). The closure of US facilities in Iceland leaves the Azores as the only Mid-Atlantic base to generate ASW sorties from; however, the Navy's ASW mission in Lajes ended in 1994.⁸⁶ Russia's window of opportunity to displace the Americans from the islands passed when Portugal emerged democratic from a brief period of control by their indigenous communist party during the period of uncertainty following their revolution in 1974-1975. It is highly unlikely Russia would initiate a conflict over the Azores, so the Azores remain as a threat to Russian operations in the Atlantic, keeping the surface lines of communication to Europe open, and complicating their calculus for action in Europe. Barring a pretext for military action, Russia is not poised to gain access to the islands through other instruments of power. There is Russian investment in the islands, but nothing that rises to the level of alarm that China has succeeded in raising.

China, on the other hand, recognizing the strategic significance of the islands for both commercial and military purposes is actively competing for the US with influence in Portugal, and specifically in the Azores archipelago. They have overtly declared an interest in an Azorean presence and see an opportunity in exploiting the vacuum being created by American drawdowns.⁸⁷ High level delegations to the islands, including a visit by then Premier Deng Xiaoping in 2012, and current Premier Xi Jinping in 2014, along with a retinue of 100 diplomatic personnel, indicate the level of interest China has in the islands, and significantly concerned Washington.⁸⁸ Conversely, the last US Head of State visit was President Bush's stop to use the islands as a meeting venue in the middle of the Atlantic to highlight

trans-Atlantic cooperation in the runup to the 2003 Iraq invasion.⁸⁹ China's interest in the islands, and Portugal in general, resulted in a 2018 agreement to begin incorporating Portugal into China's plans for their Belt and Road Initiative, a move that significantly alarmed other countries in Europe.⁹⁰ China's ability to economically coopt countries to gain leverage is consistent with their broader global behavior. However, the Senior Defense Officer at the U.S. embassy in Lisbon, Col Andrew Bernard, USAF, assesses that China does not have a military interest in the Azores, they are much more interested in West Africa as a route for power projection into the Atlantic. If they succeeded in that goal, he believes they might then begin to shape the Azores.⁹¹ Besides the benefits of utilizing the islands in the first place, preventing an adversary from gaining access, especially exclusive access, to the Azores is a compelling reason for the US to retain, and possibly increase their presence.

Although Russian and Chinese investors are interested in the Azores, the United States remains the partner of choice for the islands, and there is a sense that Portuguese interactions with China are partly politicians trying to, "...get under the US skin."⁹² This may be a callback to Portugal's tactics from past centuries of dealing with both parties in a competition or conflict. Indeed, "Portugal has taken the attitude that, 'We have a 500-year history with China, don't lecture us.'"⁹³ Despite Lisbon's self-professed depth of experience dealing with China, Azorean autonomy, granted in 1976, is a complicating factor for the central government of Portugal. While the islands cannot make political decisions, they can make their own economic decisions in dealing with China. Such decisions have political implications for Lisbon and strategic competition implications for America. This further illustrates the triangle Cooley described, which was discussed in the section on American and Azorean relationships, of the US getting caught in the middle of dynamics between island and central governments. There is a concrete sense that the US has "become a pinata between the central and the regional government."⁹⁴ The USAF Desk Officer for Portugal, Major Alan Vaughn, interprets the anxiety of Chinese engagement in the island as overinflated fear drummed up by the Portuguese American Caucus in the United States, a fear which the

Portuguese government fanned.⁹⁵ This is certainly possible, given the vocal activity of members of the Portuguese American Caucus.⁹⁶

Despite intense resource constraints, the USAF is considering adding 45 of the 400 cut military positions back to the base on Terceira. Part of the motivation is the realization that switching to eight hour days from 24/7 operations is not meeting the demand for the base and as global competition heats up, there is an increased likelihood that the base will be in higher demand during crisis operations. As America looks for methods of complicating the strategic calculus of their competitors, they demonstrated, in March of 2021, the ability to land, rapidly refuel and, resupply B-2 bombers, which then joined formation with Norwegian F-35s to continue to the Arctic. This demonstrates principles of the Air Force's new Agile Combat Employment concept of creating strategic uncertainty for opponents.⁹⁷

Recommendations and Conclusion

Recommendations

1. *Maintain an American Presence:* Although the relevance of the Azores rises and falls as technology and geopolitics change, America is well advised to retain a presence, preferably an exclusive presence, there in anticipation of the inevitable times ahead where the relevance of the islands spike again.
2. *Anticipate what the technological patterns of the past offer regarding the future commercial utility of the islands and what implications that has from a military perspective.* Changes in transportation are likely to make the islands a high-density stopping point once again for transatlantic traffic. As the world mulls shifts to new types of energy for transportation, like liquid petroleum gas, electric, etc. these technologies will come with an initial handicap in performance that reduces range and reliability. This makes the Azores a likely stopping point to

replenish batteries, much like the concept of quick-swapping for batteries at electrical vehicle “refueling” points on land. Another potential reemergence of the islands’ significance is the possibility of creating transatlantic hyperloops, like the concept being demonstrated by Dutch firm Marin.⁹⁸ Hyperloops are vacuum tubes where magnetically levitated vehicles travel at speeds of 760 mph. Routing the loop near the Azores gives a maintenance base, a midway hub point for a hyperloop network, and a location to place additional vacuum generators to maintain the low-pressure required inside of a hyperloop. Defending such critical infrastructure from an attack due to a sudden spike in the intensity of strategic competition is not possible from a remote location, any defense of the Azores requires presence in the Azores. Similarly, abdicating an American presence allows encroachment of strategic competitors upon the islands during low-intensity competition, raising the specter of unfavorable conditions for any American return to the islands to secure islands that are once again a transportation hub. Hypersonic weapons, specifically fractional orbital bombs present a future where the entire world may be threatened. Being able to defend assets crossing the Atlantic requires either every vehicle to be able to defend itself, or for defensive zones, like one potentially based in the Azores, to increase the survivability of ships or aircraft.

3. *Utilize America’s experience with the Azores in World War II as an academic case study for Agile Combat Employment (ACE).* America was able to begin operations from an island base (Terceira), in conjunction with an ally (UK), from a “neutral” country (Portugal) within one month of negotiating access. Under conditions of extreme secrecy, they constructed and began operating from a second base (Santa Maria) within six months. The United States gave the host government sufficient assurance to overcome their fear of reprisal attacks or economic punishment from America’s adversaries. A final consideration to add to the study is that these activities occurred in highly contested waters on the periphery of the conflict but that sufficient

operational design and logistics considerations allowed power projection and area control that helped turn the tide of the war. The parallels here to challenges the United States and coalition partners may confront in seeking basing around the South China Sea during a potential conflict with China provide an excellent chance to talk through what aspects of the coalition experience in the Azores during World War II that America might emulate and drive conversation about what aspects need updating or improving.

4. *Utilize the islands and surrounding waters for an expansive simulation and practical exercise of ACE concepts.* Given that some of the US's most likely allies in a conflict with China, the UK and France, will also be fighting an expeditionary war far from home, practicing rapidly setting up operations on and projecting power from island bases is a prudent skill to practice and mature. The Azores are conveniently located near the prospective participants, each island possesses its own runway, and the political implications of practicing are dramatically less complicated than a similar, large exercise in the South China Sea.

Conclusion

The fate of several of the world's greatest empires were decided in the Azores. They held profound significance as technology changed the nature of transportation, communication, and energy production, shifting up and down as the waves of technology rose and fell. Geopolitics sent its own waves from varied directions, interacting with those of technology, creating a complex but discernible pattern. New technologies refresh the relevance of the islands, as does conflict. The minds of generals, admirals, and heads of states intuitively recognized the significance of these islands. The archipelago solved the problem of distance for those seeking riches and power by traversing and controlling the untamed wilds of the Atlantic. The islands launched Portugal from obscurity to greatness, then slowed its descent as they parlayed access to the islands for political favors and military protection. As technological transitions in transportation and energy production loom with the likelihood of greener

engines with initially lower range and reliability, at the same time that great powers return to state of competition, the Azores are heading once again for a crest upon the waves.

¹ Miguel Moniz, *Azores*, World Bibliographical Series (Oxford, England: ABC-CLIO, 1999), <https://aufric.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=41561&site=ehost-live&scope=site&custid=airuniv>.

² Ante Ivčević et al., "Telluric and Climate-Related Risk Awareness, and Risk Mitigation Strategies in the Azores Archipelago: First Steps for Building Societal Resilience," *Sustainability (Basel, Switzerland)* 13, no. 15 (2021): 8653, <https://doi.org/10.3390/su13158653>.

³ This was the worst earthquake in Azorean history, at 7.1 magnitude on the richter scale. It killed 70, injured 400, damaged 15,500 homes, and wrecked the UNESCO heritage city of Angra de Heroismo.

⁴ Moniz, *Azores*, 1999.

⁵ António Félix Rodrigues¹, Nuno O. Martins, and Anabela Joaquineto, "Early Atlantic Navigation: Pre-Portuguese Presence in the Azores Islands," *Archaeological Discovery* 2015, no. 3 (July 15, 2015): 104–13.

⁶ Hypogea discovered at multiple locations on Terceira as well as a man made "tub" hewn from the rock, accompanied by carved grooves to channel water to the bath, and remnants of what appear to be ritual symbols serve as the evidence thus far. Post holes nearby indicate the possibility of structures. All of this suggests a long, but not enduring, presence far in advance of the Portuguese arrival. The nature of this archaeological evidence is consistent with similar discoveries from ancient Mediterranean cultures from around 1,000 BC. Various authors interpret these findings as evidence of Carthaginian, Phoenician, or some other proto-Roman settlement.

⁷ António Félix Rodrigues¹, Nuno O. Martins, and Anabela Joaquineto, "Early Atlantic Navigation: Pre-Portuguese Presence in the Azores Islands."

⁸ John Stewart Bowman and Maurice Isserman, *Exploration in the World of the Ancients*, Rev. ed, Discovery and Exploration (New York: Chelsea House, 2010), 113.

⁹ António Félix Rodrigues¹, Nuno O. Martins, and Anabela Joaquineto, "Early Atlantic Navigation: Pre-Portuguese Presence in the Azores Islands."

¹⁰ António Félix Rodrigues¹, Nuno O. Martins, and Anabela Joaquineto, 106.

¹¹ Pedro M. Raposeiro et al., "Climate Change Facilitated the Early Colonization of the Azores Archipelago during Medieval Times," *Proceedings of the National Academy of Sciences* 118, no. 41 (October 12, 2021): e2108236118, <https://doi.org/10.1073/pnas.2108236118>.

¹² C. RAYMOND BEAZLEY, *PRINCE HENRY THE NAVIGATOR* (S.I.: CHARLES RIVER EDITORS, 2018), 218–23, <http://www.vlebooks.com/vleweb/product/openreader?id=none&isbn=9781625399861>.

¹³ Moniz, *Azores*, 1999 p.xxvii.

¹⁴ Ernle Bradford, *Christopher Columbus*. (Newburyport: Open Road Media, 2014), 157–60, <https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=825247>.

¹⁵ Moynz asserts, but never really supports, throughout his introduction to the Azores that they were unfairly treated at the hands of Lisbon. His case fails to acknowledge that a "small but quite prosperous commercial elite emerged in the islands" from the 1400s to 1800s. They accumulated wealth via substantial exports of wheat and wool to the mainland but were constrained by the type and volume of profitable trade to other locations, particularly Brazil, due to policies favoring Lisbon or commerce rights Lisbon sold off to commercial interests like the Brazil Company. The only island to reach economic self-sufficiency was Sao Miguel. [Disney 92-97] So, while it seems fair to characterize the relationship as decidedly in Lisbon's favor, it was not wholly exploitative or despotic. The elites of the islands funded many of the improvements over the years themselves, and to Moniz's point about unequal investment by Lisbon do not seem to have enjoyed the assistance and development the central government focused upon the mainland. To provide a bit more context to Moniz's observation that only 18% of the population of the islands were literate in 1891, this compares with an average in 20-22% range for comparable parts of the mainland at the same time.

¹⁶ Jan Glete and ProQuest (Firm), *Warfare at Sea, 1500-1650: Maritime Conflicts and the Transformation of Europe*. (London: Routledge, 2002), 174–82, <http://ebookcentral.proquest.com/lib/qut/detail.action?docID=165225>.

¹⁷ Moniz, *Azores*, 1999. p. xxxiii

¹⁸ Moniz, *Azores*, 1999. p. xxxiii

¹⁹ Although similar in their uninhabited origins, other Atlantic islands like the archipelagos of Madeira and Cape Verdes, did not sit at comparably important geostrategic positions (McAlister, 50). So, while they were subject to the same ebbs and flows of fate and fortune of the Portuguese empire, they could not be, and therefore were not parlayed for advantage to the extent the Azores were.

²⁰ Faced with the probability of losing the islands to secession in the turmoil surrounding the Carnation Revolution, Lisbon granted Azoreans long-sought political autonomy in 1975. This autonomy, along with Portugal's new-found Democracy, seems to have smoothed many of the centuries of irritation the Azores felt towards Lisbon. Many Azoreans participate in the federal government in Lisbon.

²² Thomas E. Skidmore, *Brazil: Five Centuries of Change*, Latin American Histories (New York: Oxford University Press, 1999), 41.

²³ Ames, Paul, "China's Atlantic Stopover Worries Washington," POLITICO, September 29, 2016, <https://www.politico.eu/article/chinas-atlantic-stopover-terceira-worries-washington-li-keqiang-united-states/>.

²⁴ Rui F Amaral, "U.S.-Portuguese Relations and Lajes Field Air Base," 2014, 1.

²⁵ "U.S. Consulate Ponta Delgada," U.S. Embassy & Consulate in Portugal, accessed February 3, 2022, <https://pt.usembassy.gov/embassy-consulate/ponta-delgada/>.

²⁶ Moniz, *Azores*, 1999.

²⁷ Moniz; Miguel. Moniz, *Azores*, World Bibliographical Series ; v. 221 (Oxford, England ; Clio Press, 1999).

²⁸ The Azores role in resupplying ships transiting the Atlantic led to a requirement for self-sufficiency and production of surplus stores for visiting vessels. The fertile lands of the Azores were a blank slate for optimizing agricultural production. There were no neighboring humans to compete with for resources, no indigenous population to keep in check, no predators to threaten livestock, and fewer pests to threaten crops. All this resulted in mastery of the art of food production.

²⁹ Moniz, *Azores*, 1999.

³⁰ Jennifer Helzer and Elizabeth Machado, "The New Blue Islands: Azorean Immigration, Settlement, and Cultural Landscapes in California's San Joaquin Valley," *The California Geographer* 51 (2011): 7, <https://scholarworks.calstate.edu/downloads/wm117s680>.

³¹ Alexander Cooley, "Okinawa and the Azores:," in *Base Politics*, 1st ed., Democratic Change and the U.S. Military Overseas (Cornell University Press, 2008), 137–74, <http://www.jstor.org/stable/10.7591/j.ctt7z61w.9>.

³² Ambassador Robert E Barbour, "Interview with Robert E. Barbour," *The Association for Diplomatic Studies and Training Foreign Affairs Oral History Project*, November 30, 1992, 95.

³³ Dr. Jessica Jordan, Interview by Lt Col Shawn Littleton, USAF: Strategic Basing and the Azores, December 2, 2021.

³⁴ Cooley, "Okinawa and the Azores:," 162–63.

³⁵ Cooley, 161–63.

³⁶ Peter Abbott and Ronald Volstad, *Modern African Wars (2): Angola and Mozambique 1961-74*. (Oxford: Osprey Publishing Ltd, 2013), 80.

³⁷ John Correll, "The Yom Kippur Airlift," *Air Force Magazine* (blog), accessed February 21, 2022, <https://www.airforcemag.com/article/the-yom-kippur-airlift/>.

³⁸ Cooley, "Okinawa and the Azores:," 160.

³⁹ Malcolm Purinton, "Technology in the Age of Exploration (Article)," Khan Academy, accessed February 3, 2022, <https://www.khanacademy.org/humanities/whp-origins/era-5-the-first-global-age/x23c41635548726c4:other-materials-origins-era-5/a/technology-in-the-age-of-exploration>.

⁴⁰ Purinton.

⁴¹ Amaral, "U.S.-Portuguese Relations and Lajes Field Air Base," 9–11.

⁴² Cooley, "Okinawa and the Azores:," 160.

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- ⁴³ Hew Strachan, ed., *The Oxford Illustrated History of the First World War* (Oxford: Oxford University Press, 2016), 128.
- ⁴⁴ Sérgio Rezendes, "The American Naval Base in Ponta Delgada, 1917–19," *Marine Corps History* 7, no. 1 (September 14, 2021): 24–45, <https://doi.org/10.35318/mch.2021070102>.
- ⁴⁵ Rezendes, "The American Naval Base in Ponta Delgada, 1917–19."
- ⁴⁶ Rezendes.
- ⁴⁷ Smithsonian Magazine and John Fleischman, "The Dawn of Transatlantic Flight," *Smithsonian Magazine*, October 2020, <https://www.smithsonianmag.com/air-space-magazine/forgotten-first-flight-180975833/>.
- ⁴⁸ Davide, "Portugal in WWI," accessed February 3, 2022, https://www.portuguesemuseum.org?page_id=1808&category=&exhibit=1&event=98.
- ⁴⁹ There are certainly abundant examples of non-physical communication modalities throughout history, but these were exclusively last mile communication modalities, be they auditory signaling via drums, trumpets, yells, etc. or visual signaling via flags, semaphore, signal fires, or other similar methods. Networks of last mile communication media could saturate an area, like a jungle drum network, or connect points, like the optical telegraphs of Claude Chappe's semaphore towers, but the bandwidth, latency, reliability, reach, and cost never allowed them to supplant the physical carrying of messages, especially over the vast, barren expanses of the Atlantic.
- ⁵⁰ Christopher Brooks, "2.3: Transportation and Communication," *Humanities LibreTexts*, September 12, 2019, [https://human.libretexts.org/Bookshelves/History/World_History/Book%3A_Western_Civilization_-_A_Concise_History_III_\(Brooks\)/02%3A_The_Industrial_Revolution/2.03%3A_Transportation_and_Communication](https://human.libretexts.org/Bookshelves/History/World_History/Book%3A_Western_Civilization_-_A_Concise_History_III_(Brooks)/02%3A_The_Industrial_Revolution/2.03%3A_Transportation_and_Communication).
- ⁵¹ Dr. Ana Paula Silva, "Portugal and the Building of Atlantic Telegraph Networks," *Brewminate* (blog), February 20, 2018, <https://brewminate.com/portugal-and-the-building-of-atlantic-telegraph-networks/>.
- ⁵² Dr. Ana Paula Silva.
- ⁵³ "The Zimmermann Telegram," National Archives, March 10, 2017, <https://www.archives.gov/publications/prologue/2016/winter/zimmermann-telegram>.
- ⁵⁴ Derek Thompson, "The Spectacular Rise and Fall of U.S. Whaling: An Innovation Story," *The Atlantic*, February 22, 2012, <https://www.theatlantic.com/business/archive/2012/02/the-spectacular-rise-and-fall-of-us-whaling-an-innovation-story/253355/>.
- ⁵⁵ Thompson.
- ⁵⁶ Josephus Daniels, *Our Navy at War* (New York, NY: Barnes & Noble, 2011), 428, <http://www.freading.com/ebooks/details/r:download/MzI2MDA0MTc=>.
- ⁵⁷ Daniels, 428.
- ⁵⁸ Rezendes, "The American Naval Base in Ponta Delgada, 1917–19."
- ⁵⁹ Daniels, *Our Navy at War*, 428.
- ⁶⁰ Rezendes, "The American Naval Base in Ponta Delgada, 1917–19."
- ⁶¹ Daniels, *Our Navy at War*, 571.
- ⁶² Franklin Roosevelt, "Franklin D. Roosevelt, Master Speech File, 1898-1945 | Franklin D. Roosevelt Presidential Library & Museum, Ponta Delgada, Azores (Speech File 79), July 17, 1918," 3, accessed February 21, 2022, <http://www.fdrlibrary.marist.edu/archives/collections/franklin/?p=collections/findingaid&id=582&rootcontentid=246681&q=azores#id246763>.
- ⁶³ Franklin Roosevelt, "Franklin D. Roosevelt, Master Speech File, 1898-1945 | Franklin D. Roosevelt Presidential Library & Museum, Radio Address Proclaiming an Unlimited National Emergency (2 Parts) (Speech File 1368A), May 27, 1941," accessed February 21, 2022, <http://www.fdrlibrary.marist.edu/archives/collections/franklin/?p=collections/findingaid&id=582&rootcontentid=246681&q=azores#id246763>.
- ⁶⁴ *Mr. Roosevelt's Navy: The Private War of the U.S. Atlantic Fleet, 1939-1942*, 157, accessed February 21, 2022, <https://www.scribd.com/book/362572065/Mr-Roosevelt-s-Navy-The-Private-War-of-the-U-S-Atlantic-Fleet-1939-1942>.
- ⁶⁵ Amaral, "U.S.-Portuguese Relations and Lajes Field Air Base," 23–24.
- ⁶⁶ *Mr. Roosevelt's Navy*.

⁶⁷ *Mr. Roosevelt's Navy*, 169, 229-233.

⁶⁸ Cooley, "Okinawa and the Azores:," 160.

⁶⁹ "Was Portugal Really Neutral in World War II?," History is Now Magazine, Podcasts, Blog and Books | Modern International and American history, accessed February 21, 2022, <http://www.historyisnowmagazine.com/blog/2021/3/14/was-portugal-really-neutral-in-world-war-ii>.

⁷⁰ Cooley, "Okinawa and the Azores:," 159-61.

⁷¹ George Kennan's personal memoirs relates the list of demands that far exceeded what diplomacy was likely to secure, "There then followed a list of facilities several times more pretentious than all that the British, even invoking their ancient alliance, had ever dreamed of requesting: a naval base, a seaplane base, bases for landbased aircraft on three different islands, cable and communications systems, observation posts, radar, facilities for accommodation of American naval vessels in each of the Azores ports with "un- restricted port facilities and shore accommodations for necessary personnel," etc. It was perfectly clear that facilities of these dimensions would simply sink the economy and administration of the islands under their own weight." [kennan, 161]

⁷² Fans of American diplomatic history, more familiar with Kennan for his 1946 "Long Telegram" from Moscow that shaped American Cold War policy may chuckle at the line from his memoirs, "I sat down and drew up a long message [to the President about why the President's orders for the Azores were ill advised]." Apparently Kennan was already well practiced in writing lengthy missives by the time he wrote his Long Telegram.

⁷³ George Kennan, *Memoirs, 1925-1950* (Boston: Little, Brown, 1967), 158-63, <https://archive.org/details/memoirs1925195000kenn>.

⁷⁴ 65th ABW History Office, "A Short History of Lajes Field," 2012, 4-6.

⁷⁵ Norman Herz, *Operation Alacrity : The Azores and the War in the Atlantic* (Annapolis, Md: Naval Institute Press, 2004), 221-23.

⁷⁶ "CENTRAL INTELLIGENCE BULLETIN - 1960/05/09 | CIA FOIA (Foia.Cia.Gov)," May 9, 1960, 8, <https://www.cia.gov/readingroom/document/03148942>.

⁷⁷ Abbott and Volstad, *Modern African Wars (2)*, 80.

⁷⁸ "Memorandum of Conversation Between Henry Kissinger and Rui Patricio" (Lisbon), 1969-1976, Volume E-15, Part 2, Documents on Western Europe, 1973-1976 - Office of the Historian, Foreign Relations of the United States, accessed March 30, 2022, <https://history.state.gov/historicaldocuments/frus1969-76ve15p2/d130>.

⁷⁹ Cullen Gifford Nutt, "Sooner Is Better : Covert Action to Prevent Realignment" (Thesis, Massachusetts Institute of Technology, 2019), 200-219, <https://dspace.mit.edu/handle/1721.1/124273>.

⁸⁰ Ambassador Frank Charles Carlucci, Interview with Frank C. Carlucci III, 1998, The Association for Diplomatic Studies and Training Foreign Affairs Oral History Project, Library of Congress, <https://tile.loc.gov/storage-services/service/mss/mfdip/2004/2004car03/2004car03.pdf>.

⁸¹ Amaral, "U.S.-Portuguese Relations and Lajes Field Air Base," 1-3.

⁸² 65th ABW History Office, "A Short History of Lajes Field," 14.

⁸³ "Leon Panetta: U.S. Committed to Minimize Economic Impact on Terceira - Azores," *Portuguese American Journal* (blog), January 15, 2013, <https://portuguese-american-journal.com/leon-panetta-u-s-committed-to-minimize-economic-impact-on-terceira-azores/>.

⁸⁴ Richard R. Burgess and Senior Editor, "Foggo: Fourth 'Battle of the Atlantic' Underway," *Seapower* (blog), June 25, 2020, <https://seapowermagazine.org/foggo-fourth-battle-of-the-atlantic-underway/>.

⁸⁵ Andrew Bernard, Interview by Lt Col Shawn Littleton, USAF: Strategic Significance of the Azores, with Col Andrew Bernard, USAF, Senior Defense Officer and Air Attache, U.S. Embassy, Lisbon, Portugal, December 20, 2021.

⁸⁶ Daniel Kochis, "This Mid-Atlantic Outpost Is Critically Important in the Era of Great Power Competition," The Heritage Foundation, accessed February 24, 2022, <https://www.heritage.org/defense/commentary/mid-atlantic-outpost-critically-important-the-era-great-power-competition>.

⁸⁷ Kochis.

⁸⁸ Ames, Paul, "China's Atlantic Stopover Worries Washington."

⁸⁹ Kathryn Hammond, Interview by Lt Col Shawn Littleton, USAF: Strategic Significance of the Azores, with Ms. Kathryn Hammond, Principal Officer, U.S. Consulate Ponta Delgada, Portugal, December 20, 2021.

⁹⁰ Liu Zhen, "Portugal's Support for China's Belt and Road Plan 'Bad News' for EU," South China Morning Post, December 6, 2018, <https://www.scmp.com/news/china/diplomacy/article/2176766/portugals-support-chinas-belt-and-road-plan-sets-alarm-bells>.

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⁹² Hammond, Interview by Lt Col Shawn Littleton, USAF: Strategic Significance of the Azores, with Ms. Kathryn Hammond, Principal Officer, U.S. Consulate Ponta Delgada, Portugal.

⁹³ Bernard, Interview by Lt Col Shawn Littleton, USAF: Strategic Significance of the Azores, with Col Andrew Bernard, USAF, Senior Defense Officer and Air Attache, U.S. Embassy, Lisbon, Portugal.

⁹⁴ Bernard.

⁹⁵ Alan Vaughn, Interview by Lt Col Shawn Littleton, USAF: Strategic Significance of the Azores, with Major Alan Vaughn, USAFE Desk Officer for Portugal, December 7, 2021.

⁹⁶ Ruari Kavanagh, "Portugal's Azores Islands Appeal to Chinese," *South EU Summit* (blog), October 11, 2019, <https://southeusummit.com/europe/portugal/china-eyes-azores-as-possible-commercial-hub-amid-us-concerns/>.

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