

**TAKING A PECK OUT OF PROTECTION: CHANGE IN
INTERPRETATION OF THE MIGRATORY BIRD TREATY ACT
SPELLS TROUBLE FOR BIRDS AFFECTED BY INDUSTRY**

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I. Introduction

Every year, on a small island along Louisiana’s southern coast, visitors flock to one of the best places in the world to observe the Spring migration of songbirds, shorebirds, waders, and raptors. These birds rest on this island after a long flight across the Gulf of Mexico.¹ On this seven-mile stretch of land, one has the possibility to see every type of migrant land bird in eastern North America, along with several seabirds

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¹ Town of Grand Isle, *Grand Isle Migratory Bird Celebration*, GRAND ISLE (2018), <https://www.townofgrandisle.com/events/grand-isle-migratory-bird-festival/> (last visited Mar. 13, 2019).

and shorebirds. Almost three hundred different species of migratory birds use this island as a notable rest stop in the Mississippi Flyway.^{2,3}

Birdwatching, or birding, has become a tremendous industry. In states across the U.S., small cities gear up and use their positions along migratory paths to their advantage during the spring and winter migrations. According to the U.S. Fish and Wildlife Service (“USFWS”), birders “spend \$12 billion annually on travel, plus an additional \$24 billion on equipment like binoculars, camping gear, and nest boxes. That money ripples through the economy and generates \$82 billion in output, employs 671,000 people, and enriches state and federal governments by \$10 billion.”⁴

Still, birds do quite a bit more than attract tourism. Birds live on every land mass and in every ocean across the world.⁵ They are natural pest control agents for farmers, orchardists, and vintners. They spread seeds in their journeys from north to south and back again. These seeds grow plants that provide us with food, medicine, and timber. Birds, along with bees, bugs, and butterflies, also pollinate plants.⁶ Additionally, since Rachel Carson published her book *Silent Spring* that displayed the effects of DDT⁷ on the natural world, scientists use bird behavior to signal the health of an ecosystem.⁸ Birds are sensitive to

² A flyway is a ‘highway’ or path that a bird follows for migratory purposes. There are four main flyways in the United States: Atlantic, Mississippi, Central, and Pacific.

³ Mel White, *Birding in Louisiana*, AUDUBON (Apr. 28, 2016), <https://www.audubon.org/news/birding-louisiana>.

⁴ Barry Yeoman, *What Do Birds Do for Us*, AUDUBON (Apr. 8, 2013), <https://www.audubon.org/news/what-do-birds-do-us>.

⁵ Jonathan Frazier, *Why Birds Matter, and Are Worth Protecting*, NATIONAL GEOGRAPHIC (Jan. 2008), <https://www.nationalgeographic.com/magazine/2018/01/why-birds-matter/>.

⁶ Barry Yeoman, *What Do Birds Do for Us*, AUDUBON (Apr. 8, 2013), <https://www.audubon.org/news/what-do-birds-do-us>.

⁷ In the 1940s, DDT (dichloro-diphenyl-trichloroethane) was developed as one of first synthetic insecticides. However, in the 1950s and 1960s, scientists discovered how use of this pesticide adversely affected the environment, which led to its prohibition. *DDT - A Brief History and Status*, EPA, <https://www.epa.gov/ingredients-used-pesticide-products/ddt-brief-history-and-status> (last visited Apr. 13, 2021).

⁸ Yeoman, *supra* note 6.

changes in habitat and have been involved in studies that show the impacts of heavy metals, toxins, radioactivity, and climate change.⁹

For a century, the United States has enforced a law to protect migratory birds from hunters, poachers, and the effects of industry on their natural environments. However, a recent reinterpretation of this law has taken a significant peck out of these protections and may put millions of birds at risk annually. Before I can explain how we came to this point, however, we must travel back to the early 1900s when two brothers, by observing birds in flight, brought mankind one of the most prolific inventions in modern history.

II. The Origin of the Migratory Bird Treaty Act

In 1903, south of Kitty Hawk, North Carolina, two brothers watched birds in flight. They noticed how birds angle their wings for purposes of balance and control. These two brothers used this observation to develop their own experiments, and on December 17th, Orville and Wilbur Wright made history as the first people to fly a “free, controlled flight of a power-driven, heavier than air plane.”¹⁰

While the Wright Brothers’ invention took man to the skies, the number of birds in the sky declined. However, this population declination was not wholly attributable to the airplane. It was due in part to the fashion trends of the period. There was a demand for large quantities of bird feathers for hat decoration.¹¹ The demand for feathers was so high that it led to the extinction of some species and precipitous decline in others.¹² This decline in the bird population moved the United States government to enact its first federal laws to protect wildlife.¹³

⁹ *Id.*

¹⁰ History.com Editors, *Wright Brothers*, HISTORY.COM (2009), <https://www.history.com/topics/inventions/wright-brothers> (last visited Feb 4, 2019).

¹¹ Kristina Rozan, *Brief Summary of the Migratory Bird Treaty Act (MBTA)*, ANIMAL LEGAL & HISTORICAL CENTER (2014), <https://www.animallaw.info/intro/migratory-bird-treaty-act-mbta>.

¹² Jesse Greenspan, *The History and Evolution of the Migratory Bird Treaty Act*, AUDUBON (May 22, 2015), <https://www.audubon.org/news/the-history-and-evolution-migratory-bird-treaty-act>.

¹³ *Id.*

In 1900, Congress, using its authority under the Commerce Clause, passed the Lacey Act.¹⁴ This Act's aim was to give states the power to prohibit the sale of game birds across state lines by imposing criminal sanctions.¹⁵ Soon after, in 1913, Congress passed the Weeks-McLean Migratory Bird Act.¹⁶ This Act banned the spring shooting of migratory game and insectivorous birds.¹⁷ Like the Lacey Act, it aimed to stop the shipment of migratory birds across state lines.¹⁸ Both Acts focused on regulating the hunting of protected birds to stop poachers from selling bird feathers for hat decoration. However, the Weeks-McLean Act gave enforcement authority to the federal government as opposed to the states.¹⁹

Two years later, the United States and Great Britain (on behalf of Canada) signed a treaty in which both agreed to stop all hunting of insectivorous birds and to establish specific hunting seasons for game birds.²⁰ However, it was not until 1918, backed by this treaty, that Congress passed the Migratory Bird Treaty Act, a law that saved the lives of billions of birds.²¹

III. Migratory Bird Treaty Act

The Migratory Bird Treaty Act ("MBTA") of 1918 makes it unlawful to take most bird species found in the United States without a

¹⁴ Lora Anne Waeckerle, *A Murder Most Fowl: United States v. CITGO Petroleum Corp.*, 801 F.3d 477 (5th Cir. 2015), and *Incidental Killings Under the Migratory Bird Treaty Act*, 96 NEB. L. REV. 742, 747 (2017).

¹⁵ *Id.*

¹⁶ Jesse Greenspan, *The History and Evolution of the Migratory Bird Treaty Act*, AUDUBON (May 22, 2015), <https://www.audubon.org/news/the-history-and-evolution-migratory-bird-treaty-act>.

¹⁷ *Id.*

¹⁸ Lora Anne Waeckerle, *A Murder Most Fowl: United States v. CITGO Petroleum Corp.*, 801 F.3d 477 (5th Cir. 2015), and *Incidental Killings Under the Migratory Bird Treaty Act*, 96 NEB. L. REV. 742, 748 (2017).

¹⁹ *Id.*

²⁰ Jesse Greenspan, *The History and Evolution of the Migratory Bird Treaty Act*, AUDUBON (May 22, 2015), <https://www.audubon.org/news/the-history-and-evolution-migratory-bird-treaty-act>.

²¹ *Id.*

permit.²² Specifically, the Act makes it unlawful “to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, ...or export, any migratory bird, ...or any part, nest, or egg thereof.”²³ The MBTA also incorporates the Canadian Convention of 1916, the Mexican Convention of 1936, the Japanese Convention of 1972, and the Russian Convention of 1976 for the protection of these birds.²⁴ This protection encompasses not only adult birds but their young, eggs, and nests.²⁵ Additionally, the MBTA provides for the establishment of bird refuges and encourages the monitoring of bird populations.²⁶ These measures protect more than 1,000 migratory bird species.²⁷

The MBTA is a strict liability statute. Misdemeanor violations lead to a fine for up to 15,000 dollars and/or a jail sentence for up to six months.²⁸ In 1986, Congress amended the MBTA to include a *mens rea* element for felony violations. Here, the intent element for this violation would be when an individual intends to sell, offer to sell, or barter migratory birds.²⁹ Felony violations lead to a fine for up to 2,000 dollars and/or a jail sentence for up to two years.³⁰

IV. What is Take?

When one looks at the language of the MBTA, activities such as kill, hunt, and possess are easily understood. However, the term “take” is not part of the common vernacular. The scope of the MBTA presents a broad interpretation of the word “take.” Upon enactment, the MBTA construed “take” as deliberate action through hunting activity or the intent to kill for a purpose. The court took this view in *Humane Society of the U.S. v. Glickman* when the Department of Agriculture planned to

²² See 16 U.S.C. § 703-711 (2018).

²³ 16 U.S.C. § 703(a) (2018).

²⁴ See U.S. Fish and Wildlife Service, *Migratory Bird Treaty Act*, (Sept. 26, 2018), <https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>.

²⁵ 16 U.S.C. § 703(a) (2018).

²⁶ The Cornell Lab of Ornithology, *What is the Migratory Birds Treaty Act*, CORNELL UNIVERSITY (Apr. 1, 2009), <https://www.allaboutbirds.org/what-is-the-migratory-bird-treaty-act/>.

²⁷ *Id.*

²⁸ 16 U.S.C. § 707(a) (2018).

²⁹ Kalyani Robbins, *Paved with Good Intentions: The Fate of Strict Liability under the Migratory Bird Treaty Act*, 42 ENVTL. L. 579, 582 (2012).

³⁰ 16 U.S.C. § 707(b) (2018).

deliberately round up and kill over 3,000 Canadian geese.³¹ In defining the Department's actions, the court said that take meant "physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918."³²

On the other hand, this definition does not hold parties accountable in instances such as what occurred October 4, 1960³³ when Eastern Air Lines Flight 375 struck a flock of European starlings during take-off.³⁴ All four engines failed, and the aircraft crashed into Boston harbor.³⁵ It only took about twenty seconds, but sixty-two people died, making it the worst bird strike in U.S. history.³⁶ Through a strict locality test, the Third Circuit established that admiralty jurisdiction took precedent in tort claims by libellants.³⁷ The court reasoned, although the crash was within the state's boundaries, it was upon navigable waters.³⁸ However, though the cause of the crash was deemed a bird strike, there was no claim for a MBTA violation in this 1963 case.³⁹

It is an undeniable fact that technology has advanced since the inception of the MBTA. Industrial activities present a much larger challenge to bird populations than the original threat of overzealous market hunters. During the 1970s, the definition of take expanded to incidental or accidental killing by otherwise lawful activity.⁴⁰ Industries such as oil and gas, timber, mining, chemical, and electrical were now faced with liability.⁴¹ It is important to understand that not just hunters, but also industrial effects have contributed to the startling

³¹ *Humane Soc'y of the United States v. Glickman*, 1999 U.S. Dist. LEXIS 19759* at 3.

³² *Glickman*, 1999 U.S. Dist. LEXIS 19759* at 35 (quoting *Seattle Audubon Soc'y v. Evans*, 952 F.2d 297, 302 (9th Cir. 1991)).

³³ Renae Reints, *Throwback Thursday: The Worst Bird Strike in U.S. History*, BOSTON MAGAZINE (Oct. 5, 2017 at 9:00 AM), <https://www.bostonmagazine.com/news/2017/10/05/bird-strike-boston-plane-crash/>.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Weinstein v. E. Airlines, Inc.*, 316 F.2d 758, 761 (3d Cir. 1963).

³⁸ *Id.*

³⁹ Reints, *supra* note 33.

⁴⁰ Greenspan, *supra* note 12.

⁴¹ Greenspan, *supra* note 12.

amount of bird loss recorded since 1970, where to date, approximately three billion birds have been lost in North America alone.⁴²

According to the Department of Justice, it will notify companies with violations and work with them; however, “if [companies] ‘ignore, deny, or refuse to comply’ with best management practices, then the ‘matter may be referred for prosecution.’”⁴³ The scope of activities that are incidental is an expansive one. Within admiralty and aviation activities, however, there are five standout causes.

V. Known Types of Incidental Take in Admiralty and Aviation

A. Bird Strike

A bird strike is a collision between an animal and a man-made vehicle, most commonly an airplane or boat.⁴⁴ The first recorded bird strike was by Orville Wright in 1905 as he flew the Weight Flyer over a cornfield in Ohio.⁴⁵ Between 1990 and 2017, civil and commercial aircraft pilots and airport personnel recorded 194,000 wildlife strikes in the United States, with approximately 14,400 strikes in 2017 alone.⁴⁶ Bird strikes happen most often during takeoff or landing or during low altitude flight. In fact, ninety-two percent of bird strikes occur at or below 3,500 feet above ground level.⁴⁷

However, airport personnel also report bird strikes at high altitudes. Between 1990-2017, there were twenty-seven strikes recorded at 20,000-31,300 feet above ground level.⁴⁸ The largest number of strikes happen during the migratory period.⁴⁹ Most bird strikes involve large birds with big populations. In the U.S., reported strikes are predominately from waterfowl (29%), gulls (21%), raptors (21%), and pigeons and doves (7%).⁵⁰ From 1990-2015, 529 different species of birds

⁴² See Kenneth v. Rosenberg, et al., *Decline of the North American Avifauna*, 366 SCIENCE 120-24 (2019).

⁴³ Greenspan, *supra* note 12.

⁴⁴ Skybrary, *Bird Strike*, (Jan. 9, 2019), https://www.skybrary.aero/index.php/Bird_Strike#Description.

⁴⁵ Bird Strike Committee USA, *Quick Press Kit*, (Dec. 21, 2018), <http://www.birdstrike.org/press-kit/>.

⁴⁶ Federal Aviation Administration, *Wildlife Strike FAQs*, U.S. DEPARTMENT OF TRANSPORTATION (Dec. 13, 2018), https://www.faa.gov/airports/airport_safety/wildlife/faq/.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ See Bird Strike Committee USA, *Quick Press Kit*, (Dec. 21, 2018), <http://www.birdstrike.org/press-kit/>.

were involved in strikes reported to the FAA, and about ninety percent of all bird strikes in the U.S. are of species listed under the Migratory Bird Treaty Act.⁵¹

As witnessed in the Boston airplane crash case of *Weinstein v. E. Airlines, Inc.*, bird strikes influence both aviation and admiralty law.⁵² This is again the case in *Executive Jet Aviation v. City of Cleveland*.⁵³ In *Executive Jet*, a jet aircraft encountered a large flock of seagulls that took off from the airport as soon as the plane rose into the air.⁵⁴ The jet struck “hundreds of seagulls” over the airport runway.⁵⁵ The ingestion of these gulls caused a power failure.⁵⁶ As the plane descended, it “struck the airport perimeter fence, then hit a pick-up truck, and finally settled a short distance offshore into the navigable waters of Lake Erie.”⁵⁷

The question became one of jurisdiction. When brought before the Supreme Court, it recognized the long history of the strict locality test⁵⁸ but stated that it presents serious issues when used in conjunction with aviation.⁵⁹ In regard to aviation cases, the answer to this jurisdictional question was that strict locality no longer applies. The test changed after this case to a ‘location plus’ test in which both location “on or above” navigable water and a connection to maritime activity are essential elements.⁶⁰

Other bird strike cases have made national headlines. On January 15, 2009, one of the most famous incidents of a bird strike, often referred to as the “Miracle on the Hudson,” occurred when U.S. Airways Flight 1549 encountered a flock of Canadian geese 3,000 feet above the ground.⁶¹ Geese were sucked into the plane’s engines, and the engines

⁵¹ *Id.*

⁵² *See Weinstein v. E. Airlines, Inc.*, 316 F.2d 758 (3d Cir. 1963).

⁵³ 448 F.2d 151 (6th Cir. 1971).

⁵⁴ *Exec. Jet Aviation, Inc. v. Cleveland*, 448 F.2d 151, 152 (6th Cir. 1971).

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Exec. Jet Aviation v. City of Cleveland*, 409 U.S. 249, 254 (1972).

⁵⁹ *Id.* at 261.

⁶⁰ *Id.* at 268.

⁶¹ Adam Smith, *The Miracle on the Hudson: how it happened*, THE TELEGRAPH (Nov. 22, 2016)

<https://www.telegraph.co.uk/films/sully/miracle-on-the-hudson-how-it-happened/>.

failed.⁶² Pilot Chesley “Sully” Sullenberger made a forced landing on the Hudson river and saved all 150 passengers, his five-person flight crew, and his co-pilot that day.⁶³ Unfortunately, however, not all bird strike incidents result in such a fortuitous ending.

On January 4, 2009, the same month and year as the “Miracle on the Hudson”, a Sikorsky S-76 helicopter took off in Louisiana to move a crew to an oil rig in the Gulf of Mexico.⁶⁴ Seven minutes into the flight, a female red-tailed hawk smashed through the windshield.⁶⁵ The impact forced the engine fire suppression control handles to activate.⁶⁶ This retarded the throttles and caused the engines to lose power.⁶⁷ The helicopter crashed into the swamp outside Morgan City, Louisiana.⁶⁸ Eight of the nine persons on board died in the crash, and the lone survivor, a passenger, was seriously injured.⁶⁹

According to the National Transportation Safety Board (“NTSB”), a main contributor to the incident was that the windshield for the Sikorsky helicopter was “grandfathered” in, and the Federal Aviation Administration lacked guidelines for bird resistant windshields.⁷⁰ Additionally, subsequent research demonstrated that helicopters were more susceptible to damage than airplanes, windshields were more frequently damaged, and helicopter bird strikes were more likely to cause injury to individuals inside the craft as compared to airplane strikes.⁷¹ After this incident, the NTSB recommended new certification standards for helicopter windshields.⁷²

⁶² *Id.*

⁶³ *Id.*

⁶⁴ CNN Wire Staff, *NTSB: Bird strike caused fatal 2009 helicopter crash*, CNN (Nov. 24, 2010),

<http://www.cnn.com/2010/US/11/24/helicopter.crash.cause/index.html>.

⁶⁵ *Yelton v. PHI, Inc.*, 279 F.R.D. 377, 380 (E.D. La. 2011).

⁶⁶ *Id.*

⁶⁷ CNN *supra* note 64.

⁶⁸ *Id.*

⁶⁹ *Yelton v. PHI, Inc.*, 669 F.3d 577, 579 (5th Cir. 2012).

⁷⁰ *Yelton*, 279 F.R.D. at 383.

⁷¹ ARAC Rotorcraft Bird Strike Working Group, *Rotorcraft Bird Strike Working Group Recommendations to The Aviation Rulemaking Advisory Committee (Arac)*, FEDERAL AVIATION ADMINISTRATION at 1-2 (Nov. 10, 2017).

⁷² National Transportation Safety Board, *NTSB Cites Lack of Bird Strike Resistant Windshield Requirements in Fatal Crash of Helicopter in Louisiana*, (Nov. 24, 2010) [https://www.nts.gov/news/press-releases/Pages/NTSB Cites Lack of Bird Strike Resistant Windshield Requirements in Fatal Crash of Helicopter in Louisiana.aspx](https://www.nts.gov/news/press-releases/Pages/NTSB_Cites_Lack_of_Bird_Strike_Resistant_Windshield_Requirements_in_Fatal_Crash_of_Helicopter_in_Louisiana.aspx).

The Federal Aviation Administration (“FAA”) credits these two occurrences in 2009 with the subsequent “increased [voluntary] reporting rate” for bird strikes.⁷³ FAA estimates that, from 1988 to 2017, wildlife strikes contributed to 287 human fatalities globally,⁷⁴ 311 human injuries in the U.S., and destroyed or damaged beyond repair 263 civil and commercial aircrafts.⁷⁵ In 2018 alone, civilian flights caused the death of 14,661 birds through collision.⁷⁶

When asked to provide a cost estimate, the FAA concluded that there was an economic loss of almost 800 million dollars between 1990 and 2017 from reported strikes.⁷⁷ Additionally, when the FAA factored in evaluations from reported strikes that did not provide an initial cost and from non-reported strikes, the projected cost is astounding.⁷⁸ The FAA now estimates that bird strikes cost the U.S. civil and commercial aviation industry 500 million dollars annually.⁷⁹

While the FAA reports approximately 2,300 wildlife strikes annually, the Air Force and Navy reports an additional 3,000 strikes per year.⁸⁰ However, the military has a different protocol when it comes to

⁷³ ARAC Rotorcraft Bird Strike Working Group, *Rotorcraft Bird Strike Working Group Recommendations to The Aviation Rulemaking Advisory Committee (ARAC)*, FEDERAL AVIATION ADMINISTRATION at 2 (Nov. 10, 2017),

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/media/ARAC%20RBSWG%20Final%20Report.pdf.

⁷⁴ Wildlife strikes include birds, which entail 97% of strikes, and other animals such as coyote and deer.

⁷⁵ Federal Aviation Administration, *Wildlife Strike FAQs*, U.S. DEPARTMENT OF TRANSPORTATION (Dec. 13, 2018),

https://www.faa.gov/airports/airport_safety/wildlife/faq/.

⁷⁶ Gregory Kortie, *Planes strike birds more than 40 times a day, FAA data show*, USA TODAY (Feb. 6, 2019 at 2:31 PM),

<https://www.usatoday.com/story/news/nation/2019/02/06/bird-strikes-airplanes-wildlife-federal-aviation-administration-data-sully-sullenberger/2613893002/>.

⁷⁷ Federal Aviation Administration, *Wildlife Strike FAQs*, U.S. DEPARTMENT OF TRANSPORTATION (Dec. 13, 2018),

https://www.faa.gov/airports/airport_safety/wildlife/faq/.

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ Staff Sgt. William Banton, *AWACS tragedy spurred safety improvements*, JBER PUBLIC AFFAIRS (Sept. 29, 2015),

the MBTA. This evolved from a case in 2002 in which the Center for Biological Diversity sued to prevent the military from use of live-fire training exercises on the island of Farallon de Medinilla (FDM) “located approximately 45 nautical miles northeast of Saipan in the Commonwealth of the Northern Marianas Islands.”⁸¹

It was an uncontested fact that these exercises killed protected birds under the MBTA.⁸² The military applied for an ‘incidental take’ permit from the USFWS, but this type of permit does not exist under the MBTA. USFWS denied the application.⁸³ After the permit denial, the military continued its live fire exercises. It knowingly performed an activity that caused the death of protected birds. Under the D.C. Circuit, take in the MBTA applied to both direct and incidental behavior.⁸⁴ It was undeniable that this military activity violated the MBTA take prohibition.⁸⁵

In the fallout of this case, the military enacted an Incidental Military Taking Amendment in which the MBTA take prohibition “shall not apply to the incidental taking of a migratory bird by a member of the Armed Forces during a[n authorized] military readiness activity...”⁸⁶ Congress also directed the Secretary of the Interior, in agreement with the Secretary of Defense, to prescribe regulations for incidental take during readiness activities.⁸⁷

B. Communication Towers

Communication towers at airports also are under FAA regulation. These tall structures use navigational lighting systems to make their

<https://www.jber.jb.mil/News/News-Articles/Article/771279/awacs-tragedy-spurred-safety-improvements/>.

⁸¹ Ctr. for Biological Diversity v. Pirie, 191 F. Supp. 2d 161, 163-64 (D.D.C. 2002).

⁸² *Id.* at 166.

⁸³ *Id.* at 167.

⁸⁴ See Ctr. for Biological Diversity v. Pirie, 191 F. Supp. 2d 161 (D.D.C. 2002).

⁸⁵ *Id.* at 174-75.

⁸⁶ Bob Stump National Defense Authorization Act for Fy2003, 107 P.L. 314 Sec. 315(a), 116 Stat. 2458, 2509.

⁸⁷ U.S. FISH AND WILDLIFE SERVICE, *Service Finalizes Rule Allowing Incidental Take of Migratory Birds for Military Readiness*, (Feb. 28, 2007), https://www.fws.gov/news/ShowNews.cfm?ref=service-finalizes-rule-allowing-incidental-take-of-migratory-birds-for-mili&_ID=2376.

presence known to pilots flying aircraft at night.⁸⁸ Beyond airport towers under FAA control, there are towers under the purview of the Federal Communication Commission (FCC). These structures are the ones that transmit communication signals such as radio, television, cellular and wireless data, microwave, public safety, and emergency broadcasting. To meet the needs of industry, communication towers are one of the tallest types of manmade structure in the world, with an estimated 160,000 registered communication towers (taller than 200 feet) in the U.S. alone.⁸⁹

For more than fifty years, records show that migratory birds collide with communication towers.⁹⁰ The lights that pilots use to navigate around these structures have an adverse effect on migrating birds. They attract and confuse birds migrating at night who use starlight to navigate. The rate of fatality is higher after storm events when the stars and moon become obscured.⁹¹ Birds will aggregate around and circle towers for hours on end. Eventually, they die from exhaustion or from colliding with the tower or its support wires.

Circling towers can also burn off birds' fat reserves, which increases their chances of death during long migrations.⁹² USFWS recognized communication tower collision as a growing threat when, in 1998, between 5,000-10,000 songbird fatalities occurred in a single night

⁸⁸ Joelle Gehring, et al., *Communication towers, lights, and birds: successful methods of reducing the frequency of avian collisions*, 19 ECO. APP. 2 P. 505 (2009),

http://www.opc.ca.gov/webmaster/media_library/2016/01/Gehring-et-al-2009-Communication-Towers-Lights-and-Birds.pdf.

⁸⁹ U.S. FISH AND WILDLIFE SERVICE, *Communication Towers*, (Apr. 18, 2018), <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>.

⁹⁰ Joelle Gehring, *Relief for Tower Owners and Migratory Birds*, INSIDE TOWERS (Aug. 23, 2016), <https://insidetowers.com/cell-tower-news-relief-for-tower-owners-and-migratory-birds/>.

⁹¹ Rachel Nuwer, *Communication Towers Are Death Traps for Threatened Bird Species*, SMITHSONIAN.COM (Jan. 14, 2013) <https://www.smithsonianmag.com/science-nature/communication-towers-are-death-traps-for-threatened-bird-species-1293988/>.

⁹² Hannah Waters, *Saving Birds from Deadly Industrial Traps Isn't Hard*, AUDUBON (Feb. 23, 2018) <https://www.audubon.org/news/saving-birds-deadly-industrial-traps-isnt-hard>.

at three towers in western Kansas.⁹³ Estimates show that collision with communications towers kill up to seven million birds per year during spring and fall migrations, and of those seven million birds, there are 239 different affected species.⁹⁴ The deadliest sites documented are the Southeastern coastal plain (Texas, Louisiana, and Florida) and the Midwest. These regions contain the highest concentrations of the tallest towers in North America.⁹⁵

C. Seabird Bycatch in Fisheries

Aviation is not the only industrial player when it comes to incidental take. Fisheries are responsible for a large number of incidental takings of seabirds through bycatch.⁹⁶ Seabirds live in a variety of habitats in and around shallow water and coastal environments. They represent an important part of the marine environment or food web and are protected under the MBTA. The MBTA covers over 150 species of seabirds.⁹⁷ Depending on the geographic region, and how far offshore one fishes, fishermen in the United States can see species of pelicans, gulls, terns, cormorants, loons, shearwaters, storm-petrels, gannets, puffins, and albatross, among others.⁹⁸

Seabirds are excellent indicators of ecosystem status. As highly migratory, near-apex predators, they travel across trophic levels, space, and time, and are easily studied relative to other marine species. This makes them excellent sources of information for ecosystem-based fisheries management plans, providing a holistic framework for ensuring that our fisheries are sustainable.⁹⁹ Seabirds become attracted to fishing vessels as sources of “free food” from fishermen throwing offal or bait off the sides of the vessel. They swoop in for these choice bits of

⁹³ U.S. FISH AND WILDLIFE SERVICE, *Communication Towers*, (Apr. 18, 2018), <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>.

⁹⁴ Gehring, *supra* note 88.

⁹⁵ Nuwer, *supra* note 91.

⁹⁶ Bycatch is the accidental entanglement or hooking in fishing gear.

⁹⁷ D. A. Wiedenfeld, *Seabird Bycatch Solutions for Fishery Sustainability*, AMERICAN BIRD CONSERVANCY (2016), <https://abcbirds.org/wp-content/uploads/2015/05/Seabird-Bycatch-Solutions-2016-InternetRequired-LowRes.pdf>.

⁹⁸ Office of Sustainable Fisheries, *Seabird Protection and Avoidance Tips*, NOAA FISHERIES (Mar. 22, 2018) <https://www.fisheries.noaa.gov/national/recreational-fishing/seabird-protection-and-avoidance-tips>.

⁹⁹ Office of Science and Technology, *Seabirds*, NOAA FISHERIES, (Jan. 28, 2019) <https://www.fisheries.noaa.gov/national/bycatch/seabirds>.

food, become ensnared or hooked, and accidentally drown.¹⁰⁰ This group of birds is among the most threatened, with approximately half of all species in population decline.¹⁰¹ While the Magnuson-Stevens Act mandates fisheries, fishery management practices must comply with other areas of the law as well, including the MBTA.¹⁰²

The three main threats for seabird bycatch are from longlines,¹⁰³ gill nets,¹⁰⁴ and trawling.¹⁰⁵ Across the globe, there are over 320,000 accidental seabird deaths attributed to longlines, and a minimum of 400,000 seabirds killed accidentally via gill net annually.¹⁰⁶ Out of the two, “[g]illnets have been the cause of some of the highest recorded mortalities of seabirds worldwide. The status of seabird populations is deteriorating faster compared to other bird groups, and bycatch in fisheries is identified as one of the principal causes of declines.”¹⁰⁷ Because of public outrage over non-target fish bycatch (marine mammals, sea turtles, seabirds, etc.), the United Nations banned industrial-scale fishing with drift gillnets longer than 2.5 kilometers in 1991.¹⁰⁸

This is not the case with shorter nets in use by commercial fisheries within the 200-mile Exclusive Economic Zones of many countries. In the Americas, artisan fisheries use a variety of gillnets,

¹⁰⁰ *Id.*

¹⁰¹ D. A. Wiedenfeld, *supra* note 97.

¹⁰² National Oceanic and Atmospheric Administration, *Final United States Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries*, U.S. DEPARTMENT OF COMMERCE (2001), <https://www.gc.noaa.gov/documents/2011/0201-npoa-seabirds.pdf>.

¹⁰³ Longline is technique that involves deploying thousands of baited hooks spaced along a line behind the boat.

¹⁰⁴ A gill net is a wall of netting that hangs in the water column.

¹⁰⁵ Trawling is a technique that involves pulling a cone-shaped net through the water.

¹⁰⁶ BirdLife, *Why do seabirds get caught in fishing gear*, https://www.birdlife.org/sites/default/files/attachments/key_threats_by_catch.pdf (last visited Mar. 13, 2019).

¹⁰⁷ American Bird Conservancy, *First Global Review of Bycatch from Gillnet Fishing Puts Seabird Death Toll in Hundreds of Thousands*, (June 6, 2013).

<https://abcbirds.org/article/first-global-review-of-bycatch-from-gillnet-fishing-puts-seabird-death-toll-in-hundreds-of-thousands/>.

¹⁰⁸ *Id.*

and they remain unregulated.¹⁰⁹ As far as trawling is concerned, there is knowledge that it presents a hazard.¹¹⁰ However, it is difficult to find actual statistics because incidental take is through unobserved strike rather than entanglement. Incidentally, despite all the statistics that prove bycatch causes a high mortality rate and is the cause of major population decline amongst seabirds, the USFWS never enforced the MBTA regarding incidental mortality of seabirds when it comes to fishery.¹¹¹

D. Oil Spills

On March 24, 1989, the EXXON VALDEZ tanker ran aground on Bligh Reef in Alaska. It released nearly eleven million gallons of crude oil into Prince William Sound.¹¹² Following the EXXON VALDEZ spill, the USFWS and Alaskan state organizations collected over 30,000 deceased birds,¹¹³ but the EXXON VALDEZ Oil Spill Trustee Council estimated the death of over 250,000 birds.¹¹⁴ The court convicted Exxon Corp. and a subsidiary of MBTA violations.¹¹⁵ Exxon agreed to a 150 million-dollar criminal fine, but, as part of an agreement with the United States, only actually paid twenty-five million dollars.¹¹⁶ Exxon

¹⁰⁹ *Id.*

¹¹⁰ J.E. Moore et al., *A review of marine mammal, sea turtle and seabird bycatch in USA fisheries and the role of policy in shaping management*, MARINE POLICY 33 (2009), https://www.researchgate.net/publication/46488124_A_review_of_marine_mammal_sea_turtle_and_seabird_bycatch_in_USA_fisheries_and_the_role_of_policy_in_shaping_management.

¹¹¹ *Id.*

¹¹² Megan Gannon, *Exxon Valdez 25th Anniversary: 5 Facts About the Historic Spill*, LIVE SCIENCE (March 24, 2014), <https://www.livescience.com/44314-exxon-valdez-spill-anniversary-facts.html>.

¹¹³ John F. Platt et. al., *Immediate Impact of the 'Exxon Valdez' Oil Spill On Marine Birds*, 107 THE AUK, 387, 388-93 (Apr. 1990), <https://www.jstor.org/stable/4087623>.

¹¹⁴ Megan Gannon, *Exxon Valdez 25th Anniversary: 5 Facts About the Historic Spill*, LIVE SCIENCE (March 24, 2014), <https://www.livescience.com/44314-exxon-valdez-spill-anniversary-facts.html>.

¹¹⁵ Kristina Alexander, *The 2010 Oil Spill: Criminal Liability Under Wildlife Laws*, CONGRESSIONAL RESEARCH SERVICE (June 28, 2010), <https://fas.org/sgp/crs/misc/R41308.pdf>.

¹¹⁶ *Id.*

also paid one hundred million in criminal restitution for injuries to fish, wildlife, and habitat.¹¹⁷

This total of 125 million dollars in fines would not have been possible without the MBTA. In response to this terrible incident, Congress amended the Clean Water Act to enact the Oil Pollution Act of 1990 (“OPA 90”).¹¹⁸ This Act is now the principle statute governing oil spills on navigable waters.¹¹⁹ It changed the protocol to strengthen the prevention and response to oil spills and established a trust fund to clean up spills (at one billion per incident) when the responsible party is unable or unwilling so to do.¹²⁰ It requires oil storage facilities and vessels to submit plans for discharge response and Area Contingency Plans to prepare and plan for oil spill response on a regional scale.¹²¹ Lastly, it empowers the U.S. to recover natural resource damages, which includes injury to fishes, waterfowl, and/or other wildlife (and plants).¹²²

A case that truly displayed the intersect of OPA 90 and the MBTA was the allision of M/V COSCO BUSAN. On November 7, 2007, the COSCO BUSAN, a nine hundred foot-plus cargo ship, struck the Bay Bridge while attempting to sail out of the San Francisco Bay.¹²³ As a result of this allision, the COSCO BUSAN discharged more than 50,000 gallons of heavy bunker fuel into the bay.¹²⁴ The discharge of heavy fuel oil from the COSCO BUSAN fouled twenty-six miles of shoreline, killed more than 2,400 birds of about fifty species, temporarily closed a fishery on the bay, and delayed the start of the crab-fishing season.¹²⁵ Monetary damages to the bridge, ship, and private parties were in the tens of

¹¹⁷ *Id.*

¹¹⁸ See 33 U.S.C. § 2701 *et seq.* (2018); see also 33 U.S.C. § 1321 (2018).

¹¹⁹ EPA, *Summary of the Oil Pollution Act*, (Mar. 1, 2019), <https://www.epa.gov/laws-regulations/summary-oil-pollution-act>.

¹²⁰ See 33 U.S.C. § 2712 (2018).

¹²¹ EPA, *Summary of the Oil Pollution Act*, (Mar. 1, 2019), <https://www.epa.gov/laws-regulations/summary-oil-pollution-act>.

¹²² See 33 U.S.C. § 2706 (2018).

¹²³ *United States v. M/V C BUSAN*, 557 F. Supp. 2d 1058, 1059 (N.D. Cal. 2008).

¹²⁴ *Id.*

¹²⁵ Department of Justice, *Prison sentence for Cosco Busan pilot; Pilot sentenced to serve 10 months in federal prison*, WATER EDUCATION FOUNDATION, (July 18, 2009)

<https://www.watereducation.org/aquafornia-news/prison-sentence-cosco-busan-pilot-pilot-sentenced-serve-10-months-federal-prison>.

millions of dollars, and estimated clean-up costs exceeded \$70 million dollars.¹²⁶

The court concluded that it was the pilot, John Cota, who negligently caused the discharge of heavy fuel oil by failing to take actions that would have avoided the allision with the bridge.¹²⁷ According to an agreement, Cota pleaded guilty to a violation of OPA 90 because of this discharge.¹²⁸ He also pleaded guilty to a MBTA violation by causing the death of many protected species of migratory birds.¹²⁹ In a report, Joseph P. Russoniello, the U.S. Attorney for the Northern District of California at the time, said: “The court’s sentence of John Cota should serve as a deterrent to shipping companies and mariners who think violating the environmental laws that protect our nation’s waterways will go undetected or unpunished.”¹³⁰

In the previous MBTA cases mentioned in this Comment, the misdemeanor penalty was a fine. However, John Cota received different treatment. In papers filed in court, prosecutors told the judge that Captain Cota should receive a sentence of incarceration because he was

guilty of far more than a mere slip-up or an otherwise innocuous mistake that yielded unforeseeably grave damage. Rather, he made a series of intentional and negligent acts and omissions, both before and leading up to the incident that produced a disaster that, as widespread as it was, could have had even worse consequences.¹³¹

Cota served ten months in federal prison.¹³²

EXXON VALDEZ was still considered the worst spill in U.S. history until April 20, 2010, when the Deepwater Horizon exploded,

¹²⁶ *Id.*

¹²⁷ United States v. Cota, No. C 08-00160 SI, 2008 U.S. Dist. LEXIS 65911 (N.D. Cal. July 21, 2008) at *1

¹²⁸ Department of Justice, *Prison sentence for Cosco Busan pilot; Pilot sentenced to serve 10 months in federal prison*, WATER EDUCATION FOUNDATION, (July 18, 2009),

<https://www.watereducation.org/aquaforia-news/prison-sentence-cosco-busan-pilot-pilot-sentenced-serve-10-months-federal-prison>.

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² *Id.*

spewing over 130 million gallons of crude oil into the Gulf of Mexico.¹³³ This catastrophic event caused the death of eleven individuals and injuries to numerous others.¹³⁴ Additionally, the explosion, oil spill, and subsequent cleanup efforts caused the mortality of more than one million birds.¹³⁵ British Petroleum, the controlling company for the Deepwater Horizon rig, agreed to a four-billion-dollar plea agreement in criminal penalties.¹³⁶ The settlement dedicated 20.8 billion dollars in civil penalties to the OPA 90's Oil Spill Liability Trust Fund to aid in oil spill removal and assessment of the damage.¹³⁷

With respect to criminal penalties, British Petroleum ("BP") pleaded guilty to a misdemeanor count for violation of the MBTA. The criminal fine was 15,000 dollars per bird or twice the gross gain or loss per bird.¹³⁸ BP settled to pay the U.S. Government 100 million dollars in fines under the MBTA to restore wetlands, which provides homes for shorebirds.¹³⁹ Together, the two major spill events (EXXON VALDEZ and Deepwater Horizon) comprise ninety-seven percent of incidental take from oil spills, which has totaled 249 million dollars since the onset of the MBTA.¹⁴⁰

E. Wind Turbines

Offshore wind energy is a growing industry in the United States. The first offshore wind project, the Block Island Wind Farm off the coast

¹³³ The Ocean Portal Team, *Gulf Oil Spill*, SMITHSONIAN (Apr. 2018), <https://ocean.si.edu/conservation/pollution/gulf-oil-spill>.

¹³⁴ Jodi Gugliemi and Kara Warner, *Inside the Harrowing True Story of Deepwater Horizon Survivor Mike Williams: 'It Haunts Me'*, PEOPLE.COM, (September 30, 2016 12:00 PM) <https://people.com/movies/deepwater-horizon-the-true-story-of-survivor-mike-williams/>.

¹³⁵ Audubon, *The MBTA Works and the Biggest Winners are Renewables* (2018), https://nas-national-prod.s3.amazonaws.com/audubon_mbt_a_industry_2018.pdf.

¹³⁶ United States v. BP Exploration and Production, Inc. p. 4 <https://www.justice.gov/sites/default/files/criminal-vns/legacy/2012/12/17/2012-11-15-BP-Guilty-Plea-Agreement.pdf>.

¹³⁷ *Id.*

¹³⁸ United States v. BP Exploration and Production, Inc. p. 3 <https://www.justice.gov/sites/default/files/criminal-vns/legacy/2012/12/17/2012-11-15-BP-Guilty-Plea-Agreement.pdf>.

¹³⁹ Audubon, *supra* note 135.

¹⁴⁰ Audubon, *supra* note 135.

of Rhode Island, went online in 2016.¹⁴¹ Other projects are in various stages of development, including an 18.5 million dollar offshore wind research and development (“R&D”) consortium in New York.¹⁴² At the time of writing, there are fifteen active commercial leases for offshore wind development in the waters of the United States.¹⁴³ While most leases are out along the Eastern Seaboard, other offshore wind projects are making headway in the Great Lakes, the West Coast, and Hawaii.¹⁴⁴ These projects are set to use a “Smart for the Start” approach, which is designed to take into account “the need to protect ocean ecosystems, wildlife and existing human uses.”¹⁴⁵

While it is a positive step for renewable energy, land-based wind turbines have been detrimental to migrating bird populations. Two companies in Wyoming, Duke Energy and PacifiCorp Energy, both pleaded guilty to MBTA violations at their wind projects.¹⁴⁶ Duke Energy was the first case where criminal enforcement of the MBTA occurred for incidental take at a wind project.¹⁴⁷ The charges stemmed from the discovery of fourteen golden eagle fatalities (protected under

¹⁴¹ Ørsted, *Our offshore wind projects in the U.S.*, <https://us.orssted.com/wind-projects> (last visited Feb. 7, 2020).

¹⁴² Office of Energy Efficiency & Renewable Energy, *Department of Energy Announces \$18.5 Million for Offshore Wind Research*, ENERGY.GOV (June 15, 2018), <https://www.energy.gov/eere/wind/articles/department-energy-announces-185-million-offshore-wind-research>.

¹⁴³ Bureau of Ocean Energy Management, *Lease and Grant Information*, U.S. DEP’T. OF THE INTERIOR, <https://www.boem.gov/renewable-energy/lease-and-grant-information> (last visited Mar. 8, 2021).

¹⁴⁴ Office of Energy Efficiency & Renewable Energy, *4 Emerging Trends in U.S. Offshore Wind Technologies*, ENERGY.GOV, (Aug. 9, 2017), <https://www.energy.gov/eere/articles/4-emerging-trends-us-offshore-wind-technologies>.

¹⁴⁵ Kit Kennedy, *Offshore Wind One Step Closer to Reality in the Mid-Atlantic*, NAT’L RES. DEF. COUNS. (Feb. 2, 2012), <https://www.nrdc.org/experts/kit-kennedy/offshore-wind-one-step-closer-reality-mid-atlantic>.

¹⁴⁶ See generally Office of Public Affairs, *Utility Company Sentenced in Wyoming for Killing Protected Birds at Wind Projects*, UNITED STATES DEPT. OF JUSTICE, (Nov. 22, 2013), <https://www.justice.gov/opa/pr/utility-company-sentenced-wyoming-killing-protected-birds-wind-projects>.

¹⁴⁷ *Id.*

the Bald and Golden Eagle Protection Act (“BGEPA”) and the deaths of 149 other protected birds at wind projects between 2009 and 2013.¹⁴⁸

According to the charges, Duke Energy Renewables Inc., despite prior warnings from USFWS, failed to include mitigation efforts that would avoid bird collision with turbine blades during the construction phase of its projects.¹⁴⁹ Under its plea agreement, the company’s sentence included fine payment, restitution and community service totaling one million dollars, and a five-year probation, during which it must implement an environmental compliance plan aimed at preventing bird death.¹⁵⁰

The PacificCorp Energy case followed one year afterward, with a guilty plea of MBTA violation.¹⁵¹ This charge stemmed from the death of thirty-eight golden eagles and 336 other protected birds at its wind projects between 2009 and 2014.¹⁵² In court documents, the government alleged that PacificCorp, like Duke Energy before it, failed to include mitigation efforts that would avoid bird collision with turbine blades despite knowing that the construction “would likely result in the deaths of eagles and other protected birds.”¹⁵³ Under its plea agreement, the company’s sentence included fine payment, restitution and community service totaling two and a half million dollars, and a five-year probation, during which it must implement an environmental compliance plan aimed at preventing bird death.¹⁵⁴

There are over 50,000 land-based wind turbines in the United States, which accounts for eight percent of our nation’s energy.¹⁵⁵ Researchers estimate that 140,000 to 328,000 birds are killed annually in collisions with wind turbines where the risk of collision is highest at

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ Office of Public Affairs, *Utility Company Sentenced in Wyoming for Killing Protected Birds at Wind Projects*, UNITED STATES DEP’T. OF JUST. (Dec. 19, 2014), <https://www.justice.gov/opa/pr/utility-company-sentenced-wyoming-killing-protected-birds-wind-projects-0>.

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ Tom Metcalfe, *Wind energy takes a toll on birds, but now there’s help*, NBC NEWS (Apr. 17, 2018), <https://www.nbcnews.com/mach/science/wind-energy-takes-toll-birds-now-there-s-help-ncna866336>.

night because turbines are invisible to a flying bird.¹⁵⁶ With the growth of offshore wind farms, the potential for higher numbers of incidental take caused by offshore turbines in comparison to land-based turbines is plausible because these farms are in direct paths of flyways in the United States. However, one may speculate that the amounts would be more difficult to calculate because the remains could be carried away by wave action.

In combining the amount of bird deaths from these five types alone, incidental take by industries within admiralty and aviation jurisdictions results in over nine million bird deaths annually.

Amounts of Bird Fatalities by Incidental Take from Industry	
Type of Industrial Take	Annual Amounts (High Estimate)
Bird Strike (Civilian only)	14,700
Communication Towers	7,000,000
Seabird Bycatch (Longline and Gill Net)	720,000
Oil Spill	1,000,000
Wind Turbines	328,000
Total Annual Number of Fatalities	9,062,700

VI. Circuit Split Over Definition of Take

It is obvious that certain industrial impacts negatively affect bird populations and cause high mortality rates. However, since the jurisprudential addition of incidental take in the early 1970s, Federal Circuit Courts are split on how to apply this type of take into their decisions.

A. Second and Tenth Circuits

The Second and Tenth Circuits are of the view that take includes incidental take in its definition. The first decision that addressed the applicability of incidental take in industrial activity was a Second Circuit case. In 1978, *United States v. FMC Corp* came before the court as an appellate judgement.¹⁵⁷ In *FMC Corp.*, the plant in question produced various pesticides. While employees did wash the pesticides

¹⁵⁶ *Id.*

¹⁵⁷ *See* 572 F.2d 902, 902 (2nd Cir. 1978).

into a sump,¹⁵⁸ the wastewater, including the pesticides, found its way into a large wastewater pond. Migratory birds landed on this pond, and between April and June of 1975, ninety-two birds died as a result of high toxicity caused by pesticides in the pond.¹⁵⁹

The question became one of strict liability in regard to this action.¹⁶⁰ FMC contested that it was unlike hunters who deliberately pull a trigger with the intent to kill. Their argument was that, because there was no intention to kill birds, and there was no affirmative act as such, FMC should not be held liable under the Act.¹⁶¹ The Second Circuit panel thought differently. In its view, this court affirmed the judgement that FMC was liable for the death of these birds.¹⁶² The view was that the MBTA did not include "wilfully, knowingly, recklessly, or negligently" in its definition of take.¹⁶³ The corporation manufactured a toxic chemical and failed to prevent this chemical from escaping into the wastewater pond. This had implications on human health as well as bird death, which was enough to impose strict liability.¹⁶⁴

FMC Corp. was the only case that lent itself to this issue for decades. It is a highly regarded decision, but there are now more recent decisions that limit the application to one of proximate cause for an incidental take. This view was in contention at the district court level in Colorado in 1999.¹⁶⁵ In this case, Moon Lake Electric Association, a "rural electrical distribution cooperative," violated the MBTA because it failed to install inexpensive protective equipment to keep migratory birds that perched or roosted on its power poles from becoming electrocuted.¹⁶⁶ Moon Lake contended that the MBTA only applied to intentional conduct, such as those by hunters and poachers.¹⁶⁷

The Association did not have the *mens rea* to intentionally commit the act.¹⁶⁸ The *mens rea* requirement was not valid according to the

¹⁵⁸ A sump is a low, hollow area that collects liquids such as wastewater or chemicals.

¹⁵⁹ *United States v. FMC Corp.*, 572 F.2d at 903-05.

¹⁶⁰ *Id.* at 907.

¹⁶¹ *Id.* at 906.

¹⁶² *Id.* at 908.

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ *United States v. Moon Lake Elec. Ass'n, Inc.*, 45 F. Supp. 2d 1070 (D. Colo. 1999).

¹⁶⁶ *Id.* at 1071.

¹⁶⁷ *Id.* at 1072.

¹⁶⁸ *Id.*

Colorado district court.¹⁶⁹ In fact, it looked at the plain language of the MBTA and parsed out, "it shall be unlawful at any time, by any means or in any manner, to . . . kill . . . any migratory bird."¹⁷⁰ Furthermore, it concluded that "[by] prohibiting the act of 'killing' in addition to the acts of hunting, capturing, shooting, and trapping, the MBTA's language and regulations suggest that Congress intended to prohibit conduct beyond that normally exhibited by hunters and poachers"¹⁷¹

Moon Lake became a major influence on the view of proximate cause in subsequent cases. One such case, a Tenth Circuit case from 2010, is *United States v. Apollo Energies*.¹⁷² Here, two oil and gas companies, Apollo Energies and Walker, were convicted at the trial court level for the deaths of migratory birds caused by oil drilling equipment called "heater treaters."¹⁷³ Birds would nest in the exhaust pipes of the equipment and become unable to escape. More than 300 birds died, and Fish and Wildlife identified at least ten as species protected under the MBTA.¹⁷⁴ Apollo and Walker challenged this claim at the appellate level by claiming that the MBTA is not a strict liability statute, and if it were, it was applied unconstitutionally with regard to their conduct.¹⁷⁵

The Tenth Circuit, in judging the scope of MBTA, came to the conclusion that it is a strict liability statute, and the MBTA only requires the defendant's acts to be the proximate cause for the violation to come into play.¹⁷⁶ Apollo had knowledge that the equipment in question could trap and kill protected birds for nearly a year and a half before the recorded bird deaths.¹⁷⁷ The court affirmed the violation for Apollo based on the proximate cause analysis.¹⁷⁸ Courts in the Second and Tenth Circuits view the taking of birds protected under the MBTA as strict liability crimes with varying limitations.

B. Eighth and Ninth Circuits

¹⁶⁹ *Id.*

¹⁷⁰ *Id.* at 1079.

¹⁷¹ *United States v. Moon Lake Elec. Ass'n, Inc.*, 45 F. Supp. 2d 1070, 1074 (D. Colo. 1999).

¹⁷² *See* 611 F.3d 679,679-80 (10th Cir. 2010).

¹⁷³ *Id.* at 682.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ *Id.* at 690.

¹⁷⁷ *Apollo Energies, Inc.*, 611 F.3d at 691.

¹⁷⁸ *Id.*

While courts in the Second and Tenth Circuits take the broad view that “the MBTA can constitutionally be applied to impose criminal penalties on those who did not intend to kill migratory birds,”¹⁷⁹ the Eighth and Ninth Circuits take a narrower view. These circuits limit the MBTA’s take prohibitions to deliberate and intentional conduct directed at birds.

The seminal case in the Ninth Circuit is *Seattle Audubon Soc’y v. Evans*, known as *Seattle II*.¹⁸⁰ In this 1991 case, the Ninth Circuit looked at the district court holding in regard to the MBTA.¹⁸¹ The issue at hand was whether habitat modification for the resident spotted owl population would indeed fall under the definition of take if the modification lead to bird death.¹⁸² The district court held it would not, and the Ninth Circuit affirmed this holding.¹⁸³ The circuit court made this determination by comparing the language of the Endangered Species Act (“ESA”) and the MBTA. The ESA includes the word “harm” in its definition of “take,” whereas “harm” does not appear in the MBTA definition of “take” with regard to modification of habitat. In reaching this conclusion, the Ninth Circuit determined that activities indirectly leading to bird death do not lead to liability under the statute.¹⁸⁴

The Eighth Circuit relied heavily on that case for its decision in *Newton Cty. Wildlife Ass’n v. United States Forest Serv.*¹⁸⁵ *Newton Cty.*, a 1997 case, saw the Newton County Wildlife Association (“NCWA”) sue the Forest Service for timber sales in the Ozark National Forest.¹⁸⁶ In this case, the Forest Service conceded that the action of logging associated with timber sales would disrupt the nests of migratory birds and cause mortality. NCWA argued that these sales violated the MBTA’s take prohibition.¹⁸⁷ The Eight Circuit disagreed.

Similar to the Ninth Circuit, this court interpreted the plain language of the statute and deemed that strict liability applied to deliberate activity, but “it would stretch this 1918 statute far beyond the

¹⁷⁹ *United States v. Corbin Farm Serv.*, 444 F. Supp. 510, 536 (E.D. Cal. 1978).

¹⁸⁰ 952 F.2d 297, *see also* *United States v. Moon Lake Elec. Ass’n, Inc.*, 45 F. Supp. 2d 1070, 1075 (D. Colo. 1999).

¹⁸¹ *Seattle Audubon Soc’y v. Evans*, 952 F.2d 297, 302 (9th Cir. 1991).

¹⁸² *Id.* at 301-02.

¹⁸³ *Id.*

¹⁸⁴ *Id.* at 303.

¹⁸⁵ *See* 113 F.3d 110 (8th Cir. 1999).

¹⁸⁶ *Id.* at 112.

¹⁸⁷ *Id.* at 115.

bounds of reason to construe it as an absolute criminal prohibition on conduct...that indirectly results in the death of migratory birds.”¹⁸⁸ The Eighth and Ninth Circuits focus on the common law meaning of the term “take” to limit MBTA prohibitions to intentional and direct actions.

C. Fifth Circuit

The Fifth Circuit is an odd bird. Over time, it has flipped its thought pattern from agreeing with the Second and Tenth Circuits to siding with the Eighth and Ninth. This is displayed through the case history of *United States v. Citgo Petroleum Corp.* Initially, the district court convicted CITGO on three counts for MBTA violation because ten birds were found in offshore open tanks at its refinery in Texas.¹⁸⁹ Evidence presented at trial showed that CITGO had knowledge of birds migrating over this area as part of a flyway, becoming trapped in these tanks, and dying as a result.¹⁹⁰ Additionally, even after suggestions of covering these tanks, CITGO failed to take appropriate action to prevent these deaths.¹⁹¹ This district court used the proximate cause analysis and judged that CITGO violated the MBTA.¹⁹²

All of this changed upon appeal. Three years after this district court decision, the Fifth Circuit reversed, agreeing with the Eighth and Ninth Circuits’ narrow interpretation of the word “take.”¹⁹³ It held that an “affirmative action to cause migratory bird deaths is consistent with the imposition of strict liability[,]”¹⁹⁴ and its reasoning is twofold. First, like the Eighth and Ninth Circuits, it considered a plain language interpretation of the statute.¹⁹⁵ In addition, the Fifth Circuit took the position that if Congress intended to include incidental as part of the definition of take, it had decades to do as much.¹⁹⁶ It concluded by admonishing a broad interpretation noting that if all foreseeable actions or omissions fall under the MBTA prohibition then “all owners of big windows, communication towers, wind turbines, solar energy farms,

¹⁸⁸ *Id.*

¹⁸⁹ *United States v. CITGO Petroleum Corp.*, 893 F. Supp. 2d 841, 842 (S.D. Tex. 2012).

¹⁹⁰ *Id.* at 847.

¹⁹¹ *Id.* at 847-48.

¹⁹² *Id.* at 848.

¹⁹³ *United States v. CITGO Petroleum Corp.*, 801 F.3d 477, 493 (5th Cir. 2015).

¹⁹⁴ *Id.* at 492.

¹⁹⁵ *Id.* at 490-91.

¹⁹⁶ *Id.*

cars, cats, and even church steeples may be found guilty of violating the MBTA.”¹⁹⁷

VII. Redefinition of Take

Enforcement of the MBTA served to limit incidental takes by incentivizing companies to develop and implement best practices and technologies to safeguard protected birds. Now, this level of enforcement has flown the coop. On December 22, 2017, Daniel Jorjani of the Department of the Interior issued a legal opinion that replaced Solicitor's Opinion M-37041 -Incidental Take Prohibited Under the Migratory Bird Treaty Act, which concluded that "the MBTA's broad prohibition on taking and killing migratory birds by any means and in any manner includes incidental taking and killing" with a new Opinion that reinterprets the Act by exclusion of incidental take.¹⁹⁸ This move was out of fear of “unlimited potential for criminal prosecution.”¹⁹⁹

On April 11, 2018, USFWS issued guidance to interpret the M-Opinion.²⁰⁰ It stated that the MBTA's prohibitions on take apply only when the purpose of an action is to take migratory birds, their eggs, or their nests. USFWS affirmed that the new Opinion does not affect the ESA or BGEPA. USFWS also stated that incidental take by Department of Defense (for readiness or non-readiness activities) does not violate the MBTA, regardless of whether it is complying with the Migratory Bird Readiness Rule.²⁰¹

A protest signed by former agency directors, all but one dating back to 1973, and top Interior officials from the administrations of George W. Bush, Bill Clinton, George H.W. Bush, Jimmy Carter, Gerald Ford, and Richard Nixon spoke out against this change. “People were aghast at this announcement,” said Dan Ashe, former director of

¹⁹⁷ *Id.* at 494.

¹⁹⁸ Daniel Jorjani, *Solicitor's Opinion M-37050*, U.S. DEPT. OF THE INTERIOR, p. 1-2 (Dec. 22, 2017)

<https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf>.

[hereinafter M-Opinion].

¹⁹⁹ *Id.* at 33.

²⁰⁰ Lock Lord LLP, *USFWS Guidance Implementing Solicitor's M-Opinion Finally Grounds the Migratory Bird Treaty Act*, JDSUPRA, (Apr. 24, 2018), <https://www.jdsupra.com/legalnews/usfws-guidance-implementing-solicitor-s-36554/>.

²⁰¹ *Id.*

USFWS under Barack Obama.²⁰² “It’s a complete giveaway, principally to the energy industry, but to industry writ large, at the expense of a resource that is precious and vulnerable.”²⁰³

This new interpretation of the law reduces the potential for enforcement of the MBTA. However, it strangles the growth of migratory bird populations. Under this redefinition, companies will escape legal responsibility and liability for actions that potentially kill millions of birds. Additionally, even voluntary practices could decline with no incentives to complete them. In fact, since the new interpretation took effect, internal conversations with Fish and Wildlife indicate that in nearly two dozen incidents across fifteen states, activities short of physically shooting a bird no longer merit action.²⁰⁴ There is also indication that the current administration even discouraged local governments and businesses from taking voluntary steps to protect birds, such as reporting fatalities.²⁰⁵

This is especially troublesome for birds along the Mississippi Flyway. As mentioned previously, seabird populations are in a major decline.²⁰⁶ Shorebirds are also declining at a much faster rate than other species with a seventy percent reduction since 1970.²⁰⁷ The wetlands of the northern Gulf of Mexico are important habitats for thirty-four of these species of shorebirds.²⁰⁸ Yet, due to the many forms of incidental take in the Gulf and along the Southeastern coastal plain, deregulation of industry incidental take prohibitions could cause these populations to drop even further.

VIII. Judicial and Administrative Battles

²⁰² Elizabeth Shogren, *Interior Cancels Decades-old Protections for Migratory Birds*, High Country News, (Jan. 26, 2018), <https://www.hcn.org/issues/50.3/dc-dispatch-interior-cancels-decades-old-protections-for-migratory-birds>.

²⁰³ *Id.*

²⁰⁴ Lisa Friedman, *A Trump Policy ‘Clarification’ All but Ends Punishment for Bird Deaths*, THE NEW YORK TIMES (Dec. 24, 2019), <https://www.nytimes.com/2019/12/24/climate/trump-bird-deaths.html>.

²⁰⁵ *Id.*

²⁰⁶ D. A. Wiedenfeld, *supra* note 97 (stating approximately fifty percent of seabird species are in population decline).

²⁰⁷ Libby Sander, *Saving Gulf Coast Shorebirds, One Beach at a Time*, AMERICAN BIRD CONSERVANCY, (Dec. 14, 2016), <https://abcbirds.org/saving-gulf-coast-shorebirds-one-beach-at-a-time/>.

²⁰⁸ *Id.*

After the implementation of the M-Opinion, three complaints were filed in the Southern District of New York (S.D.N.Y.). The first complaint was *National Audubon Society v. Interior, et al.*²⁰⁹ in which the National Audubon Society, American Bird Conservancy, Center for Biological Diversity, and Defenders of Wildlife (“Audubon”) seek declaratory and injunctive relief²¹⁰. These conservation organizations claimed that the interpretation eliminating incidental take is unlawful under an arbitrary and capricious standard.²¹¹

Audubon also contended that the M-Opinion represented a formal position which bound all federal agencies within the Department of the Interior.²¹² When an action such as this affects longstanding agency interpretation and policy and implements practical and legal consequences, there should have been a notice and comment period and compliance with the National Environmental Policy Act, neither of which occurred.²¹³

The second complaint was *NRDC v. Interior, et al.*²¹⁴ The Natural Resources Defense Council and National Wildlife Federation argue that this reinterpretation “misconstrues the act” and is thus unlawful.²¹⁵ These two groups sought a declaration that this new interpretation is unlawful and have the prior interpretation reinstated.²¹⁶

Lastly, eight states²¹⁷ sued the U.S. Department of the Interior challenging its interpretation of the MBTA, which narrowed the scope of what is considered an “incidental take.” The states sought a declaration that the interpretation was unlawful because it “contradicts the plain meaning, structure, and intent” of the statute and “contravenes” the purpose of the Act.²¹⁸ The states also claimed that the

²⁰⁹ See *National Audubon Society v. Interior, et al.*, No. 1:18-cv-04601 (S.D.N.Y. 2018)

²¹⁰ *National Audubon Society v. Interior, et al.*, No. 1:18-cv-04601 (S.D.N.Y. 2018) at *1.

²¹¹ *Id.* at *2.

²¹² *Id.* at *4.

²¹³ *Id.* at *4-5.

²¹⁴ See *NRDC v. Interior, et al.*, No. 1:18-cv-04596 (S.D.N.Y. 2018)

²¹⁵ *NRDC v. Interior, et al.*, No. 1:18-cv-04596 (S.D.N.Y. 2018) at *4.

²¹⁶ *Id.*

²¹⁷ The eight states are New York, California, Illinois, Maryland, New Jersey, New Mexico, Oregon, and Massachusetts.

²¹⁸ State of New York, State of California, State of Illinois, State of Maryland, Commonwealth of Massachusetts, State of New Jersey,

new policy “harms the States’ sovereign, economic, recreational, aesthetic, scientific, and environmental interests” due to the importance of healthy bird populations to pollination, insect and rodent control, and a “multi-billion-dollar wildlife watching industry.”²¹⁹

These three complaints, because they involve common questions of law and fact, were consolidated.²²⁰ Additionally, the notice and comment claim from Audubon was dismissed. However, Audubon’s NEPA claim still stood, for it is plausible that the M-Opinion is a “major Federal action.”²²¹ This claim, along with the arbitrary and capricious claim brought by all three groups went to court as *NRDC v. Interior, et al.*²²² In August 2020, Judge Valerie Caproni issued an opinion where she began by citing Harper Lee’s seminal work, *To Kill a Mockingbird*. “It is not only a sin to kill a mockingbird, it is also a crime.”²²³ Penultimately, this judge in the Southern District of New York stated, “[a]s a starting point, the Jorjani Opinion is contrary to the plain meaning of the MBTA and therefore must be vacated.”²²⁴

While environmental advocacy groups see this decision as a victory,²²⁵ it is only binding within New York. Moreover, as this multifaceted claim played out in court, the Trump administration took a concurrent administrative path to codify this interpretation. On Feb. 3, 2020, USFWS published a proposed rule to codify the M-Opinion as it

State of New Mexico, And State of Oregon v. Interior, et al., No. 1:18-cv-08084 (S.D.N.Y. 2018) at *5.

²¹⁹ *Id.* at *18-19.

²²⁰ *NRDC v. Interior, et al.*, No. 18-cv-4596 (S.D.N.Y. July 31, 2019) at 7.

²²¹ *NRDC v. Interior, et al.*, No. 18-cv-4596 (S.D.N.Y. July 31, 2019) at 35.

²²² *See NRDC v. Interior, et al.*, No. 18-cv-4596 (S.D.N.Y. Aug. 11, 2020).

²²³ *NRDC v. Interior, et al.*, No. 18-cv-4596 (S.D.N.Y. Aug. 11, 2020) at 2 (*citing* Harper Lee, *To Kill a Mockingbird* 103 (Harper Perennial 2002) (1960) (“Mockingbirds don’t do one thing but make music for us to enjoy. They don’t eat up people’s gardens, don’t nest in corncribs, they don’t do one thing but sing their hearts out for us. That’s why it’s a sin to kill a mockingbird.”)); *see also* 50 C.F.R. § 10.13(c)(1) (2013) (listing “Mockingbird, Bahama, *Mimus gundlachi*” as a species protected by the Migratory Bird Treaty Act).

²²⁴ *Id.* at 30.

²²⁵ Jordan Rutter & Steve Holmer, *Court Overturns Administration Efforts To Weaken The Migratory Bird Treaty Act*, AMERICAN BIRD CONSERVANCY (Aug. 11, 2020), <https://abcbirds.org/article/court-upholds-mbta-2020/>.

“clarifies that the scope of the Migratory Bird Treaty Act applies only to intentional injuring or killing of birds. Conduct that results in the unintentional (incidental) injury or death of migratory birds is not prohibited under the Act.”²²⁶

Additionally, USFWS published a Final Environmental Impact Statement (“FEIS”) in November of 2020.²²⁷ In this FEIS, USFWS analyzed a no action and two action alternatives.²²⁸ Alternative A promulgated the exclusion of incidental take in the scope of the MBTA.²²⁹ Alternative B called for the withdrawal of the M-Opinion and promoted regulations that include incidental take within the scope of the MBTA.²³⁰ USFWS stated that the No Action Alternative and Alternative A “have the potential to increase the rate and severity at which anthropogenic effects negatively affect migratory birds”²³¹ and that Alternative B “encourages or requires the use of best practices and thus could decrease the rate and severity at which anthropogenic effects negatively impact migratory birds.”²³² Yet, even with this admittance that codifying Action A will negatively impact bird populations, the agency still called this the “preferred alternative.”²³³

This FEIS led to the Final Rule issued on January 7, 2021, where USFWS defined the scope of the MBTA to only include direct take.²³⁴ However, there exists the latest turn of events. In March 2021, the Dept. of the Interior under the new Biden administration rescinded the M-Opinion stating that it “overturned decades of bipartisan and

²²⁶ *Governing the take of migratory birds under the Migratory Bird Treaty Act*, USFWS, <https://www.fws.gov/regulations/mbta/> (last visited Oct. 26, 2020).

²²⁷ See USFWS *Regulations Governing Take of Migratory Birds Final Environmental Impact Statement*. DEPT. OF INTERIOR (Nov. 2020), <https://cdxnodengn.epa.gov/cdx-enepa-II/public/action/eis/details?downloadAttachment=&attachmentId=315781>.

²²⁸ *Id.* at 5.

²²⁹ *Id.*

²³⁰ *Id.* at 5-6.

²³¹ *Id.* at 62.

²³² USFWS *Regulations Governing Take of Migratory Birds Final Environmental Impact Statement* at 62.

²³³ *Id.* at 52.

²³⁴ *Regulations Governing Take of Migratory Birds, Final Rule*, 86 Fed. Reg. 1134 (Jan. 7, 2021), <https://www.govinfo.gov/content/pkg/FR-2021-01-07/pdf/2021-00054.pdf>.

international consensus and allowed industry to kill birds with impunity."²³⁵ As of the time of writing, the Interior Dept. intends to issue a proposed rule that would revoke the Jan. 2021 Final Rule and will “reconsider its interpretation of the MBTA to develop common sense standards that can protect migratory birds and provide certainty to industry.”²³⁶

IX. Potential for Future Federal Framework

This ongoing saga in administrative law clearly displays how a definition, even one with a 100-year-old precedent, may change whenever a new Executive branch administration enters office. This is why, as a society, we depend on the court to interpret statutes and do not place sole reliance upon agencies. However, with the circuit split and mixed messages from the courts over the meaning of the MBTA, there is a lot of confusion over what activities lead to criminal charges under the Act and whether such activities would return a guilty verdict at trial. To rectify this confusion, one must consider changes in the existing federal framework. State level protection is as implausible now as it was almost 100 years ago when, as stated in *Missouri v. Holland*, “[w]e see nothing in the Constitution that compels the Government to sit by while a food supply is cut off and the protectors of our forests and our crops are destroyed. It is not sufficient to rely upon the States.”²³⁷

There are two avenues our federal government can take to provide a firm definition of ‘take.’ First, there could be a binding decision from the Supreme Court of the United States. Because the MBTA is a federal law, statutory interpretation could lie with the highest court of the land. To date, the Supreme Court has yet to hear a MBTA case in which the definition of take is the legal question. The second avenue is through Congress. The Legislature could pass a statutory amendment of the century-old statute to provide an interpretation of take, which would include a definition for incidental take similar to that of the ESA or BGRPA.²³⁸

The fate of the MBTA truly lies with future legislative and judicial branches. Because of the present state of indecision, it is evident

²³⁵ Michael Doyle, Interior grounds Trump-era migratory bird legal restrictions, E&E News (Mar. 8, 2021), <https://www.eenews.net/stories/1063726893#>.

²³⁶ *Id.*

²³⁷ 252 U.S. 416, 435 (1920).

²³⁸ See U.S. Fish & Wildlife Service, *Endangered Species Glossary*, (February 28, 2018) <https://www.fws.gov/endangered/about/glossary.html>.

that moving forward, a new regulatory framework could be the best way to provide protection for migratory birds affected by incidental take. Most migratory activities take place at night. When one considers sources of incidental take (tall, stationary structures such as buildings and communication towers, mobile vehicles such as airplanes and boats, offshore platforms such as oil rigs and wind farms), there is a common denominator that attracts birds to these locations in their nightly travel - ambient light. Based on light-based mitigation efforts already in place by aviation and oil companies and Lights Out programs in fifteen different states,²³⁹ the plausibility of a federal framework to mitigate light pollution is high. A framework such as this would provide much needed assistance toward migratory bird protection. However, these solutions are beyond the scope of our current legislature and this Comment.

X. Conclusion

When Congress passed the Migratory Bird Treaty Act in 1918, the advancements in technology and innovation we know as truth were the fantastical notions of a creative mind. It is difficult to imagine that the creators of the Act could fathom the growth of our exploration from the sky to the stars. Where once the Wright brothers were at the forefront of aviation, we now live in a world where autonomous package delivery via drone could become “as normal as seeing mail trucks on the road.”²⁴⁰ However, advancements come at a cost. For example, increased drone traffic clutters flyways, and this could lead to even greater declines in bird populations than noted throughout this Comment.²⁴¹

Birds provide services such as pest control, seed spreading, pollination, and ecological indications. However, a bird cannot shield a marine environment from an oil spill or stop its brethren from colliding with tall structures. It is at the behest of man to provide birds with protection. The creators of this Act knew this back in 1918 the way we

²³⁹ National Audubon Society, *Existing Lights Out Programs*, AUDUBON, <https://www.audubon.org/conservation/existing-lights-out-programs> (last visited Mar. 13, 2019).

²⁴⁰ Amazon, *Amazon Prime Air*, AMAZON.COM, <https://www.amazon.com/Amazon-Prime-Air/b?ie=UTF8&node=8037720011> (last visited Mar. 24, 2019).

²⁴¹ There are more incidental take issues to consider with both commercial and recreational drone use, but such discussion is beyond the scope of this Comment.

know it now. The difference is that today we conceive more far-reaching impacts. The Trump administration clipped the wings of the MBTA. However, there is hope that the statute will fly again and provide the protection all migratory birds need to survive in this ever-changing landscape.