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Airports**

Wildlife Mitigation Challenges During a Global Pandemic for Airports and the FAA

**World Birdstrike Association 2021
“Challenges Facing Wildlife Management at
Aerodromes in Times of Crisis”
January 13, 2021**

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FAA
Office of Airports

PERSPECTIVE ON CRISES

Three elements are common to a crisis: (a) a THREAT to the organization, (b) the element of SURPRISE, and (c) a SHORT DECISION TIME.

Examples of Crises

- Natural
- Technological
- Financial
- Terrorist
- Health

Typical Responses

- Identify
- Plan
- Implement

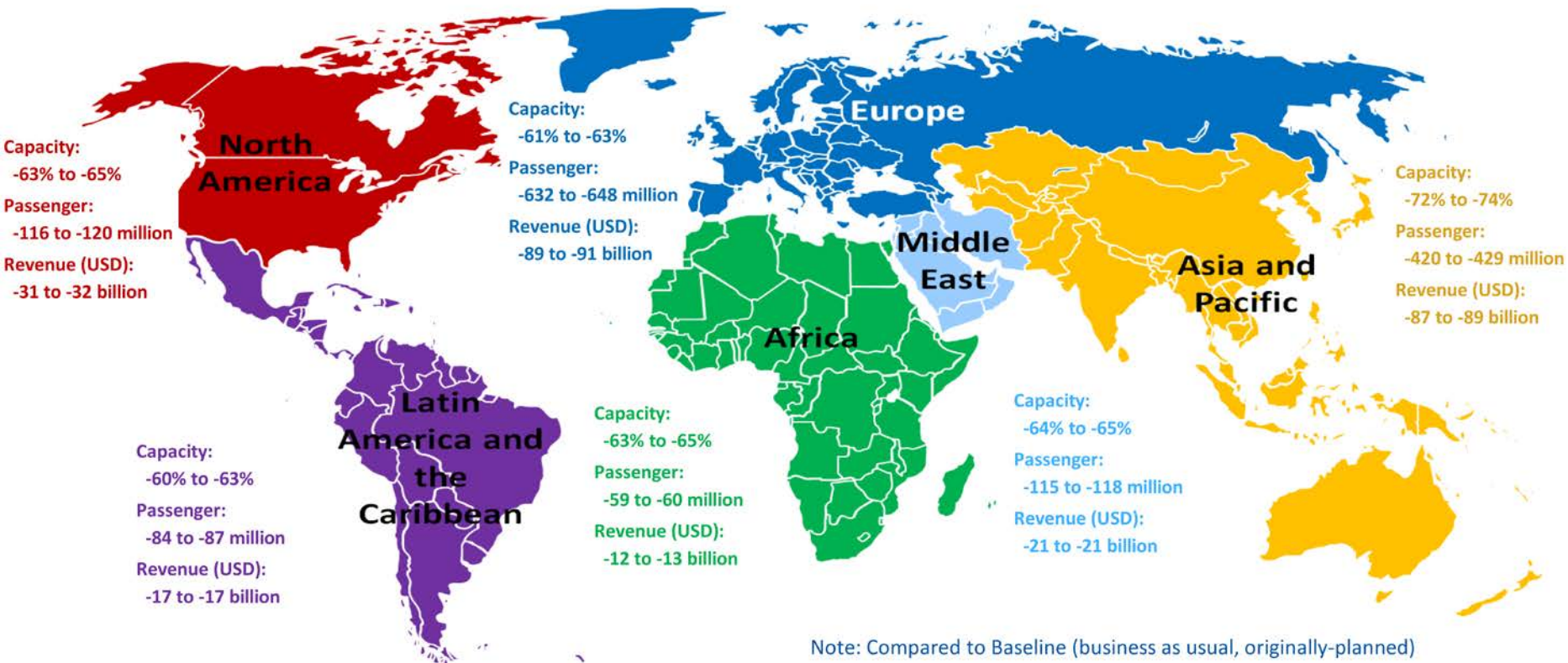
*** Emergency Planning Cannot Always Anticipate or Resolve a Crisis**

AIRPORTS and COVID-19 DOMINO EFFECT



ICAO UNITING AVIATION

Estimated impact on international passenger traffic and revenues by region for 2020



Source: ICAO estimates

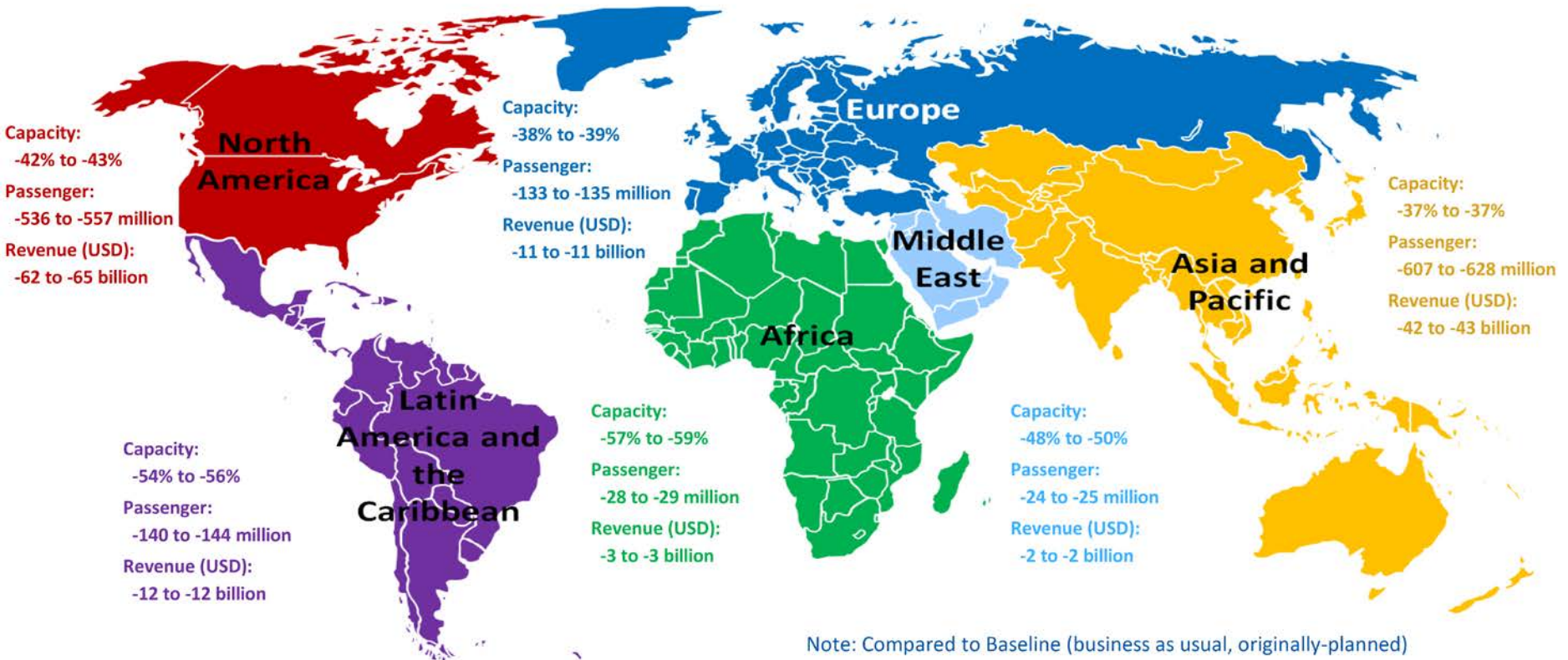
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AIRPORTS and COVID-19 DOMINO EFFECT



ICAO UNITING AVIATION

Estimated impact on domestic passenger traffic and revenues by region for 2020



Source: ICAO estimates

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AIRPORTS and COVID-19 DOMINO EFFECT



ICAO UNITING AVIATION

Global impact of COVID-19 on aviation, tourism, trade and economy in 2020

- **Air passenger traffic**: An overall reduction of air passengers (both international and domestic) ranging from 59% to 62% in 2020 compared to 2019 (by **ICAO**)
- **Airports**: An estimated loss of approximately 60% of passenger traffic and 61% or over USD 104.5 billion airport revenues in 2020 compared to business as usual (by **ACI**)
- **Airlines**: A 54.7% decline of revenue passenger kilometres (RPKs, both international and domestic) in 2020 compared to 2019 (by **IATA**)
- **Tourism**: A decline in international tourism receipts of between USD 910 to 1,170 billion in 2020, compared to the USD 1.5 trillion generated in 2019, with 100% of worldwide destinations having travel restrictions (by **UNWTO**)
- **Trade**: A fall of global merchandise trade volume by between 13% and 32% in 2020 compared to 2019 (by **WTO**)
- **Global economy**: A projected -4.9% to -5.2% contraction in world GDP in 2020, far worse than during the 2008–09 financial crisis (by **IMF and World Bank**)

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AIRPORT REVENUE LOSSES

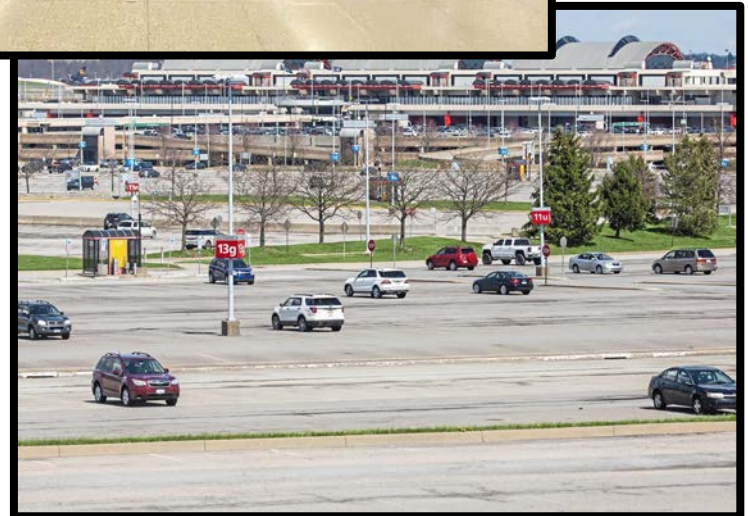
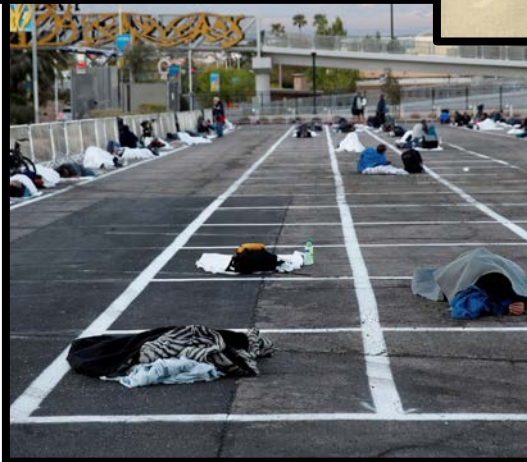
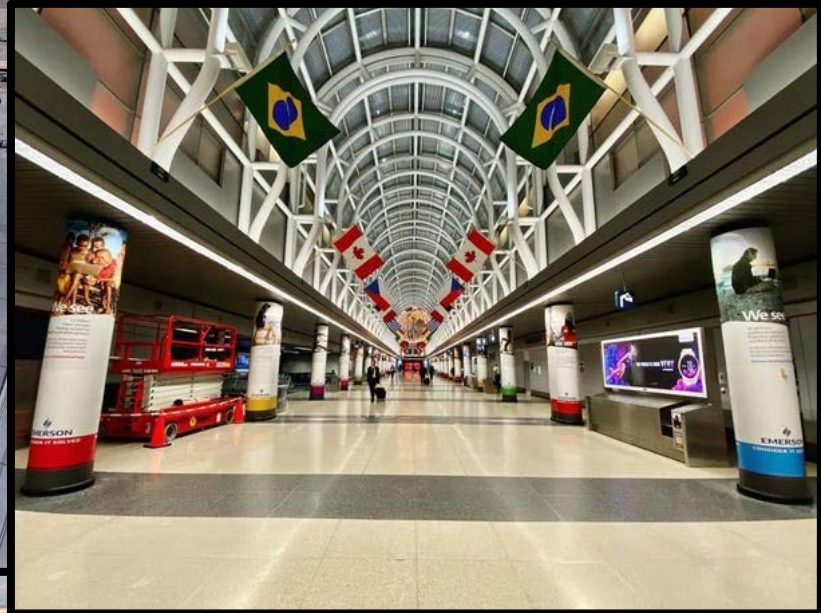
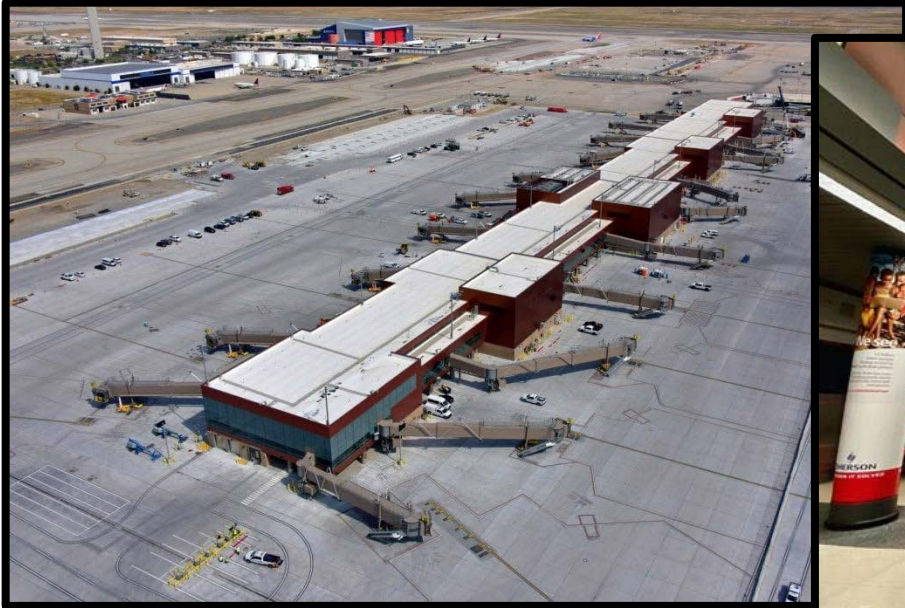


CHALLENGES TO AIRPORT WILDLIFE PROGRAMS DURING CRISES

REDUCTIONS IN OPERATIONS / PASSENGERS RIPPLE EFFECT

1. Revenue loss (gate fees, terminal shops/restaurants, parking)
2. Non-essential employees (contract workers or interns) cut back / Employee hours cut back or laid off.
3. Social distancing may require 1 employee per vehicle, work shift changes to reduce personnel congregating.

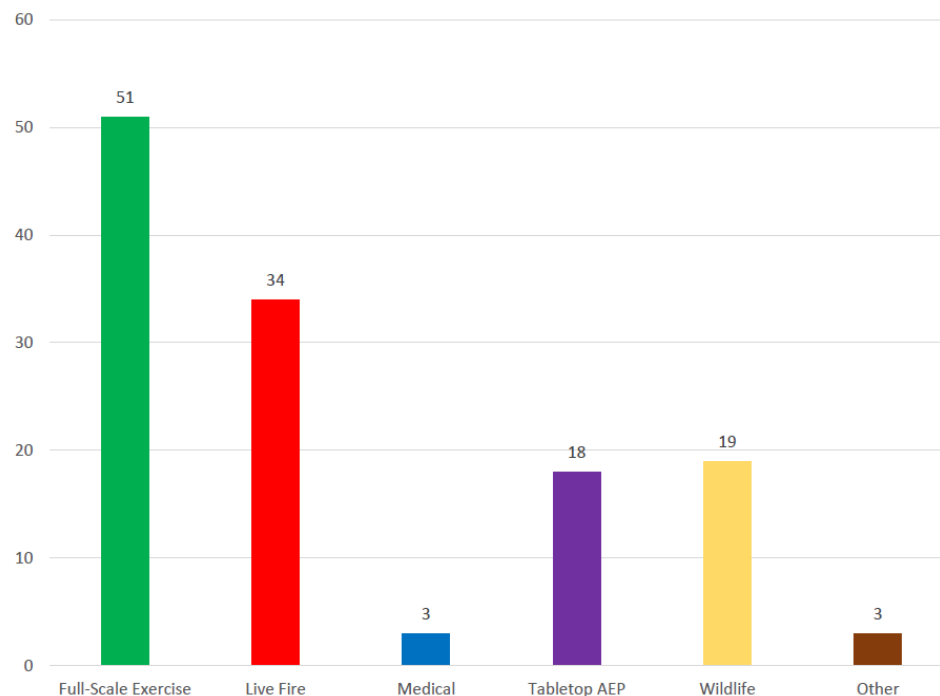
AIRPORT REVENUE LOSSES



Extensions Granted for Required Training

	Full-Scale Exercise	Live Fire	Medical	Tabletop AEP	Wildlife	Other
AAL	4	18	2	1	3	0
ACE	3	0	0	2	1	1
AEA	12	10	0	9	2	0
AGL	10	0	0	1	6	1
ANE	2	0	0	1	0	0
ANM	3	0	0	0	1	0
ASO	5	2	0	1	0	0
ASW	5	0	1	0	1	0
AWP	7	4	0	3	5	1
National	51	34	3	18	19	3

(Note: The numbers above do not include Enforcement Discretion airports)



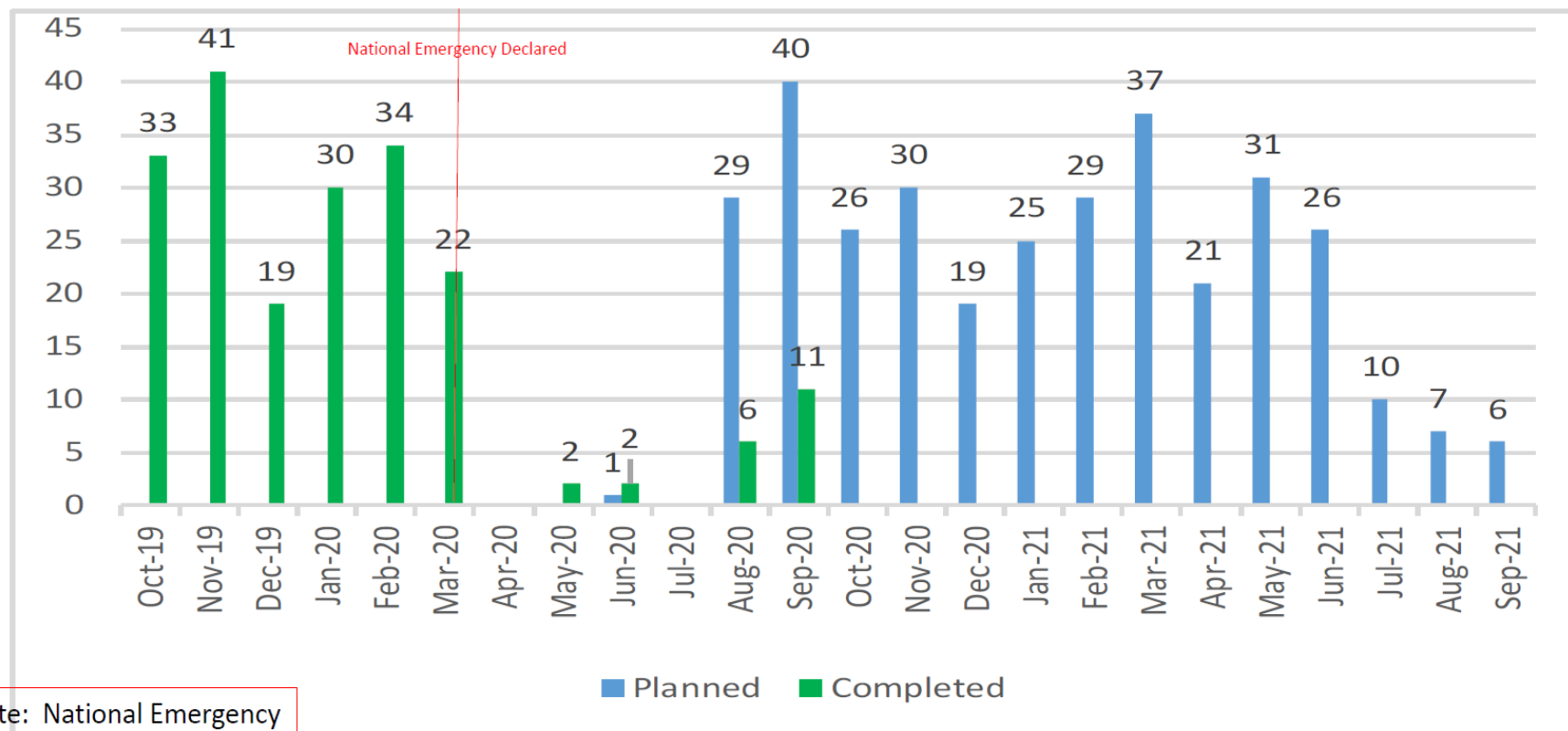
Data Current as of 30 Sept. 2020¹⁰

Airport Wildlife Hazard Training: eligible for extension OR virtual training if available.



Planned & Completed Periodic Inspections by Month

(October 1, 2019 through 30 Sept 2021)



Nationally - 337 Inspections Planned: 200 Inspections Conducted

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Data Current as of 30 Sept. 2020



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CHALLENGES TO AIRPORT WILDLIFE PROGRAMS DURING CRISES

REDUCTIONS IN OPERATIONS / PASSENGERS RIPPLE EFFECT

4. Priority of wildlife program must focus on mitigation. Secondary focus on data collection (Wildlife surveys and patrols have been reduced / stopped at some airports),
5. Mitigation = increased reactive responses; decreased proactive efforts
6. Employee training may be suspended.
7. Compliance mandates may be suspended or extended (but not exempted)

Impact of Covid-19 virus on air travel, USA

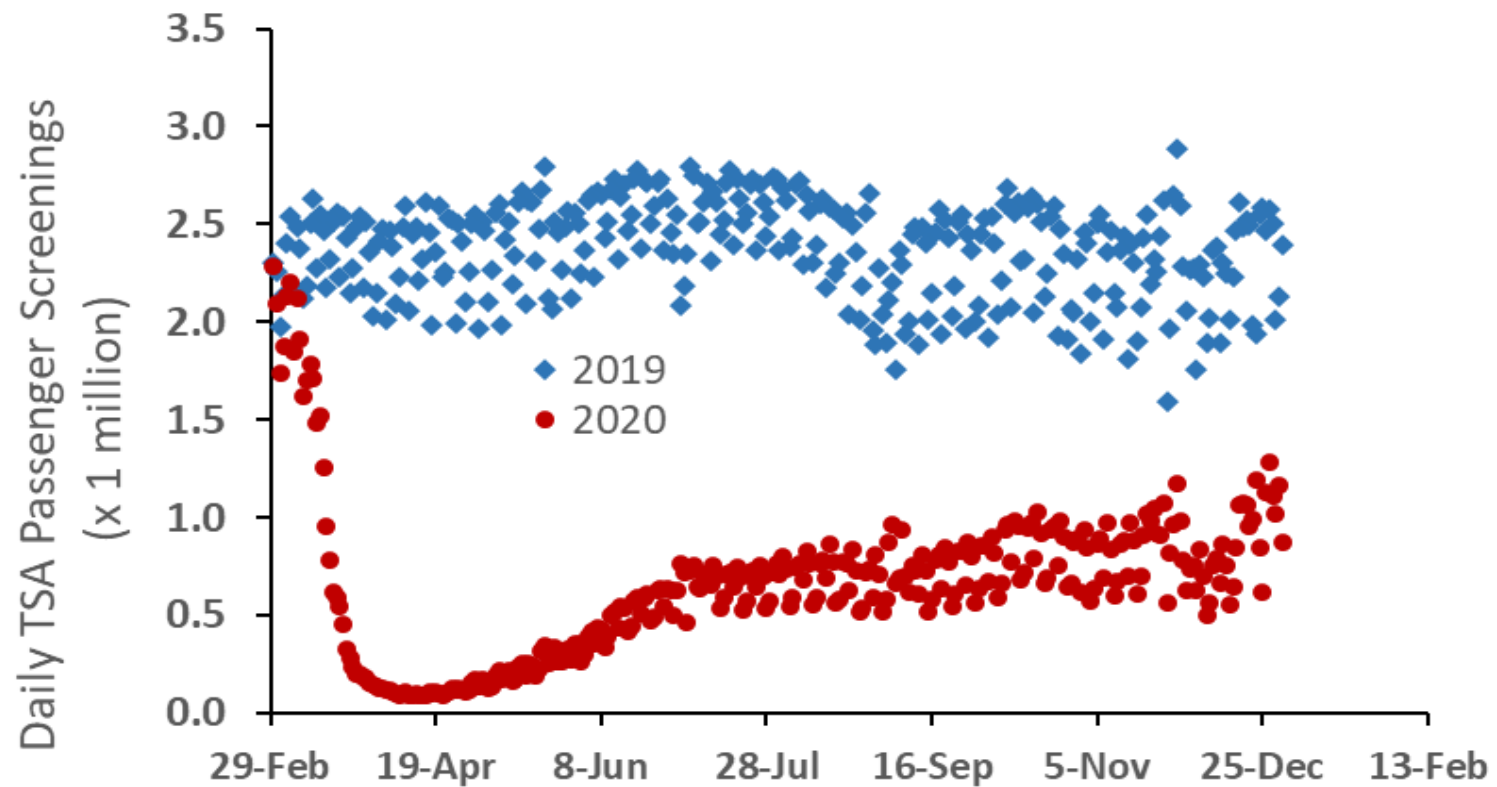


Figure 1. Daily screenings at U.S. airports by the Transportation Security Administration, March – December 2019 and 2020.

Figure and Data provided by Dr. Richard Dolbeer

Table 1. Monthly screenings at U.S. airports by the Transportation Security Administration, March – December in 2019 and 2020. Covid-19 travel restrictions were implemented in early March 2020.

Table and Data provided by Dr. Richard Dolbeer

Month	2019	2020	Difference	% change
Mar	72,680,065	35,139,502	-37,540,563	-51.7
Apr	70,124,591	3,287,008	-66,837,583	-95.3
May	74,499,253	7,165,829	-67,333,424	-90.4
Jun	76,619,900	14,481,802	-62,138,098	-81.1
Jul	79,511,968	20,740,781	-58,771,187	-73.9
Aug	74,776,010	21,708,071	-53,067,939	-71.0
Sep	66,531,258	21,488,263	-45,042,995	-67.7
Oct	72,096,495	25,636,496	-46,459,999	-64.4
Nov	68,787,654	25,512,987	-43,274,667	-62.9
Dec	70,219,363	26,391,765	-43,827,598	-62.4
Total (Mar-Nov)	655,627,194	175,160,739	-480,466,455	-73.3
Total (Mar-Dec)	725,846,557	201,552,504	-524,294,053	-72.2

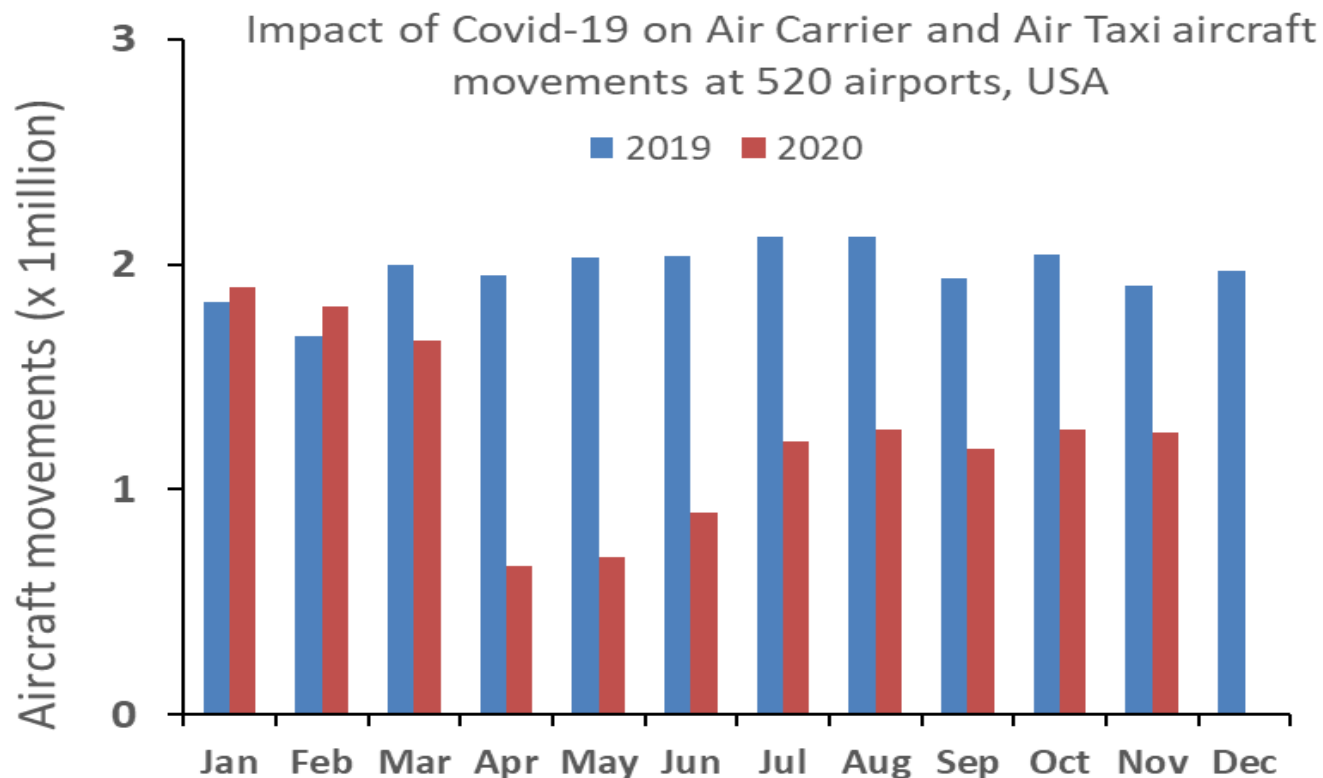


Figure 2. [Air carrier/air taxi](#) movements, Jan – Dec 2019 and Jan – Nov 2020 ([Dec 2020 data not available](#)).

Figure and Data provided by Dr. Richard Dolbeer

Table 2. Monthly air carrier/air taxi movements at 520 U.S. airports, January 2019 to November 2020 (movement data for Dec 2020 not available as of 11 Jan 2021).

Figure and Data provided by Dr. Richard Dolbeer

Month	2019	2020	Difference	% change
Jan	1,830,587	1,898,879	68,292	3.7
Feb	1,684,332	1,809,578	125,246	7.4
Mar	1,995,750	1,663,949	-331,801	-16.6
Apr	1,948,597	659,050	-1,289,547	-66.2
May	2,033,158	697,778	-1,335,380	-65.7
Jun	2,034,375	898,298	-1,136,077	-55.8
Jul	2,124,135	1,213,653	-910,482	-42.9
Aug	2,119,087	1,266,743	-852,344	-40.2
Sep	1,940,267	1,181,121	-759,146	-39.1
Oct	2,041,785	1,264,545	-777,240	-38.1
Nov	1,903,610	1,255,778	-647,832	-34.0
Dec	1,973,938	No data		
Total (Mar-Nov)	18,140,764	10,100,915	-8,039,849	-44.3

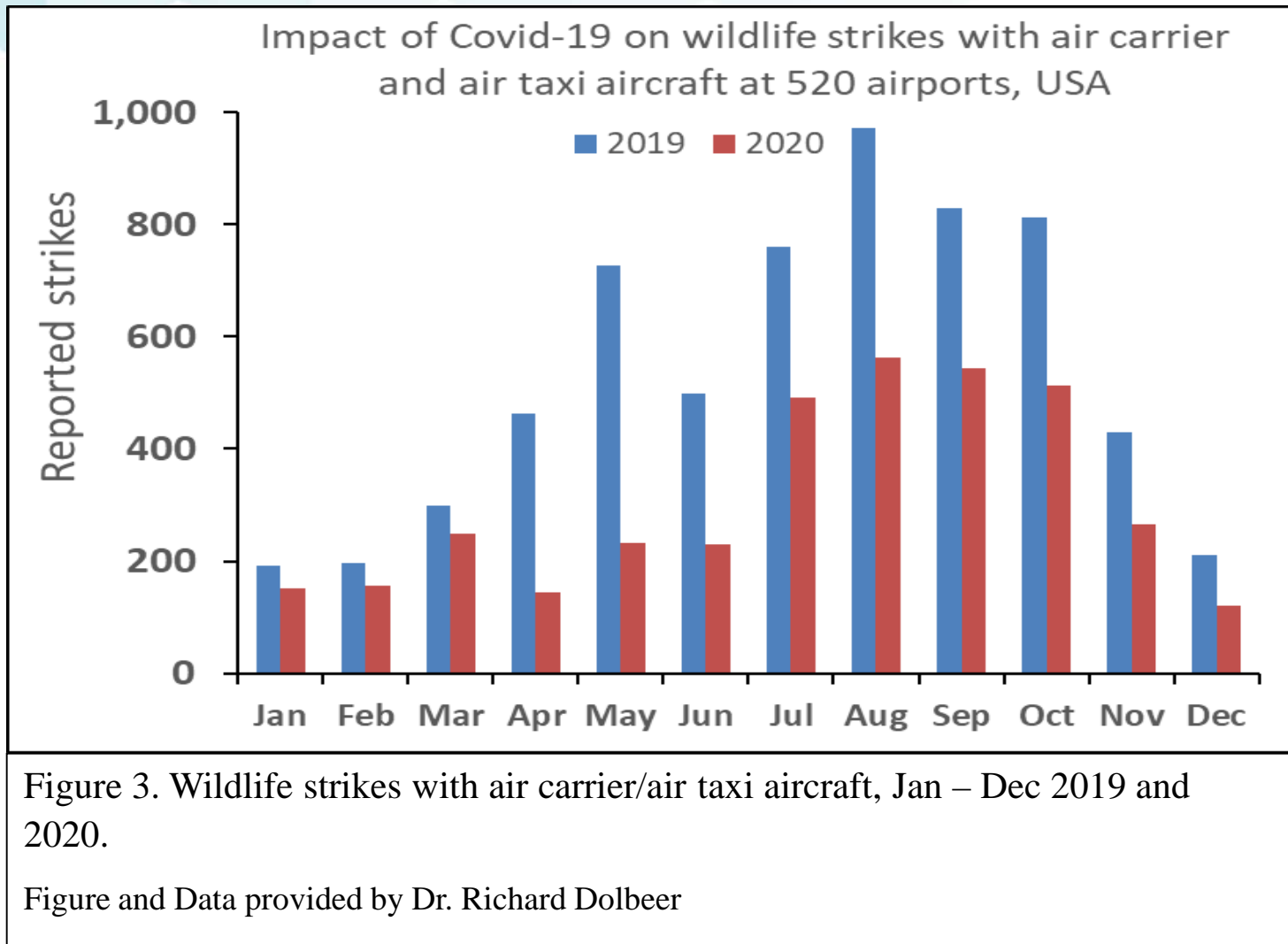


Table 3. Monthly wildlife strikes reported for air carrier and air taxi aircraft^a at 520 U.S. airports, January - December 2019 and 2020.

Figure and Data provided by Dr. Richard Dolbeer

Month	2019	2020	Difference	% change
Jan	191	152	-39	-20.4
Feb	197	156	-41	-20.8
Mar	299	248	-51	-17.1
Apr	462	144	-318	-68.8
May	728	232	-496	-68.1
Jun	499	229	-270	-54.1
Jul	759	492	-267	-35.2
Aug	971	563	-408	-42.0
Sep	830	543	-287	-34.6
Oct	813	512	-301	-37.0
Nov	430	266	-164	-38.1
Dec	211	121	-90	-42.7
Total (Mar-Nov)	5,791	3,229	-2,562	-44.2
Total (Mar-Dec)	6,002	3,350	-2,652	-44.2

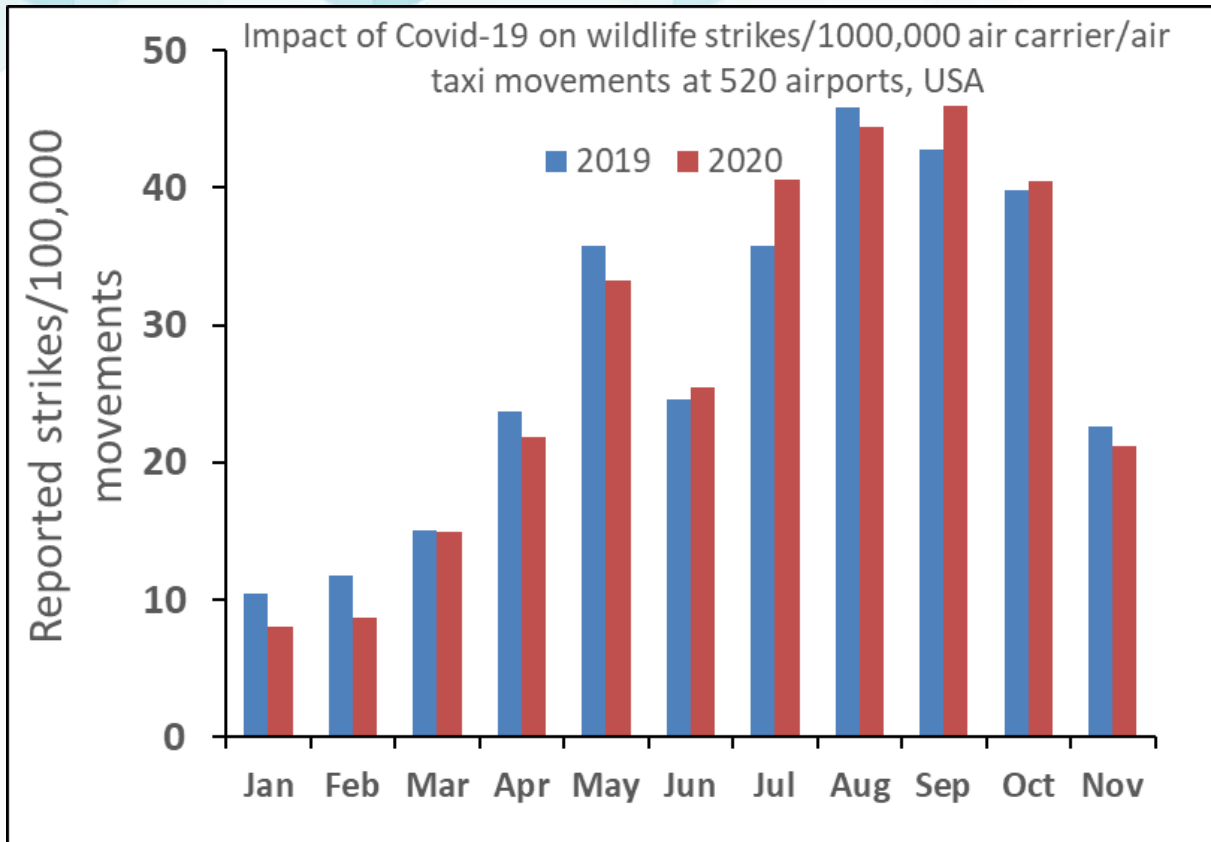


Figure 4. Wildlife strike rate, January – November 2019 and 2020 (Dec 2020 data not available).

Figure and Data provided by Dr. Richard Dolbeer

Table 4. Monthly strike rate (per 100,000 movements) for air carrier/air taxi aircraft at 520 U.S. airports, January - November 2019 and 2020. Movement data unavailable for December 2020 as of 11 Jan 2021.

Figure and Data provided by Dr. Richard Dolbeer

Month	2019	2020	Difference	% reduction
Jan	10.43	8.01	-2.43	-23.3
Feb	11.70	8.62	-3.08	-26.3
Mar	14.98	14.90	-0.08	-0.5
Apr	23.71	21.85	-1.86	-7.8
May	35.81	33.25	-2.56	-7.1
Jun	24.53	25.49	0.97	3.9
Jul	35.73	40.54	4.81	13.5
Aug	45.82	44.45	-1.38	-3.0
Sep	42.78	45.97	3.20	7.5
Oct	39.82	40.49	0.67	1.7
Nov	22.59	21.18	-1.41	-6.2
Dec	10.69	No data		
Total (Mar-Nov)	33.09	33.17	0.08	0.2

Summary

Wildlife strikes/100,000 movements. Although Covid-19 has resulted in:

- a 73% reduction in passenger travel,
- a 44% reduction in aircraft movements, and
- a 44% reduction in reported wildlife strikes from March – November 2020 compared to March – November 2019,

the strike rate (strikes/100,000 movements) has changed by <1%.

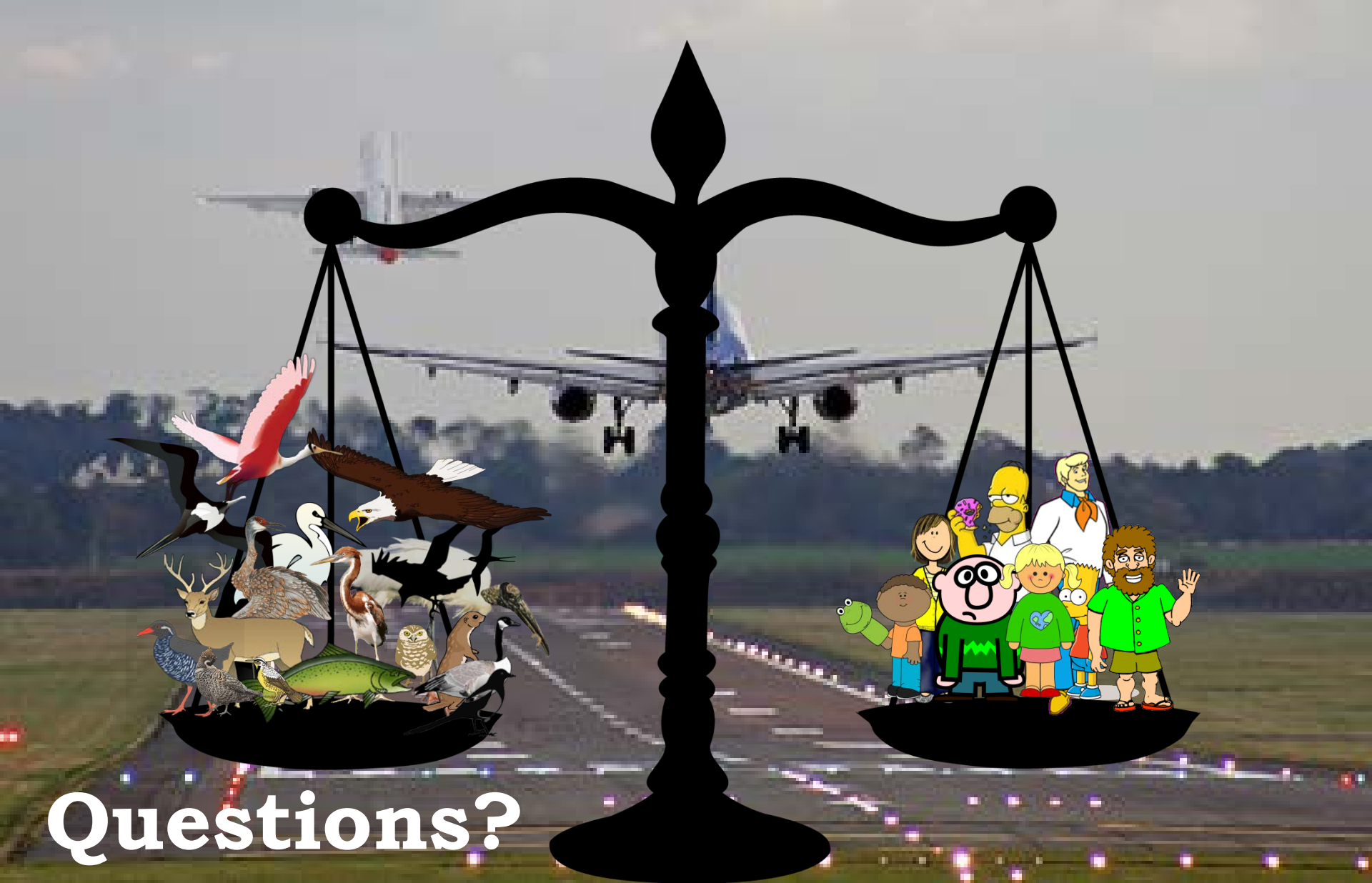
Airport Wildlife Management Plans and Programs should ensure prioritization of activities/responsibilities as a precaution to difference crises

14 CFR 139.337

139.337(a) ... each certificate holder shall take immediate action to alleviate wildlife hazards whenever they are detected.

****Compliance is the minimum acceptable standard for safety**





Questions?