2022 NORTH AMERICAN BUSINESS AVIATION REVIEW

TRAQPak
ARGUS International, Inc.

ARG/US

WELCOME

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WHAT IS TRAQPAK?

The most targeted and sophisticated aircraft activity analysis and market intelligence reporting database in the industry. Integrating the world's largest business aviation databases, the accuracy of TRAQPak's proprietary data, and combining aircraft movement data and aircraft owner/operator contact information - you have a wealth of strategic aircraft intelligence that cannot be matched. ARGUS TRAQPak data is aircraft arrival and departure information on all IFR flights in the US (including Alaska and Hawaii), Canada, and the Caribbean.

TRAQPak Aircraft & Operational Categories defined:

- **Turbo Prop:** Single engine Turboprop Aircraft and Multi-Engine Turboprop Aircraft
- **Small Cabin Jet:** Very Light Jets (VLJ) and Light Jets (LJ) - Jet aircraft with a maximum takeoff weight of less than 20,000 lbs.
- **Mid-Size Cabin Jet:** Mid-size Jets (MJ) and Super Mid-Size Jets (SMJ) - Jet aircraft with a maximum takeoff weight of over 20,000 to 41,000 lbs.
- **Large Cabin Jet:** Large Jets, Ultra-Long Range and Heavy Jets - Jet aircraft with maximum takeoff weight of over 41,000 lbs

- **Part 135 Commercial Operator:** An on-demand commercial aircraft operator and those aircraft that are listed with the FAA.
  ·A Part 135 operator that offers scheduled service is not considered on-demand and therefore is omitted from TRAQPak's Part 135 data.
- **Fractional Operator:** A company that sells or leases shares of business aircraft that are listed with the FAA.
  ·If greater than 50% of their aircraft have shares available then they are considered Fractional
- **Part 91, Non-Commercial Operator:** A Part 91 Non-Commercial company is any remaining business aviation operator that is not listed as a Part 135 or Fractional company.

BUSINESS AVIATION OVERVIEW

The TRAQPak 2022 Annual Business Aviation Review is here. We began 2022 in arguably the strongest position business aviation had ever been in, activity wise, but we ended 2022 with some of the first activity losses since the pandemic began to loosen its grip on air travel. The 1st quarter of 2022 started very strong which resulted in activity gains of 23.2% year over year from Q1 2021. The last 9 months were mostly flat and finished up 0.4% compared to the same period in 2021 and up 15.2% compared to 2019.

Overall 2022 flight activity increased **5.1%** from 2021 and **15.5%** from 2019.

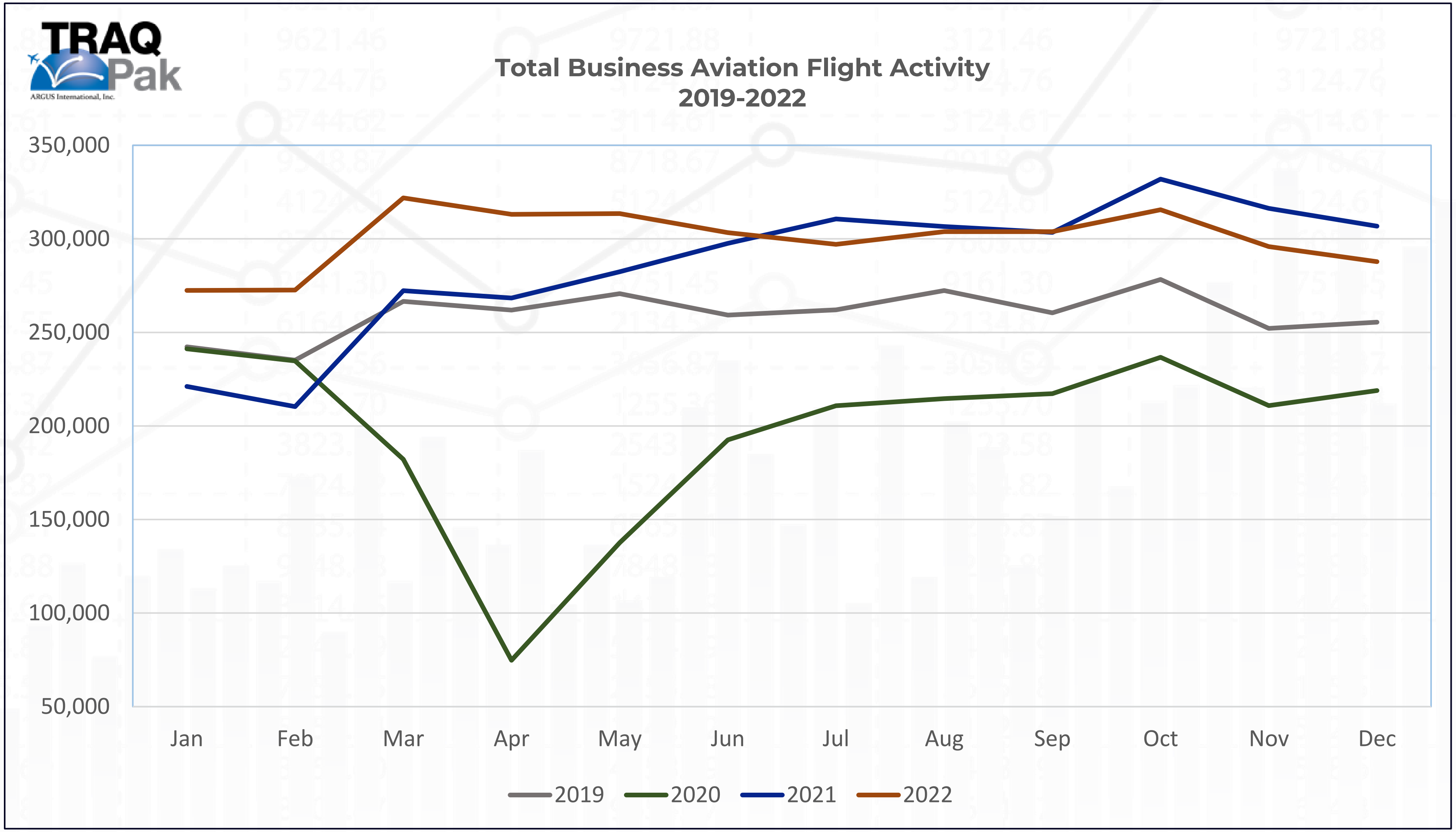
Overall 2022 flight hours increased **10.6%** from 2021 and **22.1%** from 2019.

2022 flight activity was much stronger during the 1st half of 2022 compared to the 2nd half of the year. During H1 2022 (Jan – Jun) activity was up 15.8% year over year from 2021 and all 6 months recorded yearly increases in activity. However, during H2 2022 (Jul – Dec) activity was down 3.8% and 5/6 months recorded yearly declines in activity from 2021. The only month that recorded a yearly increase was September, up 0.1% from September 2021.

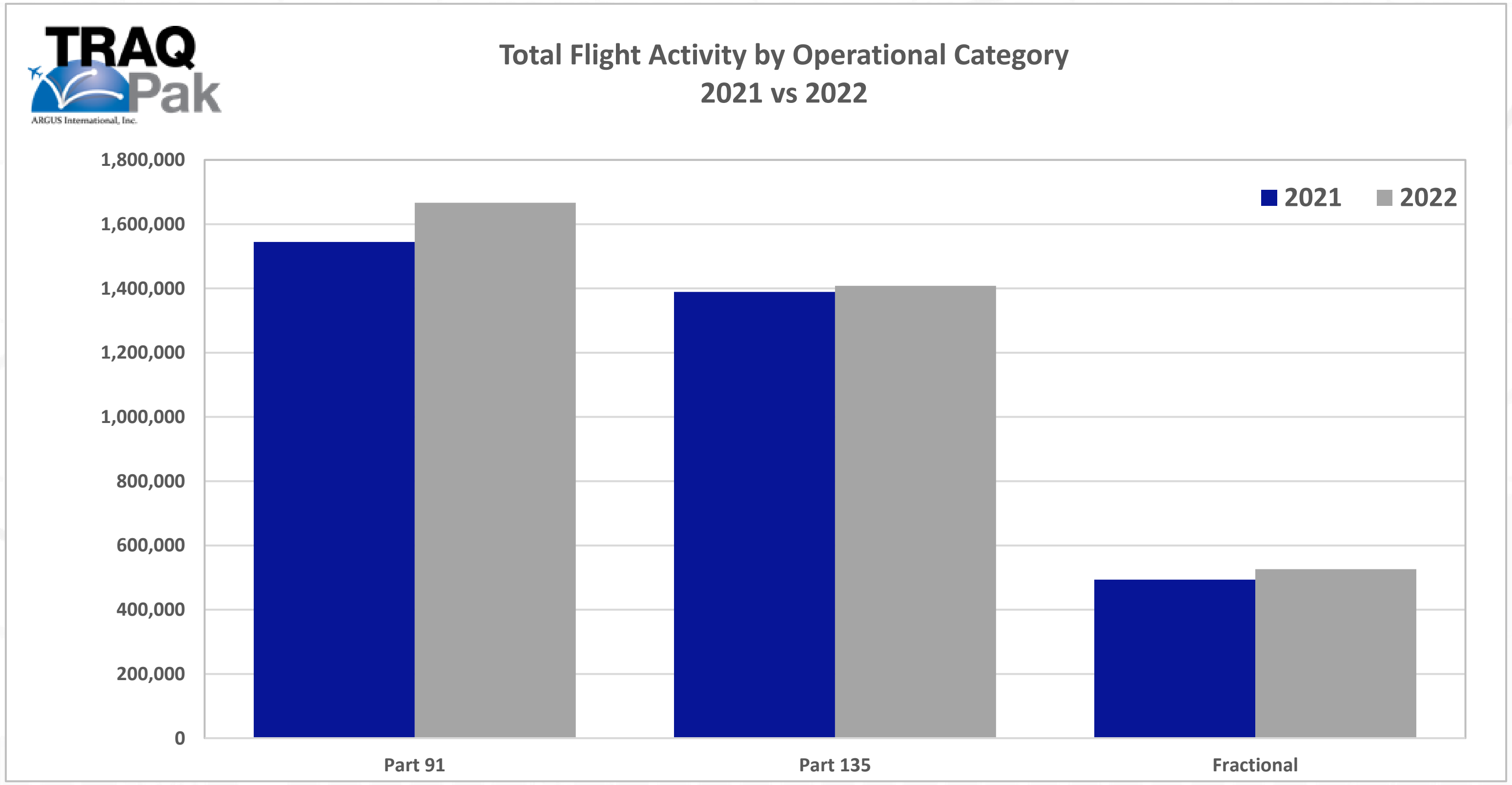
This review will look at flight activity for the overall industry, the individual industry segments, aircraft categories, and we will review top operators & airports for the period.

BUSINESS AVIATION FLIGHT ACTIVITY

Flight activity for 2022 is up 5.1% when compared to 2021. It is also up 51.9% when compared to 2020 and 15.5% when compared to 2019.



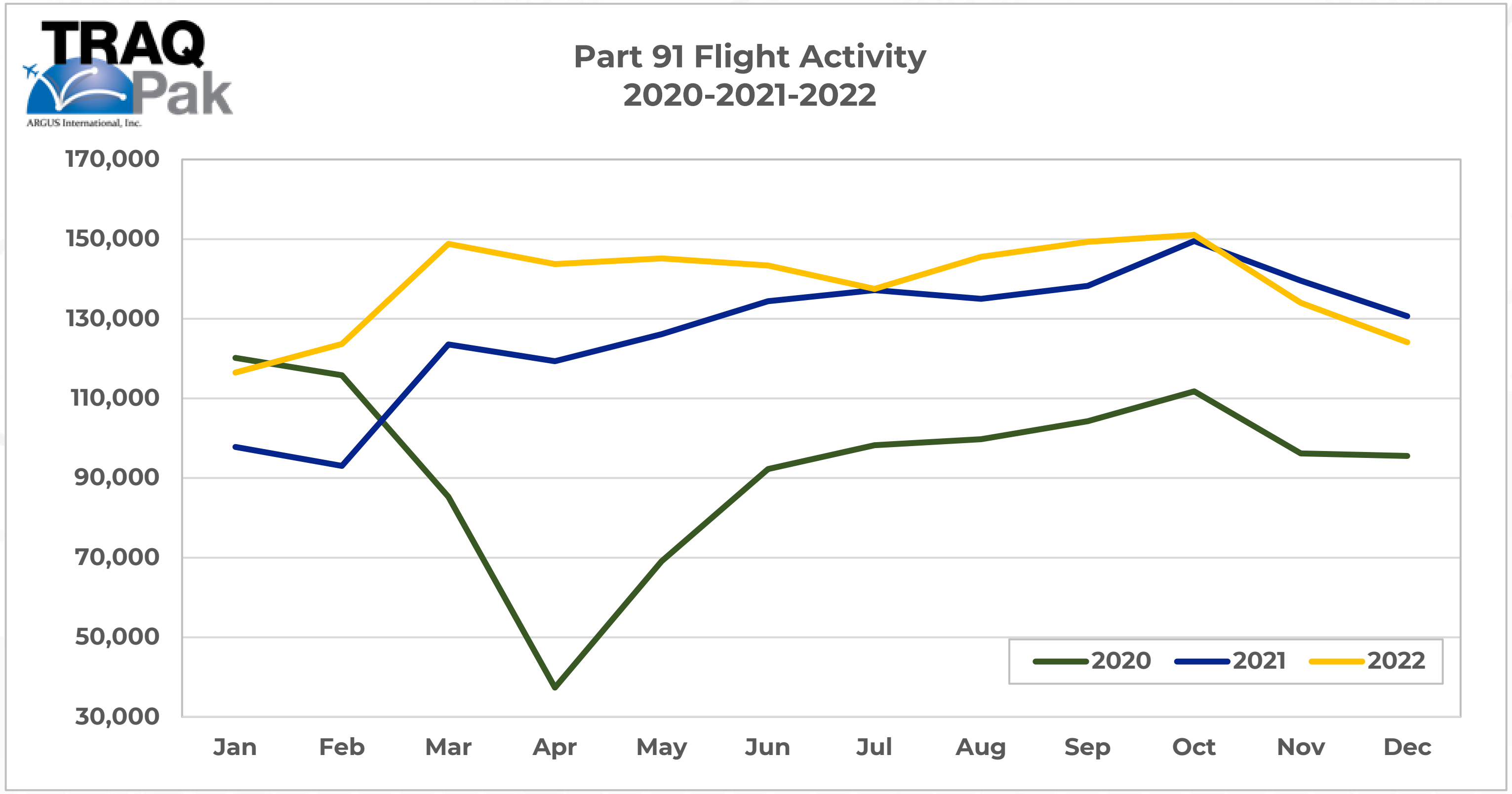
FLIGHT ACTIVITY BY OPERATIONAL CATEGORY



	2021 VS. 2022			
	PART 91	**PART 135**	**FRACTIONAL**	**TOTAL**
Turbo Prop	5.5%	-1.0%	-0.5%	2.3%
Small Cabin Jet	6.0%	2.0%	5.8%	4.6%
Mid Size Cabin Jet	9.8%	-0.9%	8.3%	5.2%
Large Cabin Jet	13.9%	10.2%	3.1%	11.4%
Total	7.9%	1.3%	6.6%	5.1%

PART 91 FLIGHT ACTIVITY COMPARISON

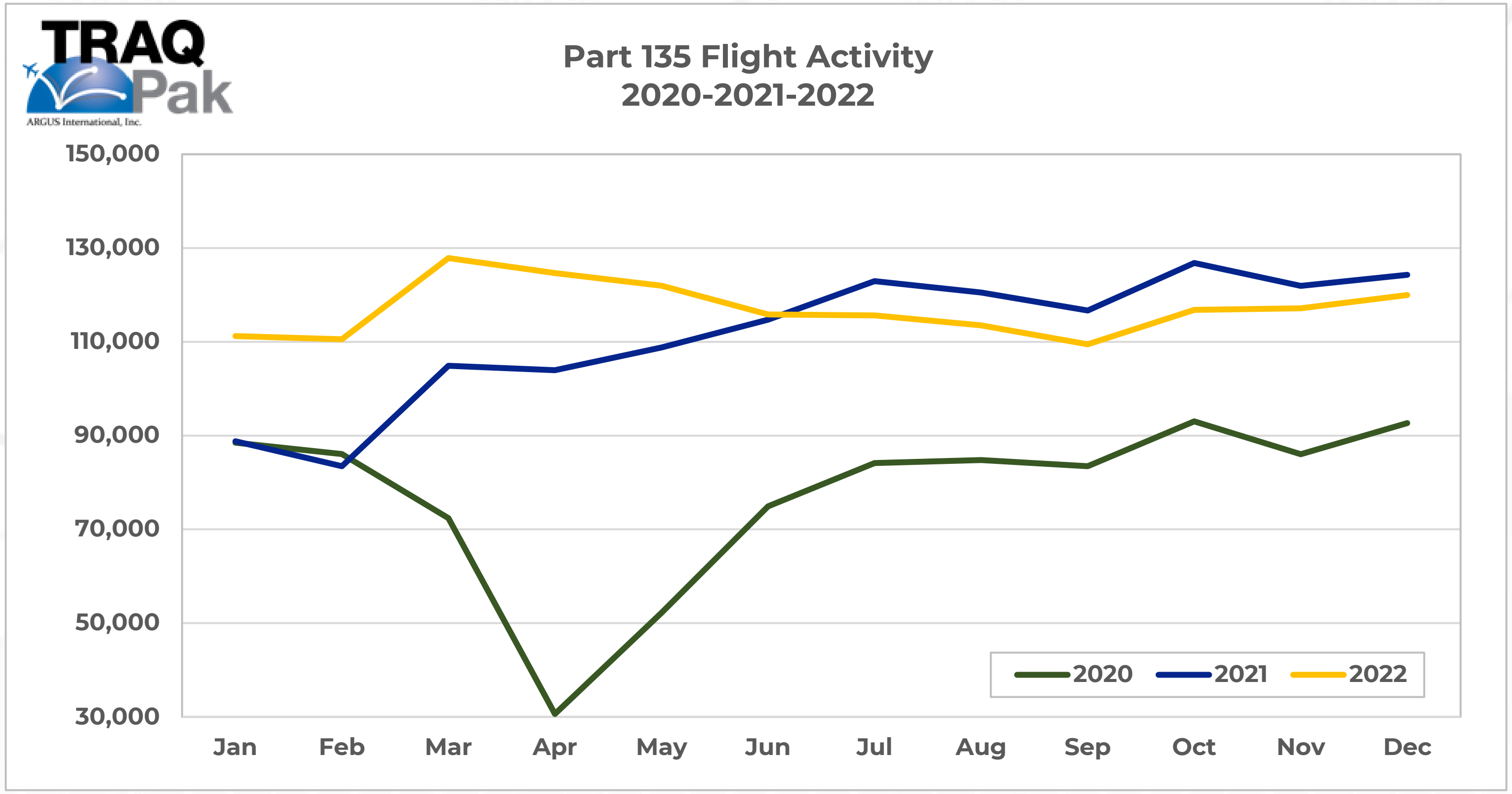
In the past 12 months, Part 91 flights & flight hours have increased **7.9%** & **10.0%** respectively, when compared to 2021.



Part 91 operators flew **2,552,904** hours over the last 12 months; that represents an increase of **233,004** hours from 2021 and **894,042** hours from 2020.

PART 135 FLIGHT ACTIVITY COMPARISON

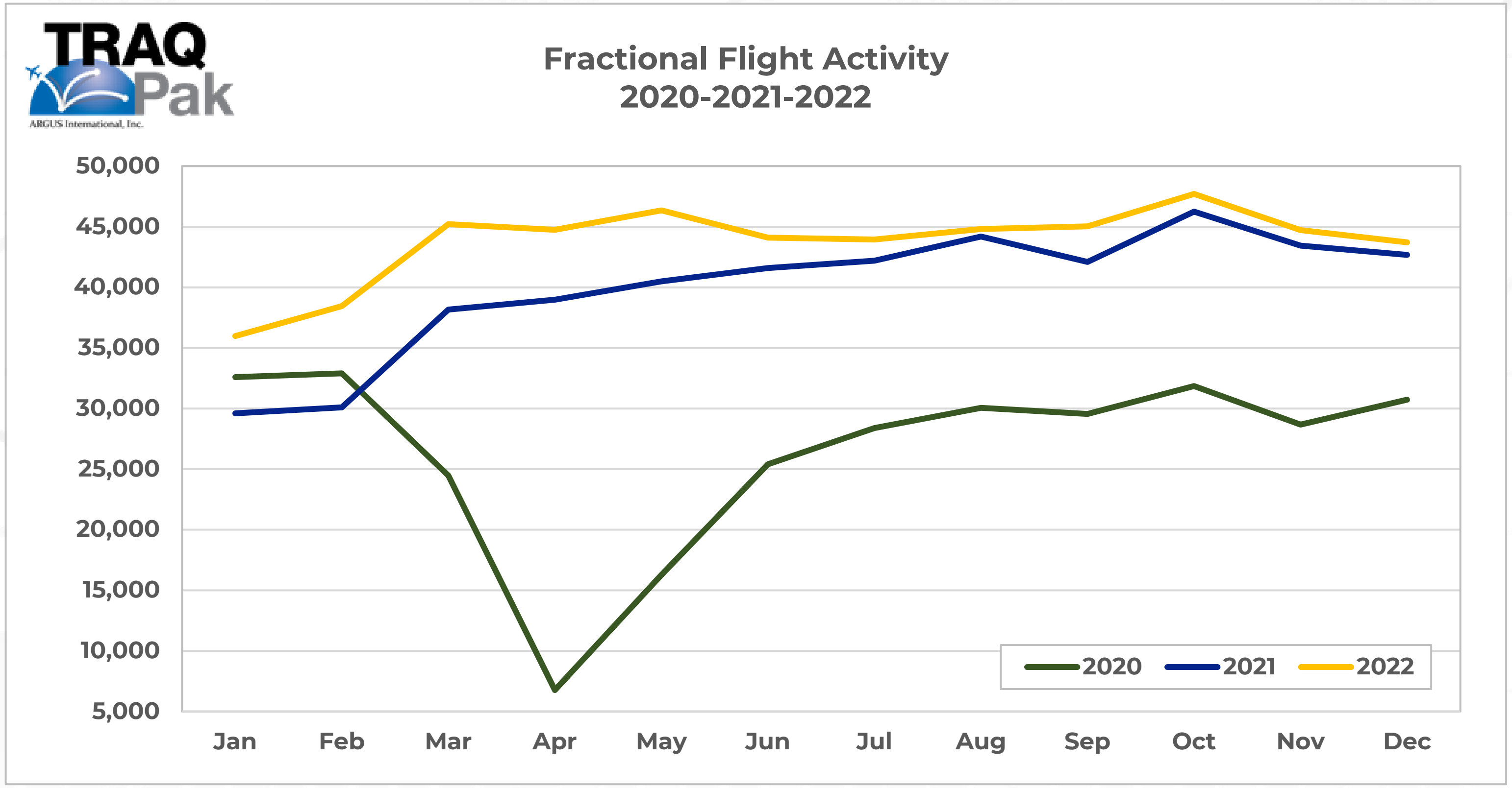
In the past 12 months, Part 135 flights & flight hours increased **1.3%** & **4.9%** respectively, when compared to 2021.



Part 135 operators flew **2,116,021** hours over the last 12 months; that represents an increase of **99,757** hours from 2021 and **786,292** hours from 2020.

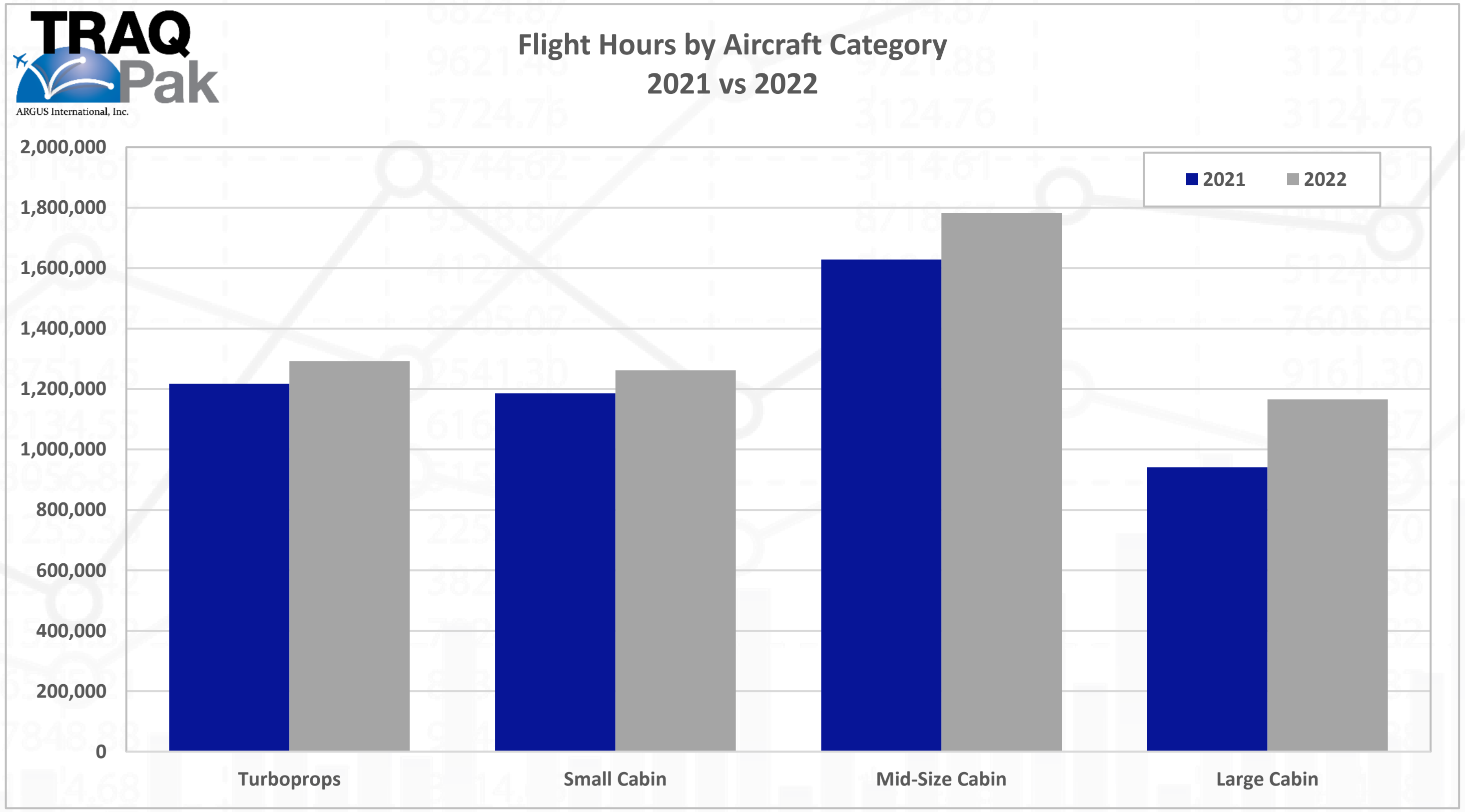
FRACTIONAL FLIGHT ACTIVITY COMPARISON

In the past 12 months, Fractional flights & flight hours increased **6.6%** & **7.7%** respectively, when compared to 2021.



Fractional operators flew **833,168** hours over the last 12 months; that represents an increase of **59,912** hours from 2021 and **328,347** hours from 2020.

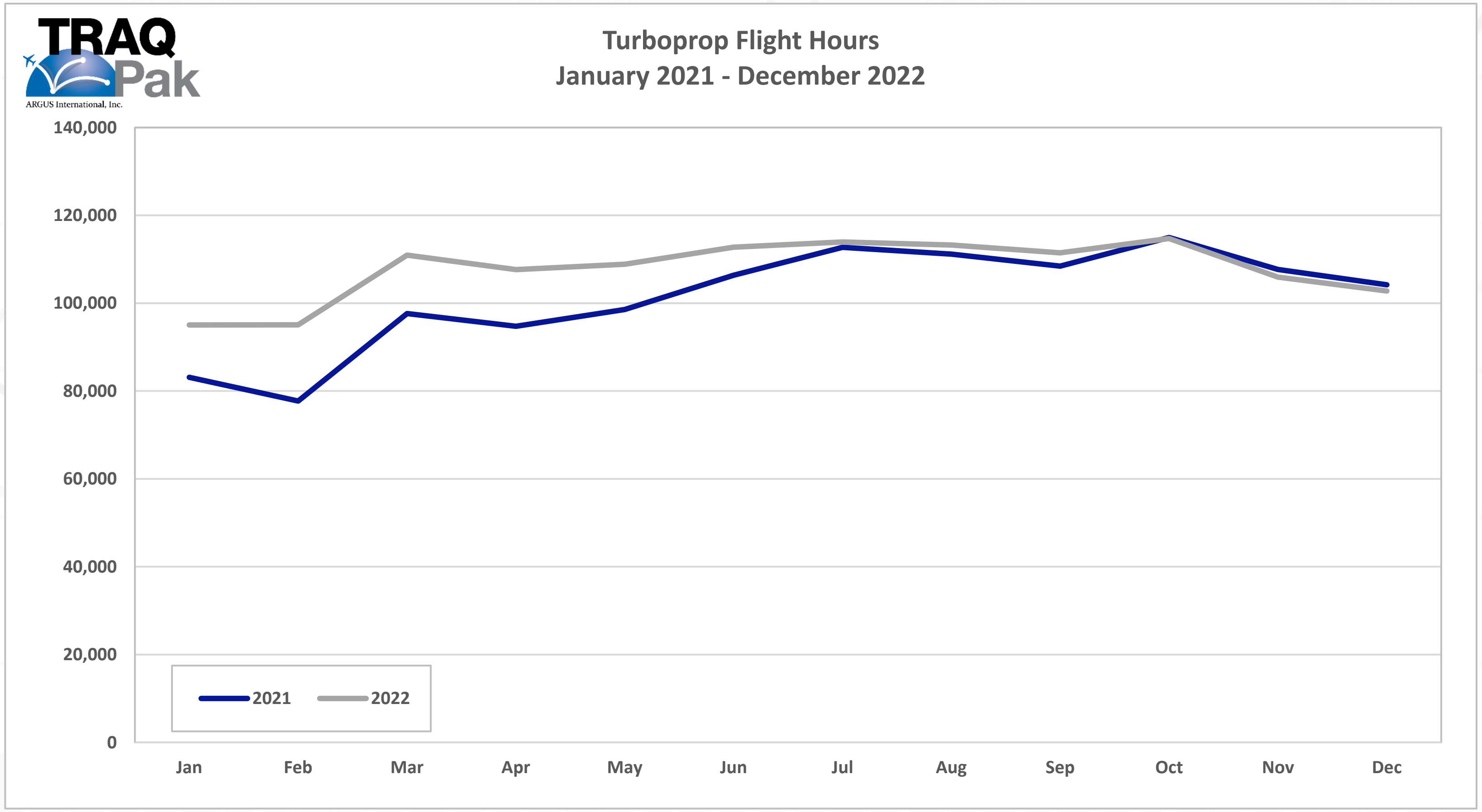
FLIGHT HOURS BY AIRCRAFT CATEGORY



Flight Hours by Aircraft Category

	2021	2022	% Change
Turboprops	1,217,312	1,292,421	6.2%
Small Cabin	1,185,819	1,262,192	6.4%
Mid-Size Cabin	1,628,451	1,781,818	9.4%
Large Cabin	941,070	1,165,800	23.9%

TURBOPROP FLIGHT ACTIVITY REVIEW



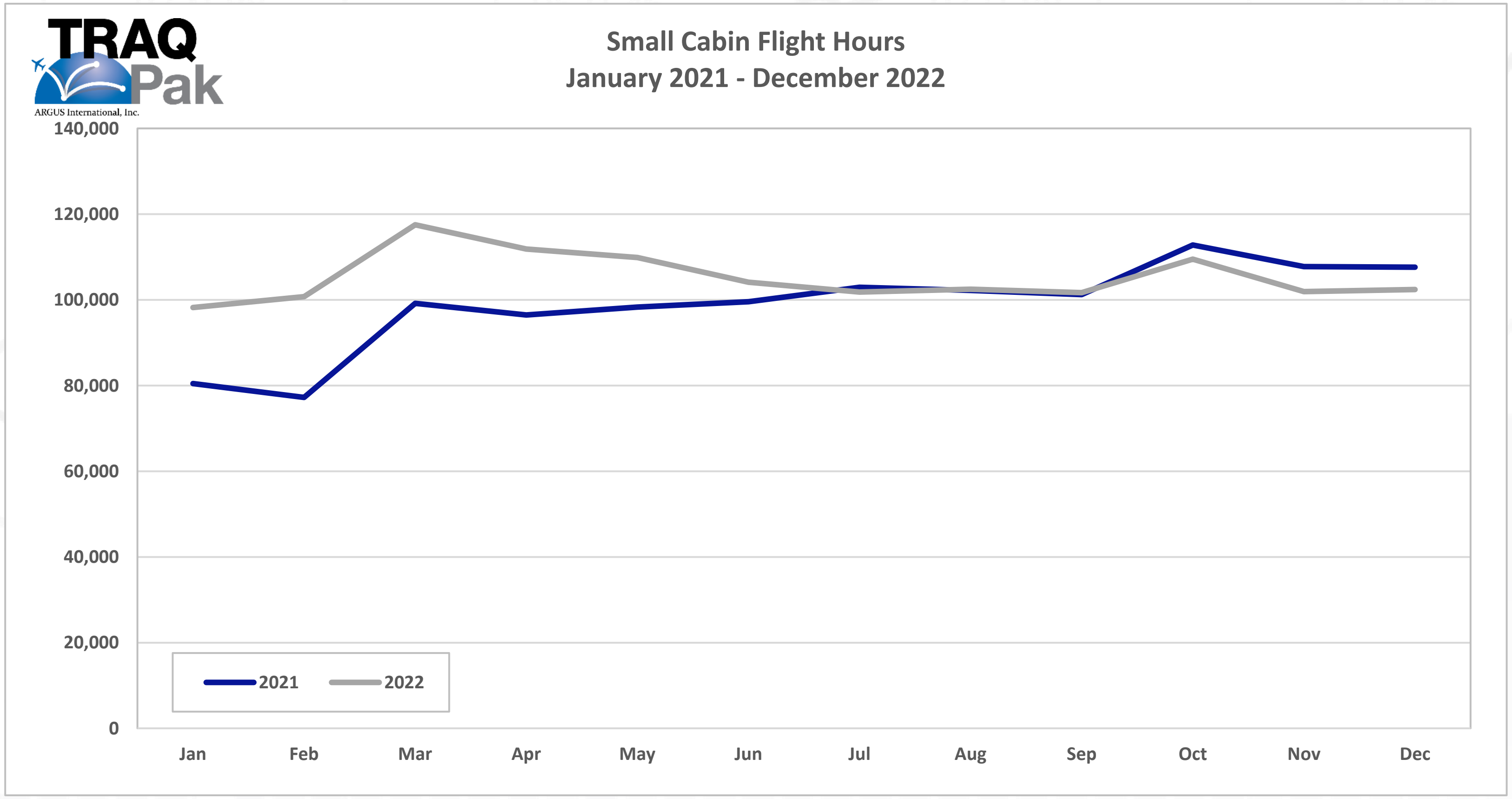
Q1	
Year	**Hours**
2021	258,478
2022	301,064
	16.5%

Q2	
Year	**Hours**
2021	299,656
2022	329,274
	9.9%

Q3	
Year	**Hours**
2021	332,346
2022	338,629
	1.9%

Q4	
Year	**Hours**
2021	326,832
2022	323,454
	-1.0%

SMALL CABIN FLIGHT ACTIVITY REVIEW



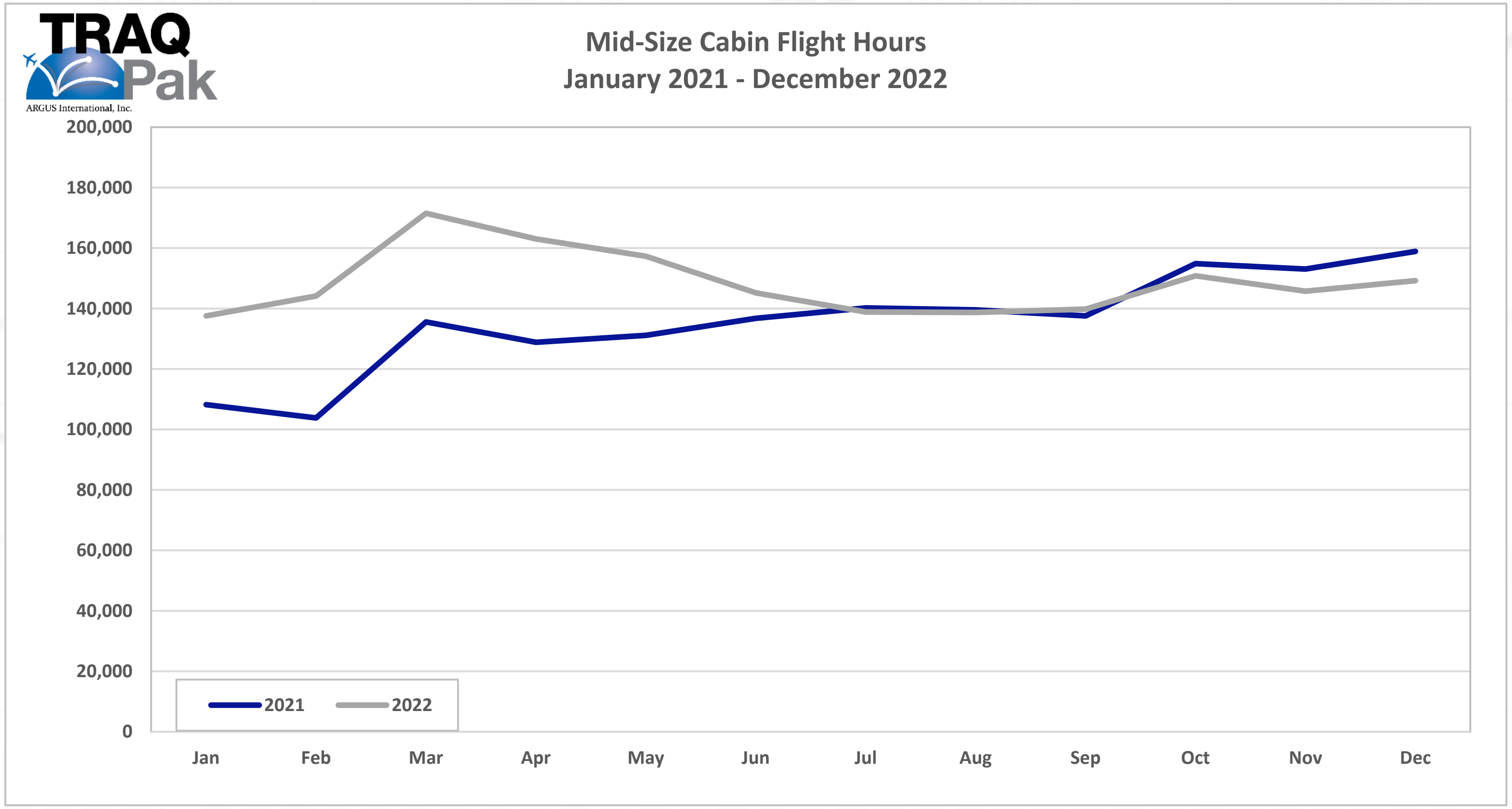
Q1	
Year	**Hours**
2021	256,870
2022	316,501
	23.2%

Q2	
Year	**Hours**
2021	294,372
2022	325,857
	10.7%

Q3	
Year	**Hours**
2021	306,371
2022	305,980
	-0.1%

Q4	
Year	**Hours**
2021	328,206
2022	313,854
	-4.4%

MID-SIZE CABIN FLIGHT ACTIVITY REVIEW



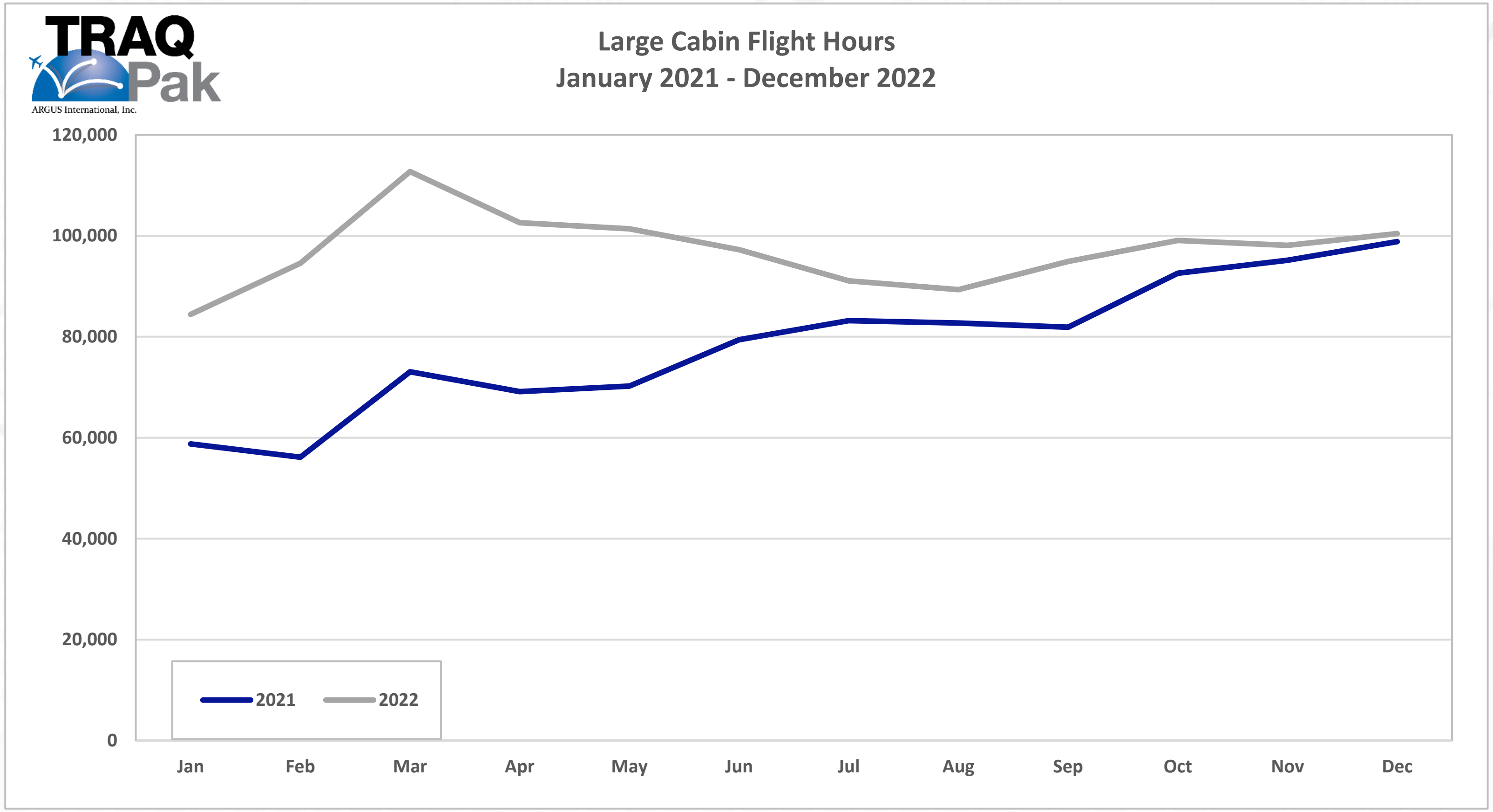
Q1	
Year	**Hours**
2021	347,582
2022	453,183
	30.4%

Q2	
Year	**Hours**
2021	396,745
2022	465,523
	17.3%

Q3	
Year	**Hours**
2021	417,304
2022	417,353
	0.0%

Q4	
Year	**Hours**
2021	466,820
2022	445,759
	-4.5%

LARGE CABIN FLIGHT ACTIVITY REVIEW



Q1	
Year	**Hours**
2021	187,931
2022	291,695
	55.2%

Q2	
Year	**Hours**
2021	218,787
2022	301,195
	37.7%

Q3	
Year	**Hours**
2021	247,788
2022	275,301
	11.1%

Q4	
Year	**Hours**
2021	286,564
2022	297,609
	3.9%

TOP 30 US OPERATORS IN 2022

RANK	OPERATOR NAME	2022 HOURS	2021 HOURS
1	NETJETS	511,224	478,44
2	FLEXJET	183,548	178,053
3	WHEELS UP	159,357	166,805
4	EXECUTIVE JET MANAGEMENT	75,407	62,681
5	SOLAIRUS AVIATION	49,983	39,687
6	PLANESENSE	44,593	42,907
7	EXCLUSIVE JETS	42,411	43,067
8	XOJET	39,524	55,325
9	JET LINX AVIATION	35,676	42,284
10	JET EDGE	29,782	32,403
11	EXECUTIVE FLIGHT SERVICES	24,040	20,955
12	NICHOLAS AIR	21,594	18,023
13	CORPORATE FLIGHT MANAGEMENT	19,310	14,284
14	JET IT	18,500	11,290
15	JET AVIATION	17,677	11,502
16	CLAY LACY AVIATION	15,973	17,940
17	AERO AIR	15,144	13,800
18	SUPERIOR TRANSPORTATION ASSOCIATES	14,684	11,187
19	BERRY AVIATION	13,501	10,982
20	RED WING AEROPLANE CO	11,664	12,419
21	NXT JET	11,613	11,737
22	TALON AIR	11,574	11,489
23	JET SELECT	11,138	8,053
24	GREAT WESTERN AIR	10,926	7,350
25	THRIVE AVIATION	10,908	11,936
26	SILVERHAWK AVIATION	10,503	8,838
27	WORLDWIDE JET CHARTER	10,119	11,966
28	GRANDVIEW AVIATION	9,539	10,593
29	HOP A JET	9,292	11,682
30	ATI JET	9,155	8,112

*Note- Excludes Medical Operators

TOP 25 US AIRPORTS IN 2022

Airport	2021 Departures	2022 Departures	% YOY Change
KTEB	62,537	73,564	17.6%
KPBI	44,254	46,115	4.2%
KDAL	40,093	40,702	1.5%
KHPN	36,039	36,316	0.8%
KVNY	36,238	35,568	-1.8%
KLAS	31,221	33,619	7.7%
KAPA	31,949	31,728	-0.7%
KSDL	28,936	31,468	8.7%
KIAD	26,048	30,636	17.6%
KPDK	29,272	30,260	3.4%
KOPF	30,419	29,678	-2.4%
KHOU	28,155	29,357	4.3%
KAPF	26,734	26,613	-0.5%
KSNA	25,678	25,341	-1.3%
KAUS	22,182	23,767	7.1%
KBNA	20,621	23,671	14.8%
KMDW	20,813	22,808	9.6%
KSLC	21,489	22,360	4.1%
KBED	19,407	21,410	10.3%
KFLL	18,992	21,055	10.9%
KFXE	20,730	19,965	-3.7%
KBFI	18,194	18,870	3.7%
KPWK	19,394	18,688	-3.6%
KSAT	18,270	18,508	1.3%
KSJC	16,282	17,332	6.4%

South Florida Area
Departures- 156,042

New York Area
Departures - 143,031

Los Angeles Area
Departures- 94,979

Dallas Area
Departures – 87,155

Chicago Area
Departures- 60,577

***Note- South Florida- KFLL, KFXE, KBCT, KMIA, KPBI, KPMP, KOPF, KHWO, KTMB**

***Note- New York- KTEB, KMMU, KHPN, KLGA, KJFK, KEWR, KCDW, KFRG**

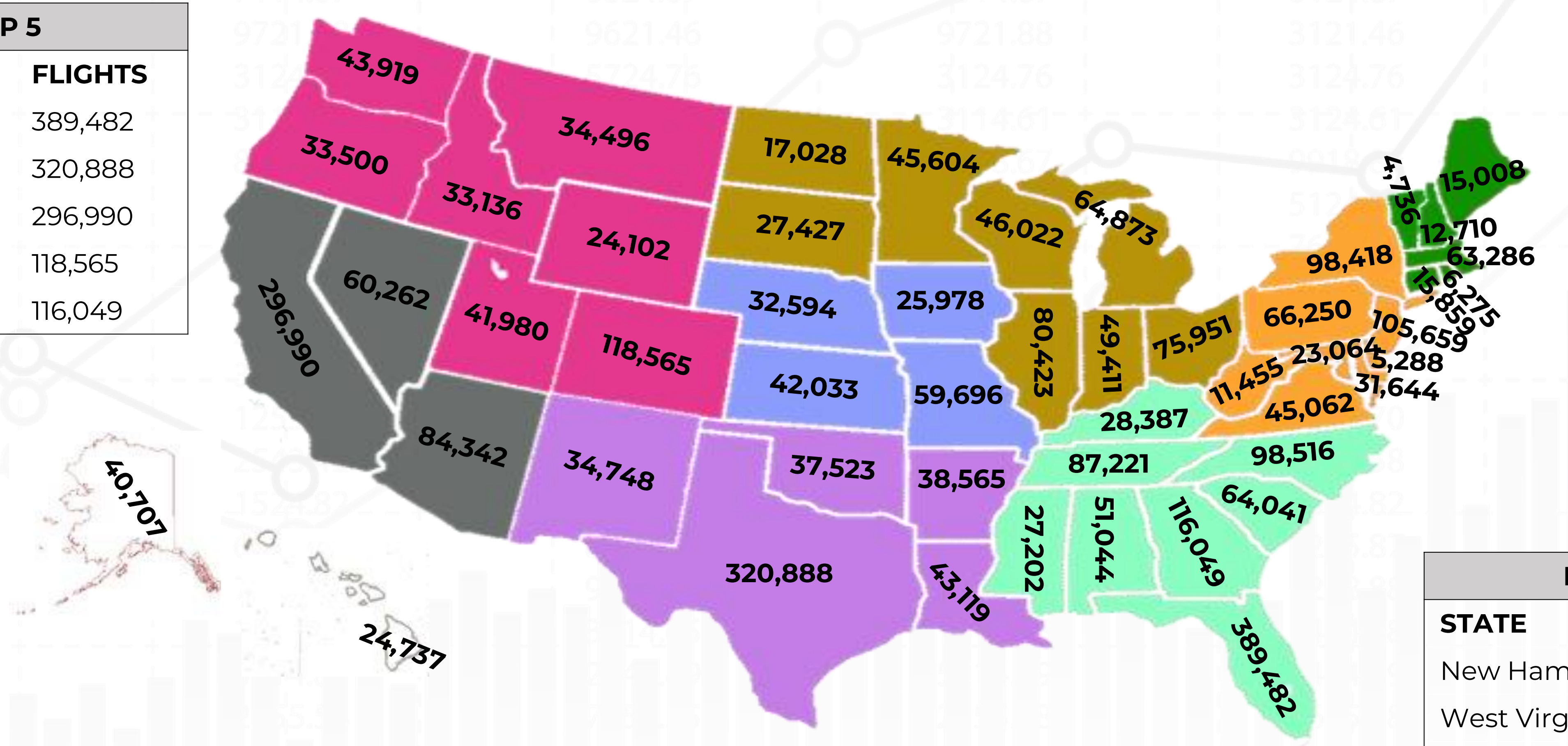
***Note- Los Angeles- KVNY, KLAX, KSNA, KLGB, KHHR, KSMO, KBUR, KFUL, KTOA**

***Note- Dallas- KDAL, KDFW, KADS, KGKY, KFTW, KAFW, KRBD**

***Note- Chicago- KPWK, KUGN, KDPA, KMDW, KORD, KGYY**

DEPARTURES BY STATE 1/1/2022 -12/31/2022

TOP 5	
STATE	**FLIGHTS**
Florida	389,482
Texas	320,888
California	296,990
Colorado	118,565
Georgia	116,049



BOTTOM 5	
STATE	**FLIGHTS**
New Hampshire	12,710
West Virginia	11,455
Rhode Island	6,275
Delaware	5,288
Vermont	4,736

A year over year increase was recorded in 37 states in 2022. The largest yearly increase occurred in Alaska, up 20.2% from 2021. The largest yearly decrease was recorded in Vermont, down 10% from 2021. Six states recorded yearly increases over 10%.

DEPARTURES BY PROVINCES AND TERRITORIES

All 13 Provinces and Territories reported year over year gains in 2022.

The Yukon Territories reported the smallest increase from 2021, up 6.4%, while Prince Edward Island reported the largest increase in flight activity, up 51.9% on the year.

The single largest increase in actual flights occurred in Ontario, which saw an additional 10,301 departures in 2022.

REGION	FLIGHTS
Quebec	55,894
Ontario	53,306
Alberta	41,712
British Columbia	33,594
Saskatchewan	14,211
Manitoba	8,988
Newfoundland	6,150
New Brunswick	4,437
Nunavut	4,216
Nova Scotia	2,660
NW Territories	2,160
Yukon Territories	1,440
Prince Edward Is.	243

2022 DAILY FLIGHT ACTIVITY ANALYSIS

TOP 10 DAYS	
DATE	**FLIGHTS**
14-Apr-22	12,867
18-Feb-22	12,777
08-Apr-22	12,549
05-May-22	12,474
20-Oct-22	12,439
27-Nov-22	12,393
18-Nov-22	12,315
15-Sep-22	12,310
22-Sep-22	12,300
12-May-22	12,279

Pre-pandemic it was less common to record 10,000+ flights per day. In 2021 we saw 132 days record 10,000+ flights, 2019 saw 66 days, and 2020 saw only 02. In 2022, 56% of days observed 10,000+ flights!

BOTTOM 10 DAYS	
DATE	**FLIGHTS**
24-Nov-22	3,972
25-Dec-22	3,990
24-Dec-22	5,162
04-Jul-22	5,291
03-Jul-22	5,593
29-Jan-22	6,042
4-Sep-22	6,048
01-Oct-22	6,052
29-May-22	6,059
31-Dec-22	6,063

The majority of the bottom 10 days occurred on or near major holidays and a weekend.

AVERAGE FLIGHT ACTIVITY- BY DAY OF WEEK	
DATE	**FLIGHTS**
Monday	9,953
Tuesday	9,986
Wednesday	10,534
Thursday	11,126
Friday	10,714
Saturday	7,438
Sunday	9,354

All 7 days reported an increase in average activity for 2022. The overall shape of weekly flight activity remained the same with Thursday holding as the busiest day of the week while the weekend days showed lowest daily activity levels.

2022 INDUSTRY TRENDS

- This year will mark 3 years since the onset of the COVID-19 pandemic. Over these last 3 years we have seen the highest of highs in business aviation (October 2021) and the lowest month recorded in modern business aviation (April 2020) and everything in between. The industry has faced many challenges as a result of the pandemic and we have highlighted a few of them below:

    - Demand evaporation at the onset of the pandemic
    - Record demand immediately following the easing of restrictions
    - Struggles to retain and train qualified personnel
    - Supply chain challenges
    - Uncertainty surrounding the resumption of corporate travel
    - Uncertainty on international travel restrictions
    - Will we see the customers who left the airlines remain in the Charter & Fractional segments?

- As we stop and assess where the industry currently stands, in terms of flight activity, we can see answers to those questions along with some remaining uncertainty. We know that the initial loss of demand quickly turned around over the last few years as we've seen travel restrictions ease but now we face another question: will a potential global recession further erode the gains made in business aviation over the last 2 years? The current state of the industry seems "right-sized" to handle the available demand and remain at levels that are 15% above 2019. The segments that will need to be watched closely over the next 12 months will be light and mid-size jets as many new entrants into business aviation went to those segments and would likely be the first to cut back during any type of recession.

- Looking back at 2022 the bulk of the cooling in activity occurred in the bottom of the market (turboprops, light and mid-size jets) while large cabin activity recorded double digit increases from 2021, likely aided by the easing of international travel restrictions.

2022 INDUSTRY TRENDS (continued)

- Looking ahead to 2023 there seem to be 4 key areas to watch when it comes to business aviation's footprint throughout the year:

    - Personnel challenges
    - Supply chain issues
    - Part 91 flying
    - Possible recession

- While it's hard to know exactly how any of these issues will resolve itself it seems likely each will have its own impact on business aviation activity. Personnel challenges and supply chain issues seem likely to be a factor for the foreseeable future while the strength of Part 91/corporate flying and the impact of a global recession will likely be easily measured throughout 2023. As long as travel restrictions continue to ease internationally we can expect Part 91/corporate flying to have a strong 2023 but if a recession does start to take hold then that segment, along with small & mid-size cabin charter flying are likely to see the highest negative impacts in activity.

- Amidst these challenges one thing continues to remain certain in this industry and that is its resilience. Faced with unprecedented challenges in 2020 we saw operators fly medical flights and move more cargo. When 2021 started to boom the industry was ready to meet the demand of so many new private flyers. Now, as we stare down our latest challenges its hard to imagine anything as formidable as the strength and resiliency of this vital industry.

2023 FLIGHT ACTIVITY FORECAST

- If the last 3 years have proven anything it is that nothing is certain. Still, our TRAQPak analysts have accepted that challenge, reviewed all of the known variables that impact business aviation and we have arrived at our 2023 forecast.

- TRAQPak analysts estimate that flight activity during 2023 will remain essentially flat from the same period in 2022, down **1.0%**. This would mean that 2023 total flight activity will exceed 2019 flight activity by 14.4%. Analysts predict that total year over year flight activity will see 6 positive months and 6 negative months with the 2nd half of the year faring better than the 1st half:

  - January 2023 (Actual) **+1.3%** from 2022
  - February 2023 **-1.1%** from 2022
  - March 2023 **-3.8%** from 2022
  - April 2023 **-7.2%** from 2022
  - May 2023 **-1.9%** from 2022
  - June 2023 **+0.1%** from 2022
  - July 2023 **-0.6%** from 2022
  - August 2023 **+0.8%** from 2022
  - September 2023 **-2.4%** from 2022
  - October 2023 **+0.6%** from 2022
  - November 2023 **+1.6%** from 2022
  - December 2023 **+1.2%** from 2022

THANK YOU