KTRK Runway Utilization Report

Winter Peak Period: December 15, 2021 - April 15, 2022

Prepared by David Van Quest

Operations data for the winter peak period of 2021/2022 has been tallied by runway and filtered by wind speed. Wind speeds of 4mph or less are considered calm. During calm winds pilots and air traffic controllers have more options regarding runway selection. The runway utilization report was designed to see what aircraft types use which runways during calm winds. It was also designed to compare how runway utilization has changed with the introduction of an air traffic control tower. Of all the operations during the winter peak period of 2021/2022, 67% occurred during calm winds. The fleet mix was 53% Pistons, 18% Jets, 27% Turboprops and 1% Other (helicopters, unknown). 2016 winter peak period data was used for comparison of when there was no ATC making suggestions. The raw data is included in this report and some highlights are as follows:

All Aircraft

- 70% of operations occurred on Runway 29
- Runway 2 was second highest used departure runway at 25%
- Large increase in Runway 11 departures driven by locally-based Turboprops with hangars on the west end of the airfield

Jets

- No departures on Runway 2/20
- Departures 91% Runway 29, 6% Runway 11
- Arrivals 80% Runway 29, 15% Runway 11, 3% Runway 20, No arrivals on Runway 2

Turboprops

- Departures –72% Runway 29, 13% Runway 11, 7% Runway 2, 2% Runway 20
- Arrivals 86% Runway 29, 4% Runway 11, 4% Runway 20, 1% Runway 2

Pistons

- Most diversity in runway utilization
- Departures 48% Runway 29, 40% Runway 2, 6% Runway 11, 2% Runway 20
- Arrivals 78% Runway 29, 7% Runway 20, 5% Runway 11, 4% Runway 2

Relative to 2016

- 30% increase in Piston departures off Runway 2
- 24% reduction in Piston departures off Runway 29
- 11% more arrivals on Runway 29 by all aircraft types
- 6% decrease in Jet arrivals on Runway 11
- 15% decrease in departures off Runway 29 by all aircraft types
- Executive hangar rows N and P on the west side of the airfield did not exist in 2016

Calm Wind Operations (0-4mph) Winter Peak Period

December 15 - April 15

2016/2017 All Aircraft					2021/2022 All Aircraft	All Aircraft Positive value means more traffic after													Relative Difference in percentages (After minus Before) Positive value means more traffic after						
			otal							otal								Percentage		Percentage					
			Activities F			ercent							ercent					change in	change in	change in				Percent Of	
_				J. 7		of All	_						Of All	_			Total Change		Departures by				All	All	
Runway						ctivities	Runway						Activities	Runway		Departures	in Activites	Runway	Runway	Runway	Runway			Activities	
RWY 11	177	56	233	8%	3%	5%	RWY 11	190	208	398	7%	8%	7%	RWY 11	13	15				70.8%	RWY 11	-1.4%	4.9%	1.8%	
RWY 2	53	178	231	3%	8%	5%	RWY 2	69	698	767	3%	25%	14%	RWY 2	16	52				232.0%	RWY 2	0.0%	17.0%	8.6%	
RWY 20	155	32	187	7%	1%	4%	RWY 20	158	48	206	6%	2%	4%	RWY 20	3	1				10.2%	RWY 20	-1.5%		-0.6%	
RWY 29	1437	1635	3072	68%	76%	72%	RWY 29	2156	1681	3837	79%	61%	70%	RWY 29	719	4				24.9%	RWY 29	11.4%		-1.9%	
RWY Unknown	297	261	558	14%	12%	13%	RWY Unknown	150	132	282	6%	5%	5%	RWY Unknown	-147	-12				-49.5%	RWY Unknown	-8.5%	-7.3%	-7.9%	
Total	2119	2162	4281	100%	100%	100%	Total	2723	2767	5490	100%	100%	100%	Total	604	60	1209	28.59	% 28.0%	28.2%					
Jets							Jets							Jets							Jets				
	Total					Total									Percentage		Percentage								
						ercent							ercent					change in	change in	change in				Percent Of	
				Of All All	-	of All					Of All A		of All				Total Change		Departures by				All	All	
Runway						ctivities	Runway						Activities	Runway	Arrivals	Departures	in Activites	Runway	Runway	Runway	Runway			Activities	
RWY 11	71	10	81	21%	3%	13%	RWY 11	73	27	100	15%	6%	11%	RWY 11	2	1				23.5%	RWY 11	-6.2%	2.9%	-1.9%	
RWY 2	2	6	8	1%	2%	1%	RWY 2	0	0	0	0%	0%	0%	RWY 2	-2	-				-100.0%	RWY 2	-1.0%	-1.9%	-1.2%	
RWY 20	17	3	20	5%	1%	3%	RWY 20	14	0	15	3%	0%	2%	RWY 20	-3	-				-25.0%	RWY 20	-2.2%		-1.5%	
RWY 29	233	265	498	70%	84%	77%	RWY 29	396	407	803	80%	91%	85%	RWY 29	163	14				61.2%	RWY 29	10.2%	6.7%	8.4%	
RWY Unknown	10	30	40	3%	10%	6%	RWY Unknown	11	12	23	2%	3%	2%	RWY Unknown	1	-1				-42.5%	RWY Unknown	-0.8%	-6.9%	-3.7%	
Total	333	314	647	100%	100%	100%	Total	494	447	941	100%	100%	100%	Total	161	13	3 294	48.39	% 42.4%	45.4%					
Turbos							Turbos							Turbos							Turbos				
	Total				Total					Percentage Percentage Percentage															
	Activities Percent Percent Of Percent					Activities Percent Percent Of Percent					change in change in change in						Percent Of Percent Of								
	On Of All All Of All				On Of All All Of All					Total Change Arrivals by Departures by Total by					Total by	Percent Of All All									
Runway	Arrivals Dep	oartures F	Runway A	Arrivals De	partures A	ctivities	Runway	Arrivals Dep	partures F	Runway A	Arrivals D	epartures A	Activities	Runway	Arrivals	Departures	in Activites	Runway	Runway	Runway	Runway	All Arrivals	Departures	Activities	
RWY 11	34	17	51	6%	3%	4%	RWY 11	26	88	114	4%	13%	9%	RWY 11	-8	7	1 63	-23.59	% 417.6%	123.5%	RWY 11	-1.9%	10.4%	4.3%	
RWY 2	4	62	66	1%	10%	5%	RWY 2	6	47	53	1%	7%	4%	RWY 2	2	-1	-13	50.09	% -24.2%	-19.7%	RWY 2	0.2%	-3.0%	-1.5%	
RWY 20	48	6	54	8%	1%	4%	RWY 20	28	15	43	4%	2%	3%	RWY 20	-20		-11	-41.79	% 150.0%	-20.4%	RWY 20	-4.0%	1.3%	-1.3%	
RWY 29	437	482	919	75%	78%	76%	RWY 29	574	482	1056	86%	72%	79%	RWY 29	137		137	31.49	% 0.0%	14.9%	RWY 29	11.5%	-5.7%	2.8%	
RWY Unknown	63	52	115	11%	8%	10%	RWY Unknown	33	36	69	5%	5%	5%	RWY Unknown	-30	-1				-40.0%	RWY Unknown	-5.8%	-3.0%	-4.4%	
Total	586	619	1205	100%	100%	100%	Total	667	668	1335	100%	100%	100%	Total	81	4	130	13.89	% 7.9%	10.8%					
Pistons							Pistons							Pistons							Pistons				
		7	Total						T	otal								Percentage	Percentage	Percentage					
			Activities F	Percent Pe	rcent Of P	ercent			A	Activities F	Percent P	ercent Of P	Percent		change in change in change in							Percent Of Percent Of			
		(On (Of All All		of All		On Of All All Of All						Total Change Arrivals by Departures by Total by							Percent Of All All				
		partures F	Runway A	Arrivals De	partures A	ctivities	Runway	Arrivals Dep	oartures F	Runway A	Arrivals D	epartures A	Activities	Runway	Arrivals	Departures	in Activites	Runway	Runway	Runway	Runway	All Arrivals	Departures	Activities	
Runway	Arrivals Dep								91	161	5%	6%	5%	RWY 11	28	7.	3 101	66.79	% 405.6%	168.3%	RWY 11	0.4%	3.9%	2.2%	
Runway RWY 11	Arrivals Dep 42	18	60	4%	2%	3%	RWY 11	70	91												L/AA I TT		3.3/0		
,			60 131	4% 3%	2% 10%	3% 6%	RWY 11 RWY 2	70 59	651	710	4%	40%	23%	RWY 2	31	54				442.0%	RWY 2	1.1%		16.2%	
RWY 11	42	18															579	110.79	% 532.0%				30.3%	16.2% 0.1%	
RWY 11 RWY 2	42 28	18 103	131	3%	10%	6%	RWY 2	59	651	710	4%	40%	23%	RWY 2	31	54	579) 49	110.79 57.49	% 532.0% % 52.6%	442.0%	RWY 2	1.1%	30.3% 0.0%		
RWY 11 RWY 2 RWY 20	42 28 68	18 103 19	131 87	3% 7%	10% 2%	6% 4%	RWY 2 RWY 20	59 107	651 29	710 136	4% 7%	40% 2%	23% 4%	RWY 2 RWY 20	31 39	54: 1	5 579 5 560	110.79 57.49 80.89	% 532.0% % 52.6% % 4.8%	442.0% 56.3%	RWY 2 RWY 20	1.1% 0.2%	30.3% 0.0% -23.5%	0.1%	