Air Cargo Problem 1

	Actions in Domain	No. of new node expansions	Time to complete plan search	Plan Length
breadth_first_search	20	178	0.007133087	6
depth_first_search	20	84	0.003398721999	20
uniform_cost_search	20	240	0.009773837	6
g-bestfirst unmet_goals	20	29	0.001677269	6
g-bestfirst levelsum	20	28	0.368860612	6
g-bestfirst maxlevel	20	24	0.276715209	6
g-bestfirst setlevel	20	28	0.496364665	6
astar h_unmet_goals	20	206	0.01008009504	6
astar h_pg_levelsum	20	122	0.957550888	6
astar h_pg_maxlevel	20	180	1.003363192	6
astar h_pg_setlevel	20	138	1.188724608	6
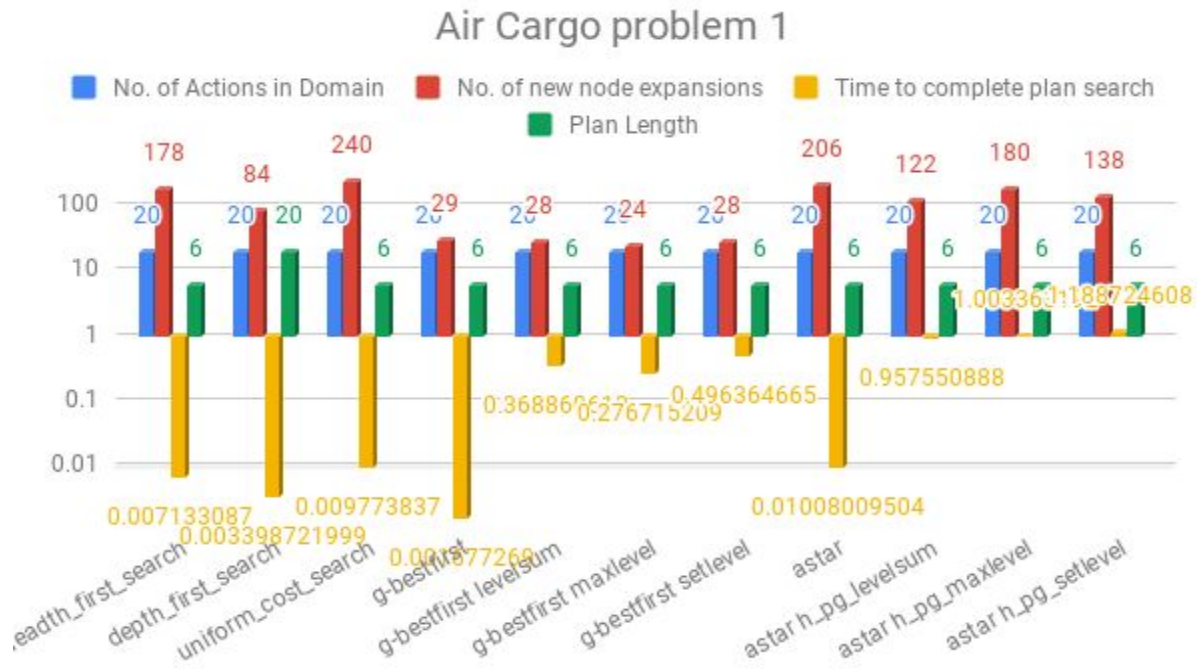
Air Cargo Problem 2

	No. of Actions in Dom	No. of new node expansions	Time to complete plan search	Plan Length
breadth_first_search	72	30503	2.091541861	9
depth_first_search	72	5602	3.23468982	619
uniform_cost_search	72	46618	3.482808738	9
g-bestfirst unmet_goals	72	170	0.019705425	9
g-bestfirst levelsum	72	86	8.439792582	9
g-bestfirst maxlevel	72	249	17.24990078	9
g-bestfirst setlevel	72	84	12.36535542	9
astar h_unmet_goals	72	22522	2.56975051	9
astar h_pg_levelsum	72	3426	214.456104	9
astar h_pg_maxlevel	72	26594	1231.447092	9
astar h_pg_setlevel	72	9605	1106.997648	9

Air Cargo Problem 2
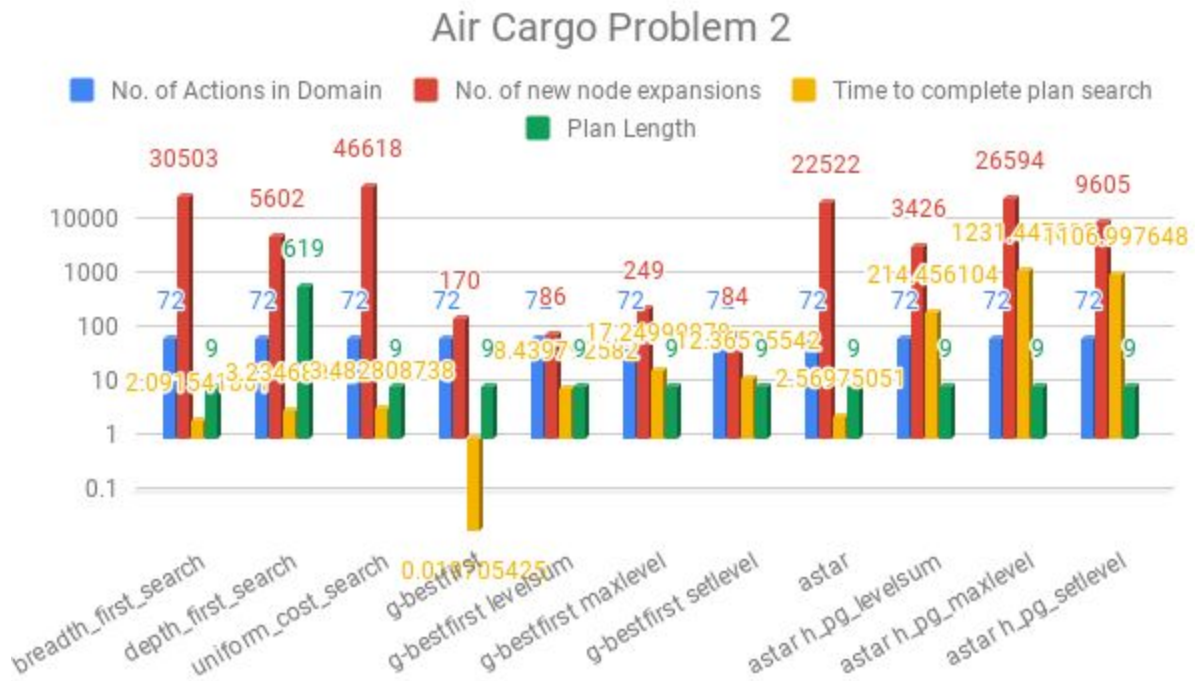
From these results we observe that as the problem set size increases, the time taken for the uninformed search algorithm and greedy_best_first_search algorithm with all heuristics increase almost proportionally where as for A* search algorithm for heuristics max_level and set_level the time cost is huge and increases out of proportion. Also the Breadth_First_search algorithm though obtains the goal state in less amount of time but when extracted the solution plan, it is observed to create unnecessary and irrelevant plan which in real time increases material and time costs.

Air Cargo Problem 3

	No. of Actions in Domain	No. of new node expansions	Time to complete plan search	Plan Length
breadth_first_search	88	129625	11.38314	12
g-bestfirst unmet_goals	88	230	0.03825	15
g-bestfirst maxlevel	88	195	22.391	13
astar h_unmet_goals	88	65711	8.6804	12
astar h_pg_levelsum	88	3403	340.3807	12

Air Cargo Problem 4

	No. of Actions in Domain	No. of new node expansions	Time to complete plan search	Plan Length
uniform_cost_search	104	1066413	120.73705	14
g-bestfirst levelsum	104	165	35.4514	17
g-bestfirst maxlevel	104	580	83.8634	17
astar h_pg_levelsum	104	12210	1913.3408	15
astar h_unmet_goals	104	328509	57.164	14

1. For planning in a very restricted domain (i.e., one that has only a few actions) that needs to operate in real time, the algorithms breadth first search, greedy best first search algorithms with max level heuristic are better suited. In the A* algorithms, where optimal solutions are sought out the algorithms with max level heuristic and set level heuristic obtain better results in real time.
2. For planning in very large domains, the breadth first search algorithm and greedy best first search algorithm with max level heuristic provide better solutions for planning delivery routes for all UPS drivers in the U.S. on a given day.
3. If the goal is to find optimal plans, the three greedy best first search algorithms with max_level, set_level, and level_sum heuristics would be appropriate.