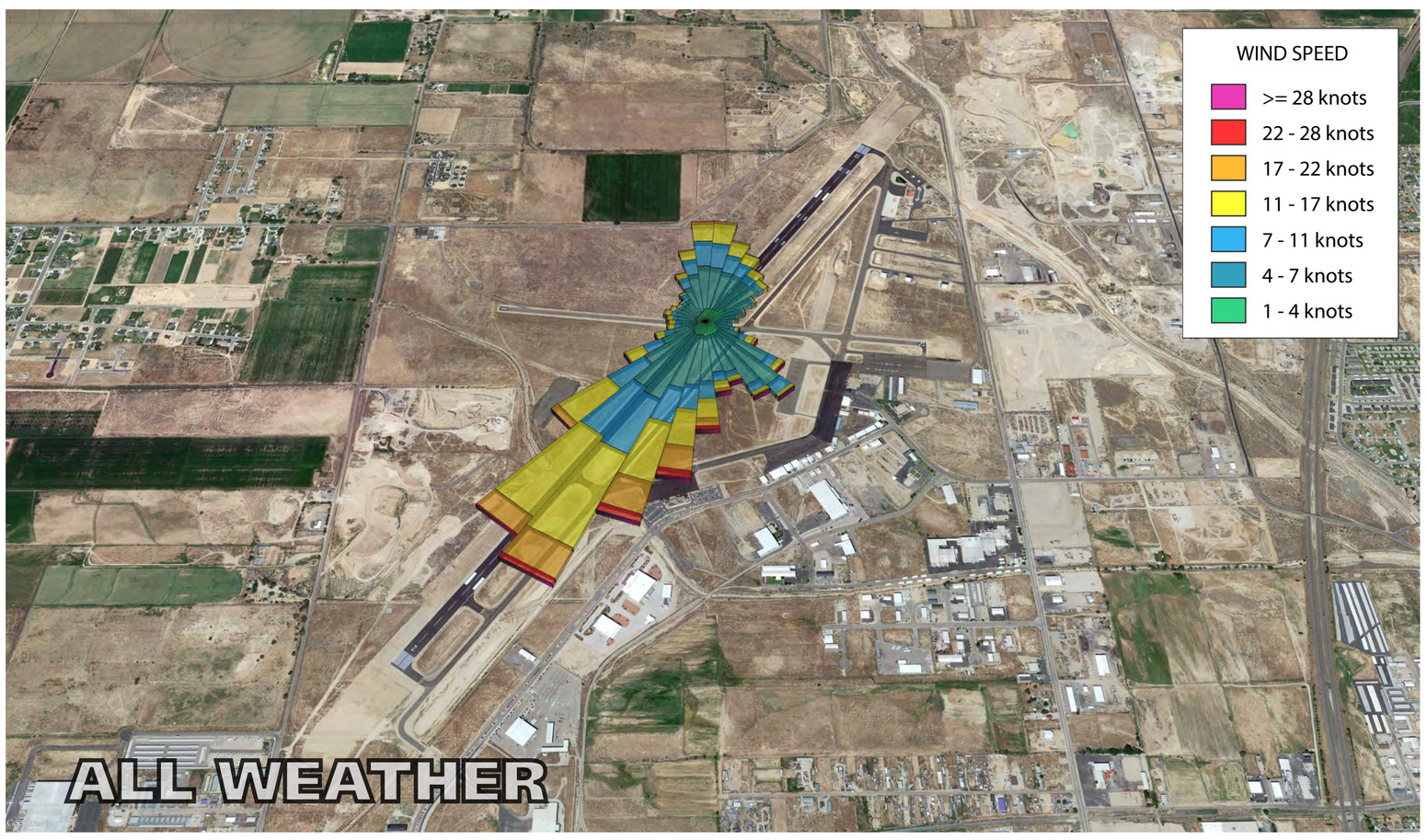
WIND ANALYSIS

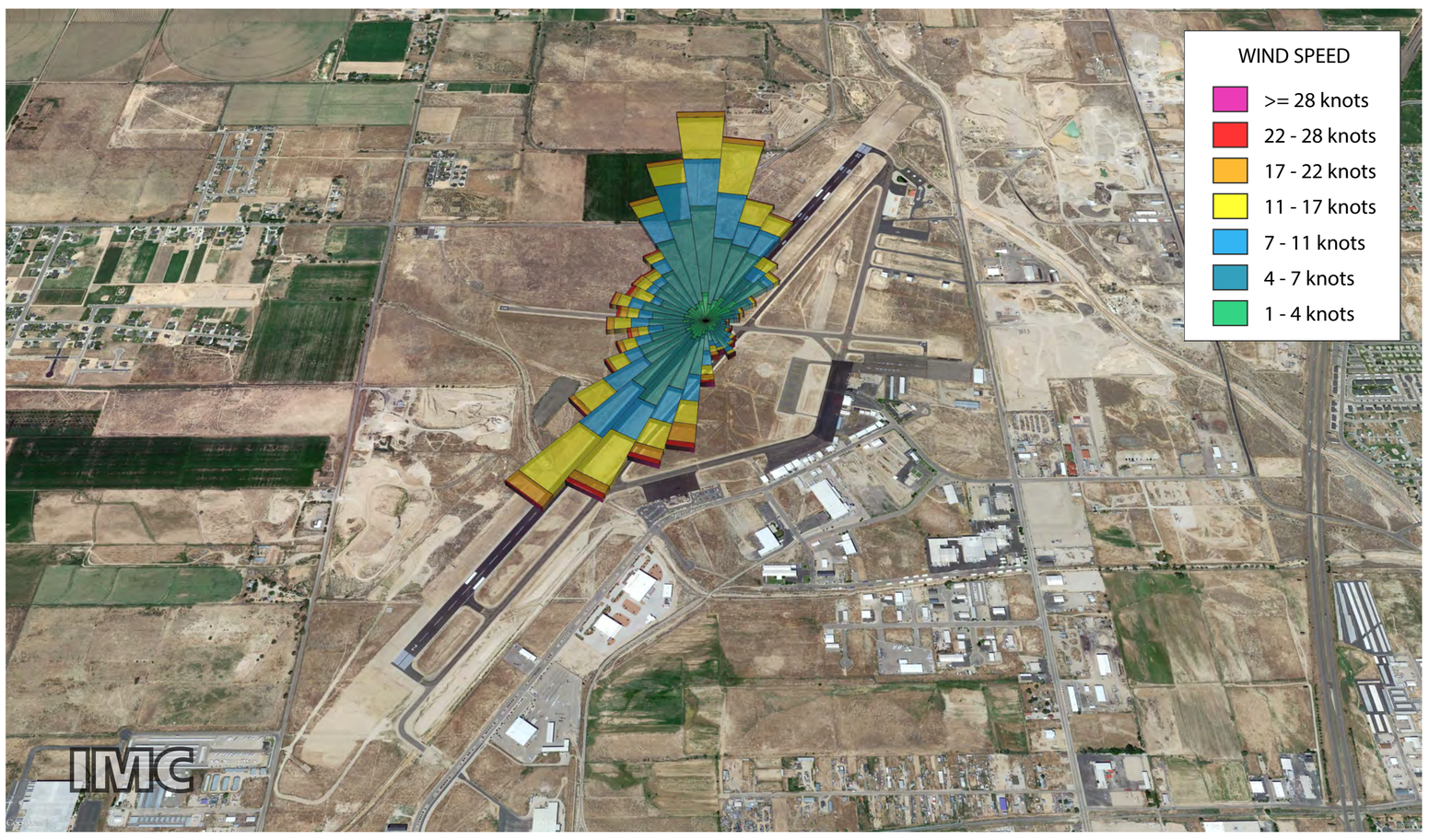
Aligning the primary runway of an airport with the predominate wind direction increases the safety of aircraft operations. A crosswind is a wind that is perpendicular to the runway. Wind coverage is the percentage of time that crosswinds are below an acceptable speed. Thus, properly aligning runways provides the best wind coverage.

GDA Engineers completed an analysis of wind data for the Cedar City Regional Airport (CDC). A total of 95,732 observations, containing wind direction and speed for every hour from 2005 to 2014, were used for the analysis. The bars show from which direction the wind blows.



Approximately 81% of the time wind speeds at CDC fall between 0 and 10 knots.

For all observations, the runways provide 98.08% coverage with a 13 knot crosswind component. This is above the FAA recommendation of 95% wind coverage.



Instrument Meteorological Conditions (IMC) are when visibility is under three miles. In Cedar City, the wind changes noticeably during IMC, such that speeds are typically lower and blow more often from the north and less often from the east.

GDA ENGINEERS