

ANALYSIS OF AERODROME CAPACITY AT NUSAWIRU CIJULANG AIRPORT, PANGANDARAN REGENCY

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ABSTRACT

The air transportation system in Indonesia is increasingly playing a role in economic development with the growing population, and it is expected to see an increase in air traffic at Nusawiru Airport. The purpose of this research is to analyze the passenger movement at Nusawiru Pangandaran Airport using regression methods and to compare the ACN values of operating aircraft and planned aircraft with the PCN value of the available runway pavement, as well as to evaluate the runway needs for the next 10 years. Passenger movement analysis uses trend regression, and calculates the ACN of planned aircraft using the COMFAA application, and runway capacity analysis using the planned Bombardier Q400 aircraft. The research results show that the number of passenger movements per day at Nusawiru Pangandaran Airport is 31 passengers in 2024, 33 passengers in 2028, and 36 passengers in 2033. The number of passengers is sufficient for the planned aircraft because the planned aircraft has a passenger capacity of 76 seats. The ACN of the planned aircraft with the PCN of the pavement at the Nusawiru Airport airside facility shows that the ACN of the planned aircraft is less than the available PCN. $ACN = 16.6 < PCN = 17$. Therefore, the planned aircraft to be used is suitable for operation at Nusawiru Airport because the ACN value does not exceed the available PCN value. The runway length has been increased from 1,400 meters to 2,211 meters with a runway width of 30 meters. For the planned Bombardier Q400 aircraft. The improvement of runway-side facilities is required in the year 2033. Periodic inspections of the runway pavement will be necessary in 2033 to ensure that each layer of the pavement structure can support the weight of the aircraft. The runway in 2033 needs to be upgraded due to the possibility of changes in the aircraft used over the next 20 years, as well as to perform the necessary runway calculations.

Keywords: Nusawiru Airport, ACN, PCN, Runway