

**ANALISIS HOLDING FLIGHT PADA STANDARD TERMINAL  
ARRIVAL ROUTE (STAR) RWY-13 DAN RWY-31 SEBAGAI POTENSI  
BIAYA MASKAPAI**

**(Studi Kasus Bandar Udara Ahmad Yani Semarang)**

**Oleh : Riri Anis**

**ABSTRAK**

*Holding adalah manuver pesawat untuk menunggu di area yang aman (Protected airspace) sebelum diijinkan melanjutkan segmen penerbangan berikutnya. Misalnya dalam kondisi lalu lintas udara yang ramai, pesawat diharuskan holding di posisi dan ketinggian tertentu sambil menunggu giliran untuk mendarat. Potensi pesawat melakukan holding bisa dipengaruhi berbagai macam hal salah satunya adalah padatnya lalu lintas udara hampir di seluruh Bandar Udara di Indonesia tidak terkecuali Bandar Udara Ahmad Yani Semarang.*

*Tujuan dari penelitian ini adalah mengetahui seberapa besar potensi biaya yang diakibatkan oleh holding flight di Bandar Udara Ahmad Yani Semarang dengan menggunakan perhitungan holding pada Standar Terminal Arrival Route (STAR) RWY-13 dan RWY-31 pada bulan Mei 2018. Perhitungan holding flight dilakukan dengan bertahap dari mulai menghitung normal time arrival, flight time of holding, estimate takeoff weight, estimate fuel burn, estimate landing weight, perhitungan holding fuel dengan menggunakan rumus interpolasi, dan menghitung biaya holding masing-masing pesawat.*

*Dari tahapan perhitungan yang sudah dijelaskan dapat diketahui potensi biaya yang di akibatkan oleh holding flight untuk maskapai lion air Rp 151.087.717, Citilink Rp 26.274.489, Batik Air Rp 65.286.650, Garuda Indonesia Rp 131.606.383, Air Asia Rp 19.177.245, Sriwijaya Air Rp 9.729.825.*

*Kata kunci :*  
*Holding, STAR, Maskapai, Biaya*

**HOLDING FLIGHT ANALYSIS IN STANDARDS OF ARRIVAL ROUTE  
(STAR) RWY-13 AND RWY-31 TERMINALS AS A POTENTIAL FOR COST**  
*(Case Study of Ahmad Yani Airport Semarang)*

*By: Riri Anis*

**ABSTRACT**

*Holdings are aircraft maneuvers to wait in a safe area (Protected airspace) before being allowed to continue the next flight segment. For example, in conditions of crowded air traffic, aircraft are required to hold in certain positions and heights while waiting for their turn to land. The potential for aircraft holding holding can be influenced by various things, one of which is the density of air traffic in almost all airports in Indonesia, including the Ahmad Yani Airport in Semarang.*

*The purpose of this study was to determine how much potential costs caused by holding flight at Ahmad Yani Airport in Semarang by using holding calculations on Standard Arrival Route (STAR) RWY-13 and RWY-31 in May 2018. The holding flight calculation was carried out by step by step from calculating normal time arrival, flight time of holding, estimating takeoff weight, estimating fuel burn, estimating landing weight, calculating holding fuel by using interpolation formula, and calculating the holding cost of each aircraft.*

*From the calculation phase that has been explained, it can be seen that the potential costs incurred by the holding flight for the lion air Rp 151,087,717, Citilink Rp. 26,274,489, Batik Air Rp. 65,286,650, Garuda Indonesia Rp. 131,606,383, Air Asia Rp. 19,177. 245, Sriwijaya Air Rp. 9,729,825.*

*Keywords :*  
*Holding, STAR, Airlines, Cost*