



ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

INFORMATION PAPER

NAMCARAOT/02— IP/02  
16/11/21

**2nd Meeting of the NAM CAR Regional Airspace Optimization Team(NAMCARAOT/02)**  
Online, 18 November 2021

**Agenda Item 2: LIB Arrival Plan-Anthony Salas Costa Rica**

**PRESENTATION OF LIBERIA ROUTE**

(Presented by COCESNA)

<b>EXECUTIVE SUMMARY</b>	
This paper describes the potential savings by modifying arrivals and departures from the east into Liberia, Costa Rica.	
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> <li>• Air Navigation Capacity and Efficiency</li> </ul>

**1. Discussion**

1.1 As the objective of optimizing both high and low airspace this is an example of a low altitude proposal that could result in many savings.

Arrival savings based on 5 arrivals/day

<b>21,900 miles</b>	<b>saved per year</b>
<b>3,129 min</b>	<b>saved per year</b>
<b>131,400 kg (fuel)</b>	<b>saved per year</b>
<b>289,687 lbs (fuel)</b>	<b>saved per year</b>
<b>415,224 kg (CO2)</b>	<b>saved per year</b>
100,720 US \$	saved per year (fuel cost)
312,857 US \$	saved per year (op cost)
<b>413,577 US \$</b>	<b>saved per year (fuel &amp; op cost)</b>

— END —