

# Lost Fuel Savings Due to Lack of RNP 4 & Fans-1A Equipage

## ISPACG 29

Presented to: ISPACG 29

By: Dustin Byerly

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Federal Aviation  
Administration

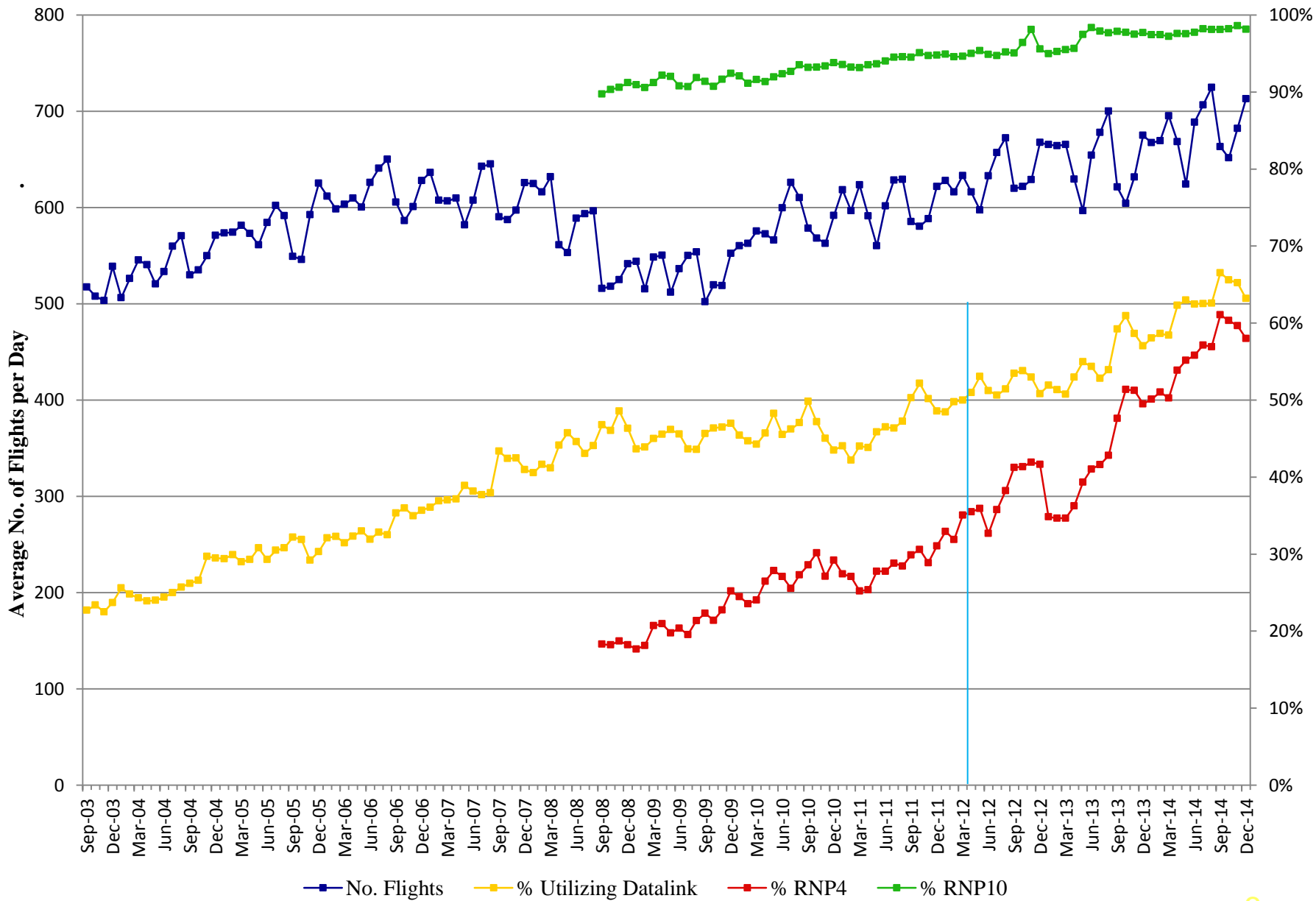


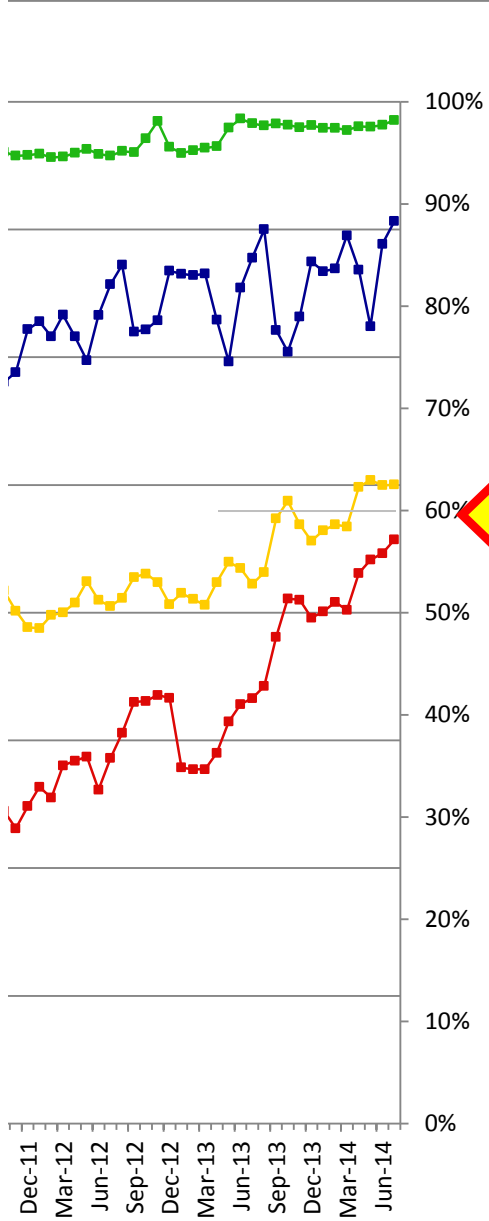
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# RNP4 and FANS Improves efficiency



# ZOA Flights & Equipment Utilization



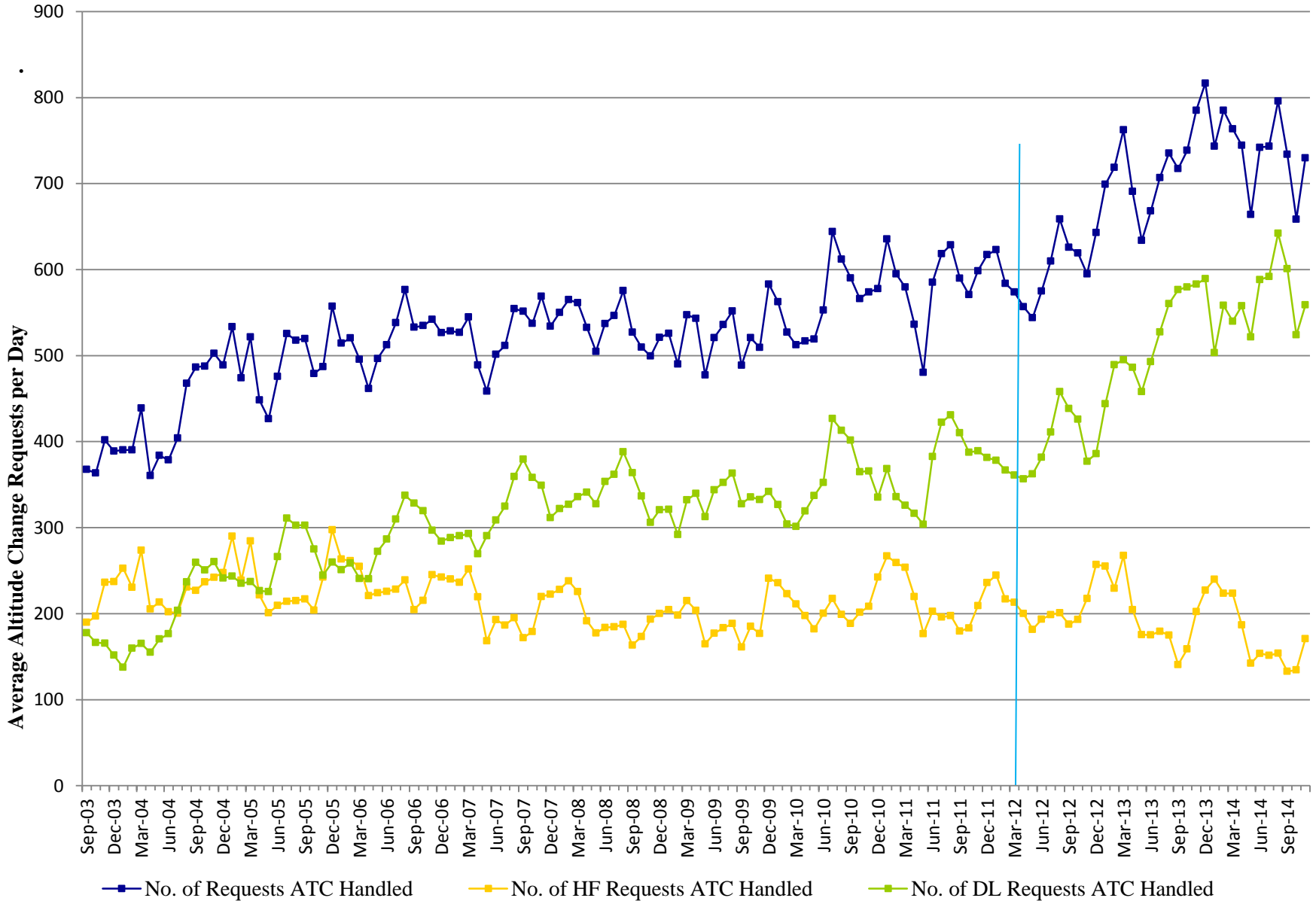


NP10

Filed NON_RNP4	
T/B744	"T" 28 Flights
P/B77W	"P" 227 Flights
P/B763	
P/B77L	
F/A333	"F" 268 Flights
F/B744	
??/B77L	??? 3 Flights
QQQ/B748	"QQQ" 51 Flights
QQQ/B744	
A/B752	"A" 26 flights



# ZOA Altitude Change Requests ATC Handled



—■ No. of Requests ATC Handled

—■ No. of HF Requests ATC Handled

—■ No. of DL Requests ATC Handled



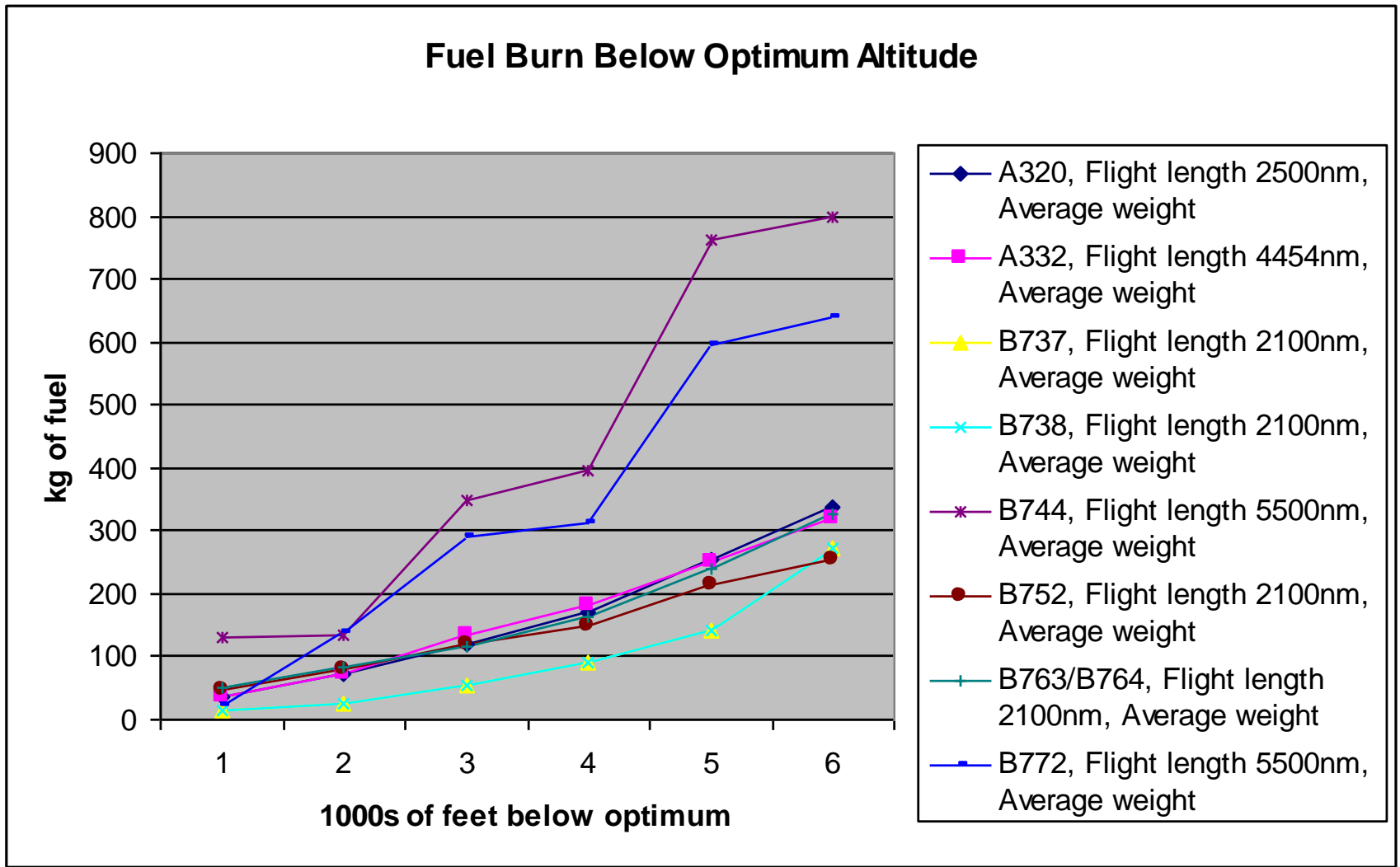
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# Lost Fuel Burn Savings

**The following slides identify denied aircraft requests for climb to optimum altitudes and places a value on the increased fuel burn due to lack of FANS equipment and RNP certification**

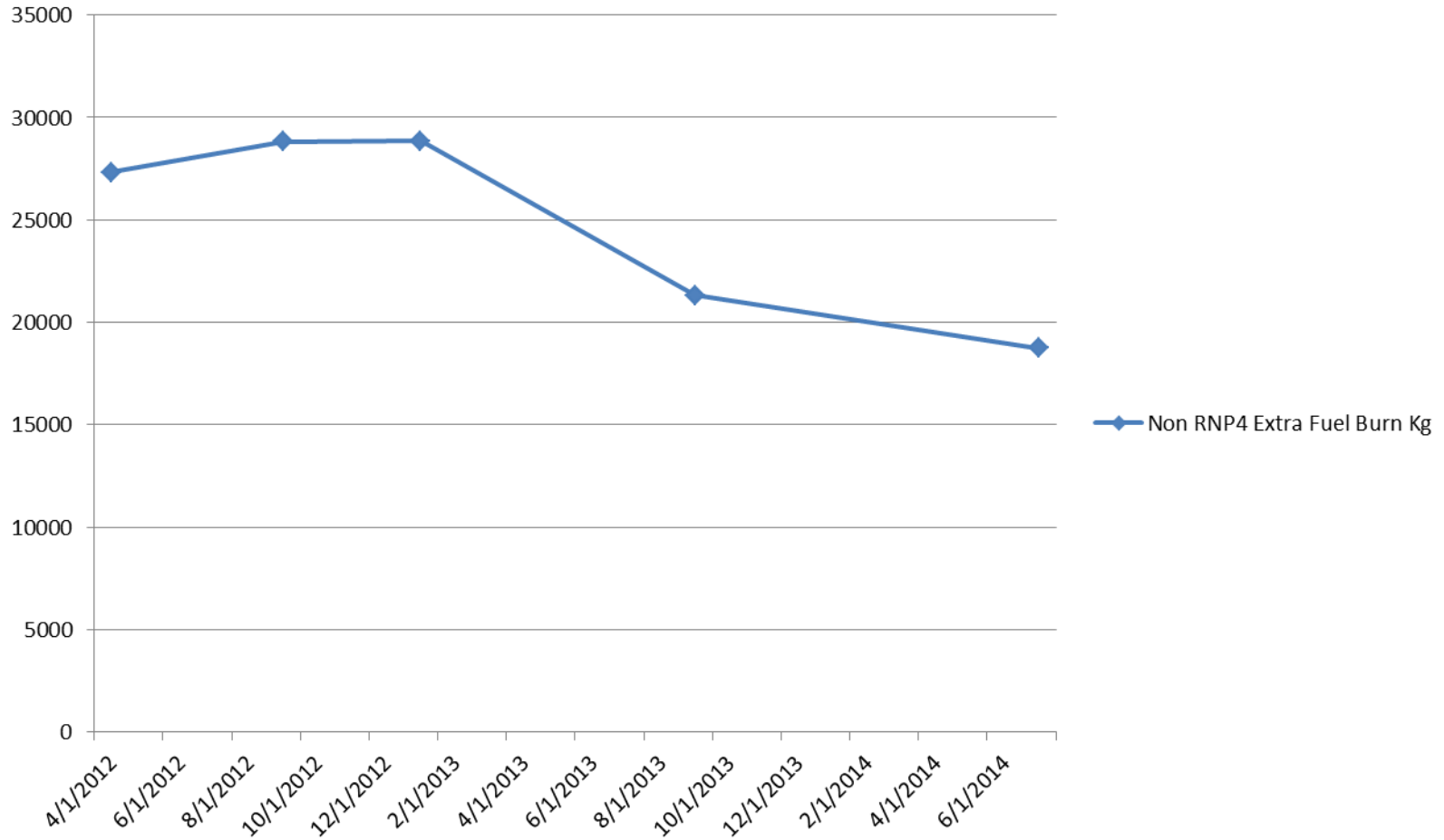


# Impact of Denied Altitude Change Requests



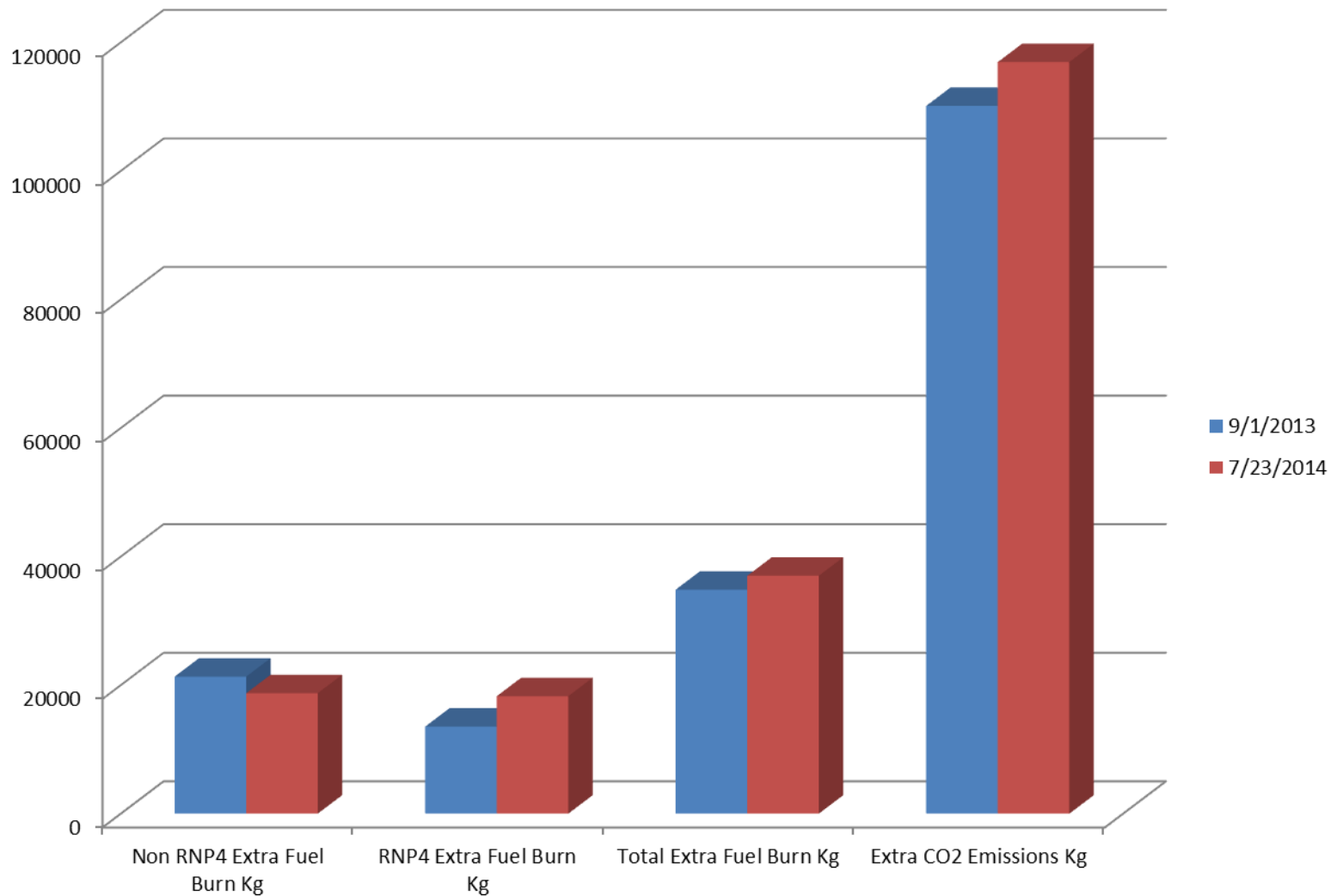
# Lack of RNP4 extra fuel burn

## Non RNP4 Extra Fuel Burn Kg





# RNP4 extra fuel burn



# **Additional benefits are not tracked**

- 30nm separation after two opposite direction aircraft have passed**
  
- If an aircraft is held below optimum altitude because of traffic and does not make requests for a new optimum altitude.**



# Additional benefits are not tracked

- **Savings that could be realized by developing route systems based on a 30nm lateral standard.**
- **This paper only captures the lost savings for the Oakland FIR. It would be much higher if calculated for all FIRs**



# Conclusion

- **The meeting is requested to:**
  - **Recognize the benefits of RNP 4 and FANS equipage; and**
  - **Consider certifying FANS equipped aircraft as RNP 4; and**
  - **Consider equipping aircraft with satellite FANS and RNP 4 certification.**



