

Kingdom of Saudi Arabia

GACA/ANS/ATM



Civil Military Coordination

ATM Department

- **Vision**

- Enhanced services using advanced technologies in a challenging environment by national calipers.

- **Mission**

- Plan and manage air traffic in the KSA airspace and airports with the most advanced technical equipments and theories, to provide safety and efficiency including reduction of harmful emission, without jeopardizing achieved level of safety.

OBJECTIVES OF CIVIL & MILITARY COORDINATION

- Unified vision and mission in regard to civil flights safety aspects.
- Constructive coordination in peace and war times.
- Exchange views on related aspects
- Implement kingdom policies and strategies in aviation regulatory and efficiency.

MILITARY OBJECTIVES

- secure the country during peace and war times.
- Check and identify all aircraft to prevent intruders.
- Carry out MIL training.
- Carry out SAR operations.
- Intercept suspected aircraft

MILITARY REQUIREMENTS

- Flight identification and tracking
- Establish Mil training and operational areas
- Prevent intruders to Mil areas
- Apply FUA as agreed upon
- AFTN connection to cater for traffic flow
- War time special procedures to civil traffic

CIVIL MIL COORDINATION

- To fulfill the following:
 - National security to defend the country
 - Mutual use of available facilities
 - Full coordination during peace and war times
 - Organize and re-structure national airspace to fulfill Civil and Mil requirements
 - Prepare contingency plans and exchange training expertise
 - Full coordination during Hi-Jacks and SAR ops
 - Exchange information as appropriate

CIVIL REQUIREMENTS

- Economic and straight routes.
- unclassified movements of Mil flights.
- Coordination during intercepting civil flight
- FUA application.
- Solid plans to cater for traffic growth.
- Flexibility to attract traffic to enhance CAAs income.

CAN CIVIL AND MIL. MEET?

- Sure
 - If there is a well and mutual understanding by both parties.
 - If the national benefits are considered.
 - If the operational and environmental issues were considered as a priority.

COORDINATION BENEFITS

- To cater for:
 - Traffic growth.
 - Income improvement.
 - Airspace capacity improvement.
 - Harmful emissions reduction.
 - controllers workload reduction .
 - Airlines fuel cost reduction.
 - Competition

LESSONS LEARNED

- Fulfill MIL requirements.
- Improved income to CAA and states.
- Fulfill investors requirements by:
 - Establishment of more than 30 direct economical routes.
 - Reduction in flying distances by 2000 NM
 - 400+ Millions SR saving to airlines.
 - 300+ Tons reduction of emissions.
 - Economical routes improve competence to attract more traffic.

SAMPLES OF FUEL SAVINGS IN KSA AIRSPACE

- The following are only samples.
- They are calculated on EA340 performance.
 - a min flying cost 100 US \$
 - a ton of fuel flies the aircraft for 17 min.
 - a ton of fuel produce 4.2 tons of emissions.
 - a ton of fuel cost around 500 US \$.(Assumption)
 - It depend on the number of flight frequency per year

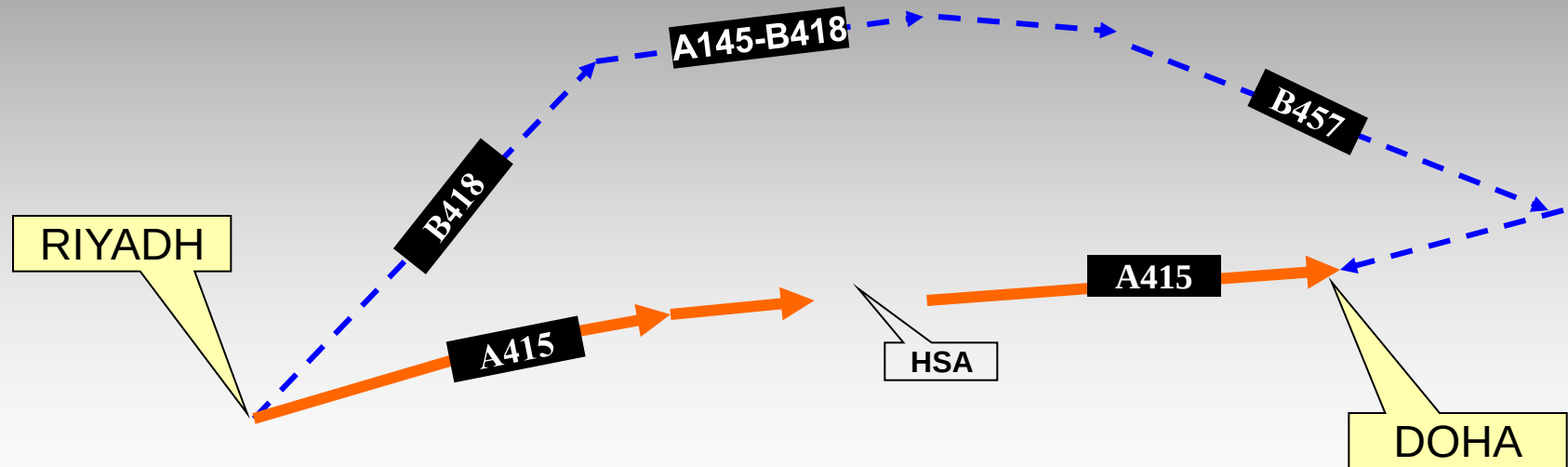
CONT. SAMPLES OF FUEL SAVINGS IN KSA AIRSPACE

- SVA have operated on 2008 more than 100,000 legs, if, for argument, we have saved 1 min per leg for 100 thousand flight we would have saved SVA the following:
 - 1600 hours of flying, 49 days.
 - 5800 tons of fuel.
 - 11.5 Millions US\$ fuel price. (one Ton = 500 US\$)
 - 24000 Tons of emissions.
- IATA have recently evaluated that 17 Million US\$ is an annual saving to airlines on ONLY two airways between KSA and Egypt (UL550& UA791)
- Think of this cost on environment and economy.

Riyadh to Doha

OLD ROUTE DISTANCE
419NM

NEW ROUTE
DISTANCE 263NM

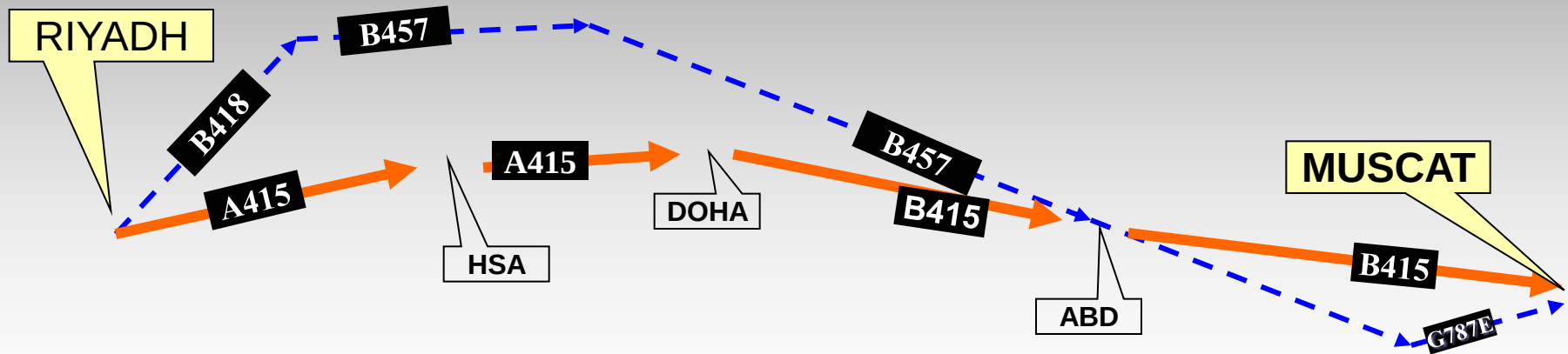


Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
156 NM	20.3 MNTS	Fuel 1.2 EM 4.8 TONS	2000

OLD ROUTE DISTANCE 704NM

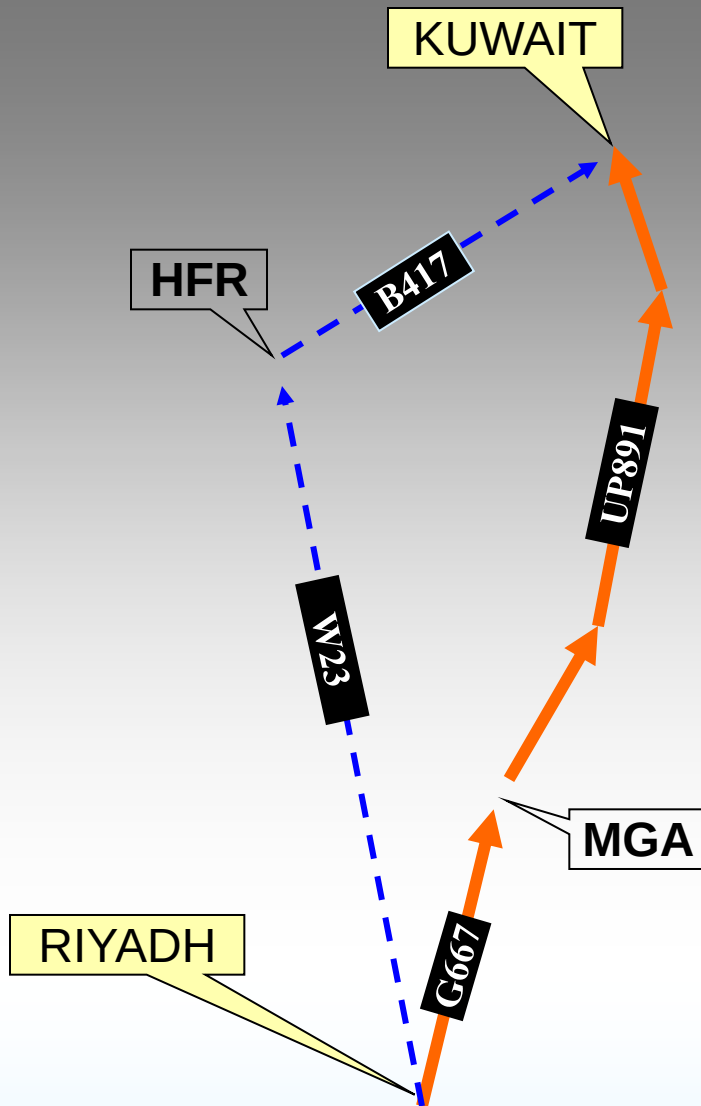
Riyadh to Muscat

NEW ROUTE DISTANCE 651 NM



Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
53 NM	6.9 MNTS	Fuel 0.4 EM 1.6 TONS	691

Riyadh to Kuwait



OLD ROUTE DISTANCE
319 NM

NEW ROUTE DISTANCE
264 NM

Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
55 NM	7.2 MNTS	Fuel 0.4 EM 1.7 TONS	720

OLD ROUTE DISTANCE
1241 NM

CAIRO to DAMMAM

NEW ROUTE DISTANCE
1025nm

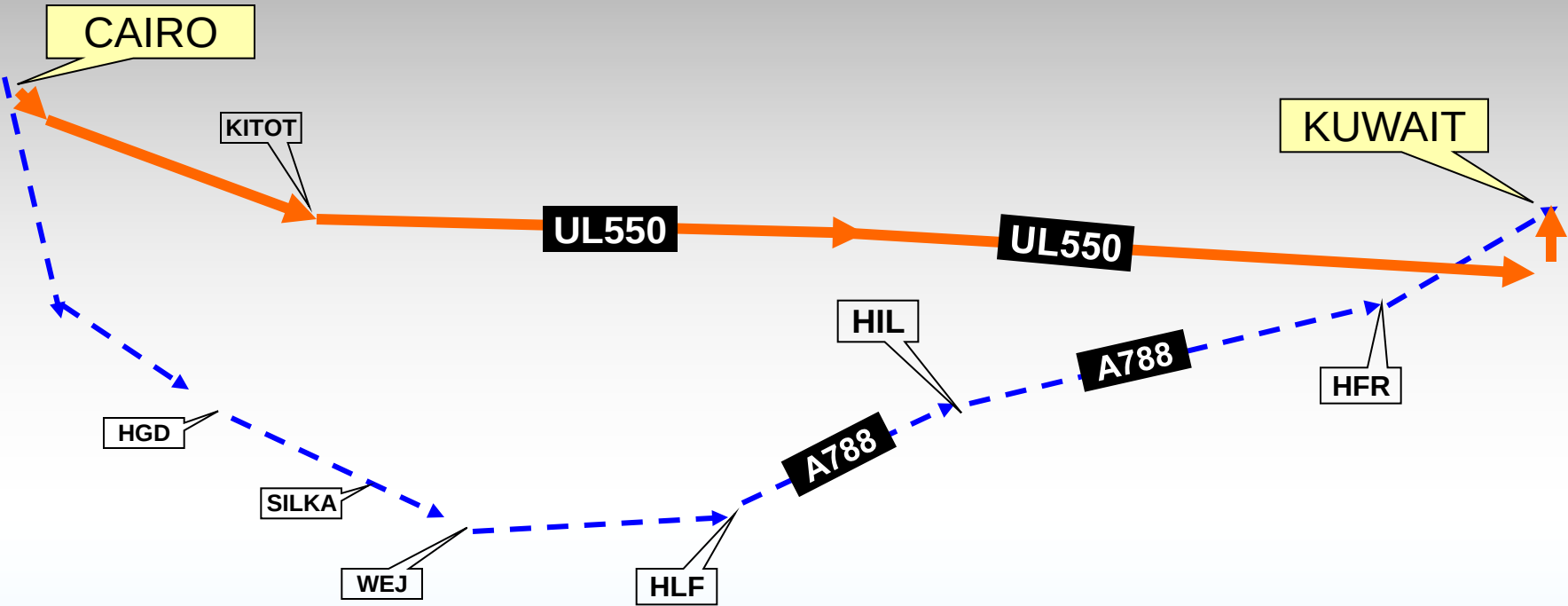


Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
216 NM	28.2 MNTS	Fuel1.7 EMM7.14 TONS	2820 \$

OLD ROUTE DISTANCE
1192 NM

CAIRO to KUWAIT

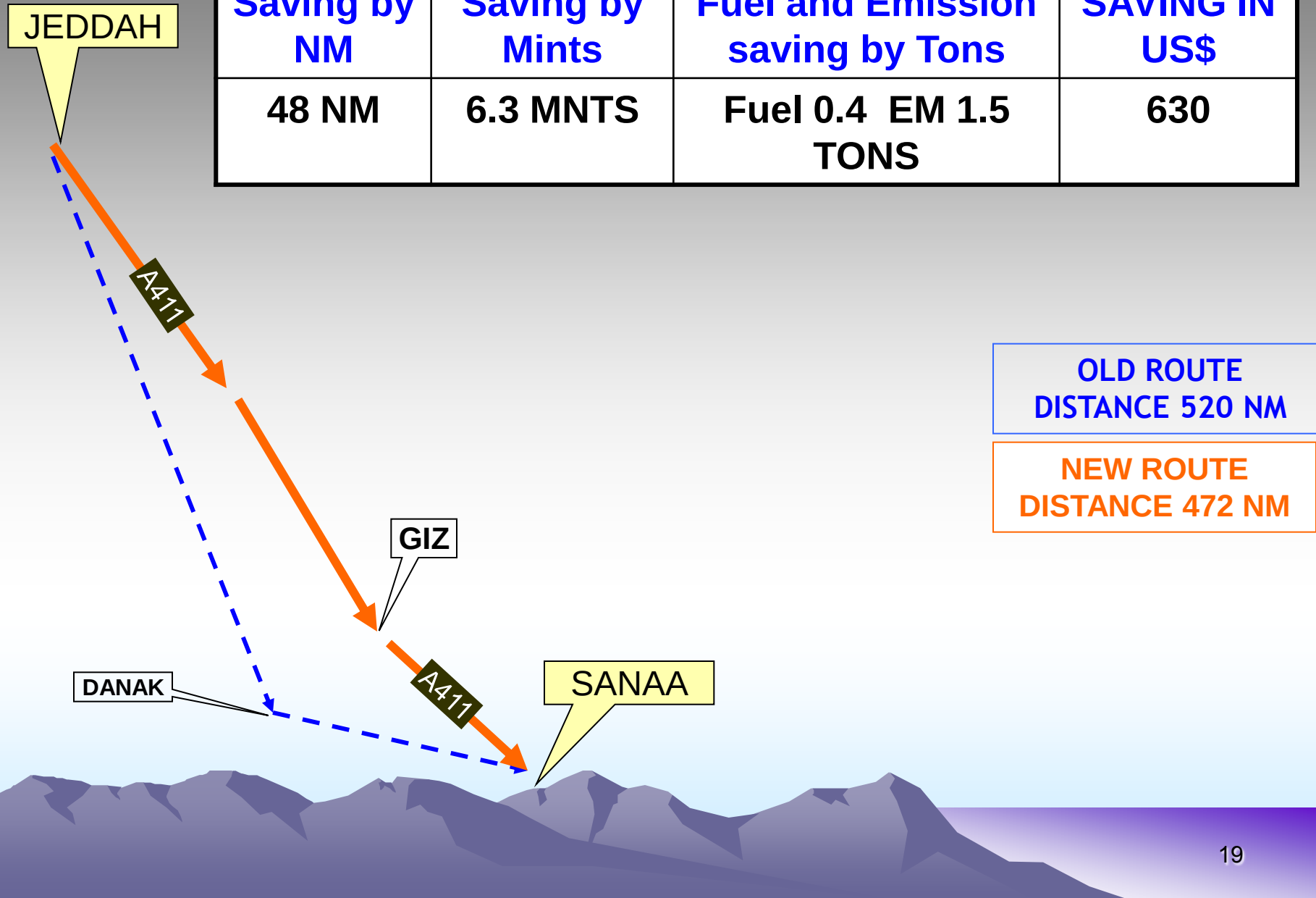
NEW ROUTE DISTANCE
938NM



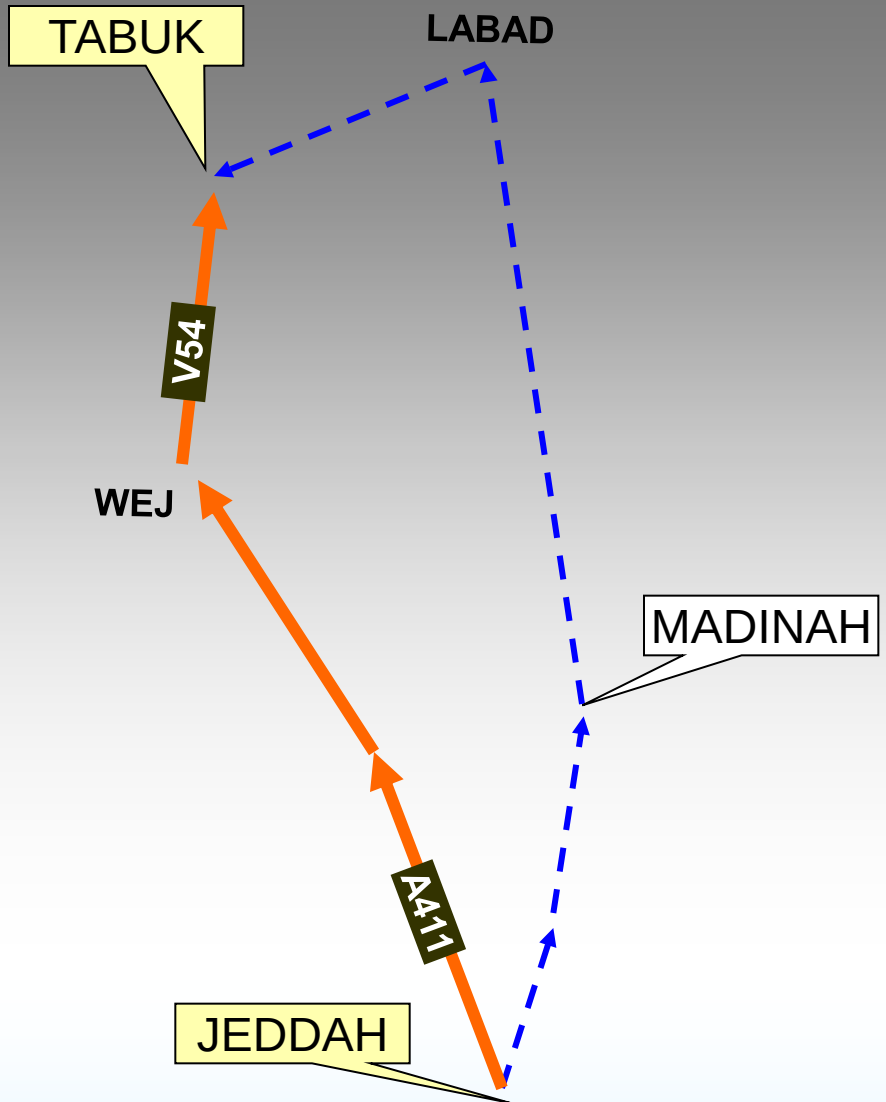
Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
254 NM	33.1 MNTS	Fuel 1.9 EM 7.8 TONS	3310

JEDDAH to SANAA

Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
48 NM	6.3 MNTS	Fuel 0.4 EM 1.5 TONS	630



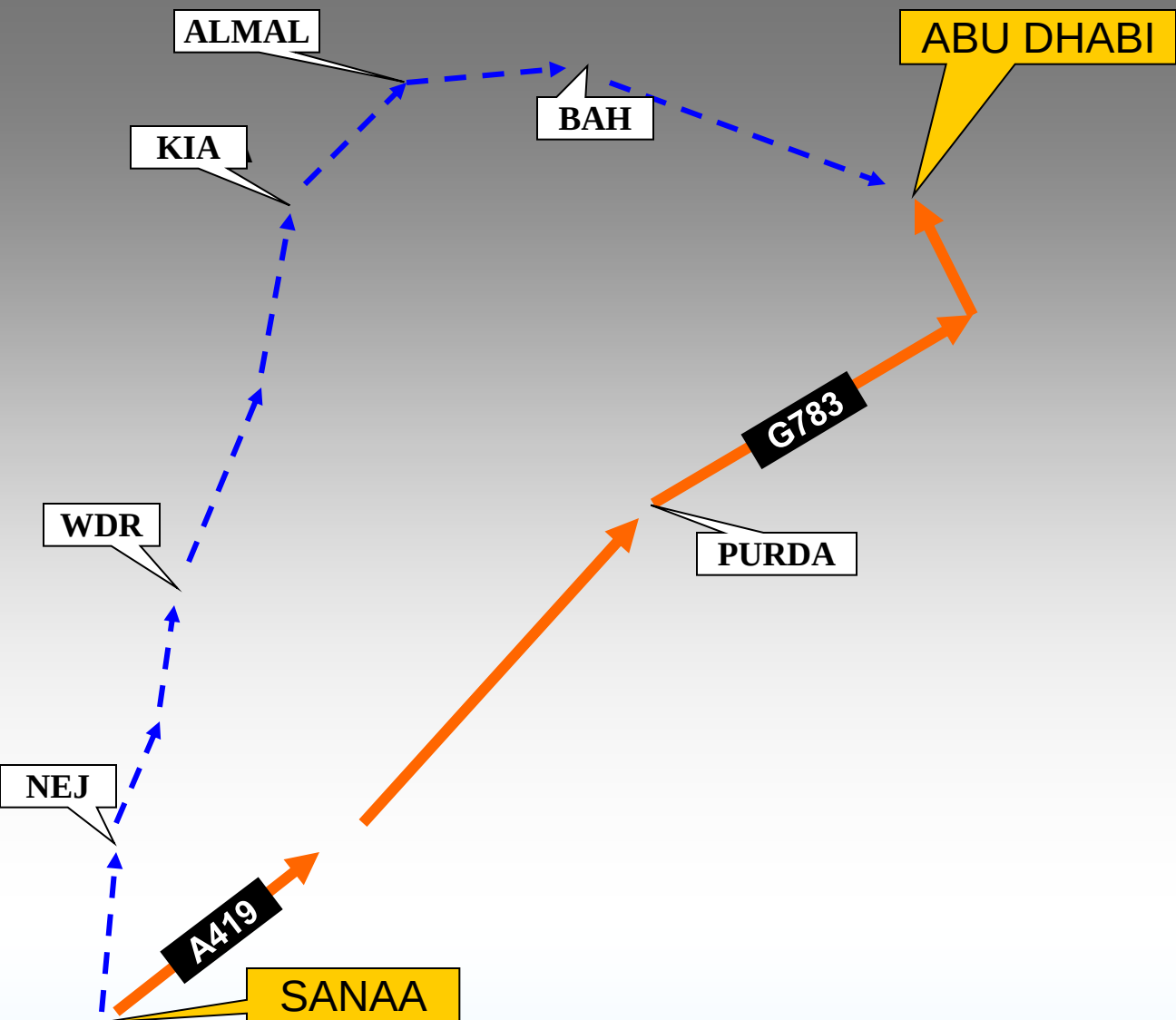
Jeddah to Tabuk



OLD ROUTE DISTANCE 599 NM

NEW ROUTE DISTANCE 440 NM

Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
159 NM	20.7 MNTS	Fuel 1.2 EM 5 TONS	2070



SANAA to ABU DHABI

OLD ROUTE
DISTANCE 1135
NM

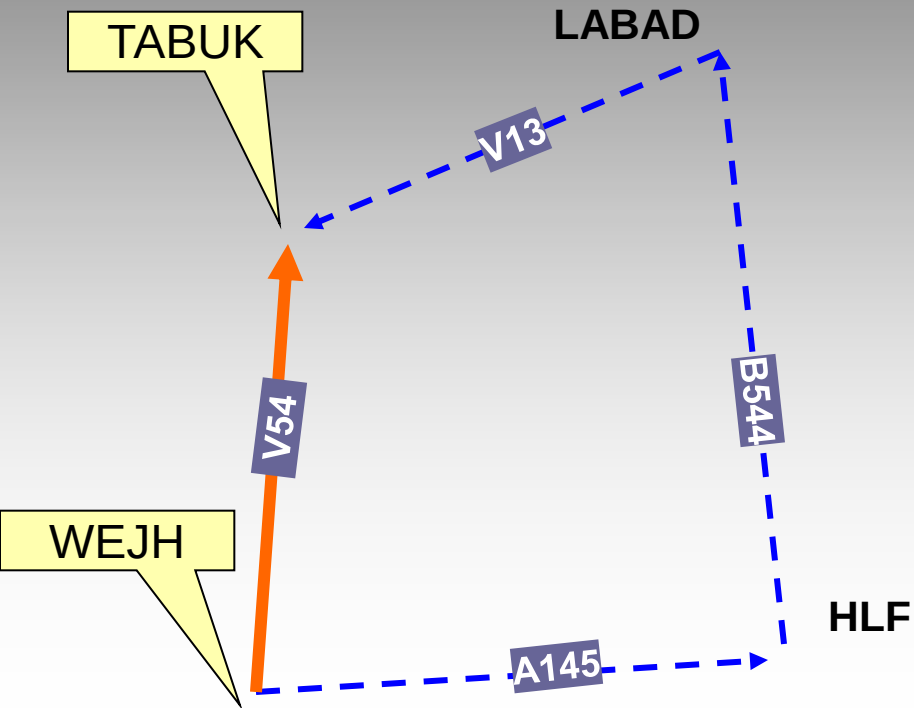
NEW ROUTE
DISTANCE 884 NM

Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
251 NM	32.7 MNTS	Fuel 1.9 EM 8 TONS	3270

WEJH to TABUK

**OLD ROUTE
DISTANCE 459 NM**

**NEW ROUTE
DISTANCE 131 NM**



Saving by NM	Saving by Mints	Fuel and Emission saving by Tons	SAVING IN US\$
328 NM	42.8 MNTS	Fuel 2,5 EM 10 TONS	4280

Thank You

