

***Dare To Dream***

***Flying With Diabetes***

**Douglas Cairns**



**RAISING DIABETES AWARENESS**





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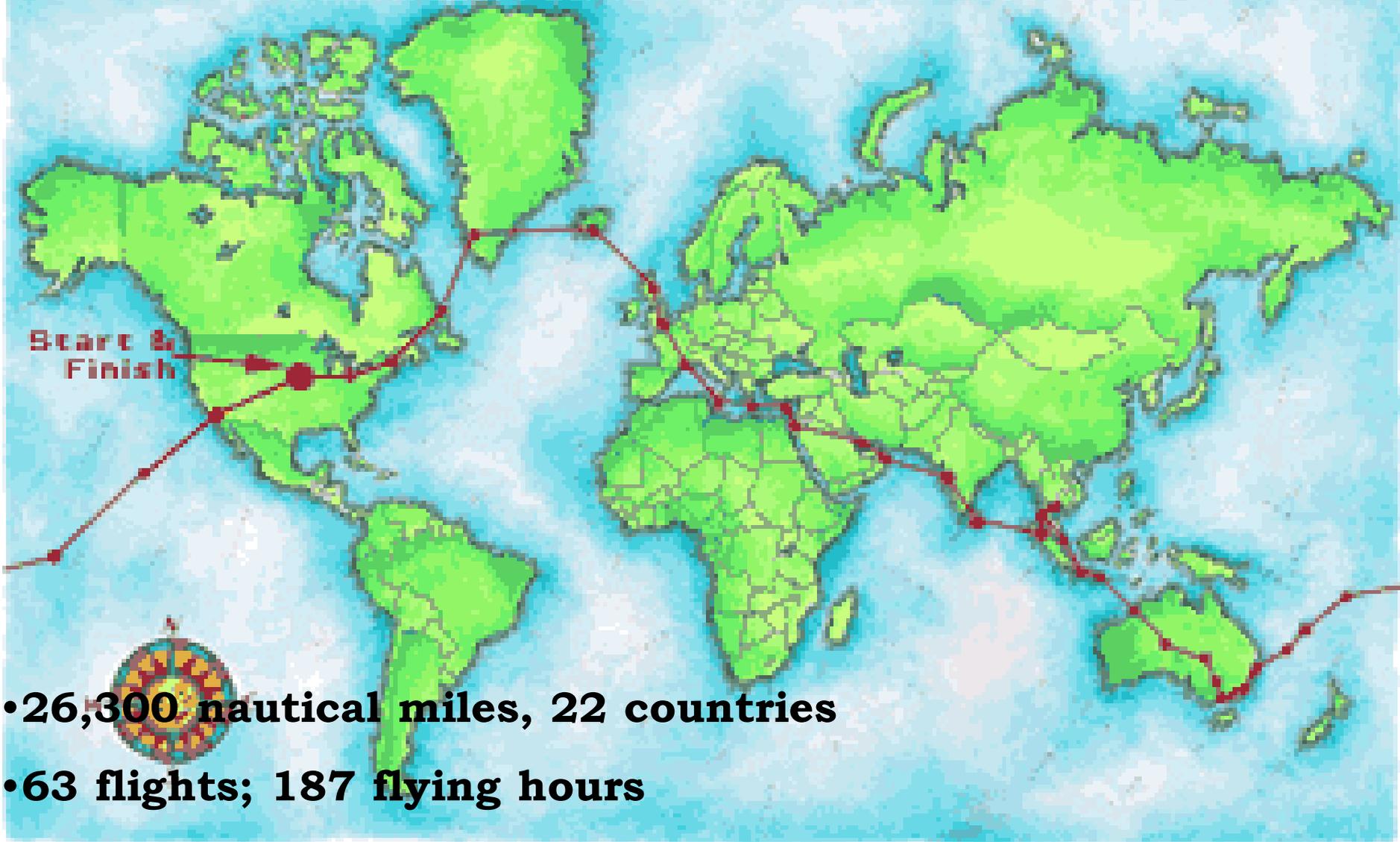




**RAISING DIABETES AWARENESS**



# Diabetes World Flight



**RAISING DIABETES AWARENESS**



# Raising awareness of diabetes:

- 8 countries allow flying with insulin-treated diabetes
- Canada first for commercial flying in 1997; UK in 2012, USA and Australia in 2020
- Also restricted by blanket bans: commercial driving, working at sea, diving, military, police driving...



**RAISING DIABETES AWARENESS**



***Diabetes need not limit the scope of people's dreams and ambitions***



**RAISING DIABETES AWARENESS**



# Agenda

- How do we manage diabetes when flying?
- Flying With Diabetes Projects since 2002
- Diabetes Polar Flight
- Team Aviation Speed Records
- Pilots With Diabetes – Commercial Flying

# How Do We Manage Diabetes While Flying?

## Medical Requirements

- Demonstrate overall good control
- Absence of any recent unexplained hypoglycemic events
- Once Medical Certificate awarded, 3 monthly medical checkups required to confirm continued good control in USA, 6-monthly & annual in UK, Ireland and Austria

# How Do We Manage Diabetes While Flying?

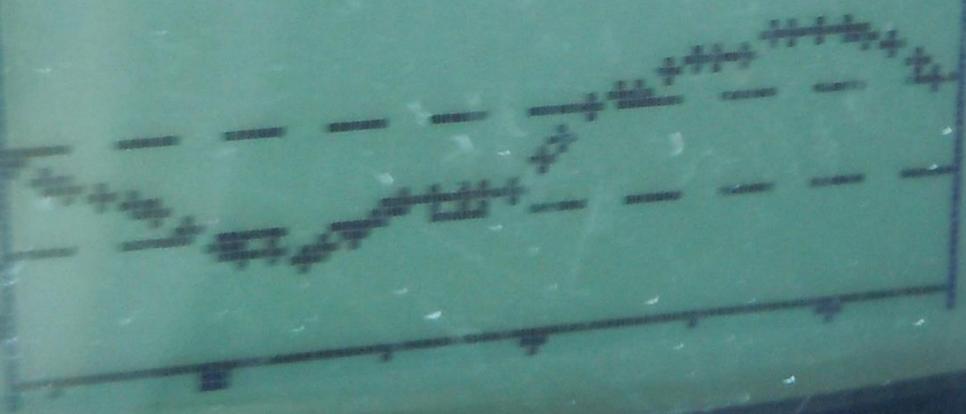
- Test blood sugar 30 minutes of takeoff; each hour into a flight and 30 minutes before landing - results must fall between 5.5 – 16.5 mmol/l
- If above 16.5 land as soon as practicable and bring blood sugar within range
- If below 5.5 no need to land, but ingest 20g readily absorbable carbohydrate



## BLOOD GLUCOSE MONITOR



3.00  
2.50  
2.00  
1.50  
1.00  
0.50



117



02:22 P

3hr



 dexcom

# **Flying Projects Since 2002**



# DIABETES FLIGHT 48





note Alaska & Hawaii not to scale.



# DF48 - PLANNED ROUTE





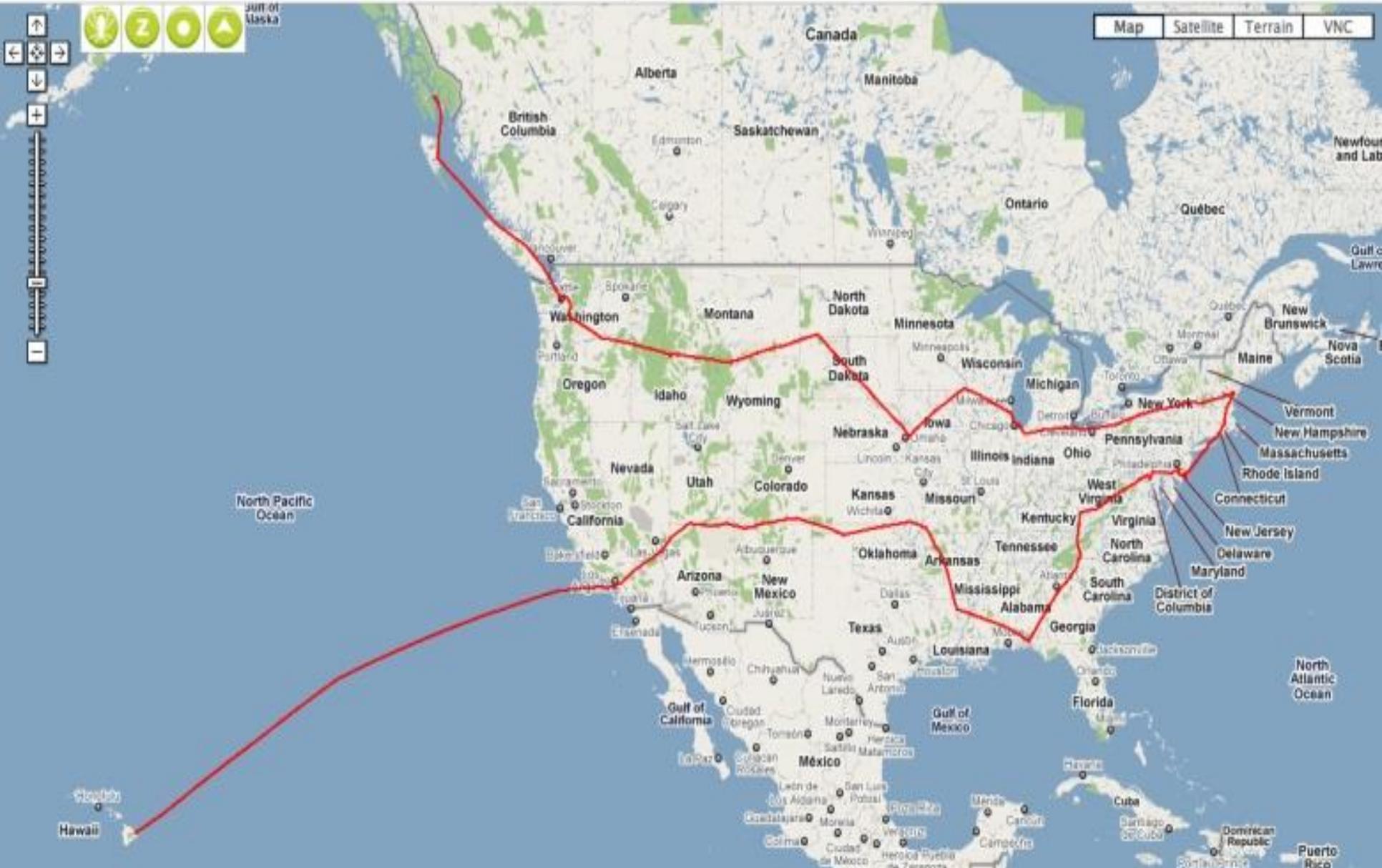
# DIABETES FLIGHT 48





# DIABETES FLIGHT 48





# DIABETES FLIGHT 50



Diabetes

Polar

Filip

Google earth









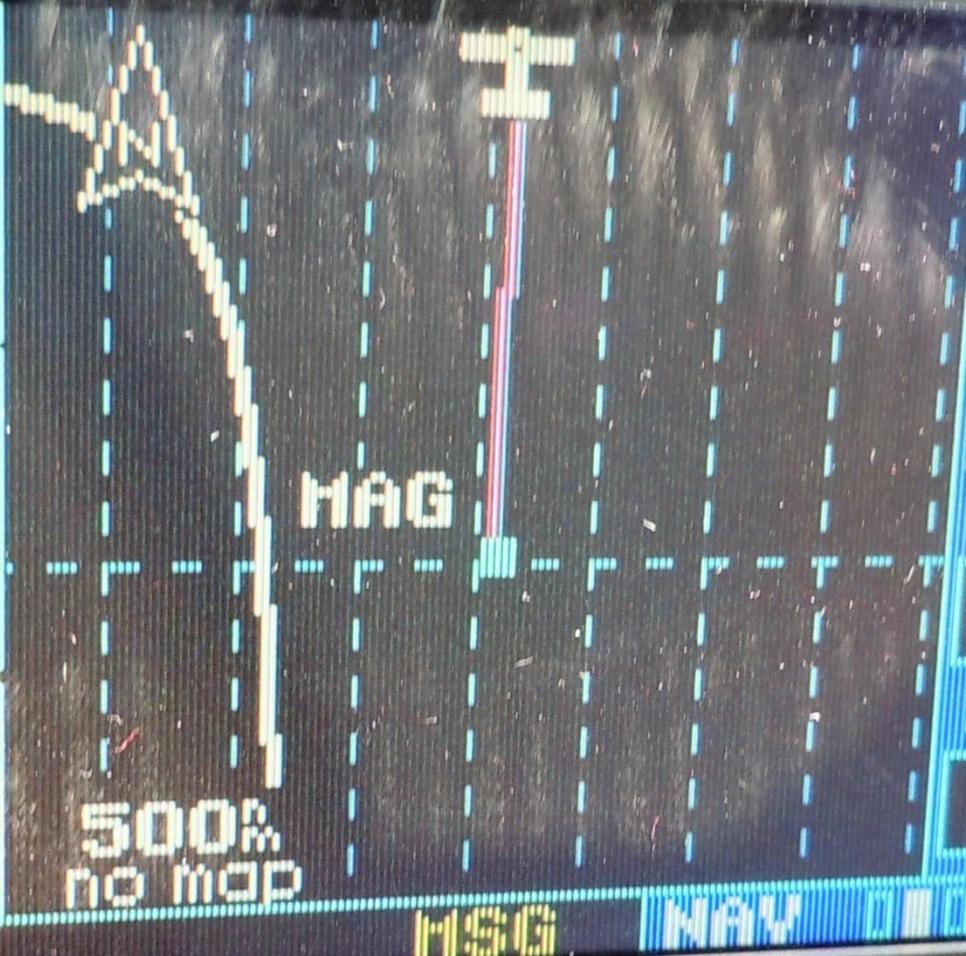
Diabetes Polar Flight  
www.diabetespolarflight.org







24.000  
110.50  
116.20



MPT  
NPOLE  
DTK  
000°  
DIS  
120%  
GS  
150%

OCN  
GPS

NAV 00000

CDI

OBS

MSG

FPL

PROC

GPSmap 396

GARMIN



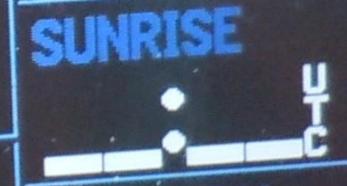
N 89°59.978'  
E 045°24.829'

01:03:47<sup>UTC</sup>  
20-APR-11



SPEED  
151<sup>k</sup>/<sub>t</sub>

FUEL TIMER  
26:50

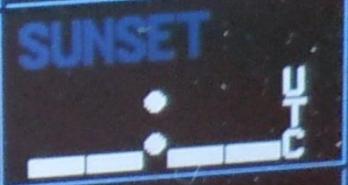


BATTERY



ALTITUDE  
7755<sup>f</sup>/<sub>t</sub>

FLT TIMER  
05:33



POWER

Arriving at NPOLE









**Внимание! Следующий туалет  
находится за 1500 км**

**Next toilet is 1500 km  
far away**











# **Team Aviation Records**

# *Around Britain's Coastline*

3500 km - new aviation speed record



# UK Diabetes Formation Flight – September 2012



# UK Diabetes Formation Flight – September 2012



# US Team Records

- Jacksonville to San Diego (formation)
- Denver to Omaha (formation)
- Lincoln, NE to Cedar Rapids (formation)
- San Luis Obispo, CA to Las Vegas (formation)
- 24 hour world record to visit the most US States in 2018 (increased from 24 to 29 states)



**Diabetes formation Flight USA – 2012**



# “Pilots With Diabetes”

[www.pilotswithdiabetes.com](http://www.pilotswithdiabetes.com)

- Formed in 2007; attempting to persuade UK CAA to allow commercial & private flying with diabetes
- Contacts in USA, Canada, Australia, South Africa & across Europe
- Use Canadian commercial flying as an example
- Promote *individual assessment based on equal opportunity*

# What Next?

- Persuade more countries to enable commercial flying
- More blood glucose control data required (ongoing research project into commercial pilots' blood sugar control may help)
- Efforts to lift “ab initio” restriction in UK, Ireland and Austria for aspiring commercial pilots

**More Flying Projects!**



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Diabetes  
World  
Flight