

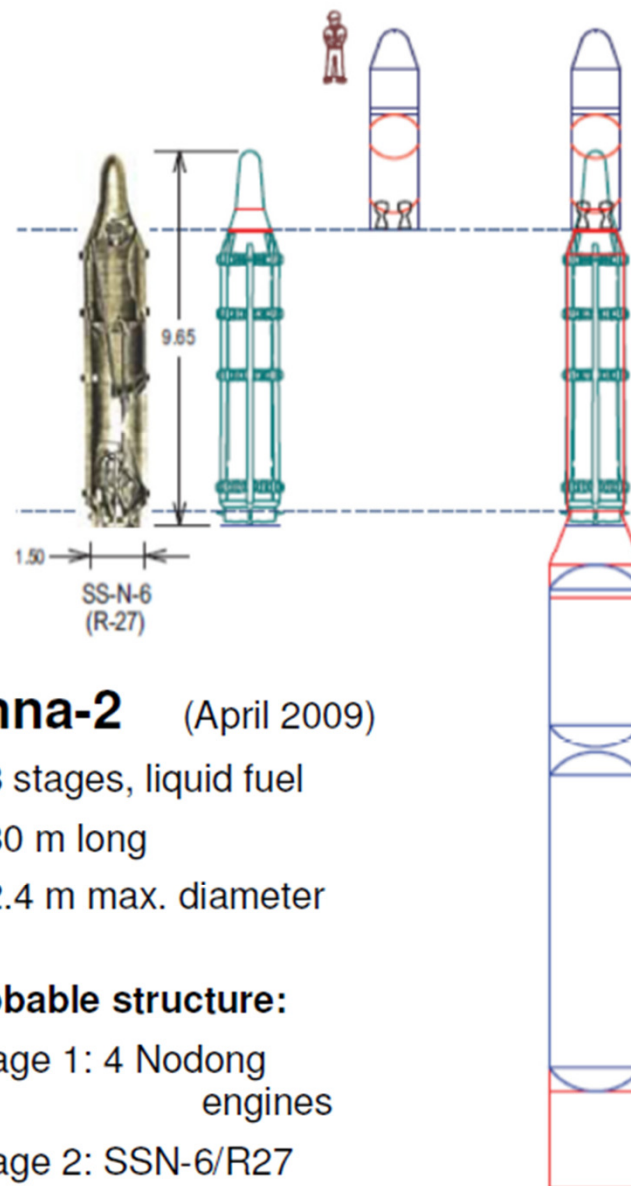
North Korea's Missile Launch

April 2012

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Union of Concerned Scientists

AllThingsNuclear.org



Uhna-2 (April 2009)

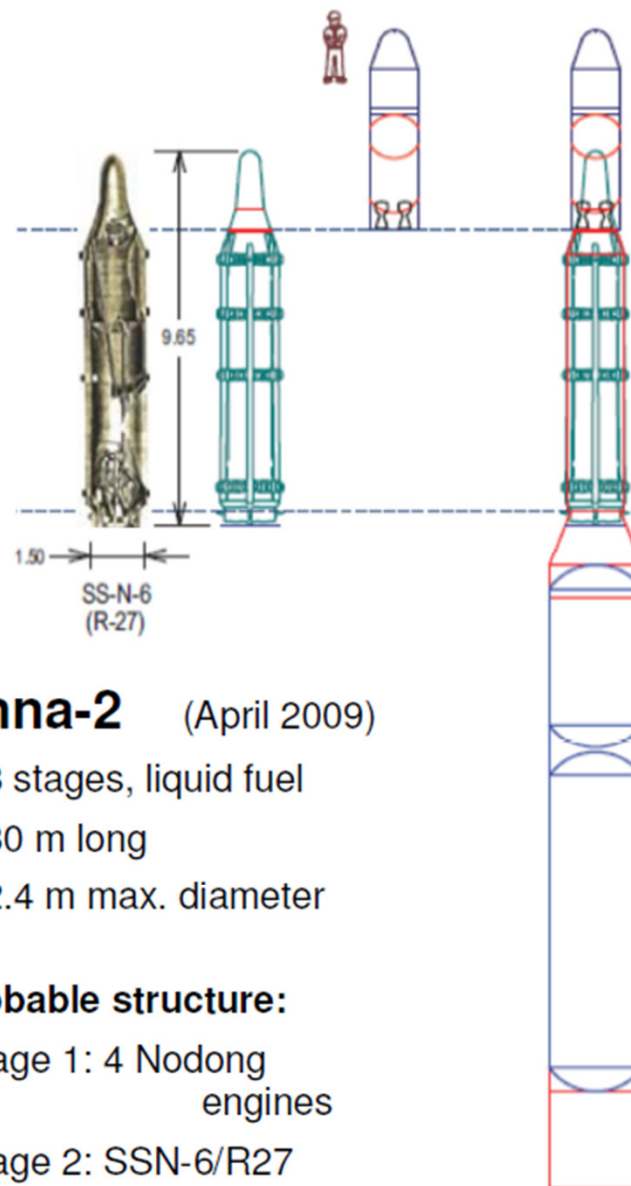
3 stages, liquid fuel
30 m long
2.4 m max. diameter

Probable structure:

- Stage 1: 4 Nodong engines
- Stage 2: SSN-6/R27
- Stage 3: Safir upper stage



(Diagram by Ted Postol)



Uhna-2 (April 2009)

3 stages, liquid fuel

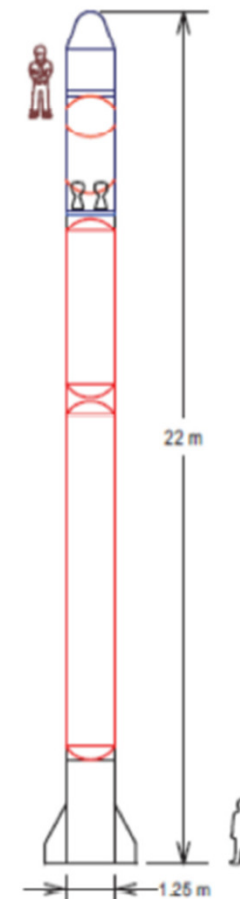
30 m long

2.4 m max. diameter

Probable structure:

- Stage 1: 4 Nodong engines
- Stage 2: SSN-6/R27
- Stage 3: Safir upper stage

Iranian Safir launcher



(Diagram by Ted Postol)

Comparison of Unha-2 and Unha-3 launchers

Very similar
although the
3rd stage of the
Unha-3
appears to be
somewhat
longer

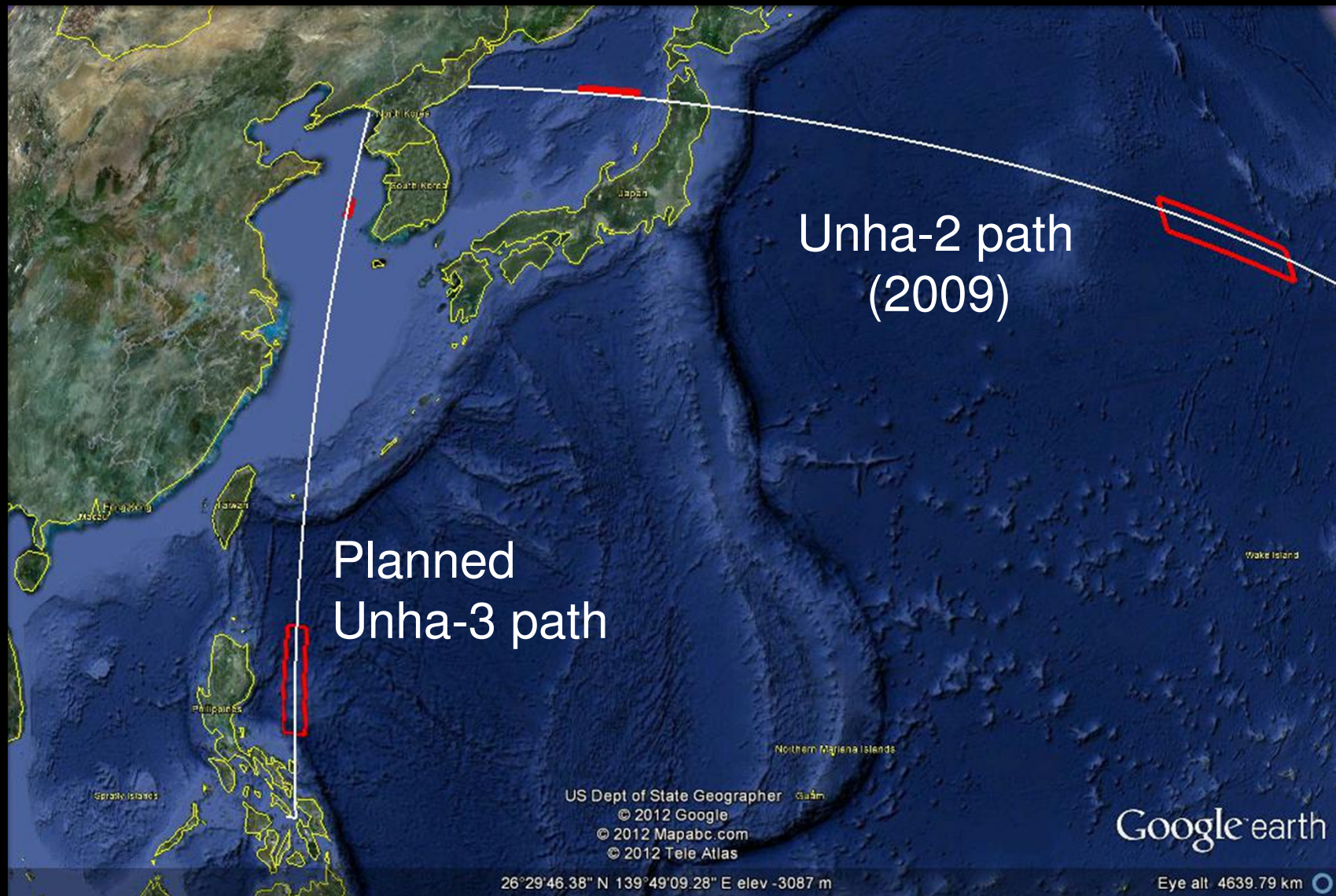


Unha-2 (April 2009)

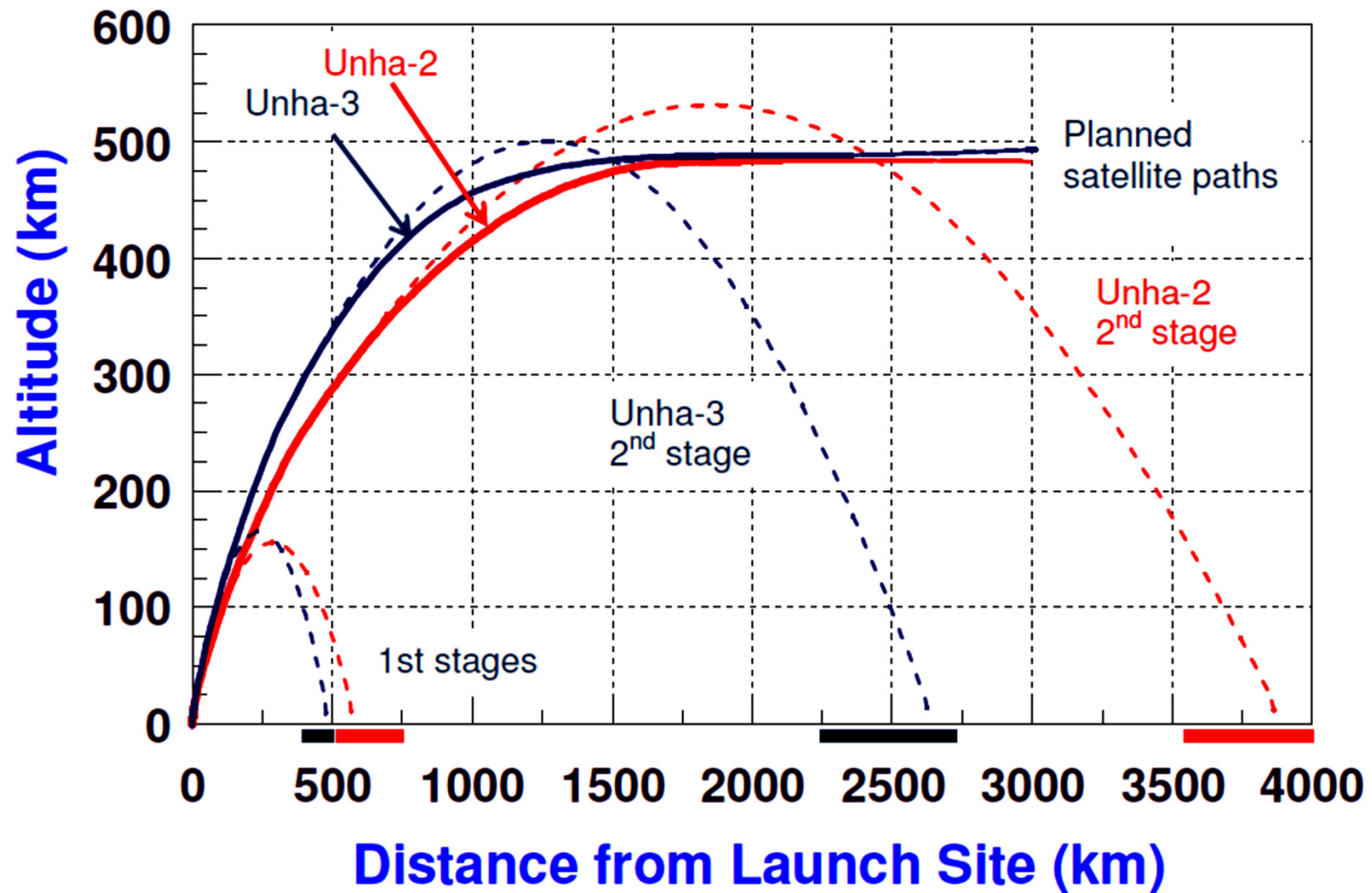


Unha-3 (April 2012)

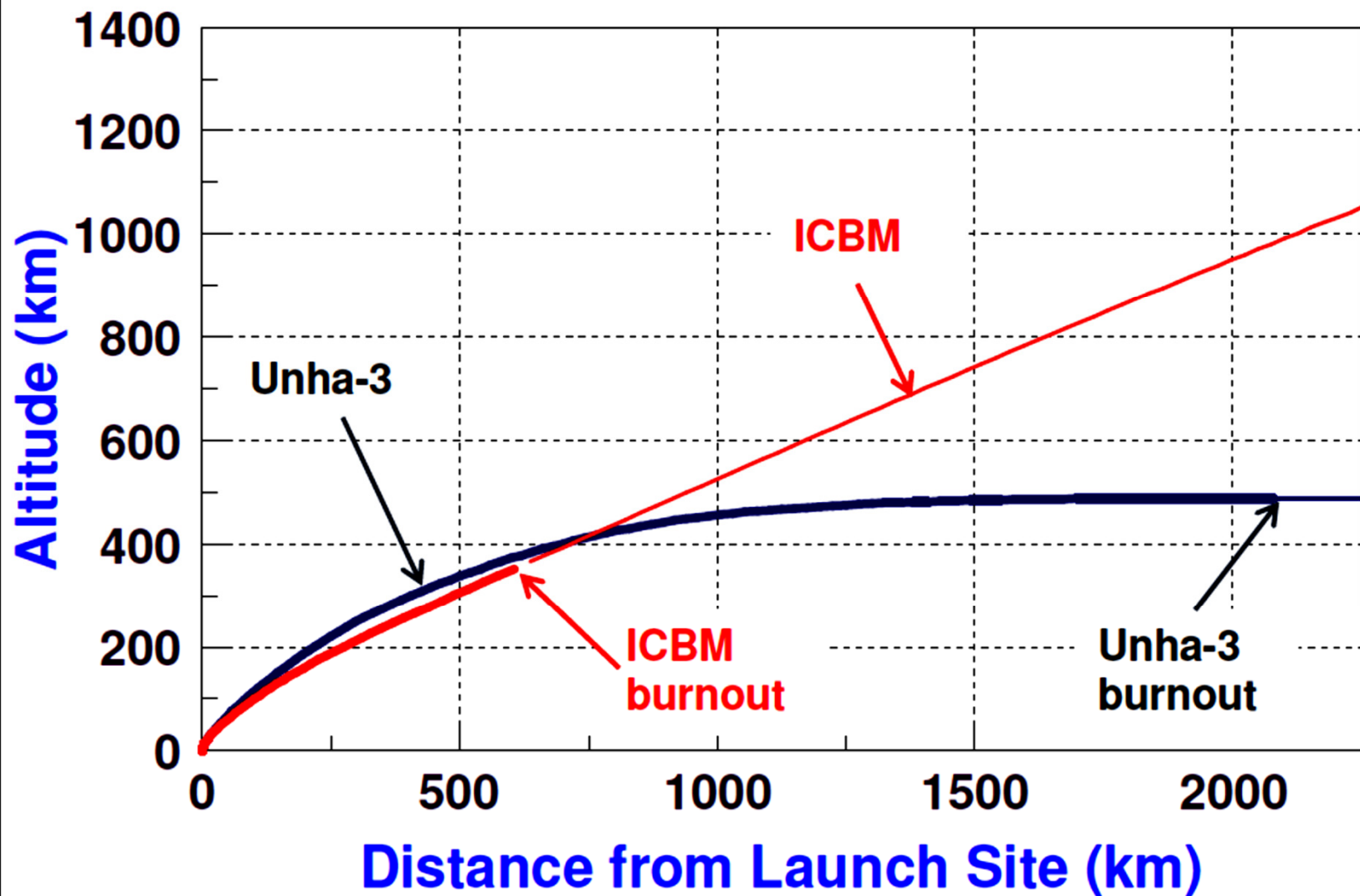
Comparison of Unha-2 and Unha-3 Flight Paths



Comparison of Unha-2 and Unha-3 Trajectories



Comparison of Unha-3 and ICBM Trajectories

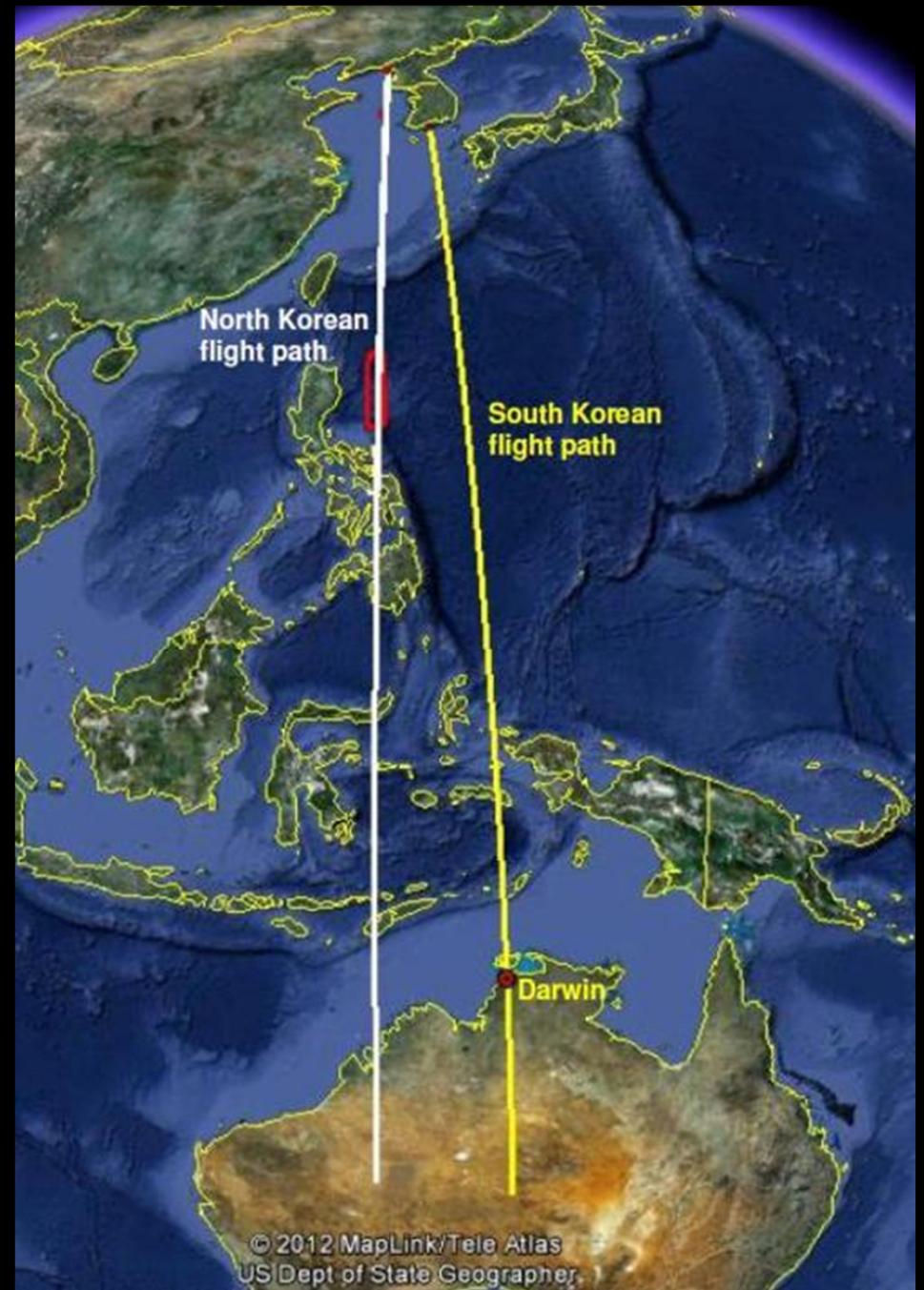


Unha-3 Failure

- Shows approximate location of splashdown according to information from US.
- Based on this information, failure appears to be during 1st stage burn.



Comparison of North and South Korean launch paths



Musudan Missile



New Missile Seen at April Parade



TEL



WS51200

西陆网
www.xilu.com

Fueling a “Moveable” Missile



Chinese DF-3