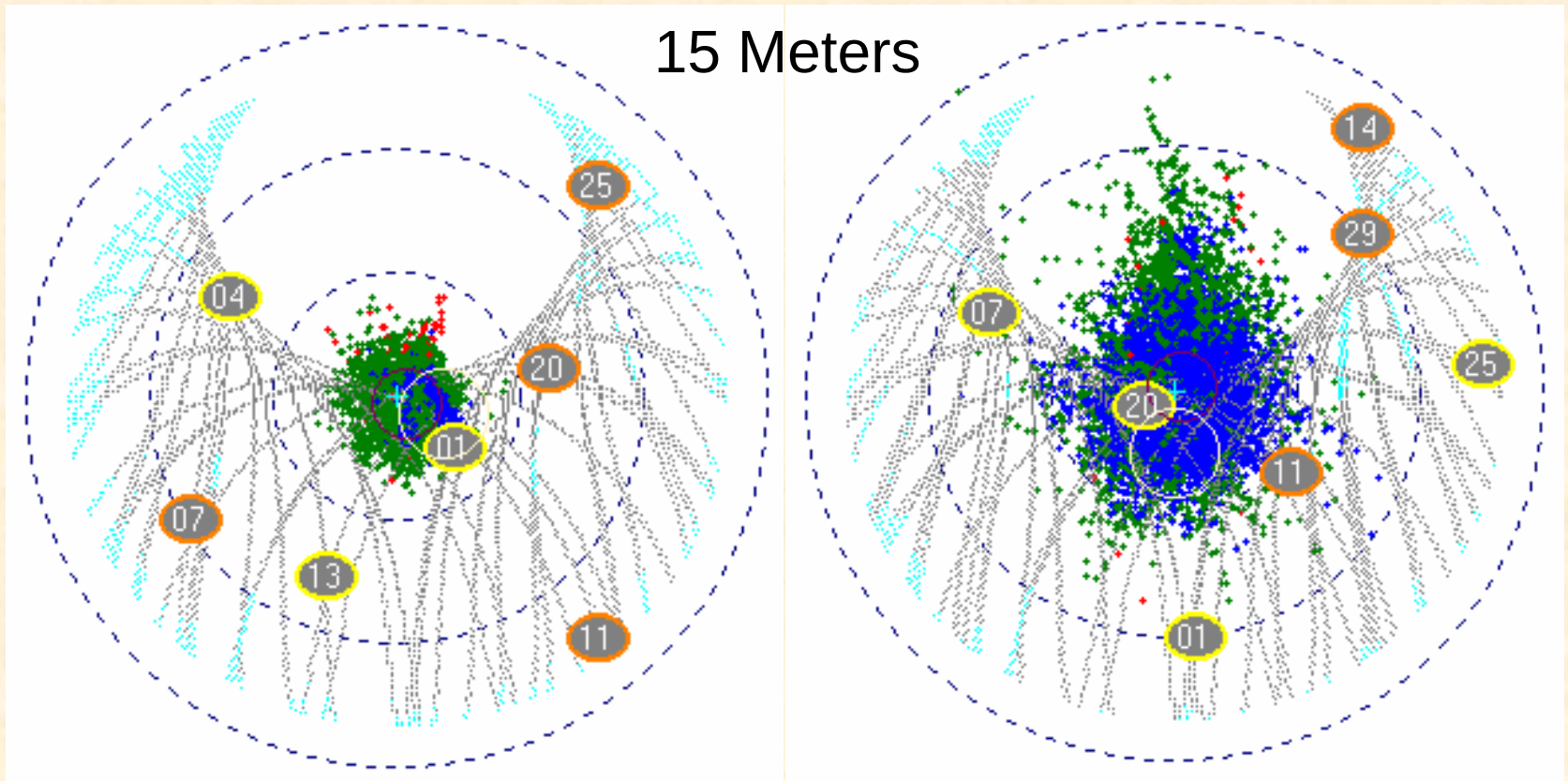


Unusable PRN30

**Illustrating the Need for Loran-C
and Galileo at High Latitudes**

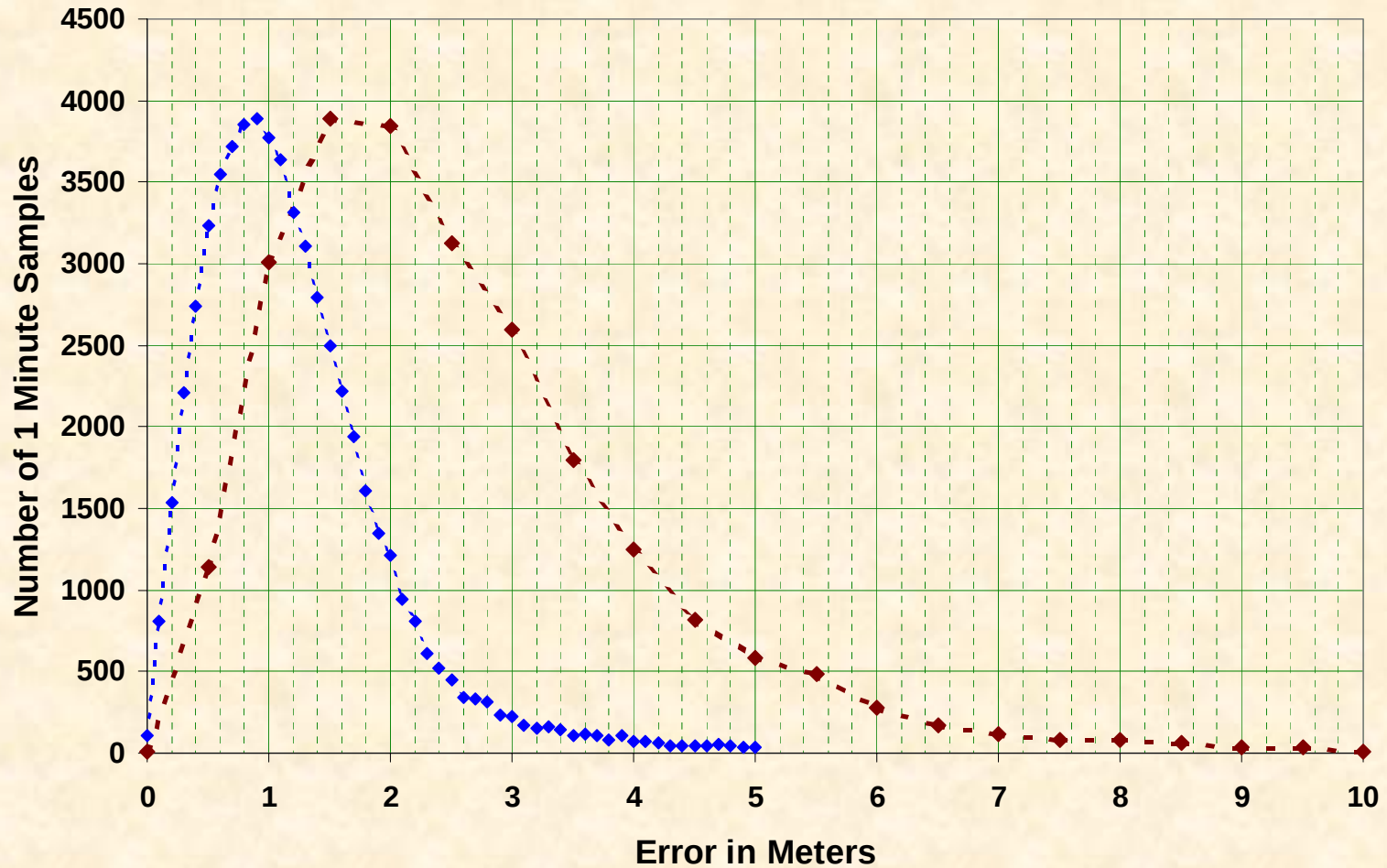
15 Meters



DGPS Lessay Eurofix

Uncorrected GPS

Lessay Eurofix Error Distribution: August 6 - September 17, 2001
GPS Error Distribution: September 22 - October 3, 2001 (Normalized)



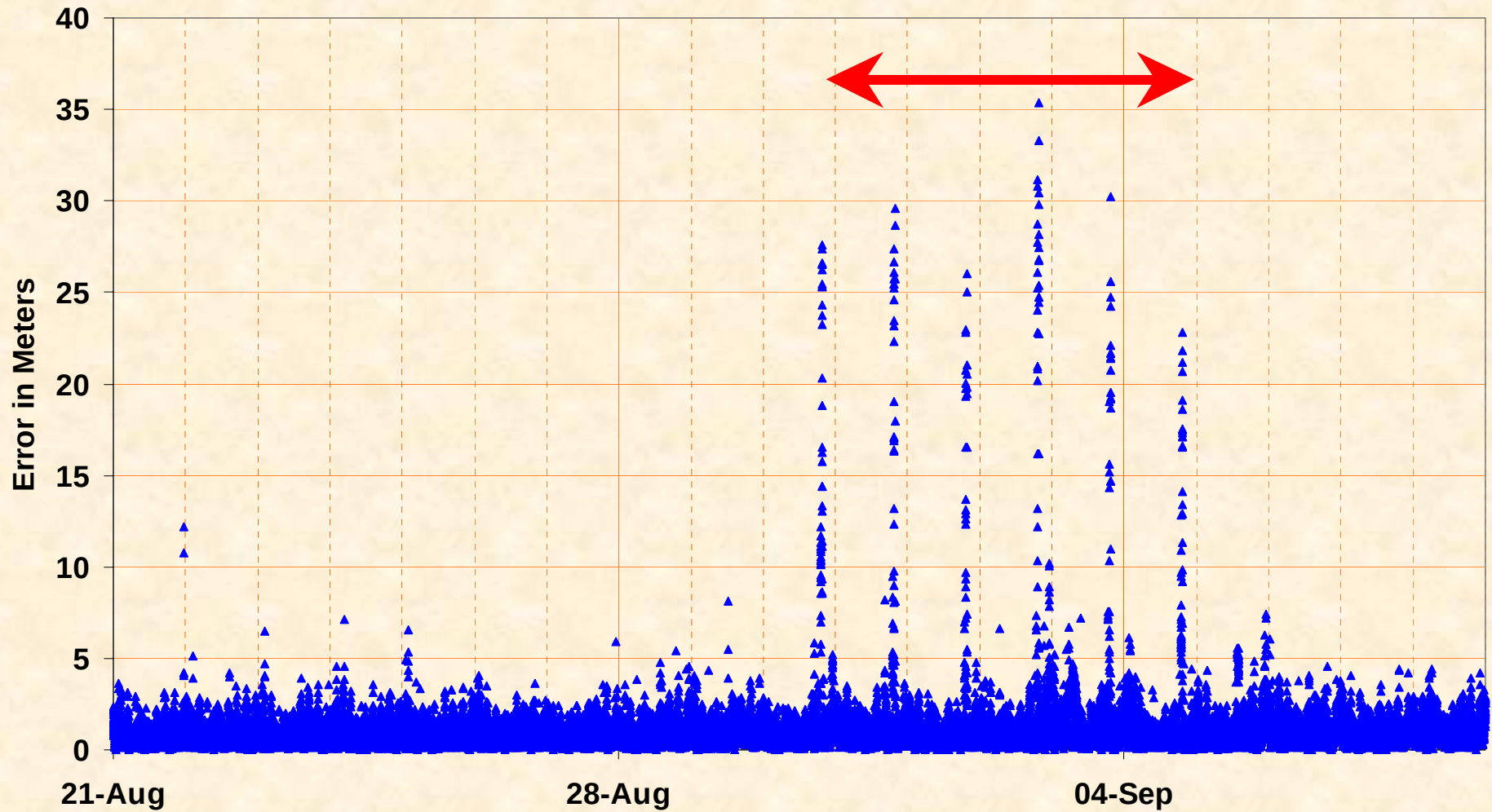
**NANUMSG DATE/TIMEPRNTYPESUMMARY
(JDAY/ZULU TIME
START - STOP)**

**2001112292113Z AUG 200130UNUSUFN241/2102-
2001114042100Z SEP 200130UNUSABLE241/2102-247/2055**

**UNUSFN Unusable until further notice issued August 29 at 21:13 Z
UNUSABLE Period PRN30 was unusable**

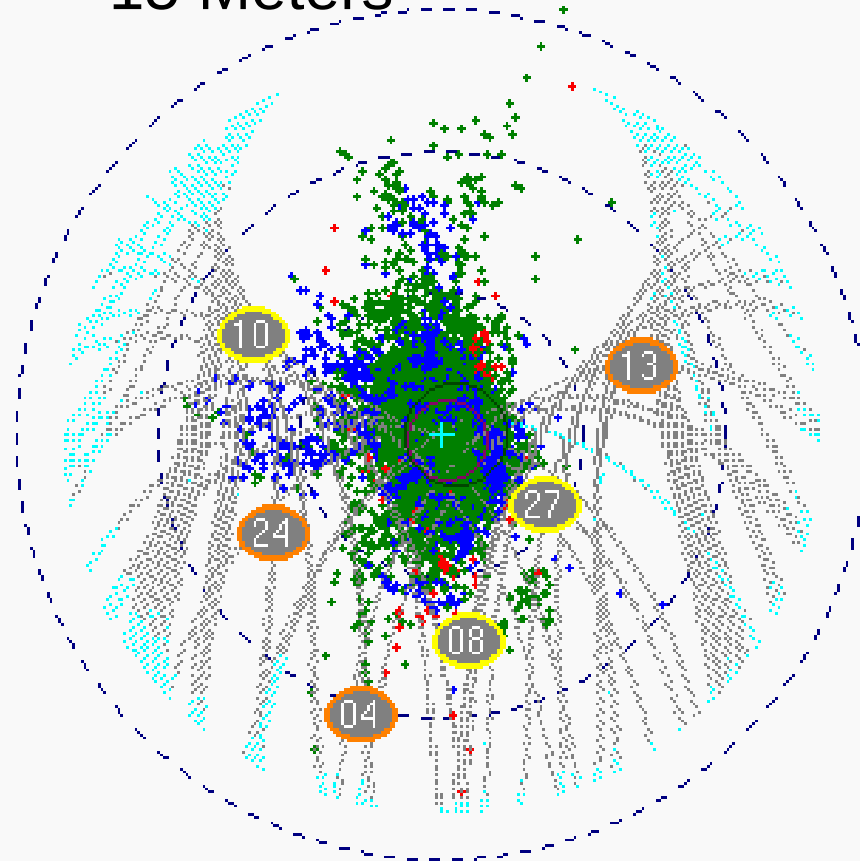
**Start date and time: Julian Day 241 or Wednesday August 29 at 21:02 Z
Stop date and time: Julian Day 247 or Tuesday September 4 at 20:55 Z**

DGPS Lessay Eurofix Showing Days When PRN30 Was Unusable

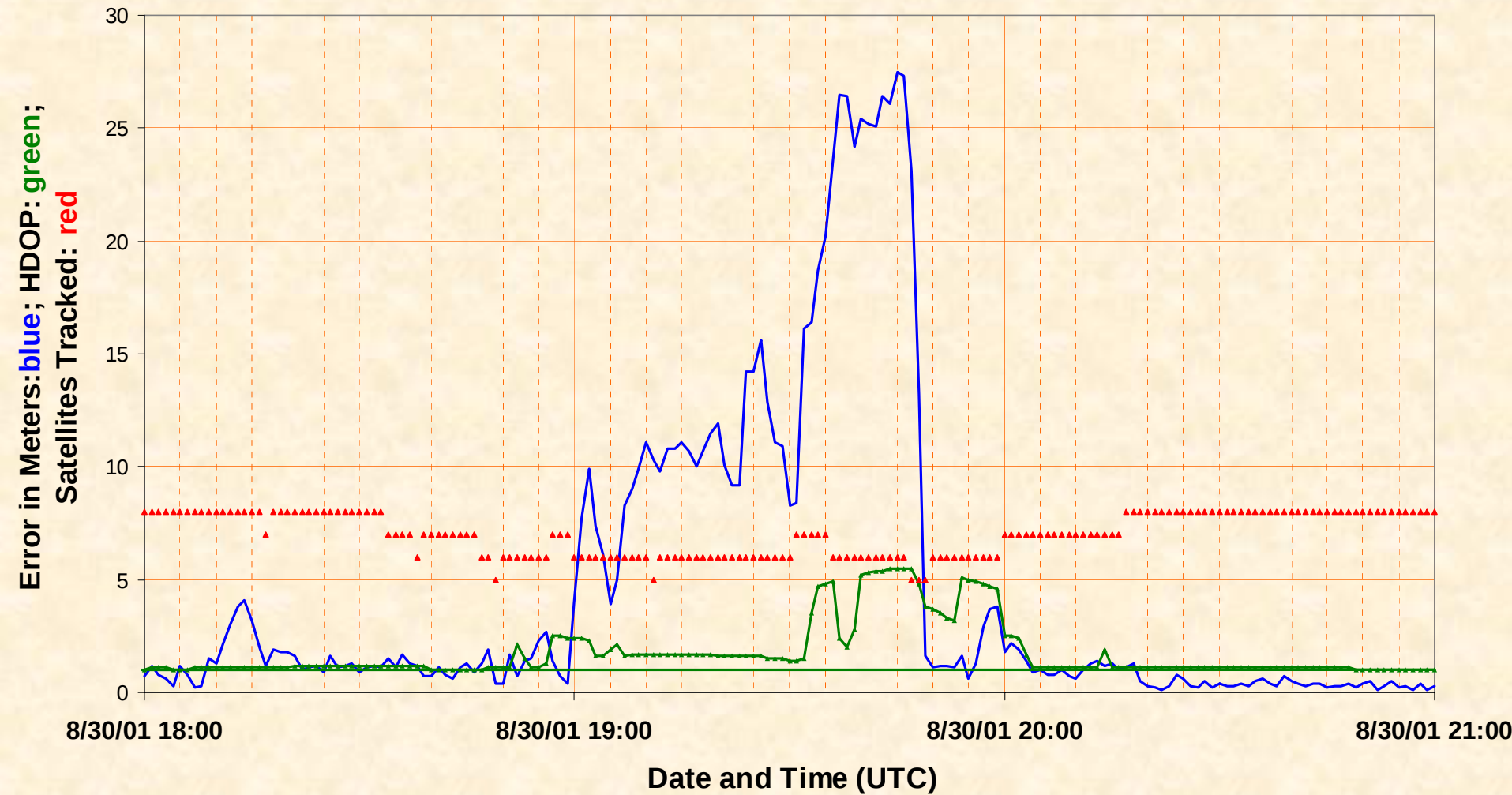


SA Watch Registered to

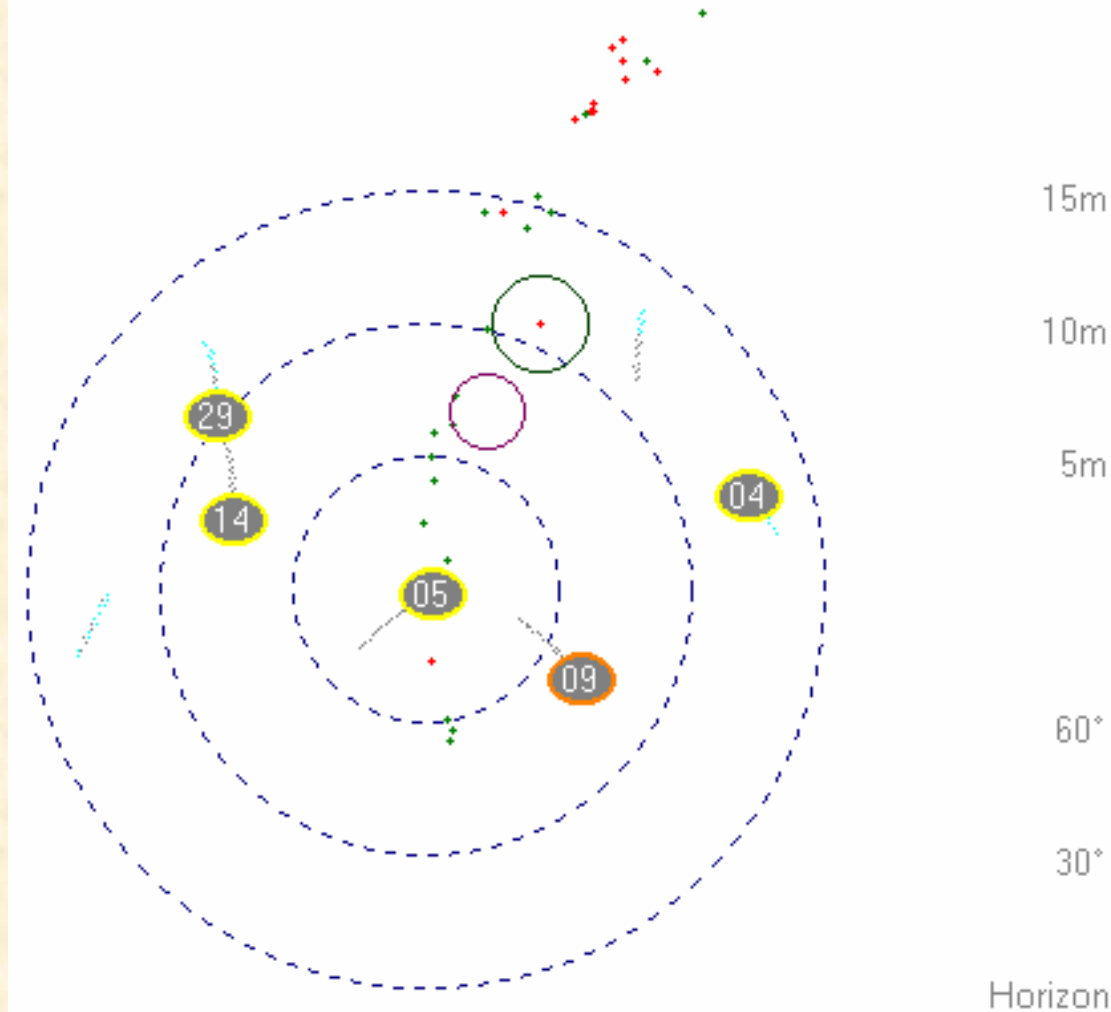
15 Meters



DGPS Lessay Eurofix: August 30, 2001

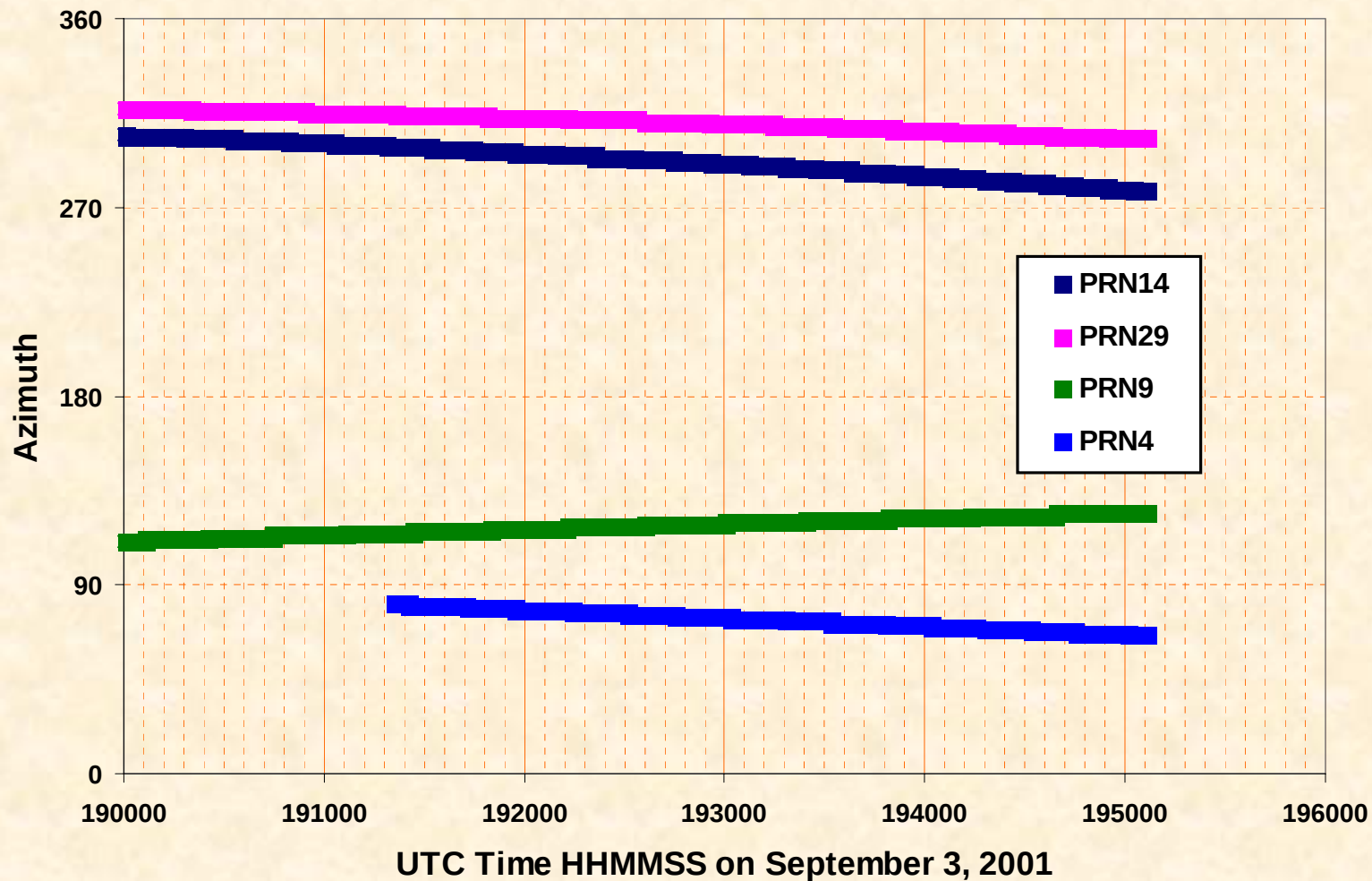


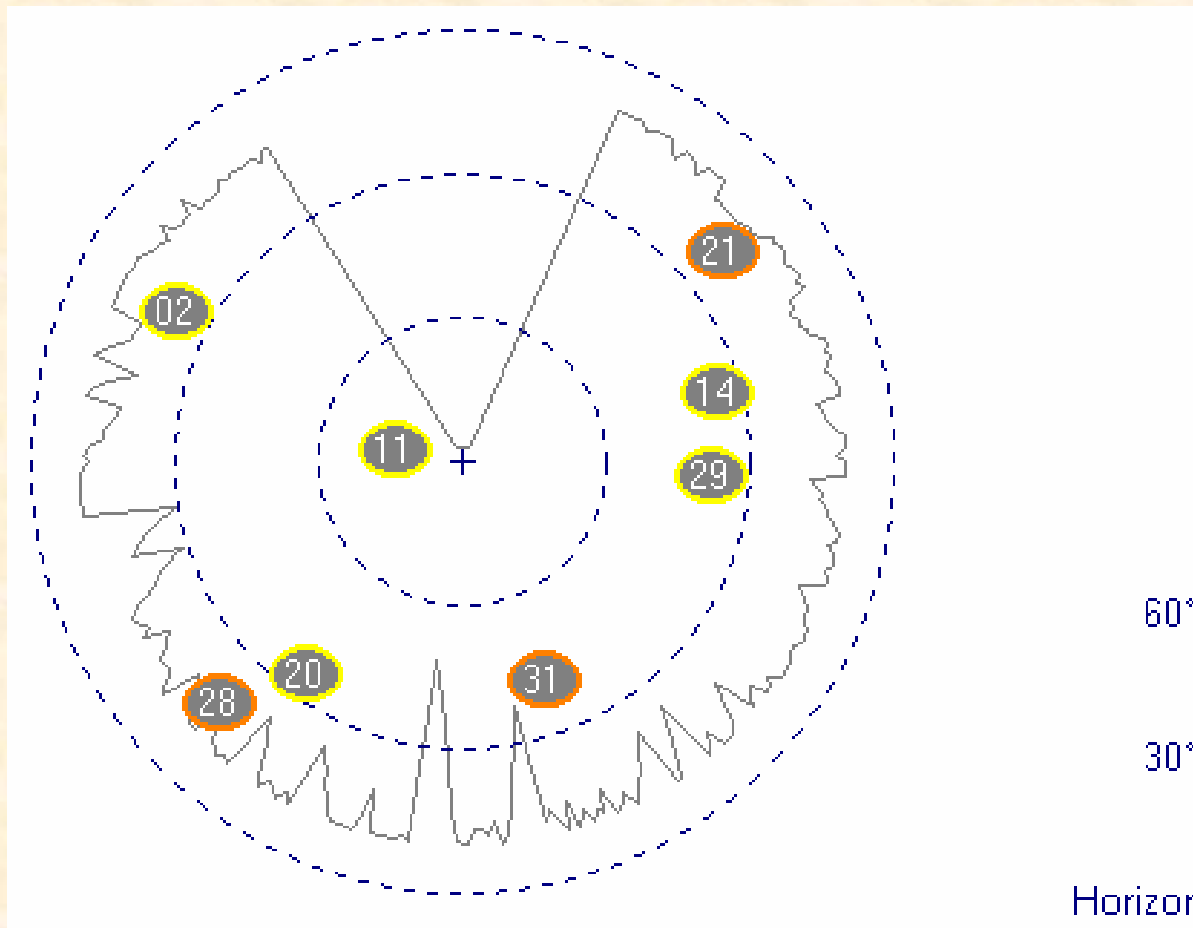
SA Watch Registered to John Beukers



5 Visible GPS Satellites

GPS Satellite Azimuth
September 3, 2001 19:00 to 19:50 UTC
Location: Longborough, UK 51.962361N; 1.743648W





GPS Horizon – Mask Angle 10 Degrees



Loran-C H-Field Antenna



Loran-C H & E Field + GPS & Eurofix Antennas



Loran-C H-Field Antenna

NELS Loran-C; H-Field Antenna Inside, 24 hours October 2, 2001
Locus, Inc. SatMate 1020

