

# Historical siting classification

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# Stinfosys

- Operational metadata database with document repository
- Initiated 2002, presentation TECO-2012
- Presently 110,000 documents on 6,000 stations

# Homogenization and breaks

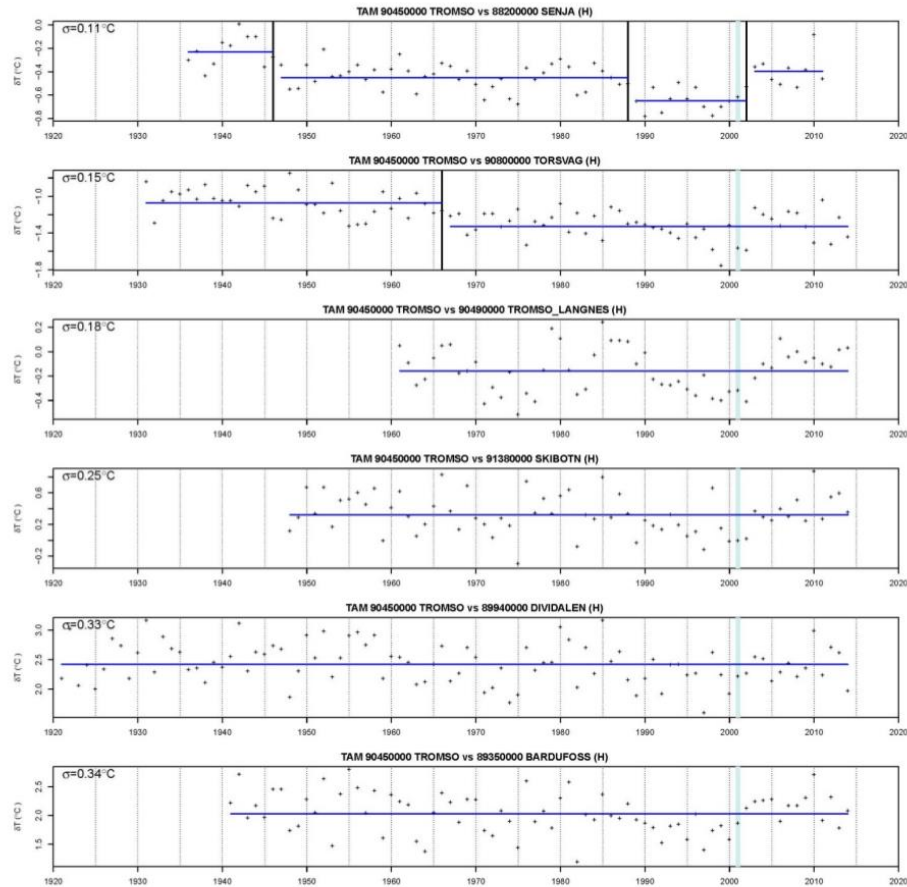
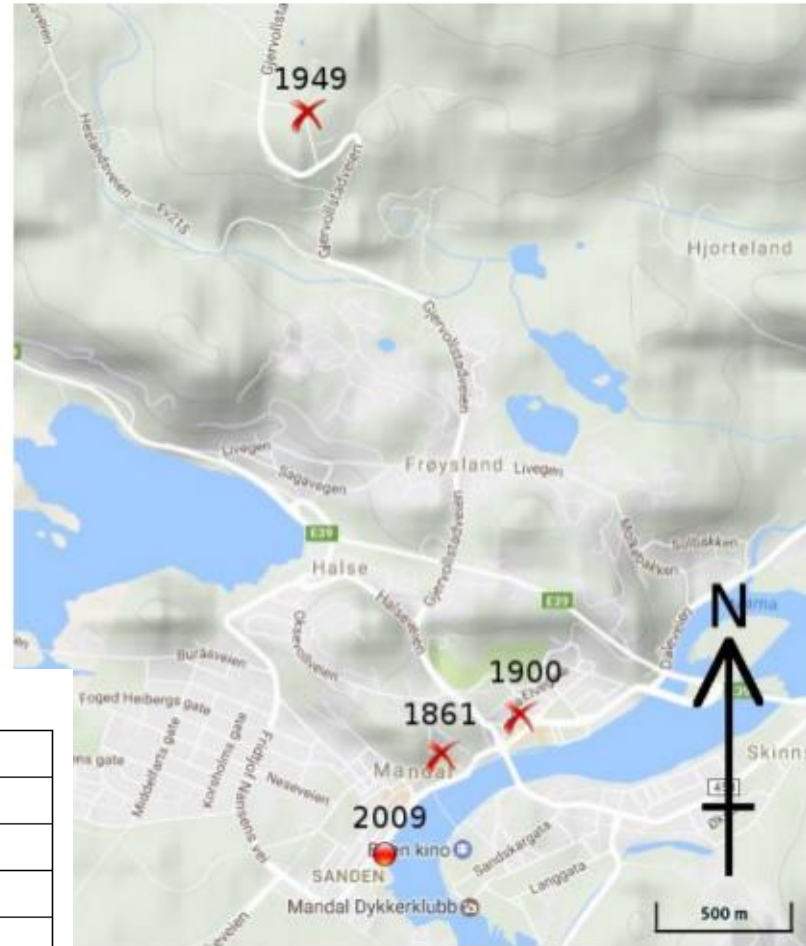


Figure 45: Pairwise detection compares after Homogenization for 90450 Tromsø (1920-2014).

# Breaks explained

- Siting exposure changed
- Sensor changed (sustained performance)
- Representativity changed (relocation)
  
- No break anticipated:
  - Forest growth

# Example Mandal



Homogeneity breaks (Lundstad & Tveito, 2016):

year	month	°C	Reason for break
1900	3	-0.34 °C	Unknown (documentation lost before 1918)
1934	12	+0.14 °C	New radiation screen (MI-33) & change of observer
1949	7	-0.41 °C	Relocation of station (New station 41110 Mandal)
1970	12	-0.07 °C	A small relocation of 50 m towards NW (less trees)
2007	12	+0.42 °C	The station closed down temporarily (New AWS in 2009)



First location, Mandal center 18



First location: Mandal telegraph

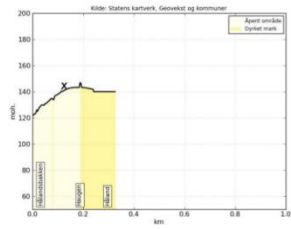


Second location temperatu



Second and third location:

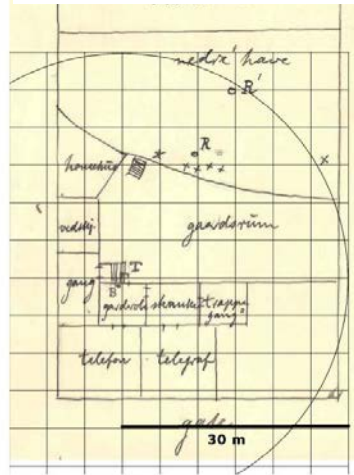
Fourth and fifth location on top of SE facing slope.



Fourth location. 41110 towards NE 1949



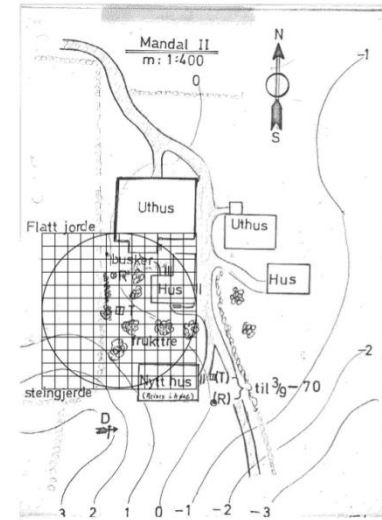
Fifth location towards NE 1949



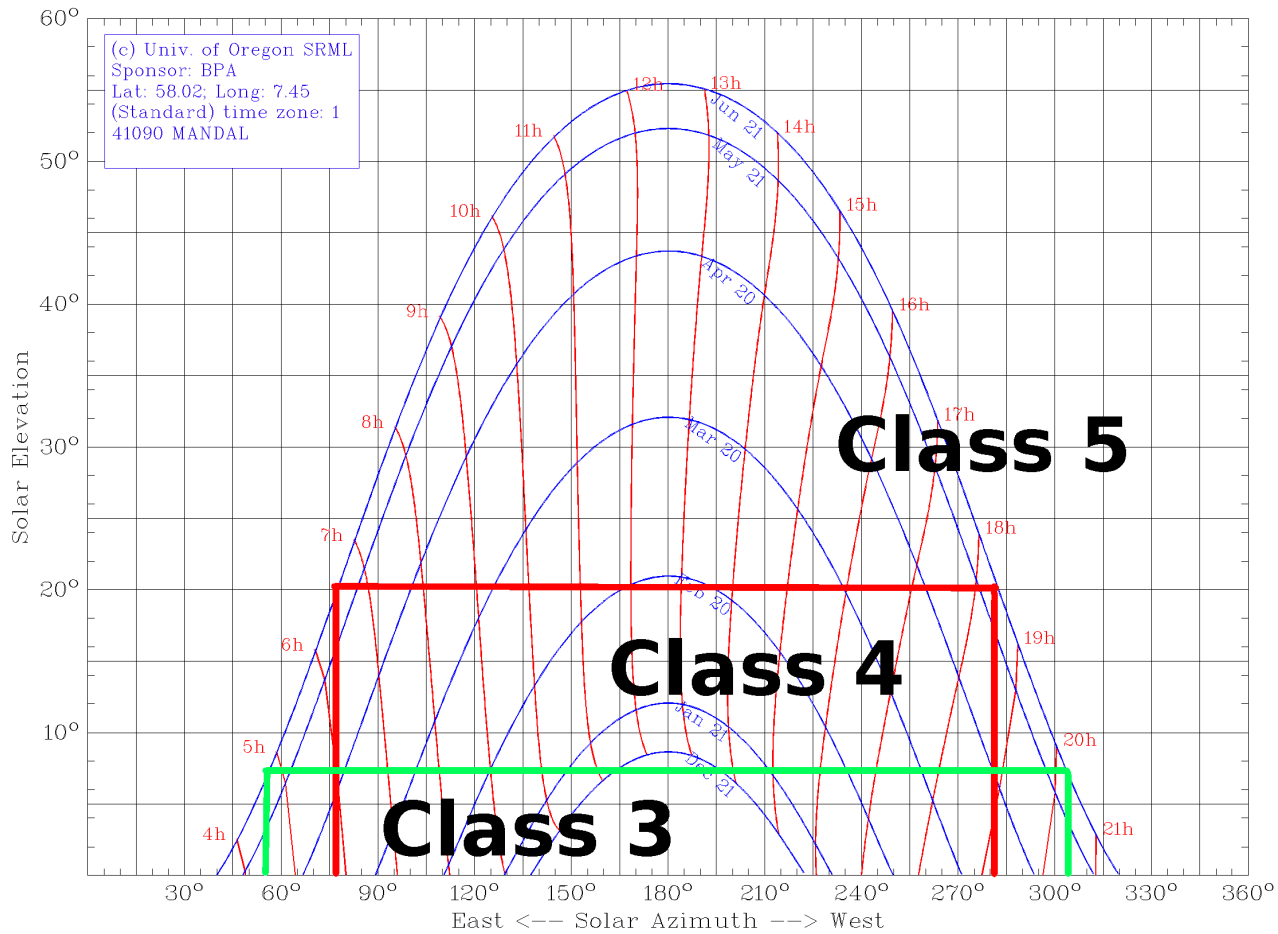
Second location, sketch 1922



Third location, new screen 1934.

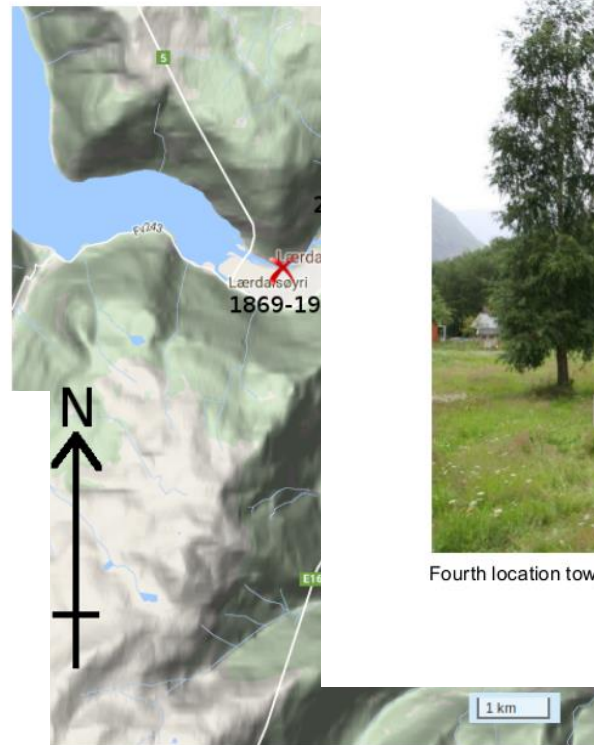


Fifth location, also showing fourth location, sketch drawn 1970.

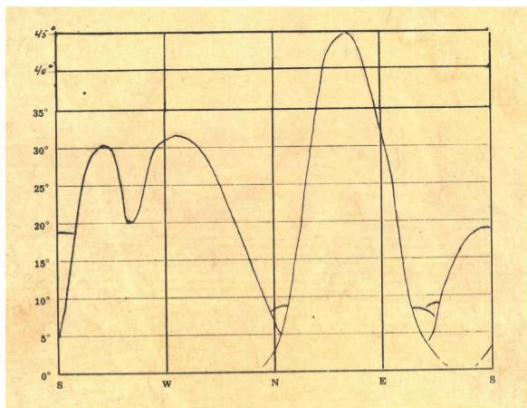


Always class 5: Yearly solar path with the CIMO/ISO siting criteria on shadow

# Example Lærdal



Fourth location towards W



Second location horizon profile. Drawing 1948 reused 1965.



# Example Voss



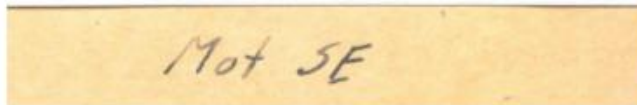
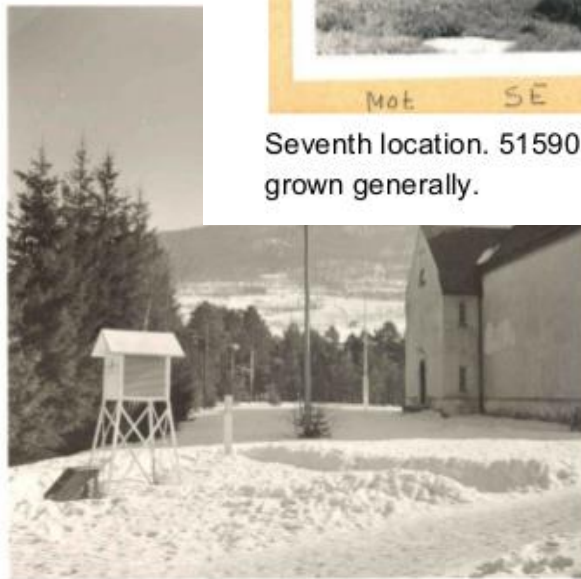
Map of Voss area with station locations indicated by crosses and start year. Current eighth location indicated by circle.



First location. 51550 \ onto the building and



Seventh location. 51590 towards south east. 1967 to the left, 1996 to the right. Trees have grown generally.



Third location. 51560 towards SE 1958. The row of trees had 1 m height in 1952 and grew each year until 1961

# Lessons learned

- Concept of siting class is useful
- Classes defined can however be improved
- Assessment of long term temperature trends can be improved