

SSRL Building 130 Network

June 24-26, 2002

- Install new monuments.
- Survey the new monuments.
- Tie this network to the ring through SSRL monuments.
- During 2002 downtime, tie this network directly to the ring.

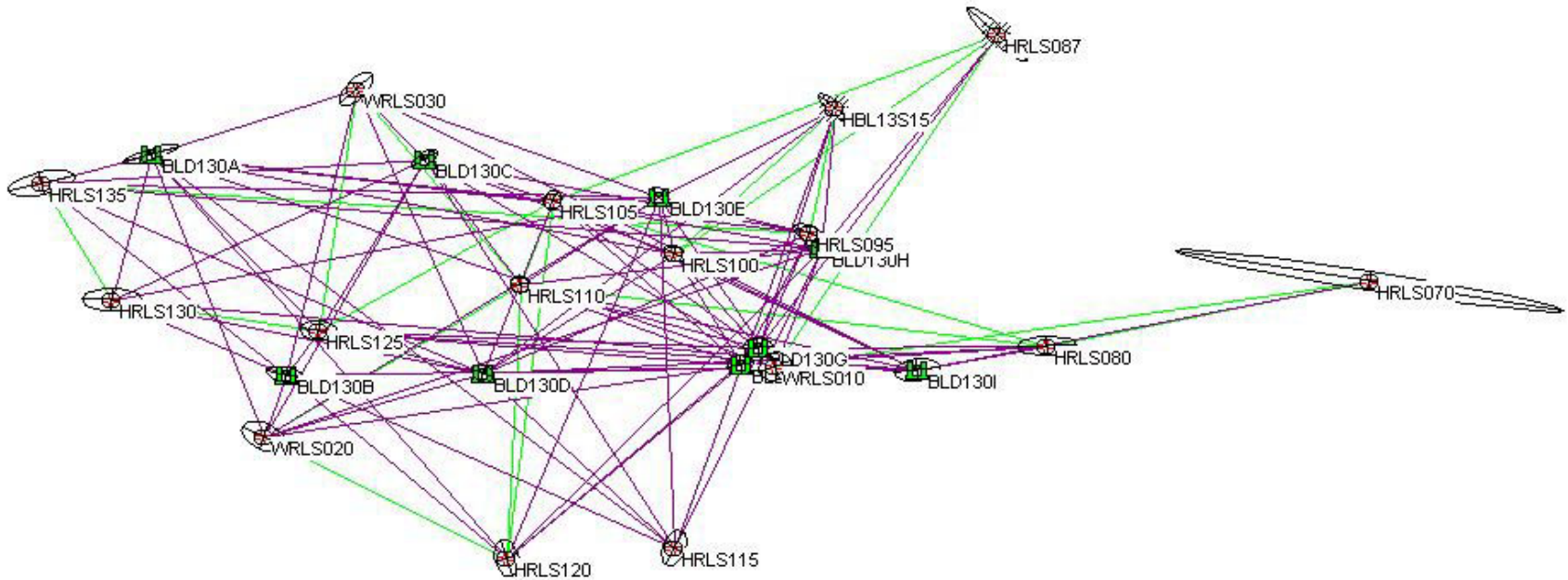
Network Description

- 12 new points:
 - 3 wall
 - 9 floor
- 4 existing points last surveyed 08-05-97:
 - HBL13S15
 - HRLS080, HRLS087
 - HRLS070

Network Simulation

Datum Free

9 tracker stations (94 triplets): distance $40 \mu\text{m}$, horizontal angle $50 \mu\text{m} / \text{D}$, vertical angle $100 \mu\text{m} / \text{D}$. 22 height differences at $50 \mu\text{m}$



Network Results

Weighted Datum: 200 μm on 3 points

- Variance Analysis

- degree of freedom 202
- sigma a posteriori 0.775049

(distance: 0.781008, horizontal angle: 0.715773, vertical angle: 0.781280, height difference: 0.893467)

- Tie Analysis

| | | | |
|------------|-----------|-----------|-----------|
| – HBL13S15 | 0.000257 | -0.000008 | -0.000362 |
| – HRLS080 | 0.000007 | -0.000028 | 0.000102 |
| – HRLS087 | -0.000274 | 0.000095 | 0.000266 |
| – HRLS070 | 0.000066 | -0.000370 | -0.000031 |