

Station report - SP



First year of TWSTFT operation at SP

by

Kenneth Jaldehag and Carsten Rieck

SP Swedish National Testing and Research Institute

Boras, Sweden

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NICT – Tokyo, Japan

TWSTFT at SP – 1st year in brief



- Station installed October 2003
- First "contact" with Intelsat 903 on October 23, 2003
 - Satellite at 12.7 degrees elevation
- Transmitting regularly using code 3:
 - European 14-hour session since November 17, 2003
 - US 14-hour session since January 7, 2004
 - All 4 sessions since May 13, 2004
- Automatic data retrieval and range calculation
- Data on ftp-site a few minutes after each session
- Some receive problems have to be sorted out

TWSTFT at SP – Installed equipment



- TimeTech Satre modem (262) dual RX channel
- Comtech EFDATA KST-2000A Ku-band transceiver (8 W version)
- TimeTech Satellite simulator (SATSIM)
- Prodelin 1.8 m antenna system Model 1184

TWSTFT at SP – 1st year equipment changes

- SATSIM Rx bypassed, due to large variations in received power, January 19, 2004
- Received power variations were found to be due to a bad LNA which was replaced March 18-19, 2004
- SATSIM completely bypassed and sent to TimeTech for planned hardware replacements June 23, 2004. Planned to be reinstalled in October, 2004

TWSTFT at SP – present/planned work in brief

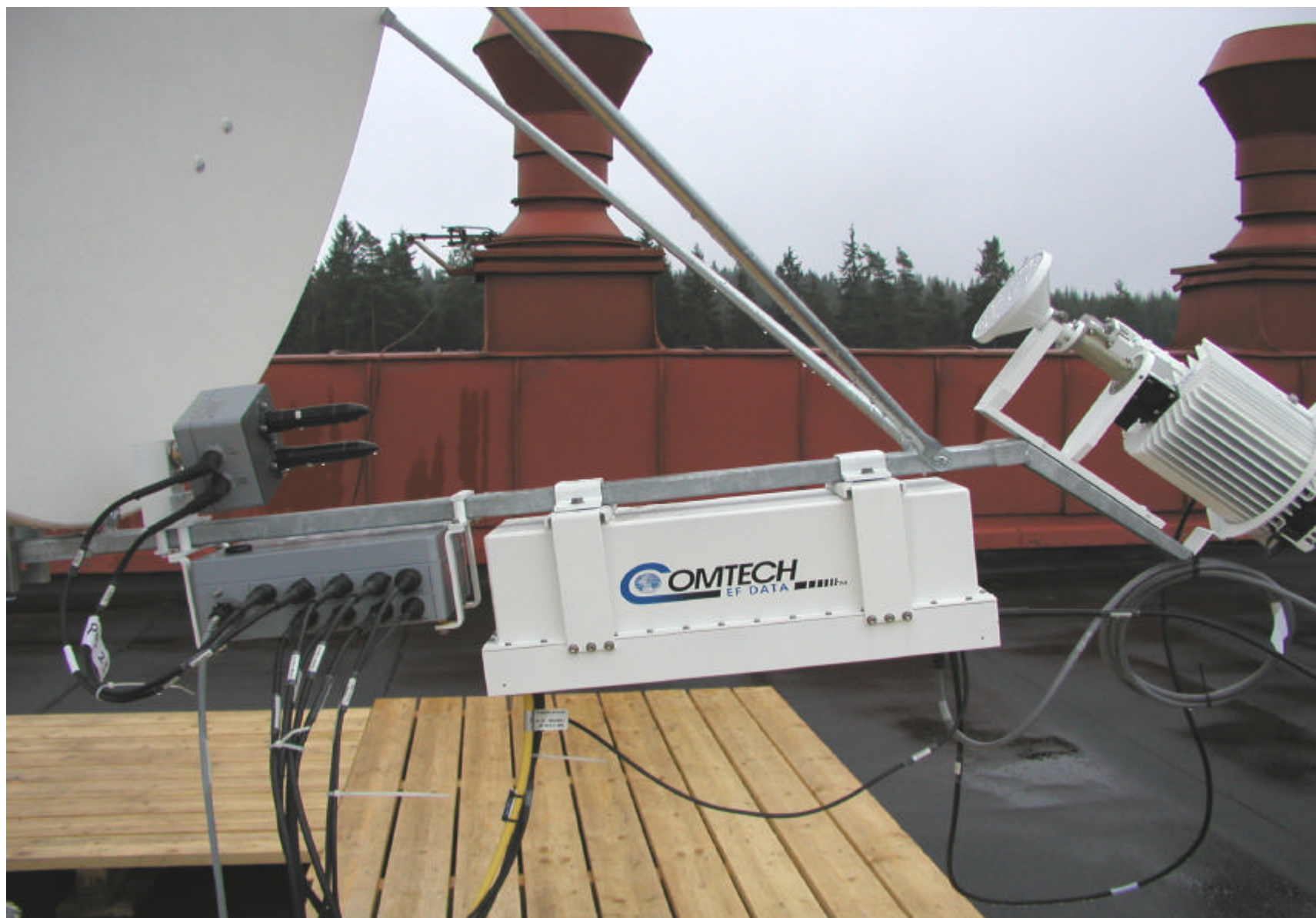


- Sort out cause of receive problems
 - regular problems in receiving OP01???
- Reinstall SATSIM and study SATSIM data
- Study the accuracy and stability of our station
- Compare TW-links with GPS-links
 - SP - NPL link calculated on a daily basis using TW- and GPSP3-data
 - GPS carrier phase data on a regular basis
- Calibration campaign using mobile station?

TWSTFT at SP – Ground station



TWSTFT at SP – Outdoor equipment



TWSTFT at SP – Intelsat 903 view



TWSTFT at SP – Sometimes some snow!

