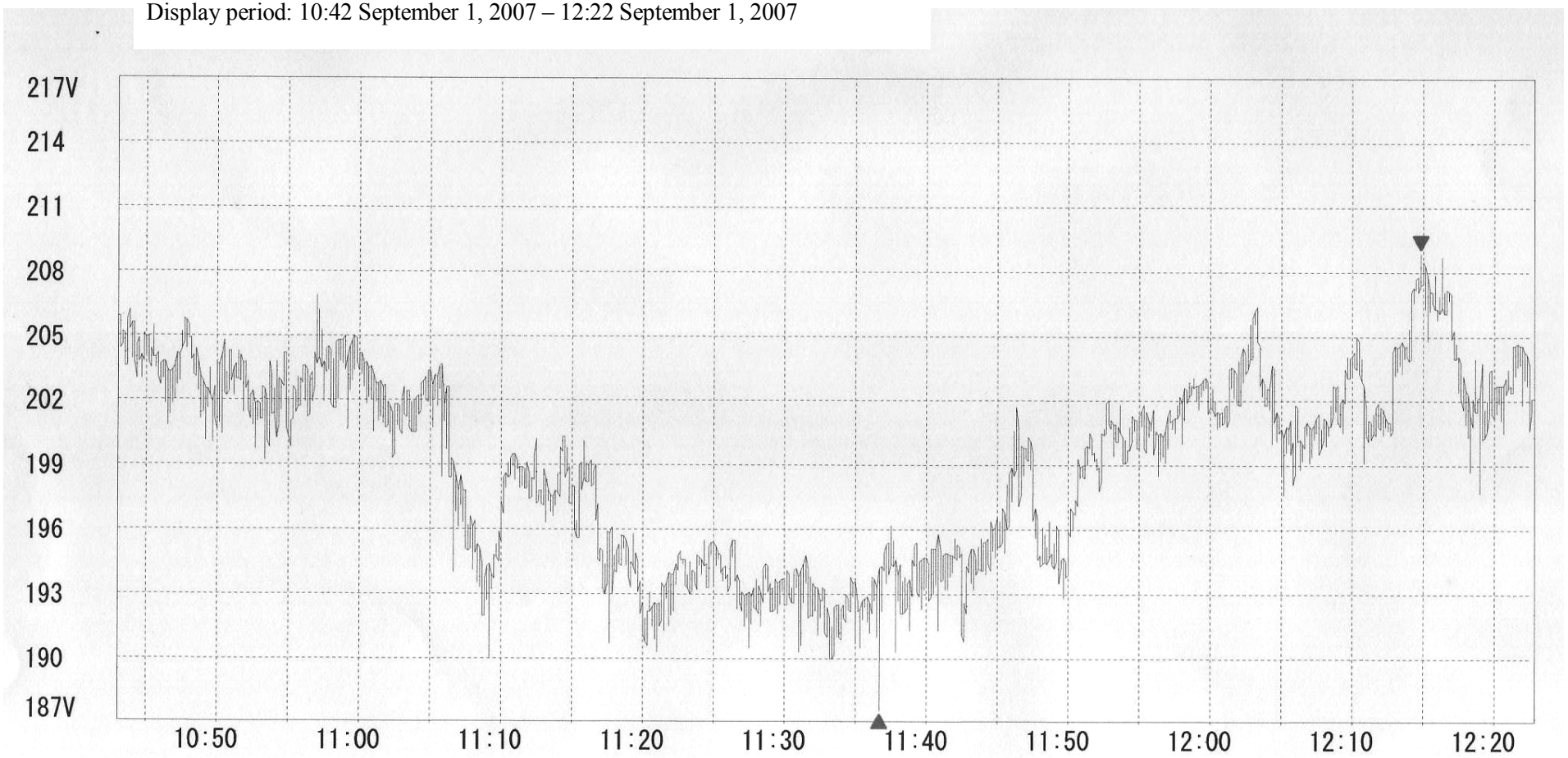
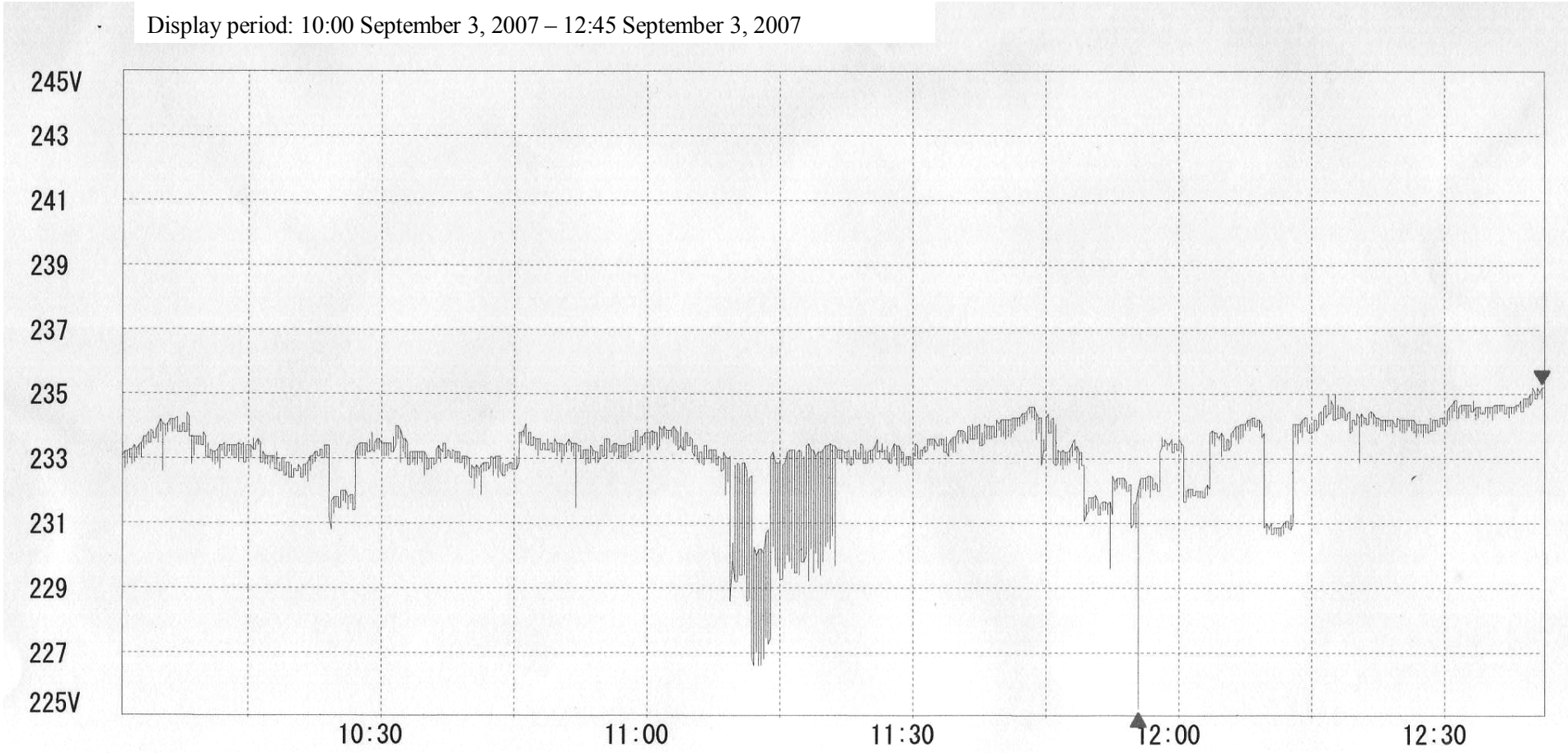


Highest: 208.9V (at 12:14 September 1, 2007)

Lowest: 187.6V (at 11:36 September 1, 2007)

Place: BBSC Jakar Regional Center

Figure 2-2-6: Voltage Measurement at Jakar Regional Center

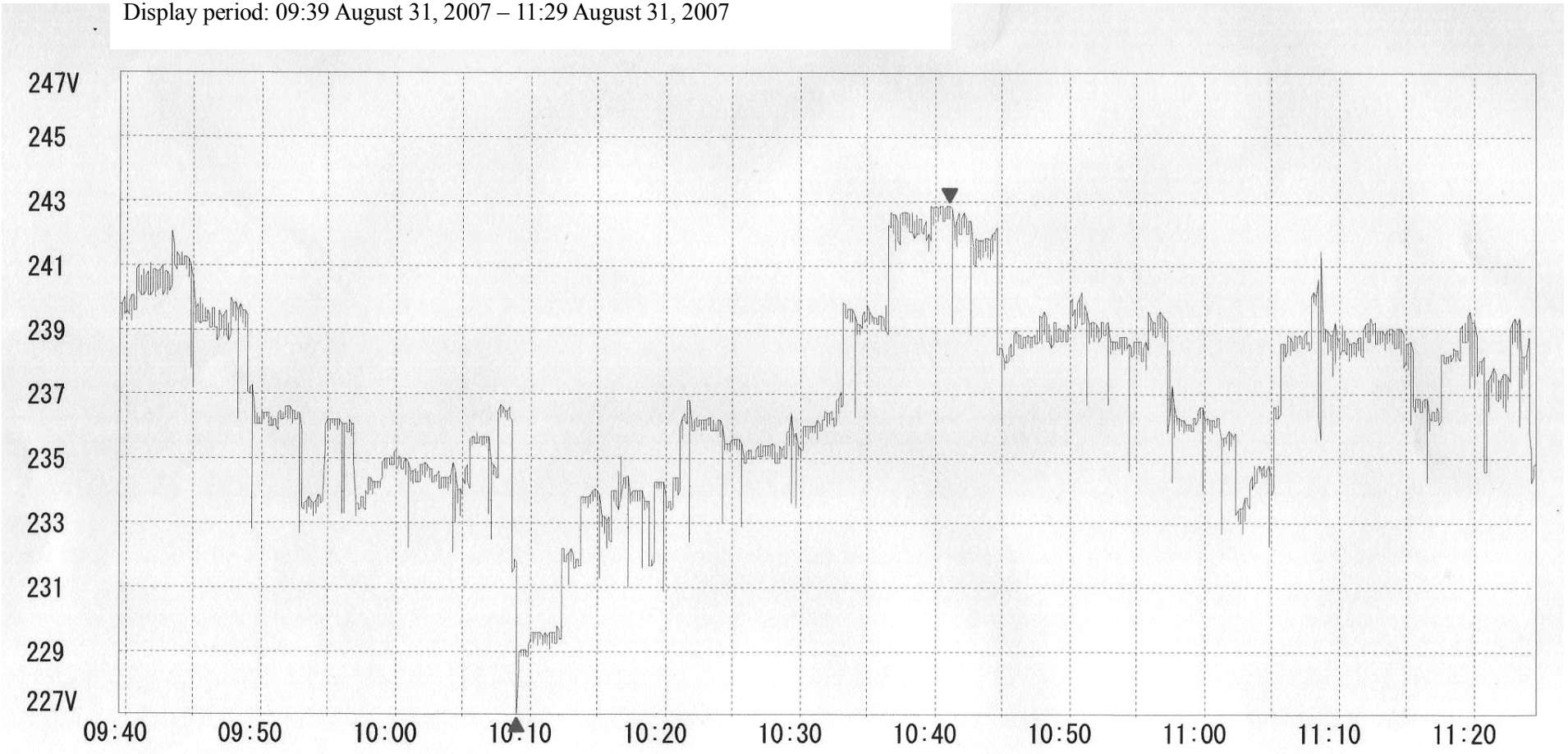


Highest: 235.2V (at 12:43 September 3, 2007)

Lowest: 225.3V (at 11:55 September 3, 2007)

Place: BBSC Kanglung Regional Center

Figure 2-2-7: Voltage Measurement at Kanglung Regional Center



Highest: 242.9V (at 10:40 August 31, 2007)

Lowest: 227.1V (at 10:08 August 31, 2007)

Place: BBSC Wangduephodrang Bureau

Figure 2-2-8: Voltage Measurement at Wangduephodrang Regional Bureau

2) HVAC facilities

Broadcasting equipment are precision instruments and require proper air conditioning to prevent condensation caused by sudden changes in room temperature and humidity. To study the capacities and effects of the existing HVAC facilities, the Study Team used a digital device designed for long-hour measuring operations to record the changes in room temperature and humidity under the conditions outlined below.

① BBSC Headquarters

Time: September 13, 2007 (14:20) – September 14, 2007 (14:20)

Place: ①MCR
②Continuity studio
③Production studio subcontrol room
④Production studio
⑤UPS room

Result: See Figure 2-2-9.

Consideration: At the above five locations, temperatures generally measured between 18˚C and 30˚C without rising suddenly or staying at high levels for a significant duration due to heating of the equipment or other changes. Humidity levels were also stable at all locations generally below 70%, indicating that the existing air-conditioning system is working properly to prevent a sudden rise in temperature/humidity and protect the equipment from condensation.
Based on the above, the Study Team concluded that the existing HVAC system does not need to be renewed by the Project on the assumption that BBSC will continue to properly operate and maintain the existing facilities.

② BBSC Bureaus

Place / Time: The following five Regional Centers/Bureaus
①Kanglung Center : September 3, 2007 (09:57) – (11:57)
②Jakar Center: September 1, 2007 (09:57) – (11:57)
③Phuentsholing Center: September 9, 2007 (09:57) – (11:57)
④Wangduephodrang Bureau: August 31, 2007 (09:57) – (11:57)
⑤Paro Bureau : September 7, 2007 (09:57) – (11:57)

Result: See Figure 2-2-10.

Consideration: At the above five locations, temperatures generally measured between 20˚C and 29˚C without rising suddenly or staying at high levels for a significant duration due to heating of the equipment or other changes. Humidity levels never rose above 90%. Considering the relatively stable ambient temperature, the

possibility of condensation is low.

Based on the above, the Study Team concluded that the existing HVAC systems of the Regional Bureaus and Centers of BBSC do not need to be renewed by the Project.

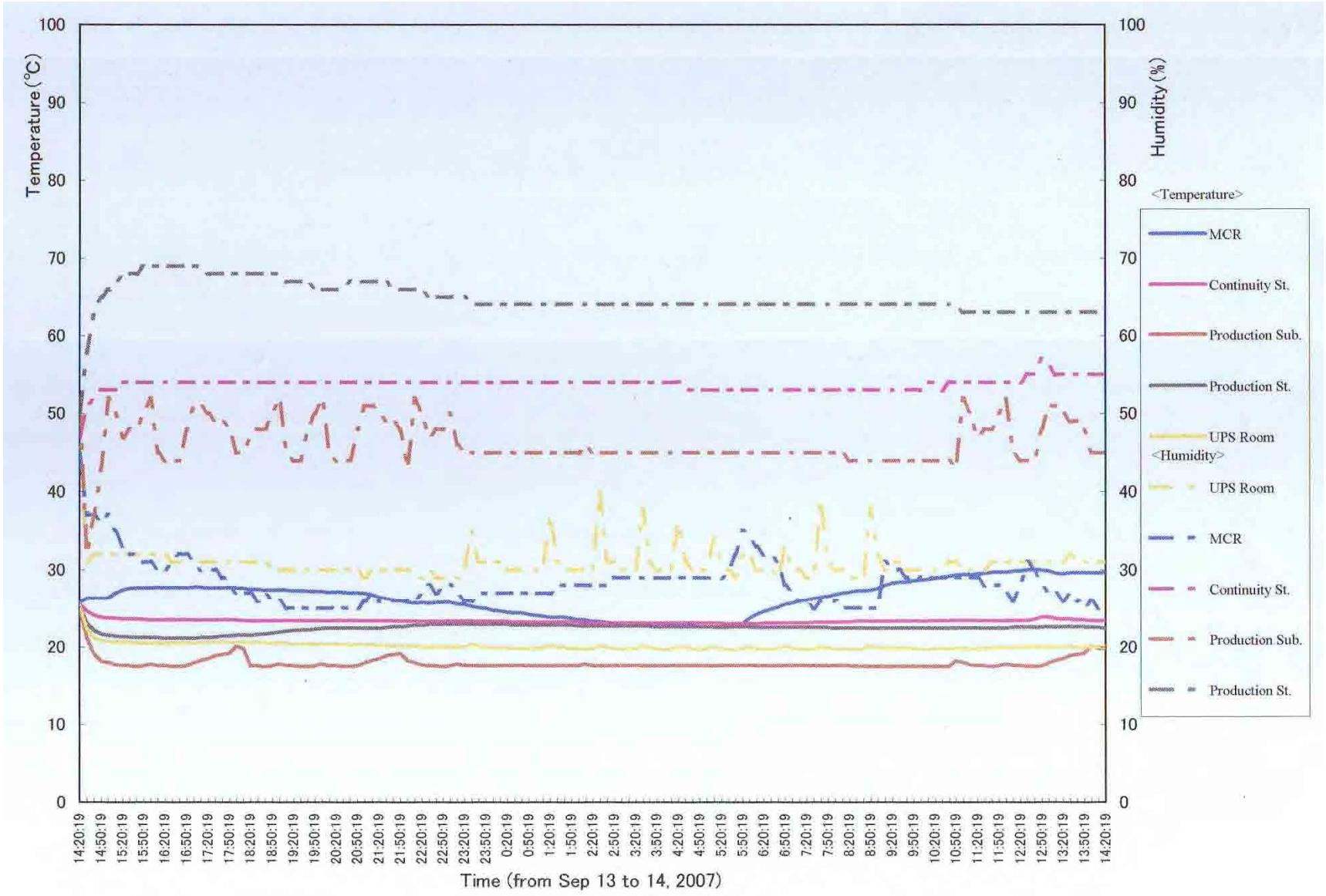


Figure 2-2-9: Temperature/ Humidity Measurement at BBSC Headquarters

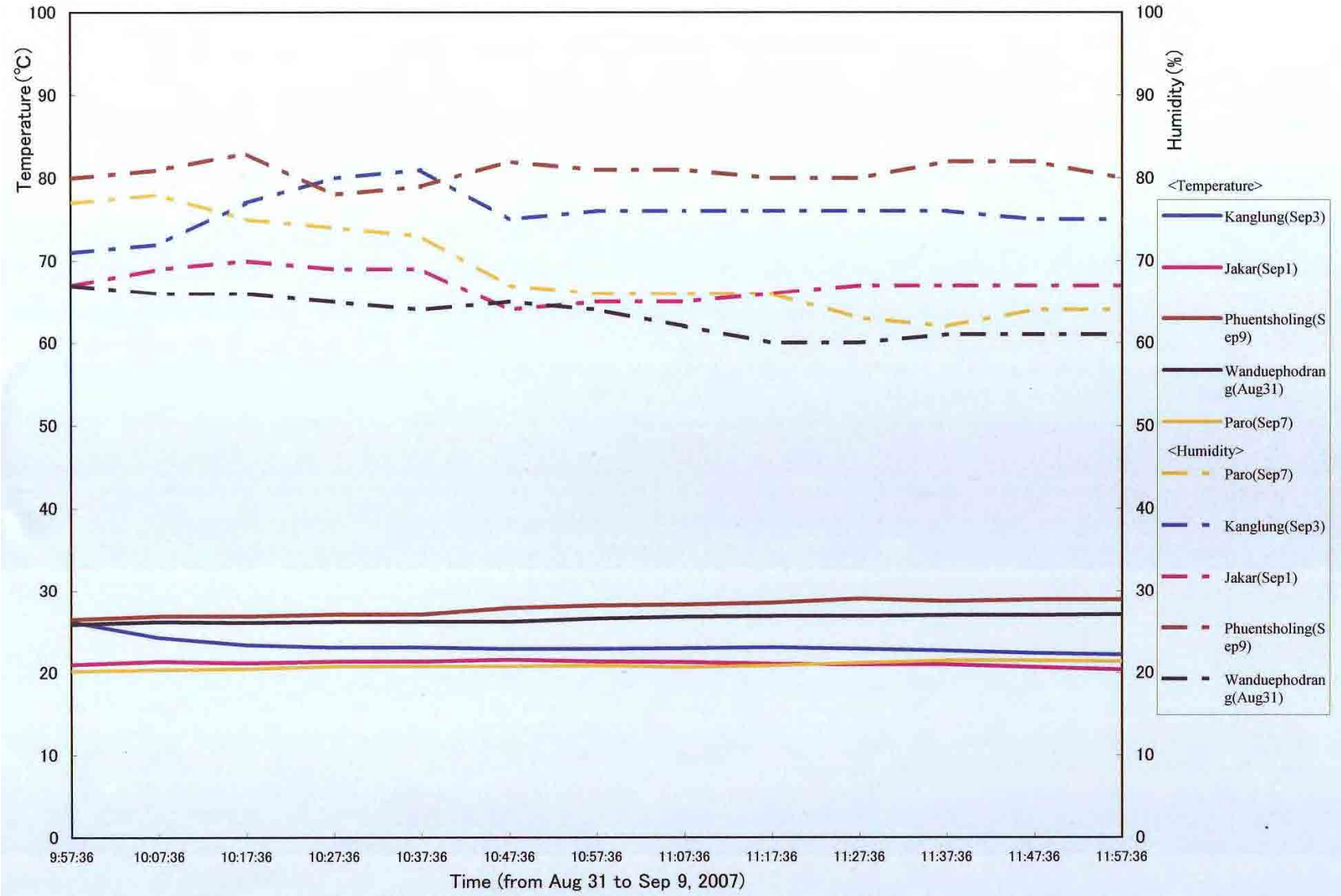


Figure 2-2-10: Temperature/ Humidity Measurement at BBSC's Regional Bureaus