APPENDICES

APPENDIX A: RUN-CURVES SHOWING THE EFFECTS OF IMPROVEMENTS

This Appendix include a set of run-curves showing the effects of railway operational improvements due to investments to infrastructure, rolling stock and operation systems.

Each page shows the run-curves “with” and “without” the improvements. The sections included for the exercise are as follows:

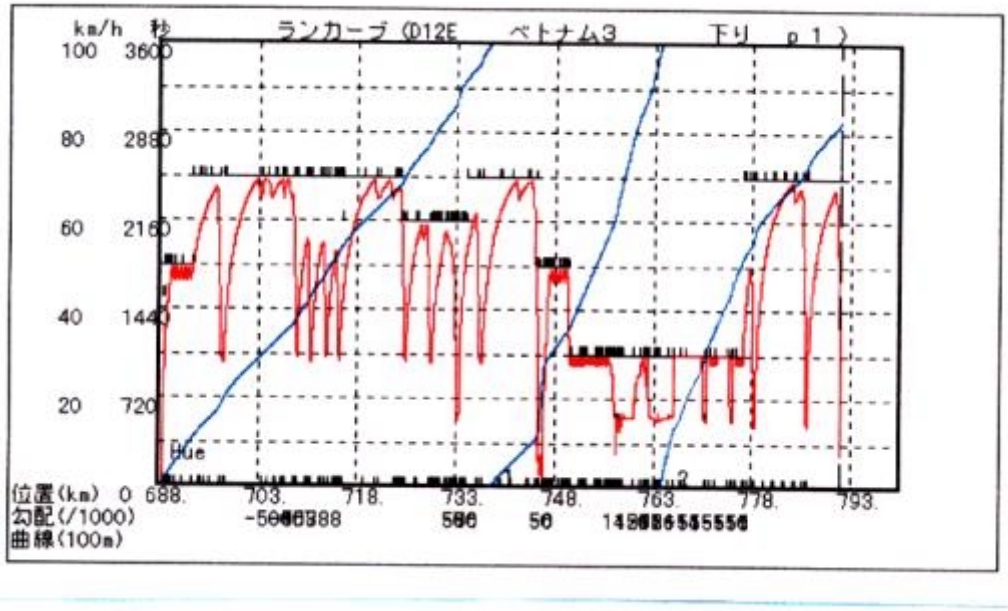
Figure A-1	Hue - Da Nang
Figure A-2	Hanoi - Hai Phong
Figure A-3	Hanoi - Phu Ly
Figure A-4	Bien Hoa - Saigon (existing alignment)
Figure A-5	Bien Hoa - Saigon (improved alignment)

Japanese notations used in the figures are as follows:

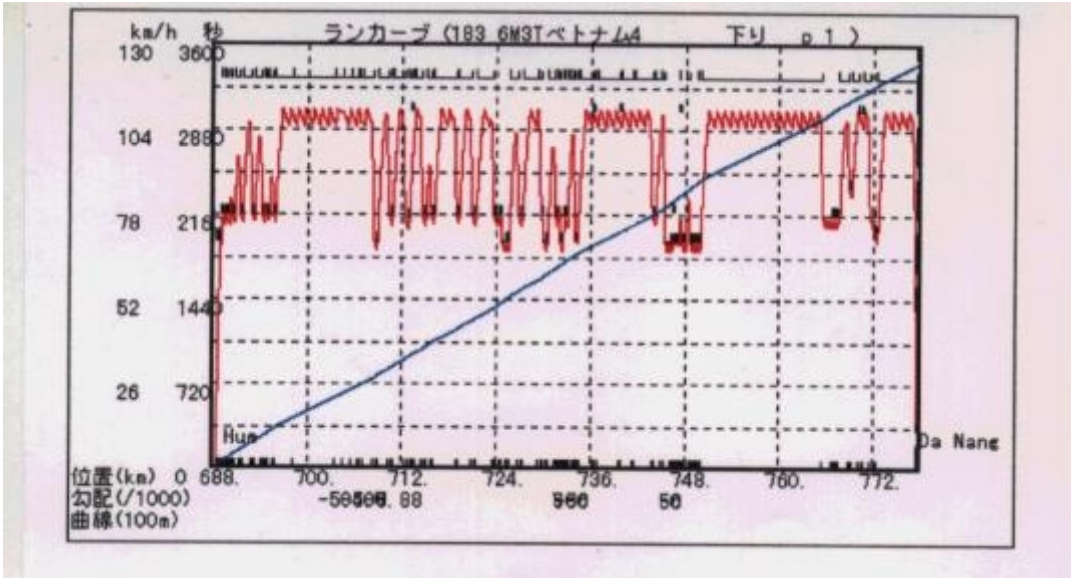
: secondz(s)
: run curve
: Vietnam
: Down line
: Location
: Gradient
: Curvature

Figure A-1
Hue -Da Nang

1.Present Situation　Required Time : 170minutes 9second



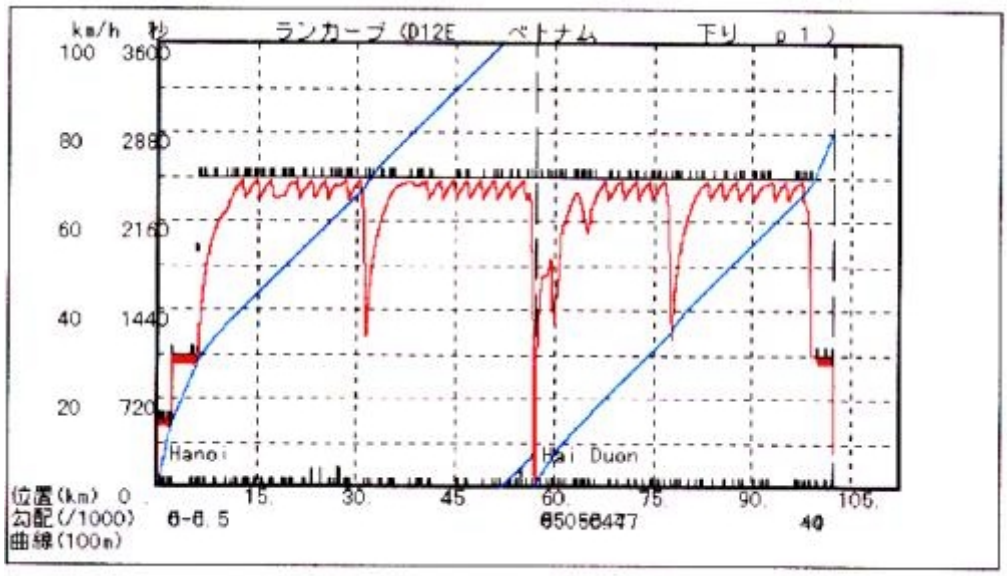
2. Investment plan: Required time; 57minutes 51seconds



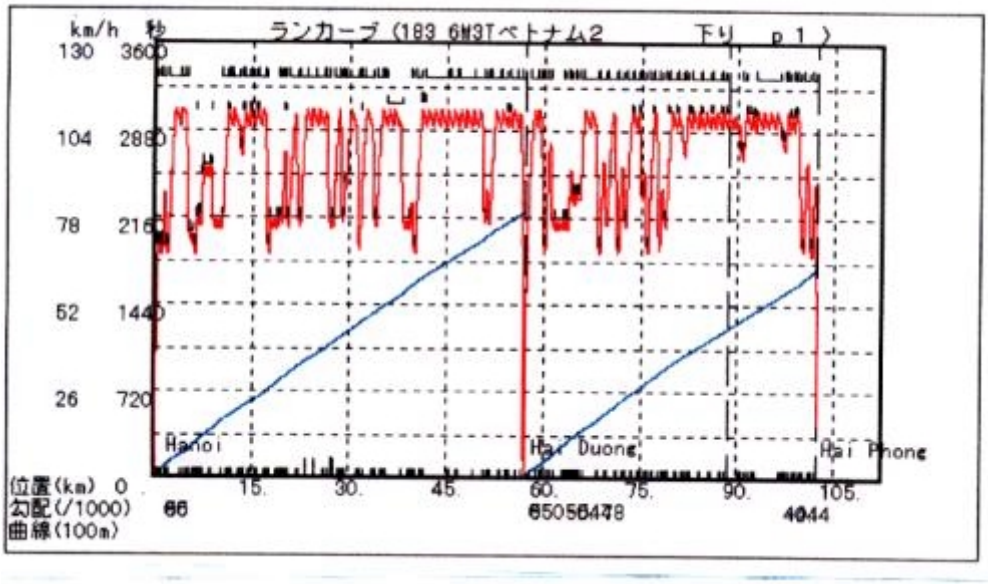
Note: "Required Time" excludes stopping time at stations.
"Present Situation" is case of D12E, "Investment Plan" is the case of EMU (max. speed:110km/h)

Figure A-2
Hanoi-Hai Phong

1.Present Situation　Required Time : 114minutes 4second



2.Investment Plan　Required Time : 61minutes 43second



Note: "Required Time" excludes stopping time at stations.
"Present Situation" is case of D12E, "Investment Plan" is the case of EMU (max. speed:110km/h)

Figure A-3 (1)
Run-curve of D12E Hanoi – Phu ly 56km, present alignment, non-stop.

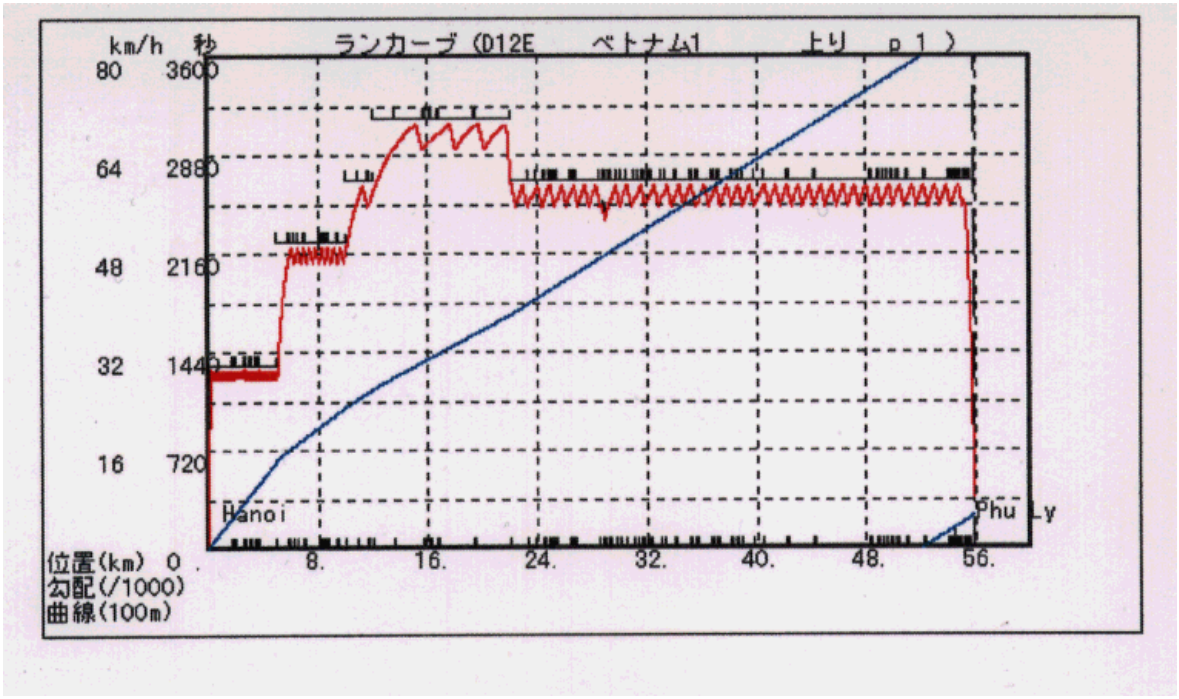


Figure A-3 (2)
Run-curve of EMU (183) type Hanoi - Phu ly 56 km,
Improved alignment, non-stop

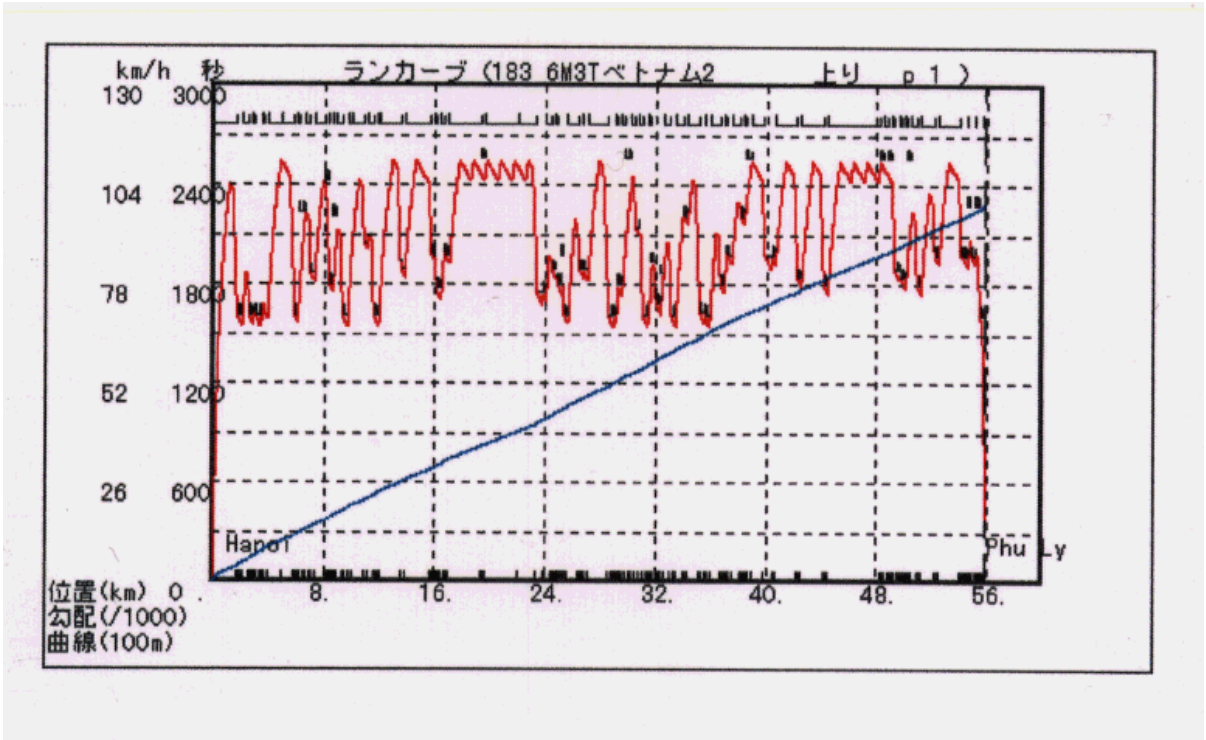


Figure A-4 (1)
Run-curve of D12E Hanoi – Phu ly 56km,
improved alignment, stopping every station.

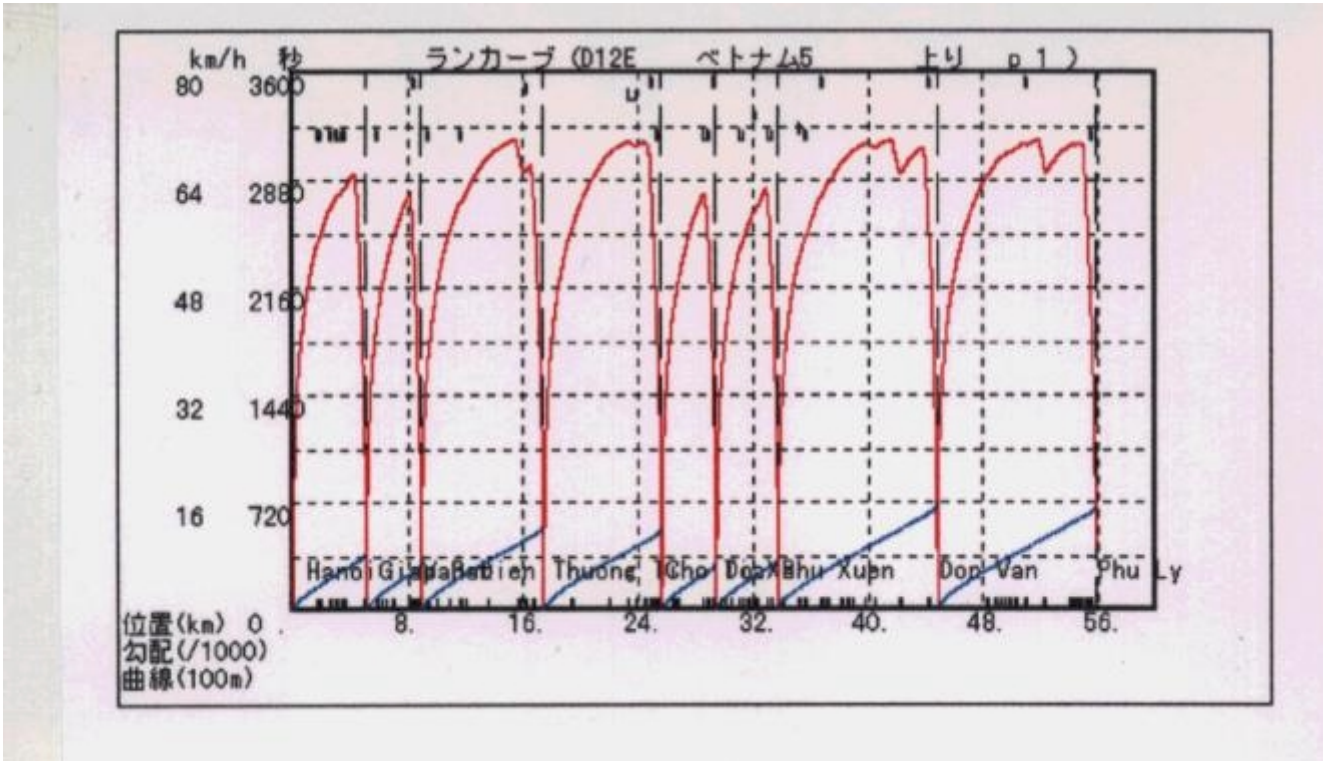


Figure A-4 (2)
Run-curve of EMU (205 type) Hanoi – Phu ly 56km,
improved alignment, stopping every station.

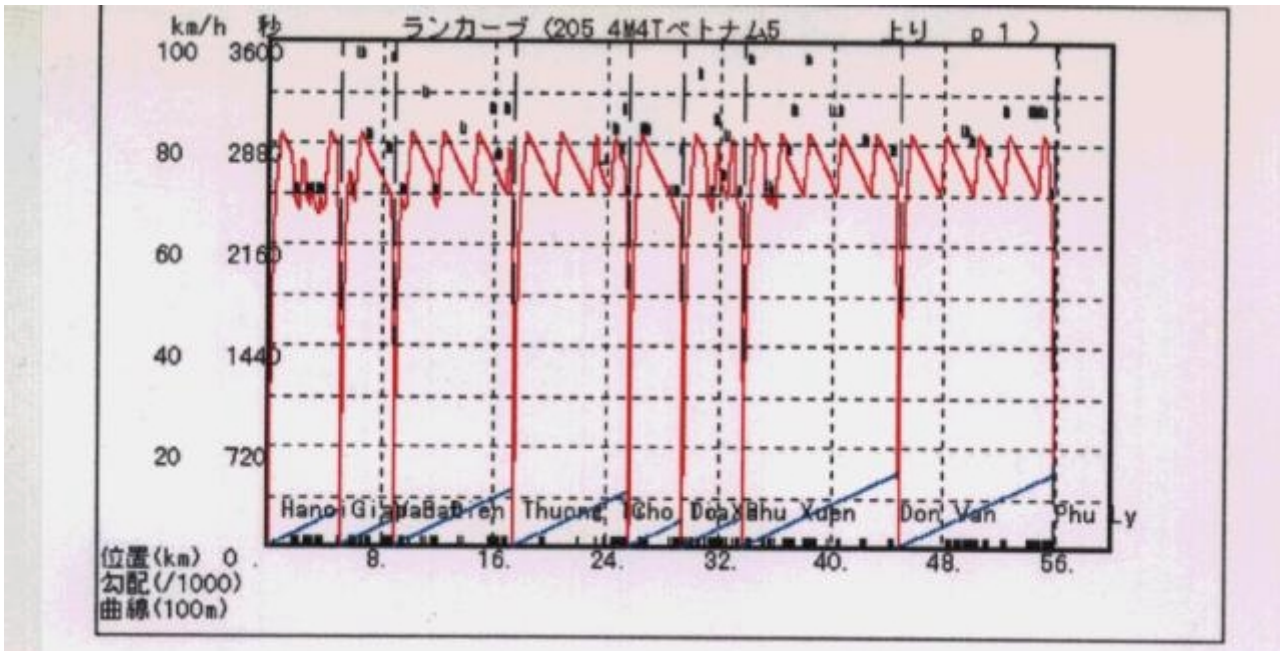


Figure A-4 (3)
Run-curve of D12E Bien hoa – Saigon 30km,
present alignment, non-stop.

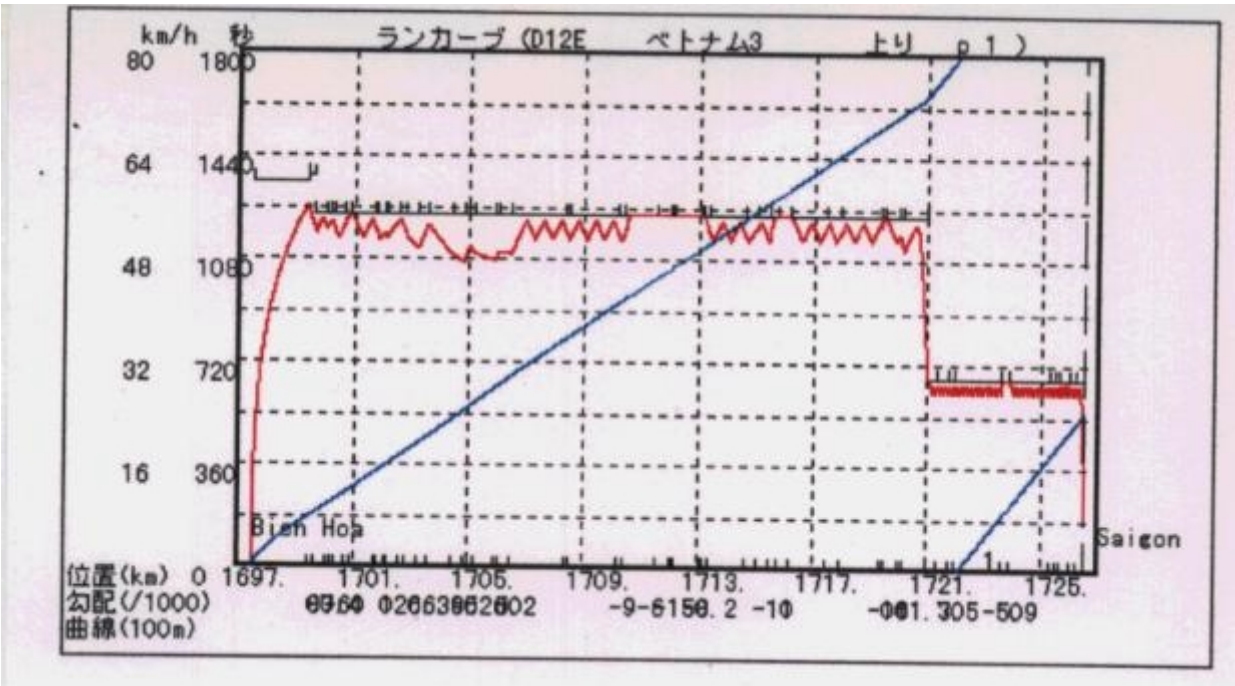


Figure A-4 (4)
Run-curve of EMU (183 type) Bien hoa – Saigon 30km,
improved alignment, non-stop.

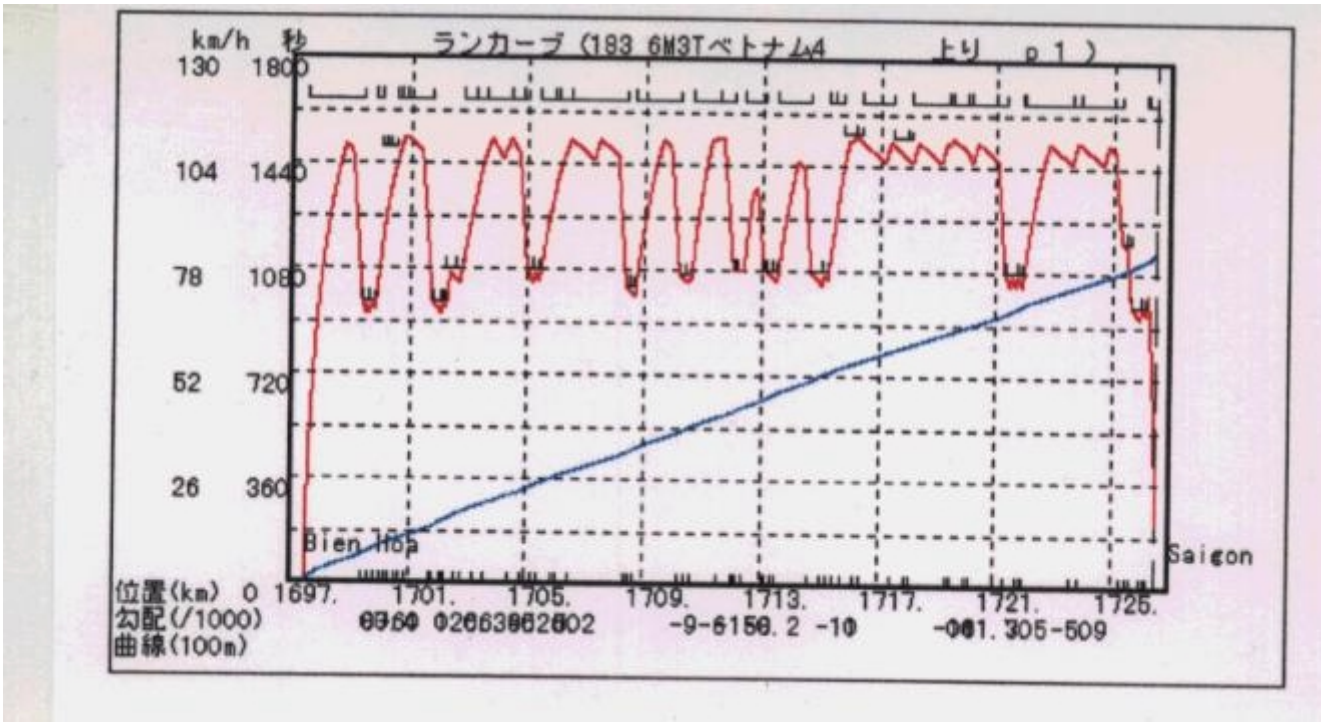


Figure A-5 (1)
Run-curve of D12E Bien Hoa – Saigon, 30km,
improved alignment, stopping every station

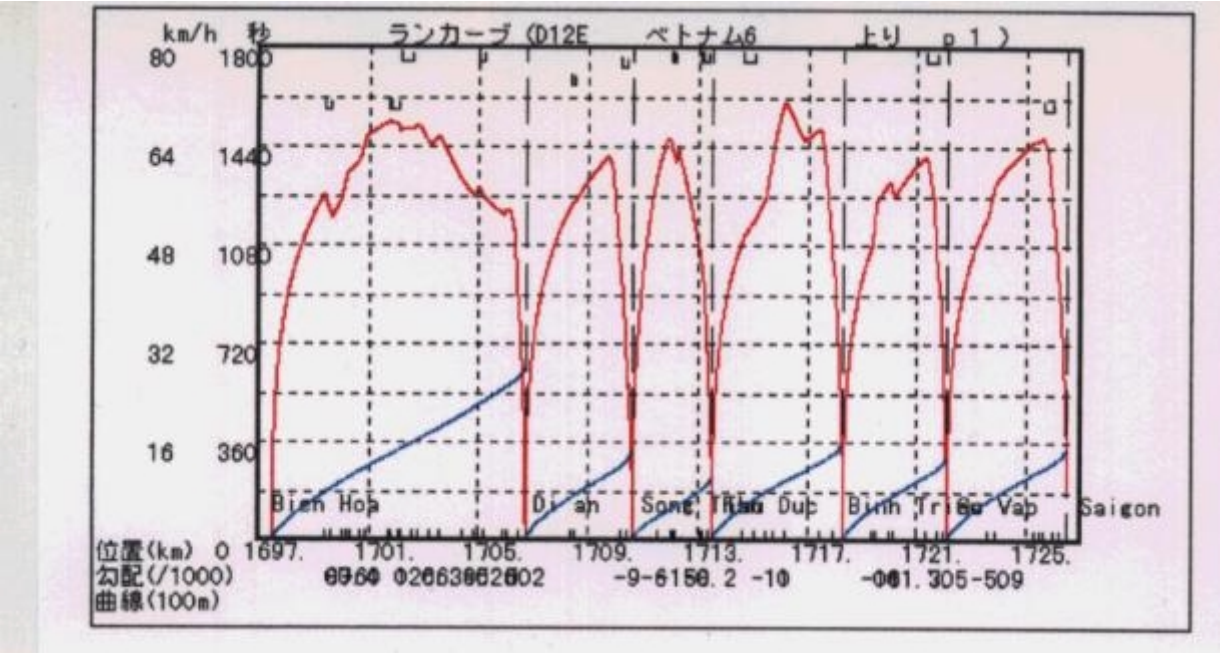


Figure A-5 (2)
Run-curve of EMU (205 type) Bien Hoa – Saigon, 30km,
improved alignment, stopping every station