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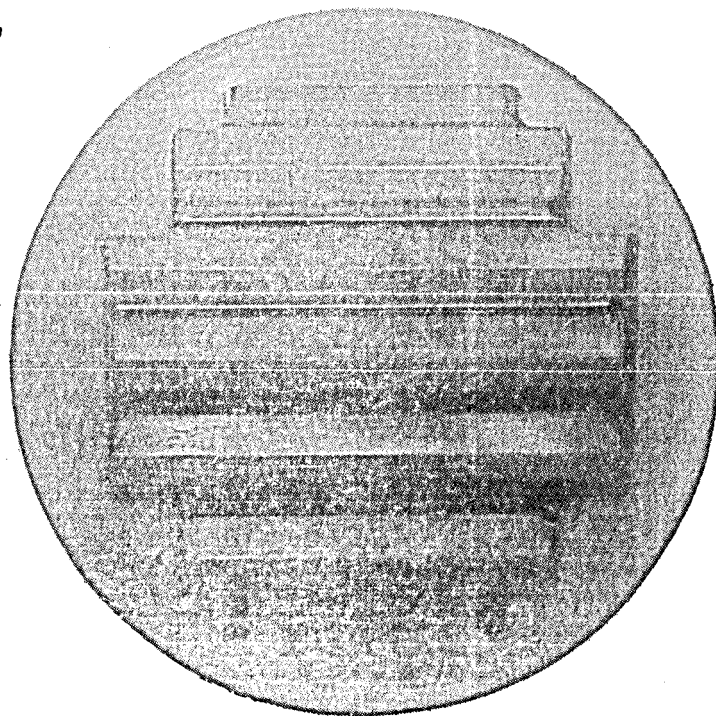
# Carbon Deposition Model For Oxygen-Hydrocarbon Combustion

Contract NAS 8-34715  
Interim Final Report 2427-IFR  
September 1987

Prepared For:  
National Aeronautics And Space Administration  
George C. Marshall Space Flight Center

By:  
R. Hernandez,  
J.I. Ito,  
K.Y. Niiya

Volume II



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Aerojet  
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87/09/00 635 PAGES UNCLASSIFIED DOCUMENT

UTTL: Carbon deposition model for oxygen-hydrocarbon combustion. volume 2

TLSP: Interim Final Report

AUTH: A/HERNANDEZ, R.; B/ITO, J. I.; C/NIIYA, K. Y.

CORP: Aerojet TechSystems Co., Sacramento, Calif.

SAP: Avail: NTIS HC A99/MF A01

CIO: UNITED STATES

MAJS: /\*CARBON/\*COMBUSTION PRODUCTS/\*DEPOSITION/\*HYDROCARBON FUELS/\*LIQUID  
OXYGEN/\*MODELS

MINS: / COMBUSTION CHAMBERS/ DESIGN ANALYSIS/ FABRICATION/ GAS GENERATORS/  
PERFORMANCE TESTS/ PREBURNERS/ SIMULATORS/ TURBINES

ABA: Author

ABS: Presented are details of the design, fabrication, and testing of subscale hardware used in the evaluation of carbon deposition characteristics of liquid oxygen and three hydrocarbon fuels for both main chamber and preburner/gas generator operating conditions. In main chamber conditions, the deposition of carbon on the combustion chamber wall was investigated at mixture ratios of 2.0 to 4.0 and at chamber pressures of 1000 to 1500 psia. No carbon deposition on chamber walls was detected at these main chamber mixture ratios. In preburner/gas generator operating conditions,

MORE ENTER:

F

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the deposition of carbon on the turbine simulator tubes was evaluated at mixture ratios of 0.20 to 0.60 and at chamber pressures of 720 to 1650 psia. The results of the tests showed carbon deposition rate to be a strong function of mixture ratio and a weak function of chamber pressure. Further analyses evaluated the operational consequences of carbon deposition on preburner/gas generator performance. This is Volume 2 of the report, which contains data plots of all the test programs.

ENTER:



INTERIM FINAL REPORT

Volume II

CARBON DEPOSITION MODEL FOR OXYGEN-  
HYDROCARBON COMBUSTION

Contract NAS 8-34715

Aerojet TechSystems Company  
P.O. Box 13222  
Sacramento, CA 95813

Prepared For:

National Aeronautics and Space Administration  
George C. Marshall Space Flight Center  
Huntsville, Alabama 35812

*Sept.*  
~~August~~ 1987

RPT/AA0631/087

*N88-27255#*



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## DATA PLOT NOMENCLATURE

CDA	effective area for fluid flow
DPTR	turbulence ring pressure drop
DPTS	turbine simulator pressure drop
DPTS-C	DPTS measured or (PCTSU - PCTSD) if DPTS measured is invalid
NA1	nozzle area based on Pc near injector face
NA2	nozzle area based on Pc downstream of turbine simulator
PCTSD	pressure downstream of turbine simulator
PCTSD-2	second pressure reading downstream
PCTSU	pressure upstream of turbine simulator
PCTSU-2	second pressure reading upstream of turbine simulator
PCTSU-3	third pressure reading upstream of turbine simulator
PRTR	turbulence ring pressure ratio
PRTS	turbine simulator pressure ratio
PRTS CORR	turbine simulator pressure ratio using DPTS-C
TCR-1	thermocouple rake gas temperature
TCR-2	thermocouple rake gas temperature
TCR-3	thermocouple rake gas temperature
TCR-4	thermocouple rake gas temperature
TCR-5	thermocouple rake gas temperature
TCR-6	thermocouple rake gas temperature

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 NAS 8-34715

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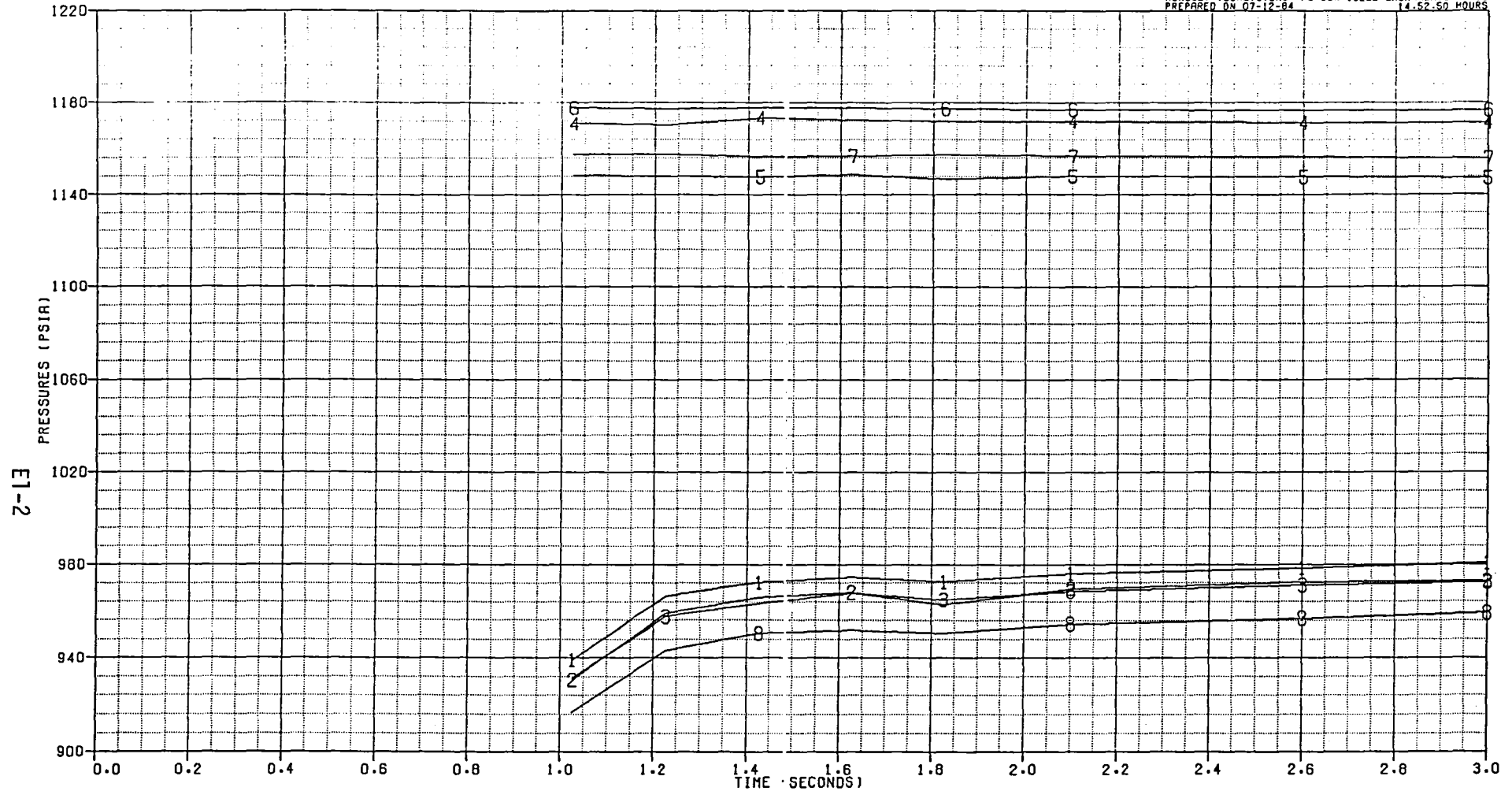
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**APPENDIX E-1**

**1984 LO<sub>2</sub>/RP-1**

**MAIN CHAMBER DATA PLOTS**



E1-2

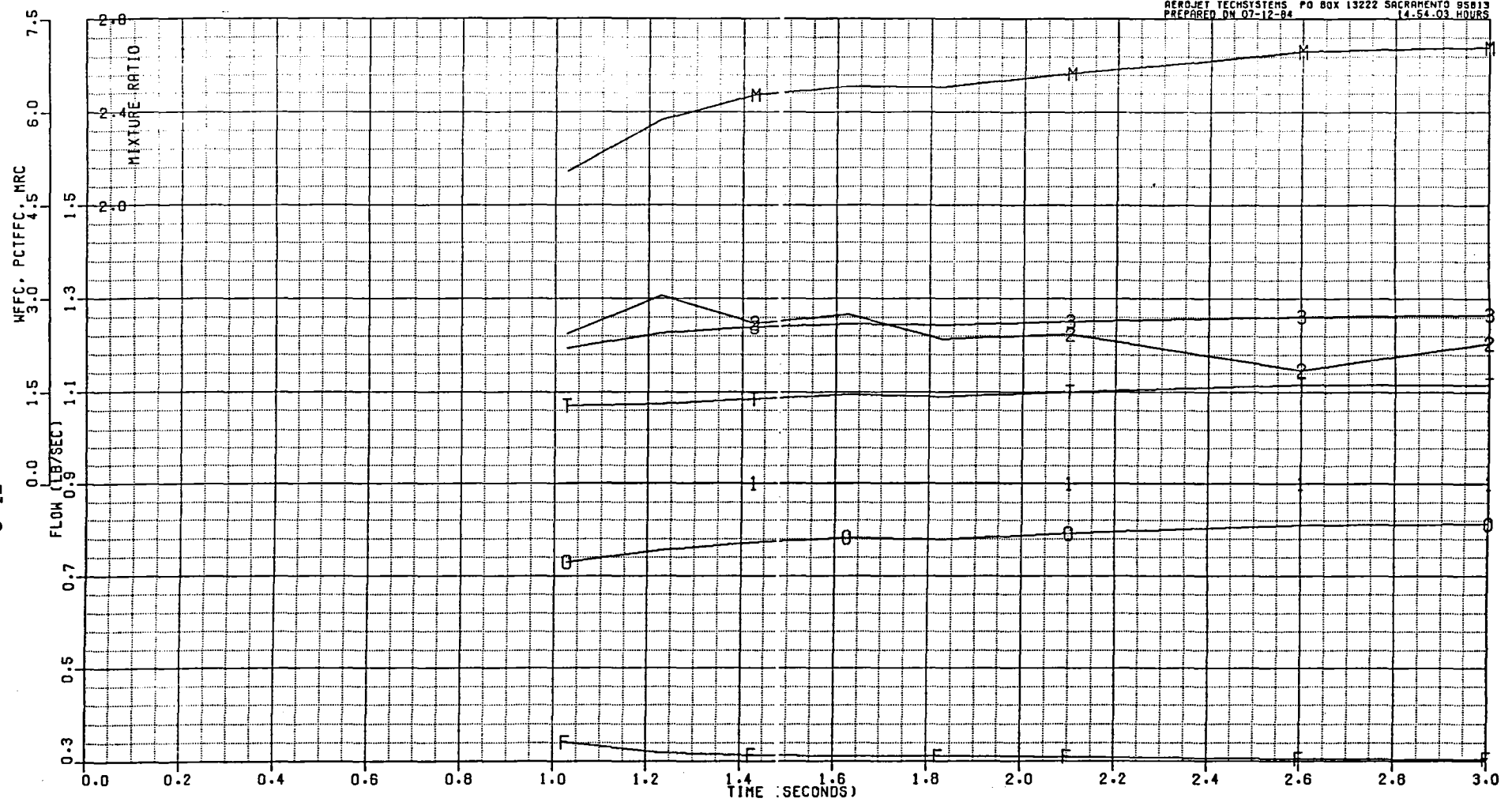
- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-202

TEST DATE 03-19-84 1343 HOURS AVERAGED DATA

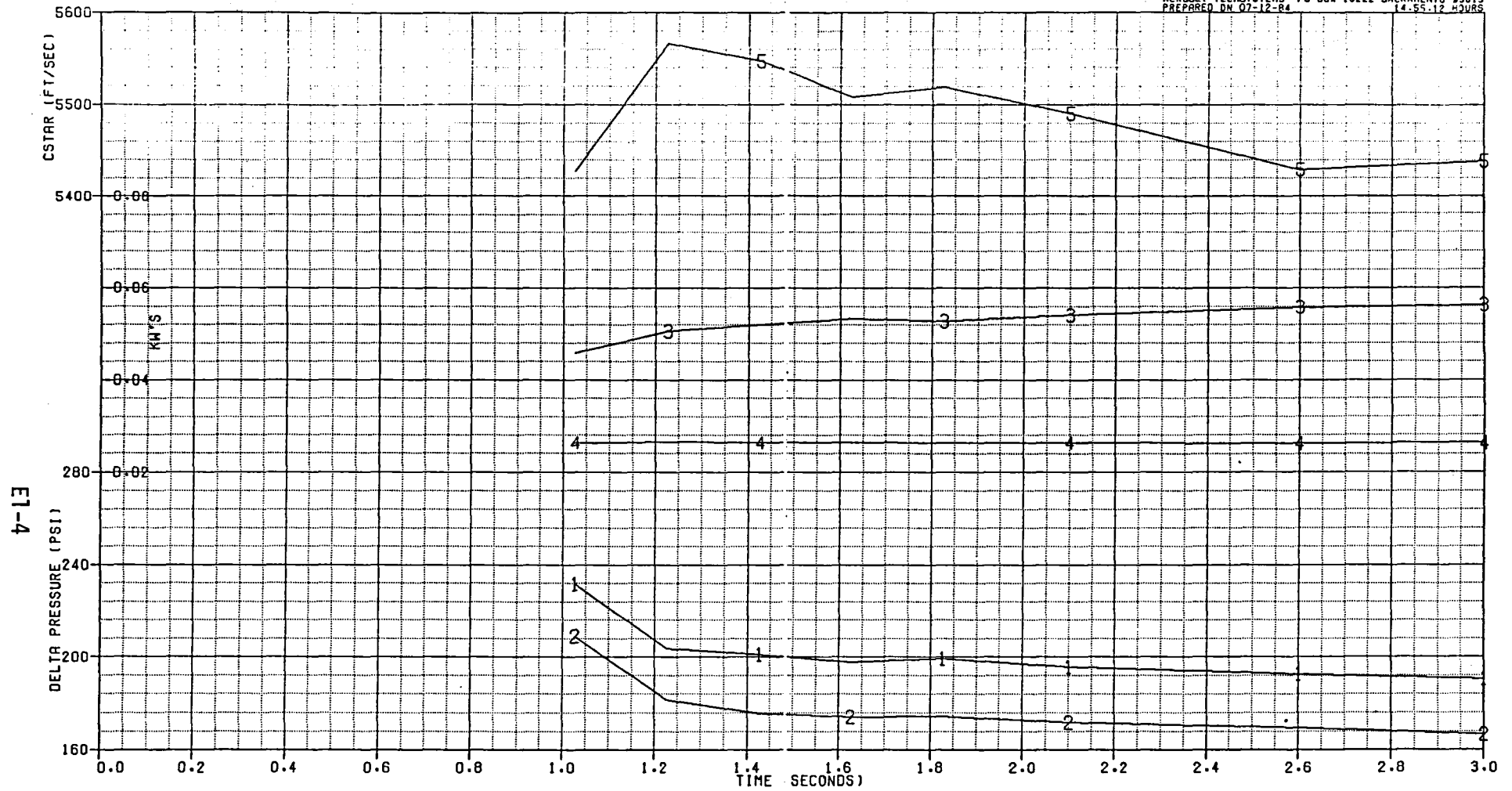


E1-3



F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR LBS/SEC  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

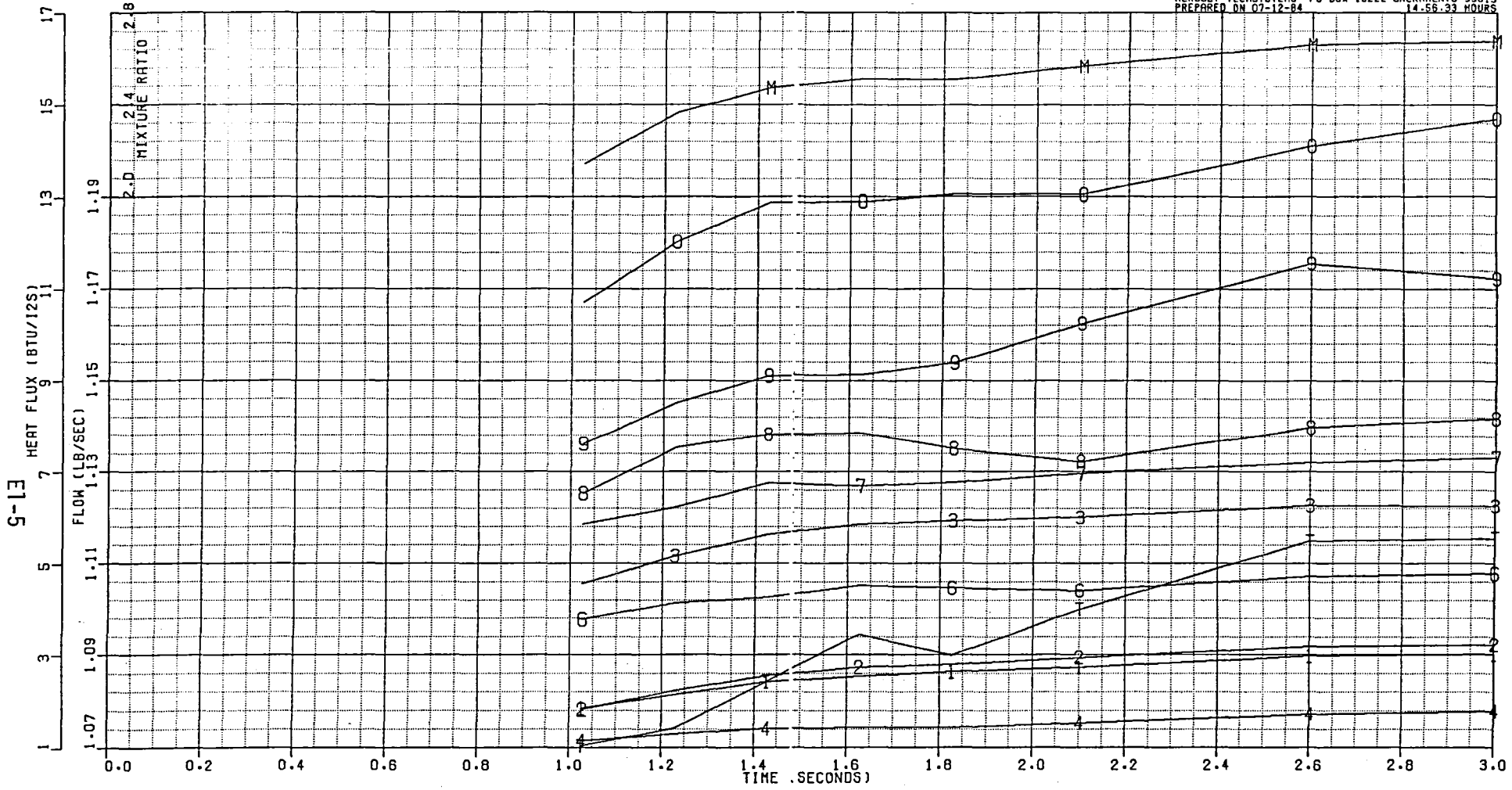
INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-202  
 TEST DATE 03-19-84 1343 HOURS AVERAGED DATA



- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC      FT/SEC

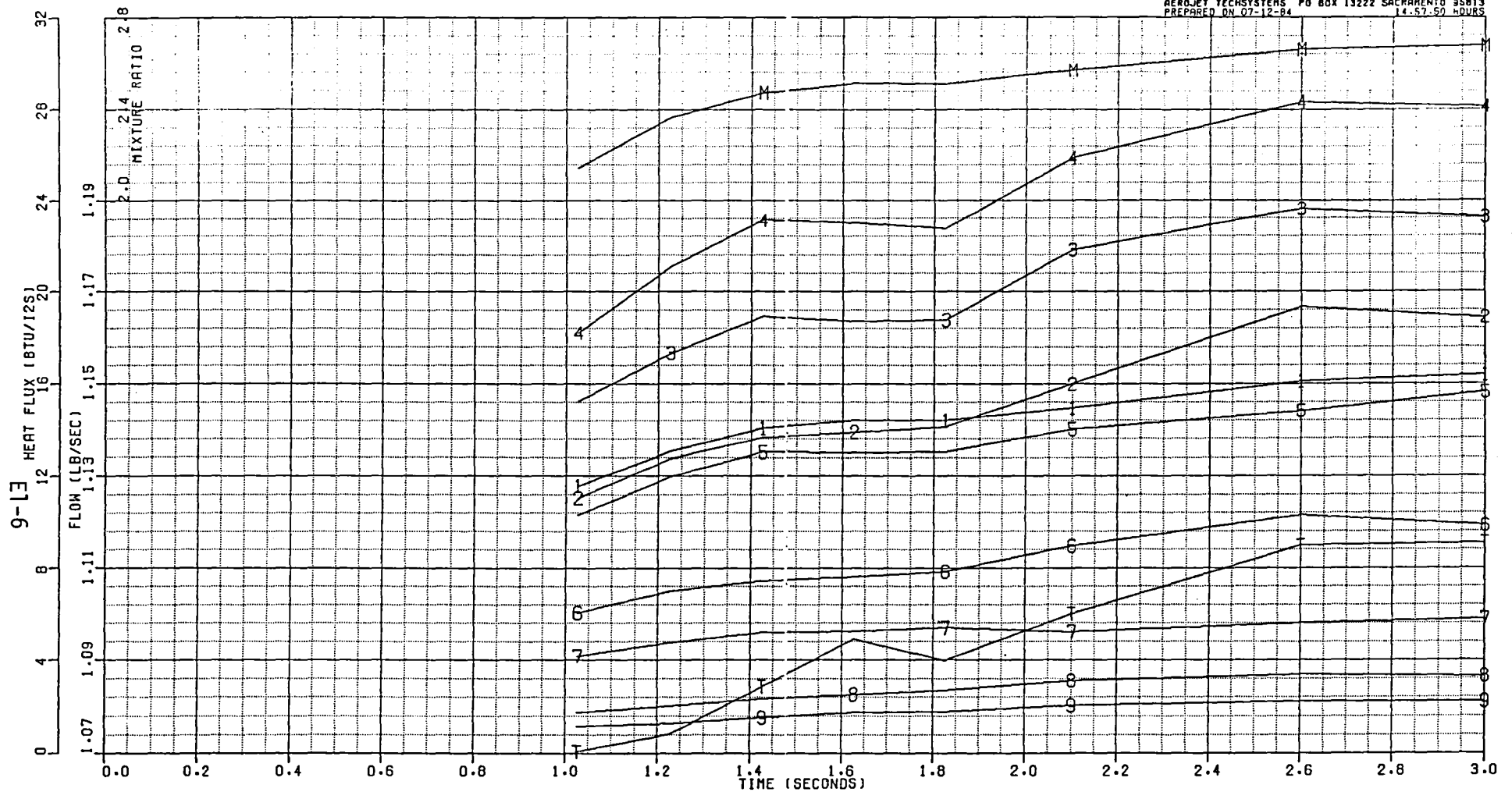
INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-202

TEST DATE 03-19-84 1343 HOURS      AVERAGED DATA



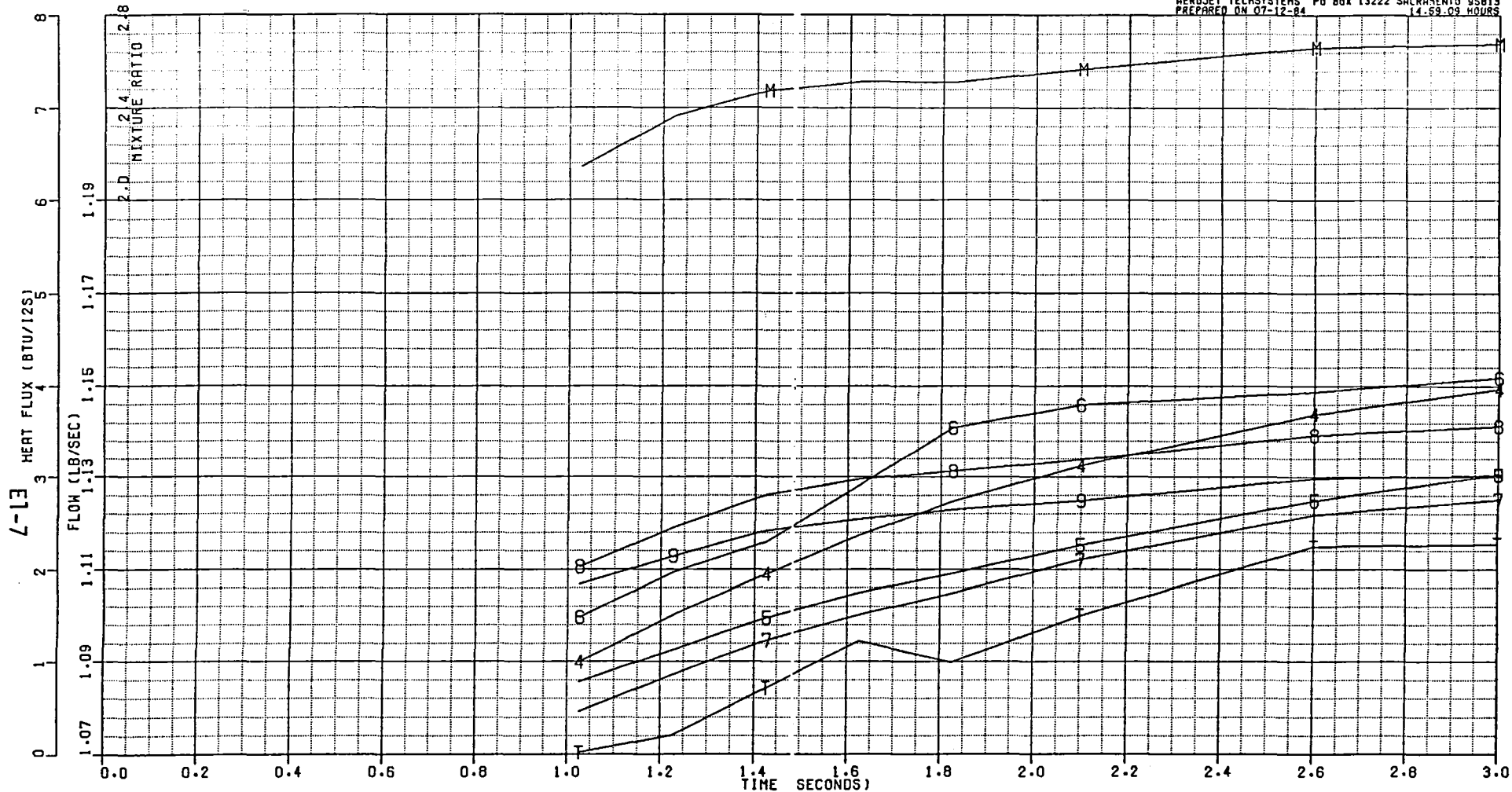
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|--------------|---------|---------|---------|
| 1 Q/AN1-2    | BTU/I2S | 0 Q/ANS | BTU/I2S |
| 2 Q/AN1-3    | BTU/I2S | T WTD   | LBS/SEC |
| 3 Q/AN2-1    | BTU/I2S | M MR    |         |
| 4 Q/AN2-2,-3 | BTU/I2S |         |         |
| 6 Q/AN3-1    | BTU/I2S |         |         |
| 7 Q/AN3-2    | BTU/I2S |         |         |
| 8 Q/AN3-3    | BTU/I2S |         |         |
| 9 Q/AN4      | BTU/I2S |         |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-202  
 TEST DATE 03-19-84 1343 HOURS AVERAGED DATA



1 Q/AN6	BTU/12S	9 Q/AN12-3	BTU/12S
2 Q/AN7	BTU/12S	T WTOT	LBS/SEC
3 Q/AN8	BTU/12S	M MR	
4 Q/AN9	BTU/12S		
5 Q/AN10	BTU/12S		
6 Q/AN11	BTU/12S		
7 Q/AN12-1	BTU/12S		
8 Q/AN12-2	BTU/12S		

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-202  
 TEST DATE 03-19-84 1343 HOURS AVERAGED DATA

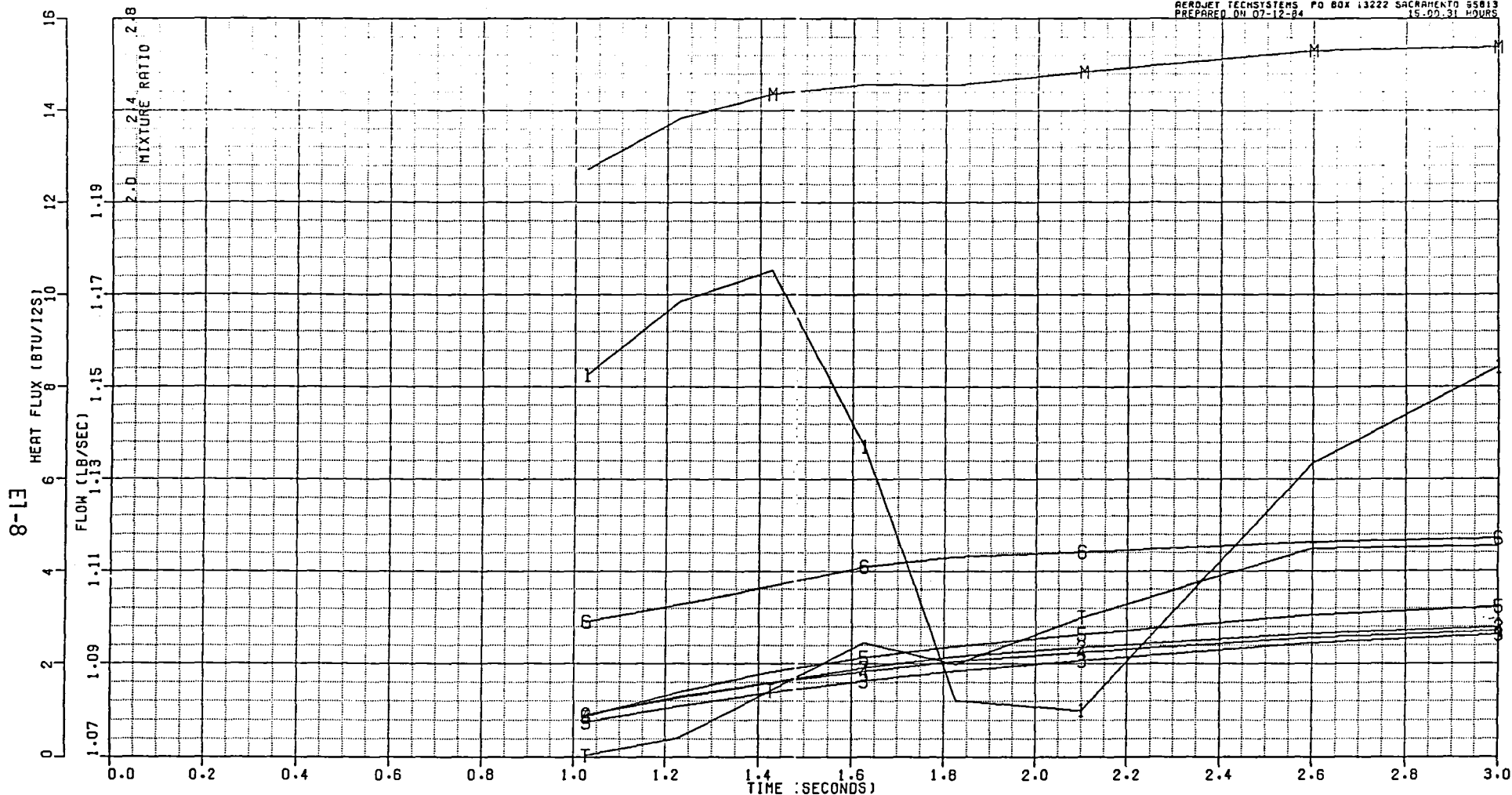


4 Q/R881.2 BTU/12S  
 5 Q/R883 BTU/12S  
 6 Q/R884-1 BTU/12S  
 7 Q/R884-2 BTU/12S  
 8 Q/RN1-1 BTU/12S  
 9 Q/RN1-2 BTU/12S  
 T WTOT LBS/SEC  
 M MR

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-202

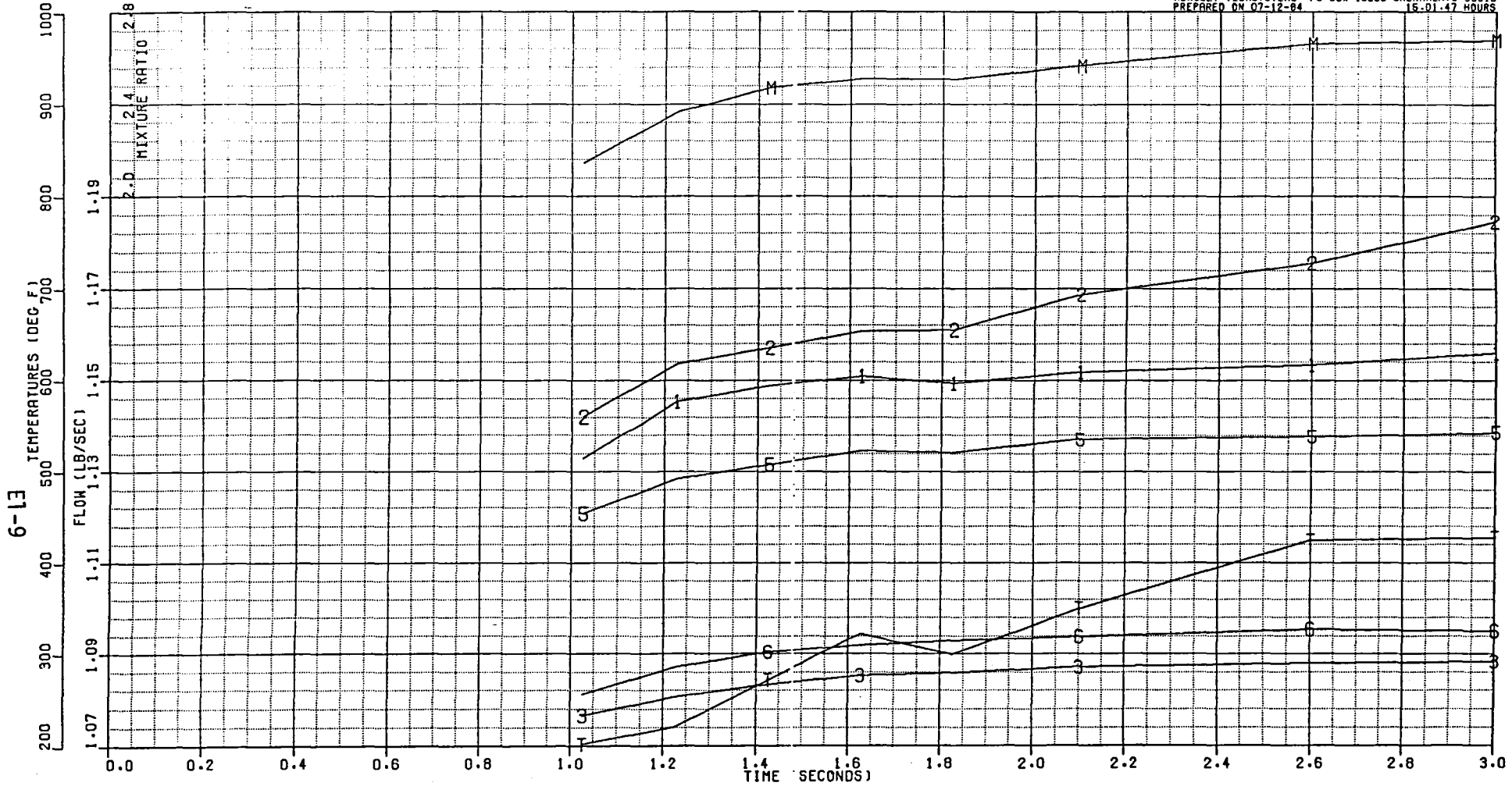
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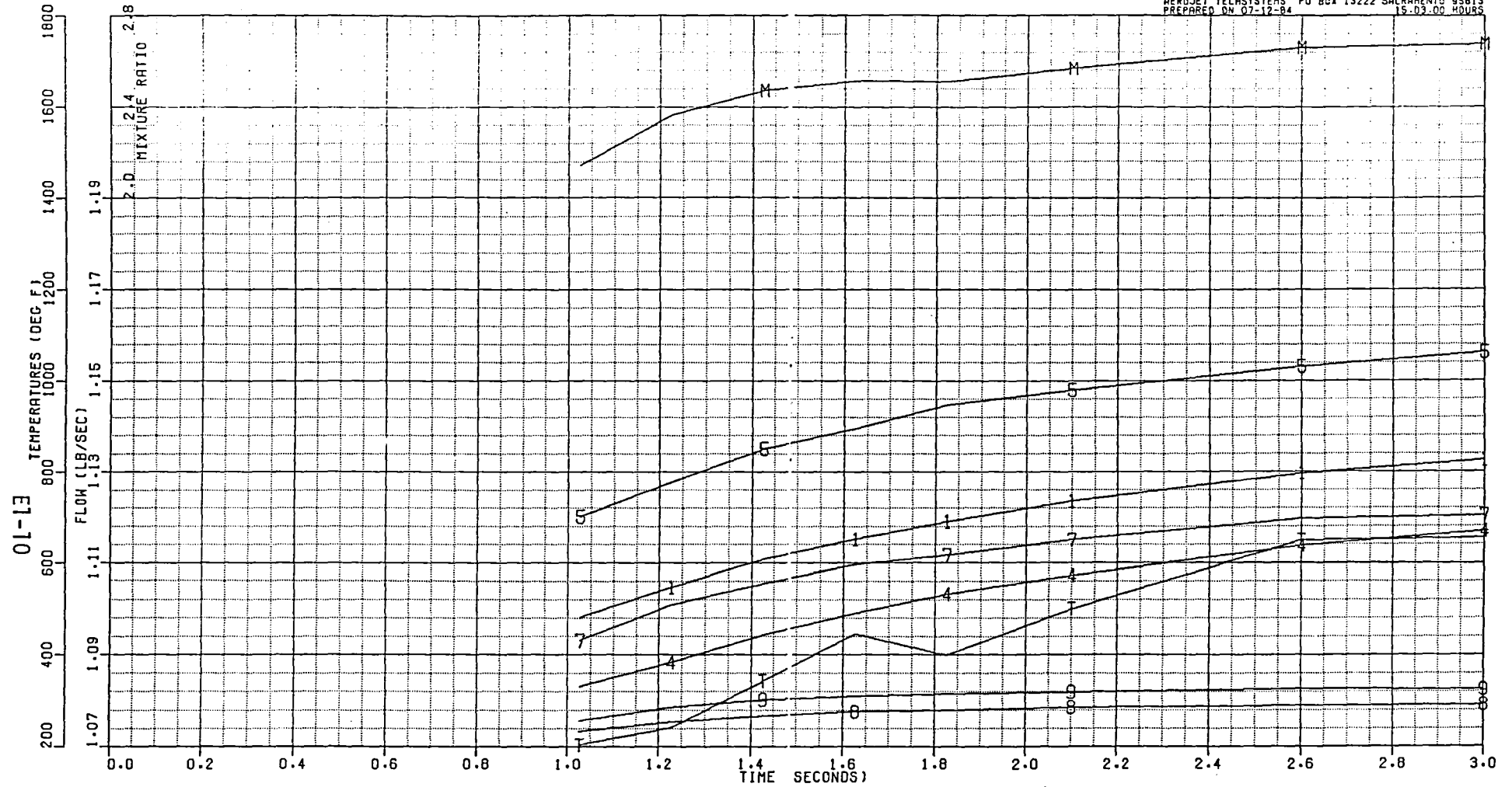
1 Q/ATRC BTU/12S  
 2 Q/A1286 BTU/12S  
 3 Q/A1285 BTU/12S  
 4 Q/A1283.4 BTU/12S  
 5 Q/A1281-2.2 BTU/12S  
 6 Q/A1281-1 BTU/12S  
 T WTOT LBS/SEC  
 M MR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-202  
 TEST DATE 03-19-84 1343 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 4 TC-4 DEG F  
 5 TC-5 DEG F  
 6 TC-6 DEG F  
 T WTOT LBS/SEC  
 M MR

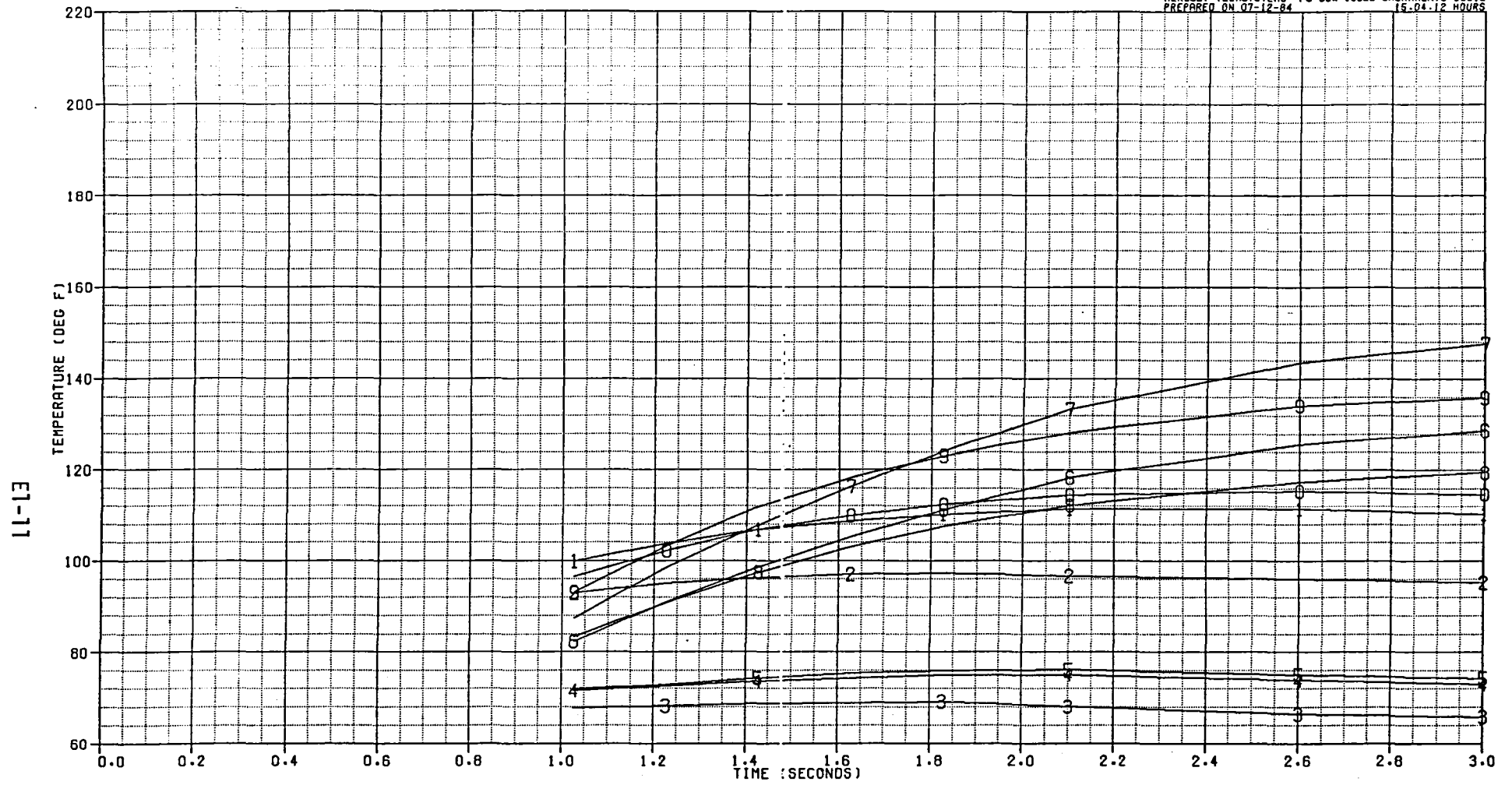
GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-202  
 TEST DATE 03-19-84 1343 HOURS AVERAGED DATA



1 TC-7            DEG F  
 4 TC-10        DEG F  
 5 TC-12        DEG F  
 7 TC-13        DEG F  
 8 TC-3         DEG F  
 9 TC-6         DEG F  
 T NTOT        LBS/SEC  
 M HR

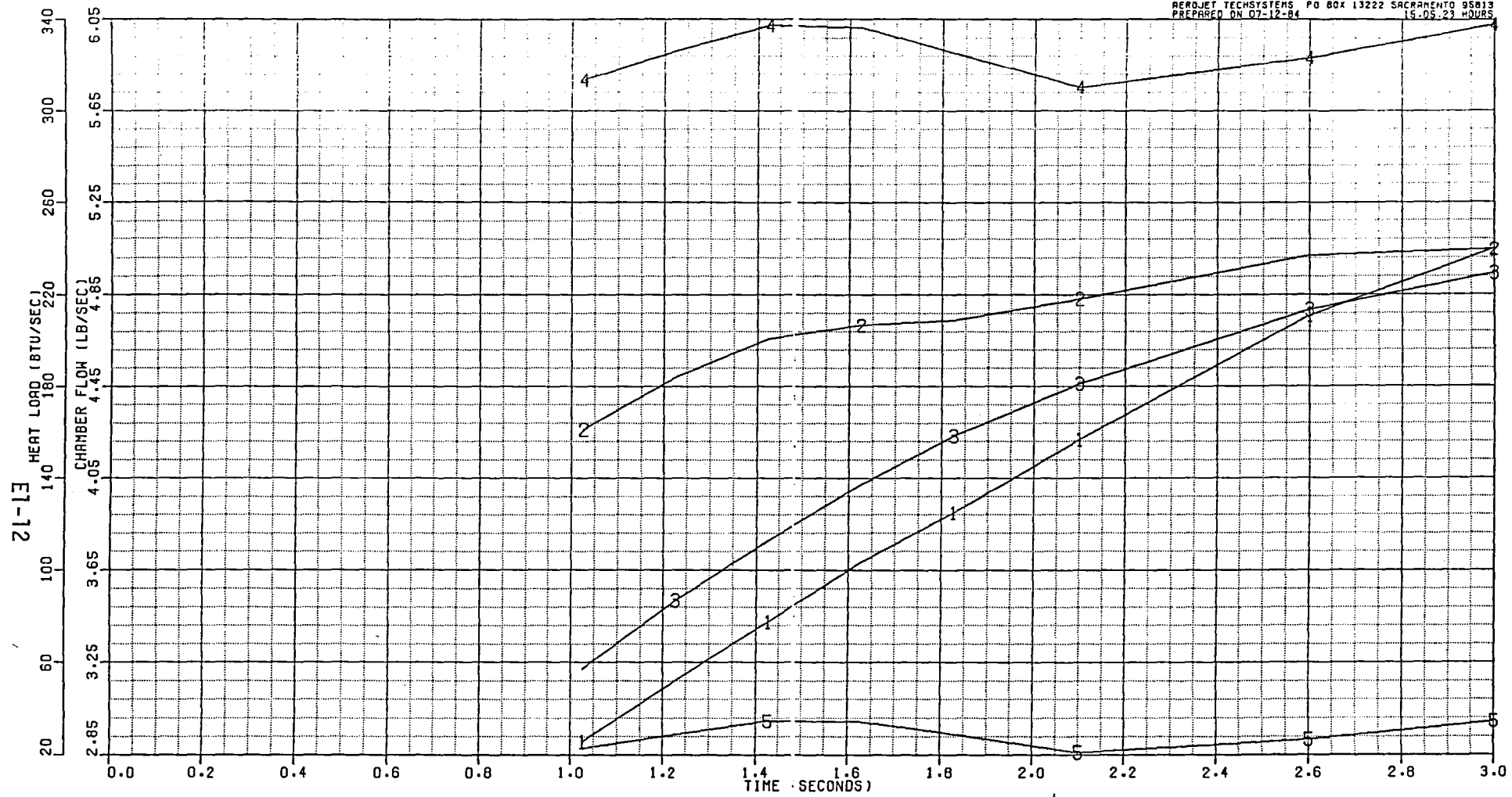
GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-202

TEST DATE 03-19-84 1343 HOURS    AVERAGED DATA



0 TWC-6 DEG F 8 TWC-28 DEG F  
 1 TWC-7 DEG F 9 TWC-31 DEG F  
 2 TWC-10 DEG F  
 3 TWC-21 DEG F  
 4 TWC-22 DEG F  
 5 TWC-23 DEG F  
 6 TWC-26 DEG F  
 7 TWC-27 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-202  
 TEST DATE 03-19-84 1343 HOURS AVERAGED DATA



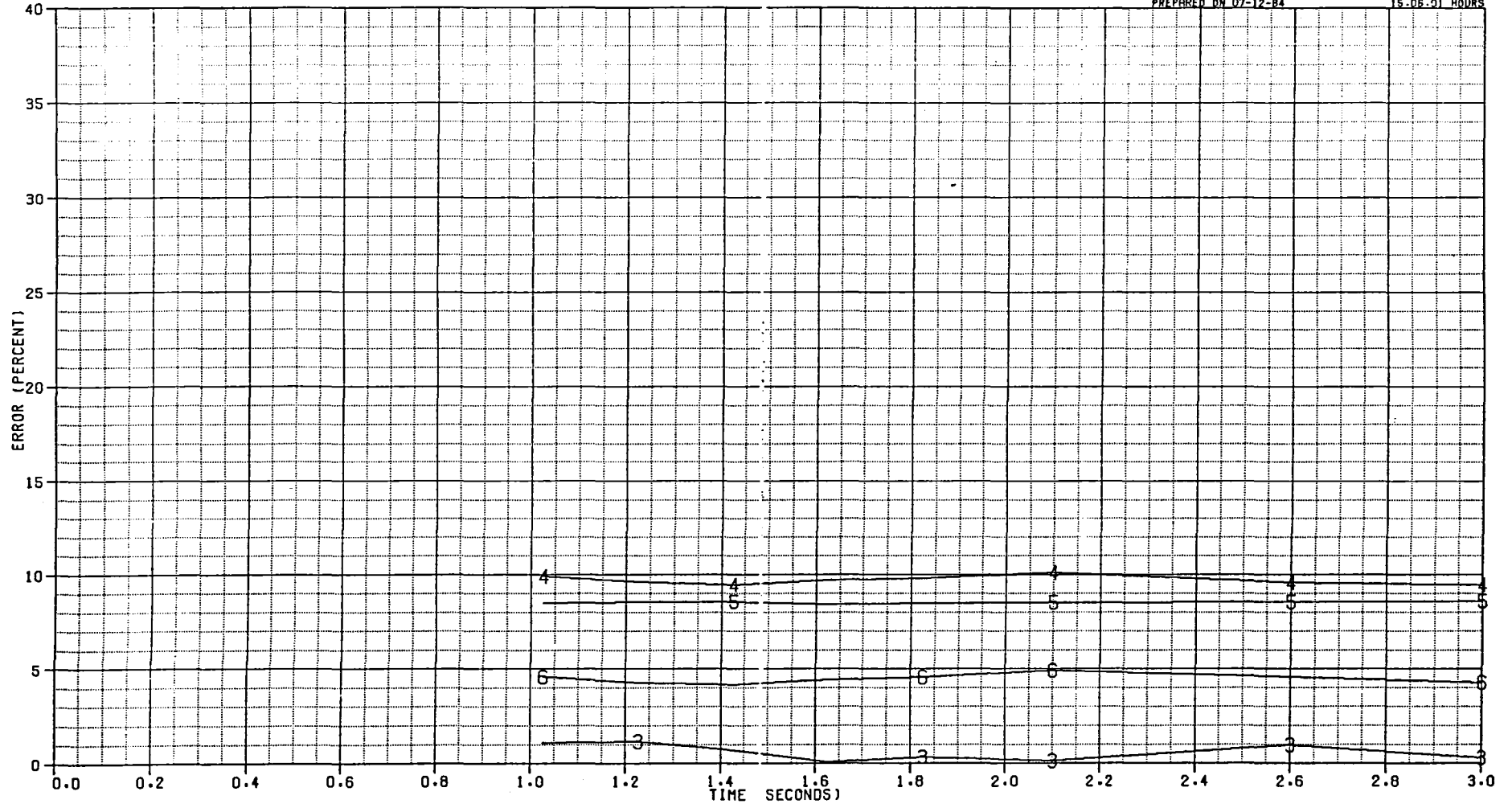
E1-12

- 1 QH BTU/SEC
- 2 QNT BTU/SEC
- 3 QBT BTU/SEC
- 4 WH1 LBS/SEC
- 5 WH2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-202

TEST DATE 03-19-84 1343 HOURS AVERAGED DATA

E1-13

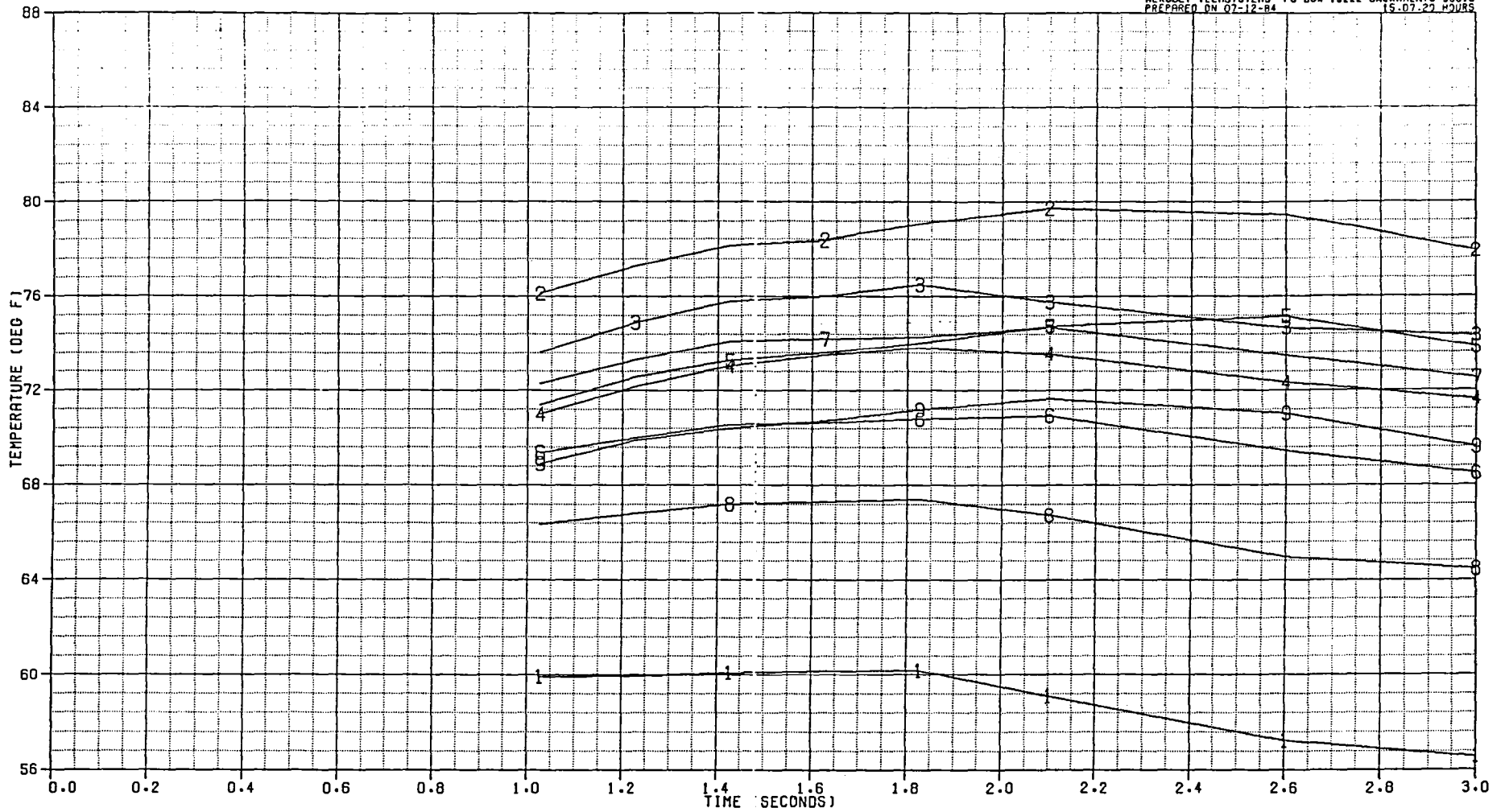


1	QERM	PERCENT
2	WERNT	PERCENT
3	WERBBT	PERCENT
4	WER12B1	PERCENT
5	WER12B3	PERCENT
6	WER12B5	PERCENT
7	WERN10	PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
TEST NO. RLBL-936-202

TEST DATE 03-19-84 1343 HOURS AVERAGED DATA

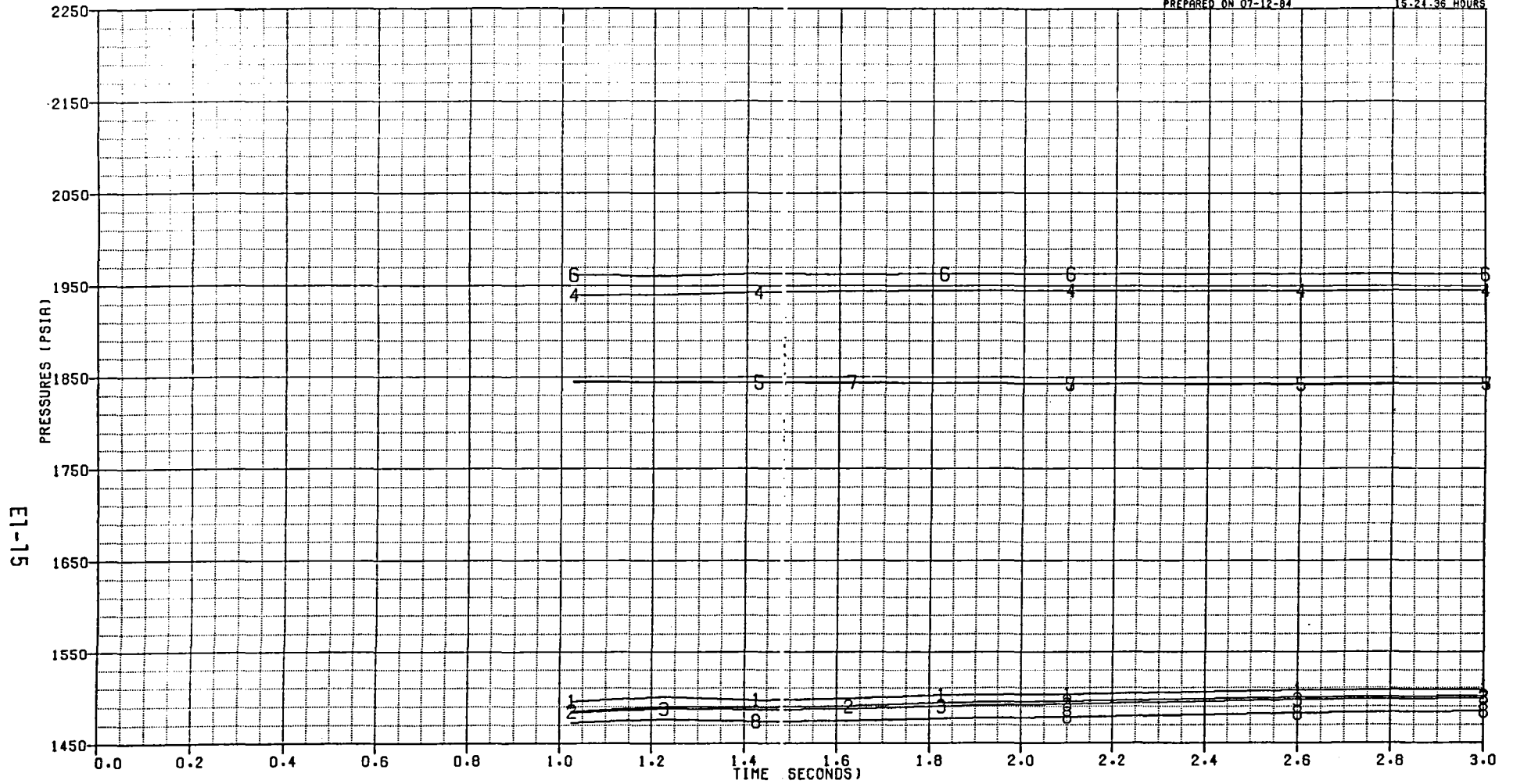
E1-14



- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
TEST NO. RLBL-936-202

TEST DATE 03-19-84 1343 HOURS AVERAGED DATA

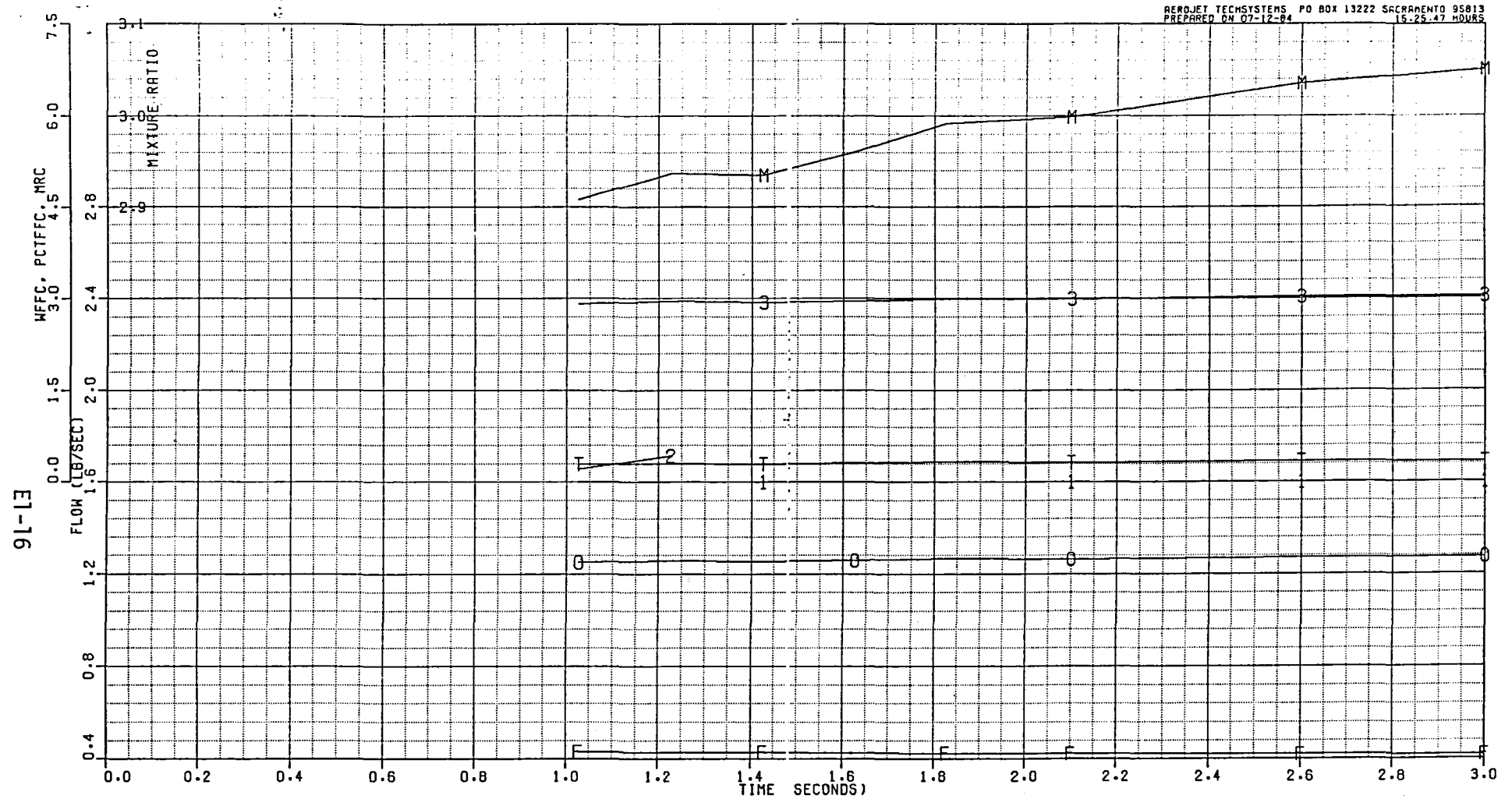


- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA



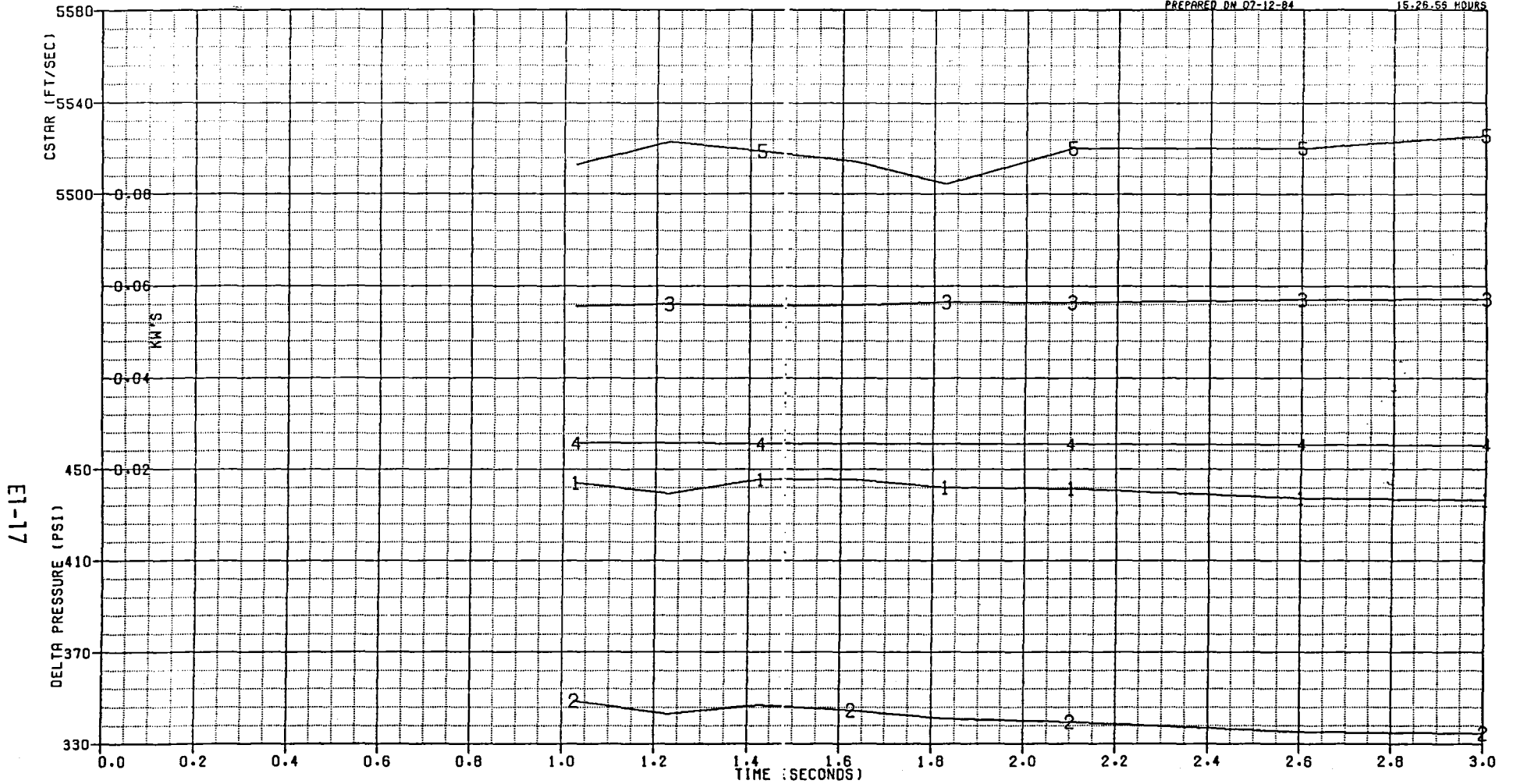


91-13

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

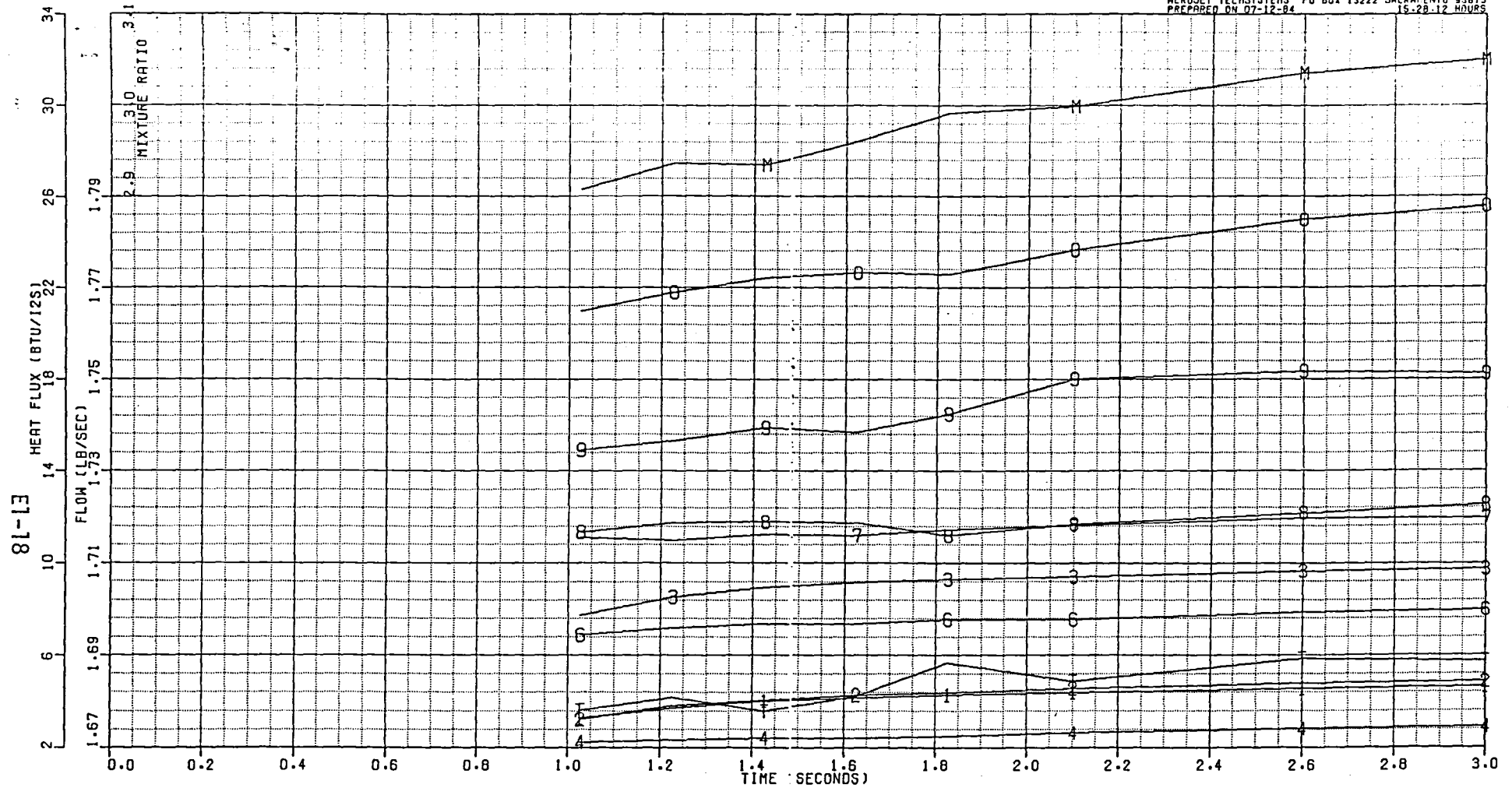


E1-17

- 1 DPDJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC        FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS    AVERAGED DATA

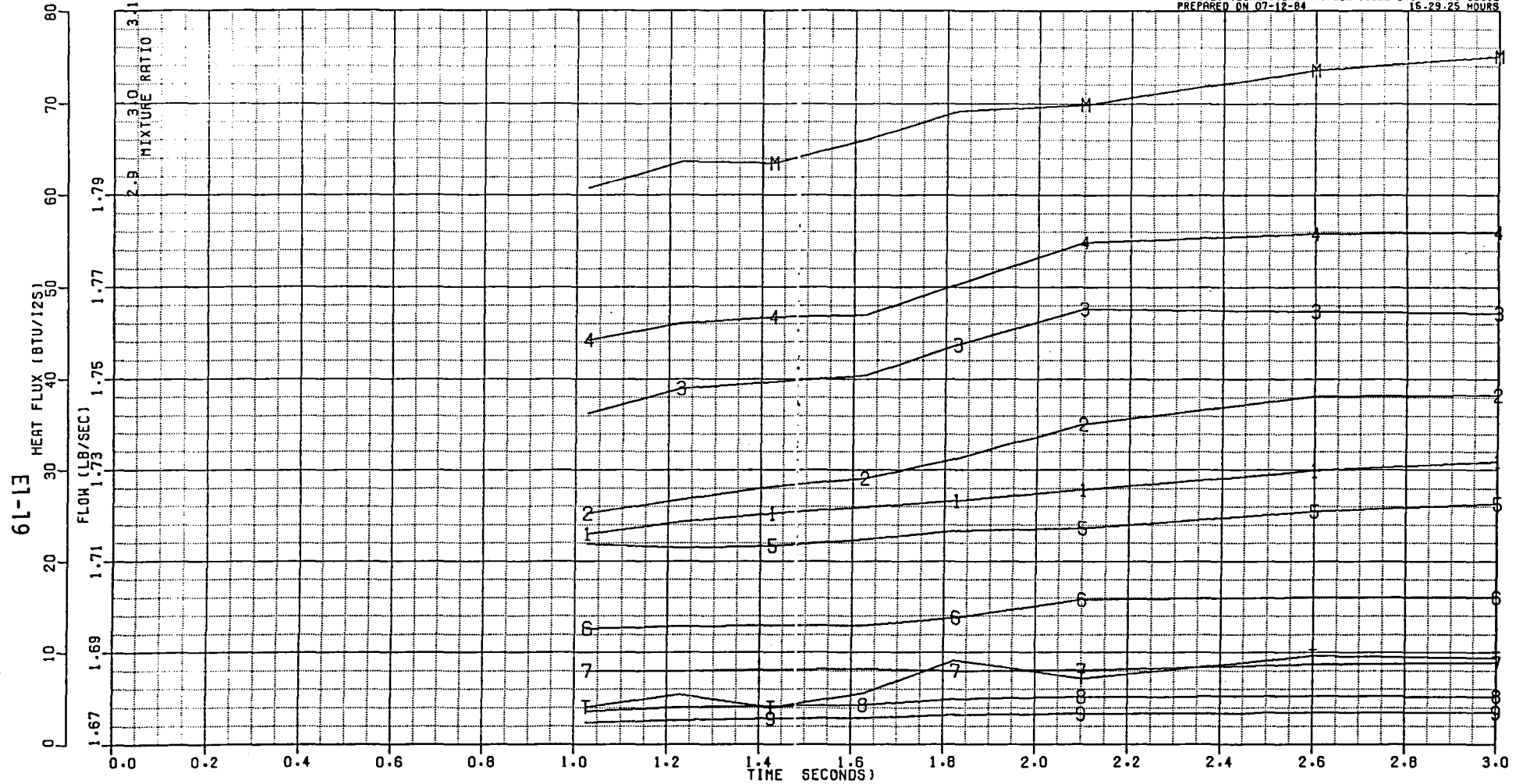


- |              |         |         |         |
|--------------|---------|---------|---------|
| 1 Q/AN1-2    | BTU/I2S | 0 Q/AN5 | BTU/I2S |
| 2 Q/AN1-3    | BTU/I2S | T WTOT  | LBS/SEC |
| 3 Q/AN2-1    | BTU/I2S | M MR    |         |
| 4 Q/AN2-2.-3 | BTU/I2S |         |         |
| 6 Q/AN3-1    | BTU/I2S |         |         |
| 7 Q/AN3-2    | BTU/I2S |         |         |
| 8 Q/AN3-3    | BTU/I2S |         |         |
| 9 Q/AN4      | BTU/I2S |         |         |

HEAT FLUX (Q/A) VS TIME  
 TEST NO. RLBL-936-203

NOZZLE DATA

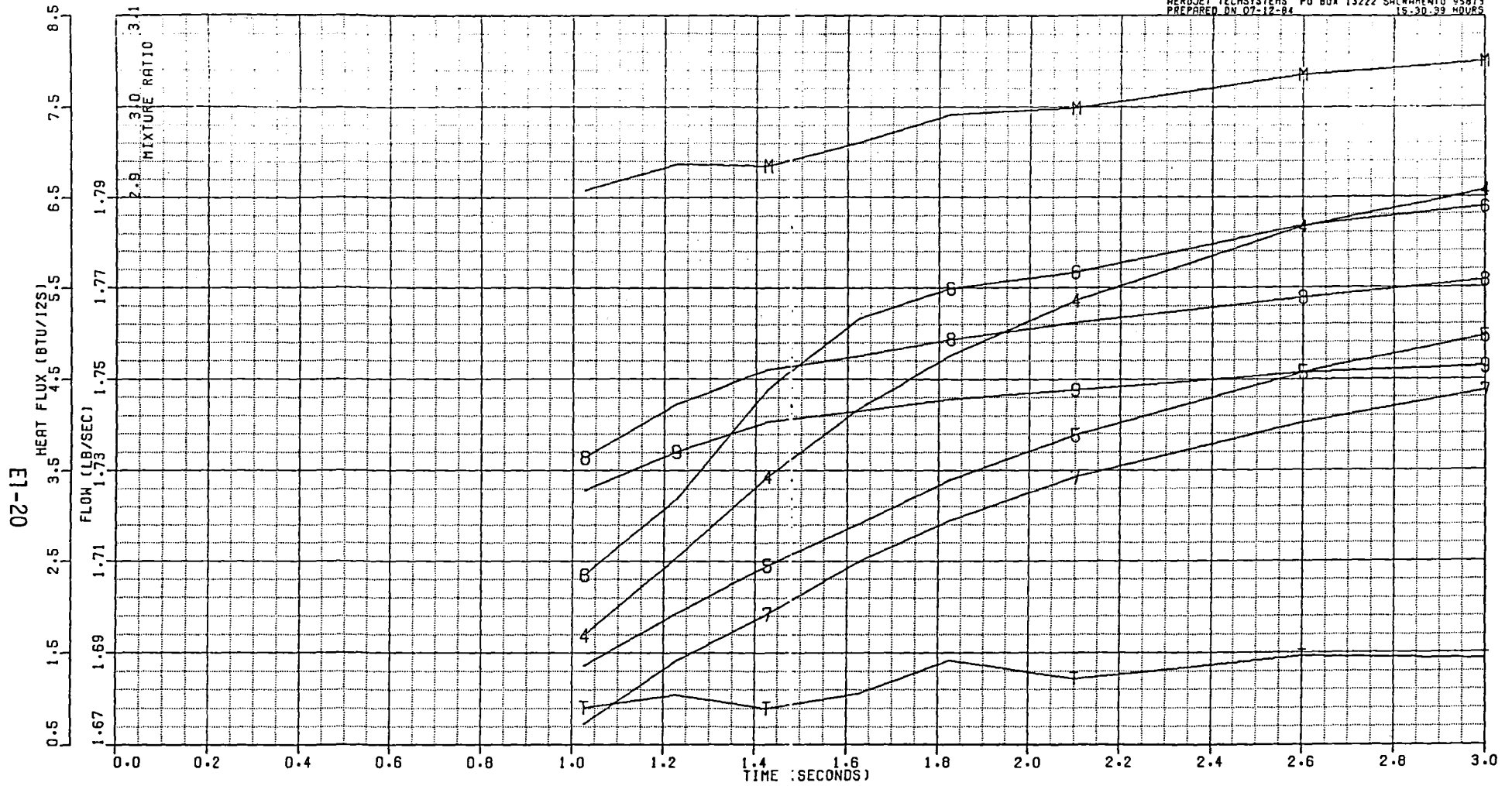
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1 Q/AN6	BTU/12S	9 Q/AN12-3	BTU/12S
2 Q/AN7	BTU/12S	T NTOT	LBS/SEC
3 Q/AN8	BTU/12S	M MR	
4 Q/AN9	BTU/12S		
5 Q/AN10	BTU/12S		
6 Q/AN11	BTU/12S		
7 Q/AN12-1	BTU/12S		
8 Q/AN12-2	BTU/12S		

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

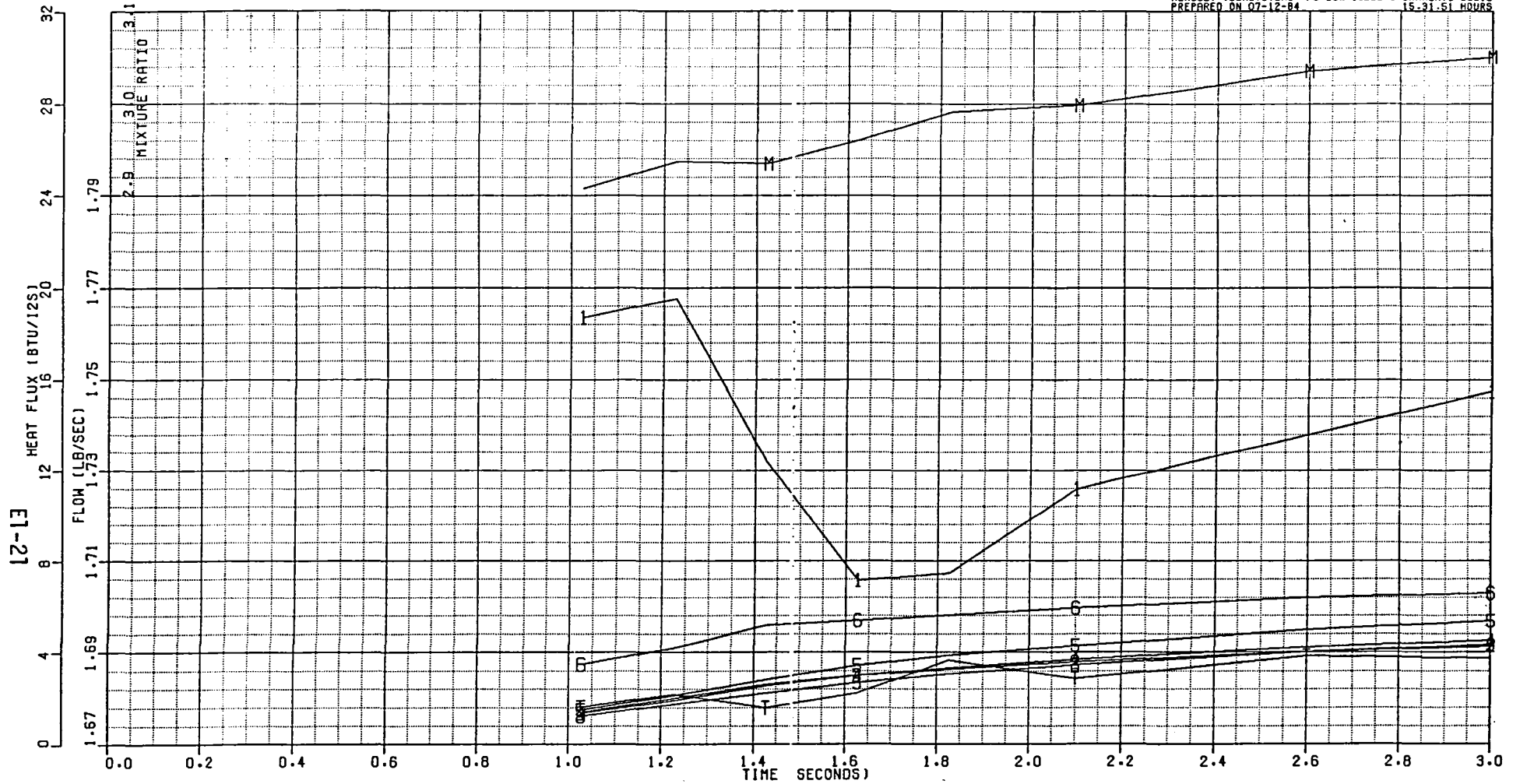


E1-20

- 4 Q/A8B1.2 BTU/12S
- 5 Q/A8B3 BTU/12S
- 6 Q/A8B4-1 BTU/12S
- 7 Q/A8B4-2 BTU/12S
- 8 Q/AN1-1 BTU/12S
- 9 Q/AN1-2 BTU/12S
- T WTOT LBS/SEC
- M MR

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

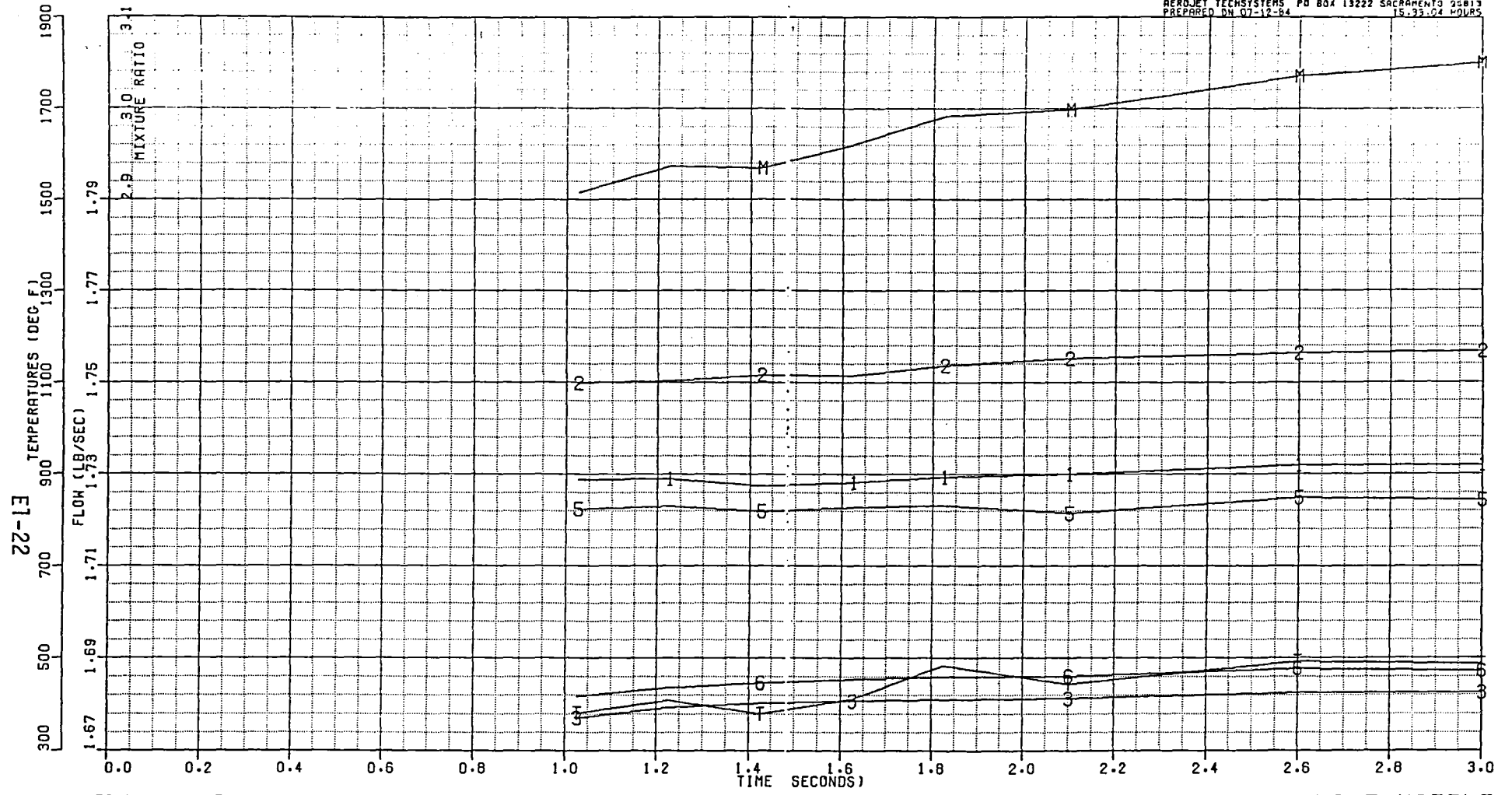


12-21

- 1 Q/ATRC BTU/12S
- 2 Q/A12B6 BTU/12S
- 3 Q/A12B5 BTU/12S
- 4 Q/A12B3.4 BTU/12S
- 5 Q/A12B1-2.2 BTU/12S
- 6 Q/A12B1-1 BTU/12S
- T WTOT LBS/SEC
- M HR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-203

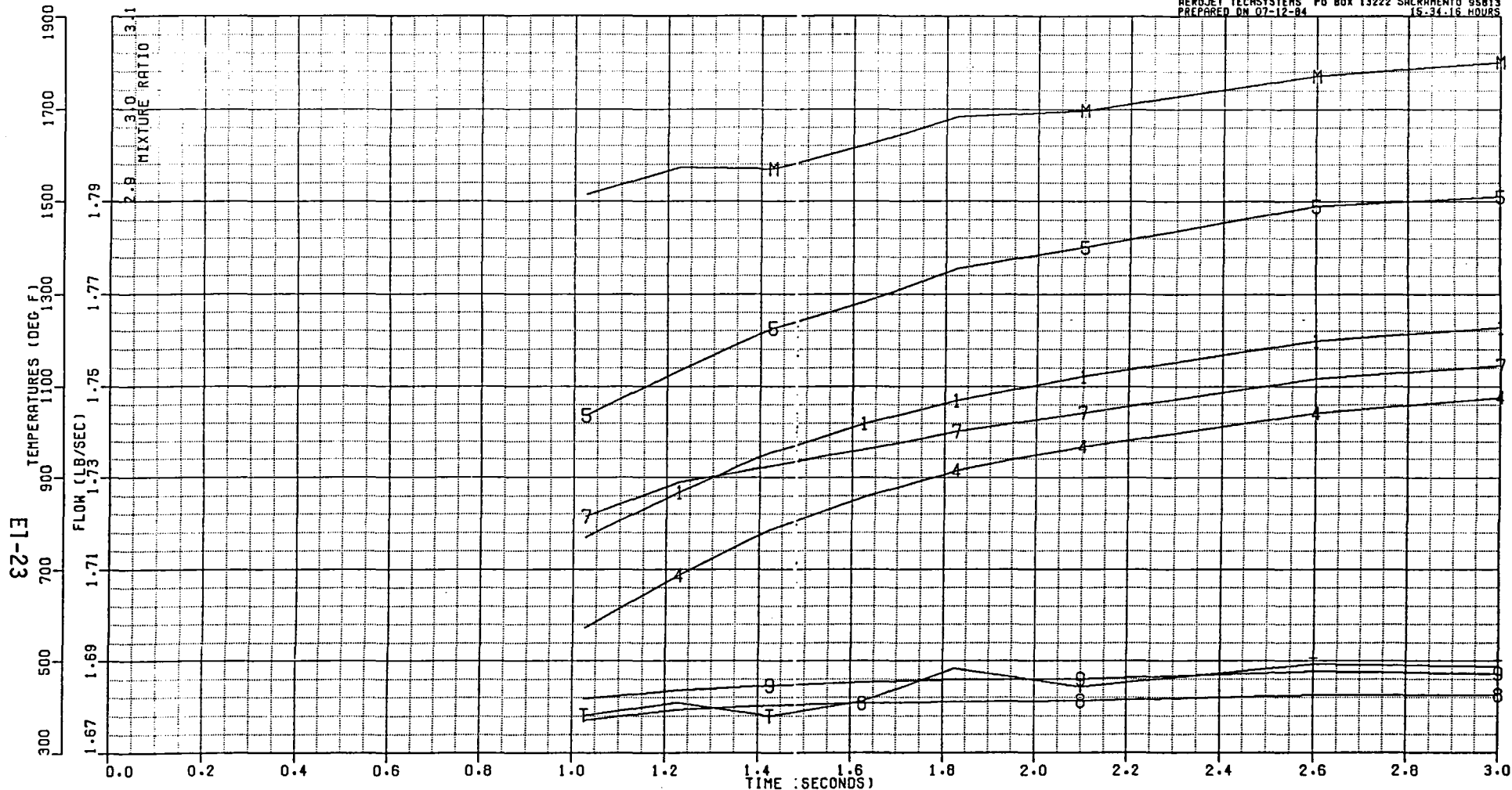
TEST DATE 03-19-84 1418 HOURS AVERAGED DATA



- 1 TC-1 DEG F
- 2 TC-2 DEG F
- 3 TC-3 DEG F
- 4 TC-4 DEG F
- 5 TC-5 DEG F
- 6 TC-6 DEG F
- T WTOT LBS/SEC
- M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA



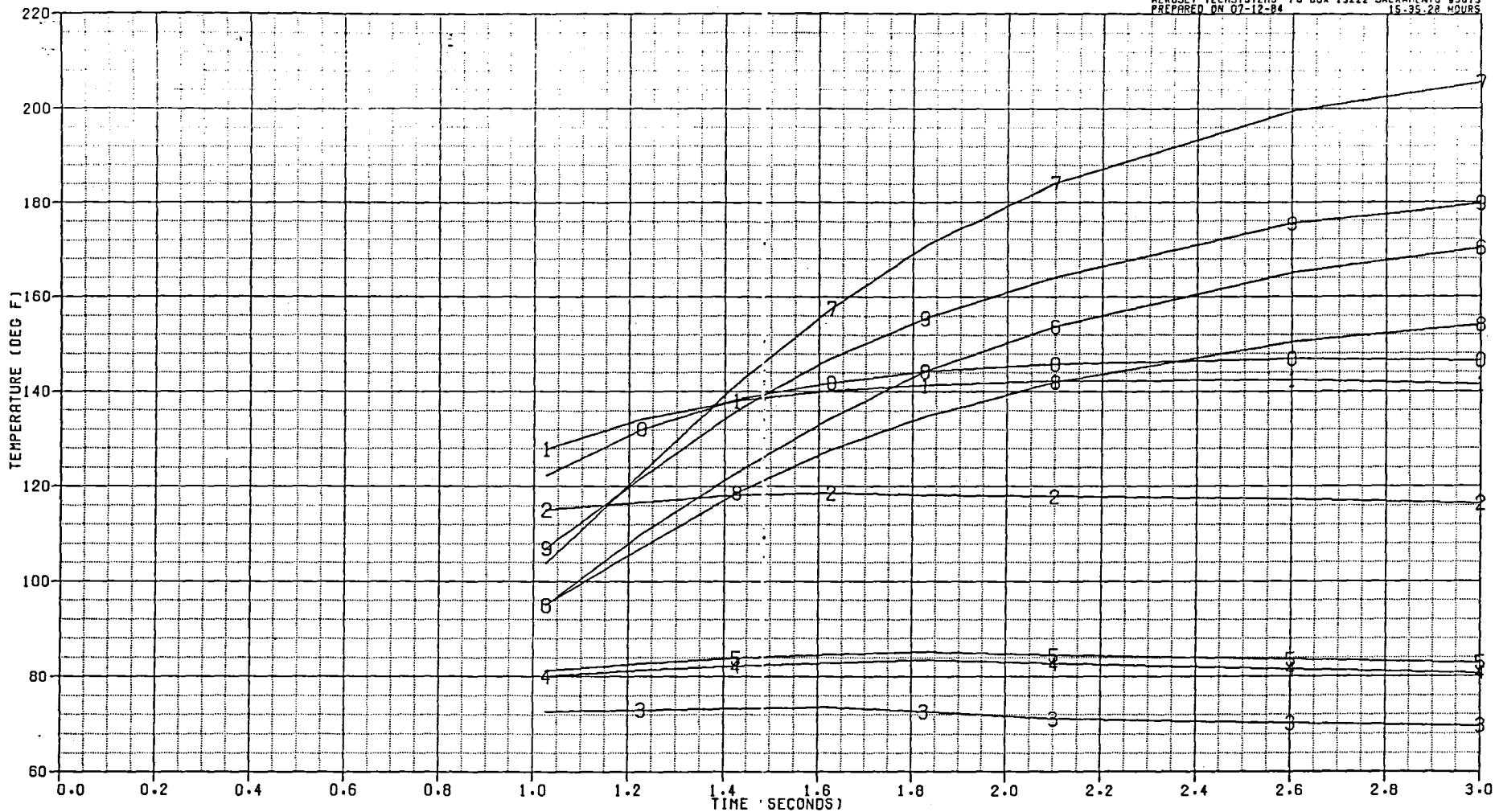
E1-23

- 1 TC-7 DEG F
- 4 TC-10 DEG F
- 5 TC-12 DEG F
- 7 TC-13 DEG F
- 8 TC-3 DEG F
- 9 TC-6 DEG F
- T WTOT LBS/SEC
- M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-203  
 TEST DATE 03-19-84 1418 HOURS AVERAGED DATA



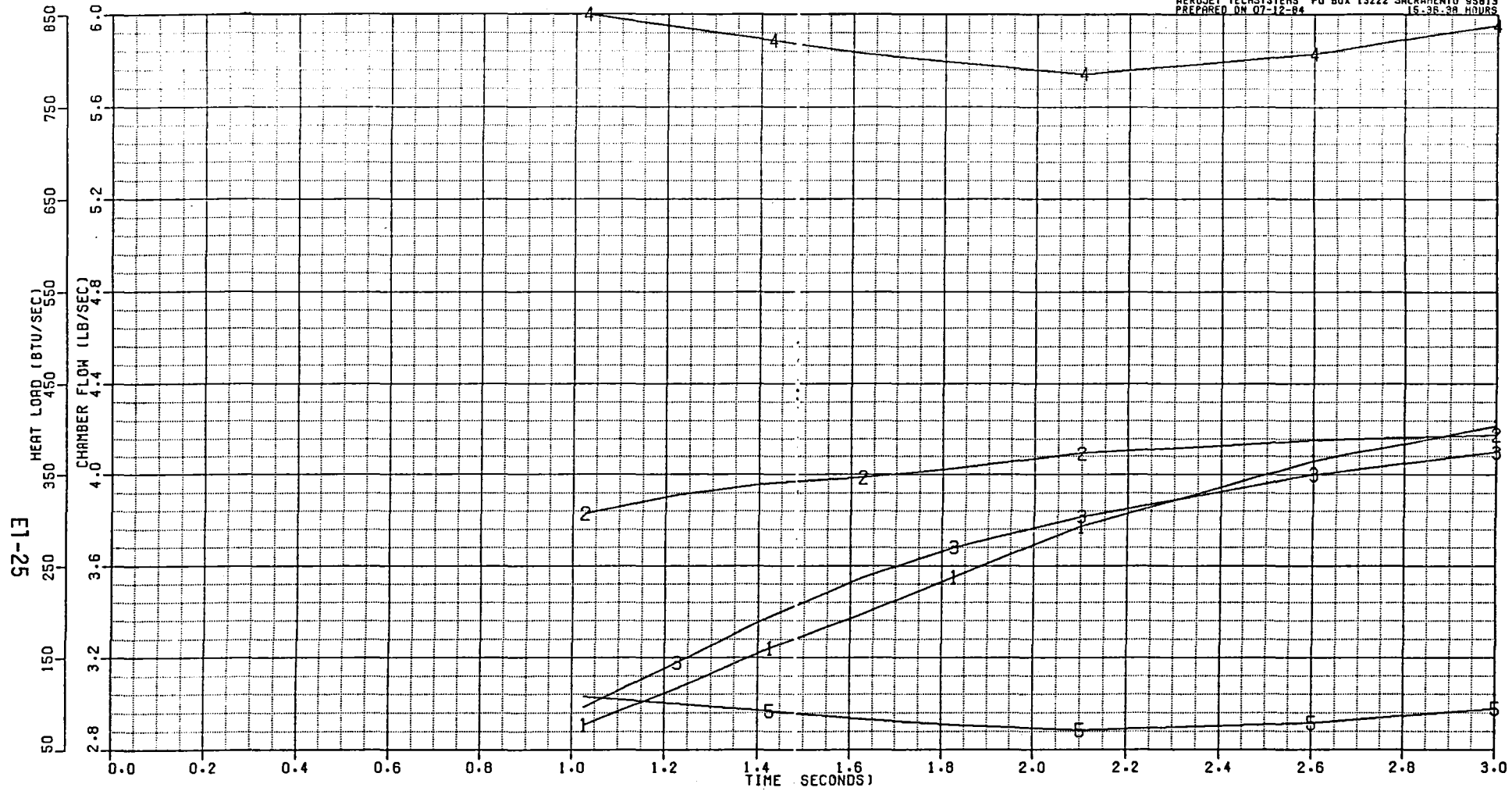
E1-24



COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-28 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-31 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |



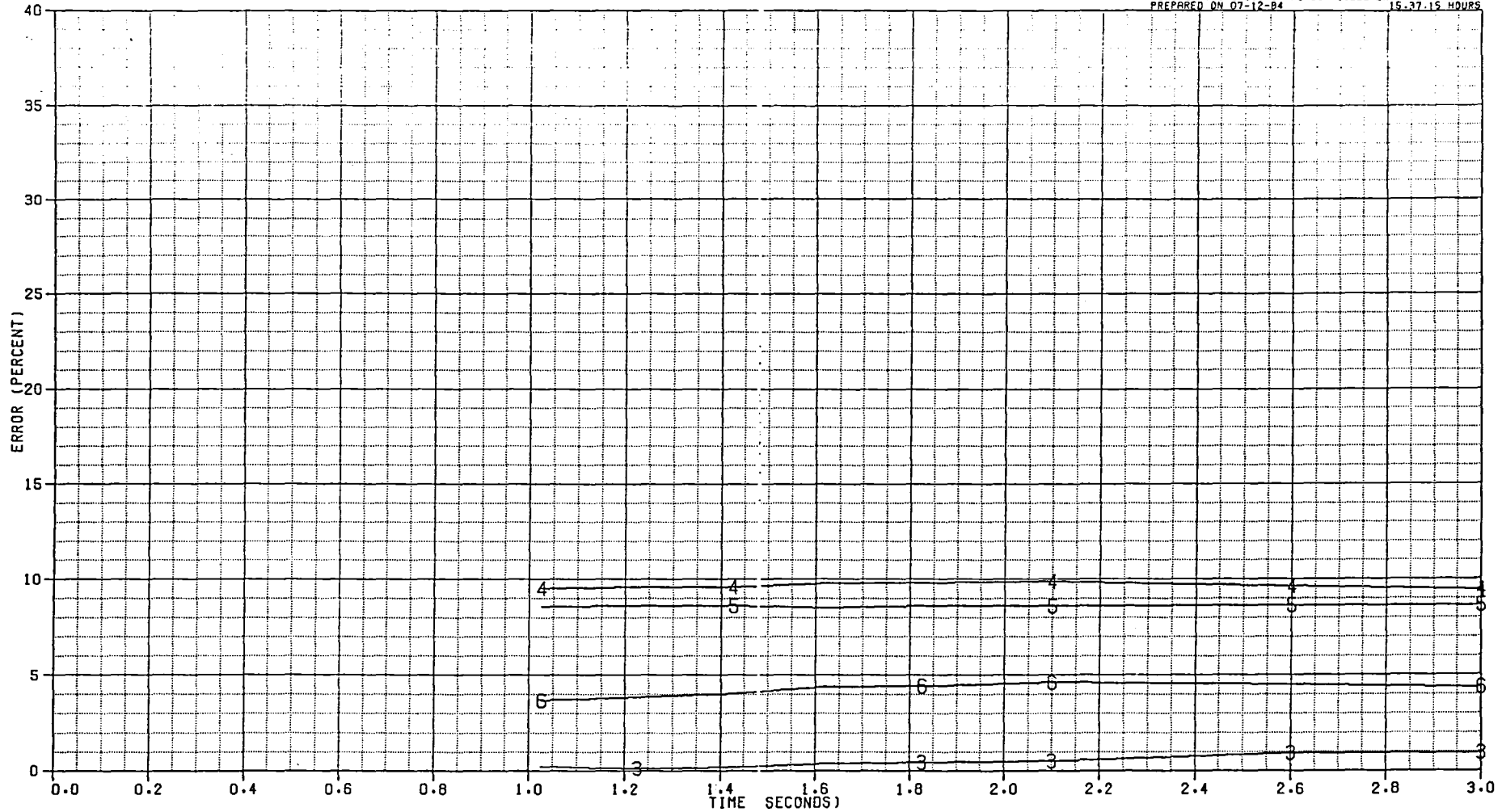
E1-25

- 1 QNT BTU/SEC
- 2 QNT BTU/SEC
- 3 Q8BT BTU/SEC
- 4 HW1 LBS/SEC
- 5 HW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

E1-26

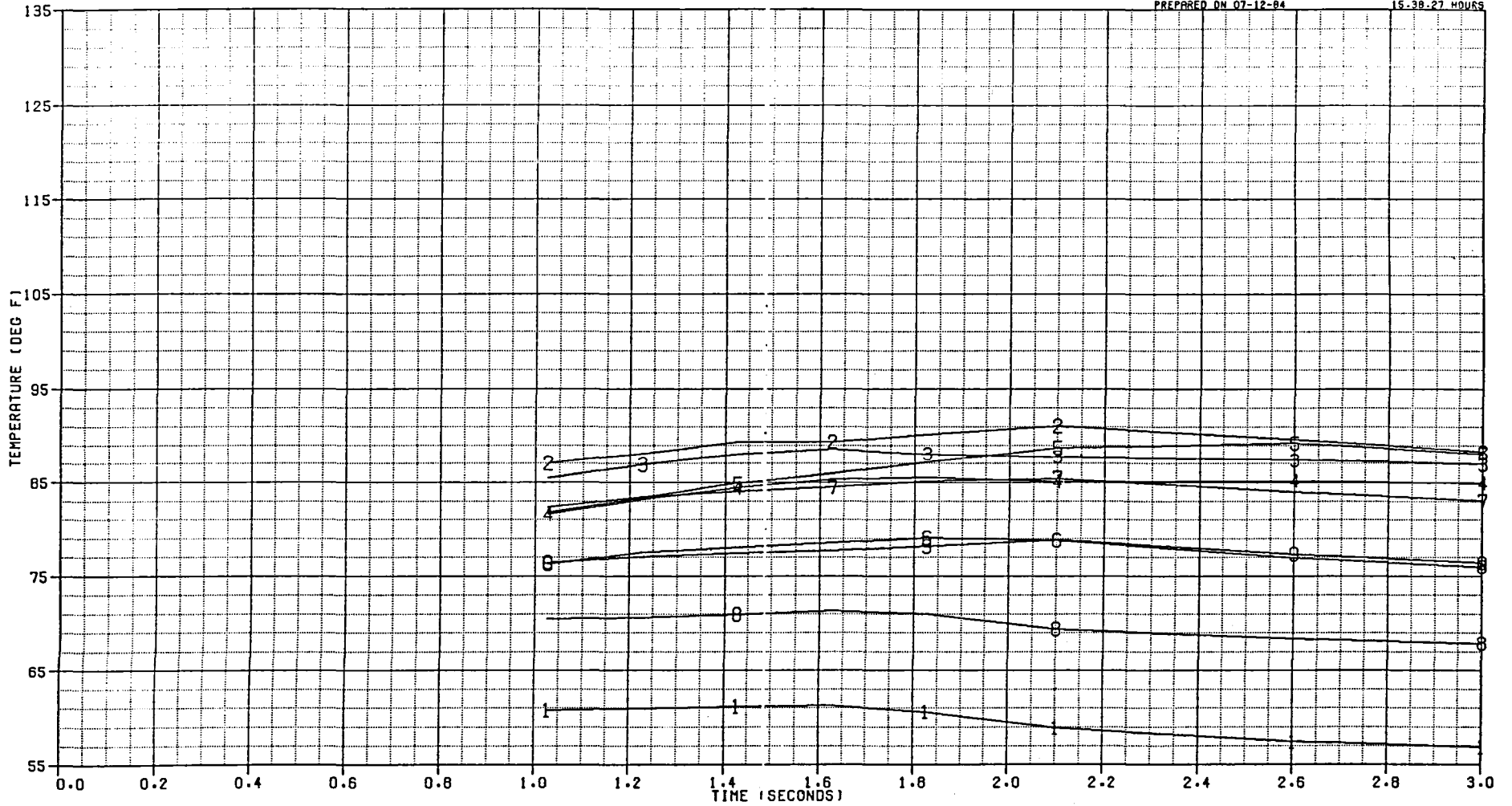


- 1 QERM PERCENT
- 2 WERN1 PERCENT
- 3 WER88T PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

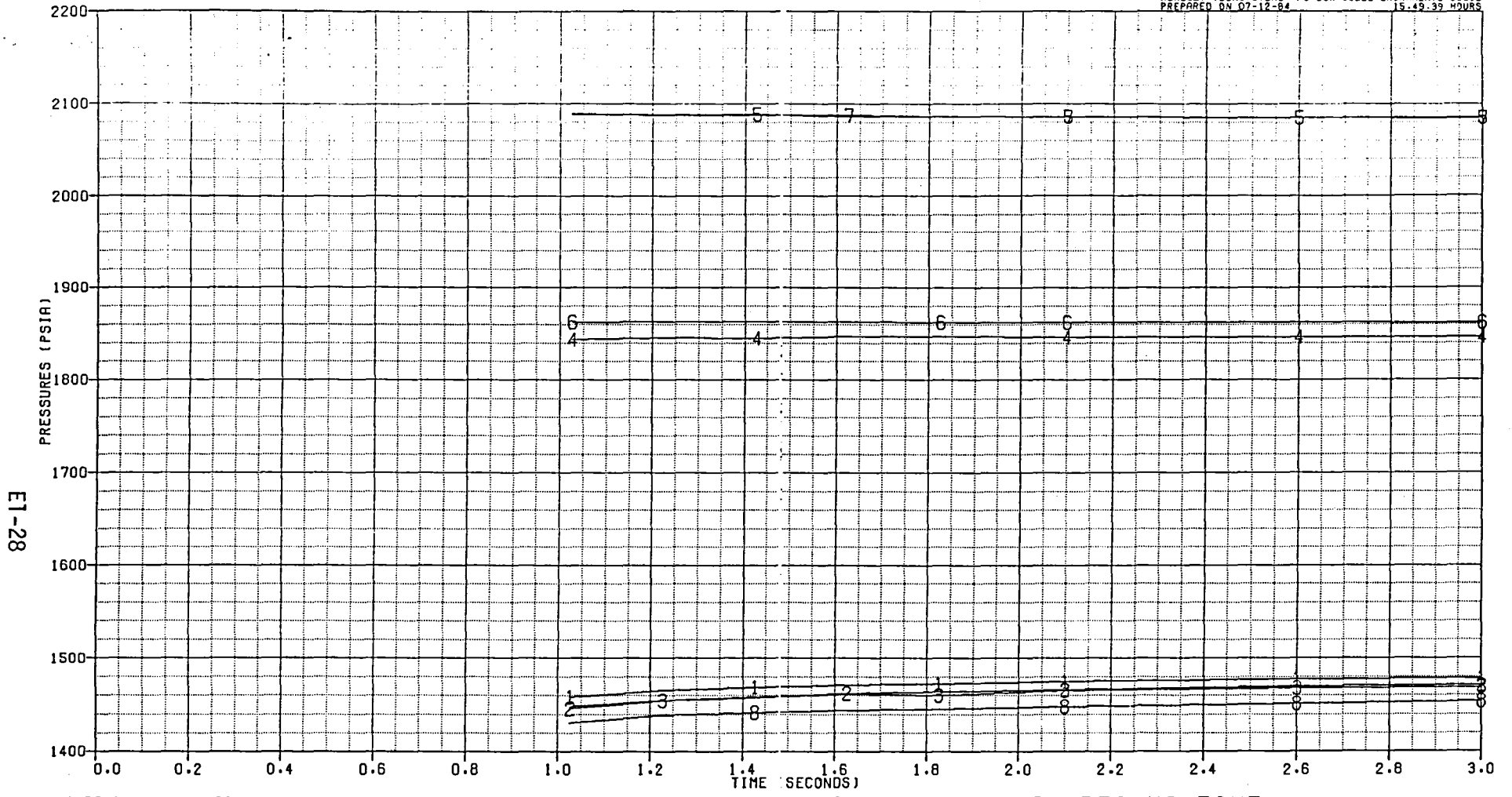
E1-27



- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-203

TEST DATE 03-19-84 1418 HOURS AVERAGED DATA

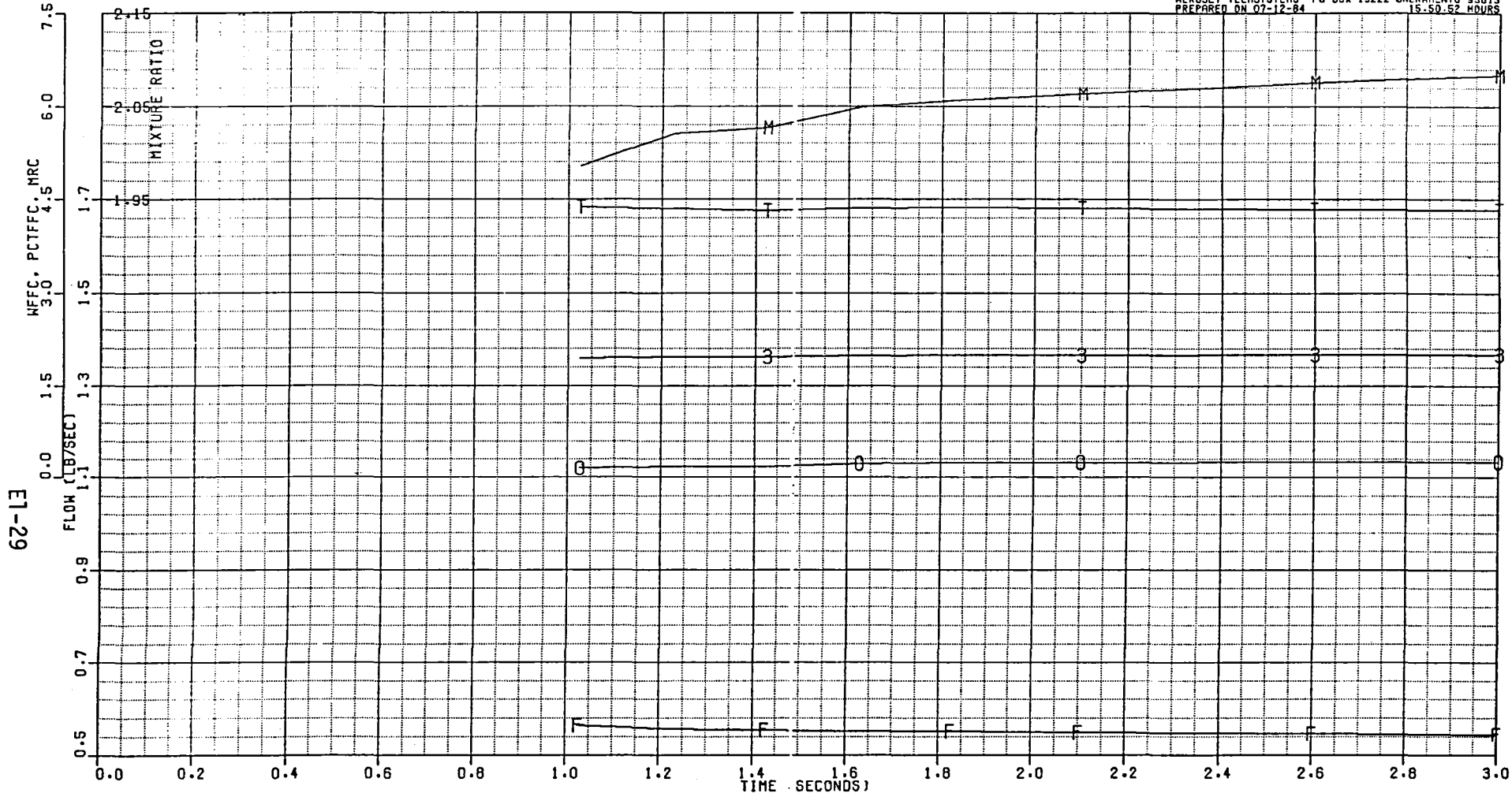


E1-28

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
TEST NO. RLBL-936-204

- TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

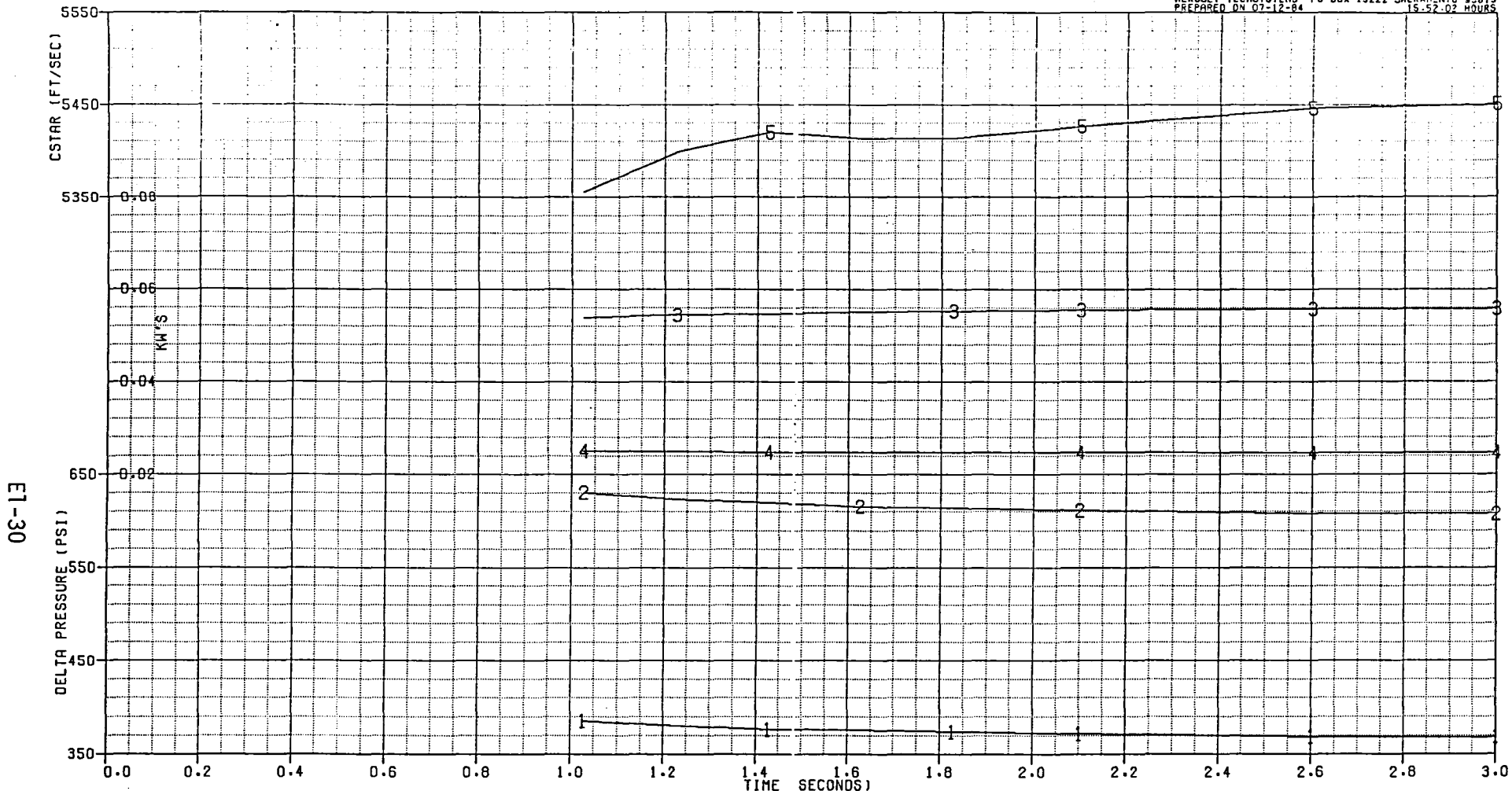


62-29

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

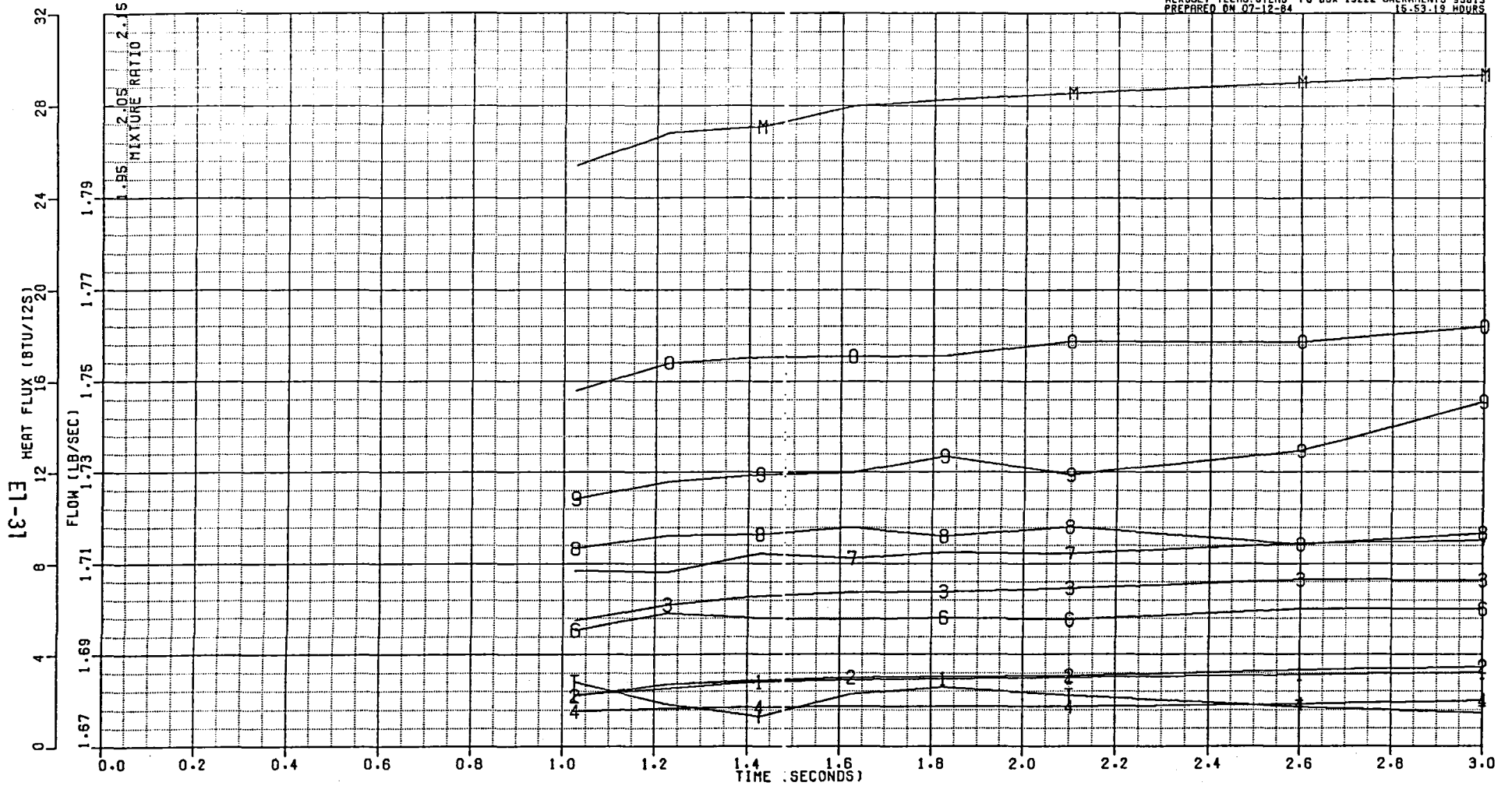


ET-30

- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

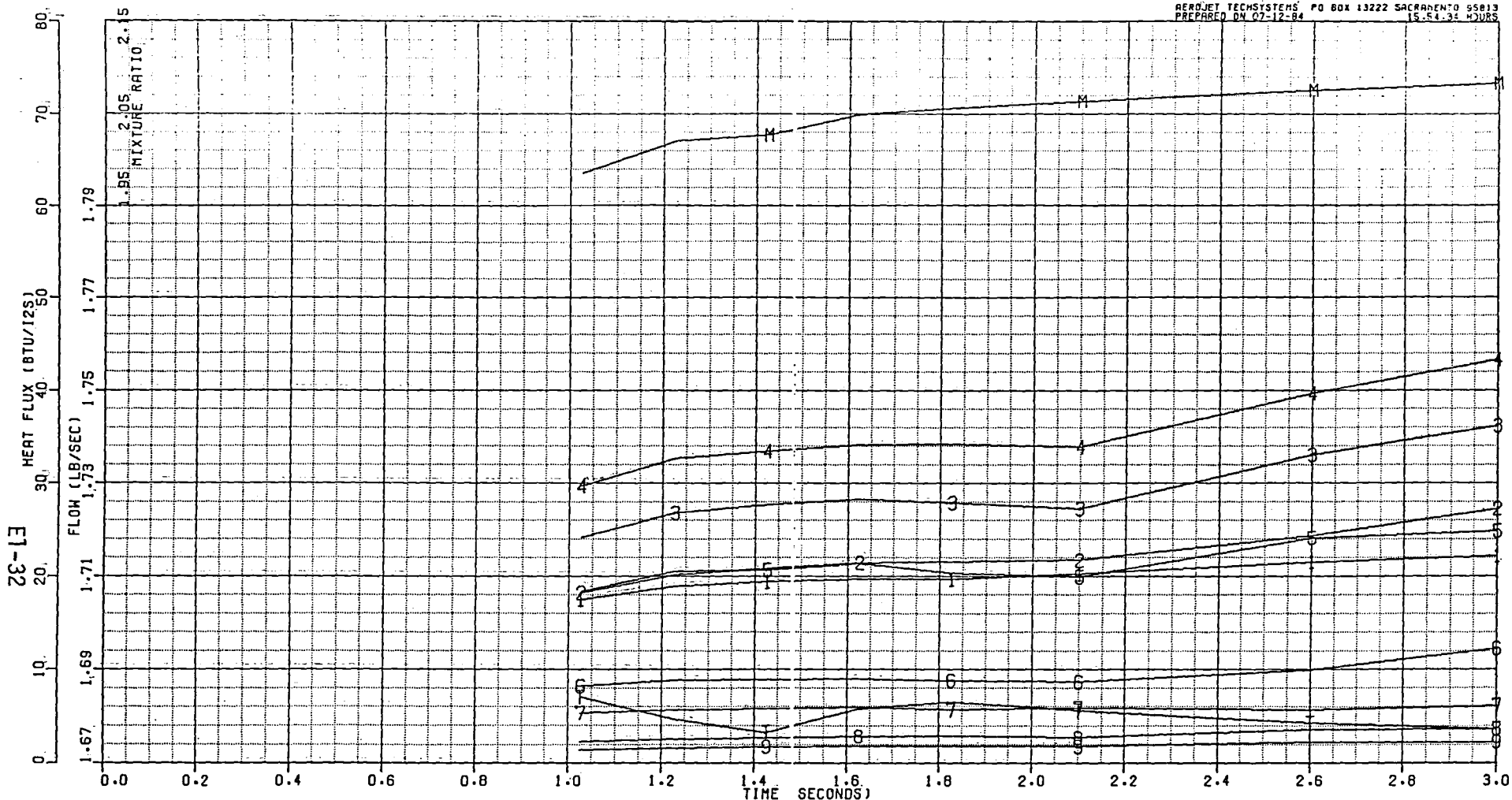


- |              |         |         |         |
|--------------|---------|---------|---------|
| 1 Q/AN1-2    | BTU/12S | 0 Q/ANS | BTU/12S |
| 2 Q/AN1-3    | BTU/12S | T WTOT  | LBS/SEC |
| 3 Q/AN2-1    | BTU/12S | M MR    |         |
| 4 Q/AN2-2,-3 | BTU/12S |         |         |
| 6 Q/AN3-1    | BTU/12S |         |         |
| 7 Q/AN3-2    | BTU/12S |         |         |
| 8 Q/AN3-3    | BTU/12S |         |         |
| 9 Q/AN4      | BTU/12S |         |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

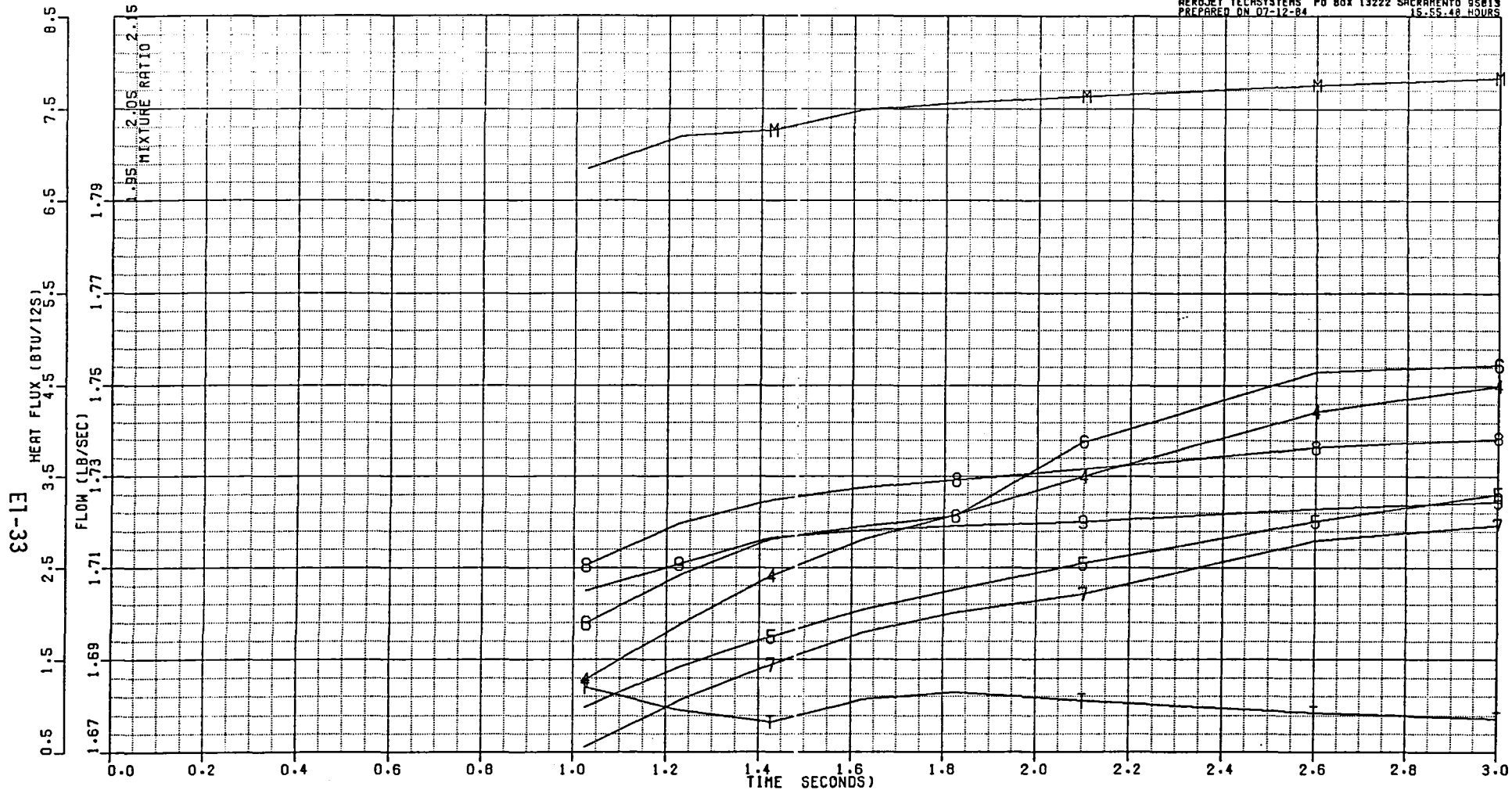




E1-32

- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/12S | 9 Q/AN12-3 | BTU/12S |
| 2 Q/AN7    | BTU/12S | T WTOT     | LBS/SEC |
| 3 Q/AN8    | BTU/12S | M MR       |         |
| 4 Q/AN9    | BTU/12S |            |         |
| 5 Q/AN10   | BTU/12S |            |         |
| 6 Q/AN11   | BTU/12S |            |         |
| 7 Q/AN12-1 | BTU/12S |            |         |
| 8 Q/AN:2-2 | BTU/12S |            |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-204  
 TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

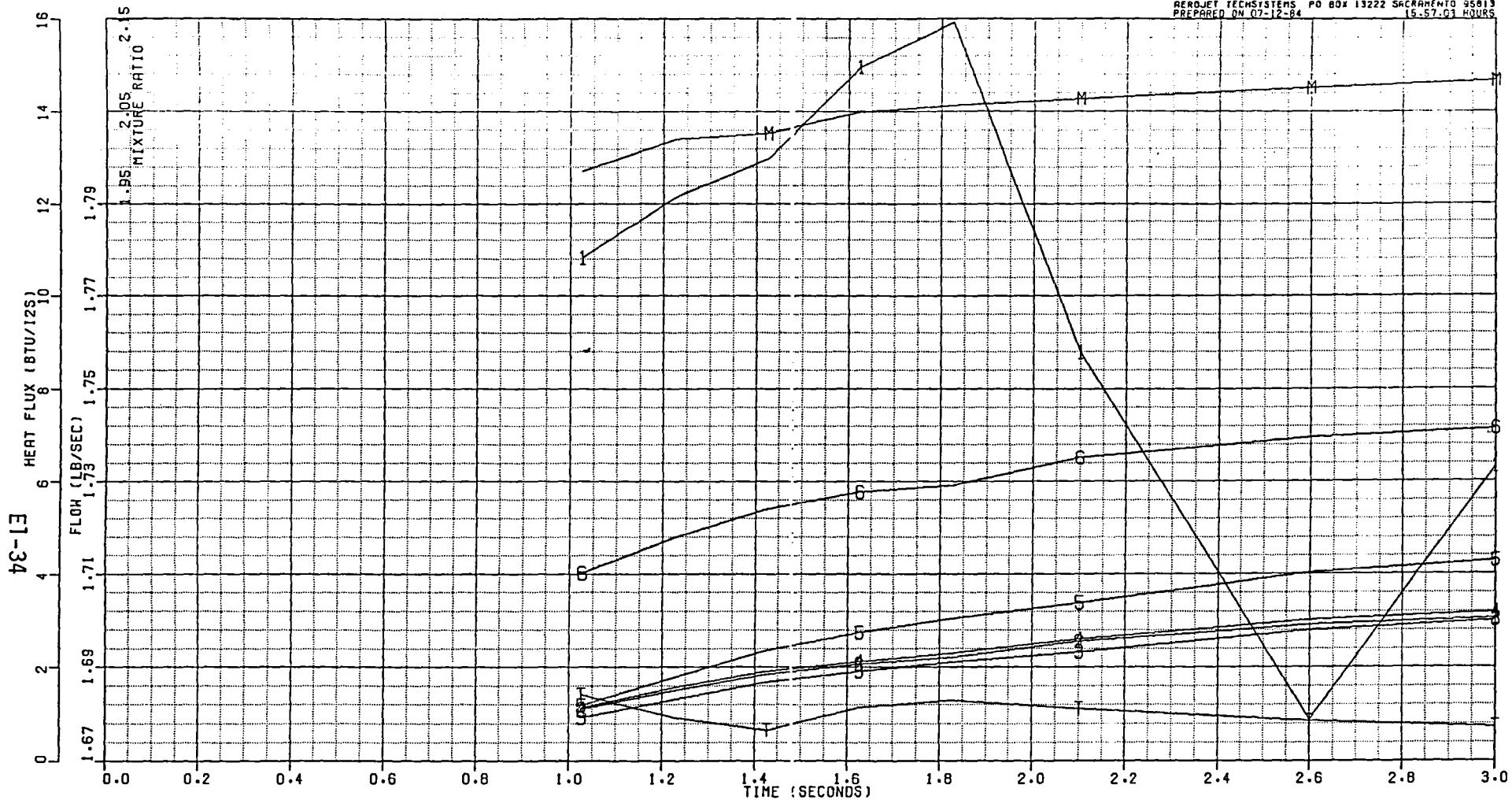


4 Q/RBB1.2 BTU/12S  
 5 Q/RBB3 BTU/12S  
 6 Q/RBB4-1 BTU/12S  
 7 Q/RBB4-2 BTU/12S  
 8 Q/RN1-1 BTU/12S  
 9 Q/RN1-2 BTU/12S  
 T WTOT LBS/SEC  
 M MR

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

ET-33

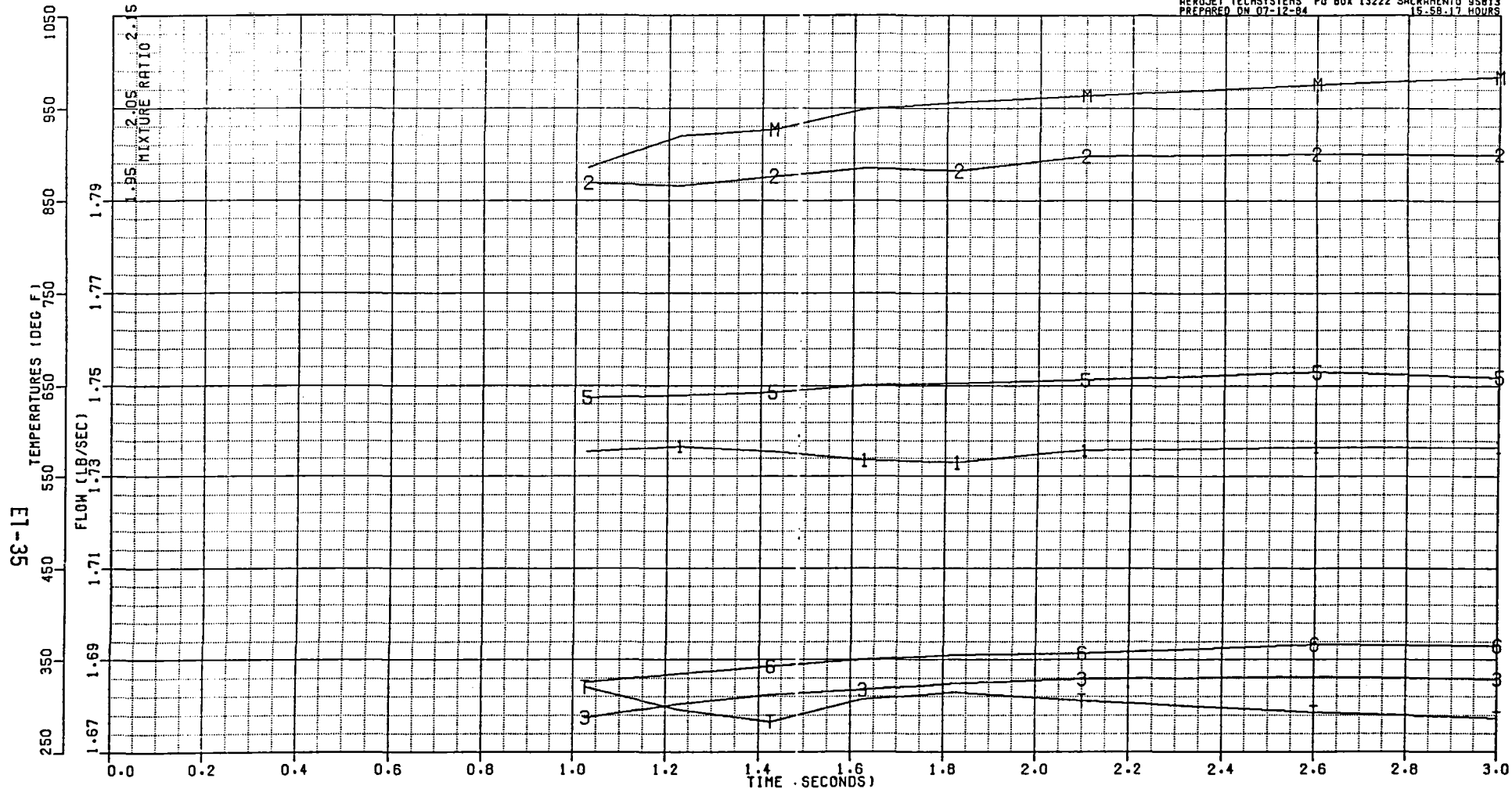


- 1 Q/ATRMC BTU/12S
- 2 Q/A12B6 BTU/12S
- 3 Q/A12B5 BTU/12S
- 4 Q/A12B3.4 BTU/12S
- 5 Q/A12B1-2.2 BTU/12S
- 6 Q/A12B1-1 BTU/12S
- T WTOT LBS/SEC
- M MR

HEAT FLUX (Q/A) VS TIME  
 TEST NO. RLBL-936-204

MISC. DATA

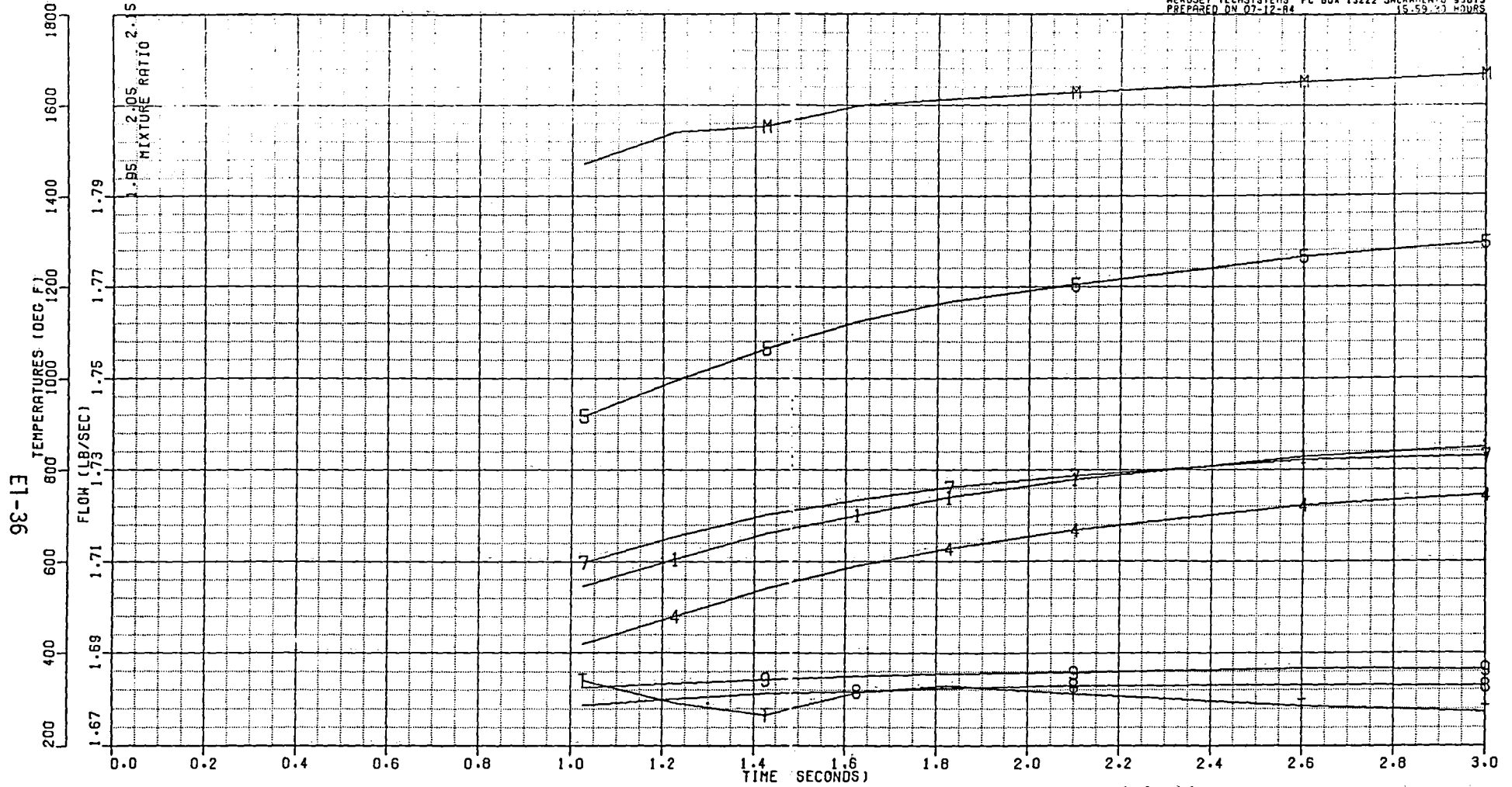
TEST DATE 03-19-84 1514 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 4 TC-4 DEG F  
 5 TC-5 DEG F  
 6 TC-6 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

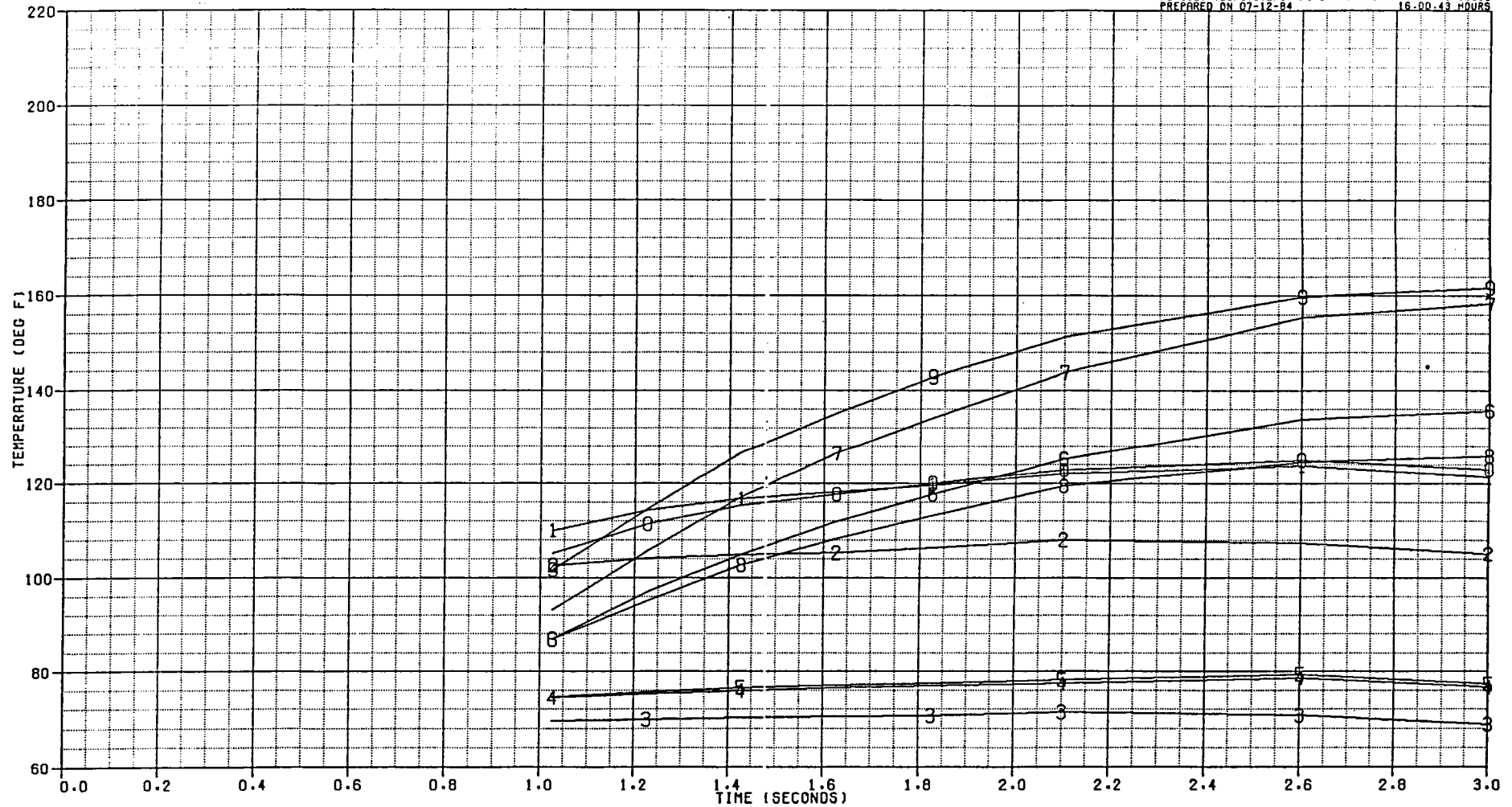


1 TC-7 DEG F  
 4 TC-10 DEG F  
 5 TC-12 DEG F  
 7 TC-13 DEG F  
 8 TC-3 DEG F  
 9 TC-6 DEG F  
 T NTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-204

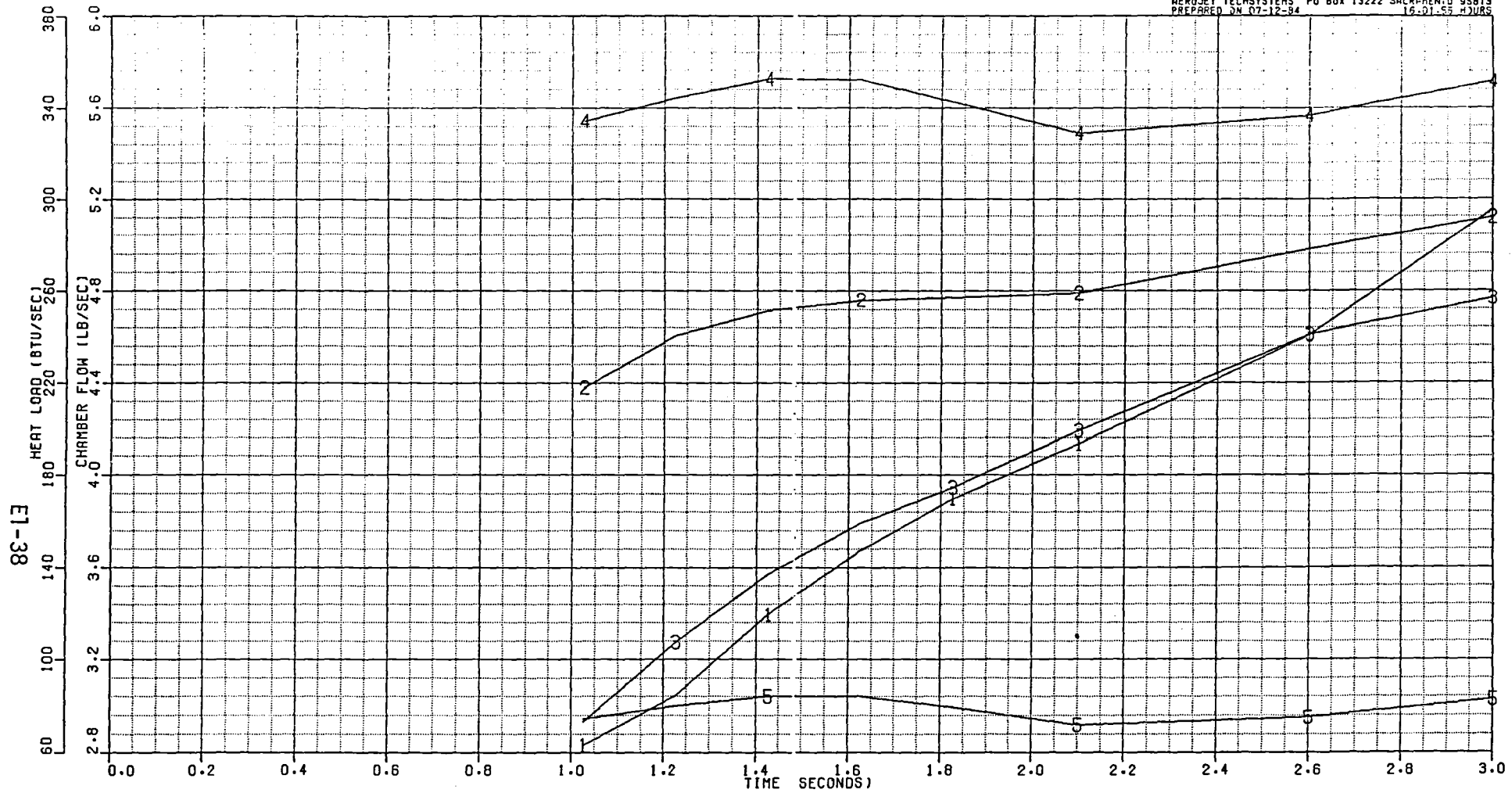
TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

E1-37



COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-204  
 TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-28 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-31 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |



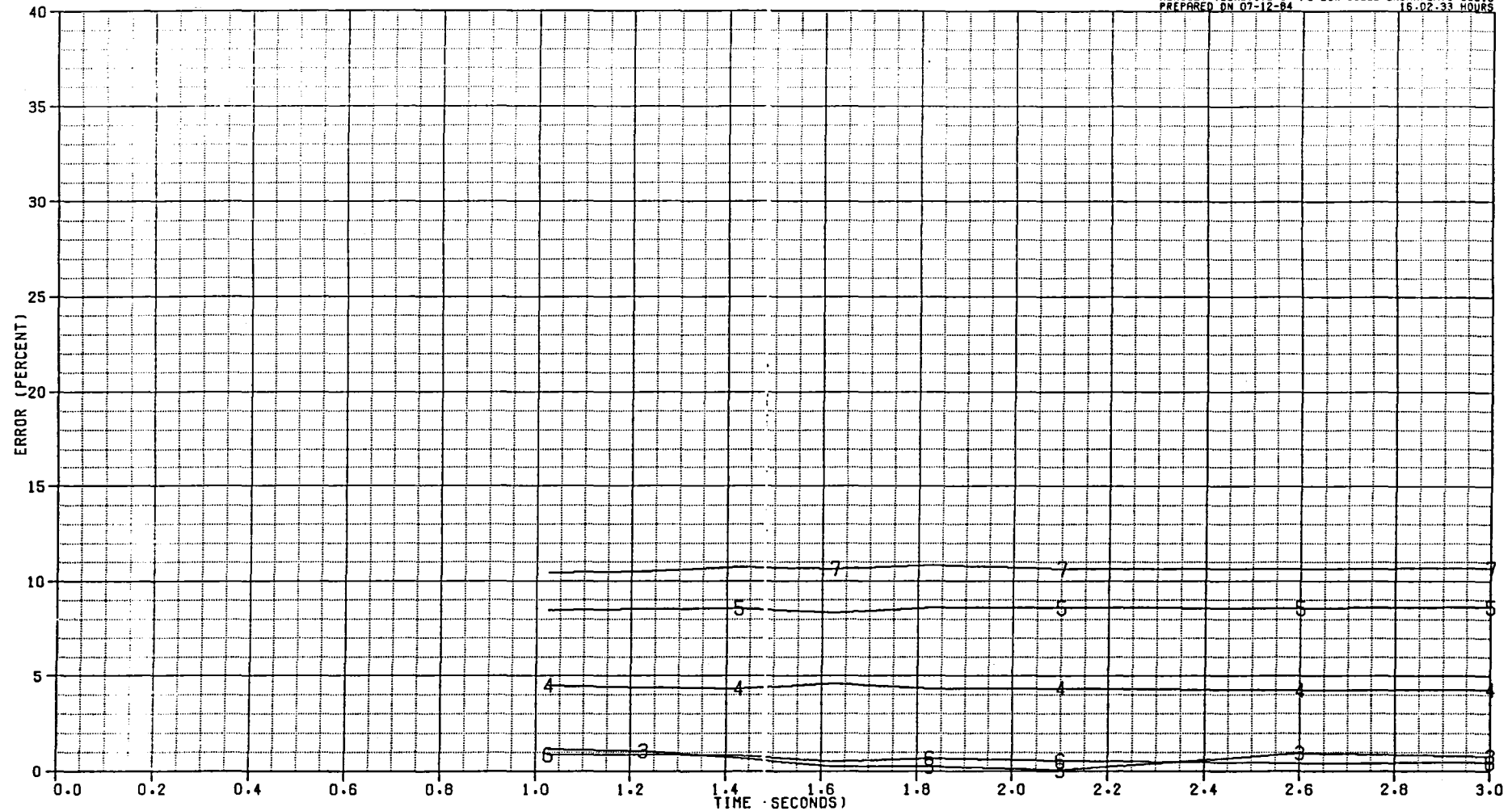
8C-13  
 E1-38

- 1 QNT BTU/SEC
- 2 QNT BTU/SEC
- 3 Q8BT BTU/SEC
- 4 NW1 LBS/SEC
- 5 NW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

E1-39



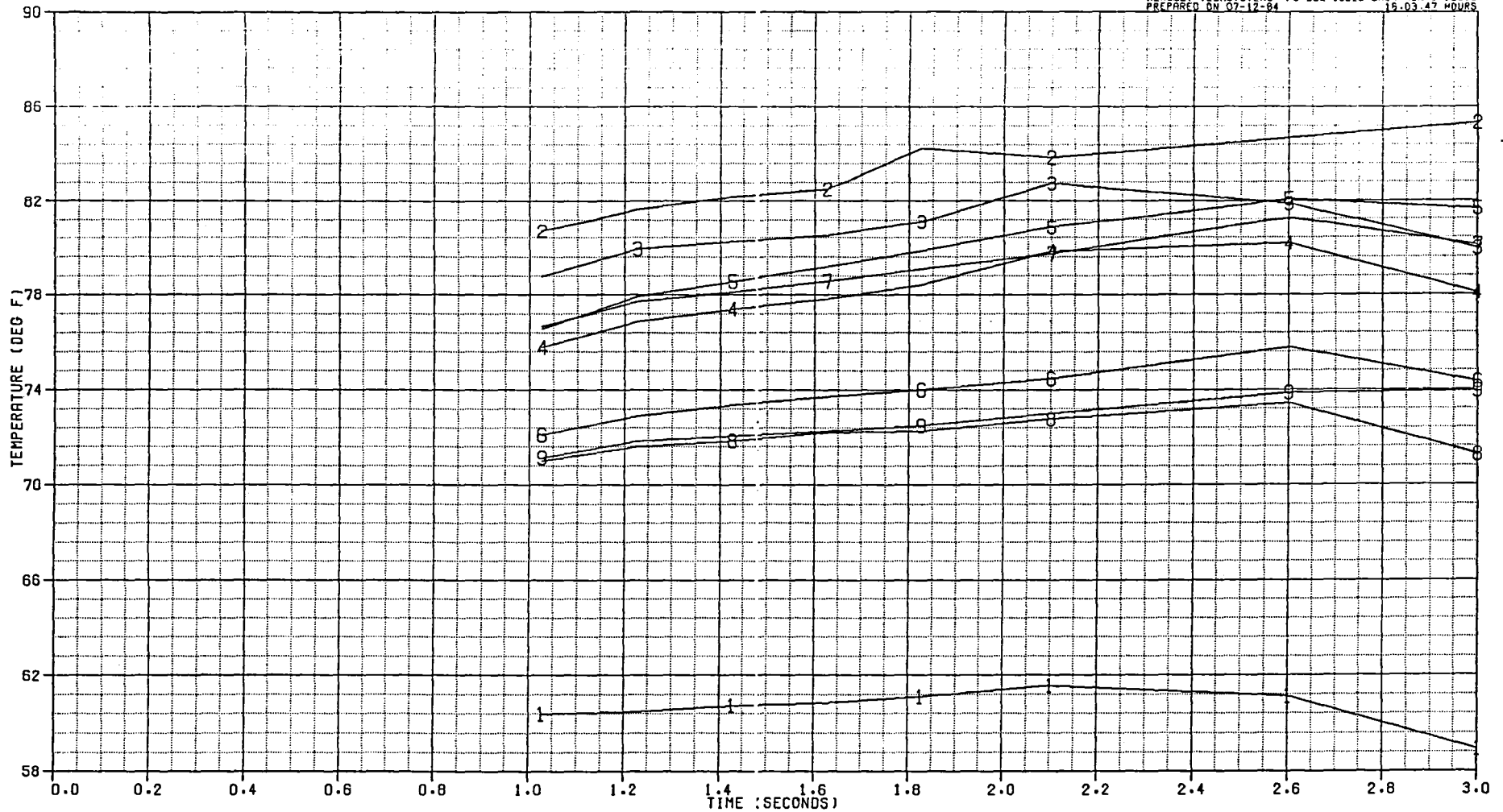
- 1 QERM PERCENT
- 2 WERNT PERCENT
- 3 WERBBT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA



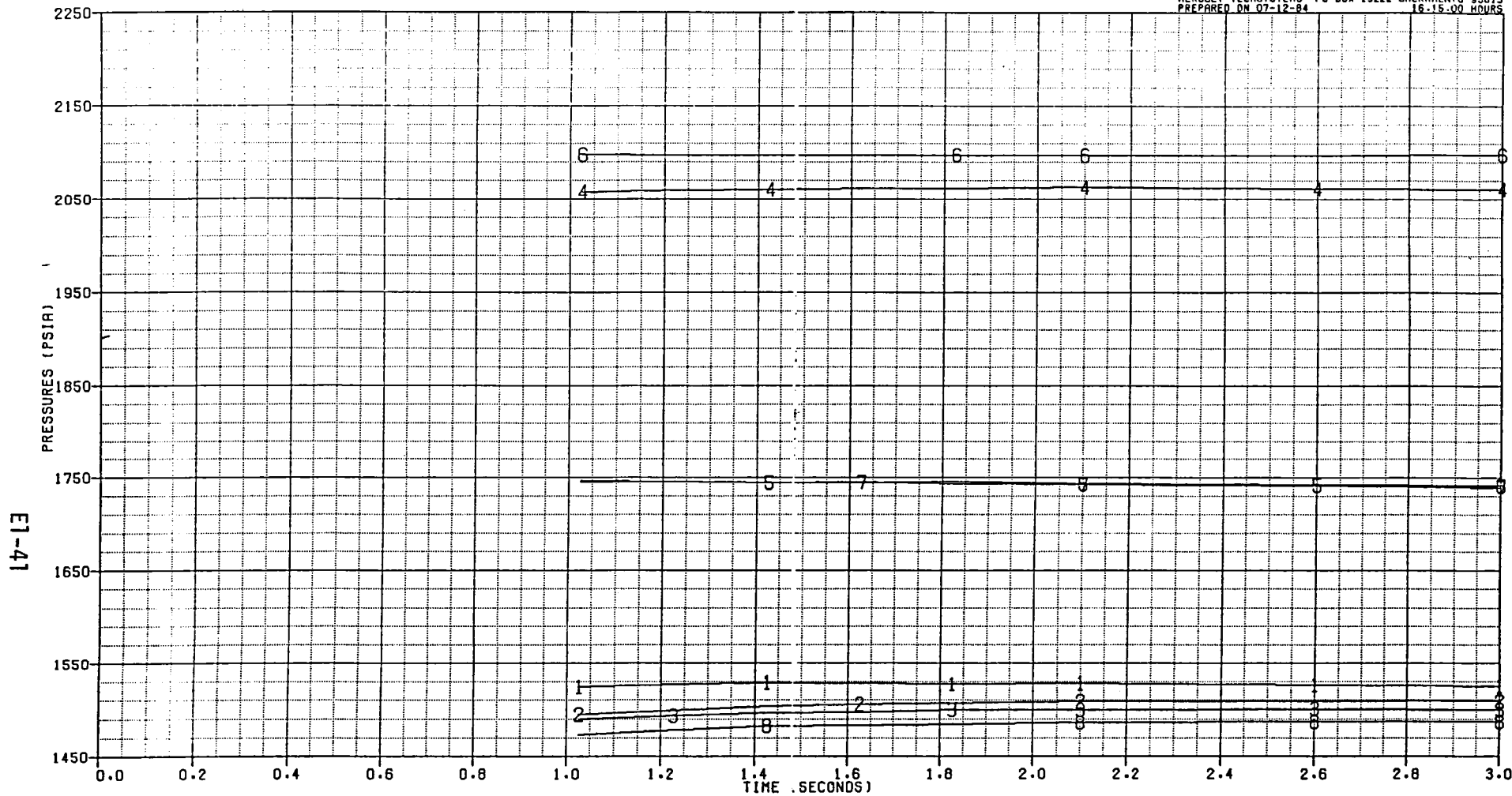
E1-40



COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-204

TEST DATE 03-19-84 1514 HOURS AVERAGED DATA

- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

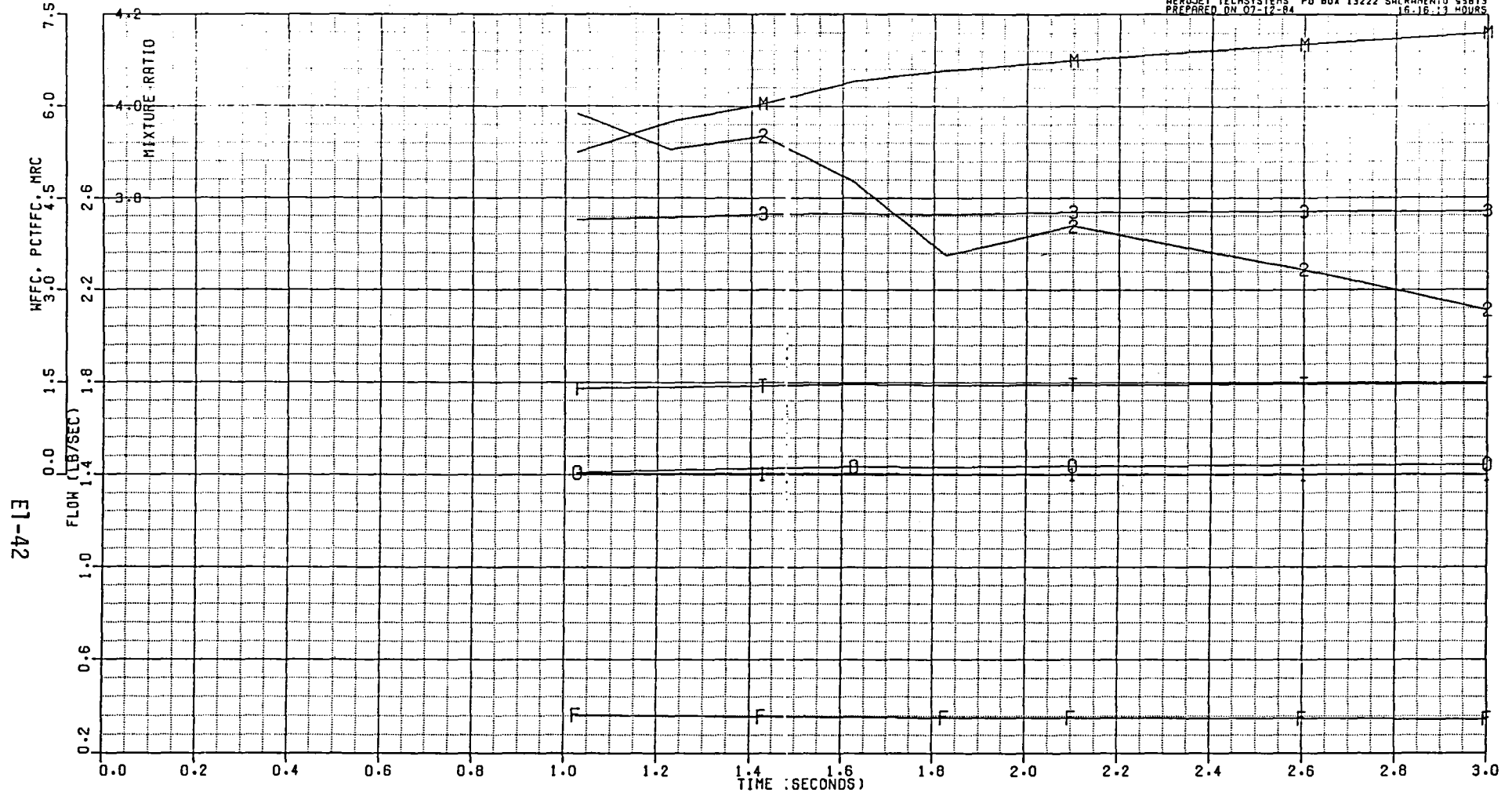


E1-41

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

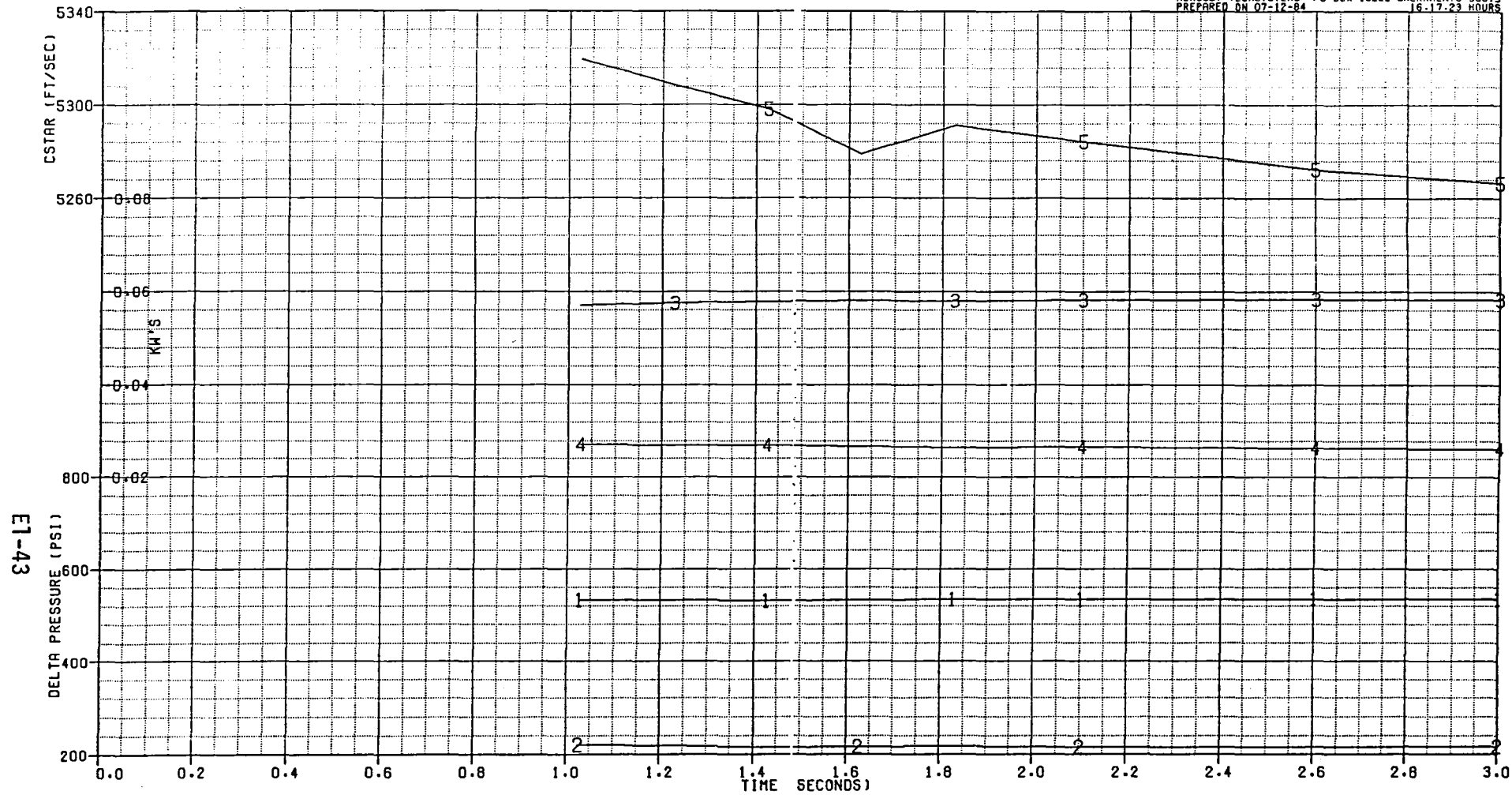


E1-42

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 HFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

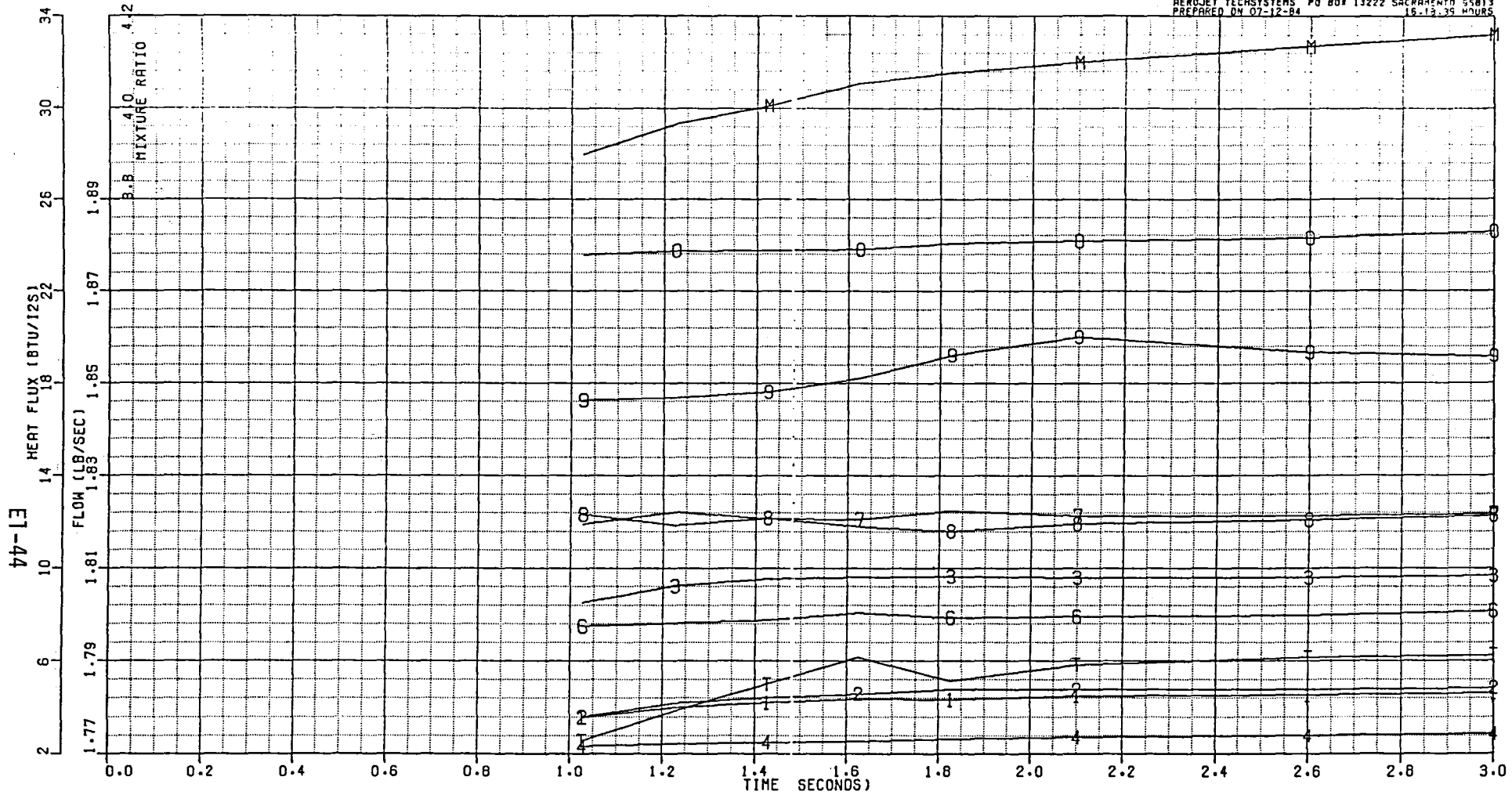


E1-43

- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KNDJ PSI
- 4 KWFJ PSI
- 5 CSTRMC .FT/SEC

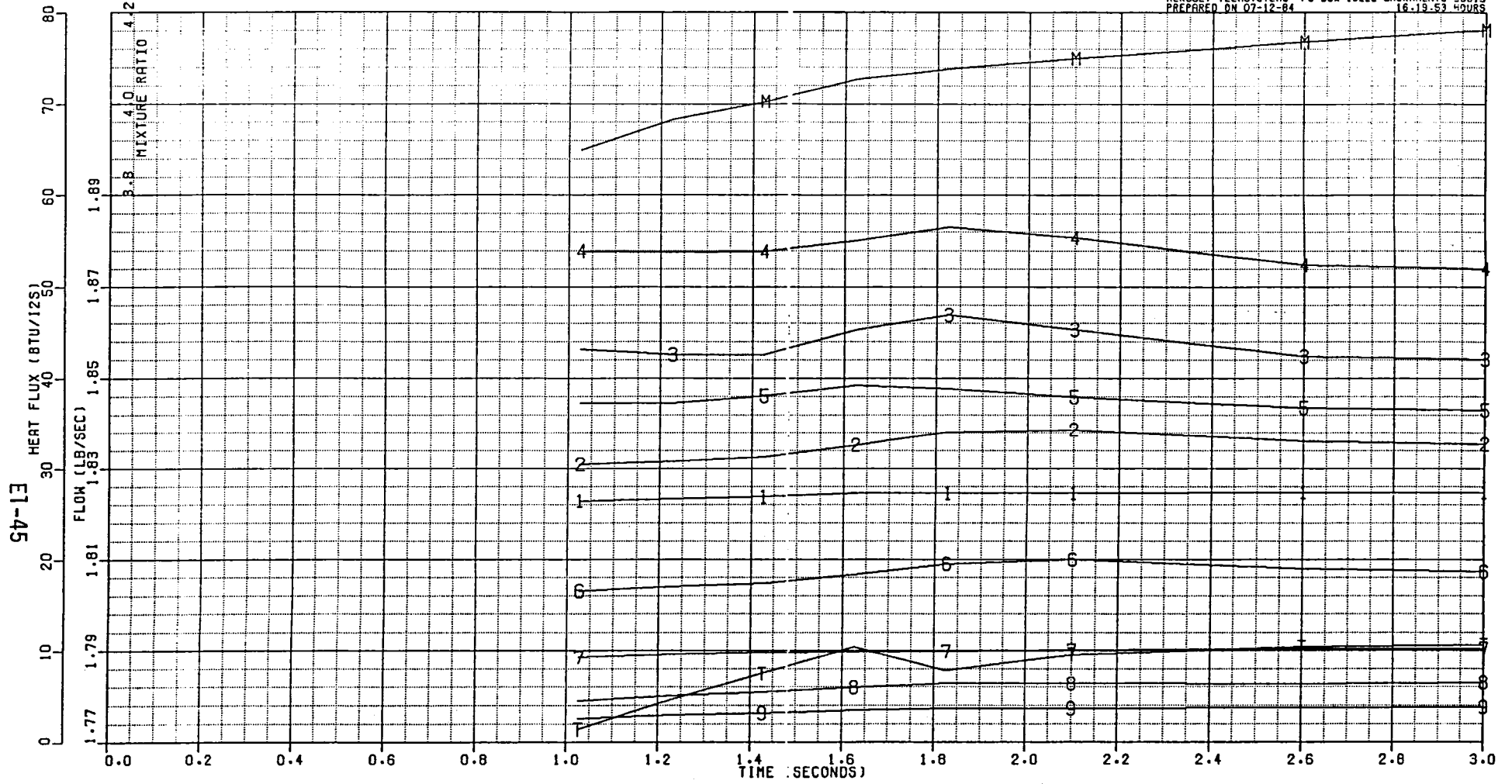
INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA



ET-44

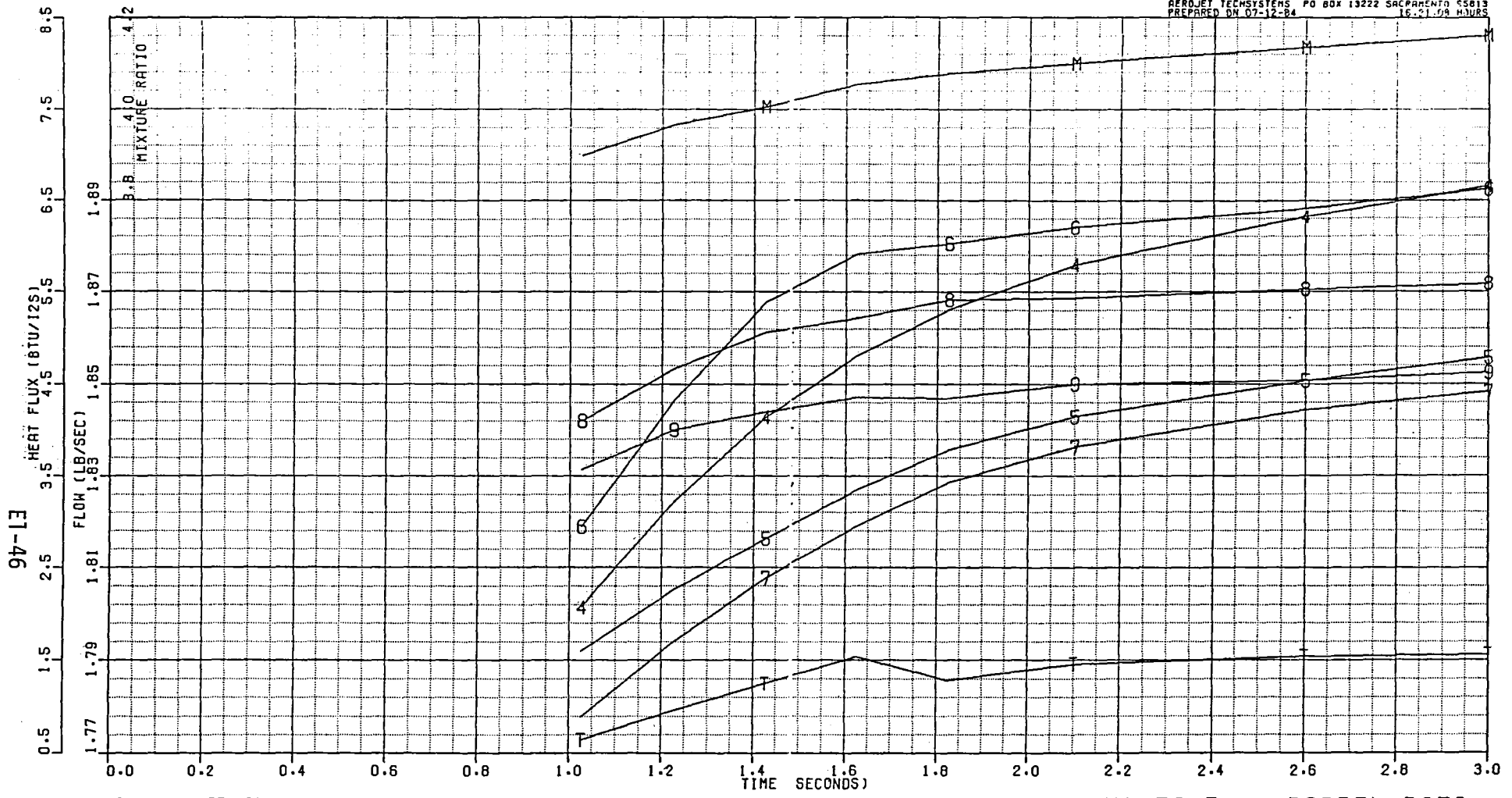
- |              |         |         |         |
|--------------|---------|---------|---------|
| 1 Q/AN1-2    | BTU/I2S | 0 Q/AN5 | BTU/I2S |
| 2 Q/AN1-3    | BTU/I2S | T WTOT  | LBS/SEC |
| 3 Q/AN2-1    | BTU/I2S | M MR    |         |
| 4 Q/AN2-2.-3 | BTU/I2S |         |         |
| 6 Q/AN3-1    | BTU/I2S |         |         |
| 7 Q/AN3-2    | BTU/I2S |         |         |
| 8 Q/AN3-3    | BTU/I2S |         |         |
| 9 Q/AN4      | BTU/I2S |         |         |



1 Q/AN6	BTU/12S	9 Q/AN12-3	BTU/12S
2 Q/AN7	BTU/12S	T WTOT	LBS/SEC
3 Q/AN8	BTU/12S	M MR	
4 Q/AN9	BTU/12S		
5 Q/AN10	BTU/12S		
6 Q/AN11	BTU/12S		
7 Q/AN12-1	BTU/12S		
8 Q/AN12-2	BTU/12S		

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-206  
 TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

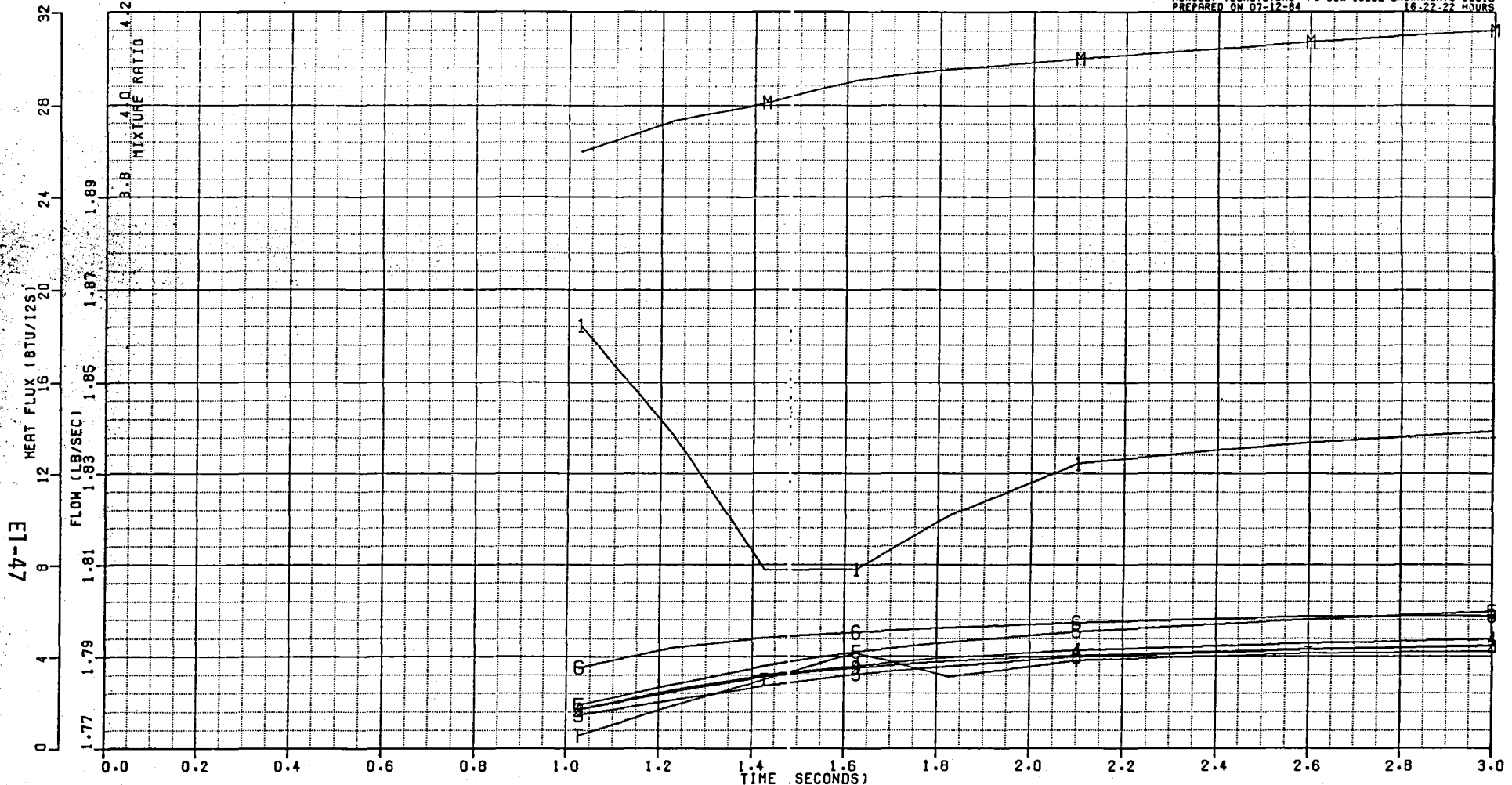
E1-45



E1-46

- 4 Q/ABB1.2 BTU/12S
- 5 Q/ABB3 BTU/12S
- 6 Q/ABB4-1 BTU/12S
- 7 Q/ABB4-2 BTU/12S
- 8 Q/AN1-1 BTU/12S
- 9 Q/AN1-2 BTU/12S
- T WTOT LBS/SEC
- M MR

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-206  
 TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

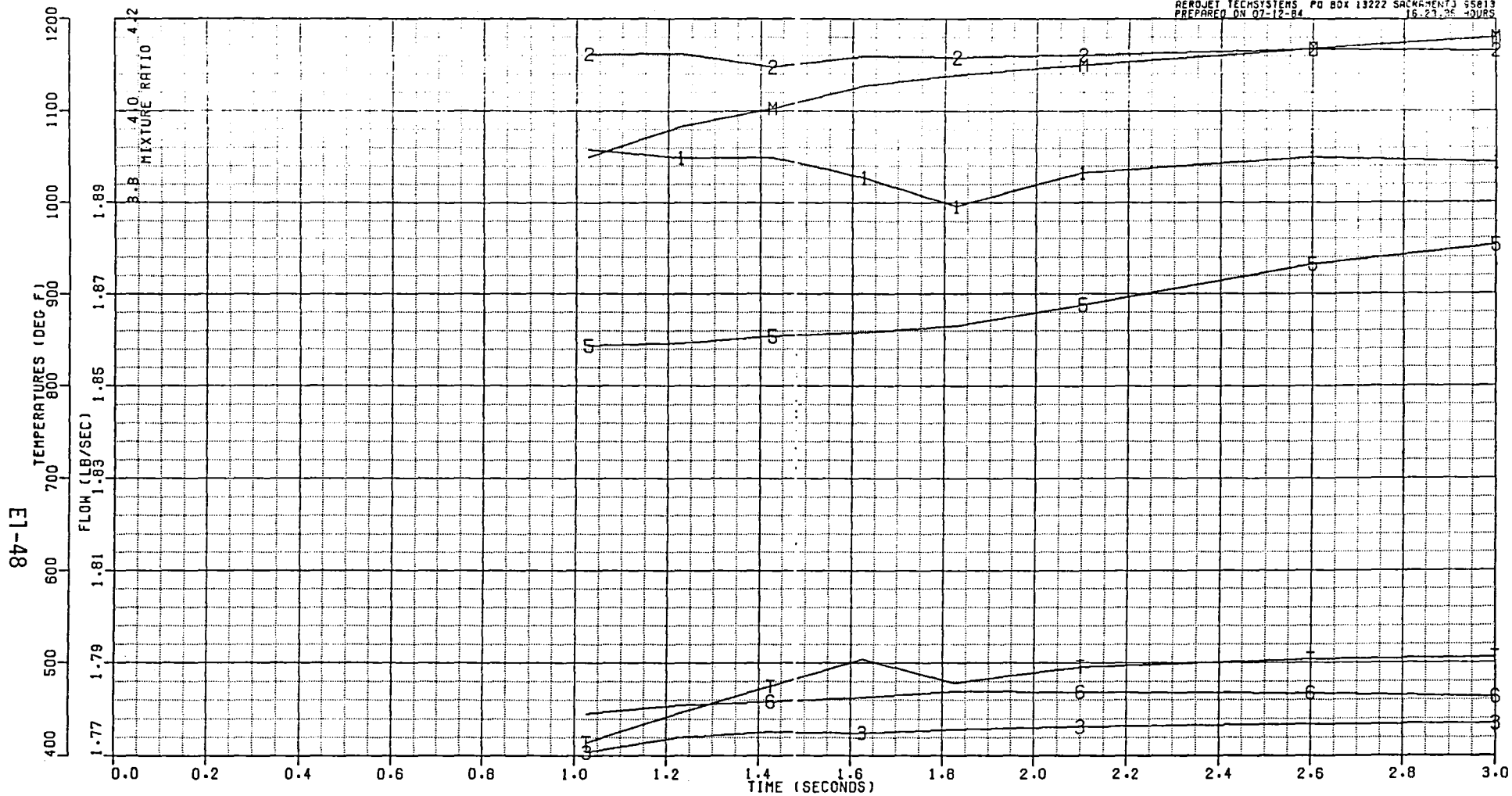


E]-47

- 1 Q/ATRC BTU/125
- 2 Q/A12B6 BTU/125
- 3 Q/A12B5 BTU/125
- 4 Q/A12B3.4 BTU/125
- 5 Q/A12B1-2.2 BTU/125
- 6 Q/A12B1-1 BTU/125
- T WTOT LBS/SEC
- M MR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-206  
 TEST DATE 03-19-84 1558 HOURS AVERAGED DATA



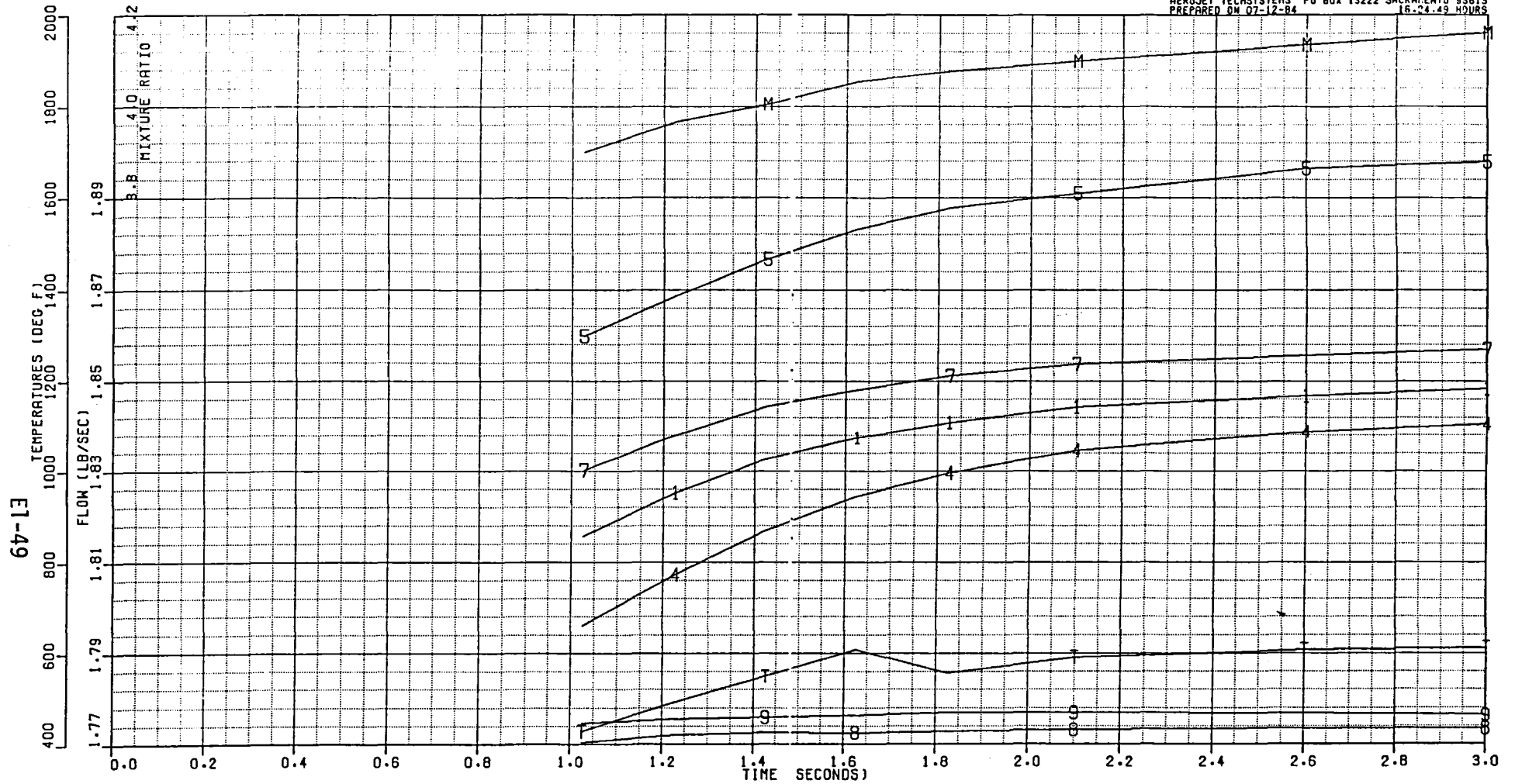


E1-48

- 1 TC-1 DEG F
- 2 TC-2 DEG F
- 3 TC-3 DEG F
- 4 TC-4 DEG F
- 5 TC-5 DEG F
- 6 TC-6 DEG F
- T WTOT LBS/SEC
- M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

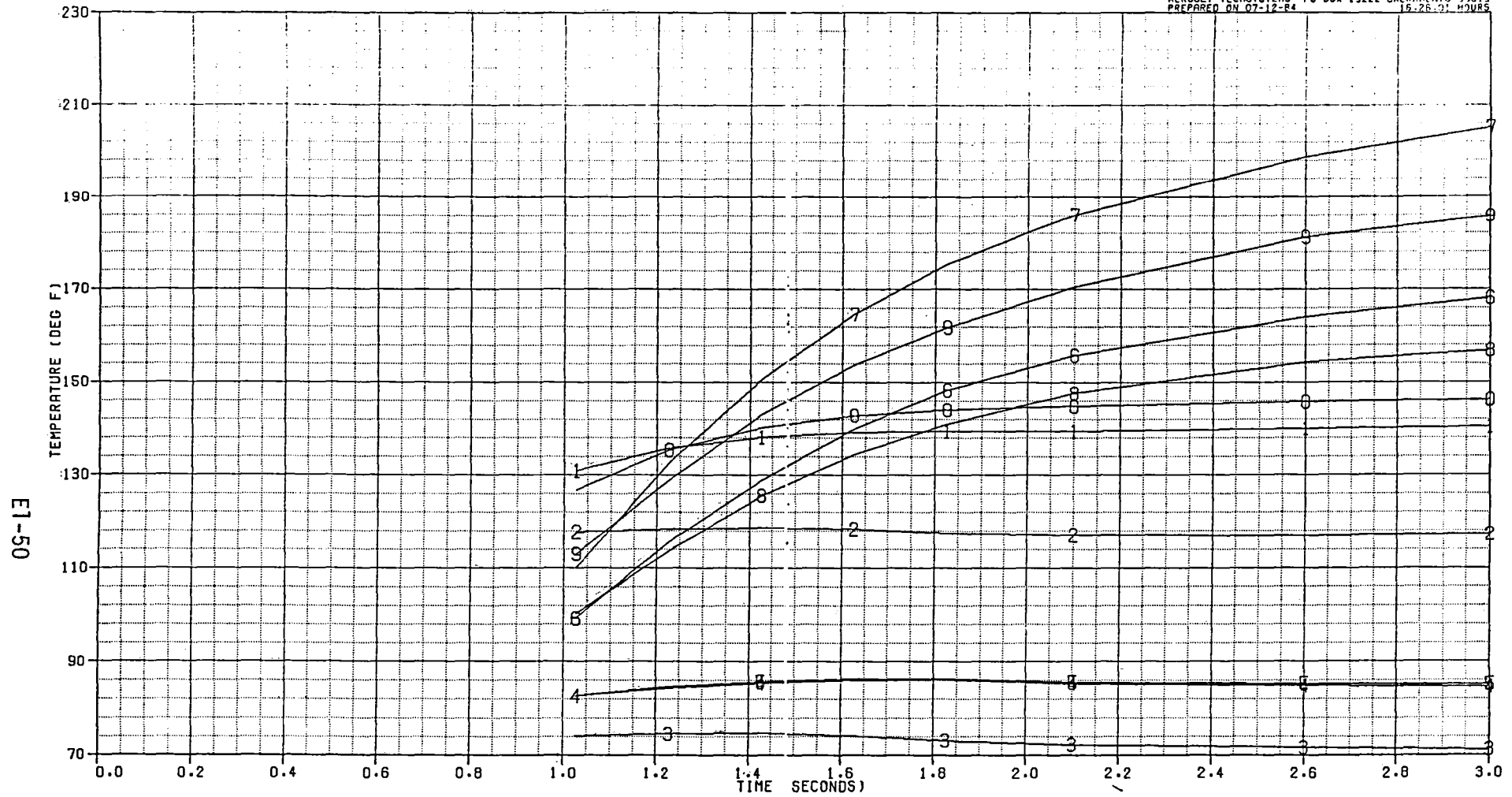


- 1 TC-7      DEG F
- 4 TC-10    DEG F
- 5 TC-12    DEG F
- 7 TC-13    DEG F
- 8 TC-3      DEG F
- 9 TC-6      DEG F
- T WTOT     LBS/SEC
- M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS      AVERAGED DATA

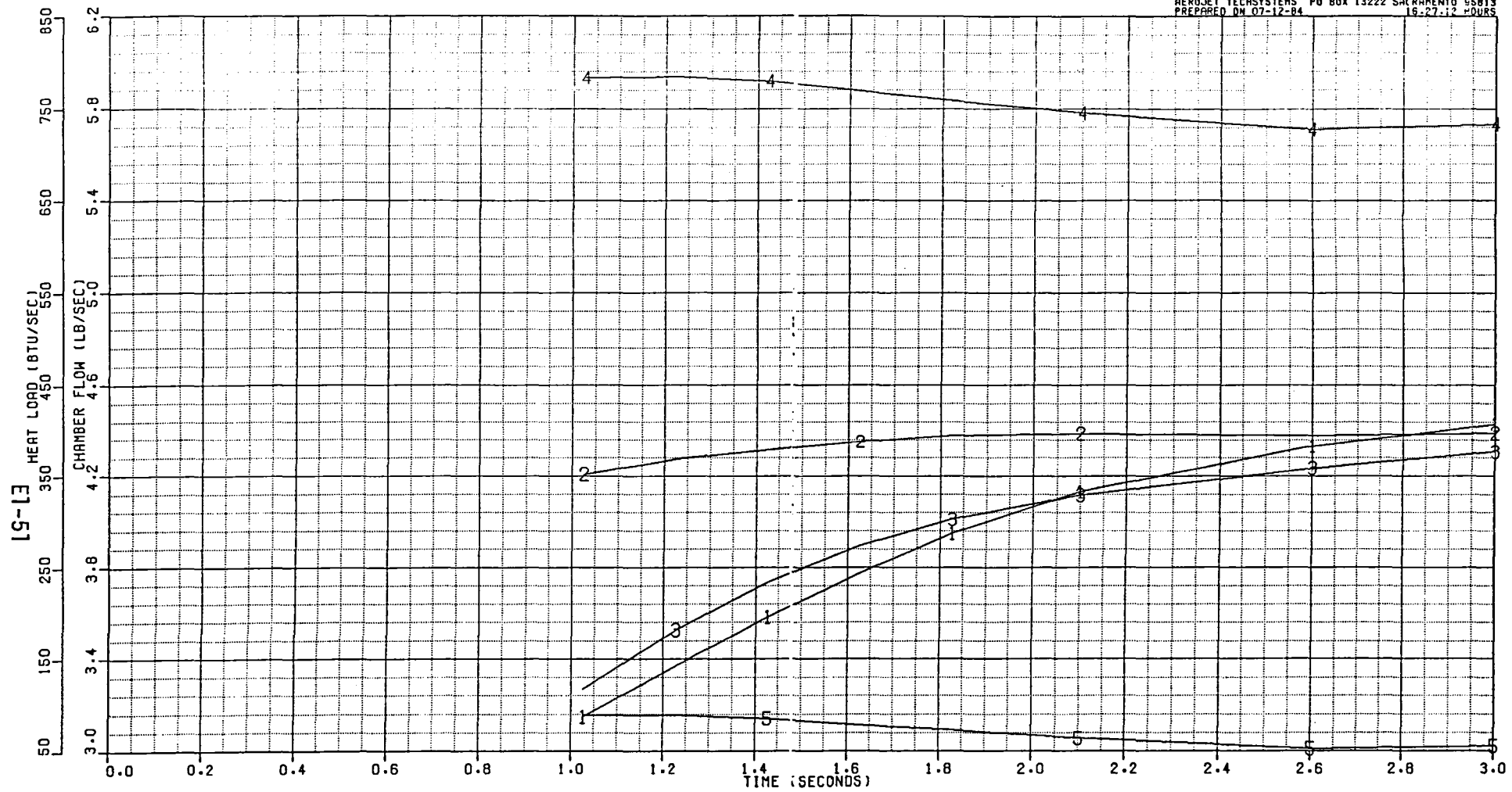
E]-49



E1-50

- 0 TWC-6 DEG F
- 1 TWC-7 DEG F
- 2 TWC-10 DEG F
- 3 TWC-21 DEG F
- 4 TWC-22 DEG F
- 5 TWC-23 DEG F
- 6 TWC-26 DEG F
- 7 TWC-27 DEG F
- 8 TWC-28 DEG F
- 9 TWC-31 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-206  
 TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

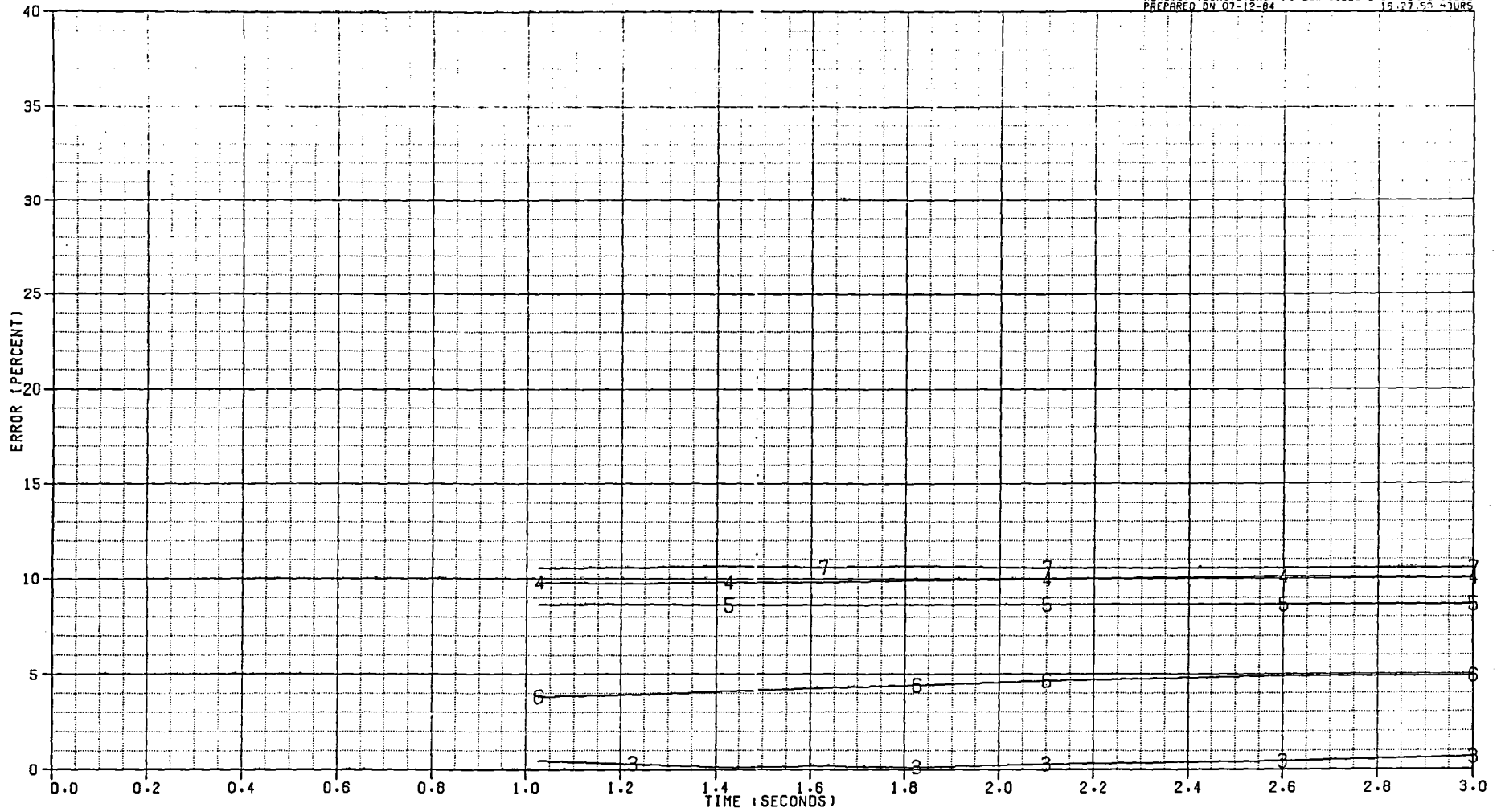


1 QN BTU/SEC  
 2 QNT BTU/SEC  
 3 QBBT BTU/SEC  
 4 WW1 LBS/SEC  
 5 WW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

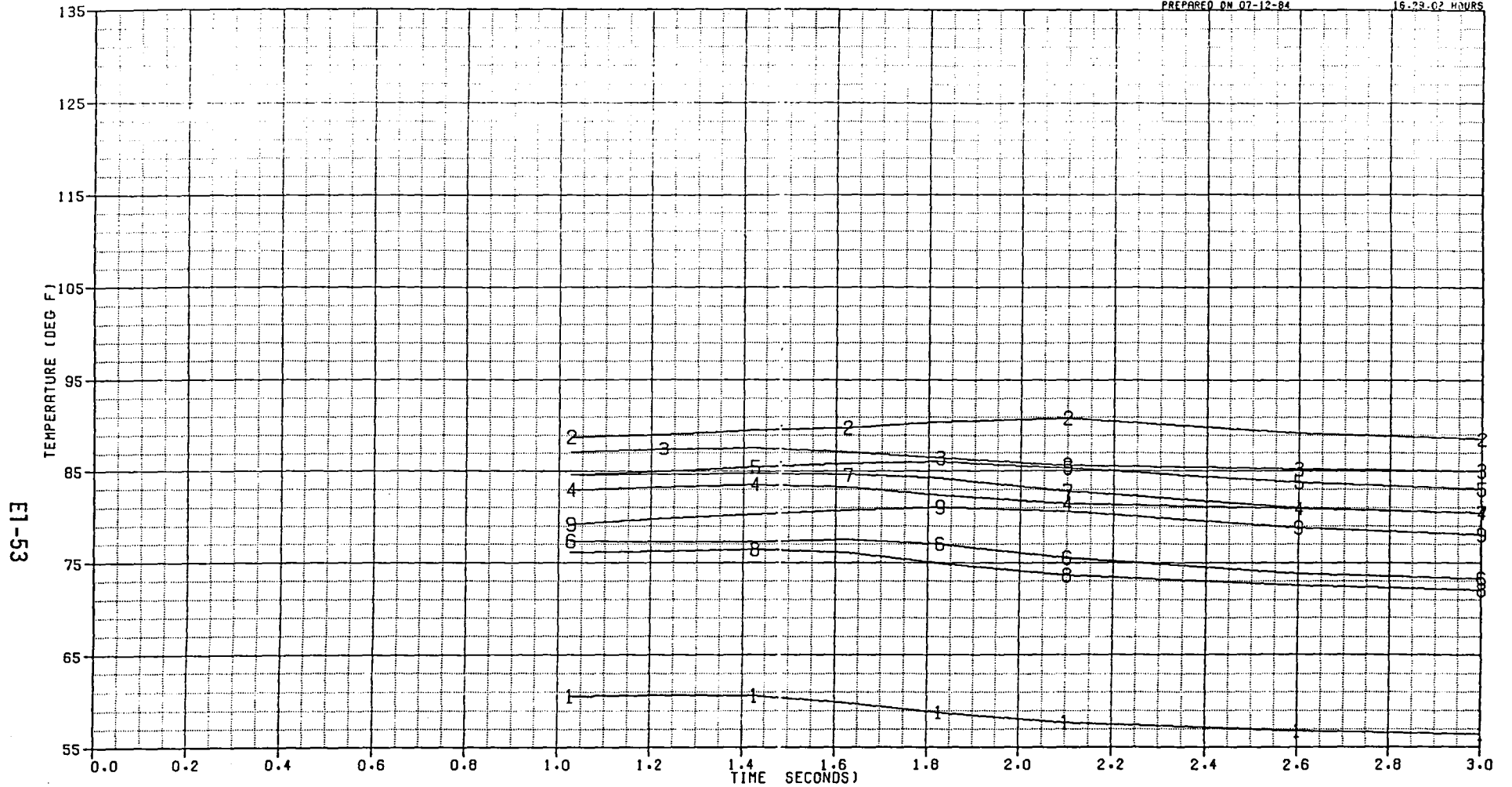
E1-52



- 1 QERN PERCENT
- 2 WERN1 PERCENT
- 3 WER8BT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

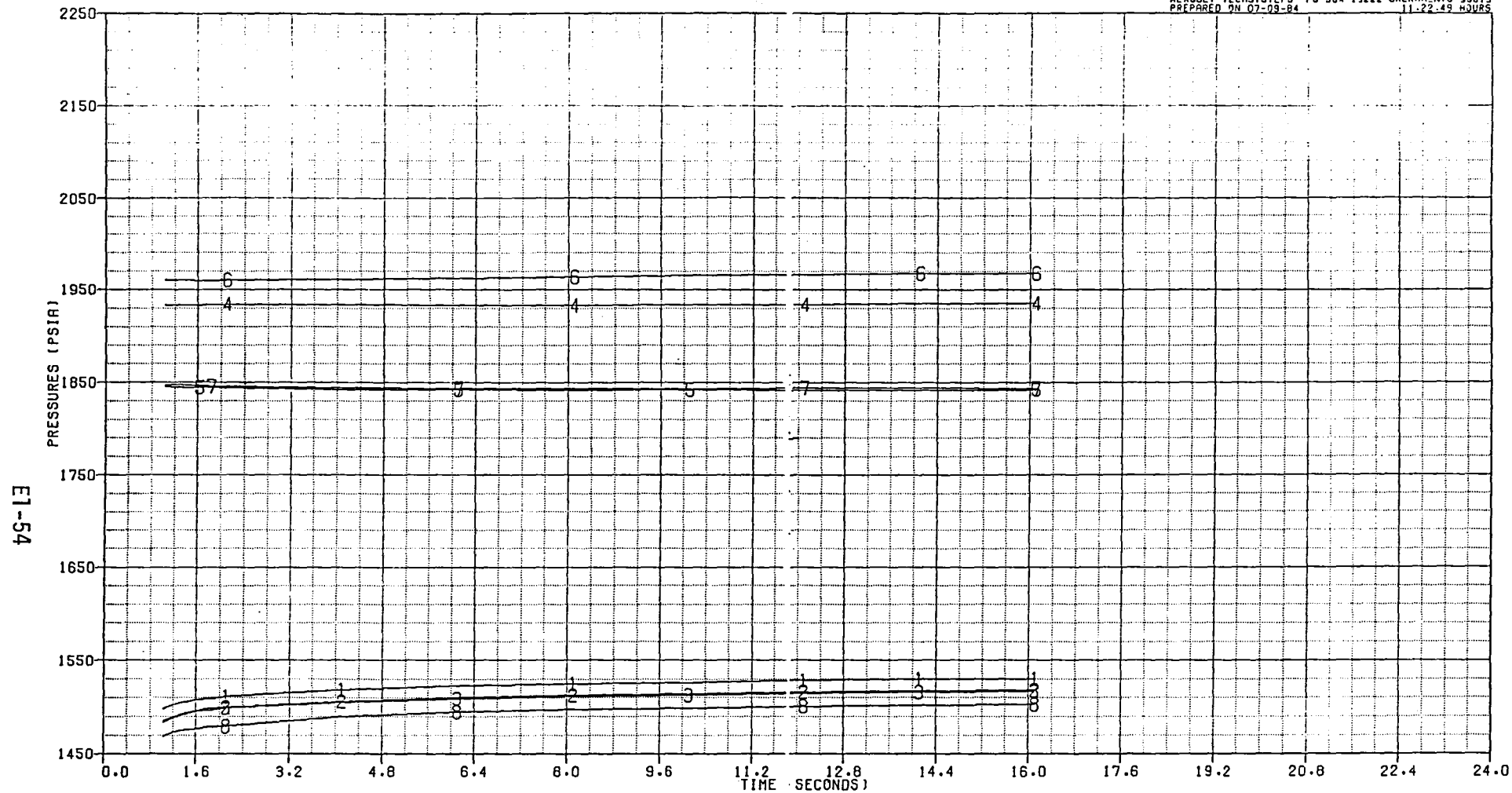


E1-53

- |   |        |       |   |        |       |
|---|--------|-------|---|--------|-------|
| 1 | TWC-1  | DEG F | 9 | TWC-20 | DEG F |
| 2 | TWC-13 | DEG F |   |        |       |
| 3 | TWC-14 | DEG F |   |        |       |
| 4 | TWC-15 | DEG F |   |        |       |
| 5 | TWC-16 | DEG F |   |        |       |
| 6 | TWC-17 | DEG F |   |        |       |
| 7 | TWC-18 | DEG F |   |        |       |
| 8 | TWC-19 | DEG F |   |        |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
TEST NO. RLBL-936-206

TEST DATE 03-19-84 1558 HOURS AVERAGED DATA

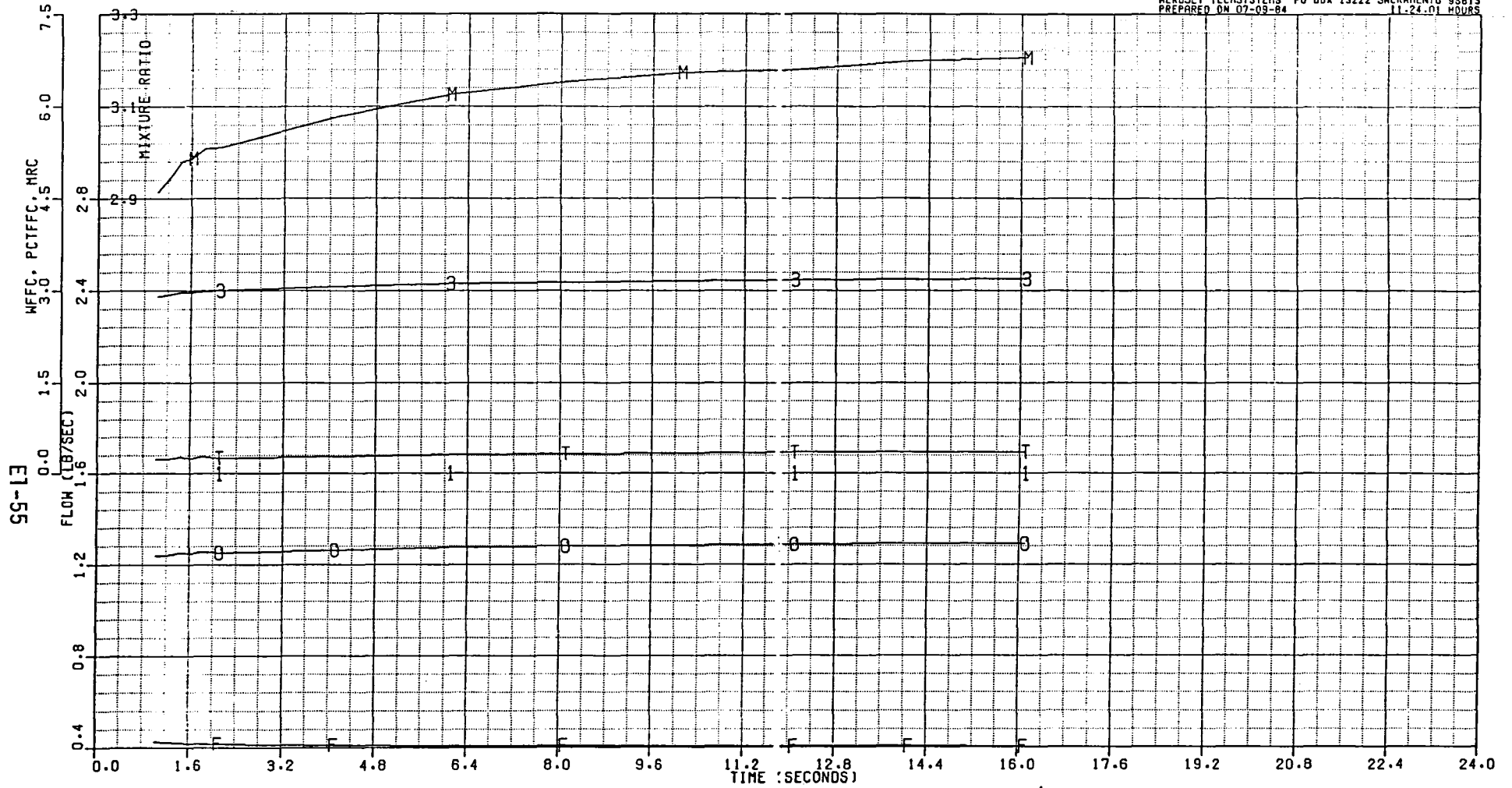


EI-54

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS AVERAGED DATA

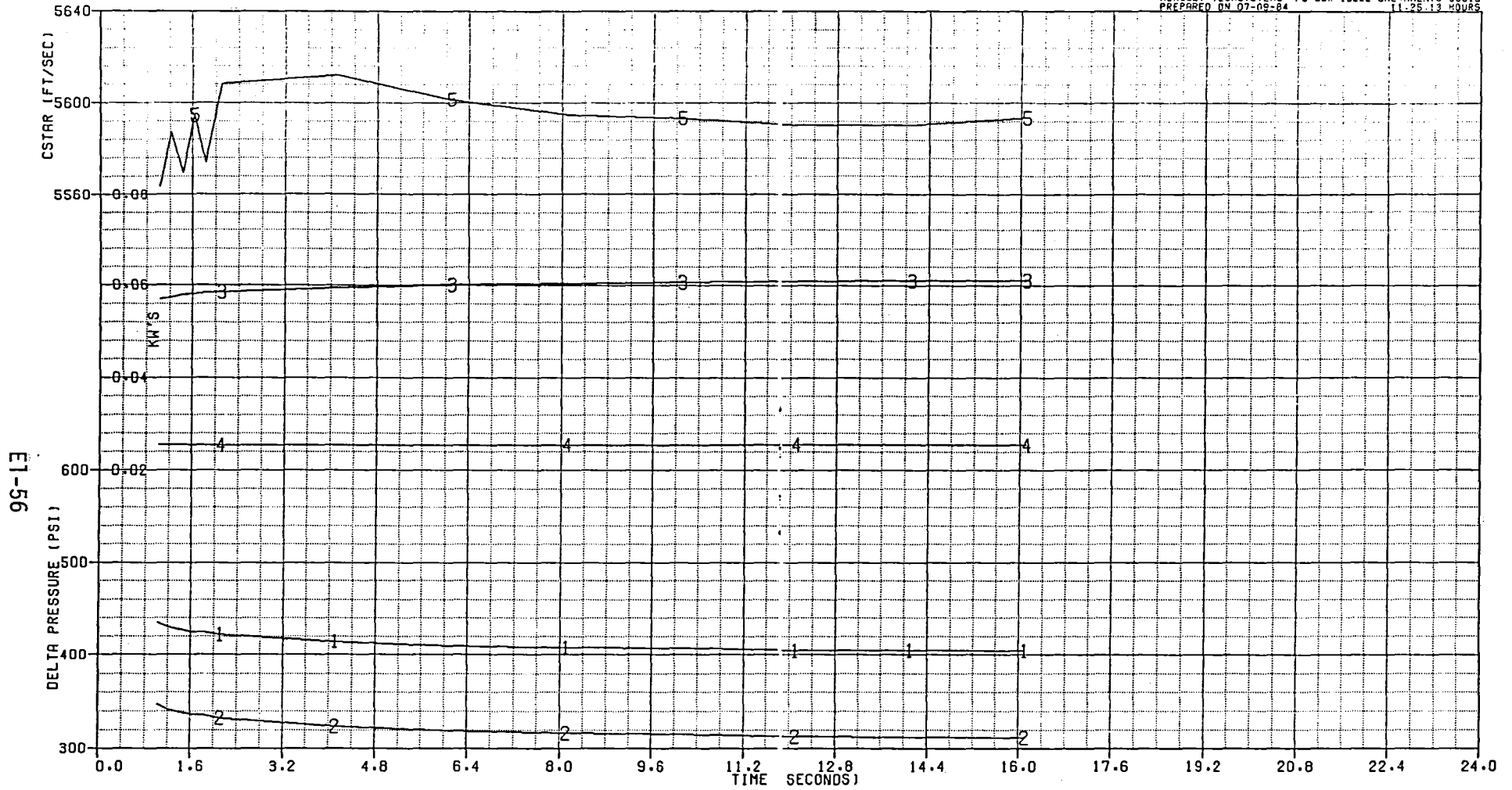


F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 MFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS AVERAGED DATA

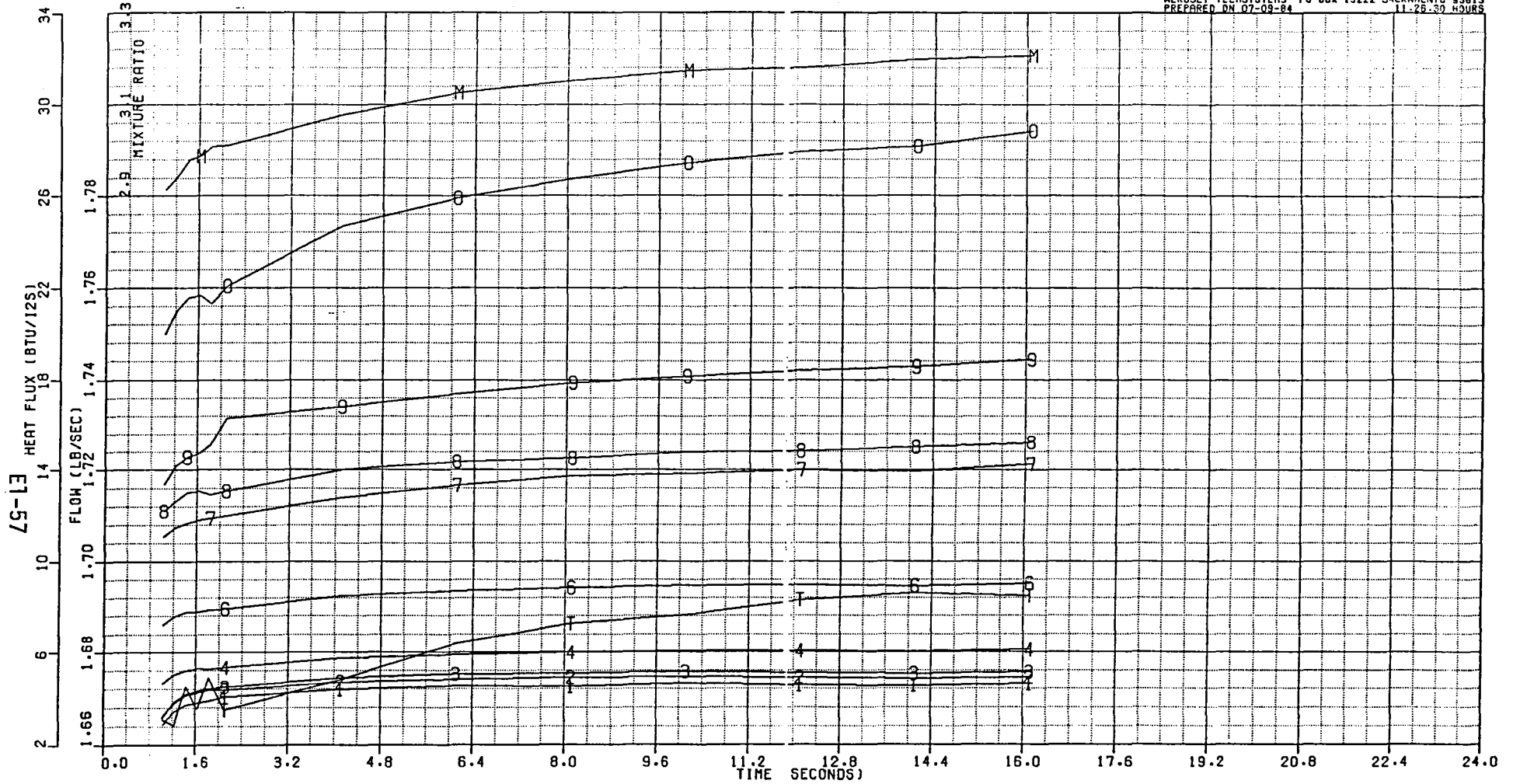




- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

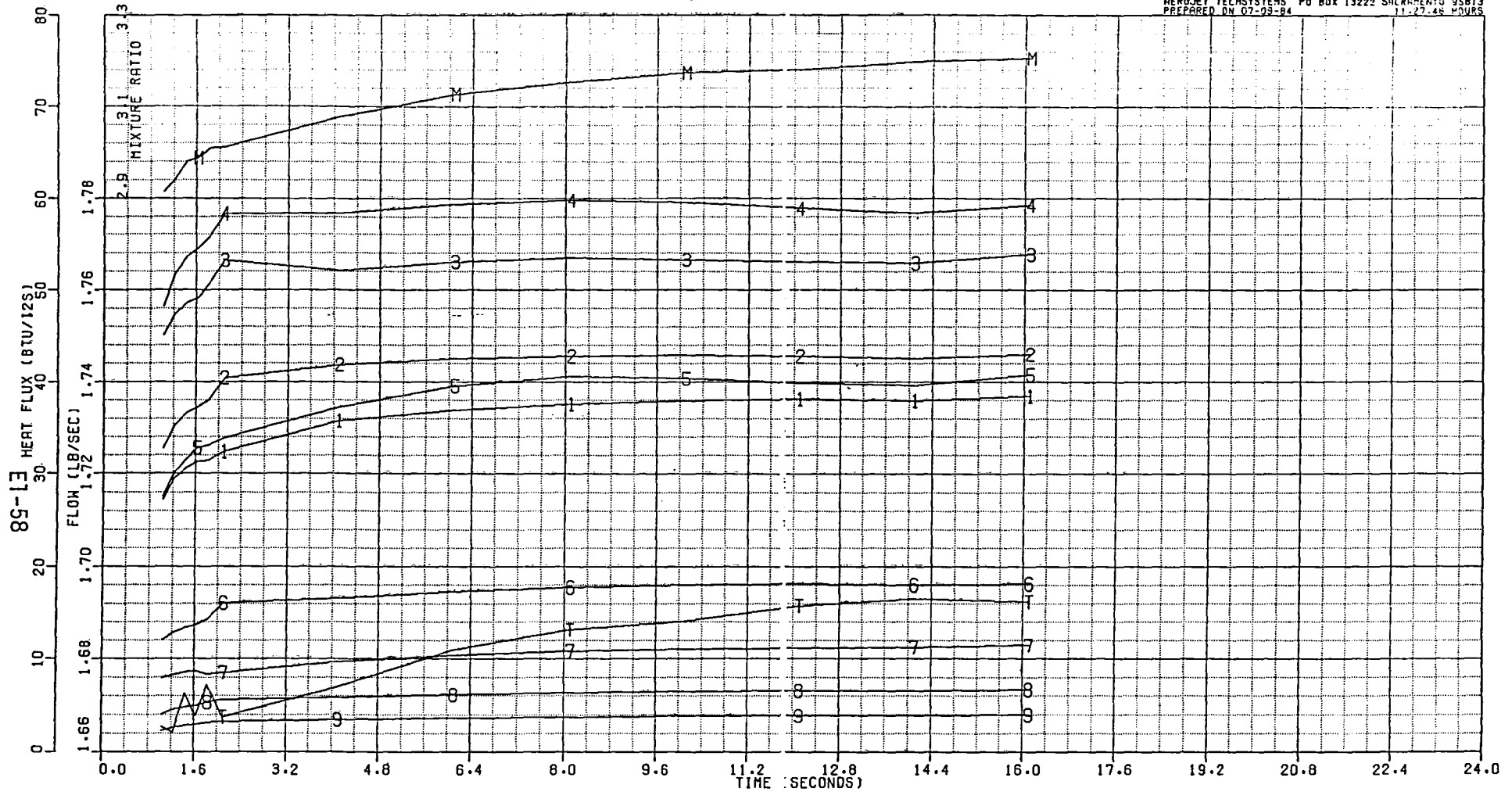
INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS      AVERAGED DATA



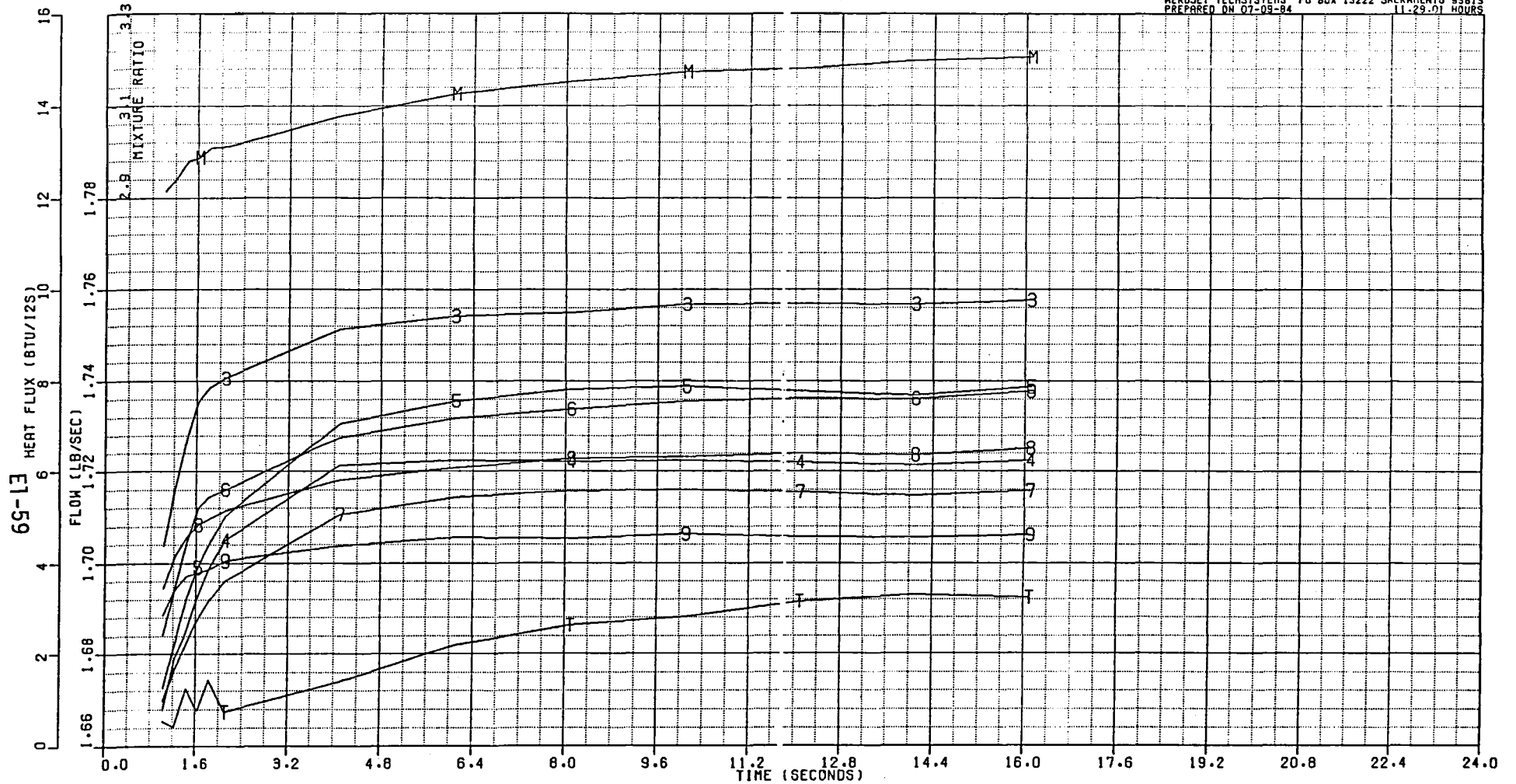
- |              |         |         |         |
|--------------|---------|---------|---------|
| 1 Q/AN1-2    | BTU/12S | 0 Q/AN5 | BTU/12S |
| 2 Q/AN1-3    | BTU/12S | T WTOT  | LBS/SEC |
| 3 Q/AN2-1    | BTU/12S | M MR    |         |
| 4 Q/AN2-2,-3 | BTU/12S |         |         |
| 6 Q/AN3-1    | BTU/12S |         |         |
| 7 Q/AN3-2    | BTU/12S |         |         |
| 8 Q/AN3-3    | BTU/12S |         |         |
| 9 Q/AN4      | BTU/12S |         |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-213  
 TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/12S | 9 Q/AN12-3 | BTU/12S |
| 2 Q/AN7    | BTU/12S | T TOT      | LBS/SEC |
| 3 Q/AN8    | BTU/12S | M MR       |         |
| 4 Q/AN9    | BTU/12S |            |         |
| 5 Q/AN10   | BTU/12S |            |         |
| 6 Q/AN11   | BTU/12S |            |         |
| 7 Q/AN12-1 | BTU/12S |            |         |
| 8 Q/AN12-2 | BTU/12S |            |         |

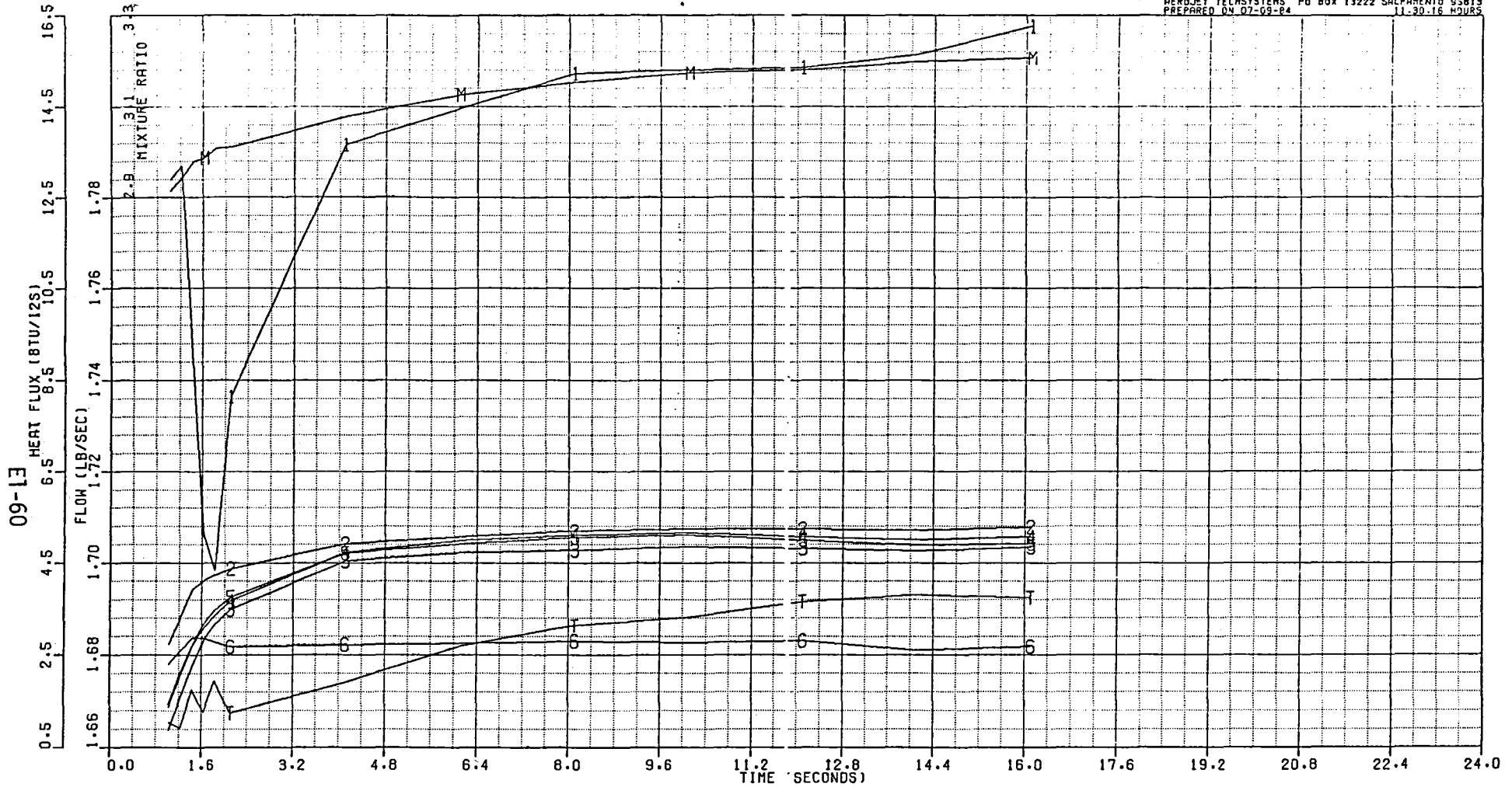
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-213  
 TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



- 3 Q/A8B1-1 BTU/12S M MR
- 4 Q/A8B2 BTU/12S
- 5 Q/A8B1-2 BTU/12S
- 6 Q/A8B4-1 BTU/12S
- 7 Q/A8B4-2.3 BTU/12S
- 8 Q/A81-1 BTU/12S
- 9 Q/A81-2 BTU/12S
- T WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-213

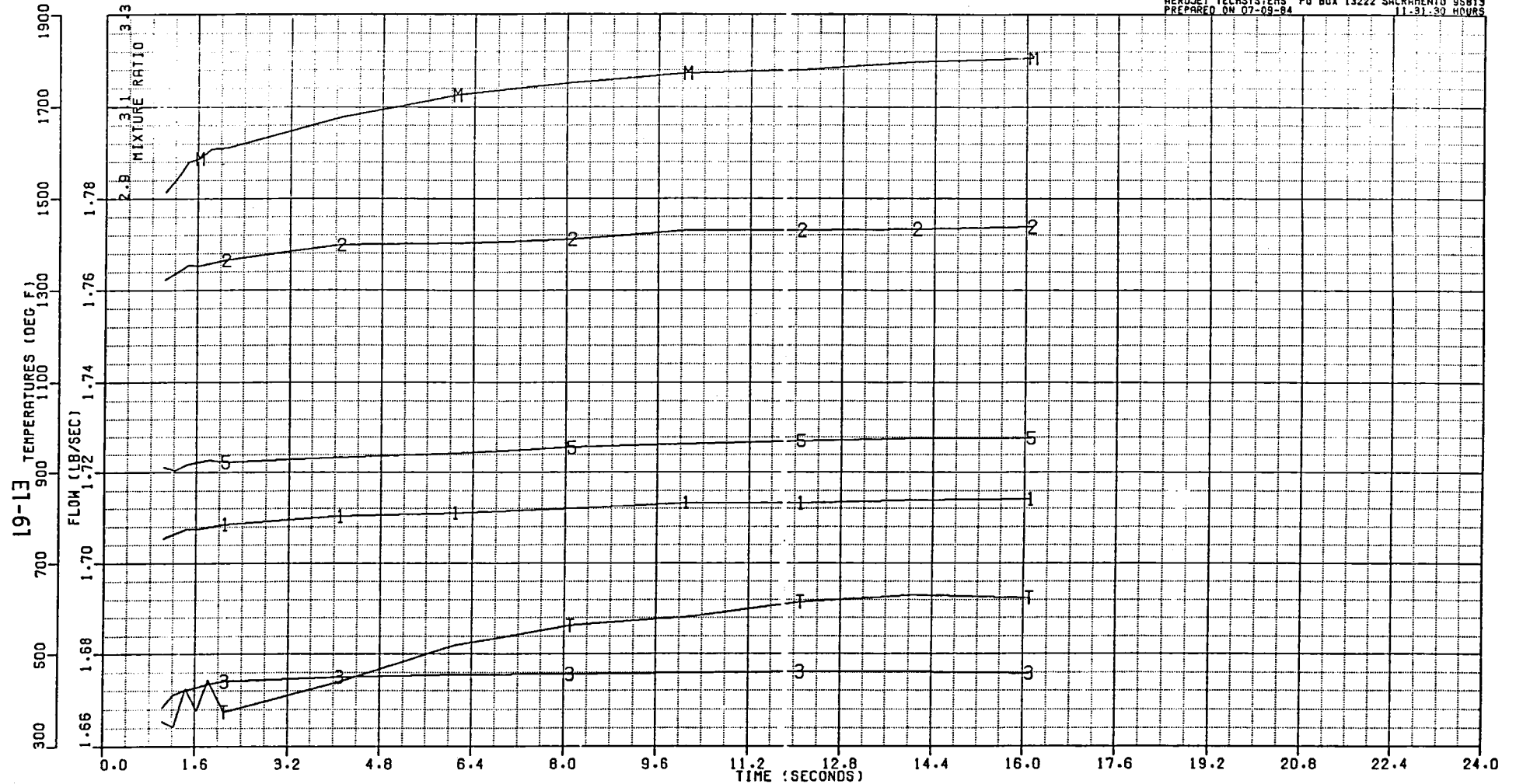
TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



09-13

- 1 Q/ATRC BTU/12S
- 2 Q/A12B6-1 BTU/12S
- 3 Q/A12B6-2.5 BTU/12S
- 4 Q/A12B3.4 BTU/12S
- 5 Q/A12B1-2.2 BTU/12S
- 6 Q/A12B1-1 BTU/12S
- T WTOT LBS/SEC
- M MR

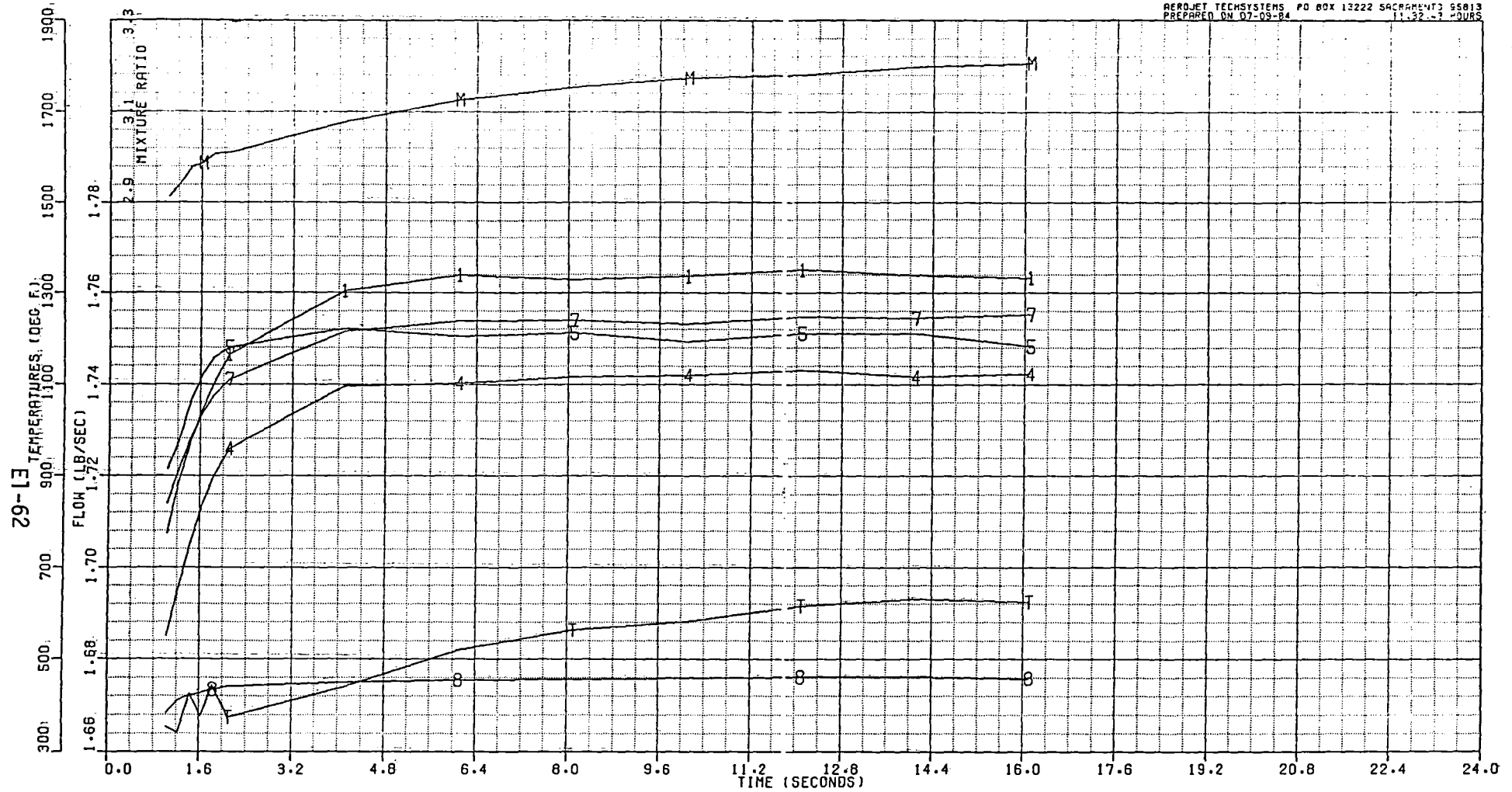
HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-213  
 TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-213

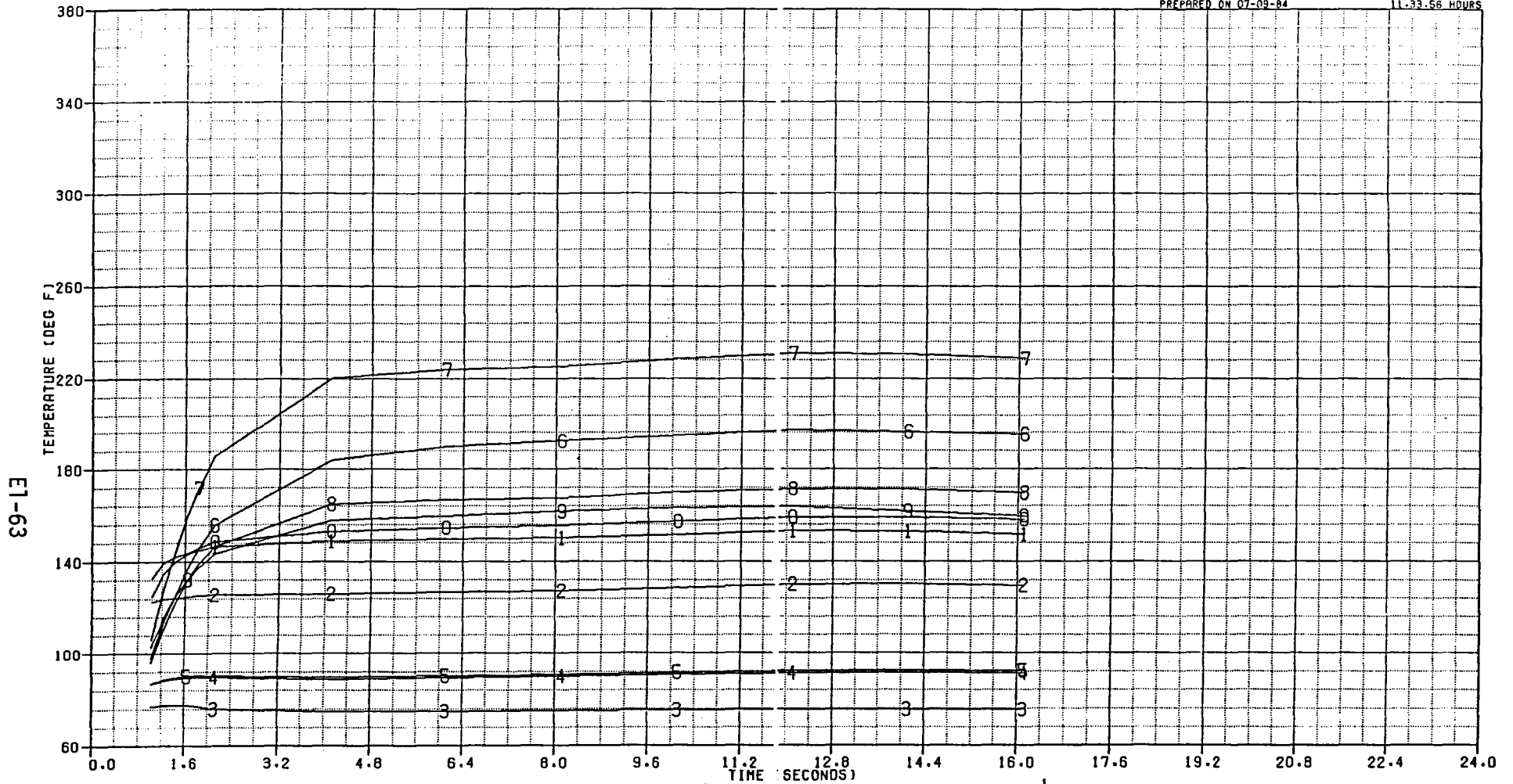
TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



1 TC-7 DEG F  
 4 TC-10 DEG F  
 5 TC-12 DEG F  
 7 TC-13 DEG F  
 8 TC-3 DEG F  
 T WTOT LBS/SEC  
 M HR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



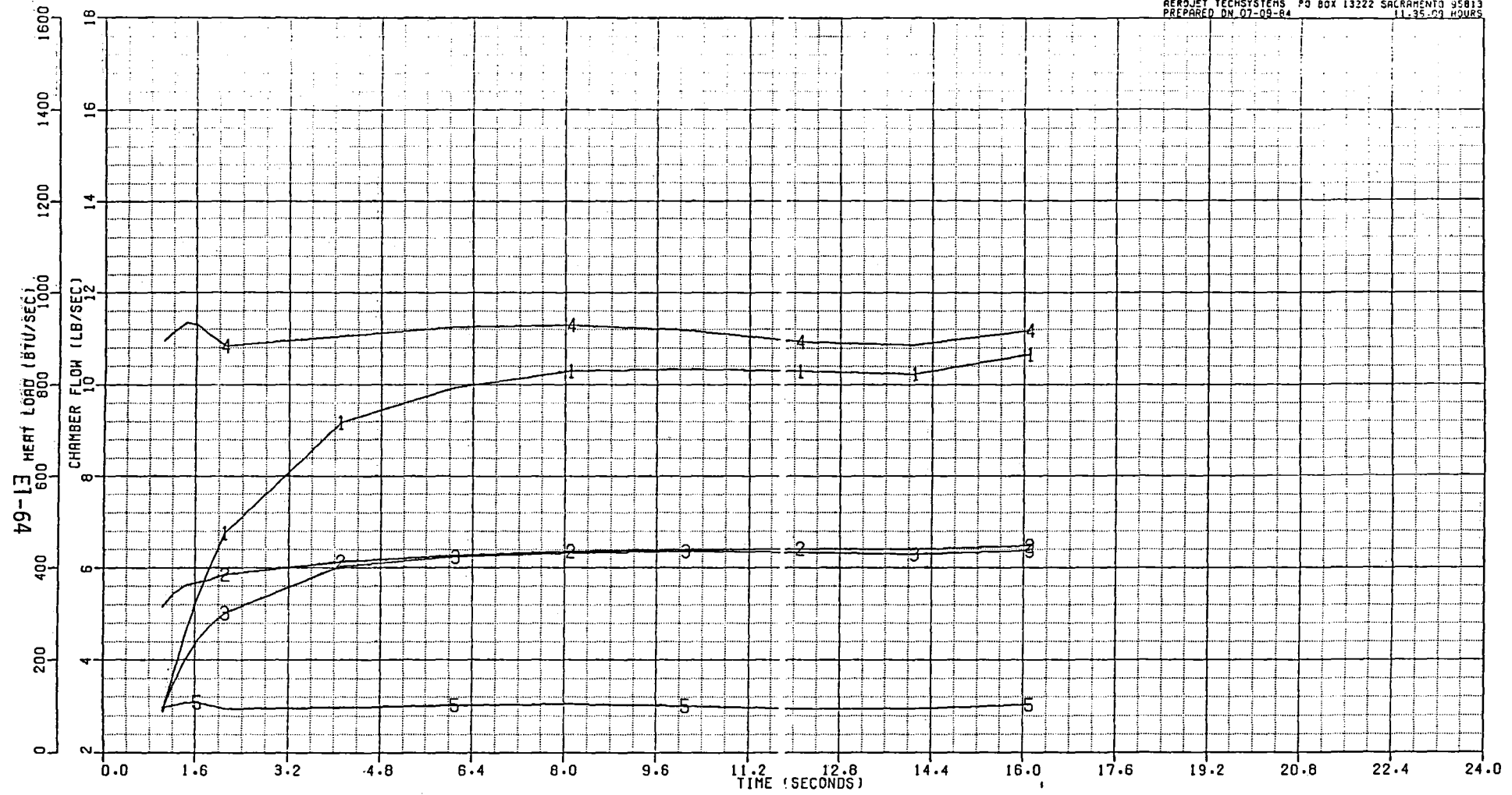
E1-63

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



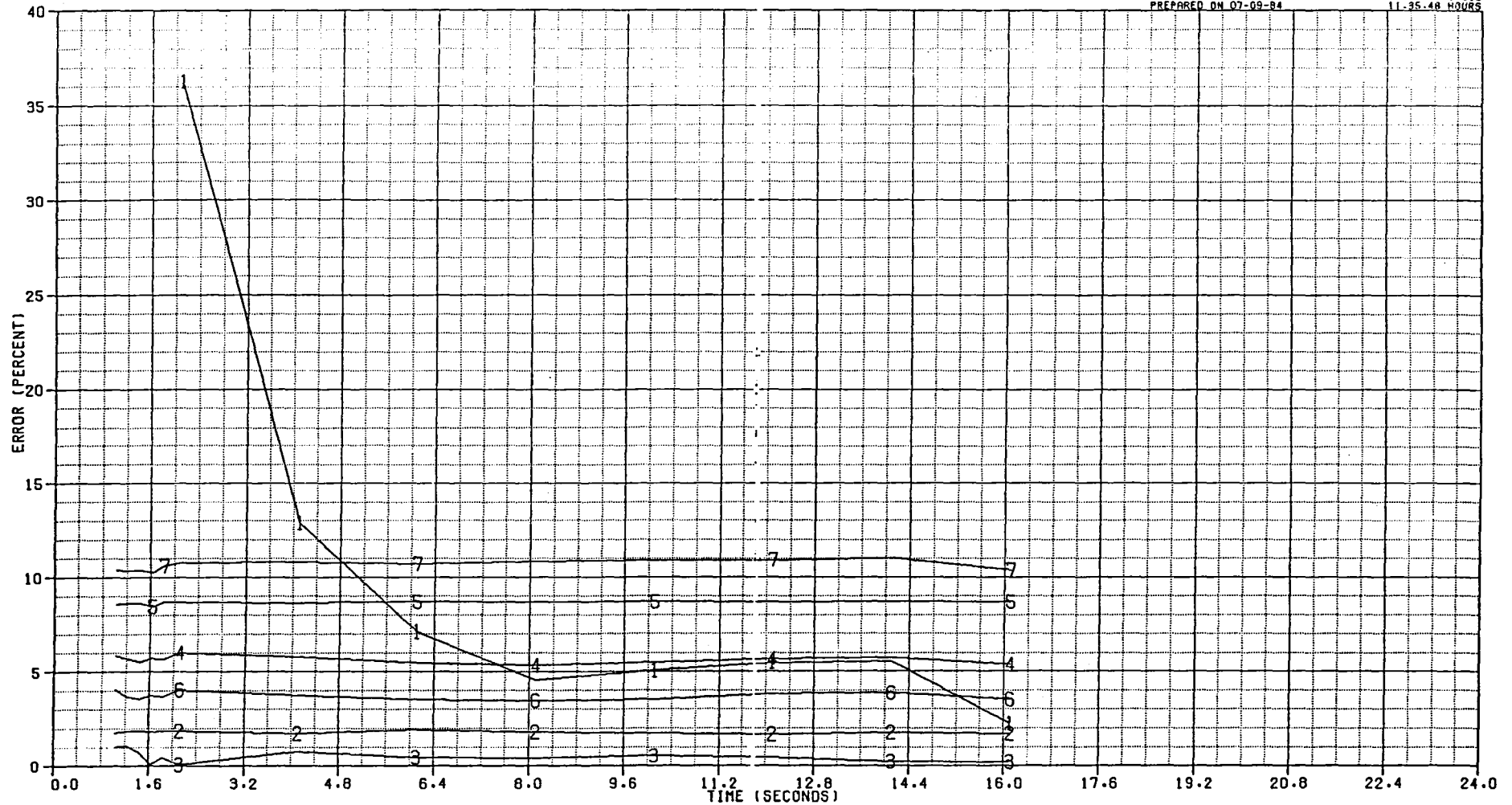


- 1 QNT BTU/SEC
- 2 QNT BTU/SEC
- 3 Q8BT BTU/SEC
- 4 WM1 LBS/SEC
- 5 WM2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS AVERAGED DATA

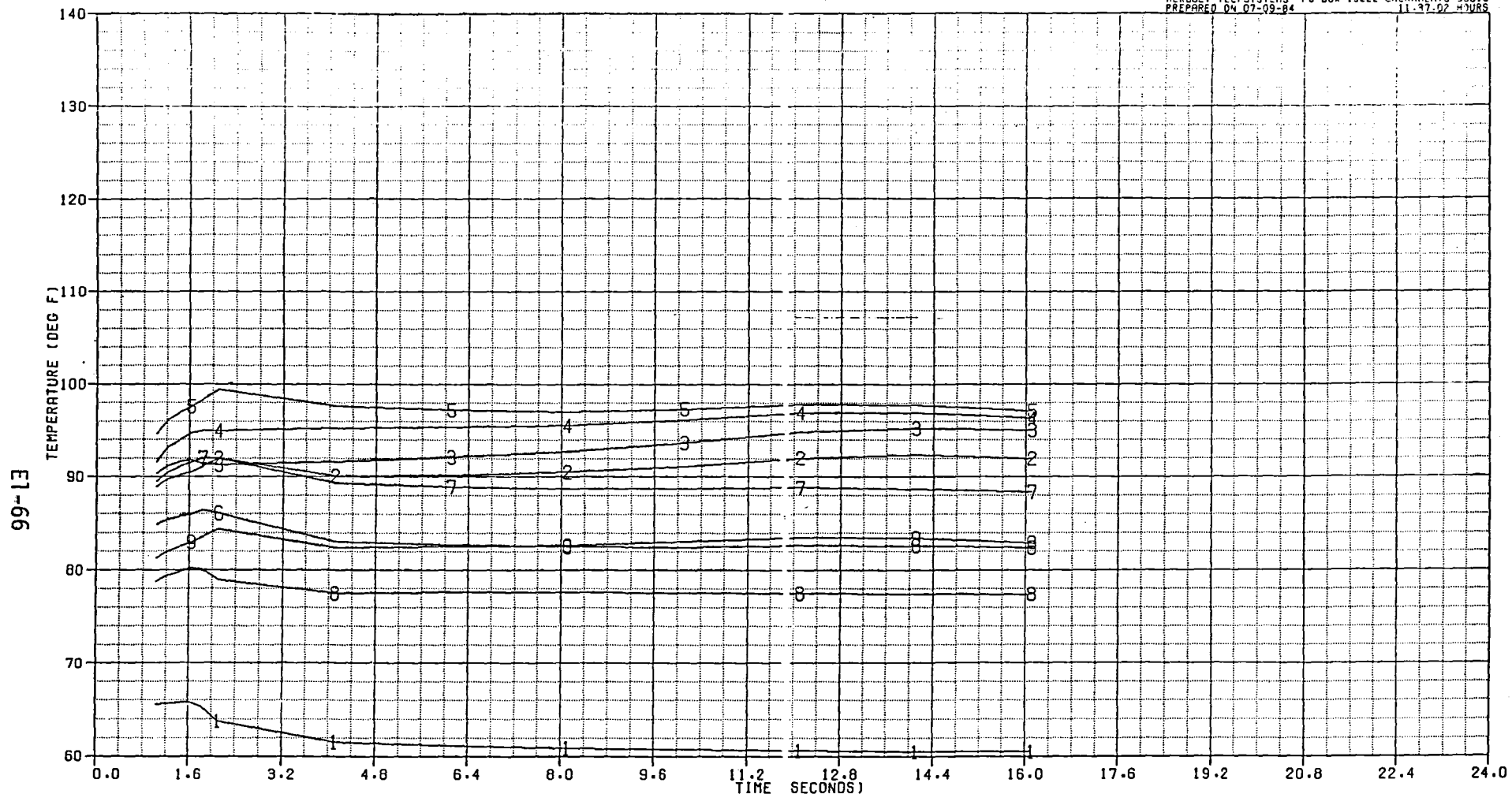
E1-65



- 1 QERM PERCENT
- 2 WERNT PERCENT
- 3 WER88T PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-213

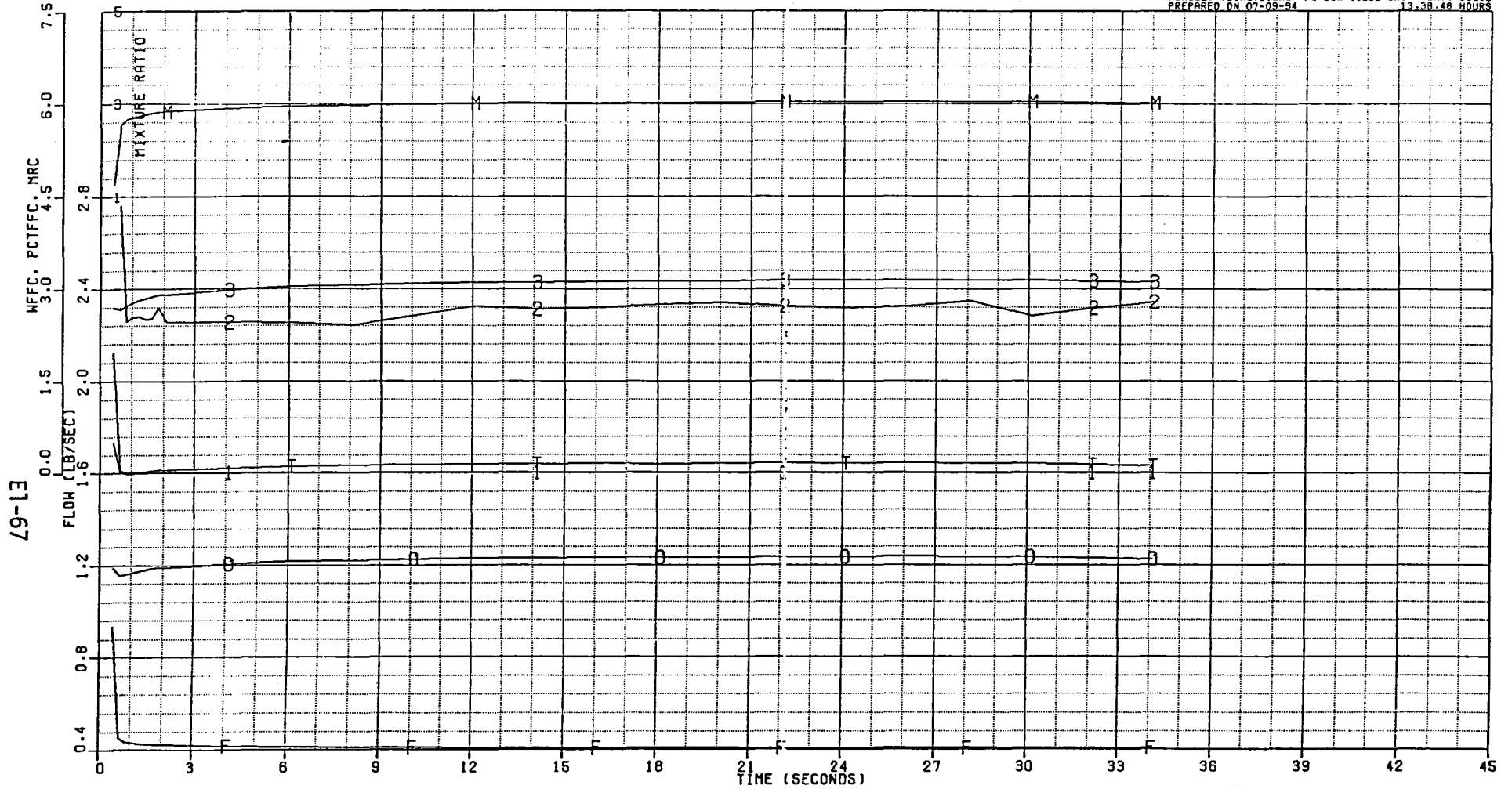
TEST DATE 05-03-84 1257 HOURS AVERAGED DATA



- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-213

TEST DATE 05-03-84 1257 HOURS AVERAGED DATA

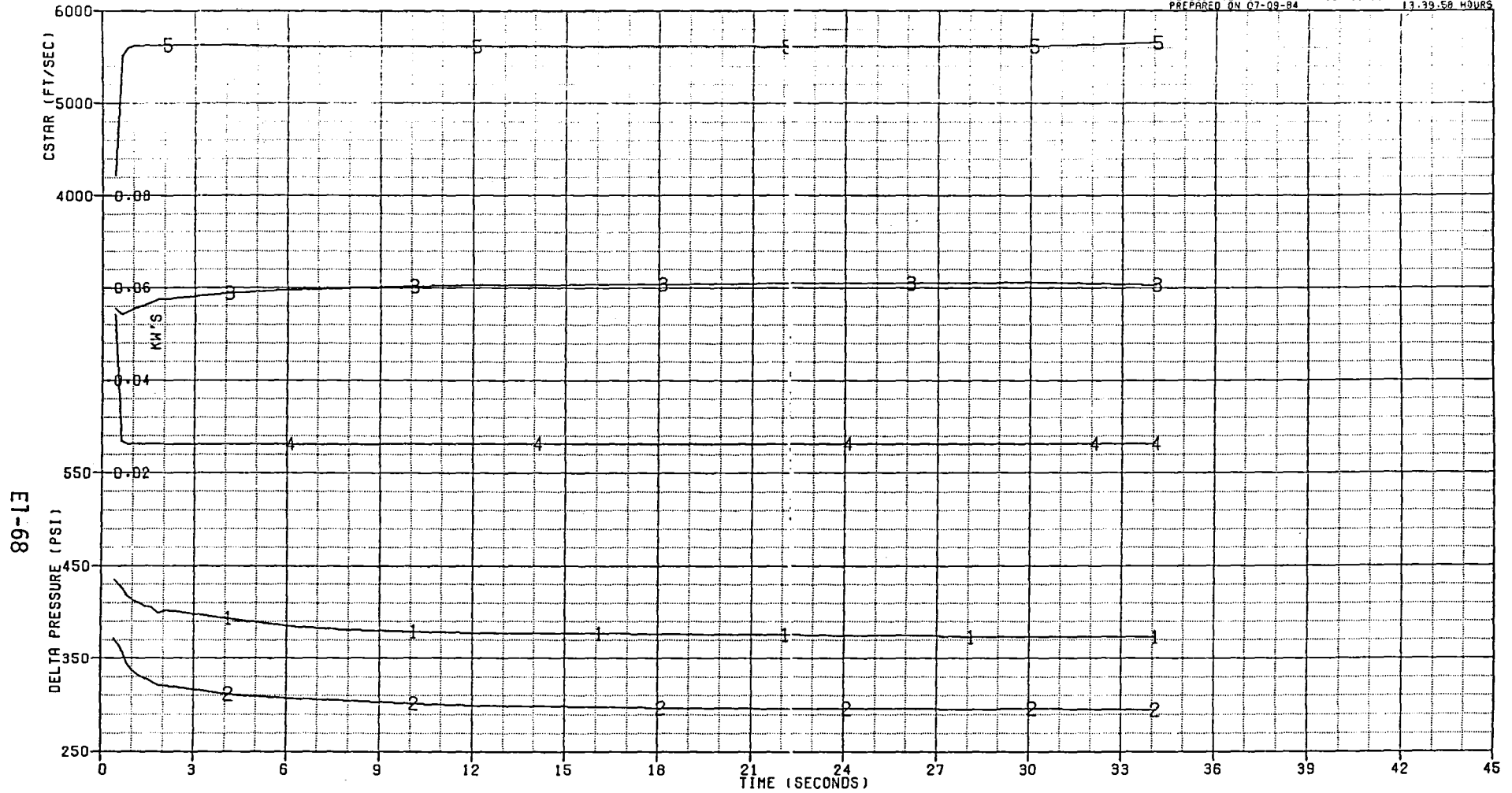


E1-67

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-214

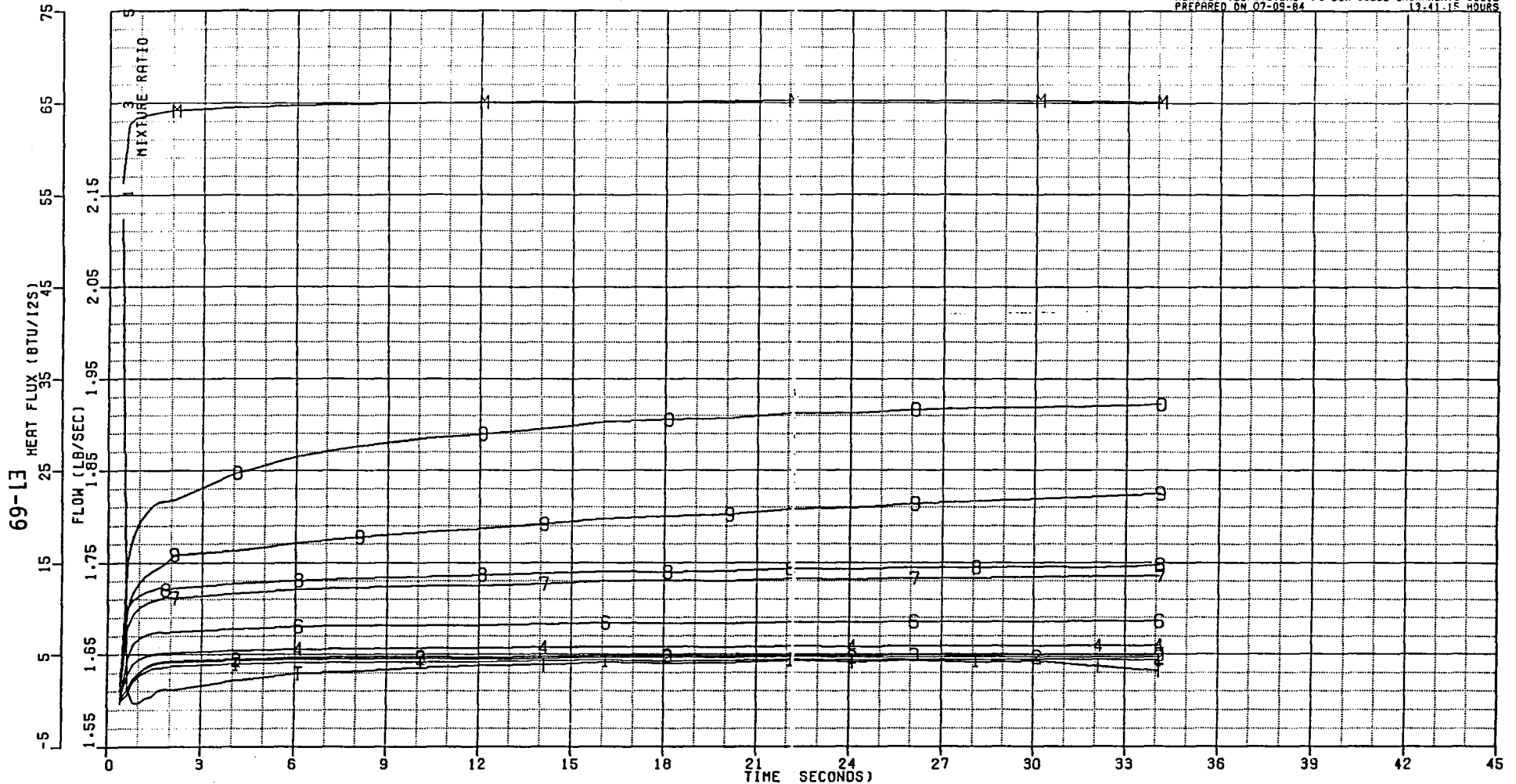
TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



89-68

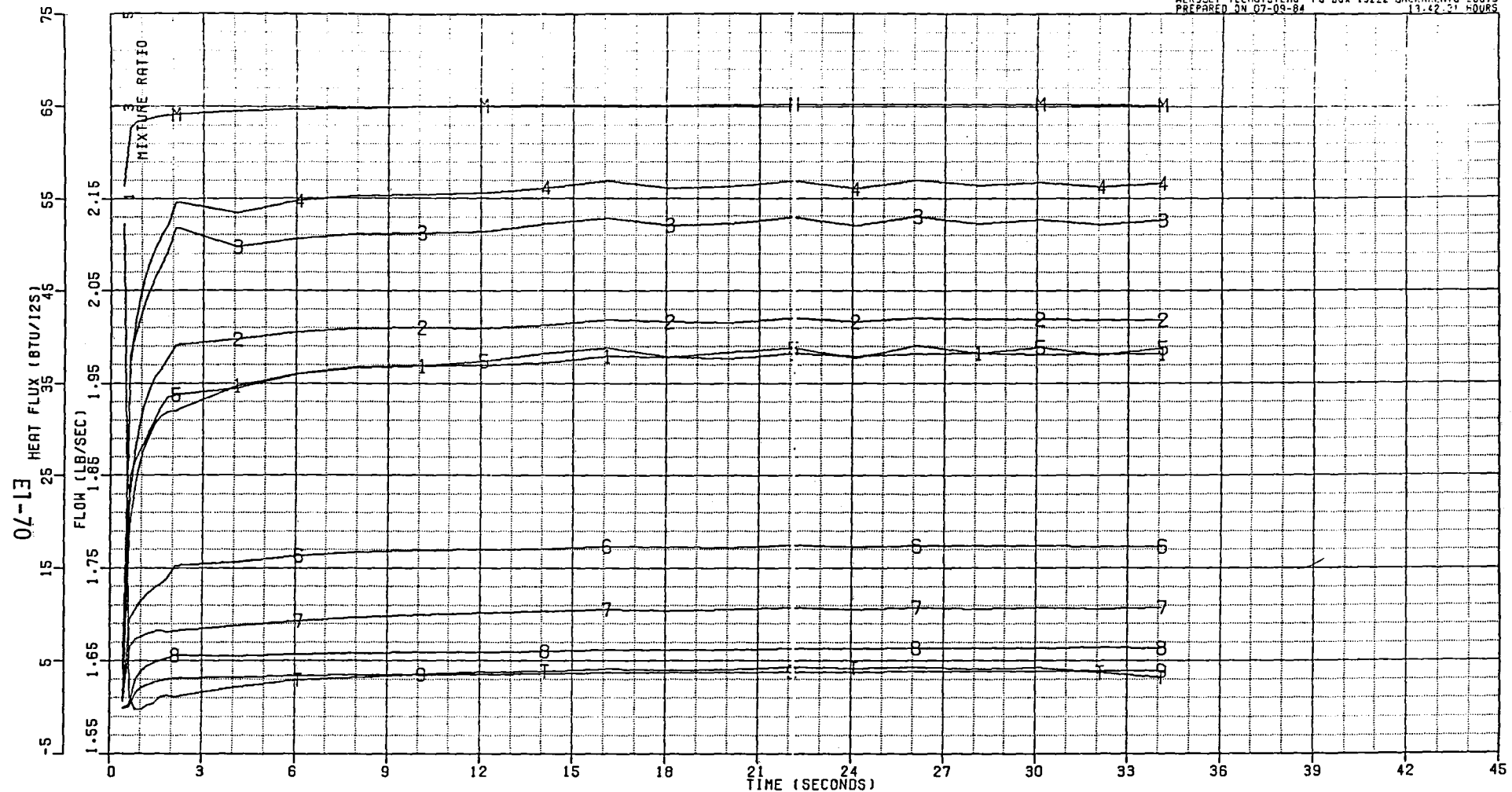
- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS    AVERAGED DATA



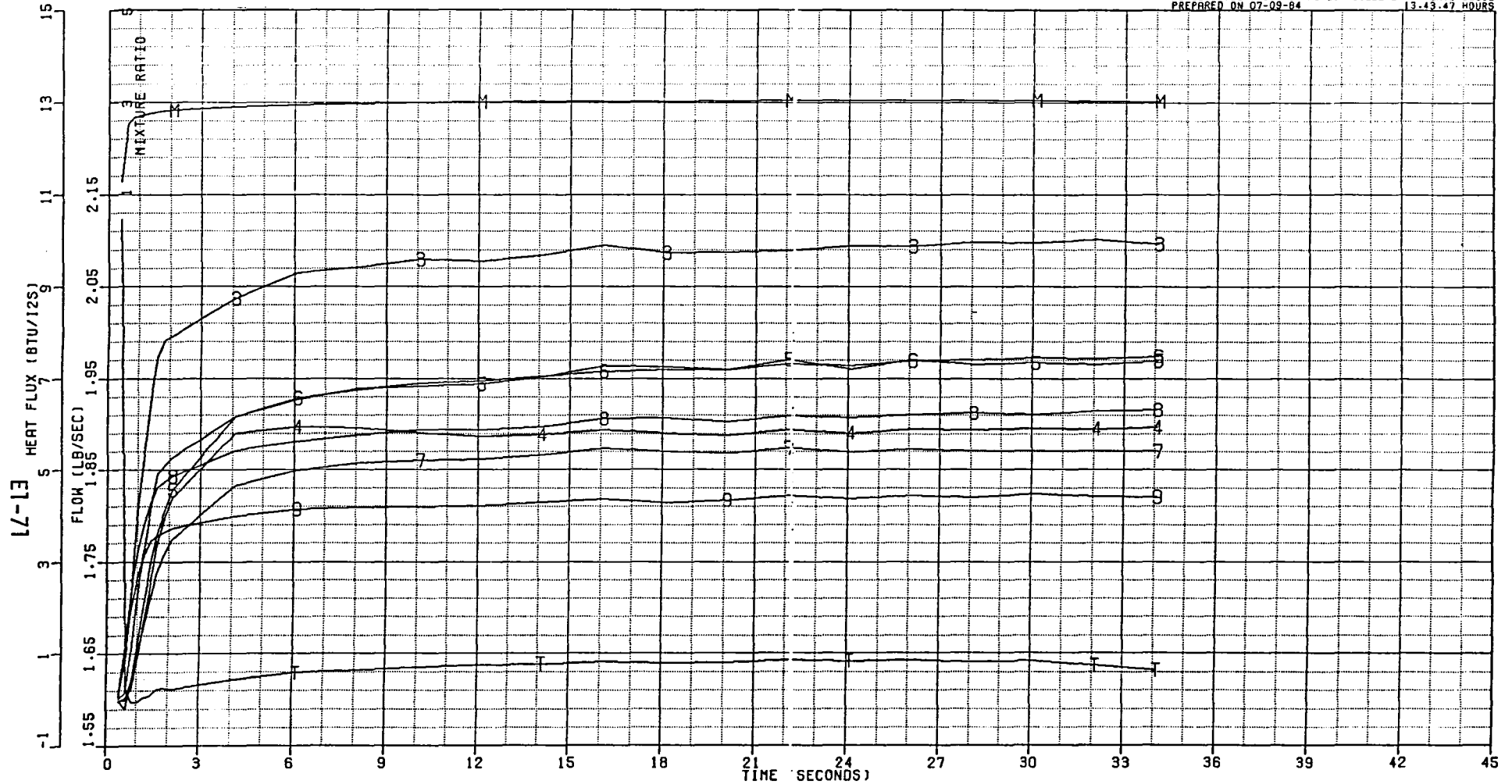
1 Q/AN1-2	BTU/12S	0 Q/AN5	BTU/12S
2 Q/AN1-3	BTU/12S	T WTOT	LBS/SEC
3 Q/AN2-1	BTU/12S	M HR	
4 Q/AN2-2.-3	BTU/12S		
6 Q/AN3-1	BTU/12S		
7 Q/AN3-2	BTU/12S		
8 Q/AN3-3	BTU/12S		
9 Q/AN4	BTU/12S		

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/I2S | 9 Q/AN12-3 | BTU/I2S |
| 2 Q/AN7    | BTU/I2S | T WTOT     | LBS/SEC |
| 3 Q/AN8    | BTU/I2S | M MR       |         |
| 4 Q/AN9    | BTU/I2S |            |         |
| 5 Q/AN10   | BTU/I2S |            |         |
| 6 Q/AN11   | BTU/I2S |            |         |
| 7 Q/AN12-1 | BTU/I2S |            |         |
| 8 Q/AN12-2 | BTU/I2S |            |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA

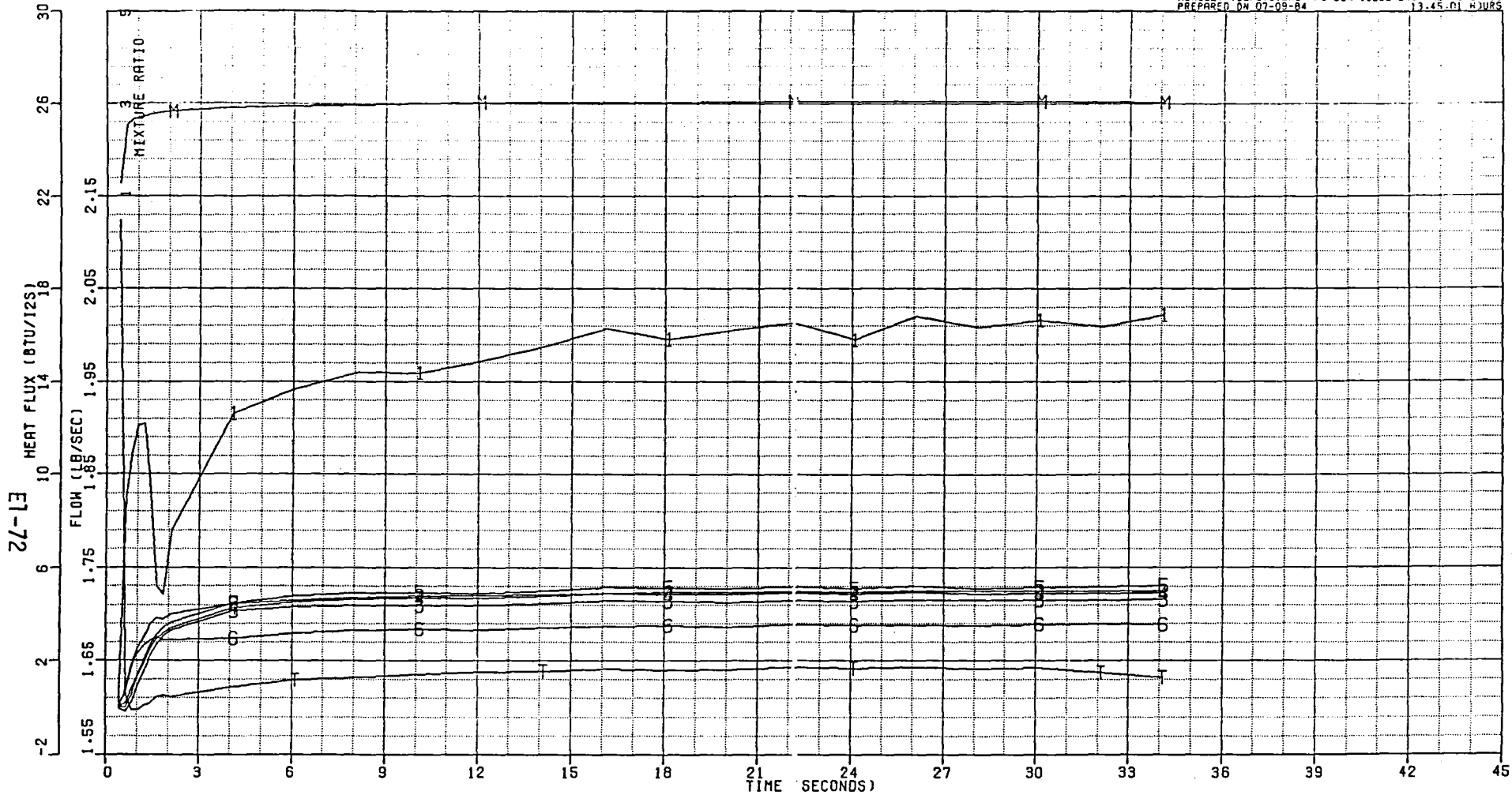


3 Q/ABB1-1 BTU/12S M MR  
 4 Q/ABB2 BTU/12S  
 5 Q/ABB1-2 BTU/12S  
 6 Q/ABB4-1 BTU/12S  
 7 Q/ABB4-2.3 BTU/12S  
 8 Q/AN1-1 BTU/12S  
 9 Q/AN1-2 BTU/12S  
 T WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-214

TEST DATE 05-03-84 1432 HOURS AVERAGED DATA

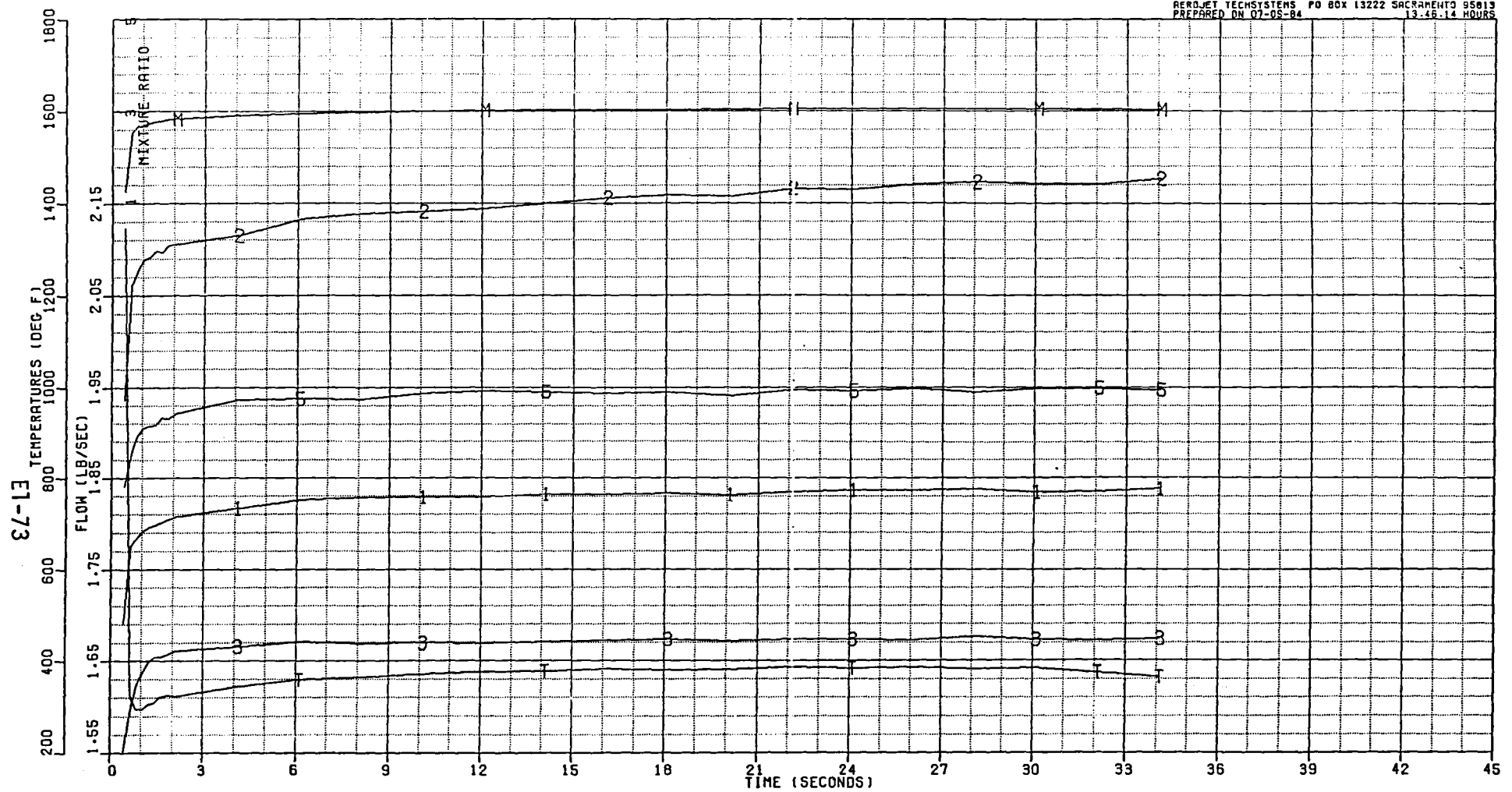




E1-72

- 1 Q/ATRC BTU/I2S
- 2 Q/A12B6-1 BTU/I2S
- 3 Q/A12B6-2.5 BTU/I2S
- 4 Q/A12B3.4 BTU/I2S
- 5 Q/A12B1-2.2 BTU/I2S
- 6 Q/A12B1-1 BTU/I2S
- T WTOT LBS/SEC
- M MR

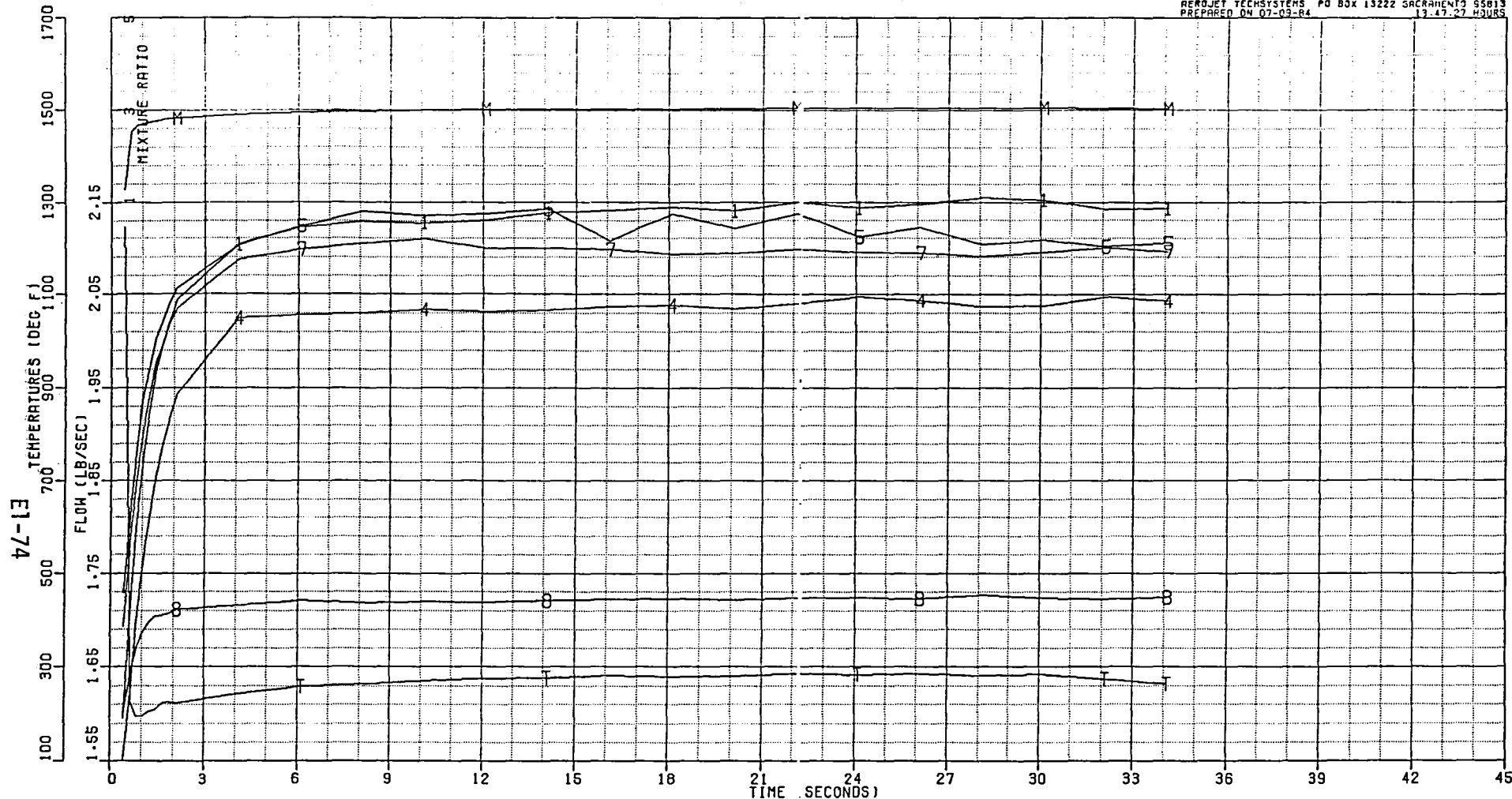
HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M HR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA

E1-73

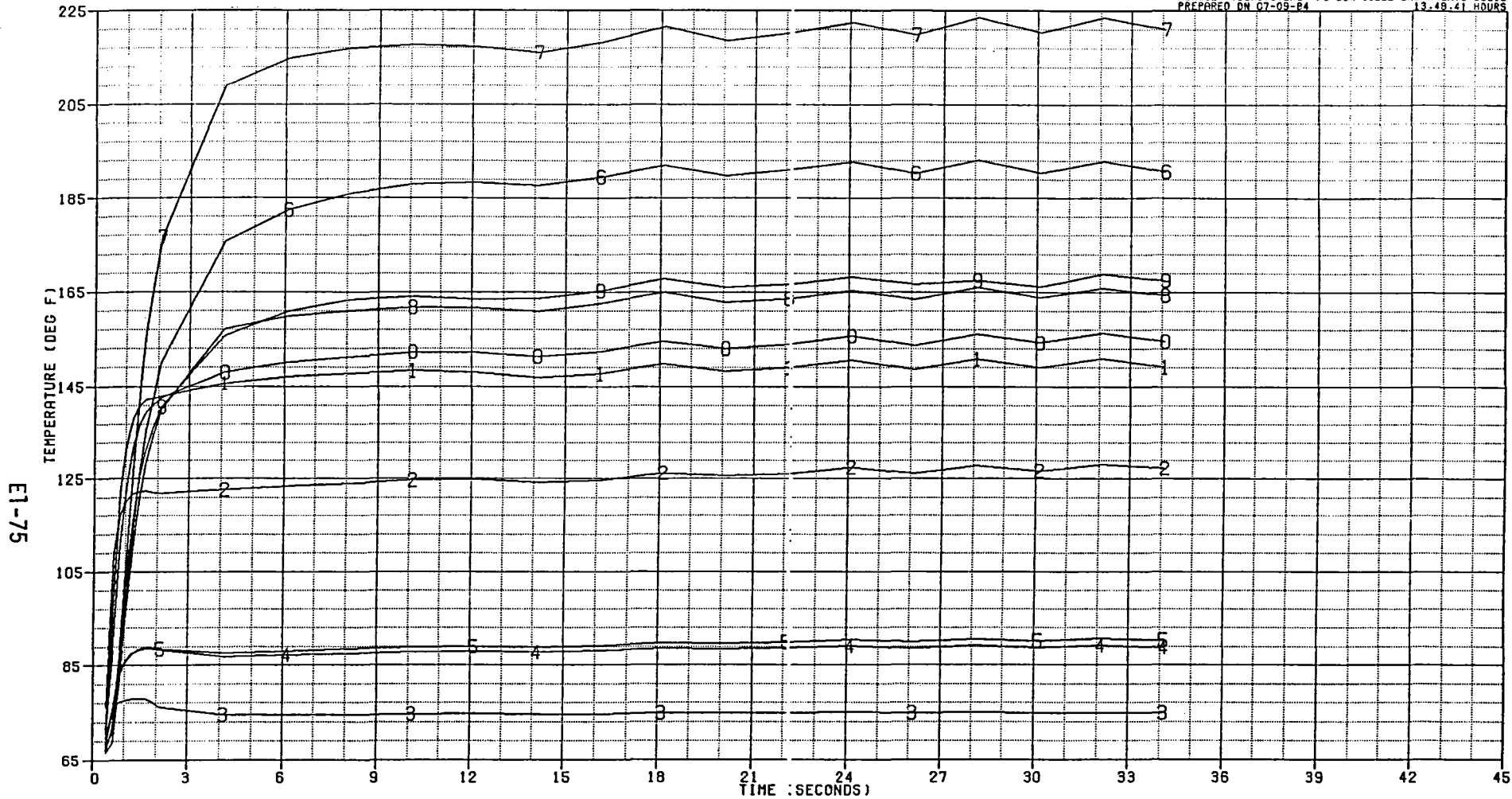


E1-74

- 1 TC-7            DEG F
- 4 TC-10          DEG F
- 5 TC-12          DEG F
- 7 TC-13          DEG F
- 8 TC-3            DEG F
- T WTDI          LBS/SEC
- M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-214

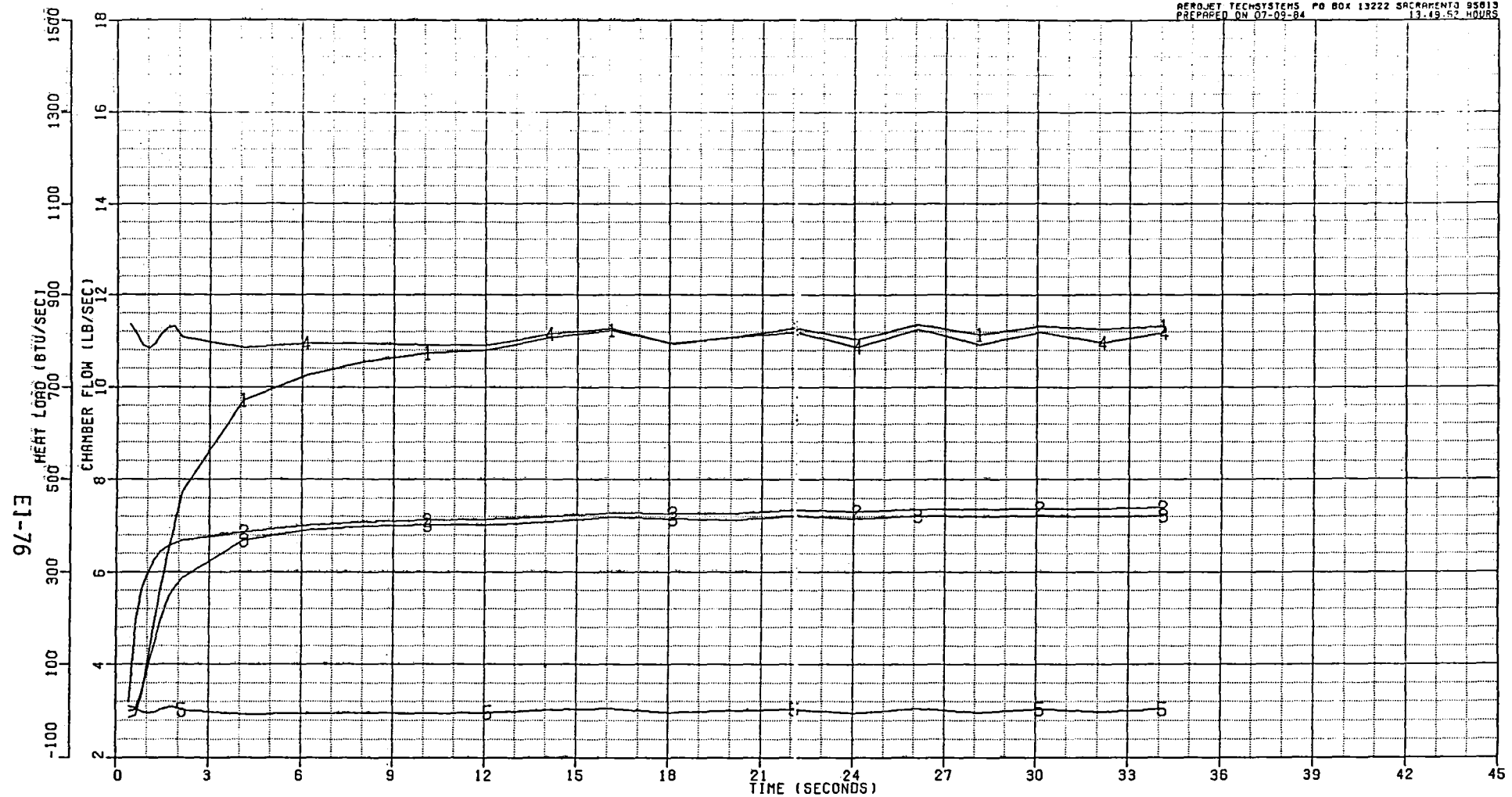
TEST DATE 05-03-84 1432 HOURS      AVERAGED DATA



E1-75

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

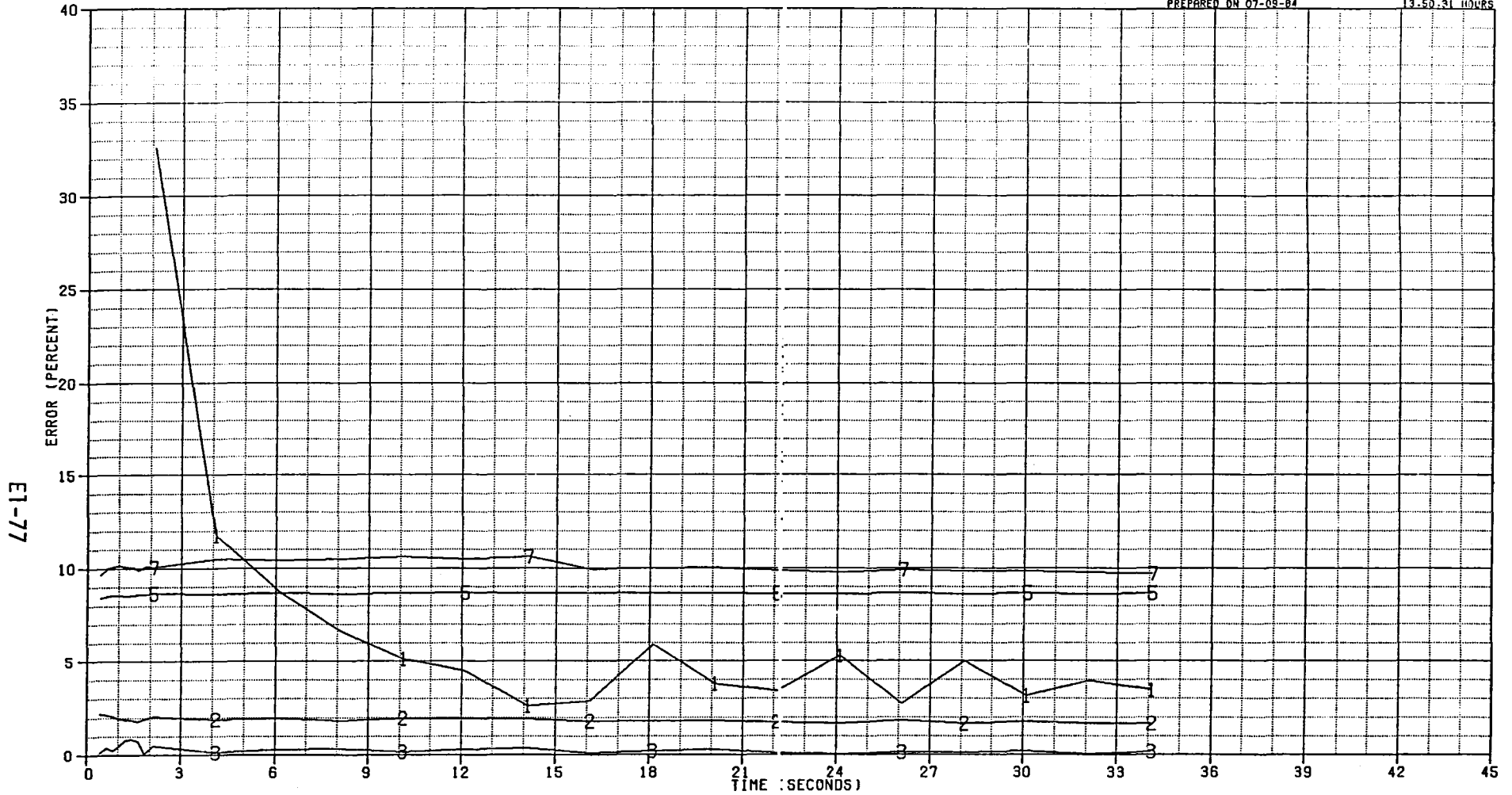
COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



1 QM BTU/SEC  
2 QNT BTU/SEC  
3 Q8BT BTU/SEC  
4 HW1 LBS/SEC  
5 HW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
TEST NO. RLBL-936-214

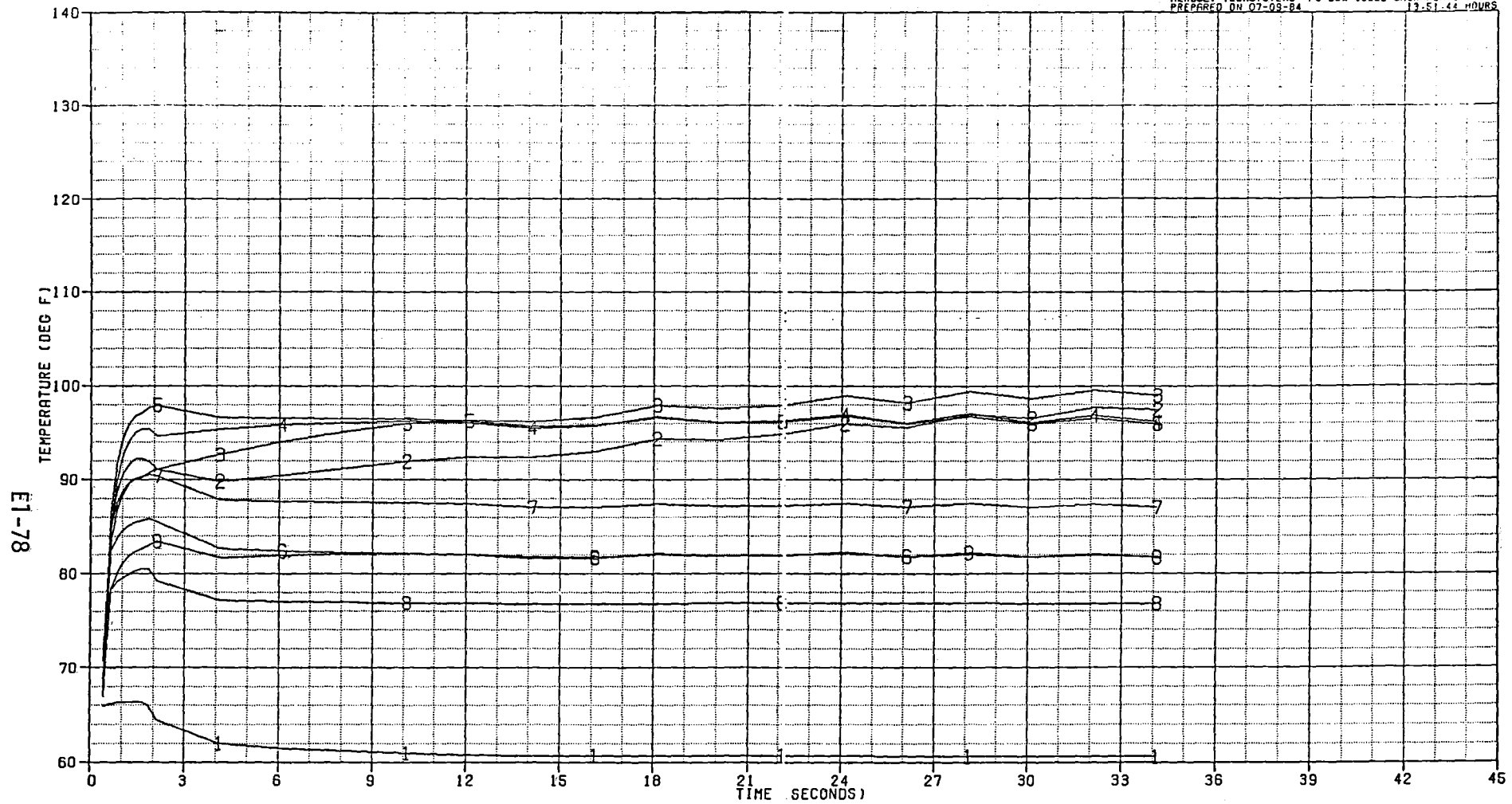
TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



1 QERM PERCENT  
 2 WERNT PERCENT  
 3 WER8BT PERCENT  
 4 WER12B1 PERCENT  
 5 WER12B3 PERCENT  
 6 WER12B5 PERCENT  
 7 WERN10 PERCENT

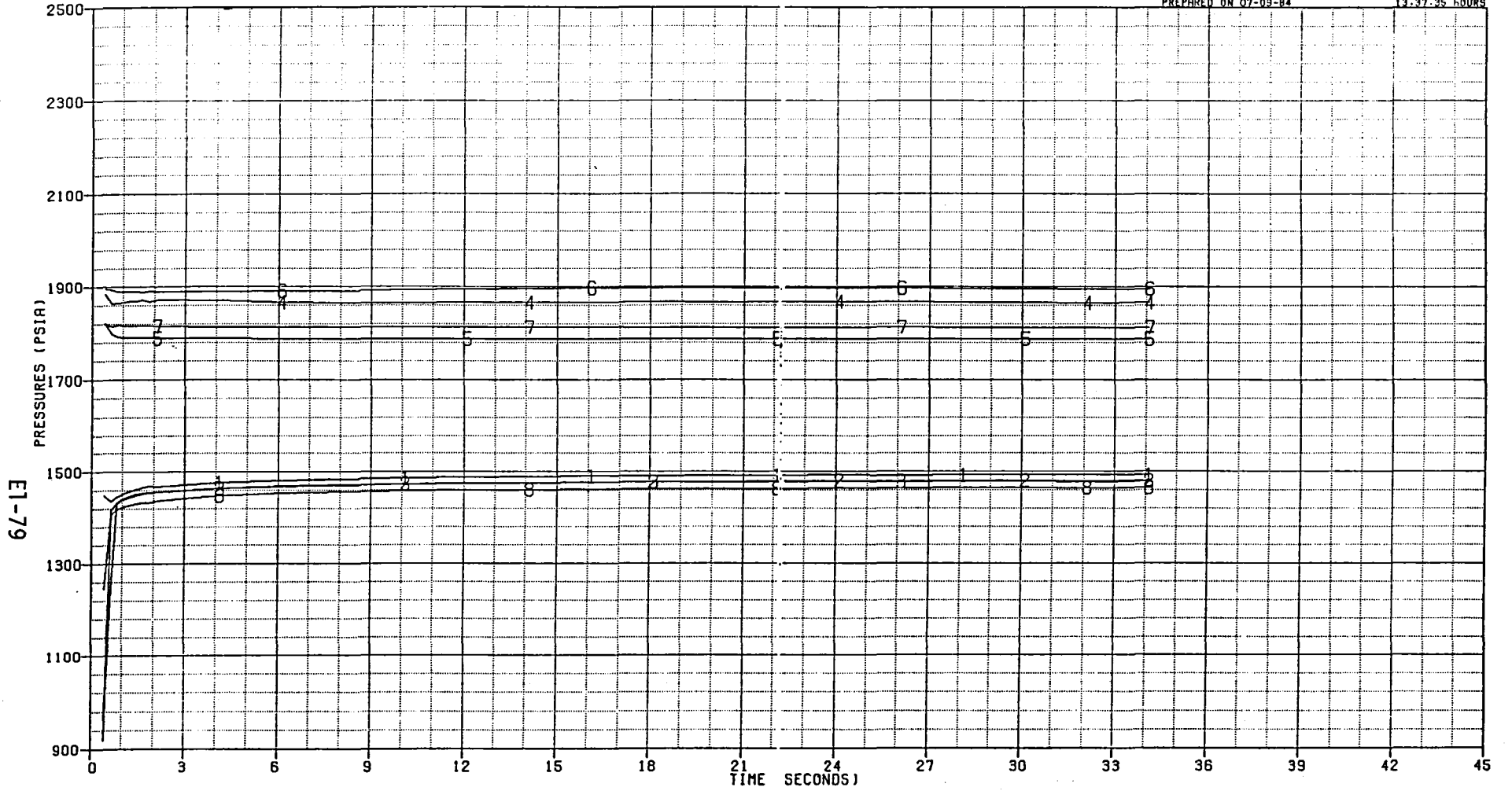
CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA

E1-77



- 1 THC-1 DEG F
- 2 THC-13 DEG F
- 3 THC-14 DEG F
- 4 THC-15 DEG F
- 5 THC-16 DEG F
- 6 THC-17 DEG F
- 7 THC-18 DEG F
- 8 THC-19 DEG F
- 9 THC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-214  
 TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



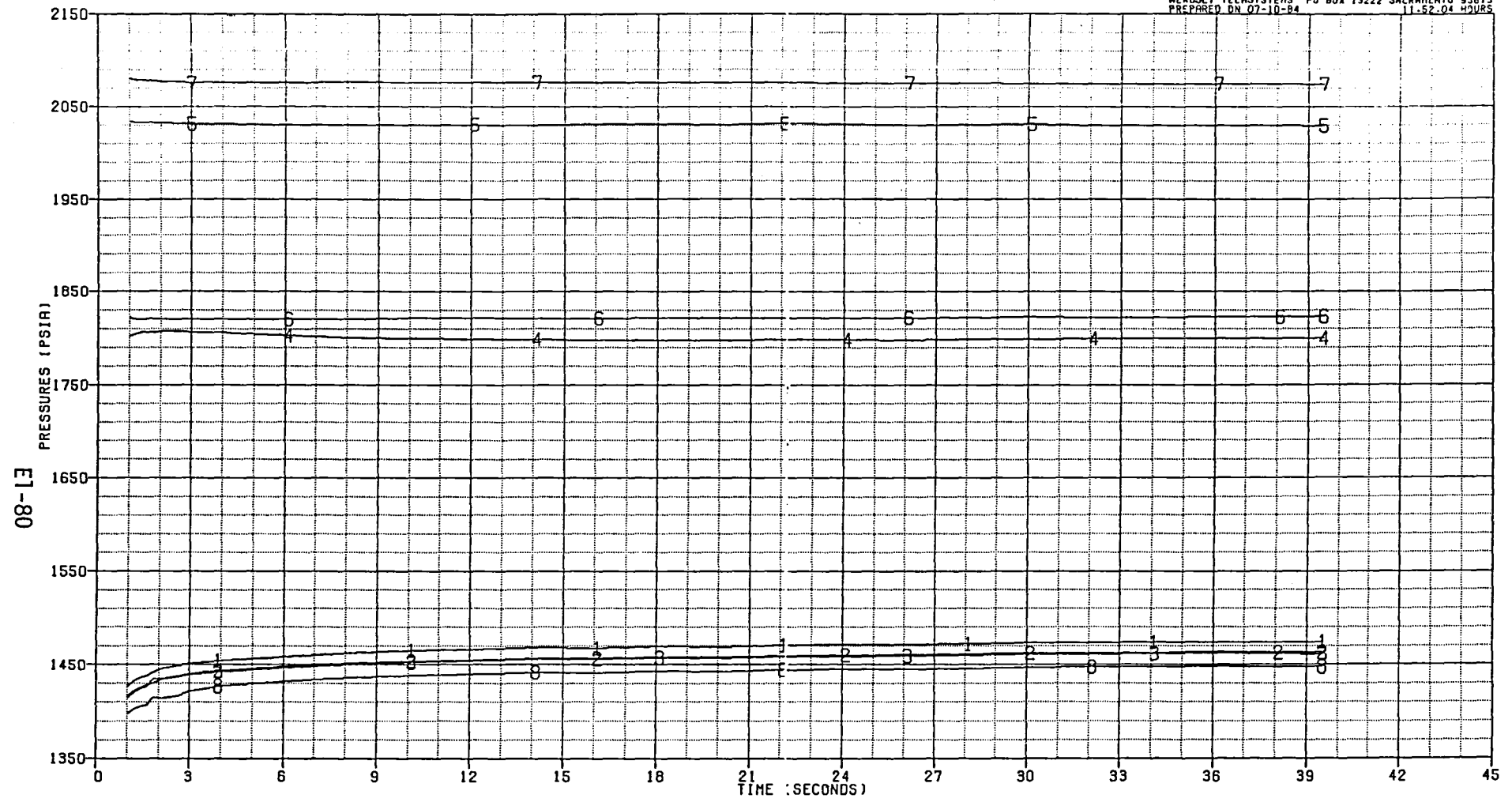
61-79

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
TEST NO. RLBL-936-214

- TEST DATE 05-03-84 1432 HOURS AVERAGED DATA



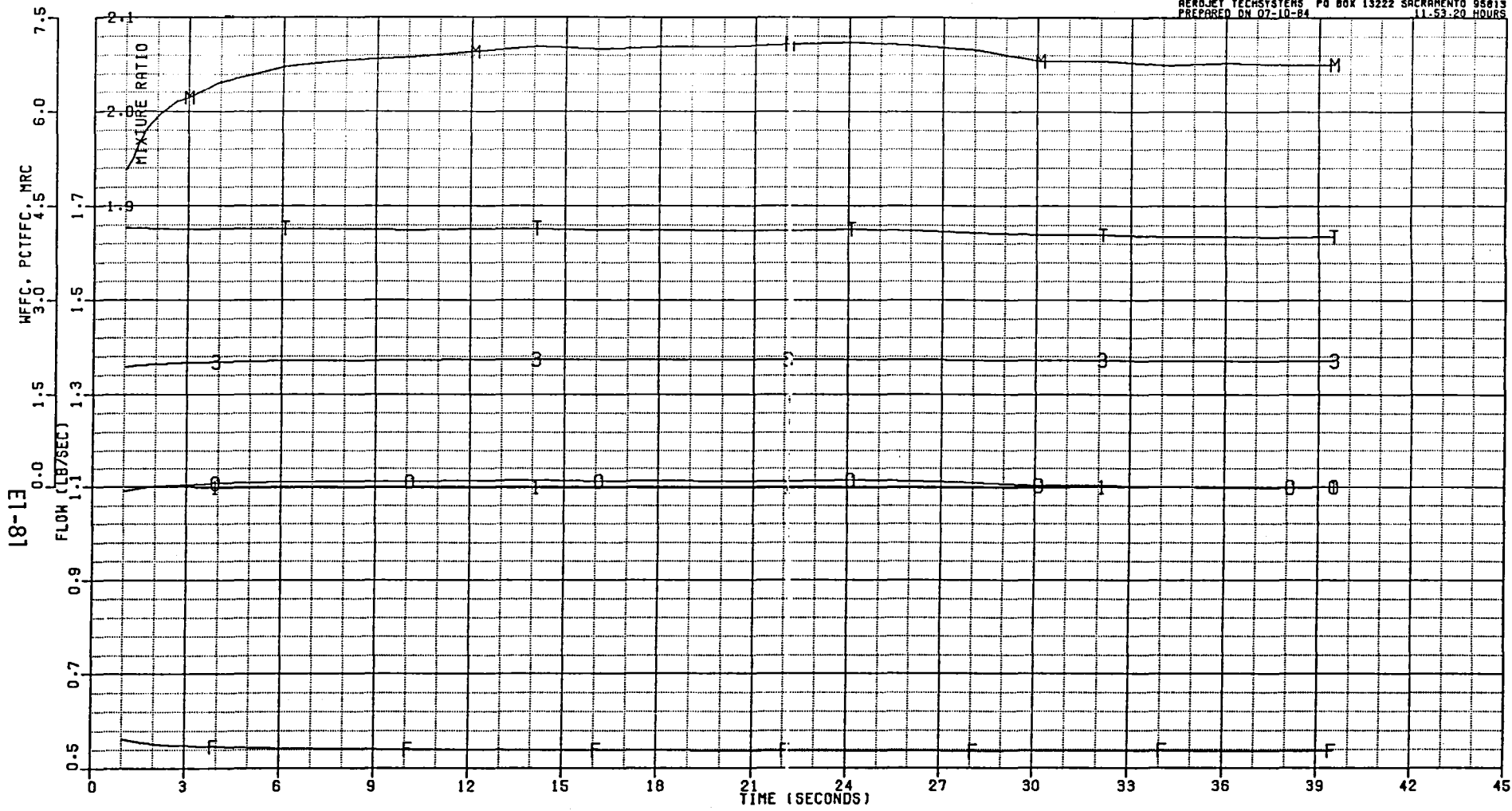


08-[E

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-215

- TEST DATE 05-03-84 1528 HOURS AVERAGED DATA

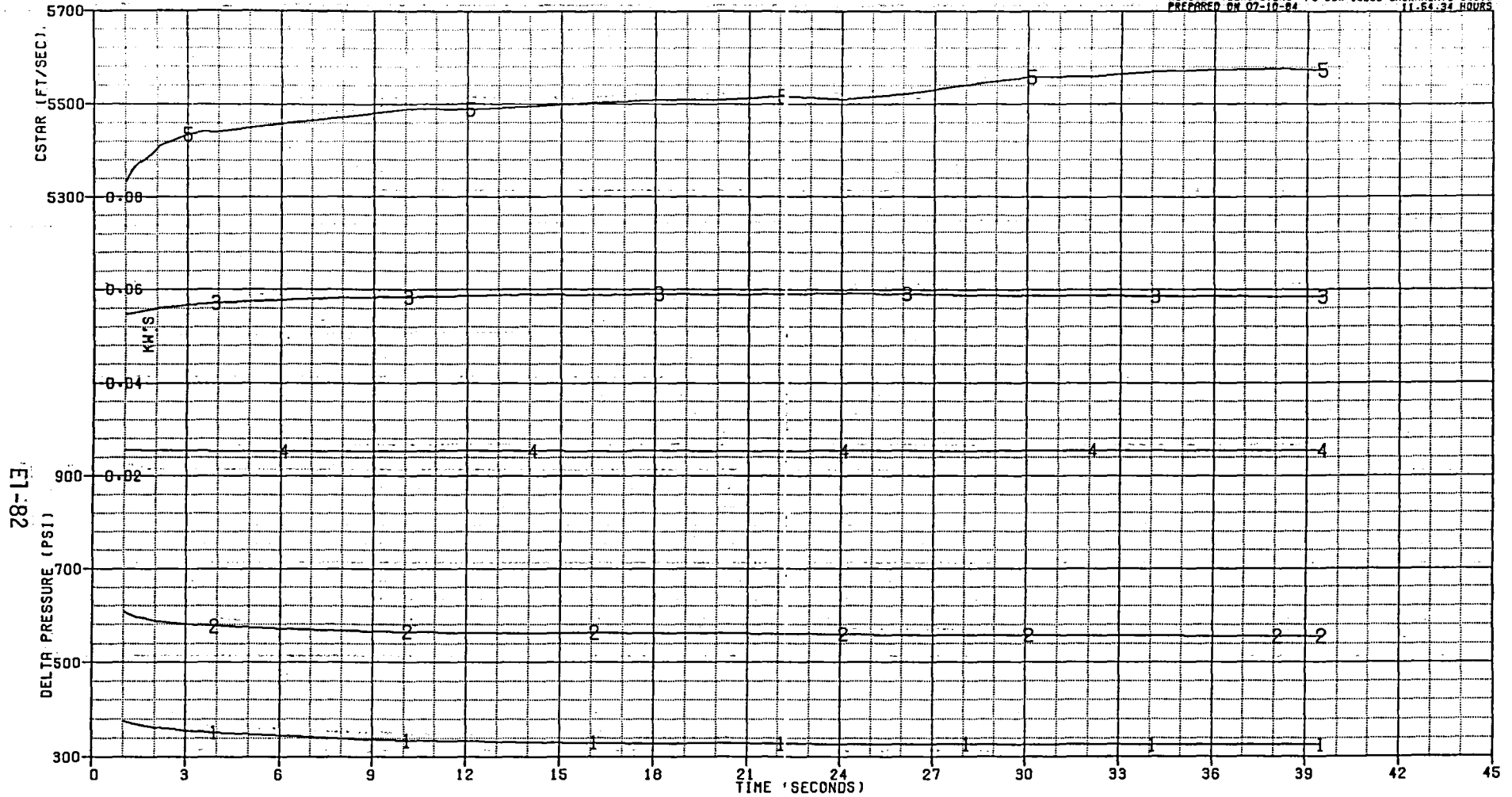


18-13

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 MFCC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-215

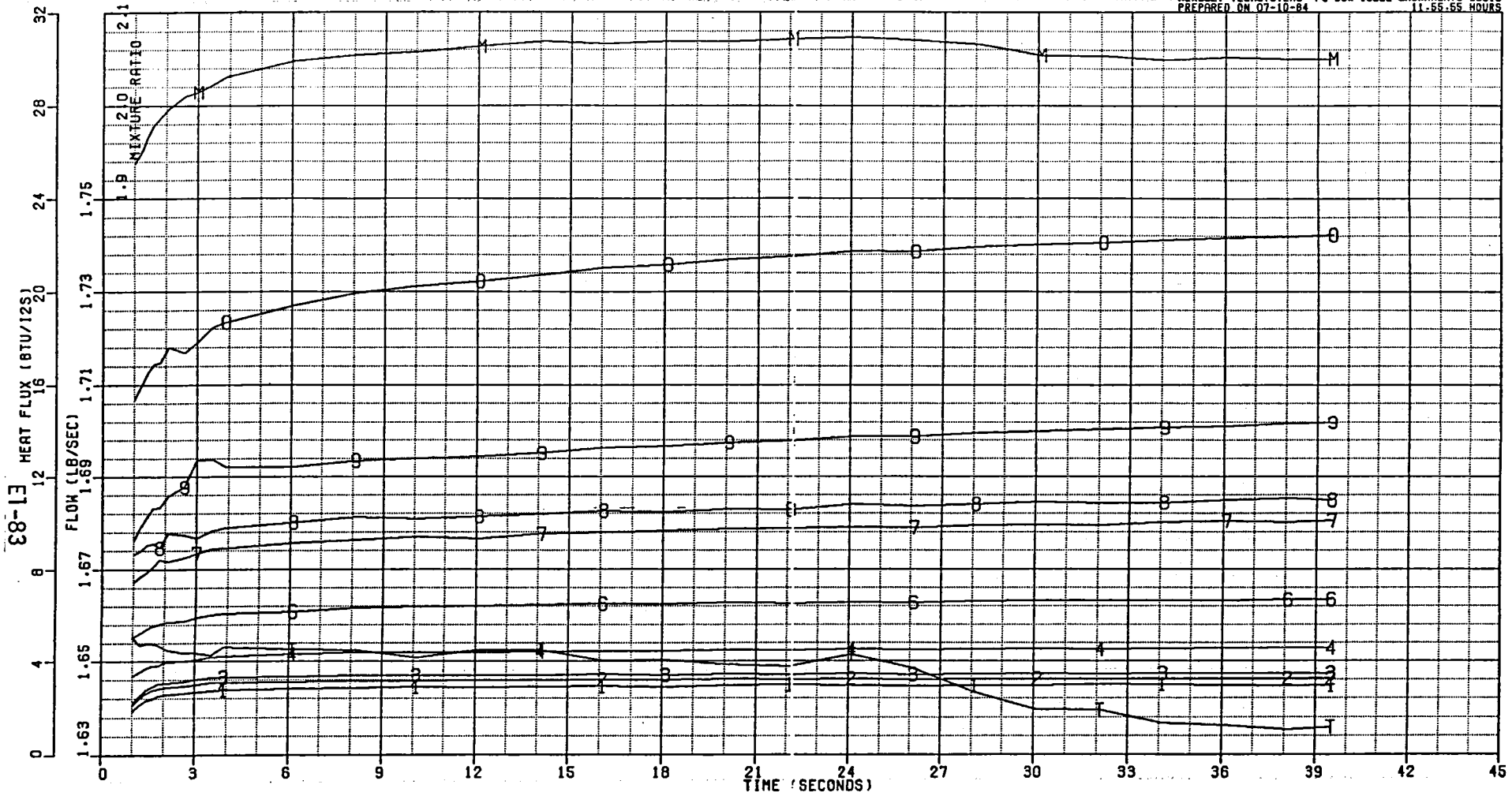
TEST DATE 05-03-84 1528 HOURS AVERAGED DATA



- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KMFJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLBL-936-215

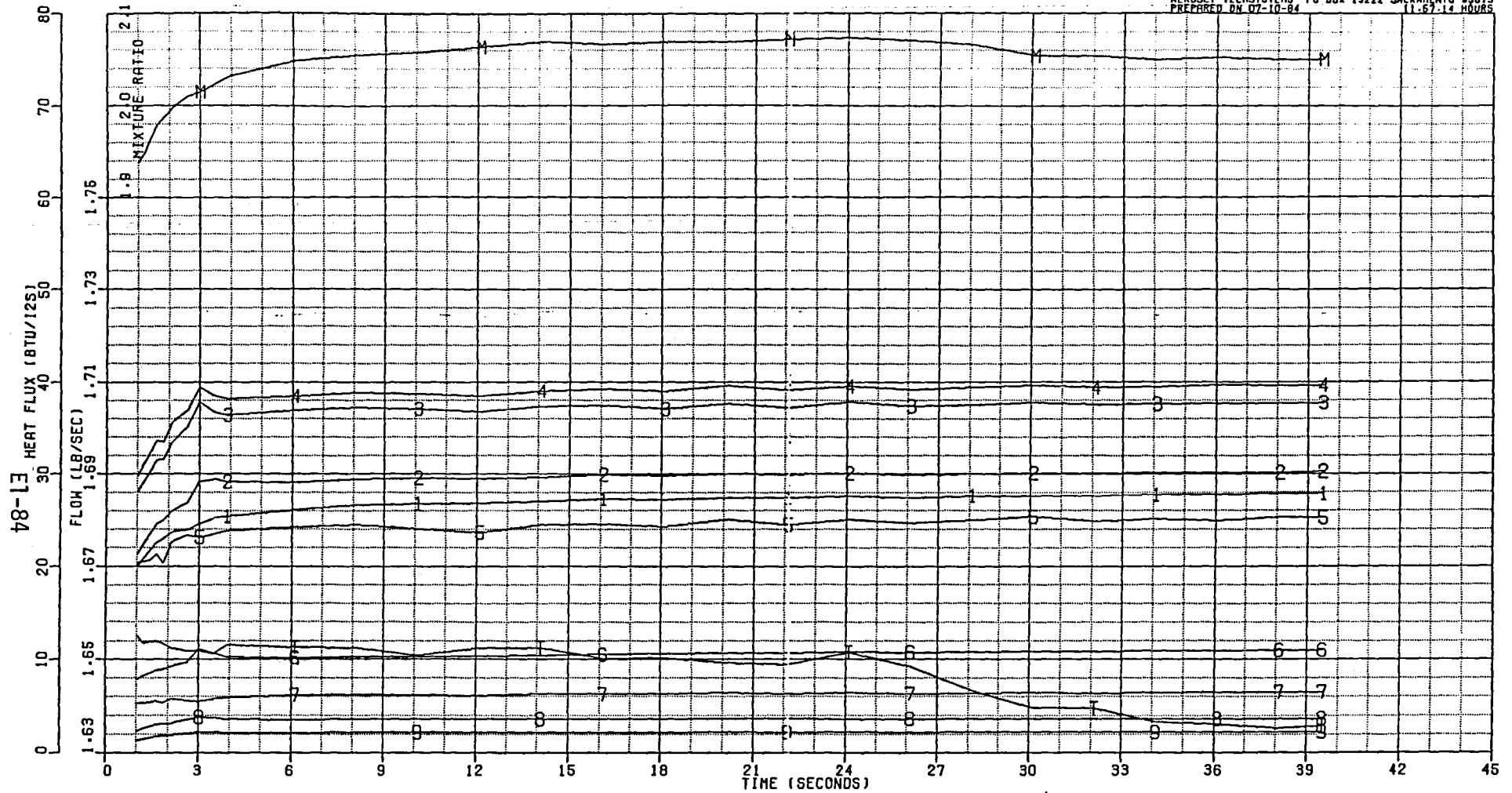
TEST DATE 05-03-84 1528 HOURS    AVERAGED DATA



- |              |         |         |         |
|--------------|---------|---------|---------|
| 1 Q/AN1-2    | BTU/12S | 0 Q/AN5 | BTU/12S |
| 2 Q/AN1-3    | BTU/12S | T WTOT  | LBS/SEC |
| 3 Q/AN2-1    | BTU/12S | M MR    |         |
| 4 Q/AN2-2,-3 | BTU/12S |         |         |
| 6 Q/AN3-1    | BTU/12S |         |         |
| 7 Q/AN3-2    | BTU/12S |         |         |
| 8 Q/AN3-3    | BTU/12S |         |         |
| 9 Q/AN4      | BTU/12S |         |         |

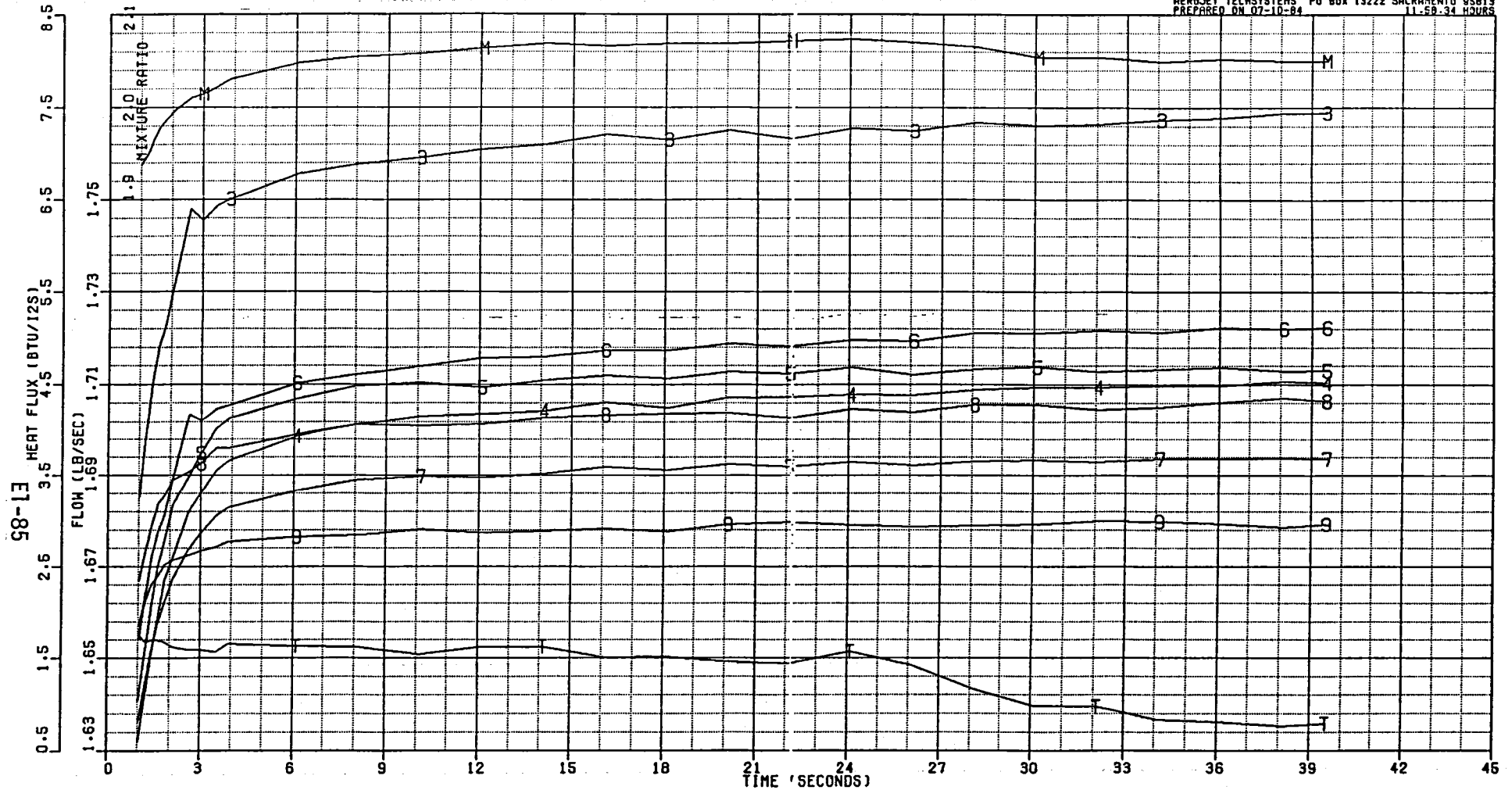
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-215

TEST DATE 05-03-84 1528 HOURS AVERAGED DATA



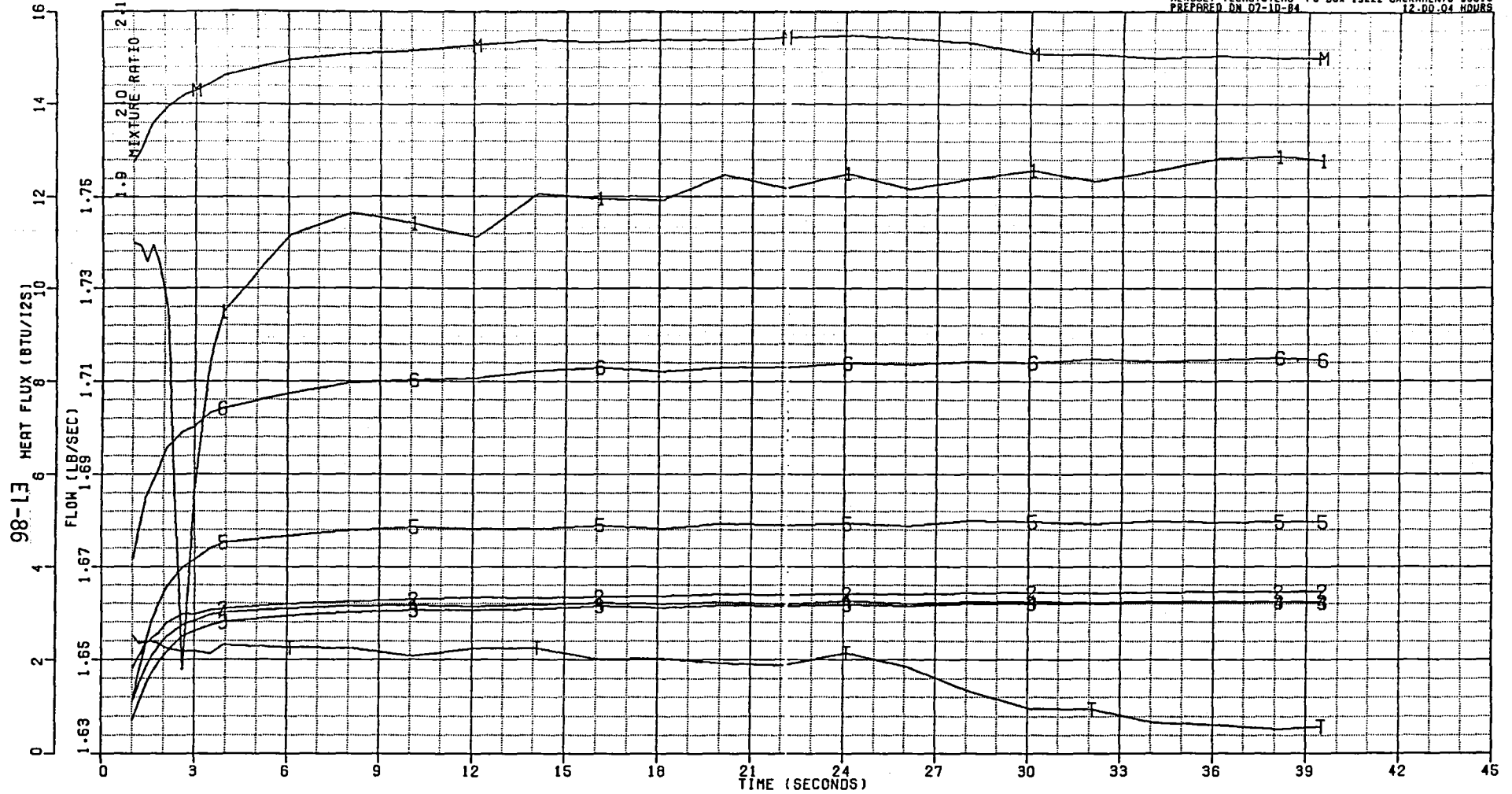
- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/12S | 9 Q/AN12-3 | BTU/12S |
| 2 Q/AN7    | BTU/12S | T WTOT     | LBS/SEC |
| 3 Q/AN8    | BTU/12S | M MR       |         |
| 4 Q/AN9    | BTU/12S |            |         |
| 5 Q/AN10   | BTU/12S |            |         |
| 6 Q/AN11   | BTU/12S |            |         |
| 7 Q/AN12-1 | BTU/12S |            |         |
| 8 Q/AN12-2 | BTU/12S |            |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-215  
 TEST DATE 05-03-84 1528 HOURS AVERAGED DATA



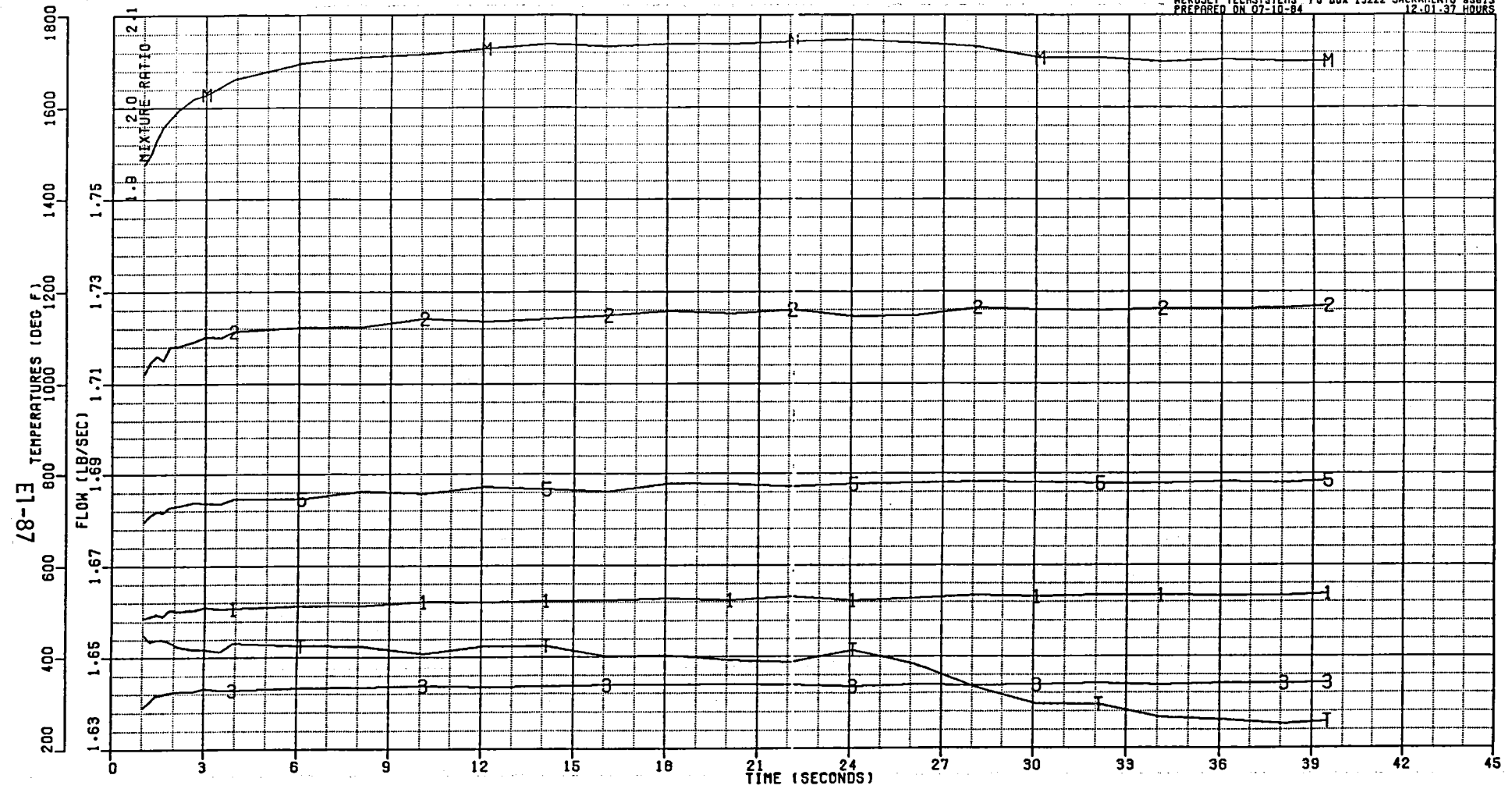
3 Q/A8B1-1 BTU/12S M HR  
 4 Q/A8B2 BTU/12S  
 6 Q/A8B1-2 BTU/12S  
 6 Q/A8B4-1 BTU/12S  
 7 Q/A8B4-2.3 BTU/12S  
 8 Q/ANI-1 BTU/12S  
 9 Q/ANI-2 BTU/12S  
 T WTDOT LBS/SEC

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-215  
 TEST DATE 05-03-84 1528 HOURS AVERAGED DATA



1 Q/ATRNC BTU/12S  
 2 Q/A12B6-1 BTU/12S  
 3 Q/A12B6-2.5 BTU/12S  
 4 Q/A12B3.4 BTU/12S  
 5 Q/A12B1-2.2 BTU/12S  
 6 Q/A12B1-1 BTU/12S  
 T WTOT LBS/SEC  
 M MR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-215  
 TEST DATE 05-03-84 1528 HOURS AVERAGED DATA

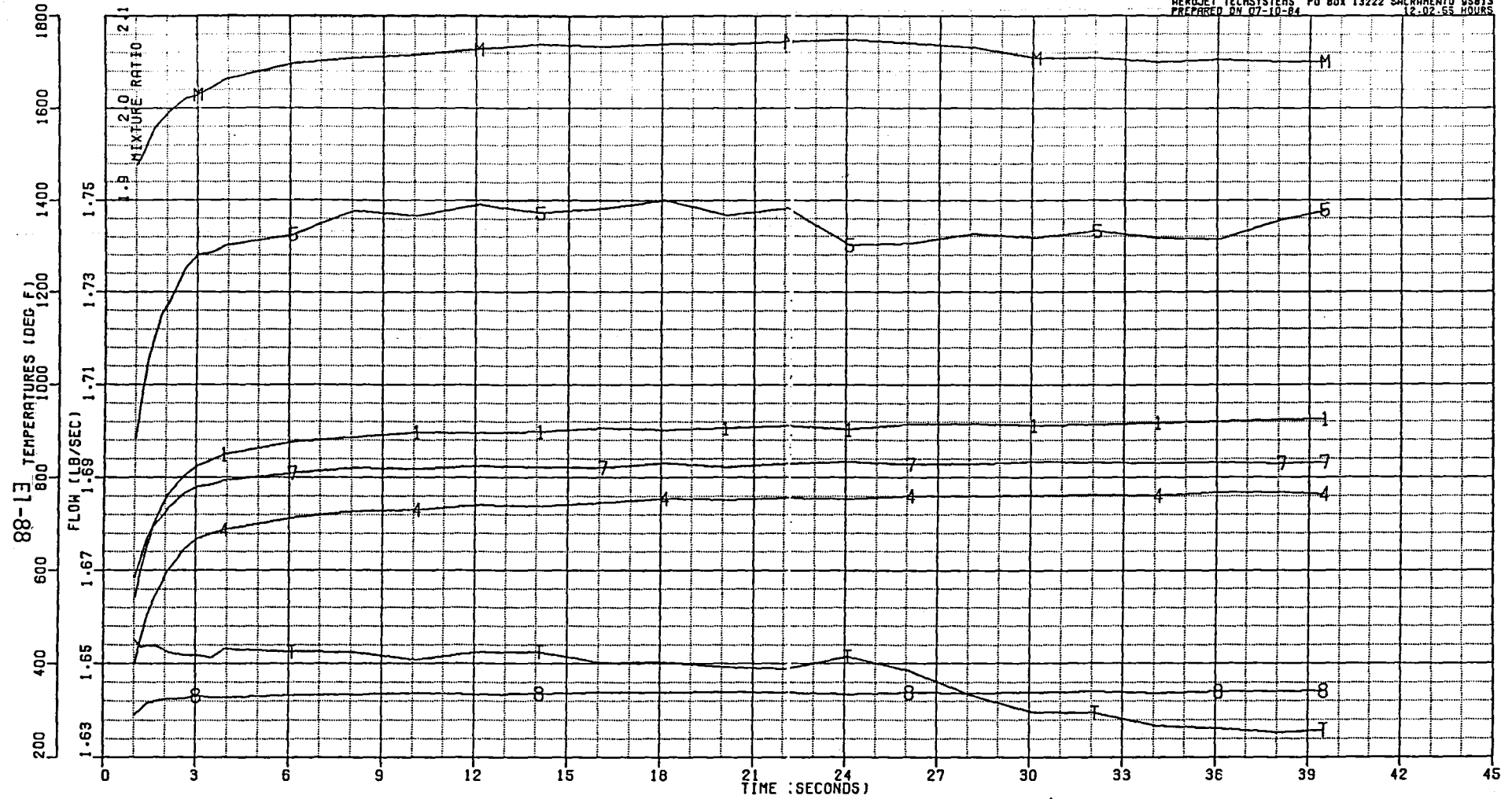


1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-215

TEST DATE 05-03-84 1528 HOURS AVERAGED DATA

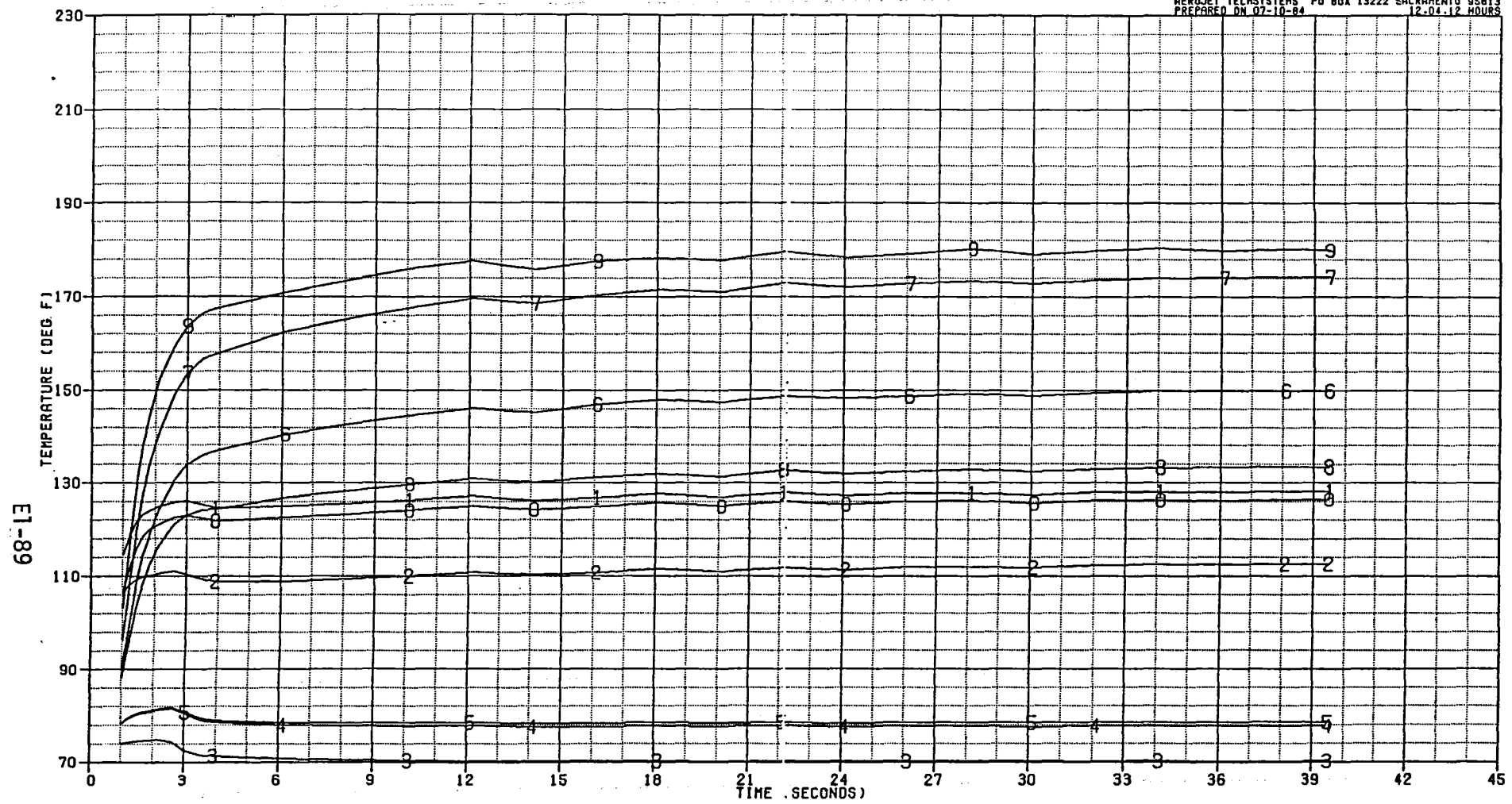




1 TC-7      DEG F  
 4 TC-10     DEG F  
 6 TC-12     DEG F  
 7 TC-13     DEG F  
 8 TC-3      DEG F  
 T WTOT      LBS/SEC  
 H MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-215

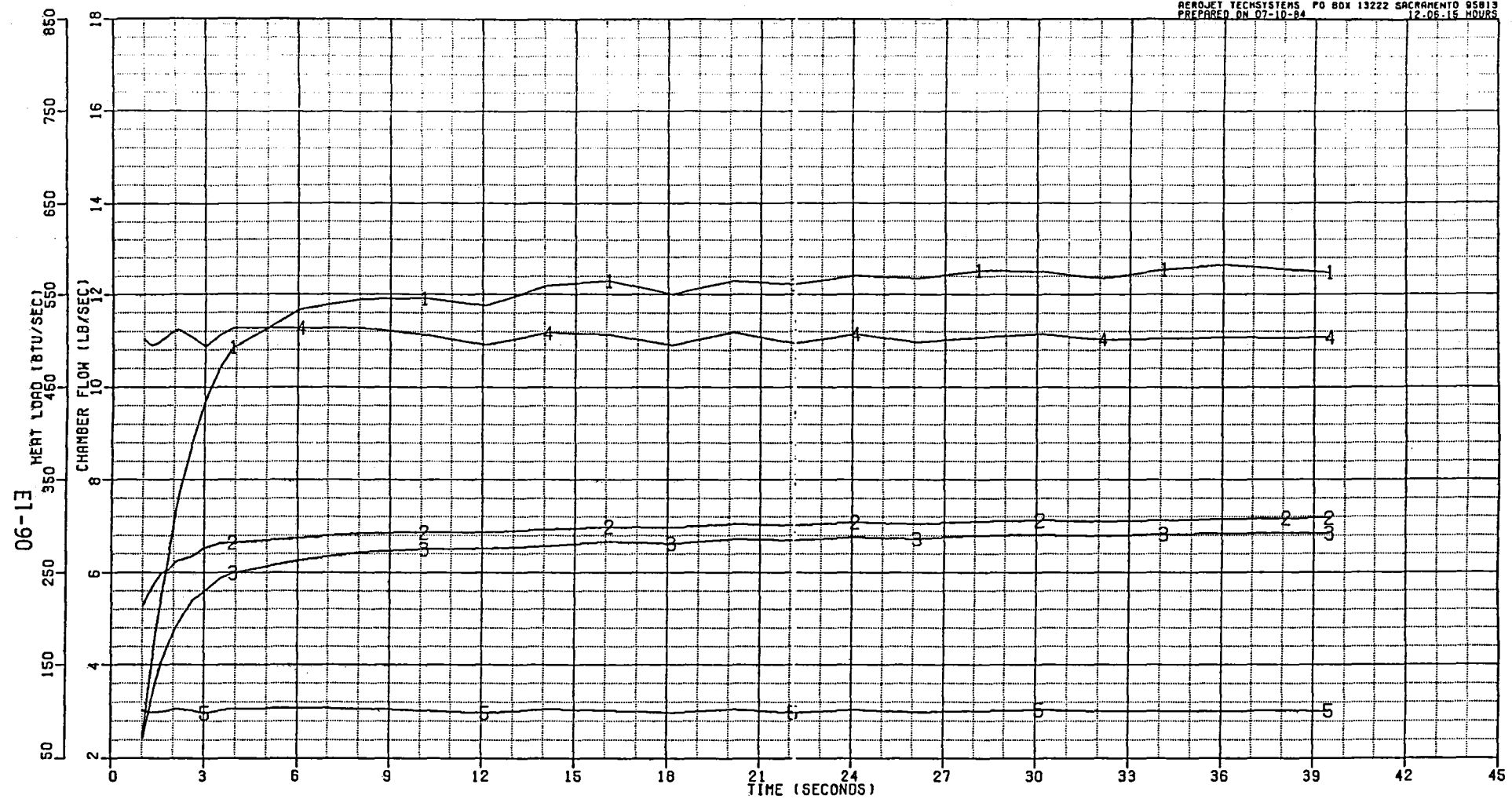
TEST DATE 05-03-84 1528 HOURS      AVERAGED DATA



E1-89

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-215  
 TEST DATE 05-03-84 1528 HOURS AVERAGED DATA

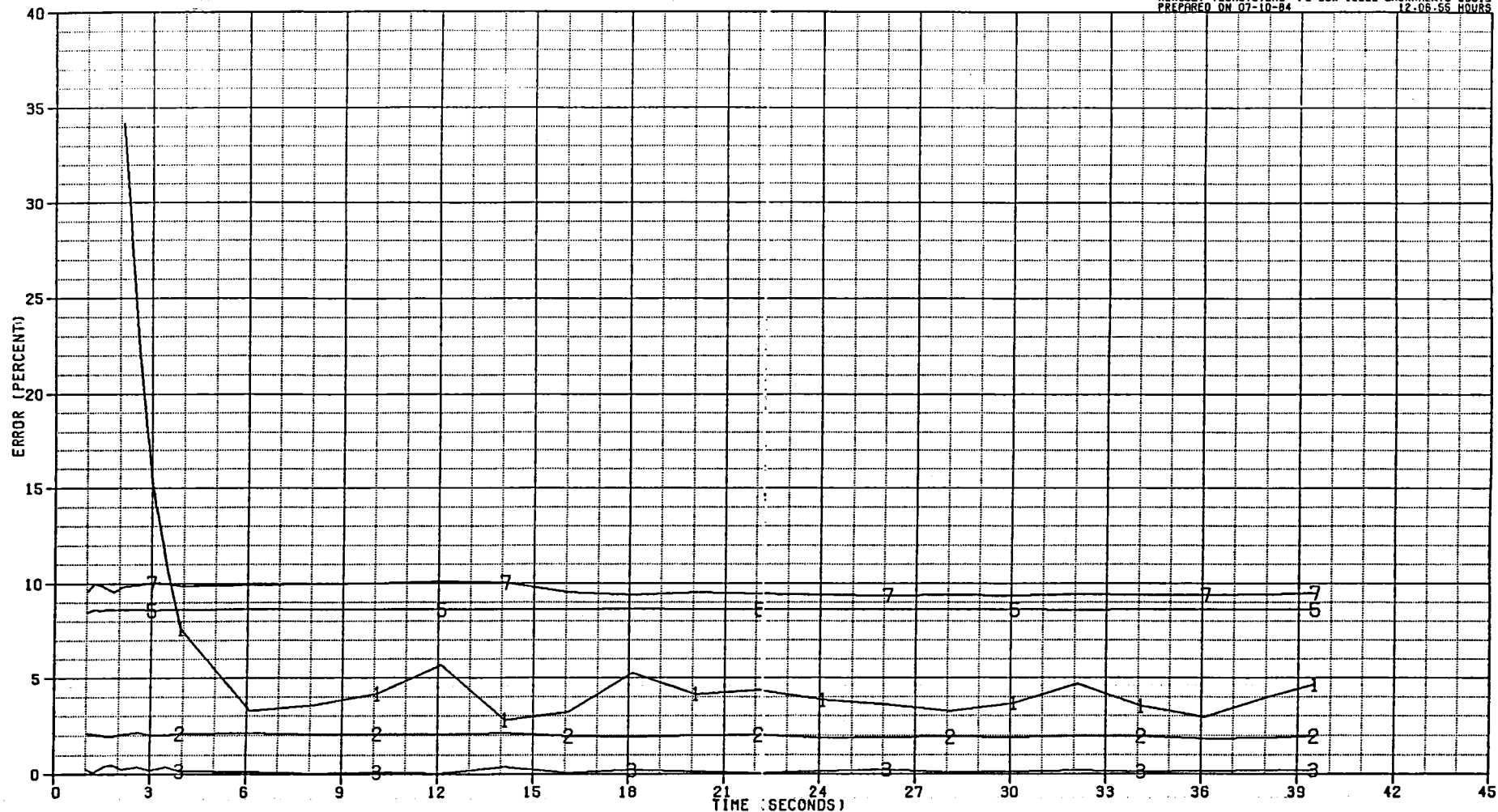


06-11  
 1 QN BTU/SEC  
 2 QNT BTU/SEC  
 3 Q8BT BTU/SEC  
 4 W1 LBS/SEC  
 5 W2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-215

TEST DATE 05-03-84 1528 HOURS AVERAGED DATA

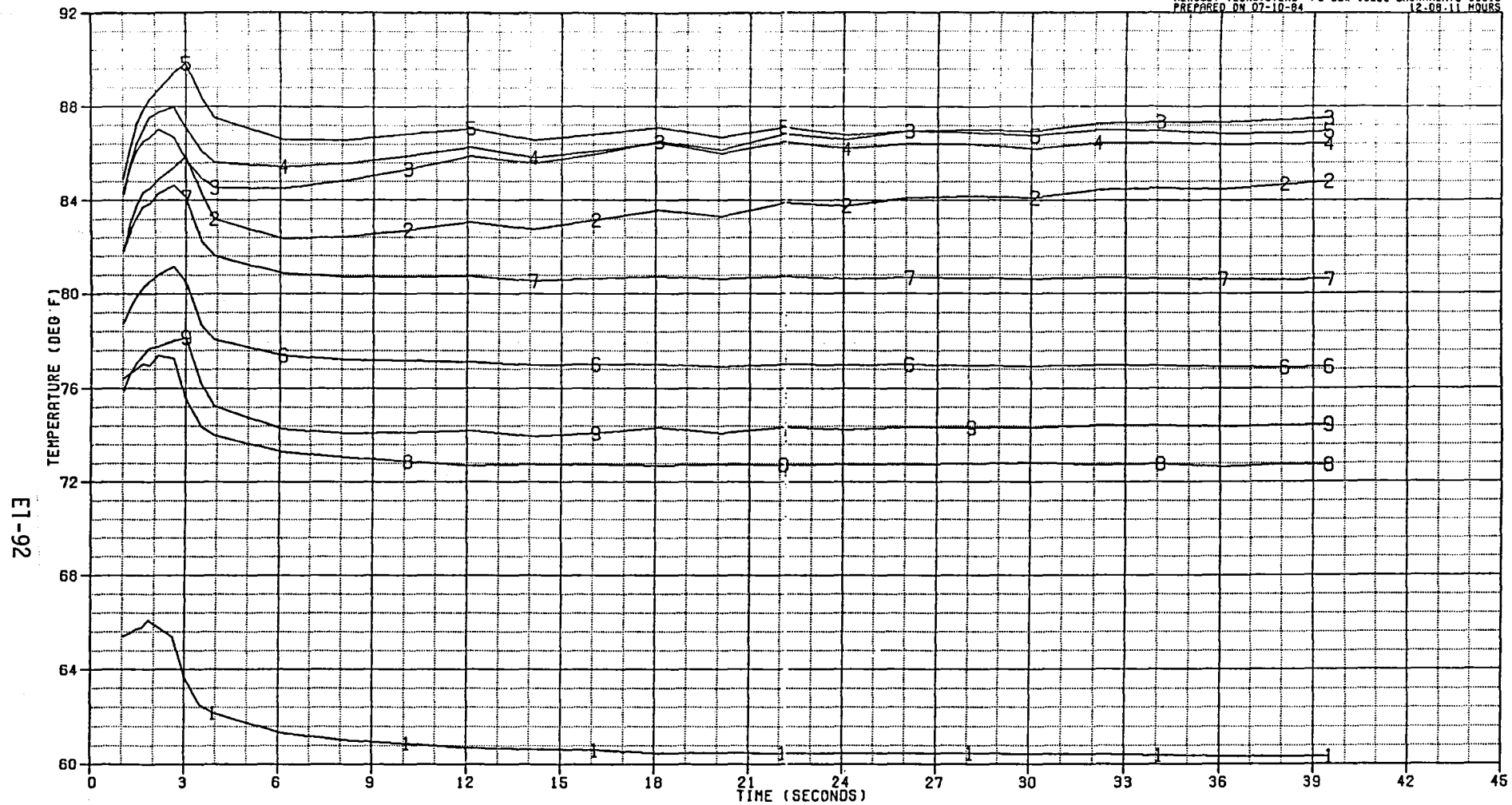
E1-91



1 QERM PERCENT  
 2 WERNT PERCENT  
 3 WERBBT PERCENT  
 4 WER12B1 PERCENT  
 5 WER12B3 PERCENT  
 6 WER12B5 PERCENT  
 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-215

TEST DATE 05-03-84 1528 HOURS AVERAGED DATA

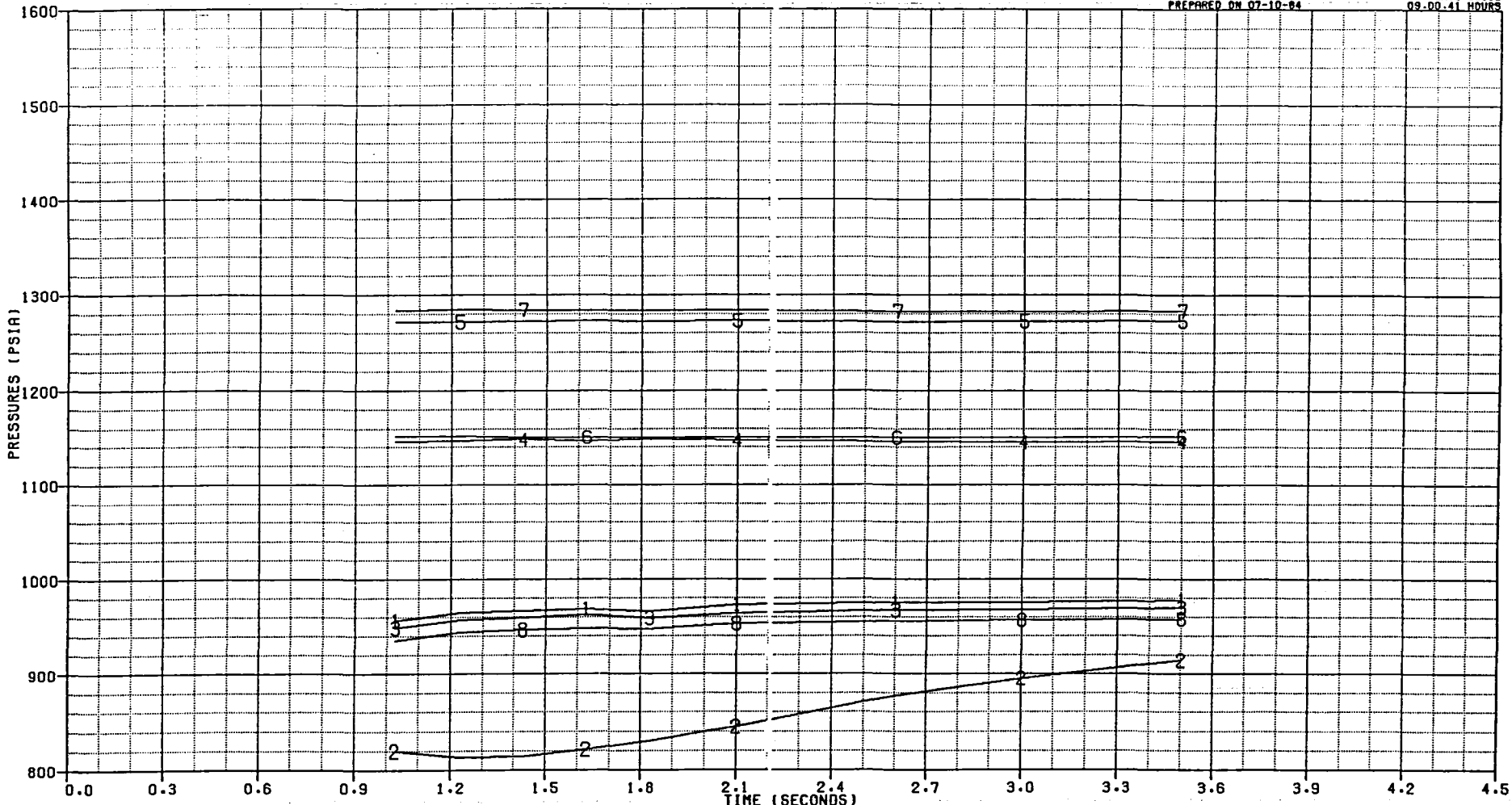


E1-92

- 1 TWC-1      DEG F      9 TWC-20      DEG F
- 2 TWC-13    DEG F
- 3 TWC-14    DEG F
- 4 TWC-15    DEG F
- 5 TWC-16    DEG F
- 6 TWC-17    DEG F
- 7 TWC-18    DEG F
- 8 TWC-19    DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-215  
 TEST DATE 05-03-84 1528 HOURS      AVERAGED DATA

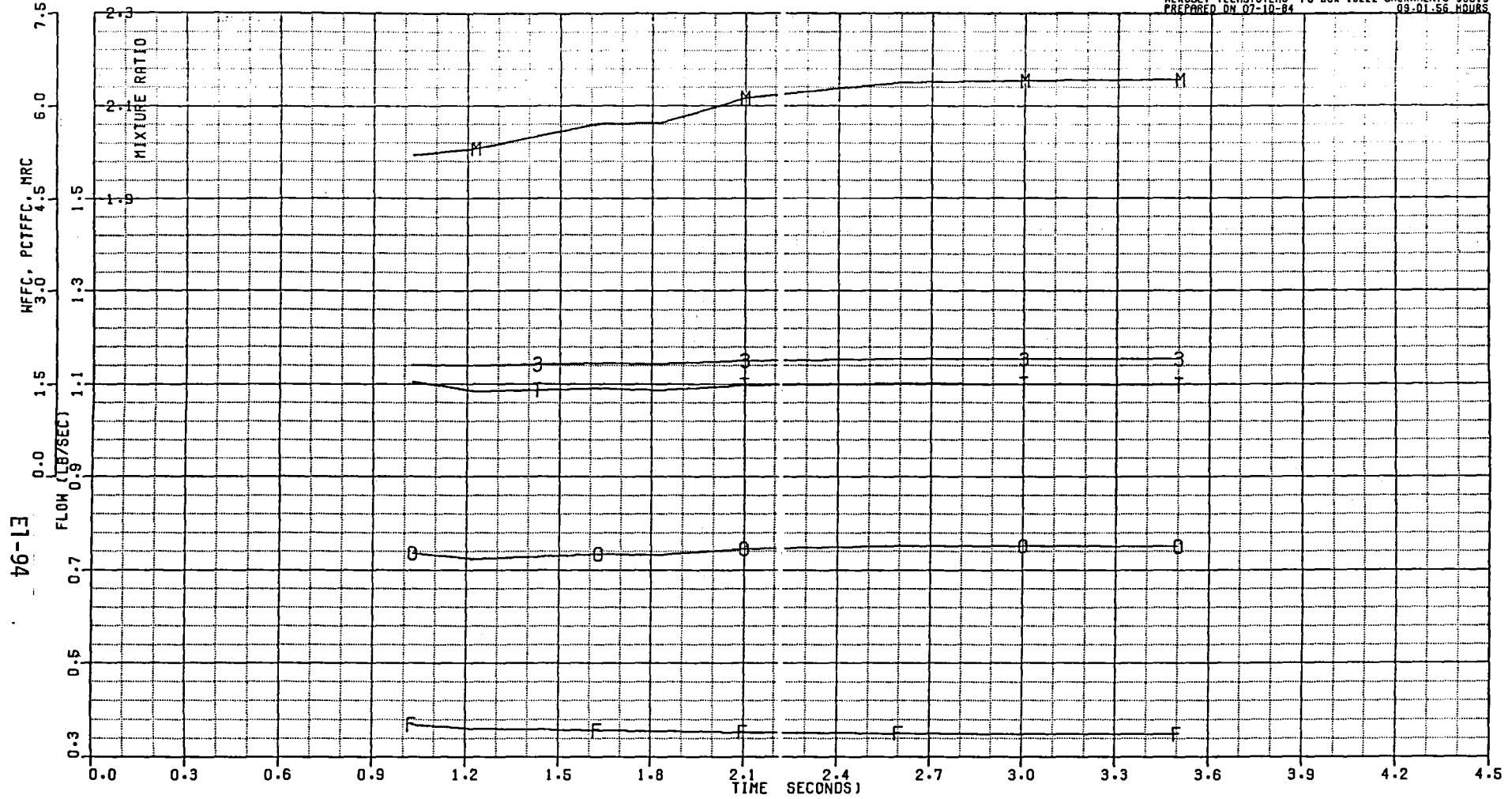
E1-93



- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-221

TEST DATE 06-08-84 1103 HOURS AVERAGED DATA

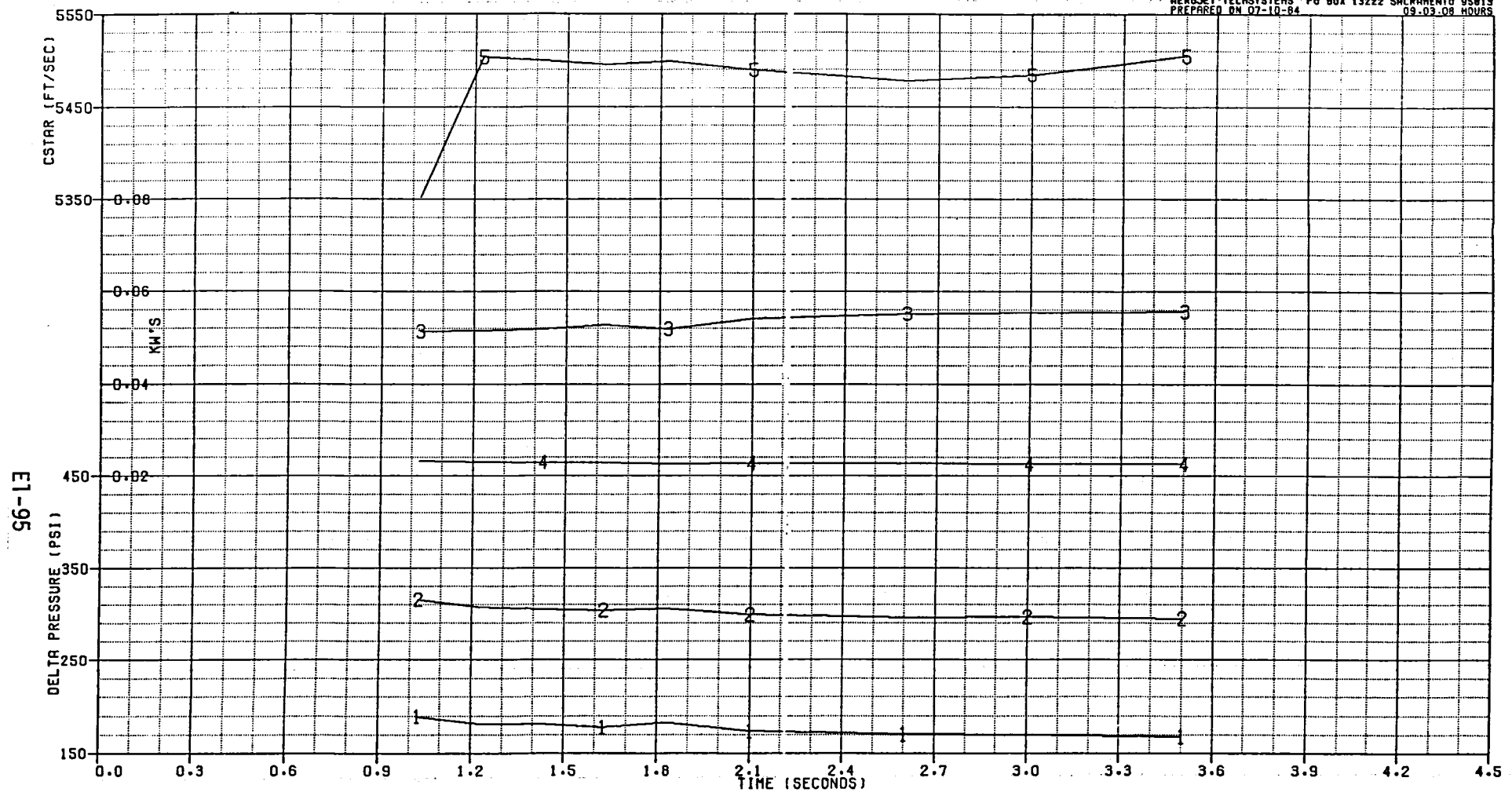


E1-94

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 WFCC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-221

- TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



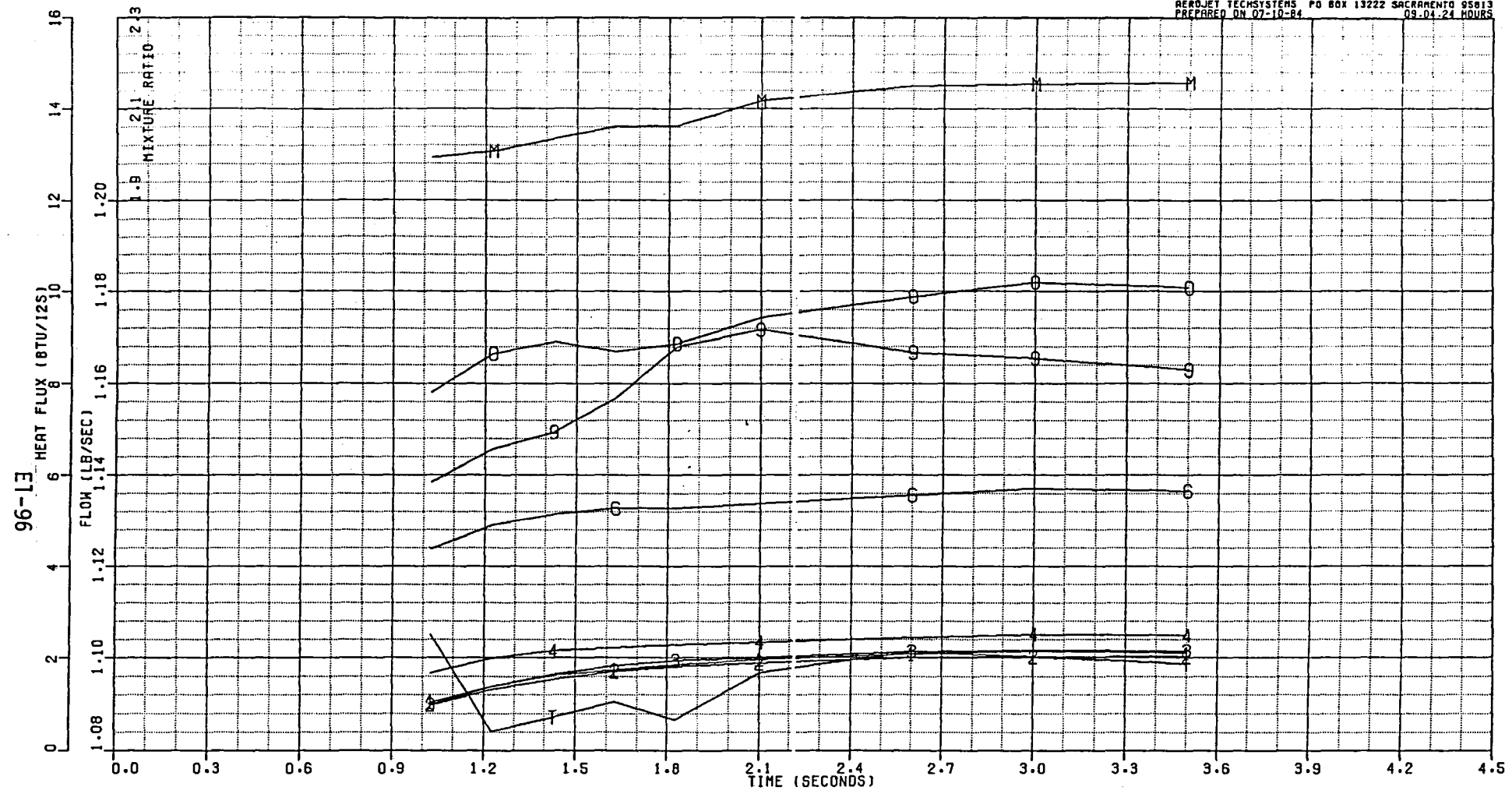
E1-95

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-221

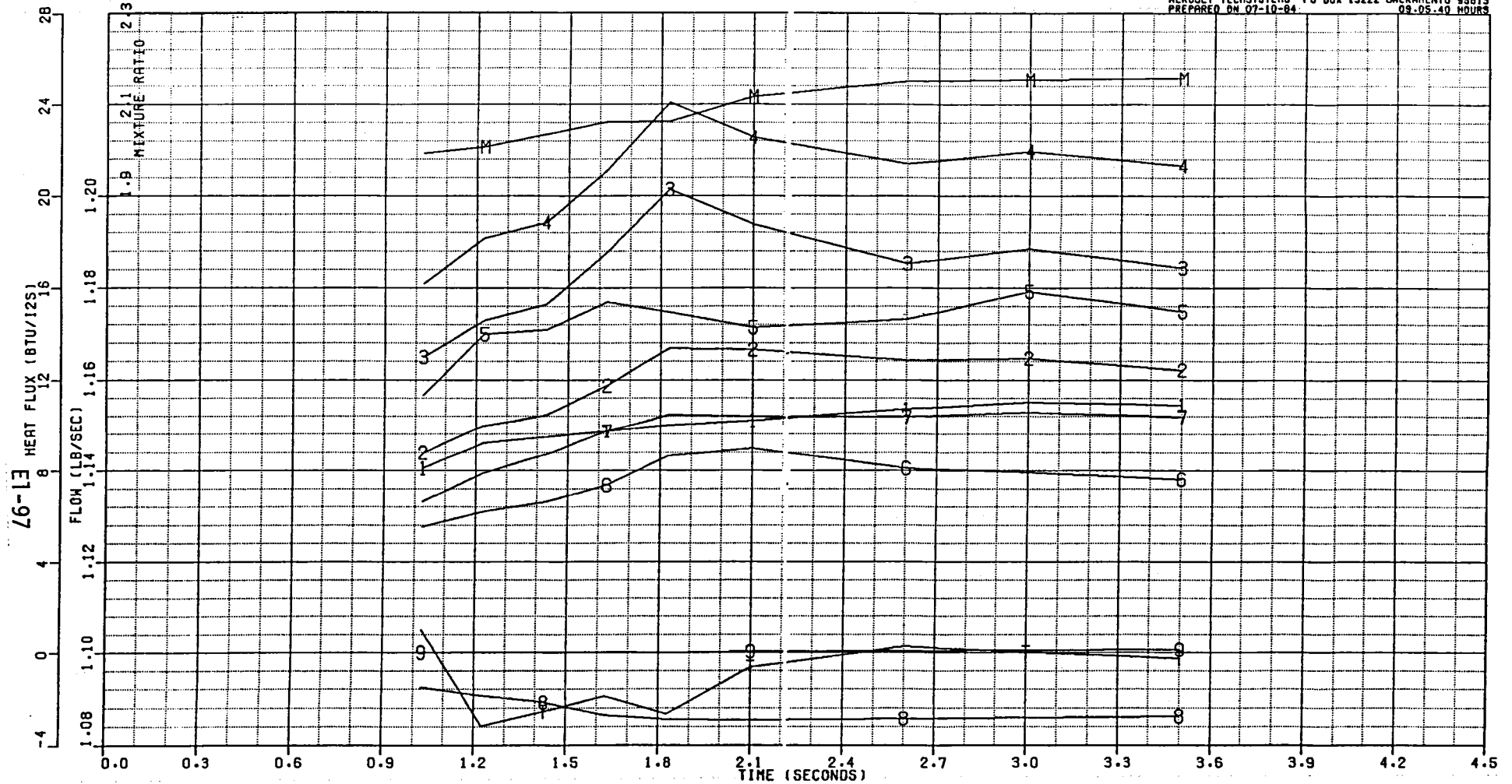
TEST DATE 06-08-84 1103 HOURS    AVERAGED DATA





- 1 Q/AN1-2 BTU/12S M MR
- 2 Q/AN1-3 BTU/12S
- 3 Q/AN2-1 BTU/12S
- 4 Q/AN2-2.-3 BTU/12S
- 6 Q/AN3 BTU/12S
- 9 Q/AN4 BTU/12S
- 0 Q/AN5 BTU/12S
- T WTOT LBS/SEC

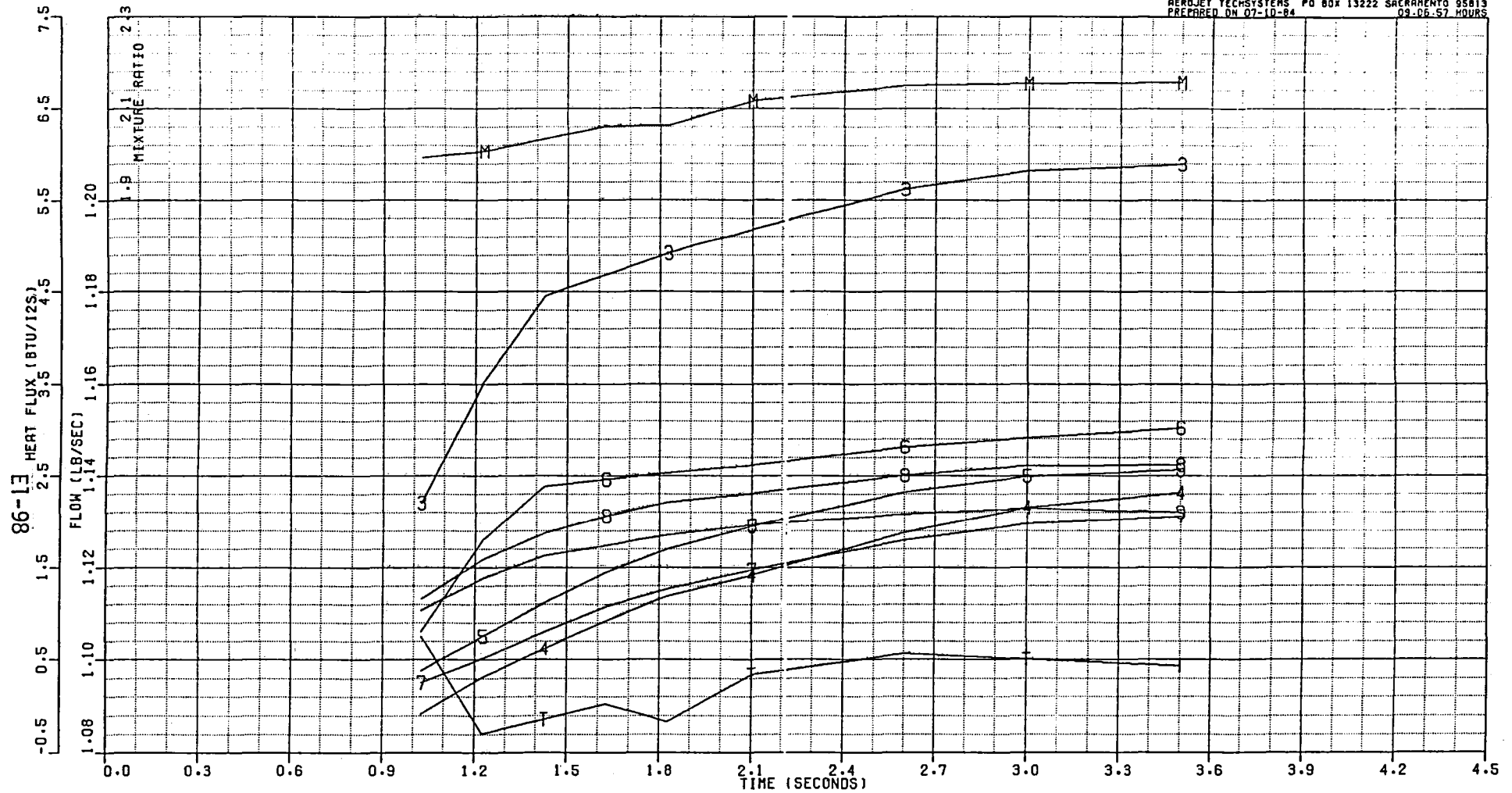
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-221  
 TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



1 Q/AN6	BTU/12S	9 Q/AN12-3	BTU/12S
2 Q/AN7	BTU/12S	T WTOT	LBS/SEC
3 Q/AN8	BTU/12S	M MR	
4 Q/AN9	BTU/12S		
5 Q/AN10	BTU/12S		
6 Q/AN11	BTU/12S		
7 Q/AN12-1	BTU/12S		
8 Q/AN12-2	BTU/12S		

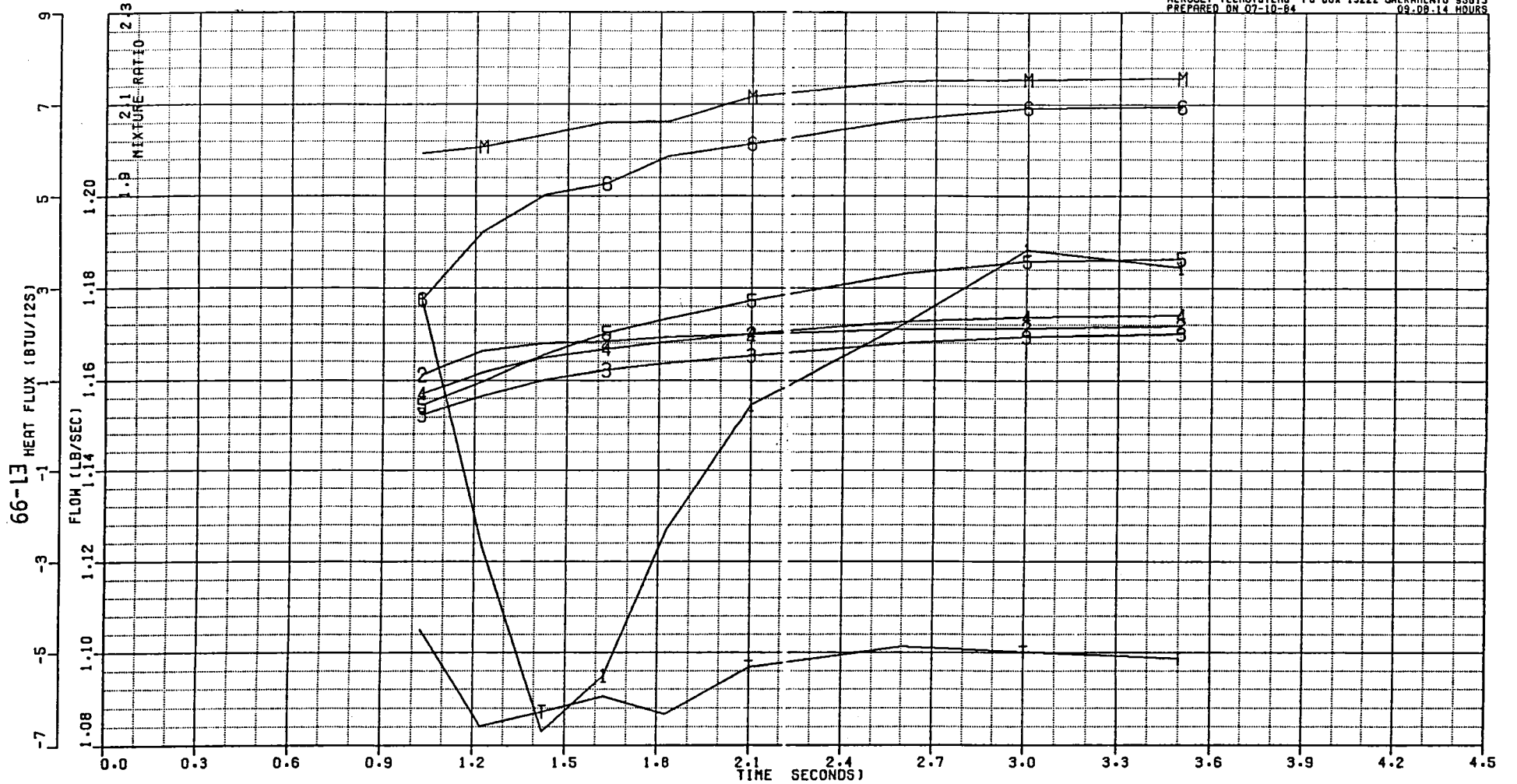
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-221

TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



3 Q/ABB1-1 BTU/12S M MR  
 4 Q/ABB2 BTU/12S  
 5 Q/ABB1-2 BTU/12S  
 6 Q/ABB4-1 BTU/12S  
 7 Q/ABB4-2.3 BTU/12S  
 8 Q/ANI-1 BTU/12S  
 9 Q/ANI-2 BTU/12S  
 T WTOT LBS/SEC

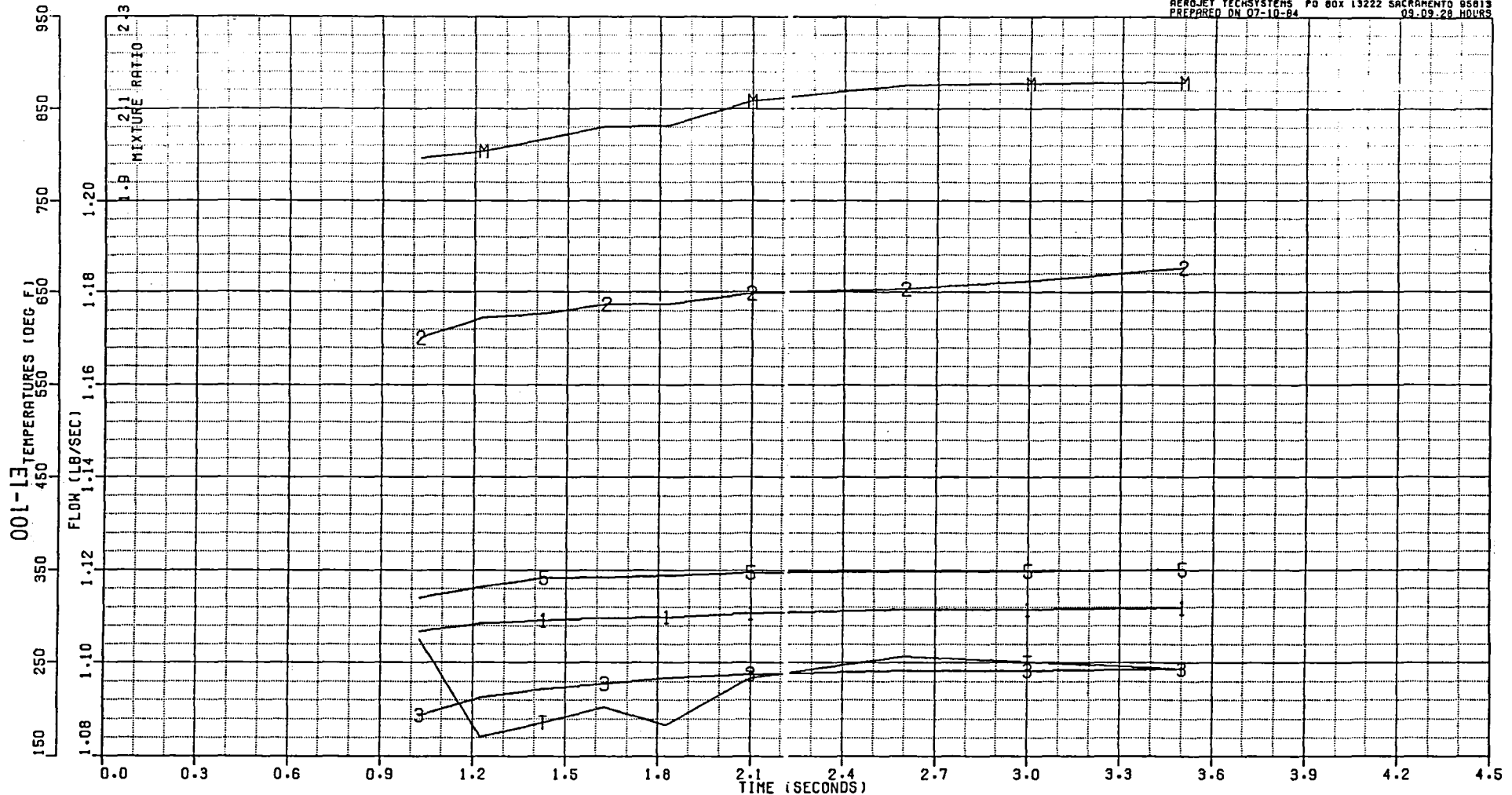
HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-221  
 TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



1 Q/ATRC BTU/12S  
 2 Q/A12B6-1 BTU/12S  
 3 Q/A12B6-2.5 BTU/12S  
 4 Q/A12B3.4 BTU/12S  
 5 Q/A12B1-2.2 BTU/12S  
 6 Q/A12B1-1 BTU/12S  
 T WTOT LBS/SEC  
 M MR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-221

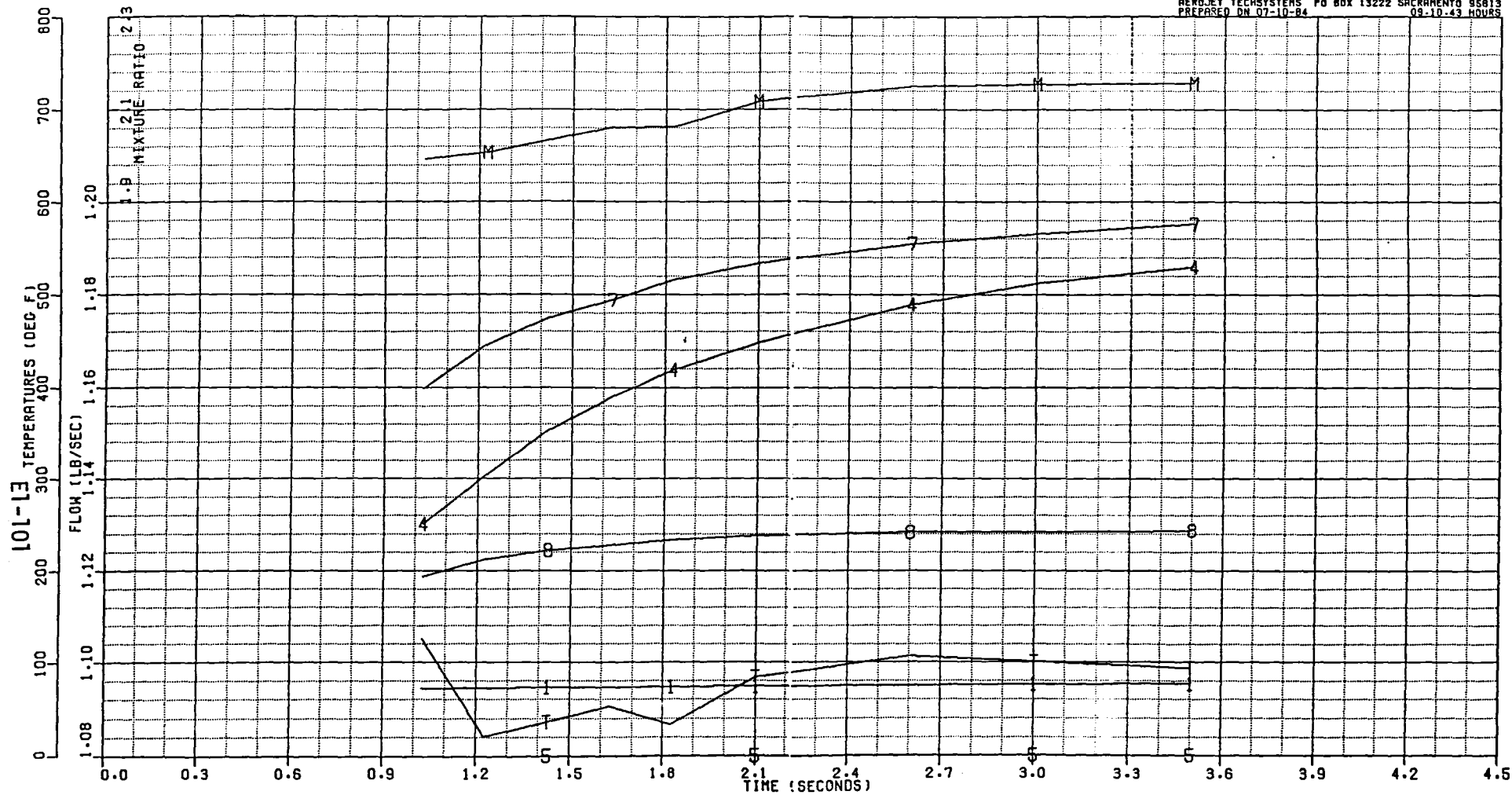
TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-221

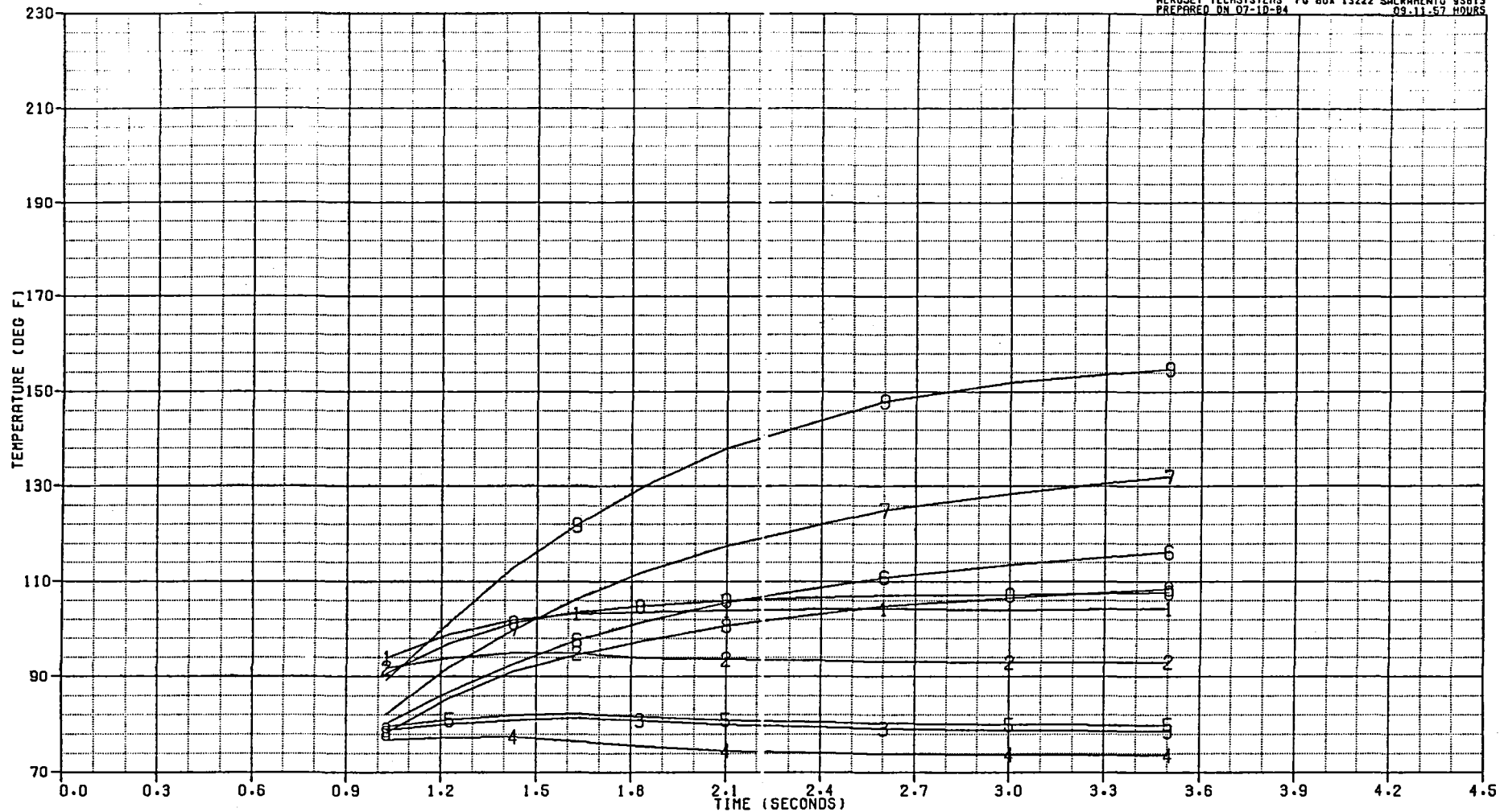
TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



1 TC-7 DEG F  
 4 TC-10 DEG F  
 5 TC-12 DEG F  
 7 TC-13 DEG F  
 8 TC-3 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-221  
 TEST DATE 06-08-84 1103 HOURS AVERAGED DATA

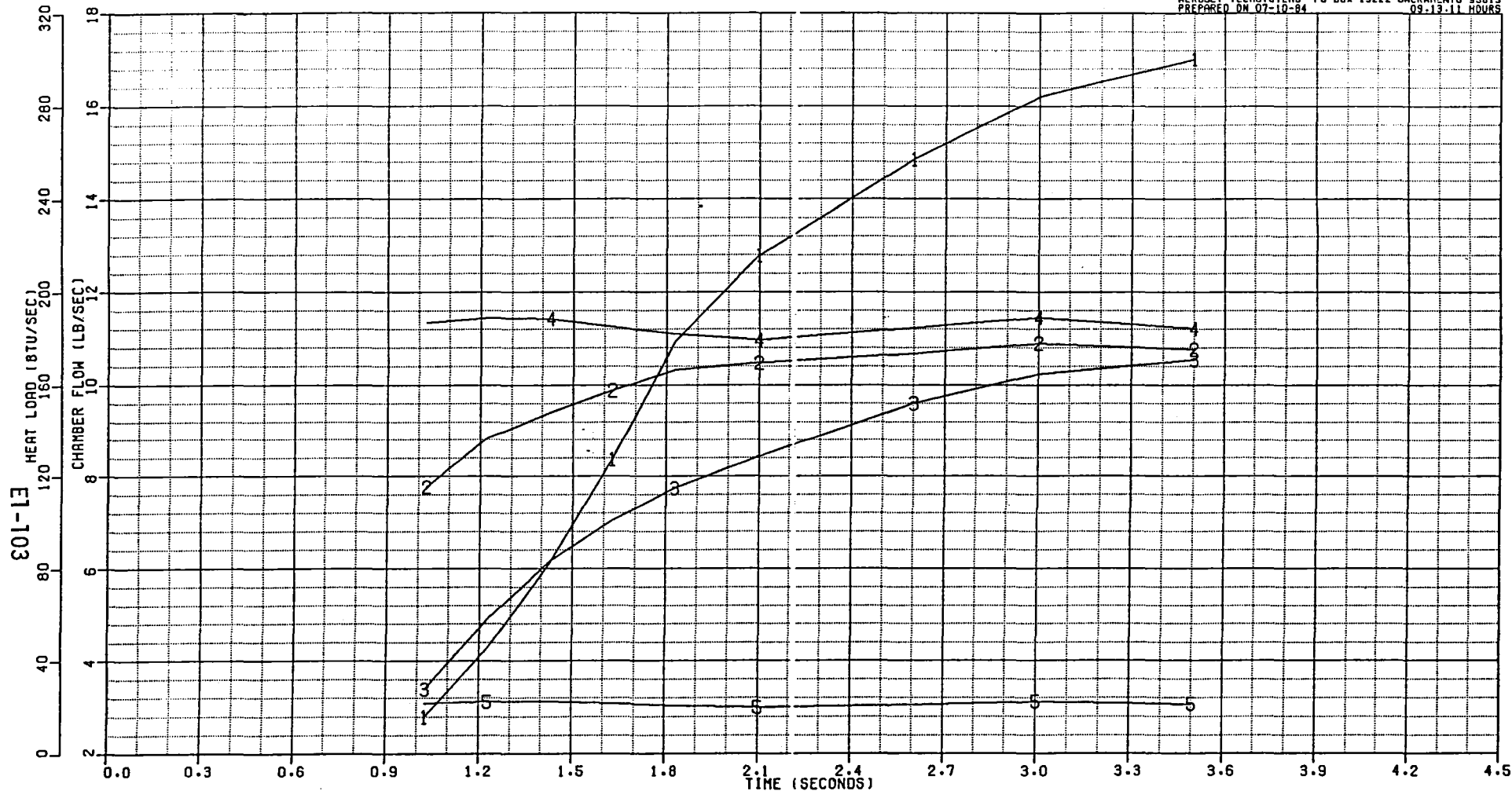
E1-102



- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-221

TEST DATE 06-08-84 1103 HOURS AVERAGED DATA

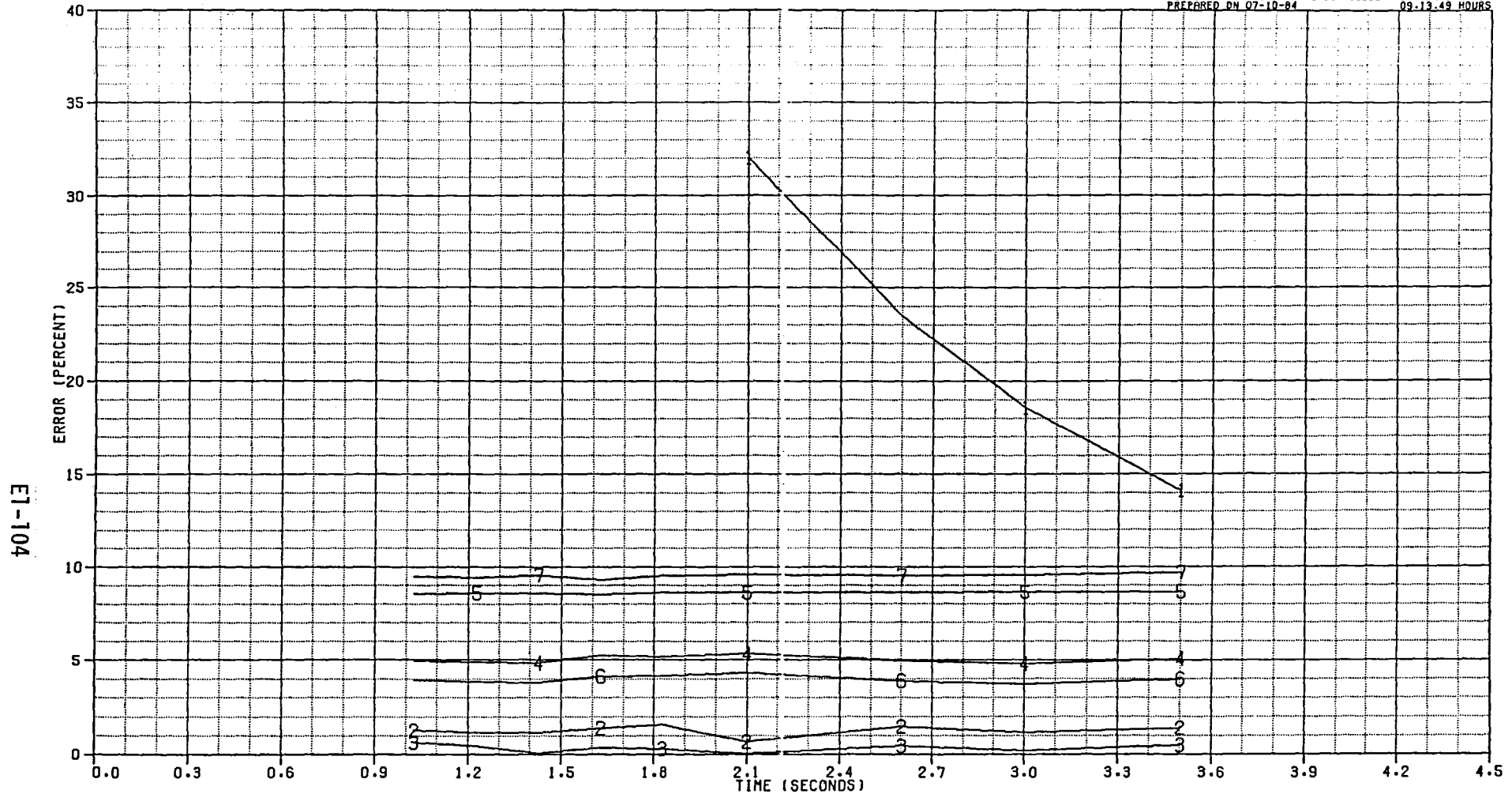


1 QM BTU/SEC  
 2 QNT BTU/SEC  
 3 QBBT BTU/SEC  
 4 NW1 LBS/SEC  
 5 NW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-221

TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



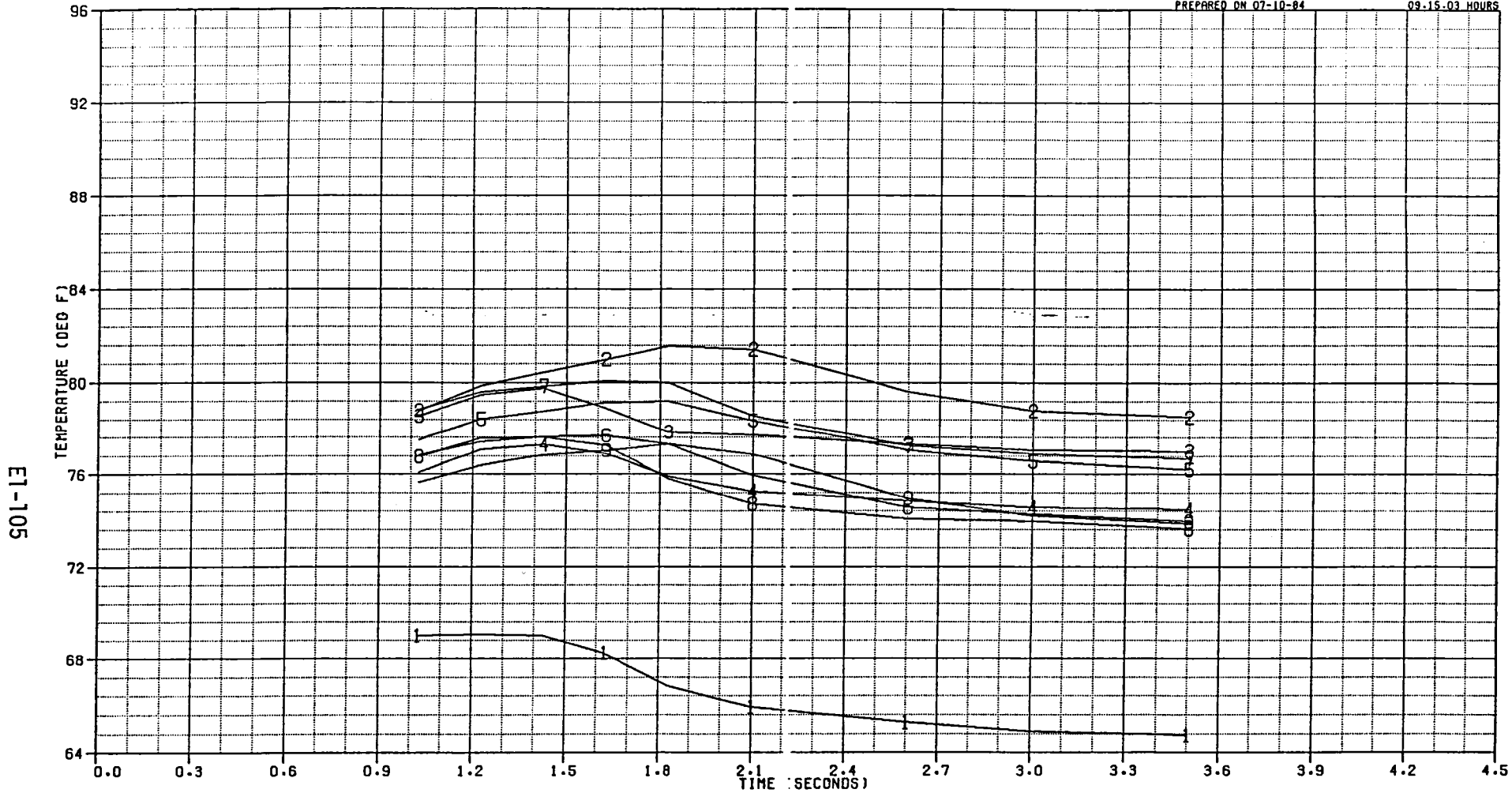


E1-104

- 1 QERM PERCENT
- 2 WERNT PERCENT
- 3 WER8BT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B9 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW '+ HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-221

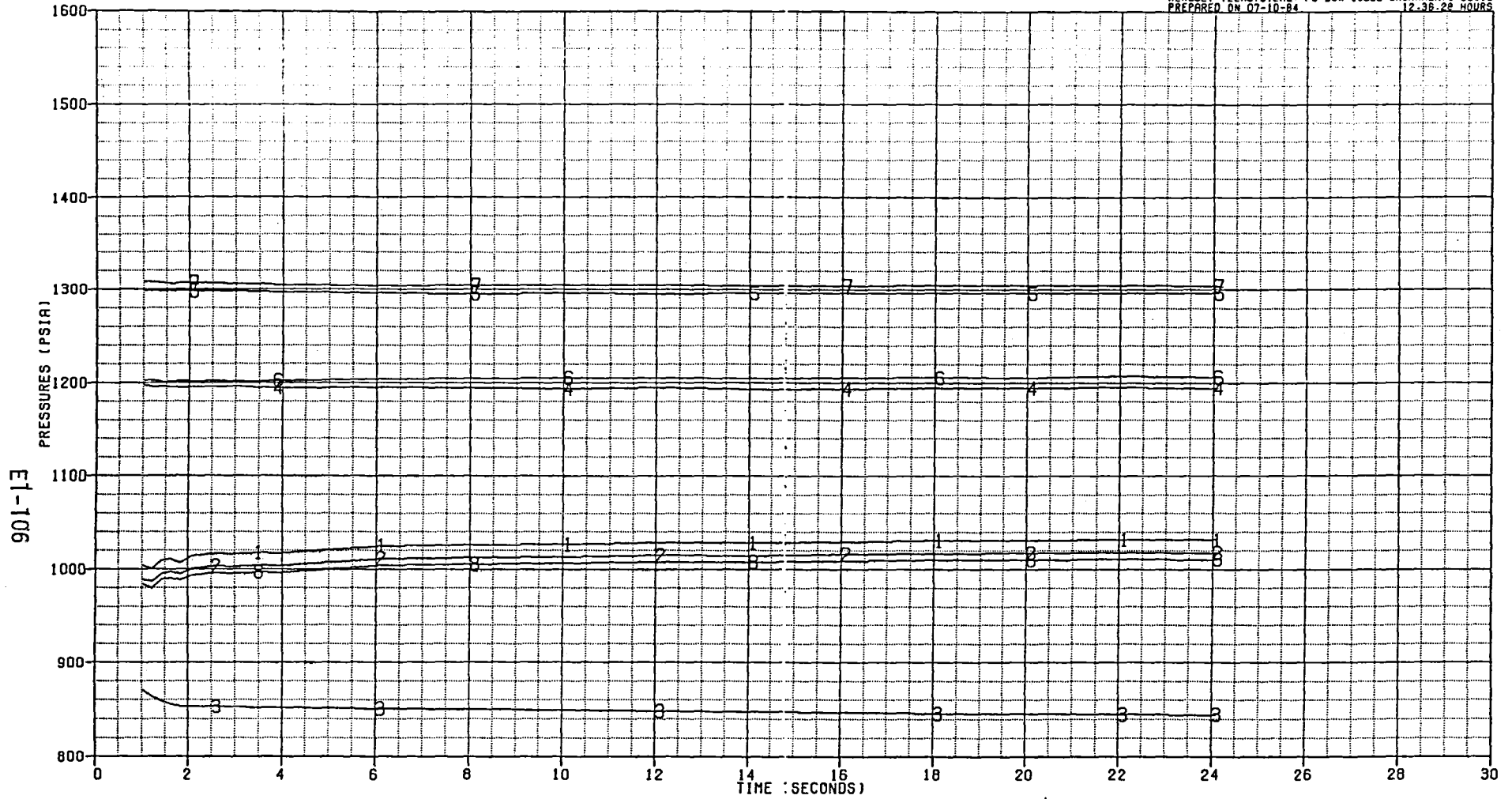
- TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



E1-105

- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

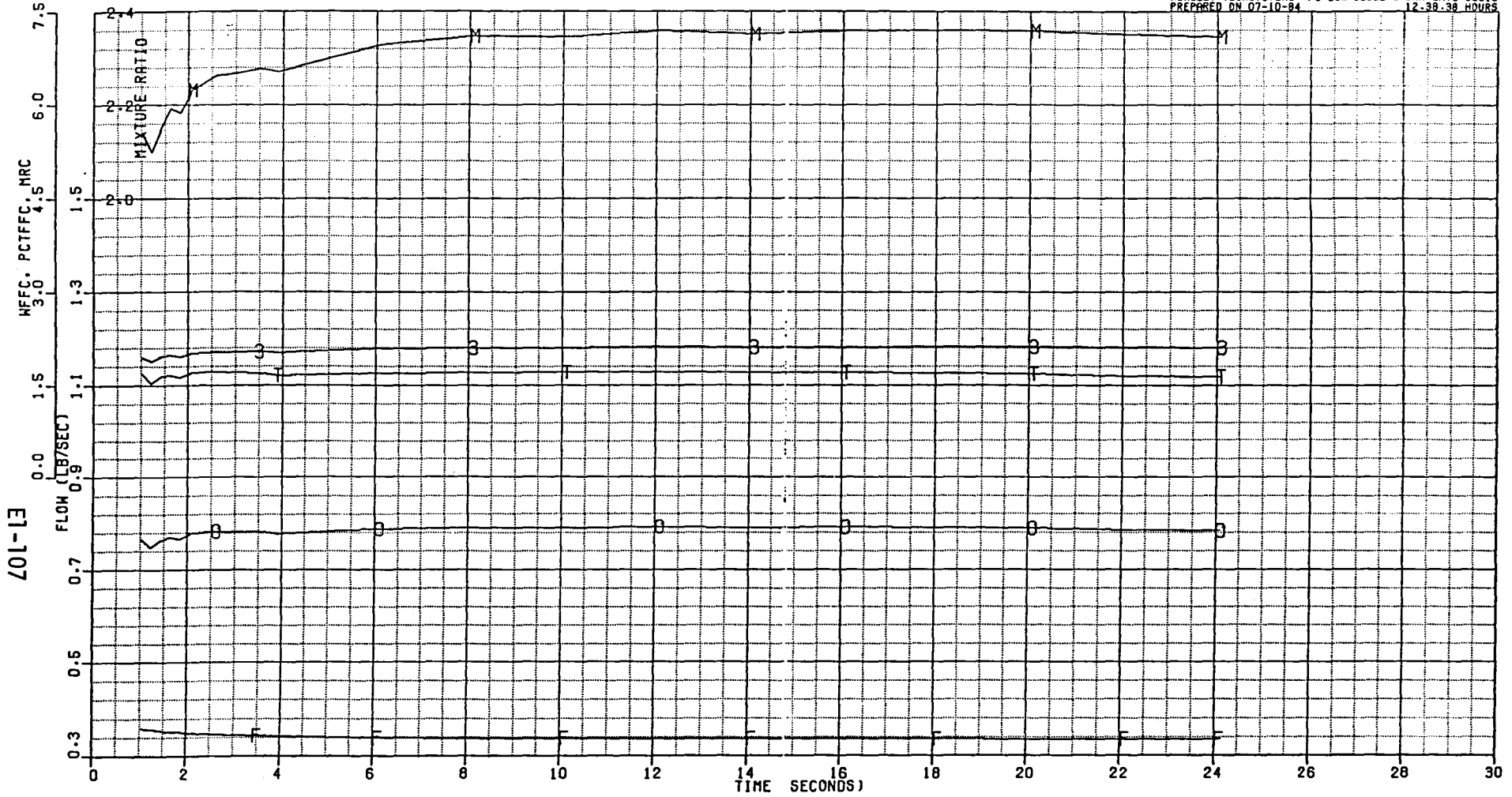
COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-221  
 TEST DATE 06-08-84 1103 HOURS AVERAGED DATA



- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
TEST NO. RLBL-936-222

TEST DATE 06-08-84 1111 HOURS AVERAGED DATA

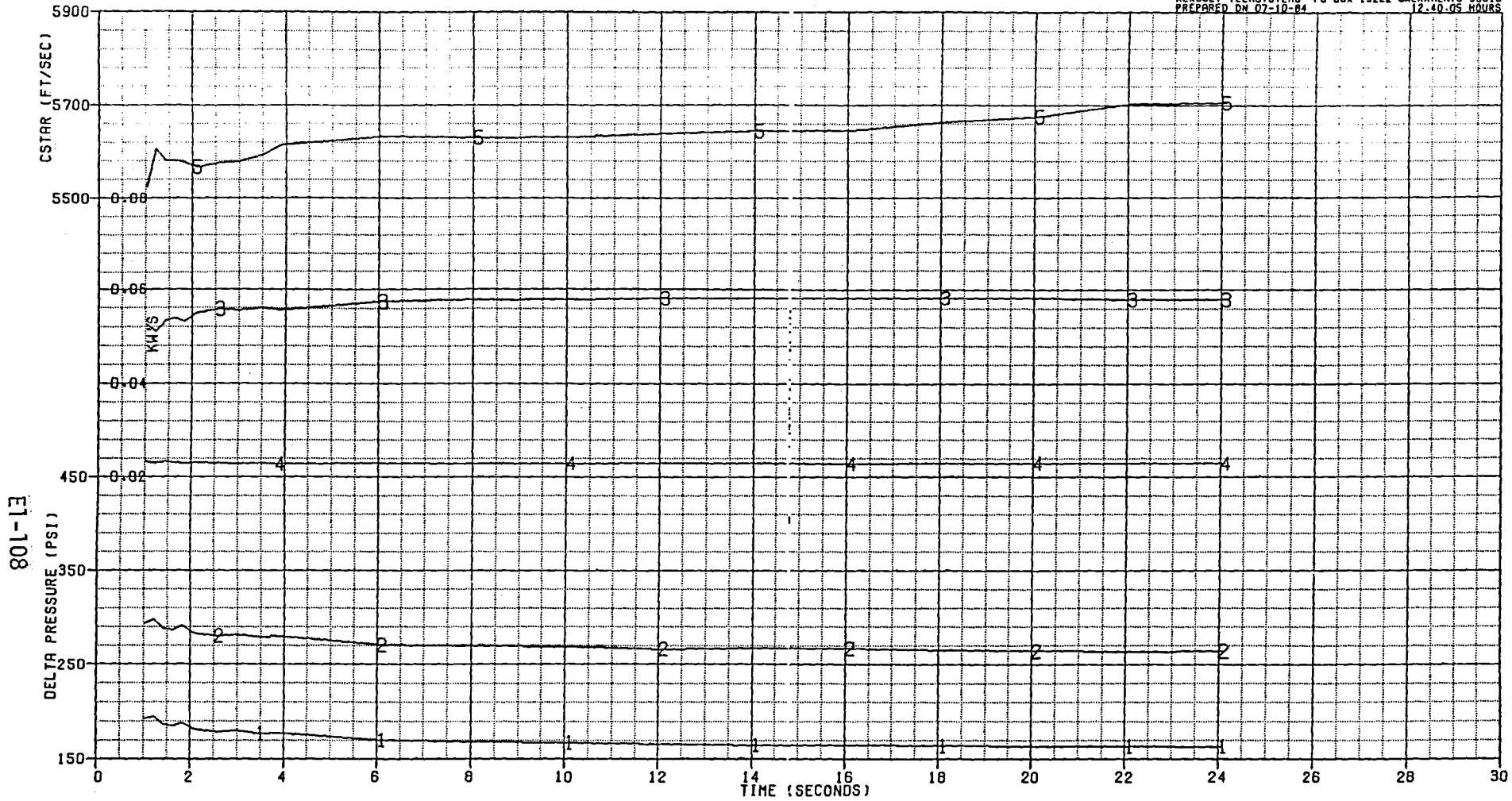


E1-107

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-222

TEST DATE 06-08-84 1111 HOURS AVERAGED DATA

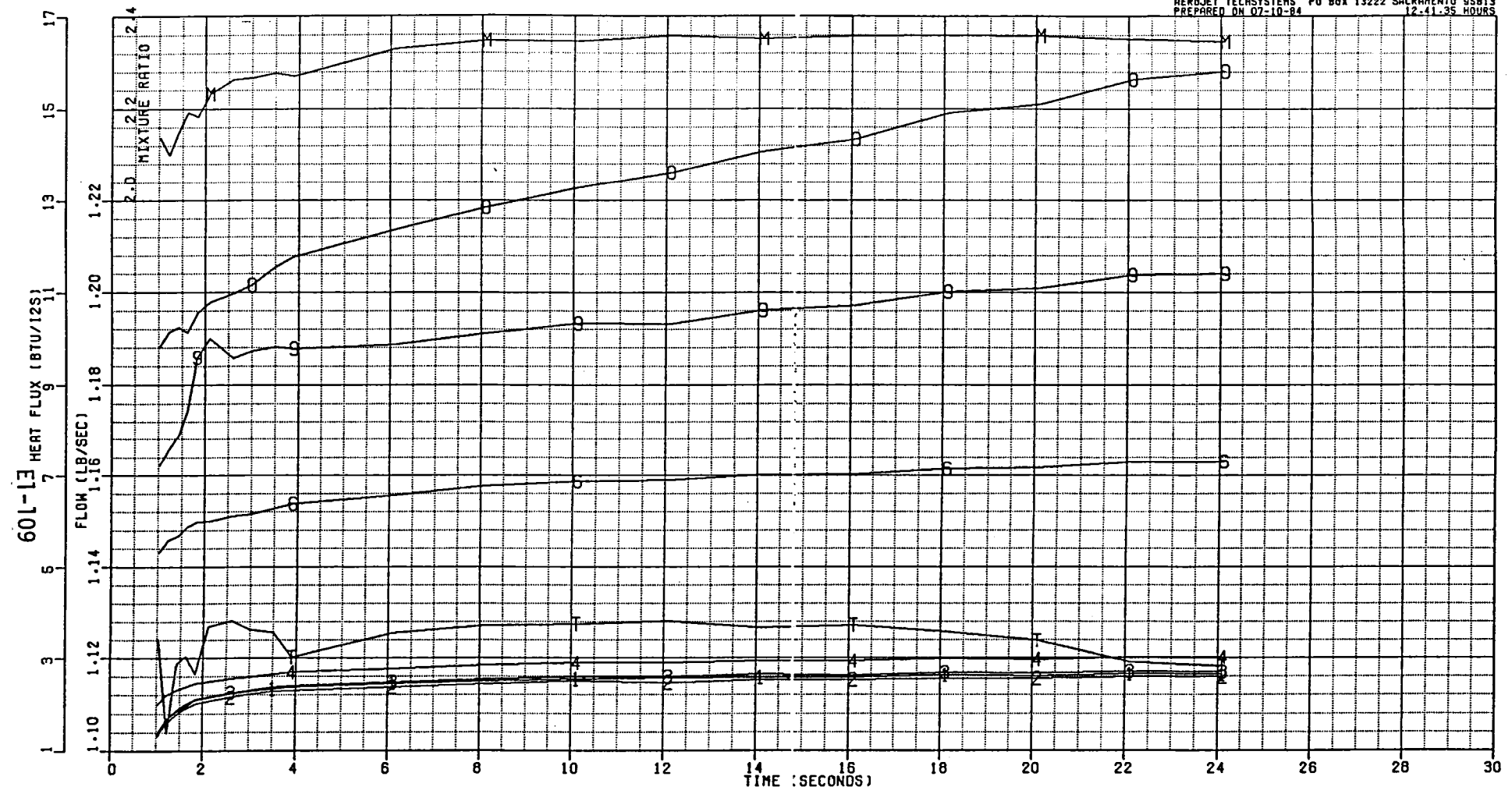


801-13

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRHC    FT/SEC

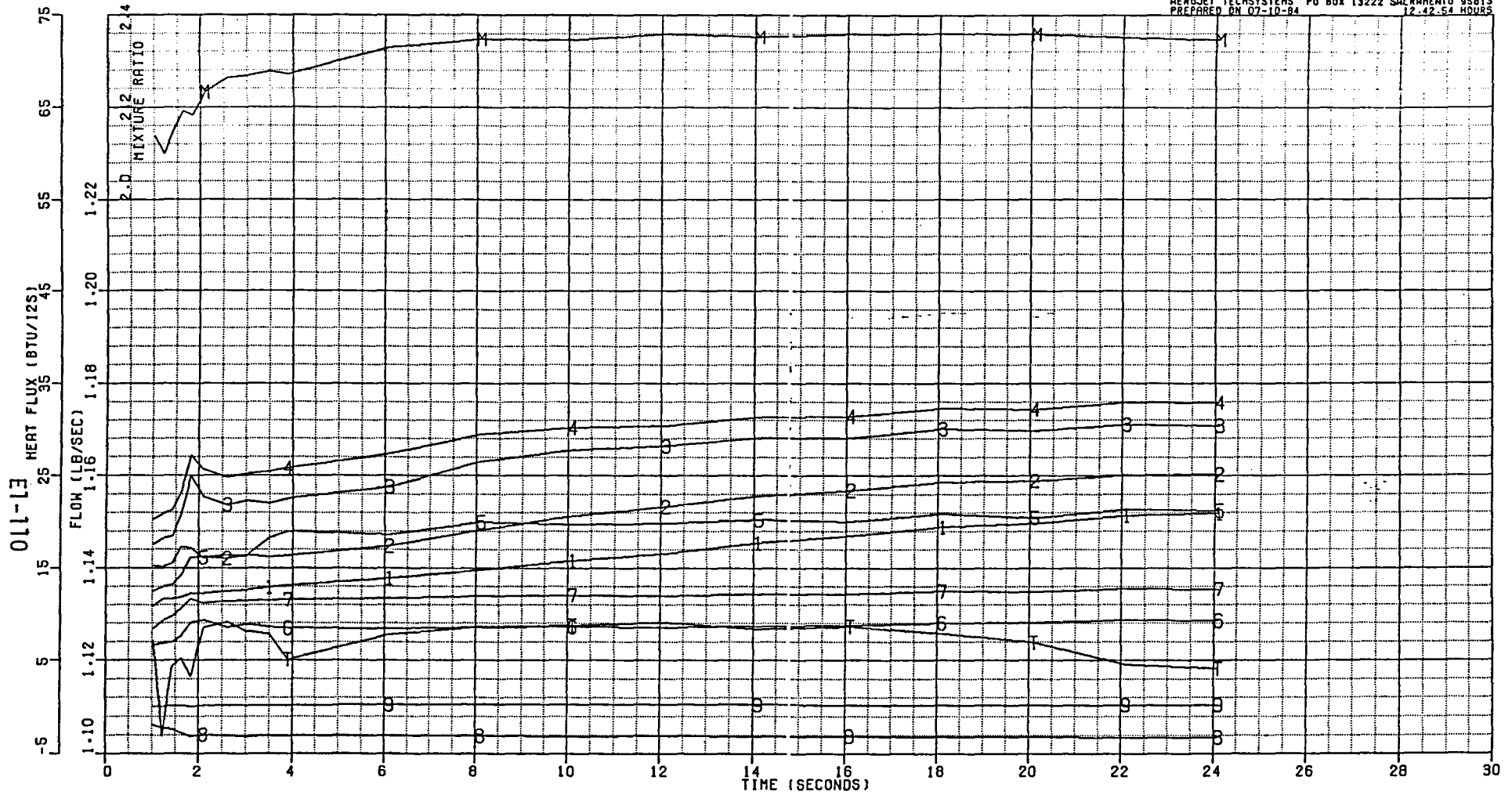
INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-222

TEST DATE 06-08-84 1111 HOURS    AVERAGED DATA



- 1 Q/AN1-2 BTU/12S M MR
- 2 Q/AN1-3 BTU/12S
- 3 Q/AN2-1 BTU/12S
- 4 Q/AN2-2,-3 BTU/12S
- 6 Q/AN3 BTU/12S
- 9 Q/AN4 BTU/12S
- 0 Q/AN5 BTU/12S
- T WTOT LBS/SEC

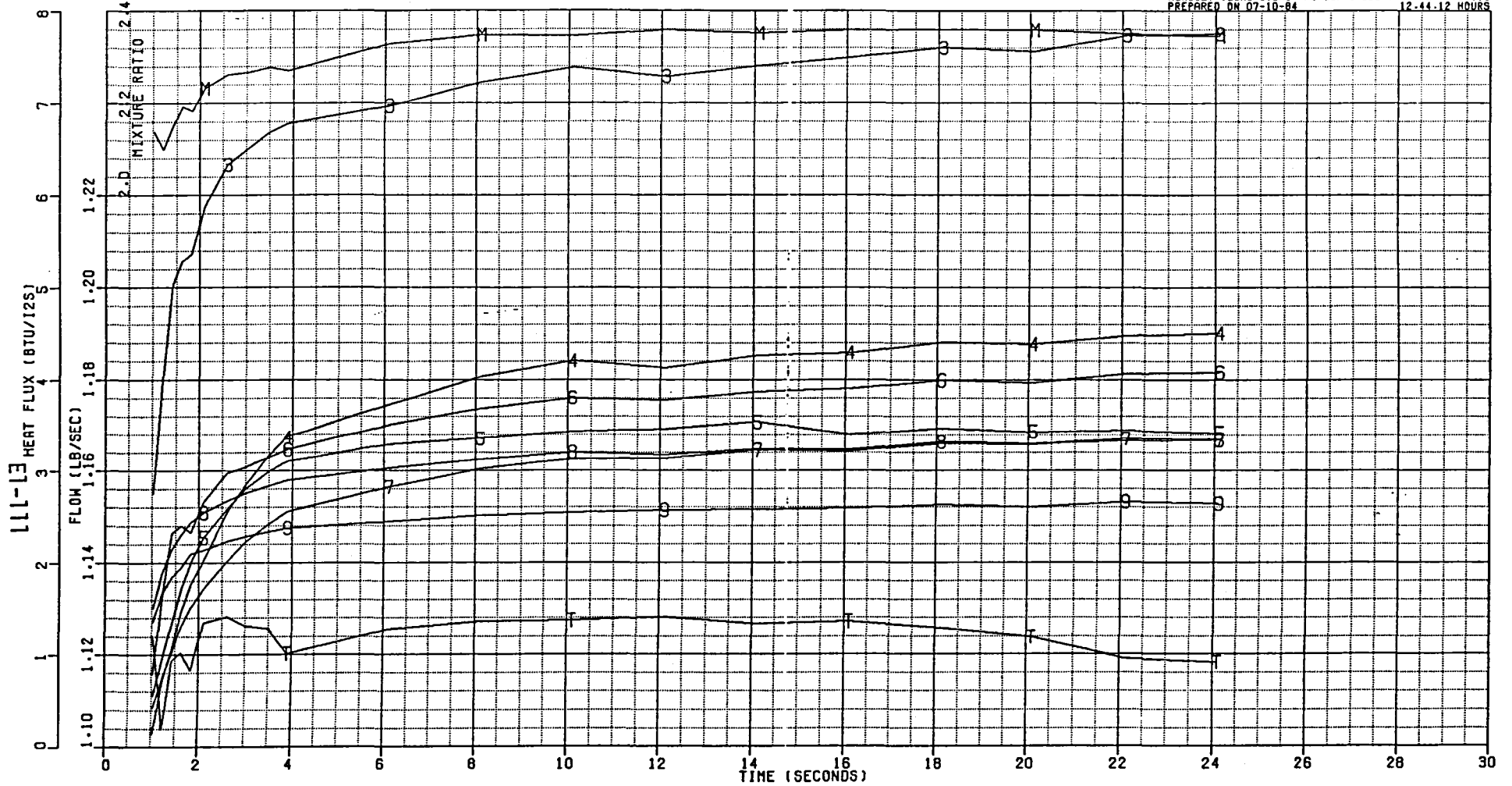
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA



011-1E

- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/12S | 9 Q/AN12-3 | BTU/12S |
| 2 Q/AN7    | BTU/12S | T WTOT     | LBS/SEC |
| 3 Q/AN8    | BTU/12S | M MR       |         |
| 4 Q/AN9    | BTU/12S |            |         |
| 5 Q/AN10   | BTU/12S |            |         |
| 6 Q/AN11   | BTU/12S |            |         |
| 7 Q/AN12-1 | BTU/12S |            |         |
| 8 Q/AN12-2 | BTU/12S |            |         |

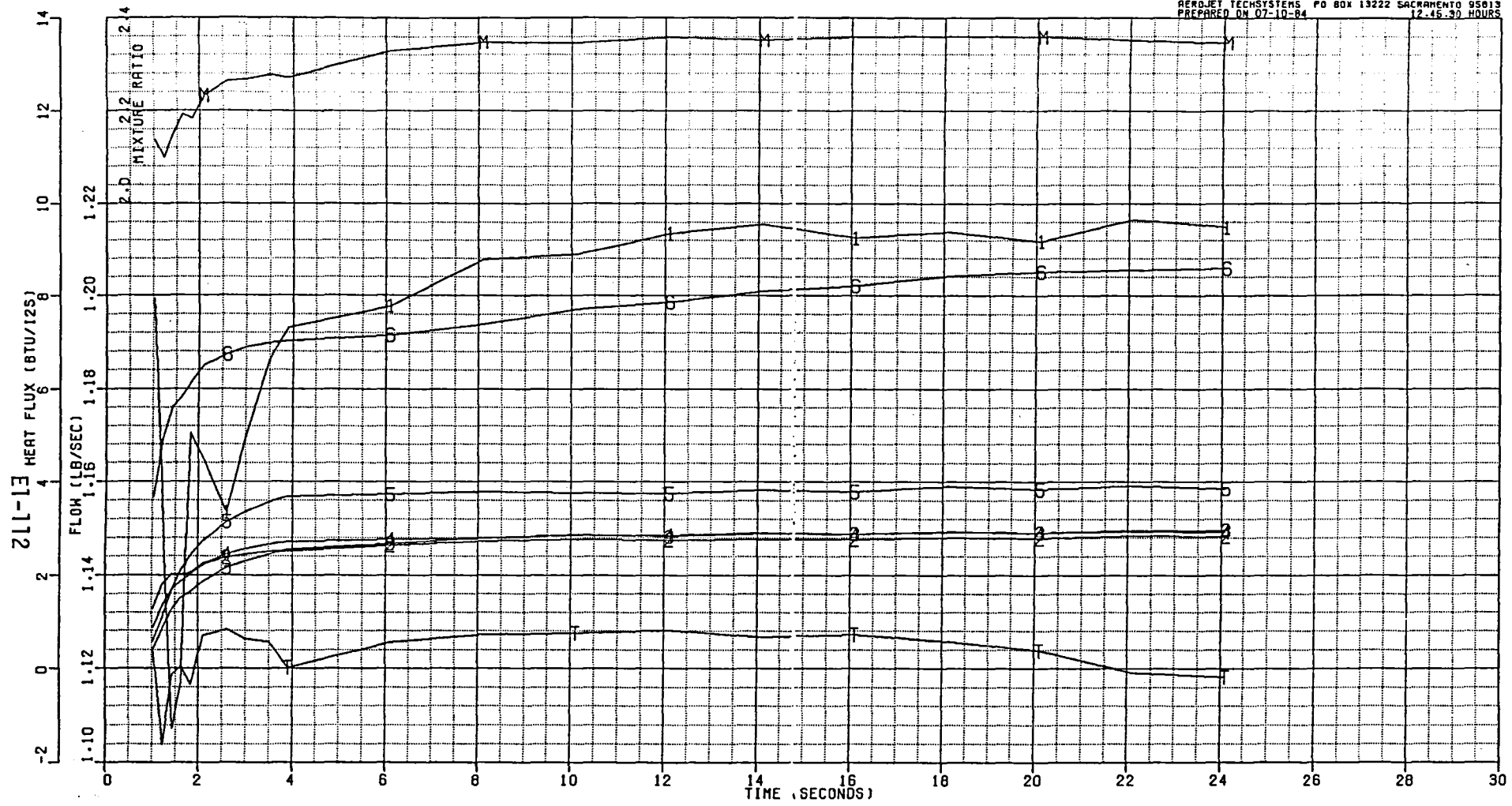
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA



- 3 Q/ABB1-1 BTU/12S M MR
- 4 Q/ABB2 BTU/12S
- 5 Q/ABB1-2 BTU/12S
- 6 Q/ABB4-1 BTU/12S
- 7 Q/ABB4-2.3 BTU/12S
- 8 Q/AN1-1 BTU/12S
- 9 Q/AN1-2 BTU/12S
- T WTOT LBS/SEC

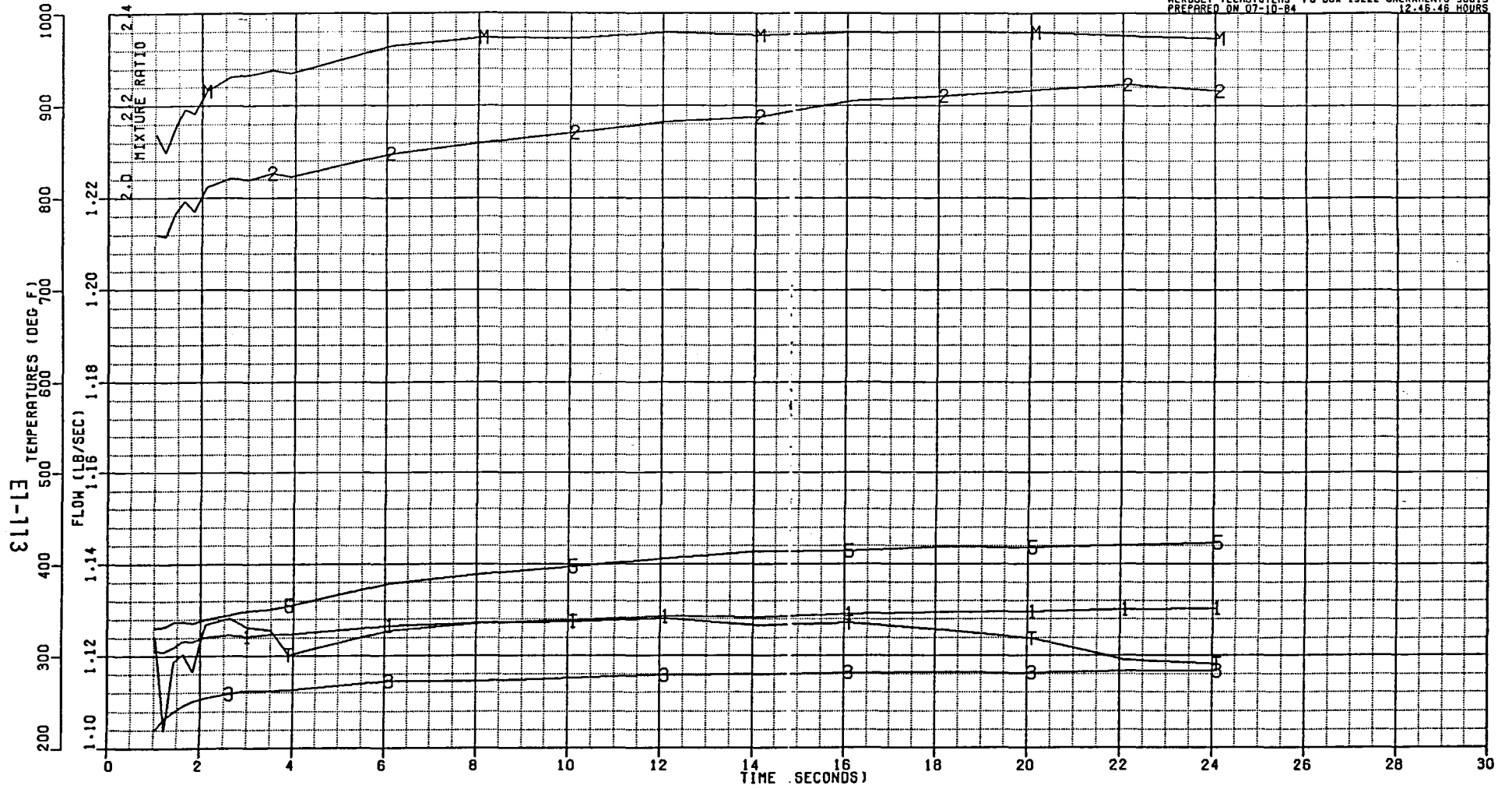
HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA





- 1 Q/ATRC BTU/12S
- 2 Q/A12B6-1 BTU/12S
- 3 Q/A12B6-2.5 BTU/12S
- 4 Q/A12B3.4 BTU/12S
- 5 Q/A12B1-2.2 BTU/12S
- 6 Q/A12B1-1 BTU/12S
- T WTOT LBS/SEC
- M MR

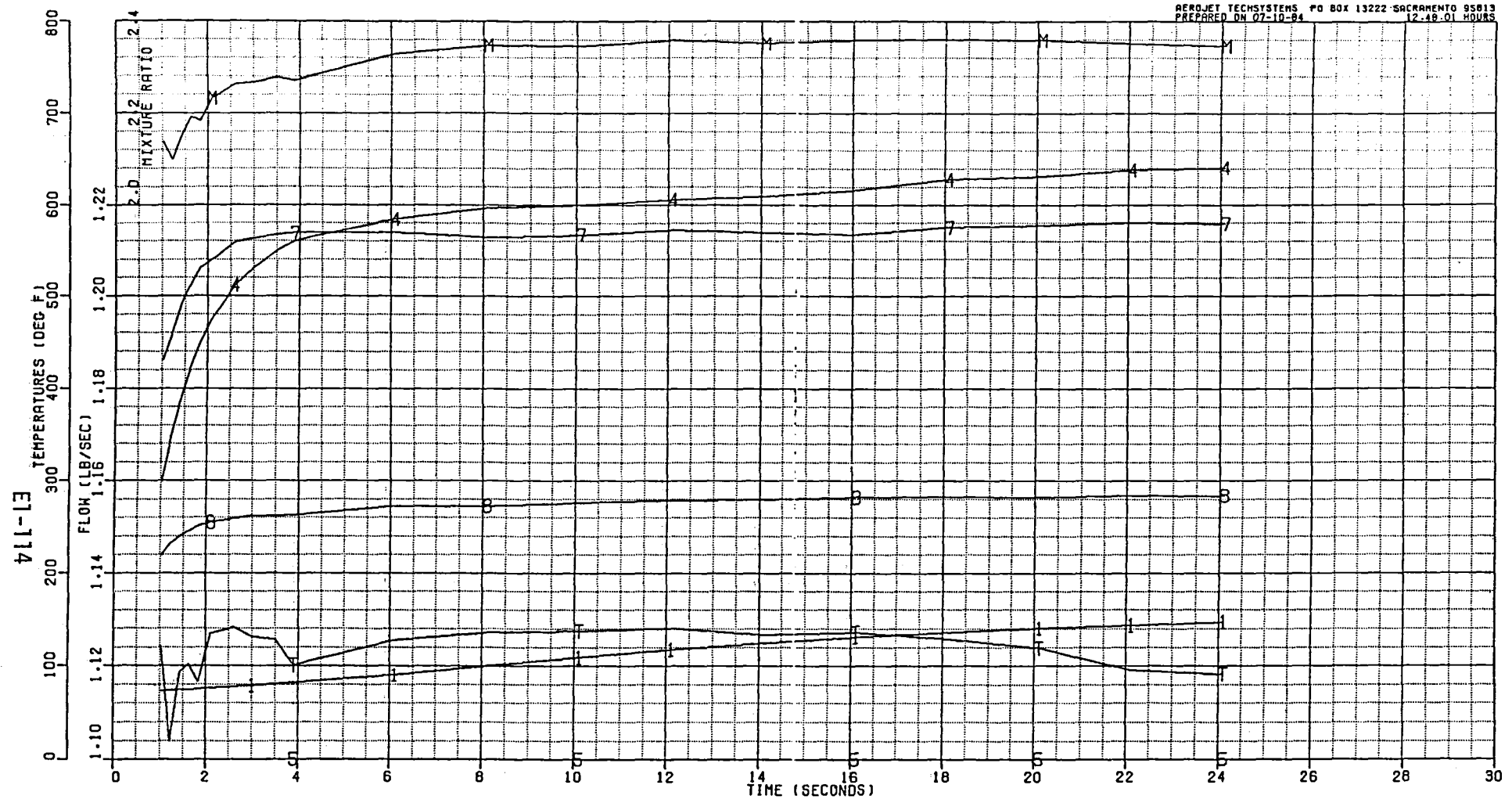
HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA



1 TC-1      DEG F  
 2 TC-2      DEG F  
 3 TC-3      DEG F  
 5 TC-5      DEG F  
 T WTOT      LBS/SEC  
 M MR

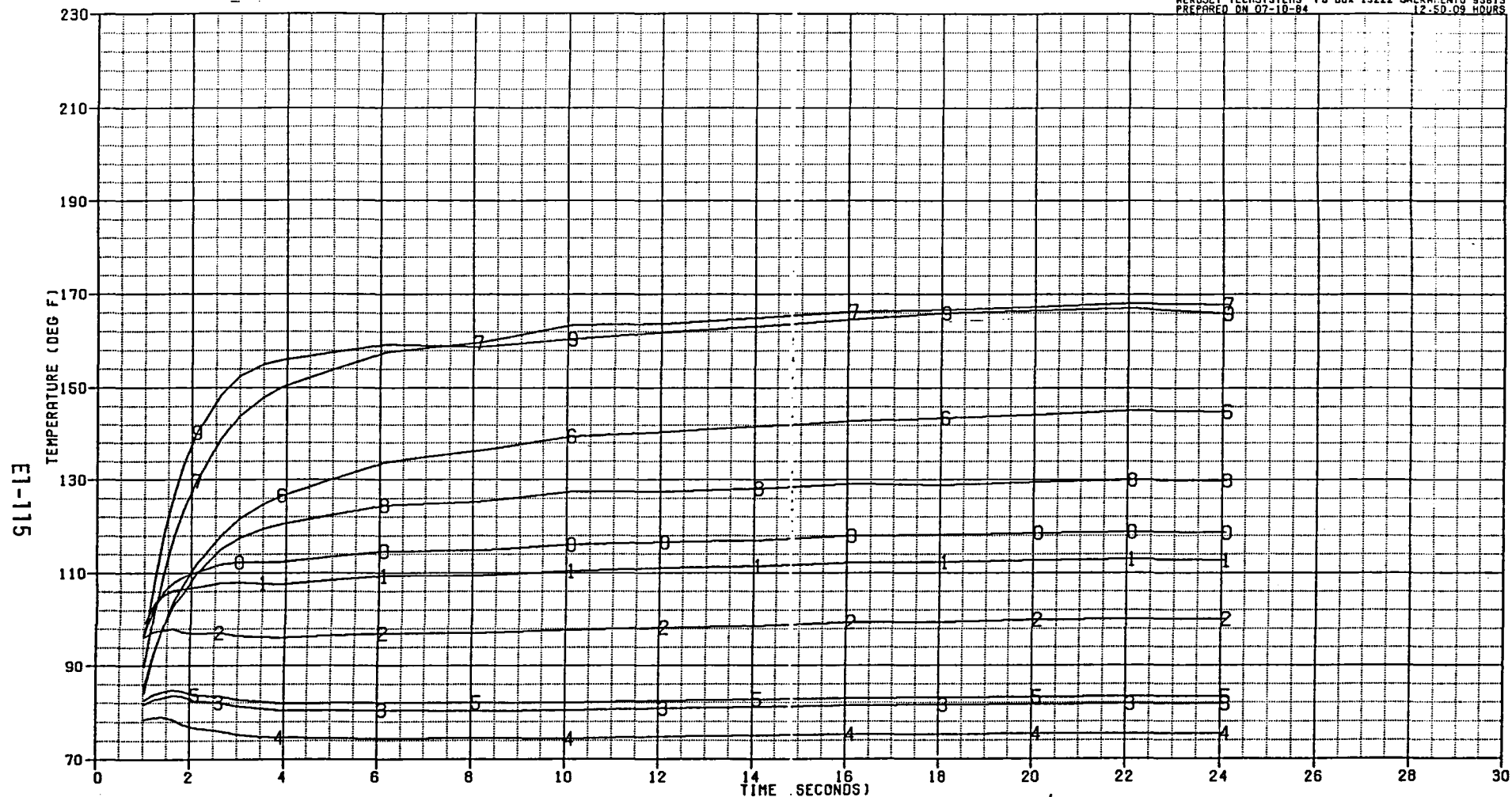
GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-222

TEST DATE 06-08-84 1111 HOURS      AVERAGED DATA



1 TC-7 DEG F  
 4 TC-10 DEG F  
 5 TC-12 DEG F  
 7 TC-13 DEG F  
 8 TC-3 DEG F  
 T WTOT LBS/SEC  
 M MR

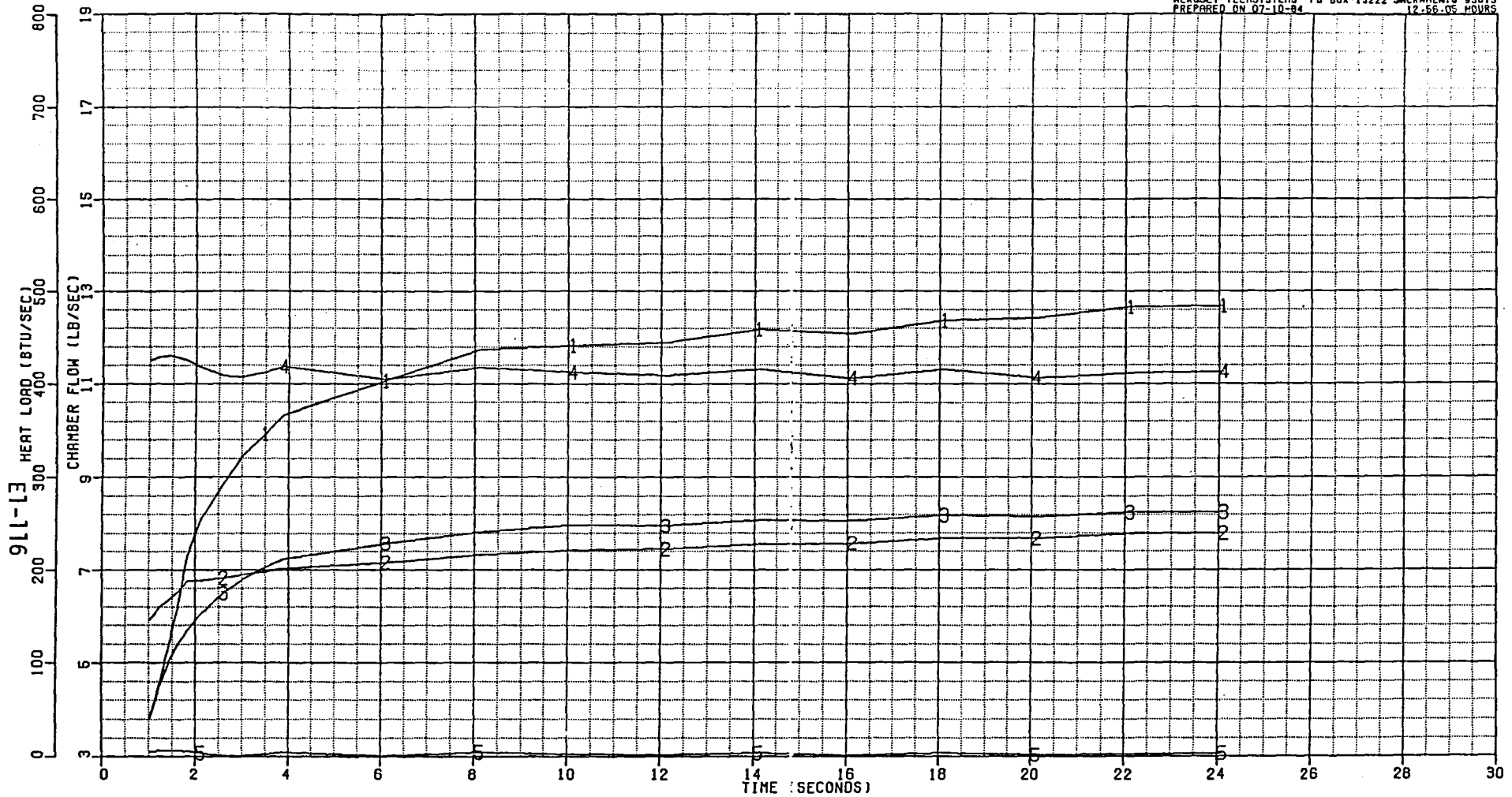
GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA



E1-115

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

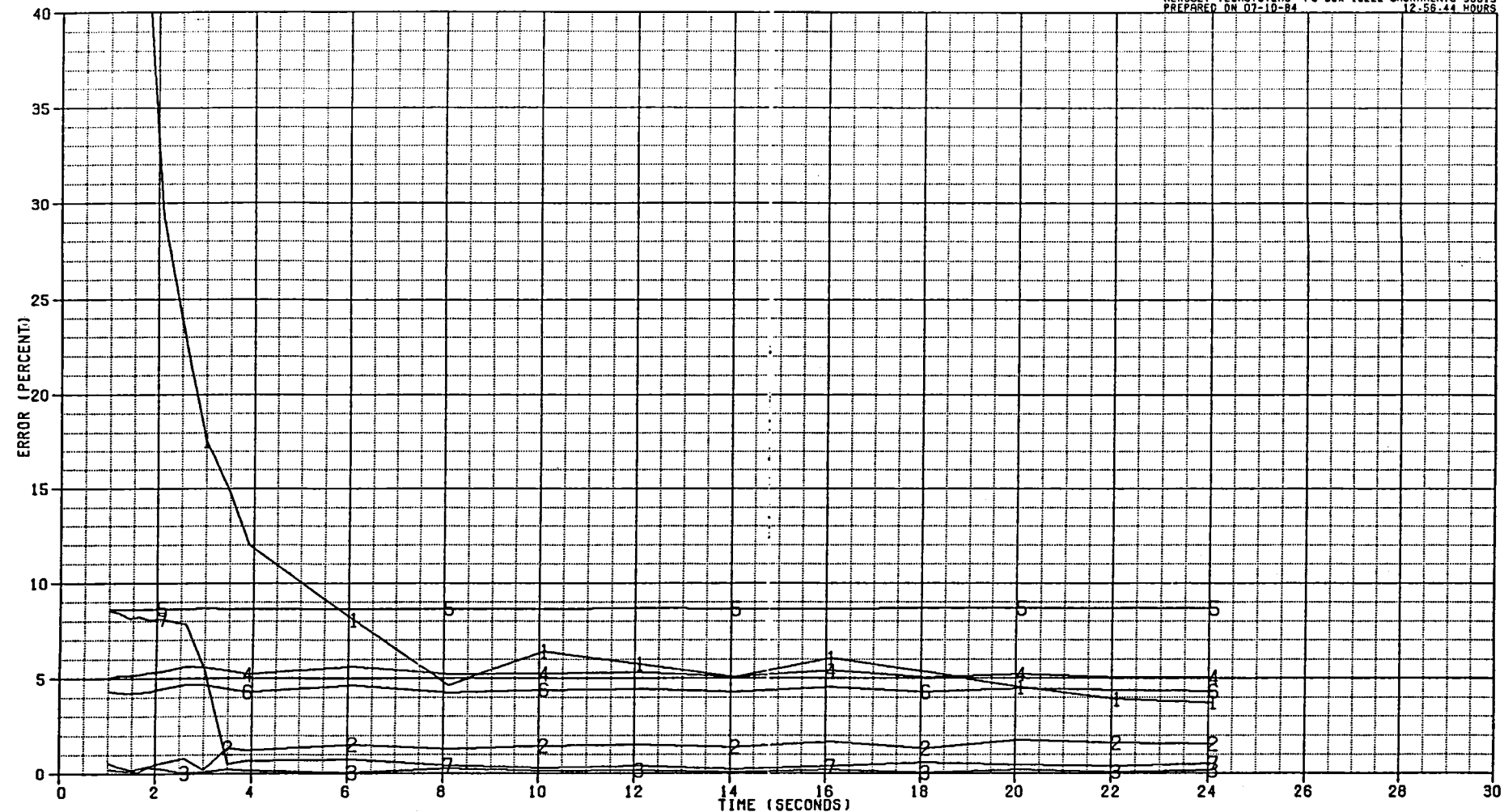
COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA



- 1 QH BTU/SEC
- 2 QNT BTU/SEC
- 3 Q8BT BTU/SEC
- 4 NW1 LBS/SEC
- 5 NW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-222  
 TEST DATE 06-08-84 1111 HOURS AVERAGED DATA

E1-117

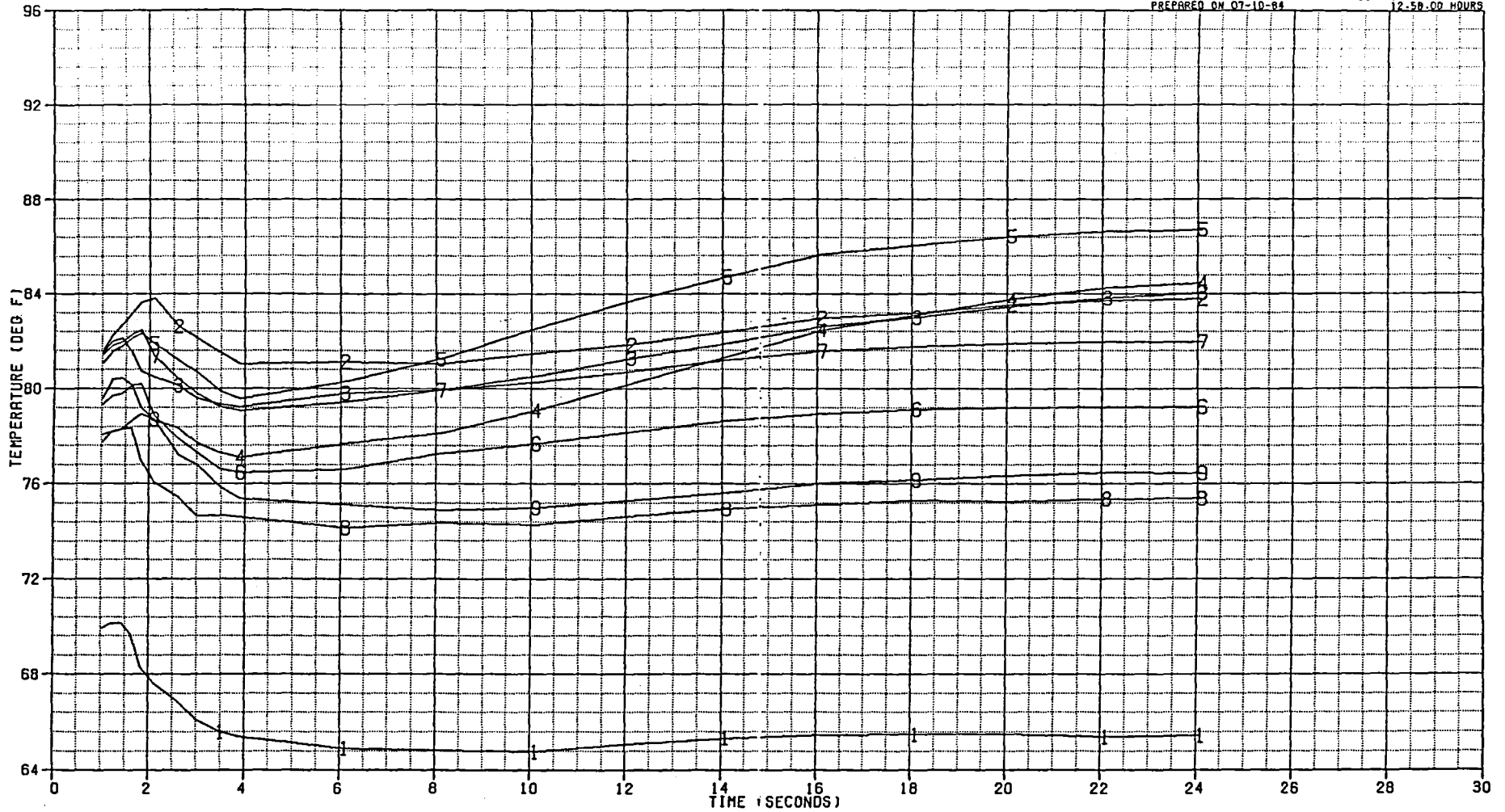


- 1 QERM PERCENT
- 2 WERNT PERCENT
- 3 WER0BT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-222

TEST DATE 06-08-84 1111 HOURS AVERAGED DATA

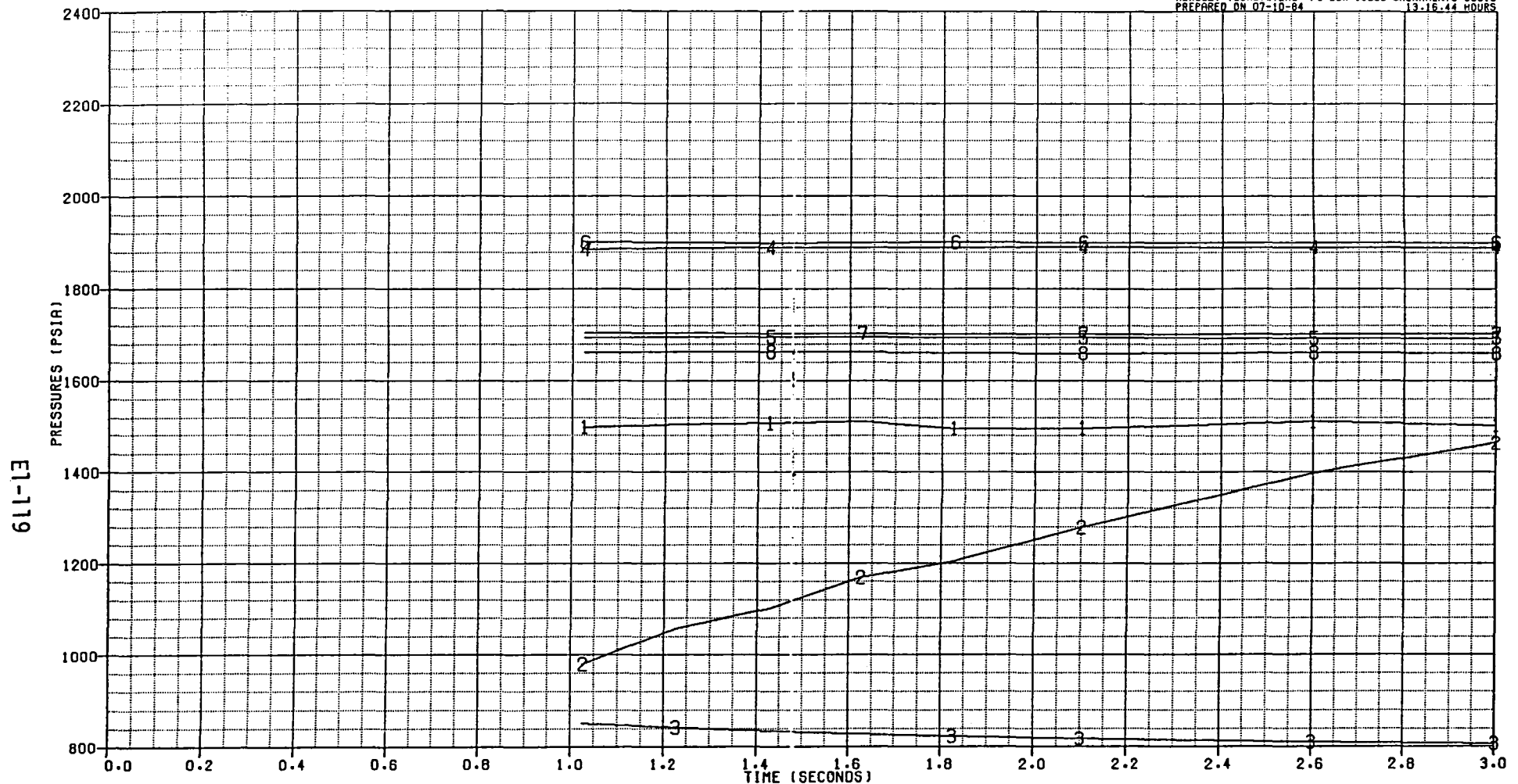
EI-118



- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-222

TEST DATE 06-08-84 1111 HOURS AVERAGED DATA



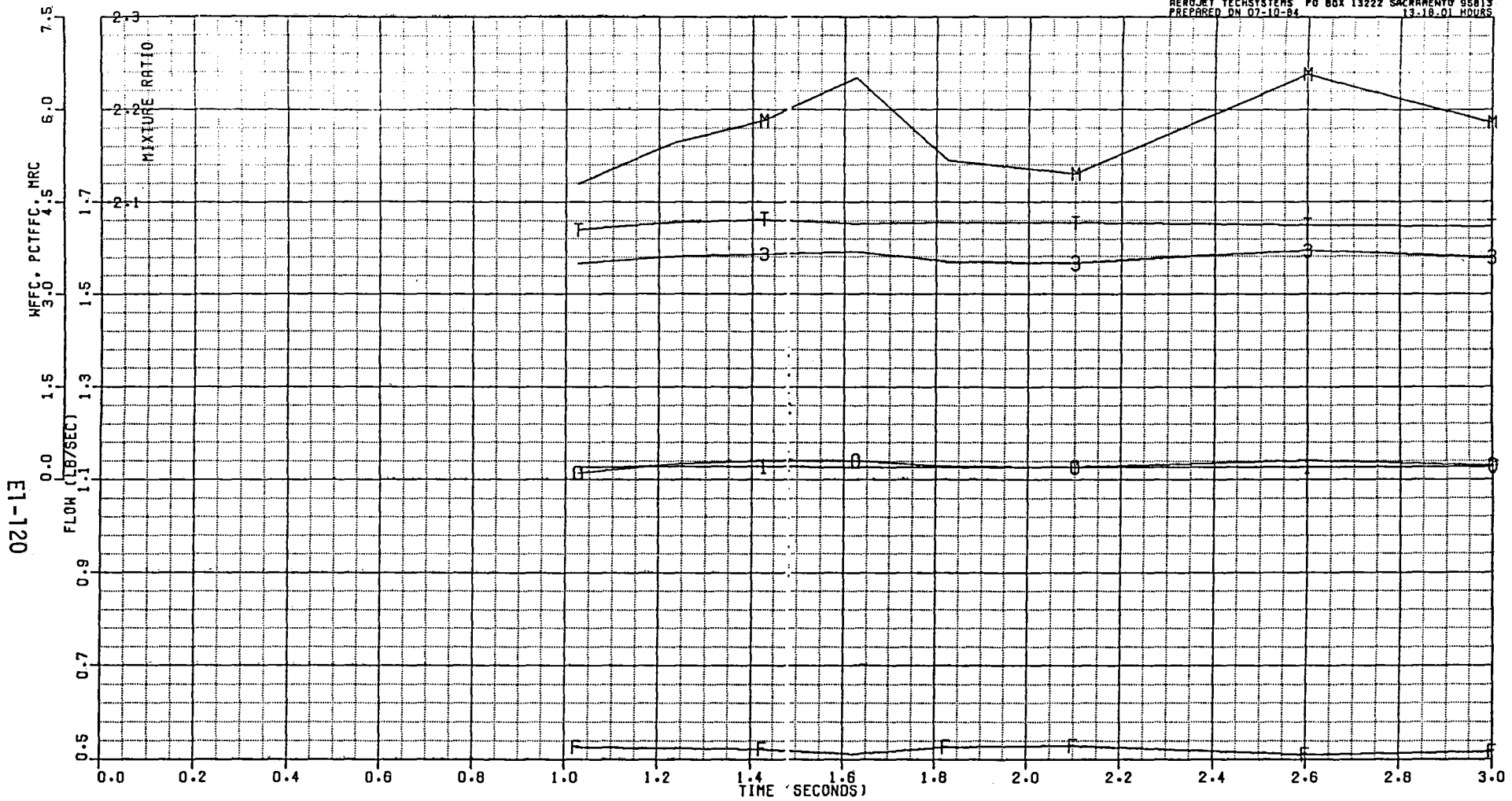
E1-119

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA



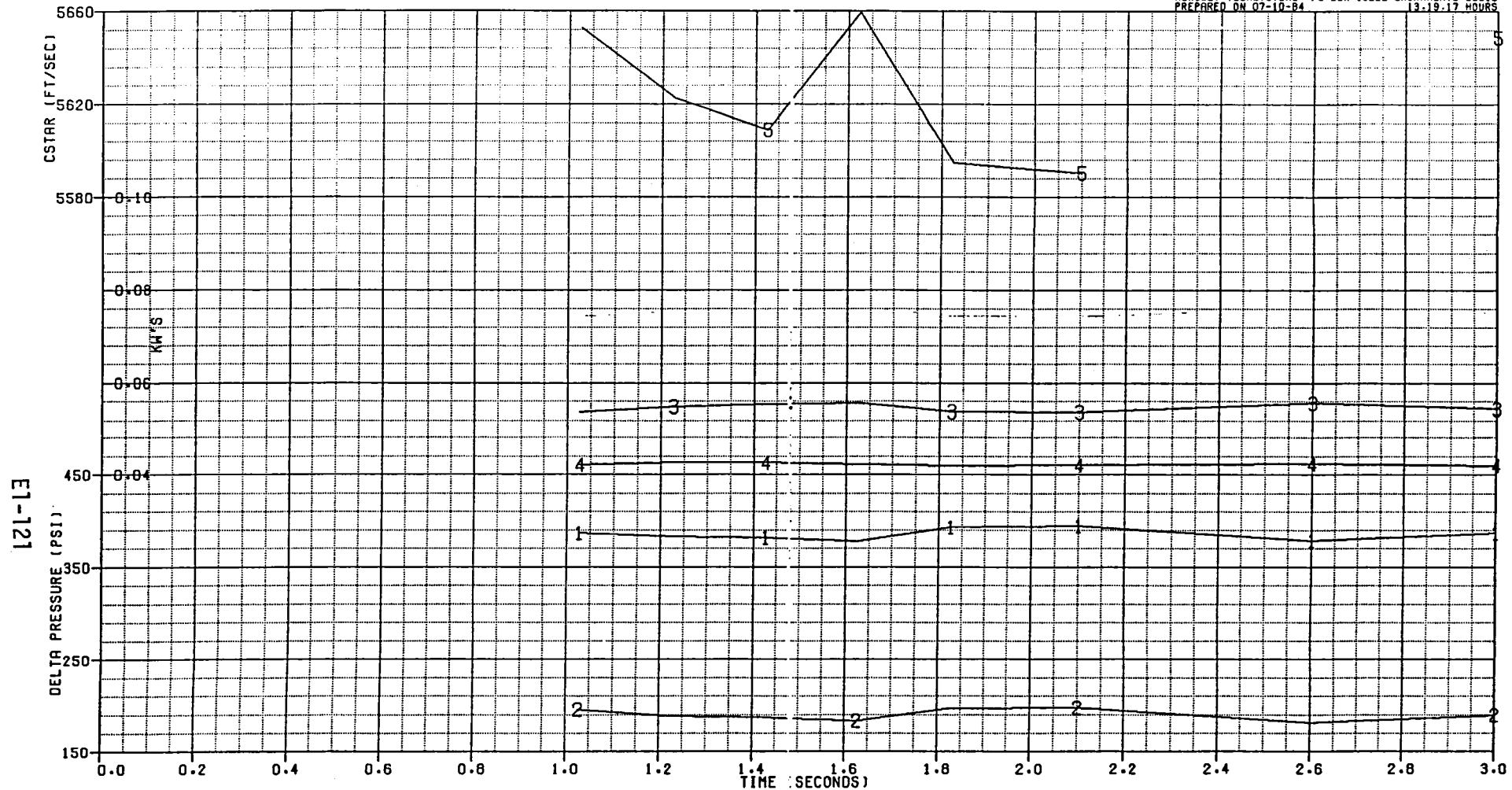


E1-120

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR LBS/SEC  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC PERCENT

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

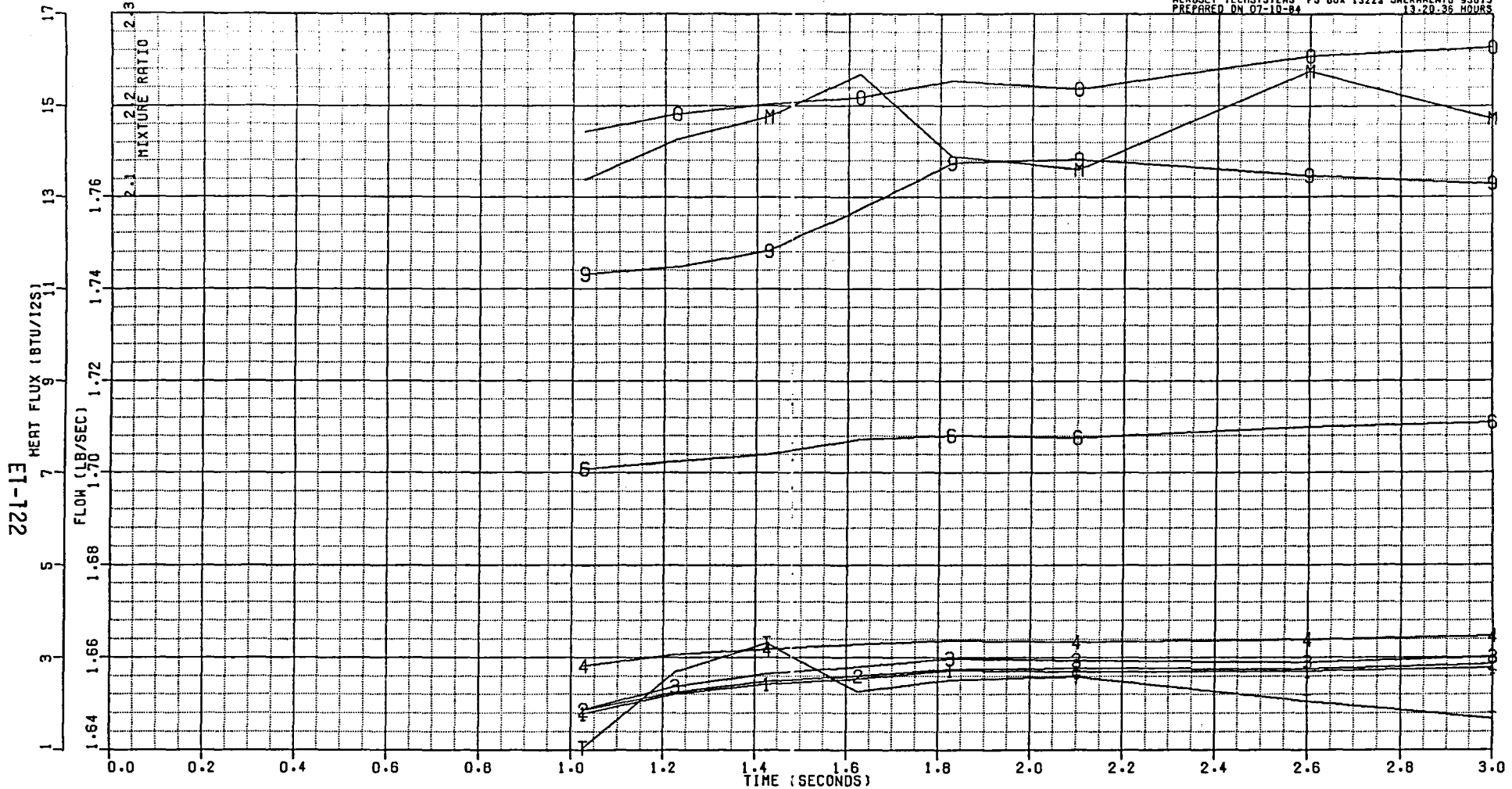


E1-121

1 DPOJ PSI  
 2 DPFJ PSI  
 3 KWOJ PSI  
 4 KWFJ PSI  
 5 CSTRMC FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA



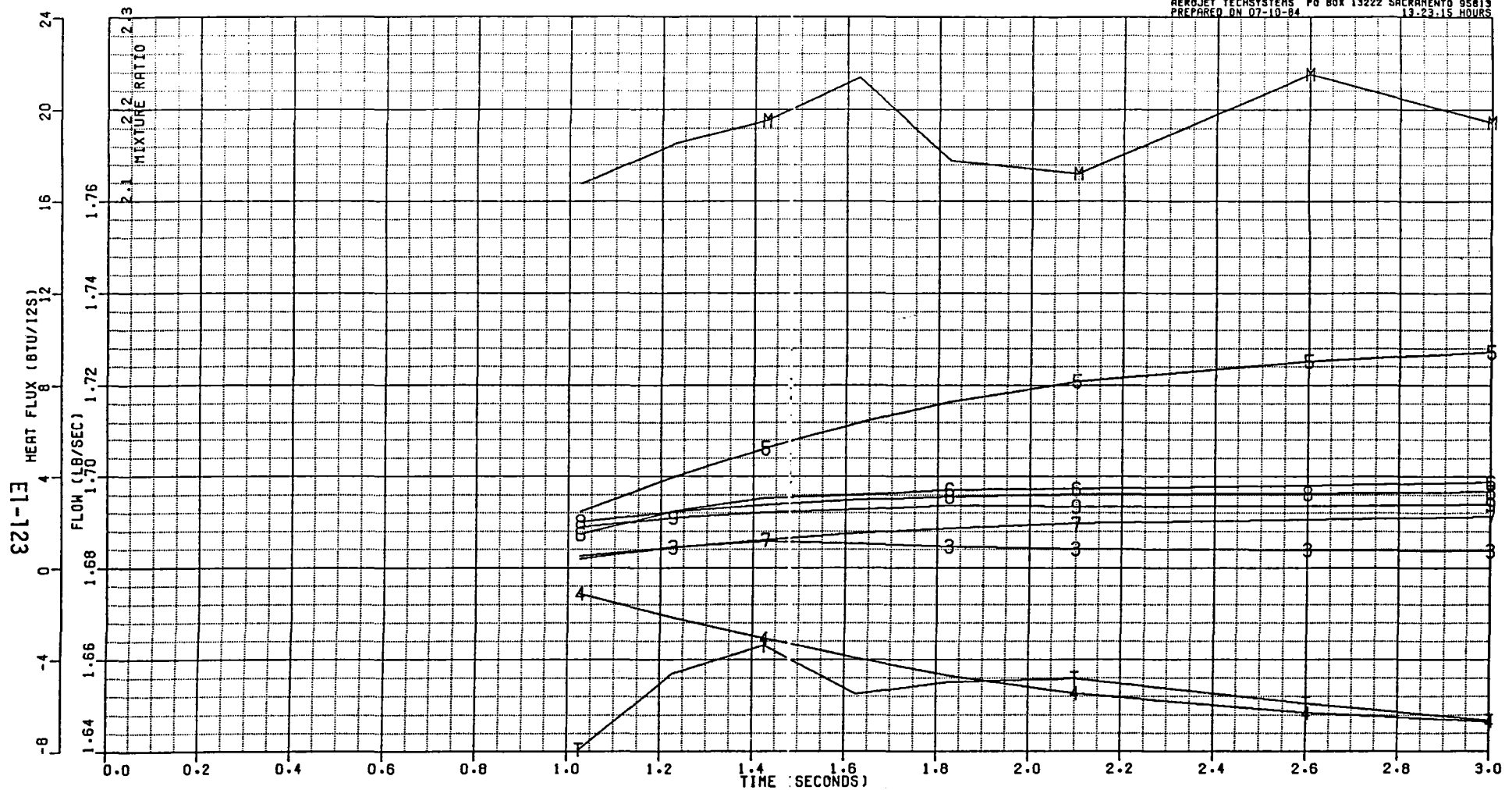
- 1 Q/AN1-2 BTU/12S M, MR
- 2 Q/AN1-3 BTU/12S
- 3 Q/AN2-1 BTU/12S
- 4 Q/AN2-2,-3 BTU/12S
- 6 Q/AN3 BTU/12S
- 9 Q/AN4 BTU/12S
- 0 Q/AN5 BTU/12S
- T WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME  
 TEST NO. RLBL-936-223

NOZZLE DATA

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

ETI-122

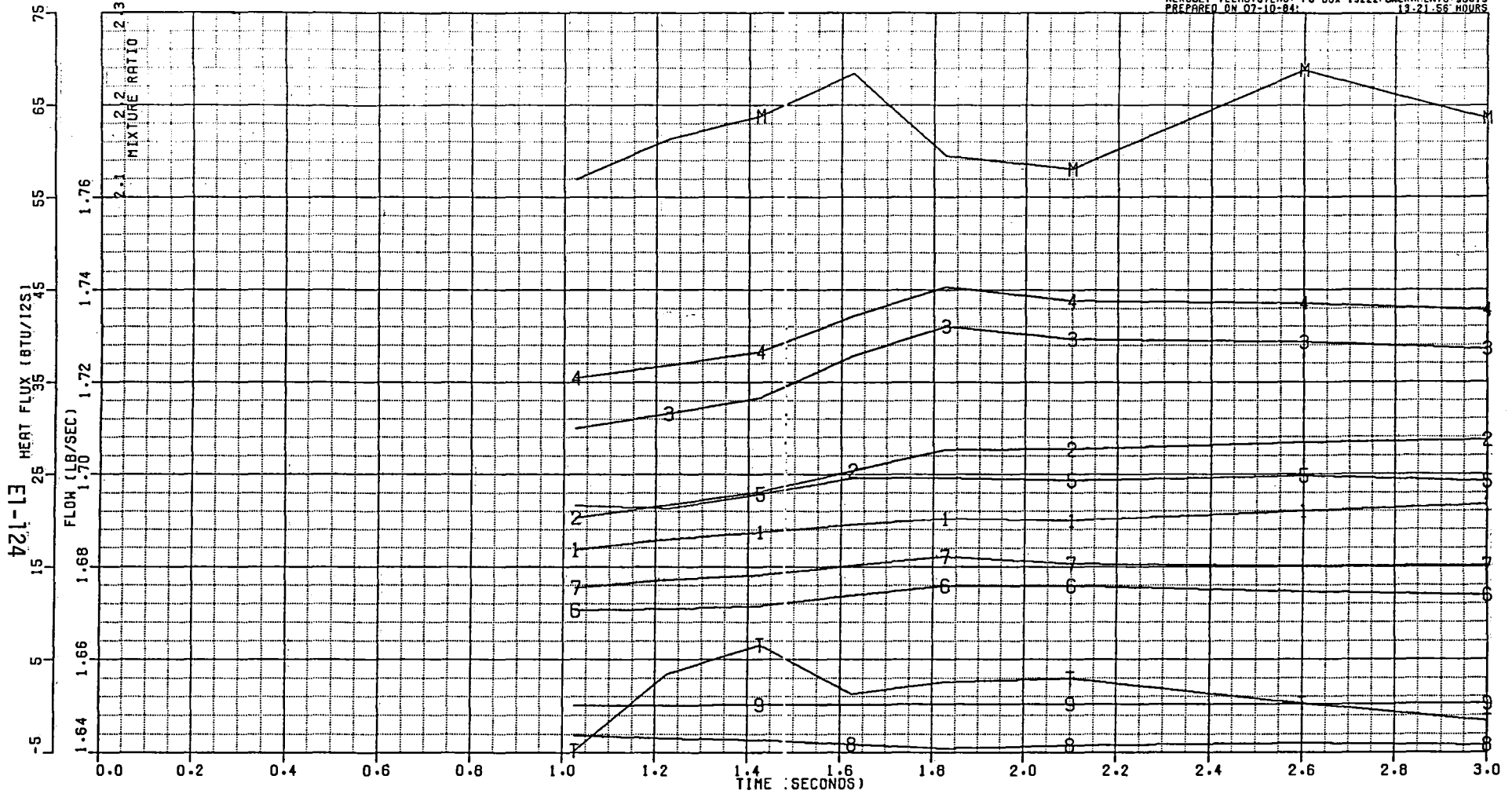


E1-123

- 3 Q/A881-1 BTU/12S M MR
- 4 Q/A882 BTU/12S
- 5 Q/A881-2 BTU/12S
- 6 Q/A884-1 BTU/12S
- 7 Q/A884-2.3 BTU/12S
- 8 Q/A81-1 BTU/12S
- 9 Q/A81-2 BTU/12S
- T WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-223

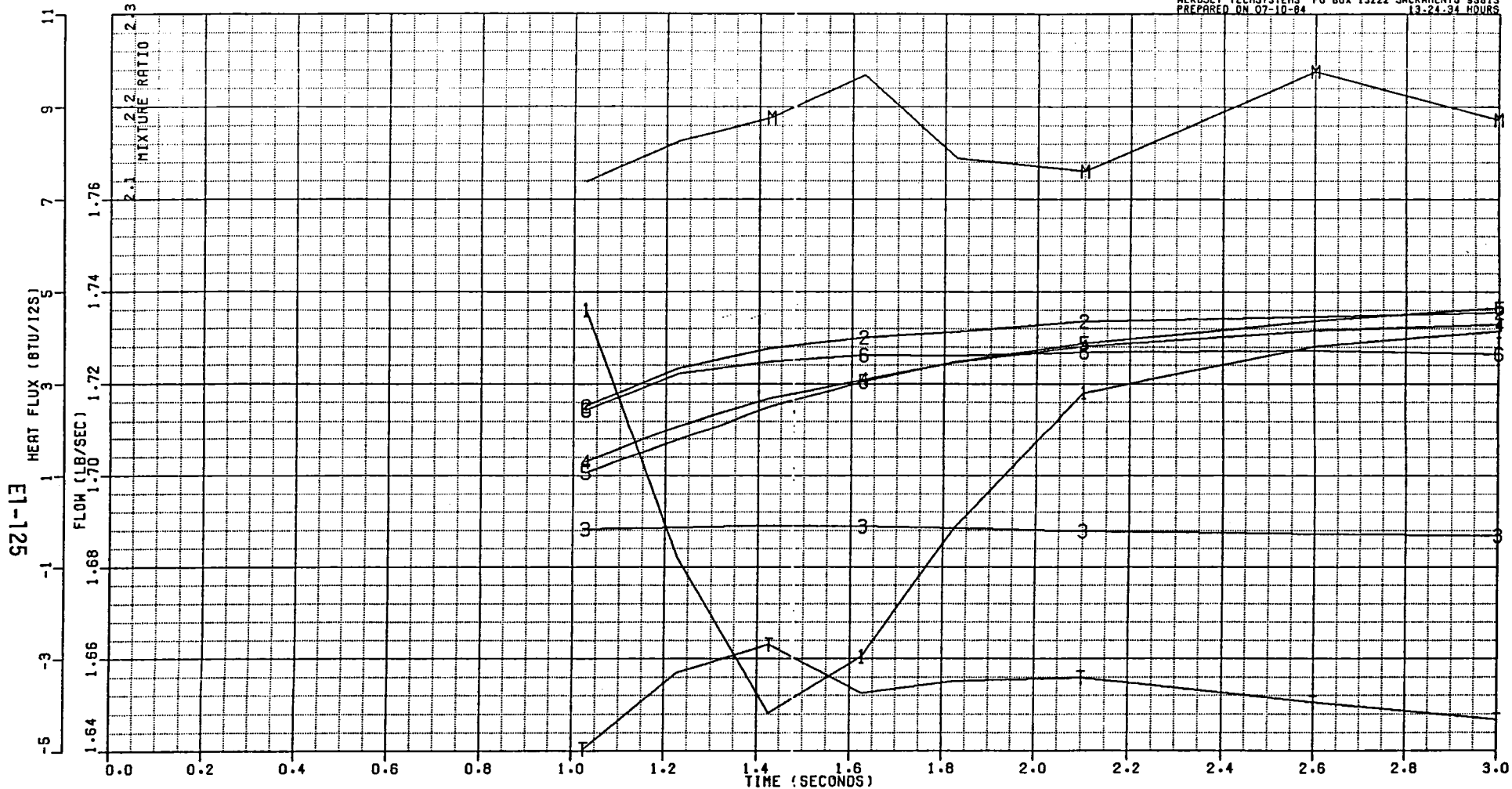
TEST DATE 06-08-84 1327 HOURS AVERAGED DATA



1 Q/AN6	BTU/IN2	9 Q/AN12-3	BTU/IN2
2 Q/AN7	BTU/IN2	T WTOT	LBS/SEC
3 Q/AN8	BTU/IN2	M MR	
4 Q/AN9	BTU/IN2		
5 Q/AN10	BTU/IN2		
6 Q/AN11	BTU/IN2		
7 Q/AN12-1	BTU/IN2		
8 Q/AN12-2	BTU/IN2		

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

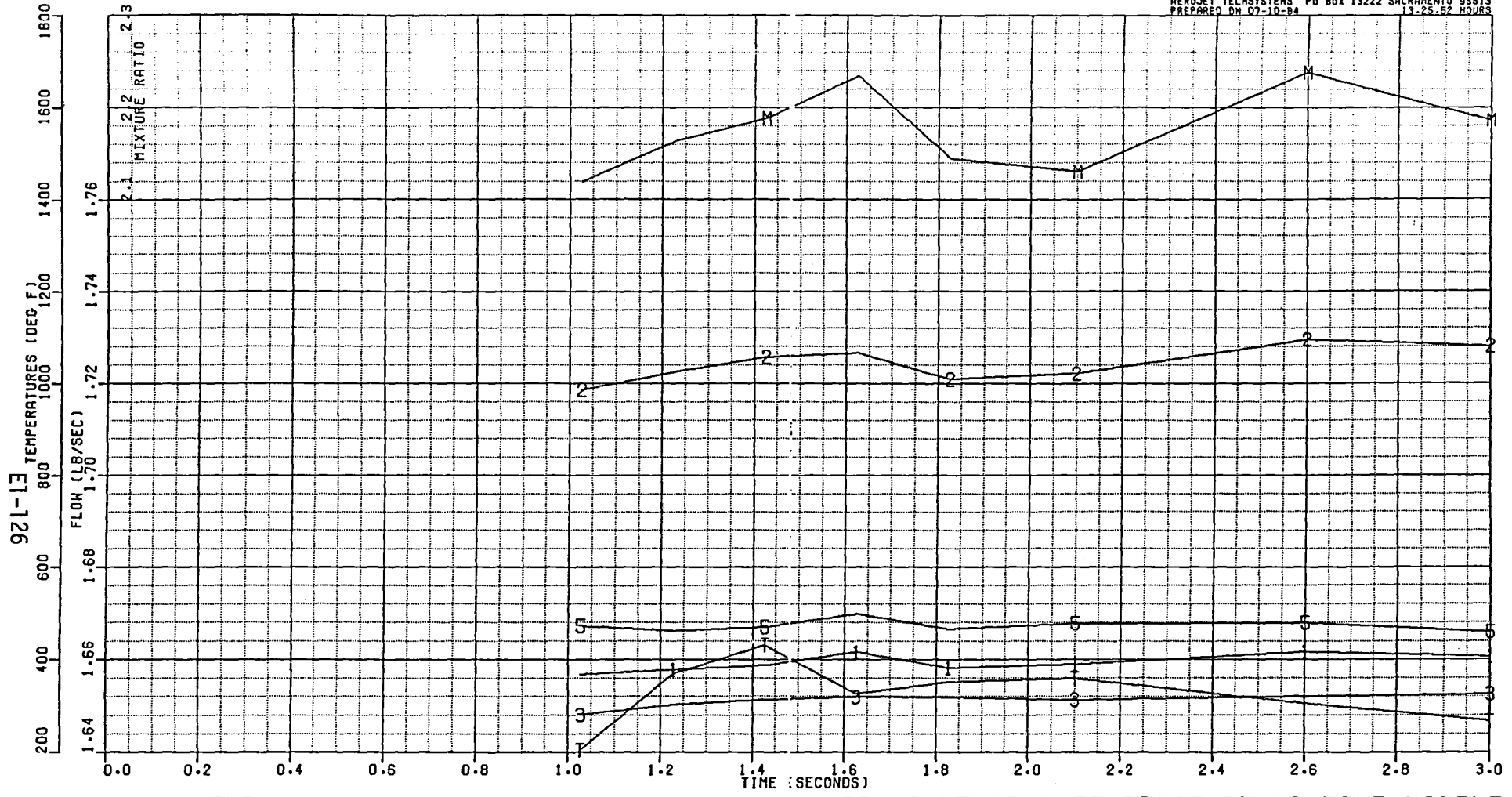


E1-125

- 1 Q/ATRC BTU/12S
- 2 Q/A1286-1 BTU/12S
- 3 Q/A1286-2.5 BTU/12S
- 4 Q/A1283.4 BTU/12S
- 5 Q/A1281-2.2 BTU/12S
- 6 Q/A1281-1 BTU/12S
- T WTD LBS/SEC
- M MR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-223

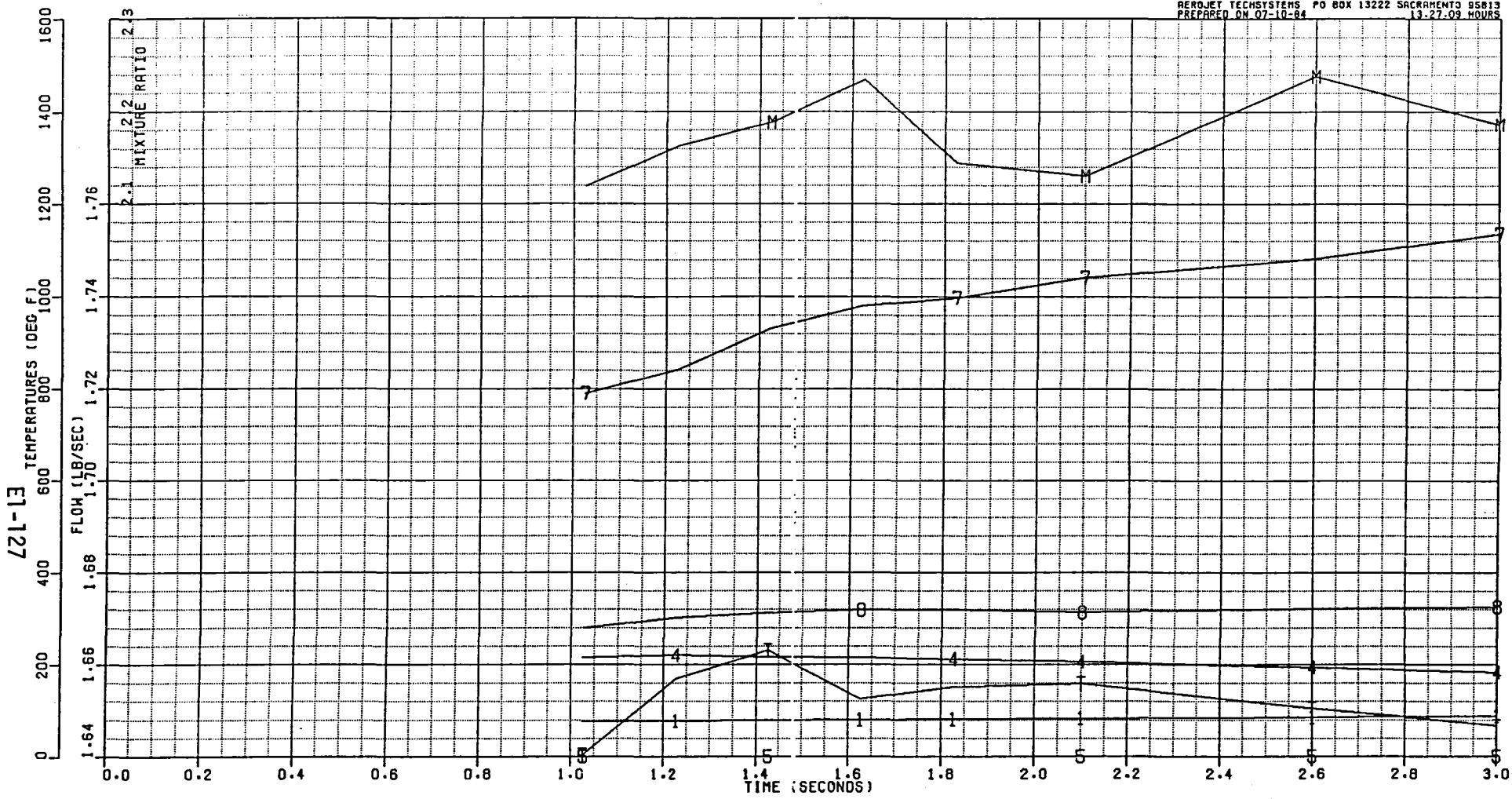
TEST DATE 06-08-84 1327 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA



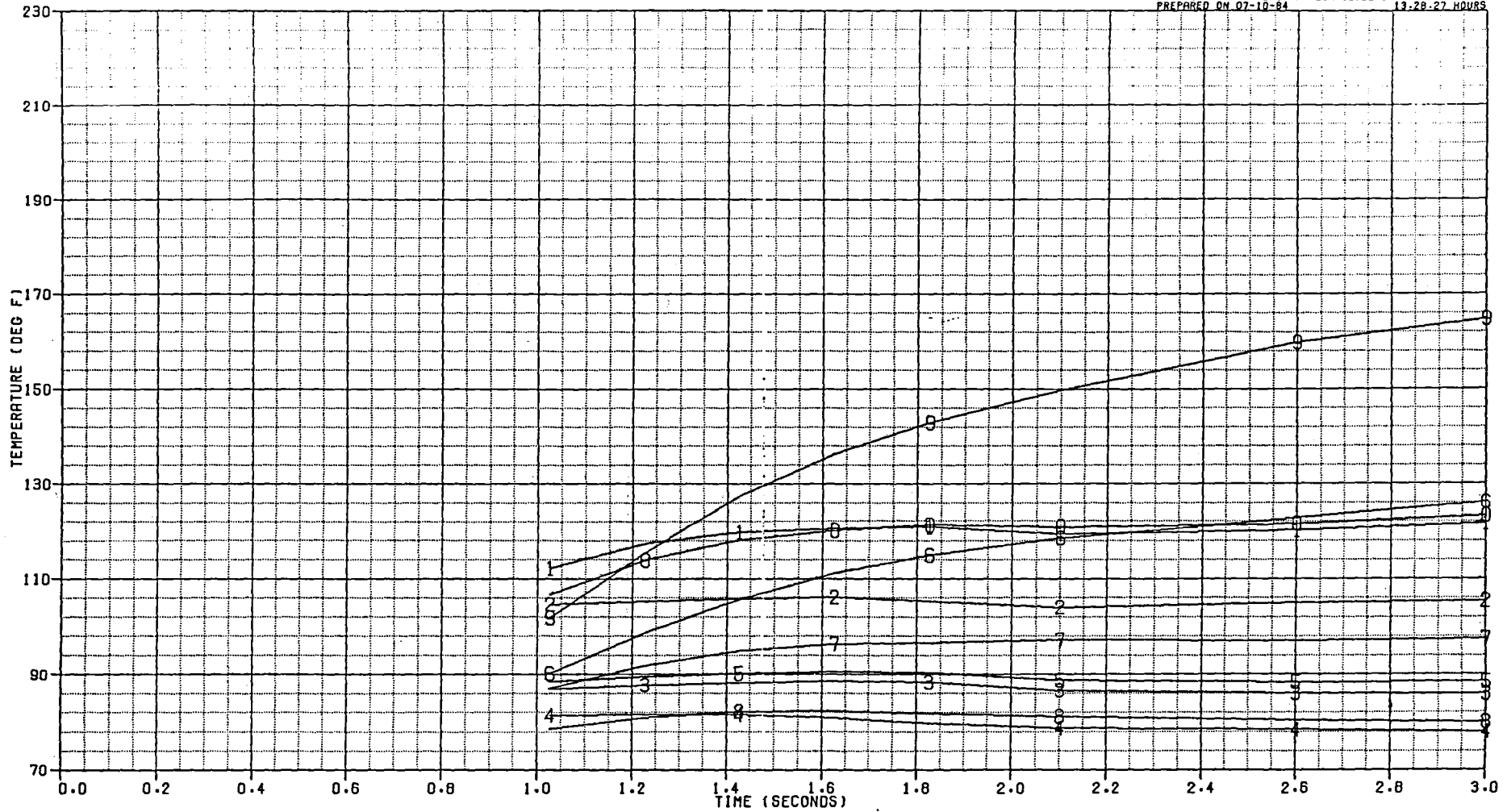
1 TC-7      DEG F  
 4 TC-10     DEG F  
 5 TC-12     DEG F  
 7 TC-13     DEG F  
 8 TC-3      DEG F  
 T WTOT      LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS      AVERAGED DATA



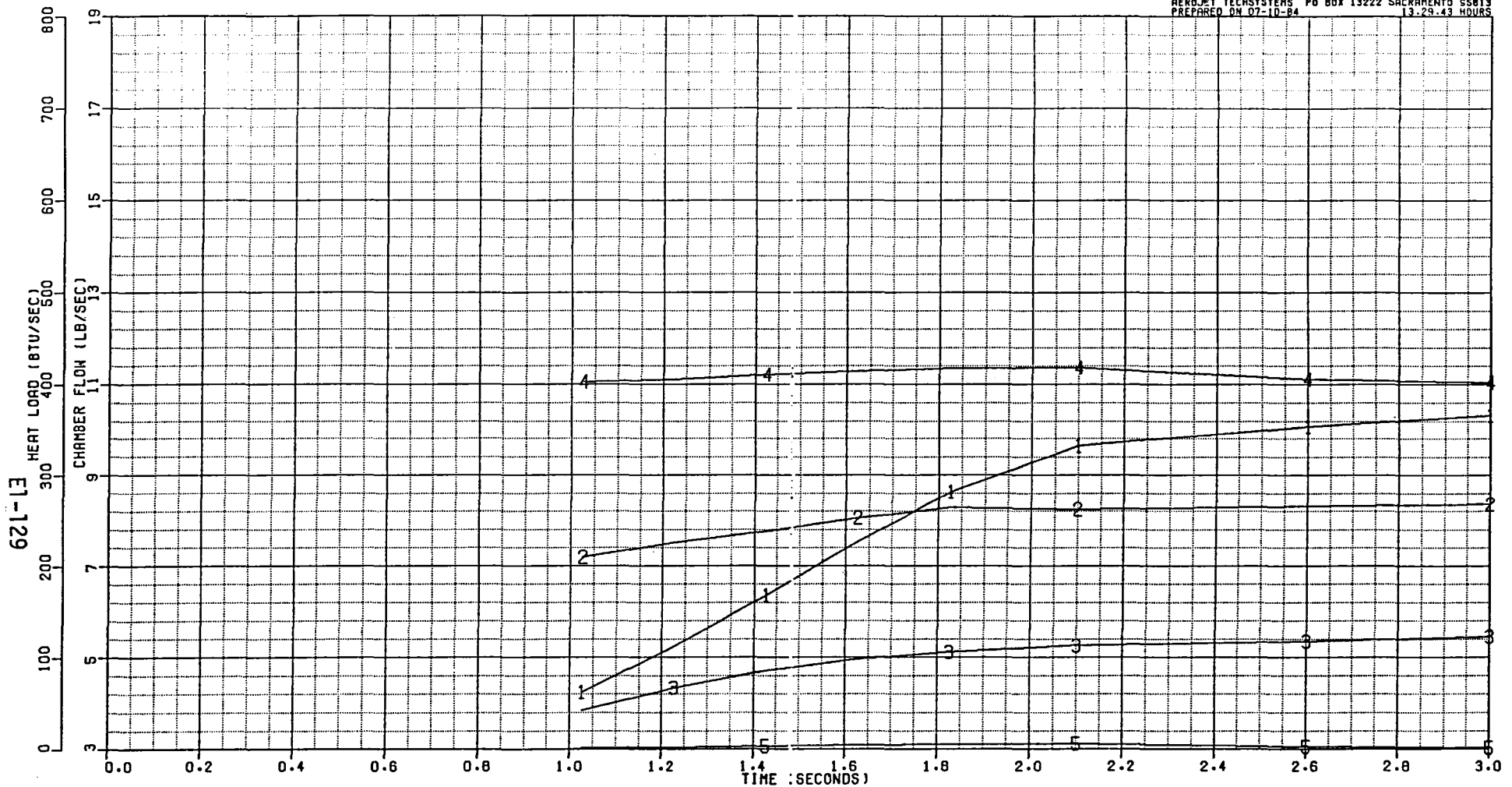
E1-128



COOLANT OUTLET TEMPERATURE VS TIME NO 1  
TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |



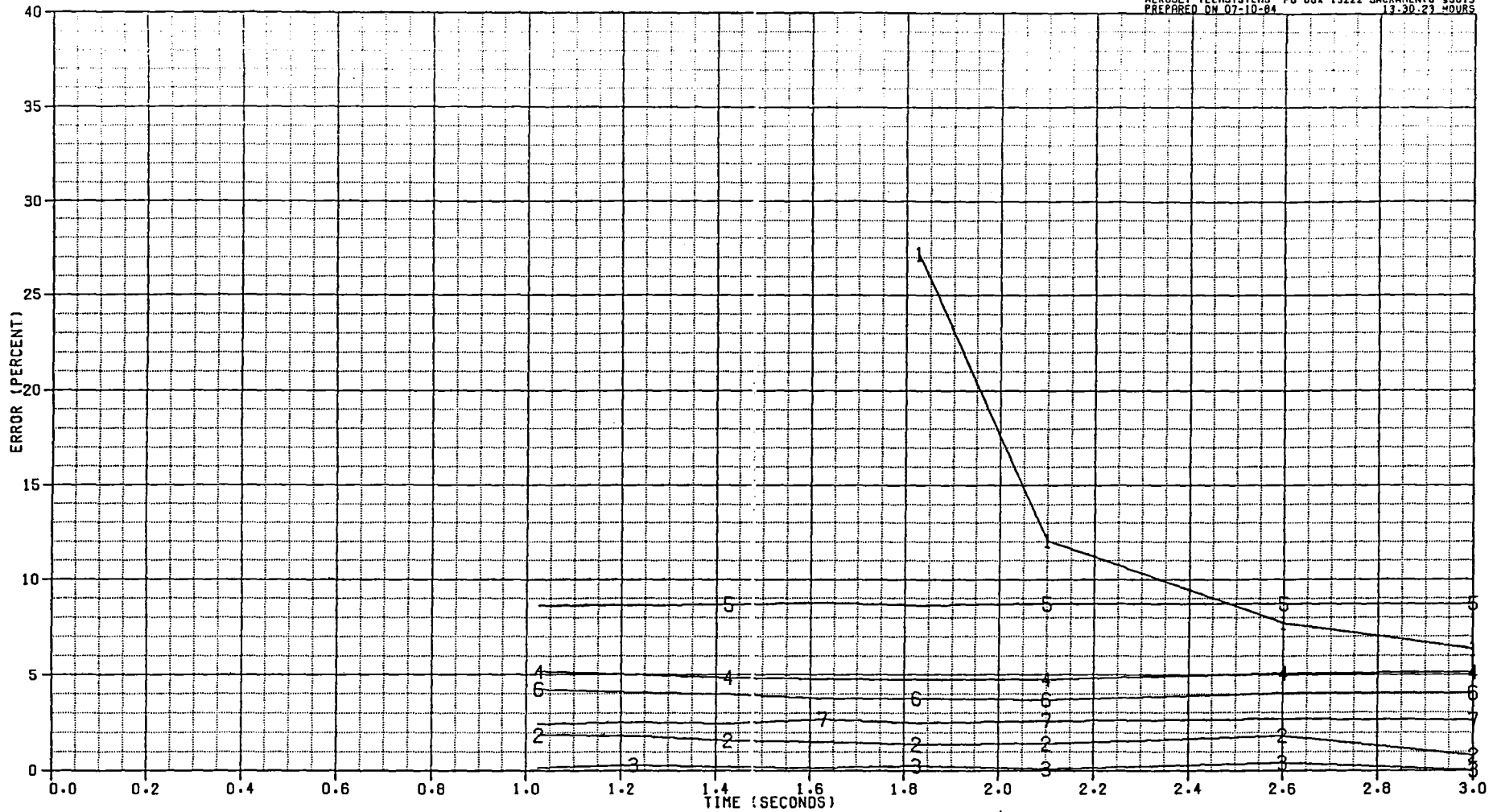
E1-129

- 1 QN BTU/SEC
- 2 QNT BTU/SEC
- 3 Q8BT BTU/SEC
- 4 WW1 LBS/SEC
- 5 WW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

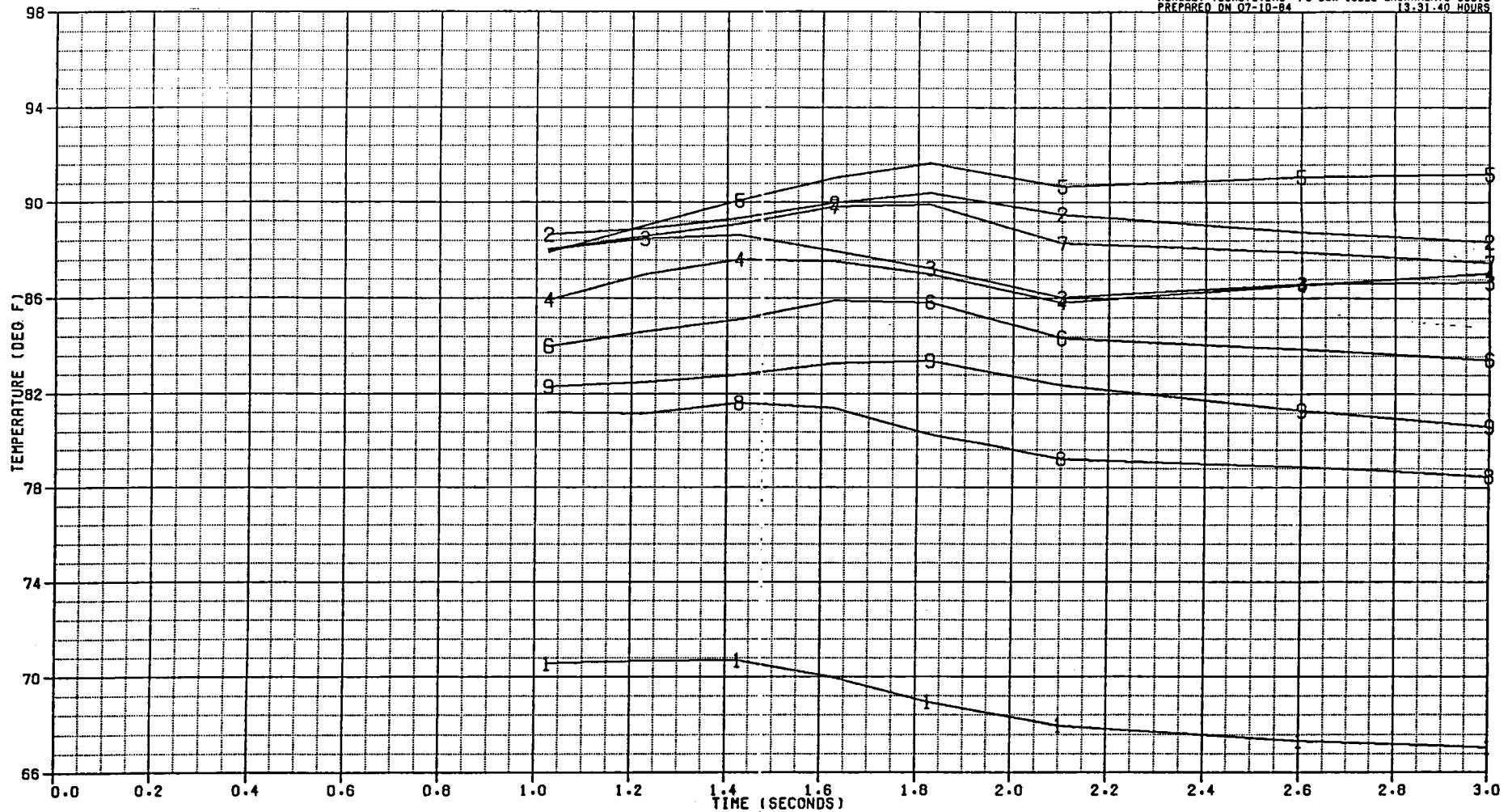
E1-130



- 1 QERH PERCENT
- 2 WERNT PERCENT
- 3 WER8BT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
TEST NO. RLBL-936-223  
TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

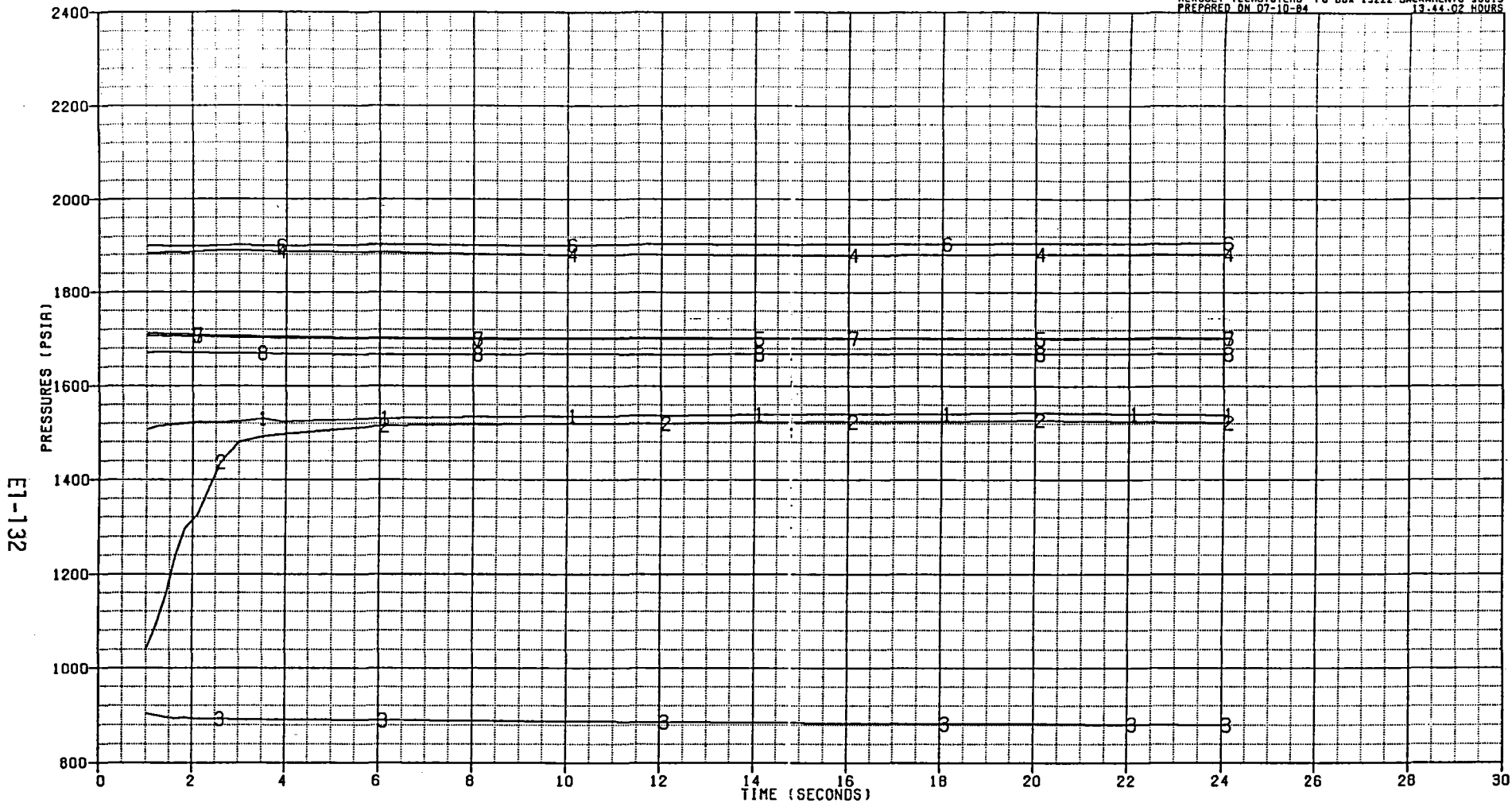
EI-131



- |          |       |          |       |
|----------|-------|----------|-------|
| 1 THC-1  | DEG F | 9 THC-20 | DEG F |
| 2 THC-13 | DEG F |          |       |
| 3 THC-14 | DEG F |          |       |
| 4 THC-15 | DEG F |          |       |
| 5 THC-16 | DEG F |          |       |
| 6 THC-17 | DEG F |          |       |
| 7 THC-18 | DEG F |          |       |
| 8 THC-19 | DEG F |          |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-223

TEST DATE 06-08-84 1327 HOURS AVERAGED DATA

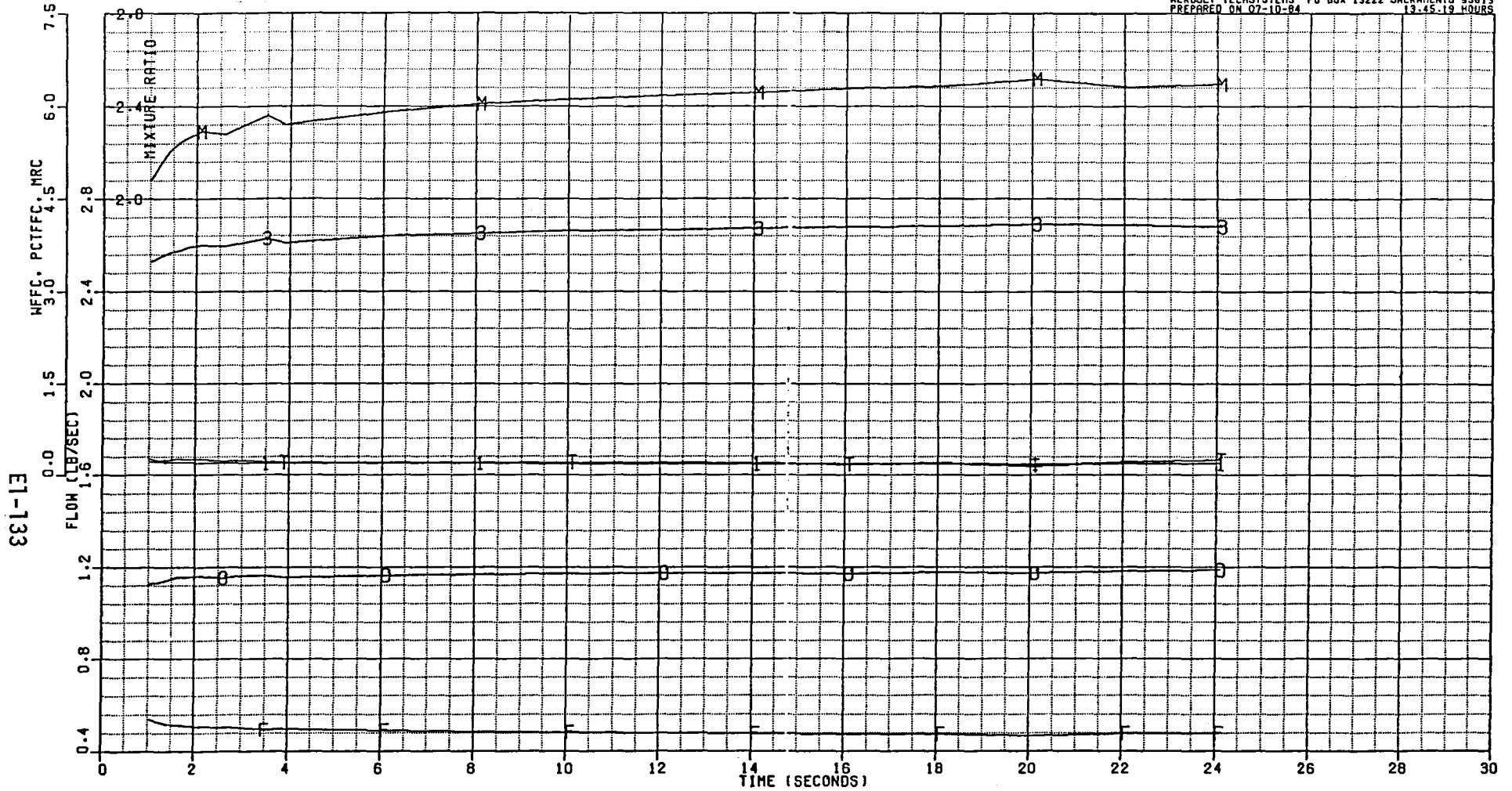


E1-132

- 1 PC-1 PSIA
- 2 POJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFF PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-224

TEST DATE 06-08-84 1357 HOURS AVERAGED DATA

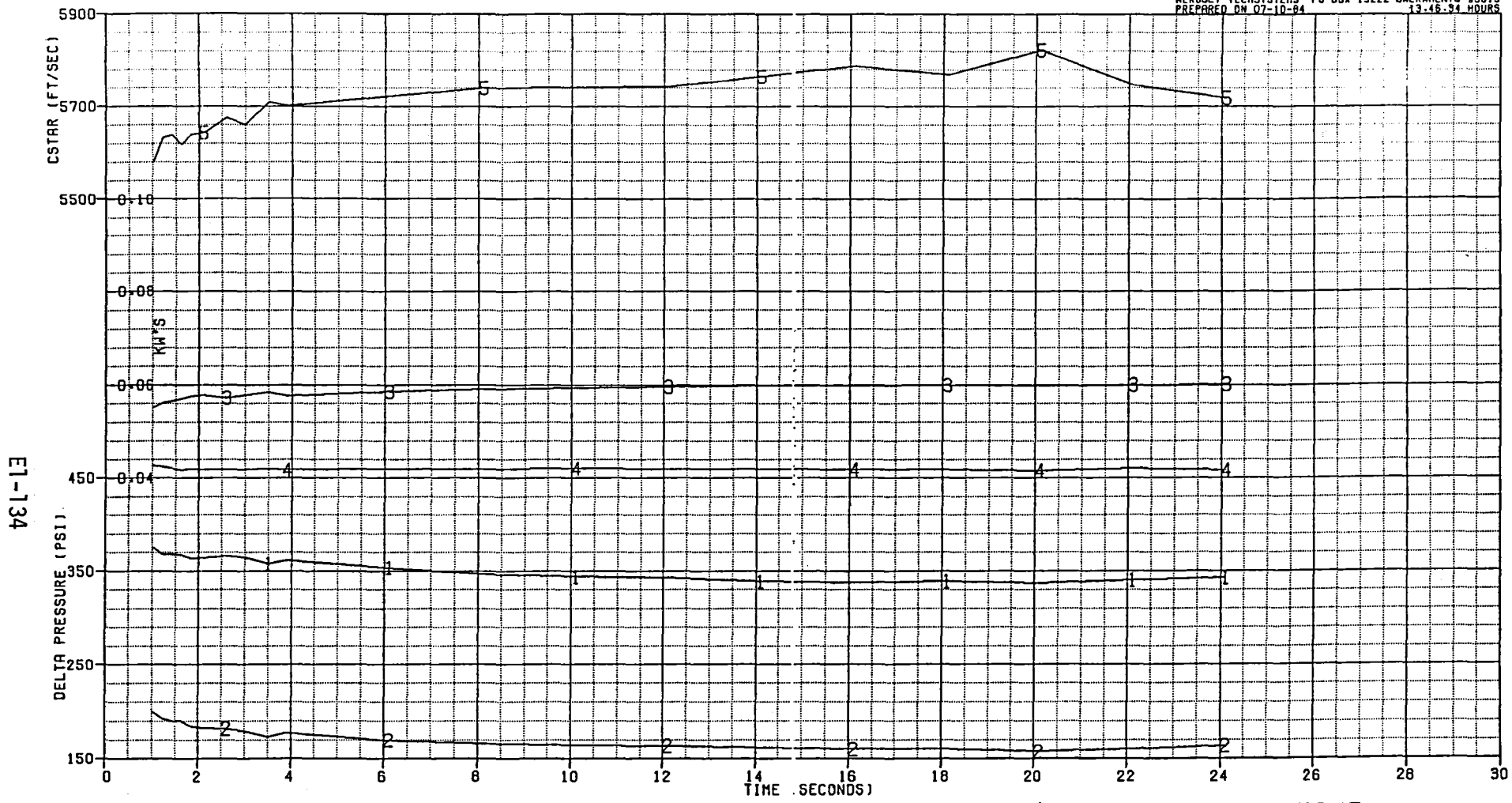


E1-133

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-224

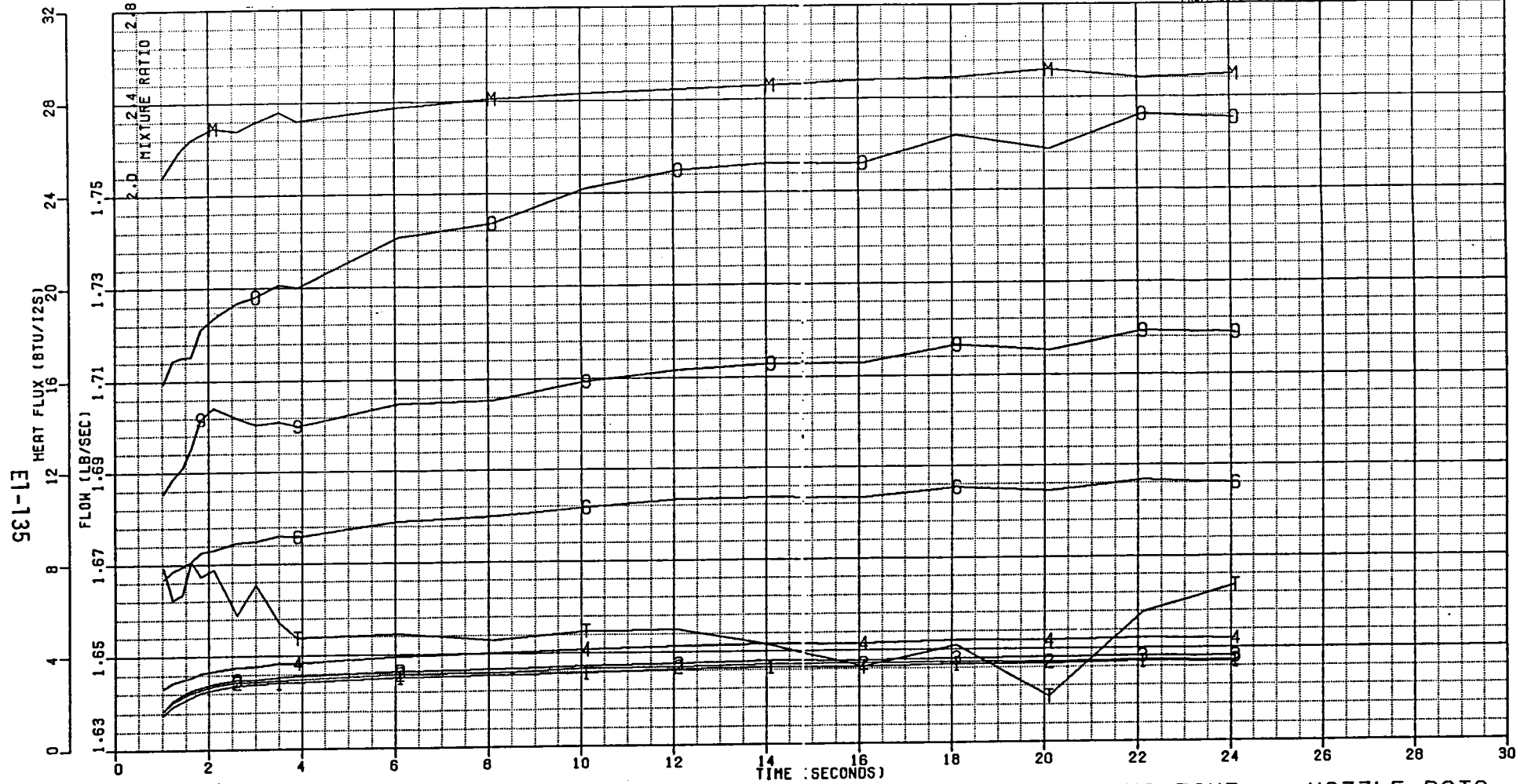
TEST DATE 06-08-84 1357 HOURS AVERAGED DATA



ET-134

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-224  
 TEST DATE 06-08-84 1357 HOURS    AVERAGED DATA



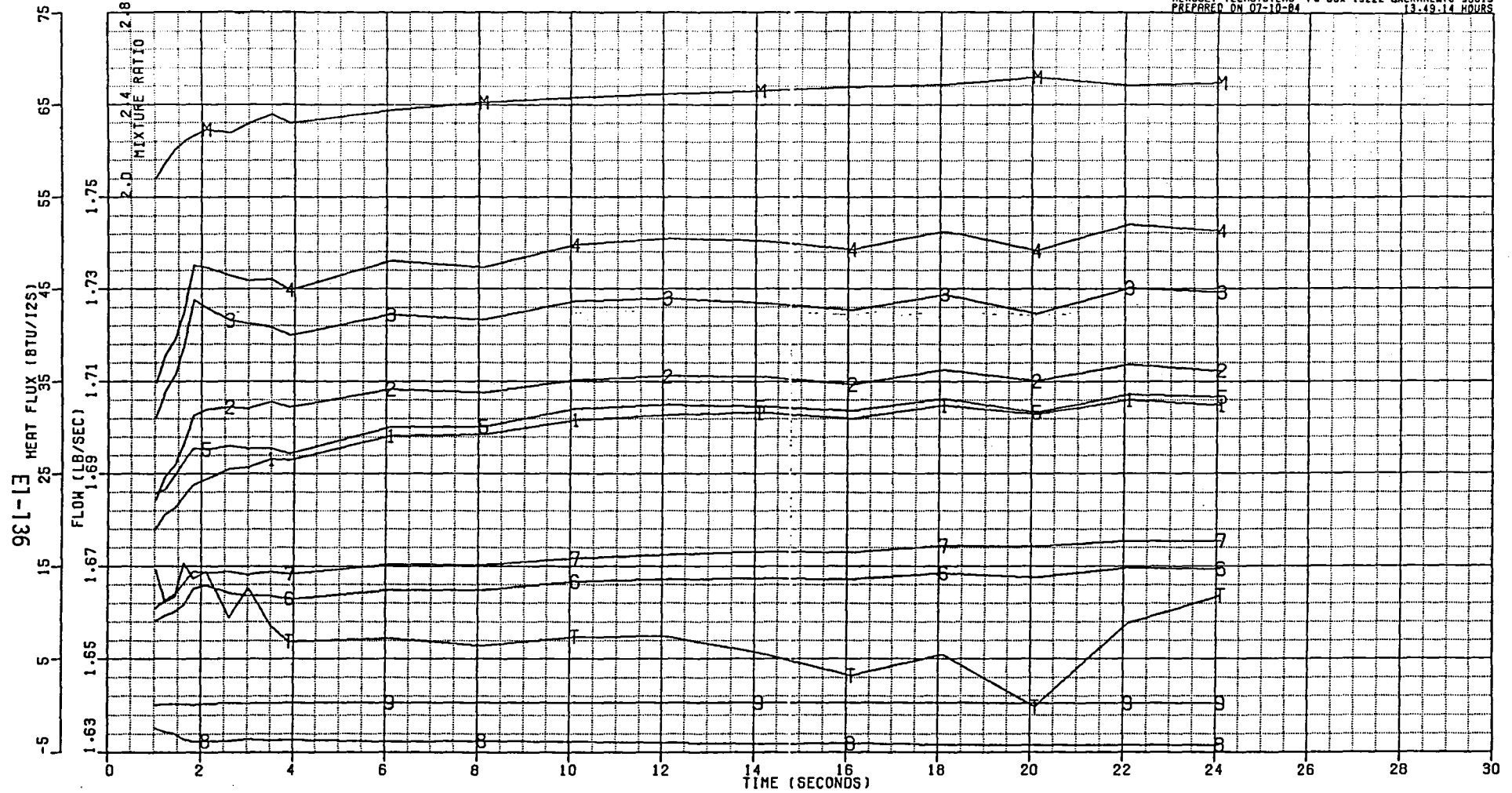
E1-135

- 1 Q/AN1-2 BTU/12S M HR
- 2 Q/AN1-3 BTU/12S
- 3 Q/AN2-1 BTU/12S
- 4 Q/AN2-2,-3 BTU/12S
- 6 Q/AN3 BTU/12S
- 9 Q/AN4 BTU/12S
- 0 Q/AN5 BTU/12S
- T WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-224

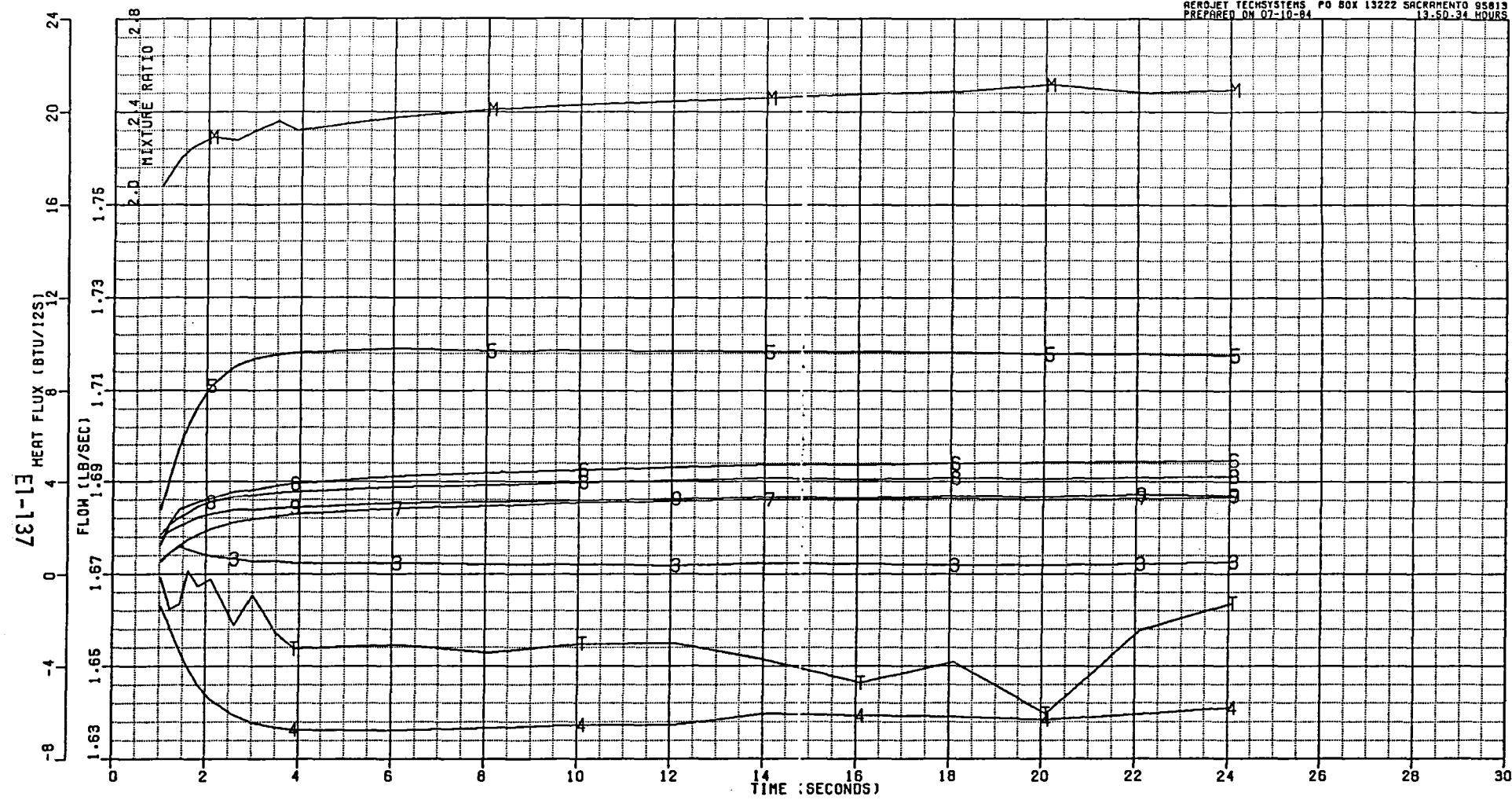
TEST DATE 06-08-84 1357 HOURS AVERAGED DATA





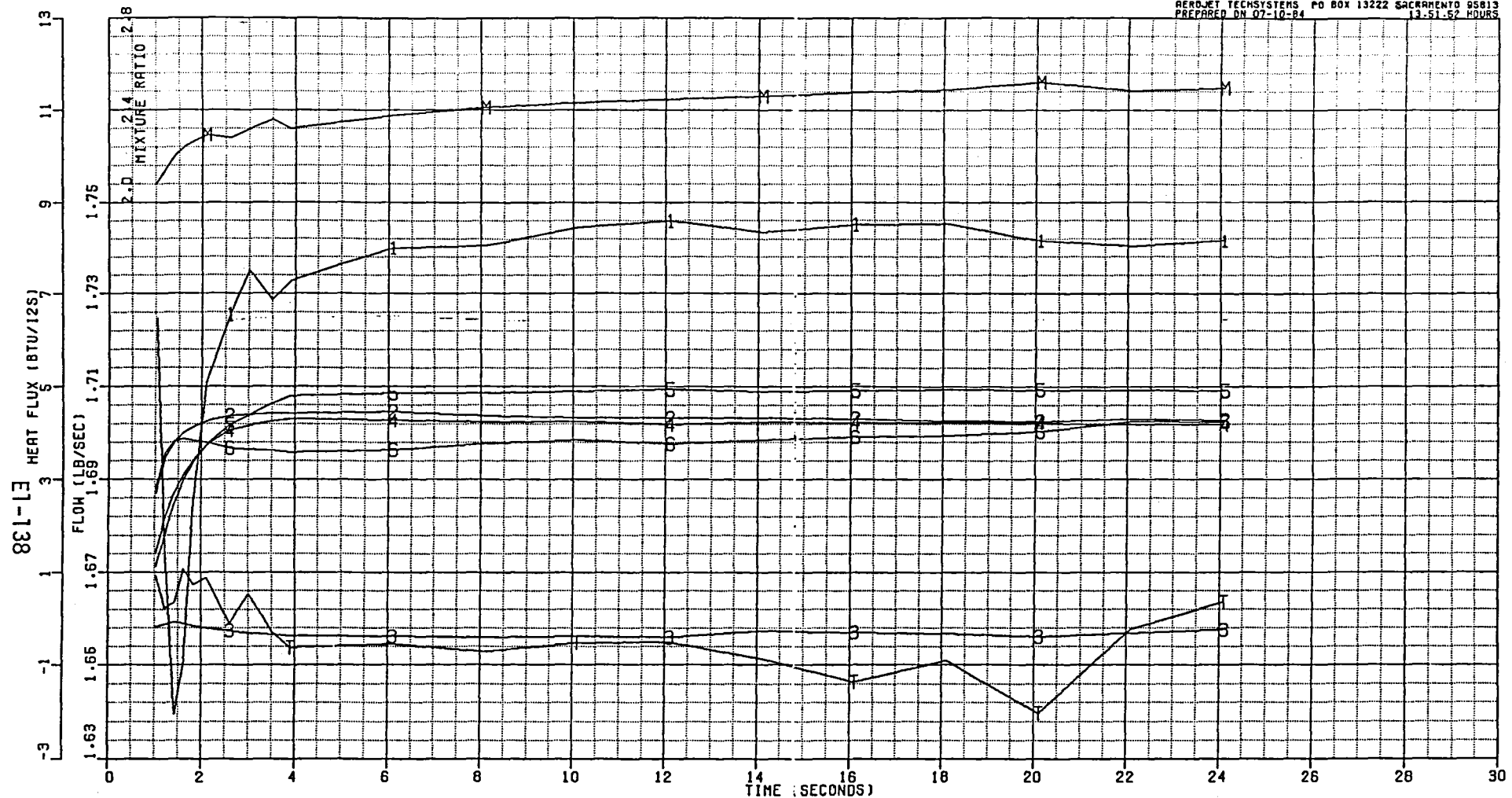
- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/I2S | 9 Q/AN12-3 | BTU/I2S |
| 2 Q/AN7    | BTU/I2S | T WTOT     | LBS/SEC |
| 3 Q/AN8    | BTU/I2S | M MR       |         |
| 4 Q/AN9    | BTU/I2S |            |         |
| 5 Q/AN10   | BTU/I2S |            |         |
| 6 Q/AN11   | BTU/I2S |            |         |
| 7 Q/AN12-1 | BTU/I2S |            |         |
| 8 Q/AN12-2 | BTU/I2S |            |         |

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-224  
 TEST DATE 06-08-84 1357 HOURS AVERAGED DATA



3 Q/RBB1-1 BTU/12S M MR  
 4 Q/RBB2 BTU/12S  
 5 Q/RBB1-2 BTU/12S  
 6 Q/RBB4-1 BTU/12S  
 7 Q/RBB4-2.3 BTU/12S  
 8 Q/RNI-1 BTU/12S  
 9 Q/RNI-2 BTU/12S  
 T WTOT LBS/SEC

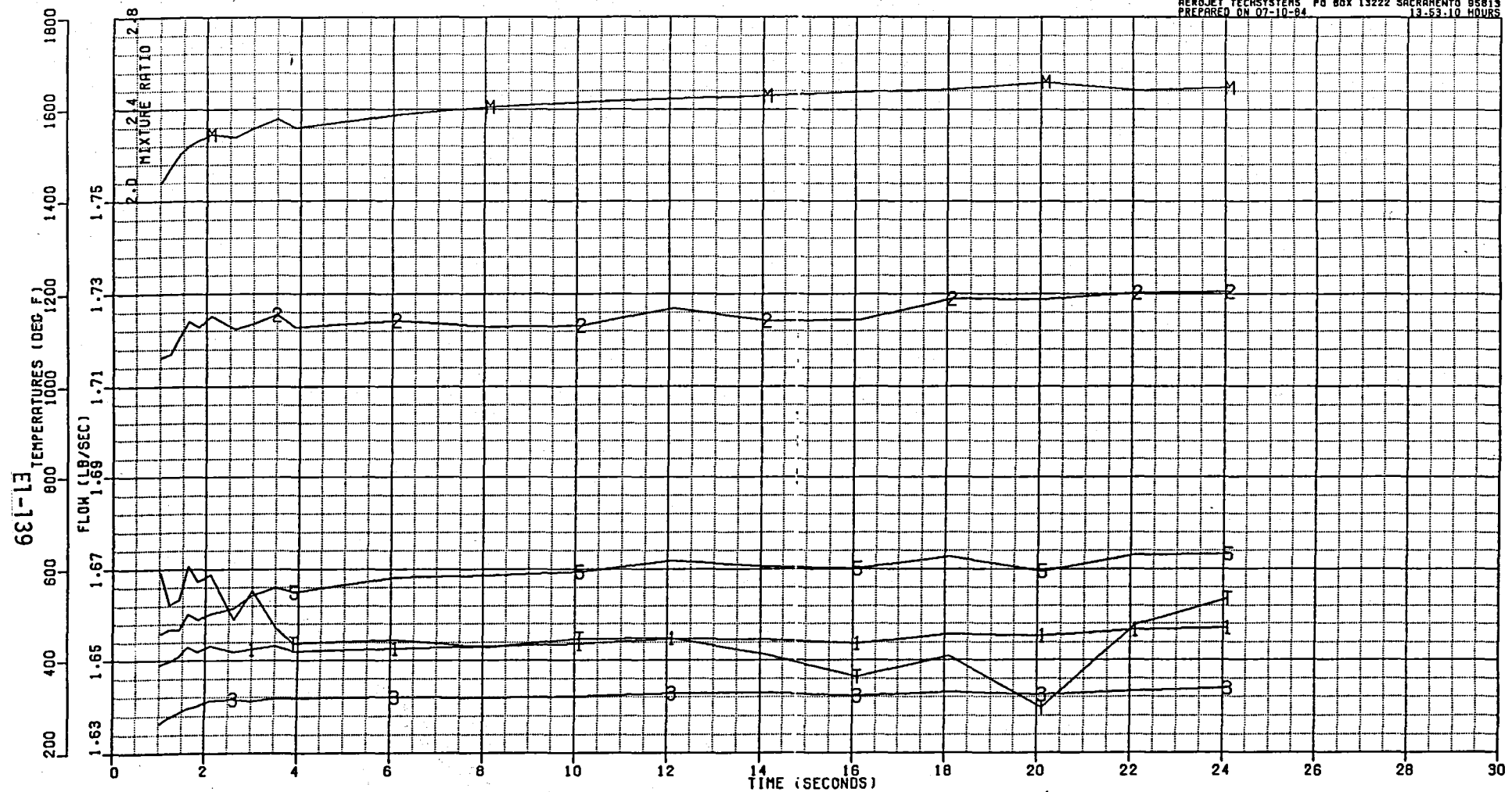
HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-224  
 TEST DATE 06-08-84 1357 HOURS AVERAGED DATA



- 1 Q/ATRMC BTU/12S
- 2 Q/A12B6-1 BTU/12S
- 3 Q/A12B6-2.5 BTU/12S
- 4 Q/A12B3.4 BTU/12S
- 5 Q/A12B1-2.2 BTU/12S
- 6 Q/A12B1-1 BTU/12S
- T WTOT LBS/SEC
- M MR

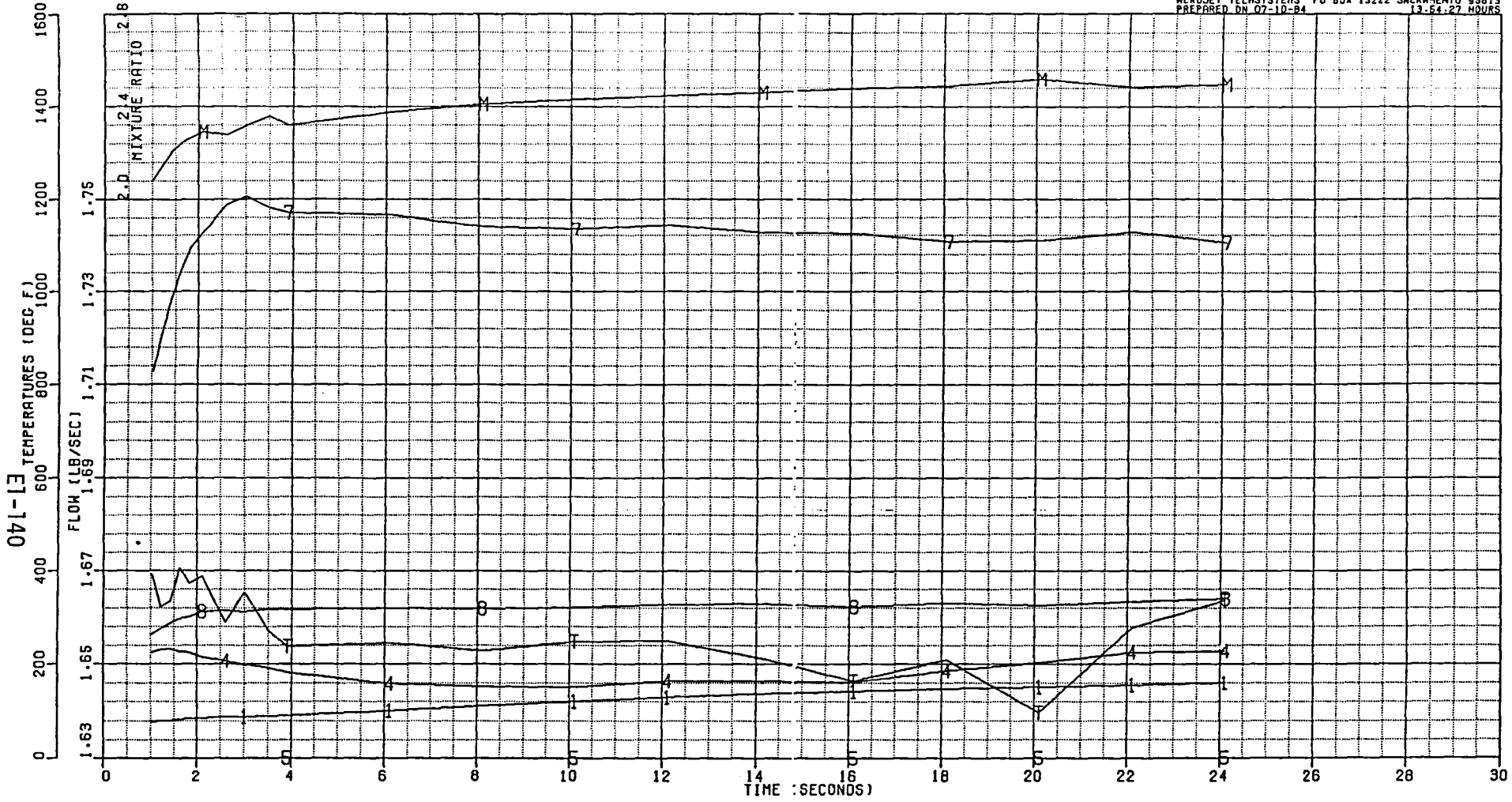
HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-224

TEST DATE 06-08-84 1357 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

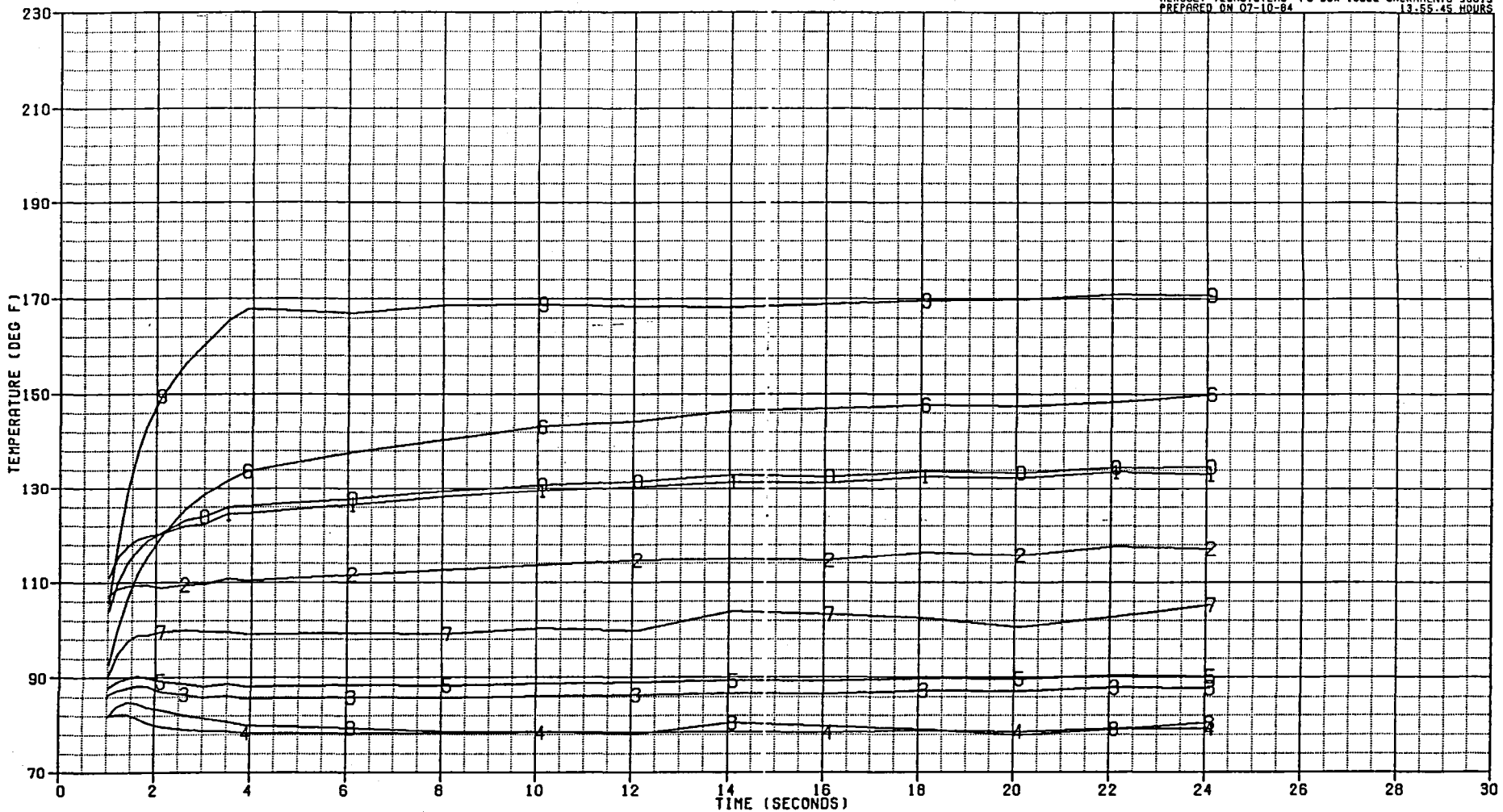
GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-224  
 TEST DATE 06-08-84 1357 HOURS AVERAGED DATA



1 TC-7      DEG F  
 4 TC-10     DEG F  
 5 TC-12     DEG F  
 7 TC-13     DEG F  
 8 TC-3      DEG F  
 T WTOT      LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-224  
 TEST DATE 06-08-84 1357 HOURS      AVERAGED DATA

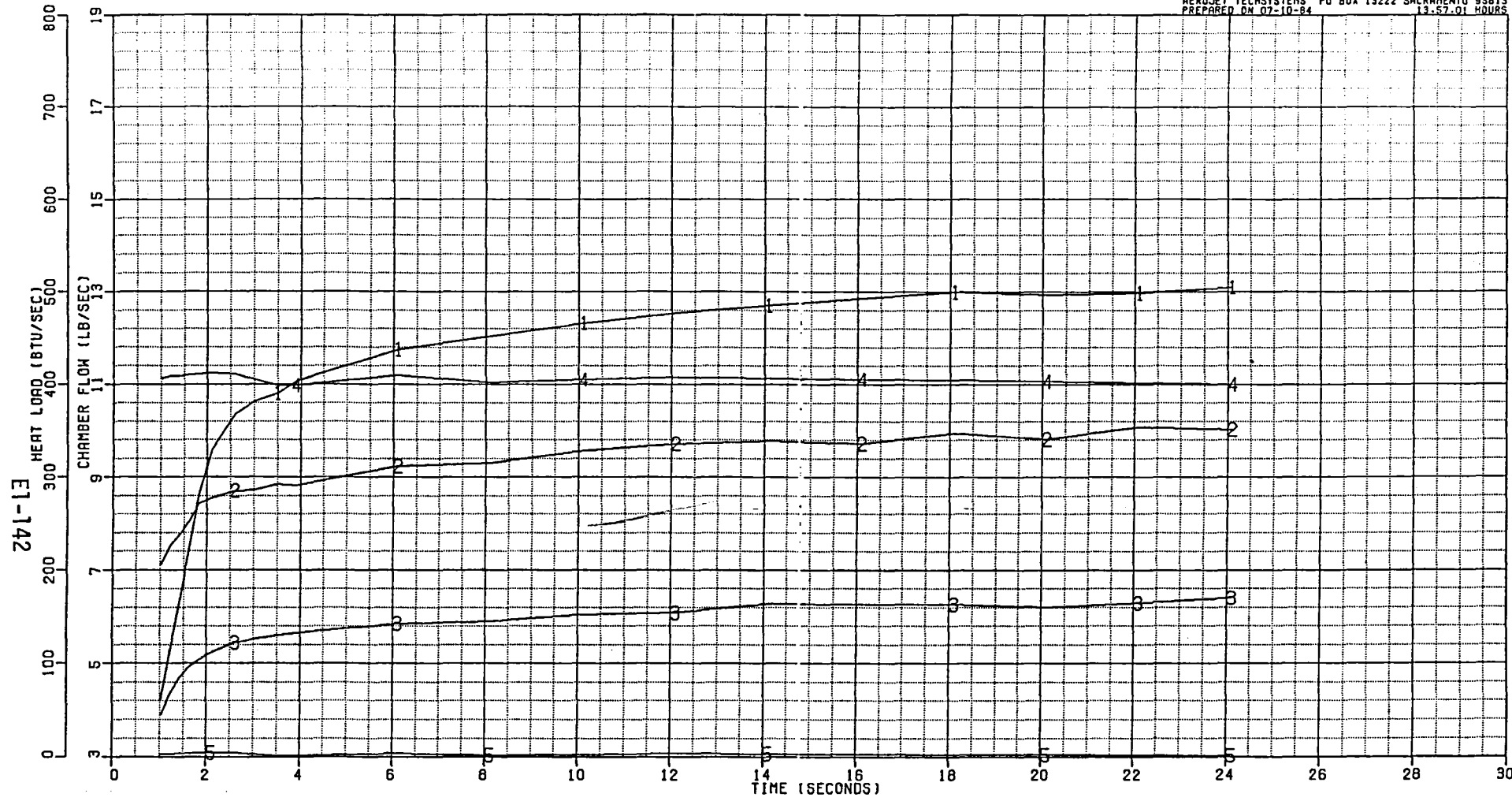
E1-141



- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-224

TEST DATE 06-08-84 1357 HOURS AVERAGED DATA



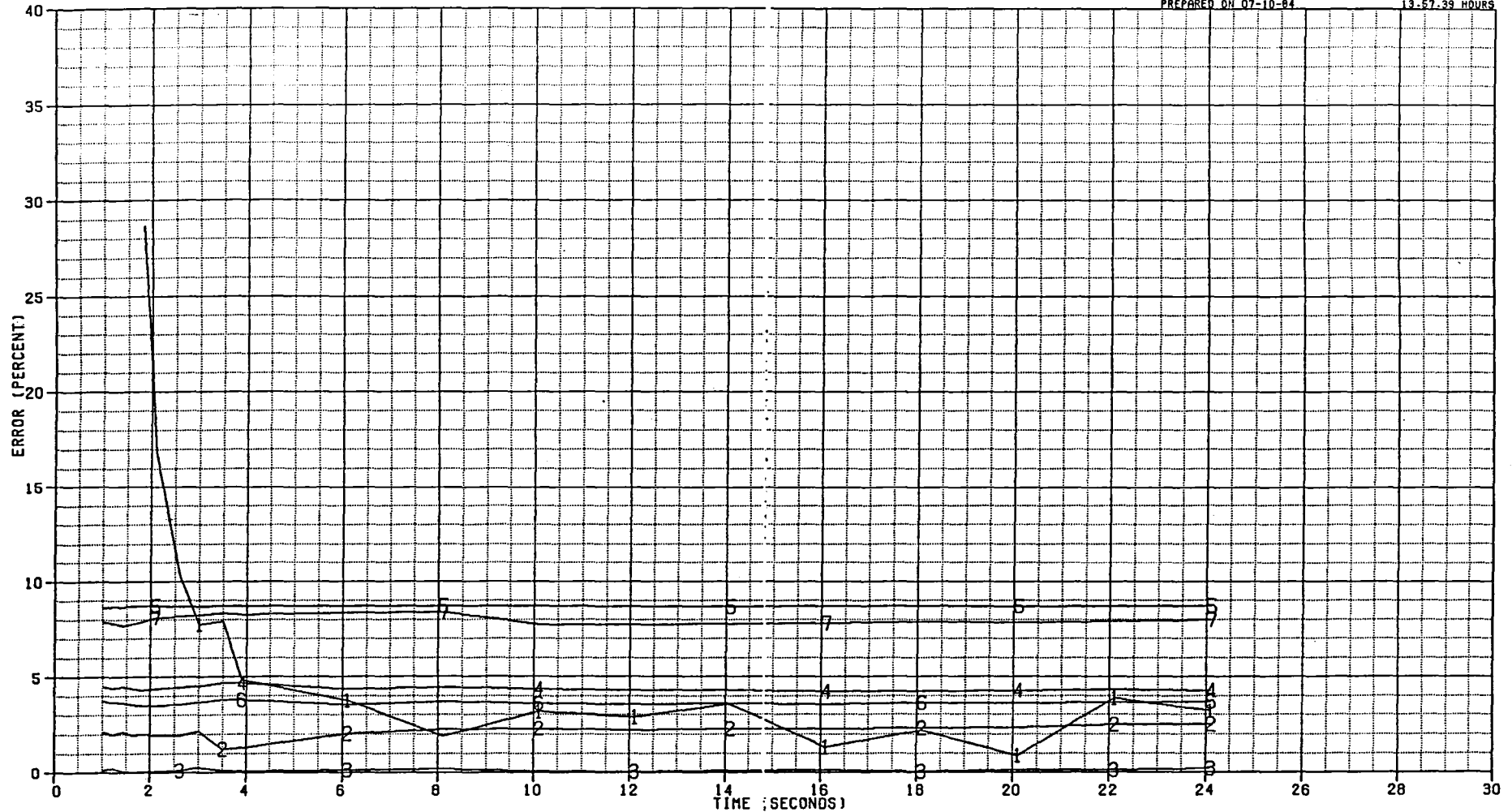
E1-142

1 QH BTU/SEC  
 2 QNT BTU/SEC  
 3 QBBT BTU/SEC  
 4 HW1 LBS/SEC  
 5 HW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-224

TEST DATE 06-08-84 1357 HOURS AVERAGED DATA

E1-143

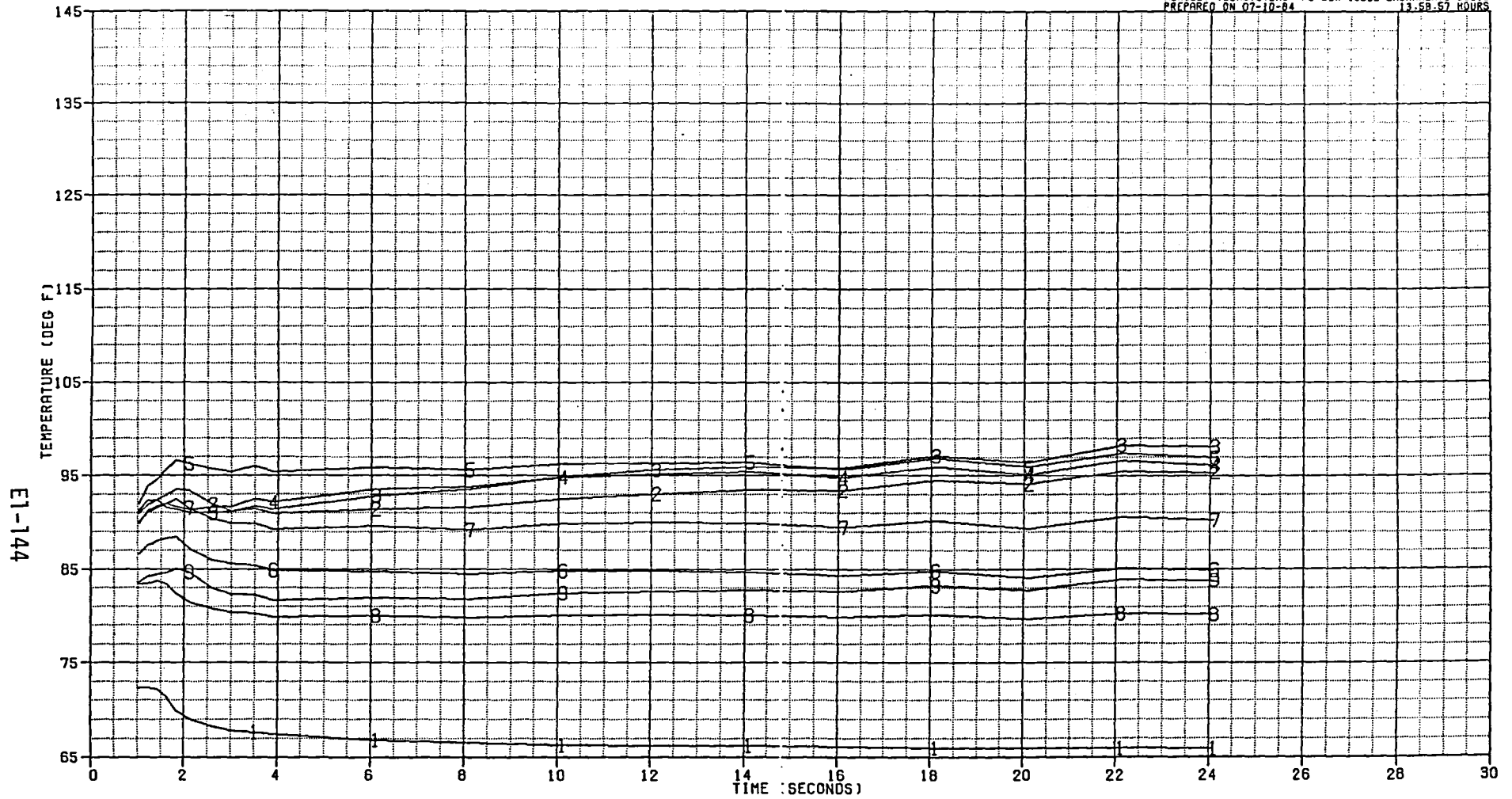


- 1 QERN PERCENT
- 2 WERNT PERCENT
- 3 WER8BT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
TEST NO. RLBL-936-224

TEST DATE 06-08-84 1357 HOURS AVERAGED DATA





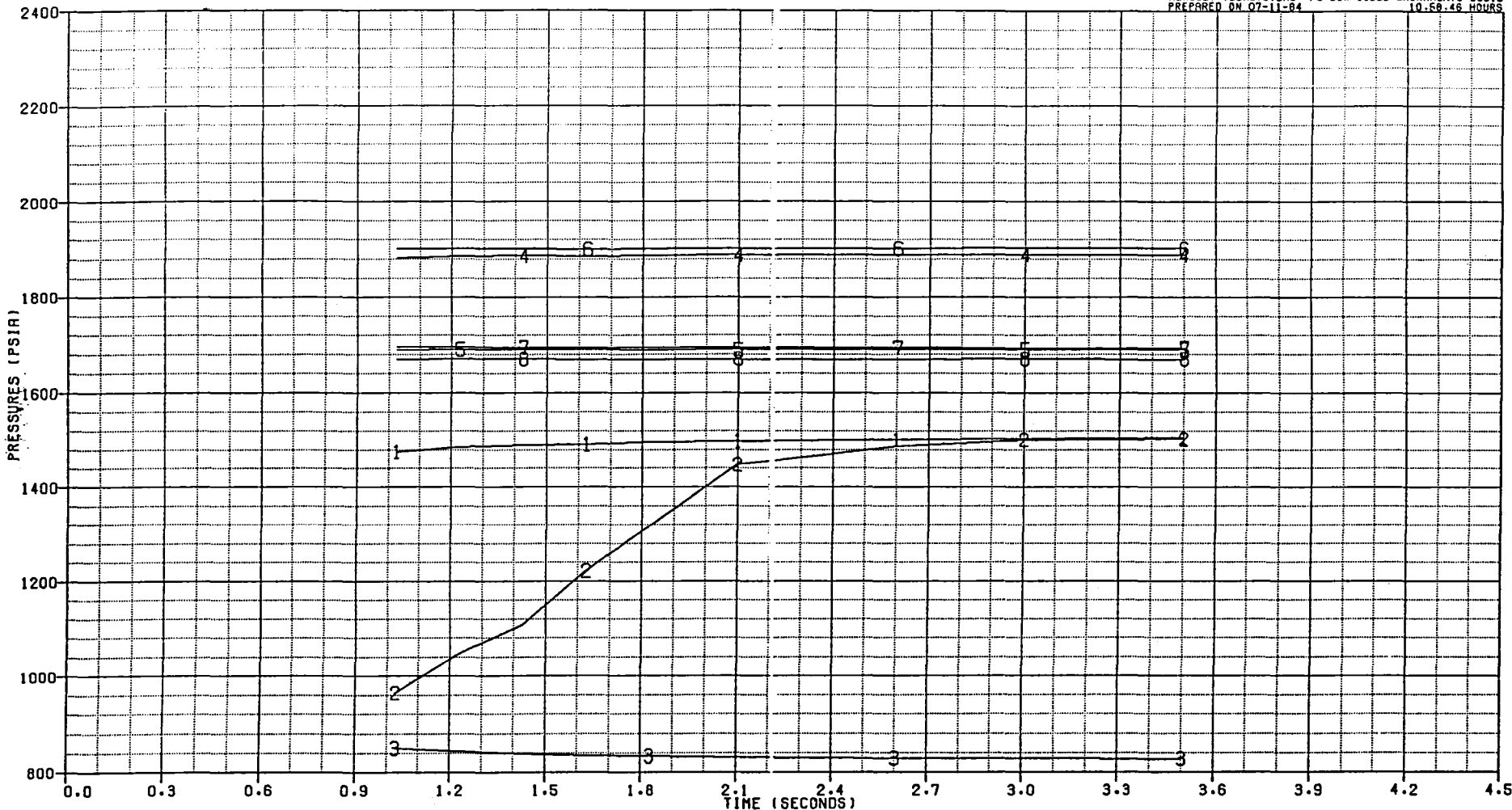
E1-144

- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
TEST NO. RLBL-936-224

TEST DATE 06-08-84 1357 HOURS AVERAGED DATA

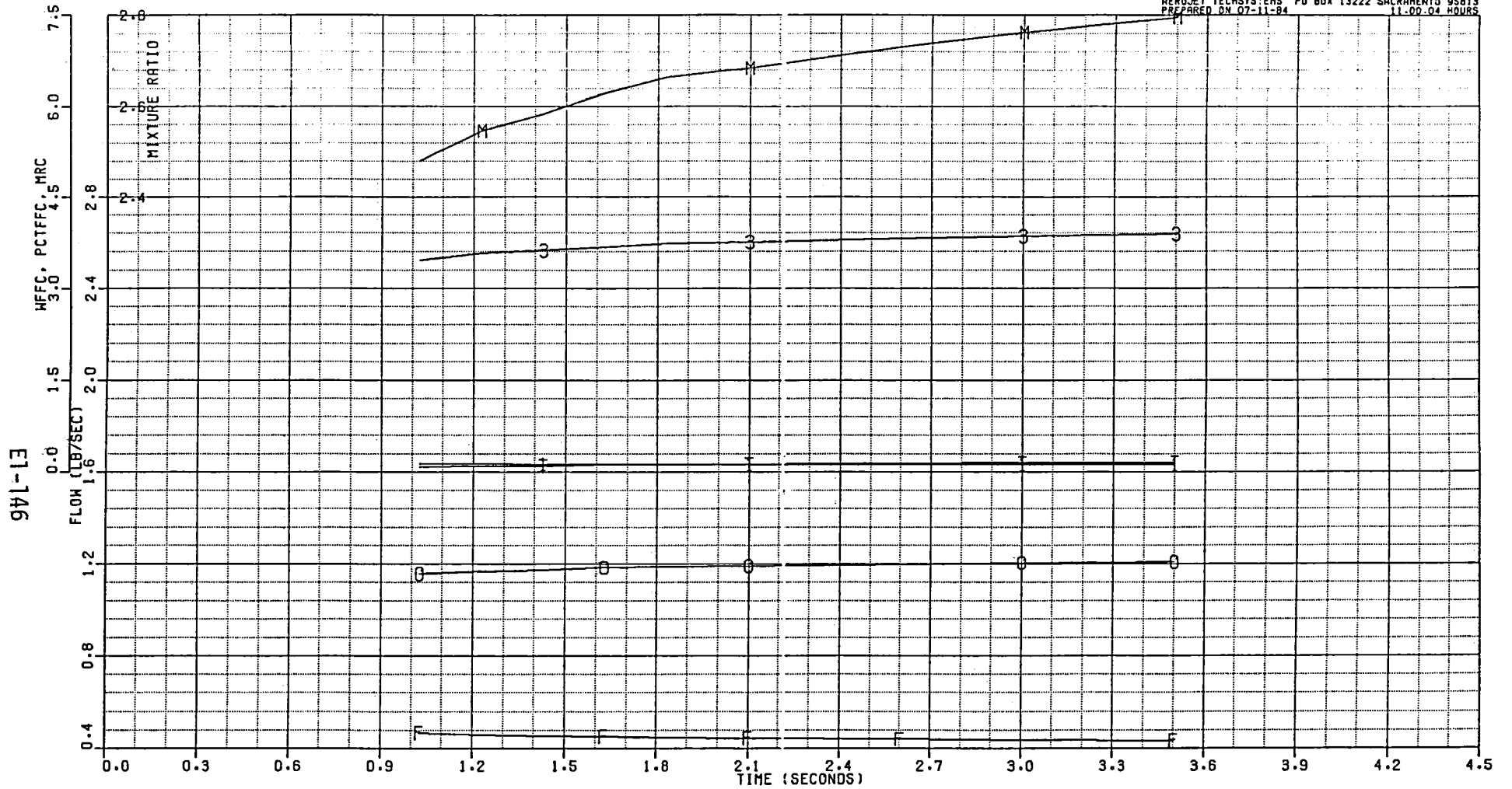
E1-145



- 1 PC-1 PSIA
- 2 PQJI PSIA
- 3 PFJI PSIA
- 4 PQJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
TEST NO. RLBL-936-225

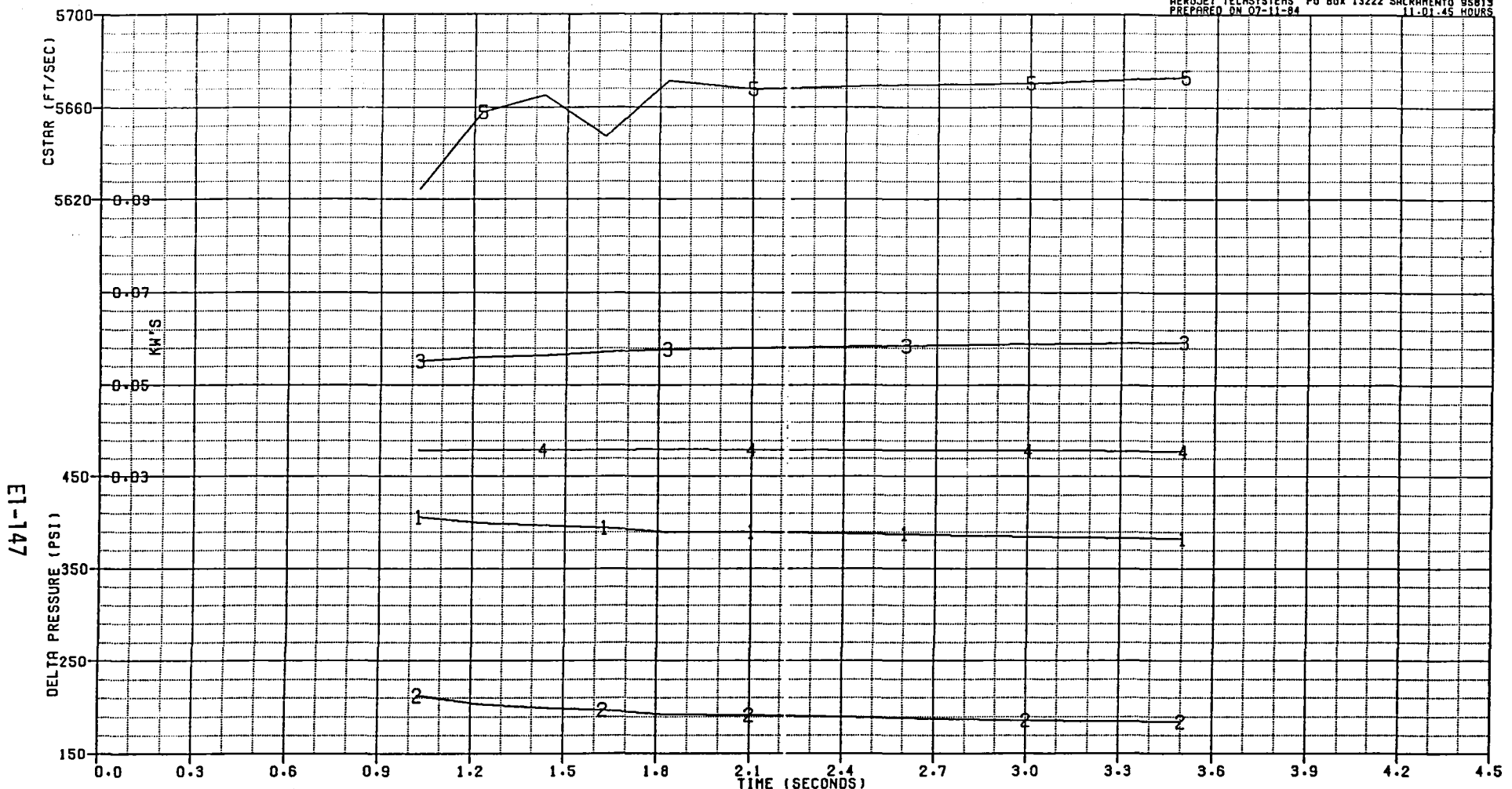
TEST DATE 06-08-84 1454 HOURS AVERAGED DATA



E1-146

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR LBS/SEC  
 1 WFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC PERCENT

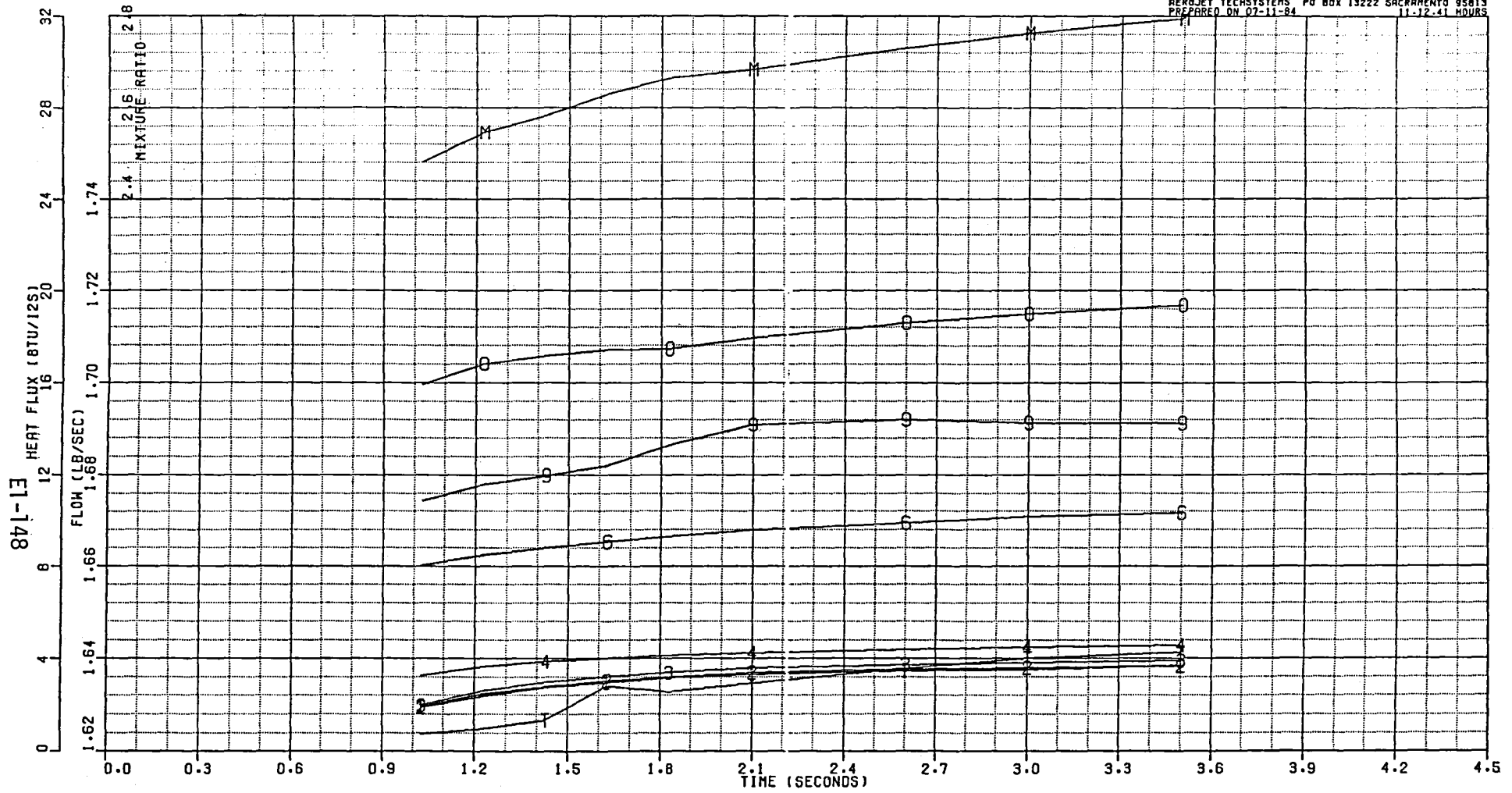
INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS AVERAGED DATA



ET-147

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS    AVERAGED DATA

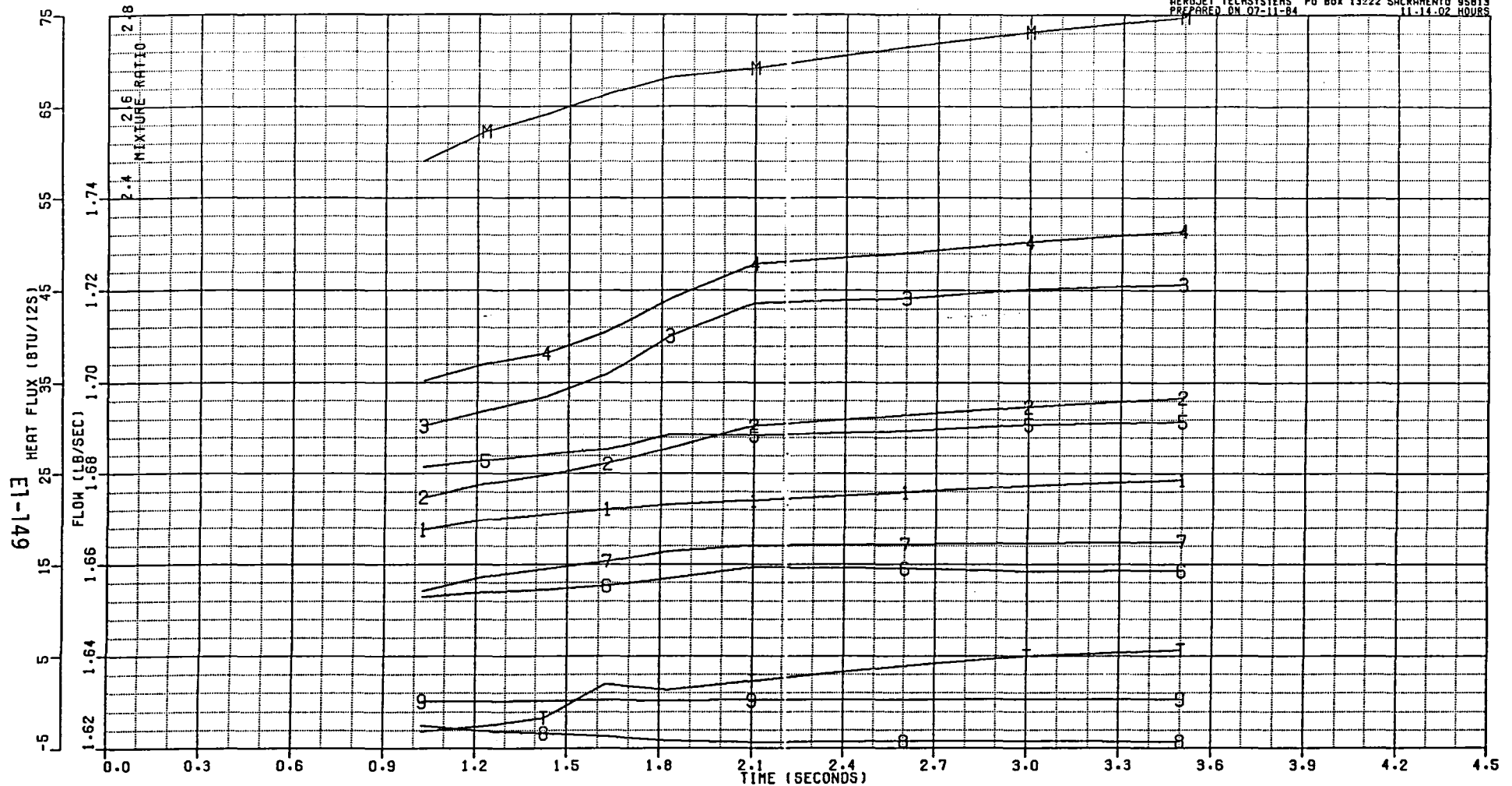


E1-148

- 1 Q/AN1-2 BTU/12S M MR
- 2 Q/AN1-3 BTU/12S
- 3 Q/AN2-1 BTU/12S
- 4 Q/AN2-2,-3 BTU/12S
- 6 Q/AN3 BTU/12S
- 9 Q/AN4 BTU/12S
- 0 Q/AN5 BTU/12S
- T. WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-225

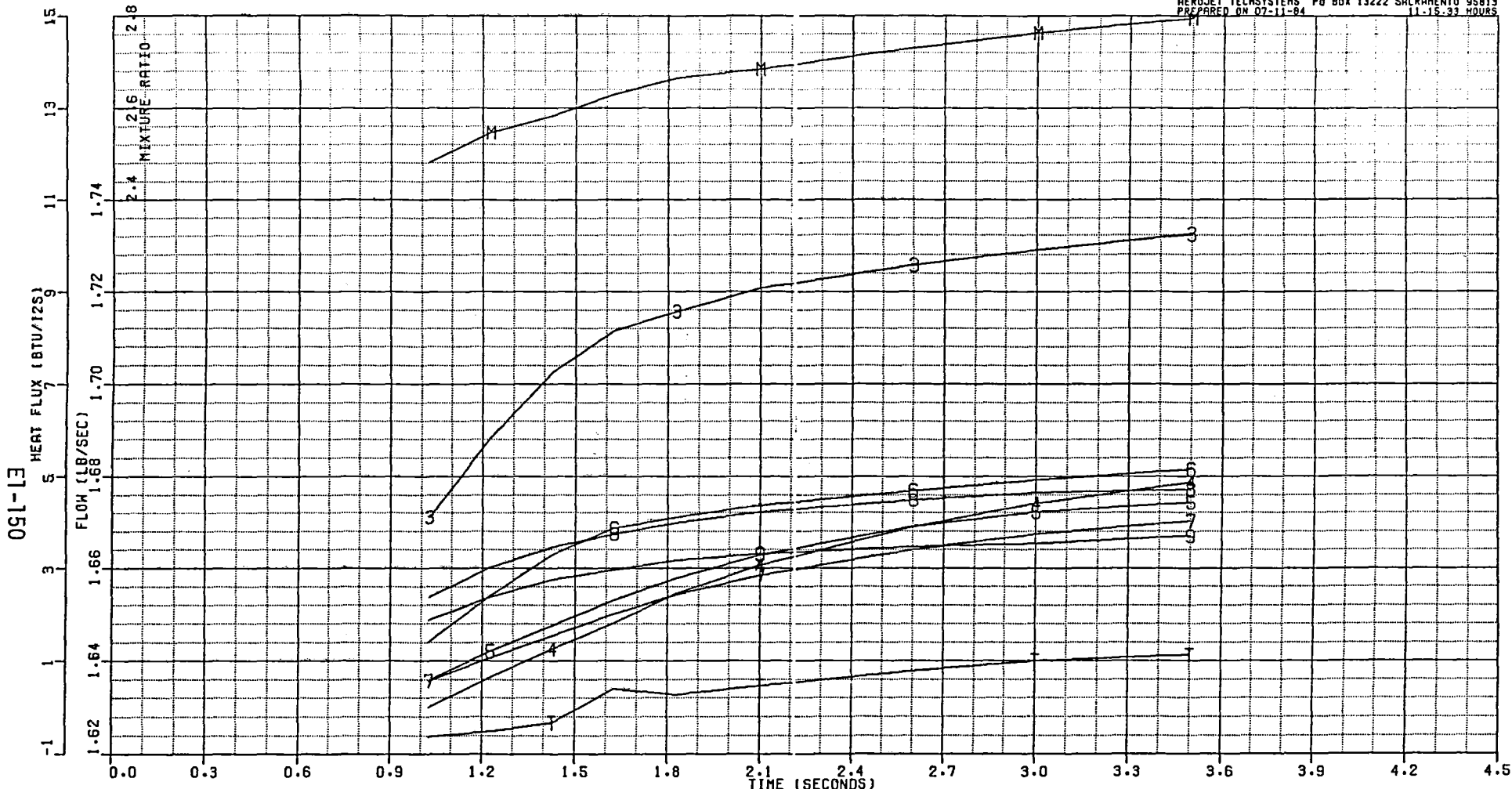
TEST DATE 06-08-84 1454 HOURS AVERAGED DATA



- |            |         |            |         |
|------------|---------|------------|---------|
| 1 Q/AN6    | BTU/12S | 9 Q/AN12-3 | BTU/12S |
| 2 Q/AN7    | BTU/12S | T WTOT     | LBS/SEC |
| 3 Q/AN8    | BTU/12S | M MR       |         |
| 4 Q/AN9    | BTU/12S |            |         |
| 5 Q/AN10   | BTU/12S |            |         |
| 6 Q/AN11   | BTU/12S |            |         |
| 7 Q/AN12-1 | BTU/12S |            |         |
| 8 Q/AN12-2 | BTU/12S |            |         |

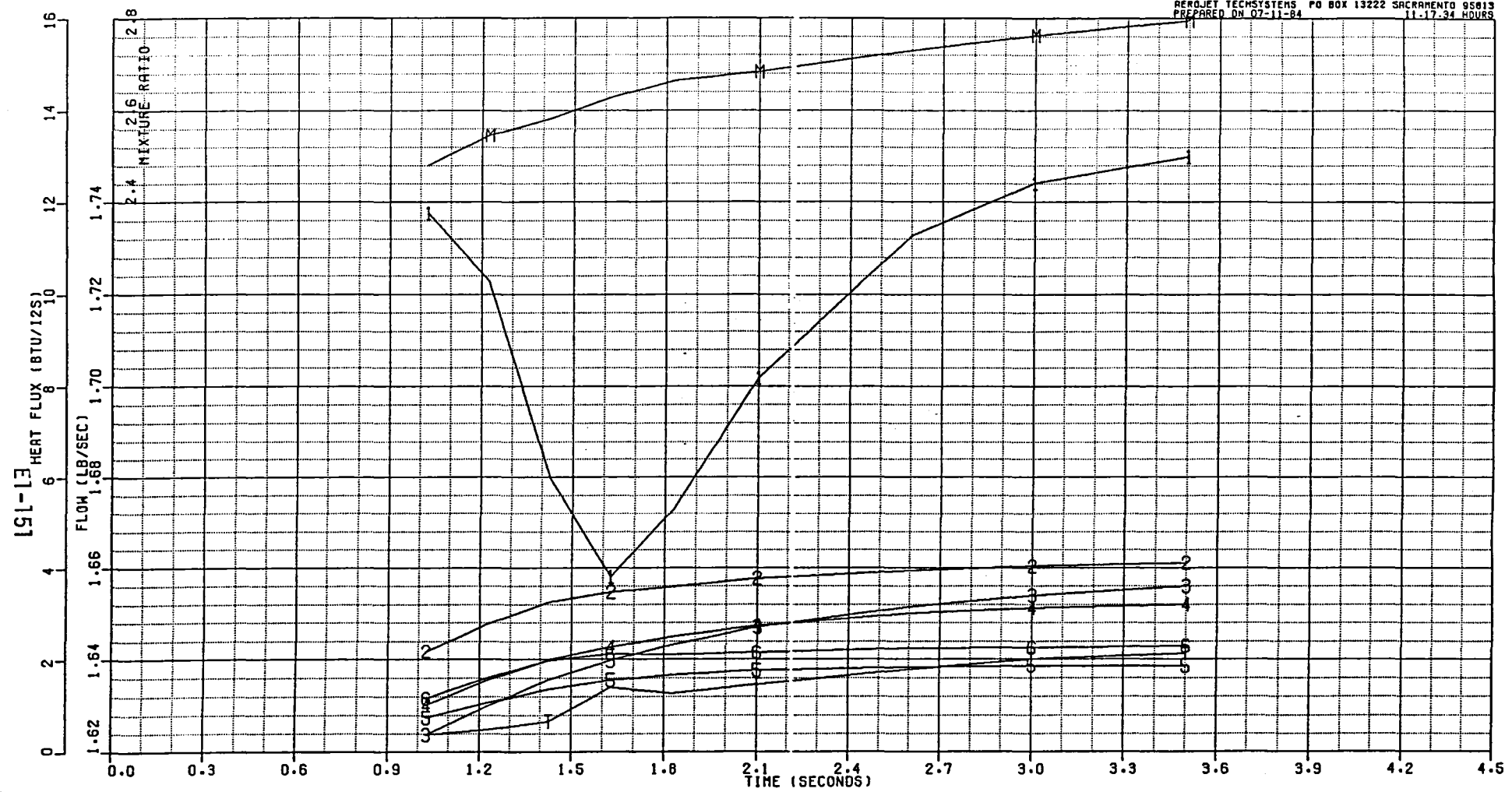
HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS AVERAGED DATA

E1-149



- 3 Q/ABB1-1 BTU/12S M MR
- 4 Q/ABB2 BTU/12S
- 5 Q/ABB1-2 BTU/12S
- 6 Q/ABB4-1 BTU/12S
- 7 Q/ABB4-2,3 BTU/12S
- 8 Q/ANI-1 BTU/12S
- 9 Q/ANI-2 BTU/12S
- T WTOT LBS/SEC

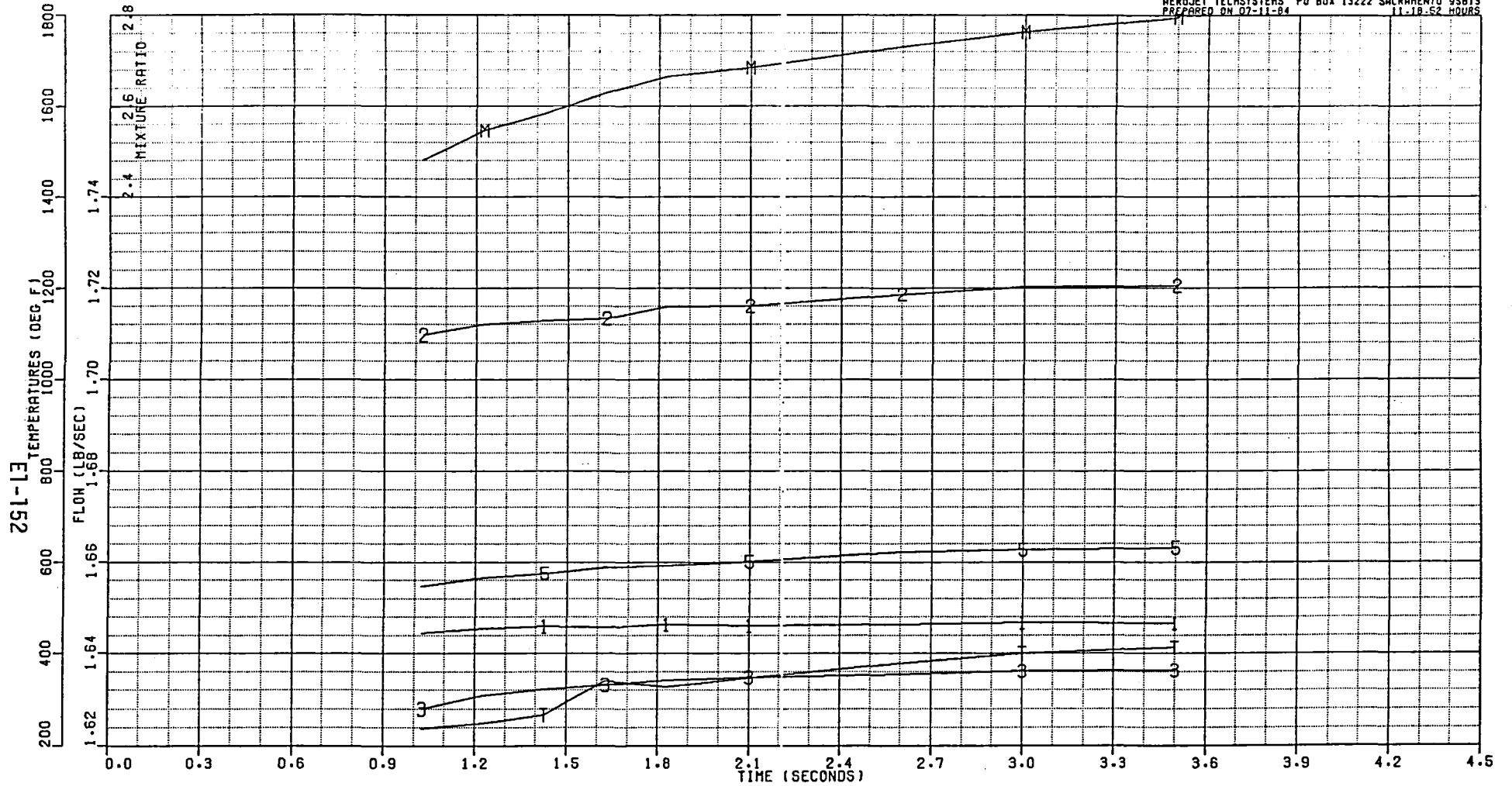
HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS AVERAGED DATA



1 Q/ATRC BTU/12S  
 2 Q/A12B6-1 BTU/12S  
 3 Q/A12B6-2.5 BTU/12S  
 4 Q/A12B3.4 BTU/12S  
 5 Q/A12B1-2.2 BTU/12S  
 6 Q/A12B1-1 BTU/12S  
 T WTOT LBS/SEC  
 M MR

HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS AVERAGED DATA

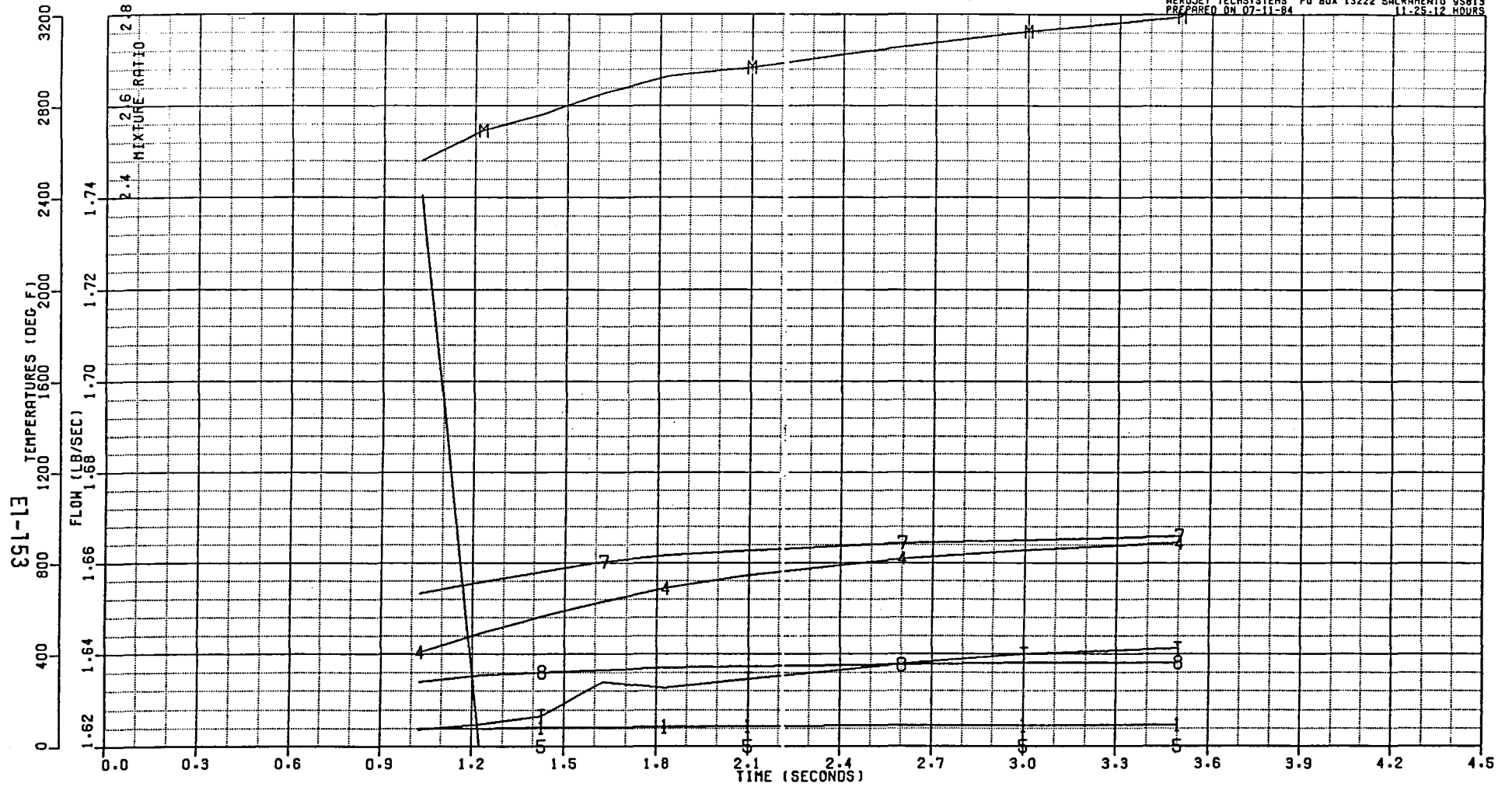




1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-225

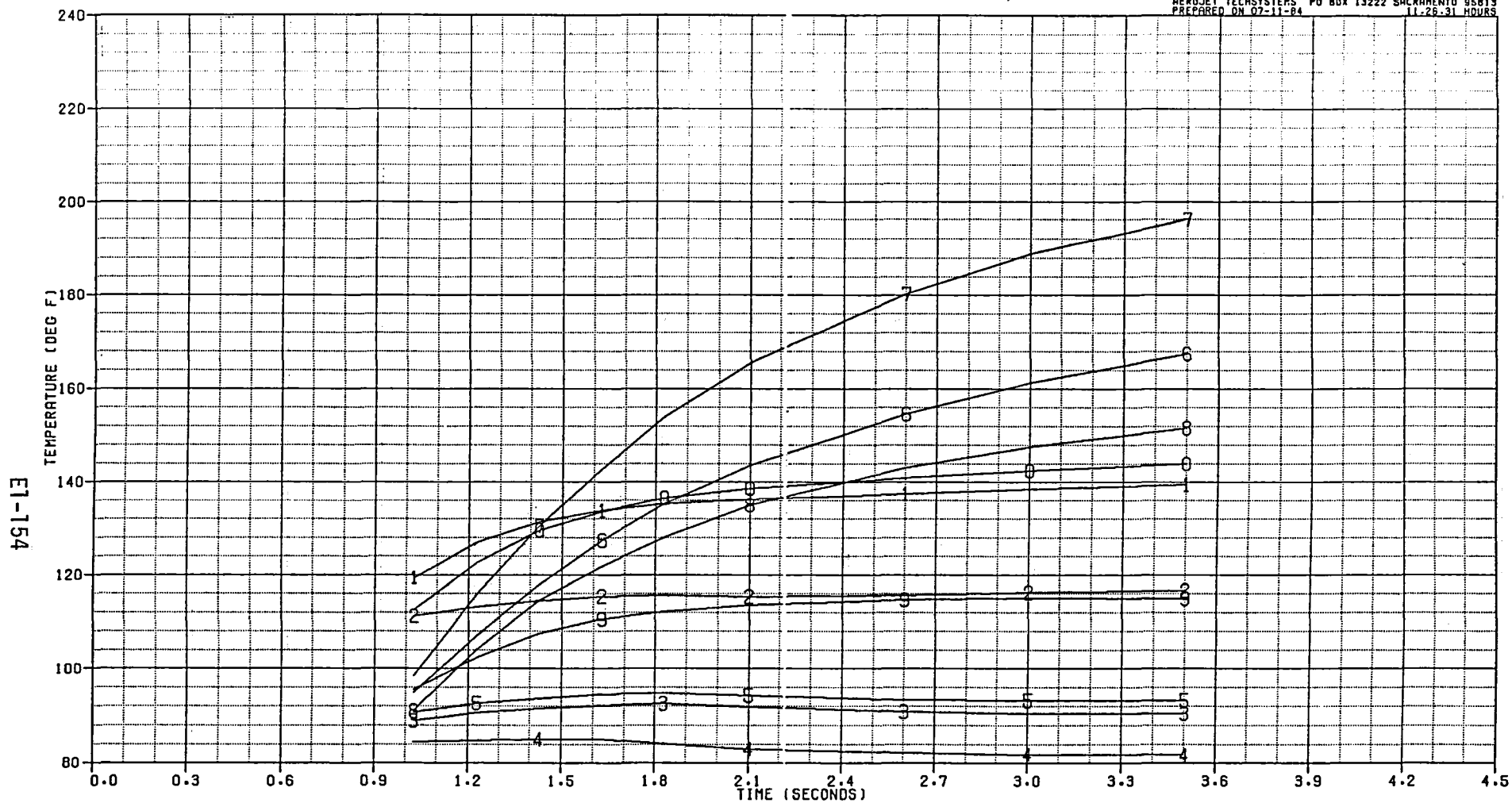
TEST DATE 06-08-84 1454 HOURS AVERAGED DATA



1 TC-7 DEG F  
 4 TC-10 DEG F  
 5 TC-12 DEG F  
 7 TC-13 DEG F  
 8 TC-3 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-225

TEST DATE 06-08-84 1454 HOURS AVERAGED DATA

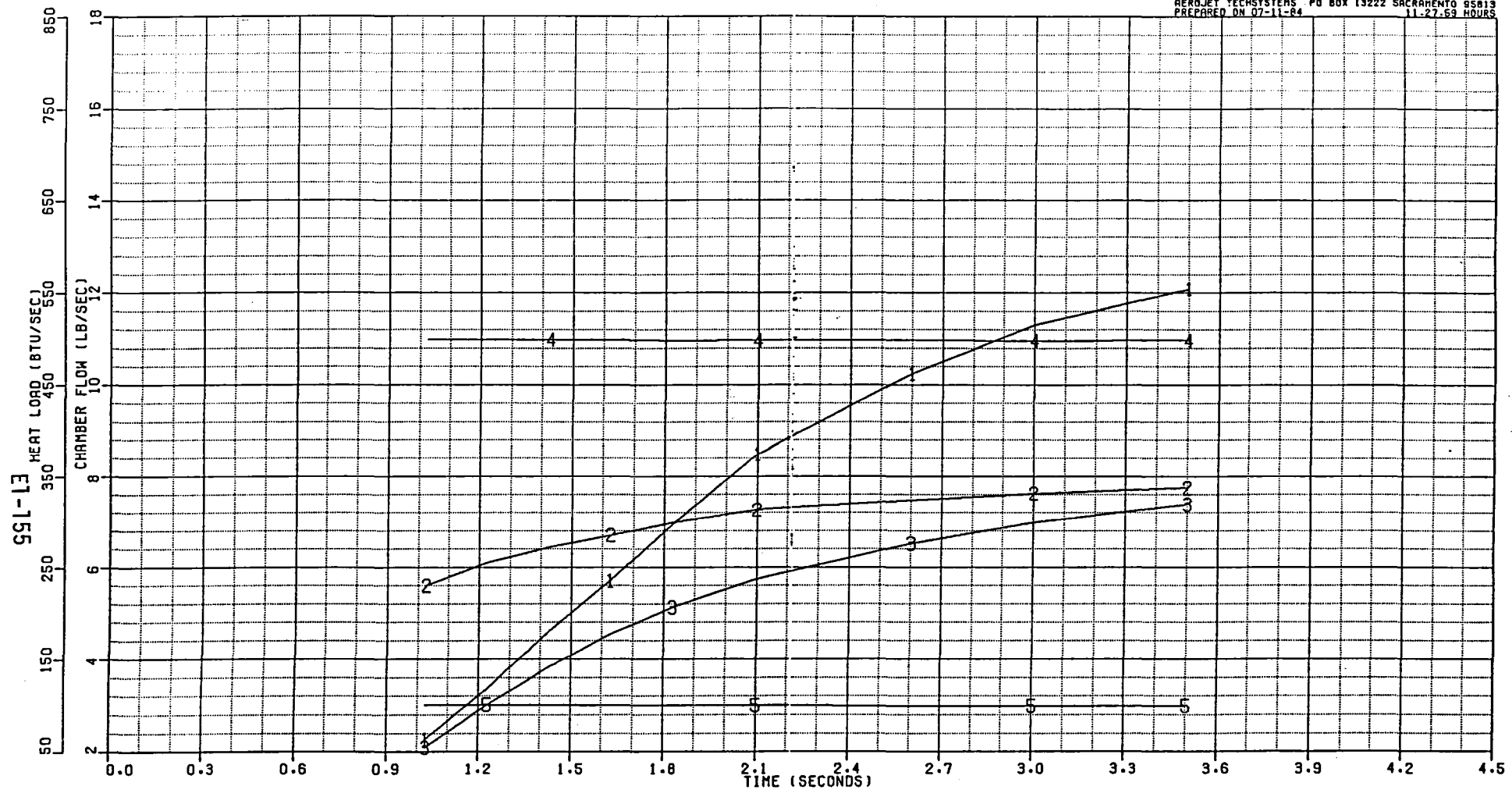


E1-154

- |          |       |          |       |
|----------|-------|----------|-------|
| 0 TWC-6  | DEG F | 8 TWC-31 | DEG F |
| 1 TWC-7  | DEG F | 9 TWC-32 | DEG F |
| 2 TWC-10 | DEG F |          |       |
| 3 TWC-21 | DEG F |          |       |
| 4 TWC-22 | DEG F |          |       |
| 5 TWC-23 | DEG F |          |       |
| 6 TWC-26 | DEG F |          |       |
| 7 TWC-27 | DEG F |          |       |

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-225

TEST DATE 06-08-84 1454 HOURS AVERAGED DATA

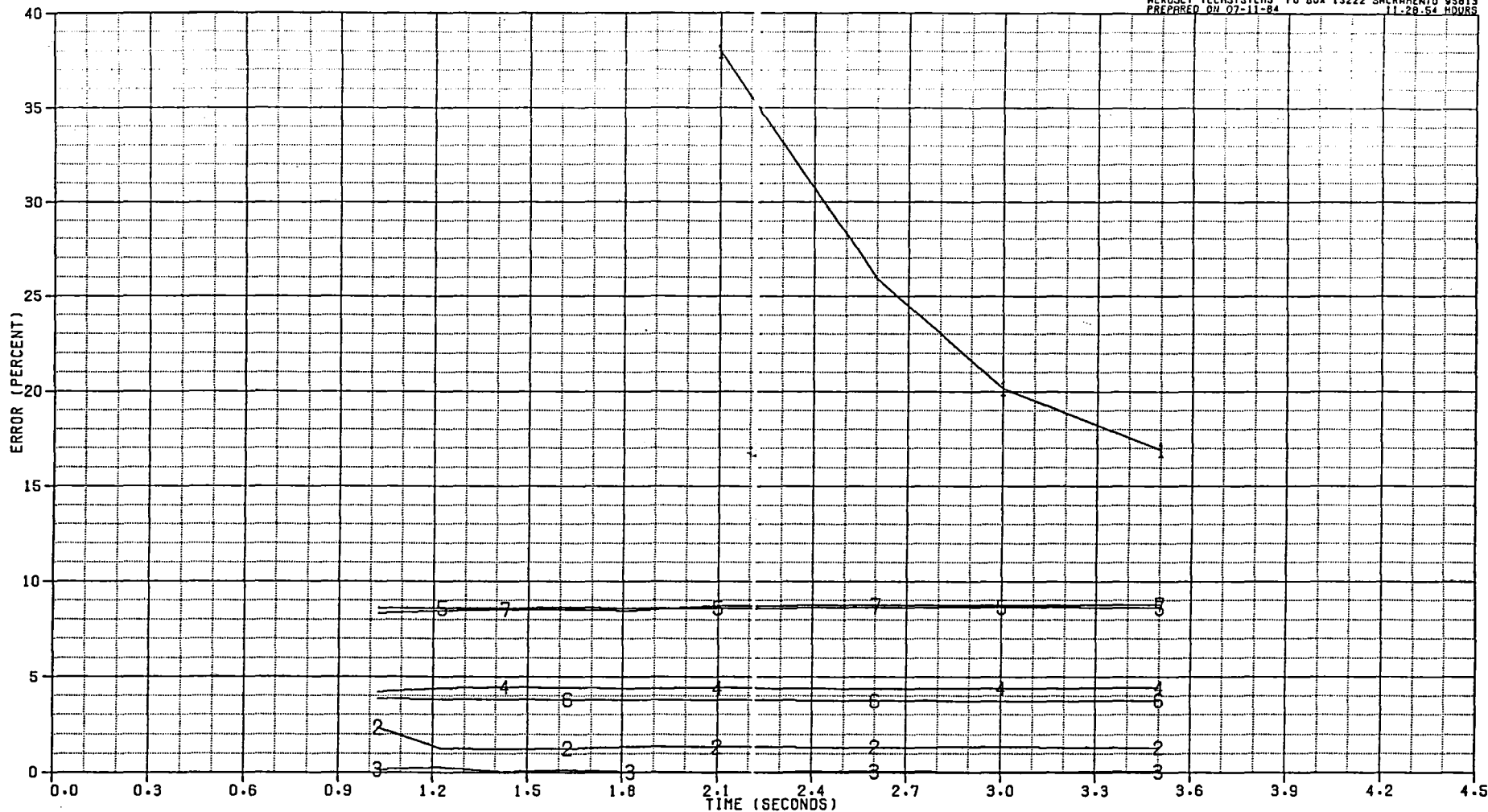


1 QM BTU/SEC  
2 QNT BTU/SEC  
3 Q8BT BTU/SEC  
4 W1 LBS/SEC  
5 W2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
TEST NO. RLBL-936-225

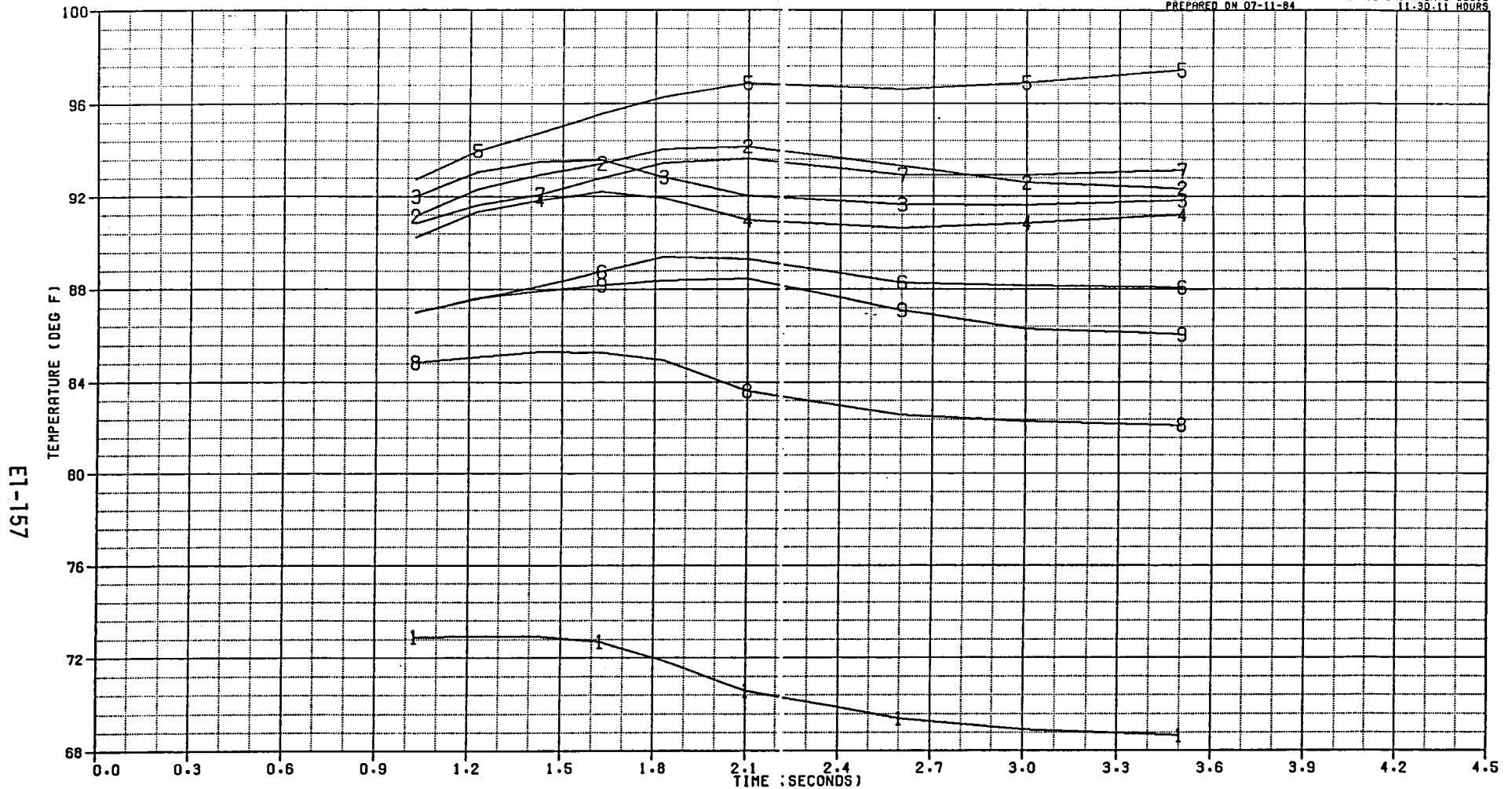
TEST DATE 06-08-84 1454 HOURS AVERAGED DATA

E1-156



1 QERM PERCENT  
 2 WERNT PERCENT  
 3 WER8BT PERCENT  
 4 WER12B1 PERCENT  
 5 WER12B3 PERCENT  
 6 WER12B5 PERCENT  
 7 WERN10 PERCENT

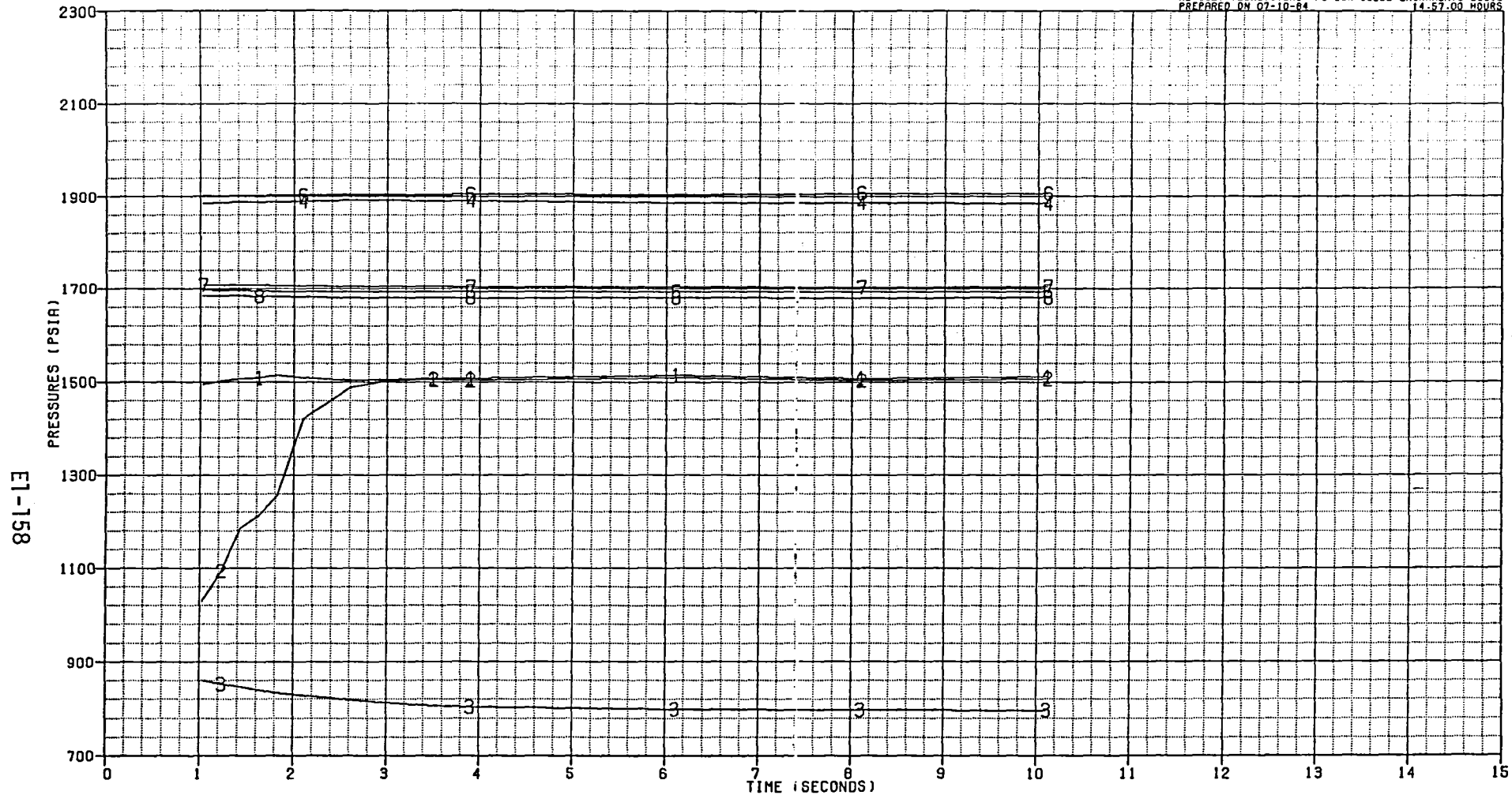
CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS AVERAGED DATA



E1-157

- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COCLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-225  
 TEST DATE 06-08-84 1454 HOURS AVERAGED DATA

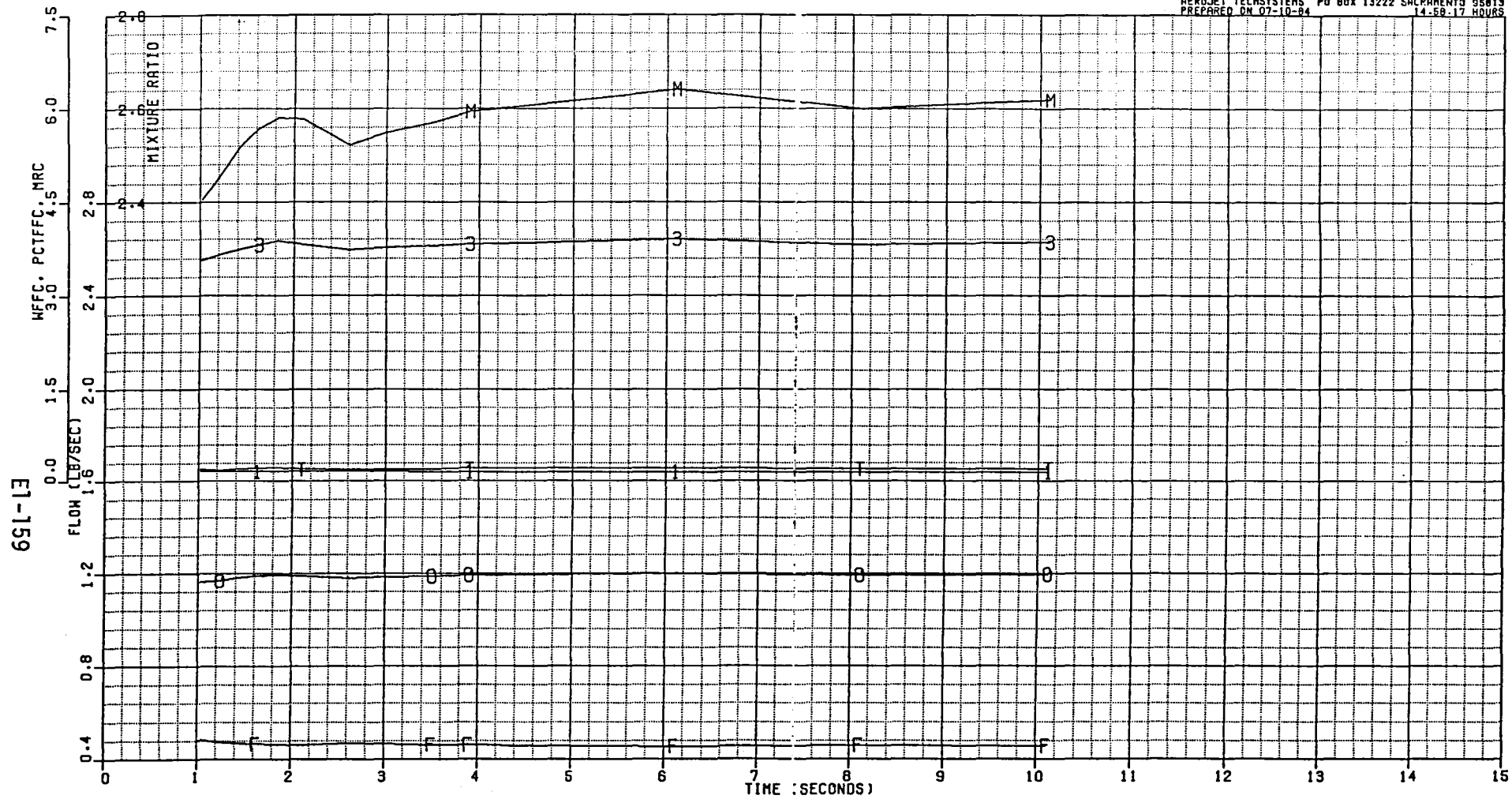


E1-158

- 1 PC-1 PSIA
- 2 PQJI PSIA
- 3 PFJI PSIA
- 4 POJ PSIA
- 5 PFJ PSIA
- 6 POT PSIA
- 7 PFT PSIA
- 8 PFC-1 PSIA

INJECTOR PRESSURES VS TIME  
 TEST NO. RLBL-936-226

TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



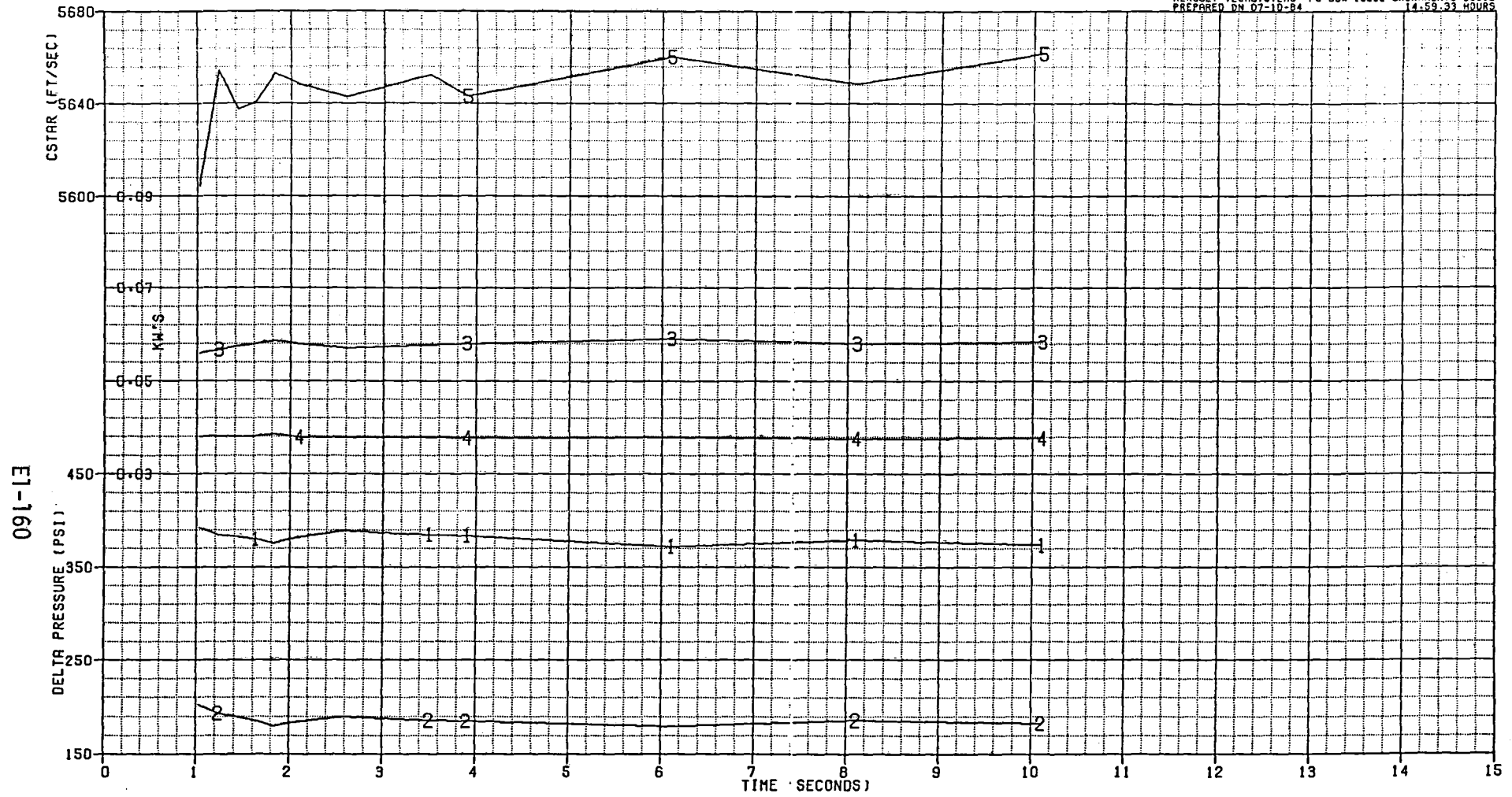
E1-159

F WF LBS/SEC  
 0 NOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR  
 1 MFFC LBS/SEC  
 2 PCTFFC PERCENT  
 3 MRC

INJECTOR FLOW VS TIME  
 TEST NO. RLBL-936-226

TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



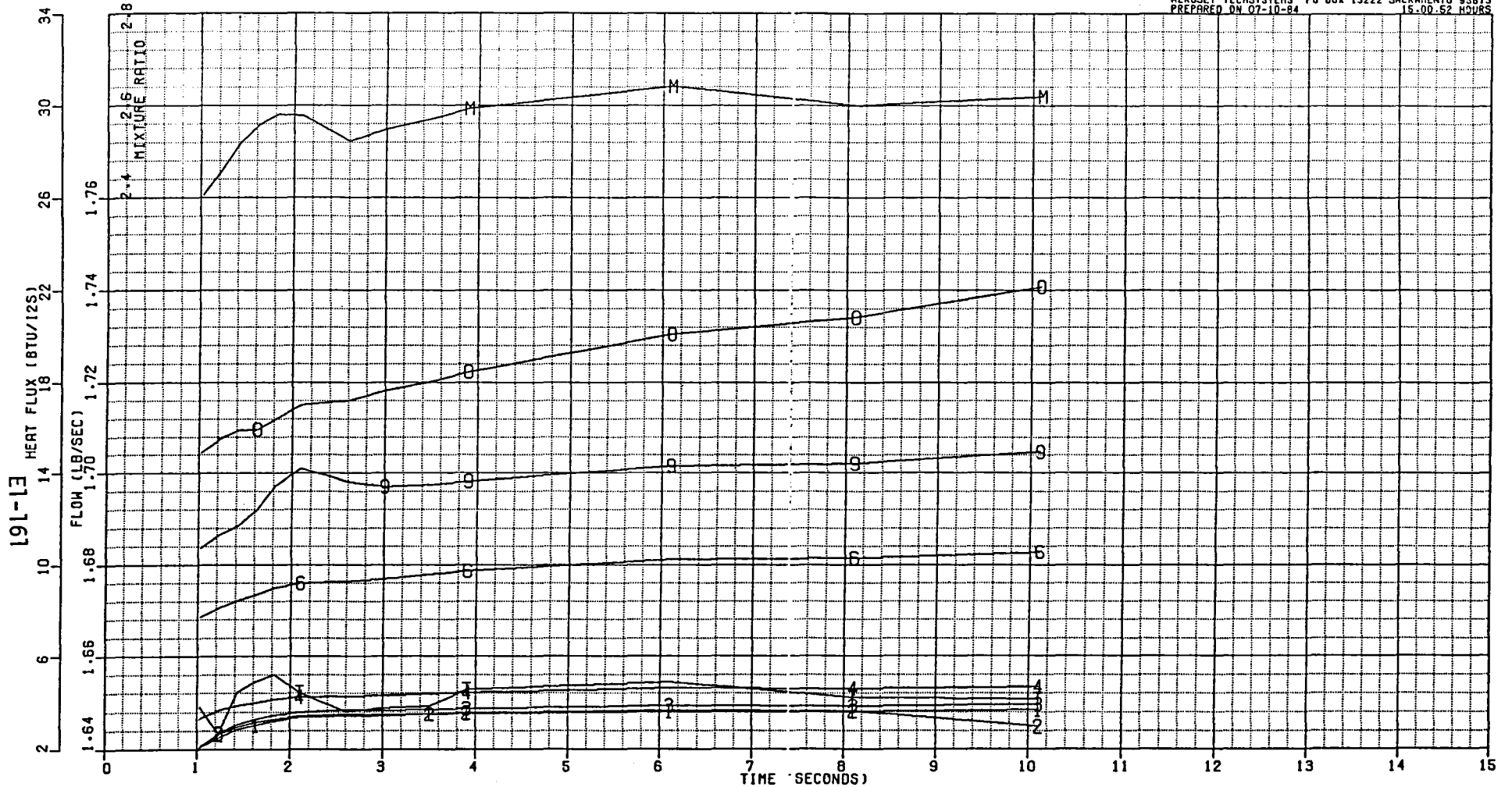


E1-160

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRMC    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLBL-936-226

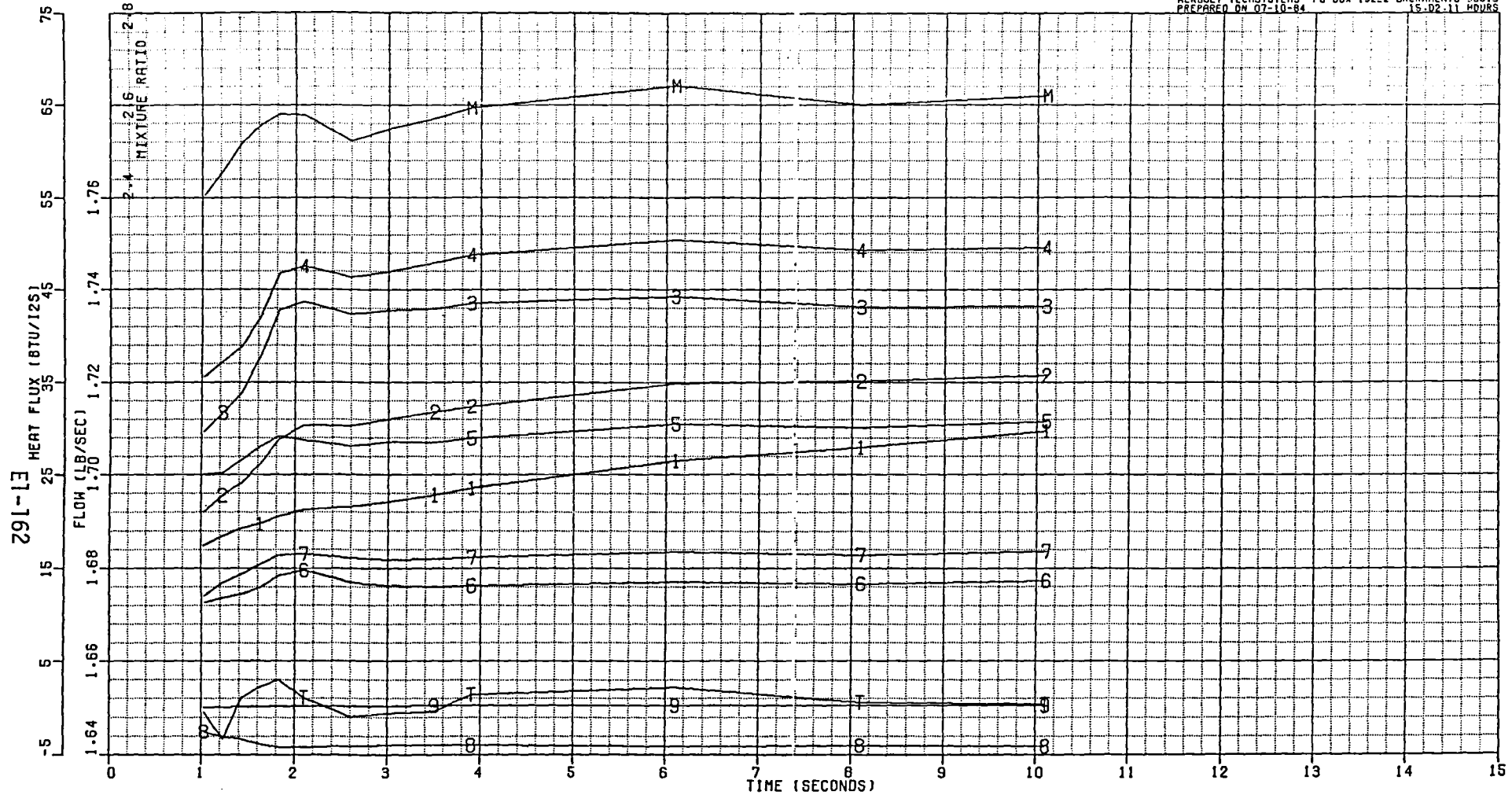
TEST DATE 06-08-84 1510 HOURS    AVERAGED DATA



- 1 Q/AN1-2 BTU/12S M MR
- 2 Q/AN1-3 BTU/12S
- 3 Q/AN2-1 BTU/12S
- 4 Q/AN2-2.-3 BTU/12S
- 6 Q/AN3 BTU/12S
- 9 Q/AN4 BTU/12S
- 0 Q/AN5 BTU/12S
- T WTOT LBS/SEC

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-226

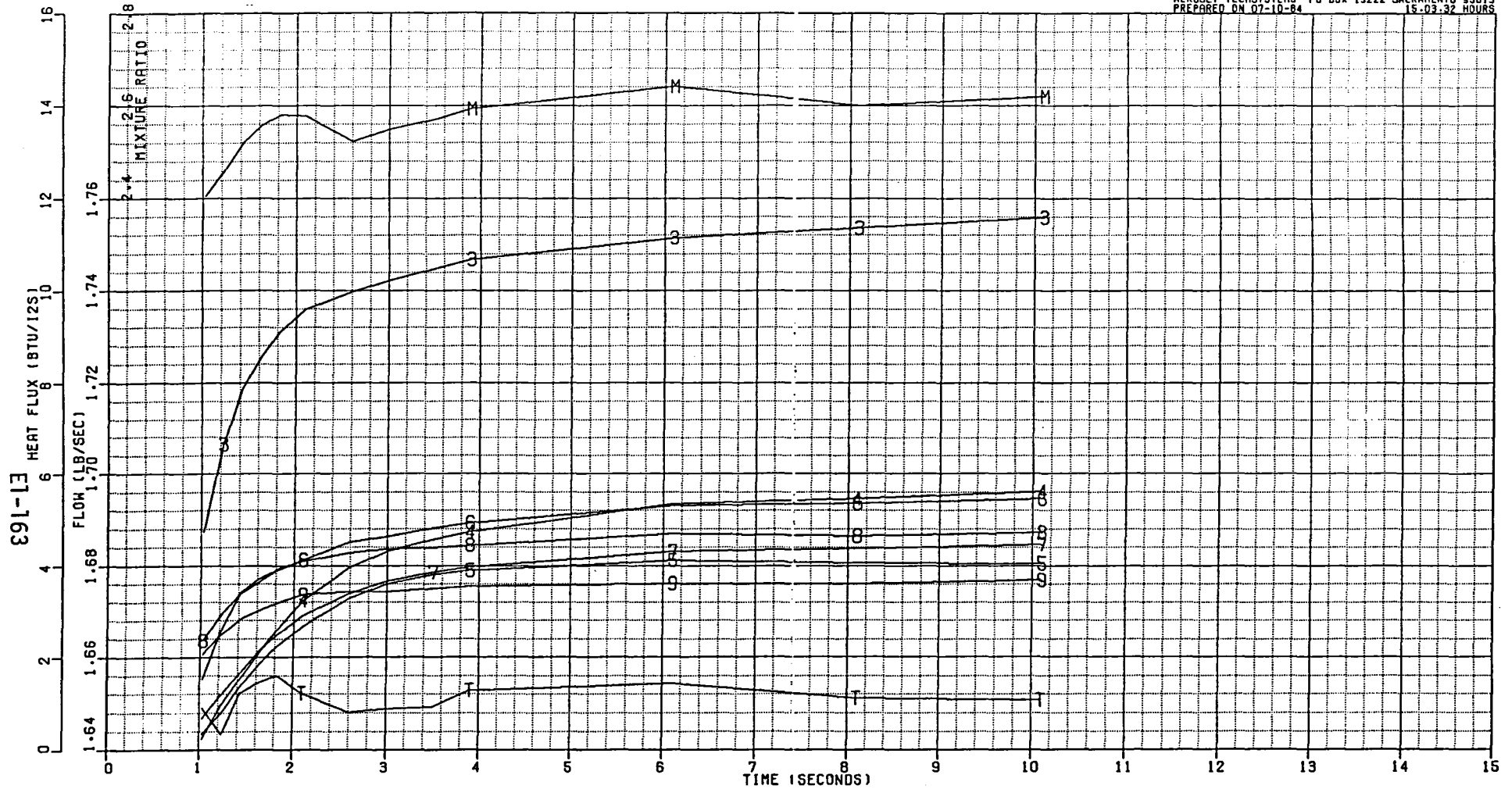
TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



291-162

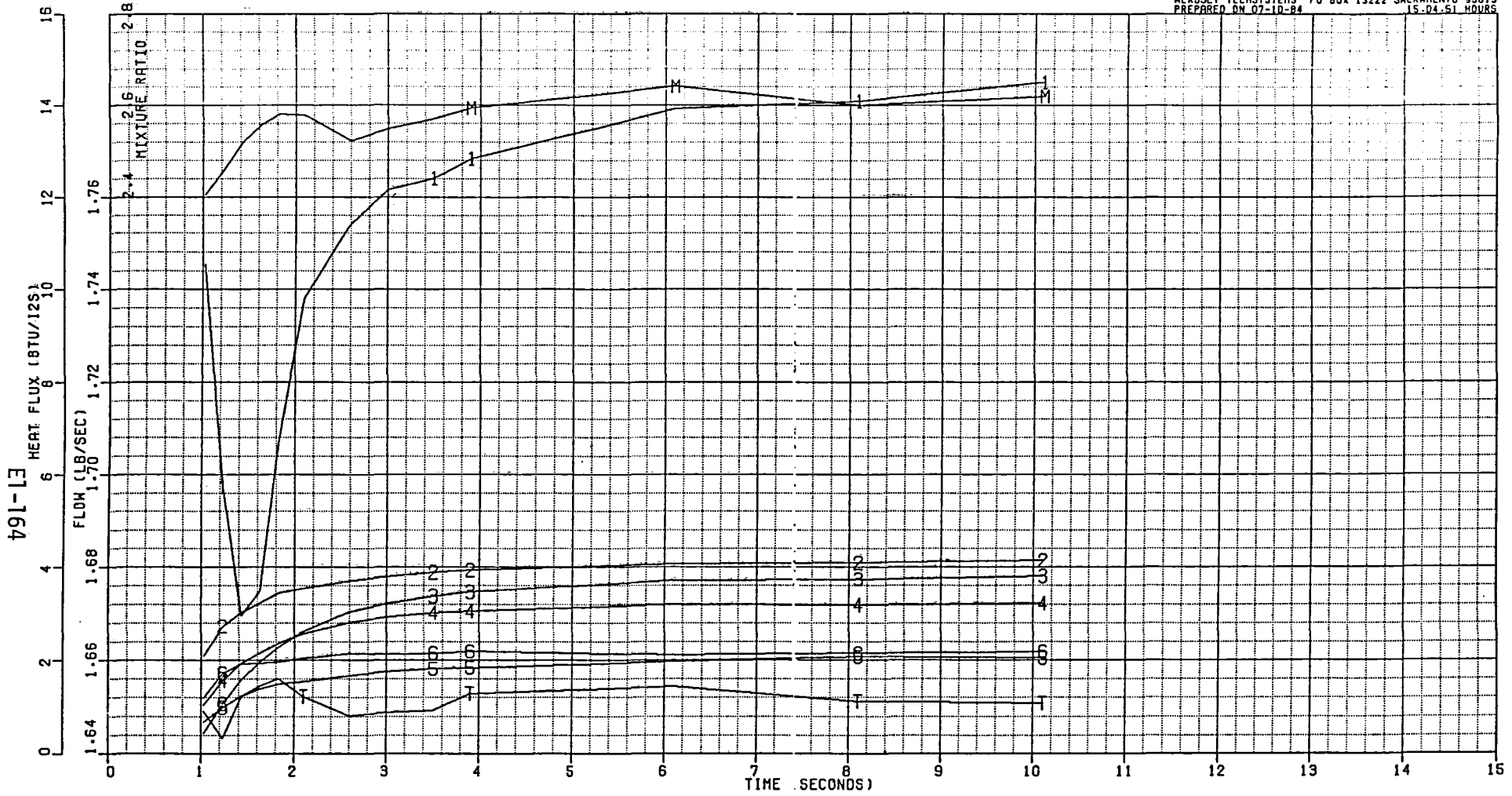
1 Q/AN6	BTU/I2S	9 Q/AN12-3	BTU/I2S
2 Q/AN7	BTU/I2S	T WTOT	LBS/SEC
3 Q/AN8	BTU/I2S	M MR	
4 Q/AN9	BTU/I2S		
5 Q/AN10	BTU/I2S		
6 Q/AN11	BTU/I2S		
7 Q/AN12-1	BTU/I2S		
8 Q/AN12-2	BTU/I2S		

HEAT FLUX (Q/A) VS TIME NOZZLE DATA  
 TEST NO. RLBL-936-226  
 TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



- 3 Q/ABB1-1 BTU/12S M MR
- 4 Q/ABB2 BTU/12S
- 5 Q/ABB1-2 BTU/12S
- 6 Q/ABB4-1 BTU/12S
- 7 Q/ABB4-2.3 BTU/12S
- 8 Q/AN1-1 BTU/12S
- 9 Q/AN1-2 BTU/12S
- T WTOT LBS/SEC

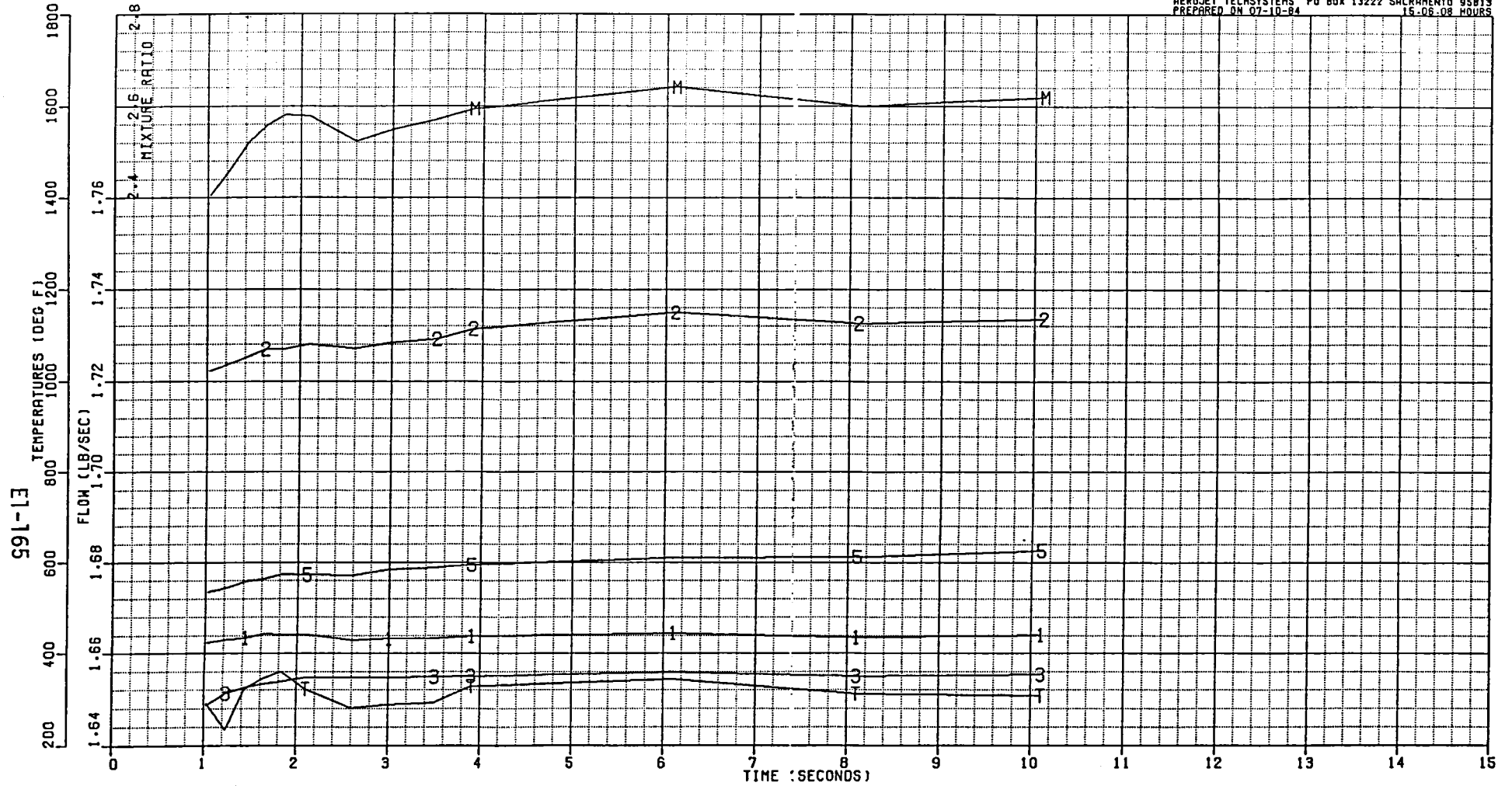
HEAT FLUX (Q/A) VS TIME BARREL DATA  
 TEST NO. RLBL-936-226  
 TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



791-13

- 1 Q/ATRC BTU/125
- 2 Q/A12B6-1 BTU/125
- 3 Q/A12B6-2.5 BTU/125
- 4 Q/A12B3.4 BTU/125
- 5 Q/A12B1-2.2 BTU/125
- 6 Q/A12B1-1 BTU/125
- T WTOT LBS/SEC
- H MR

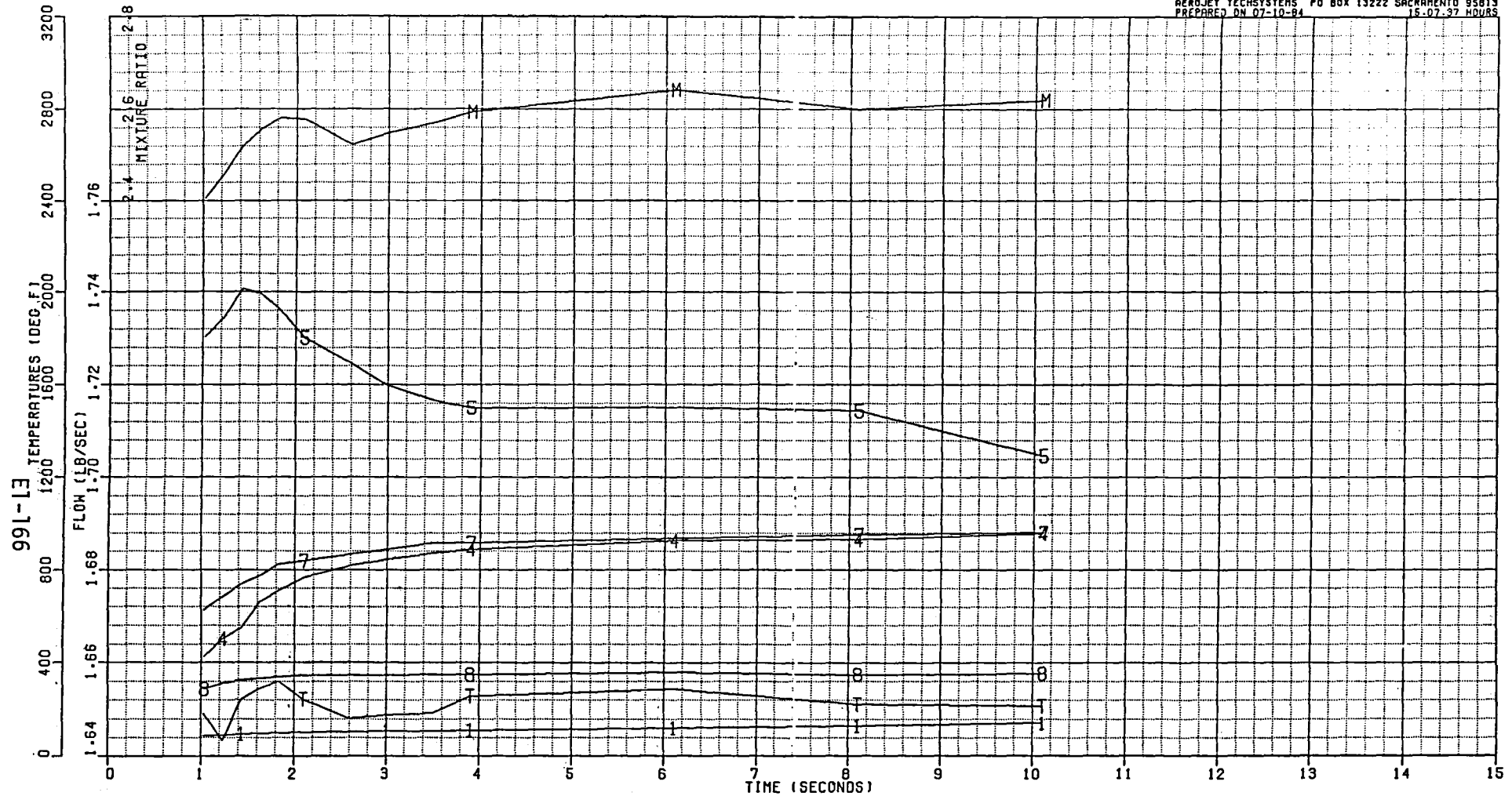
HEAT FLUX (Q/A) VS TIME MISC. DATA  
 TEST NO. RLBL-936-226  
 TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



1 TC-1 DEG F  
 2 TC-2 DEG F  
 3 TC-3 DEG F  
 5 TC-5 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME NOZZLE  
 TEST NO. RLBL-936-226

TEST DATE 06-08-84 1510 HOURS AVERAGED DATA

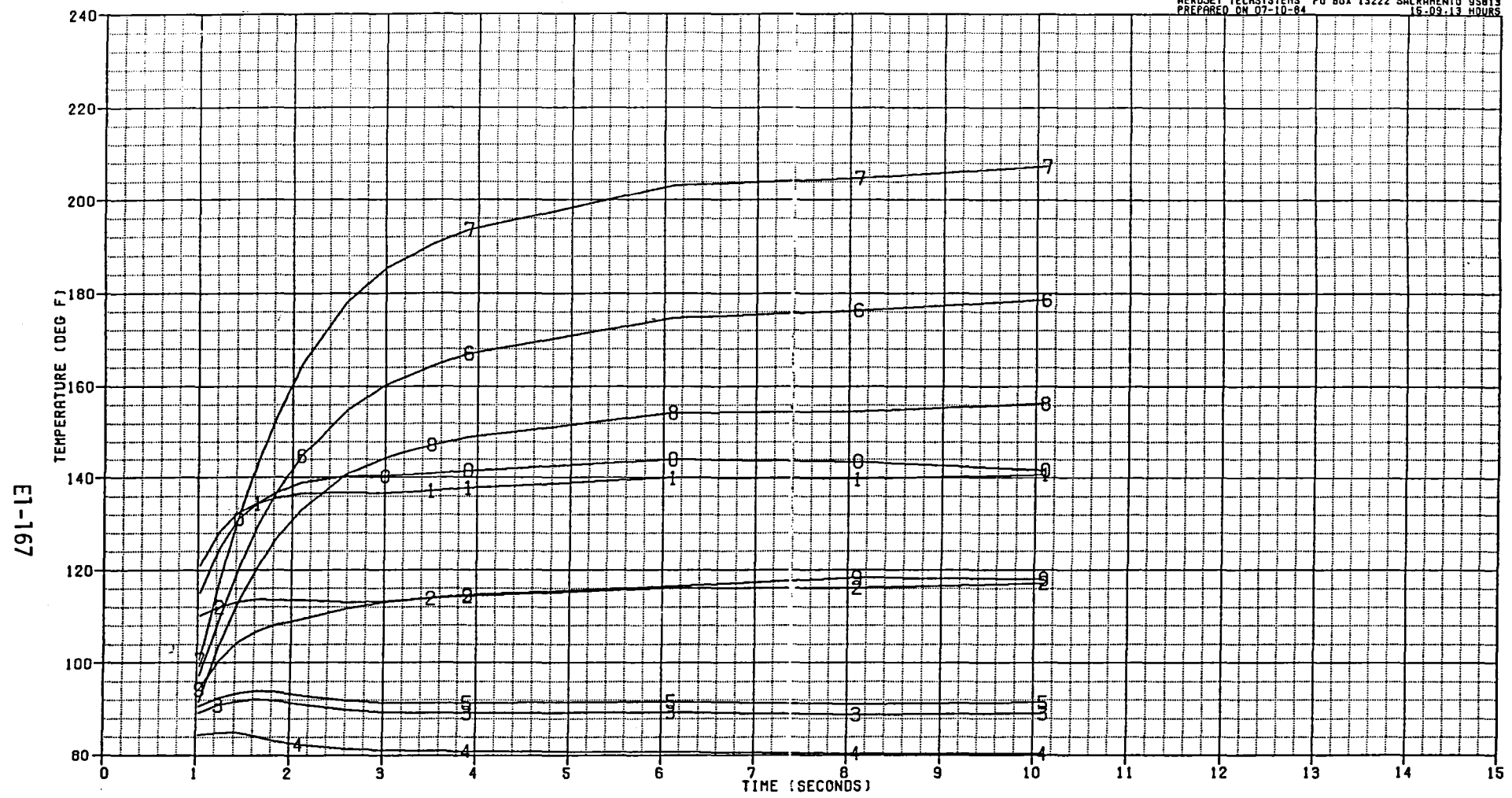


1 TC-7 DEG F  
 4 TC-10 DEG F  
 5 TC-12 DEG F  
 7 TC-13 DEG F  
 8 TC-3 DEG F  
 T WTOT LBS/SEC  
 M MR

GAS SIDE WALL TEMPERATURE VS TIME BARREL  
 TEST NO. RLBL-936-226

TEST DATE 06-08-84 1510 HOURS AVERAGED DATA



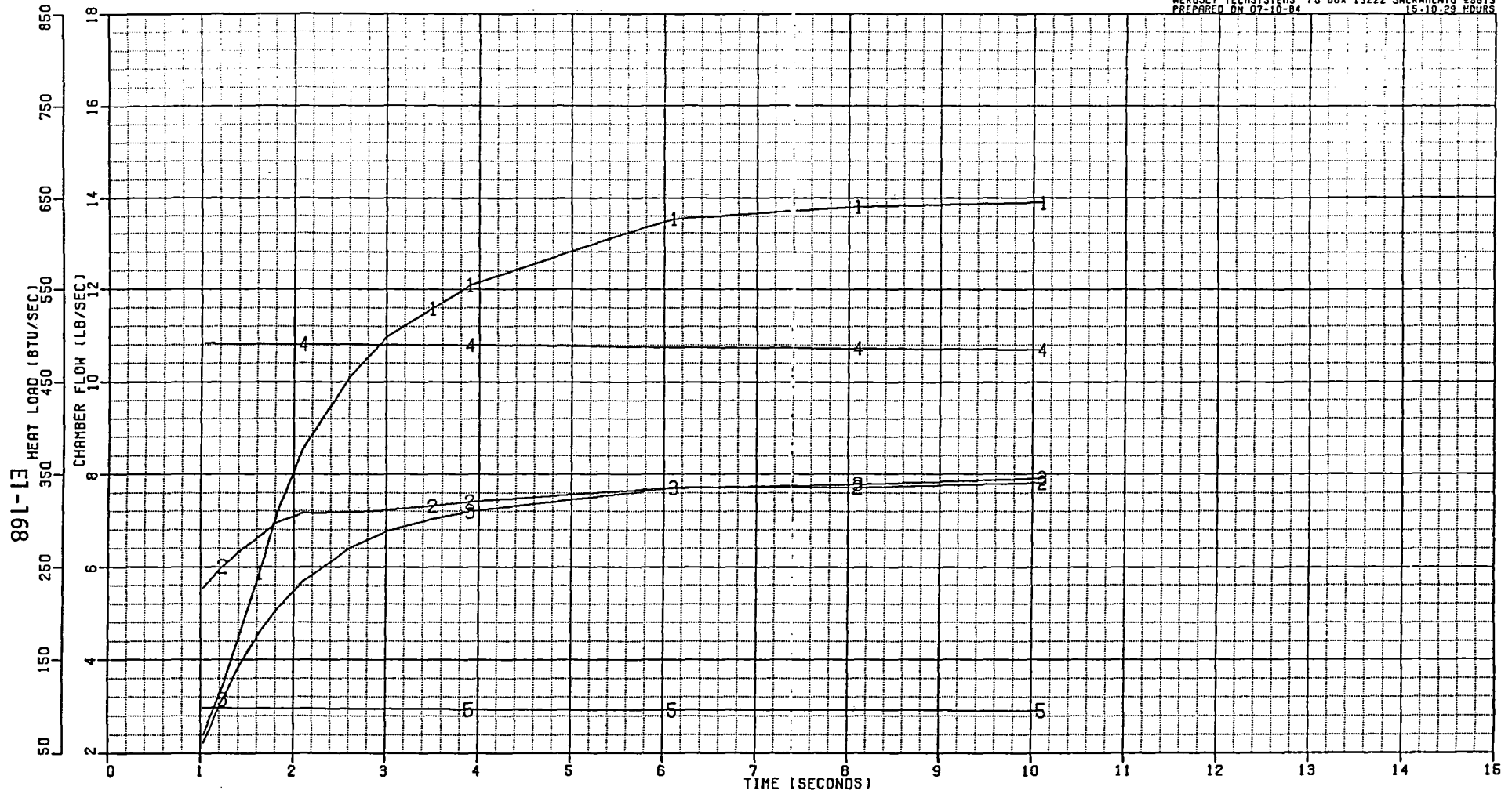


E1-167

- 0 TWC-6      DEG F      8 TWC-31      DEG F
- 1 TWC-7      DEG F      9 TWC-32      DEG F
- 2 TWC-10     DEG F
- 3 TWC-21     DEG F
- 4 TWC-22     DEG F
- 5 TWC-23     DEG F
- 6 TWC-26     DEG F
- 7 TWC-27     DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 1  
 TEST NO. RLBL-936-226  
 TEST DATE 06-08-84 1510 HOURS      AVERAGED DATA



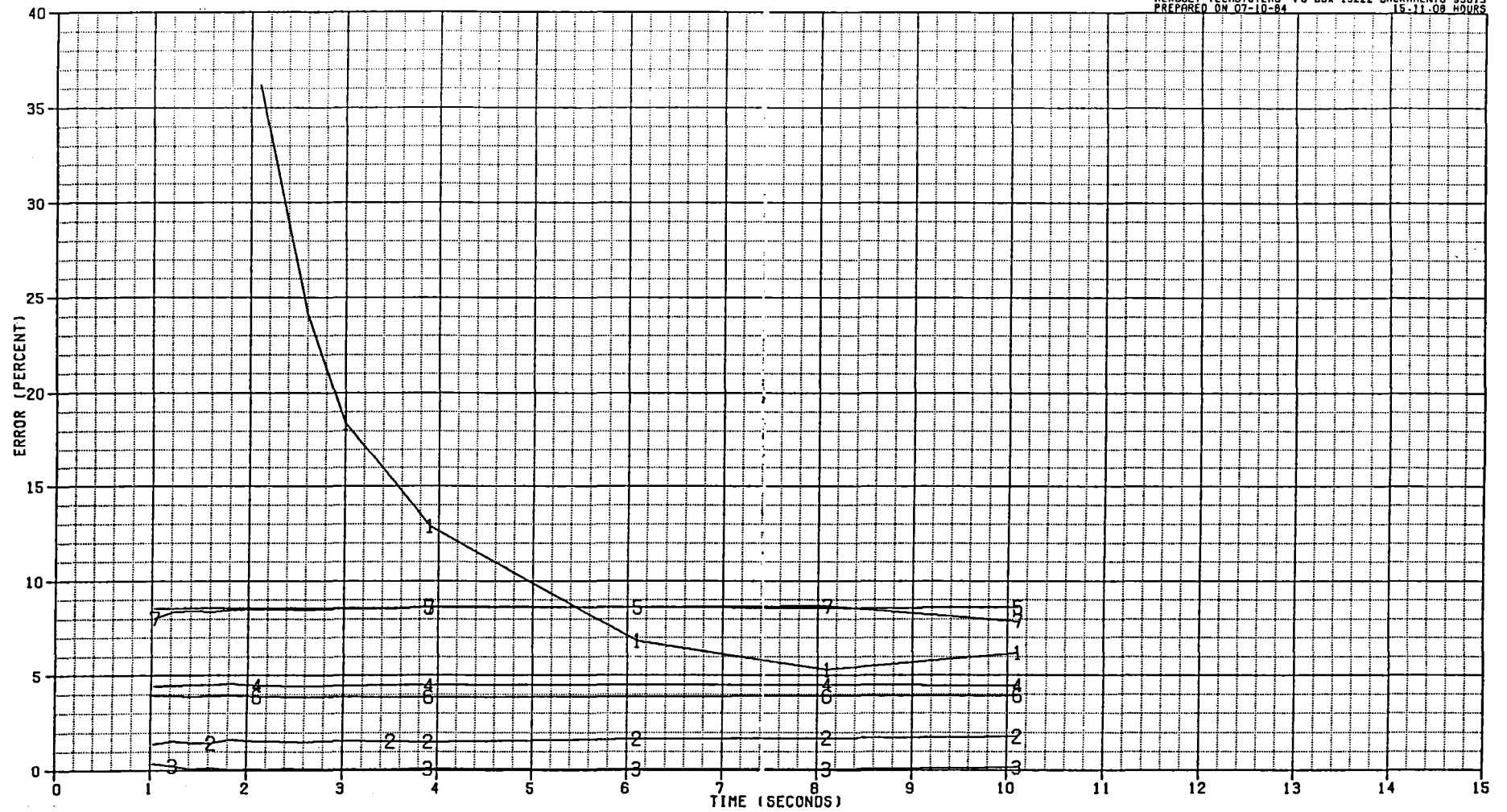


- 1 QNT BTU/SEC
- 2 QNT BTU/SEC
- 3 QBT BTU/SEC
- 4 HW1 LBS/SEC
- 5 HW2 LBS/SEC

CHAMBER FLOW AND HEAT LOAD VS TIME  
 TEST NO. RLBL-936-226

TEST DATE 06-08-84 1510 HOURS AVERAGED DATA

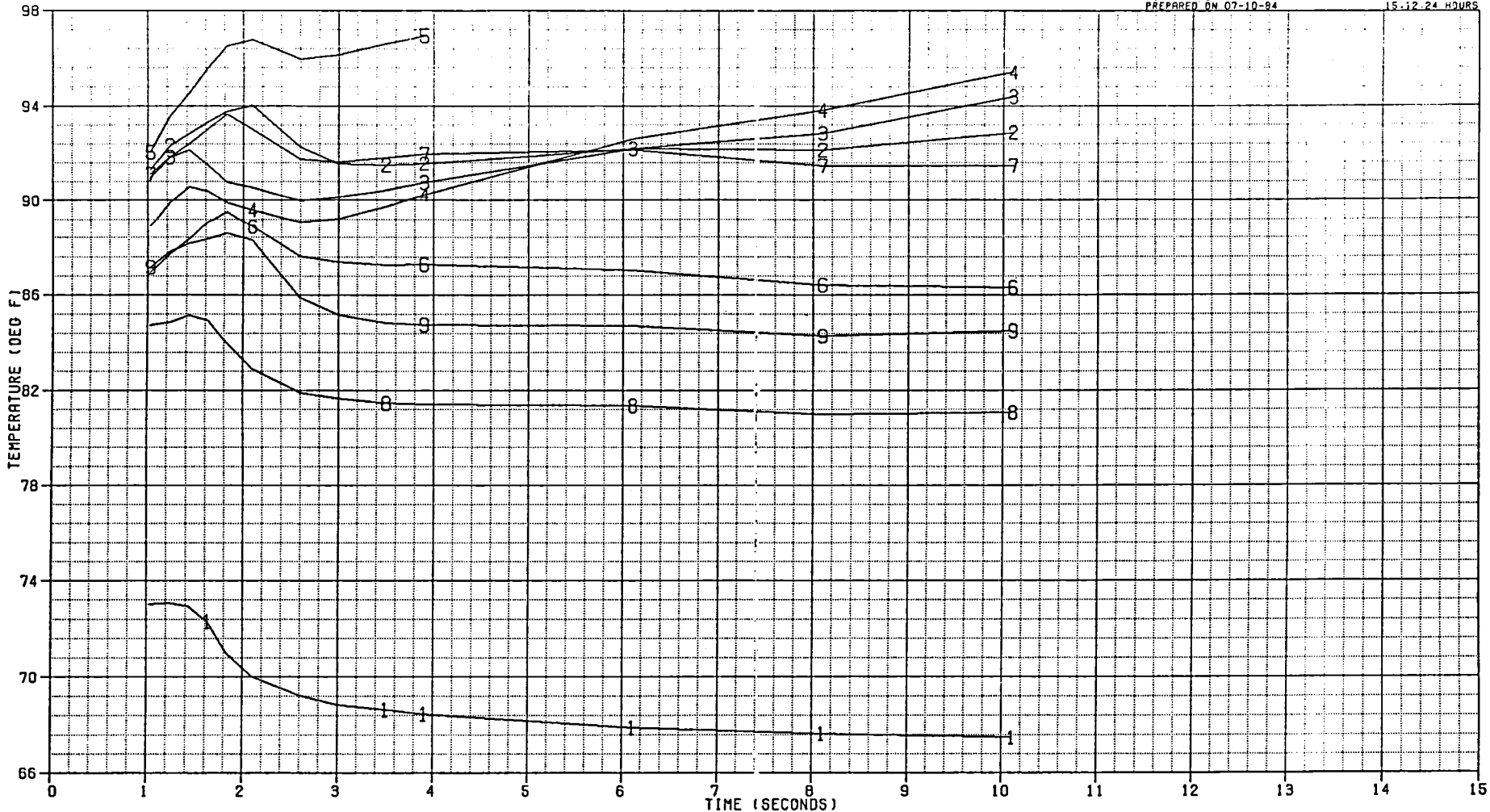
E1-169



- 1 DERM PERCENT
- 2 WERNT PERCENT
- 3 WER8BT PERCENT
- 4 WER12B1 PERCENT
- 5 WER12B3 PERCENT
- 6 WER12B5 PERCENT
- 7 WERN10 PERCENT

CHAMBER FLOW + HEAT LOAD ERRORS VS TIME  
 TEST NO. RLBL-936-226  
 TEST DATE 06-08-84 1510 HOURS AVERAGED DATA

E1-170



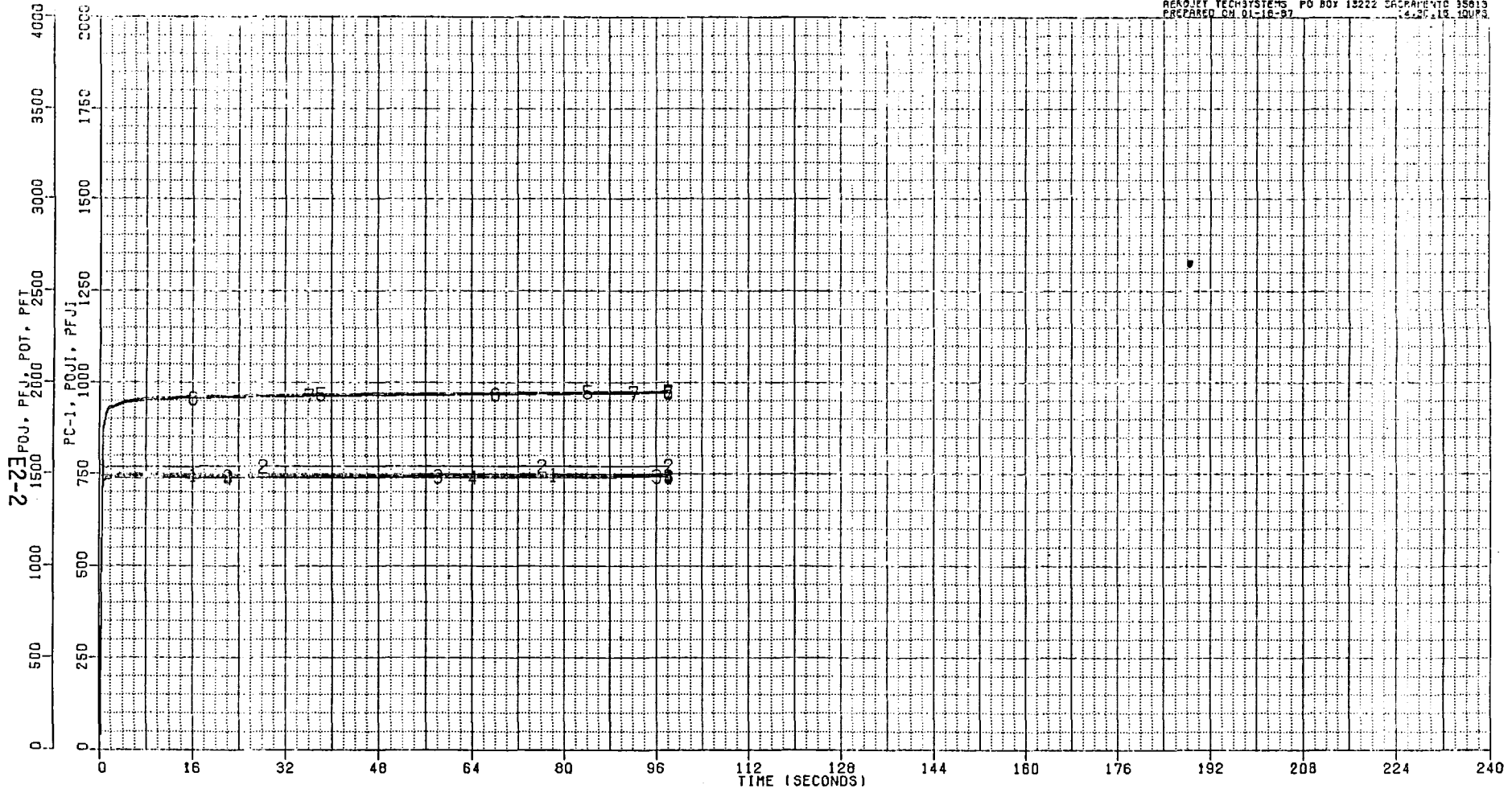
- 1 TWC-1 DEG F
- 2 TWC-13 DEG F
- 3 TWC-14 DEG F
- 4 TWC-15 DEG F
- 5 TWC-16 DEG F
- 6 TWC-17 DEG F
- 7 TWC-18 DEG F
- 8 TWC-19 DEG F
- 9 TWC-20 DEG F

COOLANT OUTLET TEMPERATURE VS TIME NO 2  
 TEST NO. RLBL-936-226  
 TEST DATE 06-08-84 1510 HOURS AVERAGED DATA

**APPENDIX E-2**

**1984 RP-1**

**GAS GENERATOR DATA PLOTS**

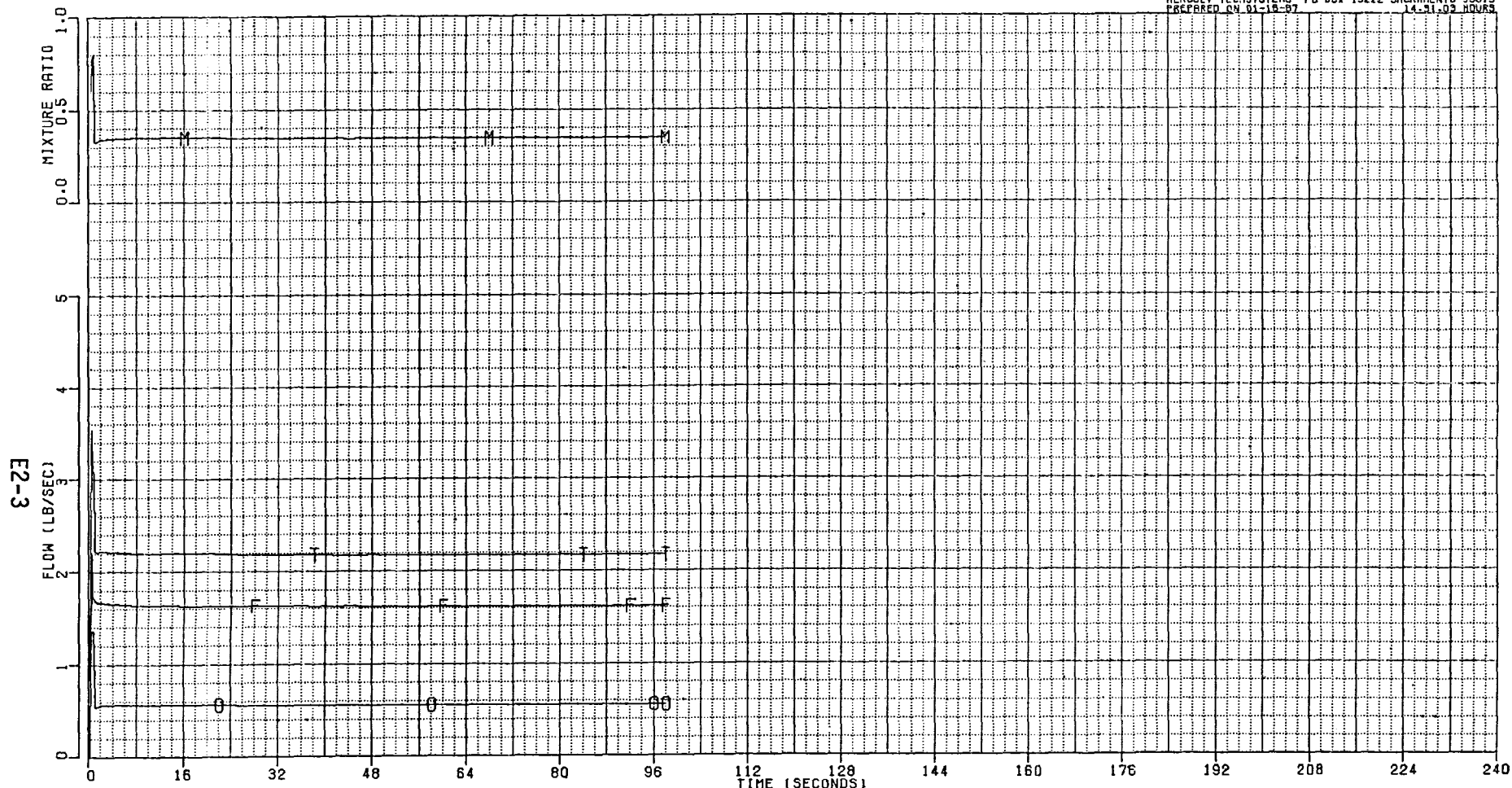


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
TEST NO. 2427-936-A6-114

TEST DATE 02-24-84 1525 HOURS AVERAGED DATA





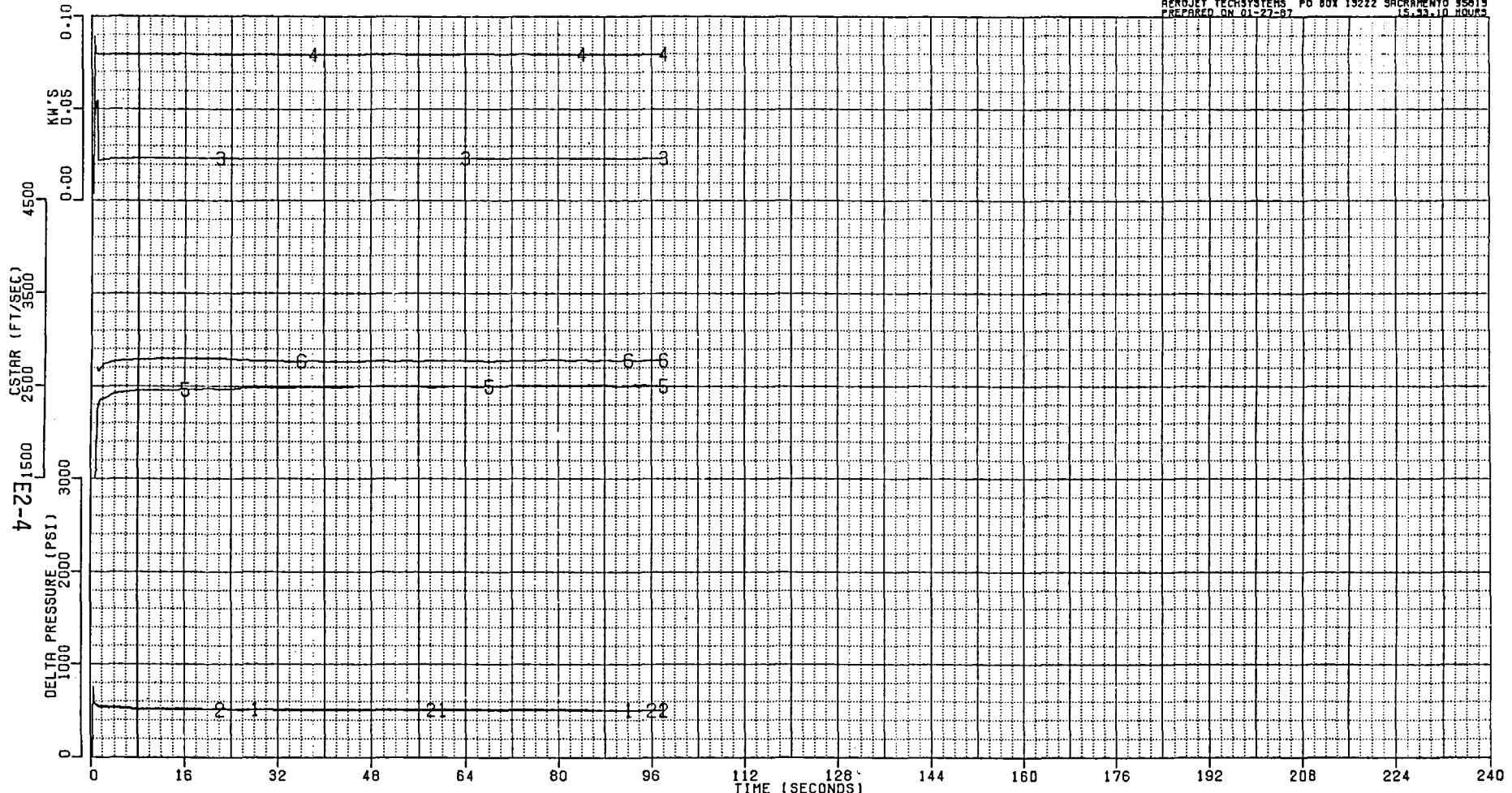
E2-3

F WF      LBS/SEC  
 O WOX     LBS/SEC  
 T WTOT    LBS/SEC  
 M HR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-114

TEST DATE 02-24-84 1525 HOURS      AVERAGED DATA



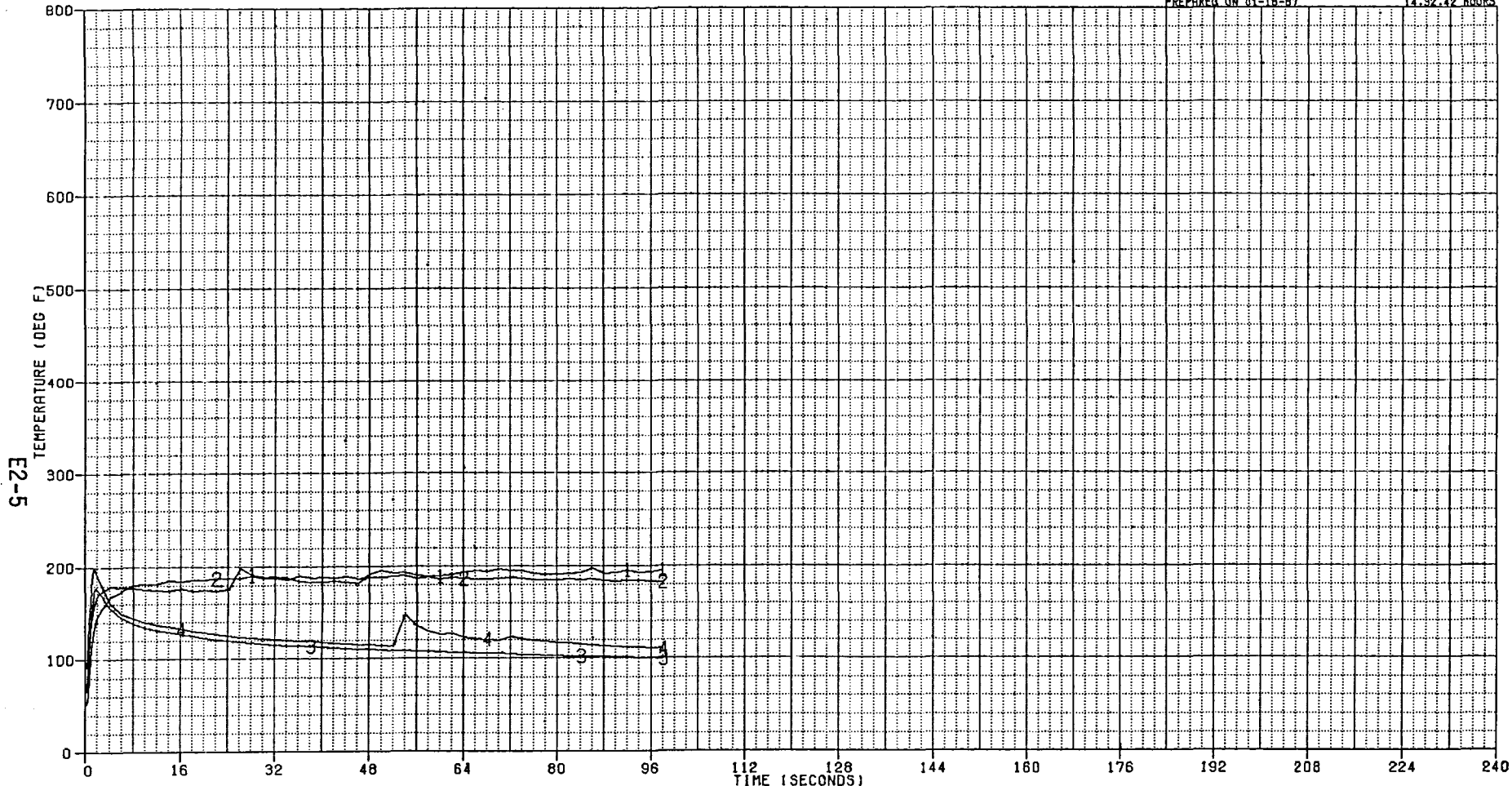


- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-114

TEST DATE 02-24-84 1525 HOURS      AVERAGED DATA





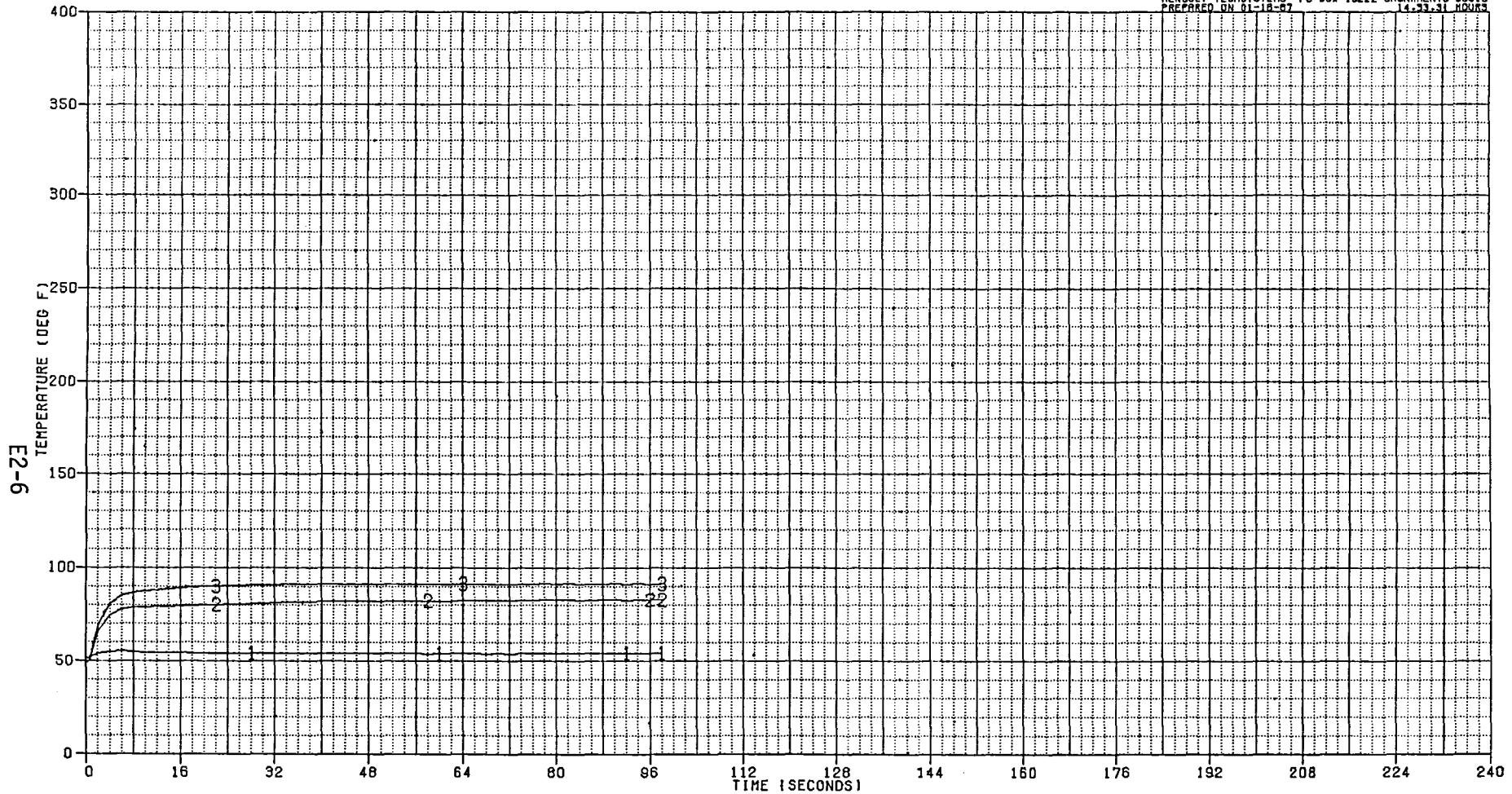
E2-5

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-114  
BARREL DATA  
TEST DATE 02-24-84 1525 HOURS AVERAGED DATA





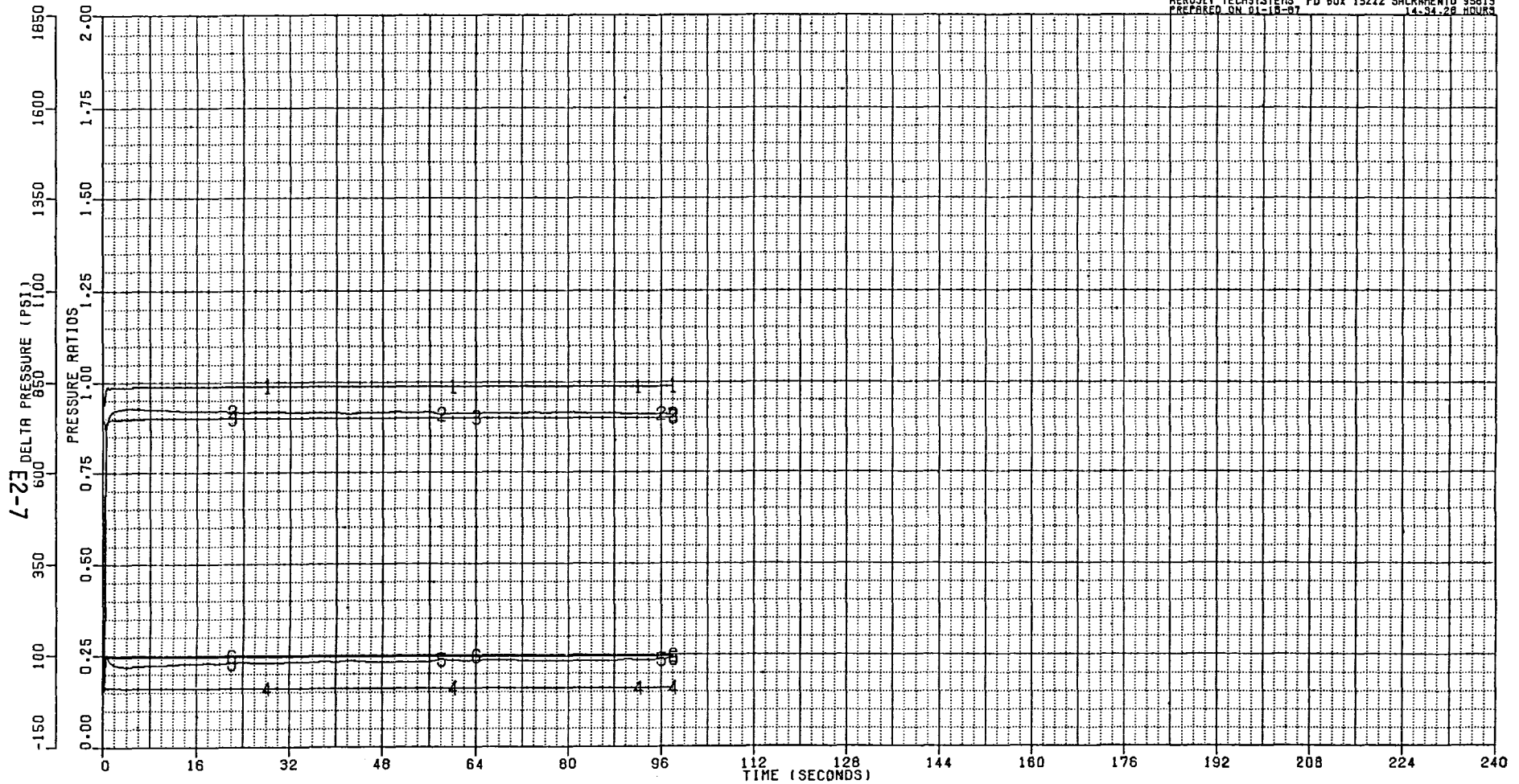


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

### COOLANT OUTLET TEMPERATURES VS TIME TEST NO. 2427-936-A6-114

TEST DATE 02-24-84 1525 HOURS AVERAGED DATA

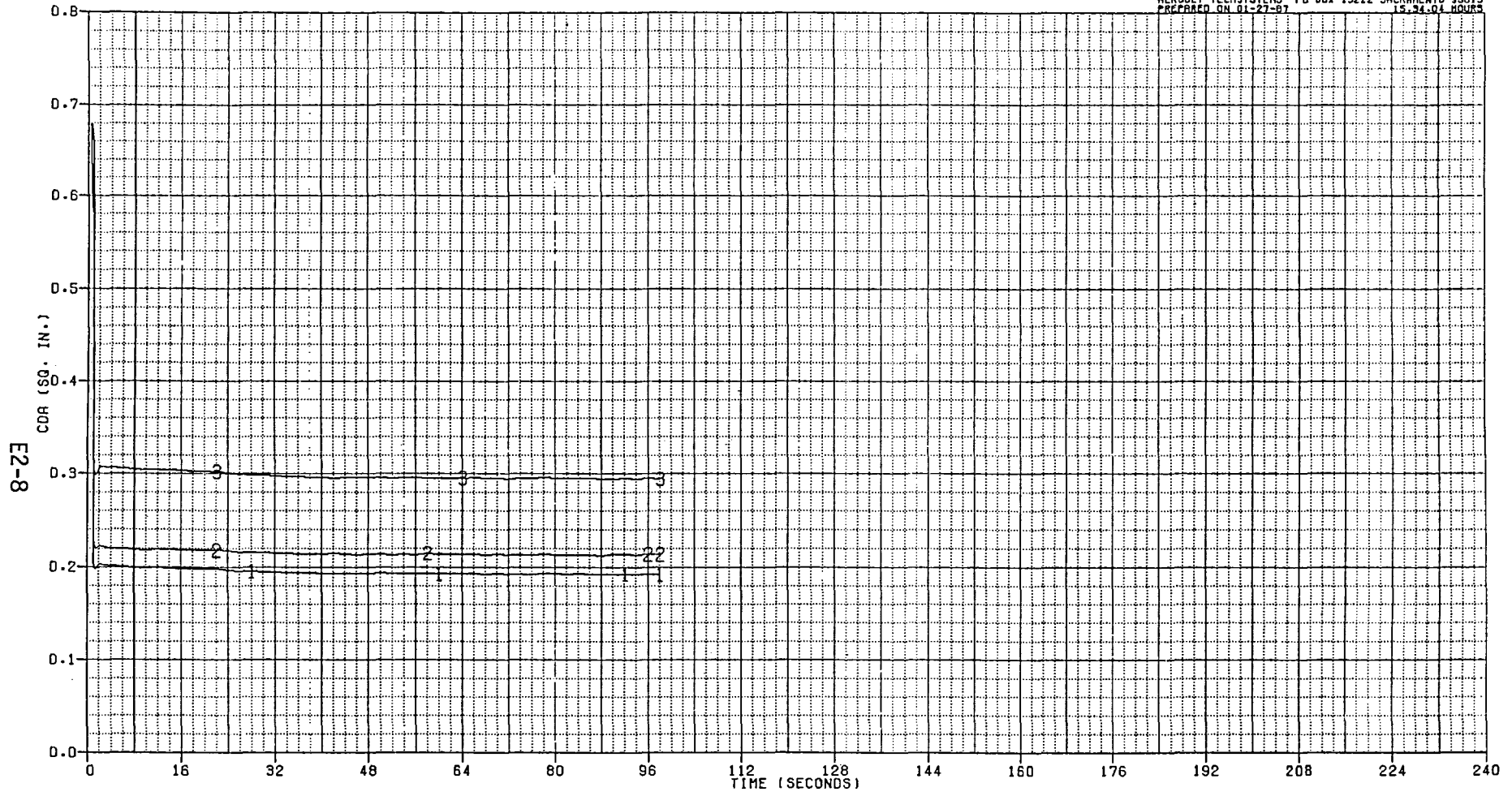




- 1 PRTR PSI
- 2 PRTS PSI
- 3 PRTS PSI
- 4 DPTR PSI
- 5 DPTS PSI
- 6 OPTSM PSI

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-114  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 02-24-84 1525 HOURS AVERAGED DATA



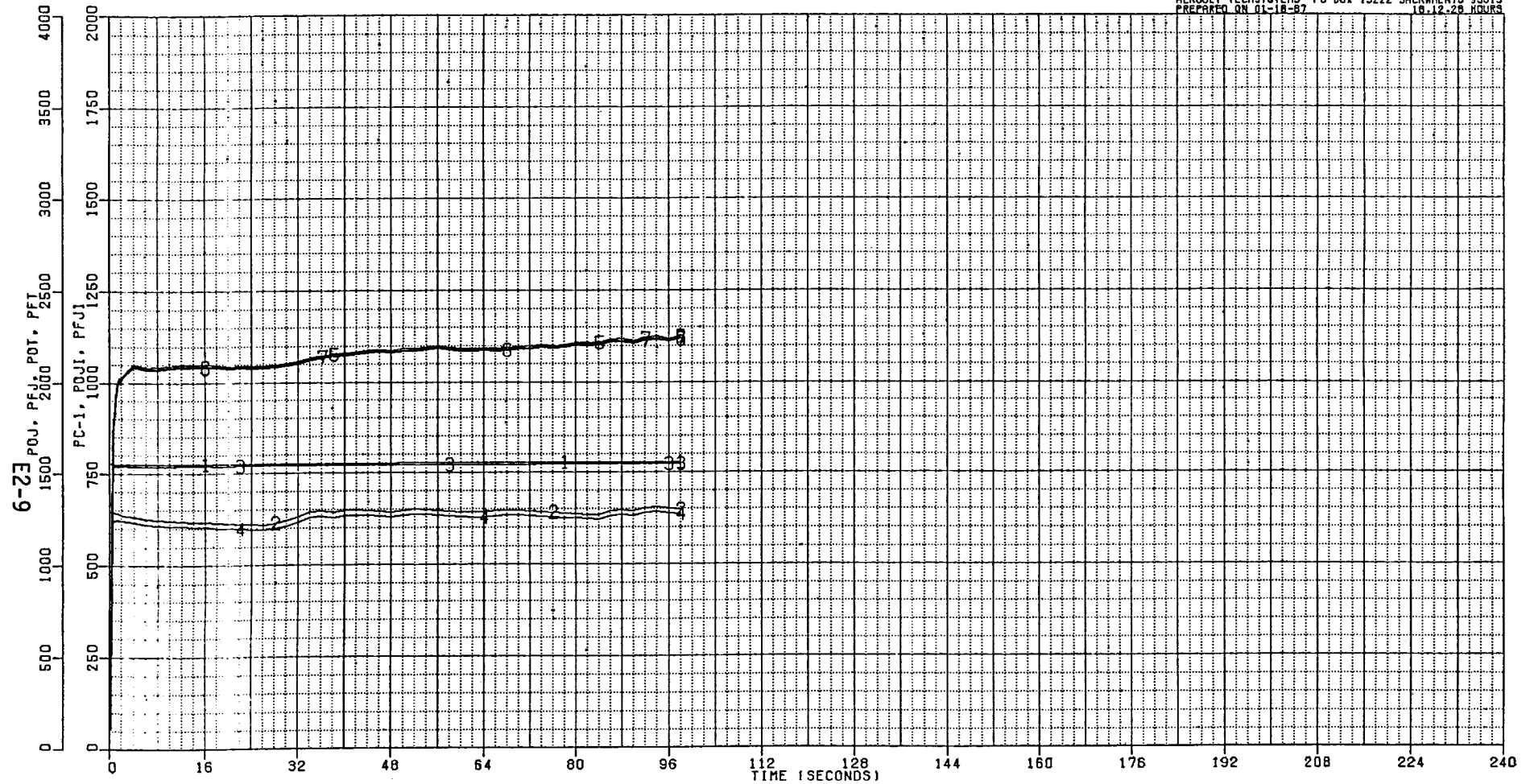


E2-8

- 1 NR1 SQ. IN.
- 2 NR2 SQ. IN.
- 3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-114  
NOZZLE AREA CHANGE  
TEST DATE 02-24-84 1525 HOURS AVERAGED DATA





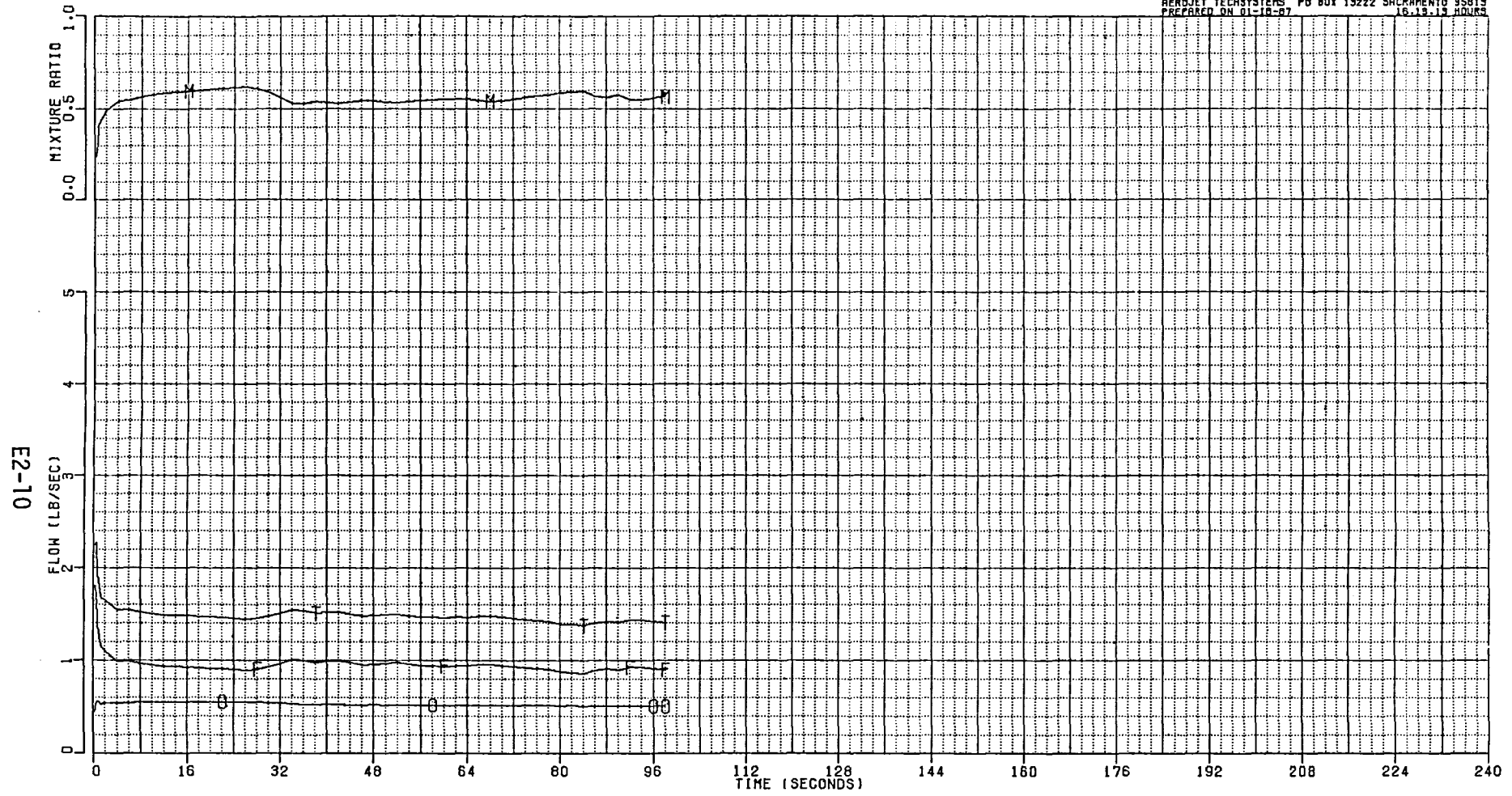
6-23

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJ1 PSIA
- 7 PFJ1 PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-115

TEST DATE 02-24-84 1617 HOURS AVERAGED DATA



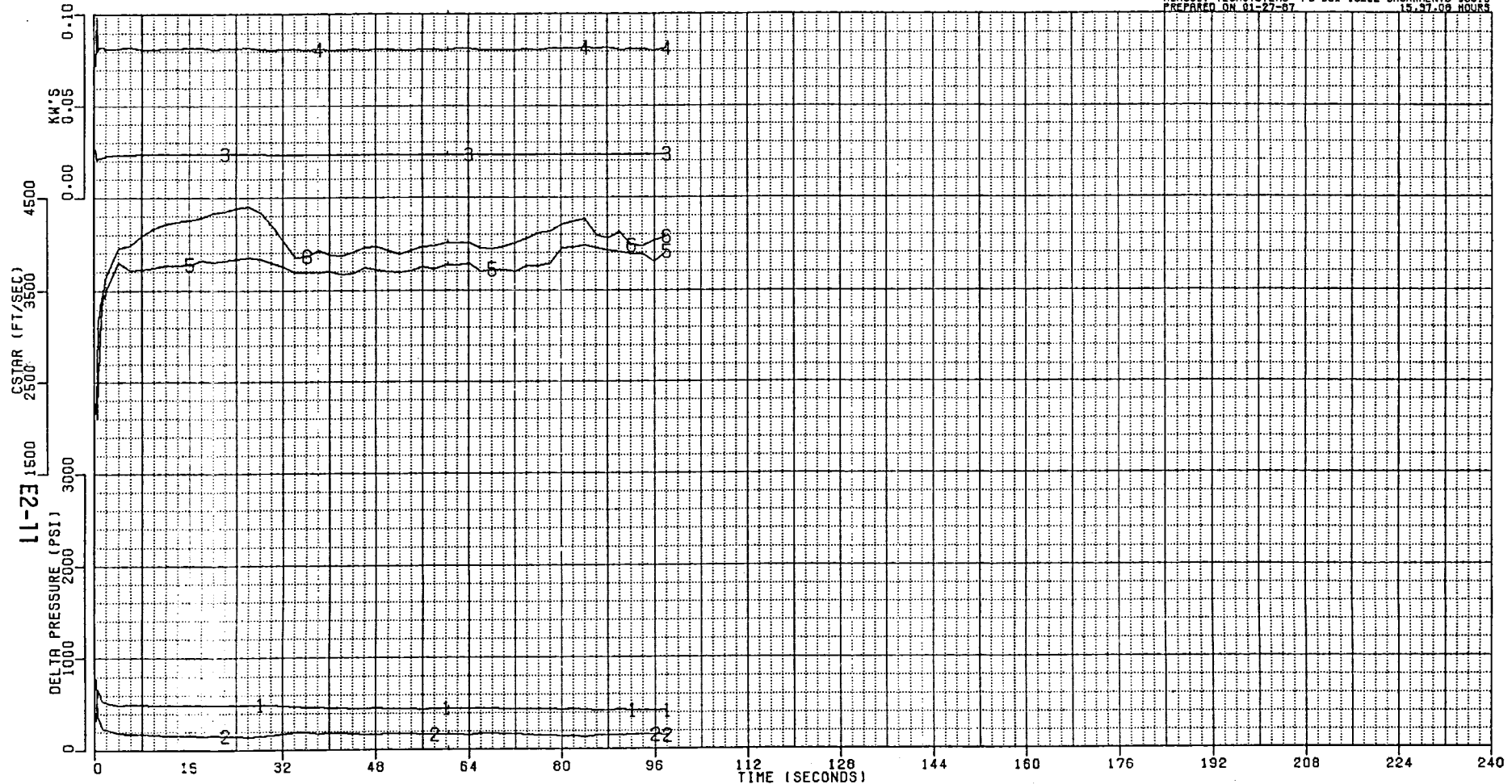


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-115

TEST DATE 02-24-84 1617 HOURS AVERAGED DATA



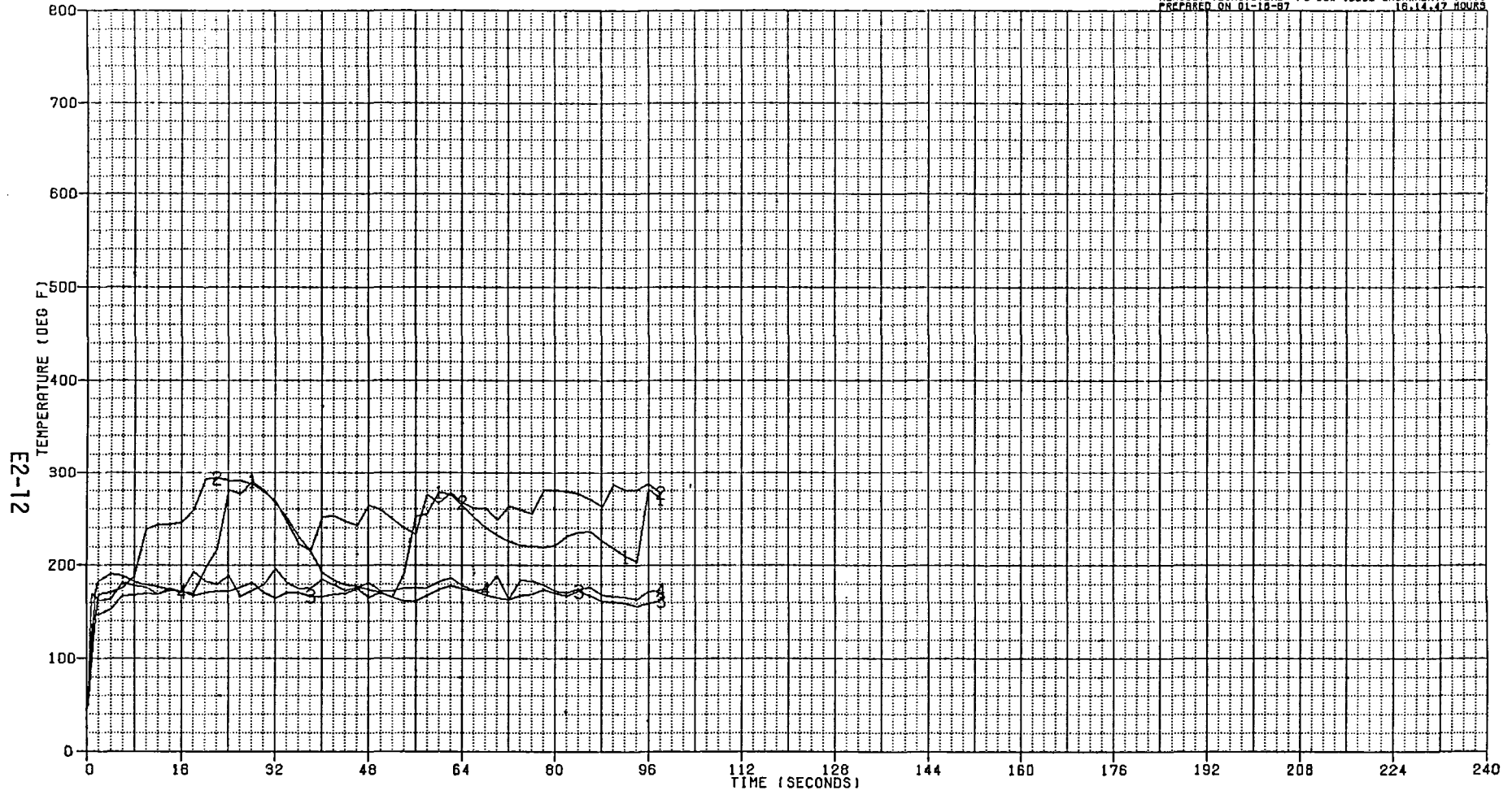


- 1 OPOJ      PSI
- 2 OPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-115

TEST DATE 02-24-84 1617 HOURS      AVERAGED DATA





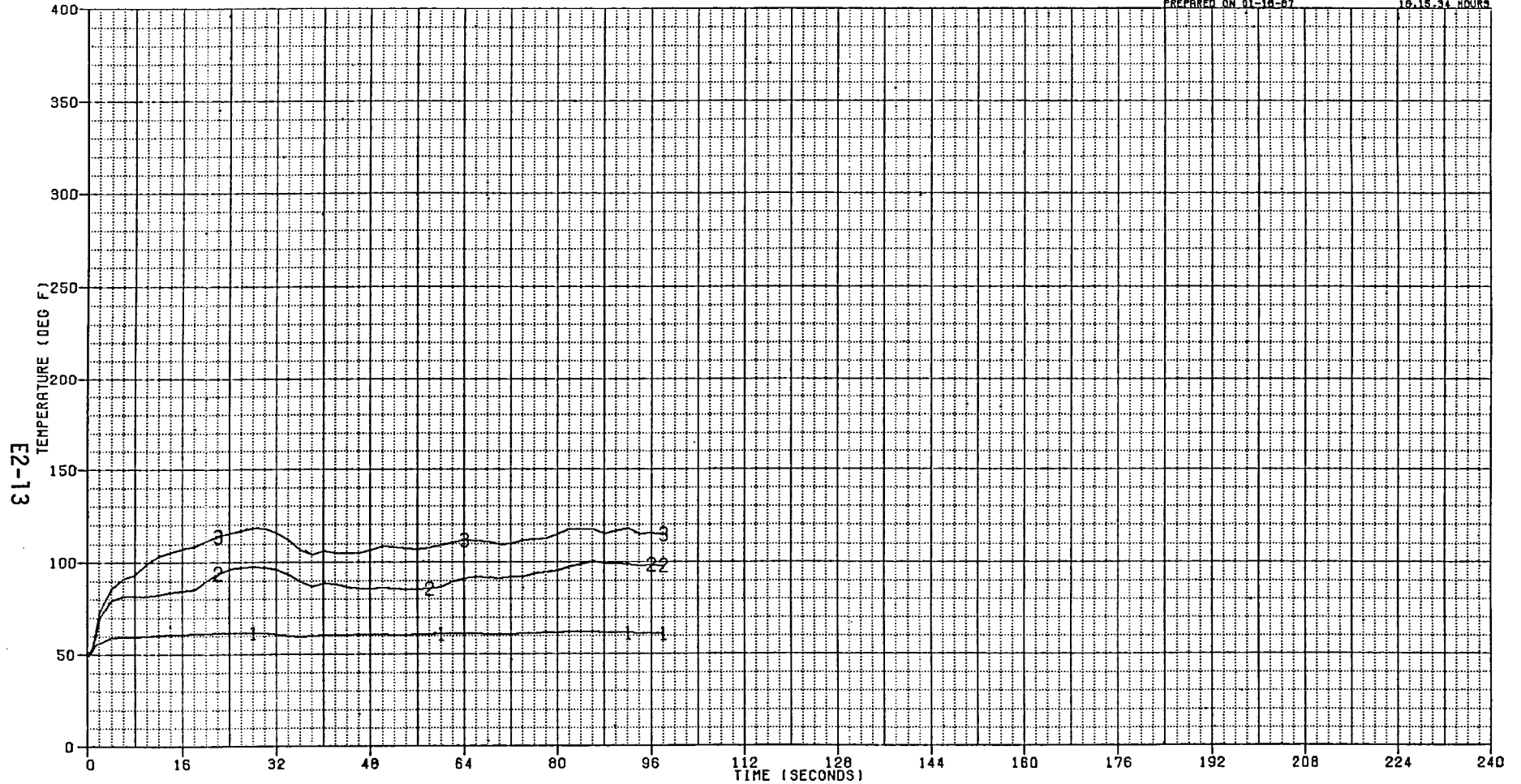
E2-12

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-115  
BARREL DATA  
TEST DATE 02-24-84 1617 HOURS AVERAGED DATA







E2-13

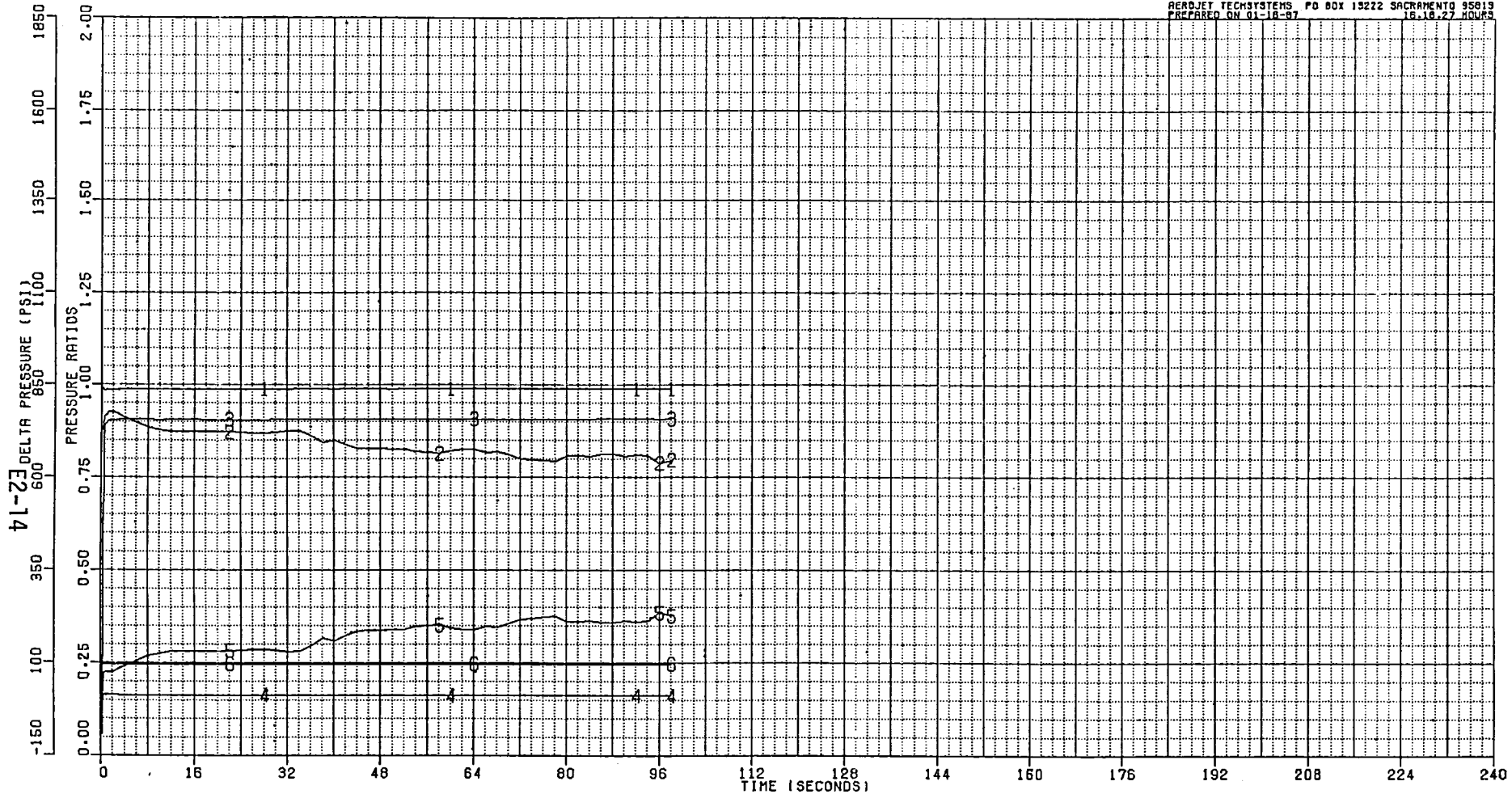
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-115

TEST DATE 02-24-84 1617 HOURS AVERAGED DATA



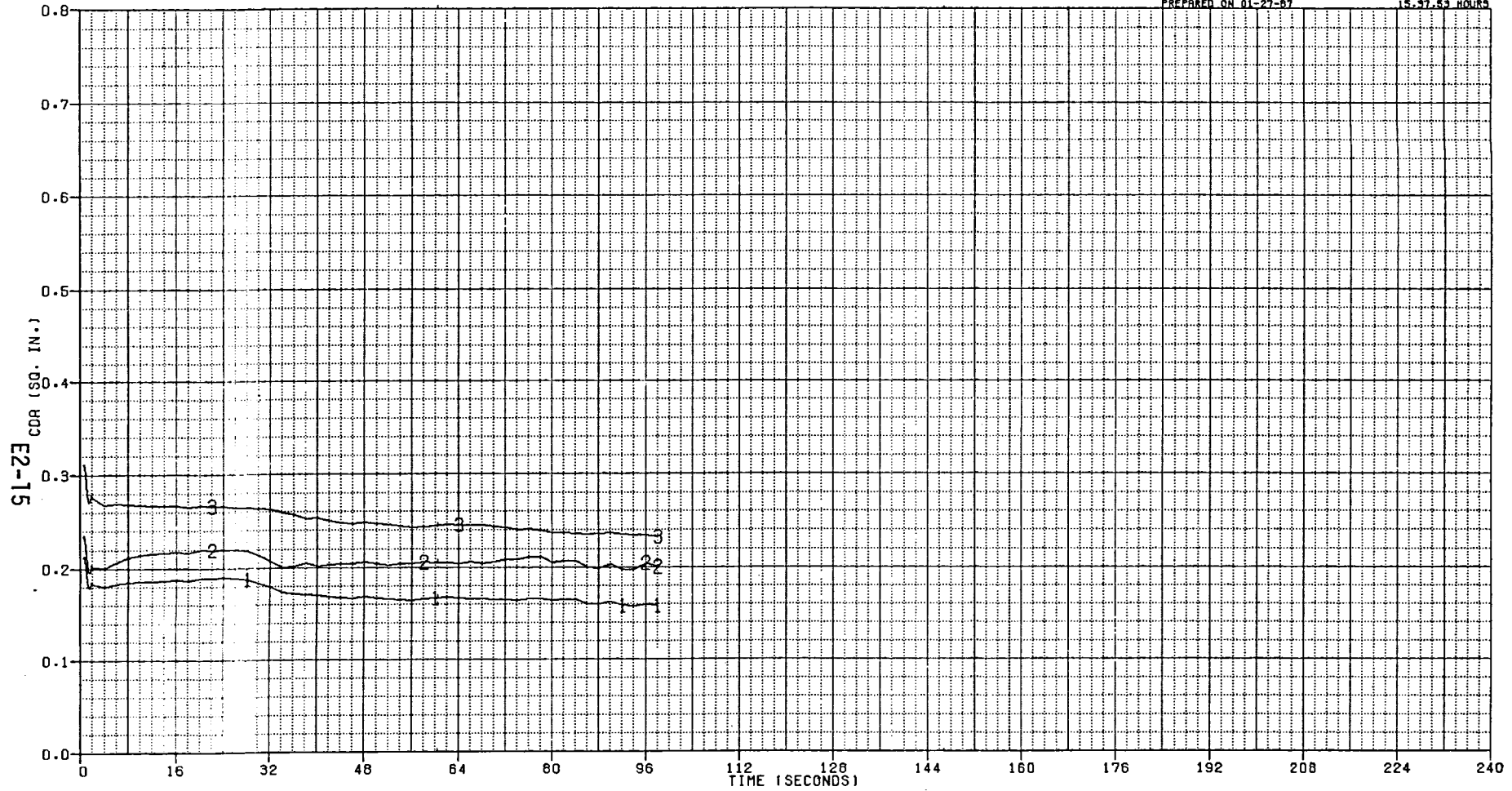




- 1 PRTR
  - 2 PRT6
  - 3 PRTSC
  - 4 DPTR
  - 5 OPT6
  - 6 DPTSM
- PSI  
PSI  
PSI



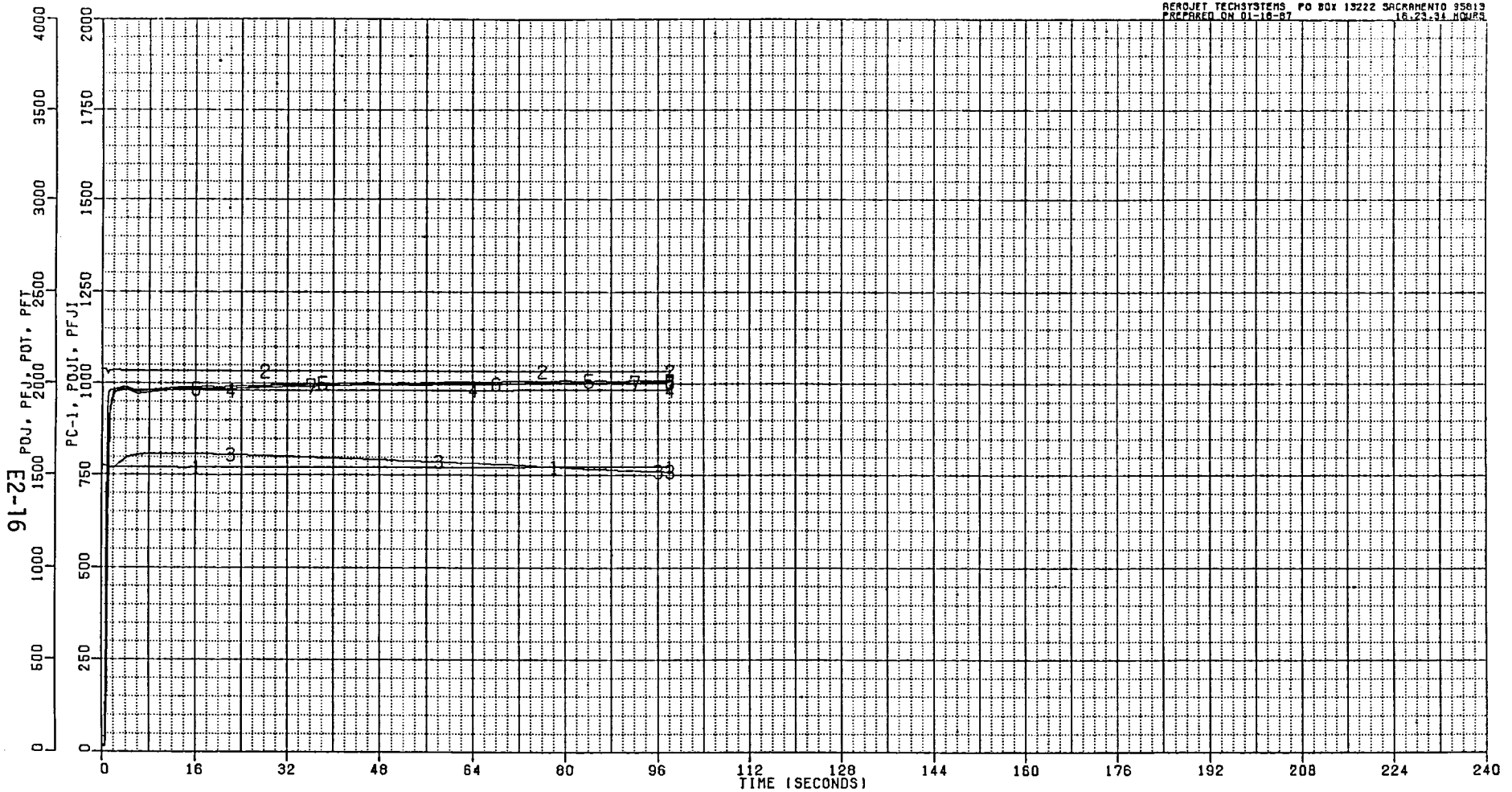
TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-115  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 02-24-84 1617 HOURS AVERAGED DATA



1 NA1      SQ. IN.  
2 NA2      SQ. IN.  
3 COA

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-115  
NOZZLE AREA CHANGE  
TEST DATE 02-24-84 1617 HOURS      AVERAGED DATA





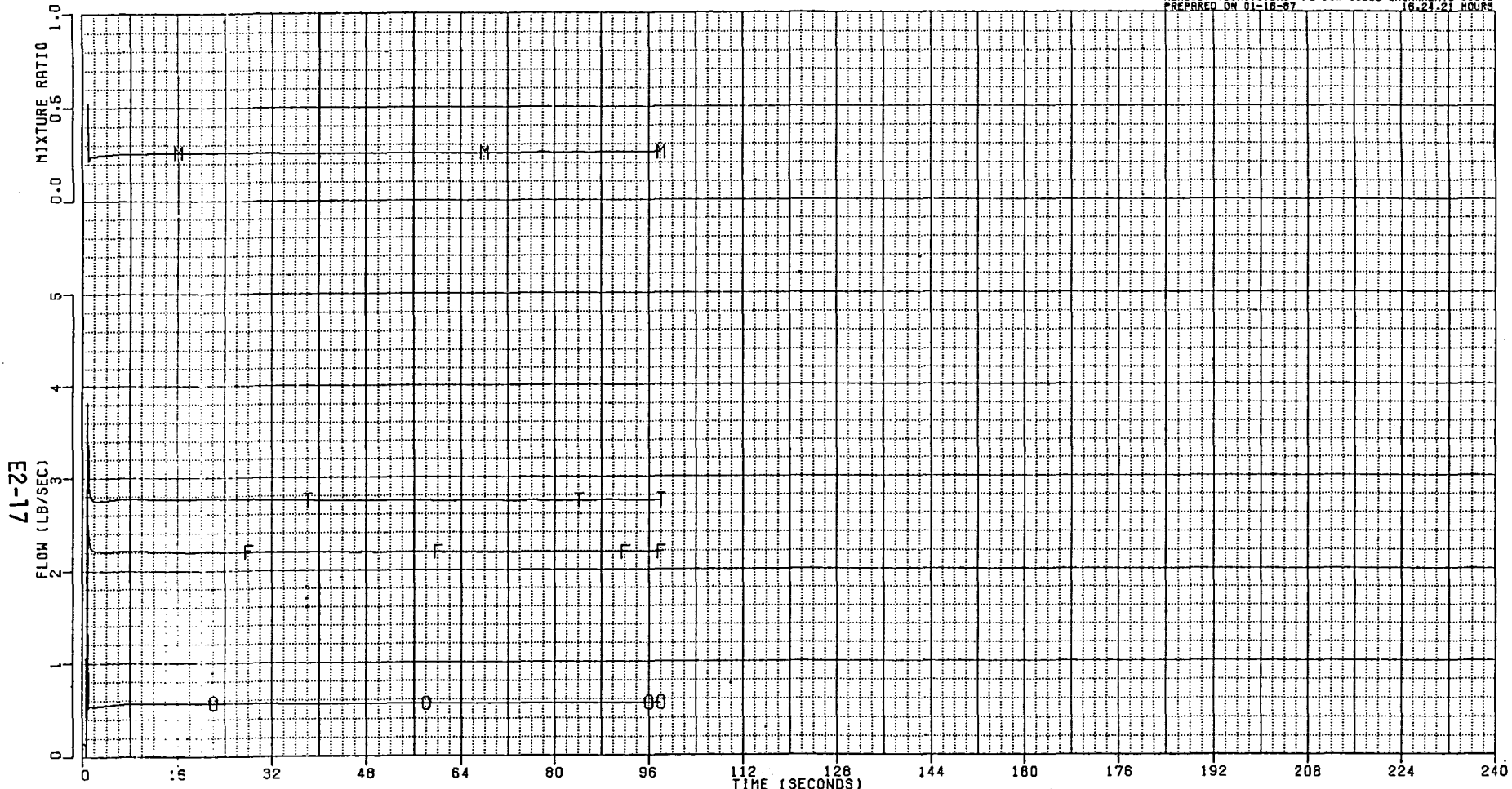
91-23  
 2000  
 1500  
 1000  
 500  
 250  
 0

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-117

TEST DATE 02-29-84 1058 HOURS AVERAGED DATA





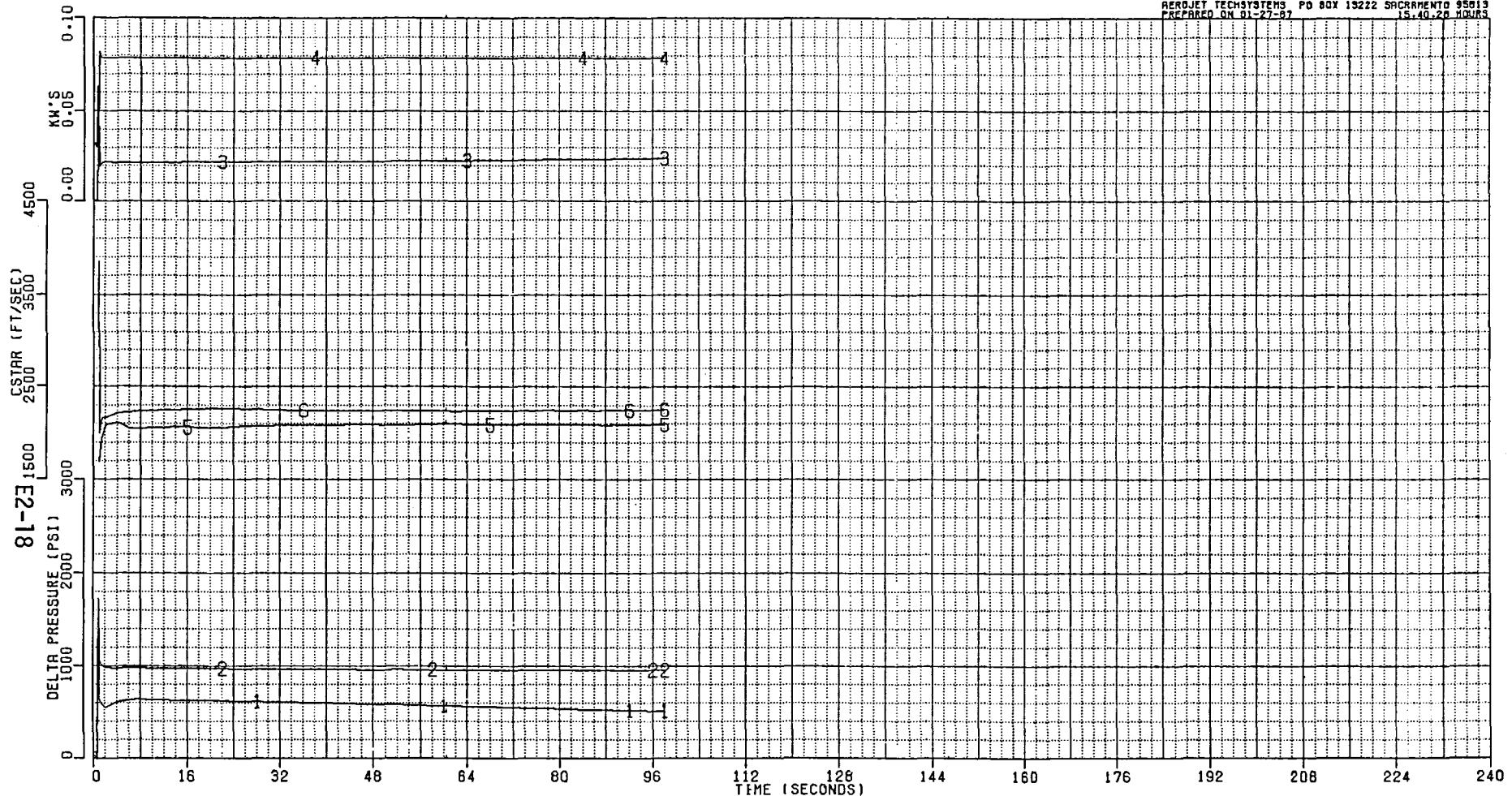
E2-17

F WF LES/SEC  
O WOX LES/SEC  
T WTOT LES/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-117

TEST DATE 02-29-84 1058 HOURS AVERAGED DATA





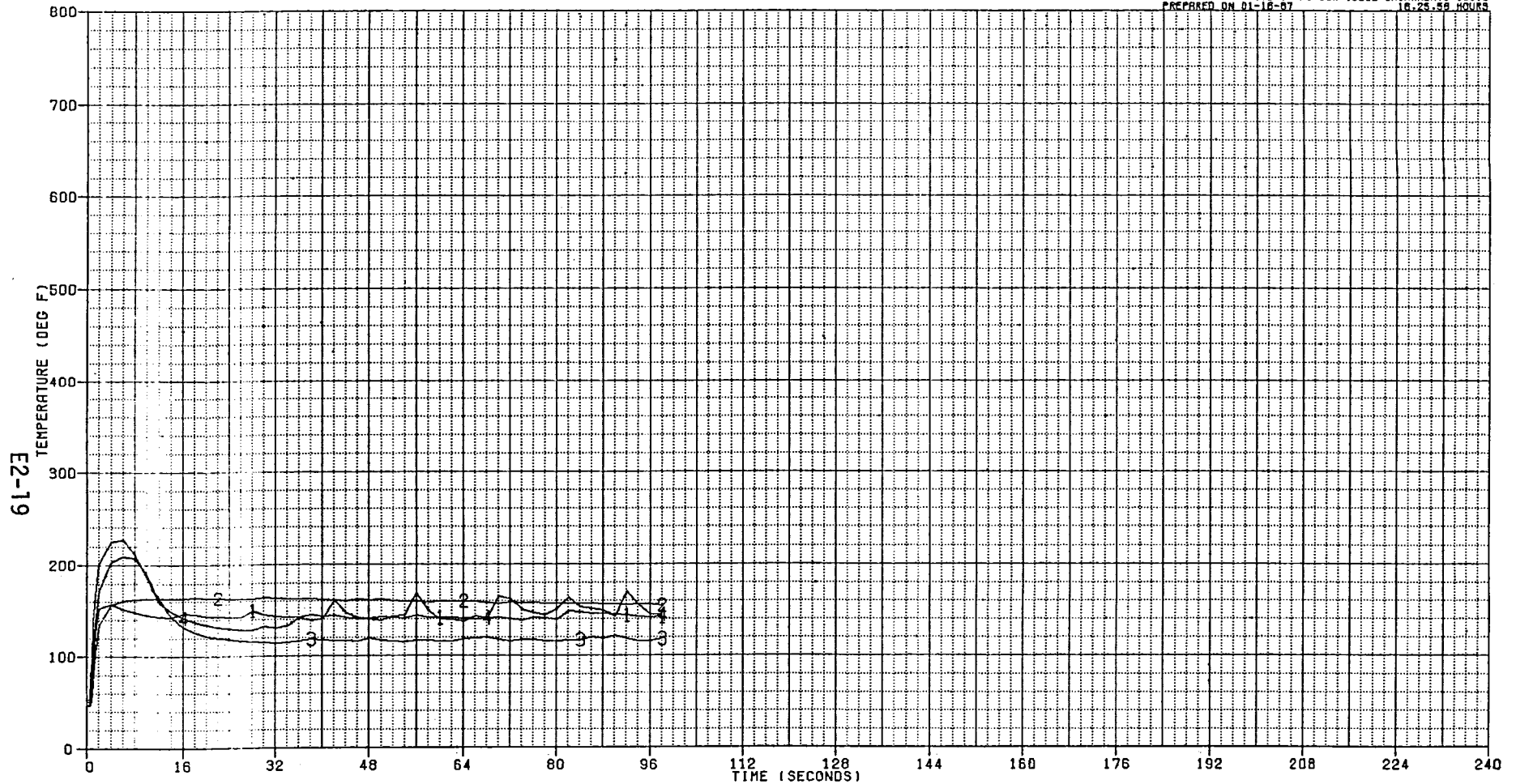
81-23 E2-18

- 1 DPOJ      PSI
- 2 OPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB      FT/SEC
- 6 CSTAR      FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-117

TEST DATE 02-29-84 1058 HOURS      AVERAGED DATA



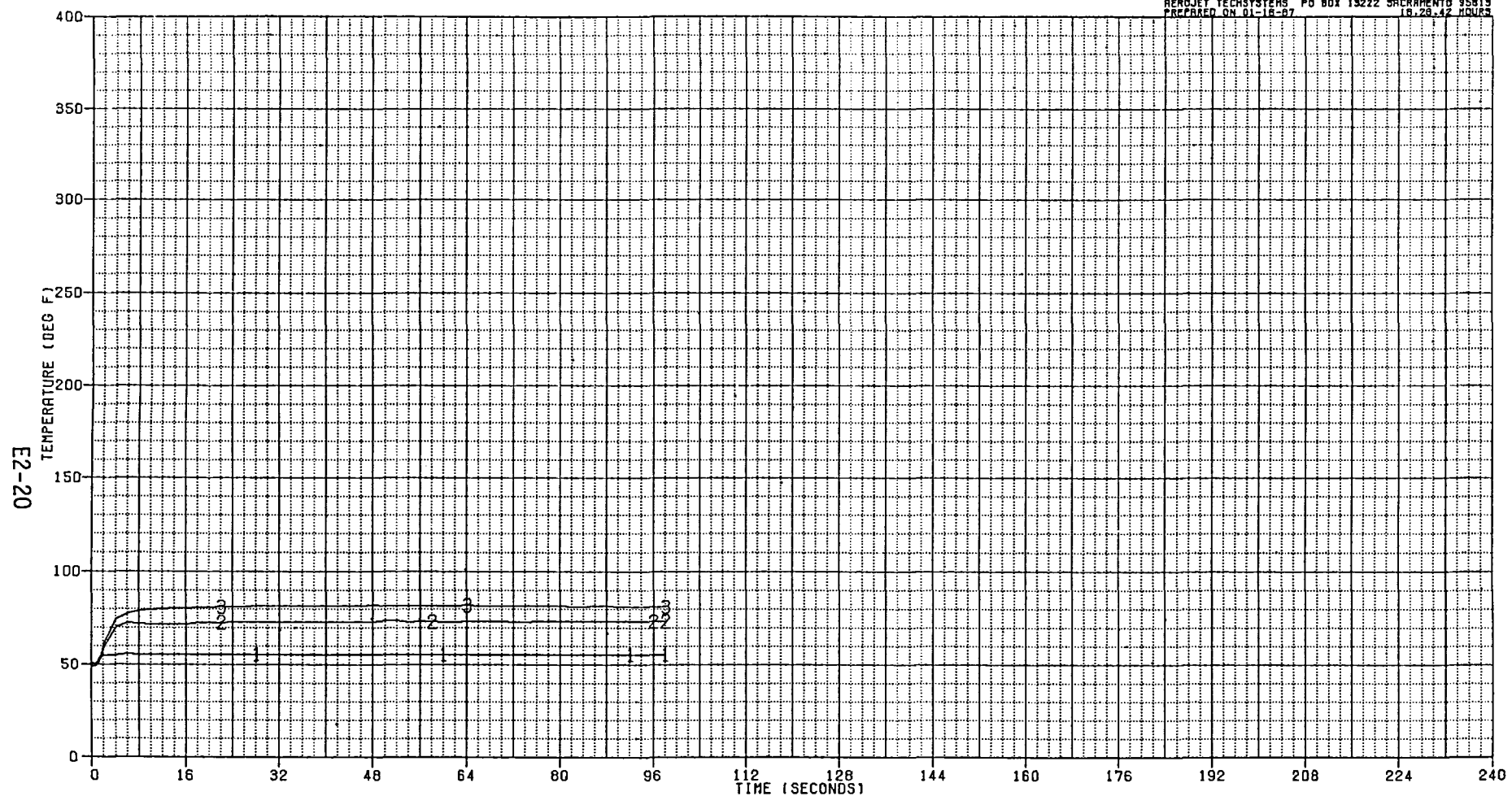


E2-19

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-117  
BARREL DATA  
TEST DATE 02-29-84 1058 HOURS AVERAGED DATA





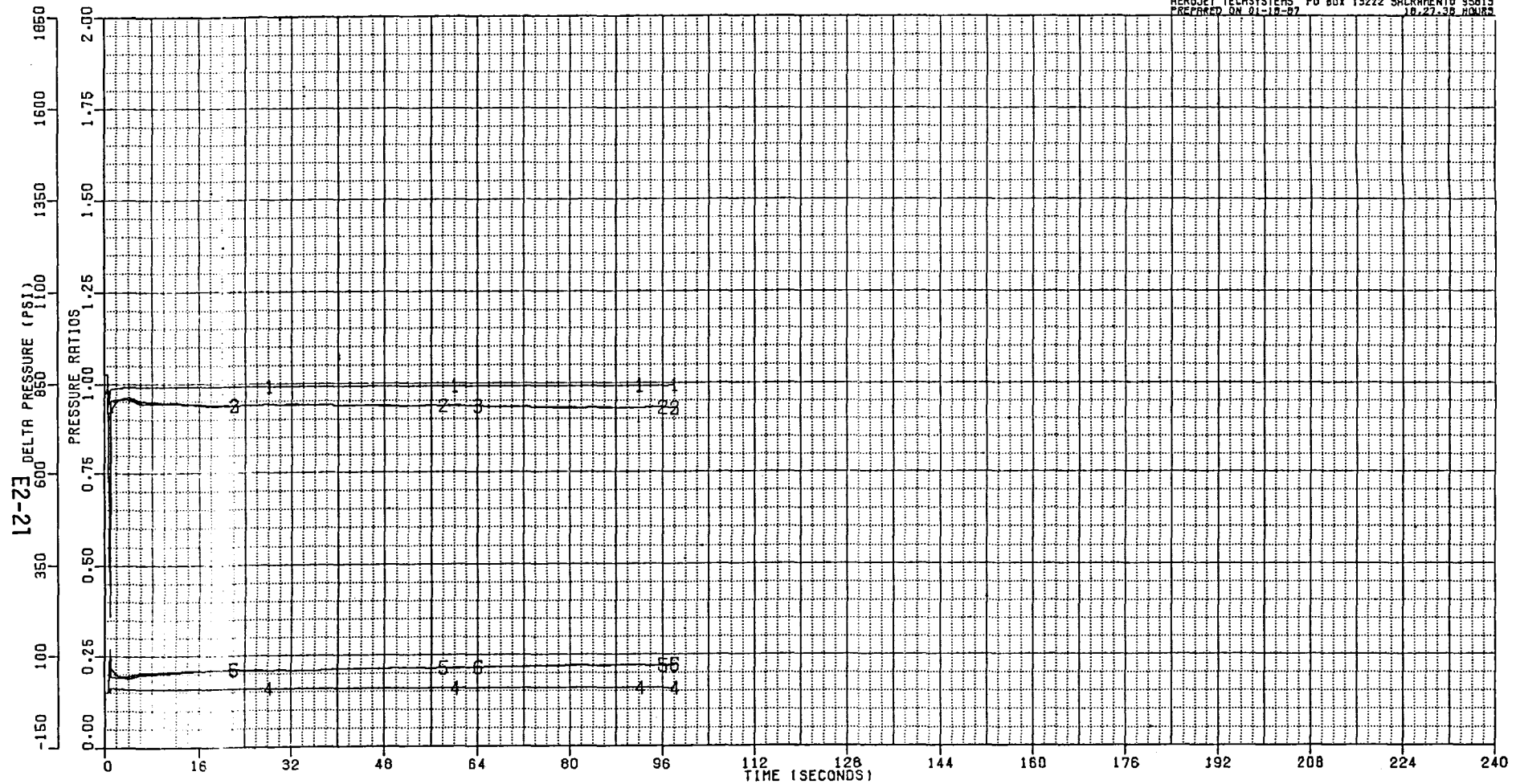
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-117

TEST DATE 02-29-84 1058 HOURS AVERAGED DATA







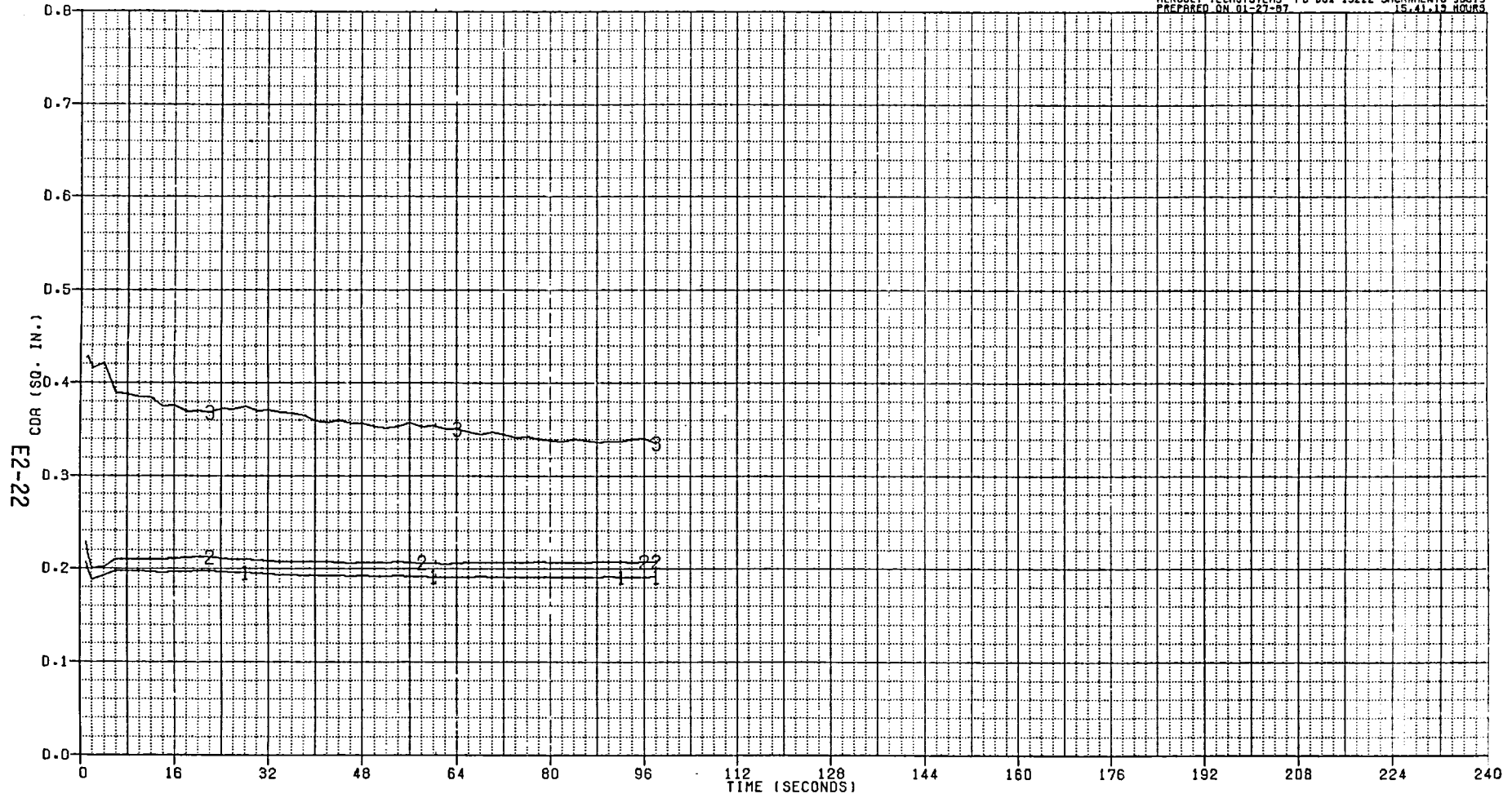
12-21

- 1 PRTR
- 2 PRTS
- 3 PRISC
- 4 DPTR
- 5 DPTS
- 6 DPTSM



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-117  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 02-29-84 1058 HOURS AVERAGED DATA

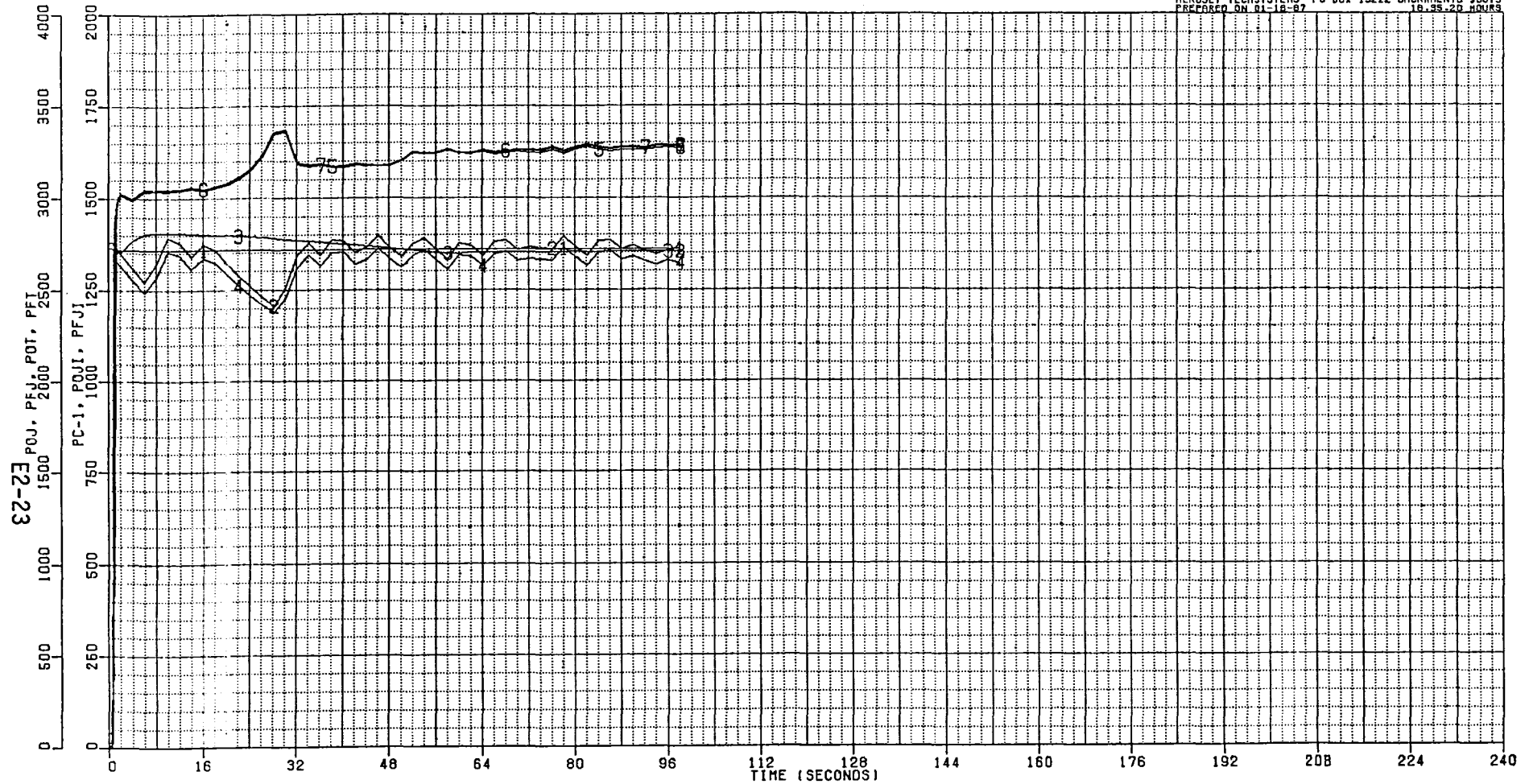




1 NR1 SQ.IN.  
2 NR2 SQ.IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-117  
NOZZLE AREA CHANGE  
TEST DATE 02-29-84 1058 HOURS AVERAGED DATA





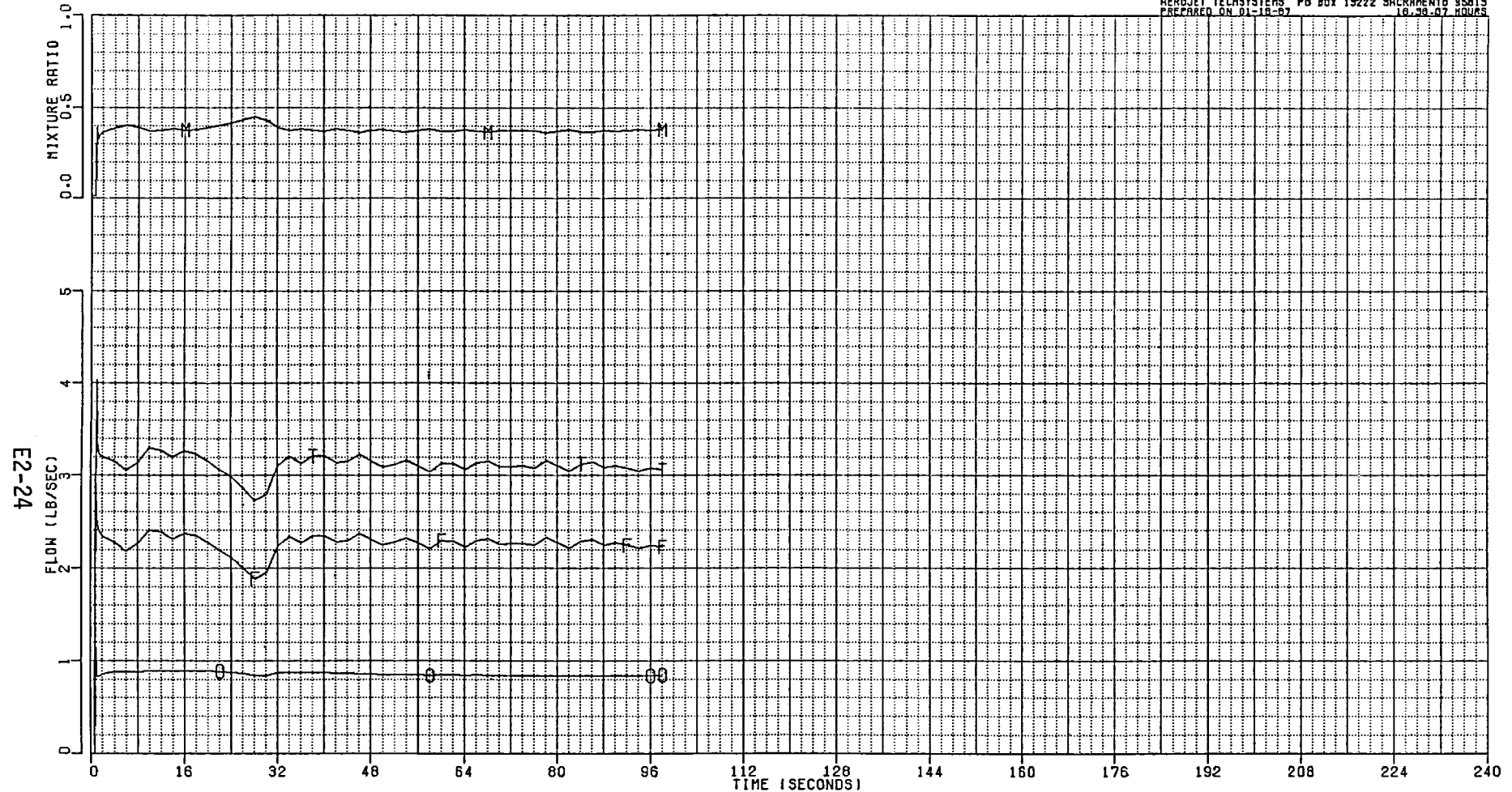
E2-23

- 1 POT      PSI
- 2 PFT      PSI
- 3 POJ      PSI
- 4 PFJ      PSI
- 5 PC-1     PSI
- 6 POJI     PSI
- 7 PFJI     PSI

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-119

TEST DATE 02-29-84 1410 HOURS      AVERAGED DATA





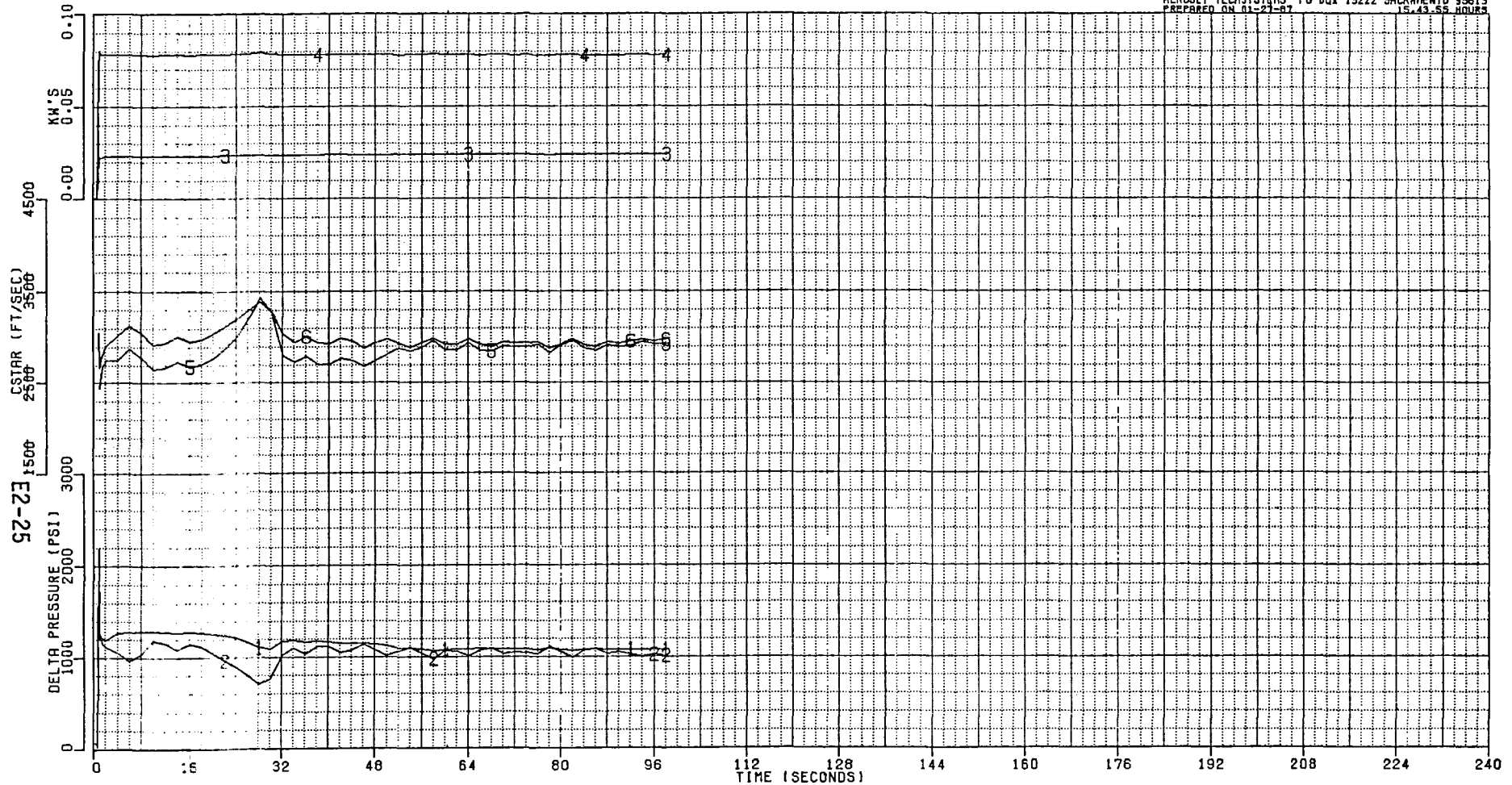
E2-24

F HF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-119

TEST DATE 02-29-84 1410 HOURS AVERAGED DATA



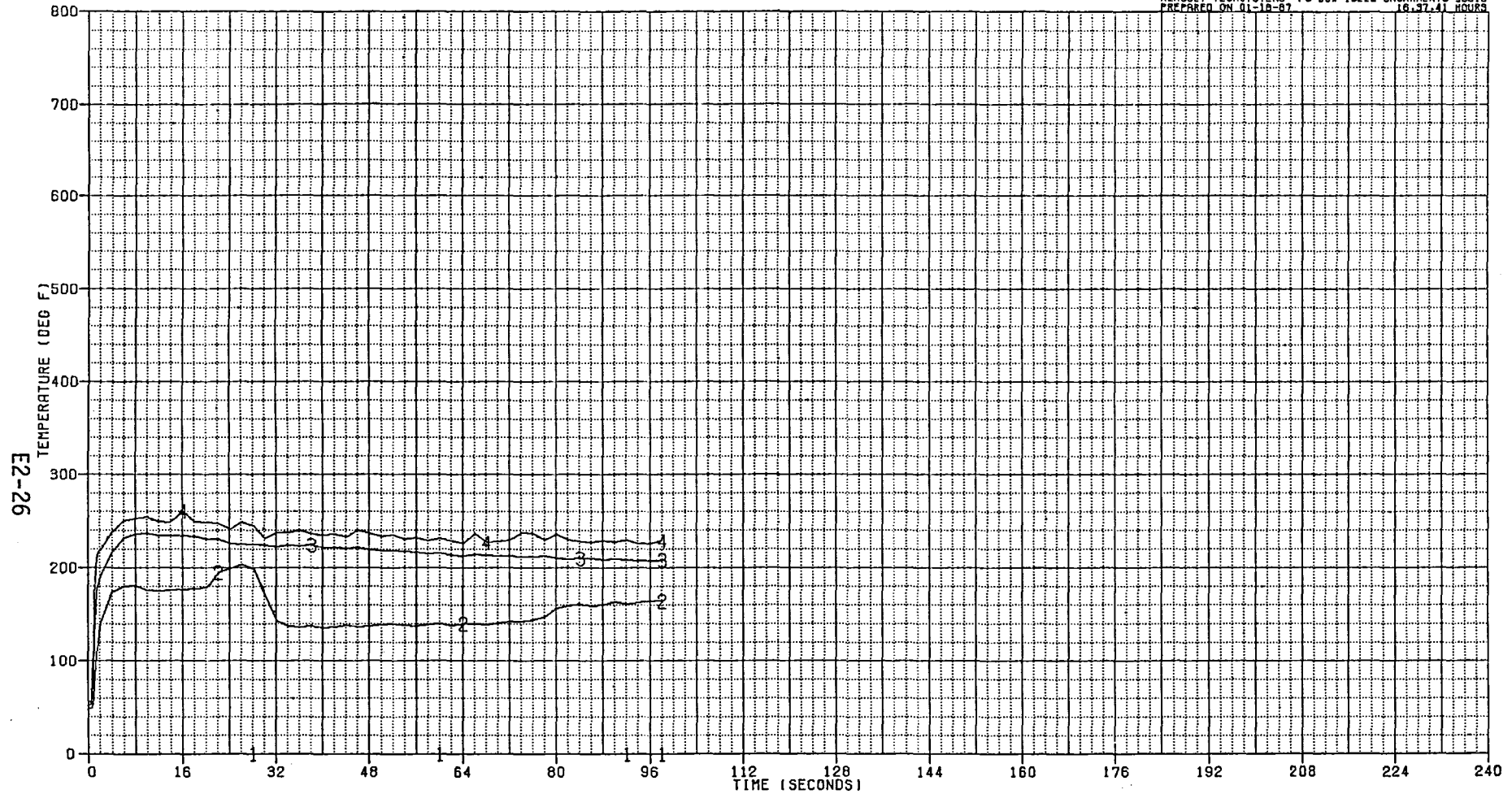


- 1 DPOJ      PSI
- 2 OPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-119

TEST DATE 02-29-84 1410 HOURS      AVERAGED DATA



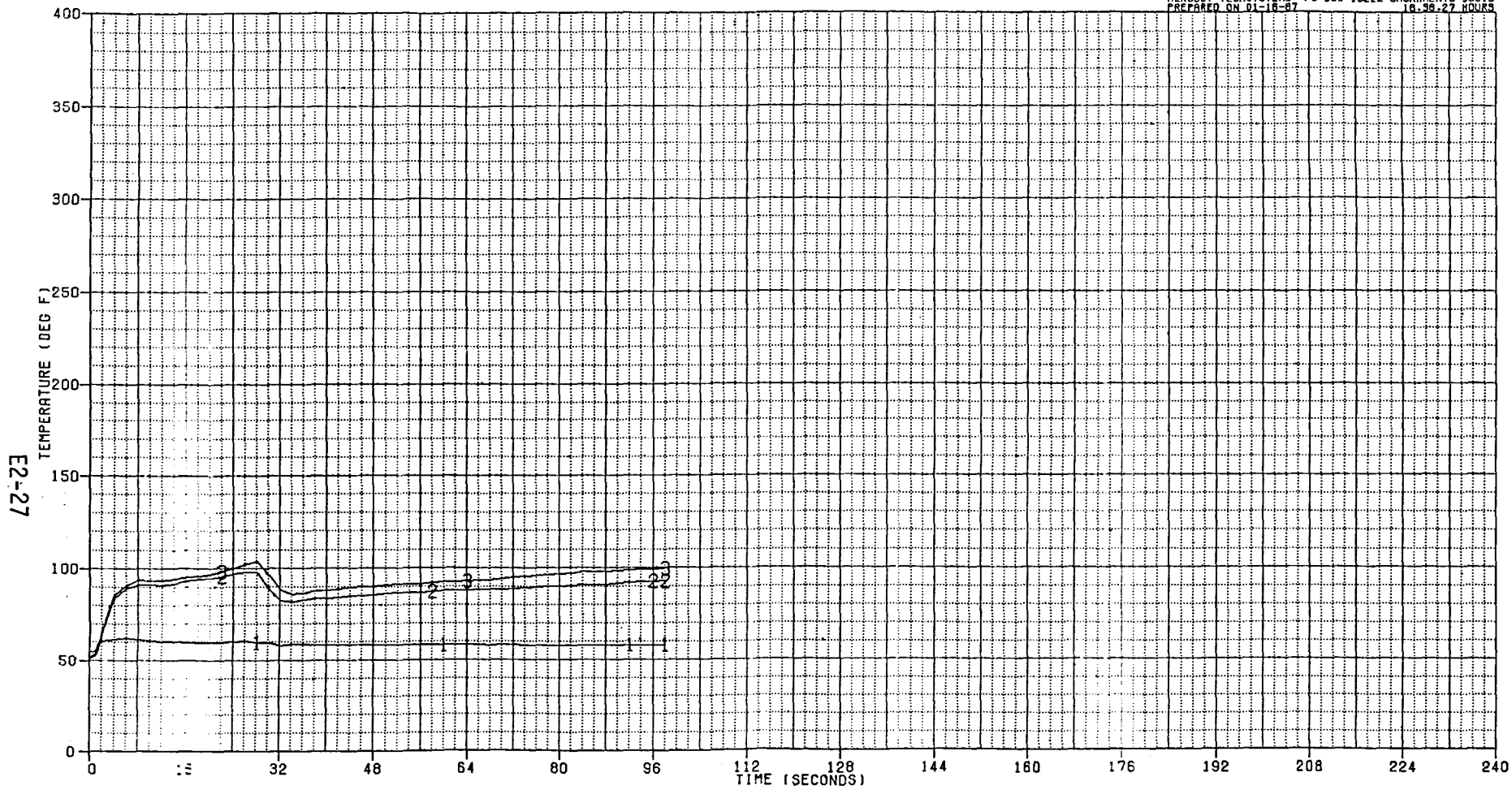


E2-26

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-119  
BARREL DATA  
TEST DATE 02-29-84 1410 HOURS AVERAGED DATA





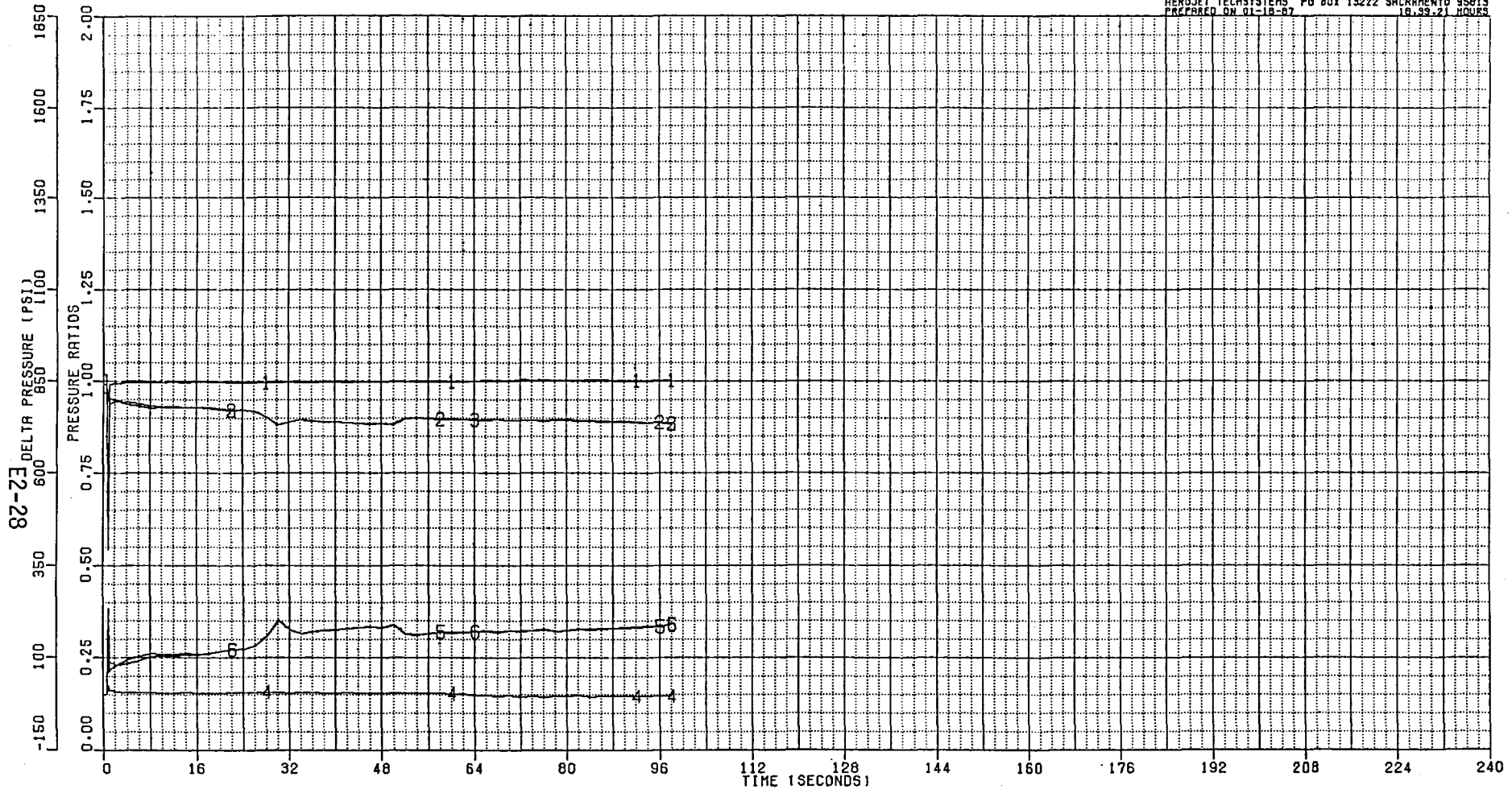
E2-27

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-119

TEST DATE 02-29-84 1410 HOURS AVERAGED DATA





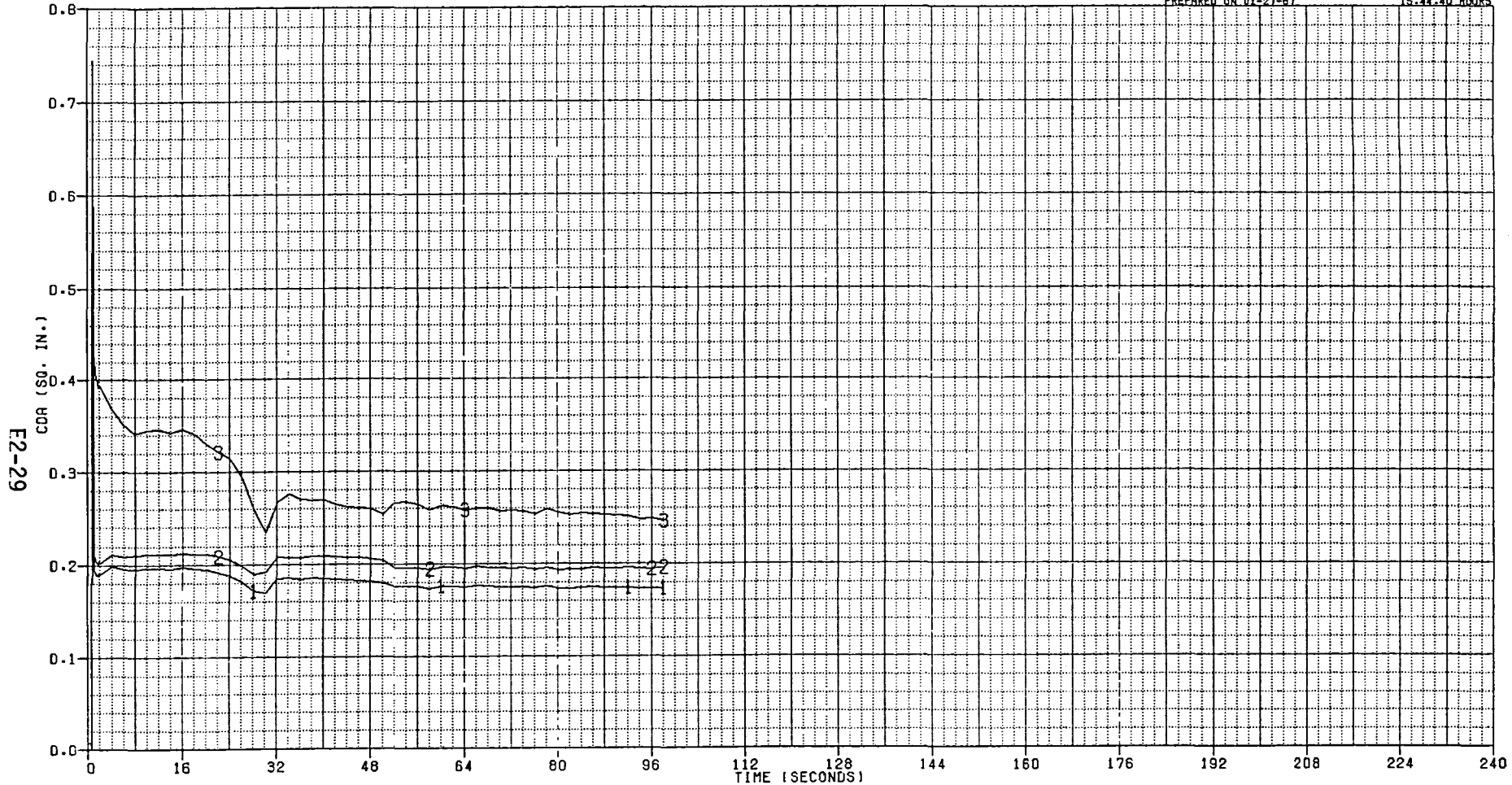
- 1 PRTR
- 2 PRTS
- 3 PRTSC
- 4 DPTR
- 5 DPTS
- 6 DPTSH

PSI  
 PSI  
 PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-119  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 02-29-84 1410 HOURS AVERAGED DATA



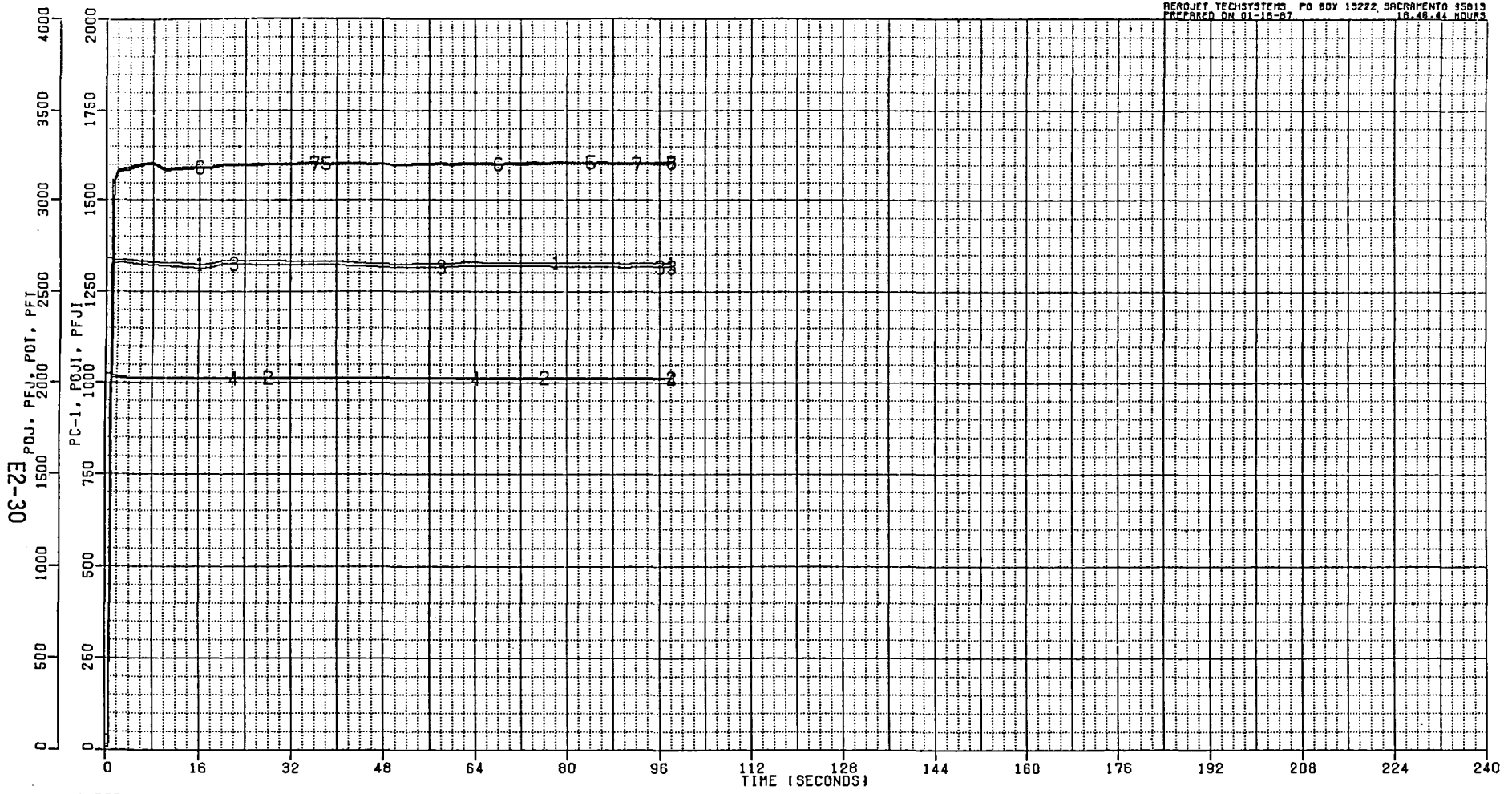


1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-119  
NOZZLE AREA CHANGE  
TEST DATE 02-29-84 1410 HOURS AVERAGED DATA







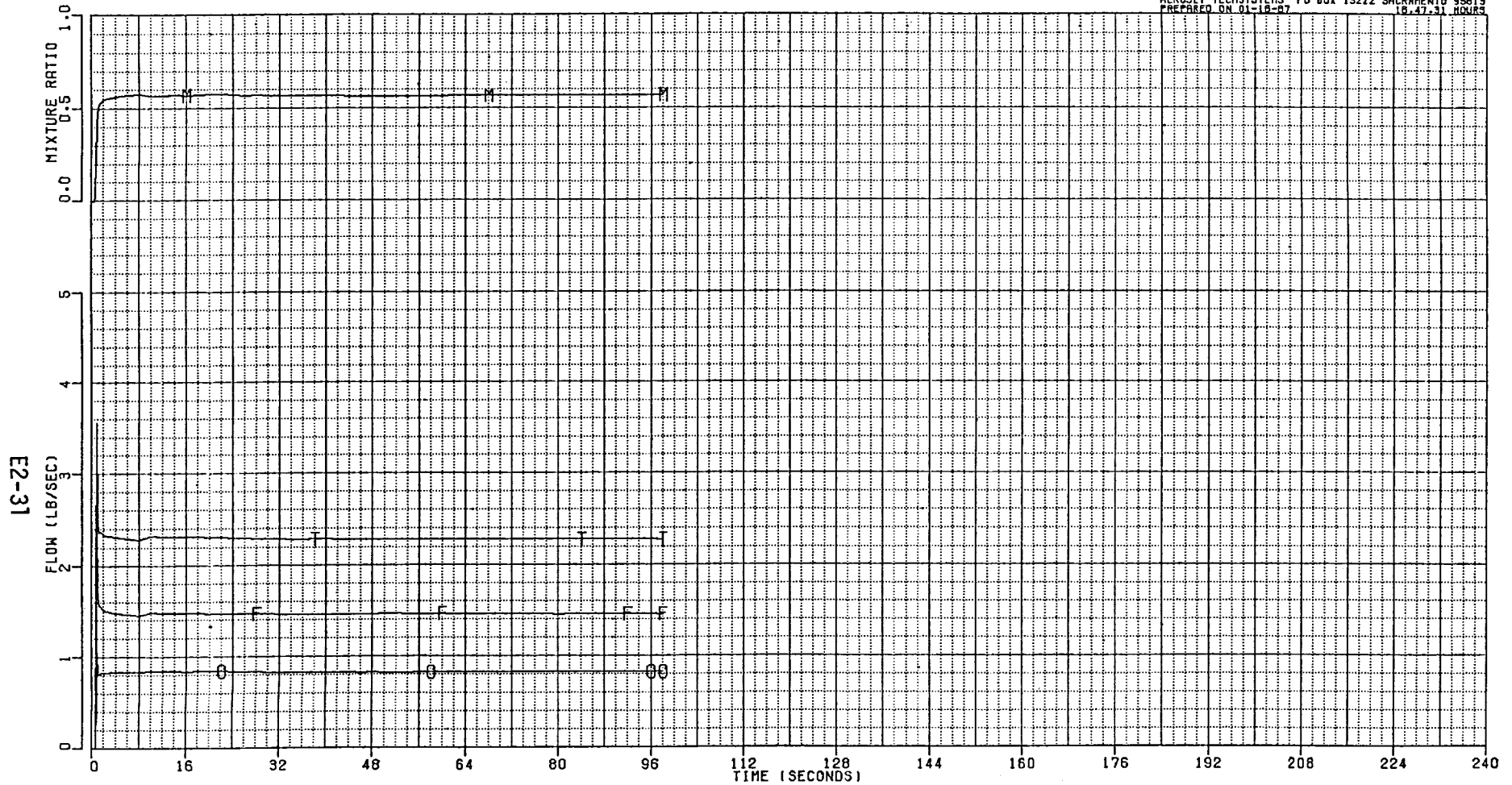
E2-30

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-121

TEST DATE 02-29-84 1519 HOURS AVERAGED DATA



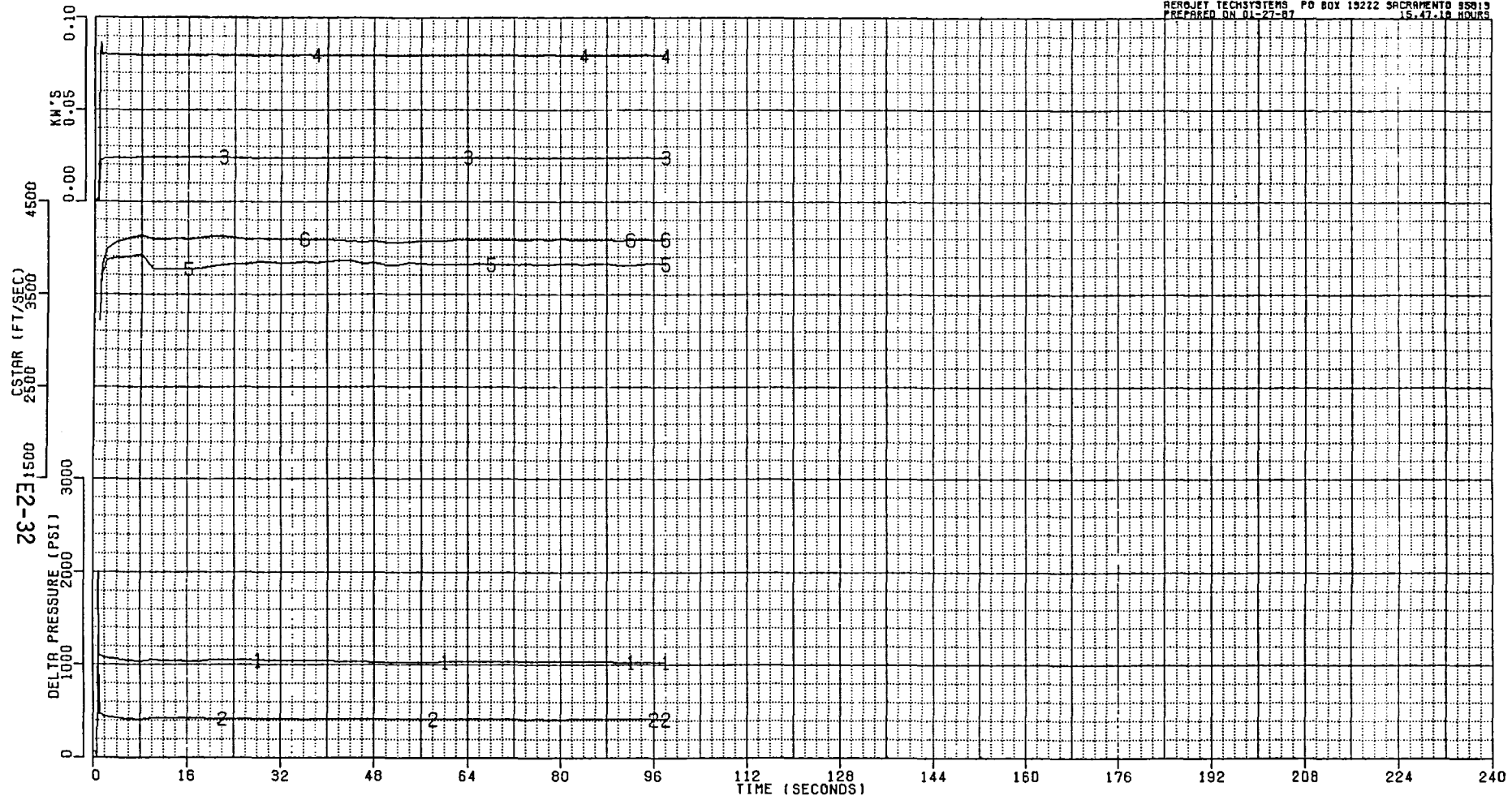


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-121

TEST DATE 02-29-84 1519 HOURS AVERAGED DATA





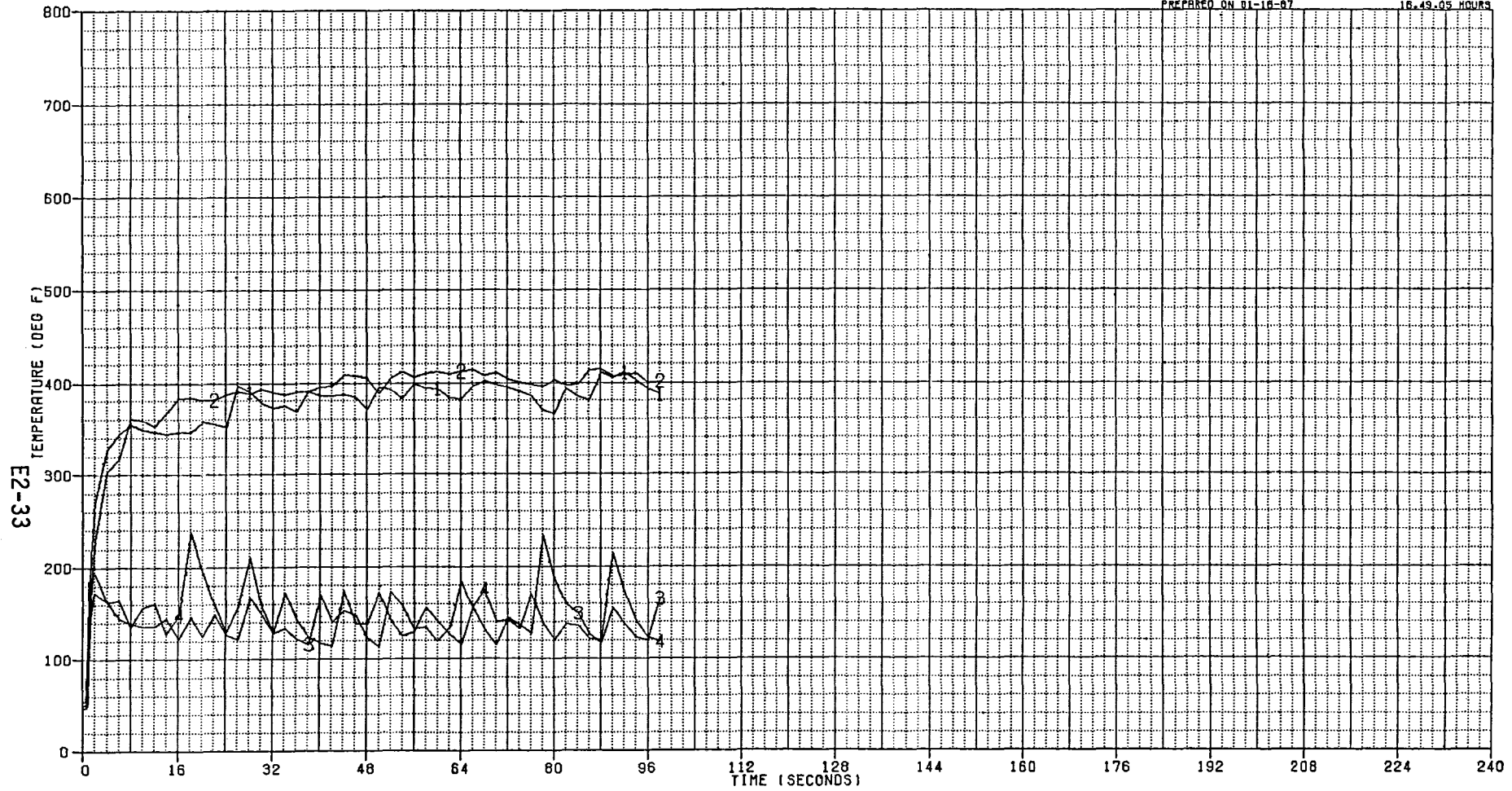
2C-2-32  
CSTAR (FT/SEC)  
4500  
3500  
2500  
1500  
3000  
2000  
1000  
0  
DELTA PRESSURE (PSI)

- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

### INJECTOR CALCULATIONS VS TIME TEST NO. RLB6-936-121

TEST DATE 02-29-84 1519 HOURS AVERAGED DATA

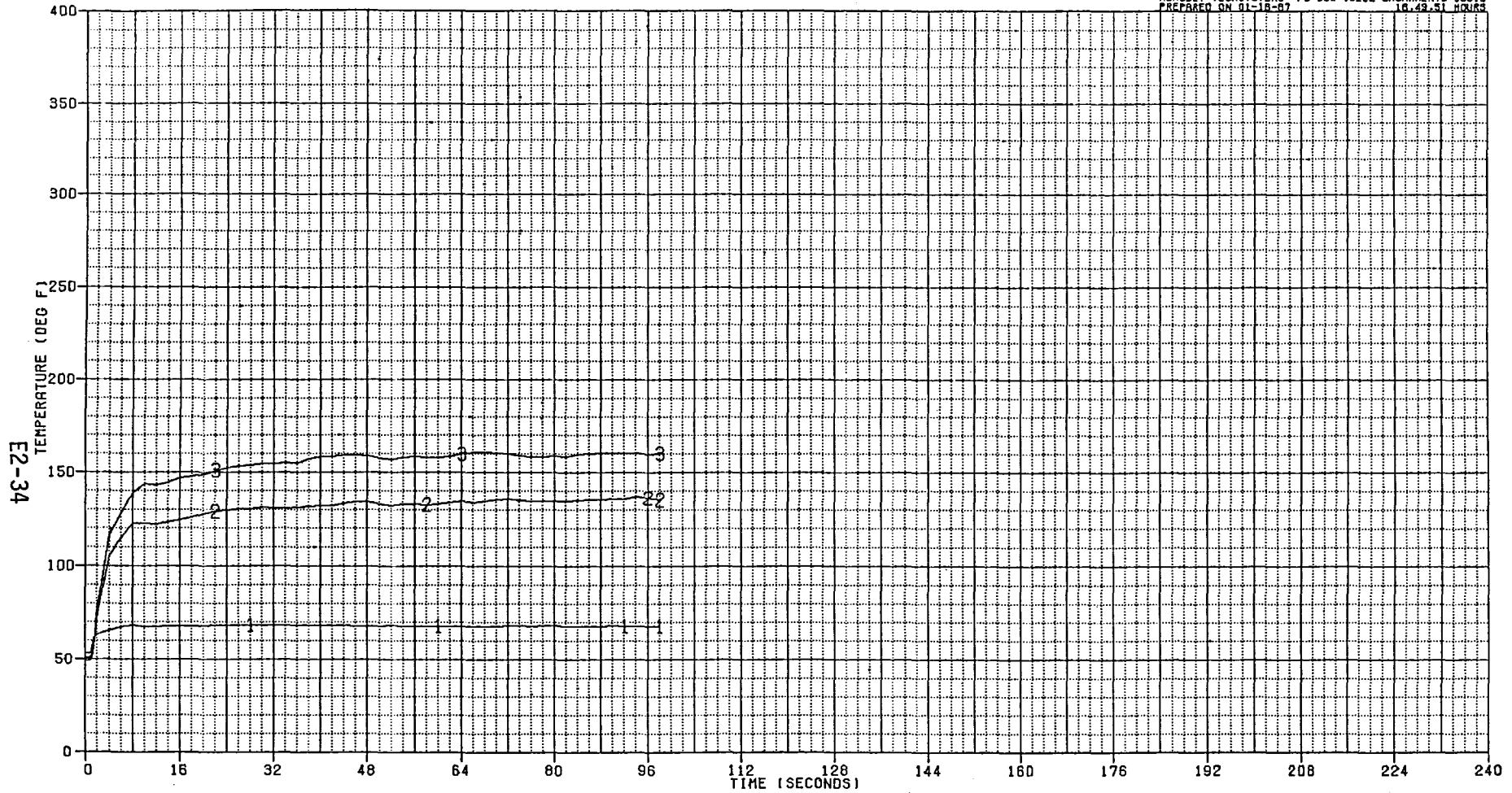




- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-121  
BARREL DATA  
TEST DATE 02-29-84 1519 HOURS AVERAGED DATA



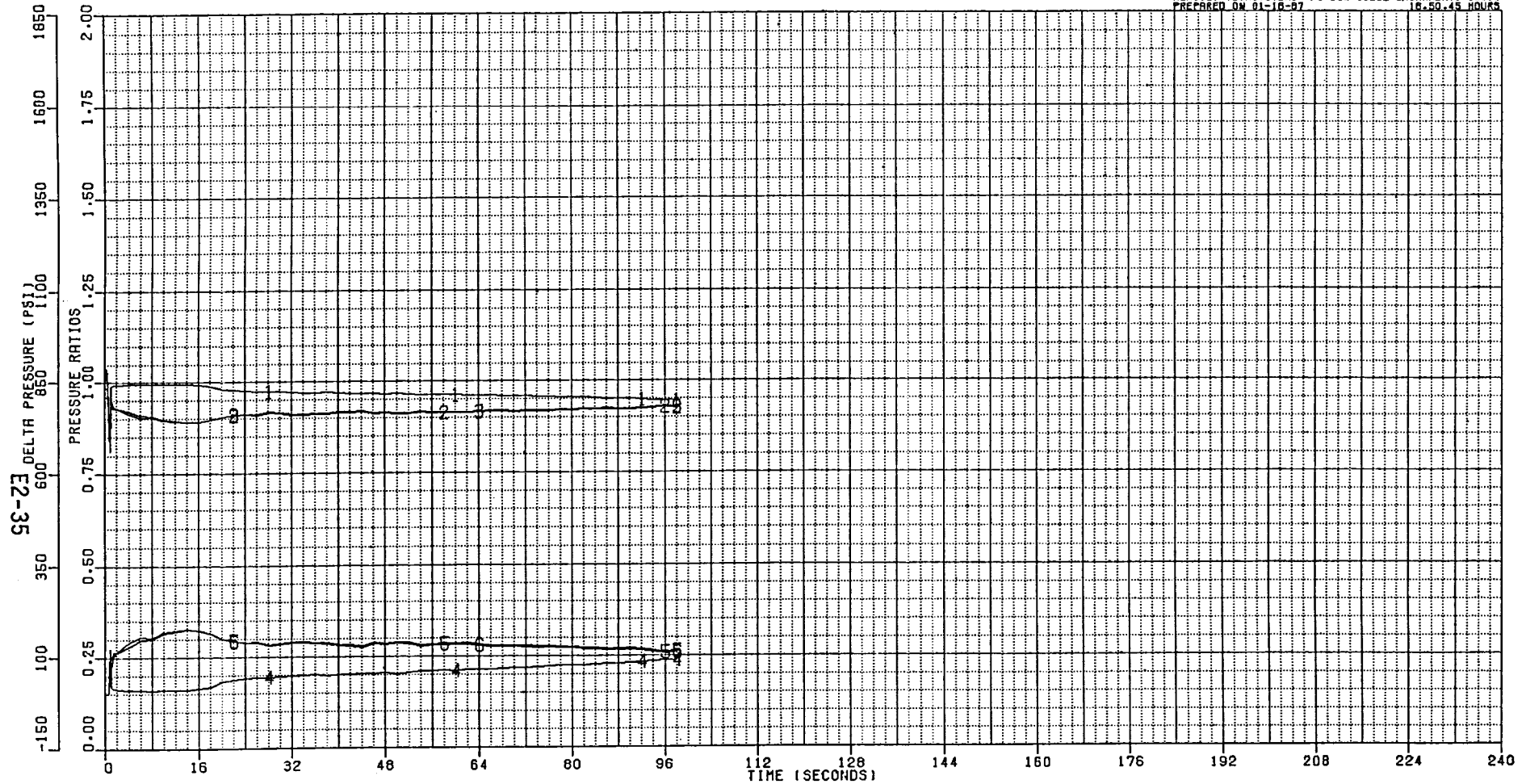


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-121

TEST DATE 02-29-84 1519 HOURS AVERAGED DATA

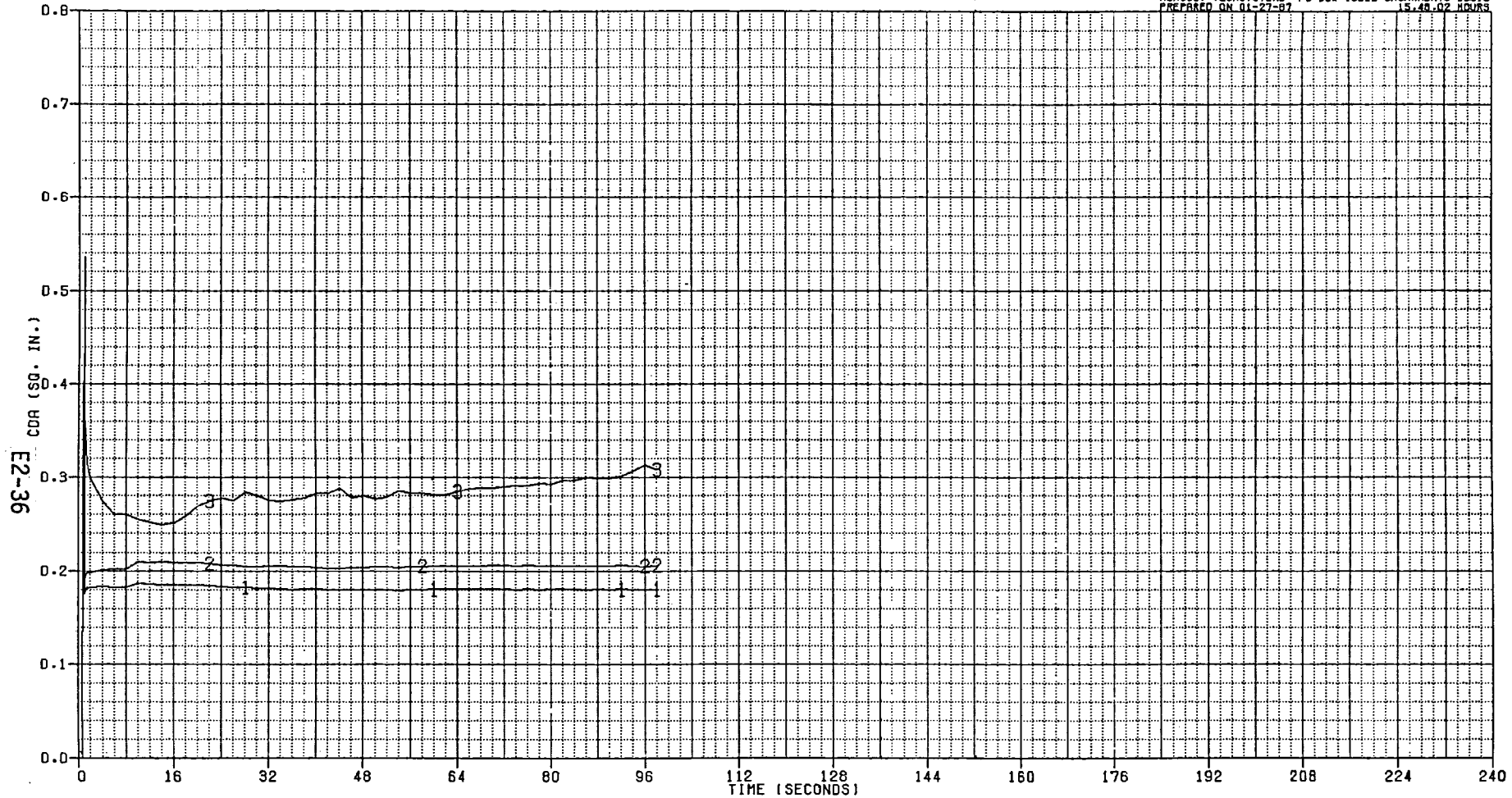




- 1 PRTR PSI
- 2 PRTS PSI
- 3 PRSC PSI
- 4 DPTR PSI
- 5 DPTS PSI
- 6 DPTSM PSI

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-121  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 02-29-84 1519 HOURS AVERAGED DATA



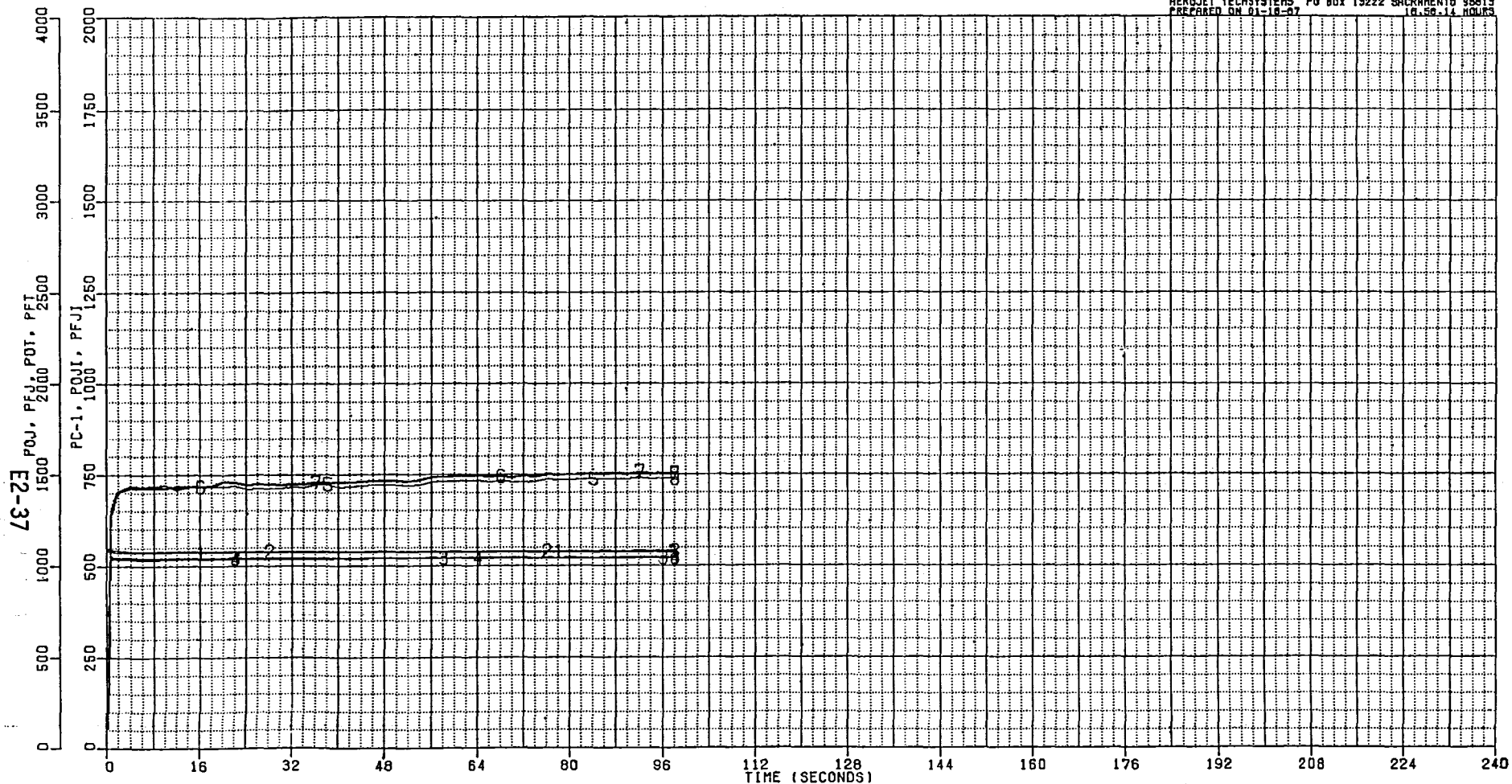


1 NA1 SQ-IN.  
2 NA2 SQ-IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-121  
NOZZLE AREA CHANGE  
TEST DATE 02-29-84 1519 HOURS AVERAGED DATA







E2-37

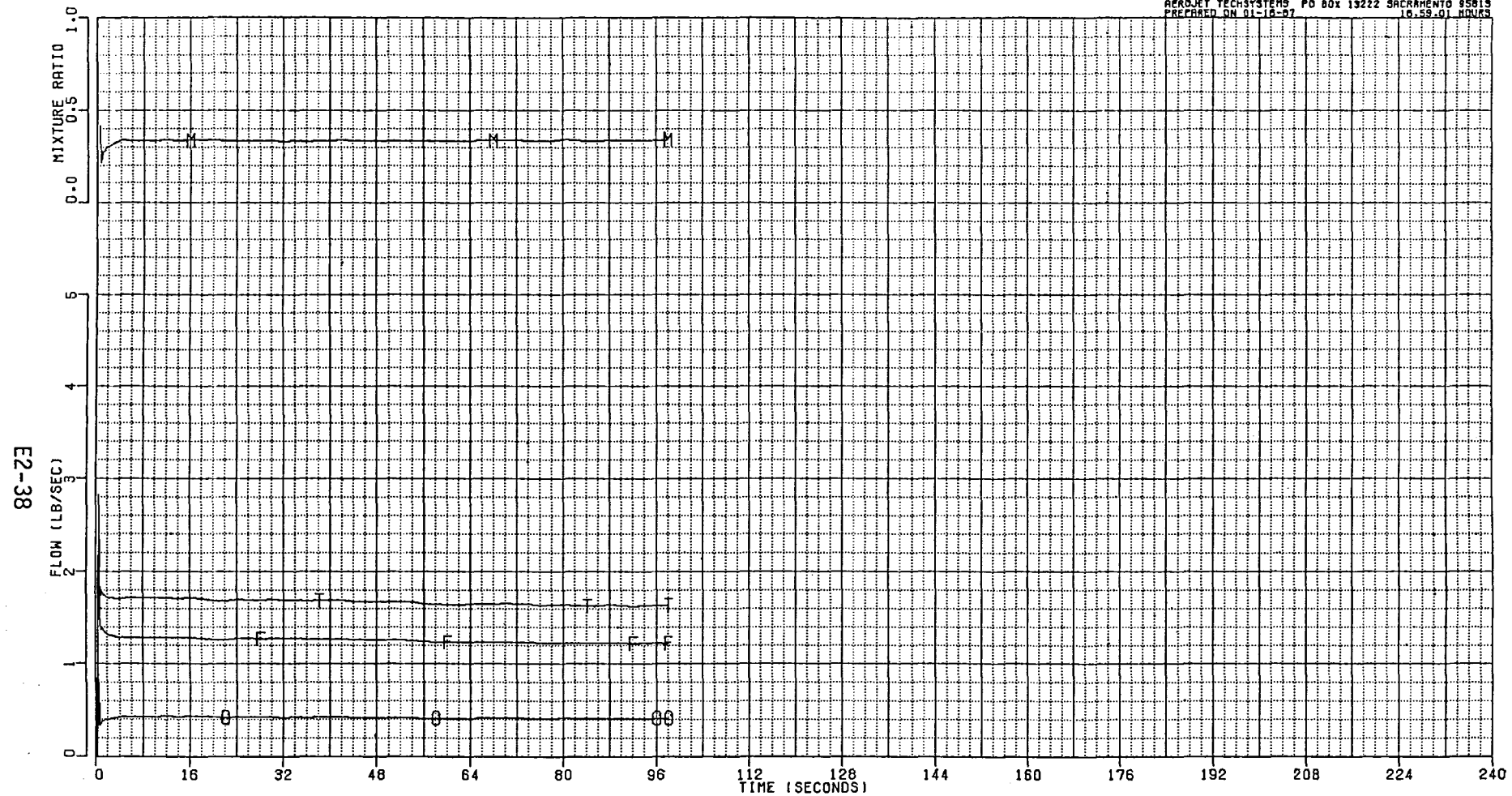
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



MEASURED PRESSURES VS TIME  
TEST NO. 2427-936-A6-125

TEST DATE 03-01-84 1544 HOURS AVERAGED DATA





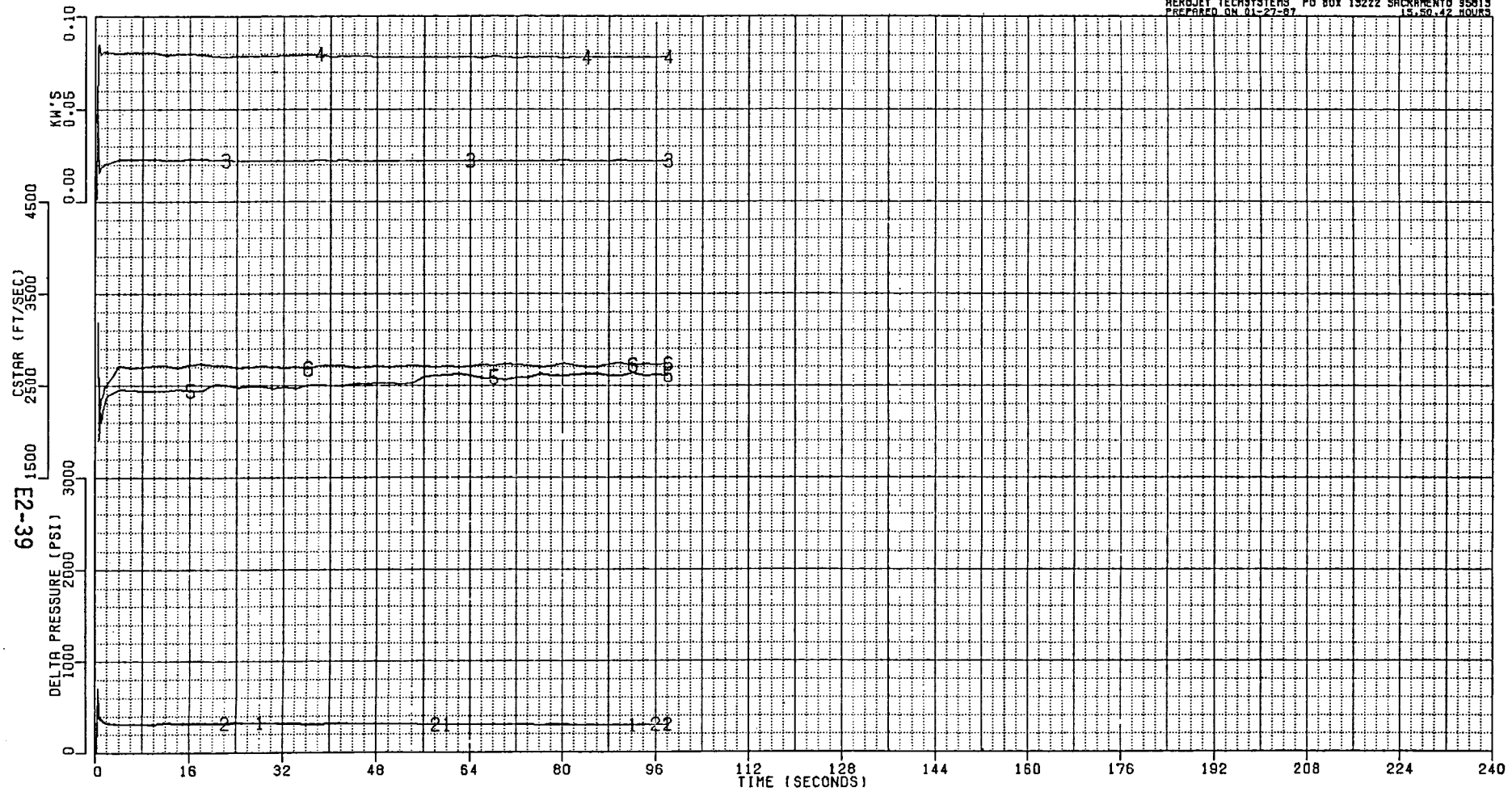
E2-38

F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-125

TEST DATE 03-01-84 1544 HOURS AVERAGED DATA



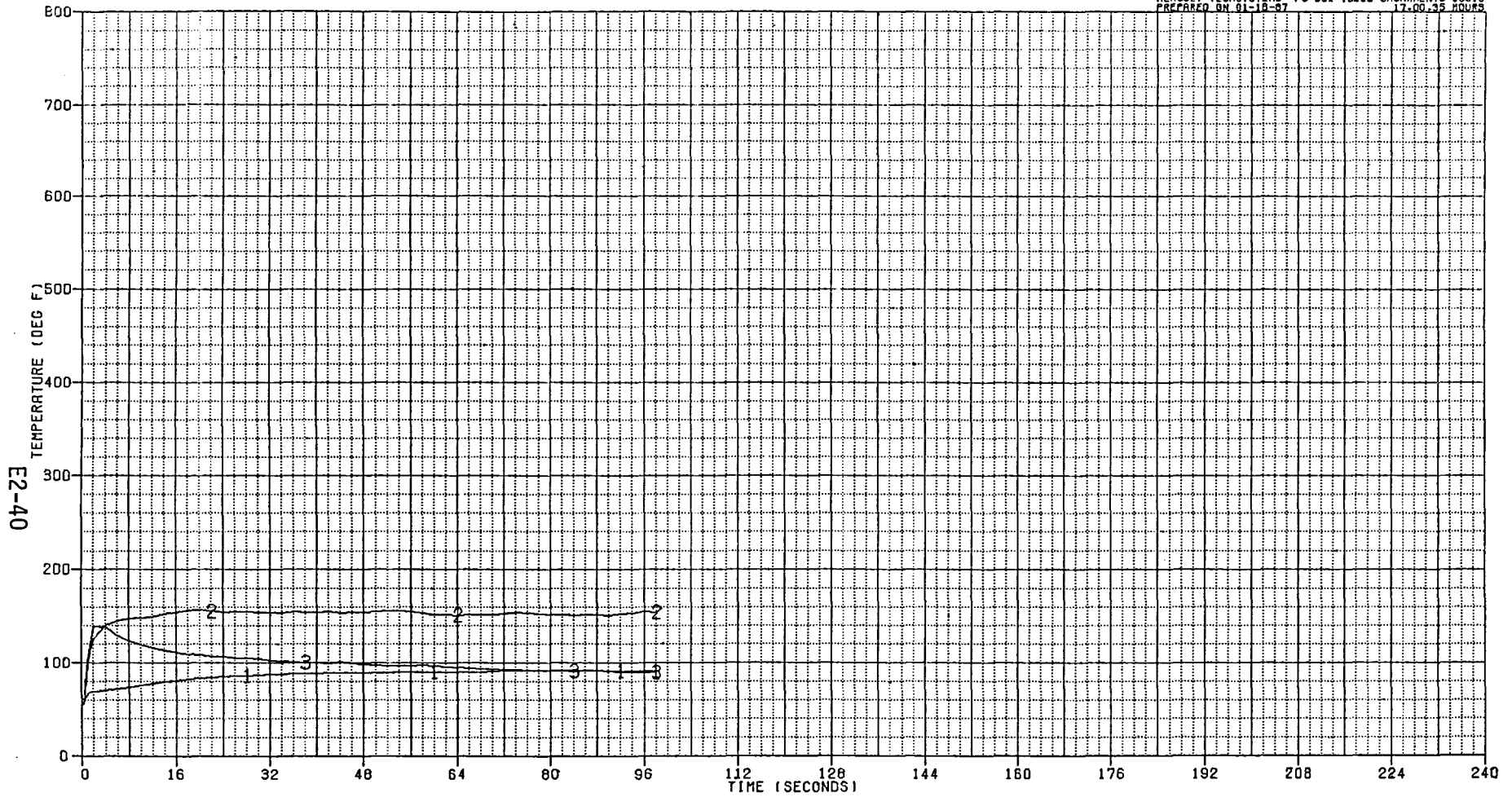


- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR         FT/SEC

**INJECTOR CALCULATIONS VS TIME**  
**TEST NO. RLB6-936-125**

TEST DATE 03-01-84 1544 HOURS      AVERAGED DATA



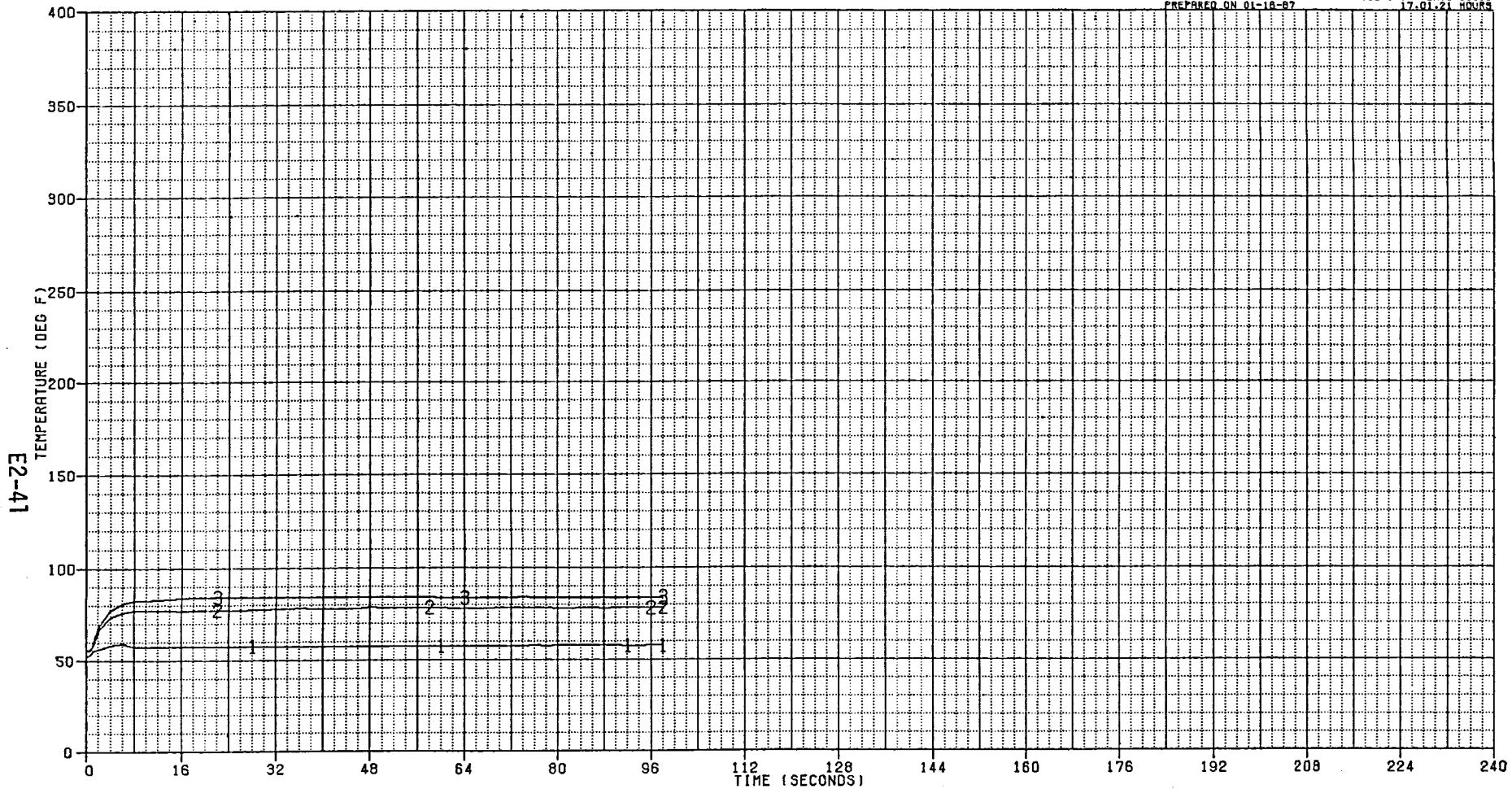


E2-40

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-125  
BARREL DATA  
TEST DATE 03-01-84 1544 HOURS AVERAGED DATA





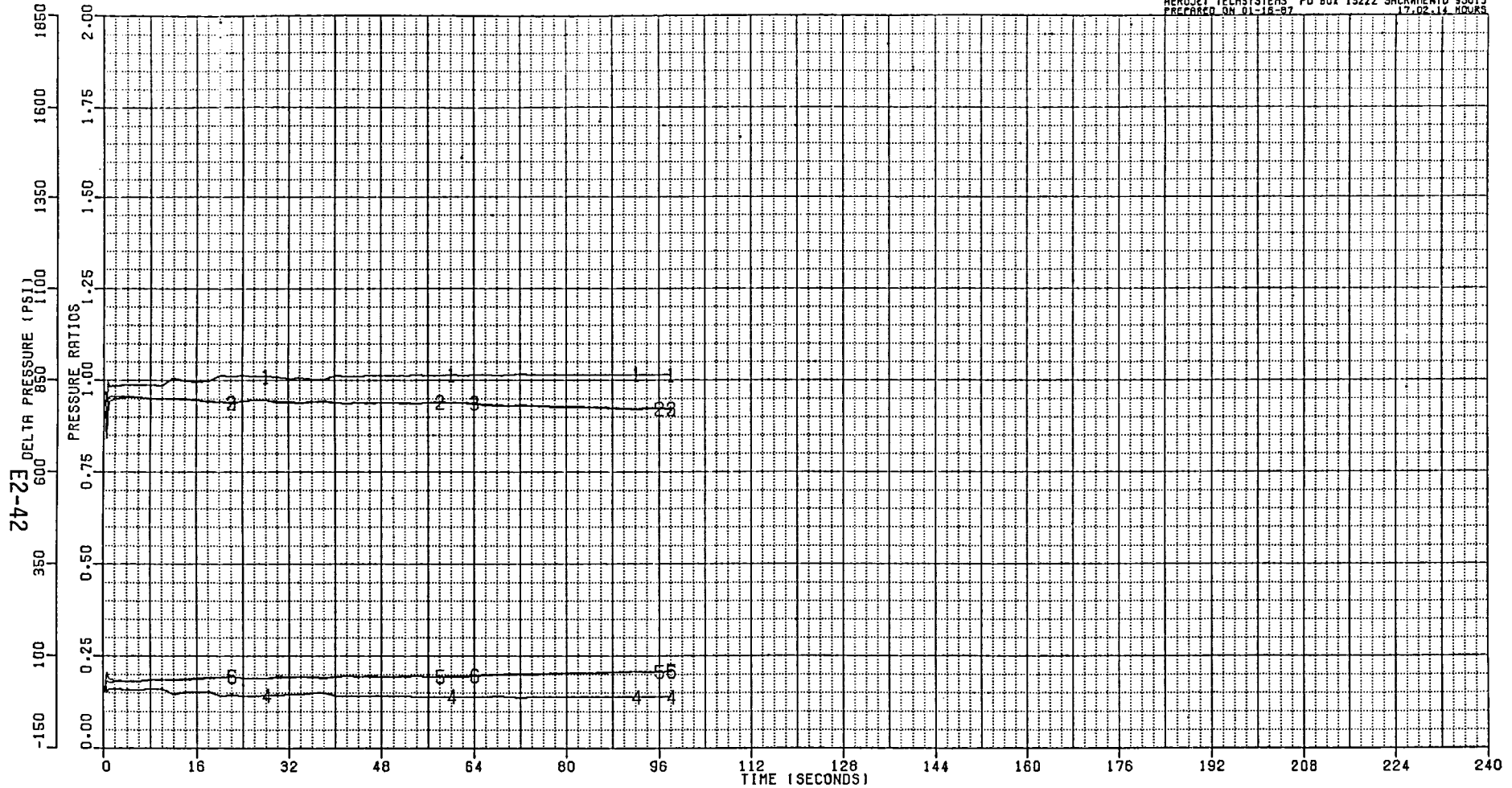
E2-41

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-125

TEST DATE 03-01-84 1544 HOURS AVERAGED DATA



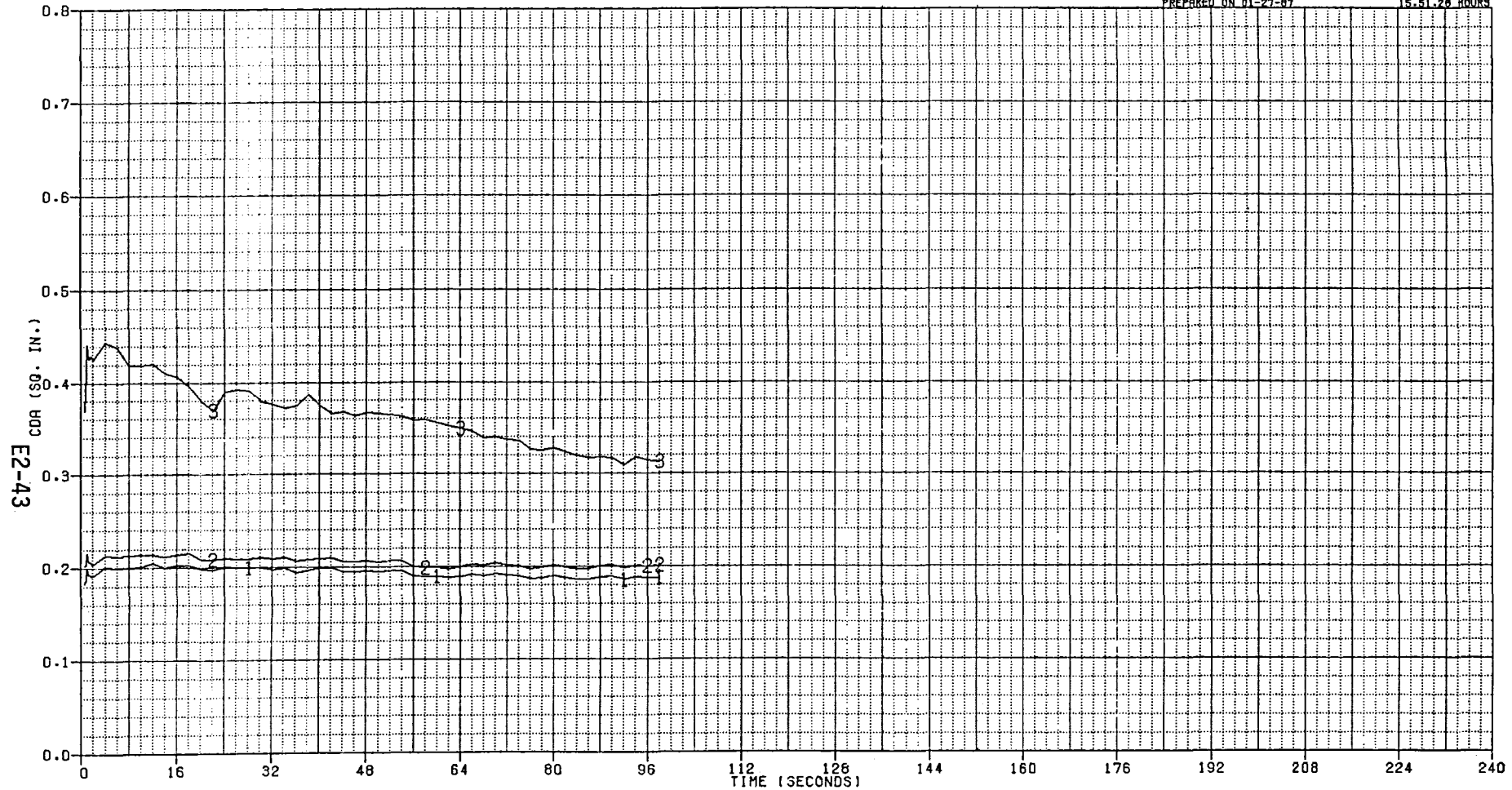


- 1 PRTR
- 2 PRTS
- 3 PRTSC
- 4 DPTR
- 5 DPTS
- 6 DPTSM

PSI  
 PSI  
 PSI



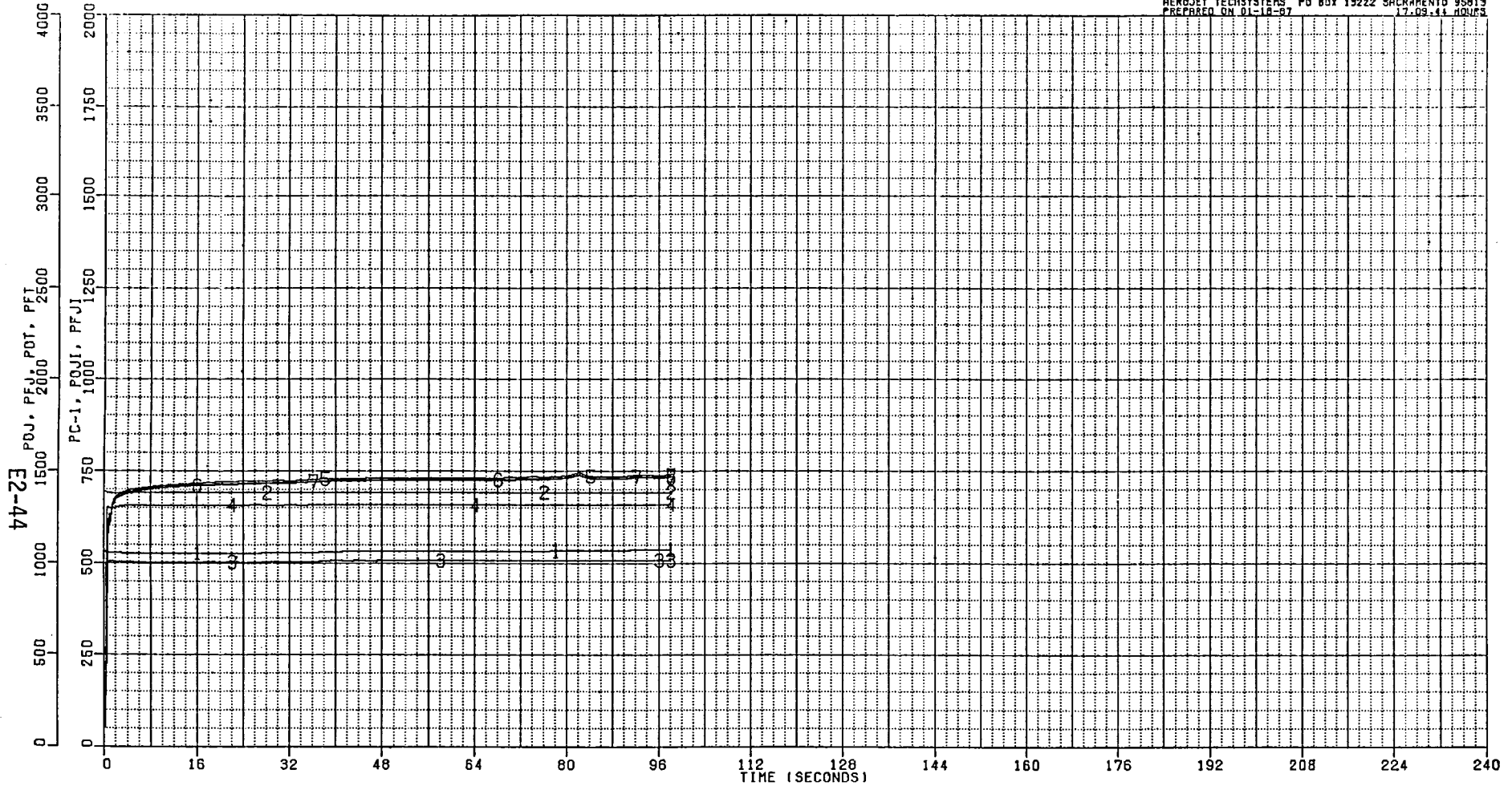
TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-125  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 03-01-84 1544 HOURS AVERAGED DATA



1 NA1      50. IN.  
2 NA2      50. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-125  
NOZZLE AREA CHANGE  
TEST DATE 03-01-84 1544 HOURS      AVERAGED DATA





E2-44

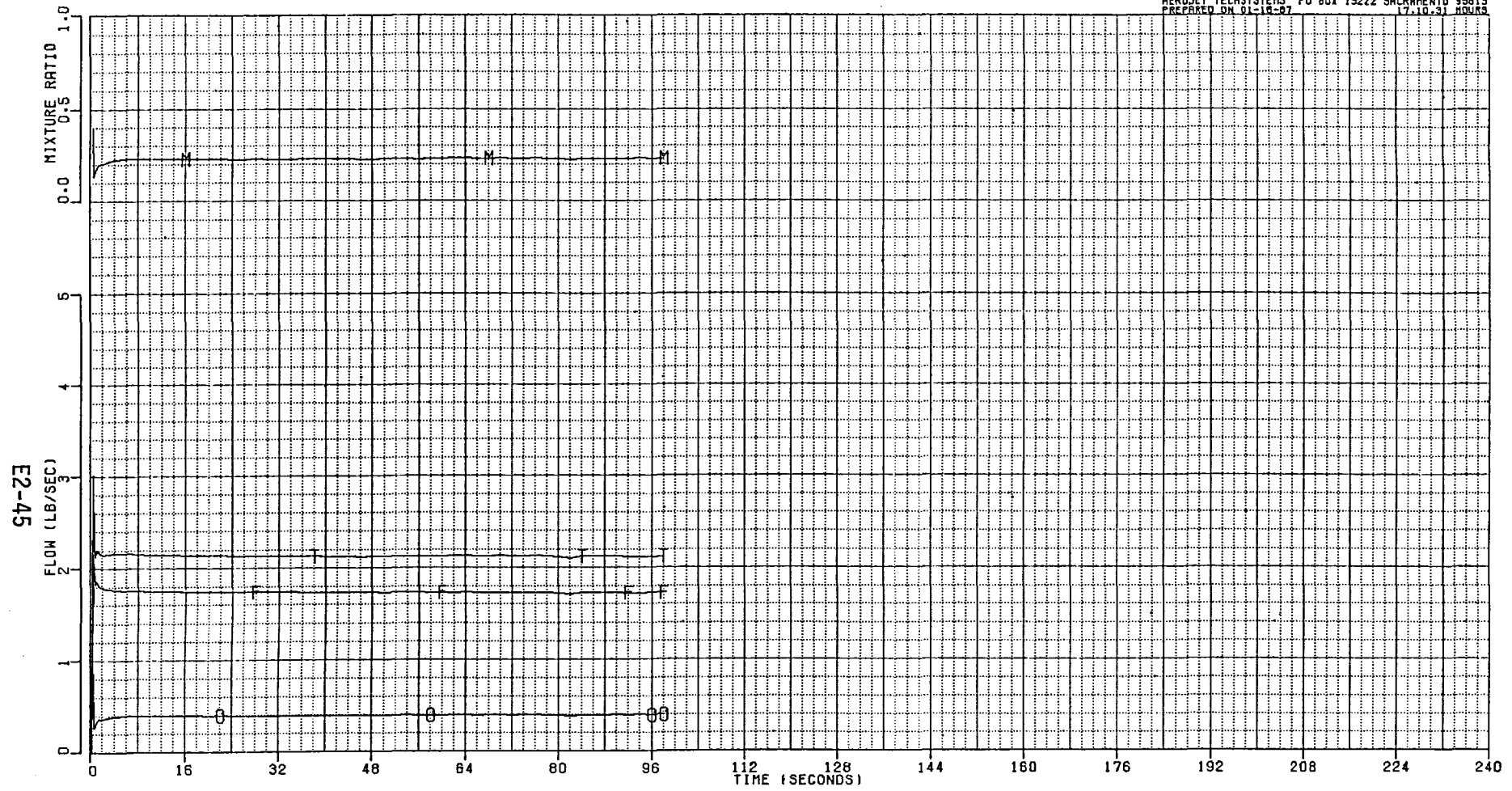
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-126

TEST DATE 03-01-84 1635 HOURS AVERAGED DATA







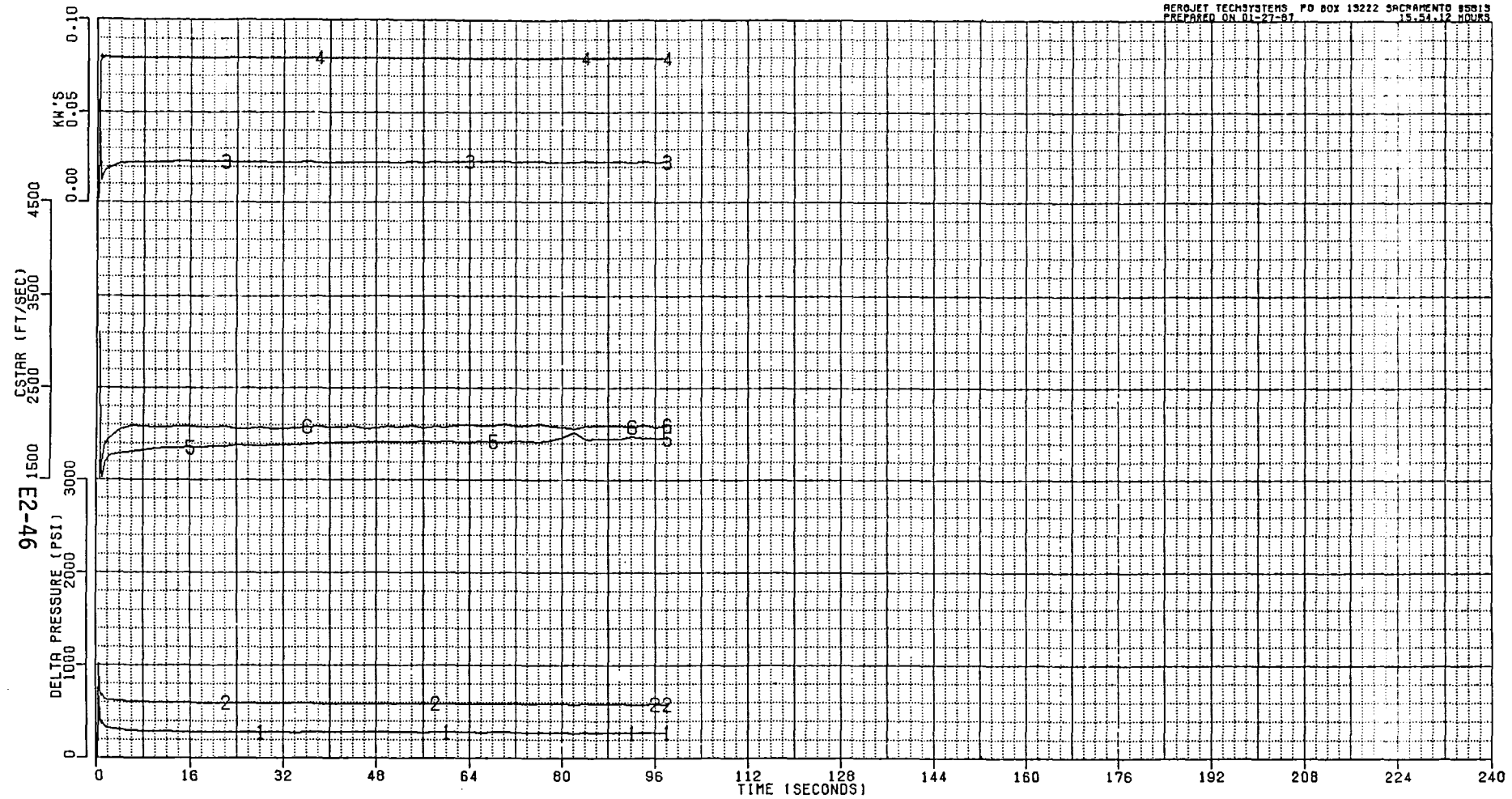
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-126

TEST DATE 03-01-84 1635 HOURS AVERAGED DATA





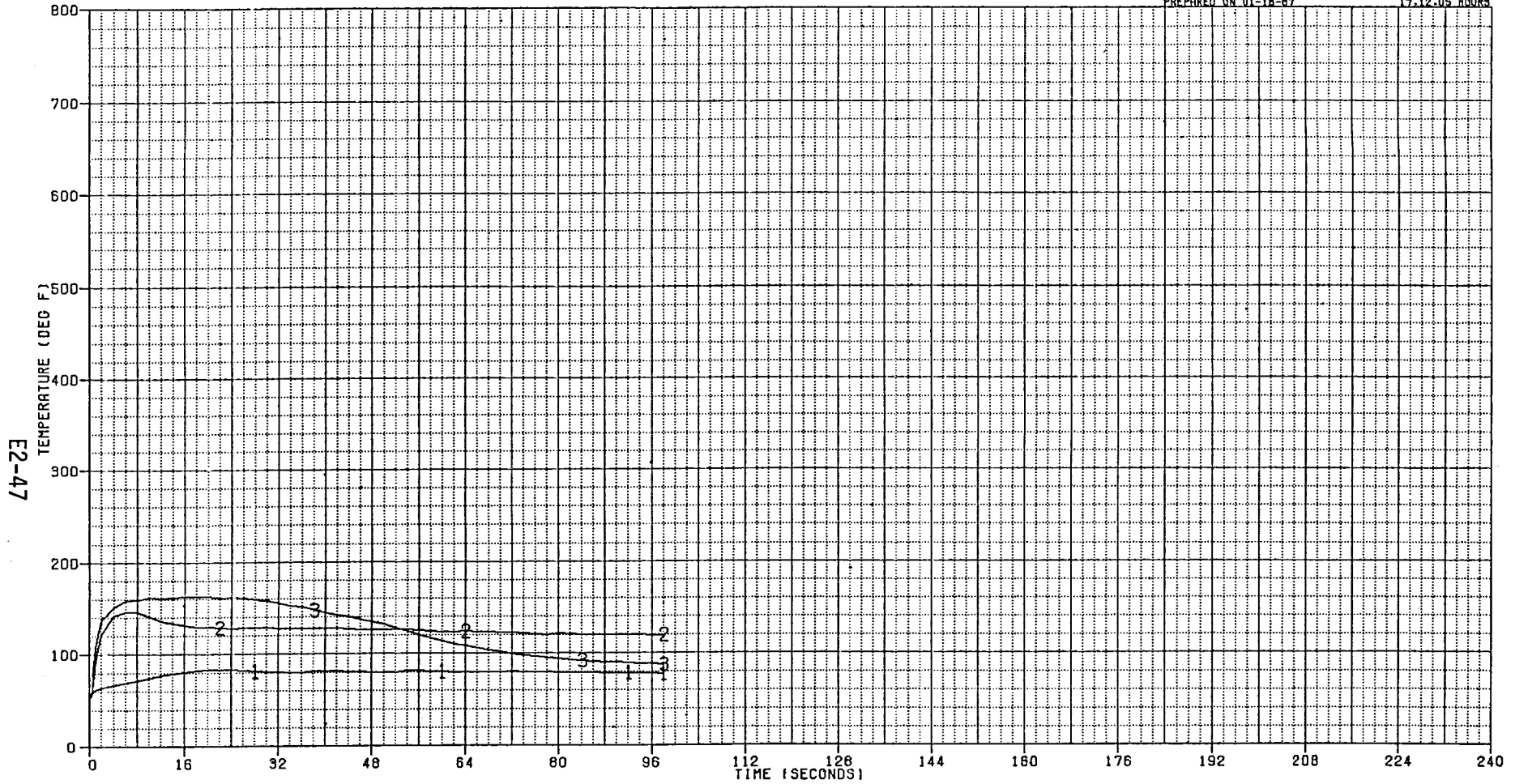


- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KNFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-126

TEST DATE 03-01-84 1635 HOURS      AVERAGED DATA



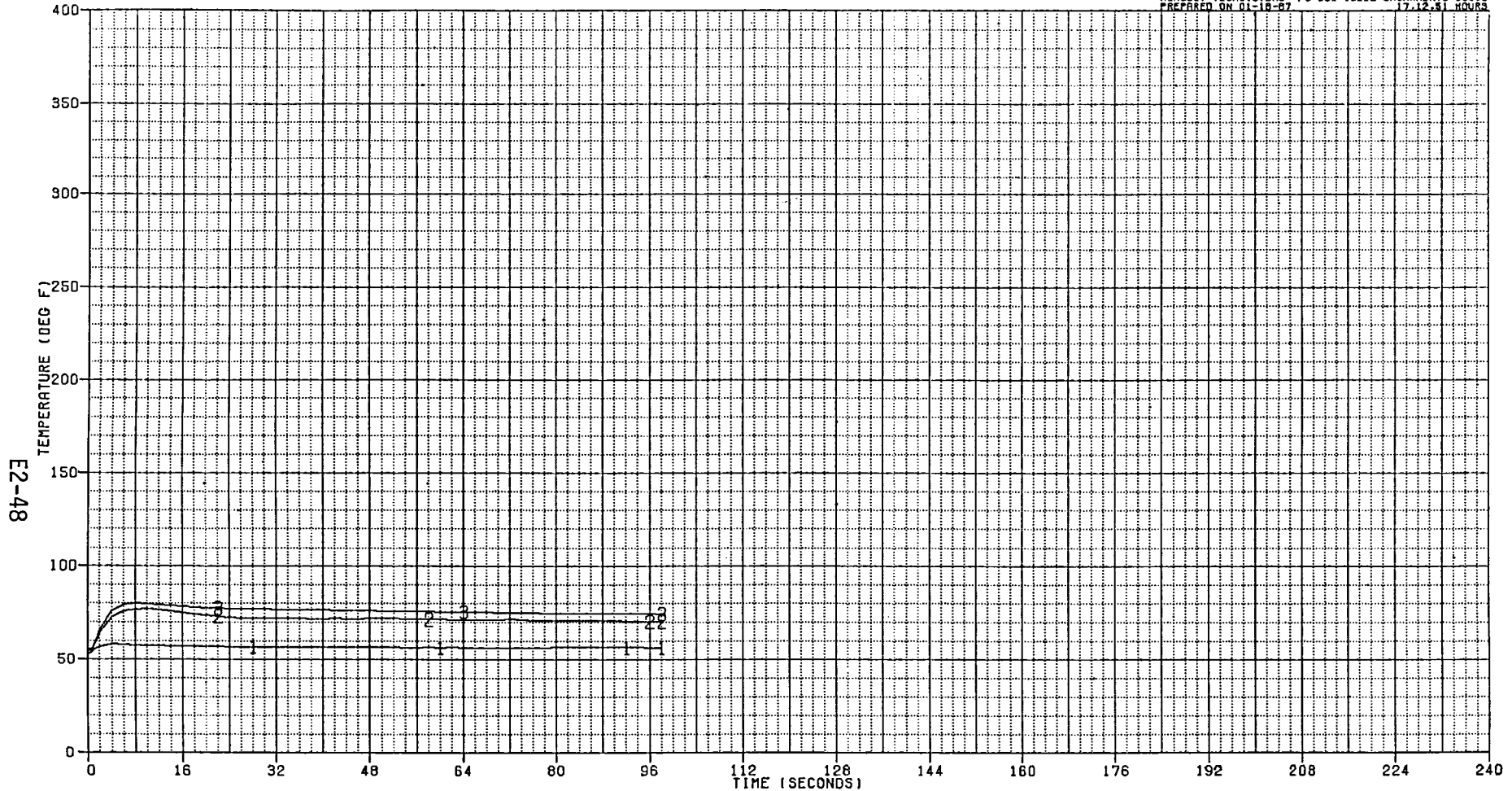


E2-47

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-126  
BARREL DATA  
TEST DATE 03-01-84 1635 HOURS AVERAGED DATA





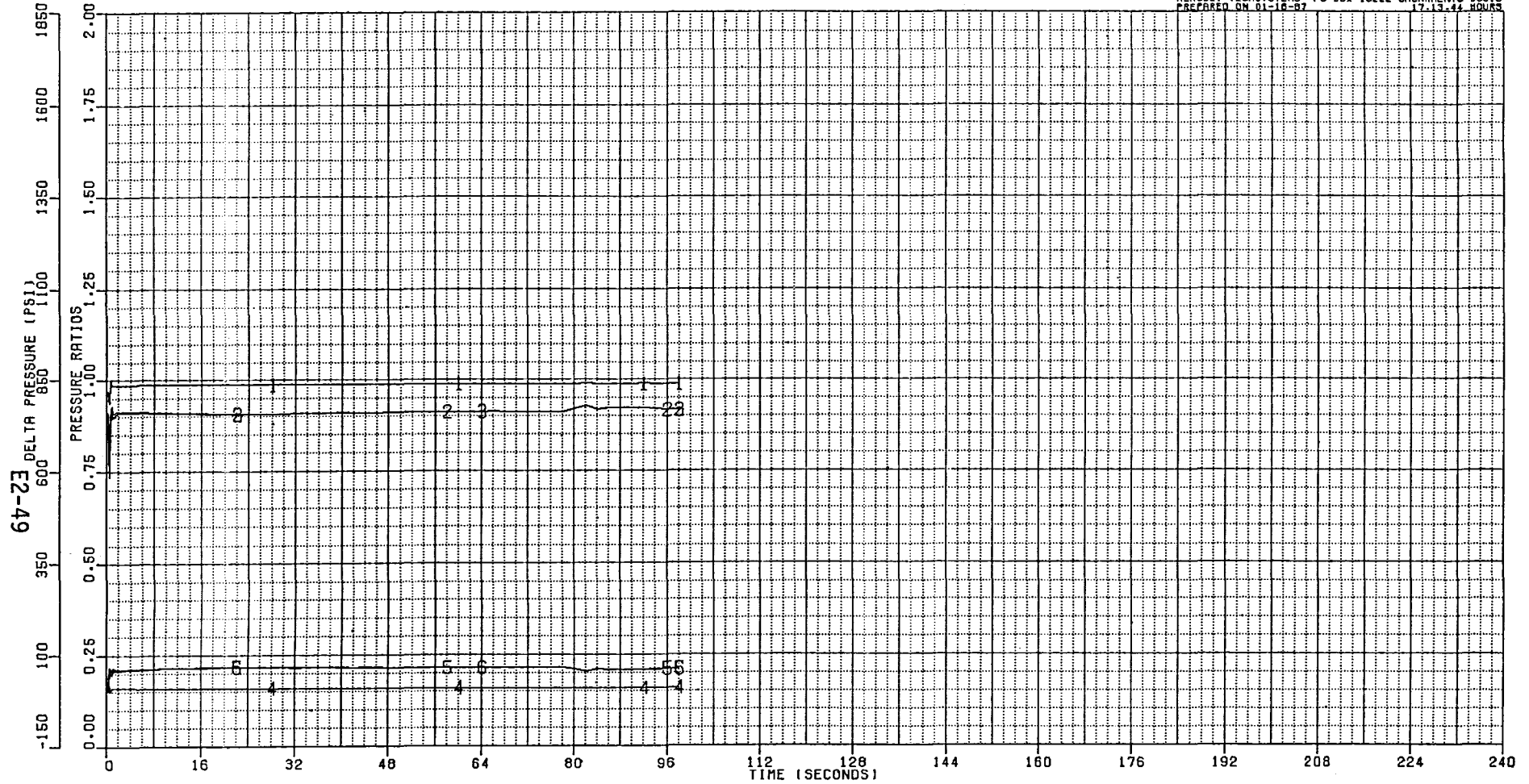
E2-48

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-126

TEST DATE 03-01-84 1635 HOURS AVERAGED DATA

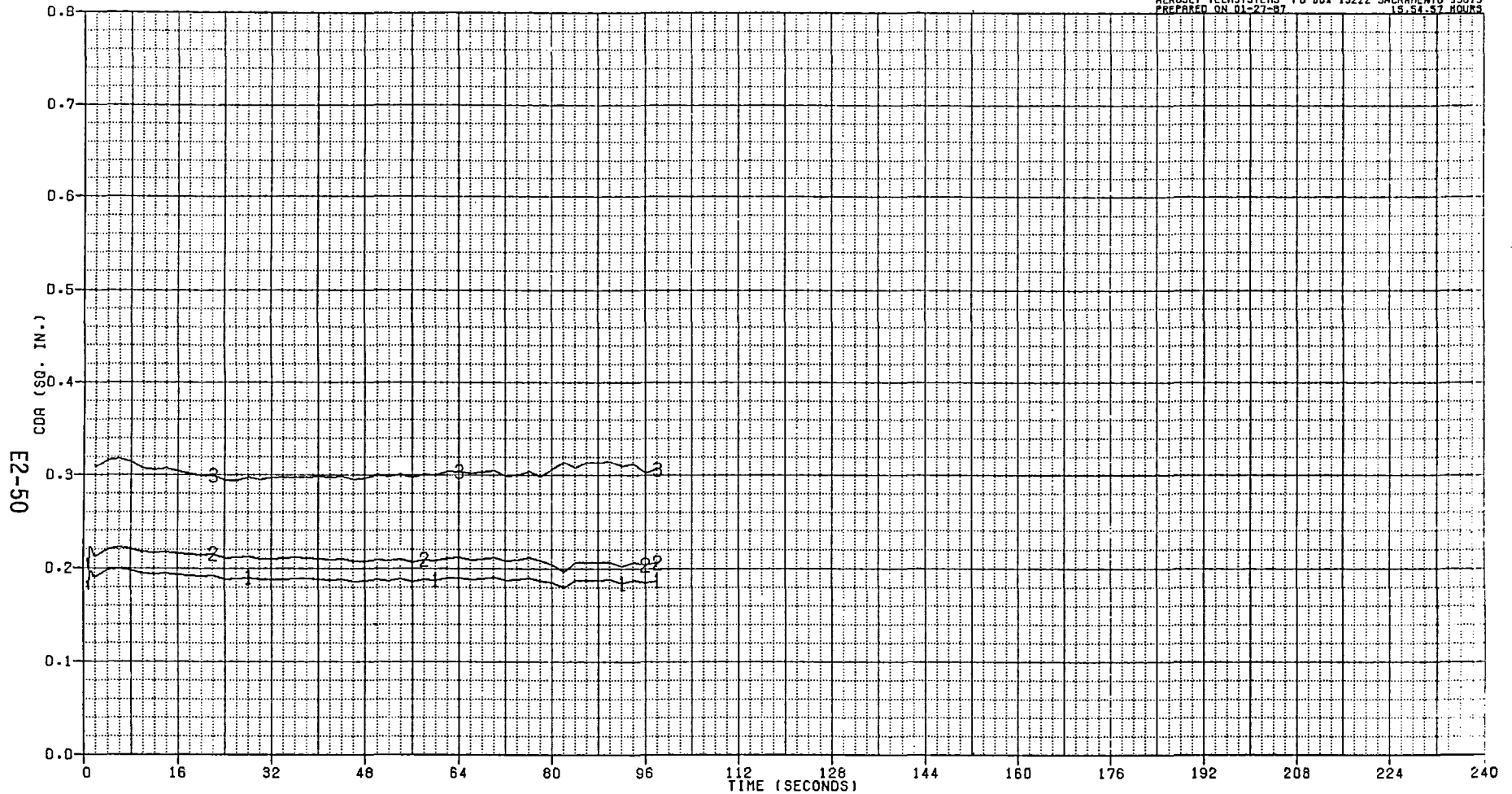




- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTSC
- 4 DPTR            PSI
- 5 DPTS            PSI
- 6 DPTSM          PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-126  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 03-01-84 1635 HOURS      AVERAGED DATA

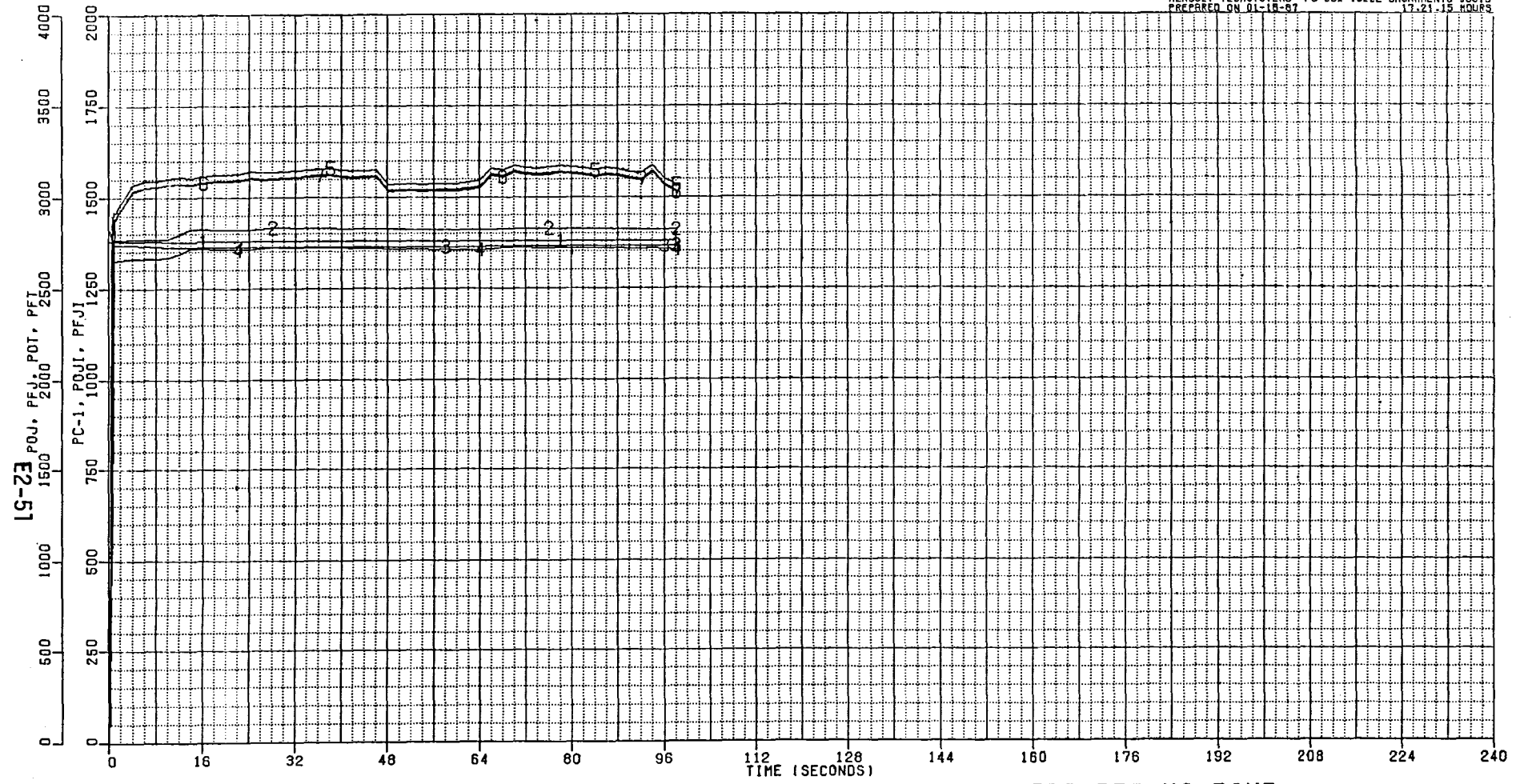




1 NR1 SQ.IN.  
2 NR2 SQ.IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-126  
NOZZLE AREA CHANGE  
TEST DATE 03-01-84 1635 HOURS AVERAGED DATA



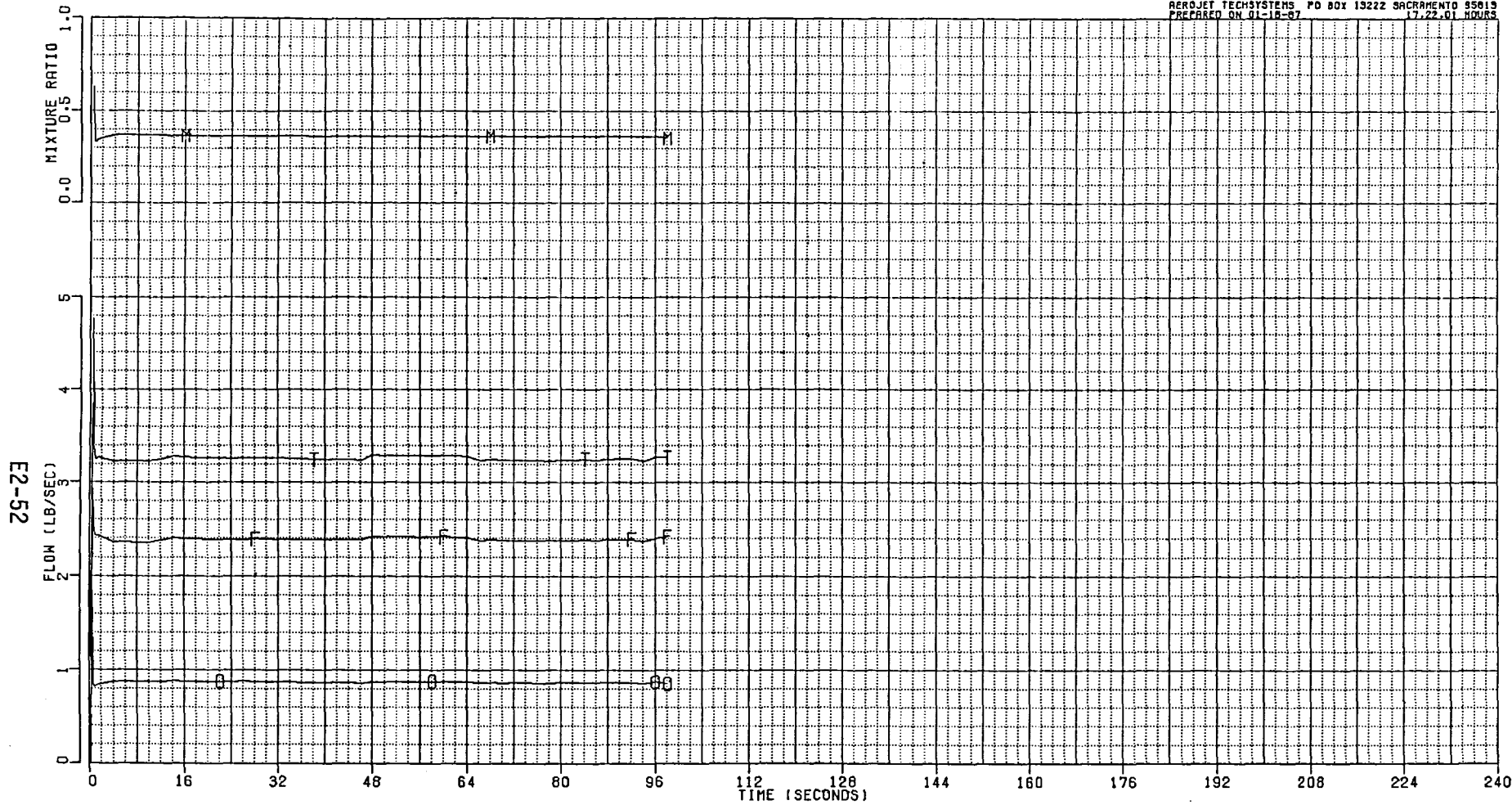


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-129

TEST DATE 03-02-84 1552 HOURS AVERAGED DATA





E2-52

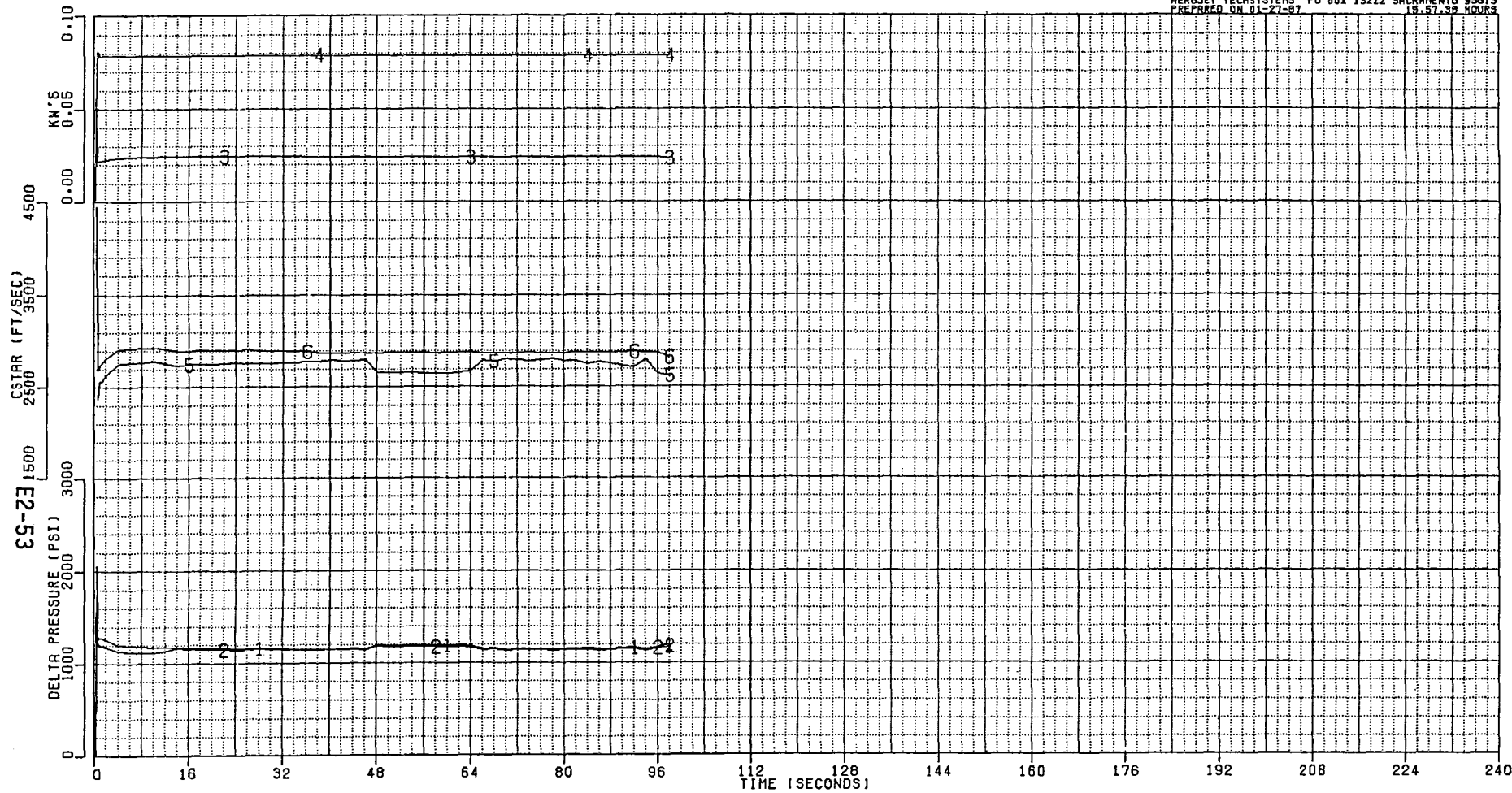
F WF LBS/SEC  
O WX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-129

TEST DATE 03-02-84 1552 HOURS AVERAGED DATA







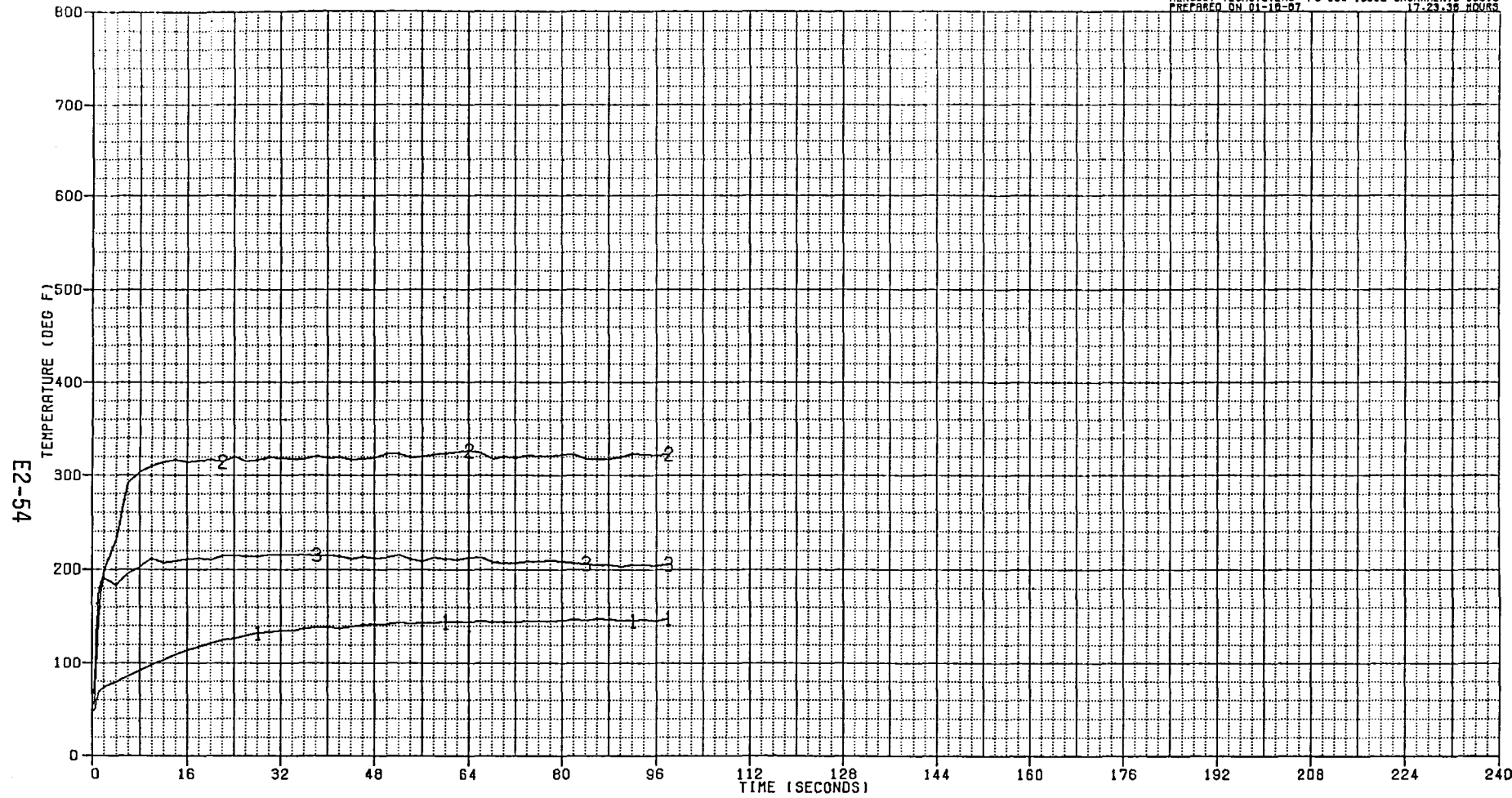
- 1 DPQJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-129

TEST DATE 03-02-84 1552 HOURS      AVERAGED DATA

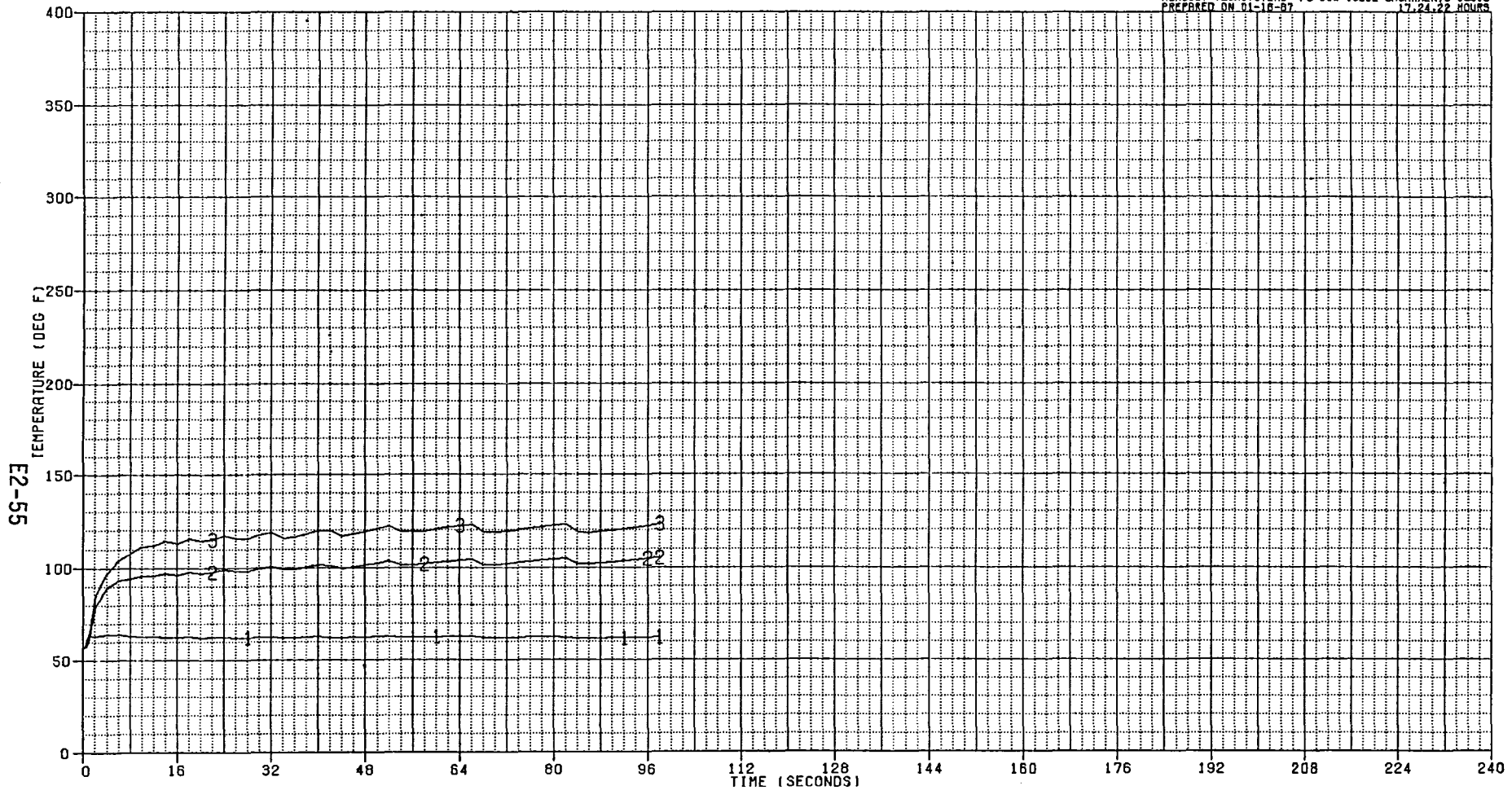




- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-129  
BARREL DATA  
TEST DATE 03-02-84 1552 HOURS AVERAGED DATA



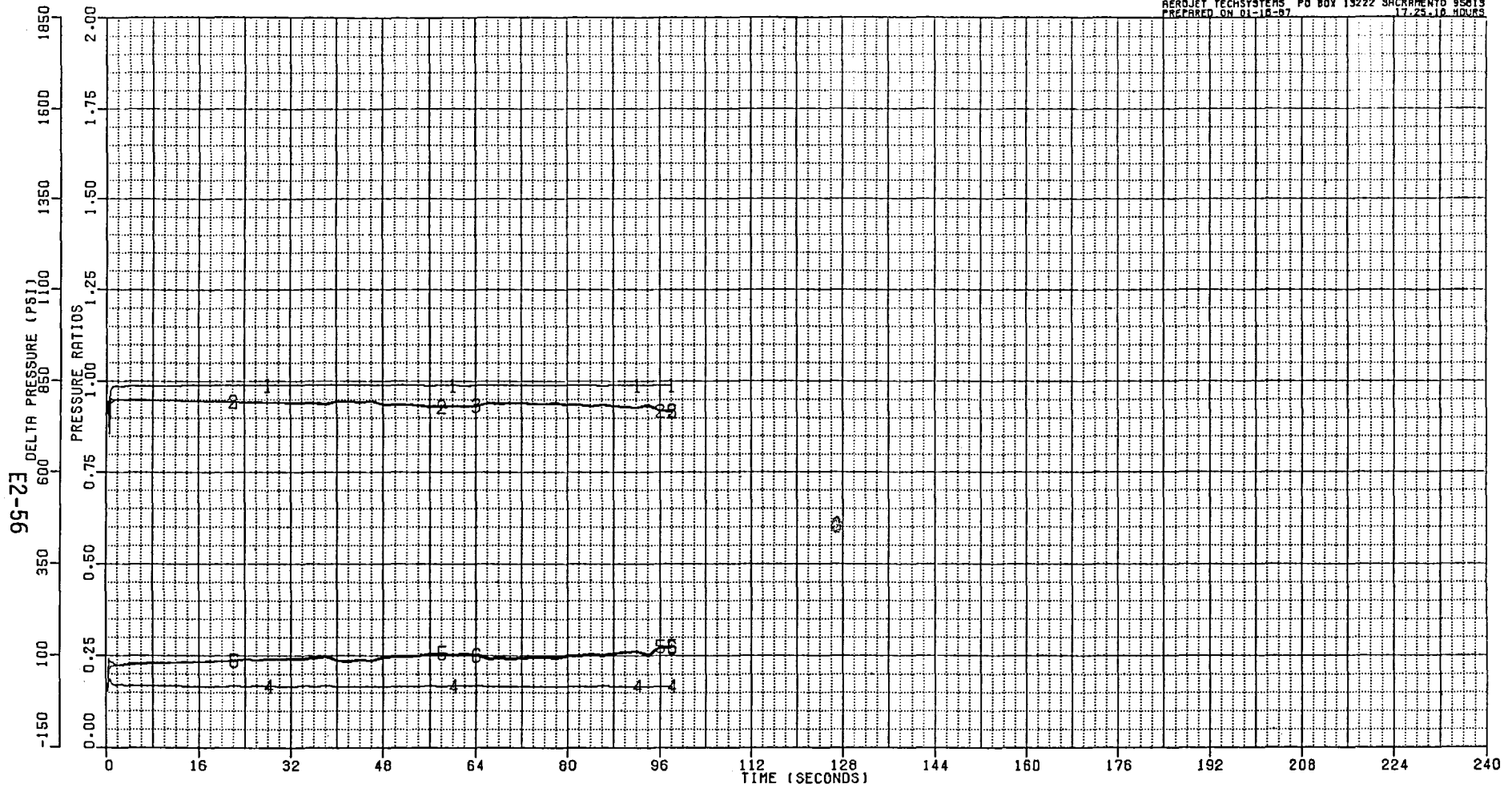


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-129

TEST DATE 03-02-84 1552 HOURS AVERAGED DATA



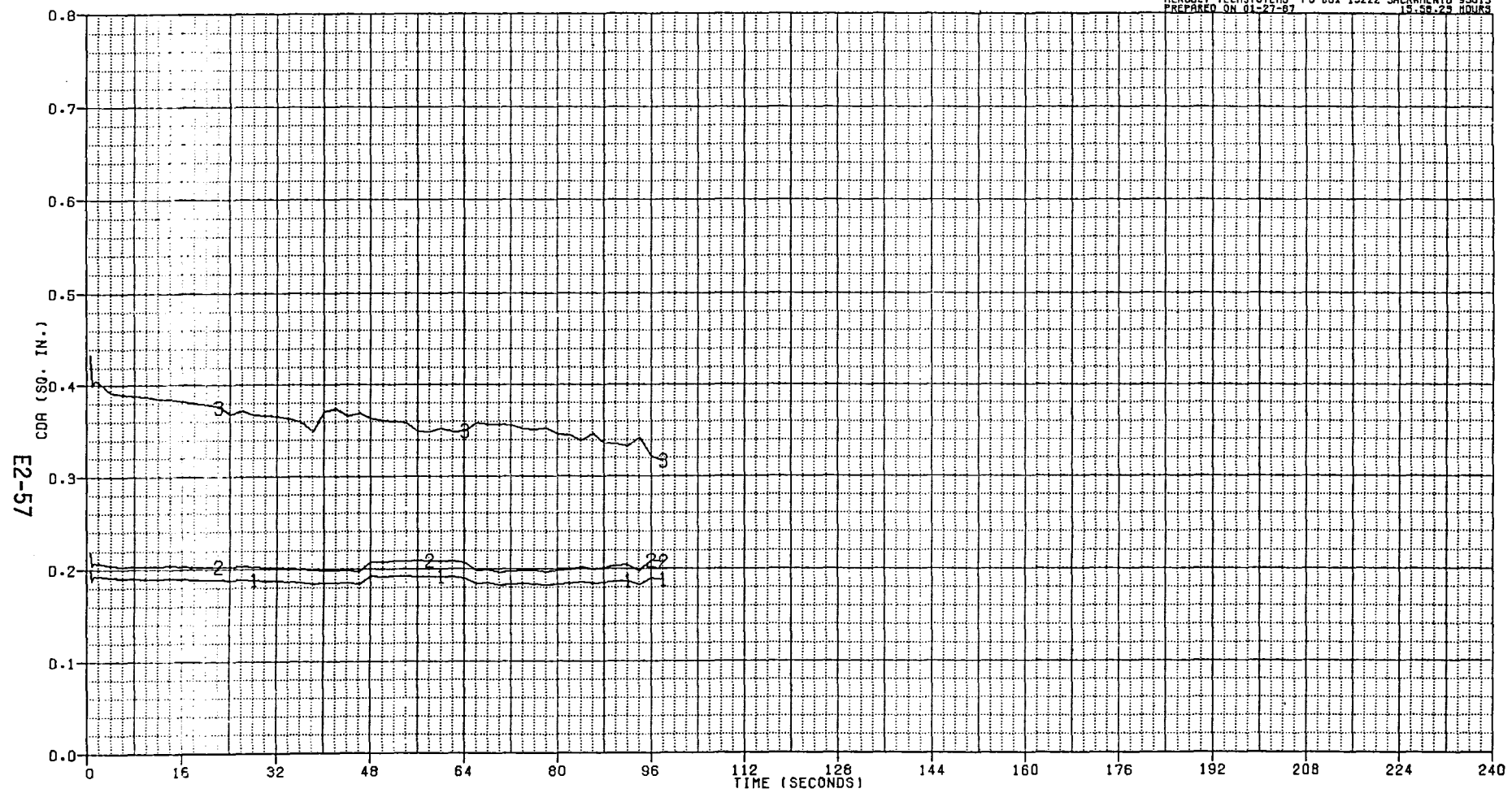


- 1 PRTR
- 2 PRTS
- 3 PRTSC
- 4 DPTR
- 5 DPTS
- 6 DPTSM

PSI  
 PSI  
 PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-129  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 03-02-84 1552 HOURS AVERAGED DATA



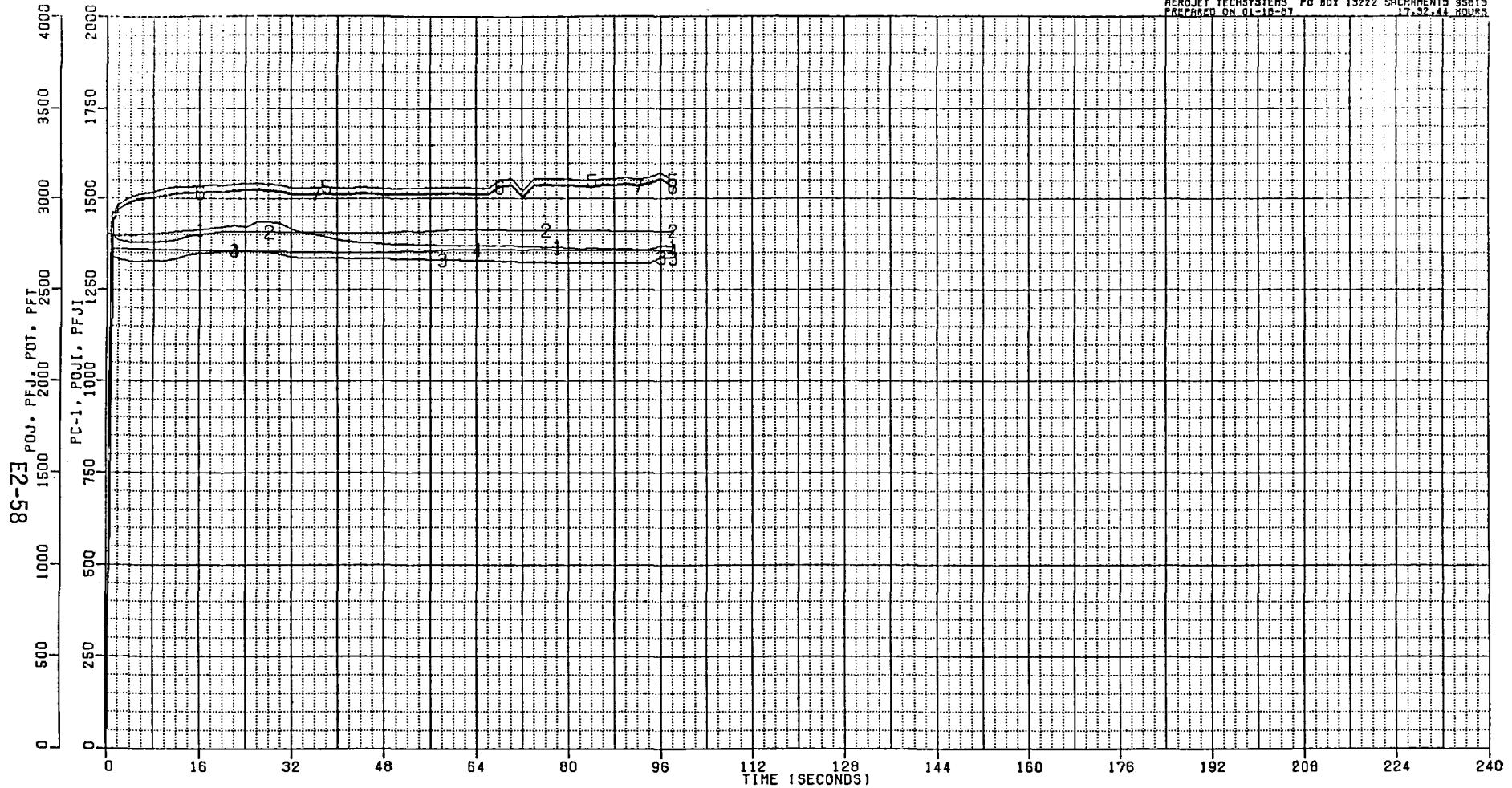


E2-57

1 NA1 SC.IN.  
2 NA2 SC.IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-129  
NOZZLE AREA CHANGE  
TEST DATE 03-02-84 1552 HOURS AVERAGED DATA





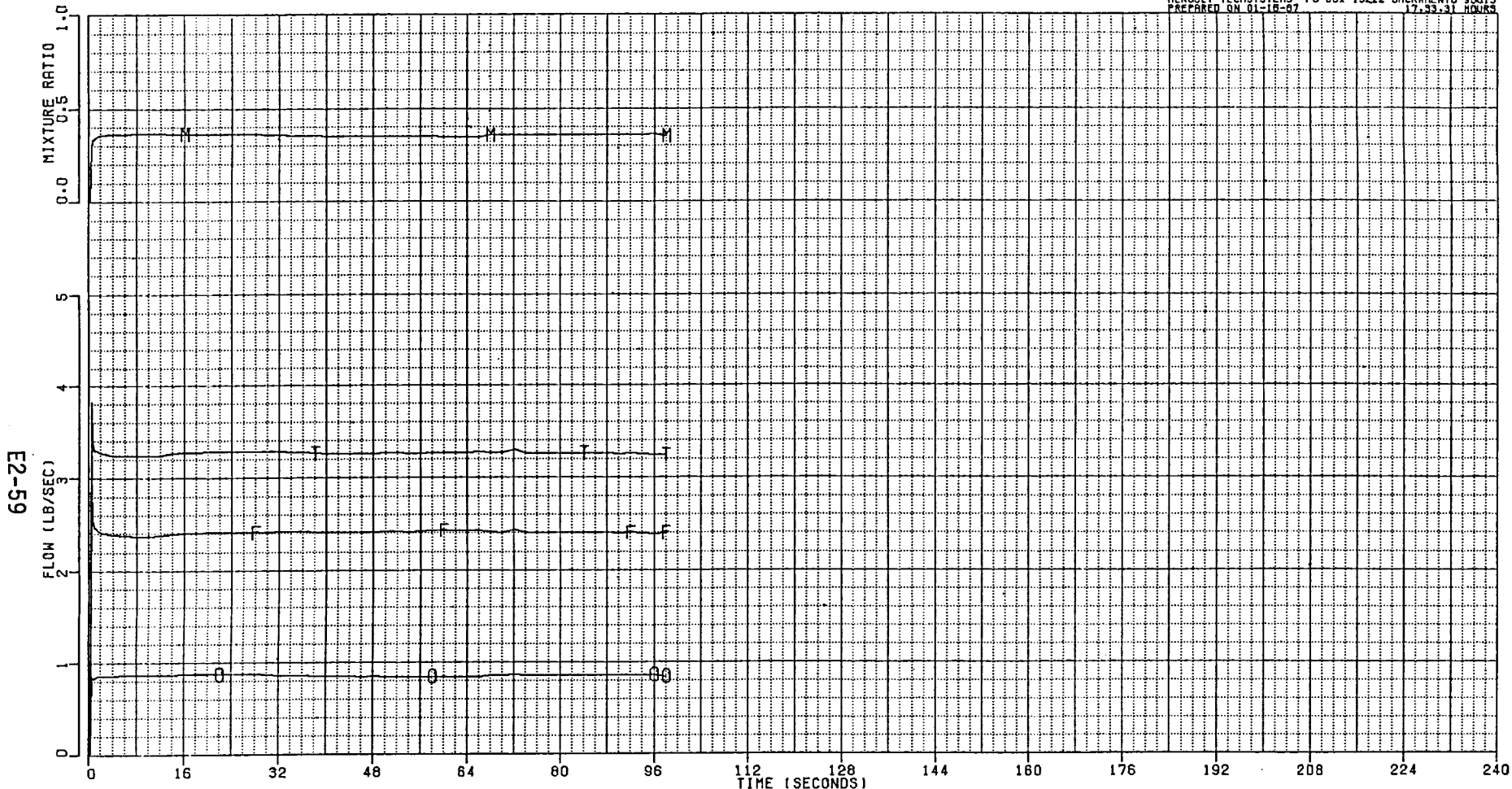
85-23

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-130

TEST DATE 03-02-84 1633 HOURS AVERAGED DATA



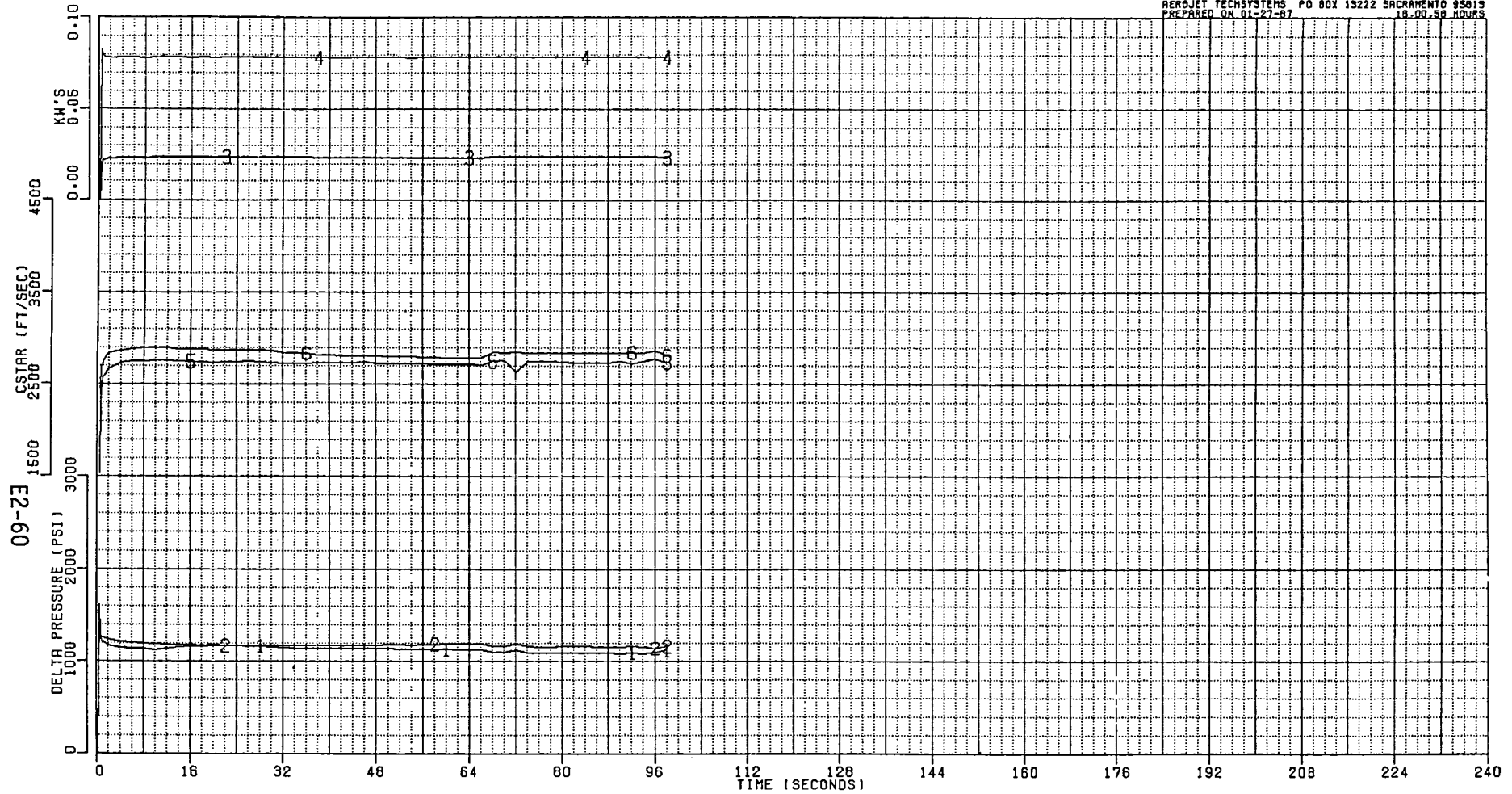


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-130

TEST DATE 03-02-84 1633 HOURS AVERAGED DATA





E2-60

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KHOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

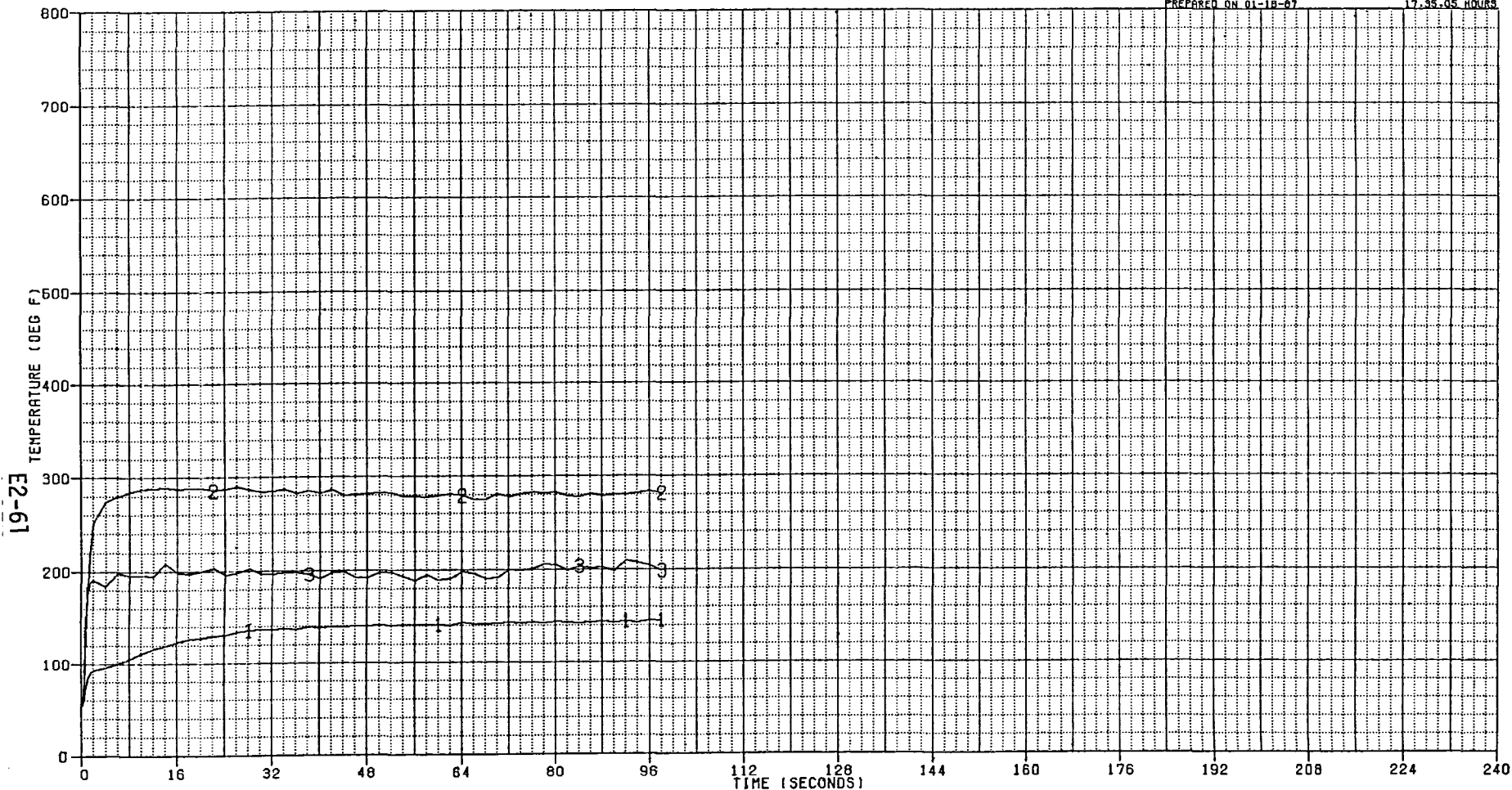


### INJECTOR CALCULATIONS VS TIME

TEST NO. RLB6-936-130

TEST DATE 03-02-84 1633 HOURS      AVERAGED DATA





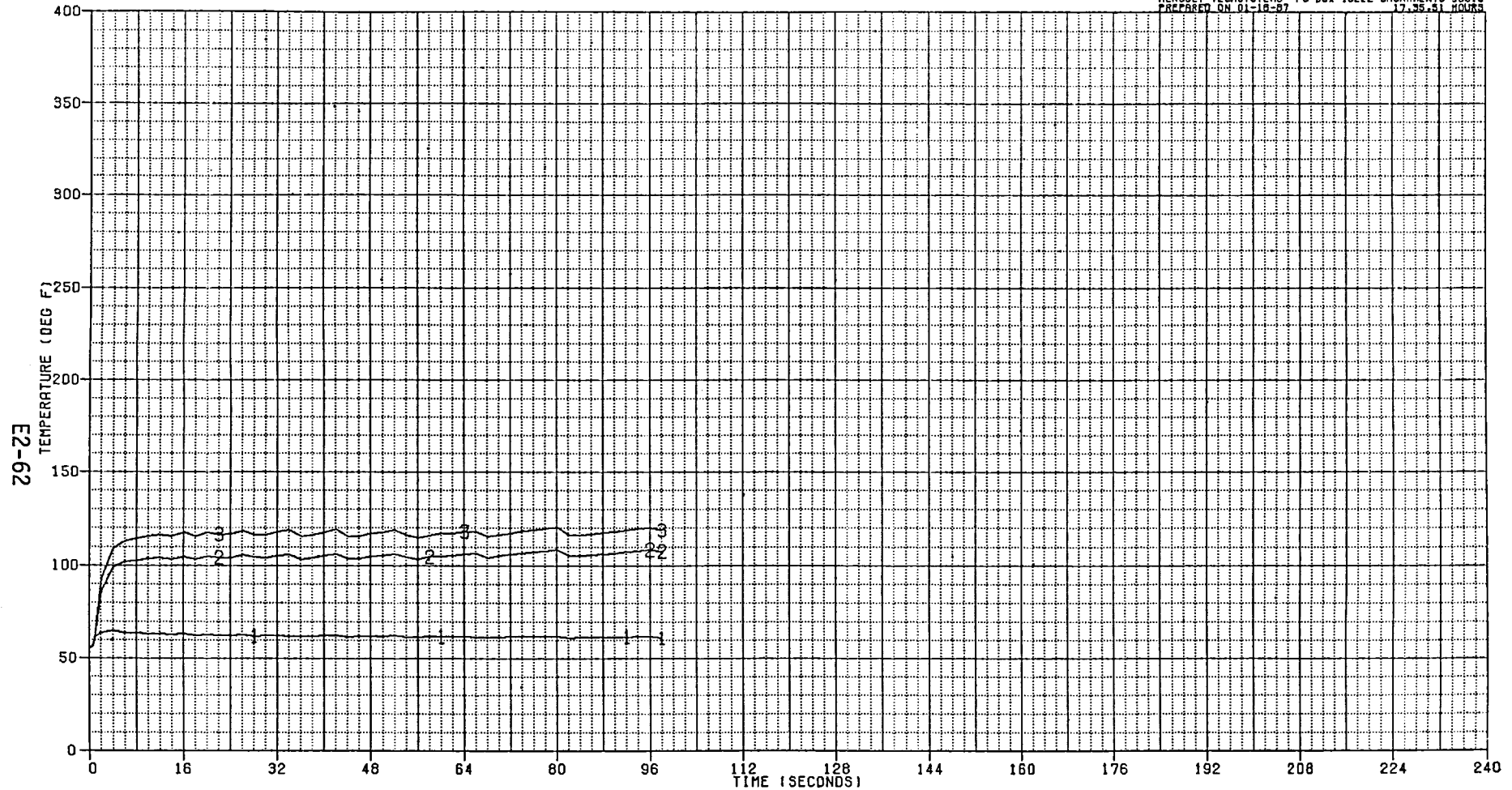
E2-61

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-130  
BARREL DATA  
TEST DATE 03-02-84 1633 HOURS AVERAGED DATA







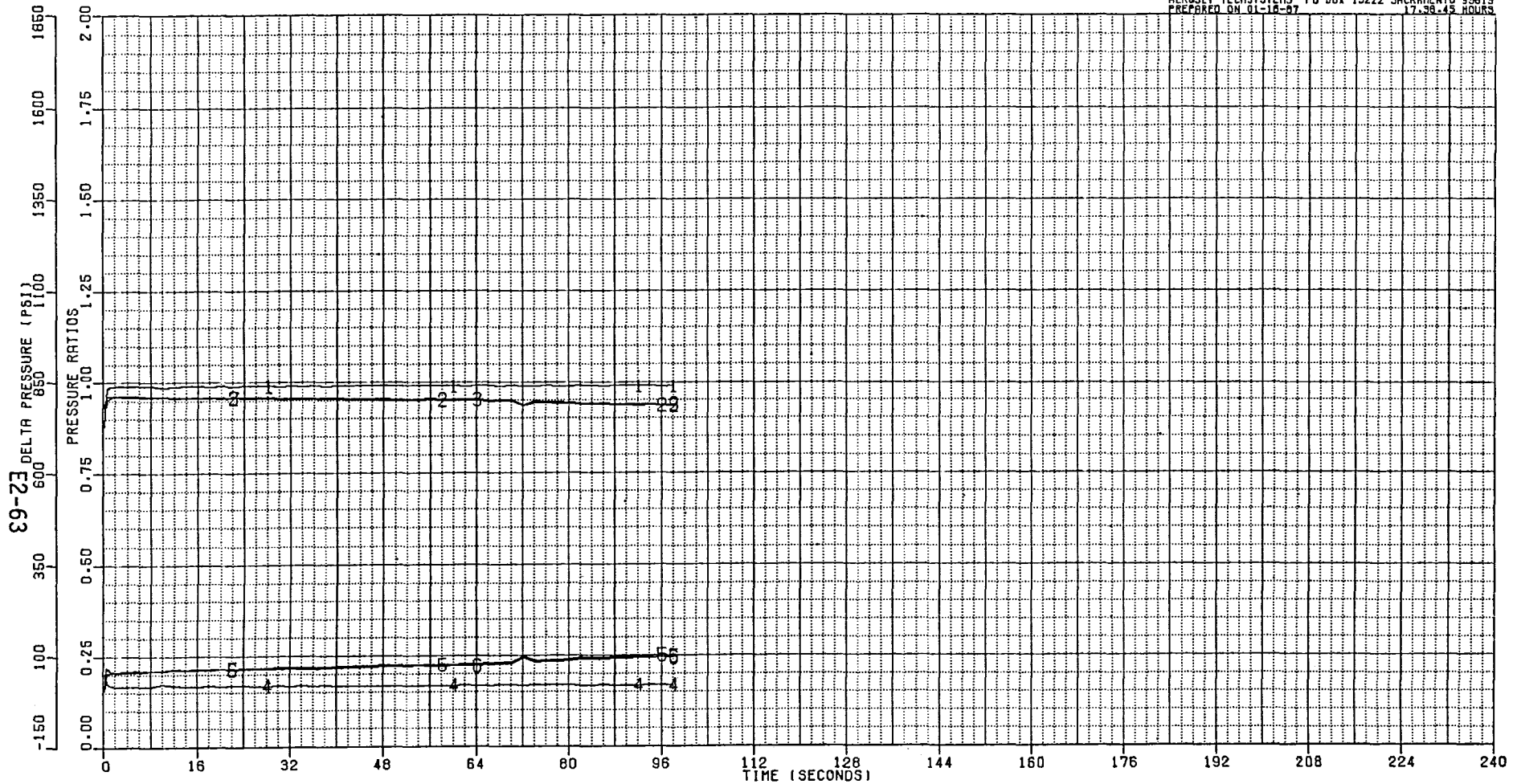
E2-62

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-130

TEST DATE 03-02-84 1633 HOURS AVERAGED DATA



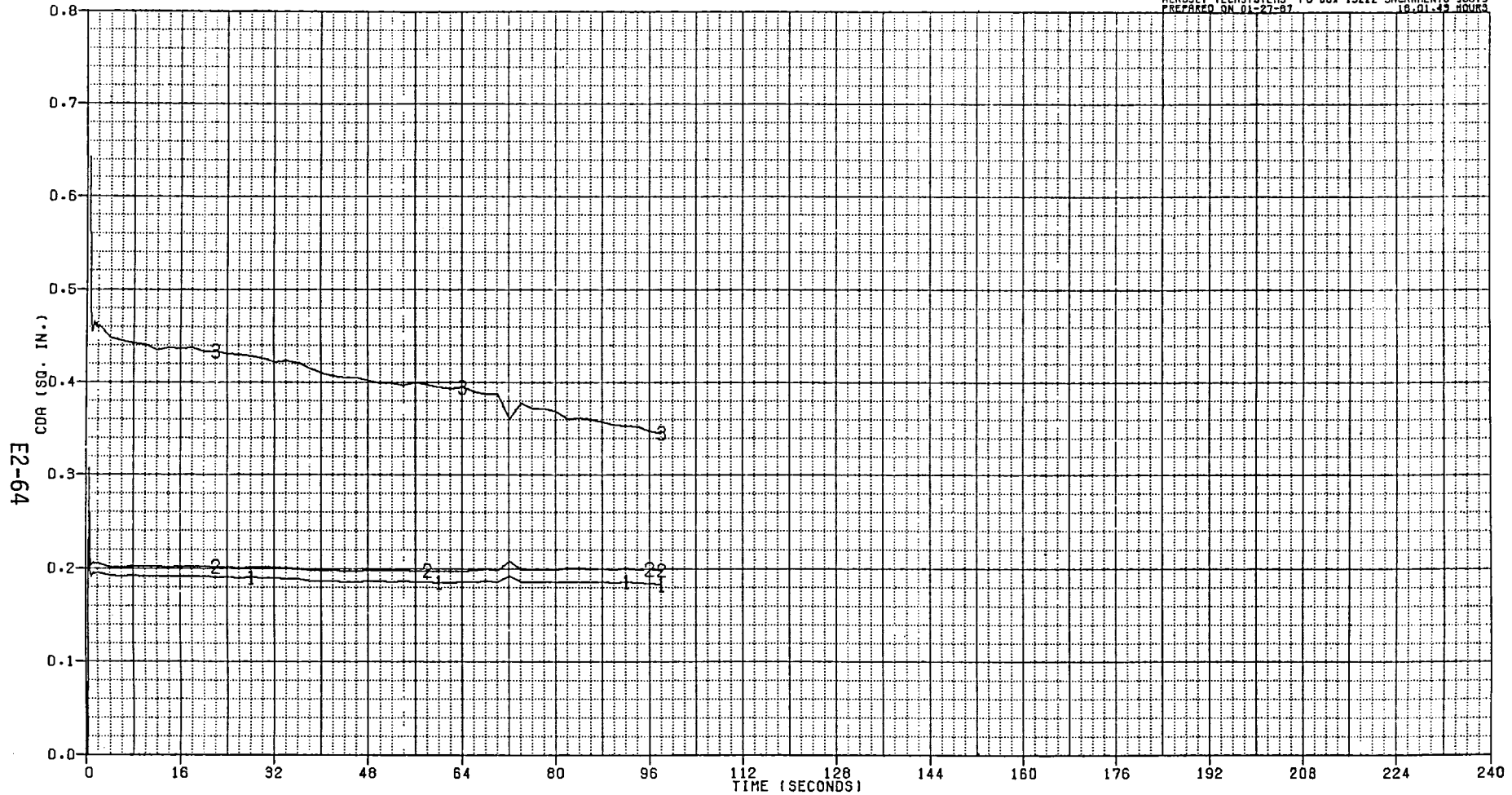


- 1 PRTR
- 2 PRTS
- 3 PRTSC
- 4 DPTR
- 5 DPTS
- 6 DPTSM

PSI  
PSI  
PSI



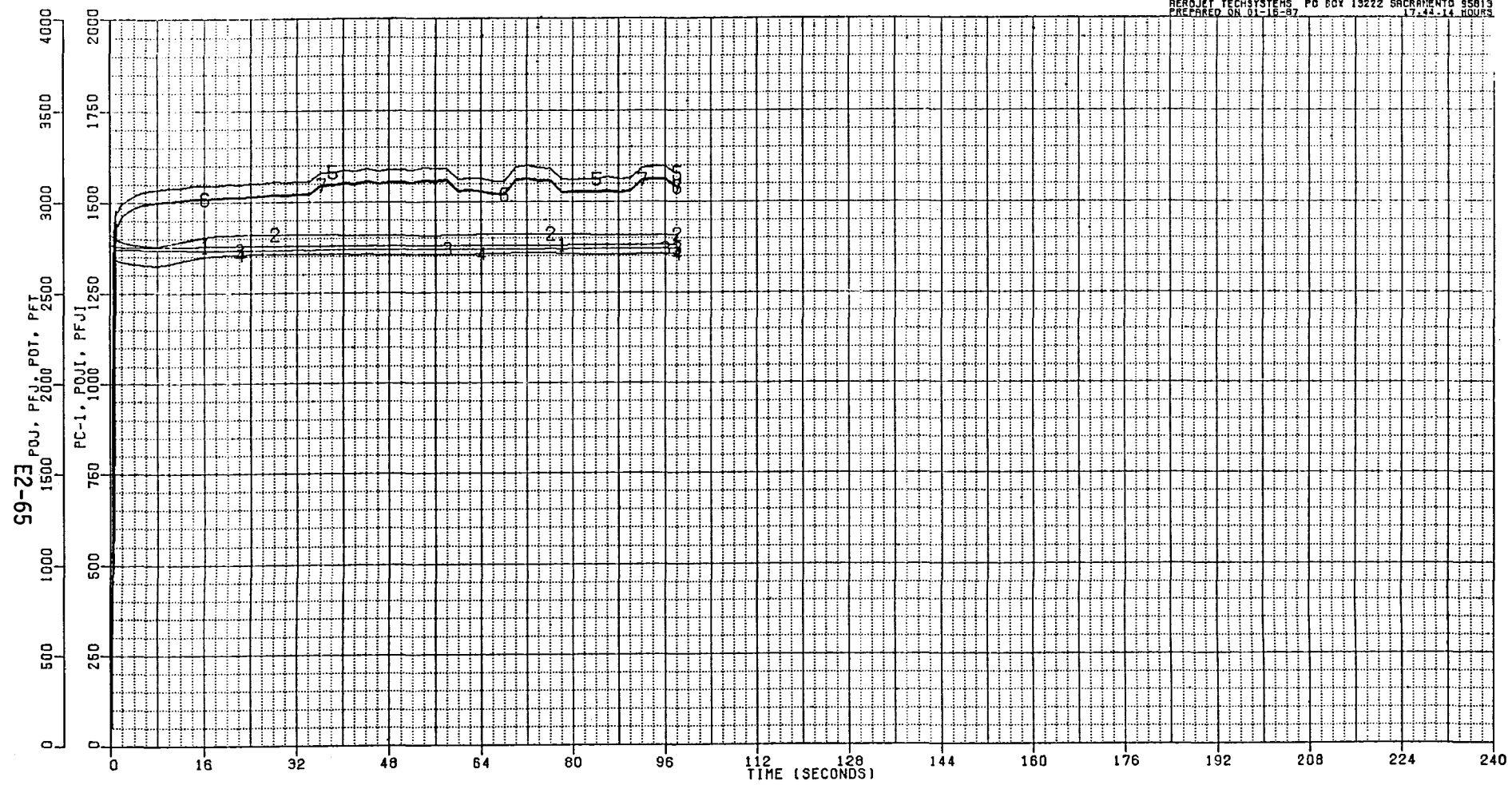
TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-130  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 03-02-84 1633 HOURS AVERAGED DATA



1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-130  
NOZZLE AREA CHANGE  
TEST DATE 03-02-84 1633 HOURS AVERAGED DATA





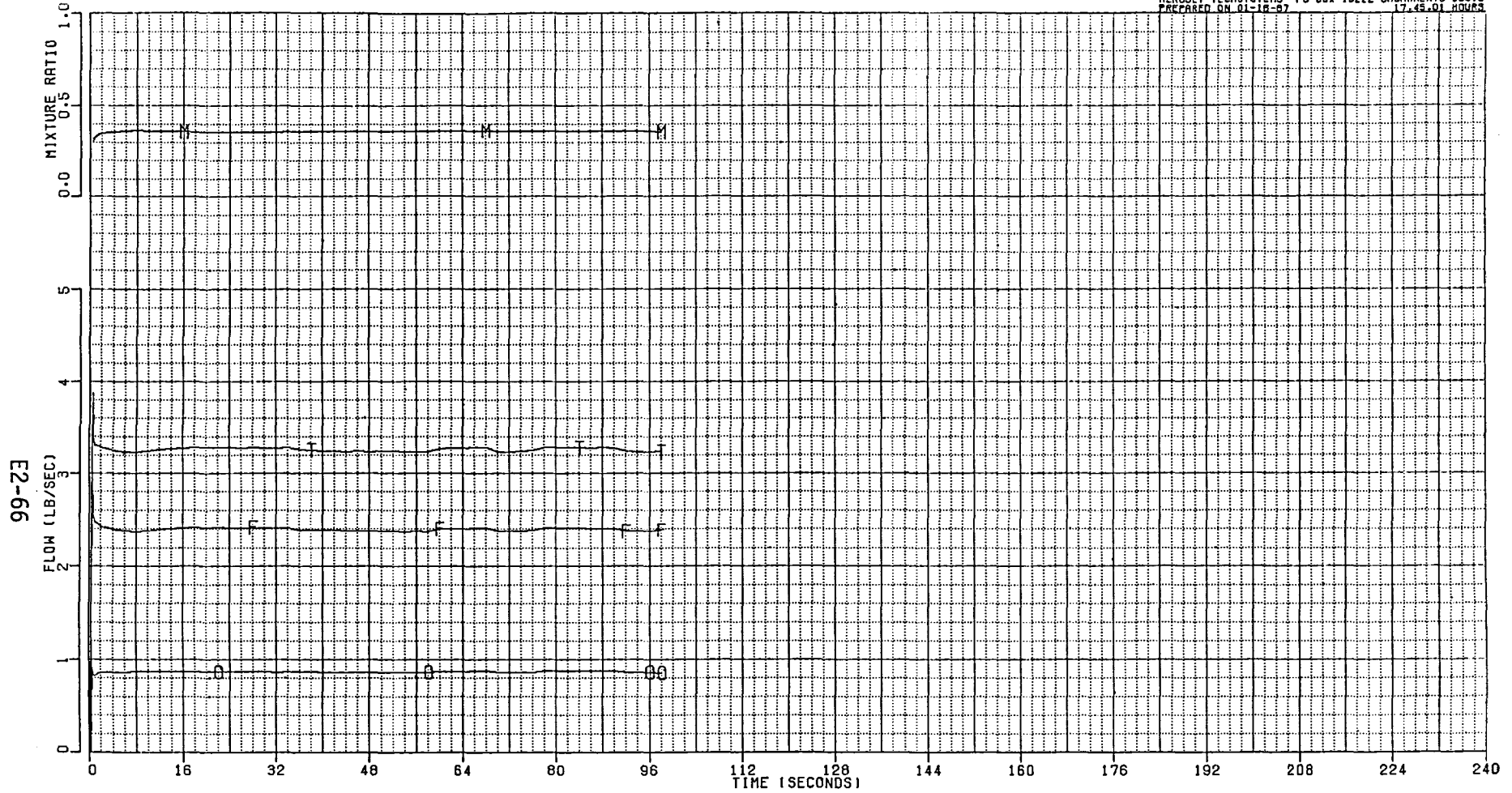
59-23

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-131

TEST DATE 03-02-84 1713 HOURS AVERAGED DATA



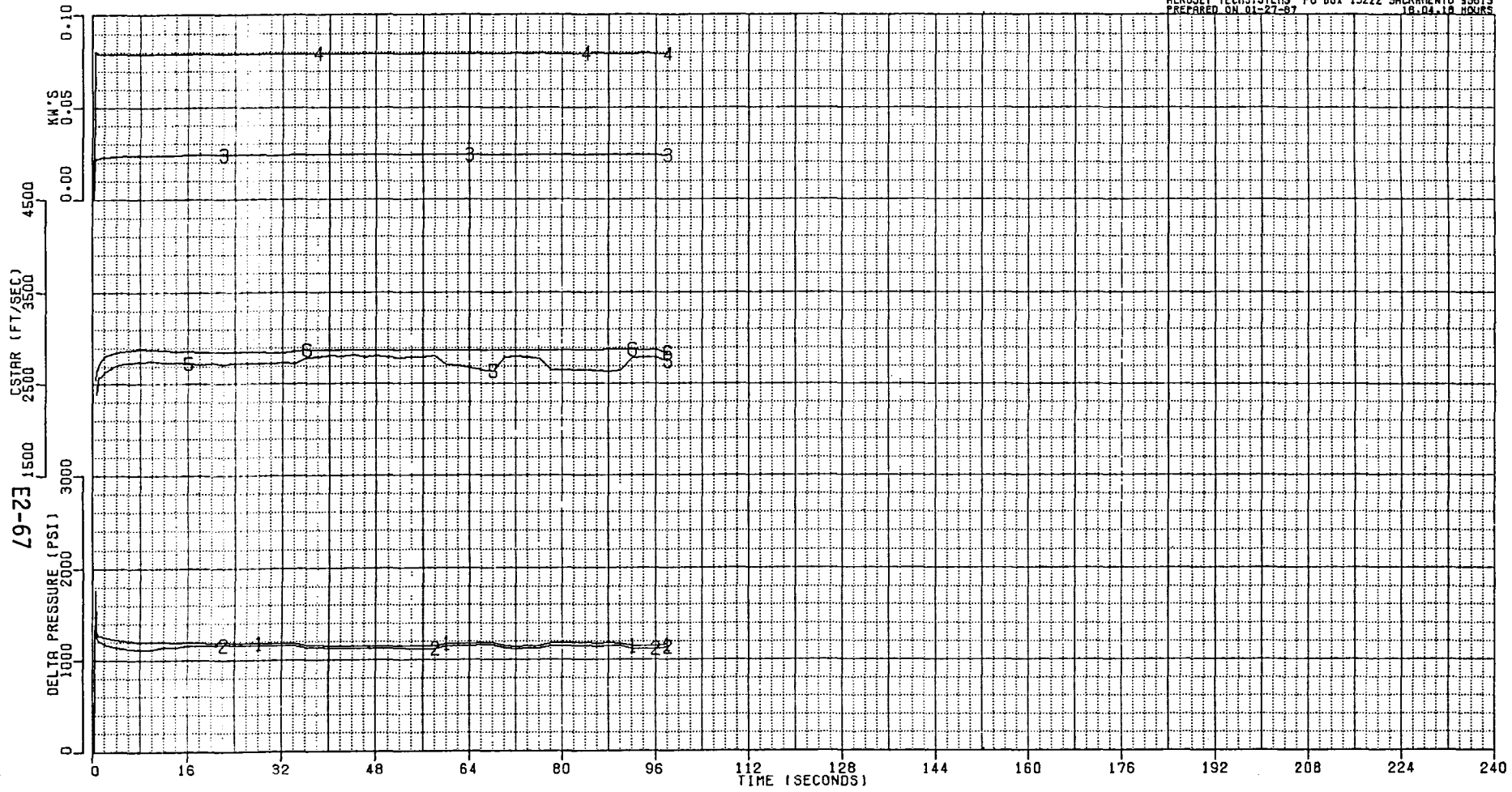


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-131

TEST DATE 03-02-84 1713 HOURS AVERAGED DATA

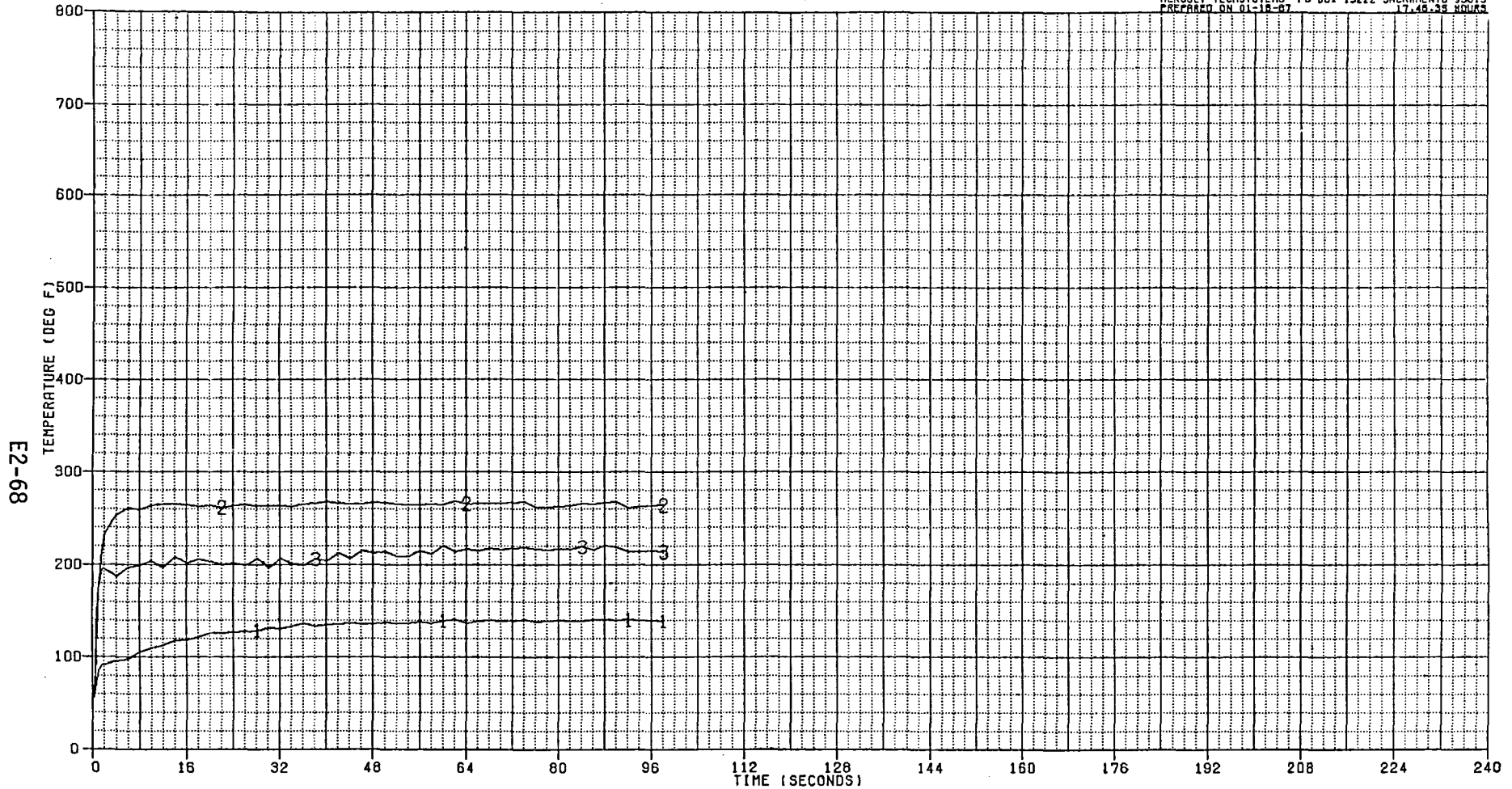




- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KNFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. RLB6-936-131  
 TEST DATE 03-02-84 1713 HOURS    AVERAGED DATA



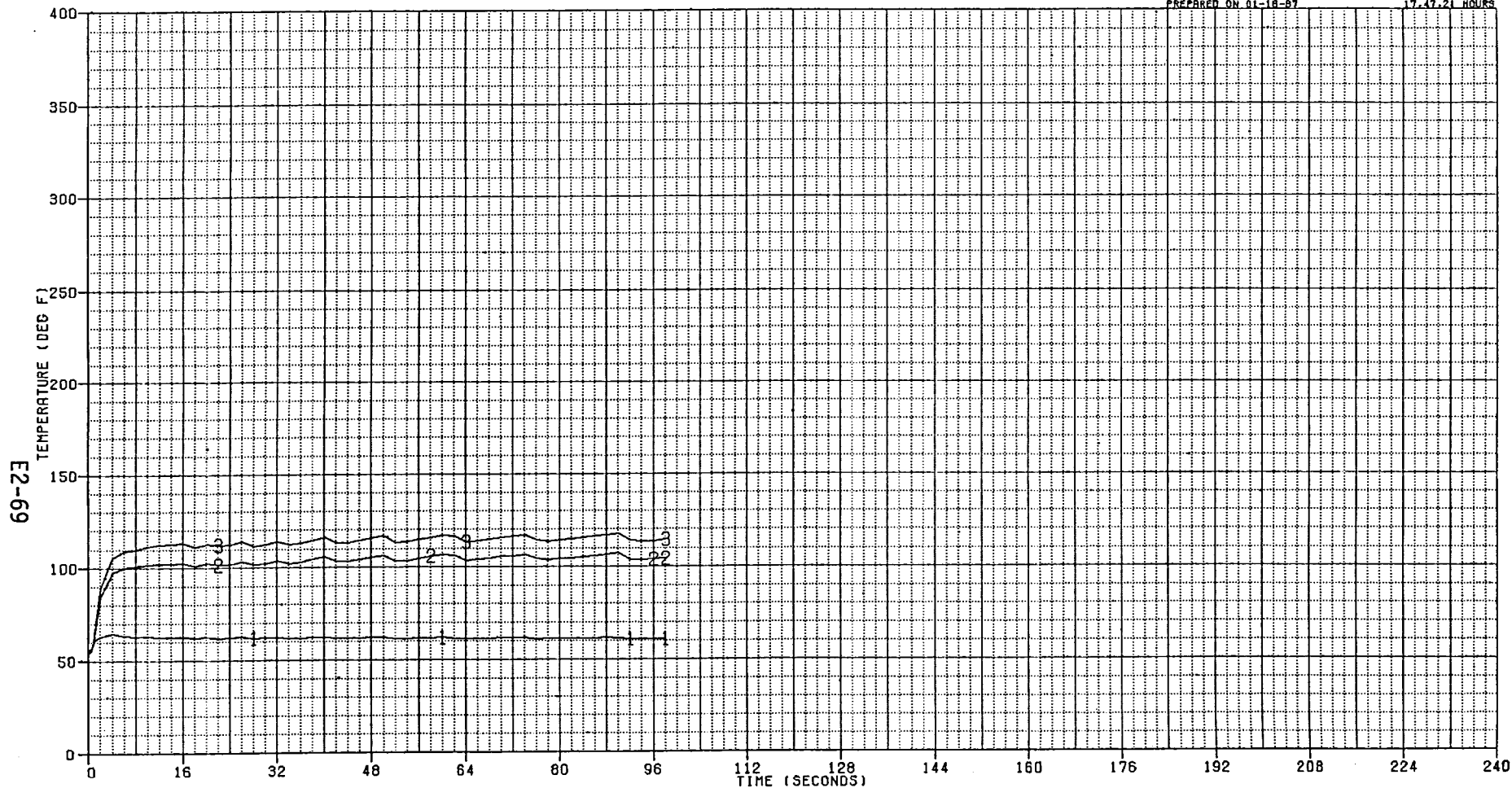
E2-68

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-131  
BARREL DATA  
TEST DATE 03-02-84 1713 HOURS AVERAGED DATA







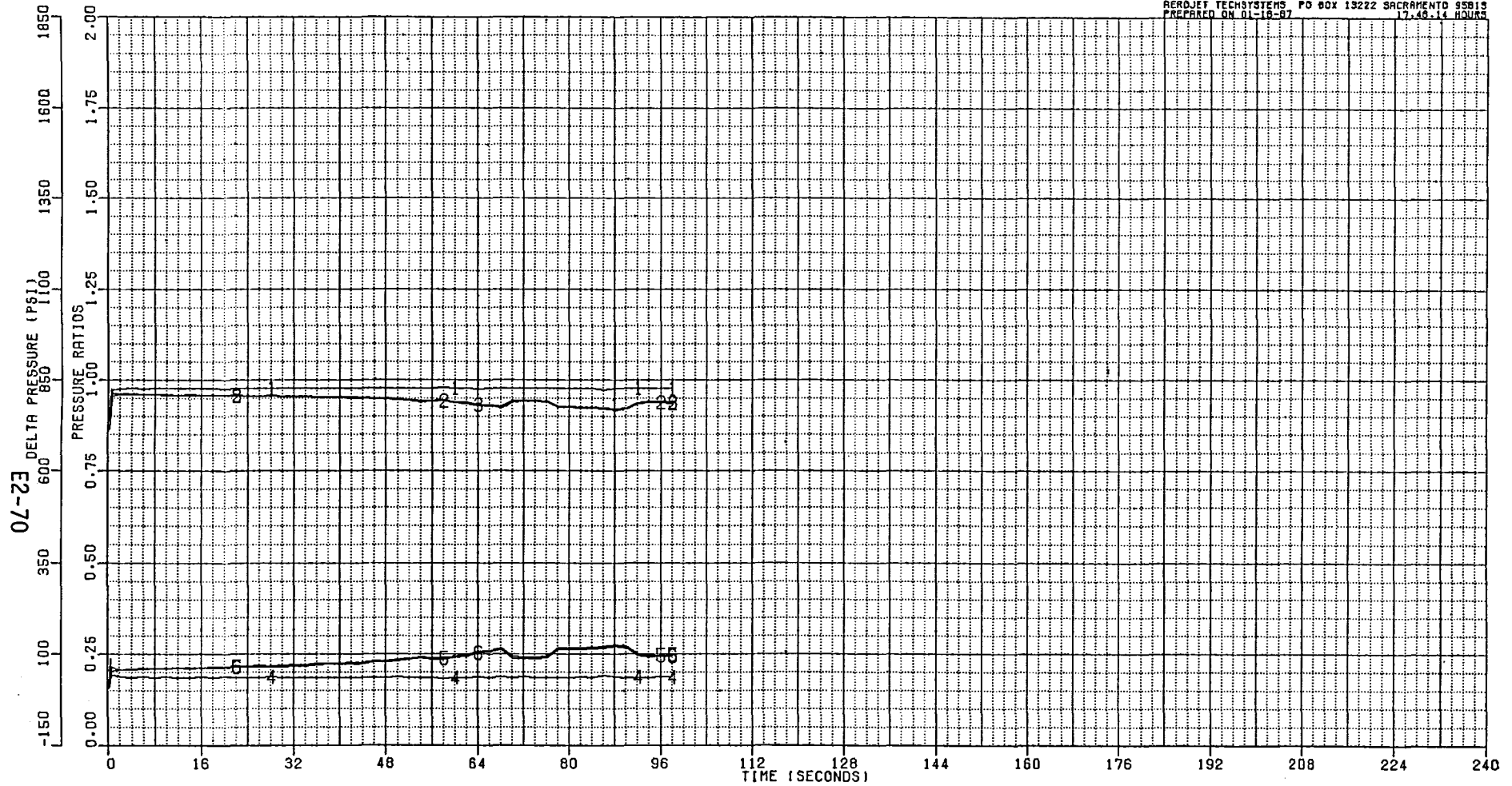
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-131

TEST DATE 03-02-84 1713 HOURS AVERAGED DATA



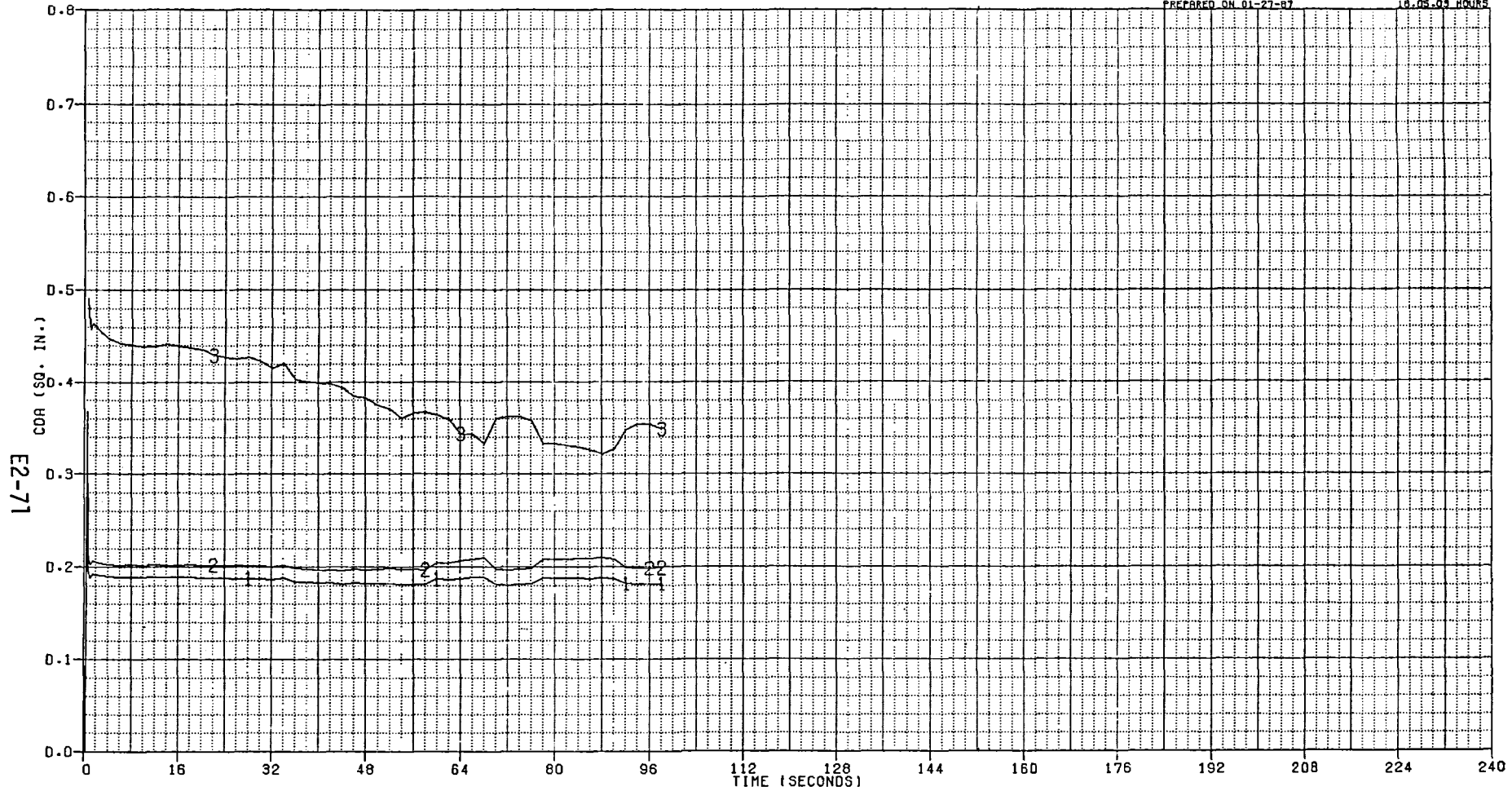




- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTSC           PSI
- 4 DPTR            PSI
- 5 DPTS            PSI
- 6 DPTSM           PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-131  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 03-02-84 1713 HOURS      AVERAGED DATA





E2-71

1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDR

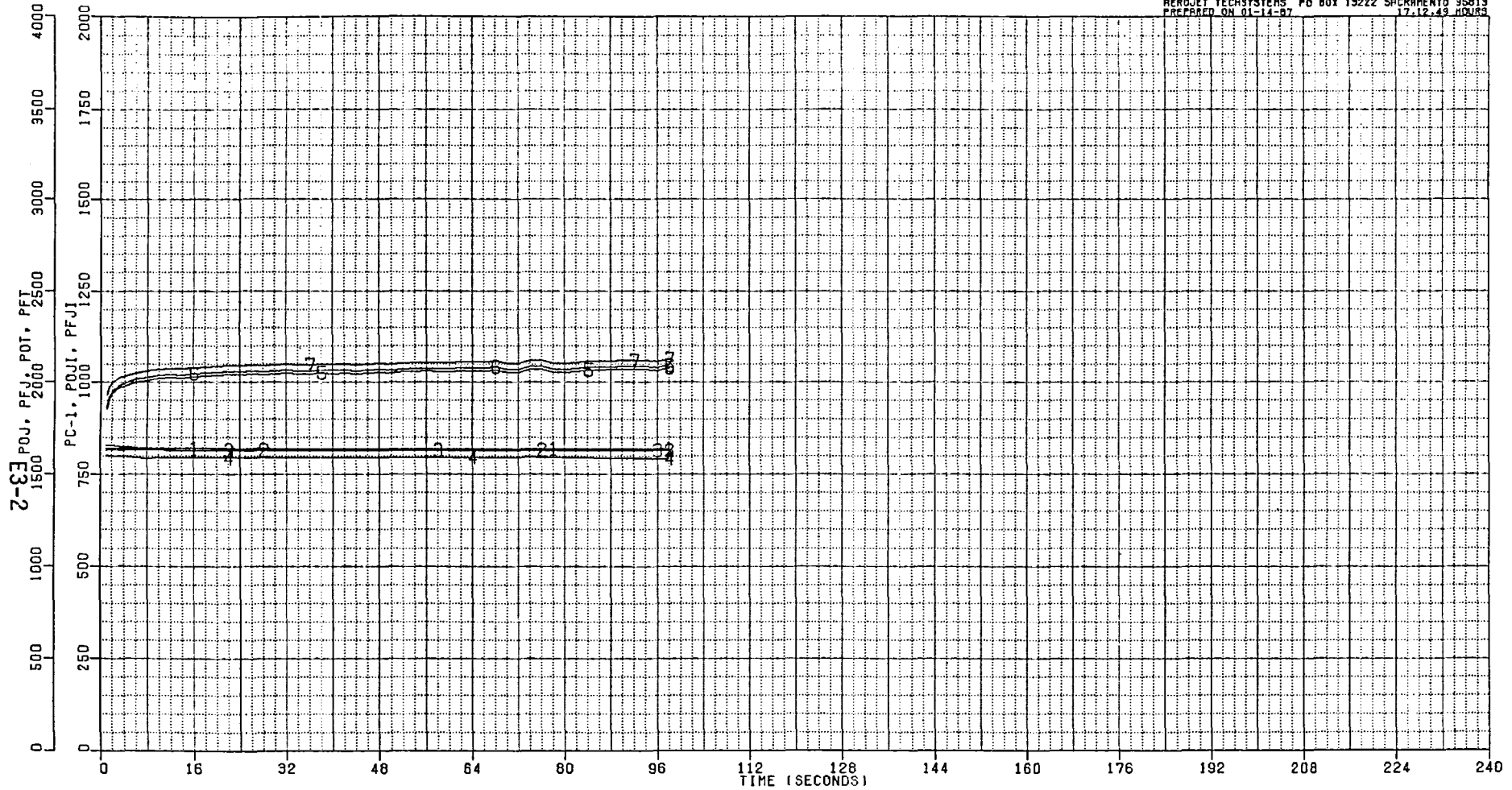
INJECTOR CALCULATIONS VS TIME  
TEST NO. RLB6-936-131  
NOZZLE AREA CHANGE  
TEST DATE 03-02-84 1713 HOURS AVERAGED DATA



**APPENDIX E-3**

**1985 RP-1**

**GAS GENERATOR DATA PLOTS**

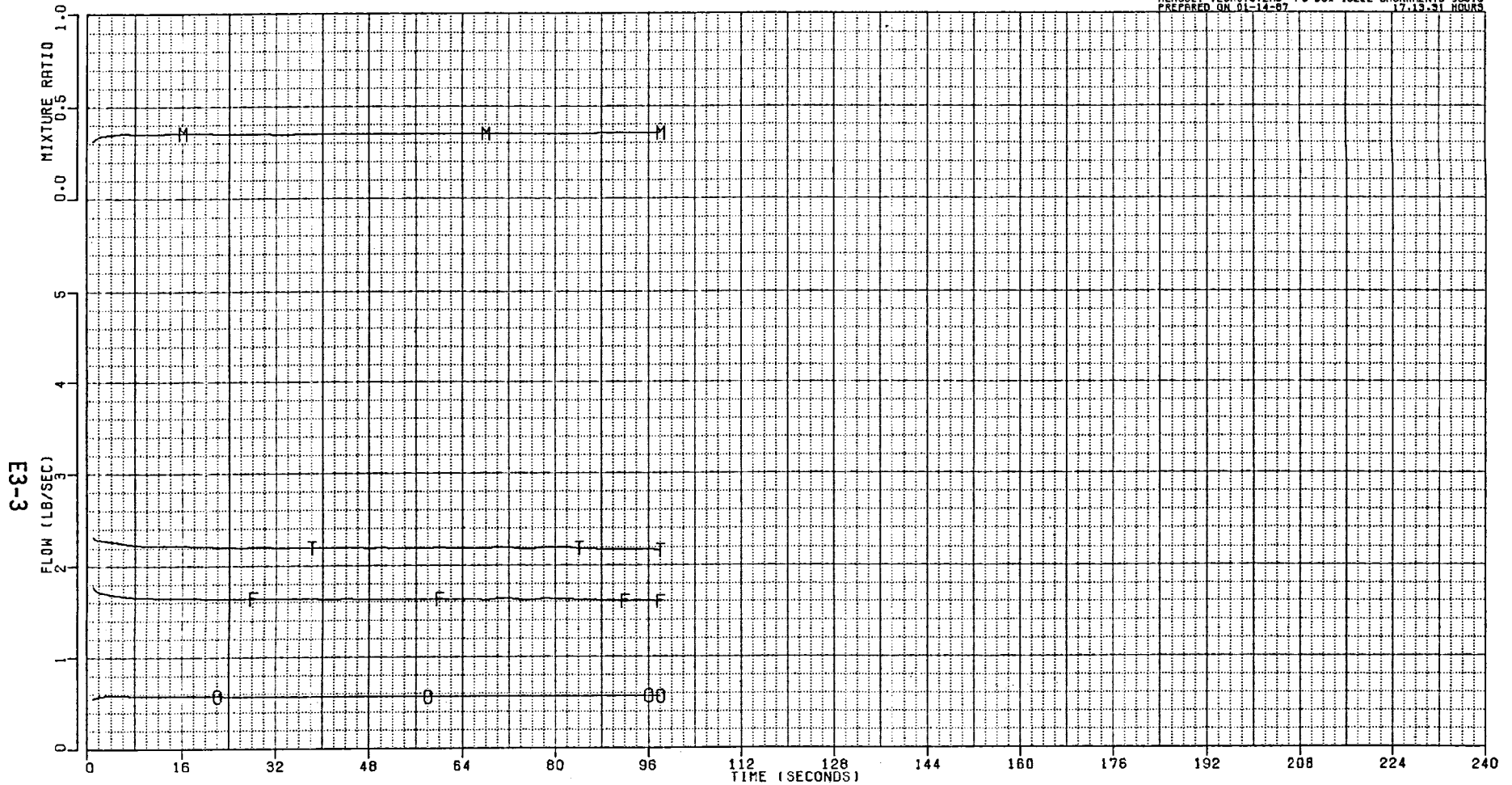


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-113

TEST DATE 10-23-85 1213 HOURS AVERAGED DATA

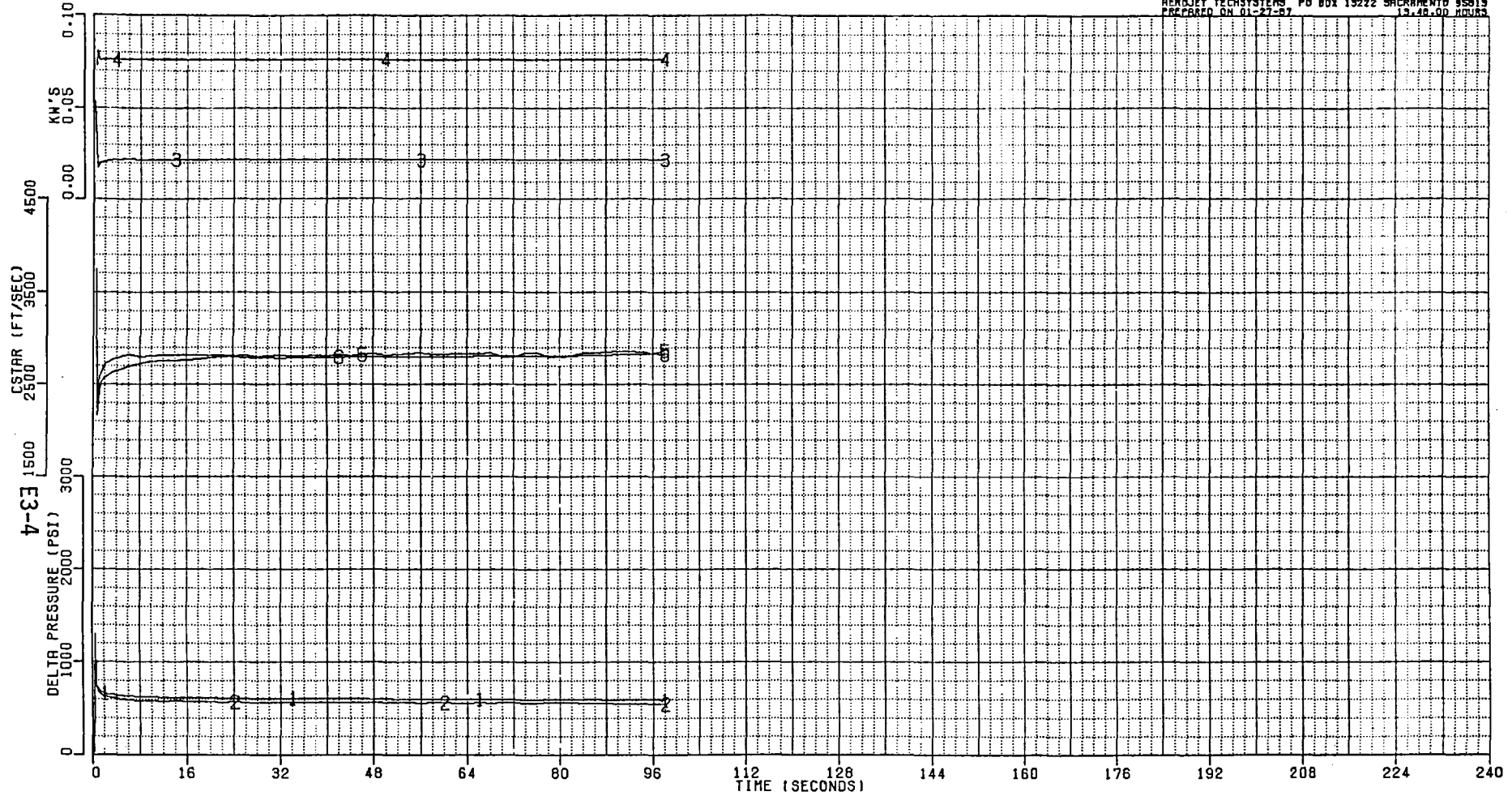


F HF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-113

TEST DATE 10-23-85 1213 HOURS AVERAGED DATA



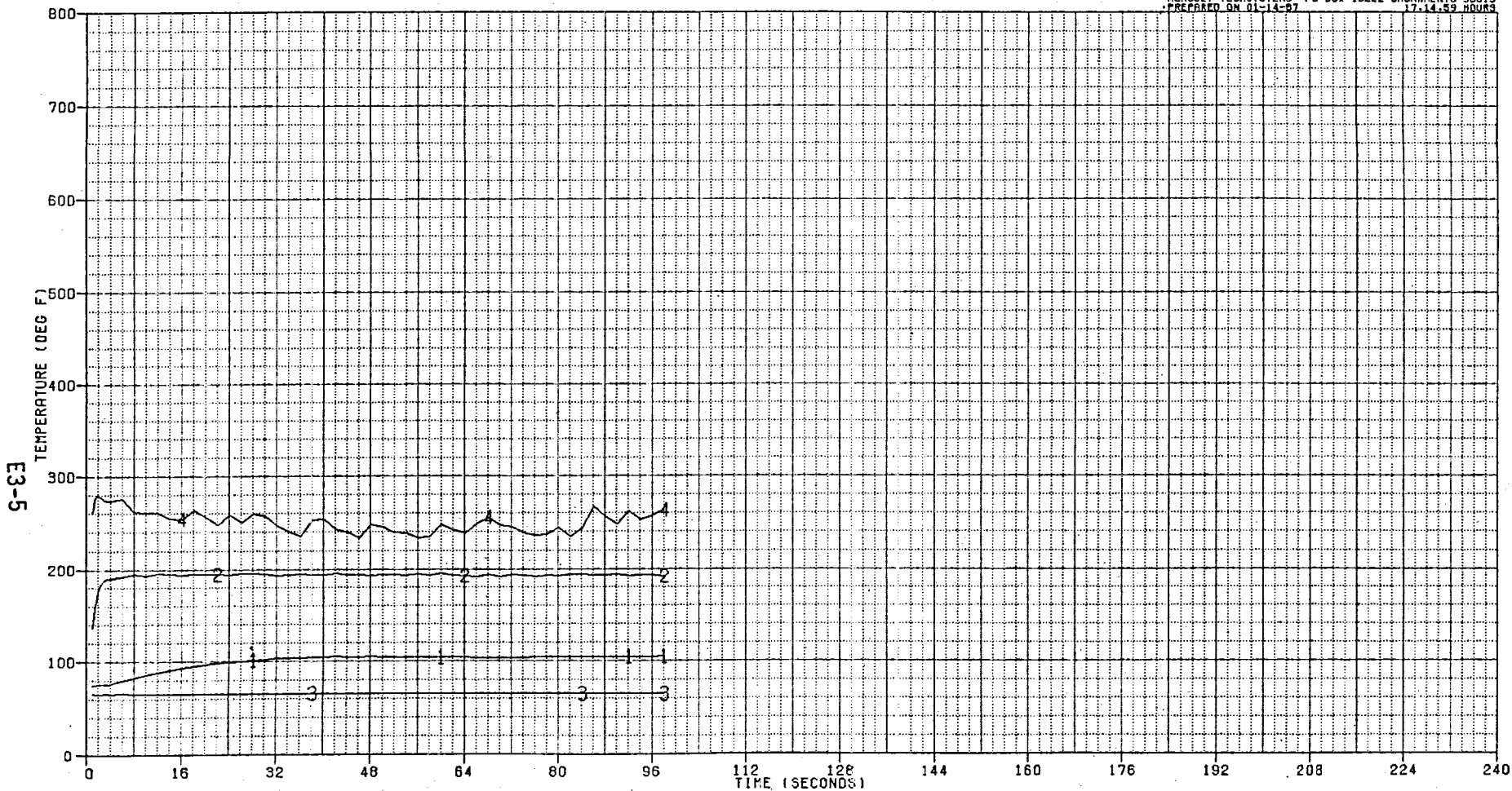


- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWDJ
- 4 KWFJ
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC



INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-113

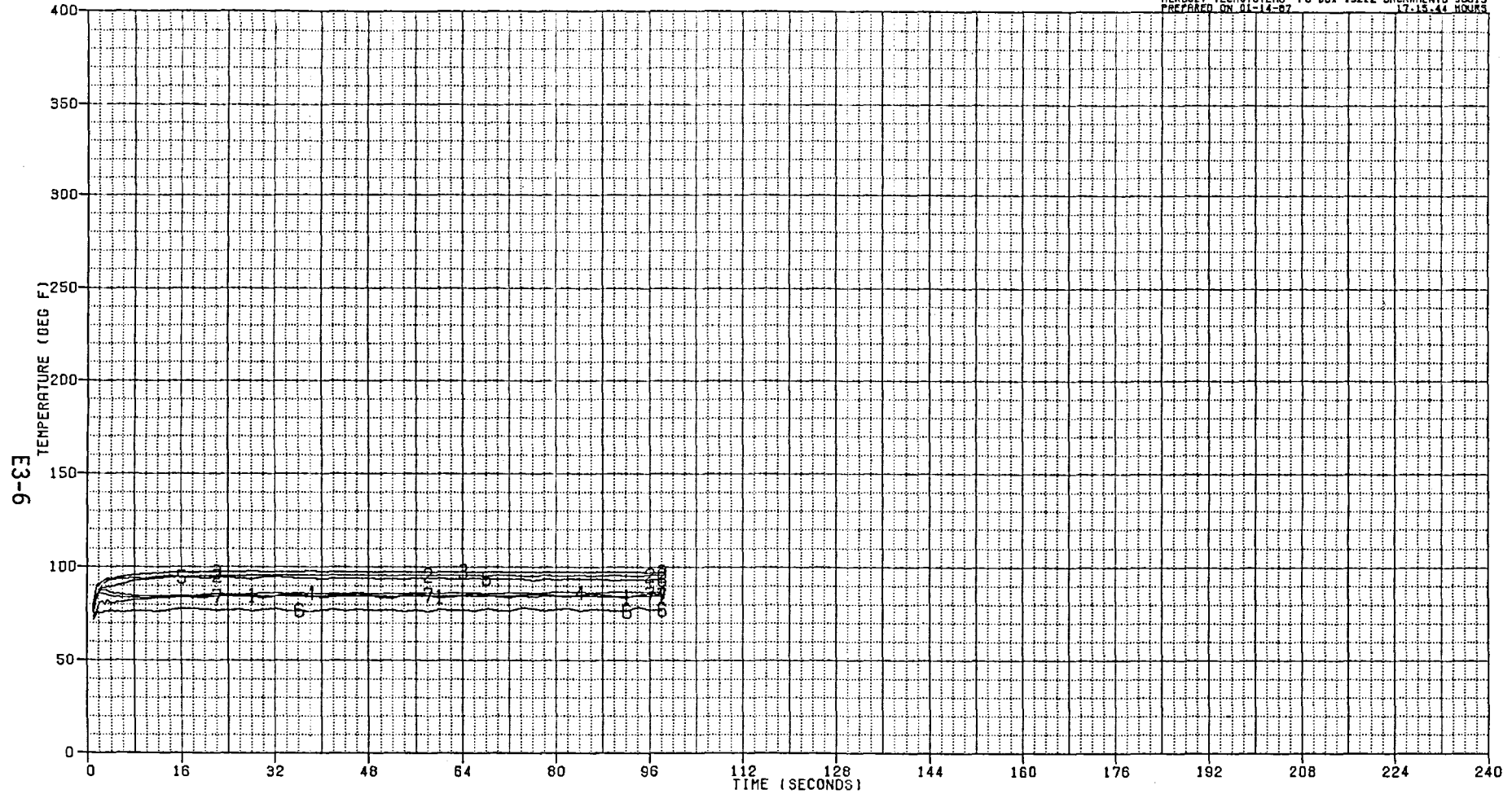
TEST DATE 10-23-85 1213 HOURS AVERAGED DATA



- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-113  
BARREL DATA  
TEST DATE 10-23-85 1213 HOURS AVERAGED DATA





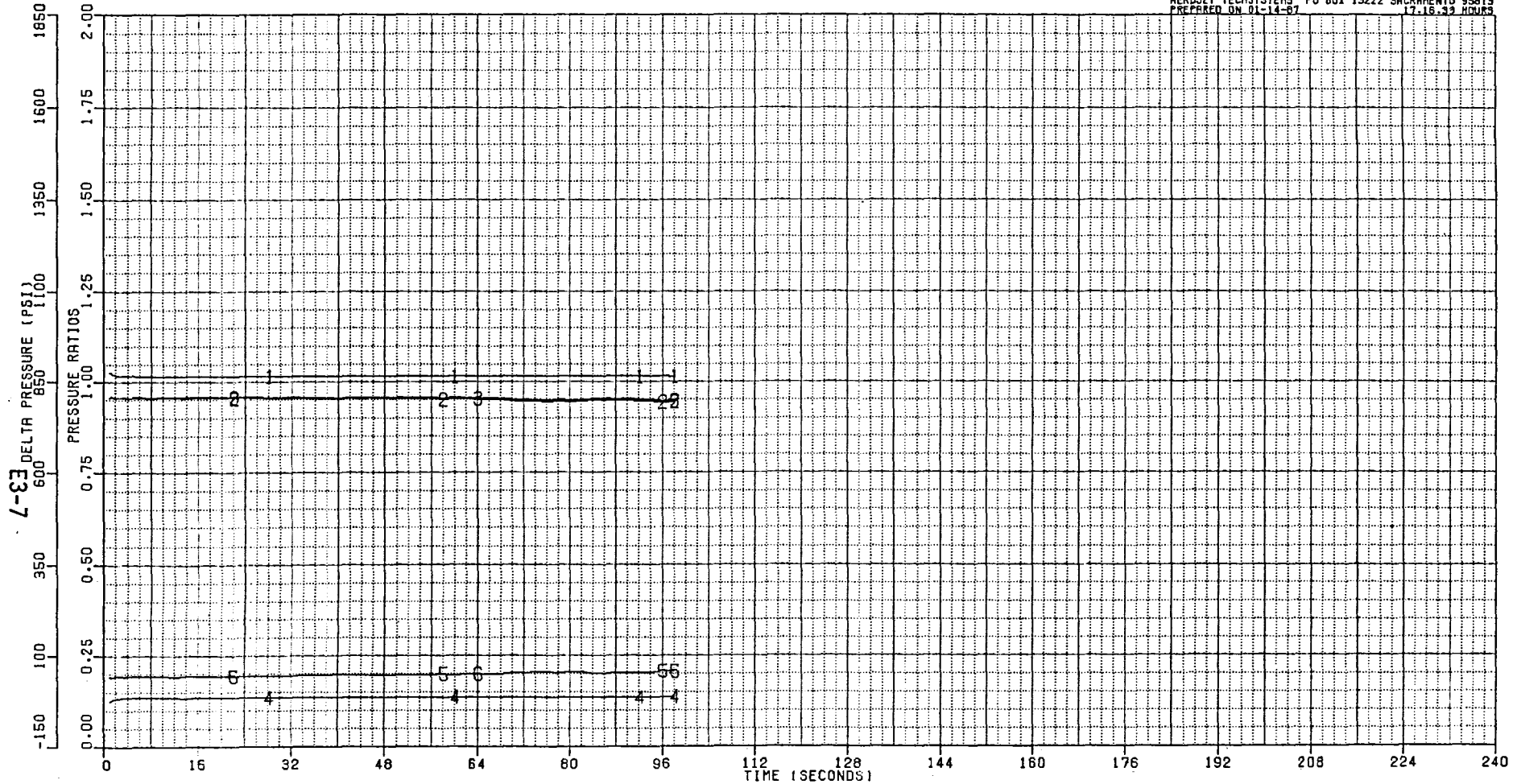
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-113

TEST DATE 10-23-85 1213 HOURS AVERAGED DATA



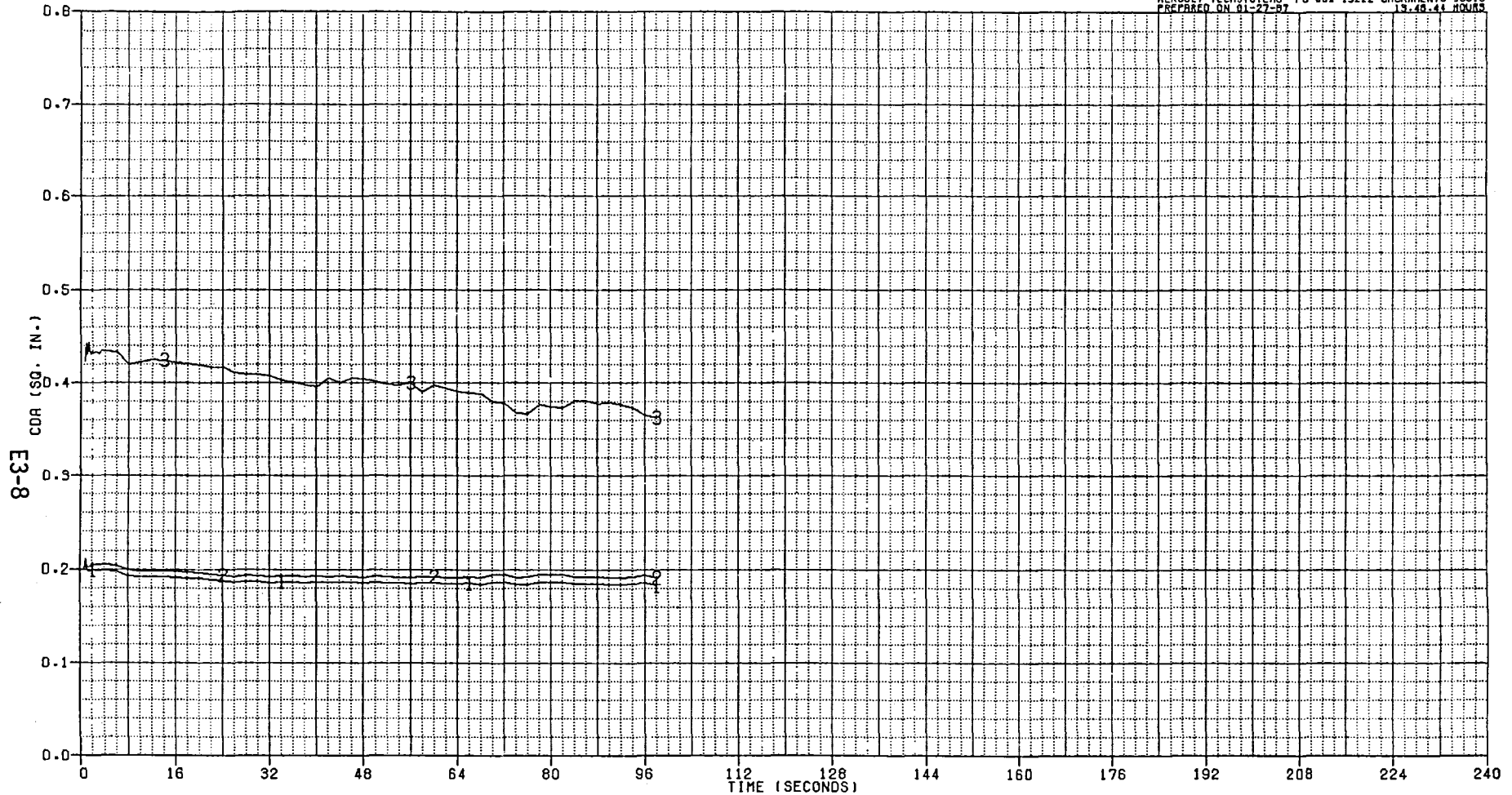




- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTS COPR      PSI
- 4 DPTR            PSI
- 5 DPTS-C         PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-113  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 1213 HOURS      AVERAGED DATA

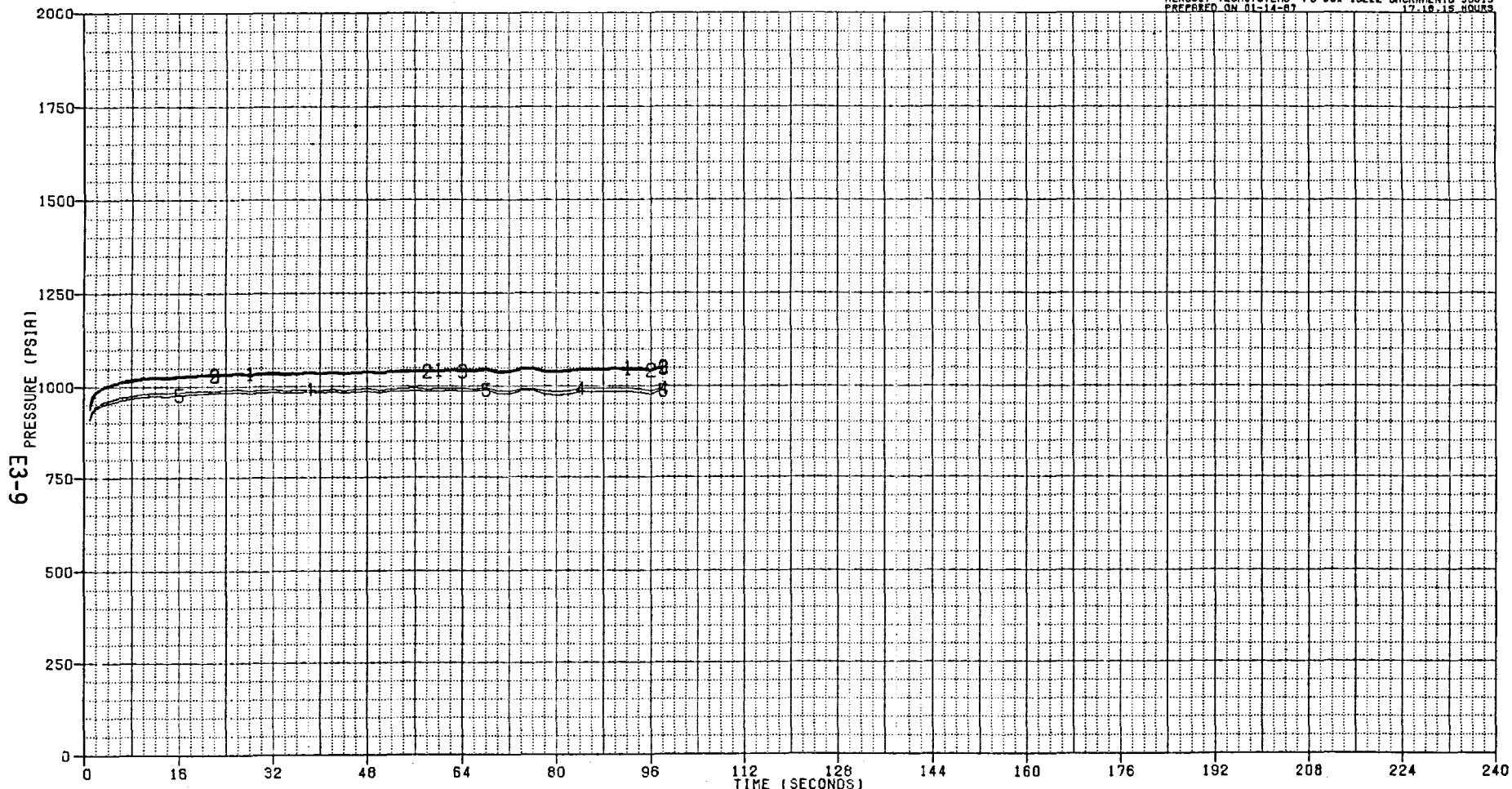




1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-113  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 1213 HOURS AVERAGED DATA

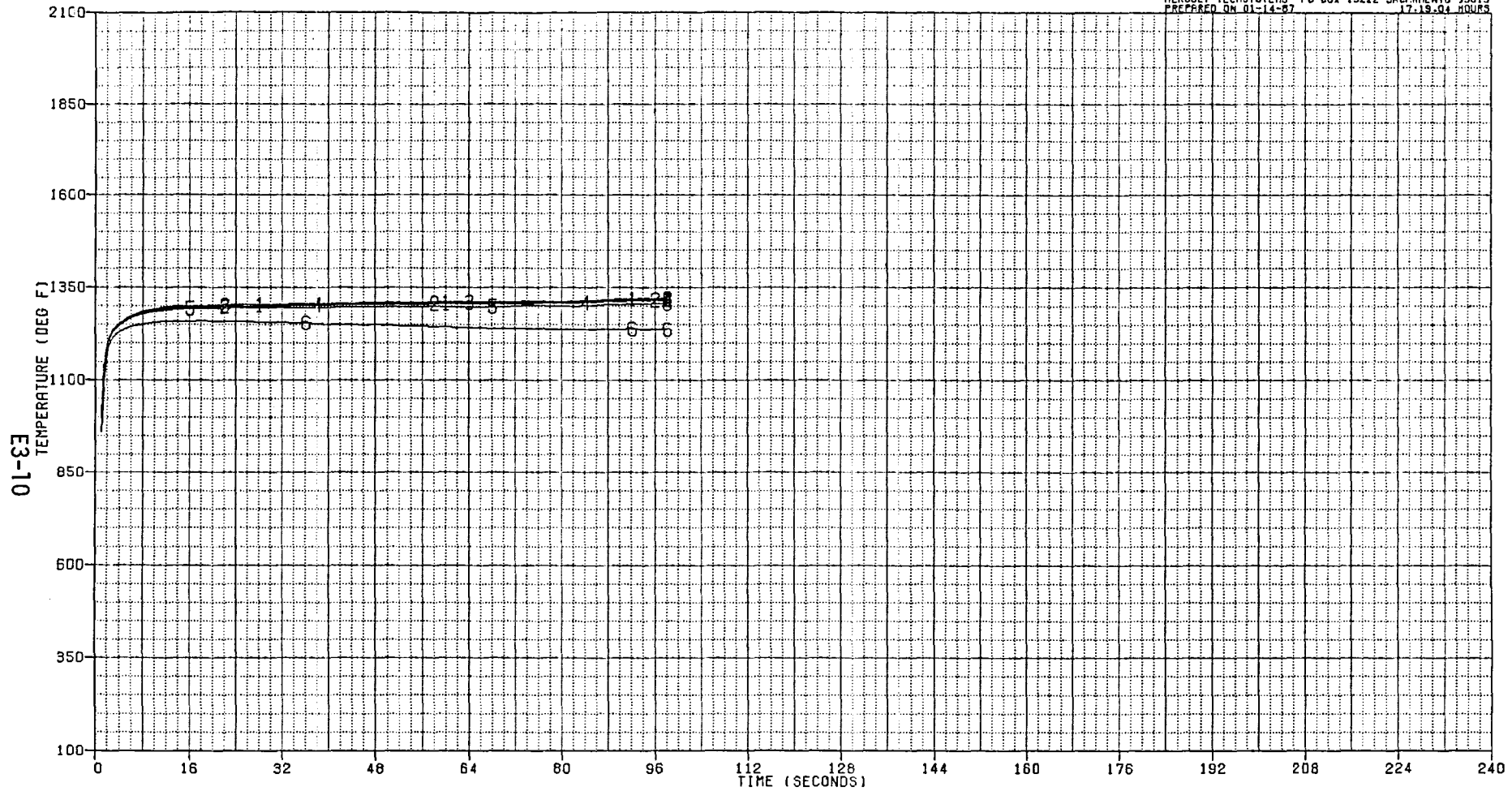




- 1 PCTSU PSIA
- 2 PCTS0-2 PSIA
- 3 PCTS0-3 PSIA
- 4 PCTS0 PSIA
- 5 PCTS0-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-113  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1213 HOURS AVERAGED DATA



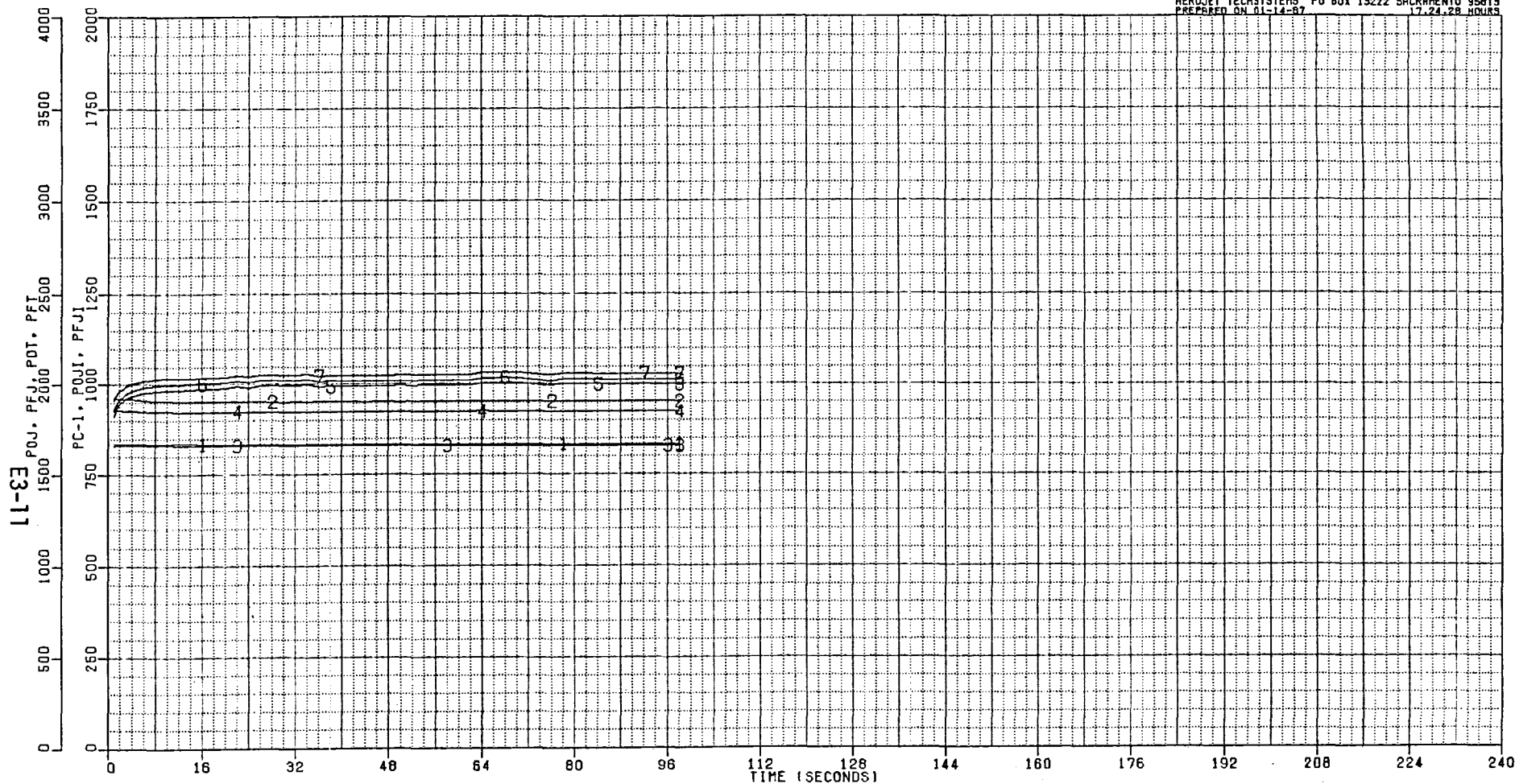


E3-10

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-113  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1213 HOURS AVERAGED DATA





11-33  
E3-11

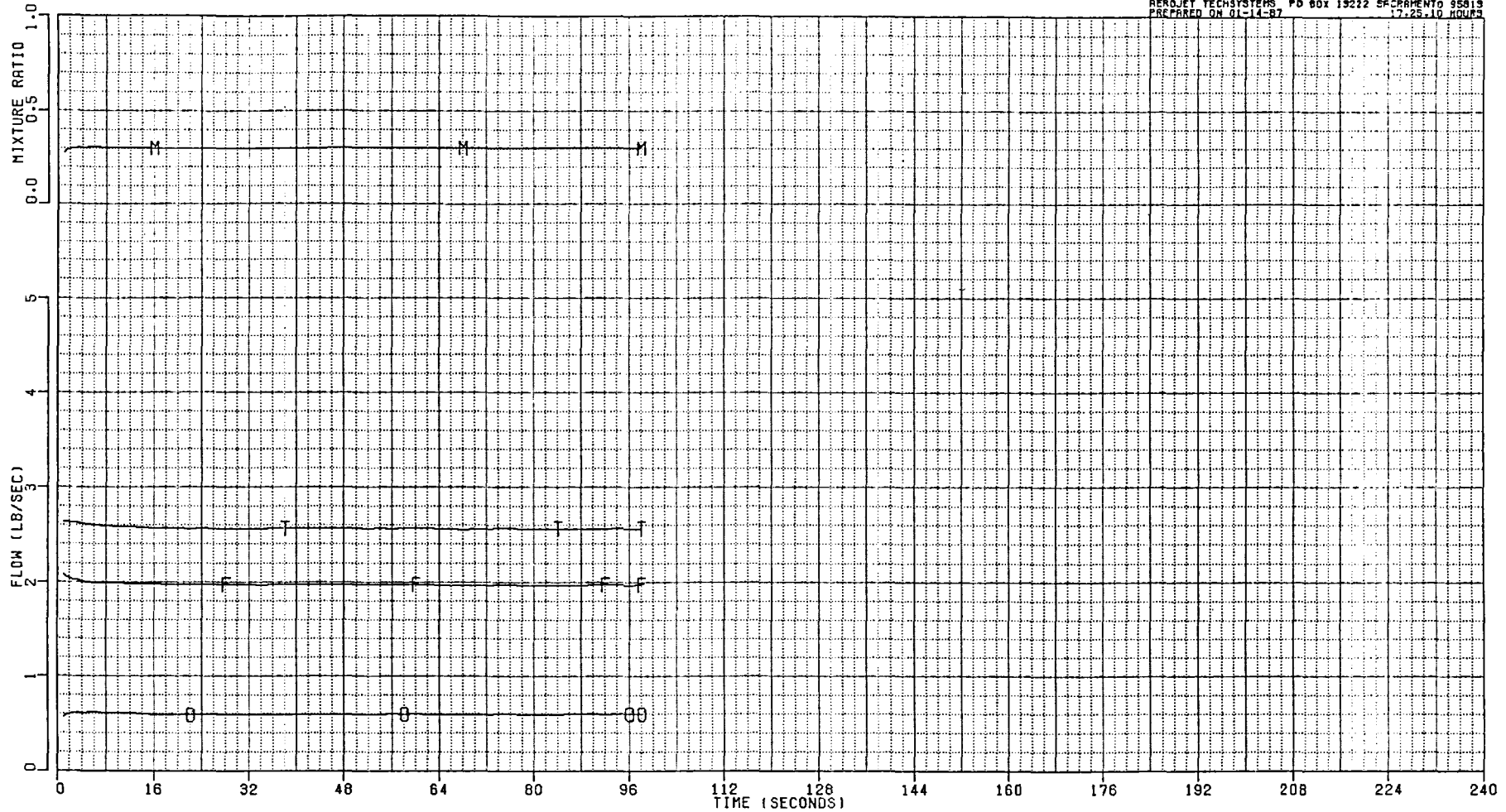
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-115

TEST DATE 10-23-85 1418 HOURS AVERAGED DATA



E3-12

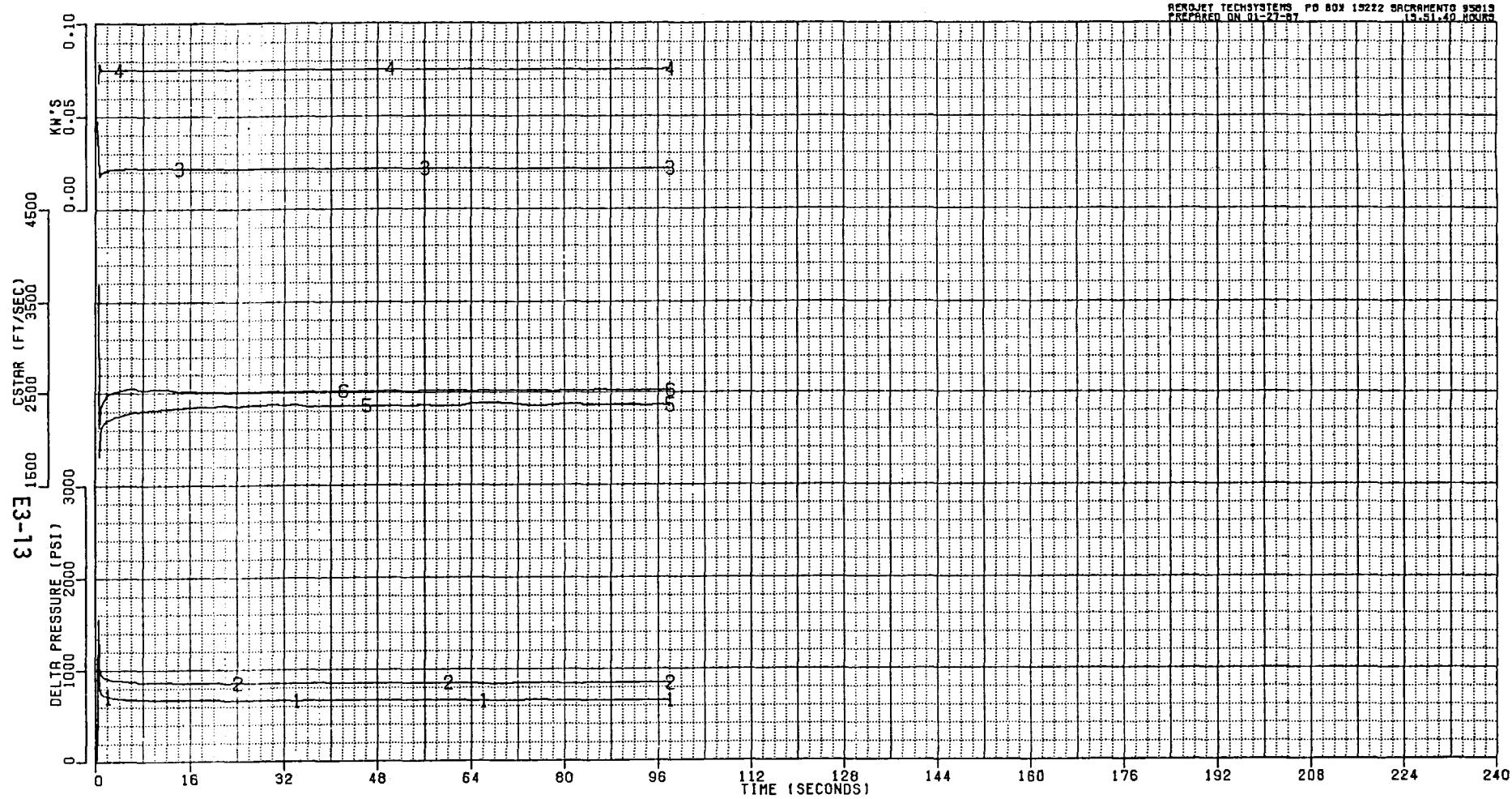


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-115

TEST DATE 10-23-85 1418 HOURS AVERAGED DATA





AEROJET TECHSYSTEMS PO BOX 15222 SACRAMENTO 95813  
 PREPARED ON 01-27-87 19:51:40 HOURS

E3-13

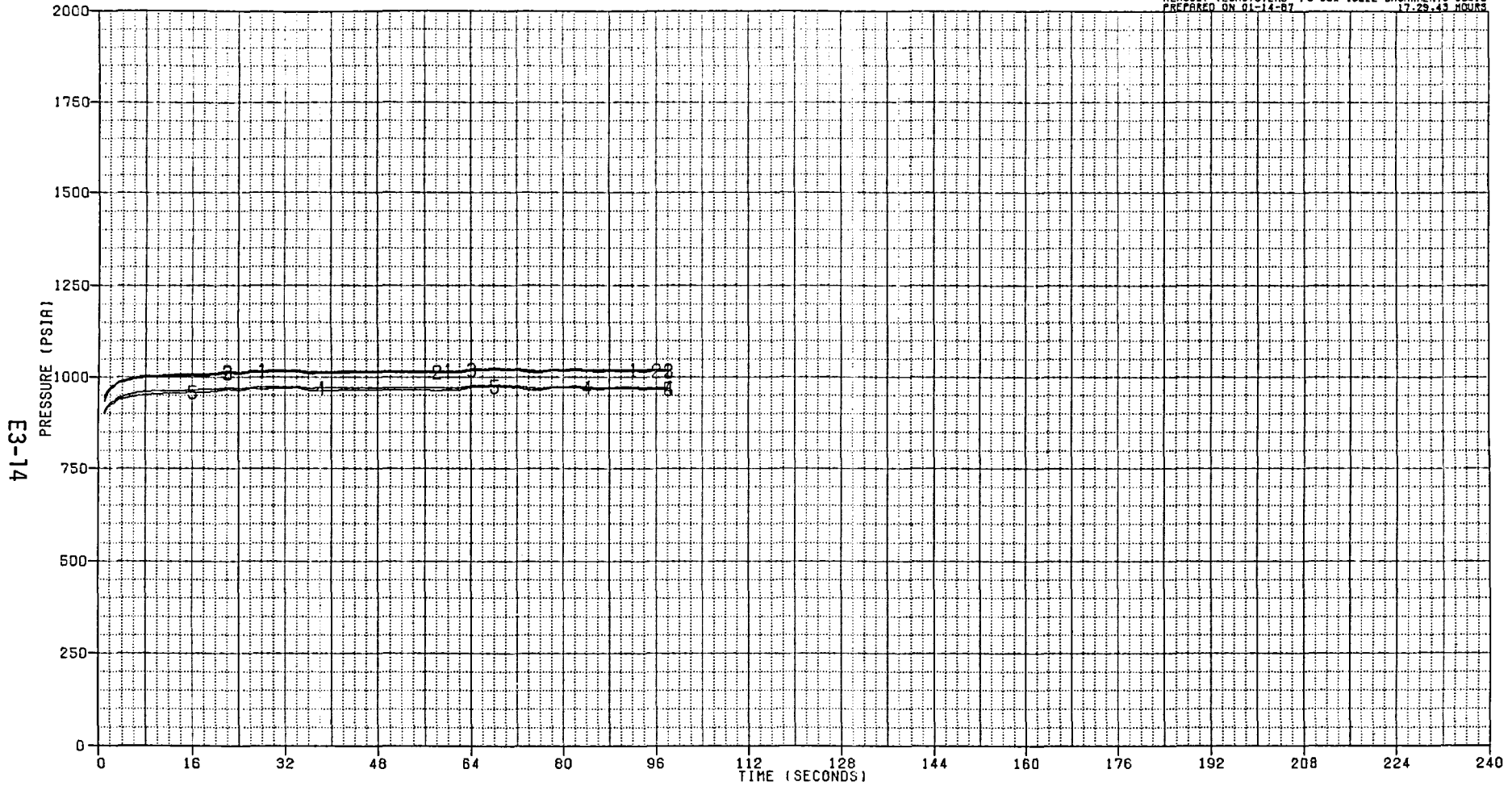
- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR        FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-115

TEST DATE 10-23-85 1418 HOURS      AVERAGED DATA







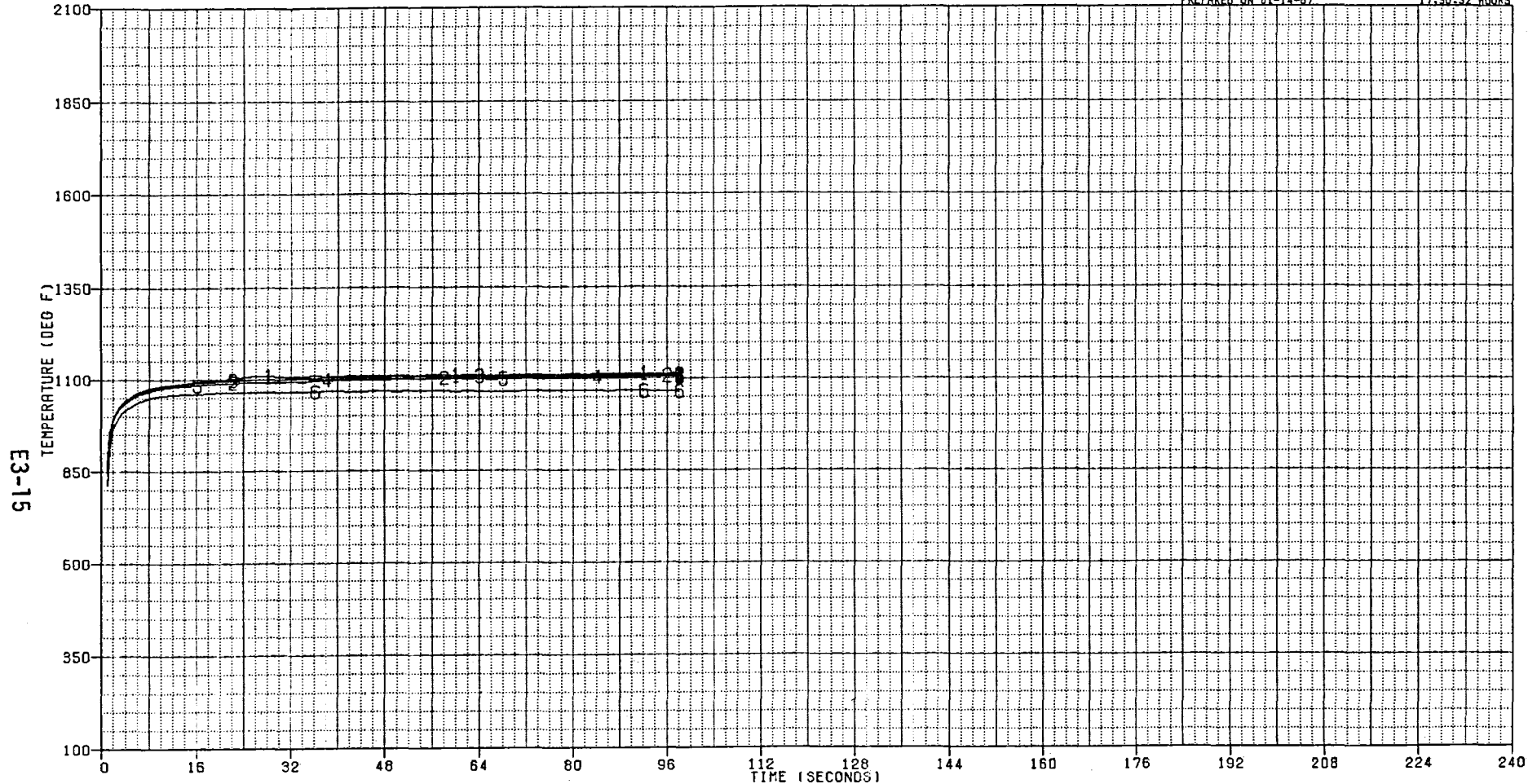
E3-14

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-115  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1418 HOURS AVERAGED DATA





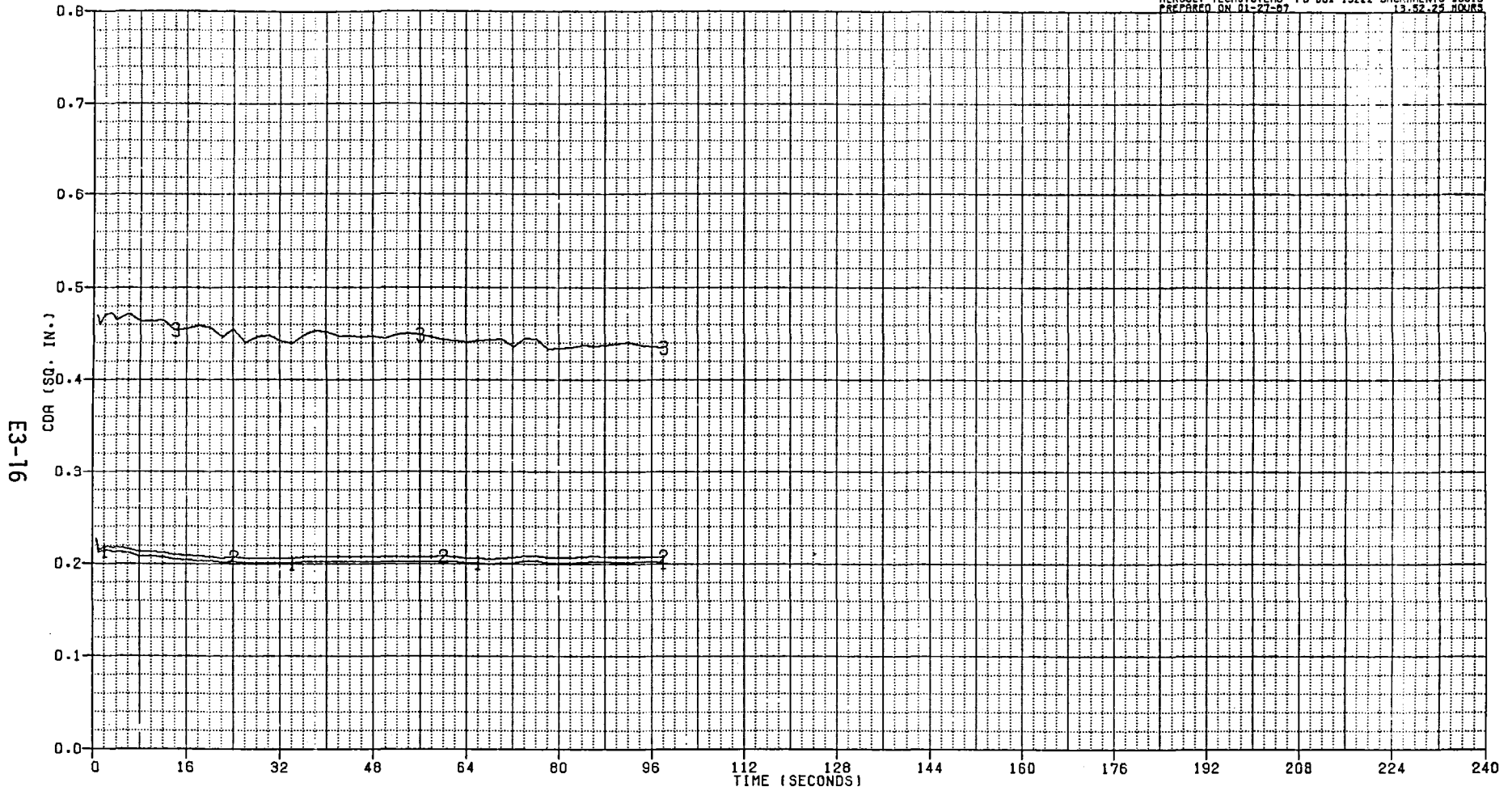


E3-15

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-115  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1418 HOURS AVERAGED DATA



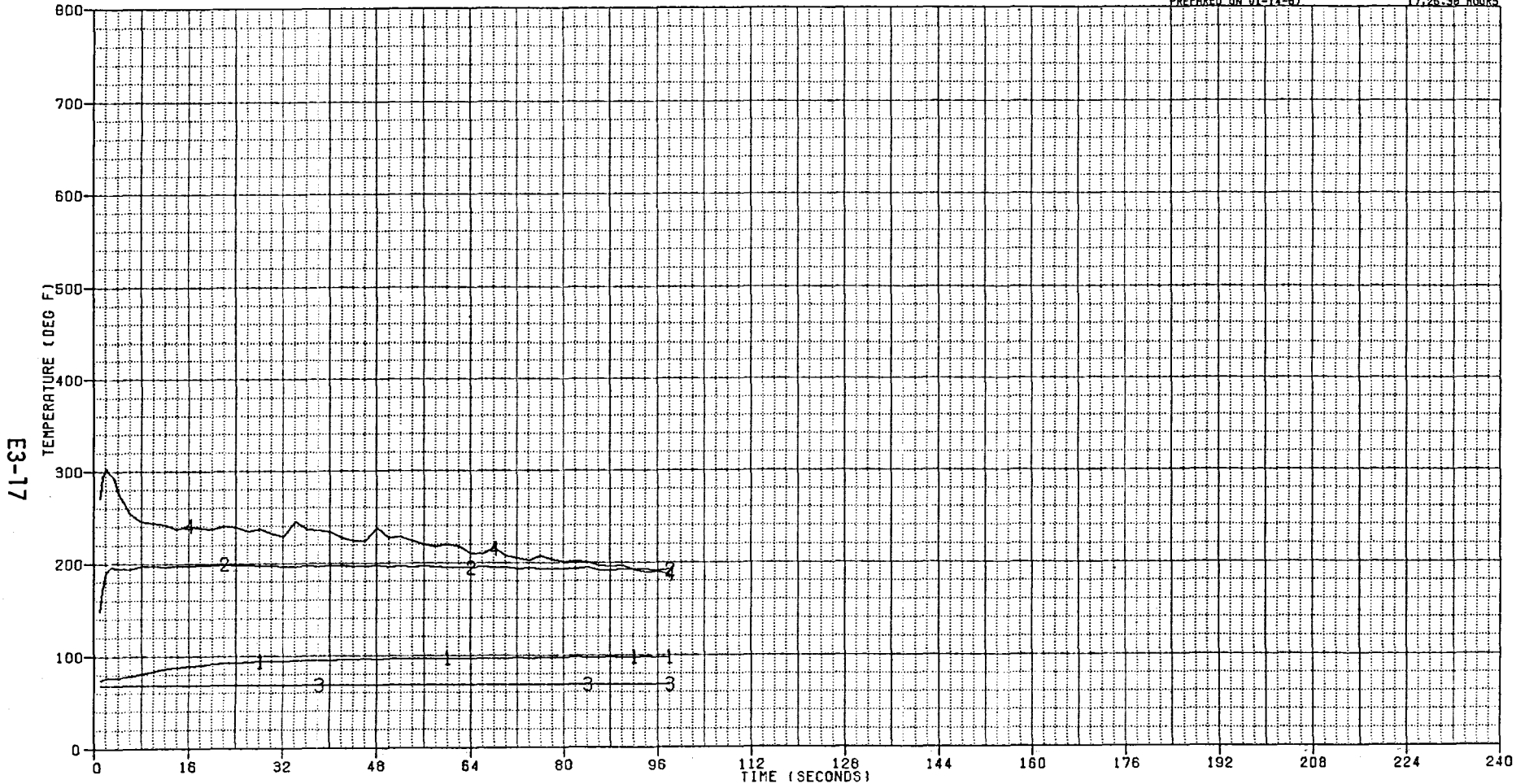


E3-16

1 NR1 SQ. IN.  
2 NR2 SQ. IN.  
3 COA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-115  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 1418 HOURS AVERAGED DATA



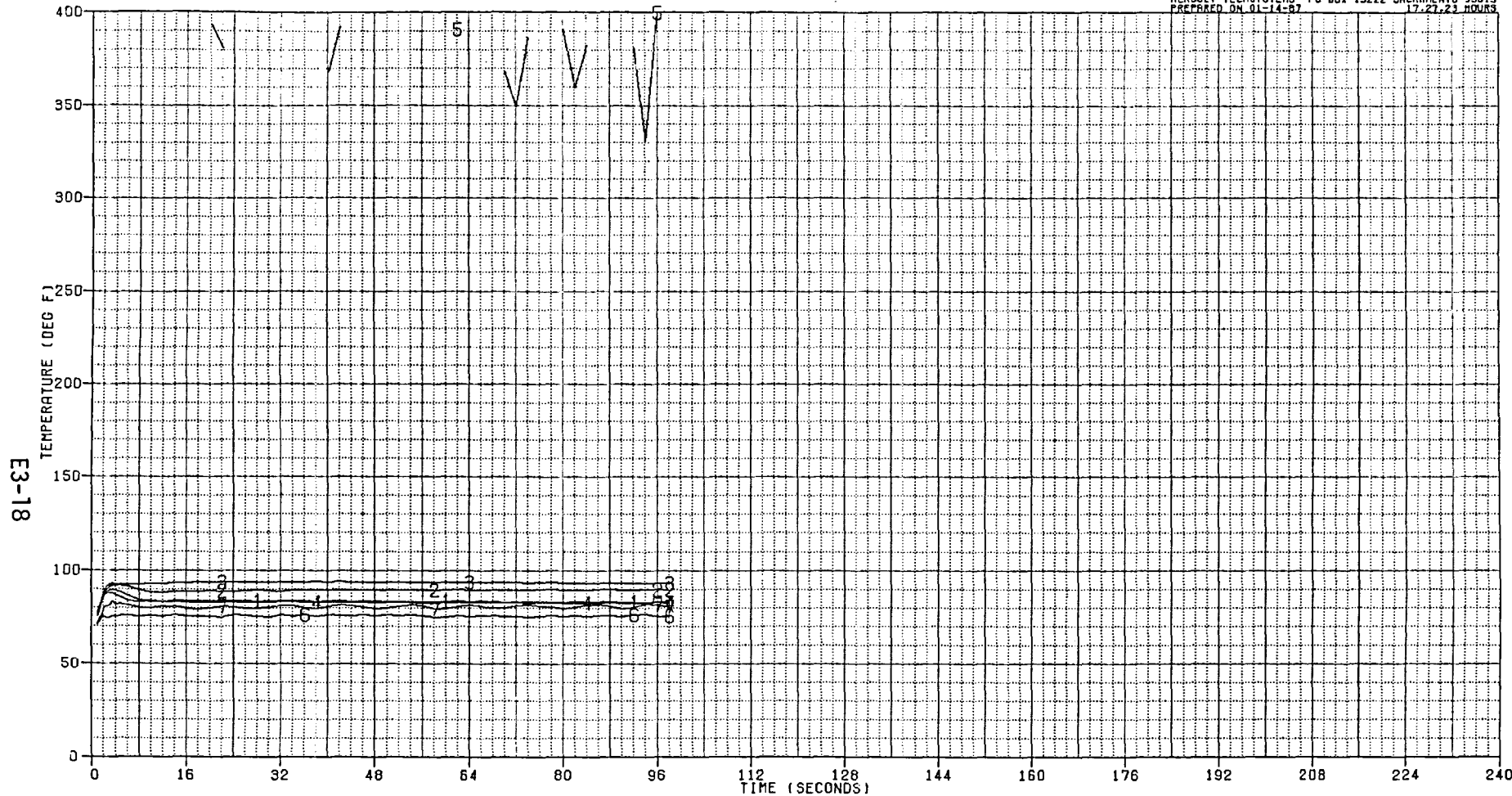


E3-17

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-115  
BARREL DATA  
TEST DATE 10-23-85 1418 HOURS AVERAGED DATA





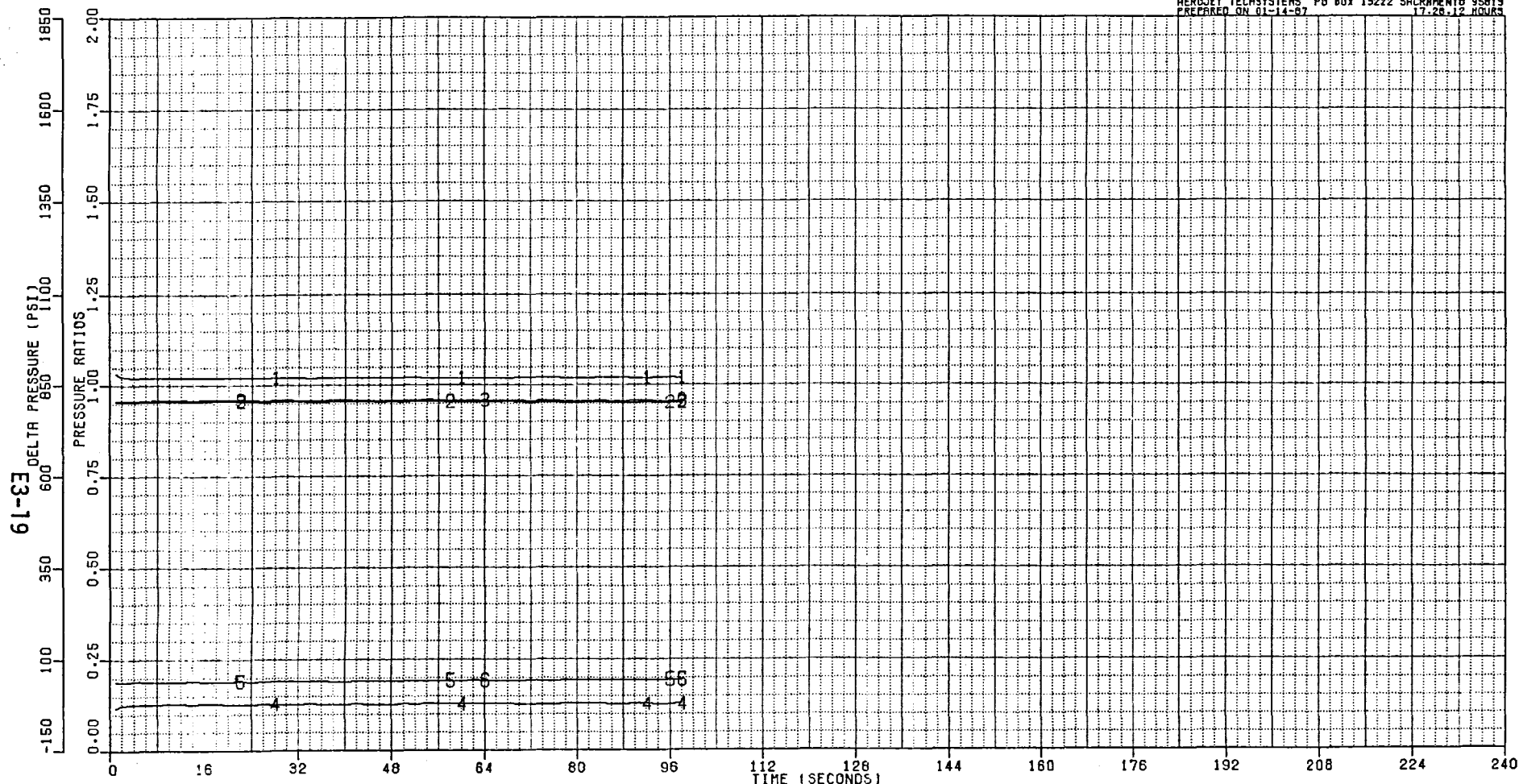
E3-18

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-115

TEST DATE 10-23-85 1418 HOURS AVERAGED DATA



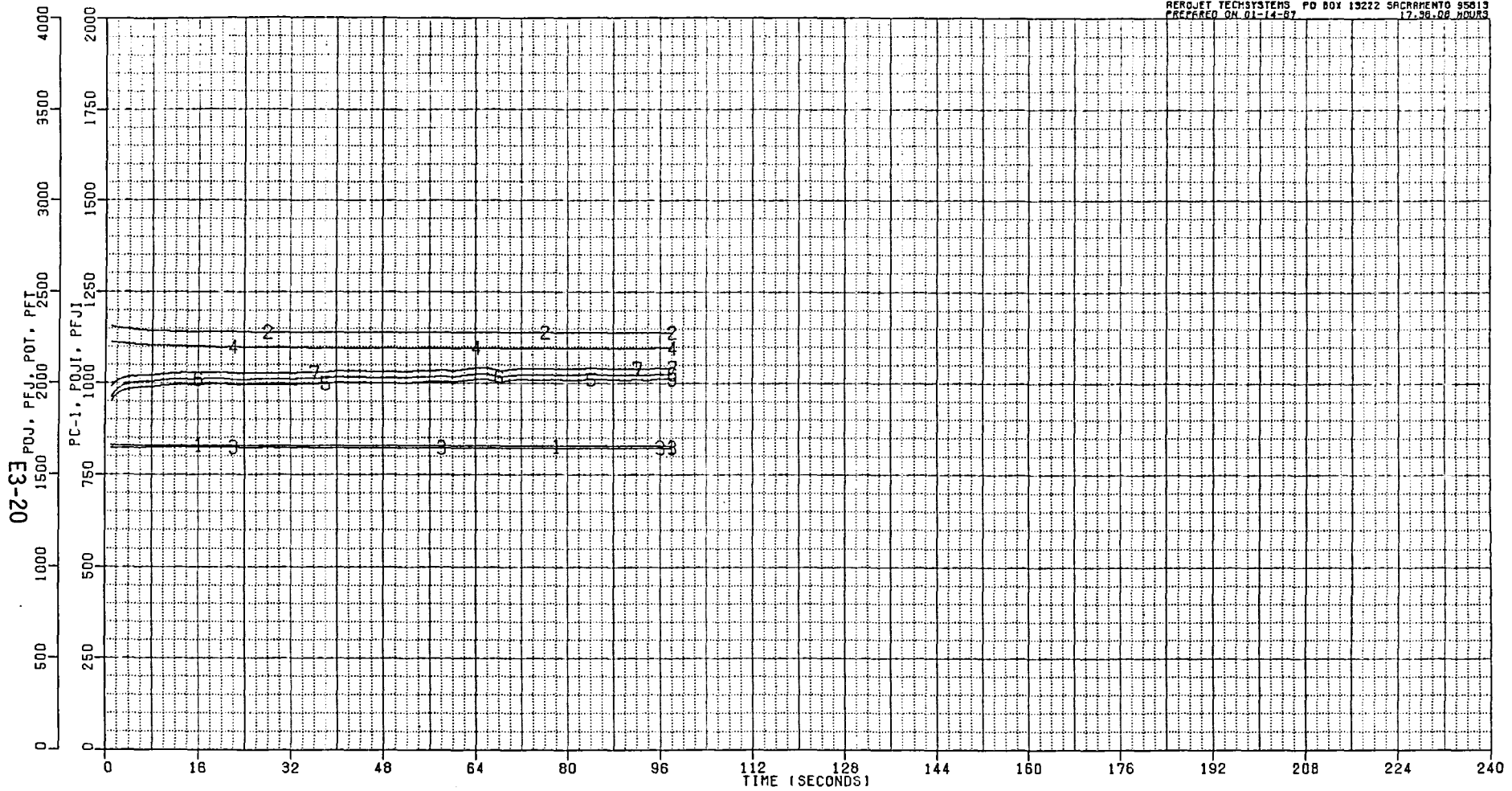


61-33  
 61-19

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-115  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 1418 HOURS      AVERAGED DATA



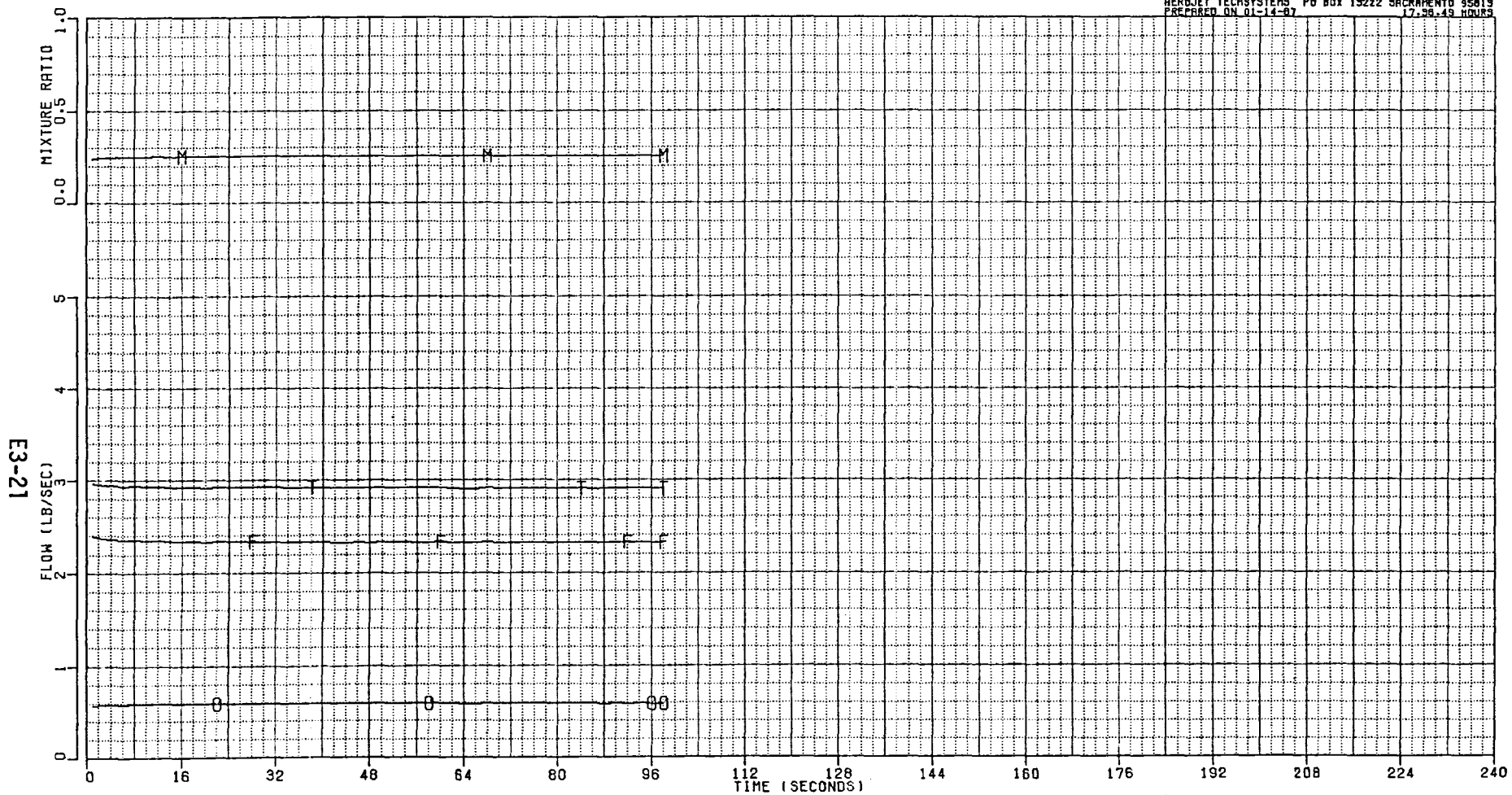


E3-20

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-116  
 TEST DATE 10-23-85 1423 HOURS AVERAGED DATA



E3-21

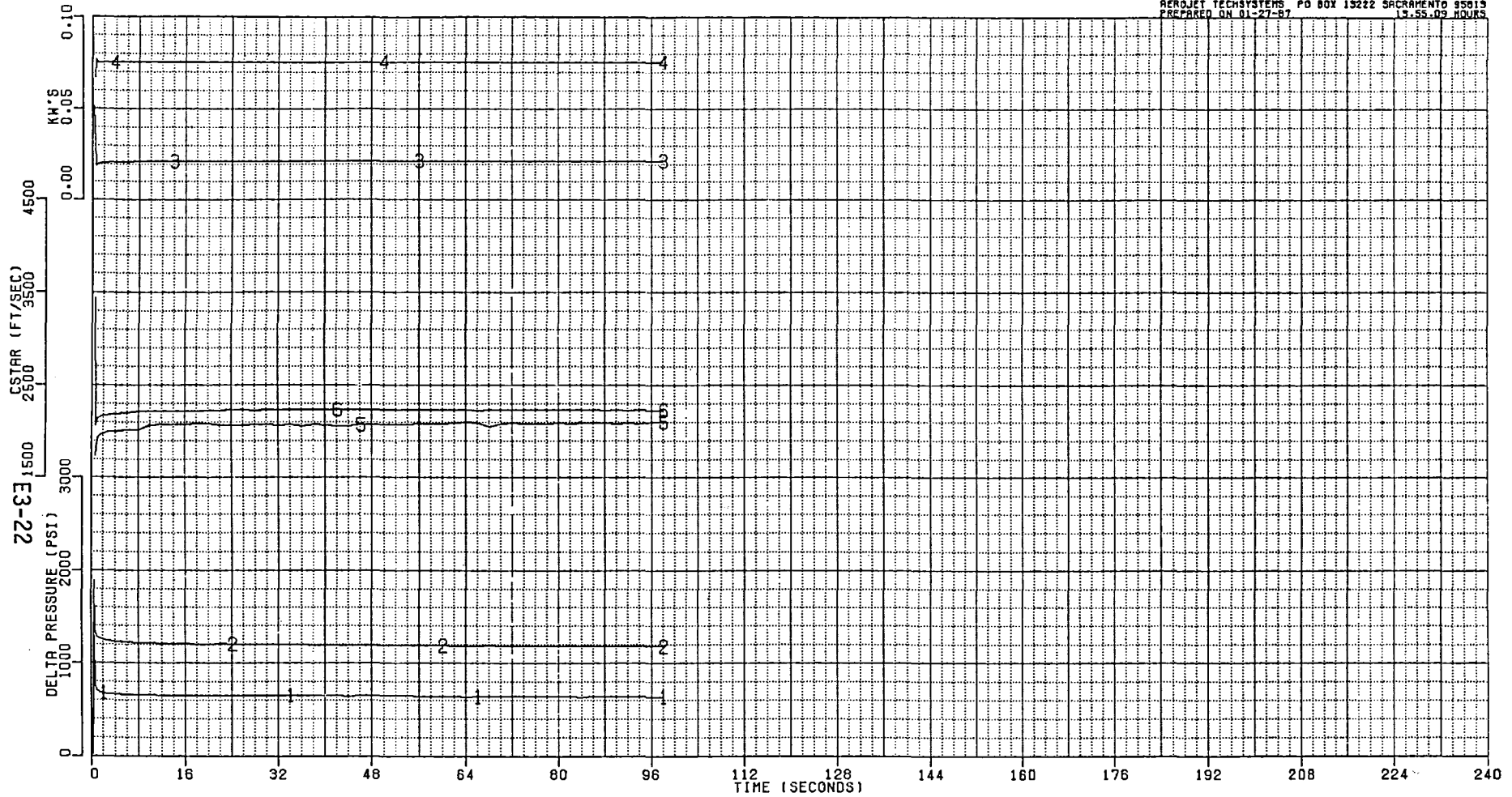
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-116

TEST DATE 10-23-85 1423 HOURS AVERAGED DATA







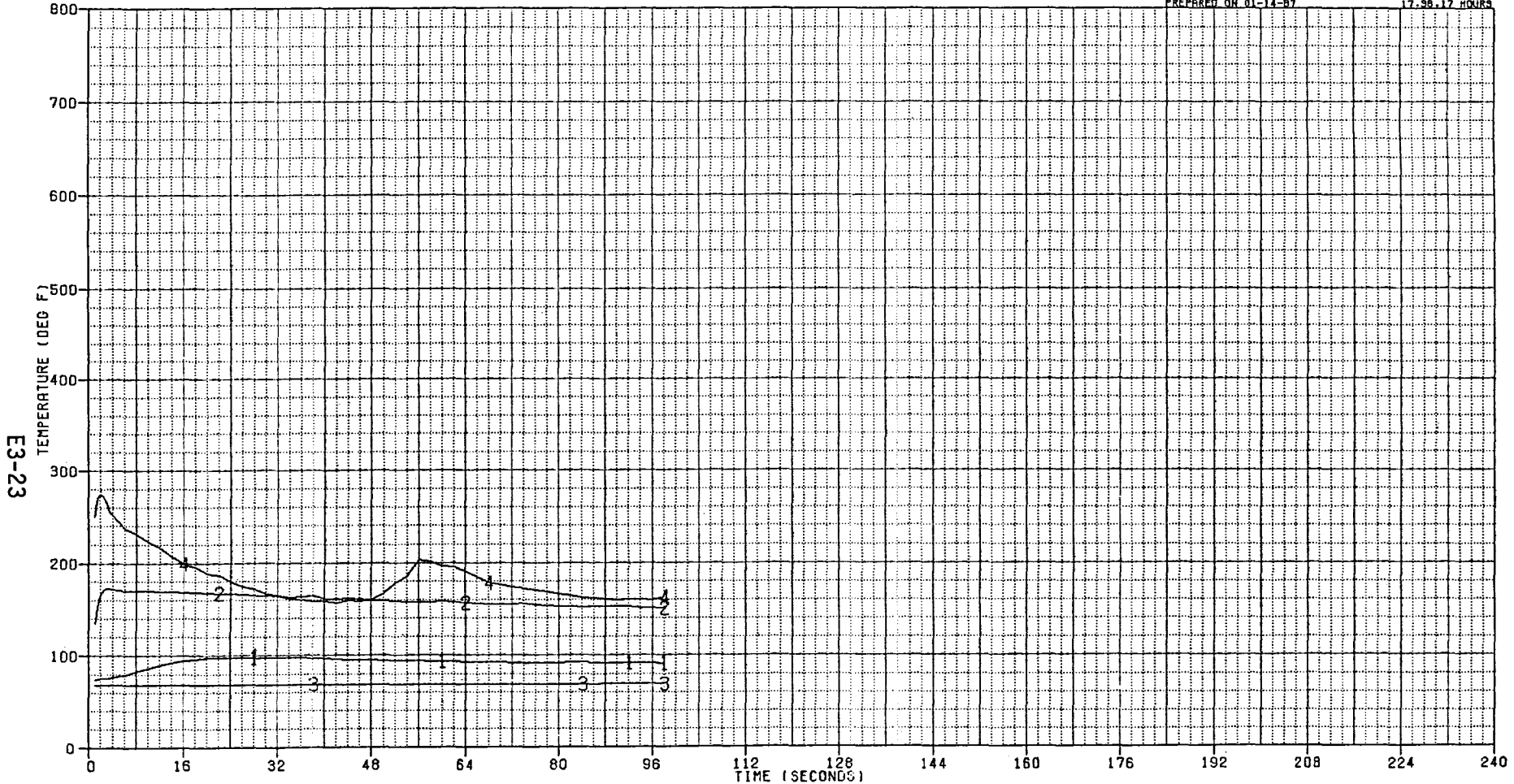
- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR        FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-116

TEST DATE 10-23-85 1423 HOURS    AVERAGED DATA





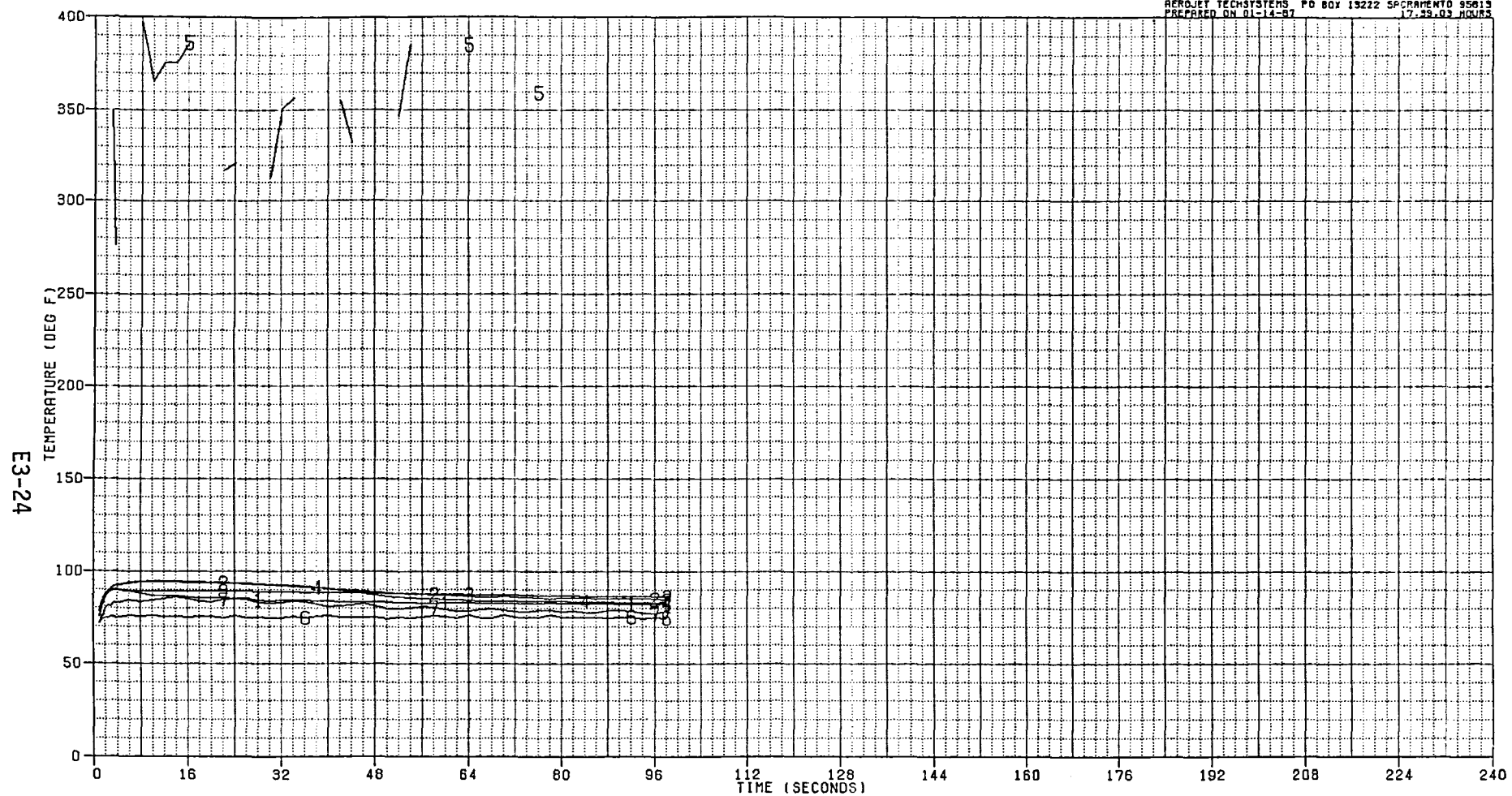


E3-23

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-116  
BARREL DATA  
TEST DATE 10-23-85 1423 HOURS AVERAGED DATA





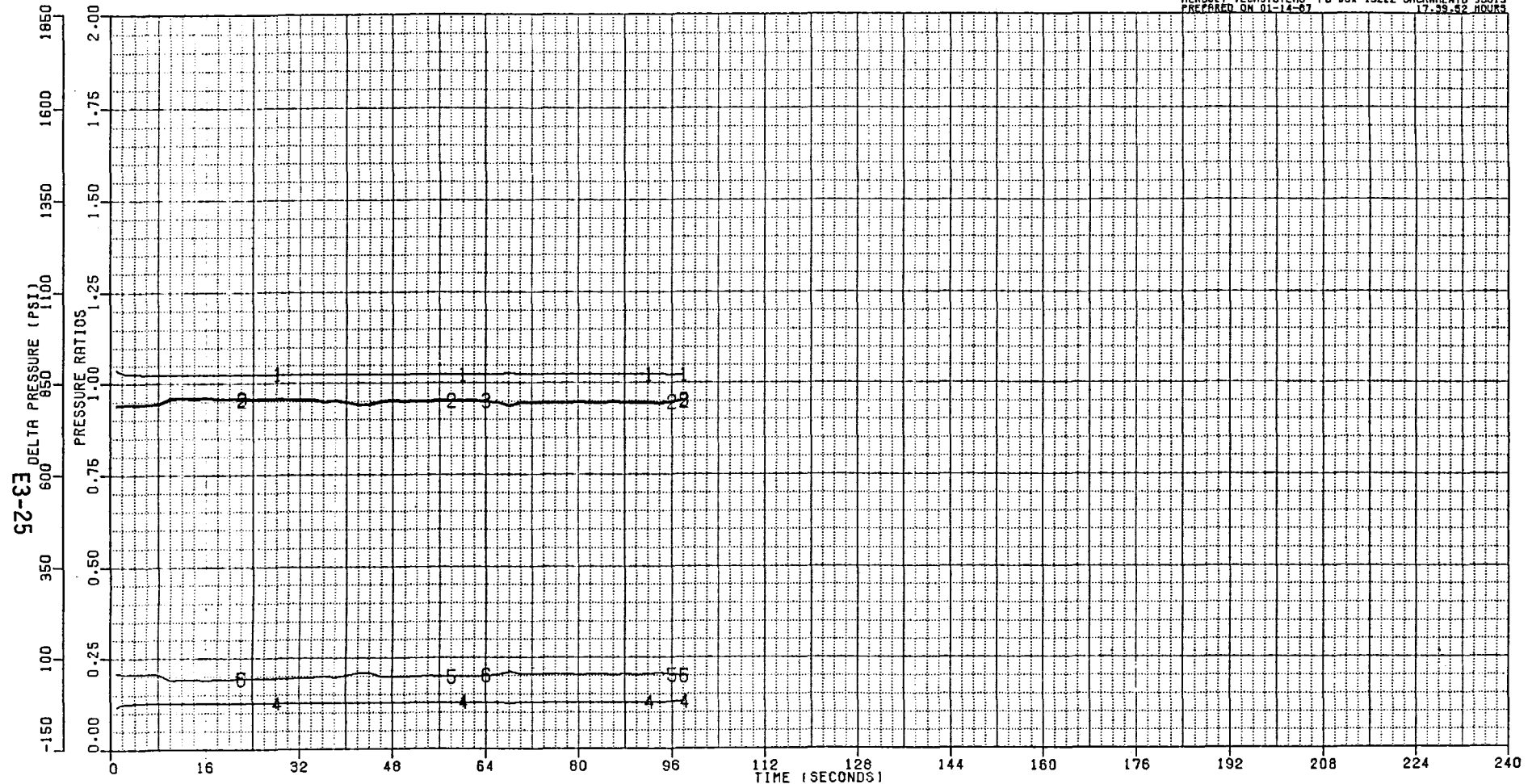
E3-24

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-116

TEST DATE 10-23-85 1423 HOURS AVERAGED DATA





- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTS CORR
- 4 OPTR            PSI
- 5 OPTS-C         PSI
- 6 OPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-116  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 1423 HOURS      AVERAGED DATA

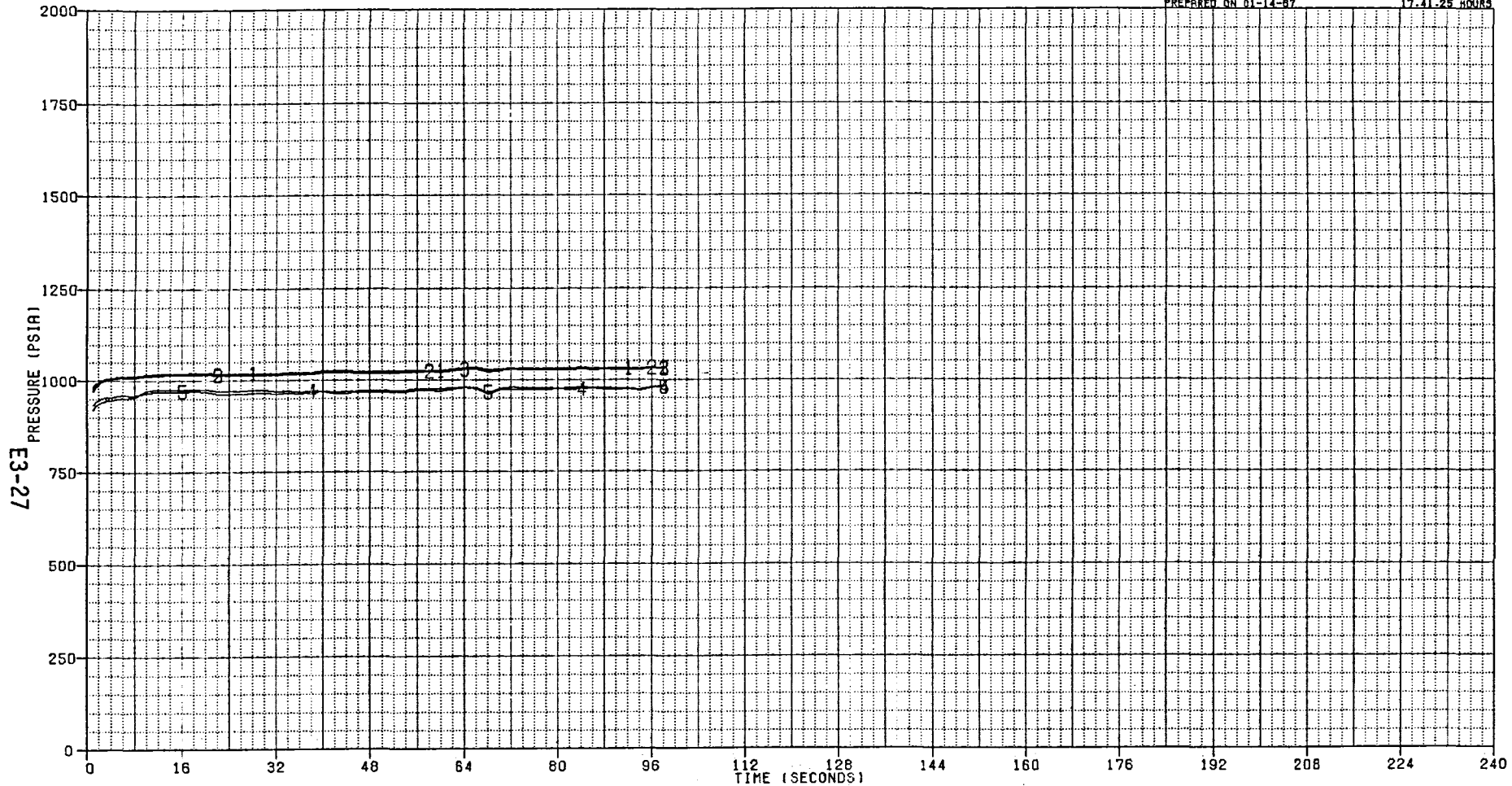




1 NR1 SQ. IN.  
2 NR2 SQ. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-116  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 1423 HOURS AVERAGED DATA



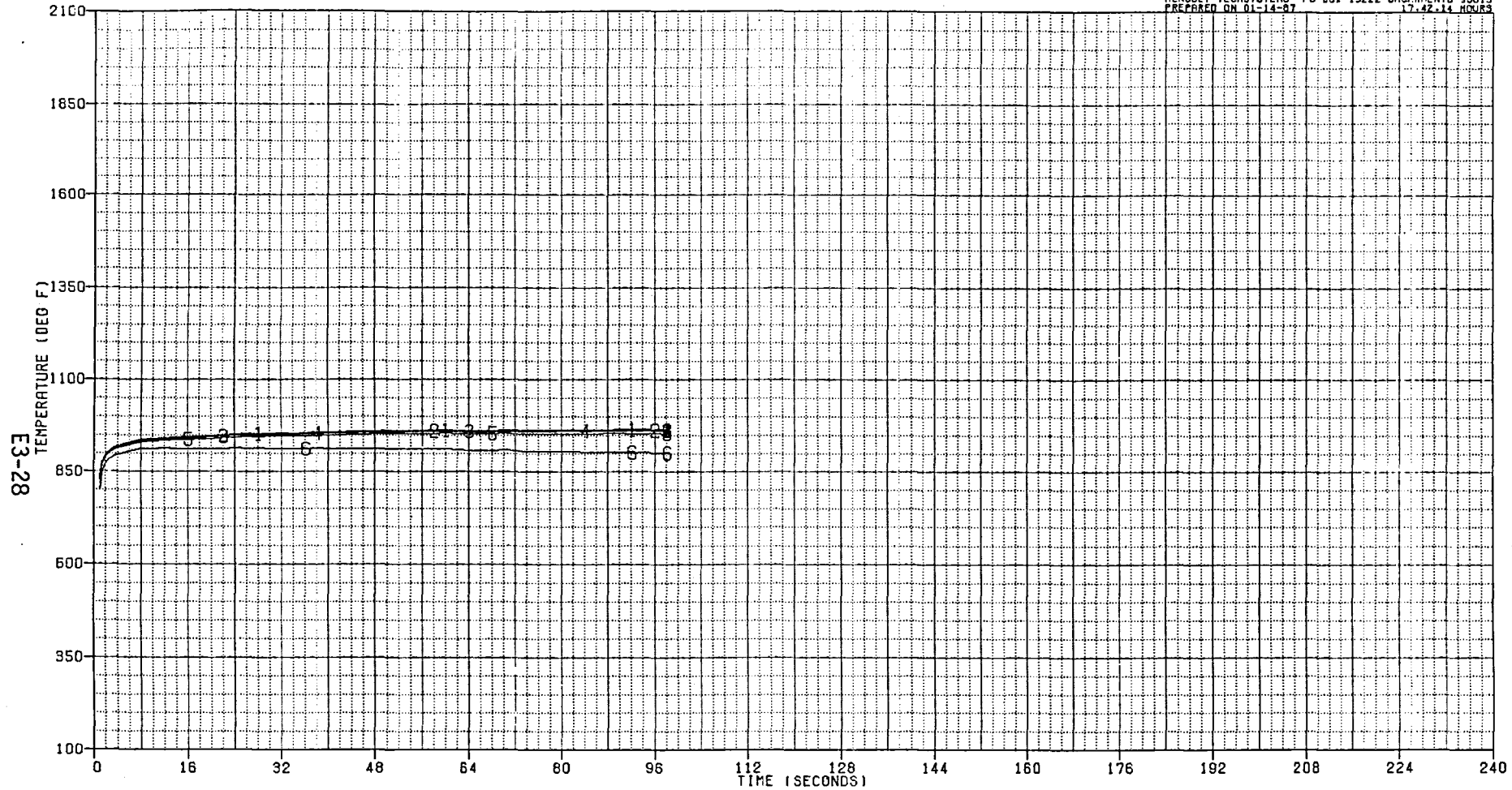


E3-27

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA



TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-116  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1423 HOURS AVERAGED DATA

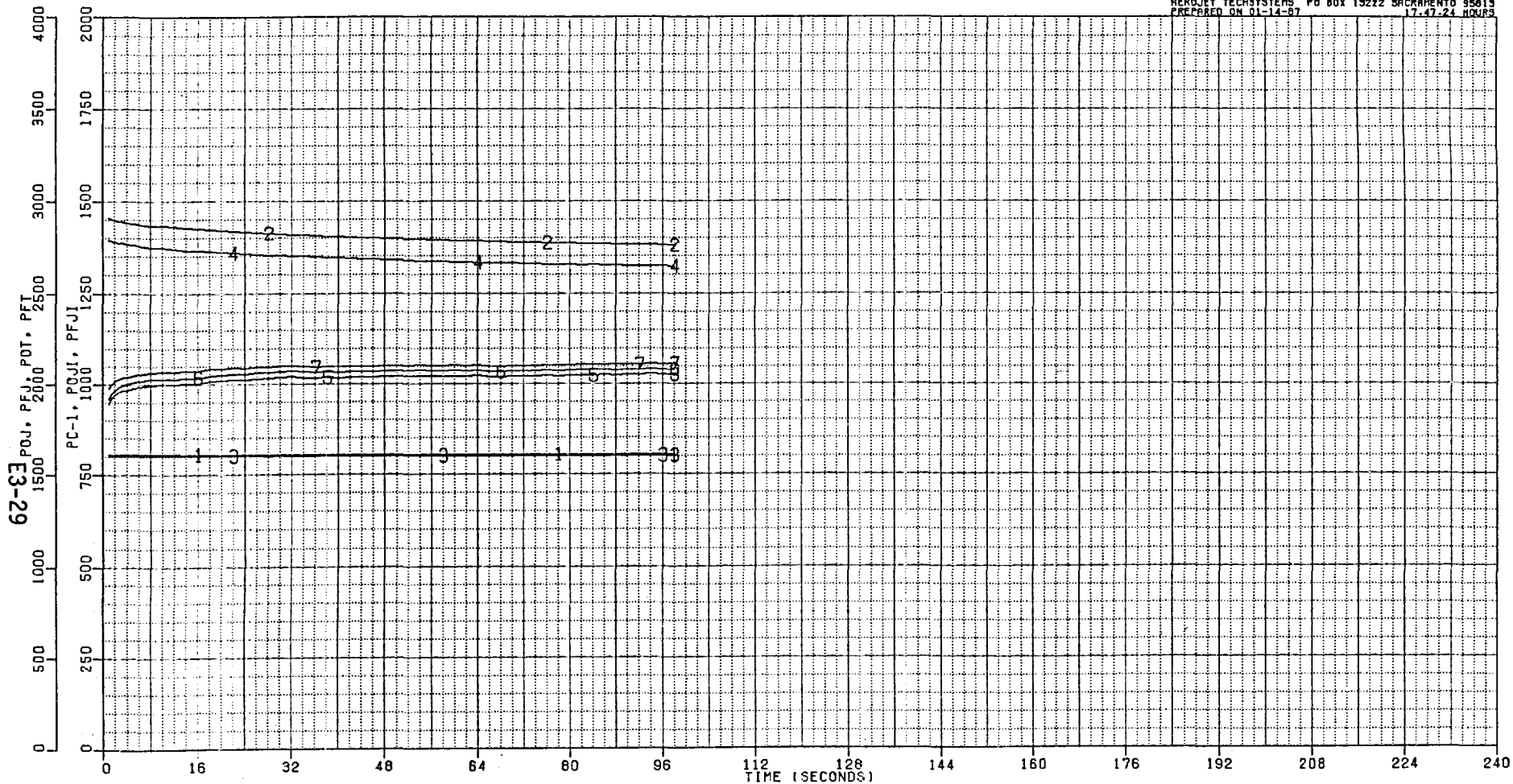


E3-28

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F



GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-116  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1423 HOURS AVERAGED DATA



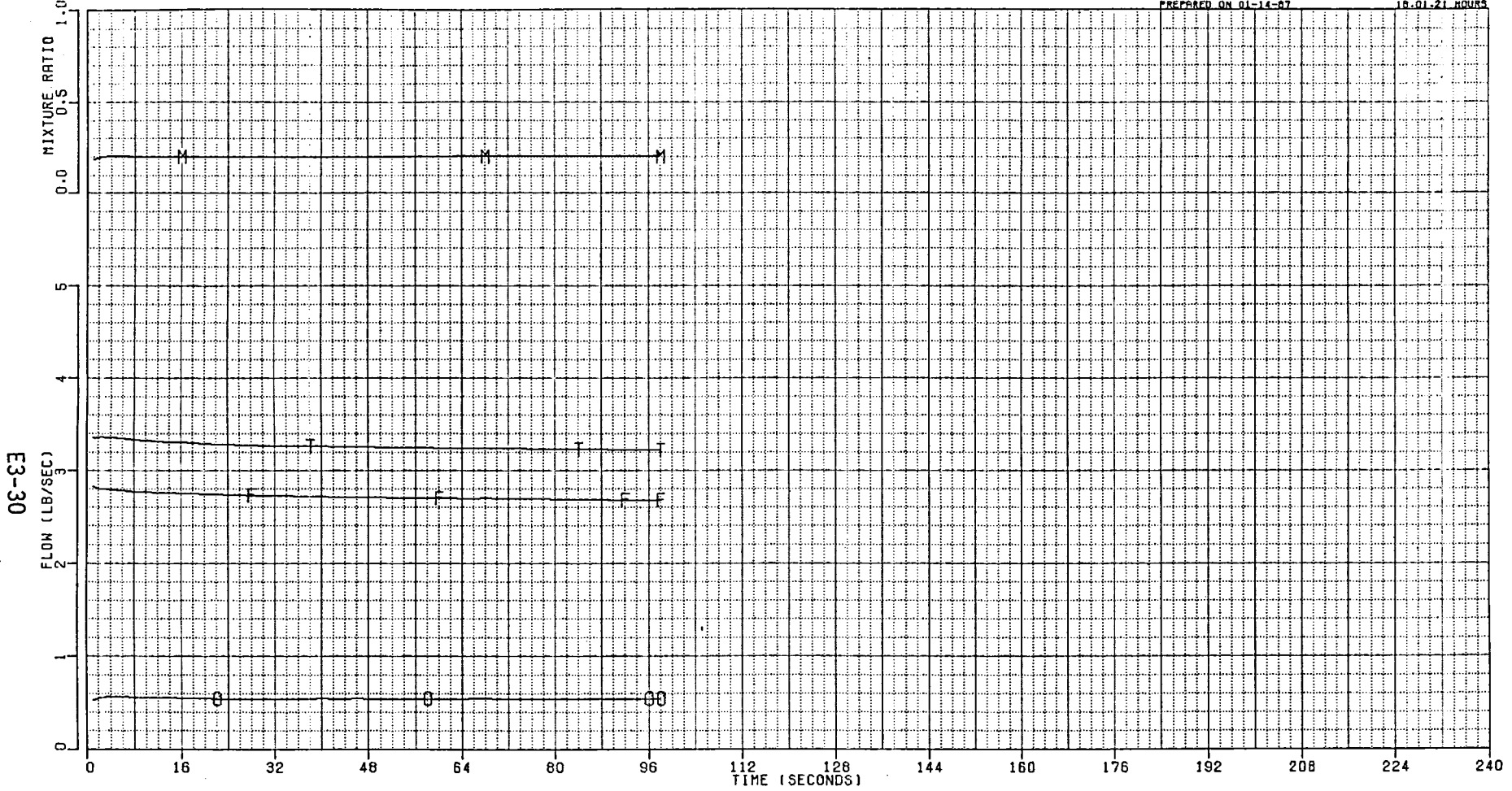
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-118

TEST DATE 10-23-85 1604 HOURS AVERAGED DATA







E3-30

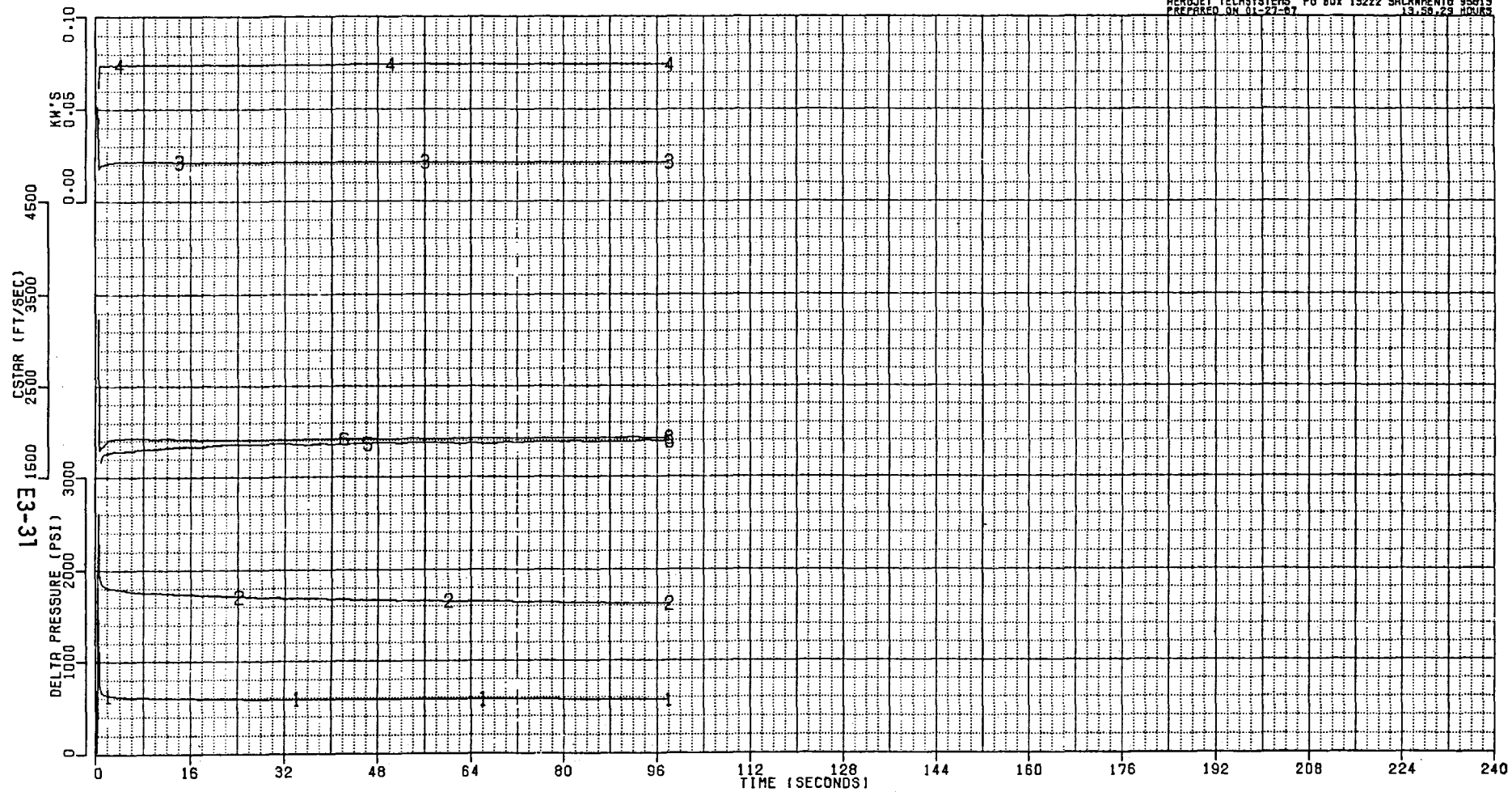
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-118

TEST DATE 10-23-85 1604 HOURS AVERAGED DATA





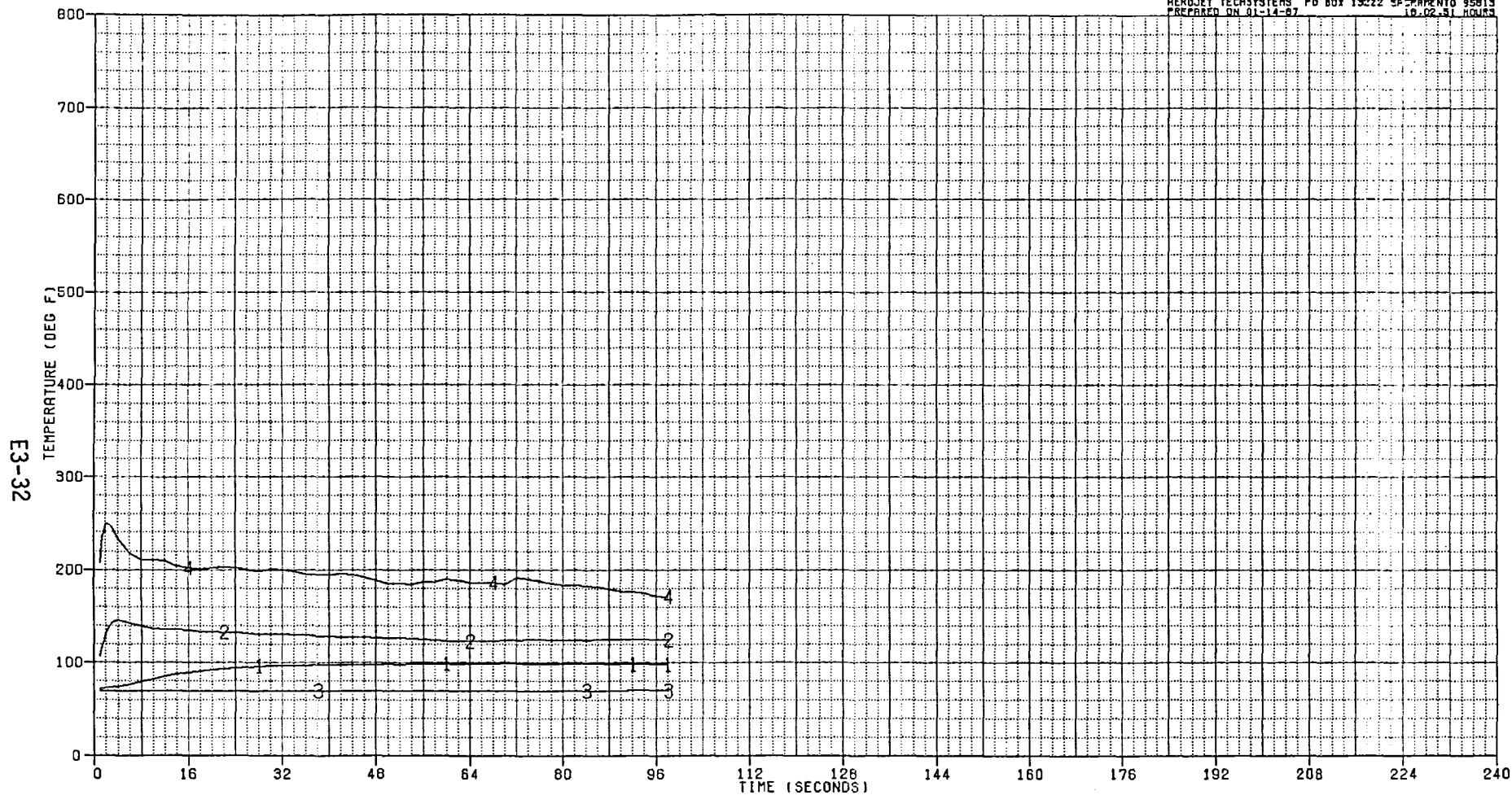


- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR        FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-118

TEST DATE 10-23-85 1604 HOURS      AVERAGED DATA



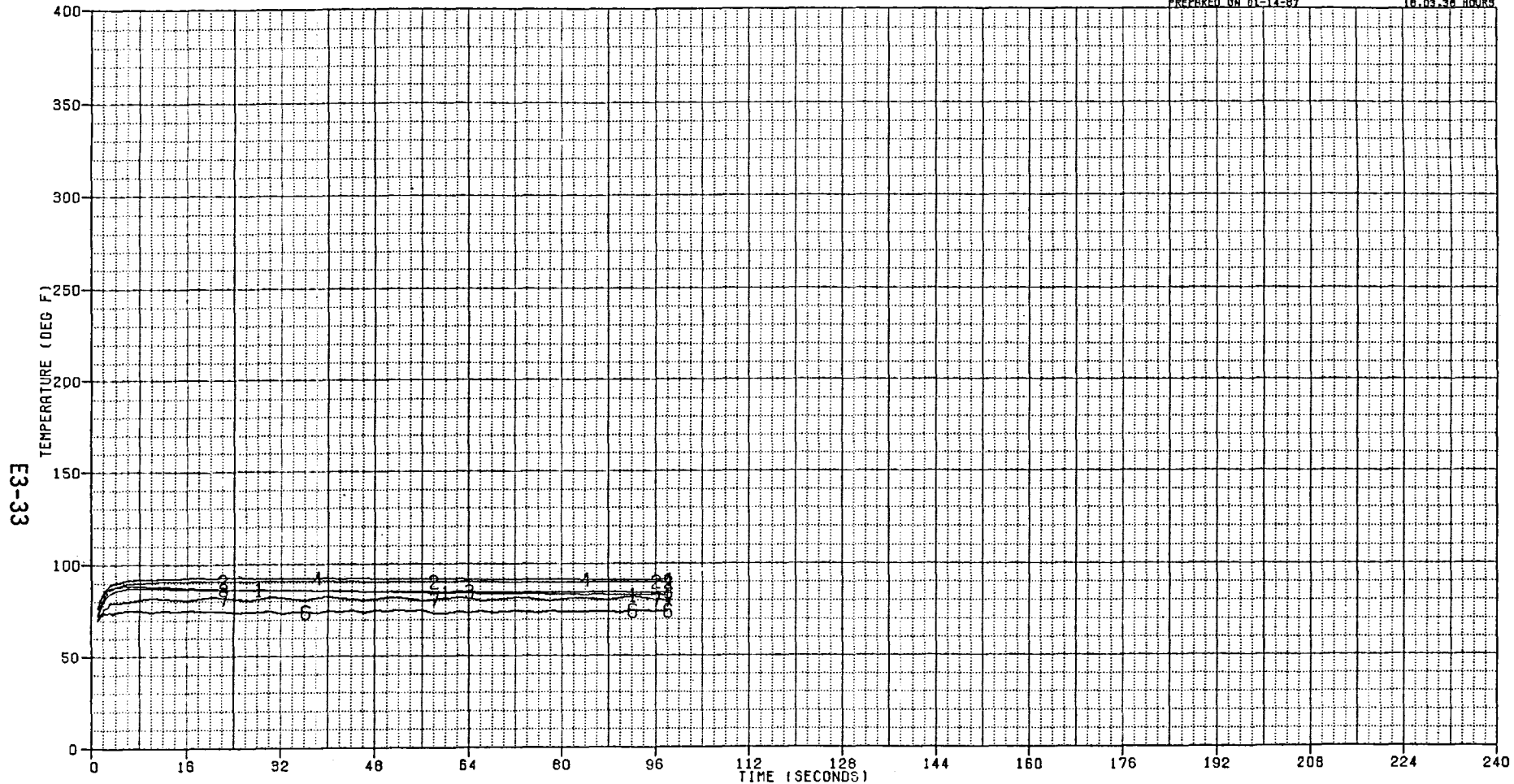


E3-32

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-118  
BARREL DATA  
TEST DATE 10-23-85 1604 HOURS AVERAGED DATA





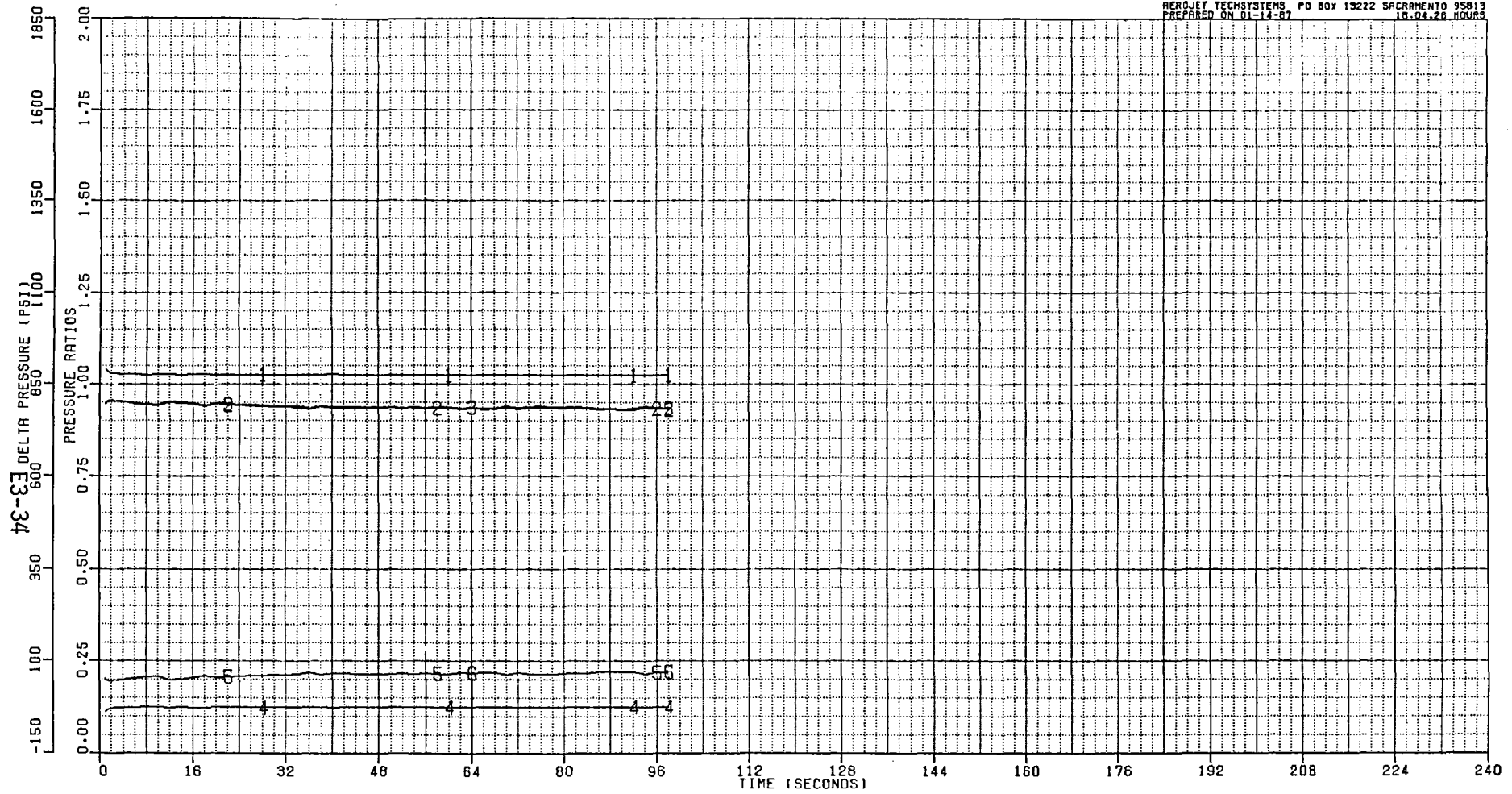
E3-33

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-118

TEST DATE 10-23-85 1604 HOURS AVERAGED DATA

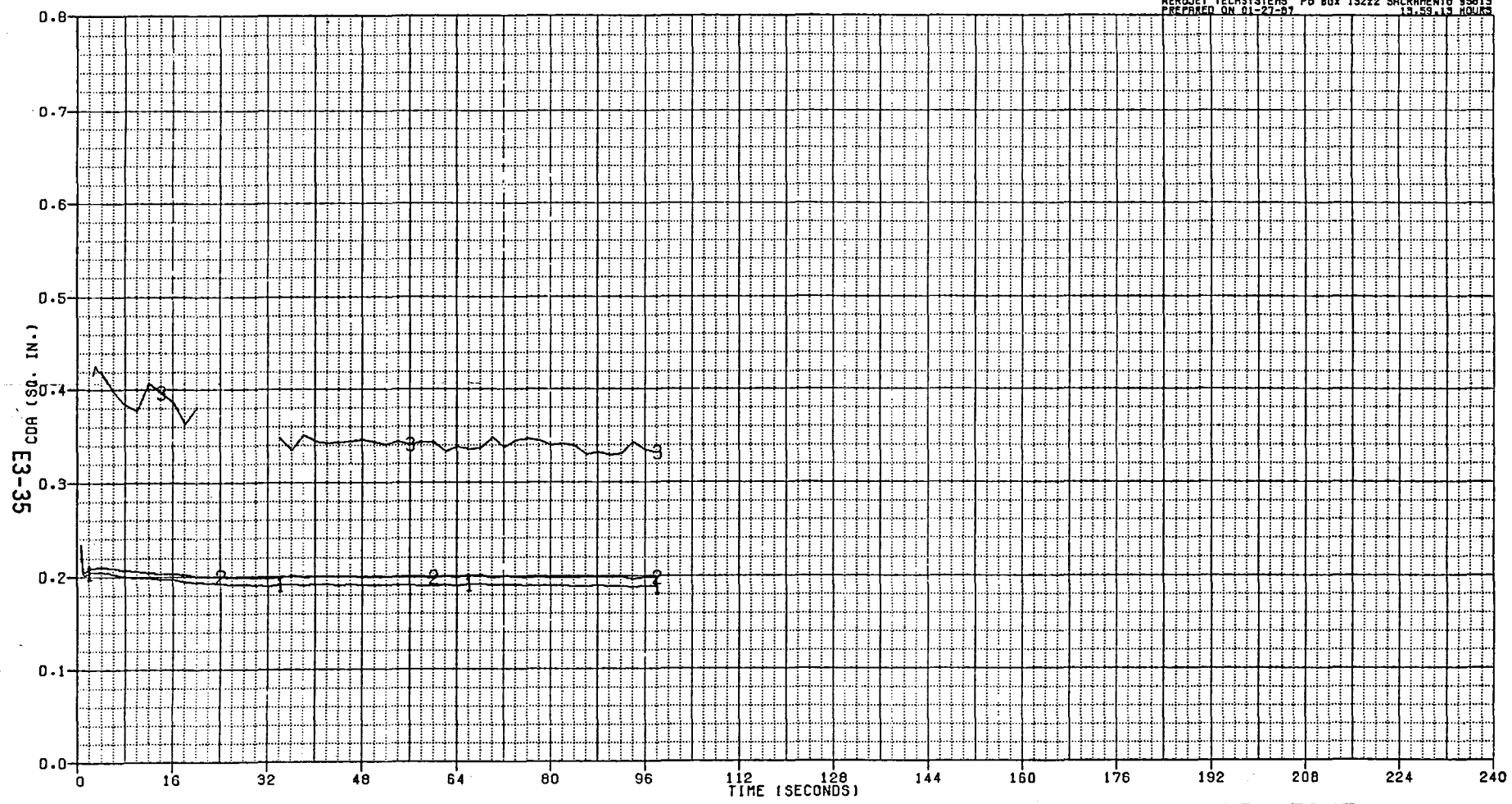


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR
- 5 DPTS-C
- 6 DPTS

PSI  
 PSI  
 PSI



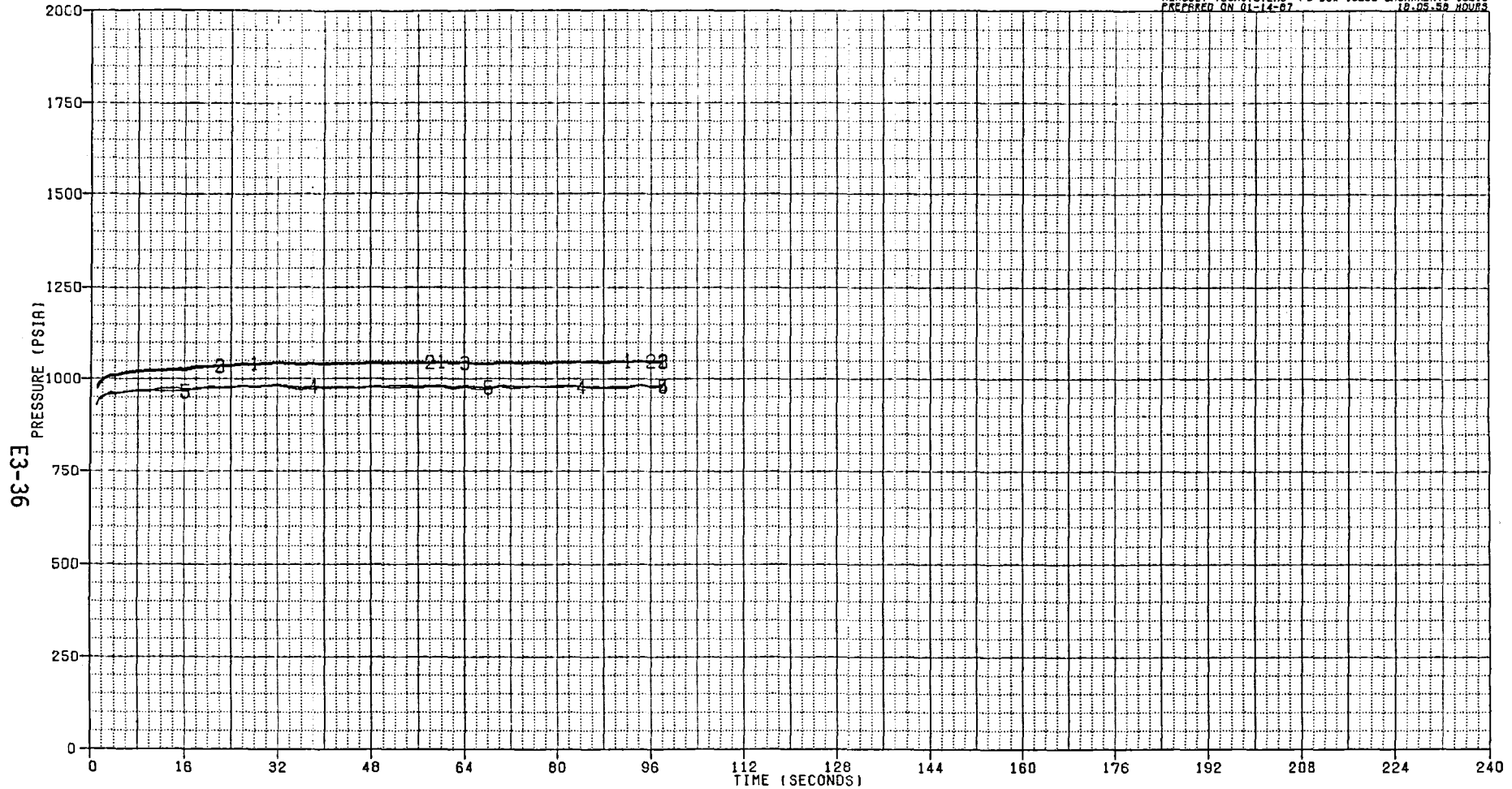
TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-118  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 1604 HOURS AVERAGED DATA



1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-118  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 1604 HOURS AVERAGED DATA



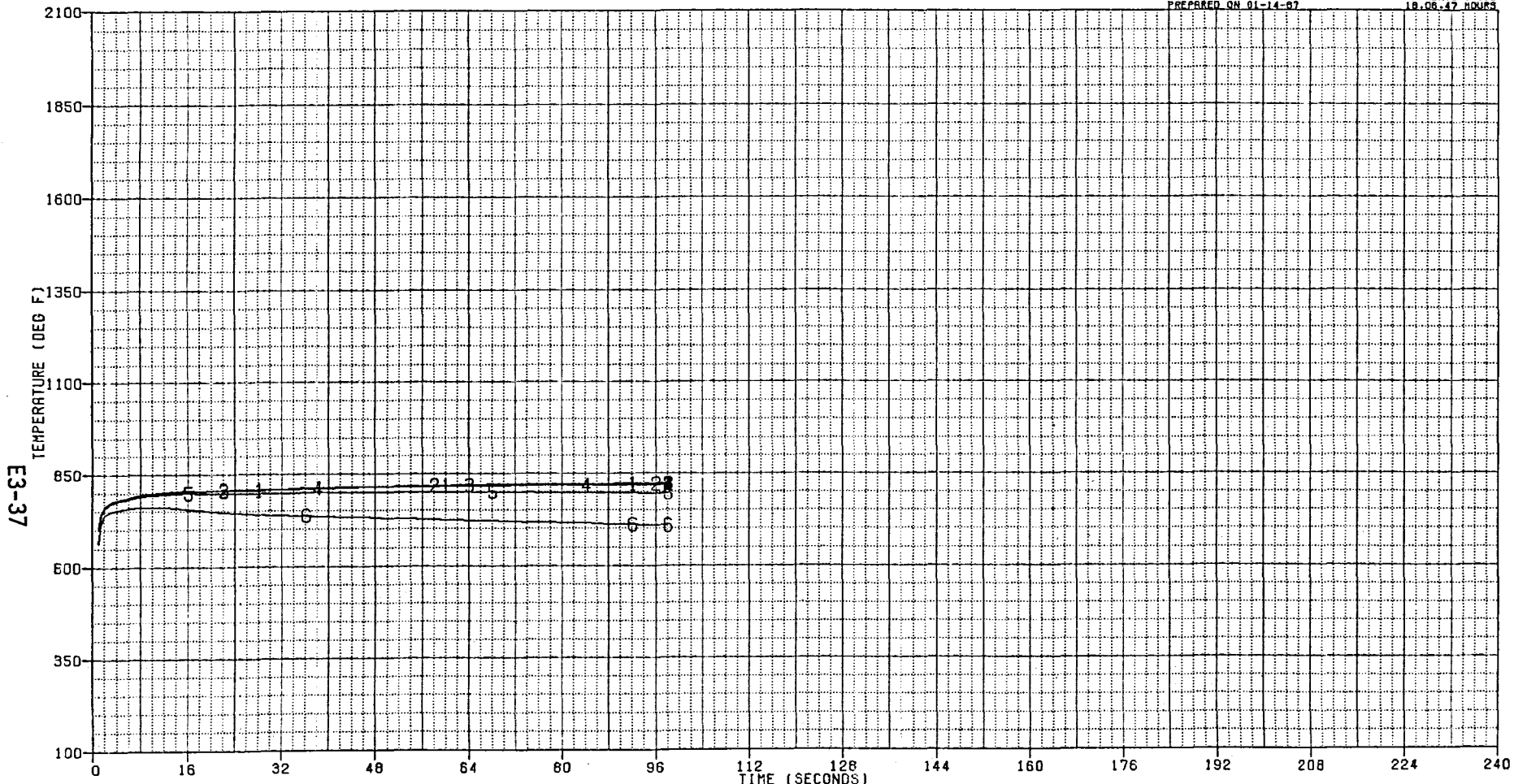


E3-36

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-118  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1604 HOURS AVERAGED DATA





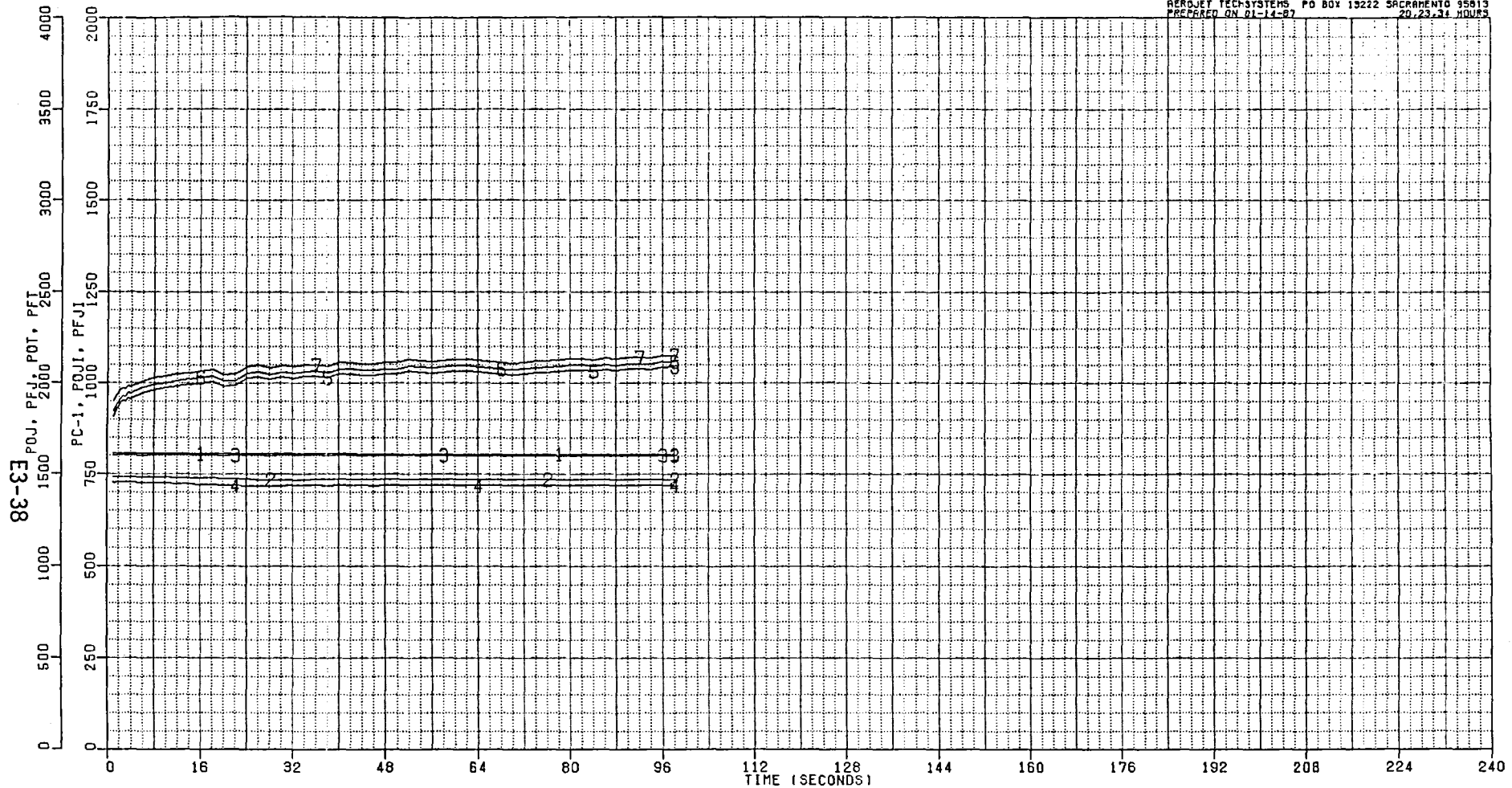
E3-37

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-118  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1604 HOURS AVERAGED DATA







- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

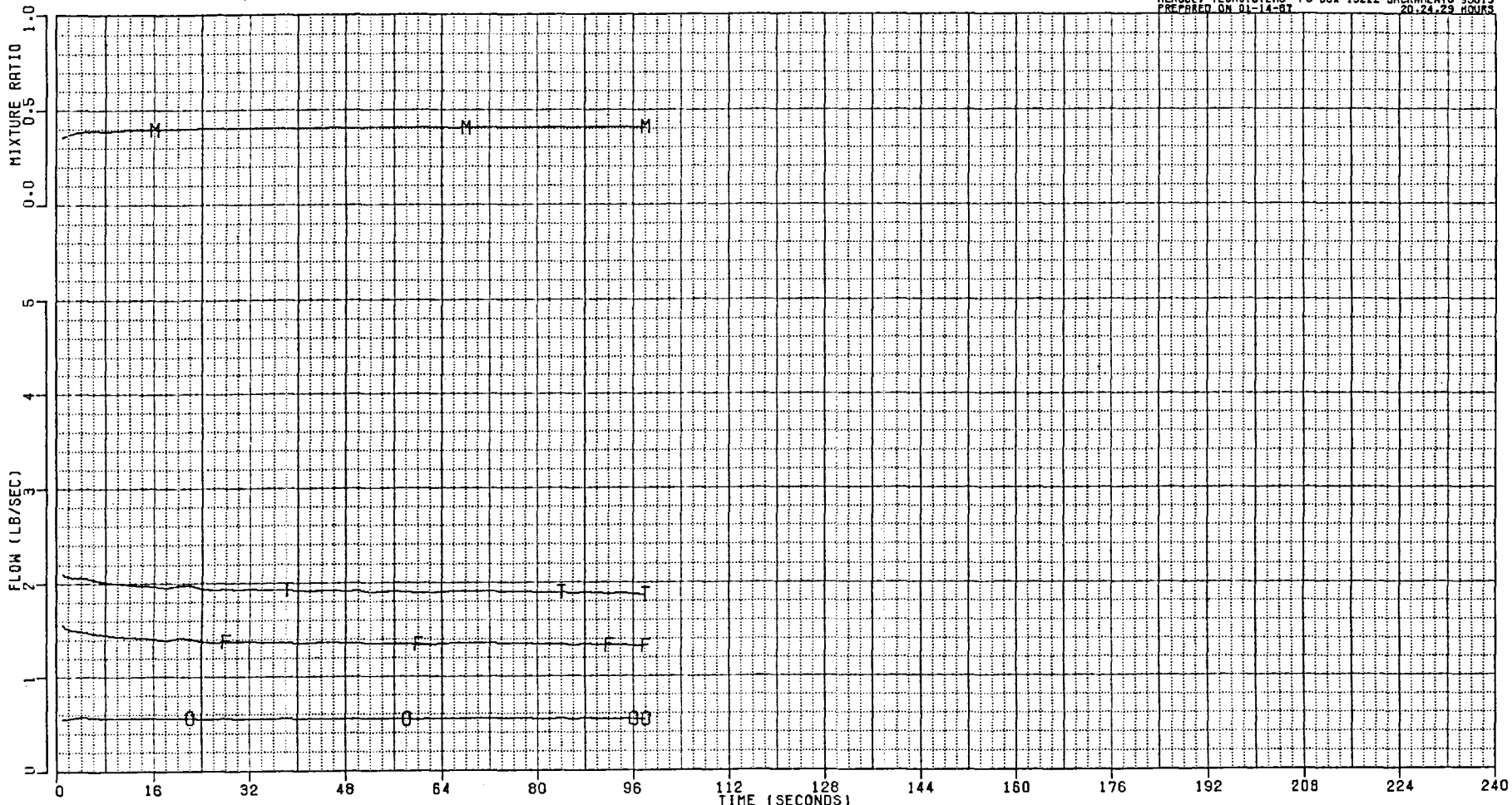
MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-119

TEST DATE 10-23-85 1614 HOURS AVERAGED DATA





E3-39

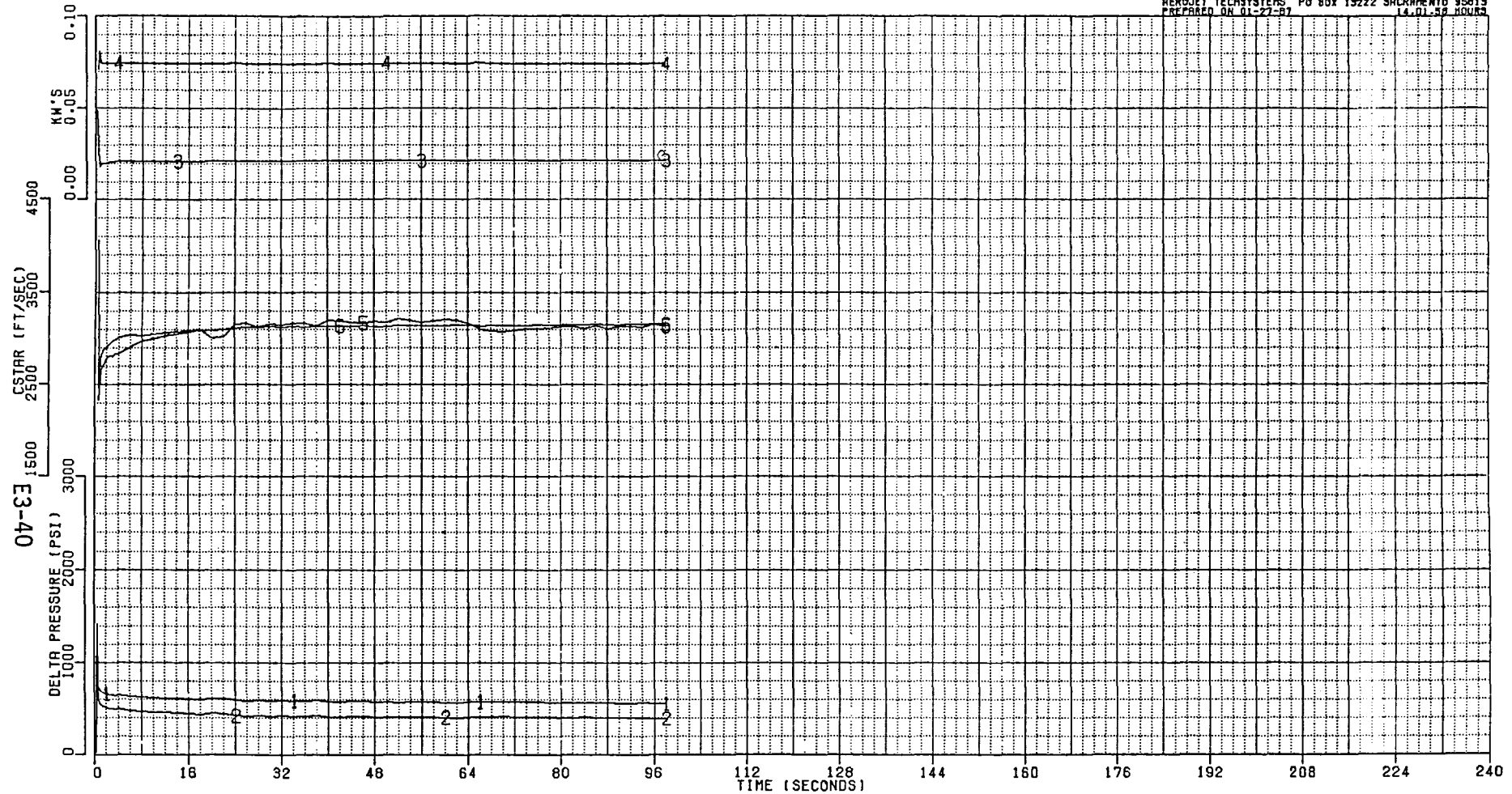


F WF LBS/SEC  
O WX LBS/SEC  
T WTQT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-119

TEST DATE 10-23-85 1614 HOURS AVERAGED DATA



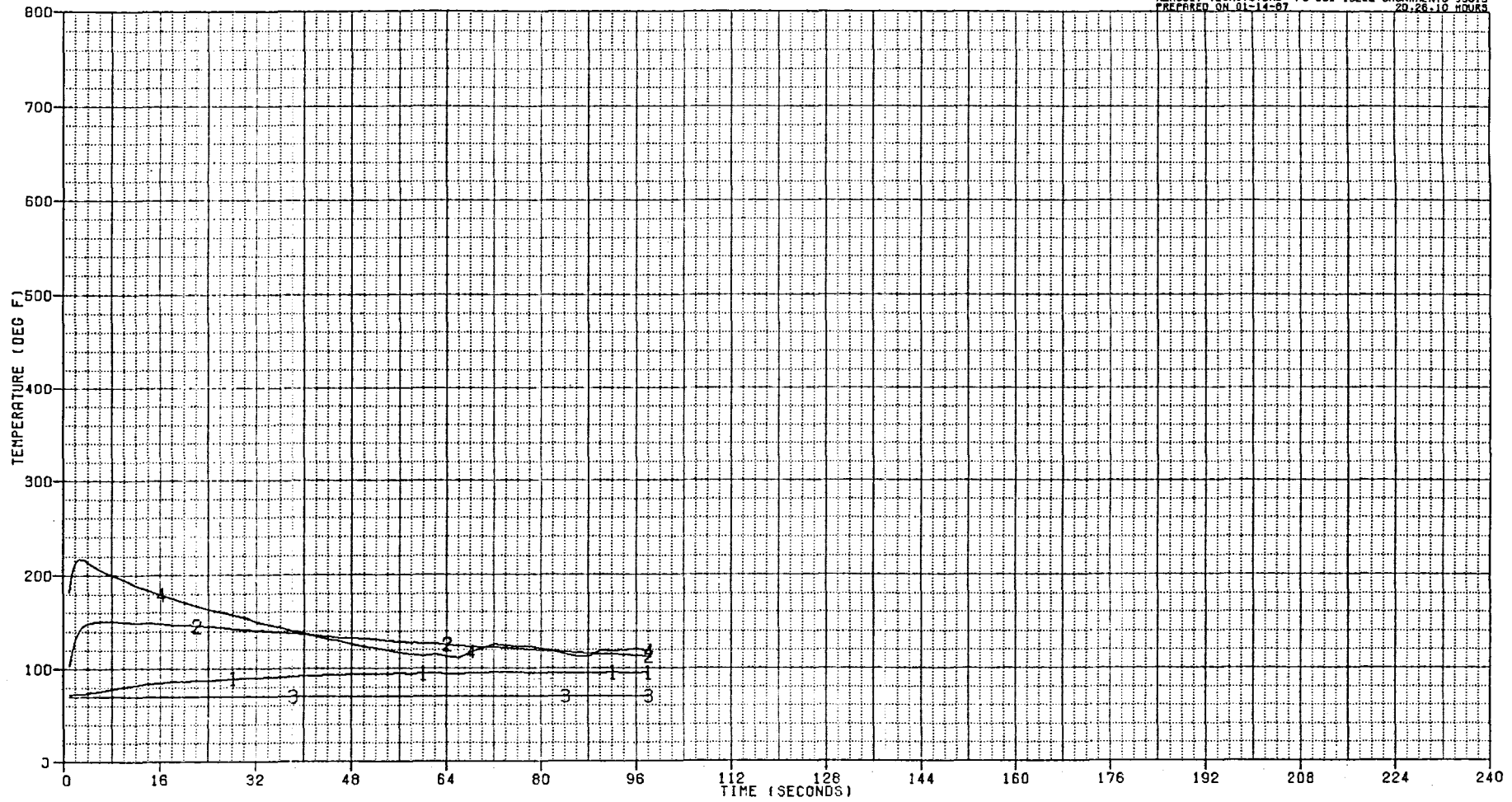


- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-119

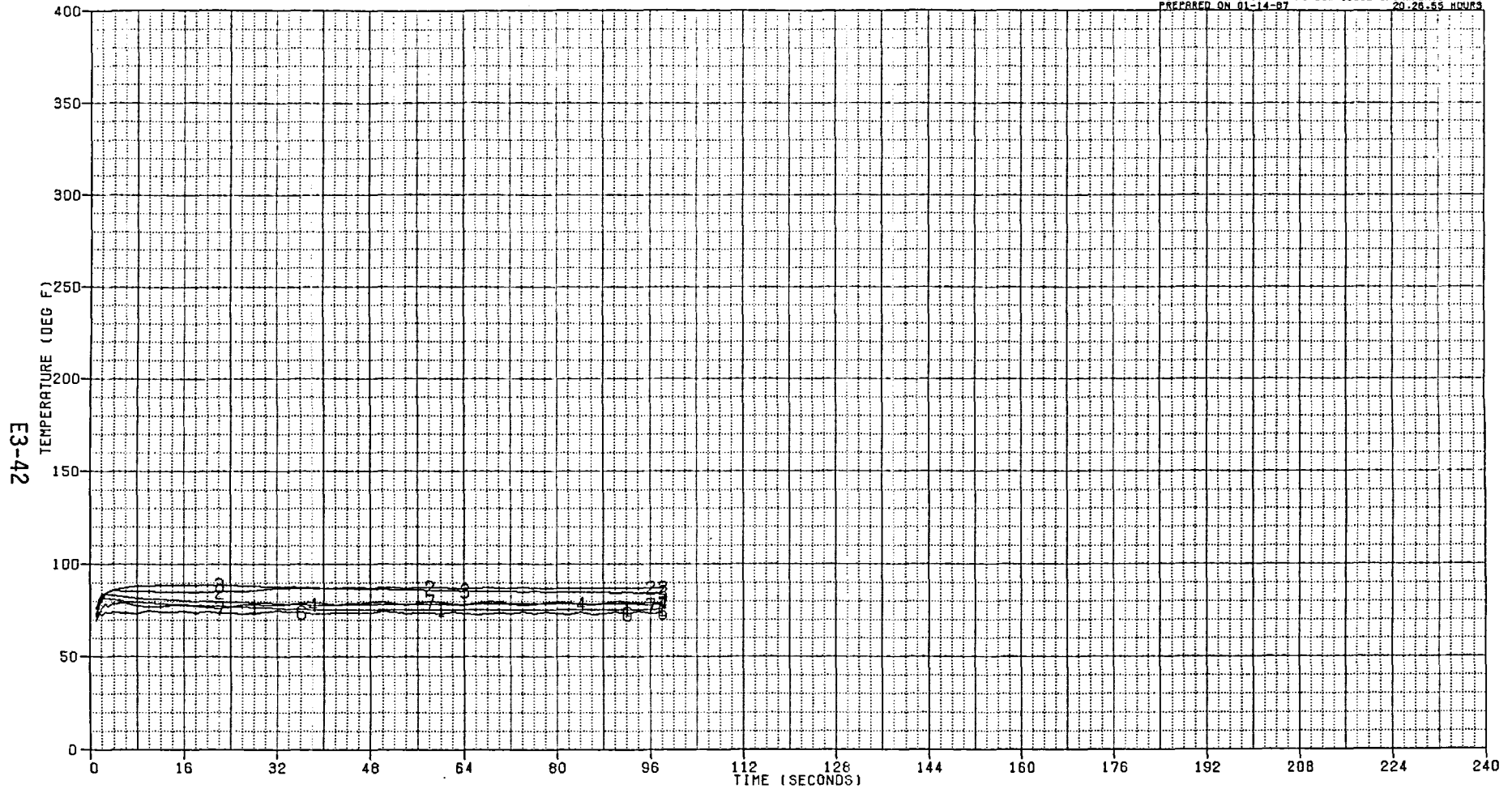
TEST DATE 10-23-85 1614 HOURS AVERAGED DATA



- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-119  
BARREL DATA  
TEST DATE 10-23-85 1614 HOURS AVERAGED DATA





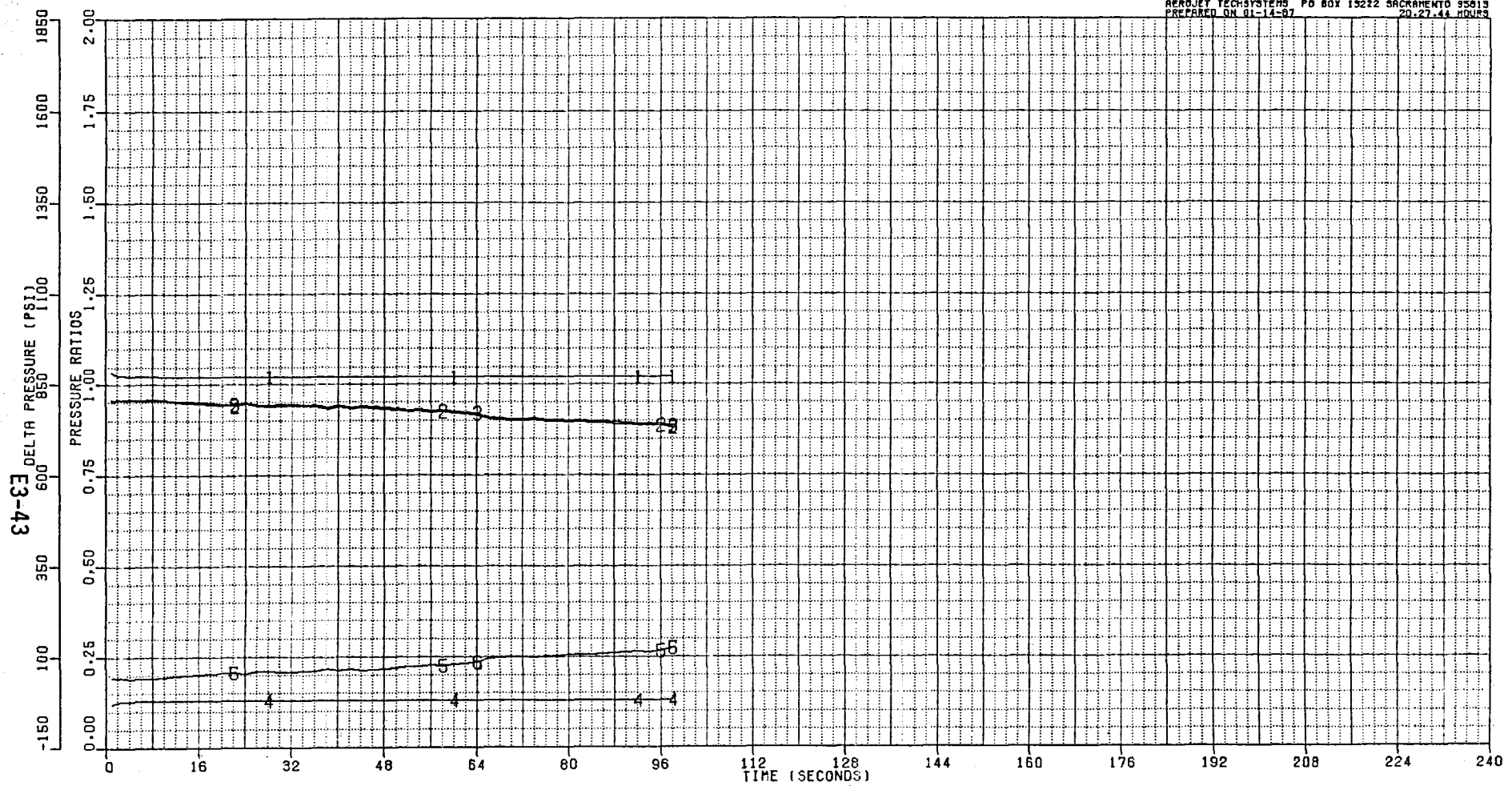
E3-42

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



### COOLANT OUTLET TEMPERATURES VS TIME TEST NO. 2427-936-A6-119

TEST DATE 10-23-85 1614 HOURS AVERAGED DATA

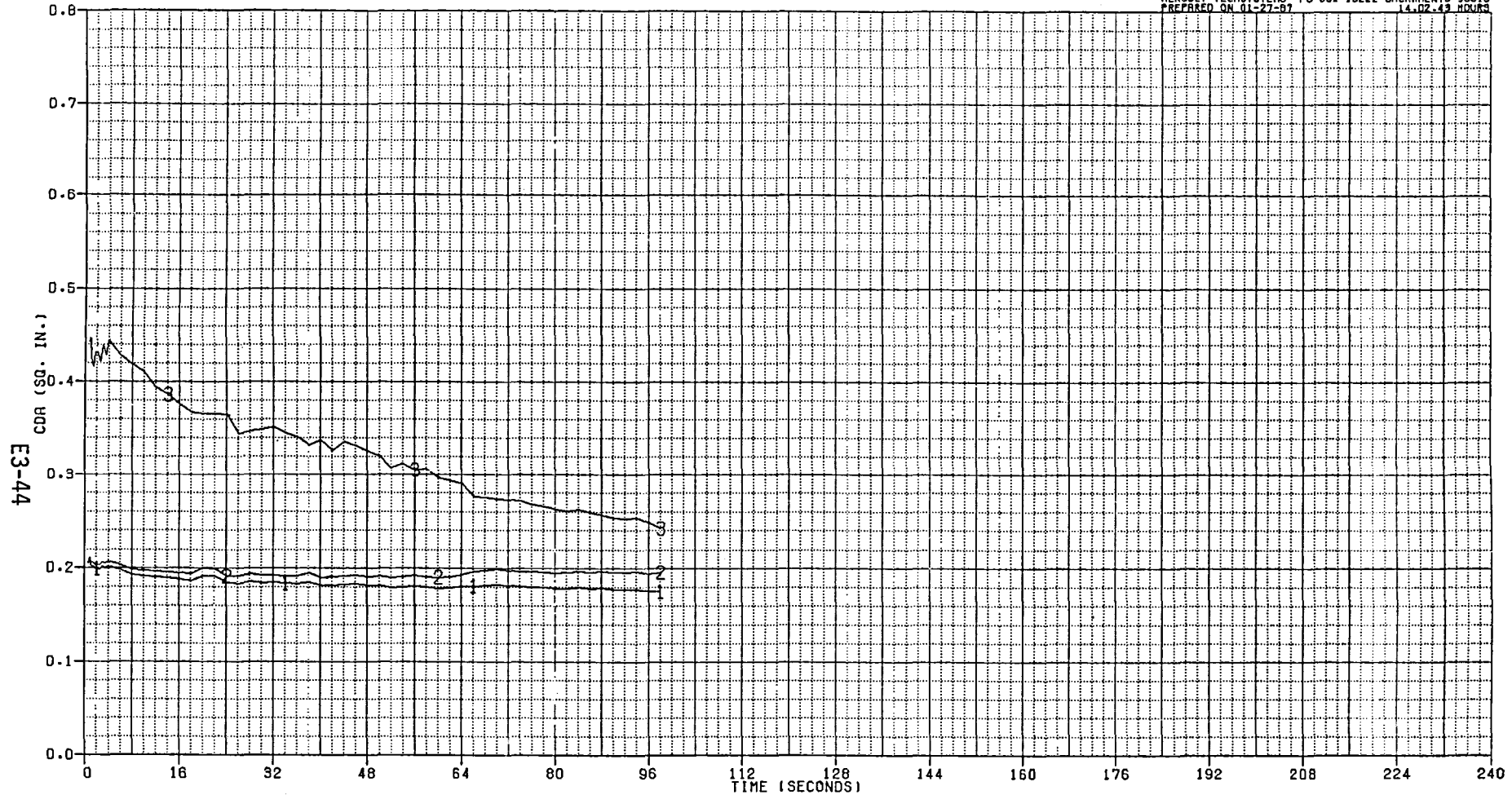


E3-43

- 1 PRTR            PSI
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR            PSI
- 5 DPTS-C         PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-119  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 1614 HOURS      AVERAGED DATA

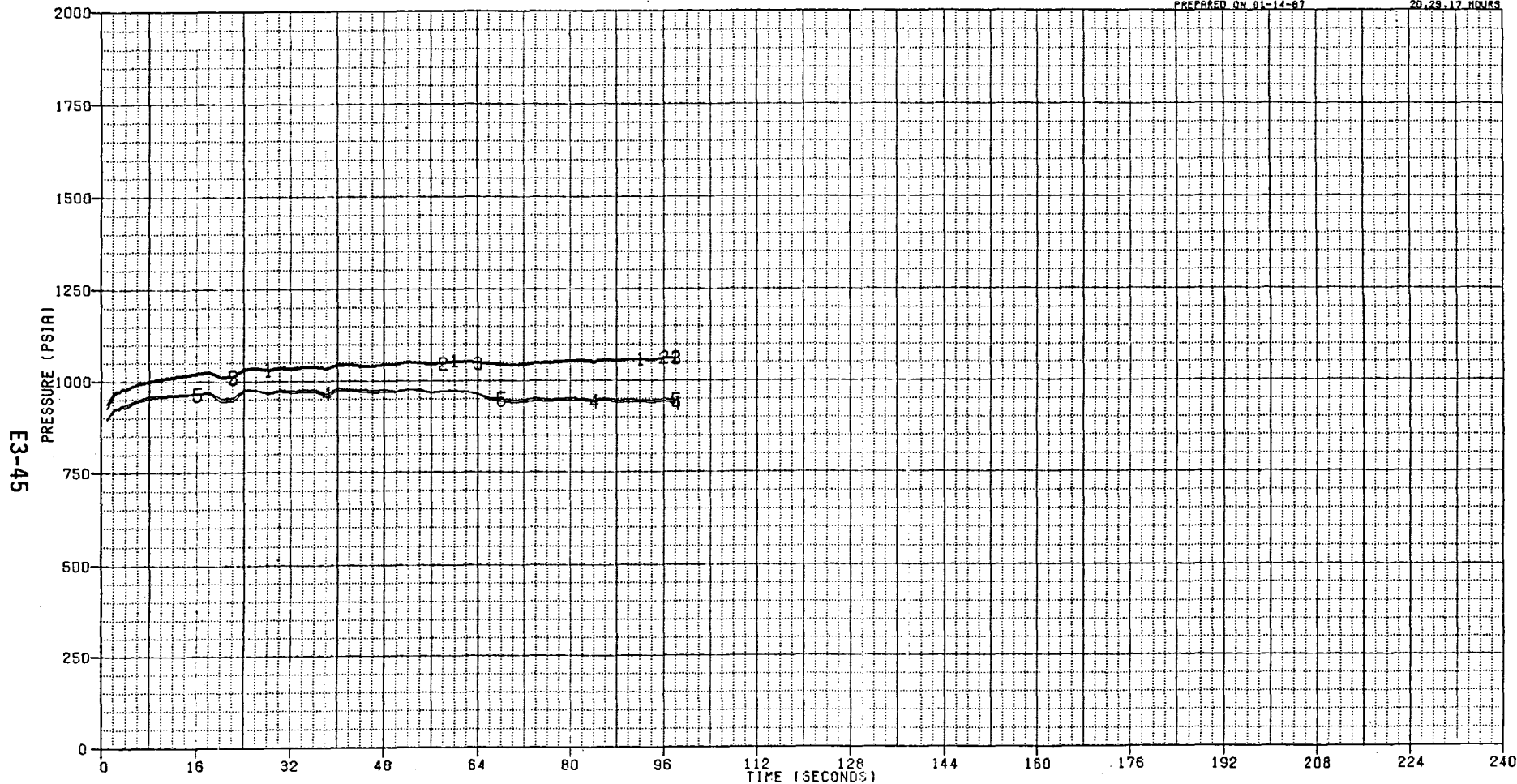




1 NR1 SQ. IN.  
2 NR2 SQ. IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-119  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 1614 HOURS AVERAGED DATA



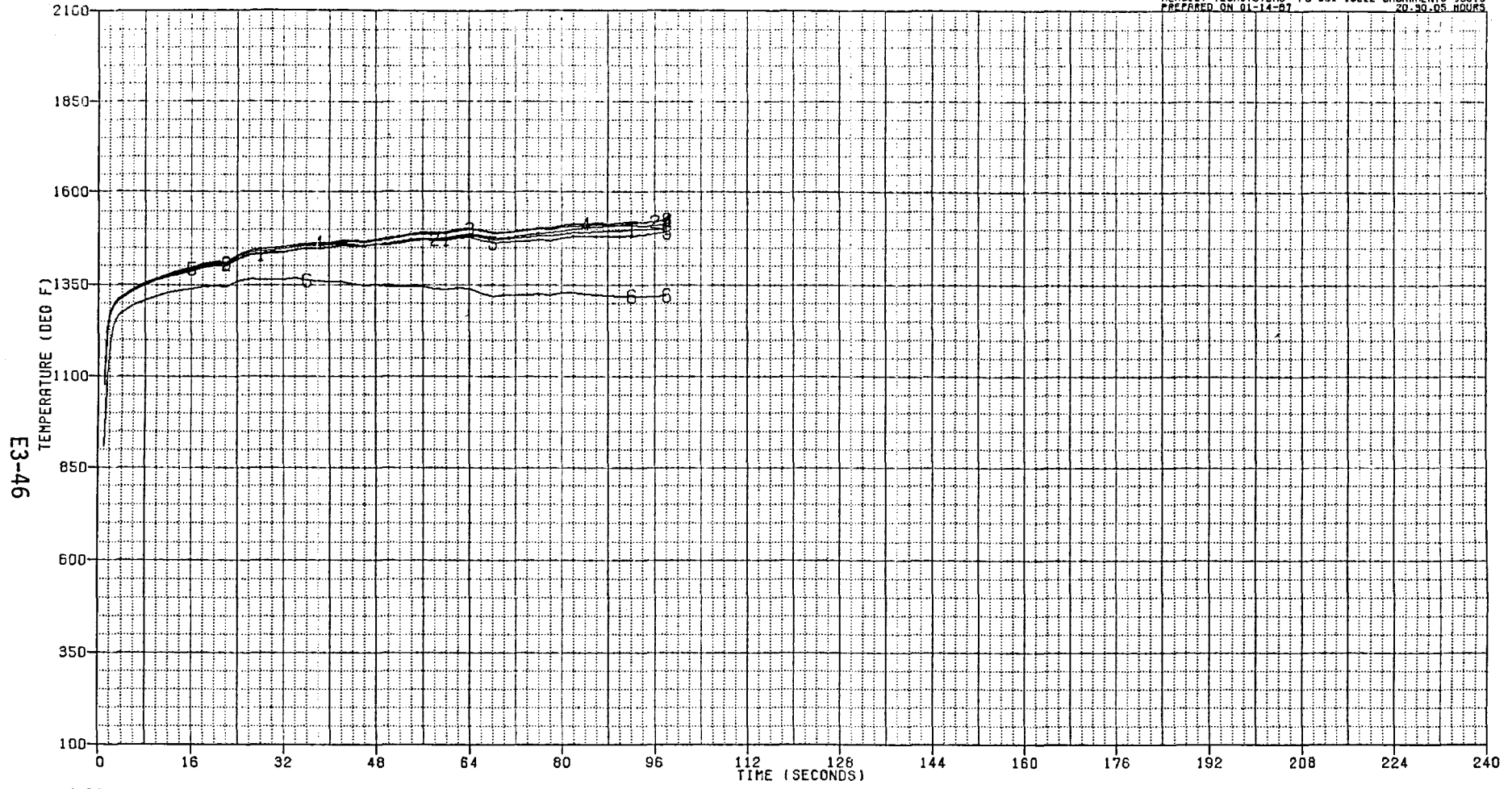


- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 FCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-119  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1614 HOURS AVERAGED DATA







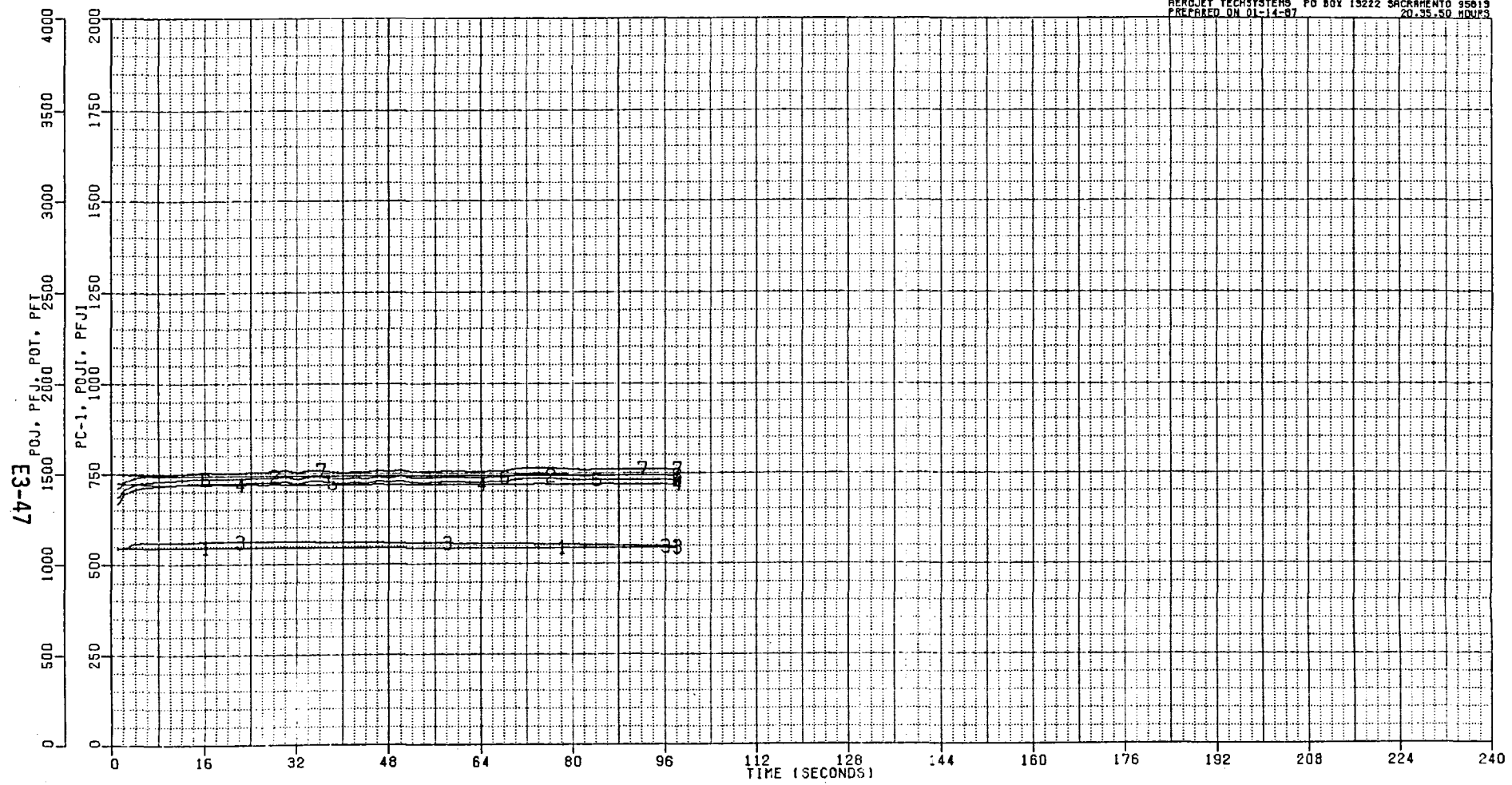
E3-46

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F



GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-119  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 1614 HOURS AVERAGED DATA





E3-47

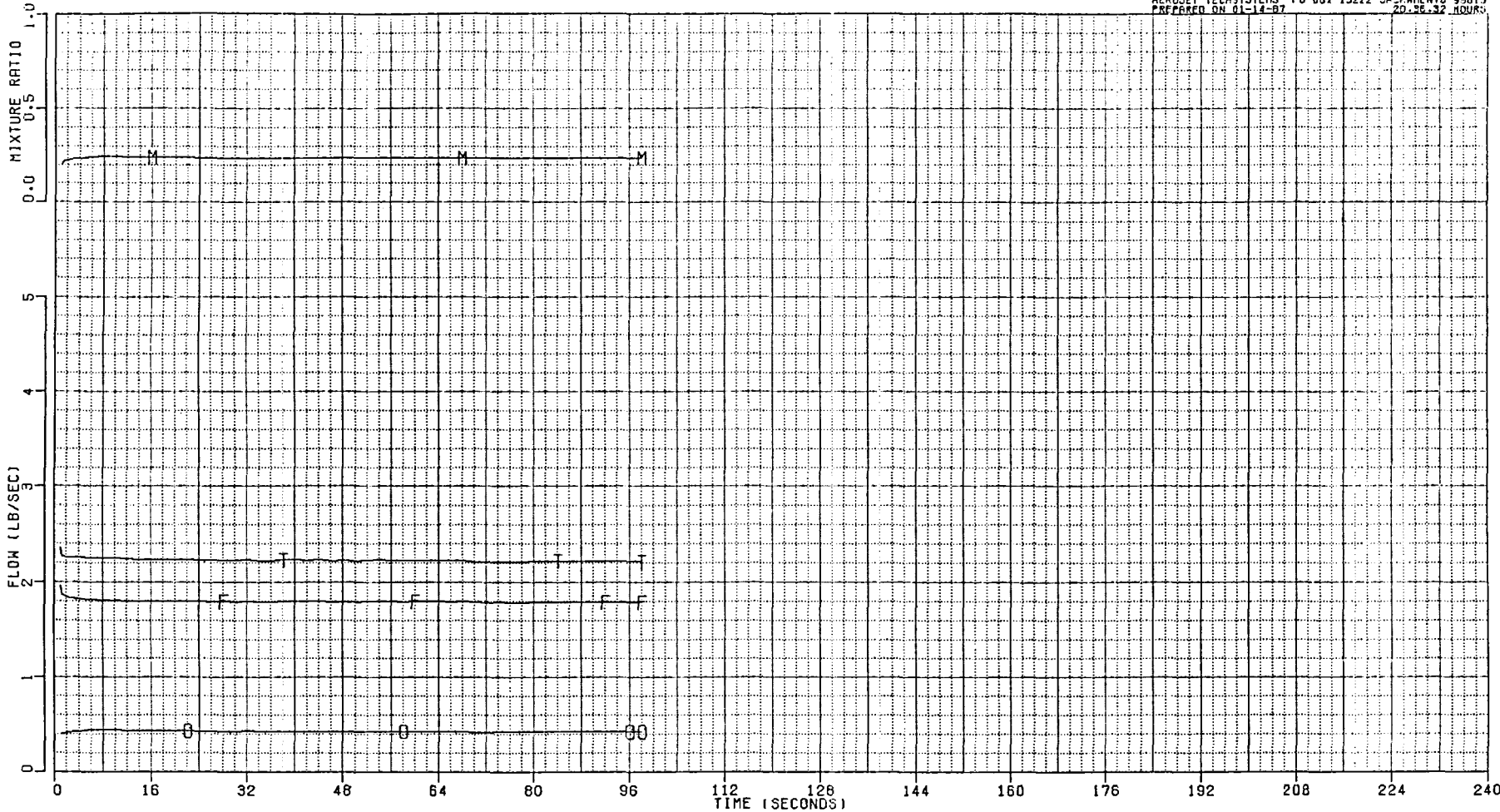
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-120

TEST DATE 10-23-85 2005 HOURS AVERAGED DATA



E3-48

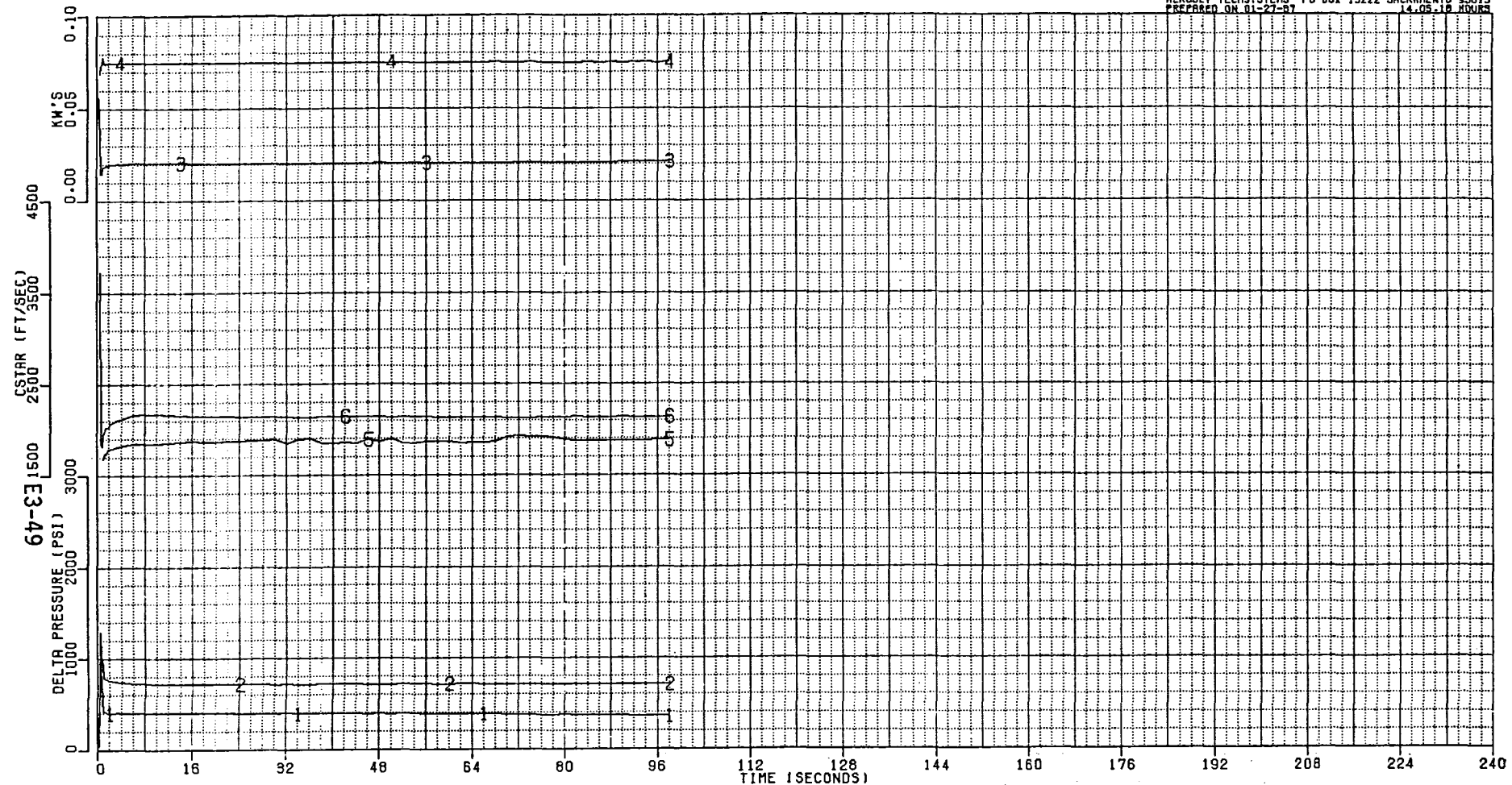


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-120

TEST DATE 10-23-85 2005 HOURS AVERAGED DATA



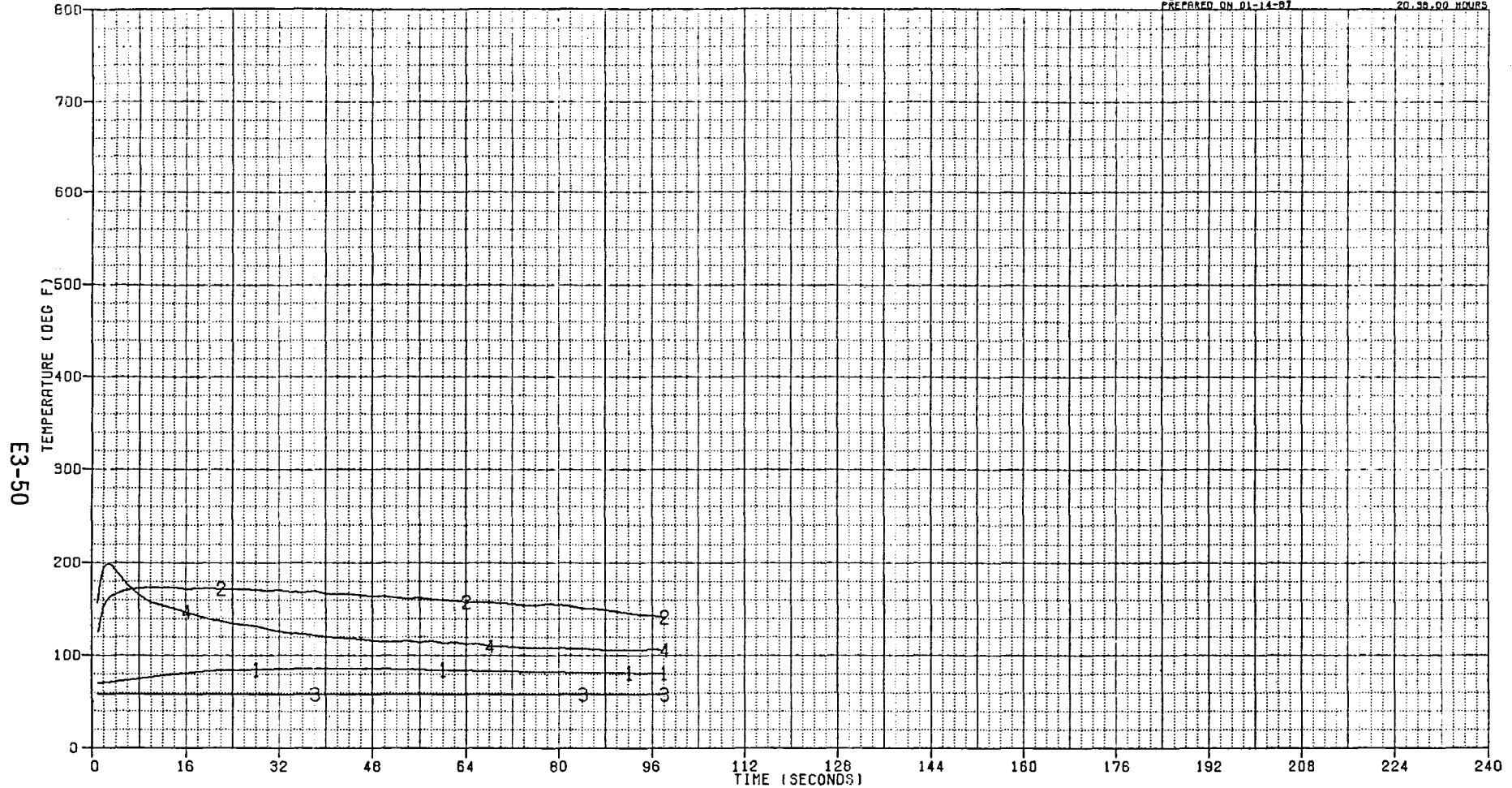


- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWDJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

**INJECTOR CALCULATIONS, VS TIME**  
**TEST NO. 2427-936-A6-120**

TEST DATE 10-23-85 2005 HOURS      AVERAGED DATA

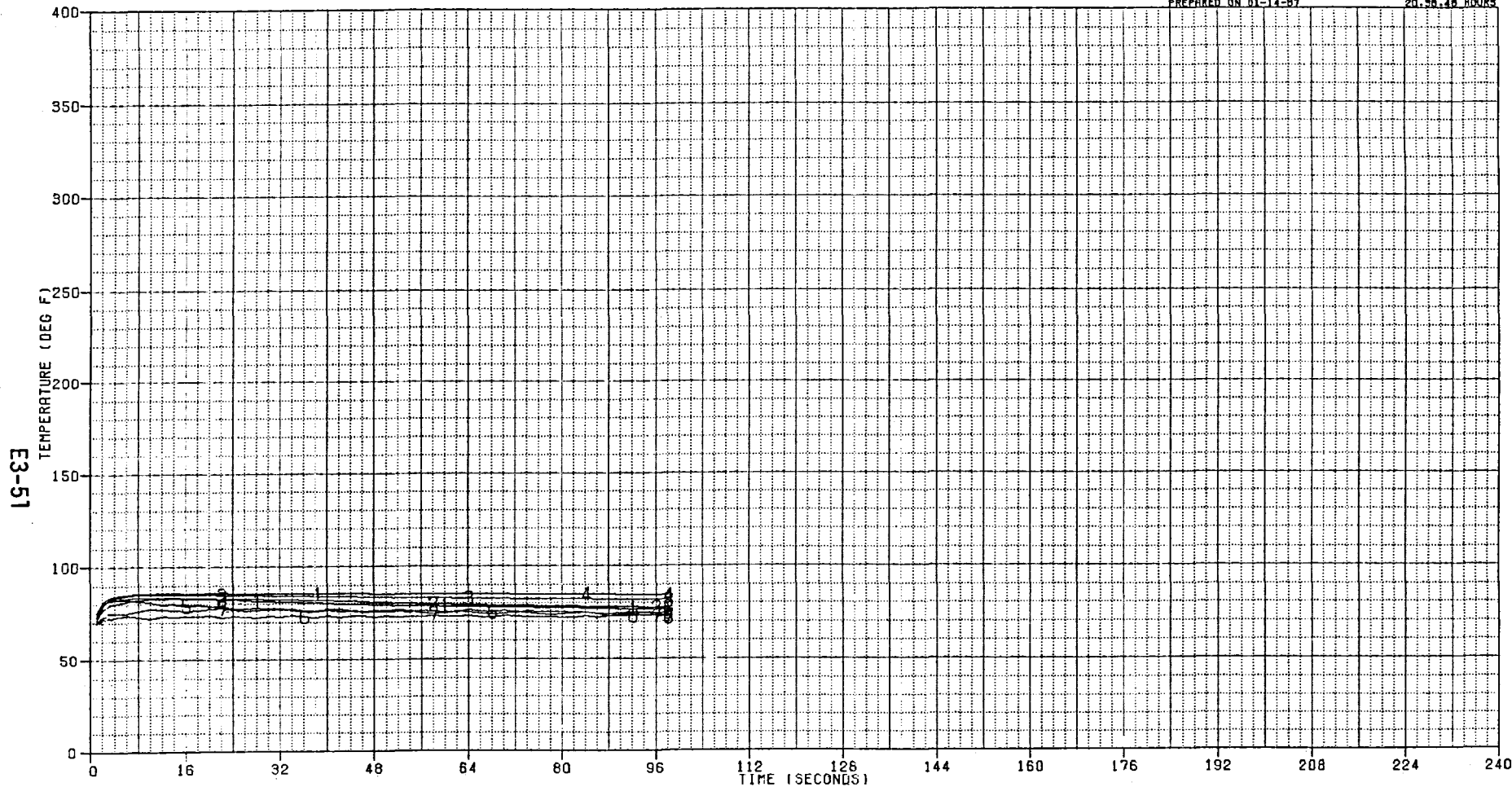




1 TC-7 DEG F  
2 TC-10 DEG F  
3 TC-11 DEG F  
4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-120  
BARREL DATA  
TEST DATE 10-23-85 2005 HOURS AVERAGED DATA





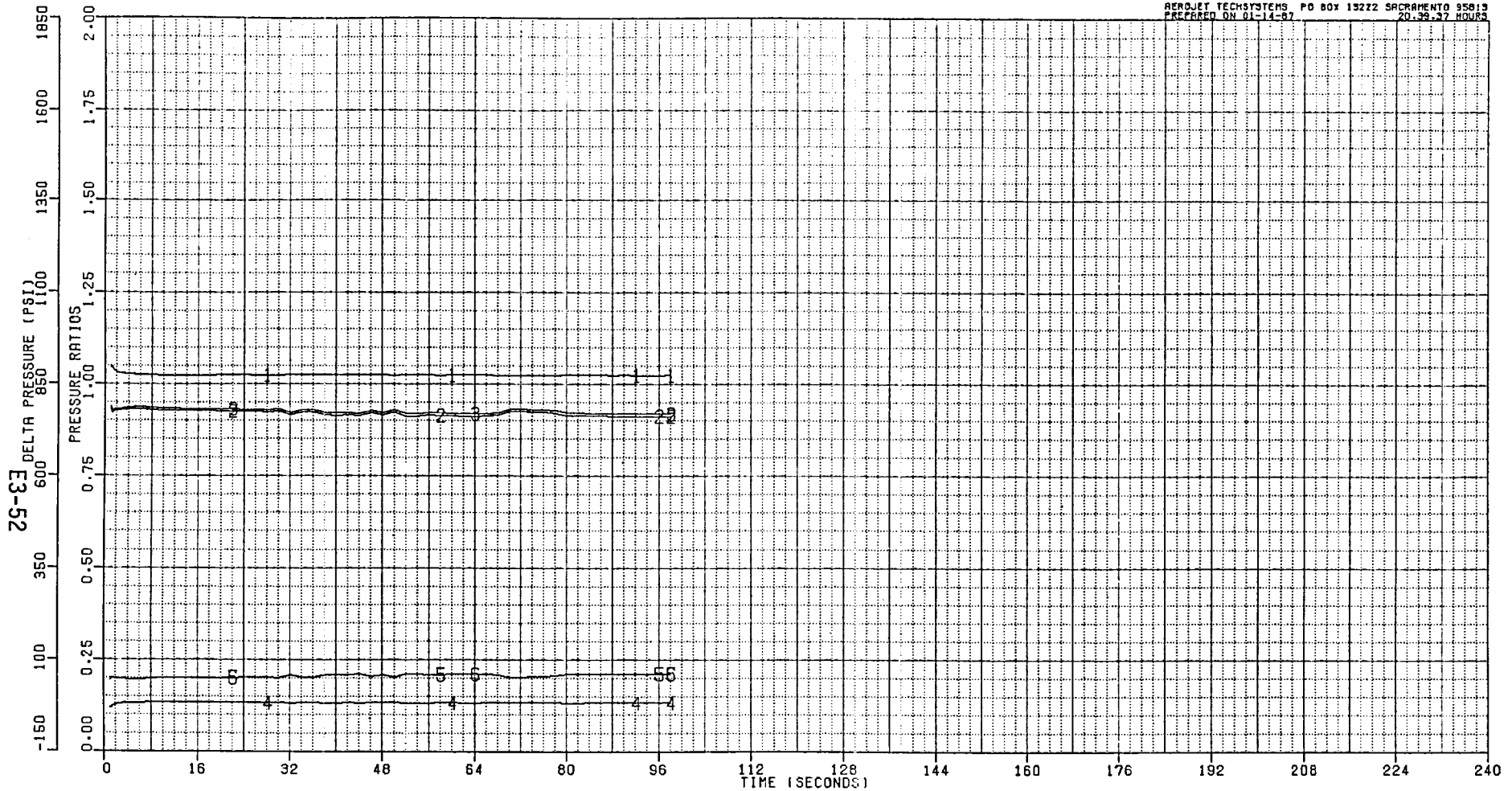
19-51

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 5 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-120

TEST DATE 10-23-85 2005 HOURS AVERAGED DATA



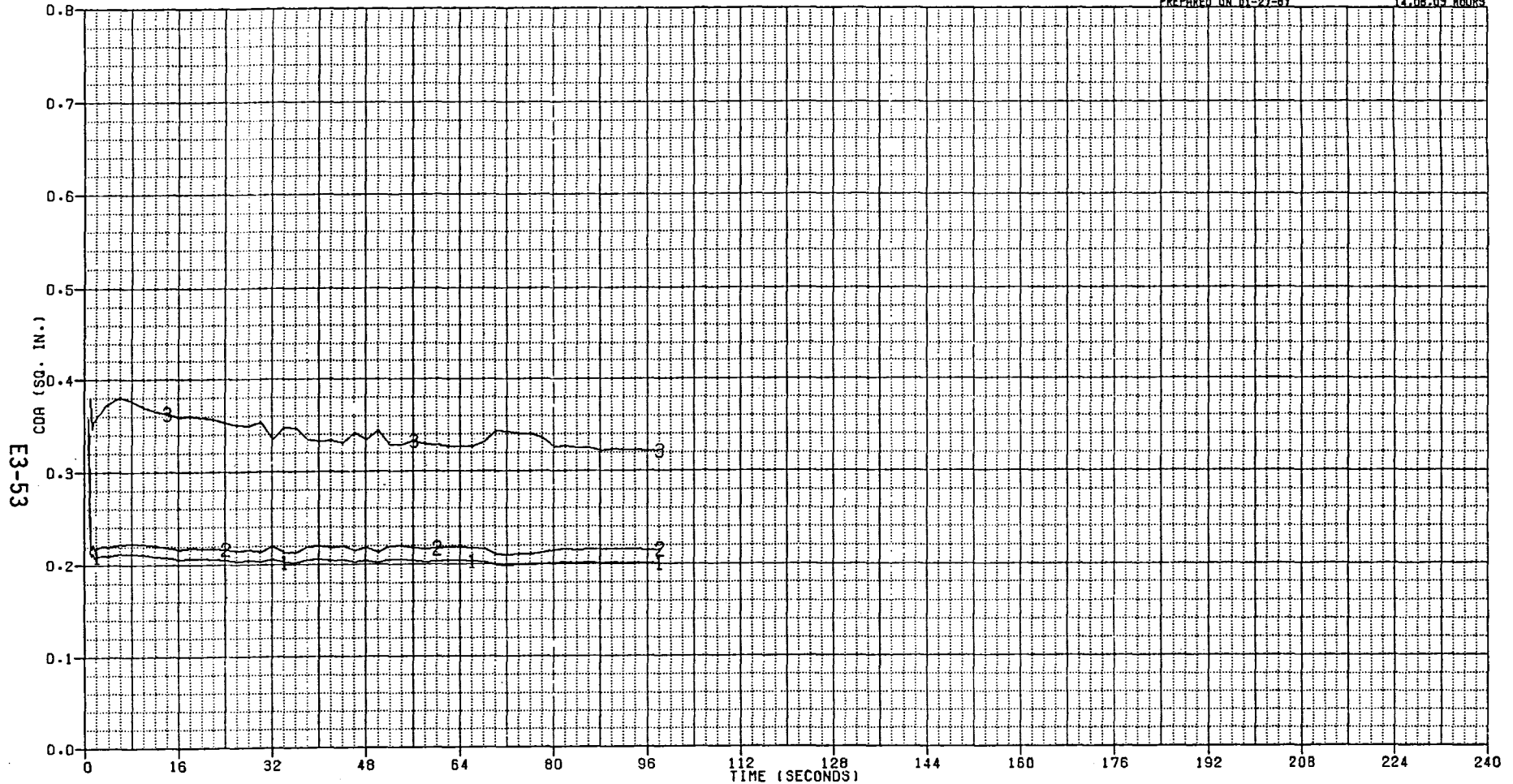


29-52

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-120  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 2005 HOURS AVERAGED DATA





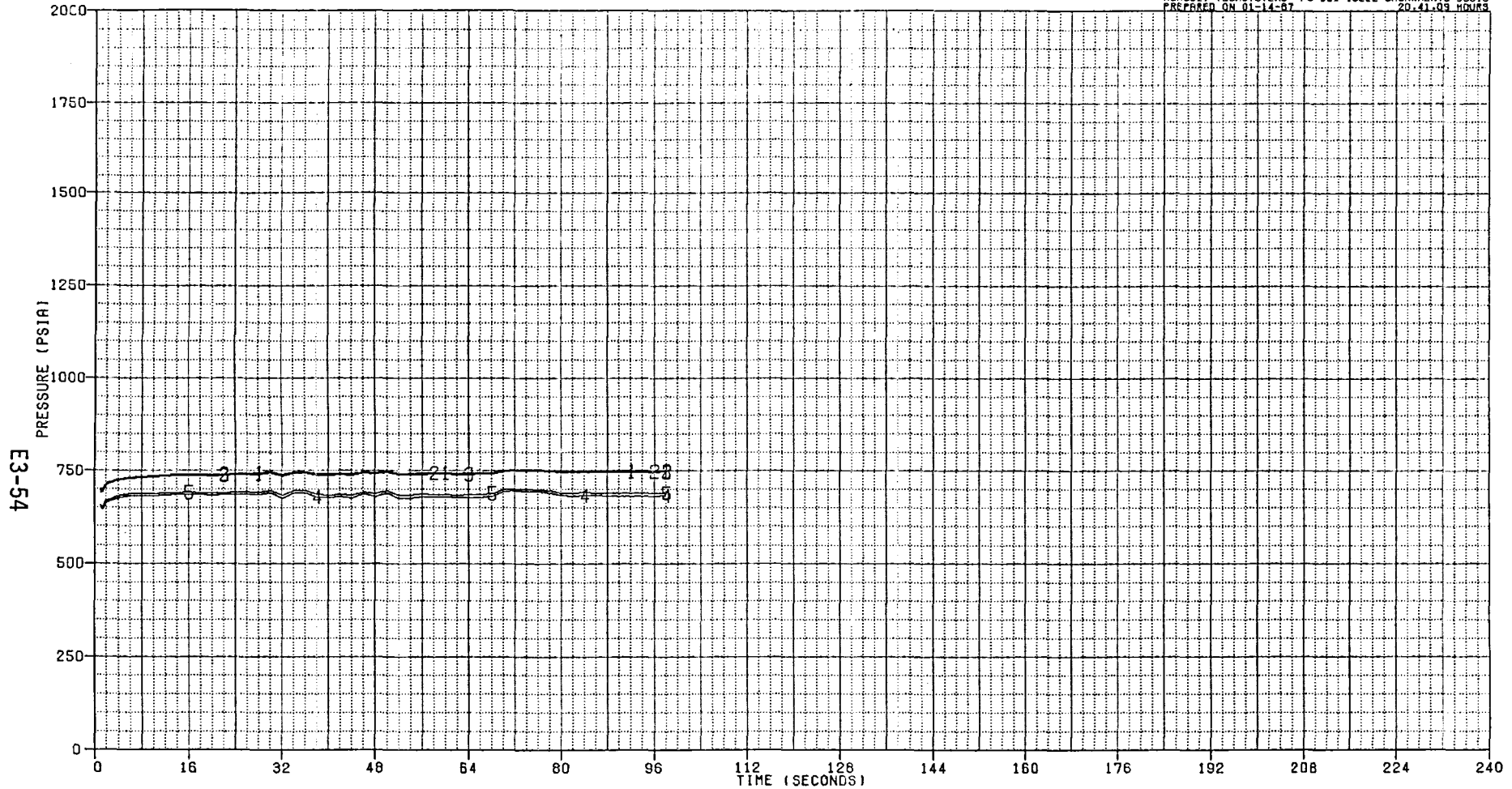
E3-53

- 1 NA1 SO. IN.
- 2 NA2 SO. IN.
- 3 COA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-120  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 2005 HOURS AVERAGED DATA







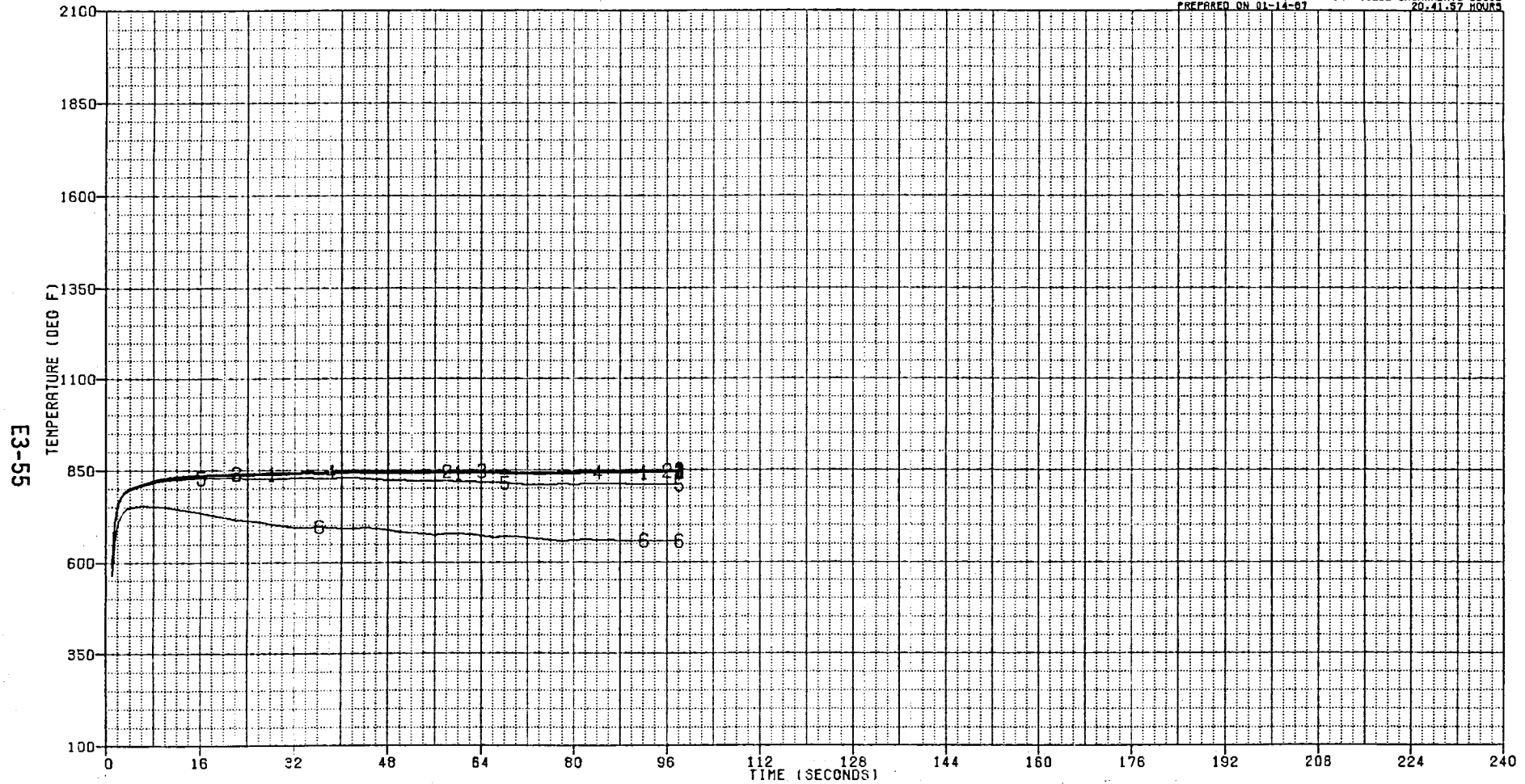
E3-54

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-120  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 2005 HOURS AVERAGED DATA





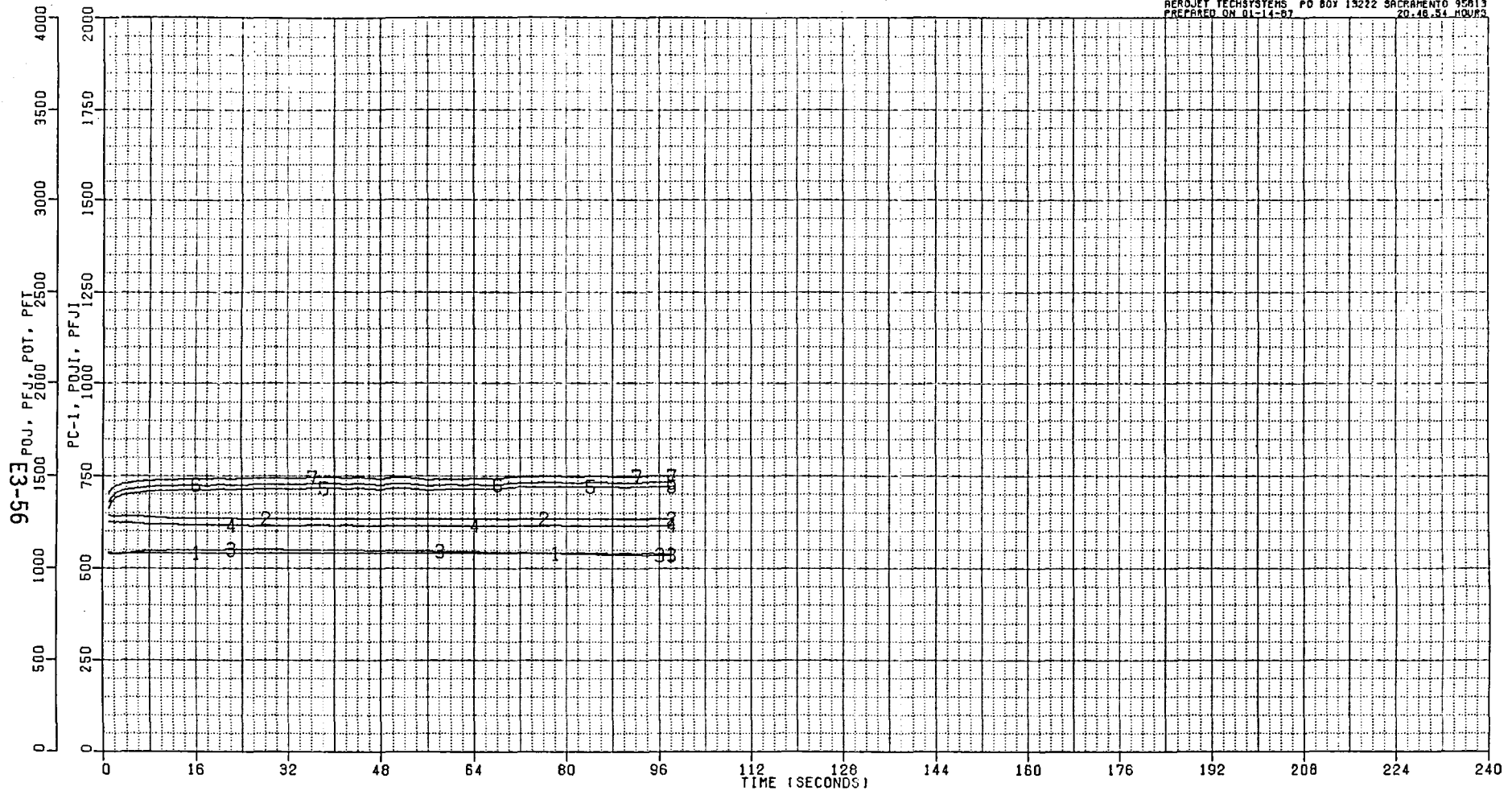


SS-33

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-120  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 2005 HOURS AVERAGED DATA



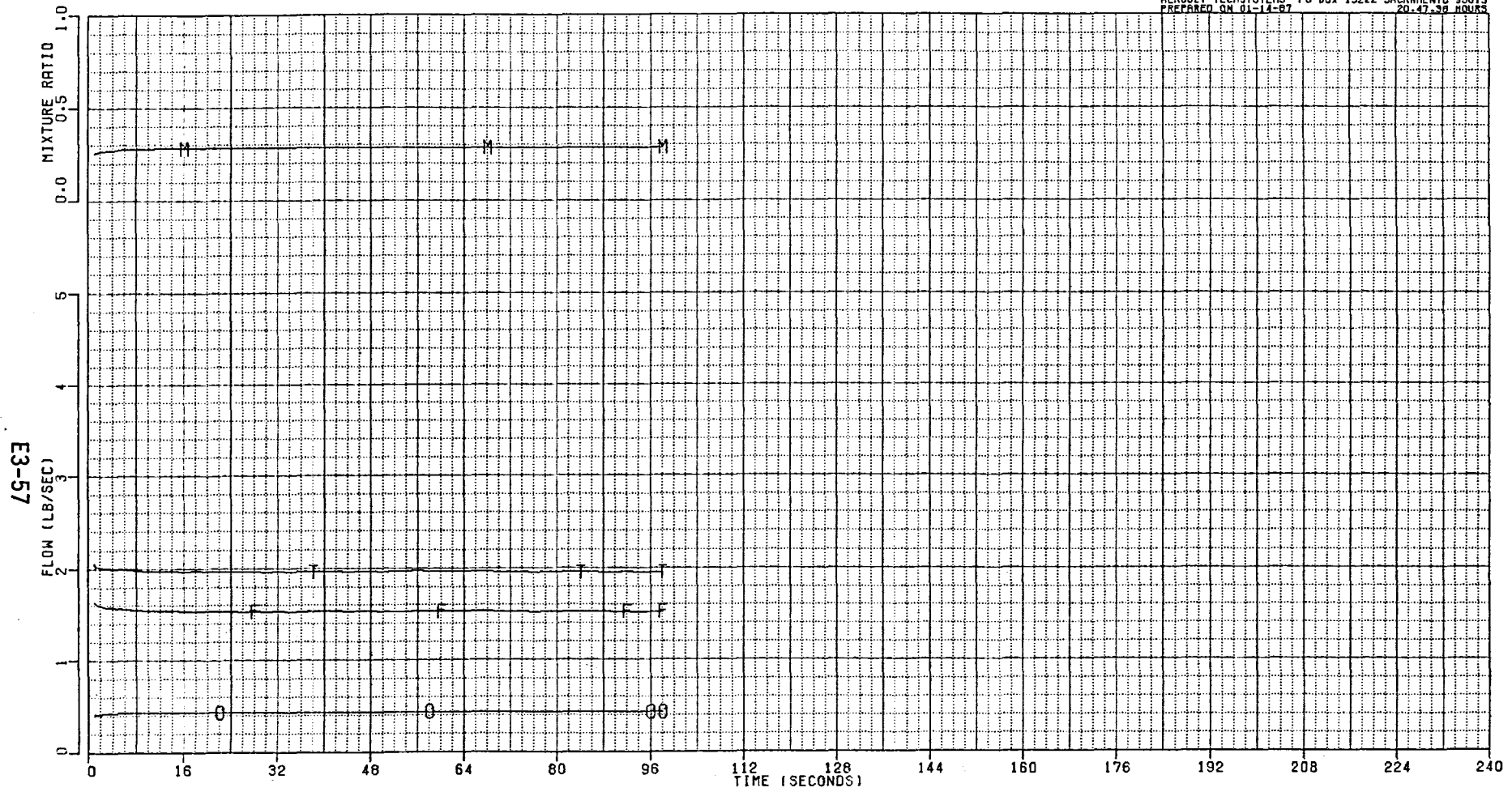


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-121

TEST DATE 10-23-85 2017 HOURS AVERAGED DATA





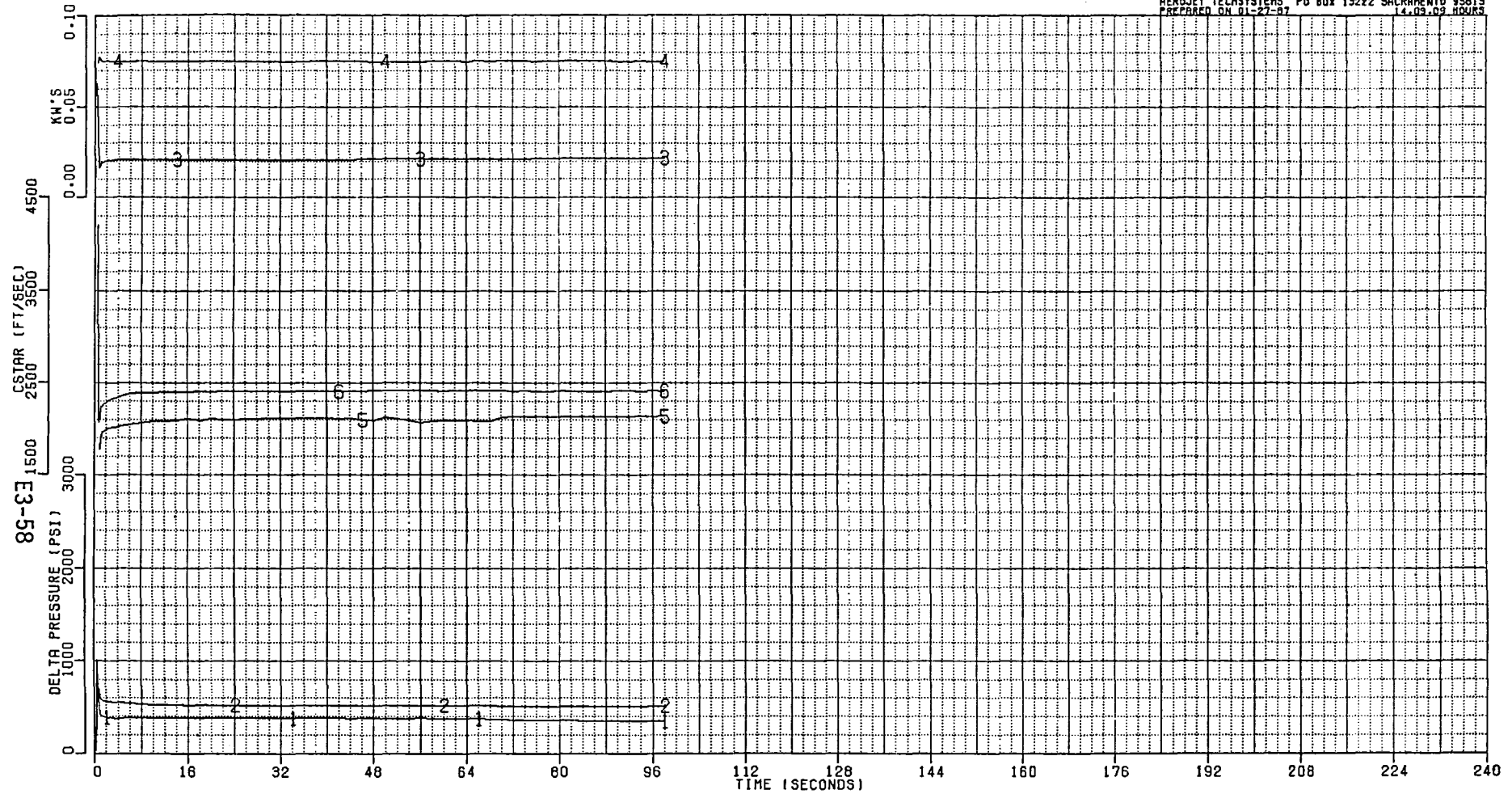
E3-57

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-121

TEST DATE 10-23-85 2017 HOURS AVERAGED DATA



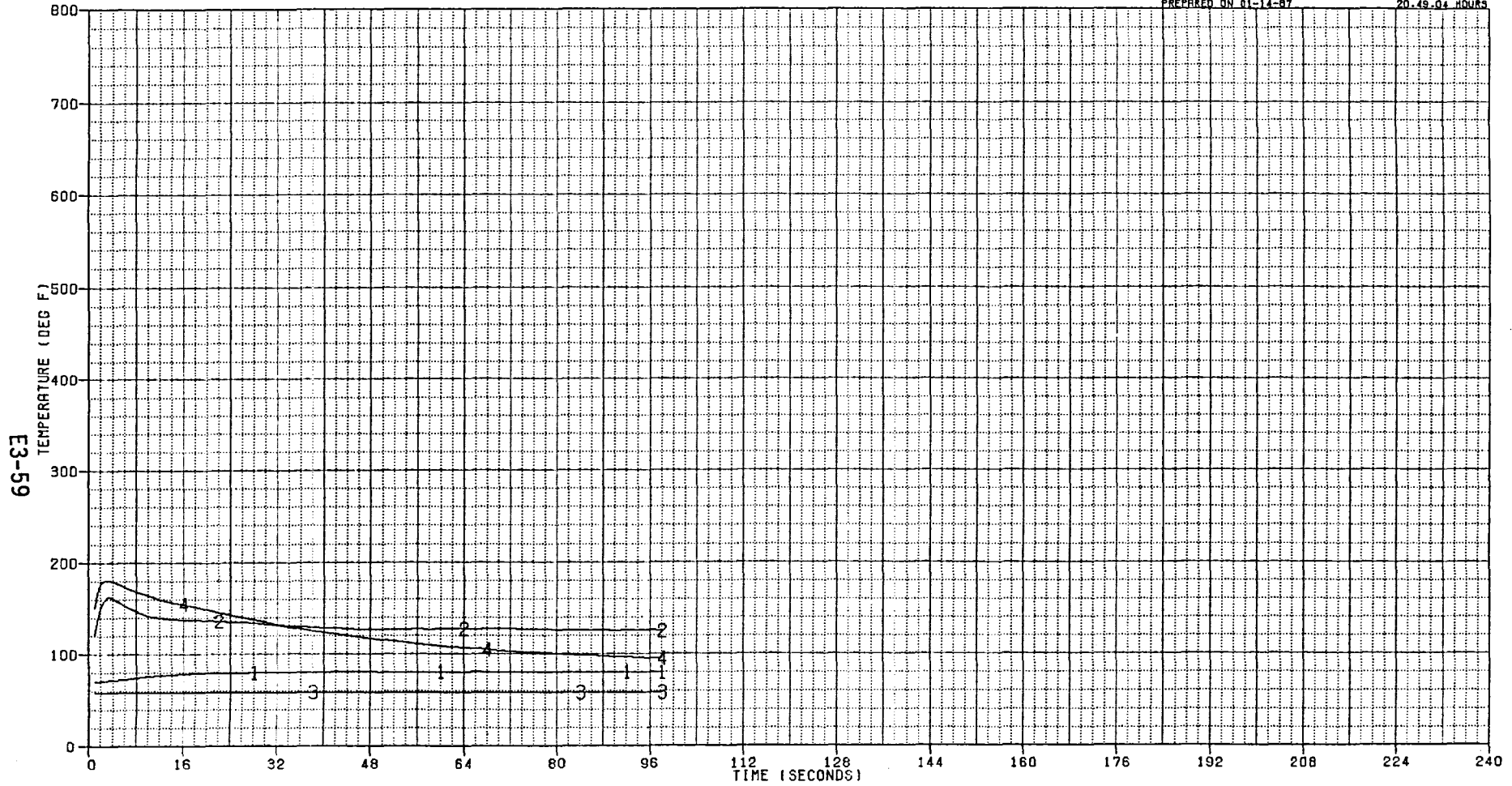


- 1 DPQJ      PSI
- 2 DPFJ      PSI
- 3 KHQJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR      FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-121

TEST DATE 10-23-85 2017 HOURS      AVERAGED DATA

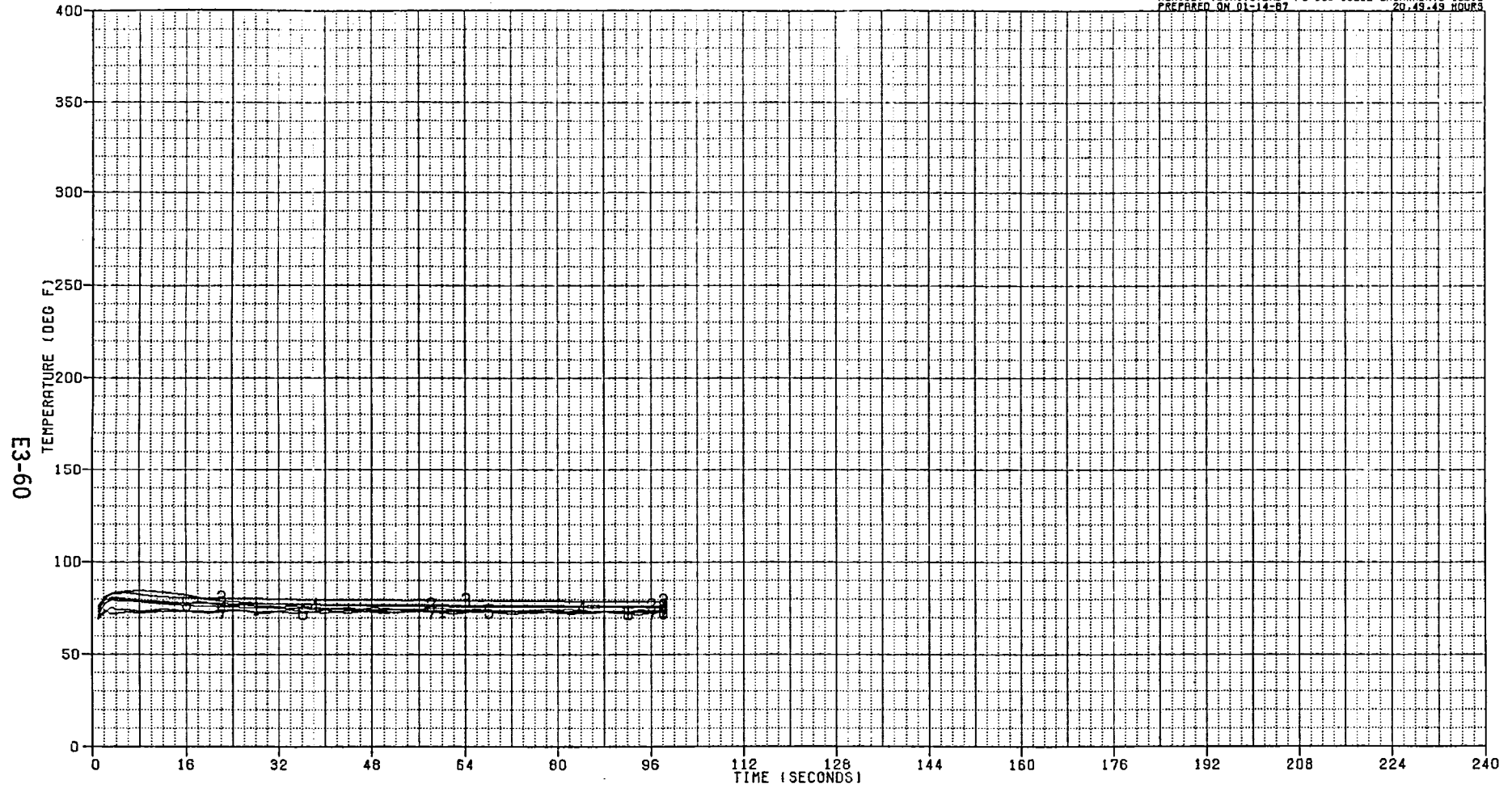


E3-59

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-121  
BARREL DATA  
TEST DATE 10-23-85 2017 HOURS AVERAGED DATA



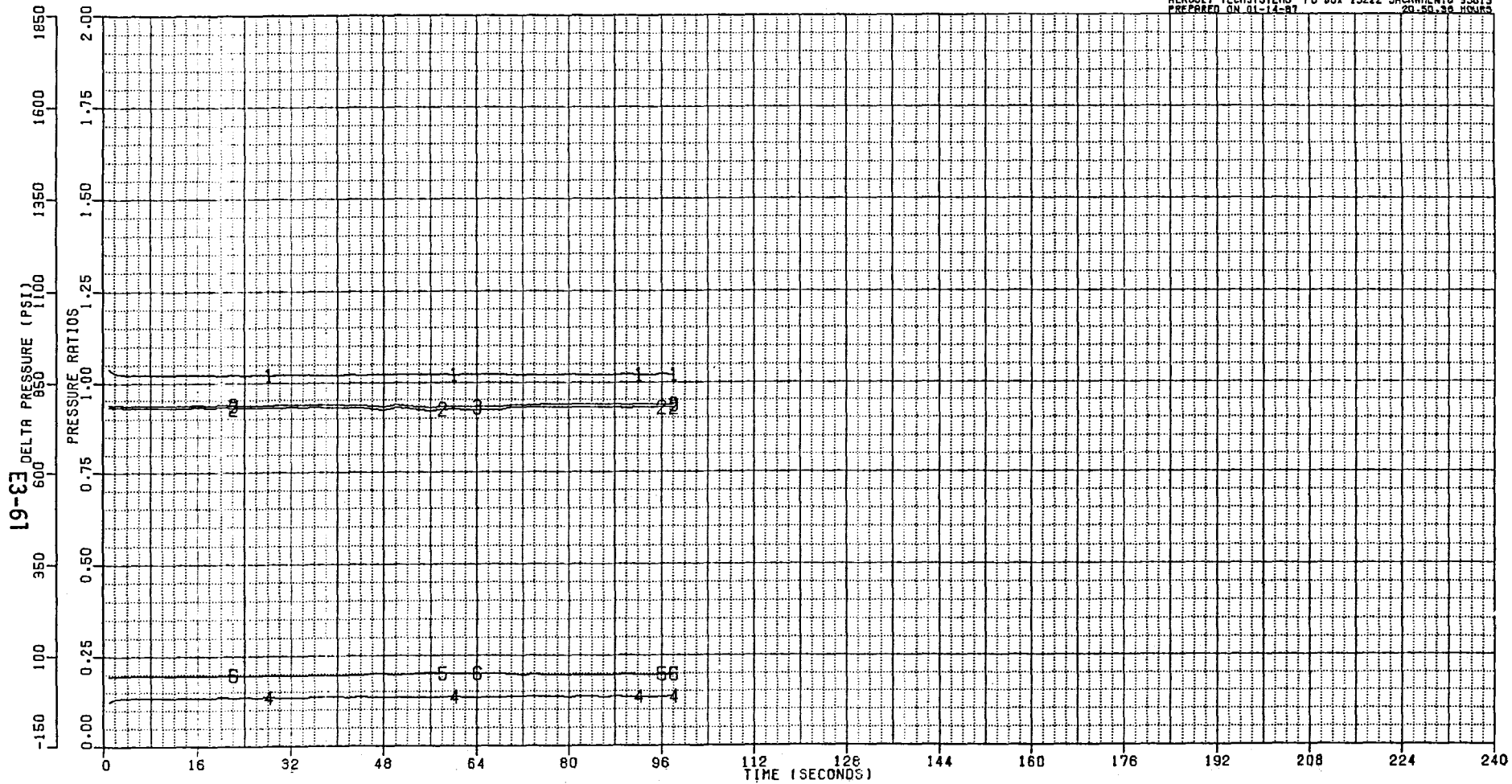


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-121

TEST DATE 10-23-85 2017 HOURS AVERAGED DATA



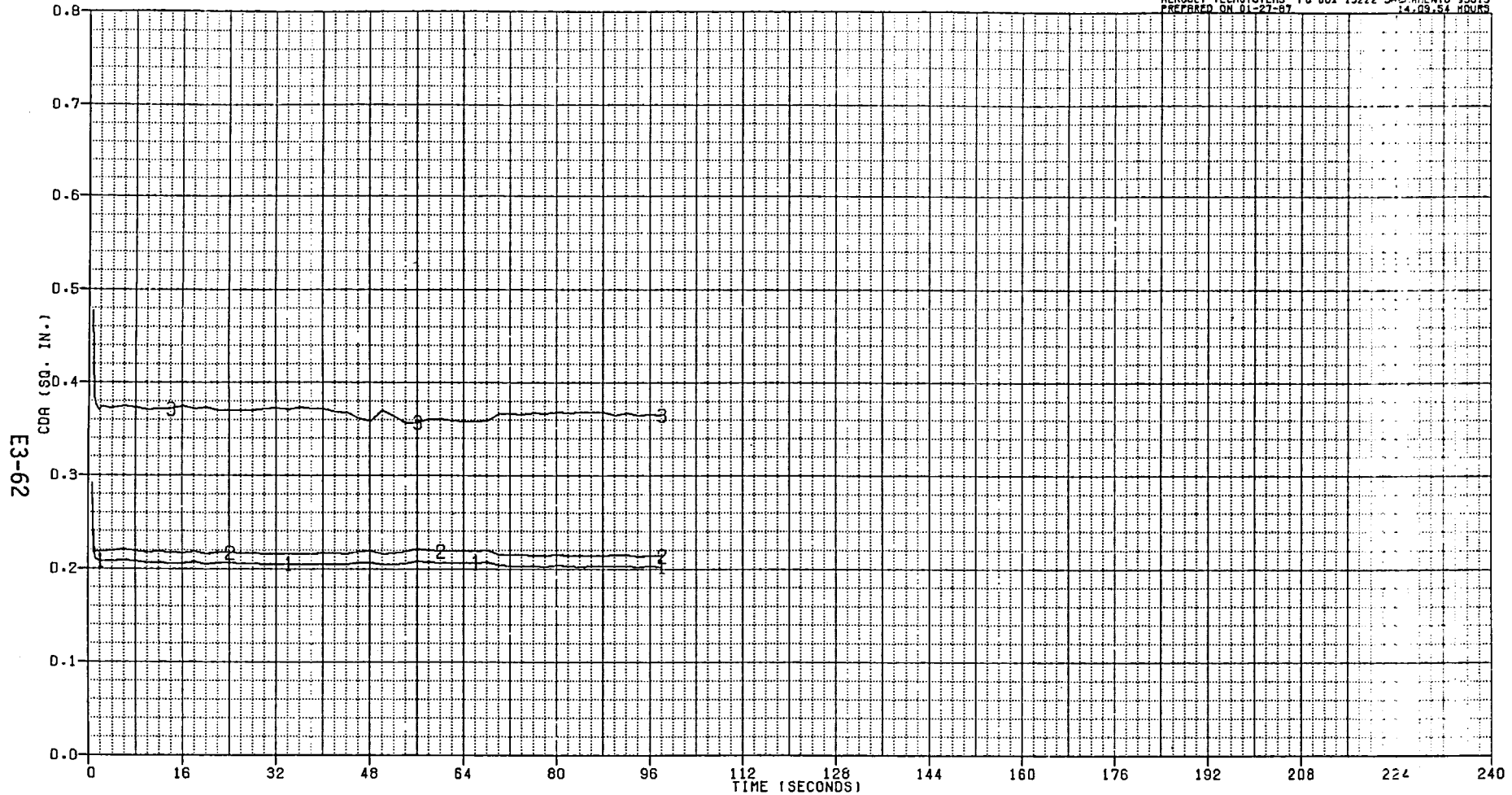


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-121  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 2017 HOURS AVERAGED DATA





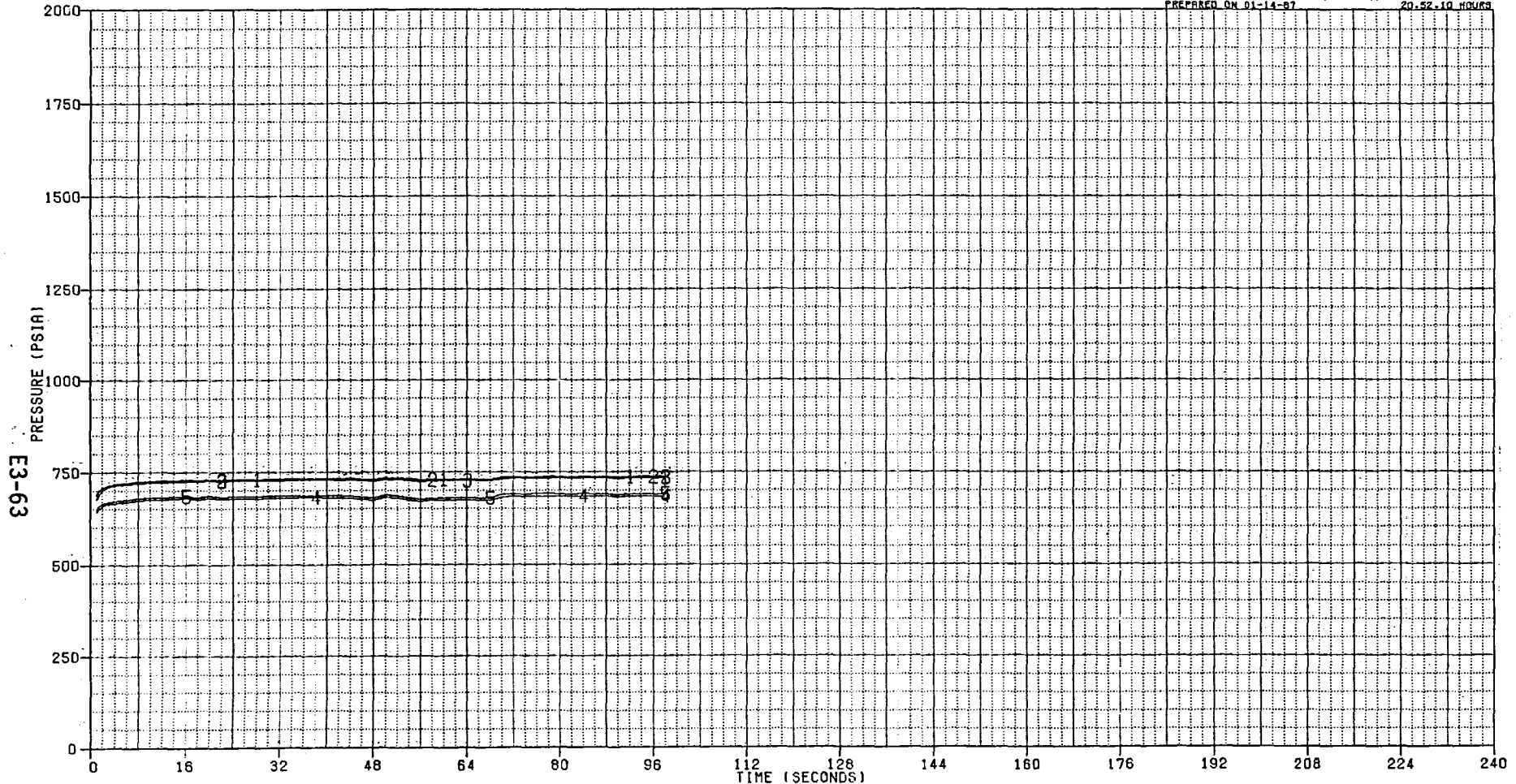
E3-62

1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 COA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-121  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 2017 HOURS AVERAGED DATA





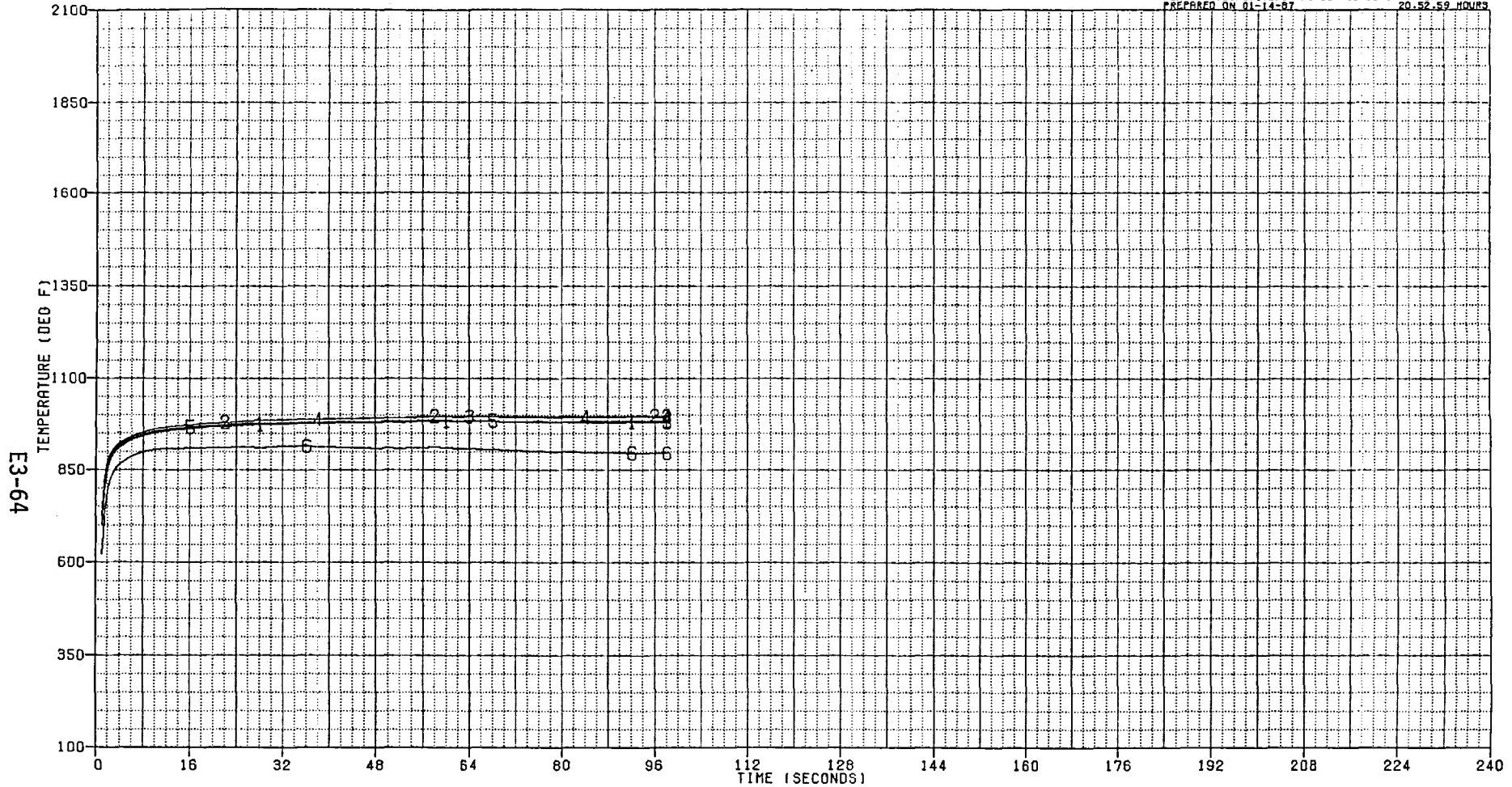


E3-63

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-121  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 2017 HOURS AVERAGED DATA



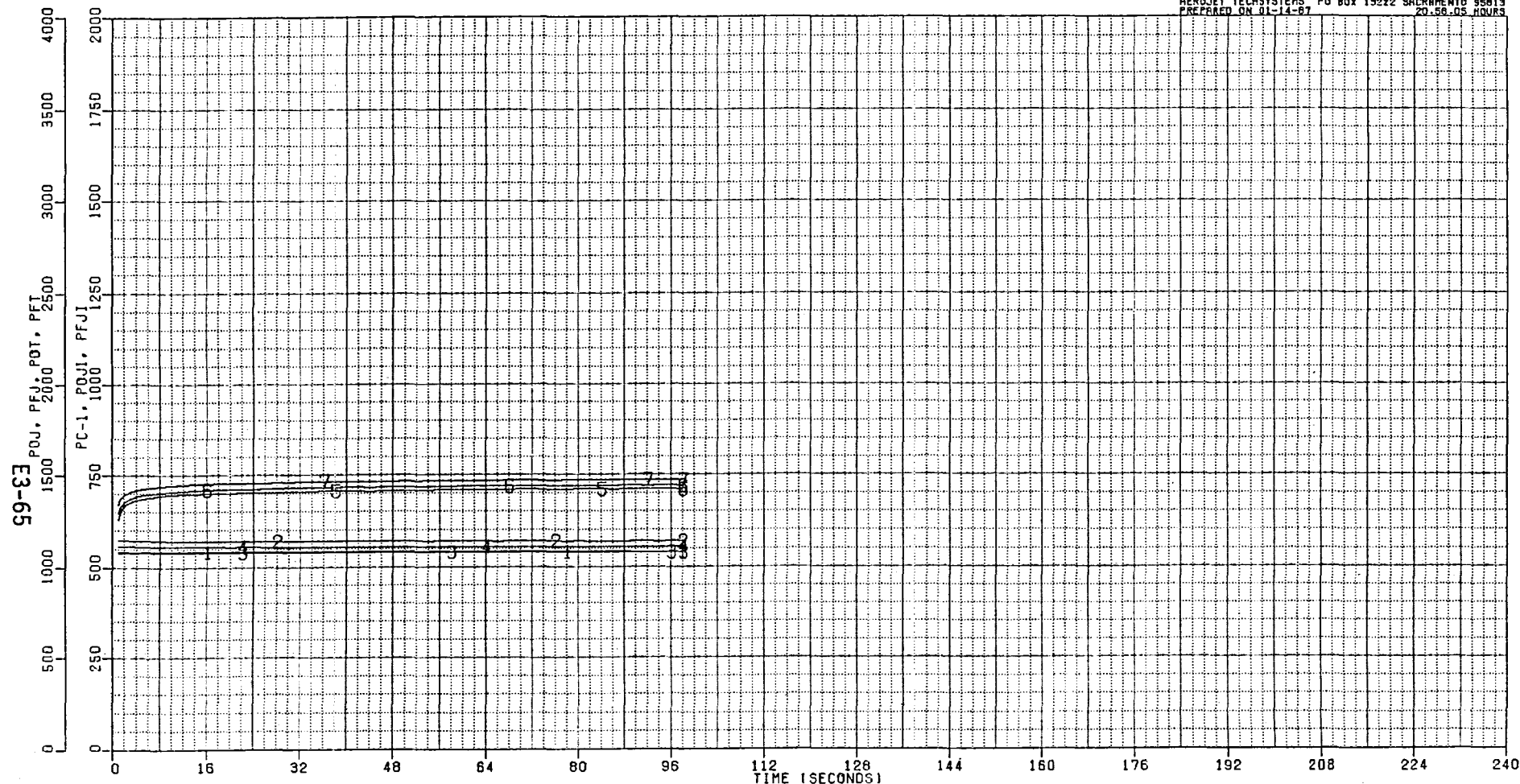


E3-64

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F



GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-121  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 2017 HOURS AVERAGED DATA

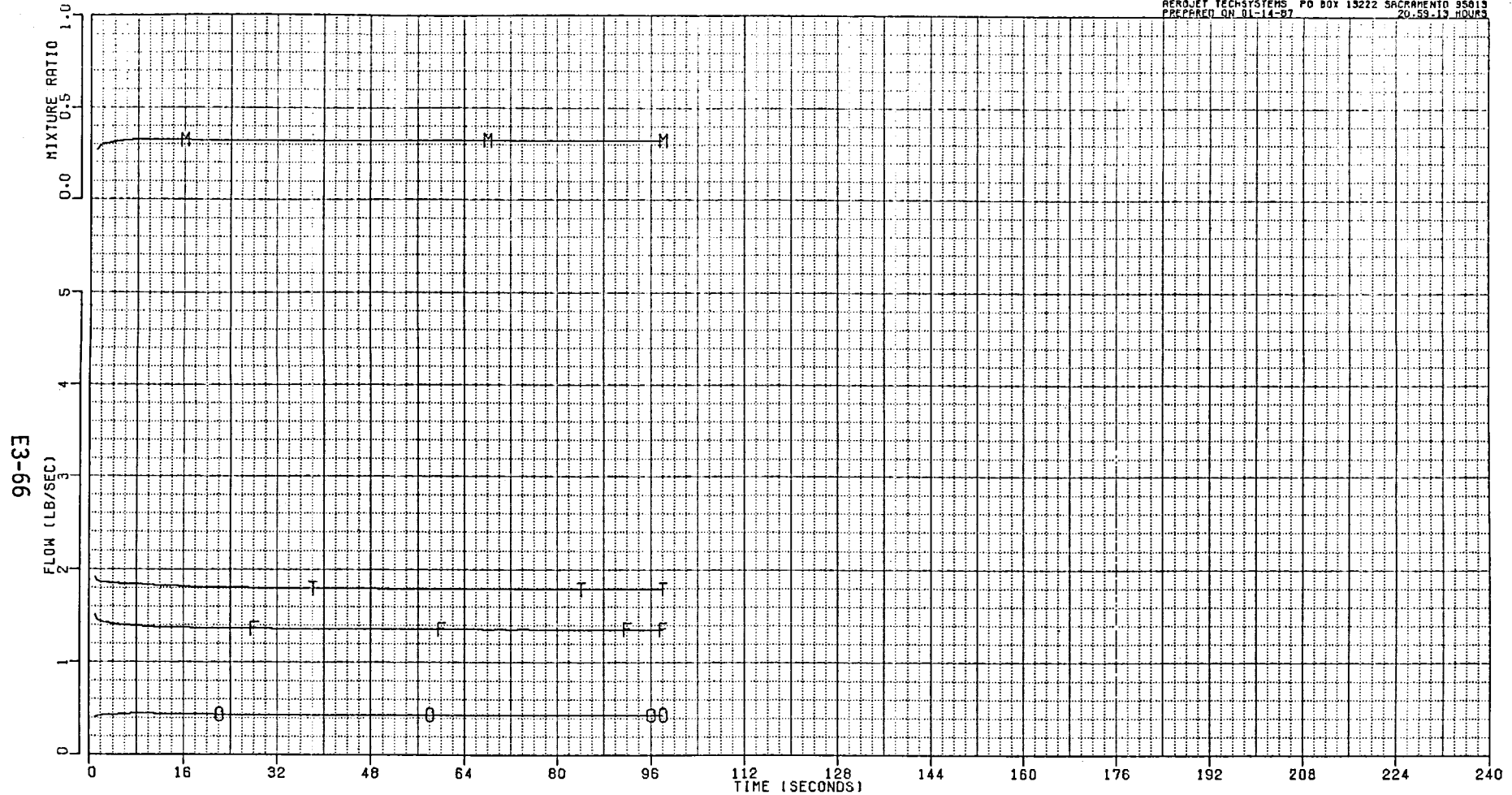


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 5 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-122

TEST DATE 10-23-85 2113 HOURS AVERAGED DATA





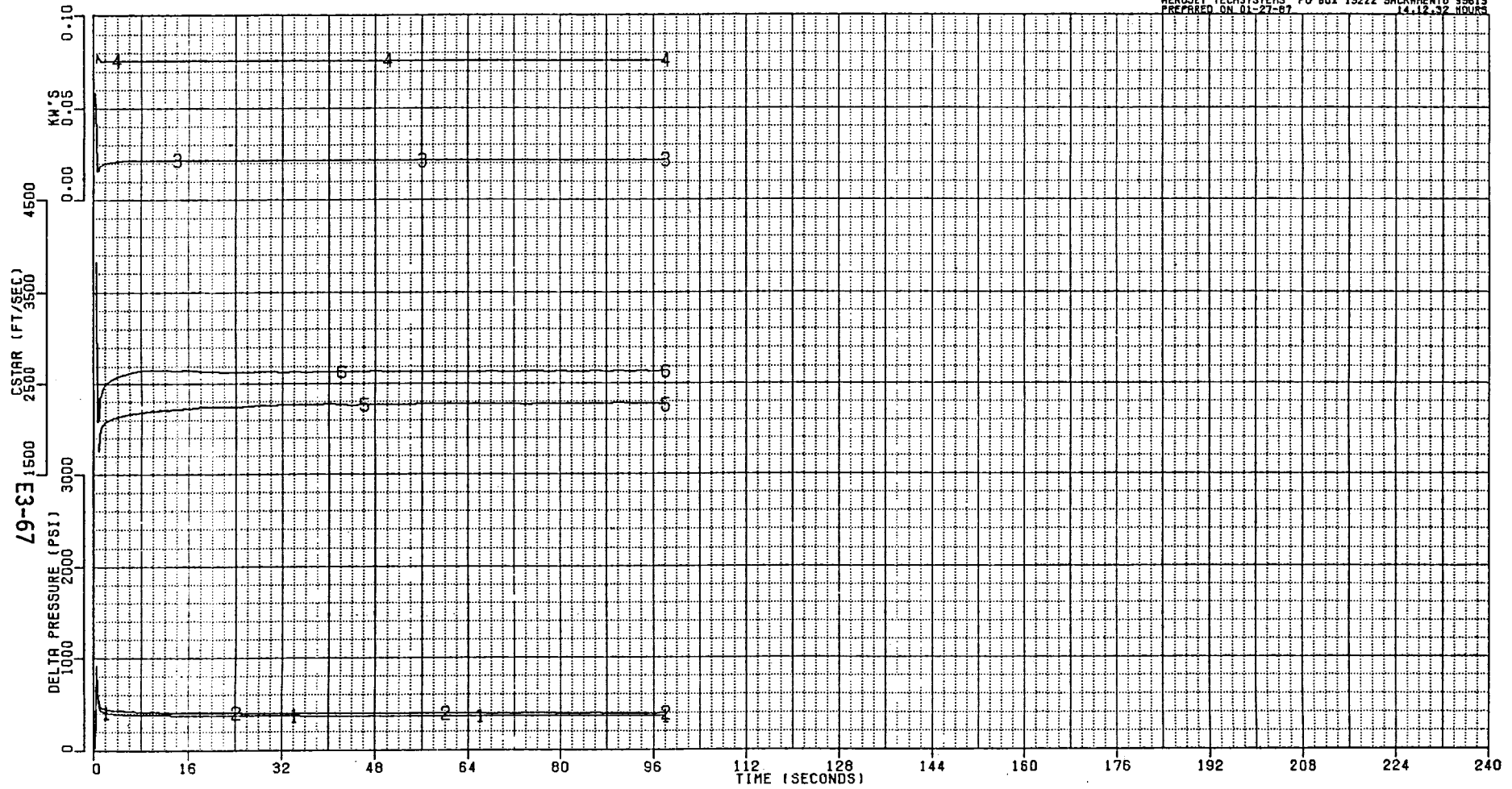
99-33

F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-122

TEST DATE 10-23-85 2113 HOURS AVERAGED DATA





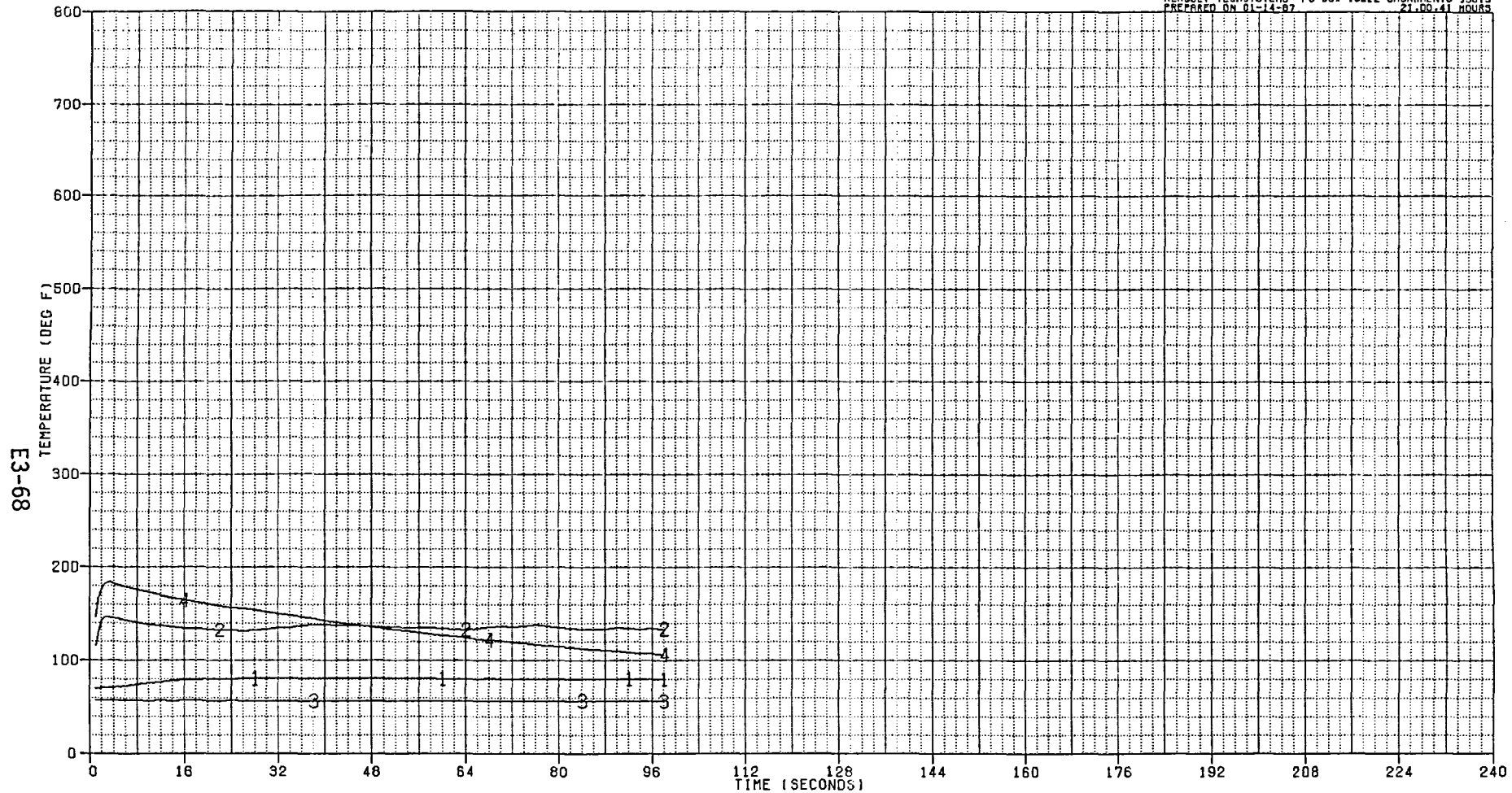
79-33-67

- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR        FT/SEC

**INJECTOR CALCULATIONS VS TIME**  
**TEST NO. 2427-936-A6-122**

TEST DATE 10-23-85 2113 HOURS    AVERAGED DATA

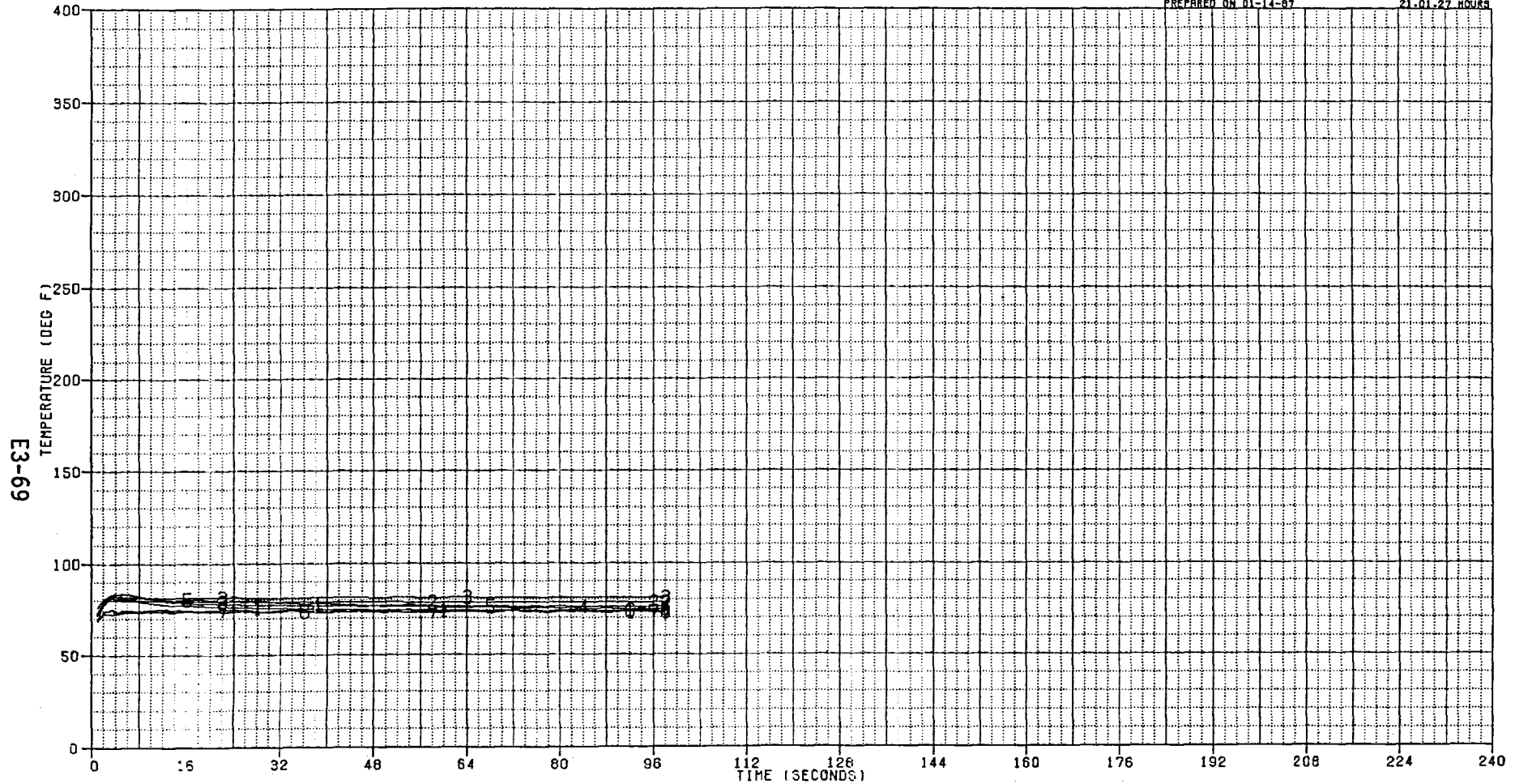




- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-122  
BARREL DATA  
TEST DATE 10-23-85 2113 HOURS AVERAGED DATA





E3-69

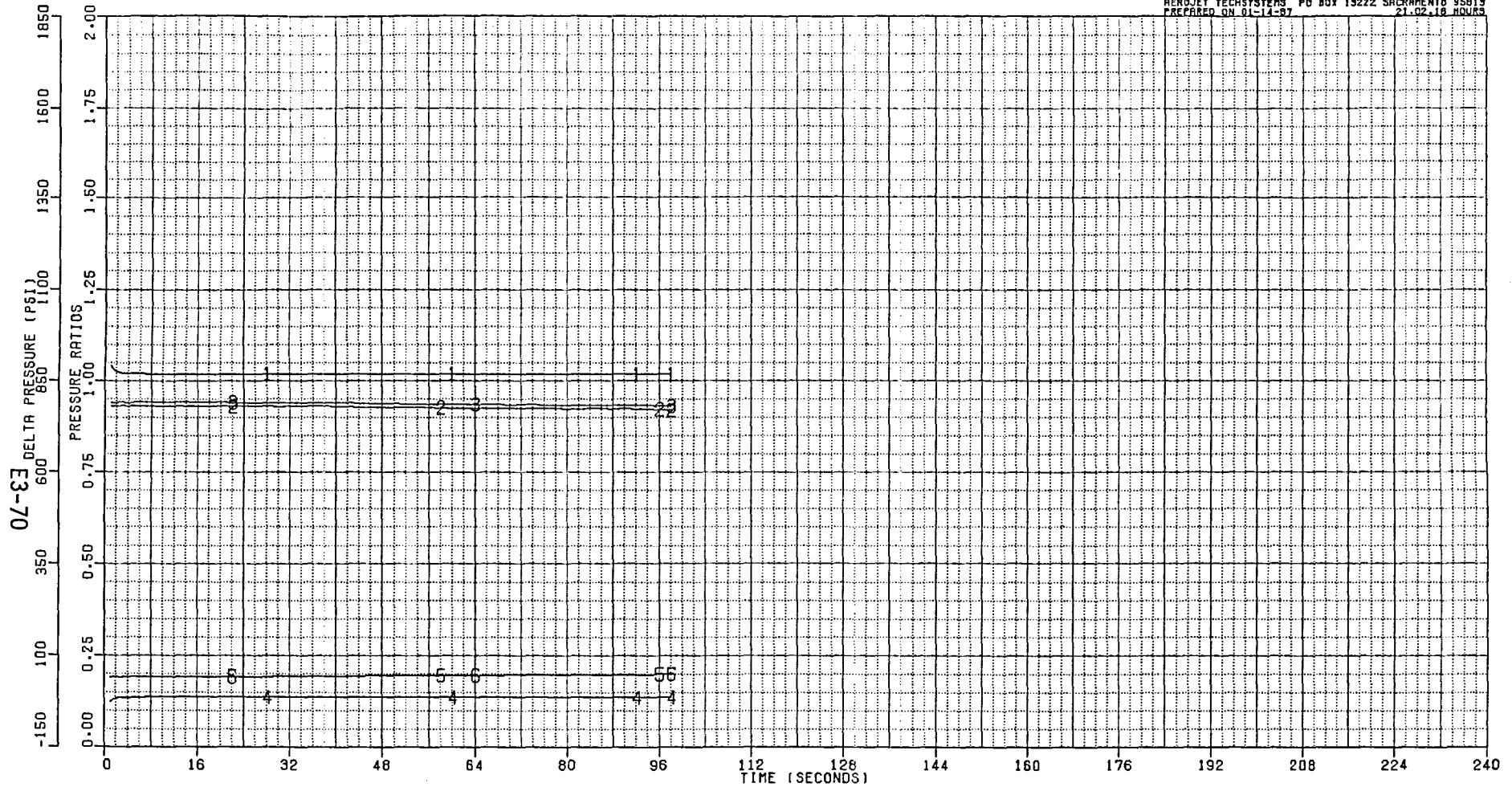
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-122

TEST DATE 10-23-85 2113 HOURS AVERAGED DATA





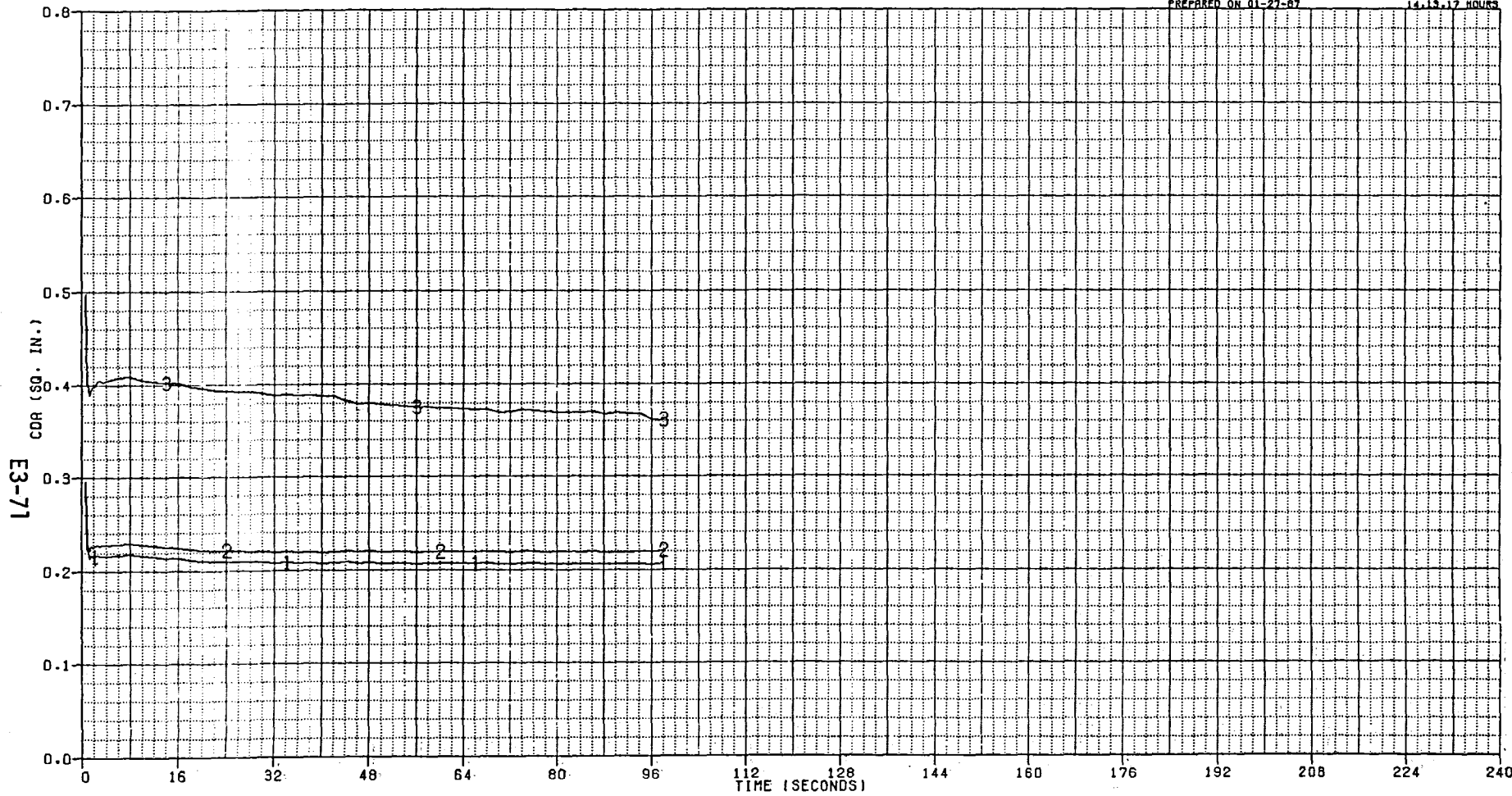


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-122  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 10-23-85 2113 HOURS      AVERAGED DATA



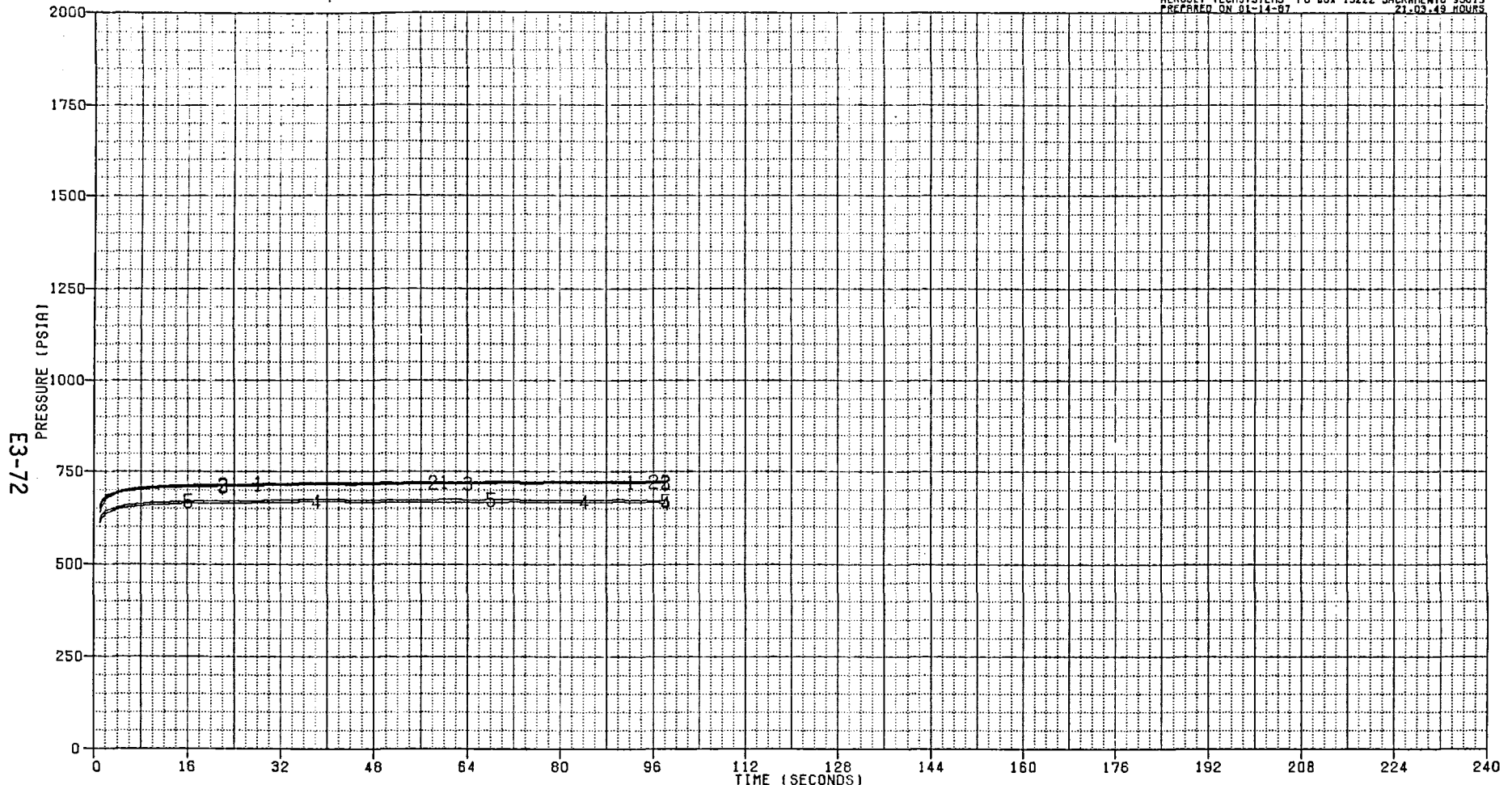


E3-71

- 1 NR1. 50. IN.
- 2 NR2. 50. IN.
- 3 CDR.

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-122  
NOZZLE AREA CHANGE  
TEST DATE 10-23-85 2113 HOURS AVERAGED DATA

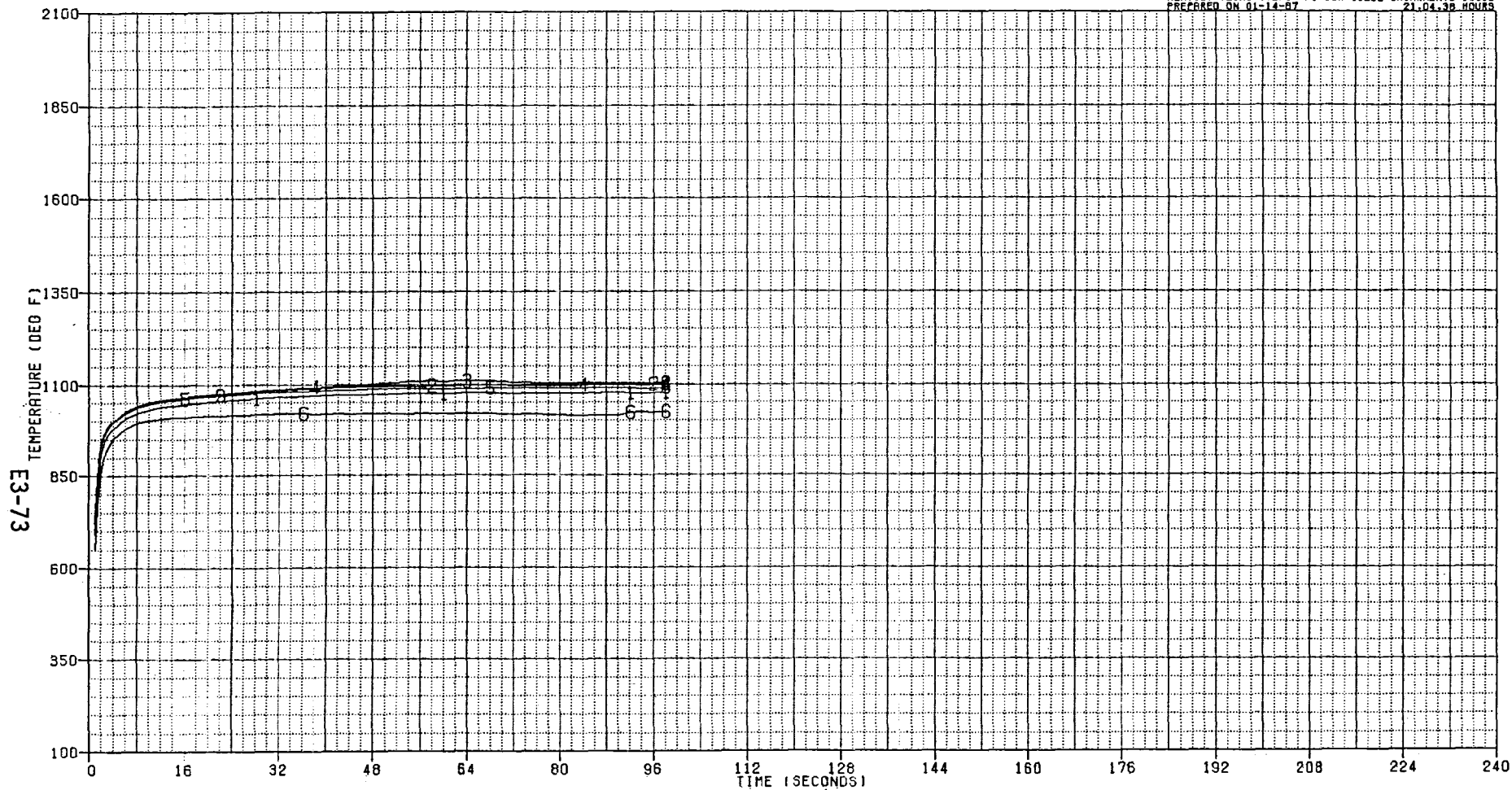




- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-122  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 2113 HOURS AVERAGED DATA

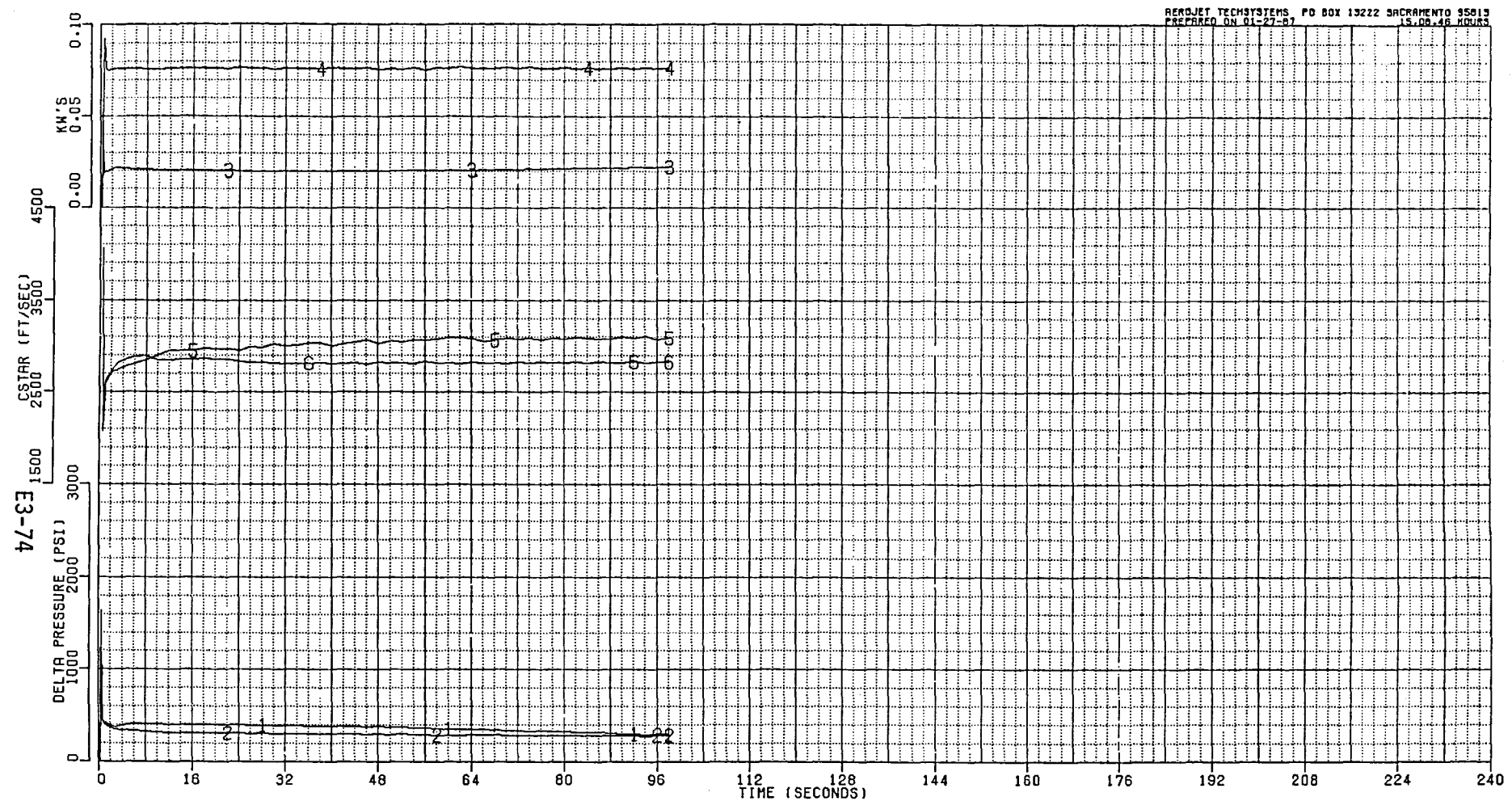




- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-122  
PRESSURE MEASUREMENTS  
TEST DATE 10-23-85 2113 HOURS AVERAGED DATA





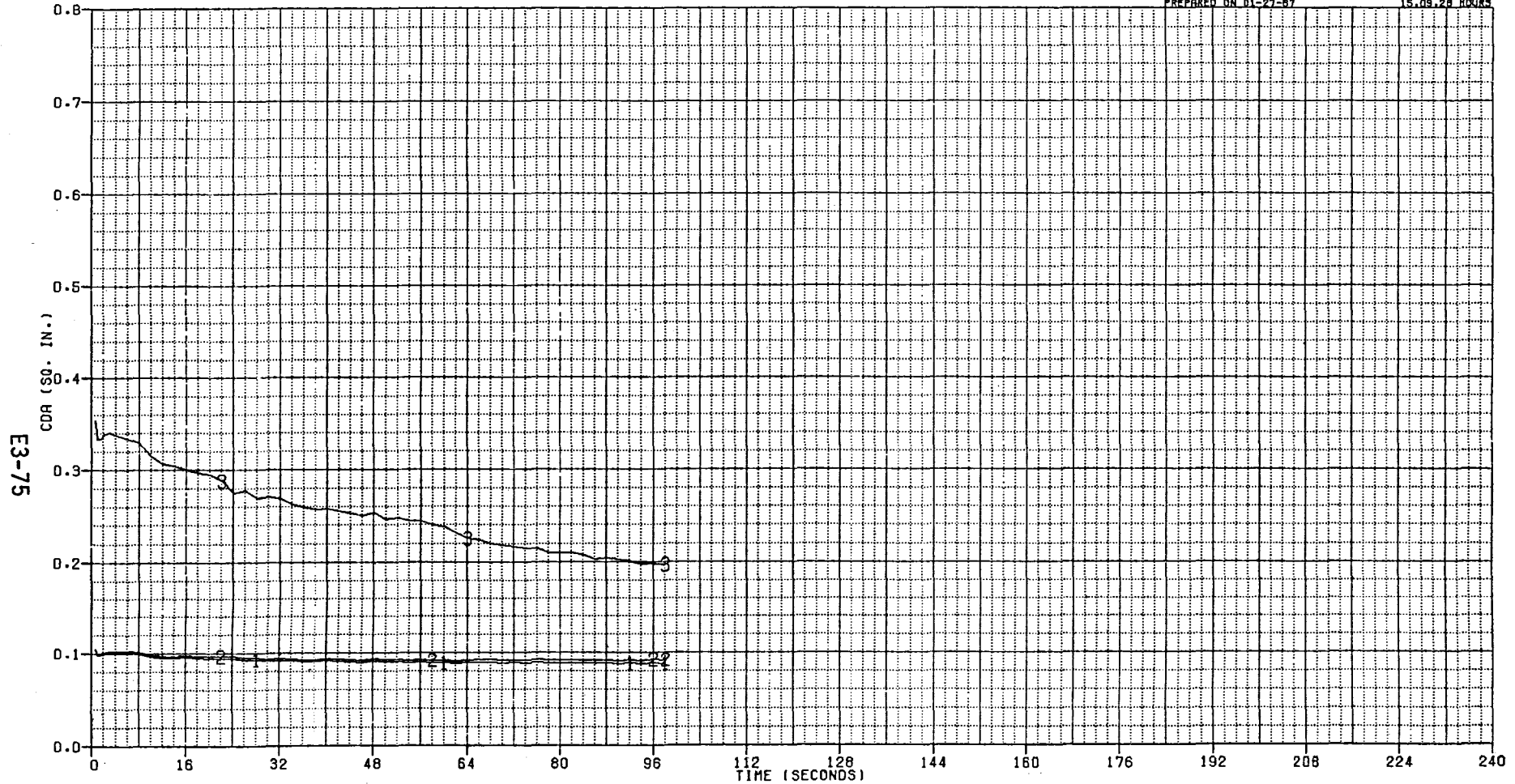
E3-74

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-139

TEST DATE 11-07-85 1423 HOURS    AVERAGED DATA

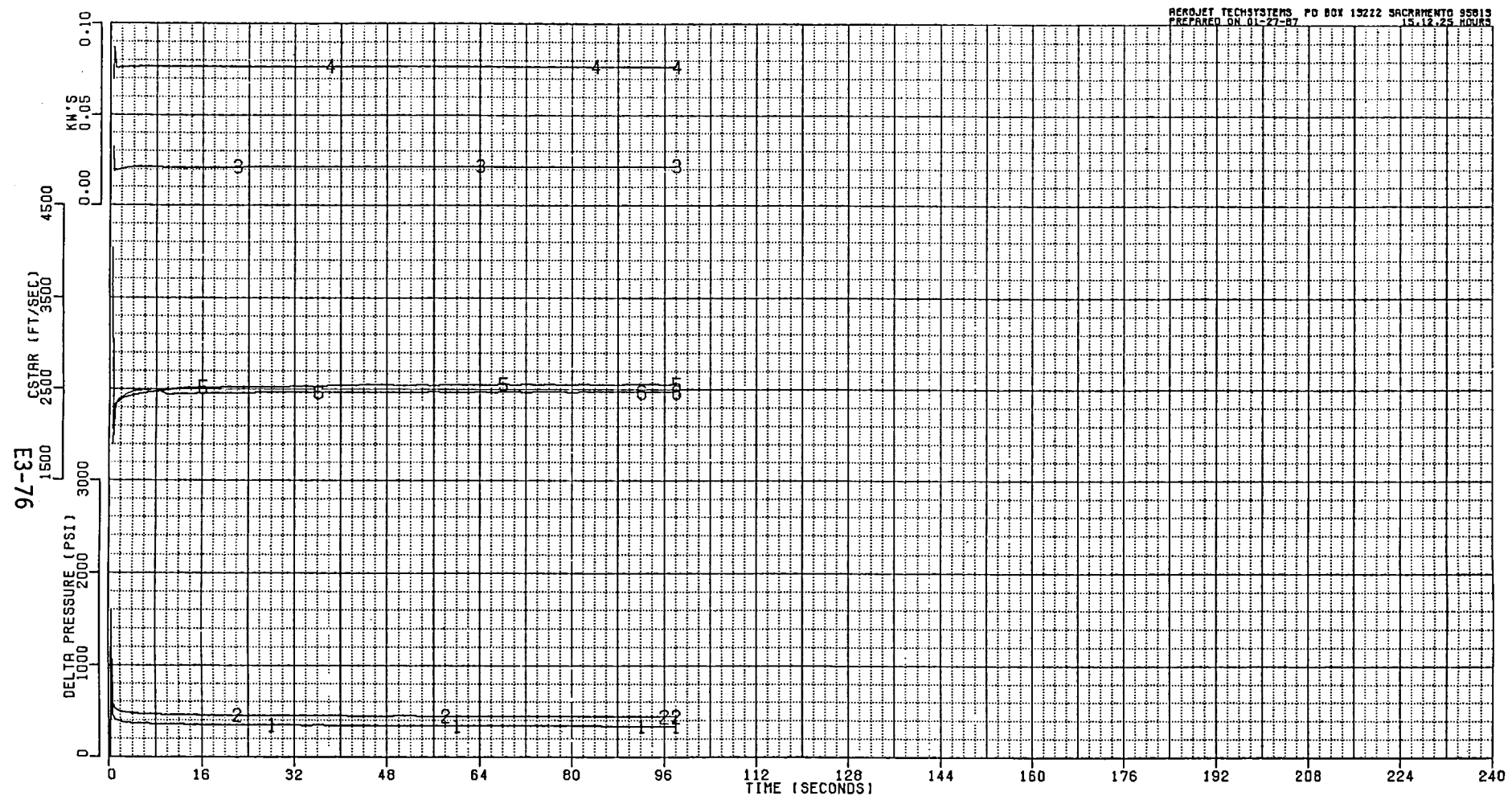




1 NA1 50. IN.  
2 NA2 50. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-139  
NOZZLE AREA CHANGE  
TEST DATE 11-07-85 1423 HOURS AVERAGED DATA





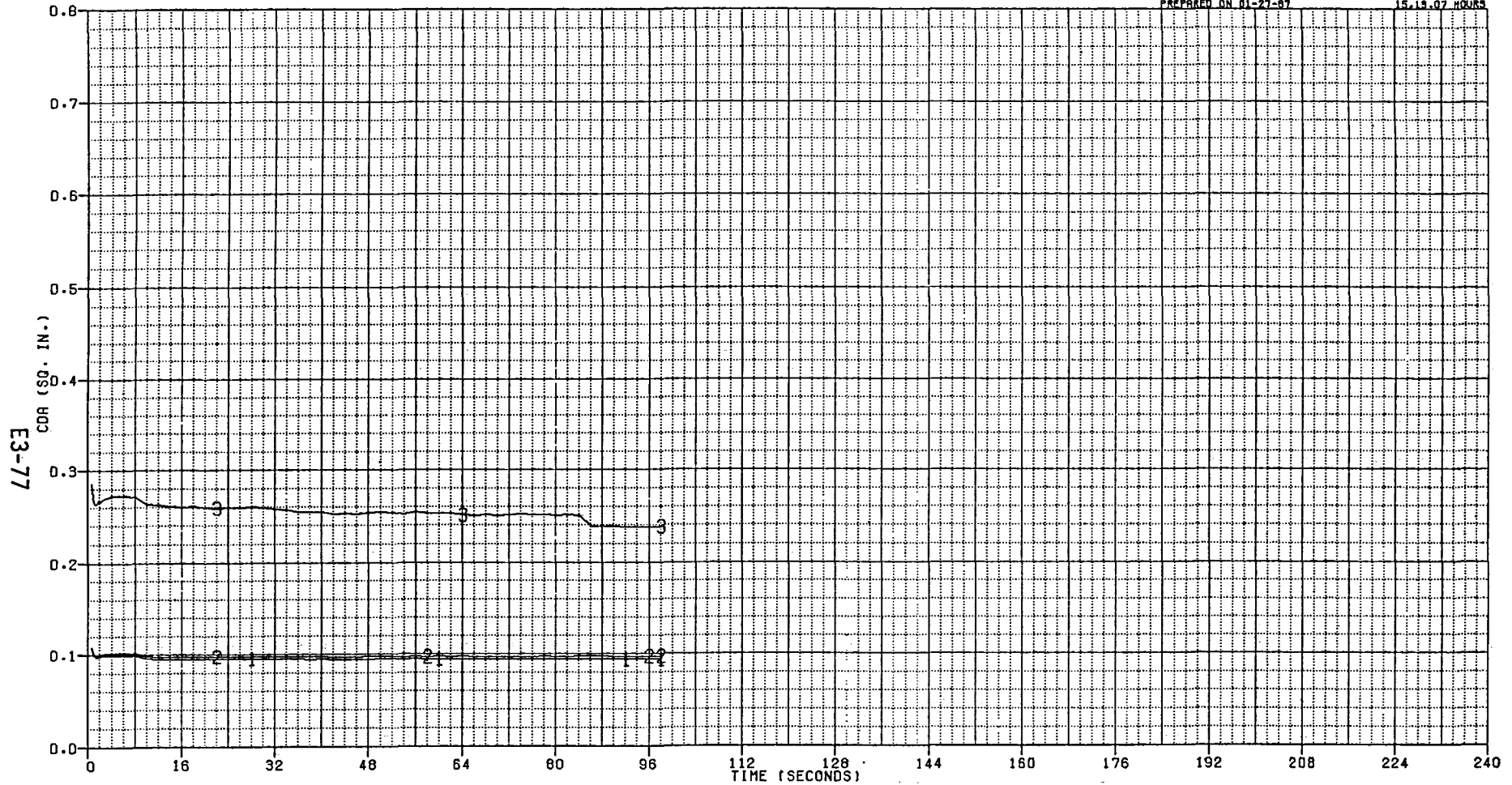
E3-76

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-140

TEST DATE 11-07-85 1436 HOURS      AVERAGED DATA



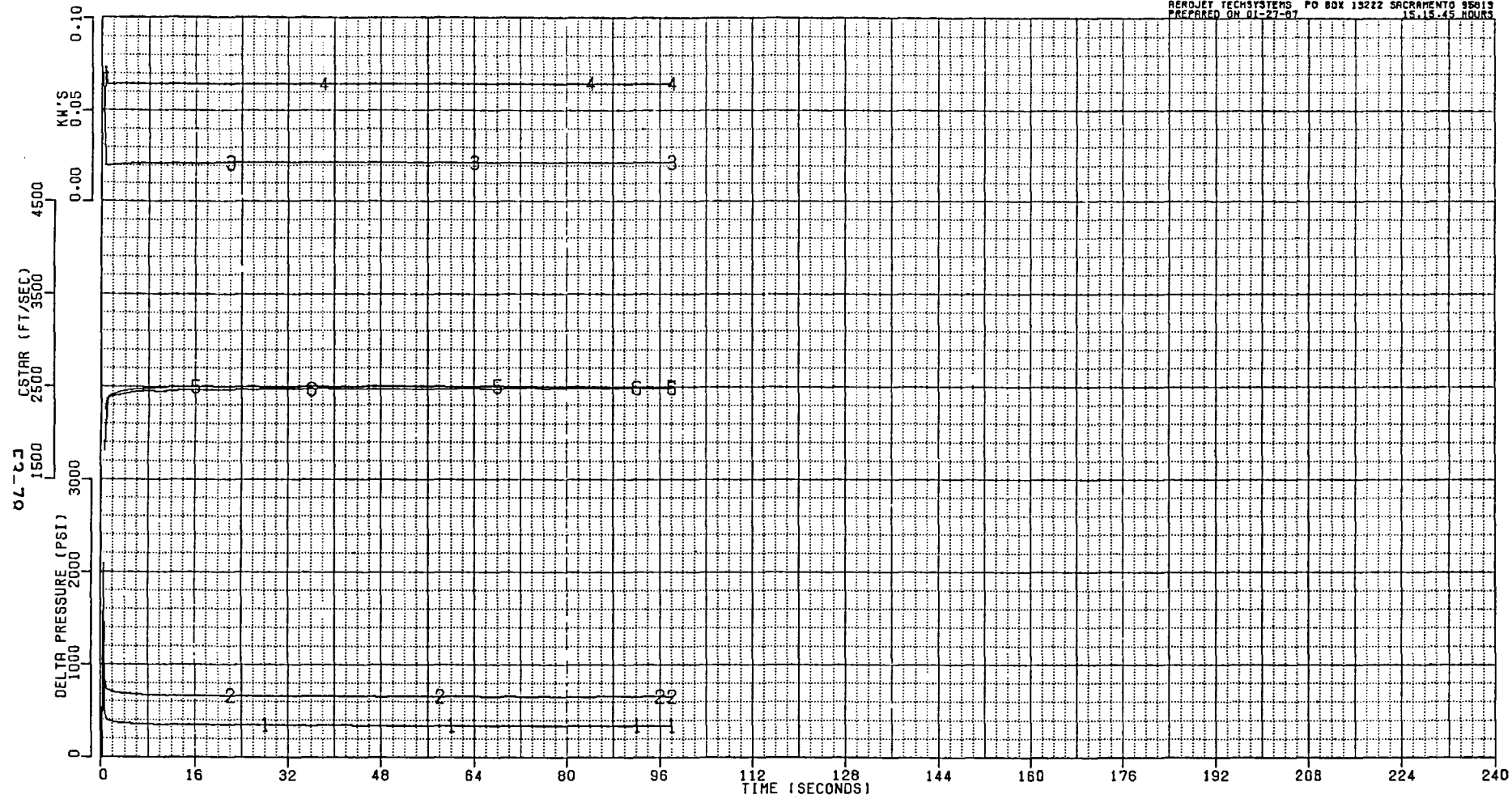
E3-77

- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 COA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-140  
NOZZLE AREA CHANGE  
TEST DATE 11-07-85 1436 HOURS AVERAGED DATA







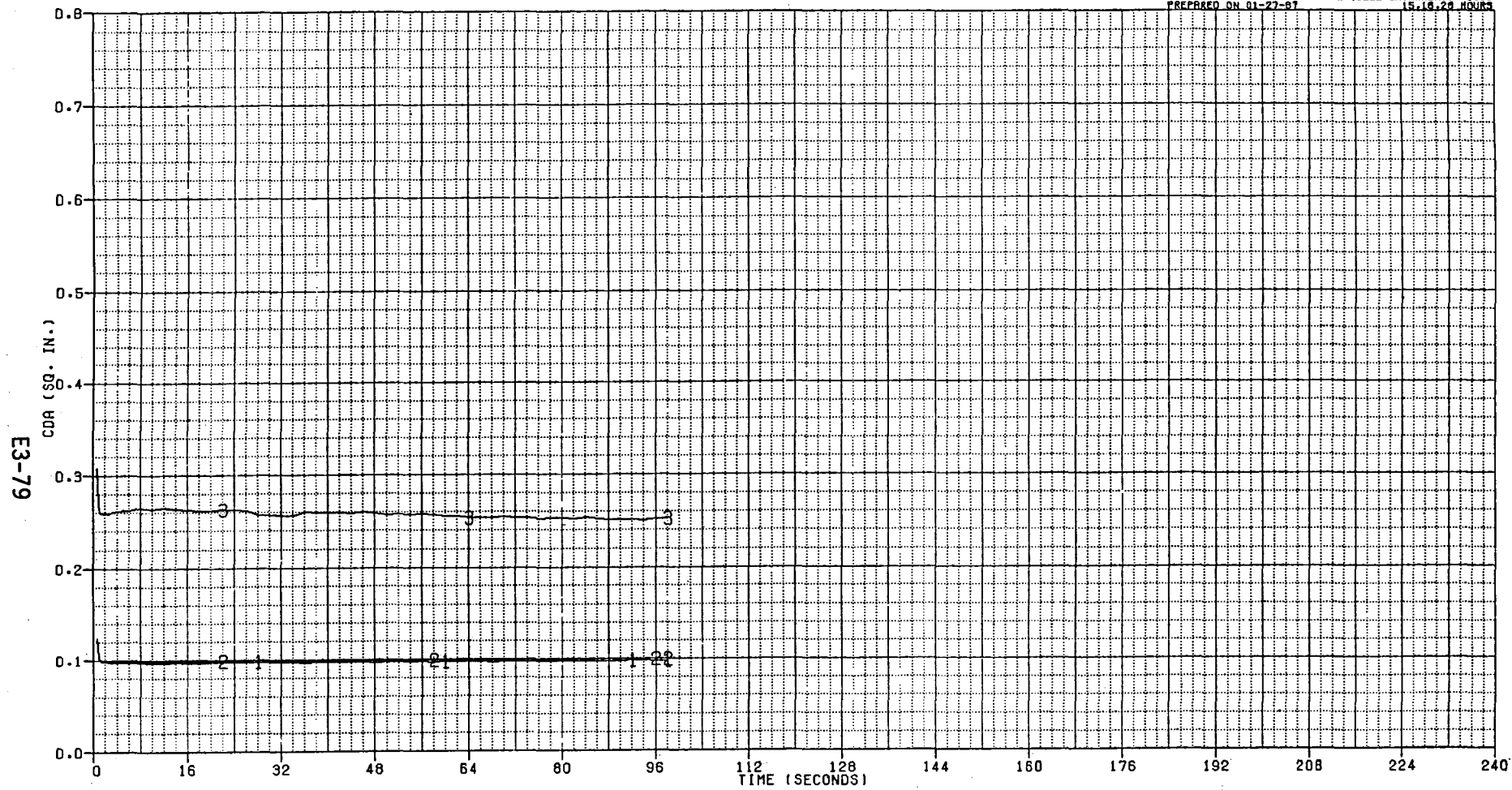
- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ PSI
- 4 KWFJ PSI
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-141

TEST DATE 11-07-85 1446 HOURS AVERAGED DATA



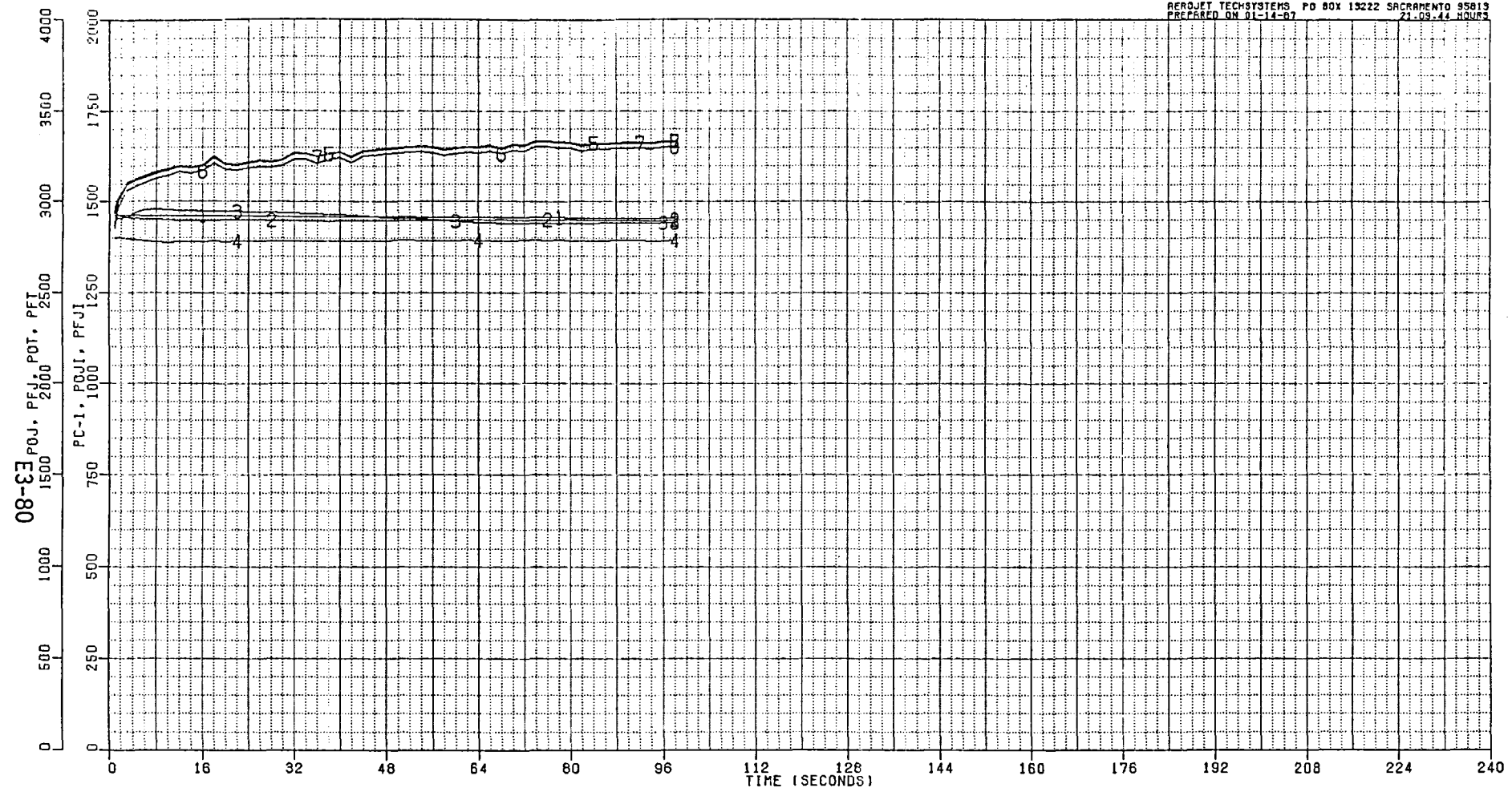




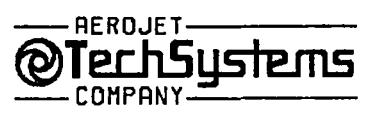
1 NA1 50-IN.  
2 NA2 50-IN.  
3 CDR 50-IN.

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-141  
NOZZLE AREA CHANGE  
TEST DATE 11-07-85 1446 HOURS AVERAGED DATA



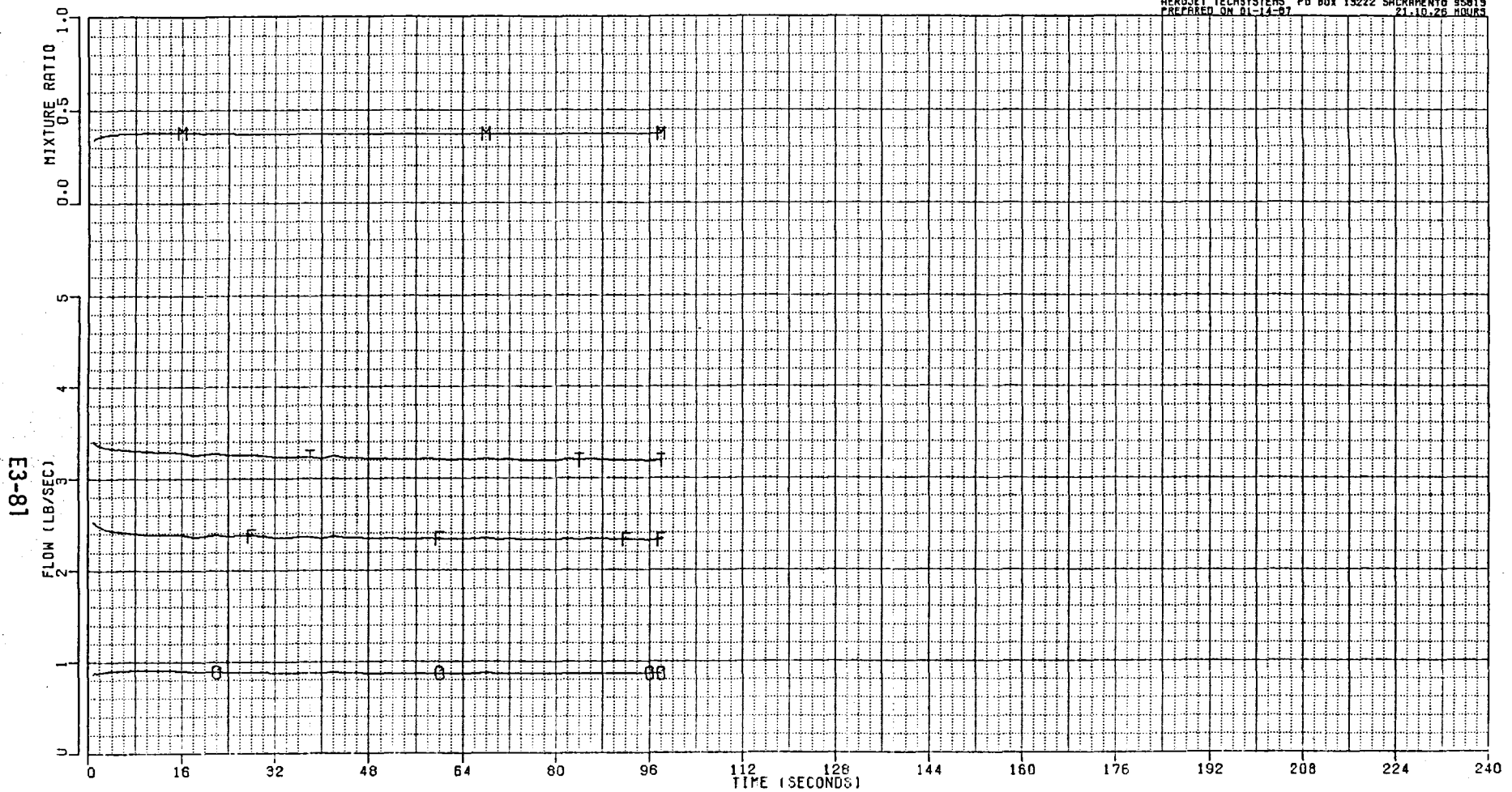


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFI PSIA



MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-144

TEST DATE 11-18-85 1140 HOURS AVERAGED DATA



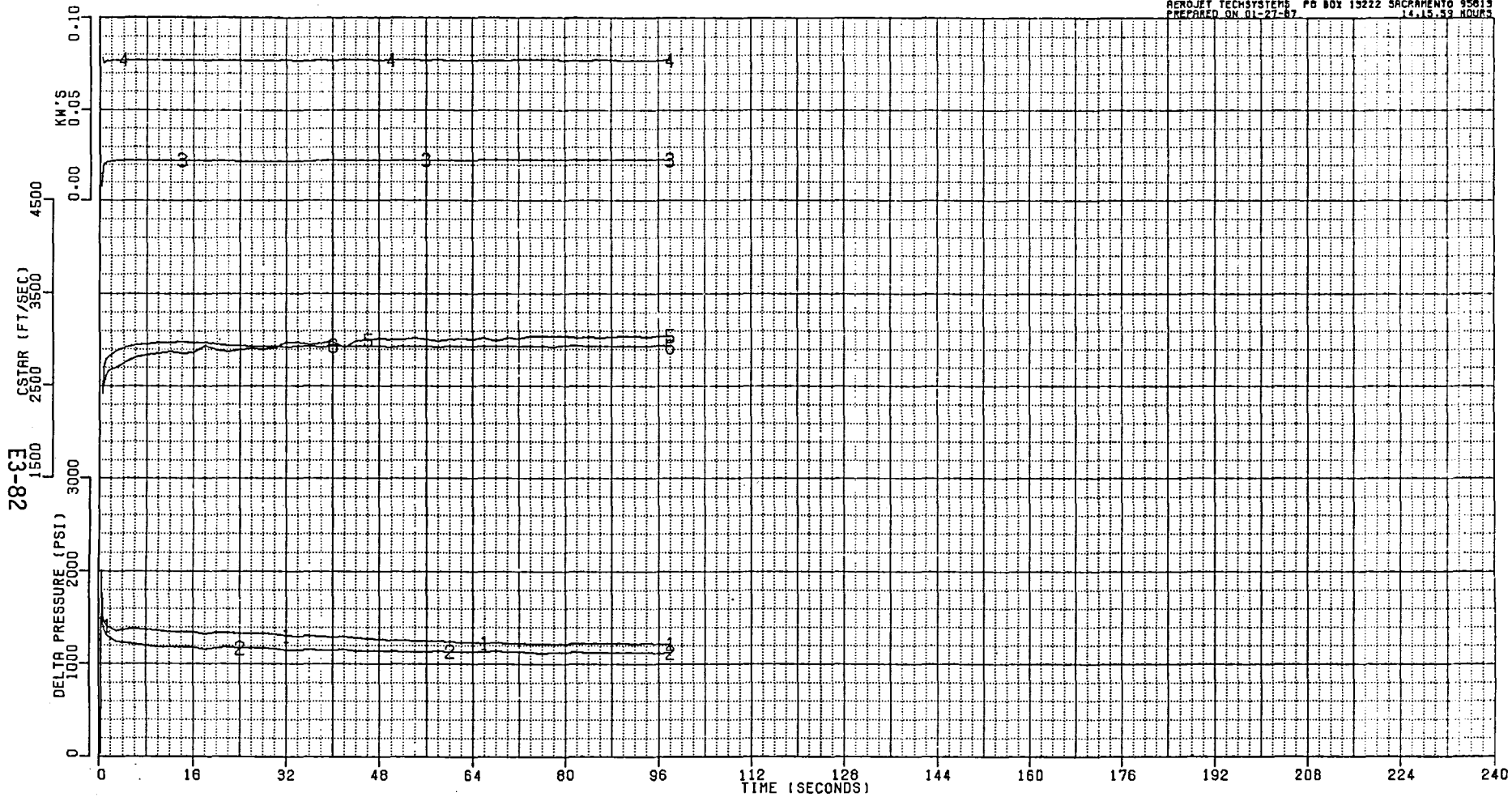
E3-81

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MB

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-144

TEST DATE 11-10-85 11:00 HOURS AVERAGED DATA





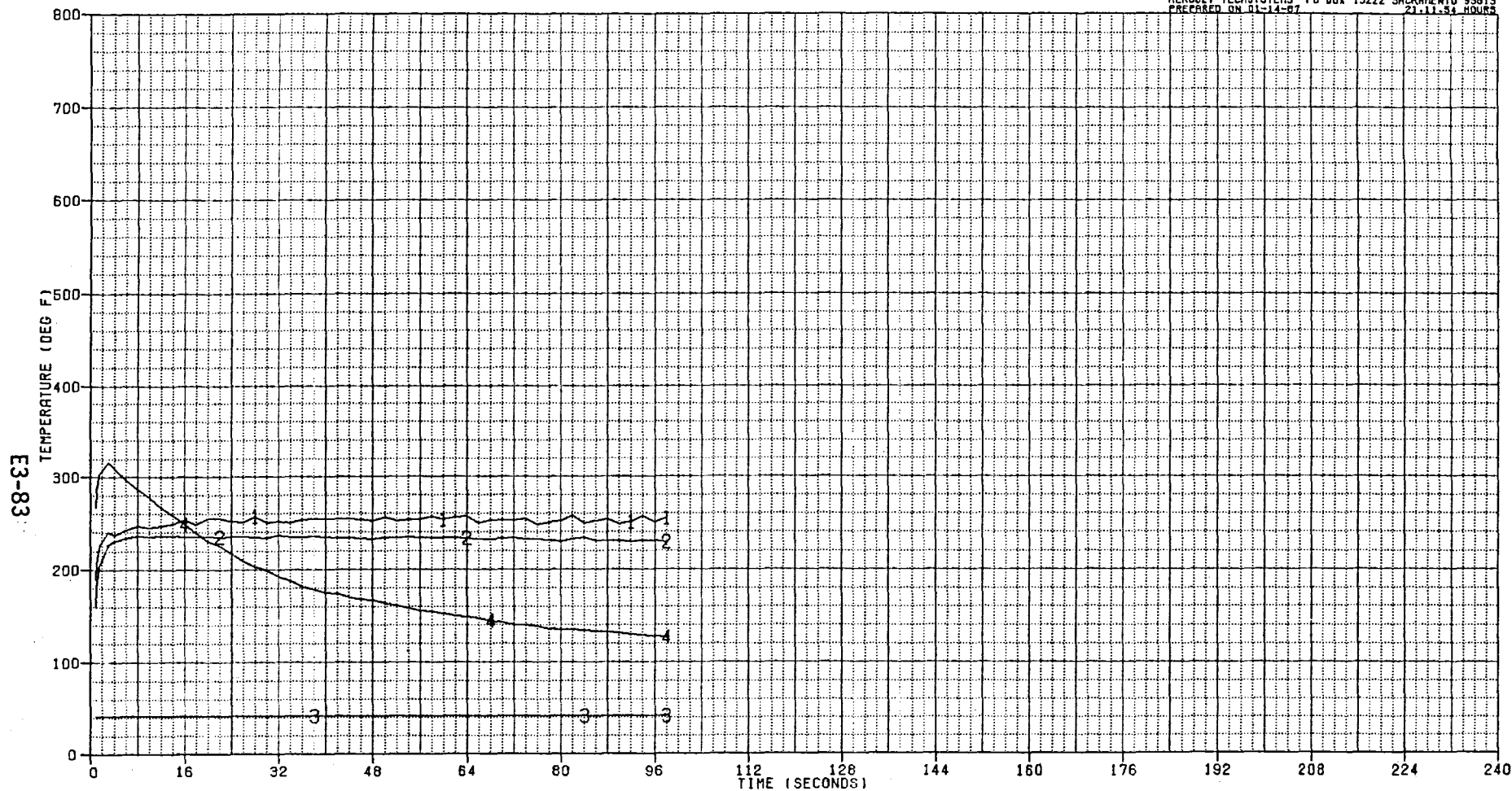
28-82 E3

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-144

TEST DATE 11-18-85 1140 HOURS      AVERAGED DATA

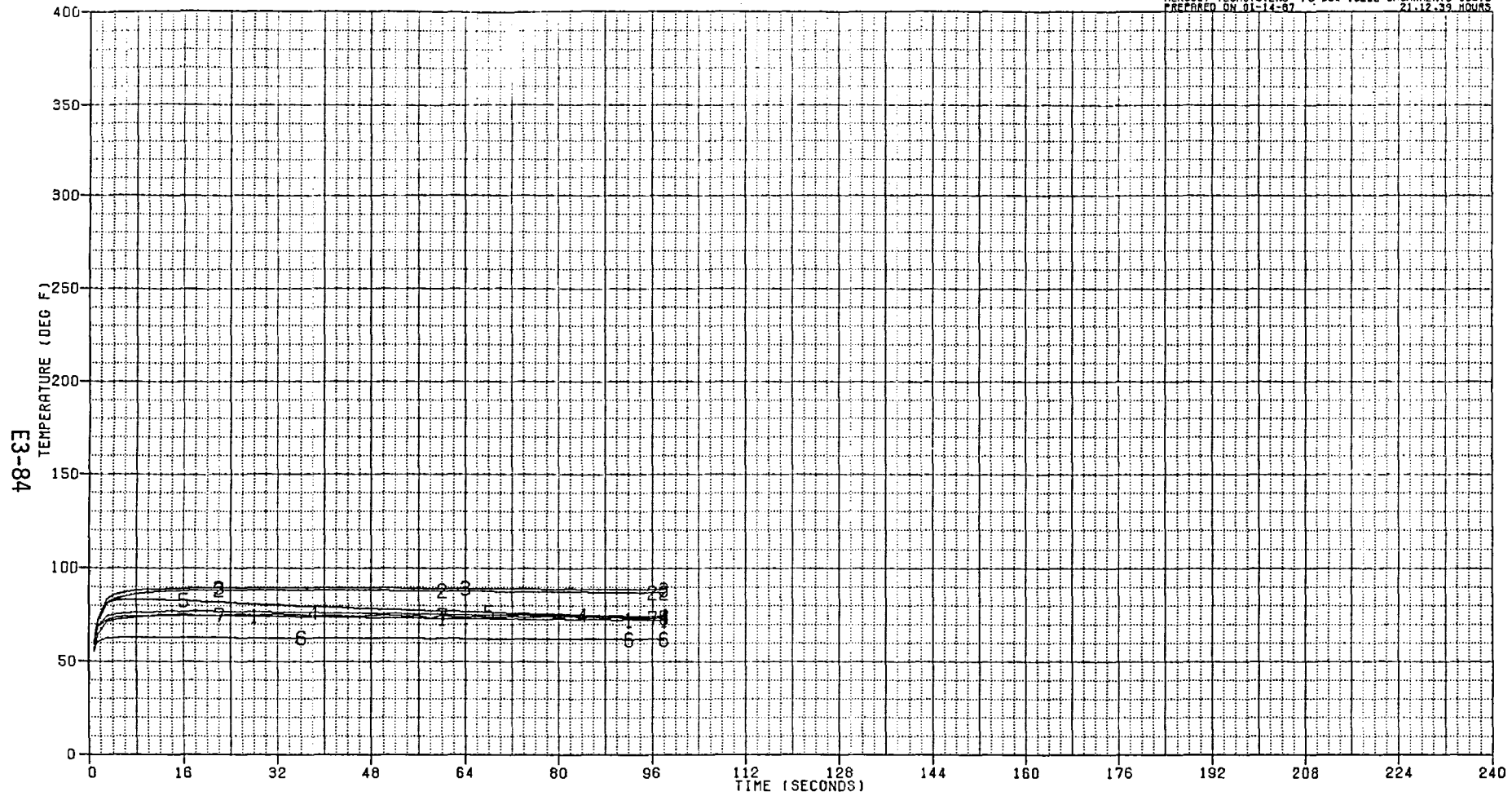


E3-83

- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-144  
BARREL DATA  
TEST DATE 11-18-85 1140 HOURS      AVERAGED DATA





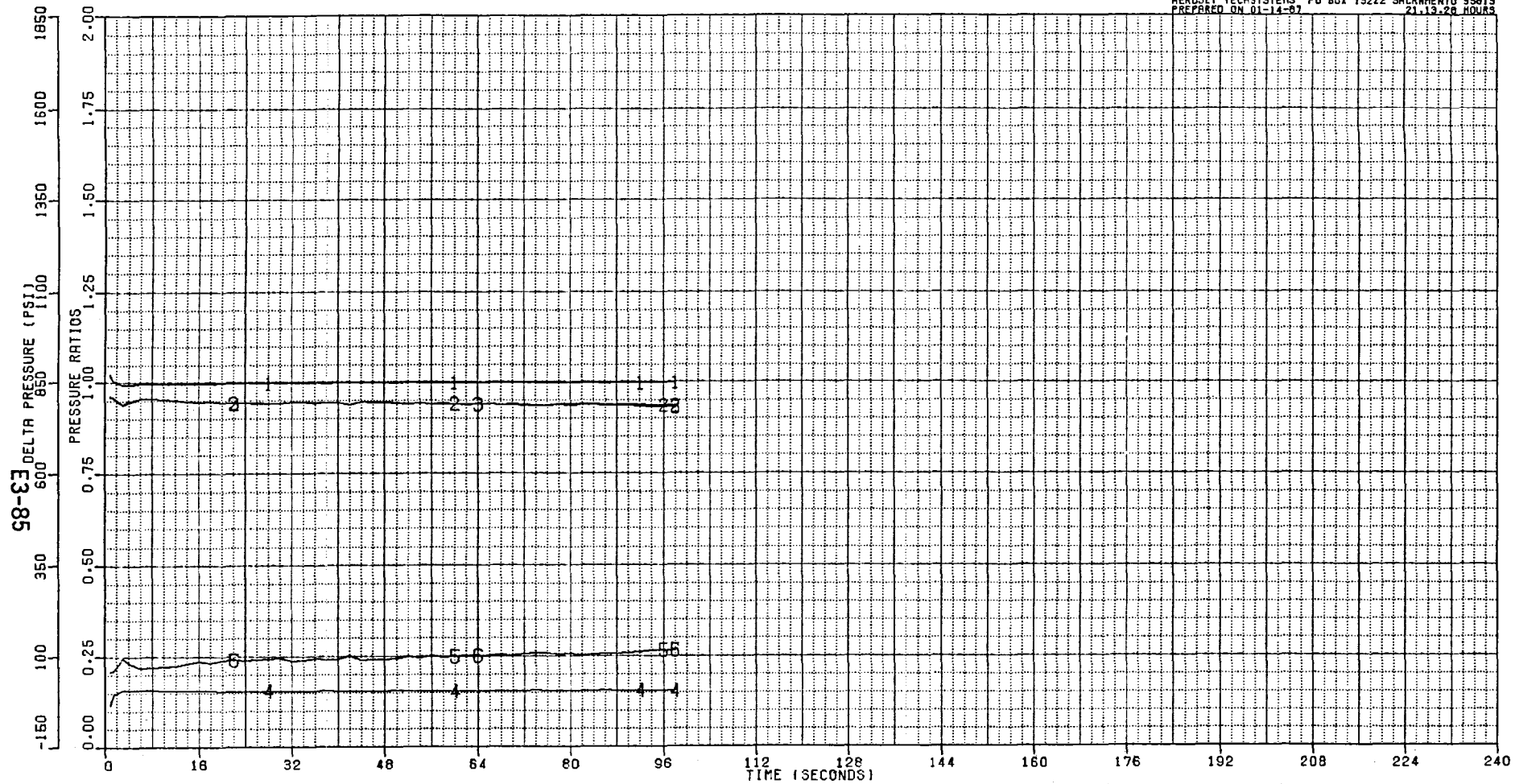
E3-84

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-144

TEST DATE 11-18-85 1140 HOURS AVERAGED DATA

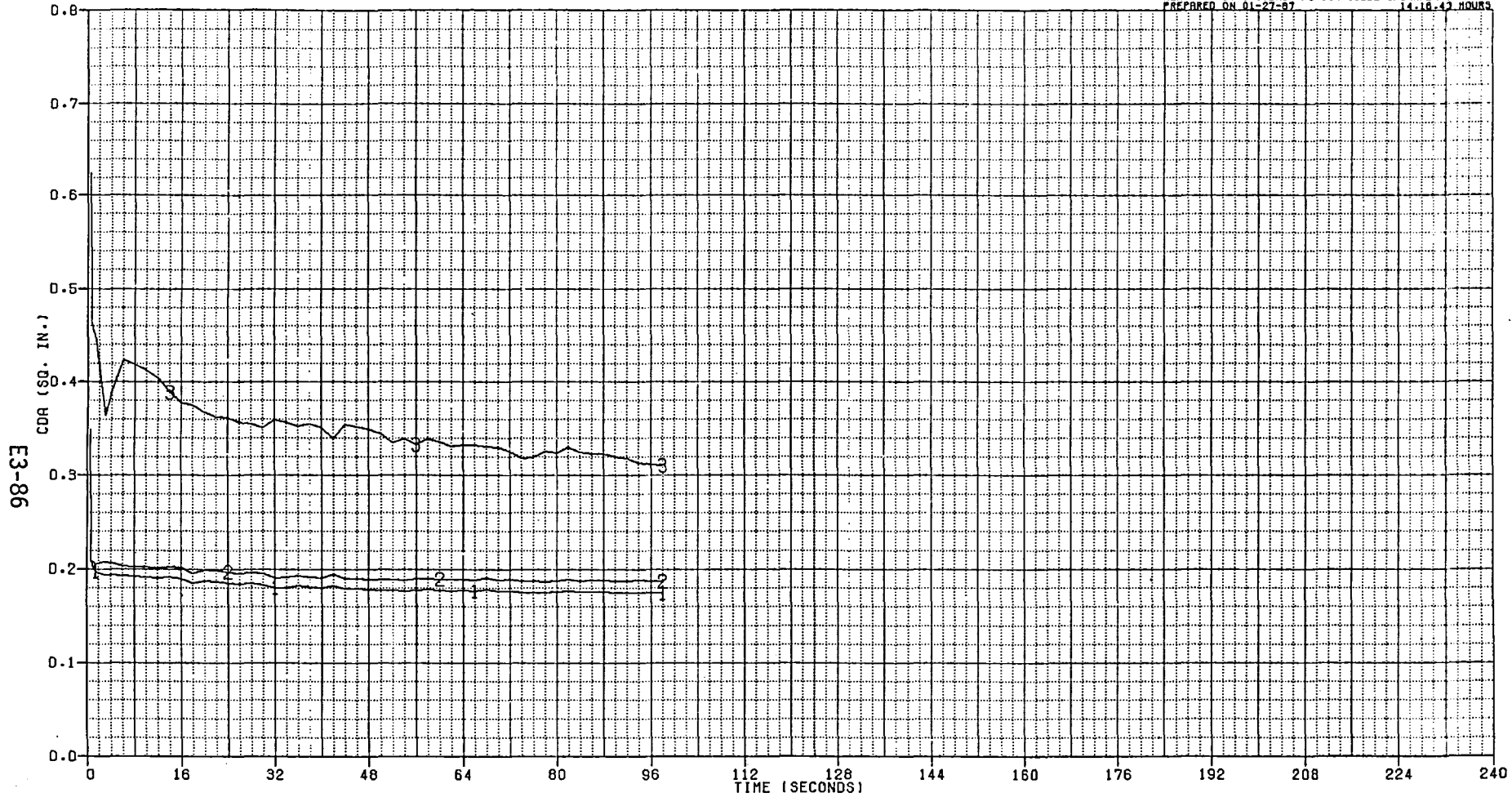


- 1 PRTR
- 2 PRTS
- 3 PRTS COFR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-144  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-18-85 1140 HOURS      AVERAGED DATA







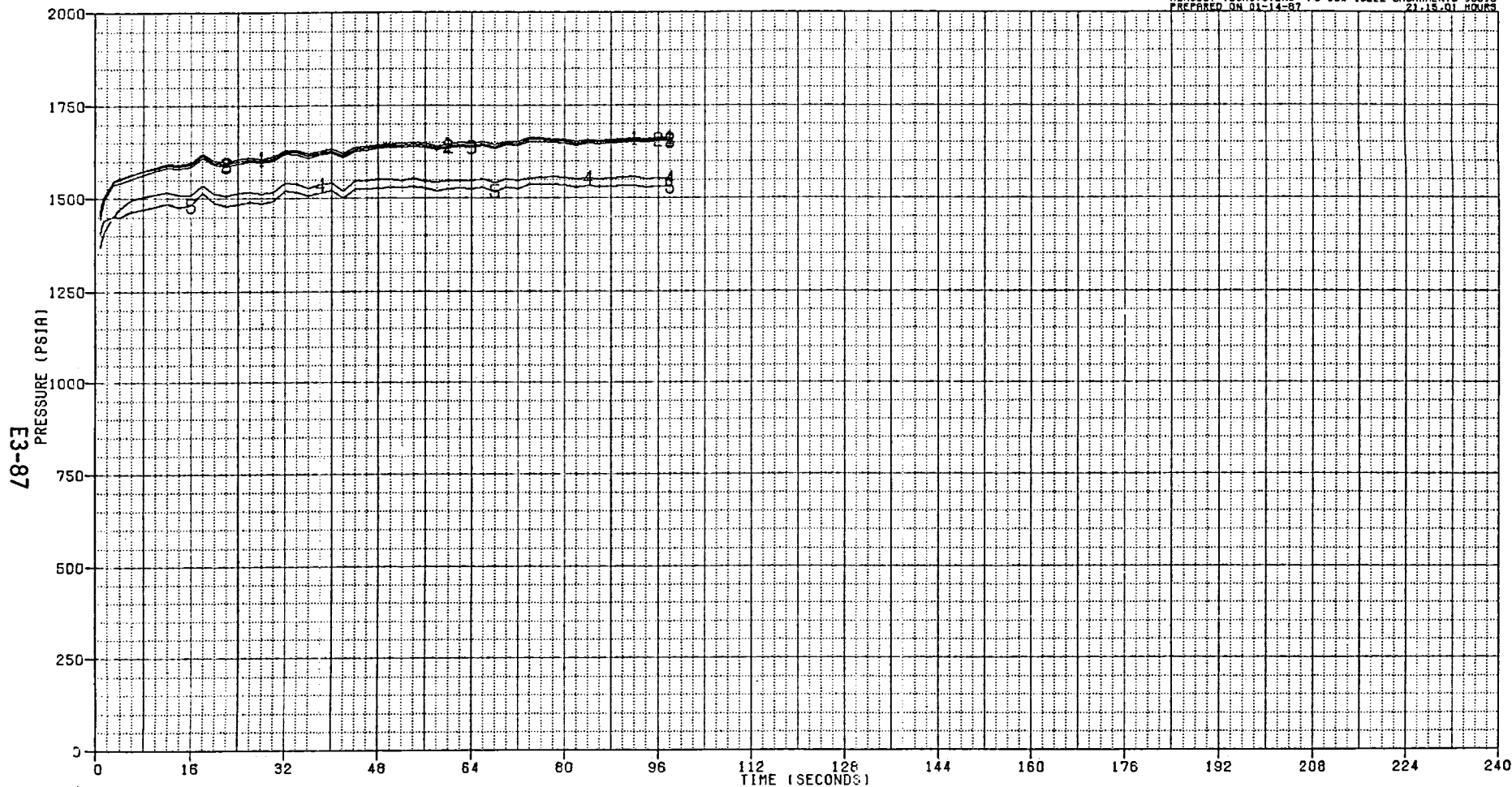
E3-86

1 NR1 SQ. IN.  
2 NR2 SQ. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-144  
NOZZLE AREA CHANGE  
TEST DATE 11-18-85 1140 HOURS AVERAGED DATA





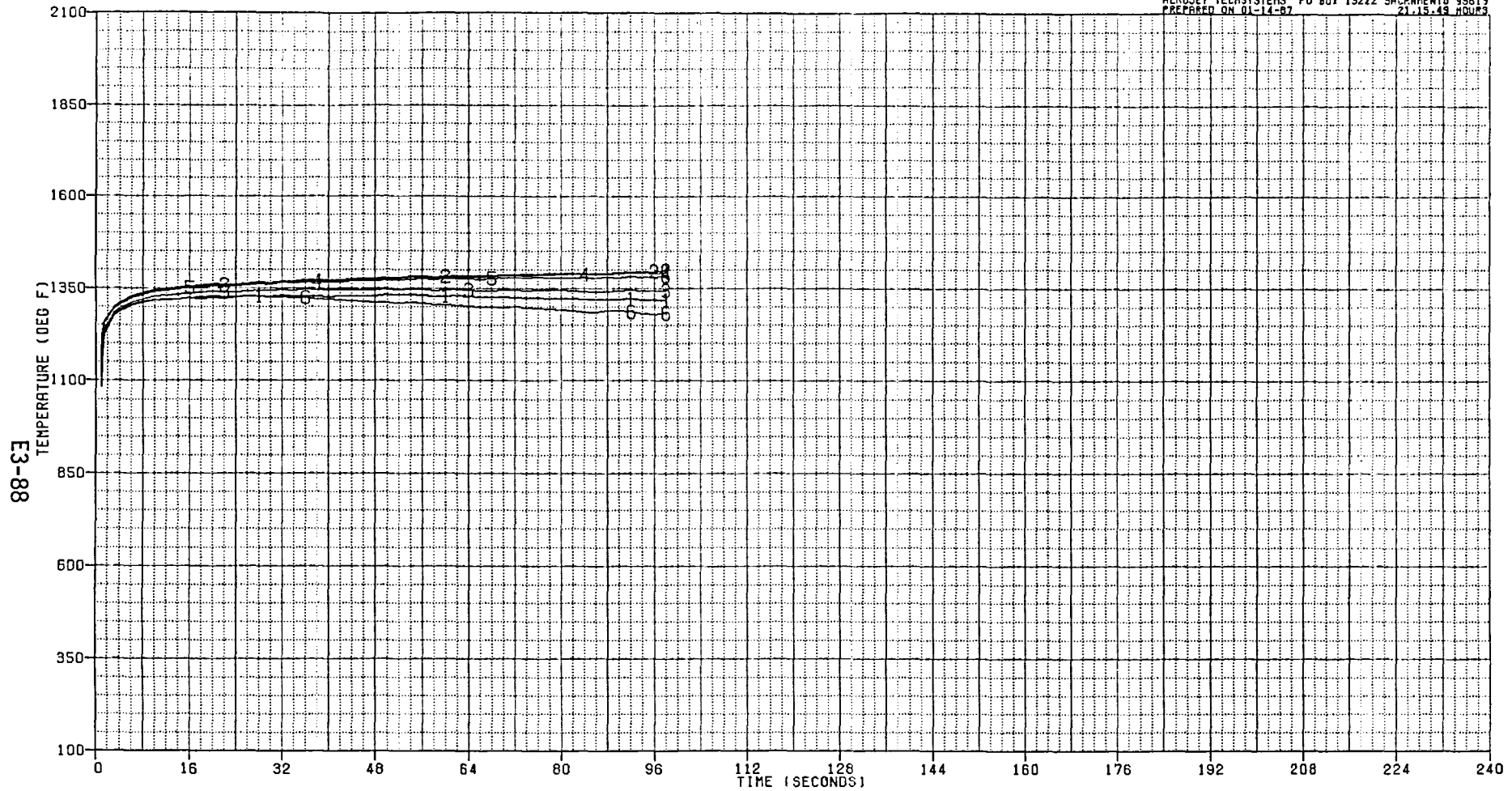


E3-87

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA



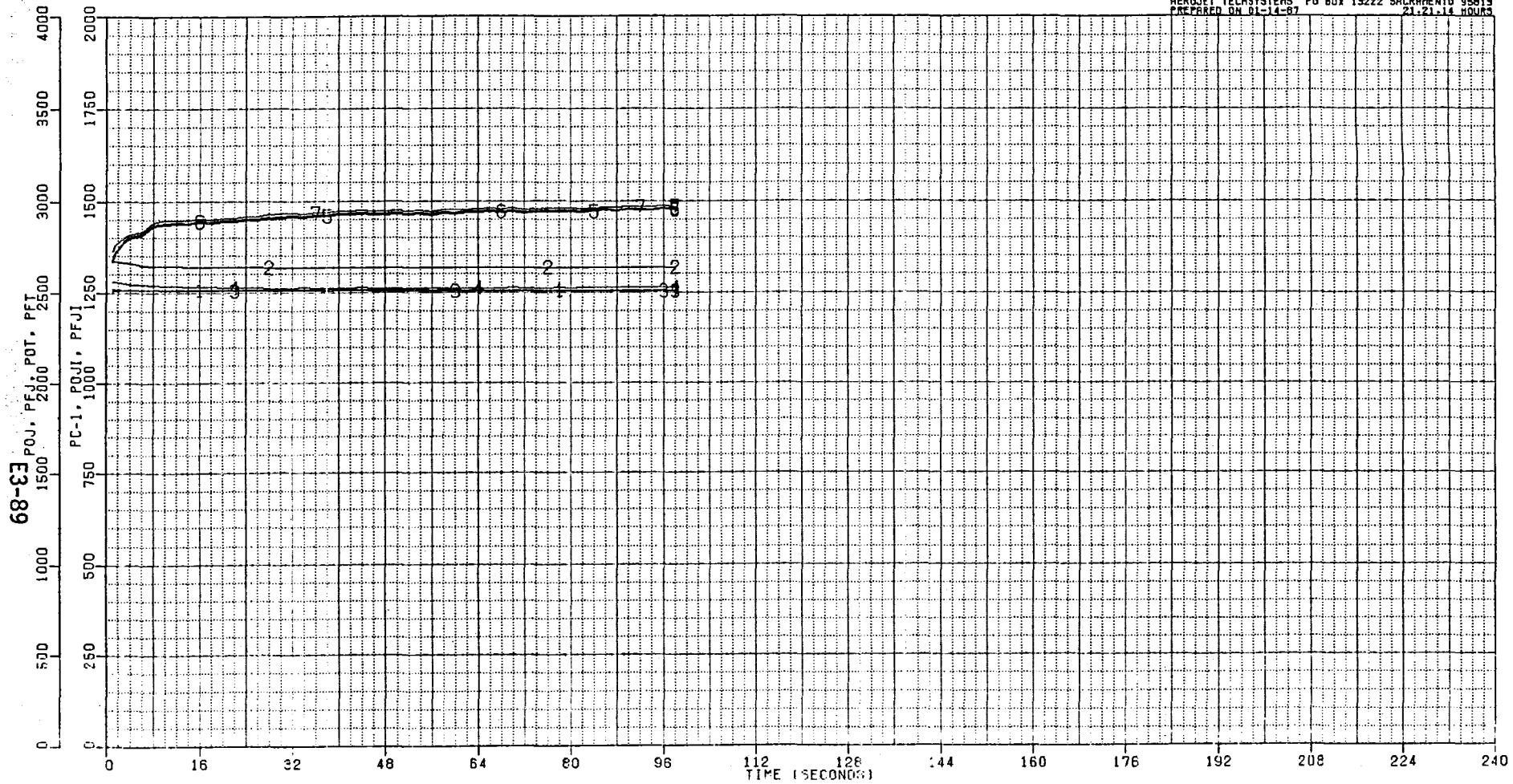
TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-144  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1140 HOURS AVERAGED DATA



- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F



GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-144  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1140 HOURS AVERAGED DATA



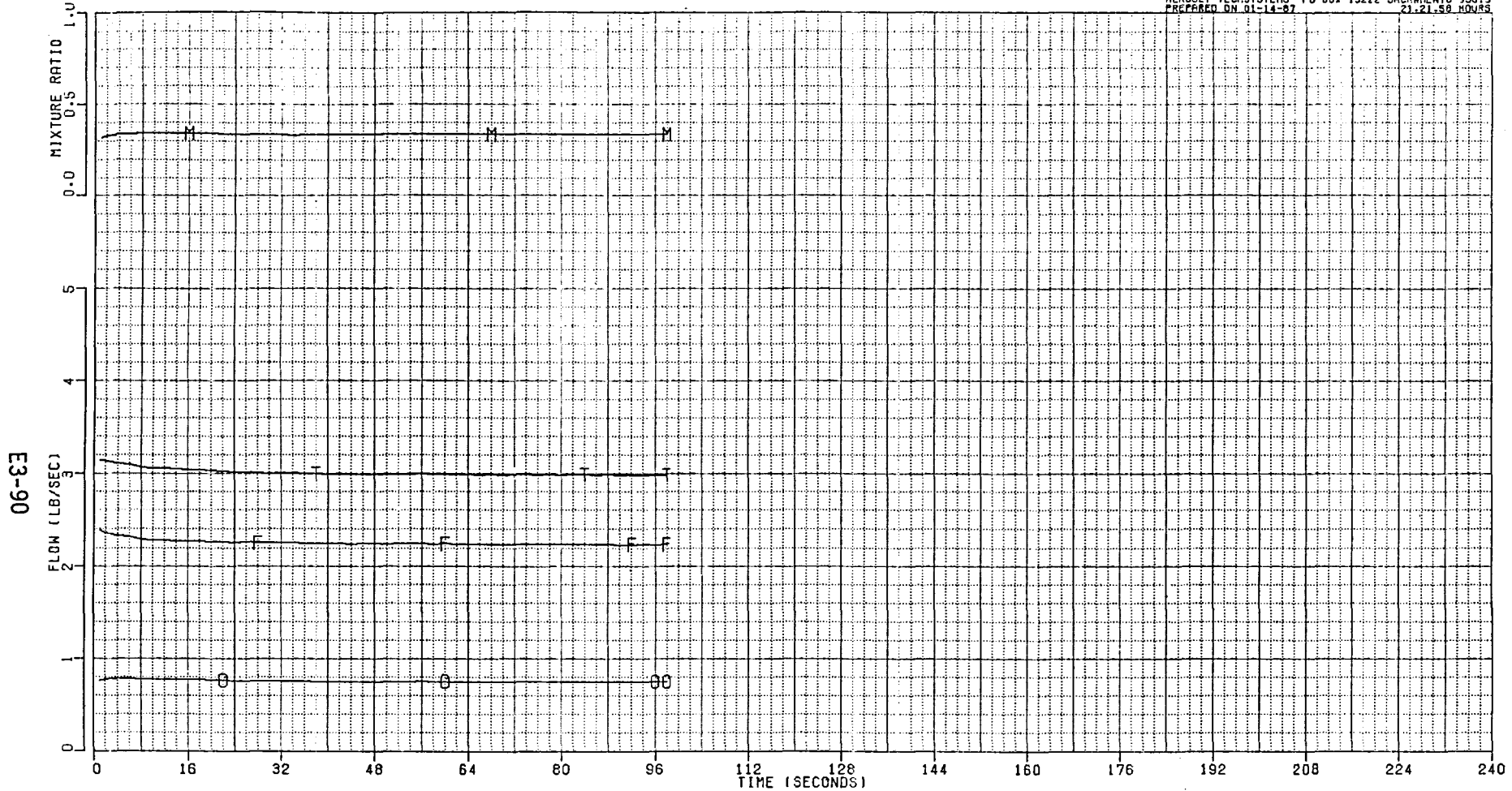
68-33

- 1 PQT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-149

TEST DATE 11-18-85 1542 HOURS AVERAGED DATA





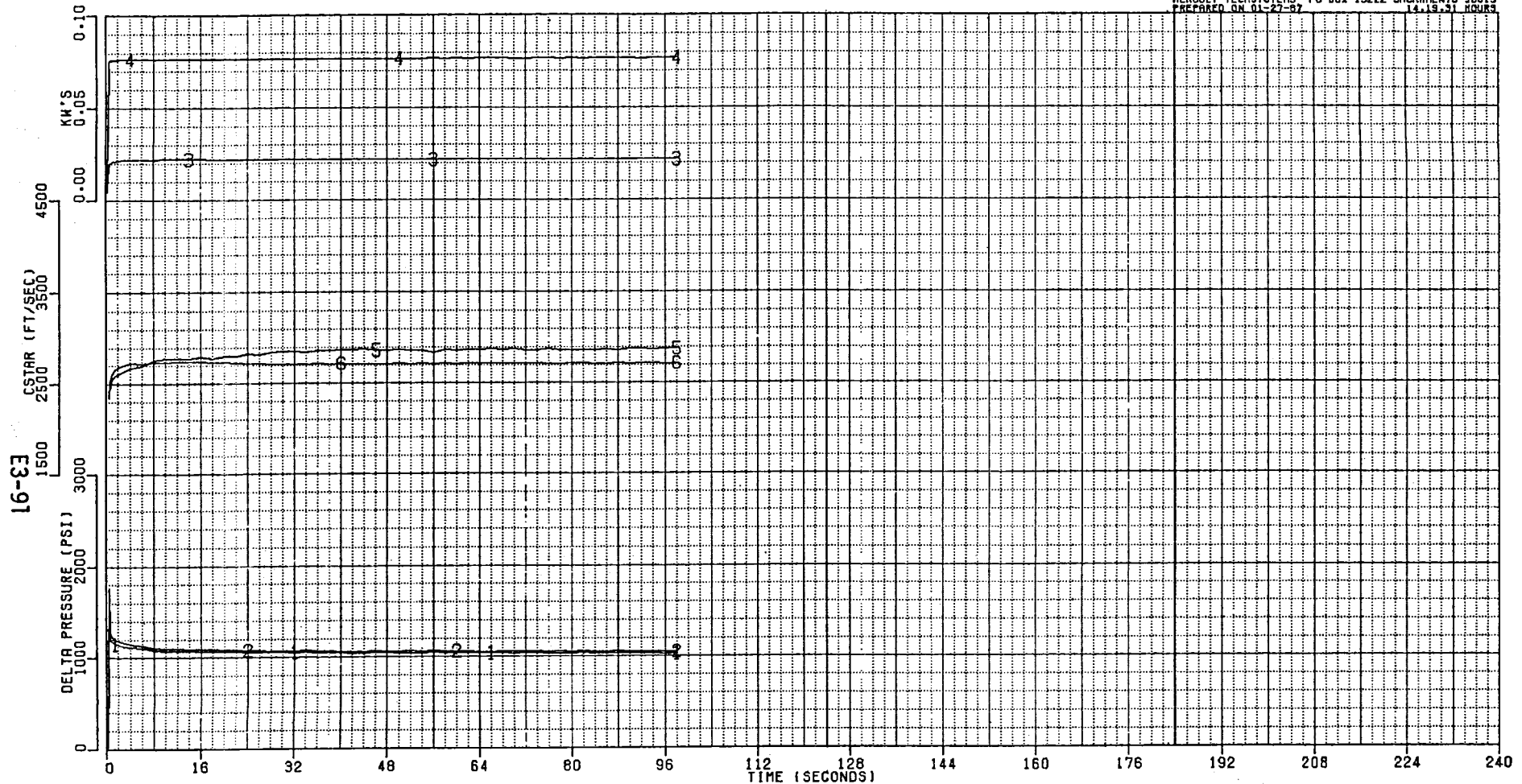
06-C3

F WF LBS/SEC  
O WOX LBS/SEC  
T WTDT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-149

TEST DATE 11-18-60 1542 HOURS AVERAGED DATA





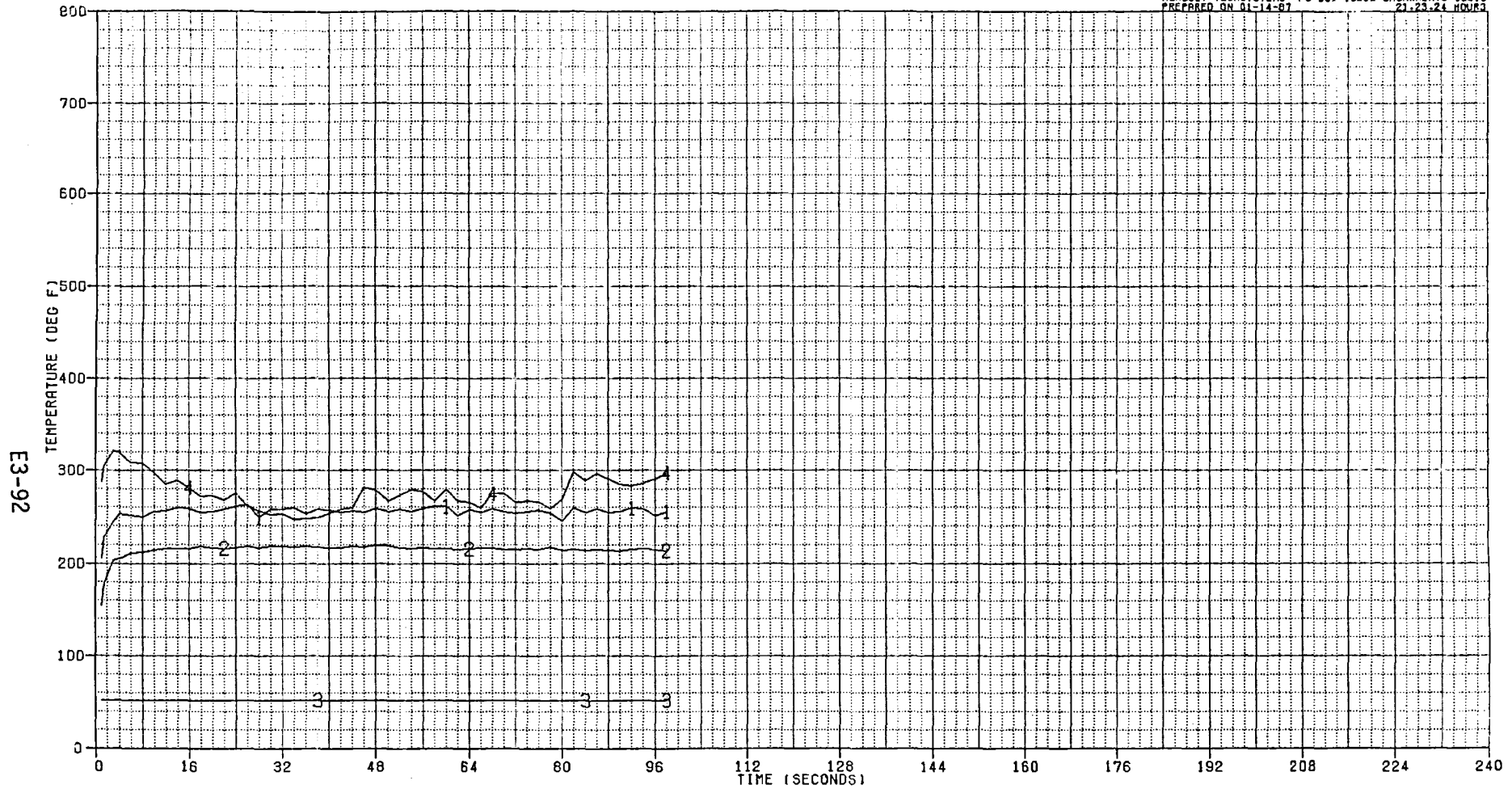
16-31  
E3-91

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-149

TEST DATE 11-18-85 1542 HOURS      AVERAGED DATA

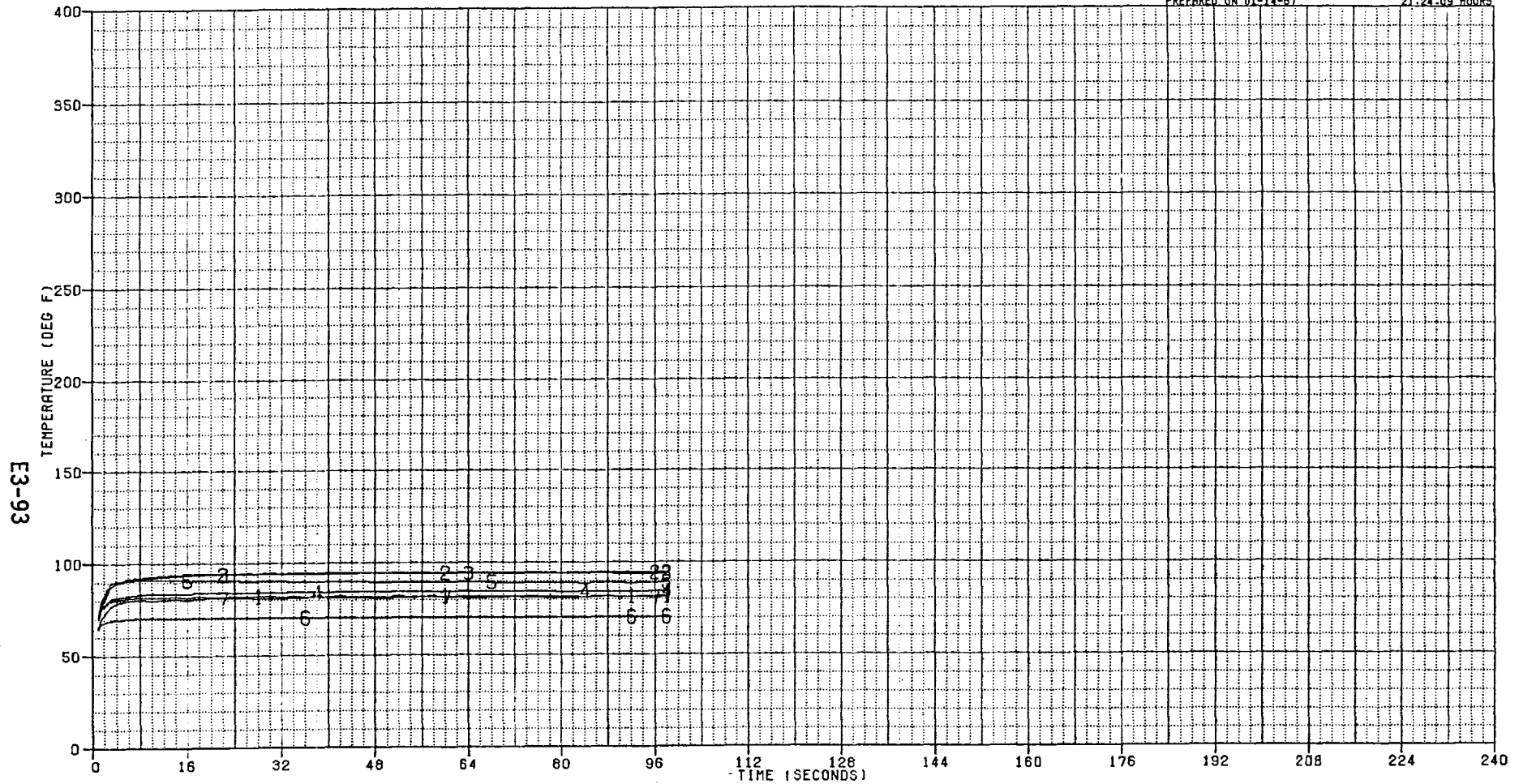




1 TC-7 DEG F  
2 TC-10 DEG F  
3 TC-11 DEG F  
4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-149  
BARREL DATA  
TEST DATE 11-18-85 1542 HOURS AVERAGED DATA





66-93

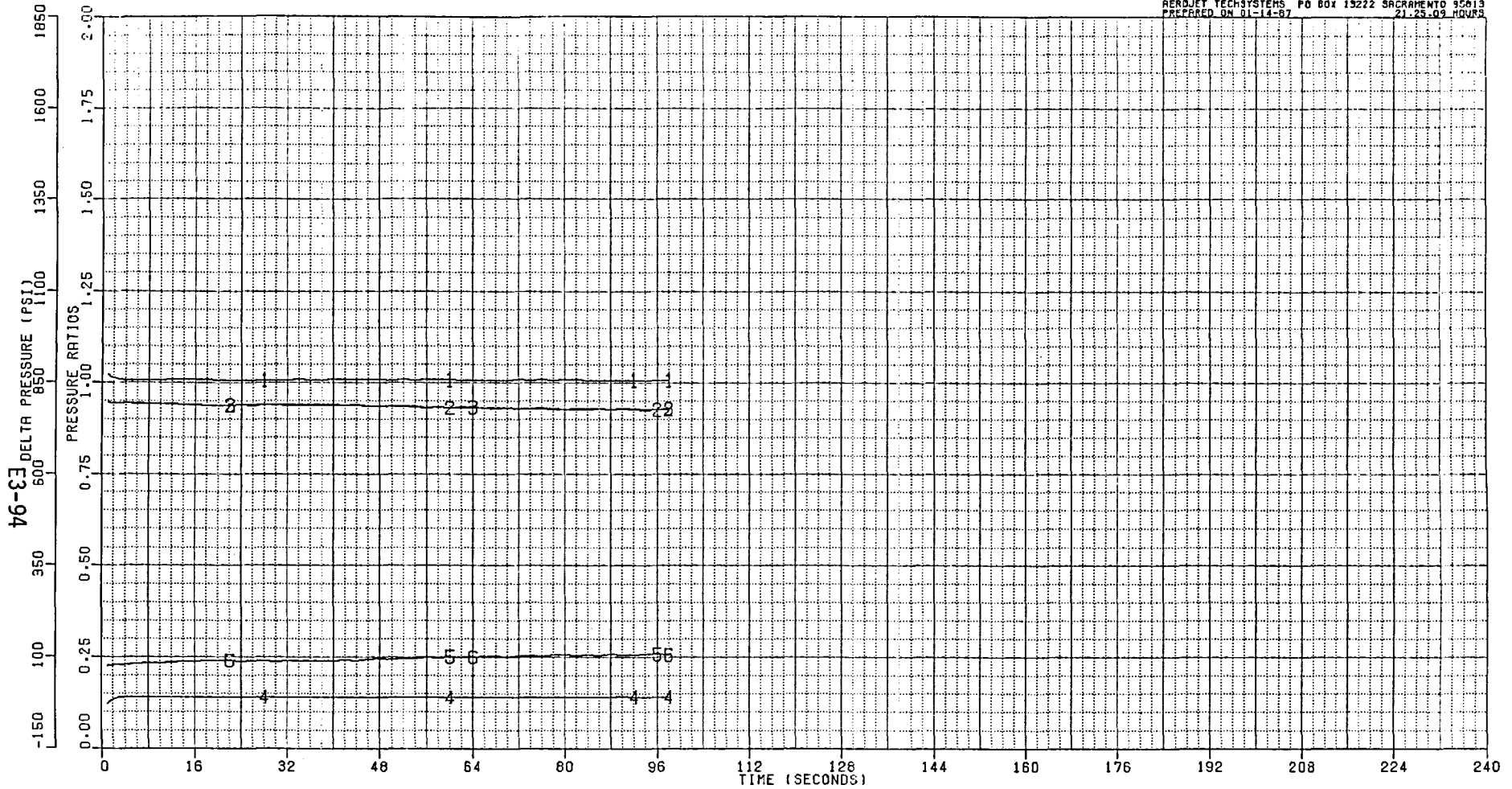
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
 TEST NO. 2427-936-A6-149

TEST DATE 11-18-85 1542 HOURS AVERAGED DATA







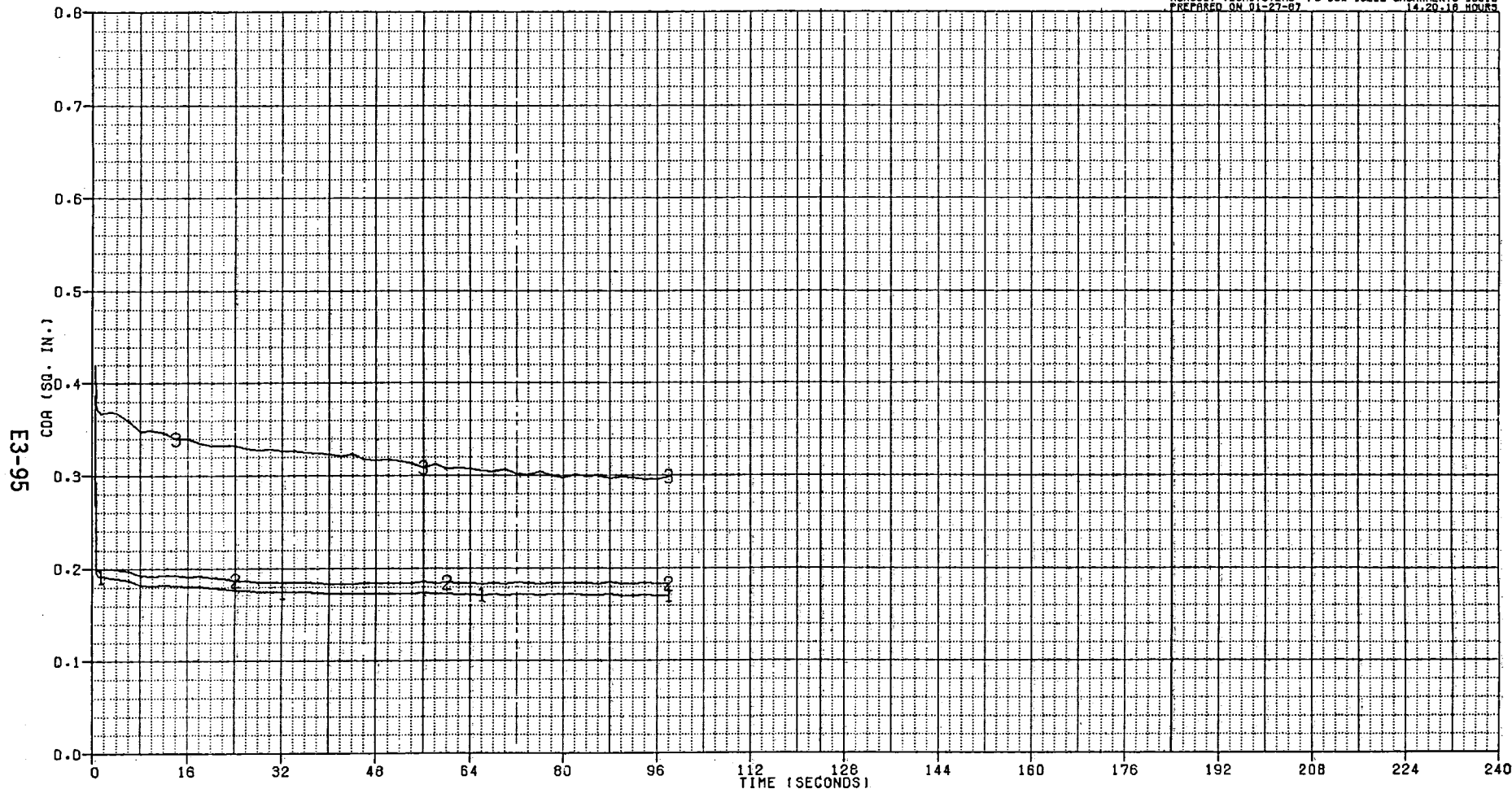
- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 OPTR
- 5 DPTS-C
- 6 DPTS

PSI  
 PSI  
 PSI



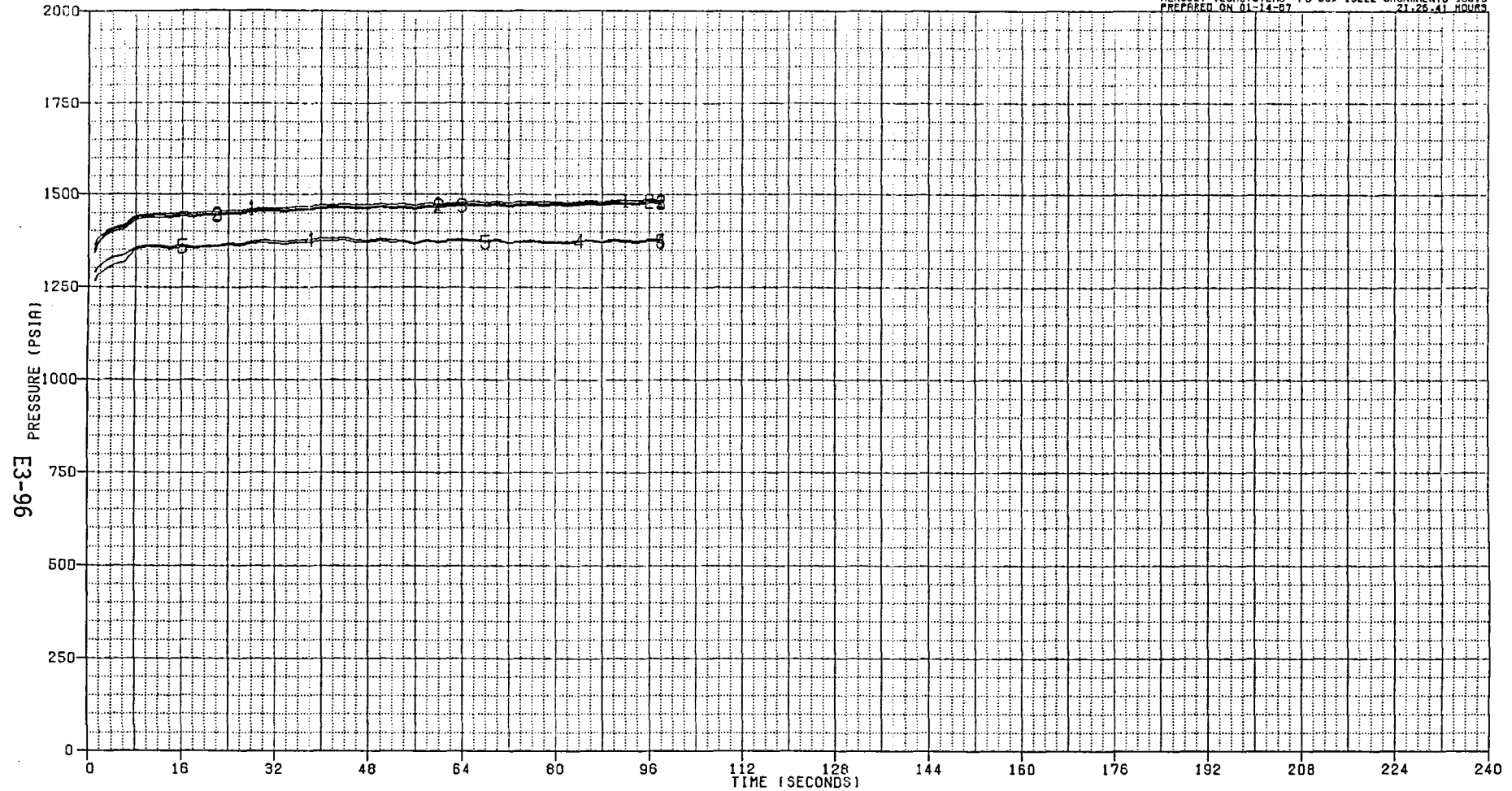
TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-149  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-18-85 1542 HOURS AVERAGED DATA





1 NR1 SQ. IN.  
2 NR2 SQ. IN.  
3 COA.

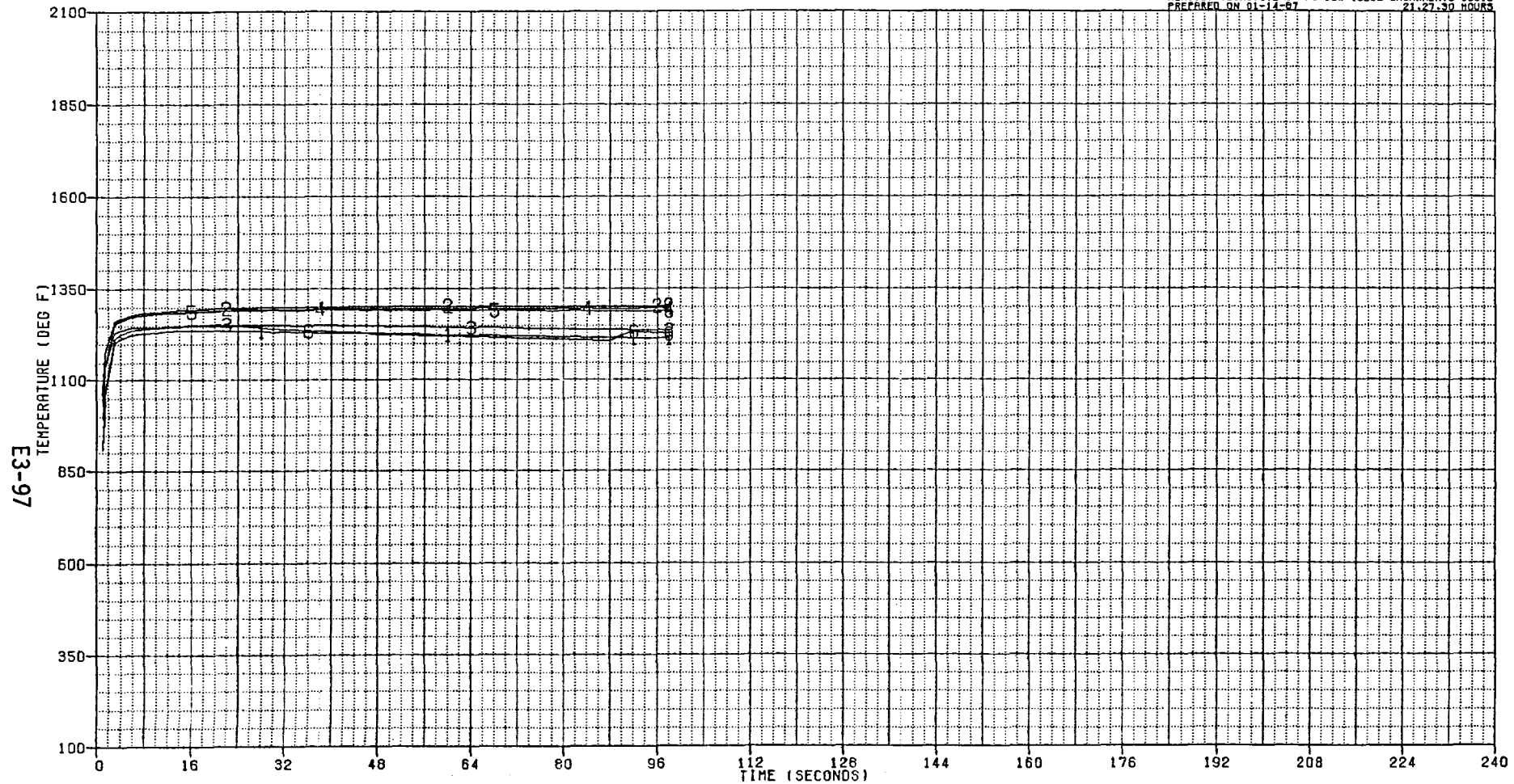
INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-149  
NOZZLE AREA CHANGE  
TEST DATE 11-18-85 1542 HOURS AVERAGED DATA



- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-149  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1542 HOURS AVERAGED DATA



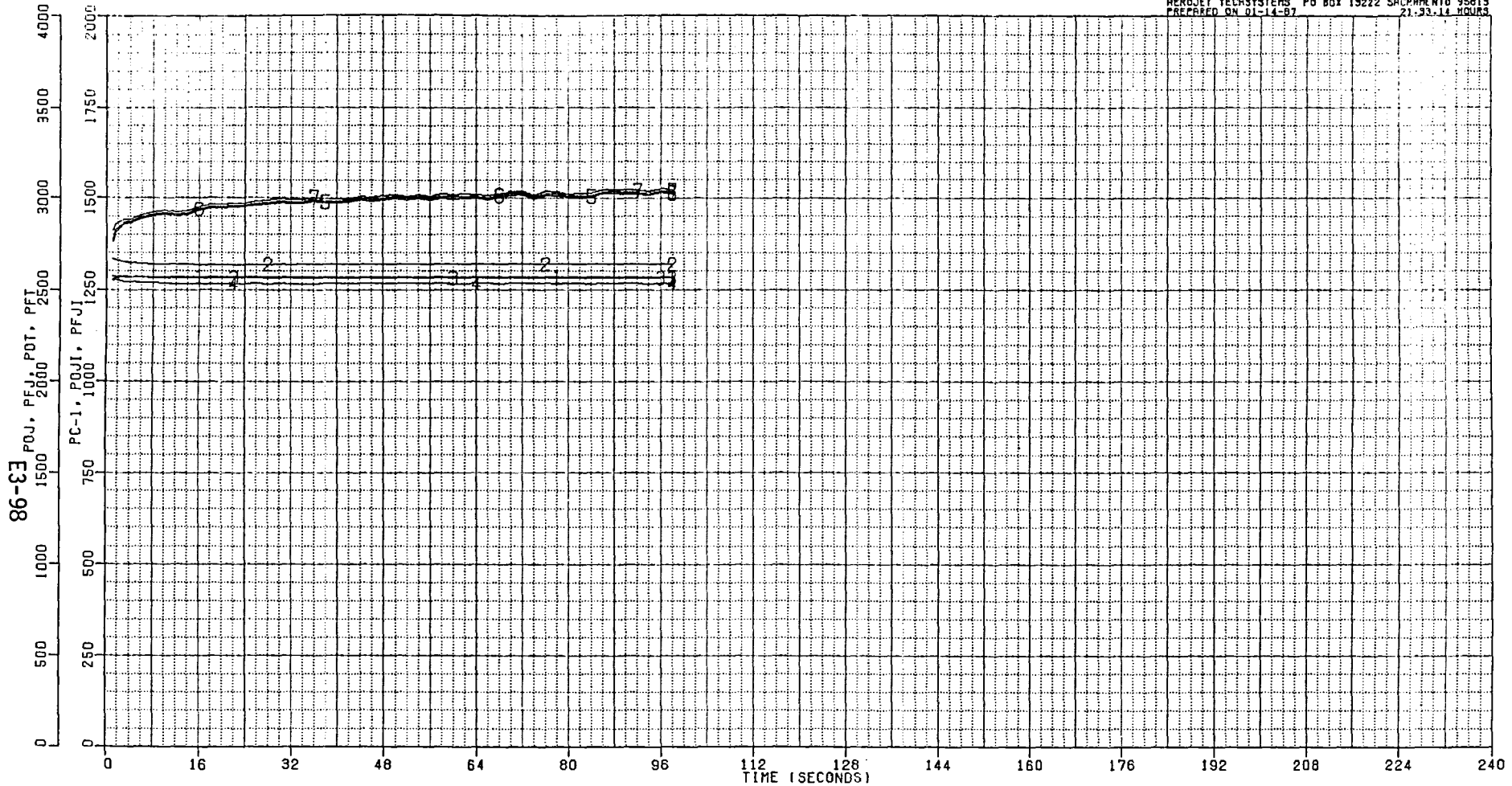


E3-97

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-149  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1542 HOURS AVERAGED DATA



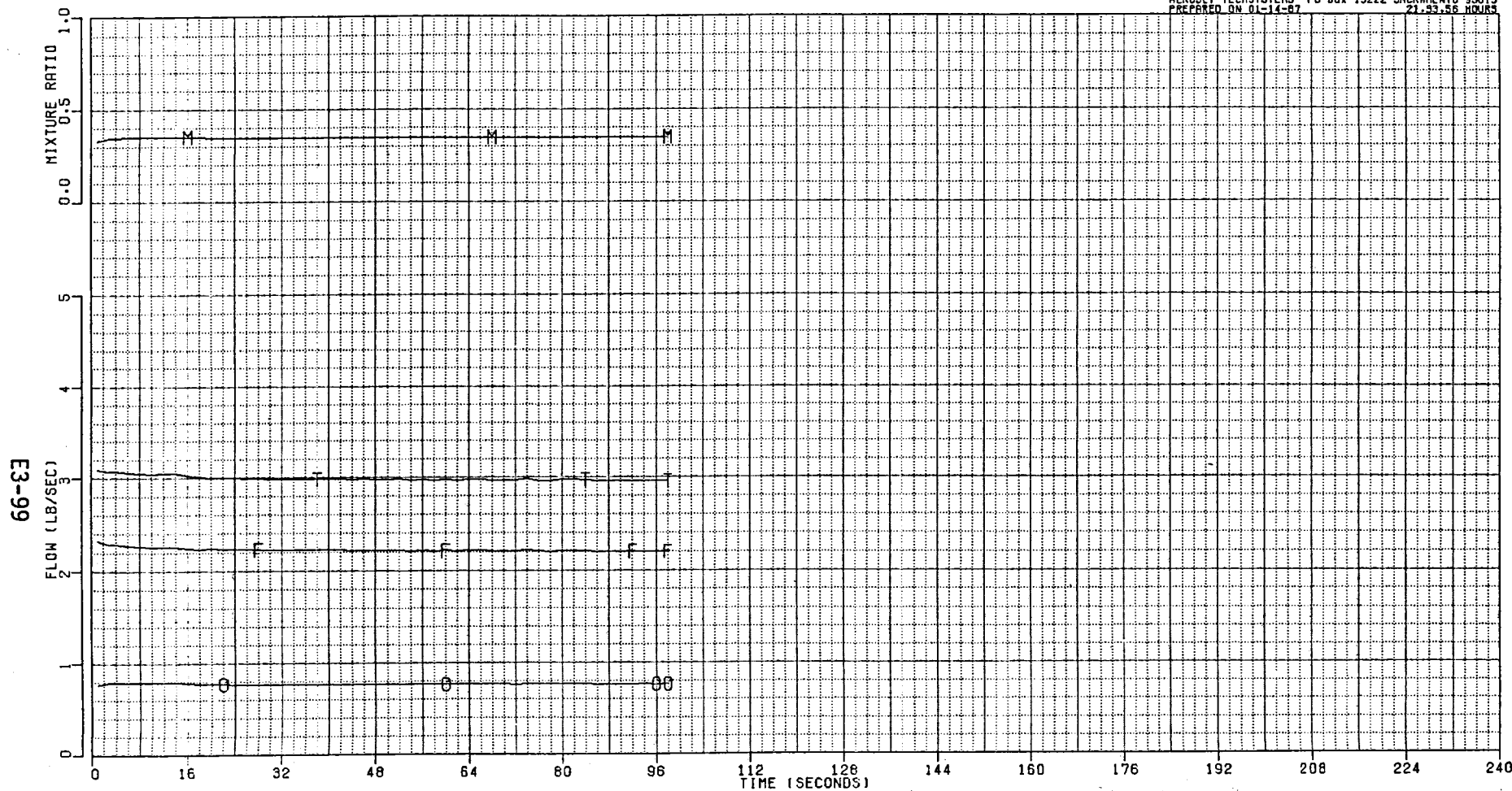


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-150

TEST DATE 11-18-85 1558 HOURS AVERAGED DATA



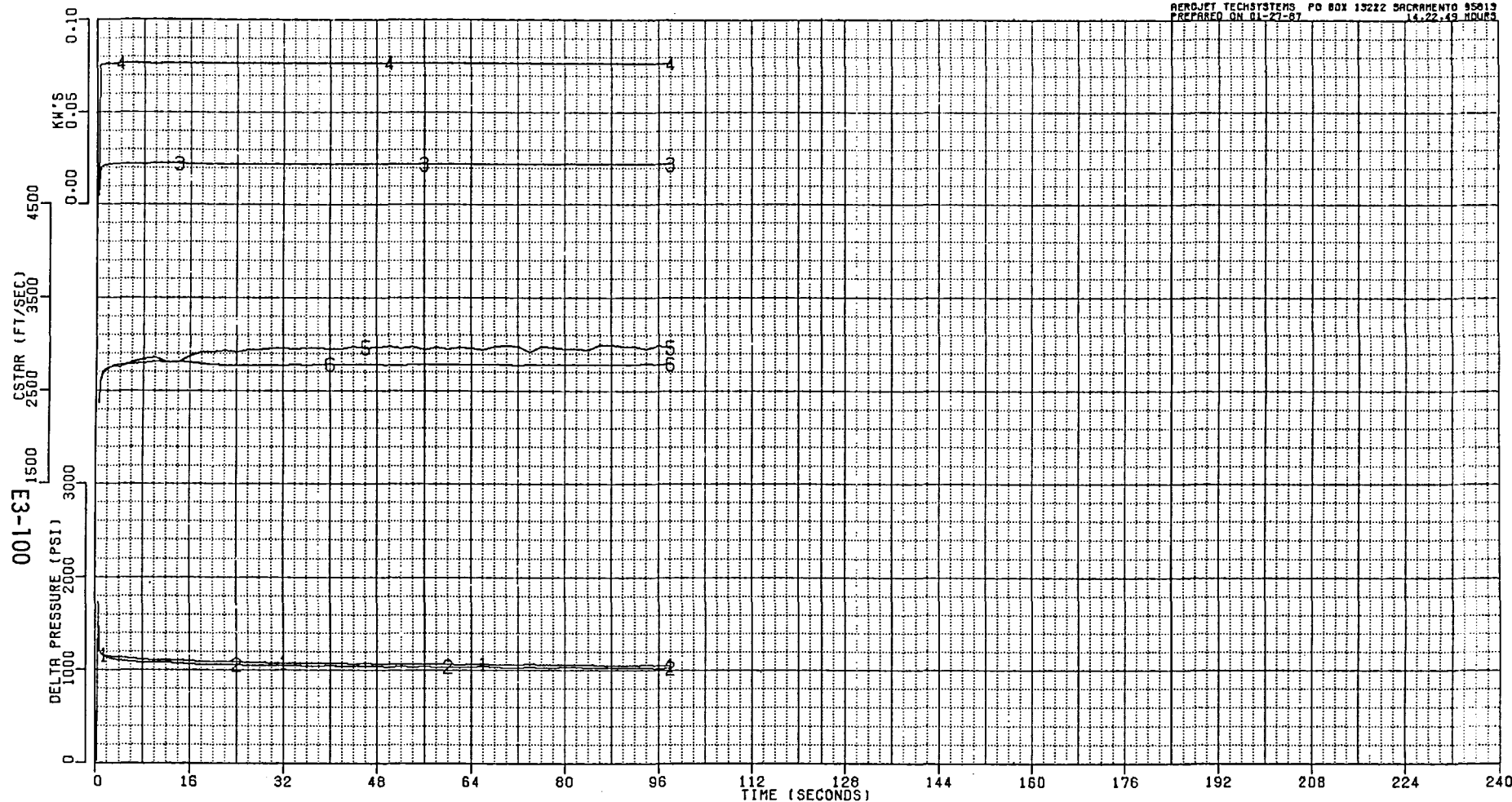
66-99

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-150

TEST DATE 11-18-85 1558 HOURS AVERAGED DATA



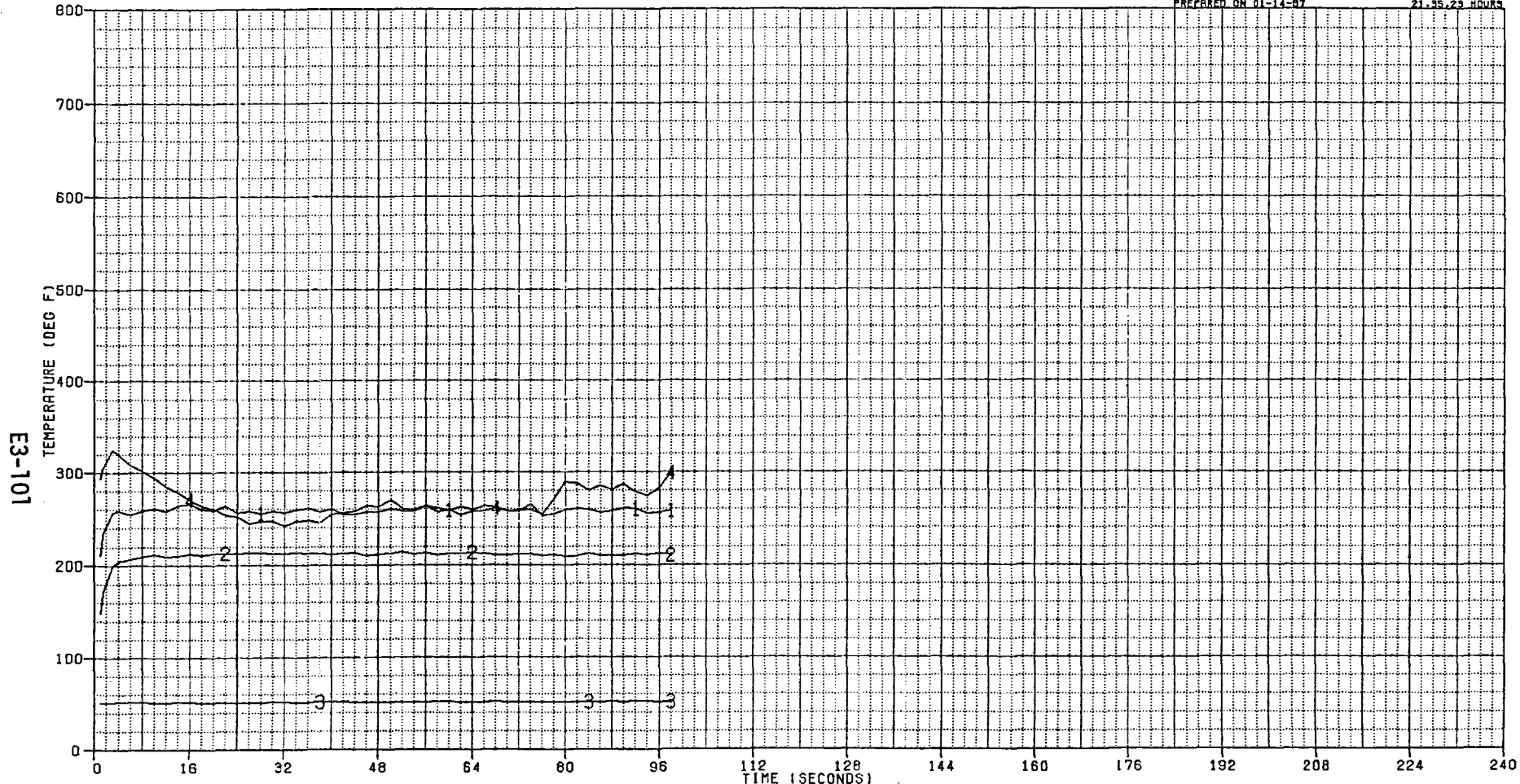


- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-150

TEST DATE 11-18-85 1558 HOURS      AVERAGED DATA





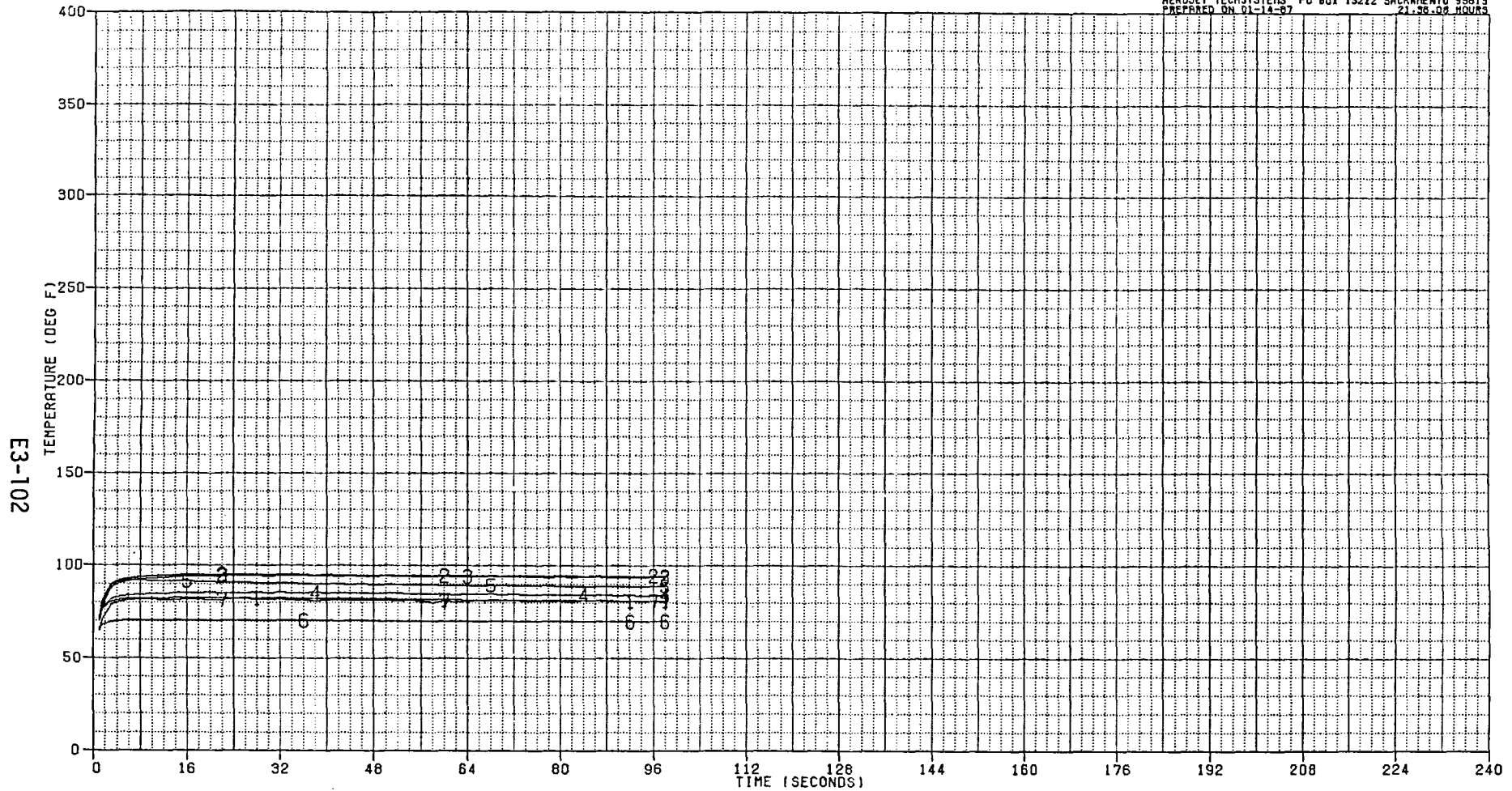
E3-101

- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-150  
BARREL DATA  
TEST DATE 11-18-85 1558 HOURS      AVERAGED DATA







E3-102

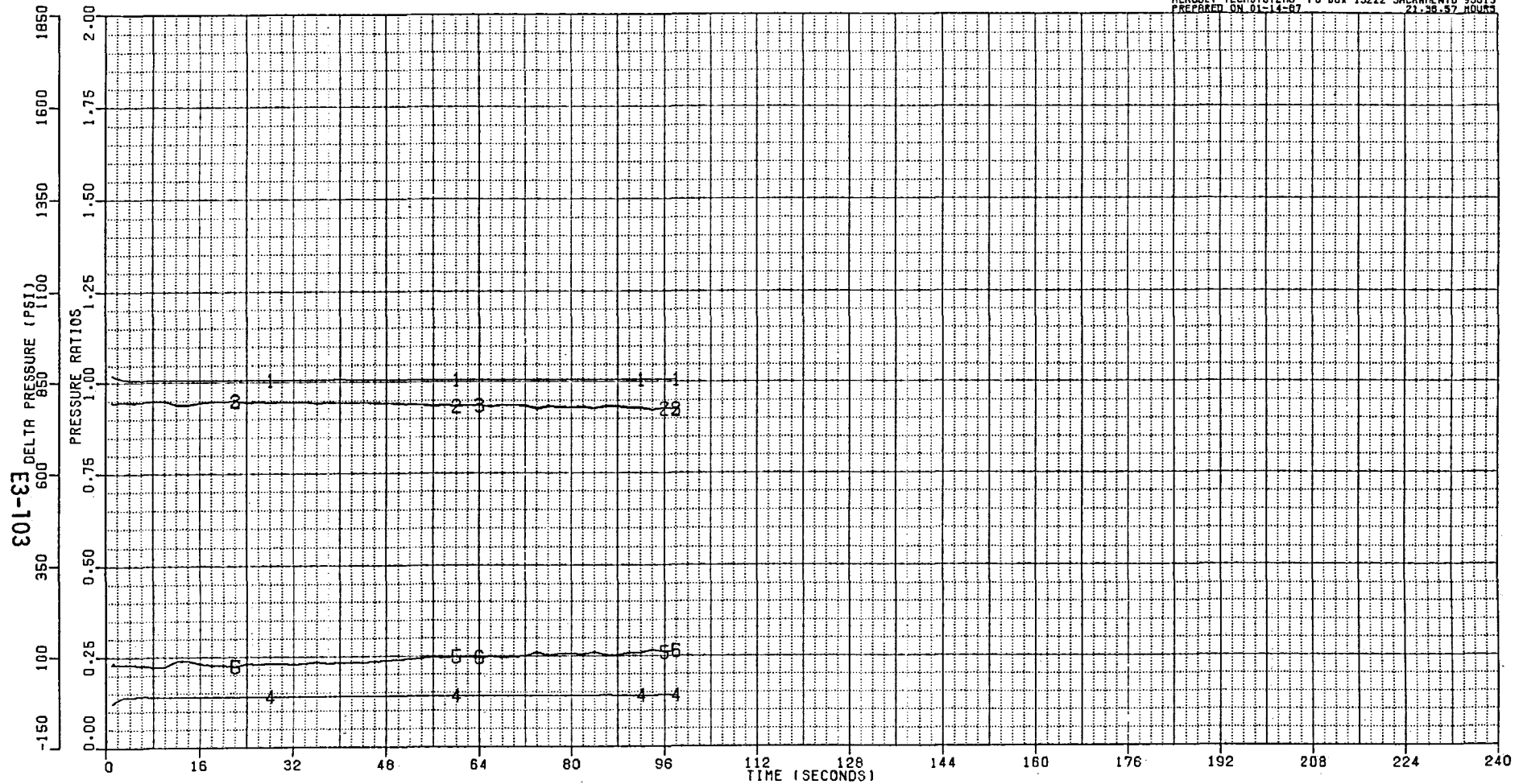
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-150

TEST DATE 11-18-85 1558 HOURS AVERAGED DATA

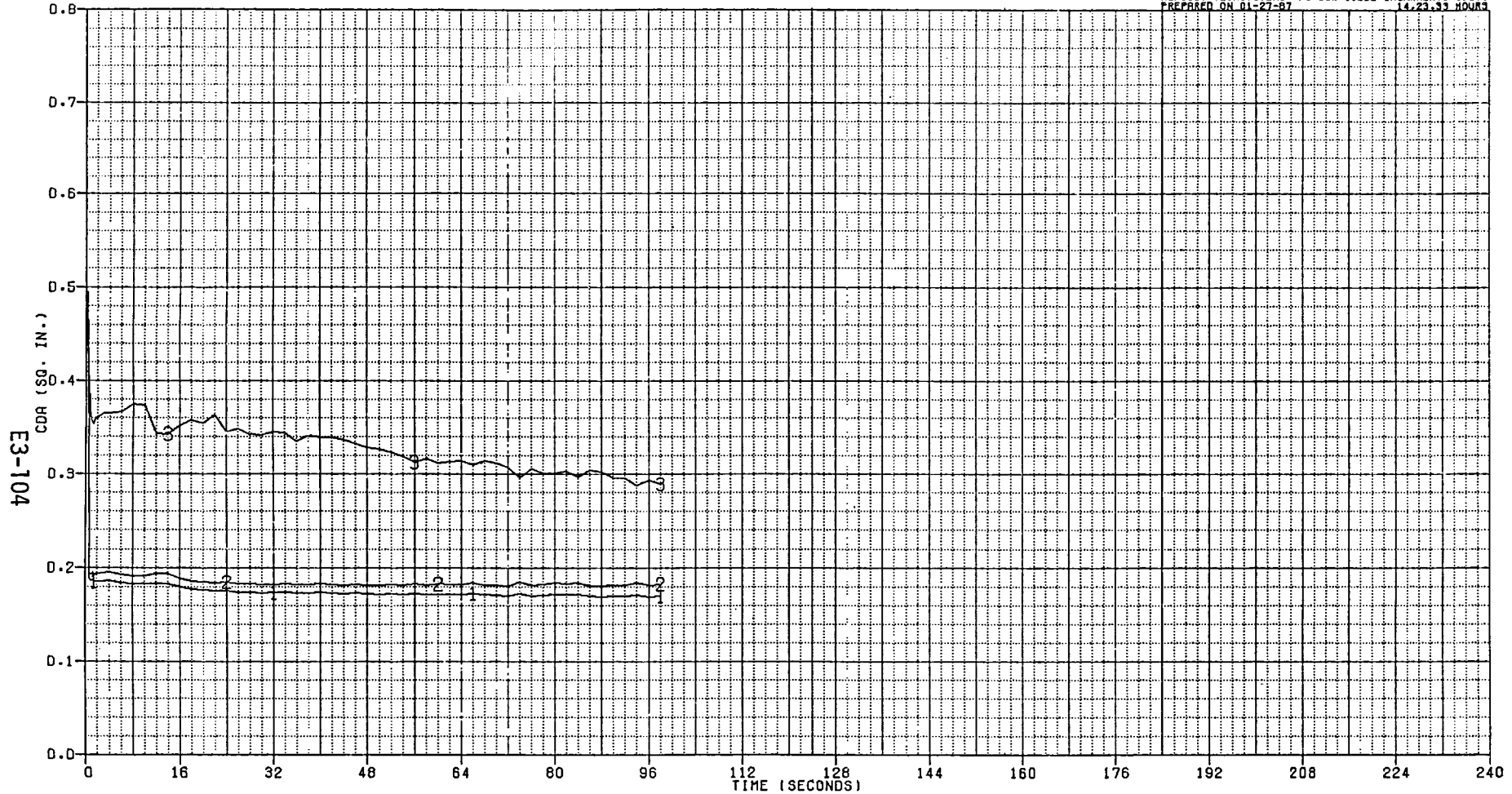




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-150  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-18-85 1558 HOURS AVERAGED DATA

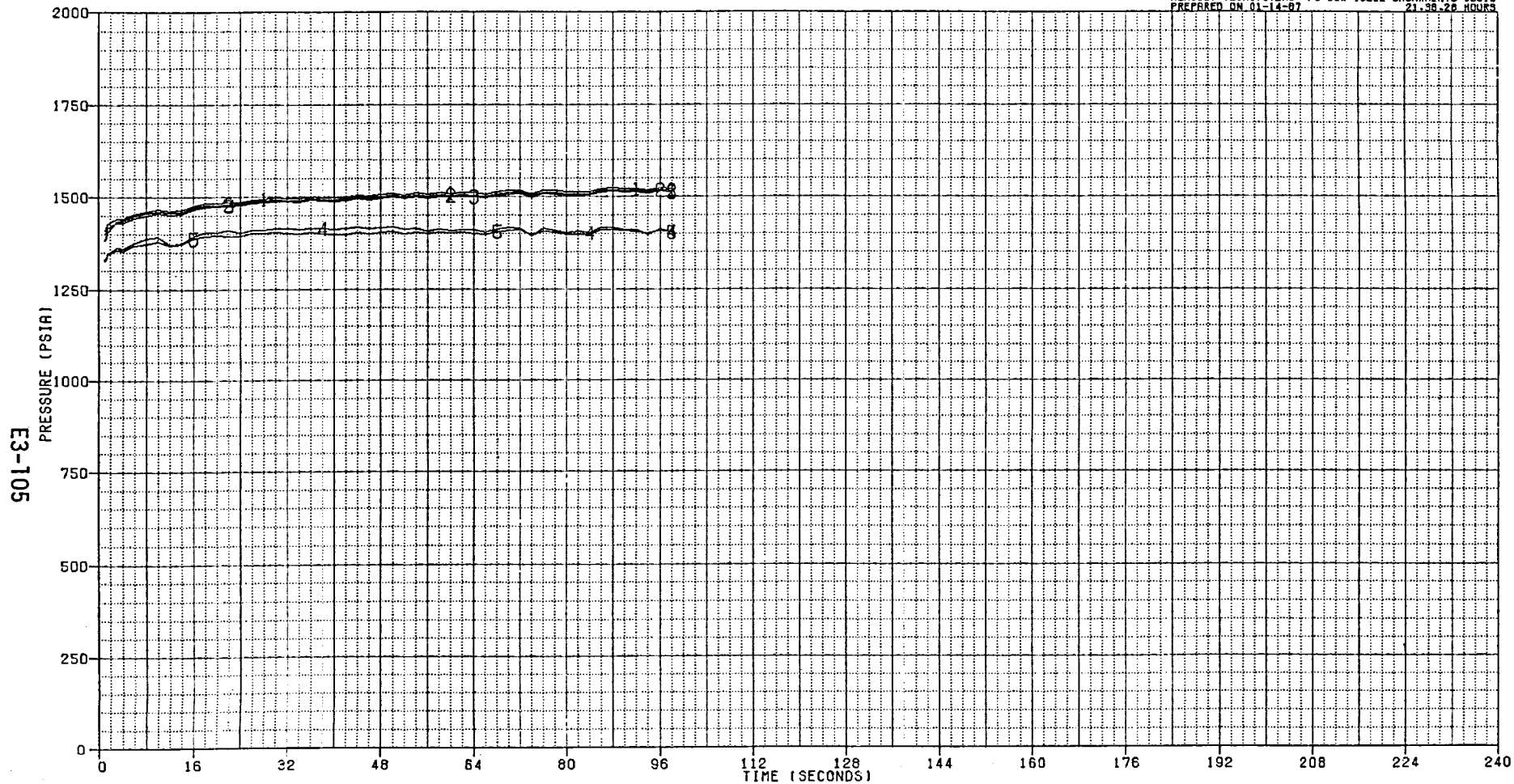




1 NR1 SQ. IN.  
2 NR2 SQ. IN.  
3 COR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-150  
NOZZLE AREA CHANGE  
TEST DATE 11-18-85 1558 HOURS AVERAGED DATA



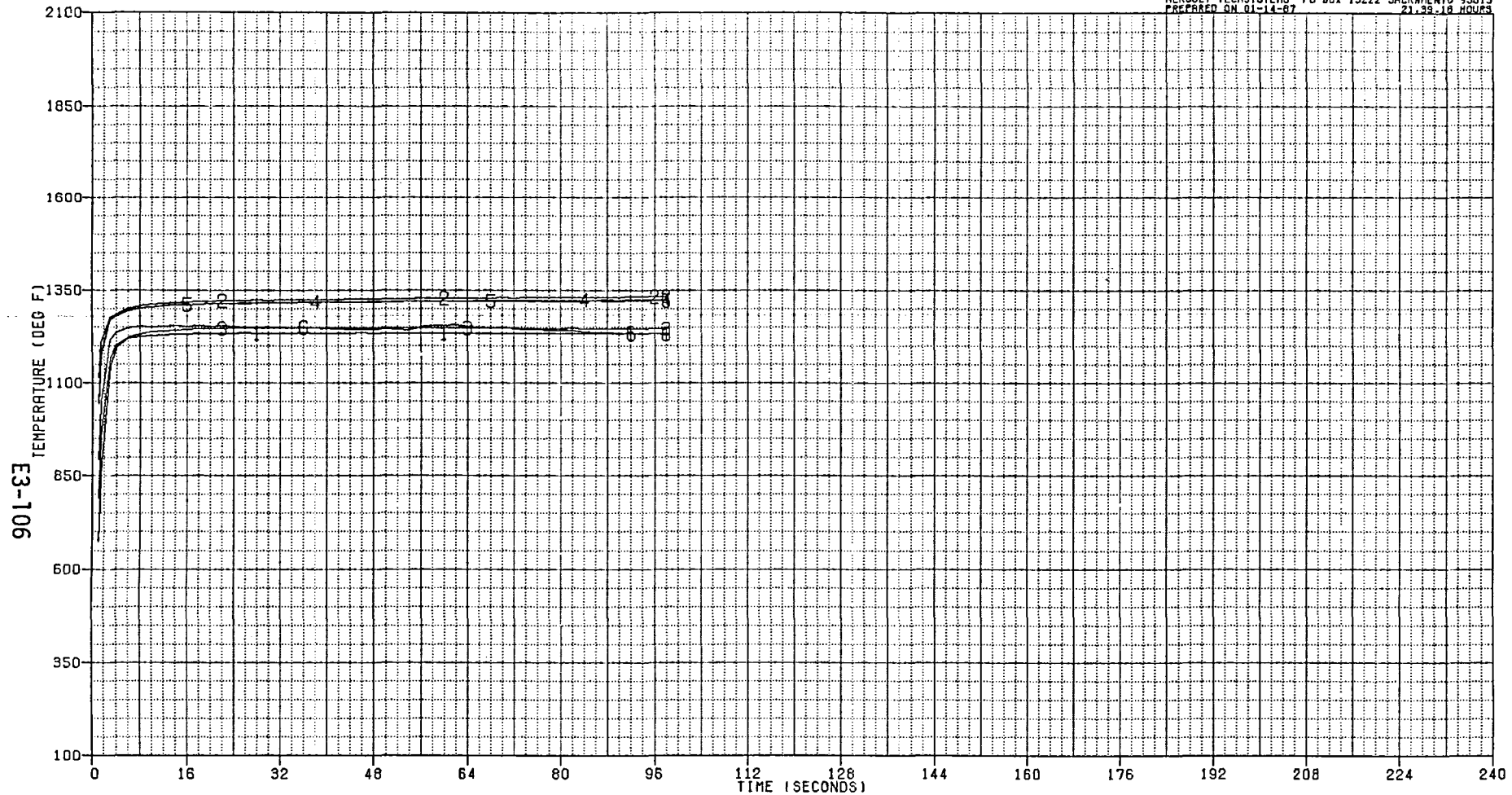


E3-105

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-150  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1558 HOURS AVERAGED DATA



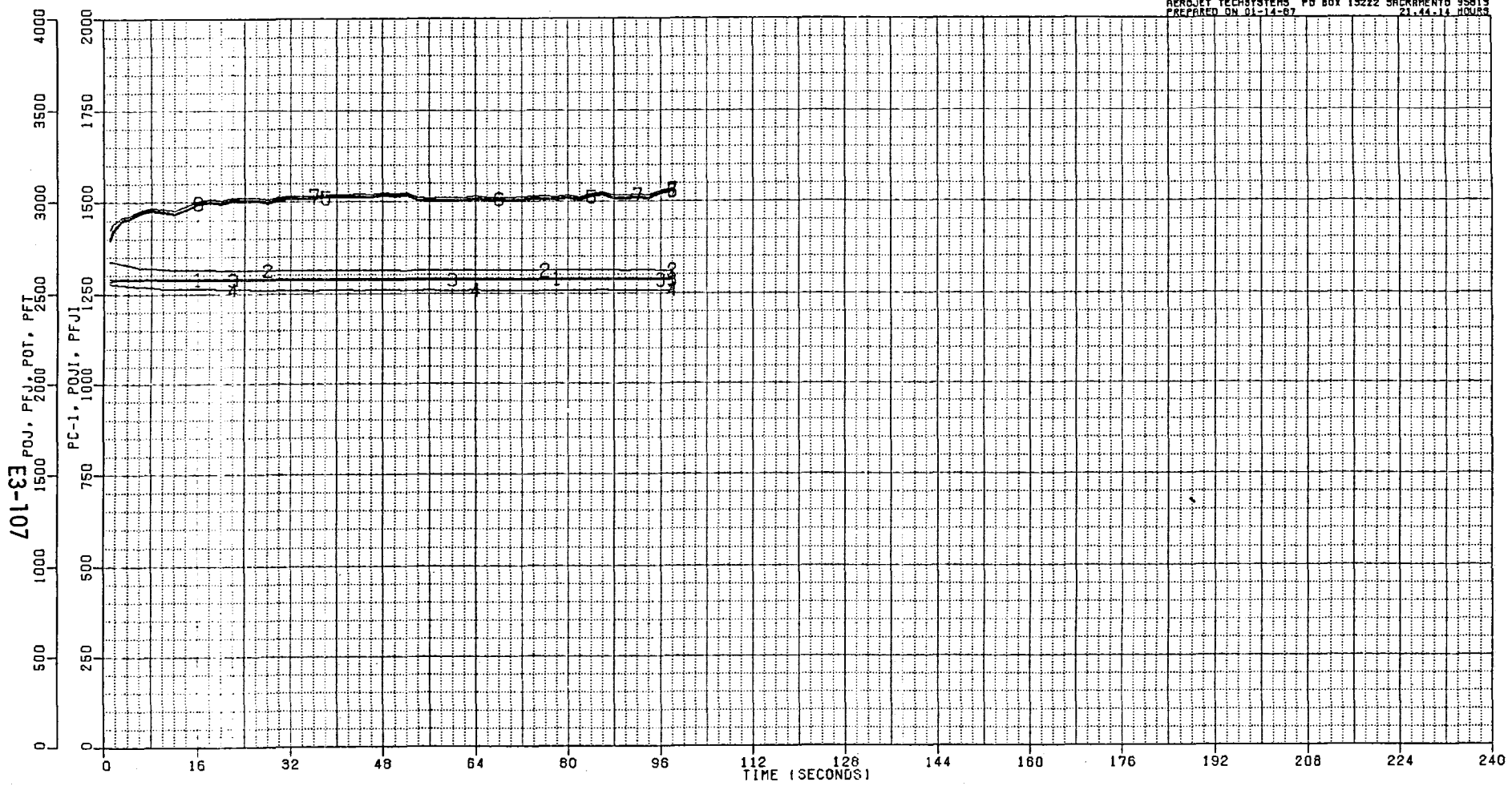


901-53

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F



GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-150  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1558 HOURS AVERAGED DATA



AEROJET TECHSYSTEMS PO BOX 15222 SACRAMENTO 95813  
 PREPARED ON 01-14-87 21.44.14 HOURS

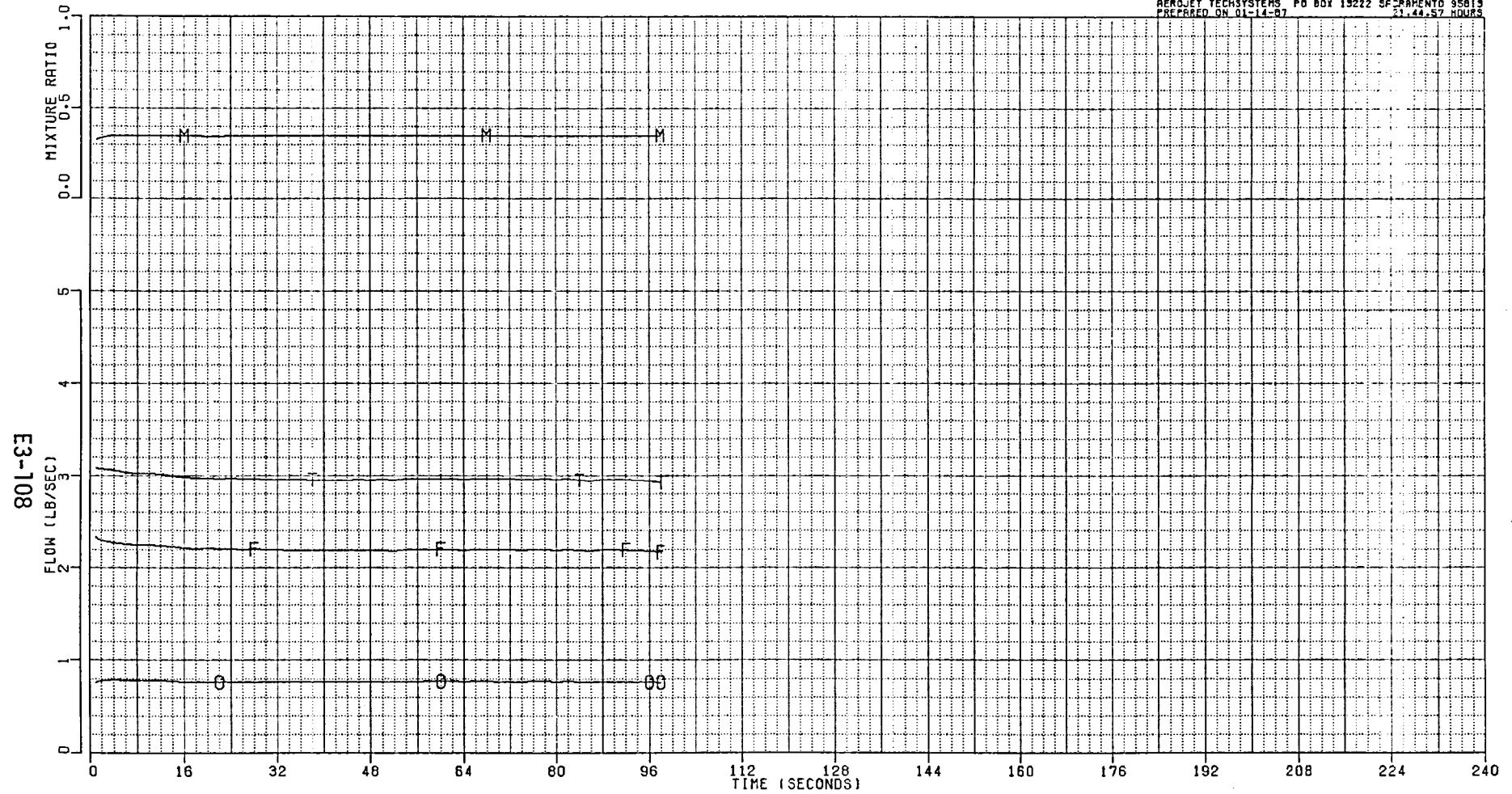
E3-107

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-151

TEST DATE 11-18-85 1608 HOURS AVERAGED DATA





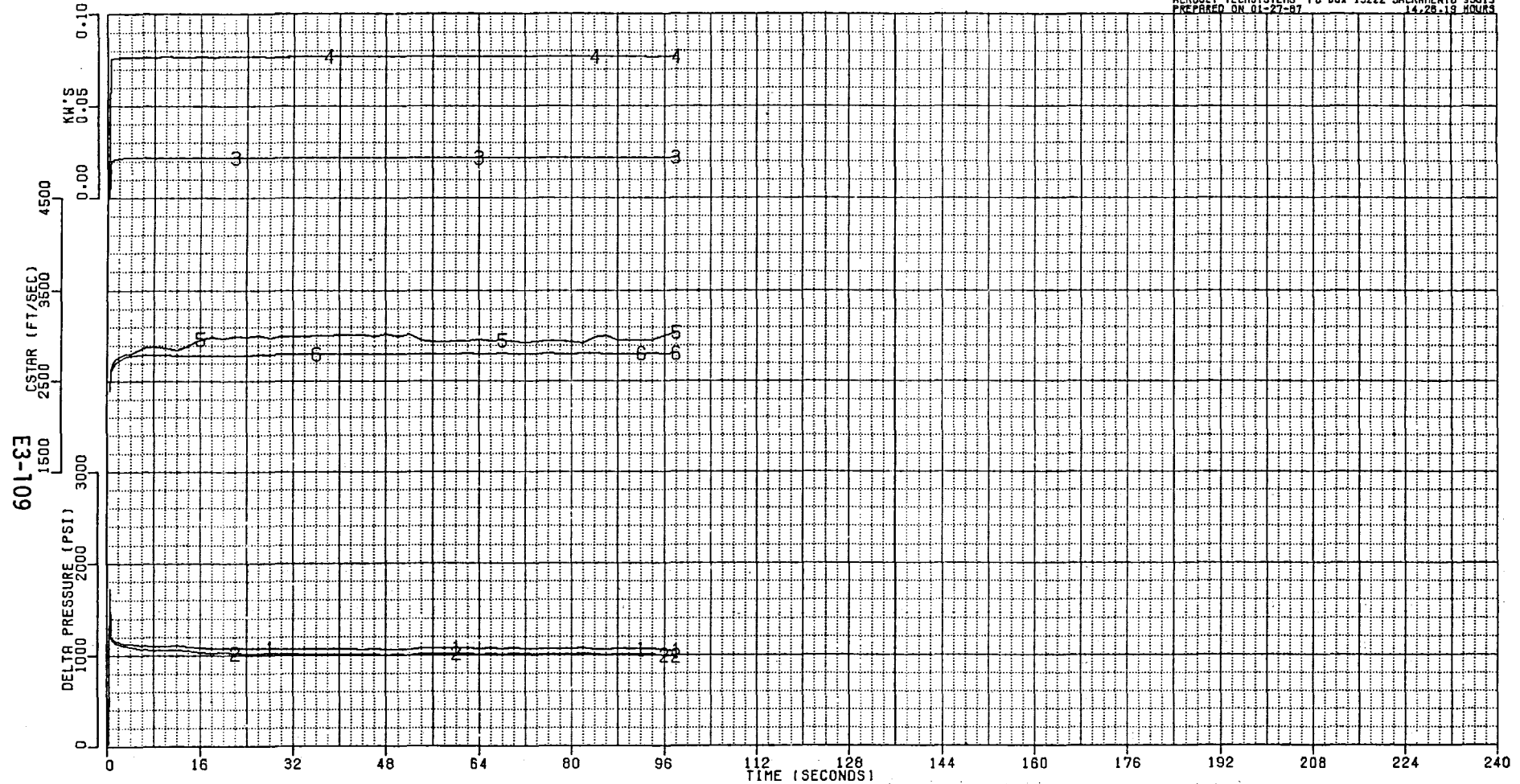
80-108

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-151

TEST DATE 11-18-85 1608 HOURS AVERAGED DATA





601-33

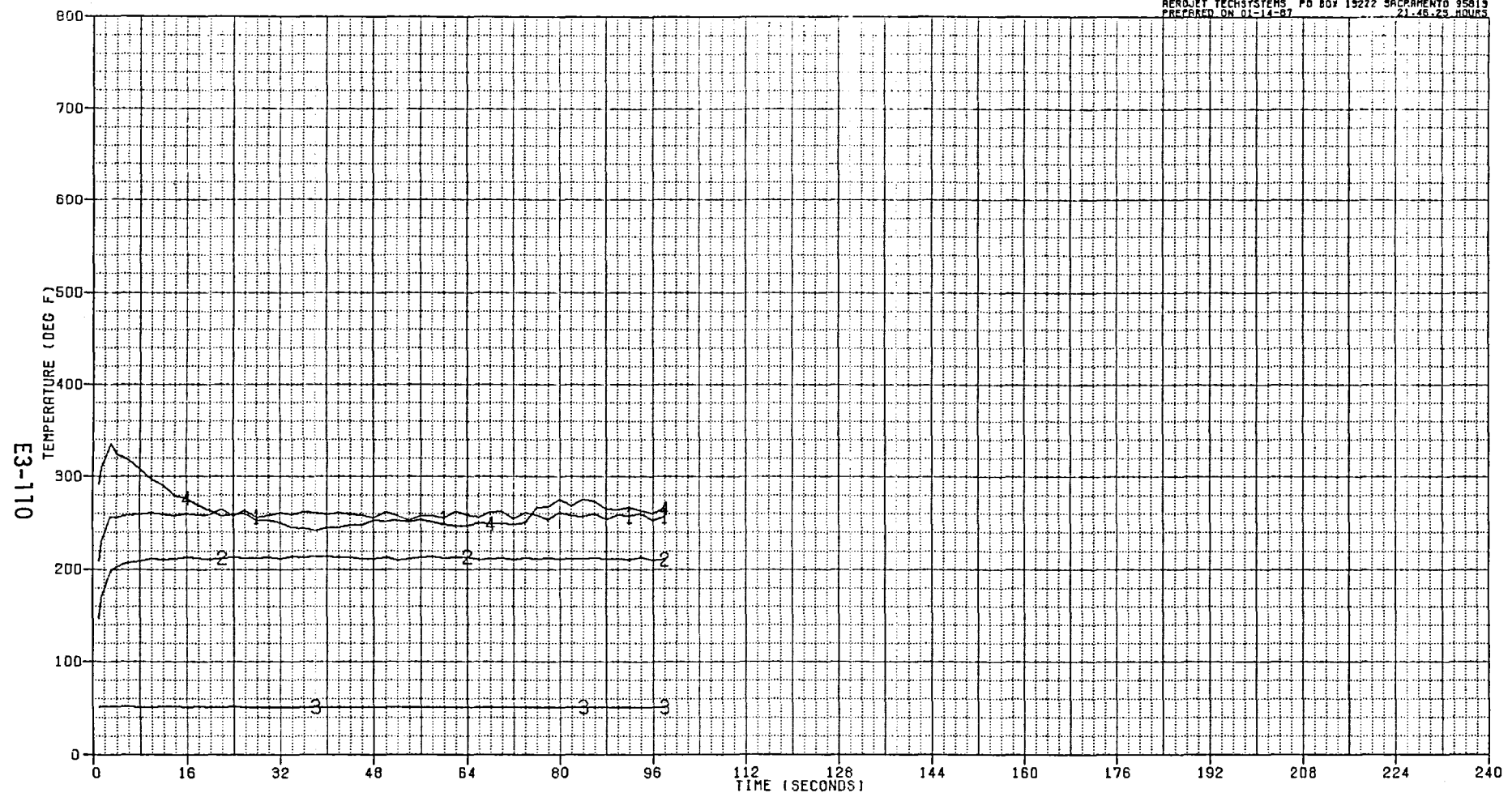
- 1 DPOJ      PSI
- 2 OPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-151

TEST DATE 11-18-85 1608 HOURS      AVERAGED DATA



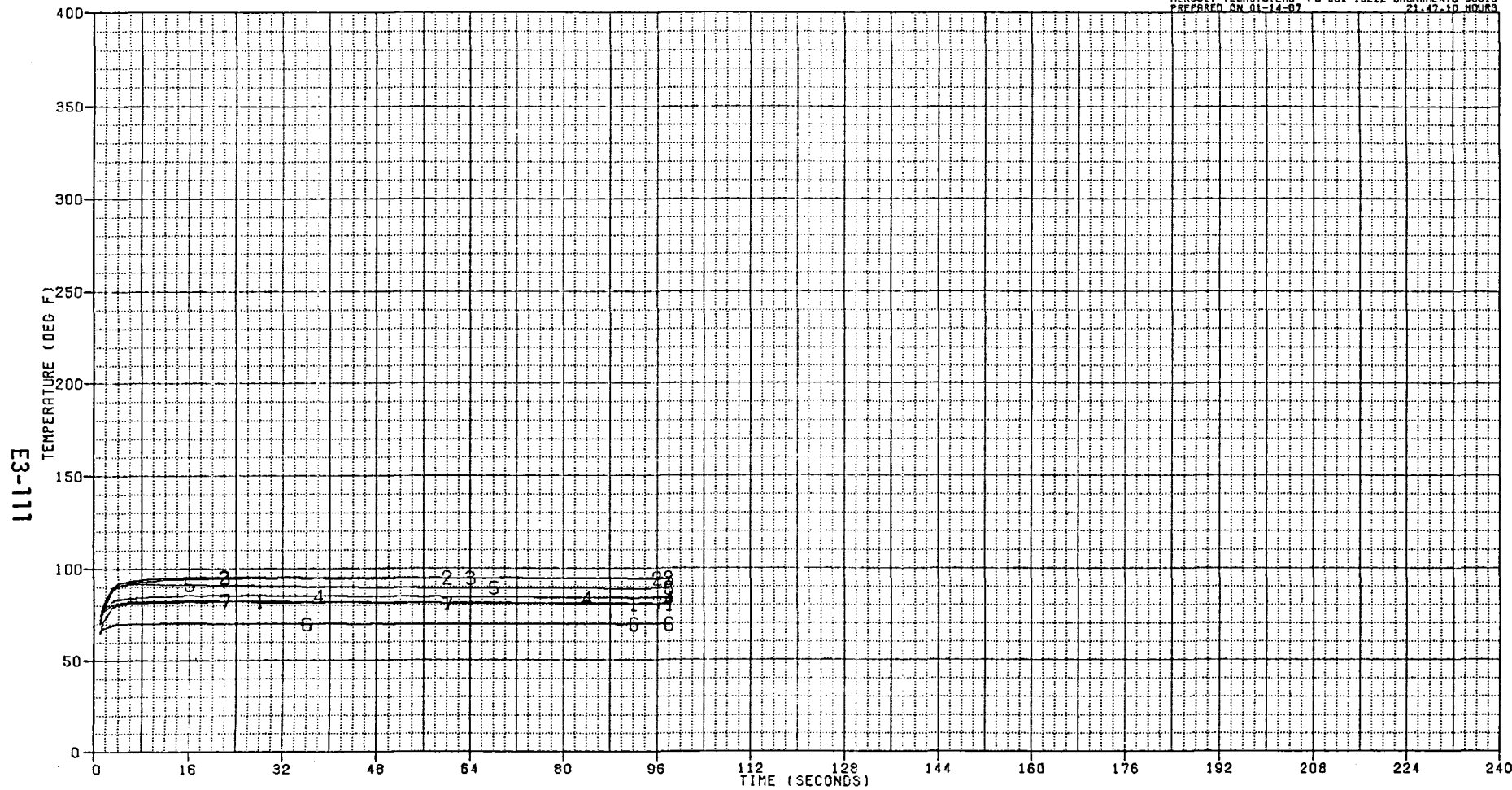


- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-151  
BARREL DATA  
TEST DATE 11-18-85 1608 HOURS      AVERAGED DATA







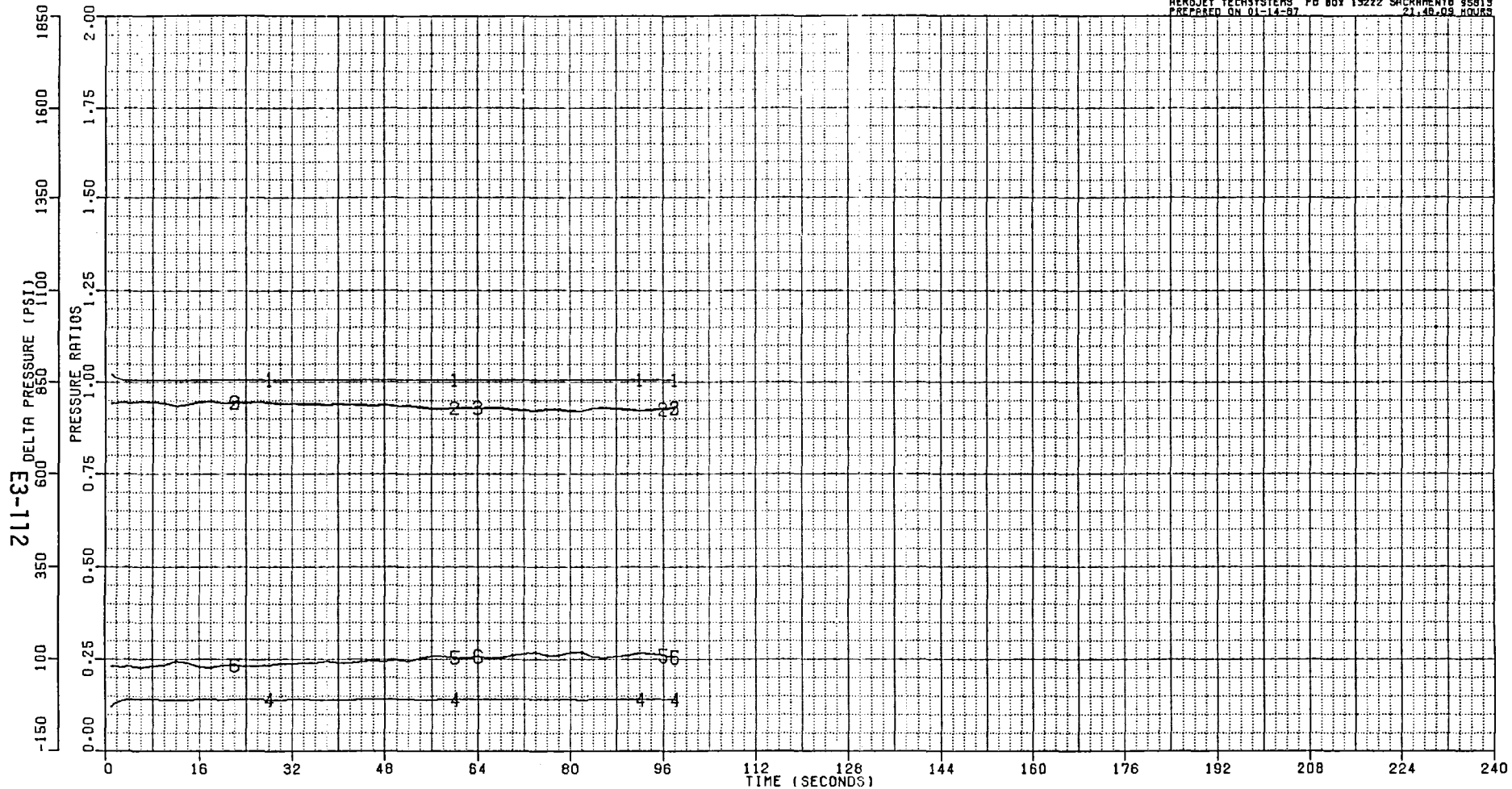
E3-111

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-151

TEST DATE 11-18-85 1608 HOURS AVERAGED DATA

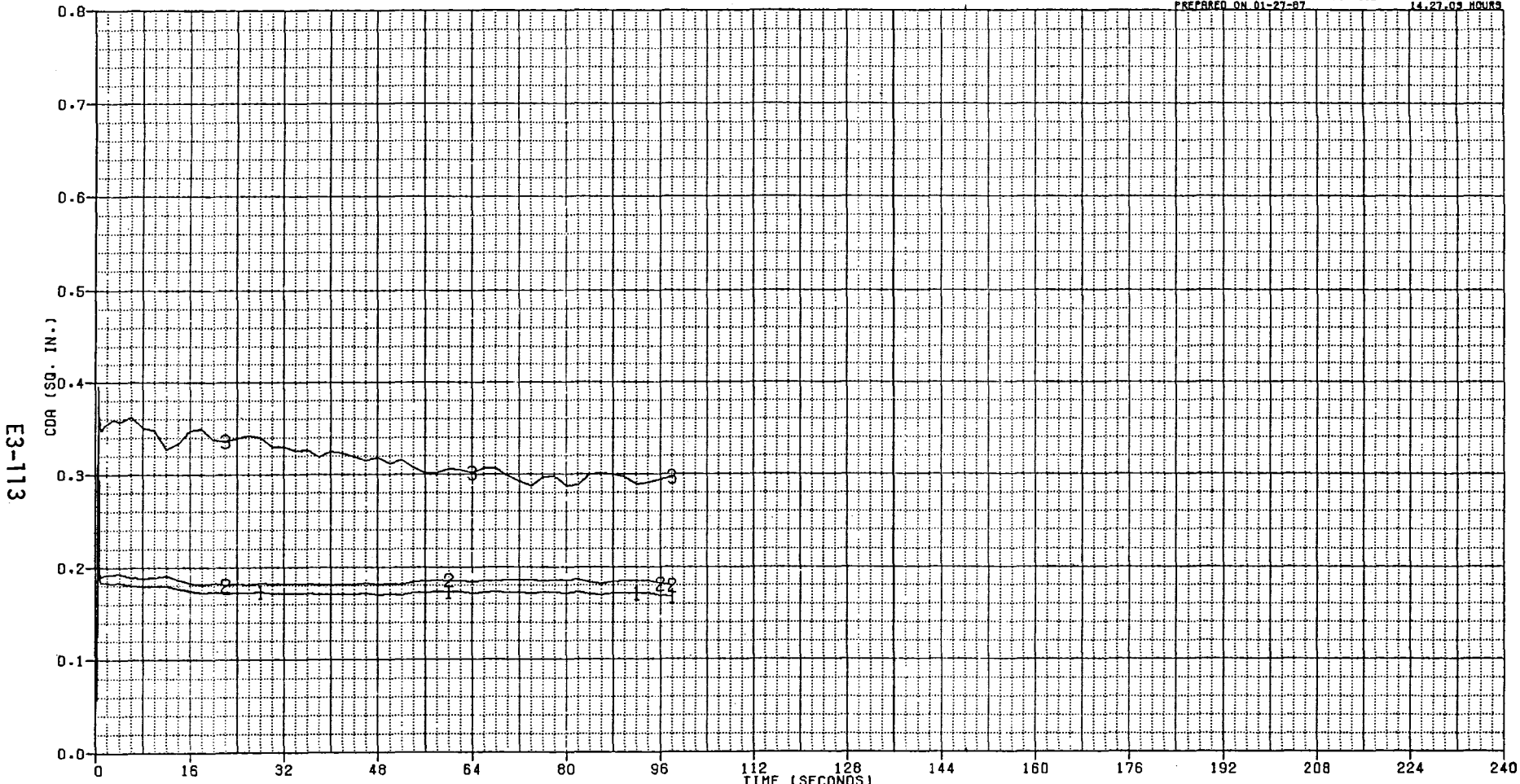




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI



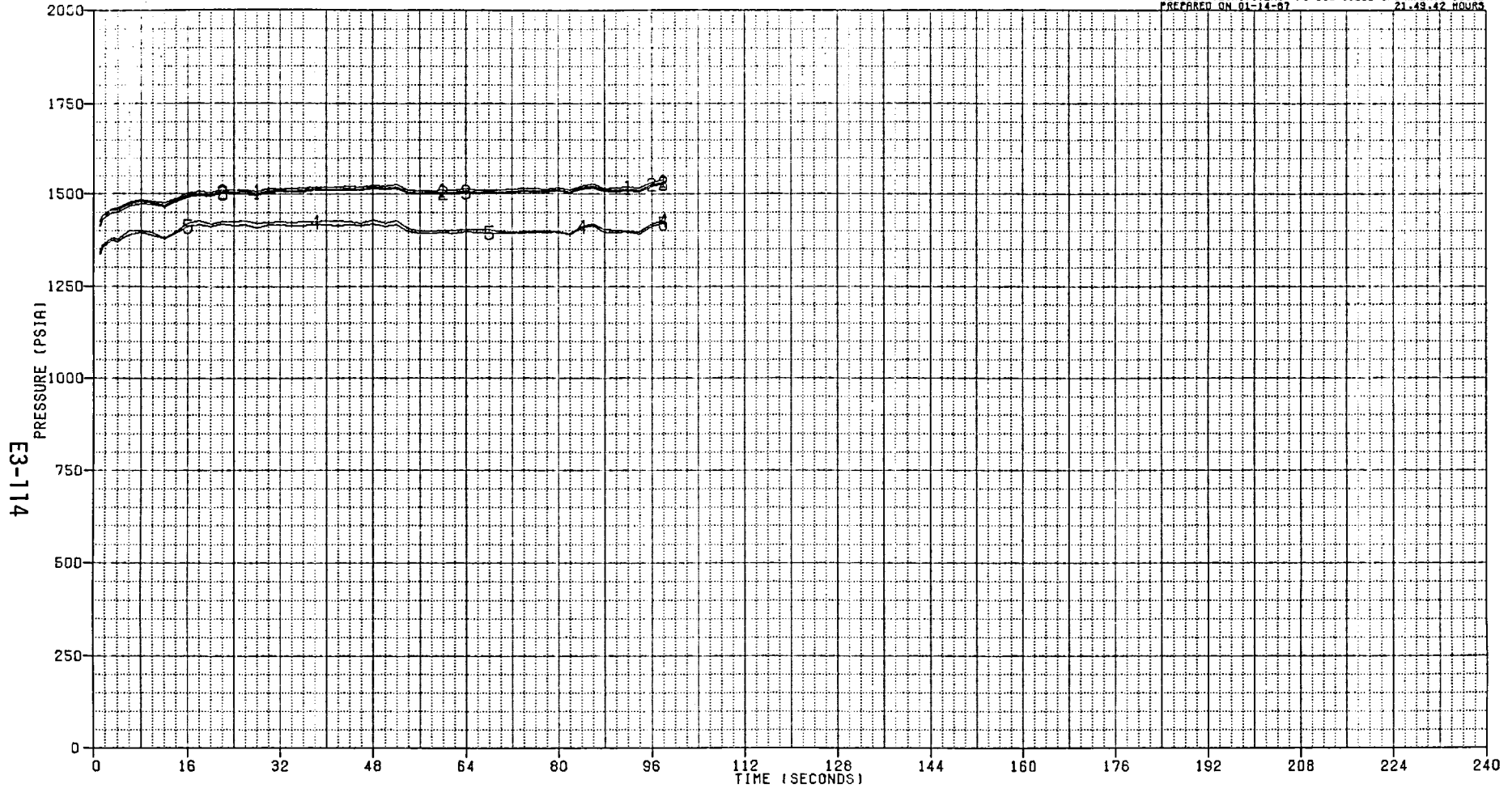
TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-151  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-18-85 1608 HOURS      AVERAGED DATA



1 NA1 SQ. IN.  
2 NR2 SQ. IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-151  
NOZZLE AREA CHANGE  
TEST DATE 11-18-85 1608 HOURS AVERAGED DATA



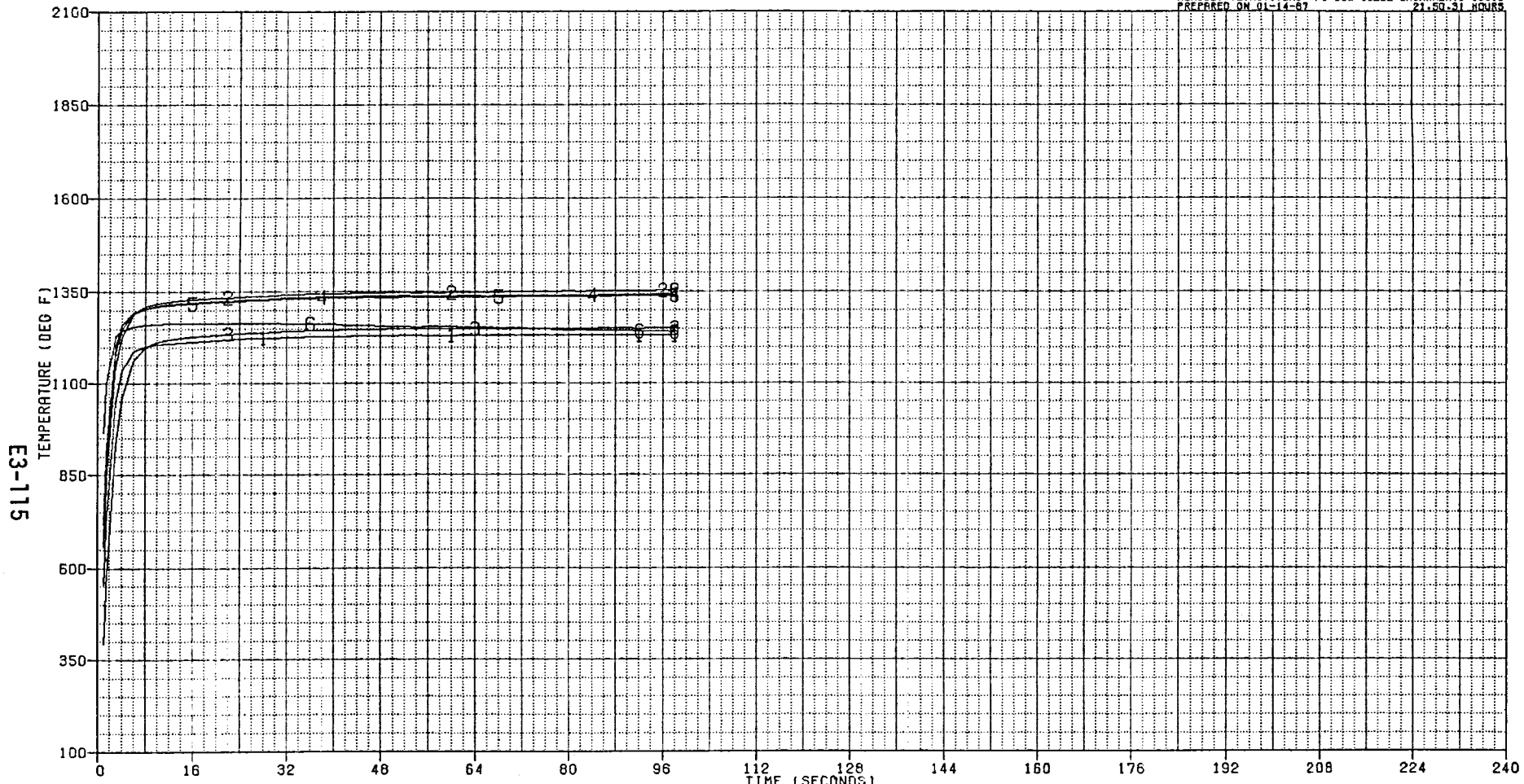


E3-114

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-151  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1608 HOURS AVERAGED DATA



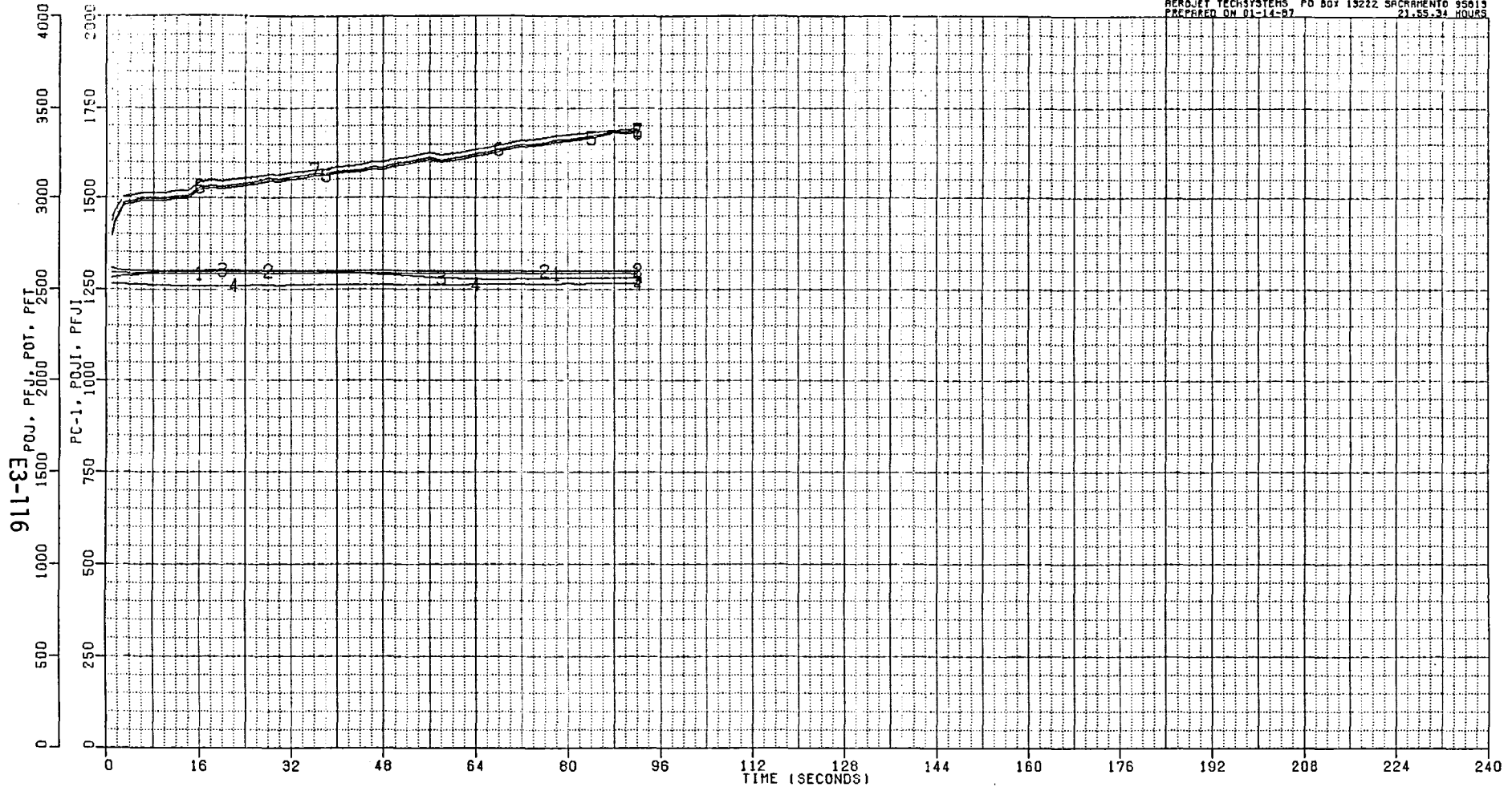


E3-115

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-151  
PRESSURE MEASUREMENTS  
TEST DATE 11-18-85 1608 HOURS AVERAGED DATA



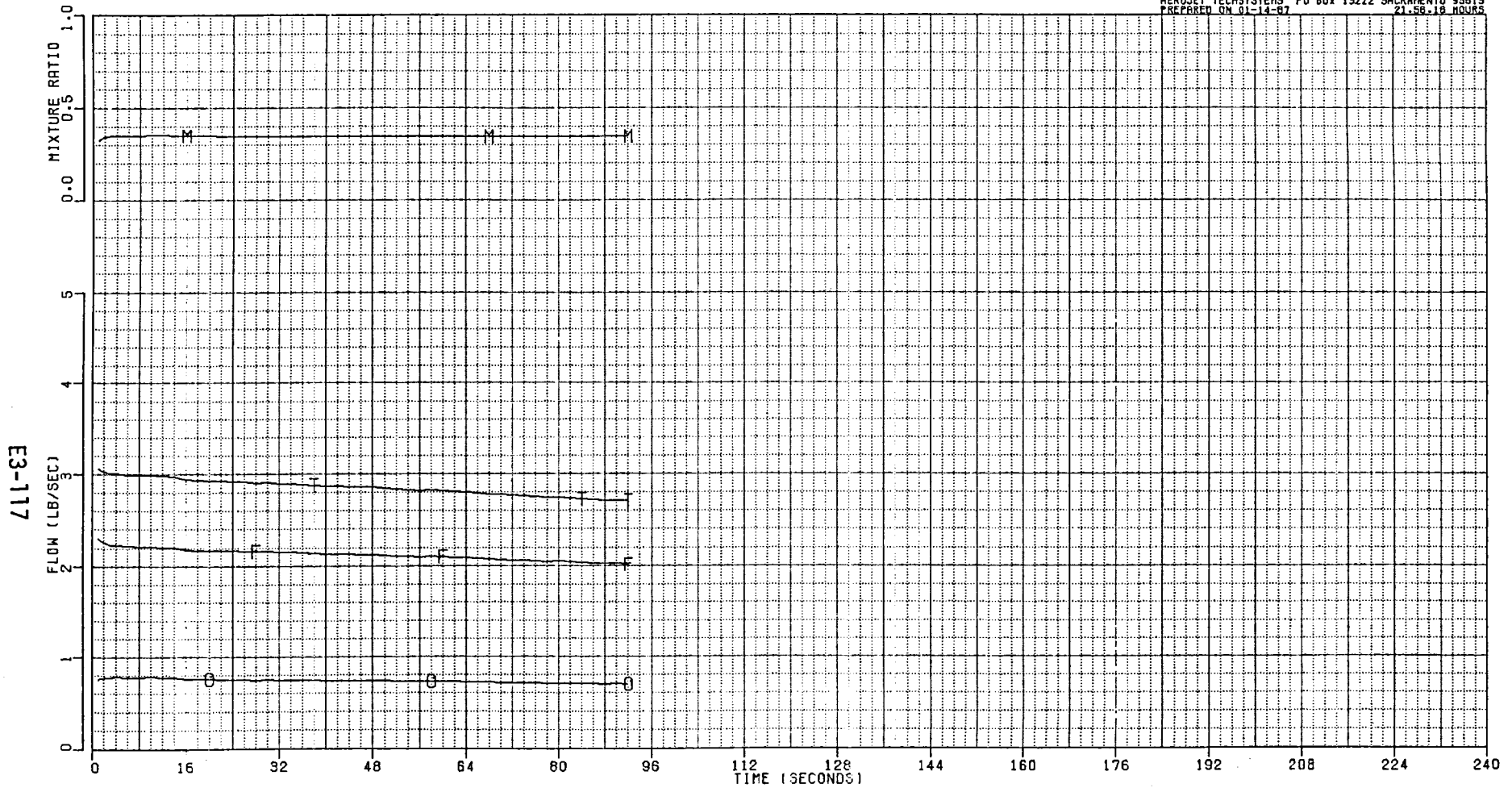


- 1 POT PSIA
- 2 PFT PSIA
- 3 PQJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 PQJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-152

TEST DATE 11-19-85 1112 HOURS AVERAGED DATA





E3-117

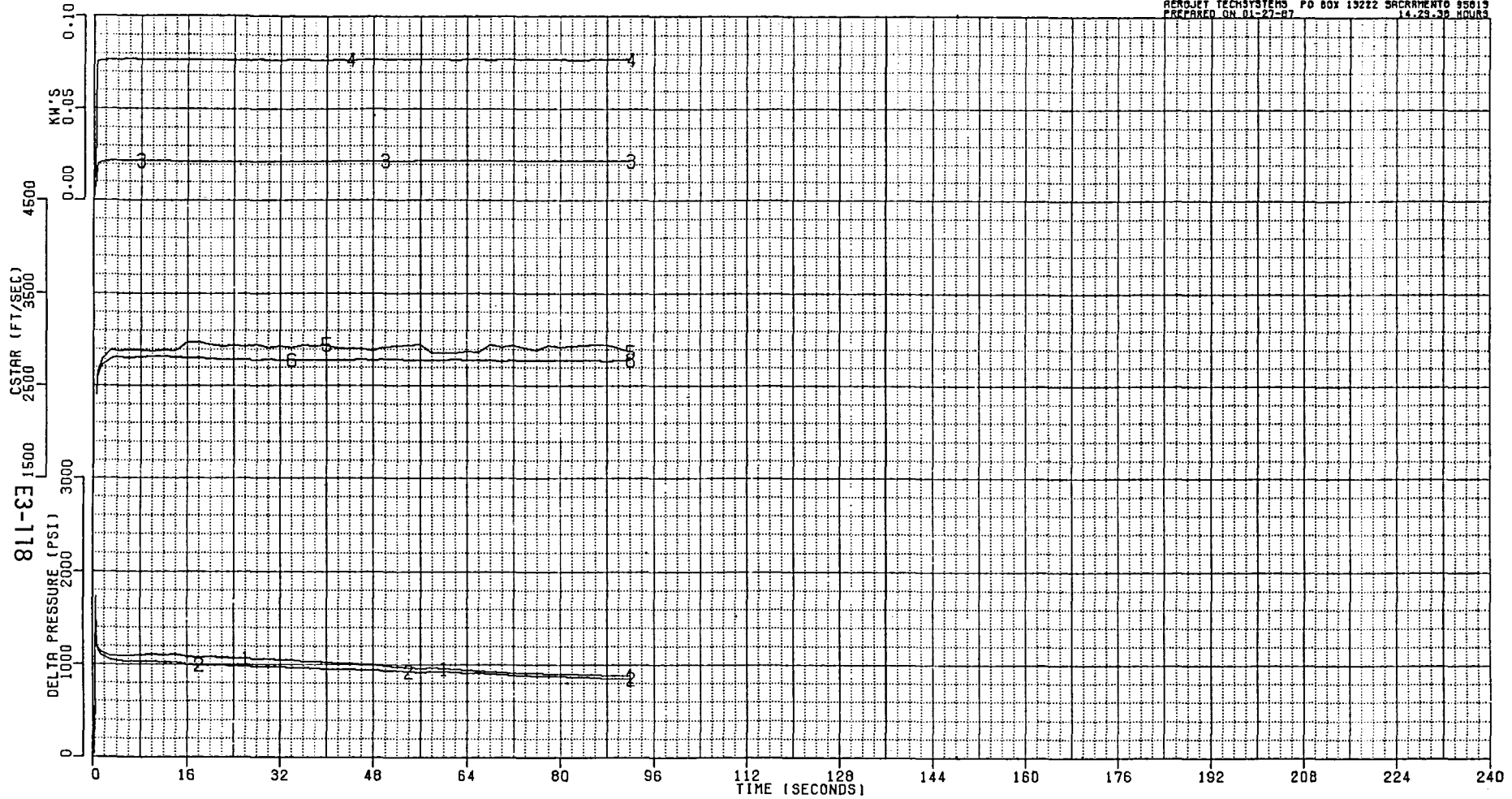
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-152

TEST DATE 11-19-85 1112 HOURS AVERAGED DATA







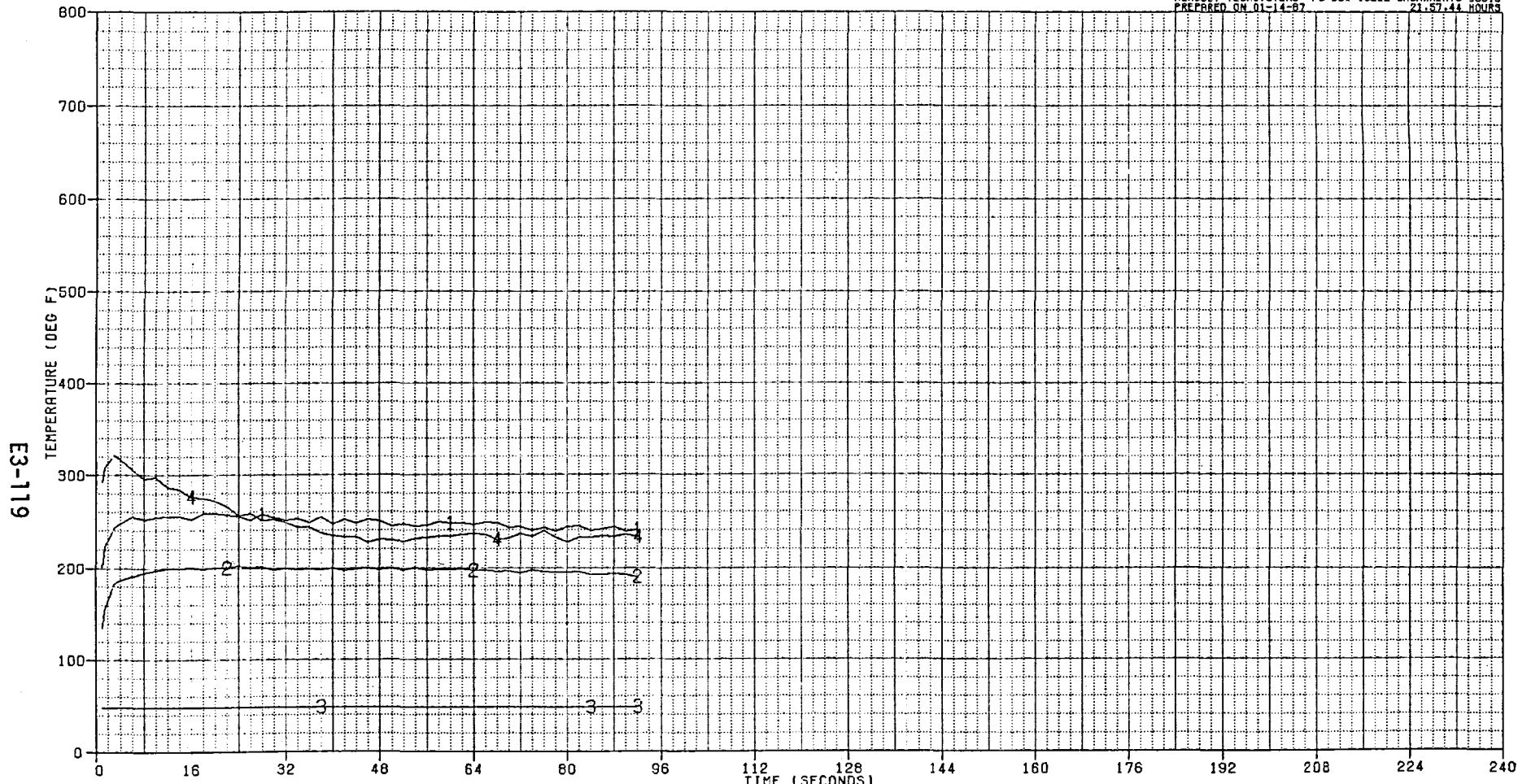
- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

### INJECTOR CALCULATIONS VS TIME TEST NO. 2427-936-A6-152

TEST DATE 11-19-85 1112 HOURS      AVERAGED DATA





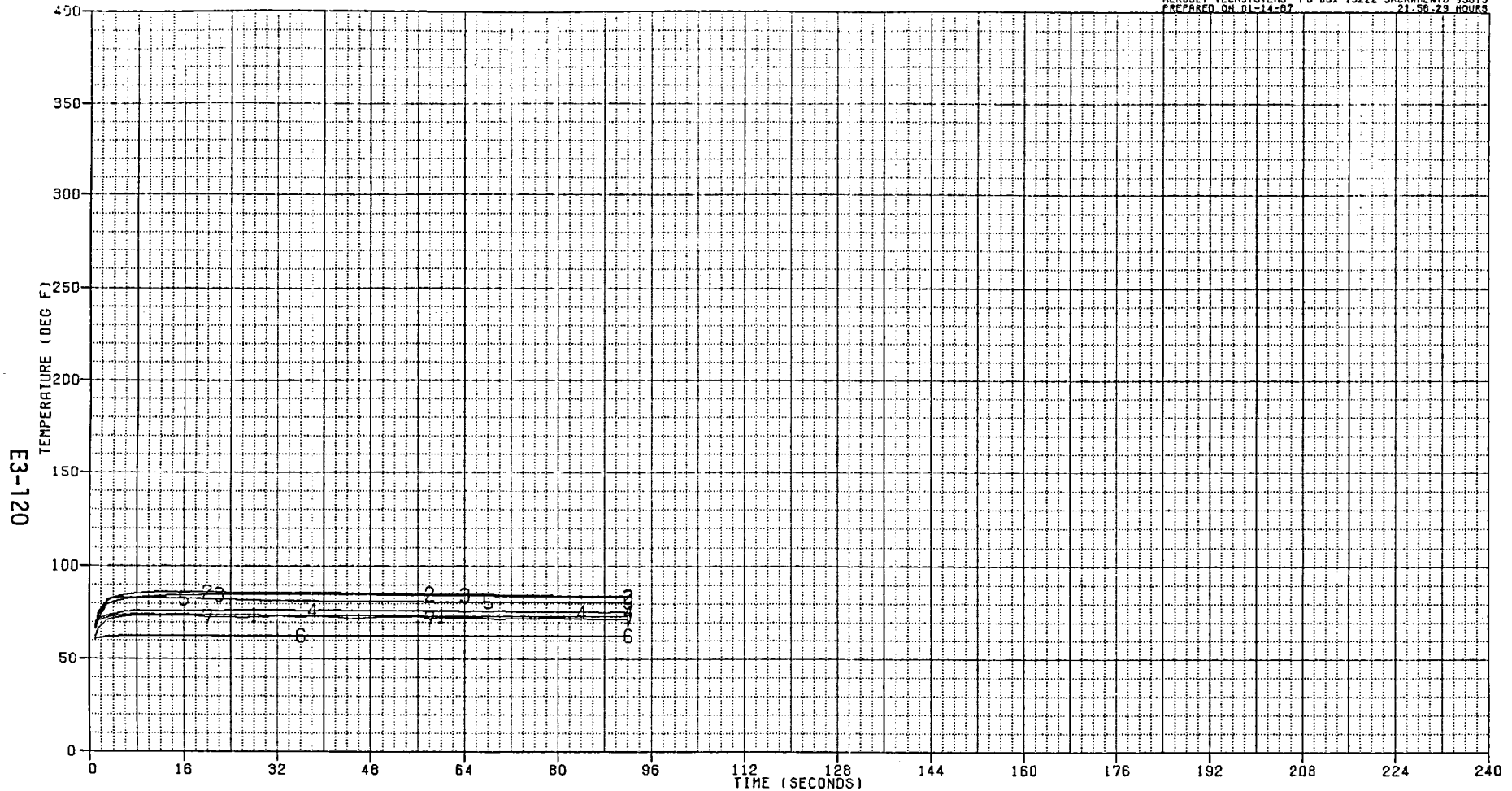


E3-119

- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-152  
BARREL DATA  
TEST DATE 11-19-85 1112 HOURS      AVERAGED DATA



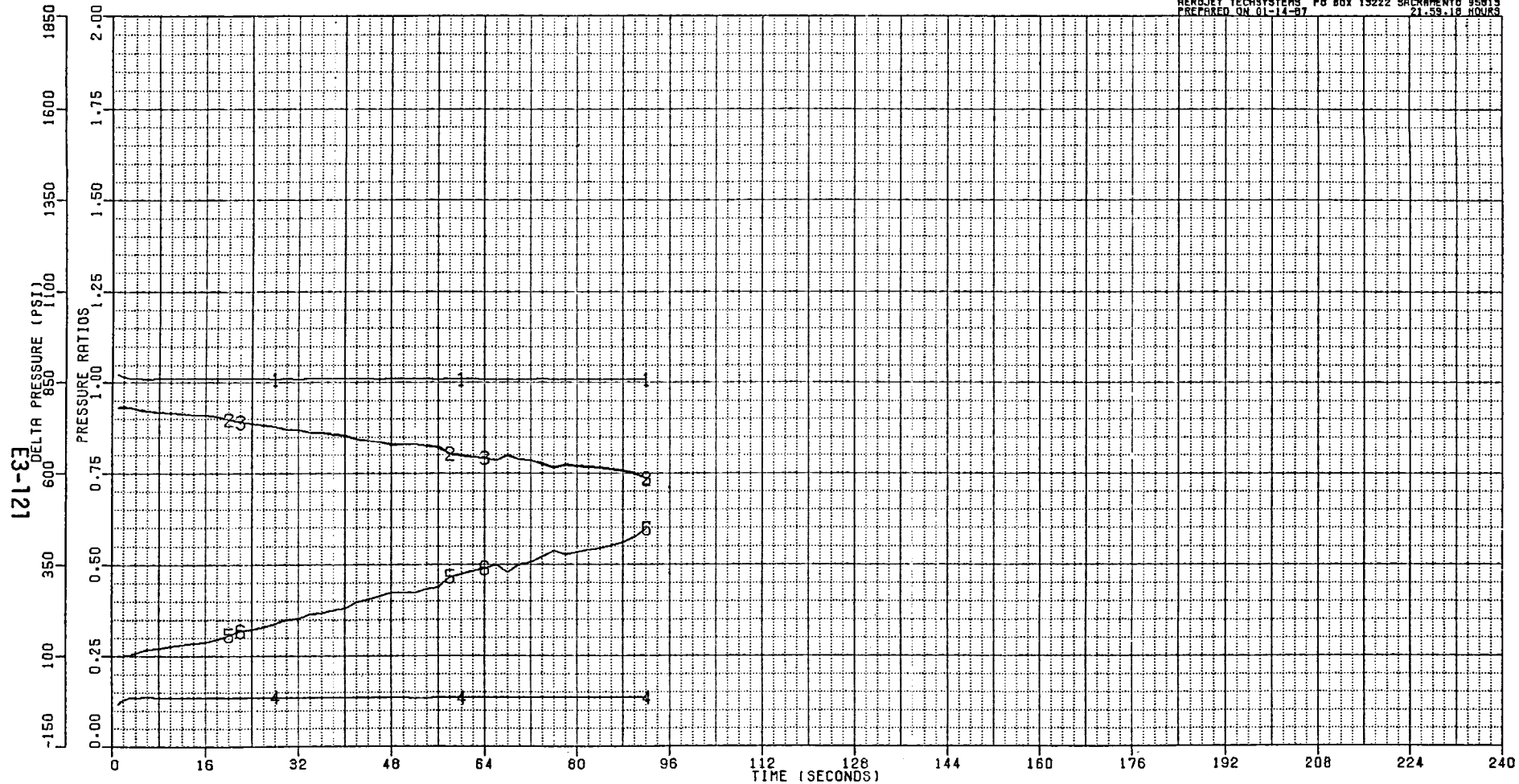


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-152

TEST DATE 11-19-85 1112 HOURS AVERAGED DATA

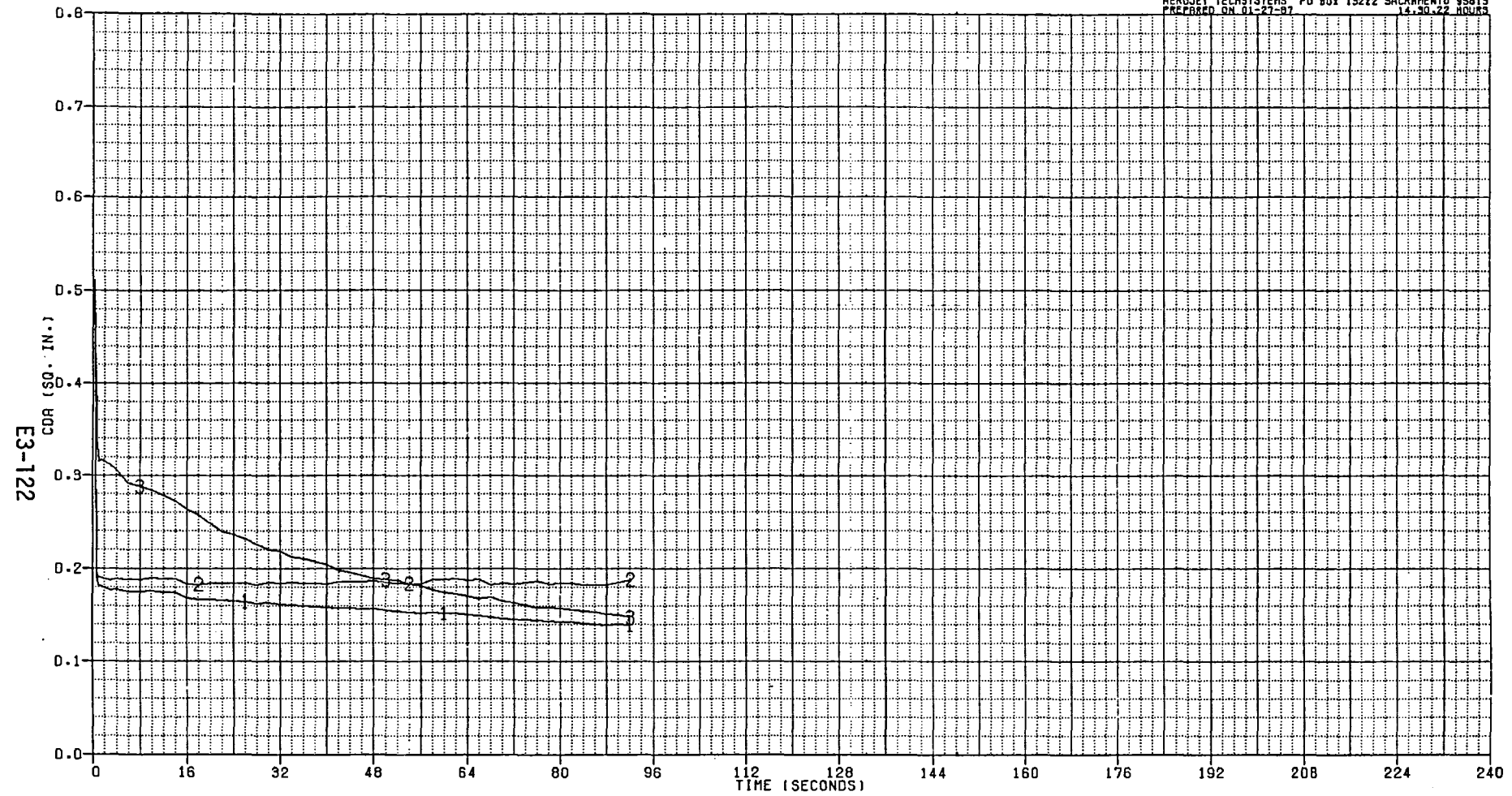


E3-121

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-152  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1112 HOURS      AVERAGED DATA

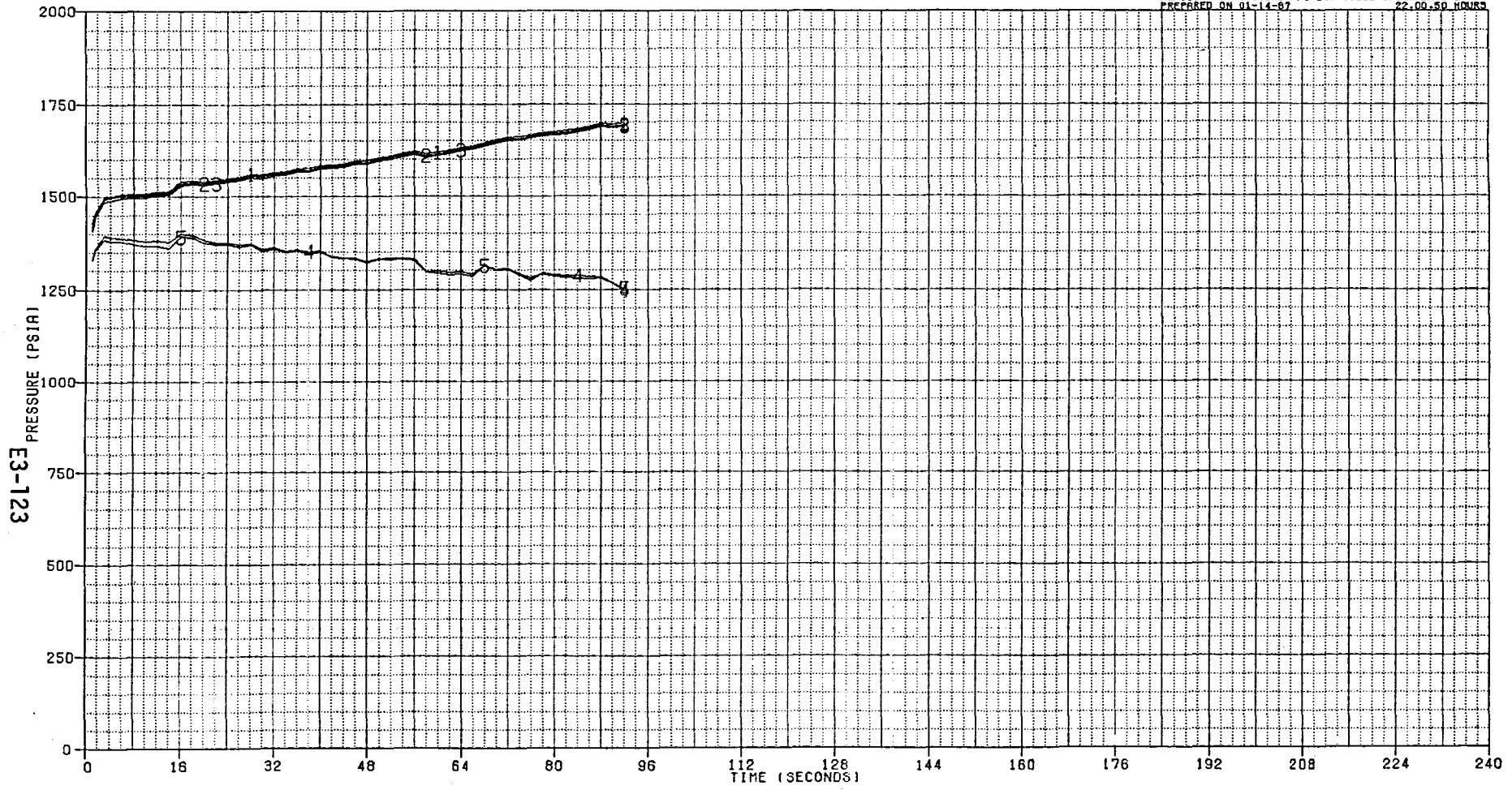




1 NA1 SQ-IN.  
2 NA2 SQ-IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-152  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1112 HOURS AVERAGED DATA



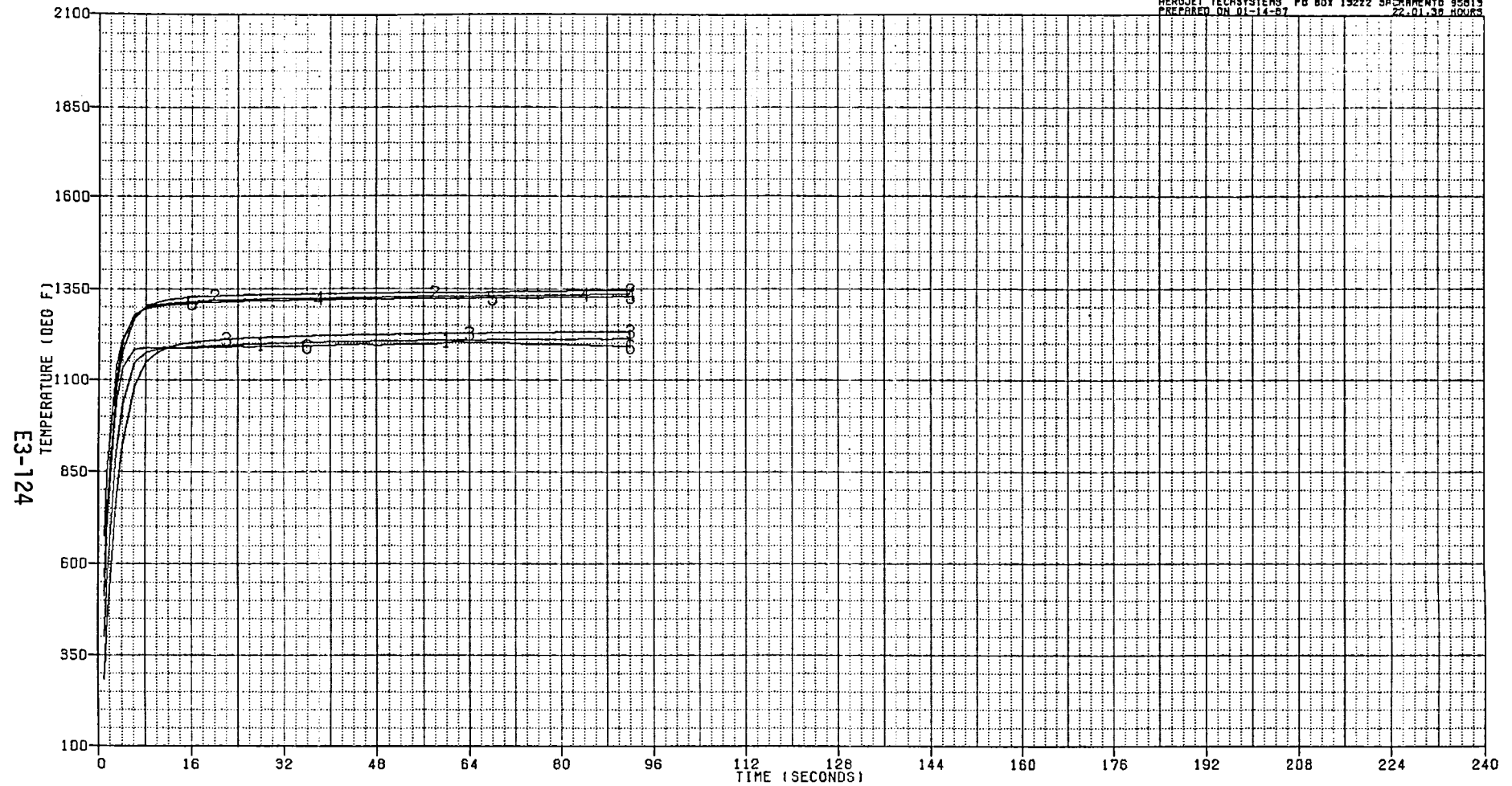


E3-123

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-152  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1112 HOURS AVERAGED DATA



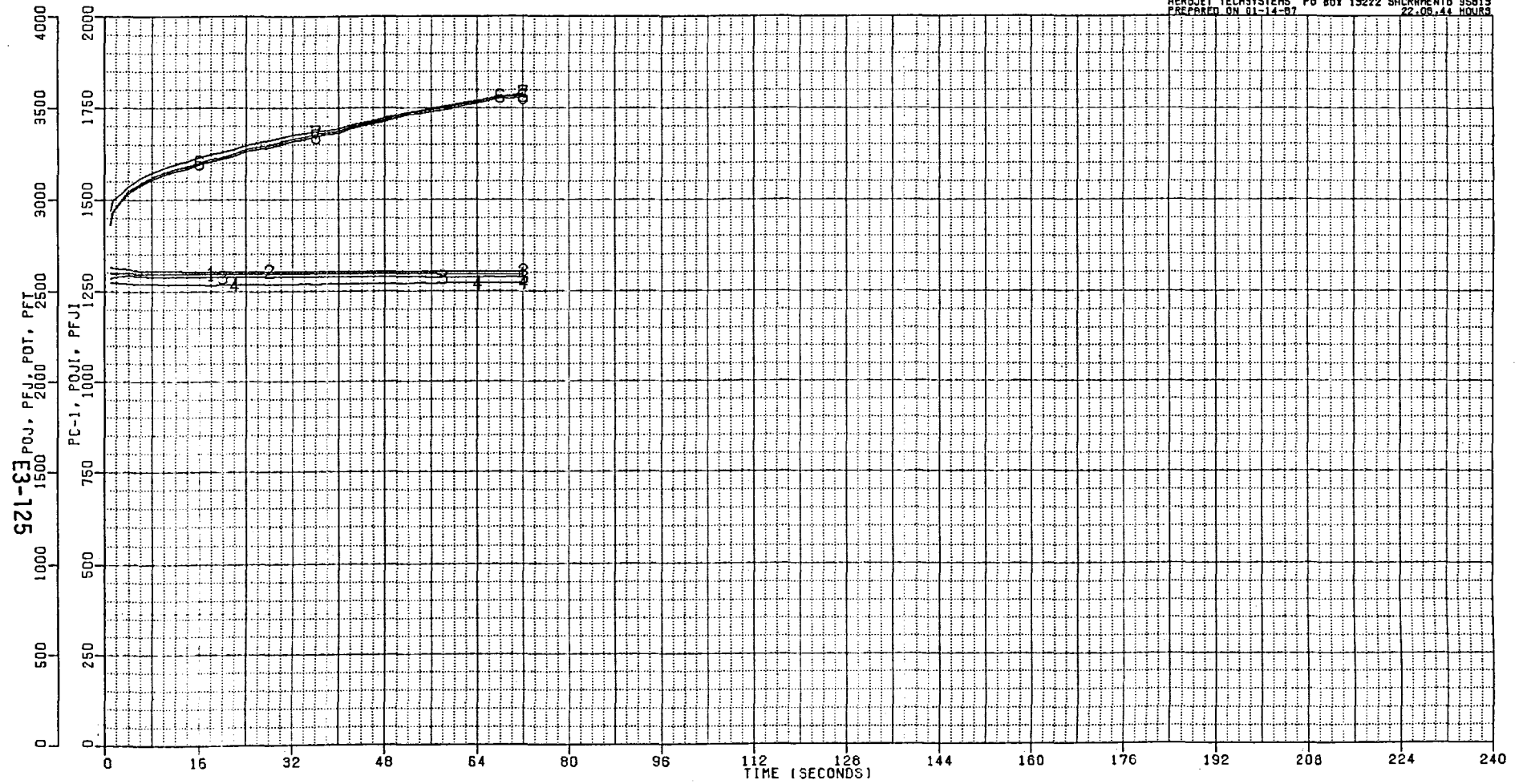


E3-124

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-152  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1112 HOURS AVERAGED DATA





E3-125

POT, PFT, POJ, PFJ, PC-1, POJI, PFJI

PSI

AEROJET TECHSYSTEMS PO BOX 15222 SACRAMENTO 95815  
 PREPARED ON 01-14-87 22:00:44 HOURS

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

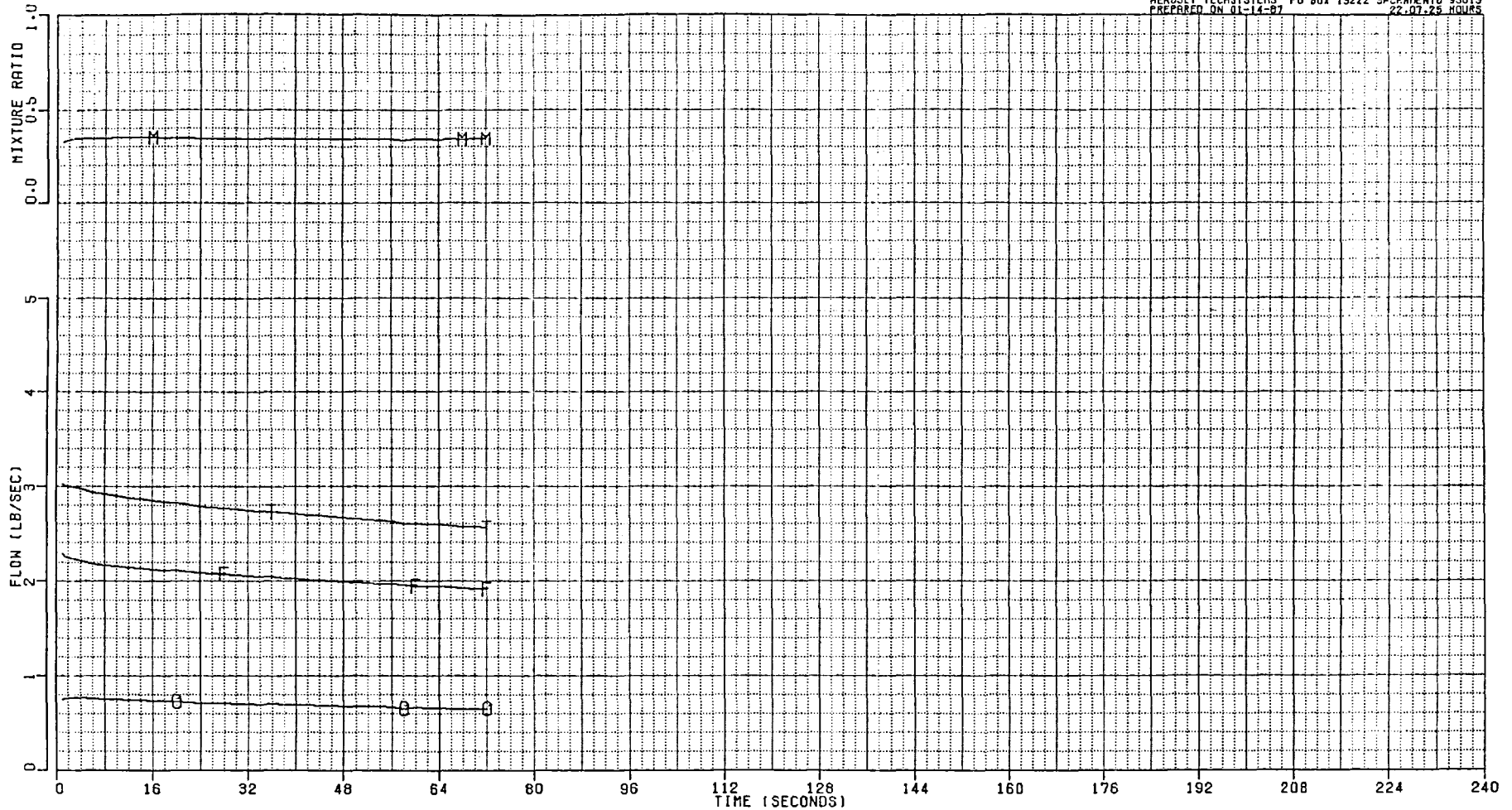
MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-153

TEST DATE 11-19-85 1159 HOURS AVERAGED DATA





E3-126



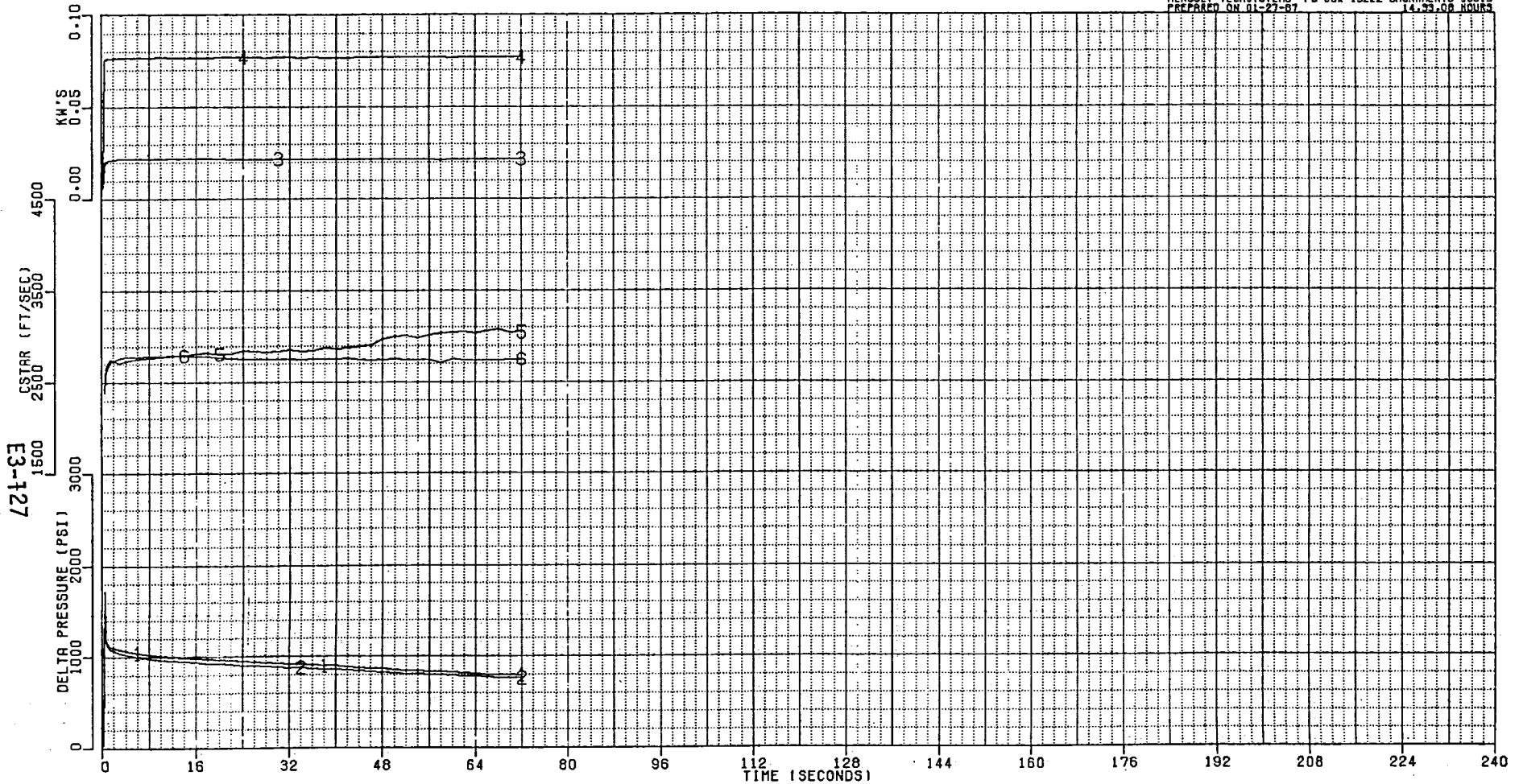
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-153

TEST DATE 11-19-85 1159 HOURS AVERAGED DATA







E3-127

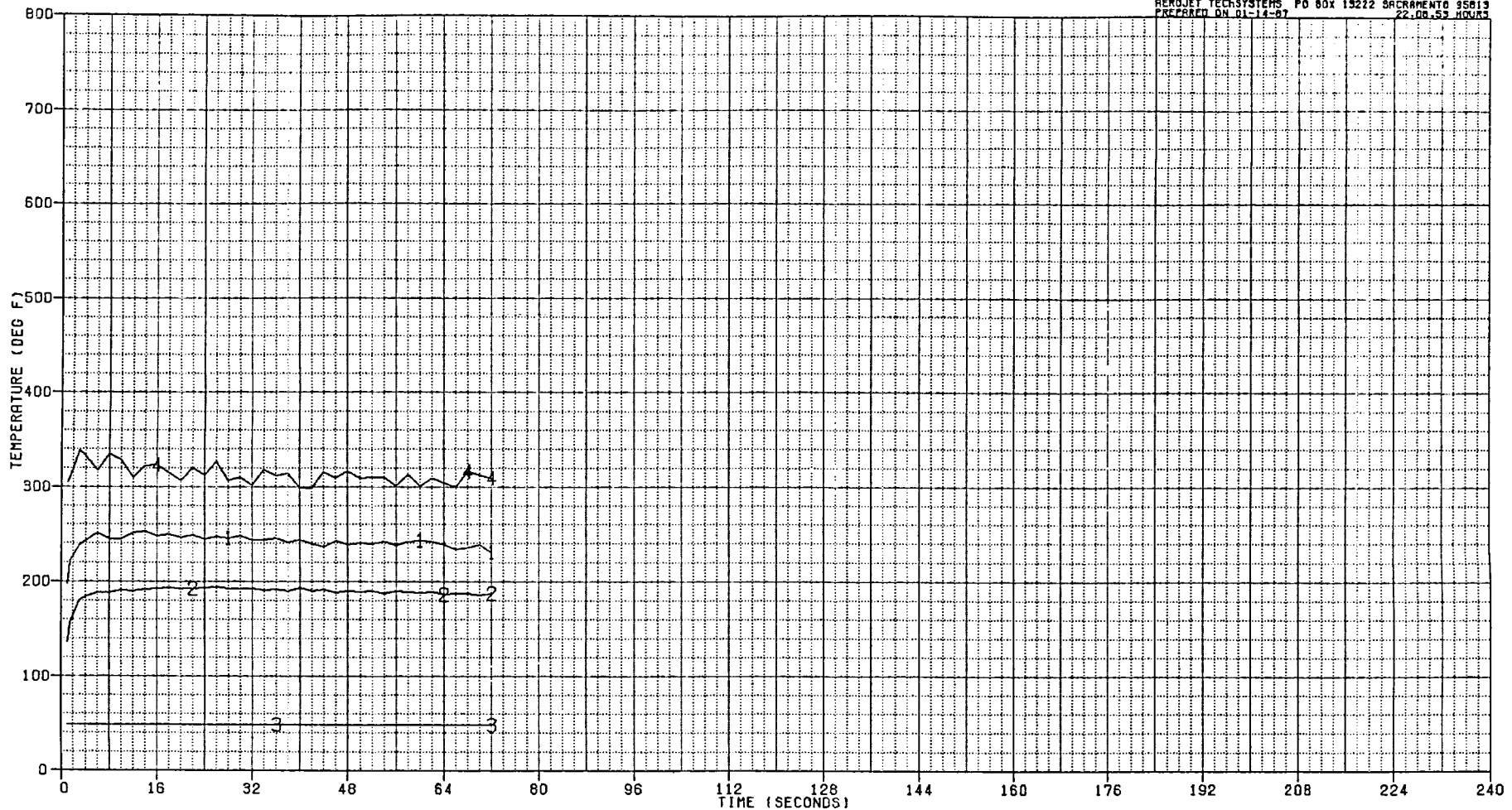
- 1 DPOJ      PSI
- 2 OPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-153

TEST DATE 11-19-85 1159 HOURS      AVERAGED DATA



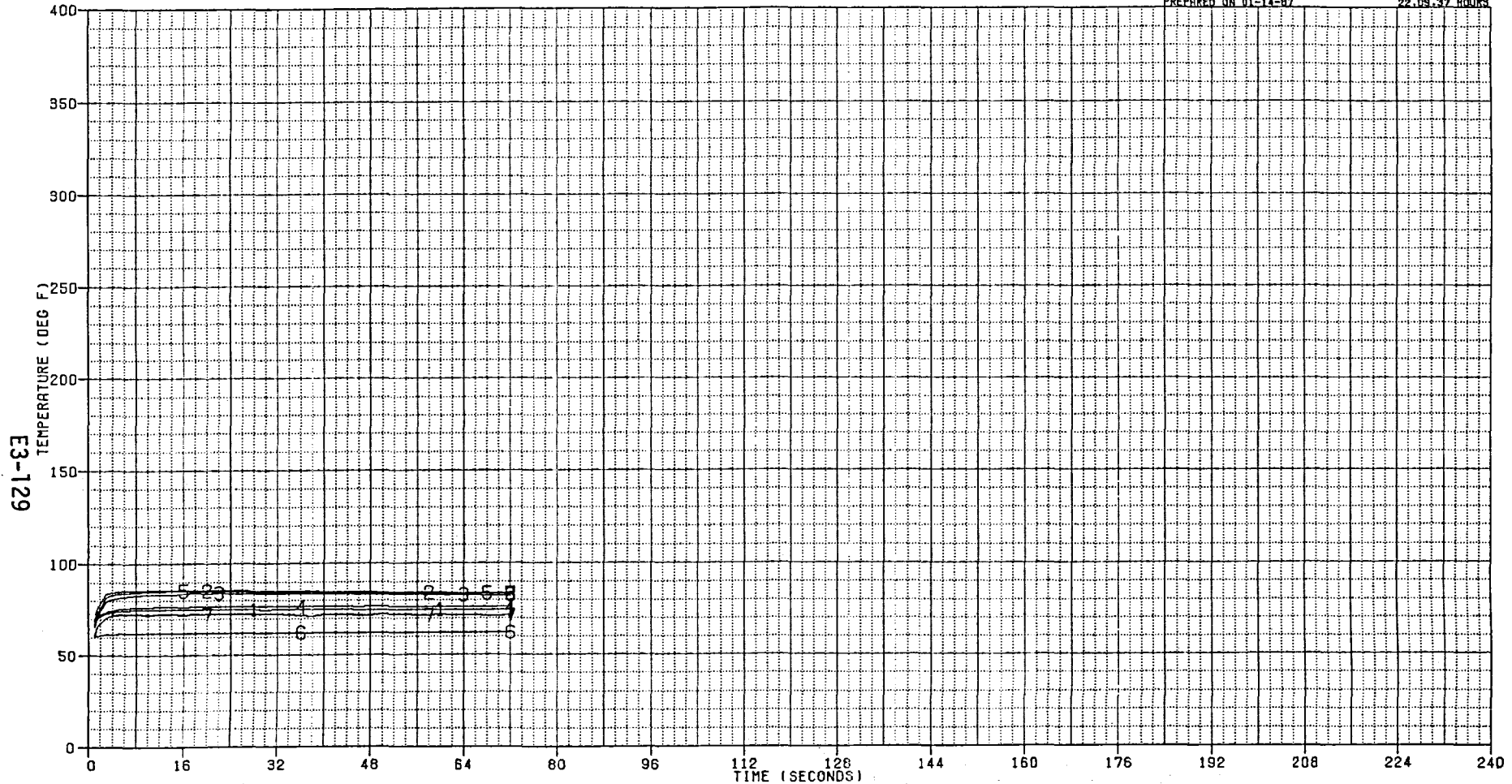
E3-128



- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-153  
BARREL DATA  
TEST DATE 11-19-85 1159 HOURS AVERAGED DATA



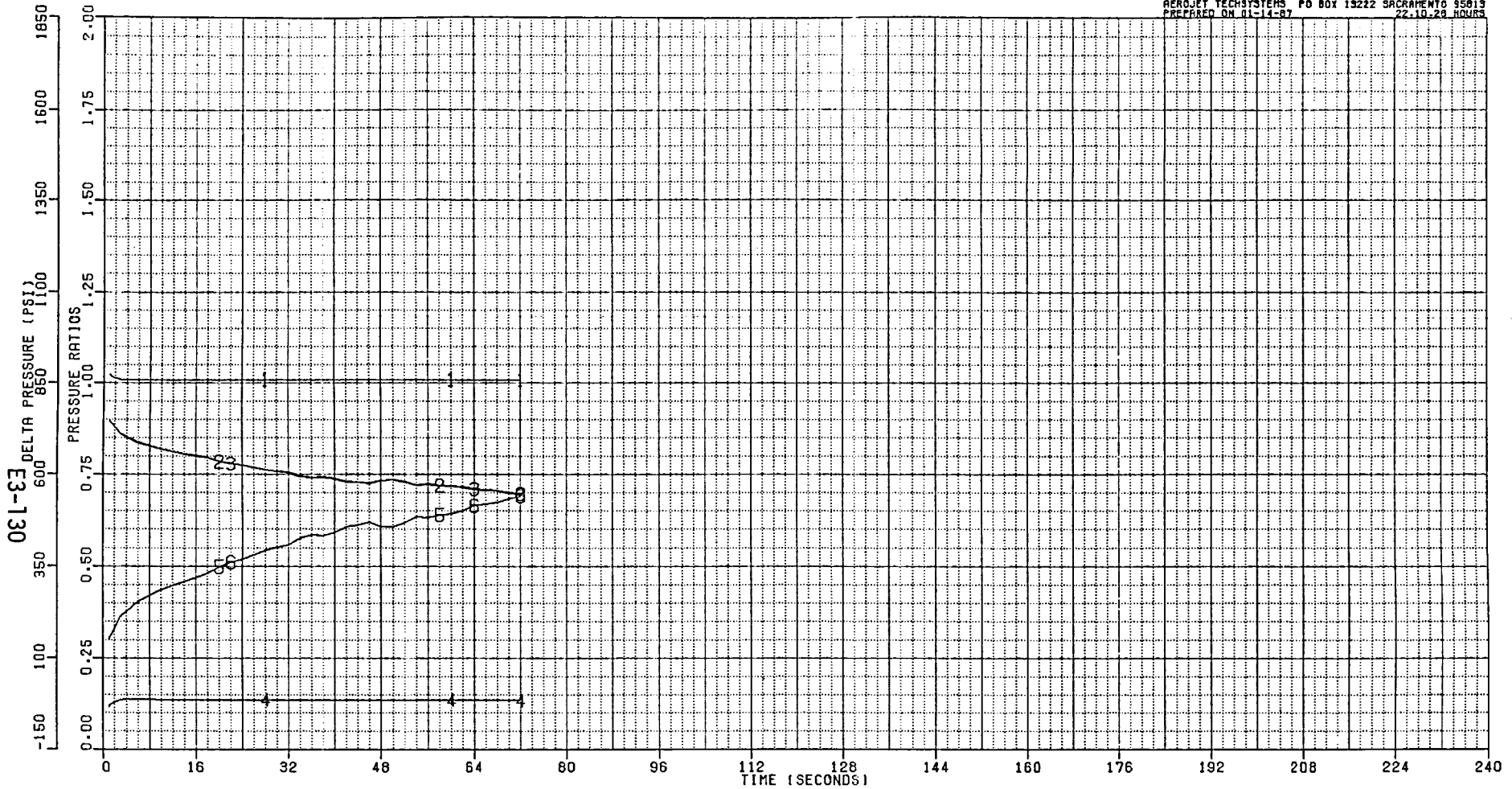


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-153

TEST DATE 11-19-85 1159 HOURS AVERAGED DATA

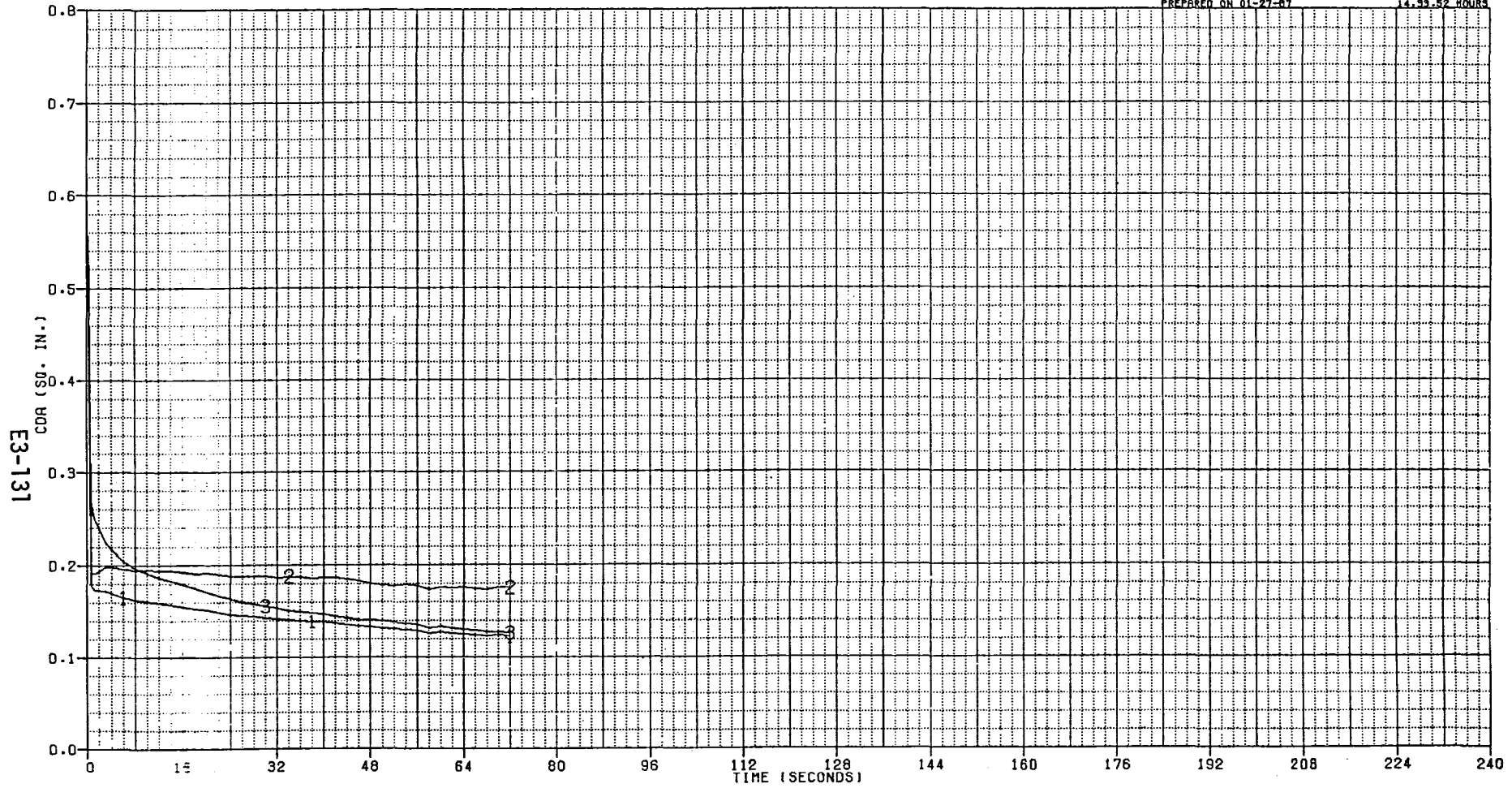




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-153  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1159 HOURS      AVERAGED DATA

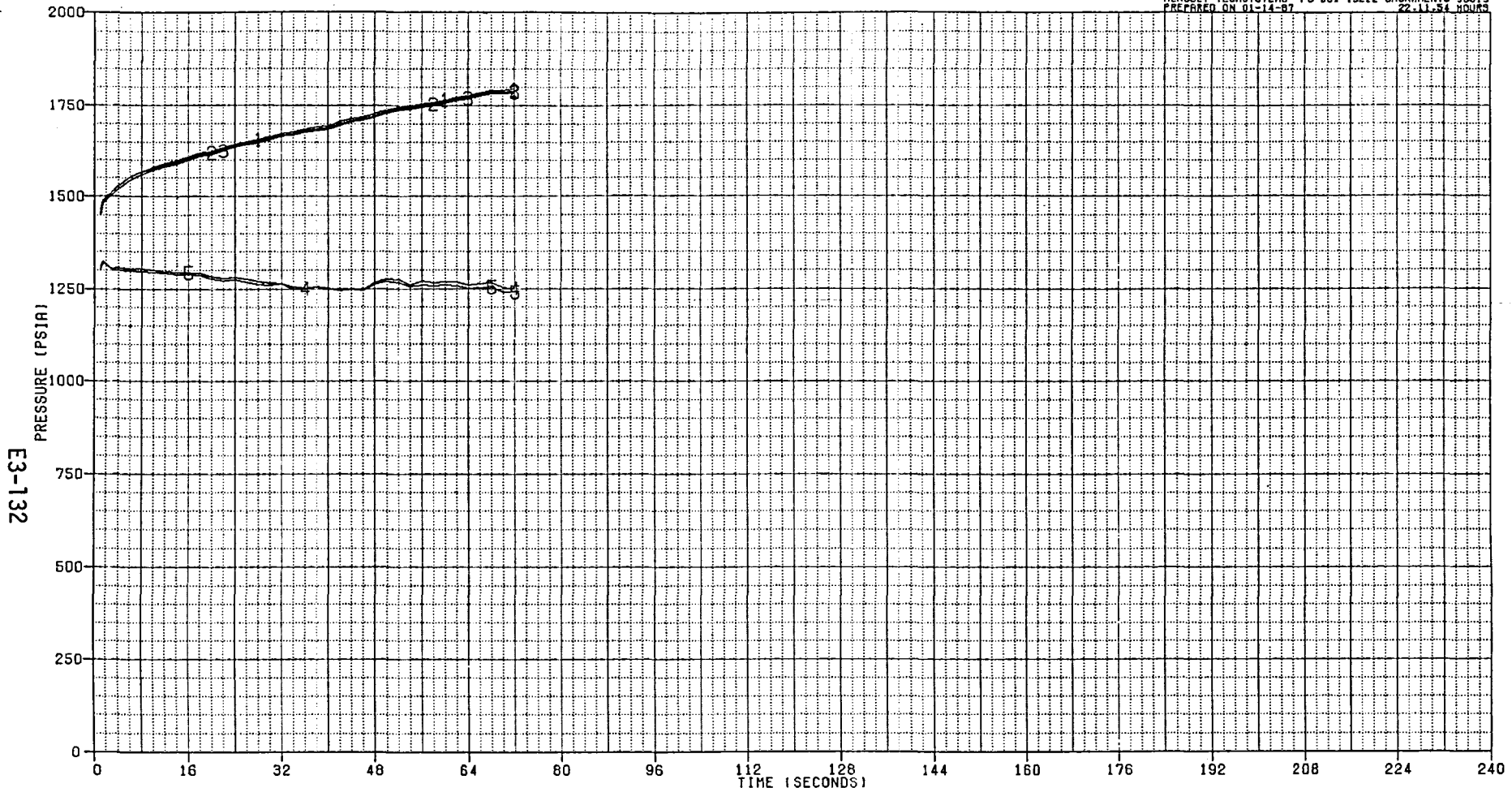


E3-131

- 1 NA1 35. IN.
- 2 NA2 35. IN.
- 3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-153  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1159 HOURS AVERAGED DATA



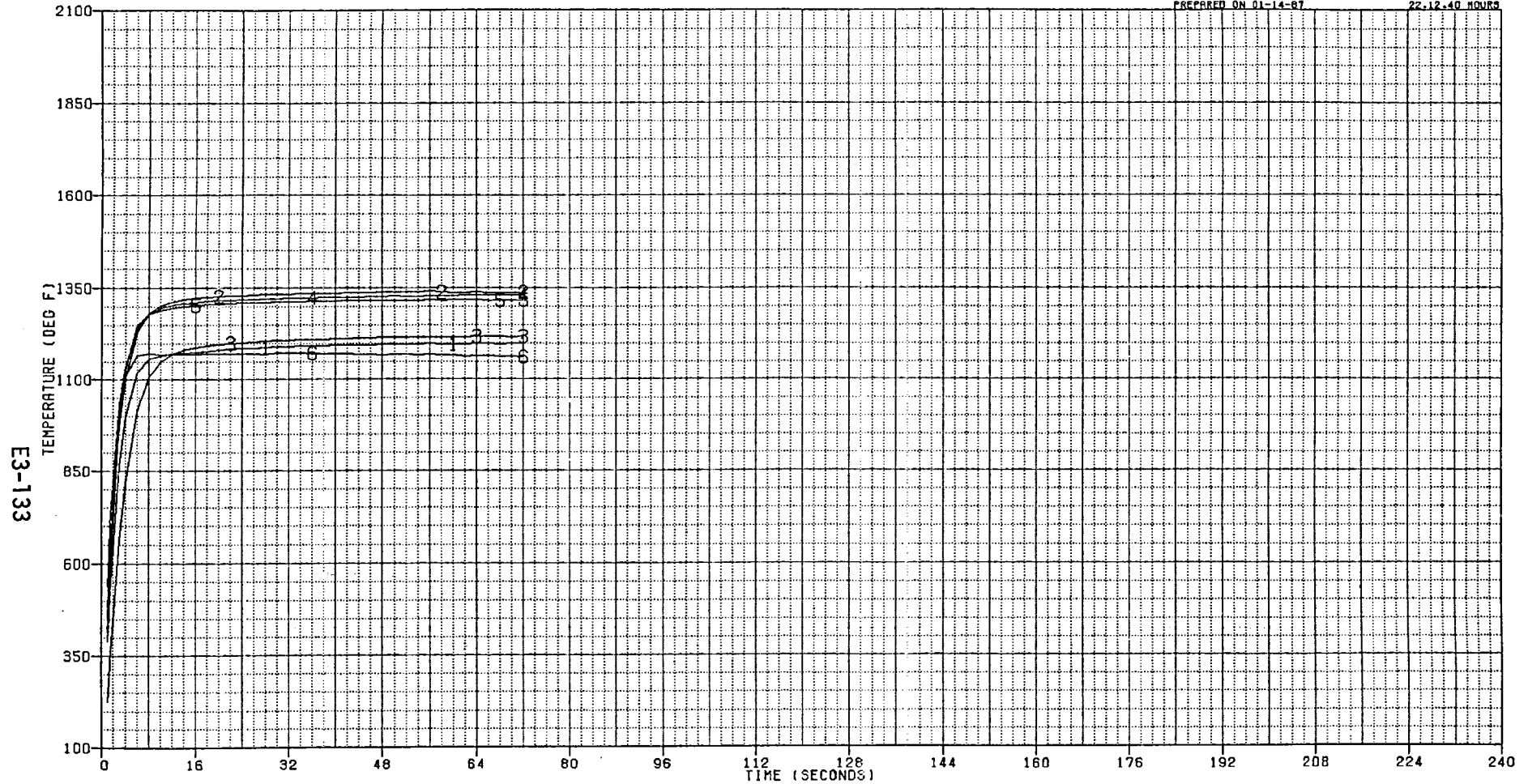


E3-132

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-153  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1159 HOURS AVERAGED DATA





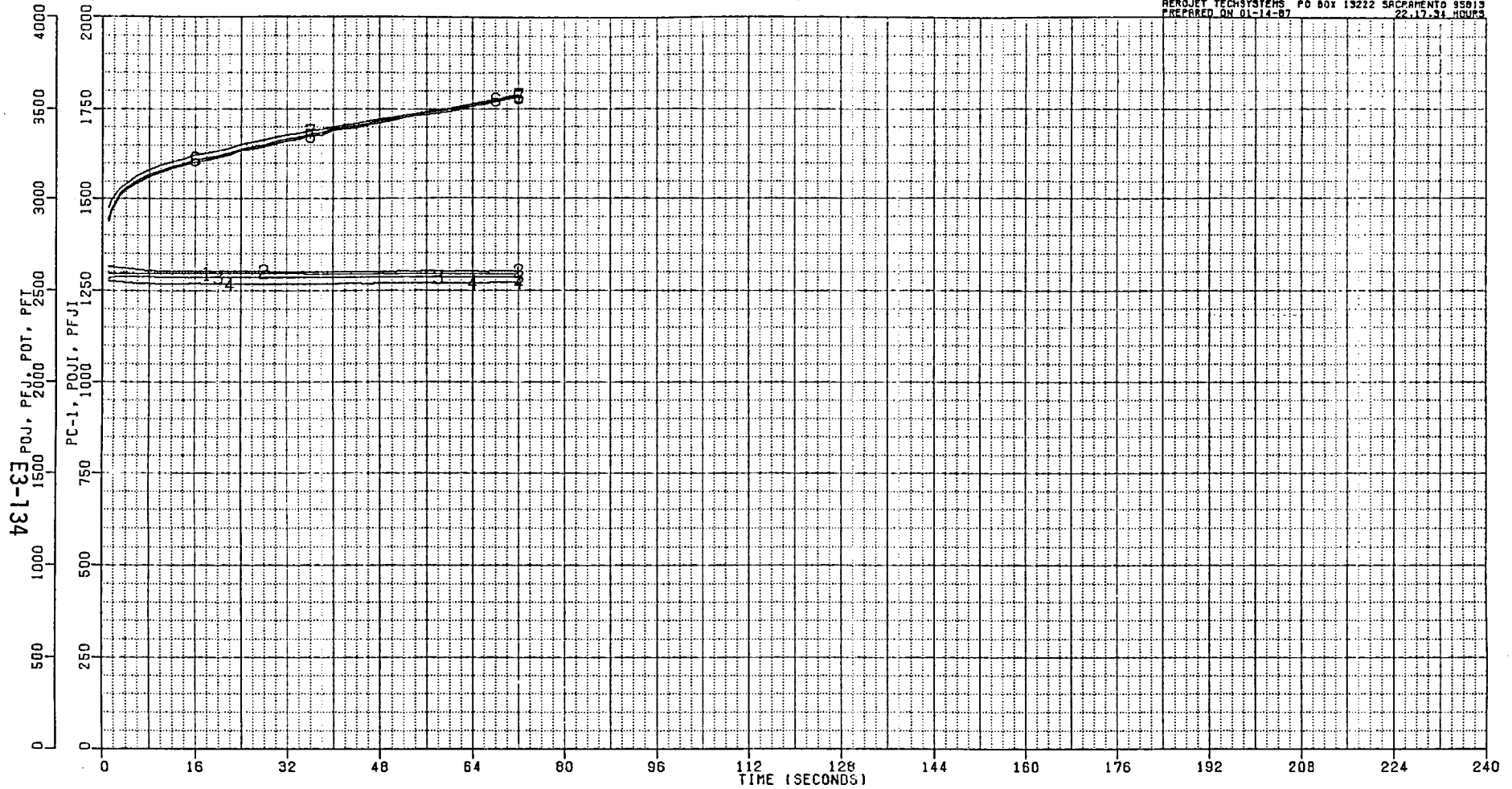
E3-133

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-153  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1159 HOURS AVERAGED DATA







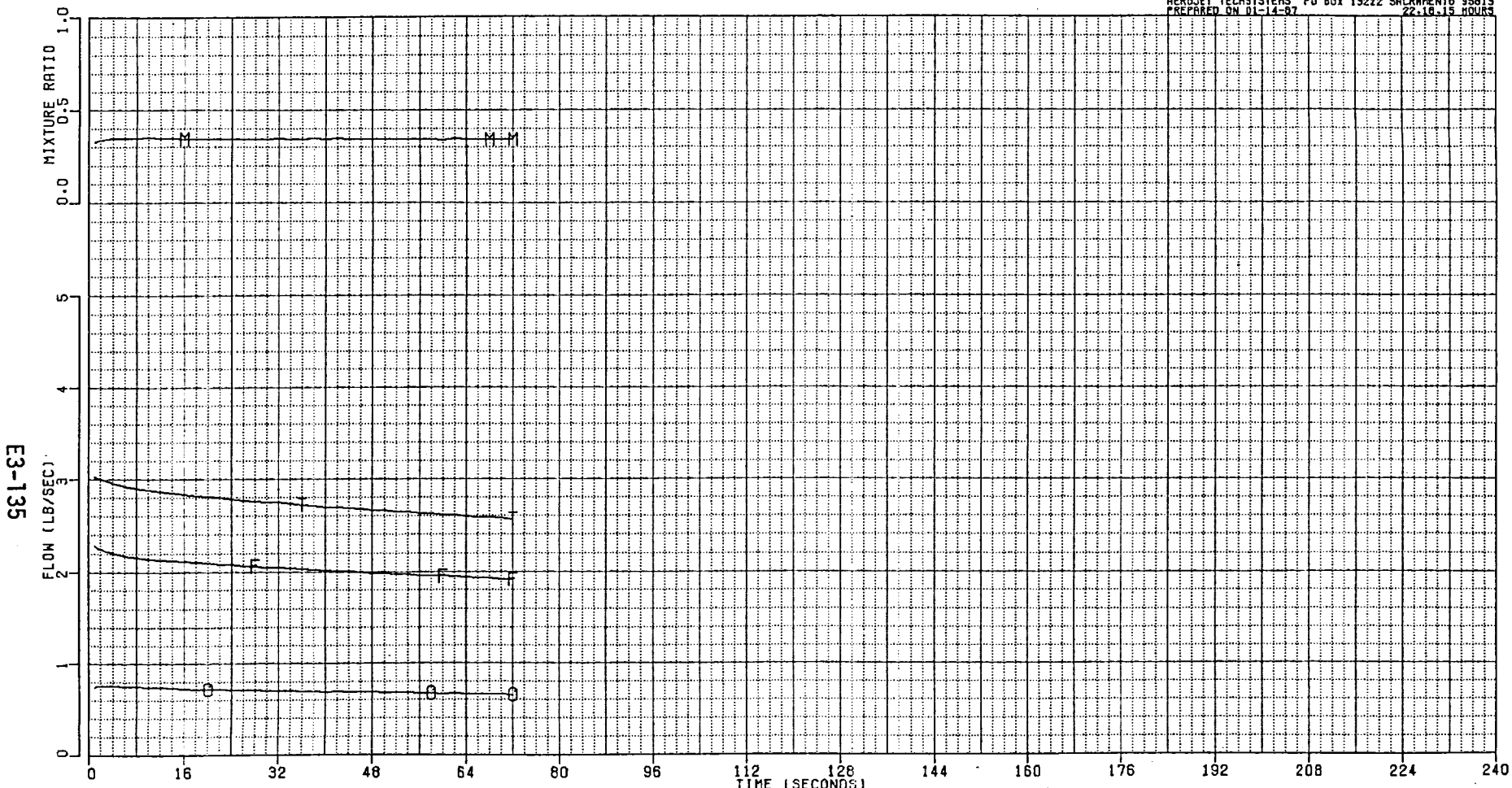
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-154

TEST DATE 11-19-85 2114 HOURS AVERAGED DATA





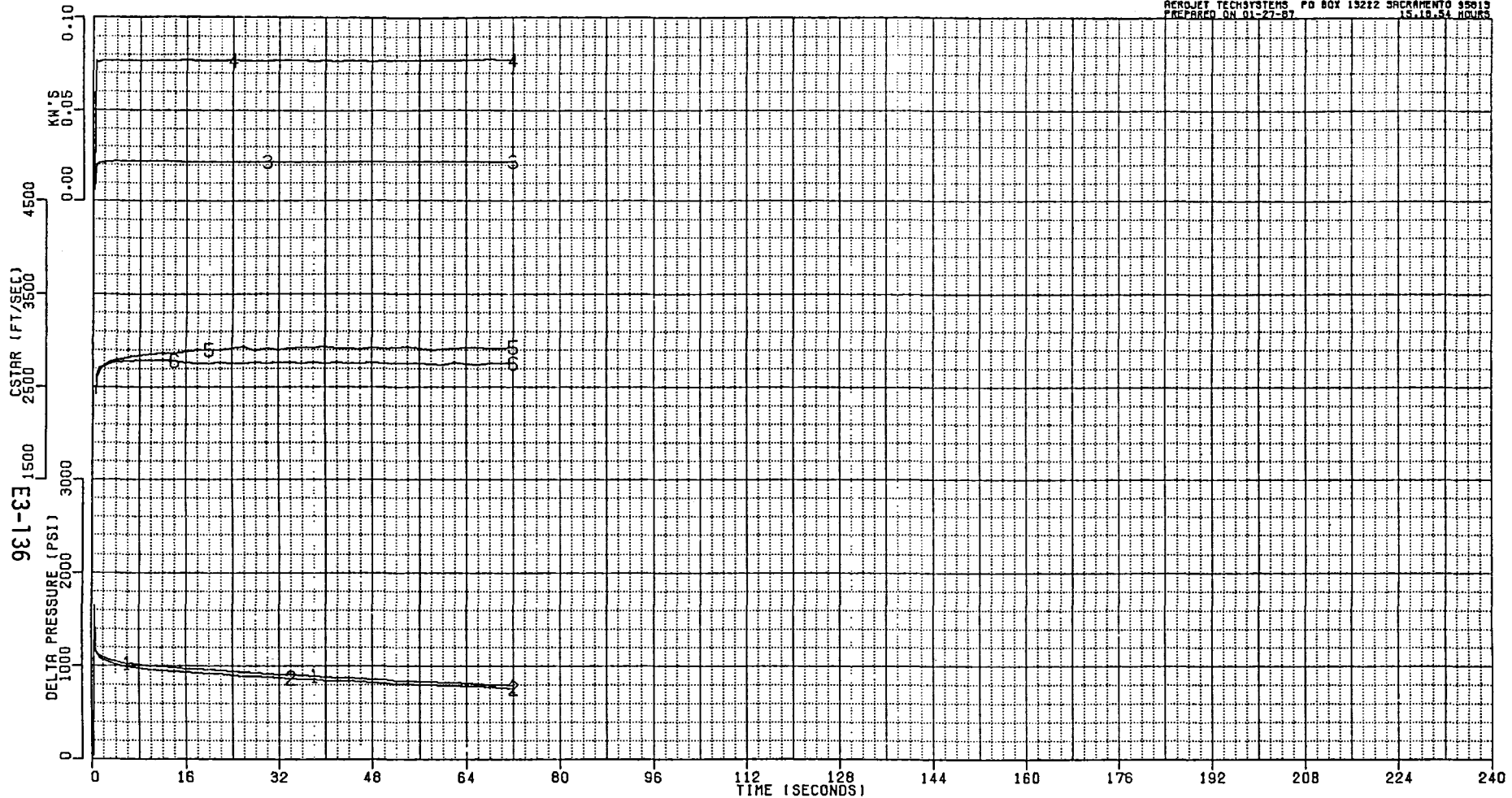
E3-135

F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-154

TEST DATE 11-19-85 2114 HOURS AVERAGED DATA



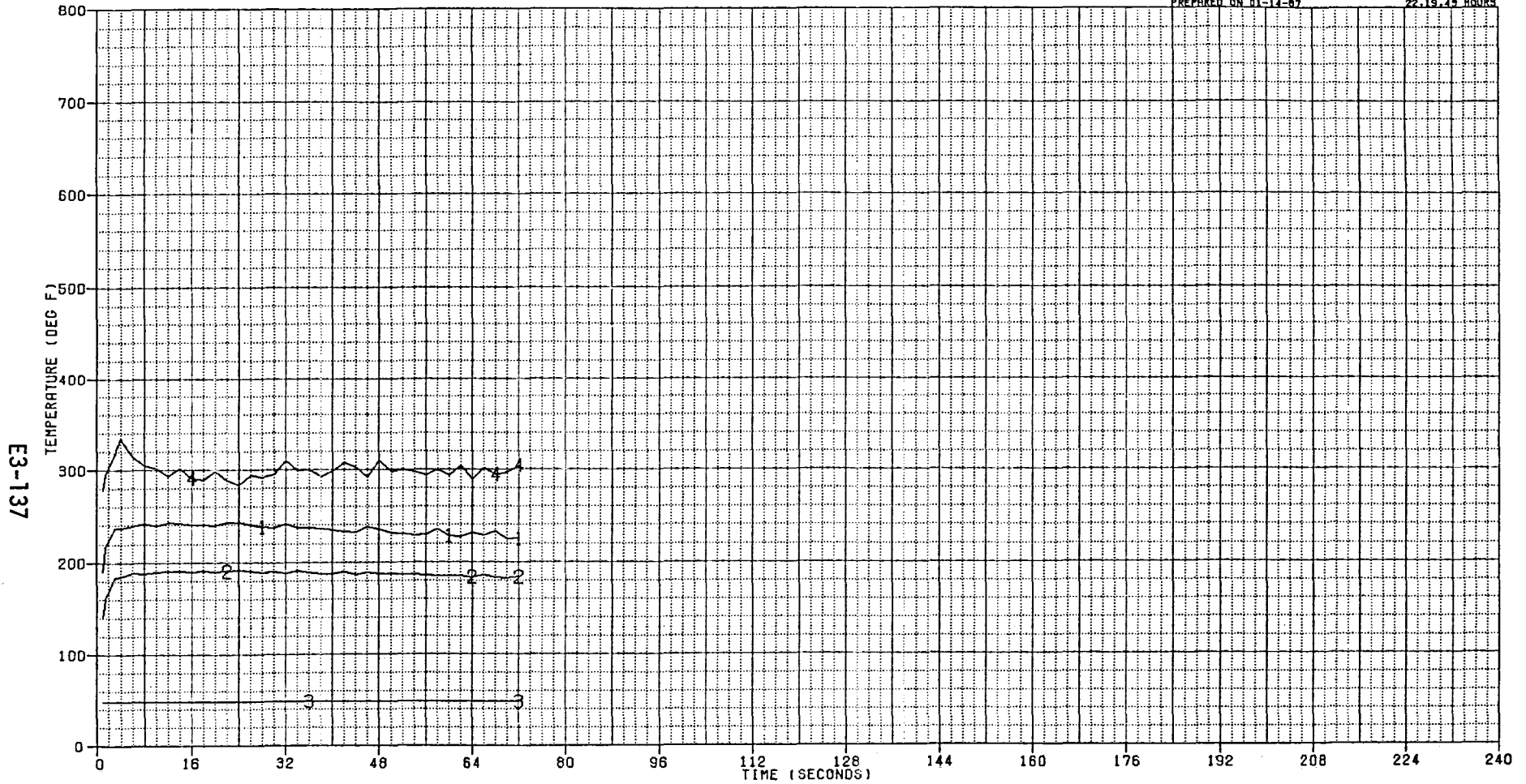


- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR         FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-154

TEST DATE 11-19-85 2114 HOURS    AVERAGED DATA





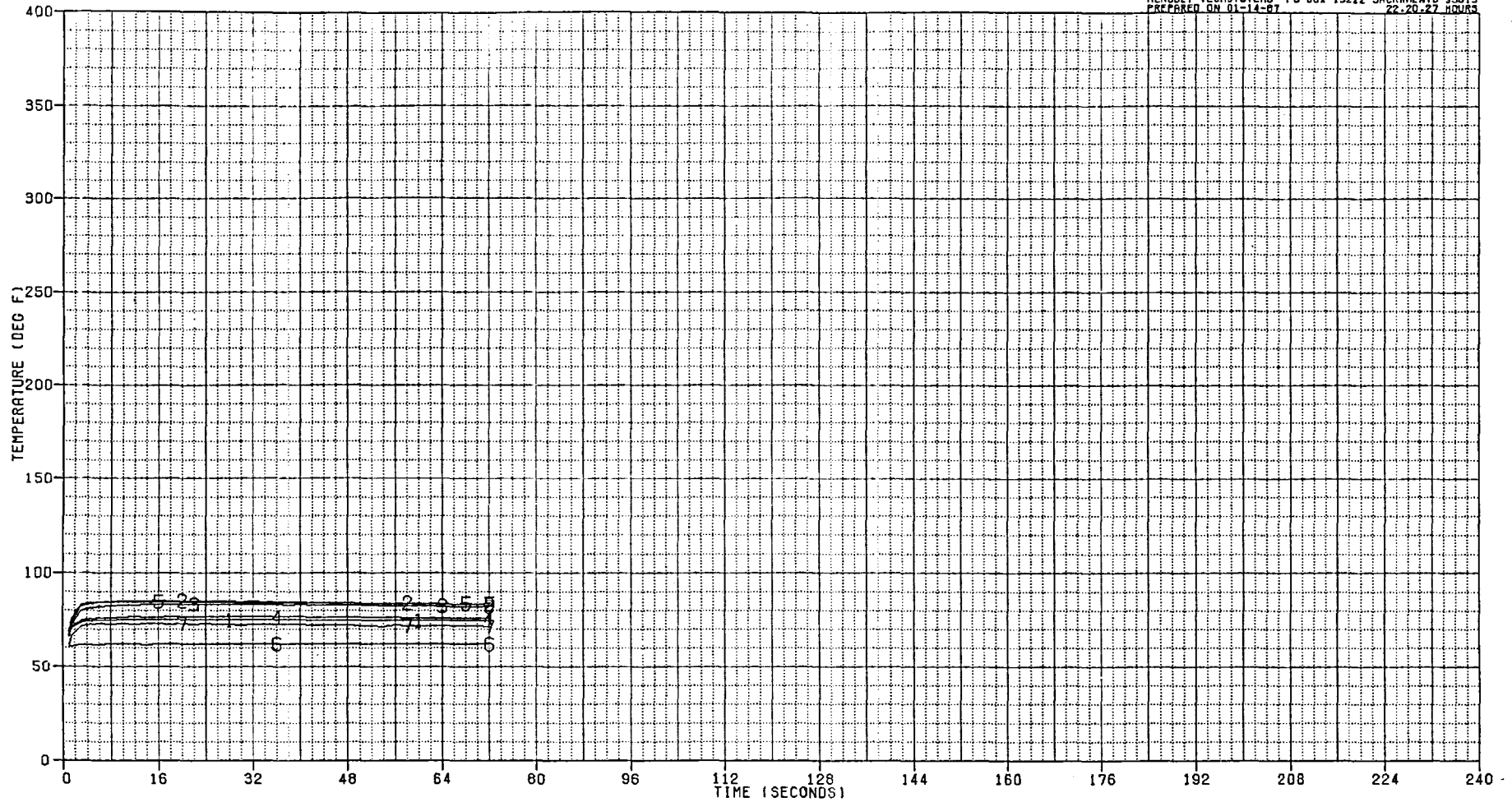
E3-137

- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-154  
BARREL DATA  
TEST DATE 11-19-85 2114 HOURS      AVERAGED DATA



E3-138

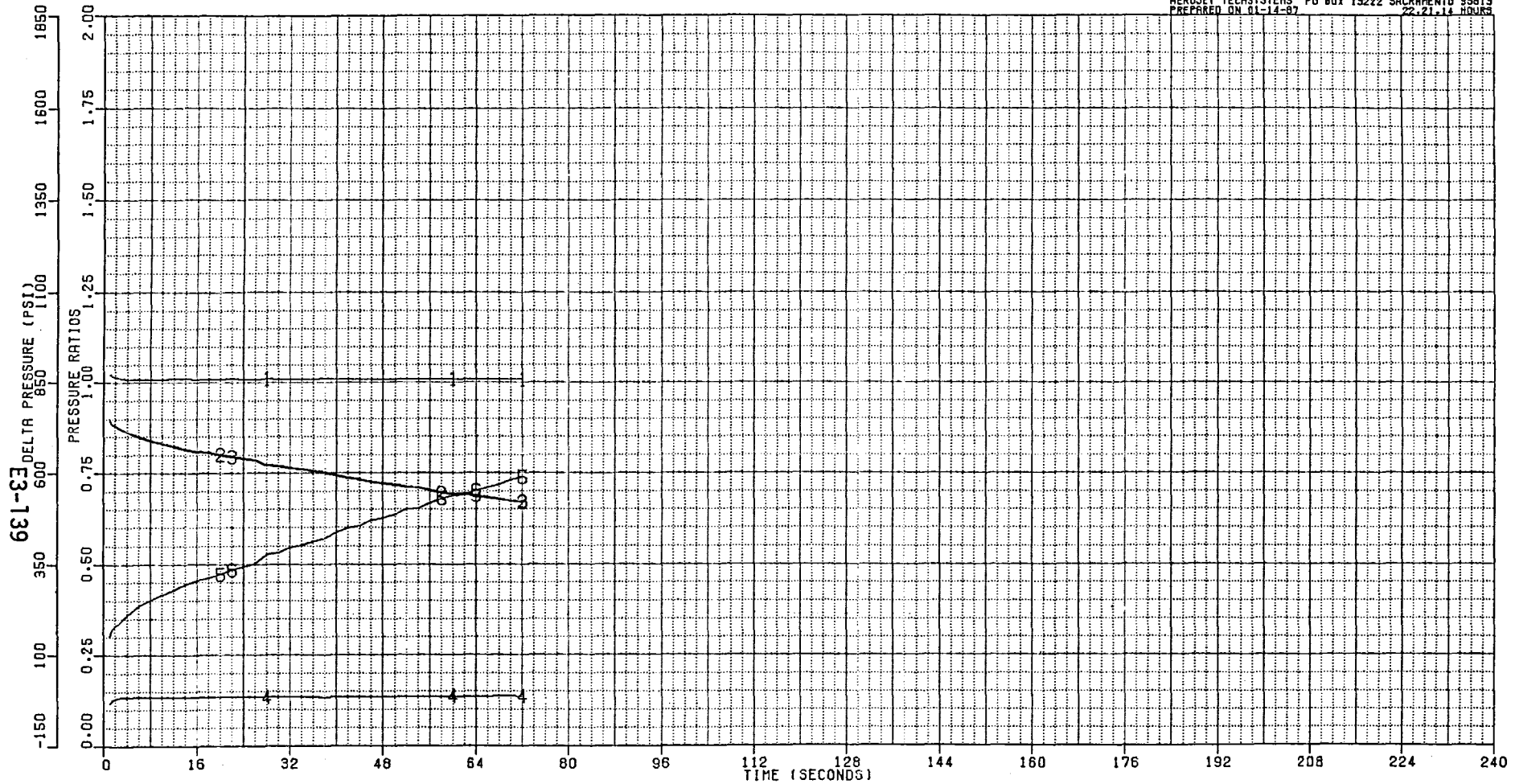


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-154

TEST DATE 11-19-85 2114 HOURS AVERAGED DATA



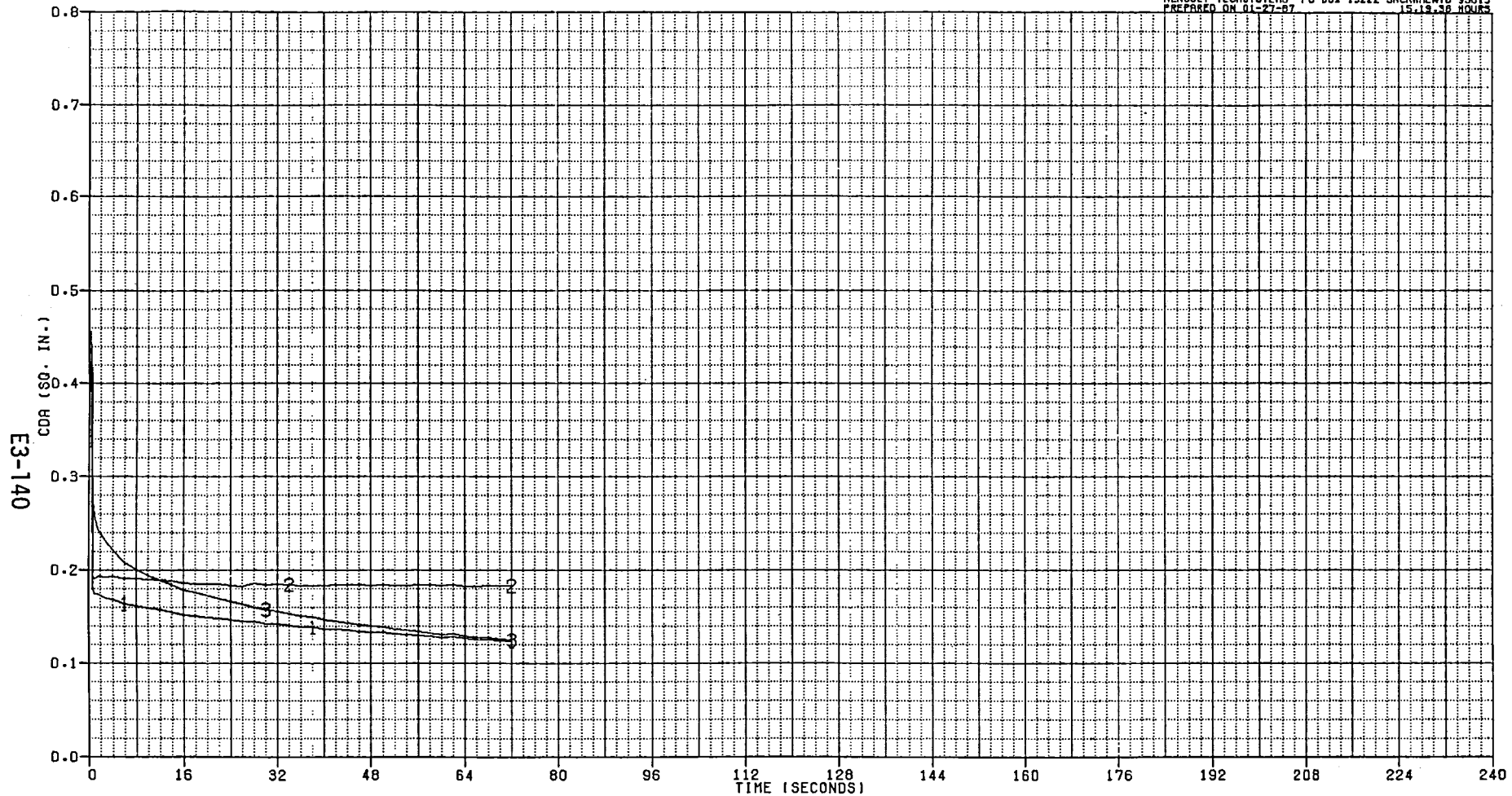


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR
- 5 DPTS-C
- 6 DPTS

PSI  
 PSI  
 PSI



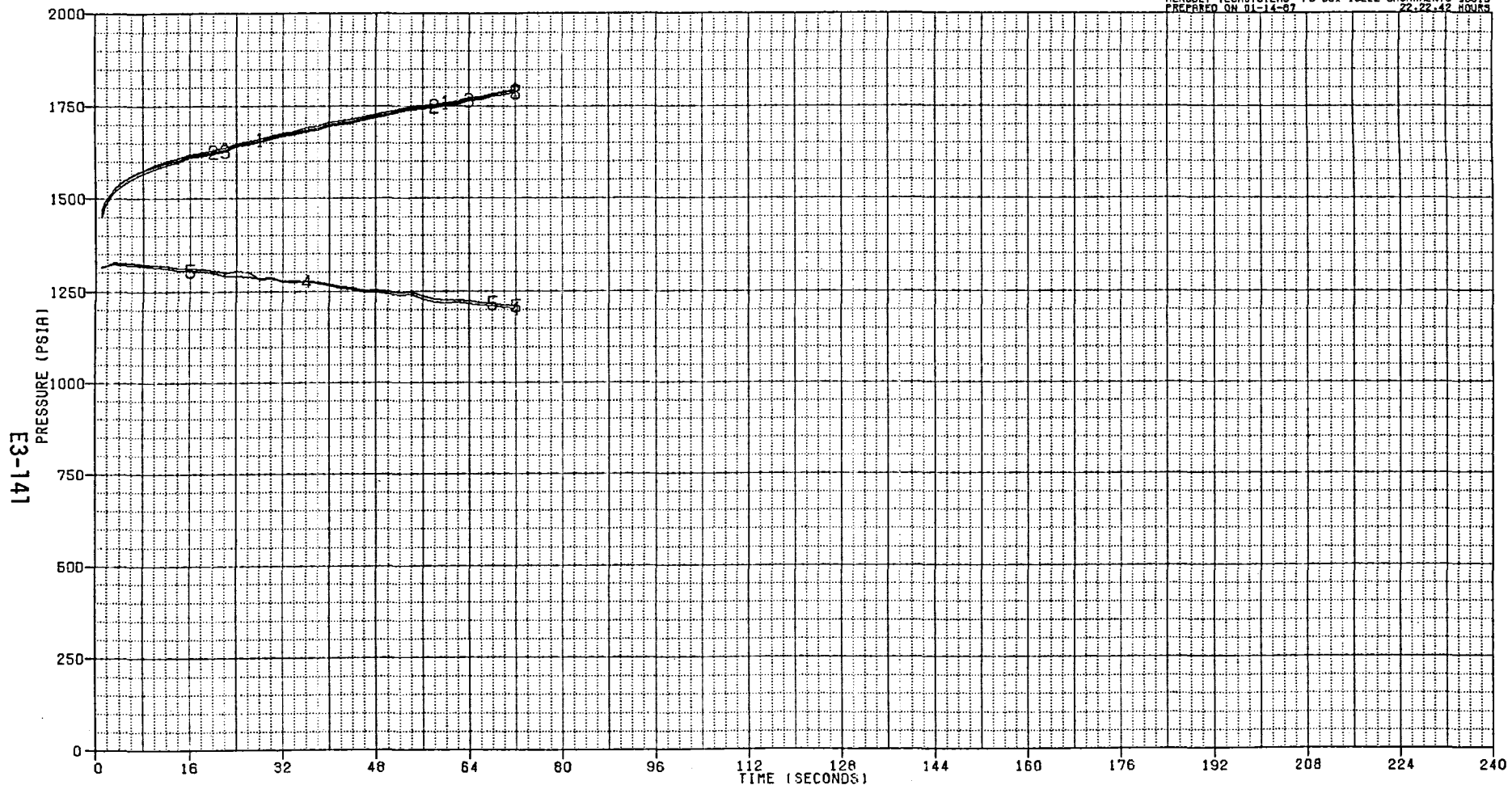
TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-154  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 2114 HOURS AVERAGED DATA



1 NR1 SQ.IN.  
2 NR2 SQ.IN.  
3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-154  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 2114 HOURS AVERAGED DATA





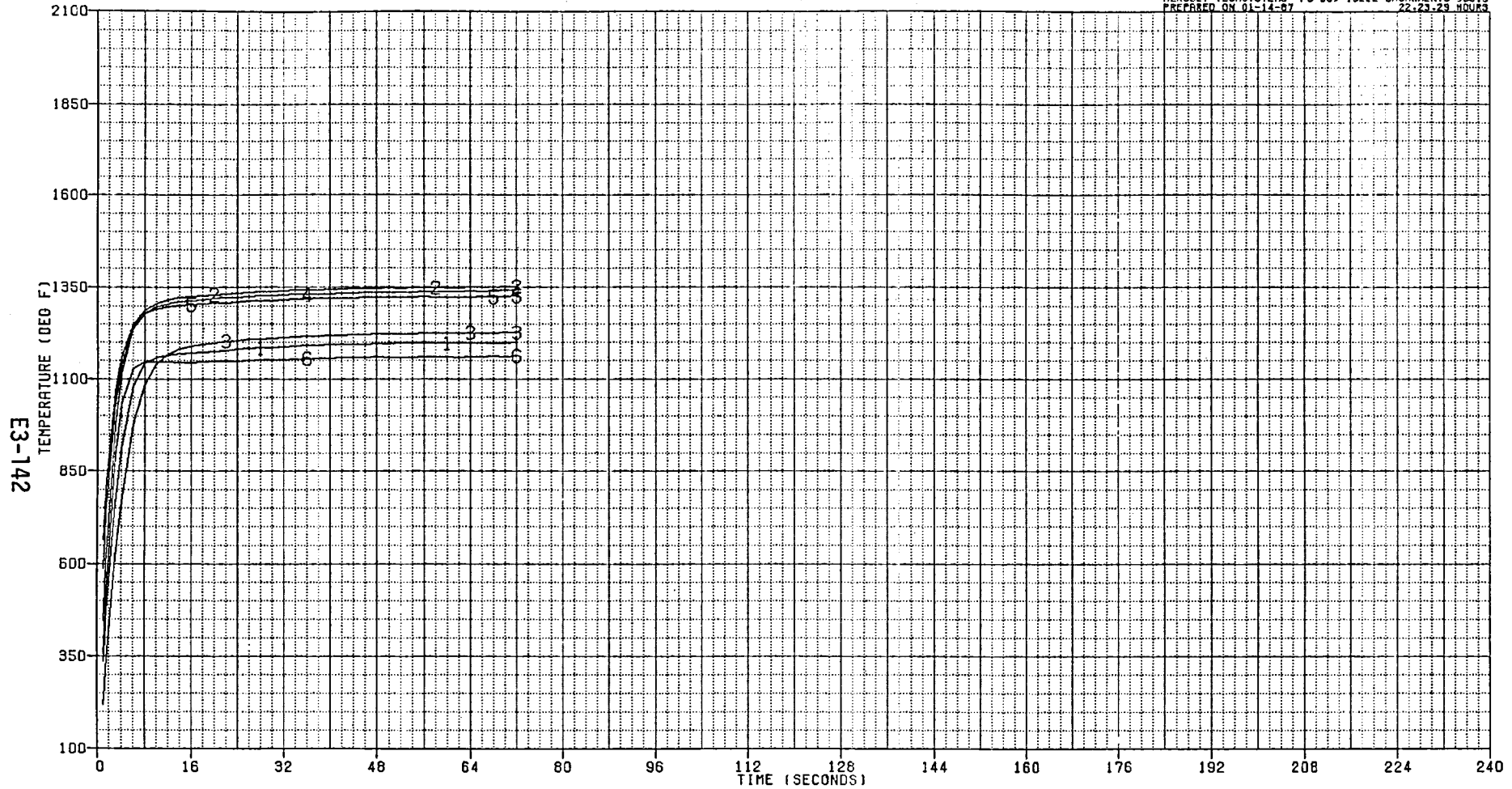
E3-141

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-154  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 2114 HOURS AVERAGED DATA







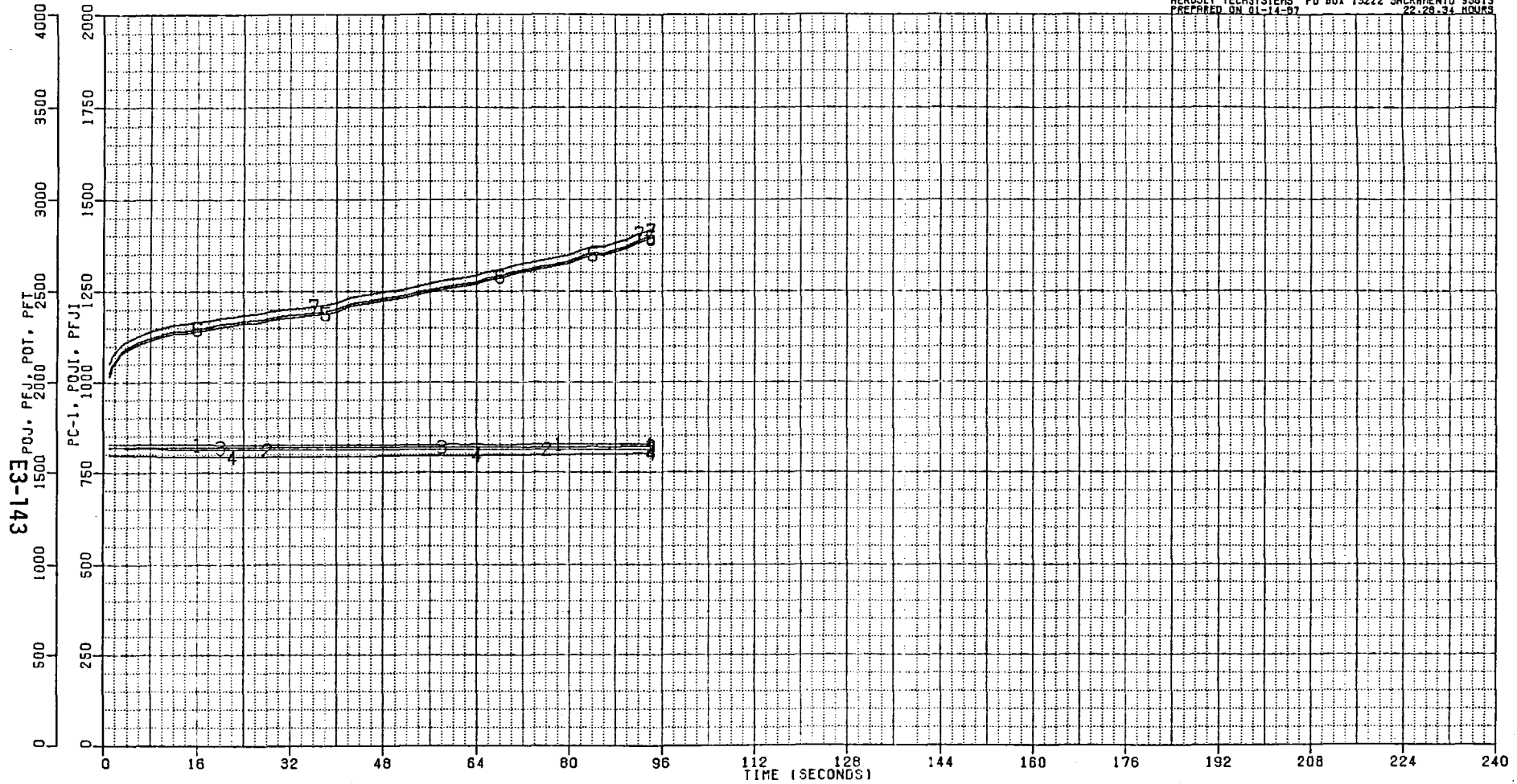
E3-142

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-154  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 2114 HOURS AVERAGED DATA







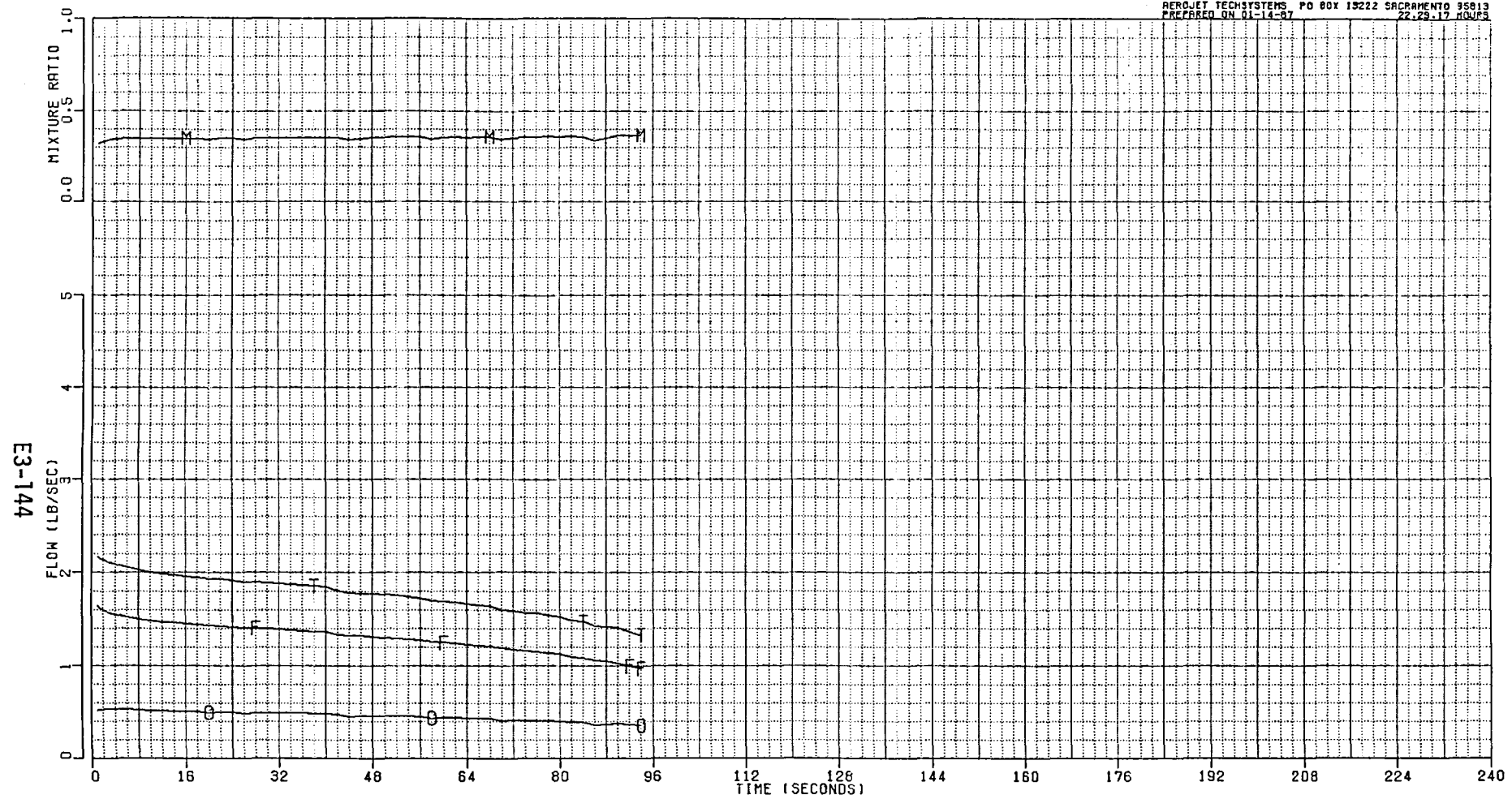
E3-143

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-155

TEST DATE 11-19-85 1230 HOURS AVERAGED DATA



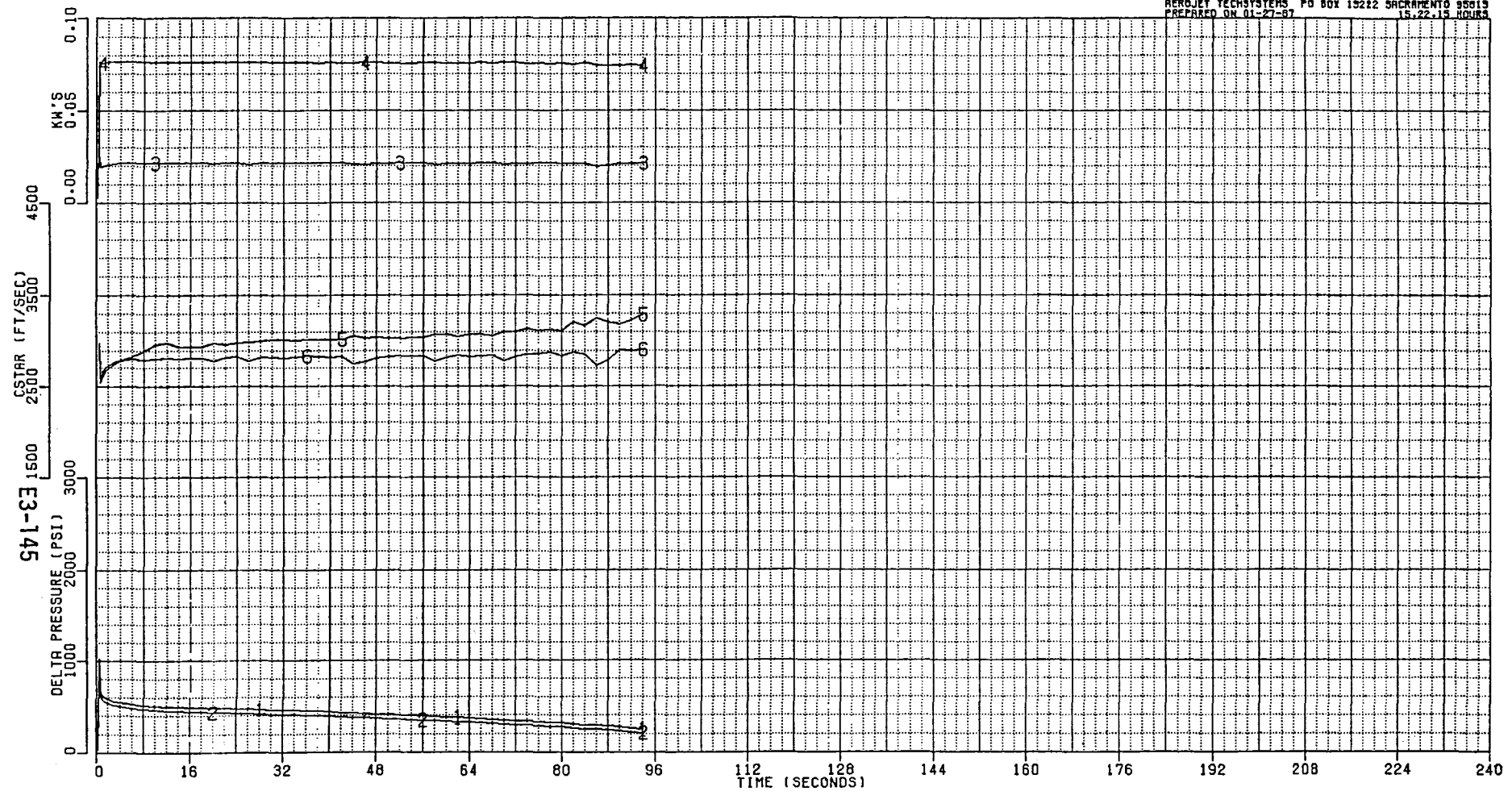


F WF LBS/SEC  
O WOX LBS/SEC  
T TOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-155

TEST DATE 11-19-85 1230 HOURS AVERAGED DATA



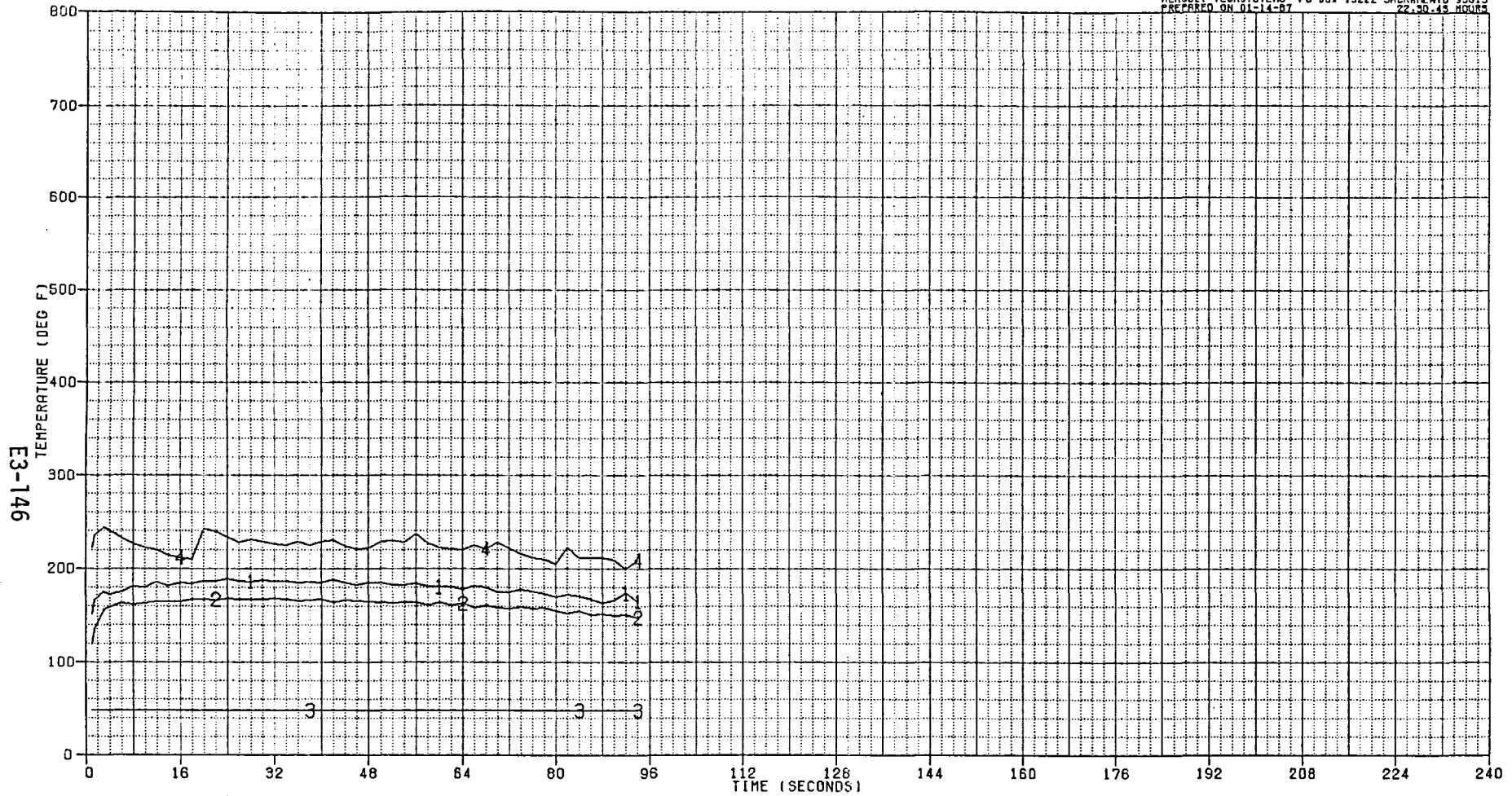


- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR        FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-155

TEST DATE 11-19-85 1230 HOURS      AVERAGED DATA



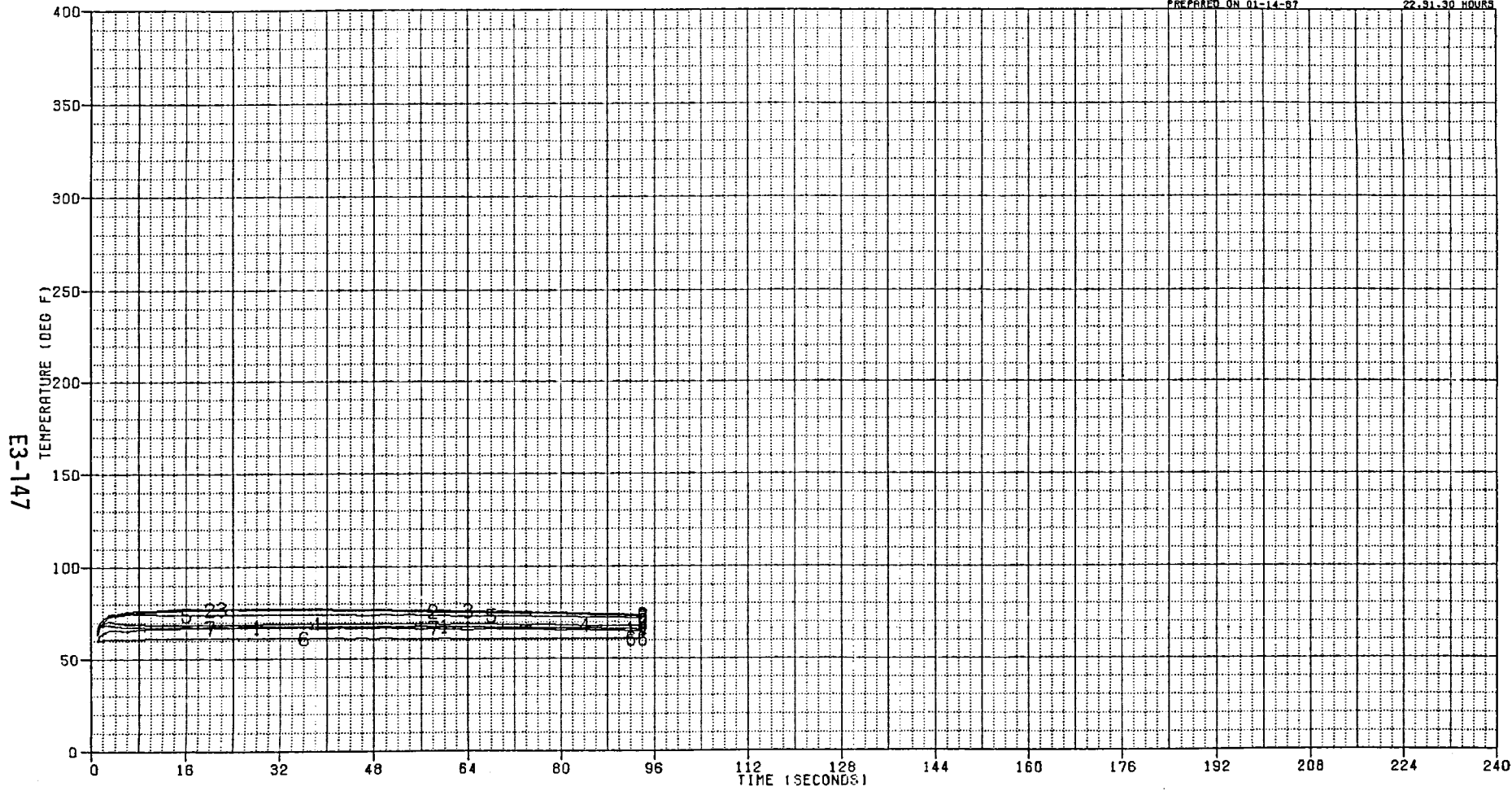


E3-146

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-155  
BARREL DATA  
TEST DATE 11-19-85 1230 HOURS AVERAGED DATA





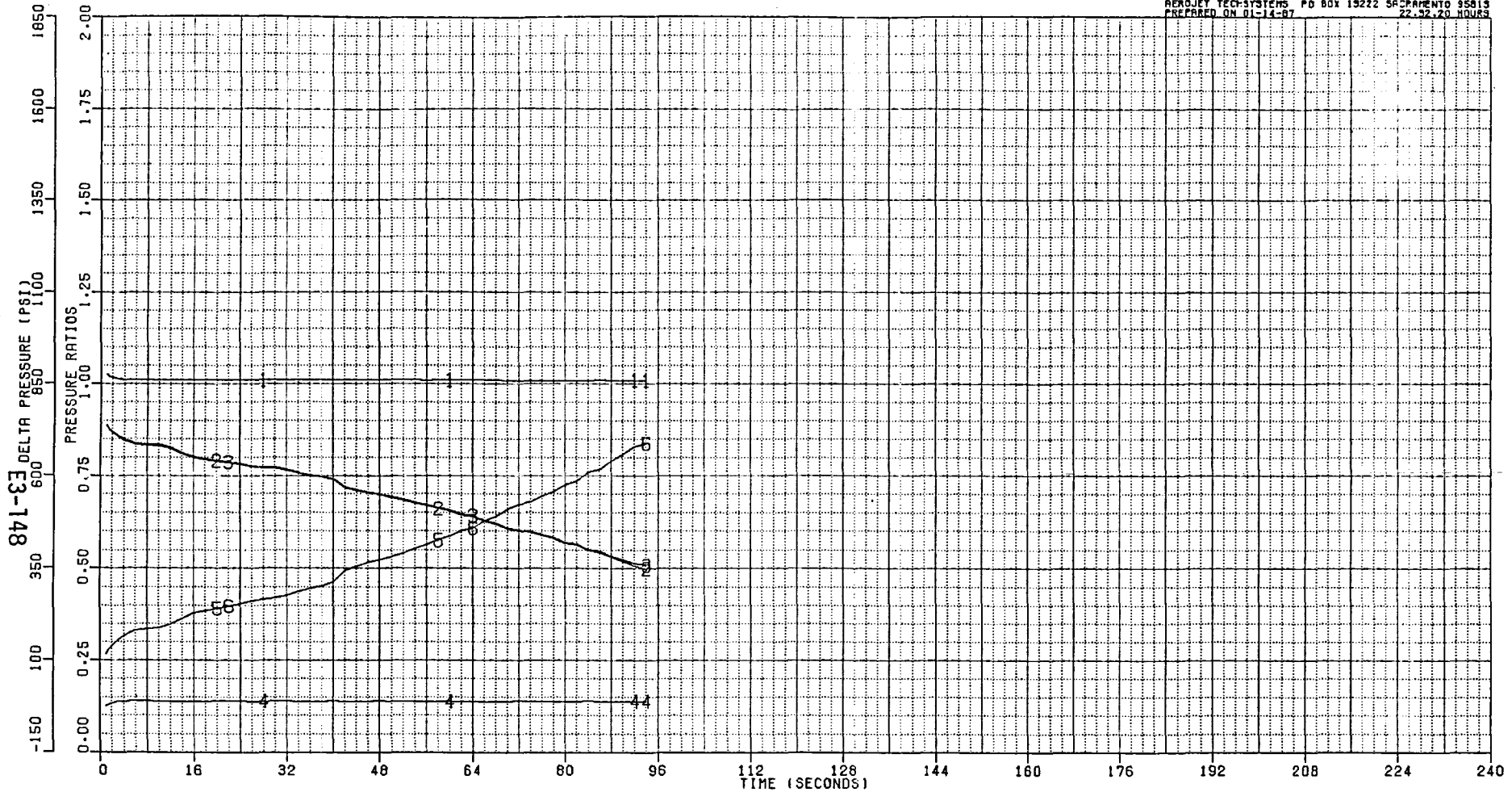
E3-147

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-155

TEST DATE 11-19-85 1230 HOURS AVERAGED DATA



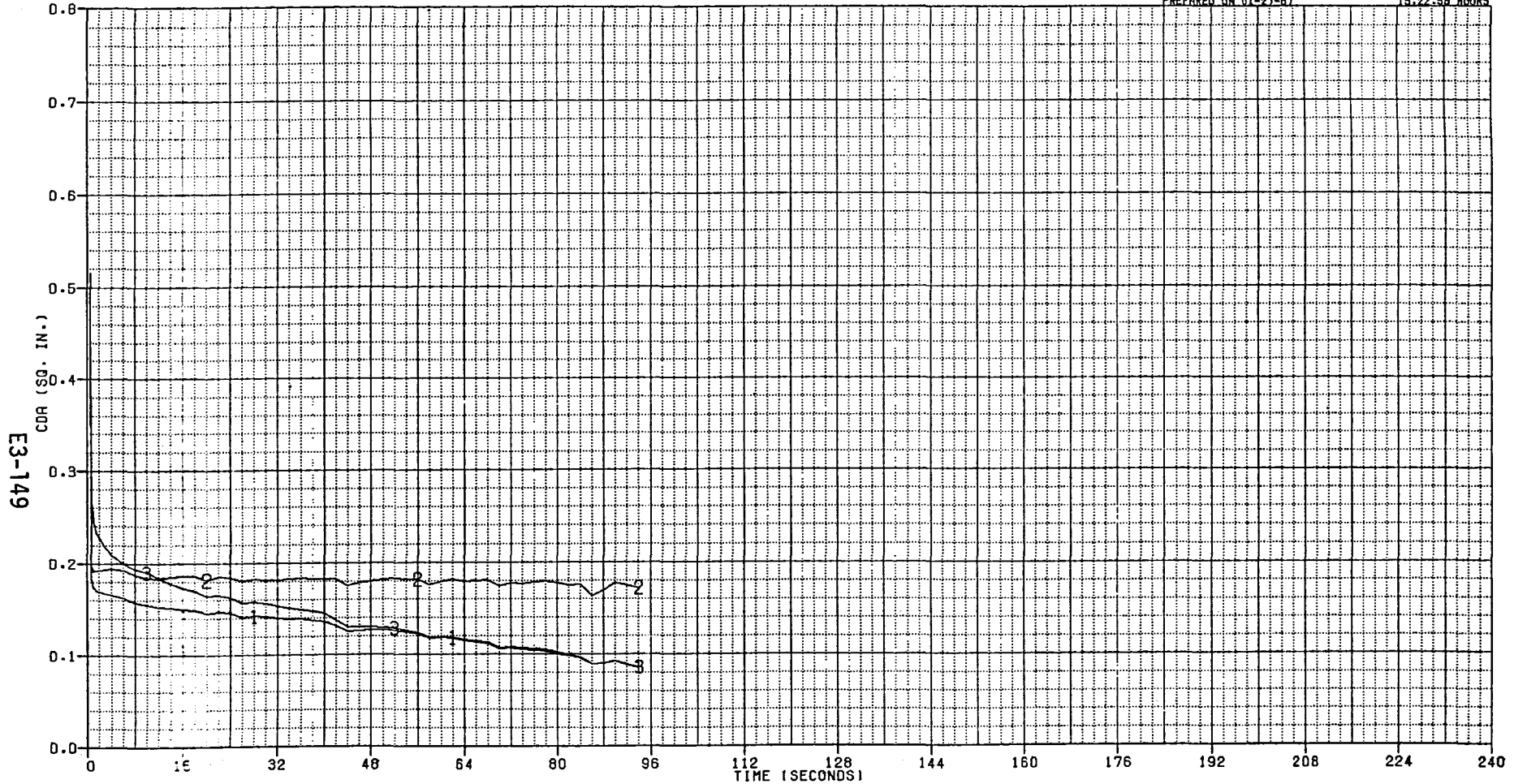


87-148 EC-3 DELTA PRESSURE (PSI)

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-155  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1230 HOURS      AVERAGED DATA



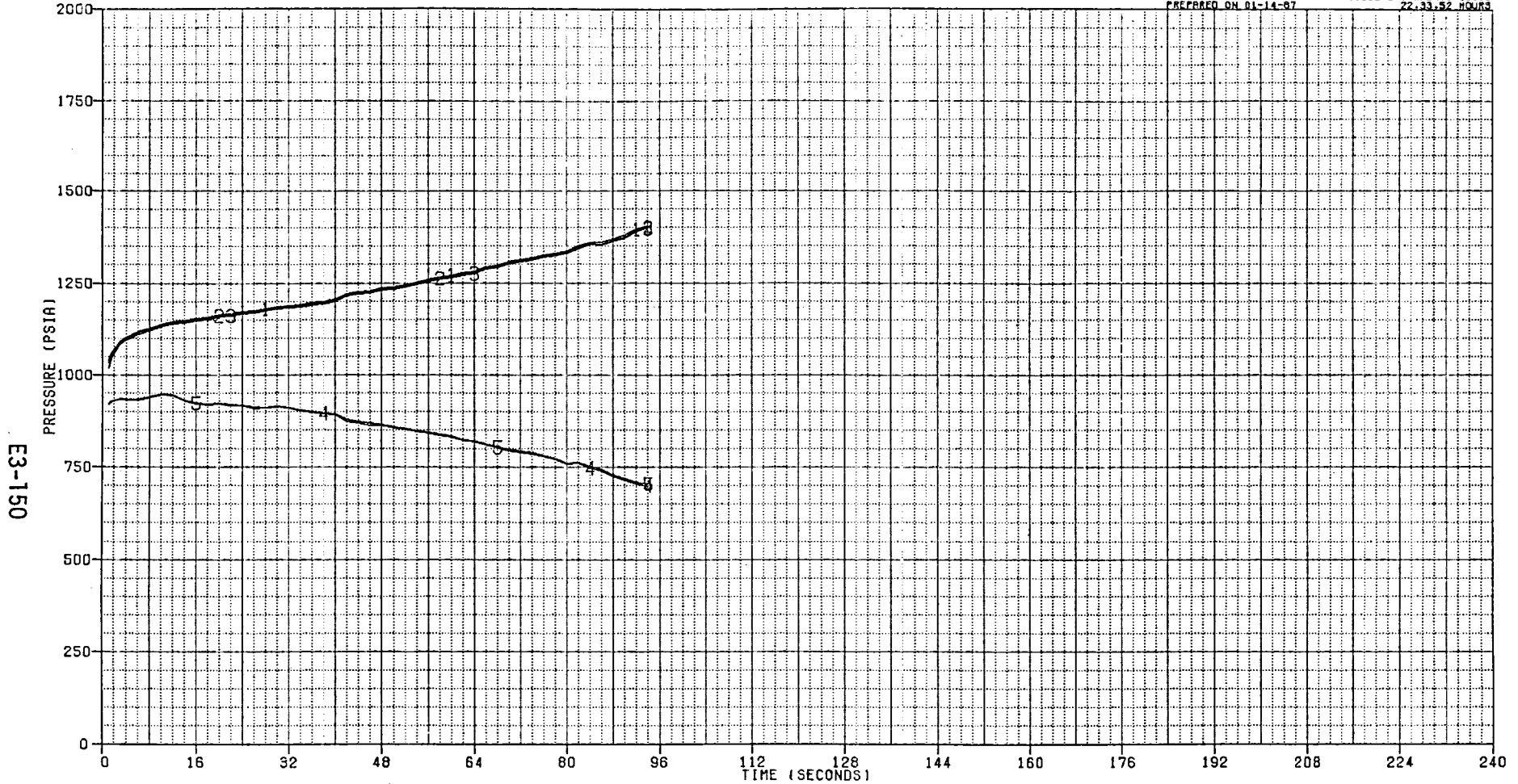
E3-149

1 NA1 50.IN.  
2 NA2 50.IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-155  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1230 HOURS AVERAGED DATA







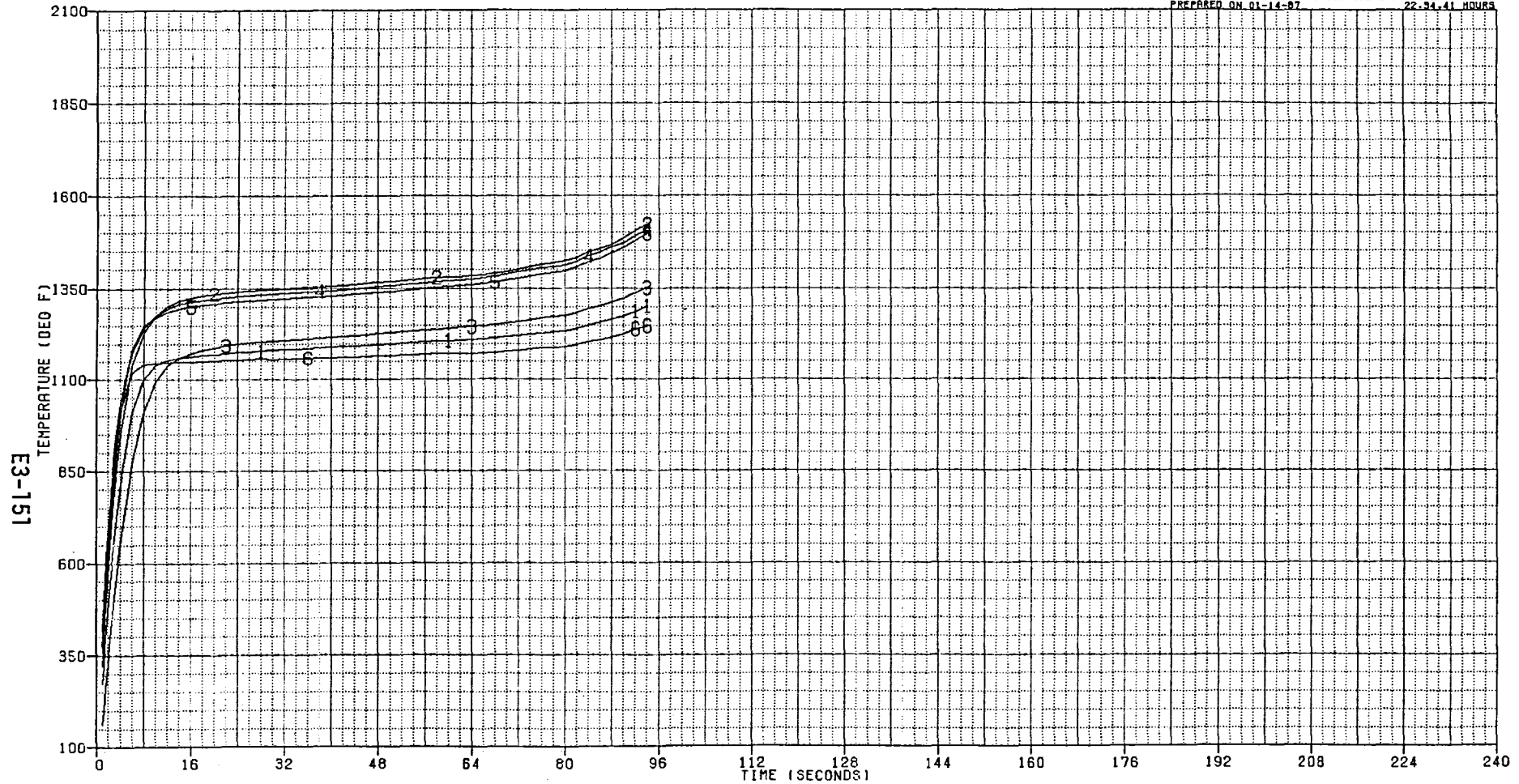
E3-150

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA



TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-155  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1230 HOURS AVERAGED DATA



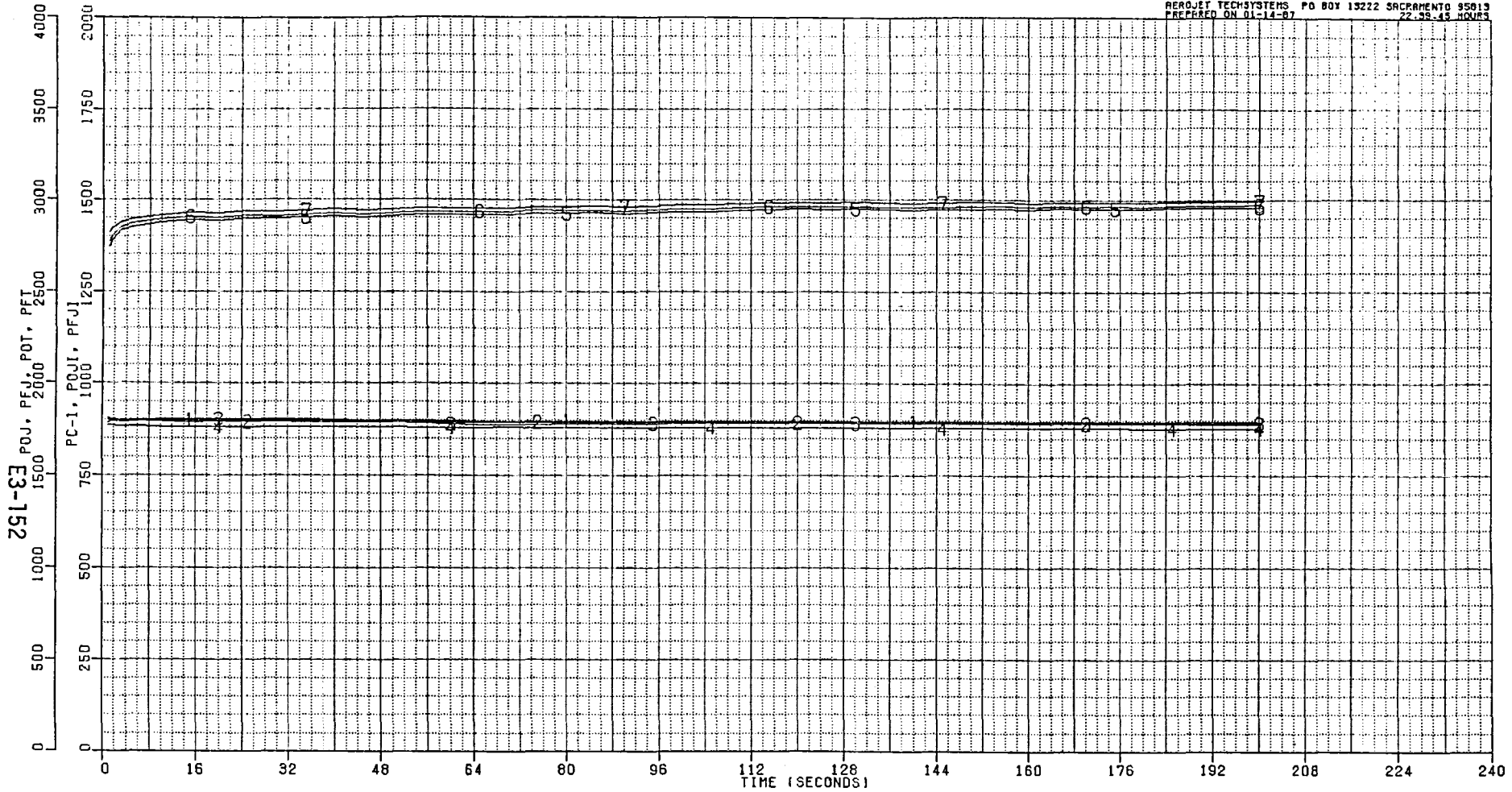


E3-151

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-155  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1230 HOURS AVERAGED DATA





AEROJET TECHSYSTEMS PO BOX 15222 SACRAMENTO 95813  
 PREPARED ON 01-14-87 22:58:45 HOURS

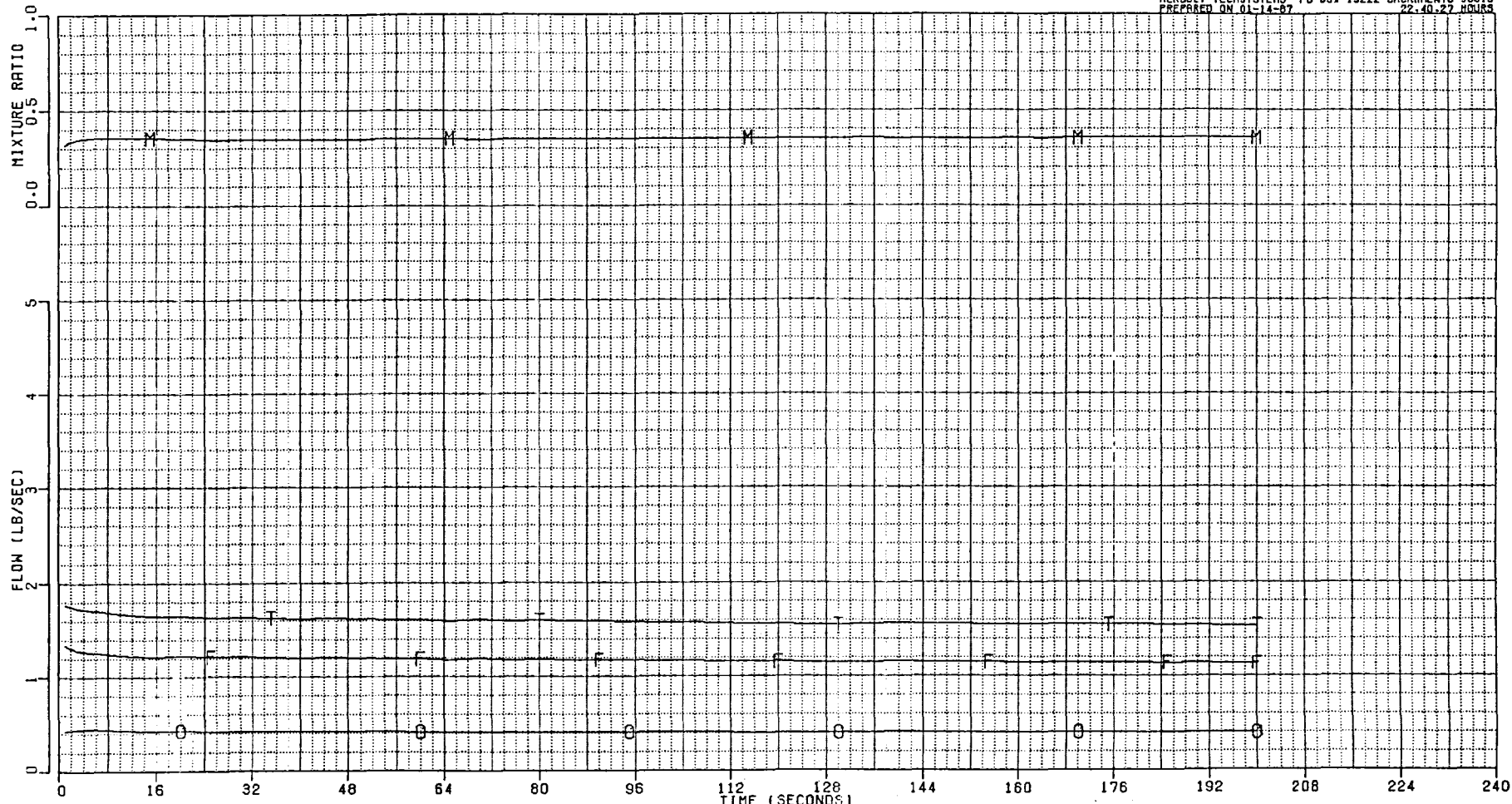
MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-156

TEST DATE 11-19-85 1618 HOURS AVERAGED DATA

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



E3-153

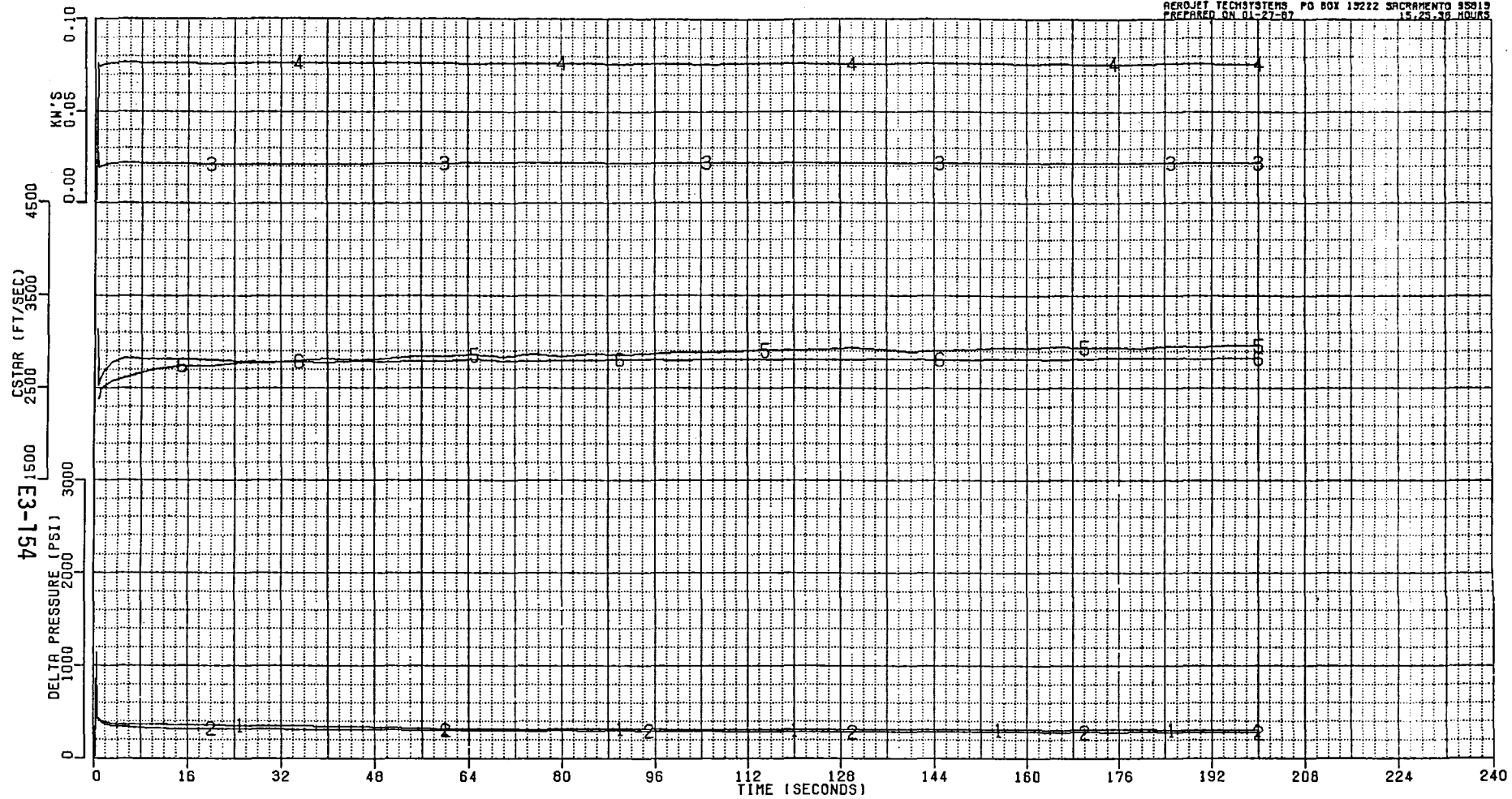


F WF LBS/SEC  
O WOX LBS/SEC  
T WOT LBS/SEC  
X MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-156

TEST DATE 11-19-85 1618 HOURS AVERAGED DATA



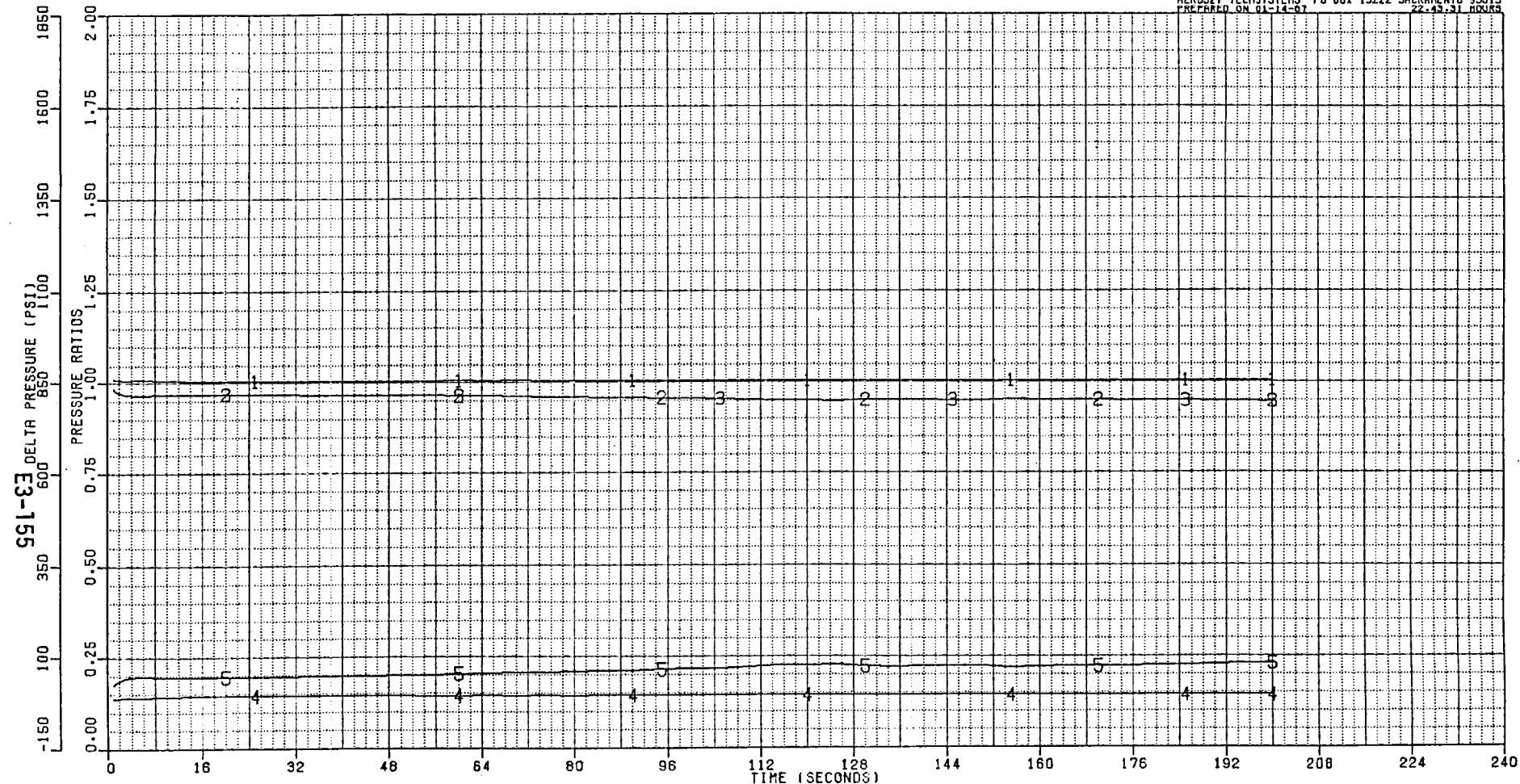


- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ FT/SEC
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-156

TEST DATE 11-19-85 1618 HOURS AVERAGED DATA

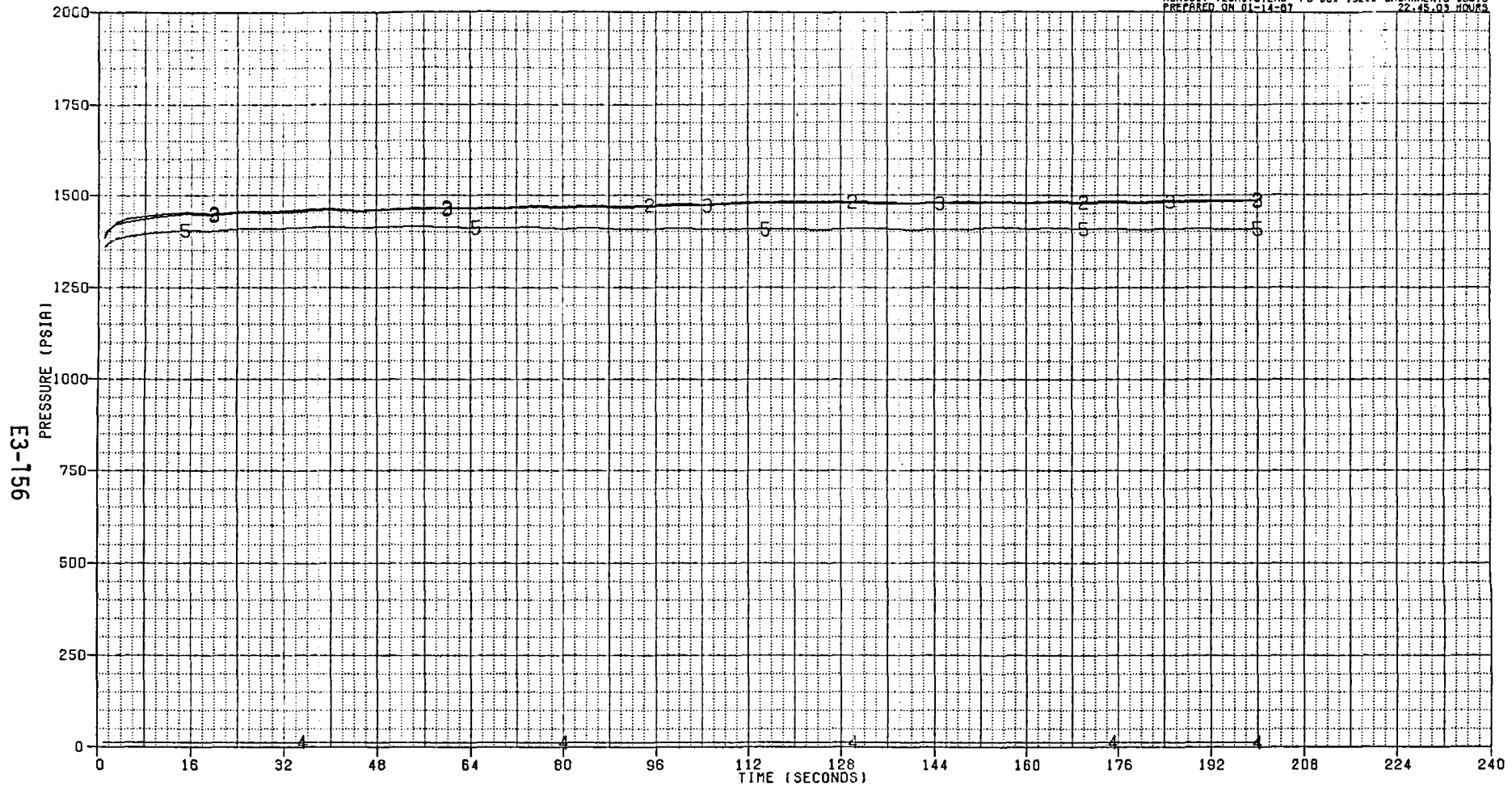




- 1 PRTR PSI
- 2 PRTS PSI
- 3 PRTS CDORR PSI
- 4 OPTR PSI
- 5 OPTS-C PSI
- 6 OPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-156  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1618 HOURS AVERAGED DATA



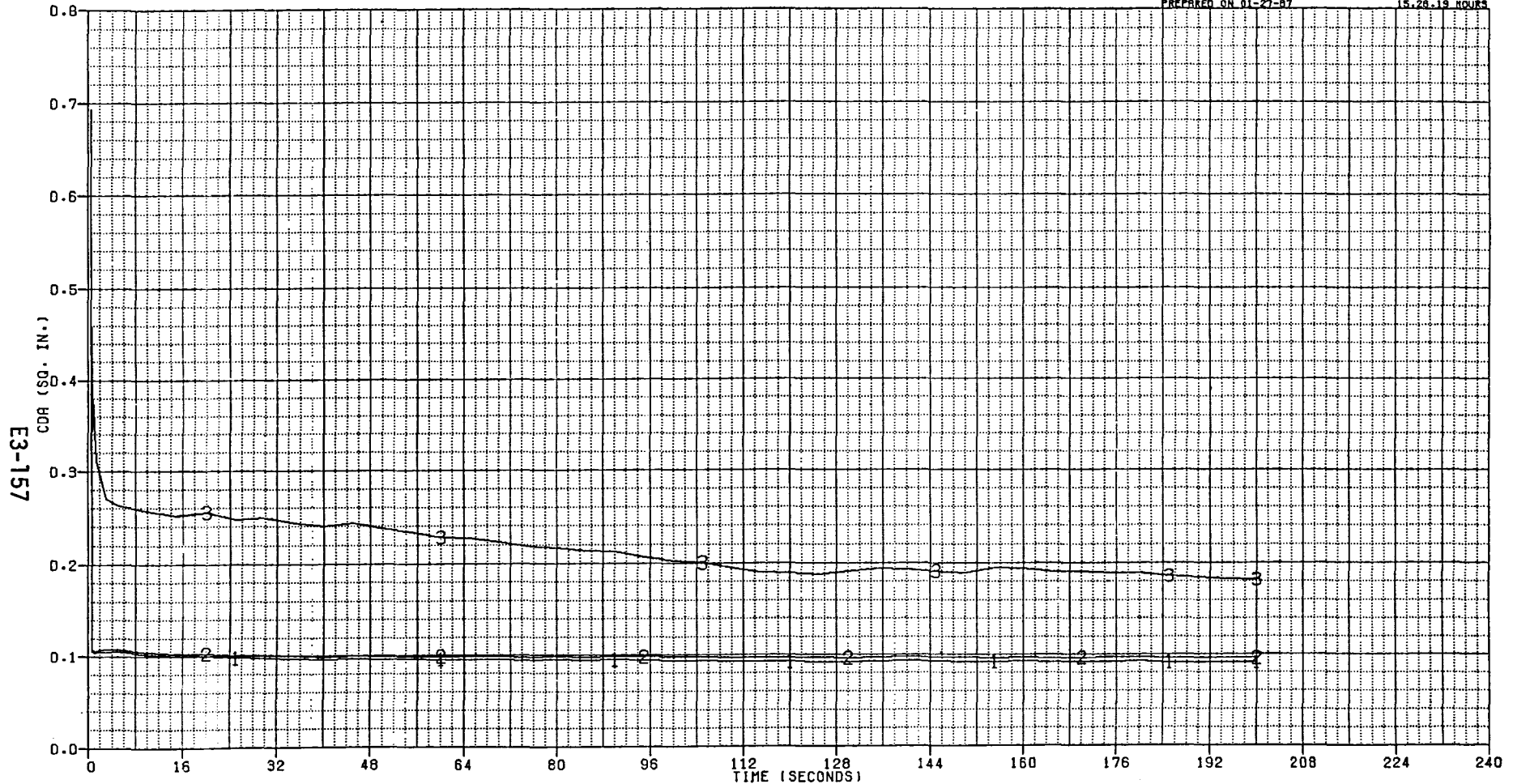


E3-156

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-156  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1618 HOURS AVERAGED DATA



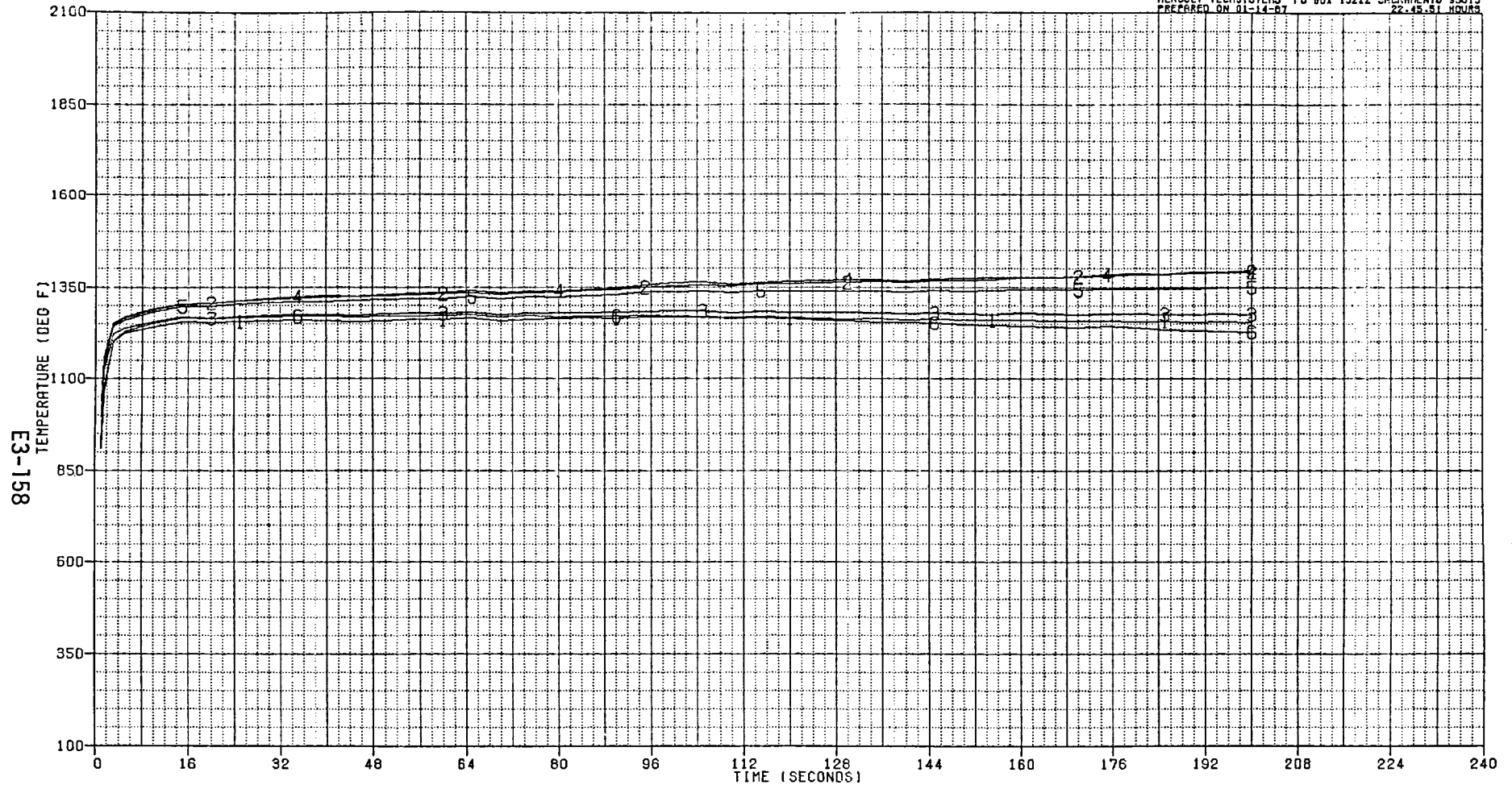


1 NA1 50-IN.  
2 NA2 50-IN.  
3 CDA

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-156  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1618 HOURS AVERAGED DATA







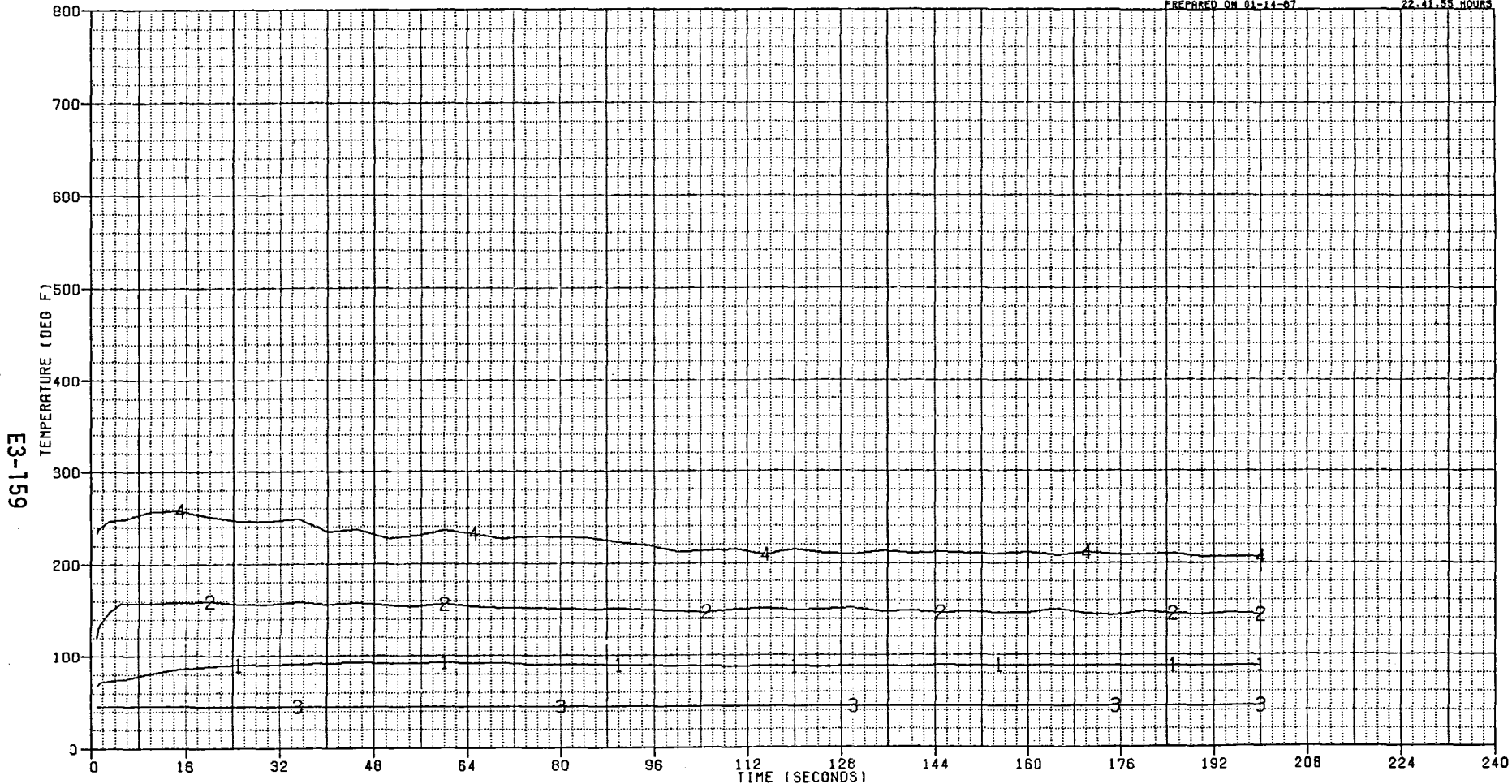
E3-158

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-156  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1618 HOURS AVERAGED DATA





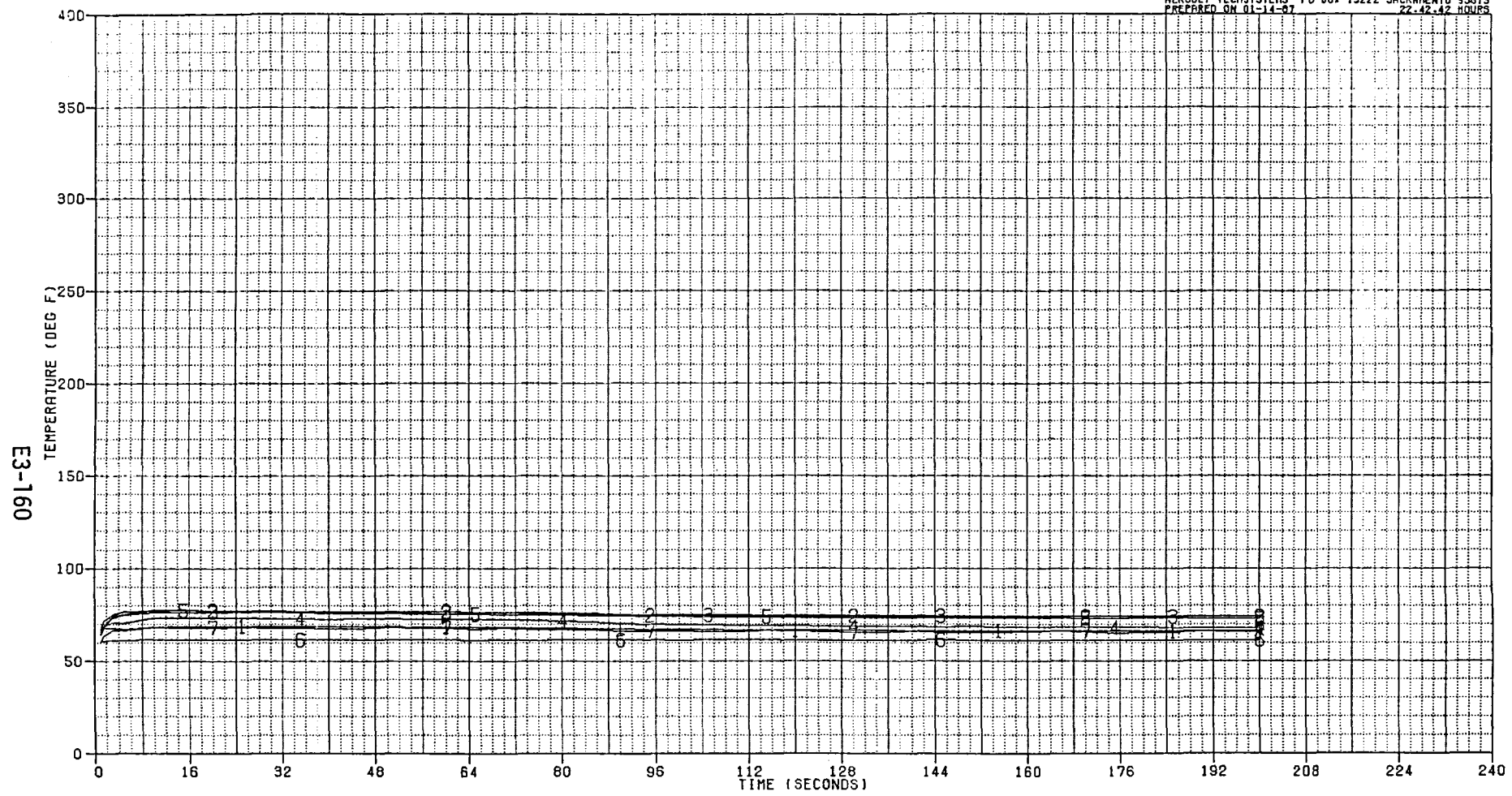


651-159

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-156  
BARREL DATA  
TEST DATE 11-19-85 1618 HOURS AVERAGED DATA





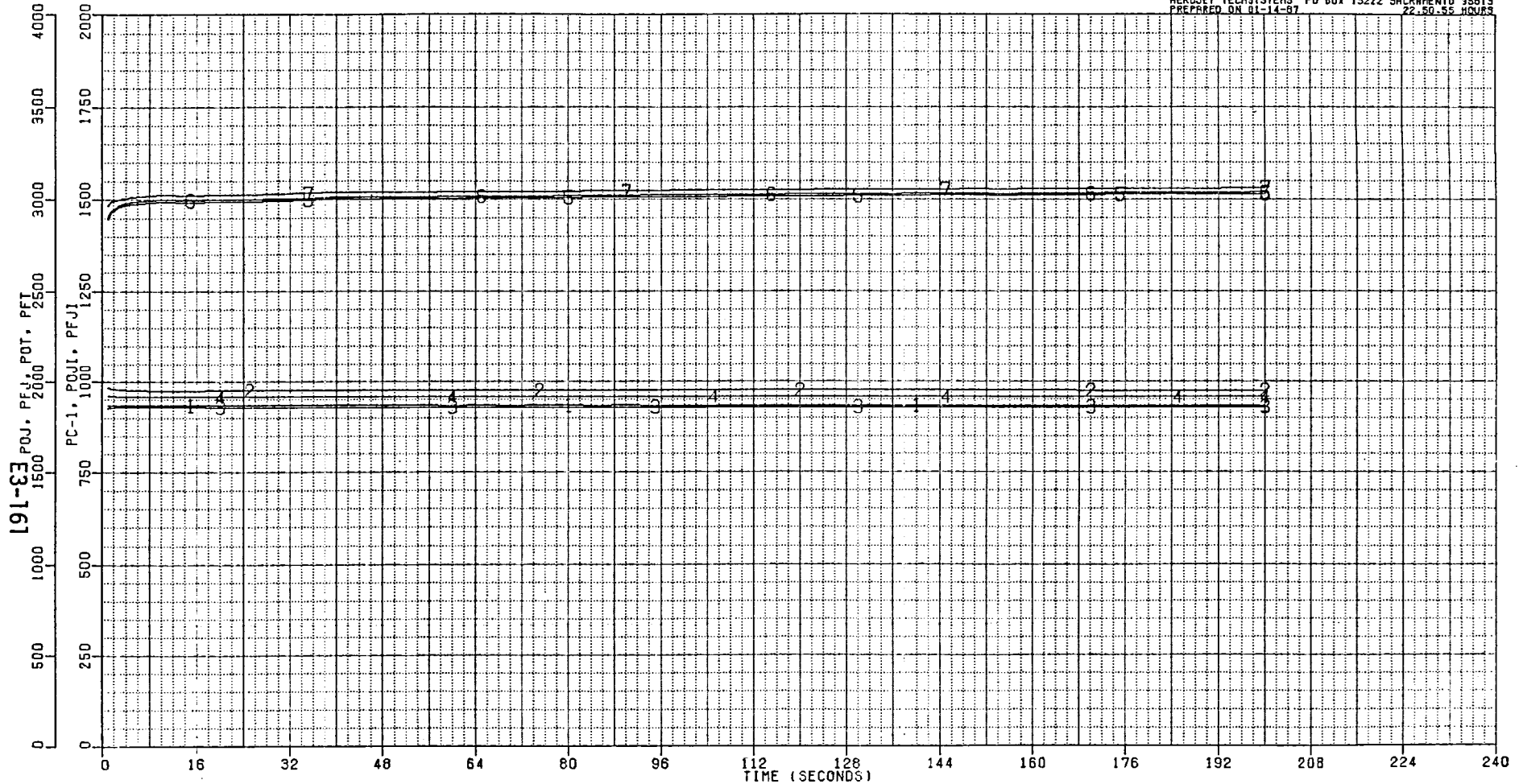
E3-160

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-156

TEST DATE 11-19-85 1618 HOURS AVERAGED DATA





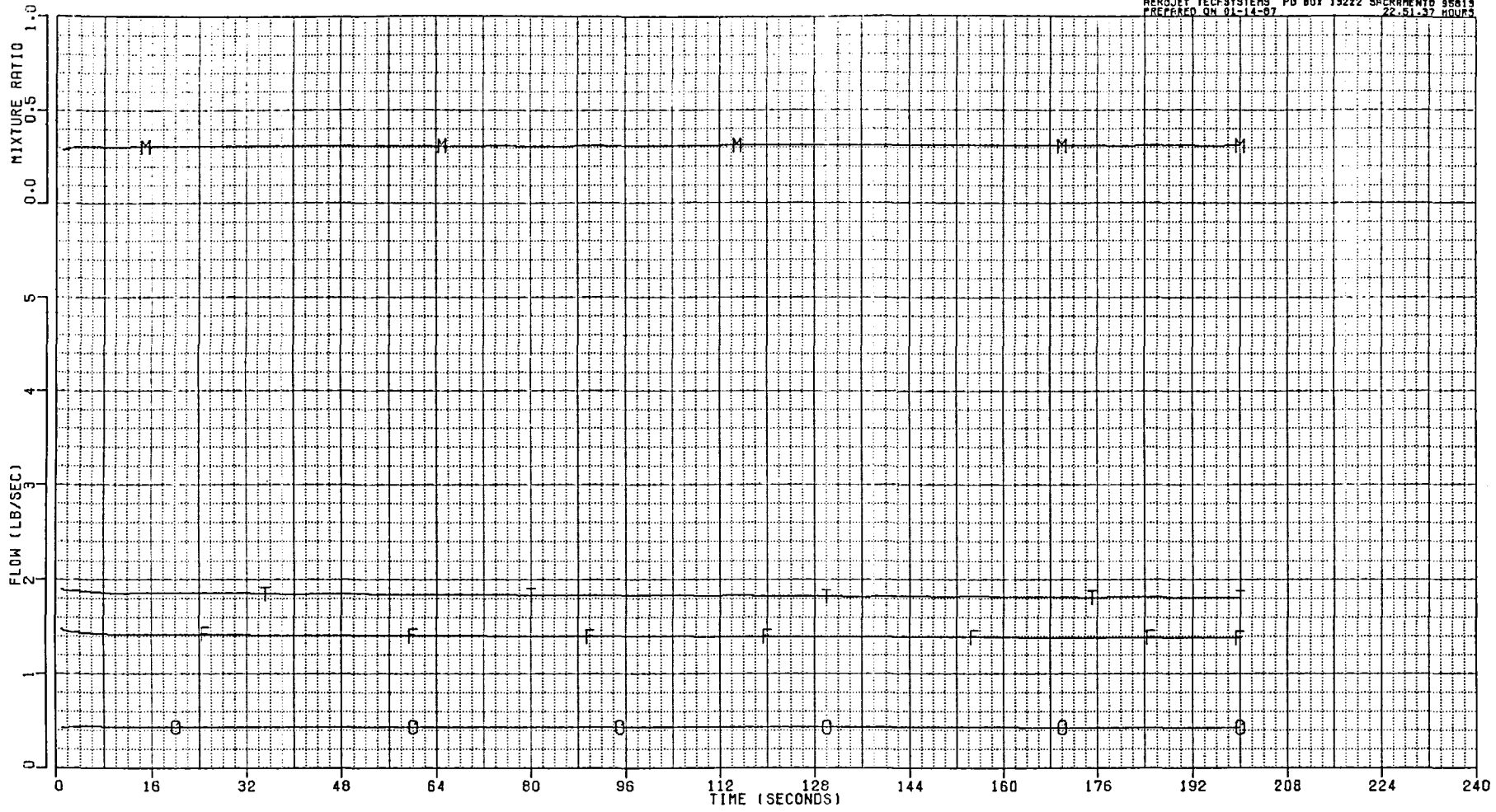
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-157

TEST DATE 11-19-85 1649 HOURS AVERAGED DATA



E3-162

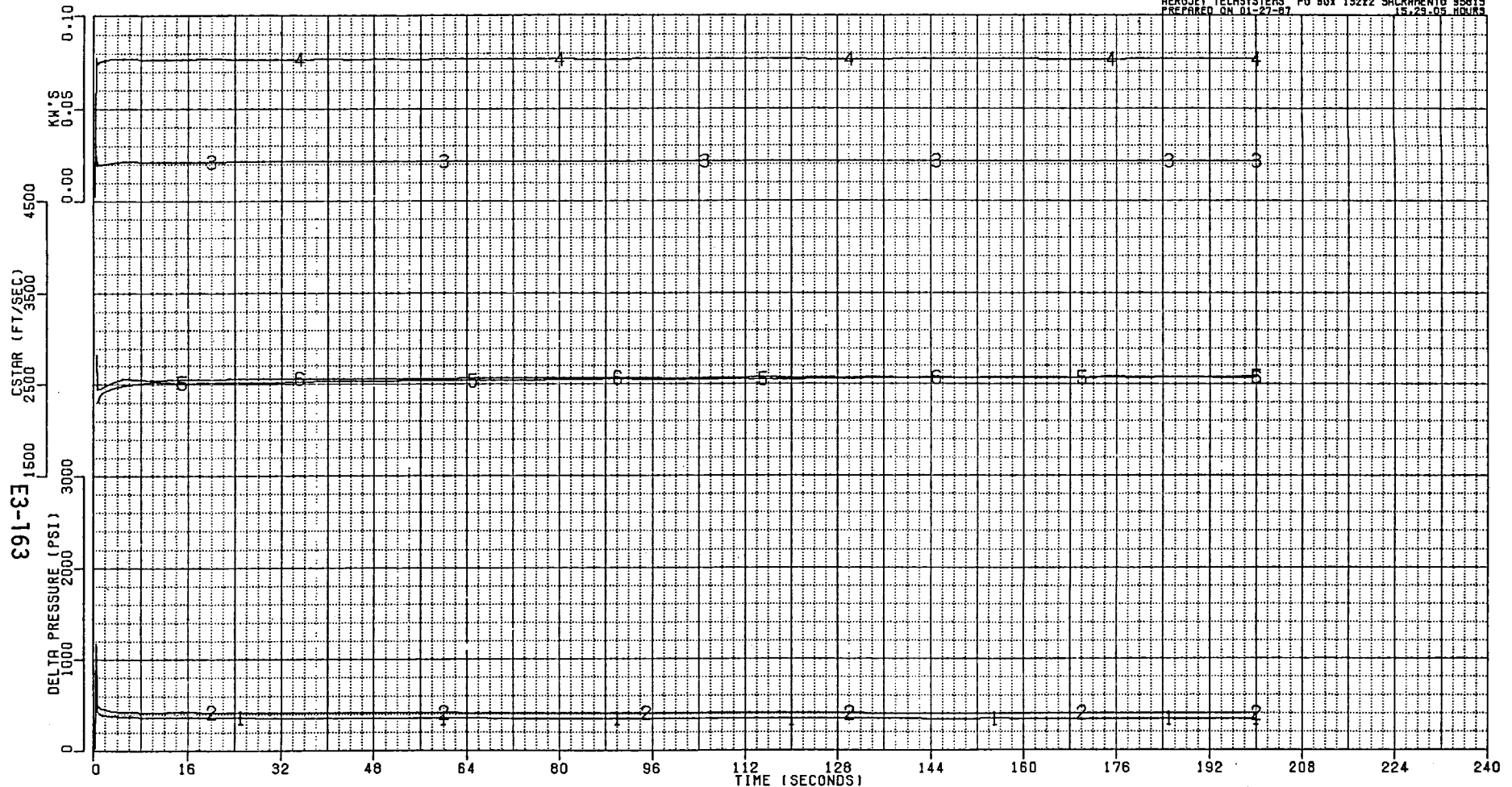


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-157

TEST DATE 11-19-85 1649 HOURS AVERAGED DATA





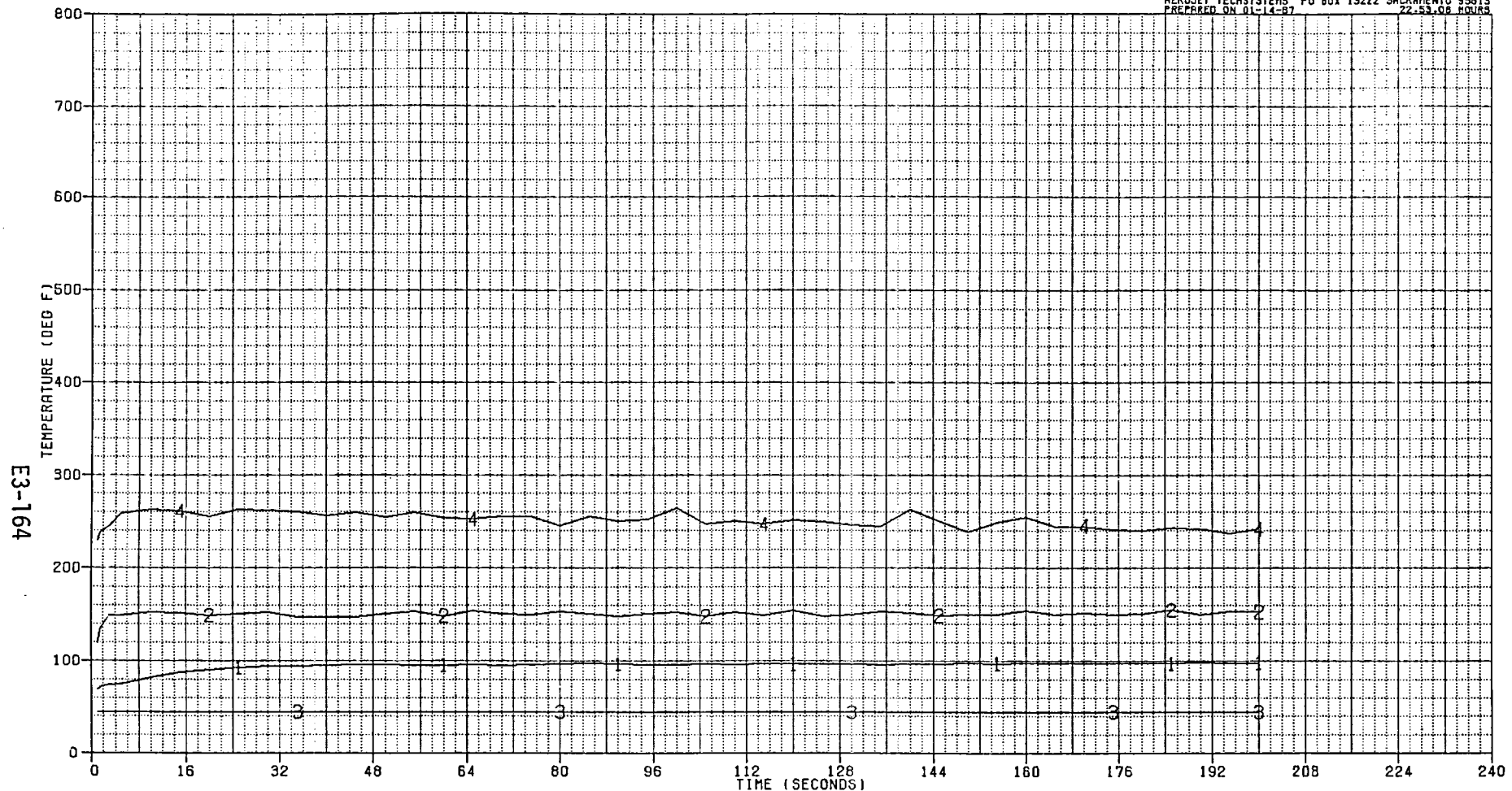
ES-163

- 1 DPQJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-157

TEST DATE 11-19-85 1649 HOURS      AVERAGED DATA



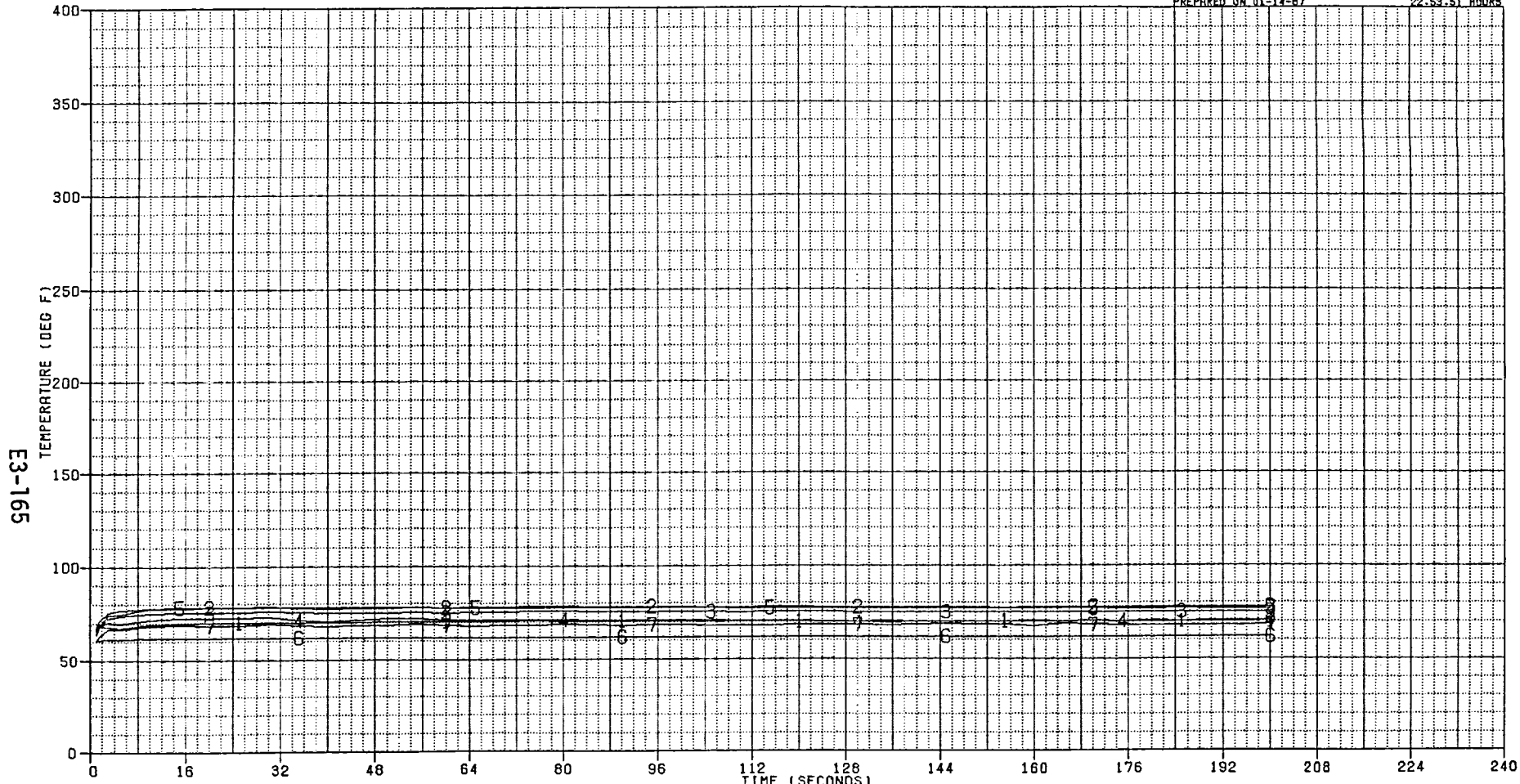


E3-164

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-157  
BARREL DATA  
TEST DATE 11-19-85 1649 HOURS AVERAGED DATA





991-83

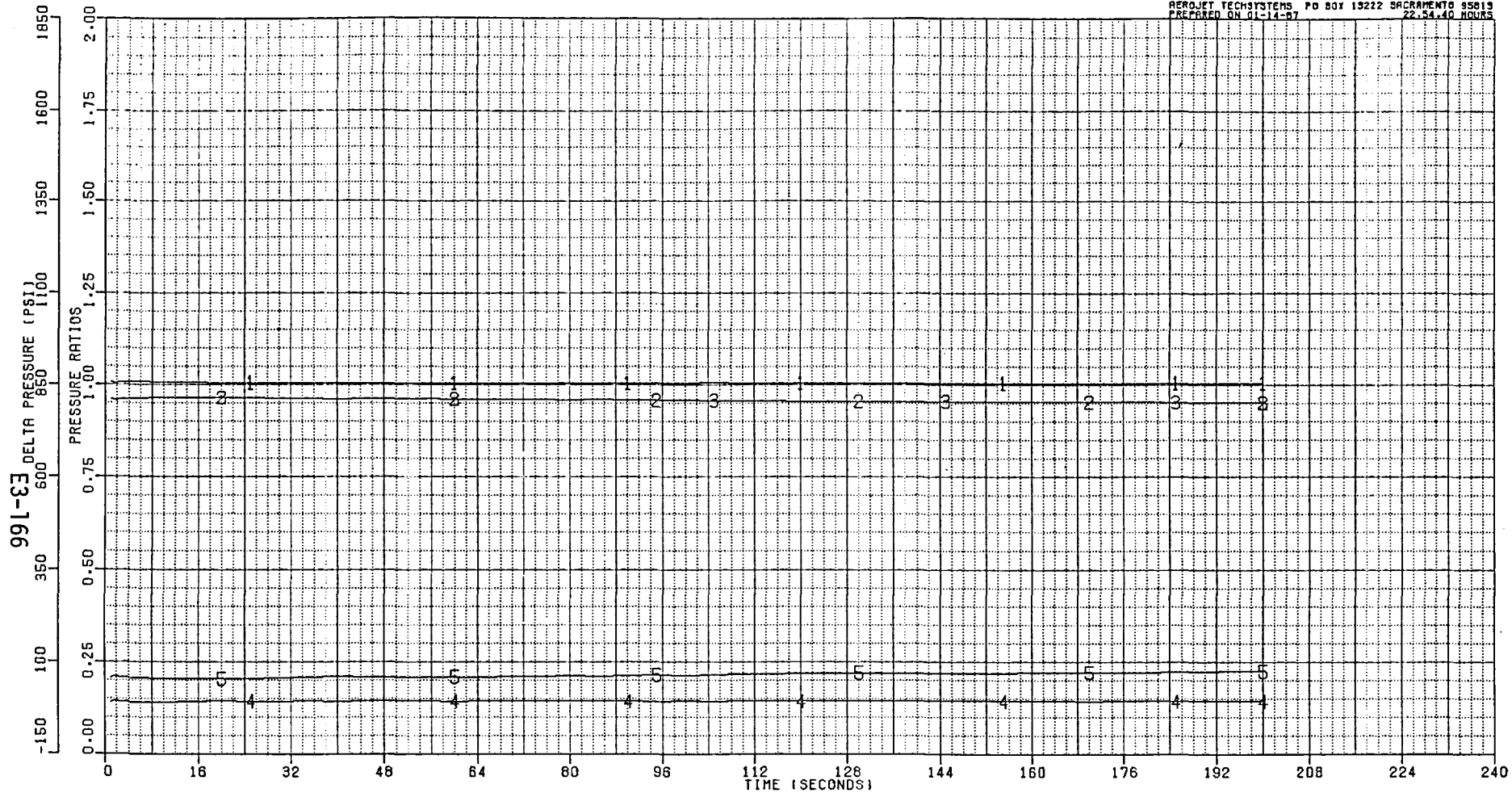
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-157

TEST DATE 11-19-85 1649 HOURS AVERAGED DATA





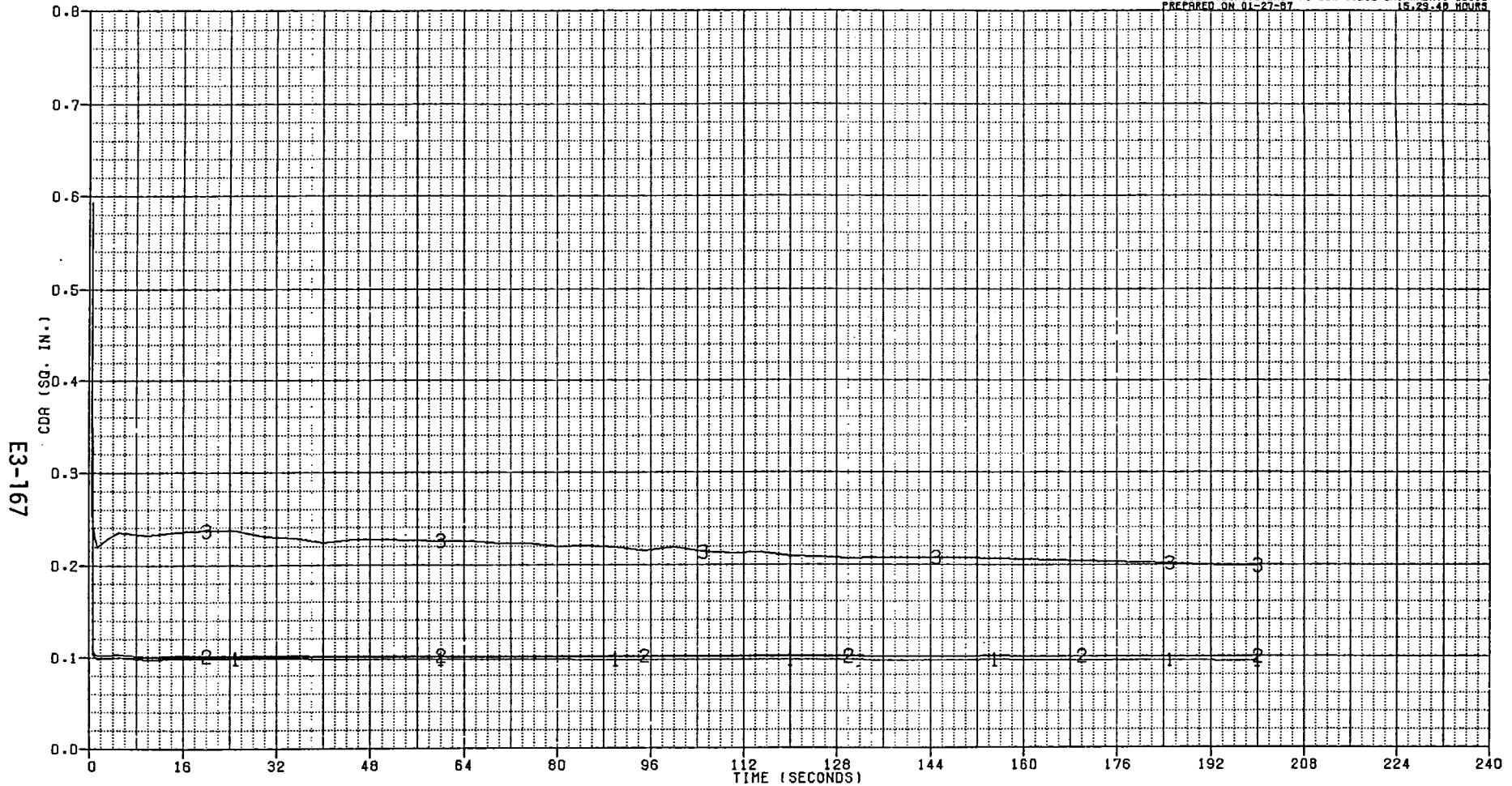


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-157  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1649 HOURS      AVERAGED DATA





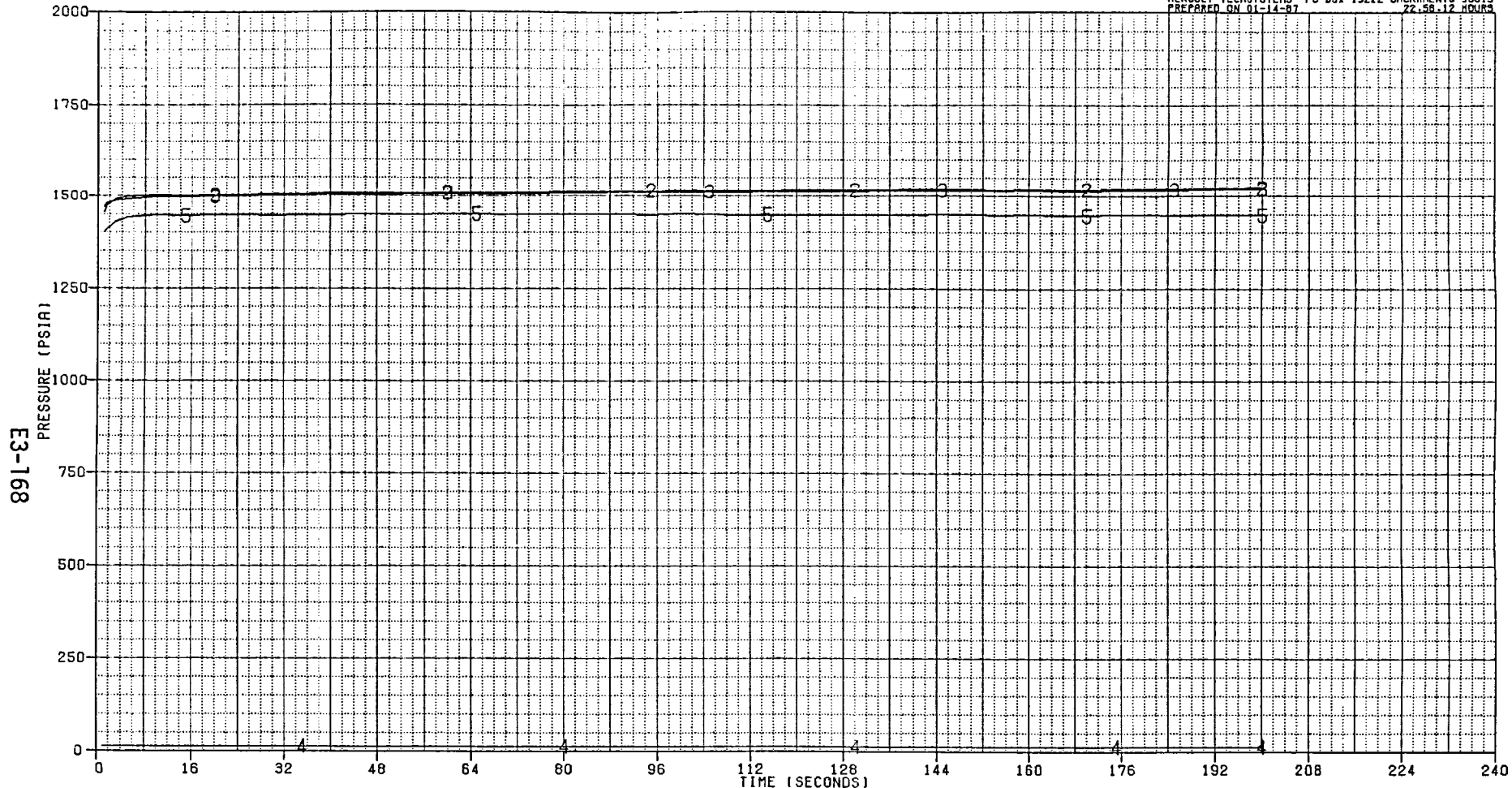


E3-167

- 1 NA1 50-IN.
- 2 NA2 50-IN.
- 3 CDR

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-936-A6-157  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1649 HOURS AVERAGED DATA



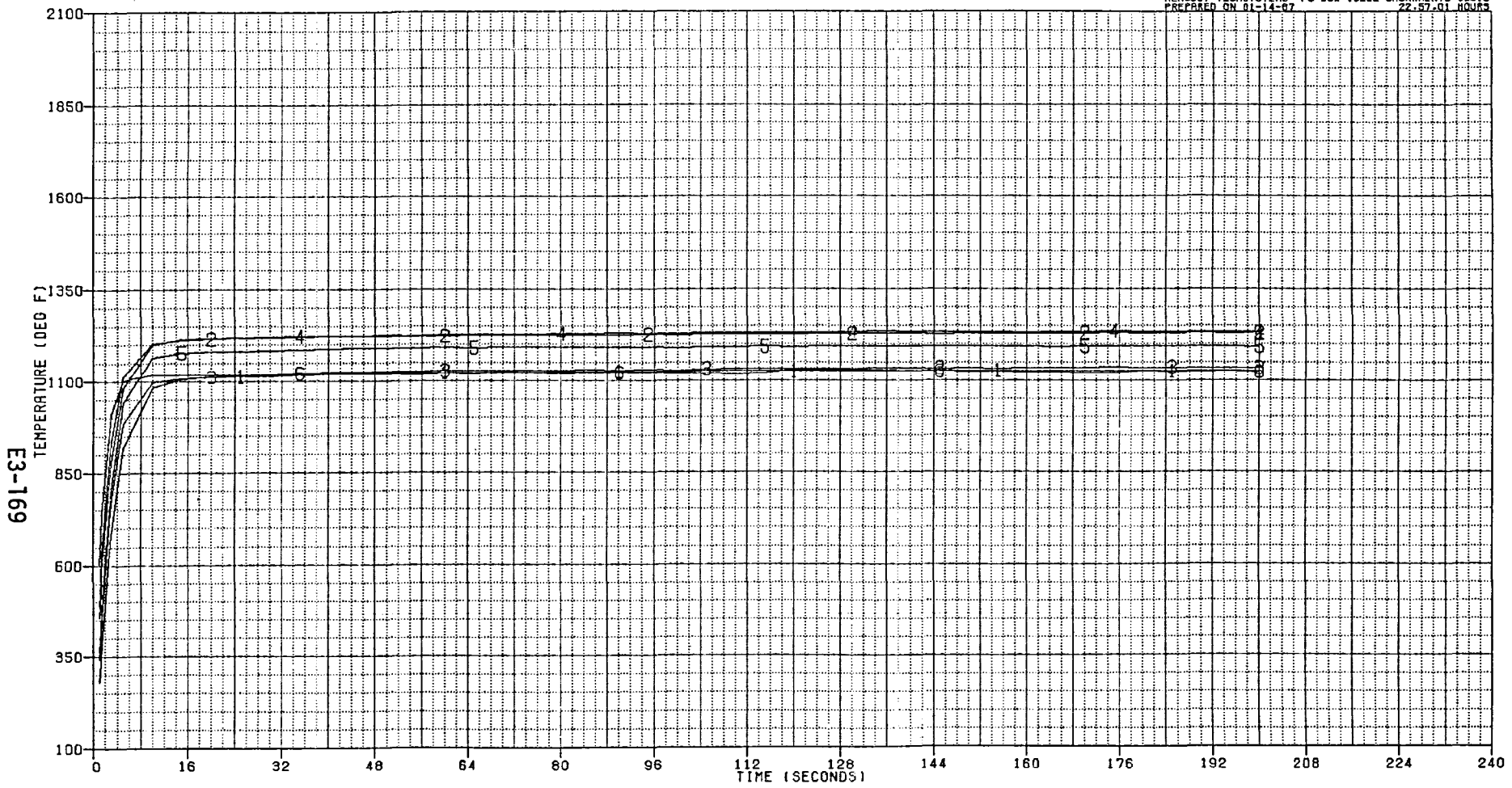


891-83

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTS0 PSIA
- 5 PCTS0-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-157  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1649 HOURS AVERAGED DATA



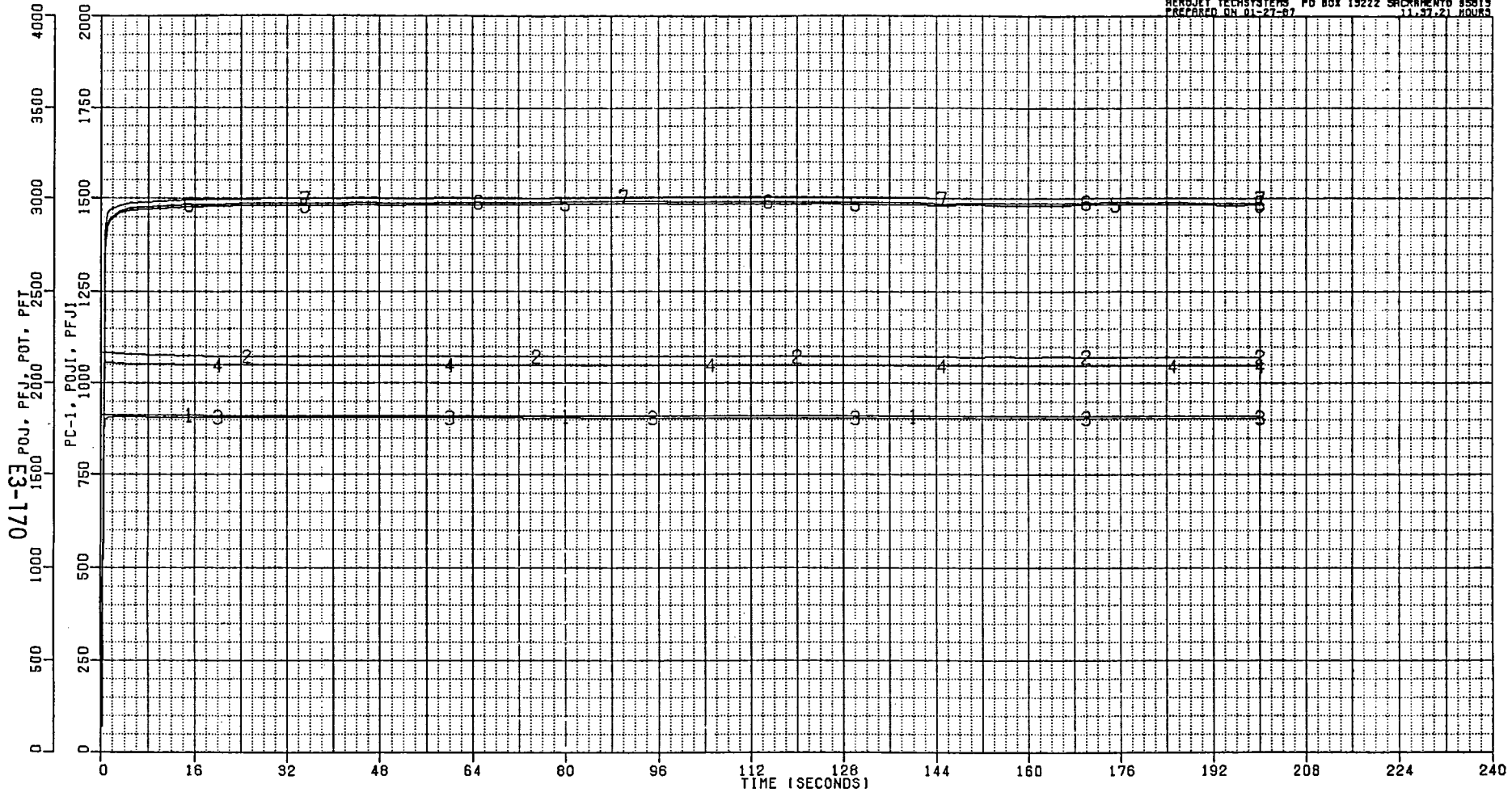


691-63

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-157  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1649 HOURS AVERAGED DATA



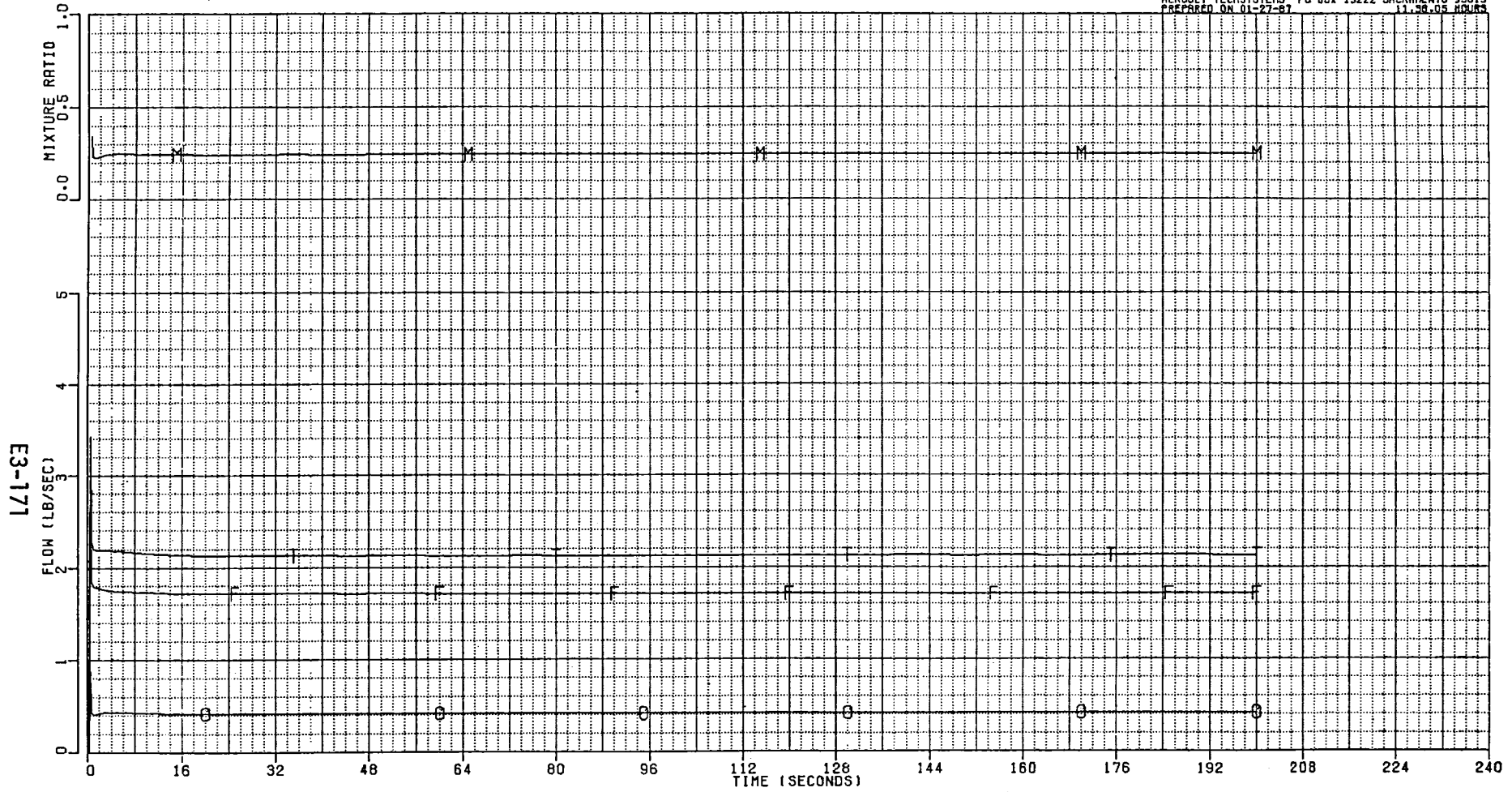


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-158

TEST DATE 11-19-85 1715 HOURS AVERAGED DATA



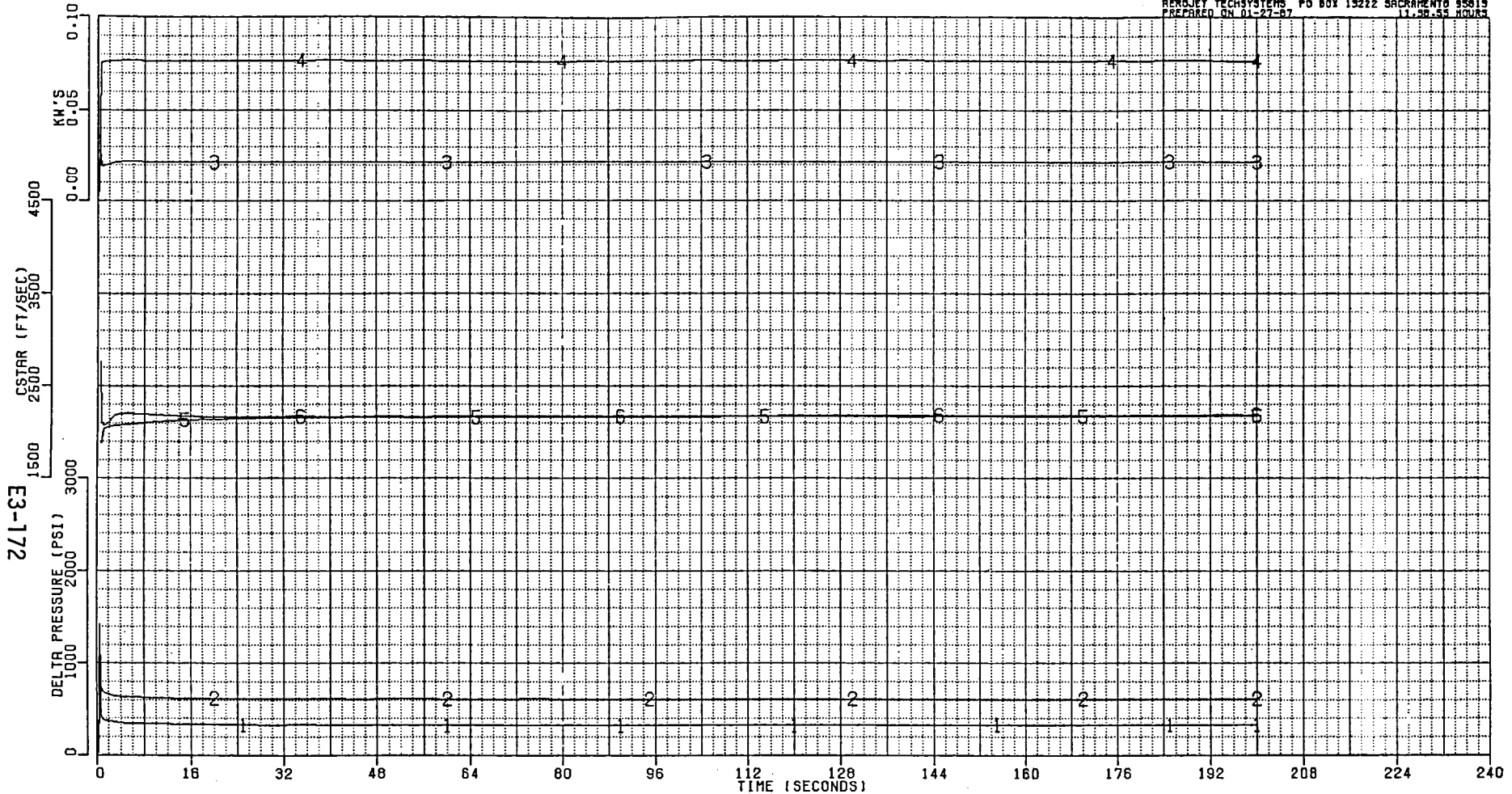


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-936-A6-158

TEST DATE 11-19-85 1715 HOURS AVERAGED DATA





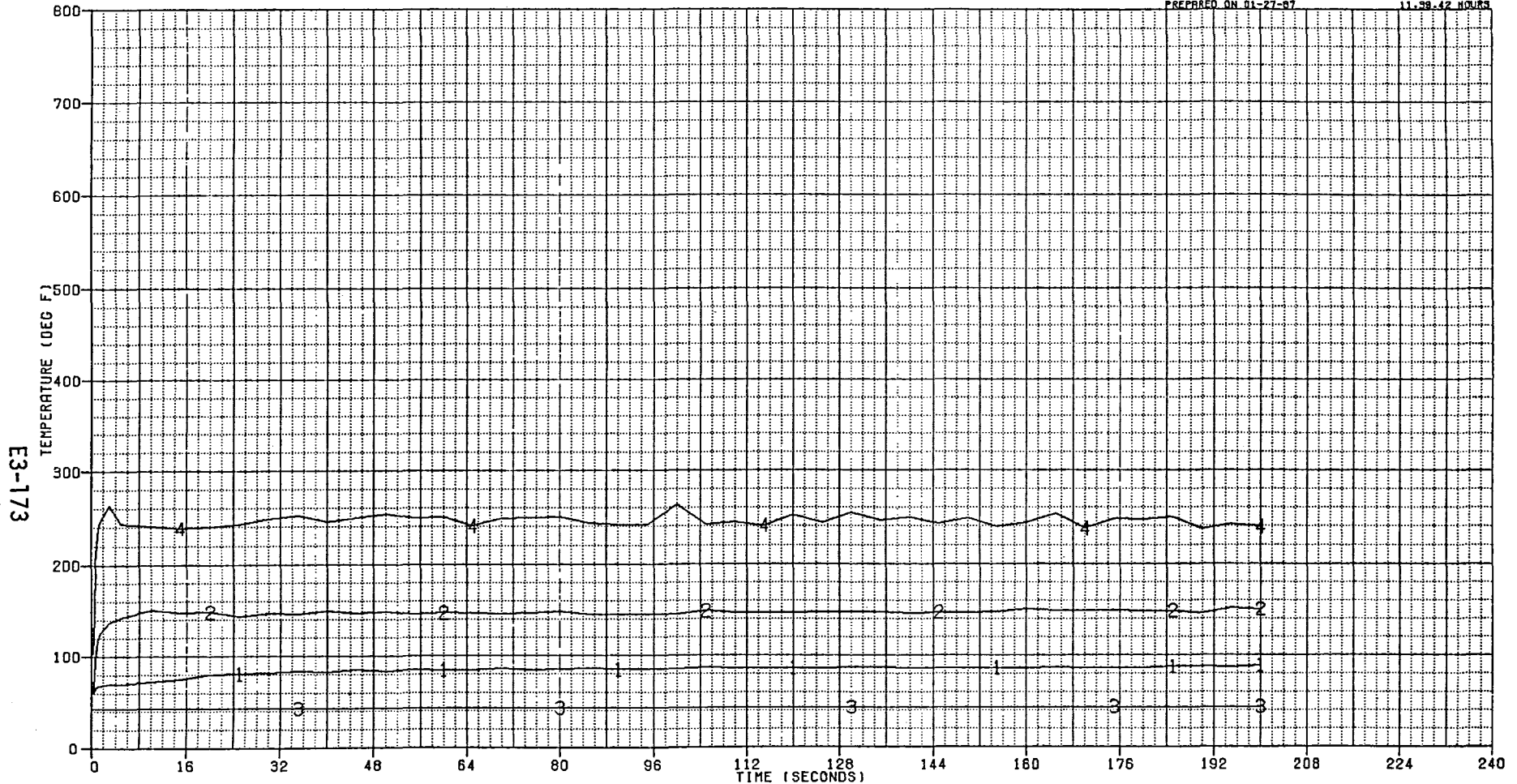
E3-172

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

**INJECTOR CALCULATIONS VS TIME**  
**TEST NO. 2427-936-A6-158**

TEST DATE 11-19-85 1715 HOURS      AVERAGED DATA





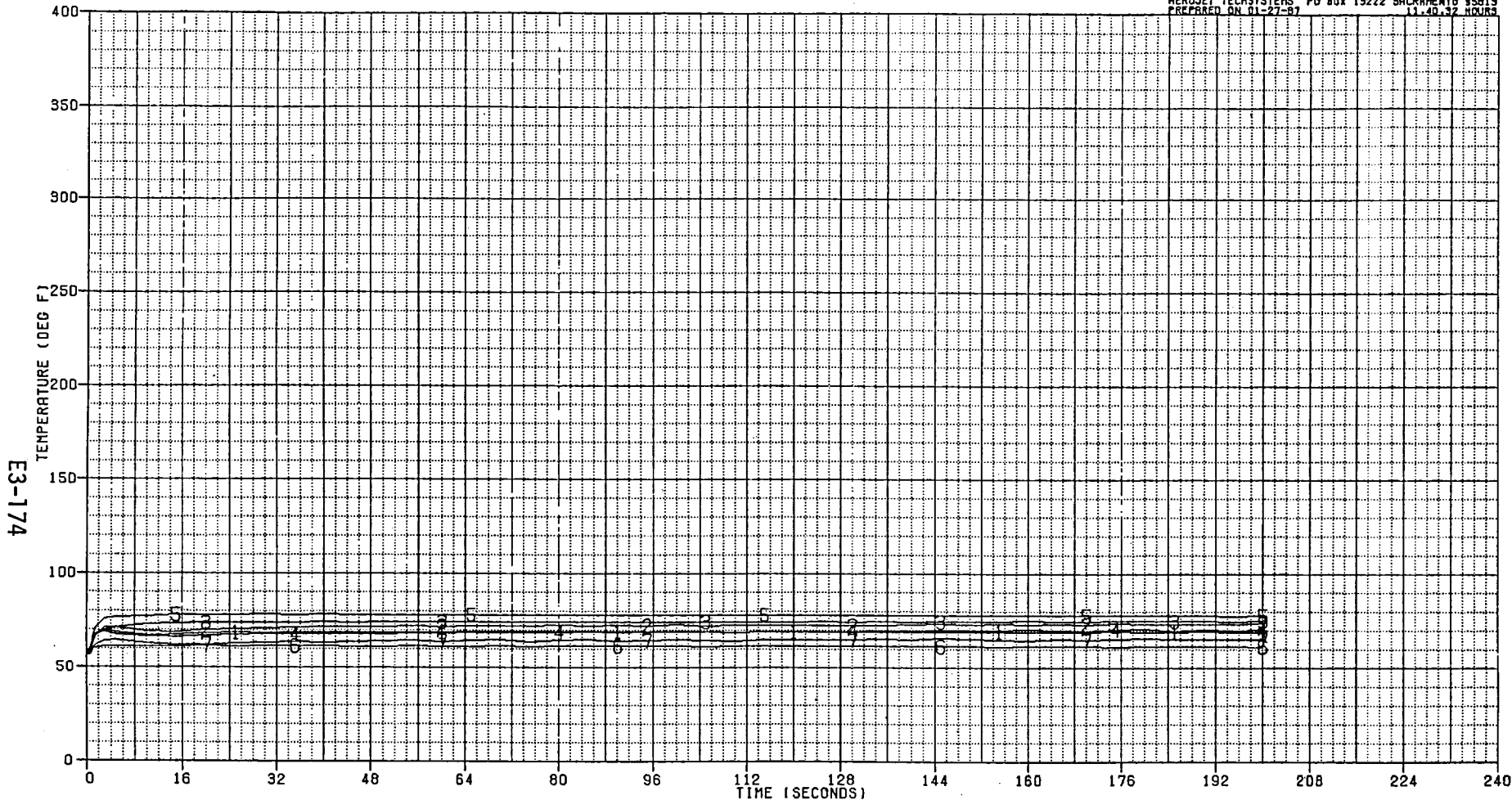
E3-173

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-158  
BARREL DATA  
TEST DATE 11-19-85 1715 HOURS AVERAGED DATA







E3-174

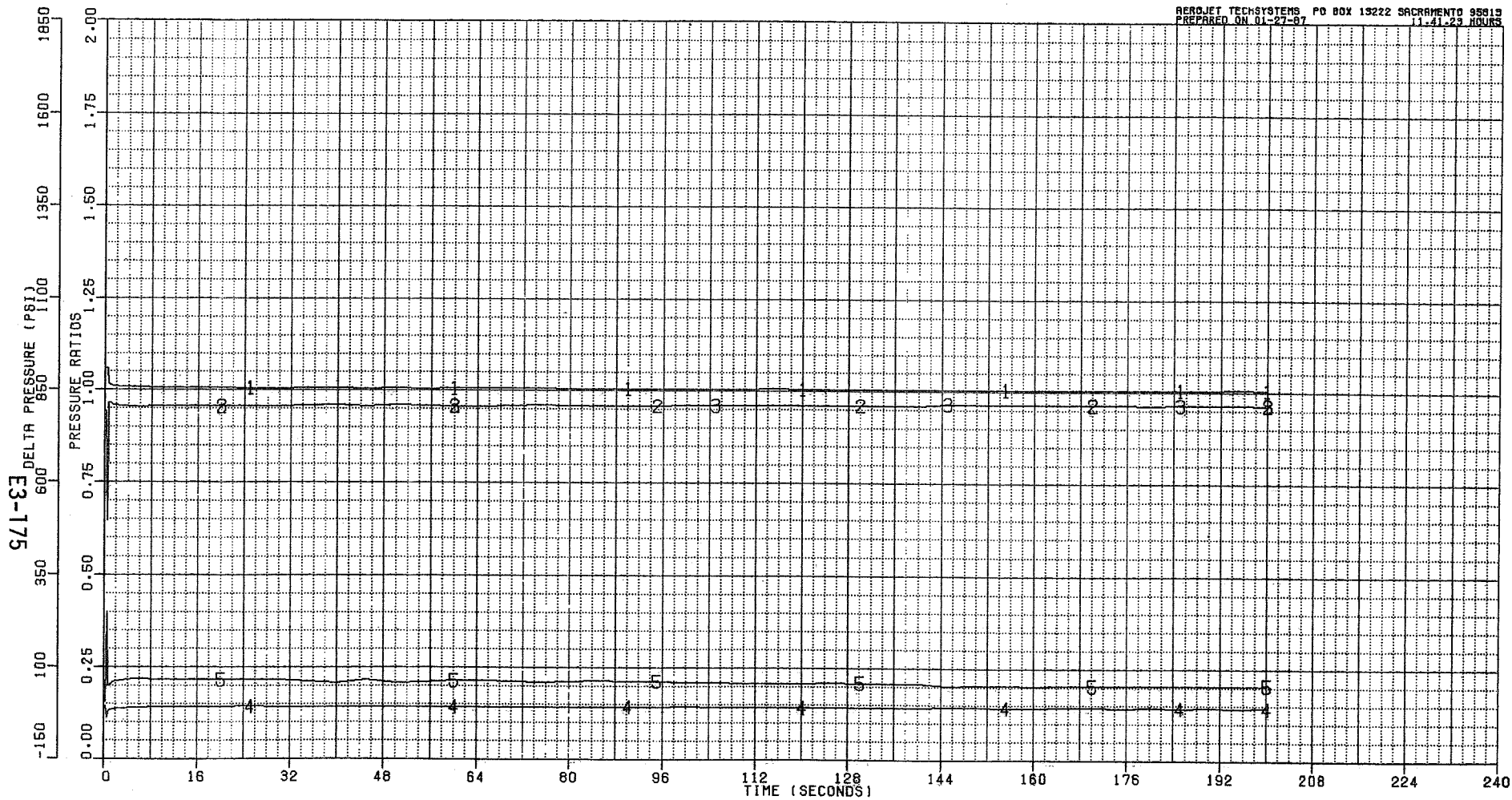
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-158

TEST DATE 11-19-85 1715 HOURS AVERAGED DATA







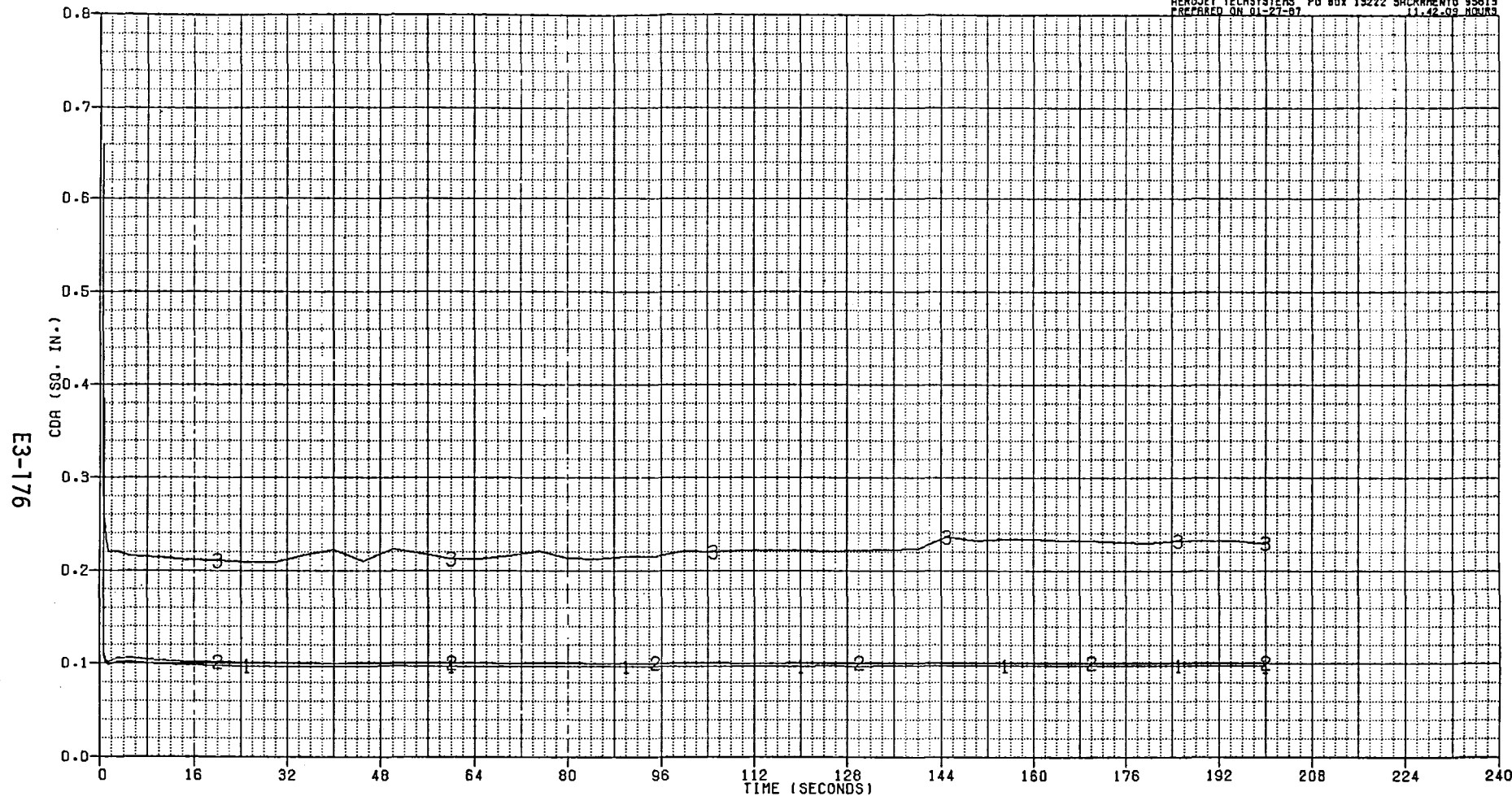
AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95813  
 PREPARED ON 01-27-87 11:41:23 HOURS

E3-175

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-158  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1715 HOURS AVERAGED DATA

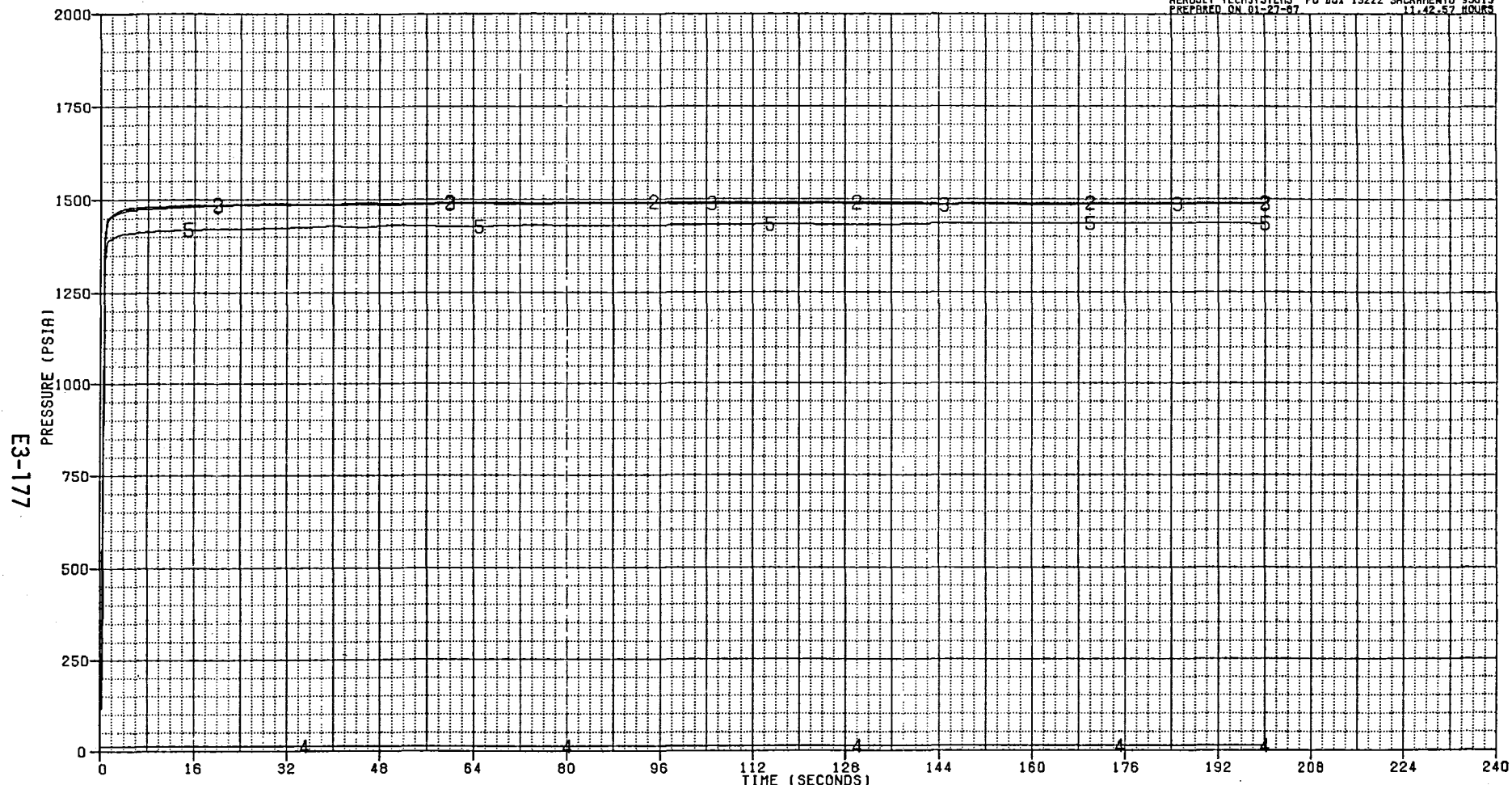


E3-176

1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-158  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1715 HOURS AVERAGED DATA



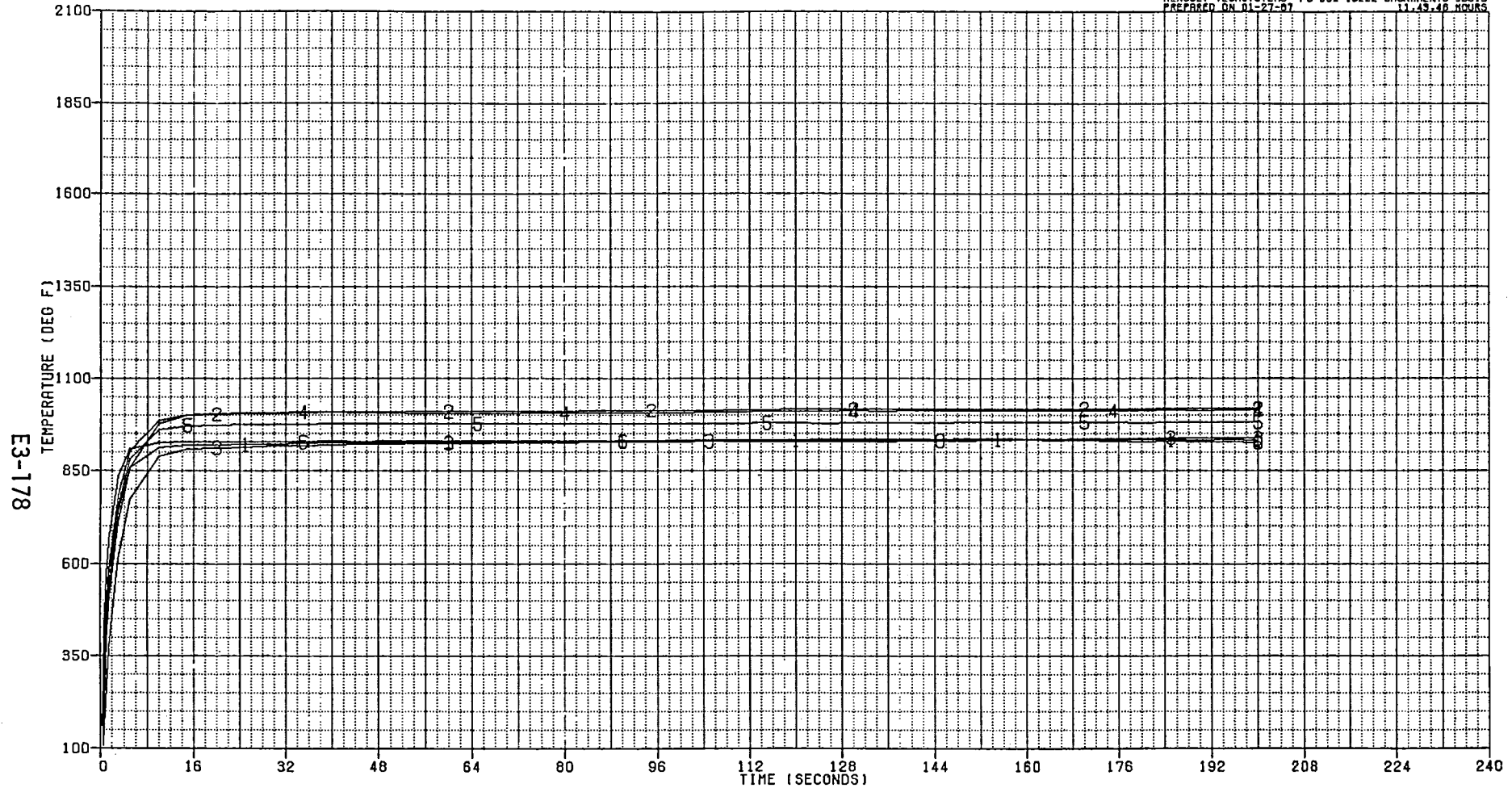


E3-177

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSO-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-158  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1715 HOURS AVERAGED DATA



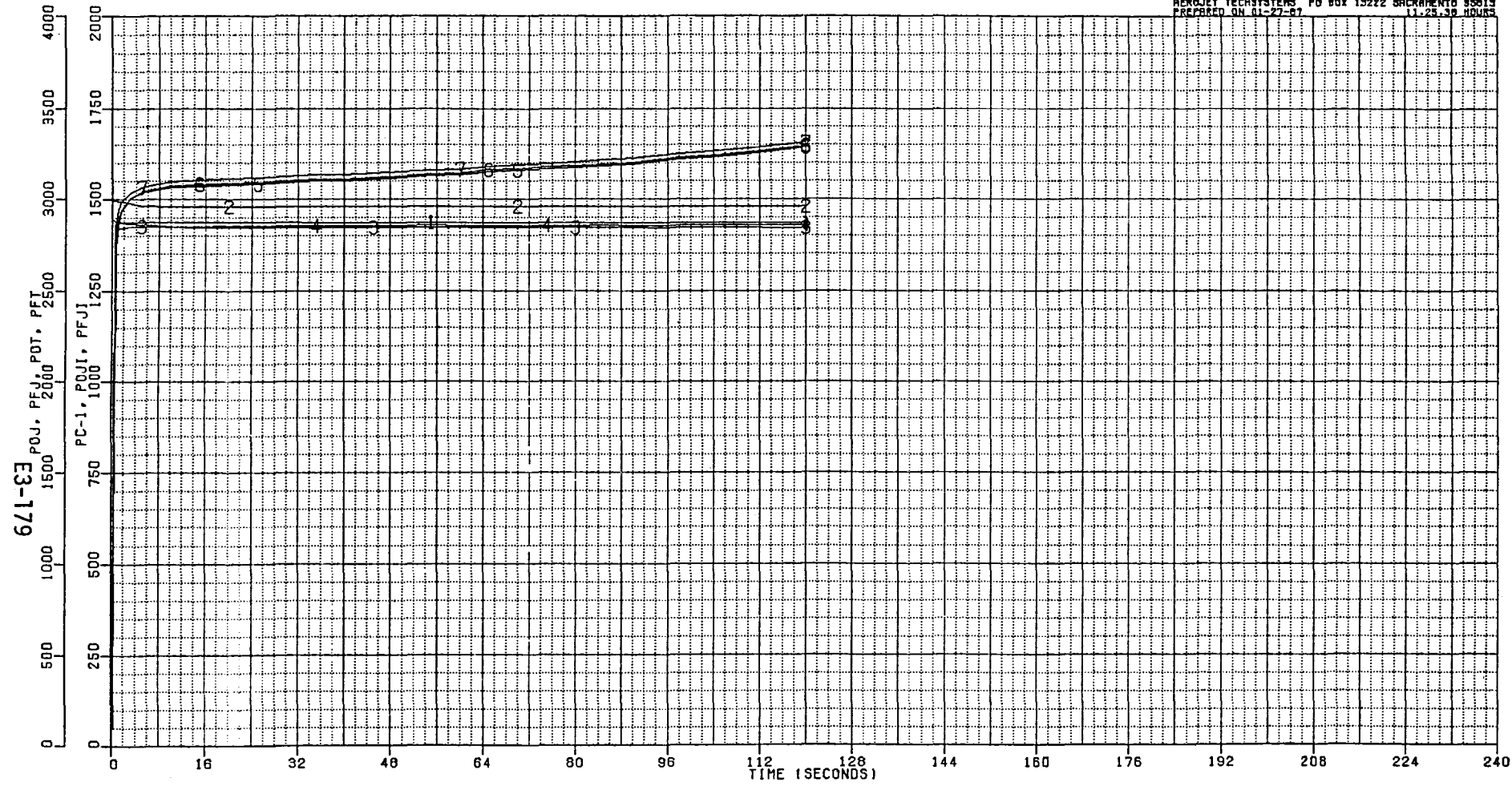


E3-178

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-158  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1715 HOURS AVERAGED DATA





63-179

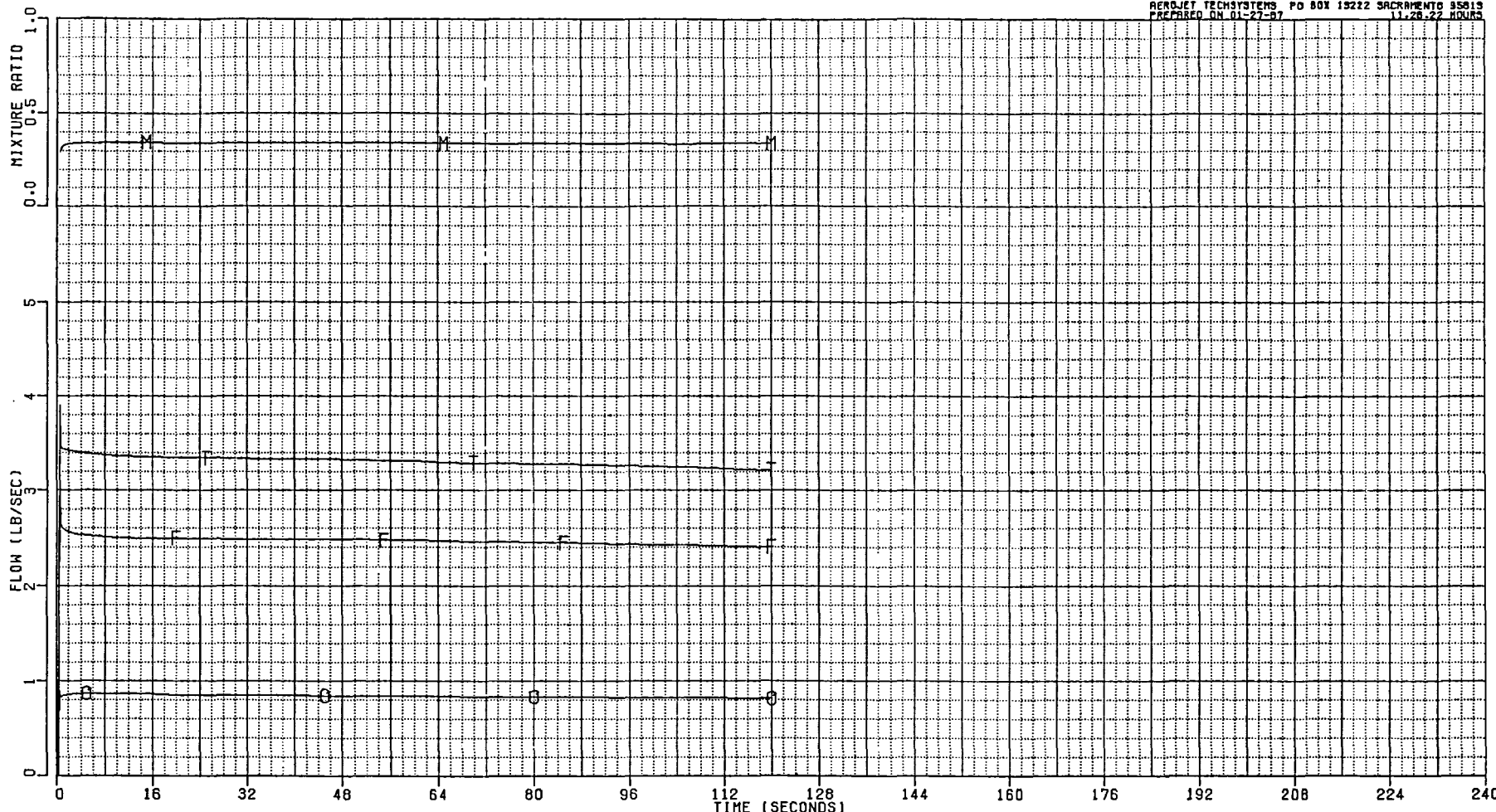
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFIJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-936-A6-160

TEST DATE 11-19-85 1913 HOURS AVERAGED DATA



E3-180

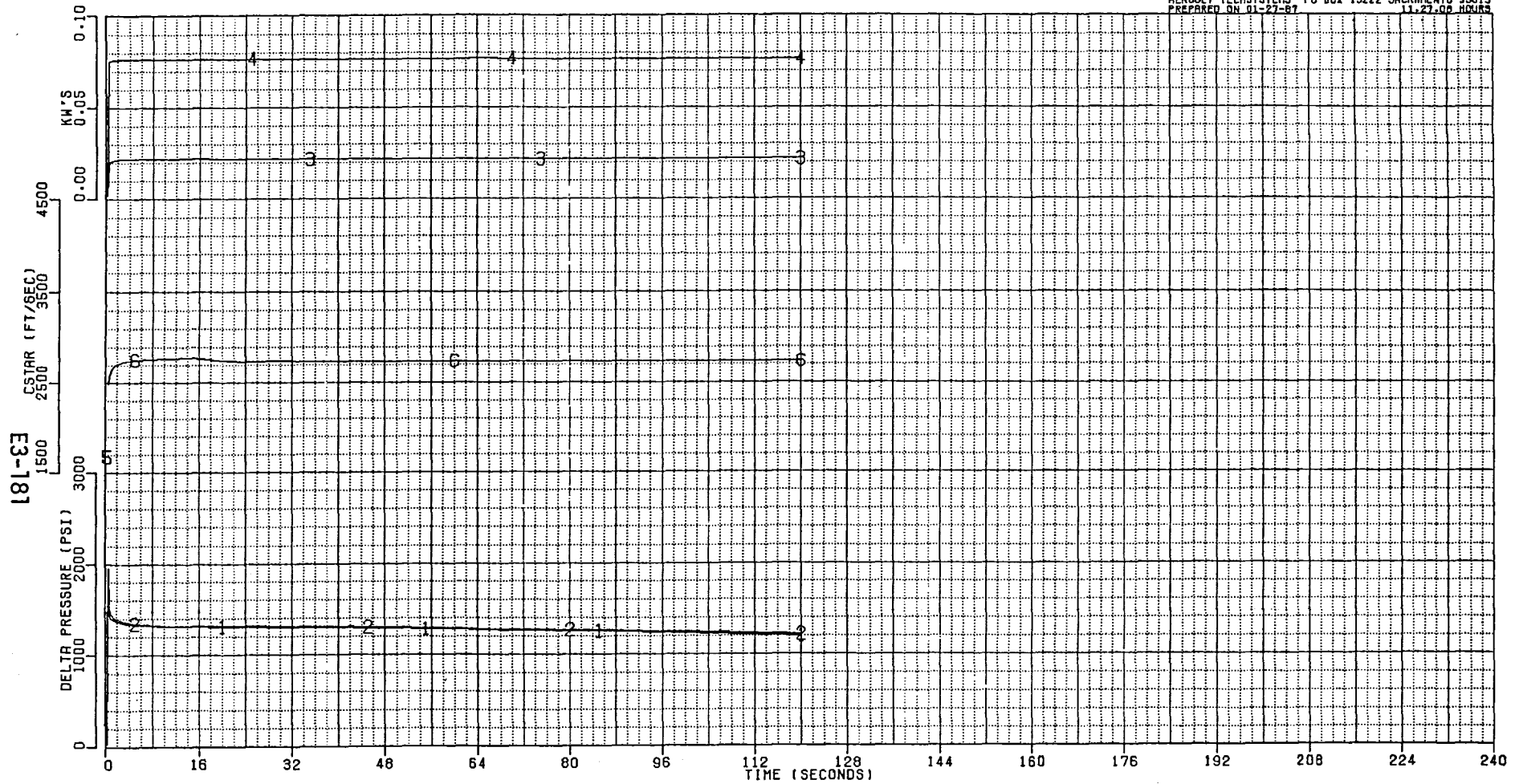


F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-936-A6-160

TEST DATE 11-19-85 1913 HOURS AVERAGED DATA





181-33

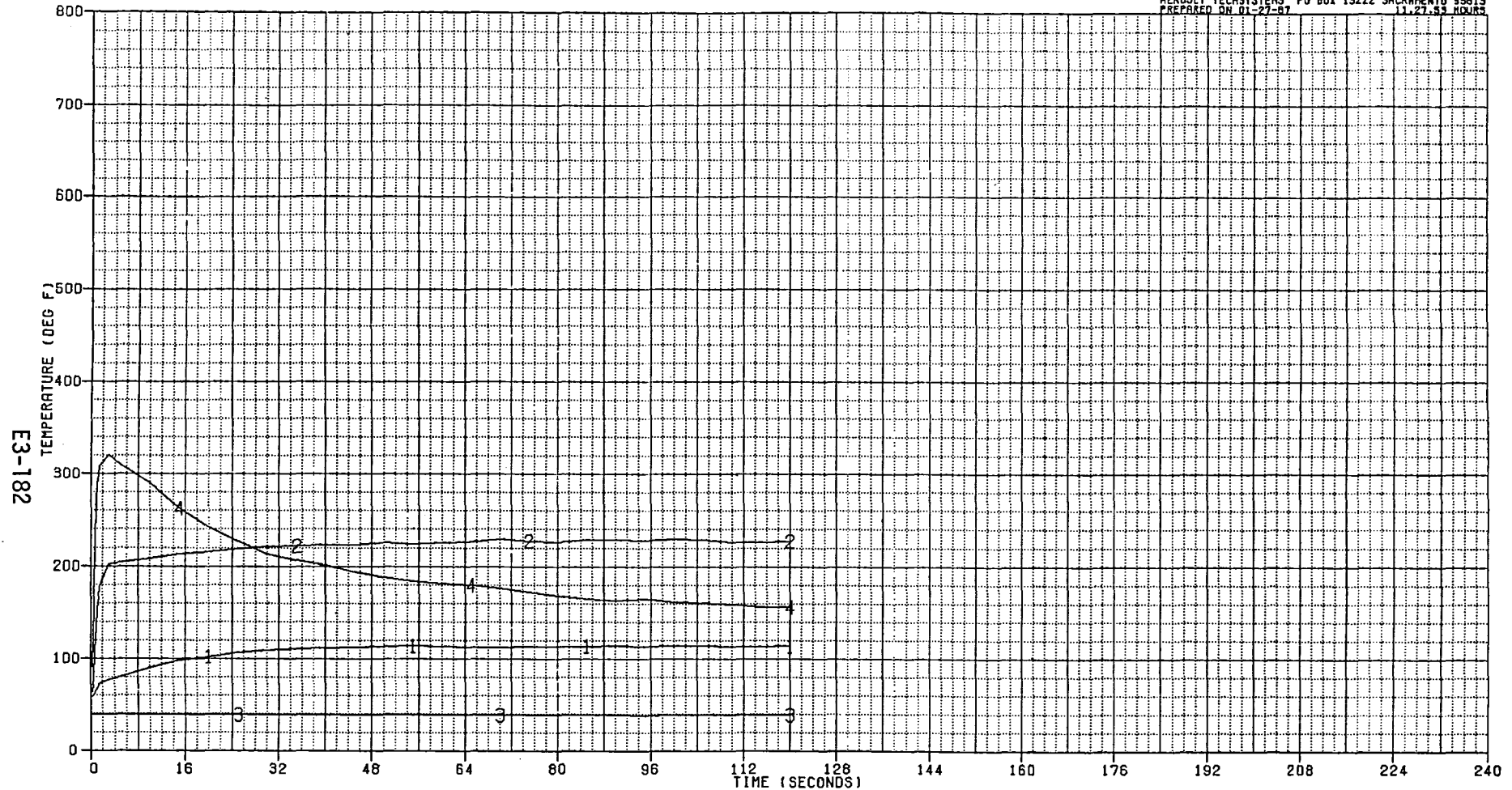
- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-936-A6-160

TEST DATE 11-19-85 1913 HOURS      AVERAGED DATA





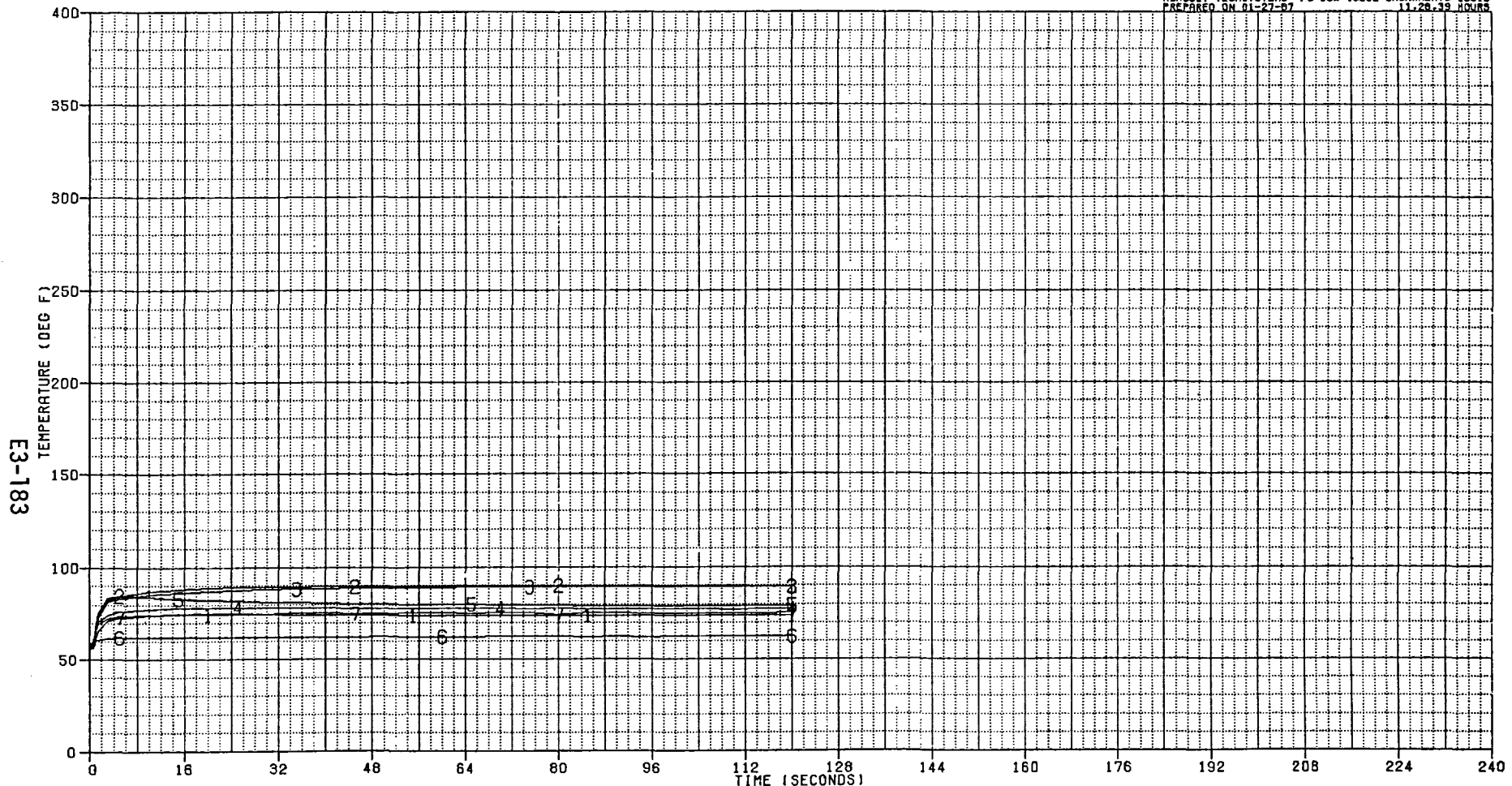


- 1 TC-7      DEG F
- 2 TC-10    DEG F
- 3 TC-11    DEG F
- 4 TC-12    DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-160  
BARREL DATA  
TEST DATE 11-19-85 1913 HOURS      AVERAGED DATA







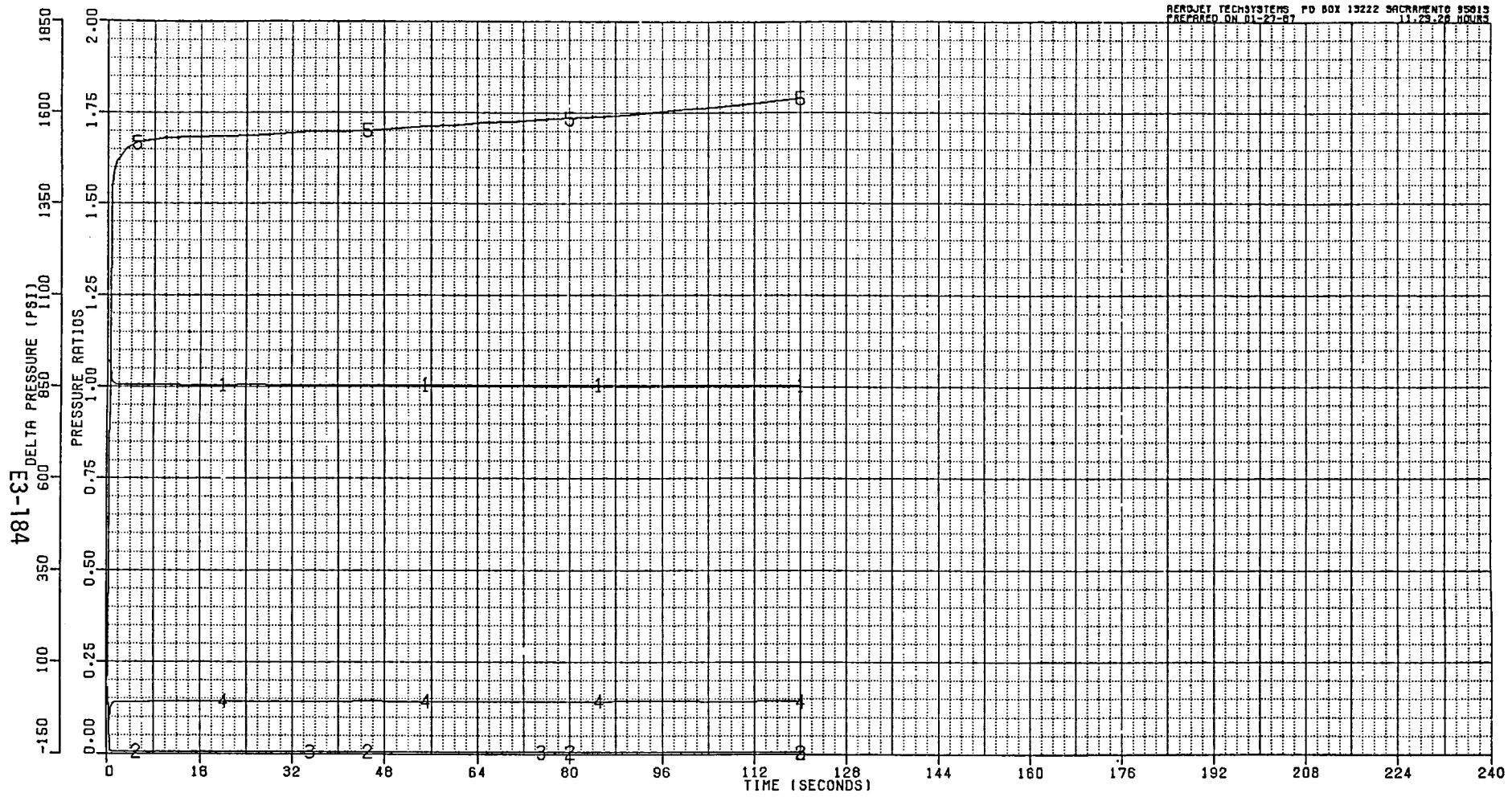
E3-183

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-936-A6-160

TEST DATE 11-19-85 1913 HOURS AVERAGED DATA

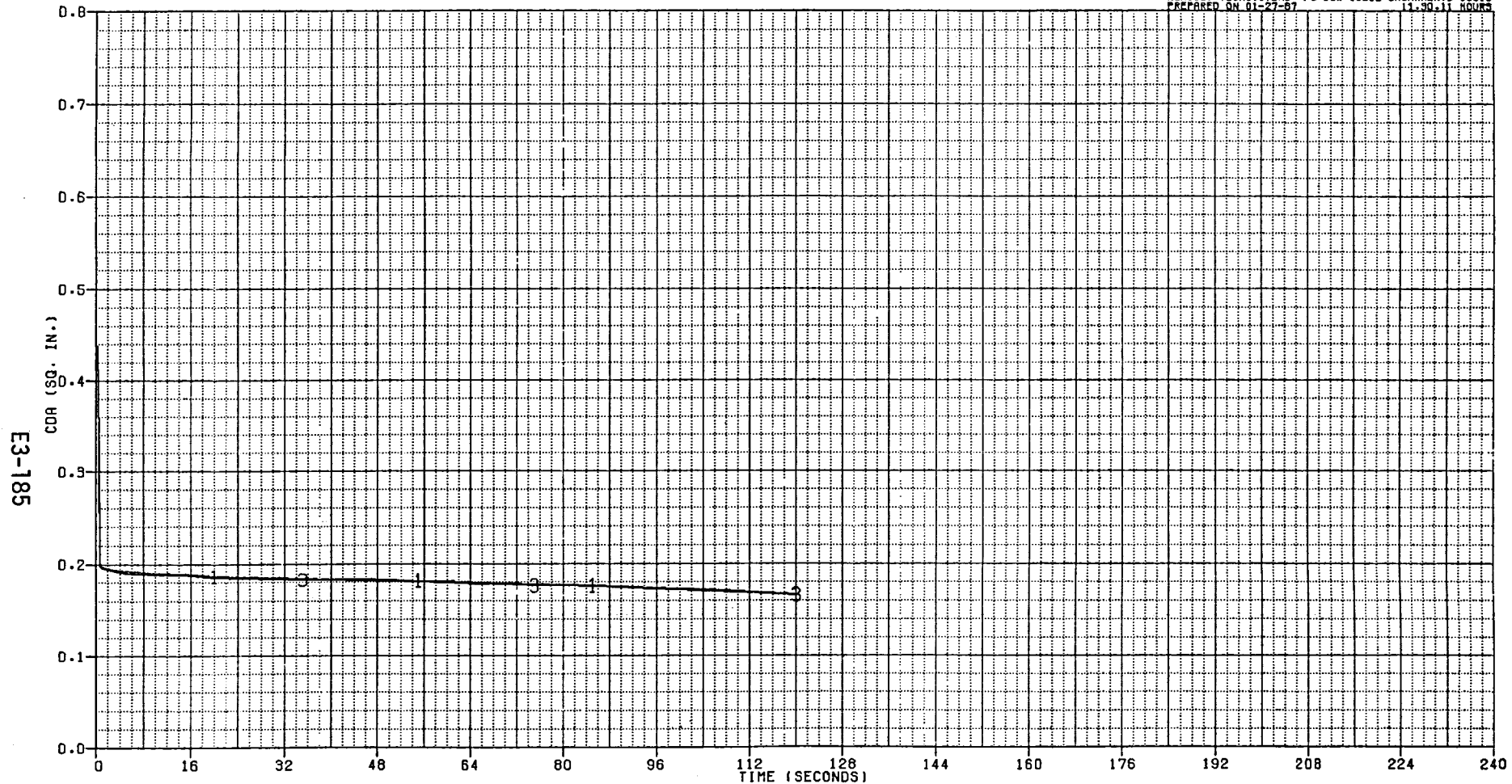




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-936-A6-160  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 11-19-85 1913 HOURS AVERAGED DATA

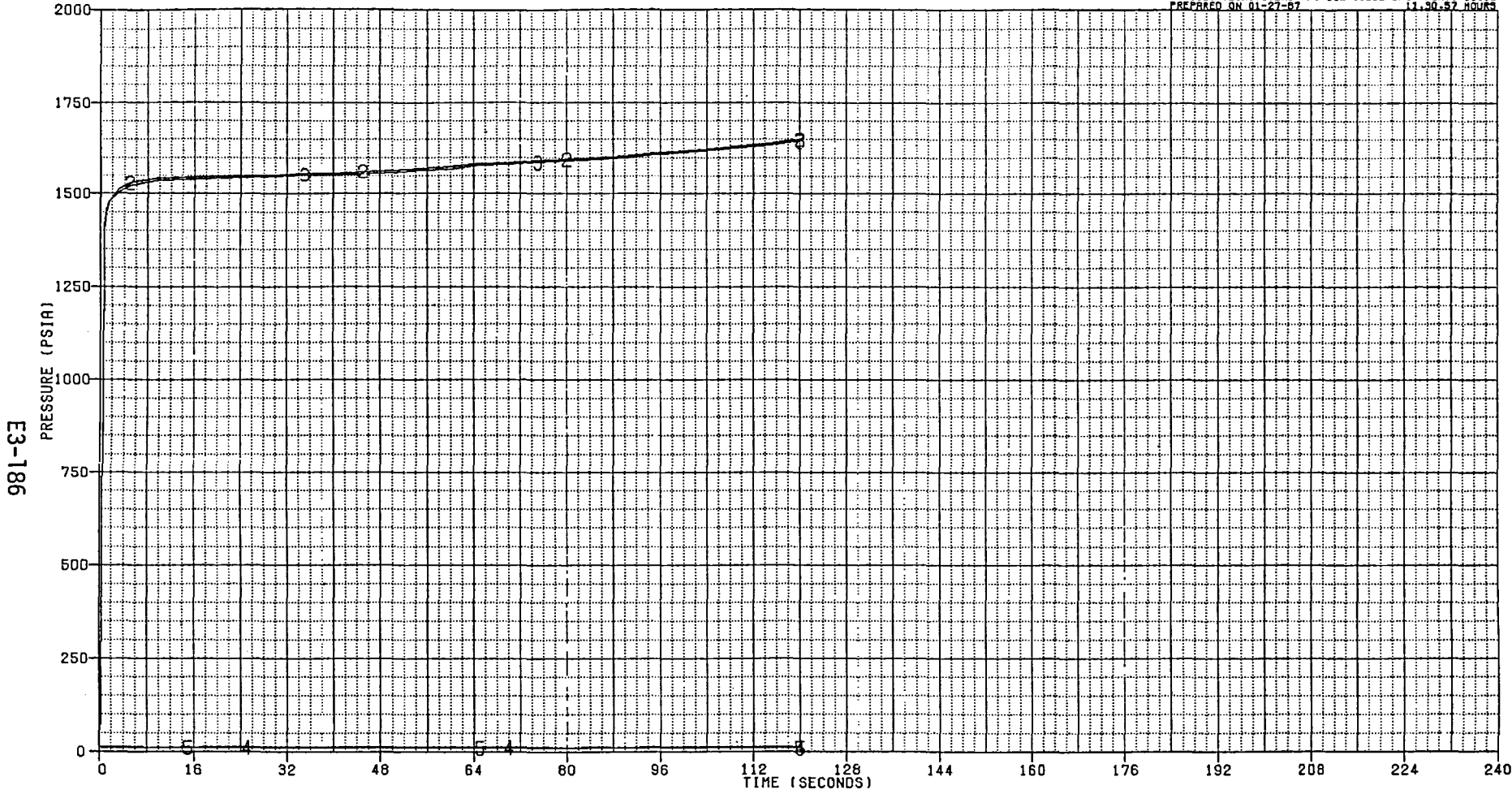




1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 COA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-160  
NOZZLE AREA CHANGE  
TEST DATE 11-19-85 1913 HOURS AVERAGED DATA

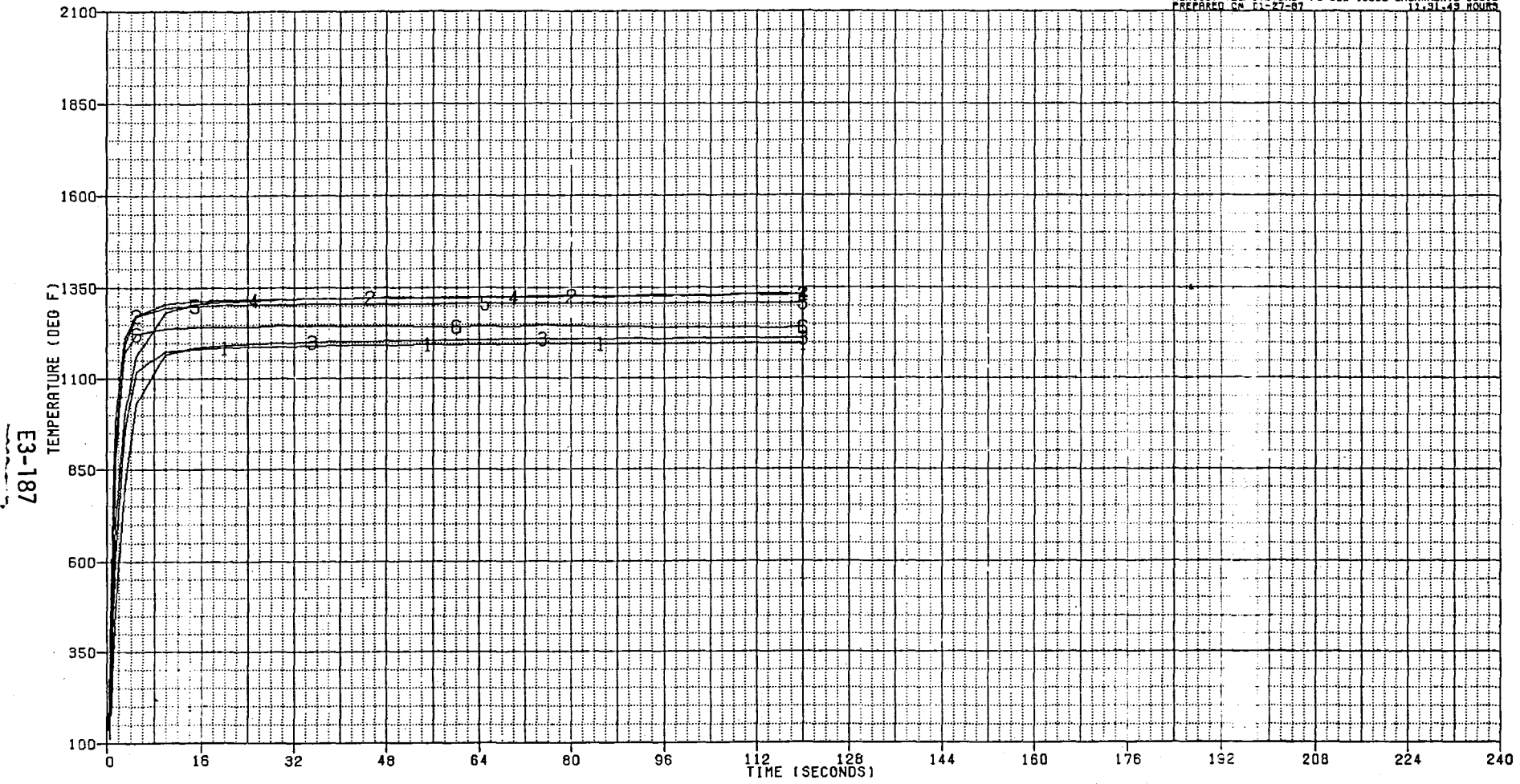




- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-936-A6-160  
PRESSURE MEASUREMENTS  
TEST DATE 11-19-85 1913 HOURS AVERAGED DATA





E3-187

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
 TEST NO. 2427-936-A6-160  
 PRESSURE MEASUREMENTS  
 TEST DATE 11-19-85 1913 HOURS AVERAGED DATA



**APPENDIX E-4**  
**1986 LO<sub>2</sub>/PROPANE**  
**GAS GENERATOR DATA PLOTS**



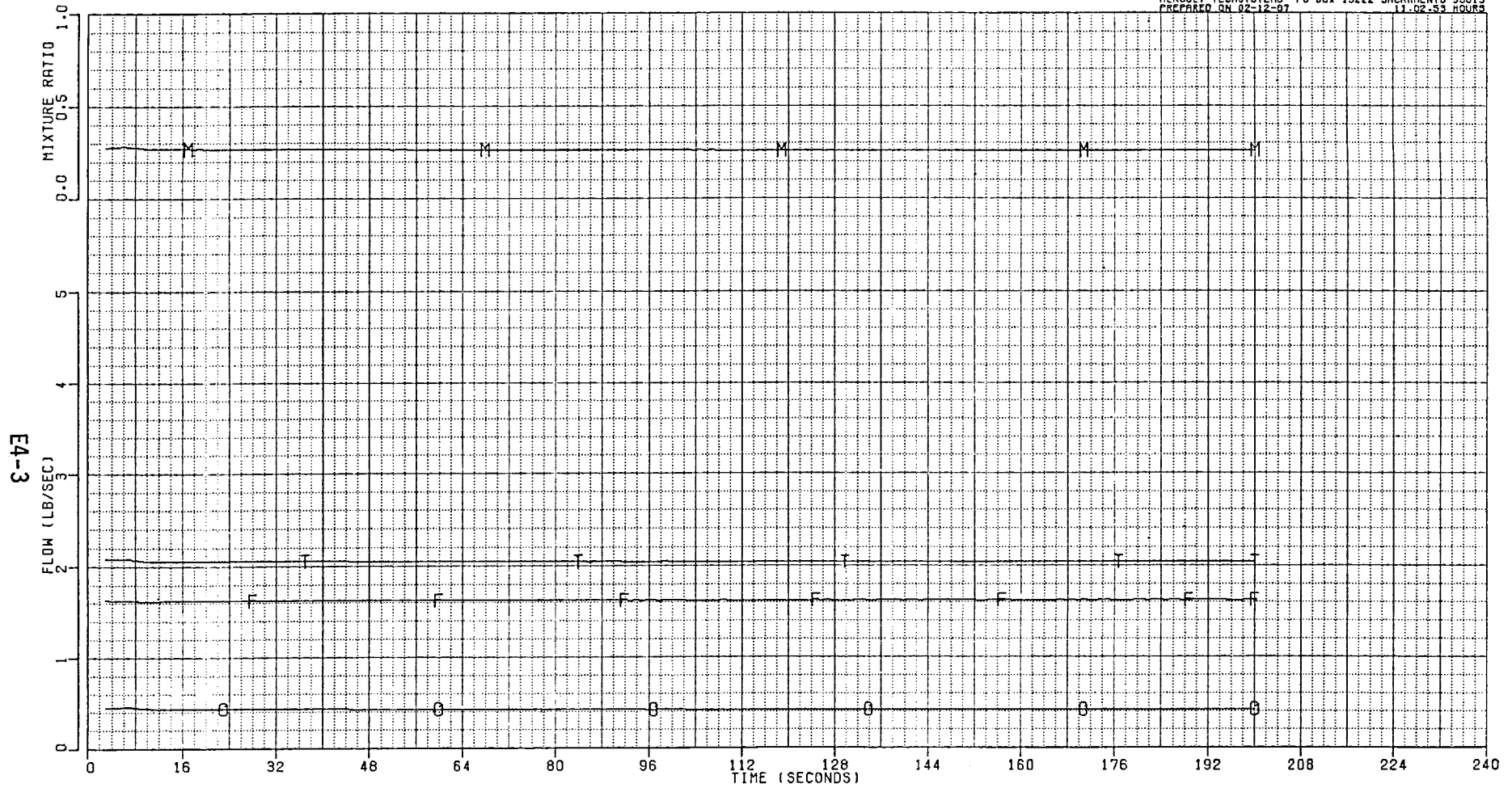
Z-74-2  
EA-2

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-113

TEST DATE 05-29-86 1252 HOURS





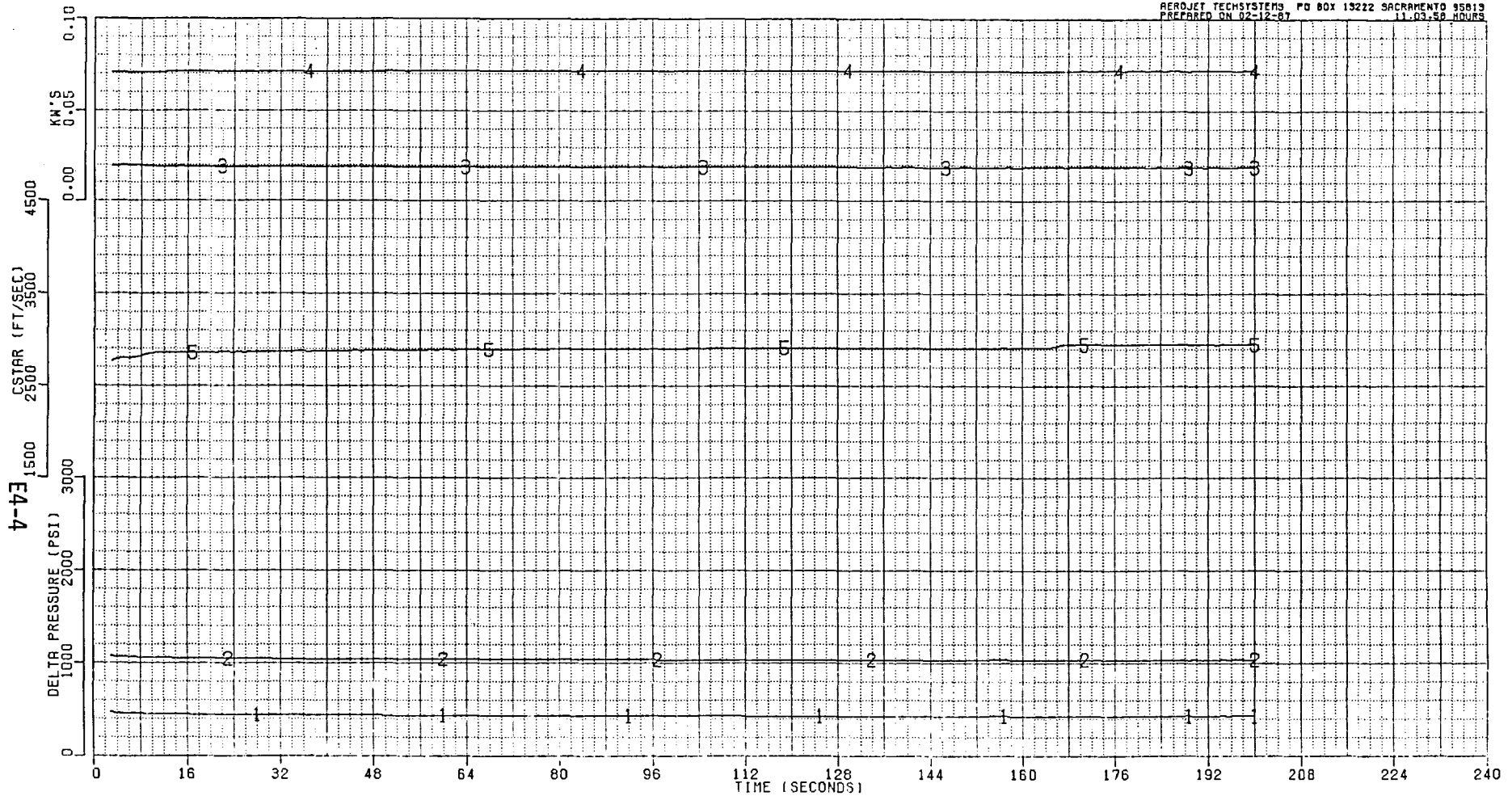
F WF LES/SEC  
O WOX LES/SEC  
T WTOT LES/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-113

TEST DATE 05-29-86 1252 HOURS





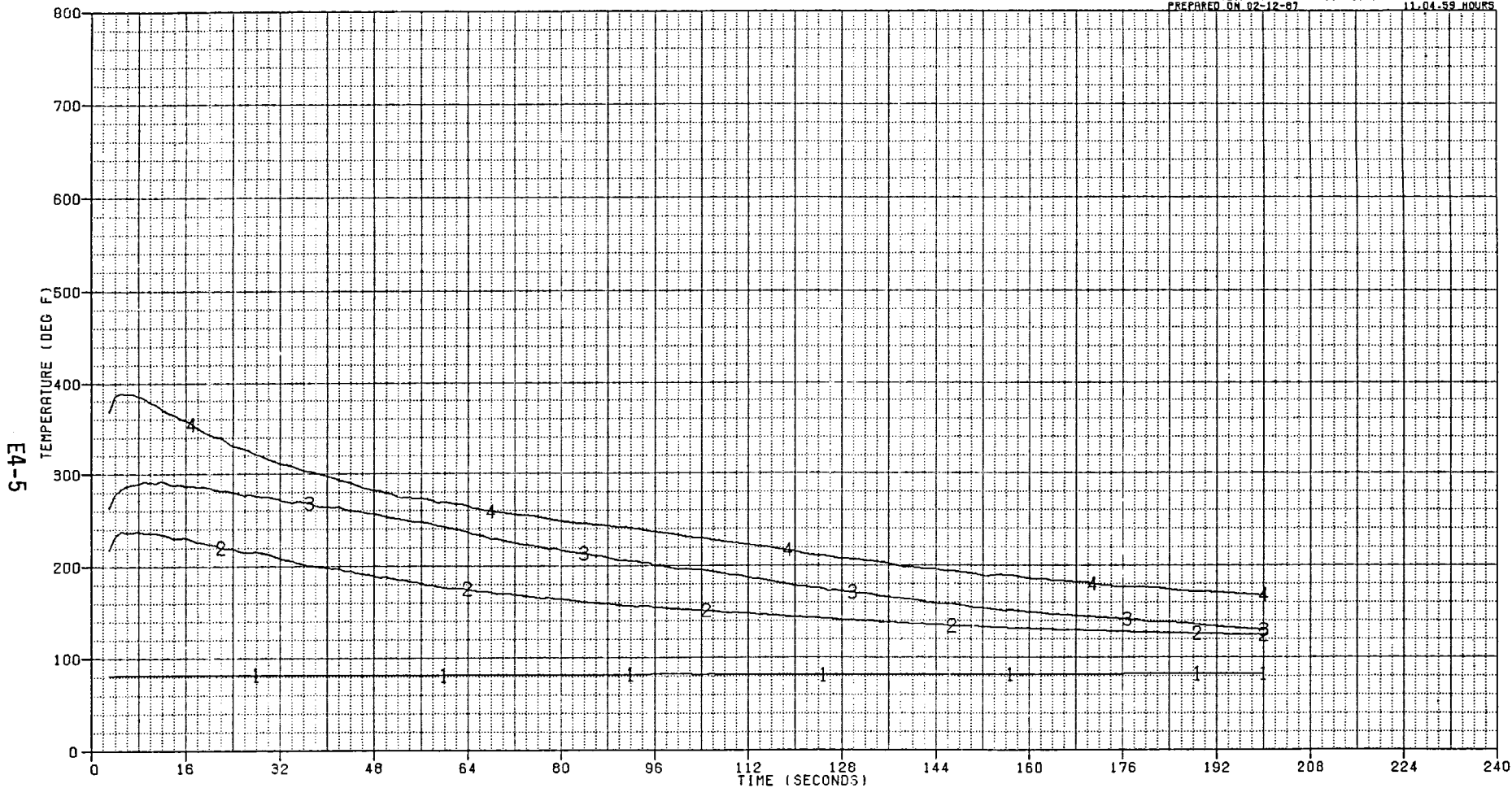


- 1 DPUJ            PSI
- 2 DPFJ            PSI
- 3 KHOJ
- 4 KHOJ
- 5 LSTRPA        FT/SEC
- 6 CSTAR         FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-229-A6-113

TEST DATE 00 00-00 1982 HOURS



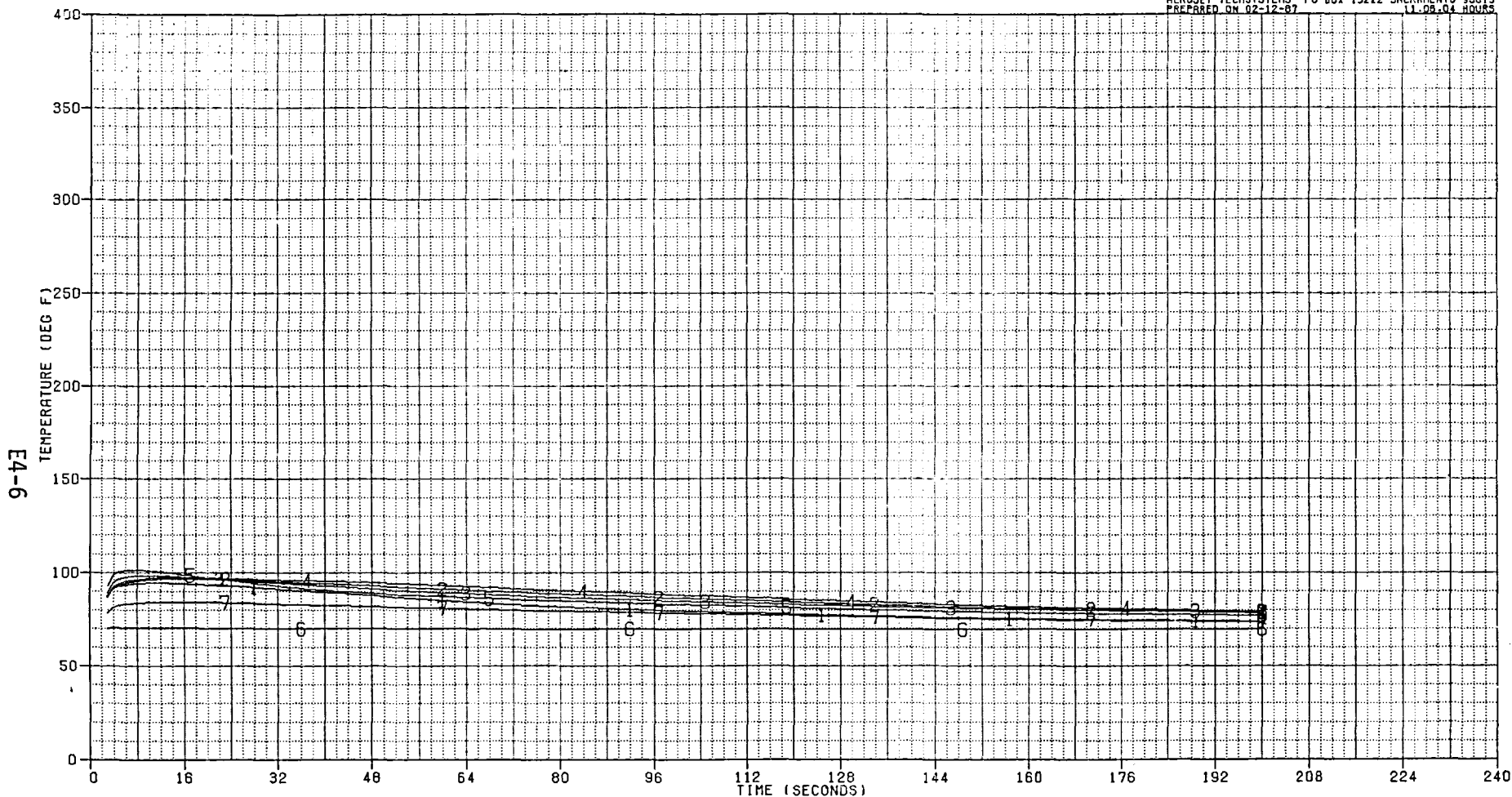


EA-5

- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-113  
BARREL DATA  
TEST DATE 05-29-86 1252 HOURS



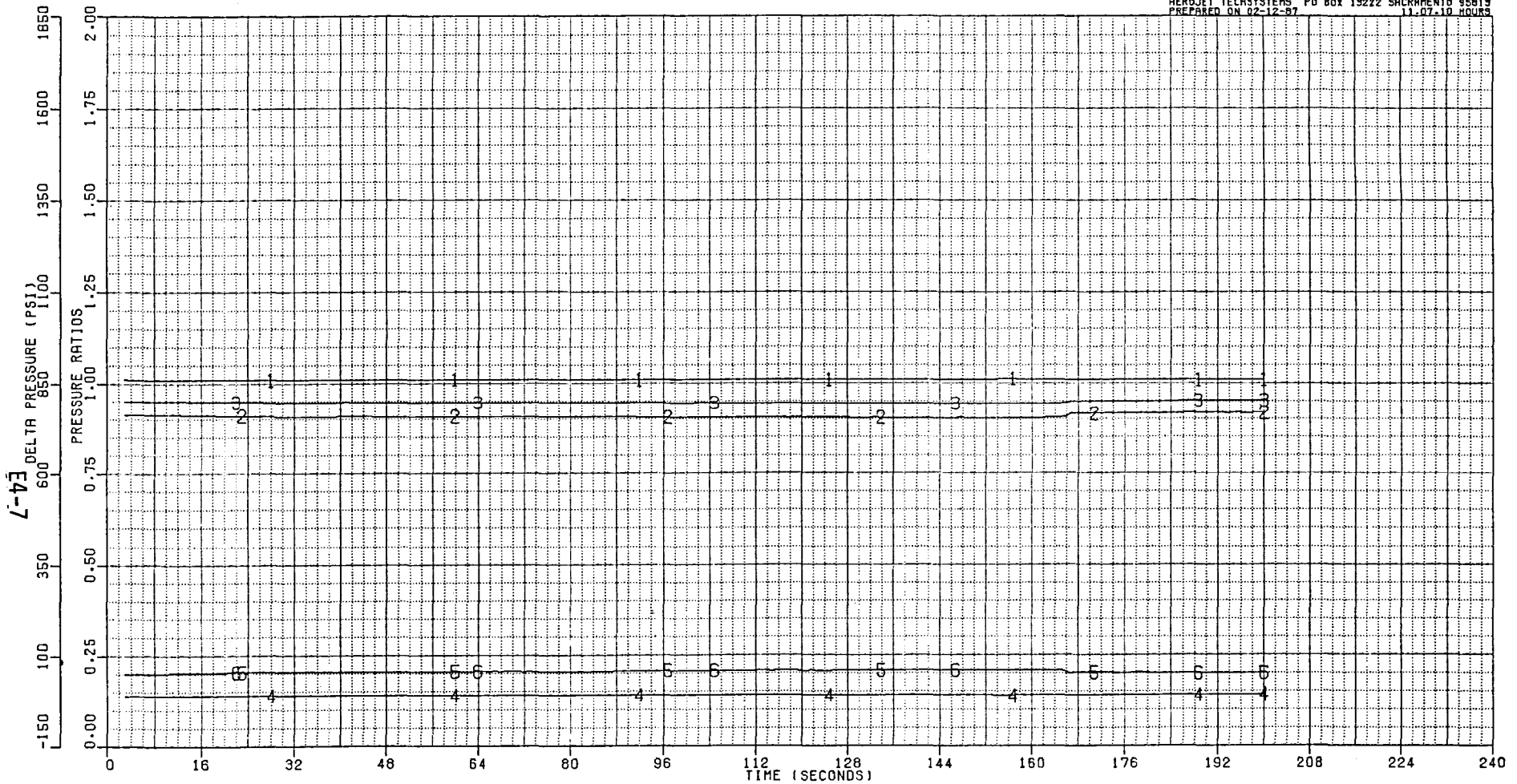


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-113

TEST DATE 05-29-86 1252 HOURS



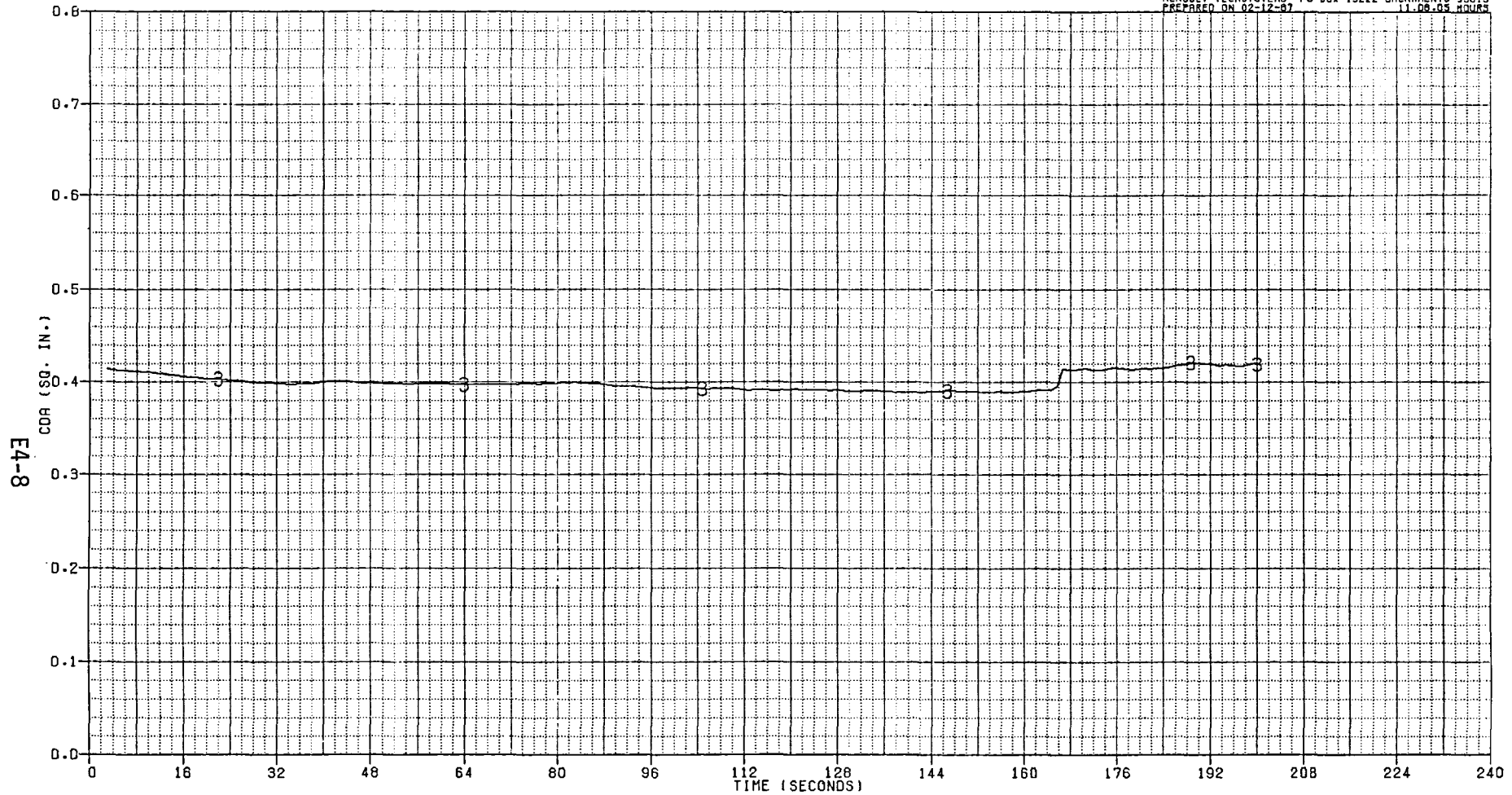


E4-7

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 QPTR            PSI
- 5 DPTS-C        PSI
- 6 DPTS           PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-113  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 05-29-86 1252 HOURS

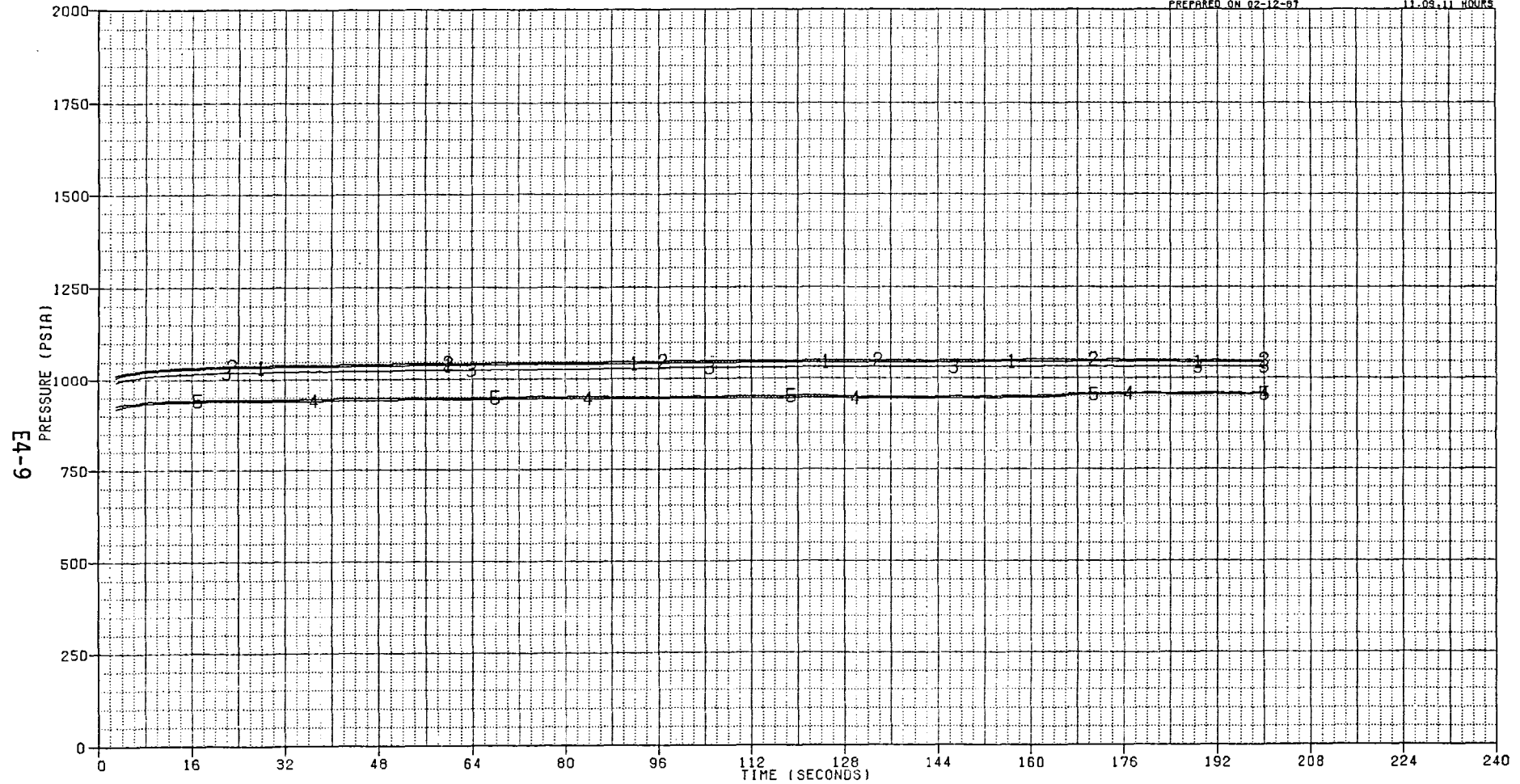




- 1 NR1 SQ. IN.
- 2 NR2 SQ. IN.
- 3 COA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-113  
NOZZLE AREA CHANGE  
TEST DATE 05-29-86 1252 HOURS

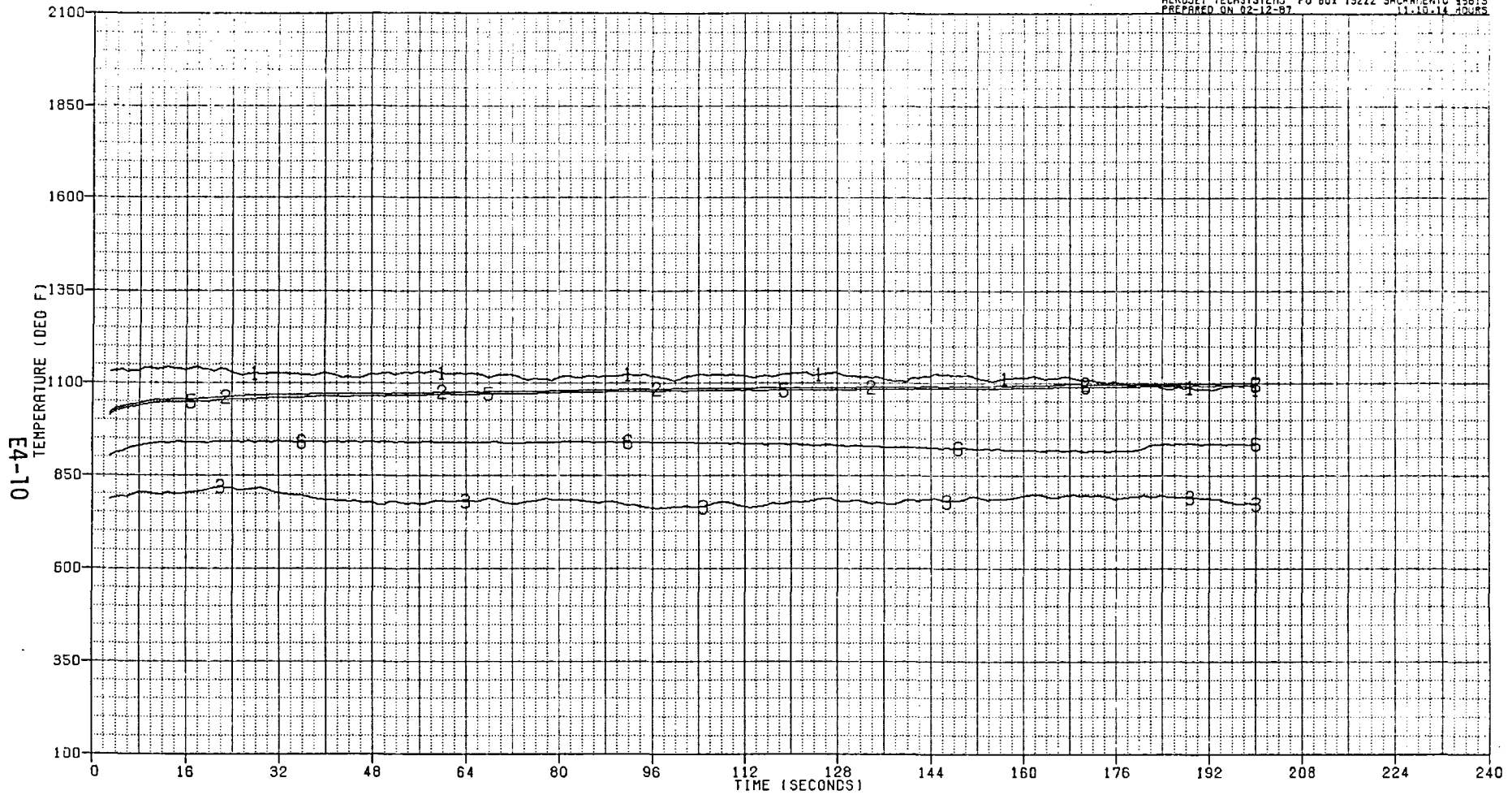




- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-113  
PRESSURE MEASUREMENTS  
TEST DATE 05-29-86 1252 HOURS



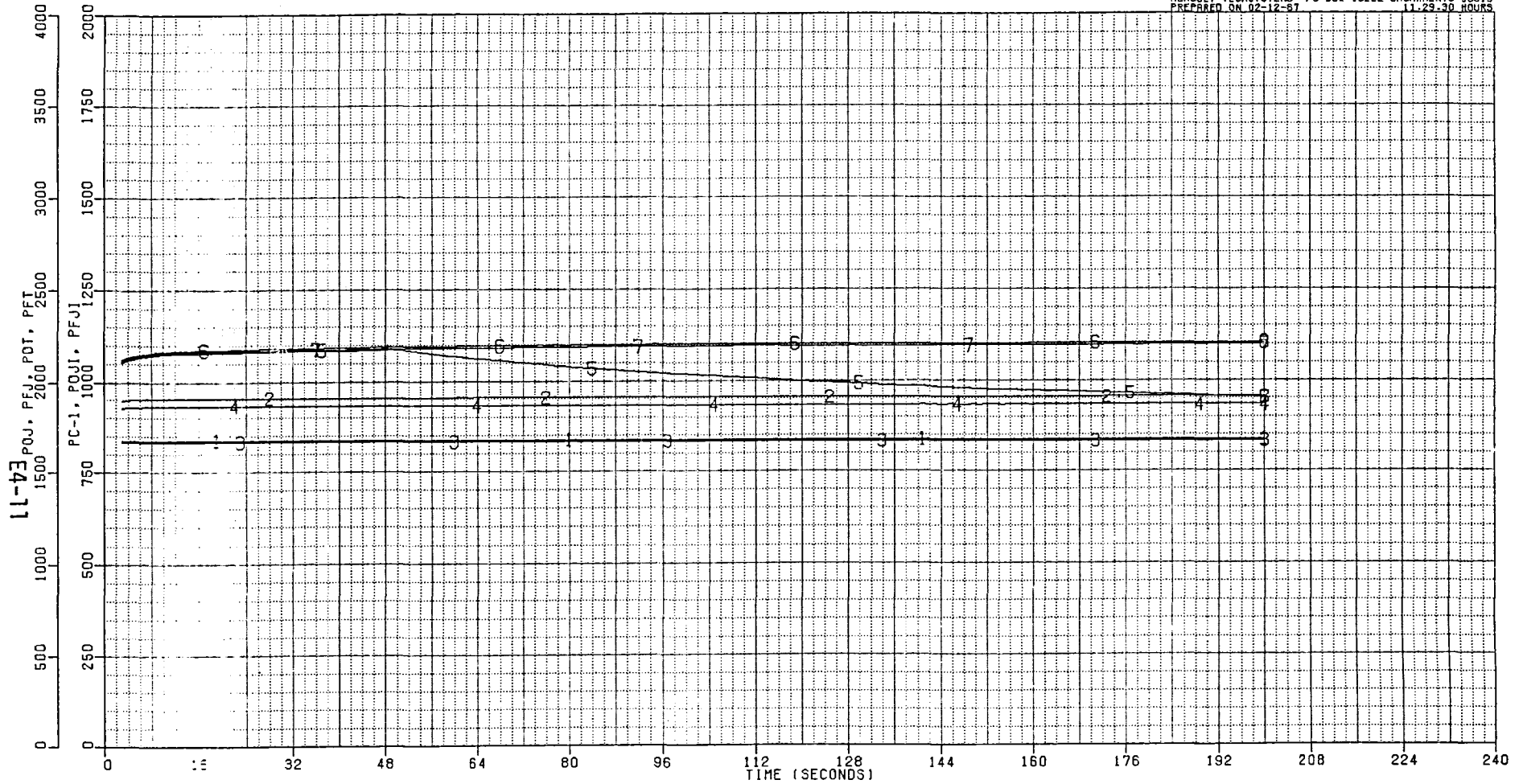


- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-113  
PRESSURE MEASUREMENTS  
TEST DATE 05-29-86 1252 HOURS







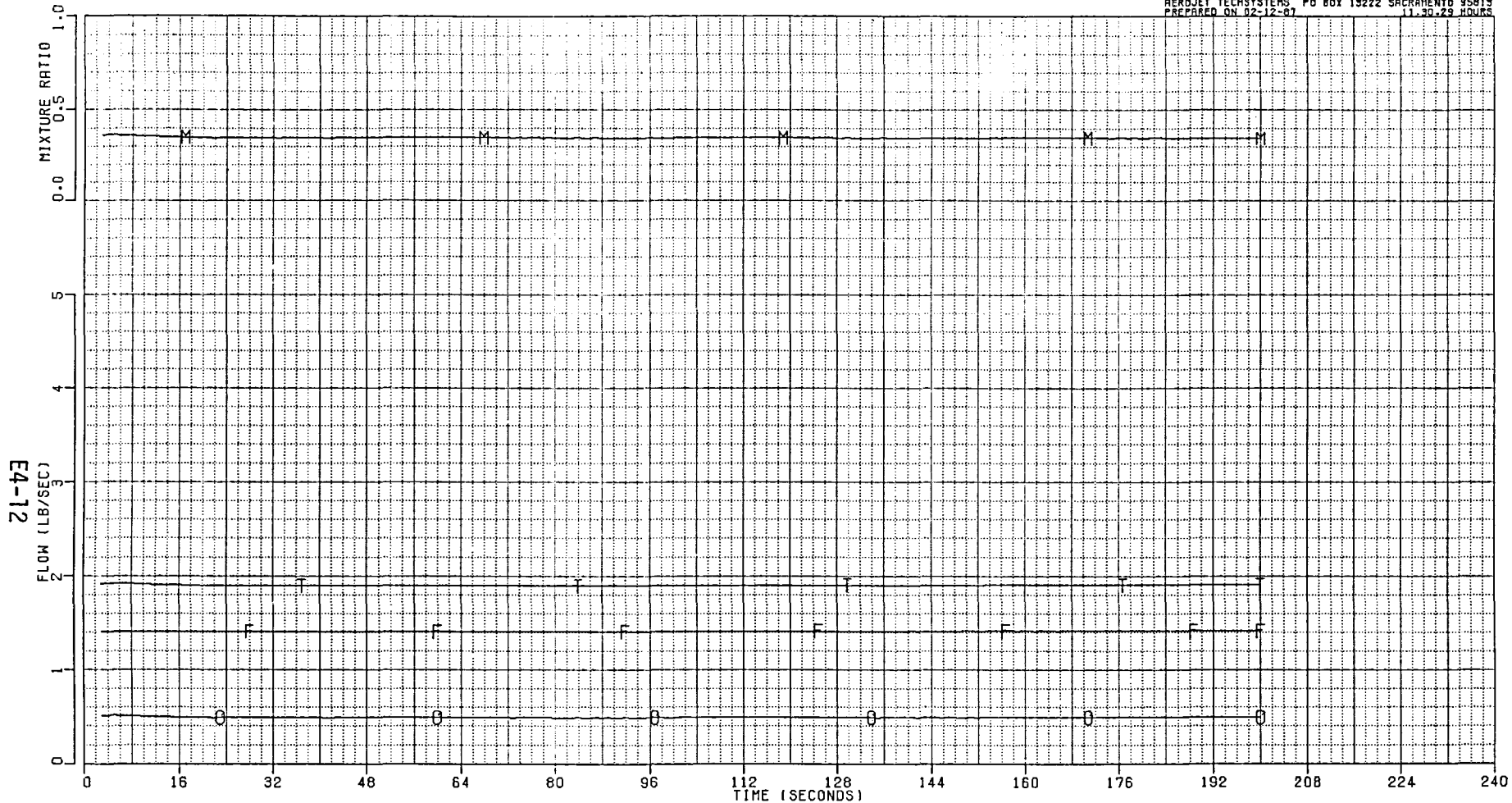
EA-11

- 1 POT      PFT
- 2 PFT      PFT
- 3 POJ      PFT
- 4 PFJ      PFT
- 5 PC-1    PFT
- 6 POJI    PFT
- 7 PFJI    PFT

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-114  
 TEST DATE 05-29-86 1500 HOURS





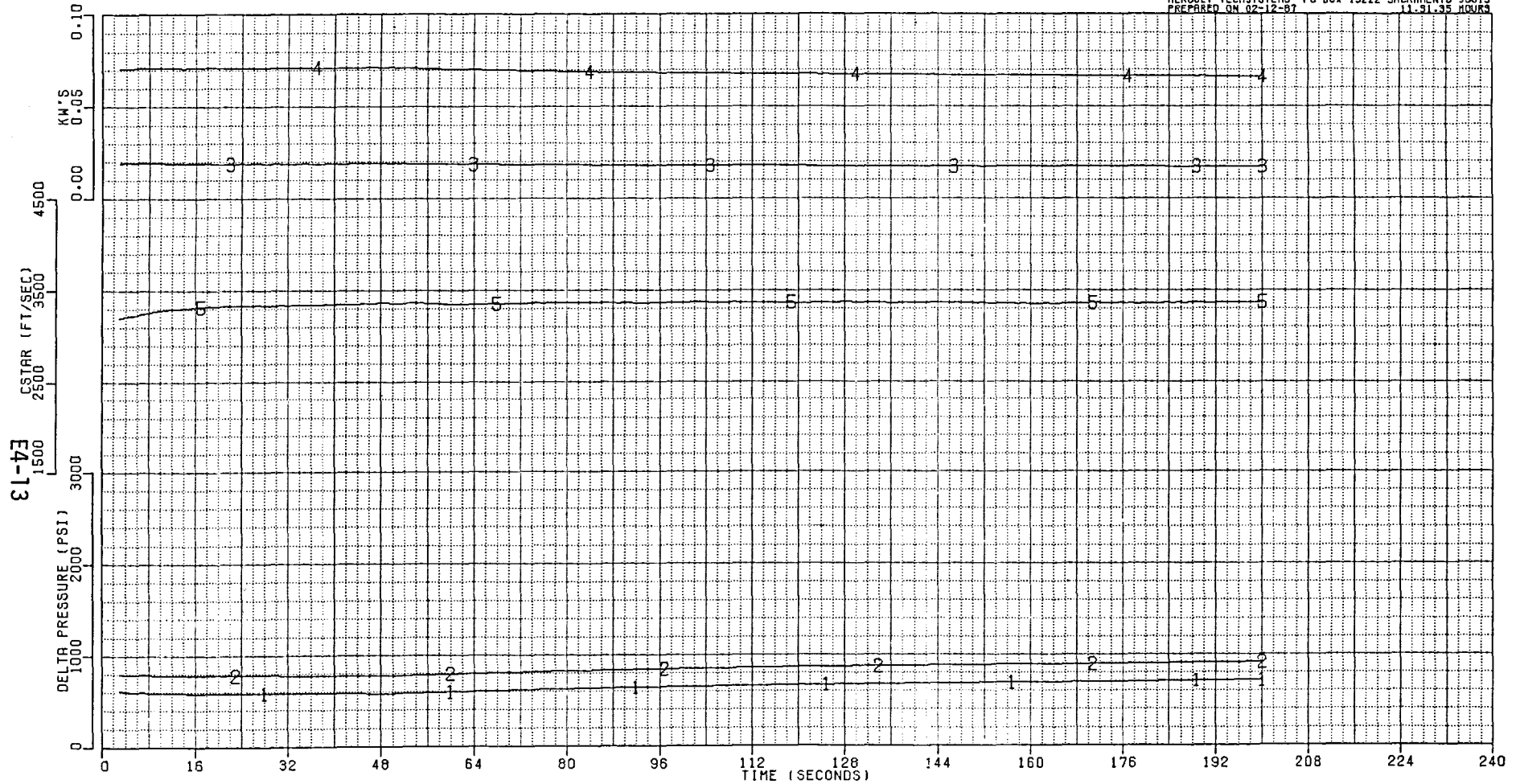


F WF LBS/SEC  
O WDX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-114

TEST DATE 05-29-86 1500 HOURS



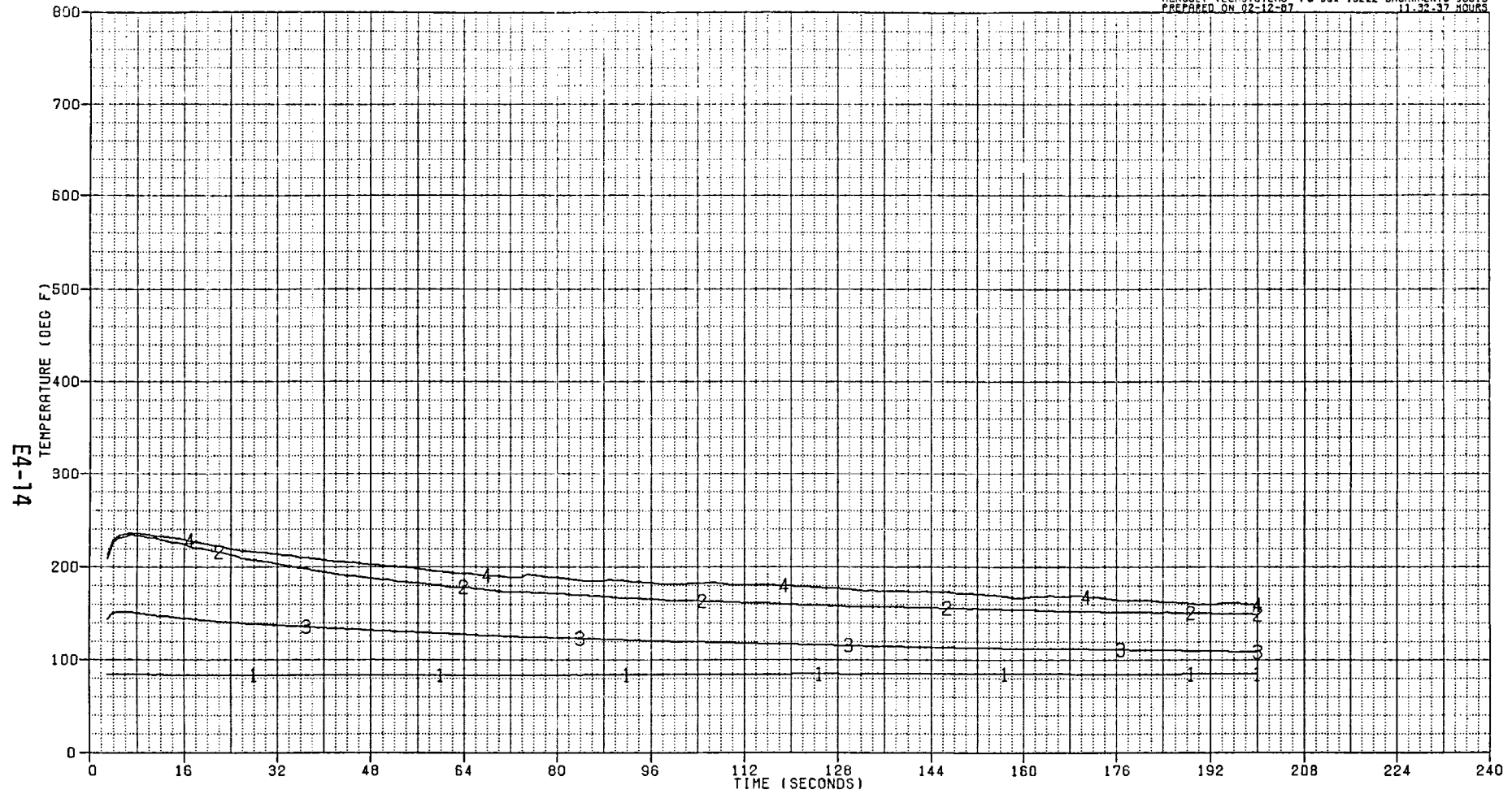


- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWQJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-114

TEST DATE 05-29-86 1500 HOURS



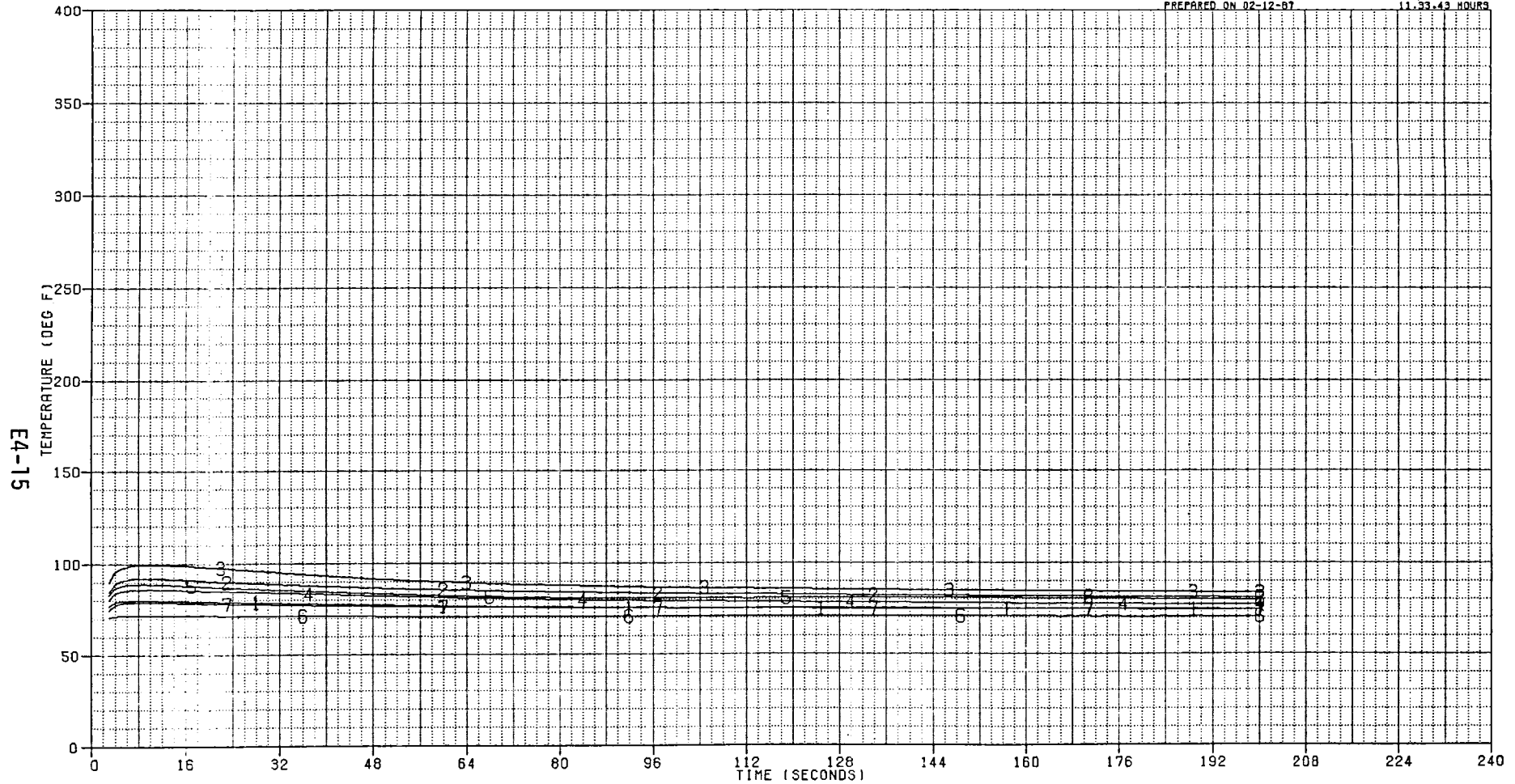


E4-14

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-114  
BARREL DATA  
TEST DATE 05-29-86 1500 HOURS

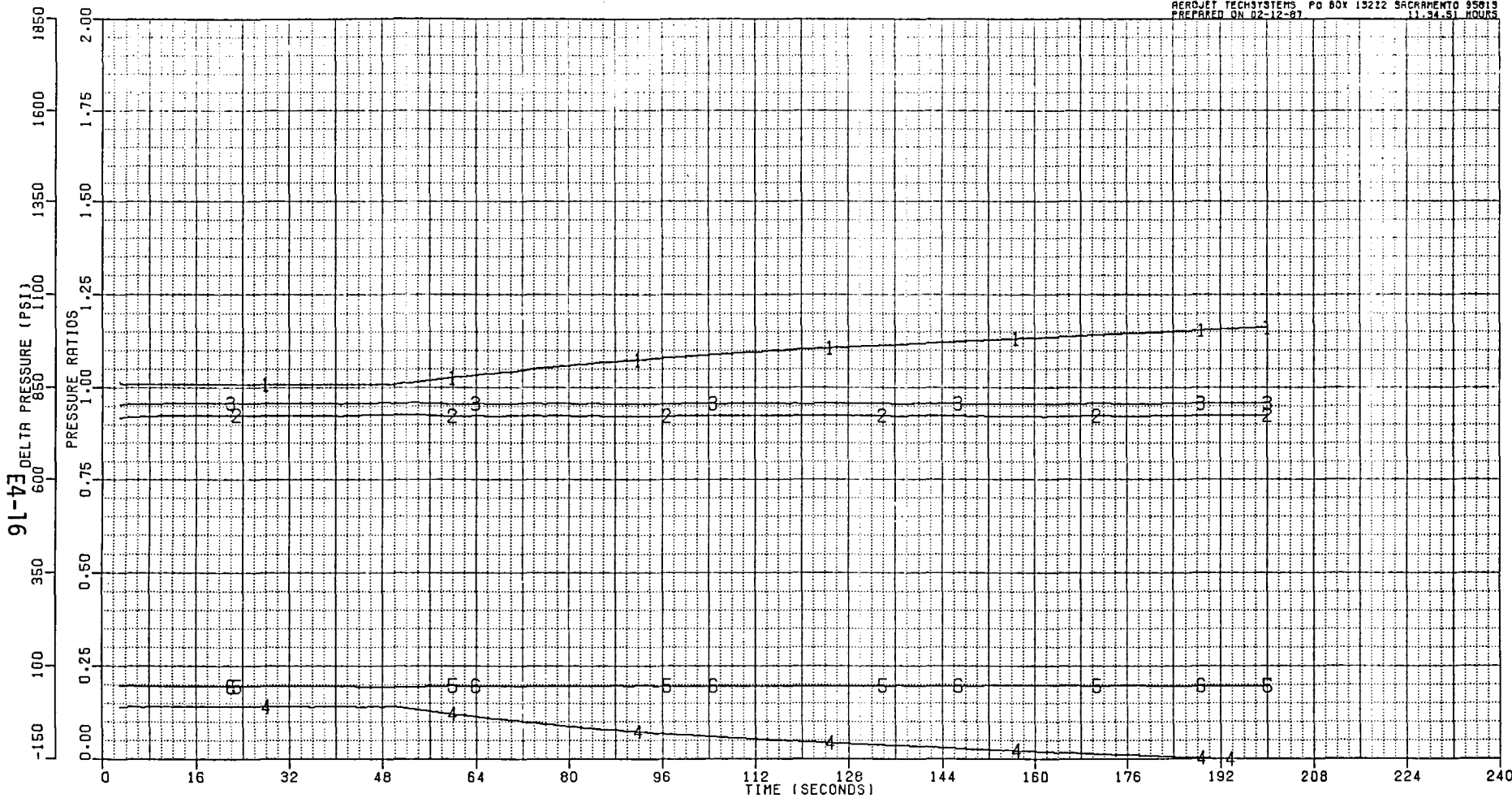




- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-114  
TEST DATE 05-29-86 1500 HOURS





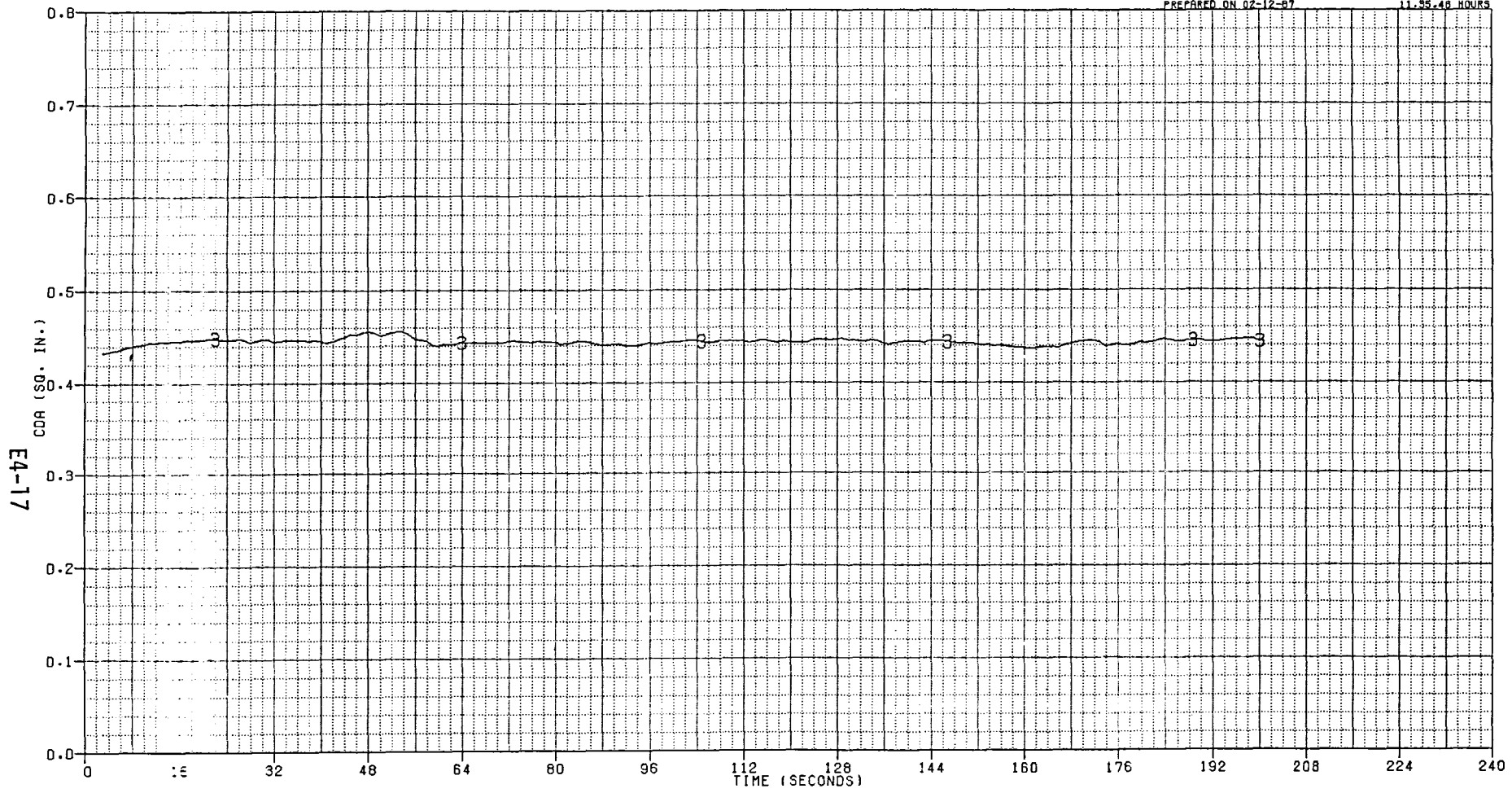
AEROJET TECHSYSTEMS PO BOX 13212 SACRAMENTO 95815  
 PREPARED ON 02-12-87 11.34.51 HOURS

91-73  
 EA-16

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-114  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 05-29-86 1500 HOURS

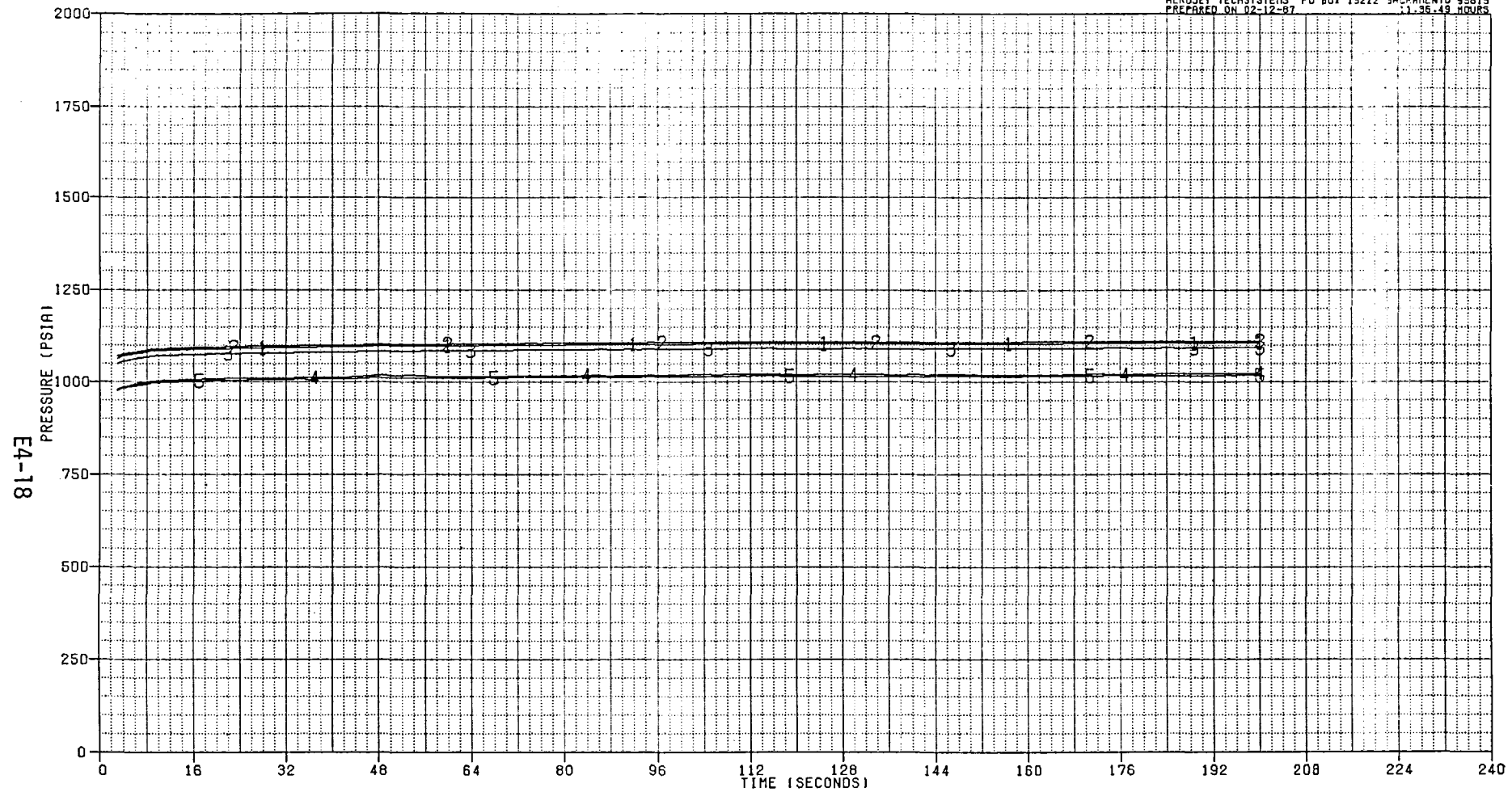




- 1 NA1 SC-IN.
- 2 NA2 SC-IN.
- 3 COR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-114  
NOZZLE AREA CHANGE  
TEST DATE 05-29-86 1500 HOURS



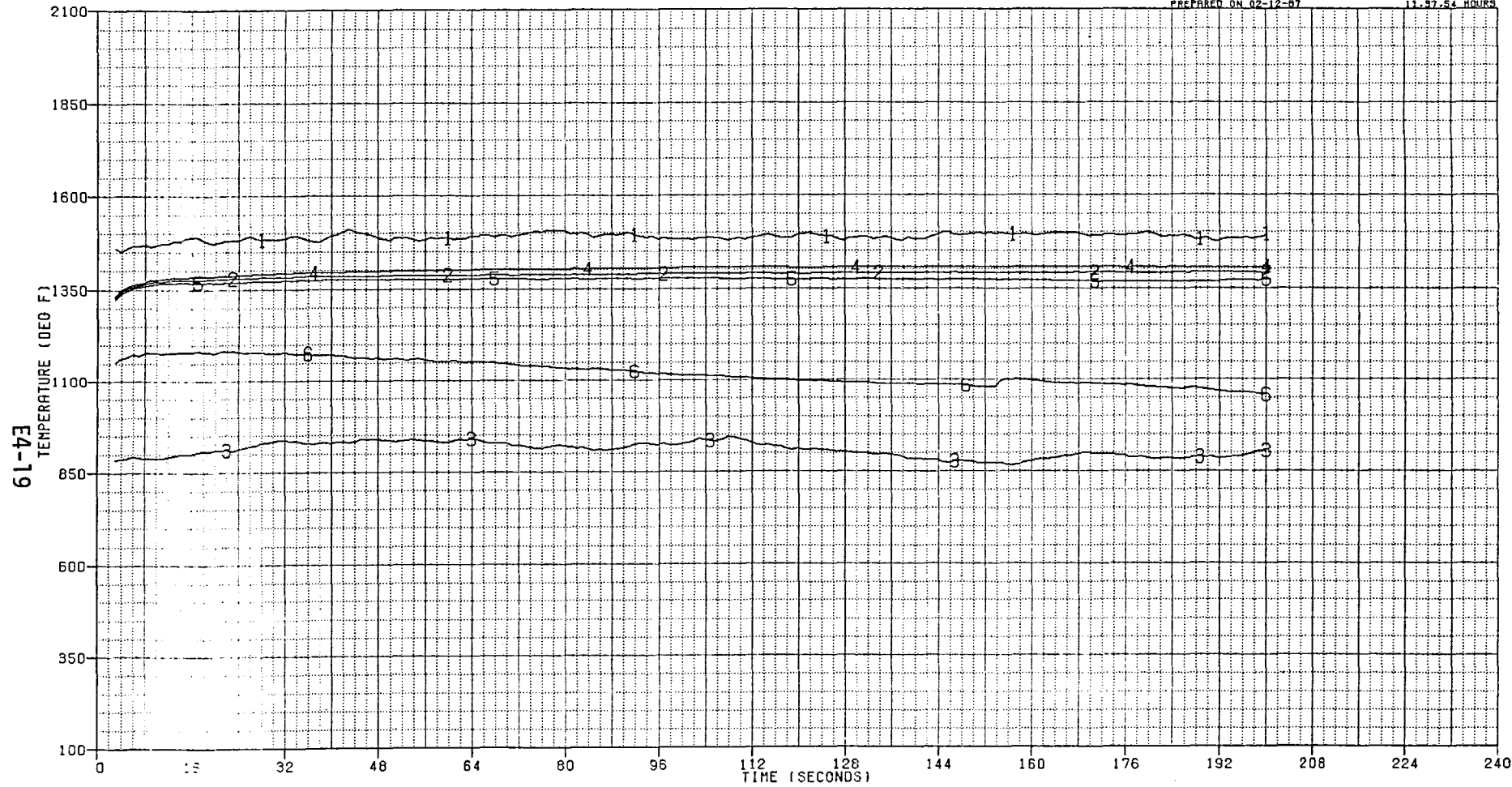


E4-18

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-114  
PRESSURE MEASUREMENTS  
TEST DATE 05-29-86 1500 HOURS





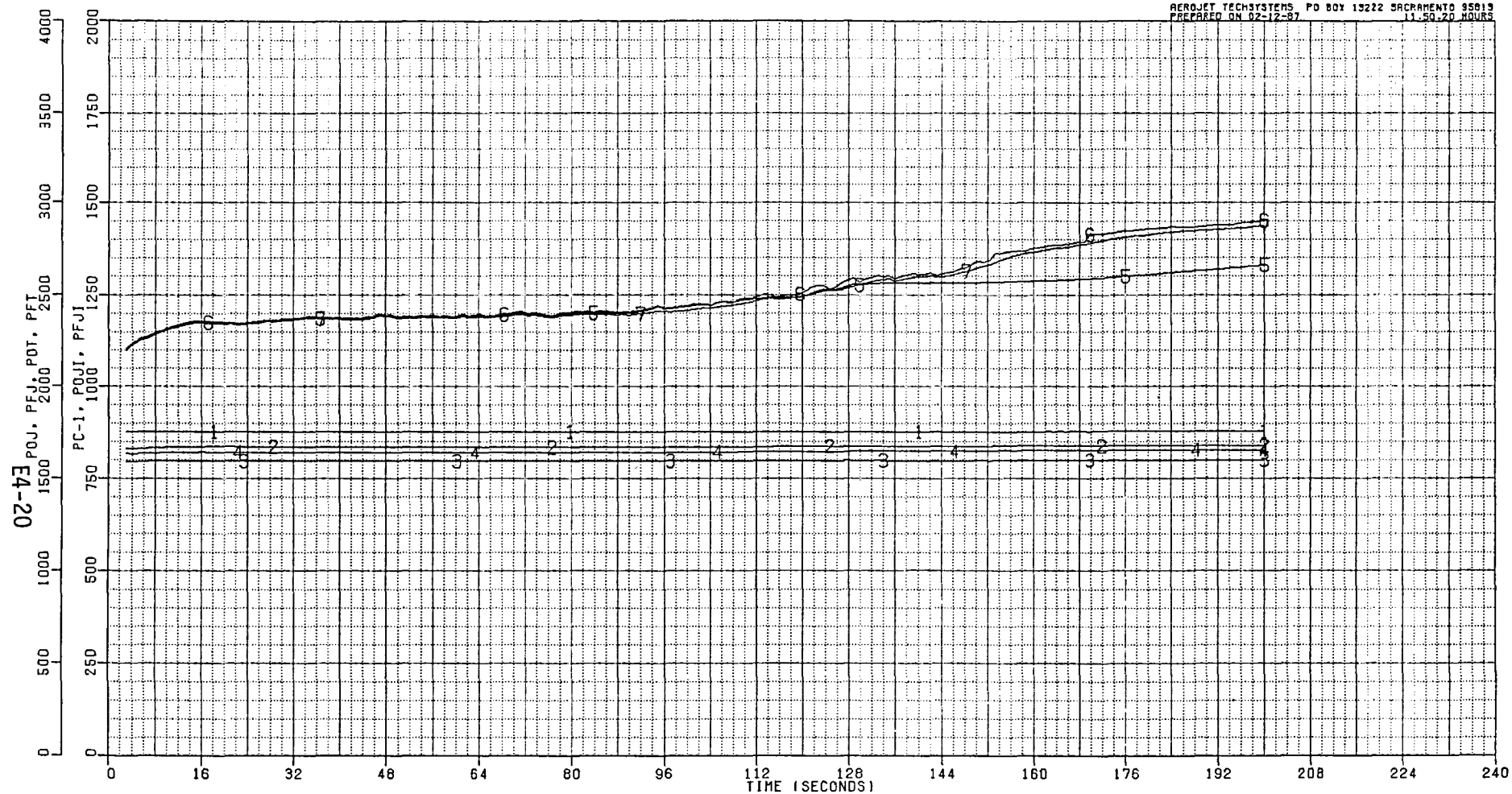
61-73  
E4-19

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-114  
PRESSURE MEASUREMENTS  
TEST DATE 05-29-86 1500 HOURS





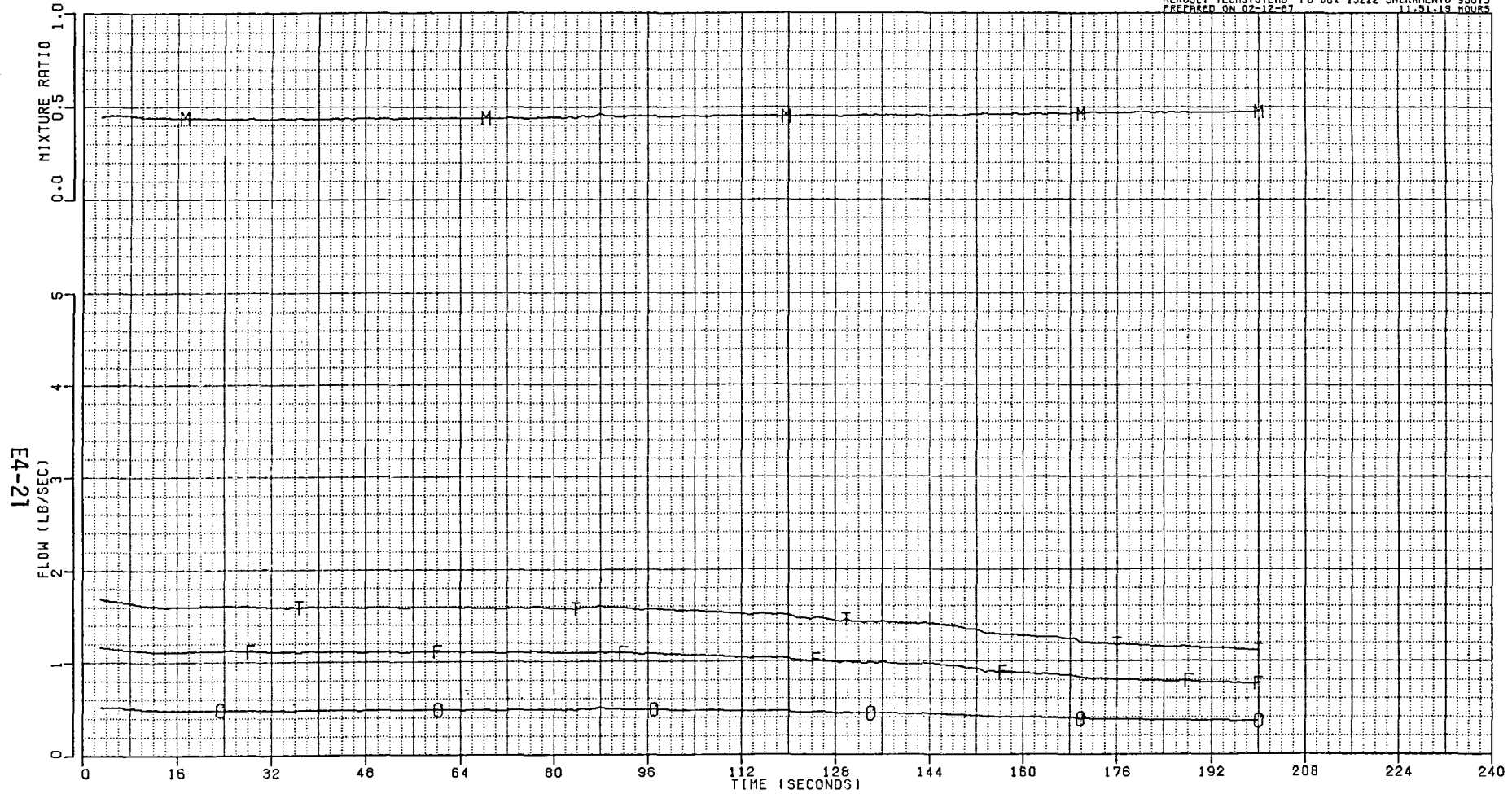


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-120

TEST DATE 05-30-86 0708 HOURS



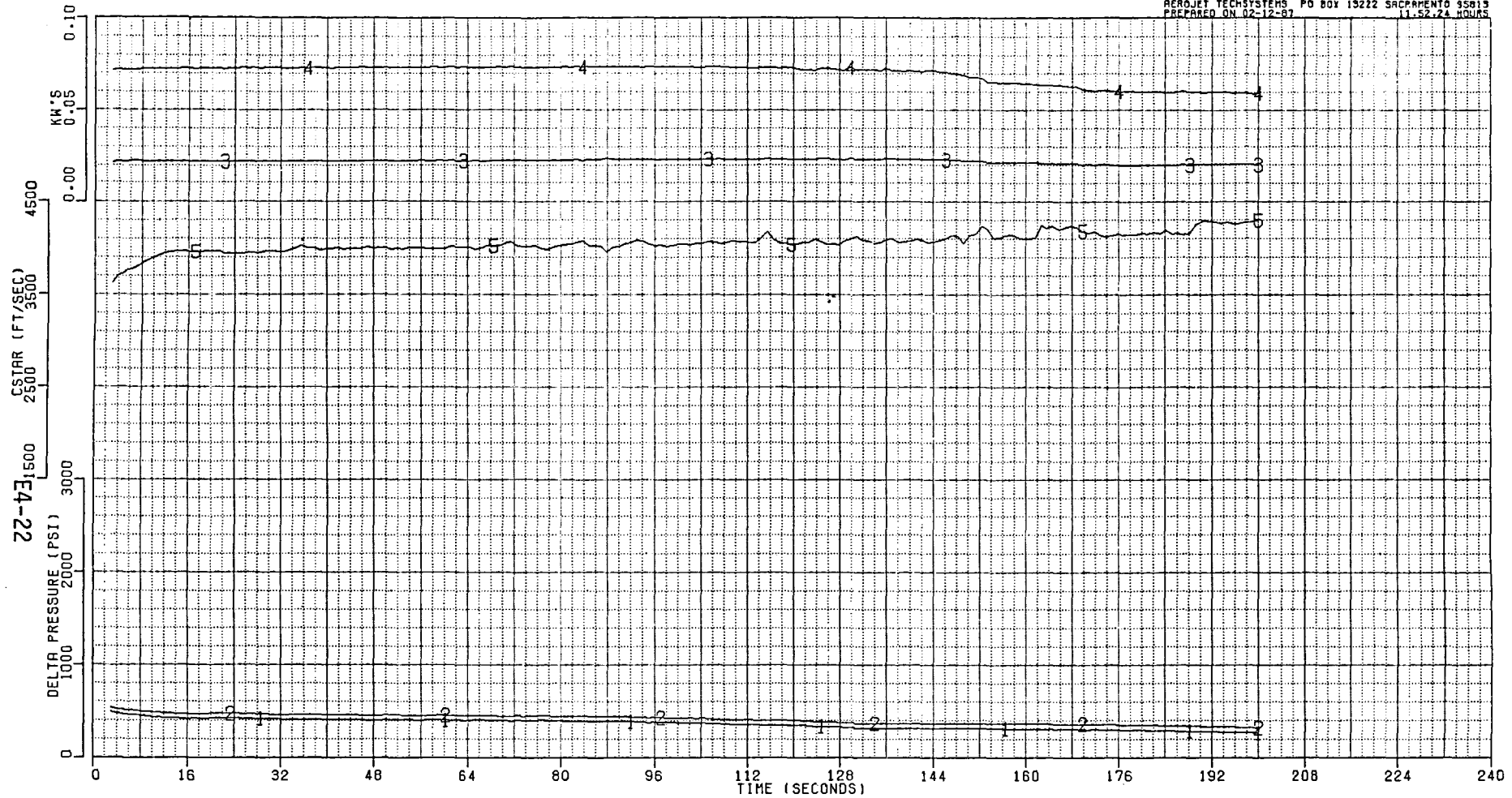


F WF LBS/SEC  
O WDX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-120

TEST DATE 05-30-86 0708 HOURS



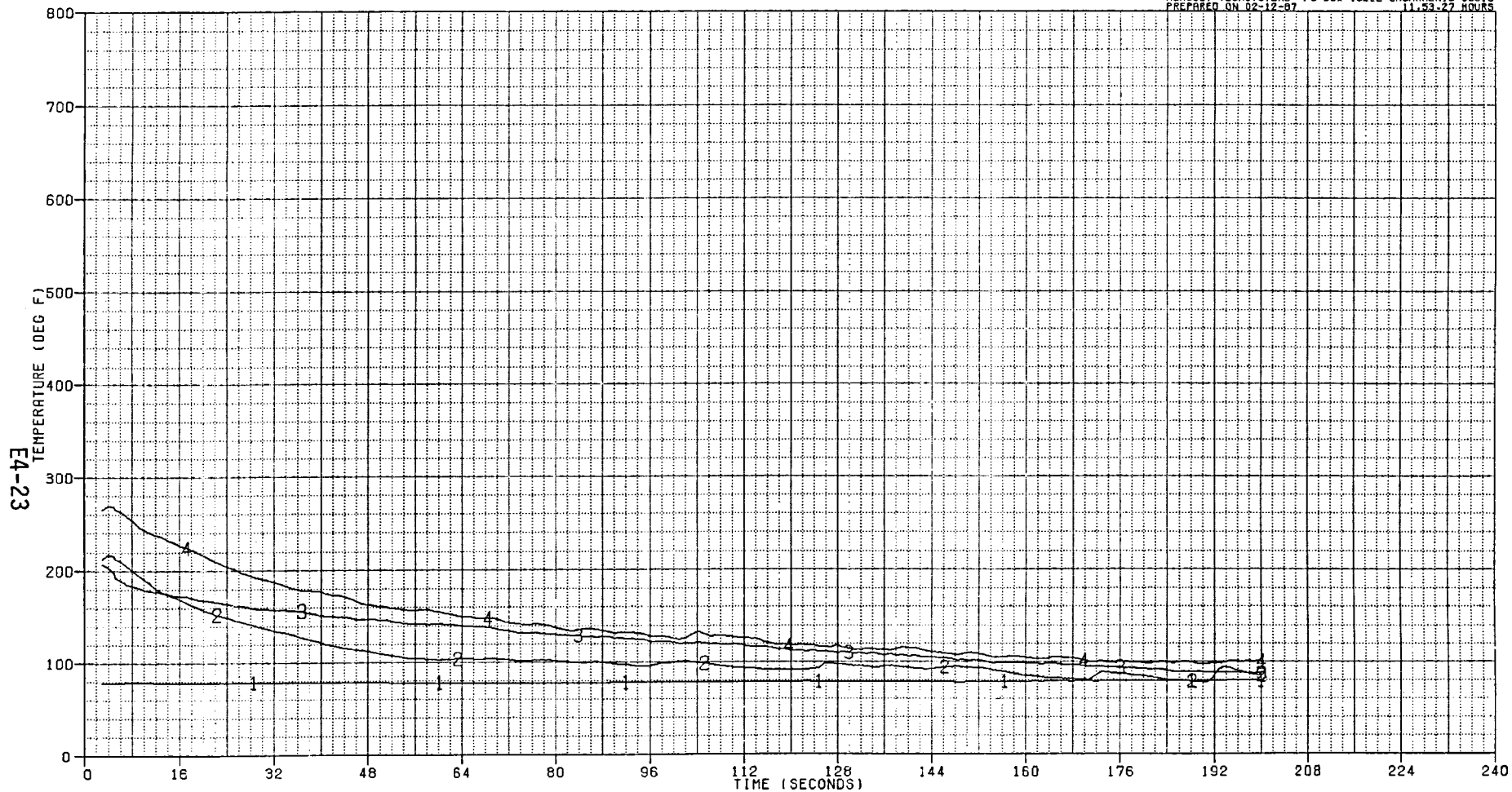


4500  
3500  
2500  
1500  
500  
0  
DELTA PRESSURE (PSI)  
3000  
2000  
1000  
0  
CSTAR (FT/SEC)  
4500  
3500  
2500  
1500  
500  
0  
KM/S  
0.10  
0.05  
0.00

- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-229-A6-120  
TEST DATE 05-30-86 0708 HOURS



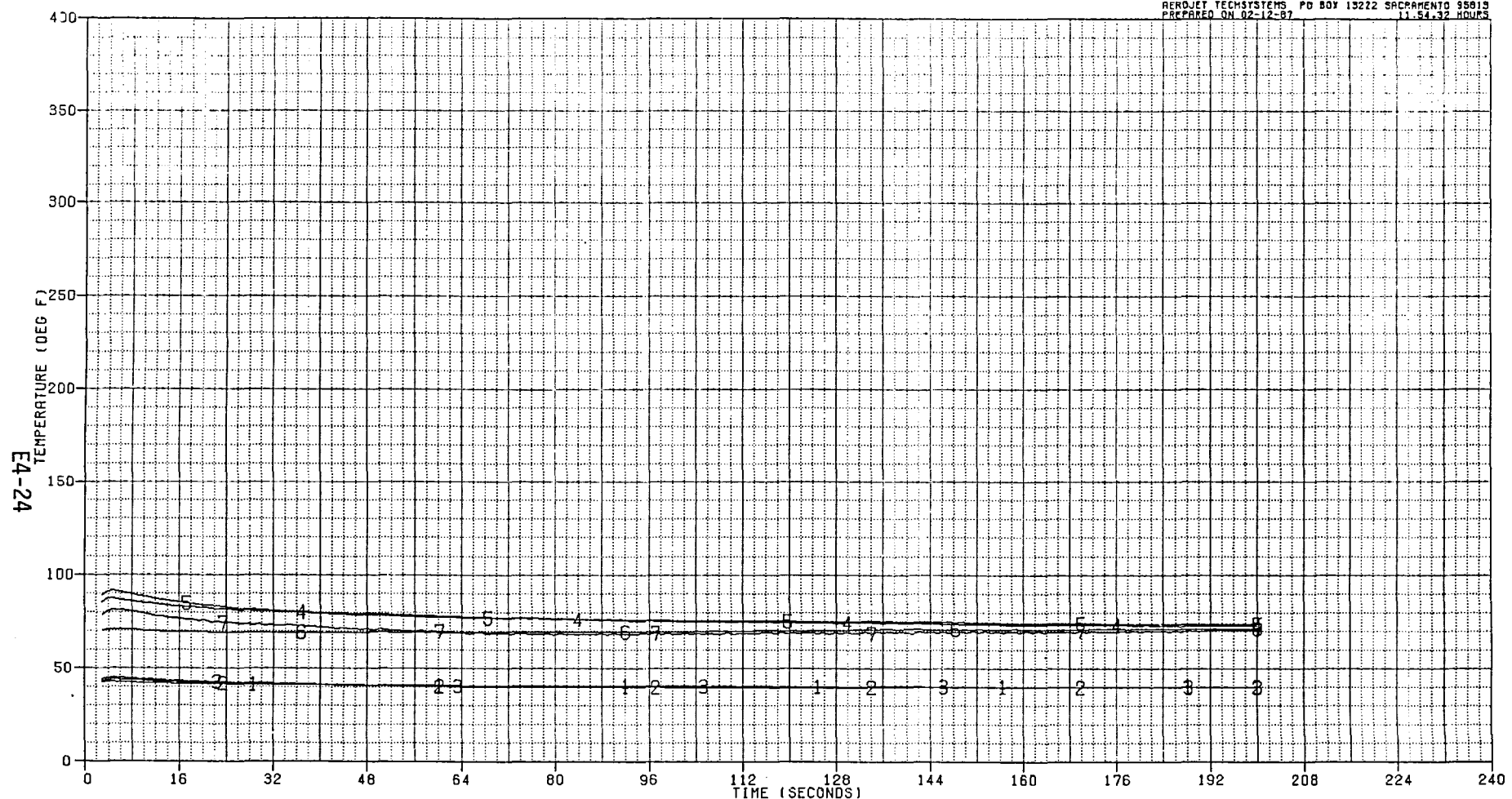


E4-23

- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-120  
BARREL DATA  
TEST DATE 05-30-86 0708 HOURS





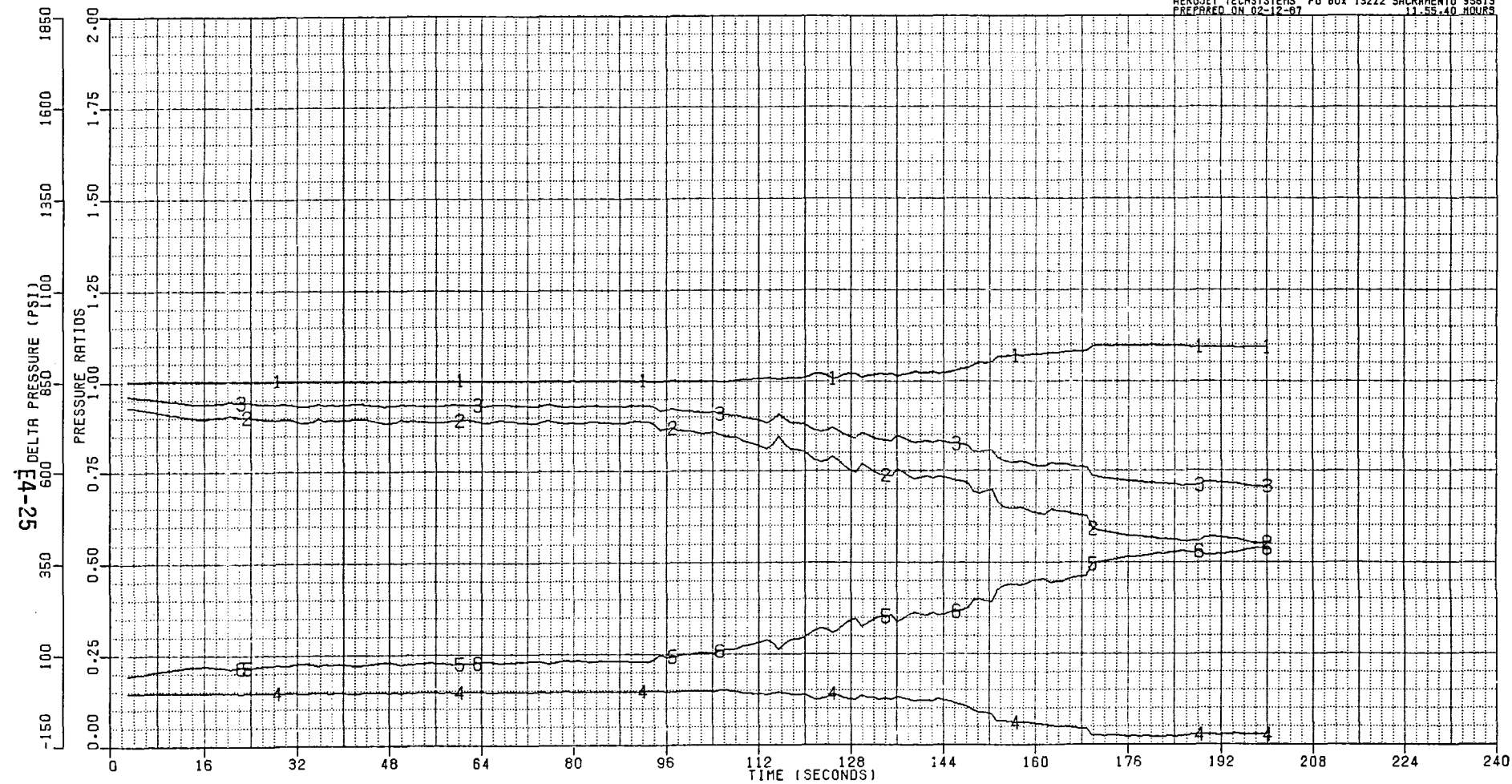
E4-24

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
 TEST NO. 2427-229-A6-120

TEST DATE 05-30-86 0708 HOURS

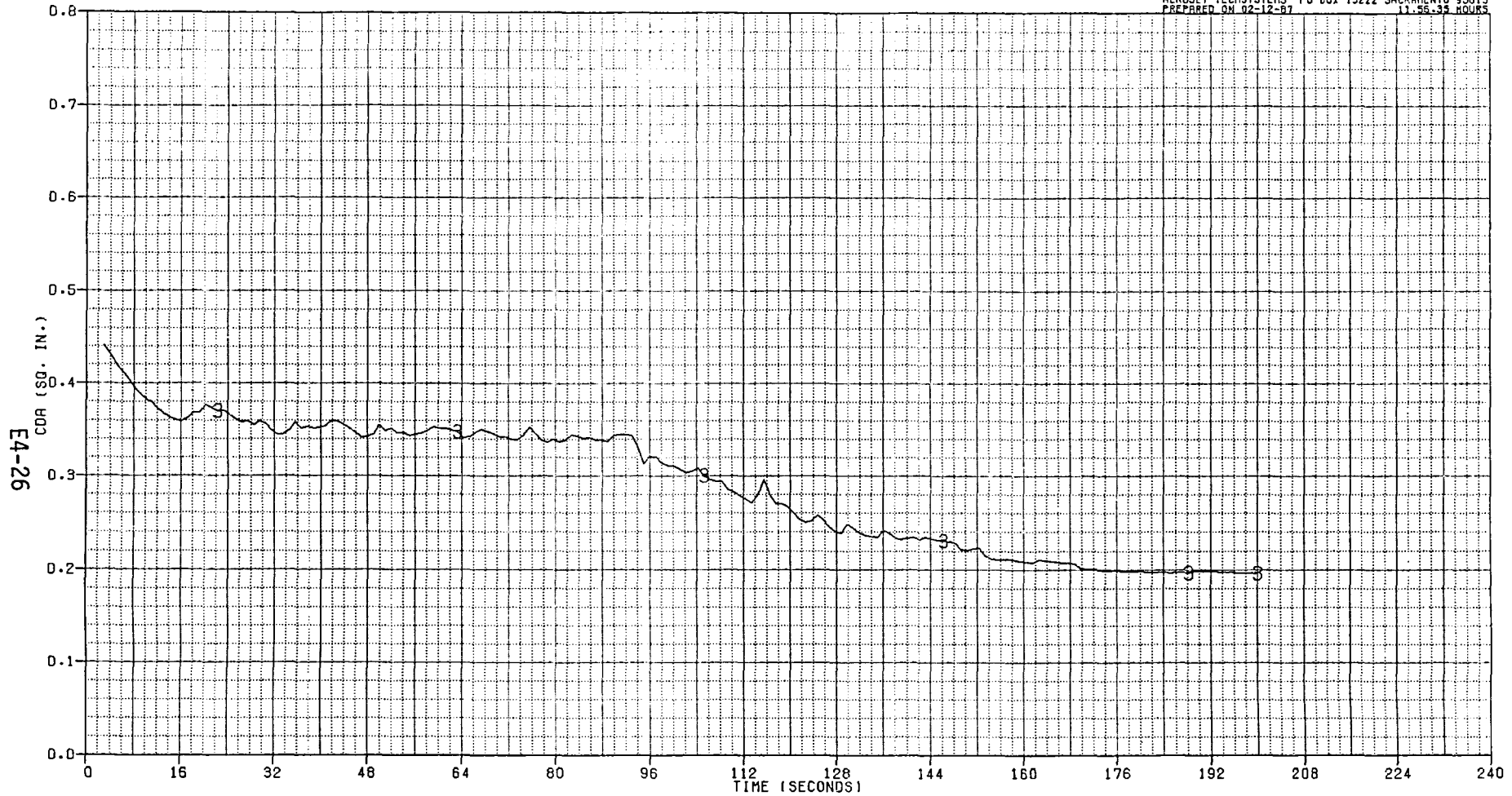




- 1 PRTS
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-120  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 05-30-86 0708 HOURS



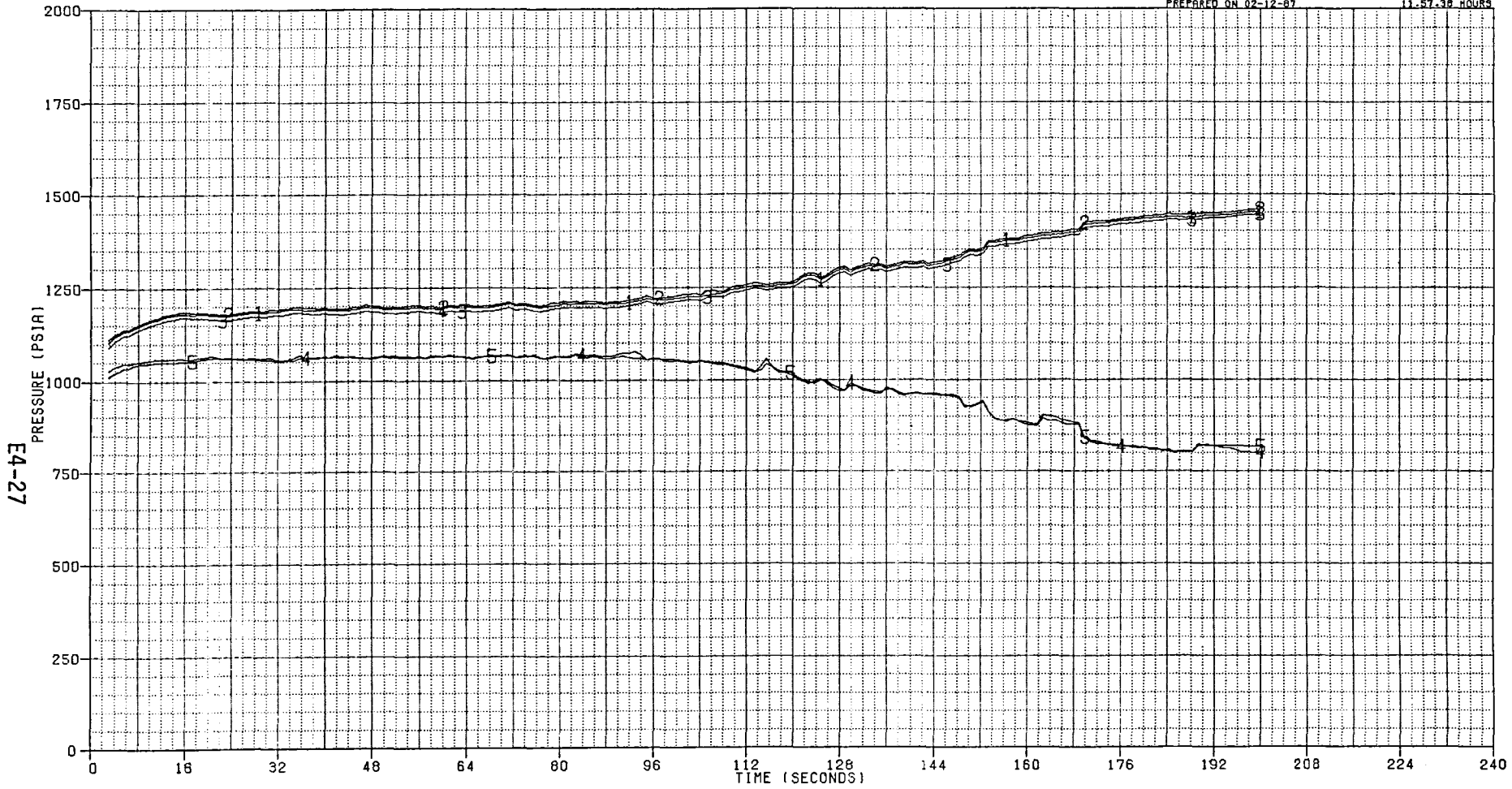


1 NR1 SQ.IN.  
2 NR2 SQ.IN.  
3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-120  
NOZZLE AREA CHANGE  
TEST DATE 05-30-86 0708 HOURS







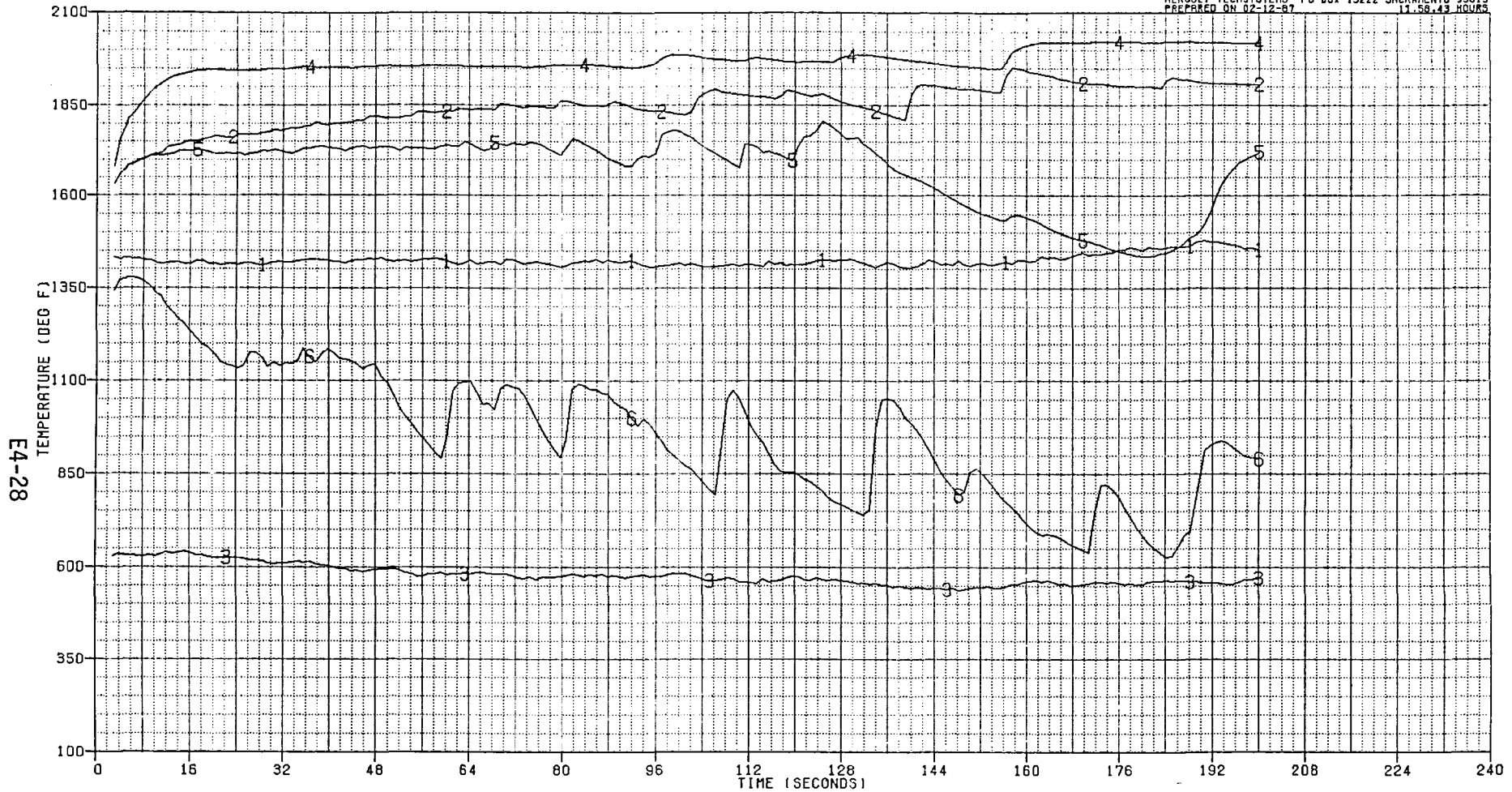
E4-27

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-120  
PRESSURE MEASUREMENTS  
TEST DATE 05-30-86 0708 HOURS





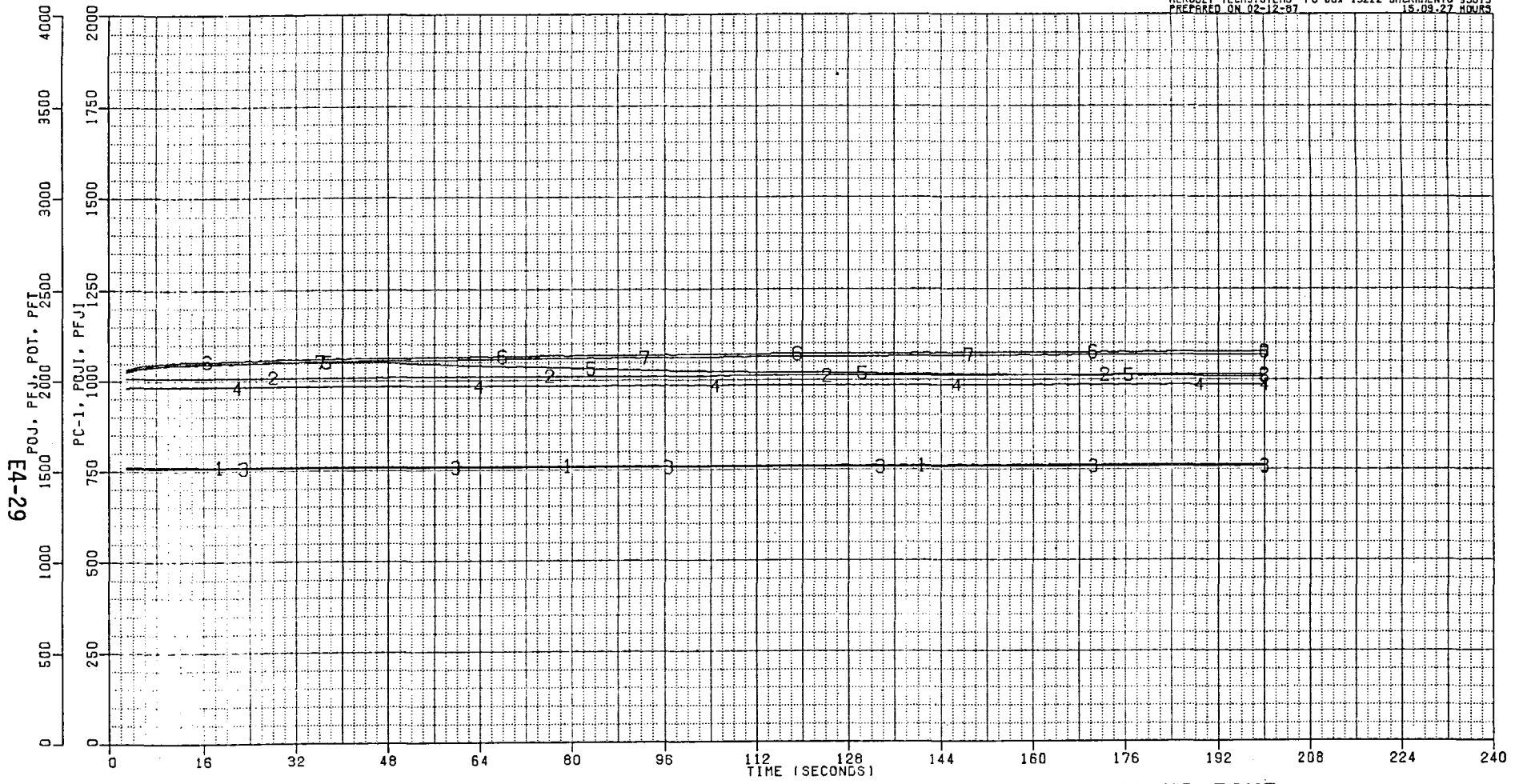


E4-28

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-120  
PRESSURE MEASUREMENTS  
TEST DATE 05-30-86 0708 HOURS



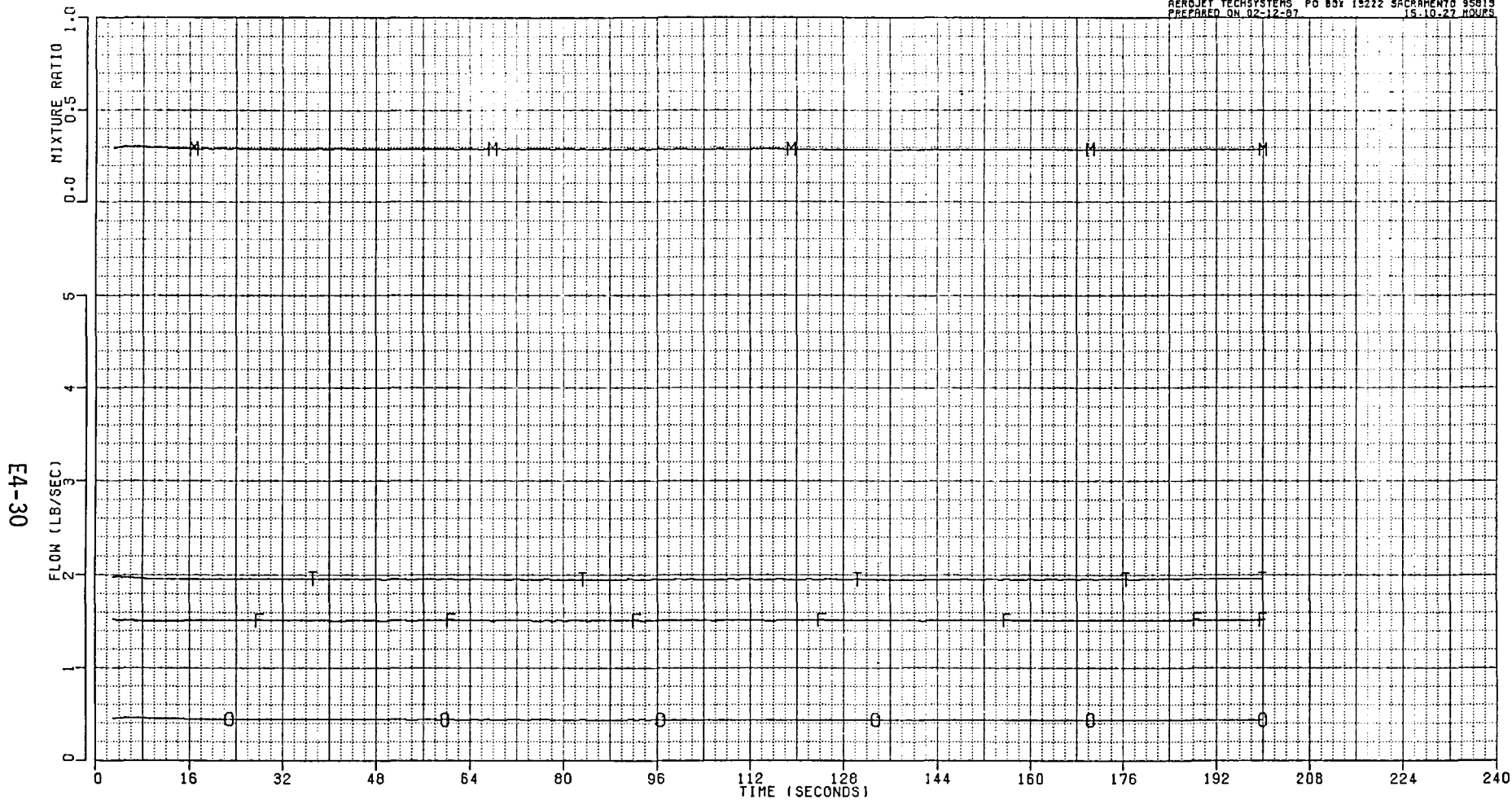


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 PQJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-125

TEST DATE 06-09-86 1244 HOURS





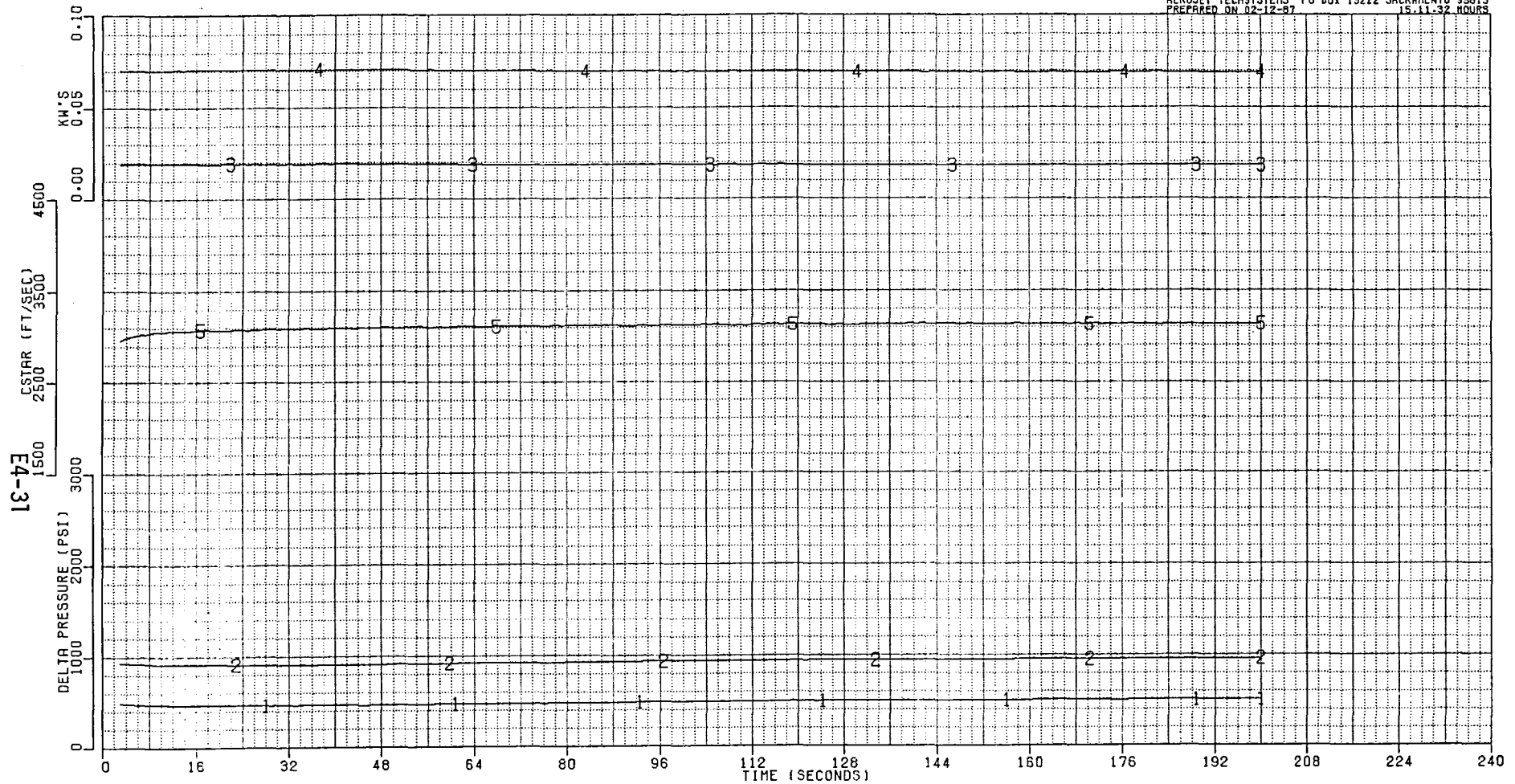
E4-30

F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-125

TEST DATE 06-09-86 1244 HOURS



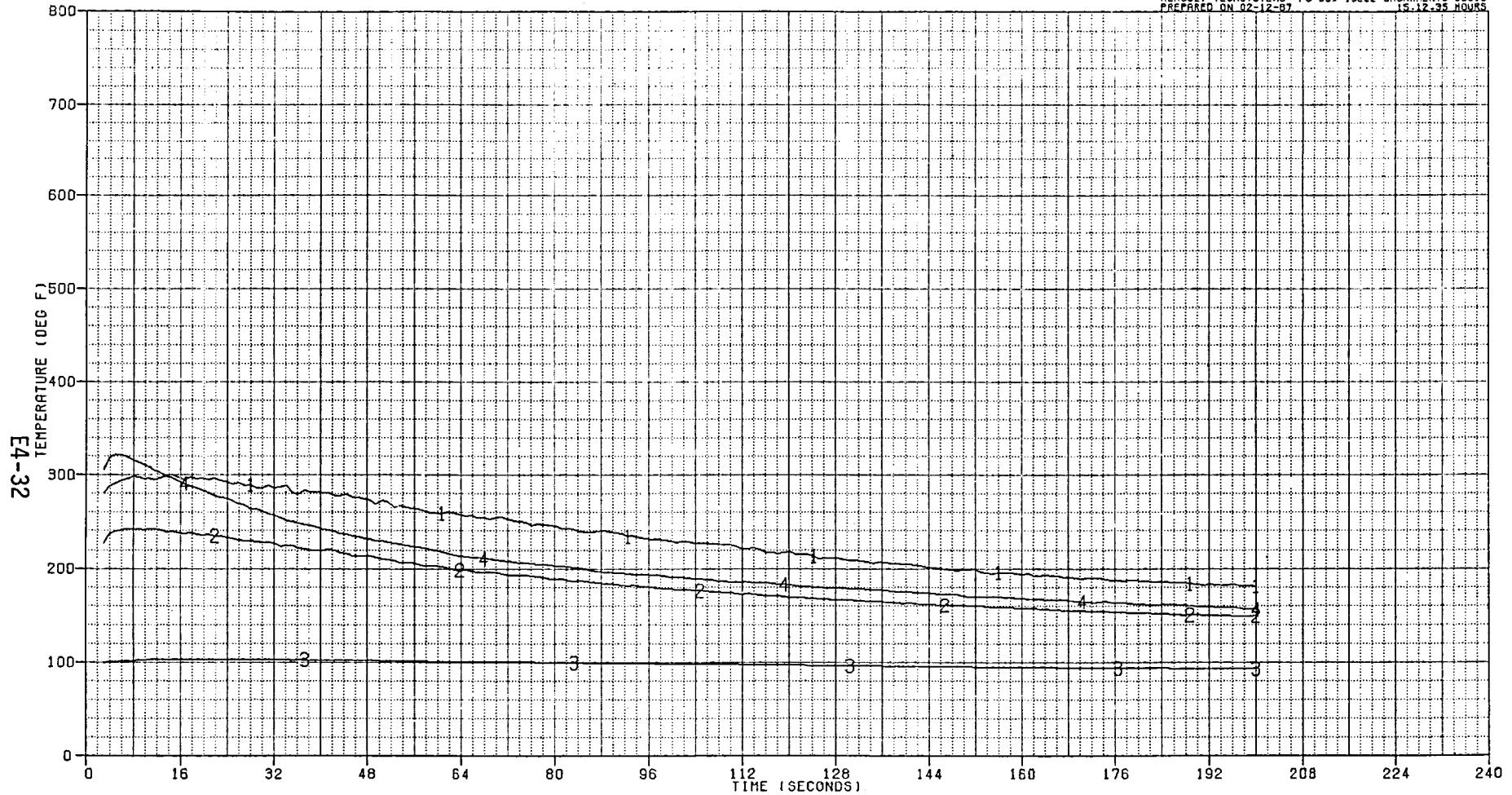


18-31

- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ            FT/SEC
- 5 CSTRPB         FT/SEC
- 6 CSTAR

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-125  
 TEST DATE 06-09-86 1244 HOURS



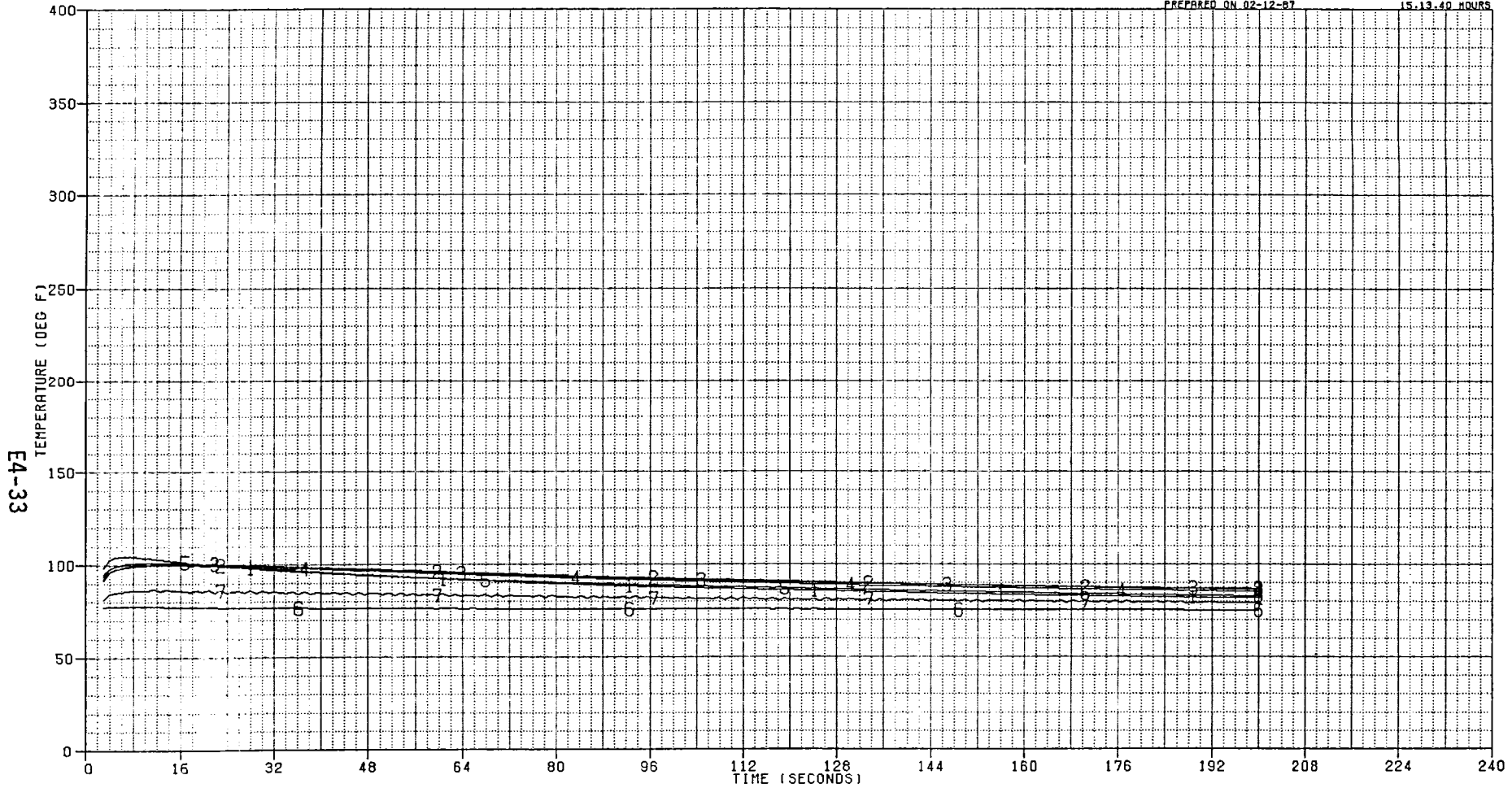


E4-32

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-125  
BARREL DATA  
TEST DATE 06-09-86 1244 HOURS



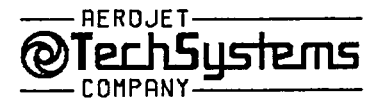


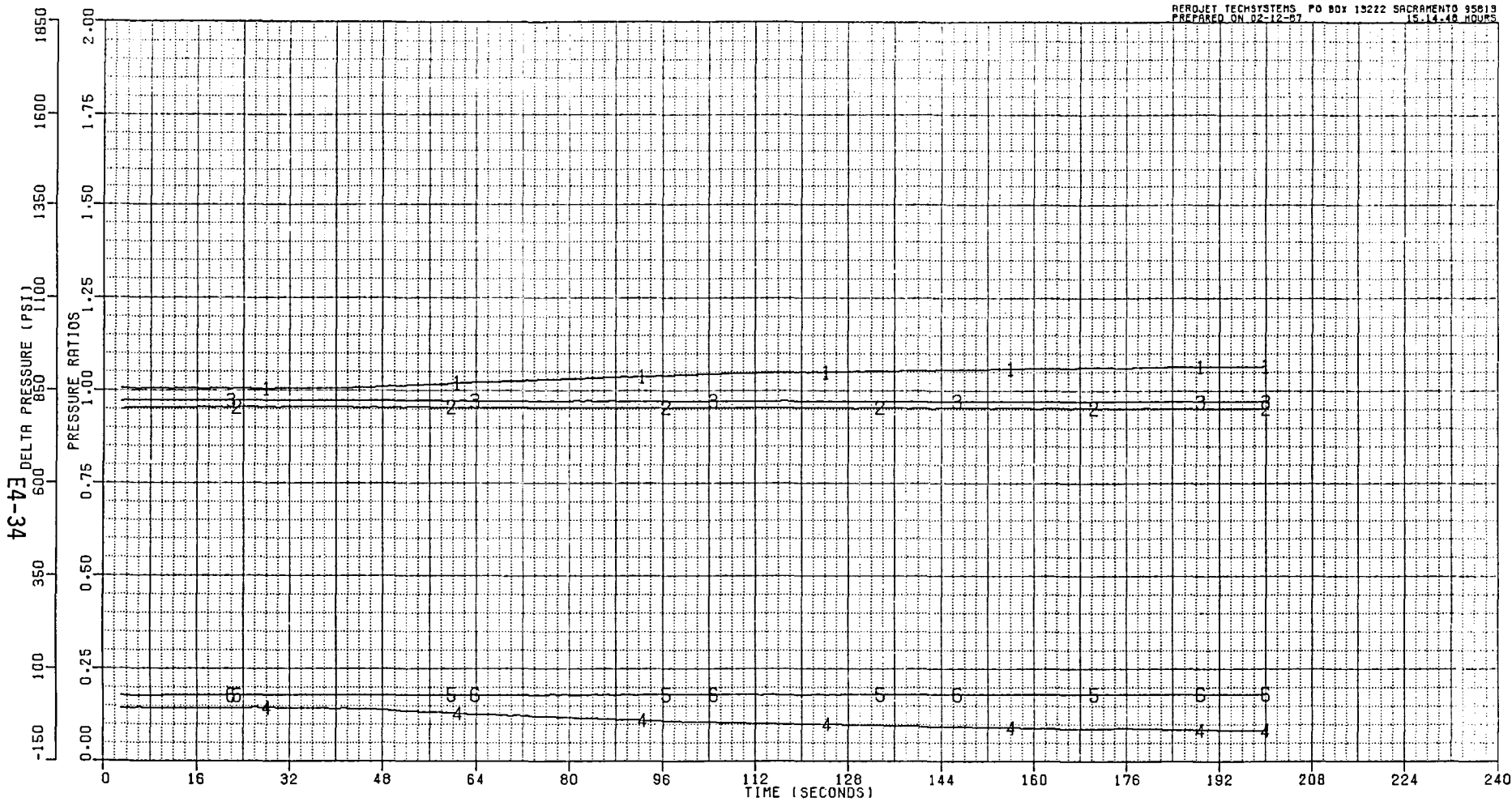
E4-33

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-125

TEST DATE 06-09-86 1244 HOURS





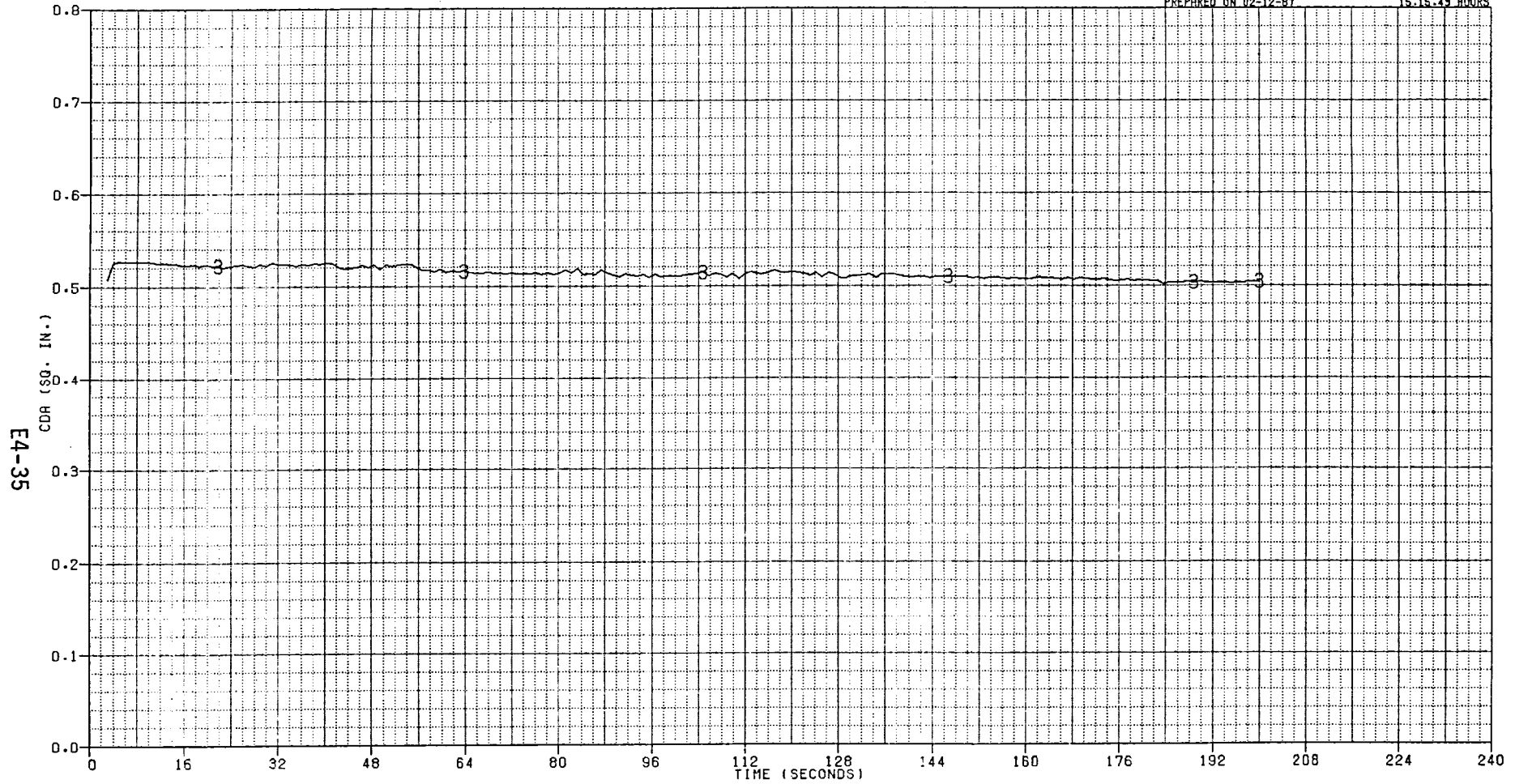
AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95819  
 PREPARED ON 02-12-87 15.14.48 HOURS

- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTS CORR     PSI
- 4 DPTR            PSI
- 5 DPTS-C         PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-125  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 06-09-86 1244 HOURS







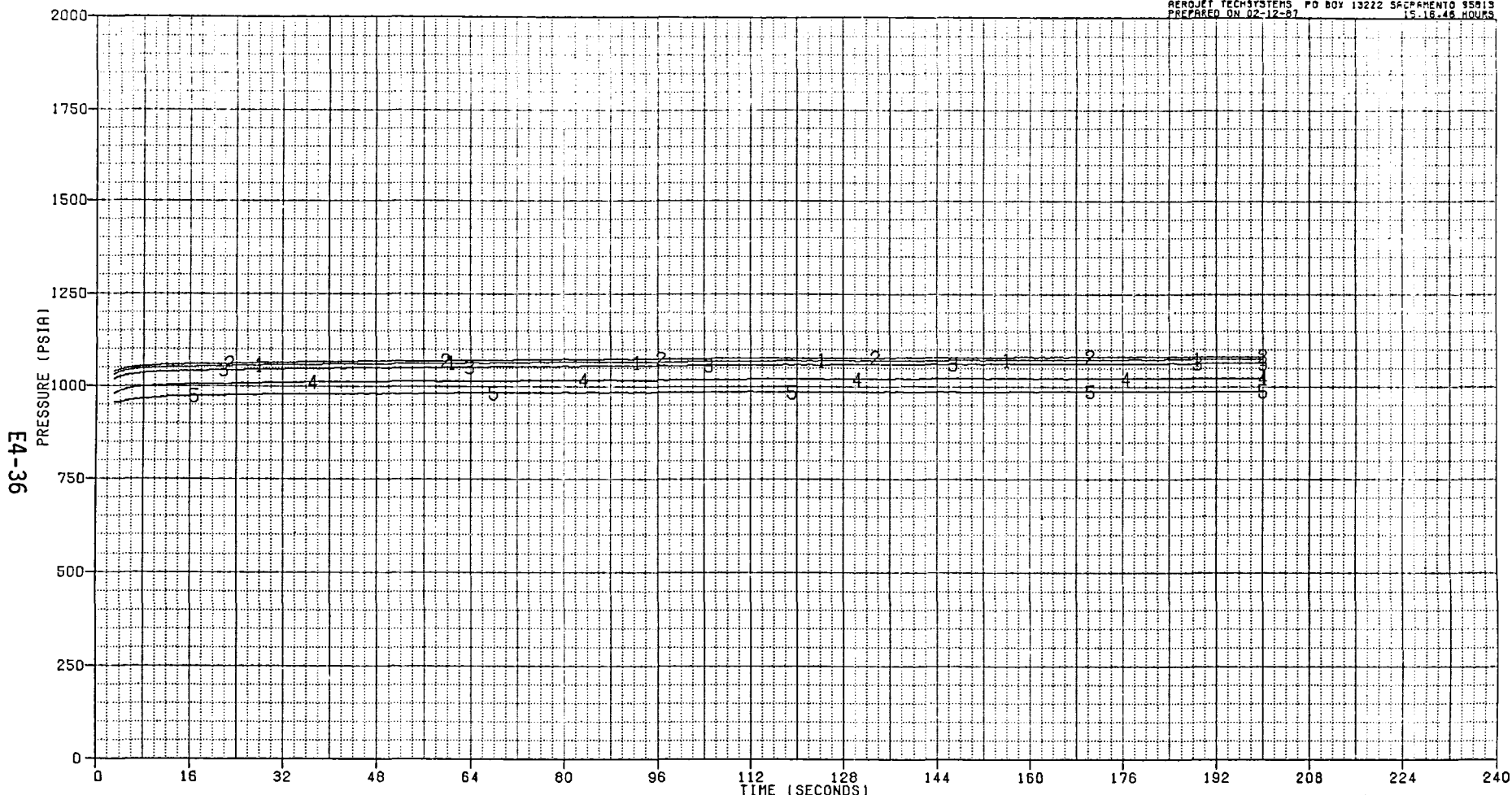
E4-35

- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-125  
NOZZLE AREA CHANGE  
TEST DATE 05-09-86 1244 HOURS





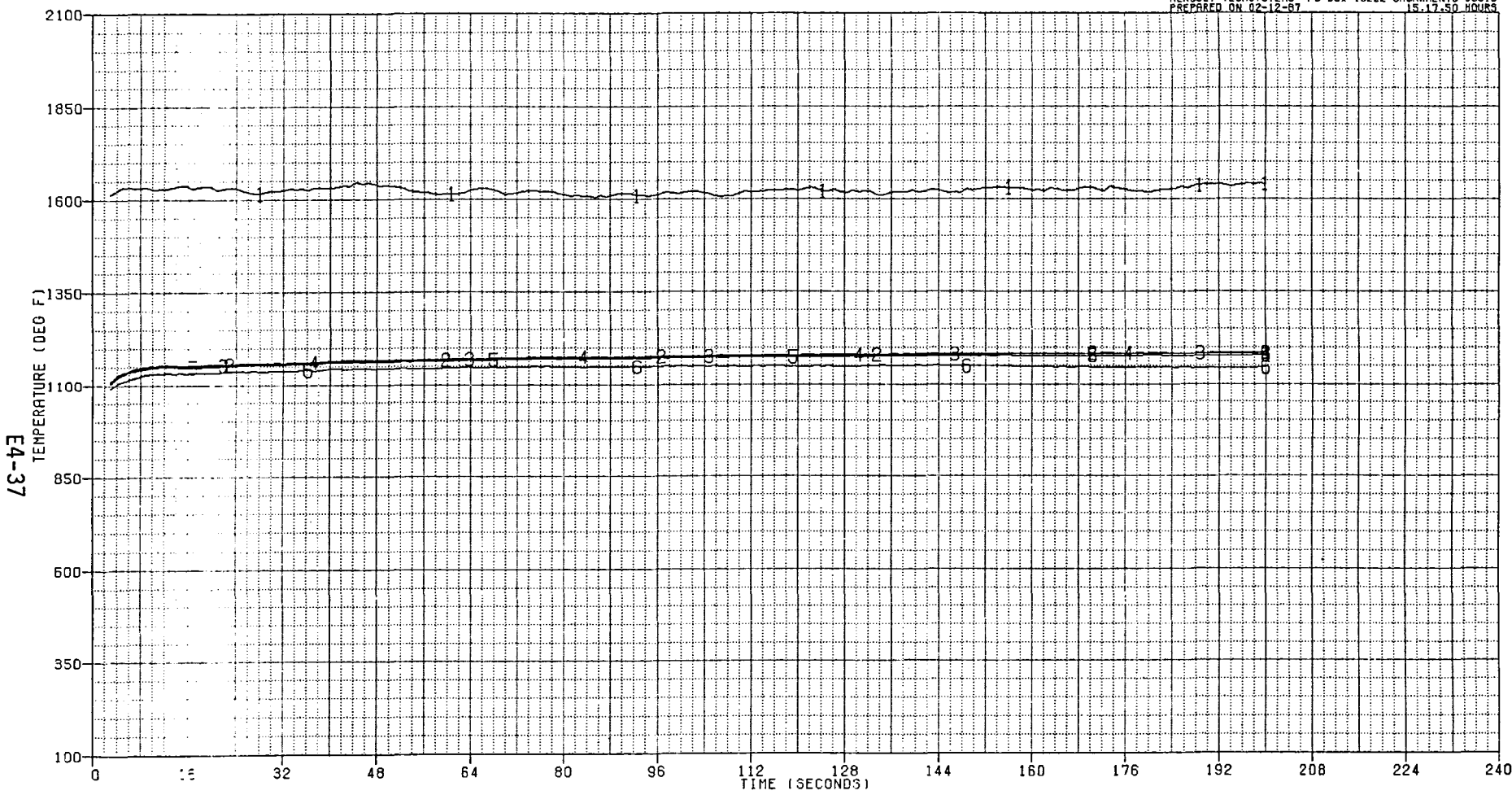


E4-36

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-125  
PRESSURE MEASUREMENTS  
TEST DATE 06-09-86 1244 HOURS

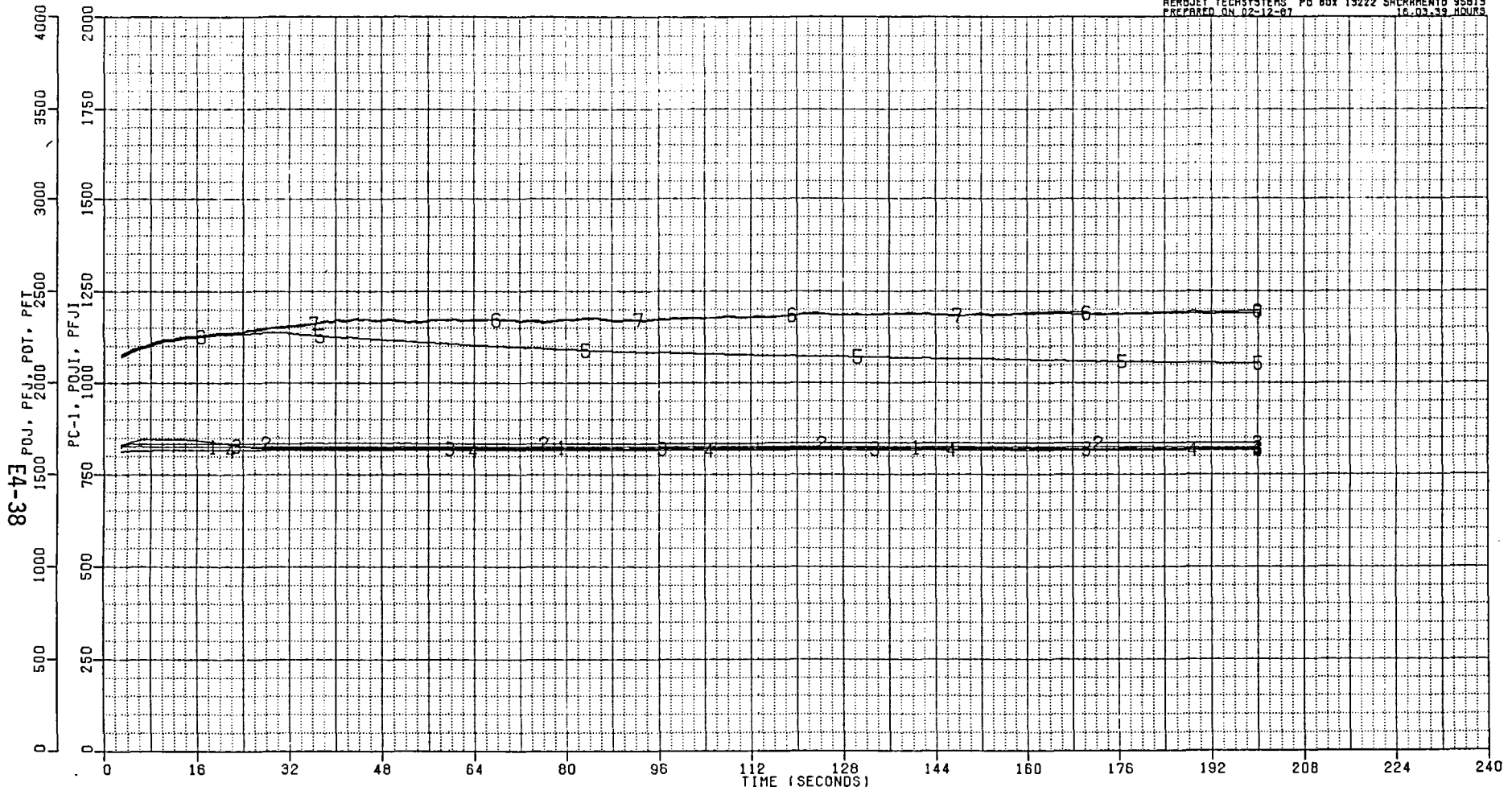




- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
 TEST NO. 2427-229-A6-125  
 PRESSURE MEASUREMENTS  
 TEST DATE 06-09-86 1244 HOURS





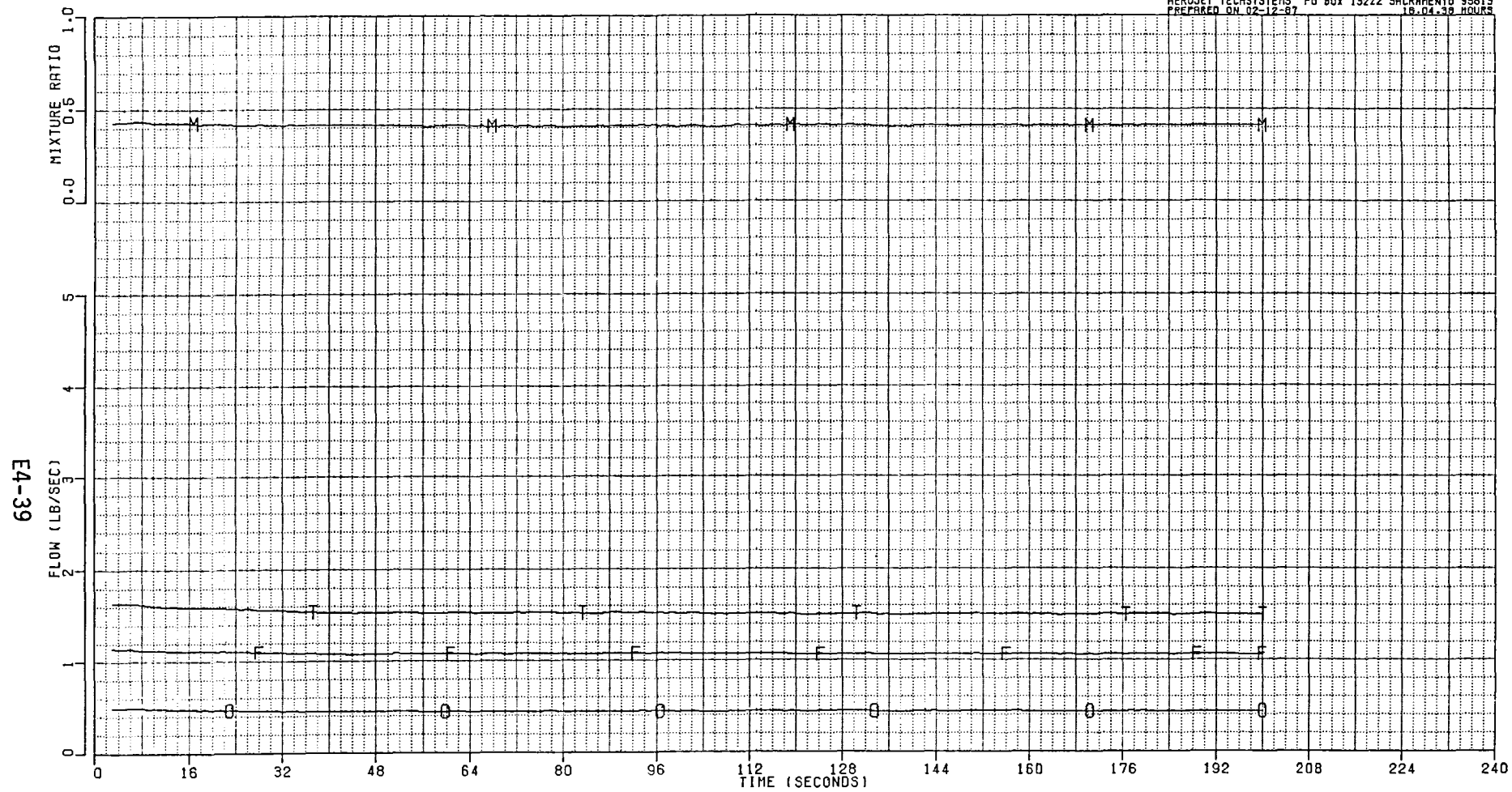
E4-38

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-126

TEST DATE 06-10-86 1014 HOURS



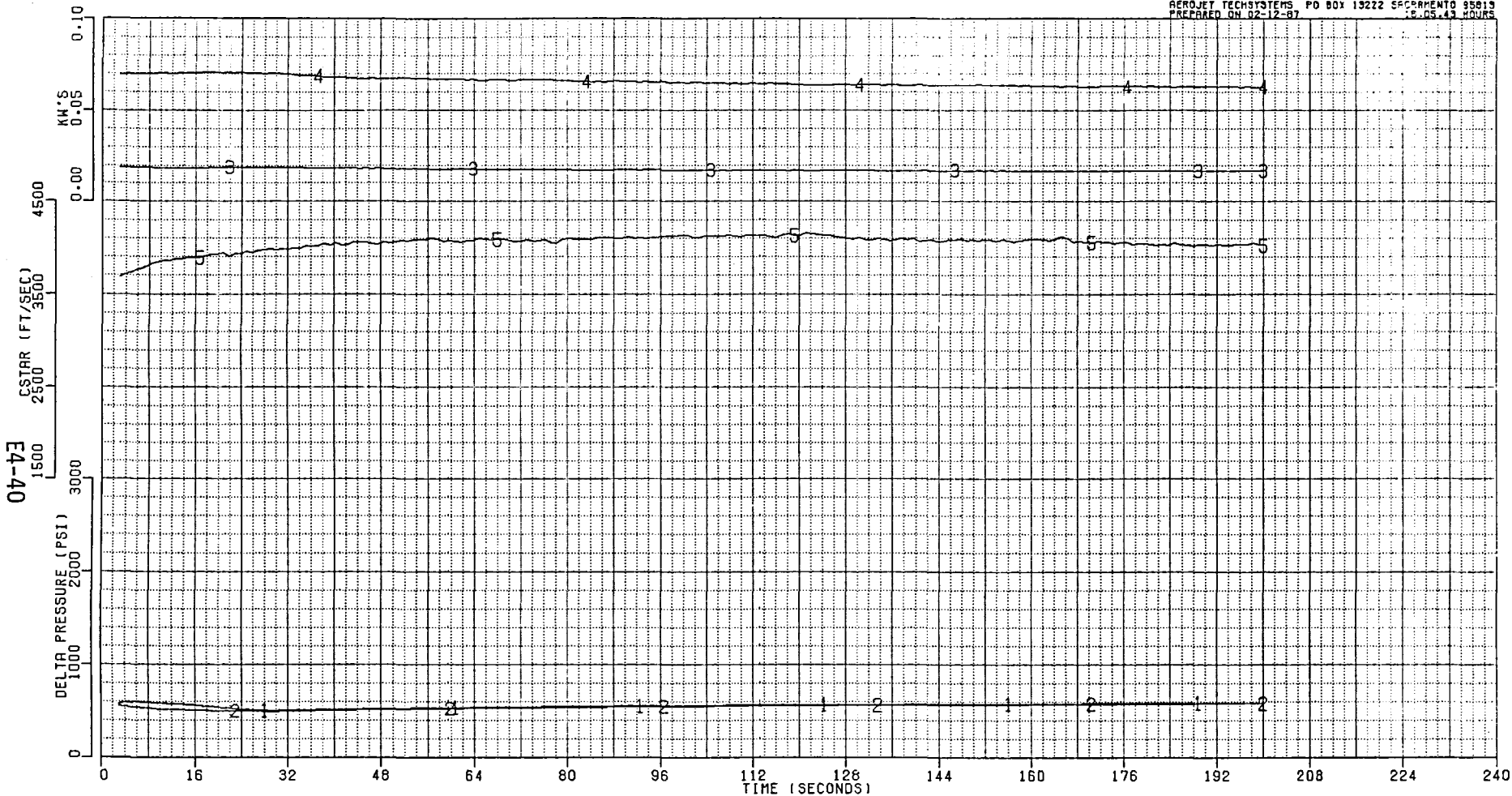


E4-39

F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-126  
TEST DATE 06-10-86 1014 HOURS



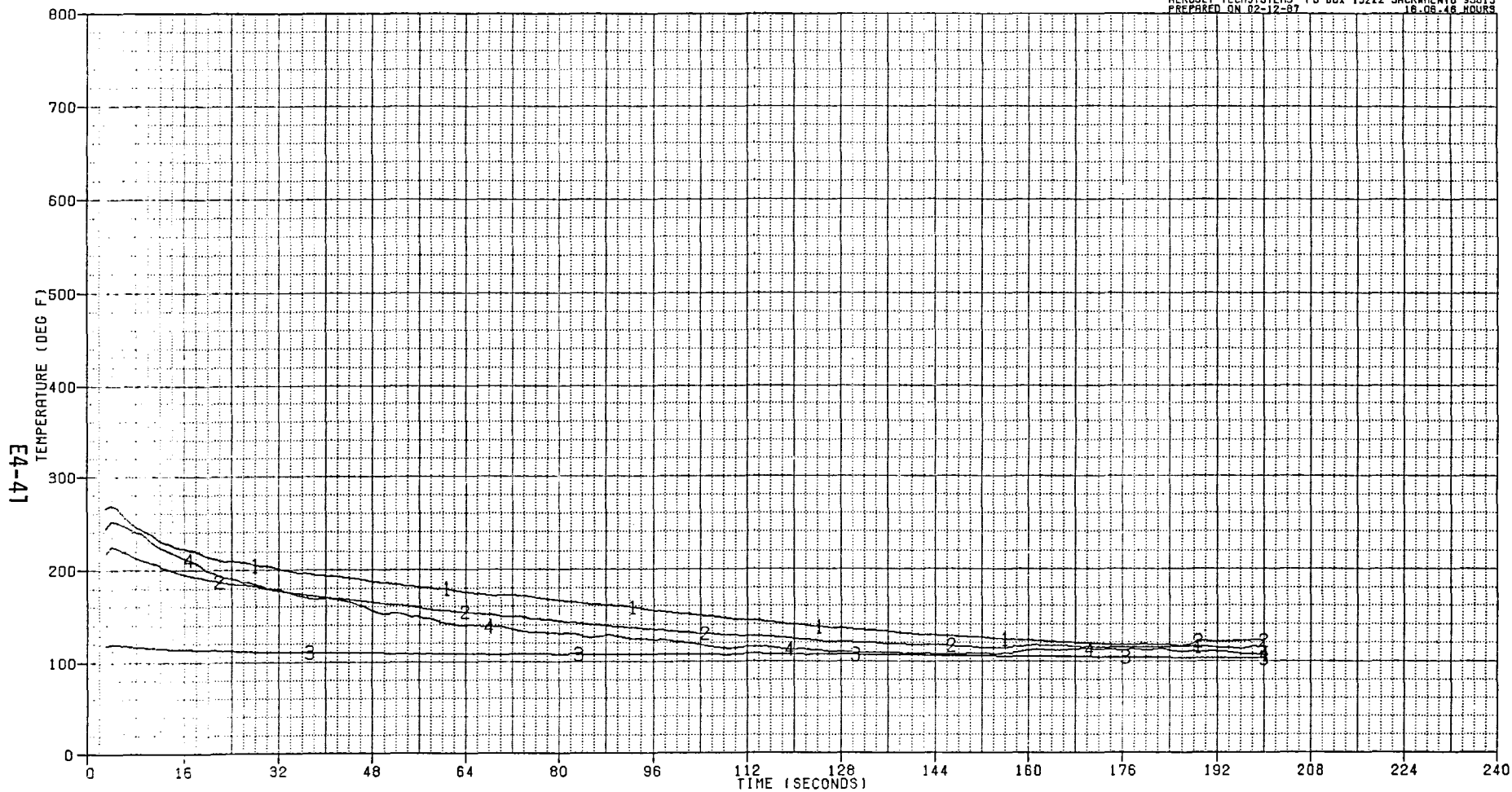


- 1 DPQJ      PSI
- 2 DPFJ      PSI
- 3 KWQJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-229-A6-126

TEST DATE 06-10-86 1014 HOURS



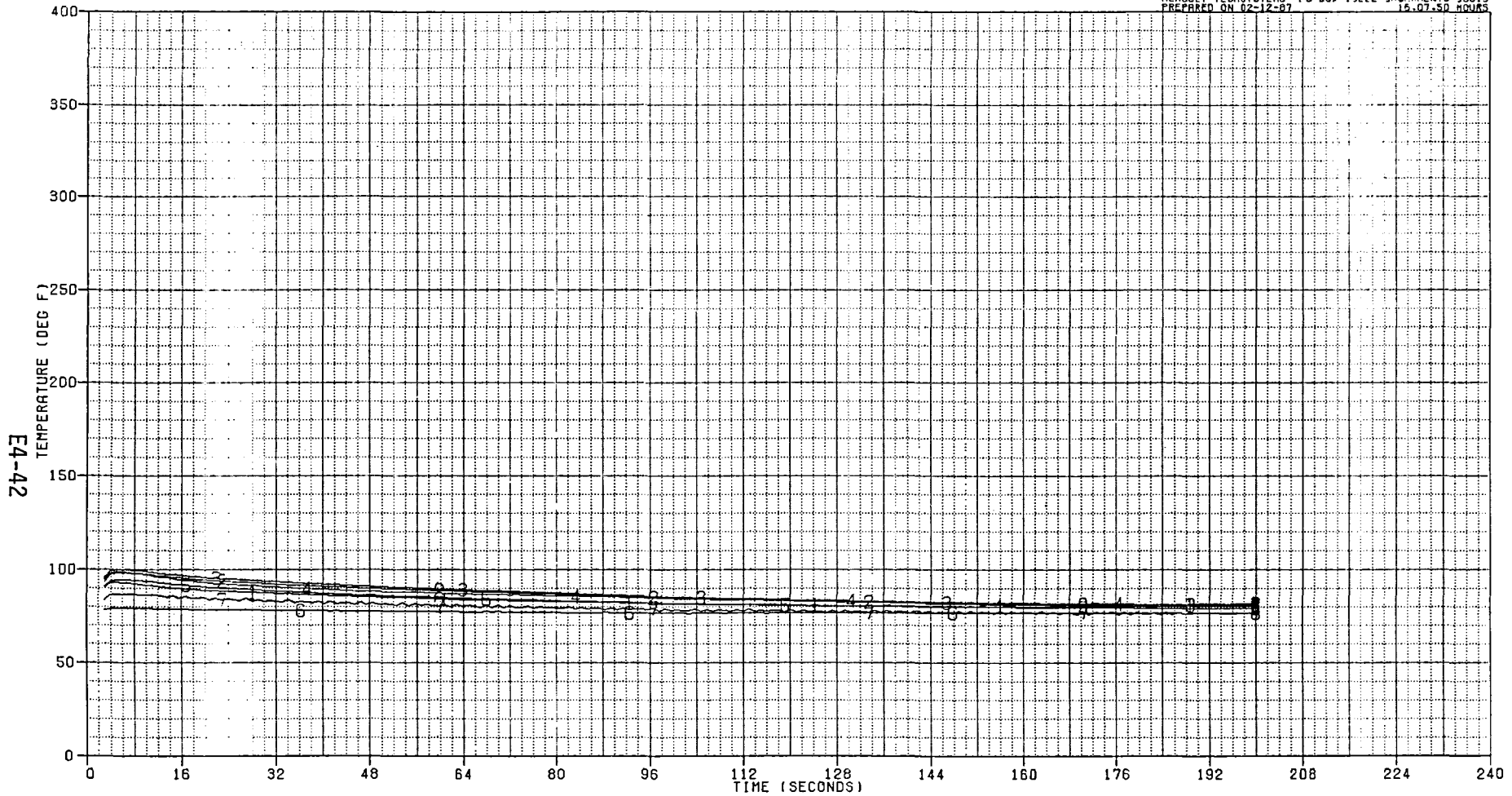


E4-41

- 1 TC-7      DEG F
- 2 TC-10    DEG F
- 3 TC-11    DEG F
- 4 TC-12    DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-126  
BARREL DATA  
TEST DATE 06-10-86 1014 HOURS





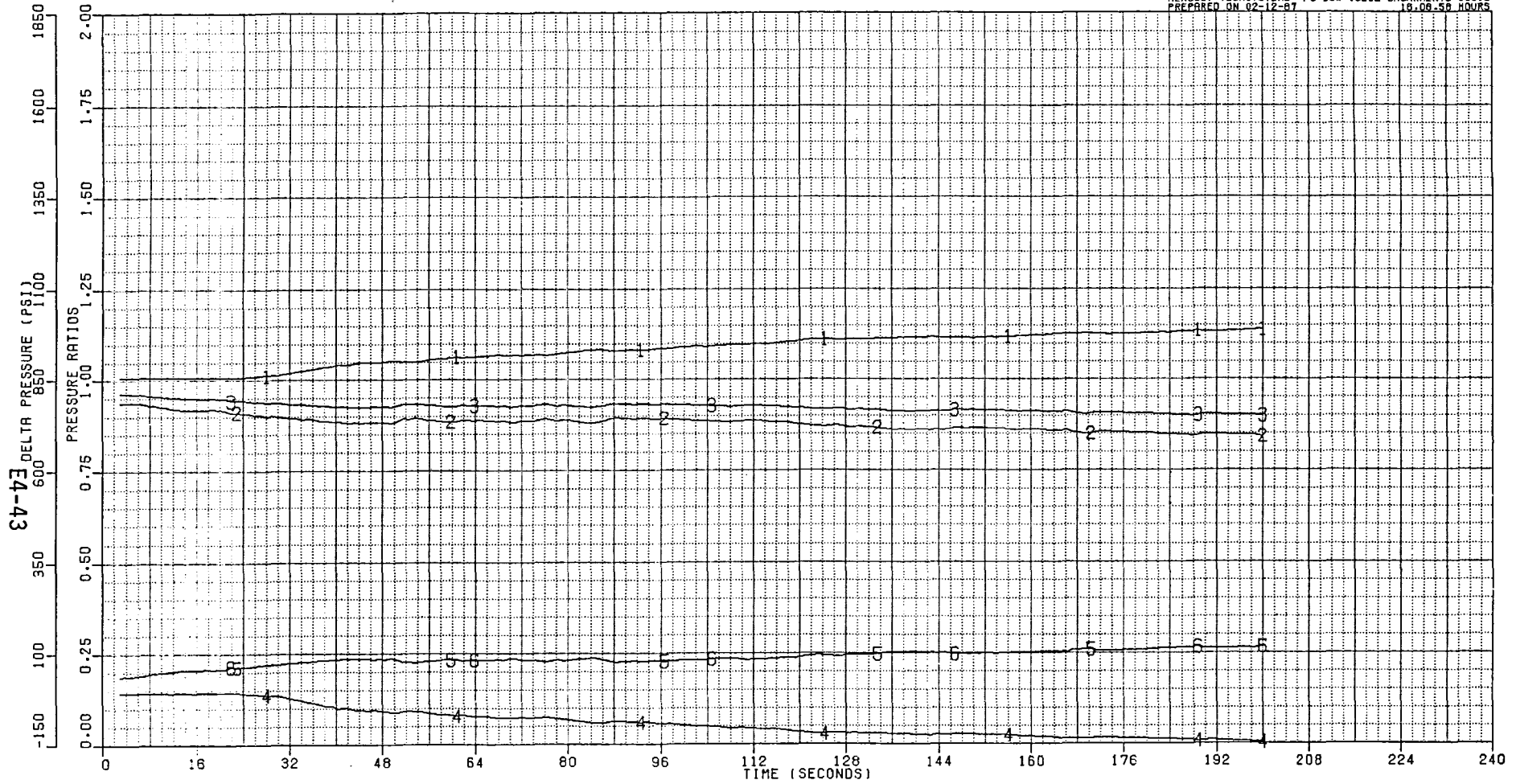
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-126

TEST DATE 06-10-86 1014 HOURS





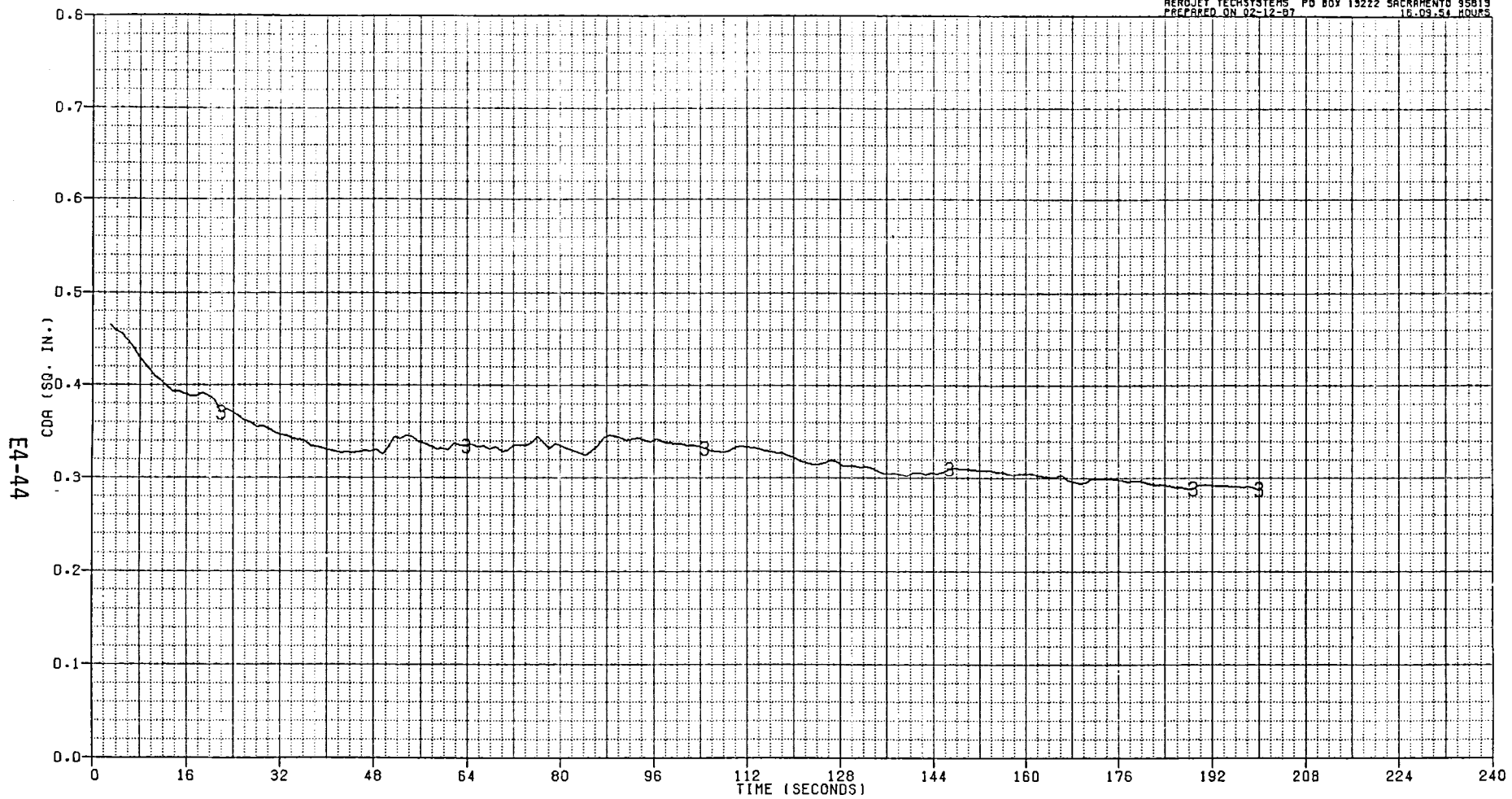


- 1 PRTR
- 2 PRTS
- 3 PRTS COFF
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-126  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 06-10-86 1014 HOURS





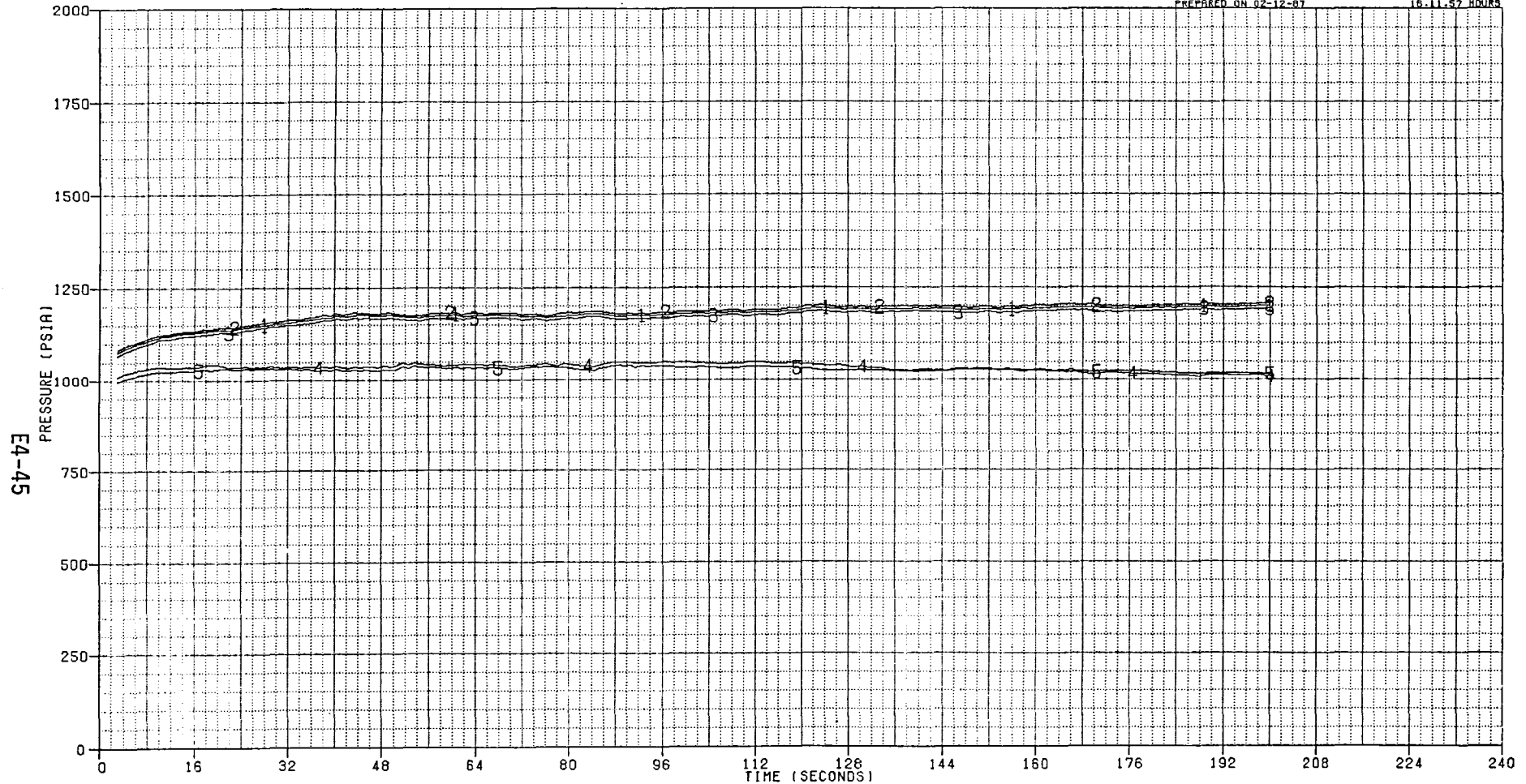


E4-44

- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-126  
NOZZLE AREA CHANGE  
TEST DATE 06-10-86 1014 HOURS



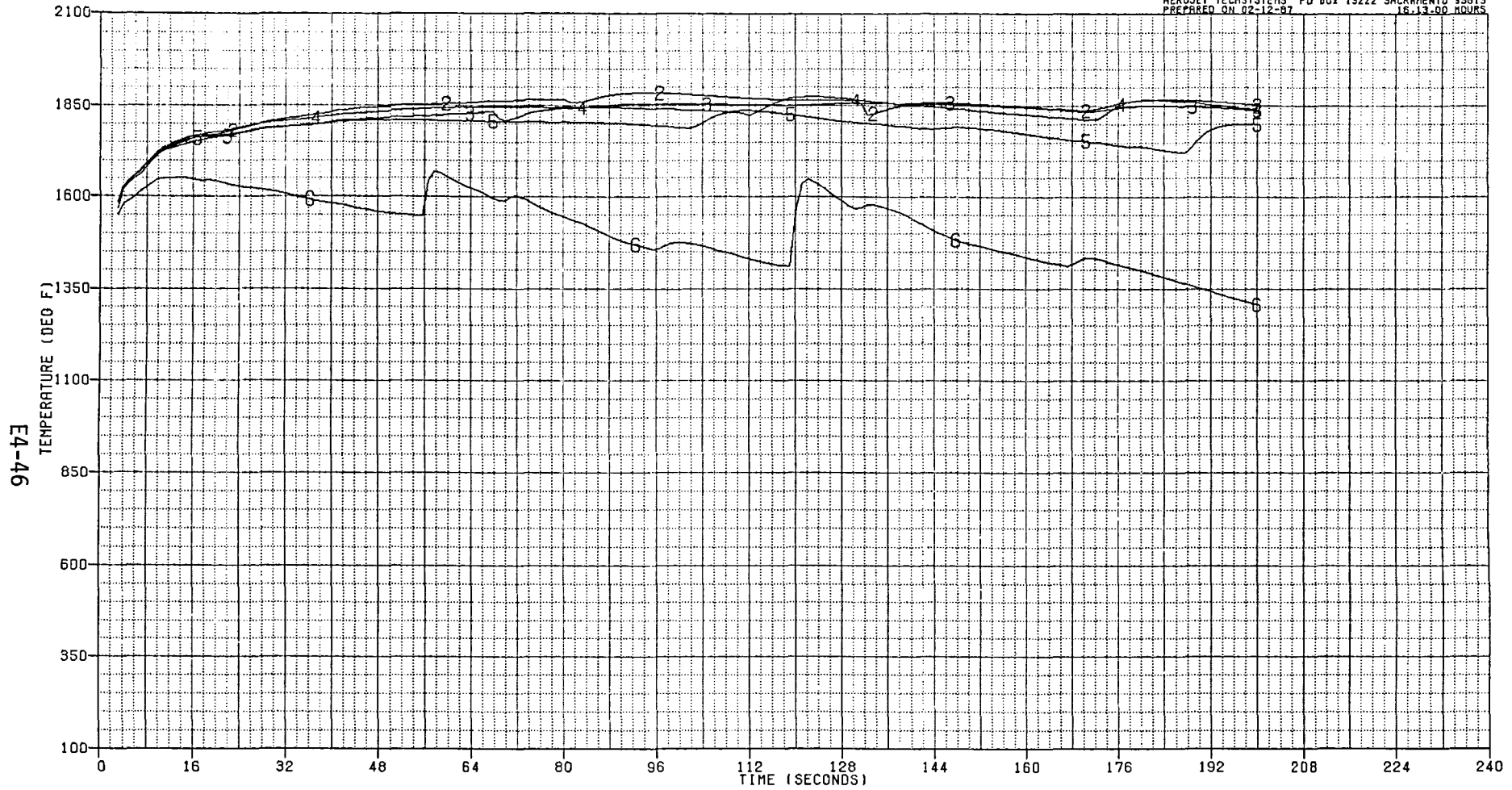


E4-45

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCT50 PSIA
- 5 PCT50-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-126  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1014 HOURS



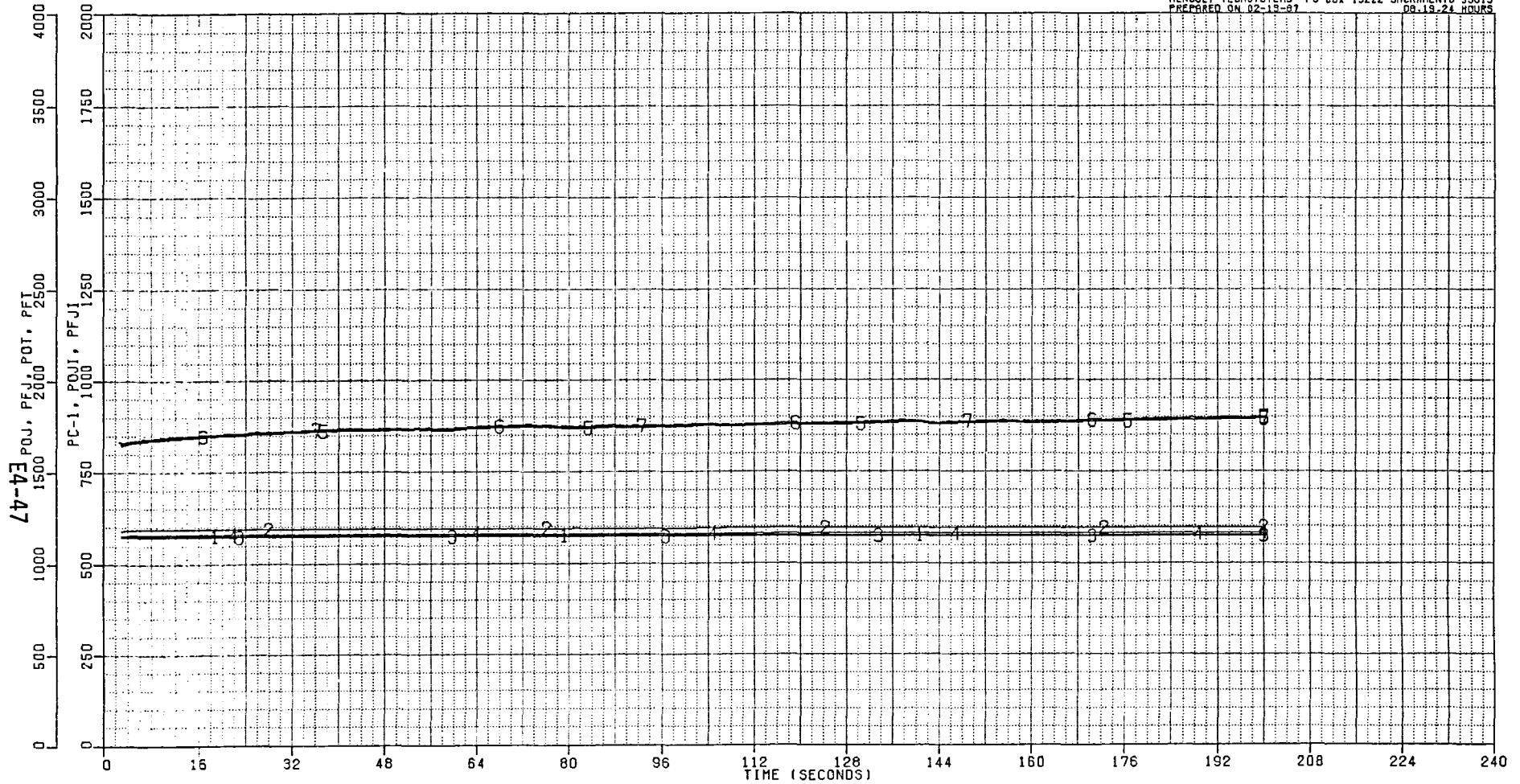


E4-46

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-126  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1014 HOURS



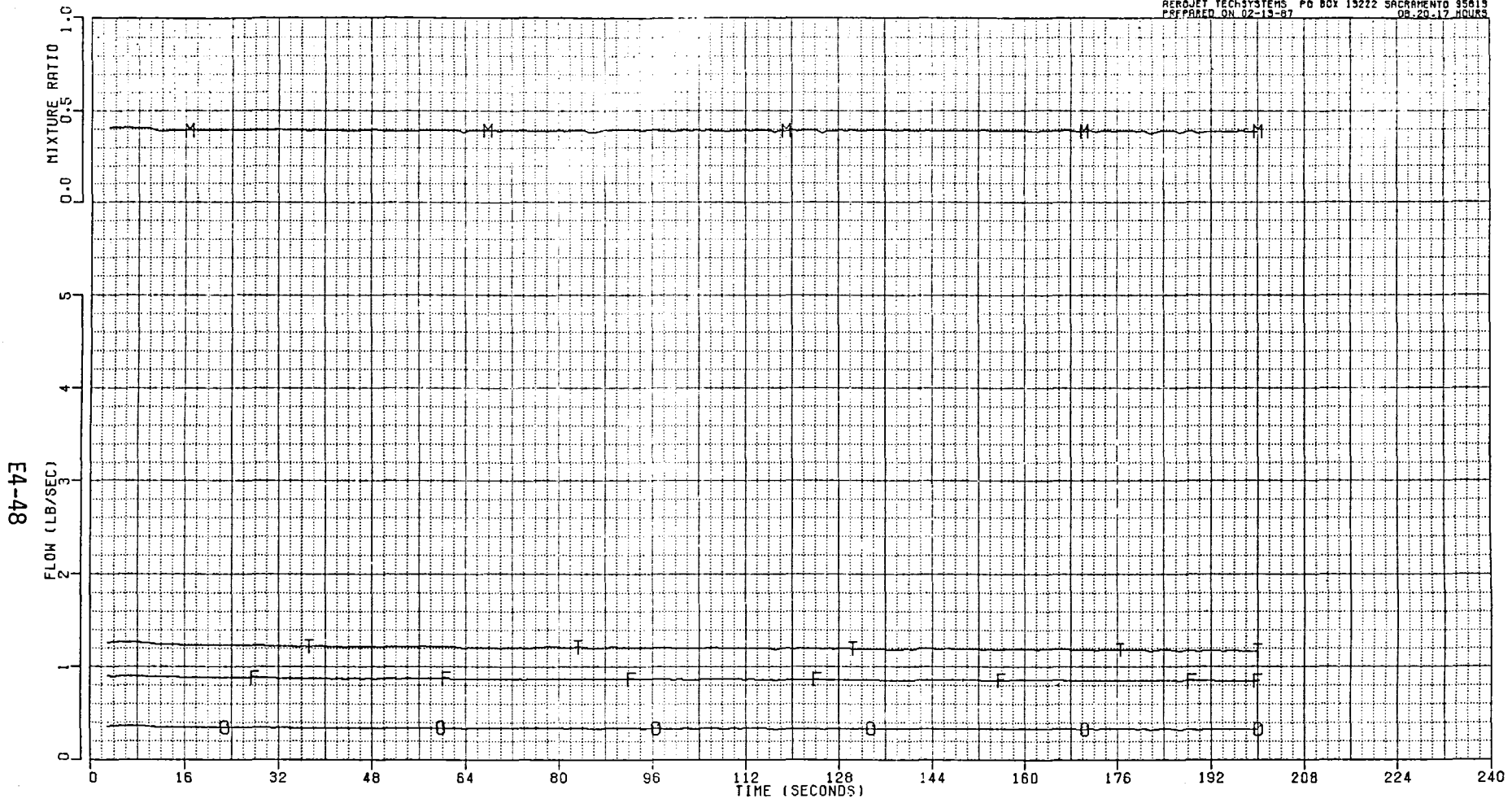


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-128

TEST DATE 06-10-86 1131 HOURS



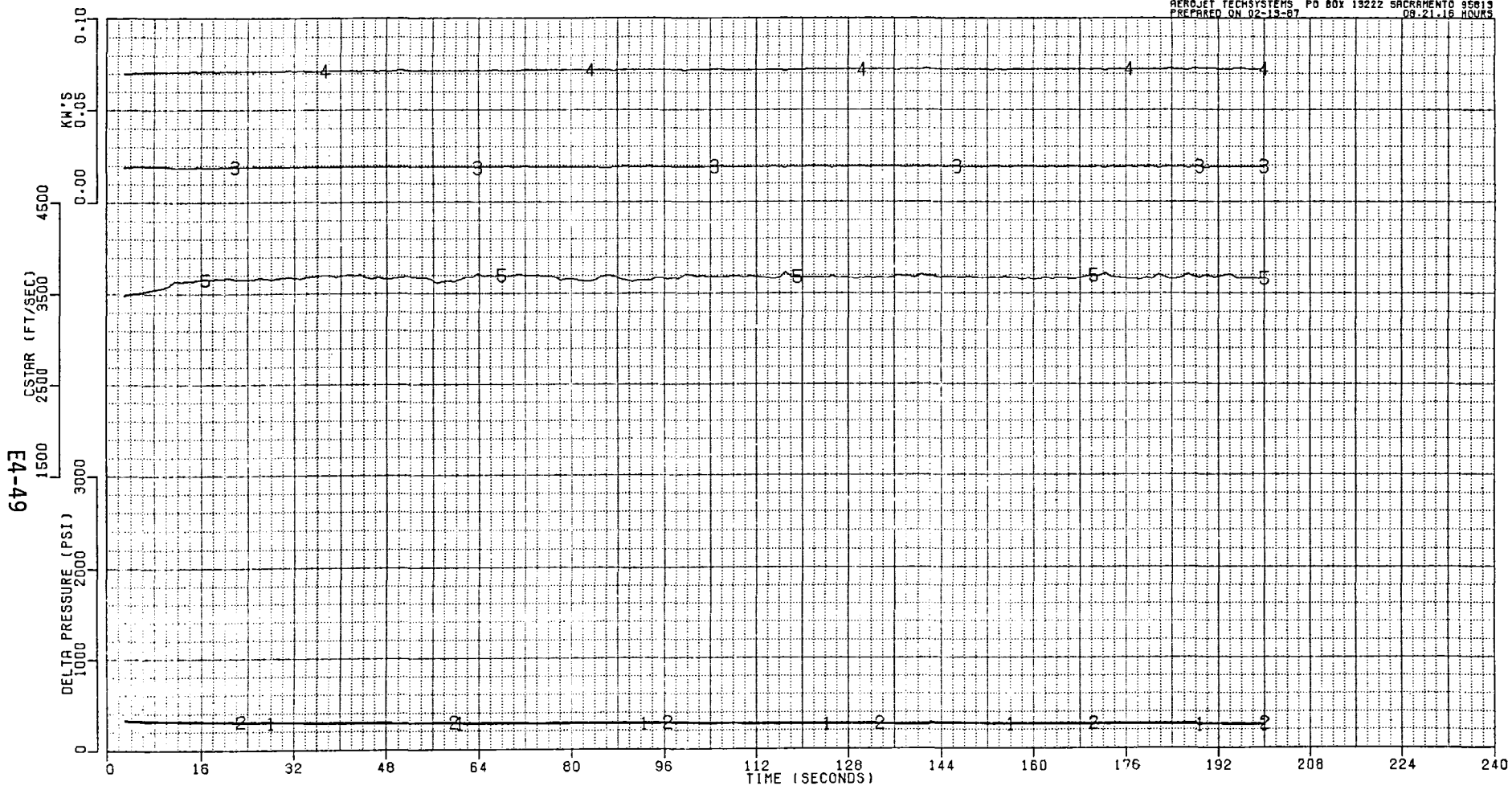


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-128

TEST DATE 06-10-86 1131 HOURS



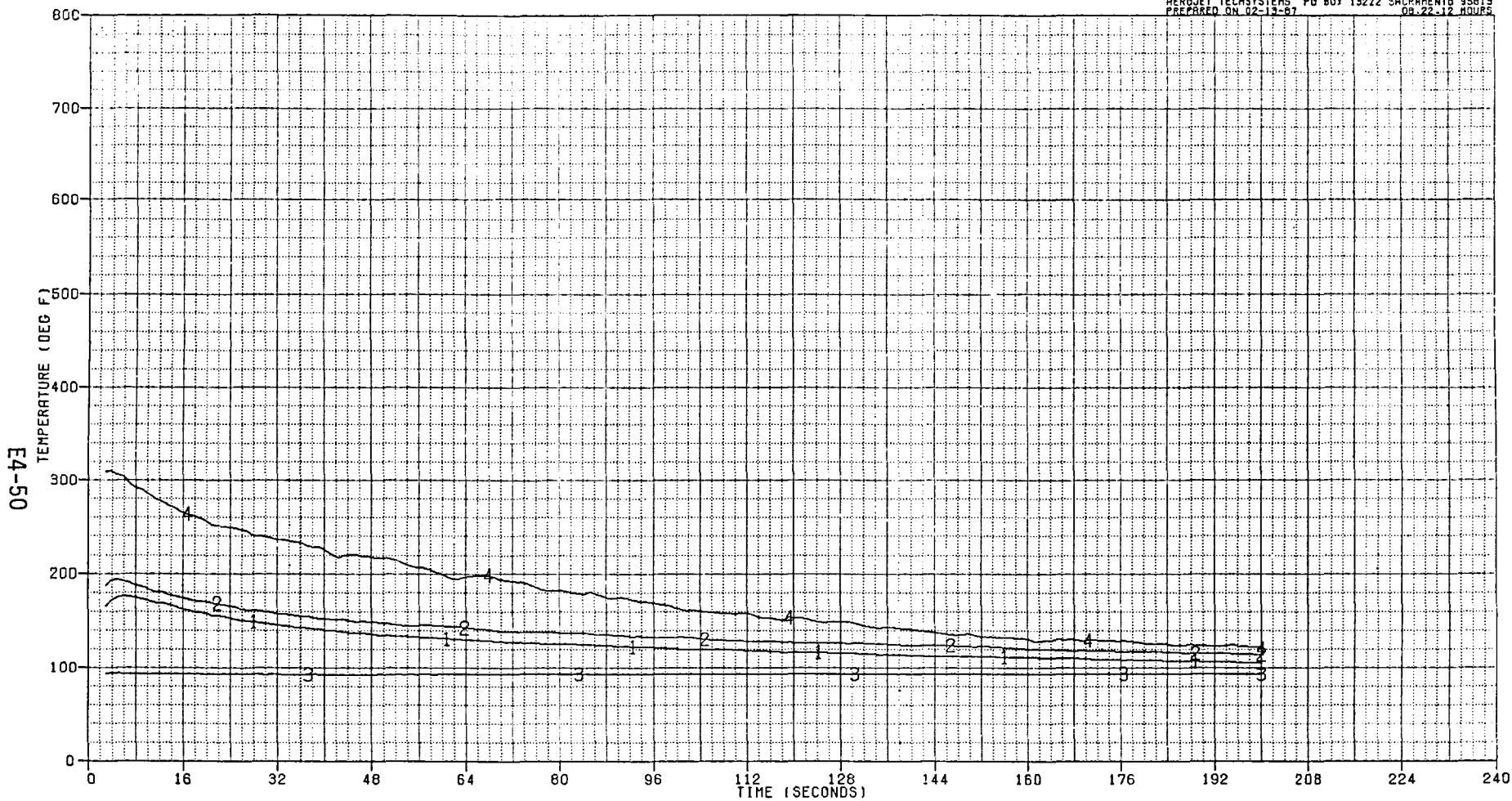


E4-49

- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ PSI
- 4 K2FC FT/SEC
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-128  
 TEST DATE 06-10-86 1131 HOURS



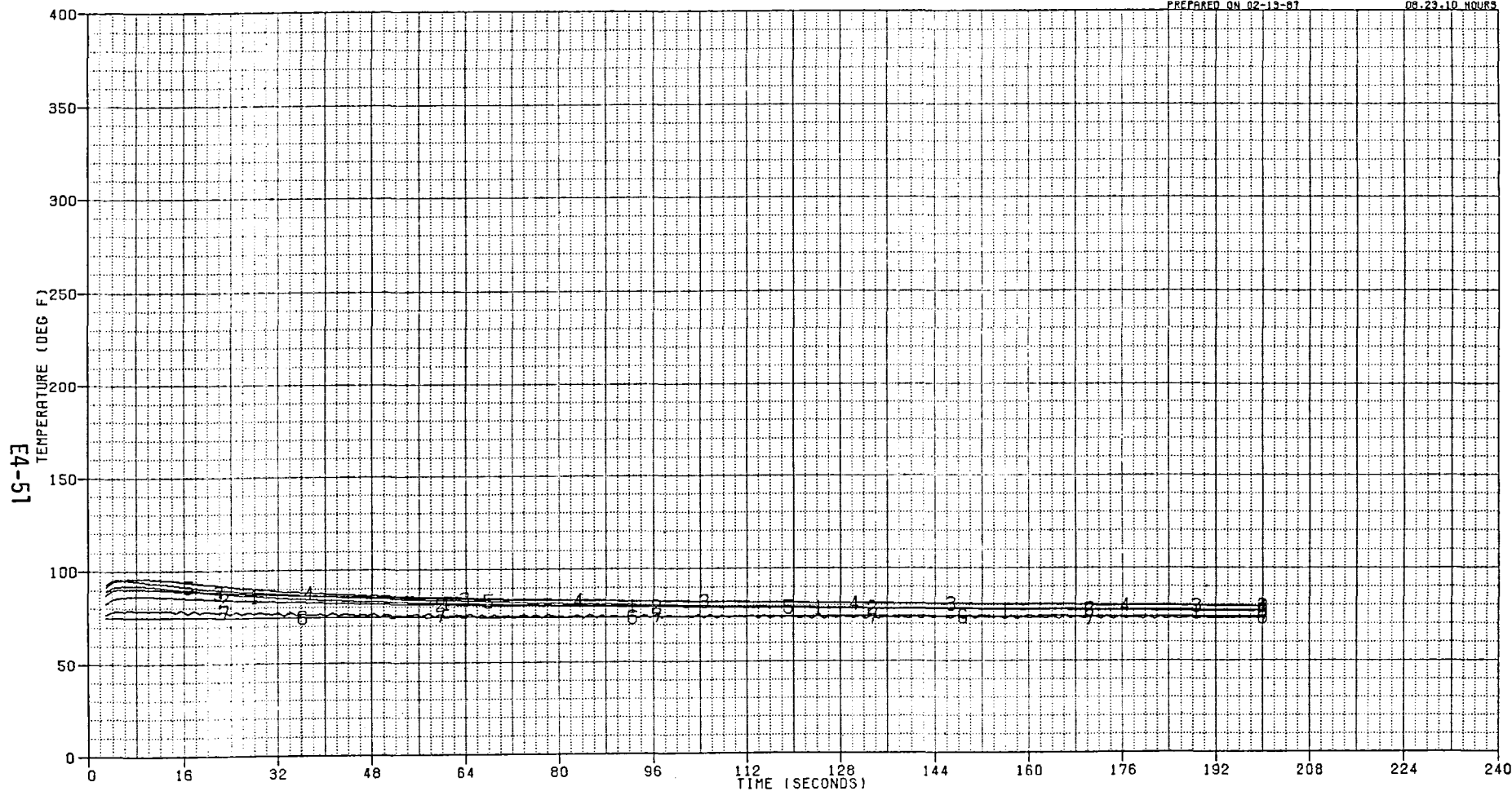


E4-50

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-128  
BARREL DATA  
TEST DATE 06-10-86 1131 HOURS



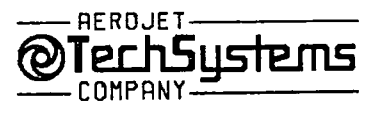


EA-51

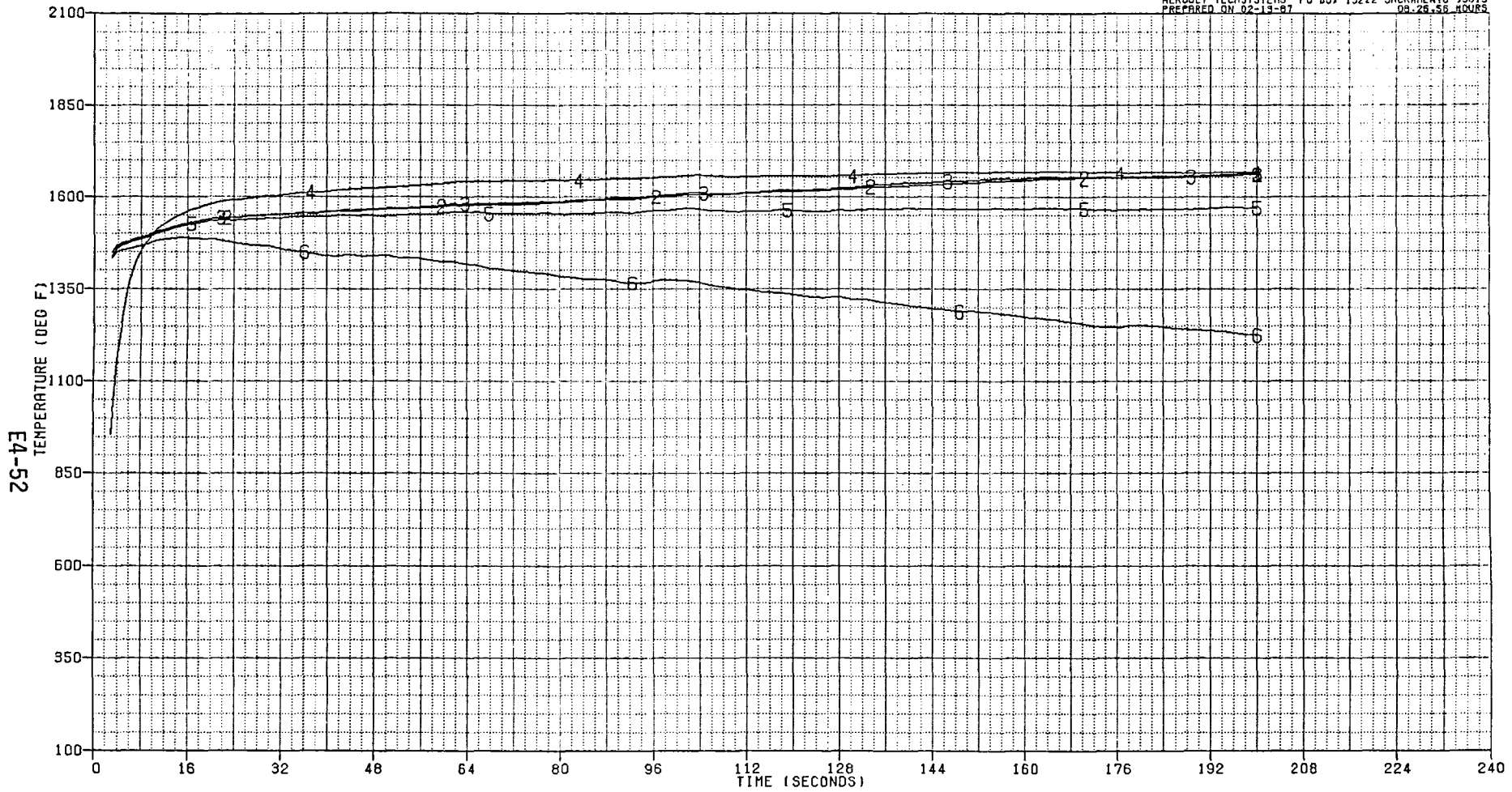
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-128

TEST DATE 06-10-86 1131 HOURS





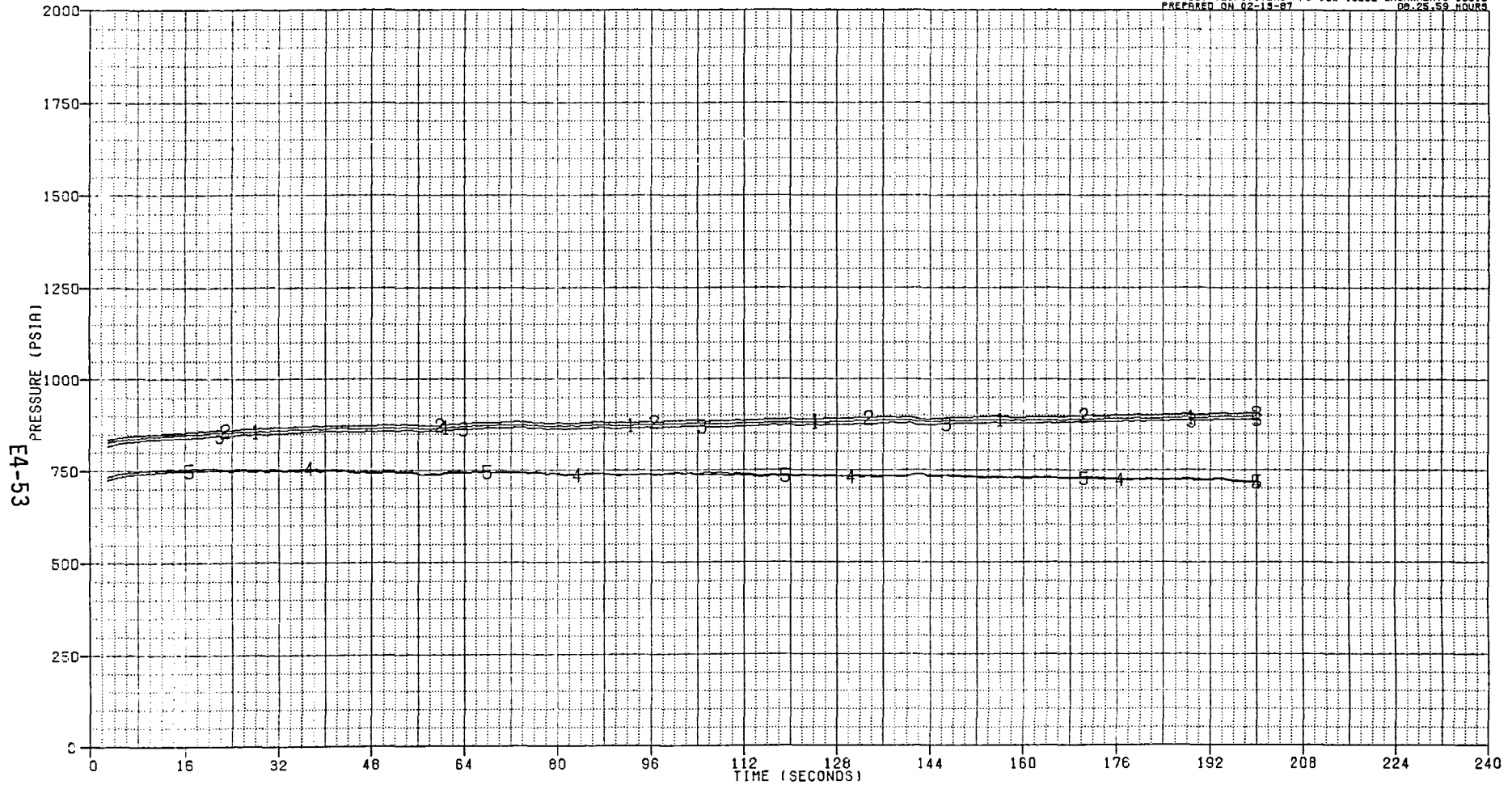


E4-52

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-128  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1131 HOURS

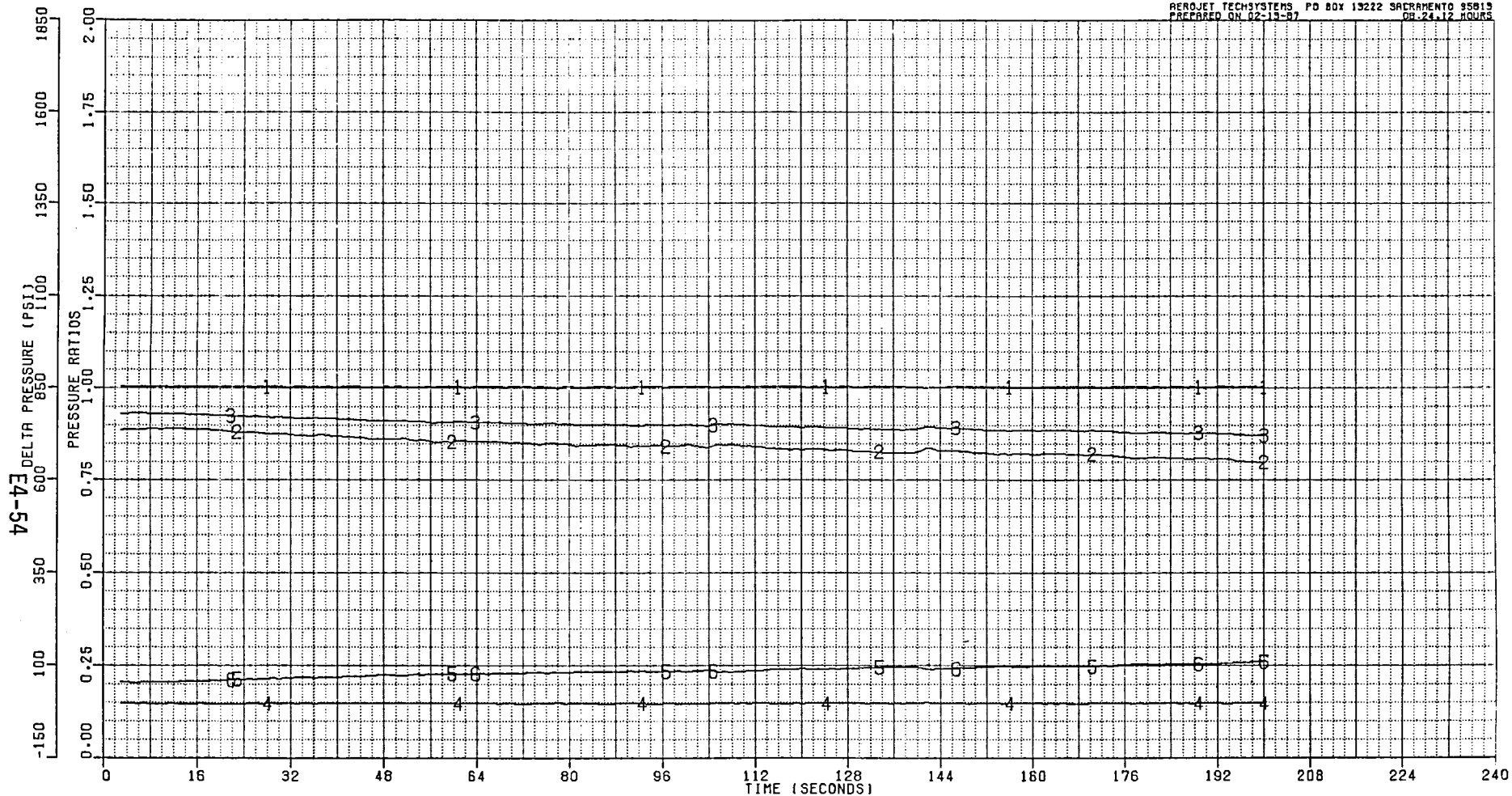




- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-128  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1131 HOURS

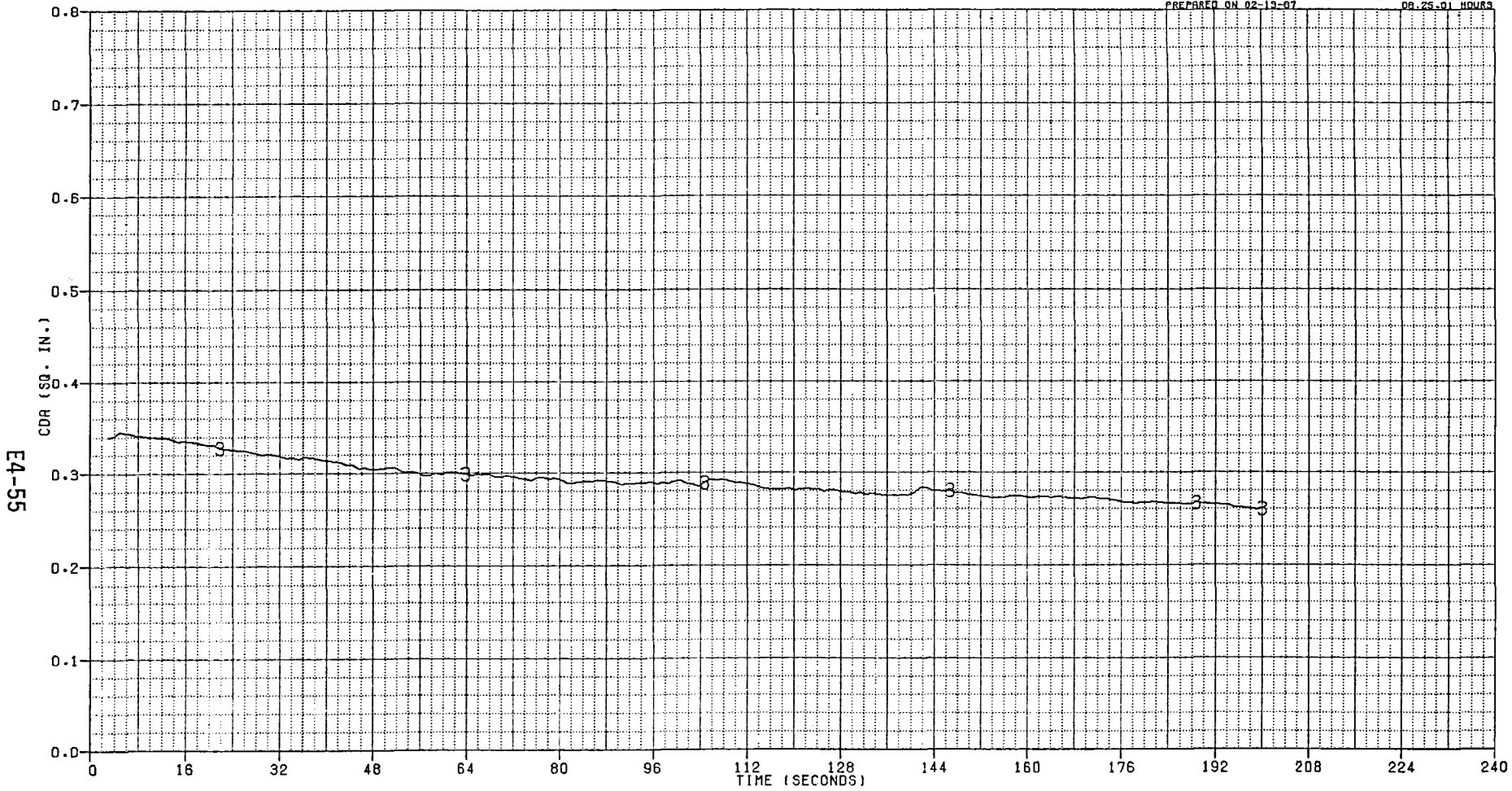




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR        PSI
- 5 DPTS-C     PSI
- 6 DPTS        PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-128  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 06-10-86 1131 HOURS



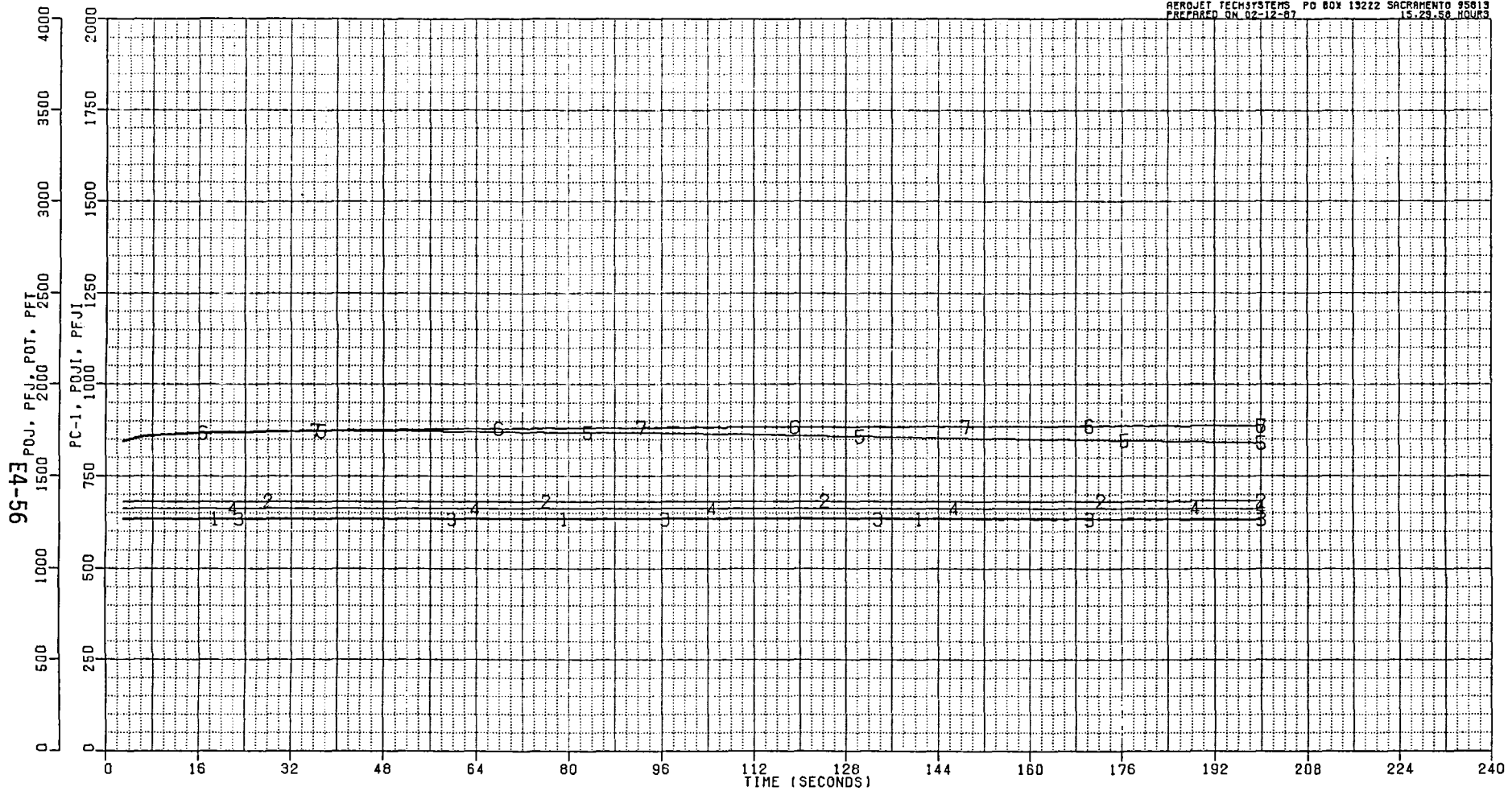


E4-55

- 1 NR1 SQ. IN.
- 2 NR2 SQ. IN.
- 3 COA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-128  
NOZZLE AREA CHANGE  
TEST DATE 06-10-86 1131 HOURS





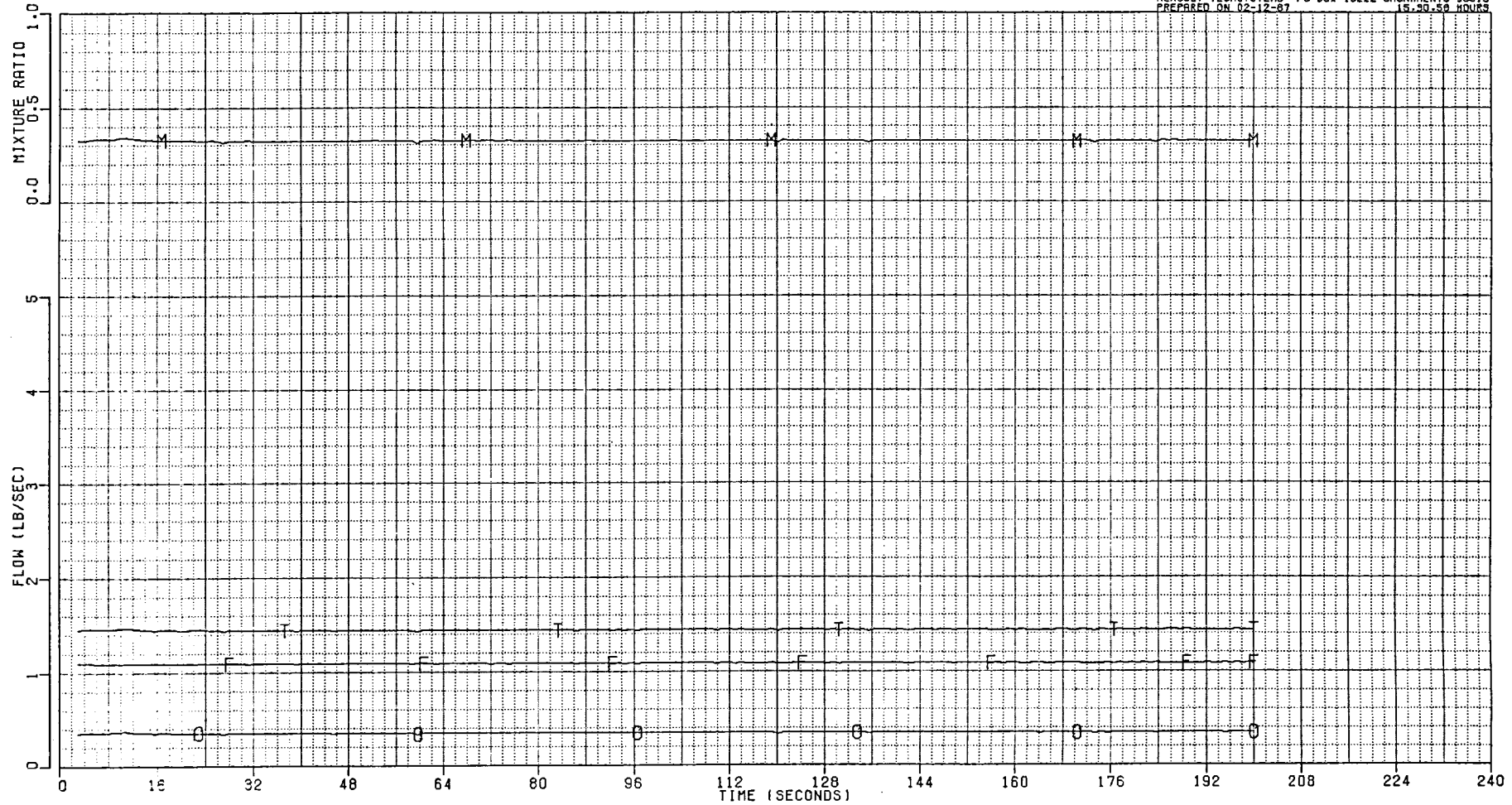
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-129

TEST DATE 06-10-86 1252 HOURS



E4-57

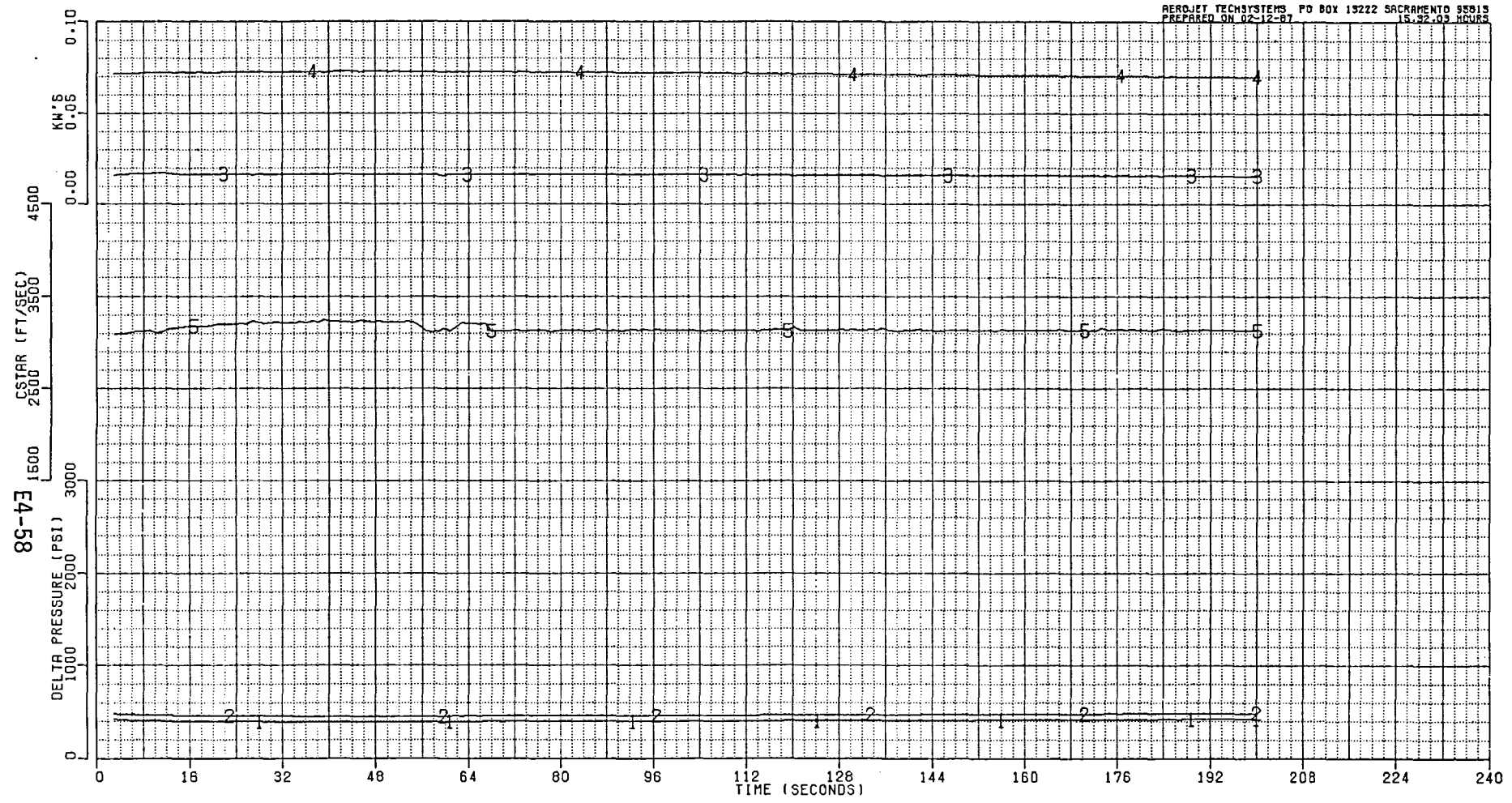


F WF      LB/SEC  
O WOX      LB/SEC  
T WTOT     LB/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-129

TEST DATE 06-10-86 1252 HOURS





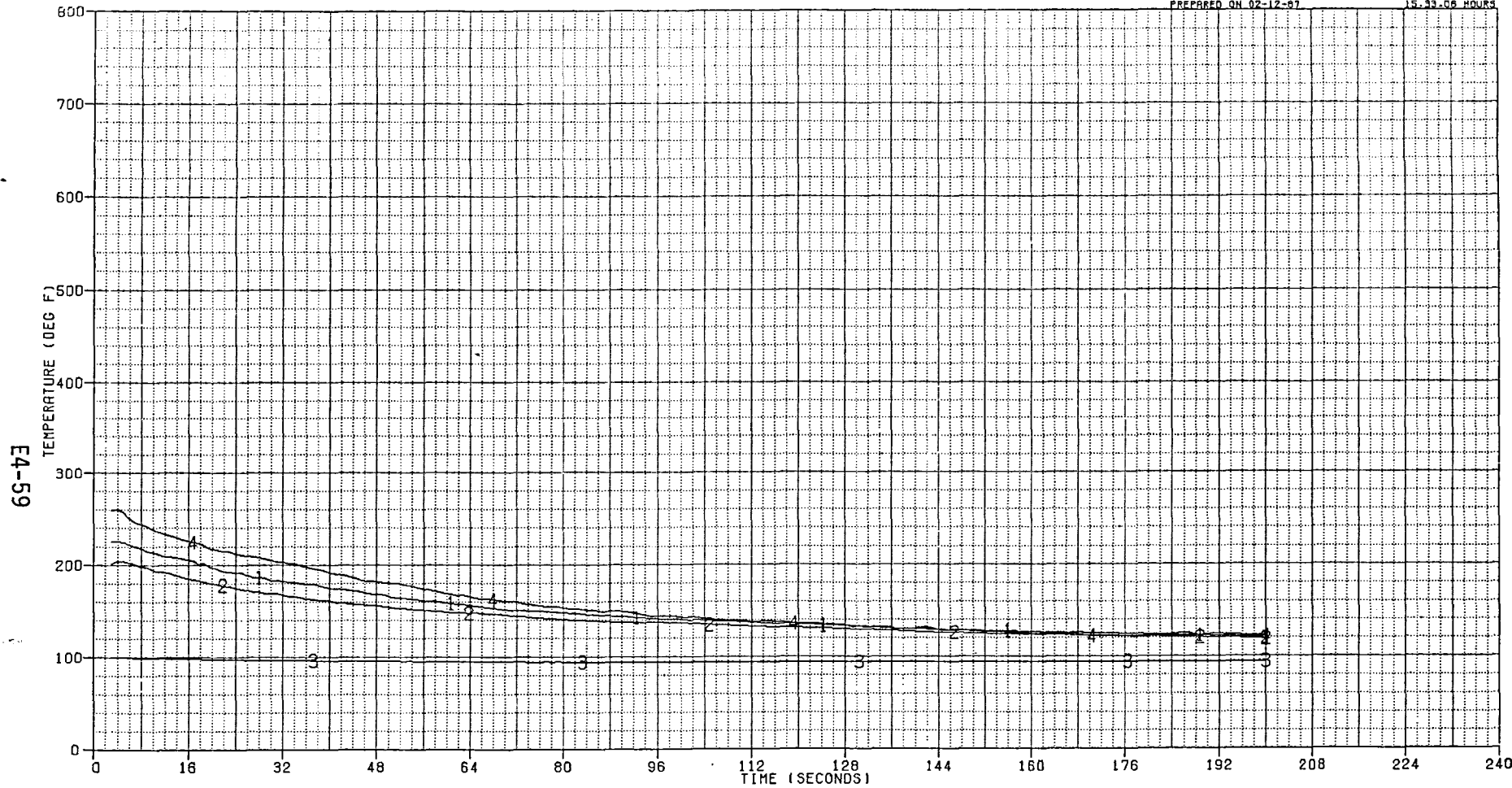
88-58

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KHOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-129  
 TEST DATE 06-10-86 1252 HOURS







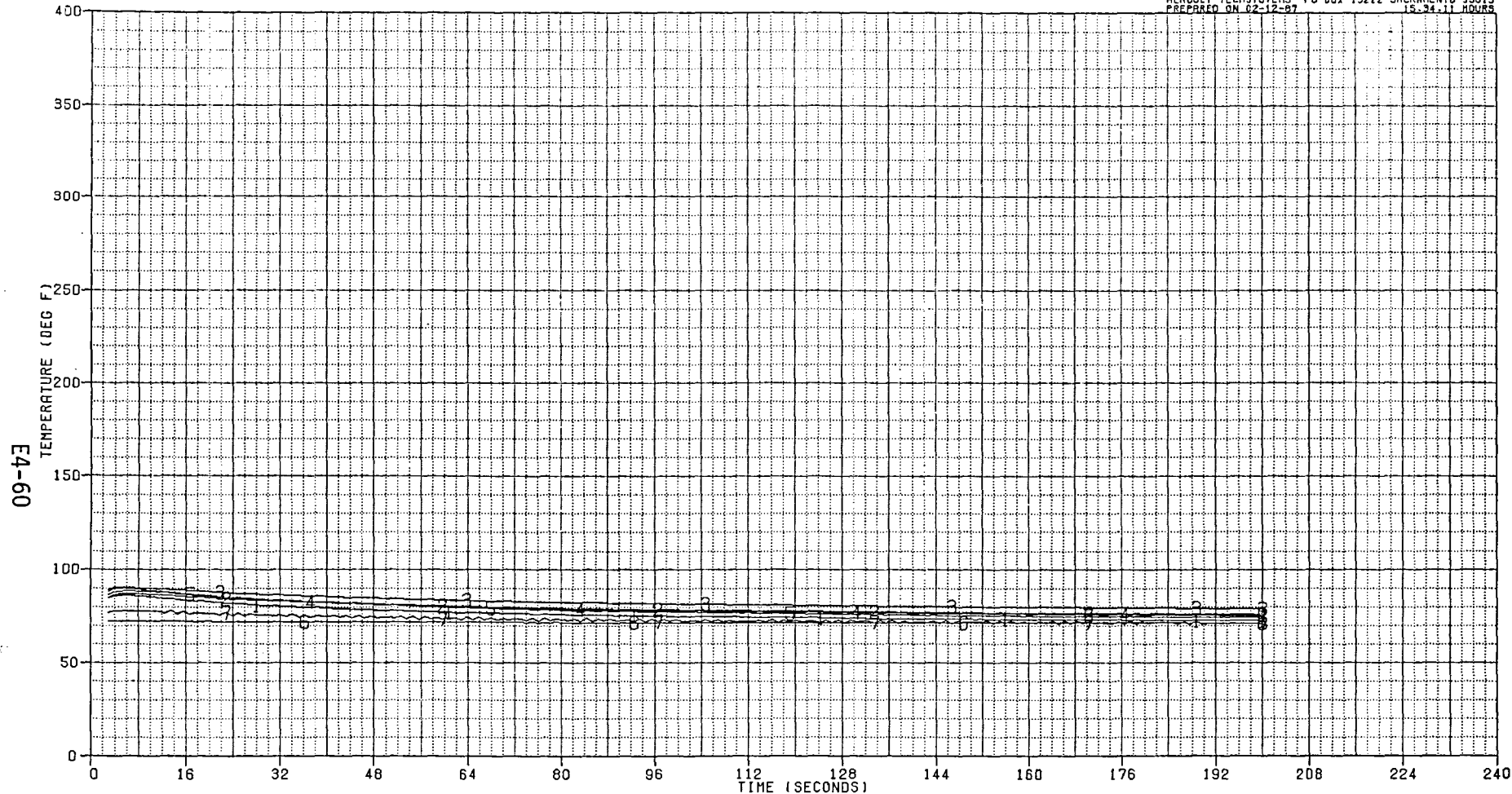
E4-59

- 1 TC-7      DEG F
- 2 TC-10    DEG F
- 3 TC-11    DEG F
- 4 TC-12    DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-129  
BARREL DATA  
TEST DATE 06-10-86 1252 HOURS





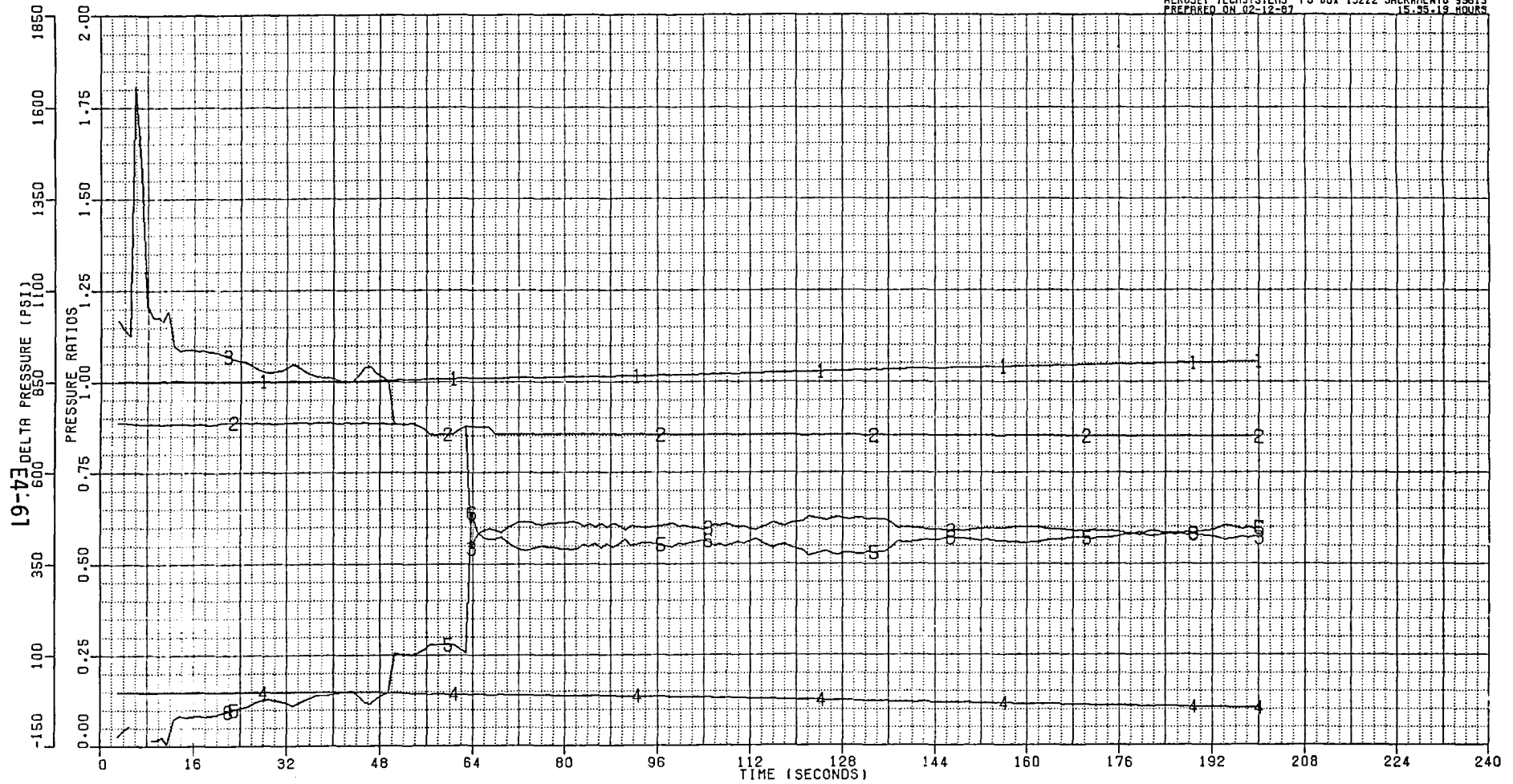


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-129

TEST DATE 06-10-86 1252 HOURS

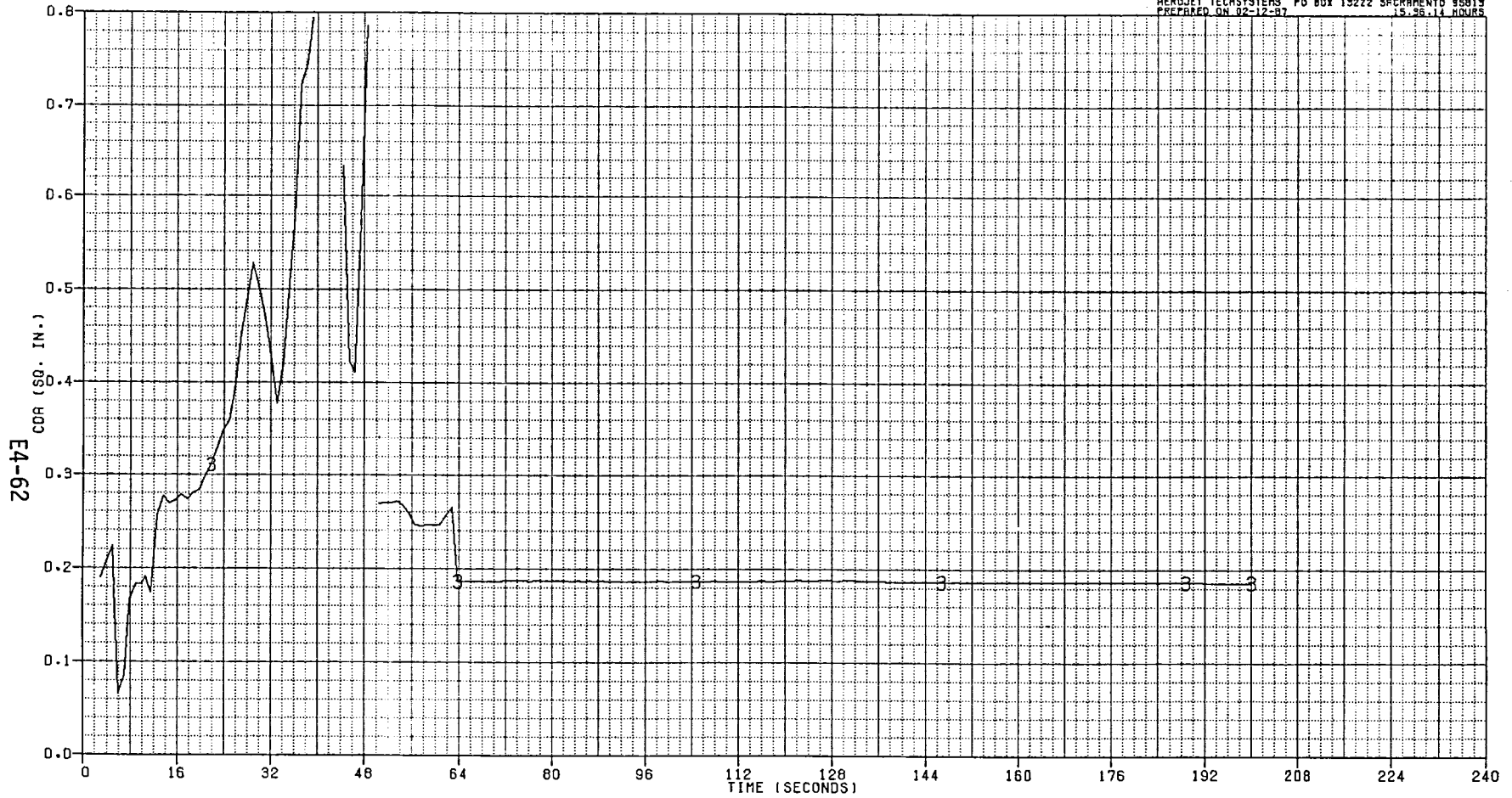




- 1 PRTR
- 2 PRTS
- 3 PRTS CORP
- 4 DPTR PEI
- 5 DPTS-C PEI
- 6 DPTS PEI



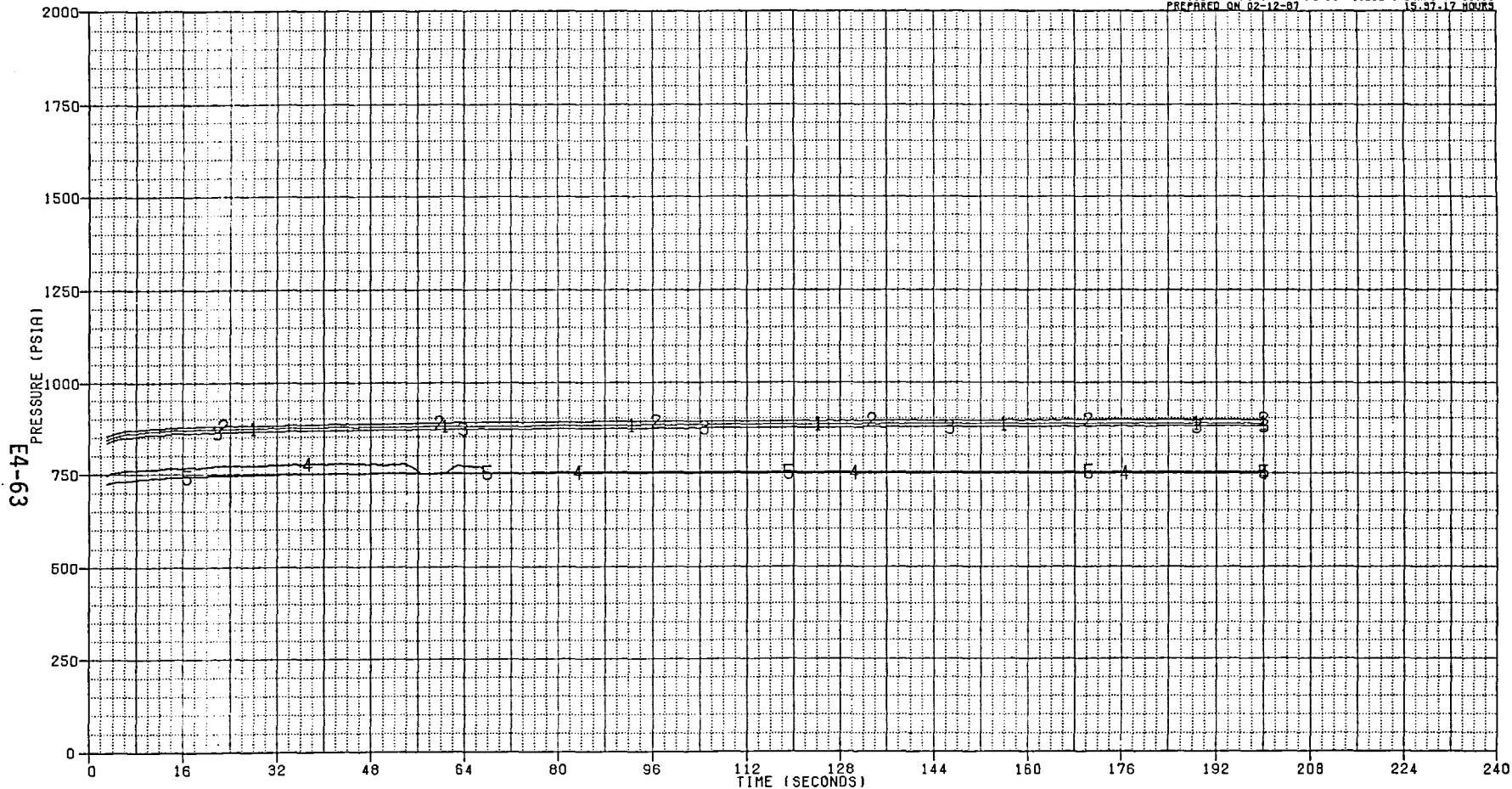
TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-129  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 06-10-86 1252 HOURS



1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-129  
NOZZLE AREA CHANGE  
TEST DATE 06-10-86 1252 HOURS



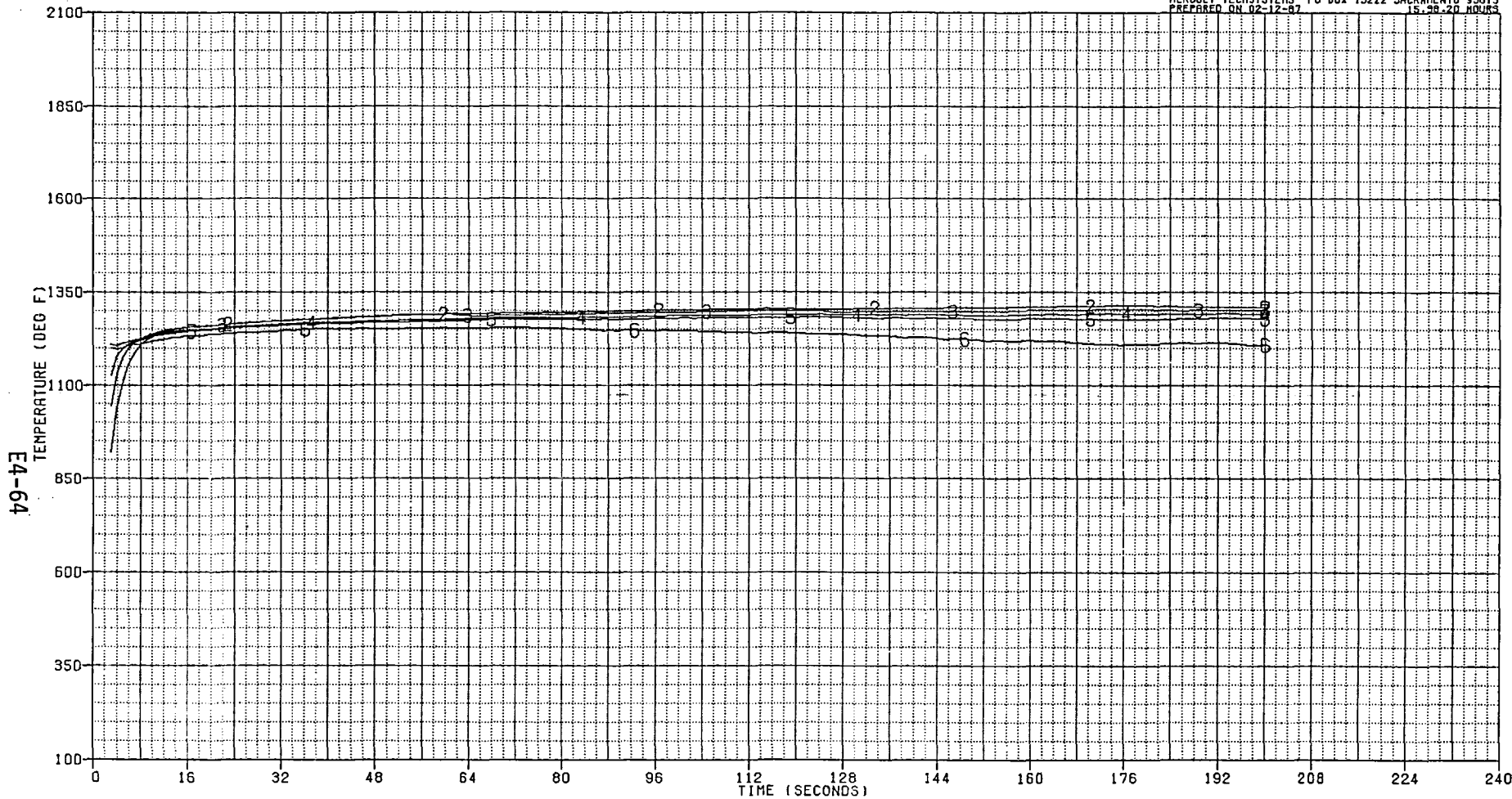


E4-63

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-129  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1252 HOURS

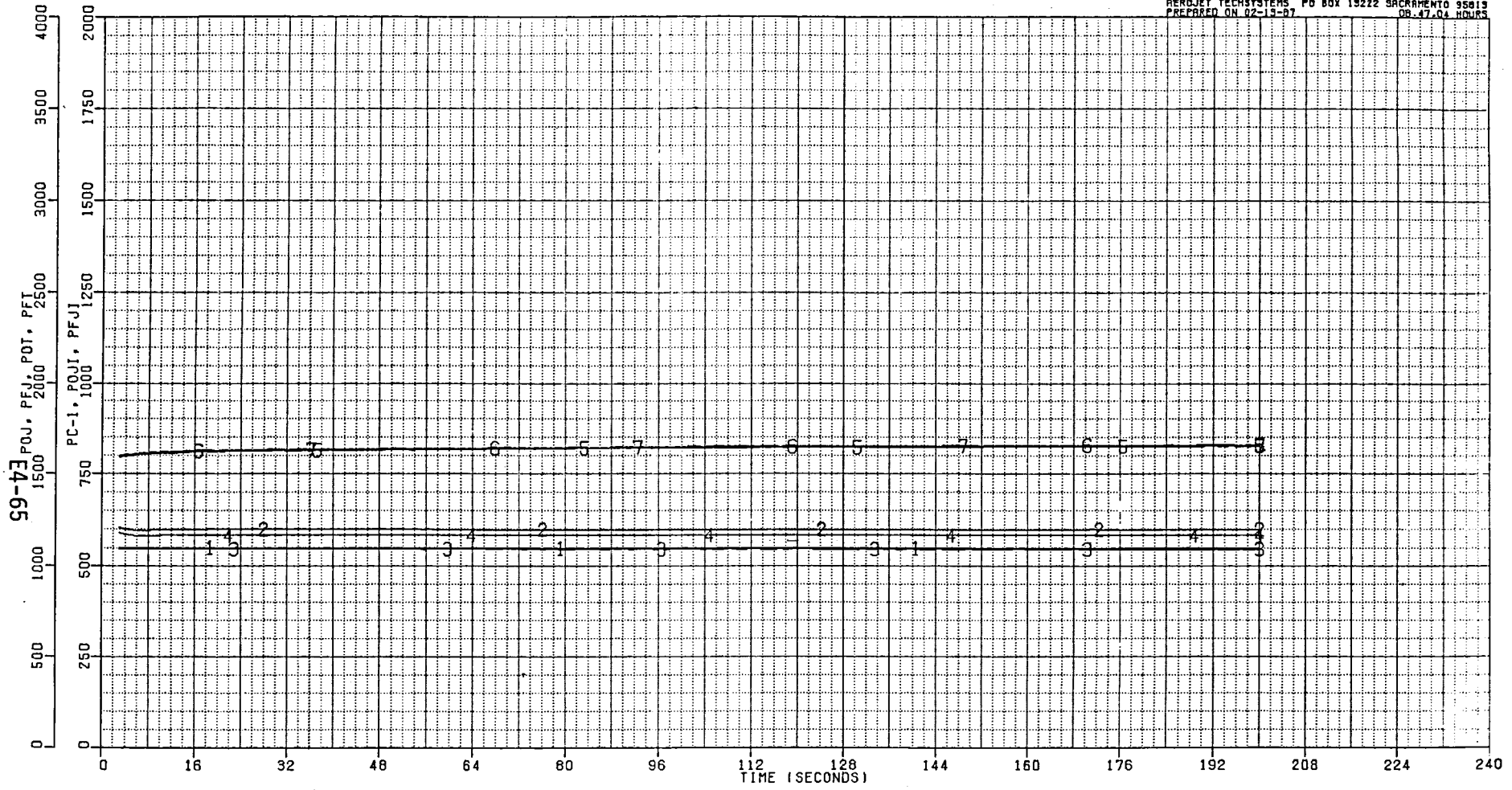




- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-129  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1252 HOURS





99-65 EA-65

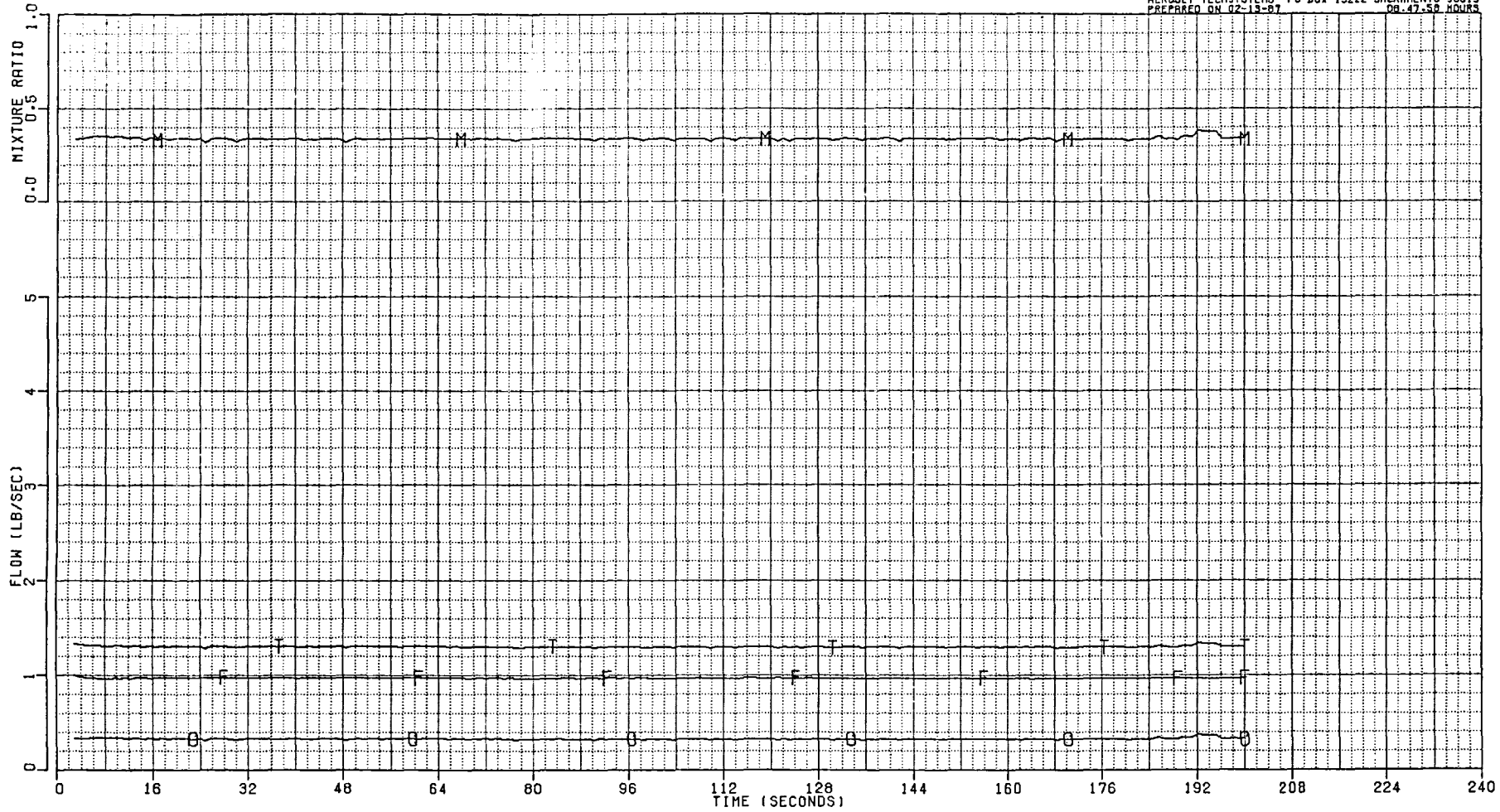
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-130

TEST DATE 06-10-86 1310 HOURS



99-46



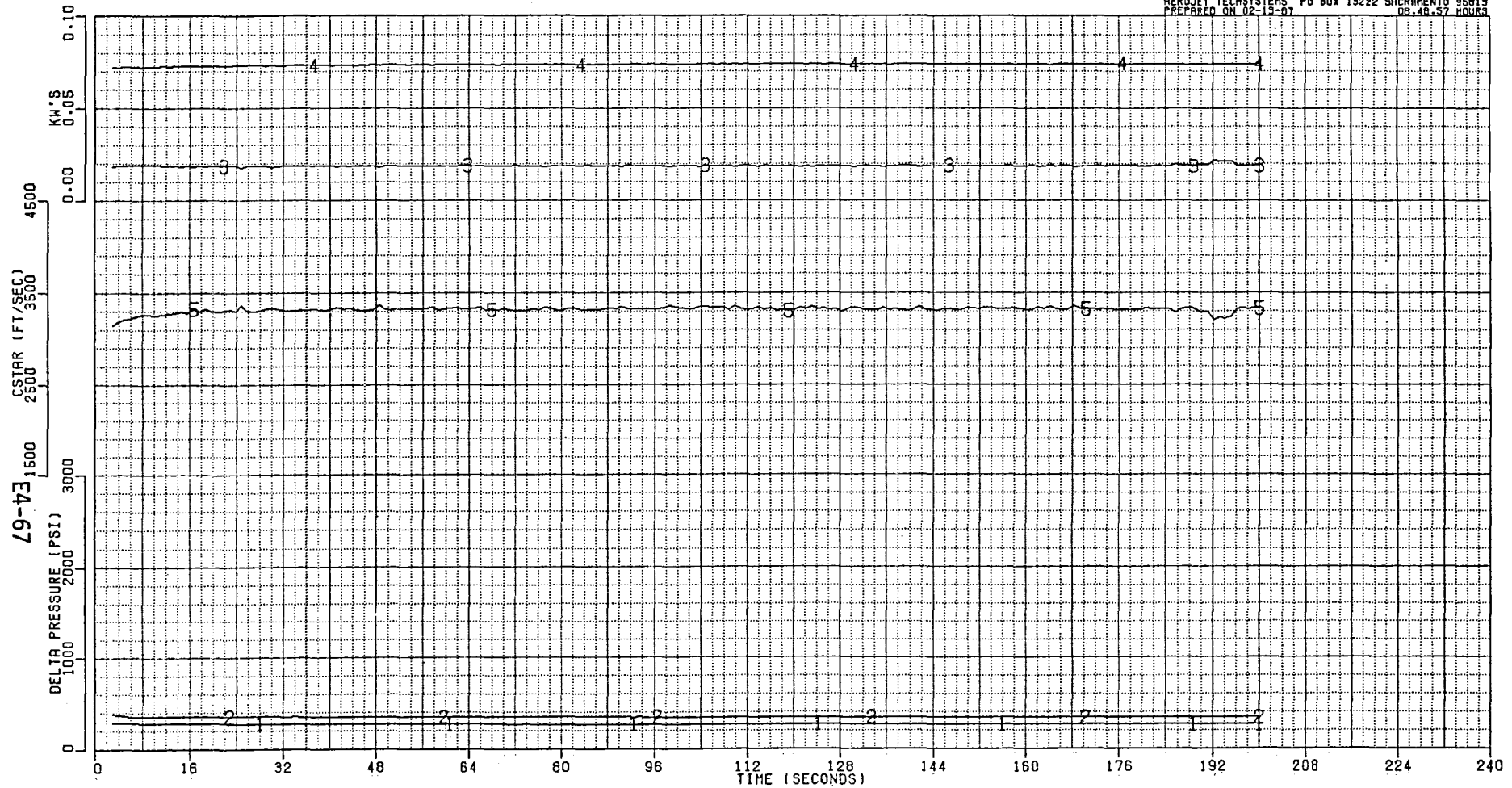
F WF LBS/SEC  
O WDX LBS/SEC  
T WTOT LBS/SEC  
M MR LBS/SEC

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-130

TEST DATE 06-10-86 1310 HOURS







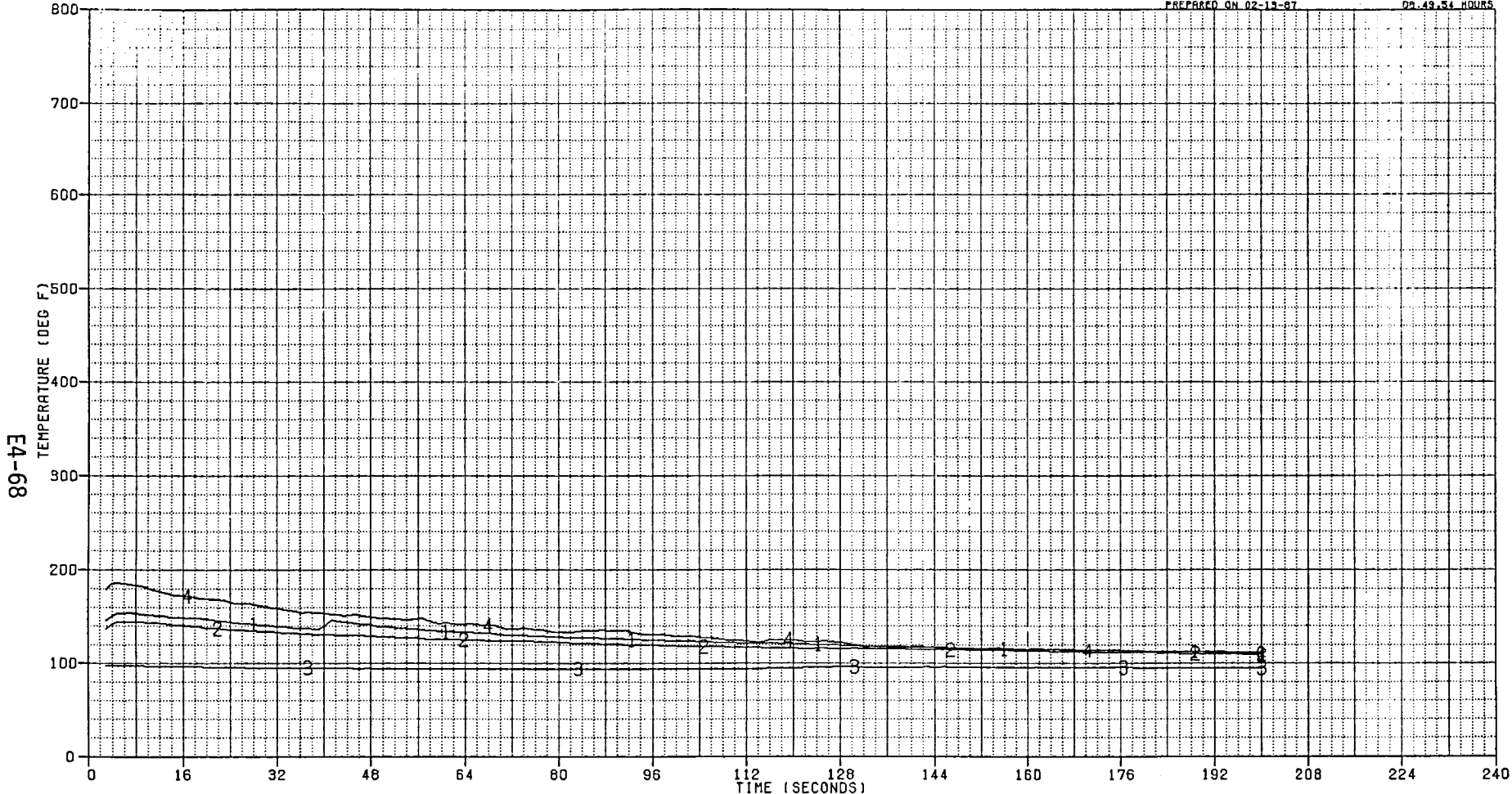
EA-67

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-229-A6-130  
TEST DATE 06-10-86 1310 HOURS



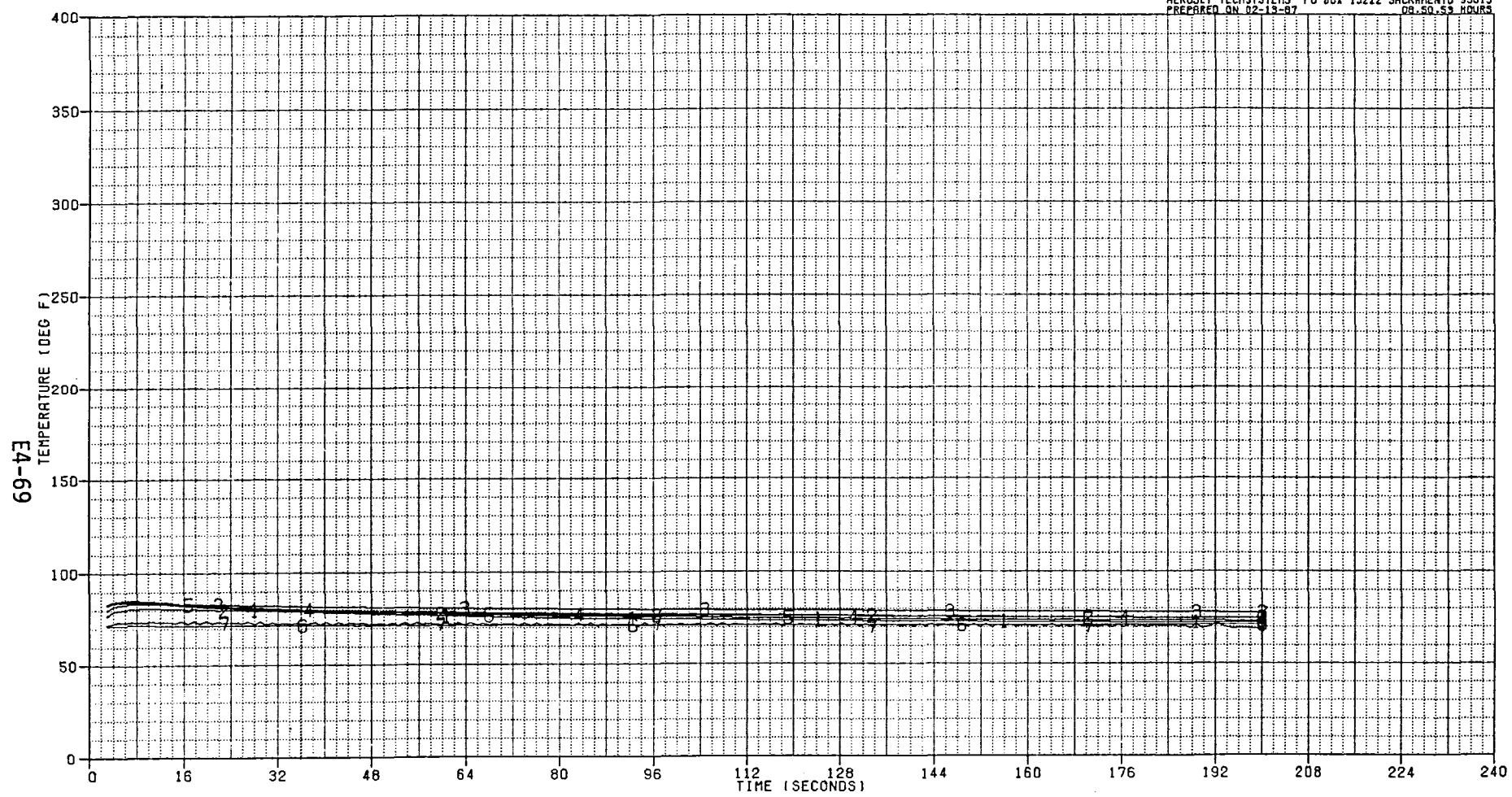




- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-130  
BARREL DATA  
TEST DATE 06-10-86 1310 HOURS



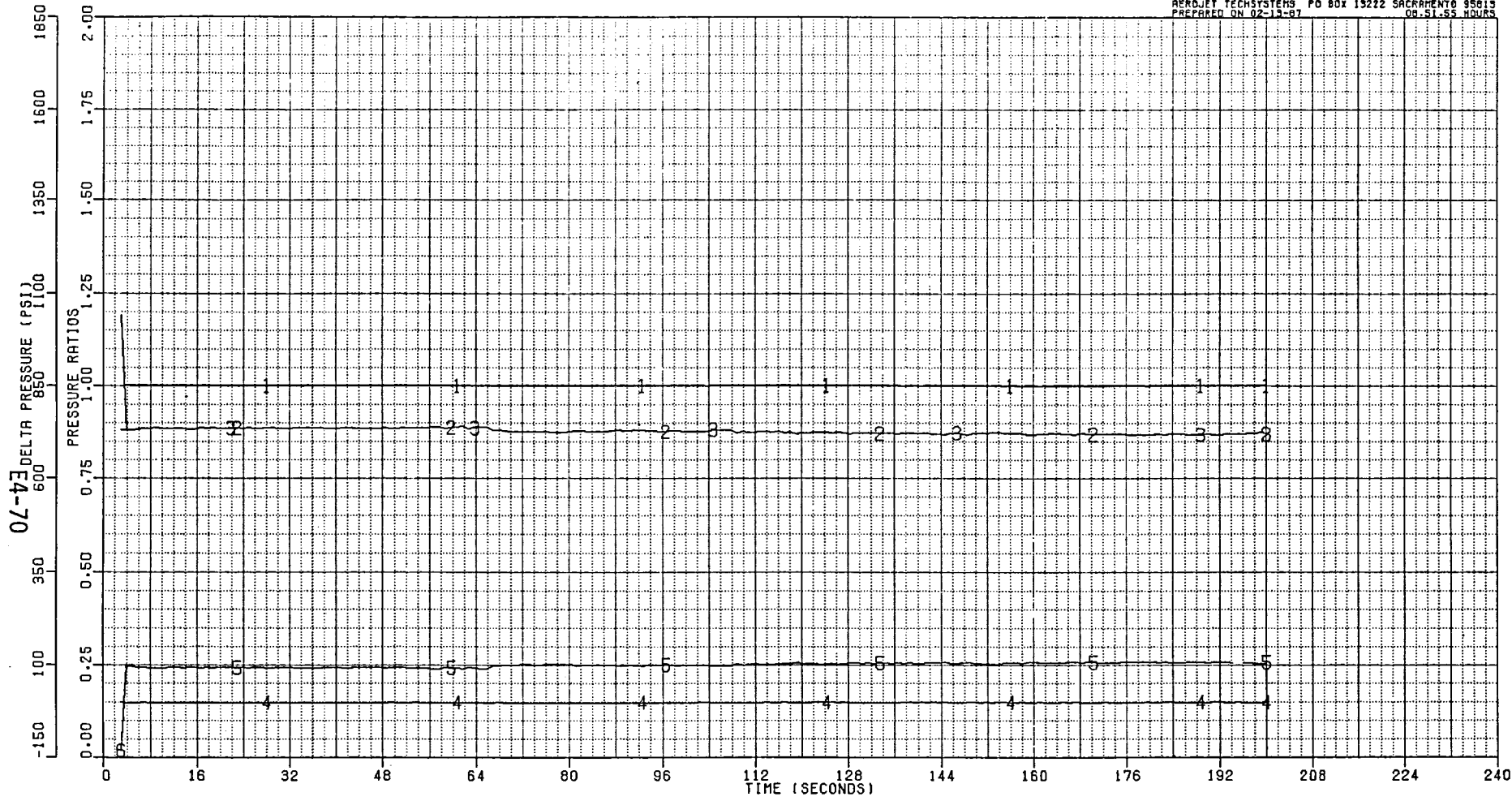


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-130

TEST DATE 06-10-86 1310 HOURS

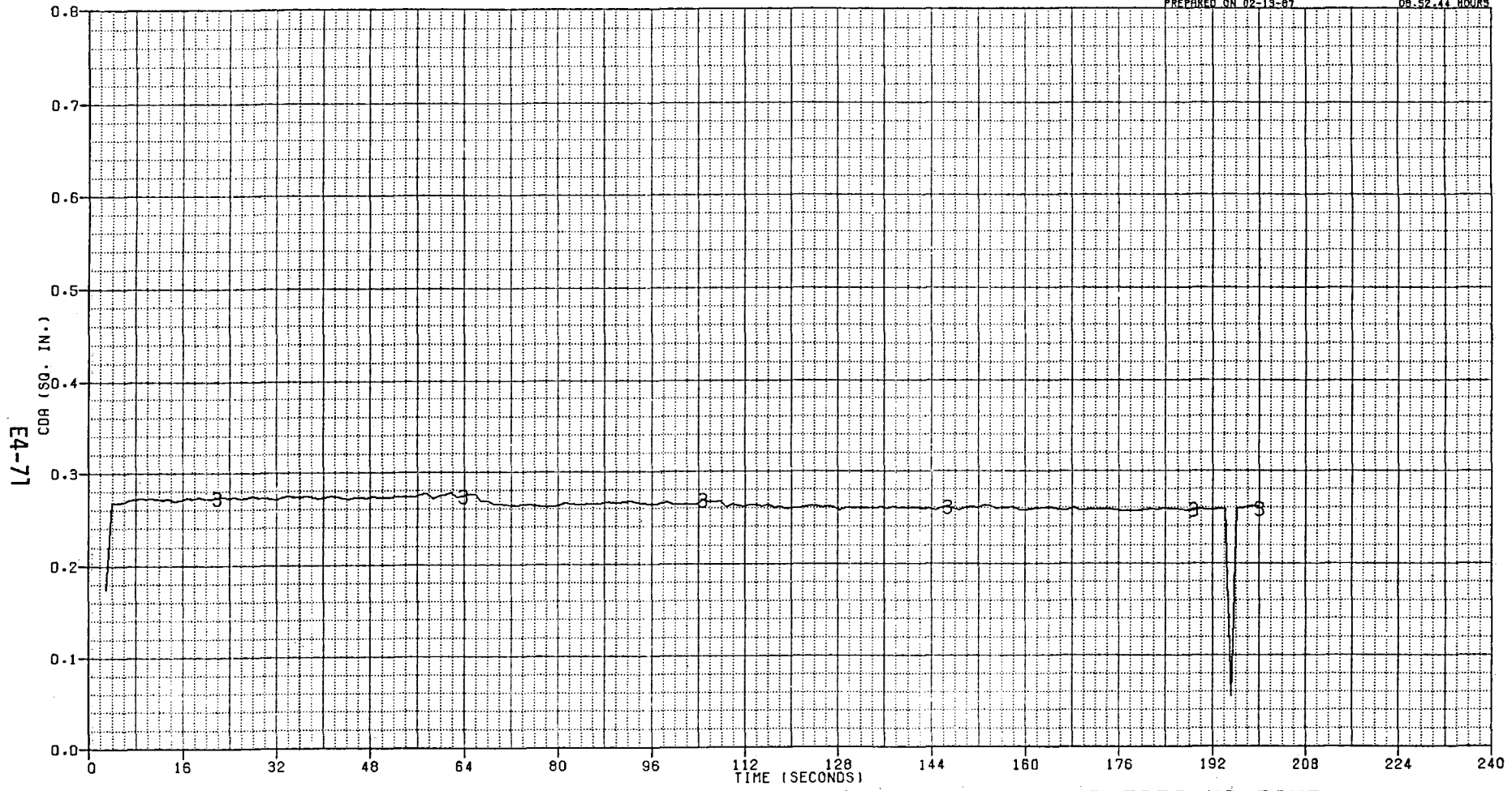




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR        PSI
- 5 DPTS-C     PSI
- 6 DPTS        PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-130  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 06-10-86 1310 HOURS



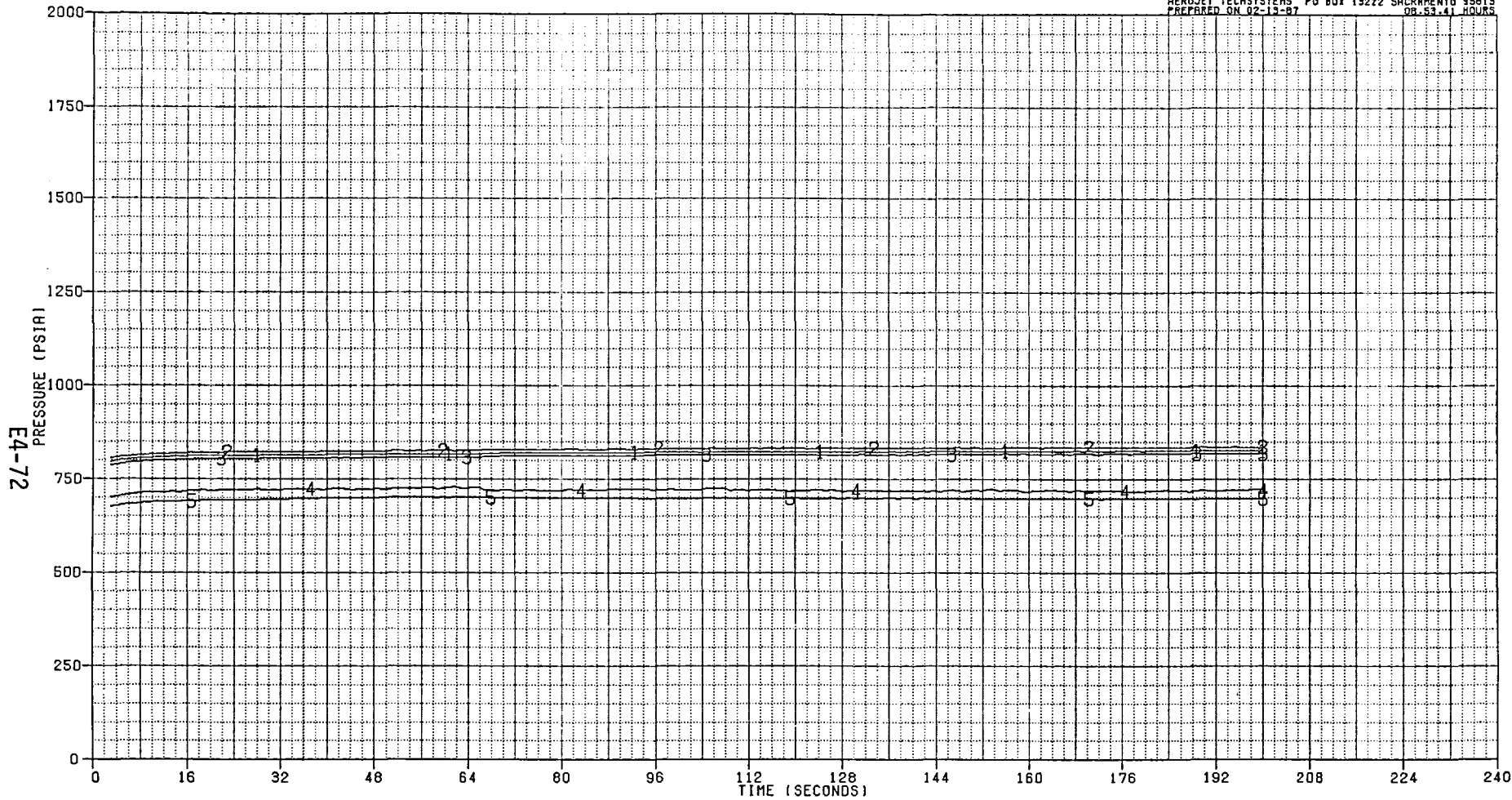


E4-71

- 1 NR1 SO-IN.
- 2 NR2 SO-IN.
- 3 COA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-130  
NOZZLE AREA CHANGE  
TEST DATE 06-10-86 1310 HOURS



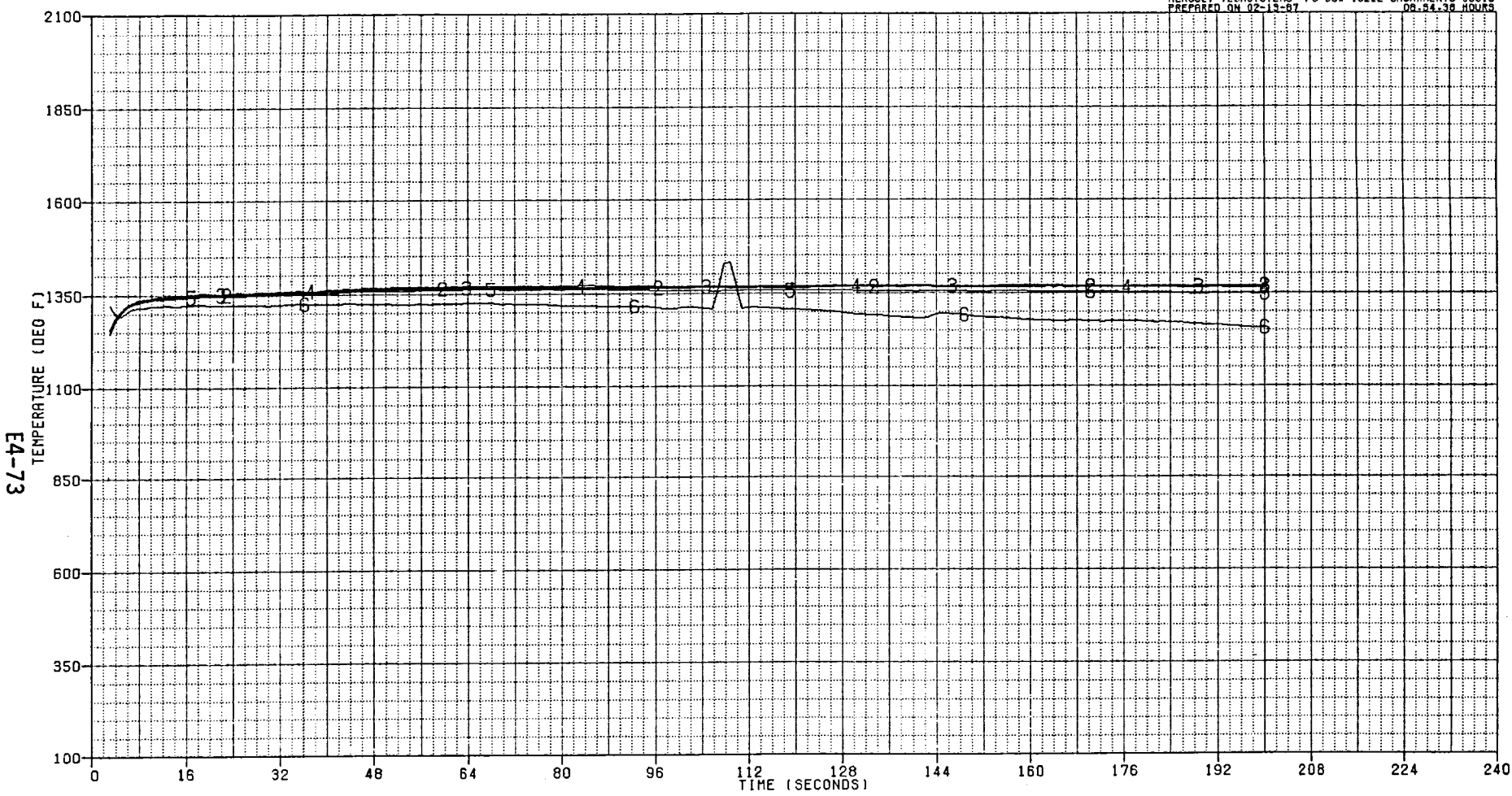


E4-72

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-130  
PRESSURE MEASUREMENTS  
TEST DATE 06-10-86 1310 HOURS



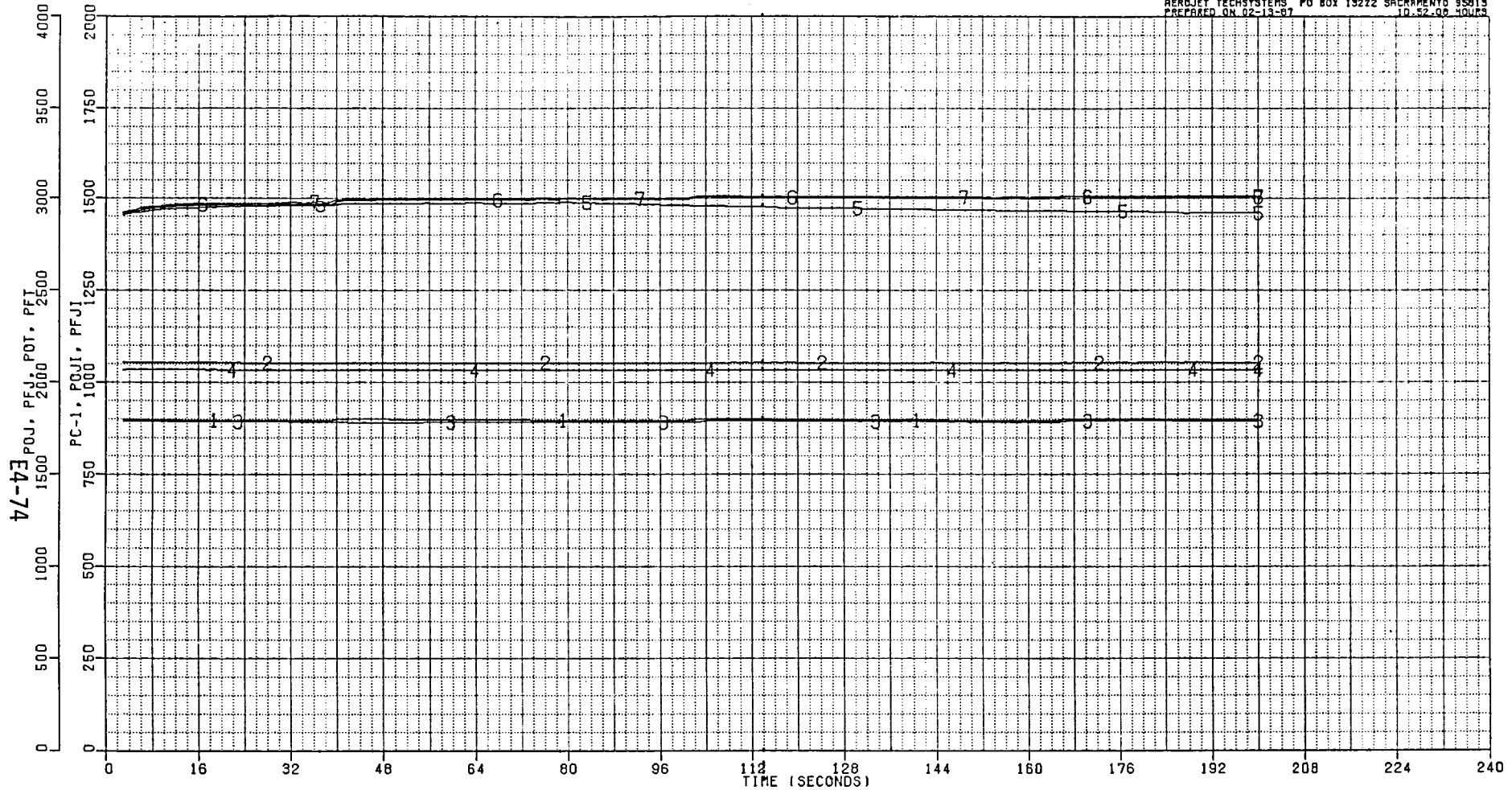


E4-73

- 1 TCR-1      DEG F
- 2 TCR-2      DEG F
- 3 TCR-3      DEG F
- 4 TCR-4      DEG F
- 5 TCR-5      DEG F
- 6 TCR-6      DEG F

GAS TEMPERATURES VS TIME  
 TEST NO. 2427-229-A6-130  
 PRESSURE MEASUREMENTS  
 TEST DATE 06-10-86 1310 HOURS





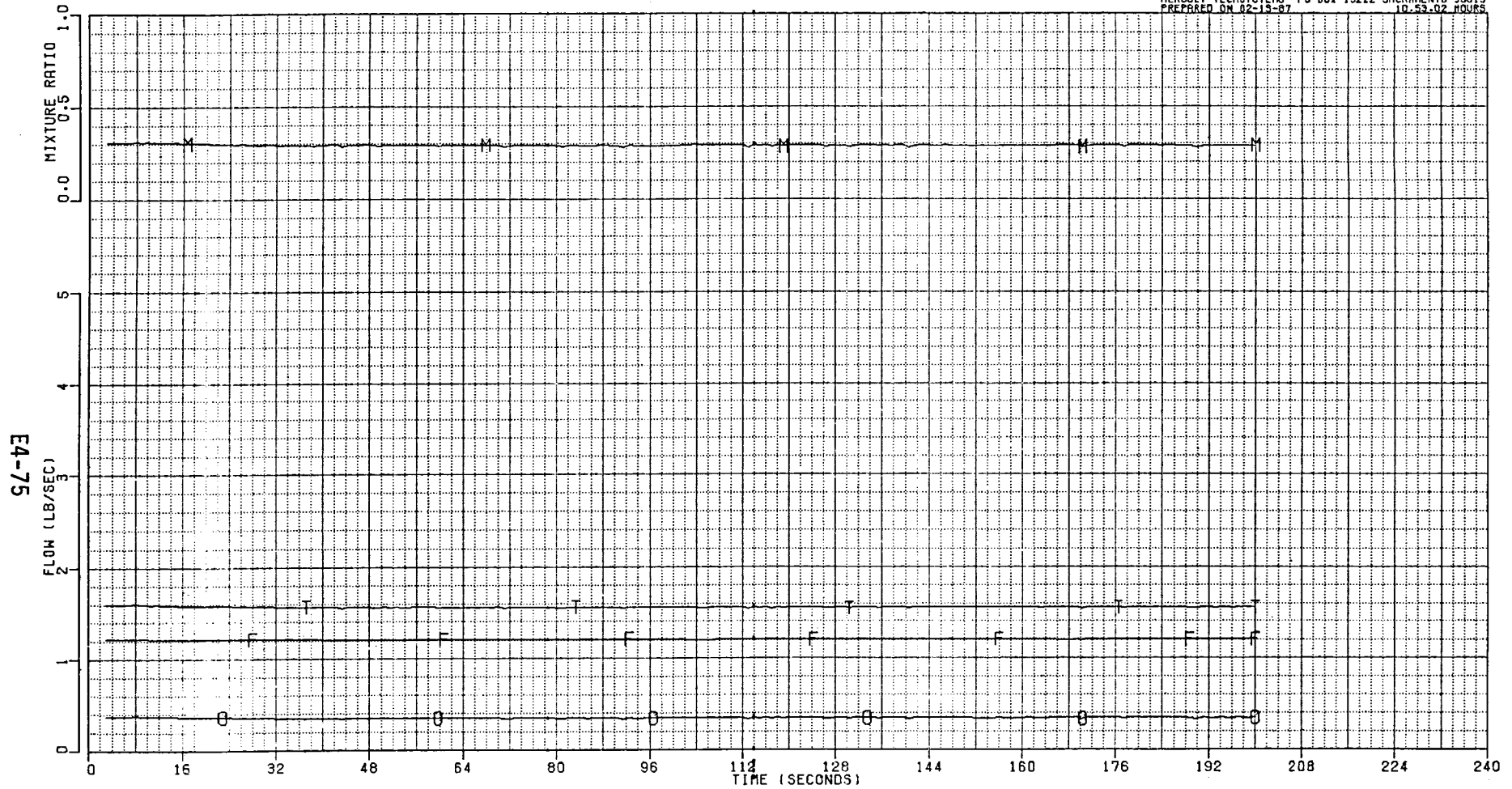
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-131

TEST DATE 06-19-86 1000 HOURS







E4-75

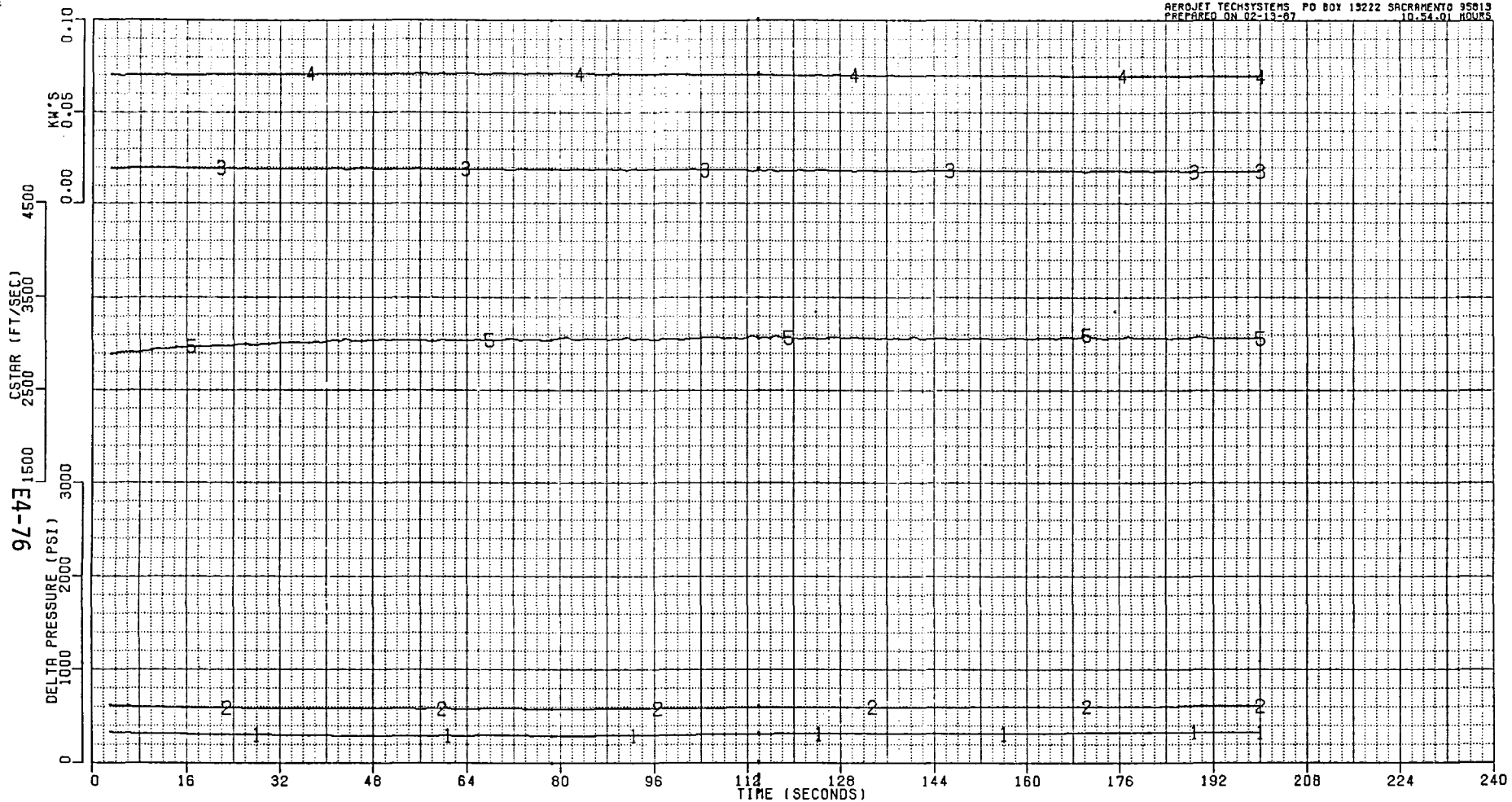
F WF LES/SEC  
O WOX LES/SEC  
T WTOT LES/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-131

TEST DATE 06-19-86 1000 HOURS





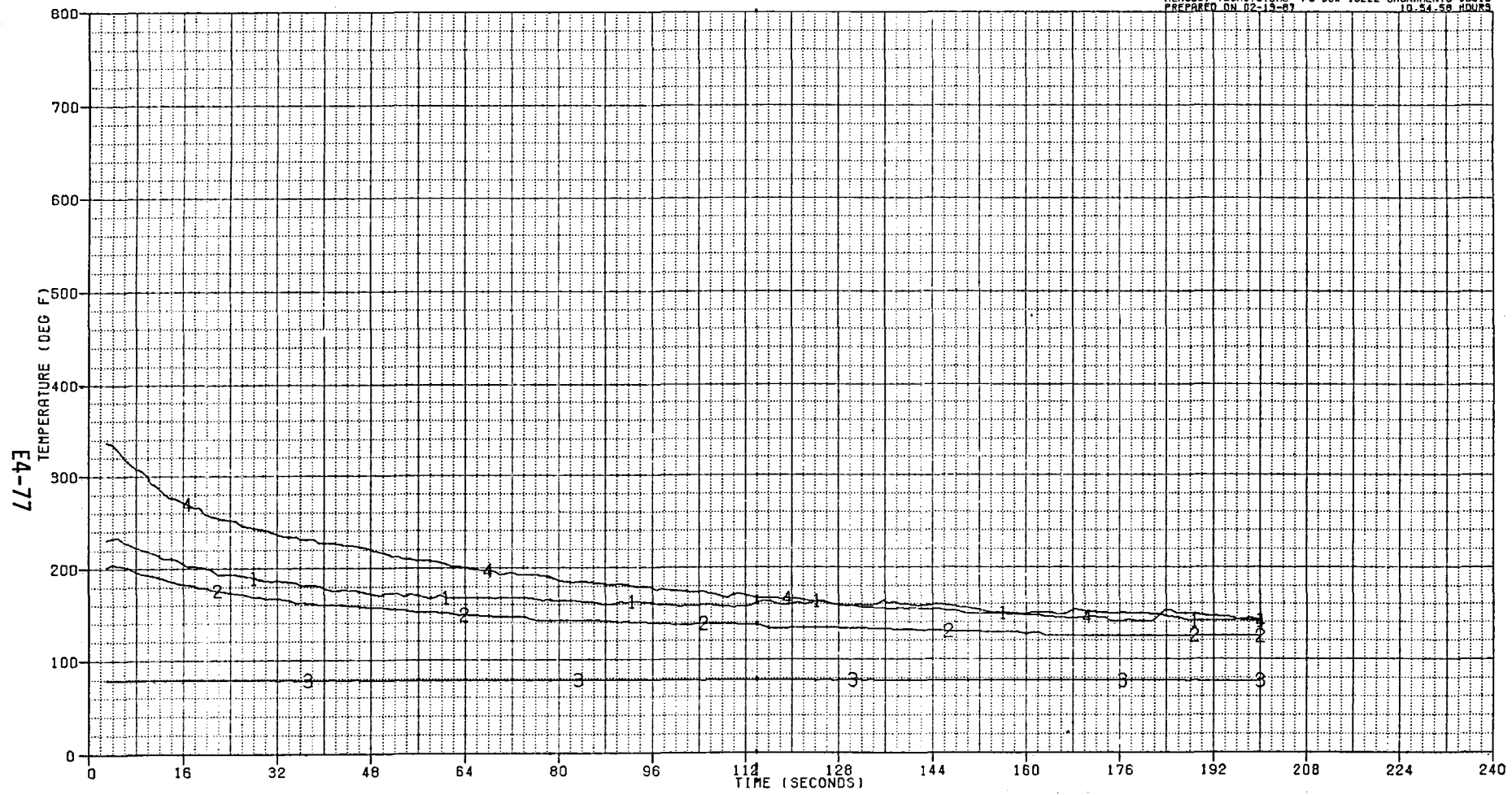


- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB      FT/SEC
- 6 CSTAR      FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-131

TEST DATE 06-19-86 1000 HOURS



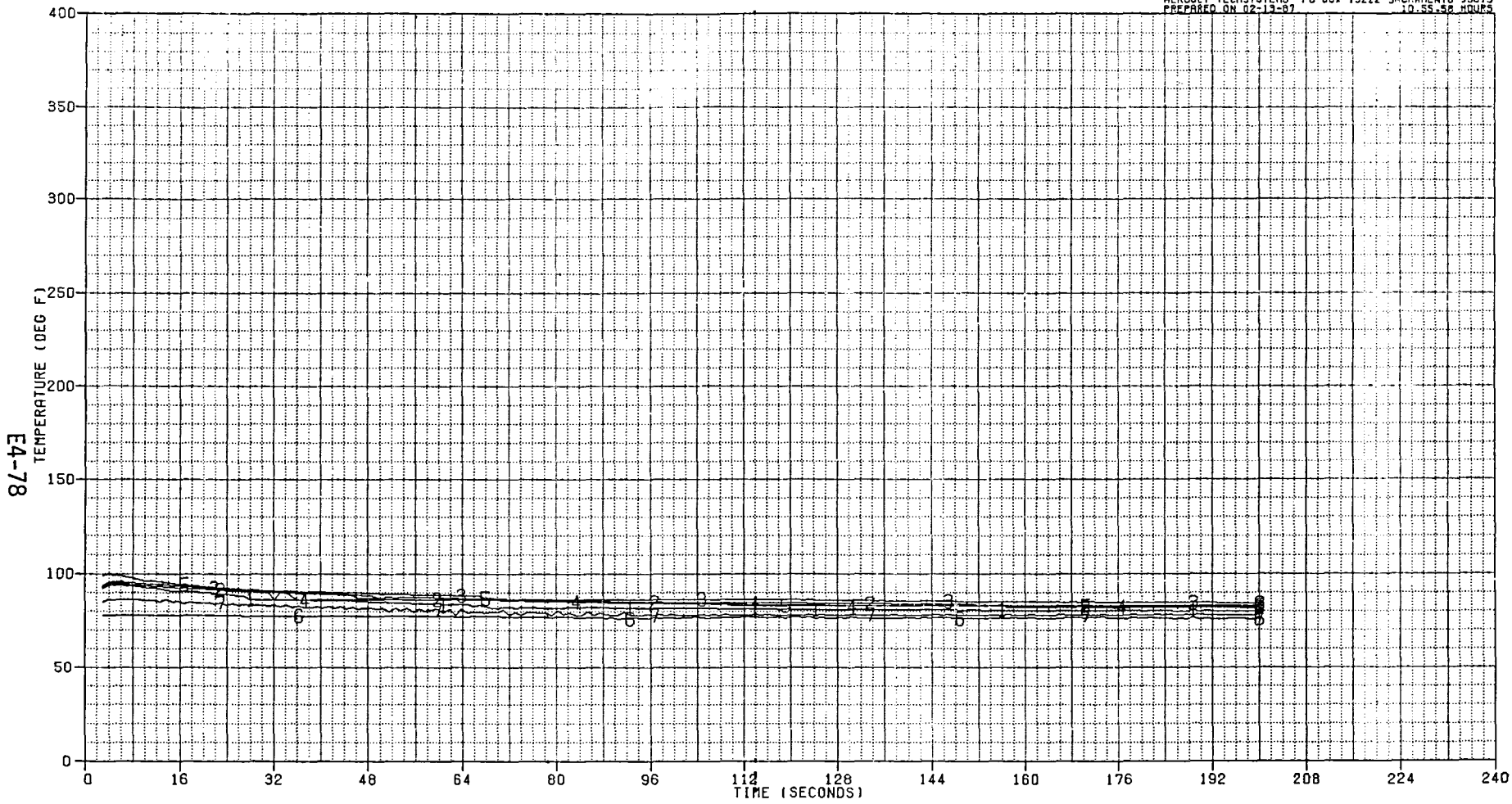


E4-77

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-131  
BARREL DATA  
TEST DATE 06-19-86 1000 HOURS



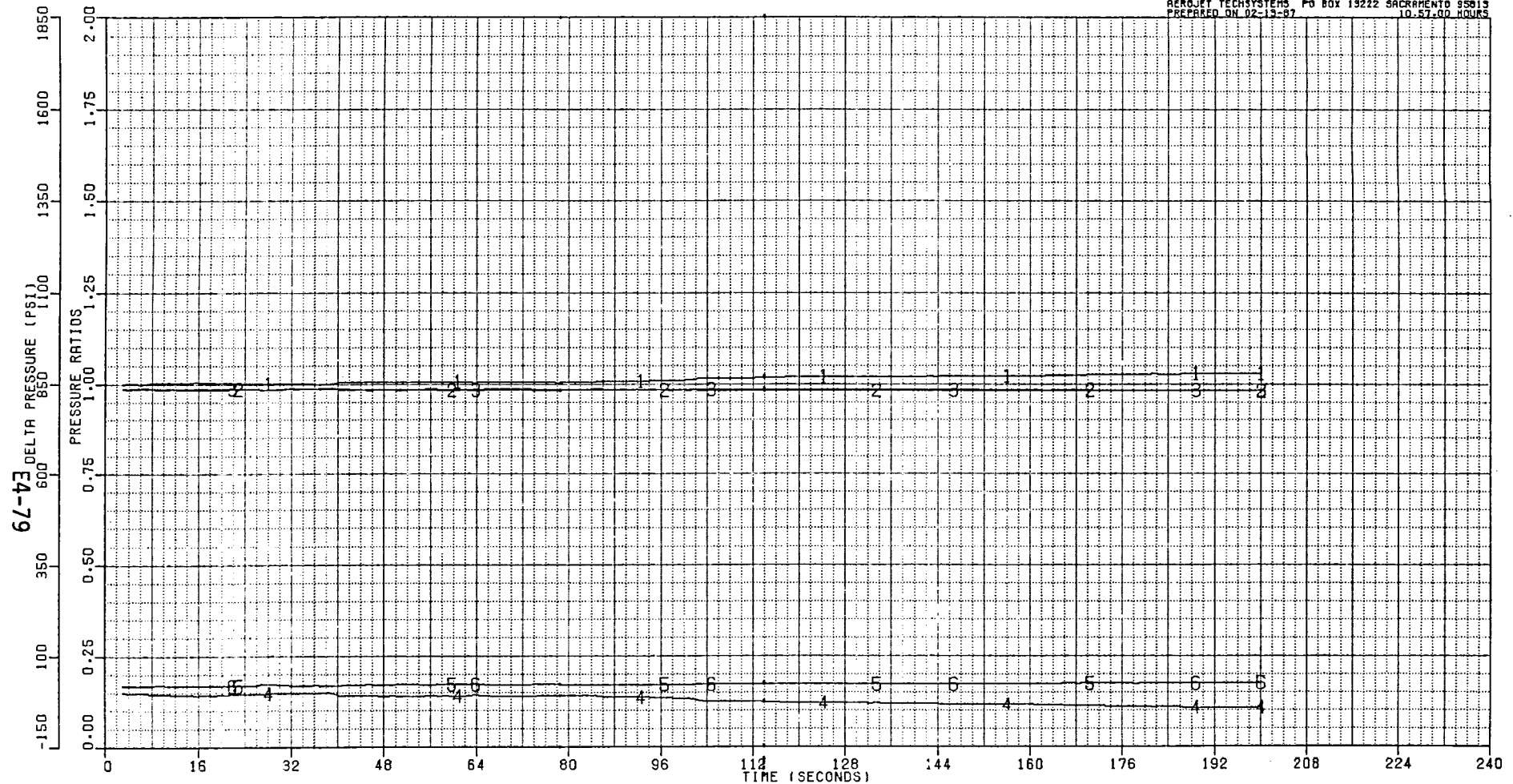


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-131

TEST DATE 06-19-86 1000 HOURS



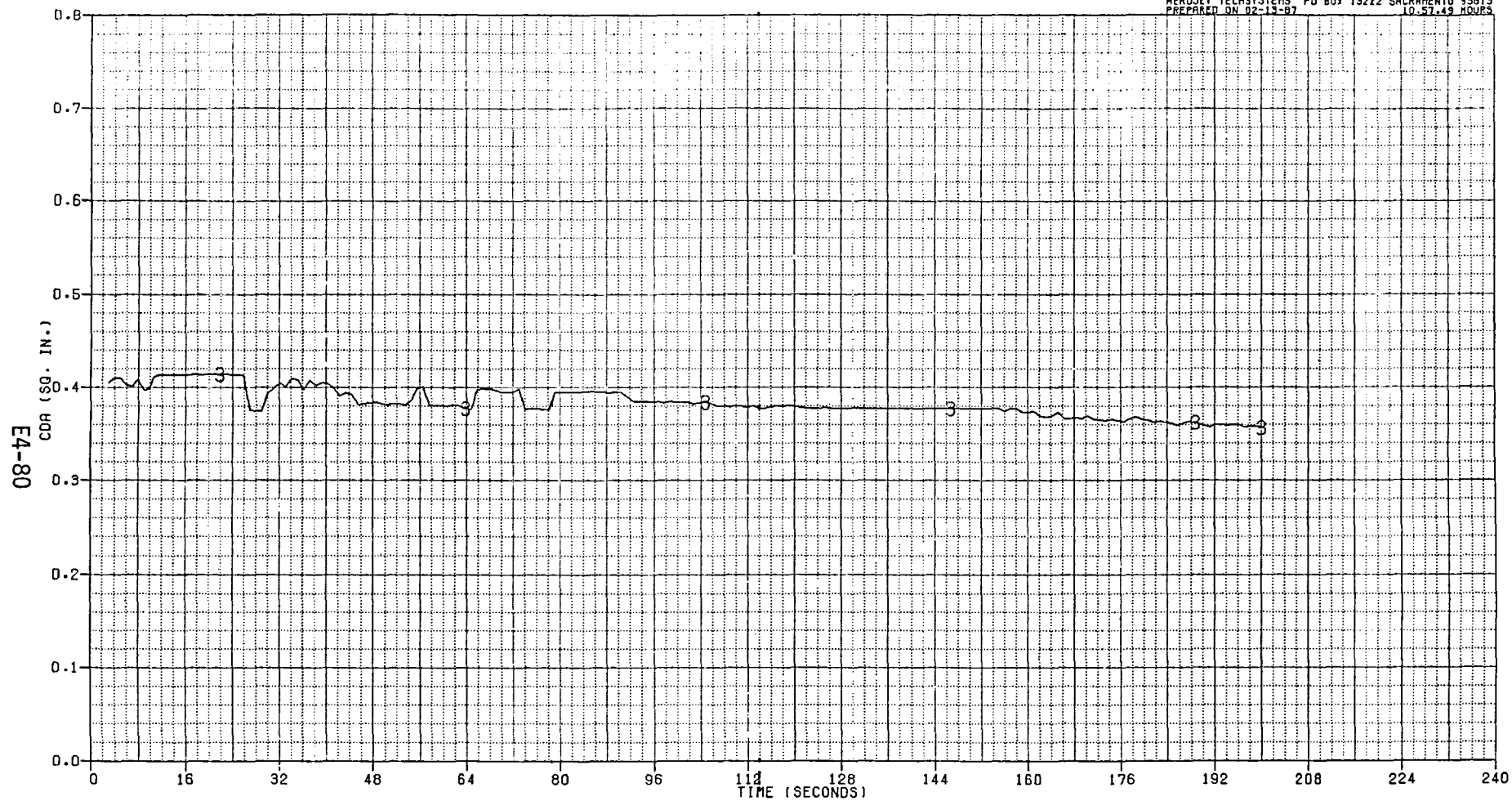


64-79

- 1 PRTR PSI
- 2 PRTS PSI
- 3 PRTS COPR PSI
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI



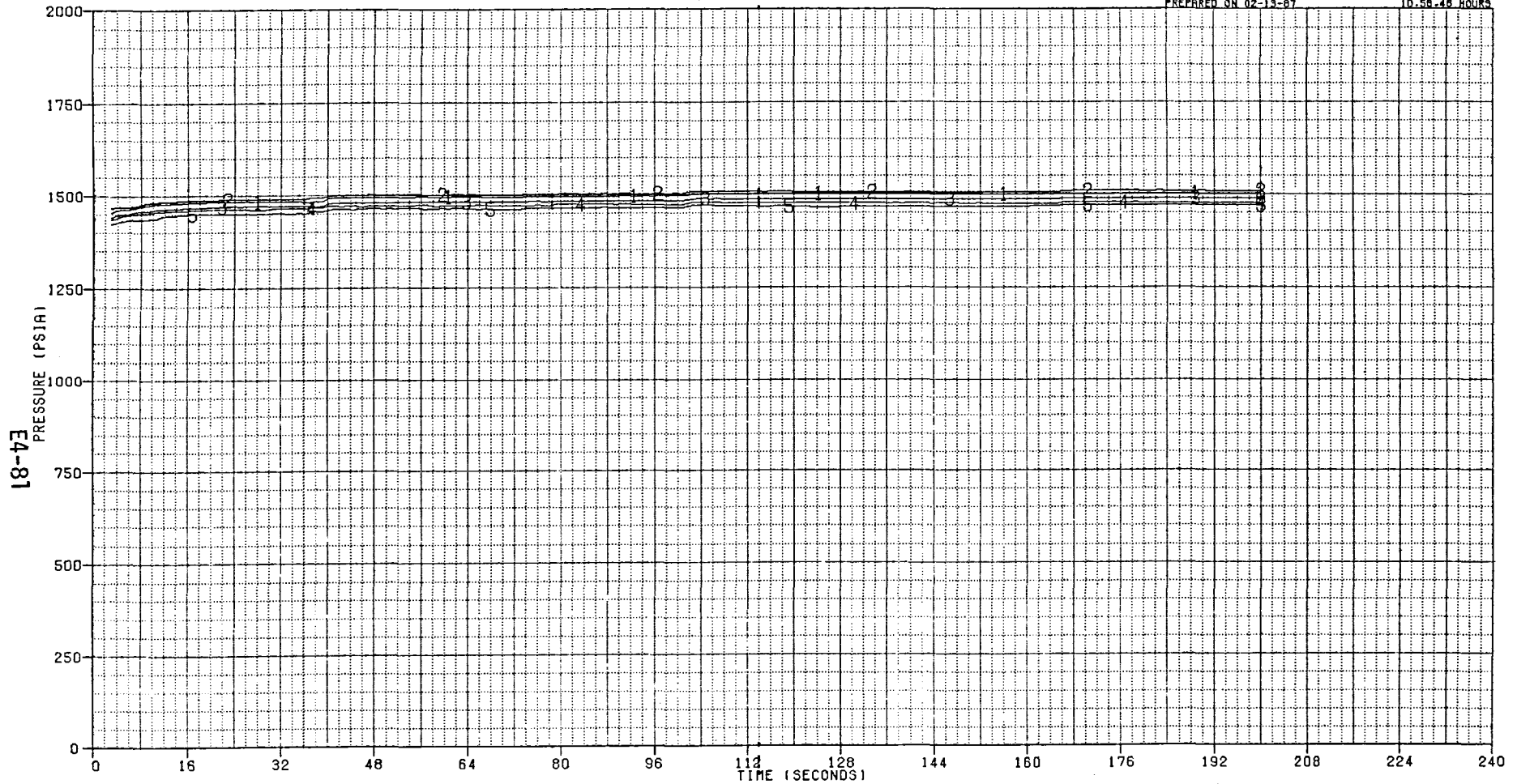
TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-131  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 06-19-86 1000 HOURS



1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-131  
NOZZLE AREA CHANGE  
TEST DATE 06-19-86 1000 HOURS



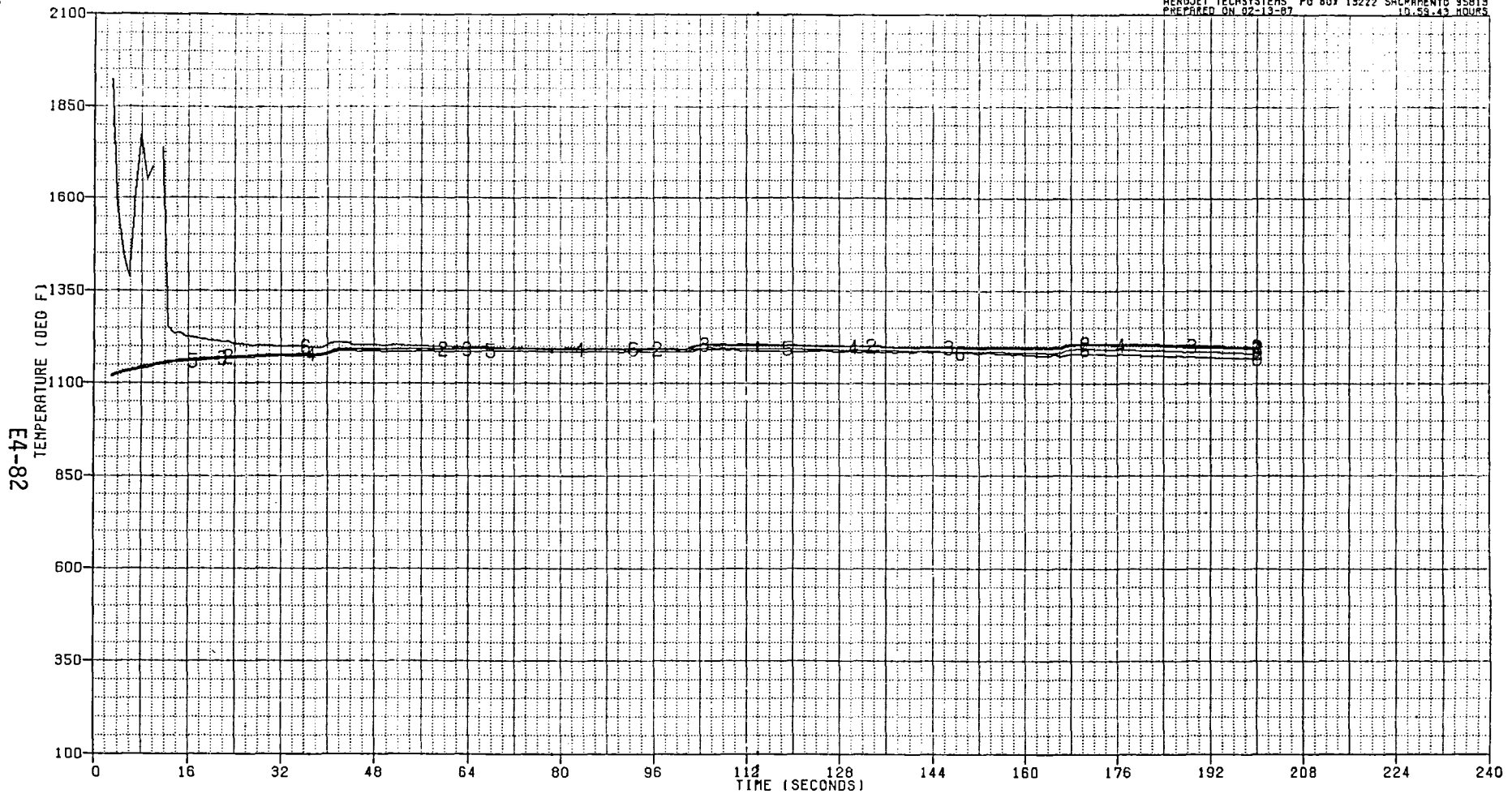


E4-81

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-131  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1000 HOURS





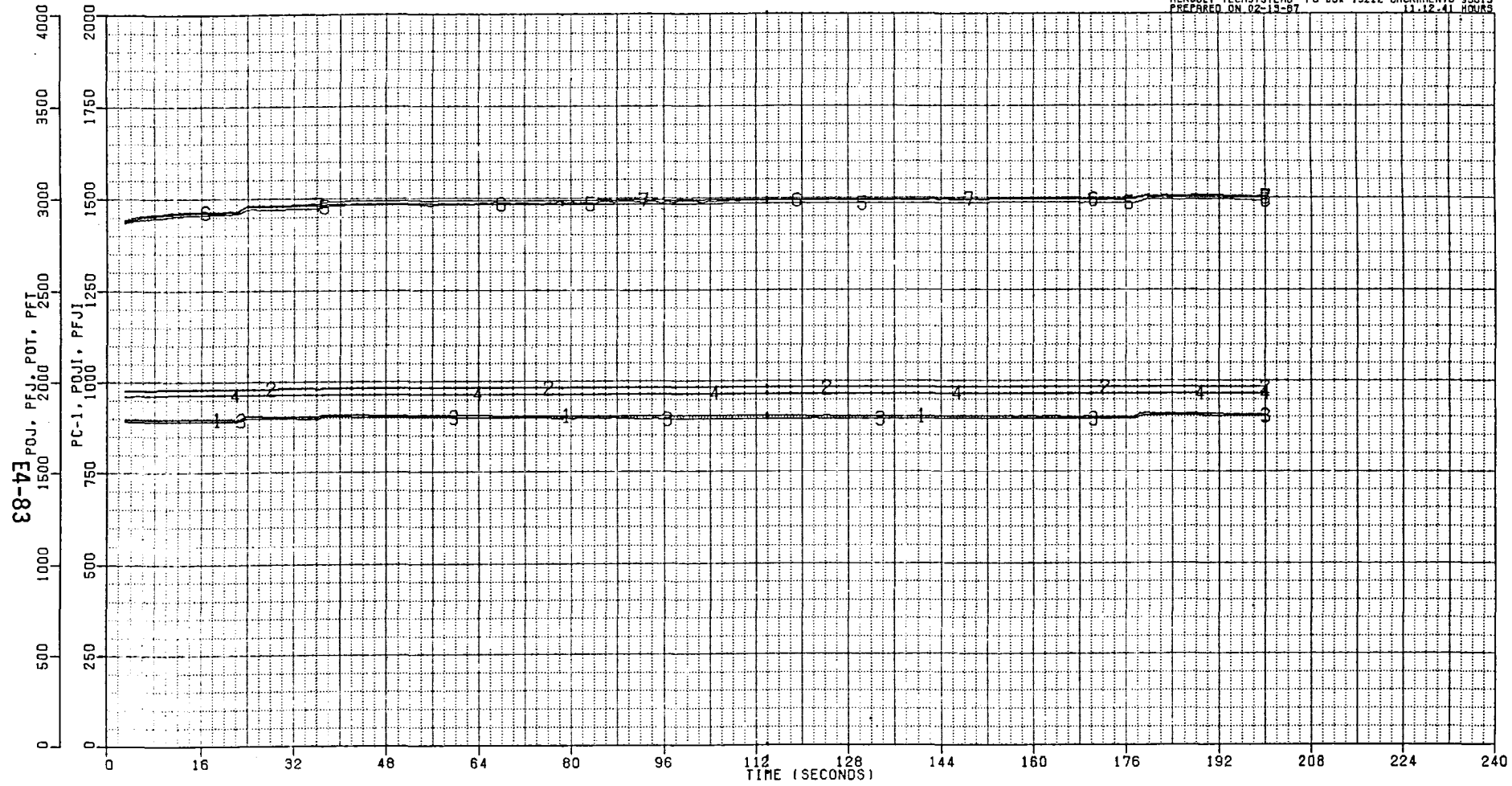
E4-82

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-131  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1000 HOURS







EA-83

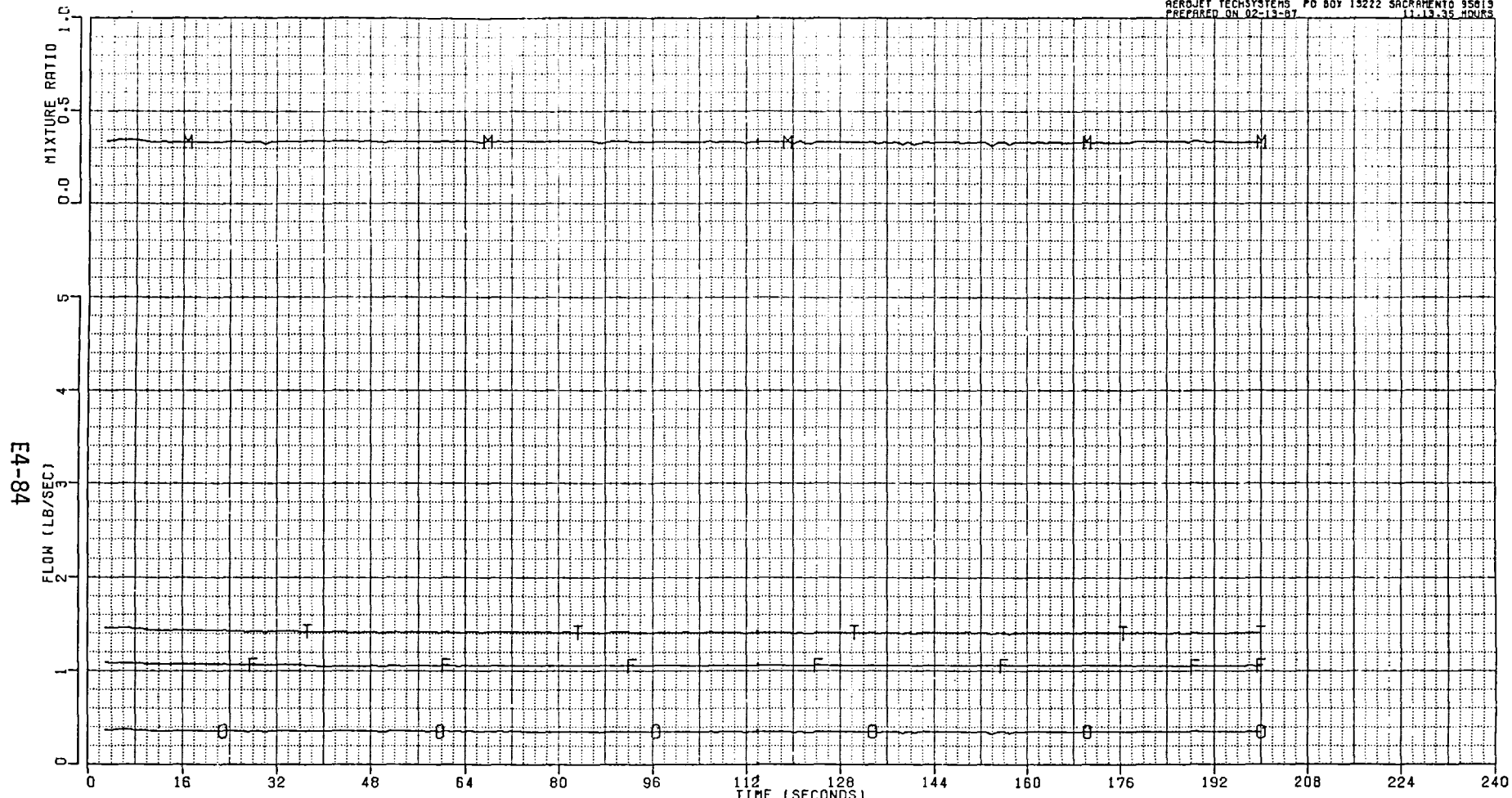
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POL PSIA
- 7 PFL PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-132

TEST DATE 06-19-86 1014 HOURS





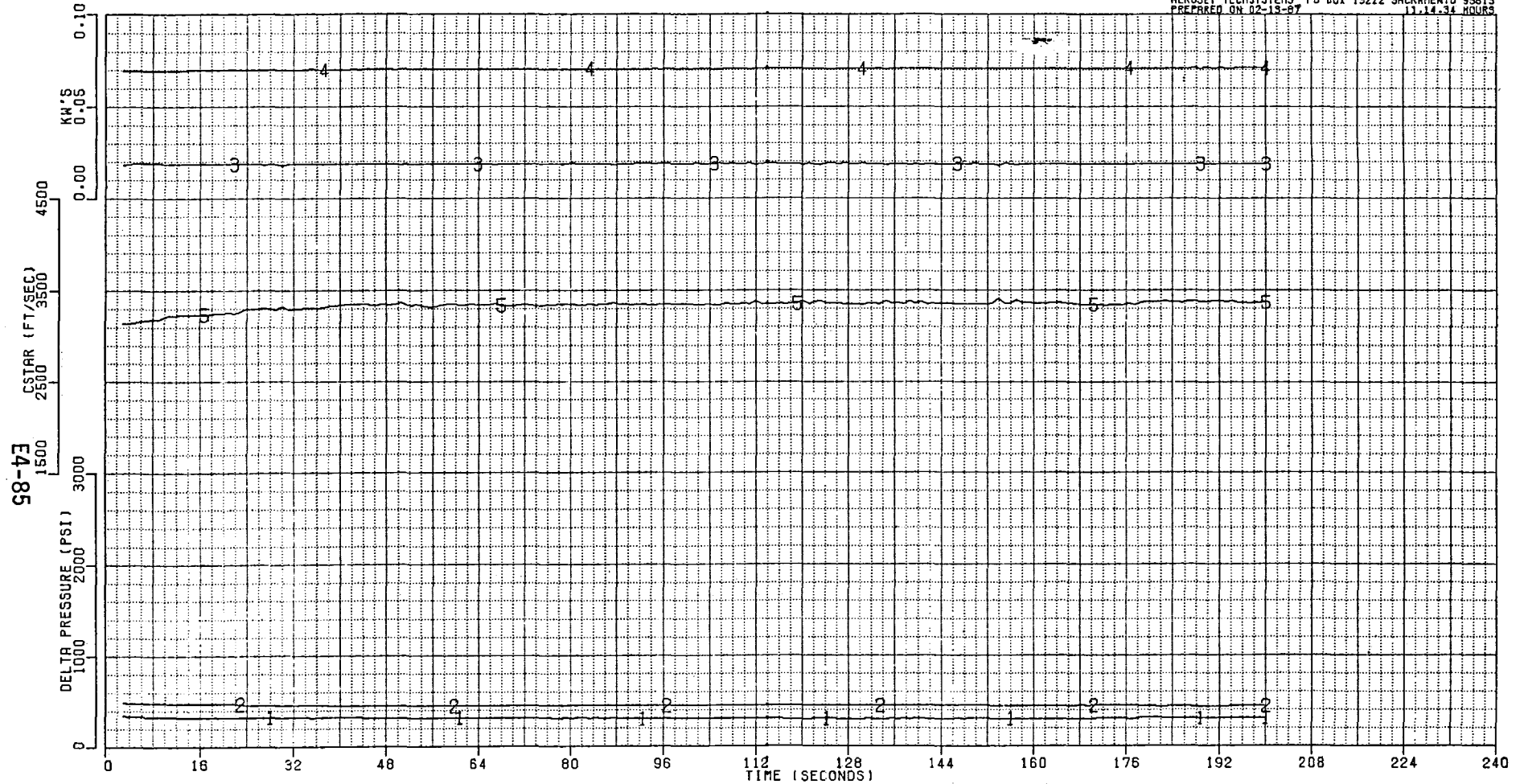


F WF LBS/SEC  
C WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-132

TEST DATE 06-19-86 1014 HOURS



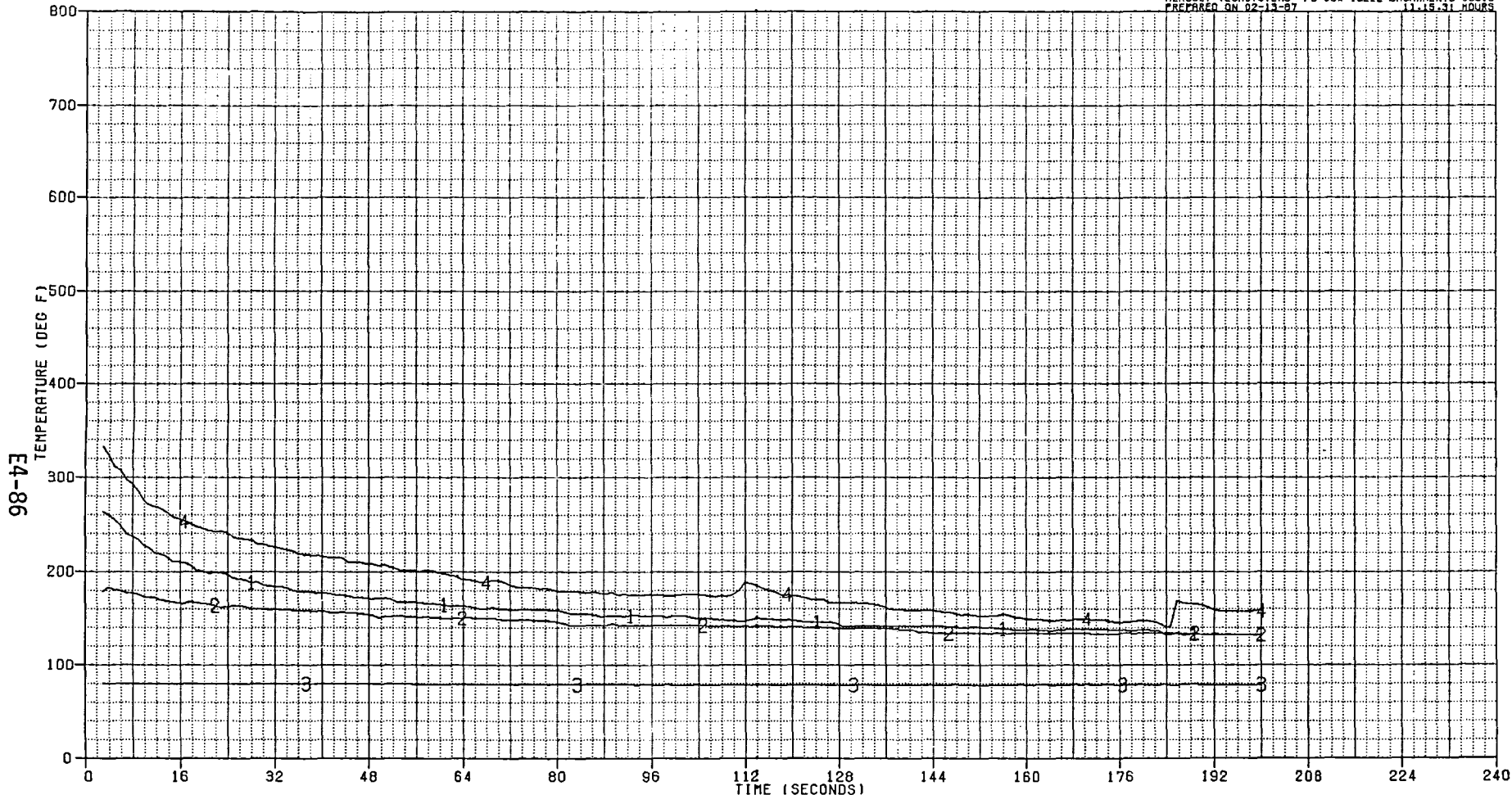


- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRP3 FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
TEST NO. 2427-229-A6-132

TEST DATE 06-19-86 1014 HOURS



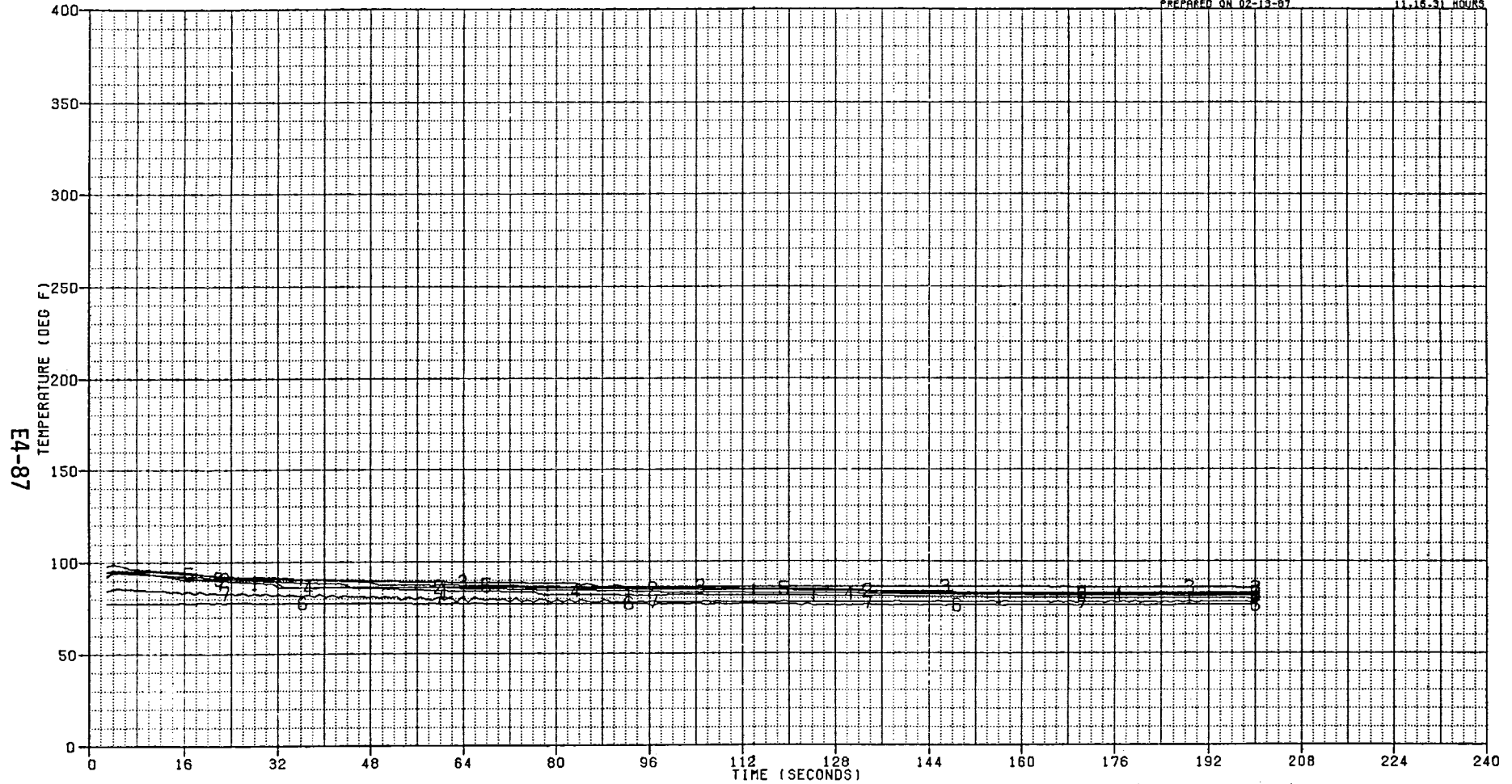


E4-86

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-132  
BARREL DATA  
TEST DATE 06-19-86 1014 HOURS



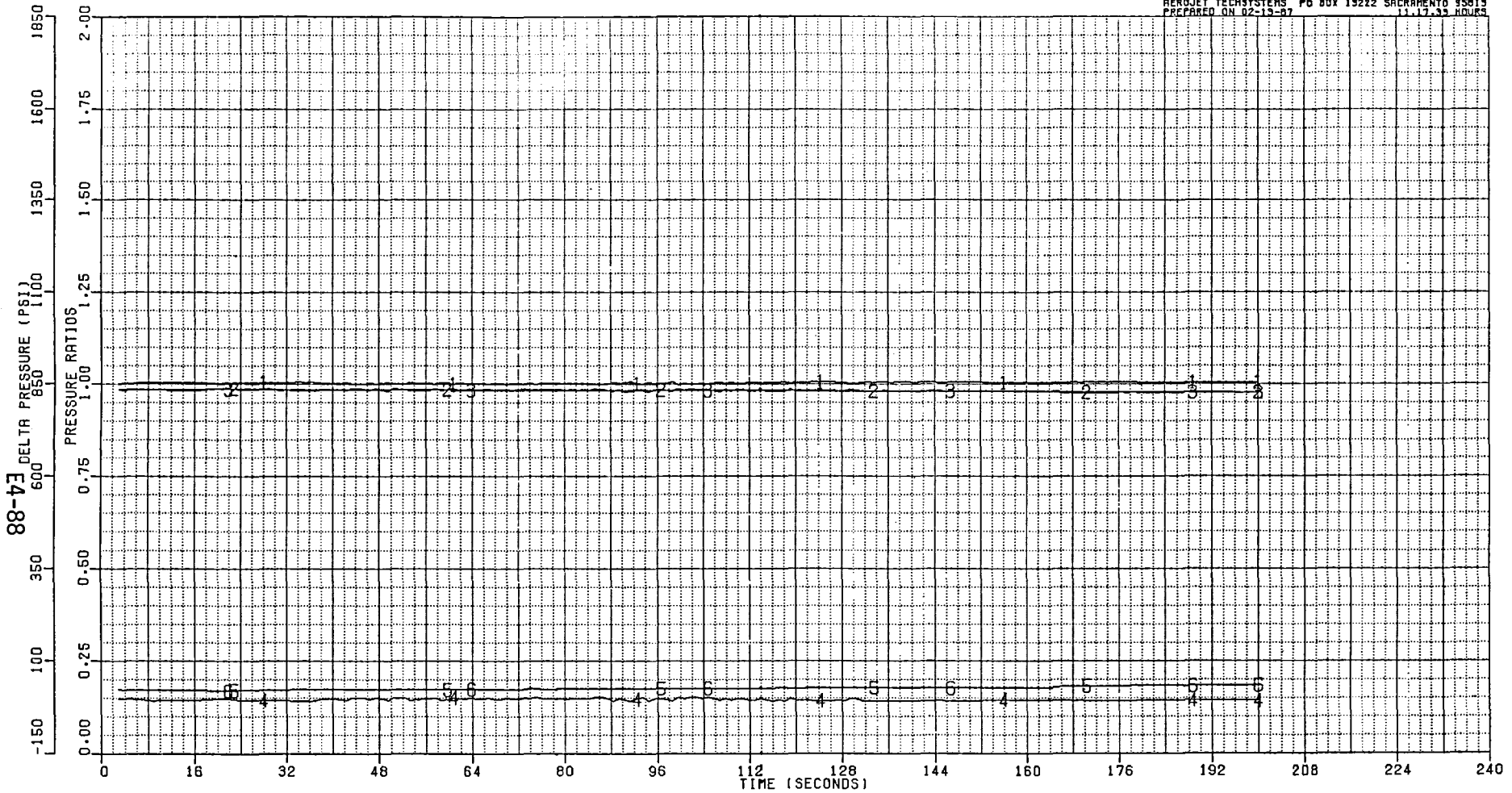


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-132

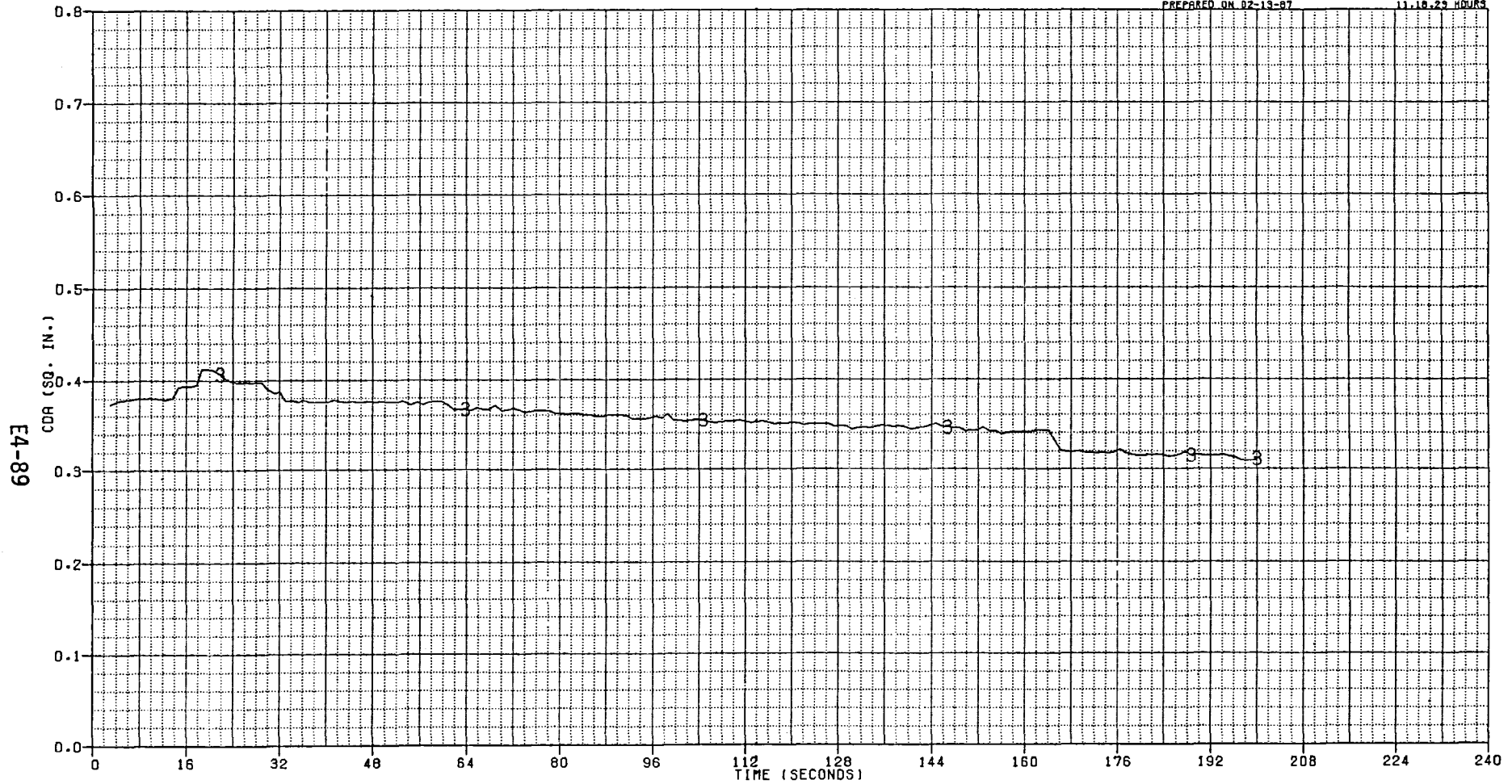
TEST DATE 06-19-86 1014 HOURS



- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-132  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 06-19-86 1014 HOURS

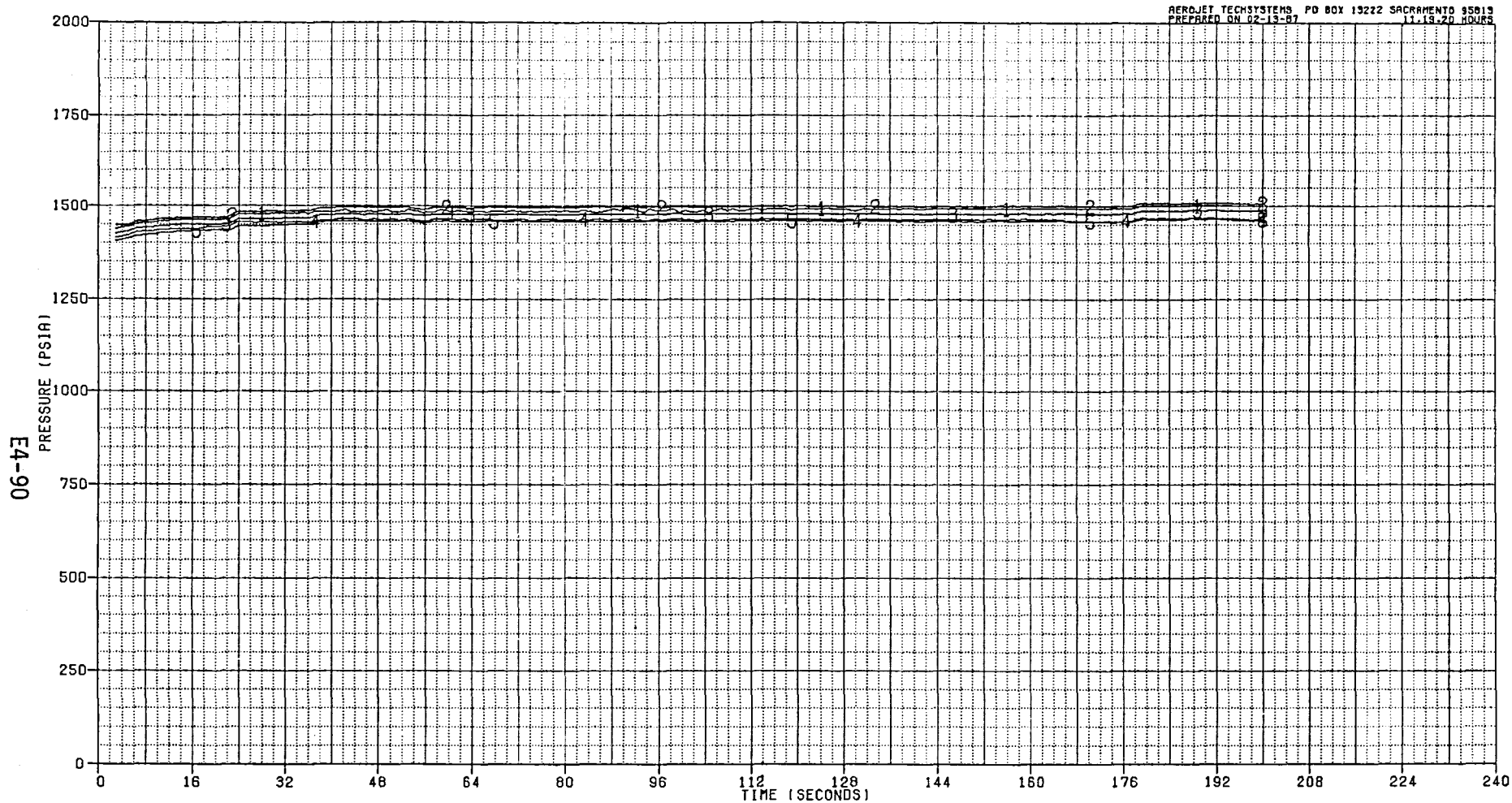




1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-132  
NOZZLE AREA CHANGE  
TEST DATE 06-19-86 1014 HOURS





AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95813  
 PREPARED ON 02-13-87 11:13:20 HOURS

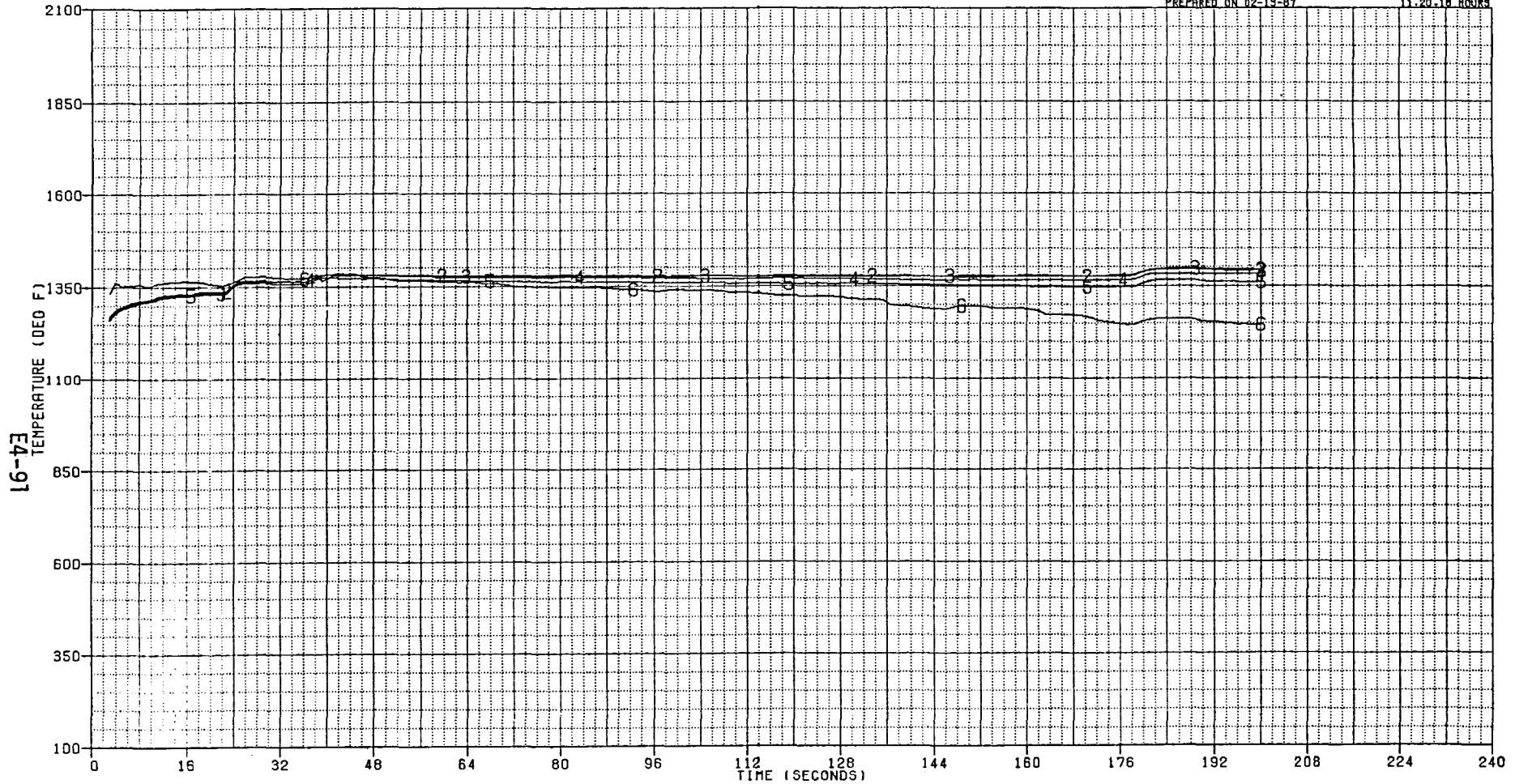
E4-90

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-132  
 PRESSURE MEASUREMENTS  
 TEST DATE 06-19-86 1014 HOURS







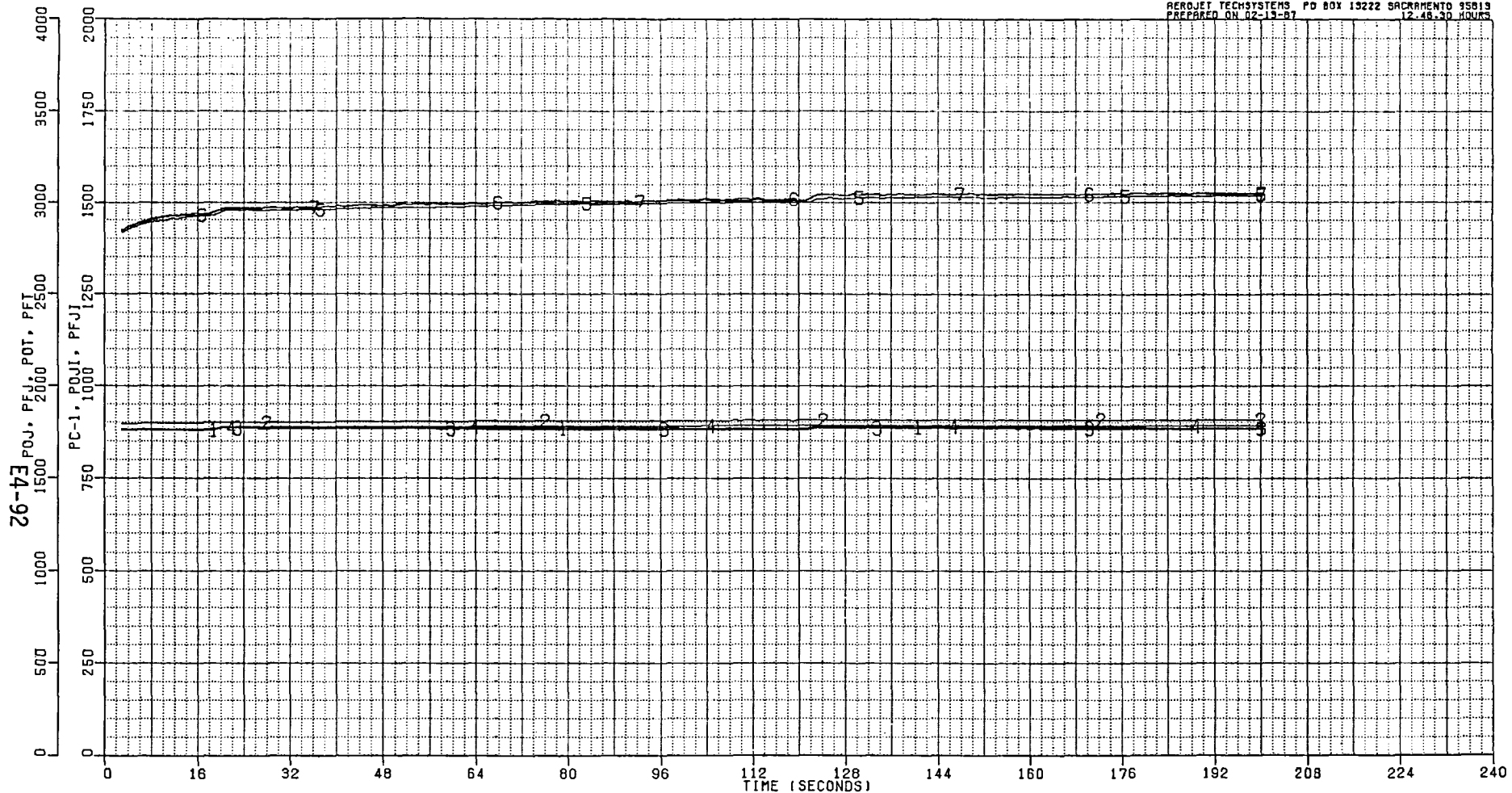
E4-91

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F



GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-132  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1014 HOURS





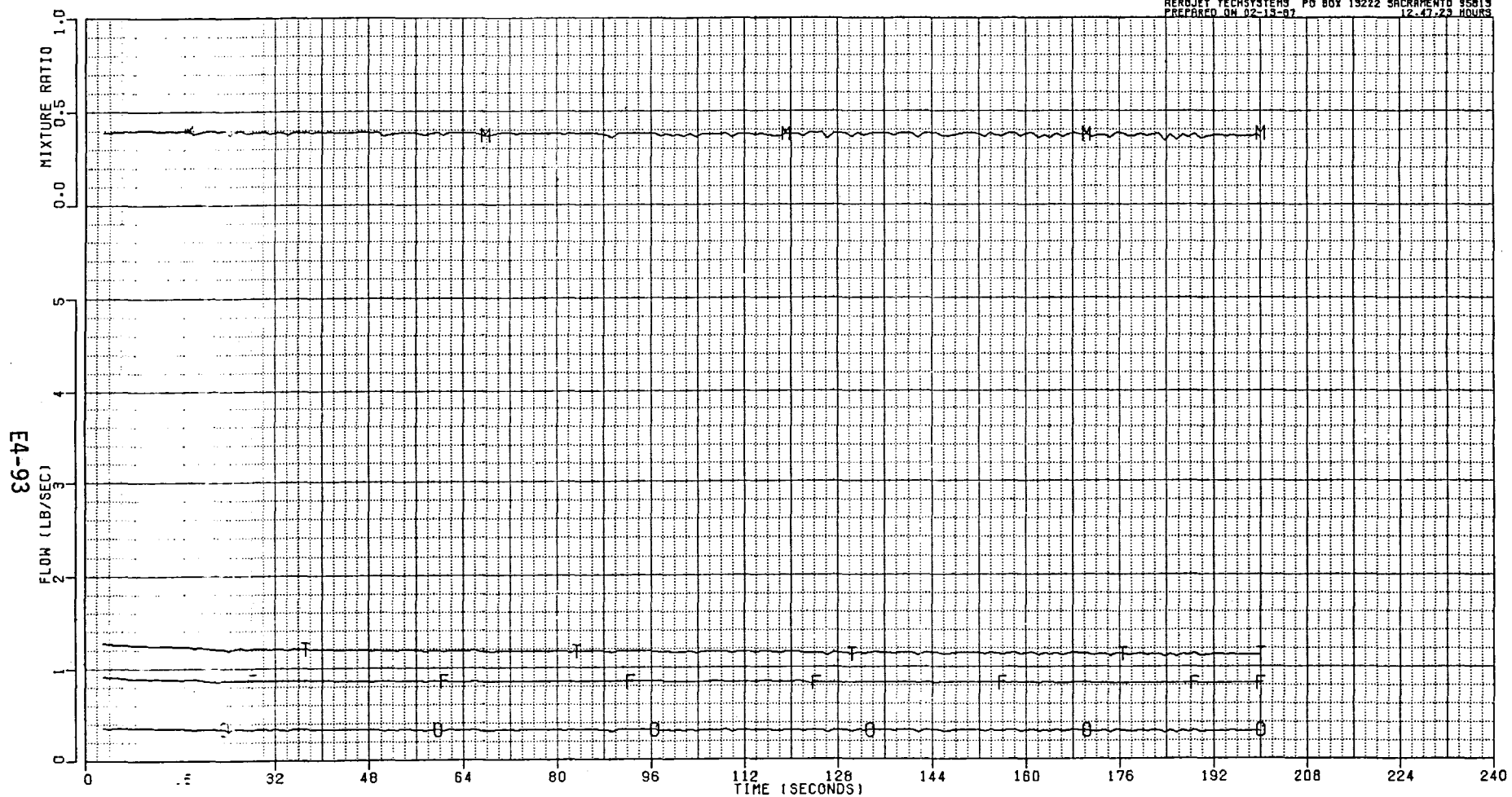
EA-92

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-133

TEST DATE 06-19-86 1106 HOURS





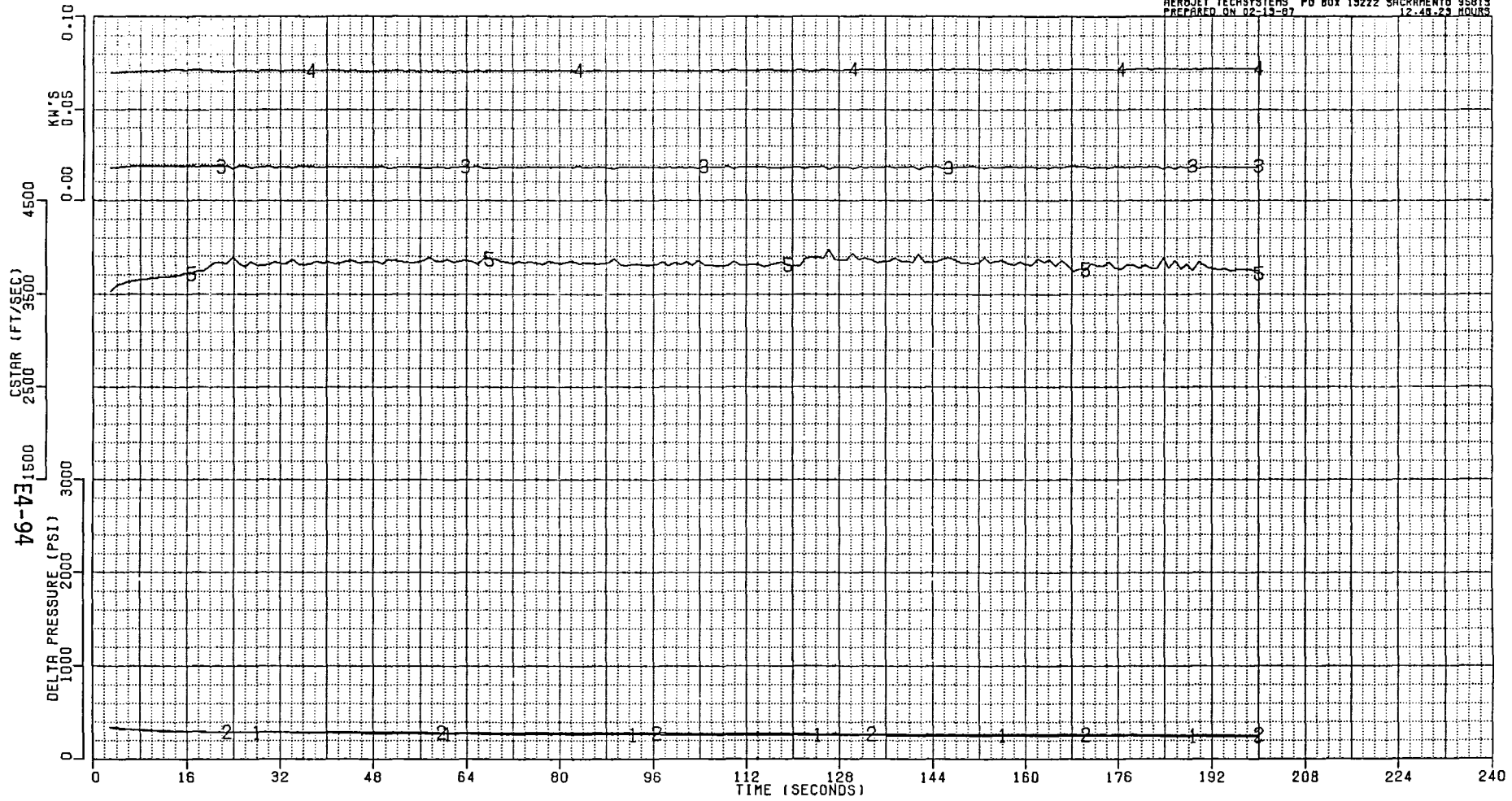
E4-93

F WF  
O WOX  
T WTOT  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-133

TEST DATE 06-19-86 1106 HOURS



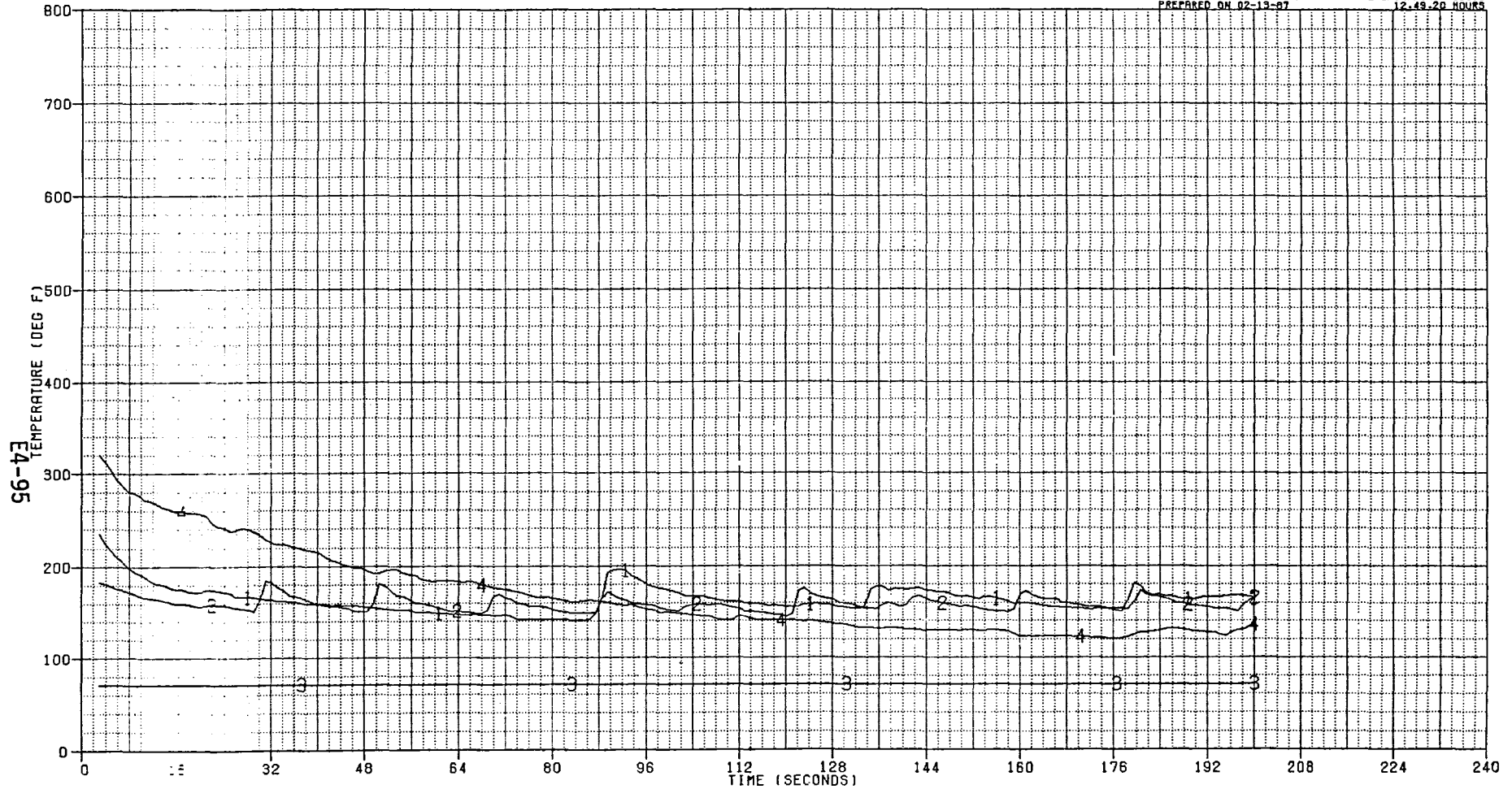


- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWUJ
- 4 KWFJ
- 5 CSTRPB         FT/SEC
- 6 CSTAR         FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-133

TEST DATE 06-19-86 1106 HOURS

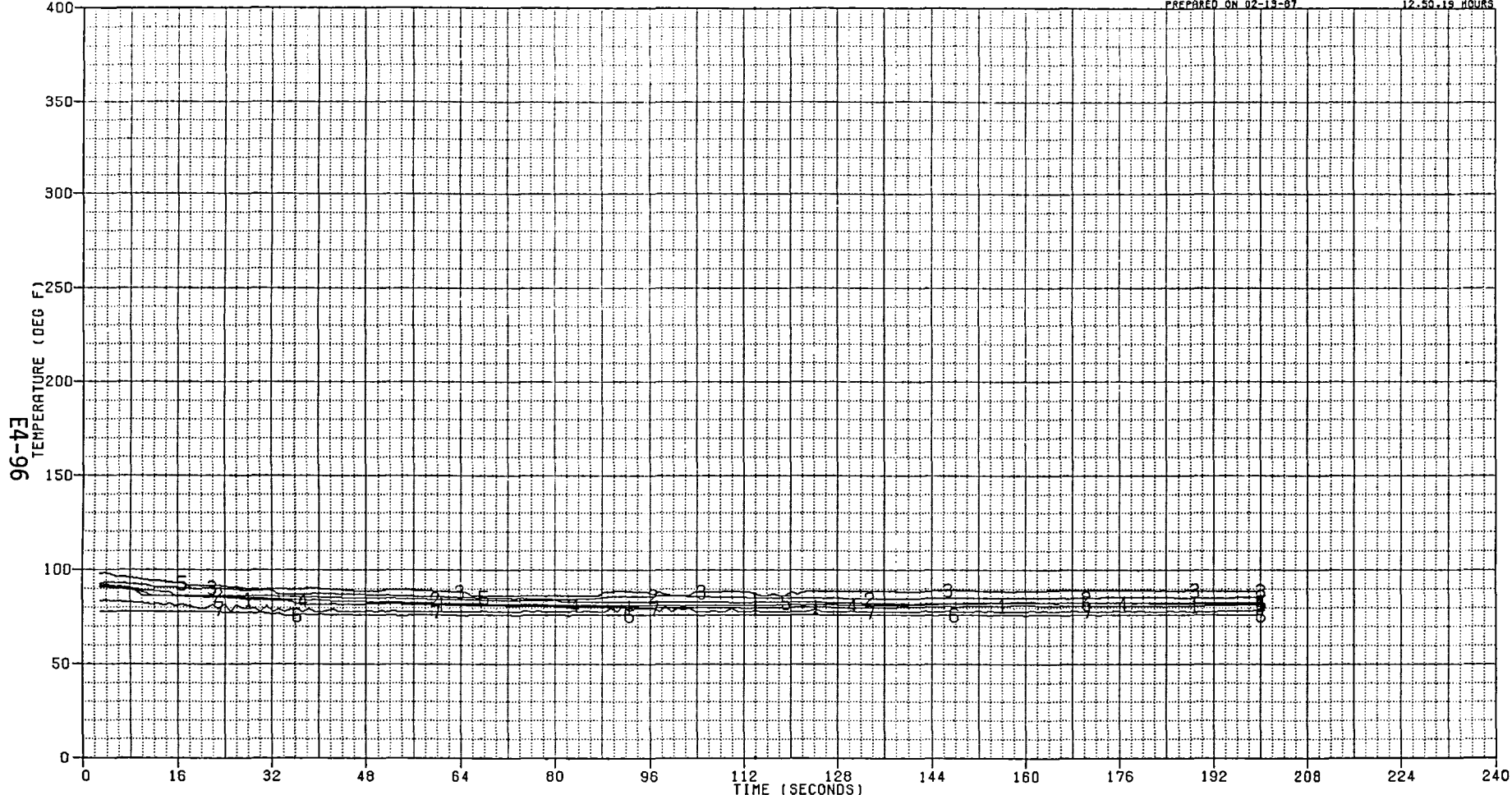




- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-133  
BARREL DATA  
TEST DATE 06-19-86 1106 HOURS





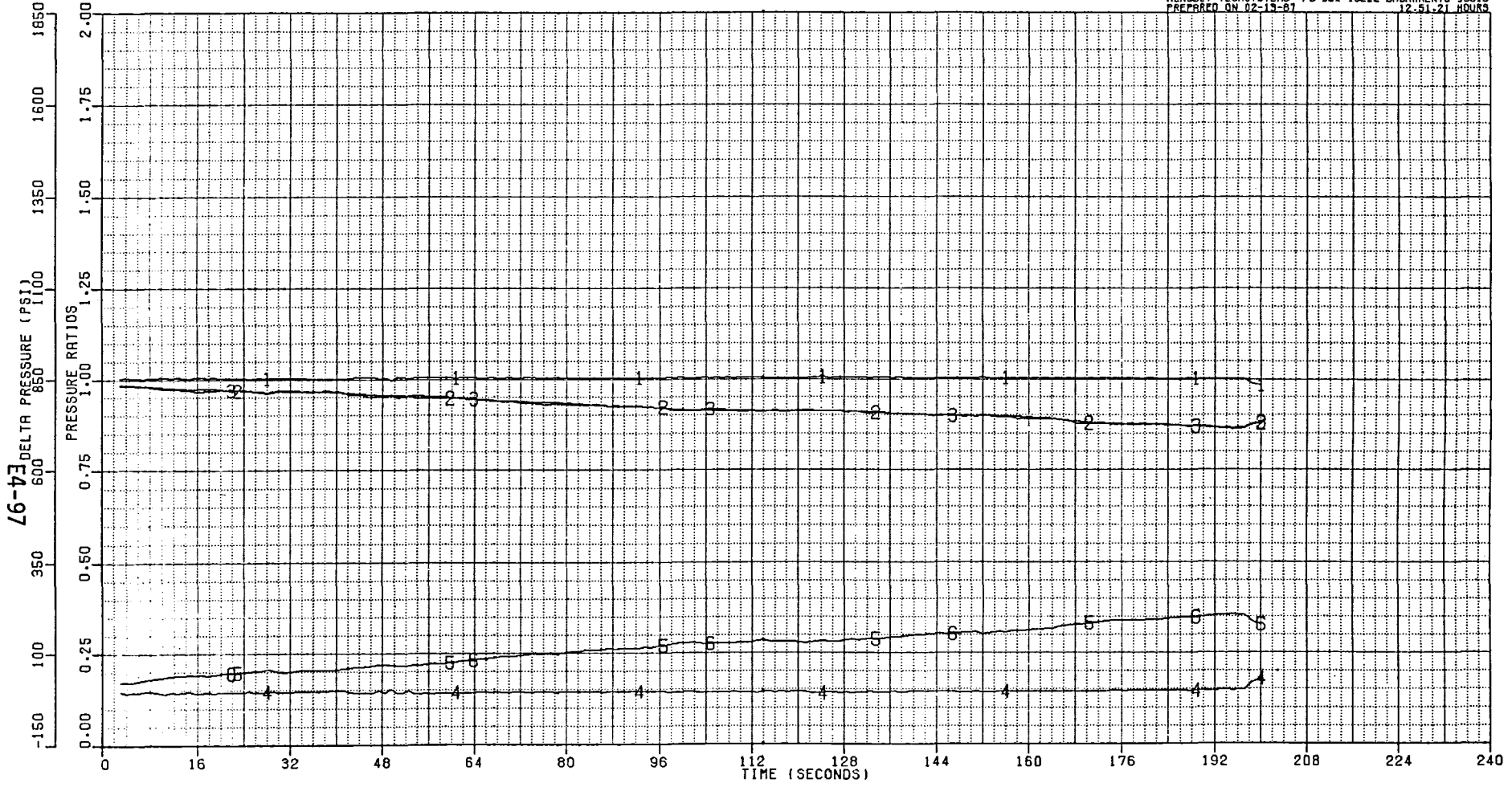
E4-96

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-133

TEST DATE 06-19-86 1106 HOURS

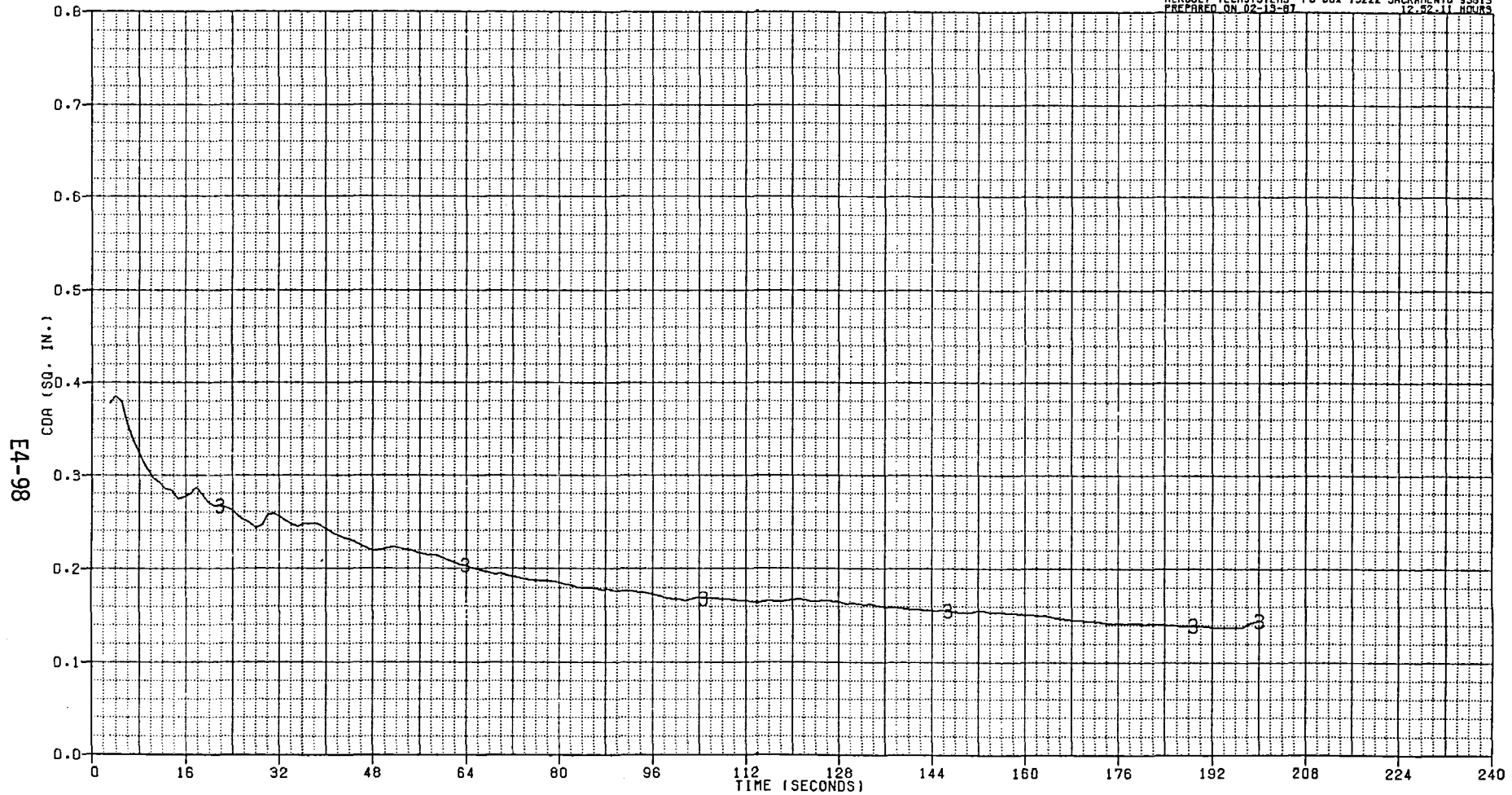


E4-97

- 1 PRTR
- 2 PRTR
- 3 PRTR
- 4 DPT# PSI
- 5 DPT# PSI
- 6 DPT# PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-133  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 06-19-86 1106 HOURS



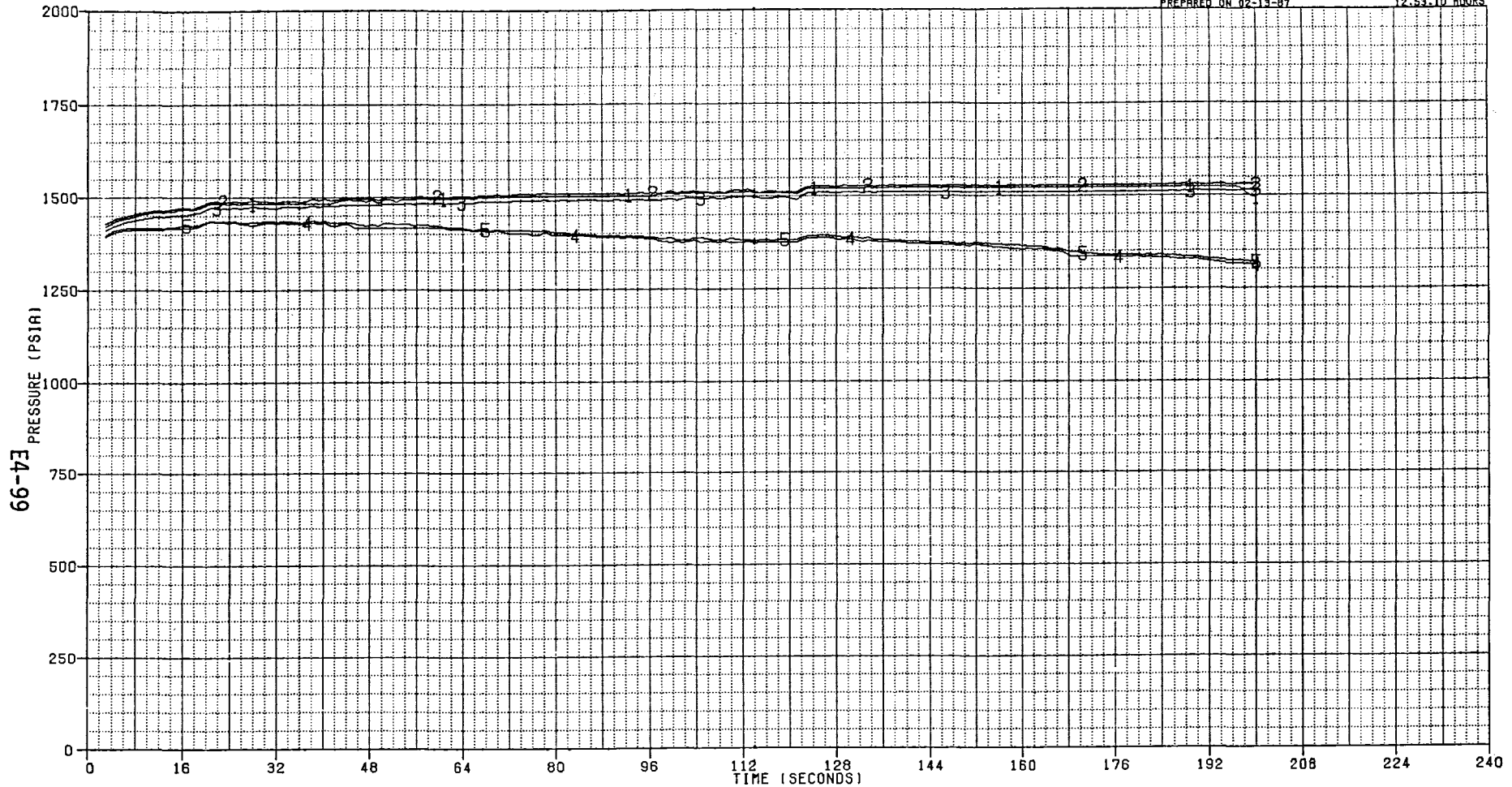


1 NA1 SQ.IN.  
2 NA2 SQ.IN.  
3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-133  
NOZZLE AREA CHANGE  
TEST DATE 06-19-86 1106 HOURS





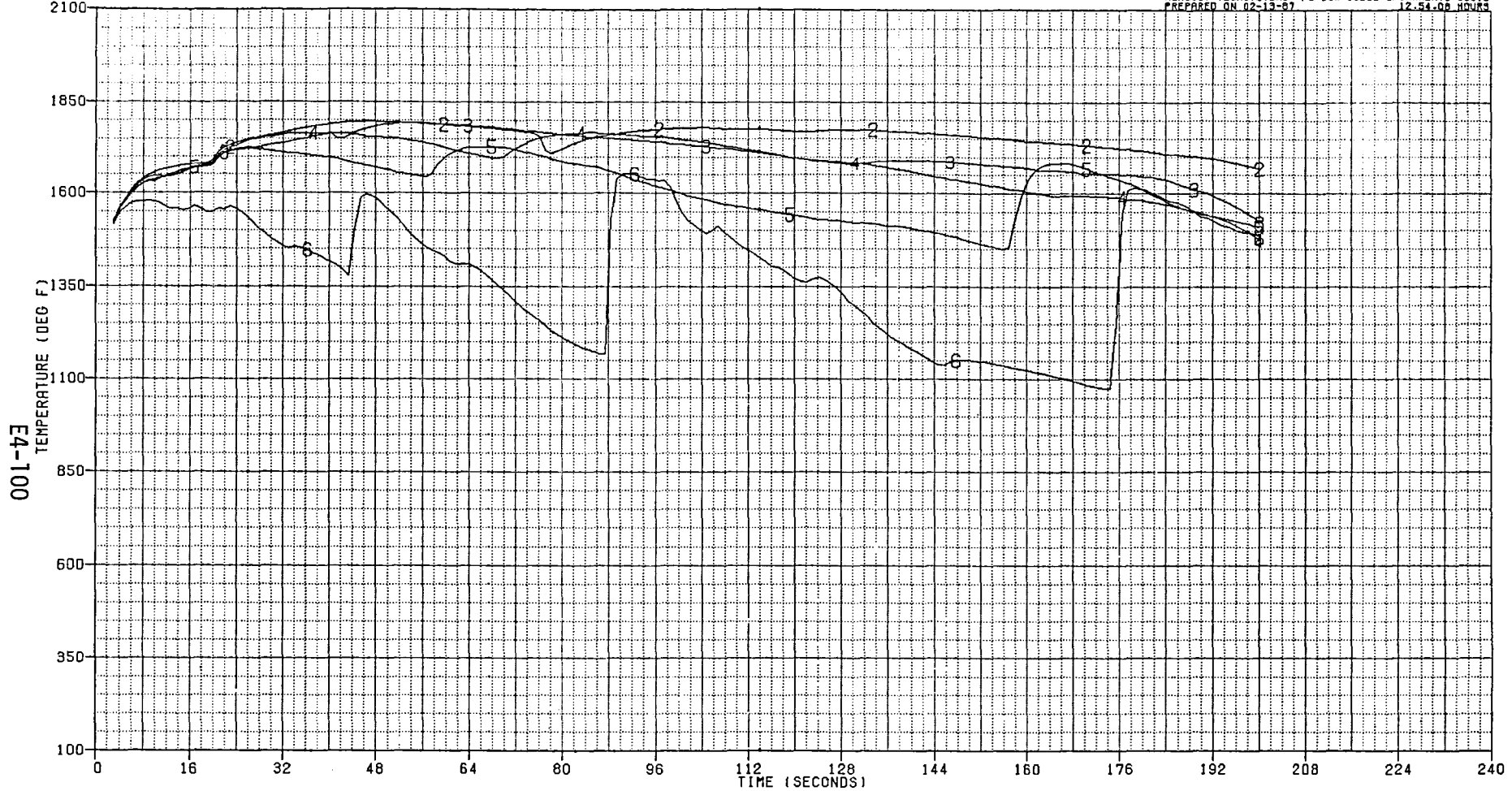


- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-133  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1106 HOURS





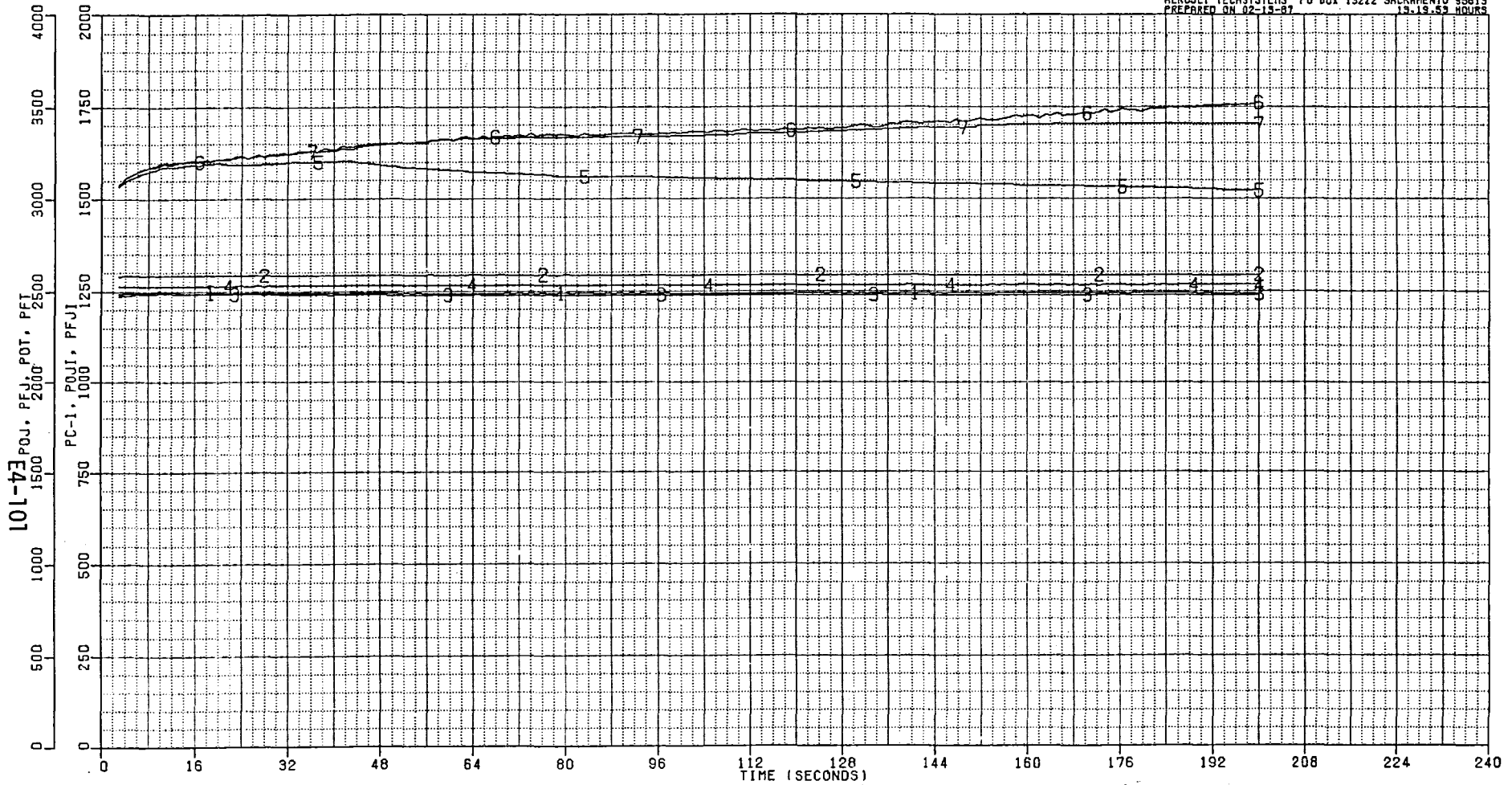


E4-100

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-133  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1106 HOURS





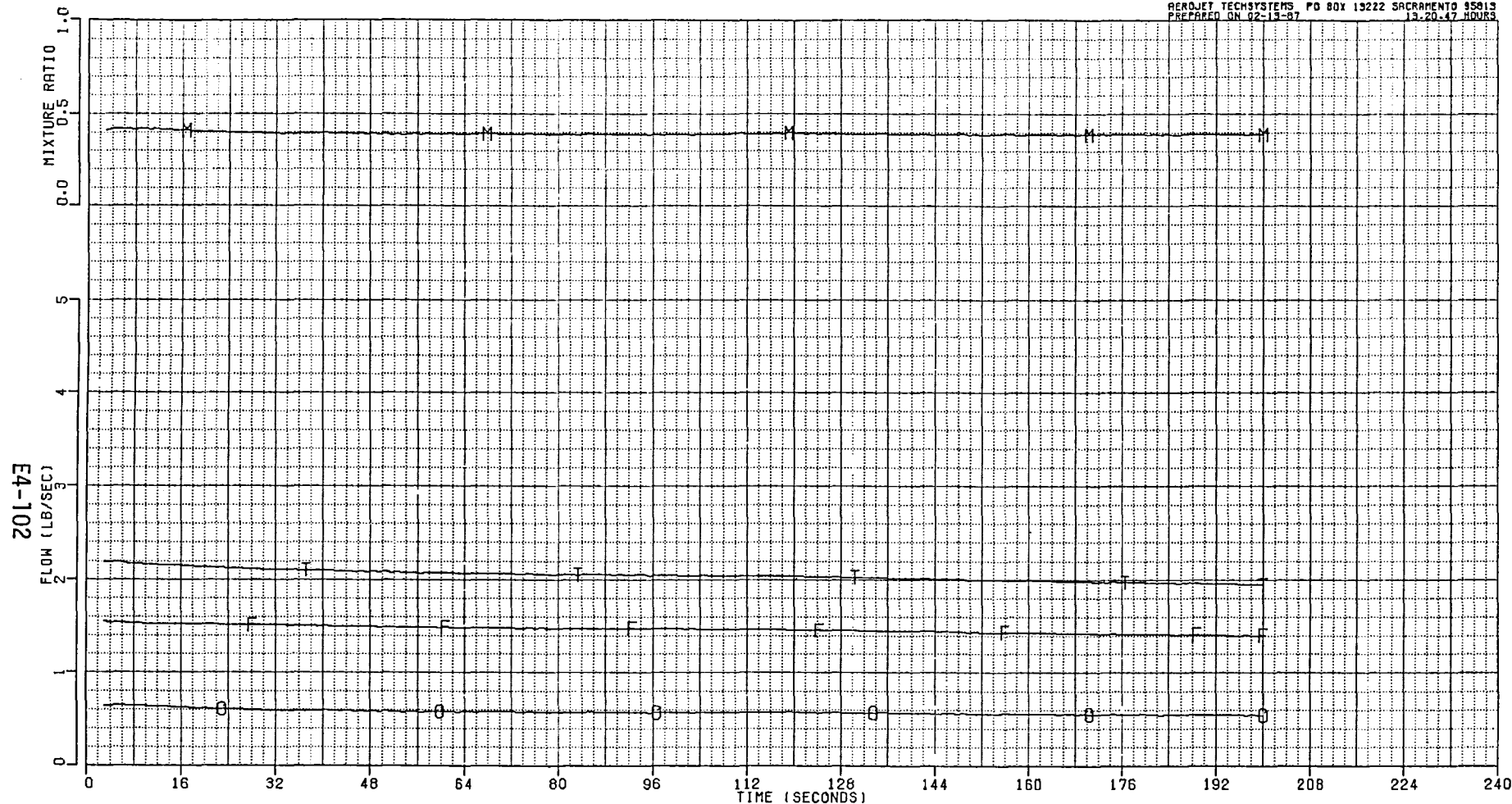
EA-101

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-134

TEST DATE 06-19-86 1329 HOURS





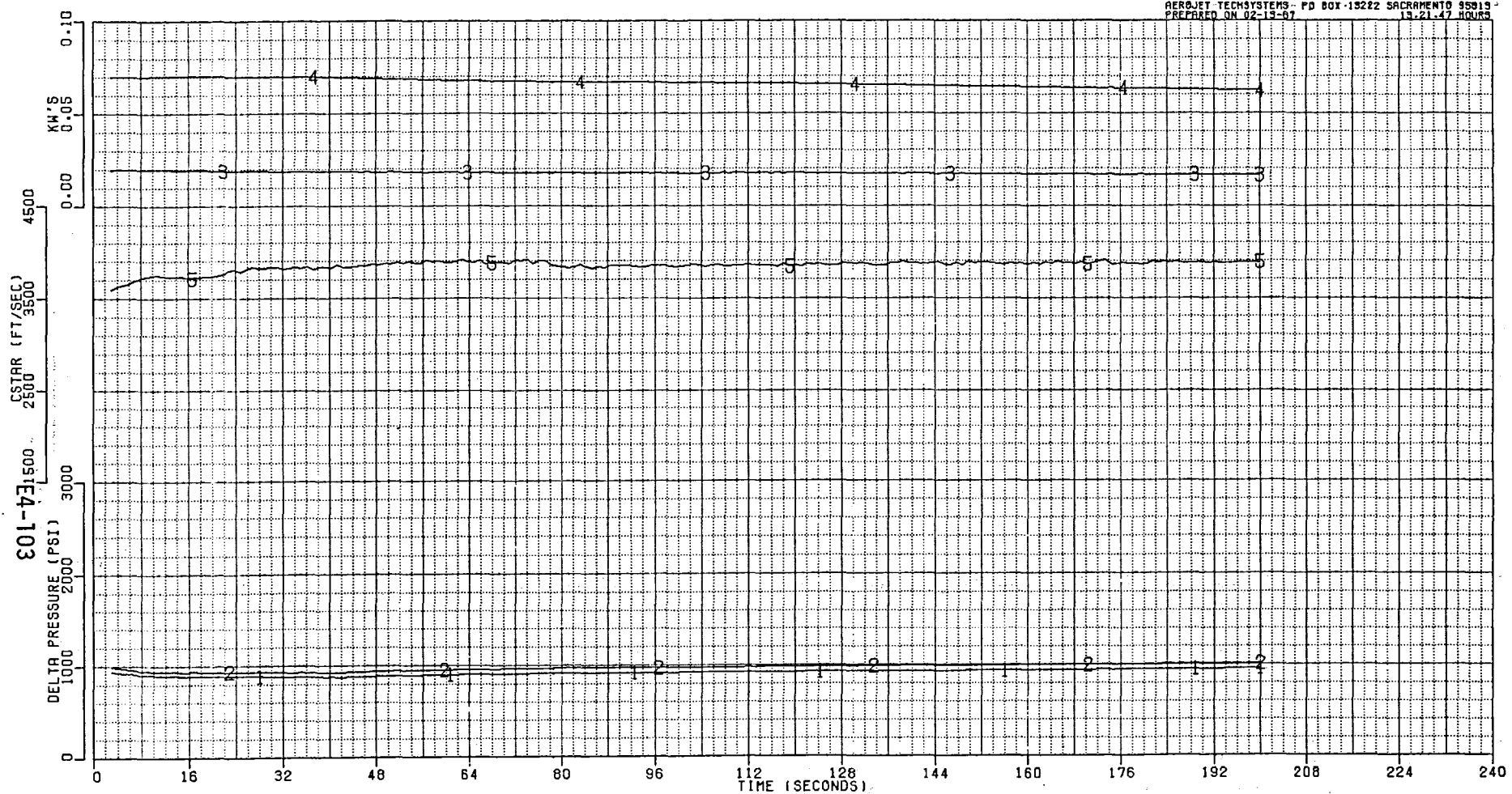
E4-102

F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-134

TEST DATE 06-19-86 1329 HOURS

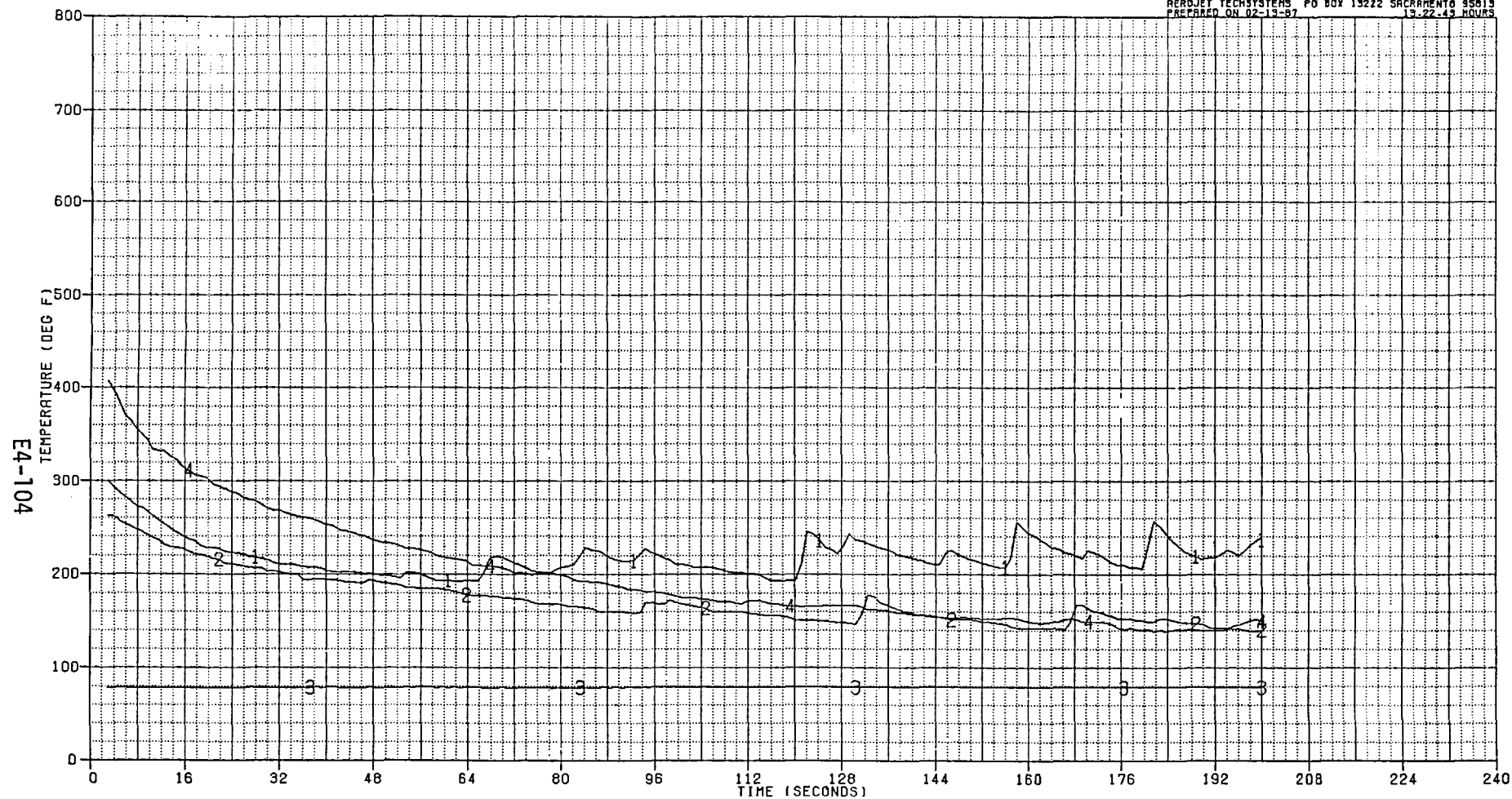




- 1 DPQJ            PSI
- 2 DPFJ            PSI
- 3 KWQJ
- 4 KWFJ
- 5 CSTRPE        FT/SEC
- 6 CSTAR        FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-134  
 TEST DATE 06-19-86 1329 HOURS

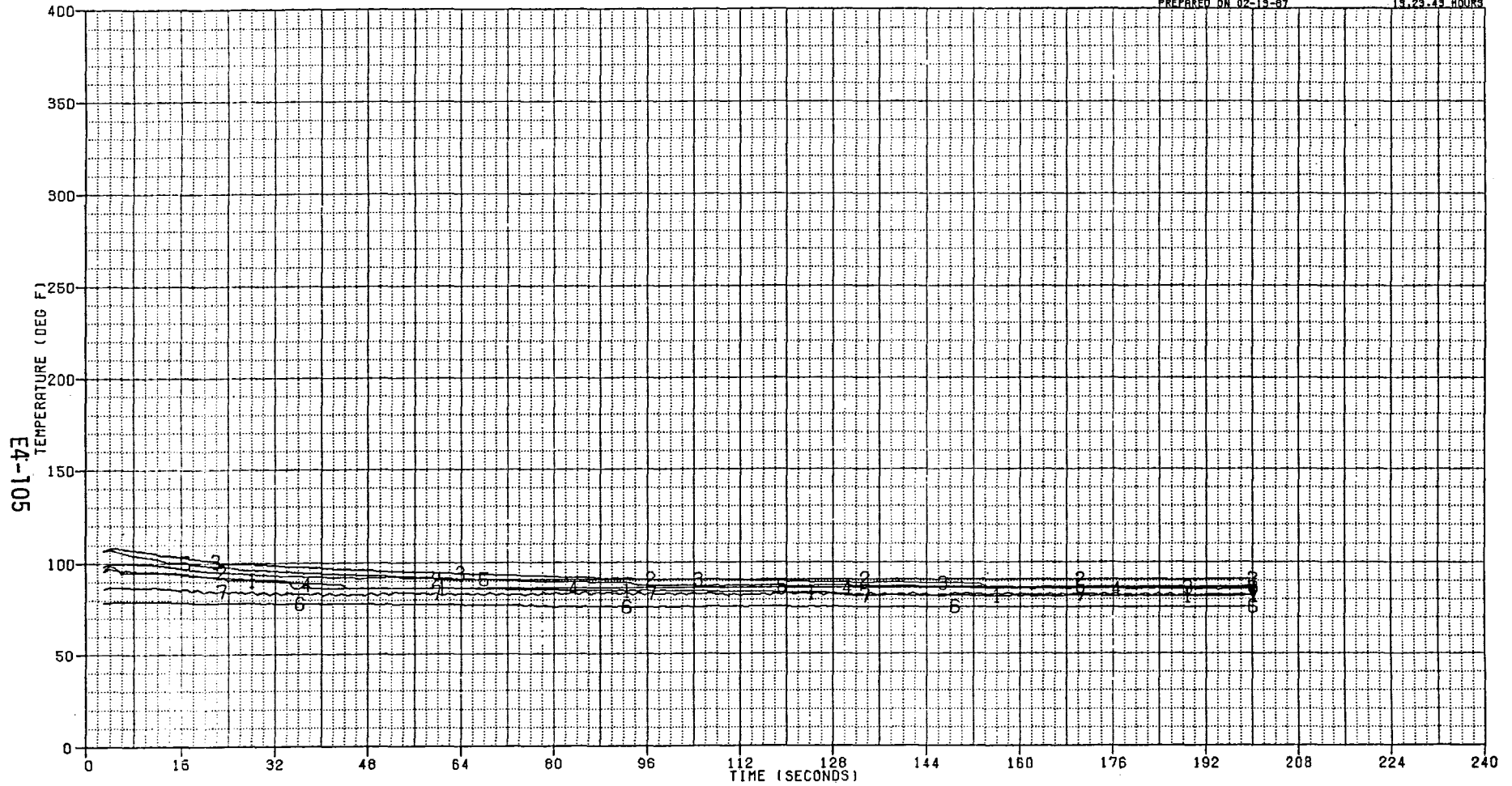




- 1 TC-7      DEG F
- 2 TC-10     DEG F
- 3 TC-11     DEG F
- 4 TC-12     DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-134  
BARREL DATA  
TEST DATE 06-19-86 1329 HOURS



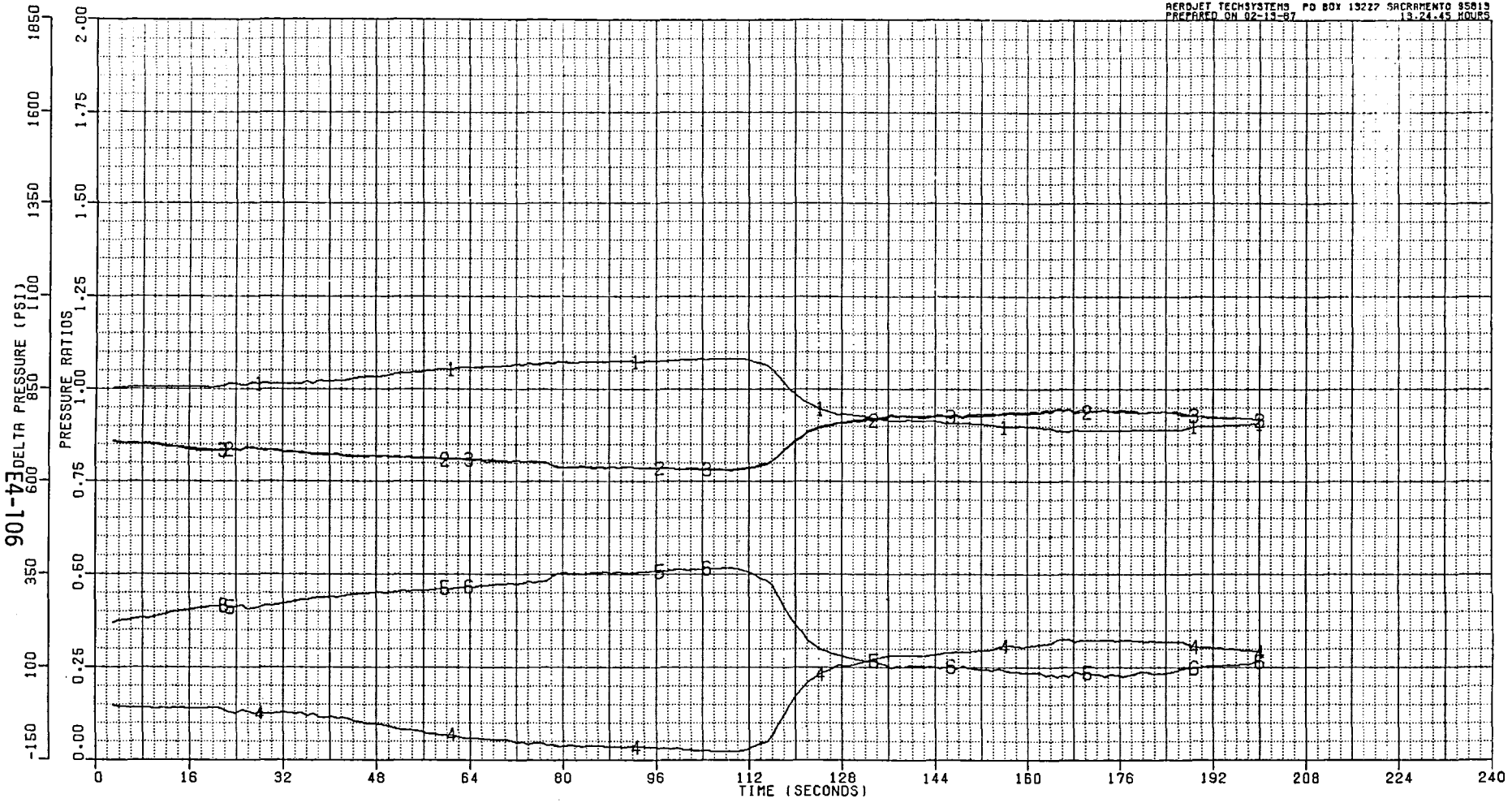


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-134

TEST DATE 06-19-86 1329 HOURS



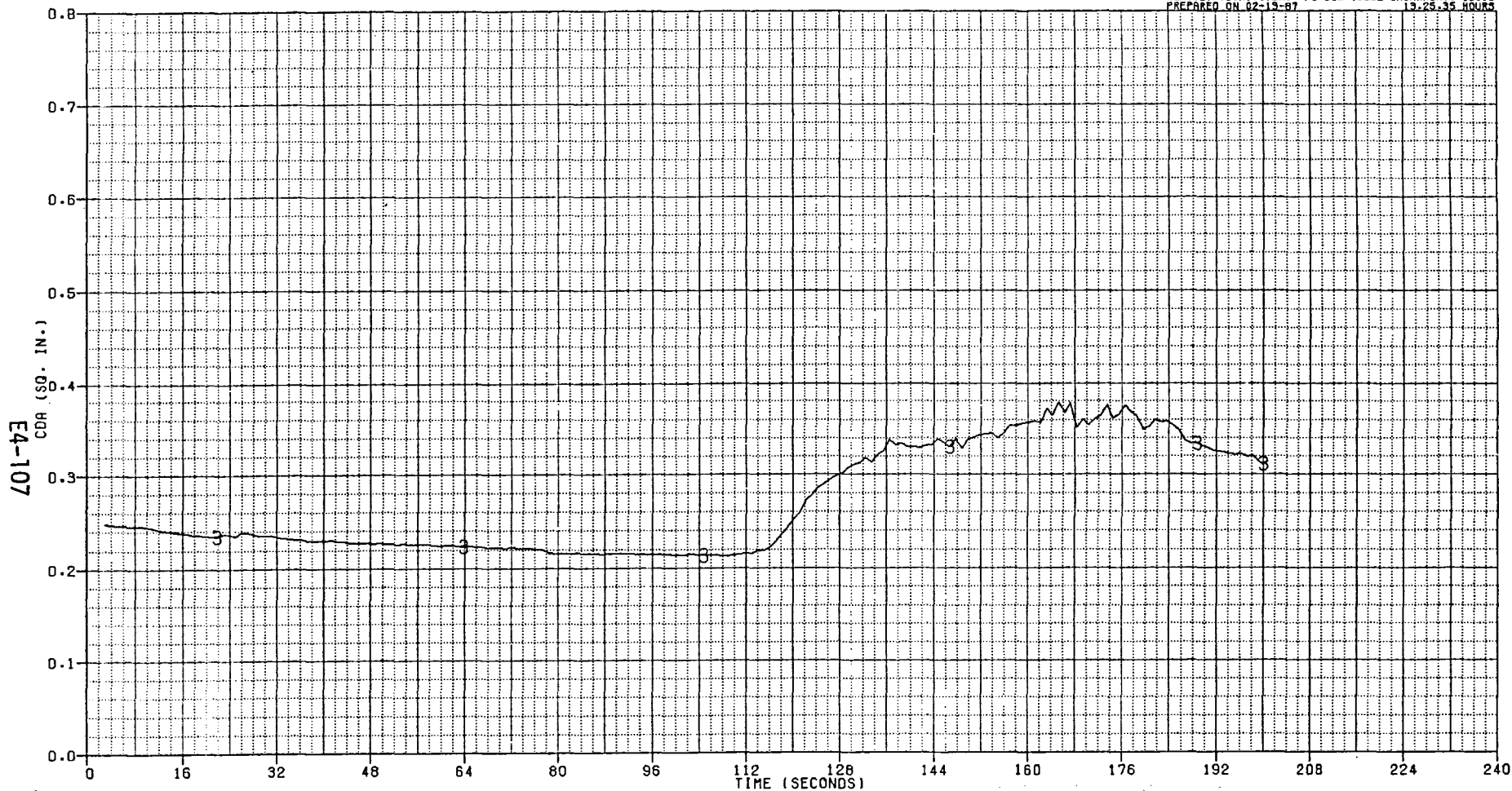


- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTS CORR     PSI
- 4 DPTR            PSI
- 5 DPTS-C         PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-134  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 06-19-86 1329 HOURS





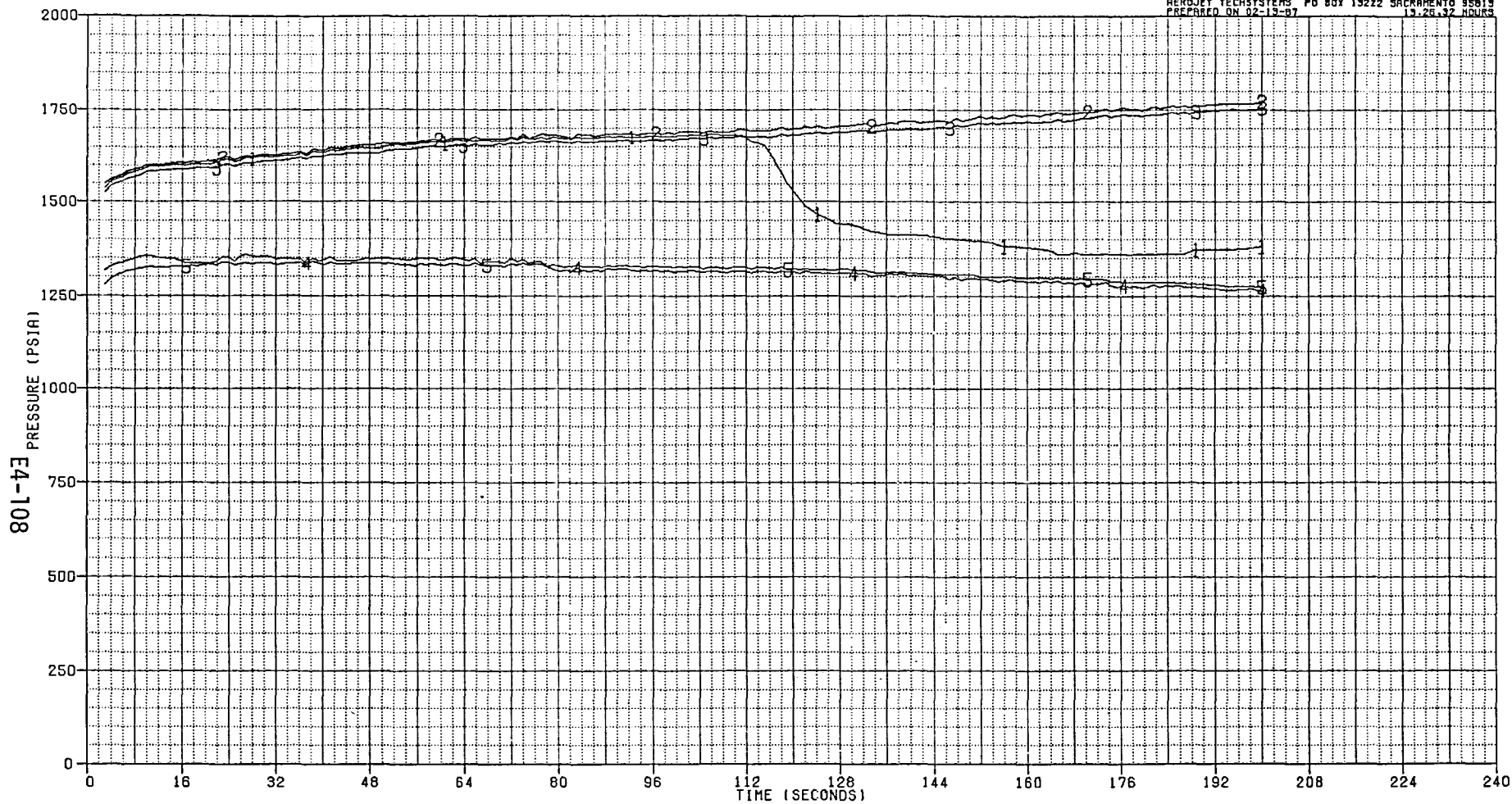


1 NA1      50-IN.  
2 NA2      50-IN.  
3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-134  
NOZZLE AREA CHANGE  
TEST DATE 06-19-86 1329 HOURS





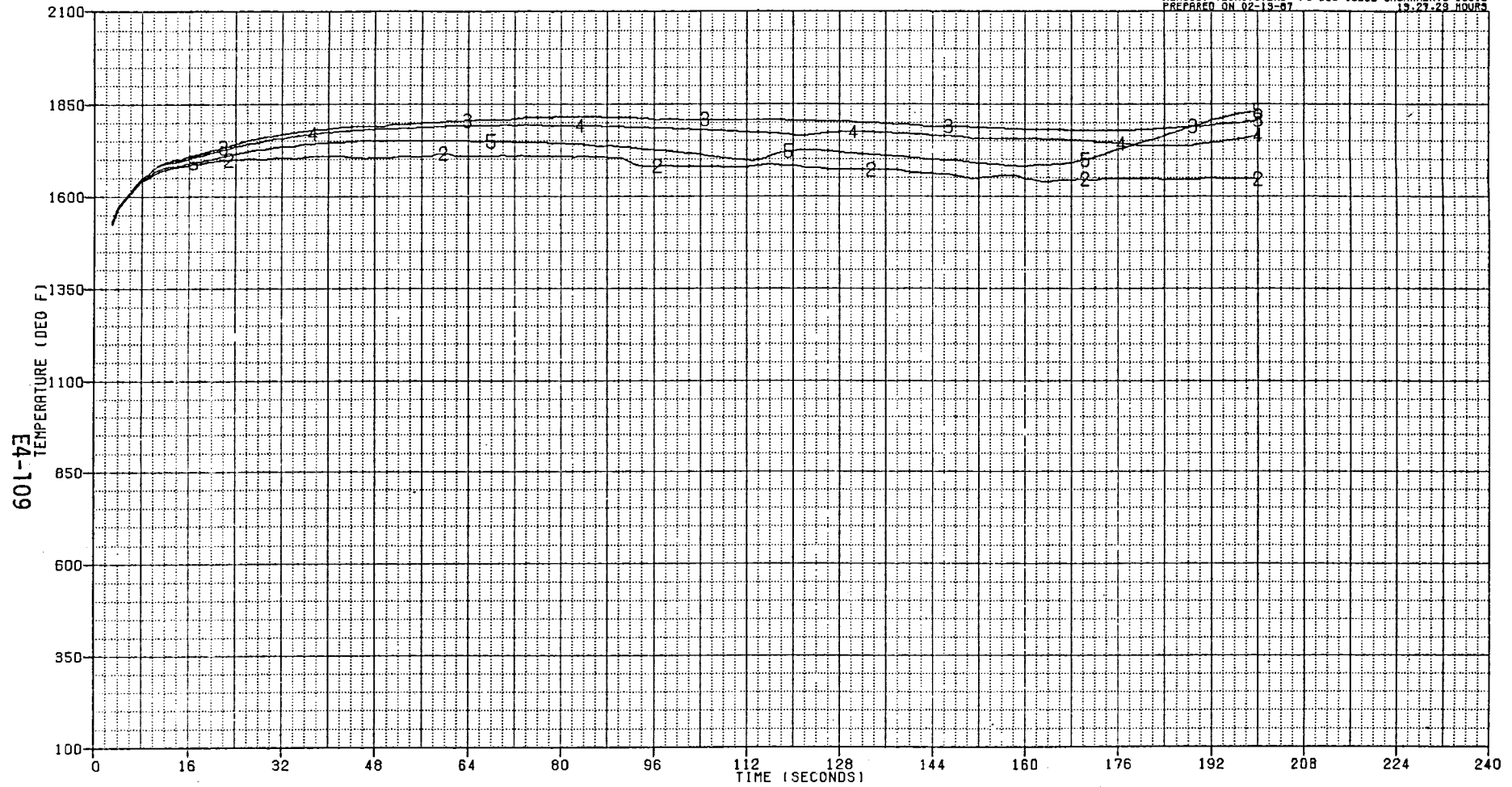


E4-108

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-134  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1329 HOURS





- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

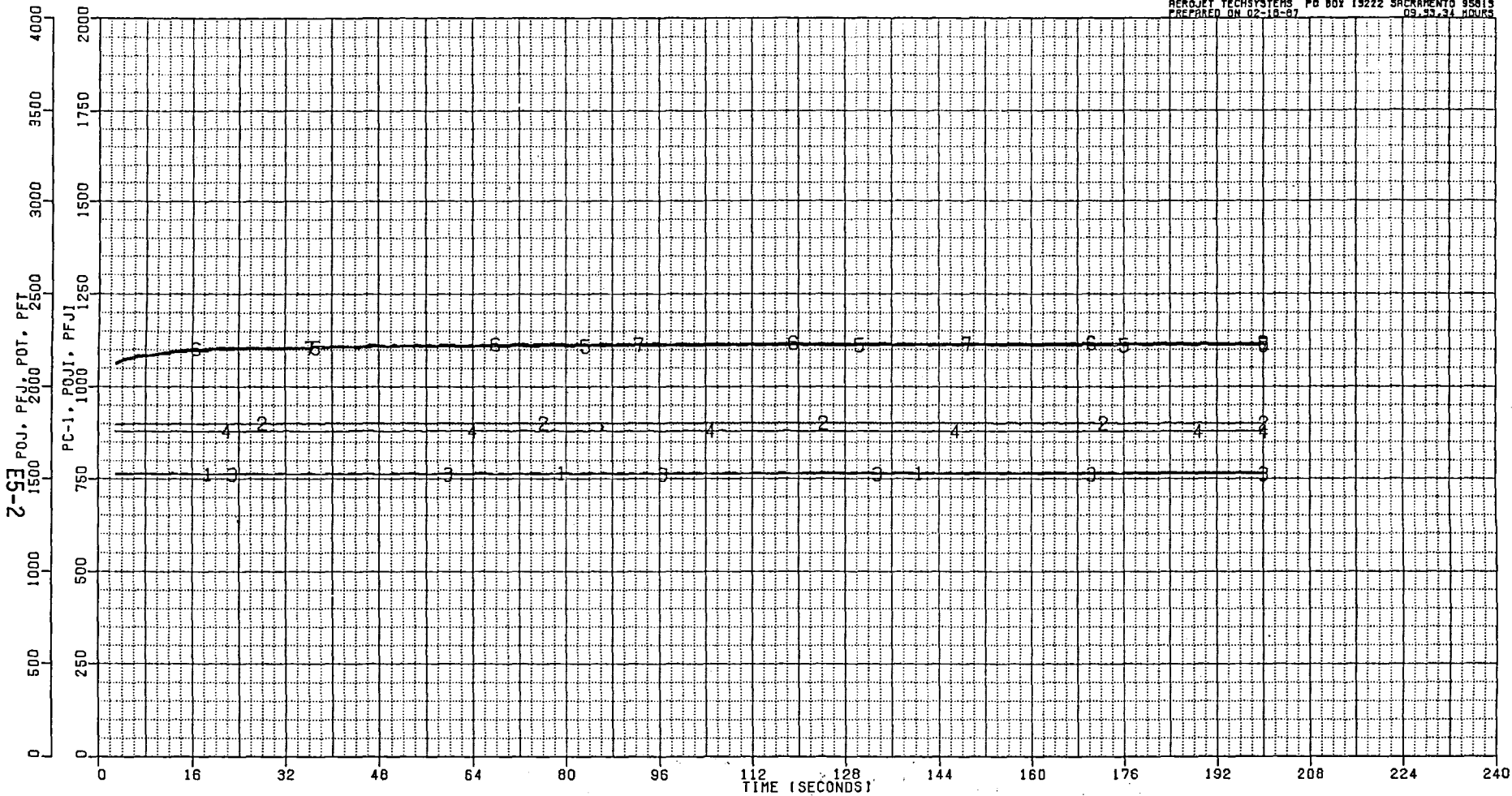
GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-134  
PRESSURE MEASUREMENTS  
TEST DATE 06-19-86 1329 HOURS



**APPENDIX E-5**

**1986 LO<sub>2</sub>/METHANE**

**GAS GENERATOR DATA PLOTS**

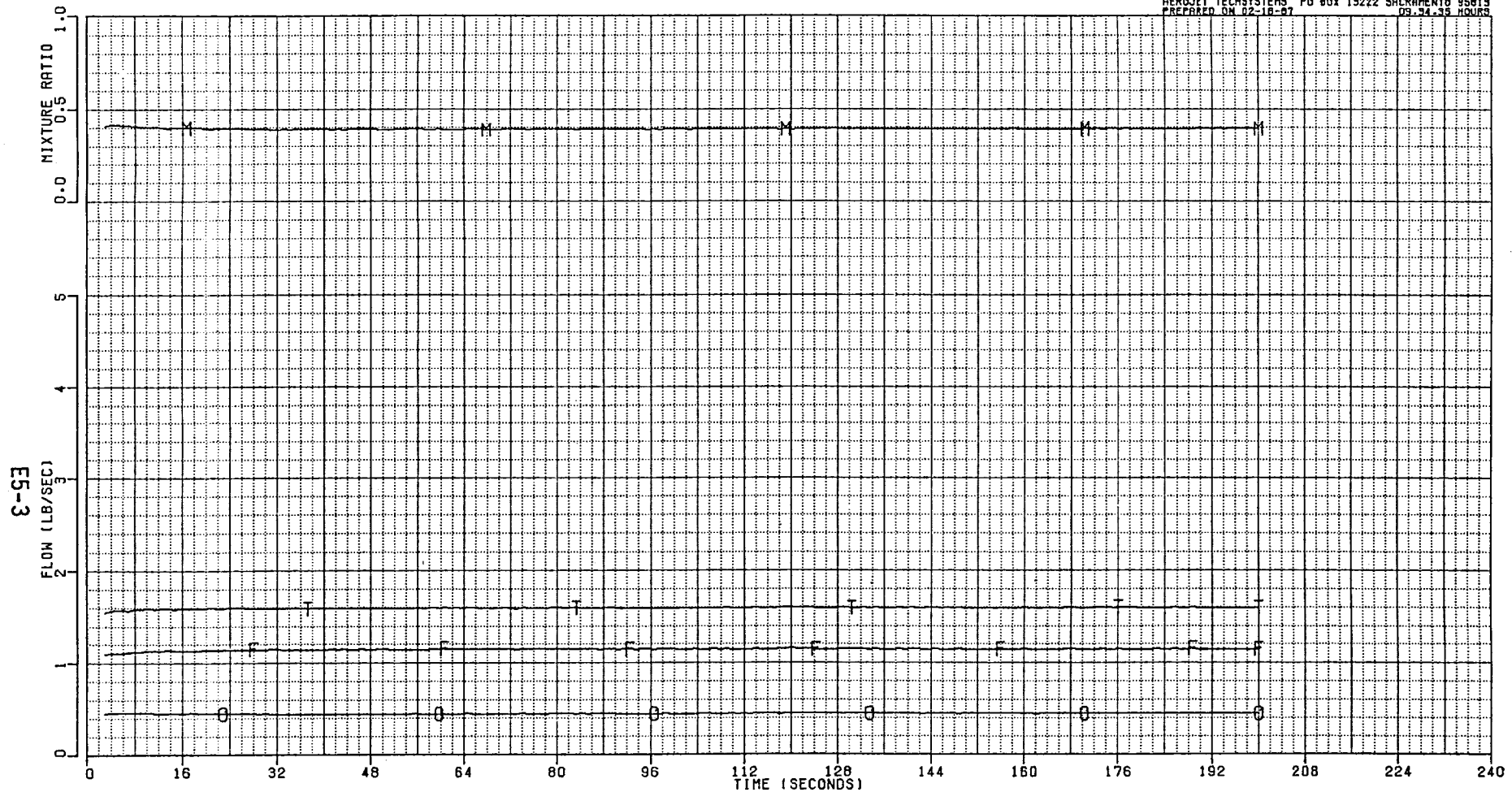


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFIJ PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-138

TEST DATE 07-24-86 1254 HOURS



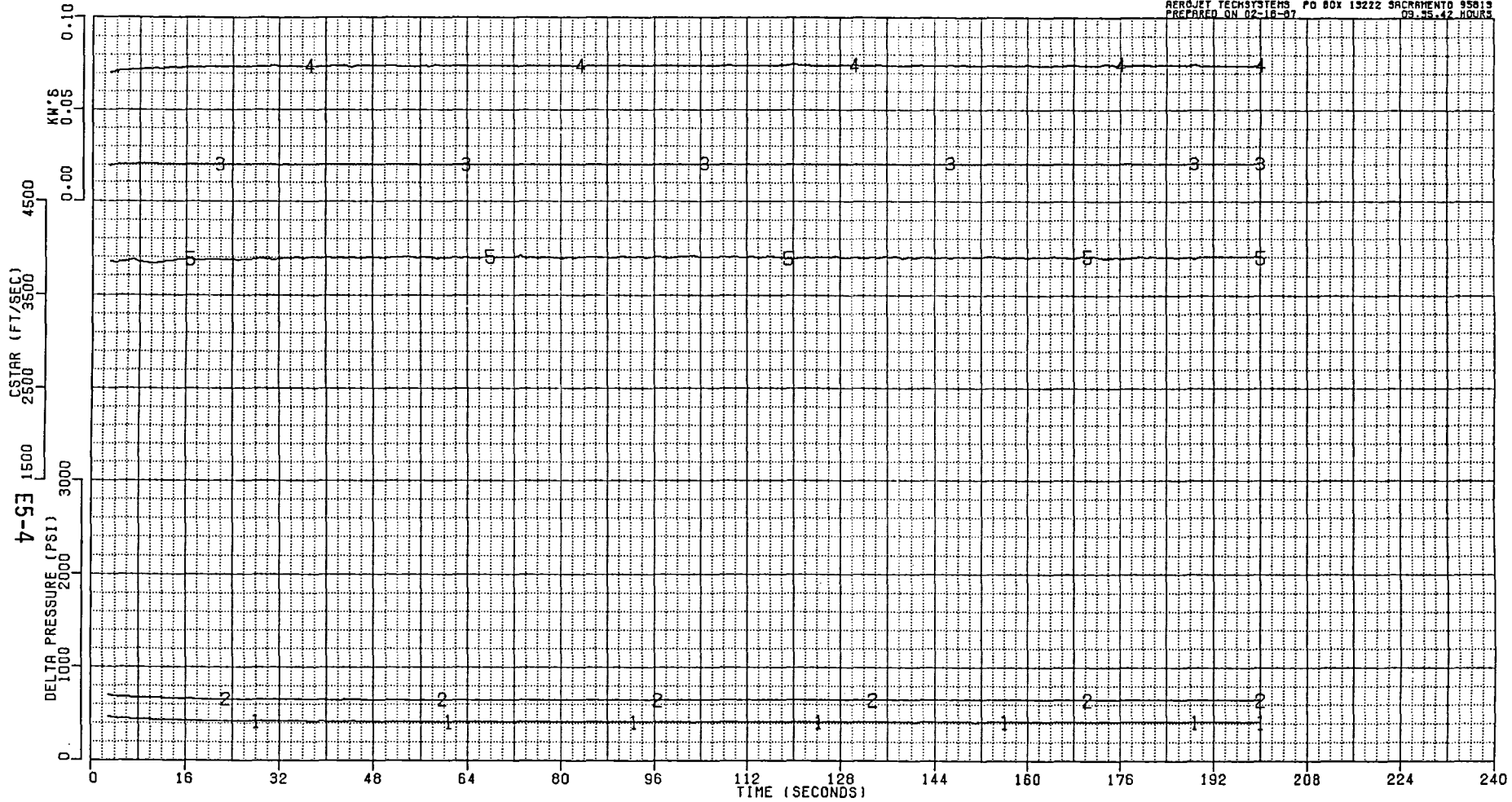


F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-229-A6-138

TEST DATE 07-24-86 1254 HOURS



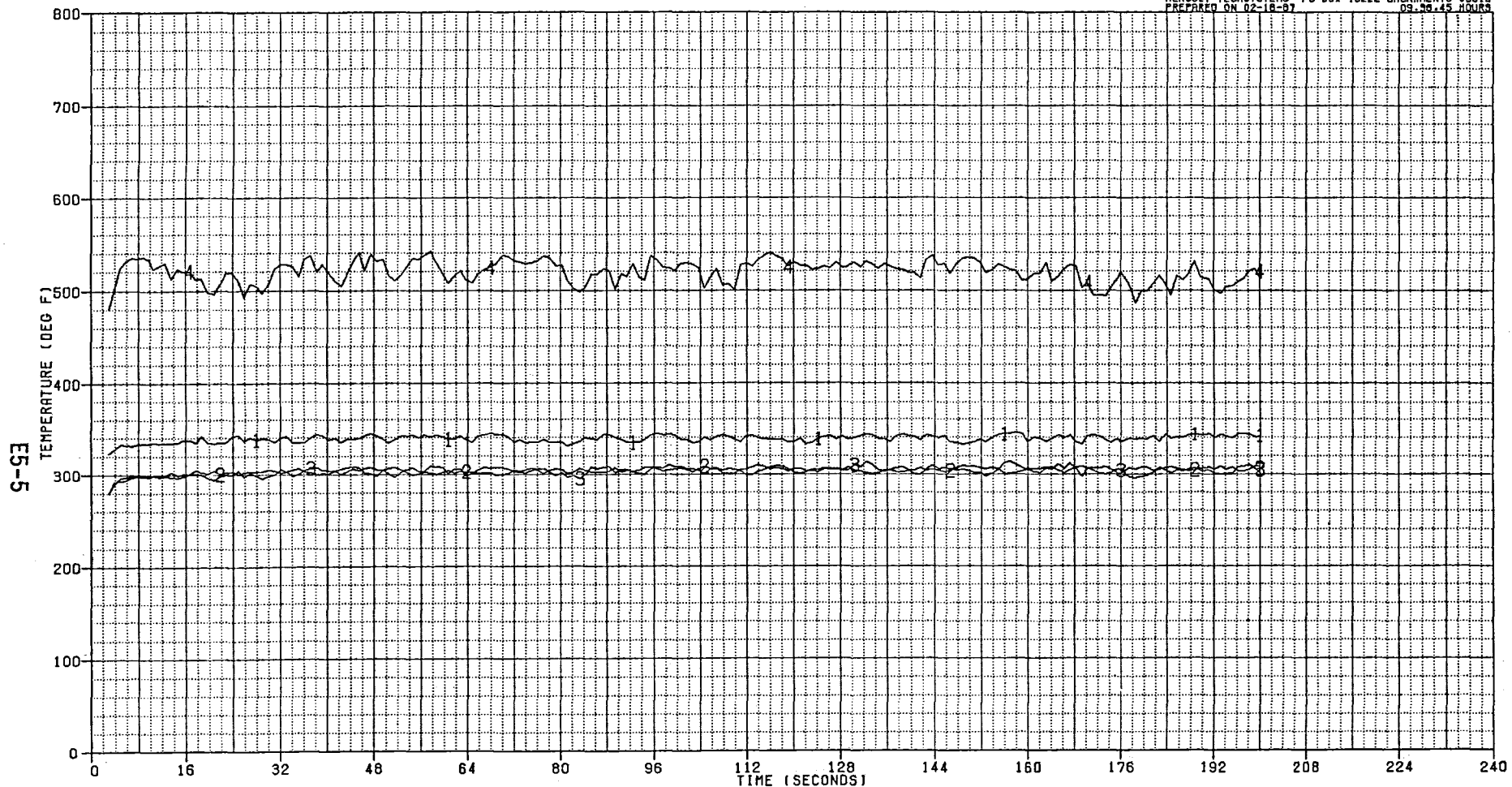


- 1 DPOJ PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-138

TEST DATE 07-24-86 1254 HOURS



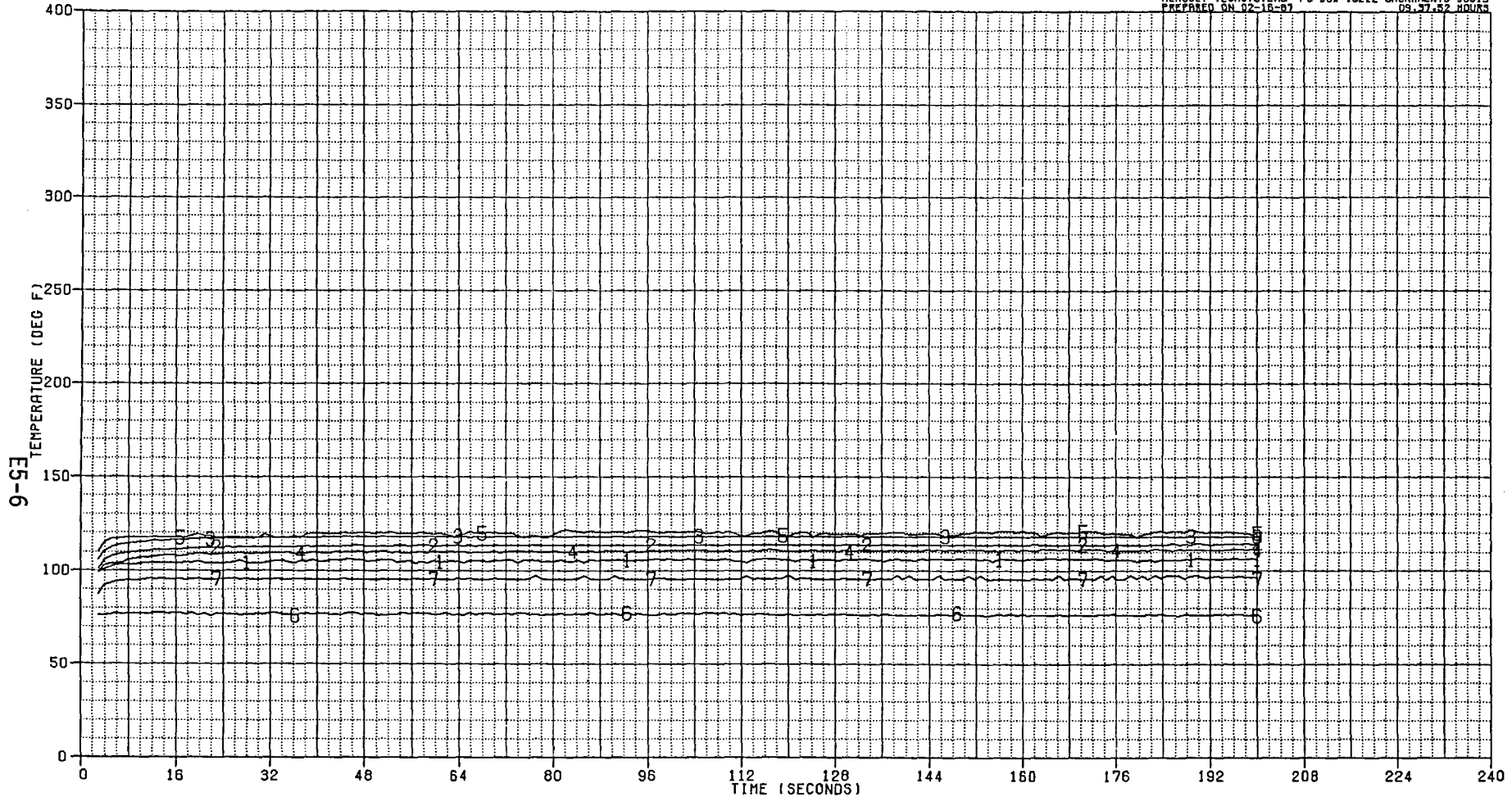


E5-5

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-138  
BARREL DATA  
TEST DATE 07-24-86 1254 HOURS





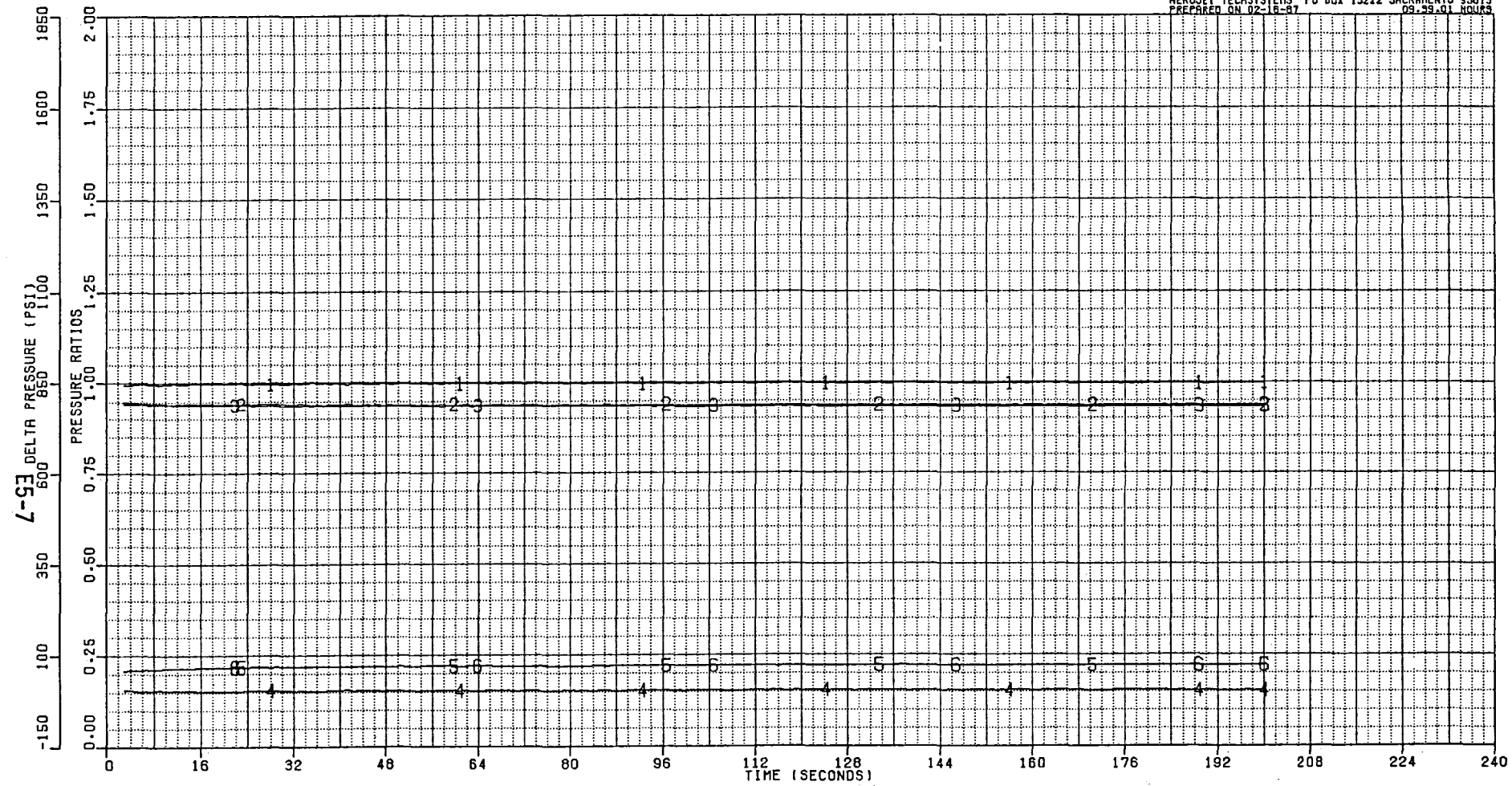
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-138

TEST DATE 07-24-86 1254 HOURS





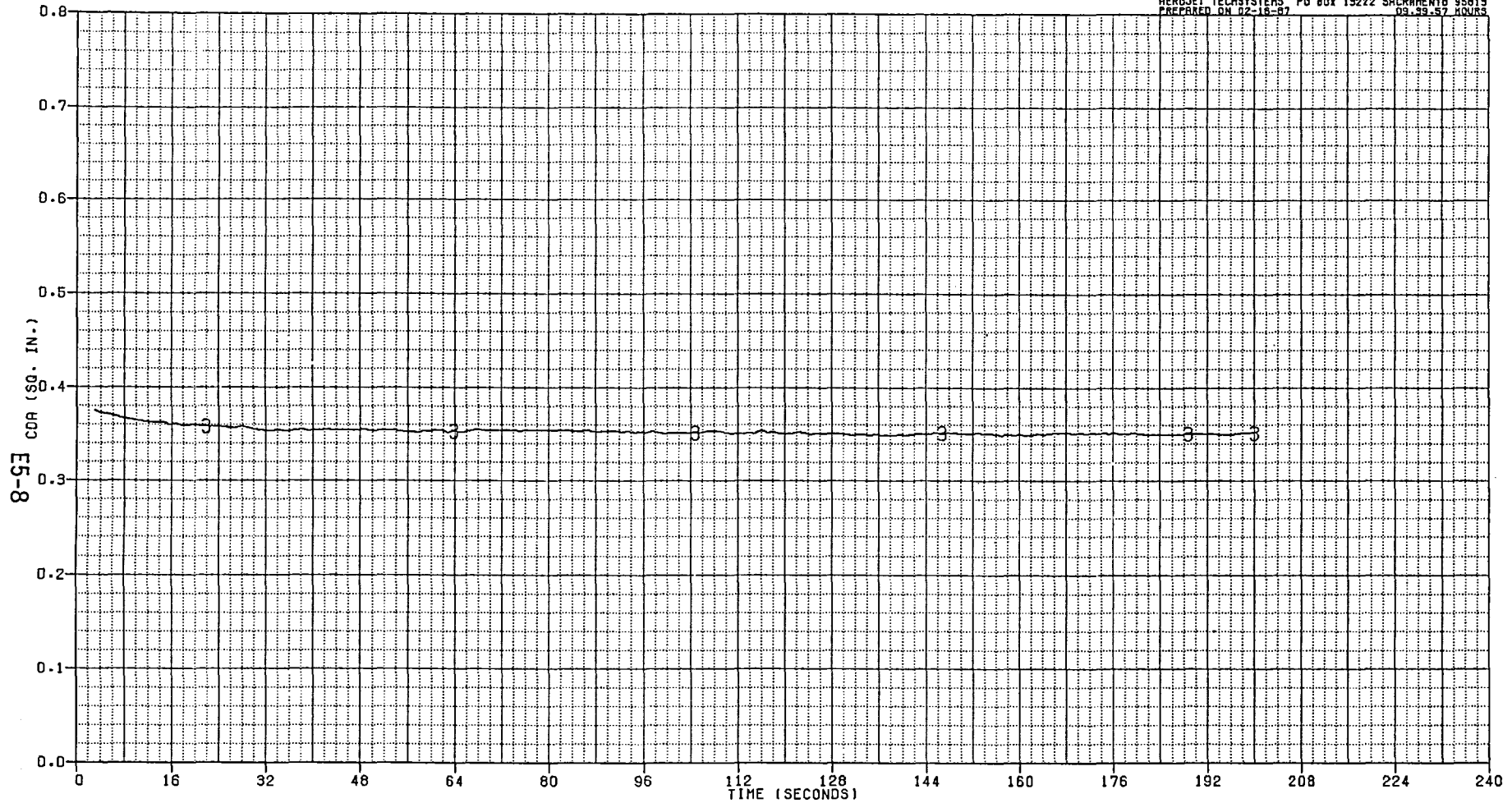


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI



TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-138  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 07-24-86 1254 HOURS

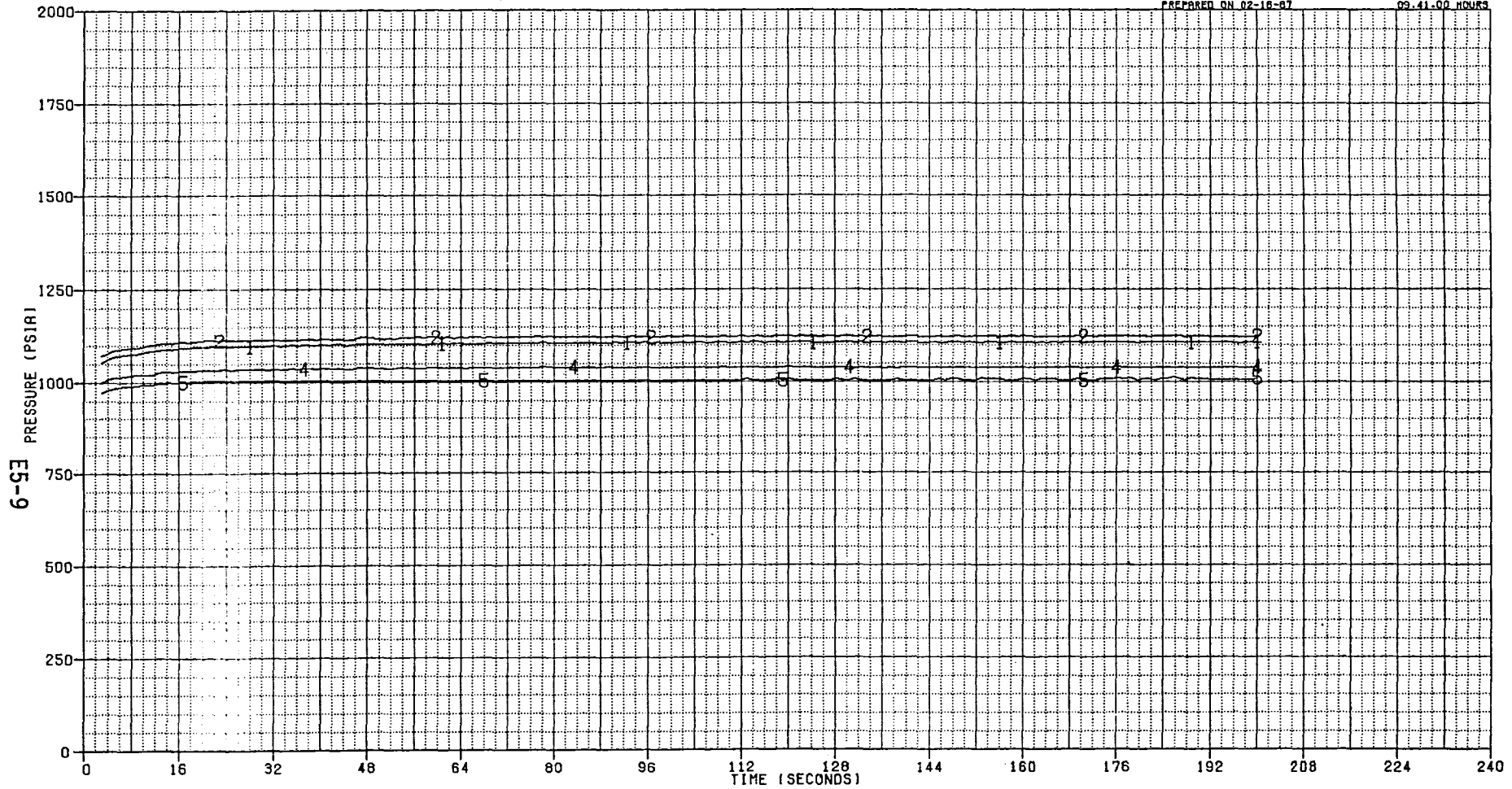
AEROJET TECHSYSTEMS PO BOX 15222 SACRAMENTO 95815  
PREPARED ON 02-16-87 09:39:57 HOURS



- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDa

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-138  
NOZZLE AREA CHANGE  
TEST DATE 07-24-86 1254 HOURS

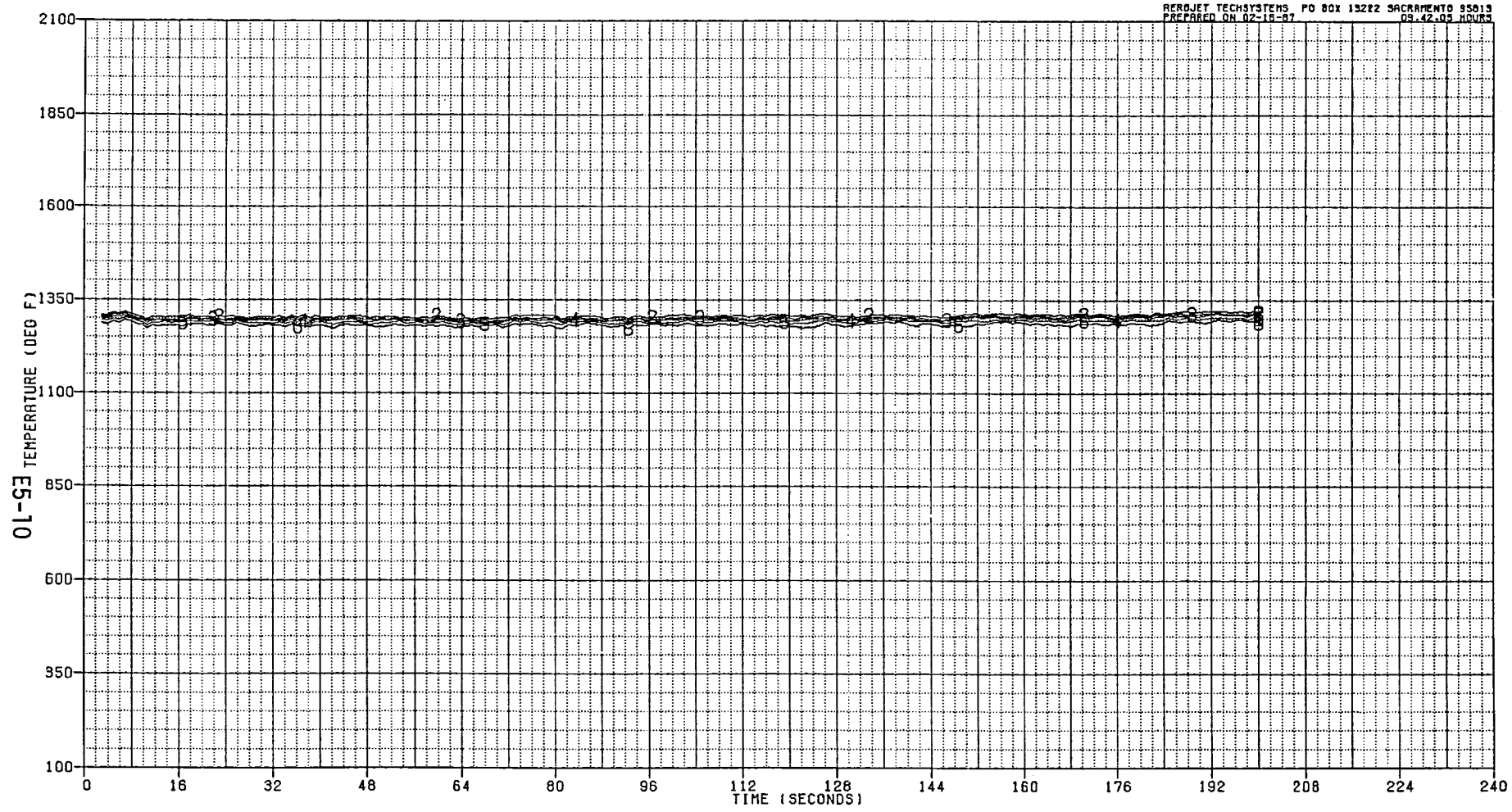




- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-138  
PRESSURE MEASUREMENTS  
TEST DATE 07-24-86 1254 HOURS

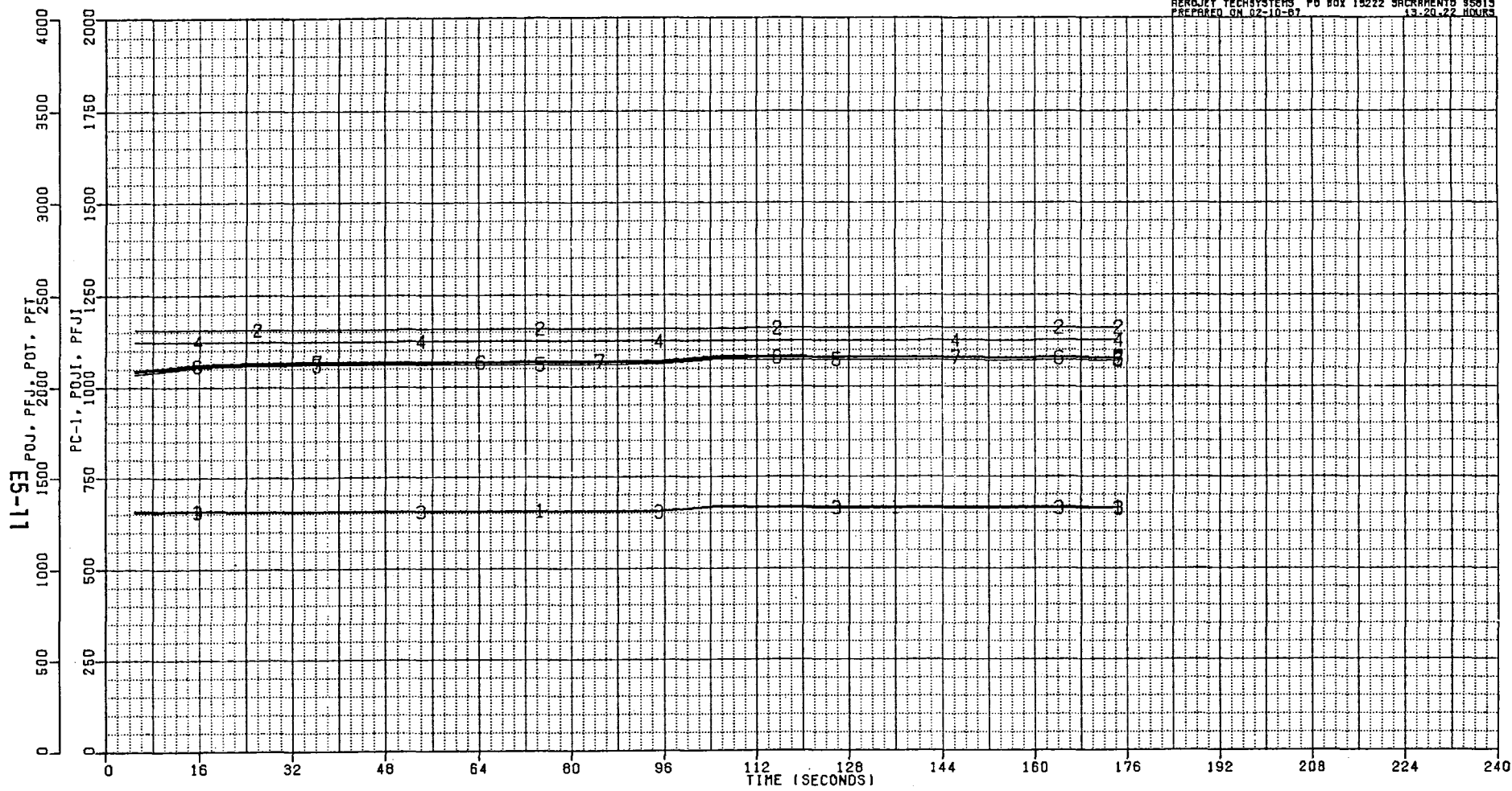




- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-138  
PRESSURE MEASUREMENTS  
TEST DATE 07-24-86 1254 HOURS



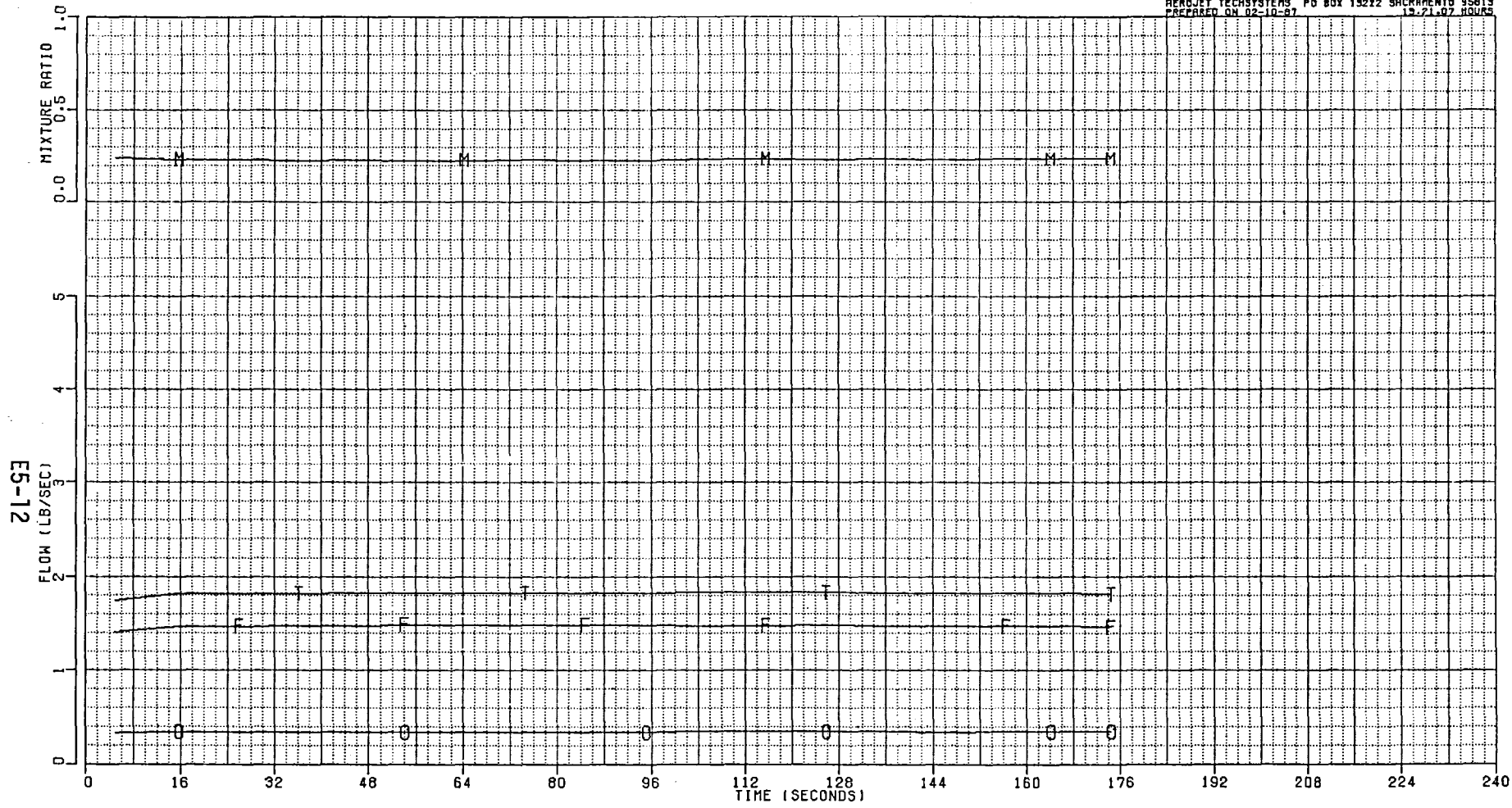


11-51

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-139  
 TEST DATE 07-30-86 1300 HOURS





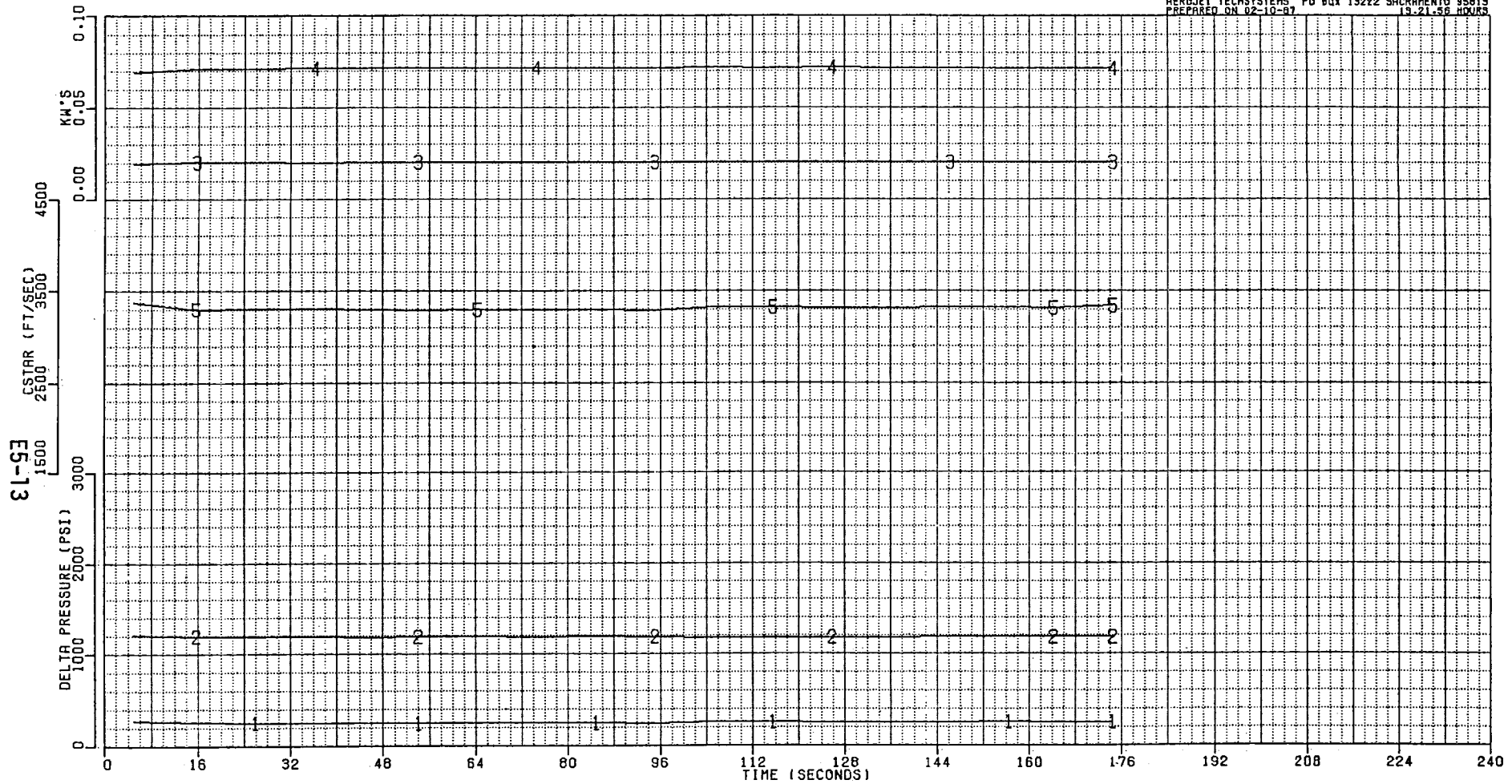
E5-12

F WF LBS/SEC  
 O WOX LBS/SEC  
 T TOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-229-A6-139

TEST DATE 07-30-86 1300 HOURS





ES-13

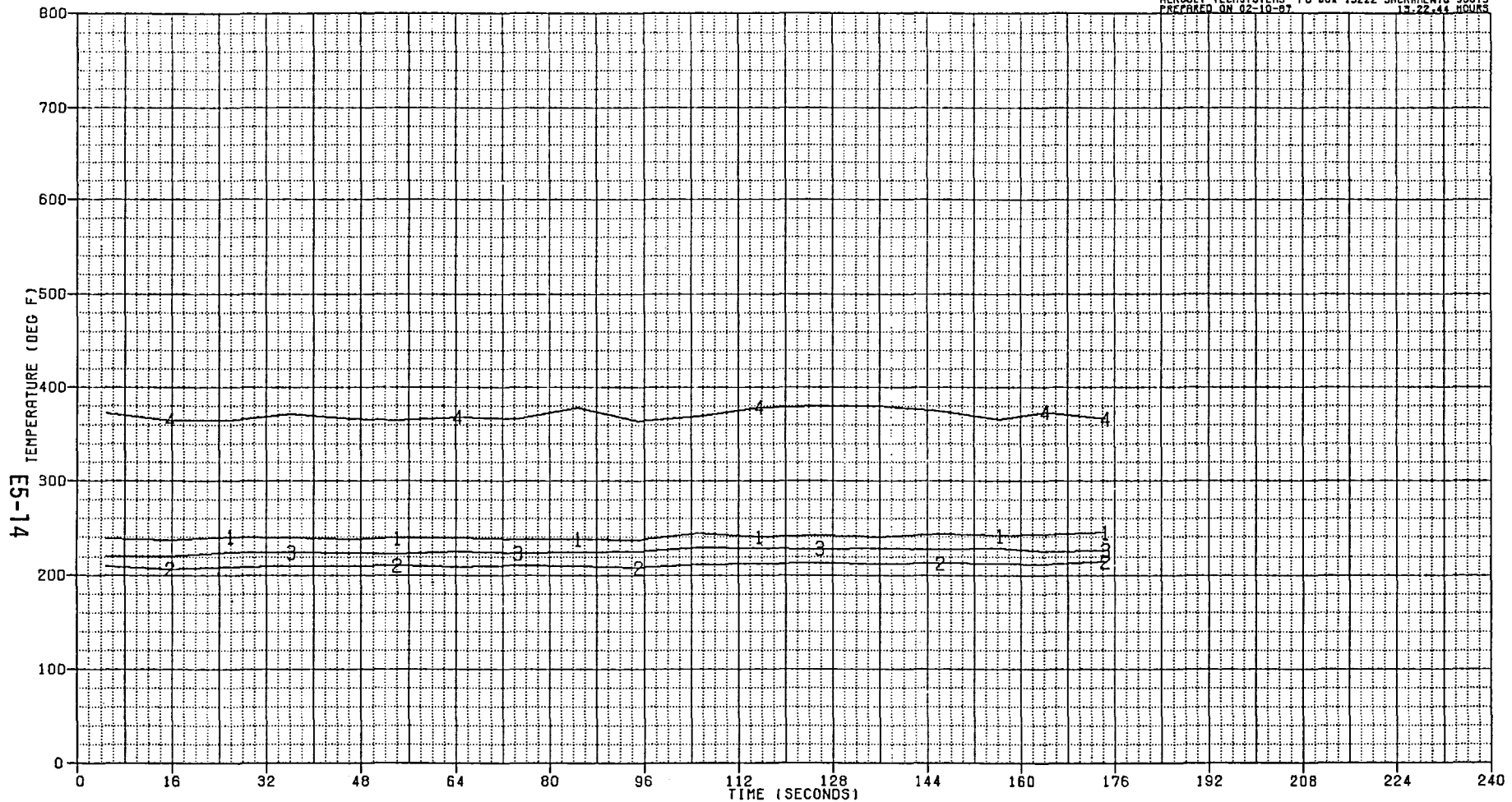
- 1 OPOJ      PSI
- 2 DPFJ      PSI
- 3 KWQJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR     FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-139

TEST DATE 07-30-86 1300 HOURS







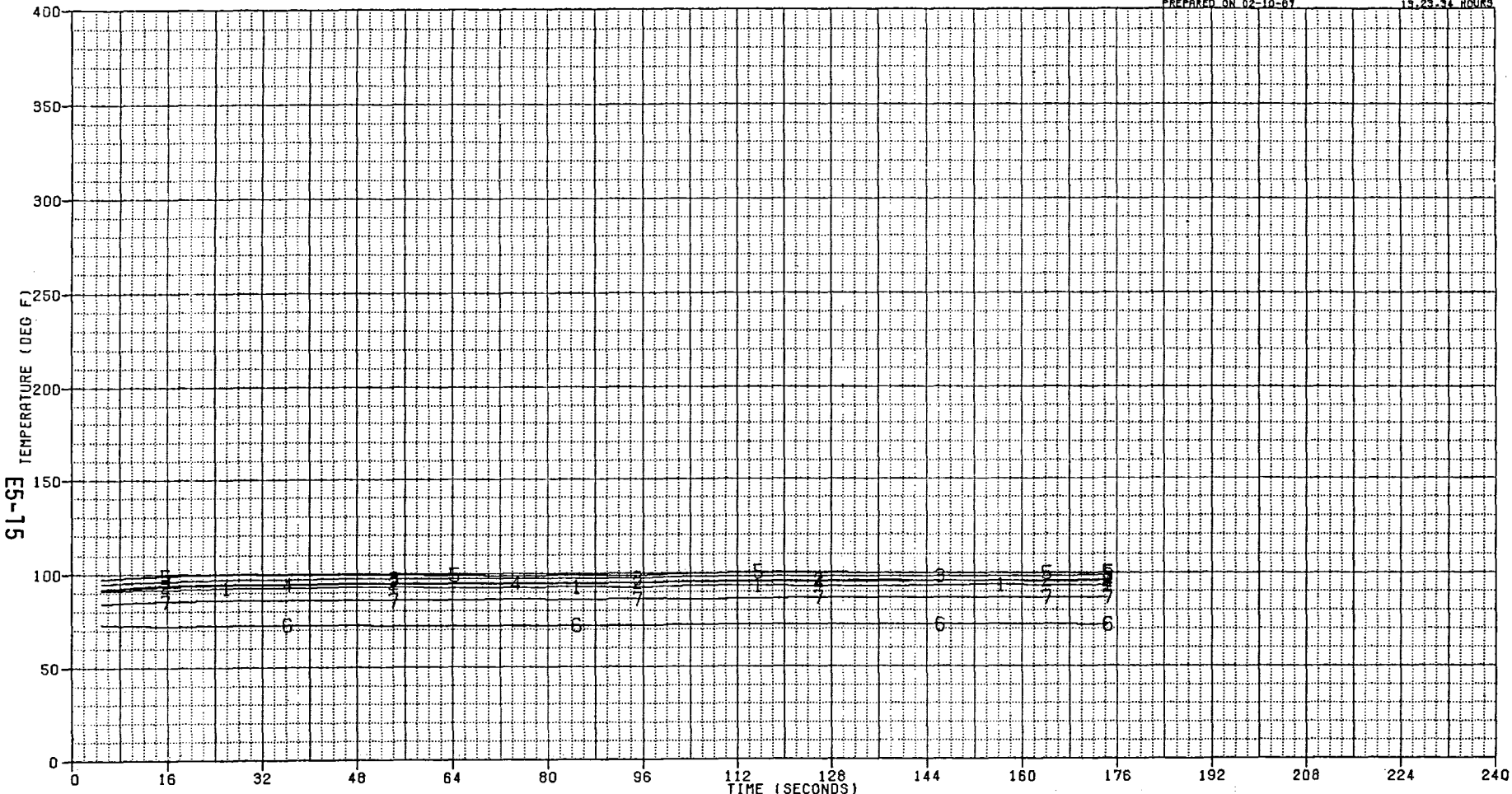
E5-14

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-139  
BARREL DATA  
TEST DATE 07-30-86 1300 HOURS





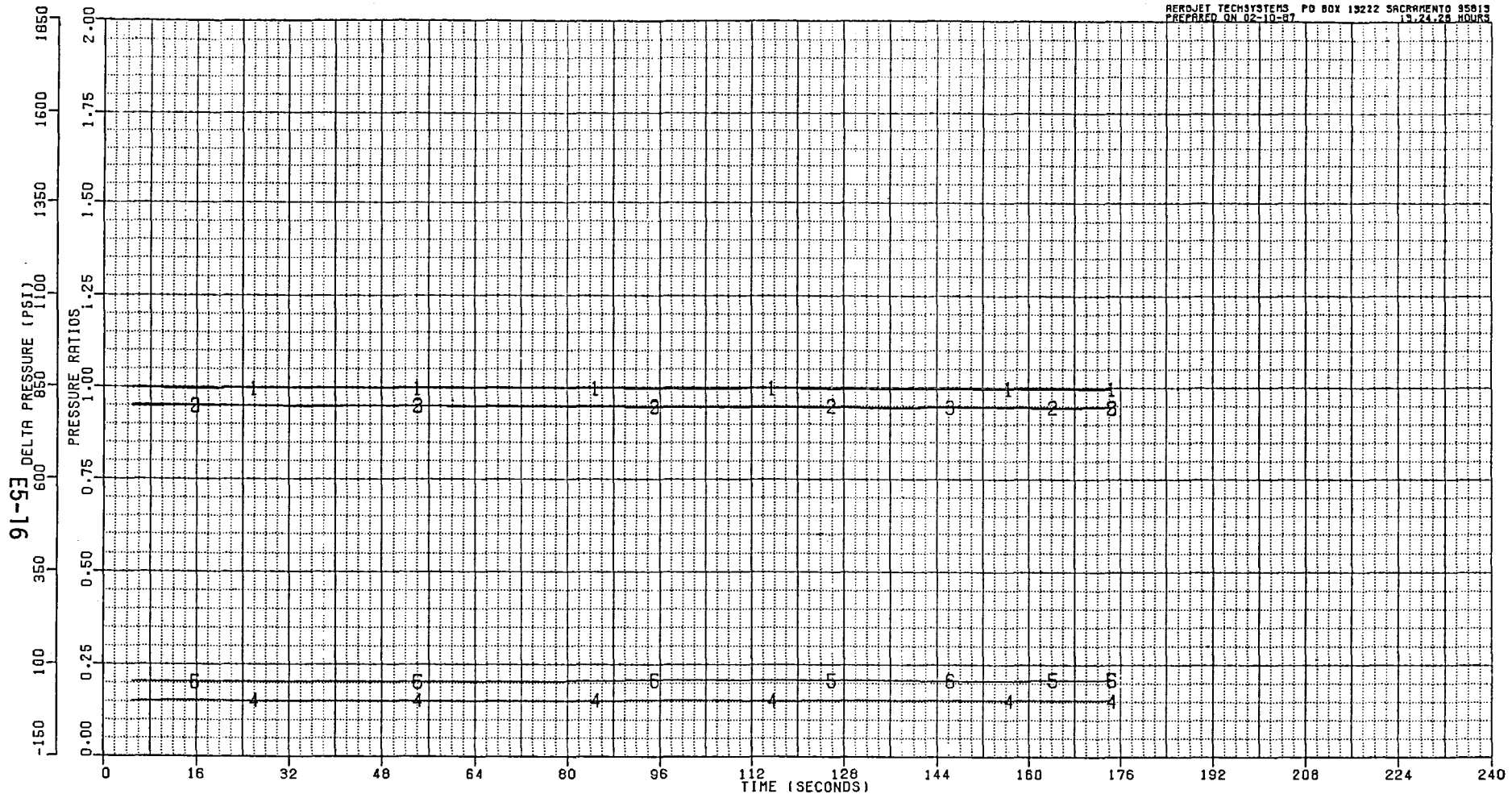


ES-15

- 1 THC-2 DEG F
- 2 THC-26 DEG F
- 3 THC-27 DEG F
- 4 THC-31 DEG F
- 5 THC-32 DEG F
- 6 THC-33 DEG F
- 7 TC-7C DEG F



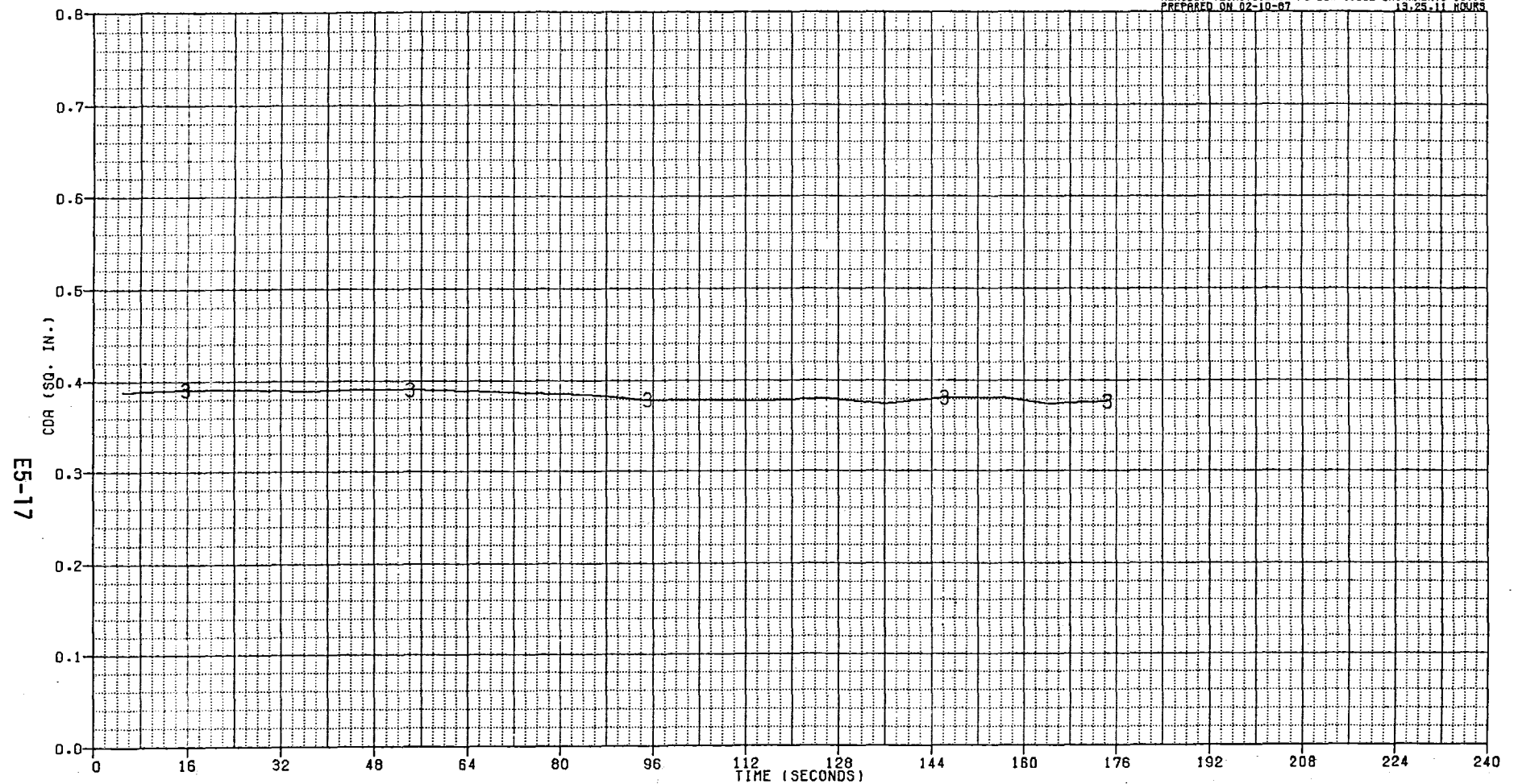
COOLANT OUTLET TEMPERATURES VS TIME  
 TEST NO. 2427-229-A6-139  
 TEST DATE 07-30-86 1300 HOURS



- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-139  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 07-30-86 1300 HOURS

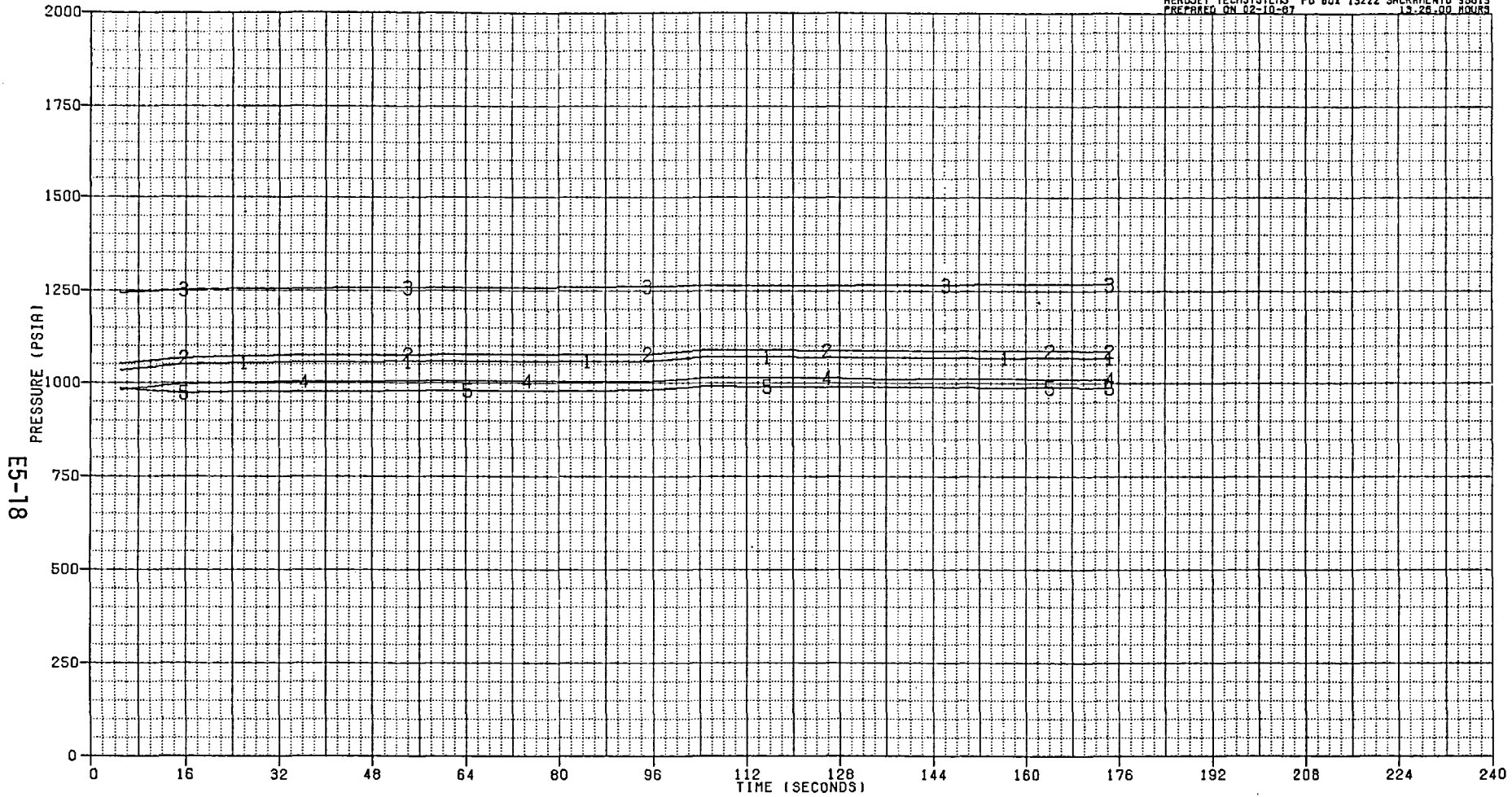




- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-139  
NOZZLE AREA CHANGE  
TEST DATE 07-30-86 1300 HOURS



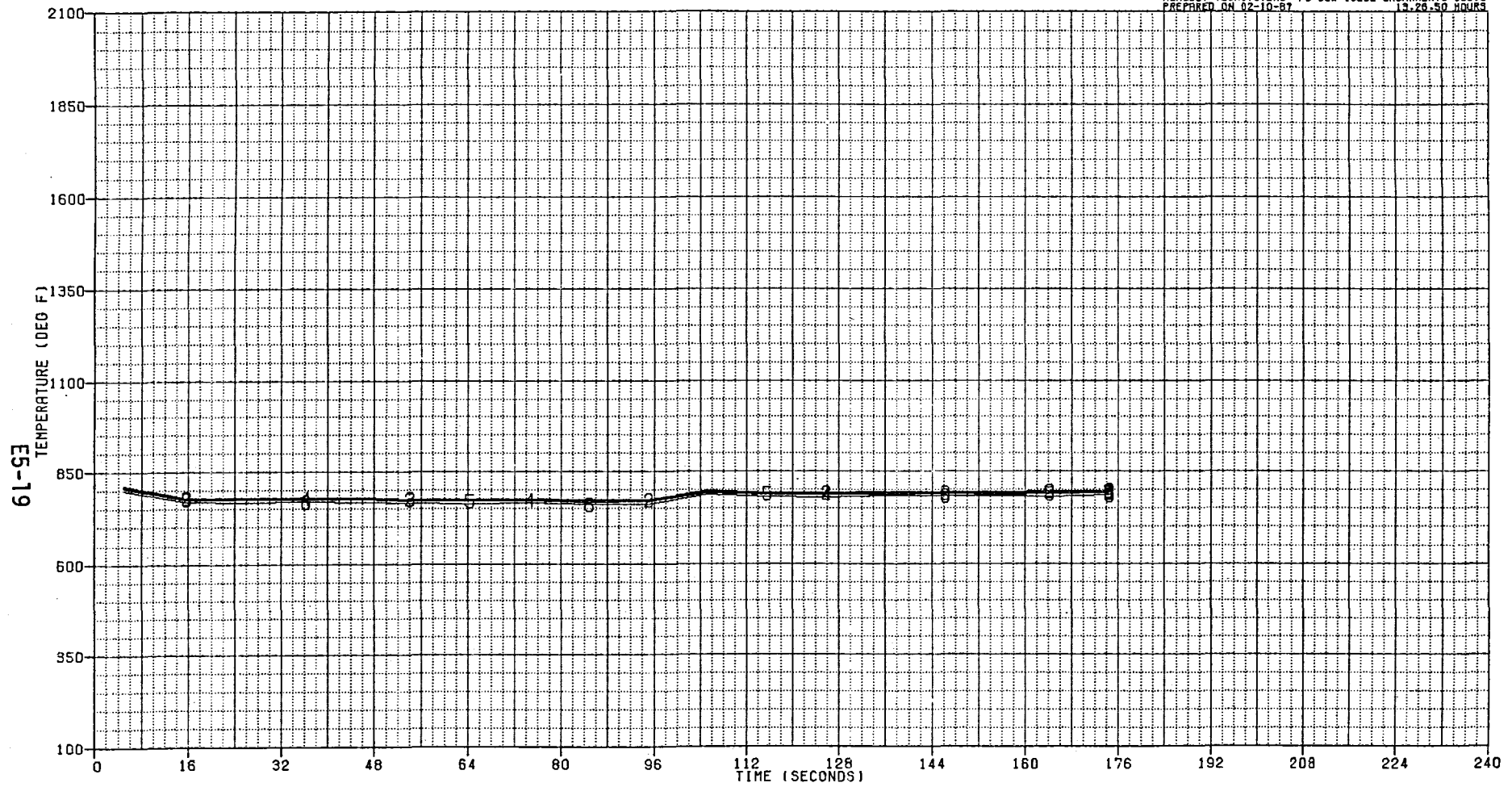


81-58

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-139  
PRESSURE MEASUREMENTS  
TEST DATE 07-30-86 1300 HOURS



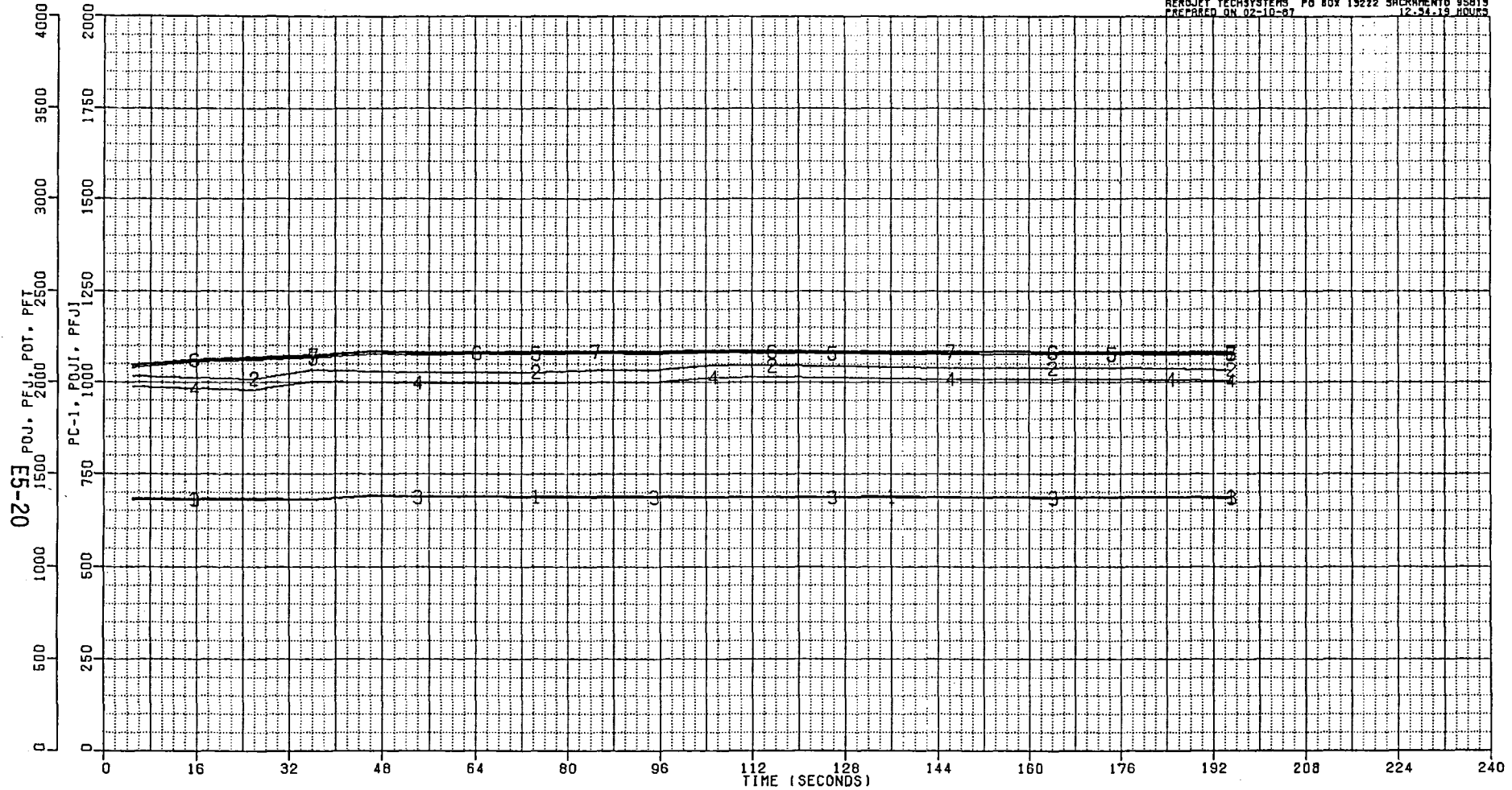


61-93

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-139  
PRESSURE MEASUREMENTS  
TEST DATE 07-30-86 1300 HOURS



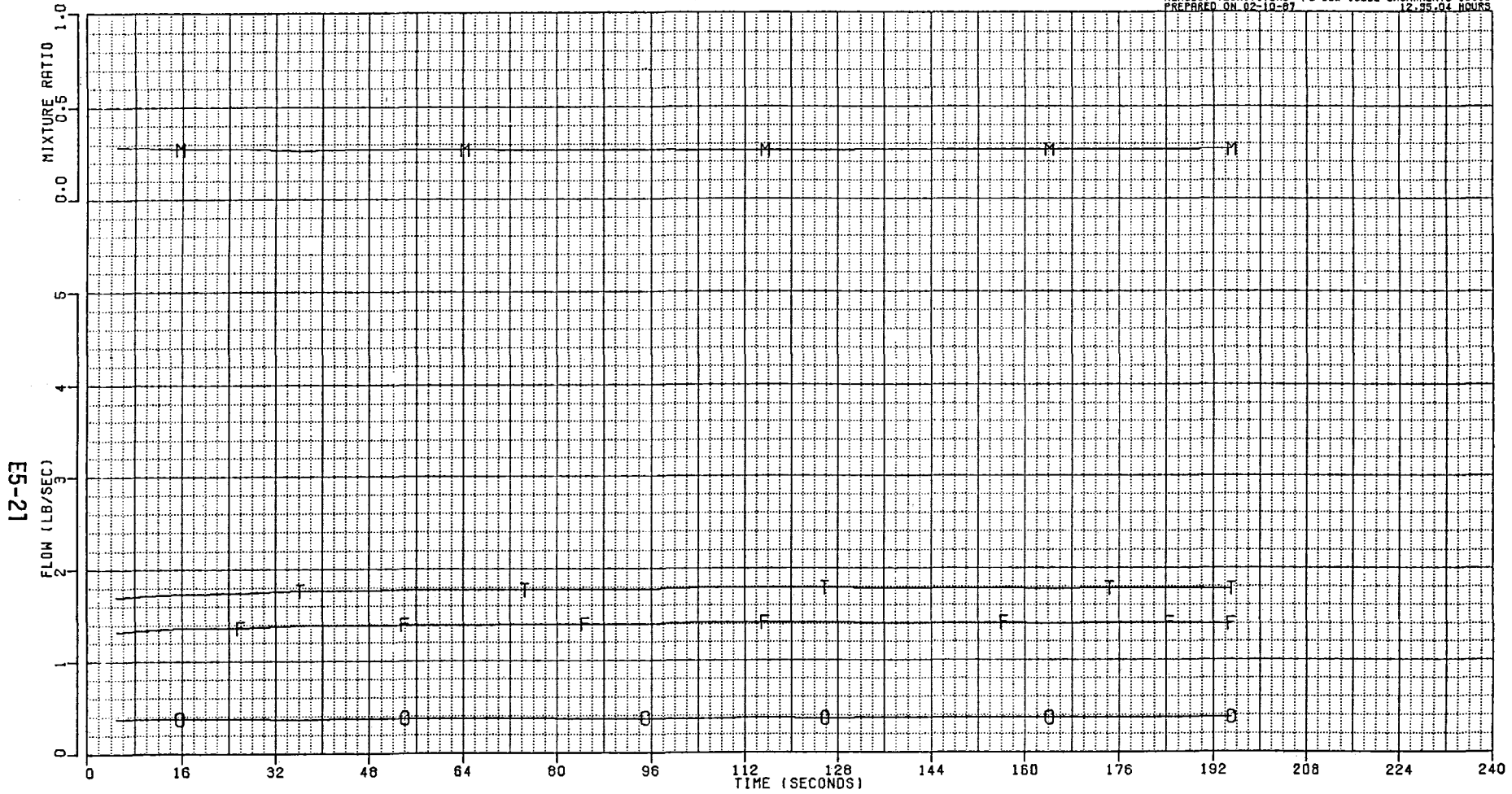


- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-140

TEST DATE 07-30-86 1414 HOURS





E5-21

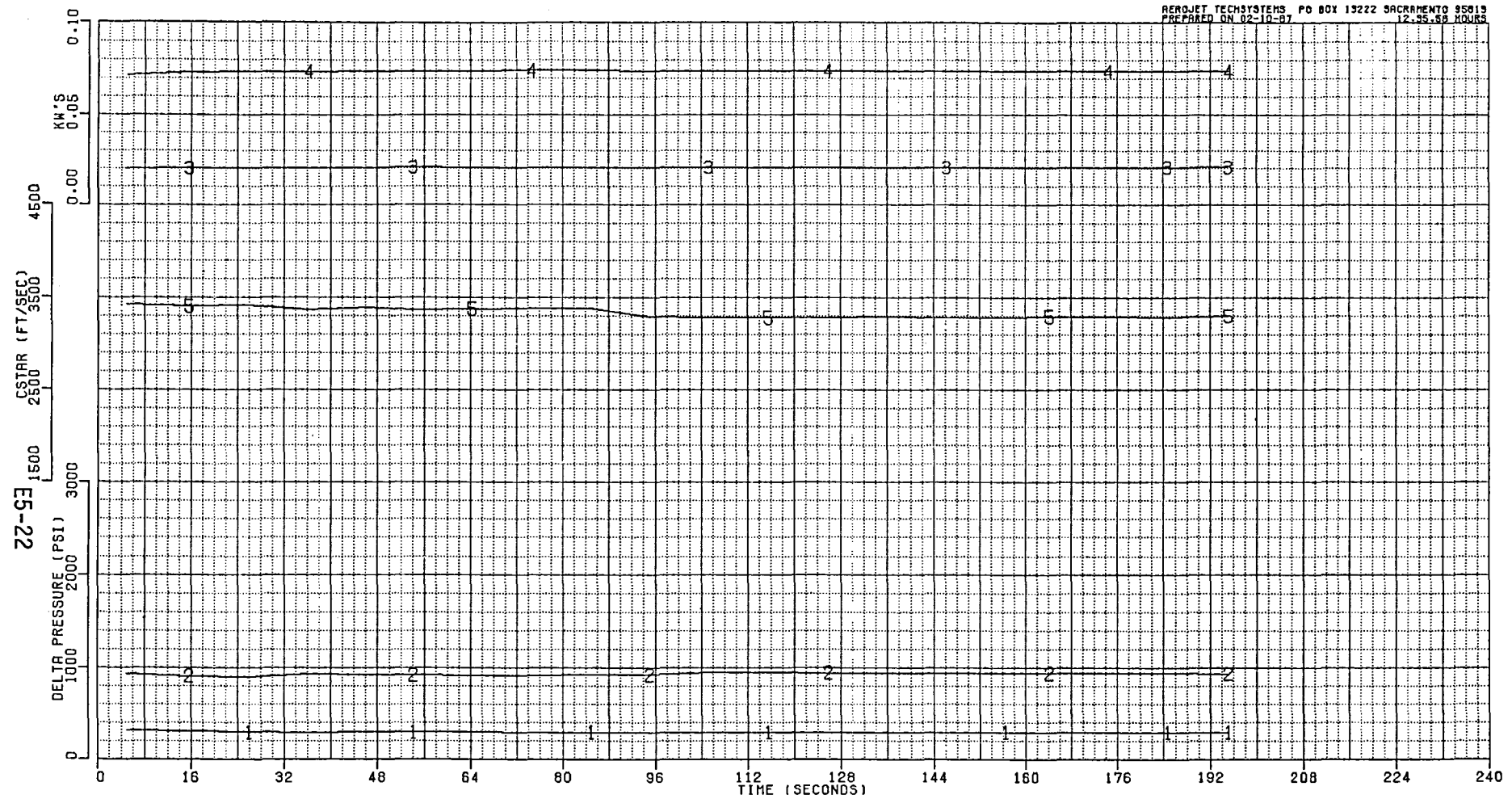
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-140

TEST DATE 07-30-86 1414 HOURS







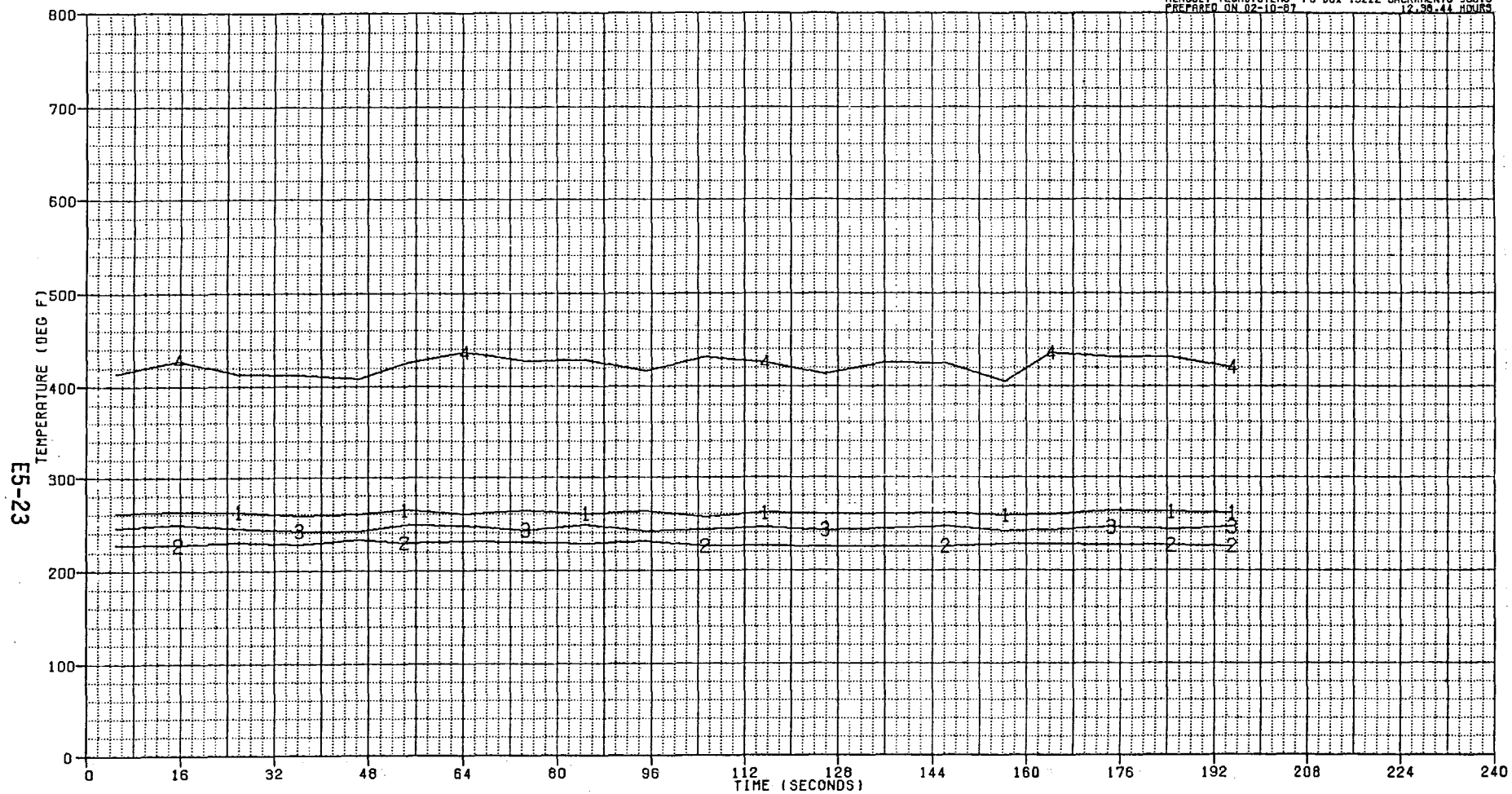
- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KNFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-140

TEST DATE 07-30-86 1414 HOURS





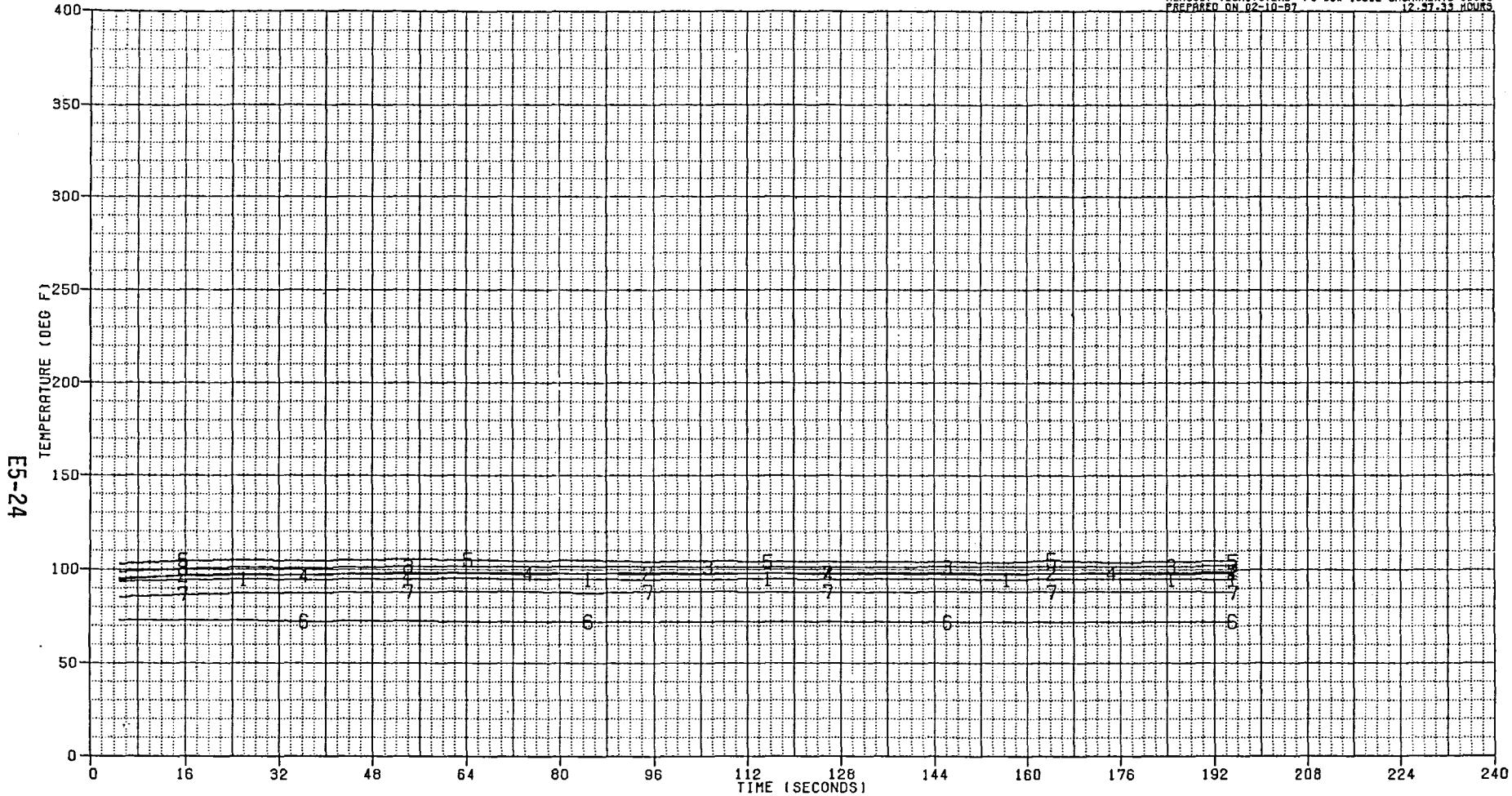


E5-23

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-140  
BARREL DATA  
TEST DATE 07-30-86 1414 HOURS



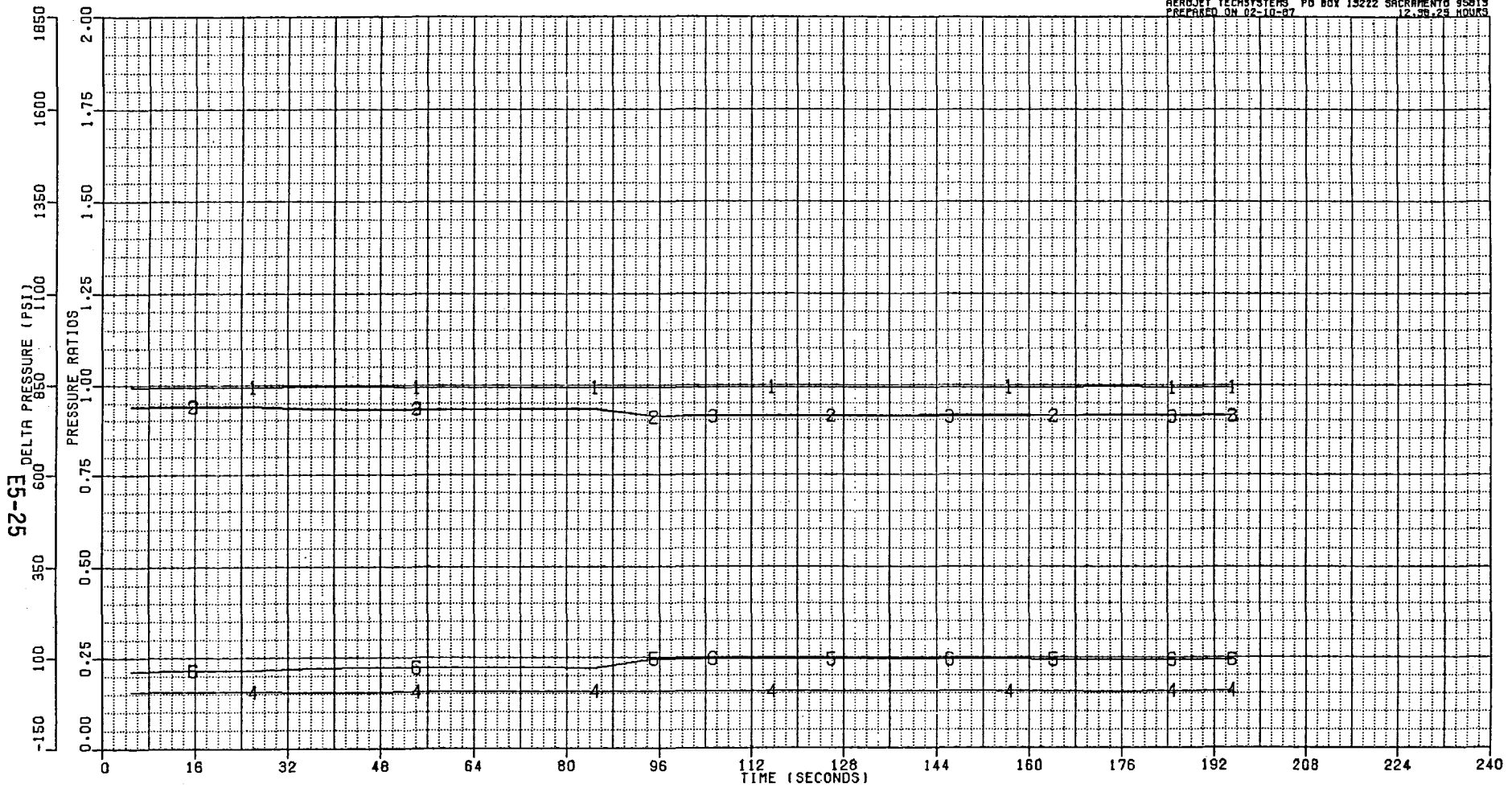


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-140

TEST DATE 07-30-86 1414 HOURS

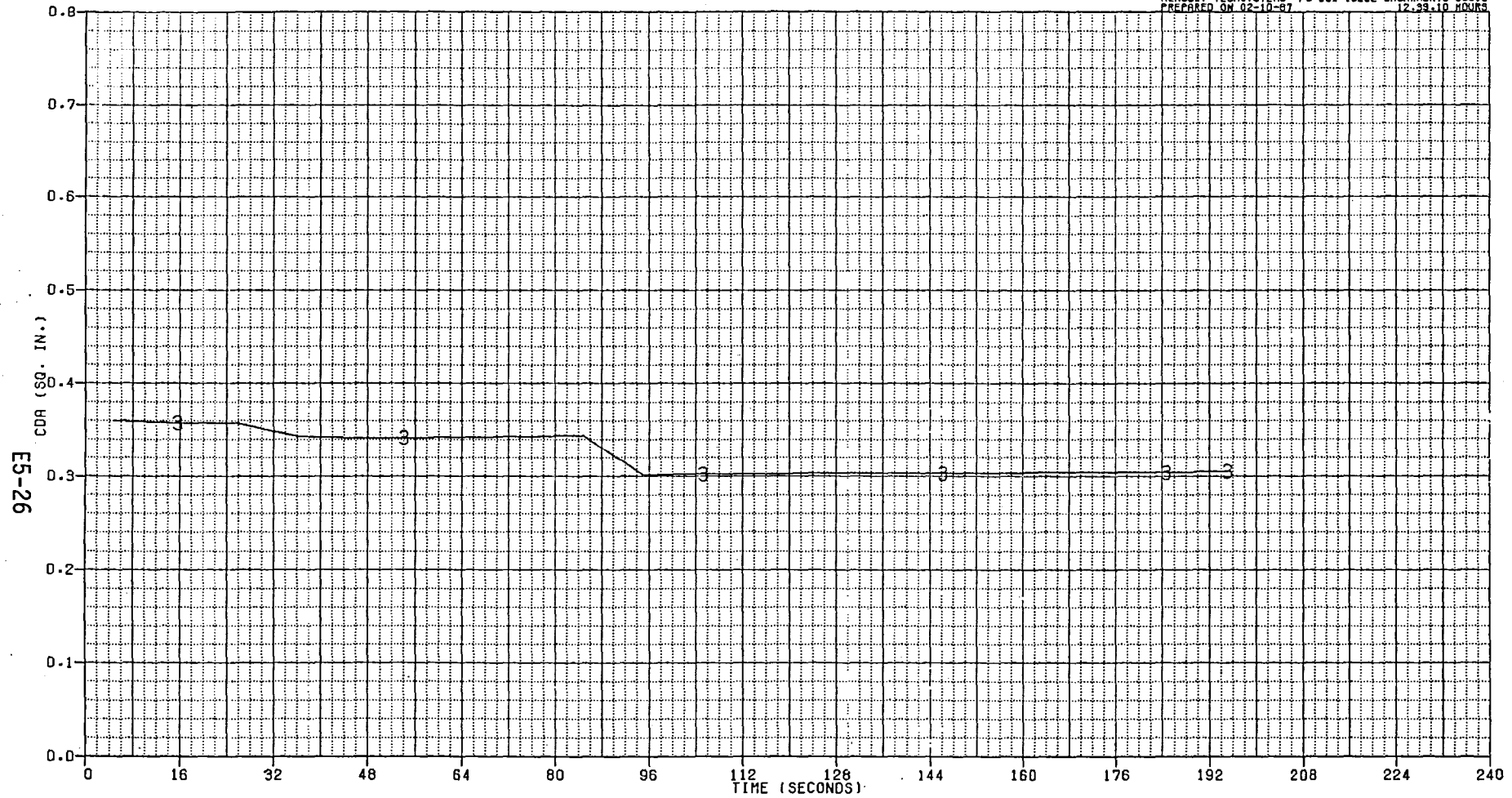




- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR            PSI
- 5 DPTS-C        PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-140  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 07-30-86 1414 HOURS



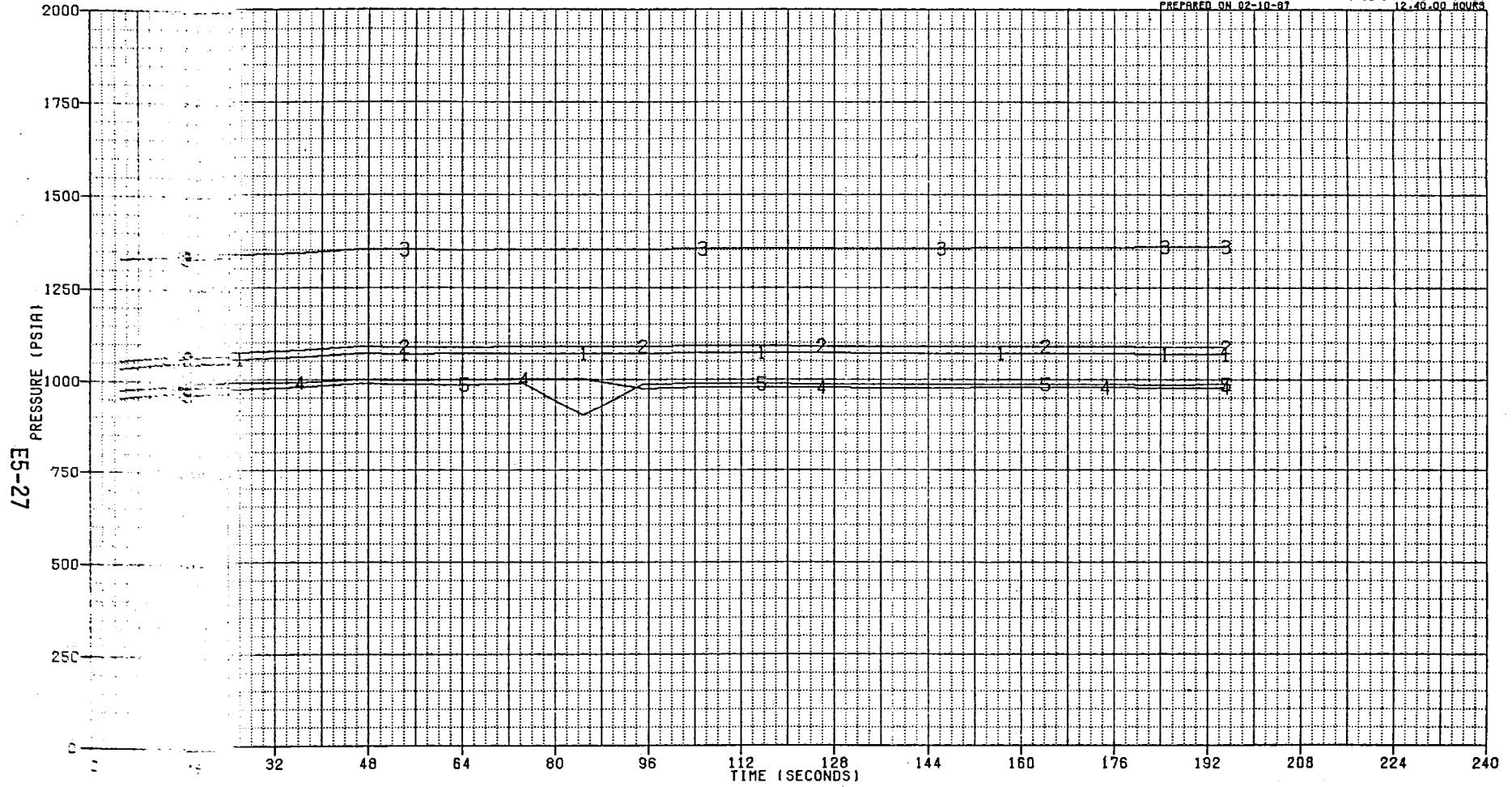


E5-26

1 NA1 SQ. IN.  
2 NA2 SQ. IN.  
3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-140  
NOZZLE AREA CHANGE  
TEST DATE 07-30-86 1414 HOURS



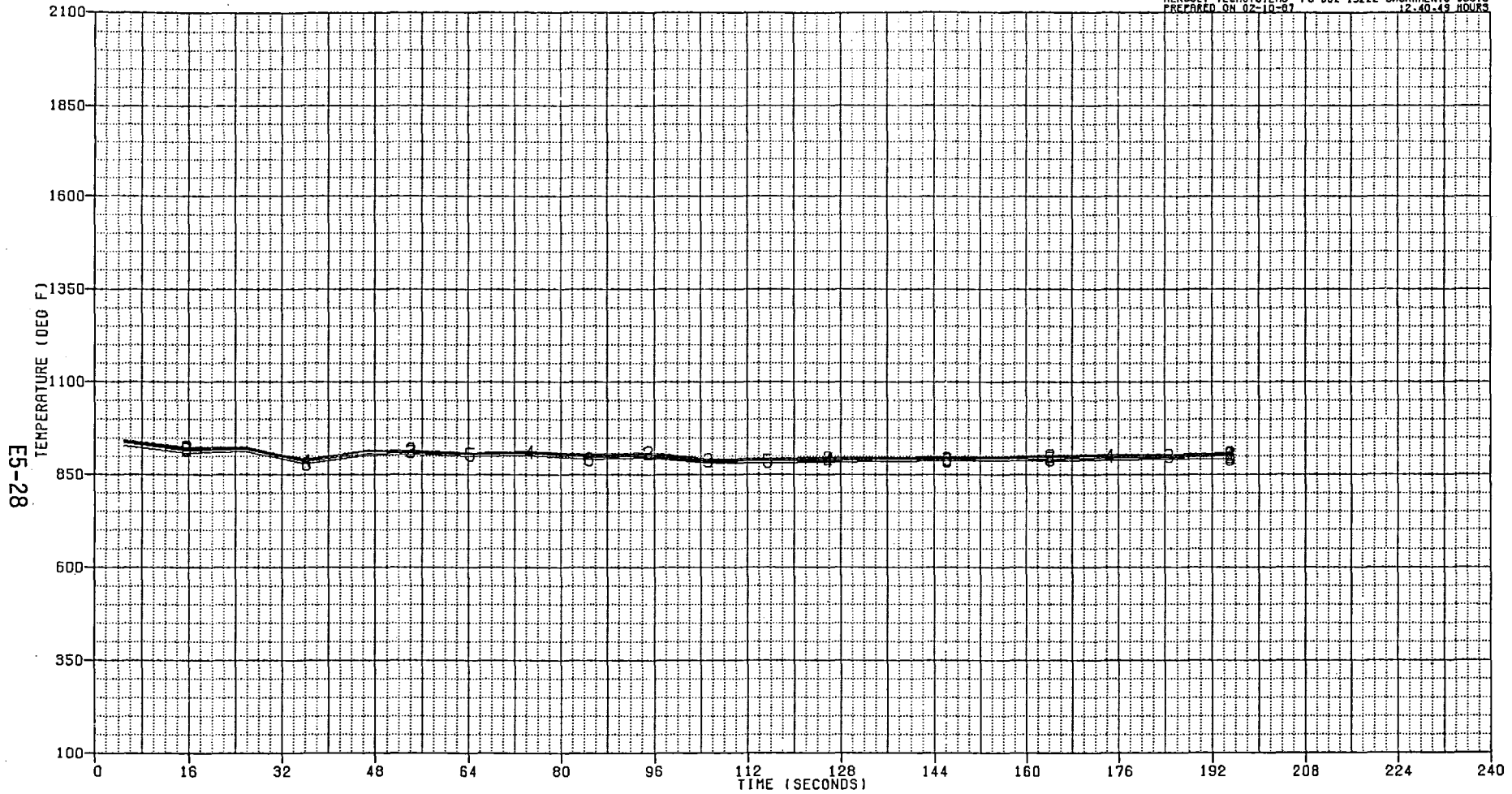


ES-27

1 00:00:00  
2 00:00:00  
3 00:00:00  
4 00:00:00  
5 00:00:00

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-140  
PRESSURE MEASUREMENTS  
TEST DATE 07-30-86 1414 HOURS



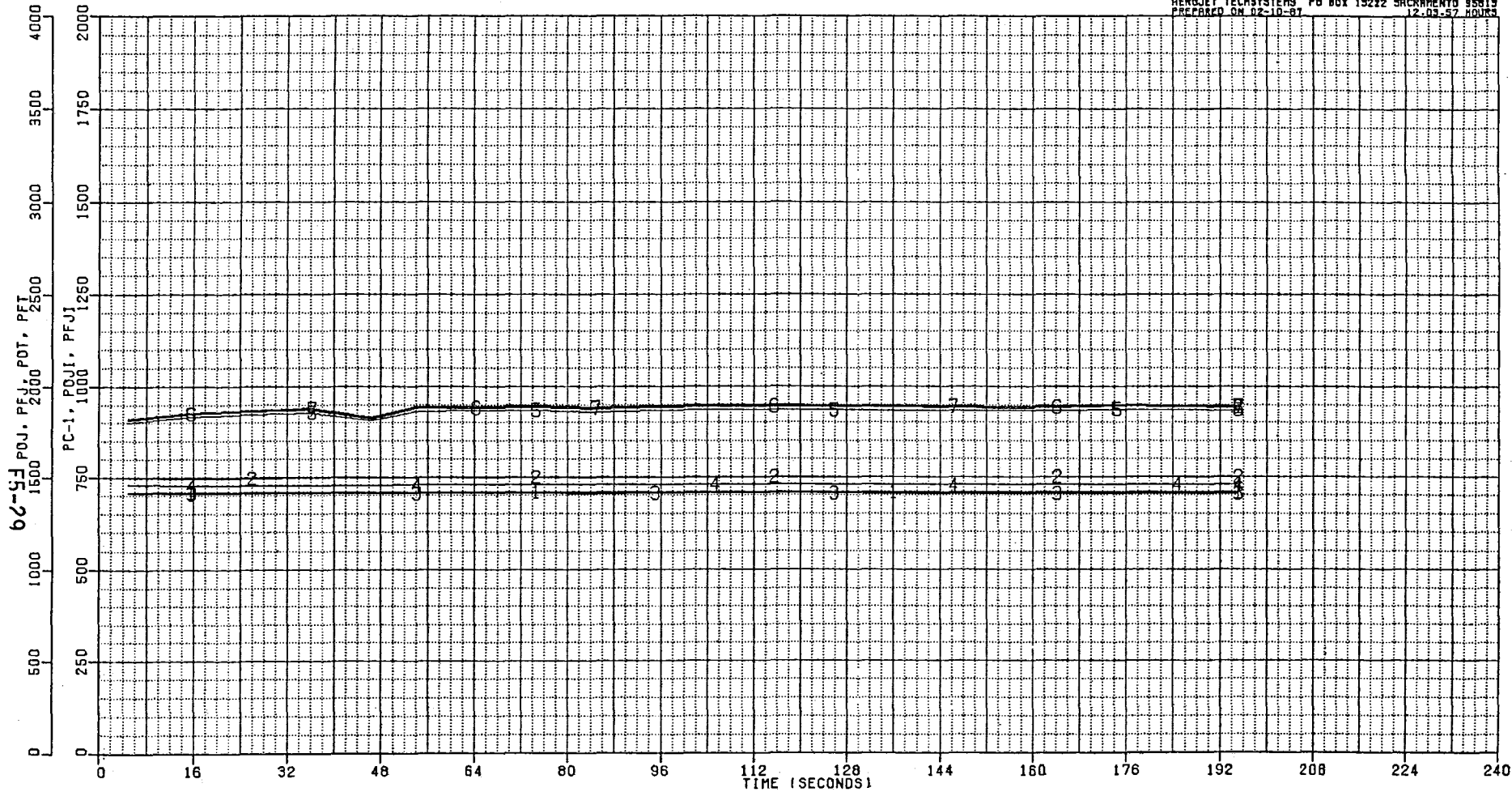


ES-28

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-140  
PRESSURE MEASUREMENTS  
TEST DATE 07-30-86 1414 HOURS





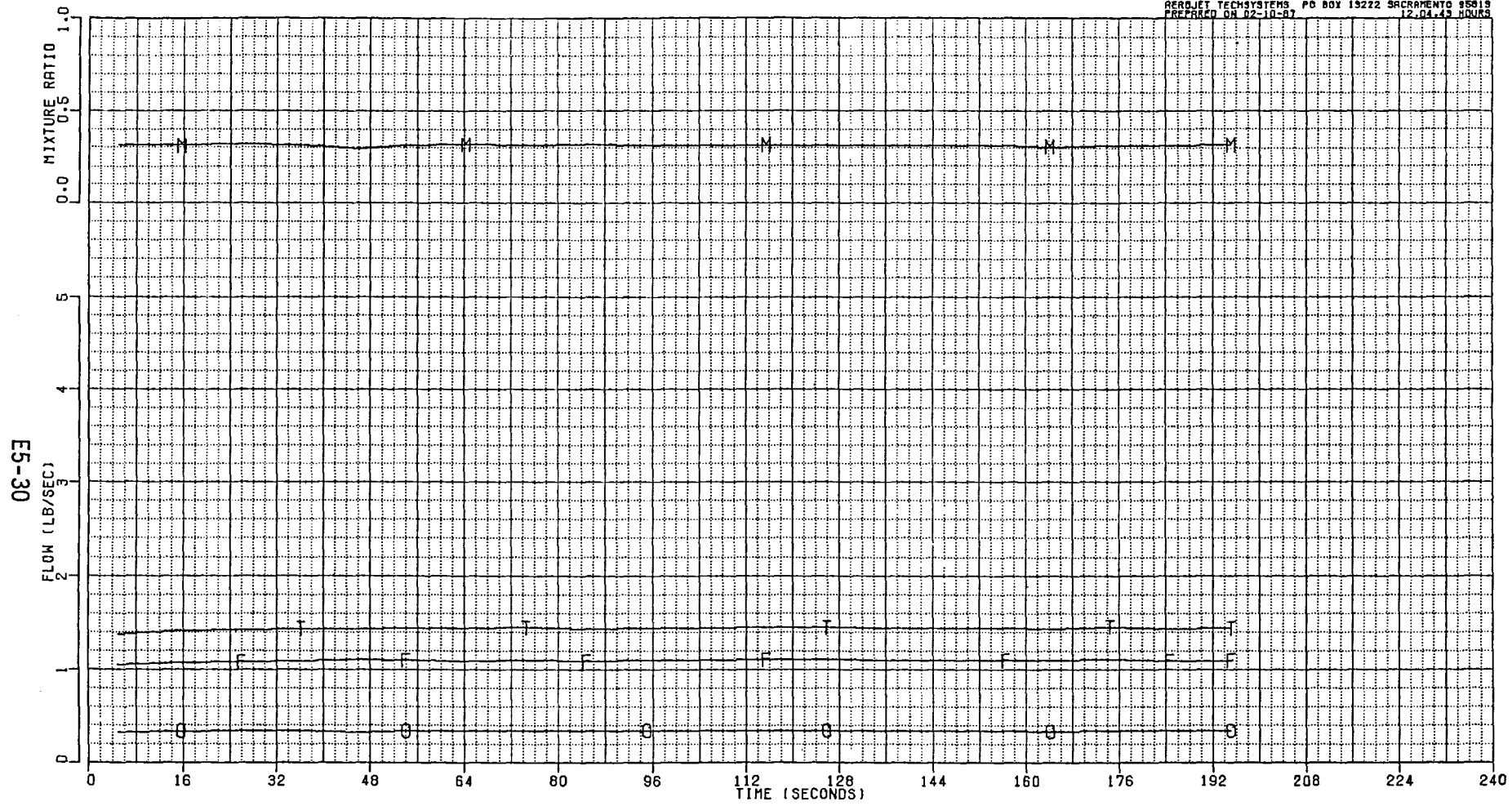
- 1 POT PSIA
- 2 PFT PSIA
- 3 PQJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 PQJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-141

TEST DATE 07-30-86 1503 HOURS







08-93

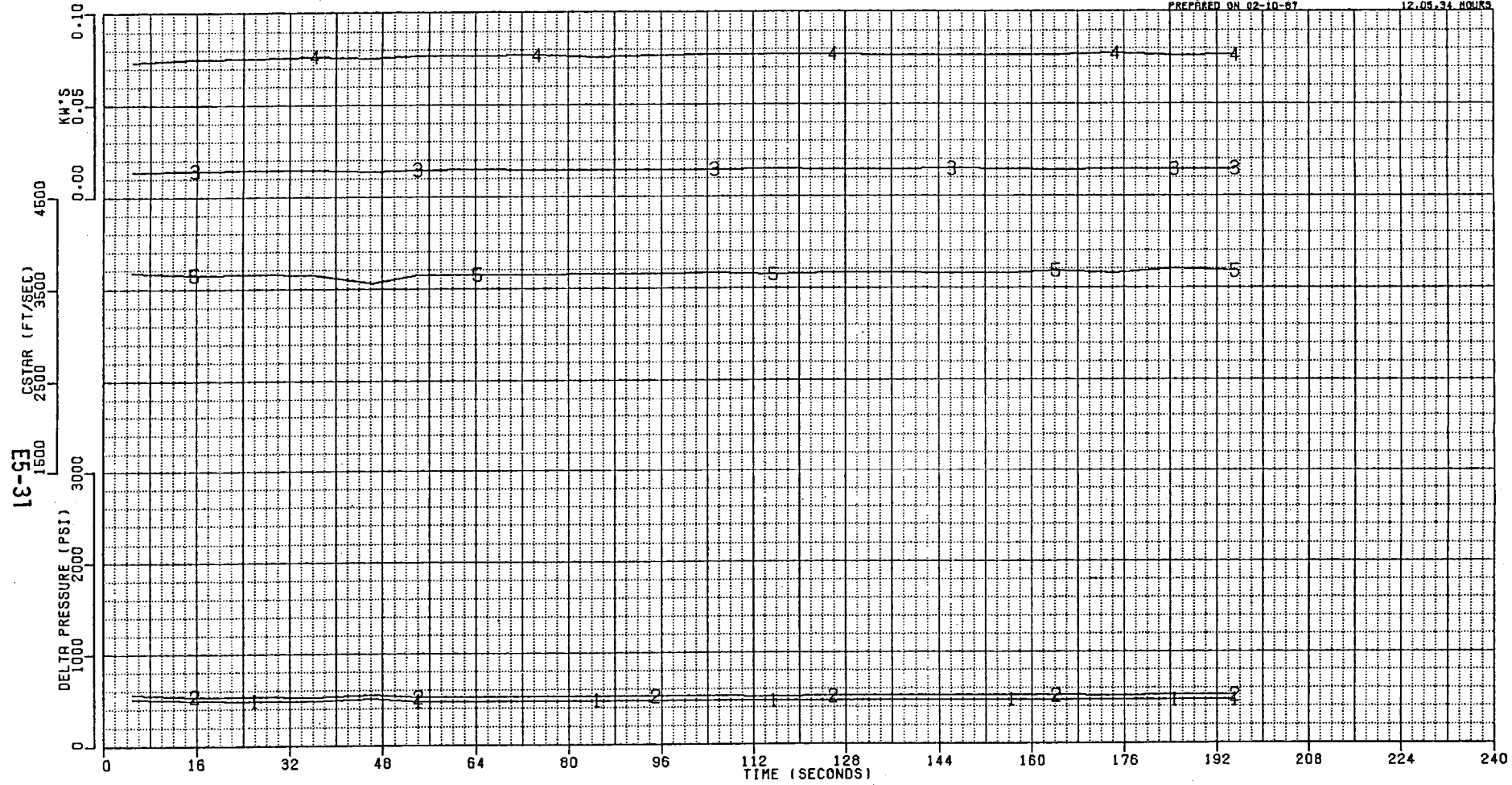
F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-141

TEST DATE 07-30-86 1503 HOURS



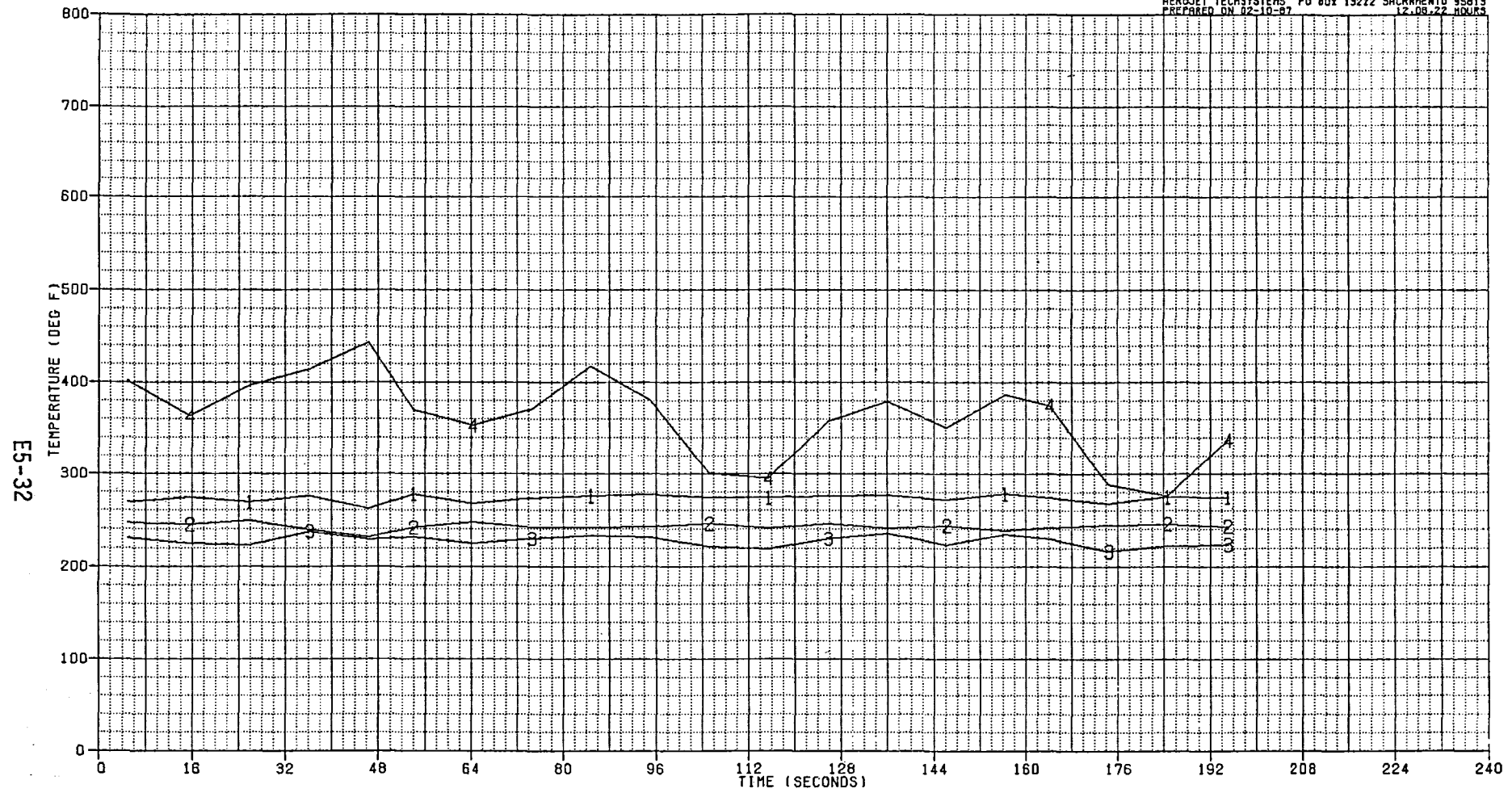




- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-141  
 TEST DATE 07-30-86 1503 HOURS



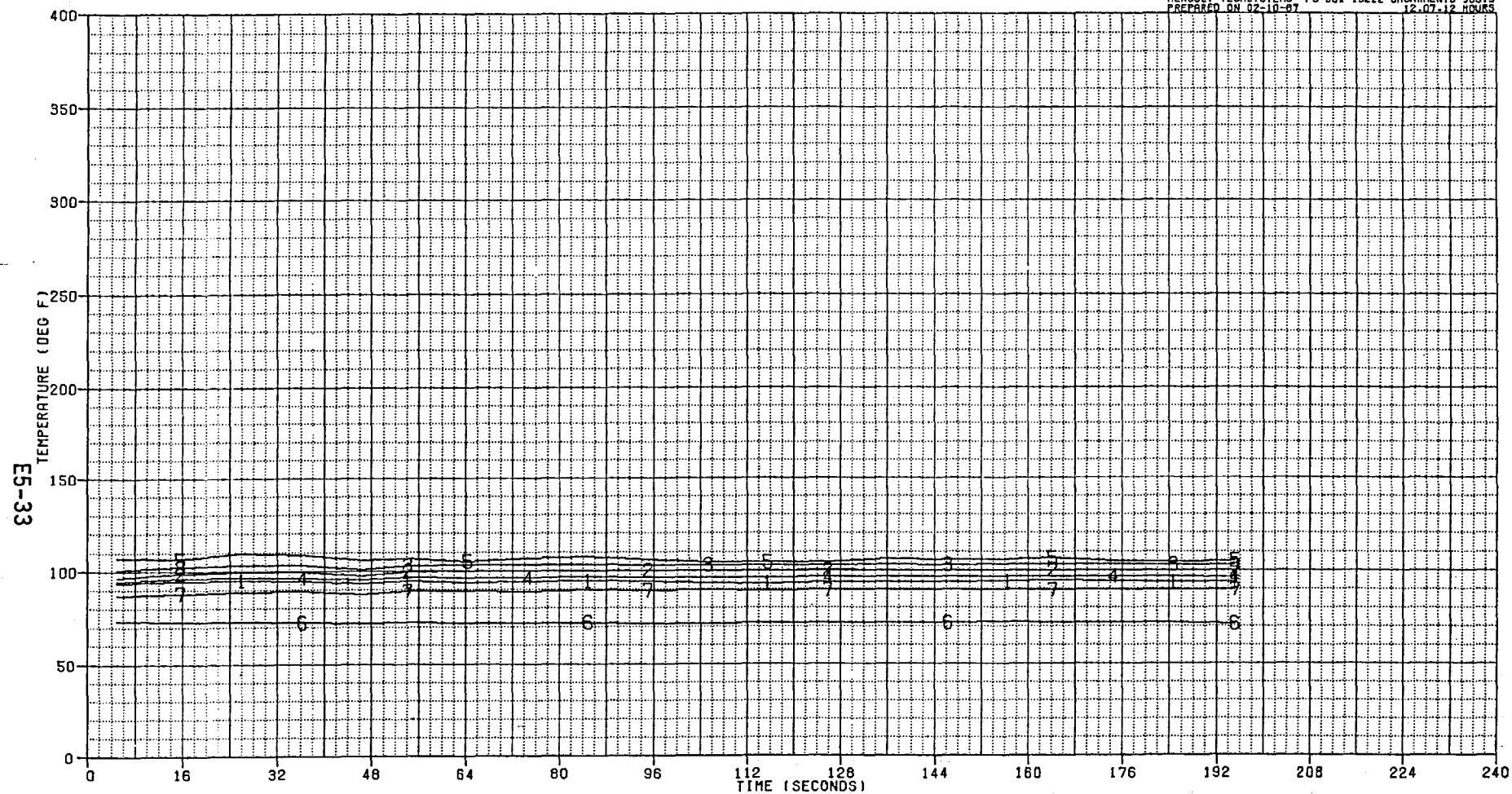


ES-32

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-141  
BARREL DATA  
TEST DATE 07-30-86 1503 HOURS





ES-33

- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

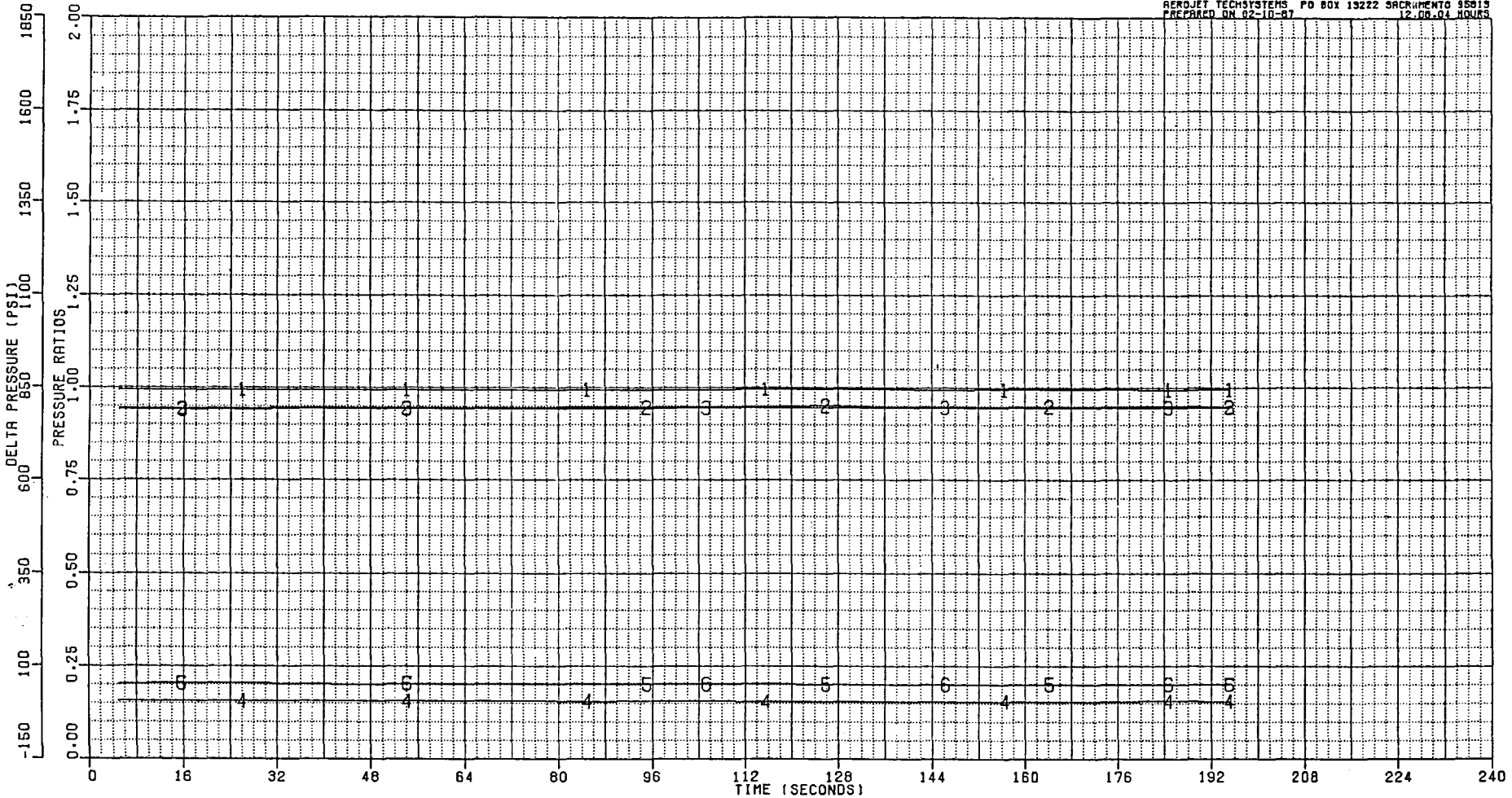
COOLANT OUTLET TEMPERATURES VS TIME  
 TEST NO. 2427-229-A6-141

TEST DATE 07-30-86 1503 HOURS



E5-34

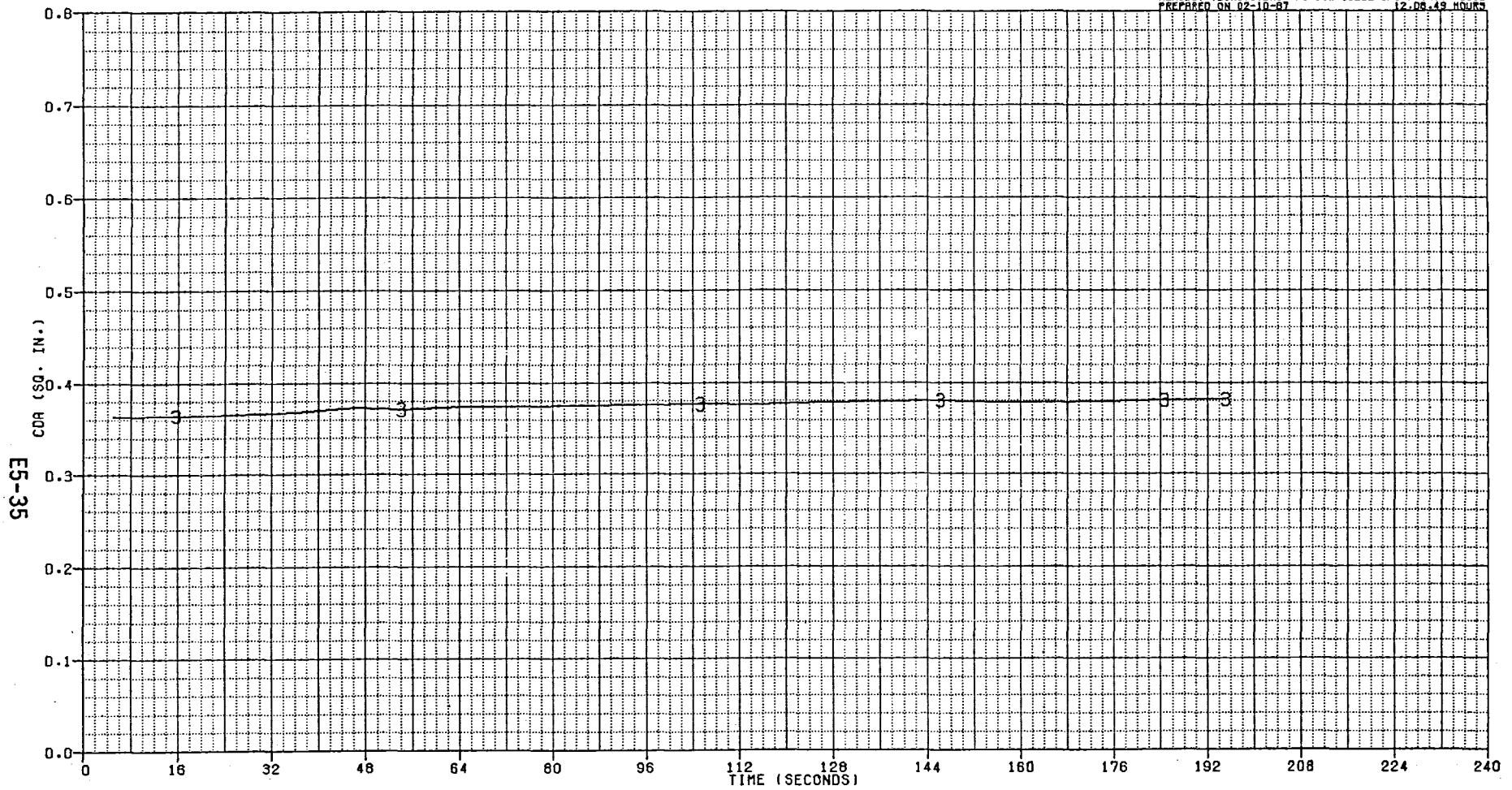
AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95813  
PREPARED ON 02-10-87 12:06:01 HOURS



- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR        PSI
- 5 DPTS-C      PSI
- 6 DPTS        PSI



TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-141  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 07-30-86 1503 HOURS

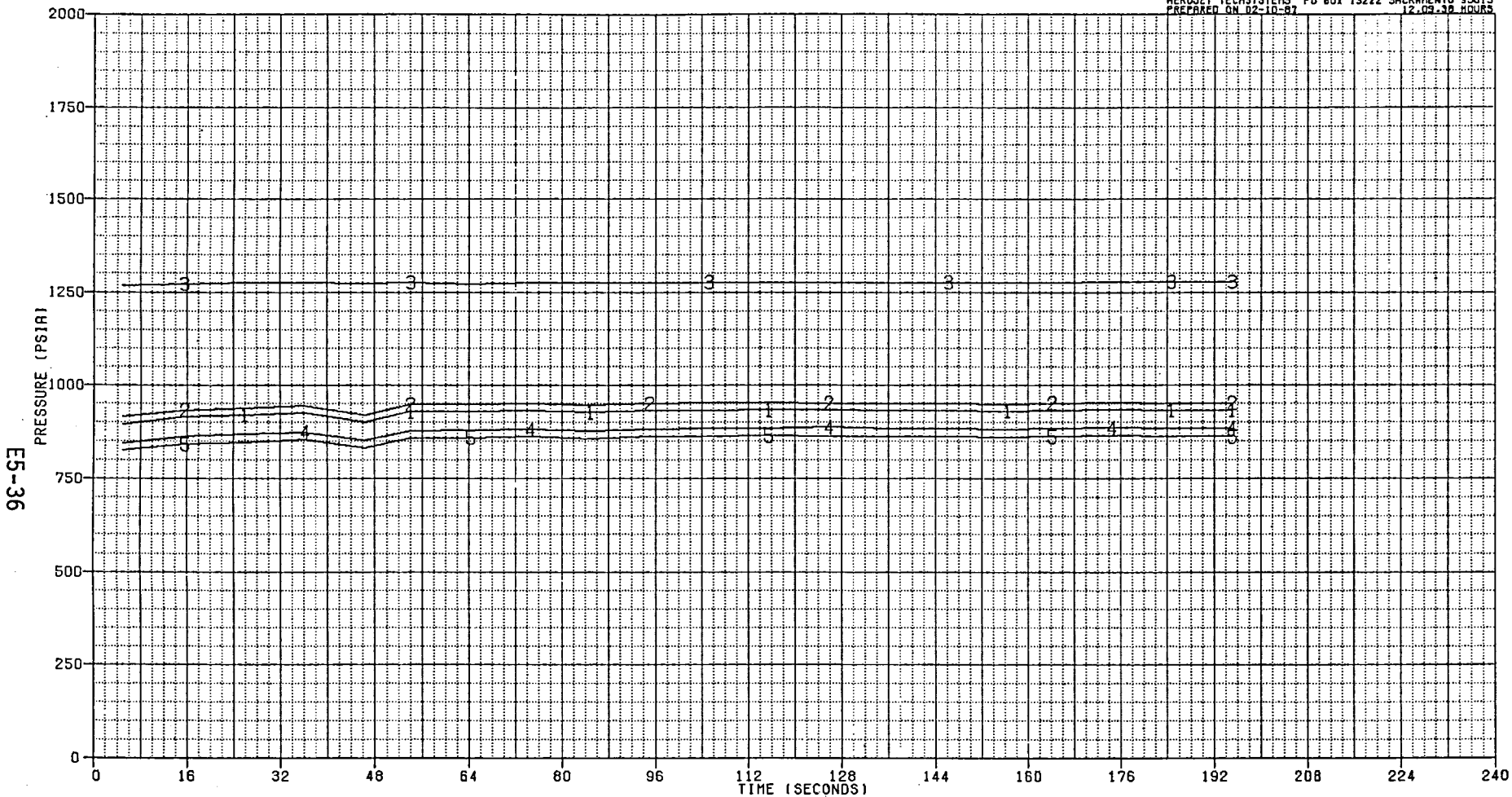


ES-35

- 1 NA1 50. IN.
- 2 NA2 50. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-141  
NOZZLE AREA CHANGE  
TEST DATE 07-30-86 1503 HOURS



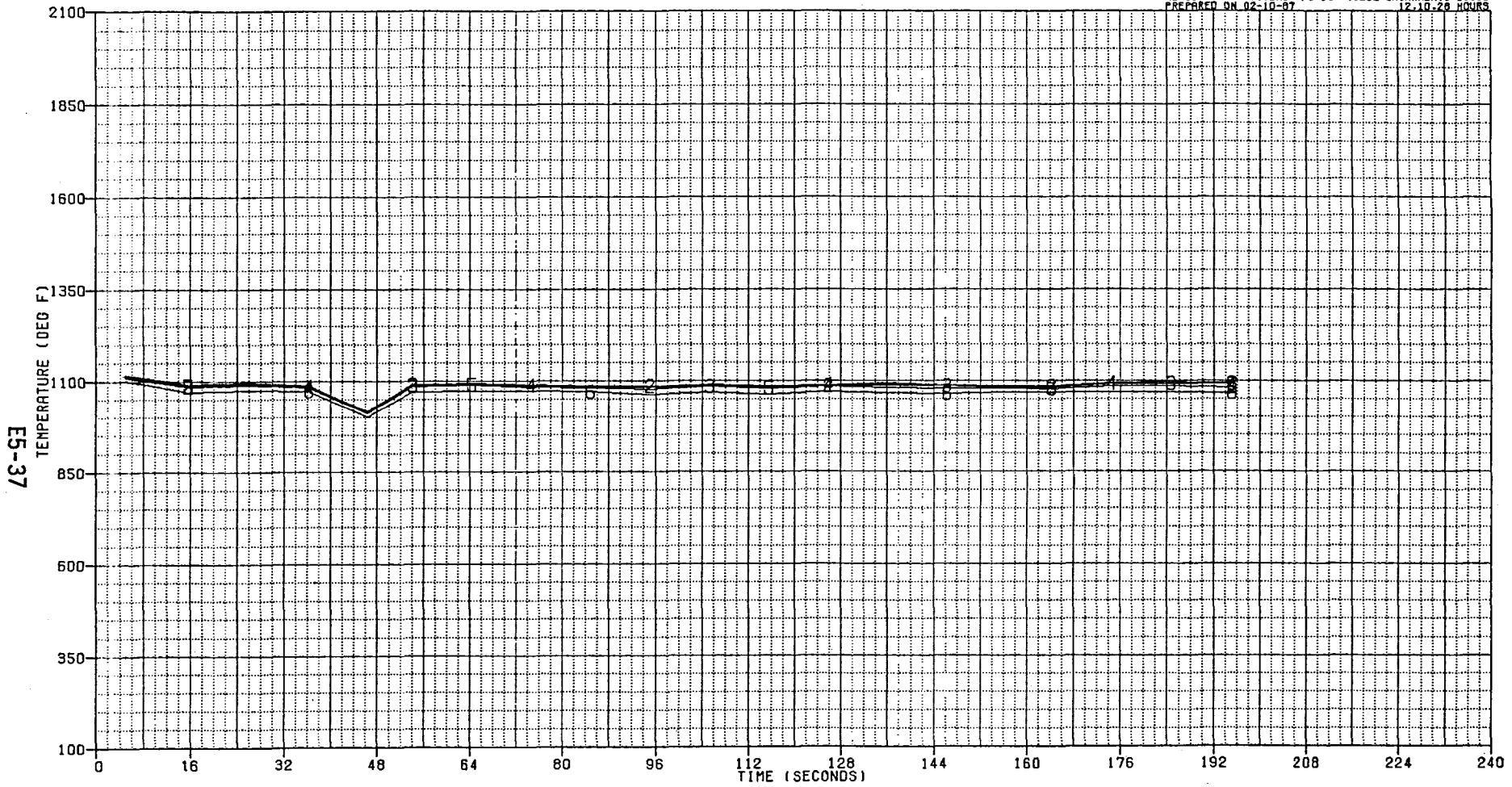


ES-36

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-141  
PRESSURE MEASUREMENTS  
TEST DATE 07-30-86 1503 HOURS





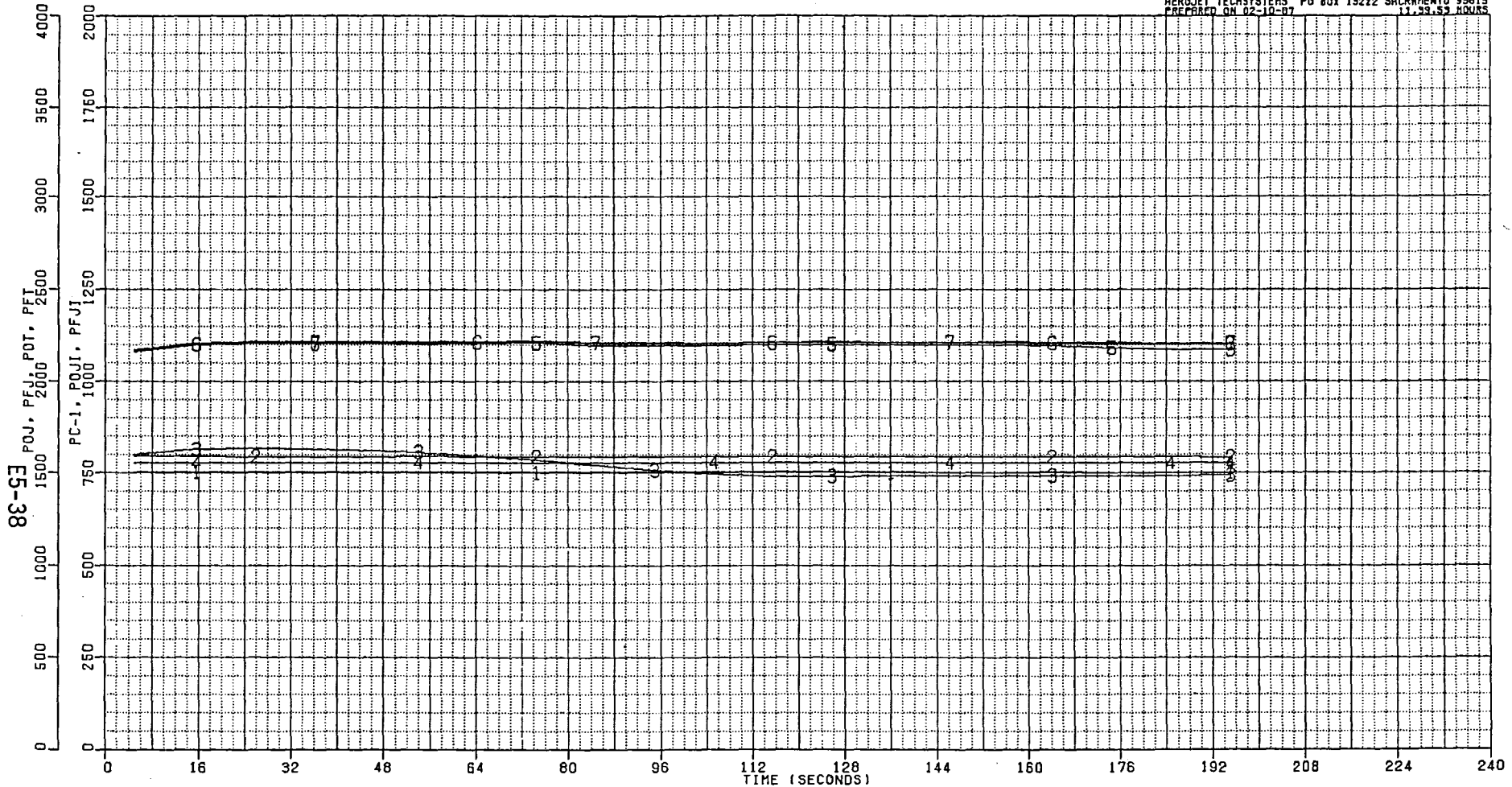
ES-37

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-141  
PRESSURE MEASUREMENTS  
TEST DATE 07-30-86 1503 HOURS







83-53

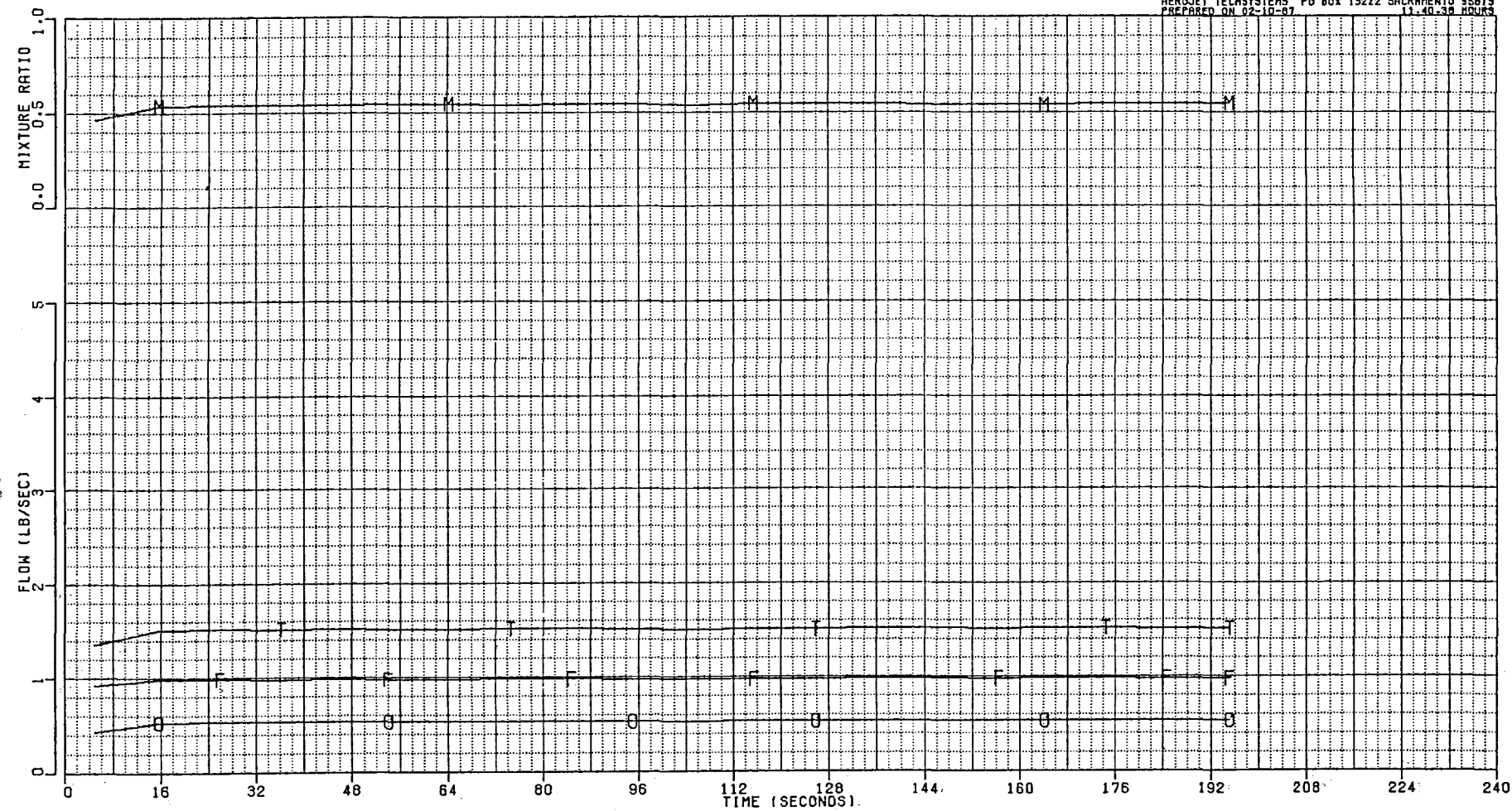
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA



MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-143  
 TEST DATE 08-19-86 1331 HOURS



63-39

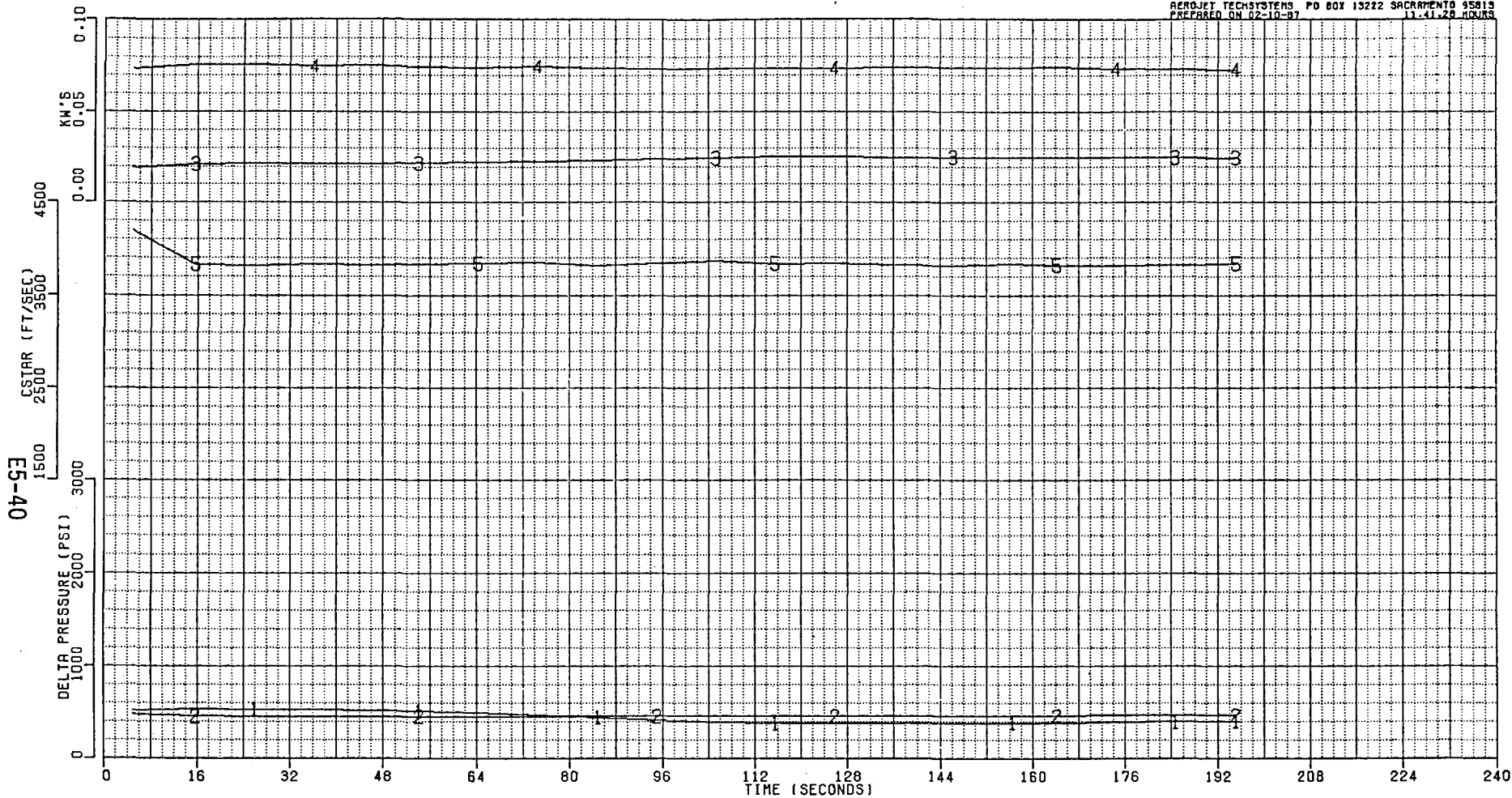


F WF LBS/SEC  
 O WOX LBS/SEC  
 T WTOT LBS/SEC  
 M MR

INJECTOR FLOW VS TIME  
 TEST NO. 2427-229-A6-143

TEST DATE 08-19-86 1331 HOURS





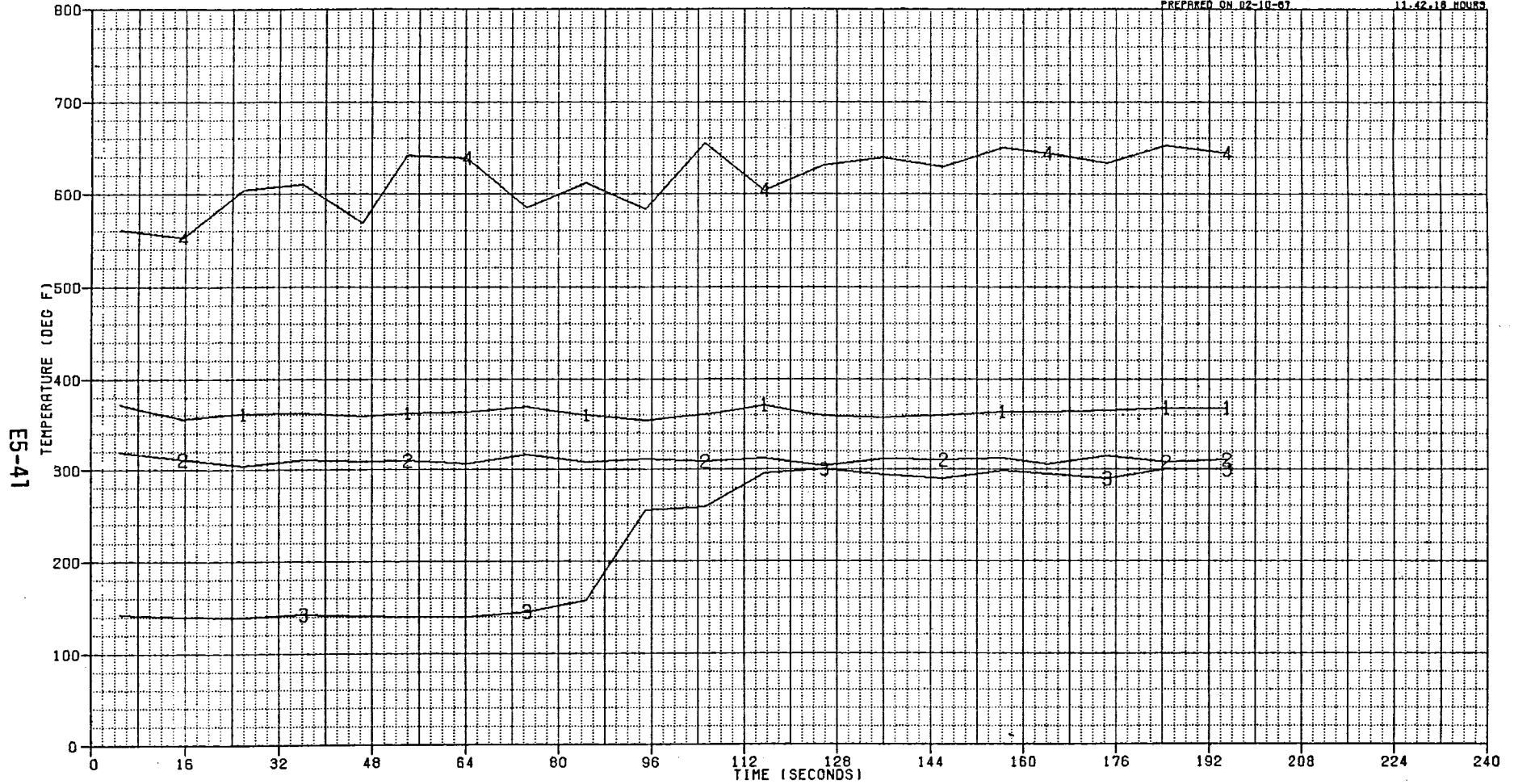
E5-40

- 1 DPOJ. PSI
- 2 DPFJ PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB FT/SEC
- 6 CSTAR FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-143

TEST DATE 08-19-86 1331 HOURS



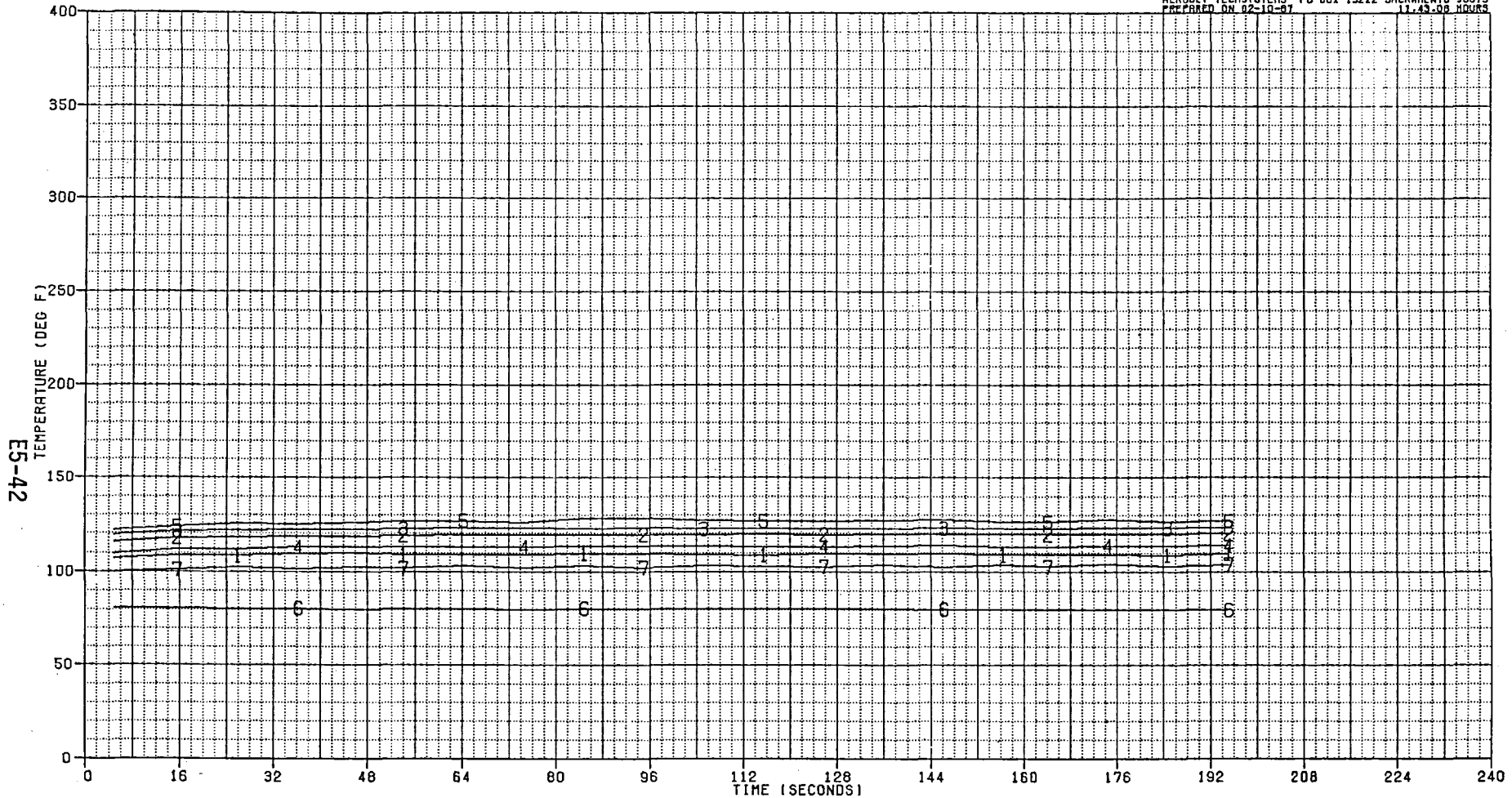


ES-41

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-143  
BARREL DATA  
TEST DATE 08-19-86 1331 HOURS





- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-143

TEST DATE 08-19-86 1331 HOURS





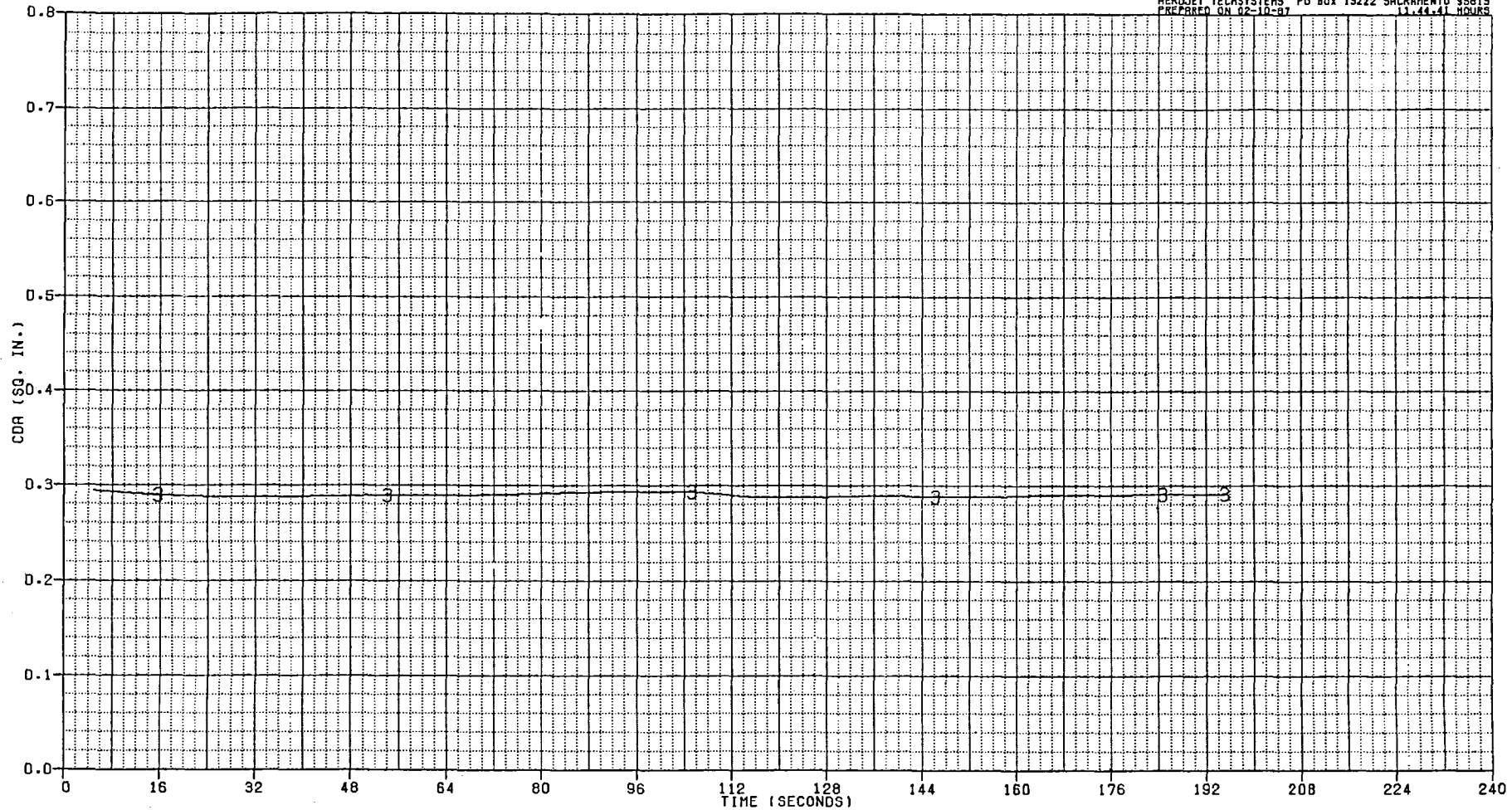
ES-43  
600  
850  
1100  
1350  
1600  
1850

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-143  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 08-19-86 1331 HOURS



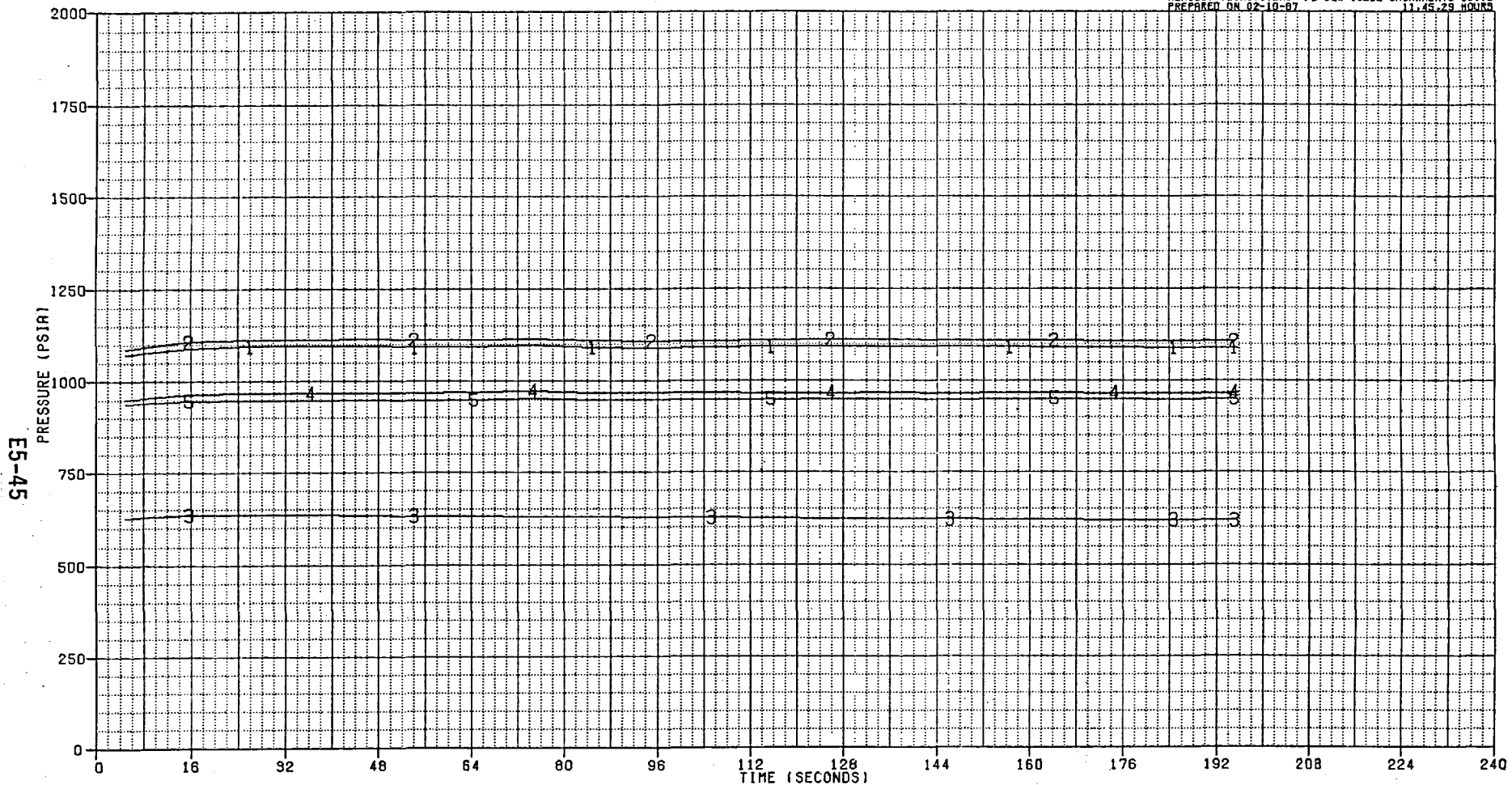
E5-44



- 1 NA1 SQ. IN.
- 2 NR2 SQ. IN.
- 3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-143  
NOZZLE AREA CHANGE  
TEST DATE 08-19-86 1331 HOURS





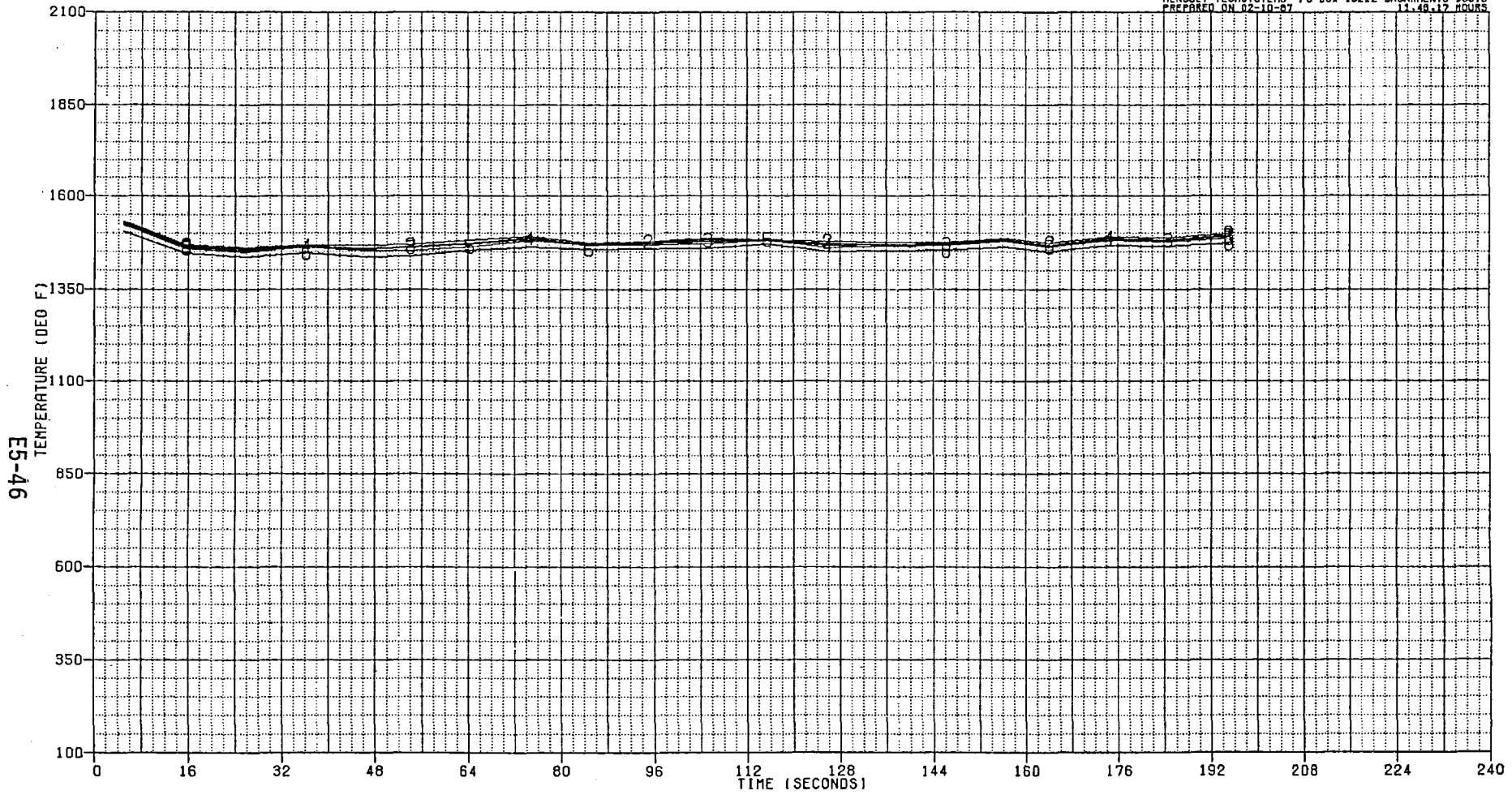
ES-45

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-143  
 PRESSURE MEASUREMENTS  
 TEST DATE 08-19-86 1331 HOURS







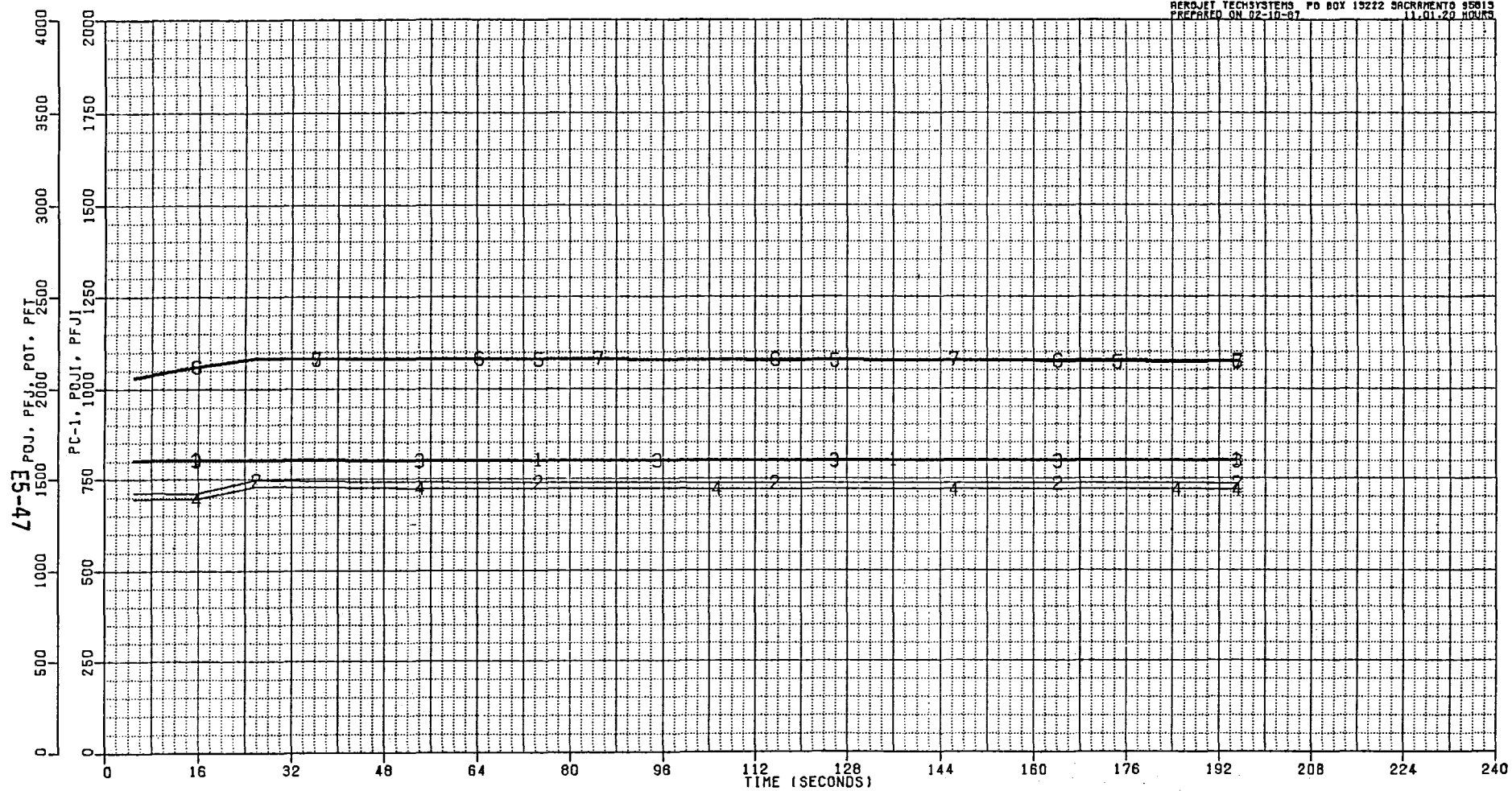
ES-46

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-143  
PRESSURE MEASUREMENTS  
TEST DATE 08-19-86 1331 HOURS







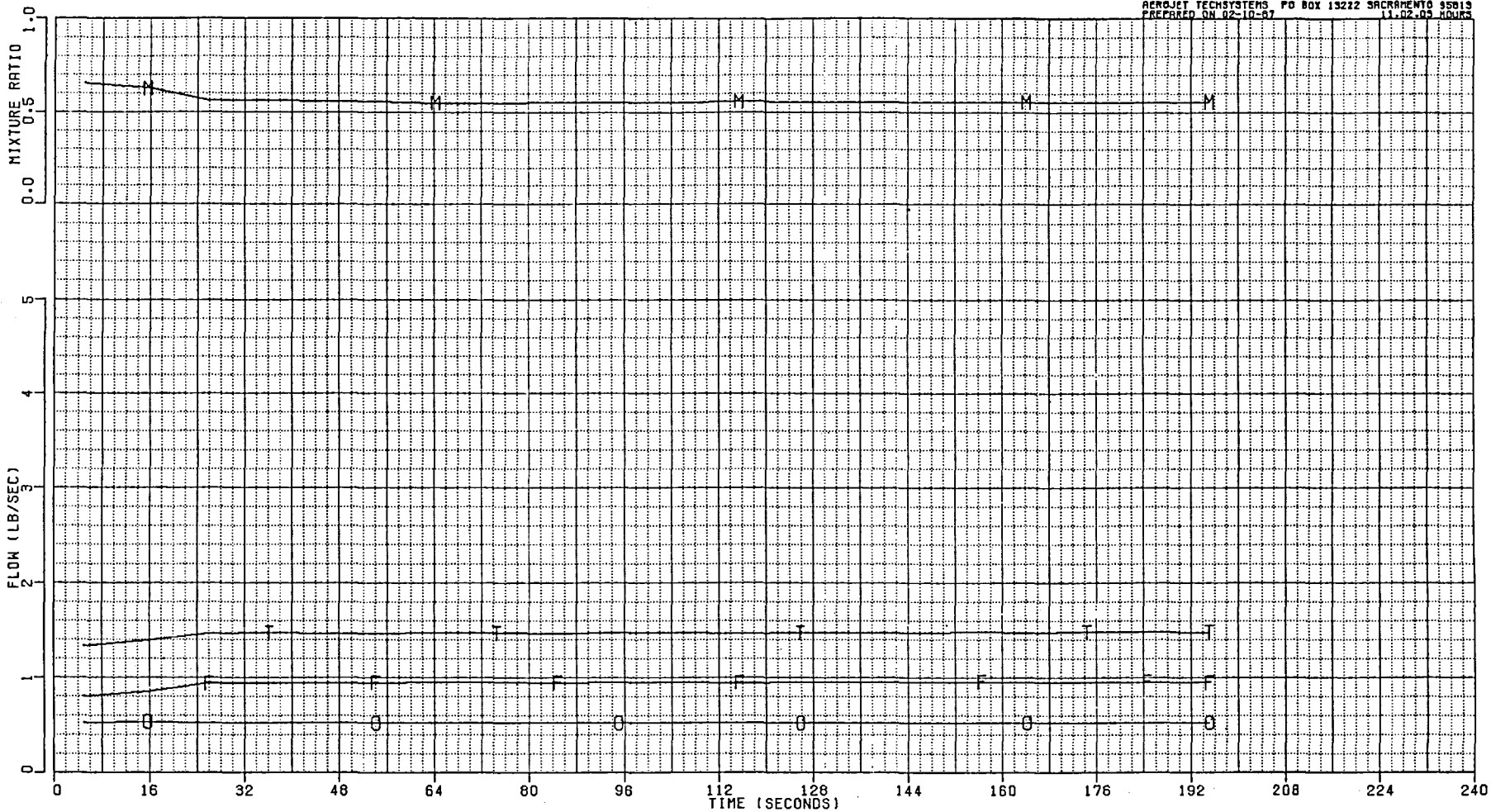
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-144

TEST DATE 08-18-86 1447 HOURS



ES-48

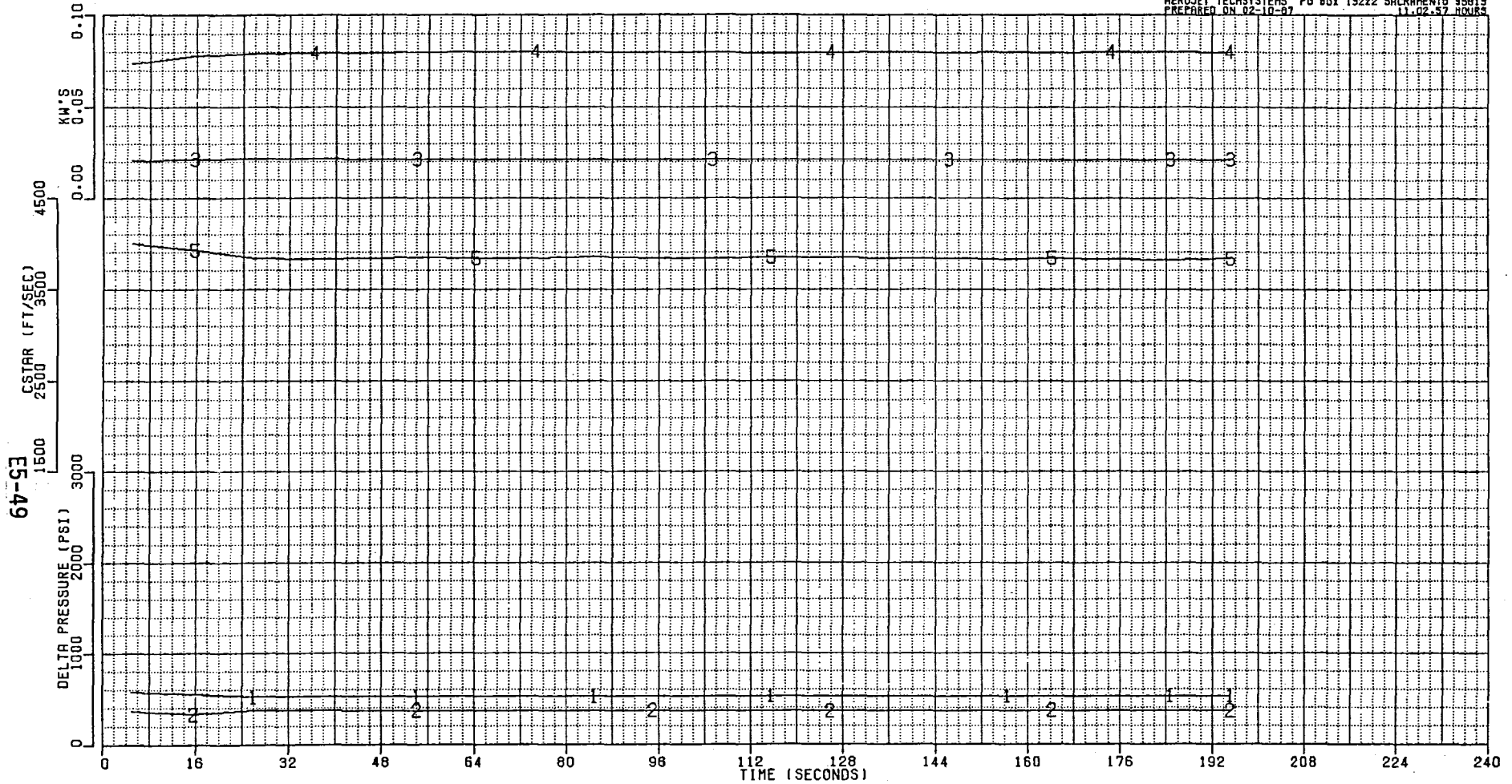


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR LBS/SEC

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-144

TEST DATE 08-18-86 1447 HOURS





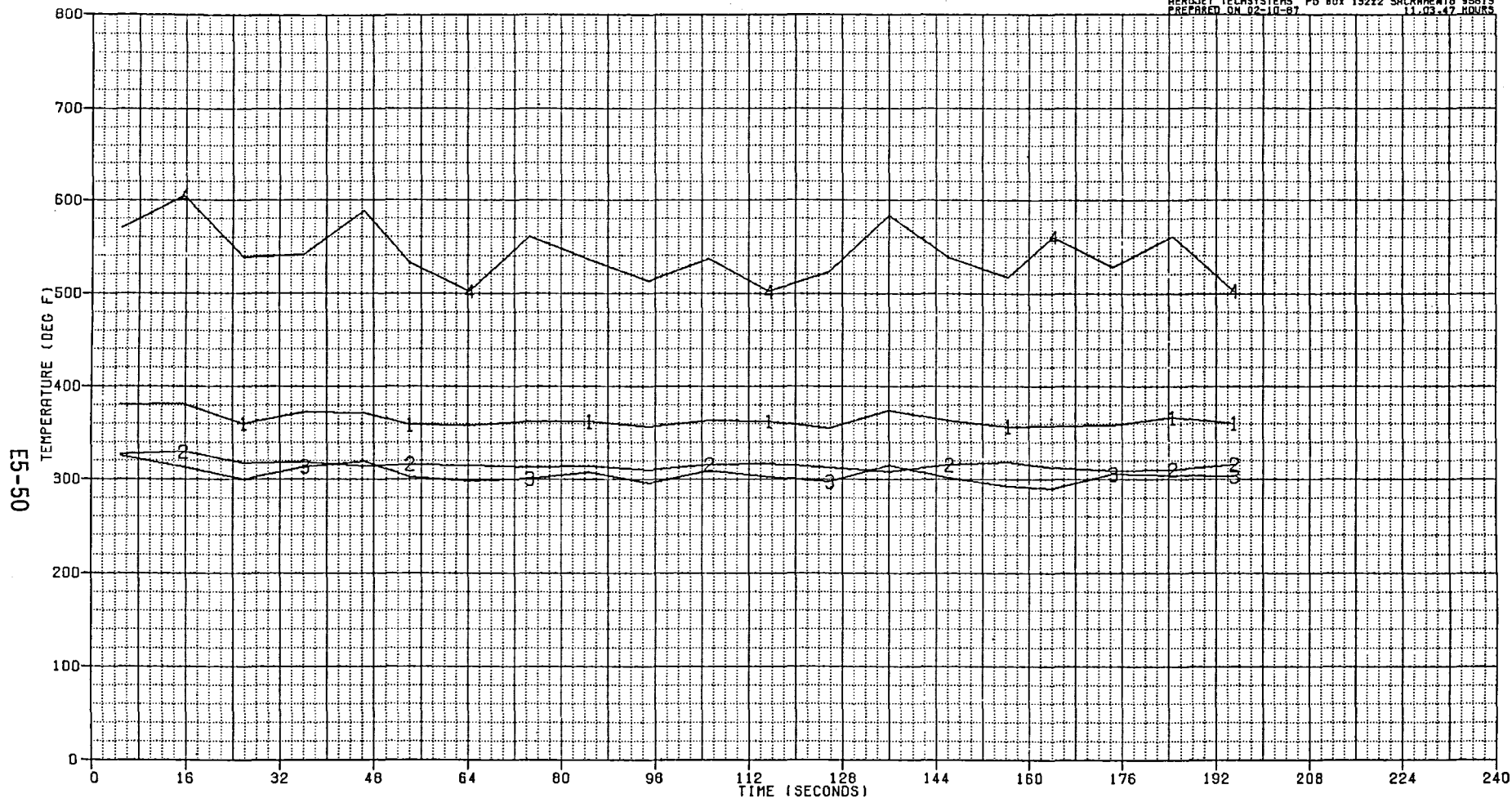
65-49

- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB        FT/SEC
- 6 CSTAR         FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-144

TEST DATE 08-18-86 1447 HOURS



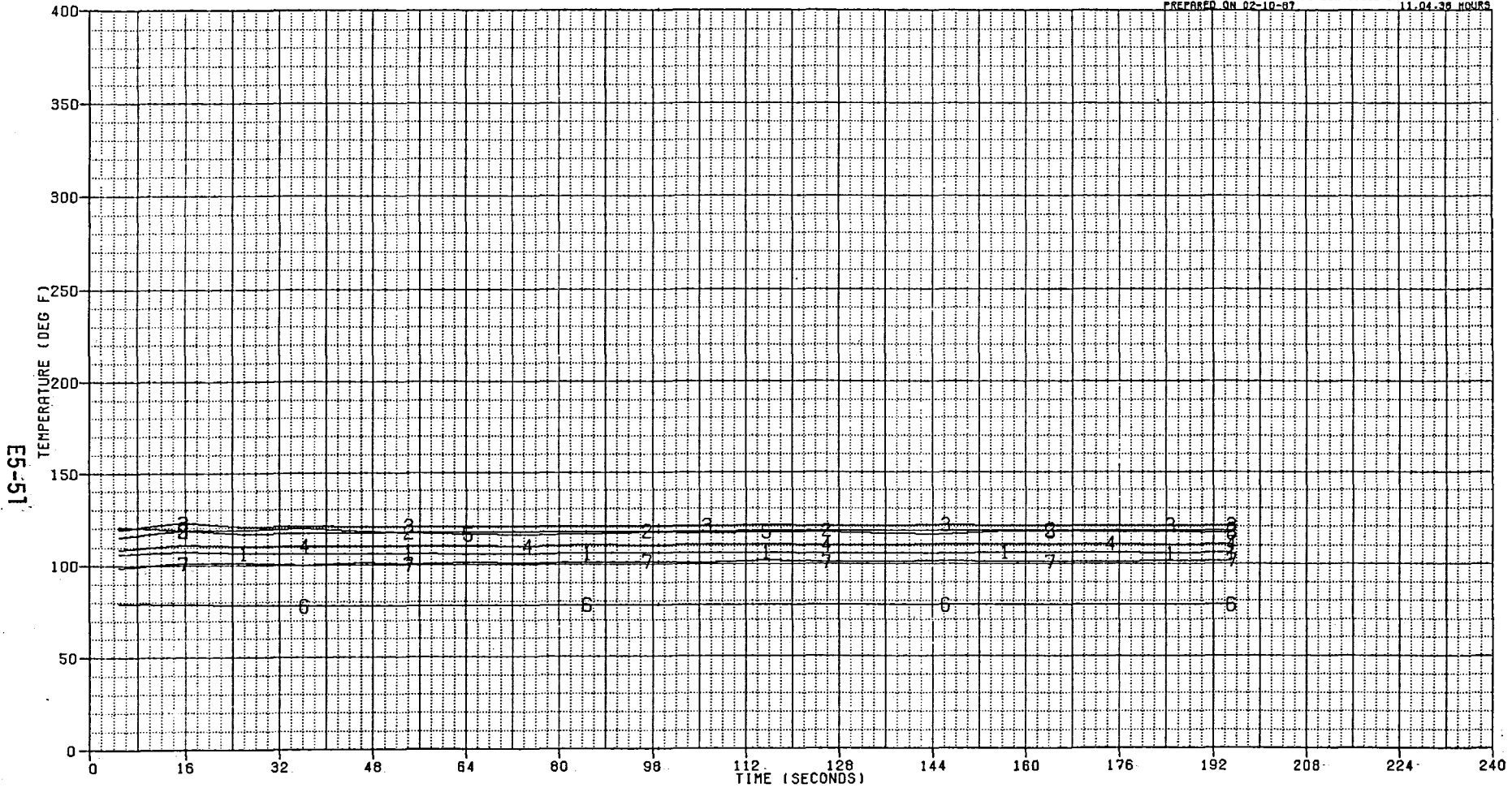


ES-50

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-144  
BARREL DATA  
TEST DATE 08-18-86 1447 HOURS

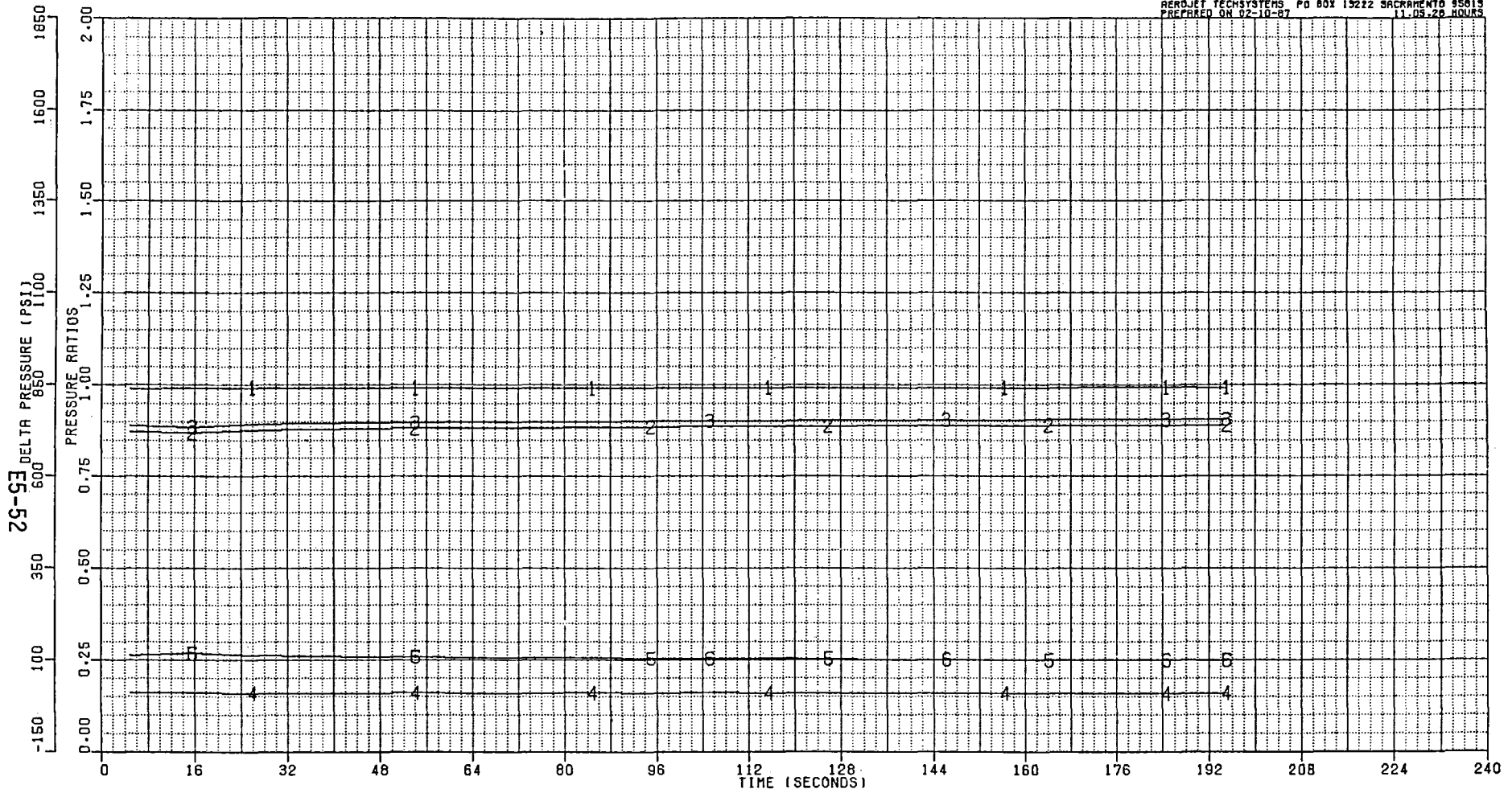




- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-144  
TEST DATE 08-18-86 1447 HOURS

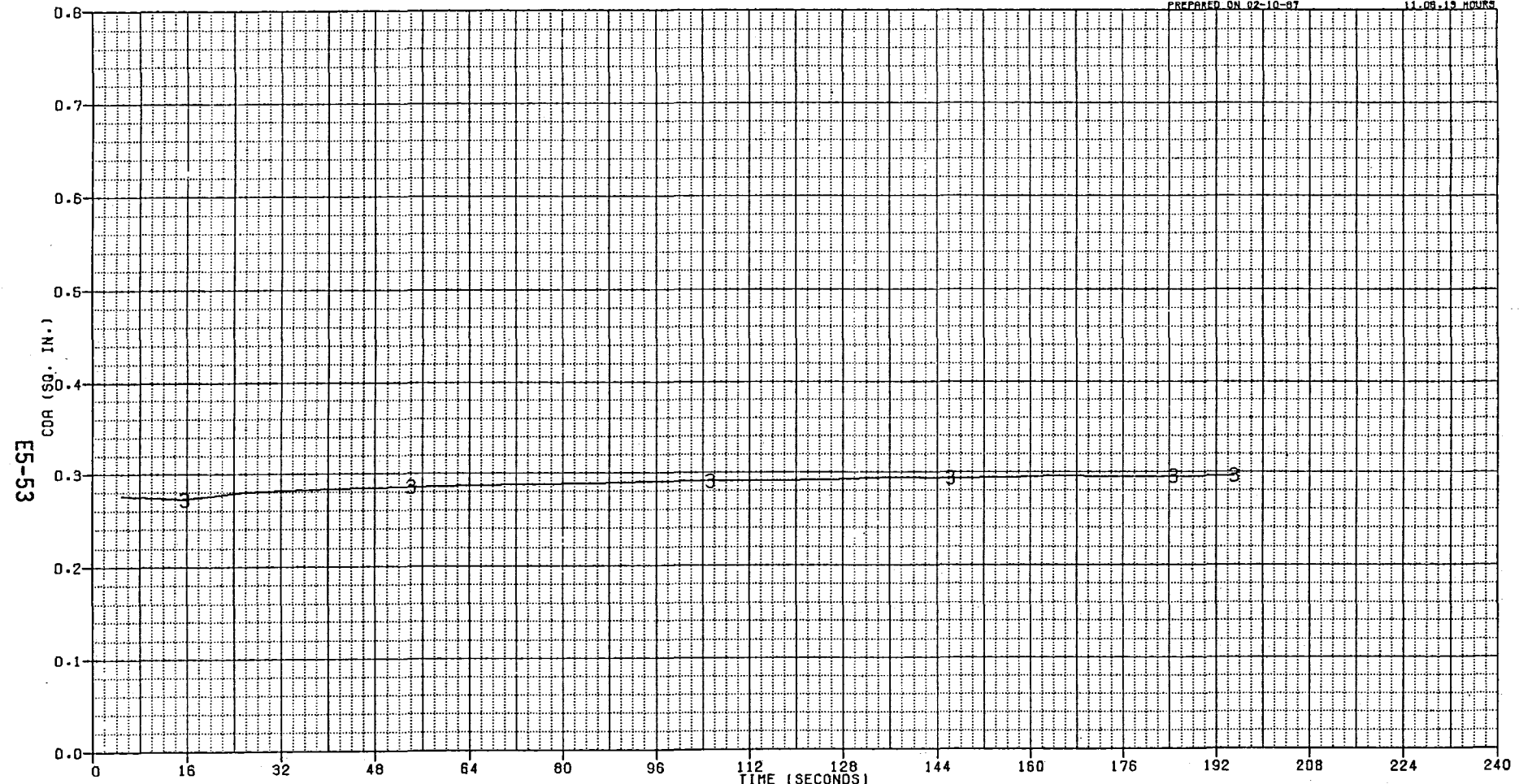


AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95613  
 PREPARED ON 02-10-87 11:09:28 HOURS

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-144  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 08-18-86 1447 HOURS



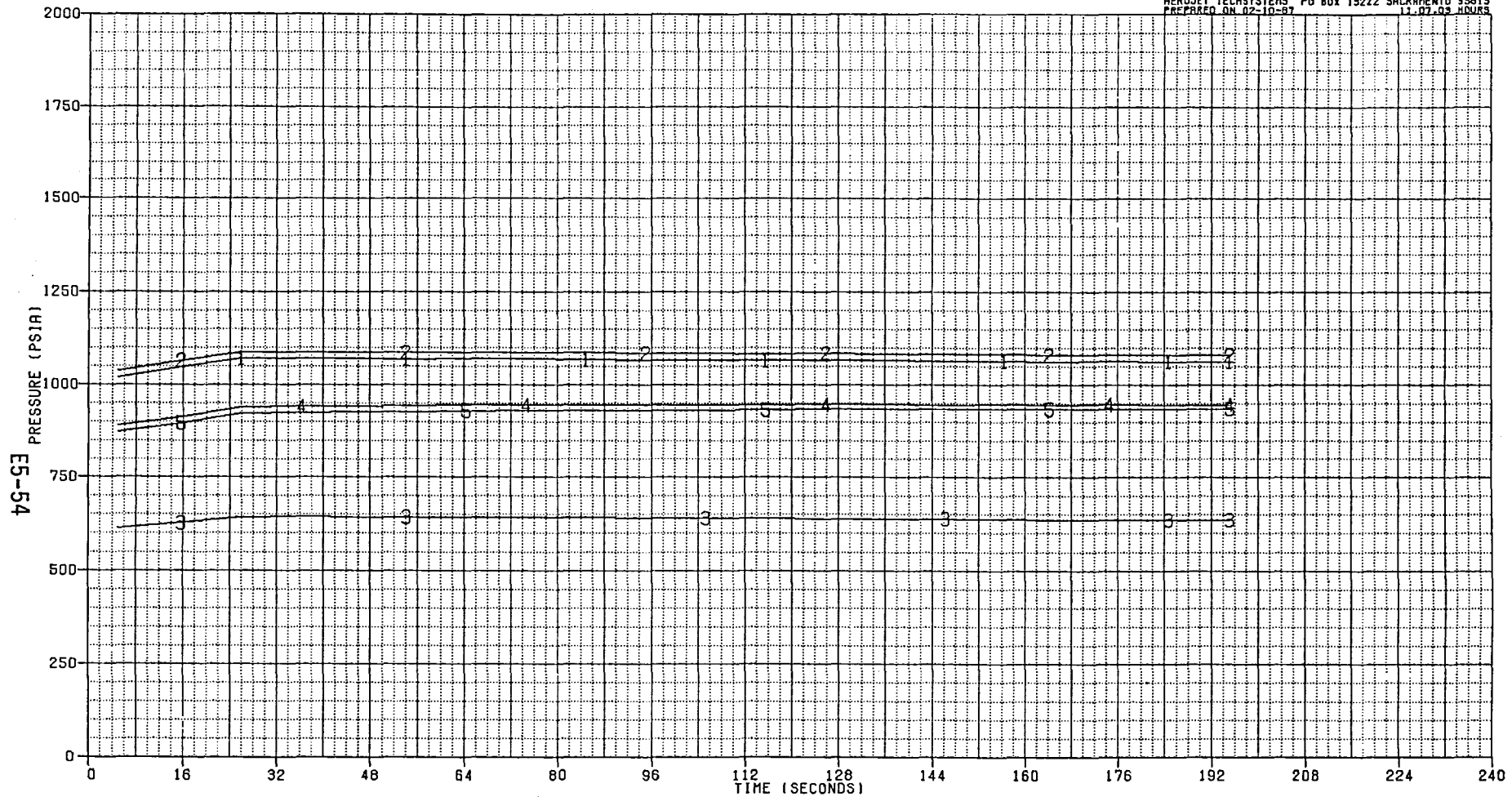


- 1 NA1 50-IN.
- 2 NA2 50-IN.
- 3 CDR

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-144  
NOZZLE AREA CHANGE  
TEST DATE 08-18-86 1447 HOURS





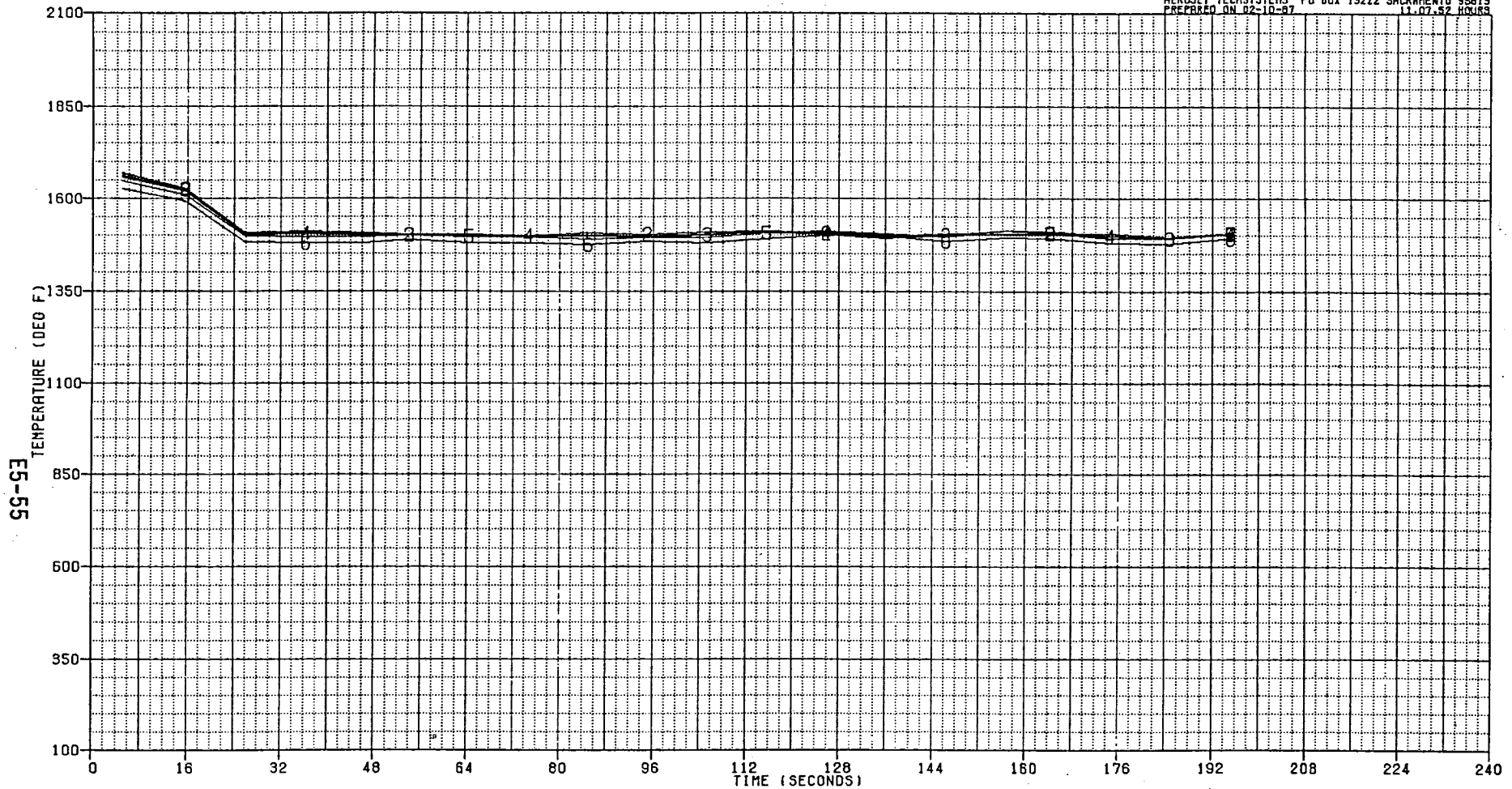


- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-144  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1447 HOURS





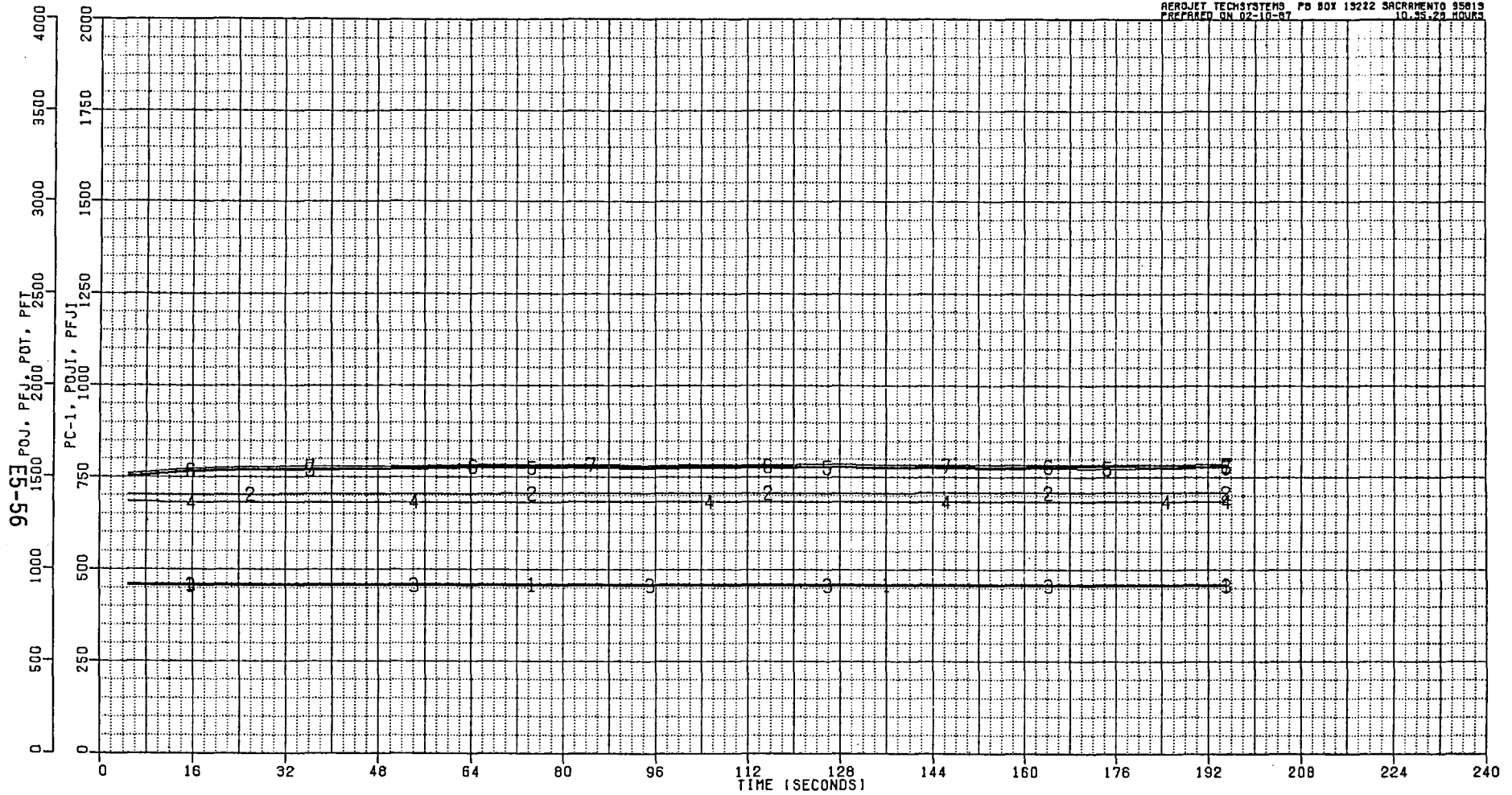


E5-55

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-144  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1447 HOURS





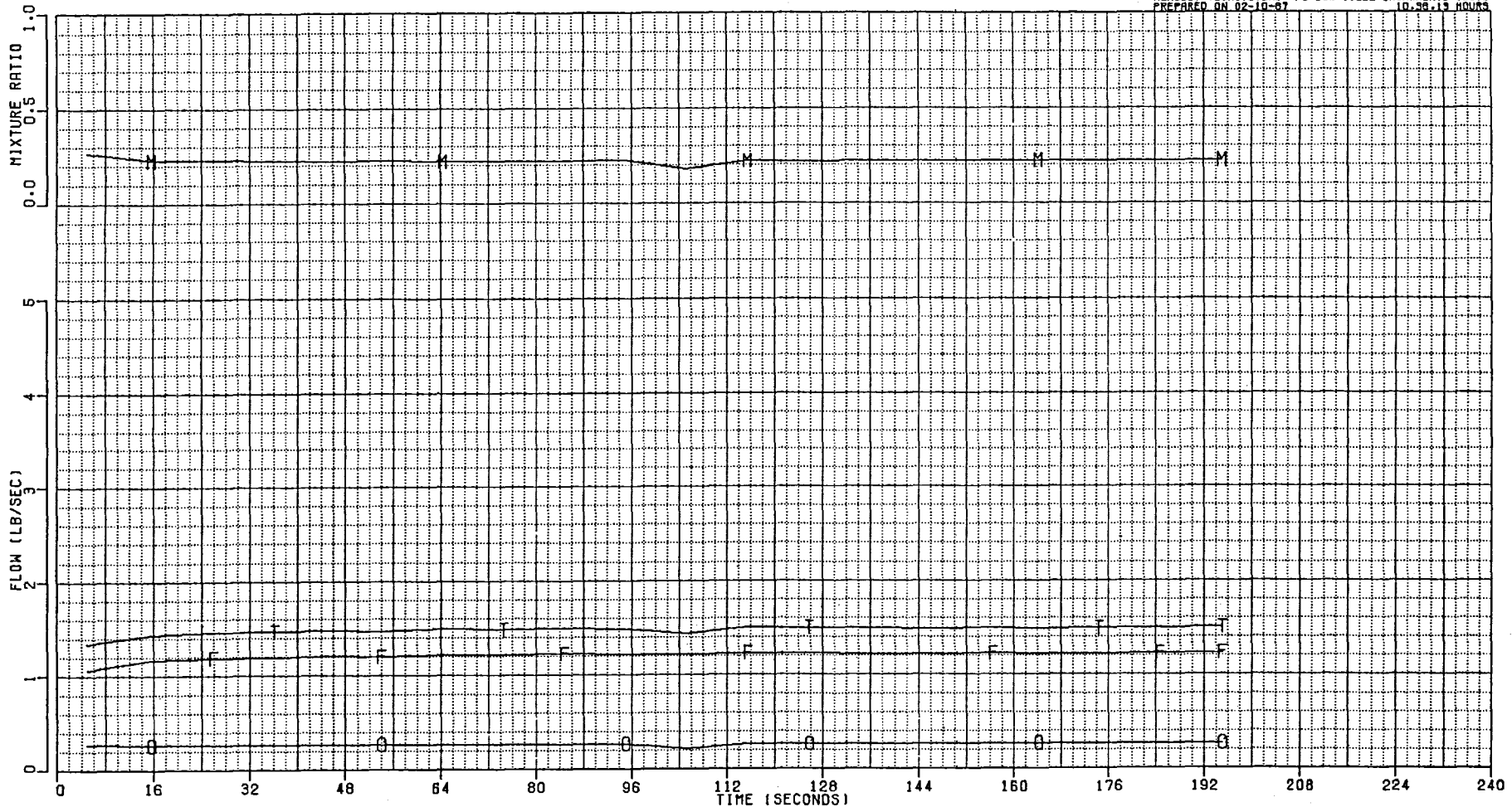
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-149

TEST DATE 08-18-86 1628 HOURS



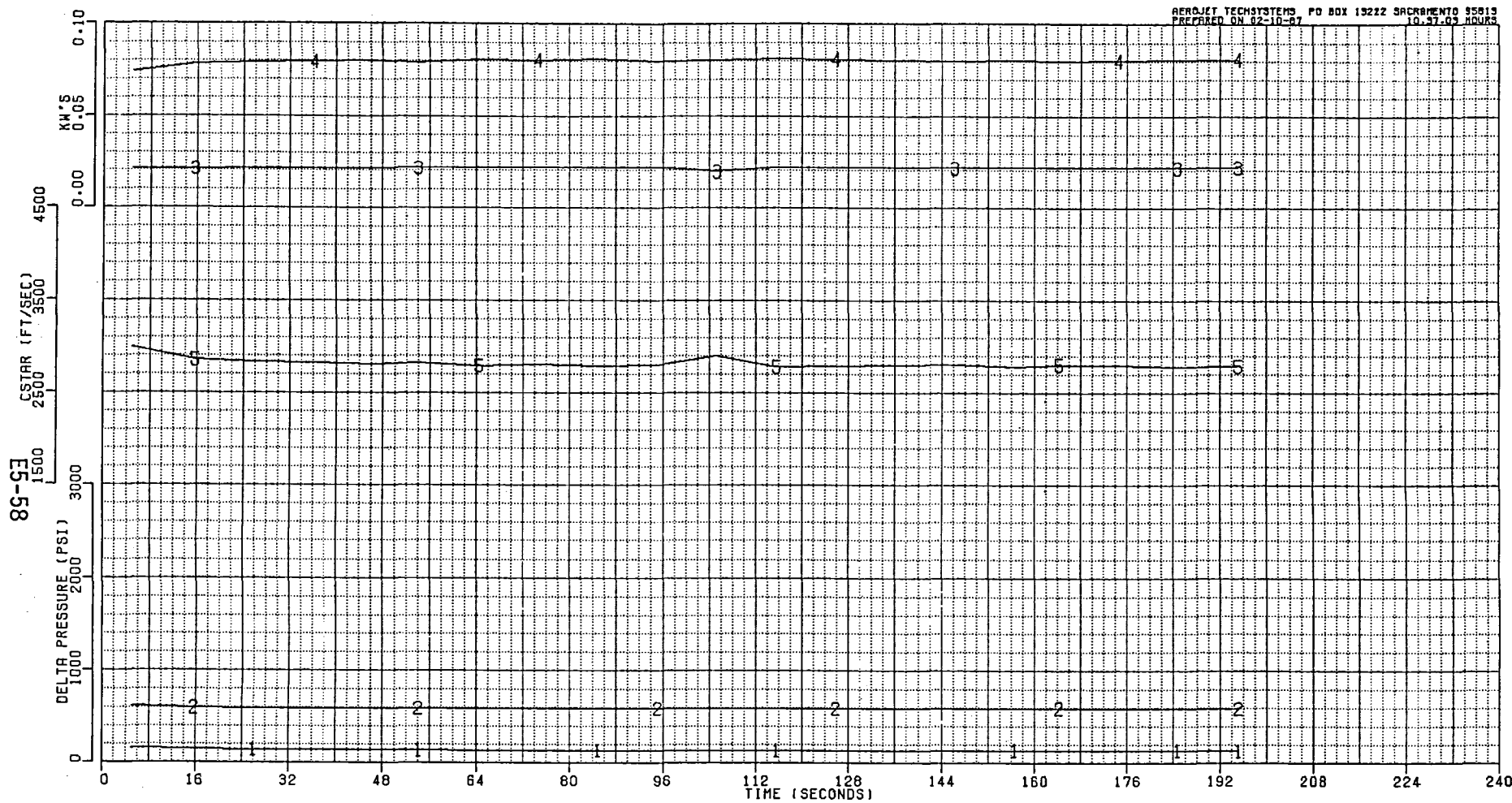
ES-57



F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-149  
TEST DATE 08-18-86 1628 HOURS





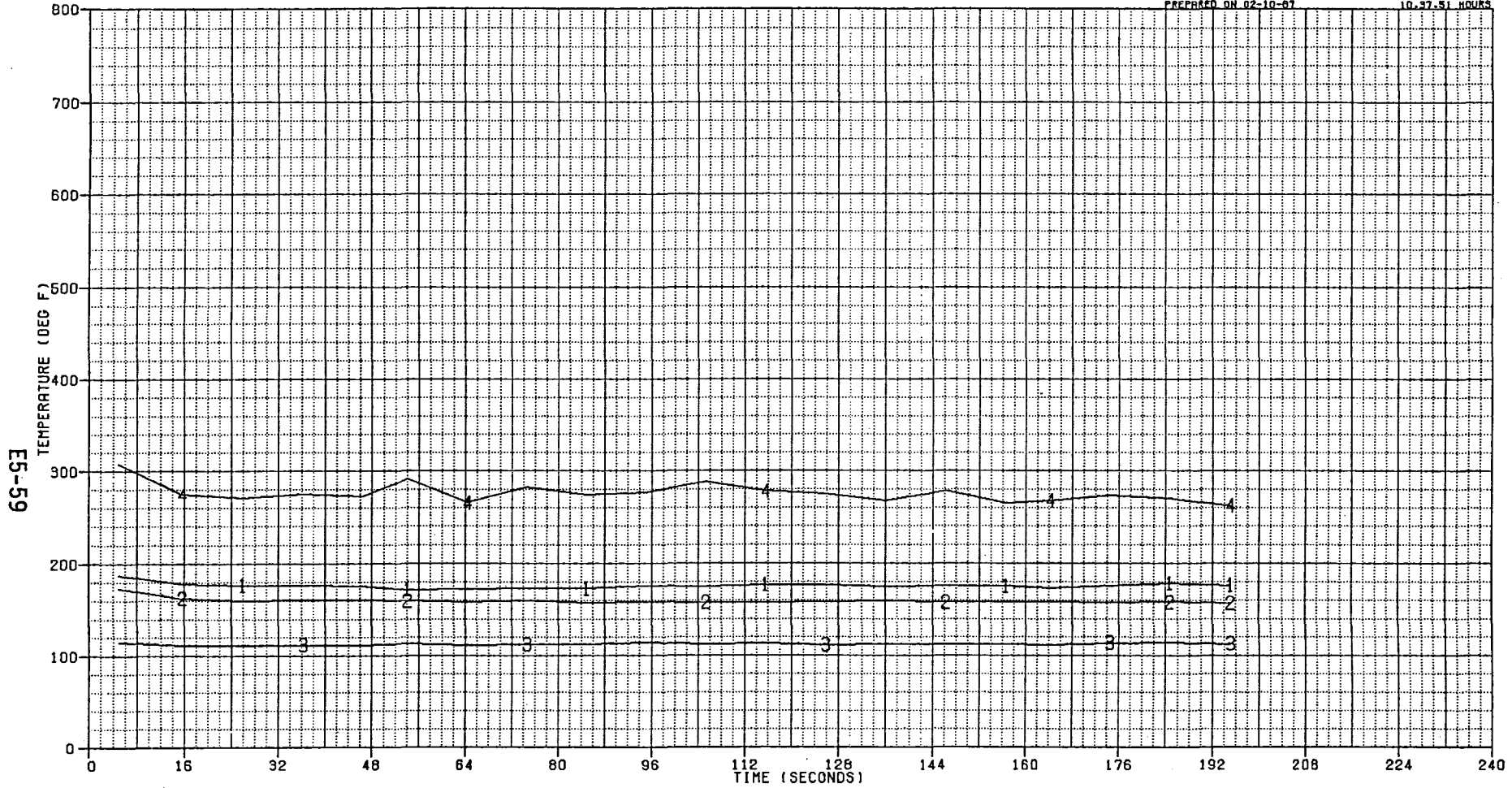
89-58

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-149

TEST DATE 08-18-86 1628 HOURS



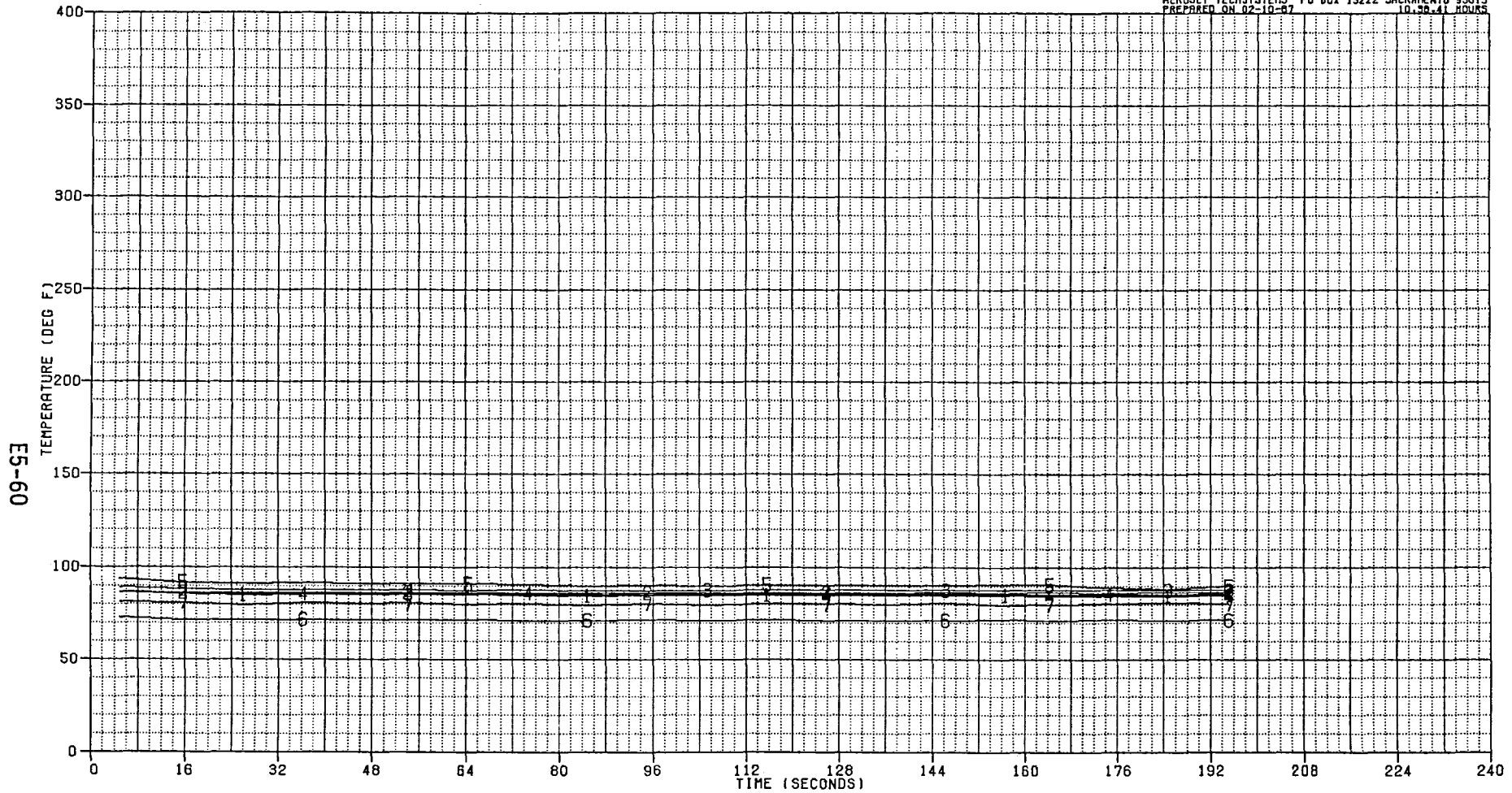


65-59

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-149  
BARREL DATA  
TEST DATE 08-18-86 1628 HOURS



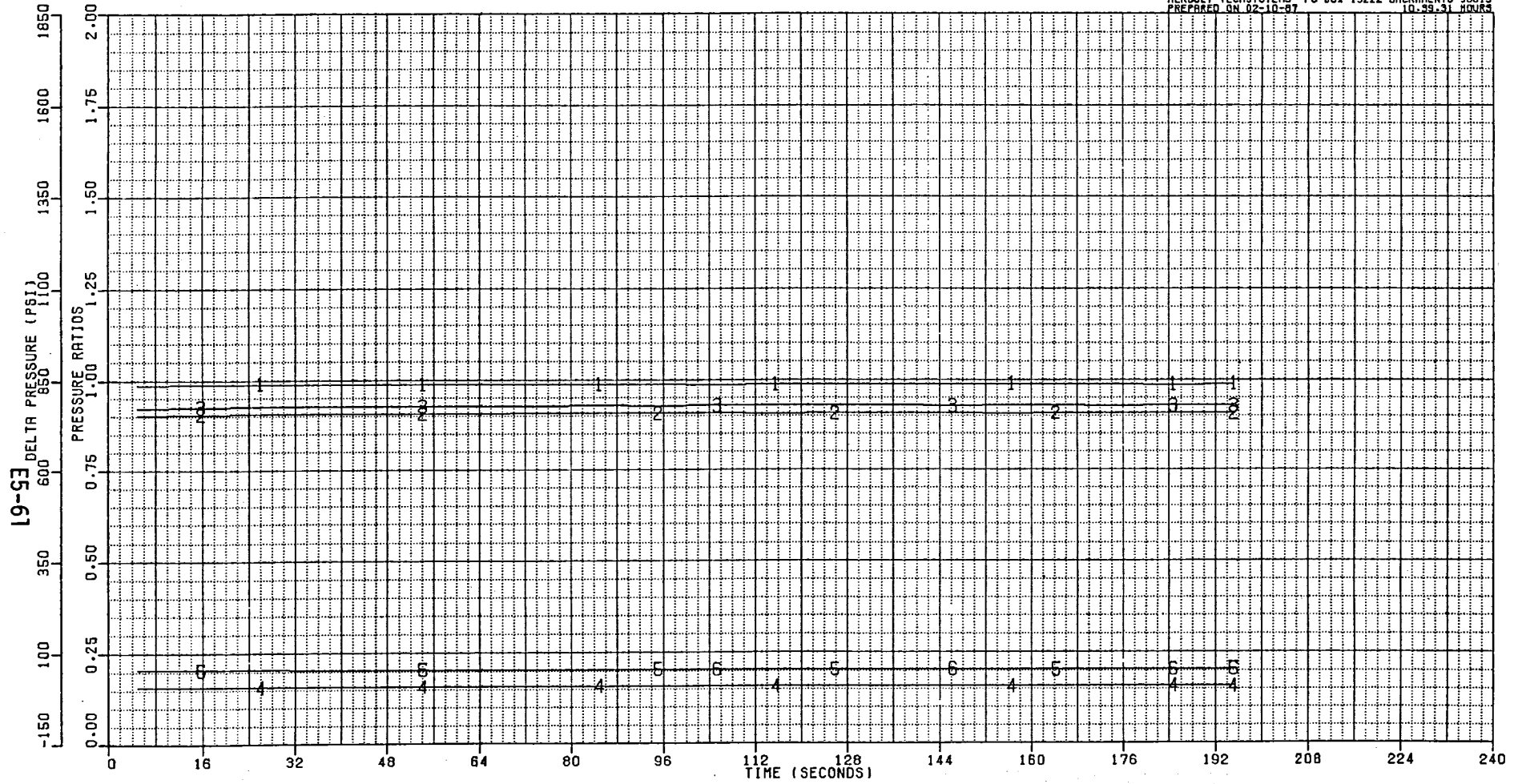


- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-149

TEST DATE 08-18-86 1628 HOURS



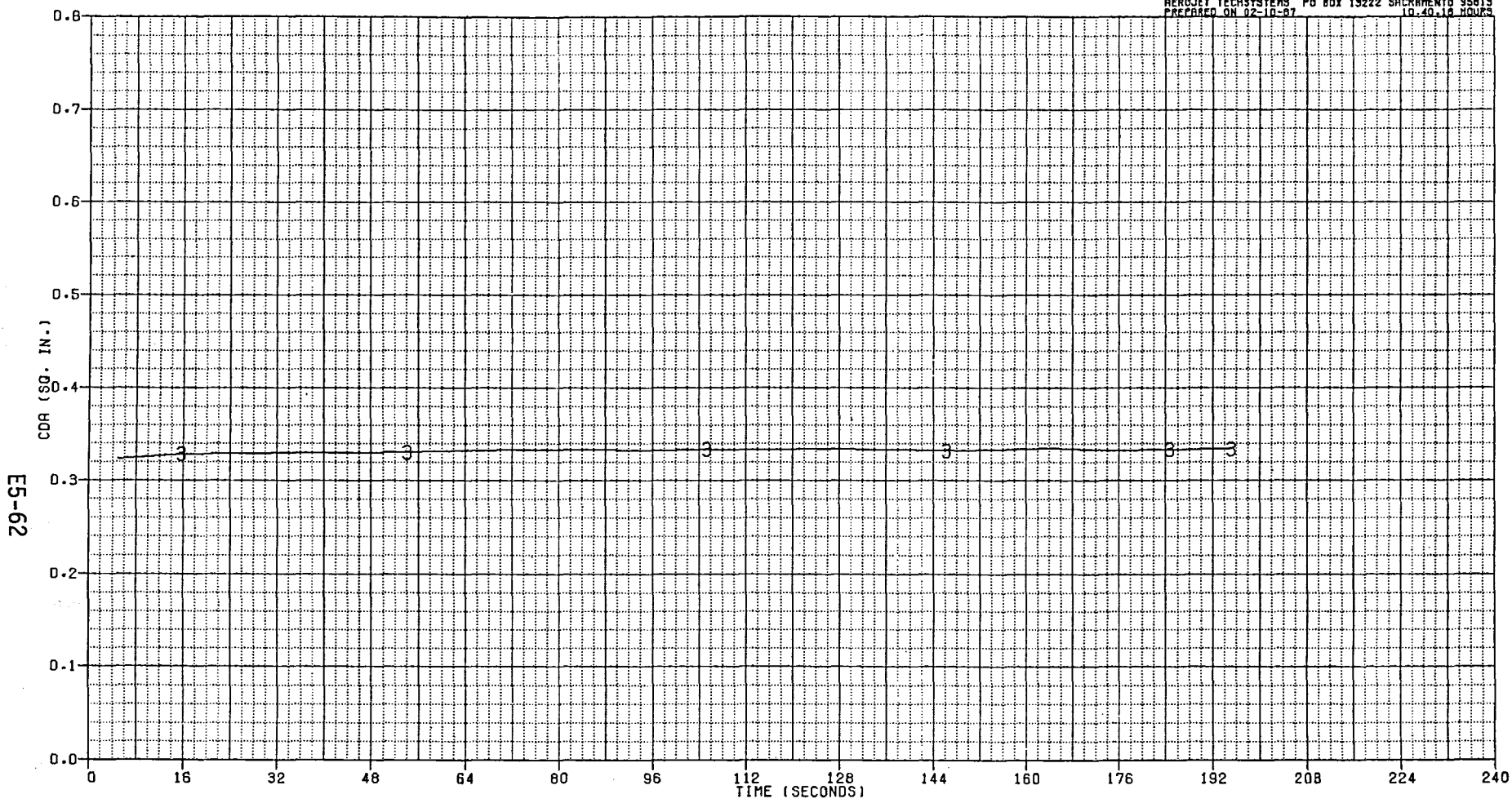


- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTS CORR      PSI
- 4 DPTR            PSI
- 5 DPTS-C          PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-149  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 08-18-86 1628 HOURS







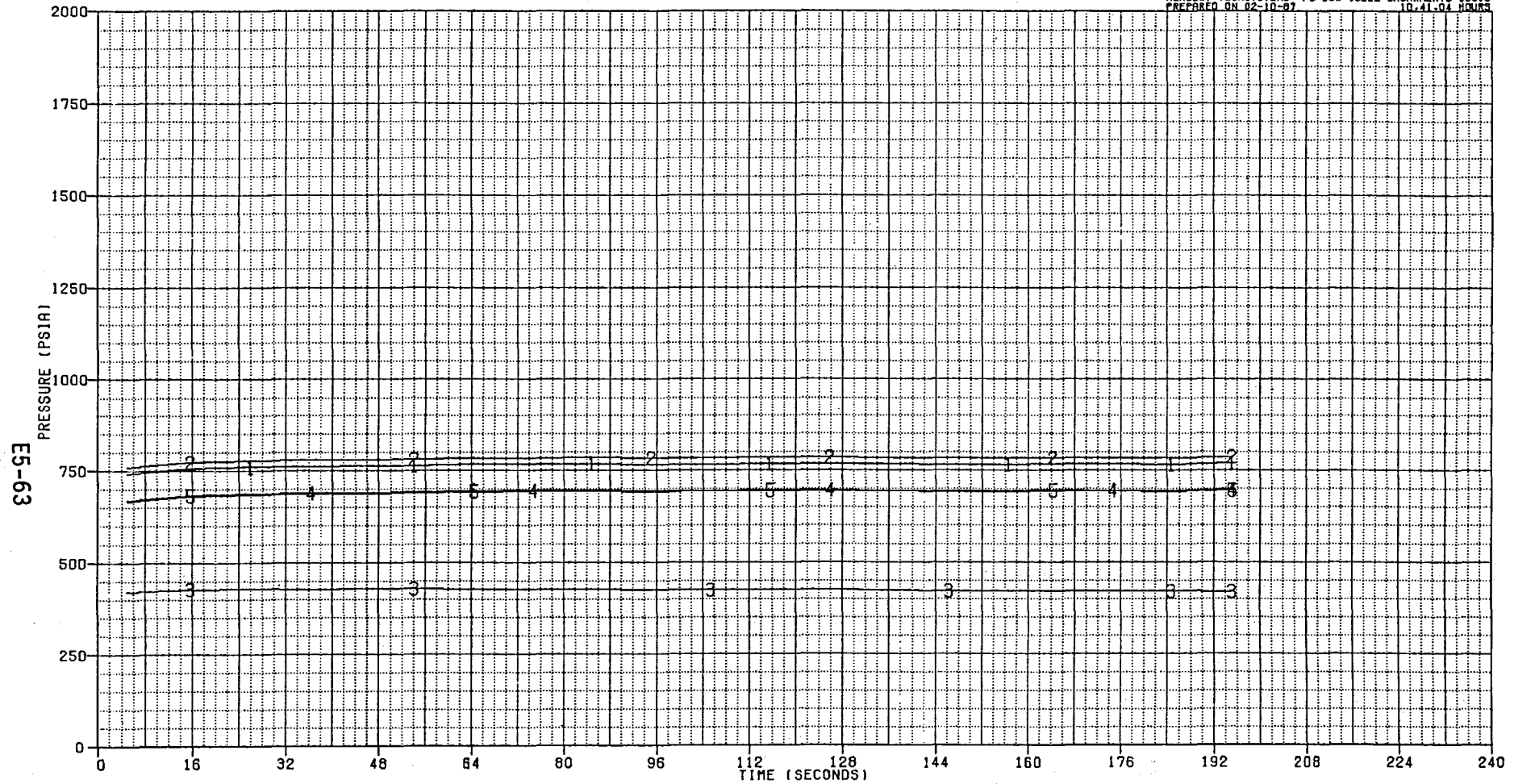
E5-62

- 1 NR1 SQ. IN.
- 2 NR2 SQ. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-149  
NOZZLE AREA CHANGE  
TEST DATE 08-18-86 1628 HOURS





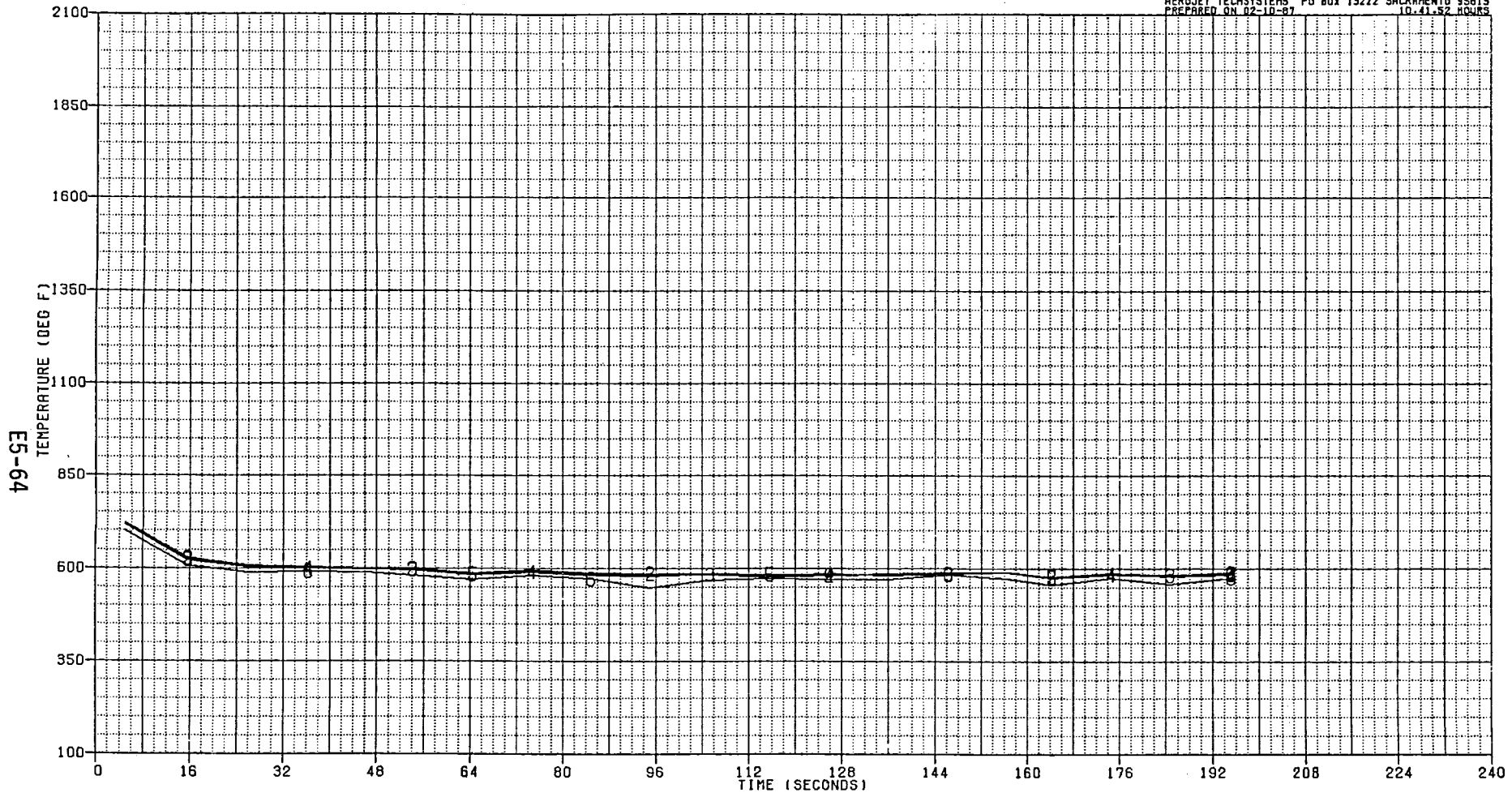


ES-63

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-149  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1628 HOURS.



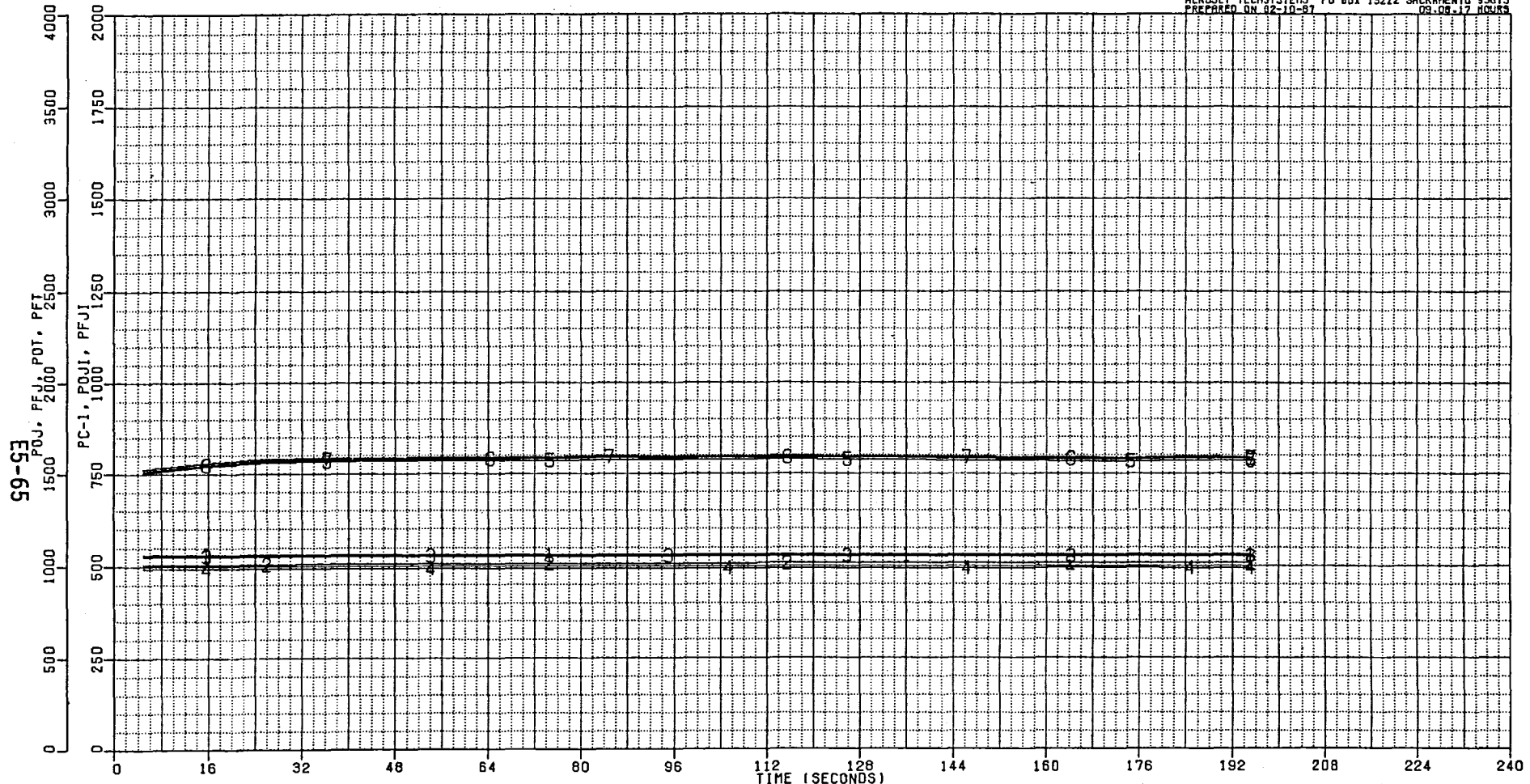


E5-64

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-149  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1628 HOURS



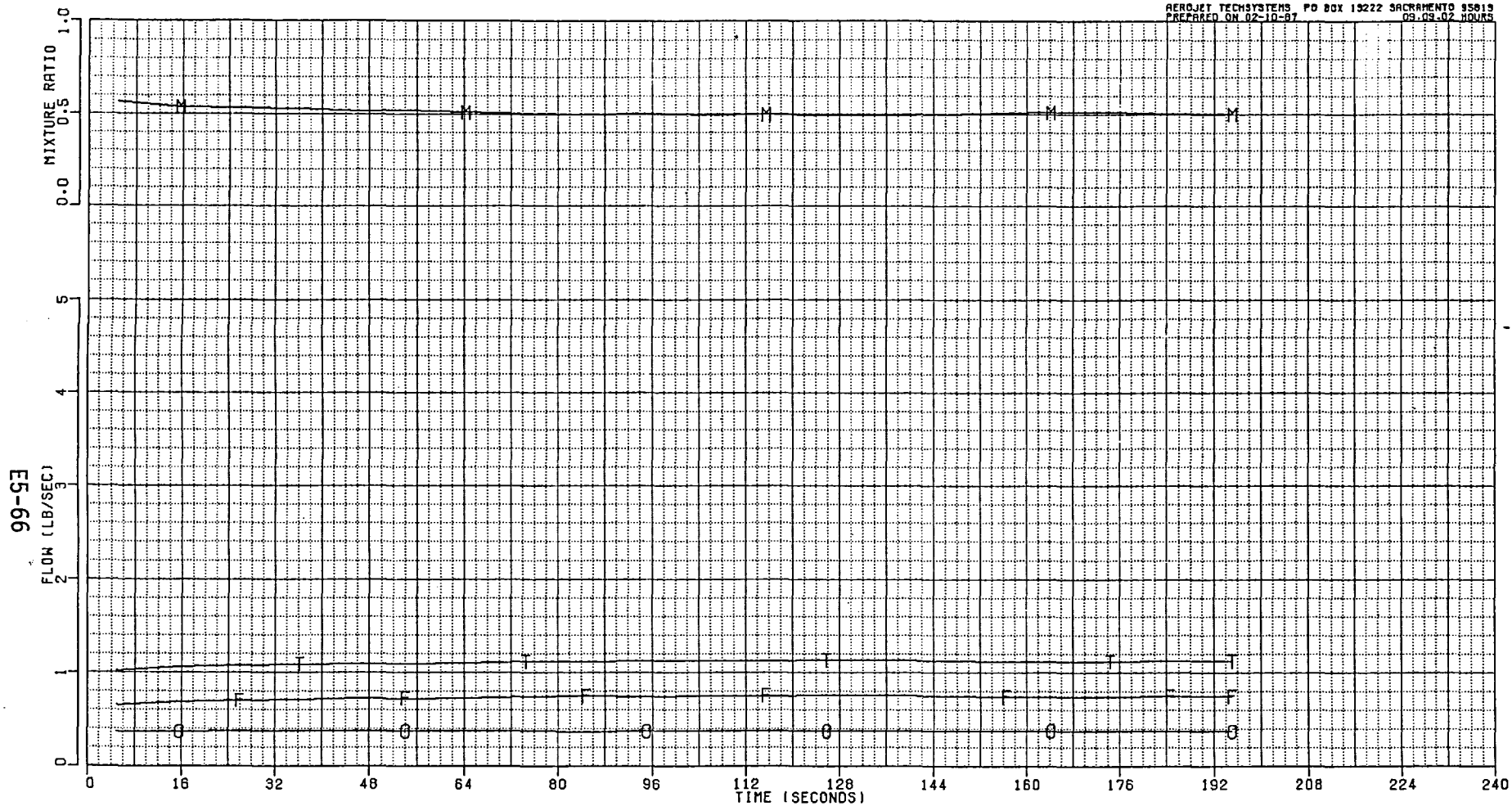


- 1 POT PSIA
- 2 PFT PSIA
- 3 PQJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 PQJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-151

TEST DATE 08-18-86 1717 HOURS



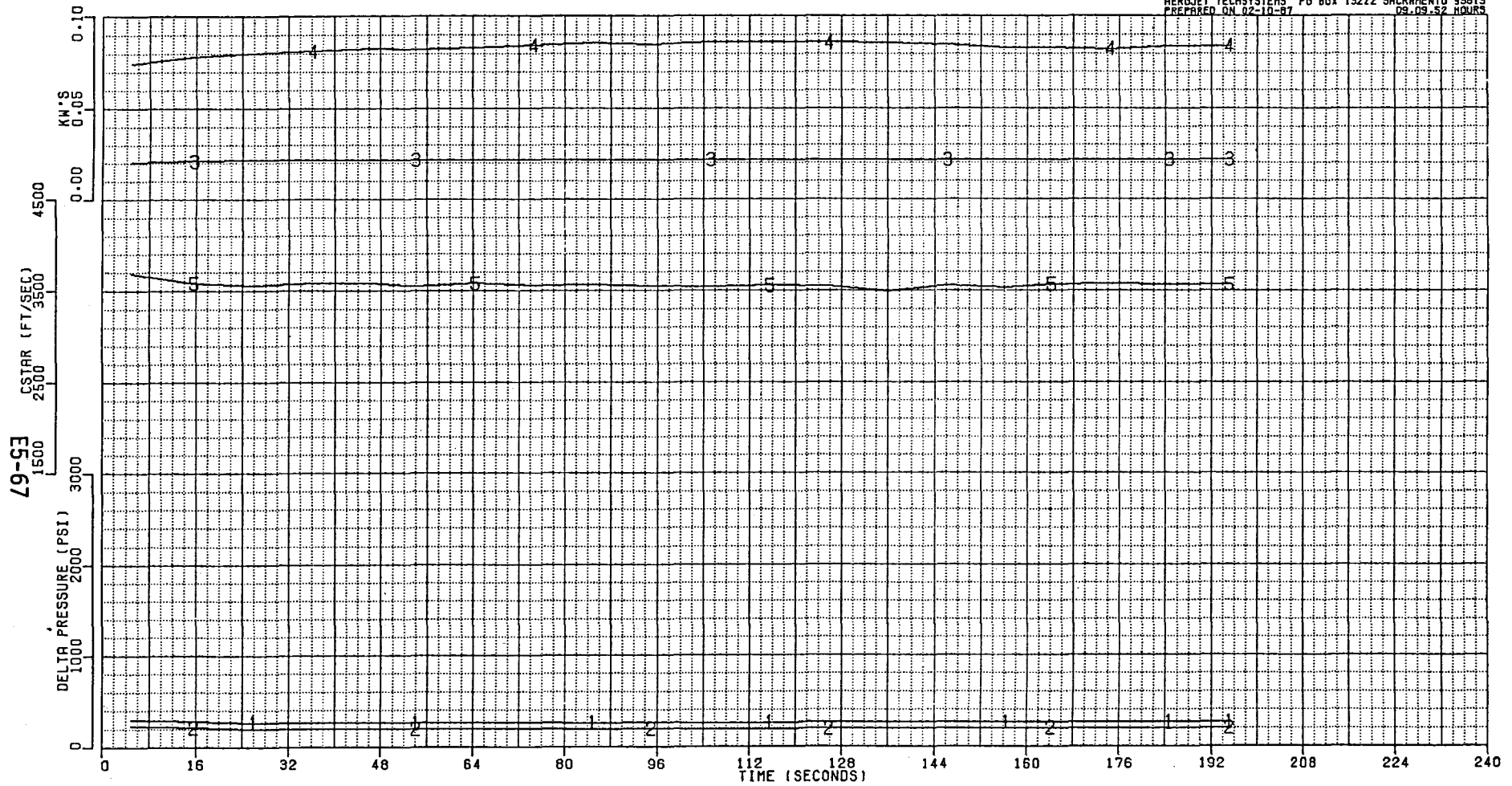


F WF LBS/SEC  
O WX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-151

TEST DATE 08-18-86 1717 HOURS



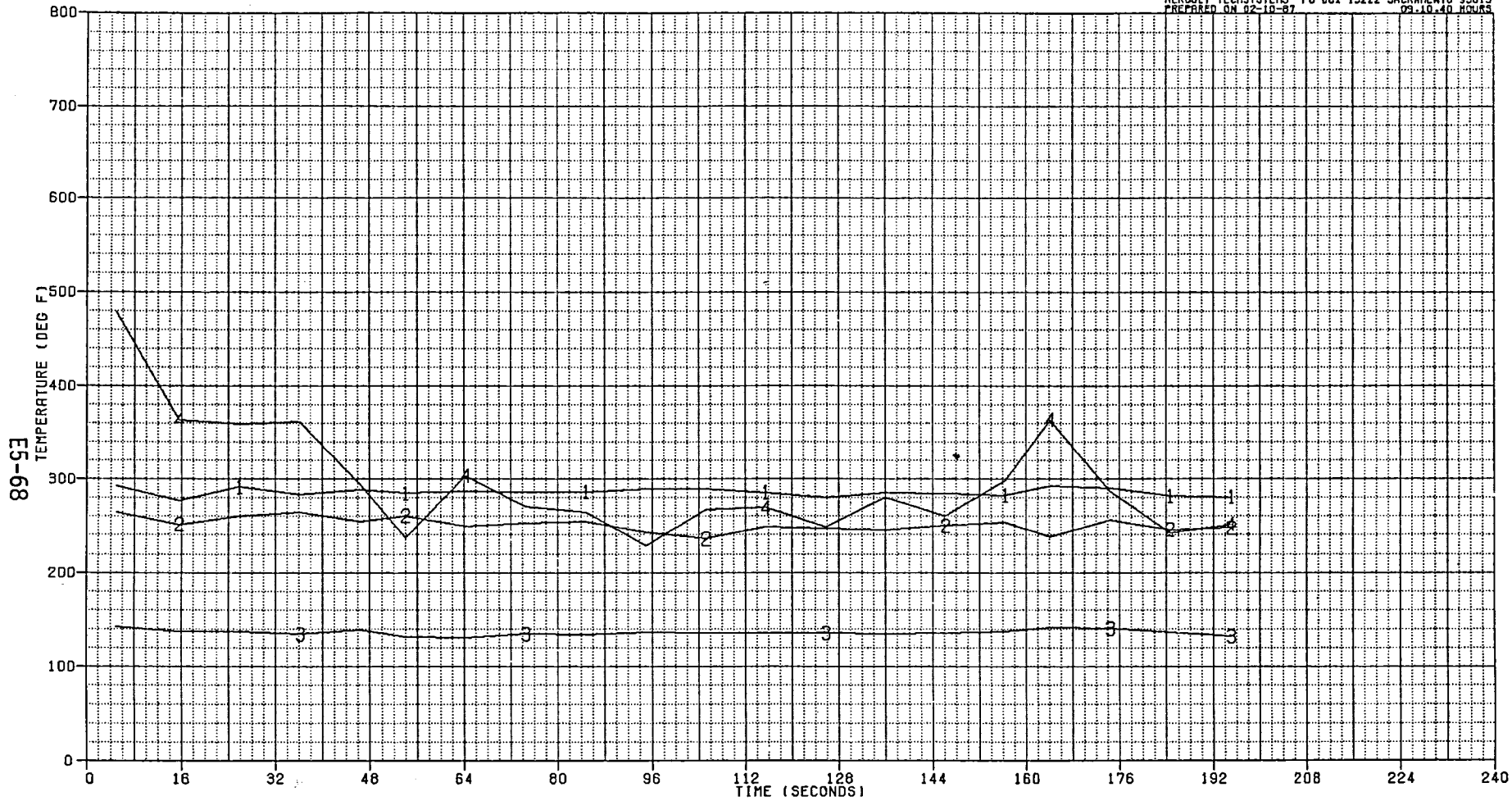


79-53

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC



INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-151  
 TEST DATE 08-18-86 1717 HOURS



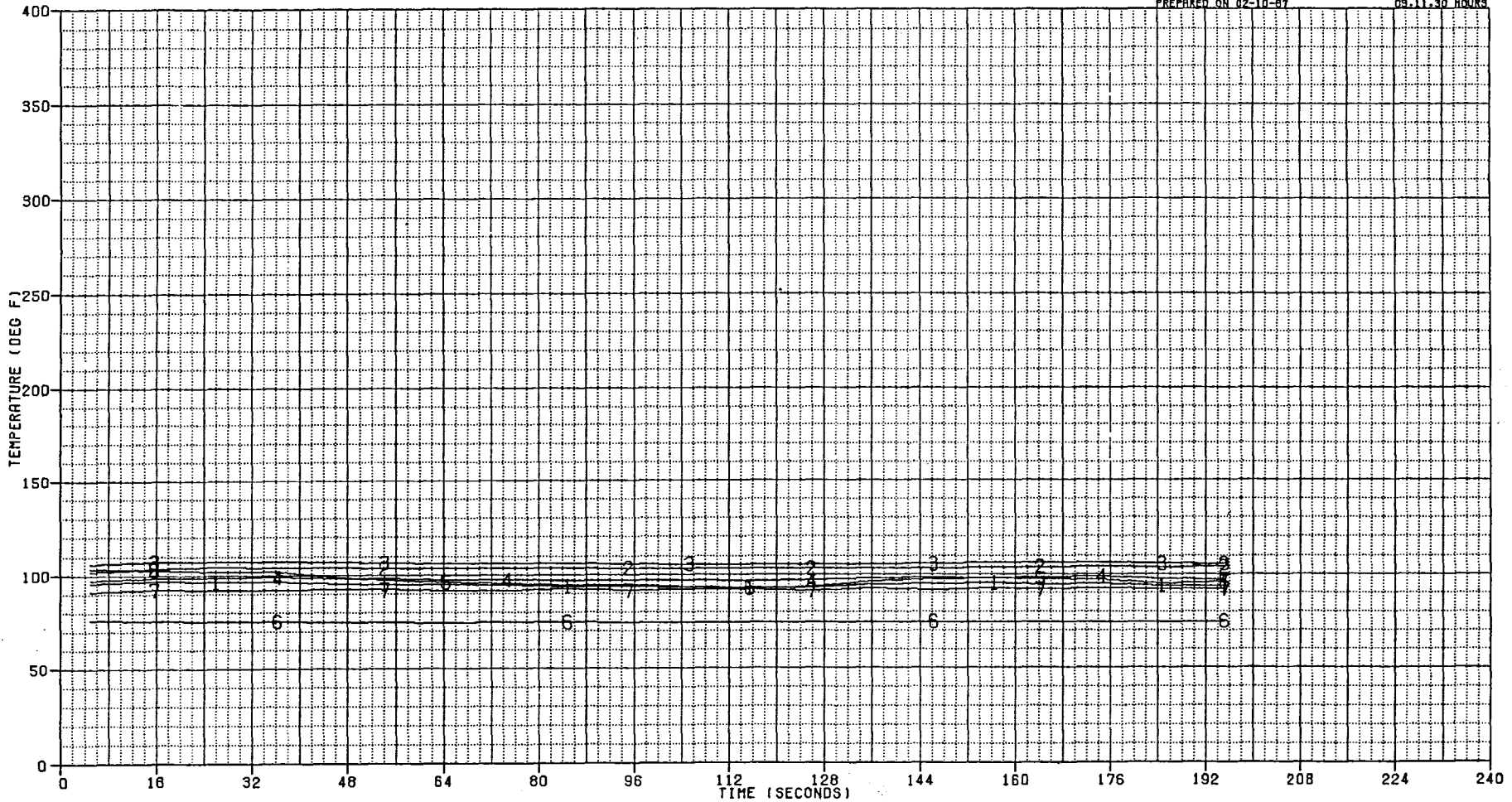
ES-68

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-151  
BARREL DATA  
TEST DATE 08-18-86 1717 HOURS



ES-69



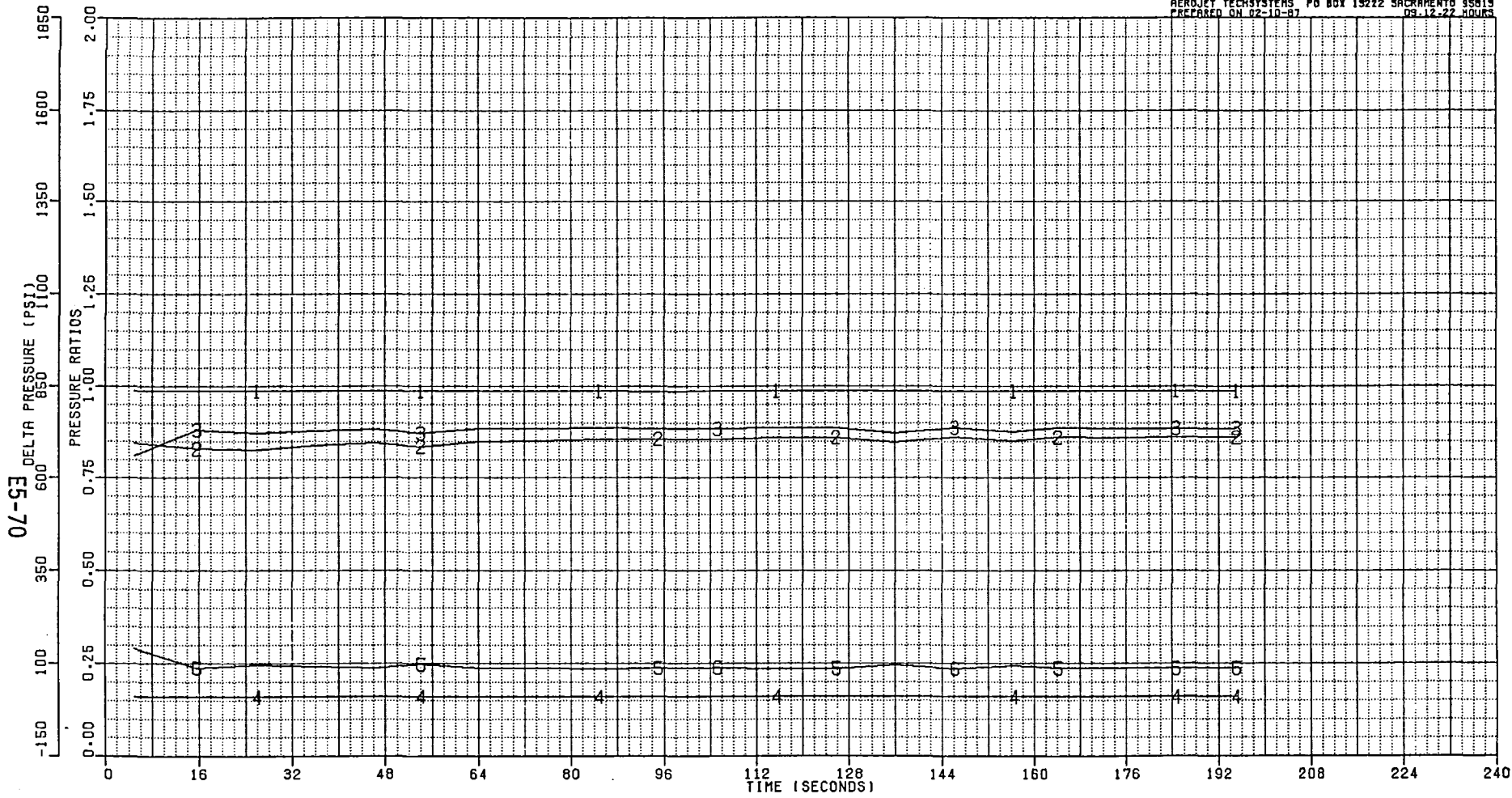
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F



COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-151

TEST DATE 08-18-86 1717 HOURS



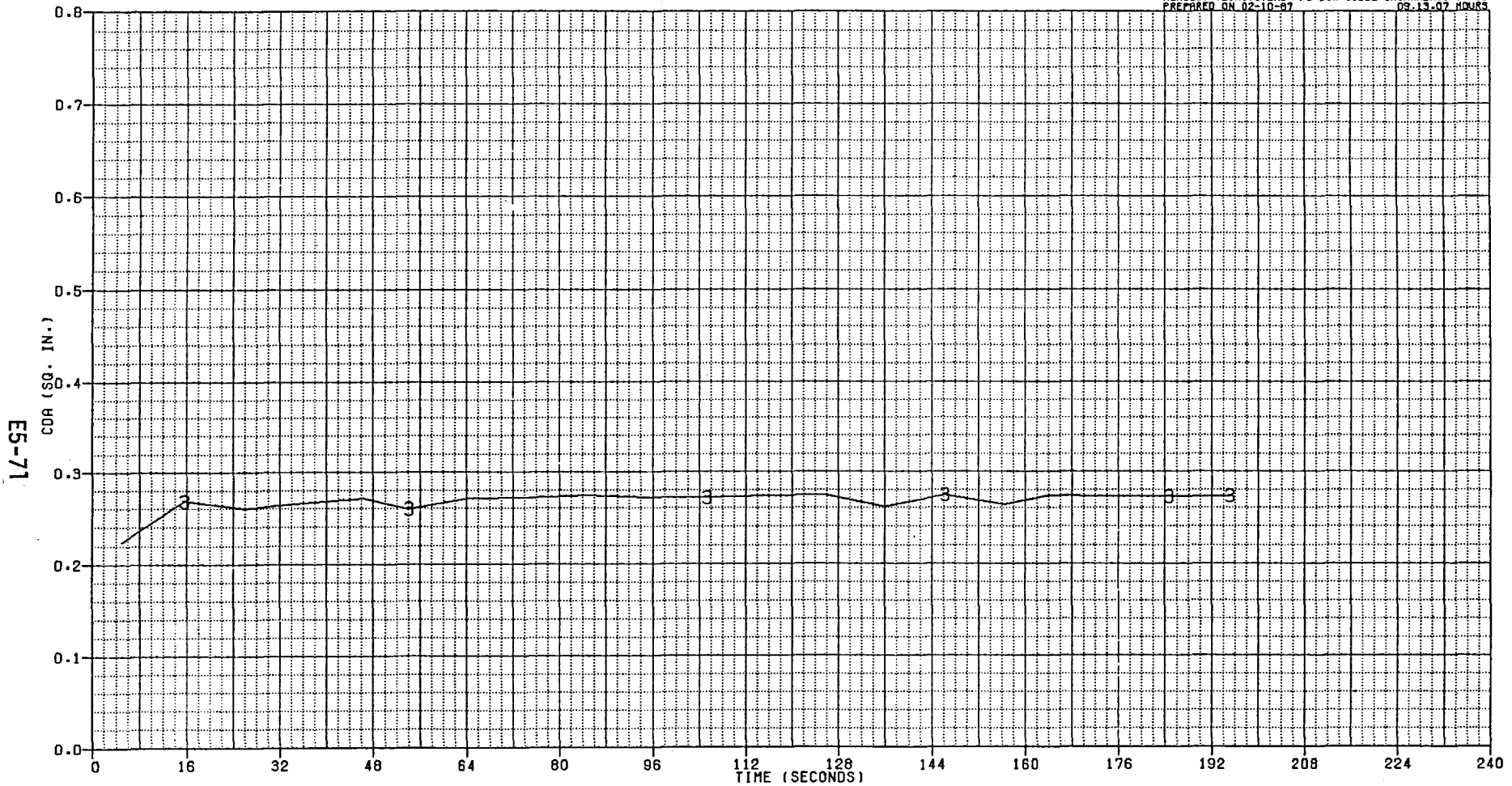


- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR      PSI
- 5 DPTS-C    PSI
- 6 DPTS      PSI

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-151  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 08-18-86 1717 HOURS



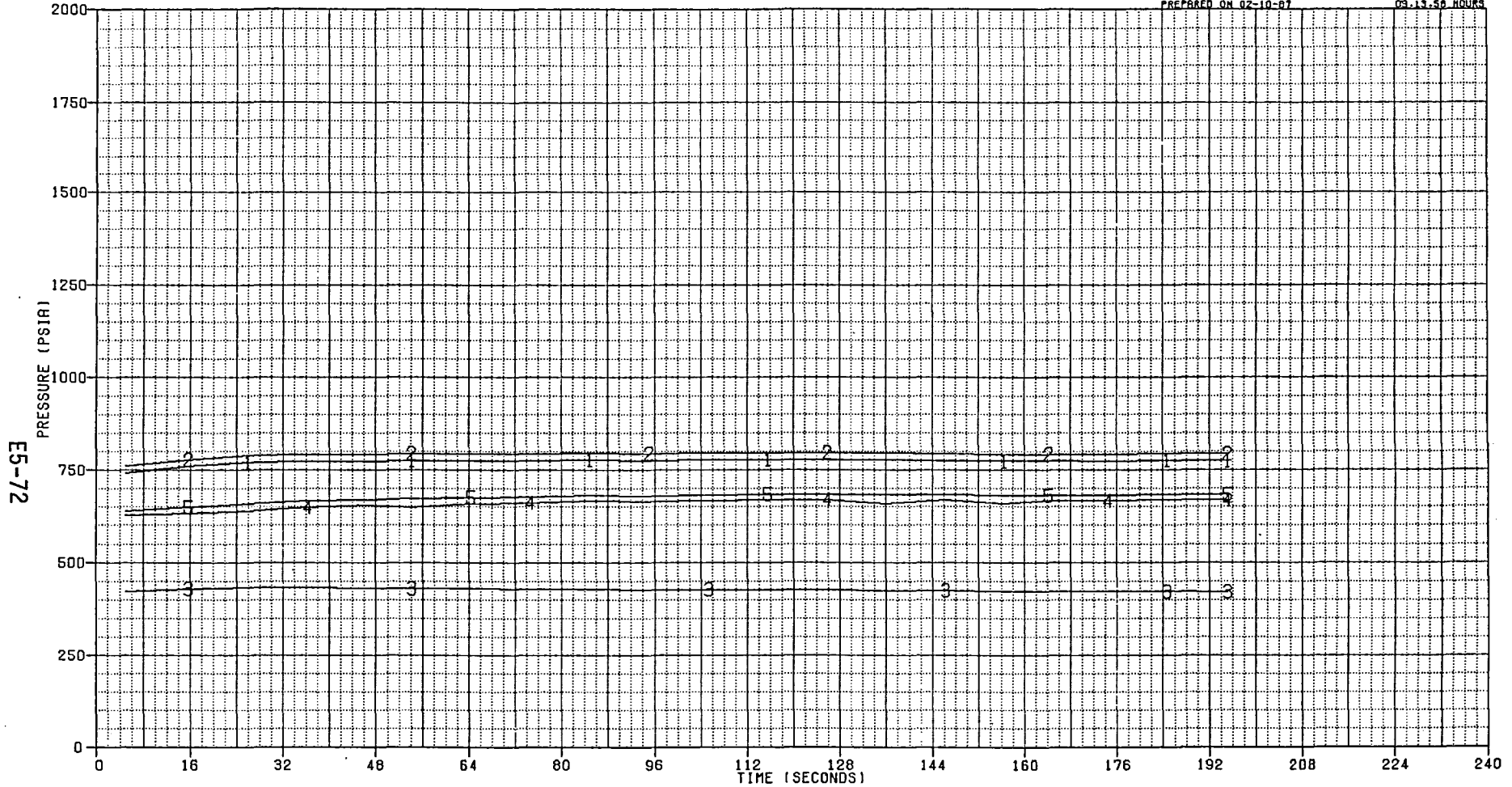




- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-151  
NOZZLE AREA CHANGE  
TEST DATE 08-18-86 1717 HOURS

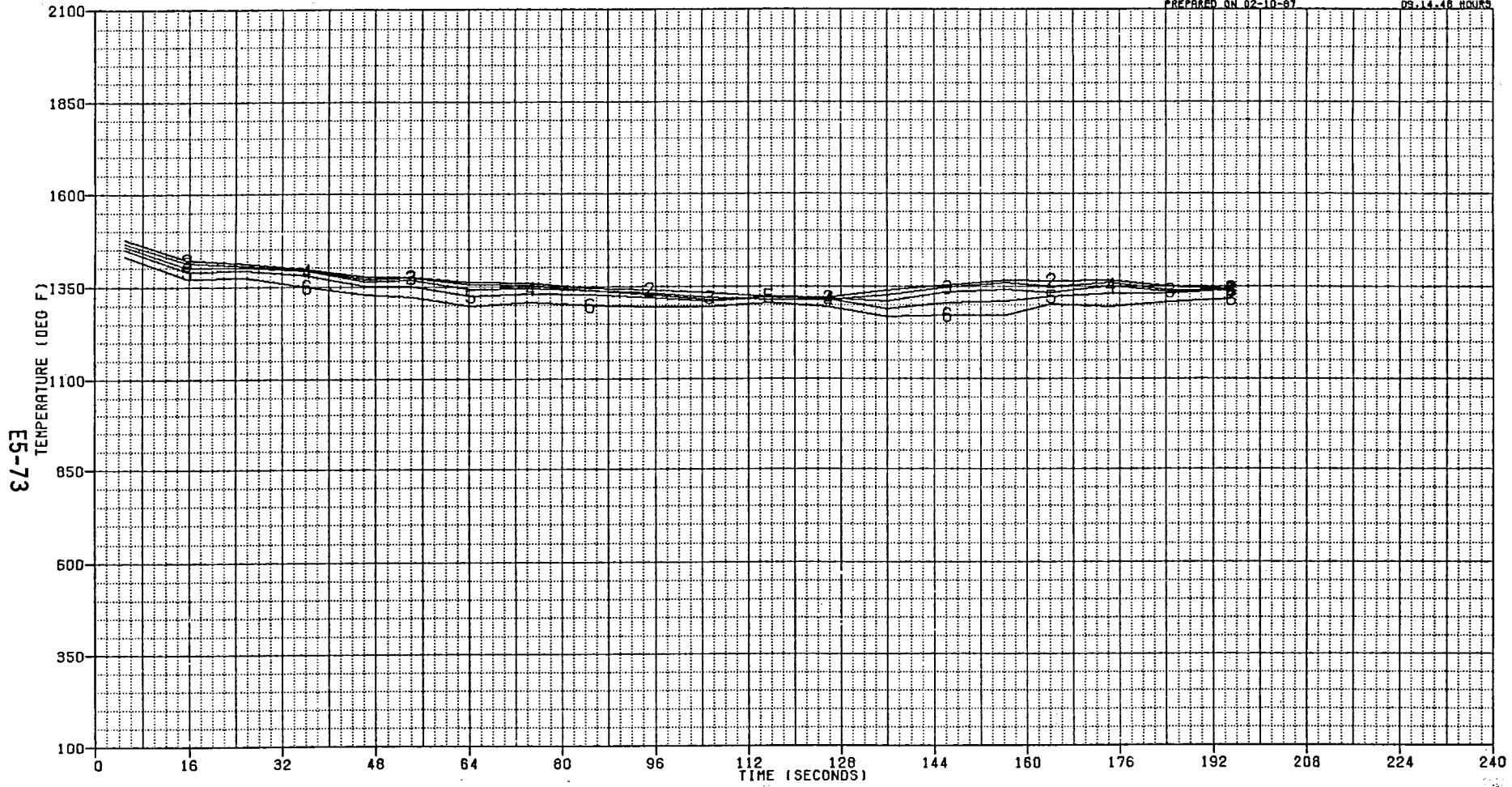




- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-151  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1717 HOURS



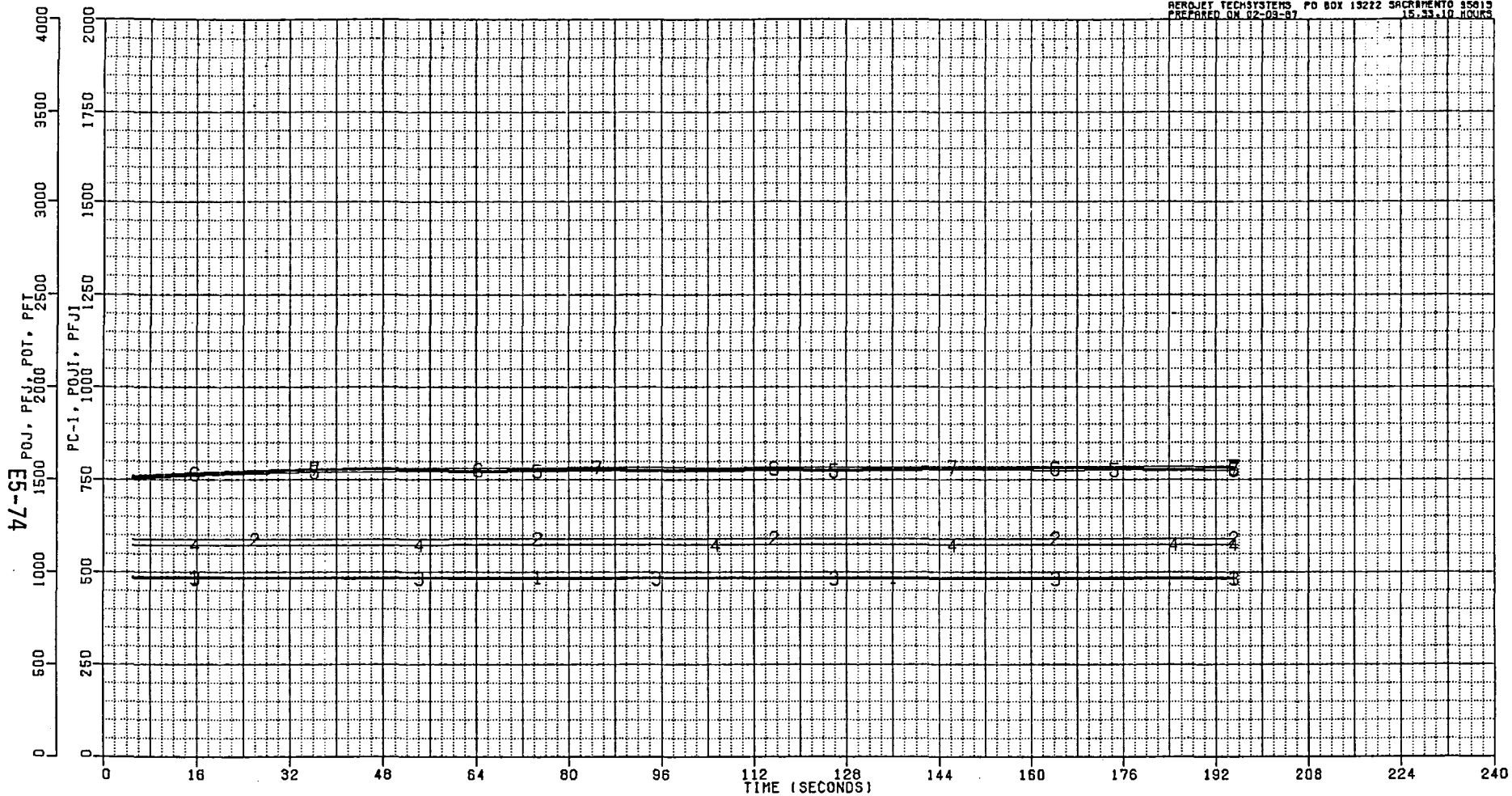


ES-73

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-151  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1717 HOURS





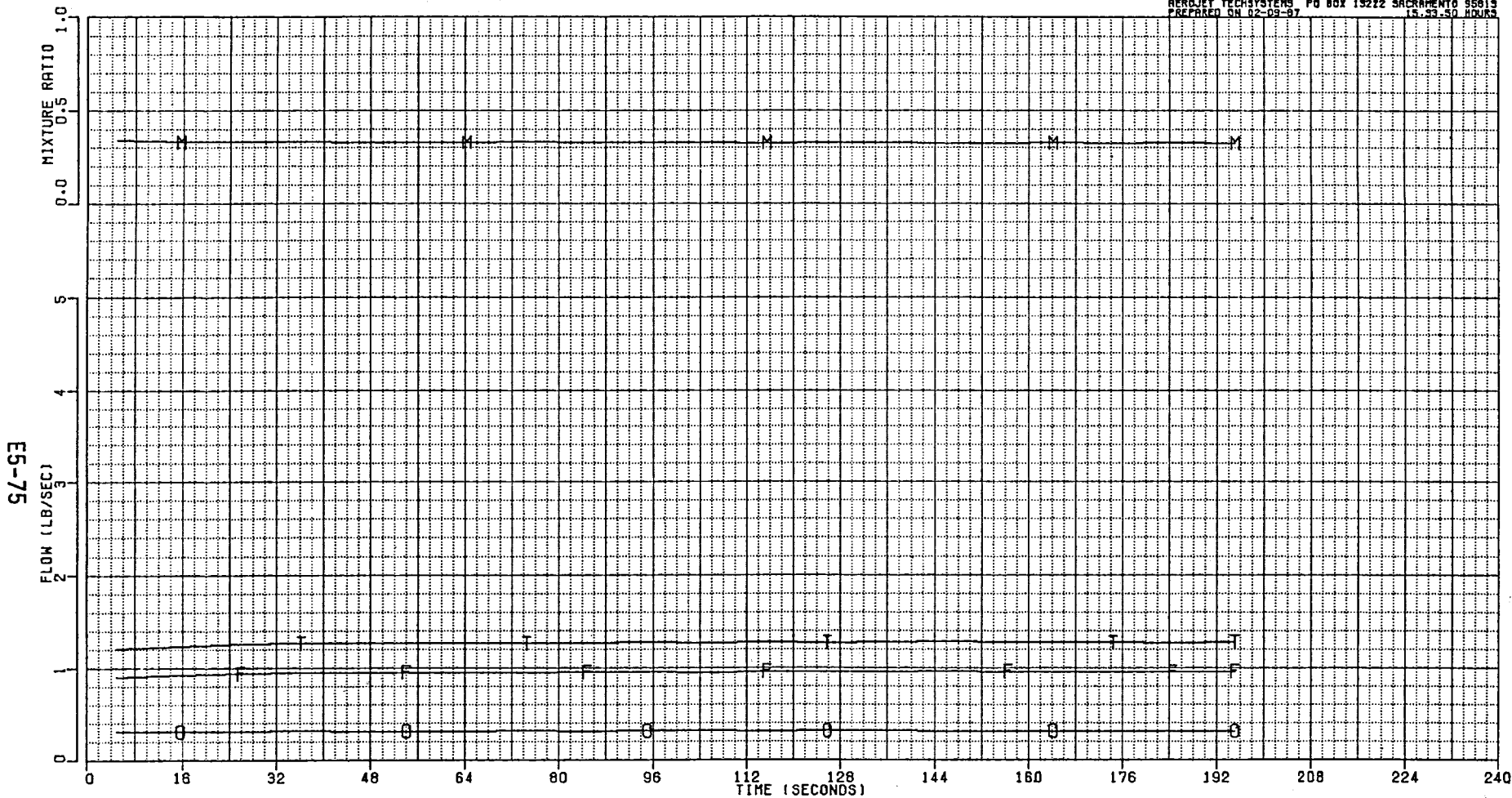
AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95613  
PREPARED ON 02-09-87 15:53:10 HOURS

- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
TEST NO. 2427-229-A6-152

TEST DATE 08-18-86 1738 HOURS



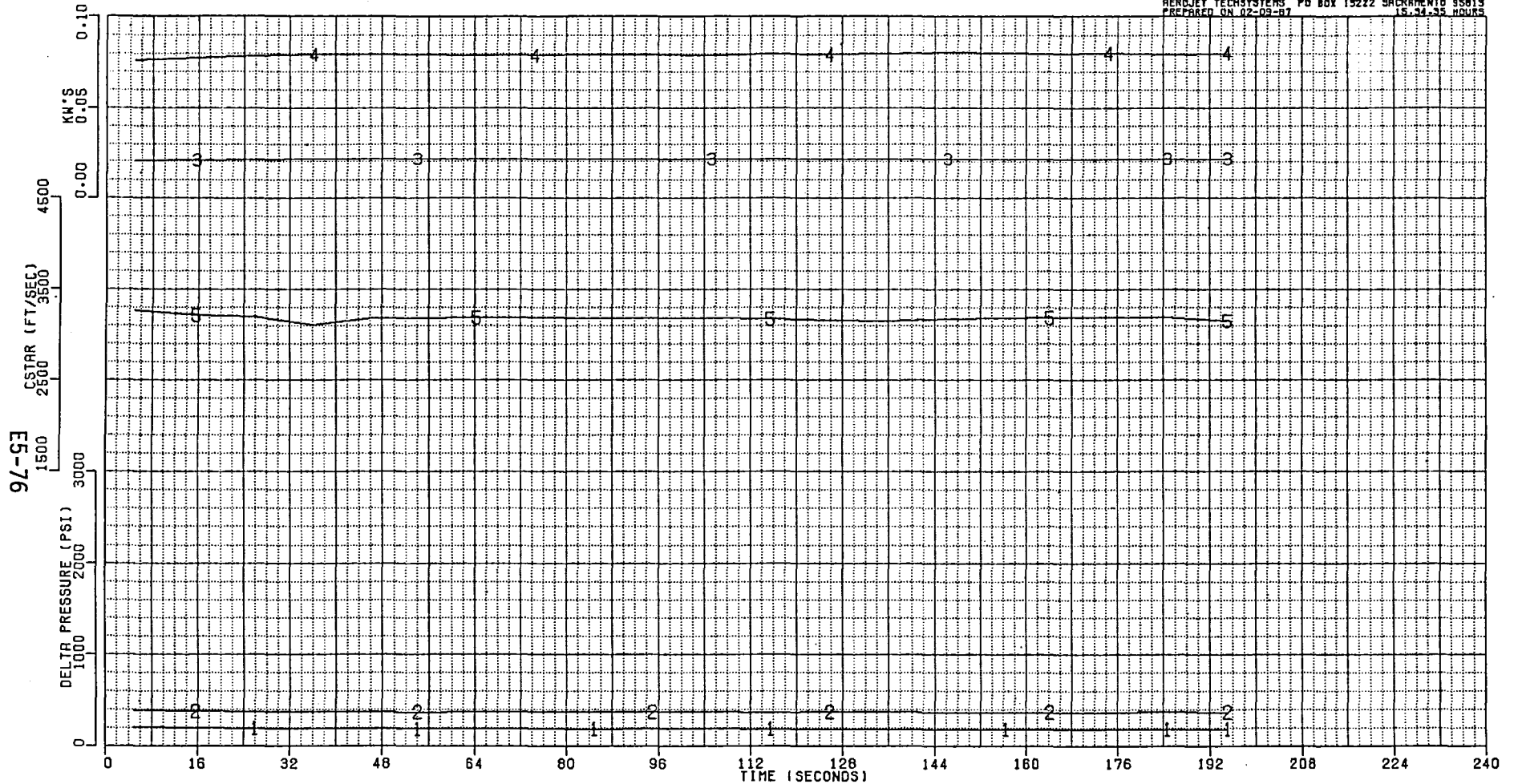


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M MR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-152

TEST DATE 08-18-86 1738 HOURS





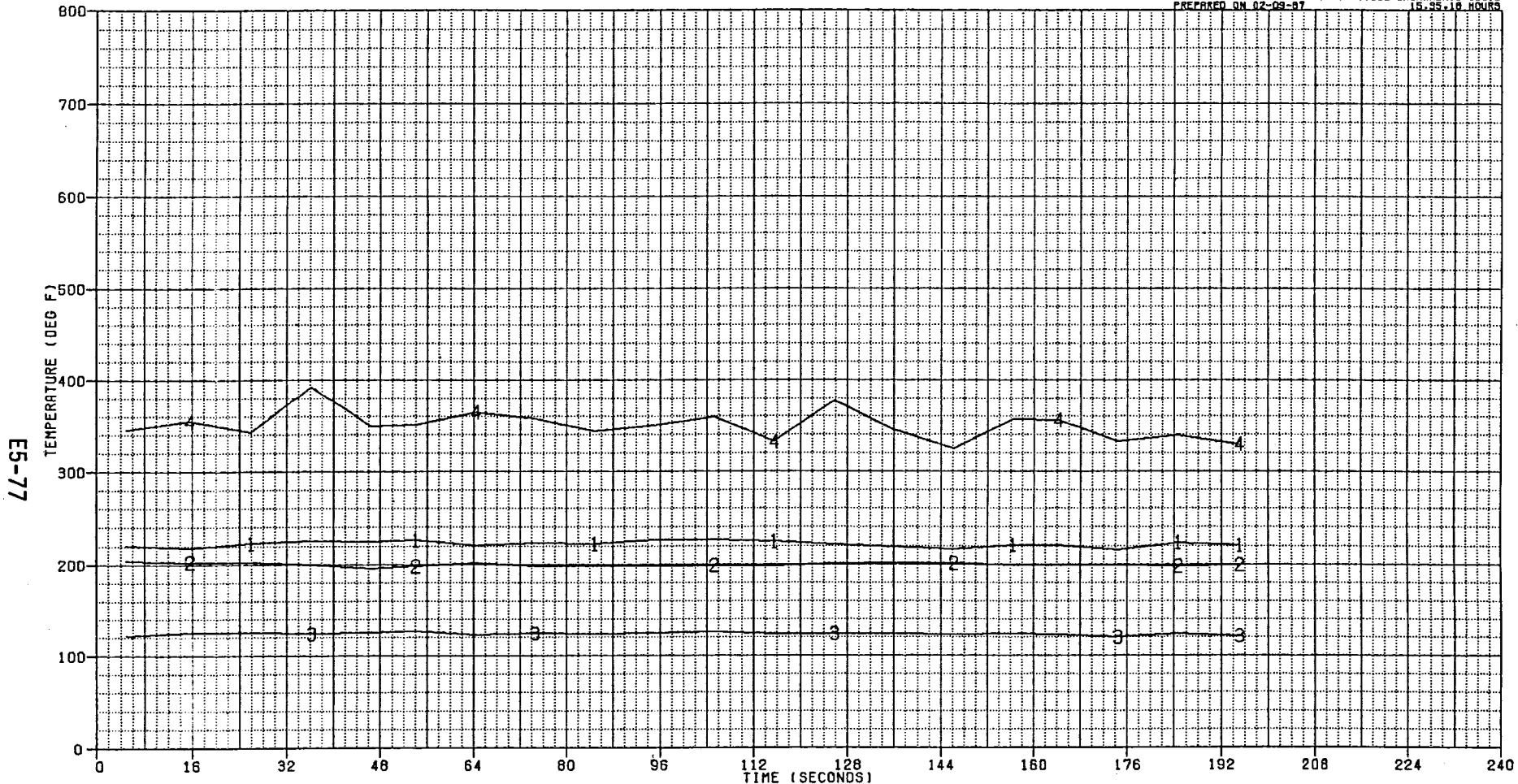
97-53

- 1 DPOJ      PSI
- 2 DPFJ      PSI
- 3 KWOJ
- 4 KWFJ
- 5 CSTRPB    FT/SEC
- 6 CSTAR    FT/SEC

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-152

TEST DATE 08-18-86 1738 HOURS





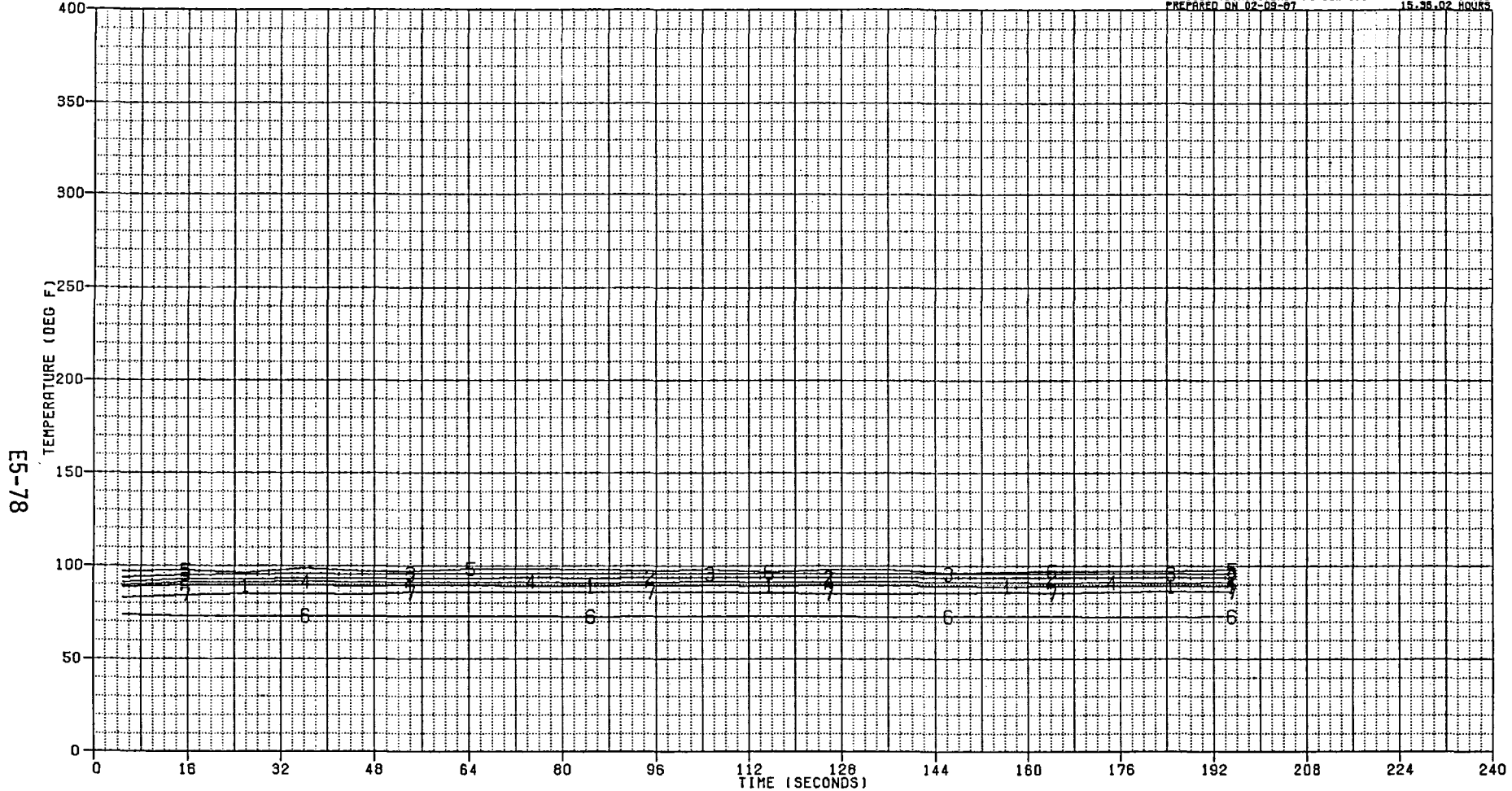
ES-77

- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-152  
BARREL DATA  
TEST DATE 08-18-86 1738 HOURS







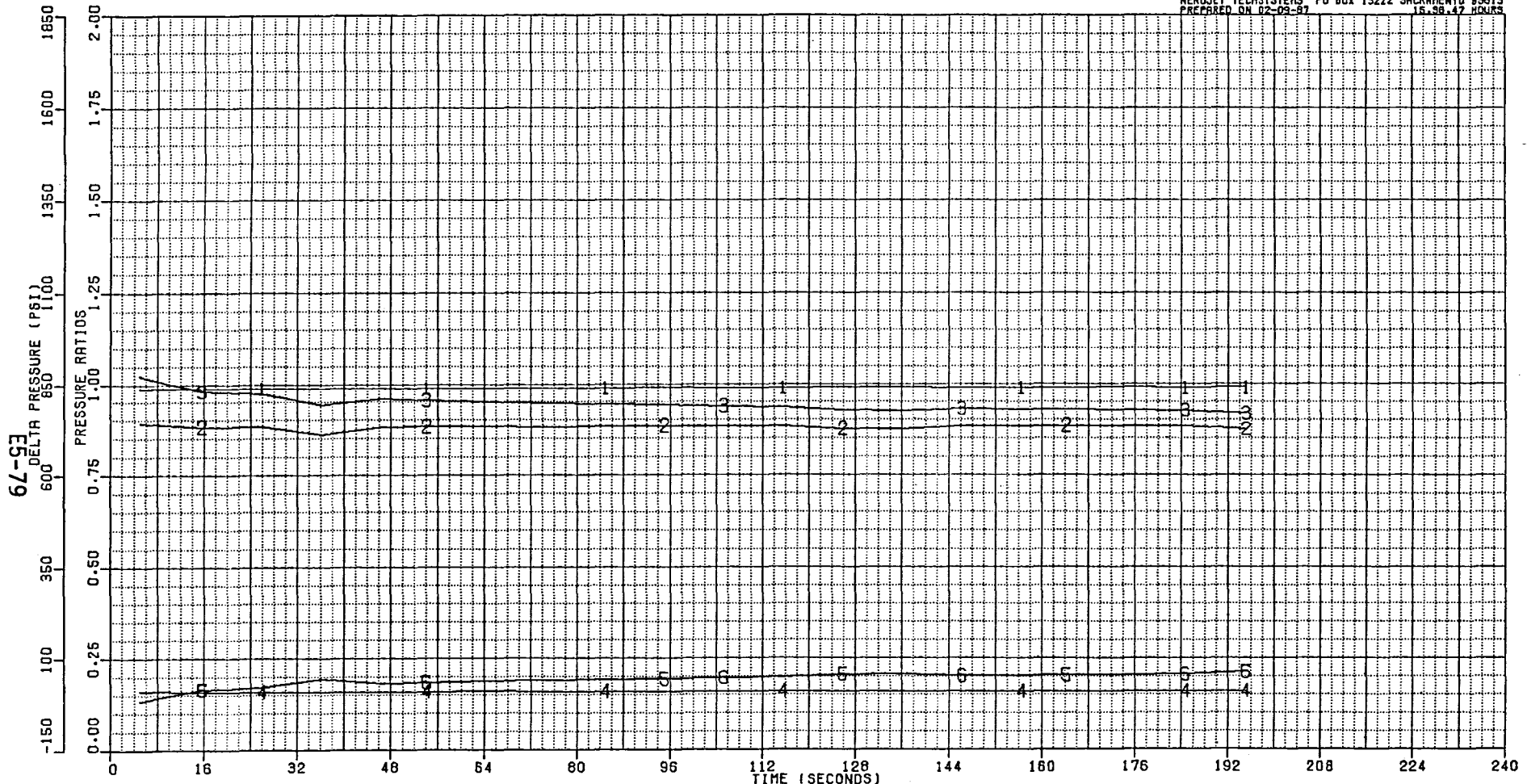
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-152

TEST DATE 08-18-86 1738 HOURS





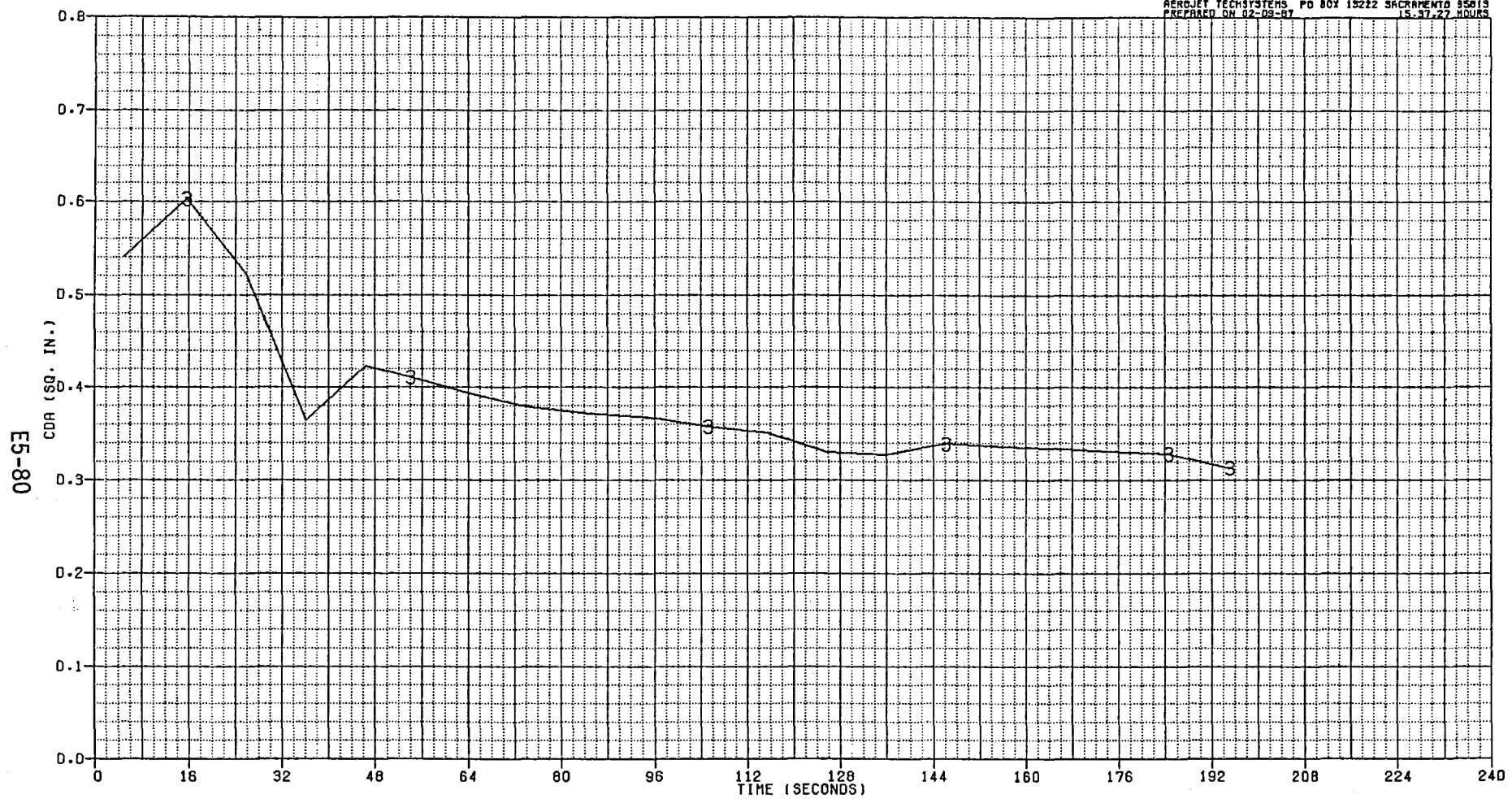


67-53

- 1 PRTR            PSI
- 2 PRTS            PSI
- 3 PRTS CORR      PSI
- 4 DPTR            PSI
- 5 DPTS-C         PSI
- 6 DPTS            PSI

TURBINE BUILD-UP DATA VS TIME  
 TEST NO. 2427-229-A6-152  
 CHAMBER PRESSURE DROPS AND RATIOS  
 TEST DATE 08-18-86 1736 HOURS

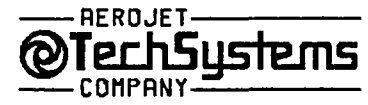


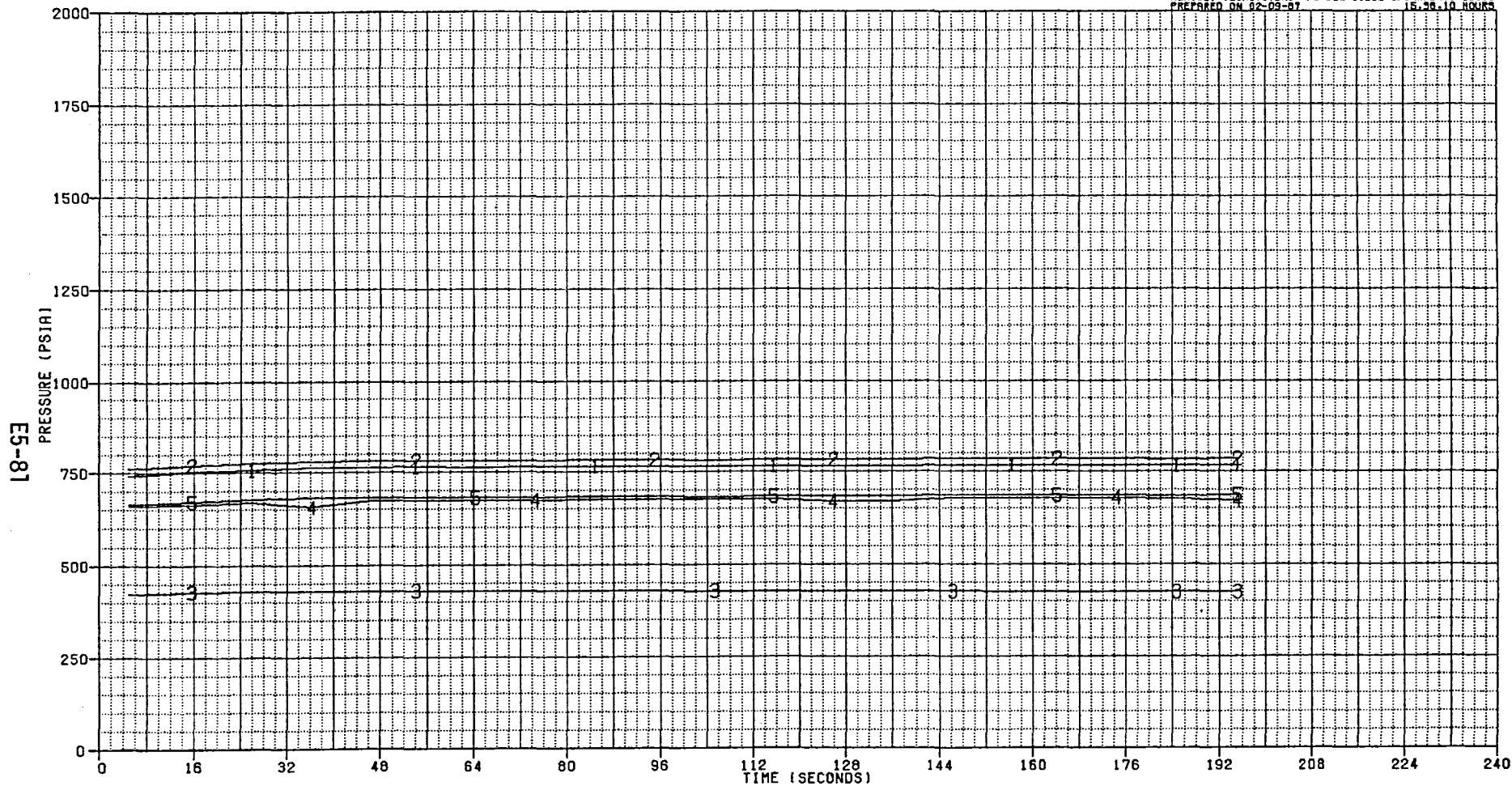


E5-80

- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-152  
NOZZLE AREA CHANGE  
TEST DATE 08-18-86 1738 HOURS



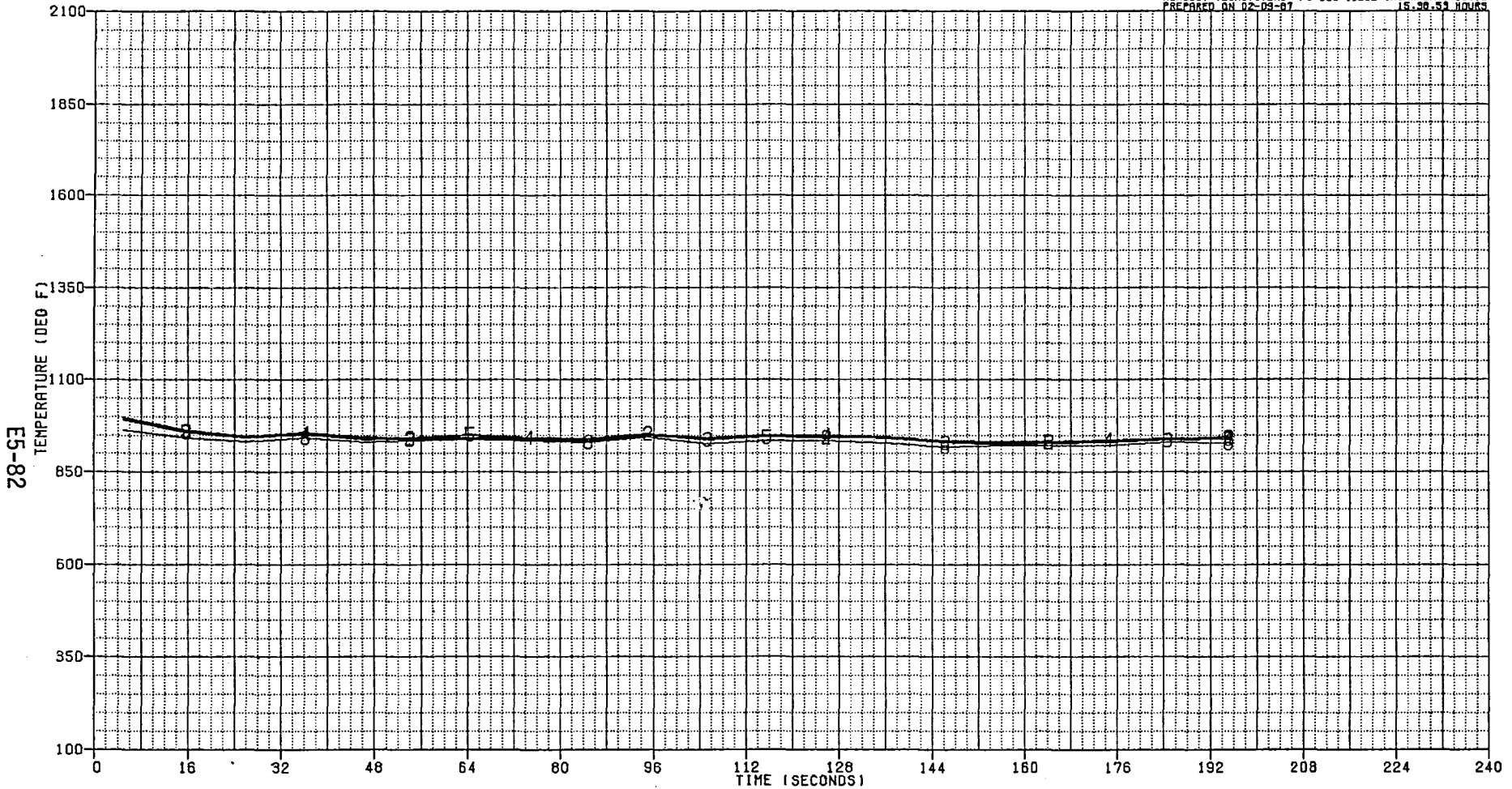


E5-81

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-152  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1738 HOURS

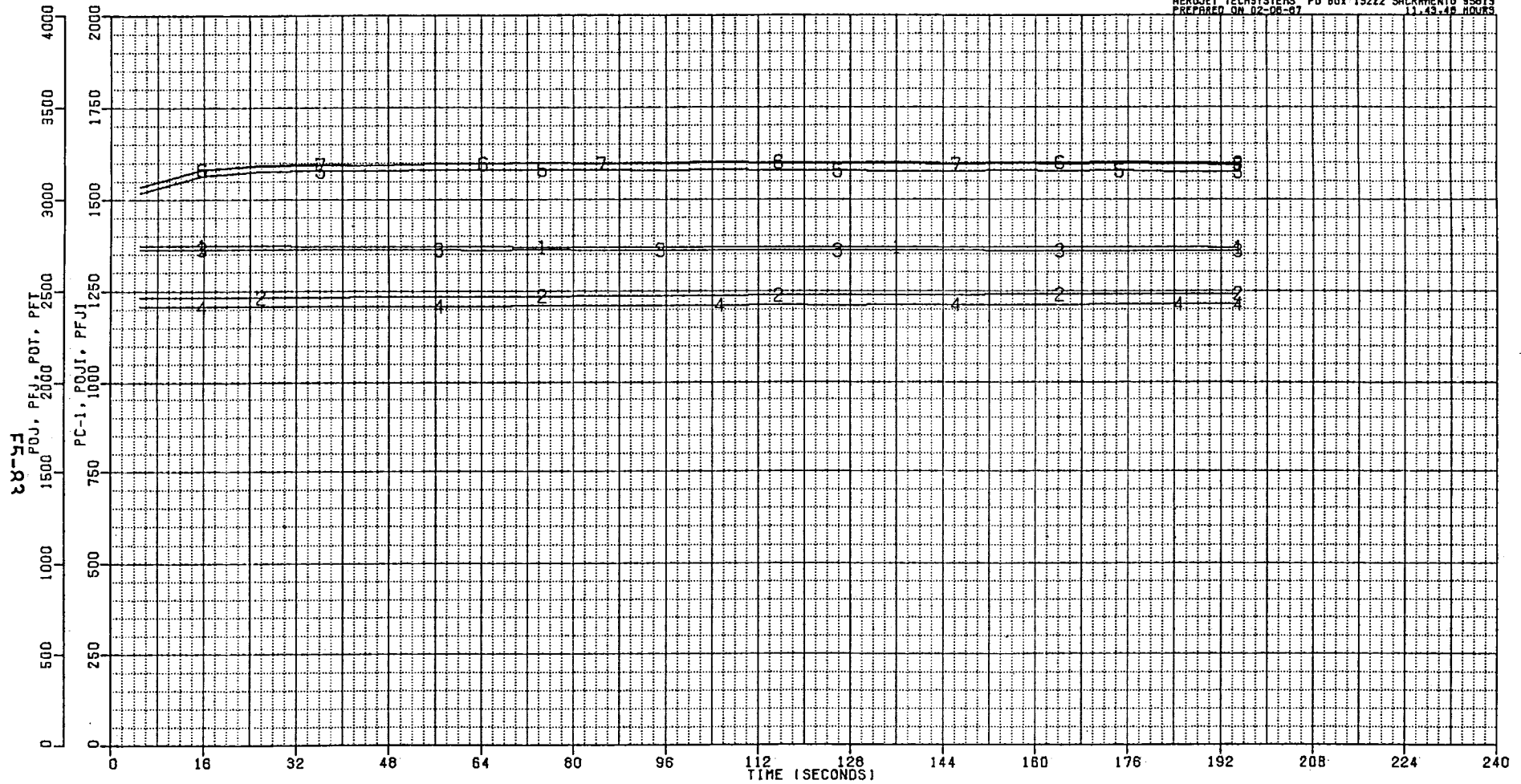




- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-152  
PRESSURE MEASUREMENTS  
TEST DATE 08-18-86 1738 HOURS





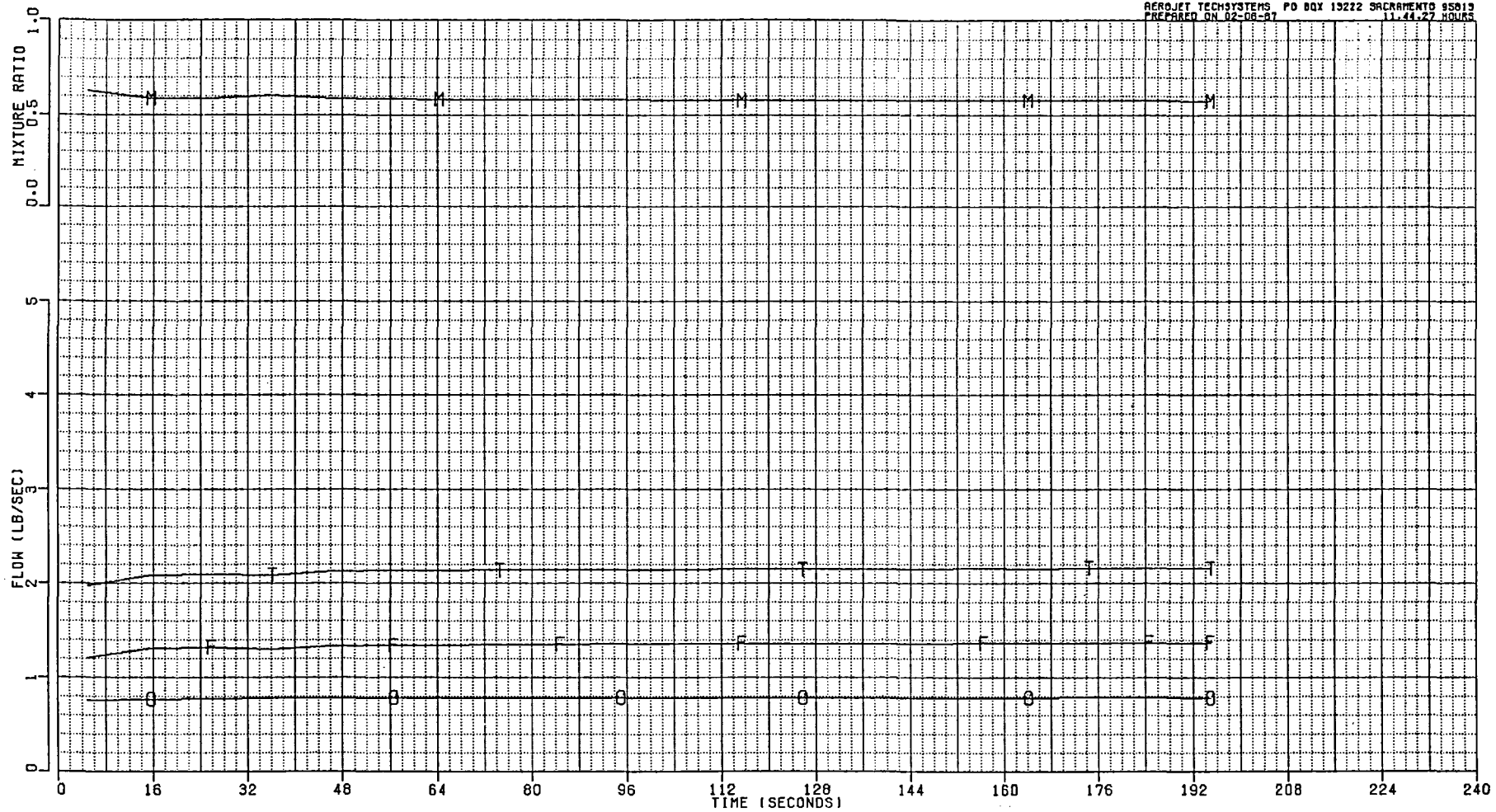
- 1 POT PSIA
- 2 PFT PSIA
- 3 POJ PSIA
- 4 PFJ PSIA
- 5 PC-1 PSIA
- 6 POJI PSIA
- 7 PFJI PSIA

MEASURED PRESSURES VS TIME  
 TEST NO. 2427-229-A6-153

TEST DATE 08-19-86 1428 HOURS



ES-84

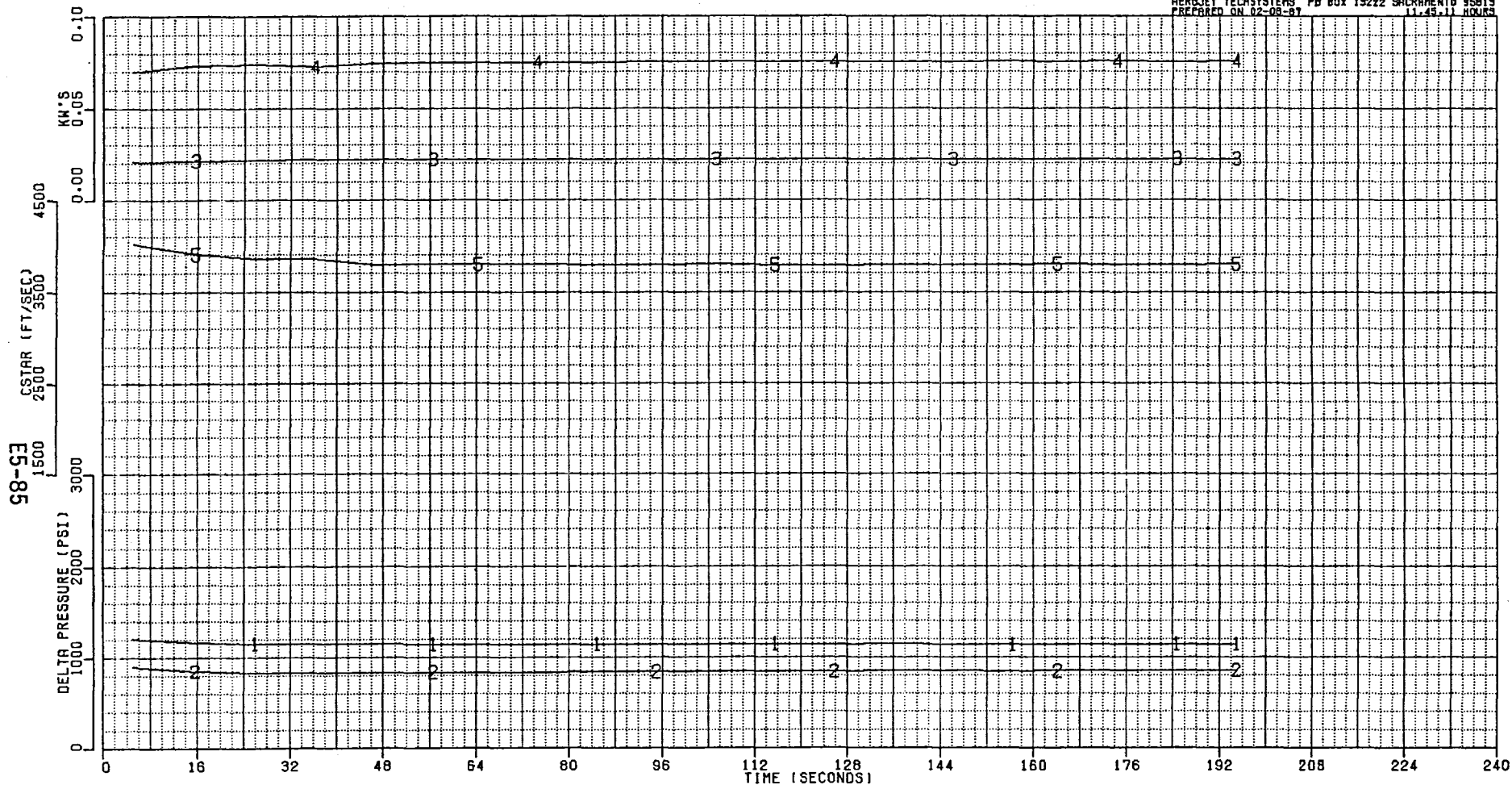


F WF LBS/SEC  
O WOX LBS/SEC  
T WTOT LBS/SEC  
M HR

INJECTOR FLOW VS TIME  
TEST NO. 2427-229-A6-153

TEST DATE 08-19-86 1428 HOURS





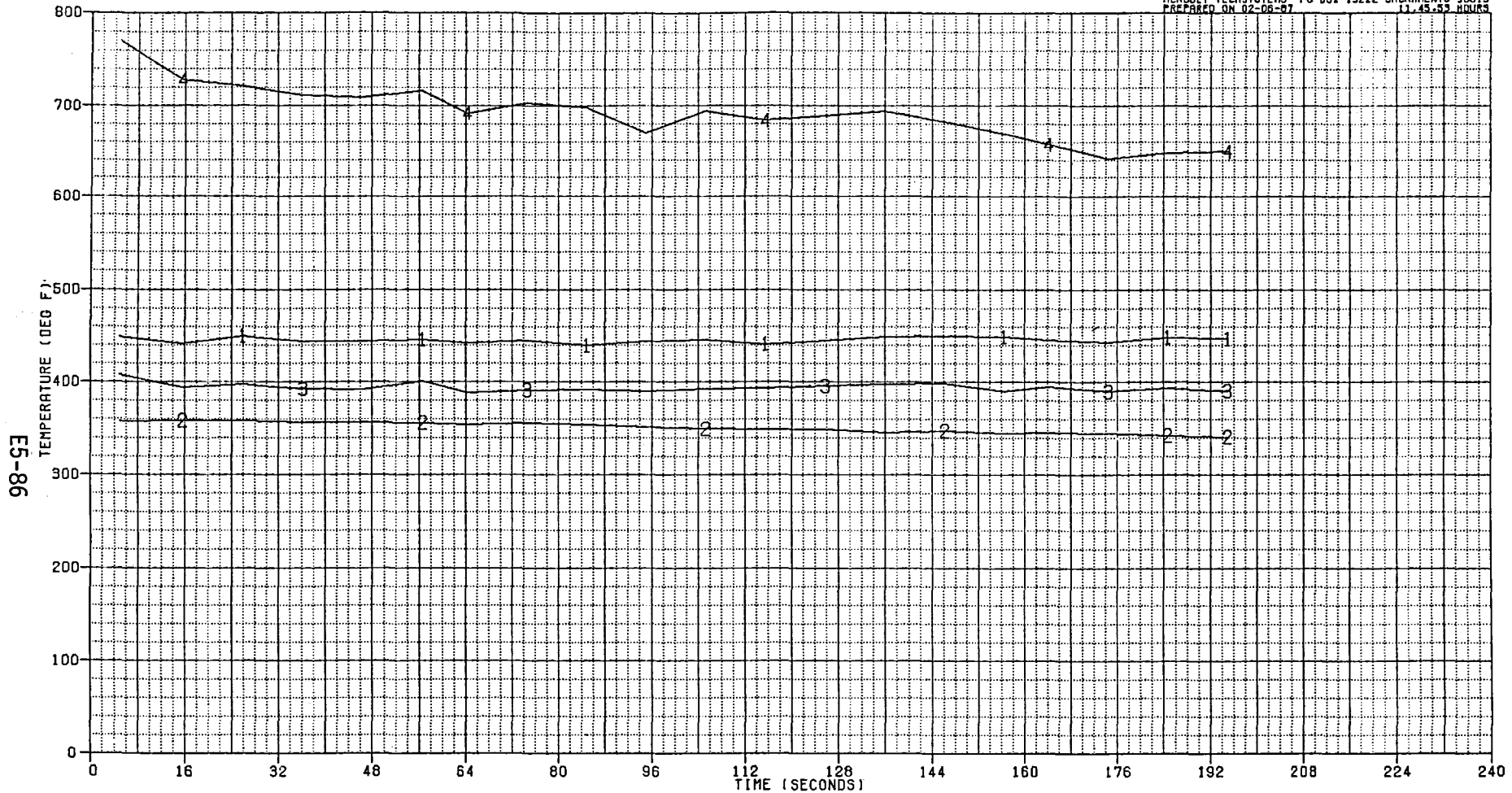
98-85

- 1 DPOJ            PSI
- 2 DPFJ            PSI
- 3 KWOJ
- 4 KWFJ            FT/SEC
- 5 CSTRPB         FT/SEC
- 6 CSTAR

INJECTOR CALCULATIONS VS TIME  
 TEST NO. 2427-229-A6-153  
 TEST DATE 08-19-86 1428 HOURS







98-53

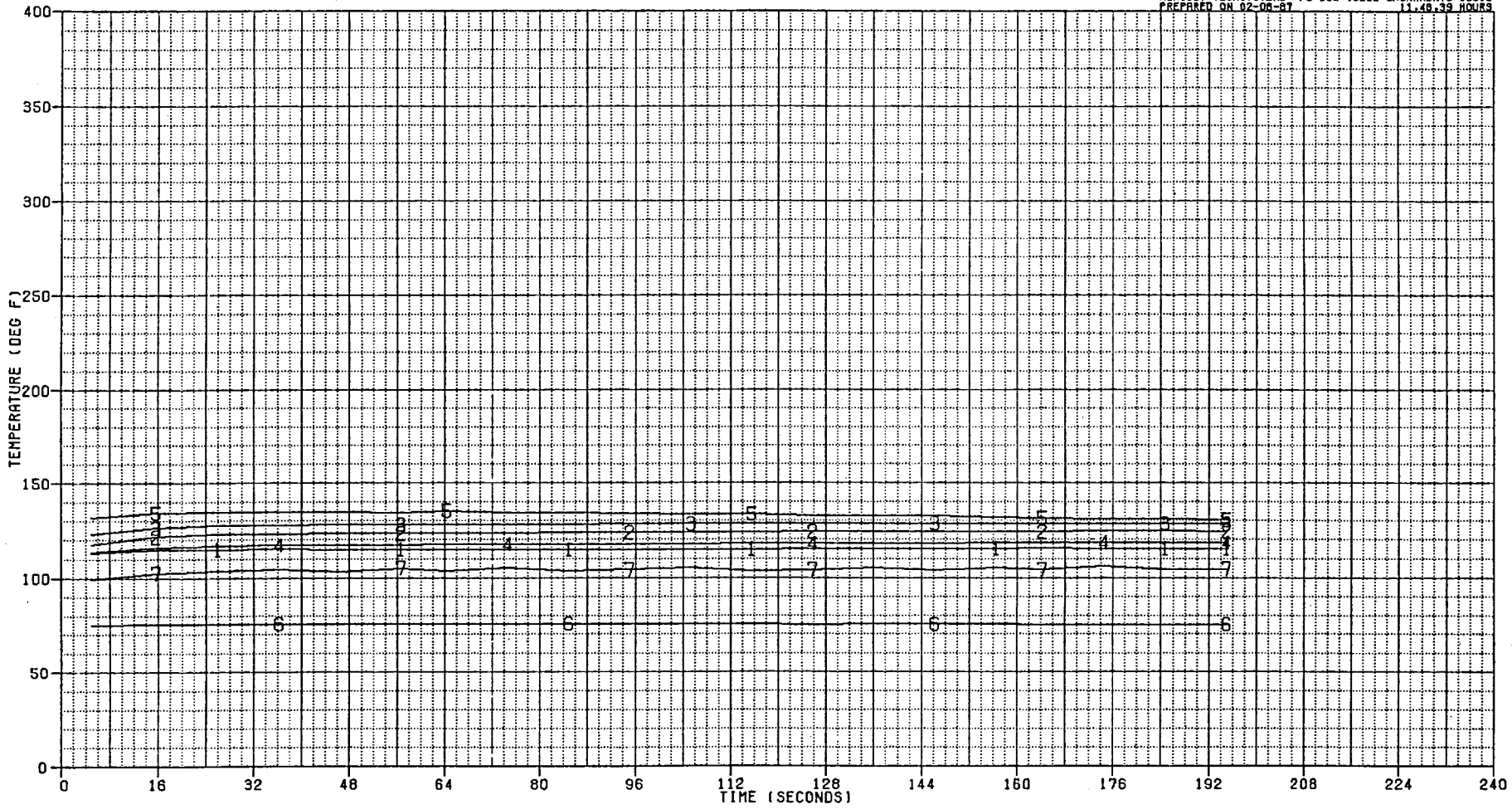
- 1 TC-7 DEG F
- 2 TC-10 DEG F
- 3 TC-11 DEG F
- 4 TC-12 DEG F

GAS SIDE WALL TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-153  
BARREL DATA  
TEST DATE 08-19-86 1428 HOURS





E5-87



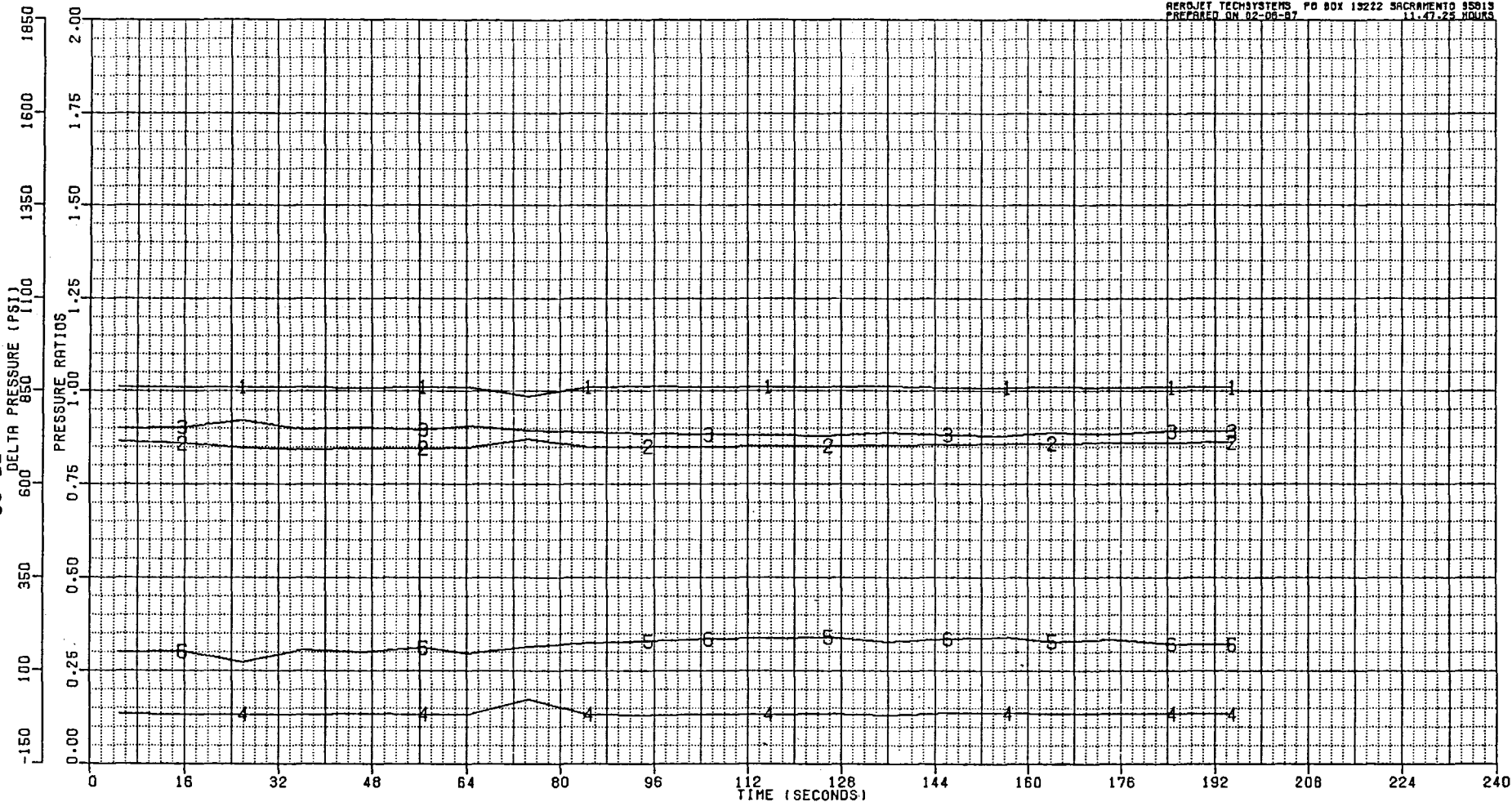
- 1 TWC-2 DEG F
- 2 TWC-26 DEG F
- 3 TWC-27 DEG F
- 4 TWC-31 DEG F
- 5 TWC-32 DEG F
- 6 TWC-33 DEG F
- 7 TC-7C DEG F

COOLANT OUTLET TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-153

TEST DATE 08-19-86 1428 HOURS



88-58



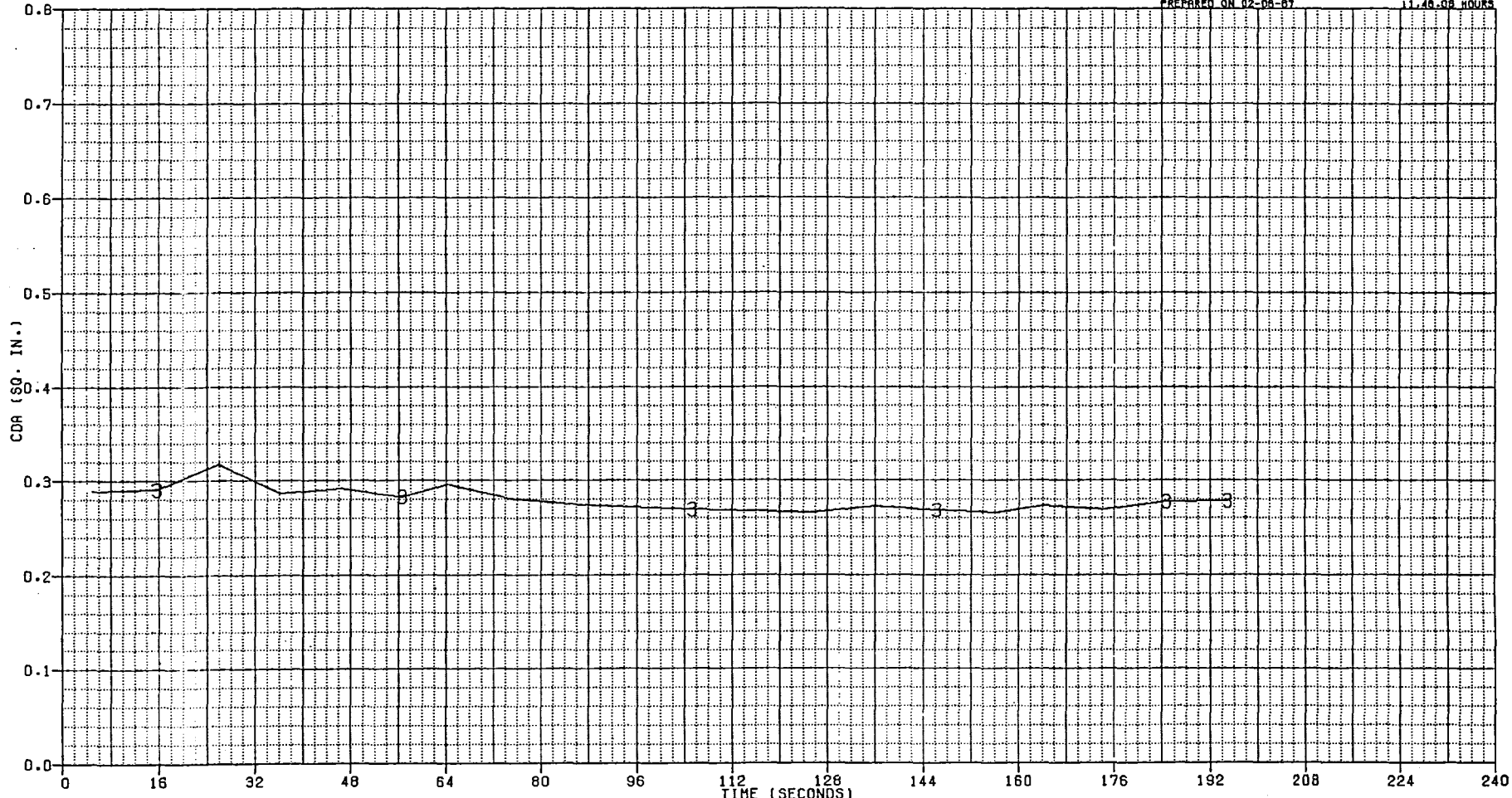
AEROJET TECHSYSTEMS PO BOX 13222 SACRAMENTO 95813  
PREPARED ON 02-06-87 11:47:25 HOURS

- 1 PRTR
- 2 PRTS
- 3 PRTS CORR
- 4 DPTR PSI
- 5 DPTS-C PSI
- 6 DPTS PSI



TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-153  
CHAMBER PRESSURE DROPS AND RATIOS  
TEST DATE 08-19-86 1428 HOURS

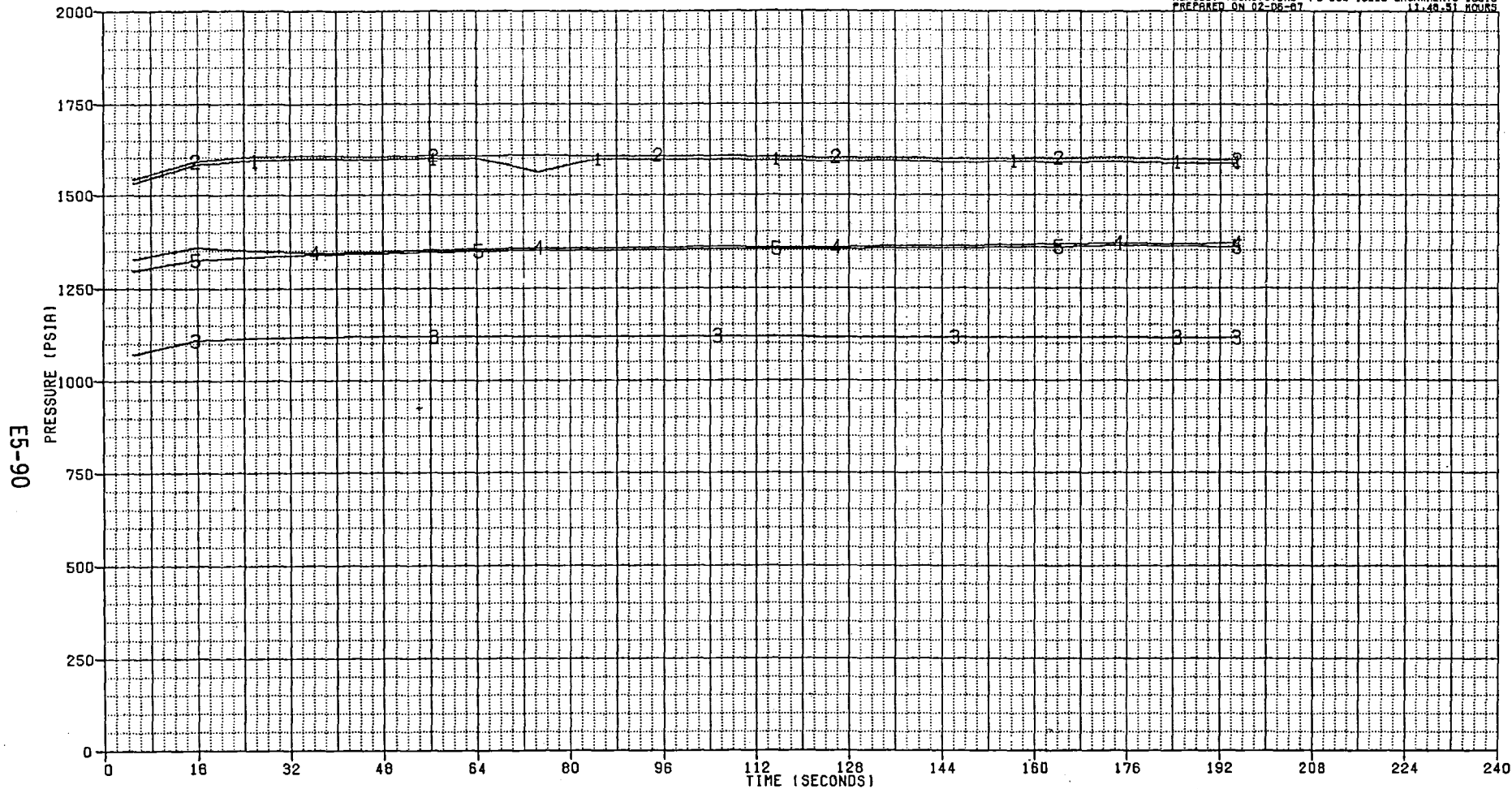
68-89



- 1 NA1 SQ. IN.
- 2 NA2 SQ. IN.
- 3 CDA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-153  
NOZZLE AREA CHANGE  
TEST DATE 08-19-86 1428 HOURS



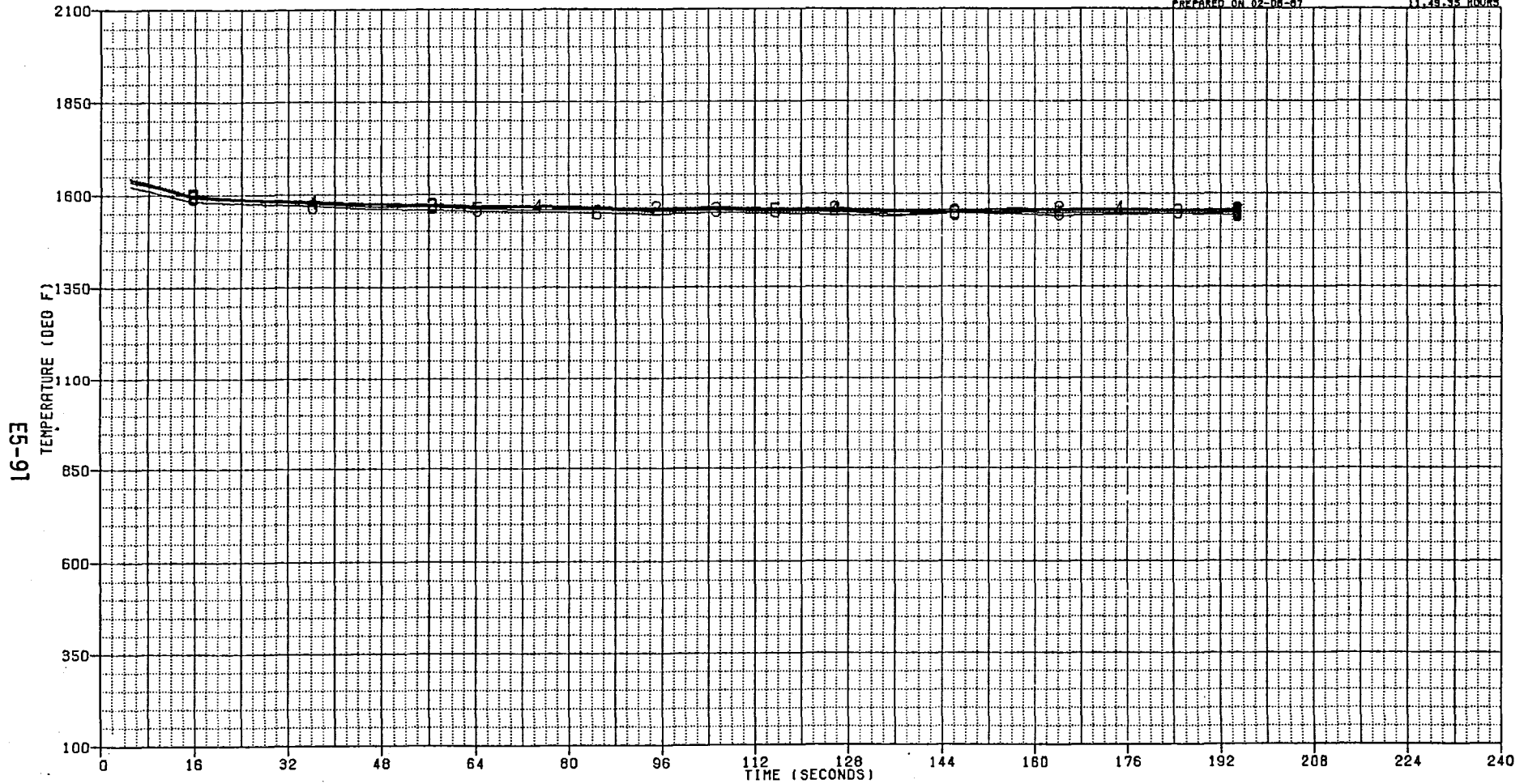


06-90

- 1 PCTSU PSIA
- 2 PCTSU-2 PSIA
- 3 PCTSU-3 PSIA
- 4 PCTSD PSIA
- 5 PCTSD-2 PSIA

TURBINE BUILD-UP DATA VS TIME  
TEST NO. 2427-229-A6-153  
PRESSURE MEASUREMENTS  
TEST DATE 08-19-86 1428 HOURS





E5-91

- 1 TCR-1 DEG F
- 2 TCR-2 DEG F
- 3 TCR-3 DEG F
- 4 TCR-4 DEG F
- 5 TCR-5 DEG F
- 6 TCR-6 DEG F

GAS TEMPERATURES VS TIME  
TEST NO. 2427-229-A6-153  
PRESSURE MEASUREMENTS  
TEST DATE 08-19-86 1428 HOURS



**End of Document**