

APPENDIX 6 TO MAIN REPORT

STUDY OF APPLE HILL  
ENERGY EFFICIENT HOMES

TASK G - NEUTRAL PRESSURE PLANE

Prepared for:

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of

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BY

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## 1.0 INTRODUCTION

Air leakage in houses is dependent on the size of unintentional openings in the house envelope, and the pressure difference across the envelope which drives air through the holes. The hole sizes and locations have been determined by various means throughout the project (ie. thermograghy, airtightness, smoke pencil tests). The Neutral Pressure Plane (N.P.P.) Test is a method of identifying the general distribution of these holes across the building envelope.

The three most significant causes of pressure difference are stack effect, wind pressures about the house, and the use of any exhaust systems such as flues and vent fans. Stack effect is caused by the buoyancy of the warm house air when outside air is colder and of greater density. This creates the pattern of infiltration at lower levels of a house due to negative indoor pressures and exfiltration at higher levels due to positive indoor pressure. The neutral pressure plane is the hypothetical level in the house where inside and outside pressures are equal, hence no air movement. The location of the N.P.P. changes continuously relative to the driving forces of temperature, wind, ventilation system operation, and the size and distribution of air leaks in the envelope.

The neutral pressure plane testing used in this study involved measurement of pressure differentials at various levels of the house. Plotting of the pressure gradient from these measurements, identifies the height of the neutral pressure plane. This provides a point in time observation of stack effect, and wind induced pressure profiles. Under ideal conditions, the N.P.P. test should be conducted at times of no wind, in order to isolate stack effect. The limitation of large scale testing, and the unpredictability of wind conditions at the site, make it impossible to schedule no-wind testing. However, the results of N.P.P. testing are instructive in terms of identifying the general location of the neutral pressure plane under certain circumstances. The results also indicate the relative influence of temperature, wind and forced ventilation.

## 2.0 OBJECTIVES

The purpose of the neutral pressure plane testing was:

To identify the location of the neutral pressure plane under normal operating conditions of the house;

To identify the range of pressures across the building envelope;

To establish correlations between air pressure and factors such as: wind speed, wind direction, heating system or furnace operation, air tightness, building shape, and temperature differentials.

### 3.0 METHODOLOGY

The neutral pressure plane is determined by measuring the differential between the interior and exterior pressures at different levels on each face of the house. A pressure transducer (sensitive enough to measure a 0.1 Pa. difference) was connected to a strip chart recorder and a 1 to 2 min. interval of pressure readings was recorded. Usually two to three points are measured on each face, (located at window openings) and the neutral pressure plane is determined by interpolating through these points. Detailed procedures are presented in Appendix 6-A.

#### 4.0 EVALUATION

The results of the neutral pressure plane are shown in Table 3.1, Neutral Pressure Plane General Summary. In order to try to eliminate some scatter in the tests conducted, the low wind periods were isolated and an average N.P.P. of the front and back faces were used. These results are shown in Table 3.2, Neutral Pressure Plane Low Wind Summary.

An example of wind effects on these tests is shown in Figure 3.1, which is a reproduction of a strip chart recording for the inside-outside pressure difference at the first floor window during a test in high winds. It can be seen that there is a great deal of fluctuation in the pressure differential readings. The average reading, based on this fluctuating line, is approximately -5.3 Pa.

This is only an estimate, and could vary if the test was run for shorter or a longer periods of time. This is one of the reasons for the high uncertainty of the N.P.P. test. Also, on Figure 3.1 is a strip chart recording of the actual site wind measured behind the building at the same time (and with the same time scale on the recorder). A recording anemometer on a 3m mast was used. Note that the pressure fluctuations follow the wind magnitude fluctuations quite closely. In similar tests on other houses, major wind changes, both direction and magnitude, changed the pressure difference significantly.

A summary of the data obtained from the four phases of the neutral pressure plane tests is listed in Appendix 6-B, "Summary of Neutral Pressure Plane Test Results". A detailed listing of each individual test can be found in Appendix 6-C, "Detailed Neutral Pressure Plane Test Results."



Table 4.1  
NEUTRAL PRESSURE PLANE GENERAL SUMMARY

NEUTRAL PRESSURE PLANE HEIGHT (M)												
HOUSE NO.	*	PHASE 1		*	PHASE 2		*	PHASE 3		*	PHASE 4	
	*	FRONT	BACK	*	FRONT	BACK	*	FRONT	BACK	*	FRONT	BACK
1	*	1.00	3.00	*			*	2.00		*	1.20	2.20
2	*			*			*	1.30	0.10	*		1.60
3	*			*		-2.00	*	-2.20	3.50	*	0.40	2.20
4	*			*			*	1.80	0.80	*		1.10
5	*	-0.50	-0.60	*		-3.00	*	4.70	0.00	*	0.70	1.70
6	*	-0.90	2.30	*		0.00	*	-1.30	0.10	*	0.20	
7	*			*			*	3.20	-1.80	*	2.00	0.10
8	*			*			*	7.00	0.00	*		2.20
	*			*			*			*		
10	*			*		2.00	*		3.10	*	0.00	0.60
11	*	3.40	2.90	*		-3.50	*	-1.50	2.00	*	2.00	1.90
12	*	0.40	1.70	*		2.50	*	1.80	0.10	*	1.00	1.00
13	*	1.20	1.70	*		0.70	*		0.40	*	-0.30	1.50
14	*	0.40	2.70	*	-1.50	-4.00	*		3.70	*	0.90	1.90
15	*	2.40	3.90	*		-0.30	*	3.10	0.50	*	3.60	4.30
16	*		3.60	*		4.00	*			*		1.20
17	*	1.10	1.30	*			*	-2.60	-4.00	*	1.00	1.70
18	*	-0.20	1.50	*		0.00	*	-1.40	2.00	*		1.60
	*			*			*			*		
20	*		1.10	*		-0.10	*			*		1.10
21	*		-0.90	*		-0.10	*		0.90	*		0.30
22	*		-0.10	*			*		-0.40	*		2.70
23	*		3.00	*			*		-0.20	*		0.40
24	*		0.10	*		5.00	*		-0.50	*		0.90
25	*		5.00	*		2.00	*		0.70	*		0.30
	*			*			*			*		
27	*			*			*	8.00	-2.00	*	1.40	
28	*			*		0.70	*	1.90	1.40	*		0.30
29	*	1.40	-0.30	*	-0.70	0.00	*	-0.30	7.00	*	0.40	2.10
30	*			*			*	2.70	1.20	*		
31	*	1.70	2.60	*	2.60		*		-0.50	*	2.70	
32	*	-0.30	5.20	*		4.90	*	3.80	7.00	*		4.20
	*			*			*			*		
34	*			*			*	6.00	0.00	*	5.90	1.40
35	*	2.20	-1.00	*			*	0.90	2.50	*	1.50	2.20
37	*	1.30	1.10	*	-0.30		*	1.00		*	2.00	1.30
39	*	1.60	4.00	*	1.70	1.00	*		-1.40	*	1.80	1.10
	*			*			*			*		
50	*			*		-3.00	*		7.40	*		6.50
51	*			*			*	5.40	2.90	*		2.40
52	*			*			*		1.60	*		
	*			*			*			*		

NOTE: ALL HEIGHTS ARE MEASURED FROM THE TOP OF THE FOUNDATION WALL. THE RESULTS OF THESE TESTS REPRESENT FURNACE OFF CONDITIONS. ONLY THE FRONT AND THE BACK OF THE HOUSE IS SUMMARIZED. FOR ADDITIONAL FACES AND WEATHER CONDITIONS, SEE APPENDIX 2 AND 3.

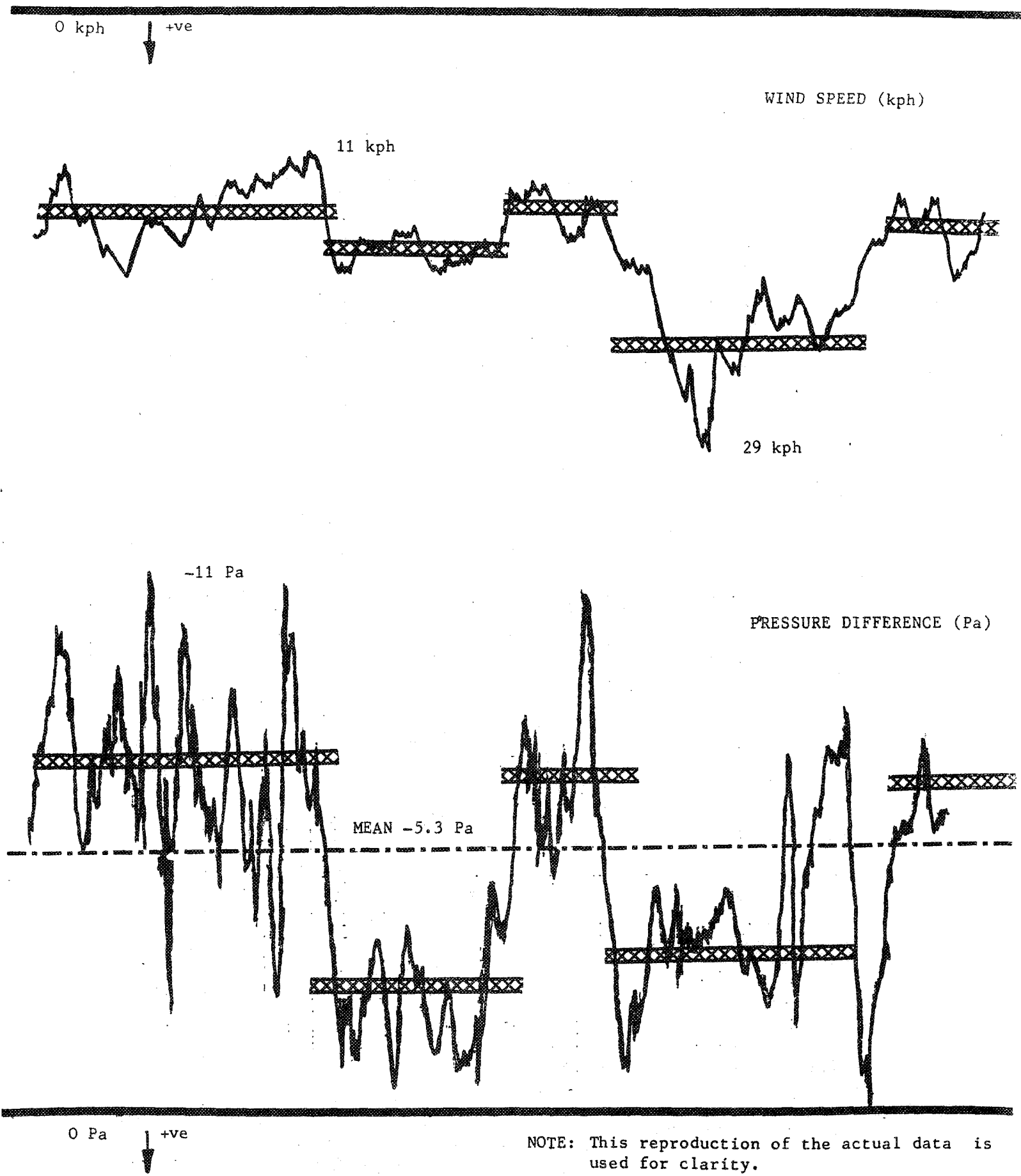
Table 4.2  
NEUTRAL PRESSURE PLANE LOW WIND SUMMARY

NEUTRAL PRESSURE PLANE HEIGHT (M)										
HOUSE NO.	*	PHASE 1	*	PHASE 2	*	PHASE 3	*	PHASE 4	*	LOW WIND MEAN
1	*		*		*		*	1.70	*	1.70
2	*		*		*		*		*	
3	*		*		*		*		*	
4	*		*		*	1.30	*	1.10	*	1.20
5	*		*		*	2.40	*	1.20	*	1.80
6	*	0.70	*		*	-0.60	*	0.05	*	
7	*	0.00	*		*		*		*	0.00
8	*		*		*		*		*	
	*		*		*		*		*	
10	*		*		*		*		*	
11	*	2.10	*		*		*		*	2.10
12	*	1.10	*		*	1.00	*	1.00	*	1.03
13	*	1.50	*		*		*	0.60	*	1.05
14	*	1.50	*		*		*		*	1.50
15	*		*		*		*		*	
16	*		*		*		*	1.20	*	1.20
17	*		*		*		*	1.40	*	1.40
18	*		*		*	0.30	*		*	0.30
	*		*		*		*		*	
20	*	1.50	*		*		*	1.10	*	1.30
21	*		*	-2.00	*		*	0.30	*	-0.80
22	*	0.00	*		*	0.30	*		*	0.15
23	*		*		*	-0.90	*		*	-0.90
24	*	0.00	*		*	-0.50	*		*	-0.25
25	*		*	2.00	*	0.80	*		*	1.40
	*		*		*		*		*	
27	*		*		*		*		*	
28	*		*		*		*		*	
29	*		*	-0.30	*		*		*	-0.30
30	*		*		*		*		*	
31	*	2.20	*		*		*		*	2.20
32	*		*		*		*		*	
	*		*		*		*		*	
34	*		*		*		*		*	
35	*		*		*	1.60	*	1.80	*	1.70
37	*	1.20	*		*		*		*	1.20
39	*		*	1.40	*		*	1.50	*	1.45
	*		*		*		*		*	
50	*		*		*		*		*	
51	*		*		*	4.10	*		*	4.10
52	*		*		*		*		*	
	*		*		*		*		*	

NOTE: ALL HEIGHTS ARE MEASURED FROM THE TOP OF THE FOUNDATION WALL. THE RESULTS OF THESE TESTS REPRESENT FURNACE OFF CONDITIONS. THE AIRPORT WIND SPEED AT THE TIME OF THE TEST IS 10 KPH OR LESS. THE HEIGHT GIVEN IS THE MEAN OF THE FRONT AND BACK FACES.

FIGURE 4.1

PRESSURE DIFFERENCE AND WIND SPEED COMPARISONS



NOTE: This reproduction of the actual data is used for clarity.

## 5.0 DISCUSSION OF RESULTS

The pressure difference across the envelope can be attributed to wind effects, stack effect, and fan ventilation. The stack effect can be represented by the following equation taken from Canadian Building Digest, #104:Stack Effect in Buildings, by Tamiwa and Wilson:

$$P_{\text{stack}} = 34.2 (P) \times \frac{(T_{\text{in}} - T_{\text{out}}) \times (H)}{T_{\text{c}} \times T_{\text{o}} \text{ (k)}}$$

where 34.2 = conversion factor

P = barometric pressure in kPa

T<sub>i</sub>-T<sub>o</sub> = inside to outside temperature difference

H = represents height above grade in meters

T<sub>i</sub> = inside temperature (k)

T<sub>o</sub> = outside temperature (k)

Wind effects are more capricious and very difficult to measure. Fan ventilation can distort neutral pressure gradient as well as change the location of the N.P.P. Table 4.1 lists the results for the four phases of testing. The high variance in the N.P.P. can be attributed to the temperature difference between tests, and more importantly, the wind (direction and magnitude) differences. The neutral pressure plane is generally low which indicates that the major leaks are found at the building foundation. Some observed problem areas were the joist/header regions, and the inlets to furnace rooms. The N.P.P. results are not consistent from one phase to the next in most cases. The wind conditions appear to determine the N.P.P., and any variance in

the wind will vary the N.P.P.

The influence of stack effect is best observed by using the means of large samples to cancel out local effects. In Figure 5.1, the stack effect line is generated from the above equation. The other points (indicated by an X) on the graph represent the pressure difference observed at the basement window, and the pressure difference observed at the top floor windows. Only data from the back faces of two storey houses were used for this example. The graph seems to agree with the stack equation.

There were some additional pressure tests conducted. When furnace burners were turned on, there was little or no effect on the N.P.P.. The large air inlets to the furnace room provide sufficient combustion air. When the furnace circulating fan turned on, the N.P.P. dropped up to 1.0m in the small sample of houses tested. The houses were pressurized by the increased flow in the fresh air intake and leakage around the fan housing.

TABLE 5.1

Pstack vs. Actual

	Actual	Predicted	difference (actual-predict)/predict
Slope(Pa-C)	15161	16976	-10.7%
Intercept(Pa)	-51.3	-58.1	-11.7%
Correlation	0.8905	1.00	-11%

## COMMENTS

Predicted Slope.  $34.2 \times 101.3 \times 4.9 = 16976$  Pa-C

Predicted Intercept =  $(34.2 \times 101.3 \times 4.9) / 292 = -58.1$  Pa

Thus Predicted equation in the form  $y=mx+b$

$$P = 16976 \times 1/T - 58.1$$

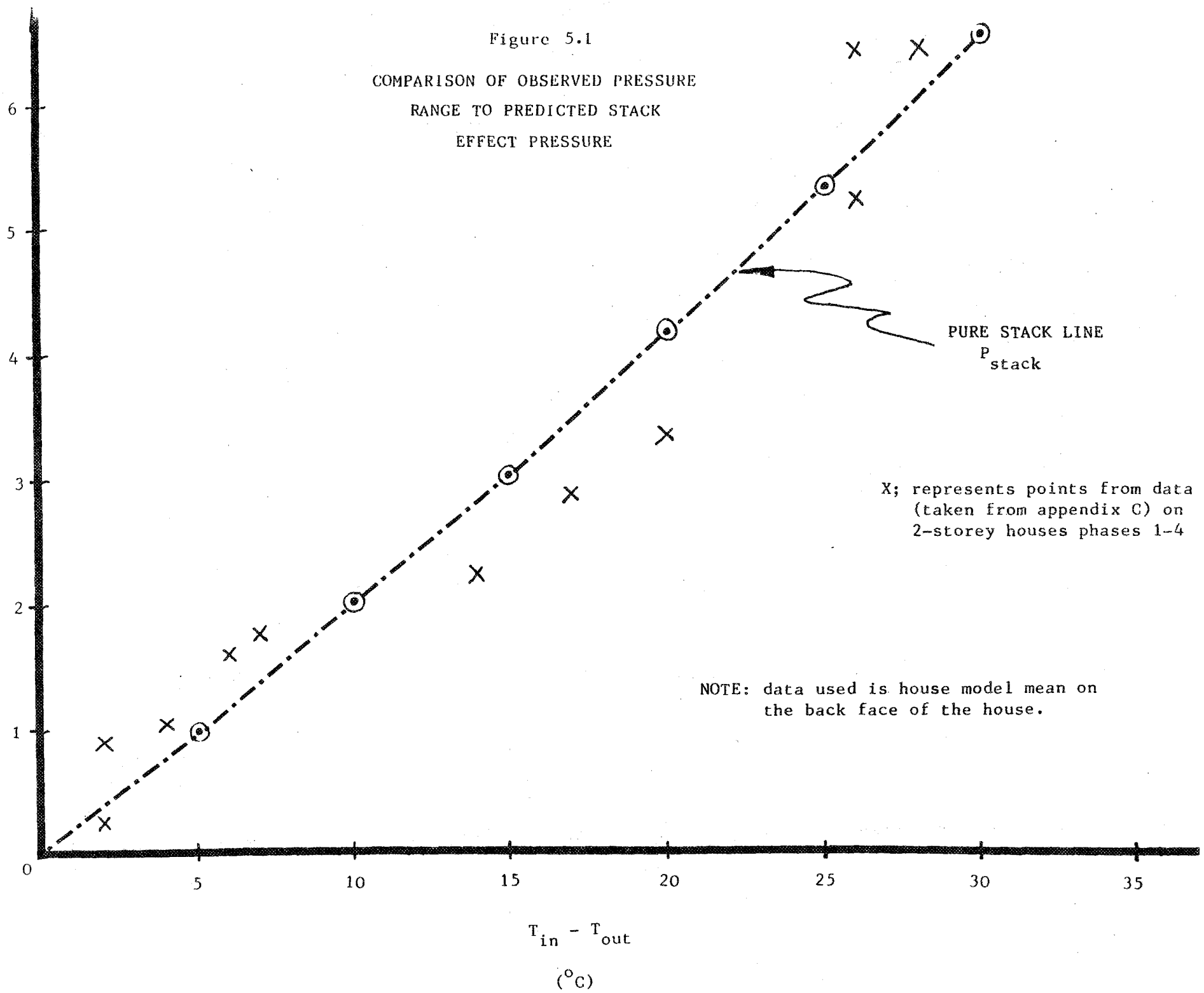
Figure 5.1

COMPARISON OF OBSERVED PRESSURE  
RANGE TO PREDICTED STACK  
EFFECT PRESSURE

RANGE OF

$P_{in} - P_{out}$

(Pa)



## 6.0 CONCLUSIONS

The Apple Hill houses have neutral pressure planes close to the first floor level in most cases. This corresponds well with the location of the major leakage areas in these houses.

6.1 The neutral pressure plane testing has been constructive in showing various pressure differential magnitudes.

6.2 Stack induced pressures, when isolated statistically, fell within the predicted range.

6.3 Wind induced pressures often reached higher magnitudes but varied greatly in the space of seconds. Modelling of these transient wind pressures on the house envelope was impossible, due to scatter caused by wind.

6.4 Due to the relatively low neutral pressure plane, and high humidity levels experienced in these houses there is, potentially, a risk a exfiltration/ condensation occuring in the upper half of the house envelope for a major portion of the year.



7.0 RECOMMENDATIONS:

Neutral pressure planes tests, as conducted, seem to be most useful and reproducible on calm days. If the N.P.P. is being tested to point out major leakage areas, smoke pencil results would seem to be quicker, cheaper, and more accurate.

APPENDIX 6-A

TEST PROCEDURES

PROCEDURE FOR MEASURING WALL PRESSURES  
TO DETERMINE HEIGHT OF NEUTRAL PRESSURE PLANE

This test requires an on-site time from one to two or more hours, depending upon the number of pressure test sites and the wind. In general, satisfactory results cannot be obtained if local winds exceed 20 km/h.

PREPARATION:

1. Record house identification data and test conditions on the data collection form;
2. Determine which wall surfaces have windows on 2 or more different floors, in or near the same vertical plane;
3. For each test site determine the height above foundation and distance from nearest corner of house;
4. Obtain cooperation of occupants to maintain the following test conditions, or to alert the test person when these conditions are to be altered:
  1. exterior doors and windows closed
  2. interior doors open
  3. exhaust fans (kitchen, bathroom) off
  4. fireplace damper closed
  5. furnace off (thermostat to lowest setting)
5. Reconfirm that above test conditions are established.

TESTING:

A) Tube Positions

1. For open window, place exterior pressure tube (with wind shield) to extend less than 200 mm outside and close window snugly against tubing.
2. Stuff all window openings tightly using 25 mm thick foam, (doubled where possible) In some cases it is appropriate to lay some of the foam in place with the tubing, close the window snugly against them, and stuff remaining openings.
3. The interior pressure tube shall be positioned on the inside of the the opening adjacent to where the exterior pressure tap enters the opening. The pressure transducer shall be located near the pressure sensing tubes, with the length of connecting tubing limited to that reasonably necessary.

### B) Calibration

1. Calibrate zero and span of transducer prior to measurement at first test site; note this step on chart, together with date, time, address, compass orientation of front door and inside temperature.
2. Check calibration of zero prior to measurement at each subsequent test site.

### C) Measurement

1. With chart recorder on scale equivalent to approximately 5 Pa full scale, record a sufficient duration of transducer output to permit visual averaging (15 seconds to more than 90 seconds, depending on pressure variation)
2. The chart shall be driven at a speed sufficient to permit individual cyclical traces to be distinguished. The chart record shall be averaged visually and a line shall be drawn through the record at the average value so determined.
3. Record wall and floor distances and recorder scale on chart.

### Finish:

To return thermostat and house to original setting.

### CALCULATIONS:

1. For each wall face plot test siter on a graph presenting "height above foundation vs "pressure difference" ( $P_{IN} - P_{OUT}$ , in pascals)
2. Draw the best straight line through the points and determine the height of the neutral pressure plane above foundation wall (at  $P_{IN} - P_{OUT} = 0$ , the y-axis intercept)

### EQUIPMENT:

1. Differential pressure transducer, ultra low range. (e.g. Validyne model DP103-10,  $\pm 86$  Pa (0.0125 PSID) full scale, \$757.00 plus tax, available from Baker Instruments Ltd., 118 Doncaster Avenue, Thornhill, Ont. L3T 1L3, (416) 889-8642)
2. Carrier demodulator, to excite transducer and provide a  $\pm 10$  volt DC output signal. (e.g. Validyne model CD101-3C, with 10-turn potentiometers)

and dials for adjusting zero and span, and transducer input connector to permit mating to transducer, \$415.40 plus tax, available from Baker Instruments Ltd., above)

3. Suitable box, constructed to contain transducer and demodulator plus leads and tubing.
4. Chart recorder, (e.g. Watanabe Servocorder model SR6201, \$884.00 plus tax, available from Associated Test Equipment Ltd., 1704 Carling Ave., Ottawa, Ontario, (613) 728,3717)
5. Two pneumatic switching valves, suitable for connecting to 6 mm Tygon tubing (eg. Each \$15.95 plus tax, available from Canus Plastics Ltd., 340 Gladstone Avenue, Ottawa, Ont., (613) 232-2657)
6. Miscellaneous: Thermometer, compass measuring tape, air velocity meter, various lengths of open-cell foam 25 mm thick and 100 mm wide.

#### NEUTRAL PRESSURE PLANE TESTING - CAUTIONARY NOTES BASED UPON APPLE HILL

##### TESTING:

1. For winds greater than about 20 km/h it is difficult to obtain any useful results.
2. Pneumatic damping does not appear to be helpful for winds above 20 km/h. Although it eliminates the high frequency variations in pressure, even a 5 second damping does not help because there are major pressure swings with periods of tens of seconds.
3. The test can be performed with children running about the house; the transducer vibration which results does not affect visual averaging of the chart record.
4. It is crucial that openings around windows partly open for testing access be well stuffed with foam, particularly on the top floor where pressure differentials tend to be greatest. For example removal of stuffing at a 1 m gap between stationary and sliding windows resulted in a pressure reduction of approximately one-third.
5. The height of the neutral pressure plane is similar on all 4 faces of a house if wind is less than 5 km/h at airport; results are highly variable if airport winds are greater than 15 km/h.
6. When the furnace circulating fan is turned on, the house is pressurized slightly and the neutral pressure plane falls approximately 1 metre. This probably results from air being drawn into the cold air ducting from the duct which is connected to outside for fresh air make-up.

7. It does not appear that the operation of the furnace burner, by itself has any significant effect on the house pressure. This result may be limited to homes with enclosed furnace rooms.

APPENDIX 6-B

SUMMARY OF NEUTRAL PRRESSURE PLANE RESULTS

SUMMARY OF NEUTRAL PRESSURE PLANE TEST RESULTS

HOUSE NO.	GAS OR ELECTRIC	FIRE-PLACE	PHASE 1				PHASE 2				PHASE 3				PHASE 4			
			T(1)-T(0) DEG. CEL.	WIND SPD KPH	N.P.P. (METERS)		T(1)-T(0) DEG CEL	WIND SPD KPH	N.P.P. (METERS)		T(1)-T(0) DEG CEL	WIND SPD KPH	N.P.P. (METERS)		T(1)-T(0) DEG CEL	WIND SPD KPH	N.P.P. (METERS)	
					FRONT	BACK			FRONT	BACK			FRONT	BACK			FRONT	BACK
1	GAS	NO	14.00	17.00	1.00	3.00	2.00	7.00	-3.00	21.00	2.00	16.00	10.00	1.20	2.20			
2	GAS	YES							2.00	12.00	1.30	33.00	16.00	1.60	1.60			
3	GAS	YES	16.70	17.00			3.00	13.00	6.00	11.00	-2.20	38.00	26.00	0.40	2.20			
4	GAS	YES					4.00	8.00	3.00	9.00	1.80	32.00	8.00	1.10	1.10			
5	GAS	YES	19.50	30.00	-0.50	-0.60	5.00	12.00	9.00	0.00	4.70	29.00	8.00	0.70	1.70			
6	GAS	YES	12.00	7.00	-0.90	2.30	-1.00	5.00	3.00	8.00	-1.30	26.00	17.00	0.20	0.20			
7	GAS	YES	15.50	7.00			1.00	8.00	4.00	20.00	3.20	25.00	15.00	2.00	0.10			
8	GAS	YES							5.00	18.00	7.00	16.00	15.00	2.20	2.20			
10	GAS	NO					2.00	11.00	6.00	18.00	3.10	36.00	13.00	0.00	0.60			
11	GAS	NO	15.50	5.00	3.40	2.90	-2.00	22.00	6.00	12.00	-1.50	18.00	18.00	2.00	1.80			
12	GAS	YES	17.50	8.00	0.40	1.70	6.00	22.00	5.00	9.00	4.70	30.00	10.00	1.00	1.00			
13	GAS	NO	14.50	7.00	1.20	1.70	3.00	8.00	5.00	0.00	1.80	20.00	10.00	-0.30	1.50			
14	GAS	YES	12.00	10.00	0.40	2.70	0.00	18.00	-1.50	-4.00	10.00	36.00	11.00	0.90	1.90			
15	ELEC	YES	24.00	17.00	2.40	3.90	4.00	20.00	6.00	11.00	3.10	35.00	26.00	3.60	4.30			
16	GAS	NO	19.00	28.00		3.50	1.00	15.00				34.00	4.00	1.20	1.20			
17	ELEC	NO	16.50	12.00	1.10	1.30	-3.00	7.00	7.00	19.00	-2.60	23.00	7.00	1.00	1.70			
18	GAS	NO	17.50	13.00	-0.20	1.50	-7.00	26.00	7.00	8.00	-1.40	17.00	18.00	1.60	1.60			
20	GAS	YES	17.50	10.00		1.10	0.00	13.00				16.00	0.00	1.10	1.10			
21	GAS	YES	17.50	15.00		-0.90	4.00	10.00	4.00	13.00	0.90	19.00	10.00	0.30	0.30			
22	GAS	YES	17.00	7.00		-0.10			6.00	10.00	-0.40	34.00	15.00	2.70	2.70			
23	ELEC	NO	12.50	11.00		3.00		25.00	4.00	6.00	-0.20	36.00	30.00	0.40	0.40			
24	GAS	YES	14.50	7.00		0.10	-1.00	30.00	7.00	8.00	-0.50	18.00	20.00	0.90	0.90			
25	GAS	NO					-1.00	9.00	0.00	8.00	0.70	29.00	15.00	0.30	0.30			
27	GAS	YES	12.50	13.00	2.00	5.00	3.00	10.00	10.00	35.00	8.00	31.00	30.00	1.40	1.40			
28	GAS	YES					2.00	12.00	4.00	20.00	1.90	27.00	6.00	0.80	0.80			
29	GAS	YES	15.00	15.00	1.30		2.00	11.00	5.00	15.00	-0.30	35.00	11.00	0.40	2.10			
30	GAS	YES					-2.00	15.00	6.00	13.00	2.70	35.00	20.00					
31	ELEC	YES	16.50	5.00	1.70	2.60	-2.00	8.00	-1.00	7.00	-0.45	24.00	19.00	2.70	2.70			
32	GAS	YES	17.50	19.00			2.00	10.00	1.00	20.00	3.80	30.00	17.00	4.20	4.20			
34	GAS	YES					1.00	10.00	5.00	16.00	6.00	31.00	20.00	5.90	1.40			
35	GAS	YES	29.00	20.00	-0.10	-1.00			9.00	0.00	0.85	18.00	5.00	1.50	2.10			
37	ELEC	NO	17.00	7.00	1.30	1.10	8.00	15.00	9.00	17.00	1.00	20.00	15.00	2.00	1.30			
39	GAS	YES	24.00	15.00	1.60	4.00	3.00	10.00	3.00	7.00	-1.40	17.00	0.00	1.80	1.10			
50	ELEC	YES							10.00		7.40	30.50	8.00					
51	GAS	YES							5.00	5.40	2.90	26.00	26.00					
52	ELEC	WD STV							12.00		1.60	33.00	12.00					



APPENDIX 6-C

DETAILED NEUTRAL PRESSURE PLANE TEST RESULTS

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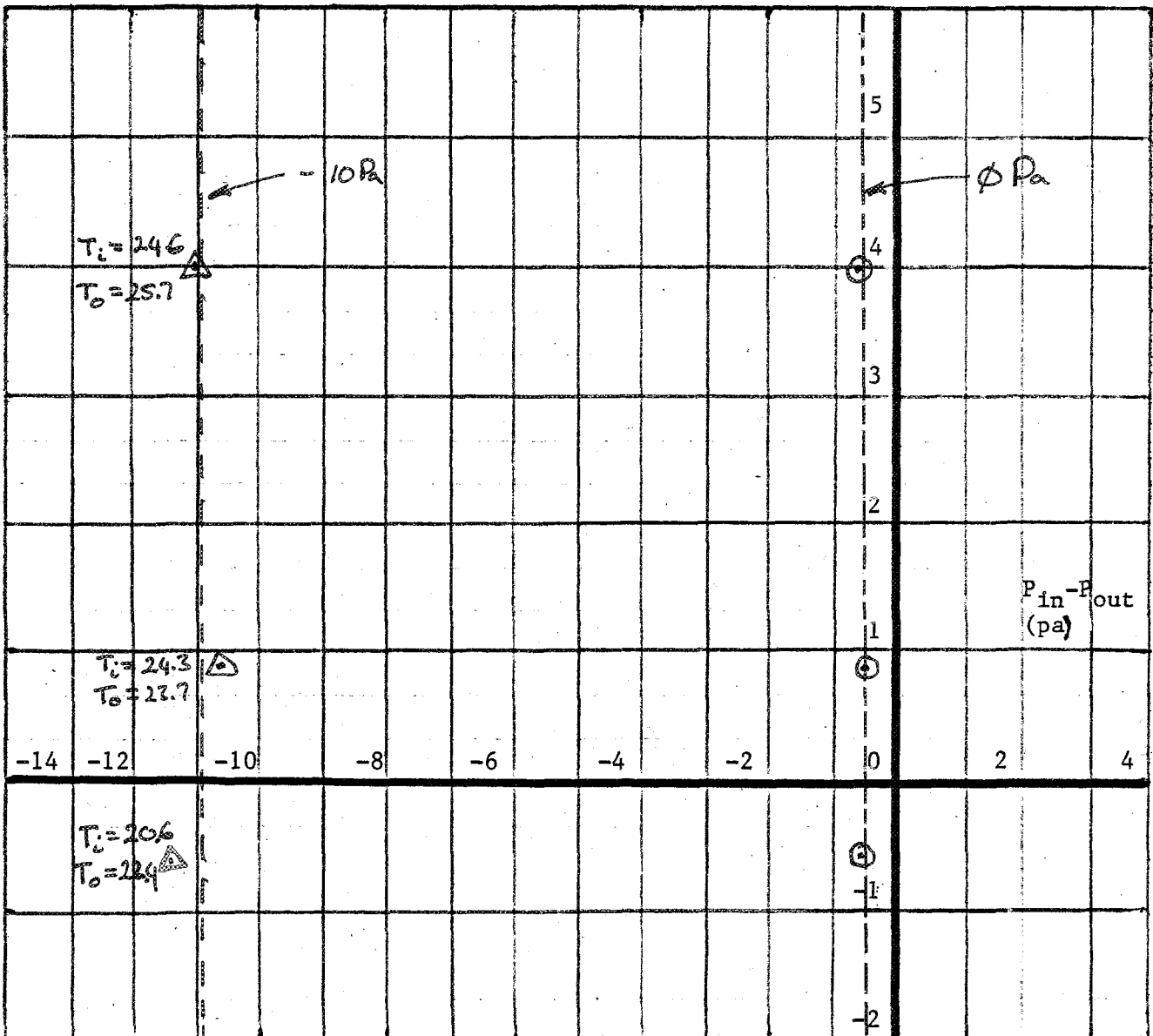
6-24

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of \_\_\_\_\_

# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>1</u>	FRONT _____	$T_{in} - T_{out}$ <u>2°C</u>
MODEL <u>REGENT</u>	BACK <u>-∞</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 10/87</u>	RIGHT SIDE _____	WIND SPEED <u>7</u> Km/h
TIME <u>10:10 - 10:40</u>	LEFT SIDE _____	WIND DIRECTION <u>S.E.</u>
TECHNICIAN <u>EUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)

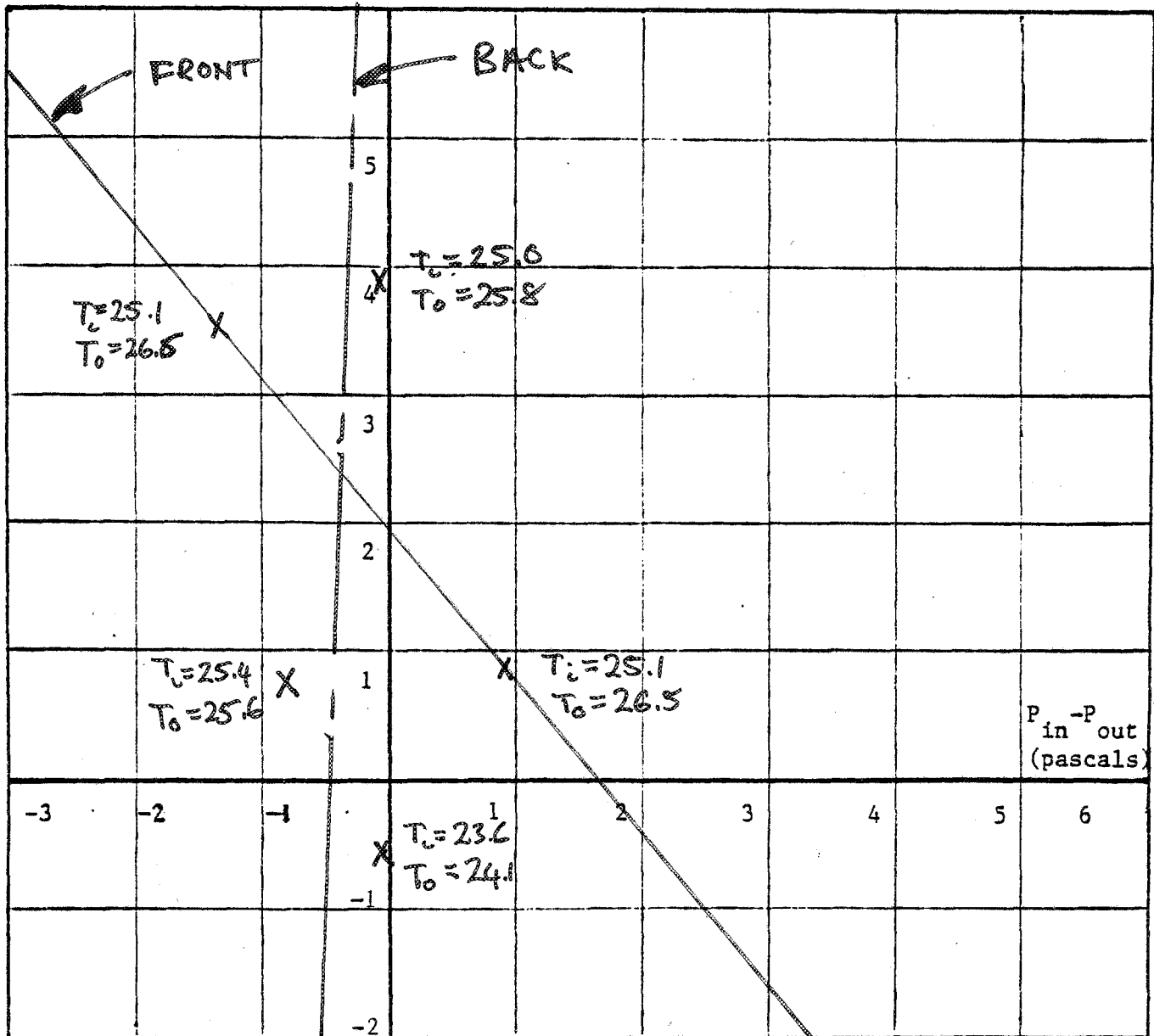


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>1</u>	FRONT <u>20m</u>	$T_{in} - T_{out}$ <u>-3.0°C</u>
MODEL <u>REGENT</u>	BACK <u>N.A.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 14/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>21</u> Km/h
TIME <u>10:10-10:40</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>EUGLER/PRESOWI</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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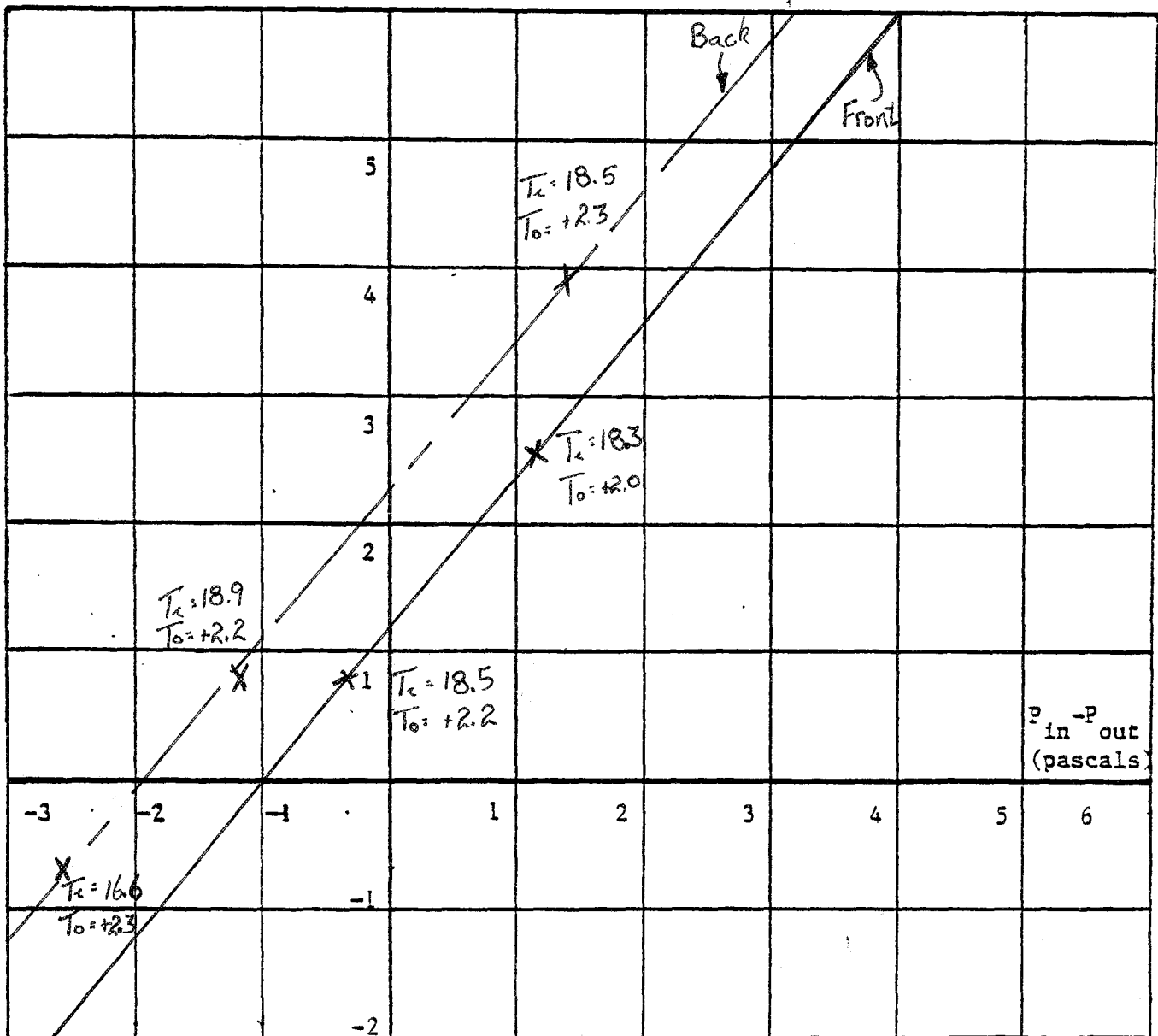
6-26

# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>1</u>	HEIGHT (M)	$T_{in} - T_{out}$ <u>+ 15.6°C</u>
MODEL <u>REGENT</u>	FRONT <u>1.20</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>FEB 03-83</u>	BACK <u>2.25</u>	WIND SPEED <u>10</u> Km/h
TIME <u>10:45-11:05</u>	RIGHT SIDE <u>N.A.</u>	WIND DIRECTION <u>N.E</u>
TECHNICIAN <u>FUGLER/SINHA</u>	LEFT SIDE <u>N.A.</u>	
	FRONT OF HOUSE FACES <u>N</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)

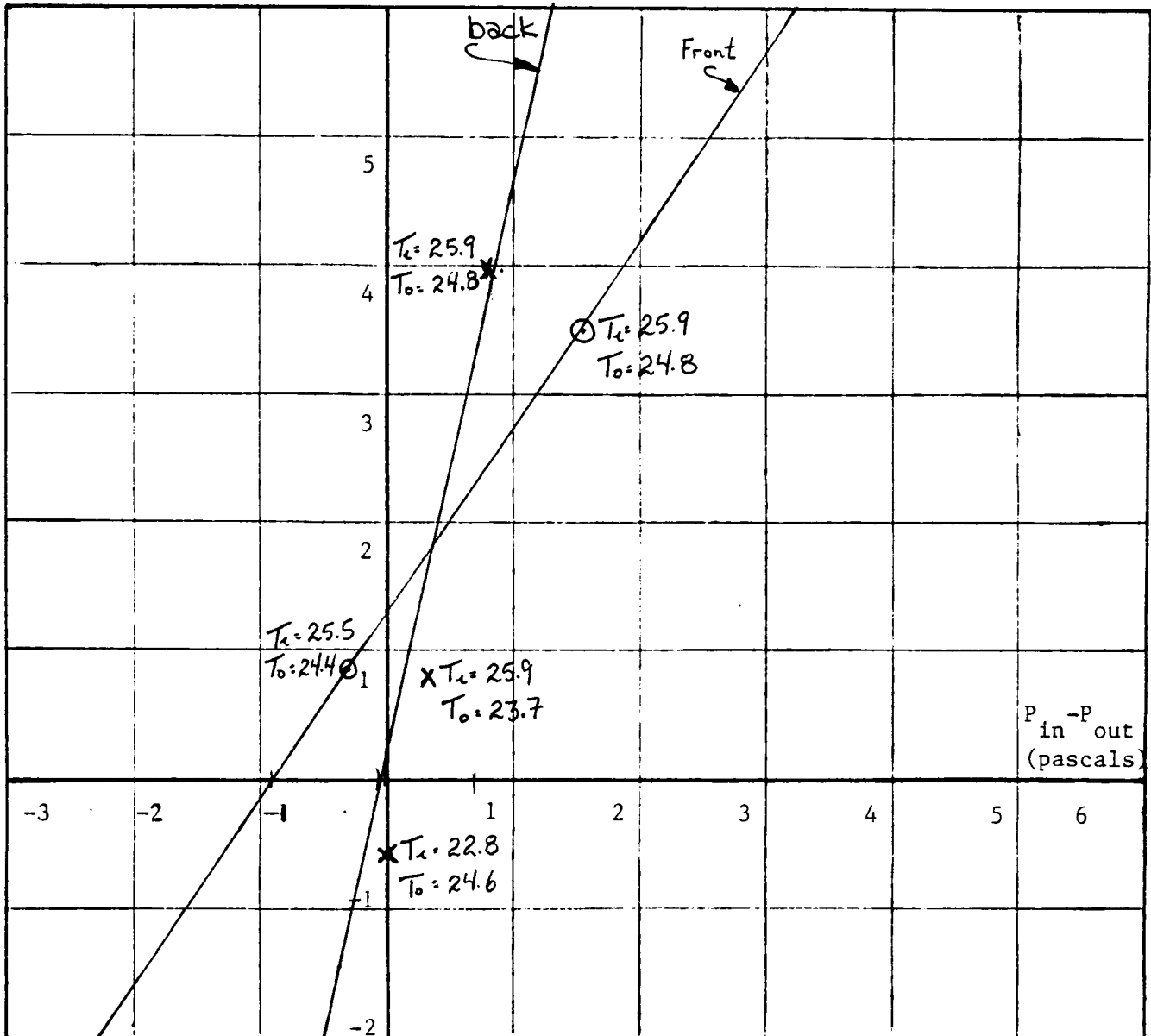


# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>2</u>	FRONT <u>1.3m</u>	$T_{in} - T_{out}$ <u>+2</u>
MODEL <u>REGENT</u>	BACK <u>0.1m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 14/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>12</u> Km/h
TIME <u>13:50 - 14:10</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>Flyler / Pasquin</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



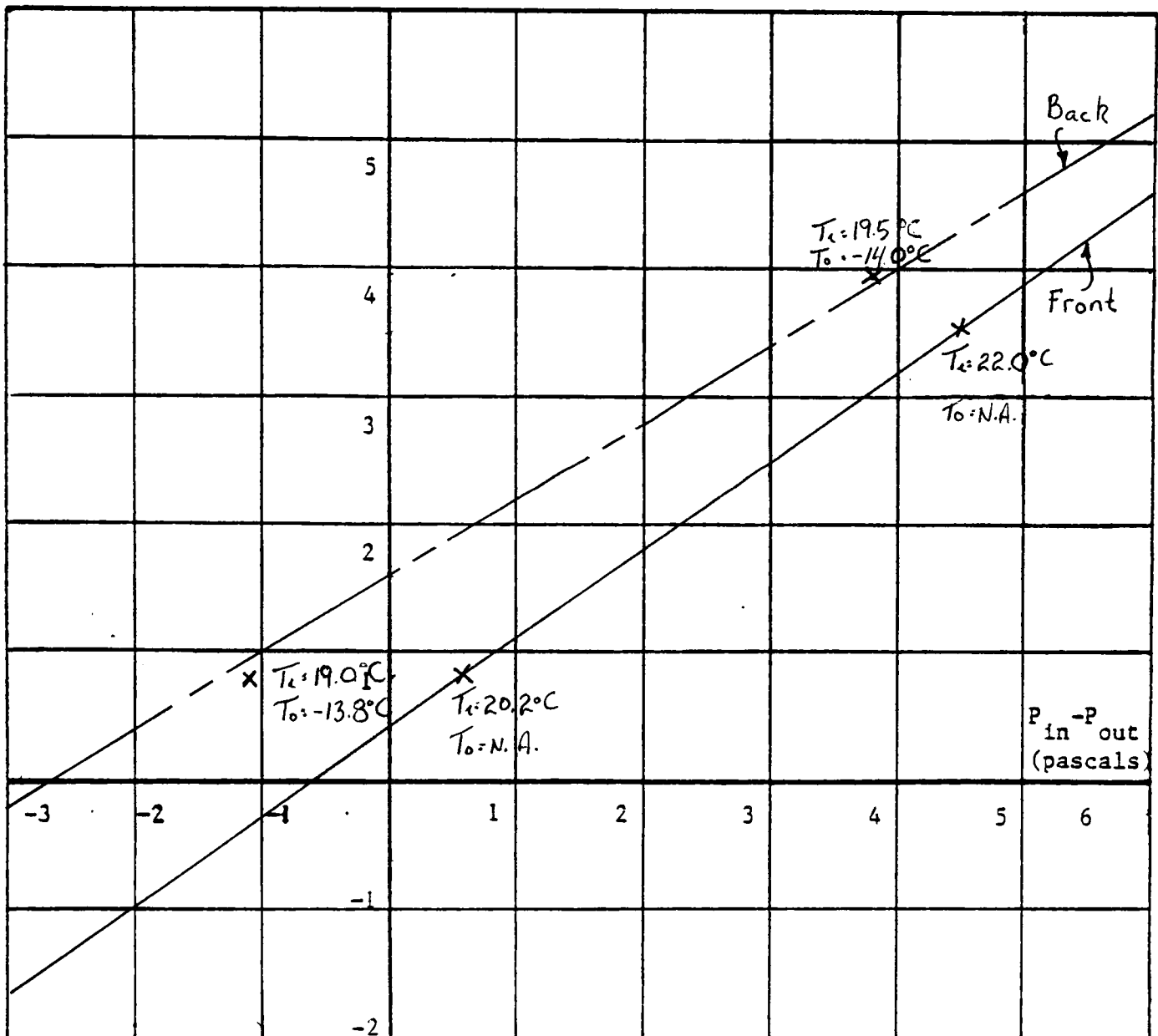
176 Bronson Ave.  
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6-28  
F S

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>2</u>	FRONT <u>N.A.</u>	$T_{in} - T_{out}$ <u>+33°C</u>
MODEL <u>REGENT</u>	BACK <u>1.60</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 20-83</u>	RIGHT SIDE <u>0.4</u>	WIND SPEED <u>16</u> Km/h
TIME <u>13:25-13:50</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>WEST</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>South</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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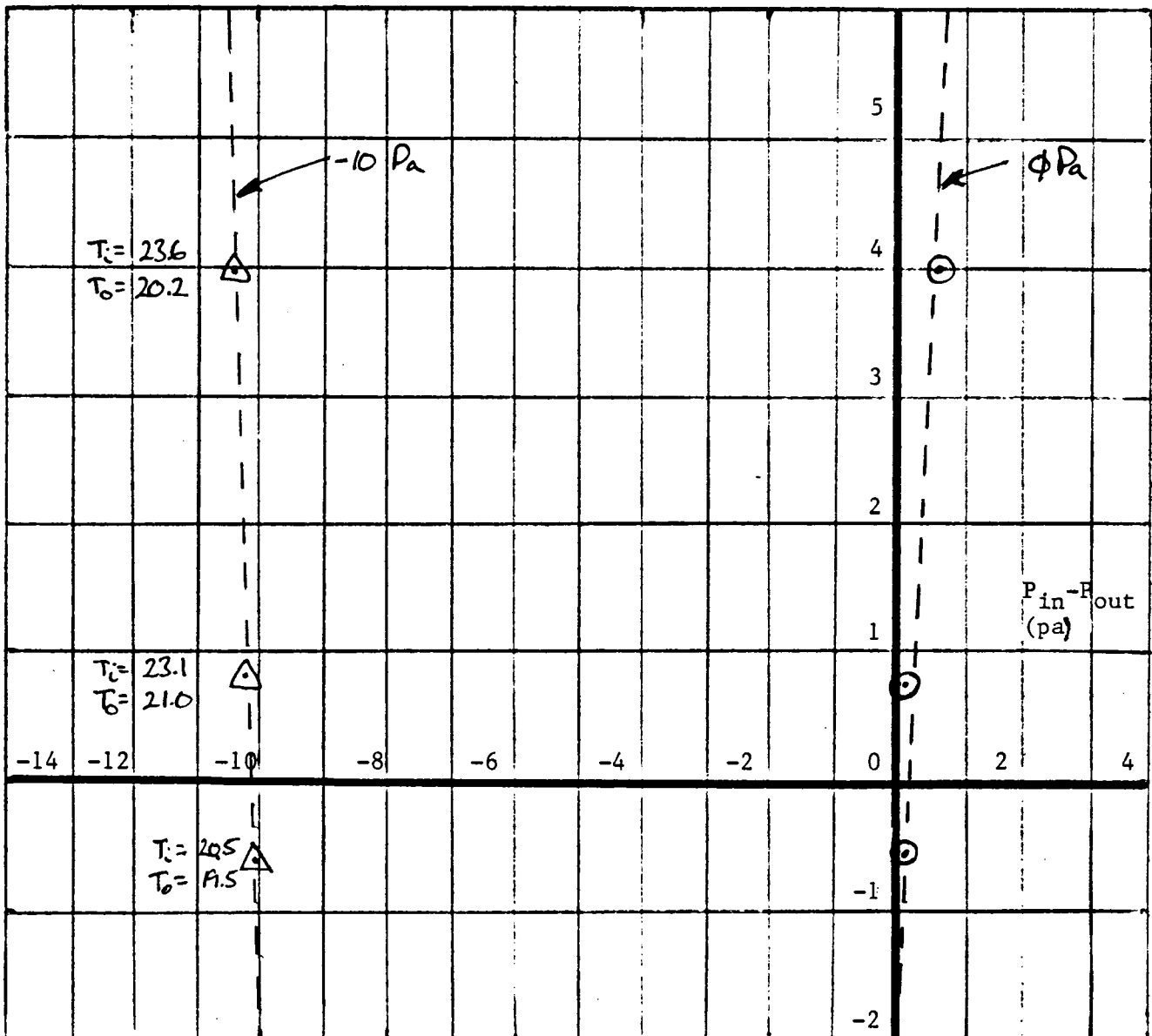
6-29

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>3</u>	FRONT _____	$T_{in} - T_{out}$ <u>3°C</u>
MODEL <u>REGENT</u>	BACK <u>-2m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 15/82</u>	RIGHT SIDE _____	WIND SPEED <u>13</u> Km/h
TIME <u>14:35-15:10</u>	LEFT SIDE _____	WIND DIRECTION <u>S.W.</u>
TECHNICIAN <u>FUGLER/SETON</u>		

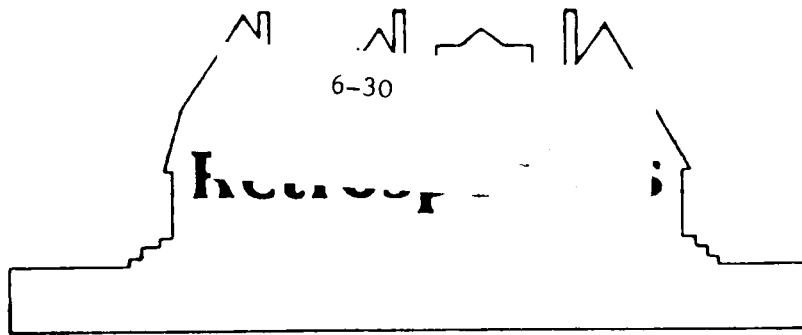
HEIGHT ABOVE FOUNDATION WALL (METERS)



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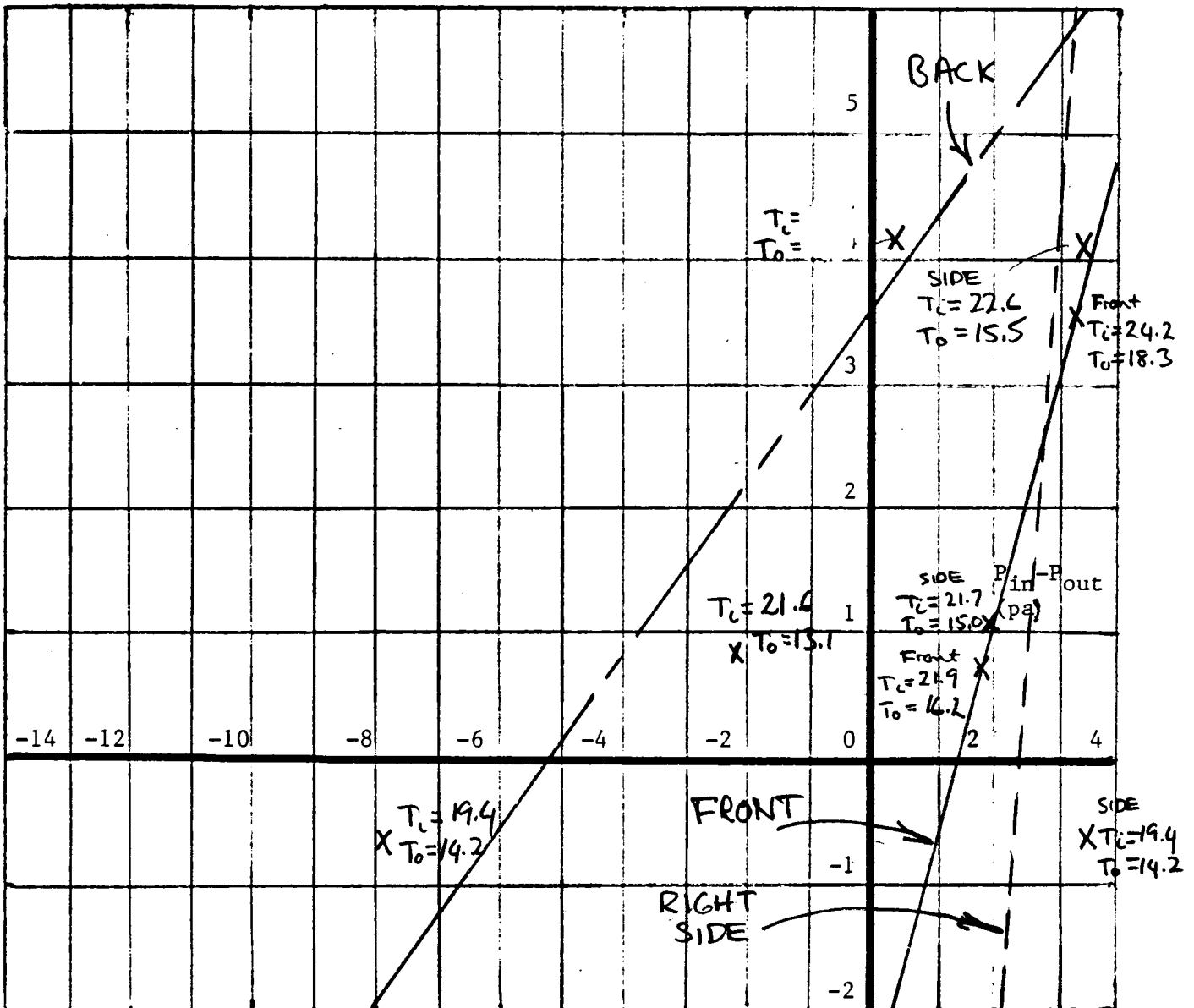
6-30

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IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>3</u>	FRONT <u>-2.2m</u>	$T_{in} - T_{out}$ <u>+6°C</u>
MODEL <u>REGENT</u>	BACK <u>3.5m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT 4/82</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>11</u> Km/h
TIME <u>14:00-14:30</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>N</u>
TECHNICIAN <u>FUGLIER/PASQUINI</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)





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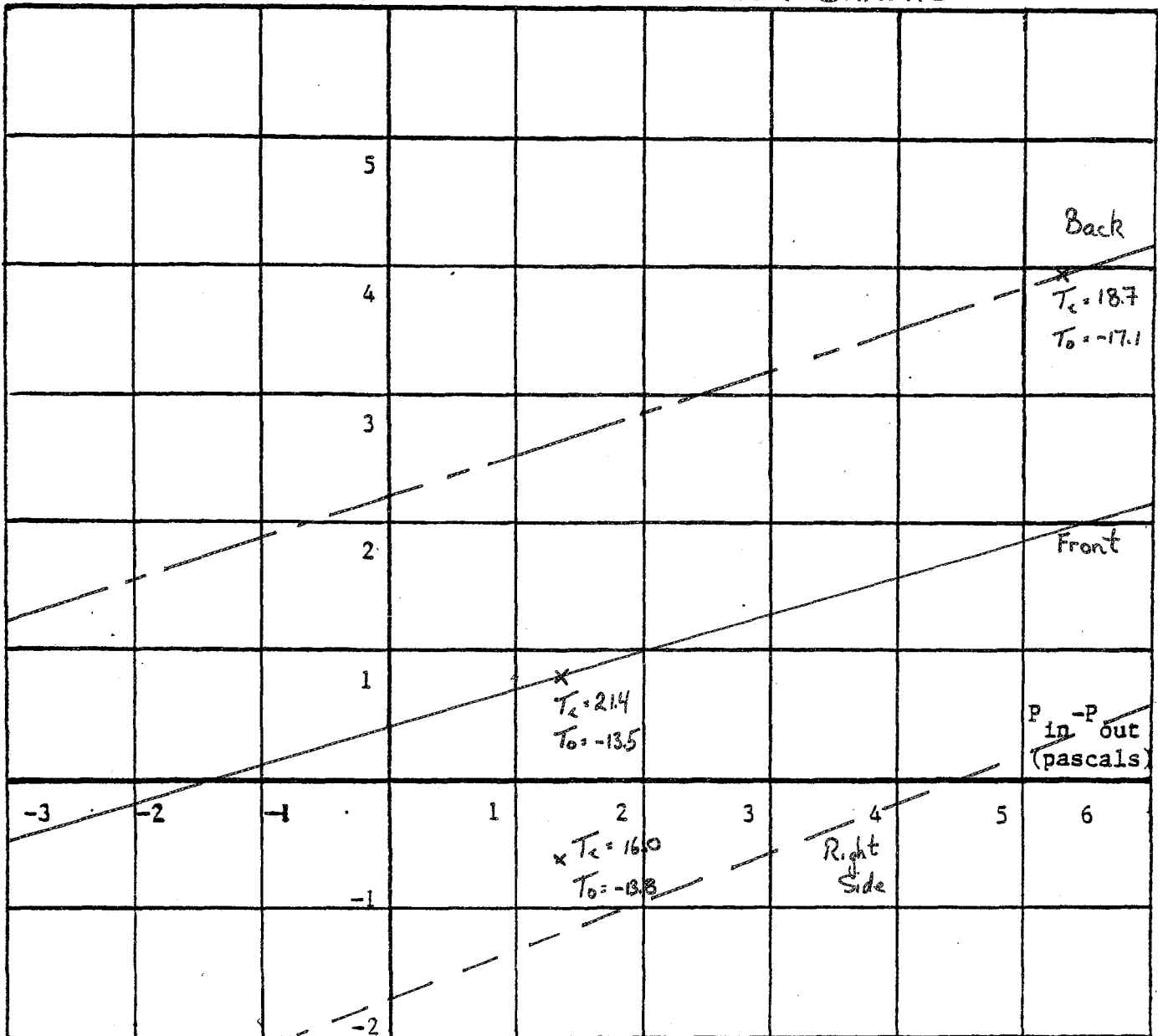
6-31  
**Retrospectors**

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>3</u>	FRONT <u>0.4</u>	$T_{in} - T_{out}$ <u>+38°C</u>
MODEL <u>REGENT</u>	BACK <u>2.2</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>DEC 09-82</u>	RIGHT SIDE <u>-1.7</u>	WIND SPEED <u>26</u> Km/h
TIME <u>10:00-11:30</u>	LEFT SIDE <u>NIA</u>	WIND DIRECTION <u>N.W</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>S</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)

NOTE: ADDITIONAL POINTS OFF-SCALE USED FOR GRAPHS



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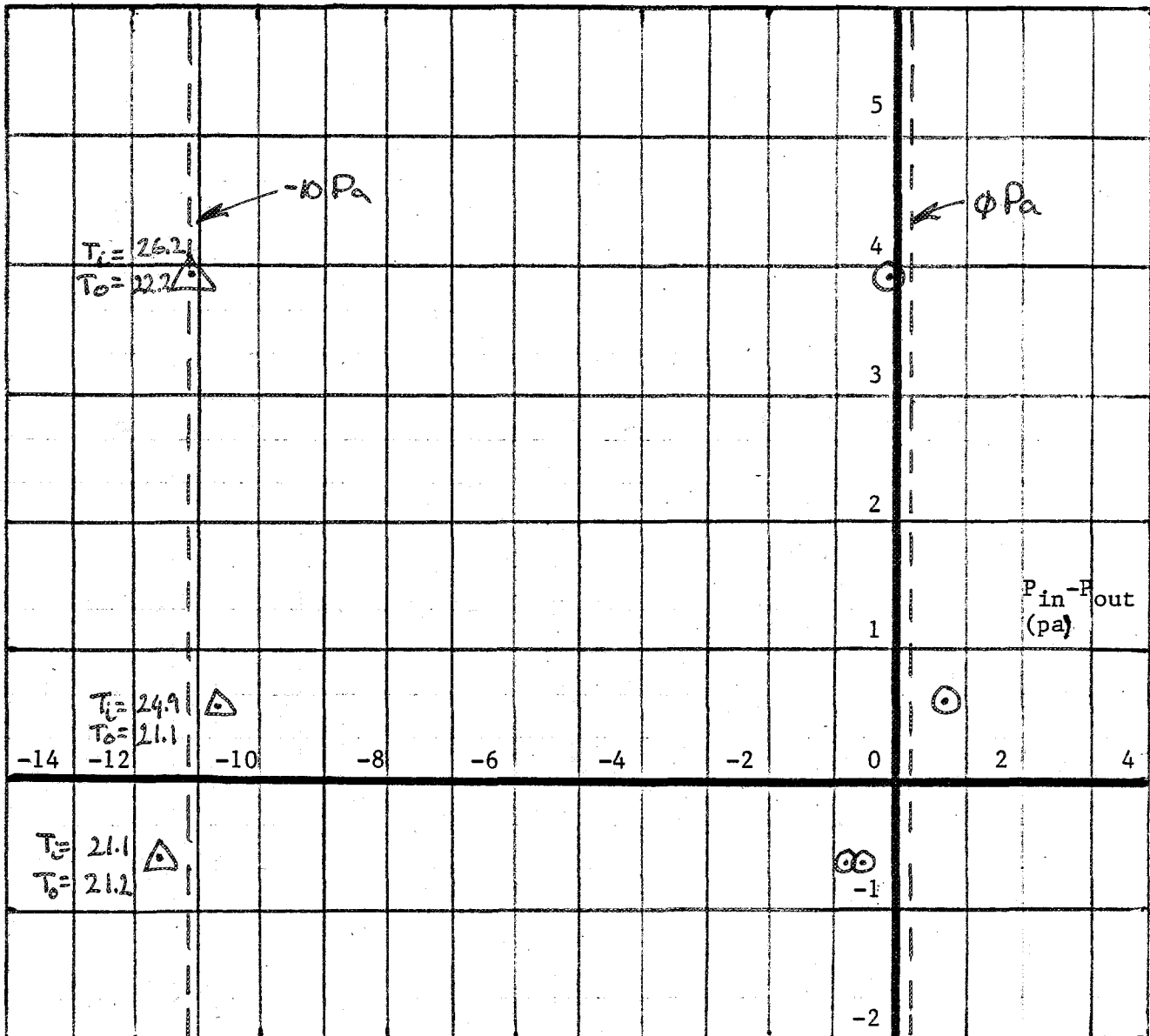
6-32

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>4</u>	FRONT _____	$T_{in} - T_{out}$ <u>4°C</u>
MODEL <u>REGENT</u>	BACK <u>N.A.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 29/82</u>	RIGHT SIDE _____	WIND SPEED <u>8</u> Km/h
TIME <u>11:30-12:00</u>	LEFT SIDE _____	WIND DIRECTION <u>N.E.</u>
TECHNICIAN <u>EUGLER/SESON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)

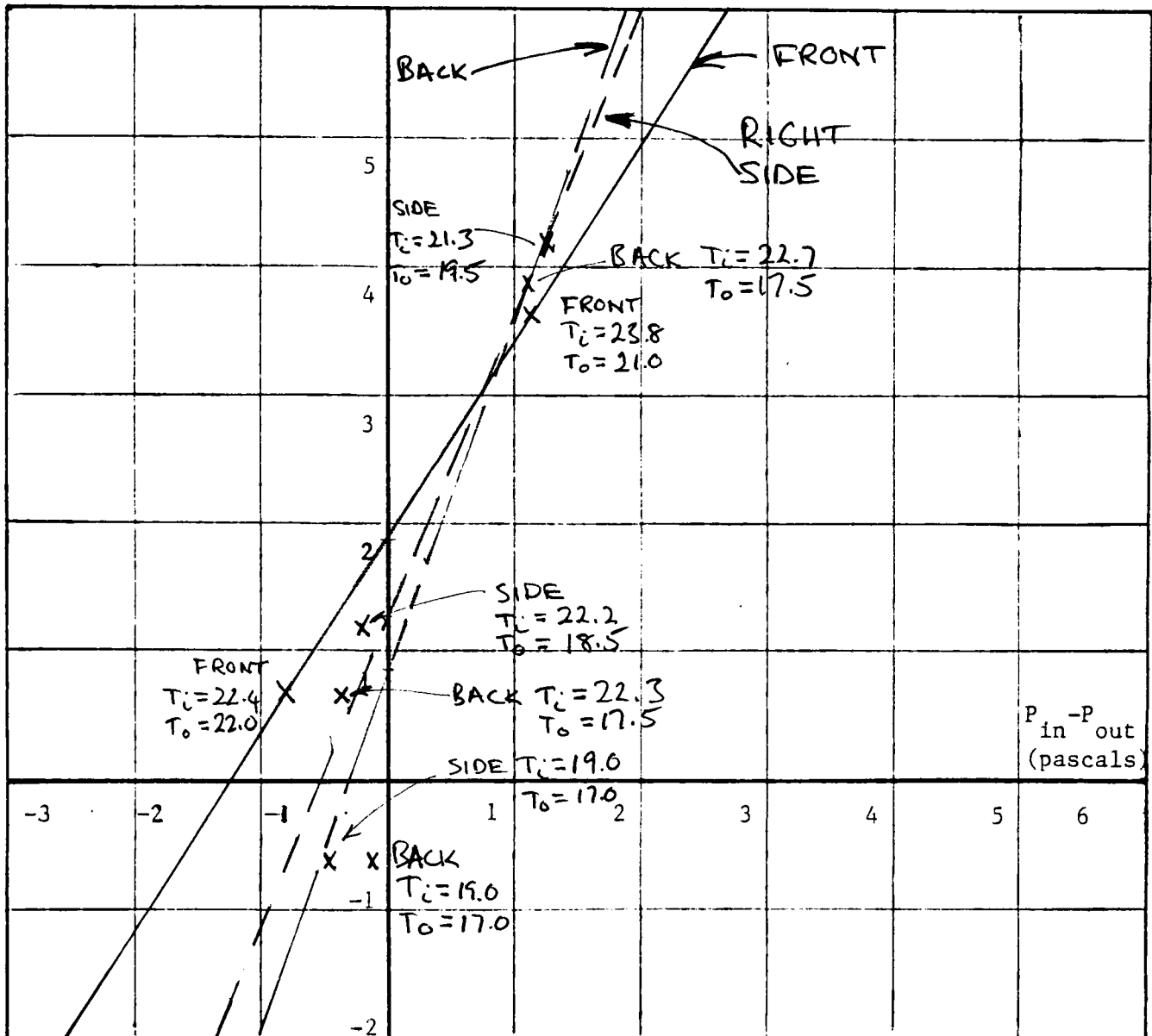


# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>4</u>	FRONT <u>1.8 m</u>	$T_{in} - T_{out}$ <u>3°C</u>
MODEL <u>REGENT</u>	BACK <u>0.8 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 5/82</u>	RIGHT SIDE <u>1.3 m</u>	WIND SPEED <u>9</u> Km/h
TIME <u>13:45-14:25</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>S</u>
TECHNICIAN <u>EWGLER / PASQUIN</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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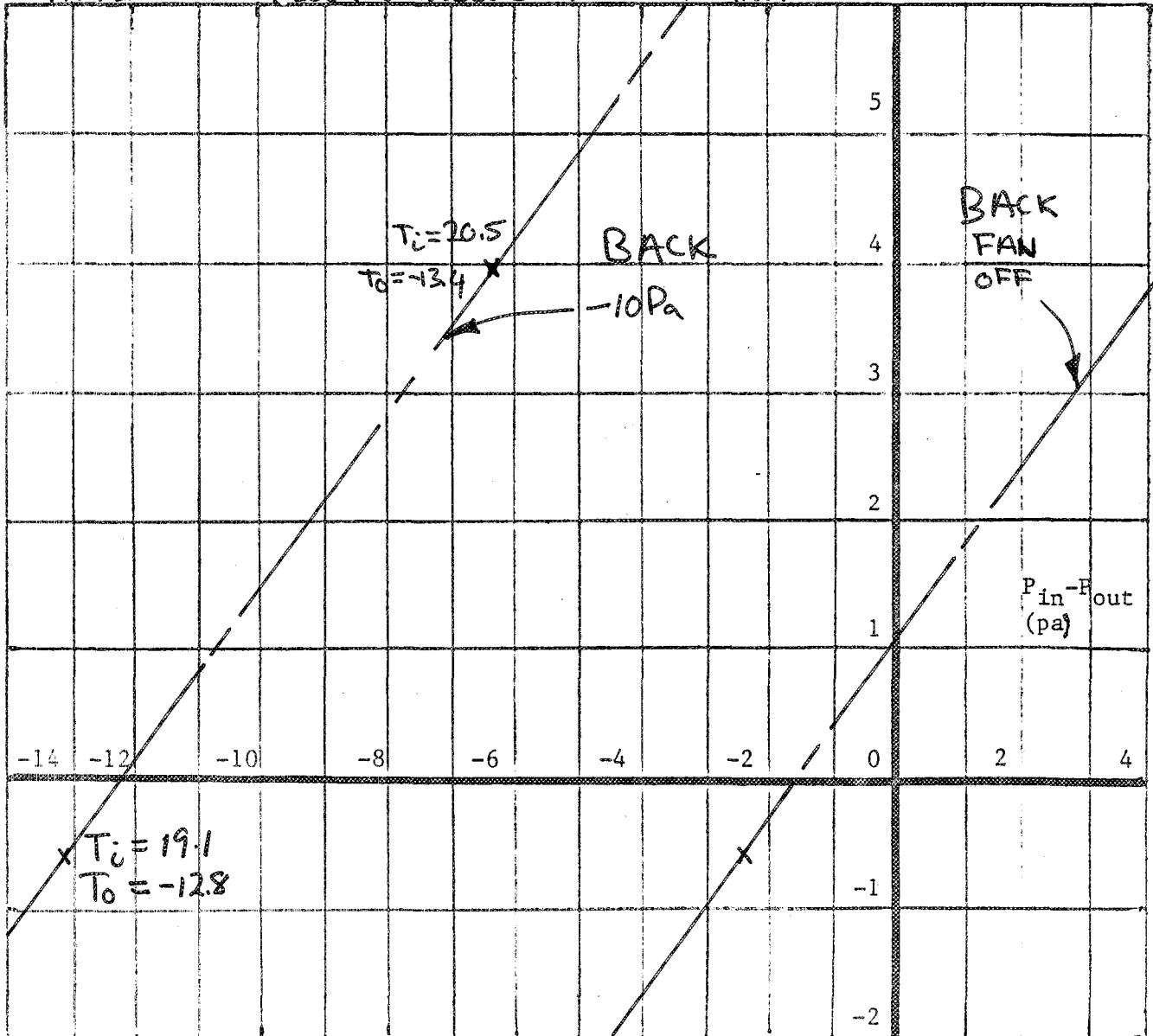
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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>4</u>	FRONT _____	$T_{in} - T_{out}$ <u>32°C</u>
MODEL <u>REGENT</u>	BACK <u>11m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JAN. 20/83</u>	RIGHT SIDE _____	WIND SPEED <u>8</u> Km/h
TIME <u>17:10-17:30</u>	LEFT SIDE _____	WIND DIRECTION <u>W</u>
TECHNICIAN <u>EUGLER KINGA</u>	FRONT OF HOUSE FACES SW	

HEIGHT ABOVE FOUNDATION WALL (METERS)

NOTE: FIRST FLOOR WINDOWS FROZEN SHUT



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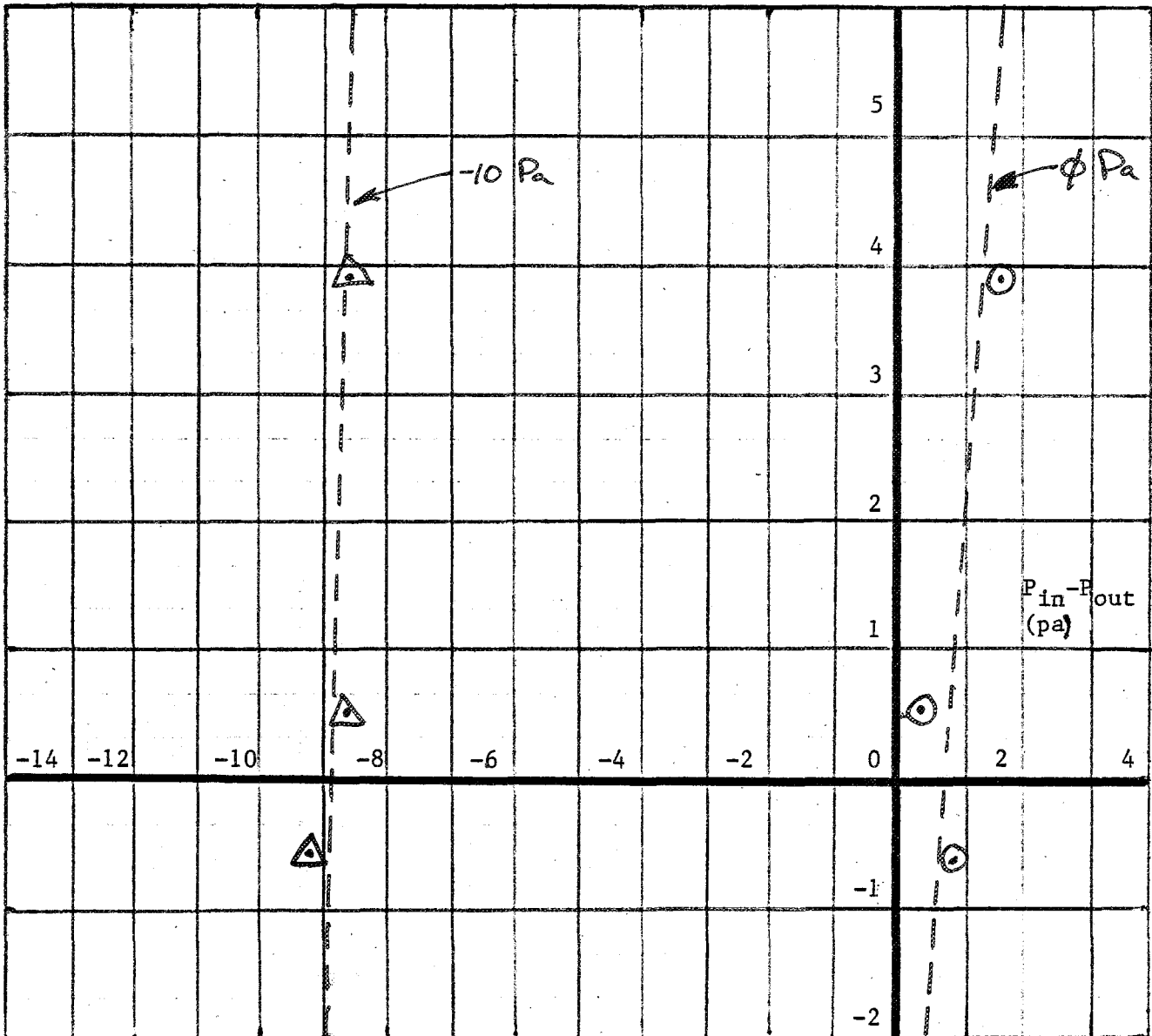
6-35

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>5</u>	FRONT _____	$T_{in} - T_{out}$ <u>5°C</u>
MODEL <u>REGENT</u>	BACK <u>~3m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 4/82</u>	RIGHT SIDE _____	WIND SPEED <u>12</u> Km/h
TIME <u>10:00-10:55</u>	LEFT SIDE _____	WIND DIRECTION <u>E</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)

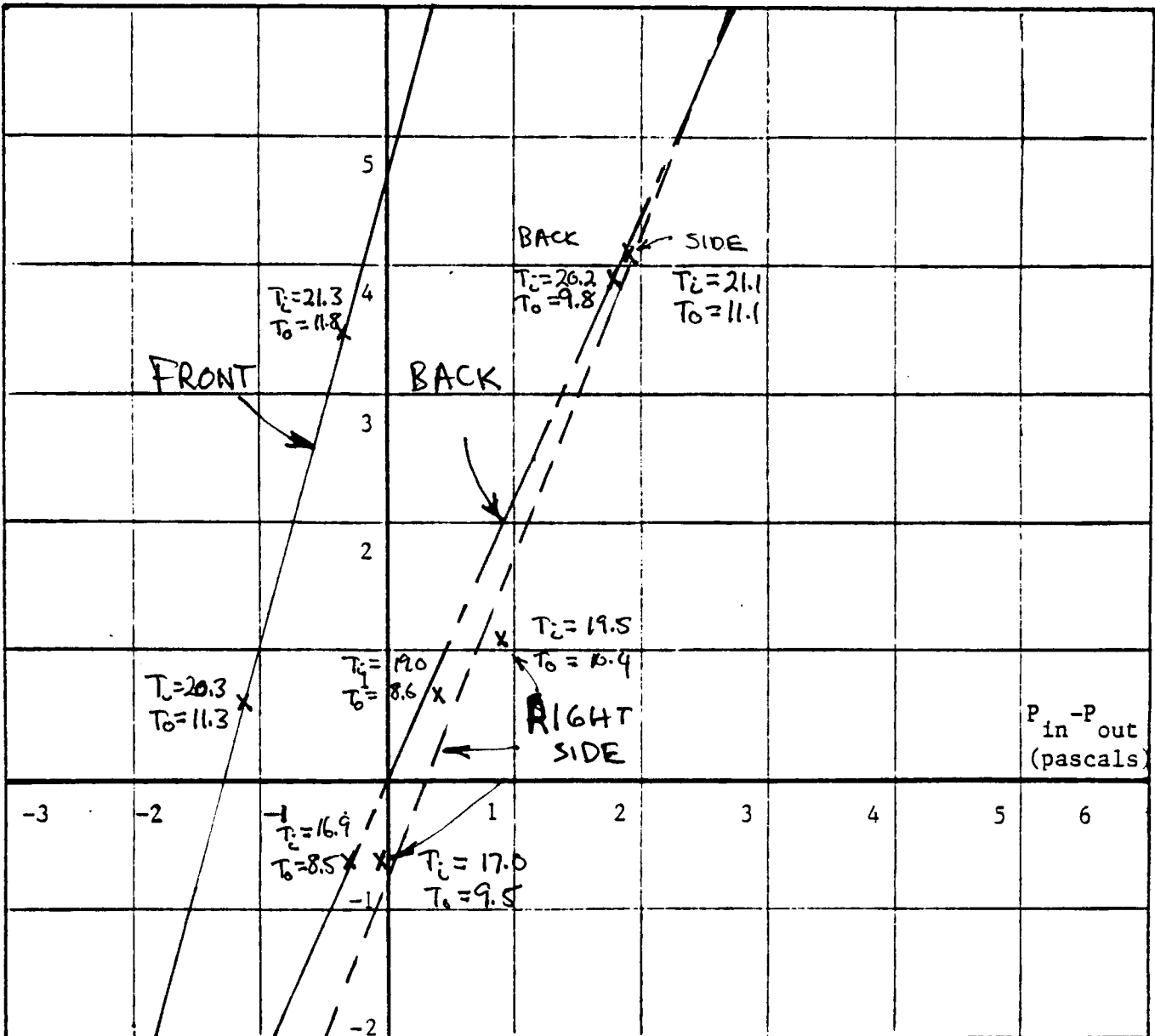


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>5</u>	FRONT <u>4.7m.</u>	$T_{in} - T_{out}$ <u>9°C</u>
MODEL <u>REGENT</u>	BACK <u>0.0m.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT 5 1982</u>	RIGHT SIDE <u>-0.7m</u>	WIND SPEED <u>0</u> Km/h
TIME <u>9:40-10:10</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>-</u>
TECHNICIAN <u>EUGLER/PASQUINI</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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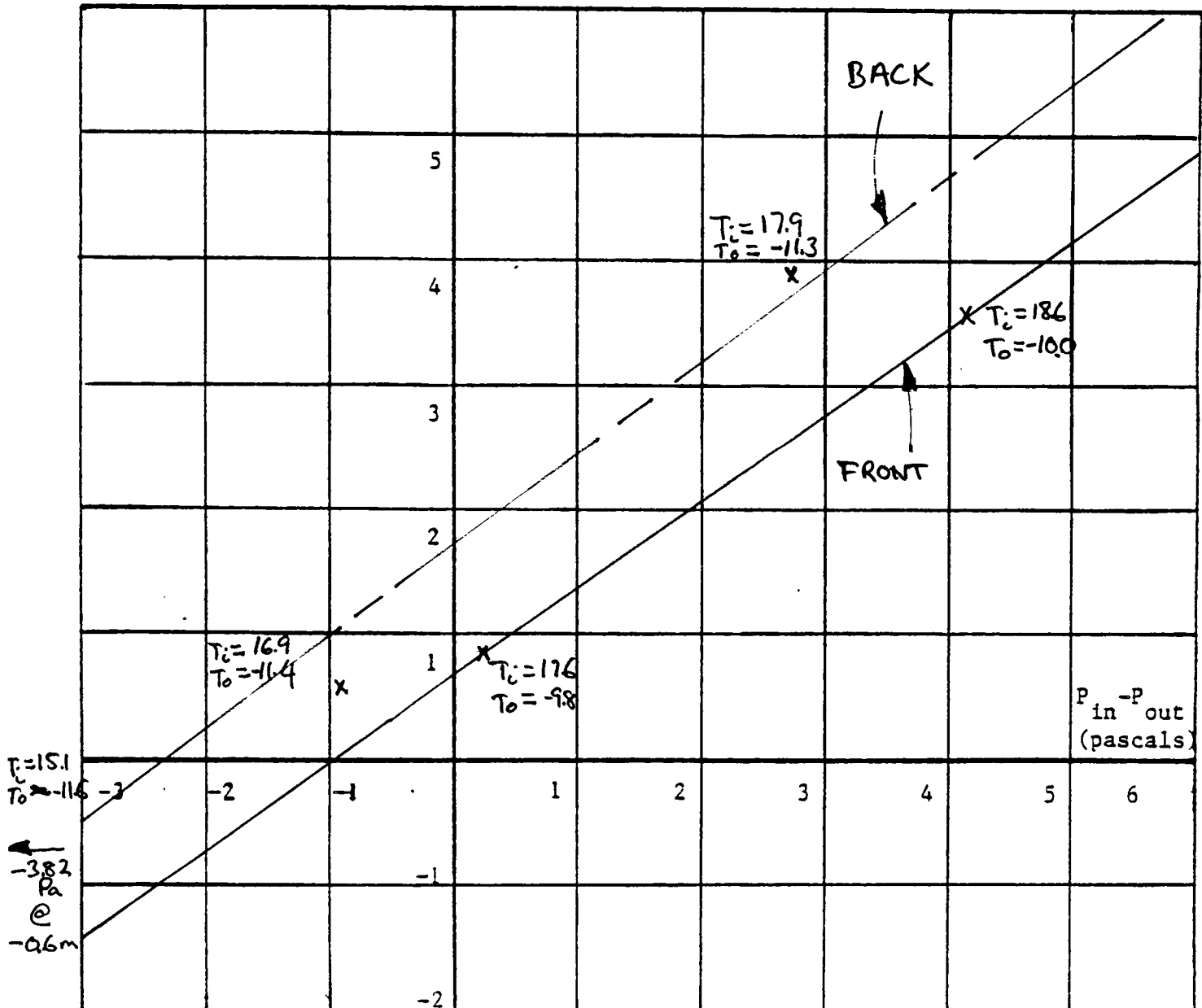
6-37

# Regentors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>5</u>	FRONT <u>0.7</u>	$T_{in} - T_{out}$ <u>29.0°C</u>
MODEL <u>REGENT</u>	BACK <u>1.7</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN. 27/83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>8</u> Km/h
TIME <u>10:00-10:25</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>N.W.</u>
TECHNICIAN <u>ENGGERISINHA</u>	FRONT OF HOUSE FACES <u>SE</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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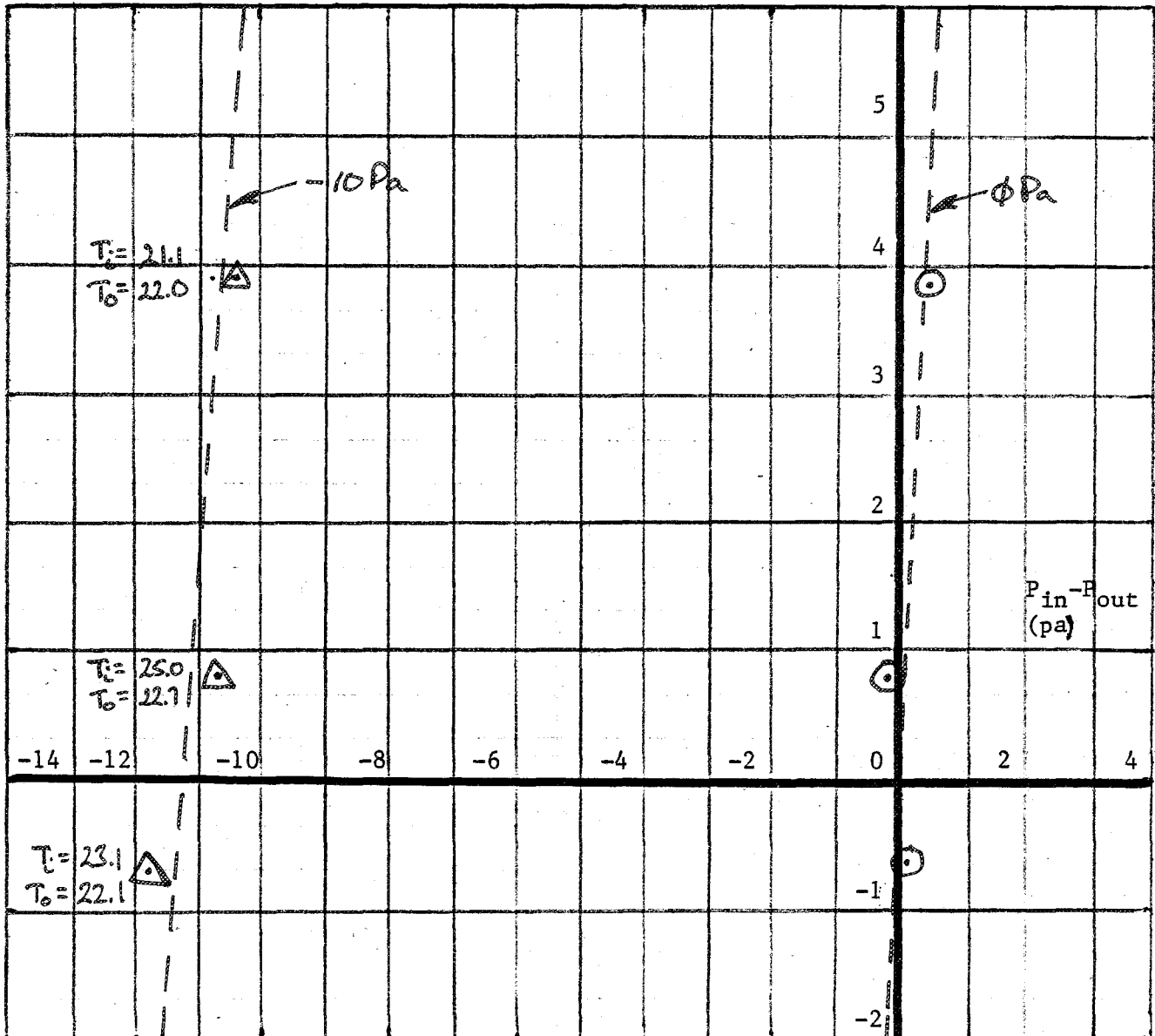
6-38

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>6</u>	FRONT _____	$T_{in} - T_{out}$ <u>-1°C</u>
MODEL <u>REGENT</u>	BACK <u>≈ 0 m.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 17/82</u>	RIGHT SIDE _____	WIND SPEED <u>5</u> Km/h
TIME <u>12:15-13:40</u>	LEFT SIDE _____	WIND DIRECTION <u>SW.</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



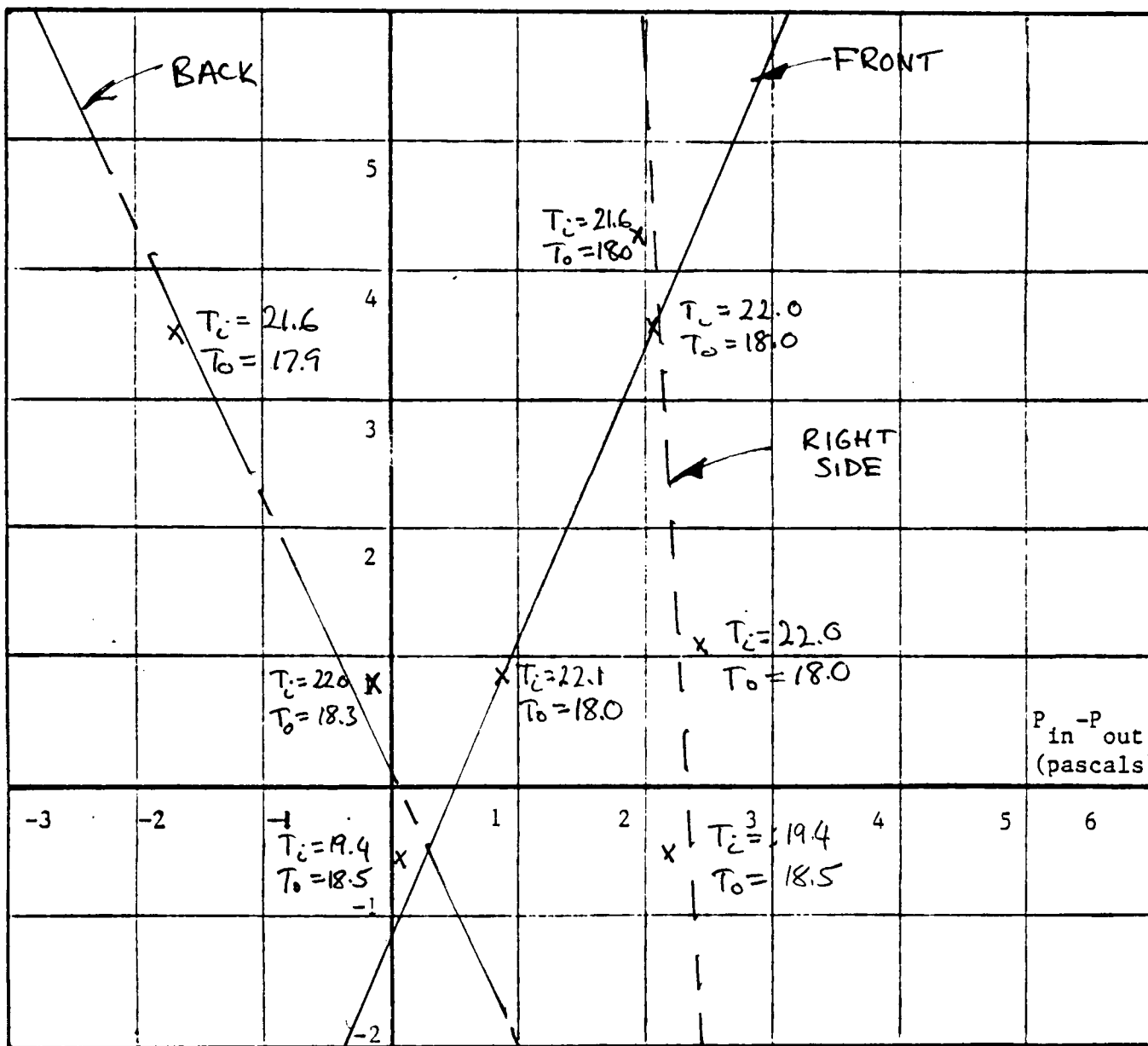


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>6</u>	FRONT <u>-1.3m</u>	$T_{in} - T_{out}$ <u>3°C</u>
MODEL <u>REGENT</u>	BACK <u>0.1m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 20/82</u>	RIGHT SIDE <u>N.A</u>	WIND SPEED <u>8</u> Km/h
TIME <u>14:30-15:05</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SE</u>
TECHNICIAN <u>FUGLER/PASQUINI</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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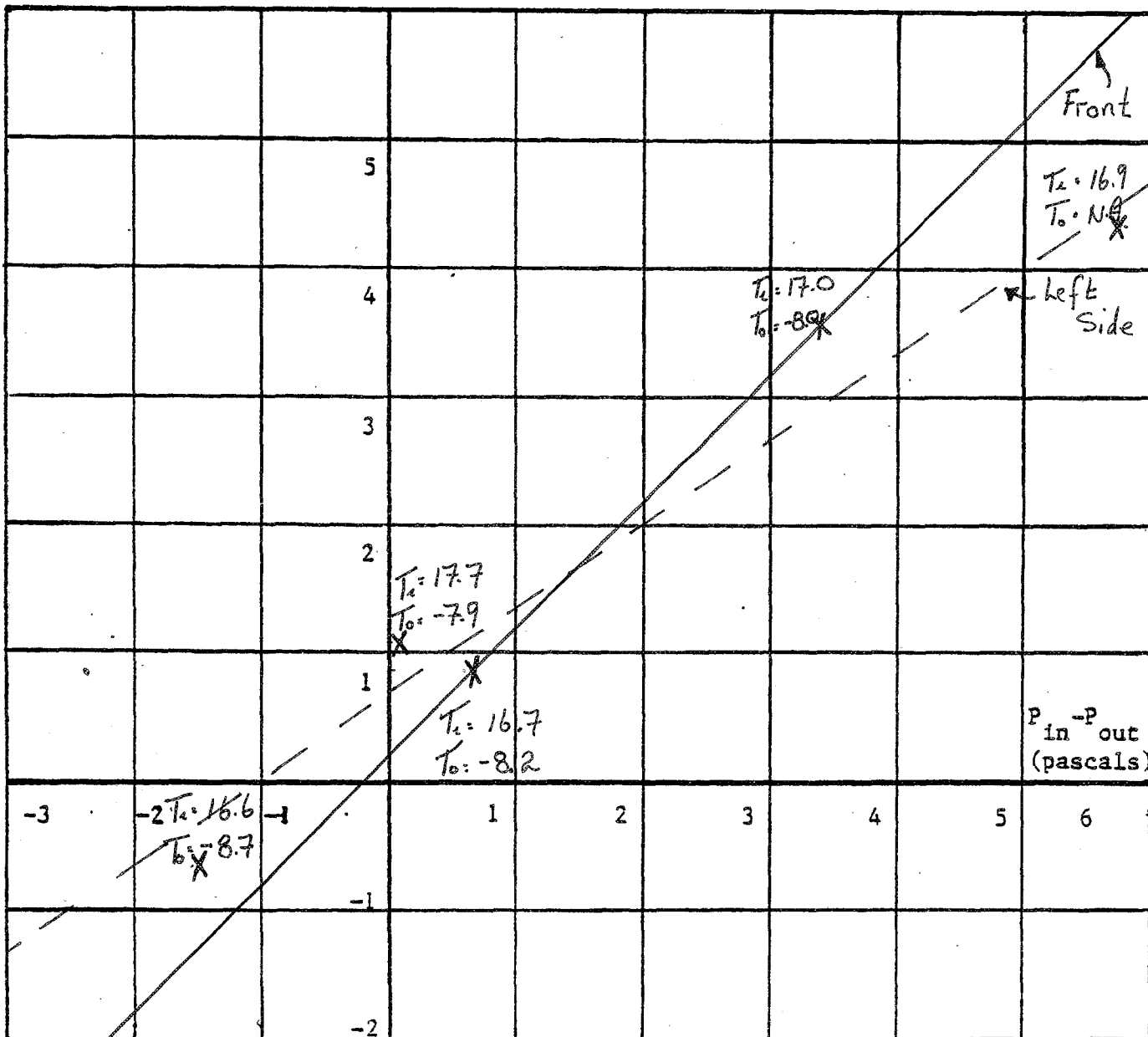
6-40

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>6</u>	FRONT <u>0.20</u>	$T_{in} - T_{out}$ <u>+25.5°C</u>
MODEL <u>REGENT</u>	BACK <u>IND.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 10-83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>17</u> Km/h
TIME <u>09:50-10:25</u>	LEFT SIDE <u>0.70</u>	WIND DIRECTION <u>EAST</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>WEST</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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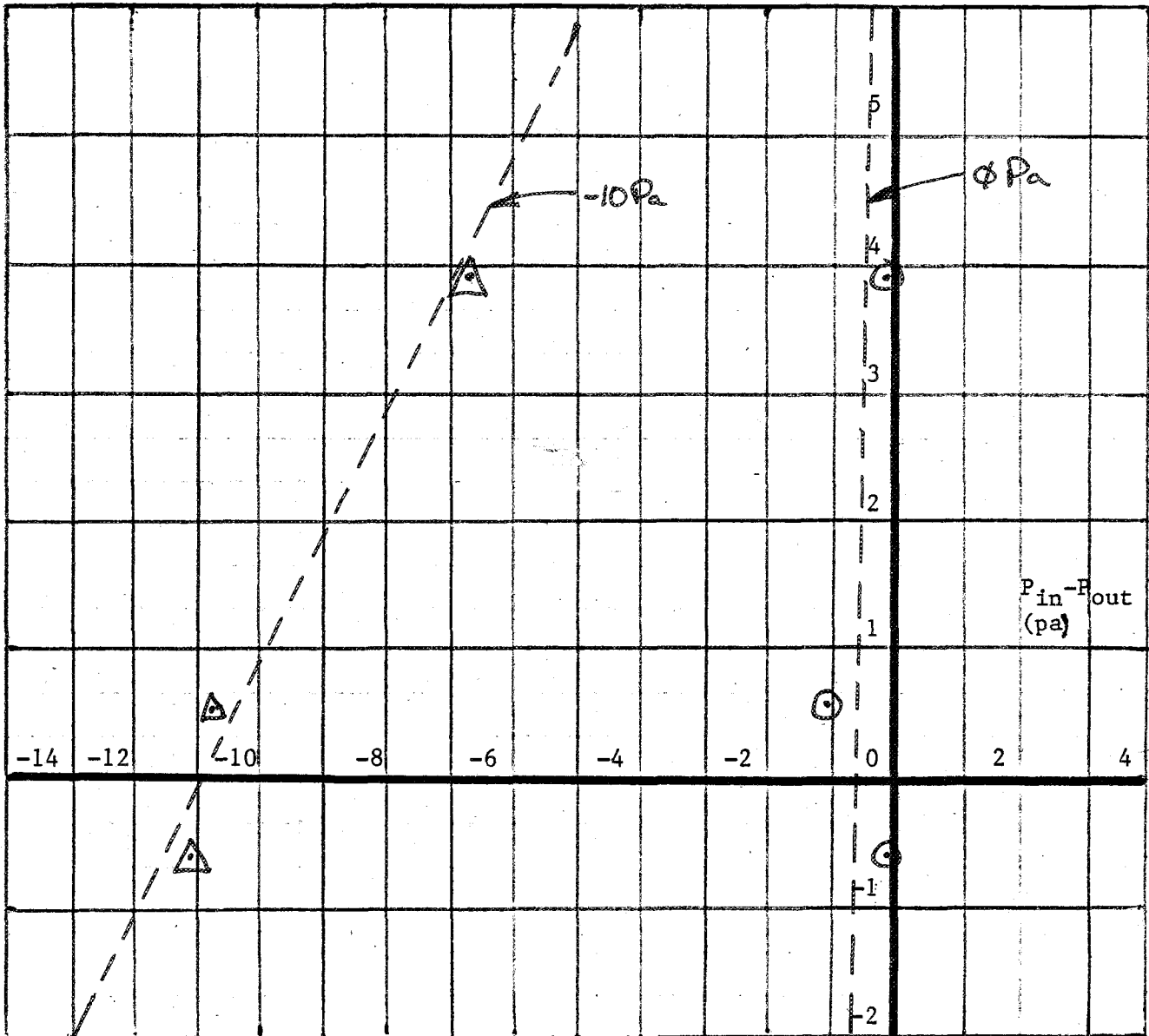
6-41

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>7</u>	FRONT _____	$T_{in} - T_{out}$ <u>1°C</u>
MODEL <u>REGENT</u>	BACK <u>N.A.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 8/82</u>	RIGHT SIDE _____	WIND SPEED <u>8</u> Km/h
TIME <u>9:50-10:30</u>	LEFT SIDE _____	WIND DIRECTION <u>N</u>
TECHNICIAN <u>FUGLER/SEYON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)

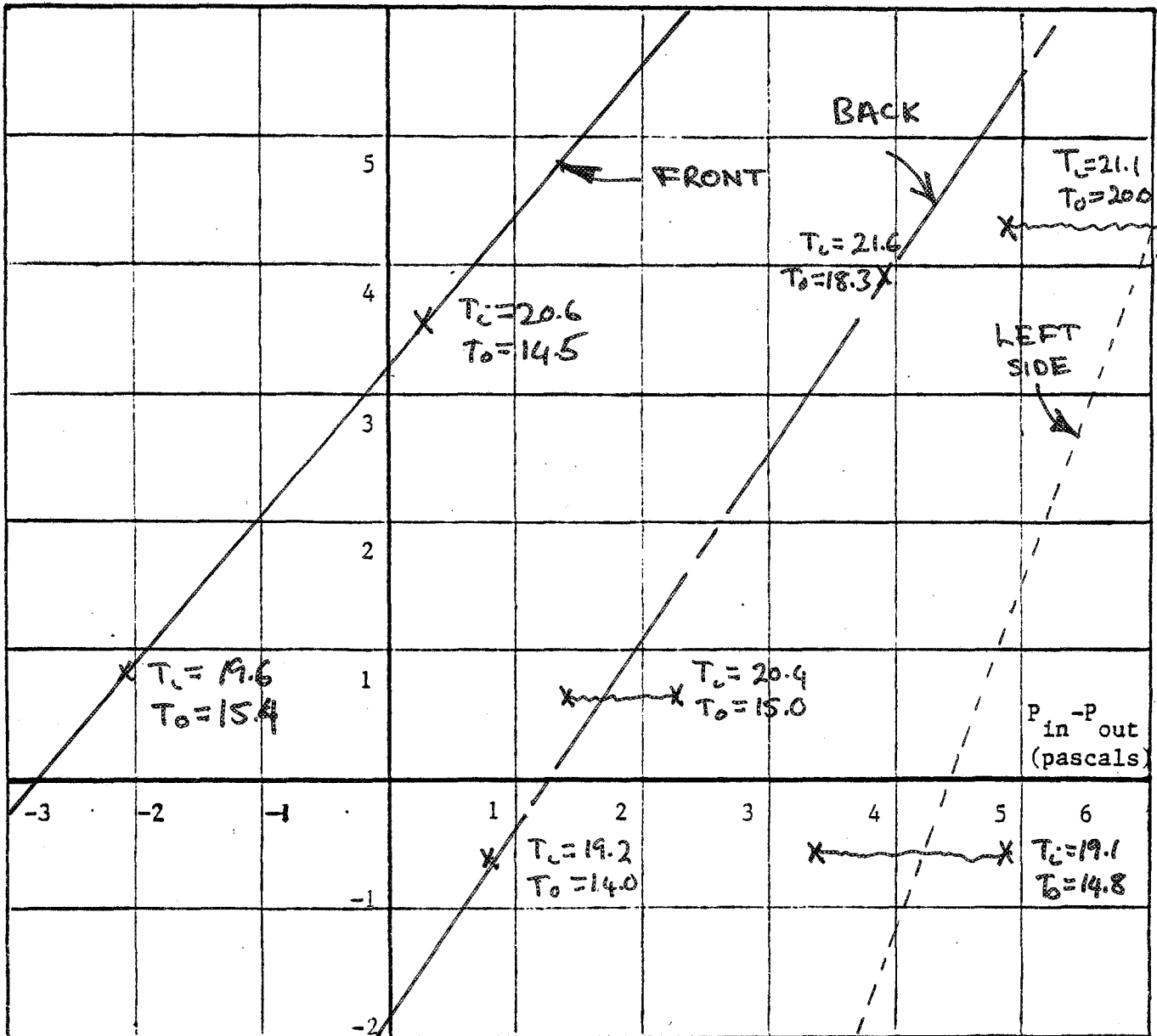


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>7</u>	FRONT <u>3.2m</u>	$T_{in} - T_{out}$ <u>4.0°C</u>
MODEL <u>REGENT</u>	BACK <u>-1.8m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT 20/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>20</u> Km/h
TIME <u>10:15-11:10</u>	LEFT SIDE <u>NA</u>	WIND DIRECTION <u>S</u>
TECHNICIAN <u>FUGLER/SINGA</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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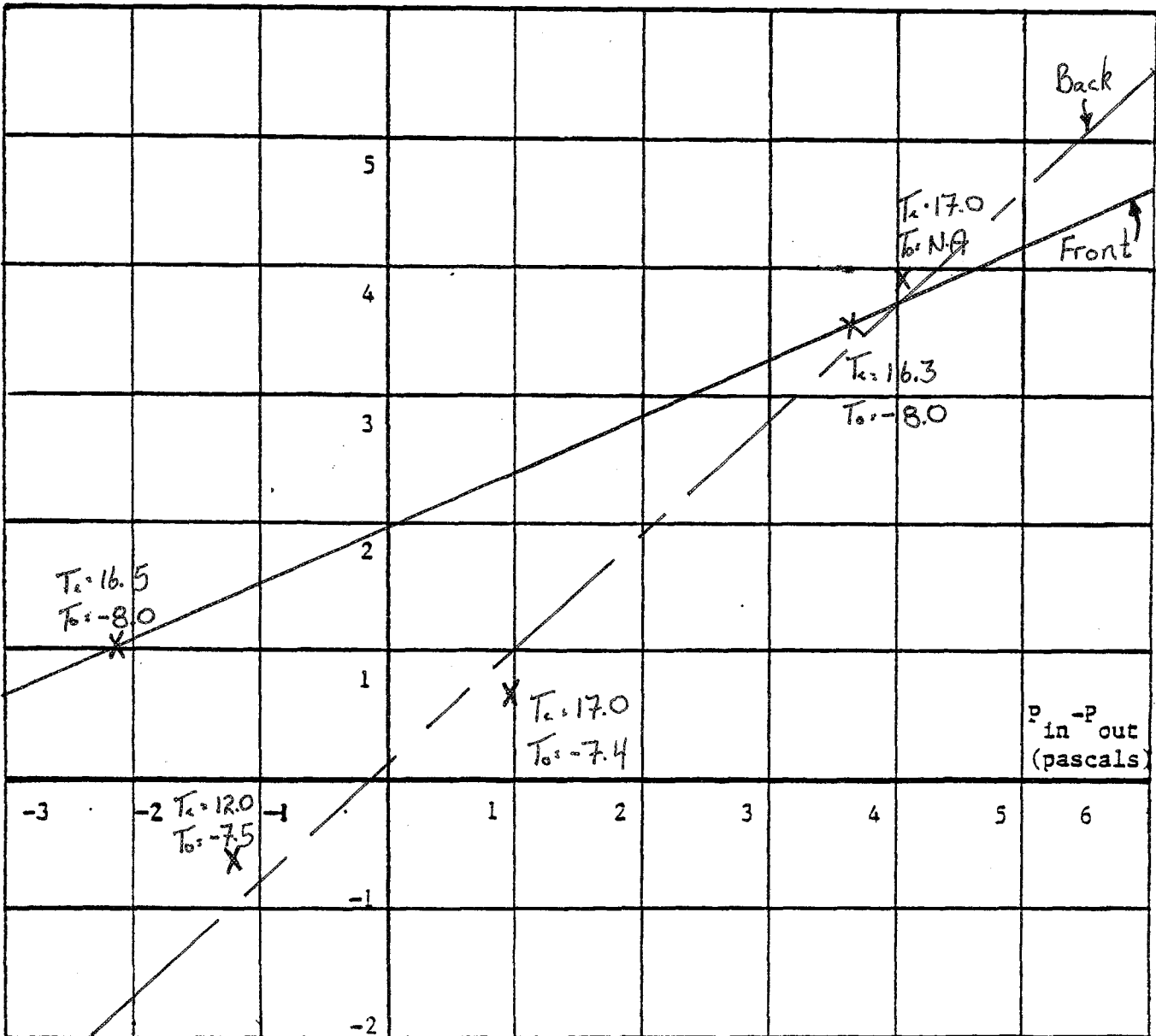
6-43

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>7</u>	FRONT <u>1.95</u>	$T_{in} - T_{out}$ <u>+25.0°C</u>
MODEL <u>REGENT</u>	BACK <u>0.10</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 27-83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>15</u> Km/h
TIME <u>13:20-13:40</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>N.W</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>West</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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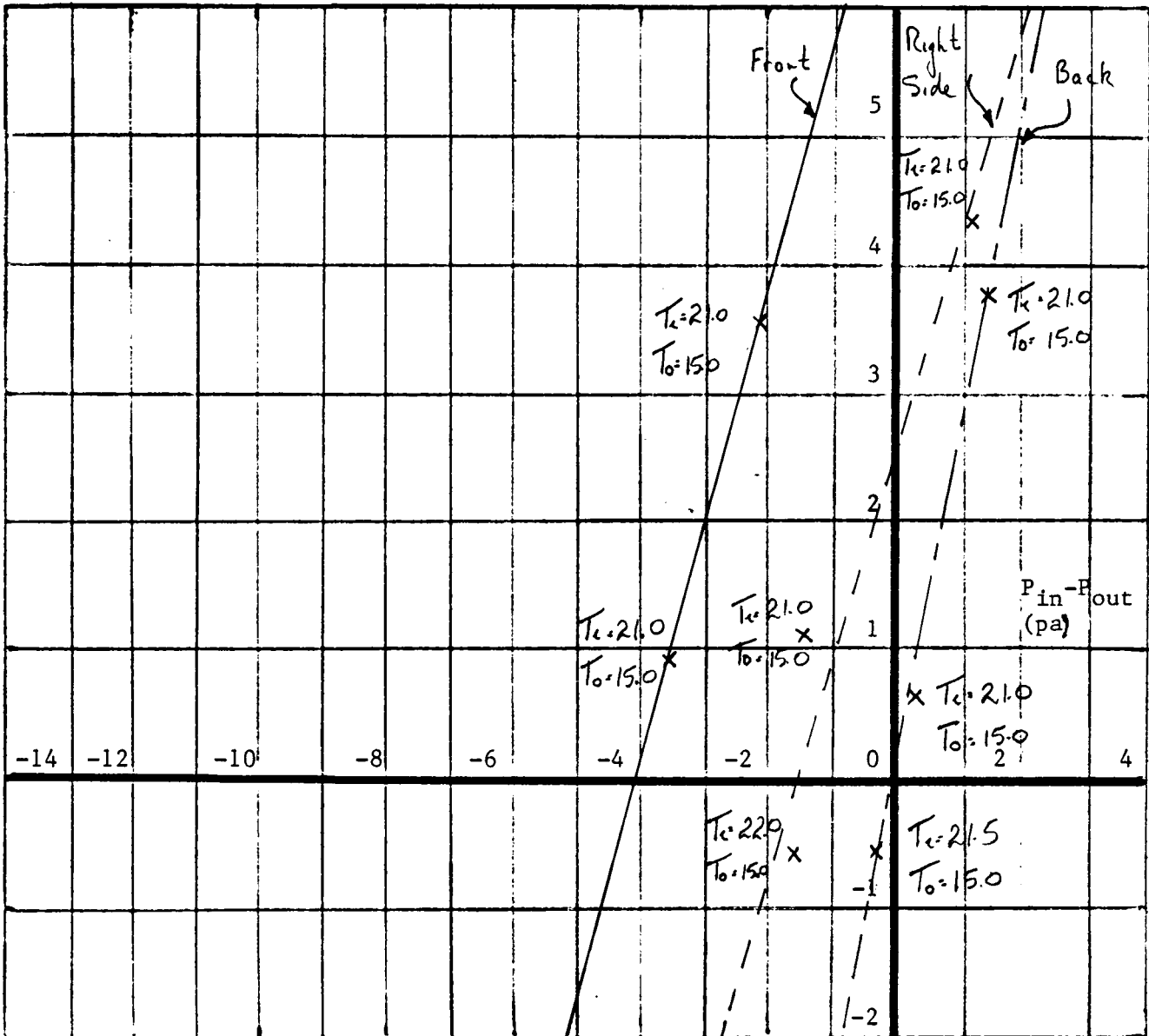
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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>8</u>	— FRONT <u>≈ 7.0m</u>	$T_{in} - T_{out}$ <u>+5°C</u>
MODEL <u>REGENT</u>	- - BACK <u>0.0m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 28/82</u>	- - RIGHT SIDE <u>2.5m</u>	WIND SPEED <u>18</u> Km/h
TIME <u>15:00 - 15:30</u>	LEFT SIDE <u>—</u>	WIND DIRECTION <u>NW</u>
TECHNICIAN <u>FUGLER/PASQ.</u>		

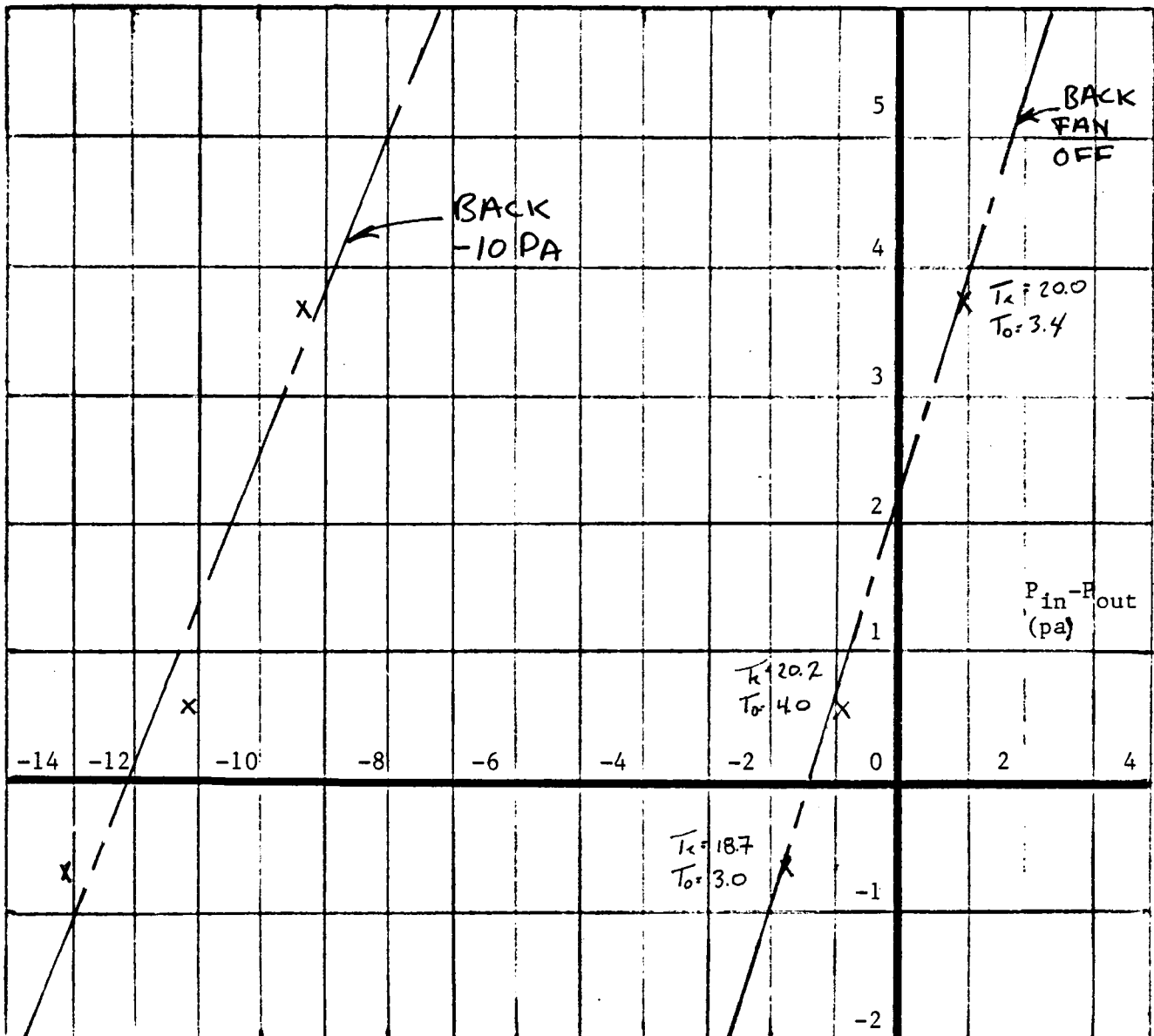
HEIGHT ABOVE FOUNDATION WALL (METERS)



# RETROSPECTORS

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>8</u>	FRONT _____	$T_{in} - T_{out}$ <u>16°C</u>
MODEL <u>REGENT</u>	BACK <u>2.2m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 11/83</u>	RIGHT SIDE _____	WIND SPEED <u>15</u> Km/h
TIME <u>14:30 - 15:00</u>	LEFT SIDE _____	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES NE	

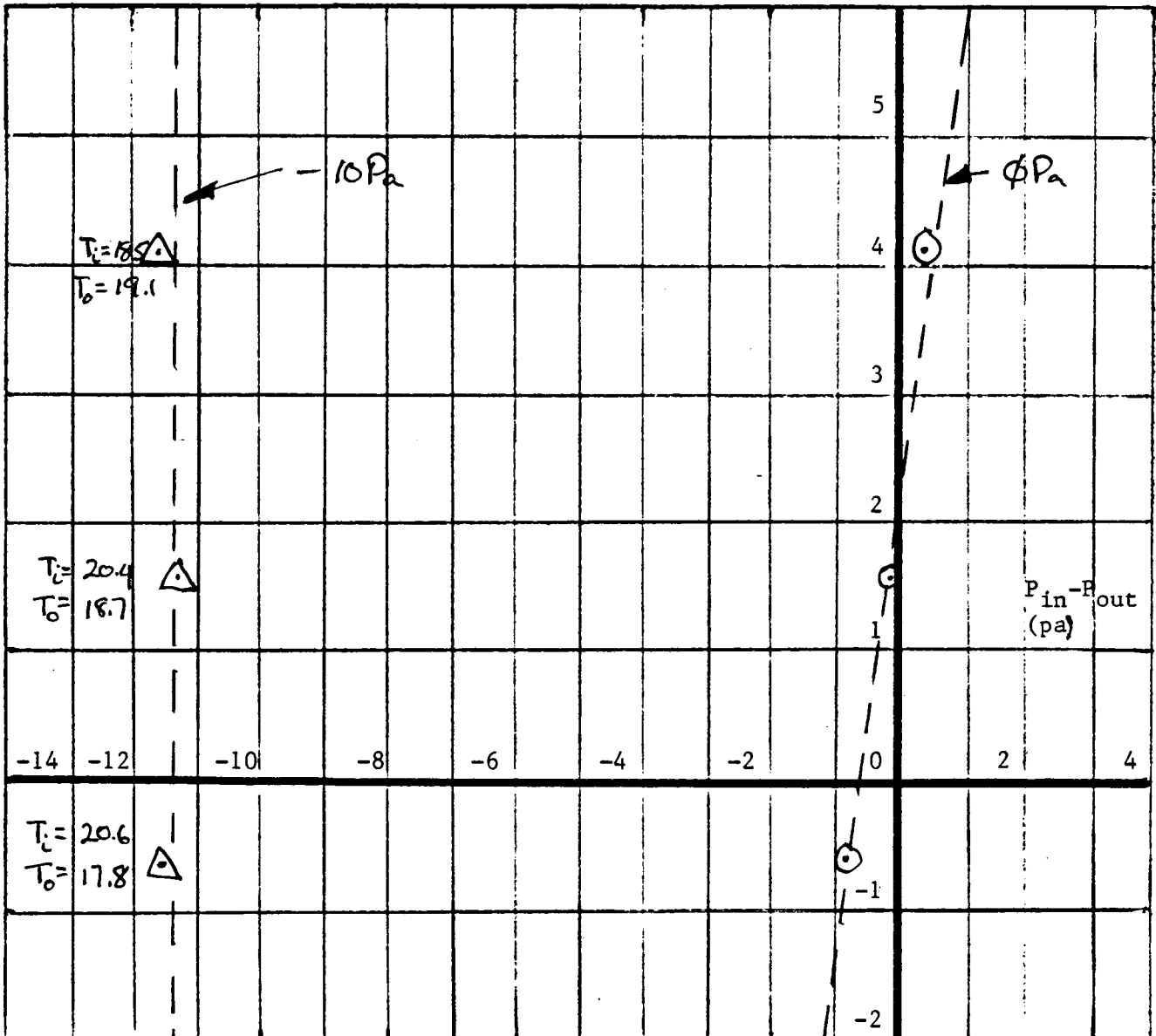
HEIGHT ABOVE FOUNDATION WALL (METERS)



# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>10</u>	FRONT _____	$T_{in} - T_{out}$ <u>2°C</u>
MODEL <u>RUSSET</u>	BACK <u>2m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 15 1982</u>	RIGHT SIDE _____	WIND SPEED <u>11</u> Km/h
TIME <u>10:20 - 10:50</u>	LEFT SIDE _____	WIND DIRECTION <u>S</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)





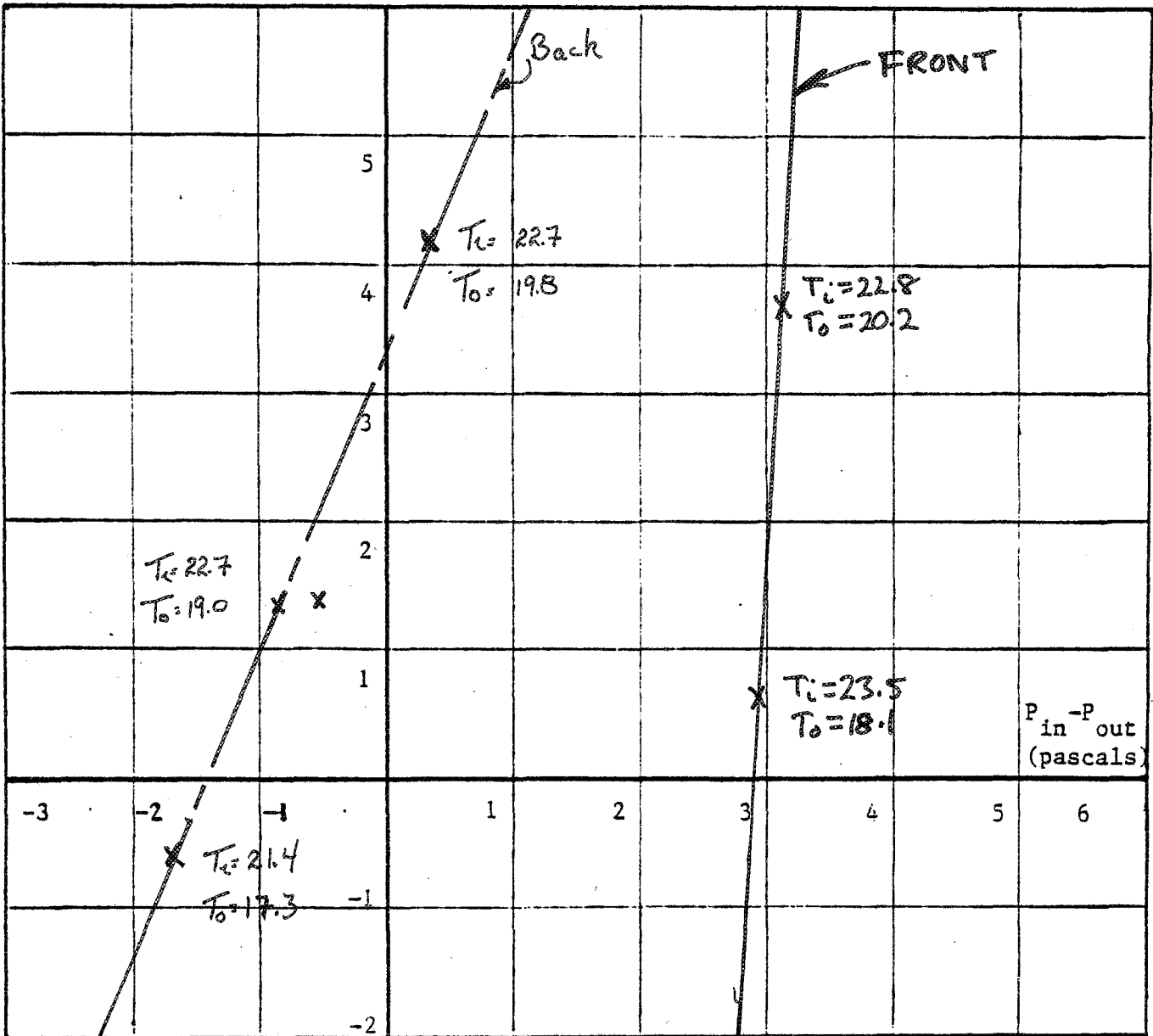
6-47

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>10</u>	FRONT <u>N.A.</u>	$T_{in} - T_{out}$ <u>6°C</u>
MODEL <u>RUSSET</u>	BACK <u>3.2m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 19/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>18</u> Km/h
TIME <u>14:05-14:40</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>S</u>
TECHNICIAN <u>EUGLER/SINHA</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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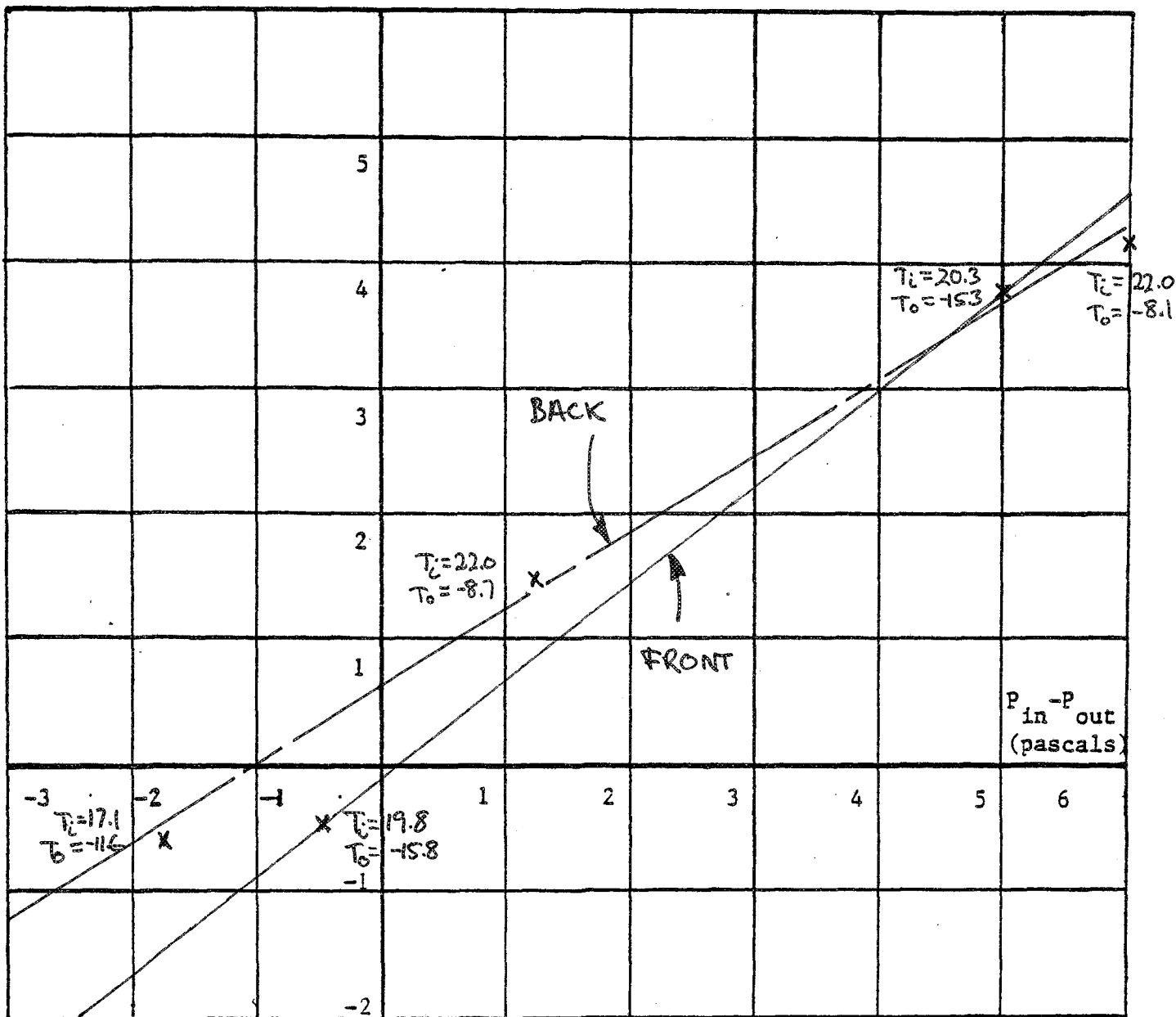
6-48

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>10</u>	FRONT <u>0.0</u>	$T_{in} - T_{out}$ <u>36°C</u>
MODEL <u>RUSSET</u>	BACK <u>0.6</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 26 1983</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>13</u> Km/h
TIME <u>13:20-13:40</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>W</u>
TECHNICIAN <u>FUGLERISINHA</u>	FRONT OF HOUSE FACES <u>N</u>	

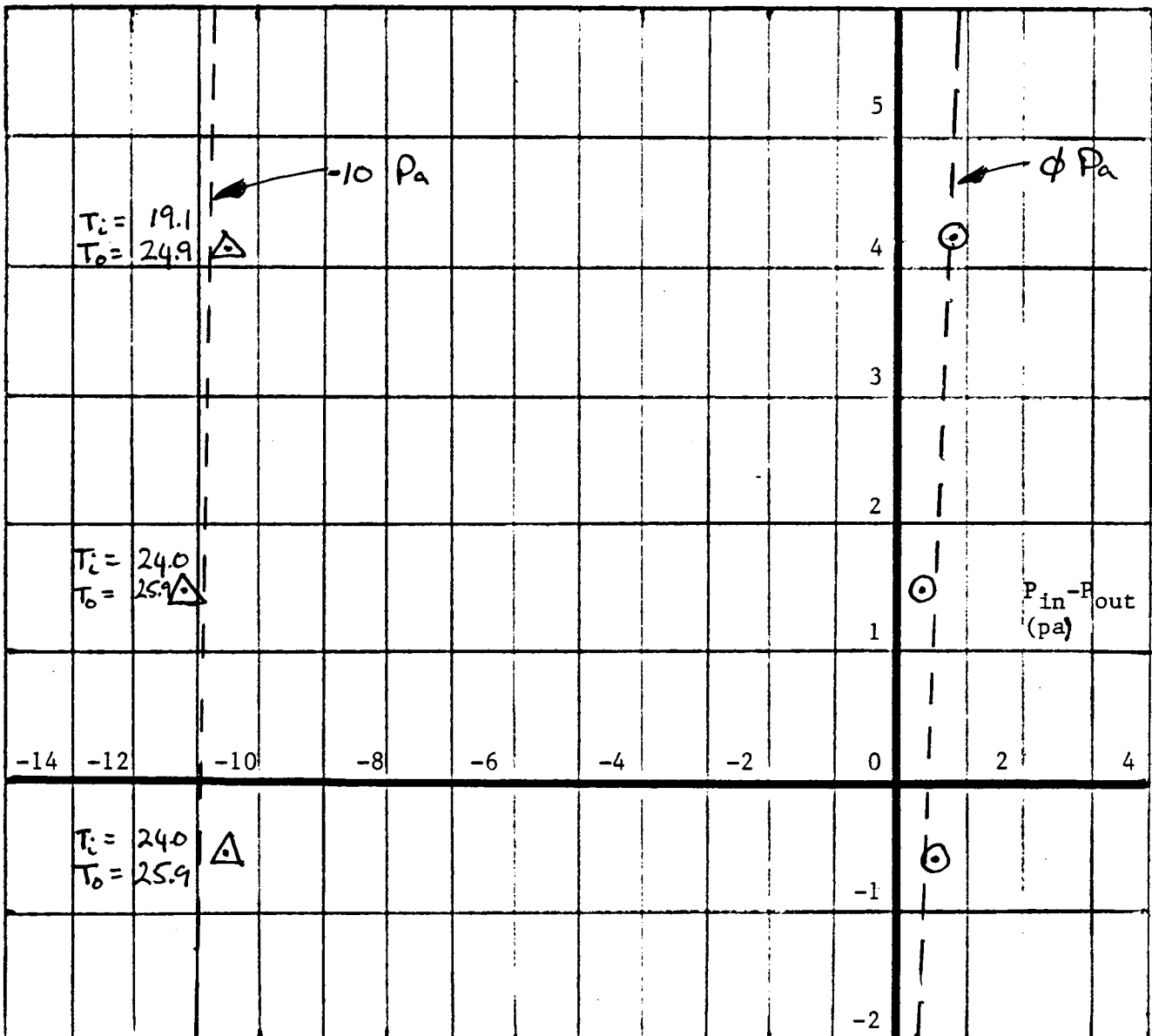
HEIGHT ABOVE FOUNDATION WALL (METRES)



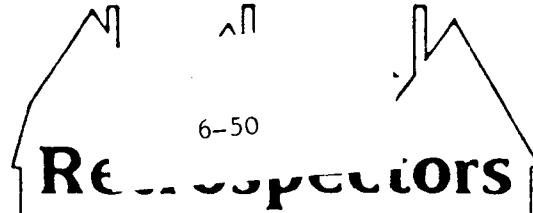
# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>11</u>	FRONT _____	$T_{in} - T_{out}$ <u>-2°C</u>
MODEL <u>RUSSET</u>	BACK <u>≈ -3.5m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 10/82</u>	RIGHT SIDE _____	WIND SPEED <u>22</u> Km/h
TIME <u>14:00-14:55</u>	LEFT SIDE _____	WIND DIRECTION <u>SE.</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



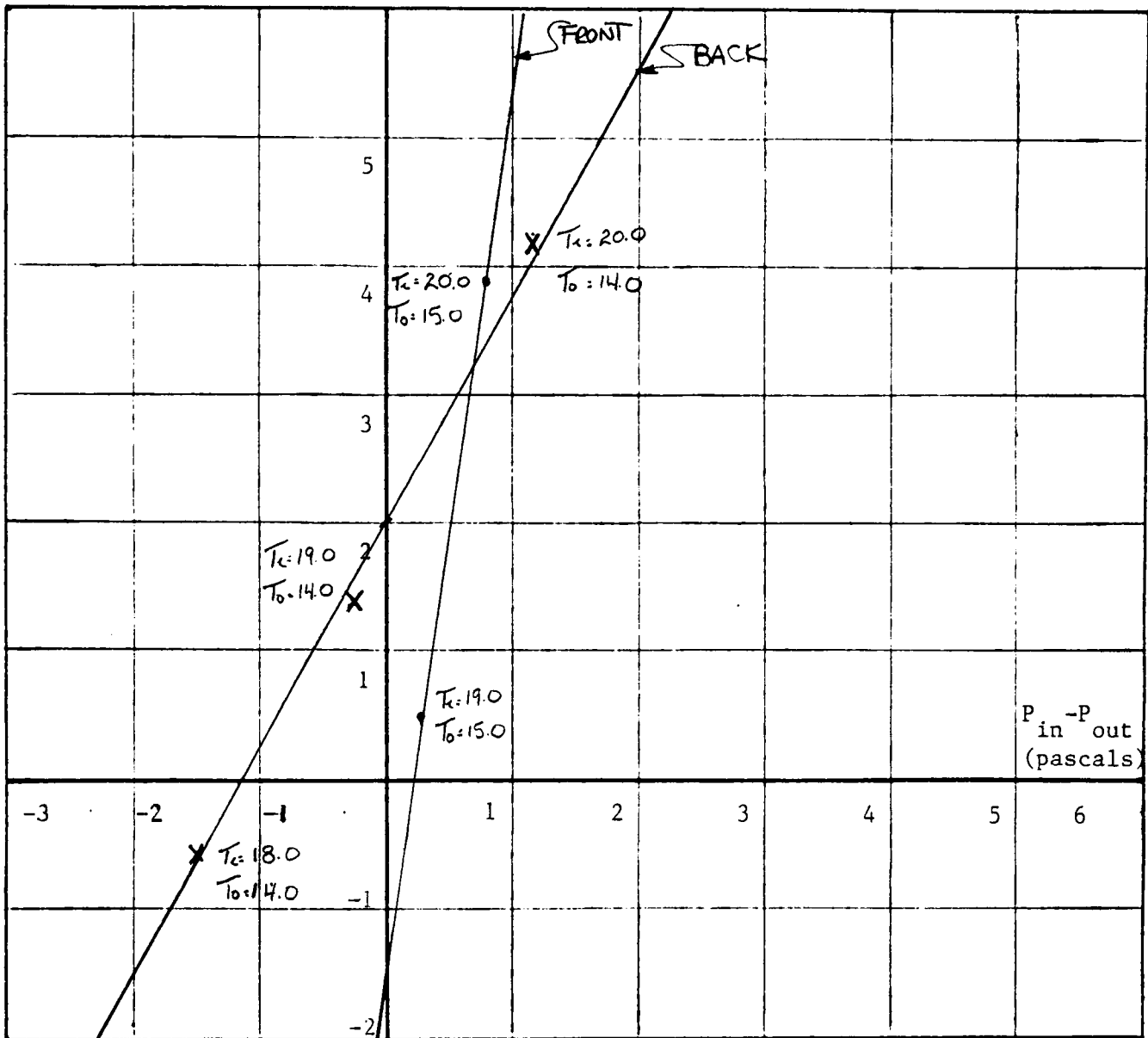
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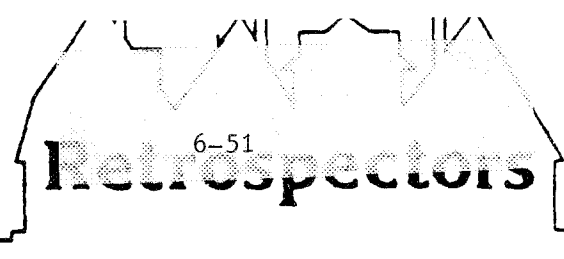
NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>11</u>	FRONT <u>-1.5m</u>	$T_{in} - T_{out}$ <u>+6.0°C</u>
MODEL <u>RUSSET</u>	BACK <u>2.0m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 23/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>12</u> Km/h
TIME <u>9:35-10:00</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>E</u>
TECHNICIAN <u>Fugler/Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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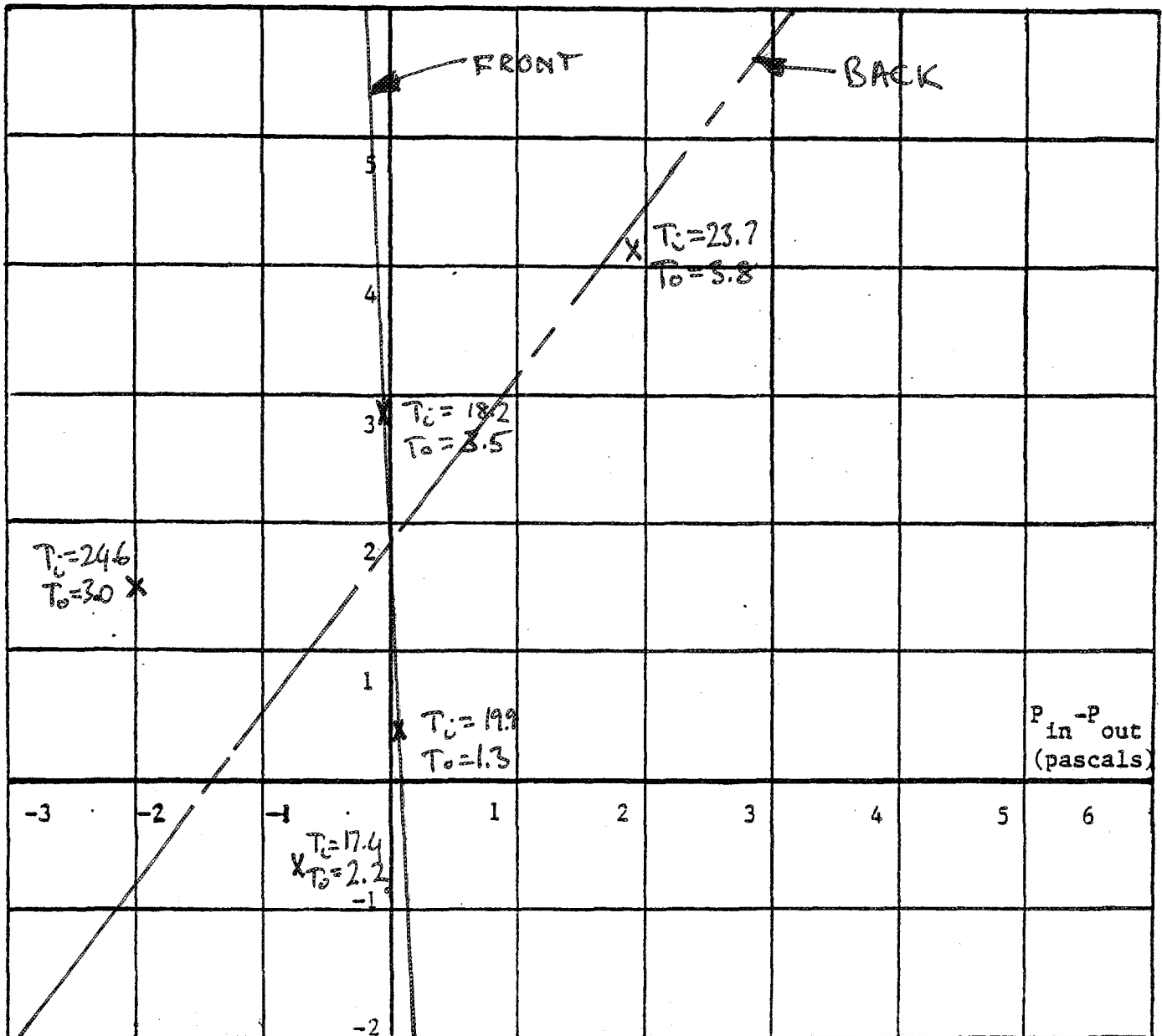


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>11</u>	FRONT <u>≈ 2m</u>	$T_{in} - T_{out}$ <u>18°C</u>
MODEL <u>RUSSET</u>	BACK <u>1.8m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>DEC. 7/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>18</u> Km/h
TIME <u>9:40-11:00</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SW.</u>
TECHNICIAN <u>SINHA/FUGLEA</u>	FRONT OF HOUSE FACES <u>SSE</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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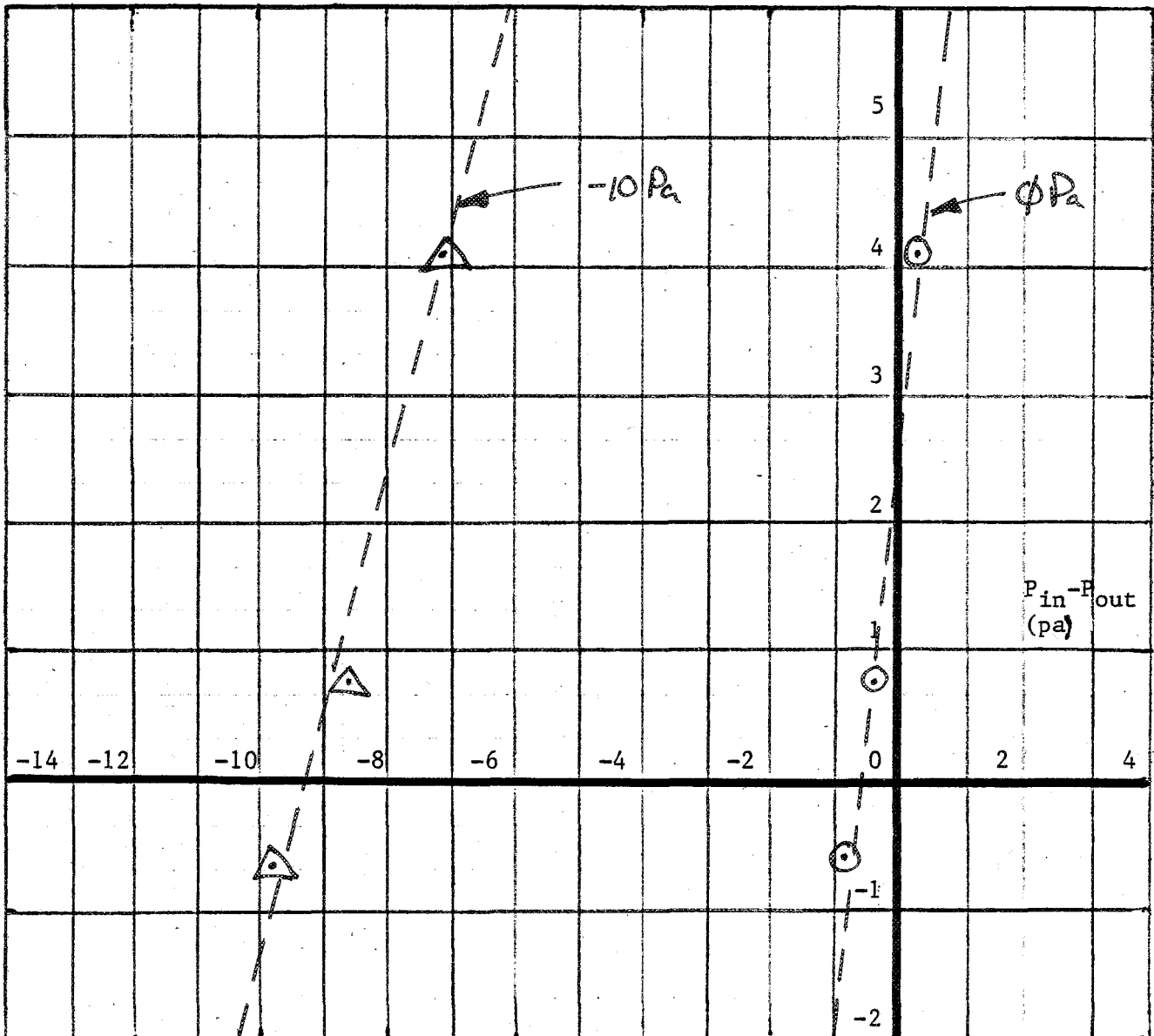
6-52

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>12</u>	FRONT _____	$T_{in} - T_{out}$ <u>6°C</u>
MODEL <u>RUSSET</u>	BACK <u>2.5m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JUNE 2/82</u>	RIGHT SIDE _____	WIND SPEED <u>22</u> Km/h
TIME <u>9:00-11:00</u>	LEFT SIDE _____	WIND DIRECTION <u>W</u>
TECHNICIAN <u>EUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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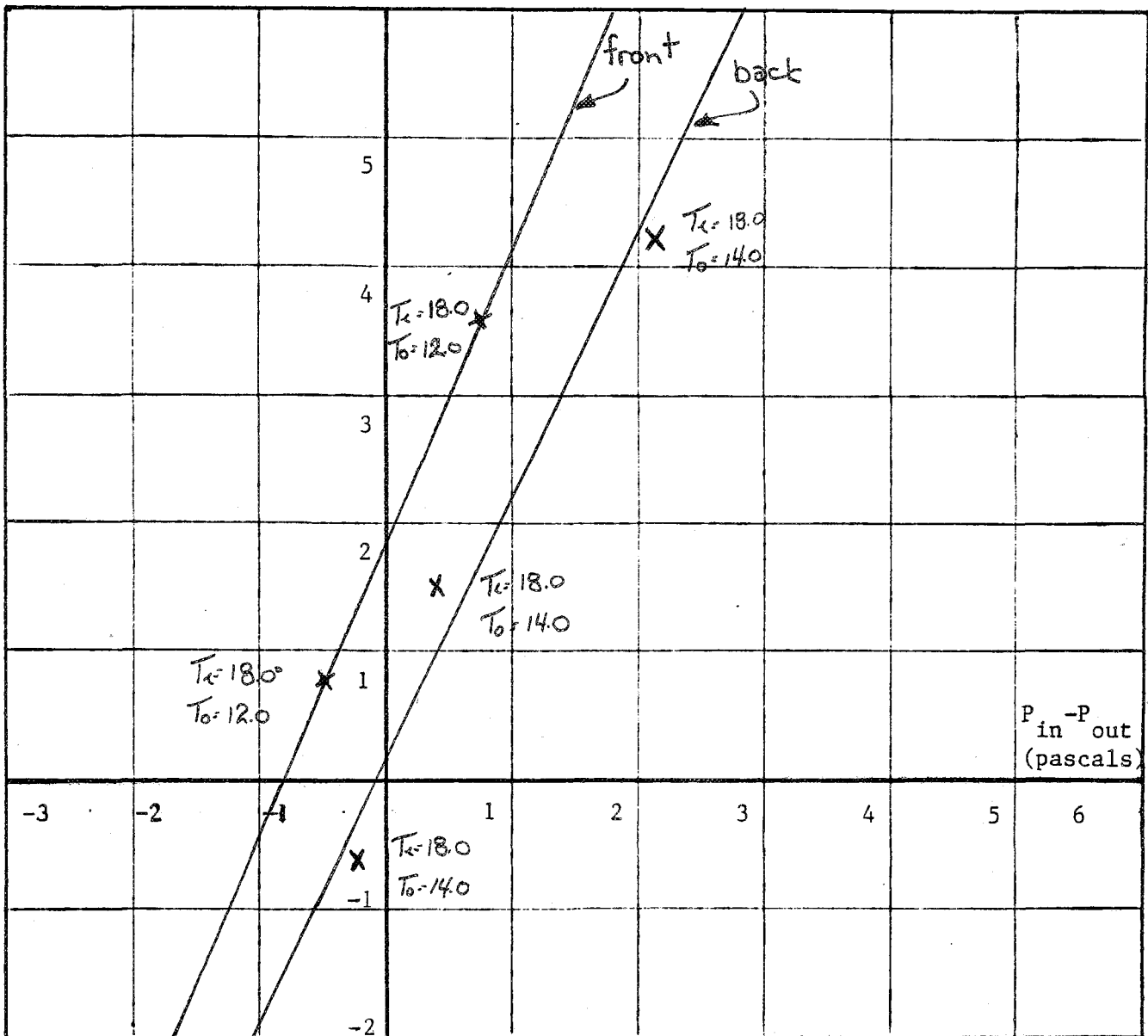
D-12  
page \_\_\_\_\_  
of \_\_\_\_\_

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>12</u>	FRONT <u>1.8m</u>	$T_{in} - T_{out}$ <u>+5°C</u>
MODEL <u>RUSSET</u>	BACK <u>0.1m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 17/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>9</u> Km/h
TIME <u>10:00 - 10:30</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>N</u>
TECHNICIAN <u>Fugler/Passquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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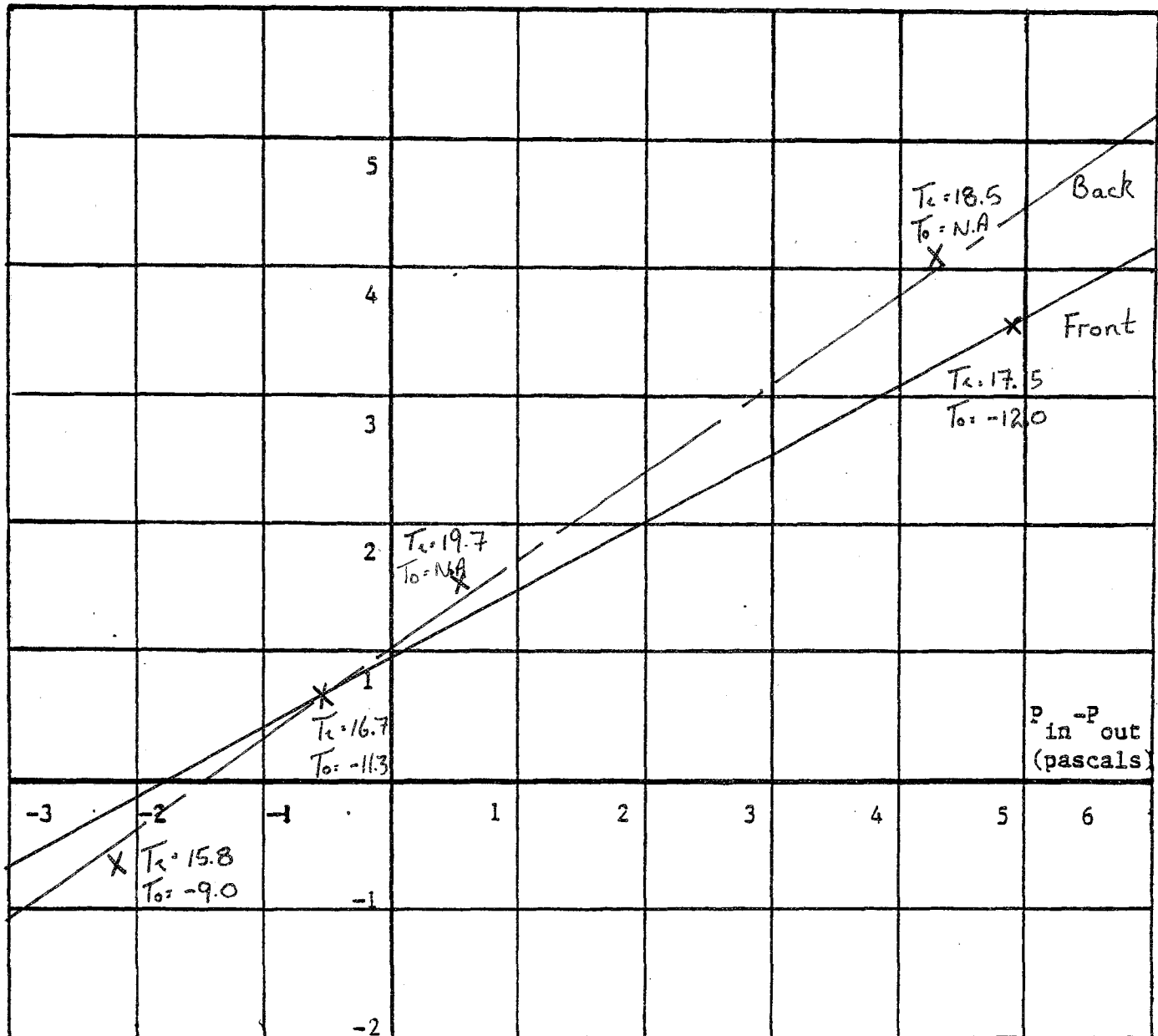
6-54

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>12</u>	FRONT <u>1.0</u>	$T_{in} - T_{out}$ <u>+30.0°C</u>
MODEL <u>Russet</u>	BACK <u>1.0</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 21-83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>10</u> Km/h
TIME <u>09:50-10:10</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>West</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>N</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)





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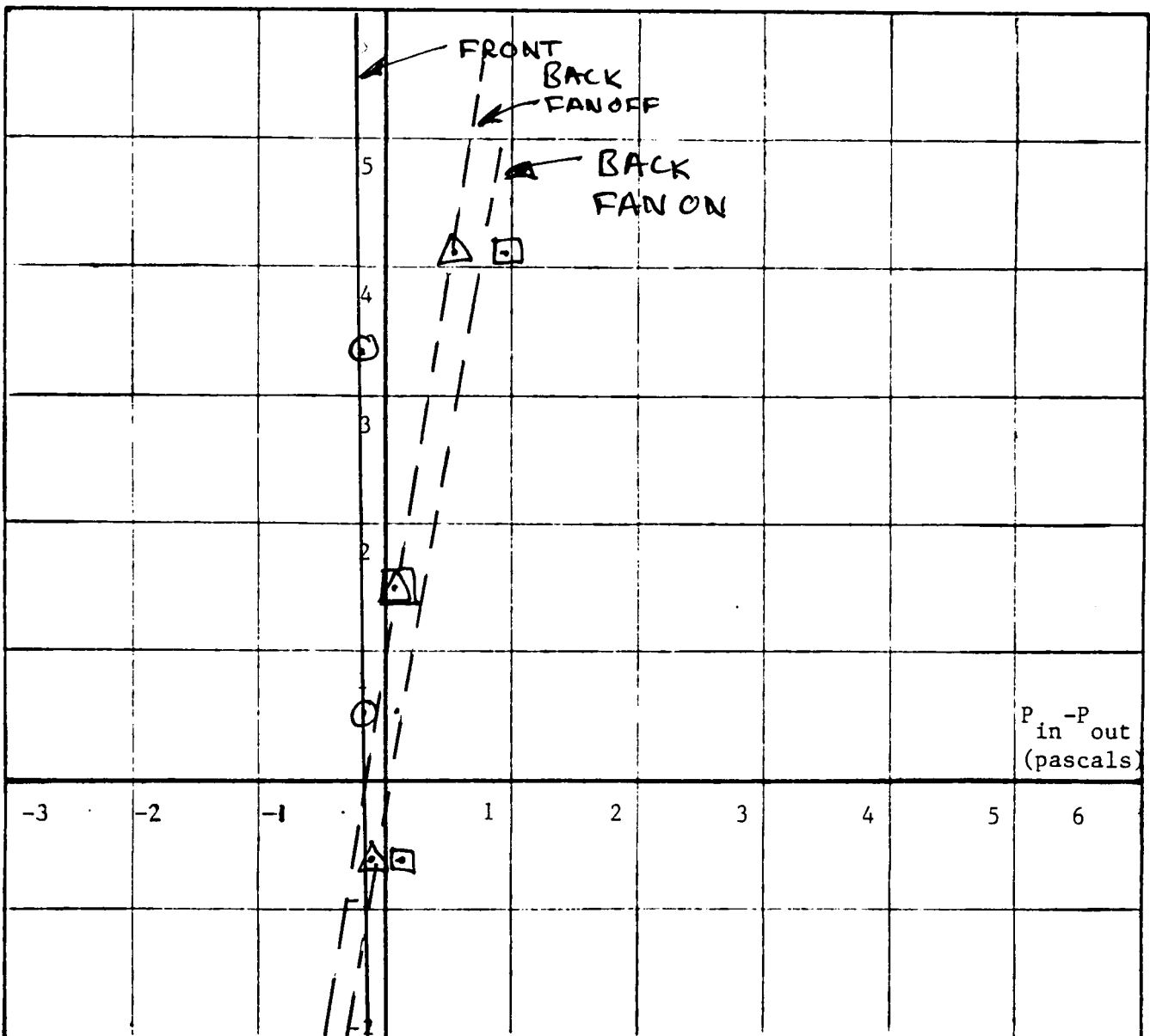
6-55

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>13</u>	FRONT <u>N.A.</u>	$T_{in} - T_{out}$ <u>3°</u>
MODEL <u>RUSSET</u>	BACK <u>0.7m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>MAY 31/82</u>	RIGHT SIDE _____	WIND SPEED <u>8</u> Km/h
TIME <u>8:10 - 9:00</u>	LEFT SIDE _____	WIND DIRECTION <u>S.E.</u>
TECHNICIAN <u>FUGLER</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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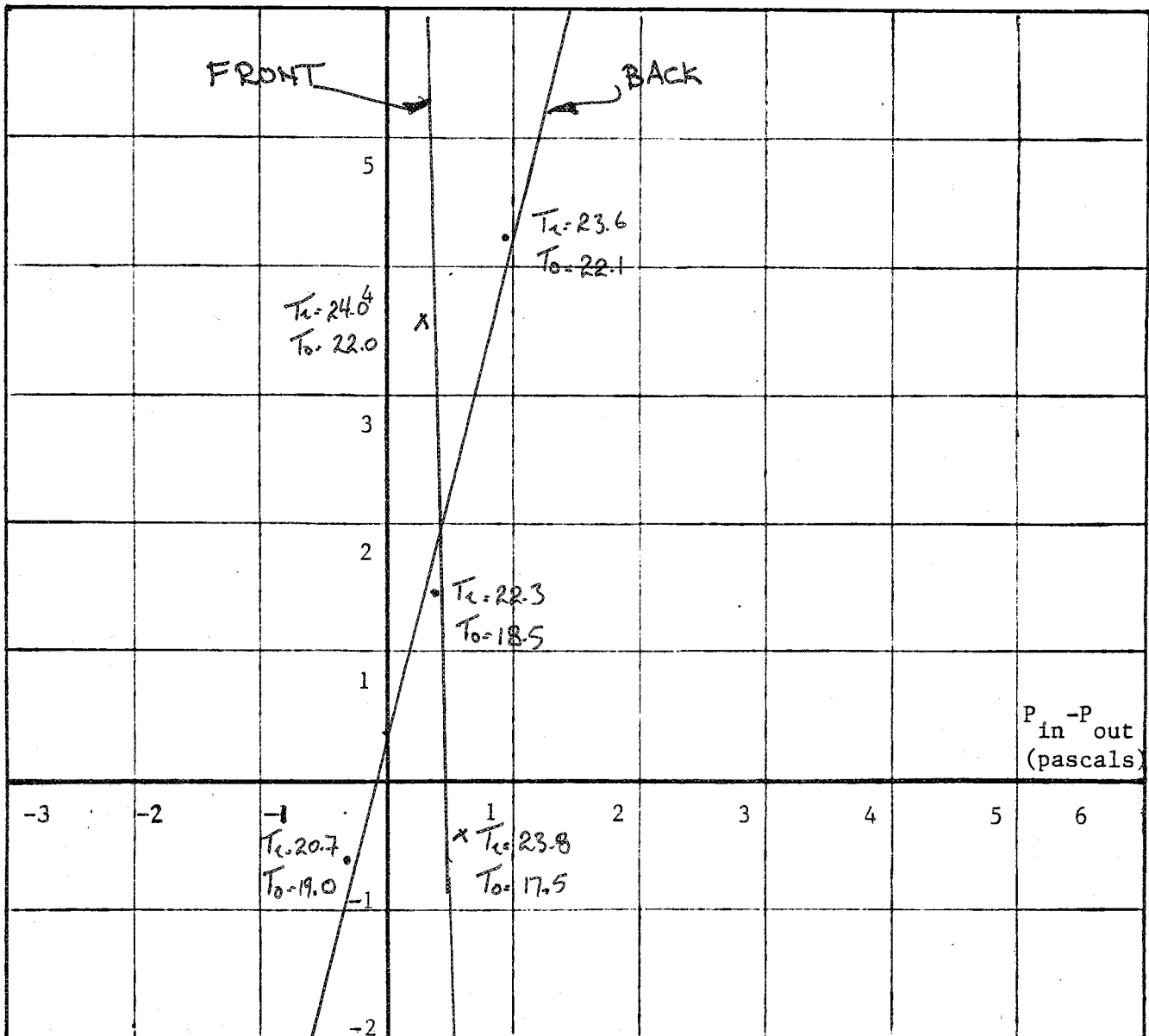
D-13  
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# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>13</u>	FRONT <u>INDET</u>	$T_{in} - T_{out}$ <u>+6°C</u>
MODEL <u>RUSSET</u>	BACK <u>0.4m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 21/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>0</u> Km/h
TIME <u>13:00-13:30</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>-</u>
TECHNICIAN <u>Fuchs/Posquin</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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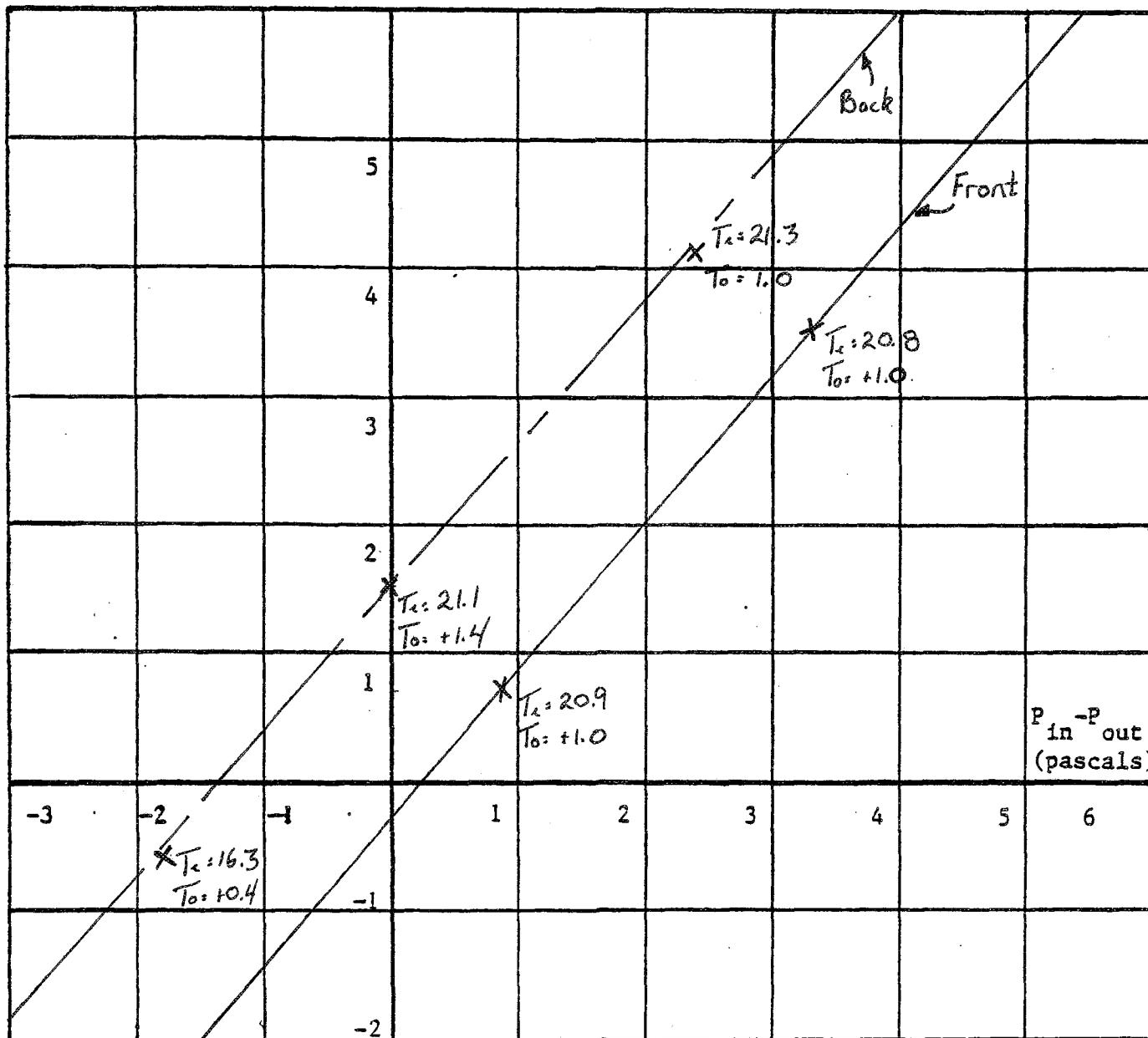
6-57

# Retrospectors

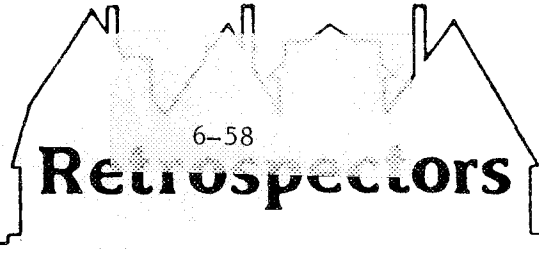
## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>13</u>	FRONT <u>-0.25</u>	$T_{in} - T_{out}$ <u>+20°C</u>
MODEL <u>RUSSET</u>	BACK <u>+1.50</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 07 83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>10</u> Km/h
TIME <u>12:50-13:15</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>SE</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>North</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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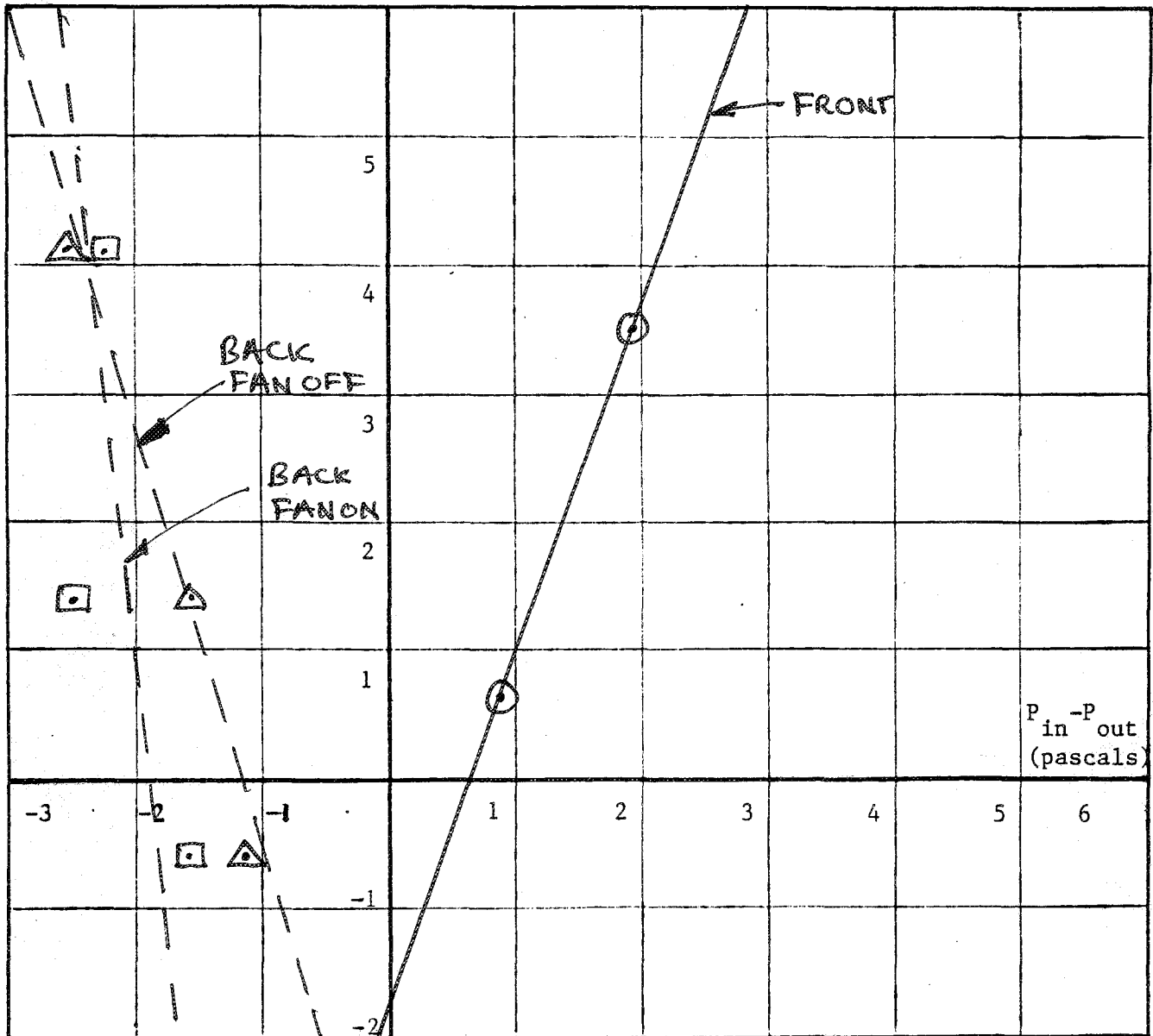


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of \_\_\_\_\_

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>14</u>	FRONT <u>-1.5m</u>	$T_{in} - T_{out}$ <u>0°C</u>
MODEL <u>RUSSET</u>	BACK <u>-4m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>MAY 28/82</u>	RIGHT SIDE _____	WIND SPEED <u>18</u> Km/h
TIME <u>11:15-12:15</u>	LEFT SIDE _____	WIND DIRECTION <u>E</u>
TECHNICIAN <u>FUGLER</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



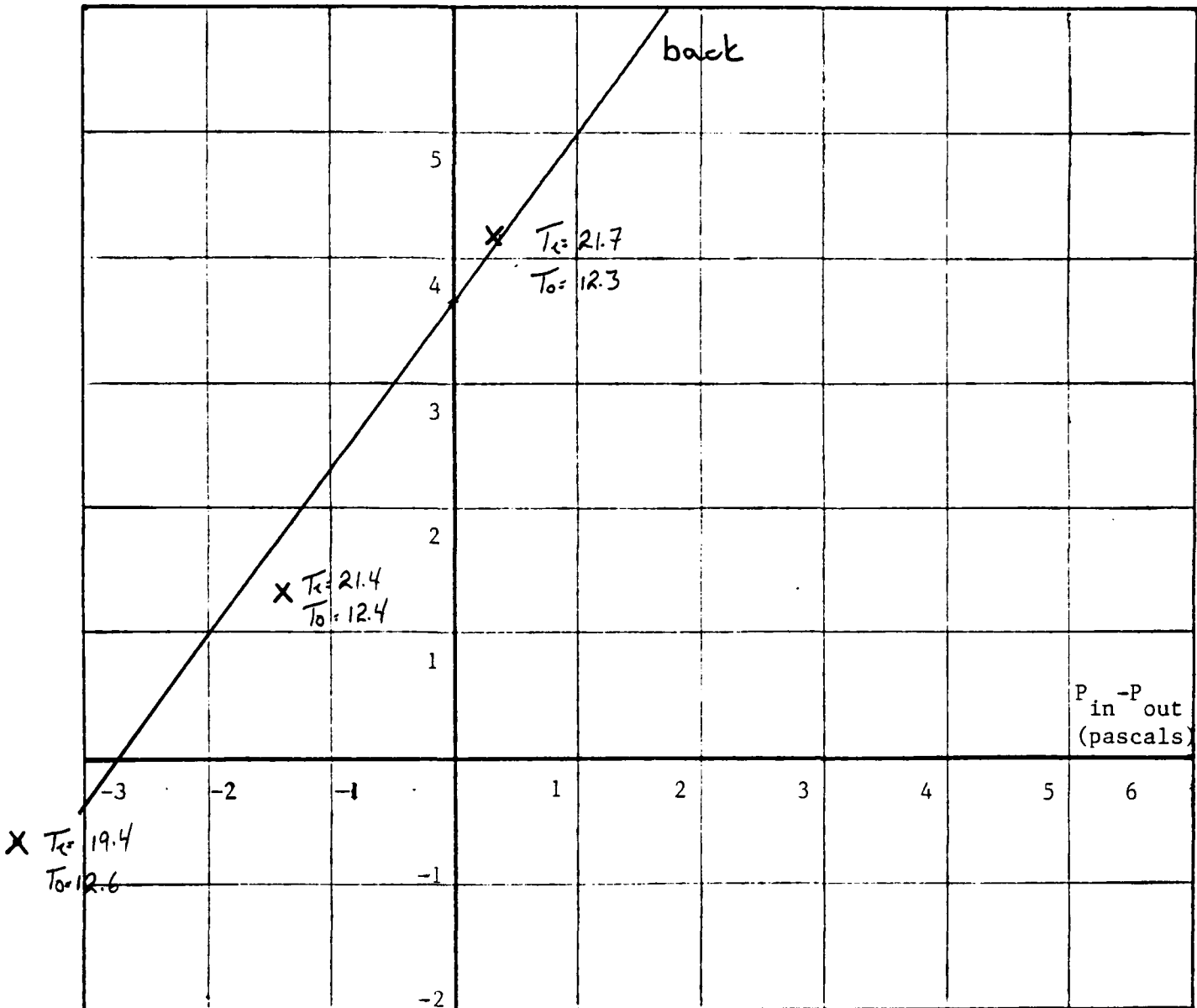
# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>14</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>110°C</u>
MODEL <u>RUSSET</u>	BACK <u>3.7m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 7/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>25</u> Km/h
TIME <u>10:35 - 11:00</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>E</u>
TECHNICIAN <u>Fugler/Rosquini</u>		

N.B. - Front face unavailable at time of testing.

HEIGHT ABOVE FOUNDATION WALL (METRES)



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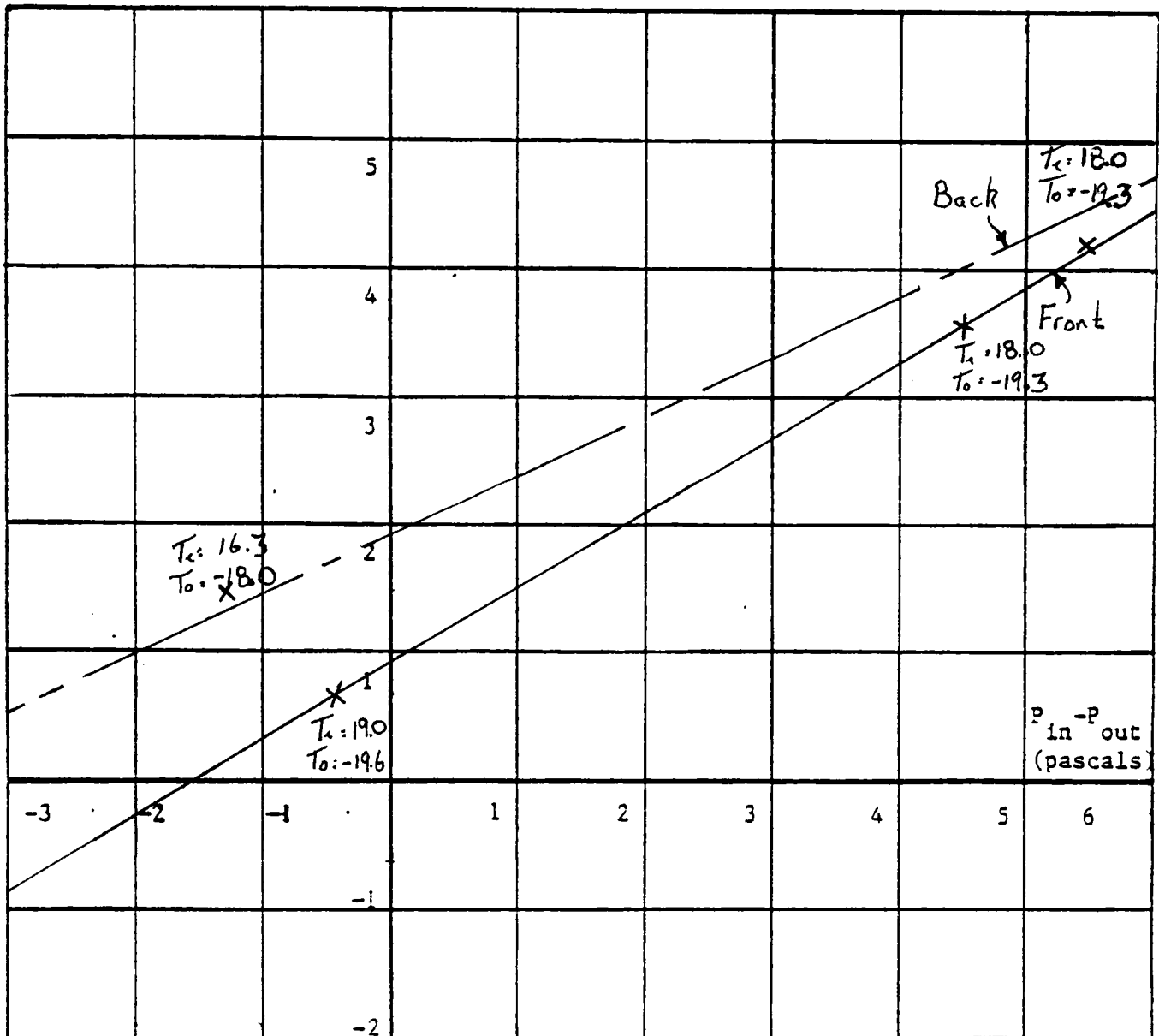
6-60

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>14</u>	FRONT <u>0.90</u>	$T_{in} - T_{out}$ <u>+36.0°C</u>
MODEL <u>RUSSET</u>	BACK <u>1.90</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 26-83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>11</u> Km/h
TIME <u>9:35-10:00</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>North</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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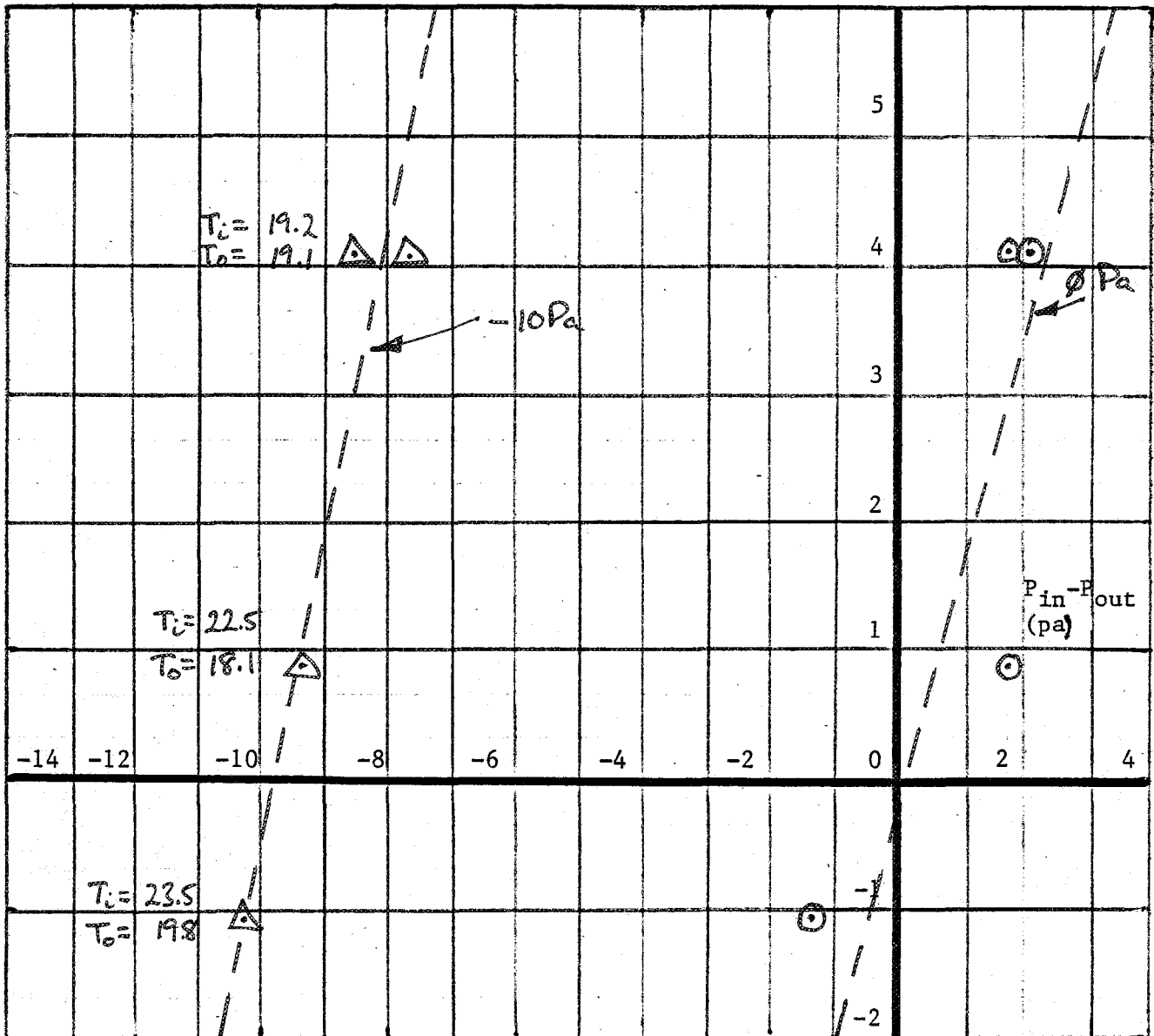
6-61

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>IS</u>	FRONT _____	$T_{in} - T_{out}$ <u>4°C</u>
MODEL <u>RUSSET</u>	BACK <u>-0.3m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JUNE 16/82</u>	RIGHT SIDE _____	WIND SPEED <u>20</u> Km/h
TIME <u>10:25-11:00</u>	LEFT SIDE _____	WIND DIRECTION <u>N.W.</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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9:35  
-10:05

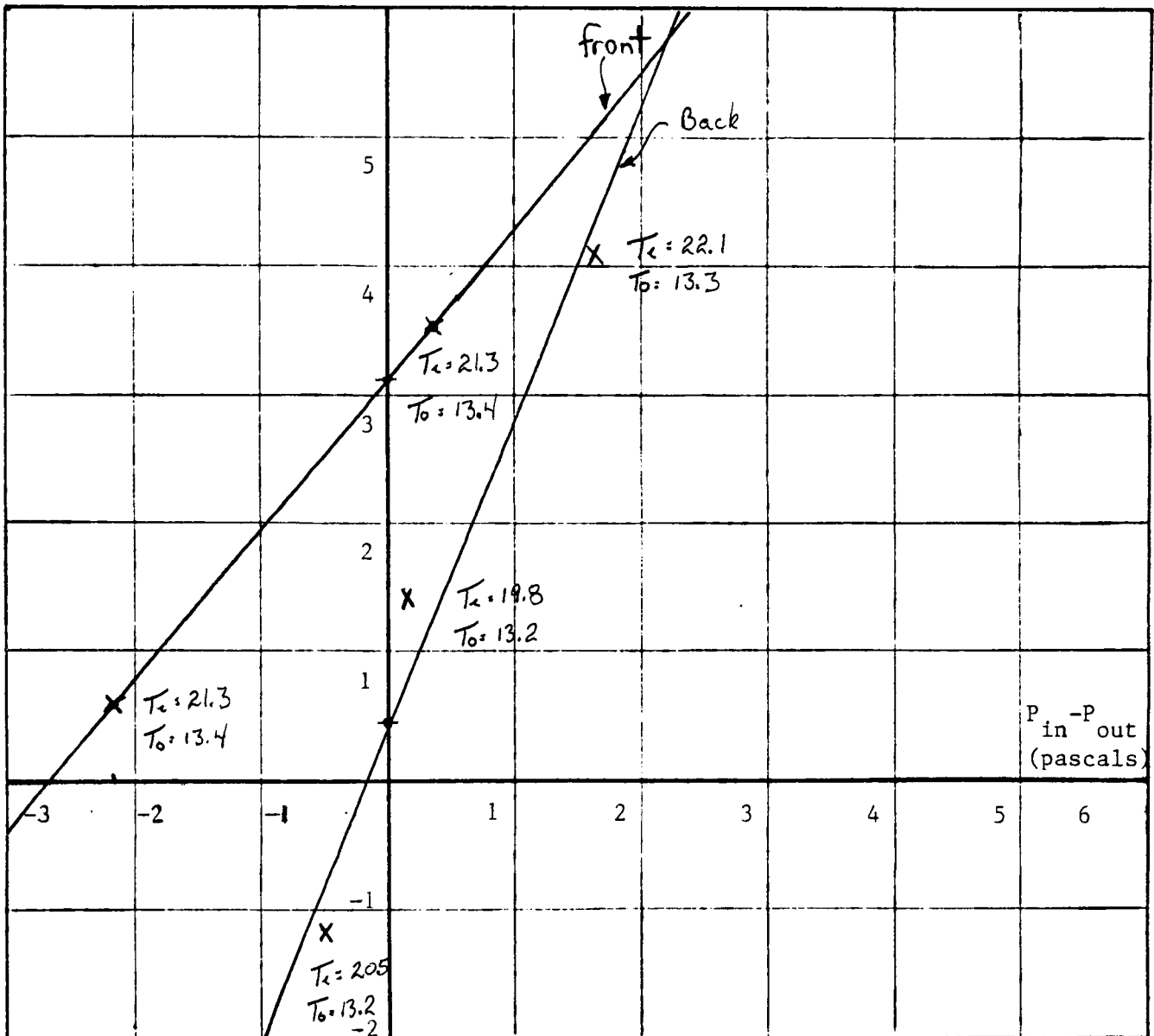
D-15  
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# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>15</u>	FRONT <u>3.1m</u>	$T_{in} - T_{out}$ <u>+6°C</u>
MODEL <u>RUSSET</u>	BACK <u>0.5m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 16/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>11</u> Km/h
TIME <u>9:35-10:05</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>Fugler/Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)

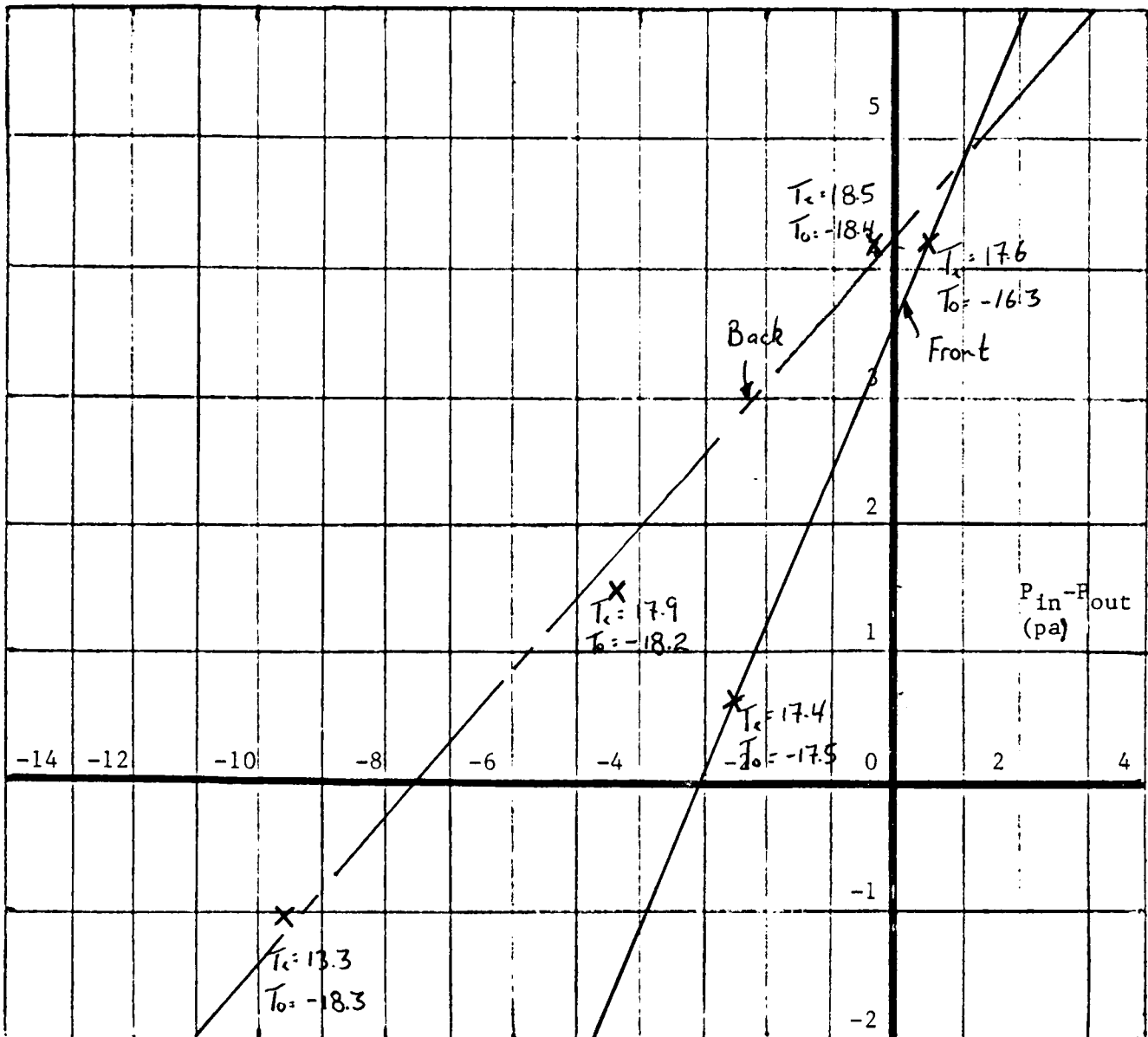




# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>15</u>	FRONT <u>3.6m</u>	$T_{in} - T_{out}$ <u>35°C</u>
MODEL <u>RUSSET</u>	BACK <u>4.3m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>FEB 09-83</u>	RIGHT SIDE <u>N.A</u>	WIND SPEED <u>26</u> Km/h
TIME <u>09:45-10:15</u>	LEFT SIDE <u>N.A</u>	WIND DIRECTION <u>N.W</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT FACES: <u>S.W</u>	

HEIGHT ABOVE FOUNDATION WALL (METERS)



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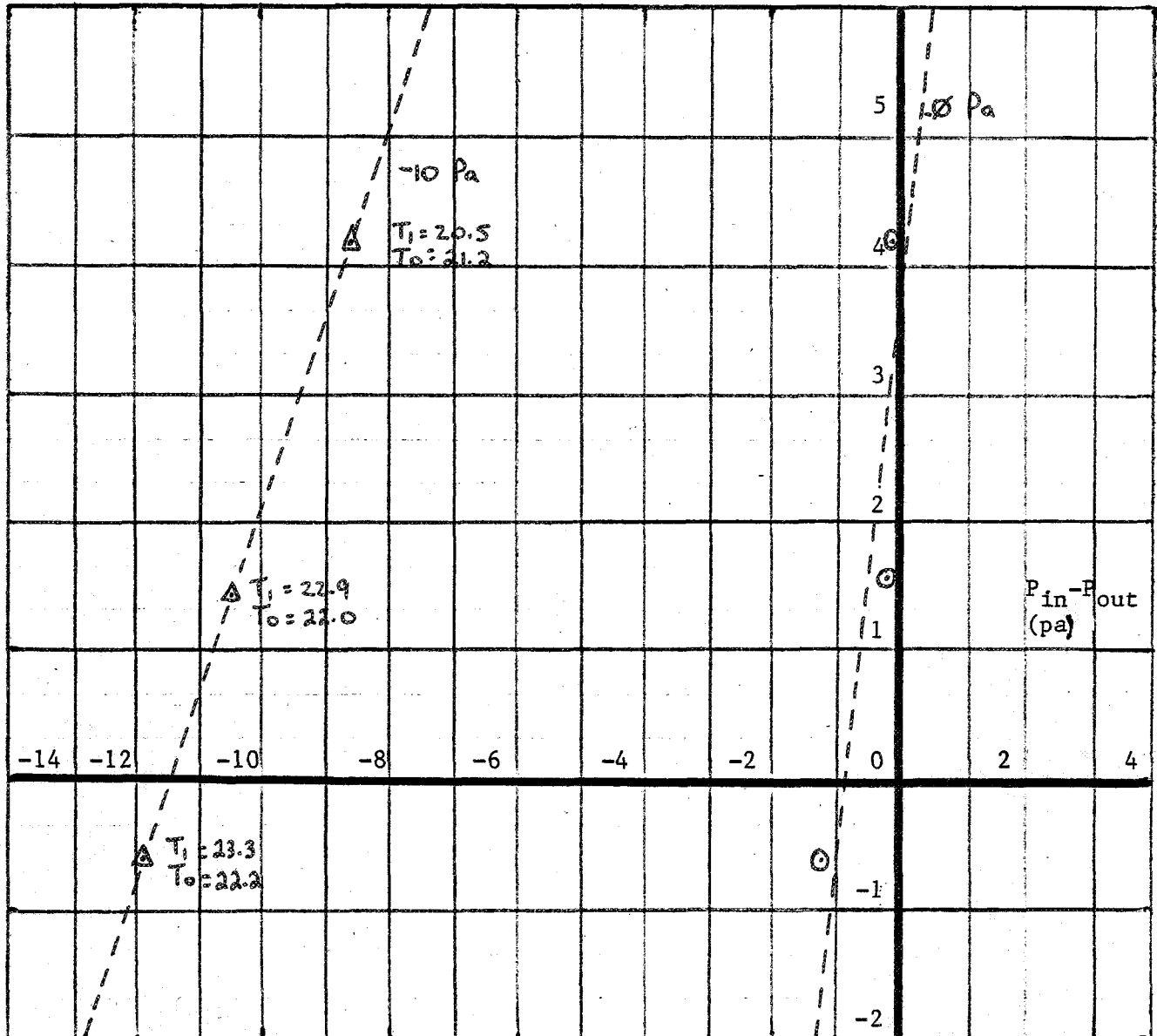
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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>16</u>	FRONT <u>5.0 m</u>	$T_{in} - T_{out}$ <u>1°C</u>
MODEL <u>Russet</u>	BACK <u>4.0 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>June 24/82</u>	RIGHT SIDE _____	WIND SPEED <u>15</u> Km/h
TIME <u>14:10 - 14:40</u>	LEFT SIDE _____	WIND DIRECTION <u>WSW</u>
TECHNICIAN <u>Seton/Fugler</u>		

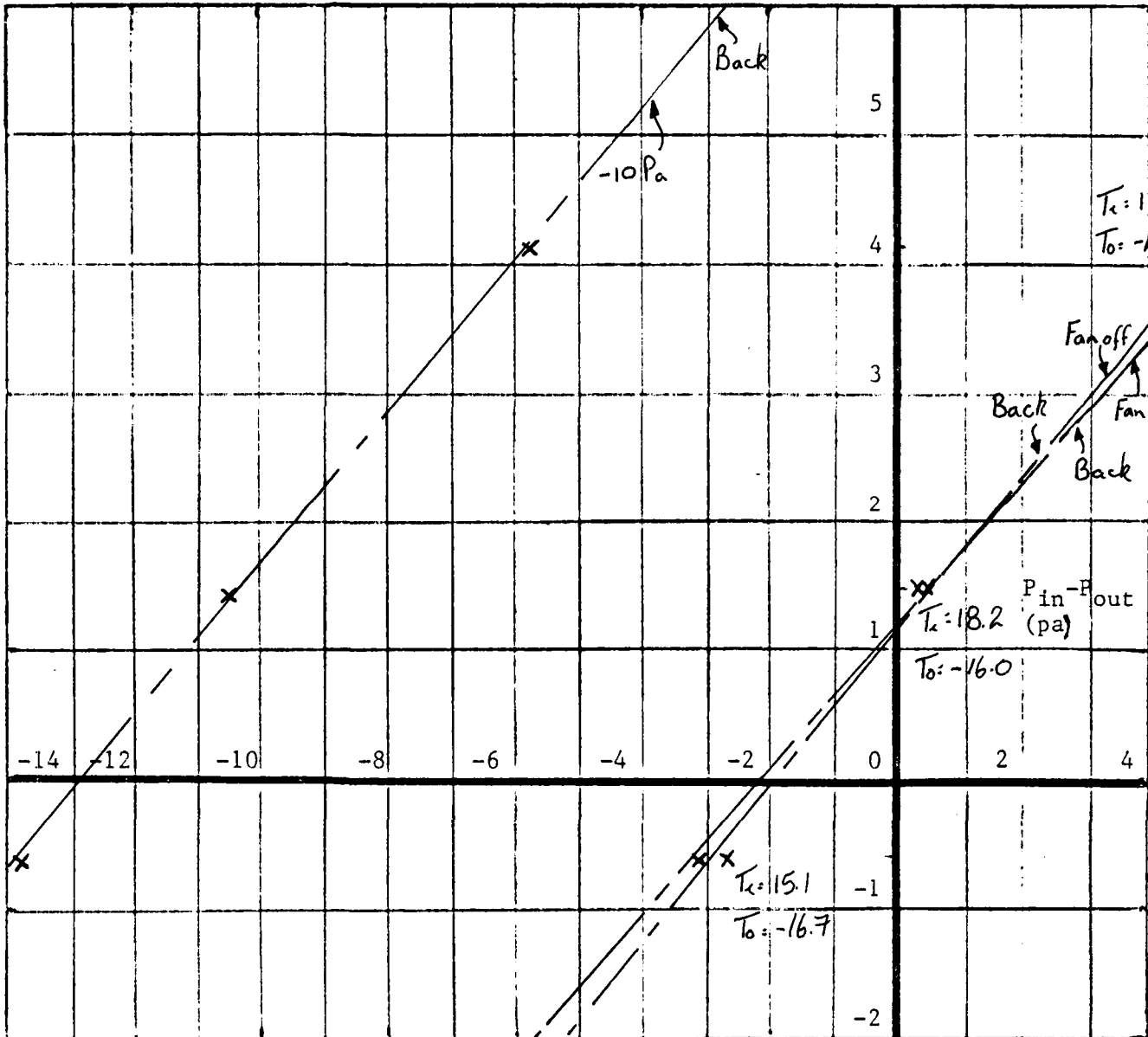
HEIGHT ABOVE FOUNDATION WALL (METERS)



# retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>16</u>	Fanoff BACK <u>1.2m</u>	$T_{in} - T_{out}$ <u>+33.5°C</u>
MODEL <u>RUSSET</u>	FanonBACK <u>1.2m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JAN 13-83</u>	-10Pa BACK <u>IND.</u>	WIND SPEED <u>4</u> Km/h
TIME <u>09:50-</u>	FRONT OF HOUSE FACES <u>South</u>	WIND DIRECTION <u>West</u>
TECHNICIAN <u>FUGLER/SINHA</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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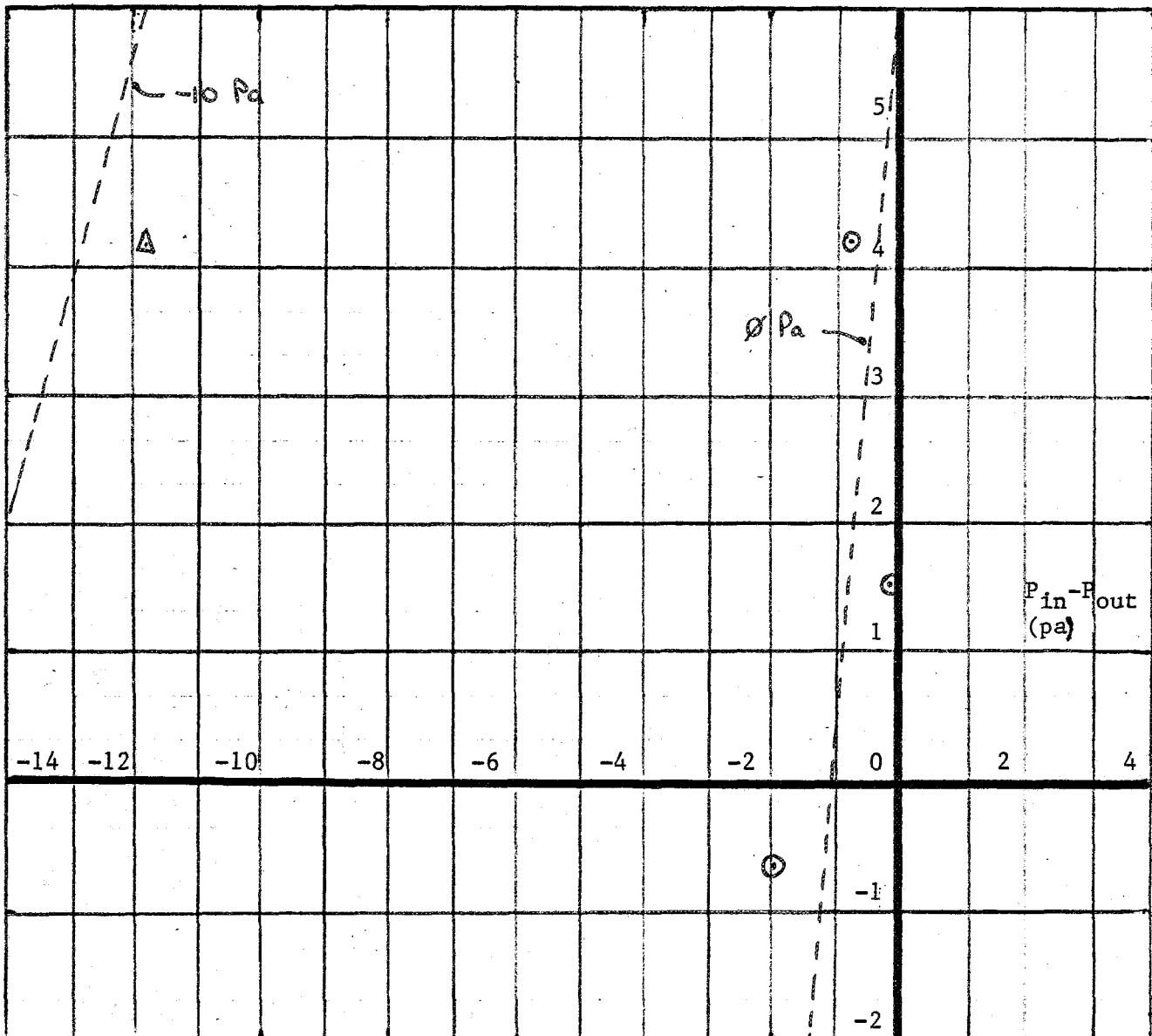
6-66

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>17</u>	FRONT _____	$T_{in} - T_{out}$ <u>-3.5 °C</u>
MODEL <u>Russet</u>	BACK <u>N/A</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>June 8/82</u>	RIGHT SIDE _____	WIND SPEED <u>7</u> Km/h
TIME <u>13:05 - 13:45</u>	LEFT SIDE _____	WIND DIRECTION <u>East</u>
TECHNICIAN <u>Seton/Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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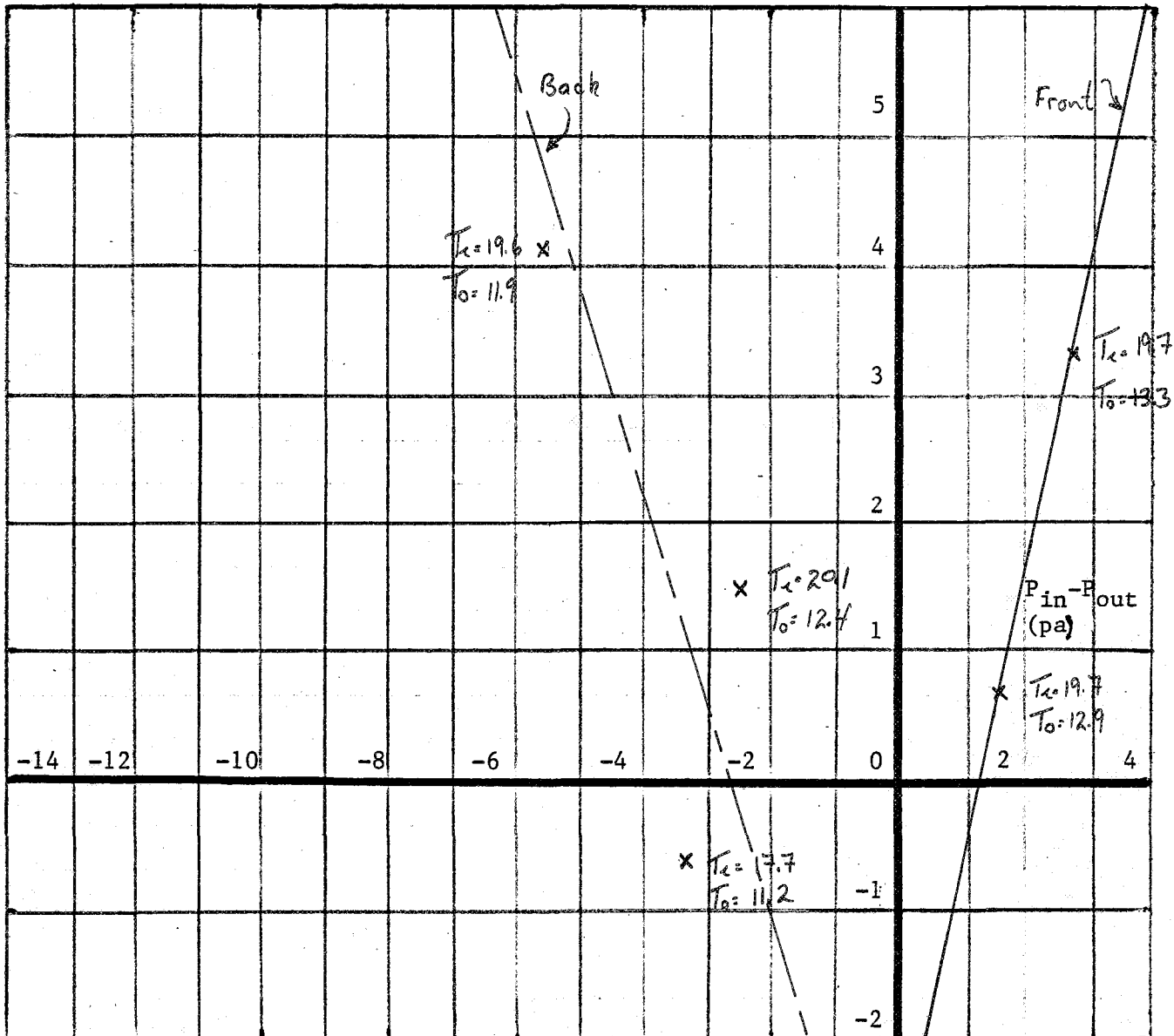
6-67

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of \_\_\_\_\_

# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>17</u>	FRONT <u>-2.6m</u>	$T_{in} - T_{out}$ <u>+7.0°C</u>
MODEL <u>Russet</u>	BACK <u>-4.0m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT 04/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>19</u> Km/h
TIME <u>09:50 - 10:10</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>N</u>
TECHNICIAN <u>FUGLER/PASQ</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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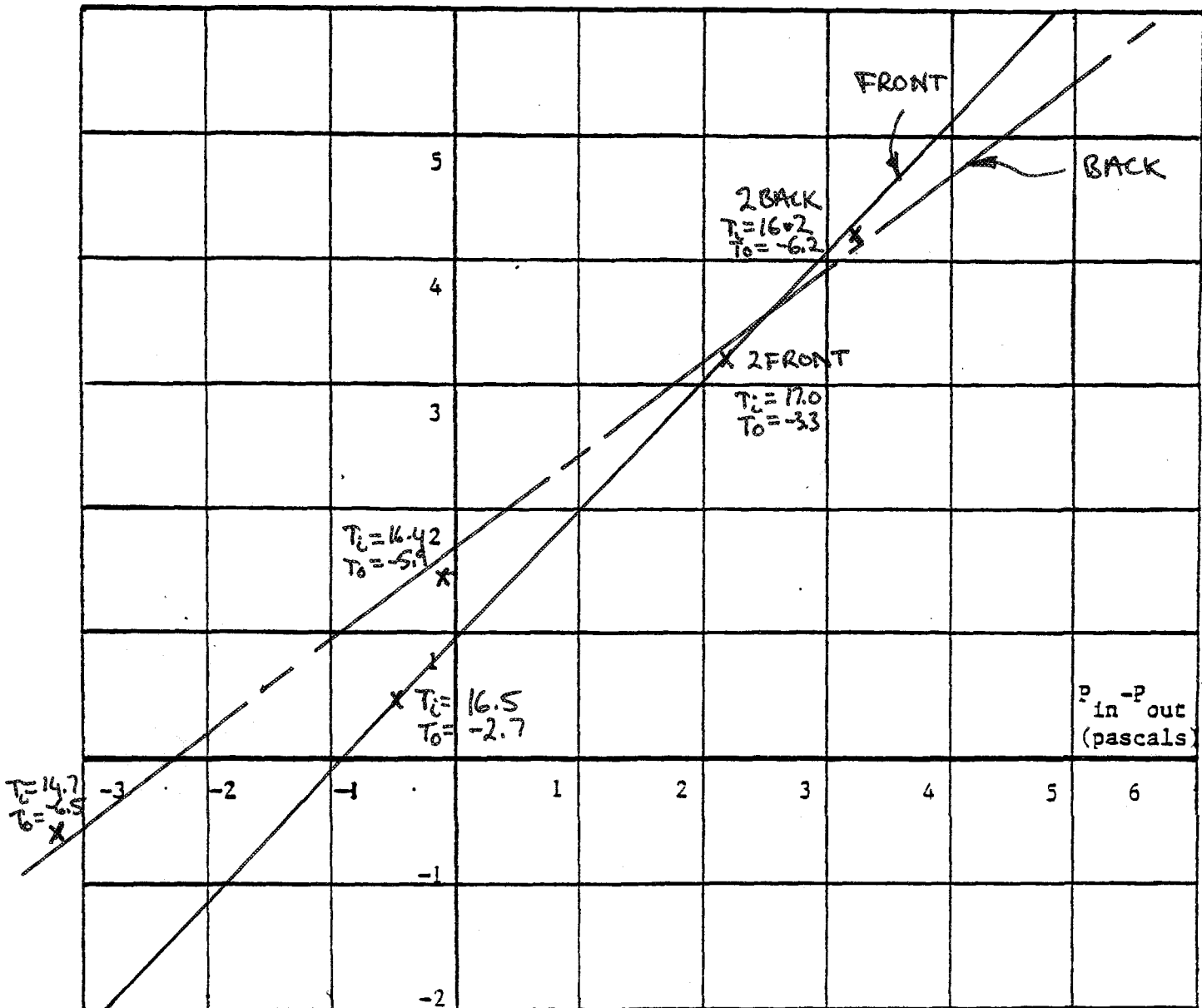
6-68

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>17</u>	FRONT <u>1.0</u>	$T_{in} - T_{out}$ <u>23°C</u>
MODEL <u>RUSSET</u>	BACK <u>1.7</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>FEB. 18/83</u>	RIGHT SIDE _____	WIND SPEED <u>7</u> Km/h
TIME <u>10:10-10:35</u>	LEFT SIDE _____	WIND DIRECTION <u>N</u>
TECHNICIAN <u>EUGENE SINHA</u>	FRONT OF HOUSE FACES <u>SW</u>	

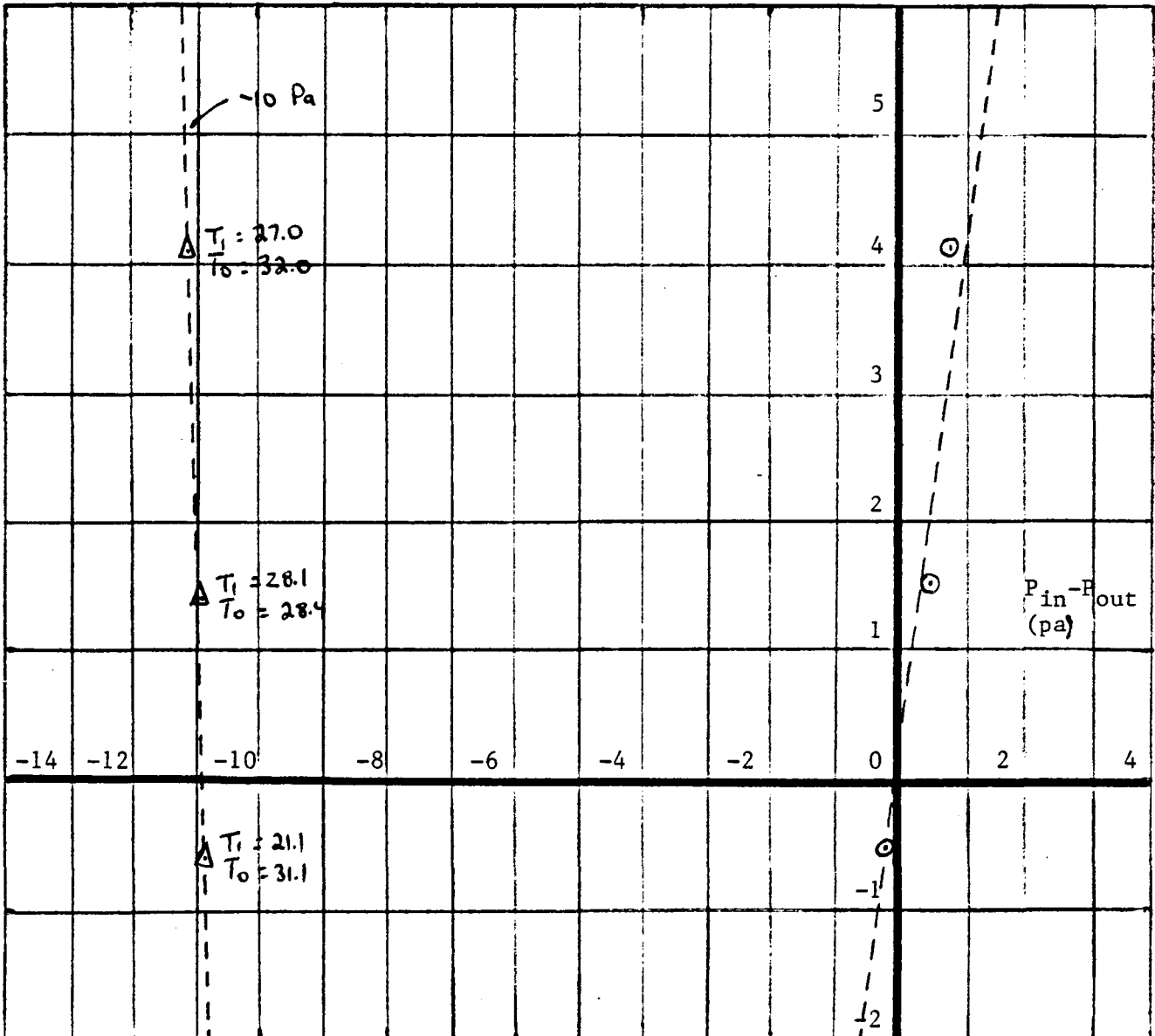
HEIGHT ABOVE FOUNDATION WALL (METRES)



# Ketrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>18</u>	FRONT _____	$T_{in} - T_{out}$ <u>-7°C</u>
MODEL <u>Russet</u>	BACK <u>0.0 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>July 7/82</u>	RIGHT SIDE _____	WIND SPEED <u>26-39</u> Km/h
TIME <u>14:45-15:15</u>	LEFT SIDE _____	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>Seton / Eugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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6-70

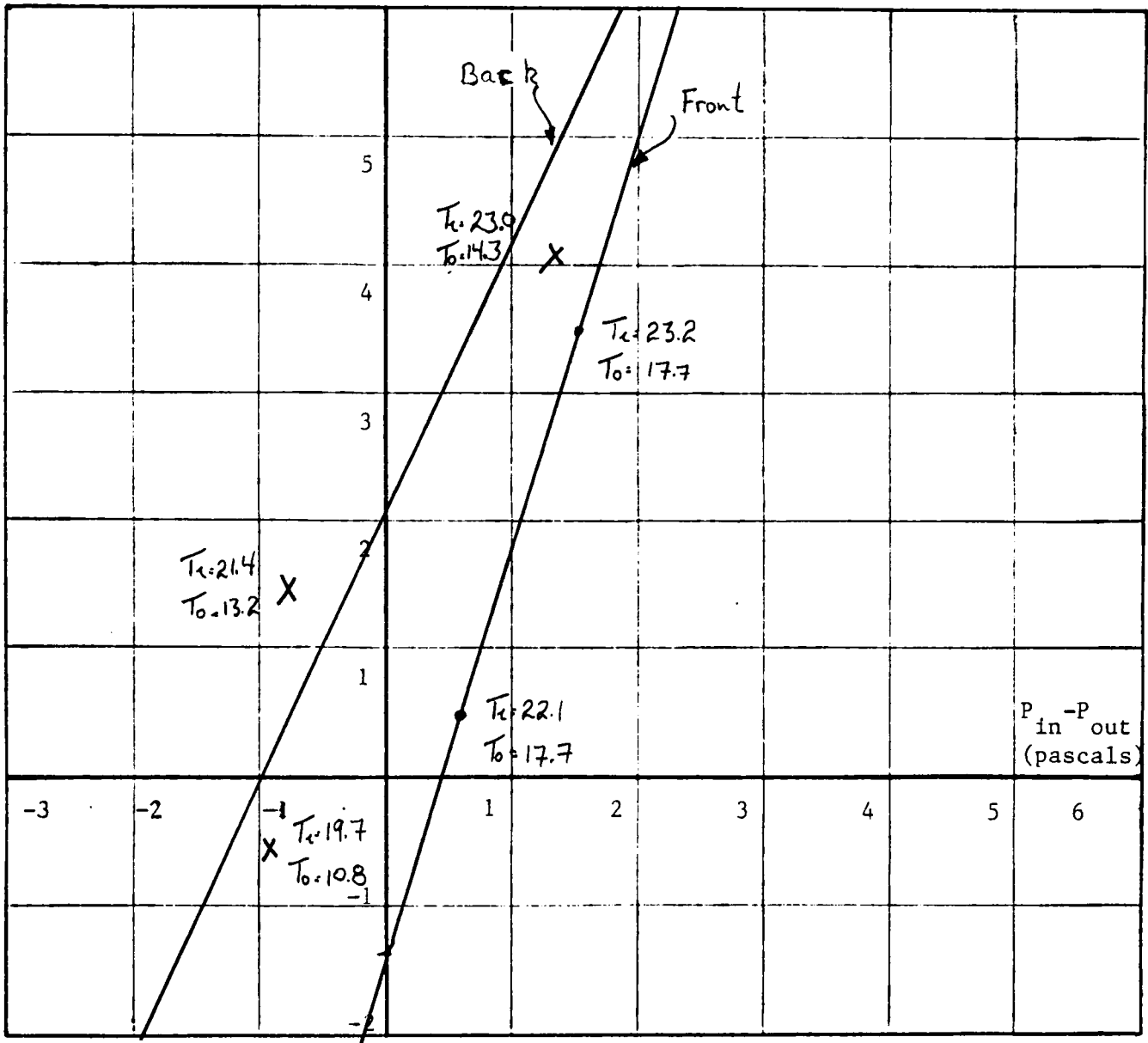
D-17  
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# Reinspecors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>18</u>	FRONT <u>-1.4 m</u>	$T_{in} - T_{out}$ <u>+7.0°C</u>
MODEL <u>RUSSET</u>	BACK <u>2.0 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 6/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>8</u> Km/h
TIME <u>9:50 - 10:15</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>W</u>
TECHNICIAN <u>Fugler / Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



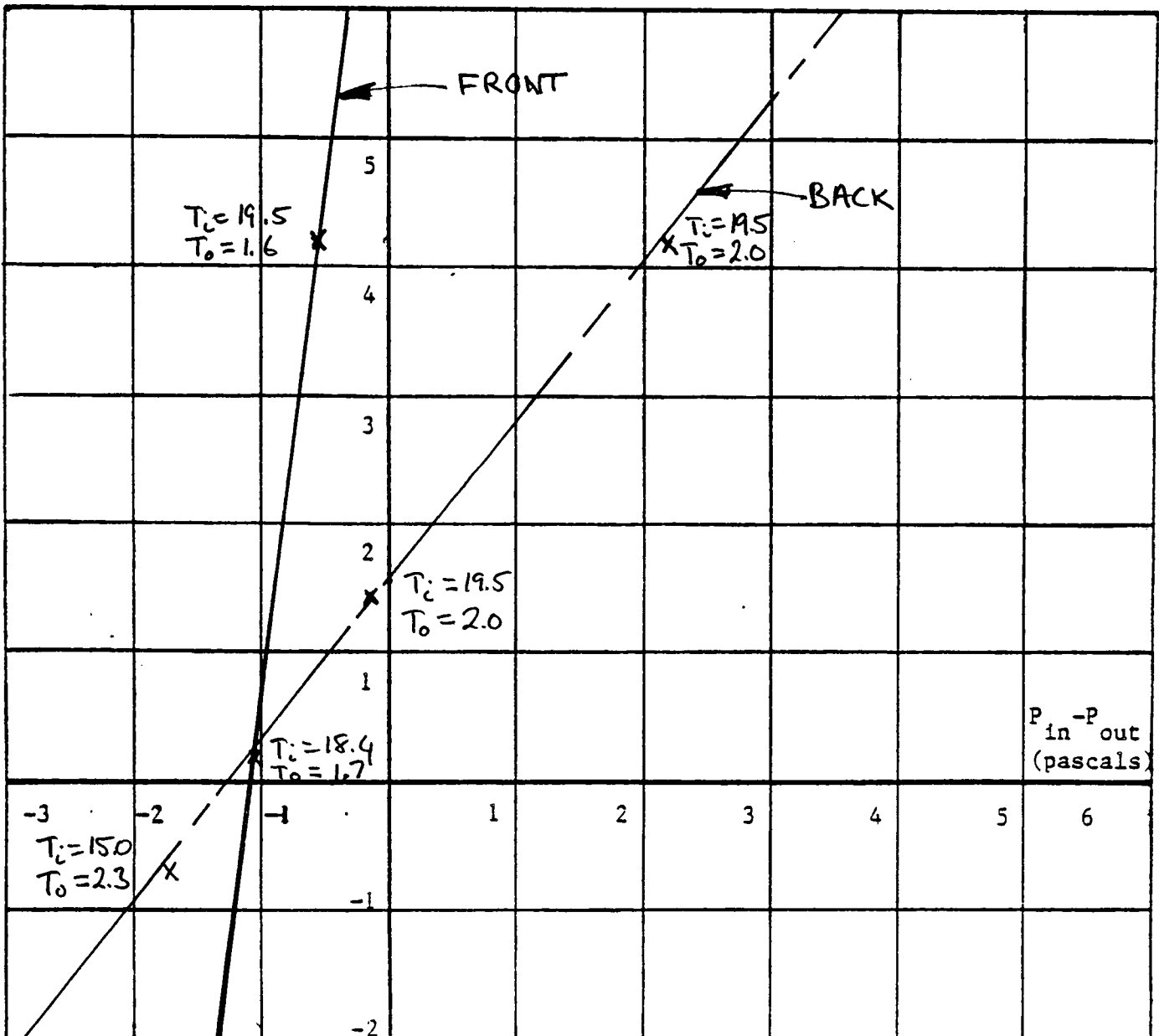


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>18</u>	FRONT <u>INDETERMINATE</u>	$T_{in} - T_{out}$ <u>17°C</u>
MODEL <u>RUSSET</u>	BACK <u>1.6</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 31/83</u>	RIGHT SIDE _____	WIND SPEED <u>18</u> Km/h
TIME <u>11:50-12:15</u>	LEFT SIDE _____	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>EUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>S</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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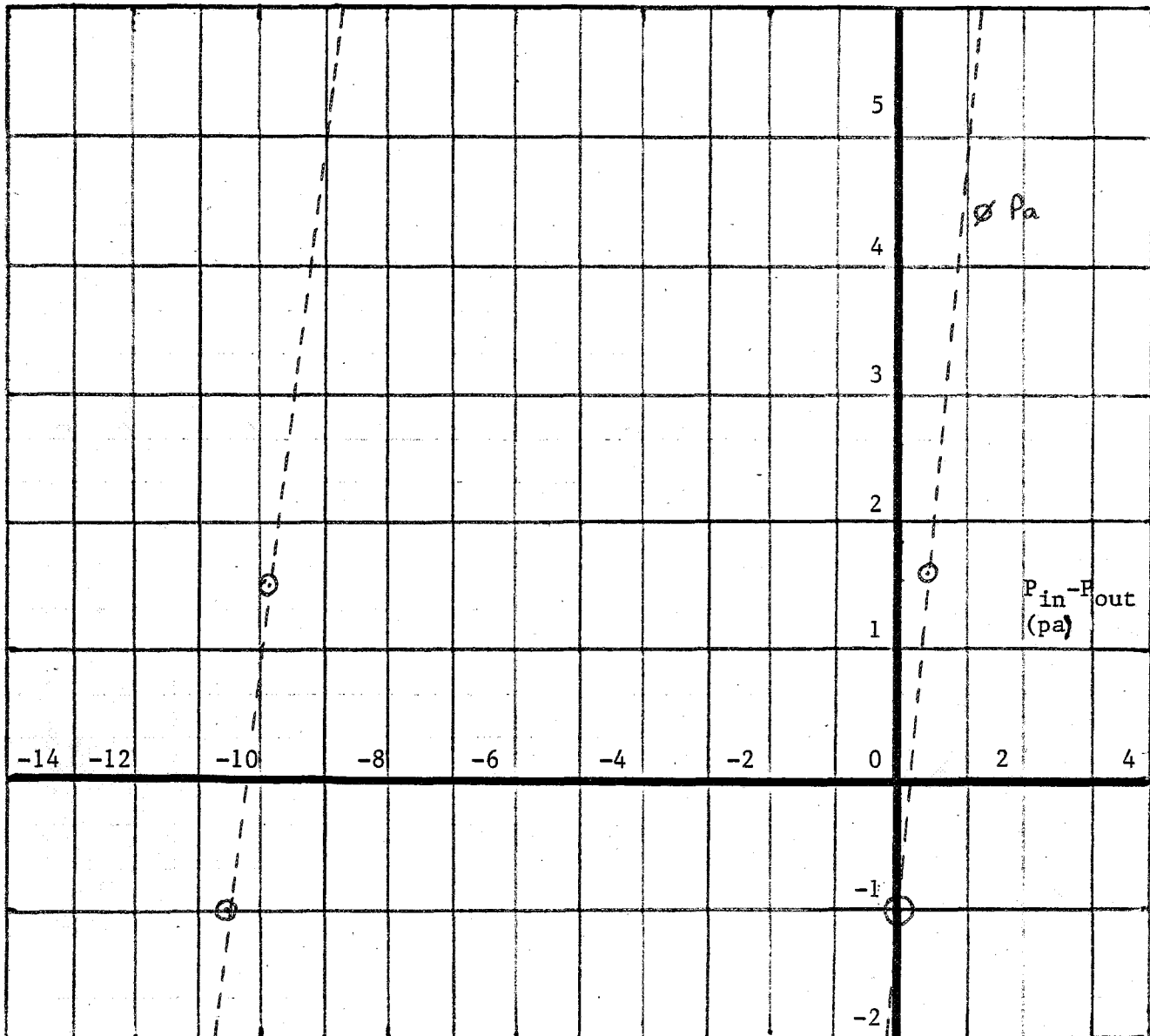
6-72

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>20</u>	FRONT _____	T <sub>in</sub> -T <sub>out</sub> <u>0</u>
MODEL <u>Cortland</u>	BACK <u>-1m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>June 22</u>	RIGHT SIDE _____	WIND SPEED <u>13</u> Km/h
TIME <u>10:40-11:00</u>	LEFT SIDE _____	WIND DIRECTION <u>South</u>
TECHNICIAN <u>Seton/Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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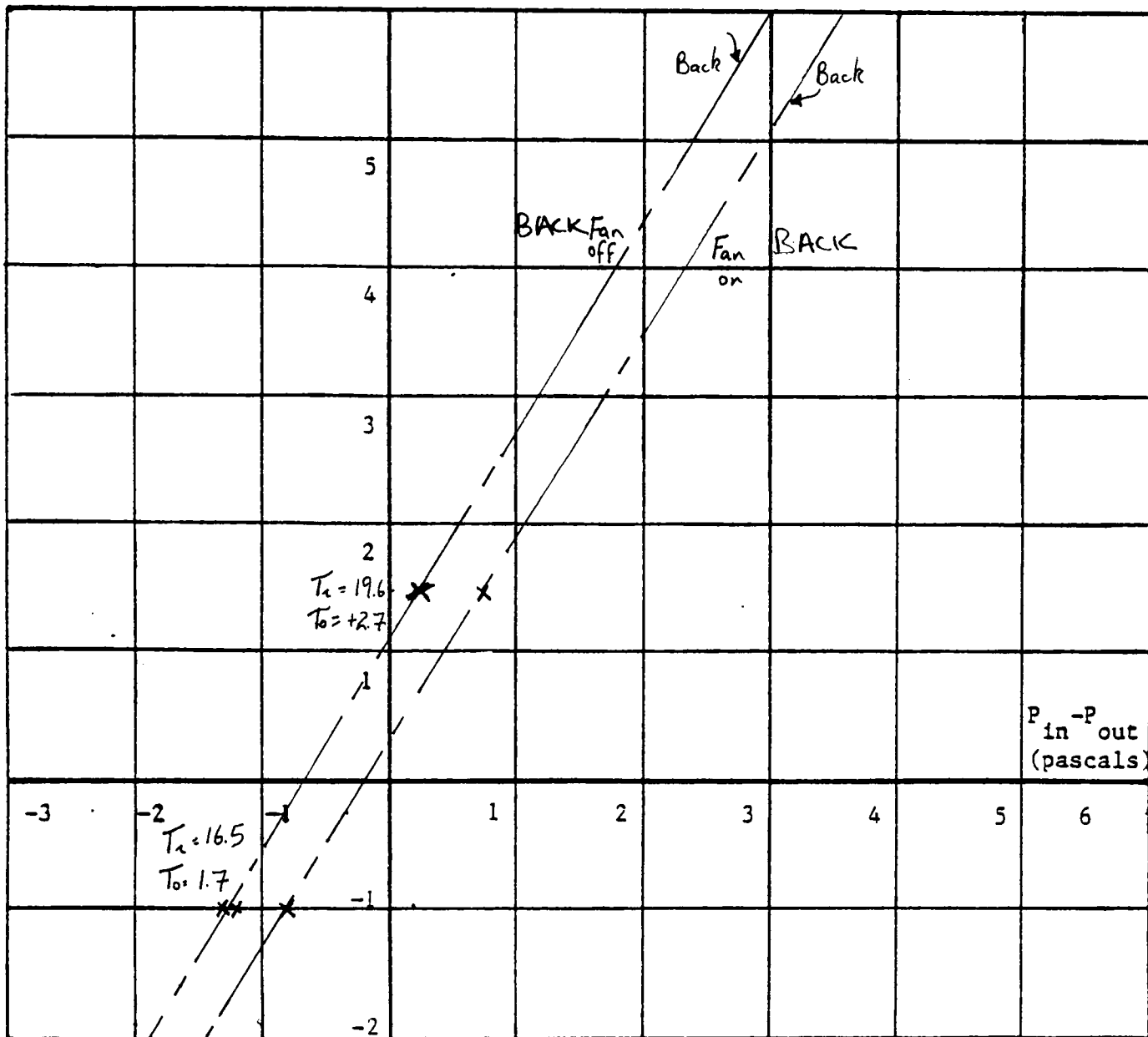
6-73

REPORTS

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>20</u>	BACK (Fanoff) <u>1.1</u>	$T_{in} - T_{out}$ <u>15.7°C</u>
MODEL <u>CORTLAND</u>	BACK (Fan on) <u>0.3</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JAN 06-83</u>	RIGHT SIDE <u>N.A</u>	WIND SPEED <u>CALM</u> Km/h
TIME <u>13:30 -13:45</u>	LEFT SIDE <u>N.A</u>	WIND DIRECTION <u>-</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>SW</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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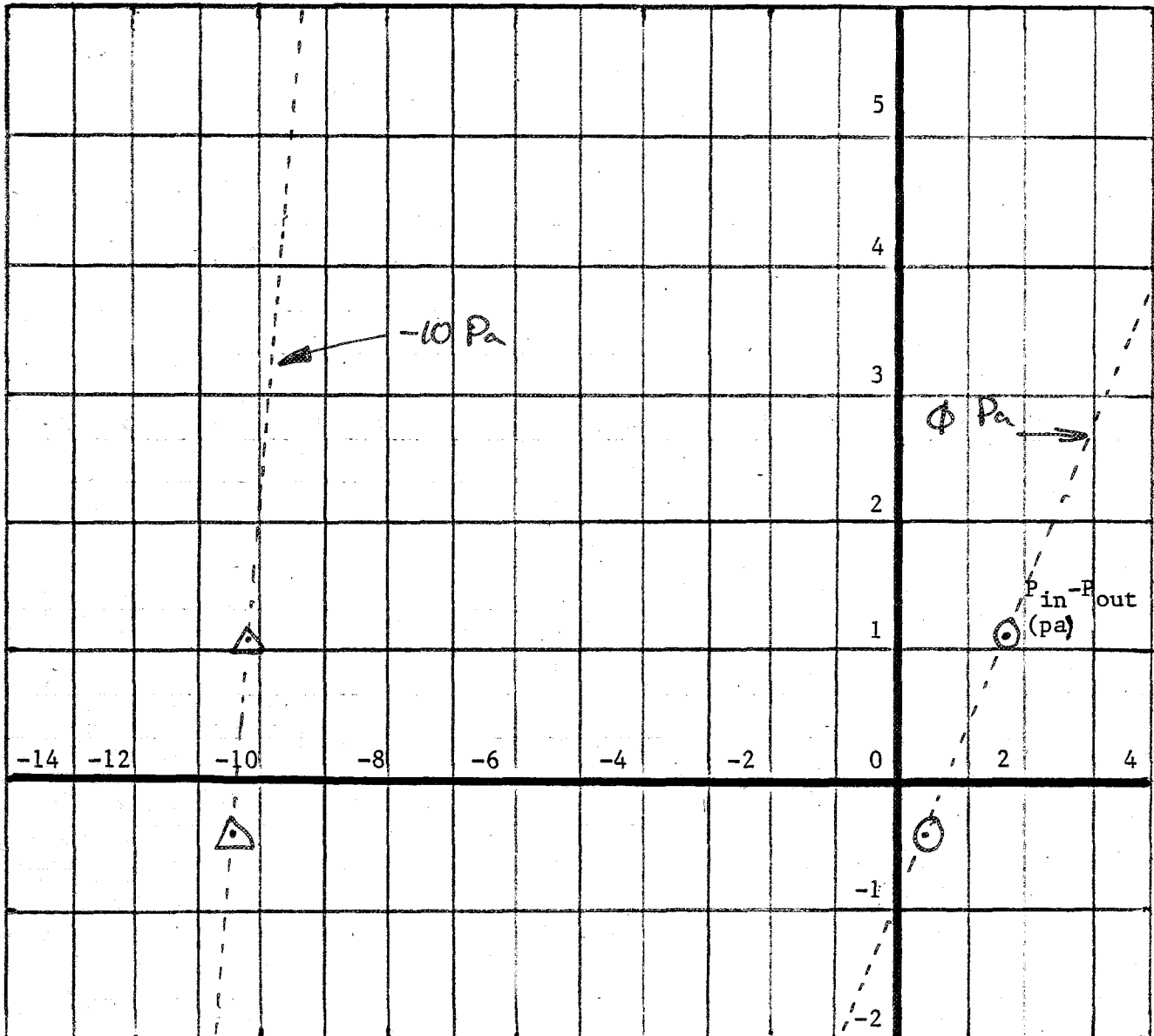
6-74

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 of \_\_\_\_\_

# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>21</u>	FRONT _____	$T_{in} - T_{out}$ <u>40°C</u>
MODEL <u>CORTLAND</u>	BACK _____	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 4/82</u>	RIGHT SIDE _____	WIND SPEED <u>10</u> Km/h
TIME <u>13:55-14:30</u>	-----LEFT SIDE <u>-1m</u>	WIND DIRECTION <u>S.E.</u>
TECHNICIAN <u>EUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



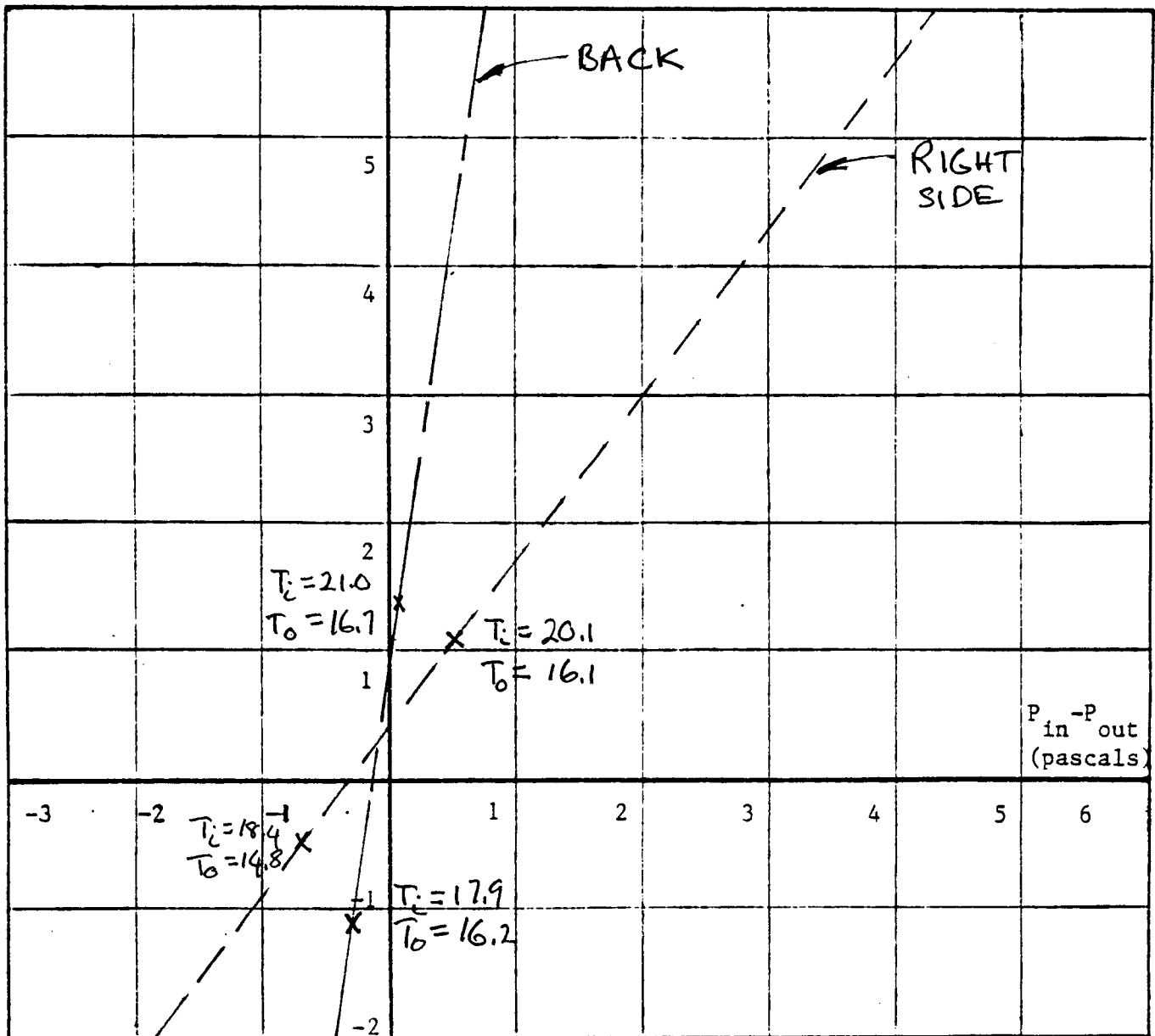
# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>21</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>4°C</u>
MODEL <u>CORTLAND</u>	BACK <u>0.9m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>OCT. 29/82</u>	RIGHT SIDE <u>0.4m</u>	WIND SPEED <u>13</u> Km/h
TIME <u>10:35 - 11:00</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>EUGLER/SNHA</u>		

LOW SPEED  
FAN ALWAYS  
ON

HEIGHT ABOVE FOUNDATION WALL (METRES)



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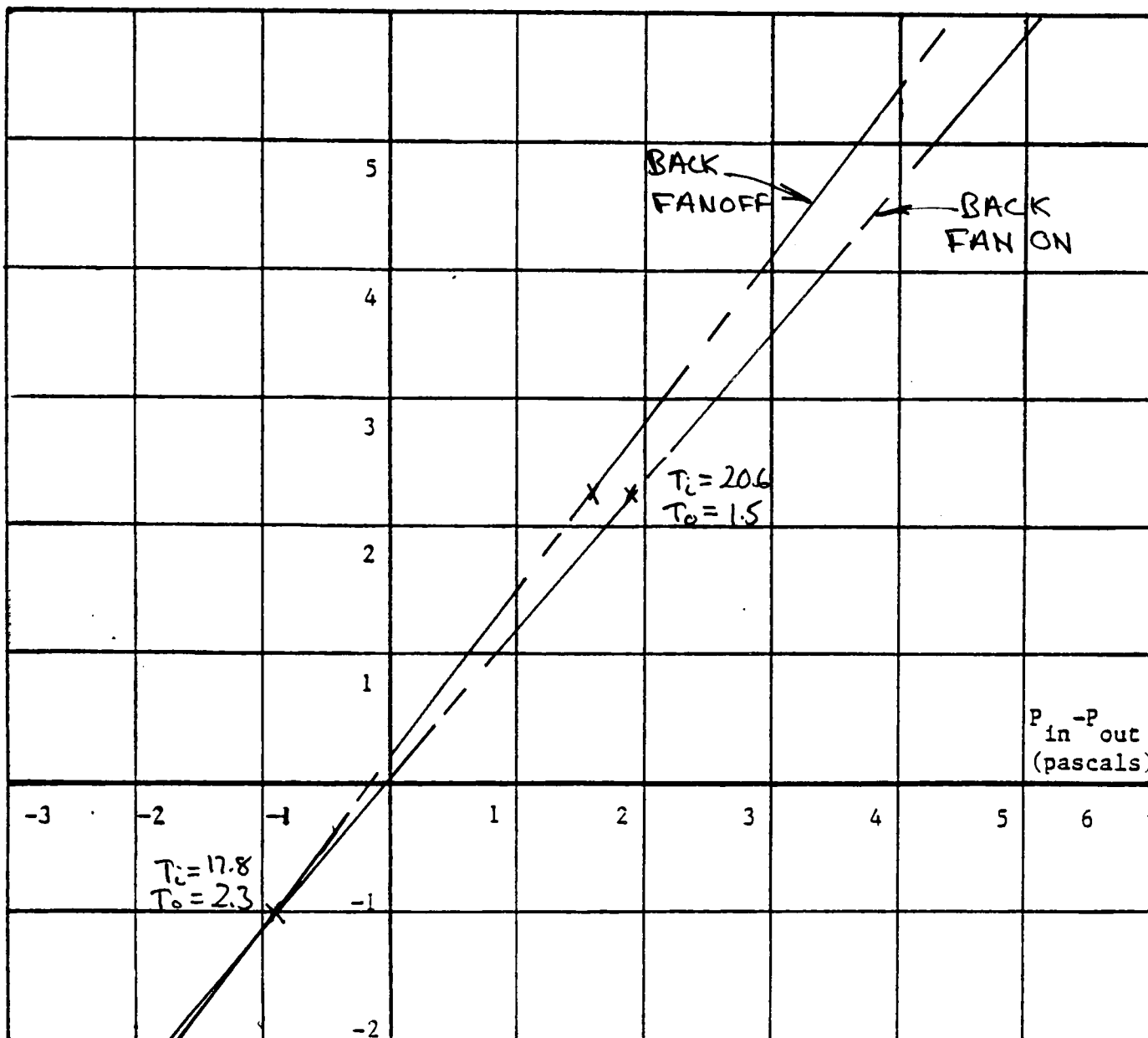
6-76

# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>21</u>	FRONT _____	$T_{in} - T_{out}$ <u>19°C</u>
MODEL <u>CORTLAND</u>	BACK <u>0.3</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JAN 25/83</u>	RIGHT SIDE _____	WIND SPEED <u>10</u> Km/h
TIME <u>11:40-11:50</u>	LEFT SIDE _____	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>SW</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)

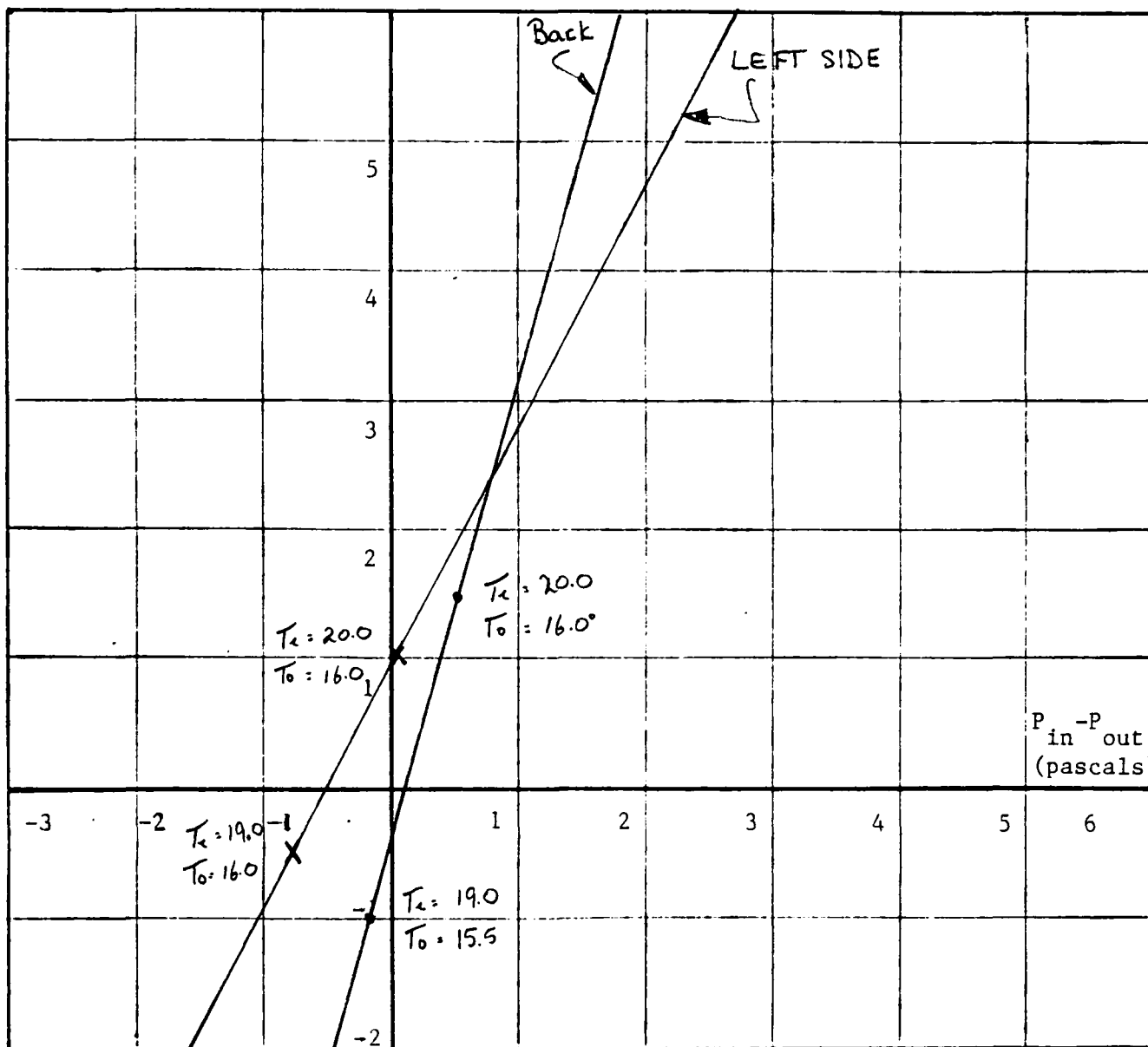


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>22</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>+6°C</u>
MODEL <u>CORTLAND</u>	BACK <u>-0.4m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 28/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>10</u> Km/h
TIME <u>9:20-9:45</u>	LEFT SIDE <u>1.0m</u>	WIND DIRECTION <u>NW</u>
TECHNICIAN <u>Fugler/Pasquin</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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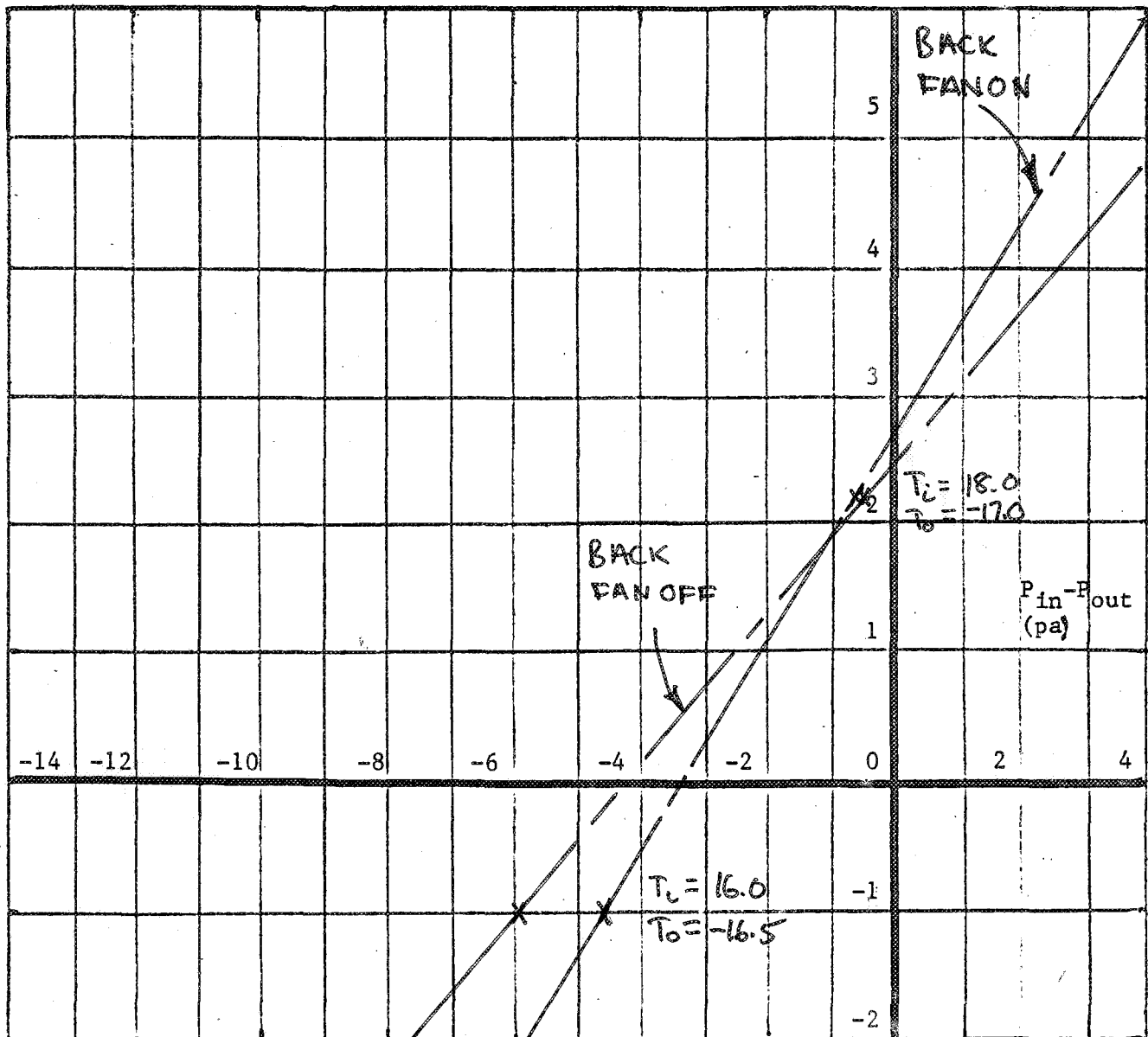
6-78

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>22</u>	FRONT _____	$T_{in} - T_{out}$ <u>34.0°C</u>
MODEL <u>CORTLAND</u>	BACK <u>2.7m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>FEB. 11/83</u>	RIGHT SIDE _____	WIND SPEED <u>15</u> Km/h
TIME <u>10:45-11:00</u>	LEFT SIDE _____	WIND DIRECTION <u>D.E.</u>
TECHNICIAN <u>EUGLER/SINHA</u>	FRONT OF HOUSE FACES WEST	

HEIGHT ABOVE FOUNDATION WALL (METERS)

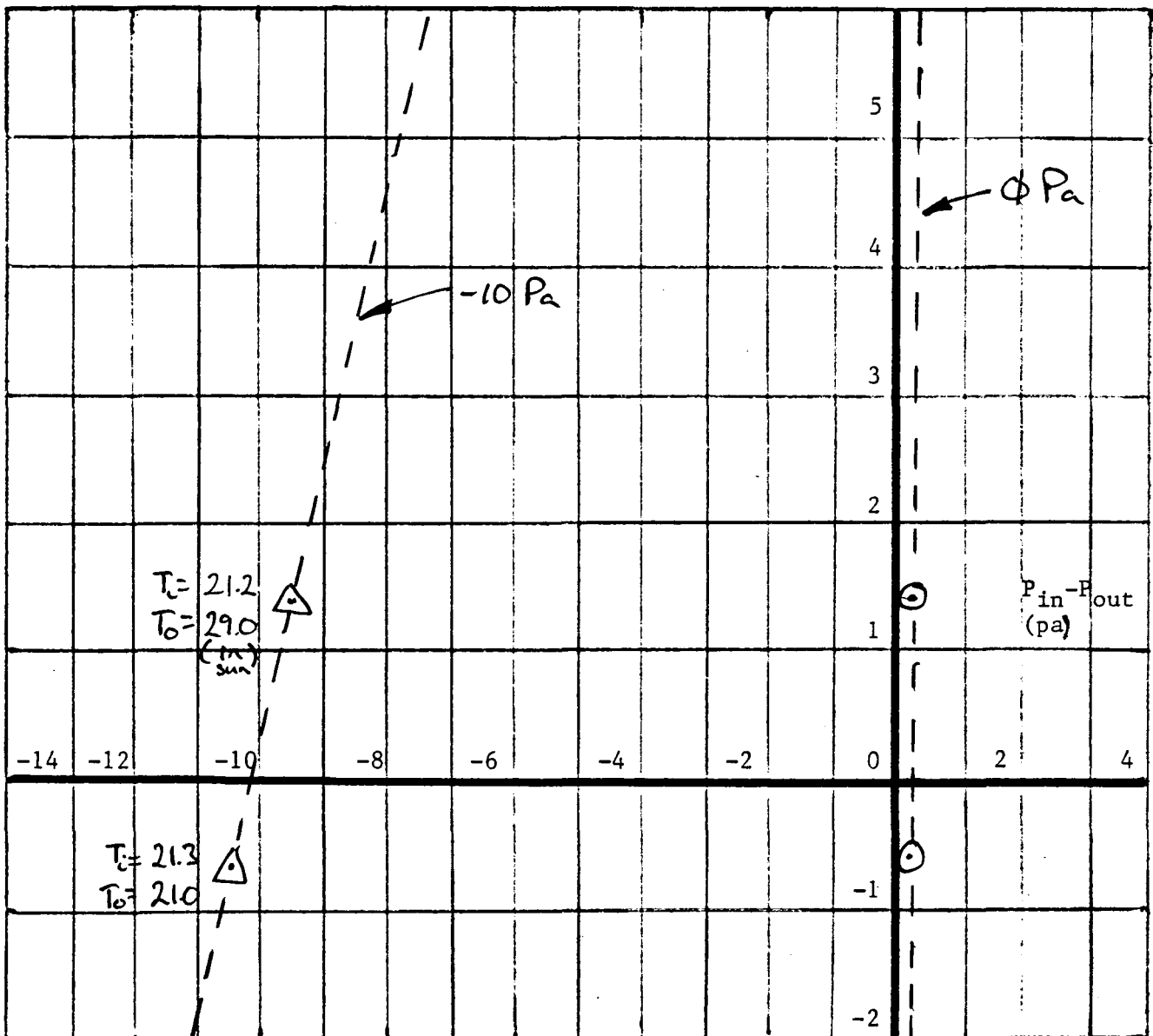




# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>23</u>	FRONT _____	$T_{in} - T_{out}$ <u>0</u>
MODEL <u>CORTLAND</u>	BACK <u>N.A.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 11/82</u>	RIGHT SIDE _____	WIND SPEED <u>25</u> Km/h
TIME <u>10:30-10:45</u>	LEFT SIDE _____	WIND DIRECTION <u>W</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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6-80

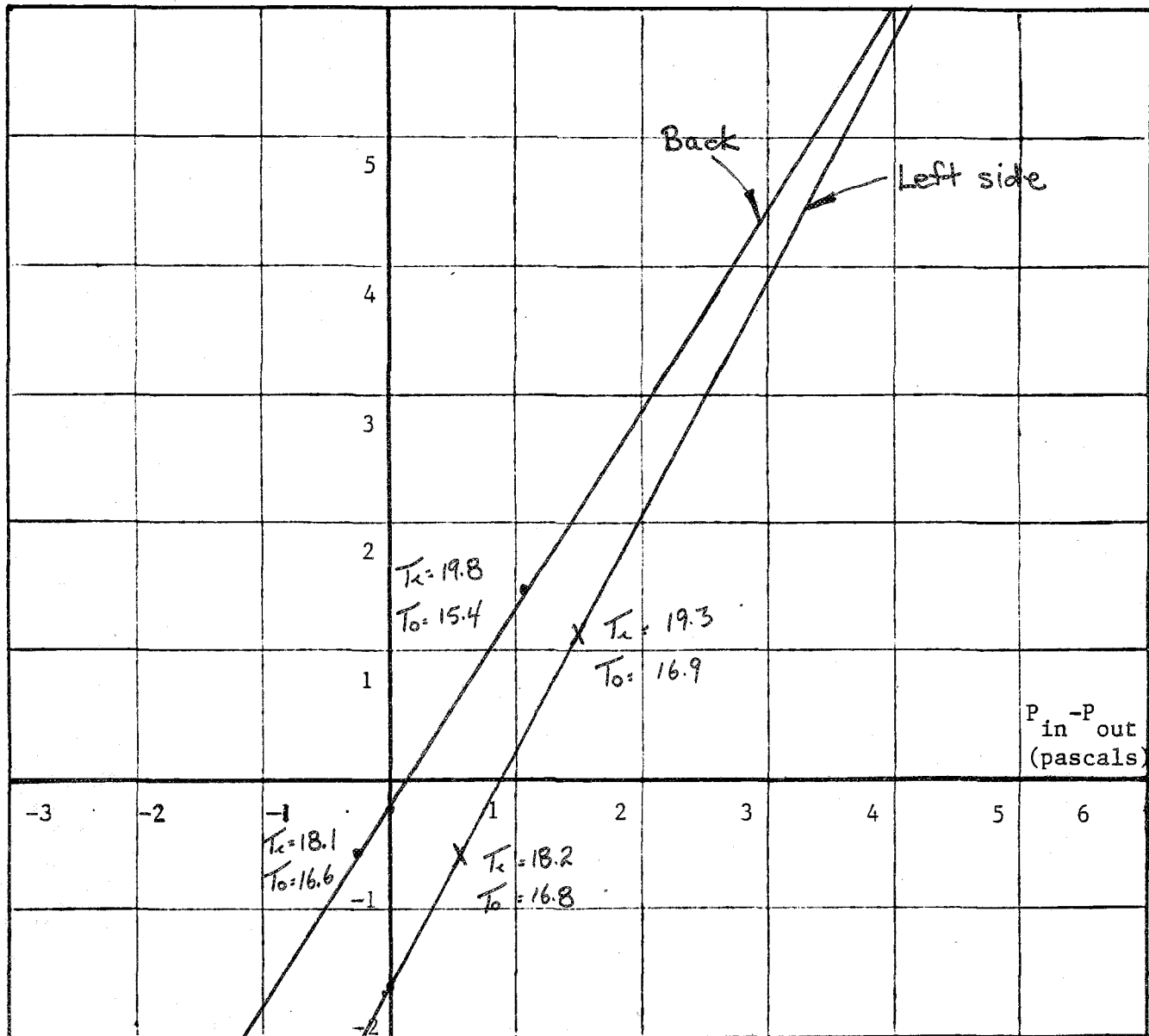
D-20  
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# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>23</u>	FRONT <u>—</u>	$T_{in} - T_{out}$ <u>4.0°C</u>
MODEL <u>CORTLAND</u>	BACK <u>-0.2 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 16/82</u>	RIGHT SIDE <u>—</u>	WIND SPEED <u>6</u> Km/h
TIME <u>13:00-13:30</u>	LEFT SIDE <u>-1.6 m</u>	WIND DIRECTION <u>W</u>
TECHNICIAN <u>Fugler/Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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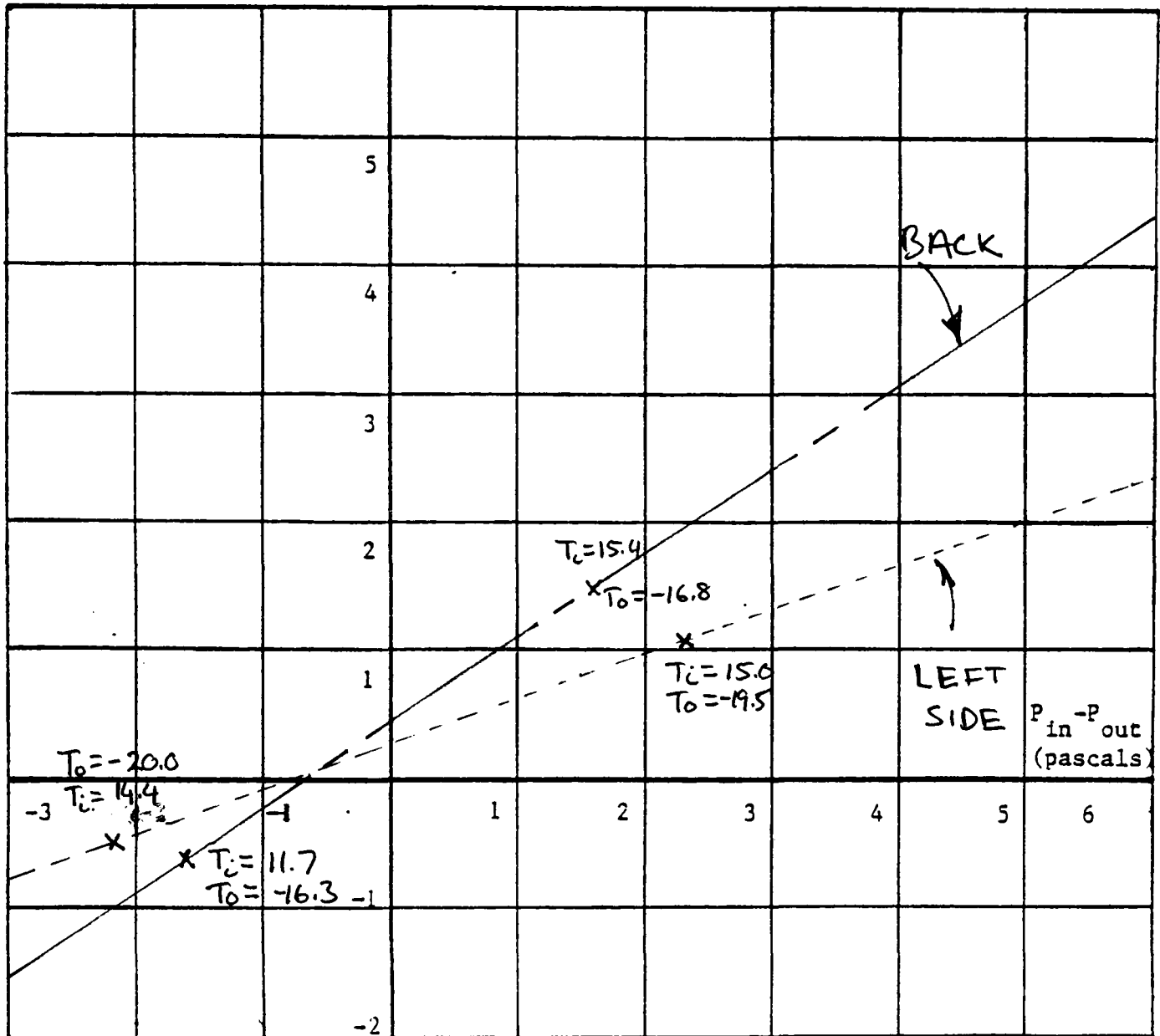
6-81

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>23</u>	FRONT _____	$T_{in} - T_{out}$ <u>36°C</u>
MODEL <u>CORTLAND</u>	BACK <u>0.4 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN. 19/83</u>	RIGHT SIDE _____	WIND SPEED <u>30</u> Km/h
TIME <u>10:35 - 10:55</u>	LEFT SIDE <u>0.3</u>	WIND DIRECTION <u>D.W.</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>D</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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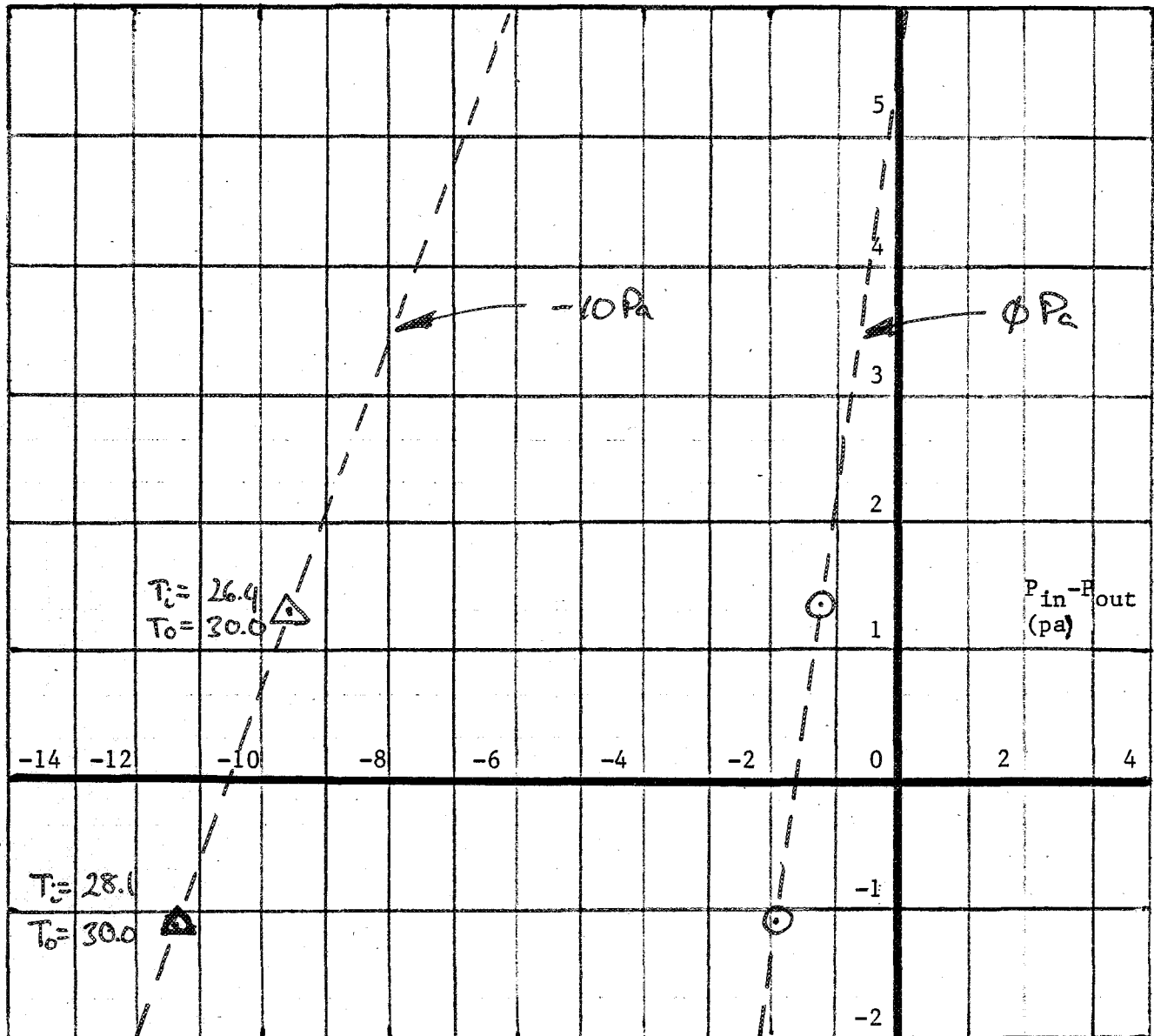
6-82

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>24</u>	FRONT _____	$T_{in} - T_{out}$ <u>-1°C</u>
MODEL <u>CORTLAND</u>	BACK <u>5m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JULY 8/82</u>	RIGHT SIDE _____	WIND SPEED <u>30</u> Km/h
TIME <u>11:15 - 11:35</u>	LEFT SIDE _____	WIND DIRECTION <u>W</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



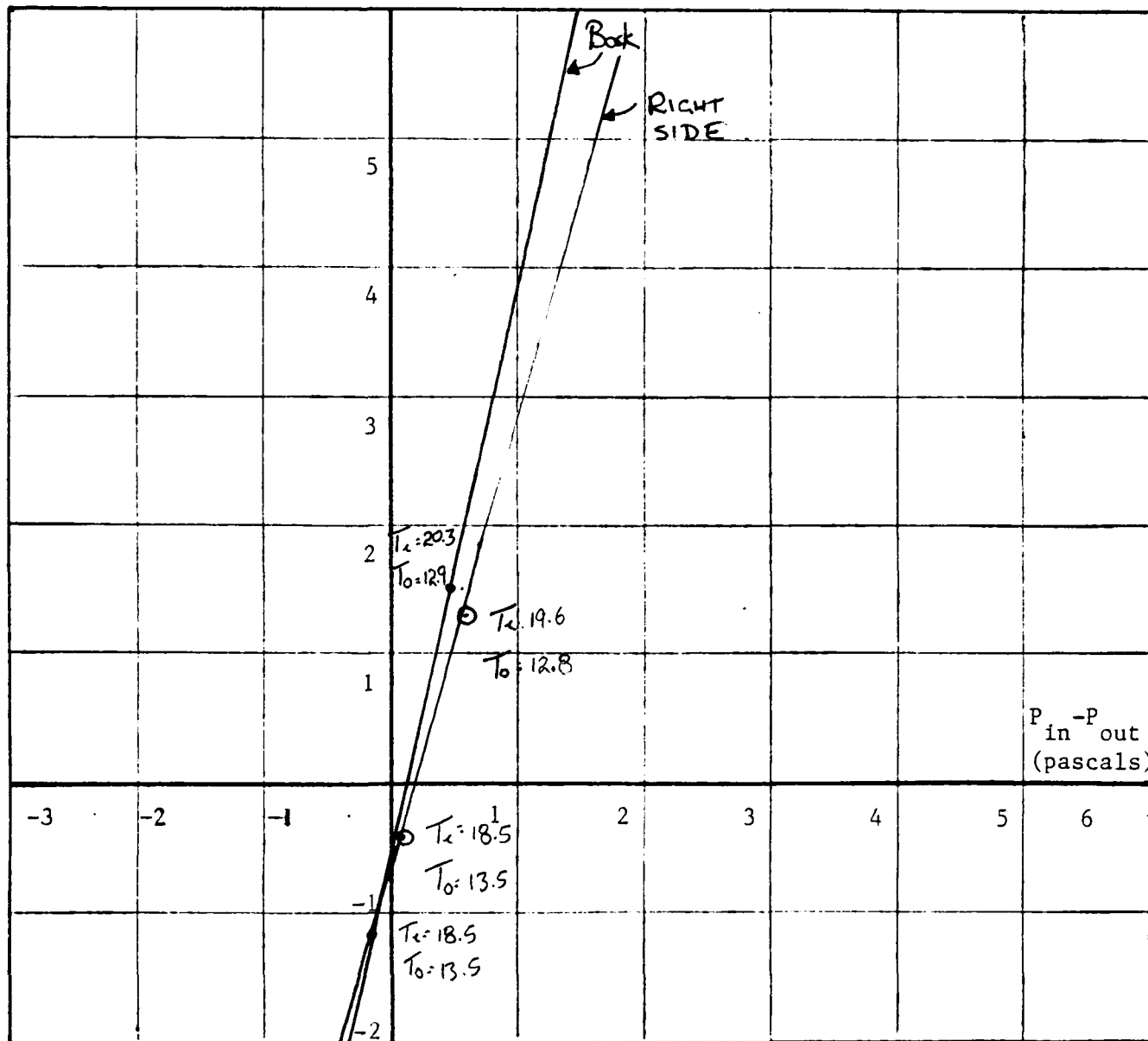
9:35  
-10:00

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>24</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>+7°C</u>
MODEL <u>CORTLAND</u>	BACK <u>-0.5 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT 21/82</u>	RIGHT SIDE <u>-0.6 m</u>	WIND SPEED <u>8</u> Km/h
TIME <u>9:35-10:00</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SE</u>
TECHNICIAN <u>Fugle/Pasquin</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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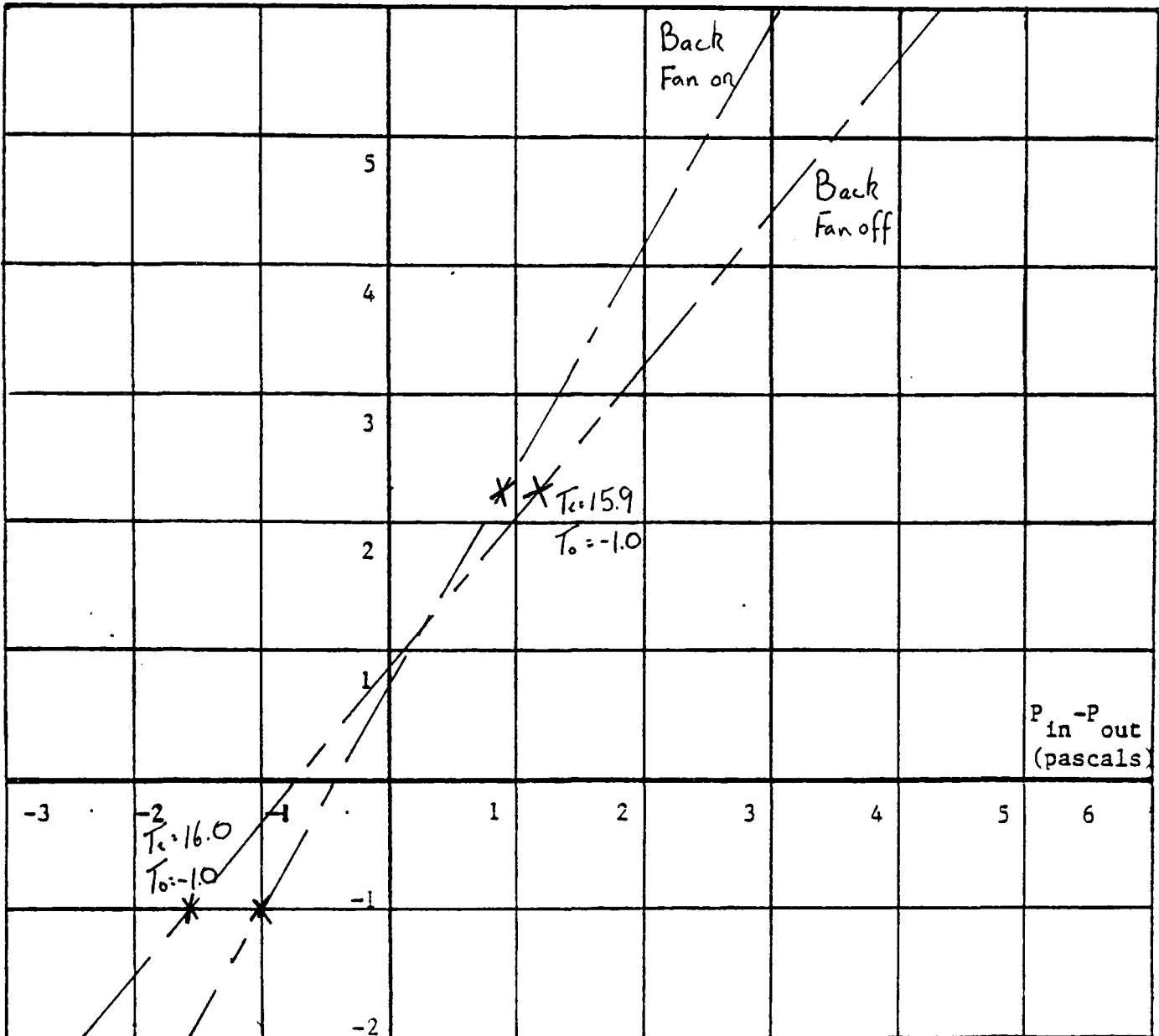
6-84

# Reinspectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>24</u>	BACK (Fan off) <u>0.90</u>	$T_{in} - T_{out}$ <u>+18.0°C</u>
MODEL <u>CORTLAND</u>	BACK (Fan on) <u>0.75</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JAN 07-83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>20</u> Km/h
TIME <u>09:30-9:40</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>EAST</u>
TECHNICIAN <u>SINHA/FUGLER</u>	FRONT OF HOUSE FACES <u>SW</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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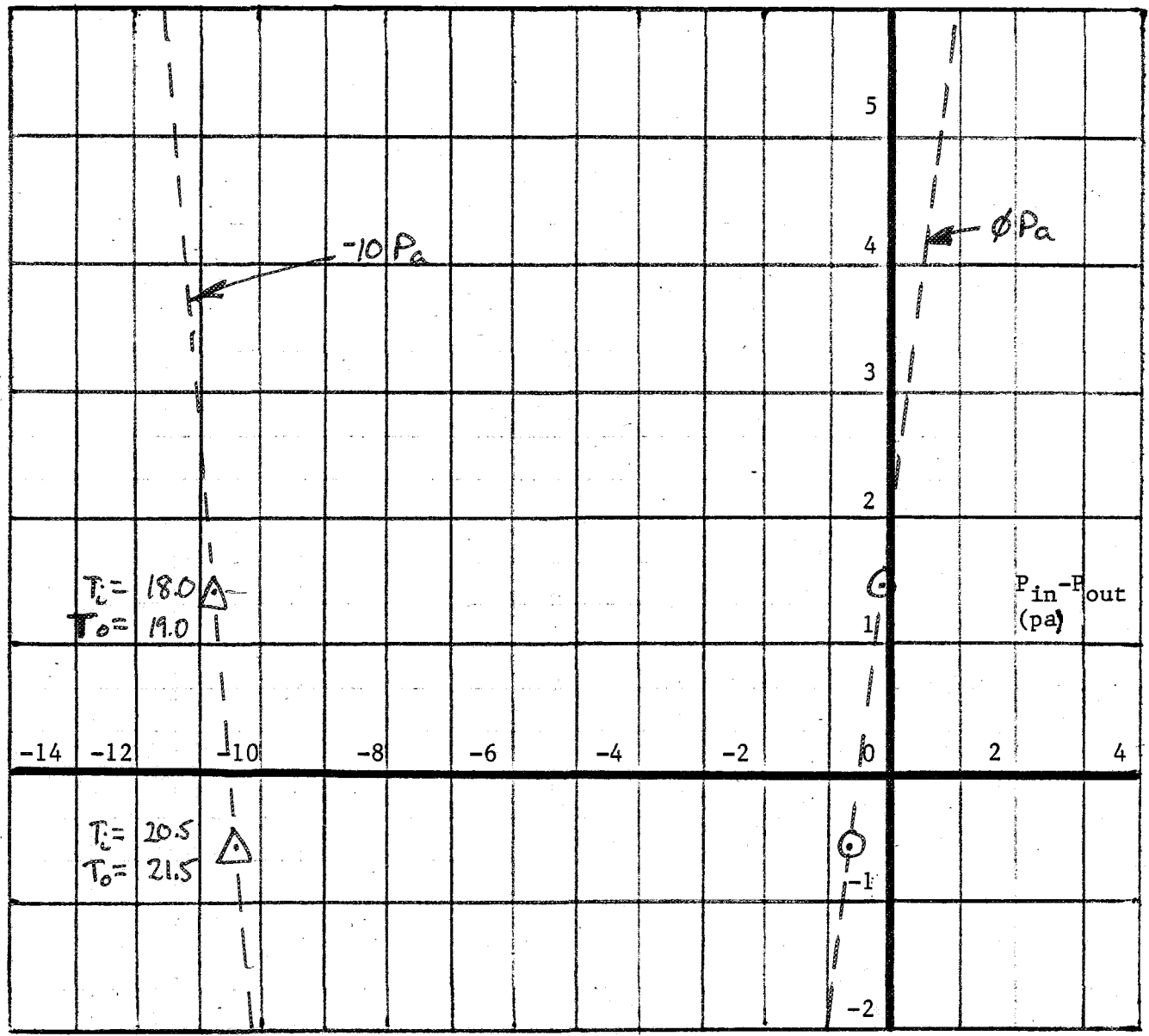
6-85

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>25</u>	FRONT _____	$T_{in} - T_{out}$ <u>-1°C</u>
MODEL <u>CORTLAND</u>	BACK <u>2m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JUNE 18/82</u>	RIGHT SIDE _____	WIND SPEED <u>9</u> Km/h
TIME <u>11:20-11:40</u>	LEFT SIDE _____	WIND DIRECTION <u>W</u>
TECHNICIAN <u>EUGEN ISETOX</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



176 Bronson Ave.  
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6-86

13:30  
13:50

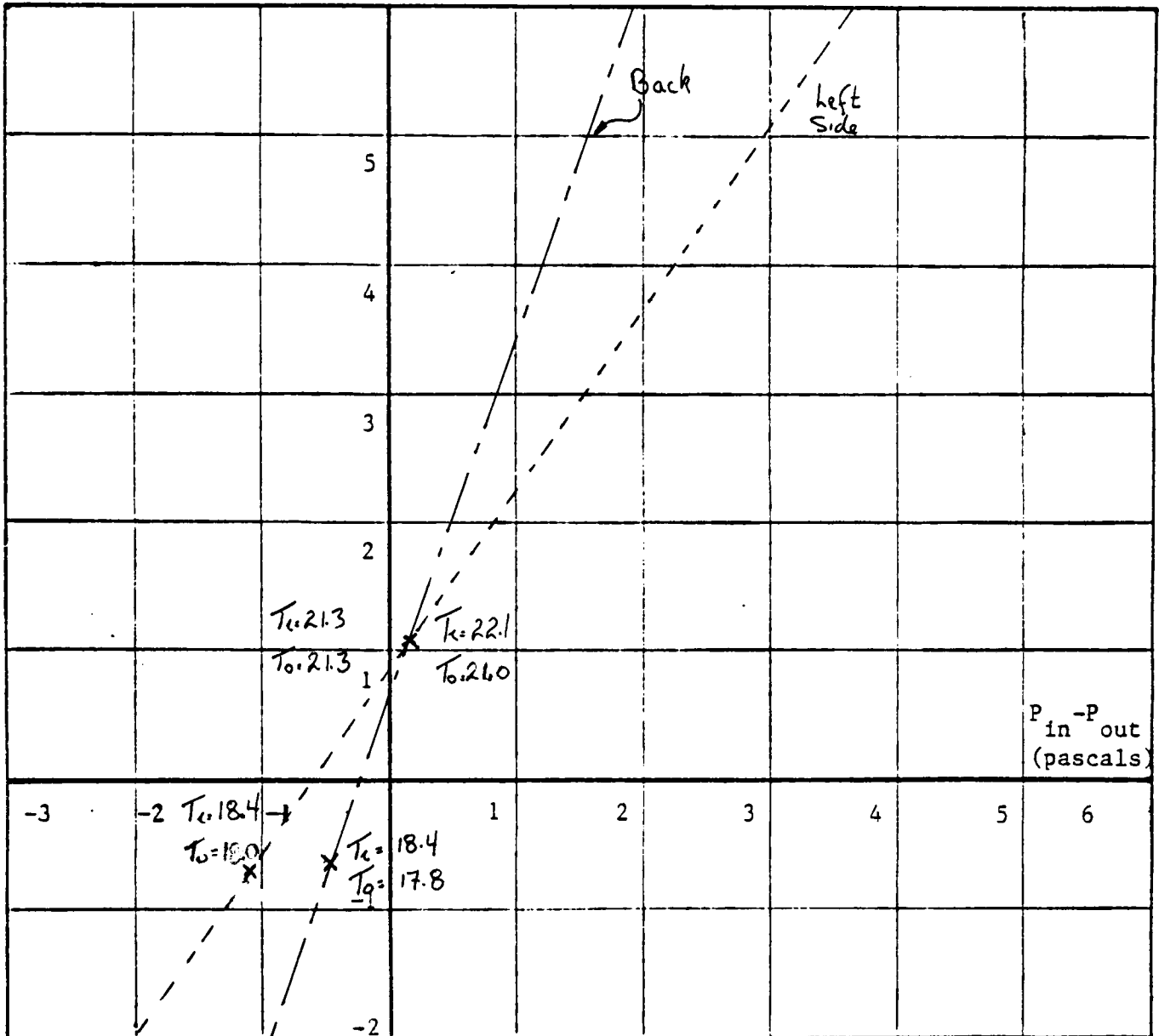
D-22  
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of \_\_\_\_\_

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>25</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>0°C</u>
MODEL <u>CORTLAND</u>	---BACK <u>+0.70m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCTOBER 06/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>8</u> Km/h
TIME <u>1330-13:50</u>	----LEFT SIDE <u>+0.85m</u>	WIND DIRECTION <u>W</u>
TECHNICIAN <u>FUGLER/PASQ.</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)





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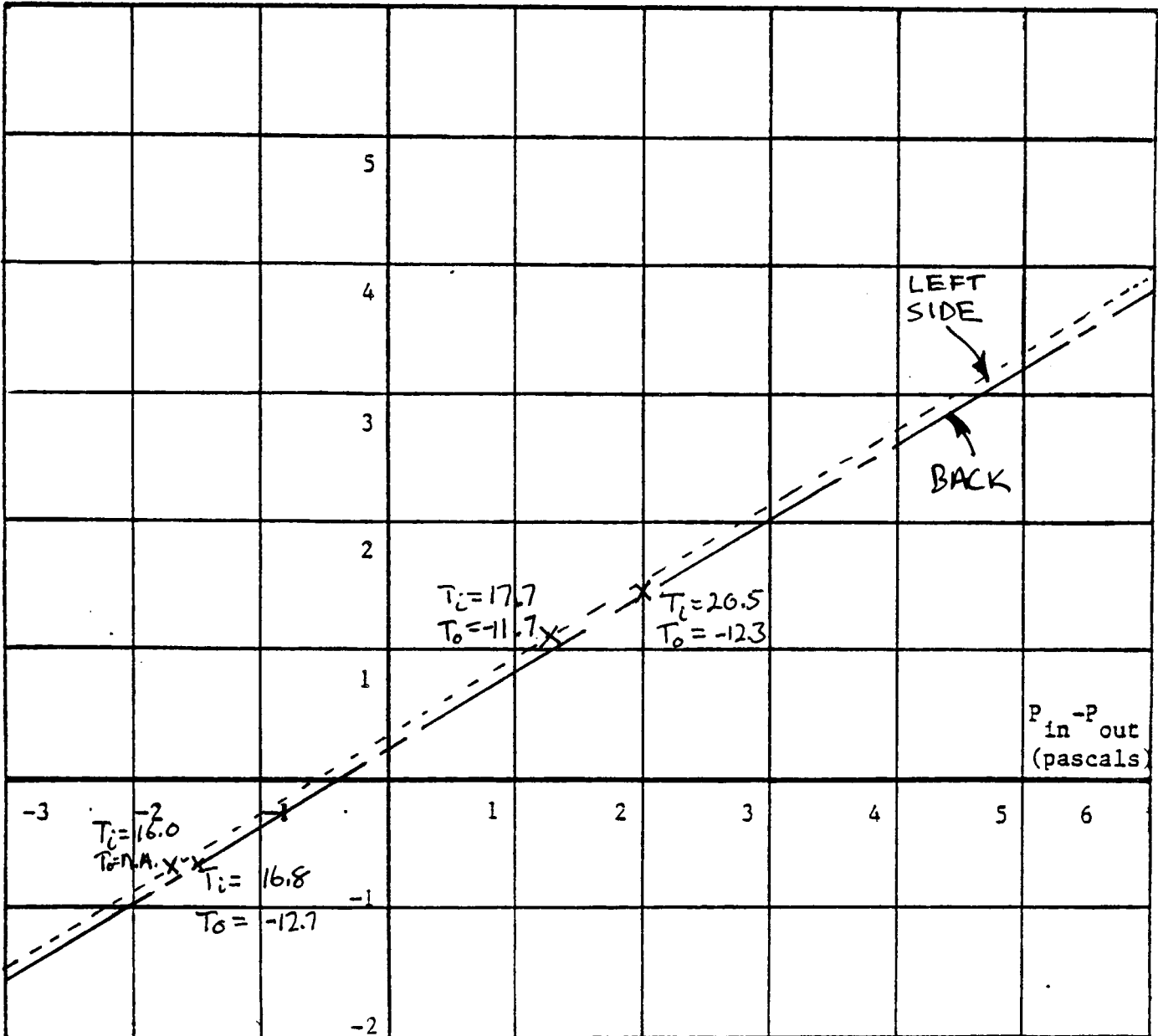
6-87

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## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>25</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>29°C</u>
MODEL <u>CORTLAND</u>	BACK <u>0.3</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>DEC. 10/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>15</u> Km/h
TIME <u>10:45-11:50</u>	LEFT SIDE <u>0.4</u>	WIND DIRECTION <u>East</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>SW</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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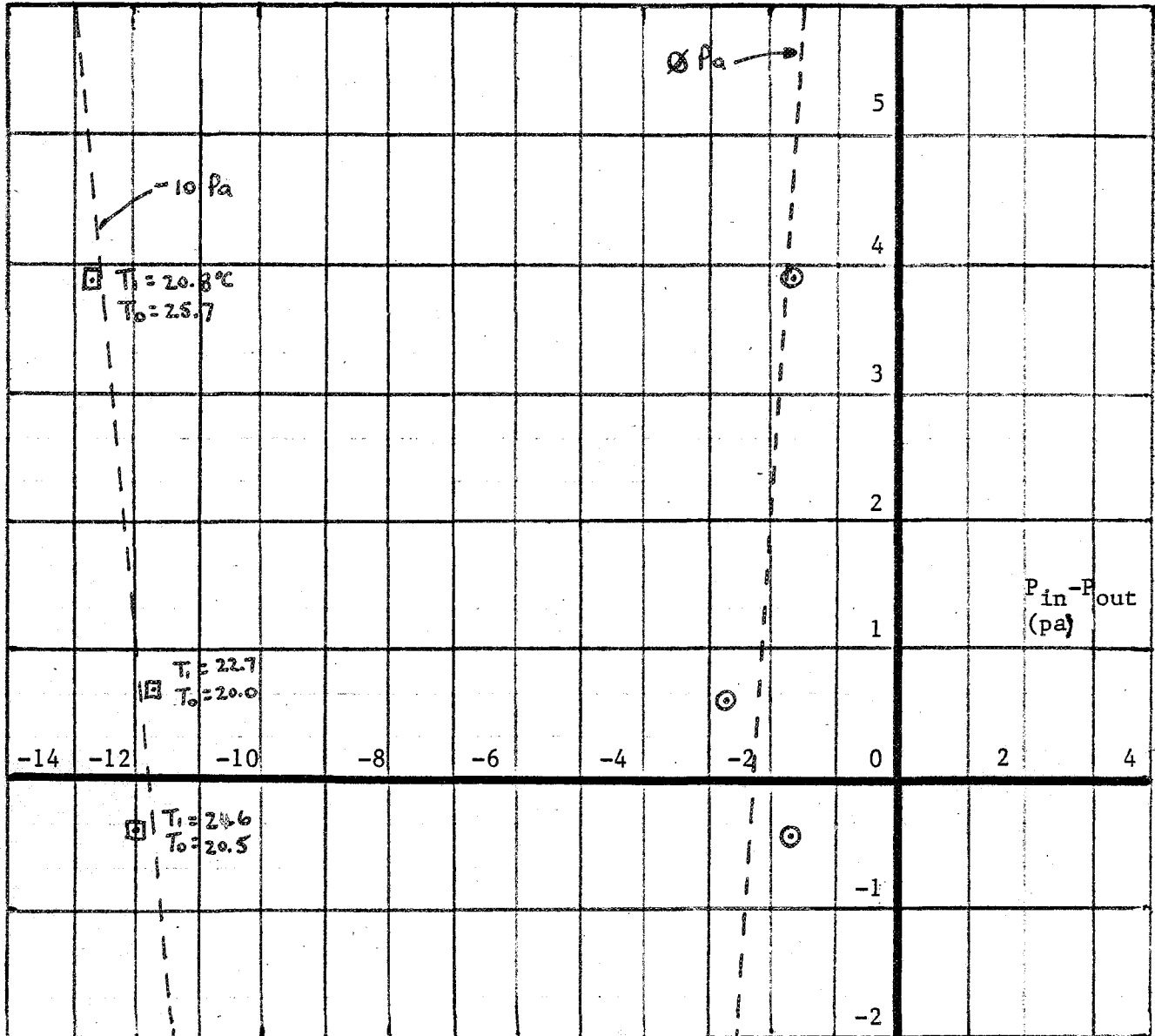
6-88

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>27</u>	FRONT _____	$T_{in} - T_{out}$ <u>3 °C</u>
MODEL <u>Willow</u>	BACK <u>N/A</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>July 29/82</u>	RIGHT SIDE _____	WIND SPEED <u>10</u> Km/h
TIME <u>15:10 - 15:35</u>	LEFT SIDE _____	WIND DIRECTION <u>East</u>
TECHNICIAN <u>Seton / Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)

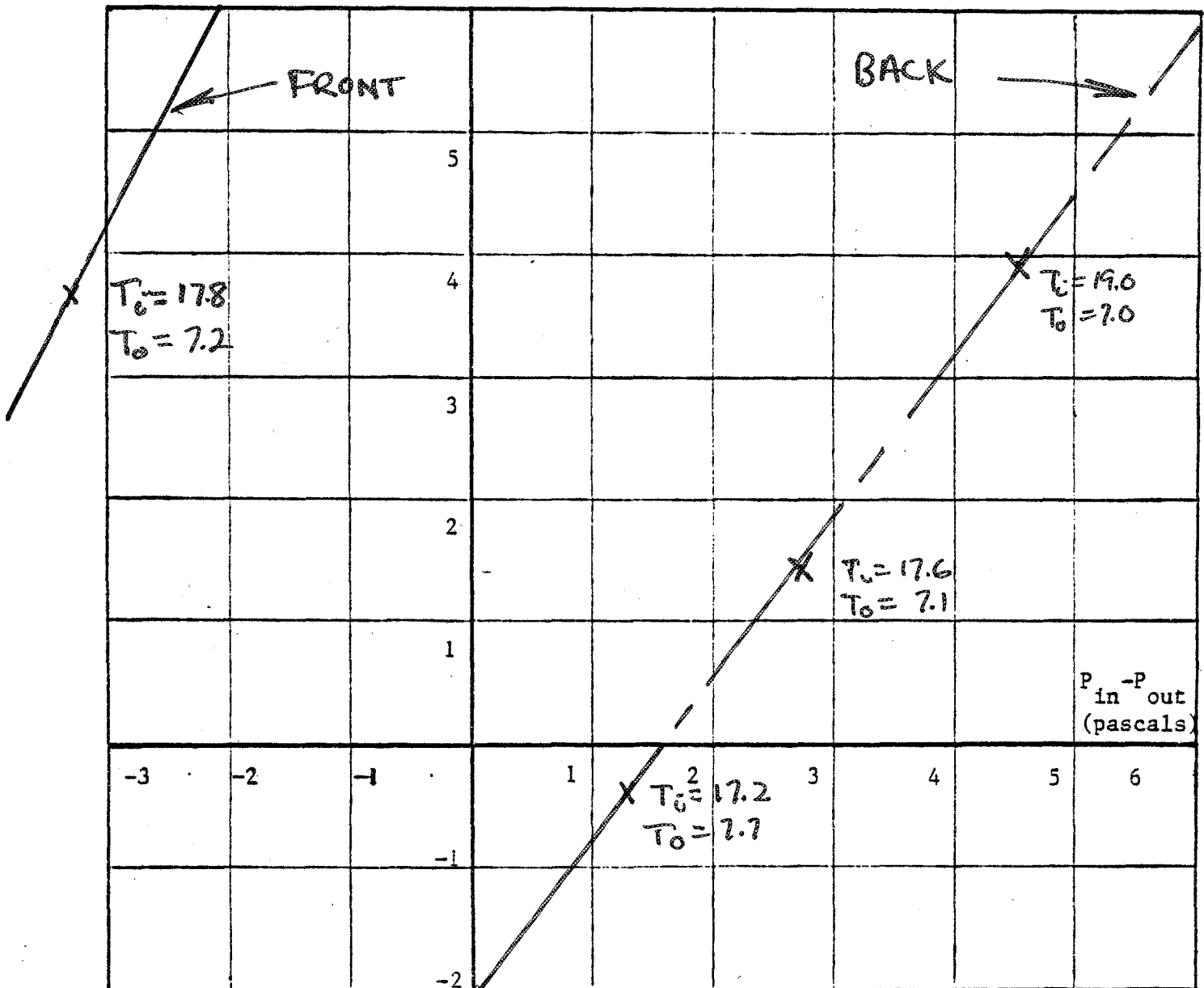


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>27</u>	— FRONT <u>2.8m</u>	$T_{in} - T_{out}$ <u>10°C</u>
MODEL <u>WILLOW</u>	- - BACK <u>-2.0m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>OCT. 21/82</u>	RIGHT SIDE _____	WIND SPEED <sup>30-</sup> <u>52</u> Km/h
TIME <u>9:30-10:30</u>	LEFT SIDE _____	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>FAGLE/SINHA</u>		

### HEIGHT ABOVE FOUNDATION WALL (METRES)



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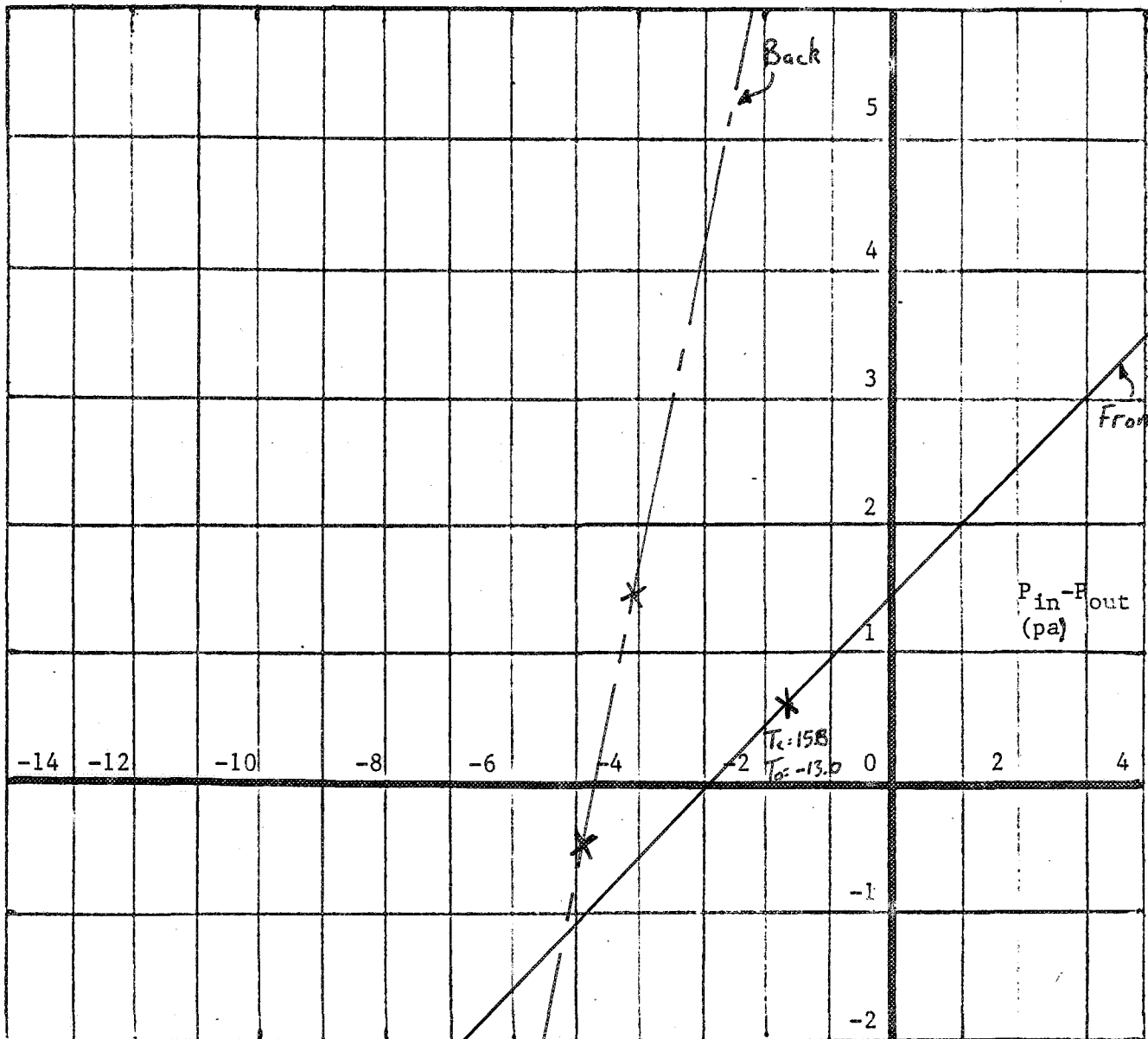
6-90

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 of \_\_\_\_\_

# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>27</u>	FRONT <u>1.4 m</u>	$T_{in} - T_{out}$ <u>31°C</u>
MODEL <u>WILLOW</u>	BACK <u>IND</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>FEB 09-83</u>	RIGHT SIDE <u>N.A</u>	WIND SPEED <u>30</u> Km/h
TIME <u>13:40 - 14:00</u>	LEFT SIDE <u>N.A</u>	WIND DIRECTION <u>N.W</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT FACES: <u>South</u>	

HEIGHT ABOVE FOUNDATION WALL (METERS)



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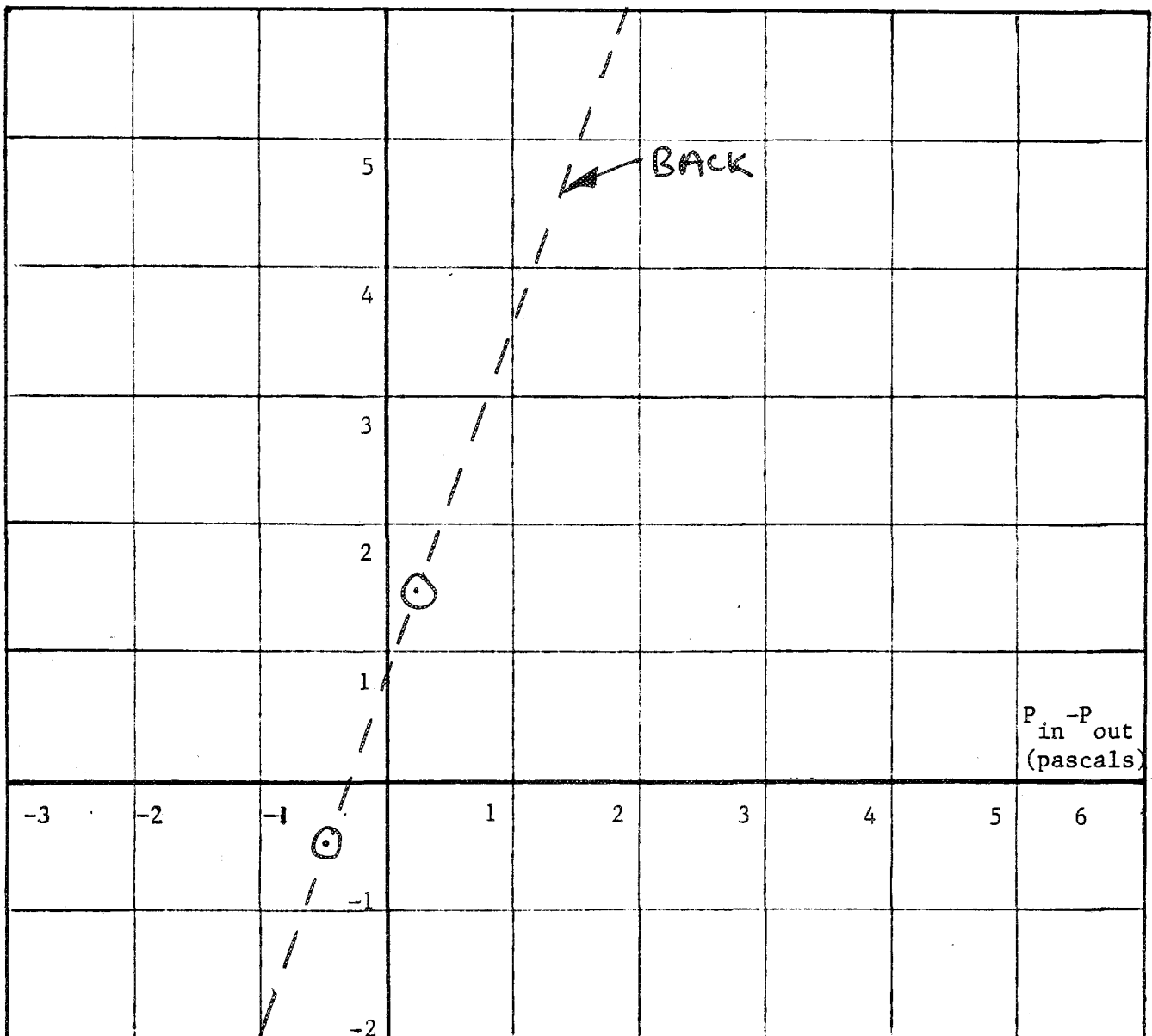
6-91

# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>28</u>	FRONT _____	$T_{in} - T_{out}$ <u>2°C</u>
MODEL <u>WILLOW</u>	BACK <u>0.7 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>MAY 25 / 82</u>	RIGHT SIDE _____	WIND SPEED <u>12</u> Km/h
TIME <u>14:05 - 15:00</u>	LEFT SIDE _____	WIND DIRECTION <u>WNW</u>
TECHNICIAN <u>FUGLER/SETON</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)

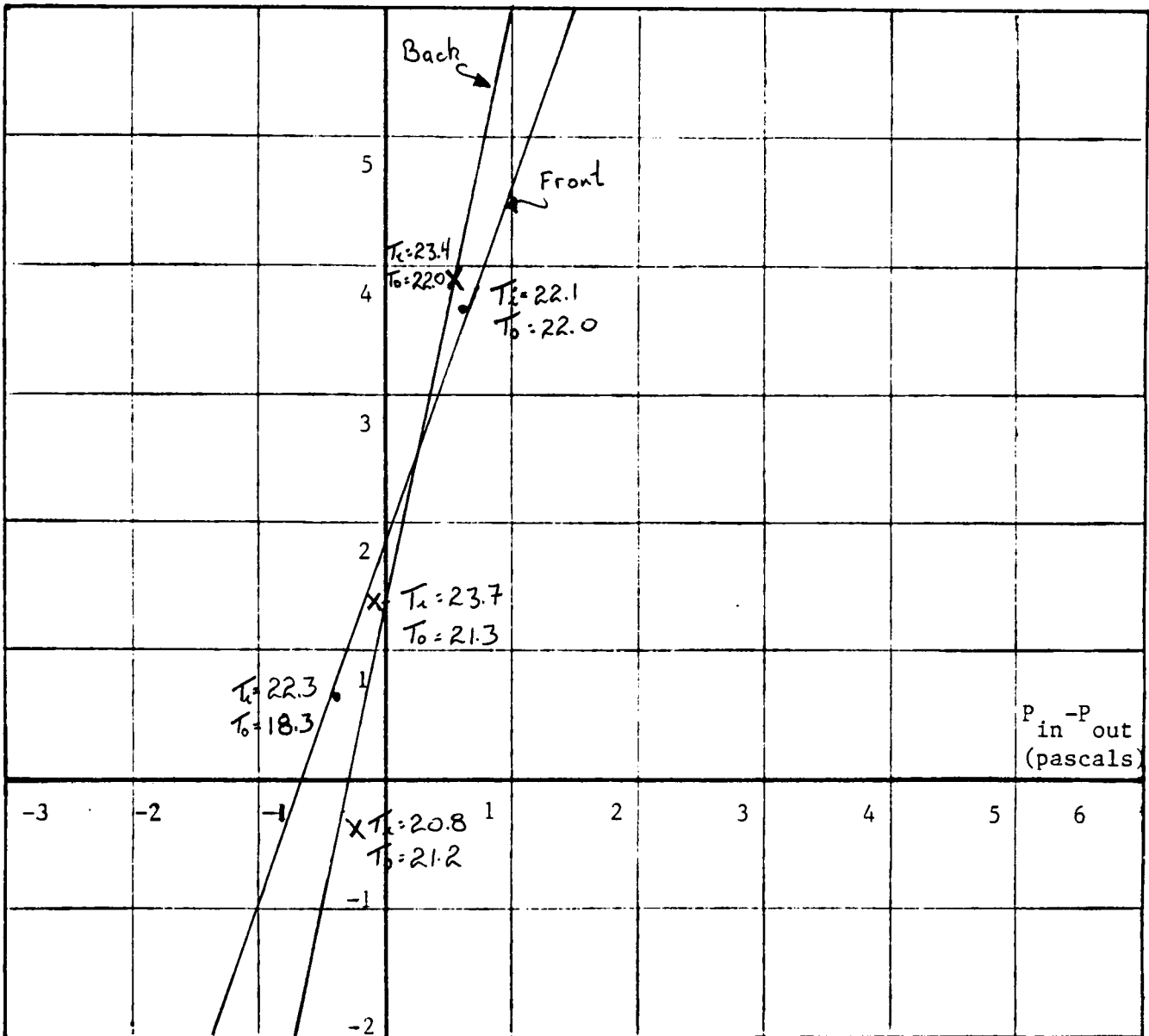


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>28</u>	FRONT <u>1.9 m</u>	$T_{in} - T_{out}$ <u>+4.0°C</u>
MODEL <u>WILLOW</u>	BACK <u>1.4 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 28 / 82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>20</u> Km/h
TIME <u>14:15 - 14:40</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>NW</u>
TECHNICIAN <u>Fugler / Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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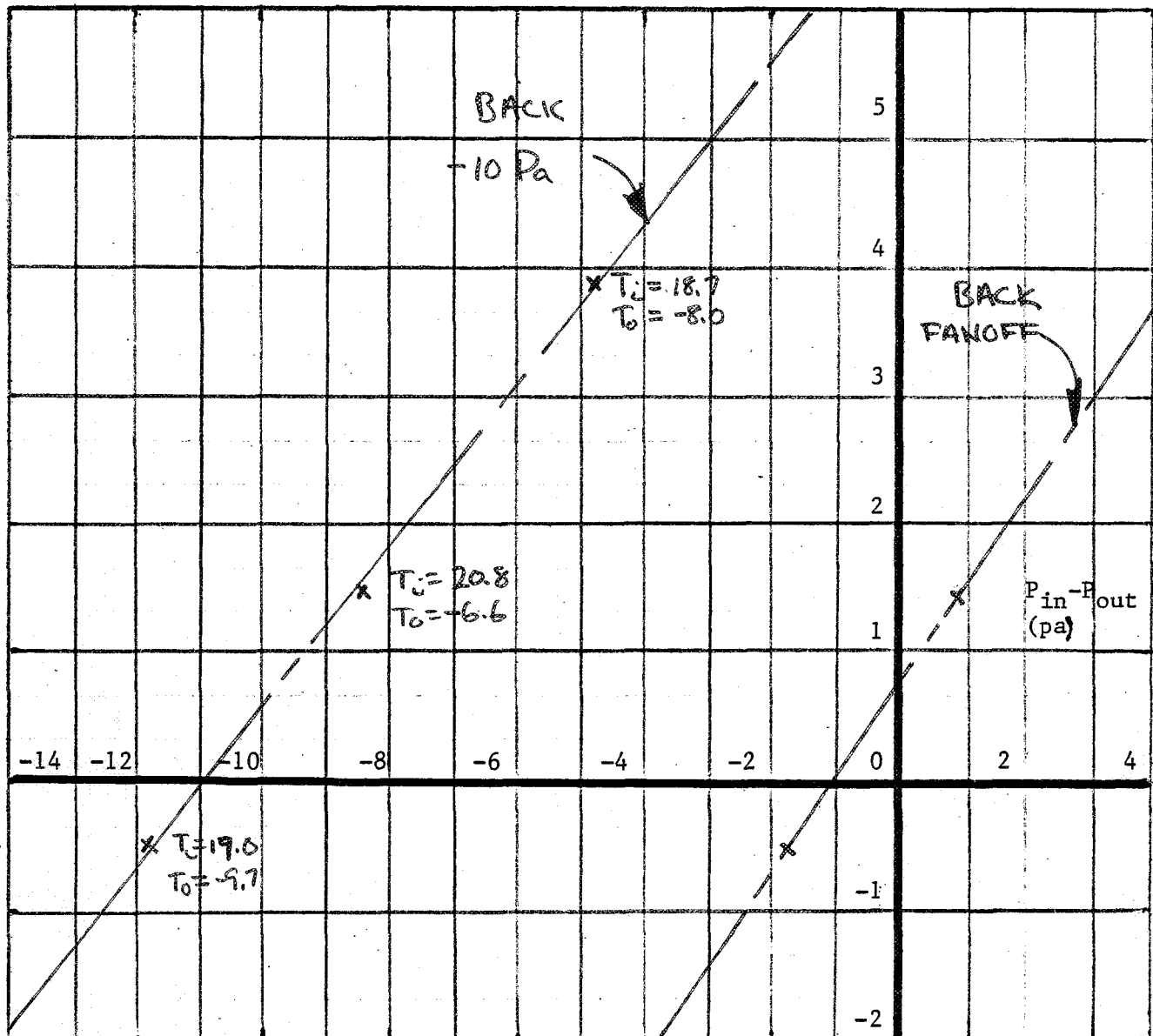
6-93

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>28</u>	FRONT _____	$T_{in} - T_{out}$ <u>27°C</u>
MODEL <u>WILLOW</u>	Fan off BACK <u>0.8m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>JAN. 13 1983</u>	RIGHT SIDE _____	WIND SPEED <u>6</u> Km/h
TIME <u>13:30-14:16</u>	LEFT SIDE _____	WIND DIRECTION <u>W</u>
TECHNICIAN <u>ENGLEB/SINHA</u>	FRONT OF HOUSE FACES NE	

HEIGHT ABOVE FOUNDATION WALL (METERS)

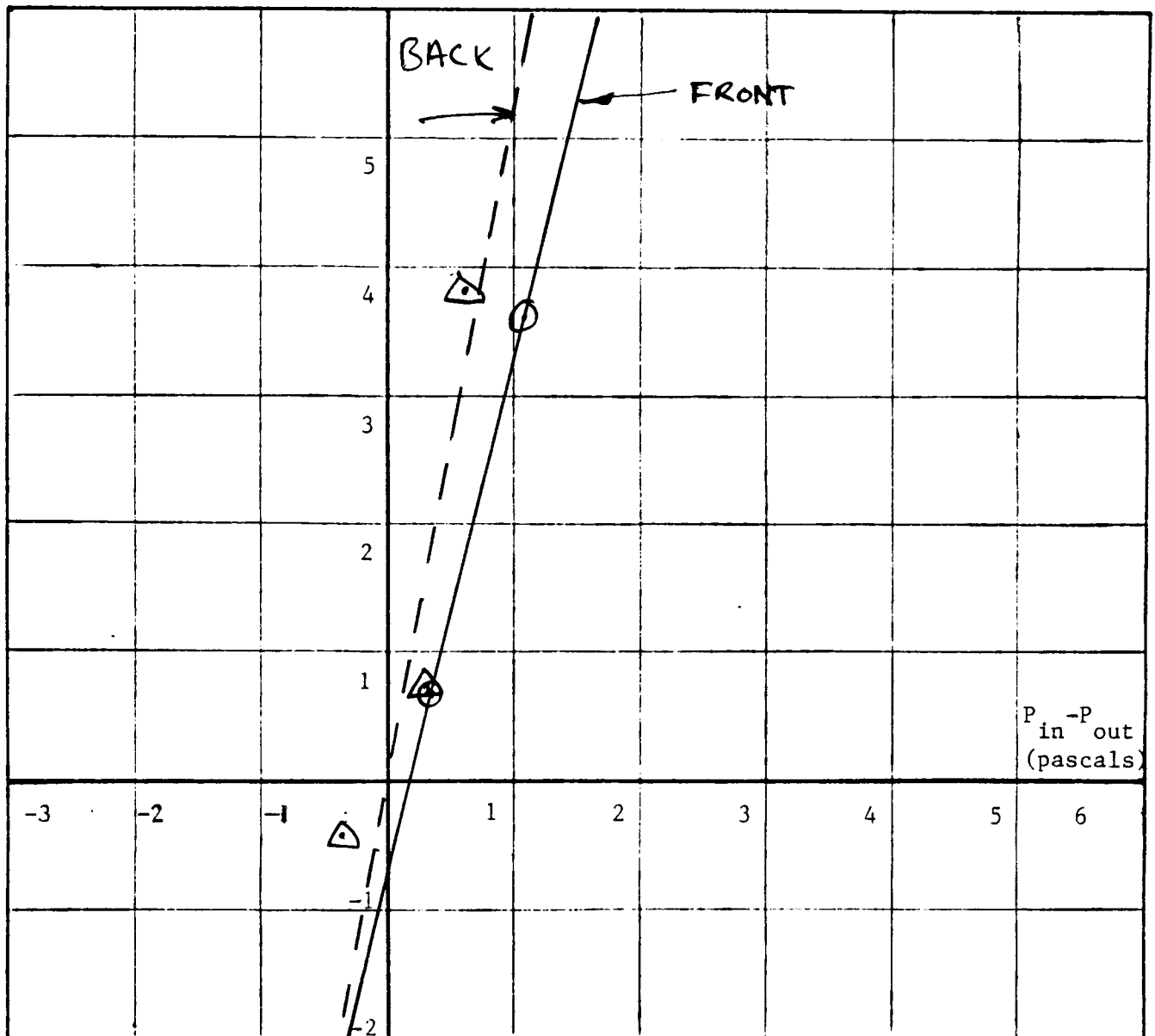


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>29</u>	FRONT <u>-0.7m</u>	$T_{in} - T_{out}$ <u>2°C</u>
MODEL <u>WILLOW</u>	BACK <u>0m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>MAY 27/82</u>	RIGHT SIDE _____	WIND SPEED <u>ϕ</u> Km/h
TIME <u>8:20-9:10</u>	LEFT SIDE _____	WIND DIRECTION <u>-</u>
TECHNICIAN <u>FUGLER</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)





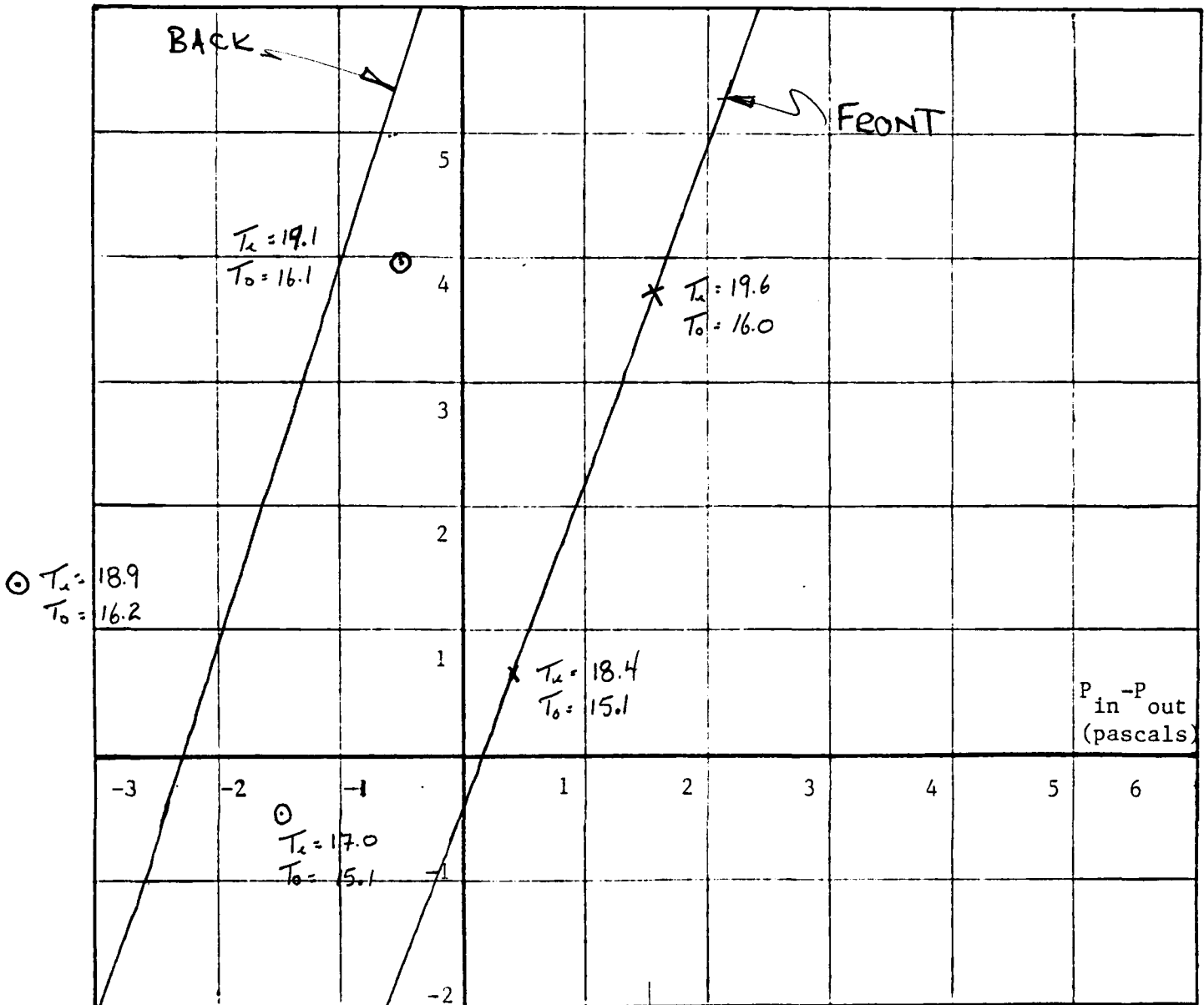
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**Respectors**

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>29</u>	FRONT <u>-0.3 m</u>	$T_{in} - T_{out}$ <u>+5</u>
MODEL <u>WILLOW</u>	BACK <u>≈ 7.0 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 22/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>15</u> Km/h
TIME <u>9:30</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>NE</u>
TECHNICIAN <u>Fugler/Pasquim</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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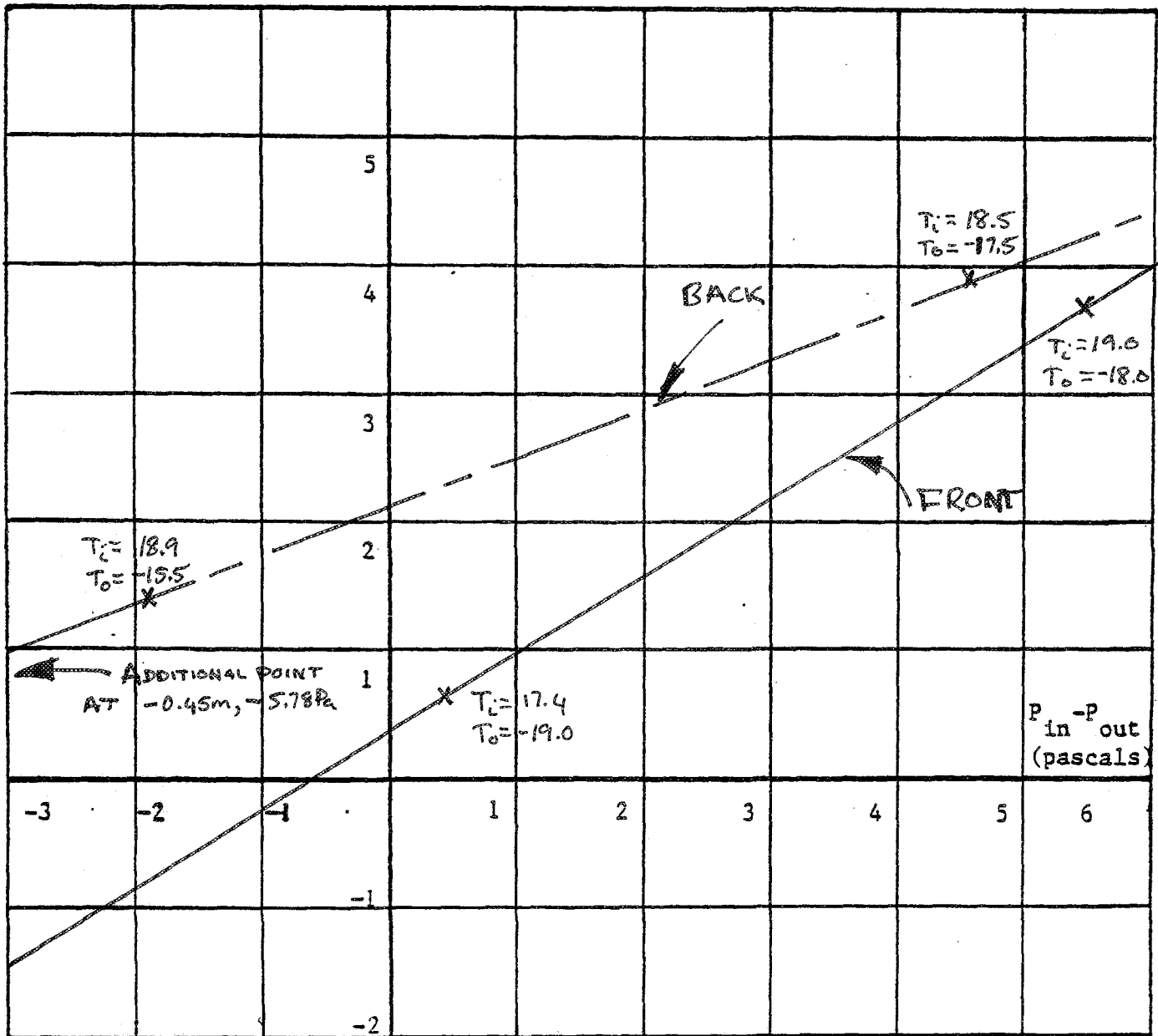
6-96

# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>29</u>	FRONT <u>0.4</u>	$T_{in} - T_{out}$ <u>35.0°C</u>
MODEL <u>WILLOW</u>	BACK <u>2.1</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN. 4/83</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>11</u> Km/h
TIME <u>10:00-10:35</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>East</u>
TECHNICIAN <u>ENGLEB/SINHA</u>	FRONT OF HOUSE FACES <u>WSW</u>	

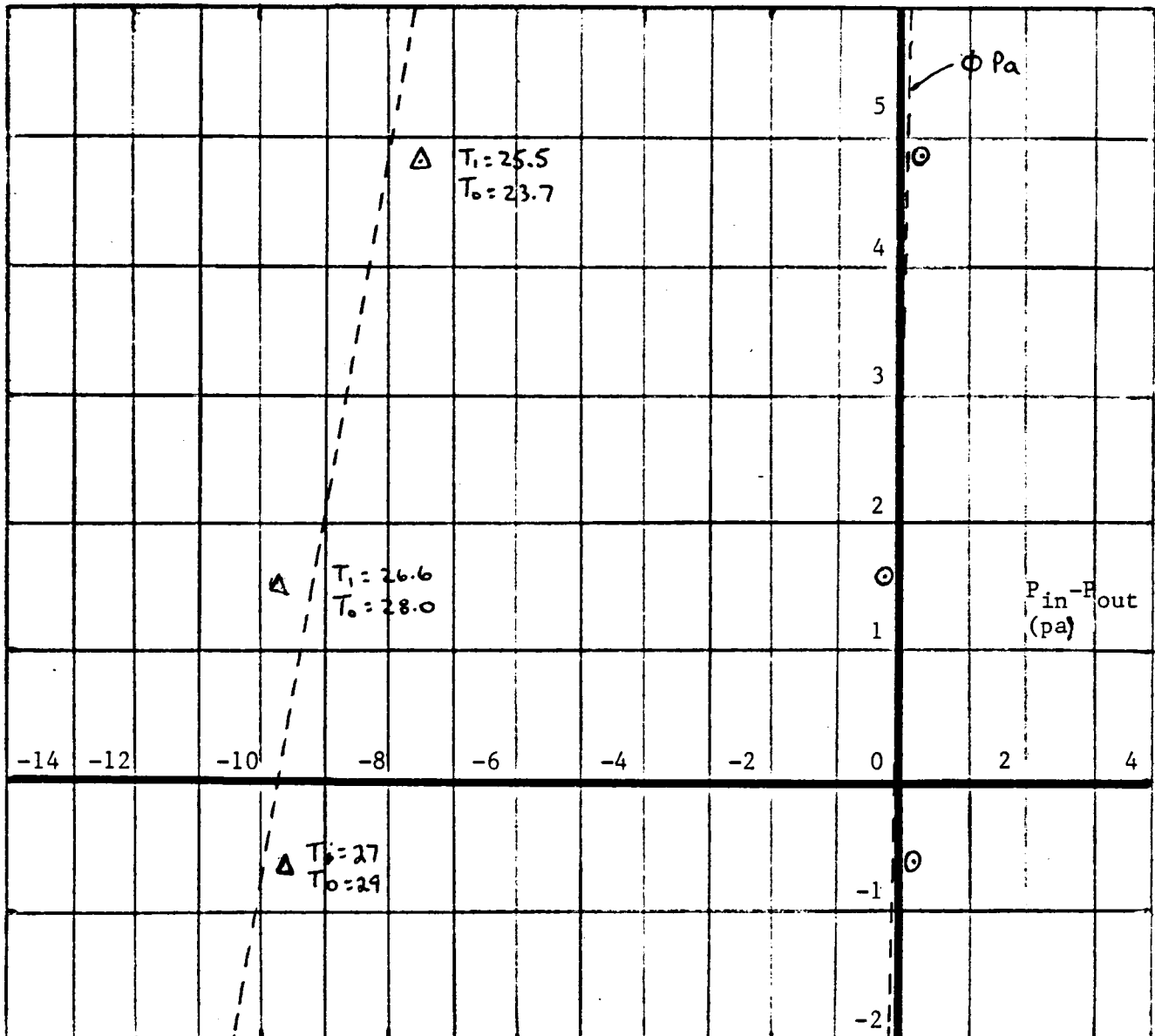
HEIGHT ABOVE FOUNDATION WALL (METRES)



# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>30</u>	FRONT _____	$T_{in} - T_{out}$ <u>-3°C</u>
MODEL <u>Willow</u>	BACK <u>N/A</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>July 7/82</u>	RIGHT SIDE _____	WIND SPEED <u>15</u> Km/h
TIME <u>11:00-11:30</u>	LEFT SIDE _____	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>Seton / Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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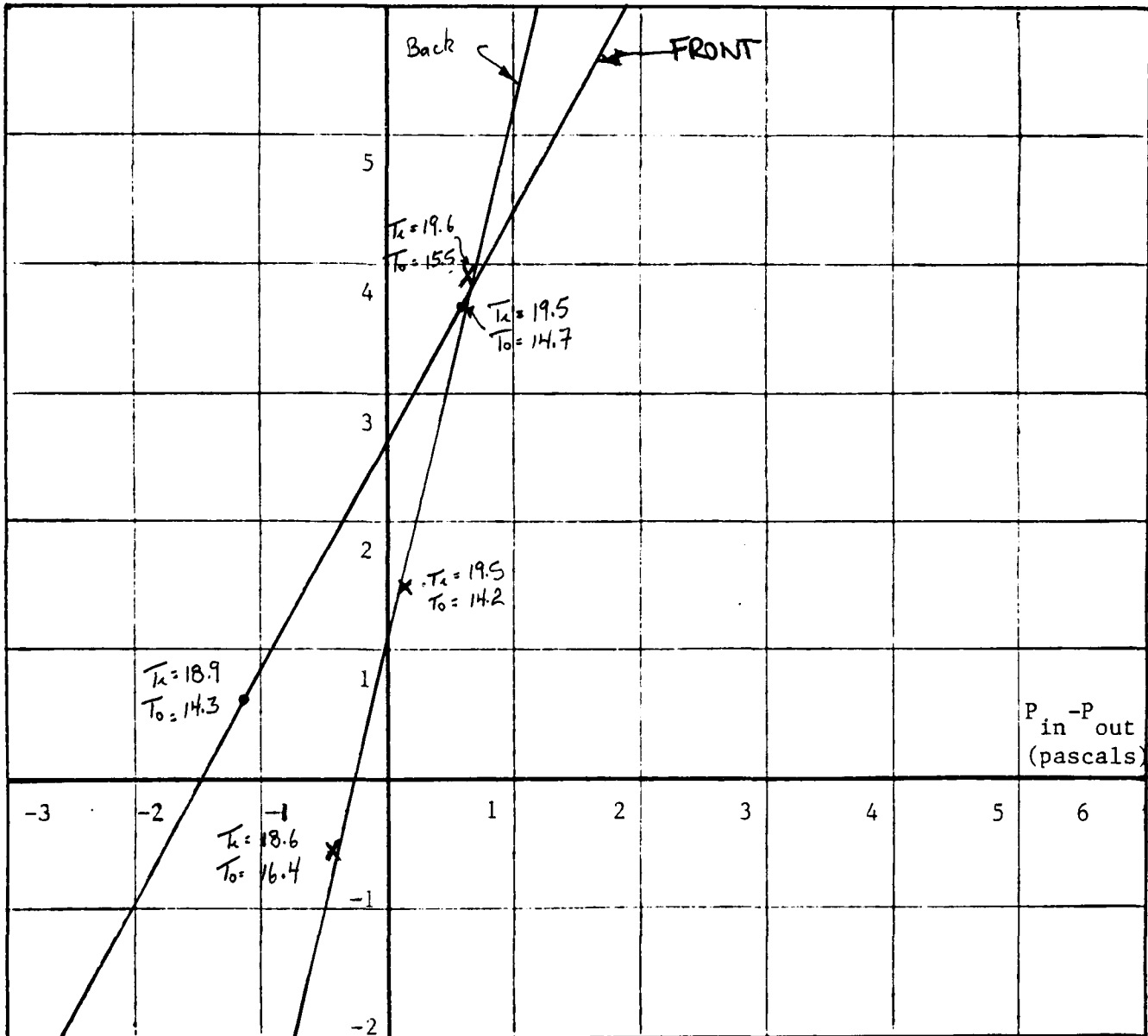
D-26  
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# Reinspectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>30</u>	FRONT <u>2.7 m</u>	$T_{in} - T_{out}$ <u>+6.0°C</u>
MODEL <u>WILLOW</u>	BACK <u>1.2 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 30/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>13</u> Km/h
TIME <u>10:05-10:40</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SE</u>
TECHNICIAN <u>Eugles</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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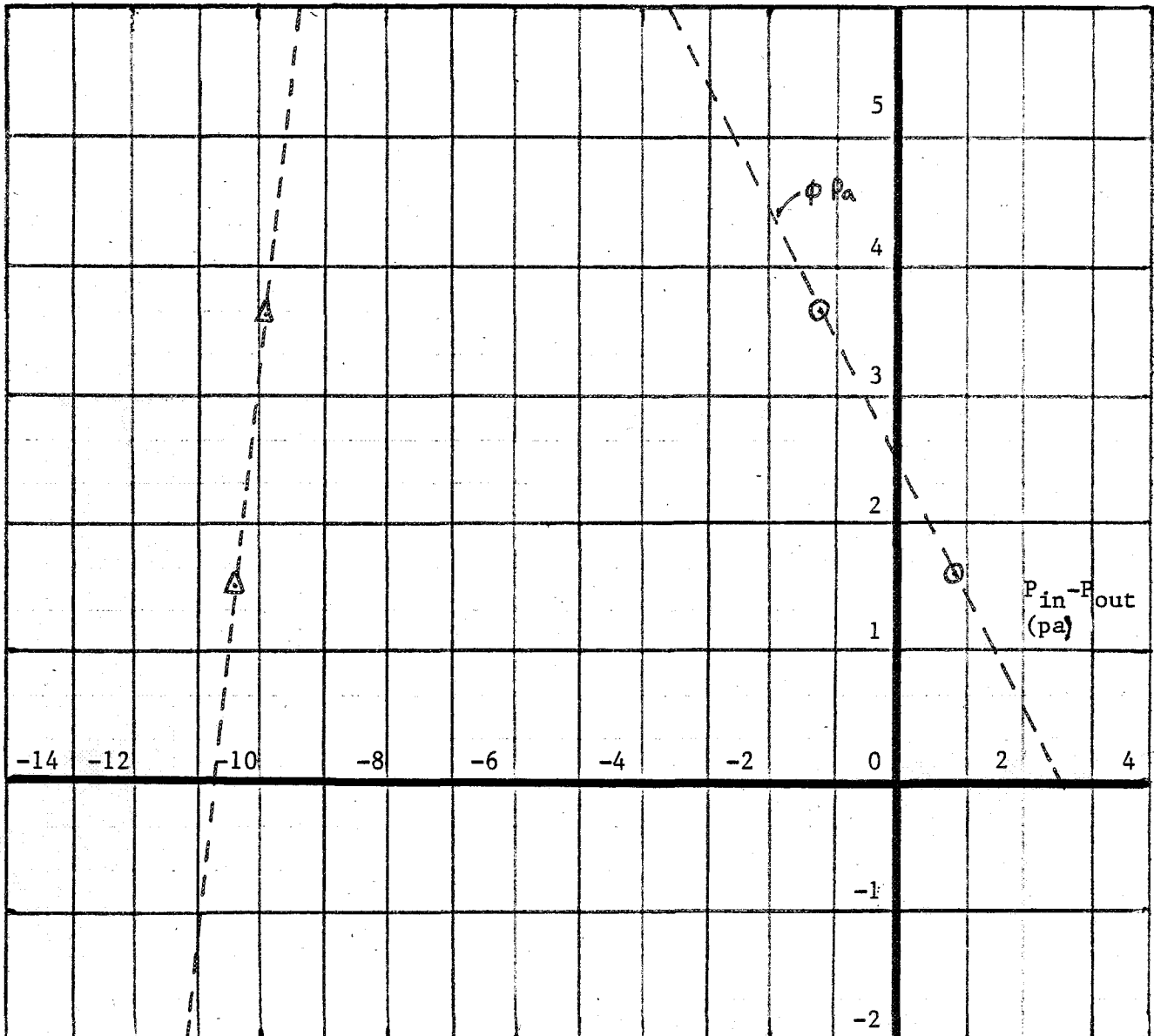
6-99

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>31</u>	FRONT <u>2.6 m</u>	$T_{in} - T_{out}$ <u>-2.5°C</u>
MODEL <u>York</u>	BACK _____	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>June 7/82</u>	RIGHT SIDE _____	WIND SPEED <u>8</u> Km/h
TIME <u>14:30-15:15</u>	LEFT SIDE _____	WIND DIRECTION <u>East</u>
TECHNICIAN <u>Seton / Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)

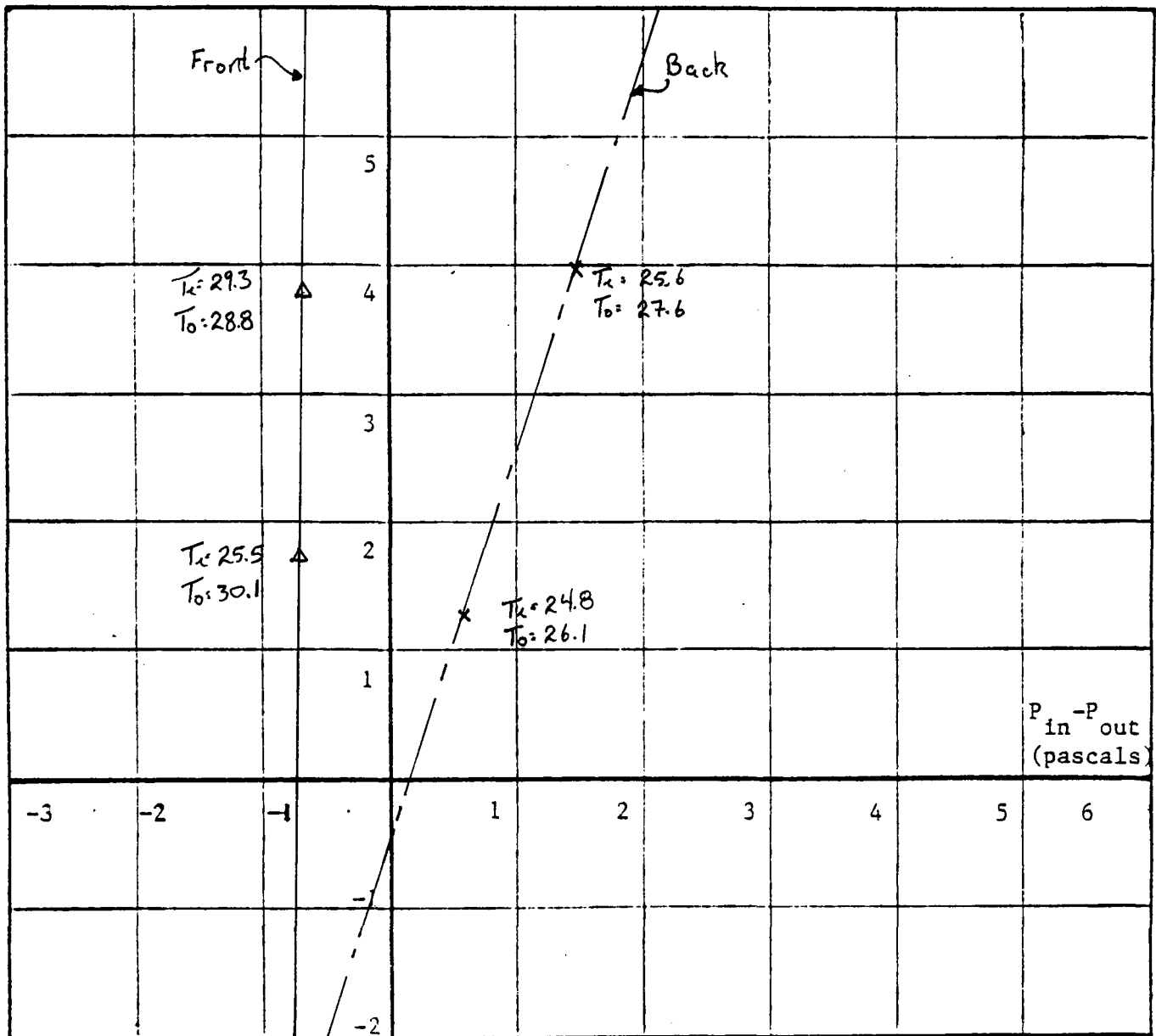


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>31</u>	— FRONT <u>N/A</u>	$T_{in} - T_{out}$ <u>-1°C</u>
MODEL <u>York</u>	- - BACK <u>-0.45m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>Sept 13/82</u>	RIGHT SIDE _____	WIND SPEED <u>7</u> Km/h
TIME <u>12:30 - 13:30</u>	LEFT SIDE _____	WIND DIRECTION <u>SE</u>
TECHNICIAN <u>Pasquini</u>		

### HEIGHT ABOVE FOUNDATION WALL (METRES)





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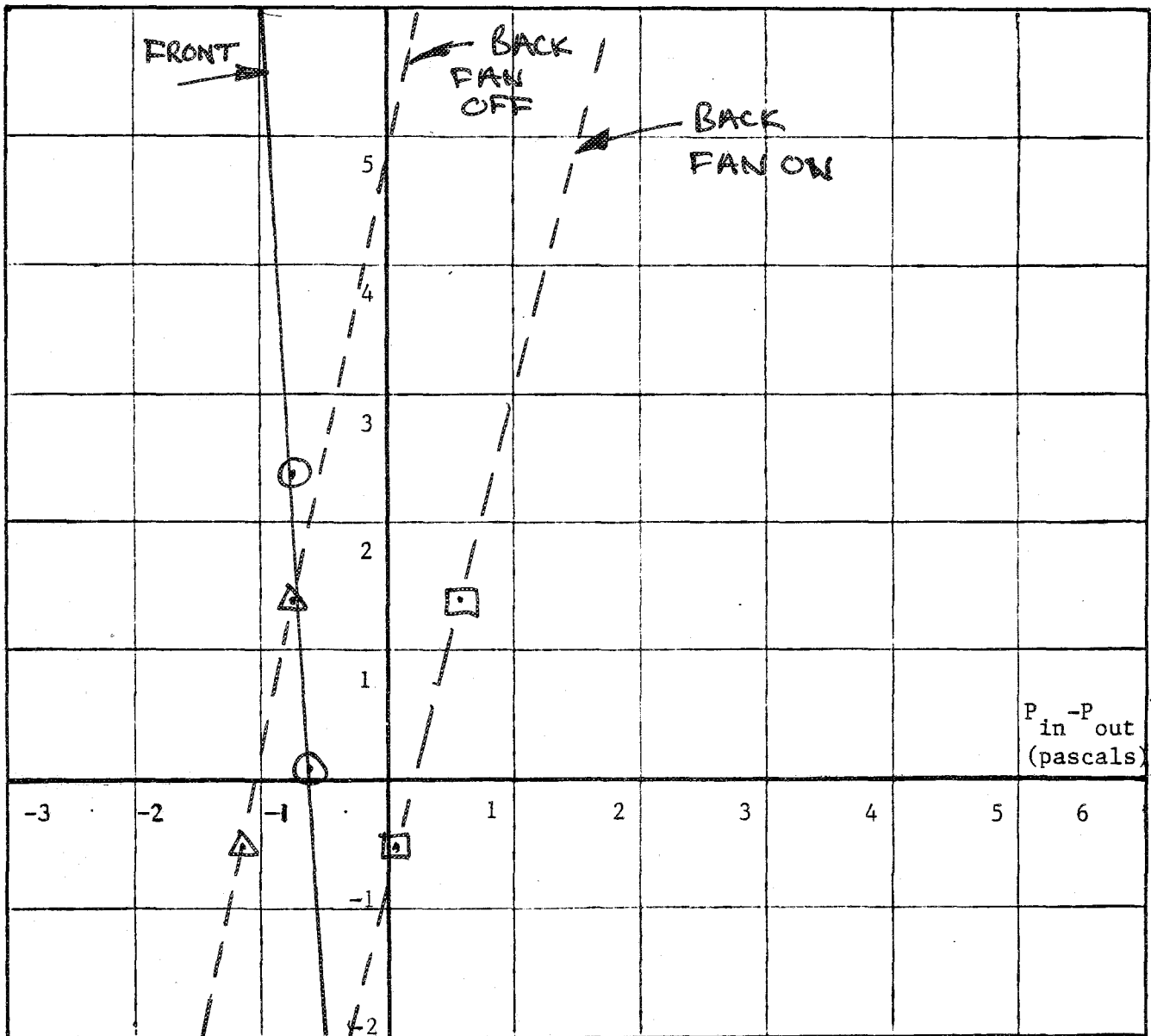
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# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>32</u>	FRONT <u>N.A.</u>	$T_{in} - T_{out}$ <u>2</u>
MODEL <u>YORK</u>	BACK <u>4.9m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>MAY 31/82</u>	RIGHT SIDE _____	WIND SPEED <u>10</u> Km/h
TIME <u>11:05-12:05</u>	LEFT SIDE _____	WIND DIRECTION <u>S</u>
TECHNICIAN <u>SETON/ENGLER</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)





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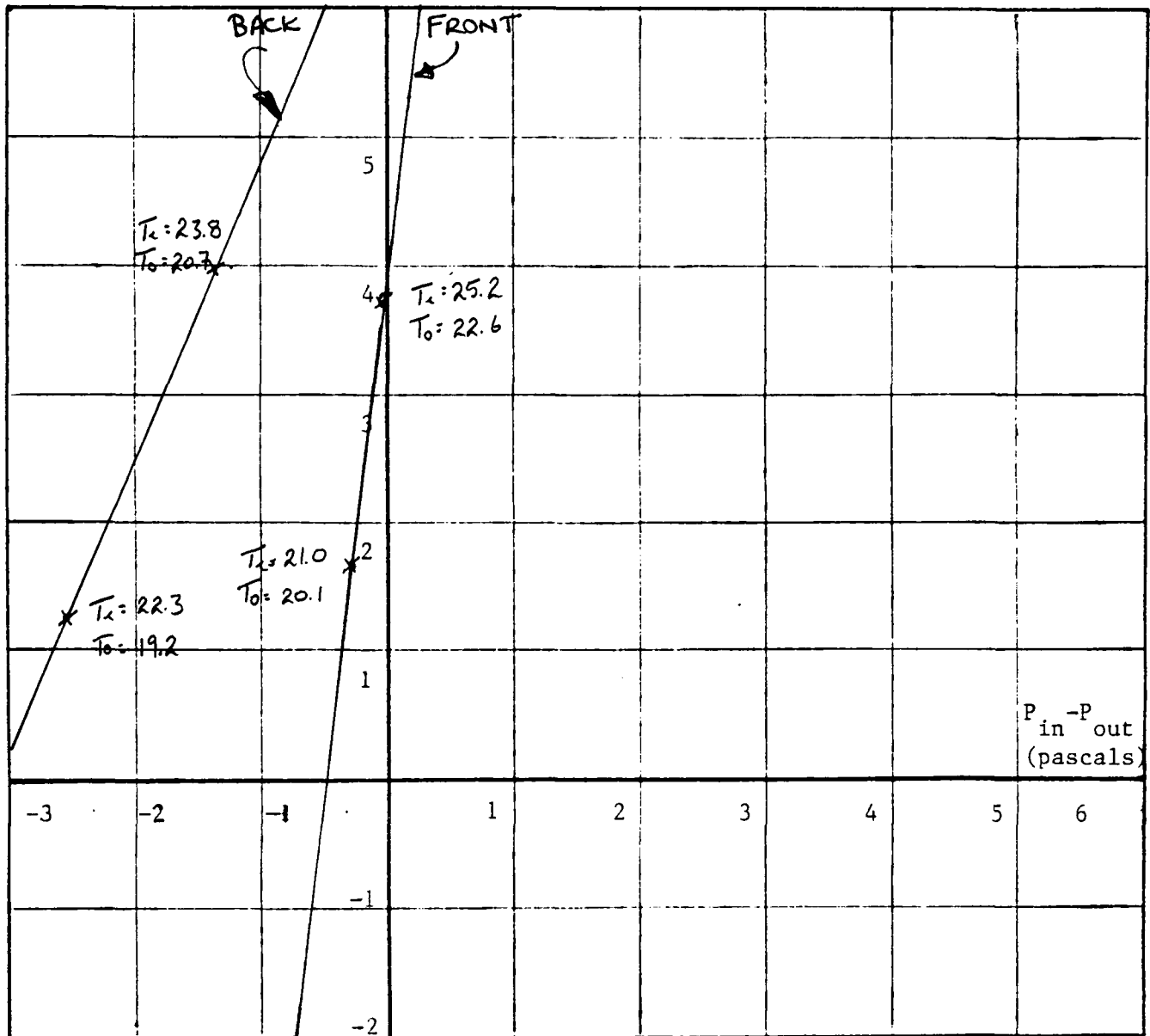
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# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>32</u>	FRONT <u>3.8 m</u>	$T_{in} - T_{out}$ <u>+1°C</u>
MODEL <u>YORK</u>	BACK <u>≈ 7.0 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>SEPT. 22/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>20</u> Km/h
TIME <u>14:30-14:50</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>NE</u>
TECHNICIAN <u>FUGLER/PASQUINI</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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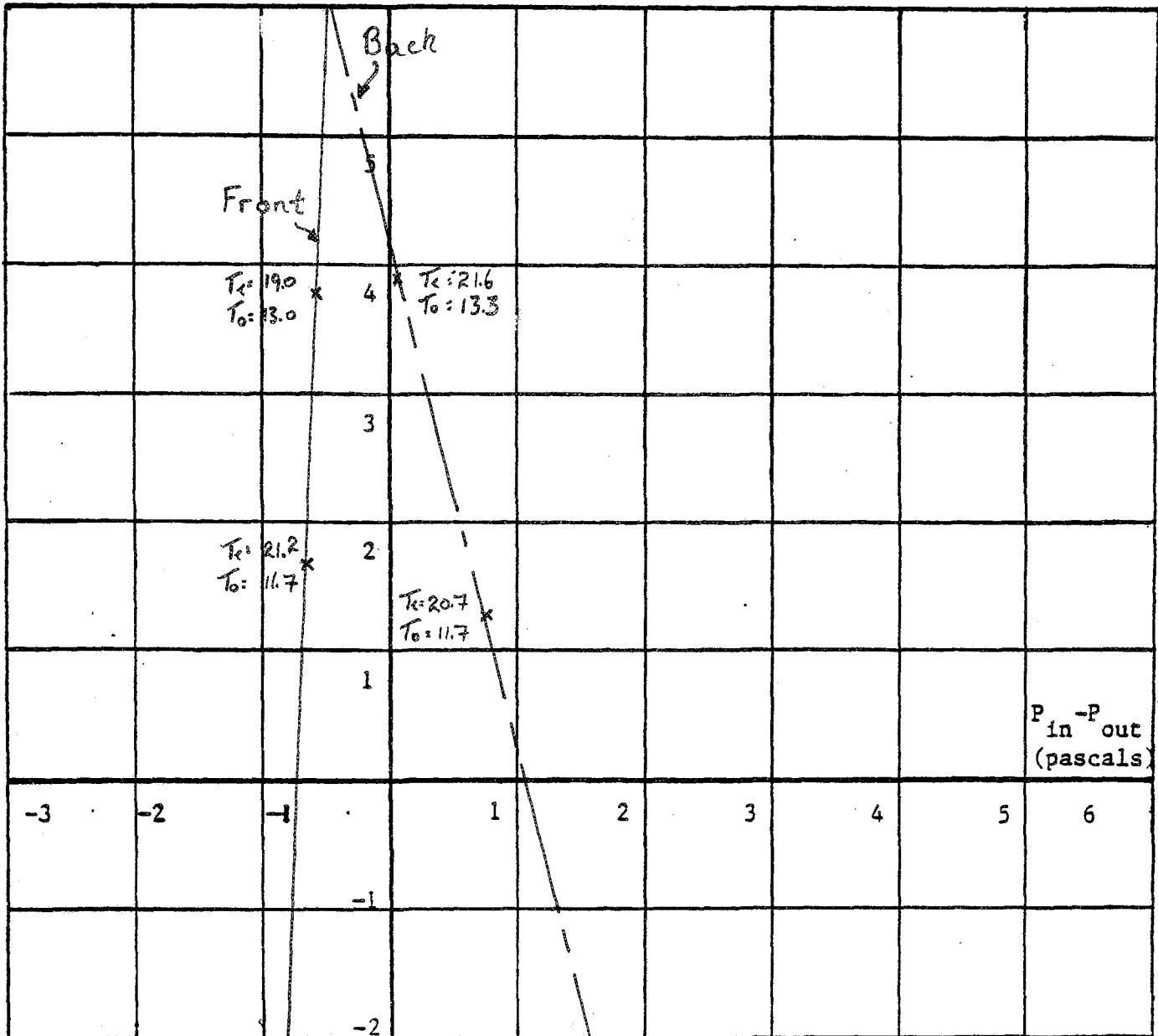
6-104

# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>32</u>	FRONT <u>IND</u>	$T_{in} - T_{out}$ <u>+9.0°C</u>
MODEL <u>YORK</u>	BACK <u>+4.2</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>DEC 03-82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>17</u> Km/h
TIME <u>11:00-12:15</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>S</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>SSW</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



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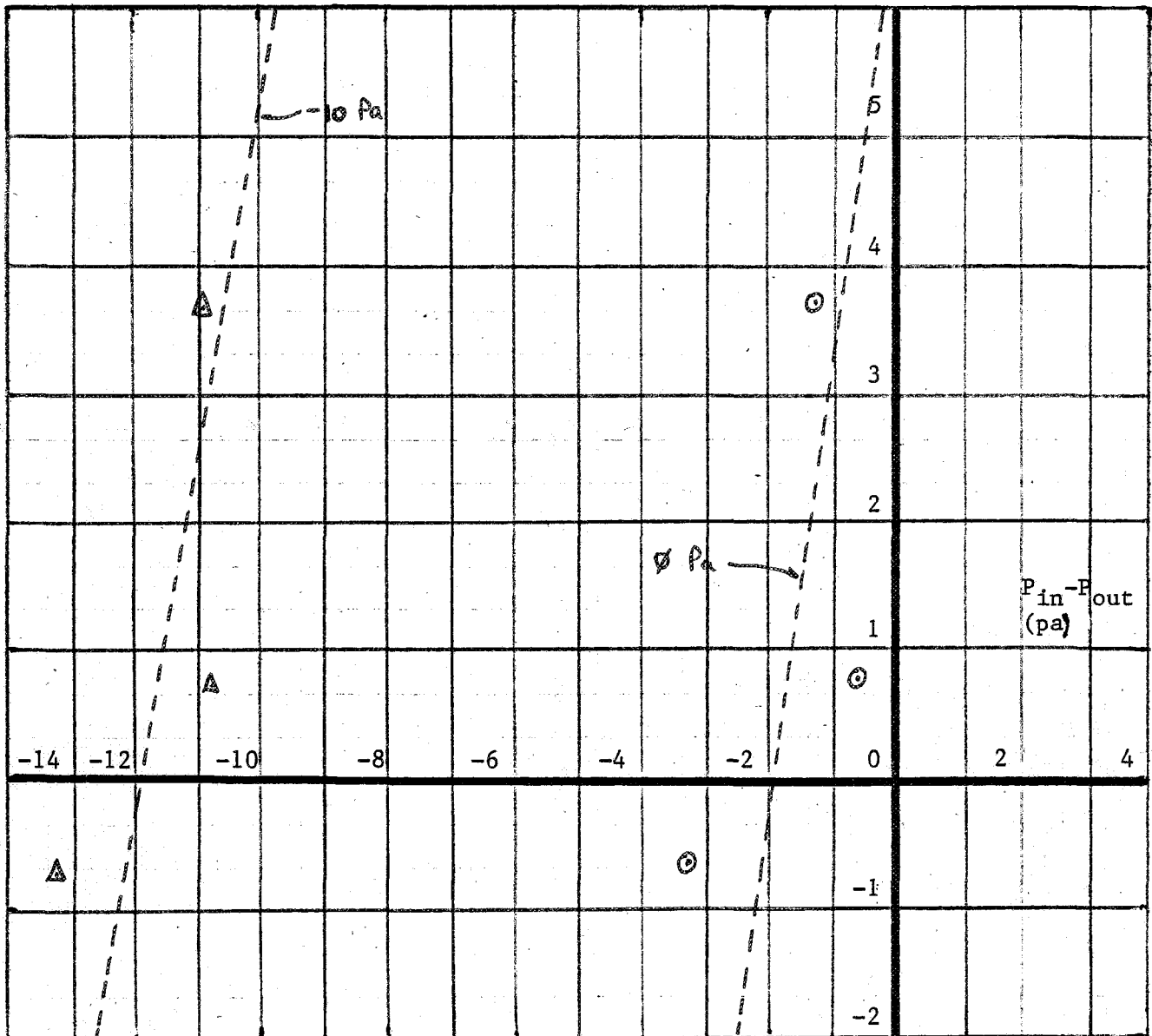
6-105

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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>34</u>	FRONT _____	$T_{in} - T_{out}$ <u>1°C</u>
MODEL <u>Fireside</u>	BACK <u>N/A</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>June 7/82</u>	RIGHT SIDE _____	WIND SPEED <u>10</u> Km/h
TIME <u>10:30-11:15</u>	LEFT SIDE _____	WIND DIRECTION <u>East</u>
TECHNICIAN <u>Scton / Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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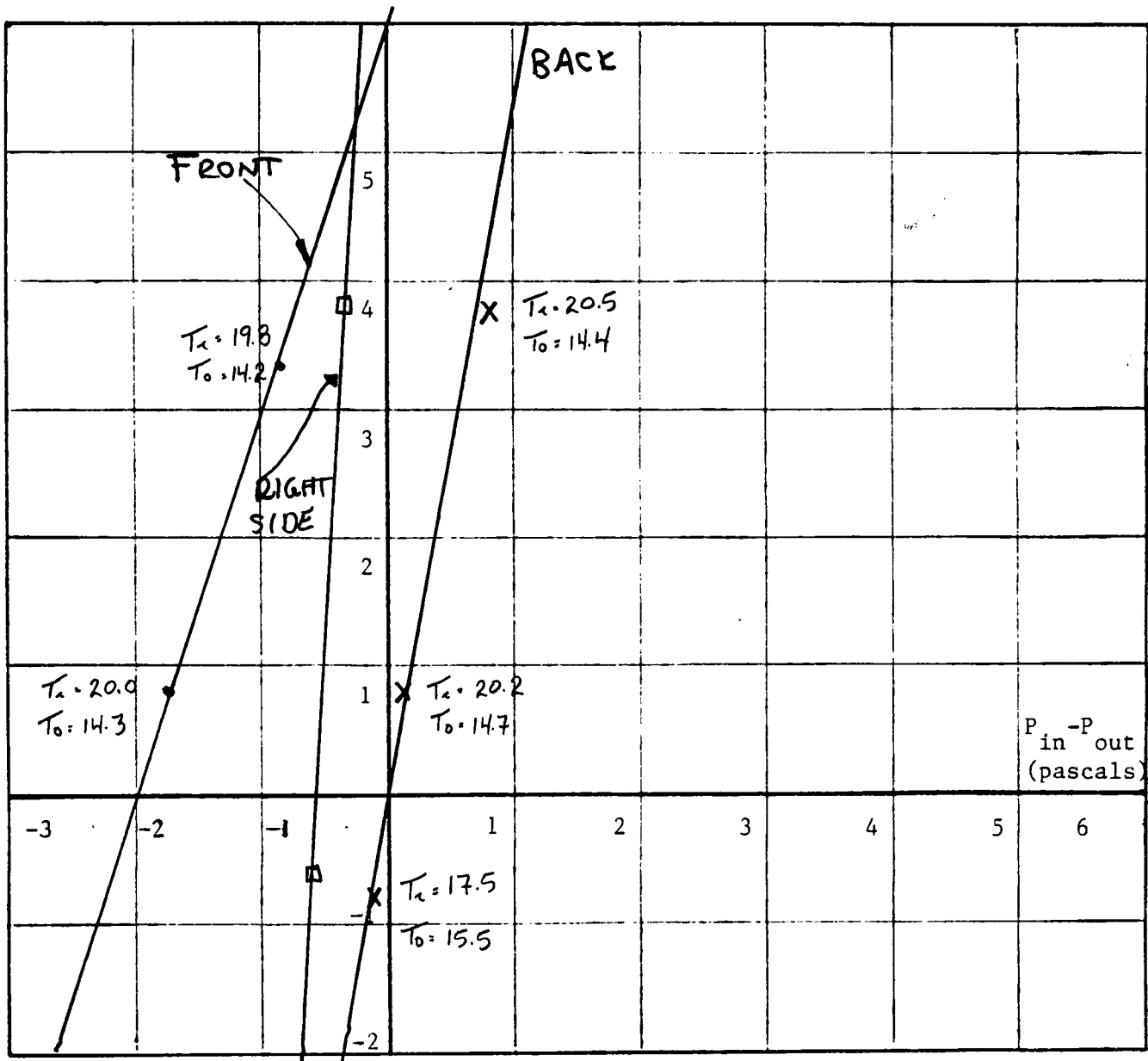
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# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>34</u>	FRONT <u>6.0m</u>	$T_{in} - T_{out}$ <u>+5°C</u>
MODEL <u>FIRESIDE</u>	BACK <u>0.0m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 1/82</u>	RIGHT SIDE <u>IND.</u>	WIND SPEED <u>16</u> Km/h
TIME <u>10:10-10:45</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>W</u>
TECHNICIAN <u>Fugler / Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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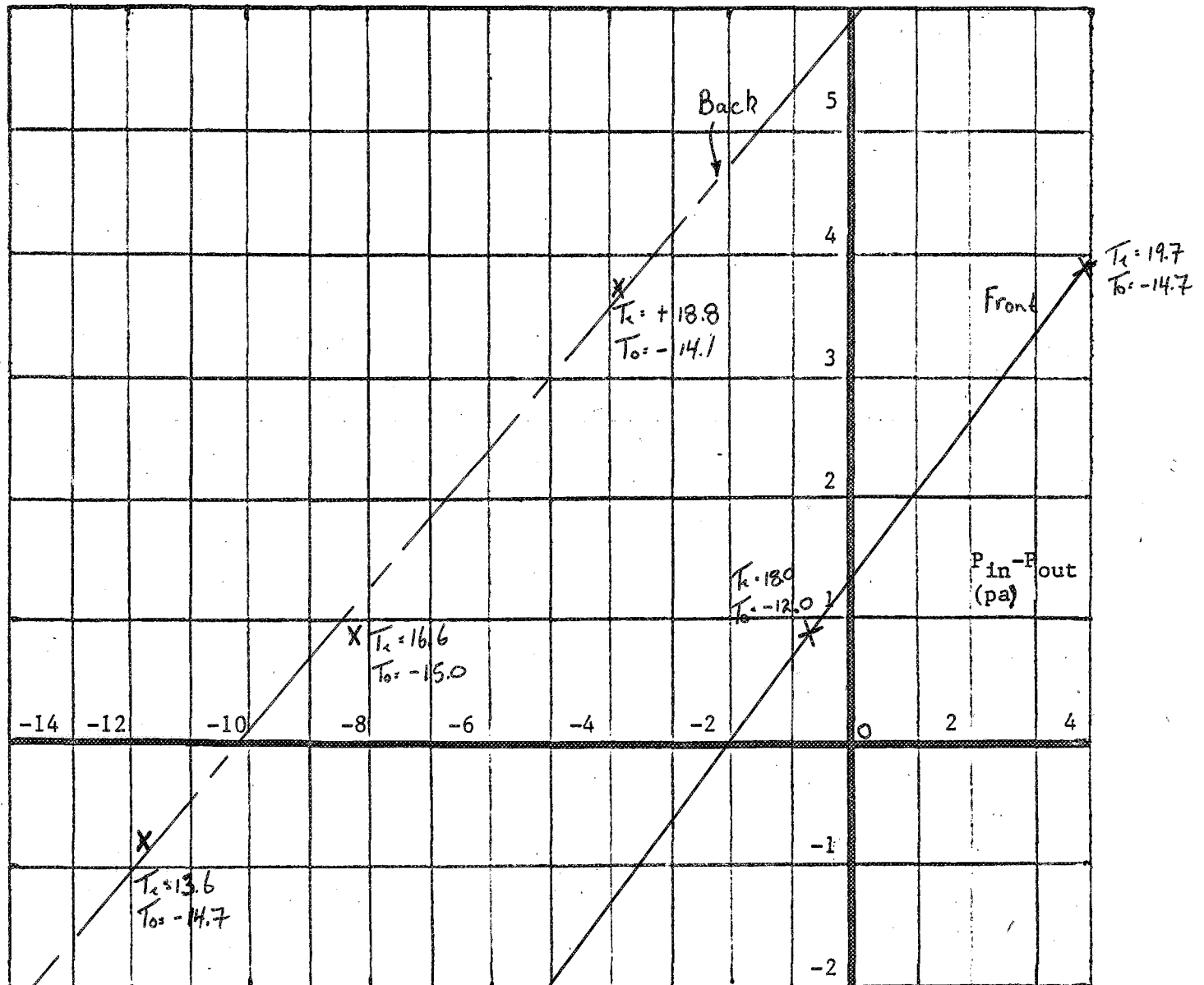
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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>34</u>	FRONT <u>1.4m</u>	$T_{in} - T_{out}$ <u>+31.4°C</u>
MODEL <u>FIRESIDE</u>	BACK <u>5.9m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>FEB 11-83</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>20</u> Km/h
TIME <u>13:50-14:15</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>N.E</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT FACES: <u>SW</u>	

HEIGHT ABOVE FOUNDATION WALL (METERS)



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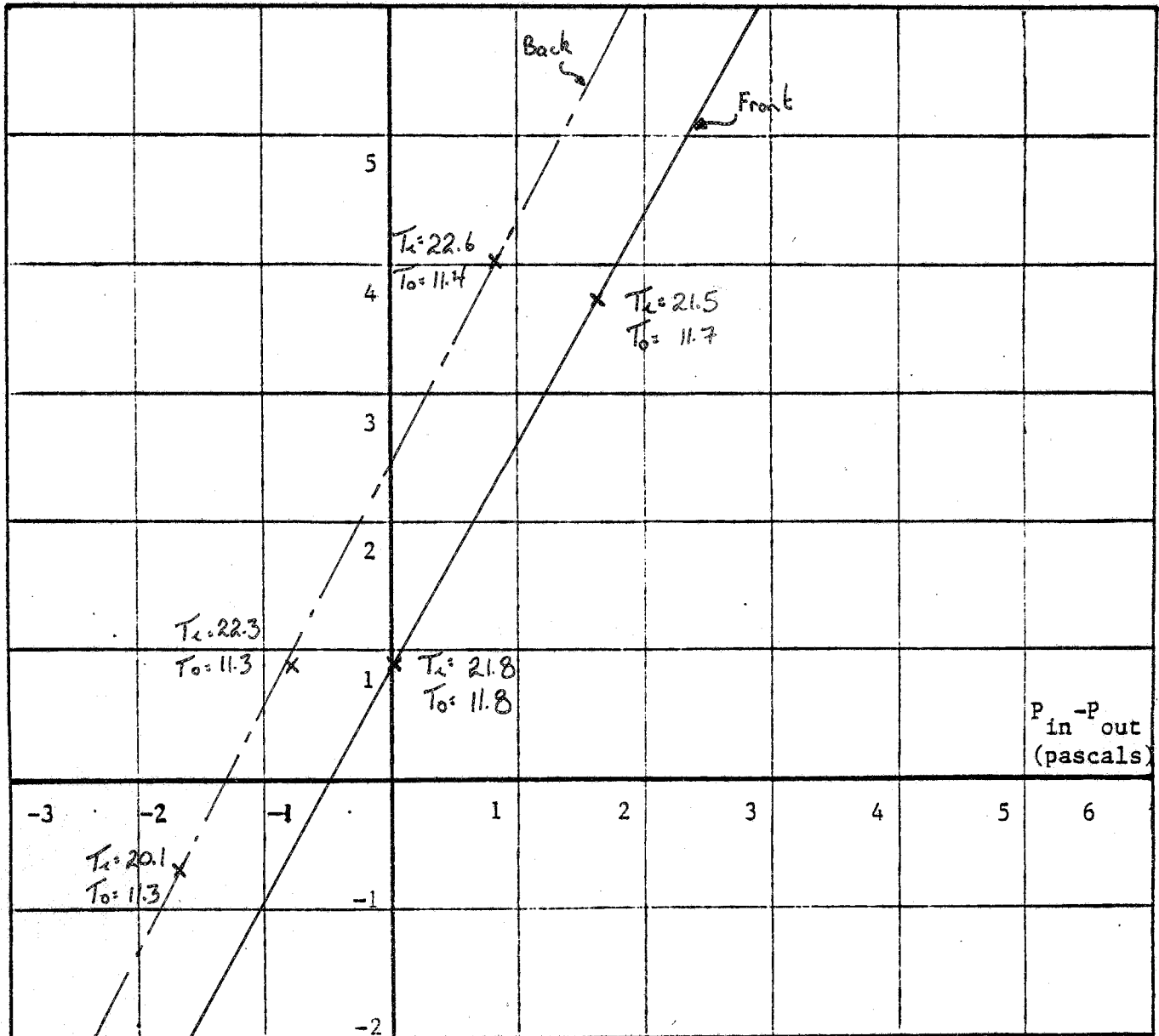
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# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>35</u>	FRONT <u>+0.85m</u>	$T_{in} - T_{out}$ <u>+9.0°C</u>
MODEL <u>Fireside</u>	BACK <u>+2.45m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>October 08-82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>0</u> Km/h
TIME <u>10:00-10:30</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>NIA</u>
TECHNICIAN <u>Fugler/Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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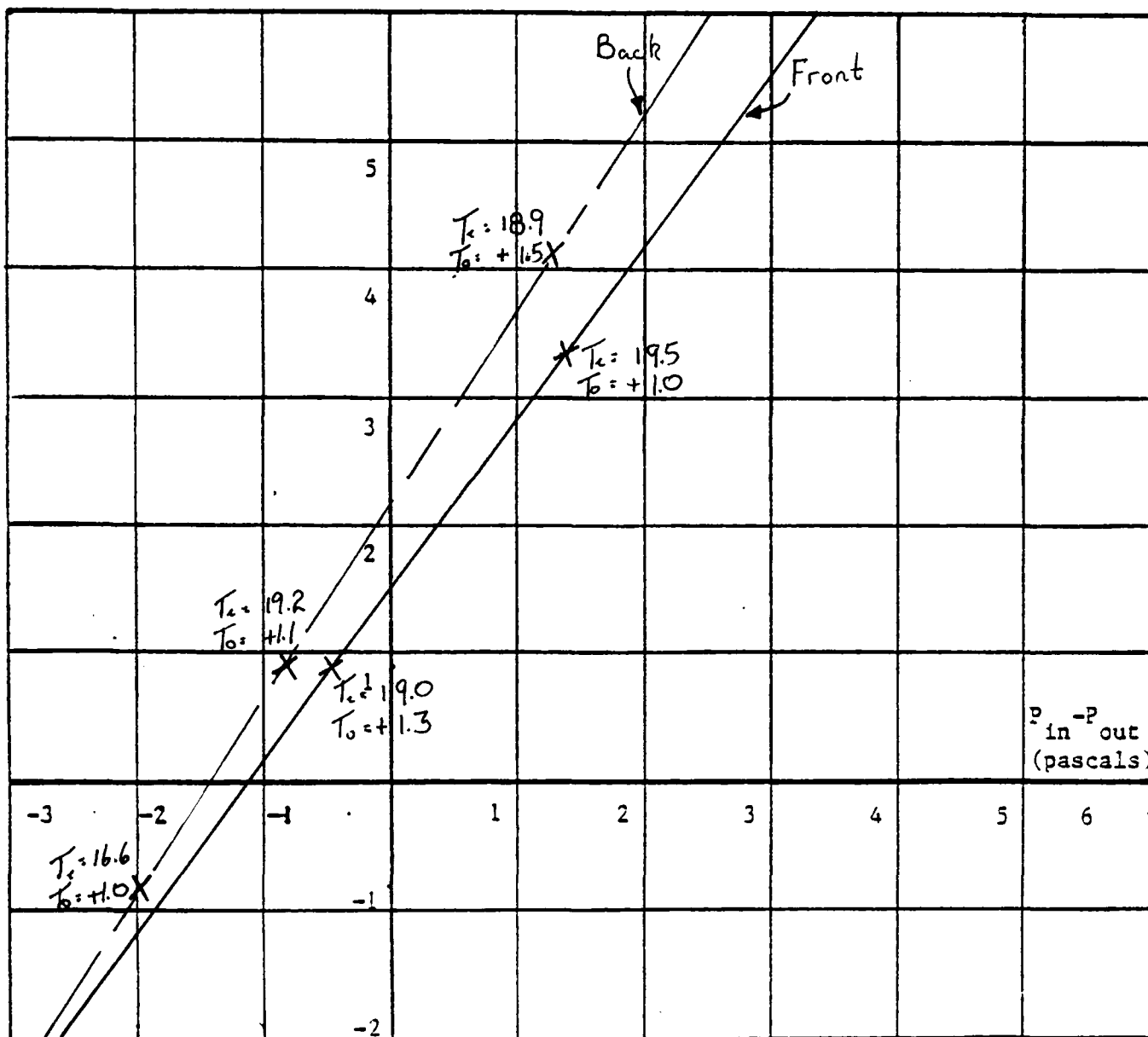
6-109

# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

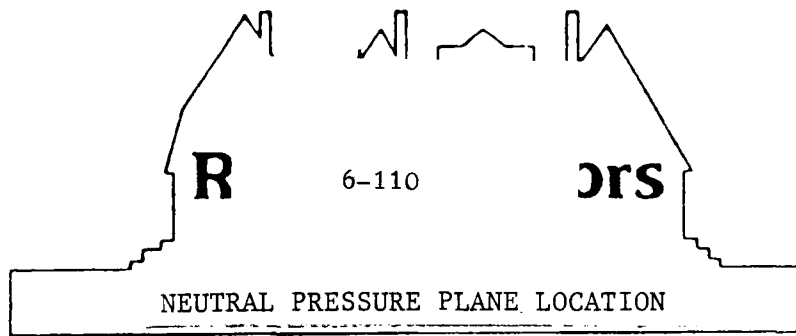
IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>35</u>	FRONT <u>1.50</u>	$T_{in} - T_{out}$ <u>+18.0°C</u>
MODEL <u>FIRESIDE</u>	BACK <u>2.15</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN 24-83</u>	RIGHT SIDE <u>N.A.</u>	WIND SPEED <u>5</u> Km/h
TIME <u>14:30-14:50</u>	LEFT SIDE <u>N.A.</u>	WIND DIRECTION <u>S.W</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>N.E</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)



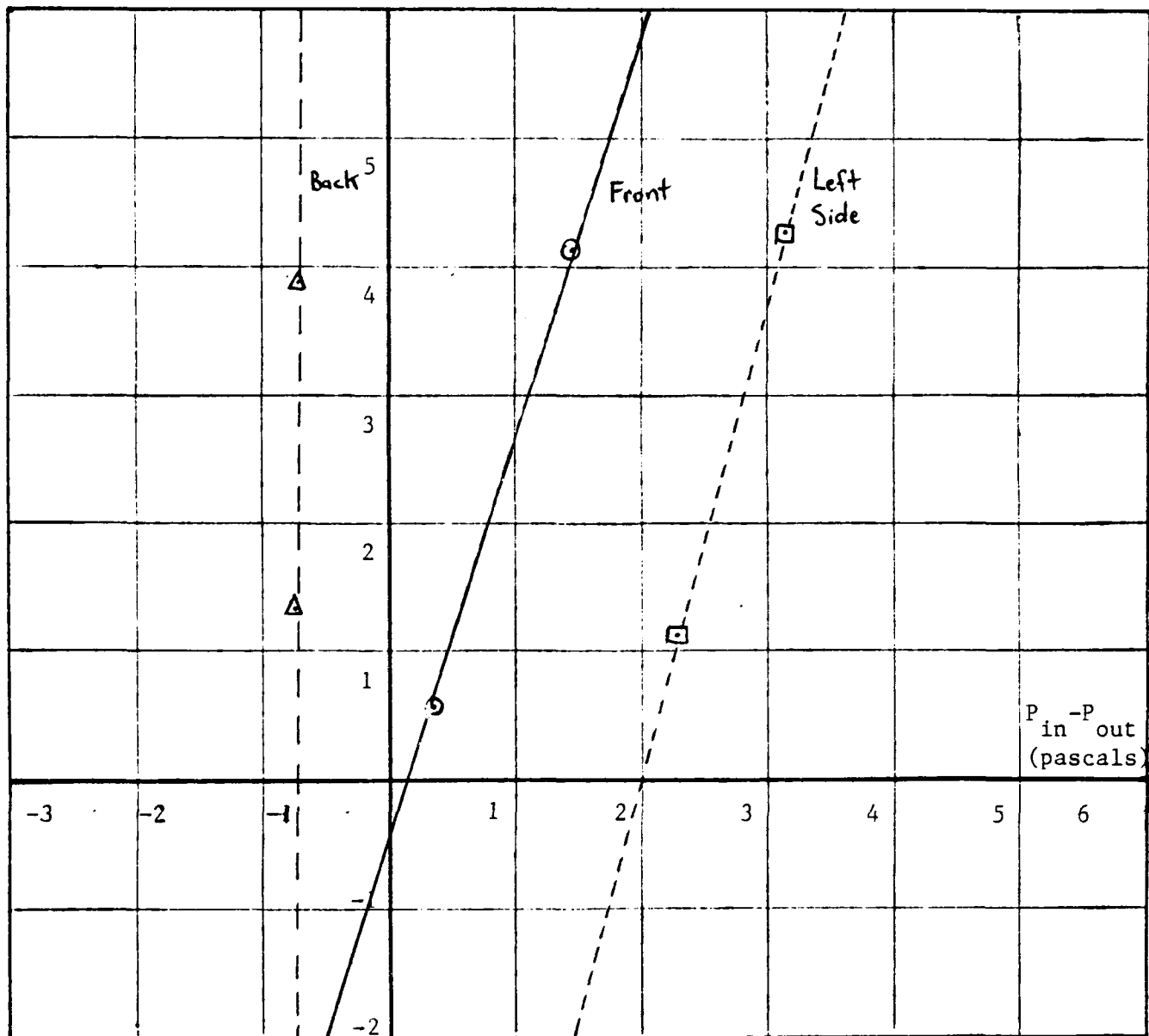
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IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>37</u>	— FRONT <u>-0.3 m</u>	$T_{in} - T_{out}$ <u>8 °C</u>
MODEL <u>Westfield</u>	- - BACK <u>-5.0m +</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>May 28/82</u>	- - - RIGHT SIDE _____	WIND SPEED <u>15</u> Km/h
TIME <u>8:07 - 9:20</u>	- - - - LEFT SIDE <u>-4.5m +</u>	WIND DIRECTION <u>East</u>
TECHNICIAN <u>Seton / Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)





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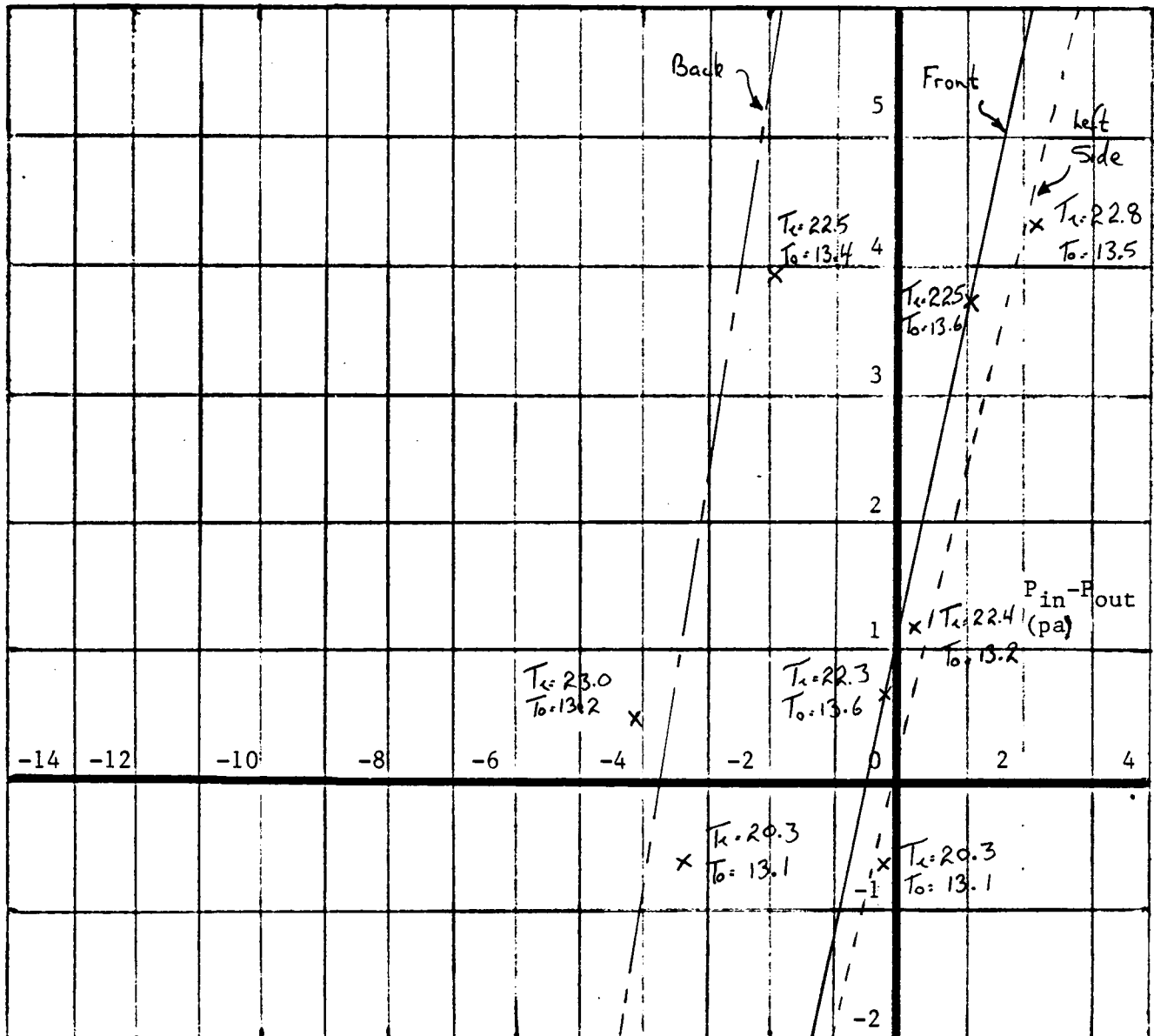
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IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>37</u>	— FRONT <u>1.0m</u>	$T_{in} - T_{out}$ <u>+9.2°C</u>
MODEL <u>Westfield</u>	- - BACK <u>N/A</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>Sept 15/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>17</u> Km/h
TIME <u>14:45 - 15:25</u>	- - - LEFT SIDE <u>0.0m</u>	WIND DIRECTION <u>NE</u>
TECHNICIAN <u>Fugler/Pasquini</u>		

HEIGHT ABOVE FOUNDATION WALL (METERS)



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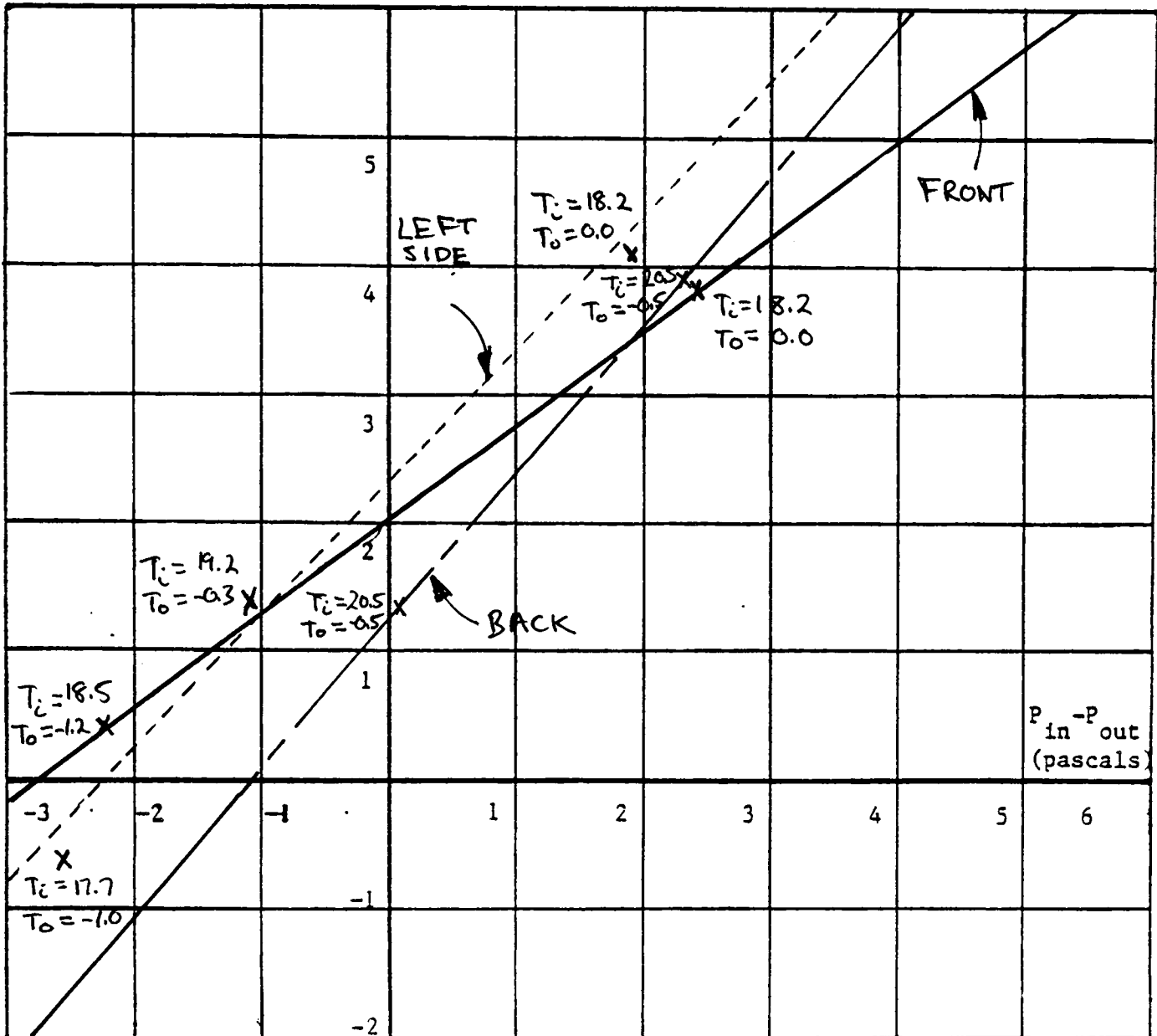
6-112

# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>37</u>	FRONT <u>2.0</u>	$T_{in} - T_{out}$ <u>20.0°C</u>
MODEL <u>WESTFIELD</u>	BACK <u>1.3</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN. 24/83</u>	RIGHT SIDE _____	WIND SPEED <u>15</u> Km/h
TIME <u>10:45 - 11:15</u>	LEFT SIDE <u>2.3</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>FUGLER/SINHA</u>	FRONT OF HOUSE FACES <u>SW</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)

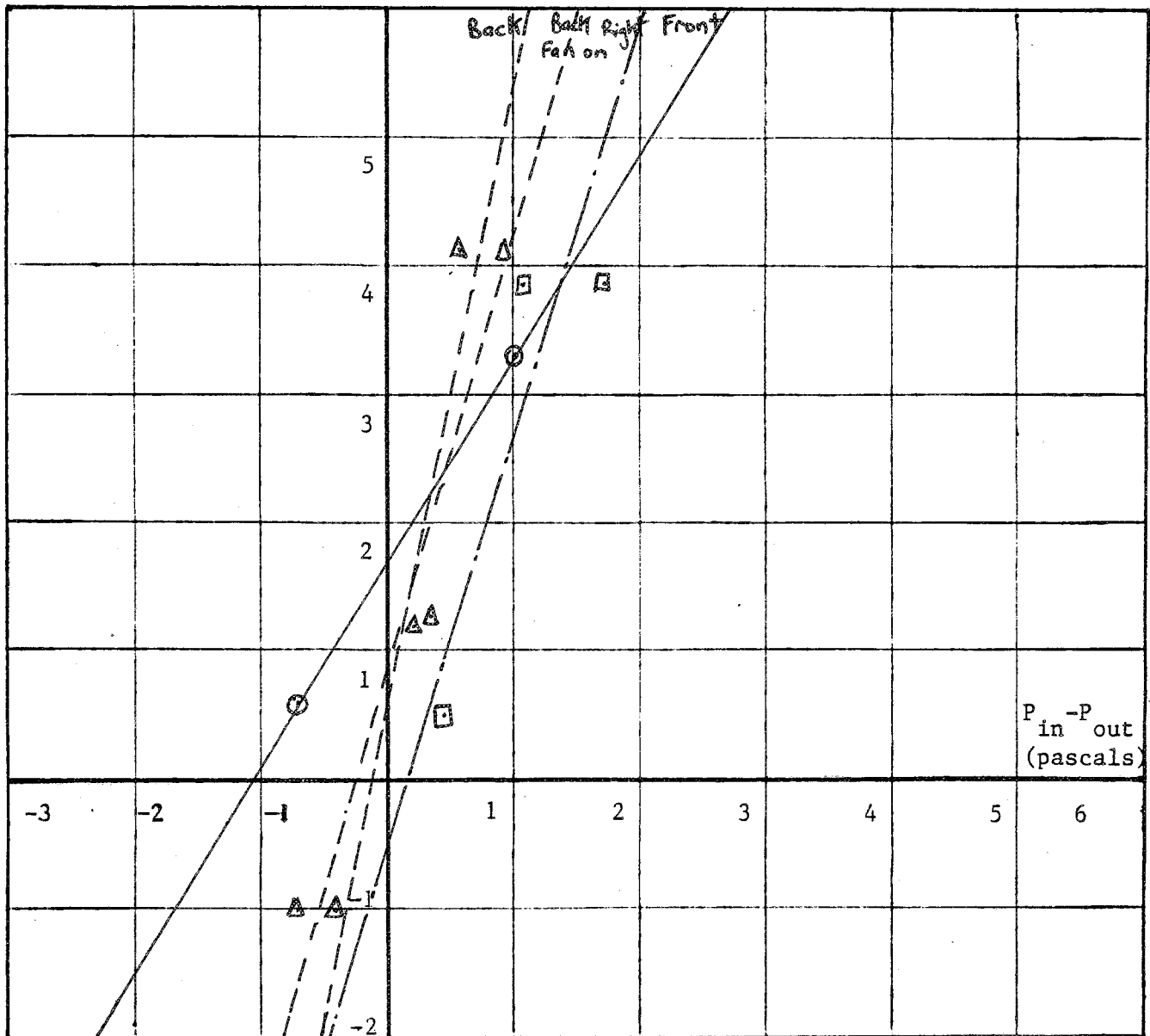


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>39</u>	FRONT <u>1.7 m</u>	$T_{in} - T_{out}$ <u>1 °C</u>
MODEL <u>Baldwin</u>	BACK <u>1.0 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>May 25 / 82</u>	RIGHT SIDE <u>-0.5 m</u>	WIND SPEED <u>10</u> Km/h
TIME <u>8:10 - 8:35</u>	LEFT SIDE _____	WIND DIRECTION <u>West</u>
TECHNICIAN <u>Fugler</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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6-114

14:55  
15:20

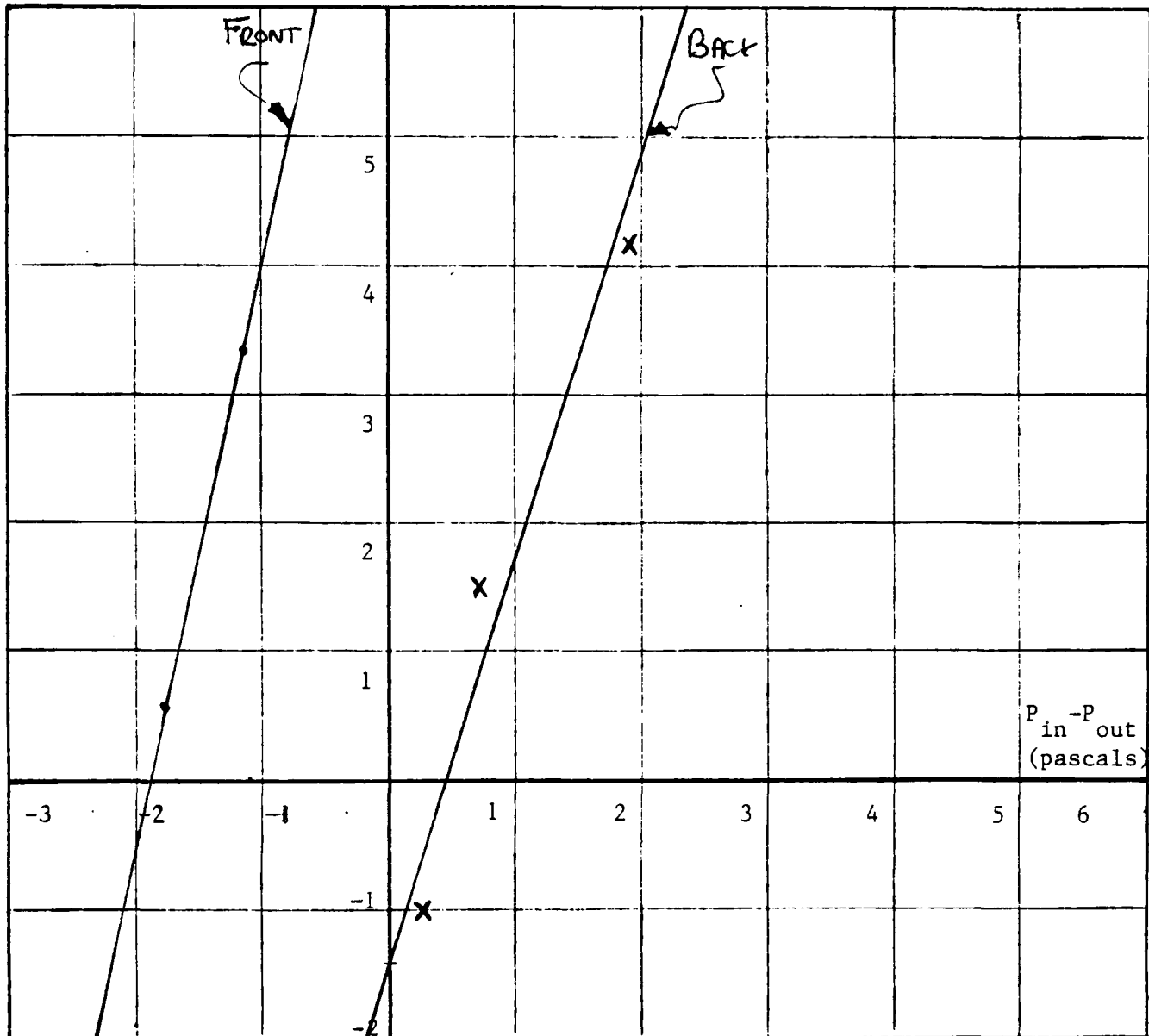
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# Retrospectors

NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>39</u>	FRONT <u>IND</u>	$T_{in} - T_{out}$ <u>+3°C</u>
MODEL <u>BALDWIN</u>	BACK <u>-1.4m</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>SEPT. 23/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>7</u> Km/h
TIME <u>14:55-15:20</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>NE</u>
TECHNICIAN <u>Fugler/Pasquini</u>		

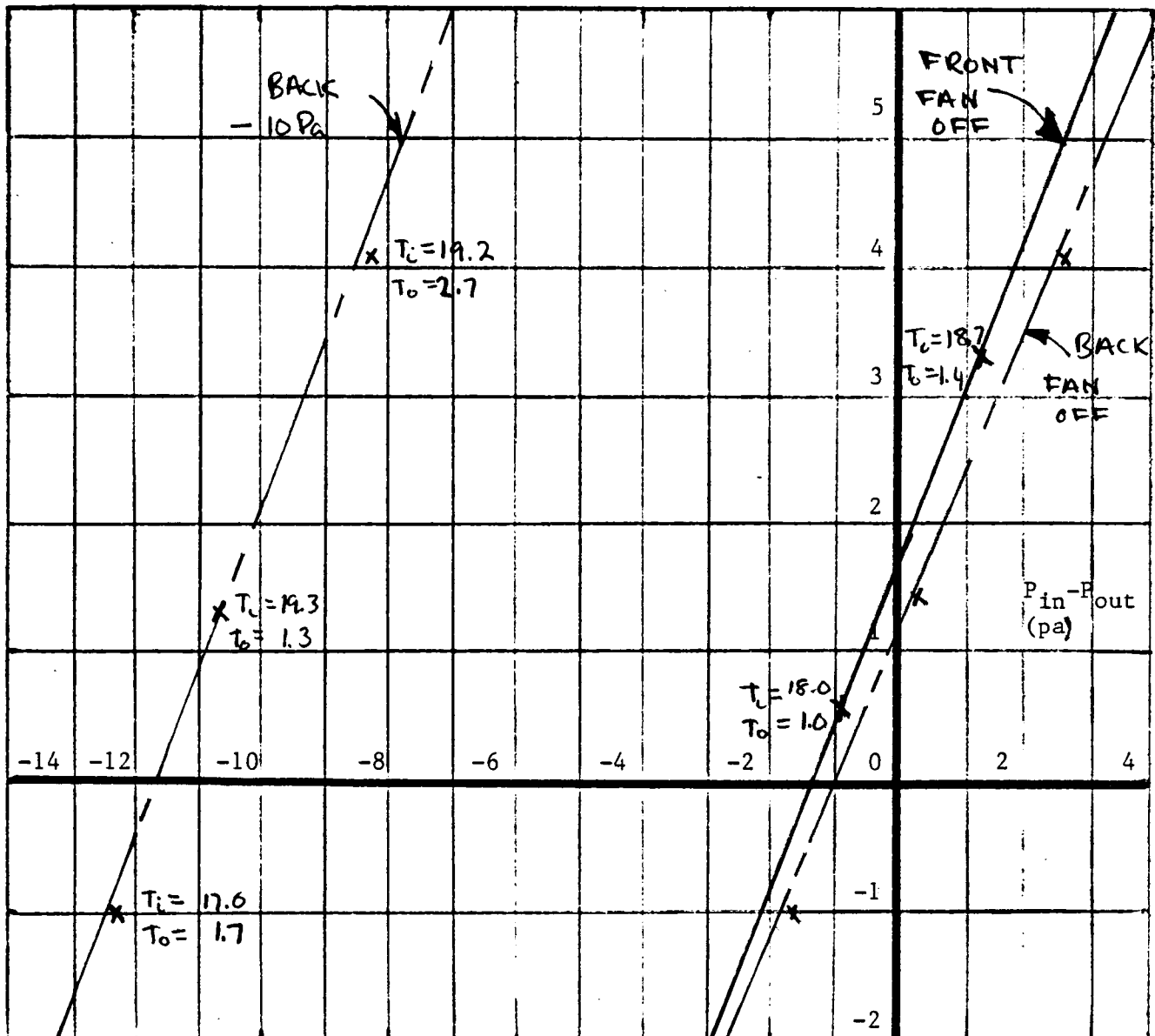
HEIGHT ABOVE FOUNDATION WALL (METRES)



# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>39</u>	FRONT <u>1.8 m</u>	$T_{in} - T_{out}$ <u>17°C</u>
MODEL <u>BALDWIN</u>	BACK <u>1.1 m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JAN. 6 1983</u>	RIGHT SIDE _____	WIND SPEED <u>ϕ</u> Km/h
TIME <u>10:00 - 10:40</u>	LEFT SIDE _____	WIND DIRECTION <u>—</u>
TECHNICIAN <u>EUGLERISINHA</u>	FRONT OF HOUSE FACES WEST	

HEIGHT ABOVE FOUNDATION WALL (METERS)



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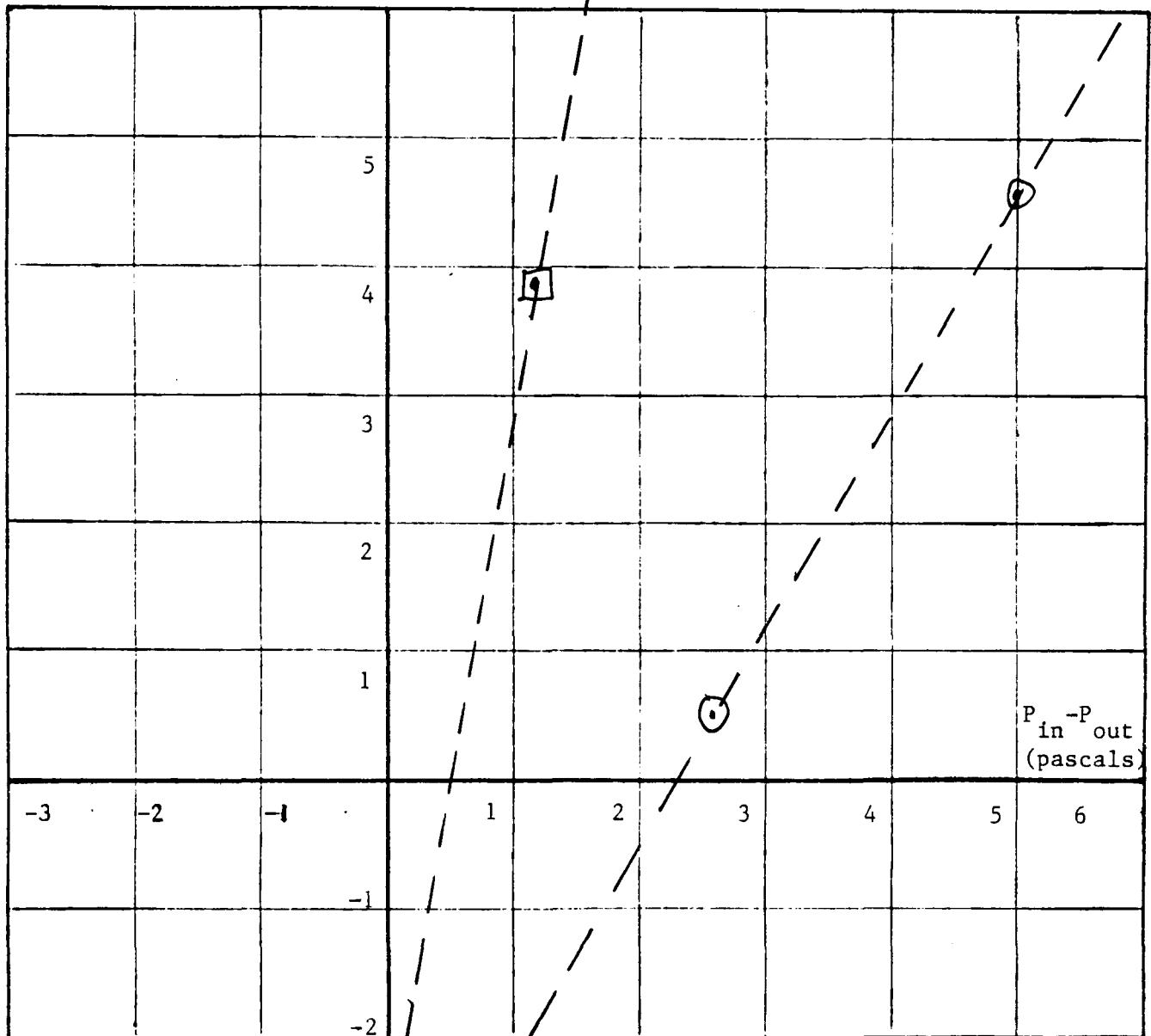
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# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>SO</u>	FRONT _____	$T_{in} - T_{out}$ <u>-0.3</u>
MODEL <u>URRANDALE</u>	BACK <u>WEST @ -4, East @ -3.</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>JULY 19/82</u>	RIGHT SIDE _____	WIND SPEED <u>24</u> Km/h
TIME <u>18:00-18:30</u>	LEFT SIDE _____	WIND DIRECTION <u>N.W</u>
TECHNICIAN <u>FUGLER</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)

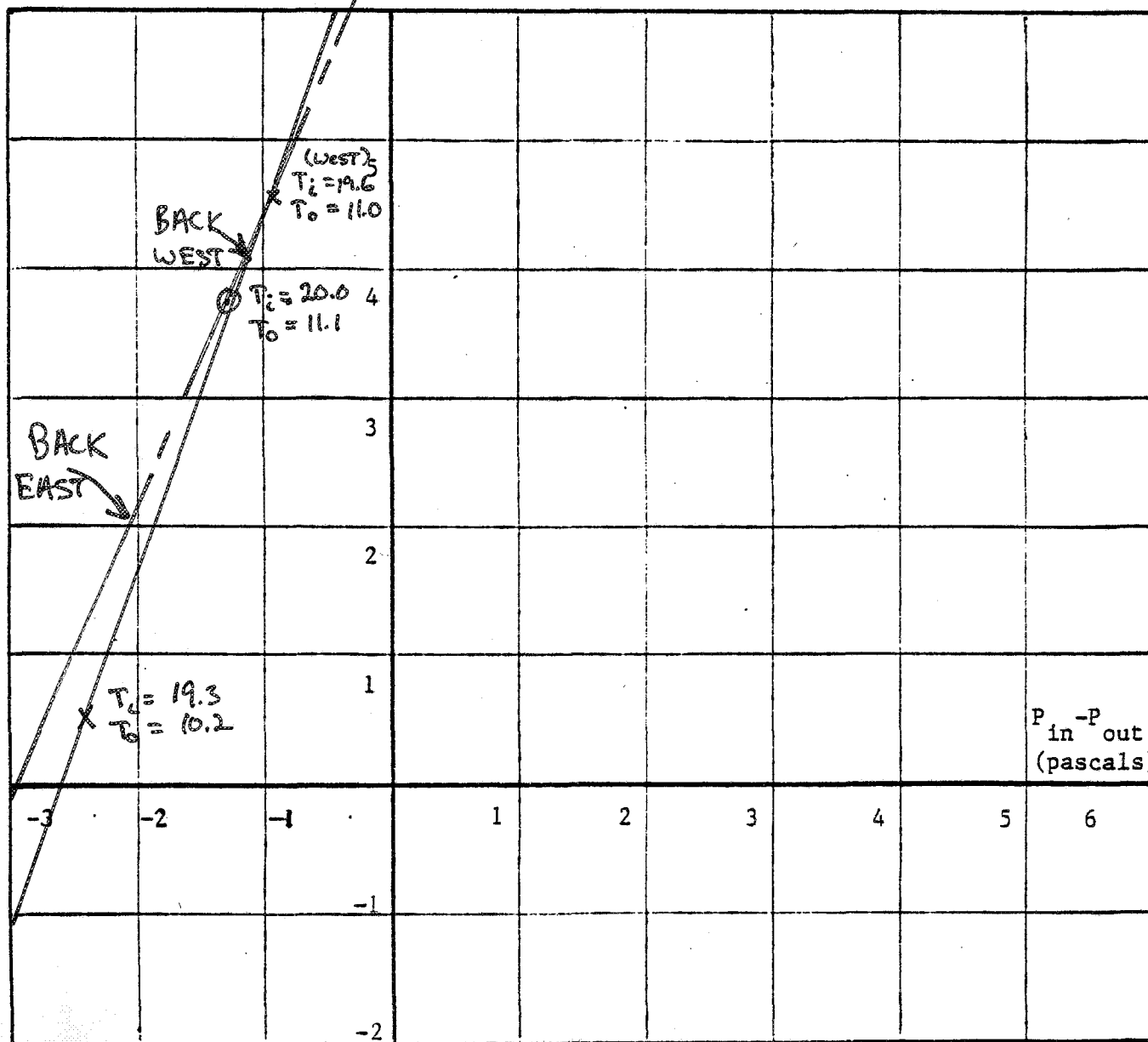


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>50</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>10°C</u>
MODEL <u>-</u>	BACK <u>EAST 7.1m WEST 7.6m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 28/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>15</u> Km/h
TIME <u>12:10-12:40</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>SW</u>
TECHNICIAN <u>FUGLER/SINHA</u>		NOTE: APPARENT WIND ON SITE < 5 KPH

$T_i = 20.7$   
 $T_o = 11.0$   
HEIGHT ABOVE FOUNDATION WALL (METRES)





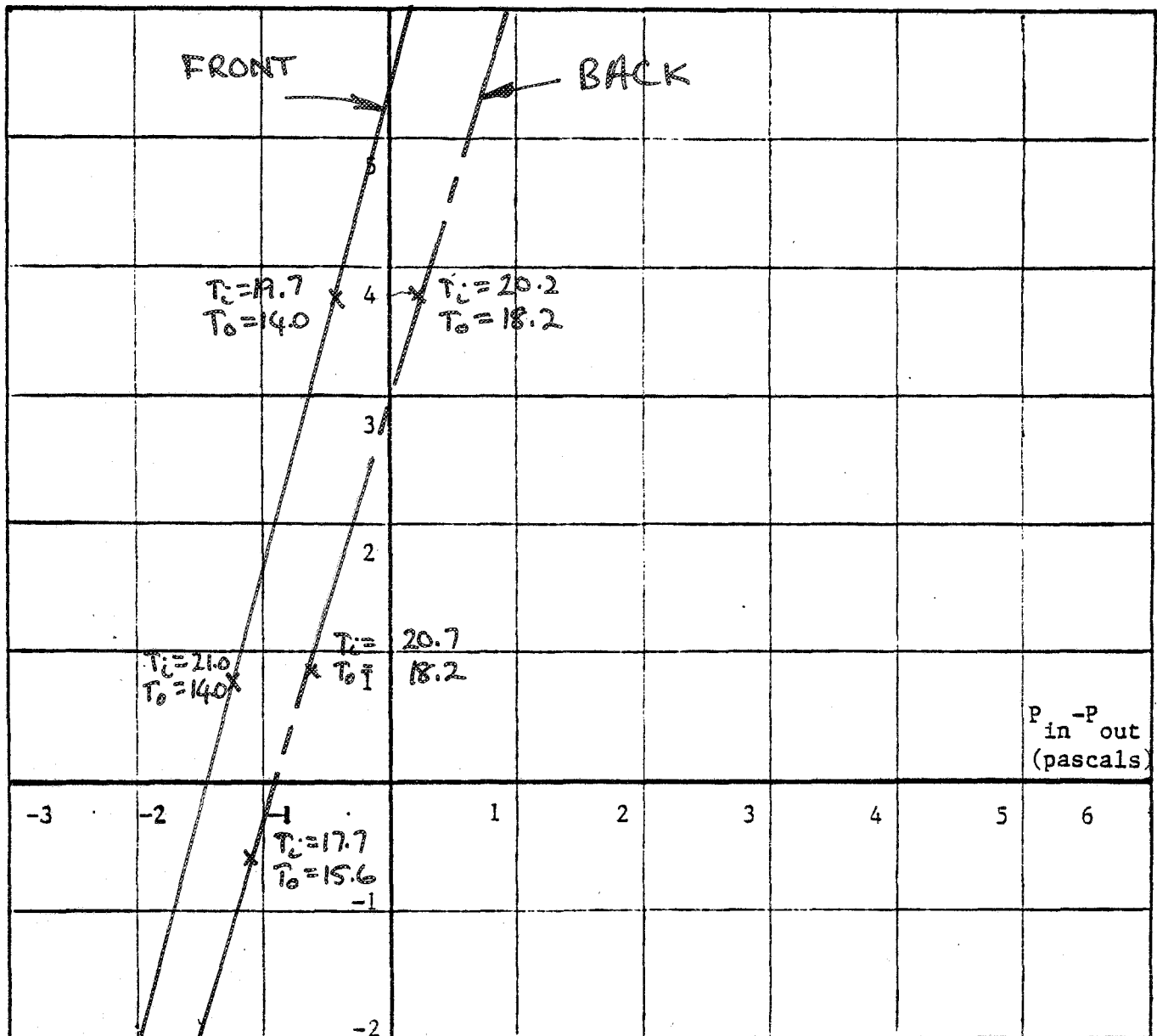


# Retrospectors

## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>51</u>	FRONT <u>5.4m</u>	$T_{in} - T_{out}$ <u>5°C</u>
MODEL <u>URANDALE</u>	BACK <u>2.9m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>NOV. 1/82</u>	RIGHT SIDE <u>-</u>	WIND SPEED <u>0</u> Km/h
TIME <u>10:35-11:05</u>	LEFT SIDE <u>-</u>	WIND DIRECTION <u>-</u>
TECHNICIAN <u>EUGLER/SINHA</u>		

### HEIGHT ABOVE FOUNDATION WALL (METRES)



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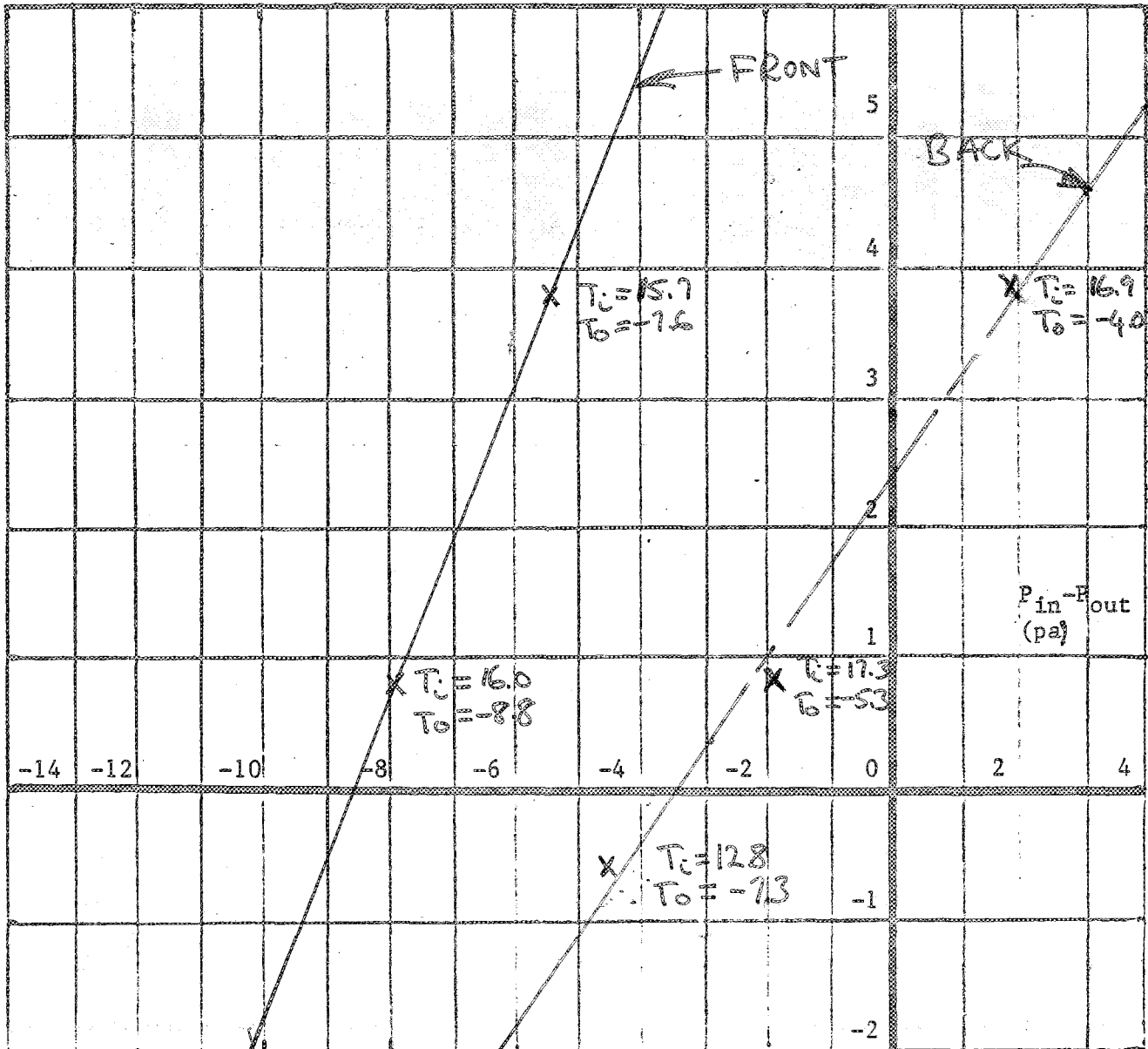
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# Retrospectors

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>SI</u>	FRONT <u>INDETERMINATE</u>	$T_{in} - T_{out}$ <u>26°C</u>
MODEL <u>WINDDALE</u>	BACK <u>2.4</u>	FAN OFF <input type="checkbox"/> FAN ON <input checked="" type="checkbox"/>
DATE <u>FEB 8/83</u>	RIGHT SIDE _____	WIND SPEED <u>26</u> Km/h
TIME <u>10:40-11:35</u>	LEFT SIDE _____	WIND DIRECTION <u>N.W.</u>
TECHNICIAN <u>EUGENE SINKA</u>	FRONT FACES: WEST	

HEIGHT ABOVE FOUNDATION WALL (METERS)

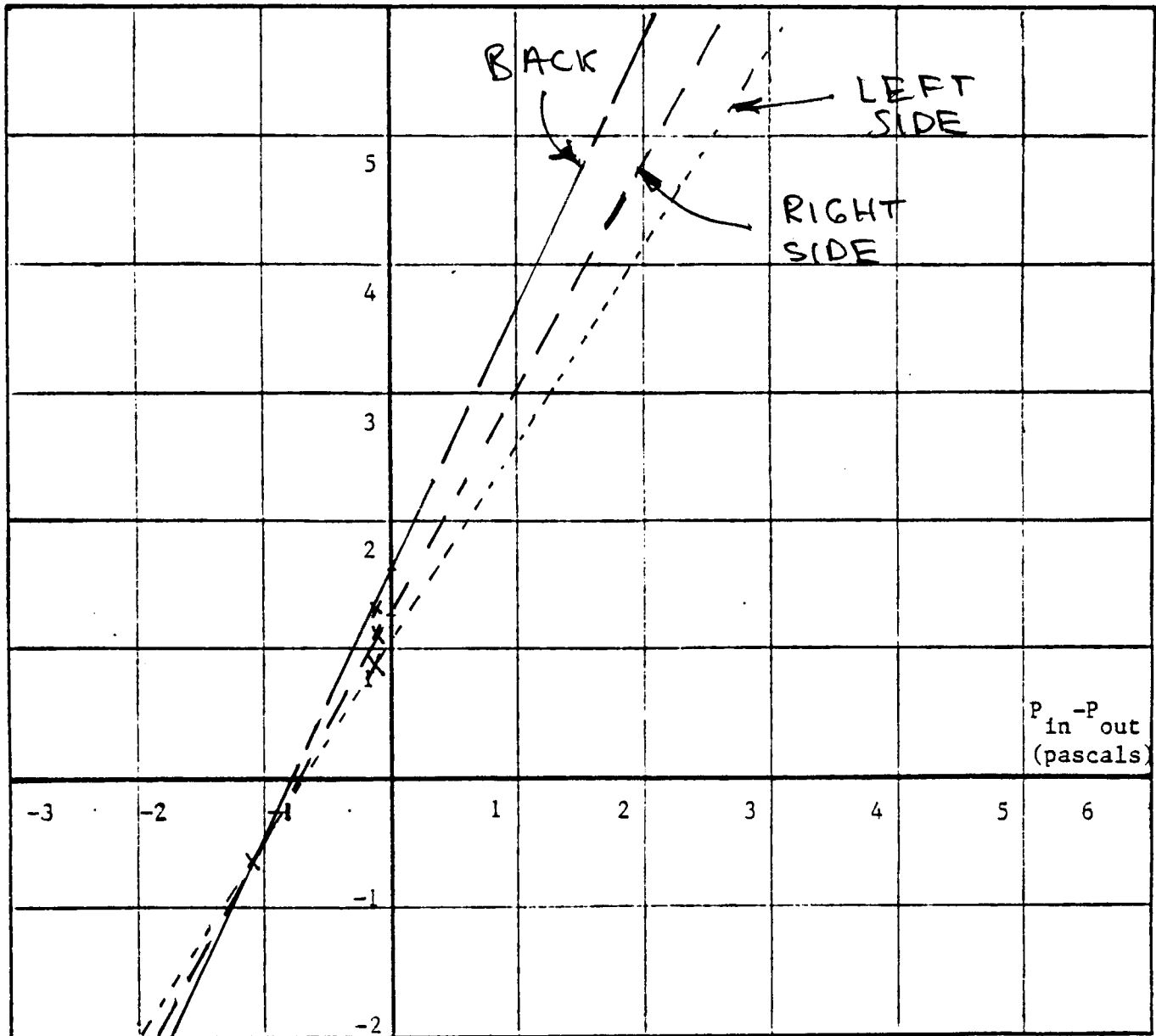


# Retrospectus

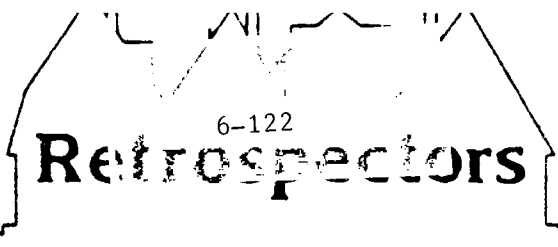
## NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION	TEST CONDITIONS
TEST HOUSE <u>52</u>	FRONT <u>-</u>	$T_{in} - T_{out}$ <u>12°C</u>
MODEL <u>URBANDALE</u>	BACK <u>1.6m</u>	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>OCT. 26/82</u>	RIGHT SIDE <u>1.3m</u>	WIND SPEED <u>10</u> Km/h
TIME <u>9:30-10:07</u>	LEFT SIDE <u>1.1m</u>	WIND DIRECTION <u>N.E.</u>
TECHNICIAN <u>FUGLER/SINHA</u>		

HEIGHT ABOVE FOUNDATION WALL (METRES)



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NEUTRAL PRESSURE PLANE LOCATION

IDENTIFICATION	NPP LOCATION HEIGHT (M)	TEST CONDITIONS
TEST HOUSE <u>S2</u>	FRONT _____	$T_{in} - T_{out}$ <u>33°C</u>
MODEL <u>SPECIAL</u>	BACK _____	FAN OFF <input checked="" type="checkbox"/> FAN ON <input type="checkbox"/>
DATE <u>FEB. 11/83</u>	RIGHT SIDE _____	WIND SPEED <u>12</u> Km/h
TIME <u>16:25-16:50</u>	LEFT SIDE <u>1.5m</u>	WIND DIRECTION <u>N.E.</u>
TECHNICIAN <u>FUGLER</u>	FRONT OF HOUSE FACES <u>SSE</u>	

HEIGHT ABOVE FOUNDATION WALL (METRES)

