

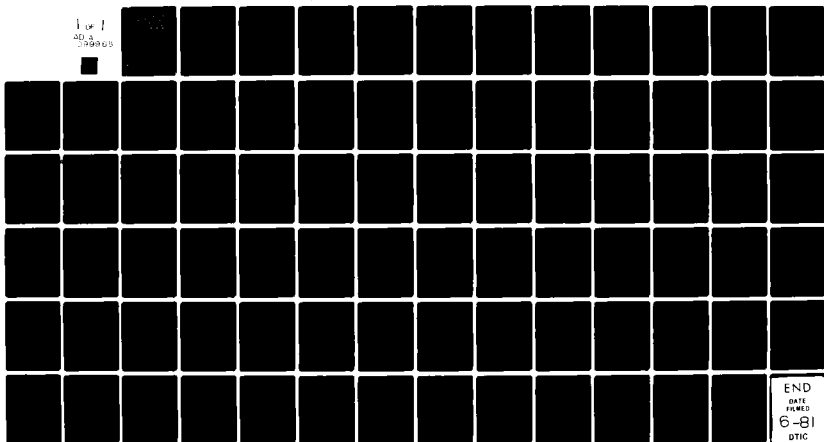
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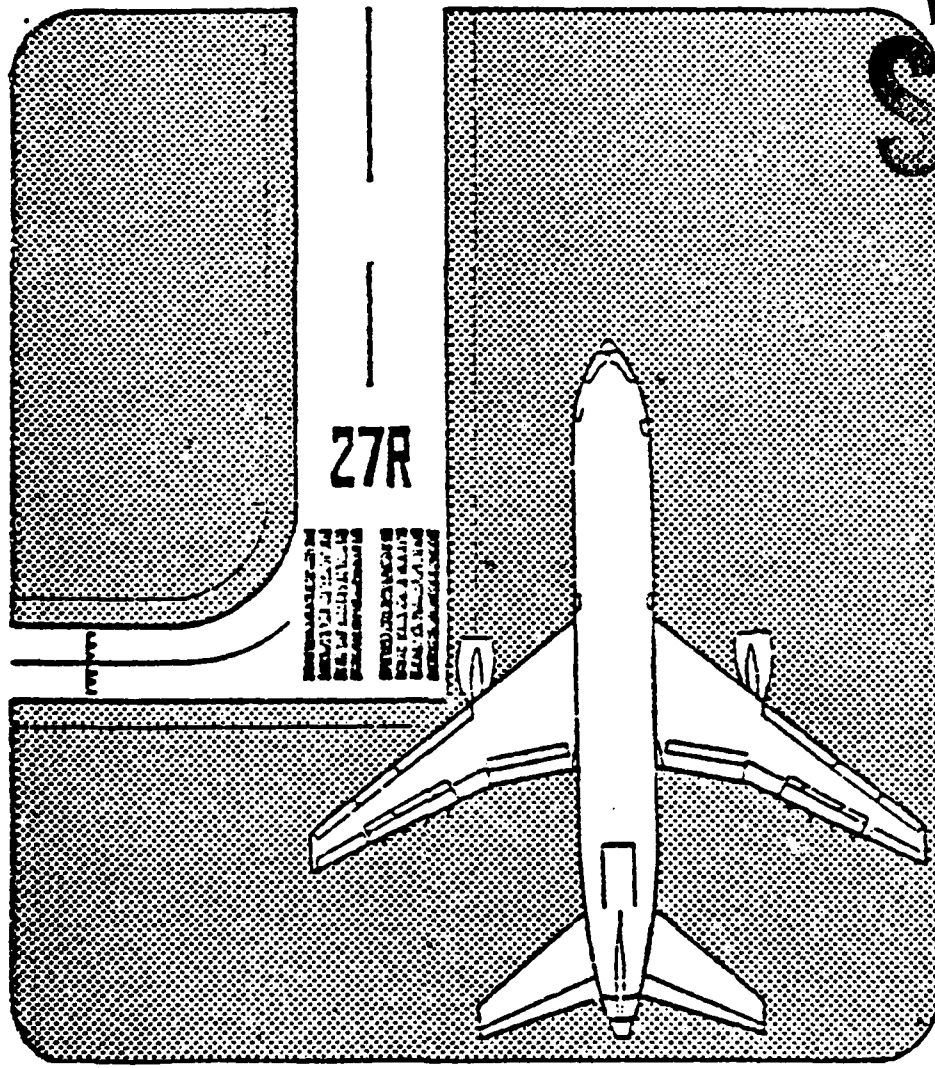
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MIAMI INTERNATIONAL AIRPORT

DATA PACKAGE NO. 4
AIRPORT IMPROVEMENT
TASK FORCE DELAY STUDIES

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(6) MIAMI INTERNATIONAL AIRPORT

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Airport Improvement Task Force Delay Studies.

11 August 1979

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477863

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Attachment A

MIAMI DELAY EXPERIMENTS
STAGE 1 AND STAGE 2
(REVISED)

Miami International Airport

Miami
Airport Improvement Task Force Delay Studies

August 1979

The following tables show the current experimental design for the Miami Delay Experiments as revised since March 1979. Stage 1 now includes all Airfield Simulation Model experiments, whereas Stage 2 includes all Annual Delay Model experiments.

The latest modifications to the Stage 1 design allow improved comparisons between the "full" and "limited" G.A. experiments in the 1983 time frame. These modifications include new experiment nos. 34, 35, 36, 37, 38, and 39, and changes to the demand or scenario in experiment nos. 8, 9, 10, and 17.

TABLE 2
MIAMI DELAY EXPERIMENTS*
STAGE 1

Experiment Number	Model	Study Case	Arrival Runways	Departure Runways	Weather	Demand	ATC System Scenario	Near-term Improvements ^c
1	ASM ^d	1	9L, 9R, 12	9L, 9R, 12	VFR1	Today's	Today's	None
7	ASM	1	9L, 9R, 12	9L, 9R, 12	VFR1	1983 ⁱ	Today's	None (Full G. A.)
11	ASM	1	9L, 9R, 12	9L, 9R, 12	VFR1	1983 ^m	1983	1983 ^e (Full G. A.)
14	ASM	1	9L, 9R, 12	9L, 9R, 12	VFR1	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
4	ASM	4	9L, 9R	9L, 9R, 12	IFR1	Today's	Today's	None
34	ASM	4	9L, 9R	9L, 9R, 12	IFR1	1983 ^m	Today's	None (Full G. A.)
9	ASM	4	9L, 9R	9L, 9R, 12	IFR1	1983 ^m	1983	g (50% G. A. Reduction)
35	ASM	4	9L, 9R	9L, 9R, 12	IFR1	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
6	ASM	8	None	9L	IFR2	Today's	Today's	None
10	ASM	8	None	9L	IFR2	1983 ^m	1983	g (50% G. A. Reduction)
21	ASM	9	9L, 9R	9L, 9R, 12	IFR2	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
2	ASM	2	27L, 27R, 30	27L, 27R, 30	VFR1	Today's	Today's	None
8	ASM	2	27L, 27R, 30	27L, 27R, 30	VFR1	1983 ⁱ	Today's	None (Full G. A.)
36	ASM	2	27L, 27R, 30	27L, 27R, 30	VFR1	1983 ^m	1983	1983 ^e (Full G. A.)
37	ASM	2	27L, 27R, 30	27L, 27R, 30	VFR1	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
3	ASM	3	27L, 27R	27L, 27R, 30	VFR2	Today's	Today's	None
38	ASM	3	27L, 27R	27L, 27R, 30	VFR2	1983 ^m	Today's	None (Full G. A.)
17	ASM	3	27L, 27R	27L, 27R, 30	VFR2	1983 ^m	1983	g (50% G. A. Reduction)
12	ASM	7	27R, 30	27L, 27R	VFR2	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
5	ASM	5	27L, 27R	27L, 27R	IFR1	Today's	Today's	None
39	ASM	5	27L, 27R	27L, 27R	IFR1	1983 ⁱ	Today's	None (Full G. A.)
15	ASM	5	27L, 27R	27L, 27R	IFR1	1983 ^m	1983	1983 ^e (Full G. A.)
20	ASM	5	27L, 27R	27L, 27R	IFR1	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
12A	ASM	7	27R, 30	27L, 27R	-	1983 ^m	1983	1983 ^{e, g} (50% G. A. Reduction)
24	ASM	5	27L, 27R	27L, 27R	IFR1	Today's	Today's	i

^a Study cases are defined in Figure III-1 of the Miami International Airport Technical Plan (Oct. 1978).

^b FAA will describe impact of pre-1985 and post-1985 ATC systems on model inputs (as per report No. FAA-EM-78-8A).

^c Near-term improvements are described in Appendix B of the Miami International Airport Technical Plan.

^d Airfield Simulation Model.

^e Improvement items 1, 2, 3, 7, 9, and 10 as defined by the Miami Delay Studies' Task Force on 3/16/79 are modeled in these experiments.

^f 50% reduction in general aviation achieved by upgrading Opa Locka and Tamiami General Aviation Reliever Airports.

^g Improvement #6 is the use of 2 mile in-trail staggered parallel approaches.

^h 1983 full schedule assumes no G. A. relocation out of Miami between 1978 and 1983.

^m 1983 limited schedule assumes a 50% G. A. reduction at Miami due to upgrading of reliever airports.

^p All improvements of footnote "e" except for improvement item #10 (aircraft are being towed instead of taxied in 12A).

^q Stage 1 experiments as revised by discussions with the Miami Delay Studies' Task Force since 1/24/79

TABLE 9
MIAMI DELAY EXPERIMENTS*
STAGE 2

Experiment Number	Model	Study		Arrival Runways	Departure Runways	Weather	Demand	ATC System		Near-term Improvements
		Case						Scenario		
16	A DM ^h	n.a.	n.a.	n.a.	n.a.	n.a.	Today's	Today's	None	None
29	ADM	n.a.	n.a.	n.a.	n.a.	n.a.	Pre-1985 ^m	Today's	None	None
27	ADM	n.a.	n.a.	n.a.	n.a.	n.a.	Pre-1985 ^m	Pre-1985	None	None
28	A DM	n.a.	n.a.	n.a.	n.a.	n.a.	Pre-1985 ^m	Today's	Pre-1985 ^{e, g}	Pre-1985 ^{e, g}
26	A DM	n.a.	n.a.	n.a.	n.a.	n.a.	Pre-1985 ^m	Pre-1985	Pre-1985	Pre-1985
33	ADM	n.a.	n.a.	n.a.	n.a.	n.a.	Post-1985 ^q	Today's	None	None
30	ADM	n.a.	n.a.	n.a.	n.a.	n.a.	Post-1985 ^q	Post-1985	None	None
32	A DM	n.a.	n.a.	n.a.	n.a.	n.a.	Post-1985 ^q	Today's	Post-1985 ^r	Post-1985 ^r
31	A DM	n.a.	n.a.	n.a.	n.a.	n.a.	Post-1985 ^q	Post-1985	Post-1985 ^f	Post-1985 ^f

^eImprovement items 1, 2, 3, 7, 9, and 10 as defined by the Miami Delay Studies' Task Force on 3/16/79.

^g50% reduction in general aviation achieved by upgrading Opa Locka and Tamiami General Aviation Reliever Airports.

^hAnnual Delay Model

^m1983 limited schedule assumes a 50% G. A. reduction at Miami due to upgrading of reliever airports.

^qPost-1985 Demand to be provided by the Miami Delay Studies' Task Force.

^rPost-1985 Improvement Package to be provided by the Miami Delay Studies' Task Force.

*Stage 2 experiments as revised by discussions with the Miami Delay Studies' Task Force since 1/24/79

Attachment B

MIAMI BASELINE DEMAND SCHEDULES

Miami International Airport

Miami
Airport Improvement Task Force Delay Studies

August 1979

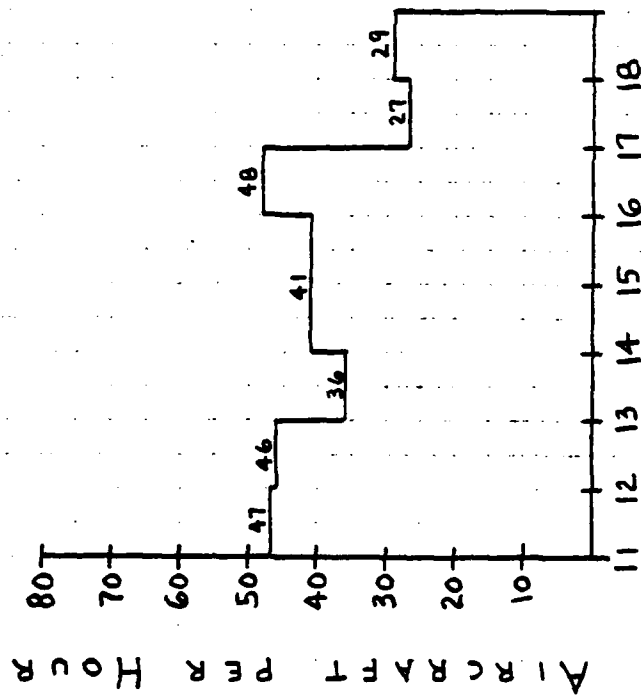
The following histograms show the hourly arrival/departure demands of the Stage 1 baseline aircraft schedules. The three baseline schedules are:

- . 1978 VFR
- . 1983 VFR, Full G.A. (No upgrading of Reliever Airports)
- . 1983 VFR, Limited G.A. (50% less G.A. due to Reliever upgrading)

The baseline schedules contain proposed arrival/departure times and must have the Lateness Distribution applied before they are input to the Airfield Simulation Model. In addition, the "IFR rule" for General Aviation reduction (see page H-3 of Miami Data Package No. 3) must be applied to the appropriate VFR baseline during construction of the final traffic schedules for IFR experiments. Thus, these histograms reflect the proposed VFR hourly demands as opposed to the actual demands applied to each experiment as shown in Attachment C.

The 1978 baseline schedule was developed from the Official Airline Guide for March 16, 1978, with supplementation of General Aviation Operations (see Attachment G of Miami Data Package No. 3, "Description of 1978 Demand Schedule Preparation"). The 1983 baseline schedules were developed from information provided by Mr. Peter Reaveley of the Miami Delay Studies' Task Force.

1978 ARRIVAL SCHEDULE (VFR)



1978 DEPARTURE SCHEDULE (VFR)

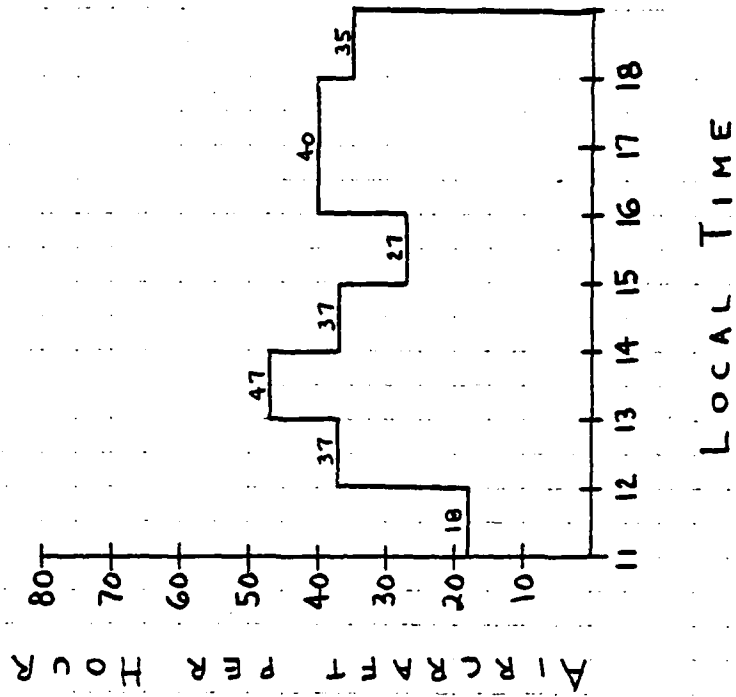
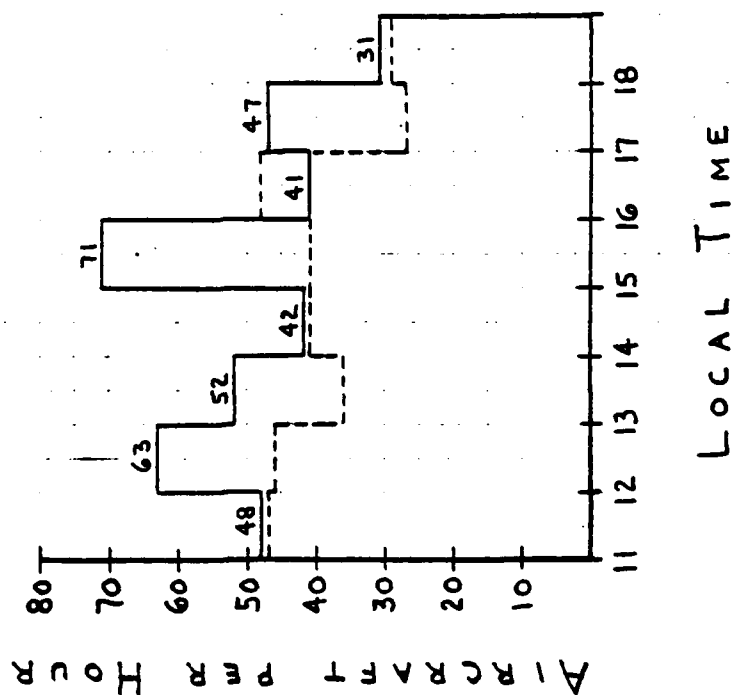


FIGURE 1.

1983 ARRIVAL SCHEDULE (VFR)
FULL G.A.



1983 DEPARTURE SCHEDULE (VFR)
FULL G.A.

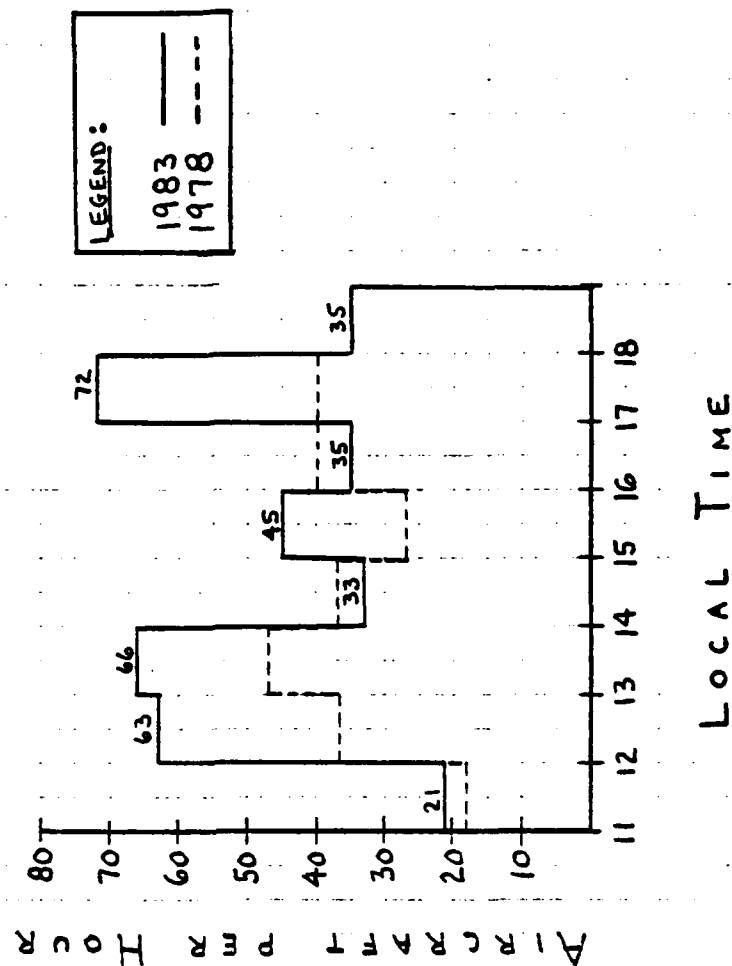
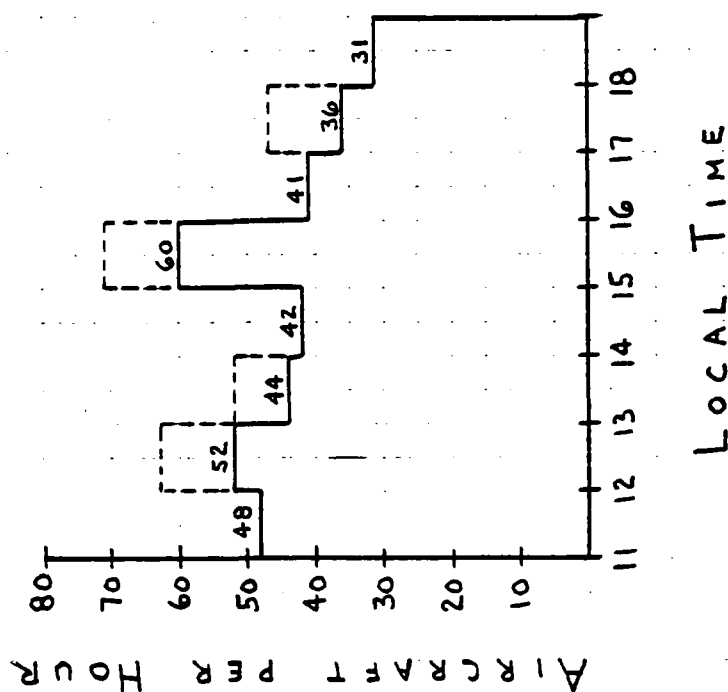


FIGURE 2

1983 ARRIVAL SCHEDULE (VFR) LIMITED G.A.



1983 DEPARTURE SCHEDULE (VFR) LIMITED G.A.

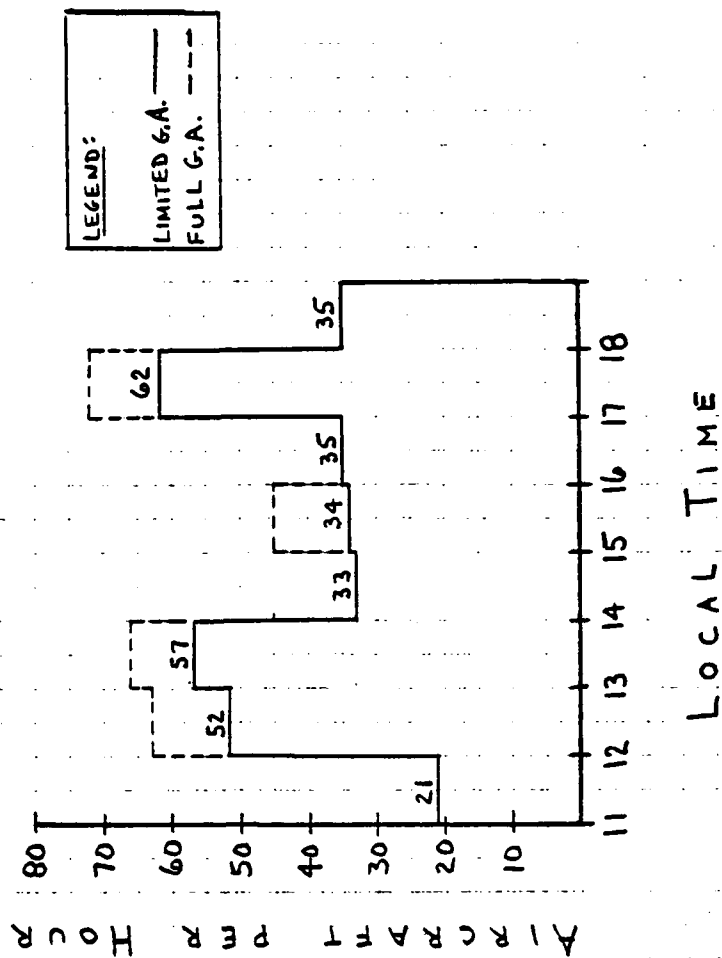
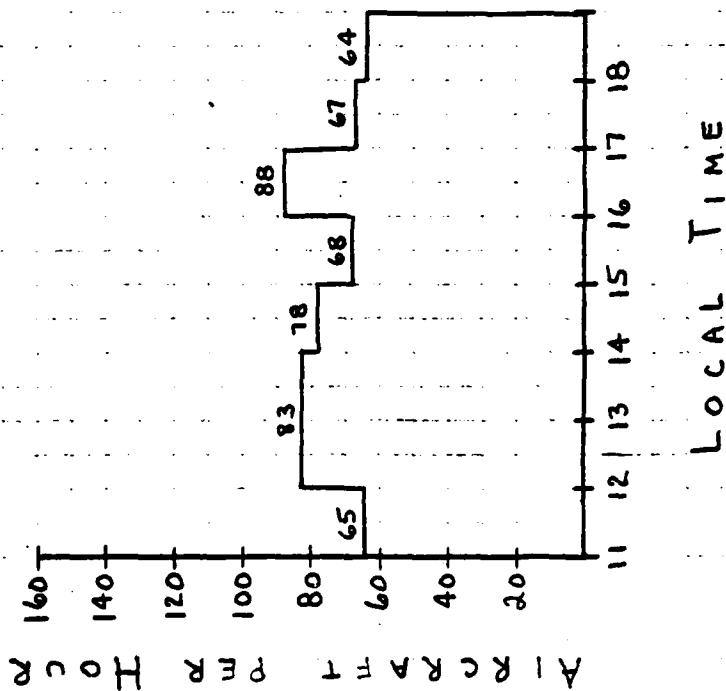


FIGURE 3

1978 ARRIVAL+DEPARTURE SCHEDULE
(VFR)



1983 ARRIVAL+DEPARTURE SCHEDULE
(VFR)

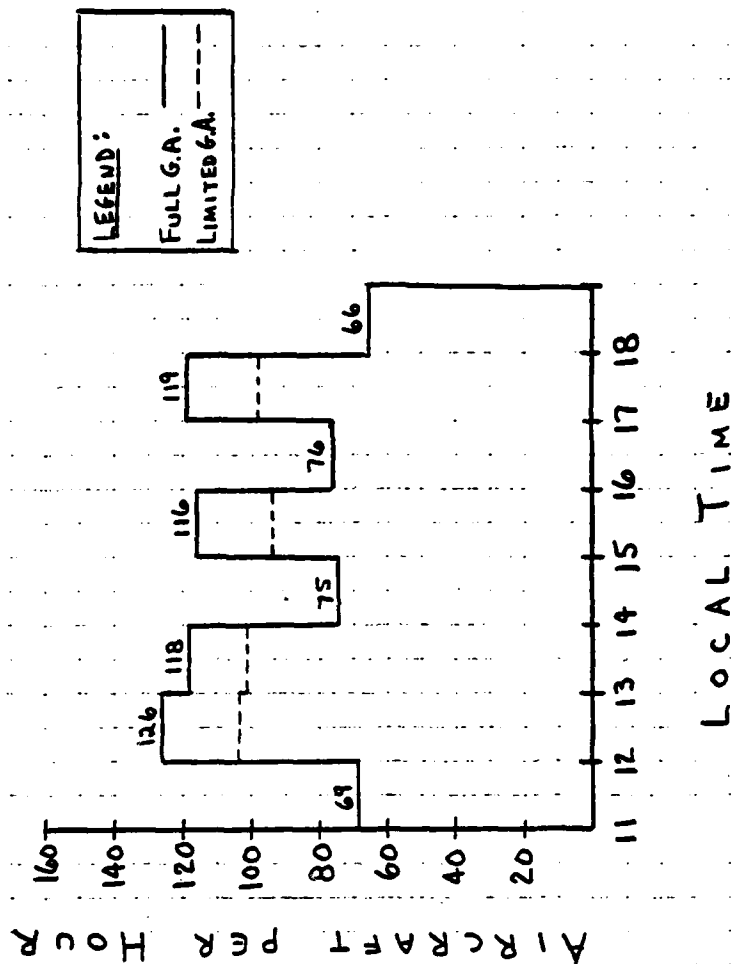


FIGURE 4

Attachment C

MIAMI ARRIVAL/DEPARTURE SCHEDULES BY EXPERIMENT

Miami International Airport

Miami
Airport Improvement Task Force Delay Studies

August 1979

The following histograms summarize the hourly arrival and departure demands of the Stage 1 aircraft schedules by experiment. Note that these histograms were derived from the final schedules that input the Airfield Simulation Model, wherein the arrival times have been adjusted from those shown in the baseline schedules via the Miami Lateness Distribution.

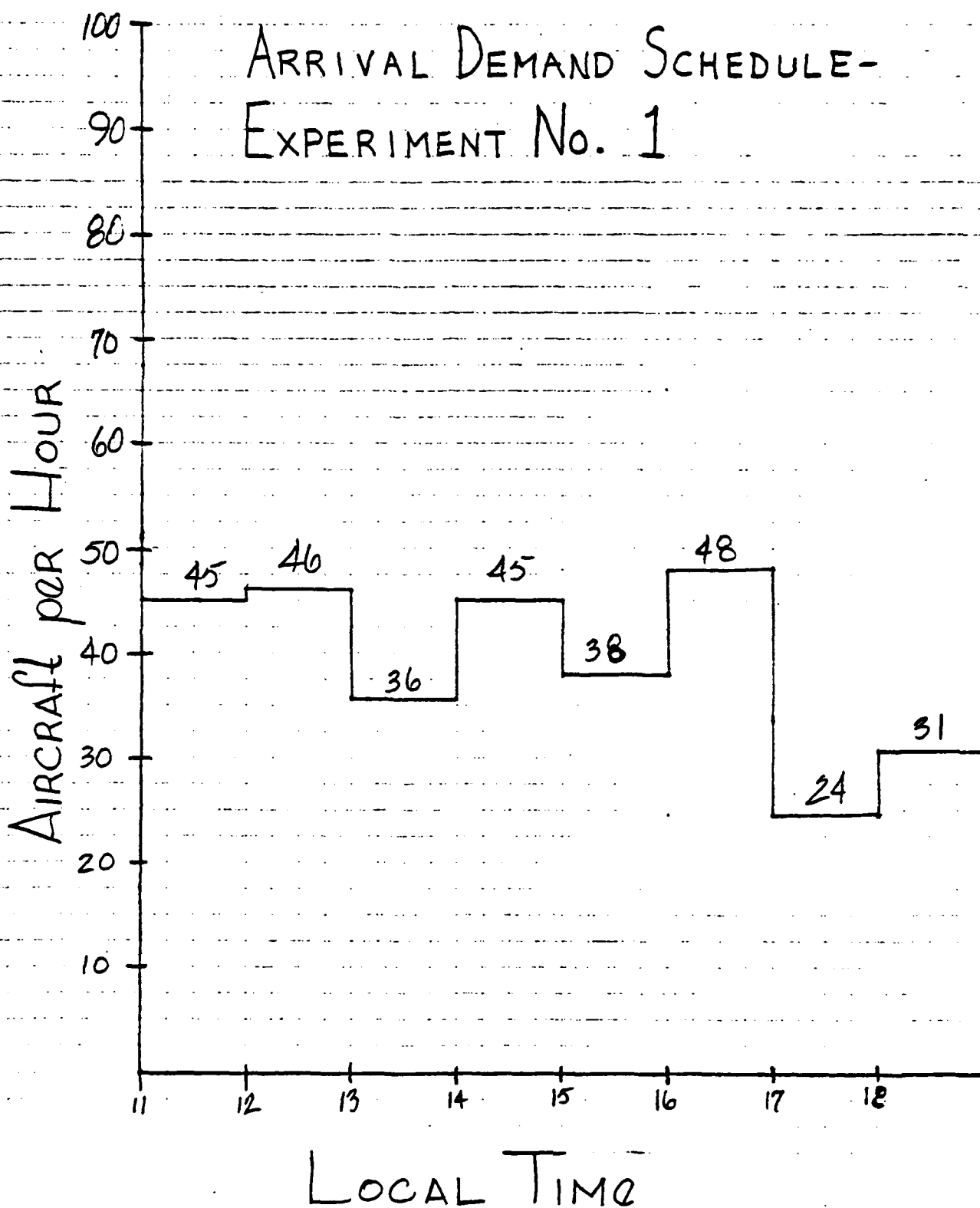
It should be noted that application of the Lateness Distribution introduces a minor degree of variability between the hourly demands of schedules derived from the same baseline. This is why separate histograms are shown for experiment nos. 1, 2, and 3, for example, although these three aircraft schedules were derived from the 1978 VFR base.

With the above in mind, the following histograms are indexed so that the arrival/departure demands for any particular experiment may be easily referenced.

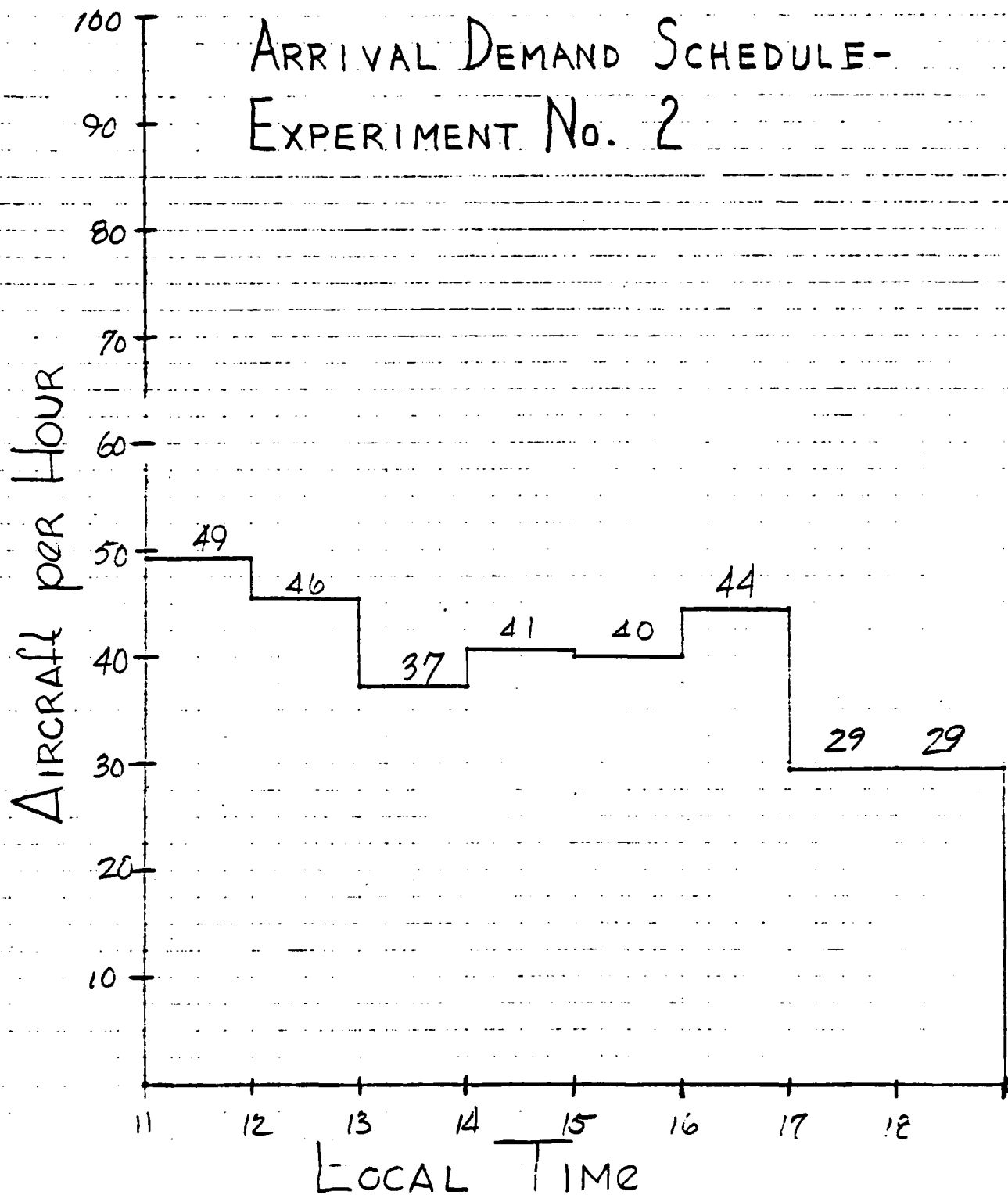
Index of Demand Schedule Histograms

<u>Experiment No.</u>	<u>Arrival Demand Schedule</u>	<u>Departure Demand Schedule</u>
1	C-4	C-19
7	C-9	C-22
11	C-9	C-22
14	C-13	C-24
4	C-7	C-20
34	C-17	C-27
9	C-11	C-23
35	C-11	C-23
6	C-7	C-20
10	C-11	C-23
21	C-11	C-23
2	C-5	C-19
8	C-10	C-22
36	C-10	C-22
37	C-18	C-24
3	C-6	C-19
38	C-10	C-22
17	C-15	C-24
12	C-12	C-24
5	C-8	C-21
39	C-14	C-25
15	C-14	C-25
20	C-16	C-26
12A	C-12	C-24
24	C-8	C-21

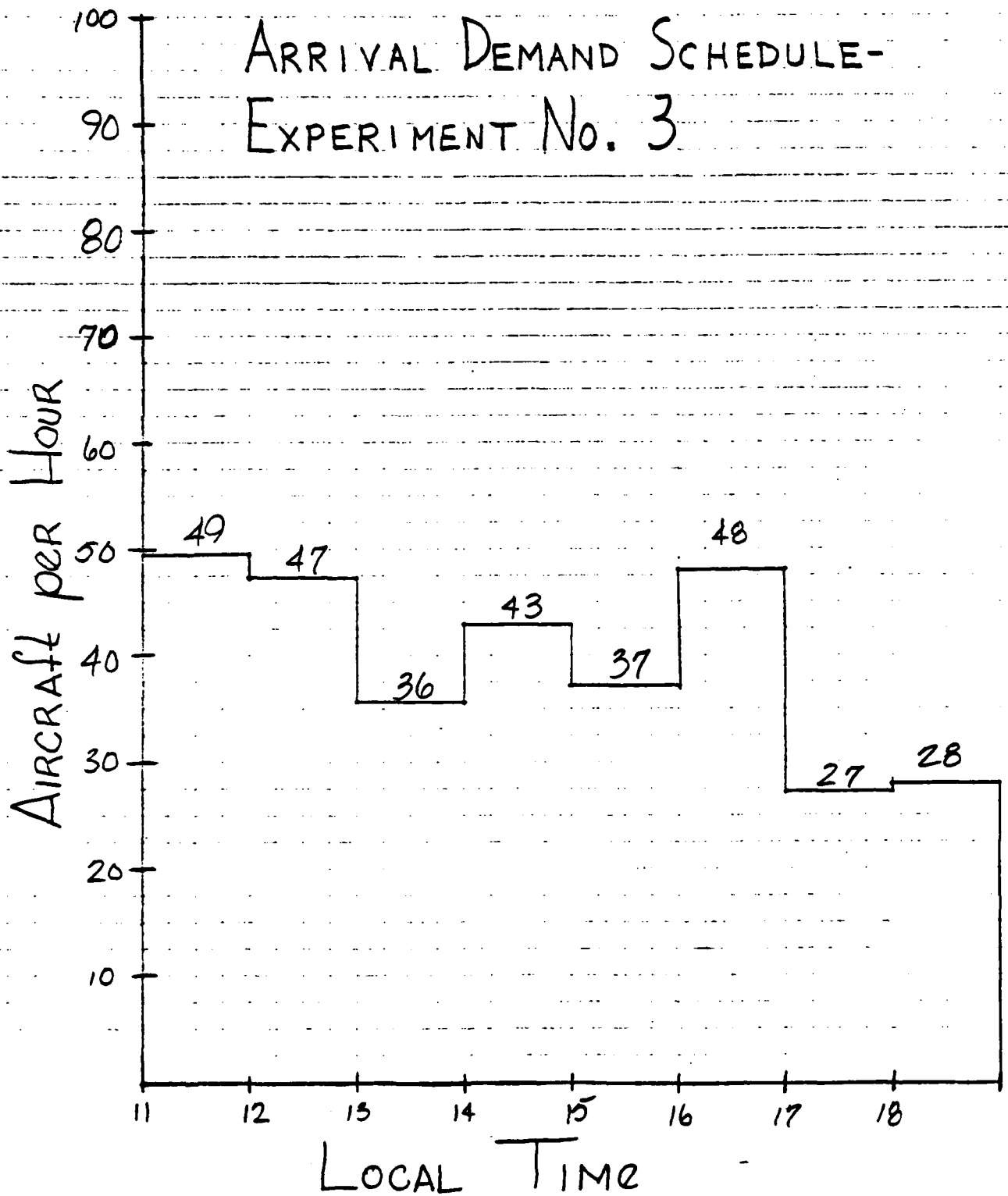
ARRIVAL DEMAND SCHEDULE- EXPERIMENT No. 1



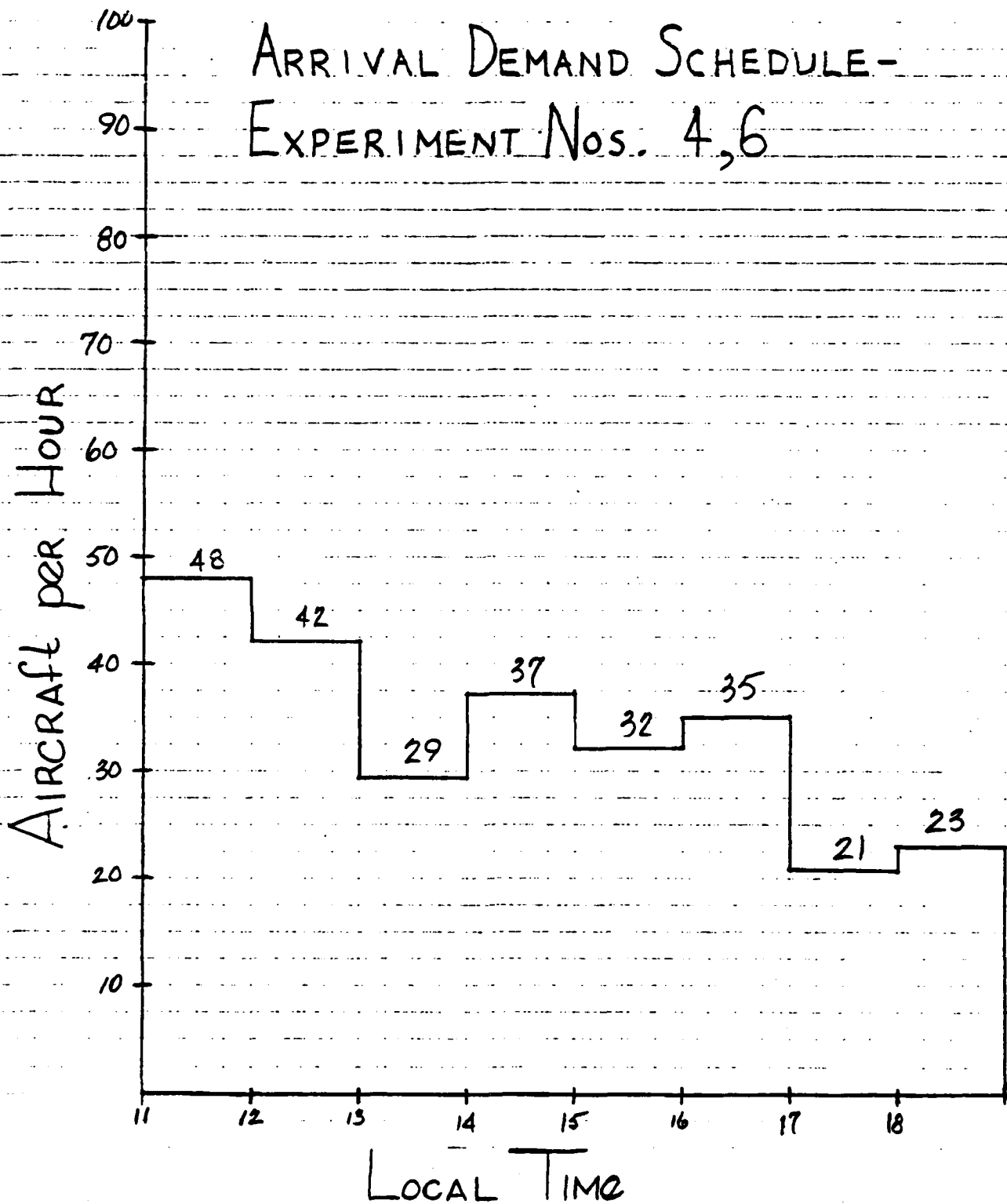
ARRIVAL DEMAND SCHEDULE- EXPERIMENT No. 2



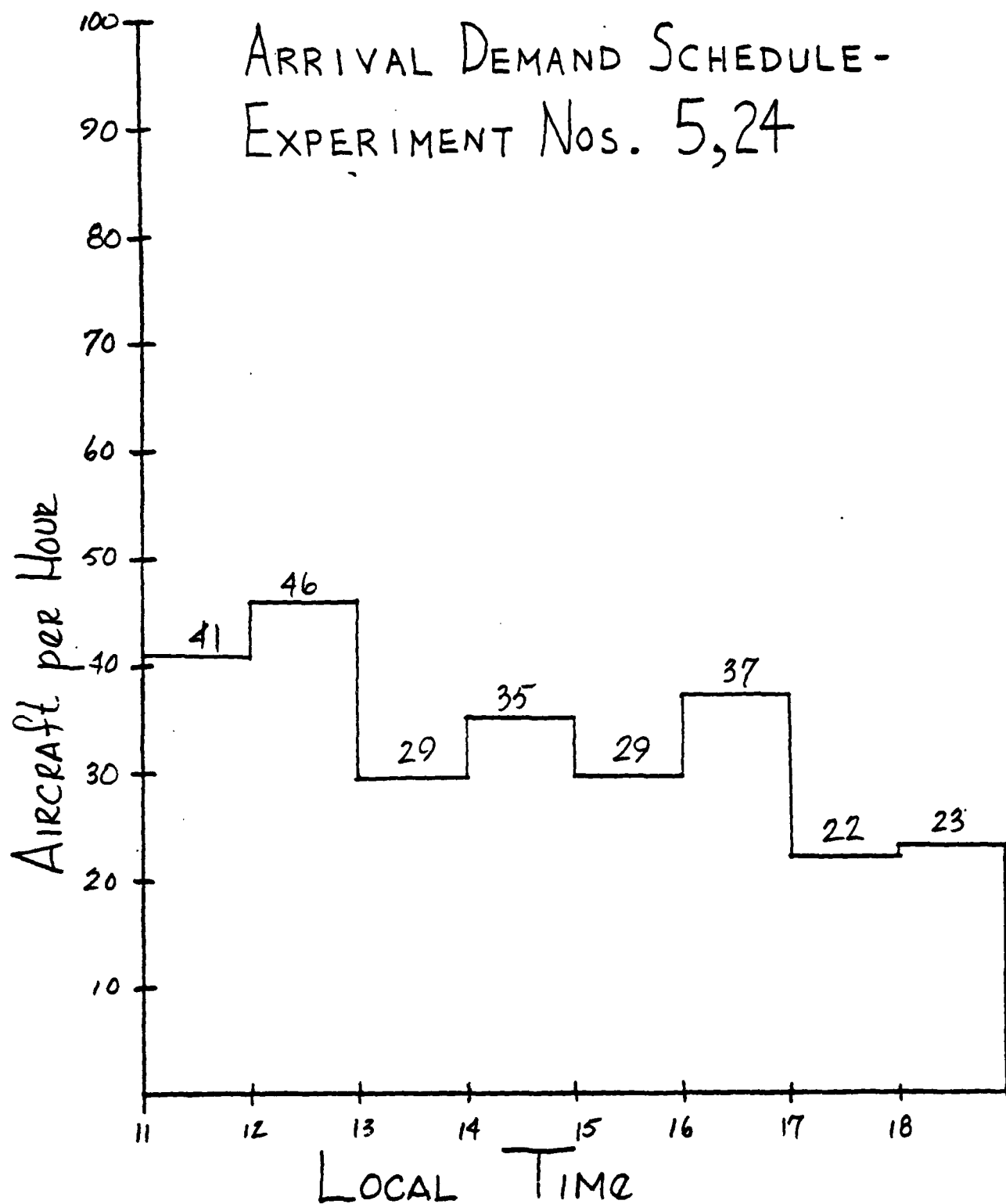
ARRIVAL DEMAND SCHEDULE- EXPERIMENT NO. 3



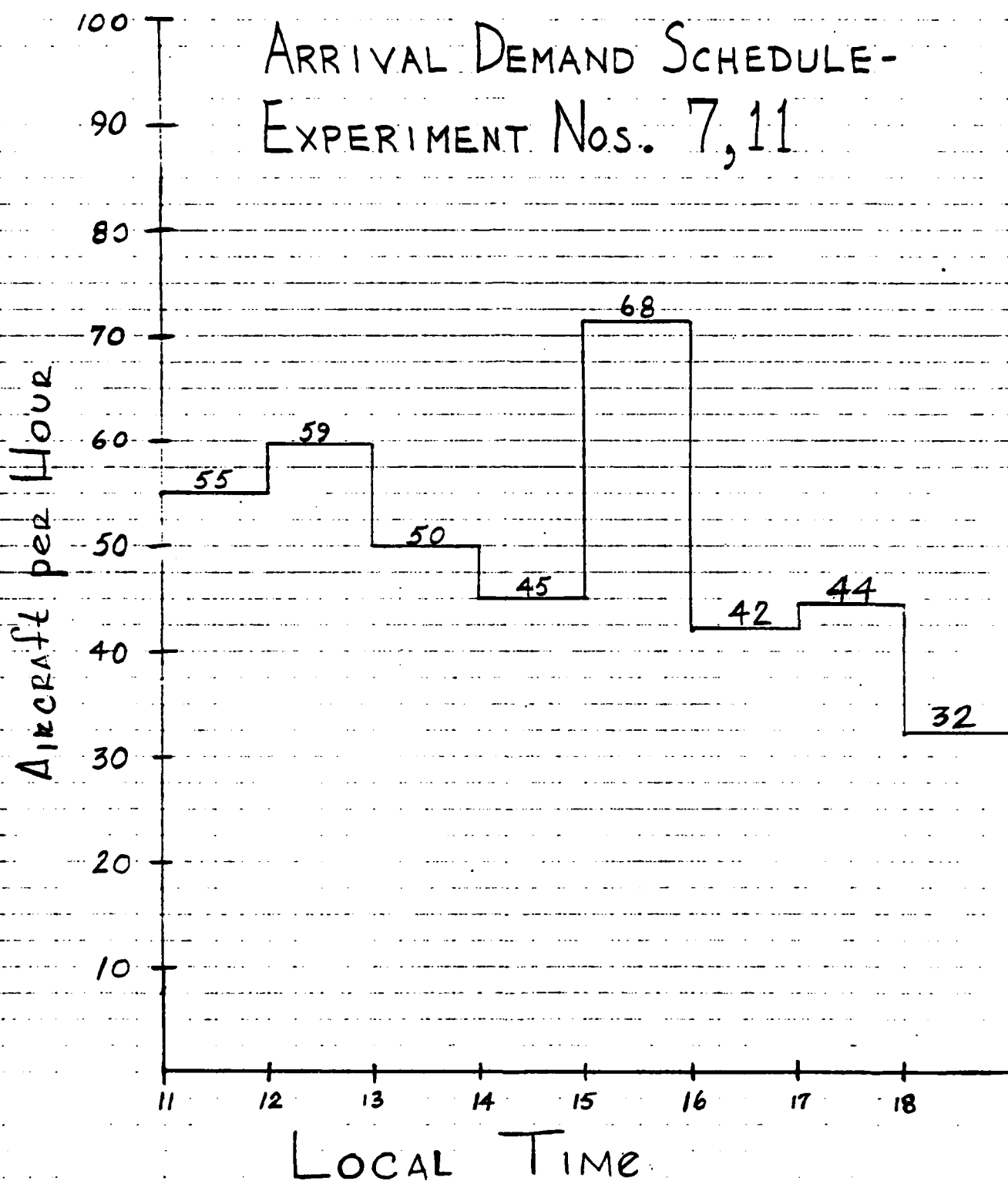
ARRIVAL DEMAND SCHEDULE- EXPERIMENT NOS. 4,6



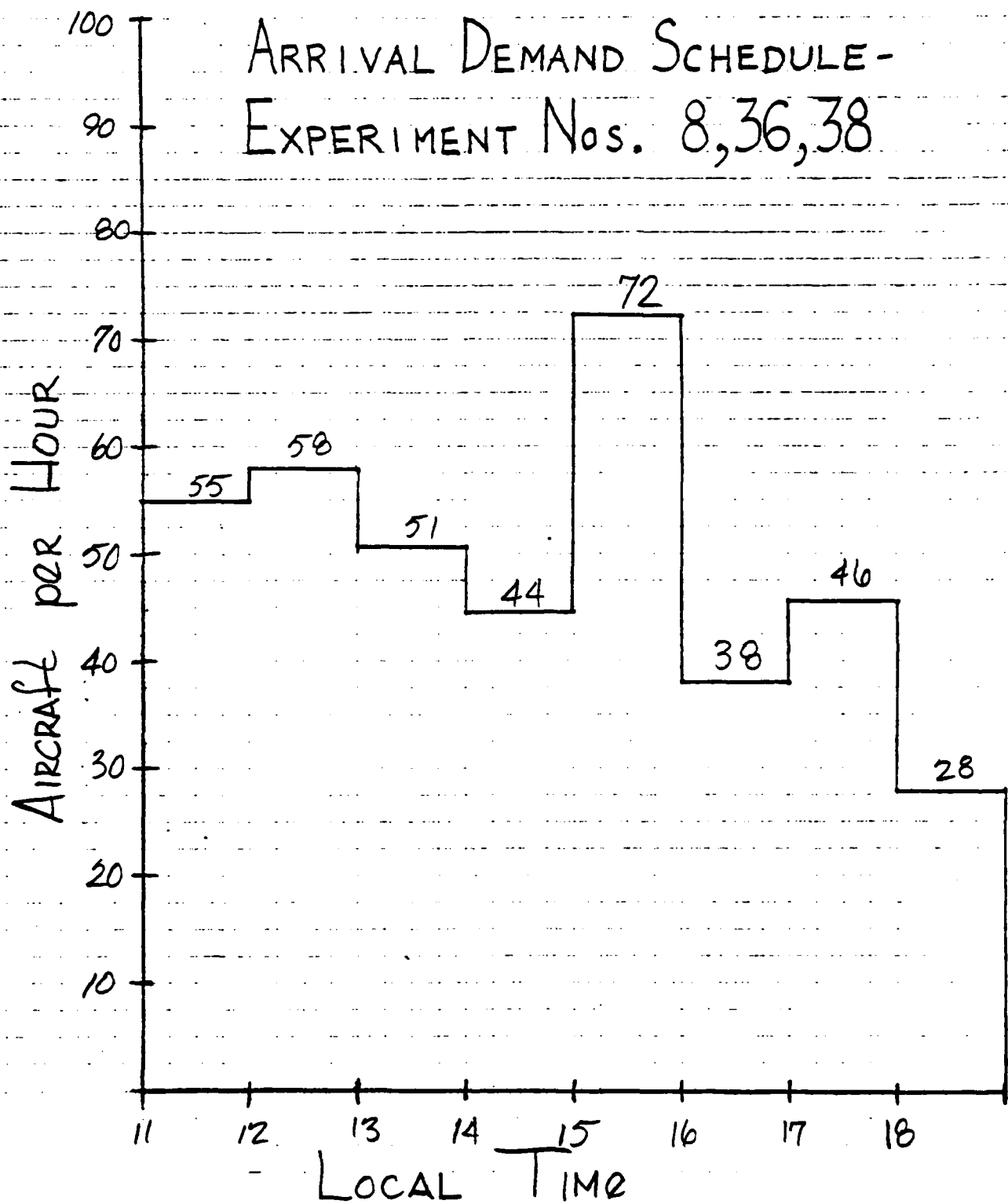
ARRIVAL DEMAND SCHEDULE - EXPERIMENT Nos. 5, 24



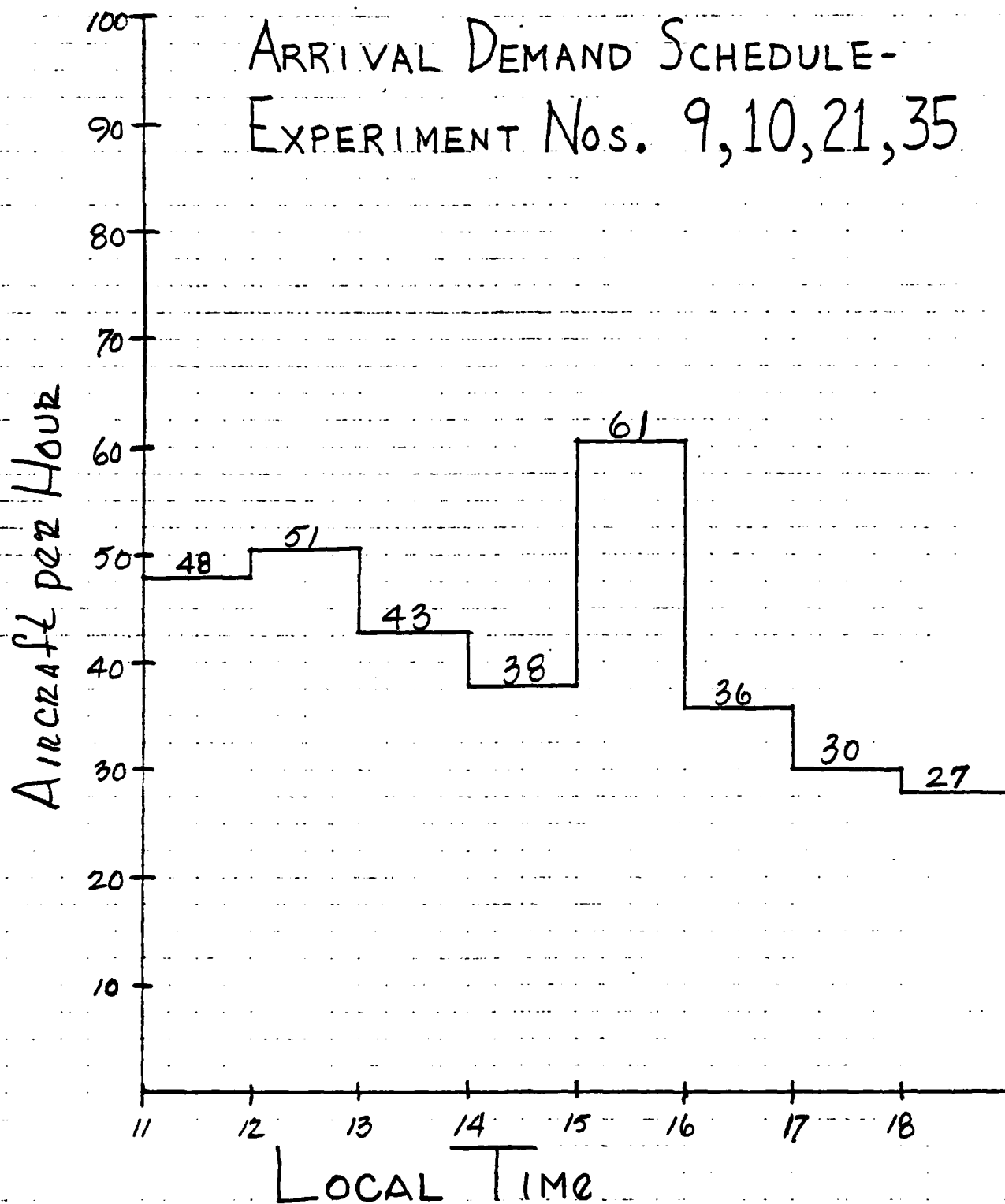
ARRIVAL DEMAND SCHEDULE- EXPERIMENT Nos. 7, 11



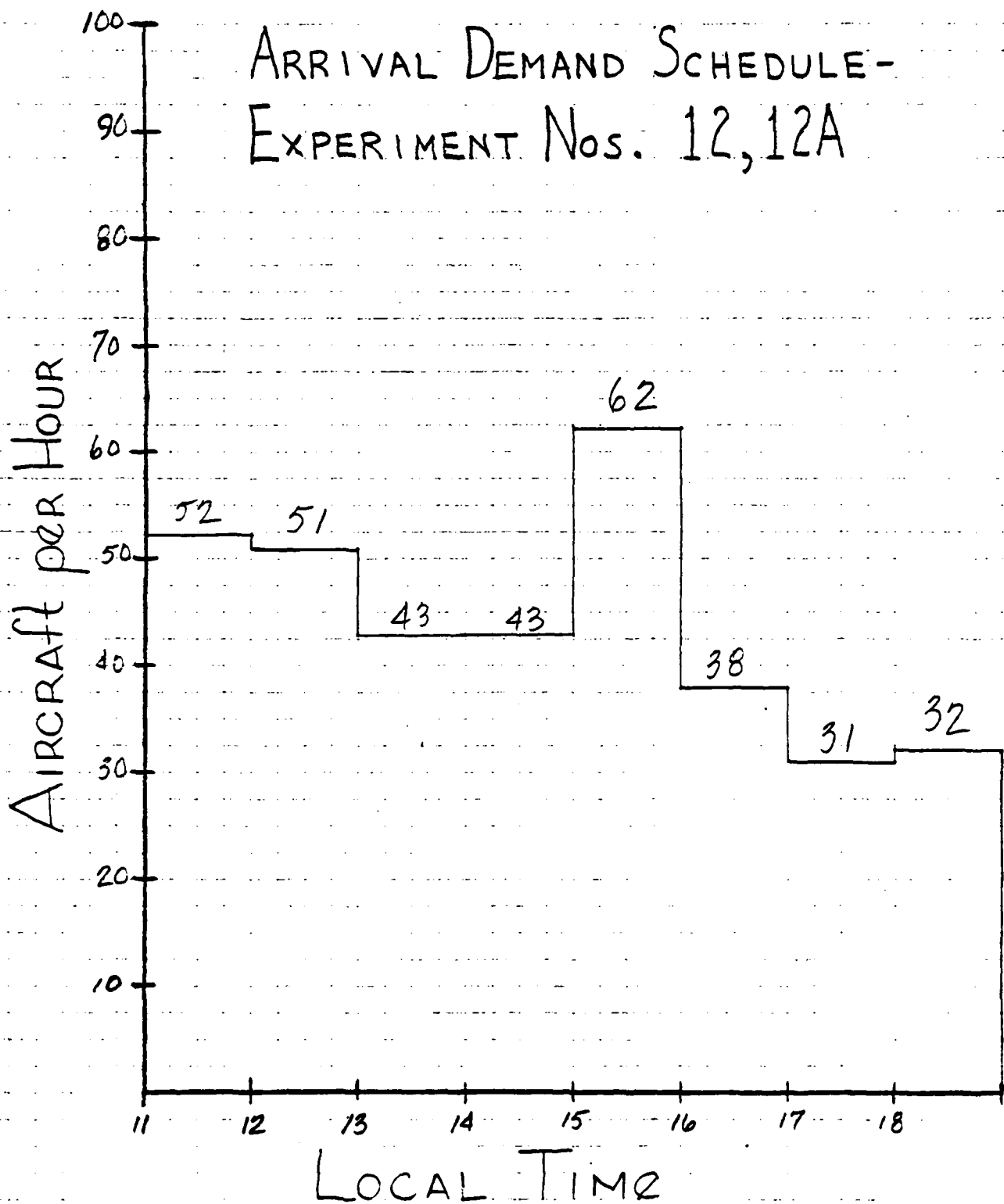
ARRIVAL DEMAND SCHEDULE - EXPERIMENT Nos. 8, 36, 38



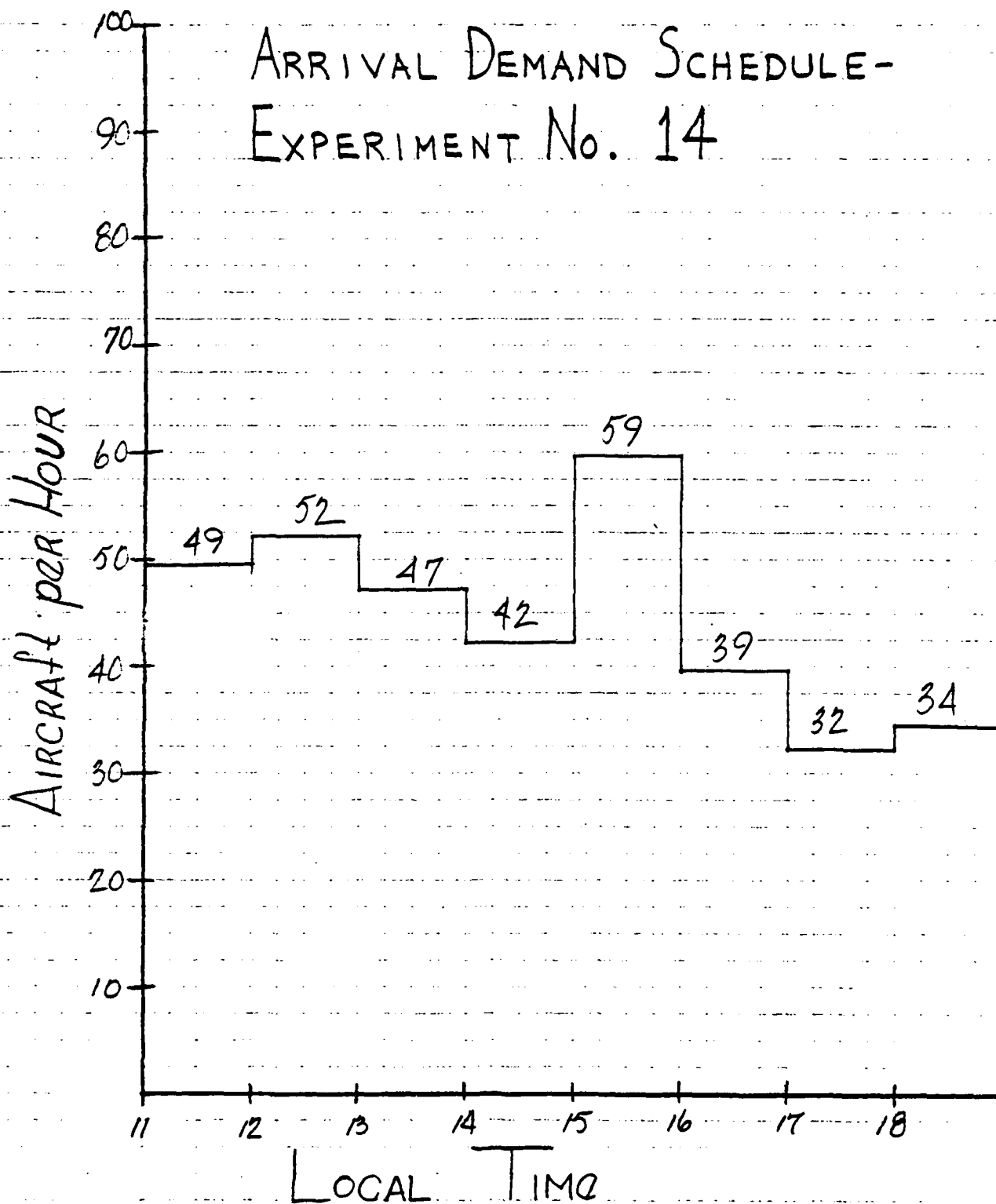
ARRIVAL DEMAND SCHEDULE- EXPERIMENT Nos. 9,10,21,35



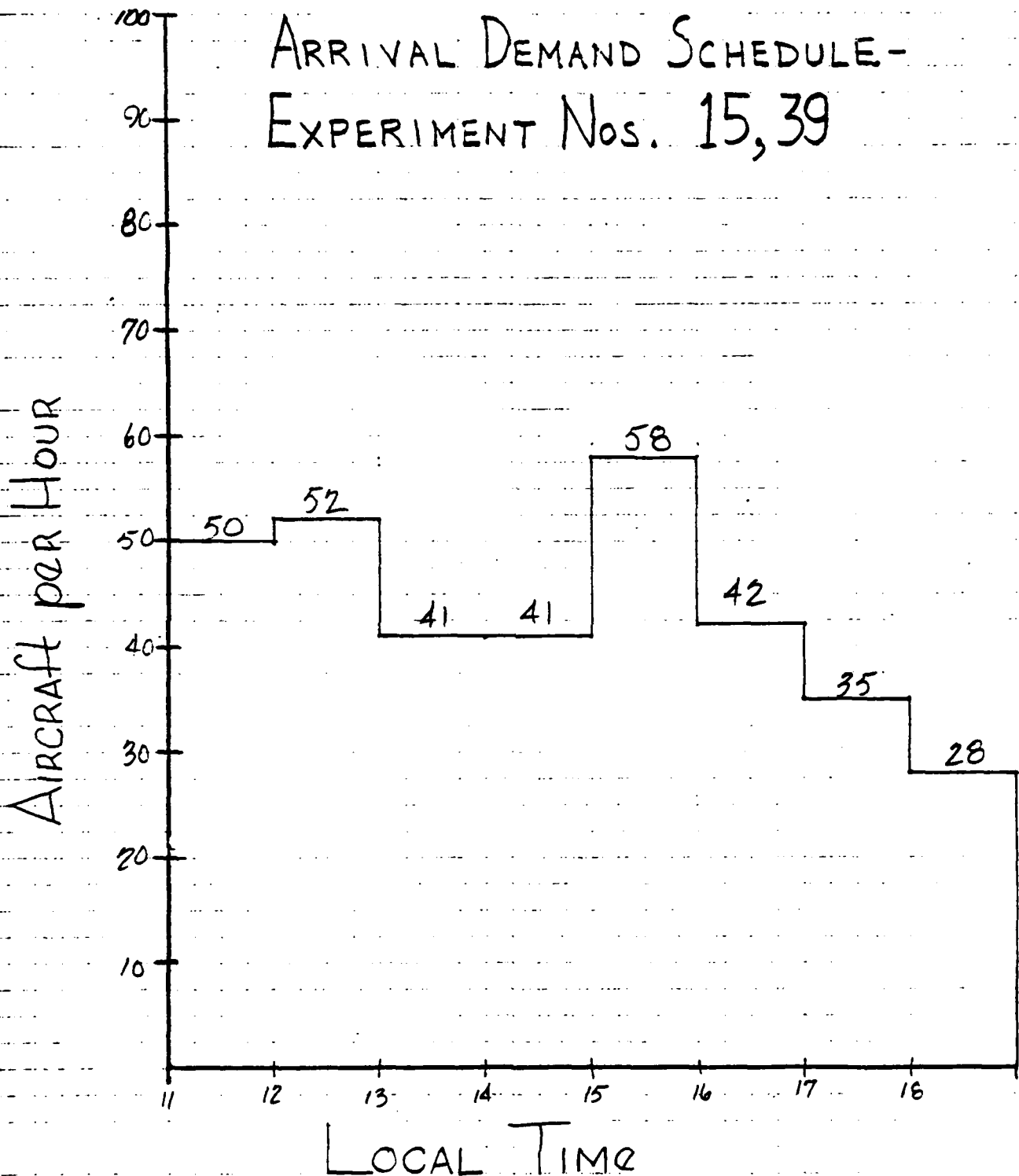
ARRIVAL DEMAND SCHEDULE- EXPERIMENT Nos. 12, 12A



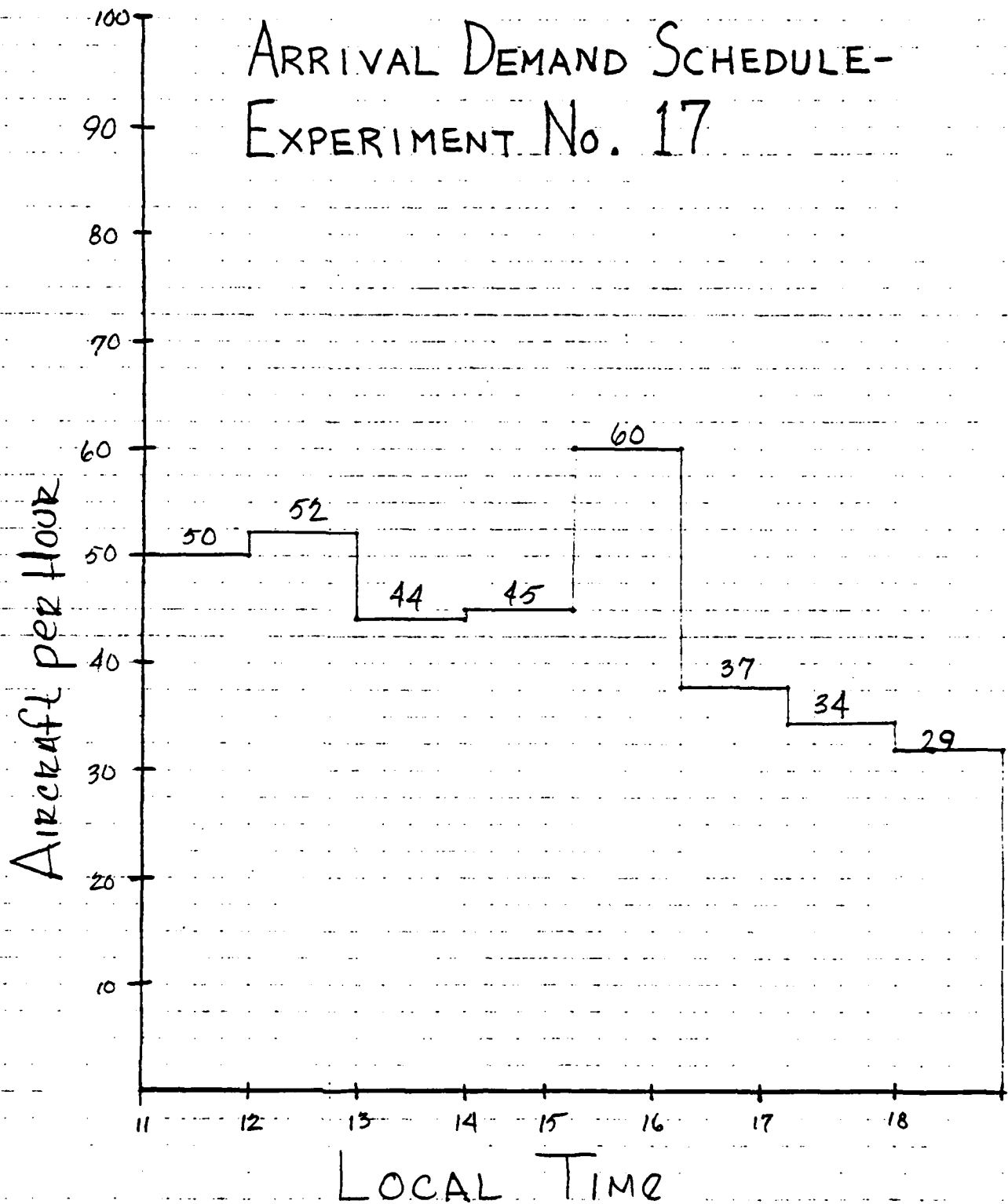
ARRIVAL DEMAND SCHEDULE- EXPERIMENT No. 14



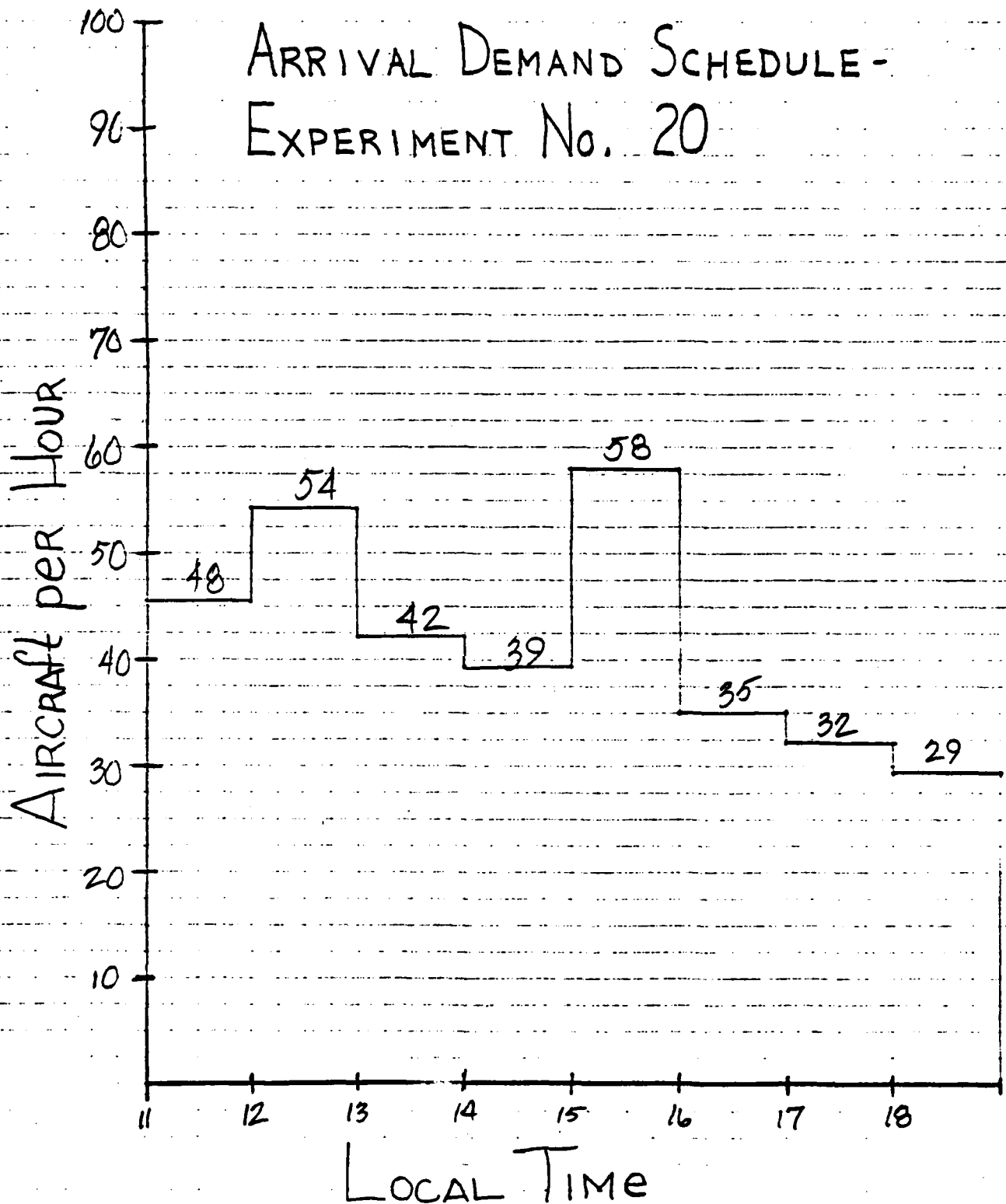
ARRIVAL DEMAND SCHEDULE - EXPERIMENT Nos. 15, 39



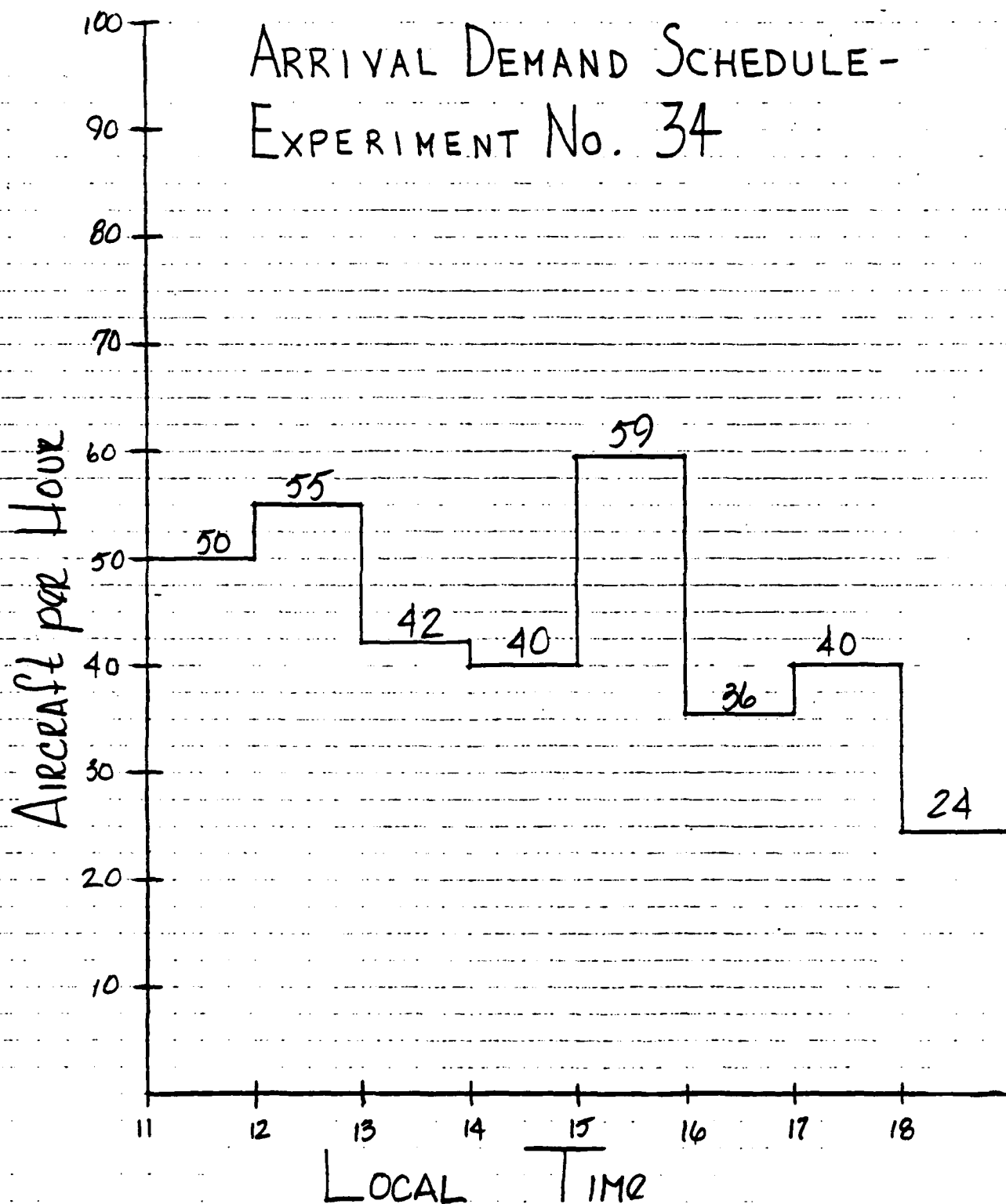
ARRIVAL DEMAND SCHEDULE- EXPERIMENT No. 17



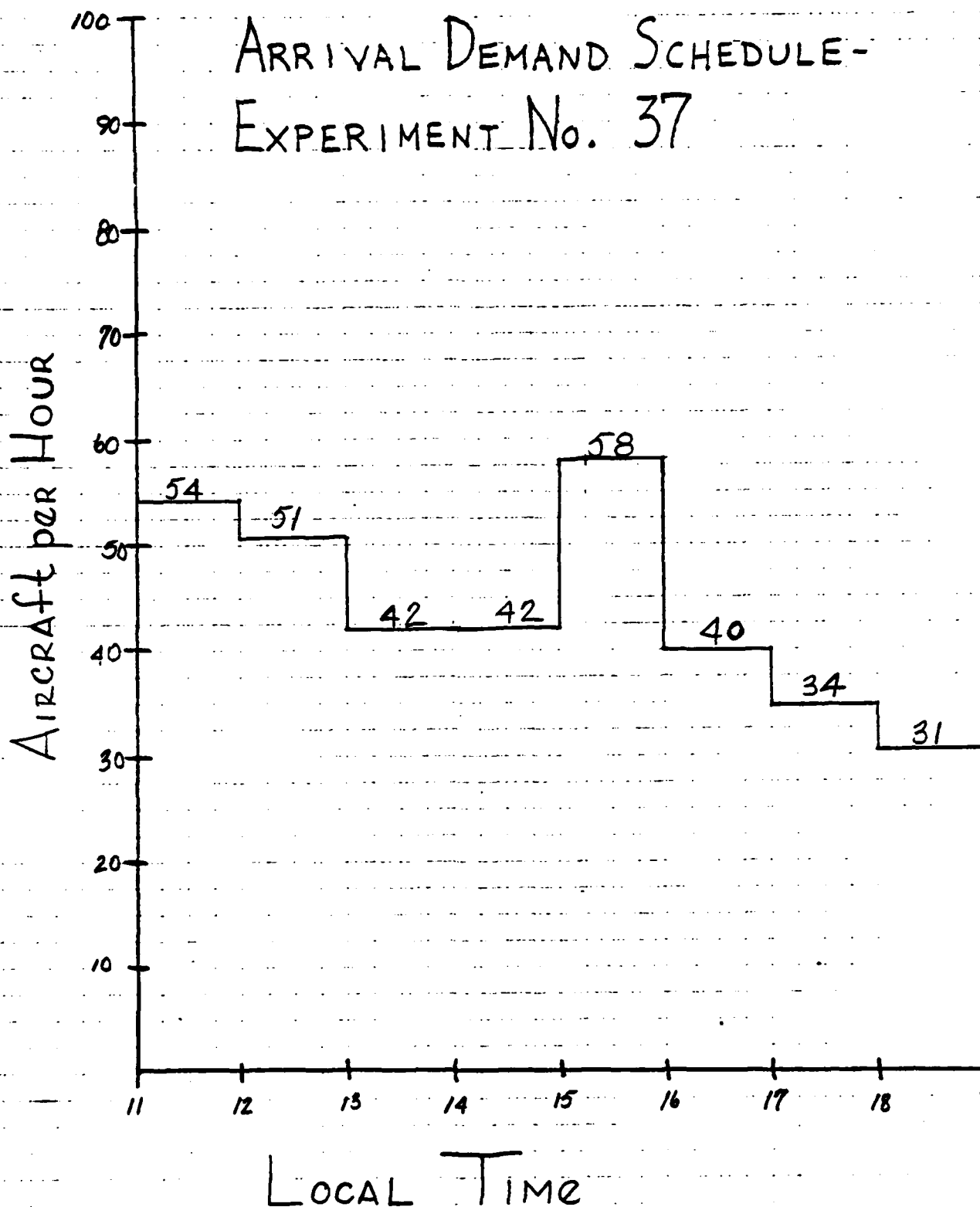
ARRIVAL DEMAND SCHEDULE - EXPERIMENT No. 20

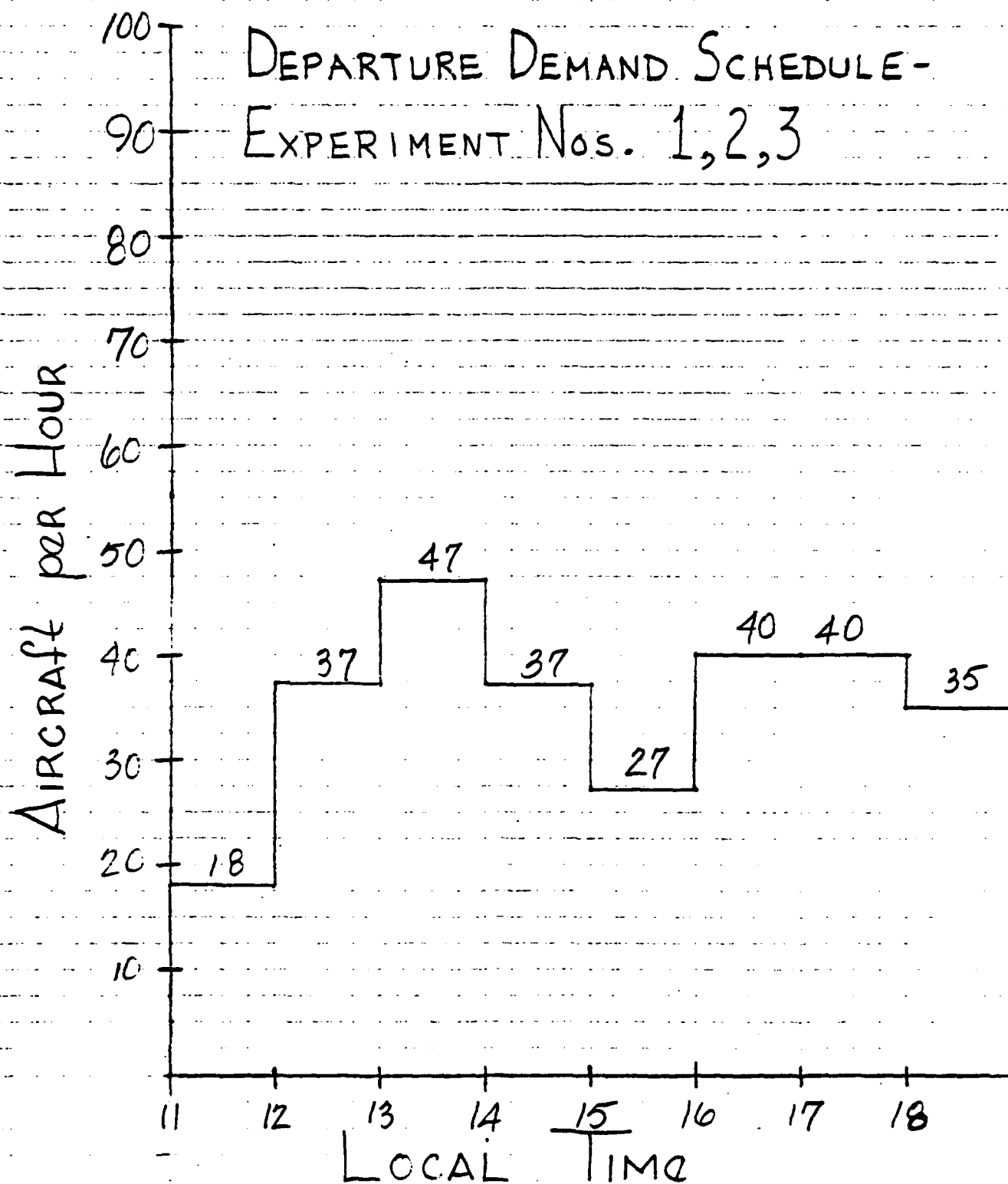


ARRIVAL DEMAND SCHEDULE - EXPERIMENT No. 34

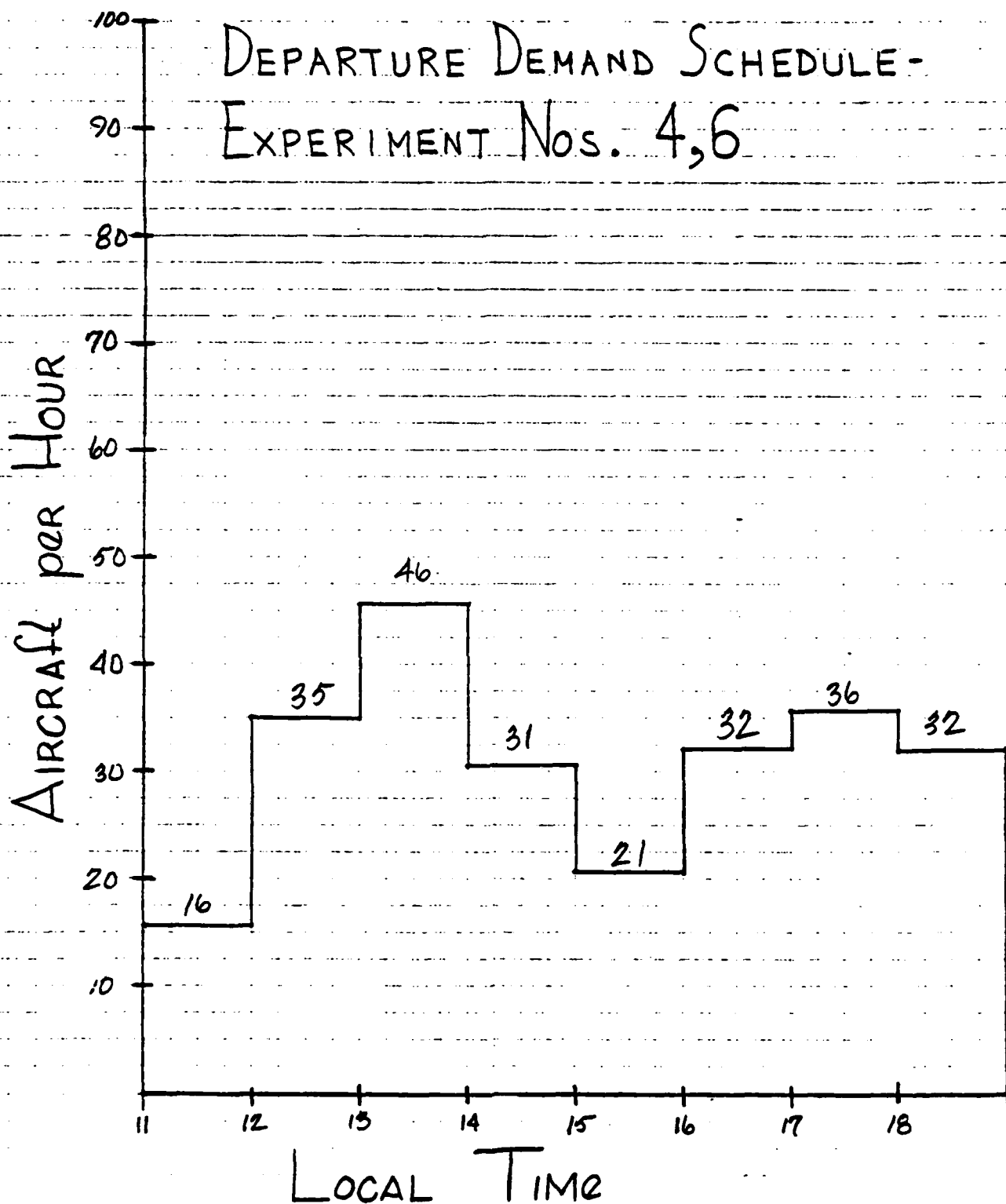


ARRIVAL DEMAND SCHEDULE- EXPERIMENT No. 37

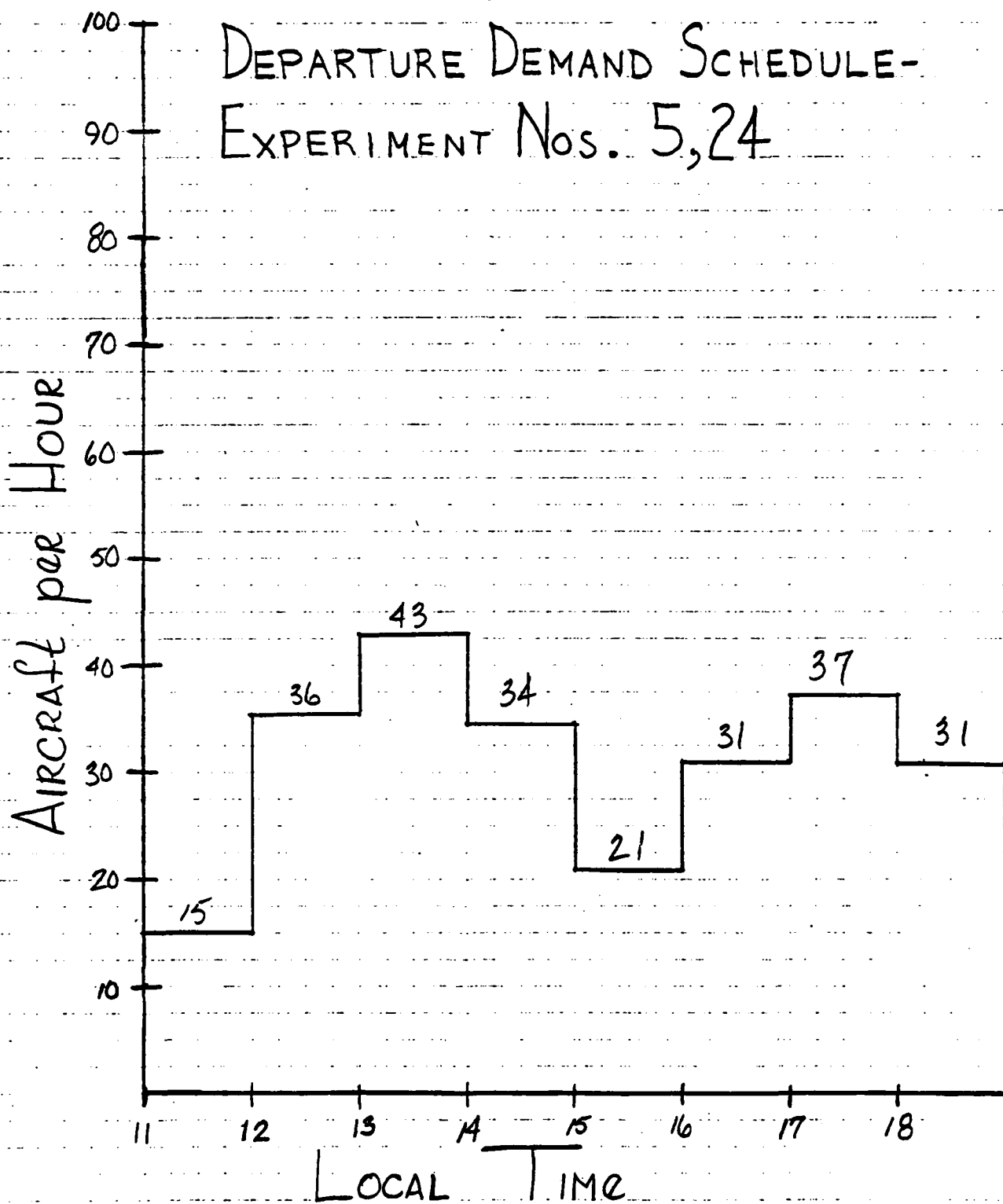




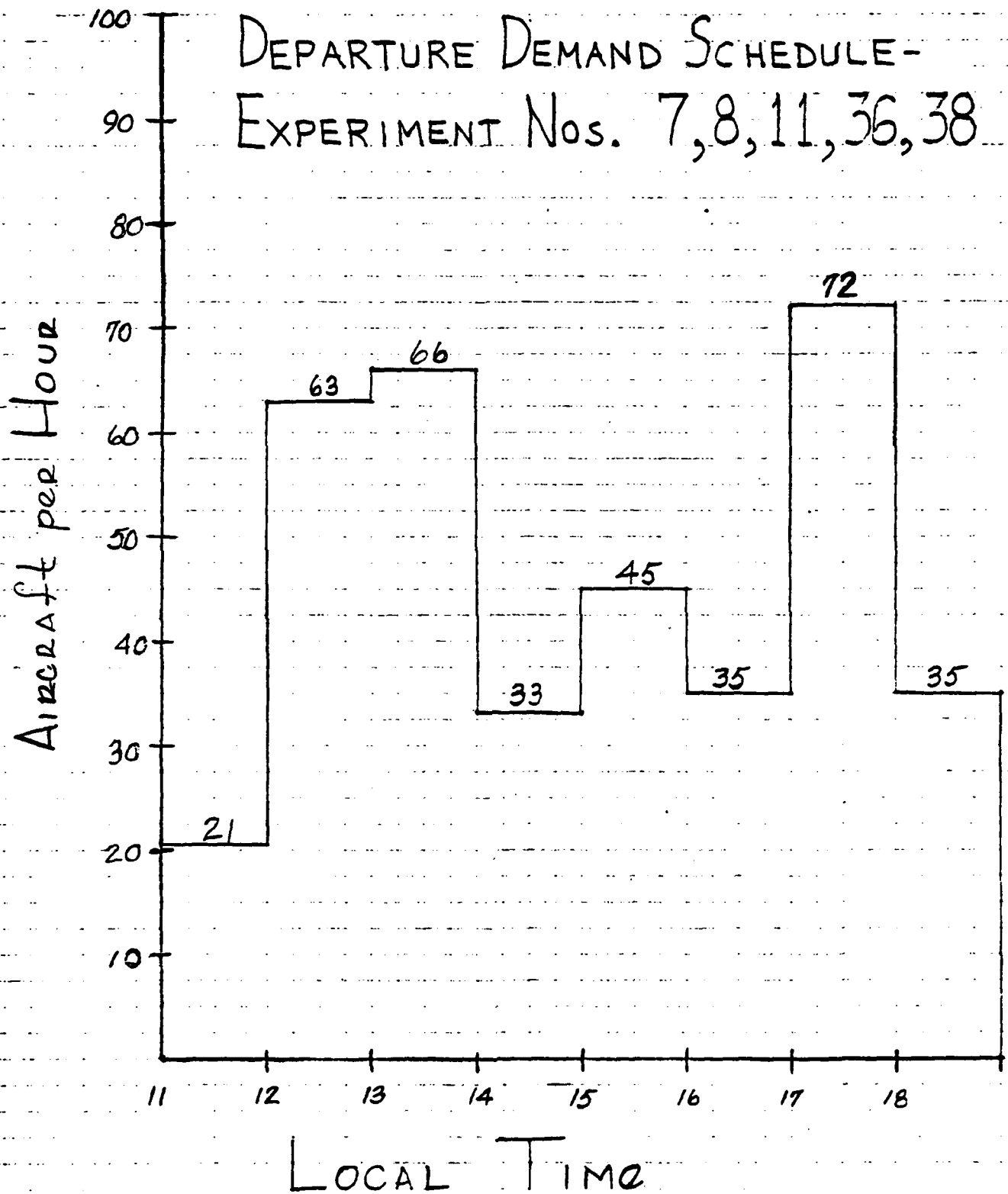
DEPARTURE DEMAND SCHEDULE- EXPERIMENT Nos. 4,6



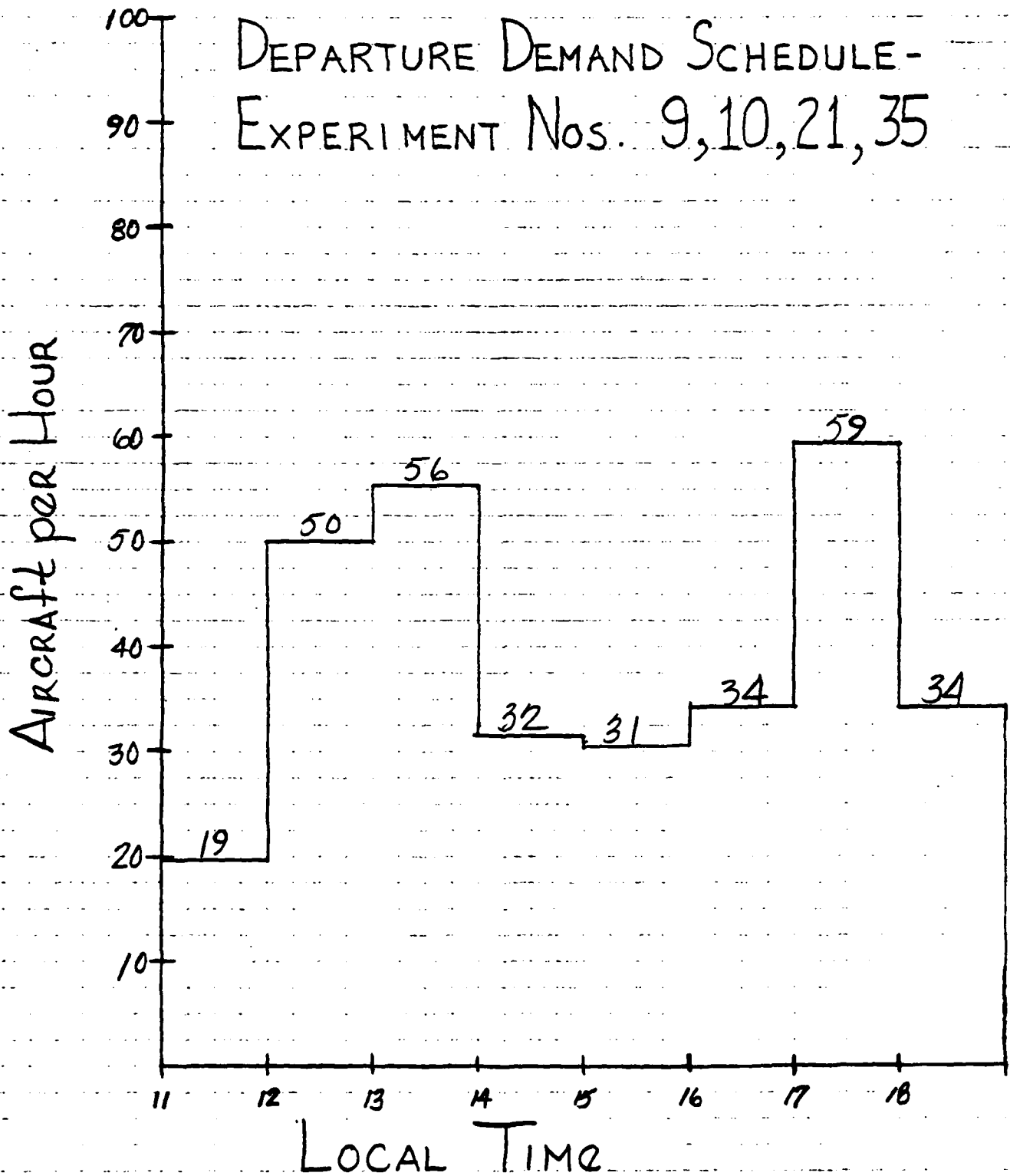
DEPARTURE DEMAND SCHEDULE- EXPERIMENT Nos. 5,24



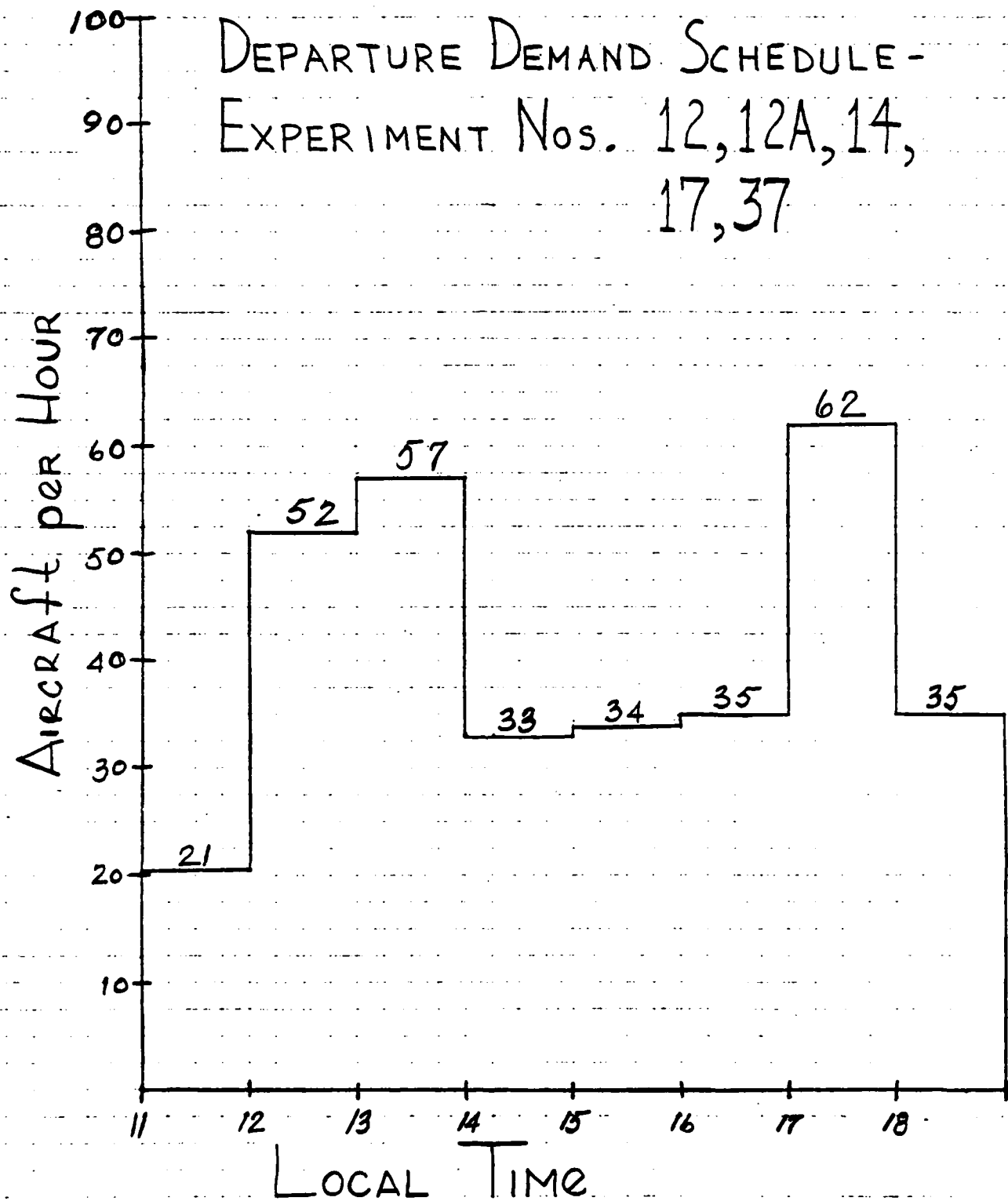
DEPARTURE DEMAND SCHEDULE- EXPERIMENT Nos. 7,8,11,36,38



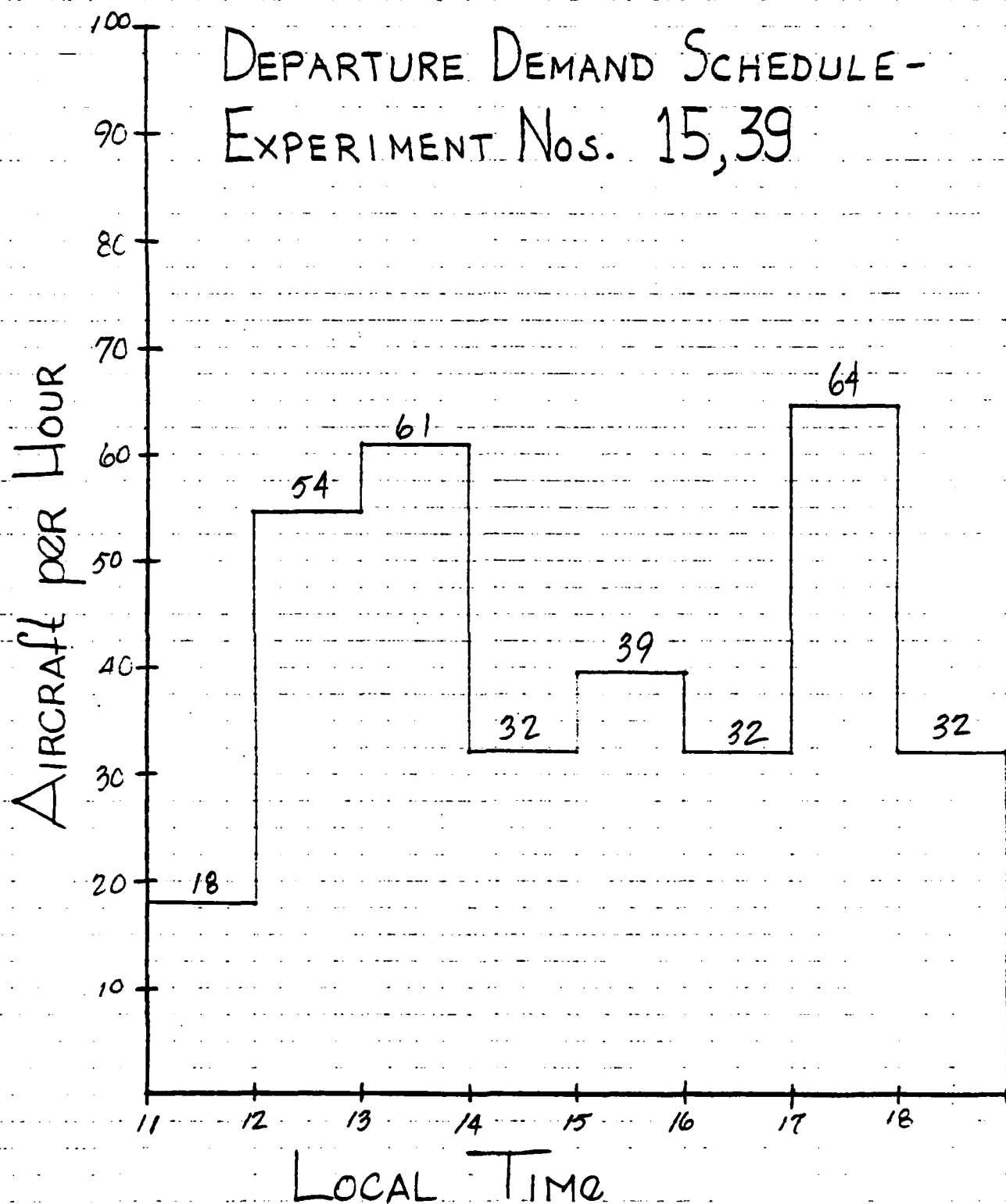
DEPARTURE DEMAND SCHEDULE- EXPERIMENT Nos. 9,10,21,35



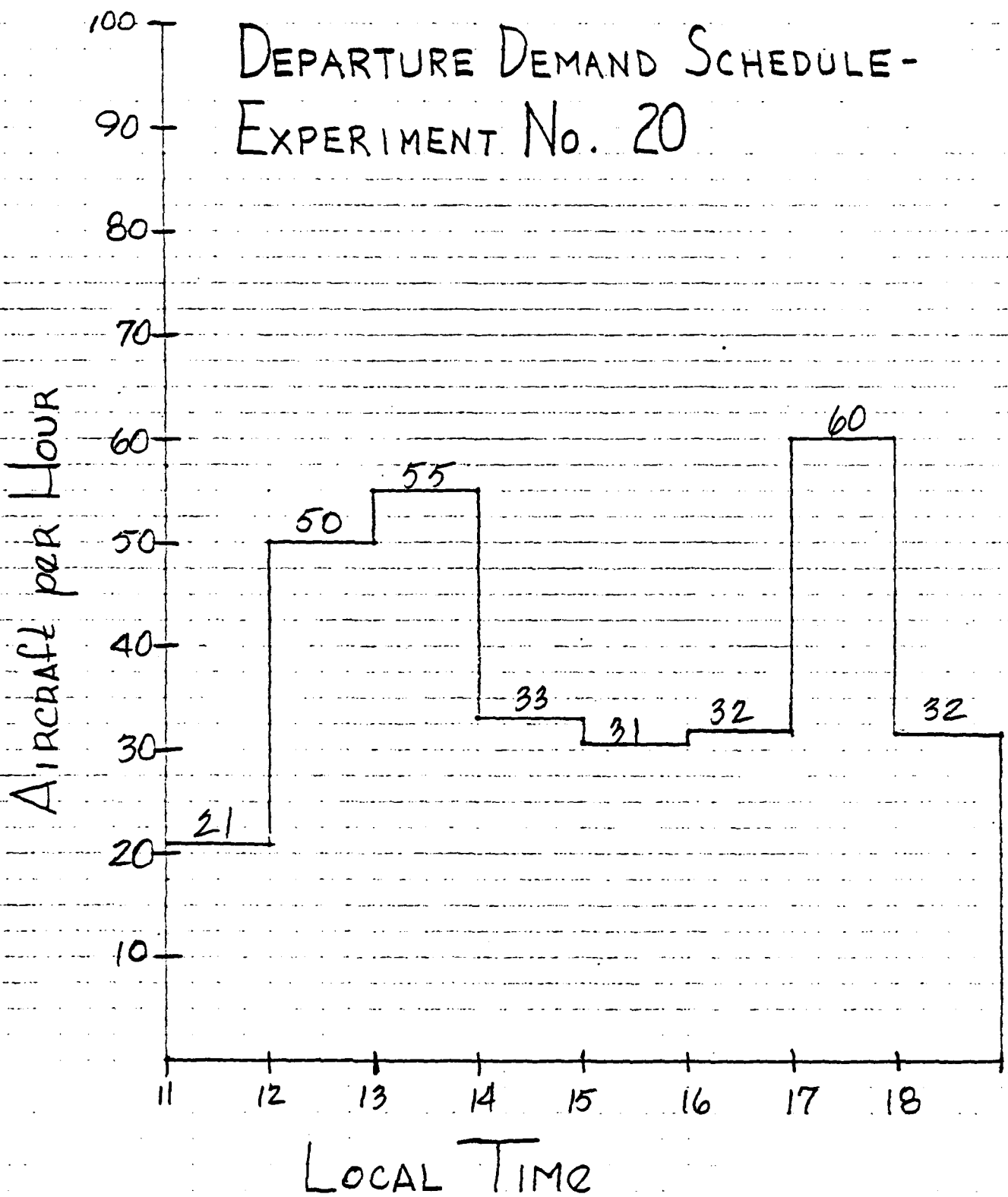
DEPARTURE DEMAND SCHEDULE -
EXPERIMENT Nos. 12, 12A, 14,
17, 37



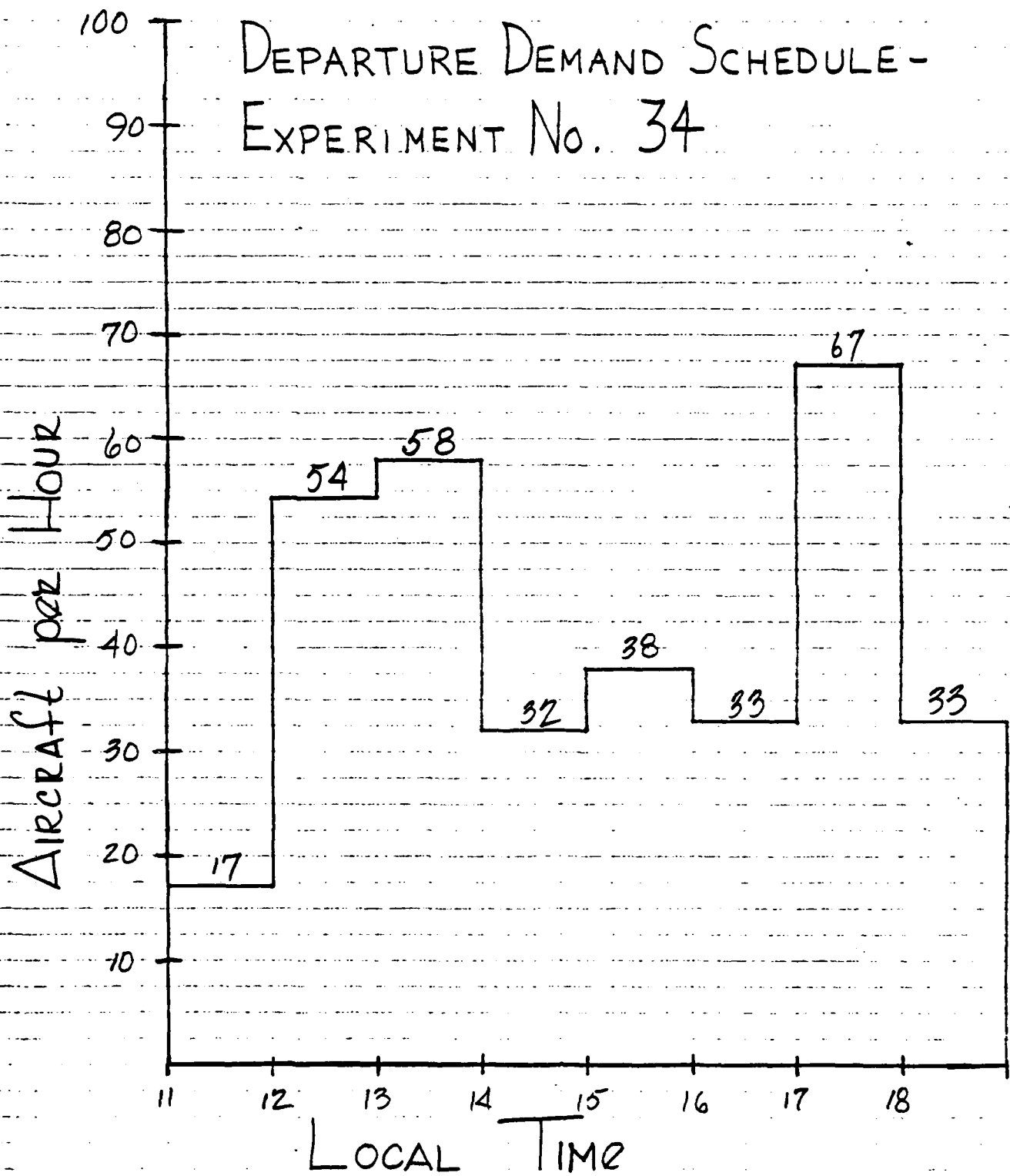
DEPARTURE DEMAND SCHEDULE - EXPERIMENT Nos. 15, 39



DEPARTURE DEMAND SCHEDULE - EXPERIMENT No. 20



DEPARTURE DEMAND SCHEDULE - EXPERIMENT No. 34



Attachment D

AIRCRAFT MIX SUMMARY BY
DEMAND AND WEATHER CONDITION

Miami International Airport

Miami
Airport Improvement Task Force Delay Studies

August 1979

The following table summarizes the aircraft mix across each experiment by demand and weather condition:

<u>Demand</u>	<u>Weather</u>	<u>Exp. Nos.</u>	<u>%Class 1</u>	<u>%Class 2</u>	<u>%Class 3</u>	<u>%Class 4</u>
1978	VFR	1, 2, 3	18	59	19	4
1978	IFR	4, 5, 6, 24	20	68	12	0
1983, full G.A.	VFR	7, 8, 11, 36, 38	32	50	14	4
1983, limited G.A.	VFR	12, 12A, 14, 17, 37	36	55	9	0
1983, full G.A.	IFR	15, 34, 39	36	56	8	0
1983, limited G.A.	IFR	9, 10, 20, 21, 35	37	58	5	0

Attachment E

CLASS AND RUNWAY DEMAND DISTRIBUTIONS
FOR ARRIVALS AND DEPARTURES

Miami International Airport

Miami
Airport Improvement Task Force Delay Studies

August 1979

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 1

RUNWAY NAME	9R	9L	12		TOTAL
	ARRIVALS				
CLASS 1	38	13	0		51
CLASS 2	90	81	4		175
CLASS 3	14	57	0		71
CLASS 4	0	16	0		16
TOTAL	142	167	4		313

	DEPARTURES				
CLASS 1	19	33	4		56
CLASS 2	80	85	24		189
CLASS 3	4	42	2		48
CLASS 4	1	7	1		9
TOTAL	104	167	31		302

ARRIVAL AND DEPARTURE TOTALS	246	334	35		615
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 7-11

RUNWAY NAME	9R	9L	12		TOTAL
	ARRIVALS				
CLASS 1	85	46	0		131
CLASS 2	102	86	5		193
CLASS 3	9	39	0		48
CLASS 4	0	23	0		23
TOTAL	196	194	5		395

	DEPARTURES				
CLASS 1	44	56	12		112
CLASS 2	82	83	25		190
CLASS 3	4	51	3		58
CLASS 4	0	10	0		10
TOTAL	130	200	40		370

ARRIVAL AND DEPARTURE TOTALS	326	394	45		765
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 14

RUNWAY NAME	9R	9L	12		TOTAL
	ARRIVALS				
CLASS 1	86	45	0		131
CLASS 2	97	90	5		192
CLASS 3	5	26	0		31
CLASS 4	0	0	0		0
TOTAL	188	161	5		354

	DEPARTURES				
CLASS 1	44	55	13		112
CLASS 2	84	79	23		186
CLASS 3	3	27	1		31
CLASS 4	0	0	0		0
TOTAL	131	161	37		329

ARRIVAL AND DEPARTURE TOTALS	319	322	42		683
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 4, 6

RUNWAY NAME	9R	9L	12		TOTAL
	ARRIVALS				
CLASS 1	38	14	0		52
CLASS 2	89	89	0		178
CLASS 3	6	32	0		38
CLASS 4	0	0	0		0
TOTAL	133	135	0		268

	DEPARTURES				
CLASS 1	19	33	4		56
CLASS 2	80	85	24		189
CLASS 3	3	21	1		25
CLASS 4	0	0	0		0
TOTAL	102	139	29		270

ARRIVAL AND DEPARTURE TOTALS	235	274	29		538
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Runway closure during the IFR 2 time period in Experiment No. 6 is performed by the model.

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 34

RUNWAY NAME	9R	9L	12		TOTAL
	ARRIVALS				
CLASS 1	85	46	0		131
CLASS 2	104	89	0		193
CLASS 3	7	16	0		23
CLASS 4	0	0	0		0
TOTAL	196	151	0		347

	DEPARTURES				
CLASS 1	44	56	12		112
CLASS 2	82	83	25		190
CLASS 3	2	27	1		30
CLASS 4	0	0	0		0
TOTAL	128	166	38		332

ARRIVAL AND DEPARTURE TOTALS	324	317	38		679
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 9, 35, 10, 21

RUNWAY NAME	9R	9L	12		TOTAL
	ARRIVALS				
CLASS 1	86	45	0		131
CLASS 2	100	92	0		192
CLASS 3	3	11	0		14
CLASS 4	0	0	0		0
TOTAL	189	148	0		337

	DEPARTURES				
CLASS 1	44	55	13		112
CLASS 2	84	79	23		186
CLASS 3	1	15	1		17
CLASS 4	0	0	0		0
TOTAL	129	149	37		315

ARRIVAL AND DEPARTURE TOTALS	318	297	37		652
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Runway closure during the IFR2 time period in Experiment No. 10 is performed by the model.

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 2

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	15	8	28		51
CLASS 2	77	15	86		178
CLASS 3	55	1	15		71
CLASS 4	15	0	1		16
TOTAL	162	24	130		316

	DEPARTURES				
CLASS 1	28	28	0		56
CLASS 2	94	95	0		189
CLASS 3	38	10	0		48
CLASS 4	9	0	0		9
TOTAL	169	133	0		302

ARRIVAL AND DEPARTURE TOTALS	331	157	130		618
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 8, 36

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	51	14	66		131
CLASS 2	83	17	93		193
CLASS 3	37	0	11		48
CLASS 4	21	0	2		23
TOTAL	192	31	172		395

	DEPARTURES				
CLASS 1	58	54	0		112
CLASS 2	83	104	3		190
CLASS 3	45	13	0		58
CLASS 4	9	1	0		10
TOTAL	195	172	3		370

ARRIVAL AND DEPARTURE TOTALS	387	203	175		765
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 37

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	61	14	56		131
CLASS 2	81	16	95		192
CLASS 3	24	0	7		31
CLASS 4	0	0	0		0
TOTAL	166	30	158		354

	DEPARTURES				
CLASS 1	54	58	0		112
CLASS 2	87	97	2		186
CLASS 3	26	5	0		31
CLASS 4	0	0	0		0
TOTAL	167	160	2		329

ARRIVAL AND DEPARTURE TOTALS	333	190	160		683
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 3

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	25	26	0		51
CLASS 2	99	79	0		178
CLASS 3	62	9	0		71
CLASS 4	16	0	0		16
TOTAL	202	114	0		316

	DEPARTURES				
CLASS 1	28	28	0		56
CLASS 2	94	95	0		189
CLASS 3	38	10	0		48
CLASS 4	9	0	0		9
TOTAL	169	133	0		302

ARRIVAL AND DEPARTURE TOTALS	371	247	0		618
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CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

EXPERIMENT NO. 38

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	68	63	0		131
CLASS 2	108	85	0		193
CLASS 3	41	7	0		48
CLASS 4	23	0	0		23
TOTAL	240	155	0		395

	DEPARTURES				
CLASS 1	58	54	0		112
CLASS 2	83	104	3		190
CLASS 3	46	12	0		58
CLASS 4	9	1	0		10
TOTAL	196	171	3		370

ARRIVAL AND DEPARTURE TOTALS	436	326	3		765
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 17

RUNWAY NAME					TOTAL
	ARRIVALS				
CLASS 1	76	55	0		131
CLASS 2	109	83	0		192
CLASS 3	27	4	0		31
CLASS 4	0	0	0		0
TOTAL	212	142	0		354

	DEPARTURES				
CLASS 1	54	58	0		112
CLASS 2	87	97	2		186
CLASS 3	26	5	0		31
CLASS 4	0	0	0		0
TOTAL	167	160	2		329

ARRIVAL AND DEPARTURE TOTALS	379	302	2		683
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 12, 12A

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	60	0	71		131
CLASS 2	81	0	111		192
CLASS 3	24	0	7		31
CLASS 4	0	0	0		0
TOTAL	165	0	189		354

	DEPARTURES				
CLASS 1	54	58	0		112
CLASS 2	87	99	0		186
CLASS 3	26	5	0		31
CLASS 4	0	0	0		0
TOTAL	167	162	0		329

ARRIVAL AND DEPARTURE TOTALS	332	162	189		683
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 5, 24

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	25	26	0		51
CLASS 2	97	78	0		175
CLASS 3	33	5	0		38
CLASS 4	0	0	0		0
TOTAL	155	109	0		264

	DEPARTURES				
CLASS 1	28	28	0		56
CLASS 2	94	95	0		189
CLASS 3	22	2	0		24
CLASS 4	0	0	0		0
TOTAL	144	125	0		269

ARRIVAL AND DEPARTURE TOTALS	299	234	0		533
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 15.39

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	68	63	0		131
CLASS 2	108	85	0		193
CLASS 3	21	2	0		23
CLASS 4	0	0	0		0
TOTAL	197	150			347

	DEPARTURES				
CLASS 1	58	54	0		112
CLASS 2	83	107	0		190
CLASS 3	24	6	0		30
CLASS 4	0	0	0		0
TOTAL	165	167	0		332

ARRIVAL AND DEPARTURE TOTALS	362	317	0		679
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**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 20

RUNWAY NAME	27R	27L	30		TOTAL
	ARRIVALS				
CLASS 1	76	55	0		131
CLASS 2	109	83	0		192
CLASS 3	12	3	0		15
CLASS 4	0	0	0		0
TOTAL	197	141	0		338

	DEPARTURES				
CLASS 1	54	58	0		112
CLASS 2	87	99	0		186
CLASS 3	12	4	0		16
CLASS 4	0	0	0		0
TOTAL	153	161	0		314

ARRIVAL AND DEPARTURE TOTALS	350	302	0		652
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Attachment F

SUMMARY OF VFR BASELINE TRAFFIC SCHEDULES
BY AIRLINE GROUP, ARRIVAL/DEPARTURE COUNT,
WEIGHT CLASS AND TIME

Miami International Airport

Miami
Airport Improvement Task Force Delay Studies
August 1979

SECTION 1

1978 VFR BASELINE

C1-	33	(	15/A,	19/D)
C2-	15	(	8/A,	7/D)
DD-	15	(	7/A,	8/D)
EA-	118	(	53/A,	65/D)
F1-	4	(	3/A,	1/D)
F2-	1	(	0/A,	1/D)
F3-	5	(	3/A,	2/D)
FF-	44	(	22/A,	22/D)
GA-	184	(	110/A,	74/D)
GG-	58	(	27/A,	31/D)
HH-	55	(	26/A,	29/D)
IA-	103	(	54/A,	49/D)

TOTALS- 635 (328/A, 307/D)

AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
C1	0	29	4	0
C2	0	15	0	0
DD	2	13	0	0
EA	34	84	0	0
F1	0	4	0	0
F2	0	1	0	0
F3	5	0	0	0
FF	14	30	0	0
GA	0	36	120	28
GG	14	44	0	0
HH	14	41	0	0
IA	26	77	0	0

HOUR	ARRIVALS	DEPARTURES
------	----------	------------

0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	13	5
11	47	18
12	46	37
13	36	47
14	41	37
15	41	27
16	48	40
17	27	40
18	29	35
19	0	9
20	0	4
21	0	3
22	0	3
23	0	2

1978 AIR CARRIER/G.A. BASELINE

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	2	8	5	3
11	11	40	13	1
12	15	59	8	1
13	16	48	17	2
14	13	43	19	3
15	8	37	18	5
16	16	44	19	9
17	15	38	11	3
18	7	42	14	1
19	2	7	0	0
20	1	3	0	0
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0

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1978 AIR CARRIER/C.A. BASELINE

C1-	33	(	15/A,	18/D)
C2-	15	(	8/A,	7/D)
DD-	15	(	7/A,	8/D)
EA-	118	(	53/A,	65/D)
F1-	4	(	3/A,	1/D)
F2-	1	(	0/A,	1/D)
F3-	5	(	3/A,	2/D)
FF-	44	(	22/A,	22/D)
GG-	58	(	27/A,	31/D)
HH-	55	(	26/A,	29/D)
IA-	103	(	54/A,	49/D)

TOTALS- 451 (218/A, 233/D)

AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
C1	0	29	4	0
C2	0	15	0	0
DD	2	13	0	0
EA	34	84	0	0
F1	0	4	0	0
F2	0	1	0	0
F3	5	0	0	0
FF	14	30	0	0
GG	14	44	0	0
HH	14	41	0	0
IA	26	77	0	0

HOUR	ARRIVALS	DEPARTURES
0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	8	2
11	35	12
12	40	31
13	18	42
14	25	24
15	27	16
16	32	24
17	17	34
18	16	27
19	0	9
20	0	4
21	0	3
22	0	3
23	0	2

1978 AIR CARRIER COMPONENT

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	2	8	0	0
11	11	36	0	0
12	15	55	1	0
13	16	43	1	0
14	13	36	0	0
15	8	35	0	0
16	16	39	1	0
17	15	35	1	0
18	7	36	0	0
19	2	7	0	0
20	1	3	0	0
21	1	2	0	0
22	1	2	0	0
23	1	1	0	0

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1978 AIR CARRIER COMPONENT

GA- 184 (110/A, 74/D)

TOTALS- 184 (110/A, 74/D)

AIRLINE CLASS 1 CLASS 2 CLASS 3 CLASS 4

GA 0 36 120 28

HOUR ARRIVALS DEPARTURES

0 0 0

1 0 0

2 0 0

3 0 0

4 0 0

5 0 0

6 0 0

7 0 0

8 0 0

9 0 0

10 5 3

11 12 6

12 6 6

13 18 5

14 16 13

15 14 11

16 16 16

17 10 6

18 13 8

19 0 0

20 0 0

21 0 0

22 0 0

23 0 0

1978 G.A. COMPONENT

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	5	3
11	0	4	13	1
12	0	4	7	1
13	0	5	16	2
14	0	7	19	3
15	0	2	18	5
16	0	5	18	9
17	0	3	10	3
18	0	6	14	1
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

*

1978 G.A. COMPONENT

SECTION 2

1983 VFR, FULL G.A. BASELINE

C1-	59	(31/A,	28/D)
C2-	25	(12/A,	13/D)
DL-	29	(14/A,	15/D)
EA-	128	(62/A,	66/D)
F1-	5	(4/A,	1/D)
F3-	8	(7/A,	1/D)
F4-	42	(26/A,	16/D)
FF-	57	(27/A,	30/D)
GA-	164	(82/A,	82/D)
GG-	73	(37/A,	36/D)
HH-	61	(31/A,	30/D)
IA-	114	(62/A,	52/D)

TOTALS-	765	(395/A,	370/D)
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AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
C1	0	59	0	0
C2	0	25	0	0
DD	13	16	0	0
EA	65	63	0	0
F1	2	3	0	0
F3	8	0	0	0
F4	20	22	0	0
FF	33	24	0	0
GA	0	25	106	33
GG	29	44	0	0
HH	27	34	0	0
IA	46	68	0	0

HOUR	ARRIVALS	DEPARTURES
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0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	48	21
12	63	63
13	52	66
14	42	33
15	71	45
16	41	35
17	47	72
18	31	35
19	0	0
20	0	0
21	0	0
22	0	0

1983 FULL G.A. : AIR CARRIER/G.A. BASELINE

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	18	43	6	2
12	35	63	21	7
13	35	58	18	7
14	24	46	3	2
15	41	48	24	3
16	29	39	4	4
17	43	48	23	5
18	18	38	7	3
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

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1983 FULL G.A. : AIR CARRIER/G.A. BASELINE

C1-	59	(	31/A,	28/D)
C2-	25	(	12/A,	13/D)
DD-	29	(	14/A,	15/D)
EA-	128	(	62/A,	66/D)
F1-	5	(	4/A,	1/D)
F3-	8	(	7/A,	1/D)
F4-	42	(	26/A,	16/D)
FF-	57	(	27/A,	30/D)
GG-	73	(	37/A,	36/D)
HH-	61	(	31/A,	30/D)
IA-	114	(	62/A,	52/D)

TOTALS- 601 (313/A, 288/D)

AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
C1	0	59	0	0
C2	0	25	0	0
DD	13	16	0	0
EA	65	63	0	0
F1	2	3	0	0
F3	8	0	0	0
F4	20	22	0	0
FF	33	24	0	0
GG	29	44	0	0
HH	27	34	0	0
IA	46	68	0	0

HOUR	ARRIVALS	DEPARTURES
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0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	44	15
12	47	48
13	37	50
14	37	30
15	55	28
16	37	30
17	30	57
18	26	30
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0

1983 FULL G.A. : AIR CARRIER COMPONENT

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	18	41	0	0
12	35	60	0	0
13	35	52	0	0
14	24	43	0	0
15	41	42	0	0
16	29	38	0	0
17	43	44	0	0
18	18	38	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

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1983 FULL G.A. : AIR CARRIER COMPONENT

GA- 164 (82/A, 82/D)

TOTALS- 164 (82/A, 82/D)

AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
GA	0	25	106	33

HOUR	ARRIVALS	DEPARTURES
0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	4	6
12	16	15
13	15	16
14	5	3
15	16	17
16	4	5
17	17	15
18	5	5
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0

1983 FULL G.A. : G.A. COMPONENT

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	2	6	2
12	0	3	21	7
13	0	6	18	7
14	0	3	3	2
15	0	6	24	3
16	0	1	4	4
17	0	4	23	5
18	0	0	7	3
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

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1983 FULL G.A. : G.A. COMPONENT

SECTION 3

1983 VFR, LIMITED G.A. BASELINE

C1-	59	(	31/A,	28/D)
C2-	25	(	12/A,	13/D)
DD-	29	(	14/A,	15/D)
EA-	128	(	62/A,	66/D)
F1-	5	(	4/A,	1/D)
F3-	8	(	7/A,	1/D)
F4-	42	(	26/A,	16/D)
FF-	57	(	27/A,	30/D)
GA-	82	(	41/A,	41/D)
GG-	73	(	37/A,	36/D)
HH-	61	(	31/A,	30/D)
IA-	114	(	62/A,	52/D)

TOTALS- 683 (354/A, 329/D)

AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
C1	0	59	0	0
C2	0	25	0	0
DD	13	16	0	0
EA	65	63	0	0
F1	2	3	0	0
F3	8	0	0	0
F4	20	22	0	0
FF	33	24	0	0
GA	0	20	62	0
GG	29	44	0	0
HH	27	34	0	0
IA	46	68	0	0

HOUR	ARRIVALS	DEPARTURES
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0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	48	21
12	52	52
13	44	57
14	42	33
15	60	34
16	41	35
17	36	62
18	31	35
19	0	0
20	0	0
21	0	0
22	0	0

1983 LIMITED G.A. : AIR CARRIER/G.A. BASELINE

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	18	45	6	0
12	35	63	6	0
13	35	56	10	0
14	24	45	6	0
15	41	44	9	0
16	29	39	8	0
17	43	46	9	0
18	18	40	8	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

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1983 LIMITED G.A. : AIR CARRIER/G.A. BASELINE

C1-	59	(31/A,	28/D)
C2-	25	(12/A,	13/D)
DD-	29	(14/A,	15/D)
EA-	128	(62/A,	66/D)
F1-	5	(4/A,	1/D)
F3-	8	(7/A,	1/D)
F4-	42	(26/A,	16/D)
FF-	57	(27/A,	30/D)
GG-	73	(37/A,	36/D)
HH-	61	(31/A,	30/D)
IA-	114	(62/A,	52/D)

TOTALS- 601 (313/A, 288/D)

AIRLINE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
C1	0	59	0	0
C2	0	25	0	0
DD	13	16	0	0
EA	65	63	0	0
F1	2	3	0	0
F3	8	0	0	0
F4	20	22	0	0
FF	33	24	0	0
GG	29	44	0	0
HH	27	34	0	0
IA	46	68	0	0

HOUR	ARRIVALS	DEPARTURES
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0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	44	15
12	47	48
13	37	50
14	37	30
15	55	28
16	37	30
17	30	57
18	26	30
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0

983 ~~ATTED C.A. : AIR CARRIER COMPONENT~~

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	18	41	0	0
12	35	60	0	0
13	35	52	0	0
14	24	43	0	0
15	41	42	0	0
16	29	38	0	0
17	43	44	0	0
18	18	38	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

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1983 LIMITED G.A. : AIR CARRIER COMPONENT

GA- 82 (41/A, 41/D)

TOTALS- 82 (41/A, 41/D)

AIRLINE CLASS 1 CLASS 2 CLASS 3 CLASS 4

GA 0 20 62 0

HOUR ARRIVALS DEPARTURES

0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	4	6
12	5	4
13	7	7
14	5	3
15	5	4
16	4	5
17	6	5
18	5	5
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0

1983 LIMITED G.A. : G.A. COMPONENT

HOUR	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	4	6	0
12	0	3	6	0
13	0	4	10	0
14	0	2	6	0
15	0	2	9	0
16	0	1	8	0
17	0	2	9	0
18	0	2	8	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0

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1983 LIMITED G.A. : G.A. COMPONENT

DATE
FILME