

FROM THE RESERVOIR REGULATION MANUAL FOR  
 BUFORD DAM / LANIER RESERVOIR, GA

PERTINENT DATA

STREAM FLOW

Drainage area at dam site - square miles	1,040
Estimated minimum discharge (25 Aug 1925) - cfs	119
Minimum mean monthly flow (Sep 1925) - cfs	263
Average annual flow (1903 - 1958) - cfs	2024
Discharge at bankfull stage - cfs	10,000
Maximum mean monthly flow (Dec 1932) - cfs	8,590
Maximum recorded discharge (8 Jan 1946) - cfs	55,000

SPILLWAY-DESIGN FLOOD

Total rainfall - inches	21.74
Initial loss - inches	0.00
Average infiltration rate - inches per hour	0.04
Total storm run-off - inches	19.68
Total volume of storm run-off - acre-feet	1,092,300
Peak rates of flow	
Natural flow at dam site - cfs	279,300
Inflow to full reservoir - cfs	428,900
Total reservoir outflow - cfs	26,670
Spillway discharge - cfs	14,660
Duration of flood - days	5

RESERVOIR

Pool elevations - feet msl	
Maximum pool, spillway design flood (initial pool, elevation 1070)	1099
Top of flood-control pool	1085
Top of power pool	1070
Minimum power pool	1035
Storage volumes - acre feet	
Total storage - elev. 1085	2,554,000
Flood-control storage, elev. 1085 to 1070 (11.48 inches runoff)	637,000
Power storage, elev. 1070 to 1035 (18.91 inches runoff)	1,049,400
Dead storage, below elev. 1035	867,600
Reservoir areas - acres	
Top of flood-control pool, elev. 1085	47,182
Top of power pool, elev. 1070	38,024
At maximum drawdown, elev. 1035	22,442
Area within taking line - acres	
Purchased in fee simple	56,155
Right to inundate acquired by easement	719
River bed	1,133
TOTAL	58,007

PERTINENT DATA (Cont'd)

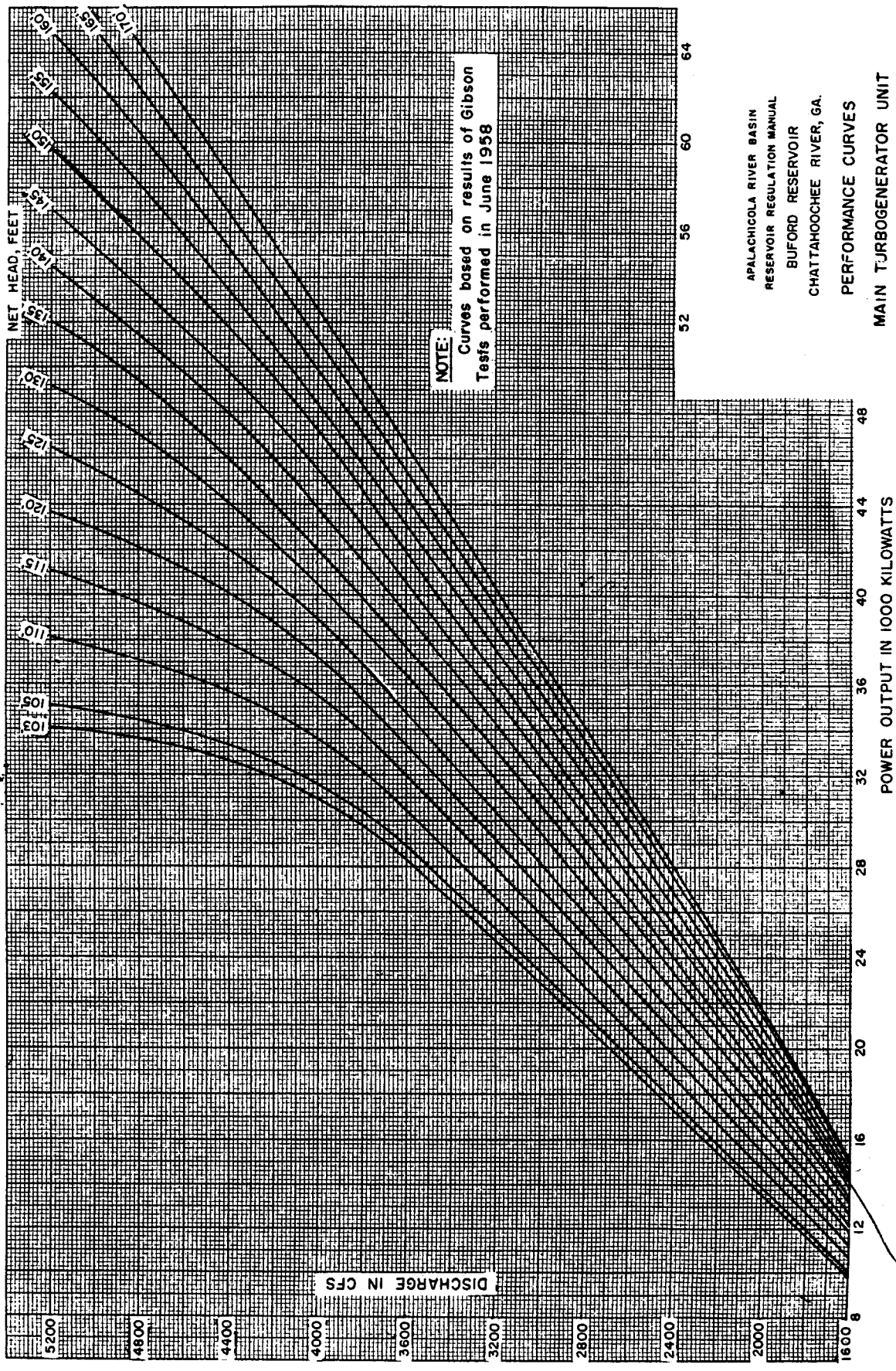
POWERHOUSE (Cont'd)

Generators

Rated capacity, continuous, 60° C rise - kw each	6,000	40,000
Rated capacity, continuous, 60° C rise - kw each	6,667	44,444
Guaranteed capacity, continuous, 80° C rise - kw each	7,667	51,111
Power factor	0.90	0.90
Voltage	13,800	13,800

POWER DATA

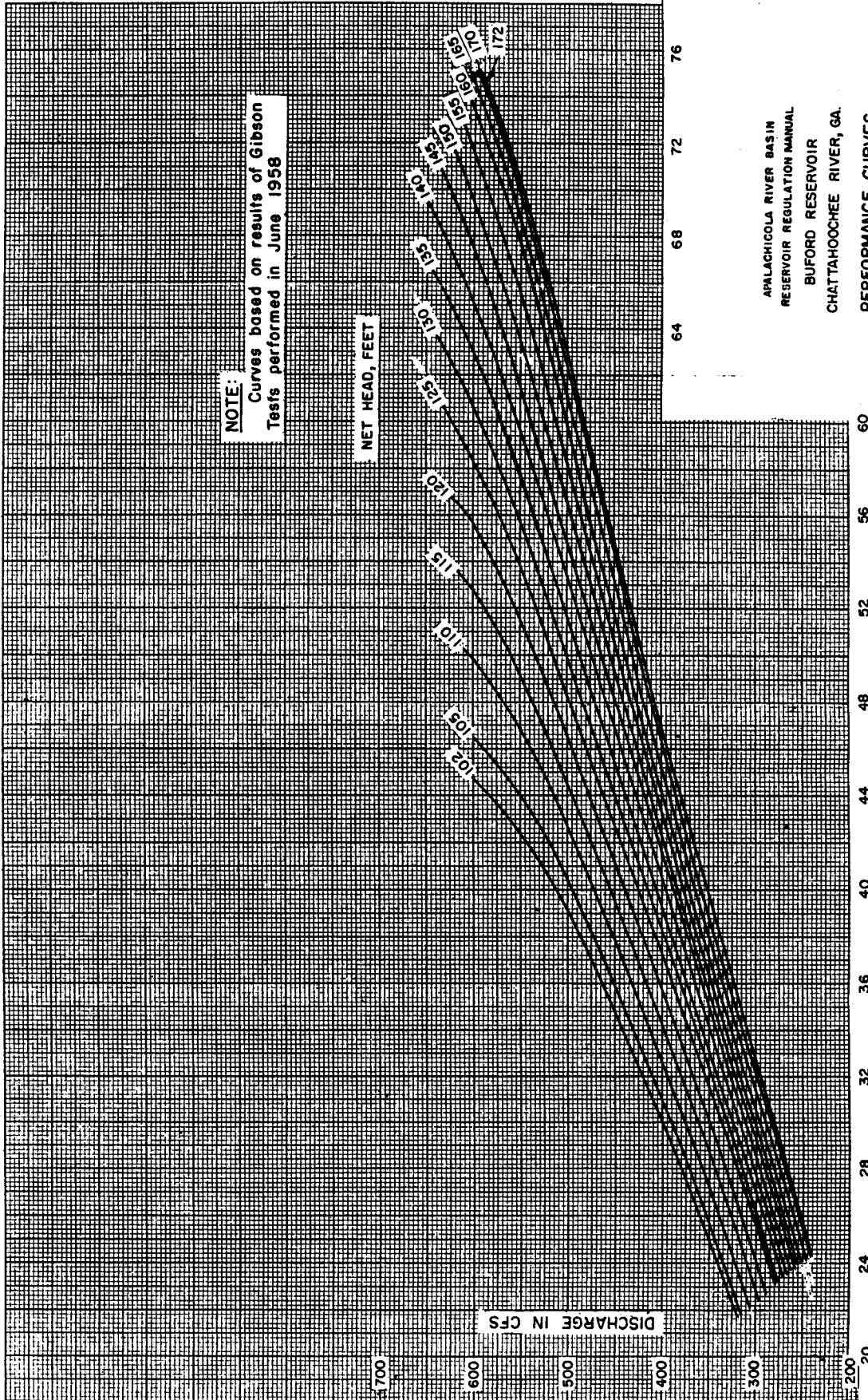
Drawdown for storage - feet		35
Volume in power storage (elev. 1035-1070) - acre-feet	1,049,400	
Rated net head, feet		136
Tailwater elevations, feet msl		
Maximum, all units operating at full gate - outflow 12,000 cfs		926
Normal, 1 large unit operating - outflow 4,000 cfs		918
Normal, 2 large units operating - outflow 8,000 cfs		922
Normal, all units operating - outflow 8,600 cfs		923
Minimum - no flow		911
Plant output		
Dependable capacity - kw		73,000
Average annual energy - kwh	170,000,000	
Average annual primary energy - kwh	127,000,000	



APALACHICOLA RIVER BASIN  
RESERVOIR REGULATION MANUAL  
BUFORD RESERVOIR  
CHATTahoochee RIVER, GA.  
PERFORMANCE CURVES

APPENDIX B CHART NO. 1C

10-10-58



**NOTE:**  
 Curves based on results of Gibson  
 Tests performed in June 1958

NET HEAD, FEET

DISCHARGE IN CFS

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PERFORMANCE CURVES

SMALL TURBOGENERATOR UNIT

APPENDIX B CHART NO. 11