

9-275-1	07/08/09	U.S. DEPARTMENT OF THE INTERIOR				Meas. No.	
Station Number		U.S. Geological Survey				Processed by	REB
		ADCP Discharge Measurement Notes				Checked by	
Station Name		Mississippi R. above Cairo (Main channel)					
Date		May 22, 2011		Party		REB/rounlin GF/boadwin	
Width	Area / Rated Area	Velocity	Index	Gage Height	Discharge		
1980	99400	4.70			467,000		
Gage Height Change		Meas. plots	From rating	Indicated Shift	ADCP Sync'd to WT		
in hrs.		% diff	No.:		(Y) at 0825 or N		
ADCP Mfr / Model / Frequency			Serial No.	Firmware	Software		
600 kHz Rio			8706	10.16	2.05		
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?			
Sungman		Yes	1.30	<input type="checkbox"/> Y or N			
Compass Calib. & Total Error		Mag. Var	MagVar Method		Moving Bed?		
(Y) or N		6	-1.60		On-site Model Previous		Y or N
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
°F / C at		°F / C at	°F / C				
Gage Readings					Site Conditions		
Time	Start End	Primary reference			Max Water Depth		
					Max Water Speed		
0828	(s)				Max Boat Speed		
					Water Mode		
					Bottom Mode		
0838	(e)				Streambed material		
					Salinity		
					ppt at		
Weighted MGH					Checkbar found		
GH corrections					Checkbar changed to:		
Correct MGH					at		
Wading, cable, ice, boat, upstr., downstr., side bridge				~ 1/2	ft. (m) upstr. downstr. of gage 27		
Measurement rated:		excellent (2%) good (5%), fair (8%), poor (>8%)			based on following conditions		
Flow	Measured ~ 1 1/2 mi. DS of 257 bridge - no overflow						
Cross section:							
Control:							
Gage operating:	Y or N	Record removed:	Y or N	Filename:			
Battery voltage	V	Intakes/Orifice cleaned/purged:					
Bubble-gage psi:	Tank	Line	Bubble rate	/ min			
Extreme-GH indicators:	Max	Min	CSG Checked	Y or N			
HWM on stick	Ref elev.	HWM elevation					
GH of zero flow = GH	- depth at control	=	ft.	Uncertainty	±		
Sheet No.		of	sheets				

Acoustic Profiler Discharge Measurement Notes							Filename Prefix:
Left Bank:	<u>Sloping</u> Vertical Other: _____					Right Bank:	<u>Sloping</u> Vertical Other: _____
Transect No.	Starting			Ending		Total Discharge	Notes
	Bank	Time	Distance	Distance	Time		
000	L R	0828	33	40	0834	485000	need to change R bank from 4' to 40'
001	L R	0834	40	43	0841	435000	
002	L R	0842	59	40	0850	474000	
003	L R	0850	40	43	0858	434000	
	L R					467,000	
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
	L R						
Notes	collected the first tier line along the right edge of the downer for right edge						

Party: REB/GEG	Width: 1,980 ft	Processed by:
Boat/Motor:	Area: 99,400 ft <sup>2</sup>	Mean Velocity: 4.70 ft/s
Gage Height: 0.00 ft	G.H.Change: 0.000 ft	Discharge: 467,000 ft <sup>3</sup> /s

Area Method: Avg. Course	ADCP Depth: 1.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (-1.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft <sup>2</sup>	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:		ADCP:	
BT 3-Beam Solution: YES	Max. Vel.: 9.19 ft/s	Type/Freq.: Rio Grande / 600 kHz	
WT 3-Beam Solution: NO	Max. Depth: 60.0 ft	Serial #: 8708	Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 50.3 ft	Bin Size: 50 cm	Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 82.98	BT Mode: 5	BT Pings: 1
BT Up Vel.: 1.00 ft/s	Water Temp.: None	WT Mode: 12	WT Pings: 1
WT Up Vel.: 8.00 ft/s	ADCP Temp.: 66.3 °F	WV : 175	WO : 1, 12
Use Weighted Mean Depth: YES			

Performed Diag. Test: YES  
 Performed Moving Bed Test: YES  
 Performed Compass Test: YES  
 Meas. Location:

Project Name: MS\_R\_ab\_Cairo\_Main\_Channel  
 Software: 2.08

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000	L	55	4	683	37039	403896	43568	417	19.6	484940	1950	100609	08:28	08:34	5.29	4.82	0	0
001	R	45	40	836	35967	376922	42027	197	269	455384	1987	98346	08:34	08:41	4.55	4.63	0	0
002	L	59	40	926	36712	393219	43431	406	370	474140	1987	99711	08:42	08:50	3.93	4.75	0	0
003	R	45	40	846	35761	376452	41023	577	288	454100	1979	98940	08:50	08:58	4.51	4.59	0	0
<b>Mean</b>		51	31	822	36370	387623	42512	400	237	467141	1976	99401	<b>Total</b>	00:29	4.57	4.70	0	0
<b>SDev</b>		7	18	102	605	13360	1213	156	151	14990	17.7	979.9			0.56	0.11		
<b>SD/M</b>		0.14	0.58	0.12	0.02	0.03	0.03	0.39	0.64	0.03	0.01	0.01			0.12	0.02		

Remarks: