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Comparison of June and September Operation of SBE

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AGS STUDIES REPORT

Date 6/9/83 and 9/30/83 Time 0615 and 2300

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Reported by J.W. Glenn

Subject Comparison of June and September Operation of SBE

OBSERVATIONS AND CONCLUSION

The June 9 SBE run was monitored and documented by programs CLYDE and GRITTY, while the September 13 run was with program GRYDE. Comparison of the performance requires some conversion, as some numbers used different calibration constants or methods of calculation. The following is a tabulation of the two runs and the ratios of the performances.

	6/9/83 - 0615		9/30/83 - 2300	Ratio
	Output	Converted	Output	9/30 / 6/9
FEB (GRITTY)				
LCBM	3.75 TP		1.64 TP	0.4
Ring Loss	3.0%		6.5%	2
XTEFF	105.1%		108.3%	1.0
Shave	8.7%		8.9%	1.0
H5 Loss	1.3%		3.8%	3
H10 Loss	0.4%		2.4%	6
FEB Loss Monitors[1]				
U015	12 Counts	5.4 Counts	8 Counts	1.5
U116	15 "	6.7 "	6 "	0.9
U135	18 "	8.1 "	8 "	1.0
U157	45 "	20.2 "	19 "	0.9

	6/9/83 - 0615		9/30/83 - 2300	Ratio
	Output	Converted	Output	9/30 / 6/9
SBE (CLYDE)				
XEFF	11.44%	137.3%	124.2 %	0.9
XINEF	2.51%		2.4 %	1.0
F5	0.88%	2.0%	0.86%	0.4
F10	0.44%	1.1%	1.58%	1.4
D Transport[3]		90 %	88 %	1.0
SEB Loss Monitors[2]				
CL03L	34 Counts	17 Counts	0 Counts	0.5
CL06L	88 "	44 "	-1 "	---
CL09L	208 "	104 "	8 "	0.08
CL13L	126 "	63 "	33 "	0.5
CL16L	210 "	105 "	49 "	0.5
DL17L	107 "	54 "	45 "	0.8
DL20L	63 "	32 "	449 "	14
DL24L	116 "	58 "	85 "	1.5
DL27L	213 "	107 "	103 "	1.0
DL30L	154 "	77 "	67 "	0.9
DL33L	231 "	116 "	86 "	0.7
DL36L	300 "	150 "	214 "	1.4

[1]Counts scaled to lower LCBM reading.

[2]Counts scaled to lower SBE extracted beam.

[3]D line transport efficiency quoted for 6/9 from data for plot of transport efficiency vs intensity.

Conclusions

1. Fast extraction losses appear a factor of two worse in September. Transport losses are similar. Both should have been lower in September as the internal beam was one-half of the June intensity.

2. SBE extraction probably was of similar efficiency. Due to the lower intensity it should also have been lower. Transport efficiency is similar for June and September at the same intensity. The recorded losses are generally lower.

mvh

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