[redacted] AREA [redacted]

2 December 1970
Copy___of___

MEMORANDUM TO: [redacted]

FROM : [redacted]

SUBJECT : VISUAL EDGE MATCH MISSION 1112-1

The Vem analysis and the Mobil Corn resolution determinations were started early Sunday morning as soon as the domestic original negitives of Revs 16 and 48 were made available. The original intent was to read edges in both the IMC and scan direction, as close to center or format as possible, on six frames of both the prime and the alternate filters for both Revs on the Aft Camera only. This intent was modified slightly for Rev 48, because of time constraints placed on the original negitives, to only reading three frames on each filter. The following listing represents the average resolution for three readers (myself, [redacted] in the scan and IMC directions. Note: The frames selected for the Vem analysis were based on the following commanded schedual for prime/alternate and transition frames.

REV 16

FWD CAMERA		AFT CAMERA	
Frames 1-7	Prime	Frames 1-13	Prime
8-9	Transition	14-15	Transition
10-23	Alternate	16-23	Alternate

REV 48

FWD CAMERA		AFT CAMERA	
Frames 1-8	Prime	Frames 1-14	Prime
9-10	Transition	15-16	Transition
11-14	Alternate	17	Alternate

Declassified and Released by the N R O
In Accordance with E. O. 12958
on NOV 26 1997

[redacted] AREA

[redacted] CONTROLLED AREA

VEM RESOLUTION
REV 16 - AFT CAMERA

PRIME FILTER		ALTERNATE FILTER	
Frame 8	SCAN 102 L/MM	Frame 16	SCAN 136 L/MM
	IMC 110		IMC 144
9	SCAN 113	17	SCAN 127
	IMC 122		IMC 152
10	SCAN 120	18	SCAN 115
	IMC 113		IMC 112
11	SCAN 118	19	SCAN 114
	IMC 107		IMC 114
12	SCAN 133	20	SCAN 112
	IMC 152+		IMC 99
13	SCAN 152	21	SCAN 97
	IMC 140		IMC 122

REV 48 - AFT CAMERA

PRIME FILTER		ALTERNATE FILTER	
Frame 10	SCAN 152 L/MM	Frame 19	SCAN 122 L/MM
	IMC 140		IMC 81
11	SCAN 152	20	SCAN 102
	IMC 110		IMC 86
12	SCAN 135	21	SCAN 86
	IMC 146		IMC 120

Plots of these resolution numbers are attached for both Revs. The Rev 16 plot indicates that in general the average resolution level or the prime and the alternate filters are similar, which was in fact observed during the subjective analysis of the same material. The reason for the abrubt change in apparent edge quality between frame 11 and 12 and frames 17 and 18 is not clear at this time unless it is associated in some way with the filter transition. The plot for Rev 48 clearly indicates the better performance produced by the prime filter, and does not indicate a similiar increase in edge quality prior to and following the filter transition phase.

During the period that the Vem analysis was being performed on the Aft Camera, we also read the Mobil Corn targets from original negitives on the forward camera. Immediately following completion of the Vem analysis we did the same on the Aft Camera.

The following resolution numbers represents an average of four readers.

[redacted] CONTROLLED AREA

MOBIL CORN RESOLUTION READINGS

FWD CAMERA REV 16

Target Location	Frame	Altitude	Slit Width	Exp. Time	Fil. P/Alt.	Vernier Scan-IMC	51-51 Scan-IMC
Lucerne, Cal.	6	623,140'	0.189"	347	Prime	7.5'-7.5'	7'-5.6'
Aguanga, Cal.	12	621,486'	0.189"	347	Alt.	7'-7.5'	8'-8'

REV 48

Safford, Ariz.	6	611,410'	0.154"	441	Prime	7'-7'	5.6'-7.1'
Doug.-Bisbee Intl. Airport, Ariz	15	610,047'	0.154"	441	Alt.	N/A	6.3'-8'

AFT CAMERA REV 16

Lucerne, Cal.	12	621,506'	0.160"	419	Prime	7'-7'	6.3'-6.3'
Aguanga, Cal.	18	619,862'	0.160"	419	Alt.	7'-8.5'	6.3'-7.1'

REV 48

Safford, Ar.	21	609,216'	0.125"	542	Prime	7'-7'	7.1-7.1'
Doug.-Bisbee Int. Airport, Ariz.	12	610,512'	0.125"	542	Alt.	N/A	12'-12'

I think that in general, the Vem exercise went somewhat faster this time than last. That is, we produced more data in a shorter time period, of course, we only had three readers this time instead of four, but in any respect, it is a very tiring job [redacted]

[redacted] CONTROLLED AREA

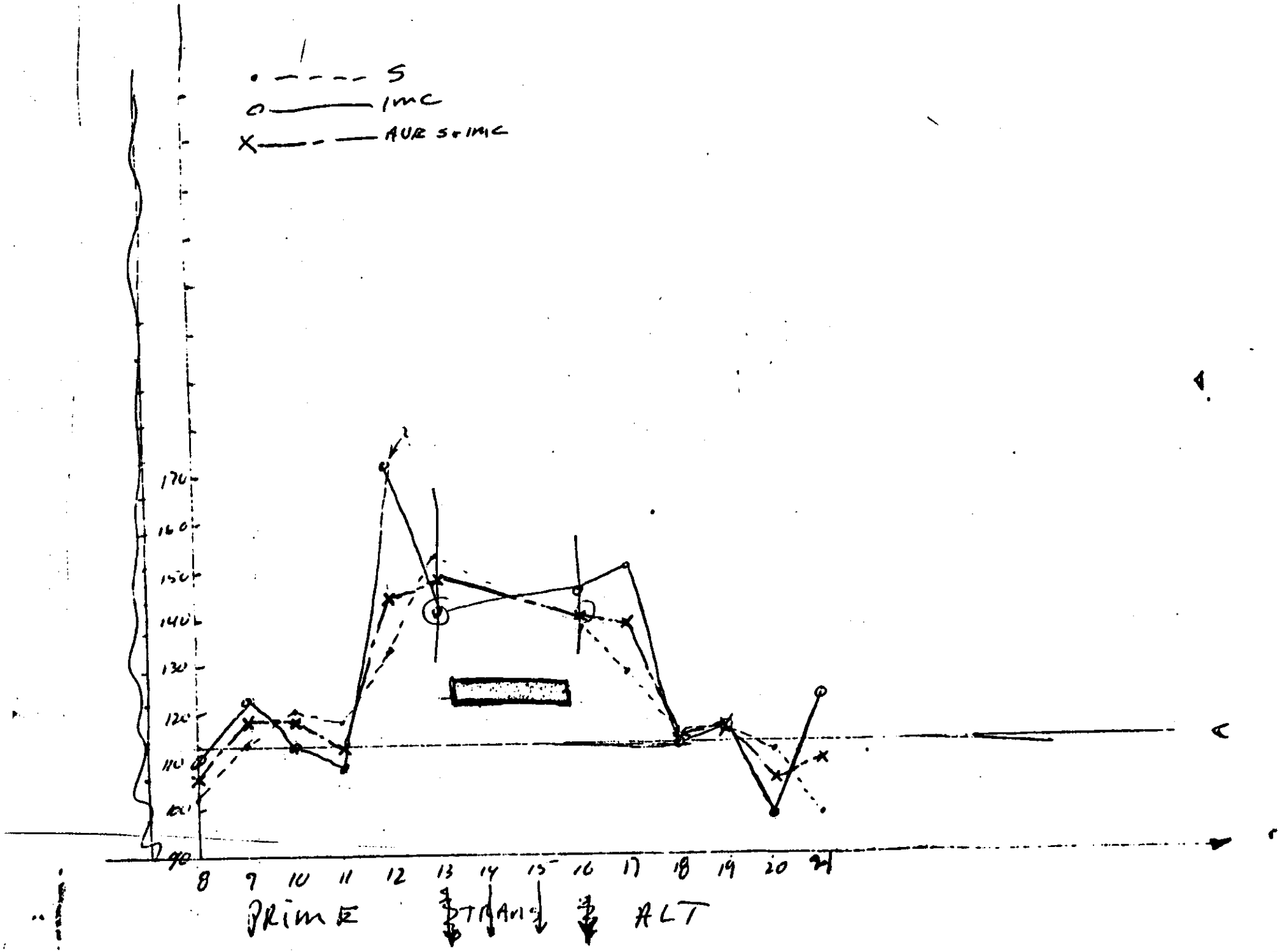
[redacted]

[redacted]

[redacted]

Att.

[redacted] CONTROLLED AREA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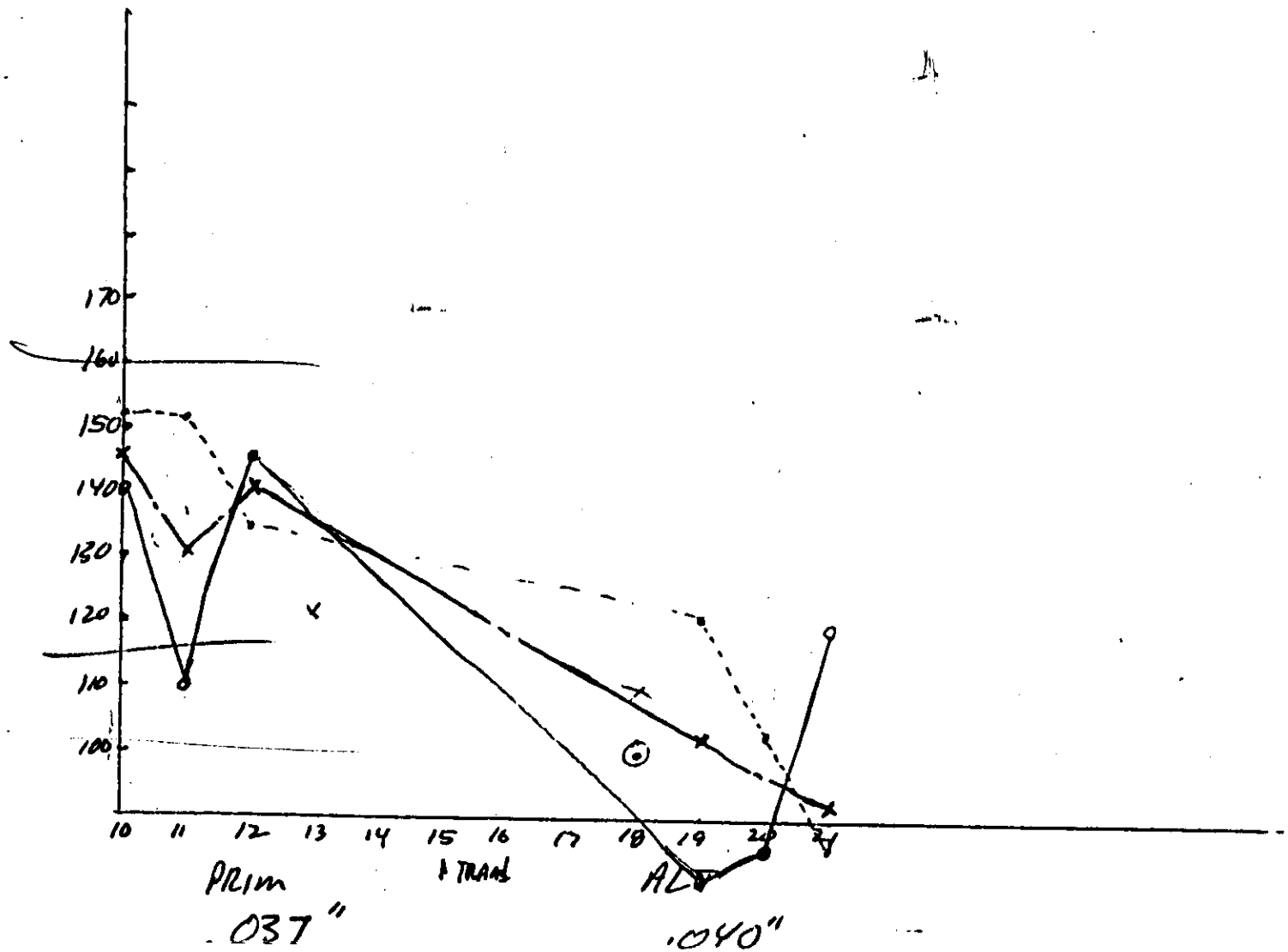
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