

based on Oct 10

neg not proposed

12-5-63

10.4
NAS9-1261

IMCC PROGRAM
COST SUMMARY
(In Millions)

TODAYS ESTIMATE

as of PHO Effort

	Original Contract	Current Estimate	(Increase) Decrease
Design Engineering	\$ 8.5	\$ 8.7	\$ (.2)
Activation and I & C	2.8	3.0	(.2)
Manuals	.8	.9	(.1)
Spares, I & C	.1	.1	-
M & O	1.8	1.8	-
Sub Total	14.0	14.5	(.5)
Communication System			
Termination S/S	1.8	1.6	.2
Internal Comm. S/S	1.1	1.8	(.7)
Sub Total	2.9	3.4	(.5)
Display/Control System			
Interface S/S	7.4	10.0	(2.6)
Timing S/S	.2	1.1	(.9)
Television S/S	1.7	3.7	(2.0)
Console S/S	1.3	1.5	(.2)
Group Display S/S	1.3	1.7	(.4)
Sub Total	11.9	18.0	(6.1)
SCATS System			
Sim. Remote Site S/S	.7	.4	.3
Sim. Interface S/S	.4	.4	-
Sim. Data S/S	1.0	.8	.2
Sim. Control S/S	.8	.6	.2
Sub Total	2.9	2.2	.7
Total Program	31.7	38.0	(6.3)
Supplemental Effort			
GLDS	1.0	1.0	-
PCM			
Comm	.6	.6	-
SCATS	.6	.6	-
VOCAMP	0	.4	(.4)
Sub Total	2.2	2.6	(.4)
Grand Total	33.9	40.6	(6.7)

appx. 200K included in various equip cost to be delivered by various vendors

Based on old planning new plan not well defined enough to reflect change

COMMUNICATIONS SYSTEM

(In Thousands)

<u>Description</u>	<u>Equipment Quantity</u>		<u>(\$)</u> Over or <u>(Under)</u>
	<u>Negotiated</u>	<u>Present</u>	
TERMINATION SUBSYSTEM			
1. Teletype Component	1	1	42
2. Audio Patch and Test	1	1	(15)
3. Communications Control Facility	1	1	12
4. Wide Band Data Component	1	1	(215)
5. High Speed Data Component	1	1	(80)
6. Video Component	0	1	33
7. P.C.M. Ground Stations	0	2	590
			<u>367</u>

INTERNAL COMMUNICATIONS SYSTEM

1. Console Communication System	1	1	110
2. Communication Line Switch	0	1	408
3. Voice Recorder Component	1	1	126
4. Central Power Component	0	1	27
5. Public Address	1	1	26
6. Pneumatic Tube	1	1	298
7. Message Center Kit	1	1	0
8. Centrex Admin. Line Isolation	0	1	184
			<u>1,179</u>

1,546

No Air-Ground equip

DISPLAY/CONTROL SYSTEM

(In Thousands)

Description	Equipment Quantity		(\$) Over or (Under)
	Neotiated	Present	
INTERFACE SUBSYSTEM			
1. Digital Display Drivers (SDD)	2	2	(41)
2. Digital Display Drivers	53,000	21,000	(164)
3. Summary Message Keyboard	-0-	6	48
4. Forced Display Keyboard	-0-	32	128
5. Phase Control Keyboard	-0-	4	32
6. Event Sequence Override	-0-	4	32
7. Plotting Displays - SDD	For 6 Users	For 7 Users	67
8. Converter Slide Files - DD	2	4	189
9. Auxillary Converter Slide Files - DD	-	-	-
10. Converter Slide Files	56	64	(396)
11. Auxillary Converter Slide Files	-	-	107
12. Reference Slide Files	8	20	169
13. Manual Selection Keyboard	115 TV Select,	114	(203)
14. Slide File Making Equipment	8 Ref. file, 2 Hardcopy 2 Sets		200
15. X-Y Plotboards	4-10x20, 6-40x40	10	95
16. Analog Display Drivers	-	-	(277)
17. Meter Displays	-	-	-
18. Chart Recorders	10-8 Channel	12-10 Channel	44
19. Computer Input Multiplexer	2	4	507
20. Auxillary Computer Input Multiplexer	-	-	245
21. Display Request Keyboard	32	52	(168)
22. Auxillary Display Request Keyboard	-	-	-
23. Equipment Status Encoder	-	2	16
24. Auxillary Equipment status Encoder	-	2	16
25. Telemetry Event Drivers	-	-	-
26. MOCR Switch Unit	-	9	12
27. Printers	8	-	(21)
28. Message Composer	2	-	(81)
29. MSC Microwave	2	-	(10)
30. Digital to TV Converter	56	56	1,486
31. Auxillary Digital to TV Converter	-	8	526
			<u>2,558</u>

TIMING SUBSYSTEM

1. Master Instrumentation Timing Equipment	2	2	199
2. Relative Time Accumulators	0	22	391
3. Wall Clock Equipment	1 Set	1 Set	-
4. AMR Countdown Processor	0	2	100
5. IRIG Code Converter	0	2	104
6. Remote RTA Control	0	2	16
7. Mercury Timing Simulator	0	1	50
8. Stop Clock Module	0	4	100
			<u>960</u>

Description	Equipment Quantity		(\$) Over or (Under)
	Negotiated	Present	
TELEVISION SUBSYSTEM			
1. TV Standards Converters	10	6	62 *
2. Opaque Televisor	0	22	254
3. TV Test Generator	0	2	104
4. Time Display Converter	0	2	10
5. TV Hardcopier	2	4	243
6. Auto TV Photocopier	4	4	155
7. Video Scanner Control	0	2	461
8. High Resolution TV Camera Chains	90	66	(25)
9. TV Display Monitors	155	355	248
10. Sync./Distribution Generator	2	4	19
11. Video Switching Matrix	2-40x60, 2-2x20	2-70x135, 2-10x20	424
12. Public Affairs Equipment	1 System	1 System	(83)
13. TV Receiver	0	1	1
14. MOCR Switch	0	1	25
15. Video Waveform O'Scope	0	16	16
16. D/TV M & O Switch	0	1	5
			<u>1919</u>

*Sum original
cost estimate*

CONSOLE SUBSYSTEM

1. Console Shells and Supports	80-3 Bay	1-1 Bay, 6-2 Bay	278
		72-3 Bay, 39-4 Bay	
2. Wiring Dist. Modules	160	144	10
3. Lamp Test Modules	80	118	(44)
4. AC Distribution Modules	80	118	0
5. Digital Display Modules	200	18	(162)
6. Switch Modules	122	221	85
			<u>167</u>

GROUP DISPLAY SUBSYSTEM

1. Projection Plotting Displays	4 Sets	5 Sets	(3)
2. Plotter Background Projector			209
3. Projection TV Displays	5	7	(31)
4. Group Time Displays	2 Sets	3 Sets	45
5. Data Source Displays	0	4	44
6. Overhead Projection Displays	0	2	17
7. Data File	0	1	7
8. Manual Plot Generator	0	1	33
9. Audio Dist. & Selection	-	-	(10)
10. Reference File Projector	0	1	65
11. Screens & Mirrors	5-M 8-8	5-M 14-12	59
			<u>425</u>

GRAND TOTAL 6029

SCATS

(In Thousands)

Description	Equipment Quantity		(\$) Over or (Under)
	Negotiated	Present	
SIMULATED REMOTE SITE SUBSYSTEM			
1. Recorder/Reproducers	3	2	17
2. P.C.M. Ground Station Sim. Adaptor	2	2	(35)
3. P.C.M. Output Faulting	0	1	180
4. P.C.M. Ground Stations	1 GFE	2	403
5. Command Logic	1	2 GFE	(185)
			<u>380</u>
SIMULATION INTERFACE SUBSYSTEM			
1. Line Transmitter & Receiver Set	2	2	(2)
2. Distribution Frame & Patch Boards	2	2	48
3. T.V. Amplifier	1	1	-
4. F.C.T. Selection Patch Boards	1	1	-
			<u>46</u>
SIMULATION DATA SUBSYSTEM			
1. Process Control Unit	0	1	425
2. Control & Status Logic	0	1	270
3. Exchange Control Logic	0	1	140
4. GSSC Interface	1	0	(231)
5. Formatter	1	0	(127)
6. Status Logic	1	0	(350)
7. Fault Logic	1	0	(101)
8. TM Generator	1	0	(143)
			<u>(117)</u>
SIMULATION CONTROL SUBSYSTEM			
1. IMCC Simulation Control Console Sets	0	2	238
2. Remote Site Simulation & Control Console	0	1	350
3. Dummy Consoles	10	0	(37)
4. Voice Monitor		0	(230)
5. Status Control		0	(166)
6. Fault Introduction		0	(300)
7. Test Equipment	1	0	(11)
8. Station Control		0	(81)
			<u>(237)</u>
			<u><u>72</u></u>

*would be
book except
for credit*