C O M P A R A T I V E A N A L Y S I S

[redacted] 25X1

1540 LIGHT TABLES

1 5 4 0 L I G H T T A B L E S

STAT [redacted] 1540 Feb. 69 (NPIC)

STAT [redacted] May 69 In-House

1540 Competitive Contracts

STAT [redacted] Oct. 69 Delivery Mar 70

Nov. 69

M A J O R D E S I G N G O A L S

1. Easy Film Loading
2. Improved Illumination
3. Improved Microstereoscope Mount
4. Improved Film Drive
5. Human Engineered

MET MOST OF THEM

TABLES NEED FURTHER IMPROVEMENT

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[redacted] STAT

ADVANTAGES

Superior Film Drive *

Quiet

Cooler *

Light Source Dry

Lower Cost *

DISADVANTAGES

Microstereoscope focusing mechanism *

Y-carriage drive *

Counterbalance System *

Bottom cover must be open in split

Minor irritations

West Coast Firm (maintenance)

No company work history

Shading System

Faster Light Decay ([redacted] Data) STAT

STAT

ADVANTAGES

Superior microstereoscope mount & controls * ✓

Operational displays

Split light source

Tilt system * ✓

Known company work history

Local maintenance

DISADVANTAGES

Heat *

Film tracking *

Noisy

Film transport *

Microstereoscope Y-drive in Tilt

Air bubbles

Minor irritations

Green oil/Liquid lamp *

Higher cost *

A P P R O A C H T O P R O B L E M

1. Meetings with Contractors

   (IEG, ESD & RED)

2. Discussion and Critique of Problems

3. Response to Critique/Letter of Intent

   A. Problem

   B. Solution Rationale

   C. Cost Impact

   D. Delivery Impact

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[redacted] STAT

Problems	Solution	Confidence
Scope mount	Redesign to modified [redacted] mount, Spec. for Mod. 28 STAT	Good -- but first attempt may surface "bugs". Should respond to good engineering
Counterbalance	Redesign to "positive" drive. Approach not well defined	Fair -- will improve, but question as to how much
Bridge Y-drive	Redesign to "positive" drive. Approach not well defined.	Fair to good -- Should improve but question is how much.
Location of Controls	Will relocate	Good. No problem.

TIME - Receive prototype 4 May. Will demonstrate changes on prototype as designs are completed. All changes by 30 June.

COST - No cost in prototype
No change in quoted production costs

[redacted] STAT

Problems	Solution	Confidence
70 mm film tracking	Harder rollers	Will provide demonstration rollers, 2 weeks -- Fair
High temperature light surfaces	Replace pump thermostat	If stated solution is correct, confidence is good.
Air bubbles	Seal with solder rather than elastomer	Fair -- recurring problem with [redacted] STAT
Green Oil	Periodic replacement probably necessary	Poor -- No good solution in sight
Noisy elevation	Slower speed, quieter motors	Some improvement probable
Film transport hunting and creeping	Relocate overheated solid state components	Questionable -- problem not in evidence at preacceptance. **
Chatter in mount drive	Replace control with snap-action switches	Could be successful but could surface problem like "feel"
Slower low-speed film transport	Changing component values	Good -- not difficult
General noise and vibration	Wants feedback from ESD to identify	Noise -- fair Vibration -- poor

TIME - Receive Prototype 4 May
Return 12 May
Probably 1 week late

COST - No cost in prototype
No change in quoted production costs

** [redacted] has low confidence STAT

PROBLEM CORRECTION DATES STAT

PROTOTYPE MODIFIED	12 MAY	30 JUNE
FIRST PRODUCTION UNIT	1 SEP	1 SEP

ALTERNATIVES:

1. Order [redacted] STAT
2. Order [redacted] STAT
3. Combined Order

C O M B I N E D O R D E R

ADVANTAGES

1. Faster Delivery
2. Mate Table to Task
3. Maintain Competition

DISADVANTAGES

1. Increased Cost
2. Maintenance Problems (minor)

STAT

S C H E D U L I N G

	[redacted]	
Lead Time	15 wks.	16 wks.
Production Data		
5th Unit	20 wks.	20 wks.
10th Unit	40/mo.	7/wk.
Quantities by 1 January 1971 (Contract 1 June 1970)	90	70
1 April 1971	210	160

STAT

COSTS (200 units)

Fully motorized	[redacted]
Basic table	