

Declass Review by NGA/DoD

12 Nov 70

- ✓ Replace bad motor acc'y - noisy and slips
- ✓ Some details not positive enough
- ✓ 250 volts accessible in split mode
- ✓ Mechanical stops on elevating mechanism
- ✓ Adjust screws on power glasses, and lock up
- ✓ ~~tilt mechanism lifts assembly~~
- ✓ Round-off tilt switch handle
- ✓ Large screw for optics mount
- ✓ ~~A~~ y carriage motion vacuum, motorized/manual, diff.
- ✓ ~~A~~ y mic drive varies in speed
- ✓ 180° protractor, 1° limit coat
- ✓ ~~A~~ Focus mechanism drifts downward 1/2 inch
- ✓ Finishing external glass and diffuser
- ✓ Identification by serial number on side

Supplier problems

- ✓ carriage x-motion force ok, but motion is twice too jerky - smooth out - manually being.
- ✓ carriage y-motion force too great, motion is somewhat more jerky than x - smooth out.
Make y force = to x
- ✓ interference of optics with switch and focus
(can be corrected mechanically)

~~Check by [unclear]~~

Revising conf. of Nov
New delivery schedule

- ✓ ~~Demonstration of scenes color film~~
- ✓ UV reduction cert.

- ✓ Change lower cover locks
- ✓ A* Loosen y-carriage motion
- ✓ Rear cable interferences
- ✓ A* Excessive carriage backlash in y, and z axes
- ✓ Parallels - 0.015-0.030 left, 0.005 right
- ✓ Elevating crank handle change for interference
- ✓ Spring clips for lower cover - guard from sharp corners
- ✓ Schematic on back panel - see [redacted]
- ✓ What was Cam told re schedule
- ✓ y doesn't lock properly

STAT

Calibration procedure

Provides 6.6

Send ASR distances for focus

Send 130° position

deal for take-up loop

- ✓ scope range 1/2 in. band
- ✓ defocus to shift filter
- ✓ turn to 6 sw. has 5 sec delay w/ y
- ✓ speed control sw. too much accel rotation
- ✓ the 1/2 in. for "smooth" motion required
- ✓ focus range large up
- ✓ focus range shifts downward

Questions?

ship all units by air ride van ?

contract - "ship" or "deliver" 145 tables
by 31 Dec. ?

13 November 1970

STAT

[redacted]

film drive die castings
idler bracket die castings

motor bearings
40 pieces expected on 16 Nov.
ships on 25 Nov finished

expected to be critical items

STAT

[redacted]

trim strips
received 2 sets (2 ea set)

STAT

[redacted] will do 60 sets - complete mech. of
supplier will do 50 sets / wk beginning
6 Dec.

STAT

[redacted]

machines scope castings (3), beam
support castings (2)

3 scope casting produced to date
casting superior late in delivery to [redacted]
8 systems on hand at [redacted]

STAT

STAT

★ Ring mount - mechanical part
 37 acceptable - in 3 weeks
 cancelled out because of loss of
 money
 413 unacceptable
 second supplier unknown -
 production rate could be something
 like 150 / week beginning in
 2 or 3 weeks

STAT

[redacted] electronic type
 10 parts on hand - should have
 100 on this date
 delivery schedule unknown
 start delivery on 15 Nov

STAT

★ [redacted]
 Assemble die castings and plate
 Produces plate, and rivets to casting
 Has 60 castings but no brackets
 delivered
 4 assemblies on hand at [redacted] - STAT
 enough for 1 table only

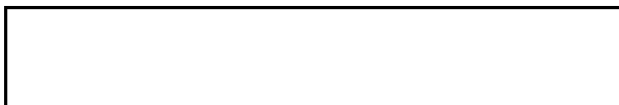
*Promise to ship 56 more other
coatings on 18 Nov.*

*All other parts are on schedule or
have sufficient parts on hand to
stay on schedule.*

13 November 1970

AT

★

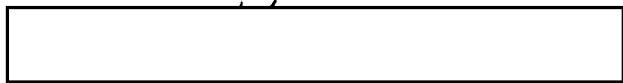


film drive die castings
idler bracket die castings

motor housings
40 pieces, completed on 16 Nov.
Ship on 25 Nov finished

expected to be critical item

AT



trim strips

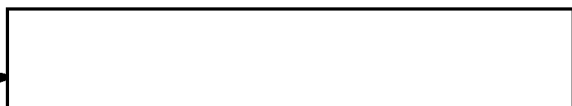
received 2 sets (2 ea set)

AT

will do 40 sets - complete week of 15 Nov.
Supplier will do 50 sets/wk beginning
6 Dec.

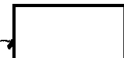
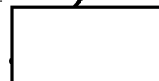
AT

★



machines scope castings (3), beam
support castings (2)

3 scope castings produced to date
casting supplier late in delivery to
8 systems on hand at



Ring mount - mechanical part
37 acceptable - in 3 weeks
cancelled out because of loss of
money
413 unacceptable
second supplier unknown
production rate could be something
like 150 / week beginning in
2 or 3 weeks

AT electronic trough
10 pans on hand - should have
100 on this date
delivery schedule ~~unknown~~
start delivery on 15 Nov

AT ★
Assemble die castings and plate
Produces plate, and rivets to casting
Has 60 castings but no brackets
delivered
4 assemblies on hand at — ST
enough for 1 table only

Promise to ship 56 more idler
coatings on 18 Nov.

All other parts are on schedule or
have sufficient parts on hand to
stay on schedule.

11

12 Nov 70

- X Replace bad motor ass'y - noisy and slips
- X Some detents not positive enough
- X 250 volts accessible in split mode
- ✓ Mechanical stops on elevating mechanism
- X Capture screws on 70mm guides, and lock up
- ✓ Tilt mechanism lifts unevenly
- X Round-off tilt switch handle
- ✓ Larger screw for optics mount
- ✓ ★ y carriage motion uneven, motorized/manual, tilt/flat
- ✓ ★ y motor drive varies in speed
- ✓ 180° protractor, 1° least count
- ✓ ★ Focus mechanism drifts downward ~~by mm~~
- ✓ Fringing between glass and diffuser
- X Identification by serial number on side

Supplier problems

- ✓ carriage x-motion force ok, but motion is twice too jerky - smooth out - manual horiz.
- ✓ carriage y-motion force too great, motion is somewhat more jerky than x - smooth out. Make y force ~~≡~~ to x
- ✓ interference of optics with switch and fuze (can be corrected downstream)

~~Sketch shrapnel in y~~

Provisioning conf. 24 Nov

1 Dec.

11/16/70

New delivery schedule

- ✓ Documentation of source color temps
- ✗ UV radiation cert.

✗ Change lower cover locks

✓ ✗ Loosen y-carriage motion

✓ Rear cable interferences

✓ ✗ Excessive carriage backlash in y, and increases

✗ Parallelism - 0.025-0.030 left, 0.005 right

✗ Elevating crank handle change for interference

✗ Spring clips for lower cover - guard from sharp corners

✓ Schematic on back panel - see

✗ What was Cam told re schedule

✗ y doesn't lock properly

Collimation procedure

Provide 6.6

Send ASR distances for focus

Send 180° protractor

✓ decal for take-up loop

31 Oct 70

- X Noisy elevation & tilt
- X Interference between lower cover and elev./tilt control box (corrected)
- ✓ Needs positive limit to elevation to prevent damage to switches during manual elevation
- X 70mm tracking problem - emulsion up & down
- X 1000 ft, 9 1/2" film xlated in 3 1/2 min stopped before running film off reel, slowed to less than 20 in/sec.
- ✓ Lower cover locks in inconvenient position, and hard to use
- X Film xlation may not meet ^{noise} specs
- X Needs cover on optics mount
- ✓ X and y carriage drive - excessive backlash
- ✓ X - does not meet locking spec
- X elevating mechanism & primary fix

✓ Flicker on 1st stage @ 200 ft-D
None in right

6

~~100 ft-D min.~~

✓ Sealing area between diffuser/glass
and light tray

✗ Noisy center flip roller - excessively
noisy split mode operation

✗ 17° rather than 15° tilt

✓ Motors move hard on T-bone

✓ Mount loose on beam - would cause
loss of collimation

✓ Longer scope mount lock screws

✗ $3\frac{1}{4}$ " wide

5 Nov 70

Tilt — questionable yet — isolate motor from train.

Elevation — disengaged gear for hand crank

Tracking — edge guide on both sides possibly, not tried yet

1000 ft, 9 1/2" — adjusted so as not to stall, still some 10 sec over time

Lower cover locks — possibly different locks, not yet investigated

Cover an optics mount — cloth roller shade, completed

★ y-backlash — clutch backlash out of spec, 29 min. rather than 5 min. reduced to 1/8 inch, but still not satisfactory

x. Drive — no prob, new clutch

→ scope mount rotation roughness

elevating mechanism fix - done with
sub-plate pinned to main
base frame

sealing - no prob. but not done
noisy center flip roller - will
replace bearing

17° rather than 15° - no prob

Motors move hard - possibly a teflon
coating

Loose mount on beam - nothing
yet, but no prob. foreseen, will
investigate

Long scope mount screws - will do
3 1/4" wide - will check to c'sink

→ smooth, steady carriage motion?

→ 4-point leveling of plane surface

23 Nov '70

y-drive : feel close to solution

play down to around $\frac{1}{16}$

motorized drive "chugs" both
directions in y.

looking for new source of supply

x-y cable interference

switch interference - downstream
fuse " - ?

Ship :

5 or 6 beyond lat one - 1st week
(probably week of 29 Nov)