STATINTL

H[illegible] OF HIGH OBLIQUE RECTIFICATION SYSTEM RFI #3067

November 22, 1957

Letter to customer referred to our 24" F/8 Metrogon Lens. Stated resolution of 20 lines/mm at 0 degrees, 16 lines/mm at 20 degrees, and 10 lines/mm at 40 degrees.

STATINTL April 24, 1958

[redacted] technical proposal on the subject task stated that "Resolution in excess of 100 lines/mm throughout the field is anticipated."

10.5" ~ 12.5"

This proposal also gave dimensions for the printer of 66" long X 54" high X 34" wide.

The size of the second stage easel of the rectifier was 40" X 32". A printer lens of 10½" focal length F/4.5 was specified.

June 9, 1958

On this date a contract was received for the above Task and the Scope of the Work added this stipulation to the [redacted] Proposal of April 24, 1958.

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(b). The reduction printer lens shall provide a means of 200 lines/mm at any position in the required field when examined visually at 2:1 reduction.

June 10, 1958

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[redacted] note to Sales regarding the 200 lines/mm requirement states "it should be pointed out that the desired resolution of 200 lines/mm visually at 2:1 reduction for the printer lens is an exceedingly ambitious goal and can only be considered as a design objective, not a contractual requirement".

June 12, 1958

Letter from [redacted] to customer returning contract stated "we agree to work to your additional requirements (a) through (e). (It is Item (b) that specifies resolution). Our next paragraph said "we are [illegible] resolution for

STATINTL

the reduction printer lens. Our objective will be 200 lines/mm over the whole field as you have specified." We also clarified the distortion requirement.

June 16, 1958

STATINTL

STATINTL Order 8[illegible]-24475 entered referencing RFI 3067 plus additional require-
STATINTL ments of [redacted] note of June 6, 1958 as modified by [redacted] reply of June 10, 1958.

September 8, 1958 STATINTL

Note from [redacted] on customer meeting. At this meeting the customer requested the addition of provisions for glass plates. At this meeting the customer asked that we make two prototype printers instead of one.

September 8, 1958

Sent a letter to customer confirming results of meeting and the advanced ordering of optics for rectifiers and printers.

October 10, 1958

Letter to customer and Monthly Progress Report indicated unexpected difficulty had been encountered in the optical design of the reduction printer lens. No details.

October 22, 1958

Customer told us the printer stage should cover 19½" X 19½". We had specified 18" X 18".

October 27, 1958

Letter to customer referred to printer lens design problems. It also said "extensive design changes were required to accommodate 19½" X 19½" coverage.

November 7, 1958

Meeting with customer at [redacted] settled on 19½" X 19½". It also added a plate holder for exposed plates.

November 20, 1958

Monthly Report for October 1958 confirmed 19½" X 19½" change.

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February 4 and February 5, 1959

The customer technical representatives reviewed our printer and rectifier designs. It is believed that they were acquainted with the mechanical design of both instruments. There is no reference as their being told of any changes made on the printer lens over that originally conceived.

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February 9, 1959 ltr to [redacted] reps stated wait till 85%

STATINTL

[redacted] wrote customer stating costs on printer portion will be substantially increased. had spent 23% of contract and now they were going over.

April 21, 1959

Sent the March 1959 Monthly Report which said "considerable tooling is necessary to accomplish the optical design."

May, 1959

May reports states "printer lens underway and progressing nicely."

#1 May 6, 1959

37% spent.

Letter to customer showed a new estimate for the contract showing total costs of [redacted] This was based on G-12's note of April 10, 1959, and listed these reasons for the increase:

STATINTL

1. Inclusion in the printer design of various electrical and mechanical interlocks.

2. The addition of a glass plate diapositive stage and storage cassetts for the printer. – Gad! These are just boxes to hold glass plates.

3. Increase in size of the second stage easel from 32 X 40 to 32 X 60.

4. Change of the film stage size of printer from $18\frac{1}{2}$" X $18\frac{1}{2}$" to $19\frac{1}{4}$" X $19\frac{1}{4}$".

5. This letter said "in addition there has been a radical change in the lens design approach to that originally conceived at the time of bidding. We are now producing a semisymmetrical lens which requires the size of the printer base be considerably increased. In addition, the number and complexity elements and supporting members has been greatly increased."

June 16 ltr from customer acknowledging May 6th [illegible] and [illegible] Feb 1959 [illegible] accuracy.

STATINTL September 1, 1959 49% spent

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STATINTL [redacted] letter to customer showed increased in cost to [redacted] This was based on increased engineering labor amounting to [redacted]

STATINTL October 26, 1959

STATINTL [redacted] note to [redacted] explained governments concern on our over expenditures.

STATINTL November 3, 1959

[redacted] visit to the customer at his request was to discuss over expenditures on this contract.

STATINTL November 6, 1959

STATINTL [redacted] note to [redacted] requested cost information and status on over expenditures.

STATINTL November 9, 1959

Customer technical representative visited [redacted]. In this meeting STATINTL [redacted] stated that the printer lens resolution would be 120 lines/mm maximum over the field. [redacted] has no record, STATINTL but around September 1959, investigated a question from [redacted] and learned that the lens was 20" focal length.

December 2, 1959

Visit by customer representatives who requested resolution on the 14" lens and a study of the effect of lower resolution now expected on the printer lens.

STATINTL December 3, 1959

[redacted] note to prevent misunderstanding asking for details on cost on this job.

STATINTL December 10, 1959

Received costs from G-12 on this job. Priced out they now amount to [redacted] The only additional changes not over those involved in earlier expenditures are:

1. Additional aspheric surfaces not in originally intended lens.

2. An interference type filter to obtain a very narrow spectrum bend.

3. A rectifier light source requires movement that is capable of

variation in elapsed time and acceleration. The more simple concept using a cam design now has to be replaced by an electronic type.

STATINTL

Dec 31 1959 ltr to [redacted]

STATINTL

STATINTL

jan 20 1959 ltr to [redacted]

asking for

STATINTL

[redacted] including fixed fee.

contract base

202% manufacturing overhead 1939.

107% engineering overhead. 919.

Appendix (6)

December 31, 1959

Dear Paul:

We are in the process of completing our review of present and future expenditures required to complete the work as outlined under the subject Task order. This letter will give you the estimated expenditures as of December 26, 1959, together with our estimate of the funds necessary to complete the Task as now described. The present Task amount is [redacted] including a fixed fee of [redacted] STATINTL Our estimate now indicates the job will cost [redacted] plus applicable fixed fee. There have been requests by your group which caused an increase in cost over that originally anticipated. We will plan to enumerate these and will indicate in our letter next week the cost involved. We were asked to do the following:

1. Construct two prototype printers rather than one.

2. Add provisions for using glass plates in the printers and provide one storage casset with each printer for glass plates.

3. We were requested to increase the printer negative stage size from 18" x 18" as specified in our technical proposal to 19½" x 19½".

4. Increase the size of the second stage easel of the rectifier from 32" X 40" to 32" X 60".

I believe that we can say that the major portion of the additional costs other than those attributed to changes in the overhead rates and the above requests is due to our under-estimating the complexity of this development.

STATINTL [redacted] believes that this development will be completed successfully and that this system of rectification will represent a very worthwhile addition to the present state of art. As you know, there have been certain refinements added which certainly added to the cost, but at the same time were necessary to do the job properly. The rectifier light source is more elegant in design and operation than the cam desig that was originally intended.

...of Dece[...] 21, [...] had spent approximately [redacted] which compares with [redacted] available in the contract. This expenditure is computed using the current rates. So that you may properly evaluate the stage of completion, the following information is pertinent:

1. All material has been received for the two printer prototypes and the one rectifier prototype.

2. Lenses for all prototype units are available and optics enough for the production units are in the later stages of manufacture.

3. The two printer prototypes are estimated to be 90-95% complete. The rectifier prototype about 80% complete. We estimate that the actual manufacturing cost of the printer will be about 1/2 that of the rectifiers once we get beyond the prototypes.

I realize that this is only part of the information you will need. The rest of the data will be in the mail to you next week.

Very truly yours,

[redacted]

Manager,
Laboratory and Industrial
Sales Department

[redacted]:dcb

Enc.

Next 3 Page(s) In Document Exempt

January 20, 1960

Dear Sir:

As agreed during your visit to our company on January 18, 1960, I am sending you the cost information on the subject Task order. This information is given considerable detail in our letters of December 31, 1959, and January 11, 1960 (copies attached).

The present contract amounts to [redacted] STATINTL and to complete the Task quantity of six Printers and six Rectifiers it appears that STATINTL an increase to [redacted] would be required.

We believe that the present contract amount is sufficient to complete the three prototype units and one additional Two Stage Rectifier. This would give you two complete systems.

As a result of our meeting, we are proceeding to obtain cost estimates for making 1, 2, or 3 additional Rectifiers. We will also attempt to complete the one prototype Rectifier and one of the prototype Printers in February for presentation to our other interested parties as we discussed.

If we can give you any additional information, or if any of the data on the attachments is not clear, please call me. STATINTL

Very truly yours,

[redacted]

STATINTL

Manager,
Laboratory and Industrial
Sales Department

[redacted]:dcb

Enc.

Appendix IX (e)

March 2, 1960

Subject:
Two Stage Rectifier

Dear Sir:

STATINTL

We have completed our estimates for furnishing one additional system consisting of a 2:1 Printer, and a Two Stage Rectifier. We quote you $[redacted] for this system. We feel that this quotation assumes that any order, or increase, on the subject Task would be handled as a fixed price agreement thus assuring you of getting the system at this price.

This offer holds for 60 days. We hope that you will find the price quoted reasonable, considering our mutual interest in the development program in which we are presently engaged.

The above also considers the use of optics presently available, as well as our completing one additional rectifier with the remaining funds on the subject Task.

STATINTL

Very truly yours,

[redacted]

STATINTL

Manager,
Laboratory & Industrial
Products Department

[redacted]:dob

cc:

Set of 6 optics already mounted.

Hi-Oblique Photographic Rectification System

U.S. Government Order SM-24475

Informal Monthly Progress Report
Covering 1 June 1956 to 1 July 1956

Work is commencing on this contract along three lines; namely

a. A general mechanical design is under study.

b. The optics of the printer are being reviewed.

c. Experimental work on the materials (lacquer) for the first stage easel.

It is too early to expect a great deal of progress on this project, however, to date it must be concluded that progress has been most satisfactory.

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JDH:ms
cc: (3) Sales
(2) Files

[redacted]
Scientific Bureau
[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order 8[illegible]-24475

Informal Monthly Progress Report
Covering 1 July 1958 to 1 August 1958

As was reported in the last progress report we are working along three lines.

a. A general mechanical design - this is well underway and numerous of the parts are progressing toward the detailing stage.

b. Optical design - this is still being worked upon.

c. Work on stage materials (lacquer) - as was reported to the procuring agency representatives on 24 July 1958 this has progressed well and our work has resulted in the selection of the finishes to be applied. This phase now takes on the aspect of selection of the light source. For exposure time considerations and generated heat we are attempting to select a suitable short duration - high cycling rate - electronic flash source.

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[redacted]
Scientific Bureau
[redacted]

1 orig.+ 2 files Sales
2 SoB file copies

Hi Oblique Photographic Rectification System

U.S. Government Order SM-24475

Informal Monthly Progress Report
Covering 1 August 1958 to 1 September 1958

During discussions with representatives of the procuring agency on 4 September 1958 a rather complete review of the progress of this contract was made. To us at [redacted] such a conference as was held is most helpful in the efficient coordination of projects of this type and it is anticipated that several more will be convened before the completion of this work. STATINTL

Among the conclusions reached and agreements made are the following:

Reduction Printer

The procuring agency will supply a drawing indicating the size and location of the various fiducial lines for the negative stage of the printer. Additionally film spools will be supplied to [redacted] identical with those to be used in this instrument. These will be the standard 7½" diameter flange spool. STATINTL STATINTL

Provision is to be made in the design of this instrument for the advance of the 9x9 film at the negative stage in opposite directions with exposures made from loadings either with the emulsion in contact with the pressure plate or through the back of the film. The desired maximum exposure time for this instrument is 20 to 30 seconds.

The film to be used at the diapositive stage of this printer is 957 Aerographic Positive, unperforated, not backed, loaded on standard 400 foot aerial spools. The cutting of short sections of exposed film is to be included in the design. Additionally this printer shall be designed to accept 9½" by 9½" glass plate diapositives ¼" thick. Inasmuch as this has heretofore not to be considered in our design, [redacted] shall submit a proposal on this phase describing our anticipated design of this glass plate head. STATINTL

This printer is considered of a fixed installation type and no provision for relocation after delivery is required; i.e. casters, handles, etc.

Every effort is to be made to expedite the delivery of this printer; February or March 1959 is our current estimate.

Two Stage Rectifier

The first stage easel of this instrument shall permit a magnification range of 0.5 to 2.0 and shall be so designed as to permit the rectification of original 24" photography on 9"x18" format at angles up to 40° without any loss of picture area. If possible this angle shall be extended to 45°. The second stage easel shall be 1:1 and of 32"x60" size.

A suitable type of honeycomb easel material is known to the procuring agency; [redacted] is to be provided with the specifications and source of this material. Additionally [redacted] is to be provided with the source for the hi-intensity neon lights now used in some government rectifiers. STATINTL

The tentative tolerance on the accuracy of the system at the second stage easel is that a trapazoid on the second stage at a tilt of 60° shall be rendered its true dimensions within 4mm on the long end and it shall be possible to re-locate the system by the various scales to the same value within 2mm. This is to be studied by [redacted] STATINTL

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To further review this project [redacted] and [redacted] will visit the procuring agency on 12 September 1958. It is anticipated that our design work will have progress to the stage that will permit the intelligent review of this project with the government representatives on about 1 October 1958.

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2 file copies

[redacted] STATINTL
Scientific Bureau
[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order SM-24475

Informal Monthly Progress Report
Covering 1 September 1958 to 1 October 1958

STATINTL

Work on the subject contract has progressed along the lines described in our last progress report and discussed at our 4 September 1958 meeting in [redacted]. Some unexpected difficulty has been encountered in the optical design of the reduction printer lens. At this time it is not definitely known what, if any, effect this will have on our expedited delivery schedule; however, it can be said that we are exerting every possible effort to overcome our design problems so that the delivery can be maintained. STATINTL

The proposed visit by Messrs. [redacted] to review an existing light source as previously described did not take place because of problems at the agency to be visited. It is our understanding that these are nearly cleared up now and we are looking forward to making such a visit.

Several of the items discussed on 4 September have not been received from the procuring agency by [redacted] STATINTL Rather than restate these in this report we shall review them with the procuring agency representatives who we understand will visit us on 10 October 1958.

orig + 2 cc.
2 file copies

[redacted] STATINTL
Scientific Bureau
[redacted] STATINTL

Hi Oblique Photographic Rectification System

U.S. Government Order 81-24475

Informal Monthly Progress Report
Covering 1 October 1958 to 1 November 1958

The details of the reduction printer were discussed with representatives of the procuring agency on 7 November 1958. The various questions that had arisen during the subject report period regarding reduction rates, stage sizes and the like were clarified. The printer will be a fixed 2:1 reduction printer. The aperture of the film stage will be 19½" by 19½" and the diapositive stage will be 9½" by 9½". The spool separator on the film side shall be variable in width between the limits of ¼" and ½". Provision shall be provided for the storage of exposed glass diapositives by means of a suitable plate holder separate from that required for exposure in the printer.

A mock-up of the printer light source was demonstrated and found acceptable. Prints of the fiducial mark configuration for both the two film and single film operations were supplied. No problems associated with these are foreseen at this time.

The negative stage of the two stage rectifier will be the full size of the diapositive stage of the reduction printer; namely 9½" x 9½". We are conducting additional experimental work on the light source in order to more exactly evaluate the exposure time requirements. Inasmuch as no manufacturing is to be released on the prototype instrument until approvalyis received for the design we suggest that the procuring agency arrange to meet with us as soon as possible to review and approve our work.

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2 file copies

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[redacted]
Scientific Bureau
[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order 8H-24475

Informal Monthly Progress Report
Covering 1 November 1958 to 1 January 1959

Work during the subject report period, with regard to the printer, has been that associated with the cleaning up of the details discussed at the 7 November 1958 meeting with the procuring agency personnel. Additionally, we have included a circular white light source between the negative stage and the lens to permit the observation of the fiducial lines. Many of the parts of this instrument are now in manufacture and no unusual problems have been encountered as yet.

In connection with the two stage rectifier we have been concerned with the further development of the light source. Experimentally we have explored three different sources; mercury-arc, strob, and the G.E. PXA source. Of these the latter appears to be the most promising and has received the most attention.

Our experimental set-up is photographically shown on the attached photographs numbered 1 through 5. No. 1 is a general photograph of the set-up which is seen to be adjusted for about a 70° tilt. Both of the lenses used; the first stage and second stage lenses, we set at f/8. The easel was of the same surface as the proposed easel of the rectifier. Photograph 2 is a different view of a similar set-up with the PXA source in place. Photograph 3 is a close-up of the source and hand-formed reflector. This source and reflector were manually moved across the negative stage to give the exposure shown on Photograph 4. This is admittedly of soft focus; however from the type of set-up little more could be expected.

The exposure was made in ten seconds using Kodak Contrast Process Ortho film. A contact print of the diapositive used is Photograph 5.

On the basis of these encouraging results we are pursuing the PXA source and expect to have a more refined set-up in the future; probably by the end of this report period.

When we are in a position to demonstrate this and discuss the various mechanical details of mounting, etc. we shall schedule a meeting with representatives of the procuring agency.

[redacted] STATINTL

Scientific Bureau

[redacted] STATINTL

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Hi Oblique Photographic Rectification System

U.S. Government Order 8[illegible]-24475

Informal Monthly Progress Report
Covering 1 January 1959 to 1 March 1959

The basic design of the two stage rectifier, and the proposed PXA light source were approved by representatives of the procuring agency on 4-5 February 1959. Since this meeting we have been engaged in a detail design study of the light source and scanning drive mechanism. To date no unresolved problems have arisen.

The mechanical design detailing of those sub-assemblies not heretofore completed is continuing, patterns for the major casting are being made and in general it may be said that the progress on the fabrication of the prototype instrument is good. The optical components, which were released sometime ago, are now in the late stages of manufacture.

Progress on the reduction printer is also good, it being completely released to manufacture now. Delivery of the two prototype printers is expected in the third quarter of 1959 and the rectifier in the fourth as nearly as we can now determine.

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Scientific Bureau

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Bi Oblique Photographic Rectification System

U.S. Government Order 8H-24475

Informal Monthly Progress Report
Covering 1 March 1959 to 1 April 1959

The design study of the light source and scanning drive mechanism has now been completed and is ready for detail design. Other mechanical design detailing has continued.

It was found that a considerable amount of tooling is necessary to accomplish the optical design of the Printer which may delay the testing of the lens system, but we still hope to finish one prototype in the third quarter of 1959. The mechanical parts of the printer have reached the final manufacturing stage.

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Scientific Bureau

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Hi Oblique Photographic Rectification System

U.S. Government Order SK-24475

Informal Monthly Progress Report
Covering 1 April 1959 to 1 May 1959

The limiting factor in the scheduling of the printer is the optics. Plans for production of the aspheric elements are being crystalized. Considerable assembly work has already been done on one of the instruments without the objective and this will be carried forward as far as possible before the objective will appear at the end of July.

The rectifier design is still receiving attention, and possible alternatives for the scanning drive mechanism and light source are being made ahead of the experimental determination which will ultimately be the deciding factor.

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[redacted] STATINTL

Scientific Bureau

[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order SM-24475

Informal Monthly Progress Report
Covering 1 May 1959 to 1 June 1959

The manufacture of the printer lens is well underway. The aspheric element, which presented the greatest problem and was therefore of greatest concern, is now progressing satisfactorily.

Rectifier lenses are being mounted after which a mock-up will determine the exposure characteristics necessary, and design proposals that have been prepared will be finally concluded.

Two printers have been assembled as complete as possible without optics, one of which is shown in the attached photograph.

[redacted] STATINTL

[redacted] STATINTL

Scientific Bureau

[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order 8K-24475

Informal Monthly Progress Report
Covering 1 June 1959 to 1 July 1959

Production of the aspheric element for the Printer requires revision of a coating fixture which is now underway, and it should be ready for the optics which are scheduled for finishing the latter part of this month.

A lens for the Rectifier has been mounted and is being used in the mock-up to determine overall exposure characteristics.

The two Printers assembled without optics are being given the performance tests that are applicable. No major troubles have been encountered in the course of the tests applied so far.

STATINTL [redacted]

Scientific Bureau

[redacted] STATINTL

Hi Oblique Photographic Rectification System

U.S. Government Order 8W-24475

Informal Monthly Progress Report
Covering 1 July 1959 to 1 August 1959

Experimentation to determine the exposure characteristics of the rectifier has been receiving our attention, but has not yet been fully resolved into final design.

The coating fixture for the aspheric surfaces of the printer lens has been prepared and we are ready to run preliminary coating trials. Further testing of the manipulation of the printer assembled without optics has taken place bringing out some mechanical revisions necessary for proper operation with positive film and diapositive plates. These revisions and the addition of the optics should be completed during the first week of September leaving the rest of the month for inspection and calibration.

[redacted] STATINTL
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Research & Engineering Division

[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order 8[illegible]-24475

Informal Monthly Progress Report
Covering 1 August 1959 to 1 September 1959

The exposure range for the two stage process covering tilt angles of 40° to 76° has been established. This is now being translated into a design for the lamp movement and the electronic control system which governs the rate of advance of the lamp during the exposure.

The aspheric surfaces of the printer lens have been coated. Due to unforeseen complications in the testing of this lens in the printer we know that delivery of this instrument will not be in September, however by the end of the month we should have a realistic estimate of the completion time to submit.

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[redacted]

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Research & Engineering Division

[redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order SM-24475

Informal Monthly Progress Report
Covering 1 September 1959 to 1 October 1959

All the basic data and design specifications on the rectifier light source has been forwarded to our Mechanical Design Section. We have purchased a printed circuit motor, I.B.M. and reader components and other items for programming the light source. Tests are to be made to determine the success of this effort.

Considerable time has been invested in testing the performance of the printer lens. We have learned enough about it to more fully appreciate the amount of further time that must be devoted to its proper adjustment for optimum performance and its incorporation into the instrument as designed. We cannot give a firm date for final delivery except to note that it does not seem to be possible to complete one assembly for shipment before December of this year.

STATINTL [redacted]

Research & Engineering Division

[redacted] STATINTL

Hi Oblique Photographic Rectification System

U.S. Government Order SM-24475

Informal Monthly Progress Report
Covering 1 October 1959 to 1 November 1959

The design for the I.B.M. card reader assembly has been worked out and is now being detailed. Eight of the eleven subassemblies in the rectifier have been completed and parts for the remaining three are expected to be complete by the end of November. The most critical portion of this part of the project at present is the completion of the schematic wiring diagram by the electrical laboratory, which is a rather complex job. The electrical specifications established could also be the source of the limiting time factor in completing the instrument, depending upon the delivery schedules of our vendors. This completion date now appears to be sometime beyond the end of the year.

The performance of the printer lens has not yet been completely analyzed. A revision of the light source to provide a narrower spectral band is currently underway, and will be completely evaluated before the end of November, at which time the instrument will be in shape to be demonstrated and discussed.

[redacted] STATINTL

[redacted] STATINTL

Research & Engineering Division [redacted]

STATINTL [redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order SS-24475

Informal Monthly Progress Report
Covering 1 November 1959 to 1 December 1959

The assembly of the rectifier is now fairly complete except for the motor drive for the light source. It is now estimated that the assembly will be completed late in February for purposes of demonstration. We should expect the final adjustments and testing to take some six to eight weeks beyond that date.

The testing of the printer lens has been receiving constant attention since the last report. We have obtained a light source consisting of sixty-six feet (in several sections) of neon tubing without the phosphor coating, having the characteristics of a germicidal lamp. Also an especially deposited film on one of the lens surfaces acts as an interference filter to isolate a narrow spectral region. The final performance characteristics have not yet been fully realized as we believe modification of the aspheric surface now underway will further improve the lens. Sometime in the month of January we will be in a position to report resolution values and demonstrate the performance of this instrument.

STATINTL [redacted]

Research & Engineering Division

STATINTL [redacted]

Hi Oblique Photographic Rectification System

U.S. Government Order 5[illegible]-24475

Informal Monthly Progress Report
Covering 1 December 1959 to 1 January 1960

Assembly of the rectifier has reached the point shown in the attached photograph. It will soon be to the point of providing a test of the motor drive for the light source.

During this report period some focus through shots were taken by a representative of the procuring agency, which served to help visualize some exposure procedure but did not give what we consider to be the final performance capabilities of the instrument.

The distribution of the aspheric coating on two printer lens elements has been changed which gives better correction and should contribute to better uniformity of resolution throughout the field.

We are approaching the point of discontinuing further experimental work on the printer and expect to have the instrument adjusted for performance testing by the end of January.

STATINTL [redacted]

Research & Engineering Division

[redacted] STATINTL