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FLIGHT TEST PROGRAM  
FOR  
SPECIAL EQUIPMENT PACKAGE

(Project Moonshine)

Document 100

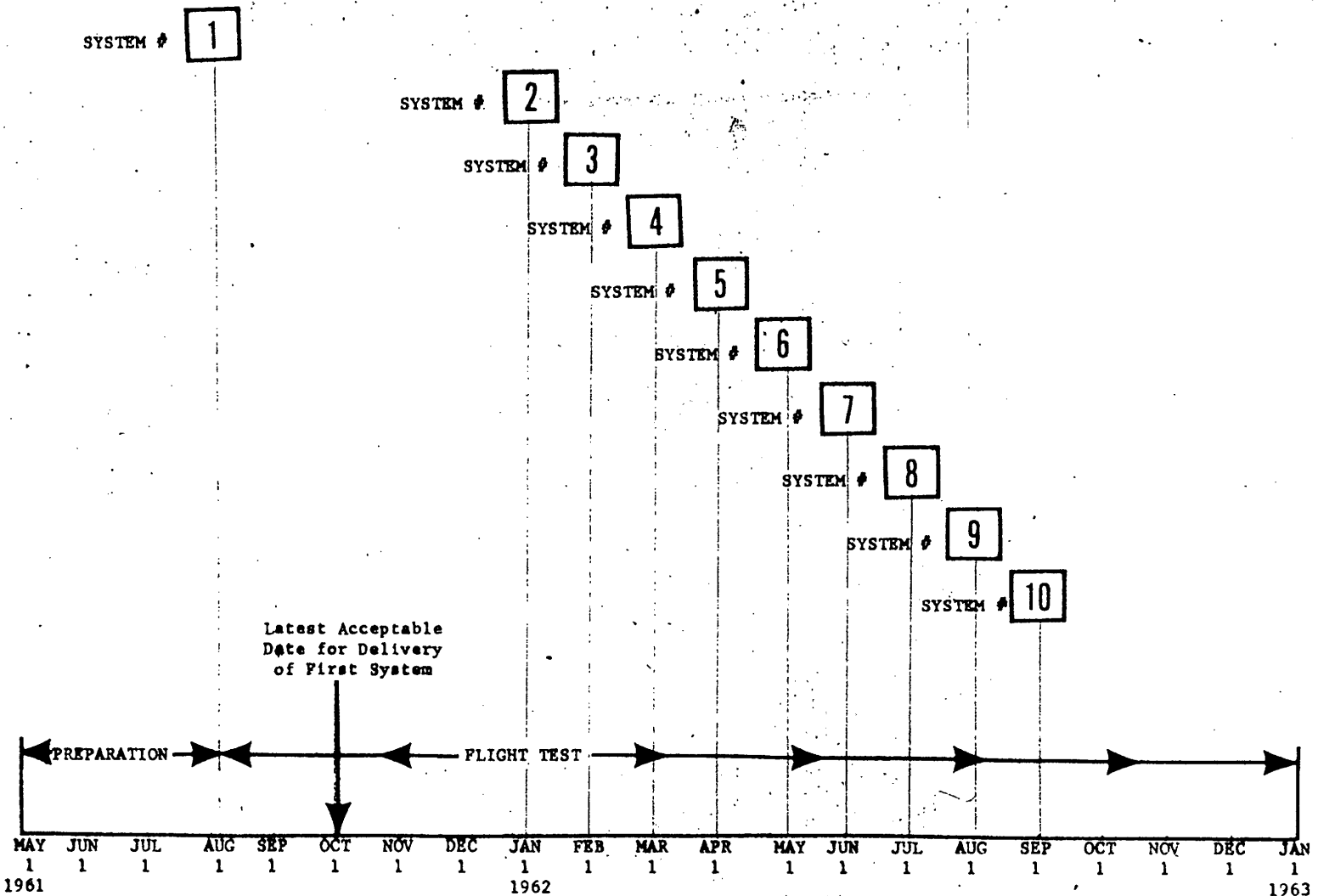
This report is divided into four parts, as follows:

- A) Equipment Delivery and Flight Test Schedule
- B) Flight Test Program
- C) Personnel
- D) Facilities



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A. EQUIPMENT DELIVERY AND FLIGHT TEST SCHEDULE



B. FLIGHT TEST PROGRAM

The flight test program will concern itself with all areas of support for the special equipment packages during operation at the test site.

This will consist of two general areas of support. The first, "In-plant M & O Product Improvement", will provide the following:

1. In-plant maintenance and overhaul of equipment.
  - a. Inspection of equipment.
  - b. Rework and repair as required.
  - c. Final check-out and test prior to return of equipment to operational status.
2. Product Improvement.
  - a. Analysis of test results and operational procedures.
  - b. Recommend system modifications to improve performance.
  - c. Initiate system modification as required or as requested by field personnel.
  - d. Continued analysis and evaluation of components.
3. Technical Training Program.
  - a. Training of technical personnel for all phases of operation.
  - b. Continued education of technical personnel in new developments in area of activity.
  - c. Supply of technical publications, or modification bulletins to field personnel and customer.
4. Project Direction and Control.
  - a. Continued direction of technical personnel and administrative support group.

- b. Maintenance of organization procedures and policy.
- c. Maintenance of plant and property control.

The second area of support will be the field activity itself, and will provide:

- 1. Flight-line operation.
  - a. Preparation, check-out and test of system prior to flight.
  - b. Installation of equipment in vehicle.
  - c. Final pre-flight check-out.
- 2. Maintenance.
  - a. Preventive maintenance of system
  - b. Maintenance and overhaul as field facilities and conditions will permit.
- 3. Evaluation and Product Control.
  - a. Analysis of flight test results and operational procedures.
    - 1. Test Specifications.
    - 2. Data Reduction.
    - 3. Evaluation.
  - b. Recommend system modifications to improve performance.
  - c. Direct system modification by maintenance group in the field if feasible.
  - d. Direct support personnel in home plant to institute system modification.
- 4. Material (By others?)
  - a. Storage and Logging.
  - b. Handling (Loading).
  - c. Processing.
  - d. Evaluation
  - e. Liaison with Material Supplier.

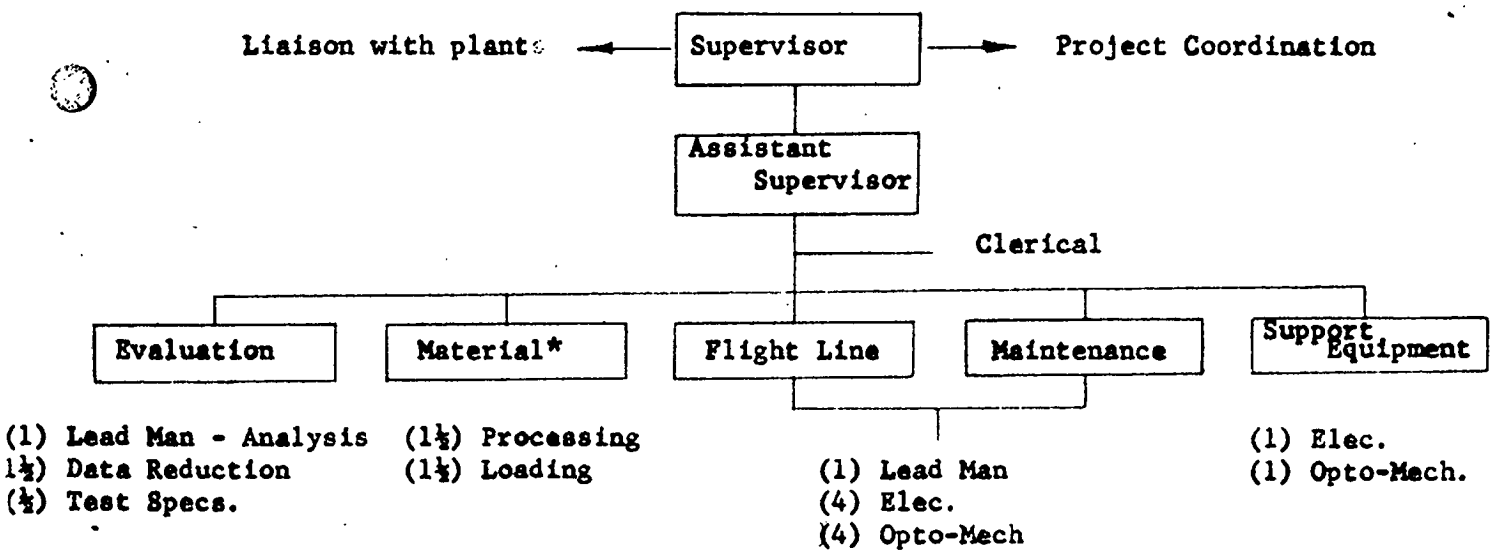
C. PERSONNEL

This section will describe the personnel organization proposed for the field activity, and shall not include the in-plant support group.

The field group must provide sufficient talents for:

- Flight-Line Operation
- Maintenance
- Evaluation and Product Control
- Material Handling, Processing, etc.
- Support Equipment Maintenance and Application

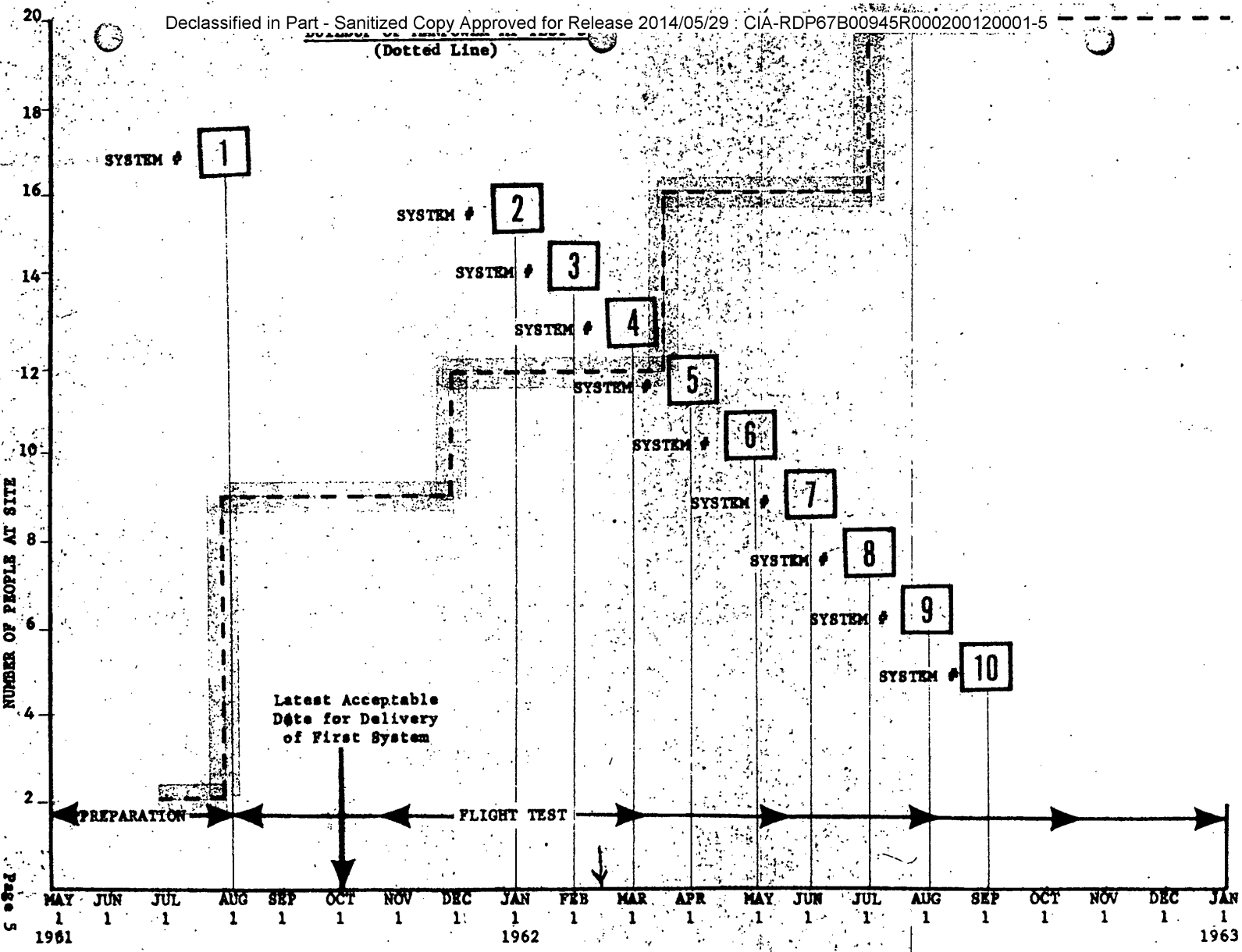
It is anticipated that the size of the group will increase as more systems are delivered to the test site. The maximum organization will involve 20 people as follows:



The buildup of this manpower is shown on the following page.

In addition, special engineering talents will be made available as required.

\* By others?



#### D. FACILITIES

The required facilities at the test site can be broken down into five sections, as follows:

1. Material -

This will require air-conditioned space for storage.

2. Processing -

This will require air-conditioned space for a sizeable dark room and large processing equipment (if employed).

3. Evaluation -

This will require air-conditioned space for film viewing equipment, film rewinds, office equipment, etc.

4. Flight Line Operations -

This will require air-conditioned space for check-out and loading. It must accommodate at least one system, all the pertinent handling and test equipment, such as collimator, check-out consoles, desiccators, power cart, etc. and provide sufficient space for personnel to adequately perform their tasks.

5. Maintenance -

This will require air-conditioned space to store all systems and support equipment. In addition it must provide areas for maintenance personnel and equipment.

The total required space is estimated at 5000 square feet.

VEHICLE REQUIREMENTS FOR TEST FLIGHT PROGRAMS

There will be test flight programs before the equipment meets final delivery.

The first is to permit testing of V/H sensing devices. There are two general sets of conditions required. They are shown on graphs M1-A and M1-B. Graph M1-A calls for a vehicle to operate above 50,000 feet, and Graph M1-B requires operation at lower altitudes. It would appear that the existing "bird" satisfies M1-A, and something like a T-bird would satisfy M1-B. These tests are scheduled for May, 1960.

The second test flight program will permit system test. The vehicle requirements are shown on Graph M-1C. It appears a commercial type jet is required, since there must be adequate space (and environment) for test people to accompany the equipment. These tests are scheduled for the Spring of 1961.

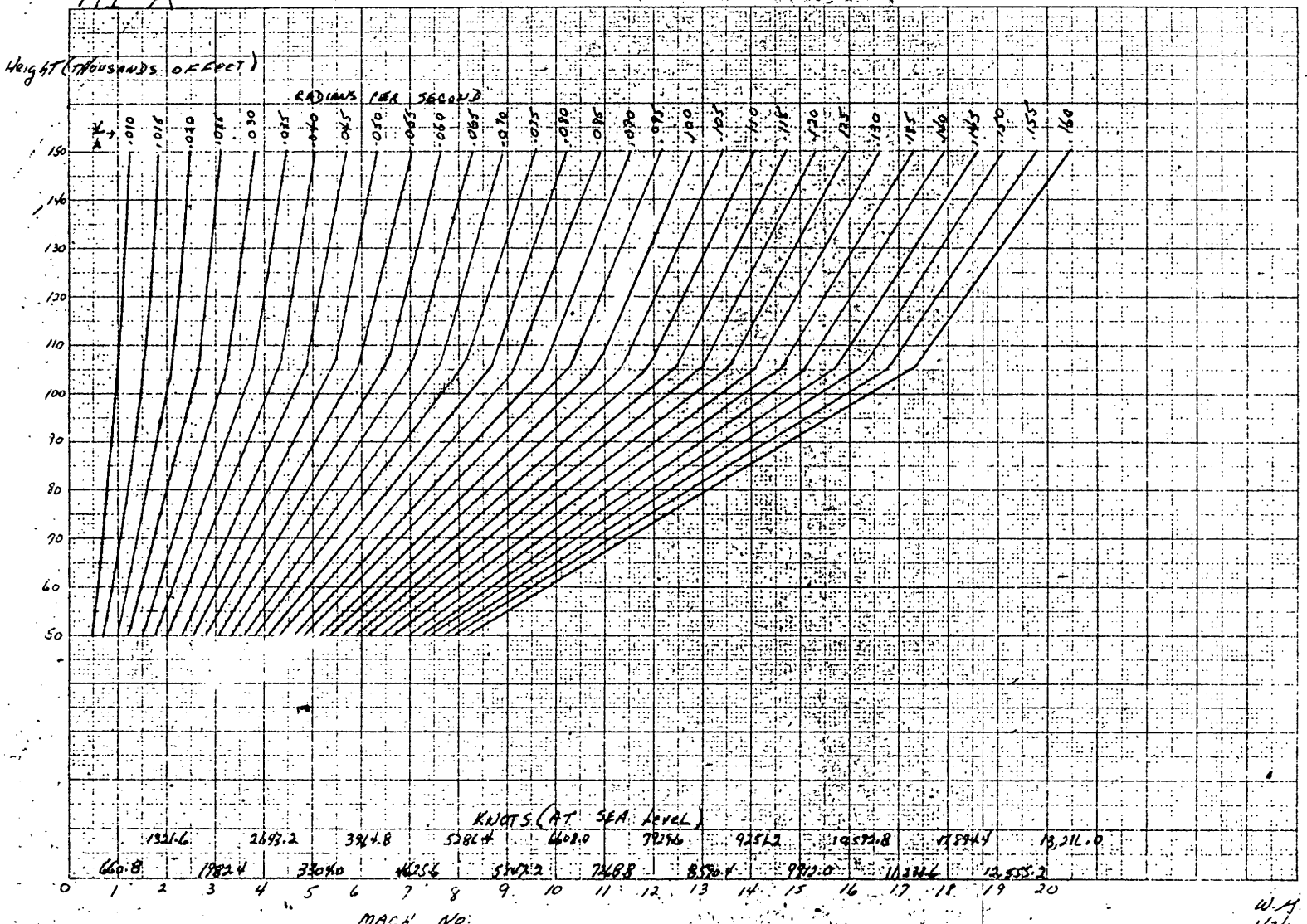
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8 January 1960

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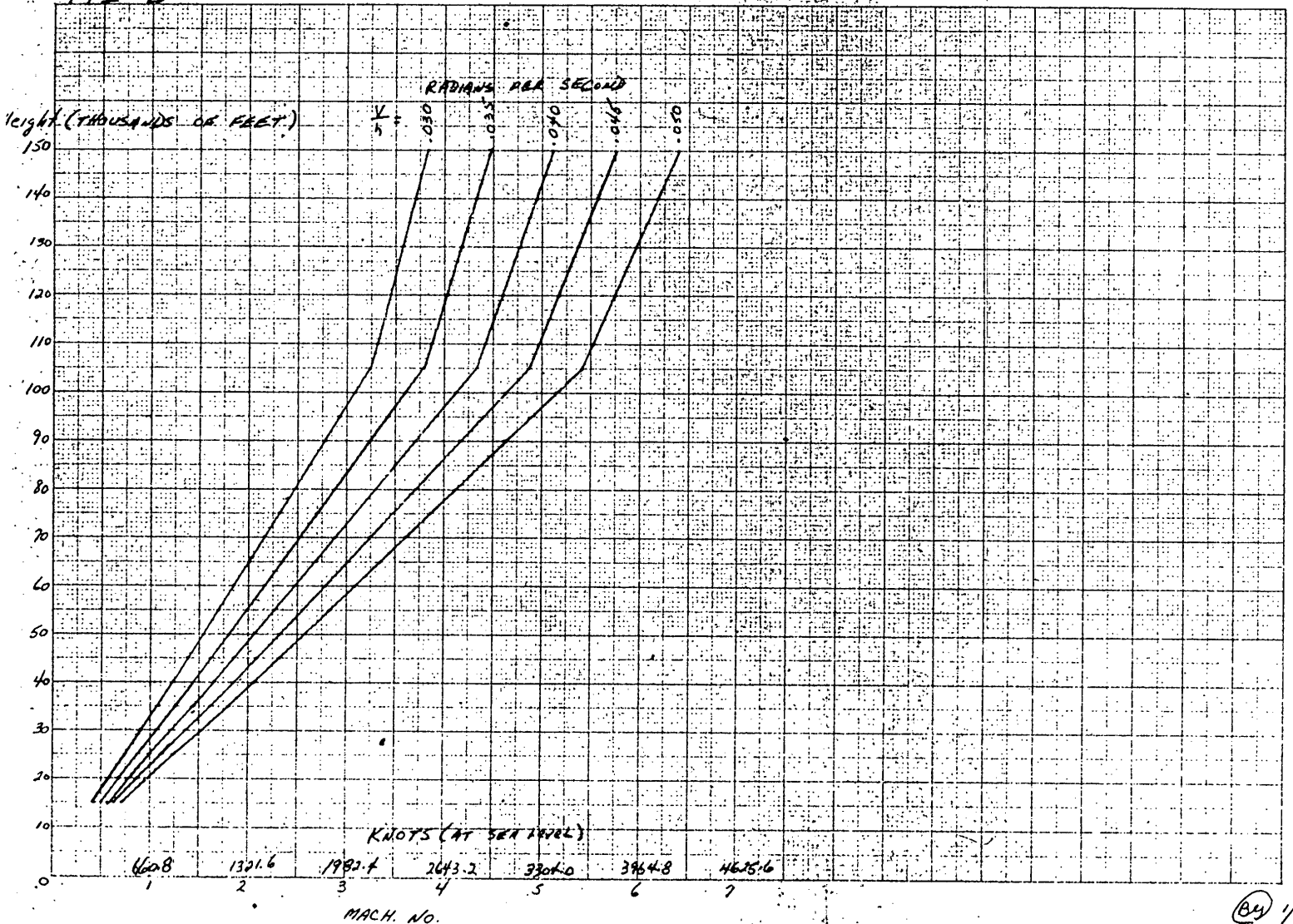


MI-A



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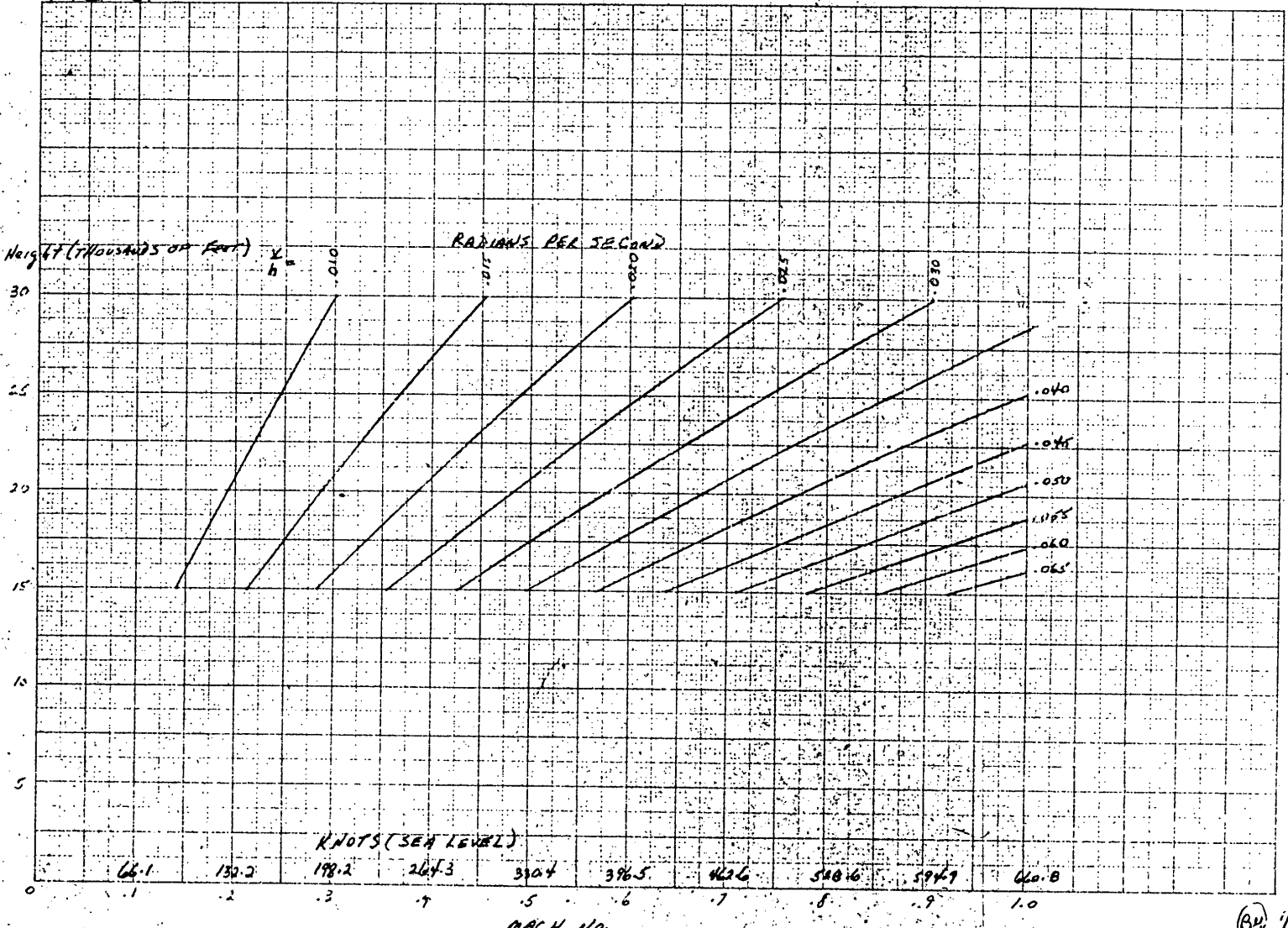
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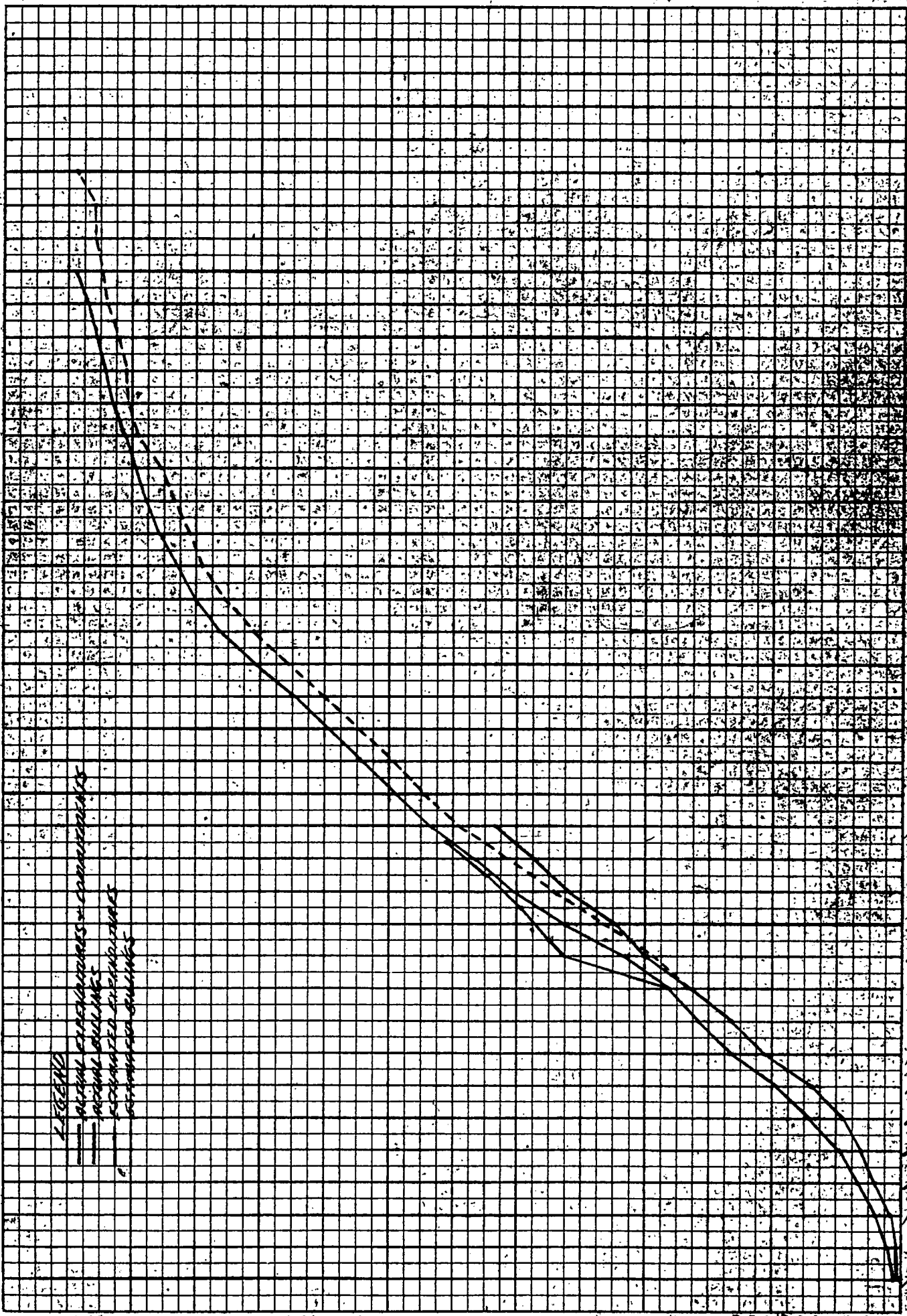
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THE THIN LINE COMPANY  
ELECTRO OPTICAL SYSTEMS DIV.  
FORECAST EXPENDITURES 1960-1970



**LEGEND**

- actual expenditures - commitments
- actual expenditures
- forecasted expenditures
- forecasted expenditures

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