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OH-13H Gross Weight Increase/XM-1 Armament
Kit Performance Test. Jun '63

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ATA-TR-63-1

**OH-13H
GROSS WEIGHT
INCREASE/XM-1
ARMAMENT KIT
PERFORMANCE TEST**

**Project Engineer
RODGER L. FINNESTEAD**

★

**Project Pilot
EMERY E. NELSON
CWO TC**

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ATA-TR-63-1
JUNE 1963

OH-13H
GROSS WEIGHT
INCREASE/XM-1
ARMAMENT KIT
PERFORMANCE TEST

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This report has been reviewed and approved

Richard J. Kennedy

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LT. COLONEL TC
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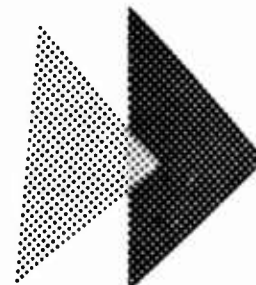
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INTRODUCTION



This report presents the results of the performance tests of the Bell Model OH-13H helicopter with gross weight increases up to 2750 pounds and with the XM-1 armament kit installation. The program was conducted by the U.S. Army Aviation Test Activity, Edwards Air Force Base, California. Authorization for the program was contained in DF TCMAC-EH-13, U.S. Army Transportation Materiel Command, St. Louis, Missouri, dated 11 May 1962. The purpose of the tests was to provide the handbook data necessary for operation of the helicopter at increased gross weights. The test program was conducted in the Edwards test area at various density altitudes and was accomplished in 71 hours of flight time during the period 28 July through 2 November 1962.

A structural investigation was conducted by the Bell Helicopter Company, Ft. Worth, Texas, under Contract AF33(600)36104, at the increased gross weight of 2750 pounds. The results of this investigation were published in Bell Helicopter Report 57-030-102.

The OH-13H is a single-rotor observation-type helicopter manufactured by the Bell Helicopter Company, Ft. Worth, Texas. The normal cockpit arrangement includes a single set of controls and provides for the seating of a pilot and two passengers side-by-side, with the pilot's position on the left.

When dual controls are installed on the right, the cockpit seating capacity of the helicopter is reduced to the pilot and one passenger.

The helicopter is powered by a Lycoming O-435-23 reciprocating engine, which has been derated from the engine manufacturer's rating of 255 brake horsepower at 3400 engine rpm to 240 brake horsepower at 3200 engine rpm (takeoff power limited to 5 minutes) and 220 brake horsepower at 3100 engine rpm for maximum continuous power. The engine power ratings are based on transmission limitations. The fuel used during this program was 115/145 octane with a Tricresyl Phosphate Concentrate additive, which aided in preventing spark plug fouling.

The Model OH-13H design gross weight is 2450 pounds. The basic weight of the test helicopter with full oil tank (7½ quarts) and trapped fuel (1.4 gallons) was 1821 pounds.

The XM-1 armament kit was developed by the Department of the Army for use on the OH-13 series helicopters. The XM-1 armament kit installation, including the armament kit, 1300 rounds of ammunition, a crew of two (with parachutes), and full fuel, requires a gross weight of 2750 pounds. A complete description of the XM-1 armament kit may be found in Appendix II.



TEST RESULTS

Hovering

Hovering tests were conducted at density altitudes ranging from -120 to 6920 feet.

The results revealed the in-ground-effect hovering ceiling (two-foot skid height) to be 6400 feet on a standard day.

During this test program, the out-of-ground effect hovering ceiling was not determined because conditions limited available test time to the gathering of high-priority data required for service operation.

The hovering performance capabilities of the OH-13H are presented in Figures 3 through 7, Appendix 1, and are summarized in Figures 1 and 2, Appendix 1.

Hovering performance was determined under zero wind conditions with the following techniques:

1. Free-flight hovering technique:

This procedure was accomplished by loading the helicopter with ballast until a skid height of less than one foot was established at a predetermined power setting. The ballast was then removed incrementally, and the stabilized skid heights and power settings were recorded.

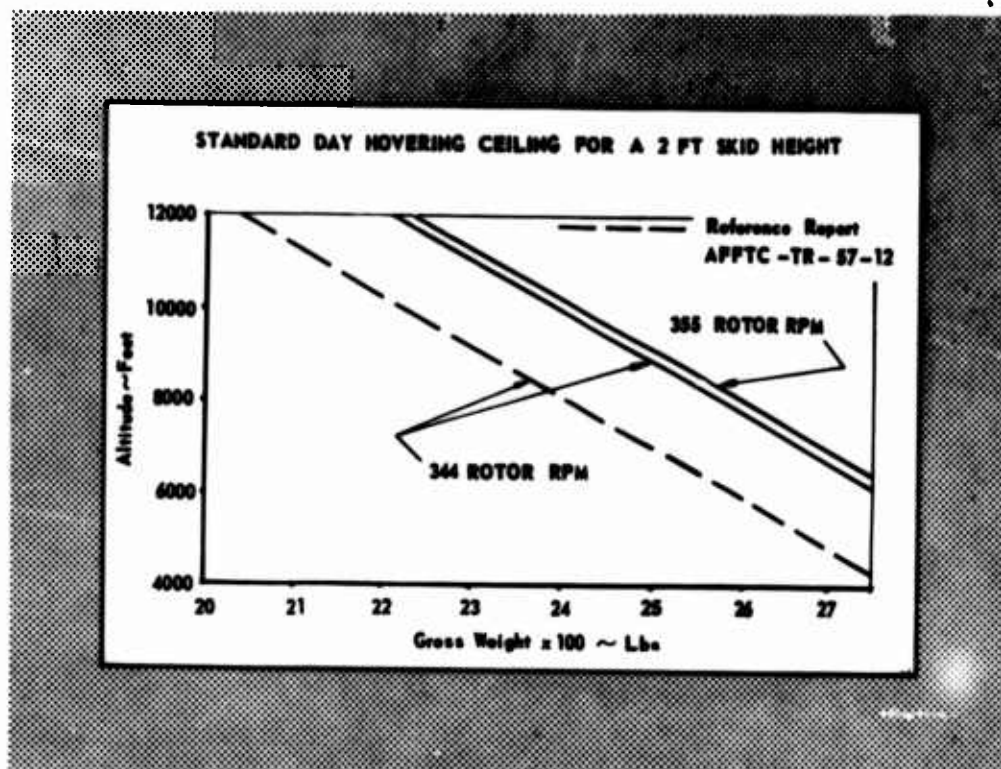
2. Tethered hovering technique:

This procedure was used to obtain data for a four-foot skid height. The helicopter was tethered by a cable and the skid height was measured from the bottom of the skid tube to the ground. The rotor thrust, which was varied by increasing or decreasing power, was defined as the gross weight of the aircraft plus the weight of cable, attachments, and tension in the cable. Cable tension was measured with a standard aircraft electronic weighing kit equipped with a load-cell cage that converted the load cell to

a tension-measuring device. To obtain maximum variation in rotor thrust, the helicopter's gross weight was reduced to a minimum at the start of the tests.

To initiate a hovering takeoff in ground effect at any gross weight, the helicopter must be capable of attaining

a hovering skid height of two feet. The two-foot skid-height requirement defines the operational altitude limit of the helicopter when hovering takeoffs and landings are to be performed. The following figure summarizes the hovering performance capabilities of the OH-13H at a two-foot skid height.



As shown in the foregoing figure, the OH-13H now in service use is capable of an increase in hovering performance beyond that obtained in the Air Force Performance test of the OH-13H, described in AFPTC-TR-57-12. This report will be referred to as AFPTC-TR-57-12 throughout the rest of this report.

The improvement in the performance capability of the present configuration is attributed to the installation of an altitude-compensating carburetor (MA-4-5AA) and changes in the intake ducting system made by Engineering Change Proposal (ECP) action after the publication of AFPTC-TR-57-12. The change in engine power available is analyzed in detail in "Power Determination," Appendix I.

The hovering capability at 322 rotor rpm is not practical because of a deterioration in directional-control power and pilot difficulty in maintaining a constant rotor rpm during hovering maneuvers. No performance increase is to be gained at this low rotor rpm.

During the initial portion of a lift-off to a hover and at low collective-pitch positions, the unboosted collective control system exhibited an undesirable down-force. The collective-pitch and throttle-synchronization systems should be improved for better service use. An unsafe condition exists because the throttle-twist grip may be turned approximately 10 degrees after the carburetor butterfly valve has reached the full-open



PHOTO 2 FREE FLIGHT HOVERING

position. This condition becomes of greater concern near the in-ground-effect operational ceiling because the pilot expects additional power to be available when the maximum engine power setting has actually already been obtained. A warning similar to the following should be inserted in the Flight Handbook Manual:

Warning

"When maneuvers are being performed in ground effect condi-

tions which require maximum power available, beware of the unsafe condition that exists because the throttle-twist grip can be turned approximately 10 degrees after the carburetor butterfly valve has reached the full-open position. This condition leads the pilot to expect additional power to be available when actually the maximum engine power setting has already been obtained."



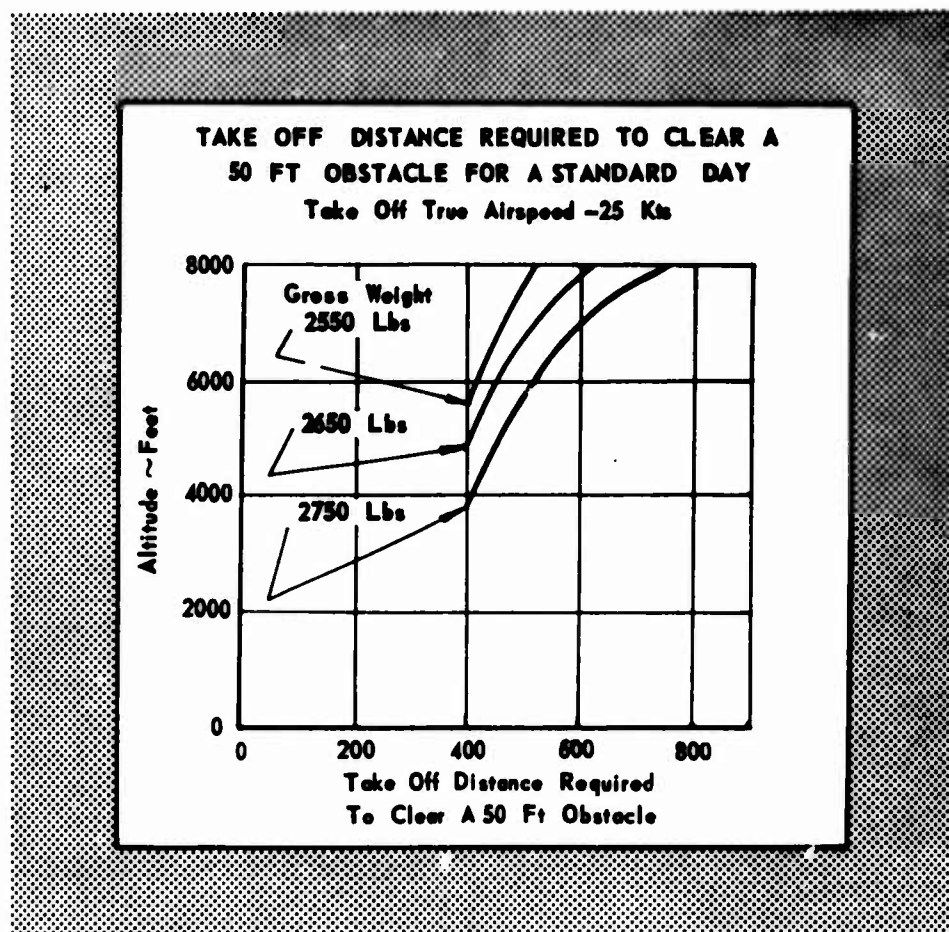
PHOTO 3 TETHERED HOVERING

Takeoff

Tests were conducted at density altitudes that ranged from 5500 to 5700 feet and at gross weights from 2450 to 2760 pounds.

The takeoff performance of the OH-13H is shown in Figures 12 through 18, Appendix I. The summarized data (Figure 11, Appendix I) present the distance to clear 50 feet as a function of climb-out airspeed and C_p .

The optimum climb-out speed to clear a 50-foot obstacle at the density altitude of 5500 feet was determined to be 25 knots TAS. The following figure presents the takeoff distance required to clear a 50-foot obstacle for various gross weights and density altitudes.



To determine takeoff performance, a hovering takeoff with rotor rpm bleed technique was used. The following techniques were utilized:

1. The helicopter was first stabilized

at a two-foot hover at takeoff power of 355 rotor rpm and maximum permissible or attainable manifold pressure. Forward cyclic was then applied and a level acceleration was begun. When passing through translational lift, the rotor rpm was bled from 355 to

344 and maintained at the lower value for the remainder of the acceleration to climb speed and during the climb-out. This method was found to reduce the tendency of the helicopter to sink and touch the ground with the skids when passing through translational lift.

2. At heavy gross weights, when the maximum power available was less than the power required to hover at a two-foot skid height, acceleration was accomplished at maximum power available. Under these conditions, when maximum power was applied, the helicopter was stabilized at the maximum attainable skid height. Acceleration, rotor bleed, and climb-out techniques were similar to those used in the two-foot hovering takeoff. While passing through translational lift, a larger nose pitch-up motion was experienced than that noted during the takeoffs with more excess power. To counteract this pitch-up motion, a large forward-cyclic movement was necessary to maintain the required takeoff acceleration attitude. On some occasions, full-forward cyclic position was insufficient to compensate for the pitch-up and resulted in a momentary deceleration during which the helicopter skids contacted the ground. After the aircraft contacted the ground and passed through translational lift, however, the acceleration to climb-out speed could be accomplished in a normal manner. A cautionary note similar to the following should be inserted in the Flight Handbook Manual:

Caution

"When making takeoffs under conditions of limited performance capability in which the maximum attainable hovering skid height is less than two feet, expect a large nose pitch-up motion while passing through translation. Be prepared to counter this with full-forward cyclic application, if necessary, to maintain an acceleration attitude and minimize takeoff distance."

3. Under conditions in which the maximum power available could produce only a light-on-the-skids condition, the acceleration was started by applying forward cyclic and rotating the helicopter onto the ground-handling wheels, which had been relocated on the forward portion of the skids. The acceleration was continued on the ground-handling wheels until the helicopter was passing through translational lift. After achieving the speed necessary for translational lift, the helicopter was lifted off and the acceleration continued in a normal manner. The excessive nose pitch-up tendency and resulting sink were not experienced when the rolling takeoff was accomplished.

The rotor rpm bleed technique was used to transform rotor inertial energy into additional rotor thrust when the aircraft passed through translational lift. In order to accomplish this and to maintain a rotor rpm that would produce the best rate of climb before and after clearing a 50-foot obstacle, the rotor bleed rpm was limited to 11 rotor rpm (355-344 rotor rpm). For an analysis of the stored rotor inertial energy, see "Takeoff" in Appendix II.

The airspeed system is not reliable below translational speeds and becomes reliable at approximately 20 knots IAS. To arrive at a 25-knot climb airspeed and climb-out attitude simultaneously requires a high level of pilot proficiency.

Climbs

Continuous climbs were conducted to determine climb performance at gross weights of 2750 and 2550 pounds and the maximum engine horsepower available as functions of attitude. The climb performance of the OH-13H is shown in Figures 19 through 23, Appendix I.

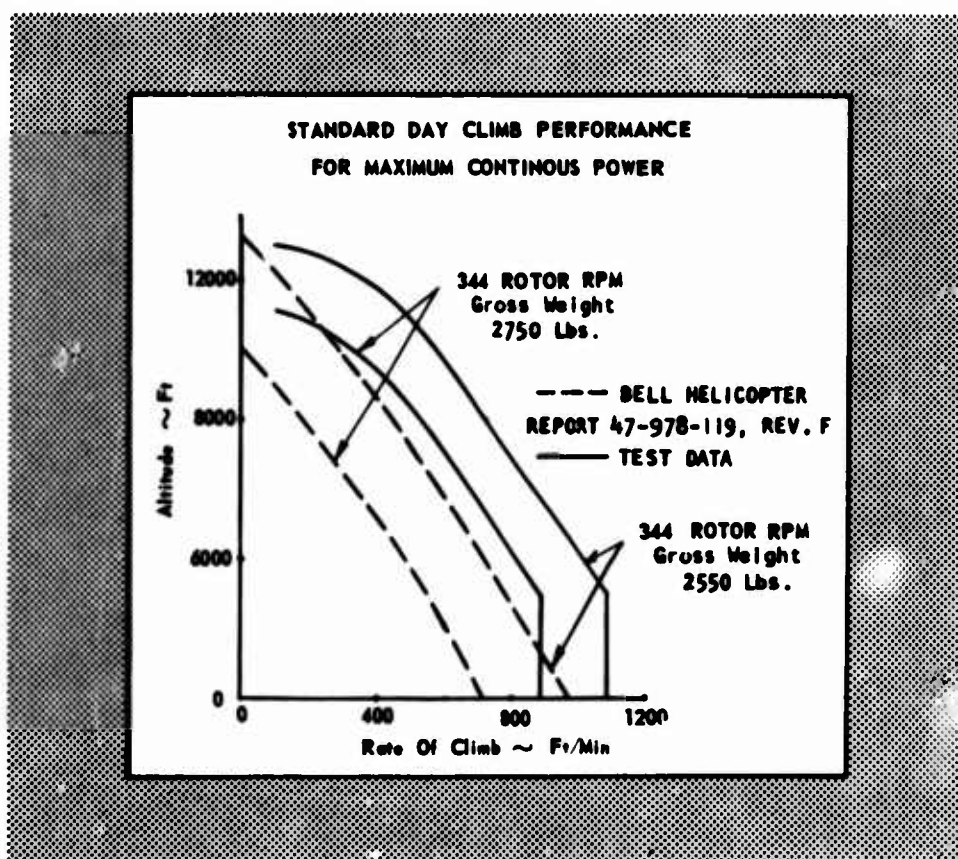
The airspeed schedule used during the climbs was the same as that developed during the OH-13H performance test described in AFFTC-TR-57-12. This climb schedule was determined in the level flight tests to be sufficiently optimized for all gross weights.

The climb performance obtained is summarized in the following table:

			Max. RPM	Max. Climb Altitude	Max. Service Ceiling
		2550	1000	3130	10,300
		2750	800	3130	8,350
Max. Gross Weight	2550	2750	1000	3370	13,050
		2750	800	3370	11,050
Takeoff (2-sec)	255	2750	1000	1800	—

As shown in the accompanying figure, the climb performance at takeoff gross weights of 2550 pounds and 2750 pounds was found to be increased over that predicted in Revision F, Bell Helicopter

Report No. 57-978-119, which was based on AFFTC-TR-57-12. The performance increase was caused by the additional power available that was previously discussed in the section titled "Hovering."



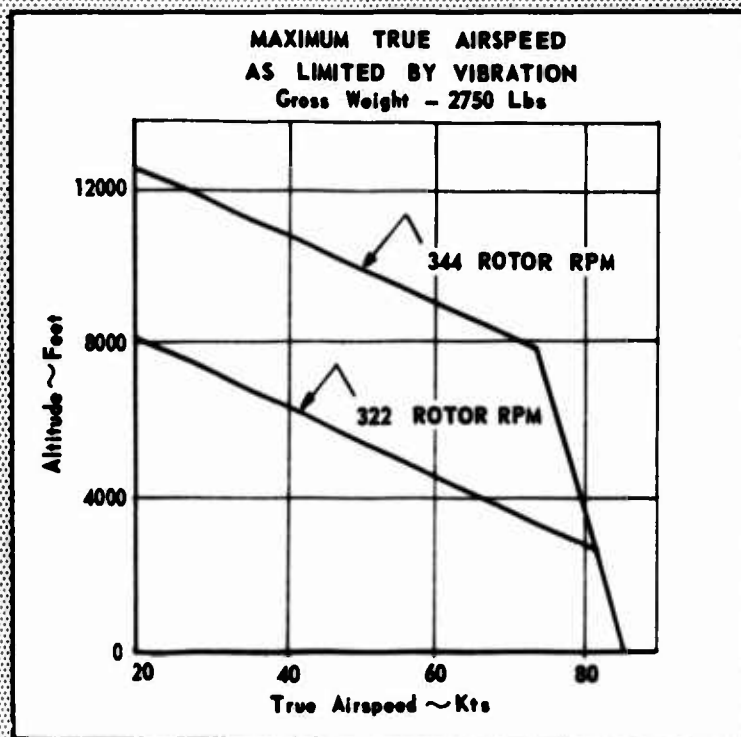
A low magnitude 2-per-rev vertical vibration was encountered at speeds above transition. This vertical vibration was present throughout the climb, intensifying in magnitude with increasing altitude as well as with increasing gross weight. Above a density altitude of 7500 feet, the 2-per-rev vertical-vibration level encountered during the heavy-weight climbs (2750 pounds) became irritating. This vibration level was intensified at the lower rotor speed of 322 rpm. The vibration was attributed more to aerodynamic loads on the rotor system than to aircraft rigging.

At all rotor speeds and gross weights from 1500 feet below service ceiling up to service ceiling, a small amount of blade stall was encountered. This condition increased the difficulty of holding constant rotor speed and maintaining the climb airspeed schedule. A slight decrease in control response was indicated by a small amount of feedback through the unboosted collective stick.

Level Flight

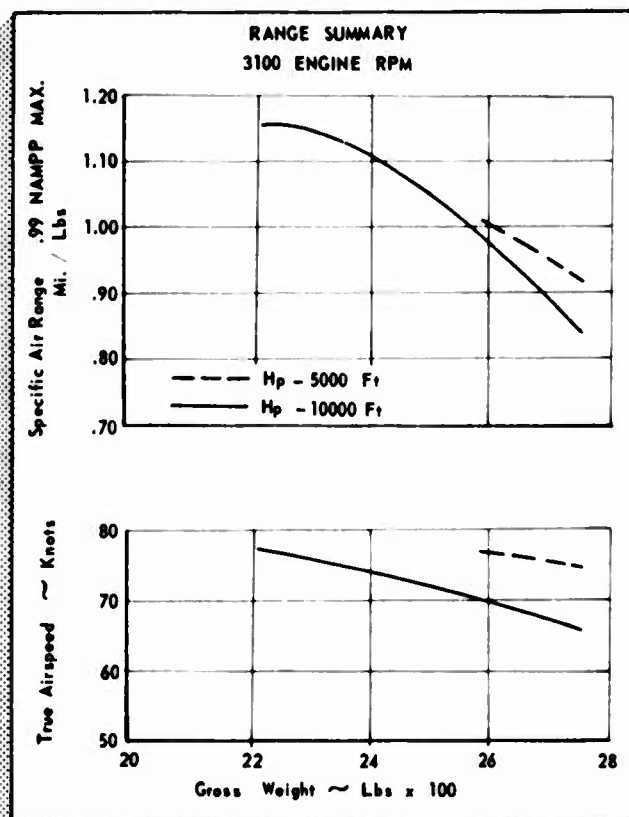
Level flight tests were conducted to determine the power required and range as functions of true airspeed. These tests were conducted over a density altitude range of 4000 to 10,000 feet for gross weights from 2450 to 2650 pounds (mid center-of-gravity (C.G.) location) and at rotor speeds of 322 rpm and 344 rpm. Data were obtained for the helicopter in both a clean configuration and a configuration with the XM-1 armament kit installed. The results of level flight performance tests are presented in Figures 24 through 37, Appendix I.

The maximum airspeed in level flight is restricted by the contractor's limit airspeed placard at all altitudes or until unacceptable vibration levels caused by blade stall. This airspeed limitation is presented in the following diagram:



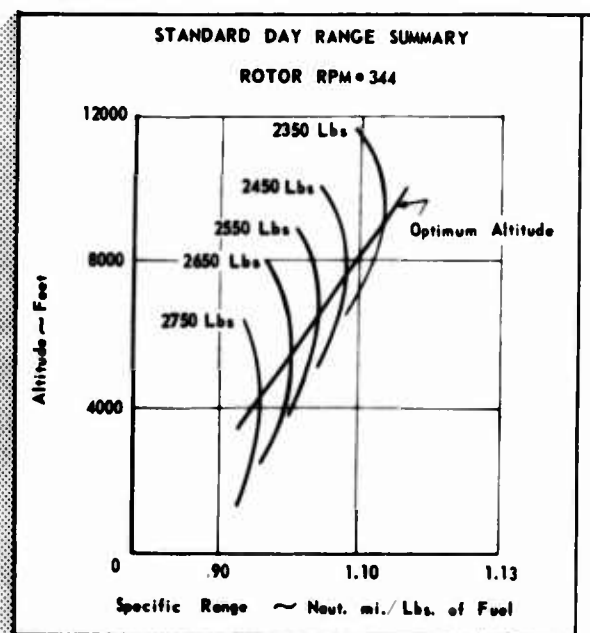
Range data are presented in this report for density altitudes of 5000 and 10,000 feet as a function of gross weight.

The following graph summarizes the range performance of the OH-13H equipped with the MA-5-4AA altitude-compensating carburetor.



During this program, the fuel-flow data obtained revealed an increase in range performance over that presented in AFFTC-TR-57-12. This is attributed to the increased fuel specific of the engine equipped with the altitude-compensating carburetor.

The following figure shows that specific range increases at higher altitudes. This is caused by the decrease in specific fuel consumption of the engine as altitude is increased. A point is reached, however, at which the increasing power required for level flight counteracts the decreasing specific fuel consumption and any further increase in altitude results in a decrease in specific range. This condition is caused by increasing blade stall and mach effects on the main rotor system. Just below this altitude is the optimum altitude for



cruise at a specific gross weight since specific range is a maximum.

The maximum usable range at the optimum altitude of 7000 feet is 201 nautical air miles, allowing a 10 per cent fuel reserve at 344 rotor rpm and a takeoff gross weight of 2750 pounds. The cruising speed for this maximum range is 75 knots TAS.

The installation of the XM-1 armament kits did not measurably affect the aerodynamic drag characteristics of the OH-13H. The XM-1 armament installation with full ammunition (1300 rounds) adds 220 pounds to the basic weight of the aircraft with little effect on C.G. location. The results of these tests are presented in Figures 35 through 37, Appendix I.

The handling qualities during level flight are satisfactory at all gross weights up to 2750 pounds for a mid C.G. loading and up to speeds that do not cause unacceptable vibration levels.

Normal Approach and Landings

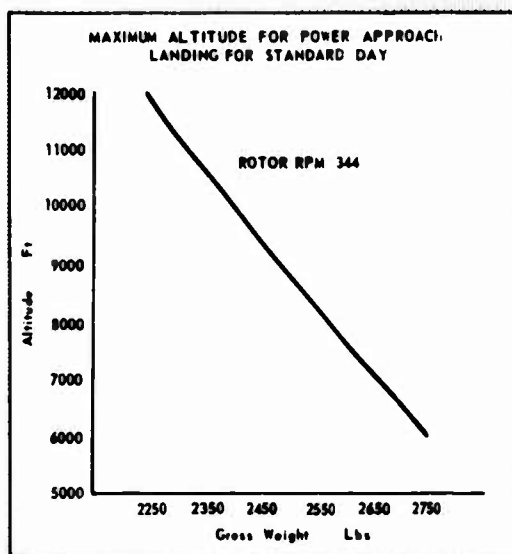
Power-on approaches and landings were qualitatively evaluated during the test program. Normal pilot techniques were used to establish both steep and normal approaches to a landing. At a maximum gross weight of 2750 pounds, the only difficulty that was encountered was rotor rpm control. An unsafe condition exists because the twist grip may be turned approximately 10 degrees after the carburetor throttle butterfly valve has



PHOTO 4 XM-1 ARMAMENT KIT

reached the full-open position. This becomes critical when operating near full-throttle conditions as the pilot anticipates additional power to be available for control of the aircraft's rate of descent when actually the maximum power available has already been obtained.

This qualitative evaluation determined that the excess power required to terminate a power-approach landing with a zero forward landing speed is the same power as that required to hover at a two-foot skid height. The following plot summarizes power approach landing conditions for a standard day.



Autorotation

The autorotational characteristics of the OH-13H are satisfactory at gross weights up to 2750 pounds. Simulated engine failures and autorotational entries were conducted throughout a power-off rotor speed range of 290 to 370 rotor rpm under all gross weight and altitude conditions. During these tests, no unusual characteristics were noted about any axis of the helicopter.

The rotor decay during a two-second delay before movement of the collective stick after simulated power failure is 60 rotor rpm (355 rpm to 295 rpm). Rotor rpm build-up following application of full-down collective is rapid. RPM control is easy to maintain at rotor rpm's of 320 and above. At rotor rpm's below 320, the aircraft is slow to respond to collective-stick movements.

When entering autorotations at less than 310 rotor rpm, a vertical vibration was encountered at all gross weights. This vertical vibration was attributed to blade stall. In view of this vertical vibration and the accompanying loss of control effectiveness, continuous power-off descents at rotor rpm's below 310 should be avoided. This loss of control effectiveness can be seen in Figure 52, Appendix I.

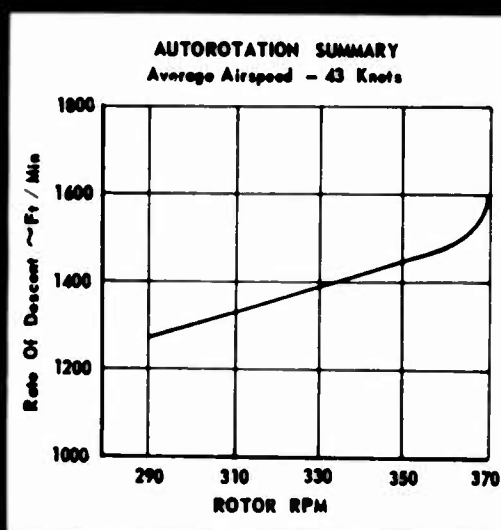
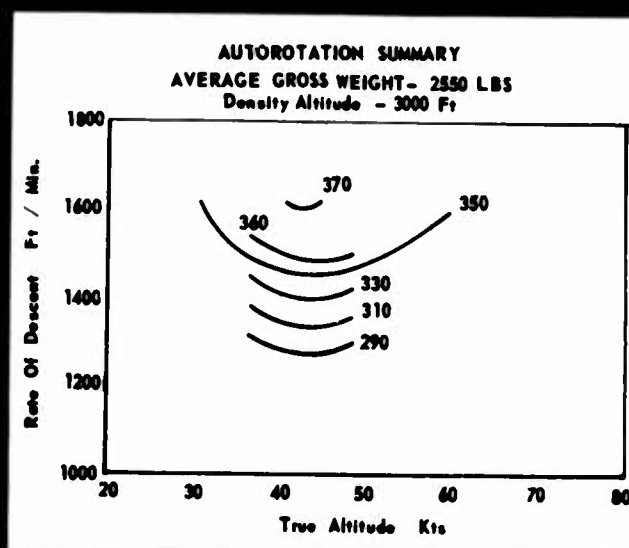
The increased takeoff rotor limit (355 rotor rpm) presented a problem because the present upper power-off rotor rpm (360 rotor rpm) limit may be exceeded during corrective action after power failure. The autorotational characteristics of the aircraft were, therefore, tested at rotor speeds up to 370 rpm. During these tests, no unusual characteristics occurred about any axis of the helicopter. In order to provide for

adequate field operation and use of the higher engine rpm rating, the upper power-off rotor limit should be raised to 370 rotor rpm.

Two major factors which determine power-off descent performance--airspeed and rotor rpm--were quantitatively investigated during autorotational descents. During each descent, rotor rpm and indicated airspeed were held constant as altitude decreased. The results show

that the rates of descent were constant with altitude at rotor rpm's above 310. The minimum rate of descent was 1370 ft/min at 320 rotor rpm for a density altitude of 3000 feet and an average gross weight of 2550 pounds. The results are presented in Figures 41 through 52, Appendix I.

The following figures indicate the autorotational descent performance of the OH-13H.



A quantitative height-velocity (Dead Man's Curve) diagram was not developed during this program. A comparison of the results of a qualitative investigation at 2750 pounds and the minimum altitude for safe autorotational landings

described in AFFTC-TR-57-12 indicates that an additional altitude of approximately 50 feet is required at airspeeds below 30 to 40 knots TAS. The following figure summarizes the qualitative investigation:

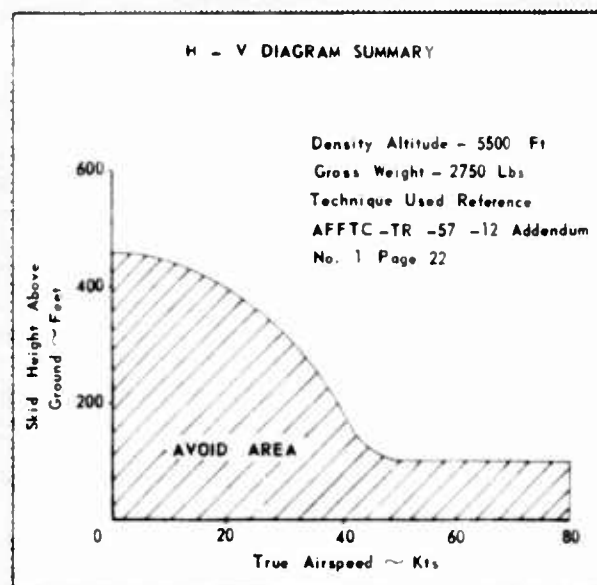


PHOTO 5
FORWARD MOUNTING OF
GROUND - HANDLING WHEELS

At 2750 pounds, 10 knots of forward speed should be maintained during the flare and touchdown to conserve the rotor rpm necessary to cushion the landing.

During all autorotational landings, the ground-handling wheels were mounted on the forward ends of the skids. This location of the wheels aided in preventing the helicopter from rocking excessively forward on the skid tubes and, as a result, requiring a large aft-cyclic displacement during a hard autorotational landing.¹ Complete description of the forward mounting of the ground-handling wheels may be found in Appendix II.

¹ Final Report of Test, Project Nr Avn 1457, "Evaluation of the Relocated Ground-Handling Wheels on the H-13-Type Helicopter," ASTIA No. 209-733.



Airspeed System Calibration

The airspeed system was calibrated in level flight over a measured ground course. Two passes were flown on reciprocal headings at each airspeed to average wind effects.

The results of the boom airspeed system calibration are shown in Figure 70, Appendix I.

The test airspeed system consisted of a boom with a swiveling pitot-static head mounted on the lower right side of the helicopter. This was connected to the sensitive airspeed and altimeter on the test instrumentation panel. During the test program, the ship's airspeed system was deactivated.

Cockpit Evaluation

The overall cockpit arrangement was not evaluated because previous OH-13H Performance Test (AFFTC-TR-57-12) has covered this area. Comments will deal only with the XM-1 armament kit installation.

The locations of all switches and indicating lights installed in connection with the XM-1 armament kit are

satisfactory and do not hinder the normal operation of the OH-13H helicopter.

Because machine-guns are located low and to the rear outside the cockpit, the visibility from the pilot's position is not impeded.

Taxiing

The design of the OH-13H helicopter, because it provides for a skid-type of landing gear, makes taxiing on the ground unfeasible. Normal movement for short distances is accomplished by hovering the helicopter with the skids two to three feet above the ground. Under conditions where the helicopter cannot be hovered, maneuvering is possible by sliding on the skids if the rotor develops sufficient thrust. During the test program, conditions of high density altitude and high gross weights were encountered that limited power available to below that required successfully to slide the skids. Under these conditions, the forward mounting of the ground-handling wheels provided a satisfactory means of ground taxiing the helicopter. A complete description of the forward mounting of the ground-handling wheels may be found in Appendix II.

CONCLUSIONS

The results of the performance tests of the Bell Model OH-13H helicopter with gross weight increases up to 2750 pounds and with the XM-1 armament kit installation revealed an increase in flight performance over the OH-13H Phase IV Performance Test (AFFTC-TR-57-12). This performance increase is limited to the power-on condition and is attributed to the following improvements which have been incorporated since the original report: (1) changes in the intake ducting; (2) installation of the altitude-compensating carburetor; and (3) increase in engine-power limits.

The in-ground-effect (two-foot skid height) hovering ceiling at 2450 pounds is increased 2200 feet to 9600 feet and the in-ground-effect hovering ceiling at 2750 pounds is 6400 feet. The approximate service ceiling for a takeoff gross weight of 2750 pounds at sea level is 11,050 feet. The maximum usable range at the optimum cruise altitude is approximately 201 nautical miles.

The forward cyclic displacement must be carefully programmed during takeoffs that are limited to a two-foot skid height in order to control the nose pitch-up encountered when passing through translational lift.

The vertical vibration and decrease

of control effectiveness encountered during low rotor rpm (below 320 rpm) autorotational descents result in undesirable flight characteristics and should be avoided during continuous power-off descents.

When operating at or near full-throttle conditions, an unsafe condition exists in the throttle-twist grip and carburetor butterfly valves synchronization. This unsafe condition leads the pilot to expect additional power to be obtainable when actually maximum power available has already been achieved.

The ground-handling wheels were located on the forward end of the skid tubes during the entire test program. This configuration aided the pilot in ground taxiing and taking off when there was insufficient power available to hover. During hard autorotational landings, the forward location of the ground-handling wheels prevented the aircraft from excessively rocking forward.²

The XM-1 armament kit installation has negligible effect on OH-13H aerodynamic drag. No actual firing of the armament kits was conducted during this program. A complete analysis of the XM-1 armament kit firing, together with stability and control at increased gross weights, is presented in ATA-TR-63-2 report.

² Final Report of Test, Project Nr Avn 1457, "Evaluation of the Relocated Ground-Handling Wheels on the H-13-Type Helicopter," ASTIA No. 209-733.

RECOMMENDATIONS

A. It is recommended that the following safety-of-flight items be acted upon immediately.

1. The throttle and carburetor butterfly valve synchronization should be improved to eliminate throttle override. A "warning" should be inserted in the Flight Manual in the interim to reflect this condition. (Page 3)
2. When operating under conditions of maximum power during landings, takeoffs, or taxiing, the ground handling wheel support brackets should be installed on the forward ends of the skid tubes of all OH-13 helicopters. (Pages 6, 13 & 14)

B. It is recommended that the following measures be taken immediately to make the helicopter suitable for operation at increased gross weights.

1. The Flight Manual should be revised to reflect the performance data presented in this report.
2. The rotor rpm during hovering maneuvers should be restricted to between 344 and 355. (Page 2)
3. The lower rotor limit should be restricted to 310 rotor rpm when

performing power-off descents. (Page 11)

4. The upper rotor limit should be raised to 370 rpm for power-off landings and continuous power-off descents. (Page 12)
5. Rotor bleed rpm should be restricted during takeoff maneuvers to the range of 355 to 344 rpm when the aircraft is passing through translational lift. (Page 6)
6. A "warning" should be inserted in the Flight Manual dealing with nose pitch-up when passing through translational lift on takeoff. (Page 6)
7. The height-velocity diagram should be revised to include an additional minimum height of 50 feet at airspeeds below 30 knots for a gross weight of 2750 pounds. (Page 13)

C. It is recommended that the following item be corrected to improve service use.

A hydraulic boost should be installed in the collective-pitch control. (Page 8)

APPENDIX I

GRAPHIC TEST RESULTS

**REFERENCES • NOMENCLATURE
DATA ANALYSIS METHODS**

FIGURE No. 1
SUMMARY HOVERING PERFORMANCE
OH-13H SIN 57-6236
LYCOMING O-435-23 ENGINE
344 ROTOR RPM

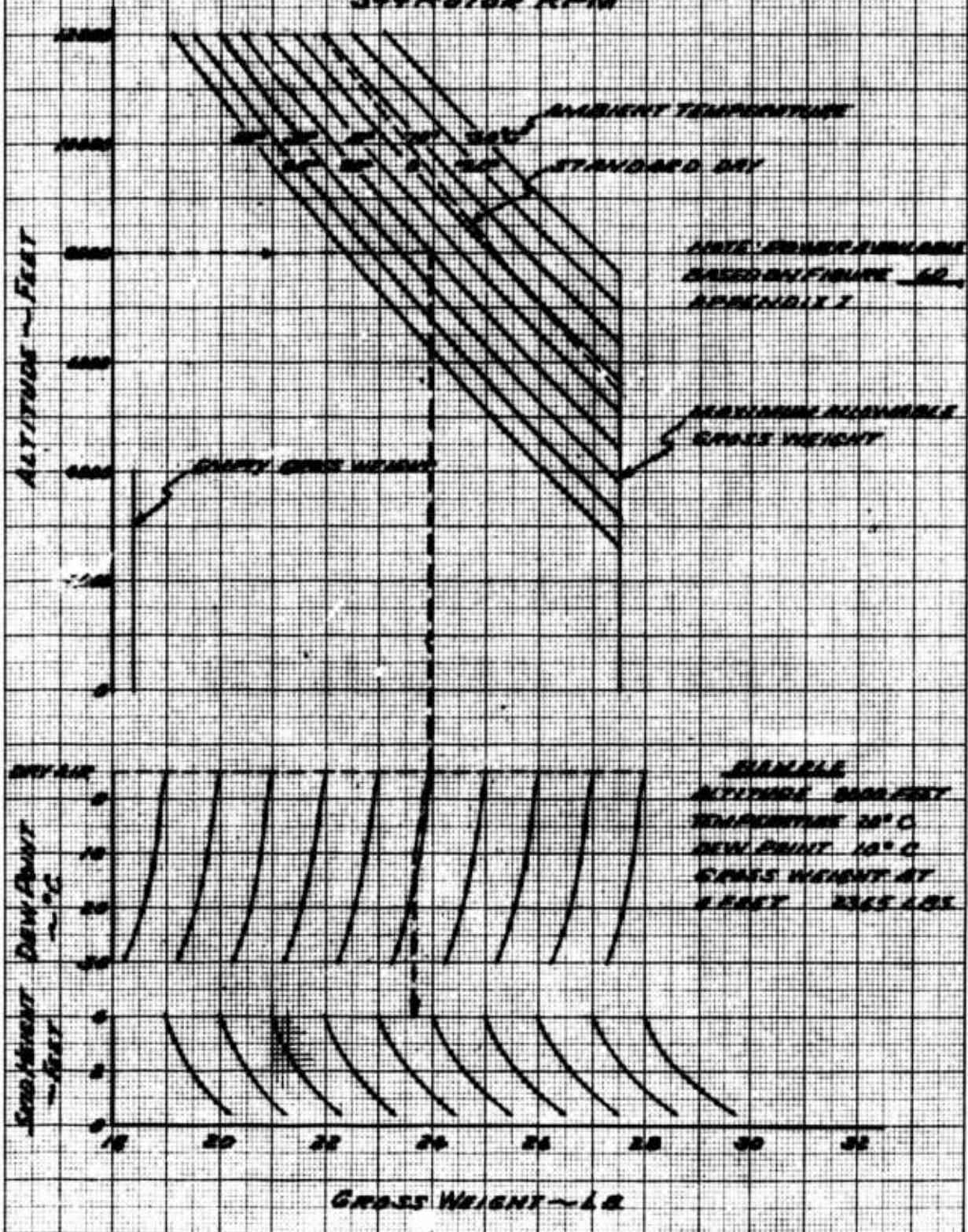


FIGURE No 2
 SUMMARY HOVERING PERFORMANCE
 OH-13H SIN 57-6234
 LYCOMING O-435-23 ENGINE
 355 RPM R.P.M.

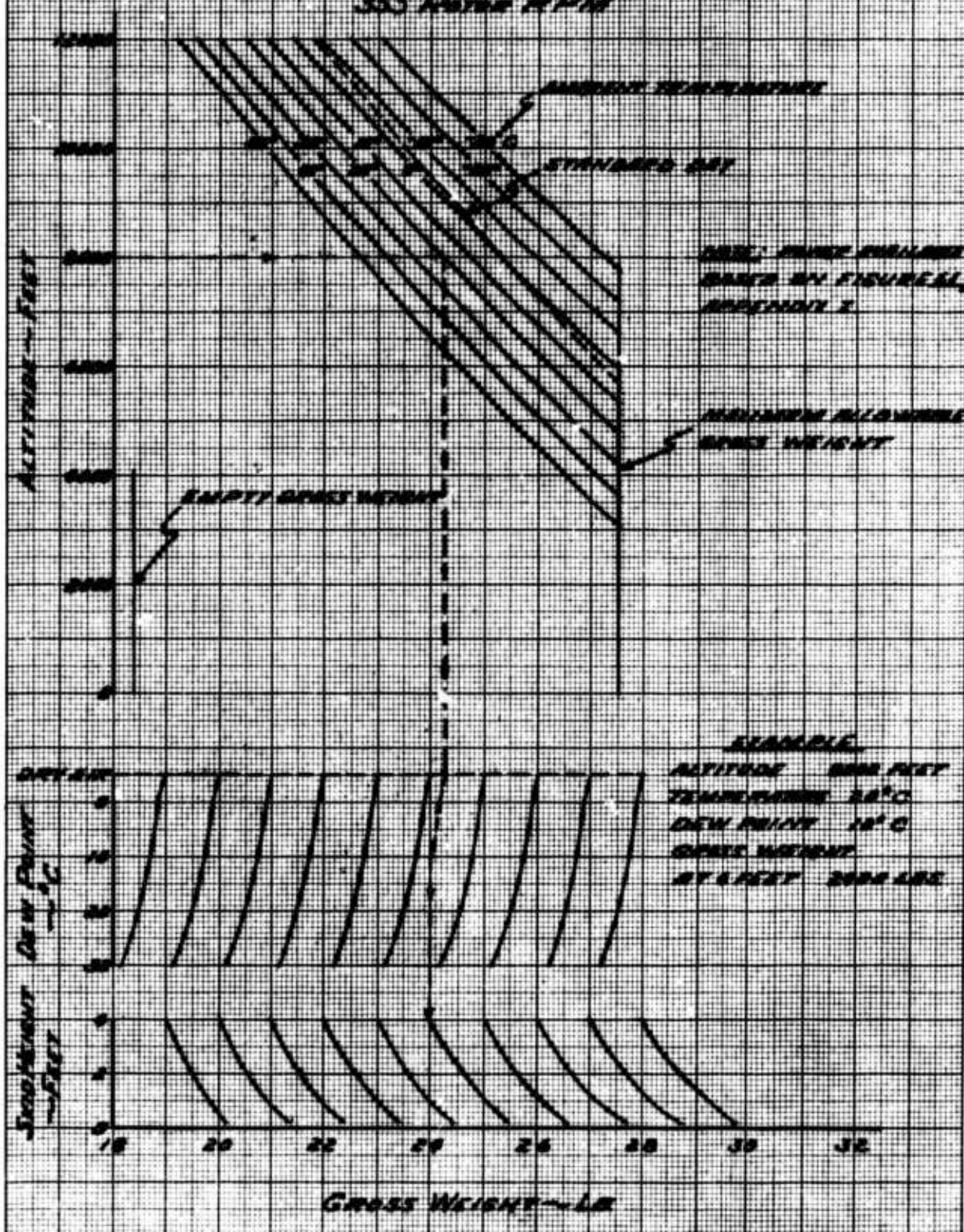


FIGURE No. 4
HOVERING PERFORMANCE
OH-13H S/N 57-6236
LYCOMING O-435-23 ENGINE
384 ROTOR RPM
FREE FLIGHT HOVERING

PRESSURE ALTITUDE: 3570 FT
 C_p (AVG): 0.67416² BASED ON
TEST ENGINE AT FULL THROTTLE
AMBIENT TEMPERATURE: 22°C
TESTS CONDUCTED IN ZERO
WIND.

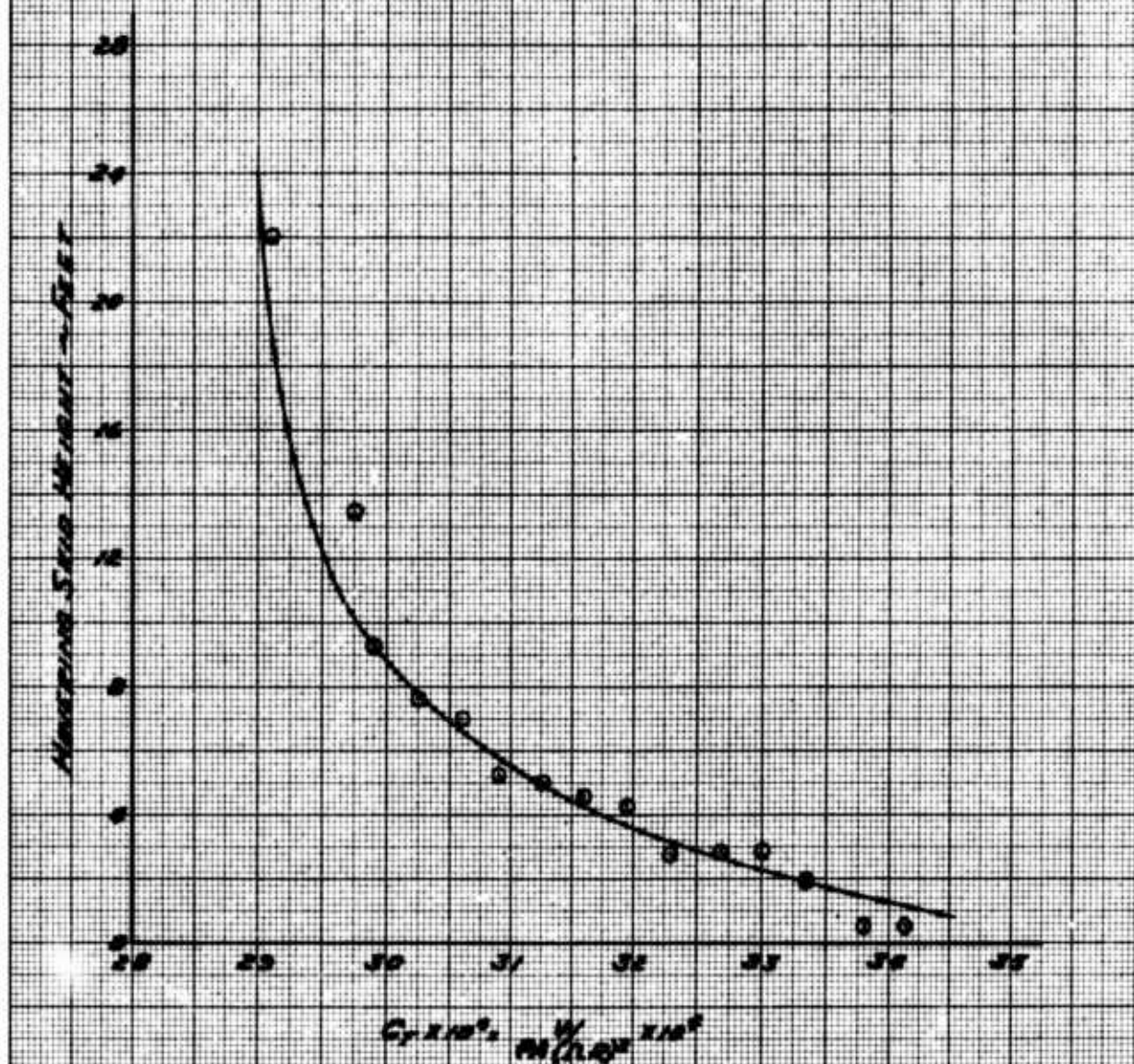


FIGURE No 5
HOVERING PERFORMANCE
OH-13H SN 57-6234
LYONINE G-635-23 ENGINE
368 Rotor RPM
FREE FLIGHT HOVERING

PRESSURE ALTITUDE 1300 FT.
 C_p (AVE) 1.2095×10^{-6} BASED ON
TEST ENGINE AT FULL THROTTLE
AMBIENT TEMPERATURE 12.8°C
TESTS CONDUCTED IN ZERO
WIND.

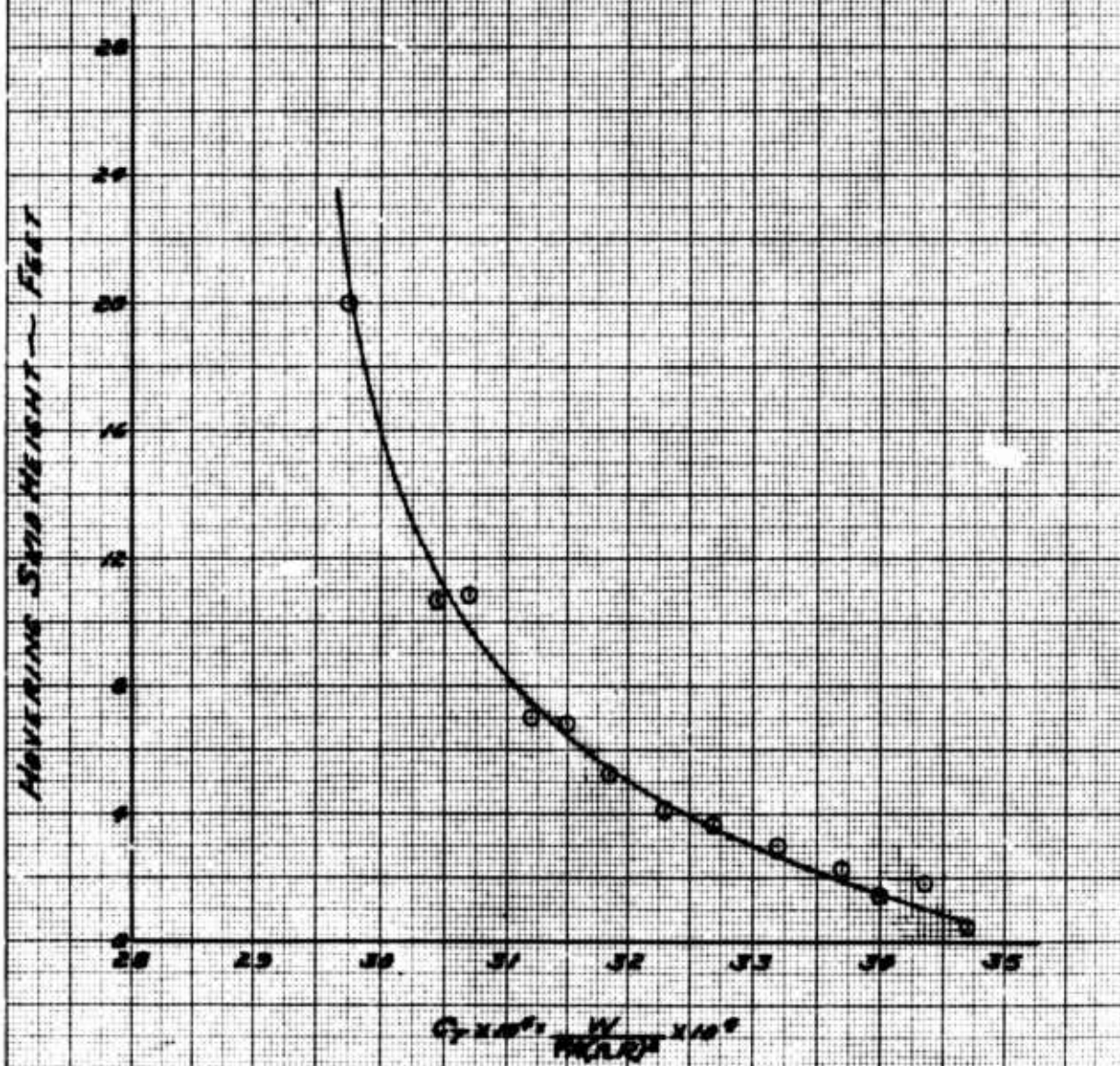


FIGURE No 6
 HOVERING PERFORMANCE
 OH-13H SN 57-6234
 LYNNING 0-435-23 ENGINE
 355 Rotor RPM
 FREE FLIGHT HOVERING

PRESSURE ALTITUDE (FOOT)
 $Q(\text{lb}) = 1.277 \times 10^{-5}$ BASED ON
 TEST ENGINE AT FULL THROTTLE
 AMBIENT TEMPERATURE 60°F
 TESTS CONDUCTED IN ZERO
 WIND

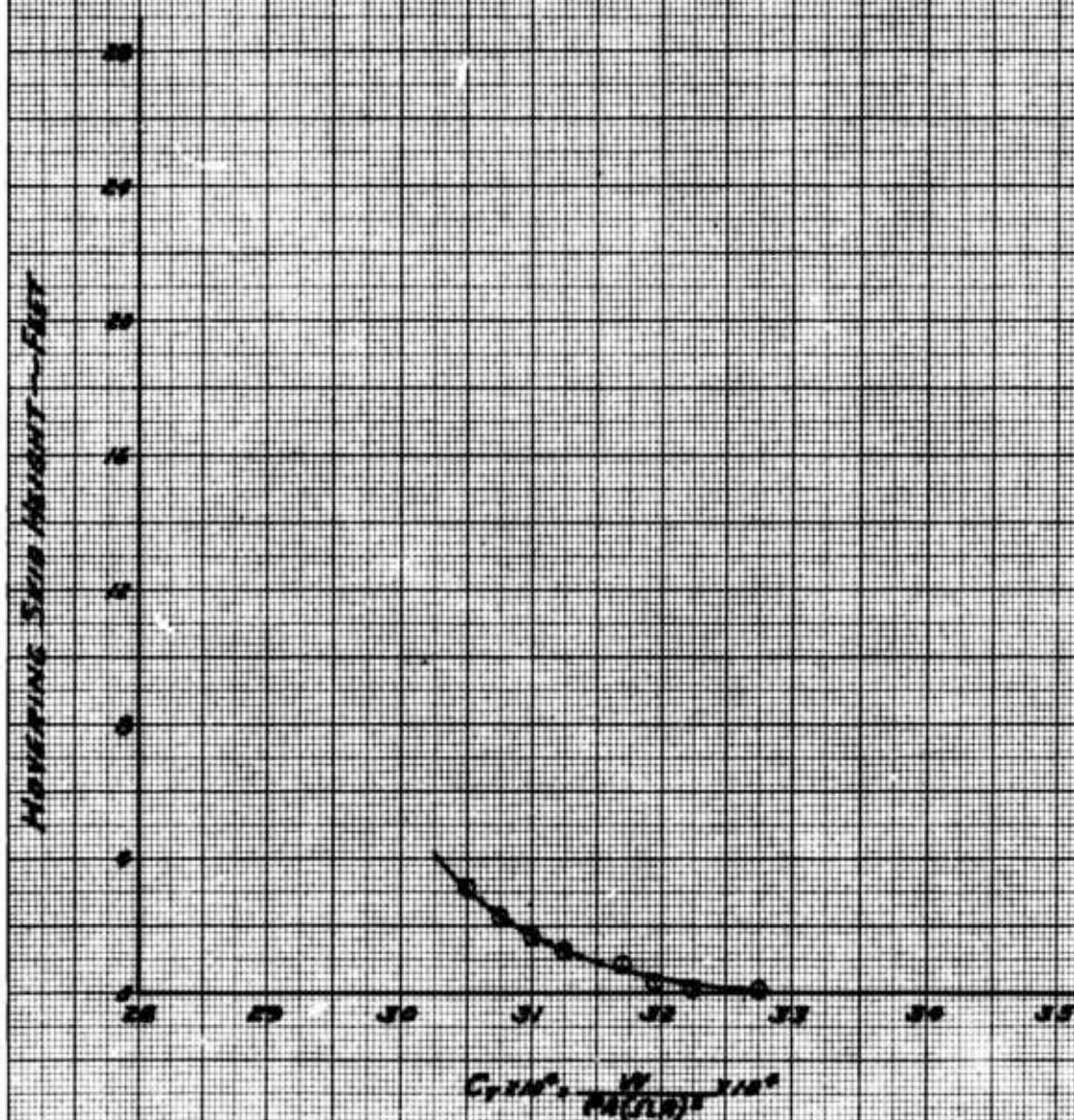


FIGURE No. 7
HOVERING PERFORMANCE
OH-13H S/N 574234
LYCOMING O-435-23 ENGINE
355 ROTOR RPM
FREE FLIGHT HOVERING

PRESSURE ALTITUDE - START
 $C_p (\text{lb}) \times 100 \times 10^{-3}$ BASED ON
TEST ENGINE AT FULL THROTTLE
AMBIENT TEMPERATURE 24°C
TEST CONDUCTED IN ZERO
WIND

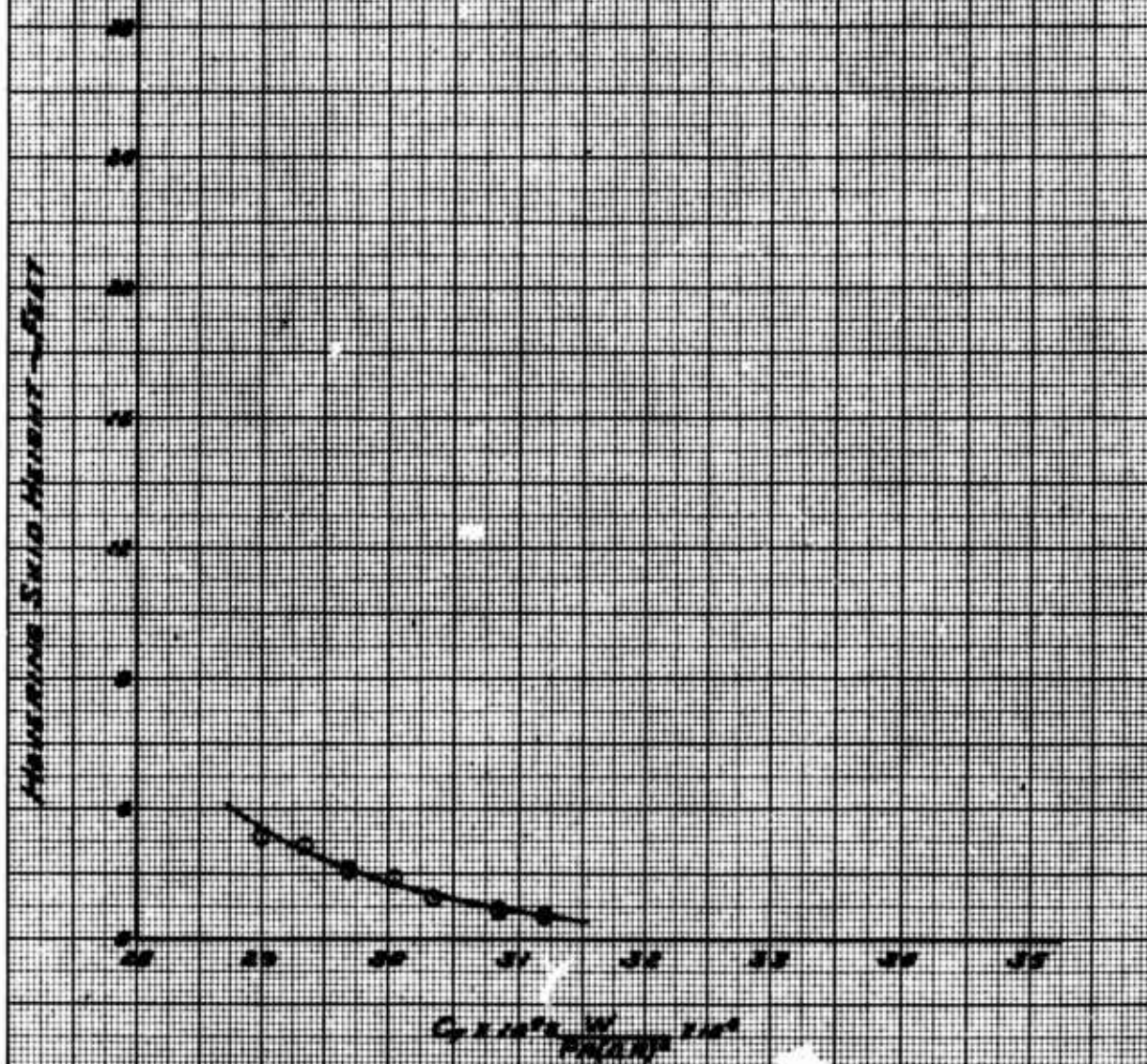


FIGURE No. 8
 TAKE-OFF PERFORMANCE
 OH-13H S/N 57-6230
 LYCOMING O-435-23 ENGINE
 ROTAR BLADE TECHNIQUE FROM 355 To 369 RPM
 GROSS WEIGHT 12550 LB
 TAKE-OFF TRUE AIRSPEED 25 KTS

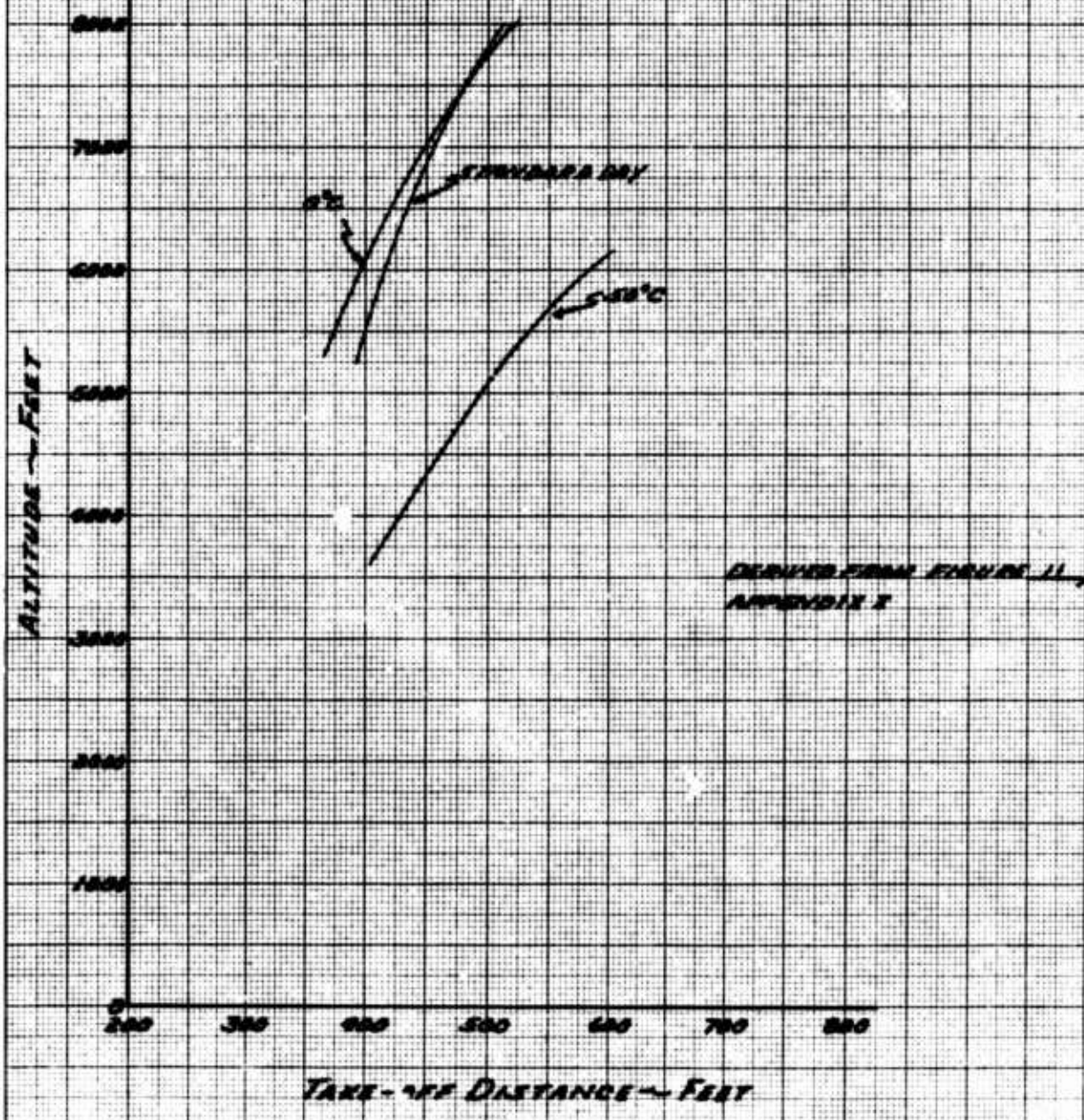


FIGURE No. 3
 TAKE-OFF PERFORMANCE
 OV-10A S/N 57-6236
 LYCOMING O-435-23 ENGINE
 RETAR BLEED TECHNIQUE FROM 355 TO 340 RPM
 GROSS WEIGHT 12,000 LB.
 TAKE-OFF TIME 11.0 SECS
 25 KTS

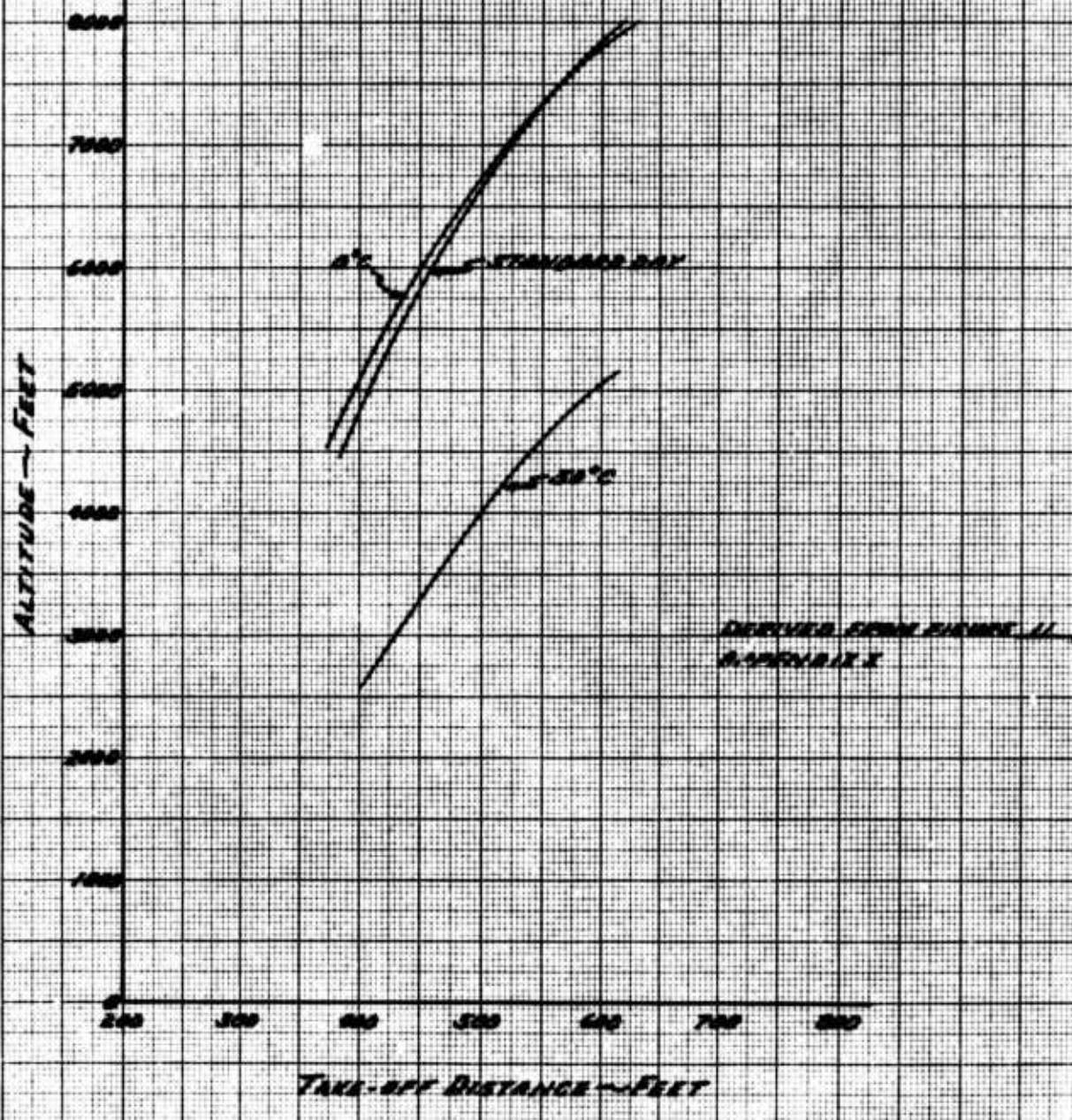
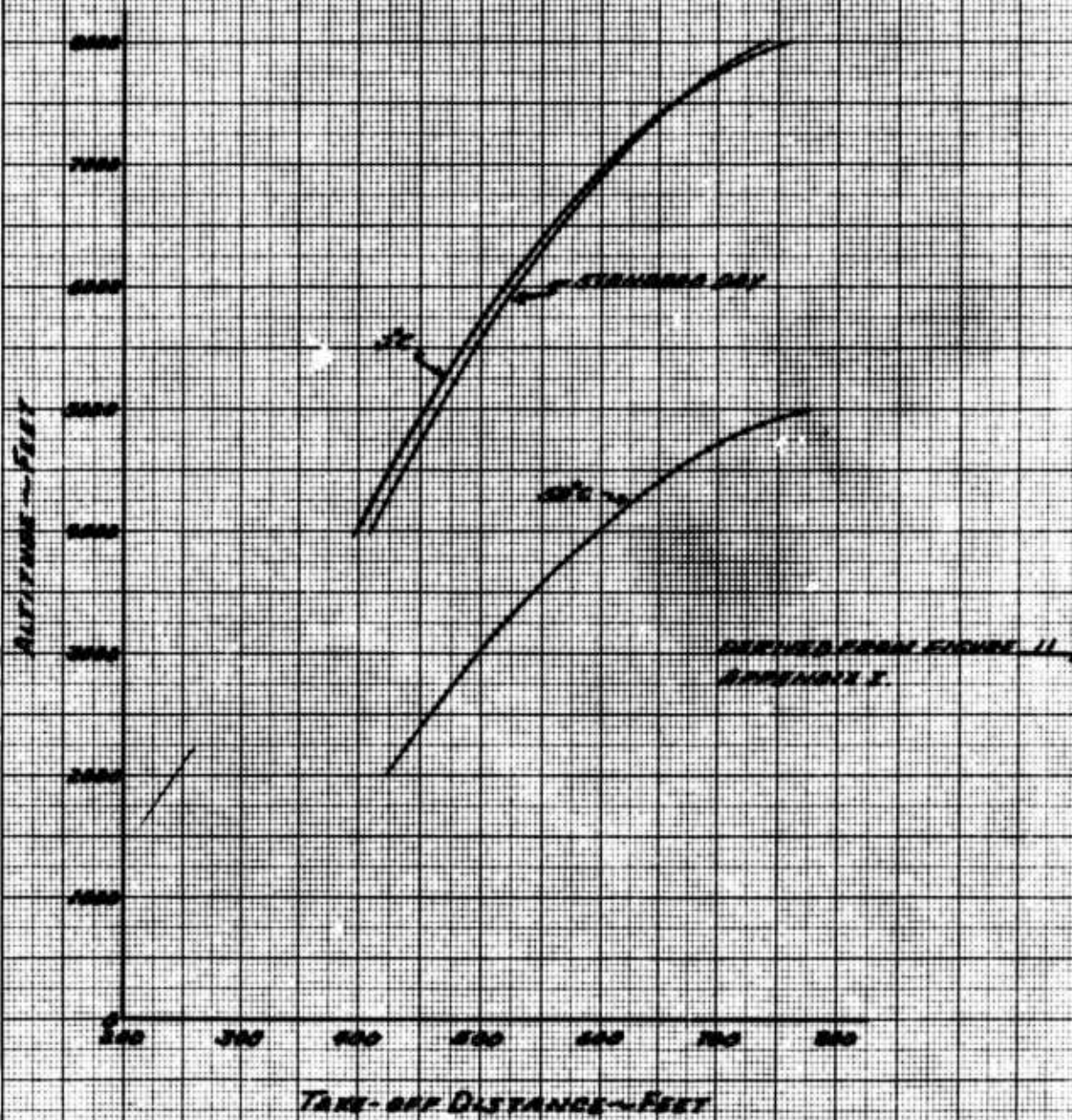


FIGURE 10-10
 TAKE-OFF PERFORMANCE
 OH-13H SN574234
 LYCOMING O-435-23 ENGINE
 ROTOR BLEED TECHNIQUE FROM 255 TO 260 R.P.M.
 GROSS WEIGHT 2750 LB
 TAKE-OFF TIME 10.00 MIN
 10.00



1000 900 800 700 600 500 400 300 200 100 0

LYCOMING O-435-23 ENGINE
RATED 2150 RPM FROM 355 TO 364 RPM

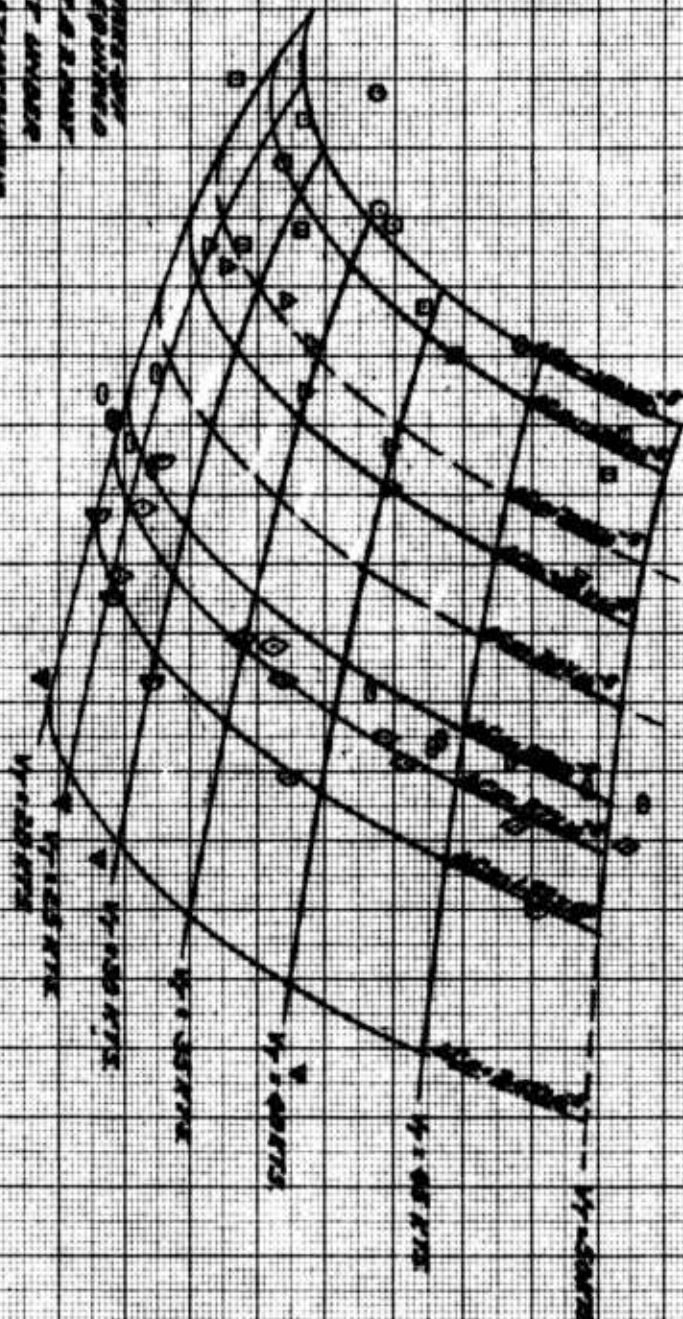
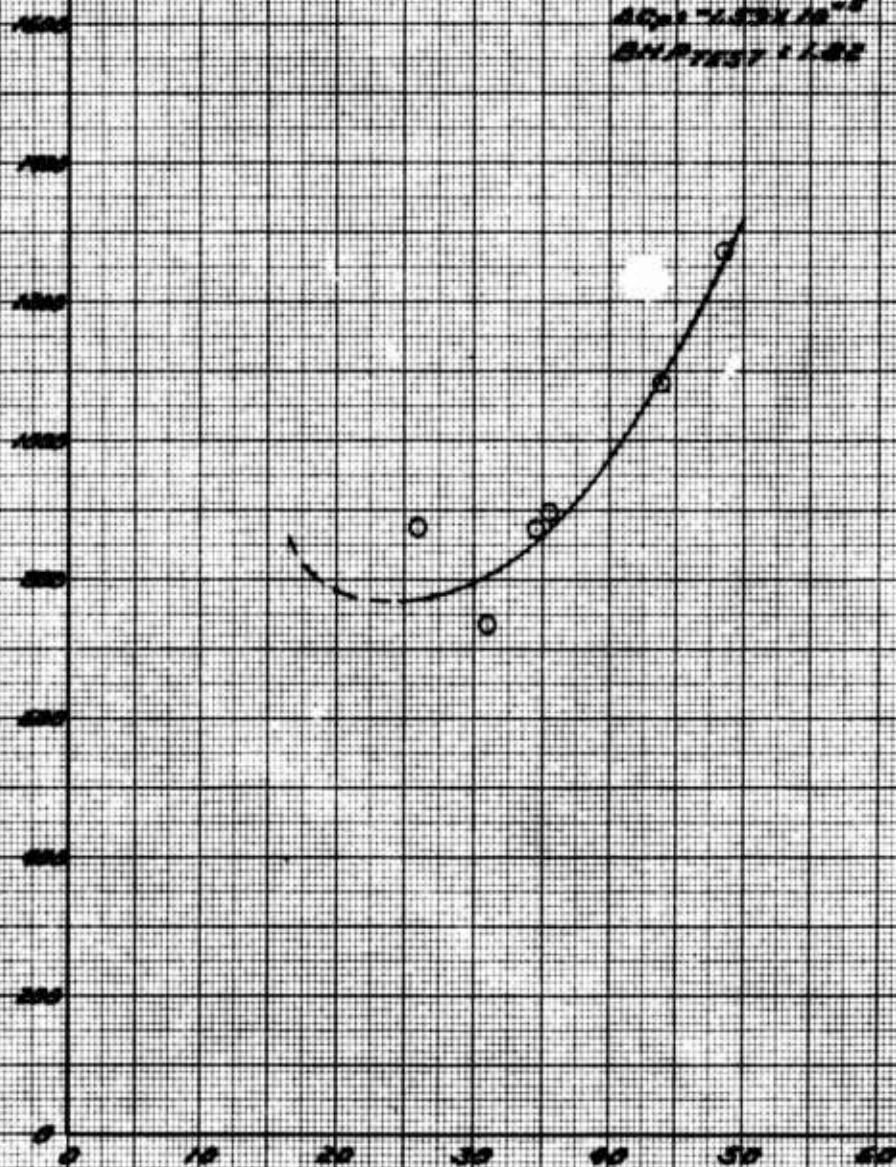


FIGURE No 12
 TAKE-OFF DISTANCE REQUIRED
 OH-13H SIN 57-6234
 LYCOMING O-435-23 ENGINE
 355 Rotor RPM
 TECHNIQUE: ROTOR BLEED
 FROM 355 TO 344 RPM

WHEEL WEIGHT: 2.2 PER LB
 DENSITY ALTITUDE: 5500 FT
 $AC_{10} = 1.53 \times 10^{-5}$
 BNPT57 = 1.82

TOTAL DISTANCE REQUIRED TO CLIMB A 50 FOOT OBSTACLE - FEET



TRUE AIRSPEED DURING CLIMB - KNOTS

FIGURE A6-13
 TAKE-OFF DISTANCE REQUIRED
 ON ILS/51V 57-4234
 LANDING GEAR 2.5 TON
 35% PERFORMANCE
 Transition from 300
 From 355 to 300 RPM

WHEEL WEIGHT 1.2 TON
 DENSITY ALTITUDE 5000 FT
 60% 1.22×10^{-3}
 SH P 1000-1000

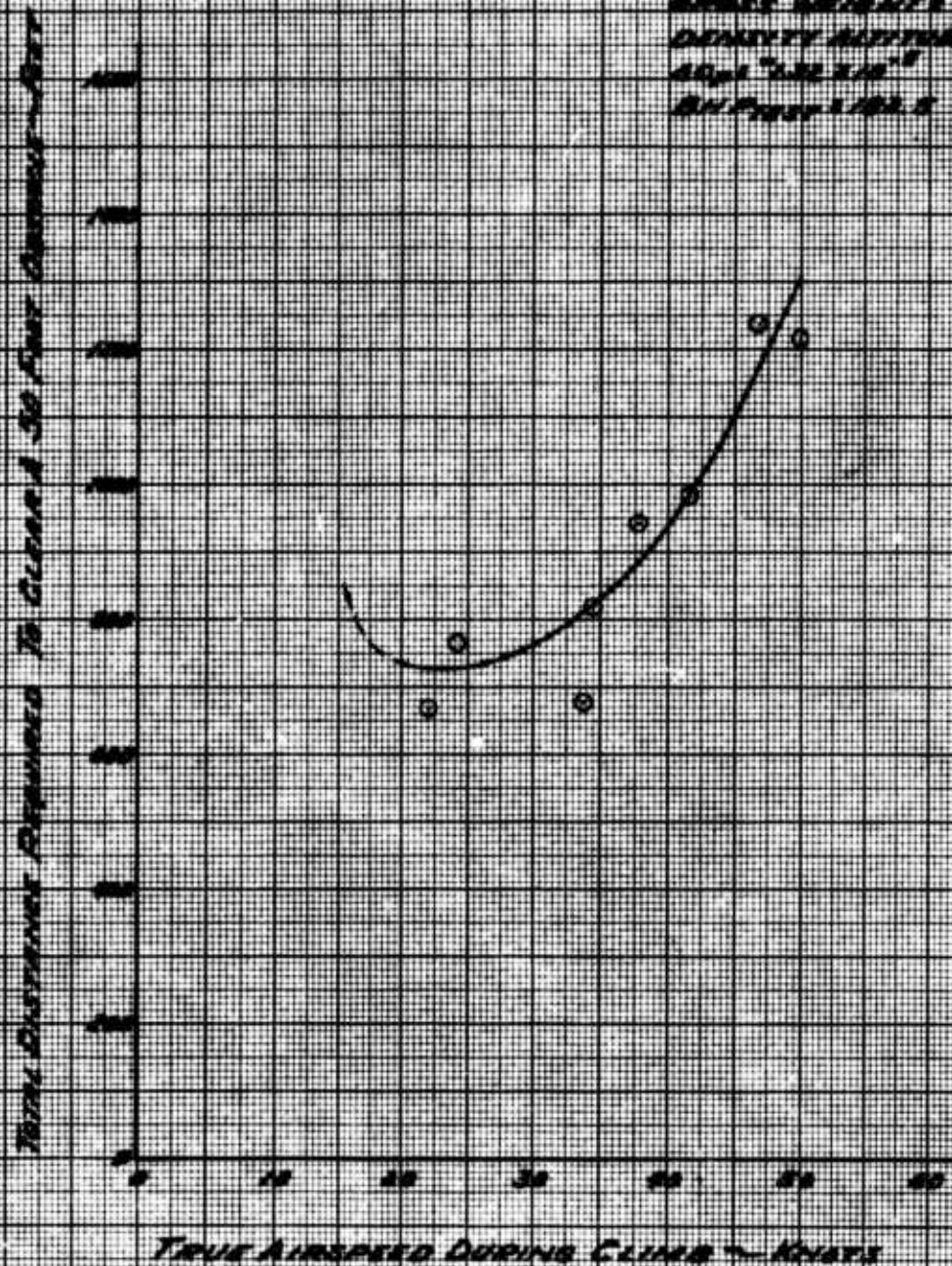


FIGURE No 19
 TAKE-OFF DISTANCE REQUIRED
 OH-13H SIN 57-6239
 LYONING O-435-2 ENGINE
 355 Rotor RPM
 TECHNIQUE ROTOR BLEED
 FROM 355 To 394 RPM

Total Distance Required To Clear A 50 Foot Obstacle - Feet

GROSS WEIGHT 12600 LB
 DENSITY ALTITUDE 6800 FT
 ACP 1.06X10⁻⁵
 BNPT 571182

TRUE AIRSPEED DURING CLIMB - KNOTS

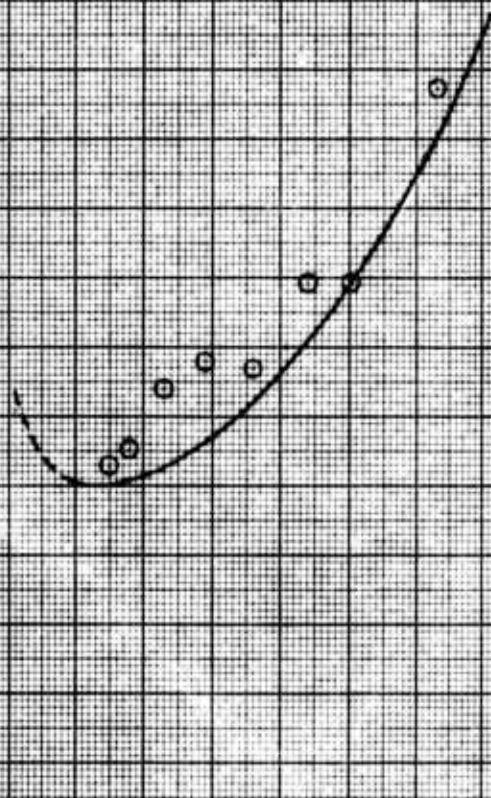


FIGURE No. 15
 TAKE-OFF DISTANCE REQUIRED
 OH-13H SN 57-62-36
 LYNNING D-935-23 ENGINE
 355 ROTOR RPM
 TECHNIQUE: ROTOR BLEED
 FROM 355 TO 300 RPM

WIND HEIGHT: 10200 LB
 DENSITY ALTITUDE: 5000 FT
 $\rho = 1.225 \times 10^{-3}$
 ROTOR RPM: 355

Total Distance Required To Clear A 50 Foot Obstacle - Feet

True Airspeed During Climb - Knots

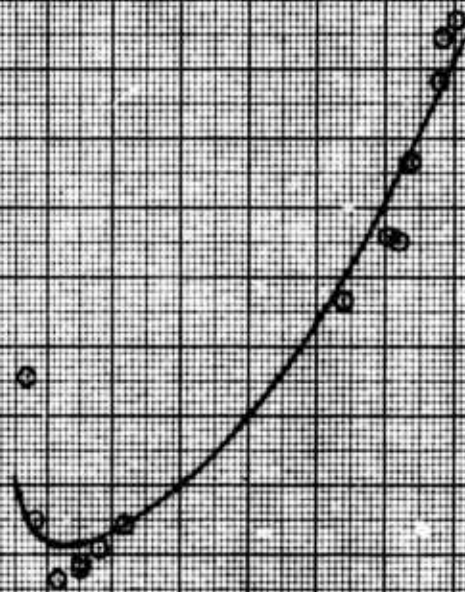


FIGURE No 16
 TAKE-OFF DISTANCE REQUIRED
 OH-13H SN 57-6239
 LYONING O-433-R3 ENGINE
 355 ROTOR RPM
 TECHNIQUE: ROTOR BLEED
 FROM 355 TO 304 RPM

GROSS WEIGHT - 2565 LB.
 DENSITY ALTITUDE - 6220 FT.
 ACPL - 87×10^{-5}
 CNP TEST 1189

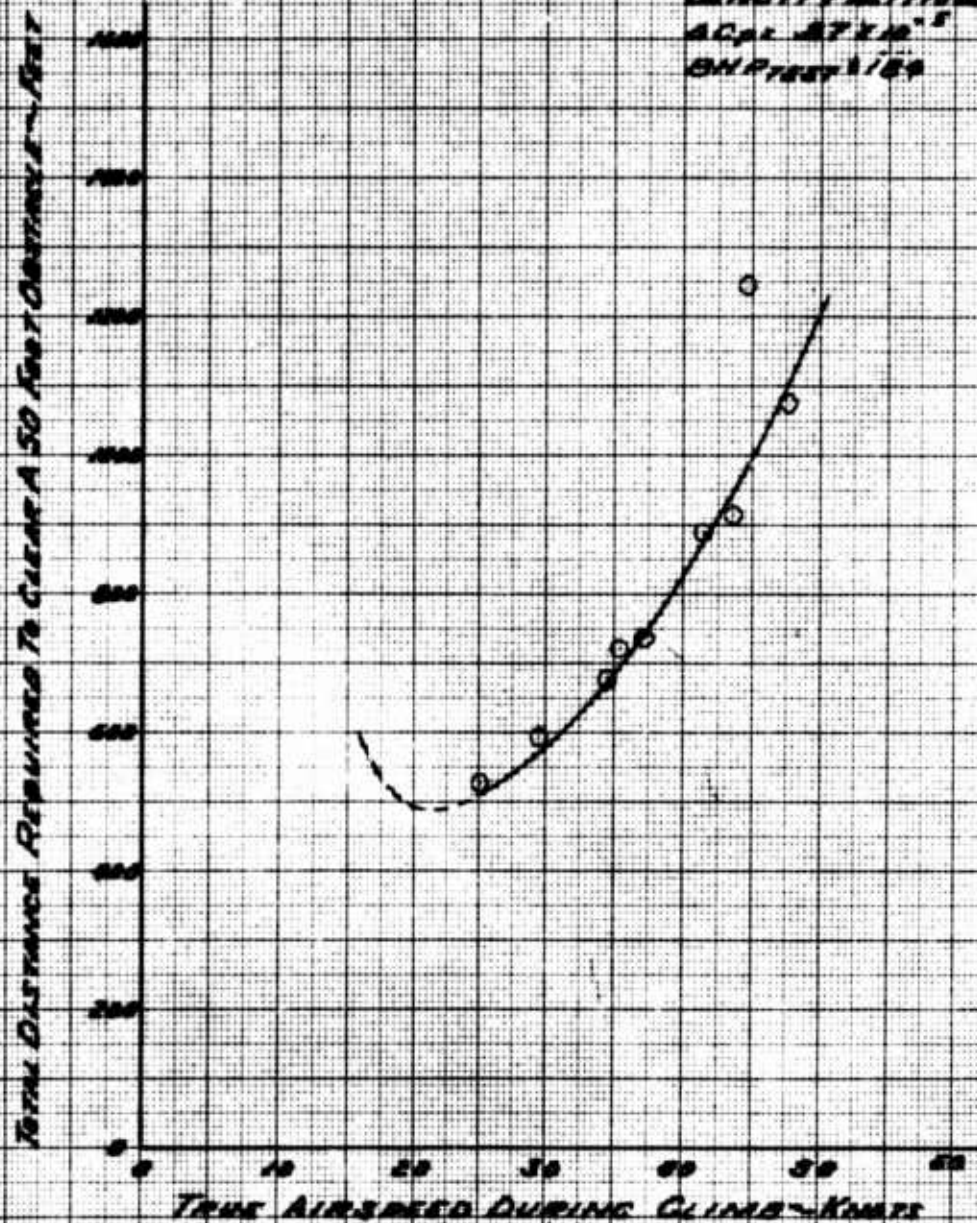


FIGURE No. 17
 TAKE-OFF DISTANCE REQUIRED
 OH-13H S/N 574234
 LYCOMING O-435-23 ENGINE
 355 ROTOR RPM
 TECHNIQUE: ROTOR BLEED
 FROM 355 TO 360 RPM

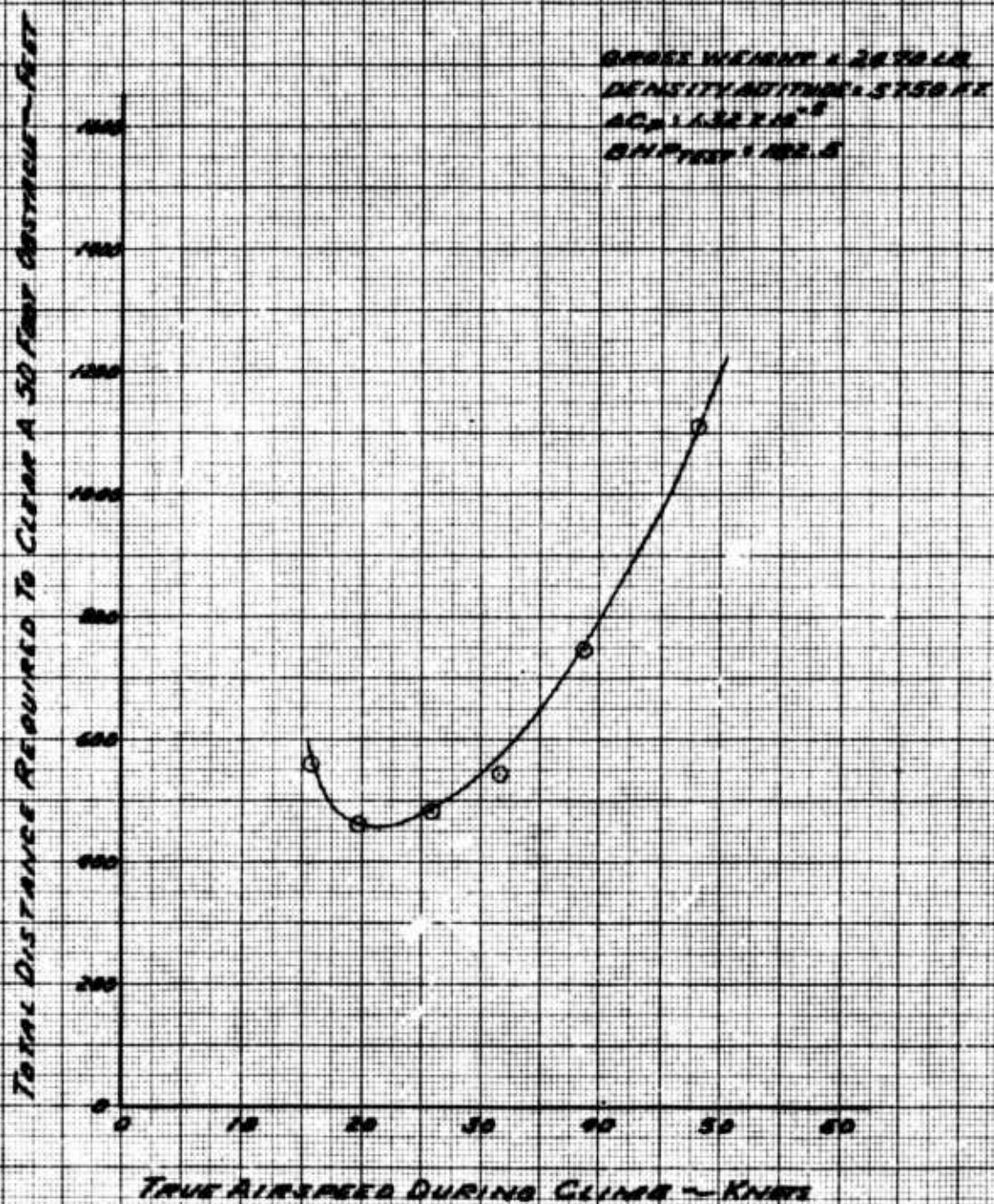
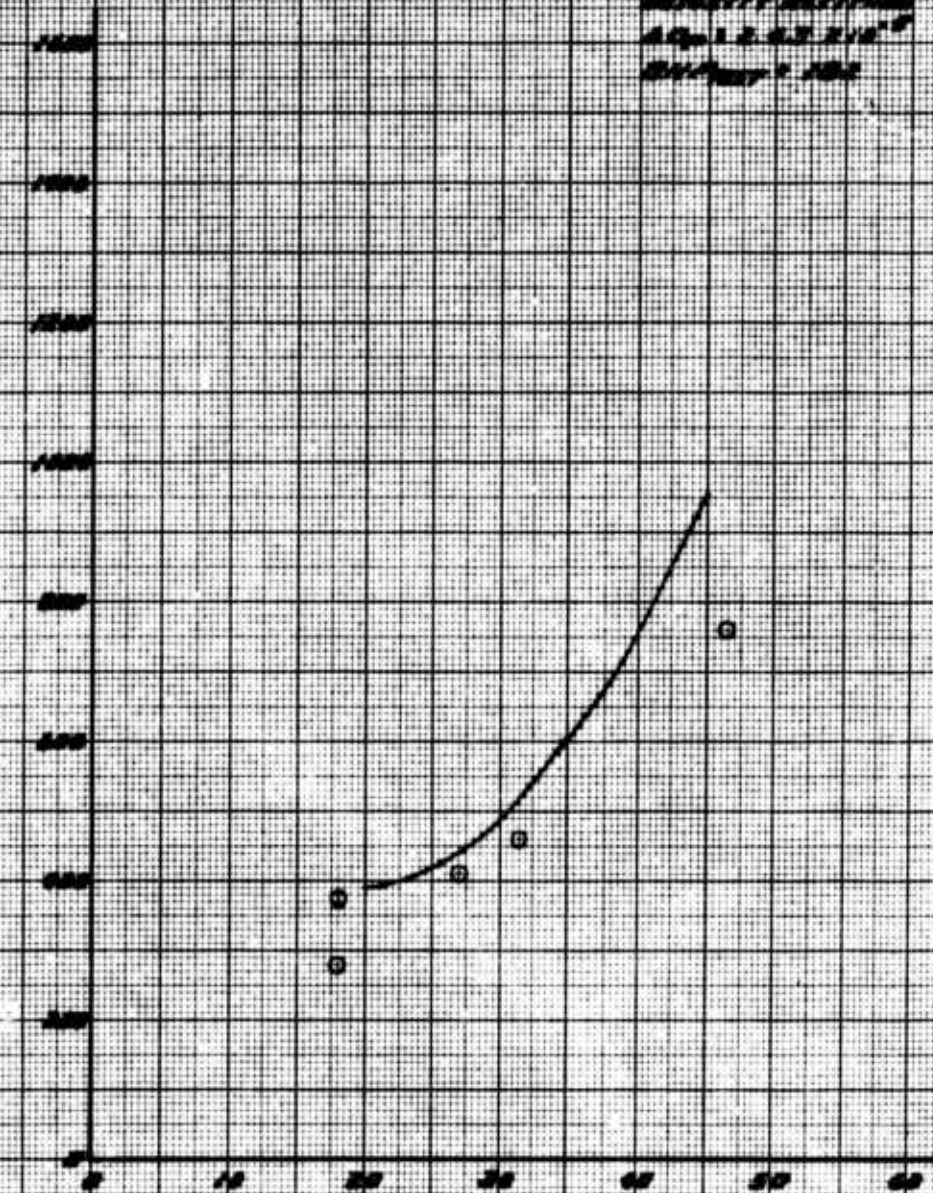


FIGURE No. 18
 TAKE-OFF DISTANCE REQUIRED
 OH-13H SN 57-6238
 LANDING G-935-23 ENGINE
 355 PITCH RPM
 TECHNIQUE: RAMP CLIMB
 FROM 355 TO 305 RPM

REPORT NUMBER: 1-50-118
 DENSITY ALTITUDE: 10000 FT
 AQ: 1.2-0.3-1.15
 SN: 100

TOTAL DISTANCE REQUIRED TO CLEAR A 50 FOOT OBSTACLE - FEET



TRUE AIRSPEED DURING CLIMB - KNOTS

FIGURE No 19
CLIMB PERFORMANCE
OH-13H S1N576236
LYCOMING O-435-23 ENGINE
MAXIMUM CONTINUOUS POWER
3400 RPM
CLEAN CONFIGURATION
STANDARD DAY

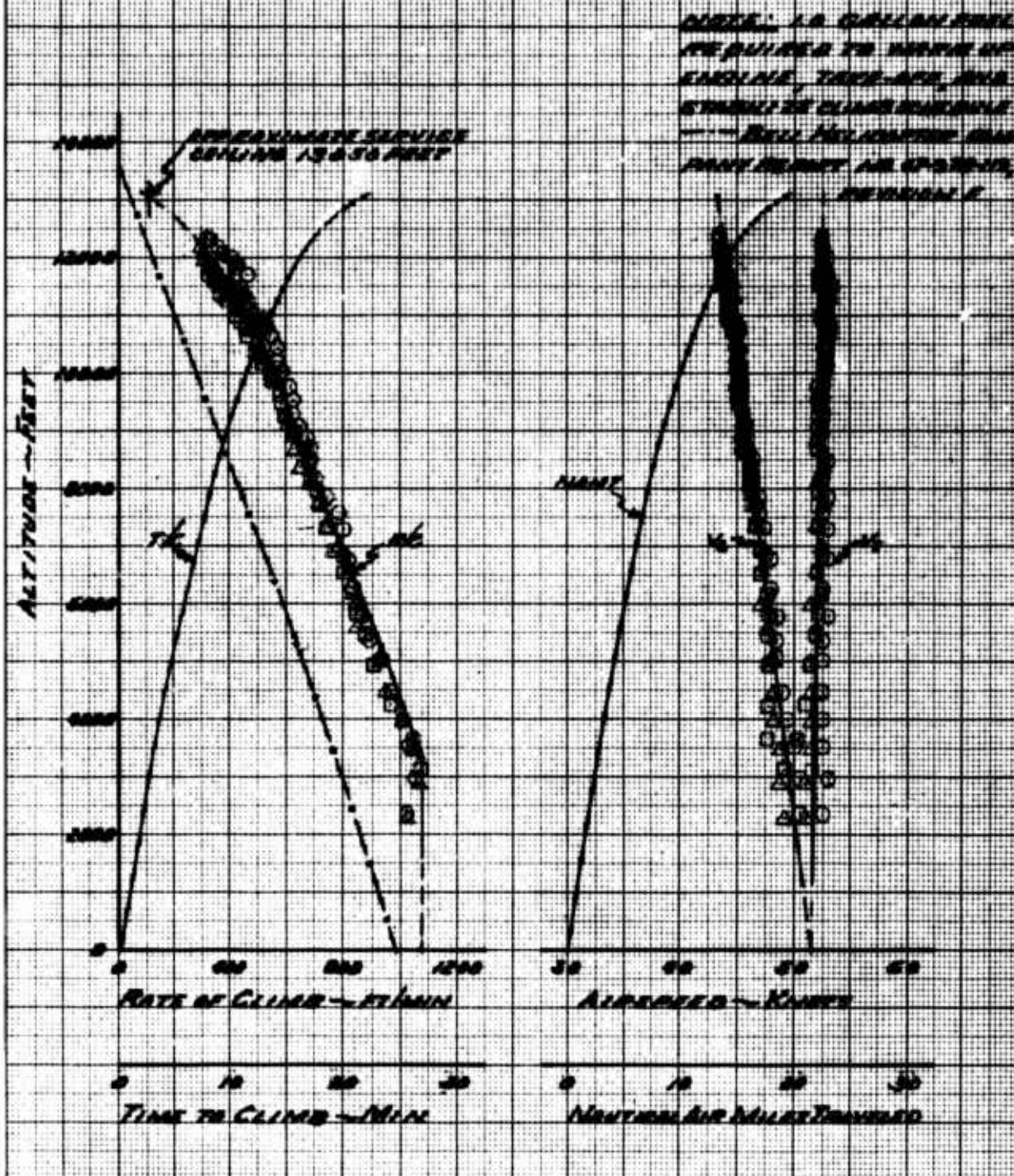


FIGURE No 19 (CONT)

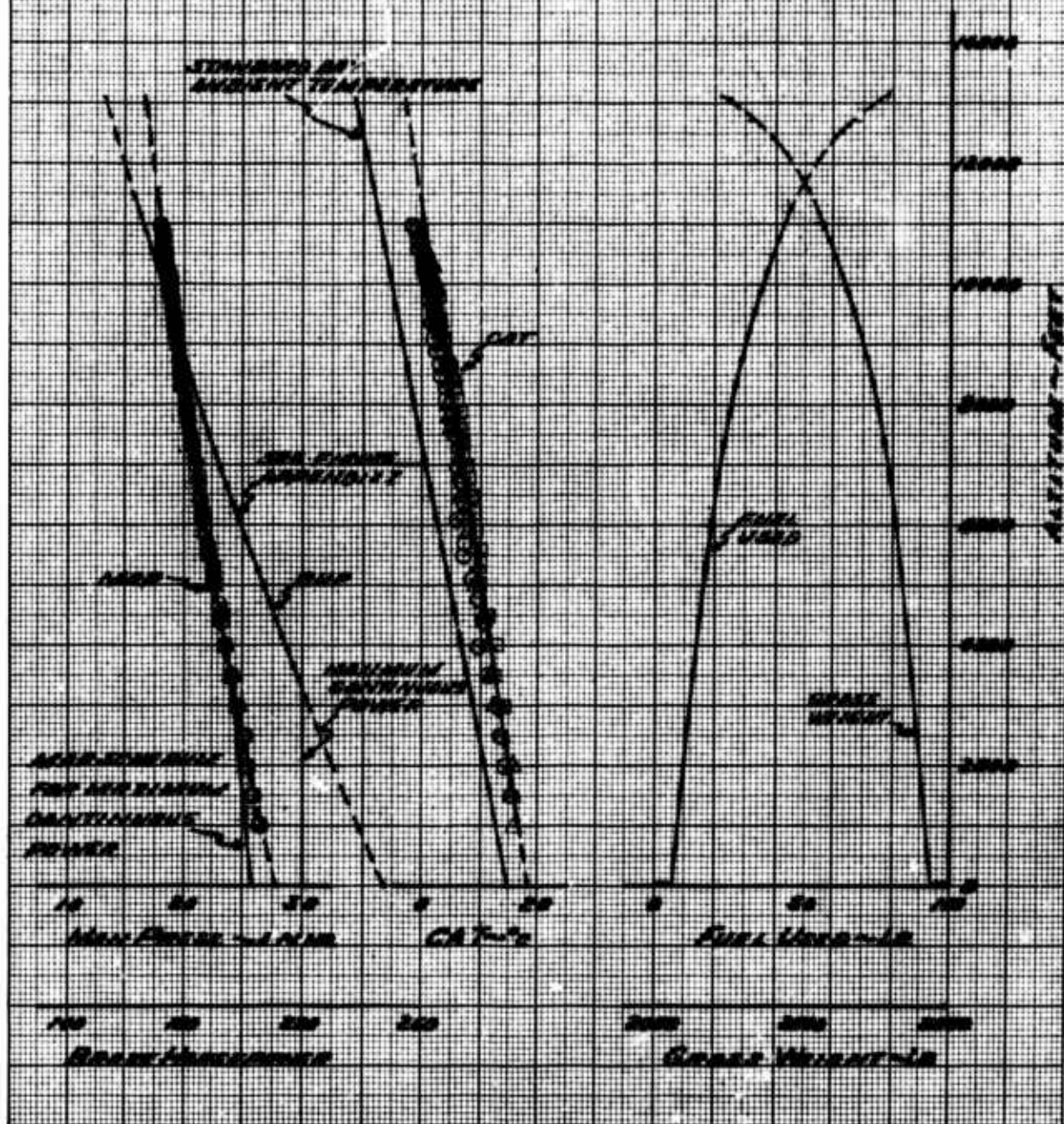


FIGURE 16-20
CLIMB PERFORMANCE
QUINCY SIN 57-6236
LORAN 0-835-236-1000
MAXIMUM CONTINUOUS POWER
322 RPM
CLEAN CONFIGURATION
STANDARD DAY

NOTE: AIRCRAFT FUEL
REQUIRED TO REACH AN
EASING TIME, AND
STANDARD DAY SCHEDULE

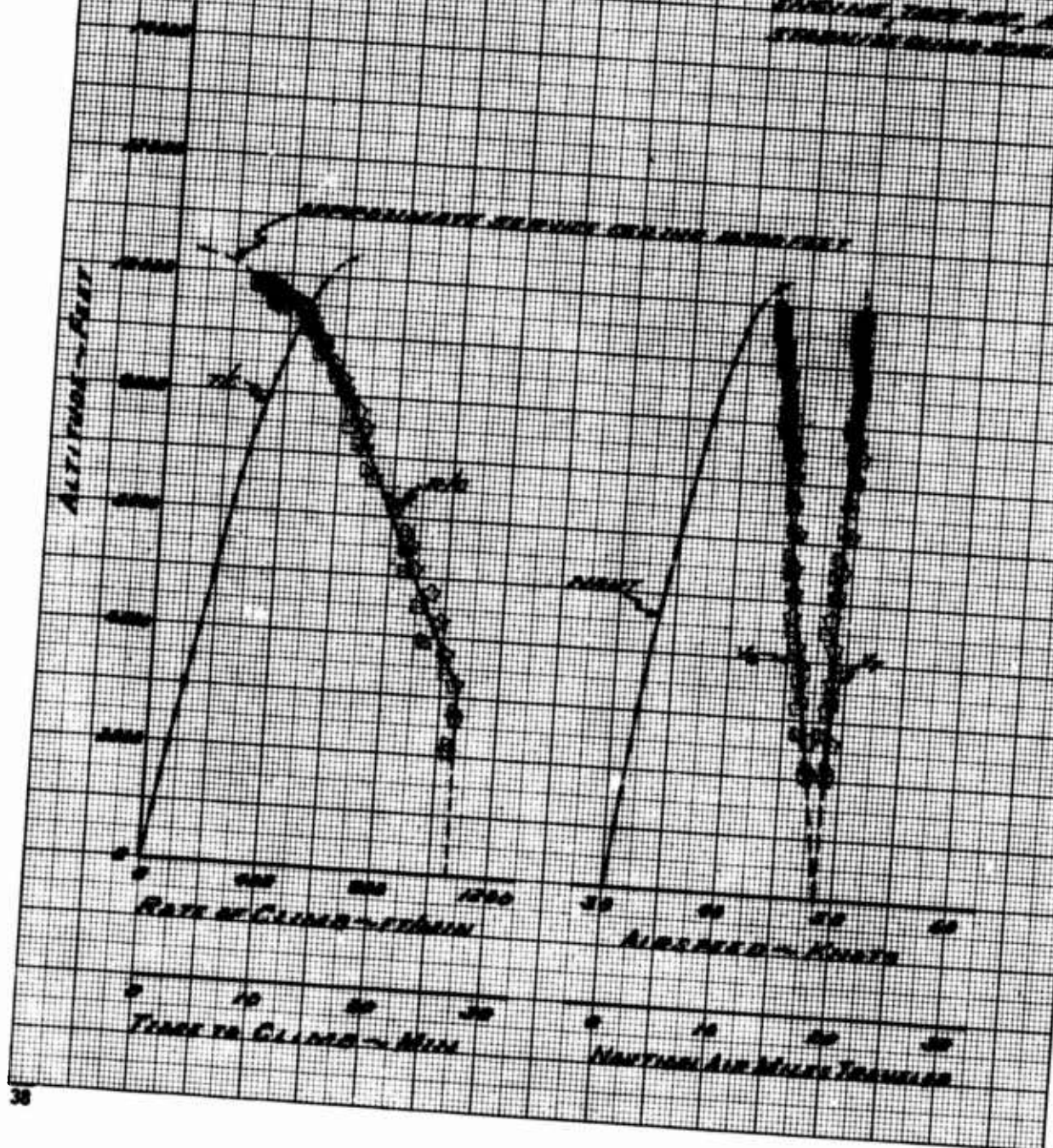


FIGURE No 20 (Cont)

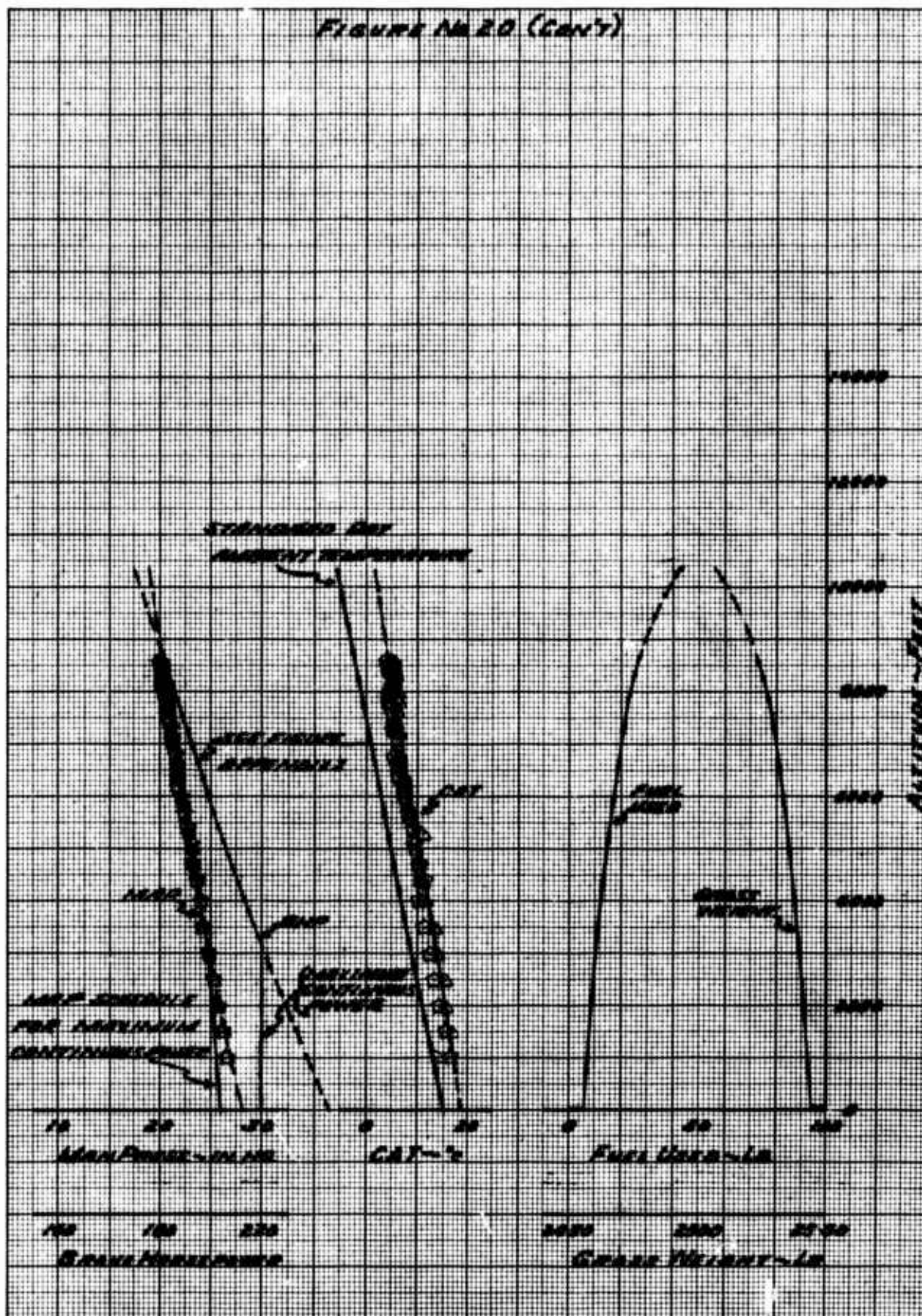


FIGURE No 21
CLIMB PERFORMANCE
OH-13H SN 57-6230
LYCOMING O-435-23 ENGINE
MAXIMUM CONTINUOUS POWER
300 RPM R.P.M.
CLEAN CONFIGURATION
STANDARD DAY

BASED 1.0 GALLON FUEL
REQUIRED TO WARM UP
ENGINE, TAKE-OFF, AND
STABILIZE CLIMB RATE
— BEILWEI REPORT
CURRENT REPORT FOR
67-578-118, REVISION 1

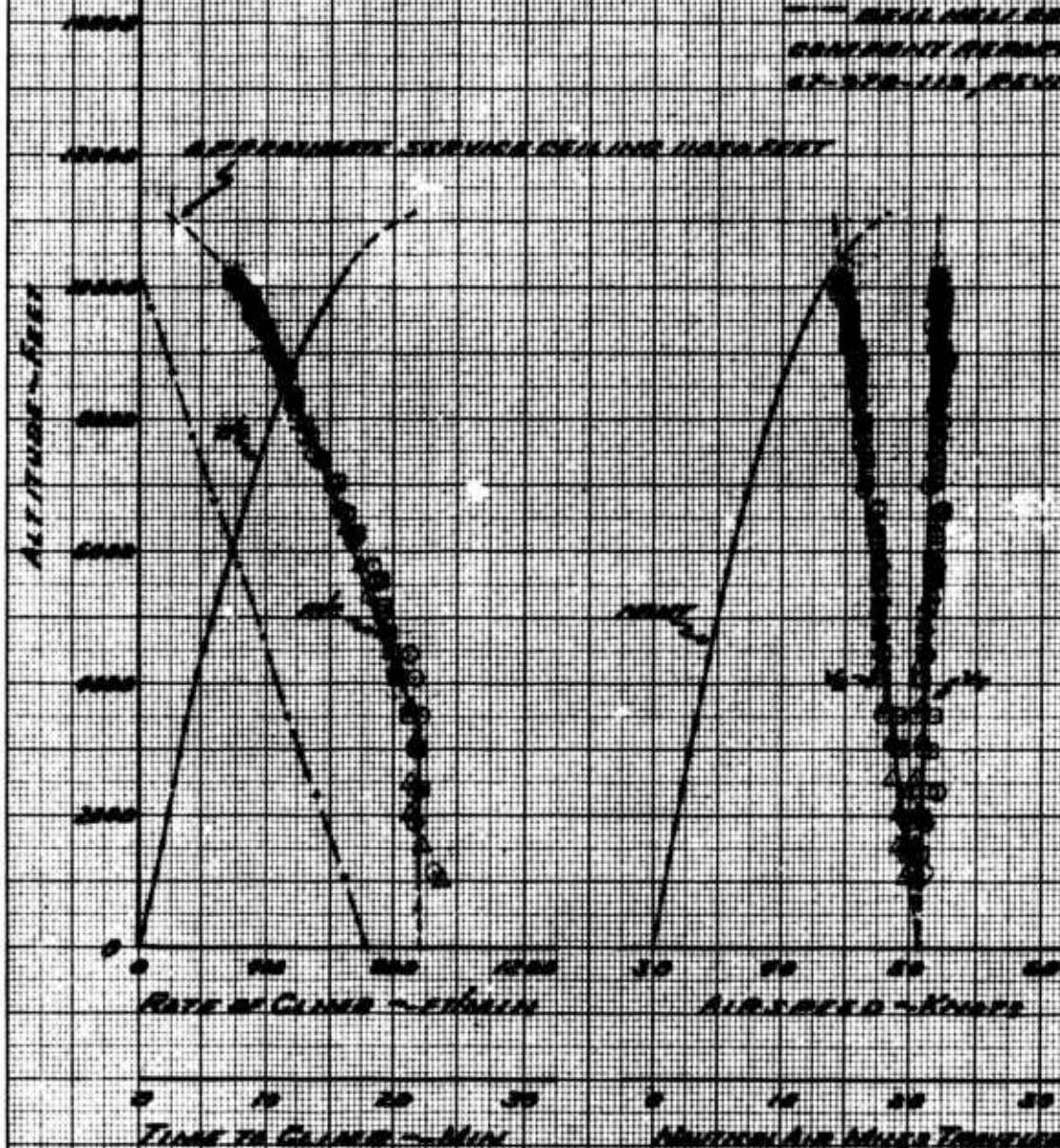


FIGURE No 21 (Cont)

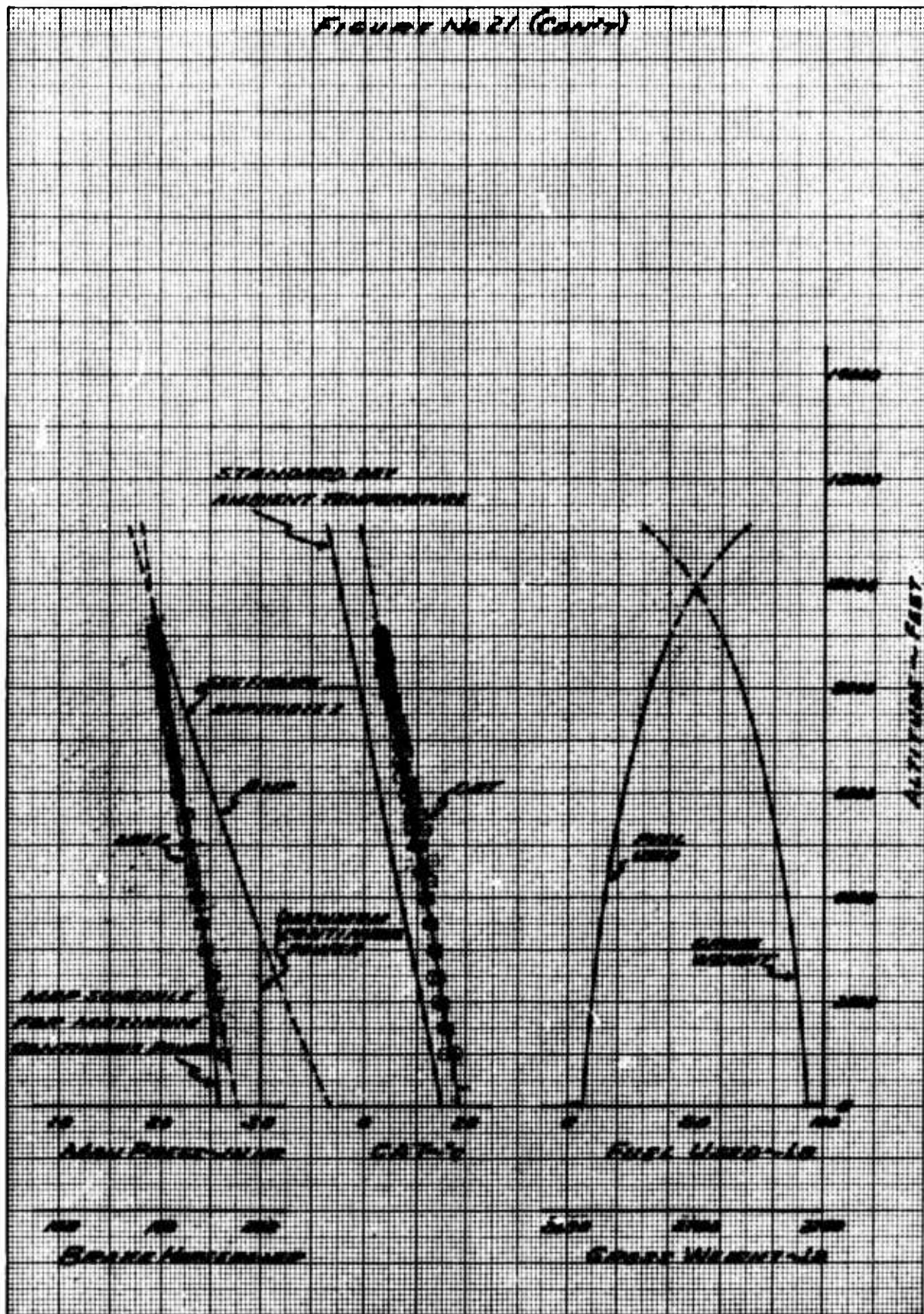


FIGURE No 22
CLIMB PERFORMANCE
OH-13H SIN57-6239
LYCOMING O-435-23 ENGINE
MAXIMUM CONTINUOUS POWER
322 RPM
CLEAN CONFIGURATION
STANDARD DAY

NOTE: 10 GALLONS FUEL
REQUIRED TO WARM UP
ENGINE, TAKE-OFF, AND
STABILIZE CLIMB PROFILE.

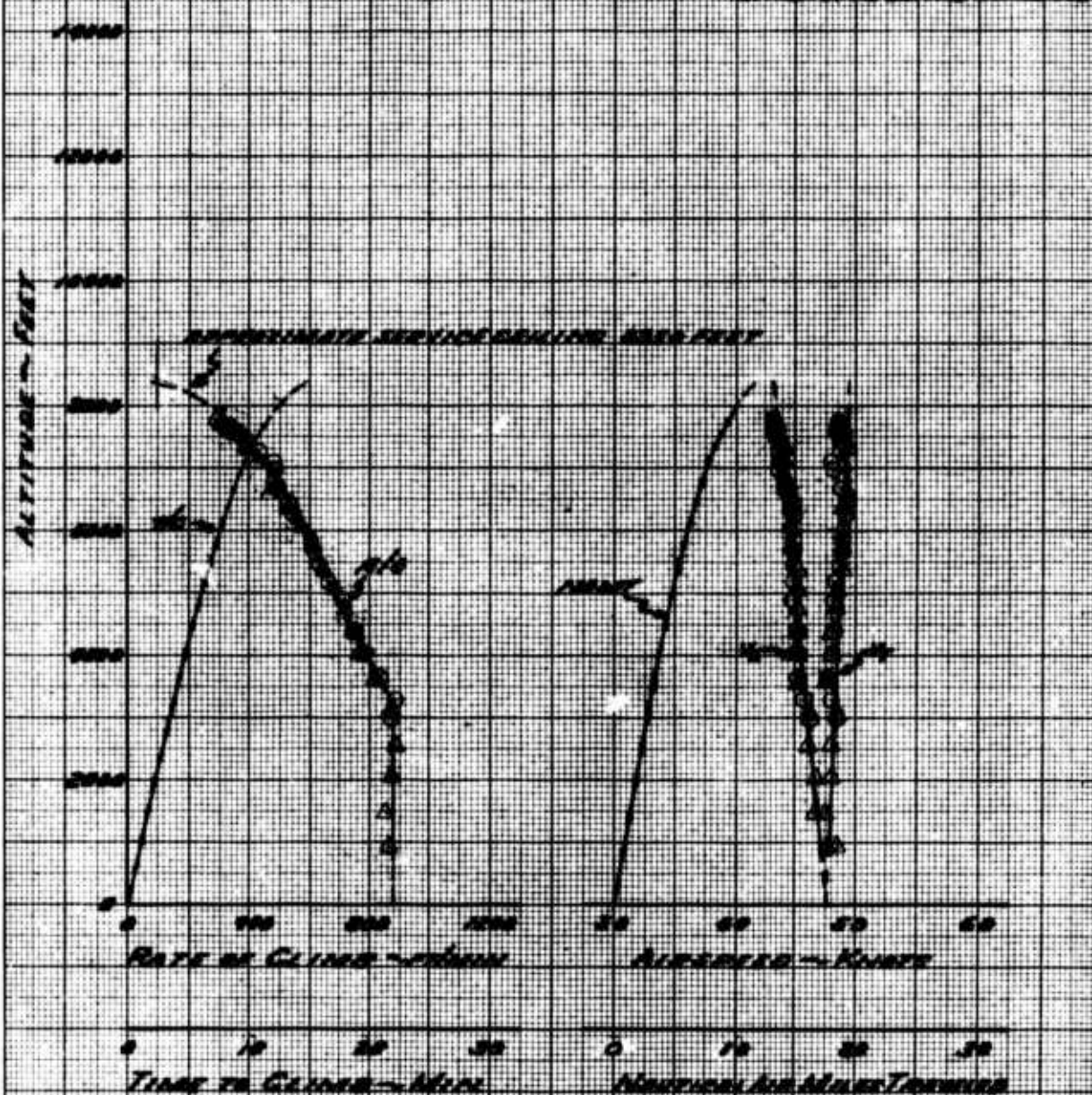


FIGURE No 22 (Cont)

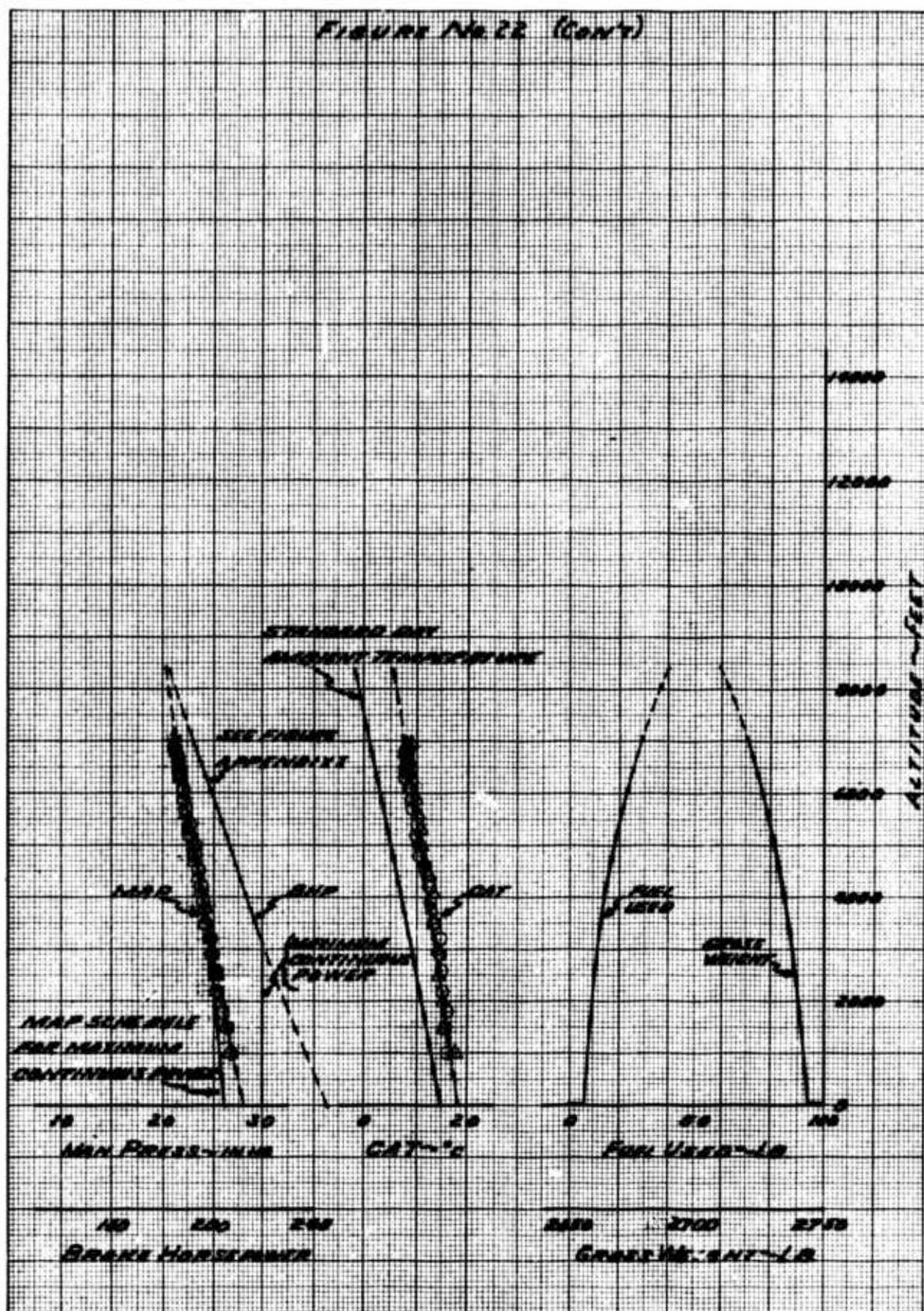


FIGURE No 23
CLIMB PERFORMANCE
OH-13H SN 57-6234
LYCOMING D-435-23 ENGINE
CLEAN CONFIGURATION
STANDARD DAY

NOTE: 10 GALLON FUEL
REQUIRED TO WARM UP
ENGINE, TAKE-OFF, AND
STABILIZE CLIMB SCHEDULE

NOTE: TAKE-OFF POWER AT
35% ROTOR RPM USED DURING
FIRST FIVE MINUTES OF
CLIMB. NORMAL POWER
POWER AT 30% ROTOR RPM
USED DURING REMAINDER
OF CLIMB.

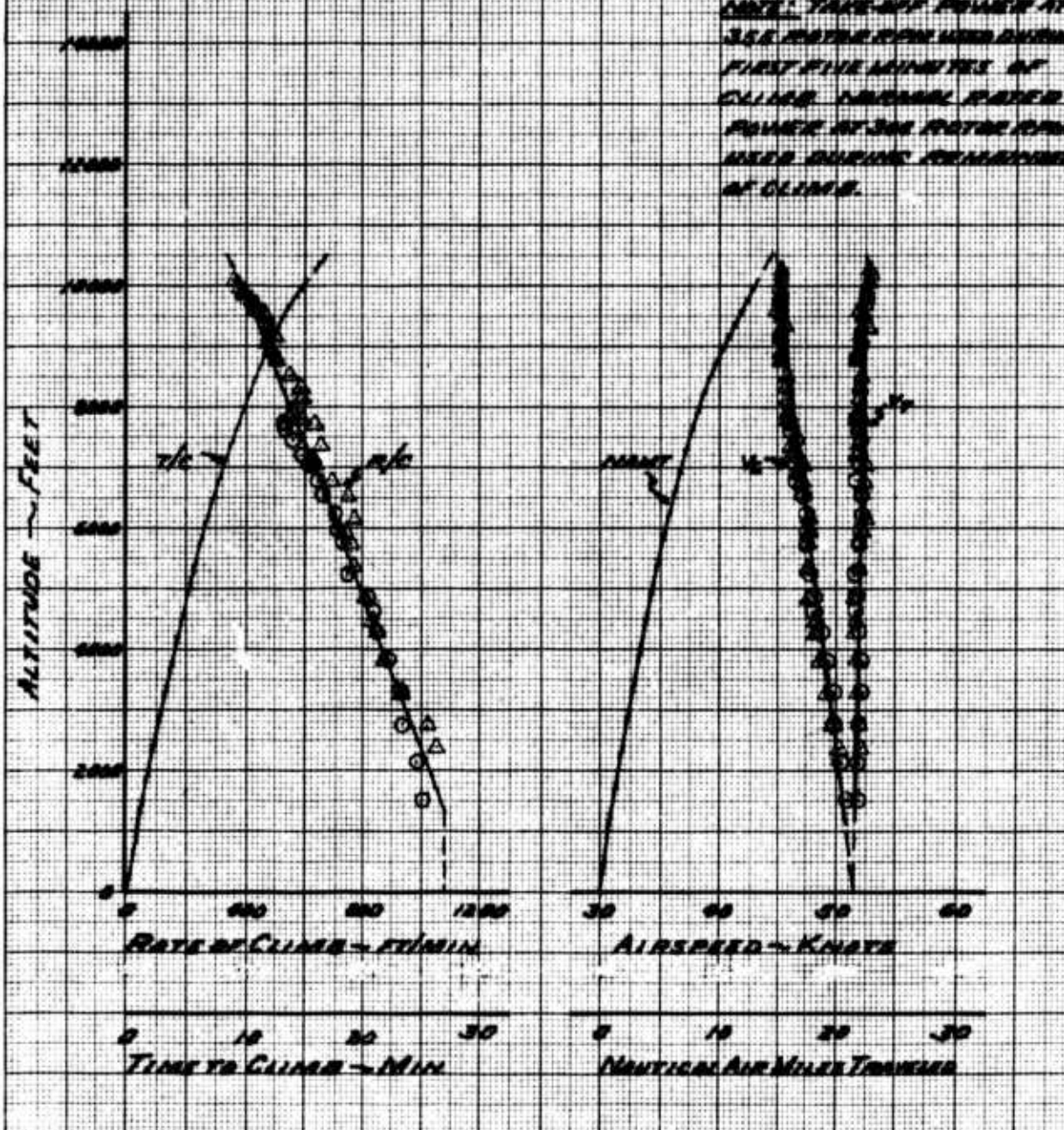


FIGURE No 23 (CON'T)

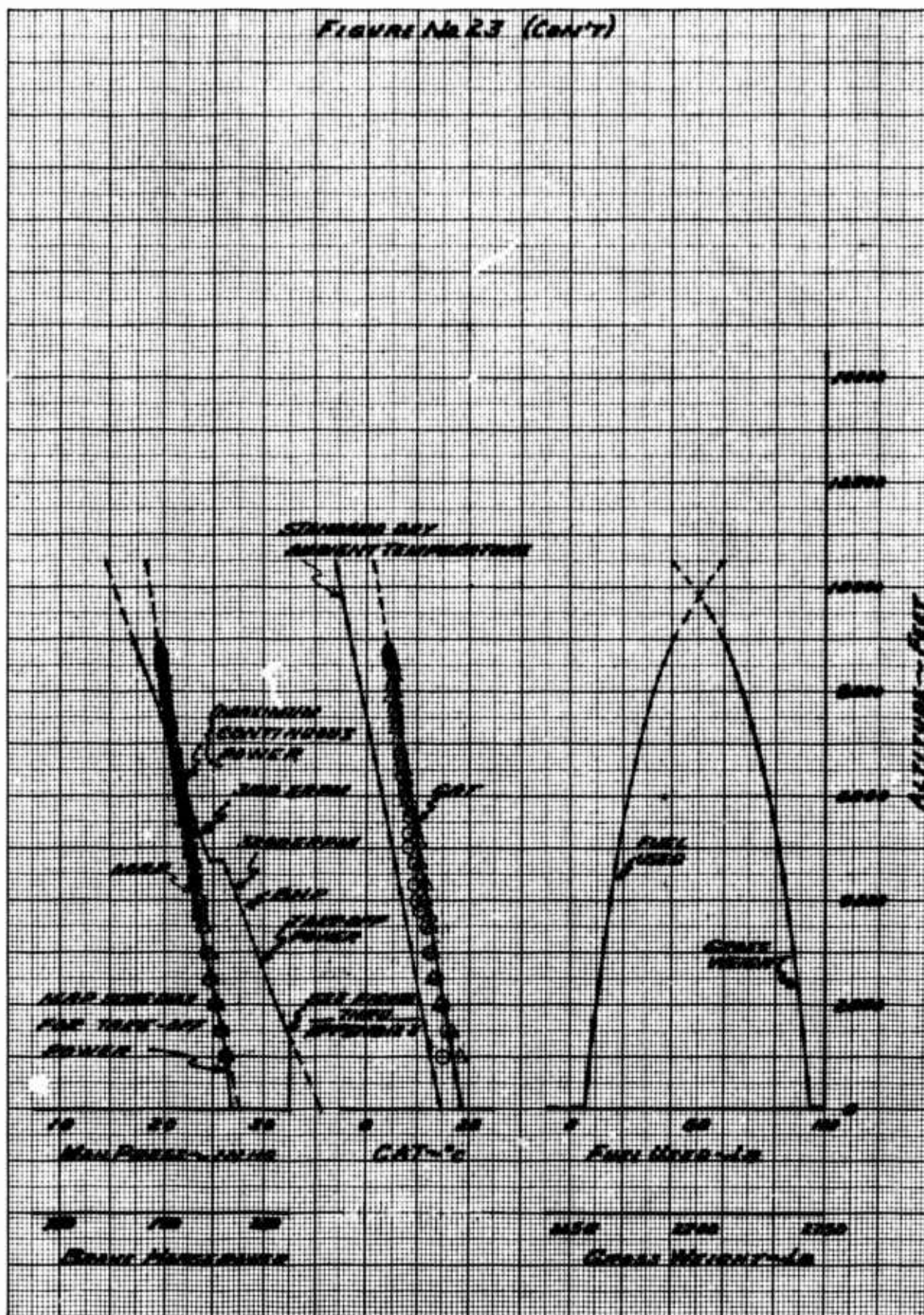


FIGURE No 24
 NON-DIMENSIONAL LEVEL FLIGHT PERFORMANCE
 OH-13H SER 76239
 LYCOMING O-435-23 ENGINE
 MA-6-5AA CARBURETOR
 CLEAN CONFIGURATION
 MIA CENTER OF GRAVITY (C.G.)

SYMBOL	WING AREA	ALL POINTS TAKEN FROM PLOTTED CURVES OF FIGURE 25, 26, 27, 28, APPENDIX I
○	340	
○	322	

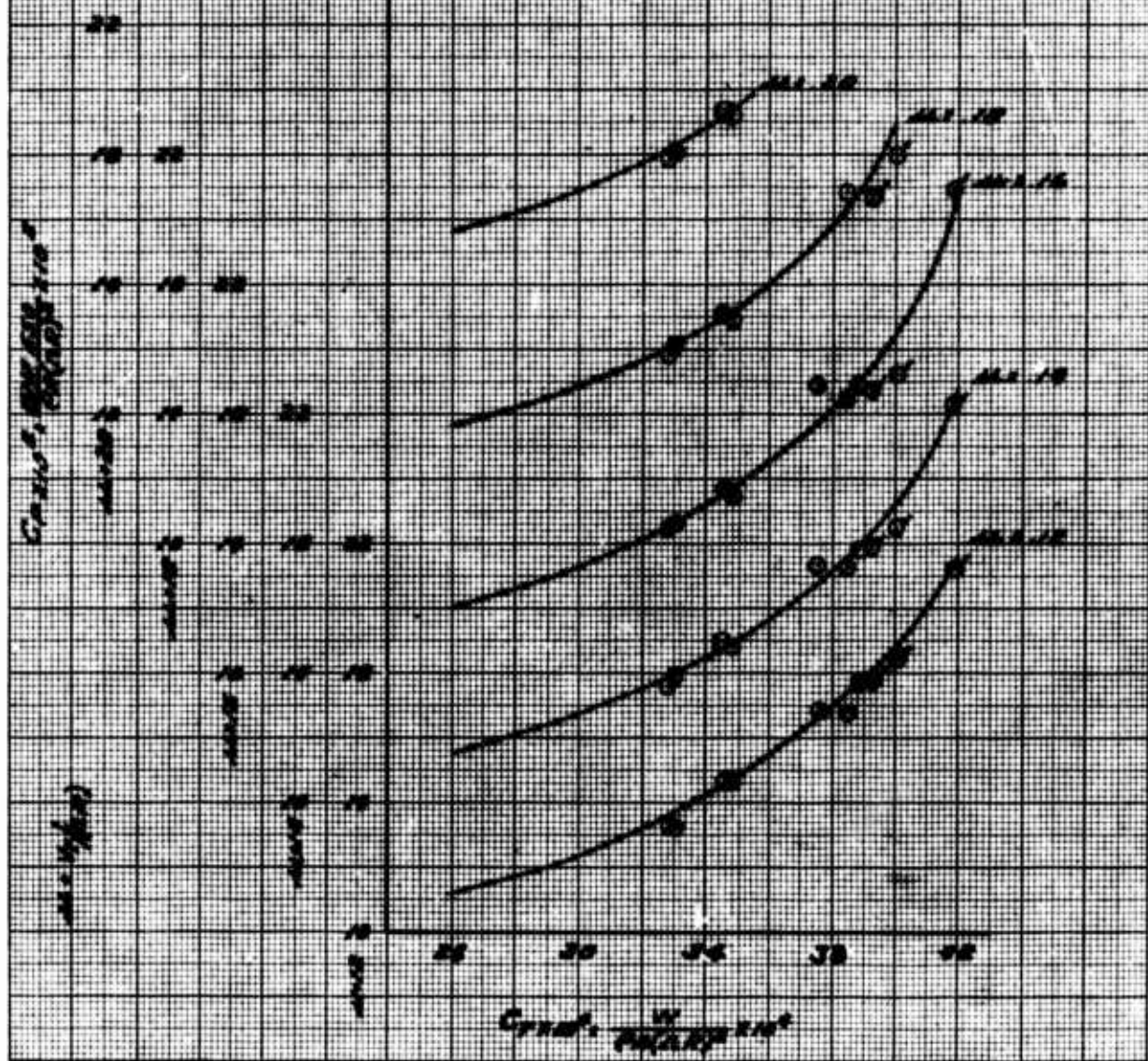


FIGURE No 23
 LEVEL FLIGHT PERFORMANCE
 OH-13H SN 57-6239
 LYCOMING O-635-23 ENGINE
 344 ROTOR RPM
 CLEAN CONFIGURATION

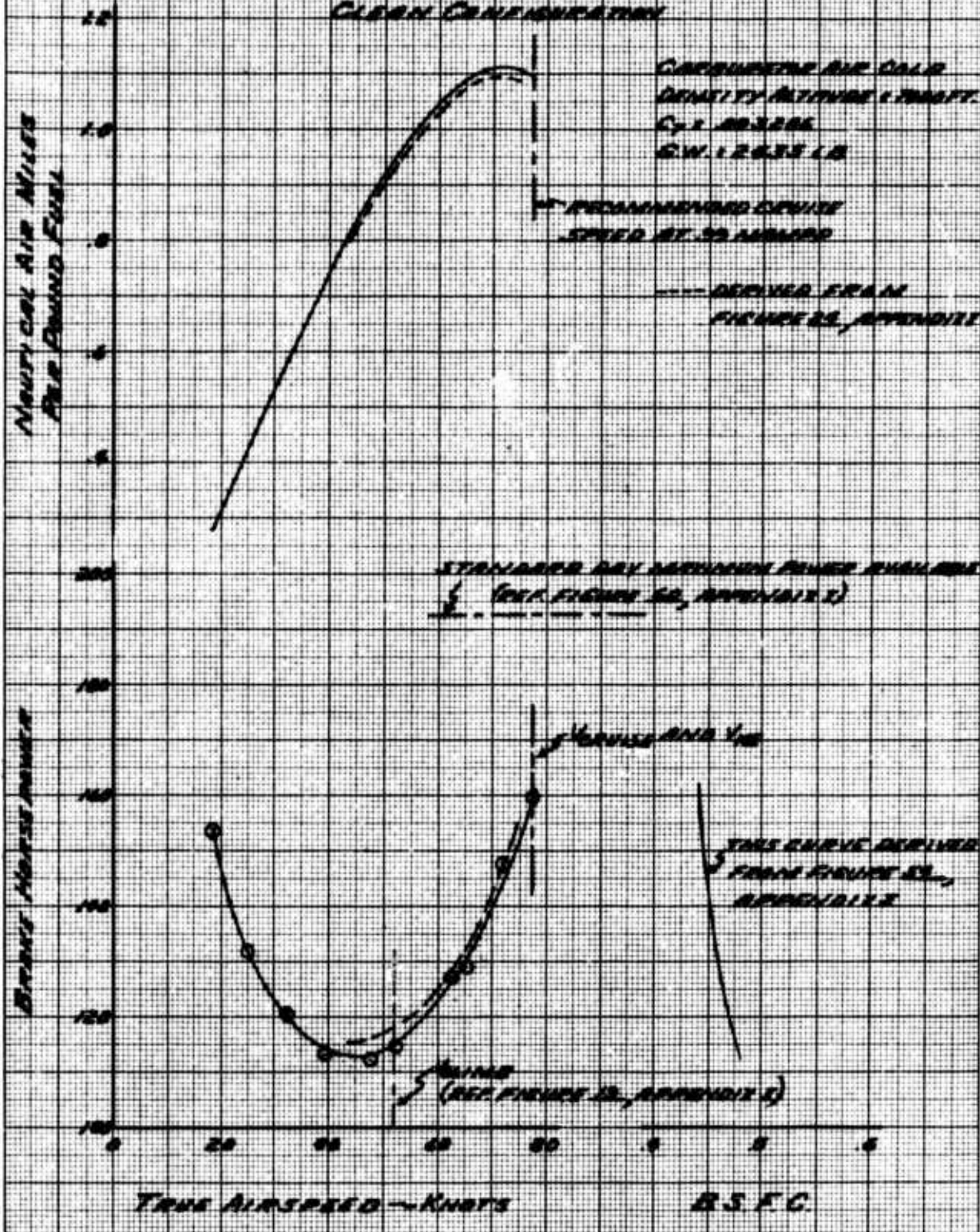


FIGURE No 26
 LEVEL FLIGHT PERFORMANCE
 OH-13H SNV57-6236
 LYCOMING O-435-23 ENGINE
 344 RPM RPM
 CLEAN CONFIGURATION

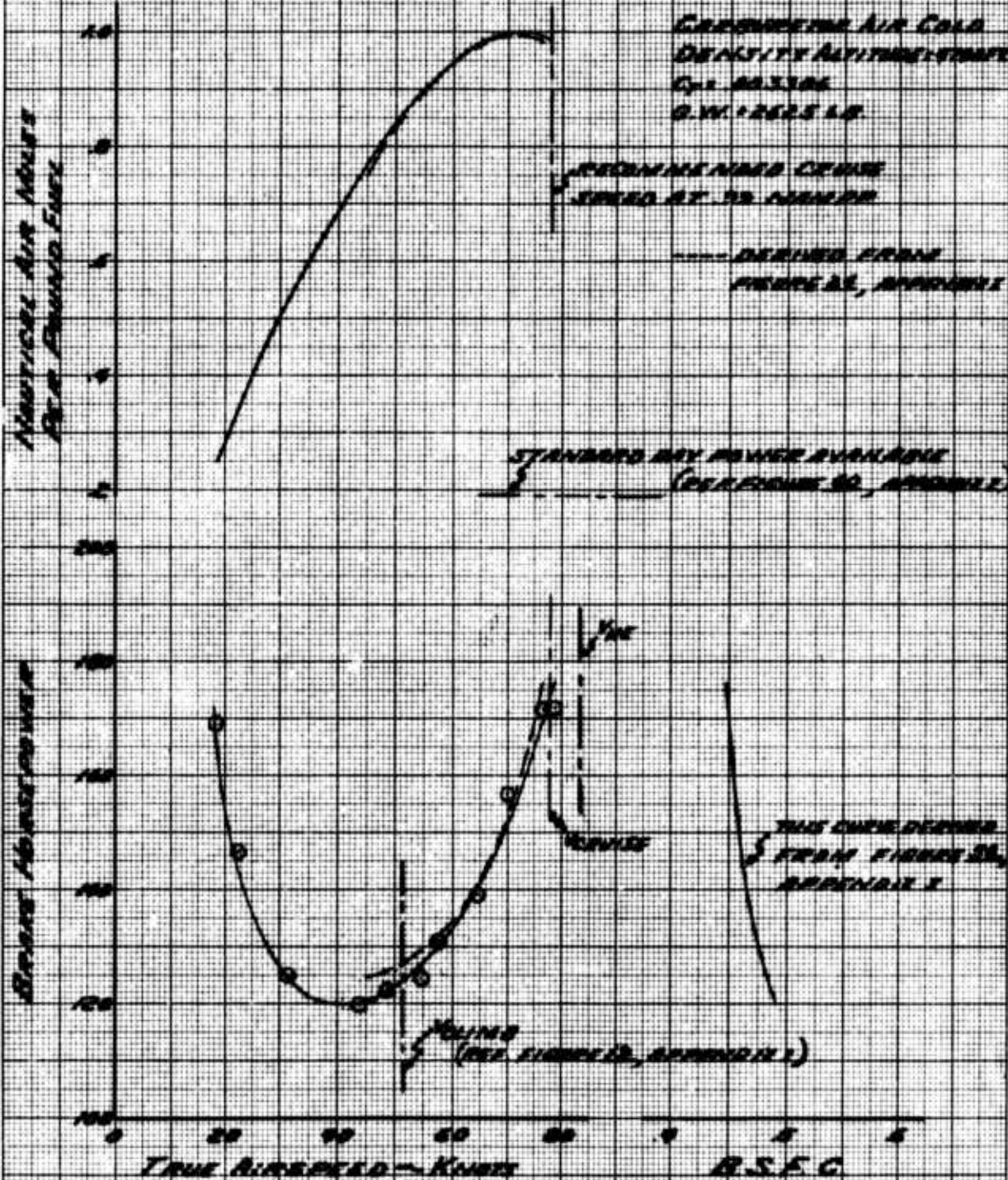


FIGURE No 27
 LEVEL FLIGHT PERFORMANCE
 OH-13H S/N 576234
 LYCOMING O-435-23 ENGINE
 344 ROTOR RPM
 CLEAN CONFIGURATION

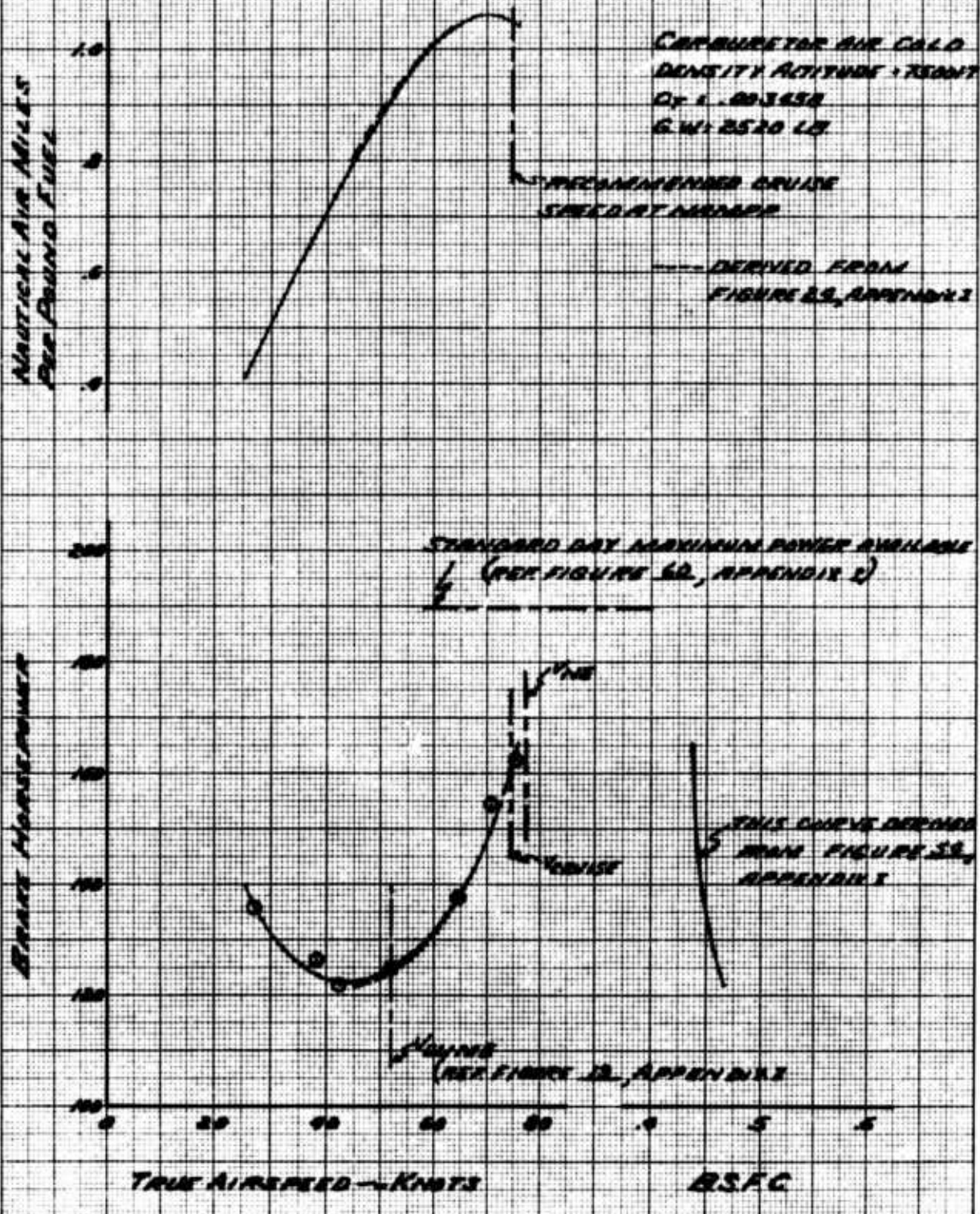


FIGURE No 28
 LEVEL FLIGHT PERFORMANCE
 QH-13H S/N 57-6239
 LYCOMING O-435-23 ENGINE
 344 ROTAR RPM
 CLEAN CONFIGURATION

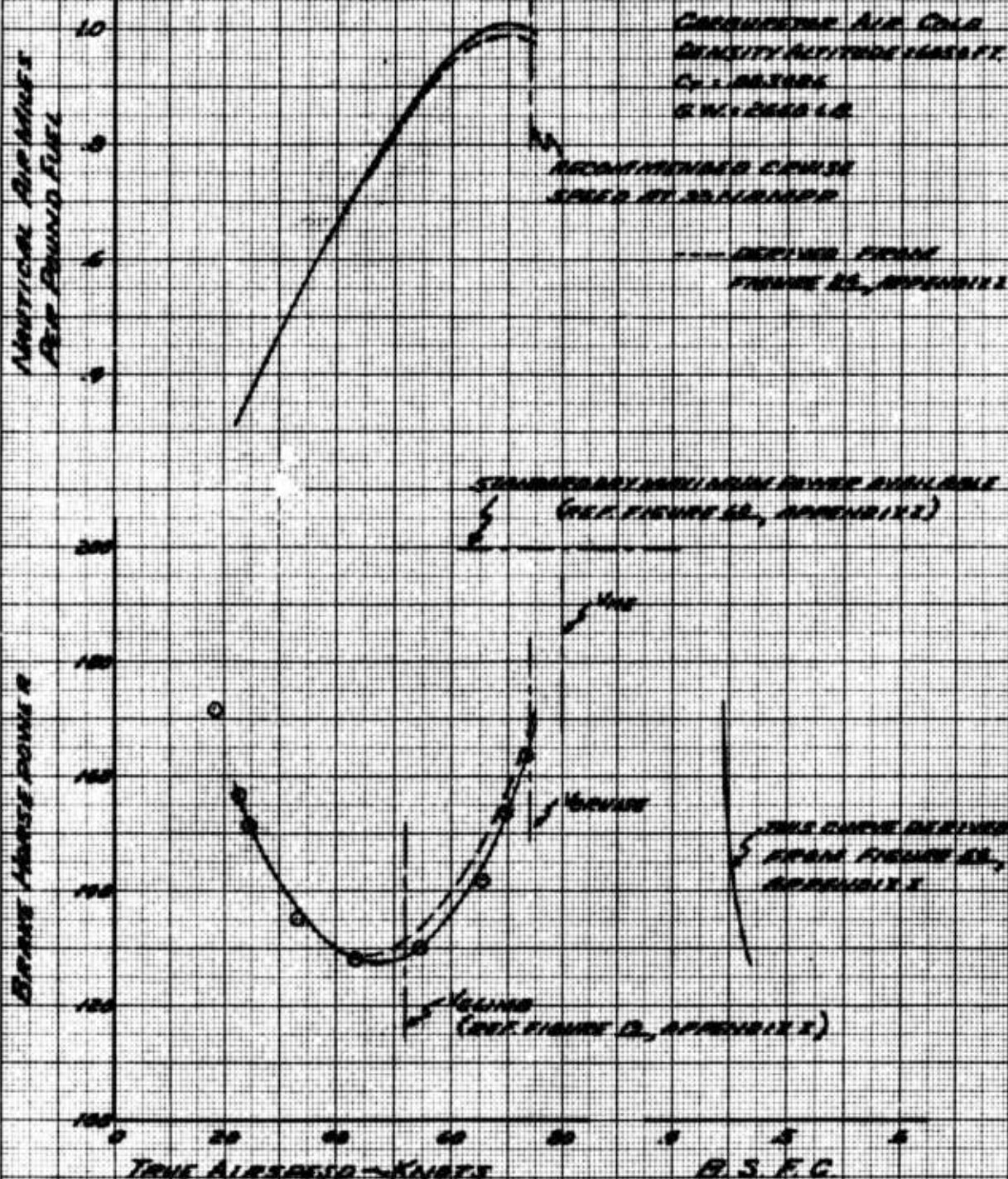


FIGURE NO. 23
 LEVEL FLIGHT PERFORMANCE
 OH43H SN 57-6234
 LYCOMING O-435-23 ENGINE
 344 ROTOR RPM
 CLEAN CONFIGURATION

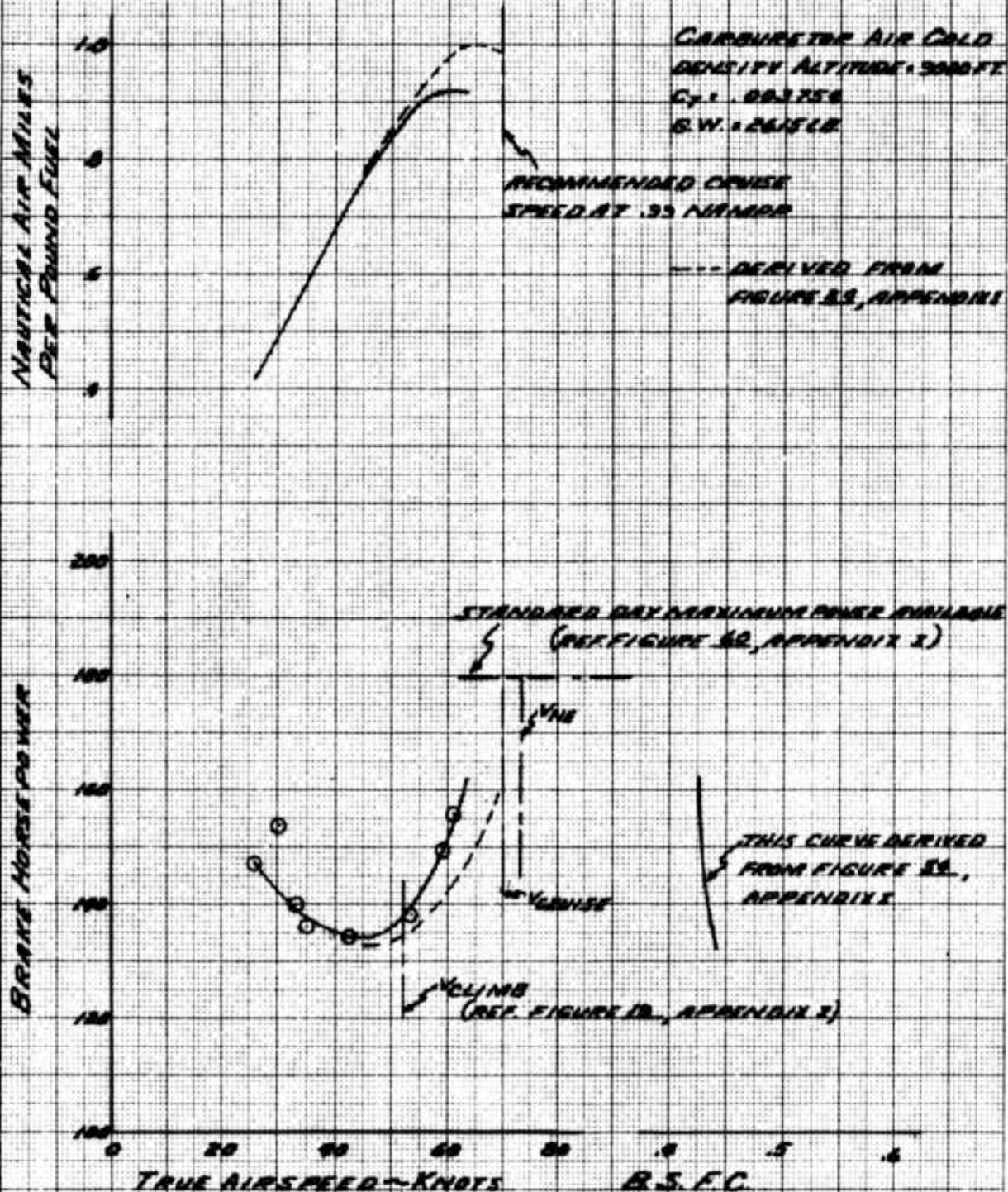


FIGURE NO 30
LEVEL FLIGHT PERFORMANCE
OH-13H/SIN 57-6230
LYCOMING O-335-23 ENGINE
300 ROTOR RPM
CLEAN CONFIGURATION

CAUTION: AIR COLD
DENSITY ALTITUDE 0000 FT
 $C_L = 0.03887$
G.W. 12600 LB.

IS RECOMMENDED CRUISE
SPEED AT 95 NMPP

----- DERIVED FROM
FIGURE 52, APPENDIX I

STANDARD DAY MAXIMUM POWER AVAILABLE
(REF FIGURE 52, APPENDIX I)

5% NE

15% LOSS

THIS CURVE DERIVED
FROM FIGURE 52,
APPENDIX I

5% NE
(REF FIGURE 52, APPENDIX I)

TRUE AIRSPEED - KNOTS

BSFC

FIGURE No. 31
 LEVEL FLIGHT PERFORMANCE
 OH-13H SN 57-6234
 LYCOMING O-435-23 ENGINE
 344 ROTOR RPM
 CLEAN CONFIGURATION

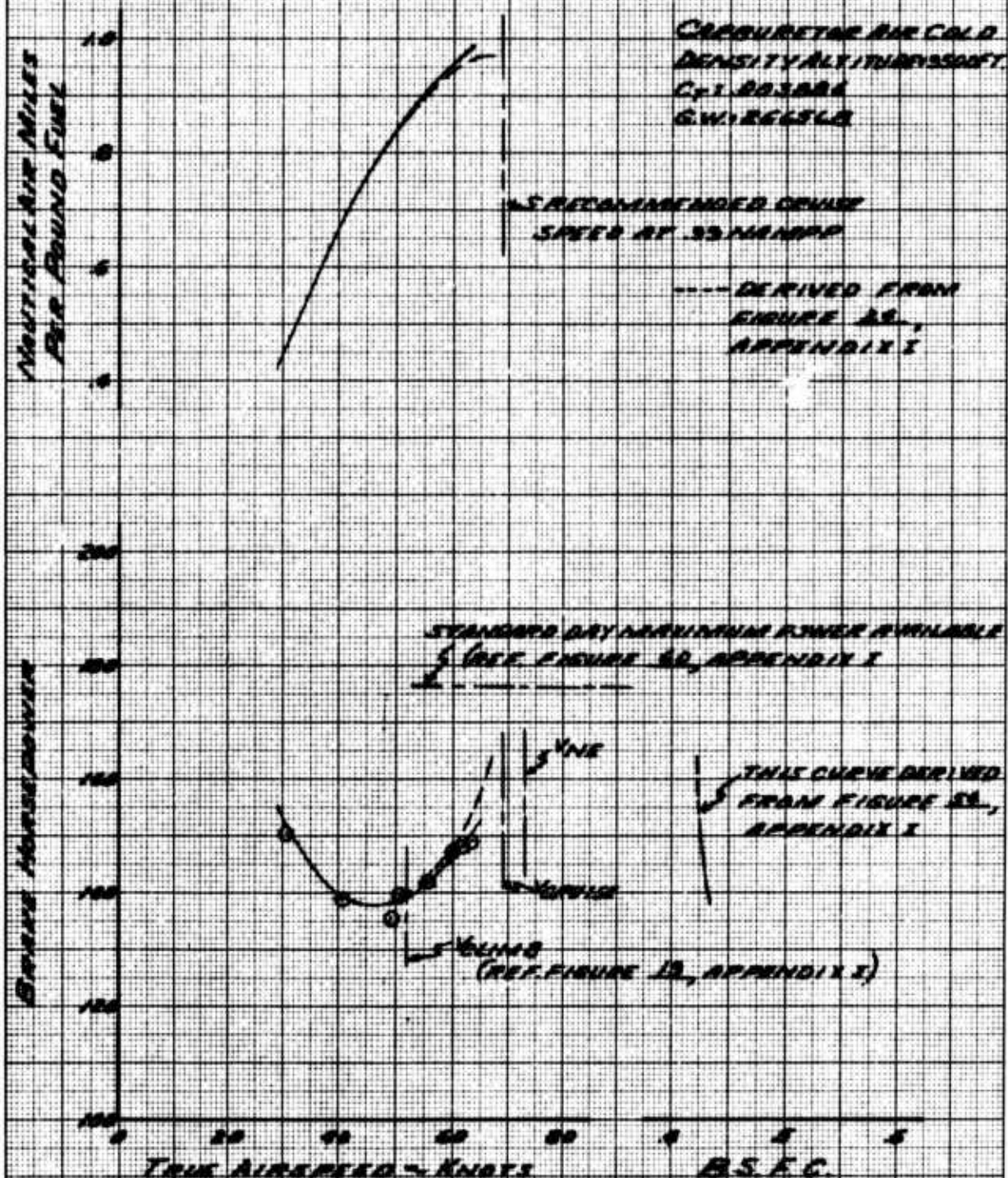


FIGURE No 32
 LEVEL FLIGHT PERFORMANCE
 OH-13H SN 57-6236
 LYCOMING O-435-23 ENGINE
 322 ROTOR RPM
 CLEAN CONFIGURATION

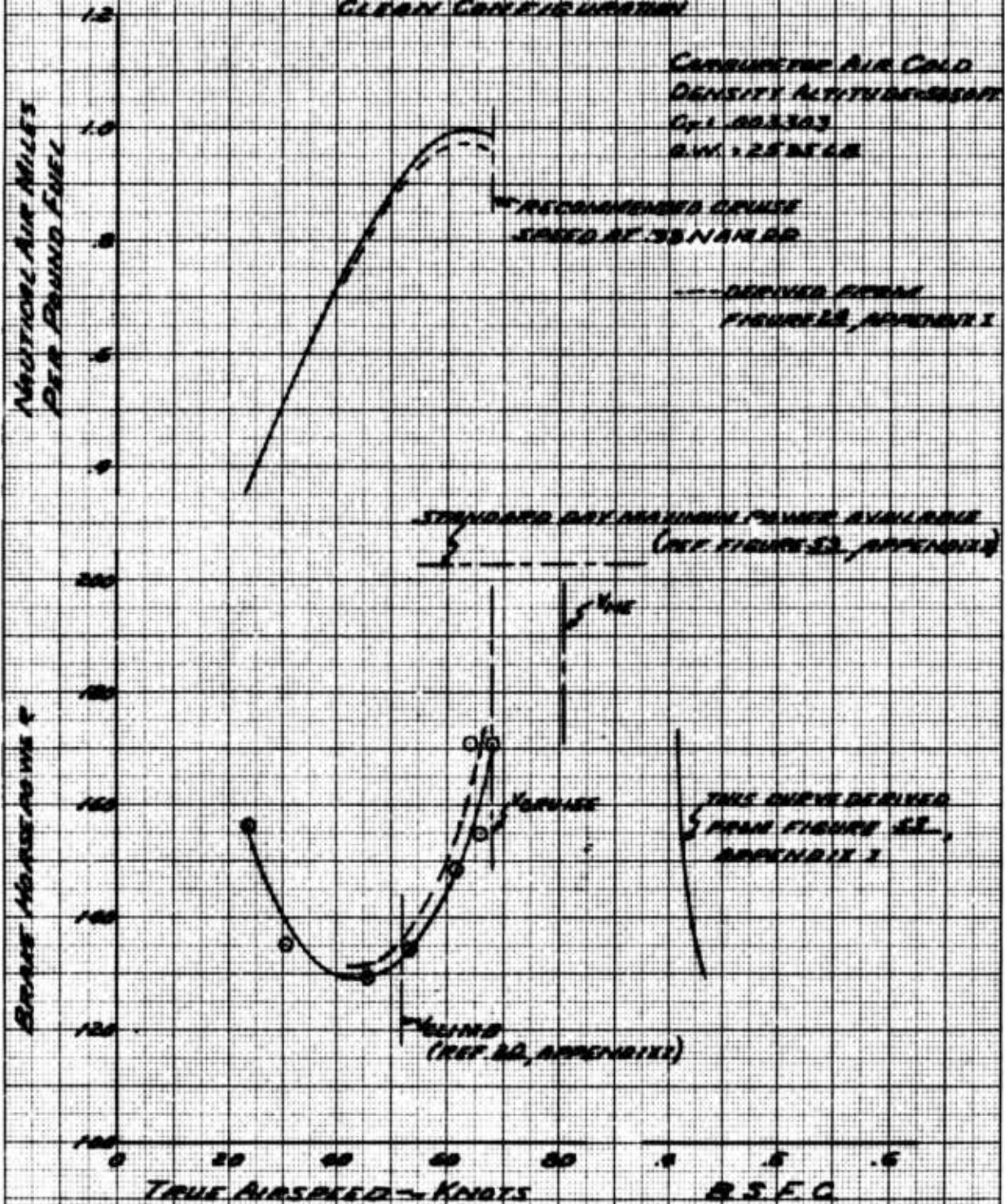


FIGURE No 33
 LEVEL FLIGHT PERFORMANCE
 OH-13H S/N 57-6236
 LYONNE D-435-23 ENGINE
 322 RPM
 CLEAN CONFIGURATION

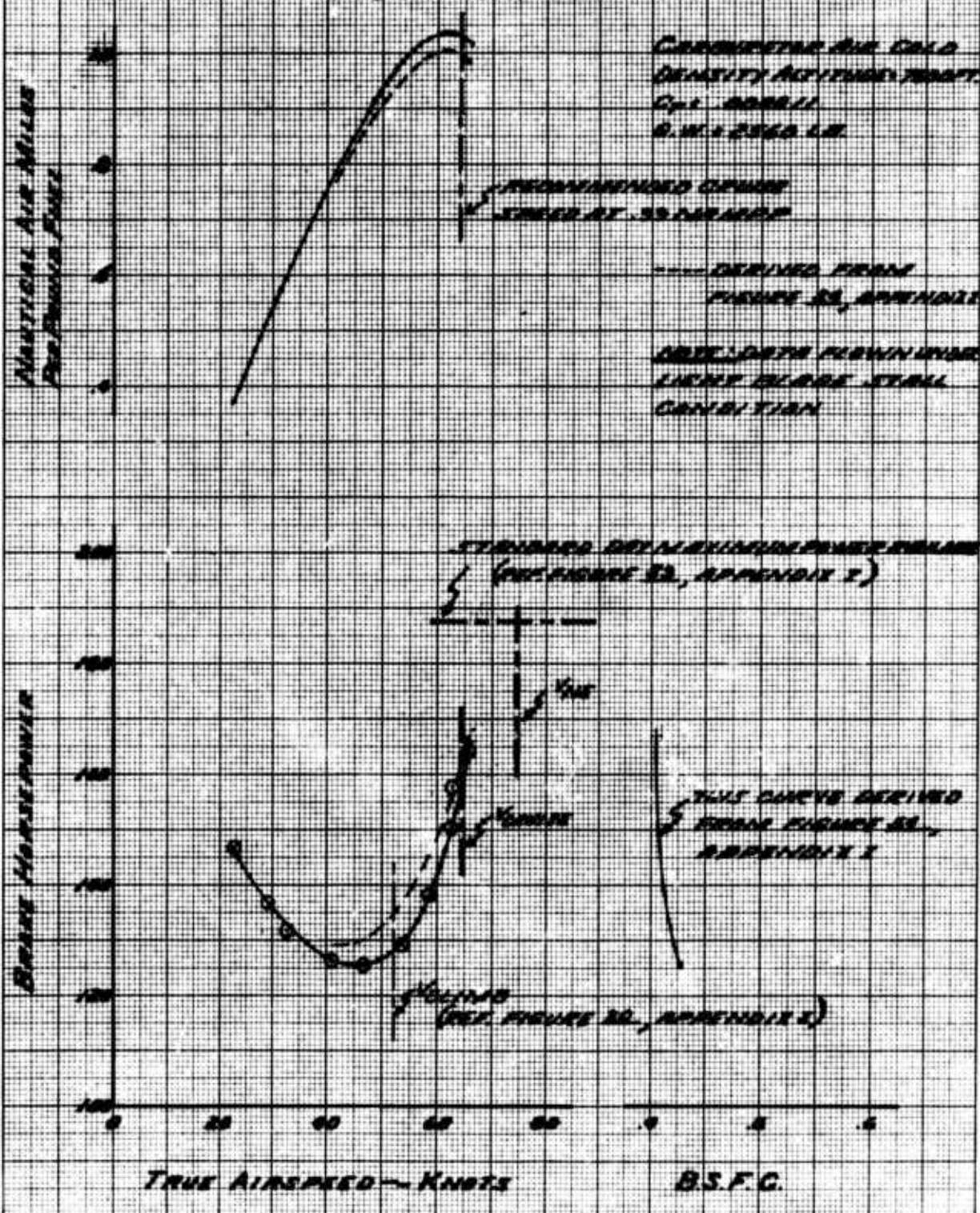


FIGURE No 39
LEVEL FLIGHT PERFORMANCE
OH-13H S/N 57-6236
LYRMING 0-935-23 ENGINE
322 ROTOR RPM
CLEAN CONFIGURATION

CARBURETOR AIR COLD
DENSITY ALTITUDE 7000 FT
 $T_o = 1.008156$
G.W. 12715 LB.

NAUTICAL AIR MILES
PER POUND FUEL

RECOMMENDED CRUISE
SPEED AT 95 NM/PPH

DERIVED FROM
FIGURE 28, APPENDIX 1

NOTE: DATA UNDER
MAXIMUM BLADE STALL
CONDITION

STANDARD DAY MAXIMUM POWER AVAILABLE
(REF. FIGURE 28, APPENDIX 1)

THIS CURVE DERIVED
FROM FIGURE 28,
APPENDIX 1

V_{LOMB}
(REF. FIGURE 20, APPENDIX 1)

V_{ME}

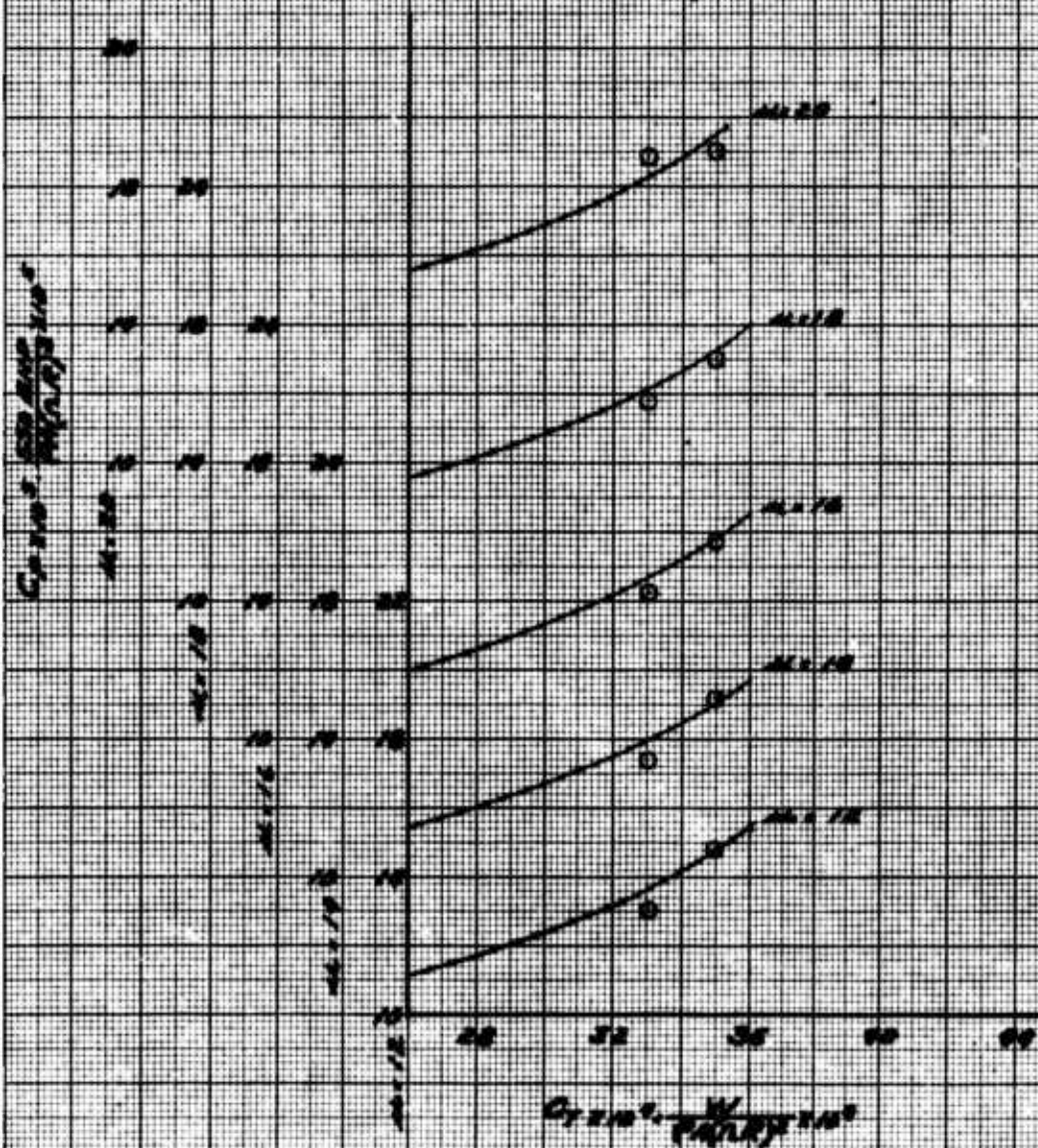
BRAKE HORSE POWER

TRUE AIRSPEED - KNOTS

BSFC

FIGURE No 35
 NON-DIMENSIONAL LEVEL FLIGHT PERFORMANCE
 QM-13H SN 57-6239
 LYCOMING O-435-23 ENGINE
 MA-6-5AA CARBURETOR
 XM-1 ARMAMENT KIT INSTALLED

ALL LINES ARE FOR A
 CLEAN AIRCRAFT
 (SEE FIGURE 32,
 APPENDIX 1)



[illegible]

FIGURE No 37
 LEVEL FLIGHT PERFORMANCE
 OH-13H SIN 57-6236
 LYCOMING O-435-23 ENGINE
 349 Rotor RPM
 100% ARMAMENT KIT INSTALLED

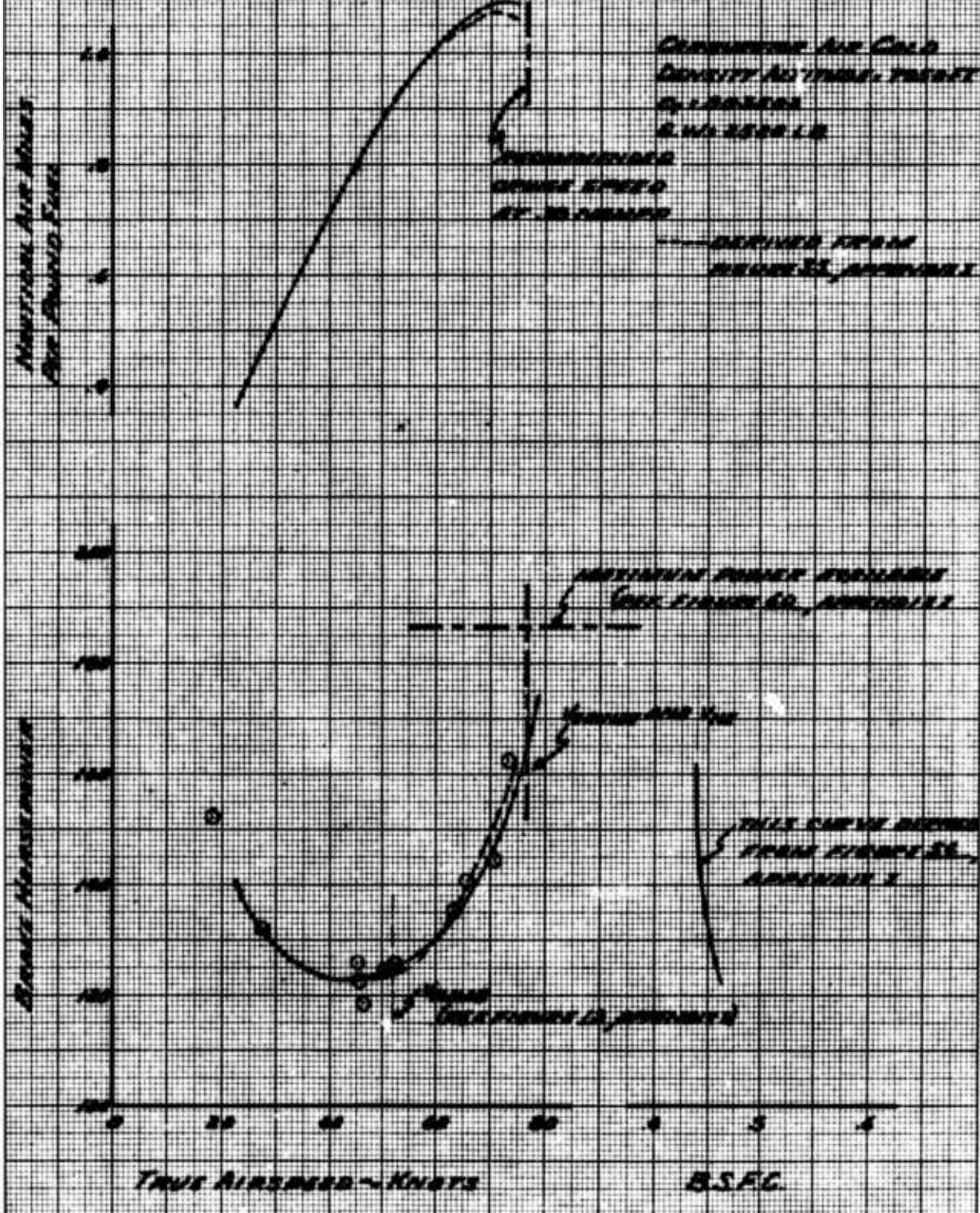


FIGURE No 39
 RANGE SUMMARY
 OH-13H SN 57-6239
 LYAMING D-435-23 ENGINE
 MA-4-5AA CARBURETOR
 CARBURETOR AIR CRACK ALTITUDE ~ 5000 FT

REFERENCE AFPTC
 TR-57-12 PAGE 35

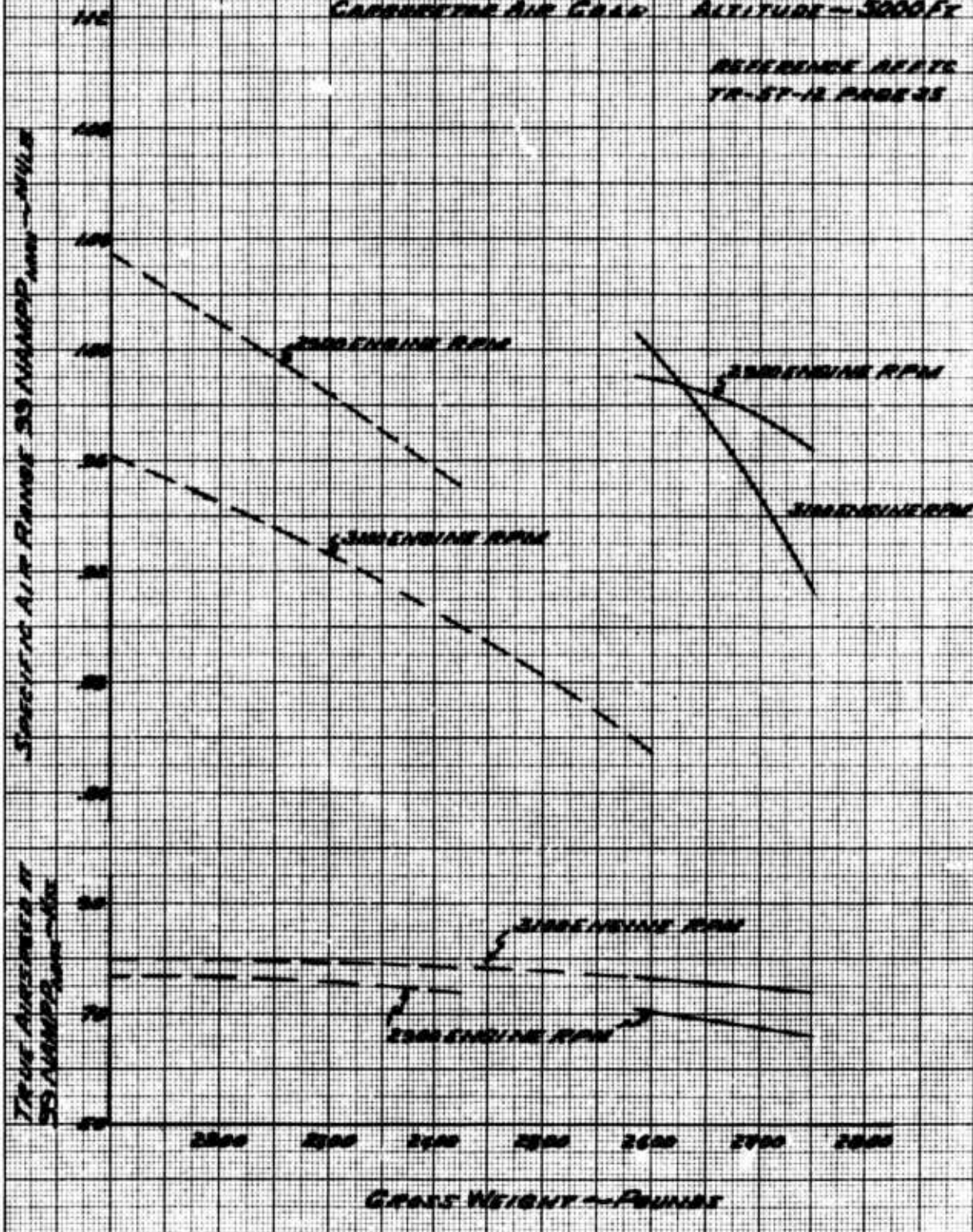


FIGURE No 90
 RANGE SUMMARY
 OH-13H SN 57-6239
 LYCOMING O-635-23 ENGINE
 NO. 2 - 5A CARBURETOR
 CARBURETOR AIR GALS ALTITUDE - 8000 FT

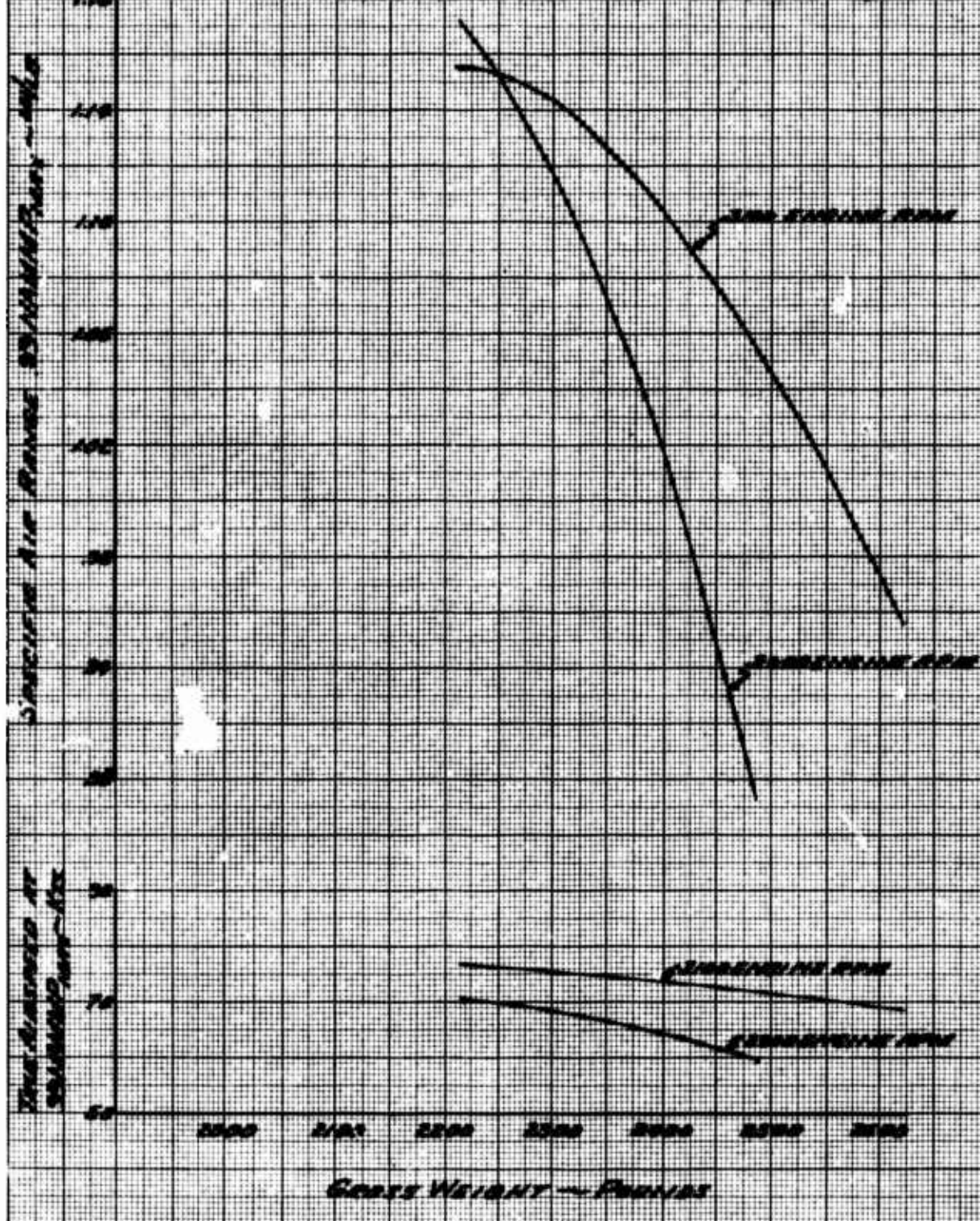


FIGURE No 61
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H SN 576230
 LYCOMING O-435-23 ENGINE

AVG. GROSS WEIGHT 2550 LB.
 DENSITY ALTITUDE 3000 FT.

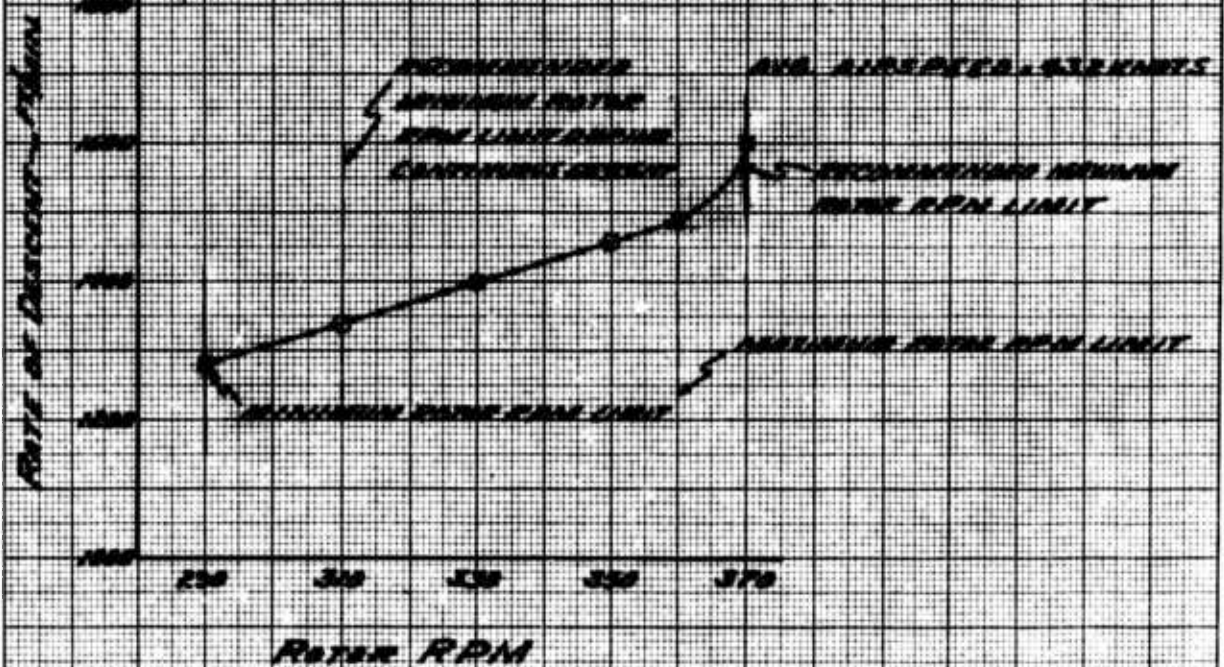
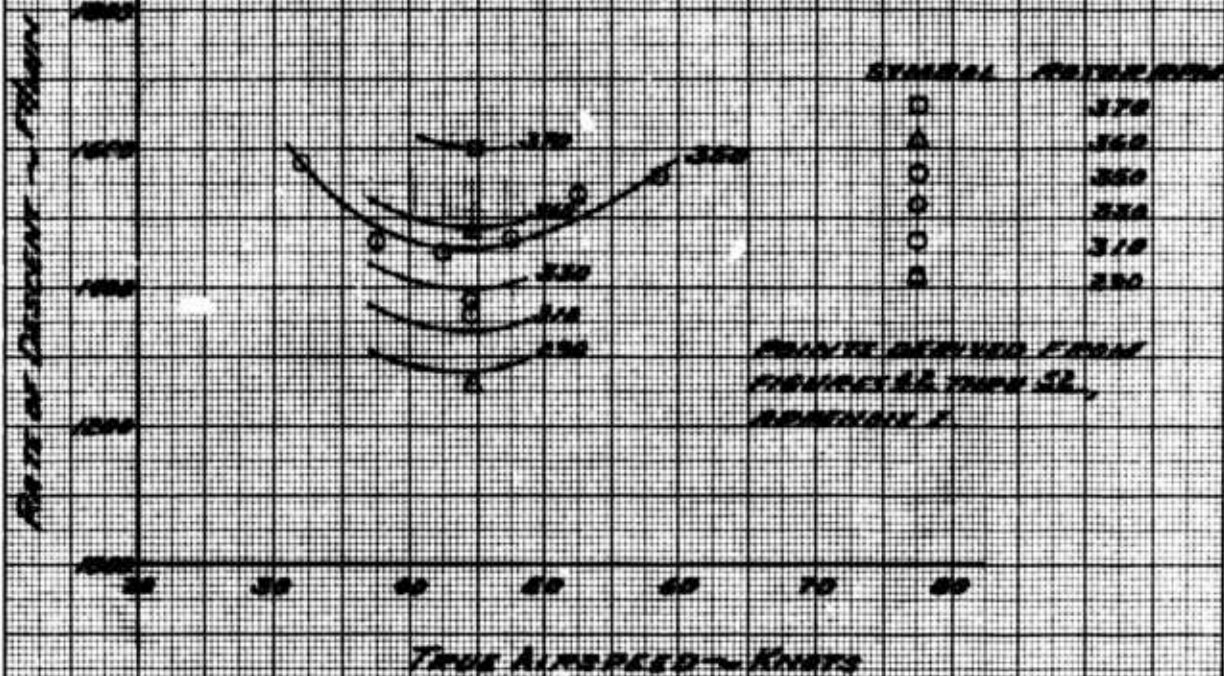


FIGURE No 42
 AUTOMATICALLY DESCENT PERFORMANCE
 OH-13H S/N 57-6234
 LYONARD D-435-23 ENGINE
 350 PPMR RPM
 Gross Weight 2520 Lb
 Standard Day

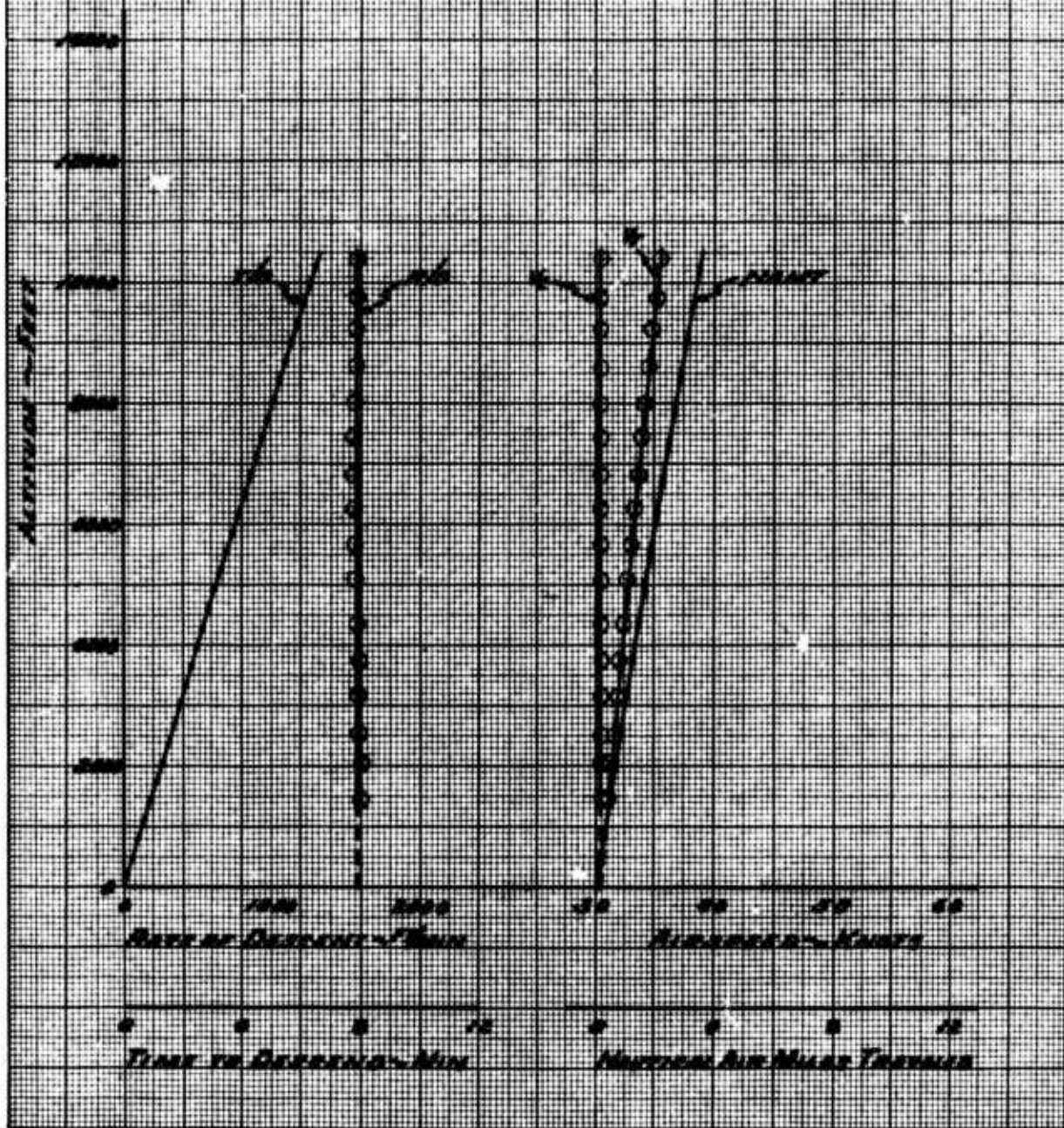


FIGURE No 43
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H S/N 57-6239
 LYCOMING O-435-23 ENGINE
 550 RPM
 GROSS WEIGHT 12600 lb
 STANDARD DAY

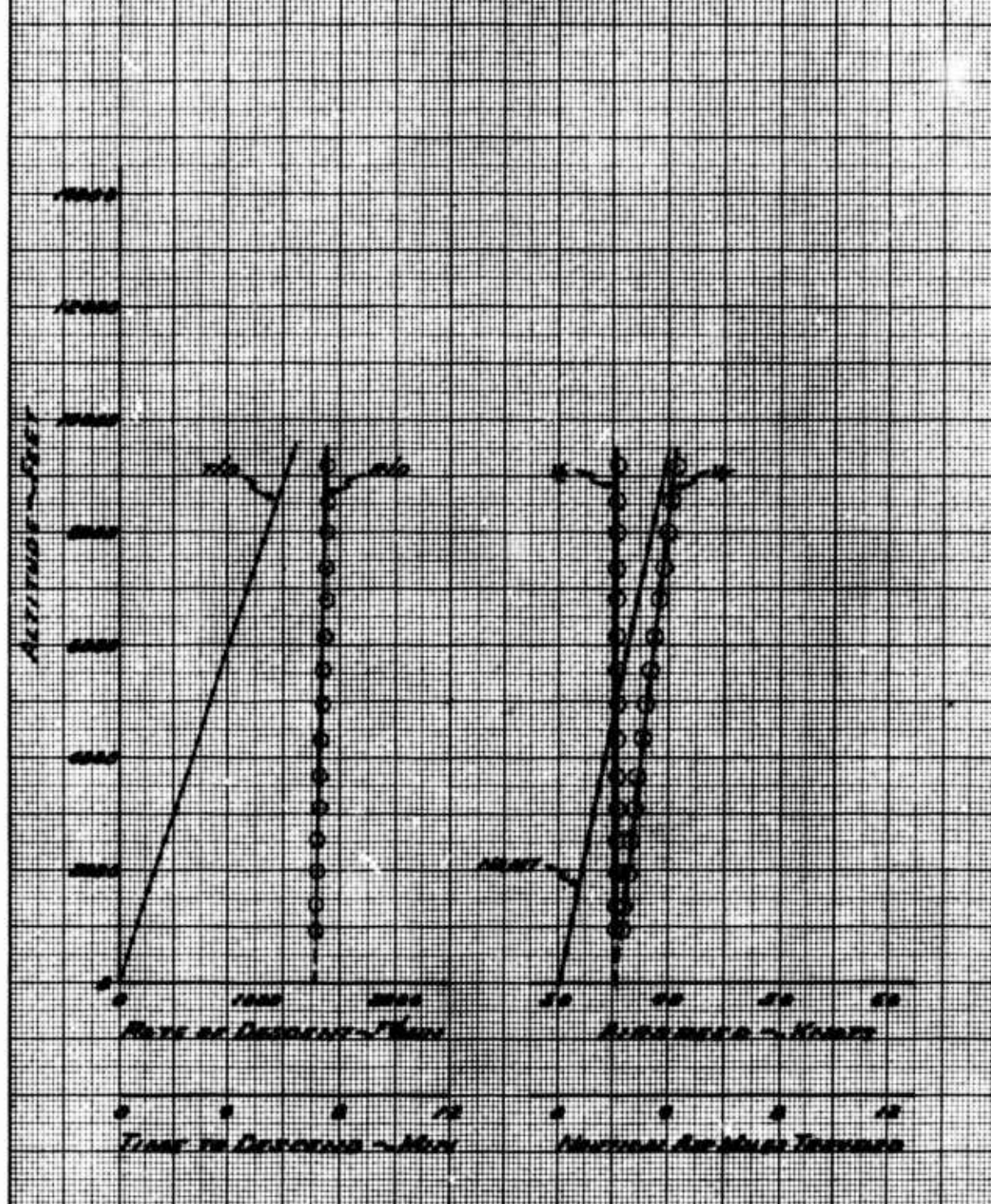


FIGURE No 44
 AUTOMATIC DESCENT PERFORMANCE
 OH-13H S/N 576230
 LYCOMING O-435-2 ENGINE
 3500 RPM
 Gross Weight - 2400 LB
 Standard Day

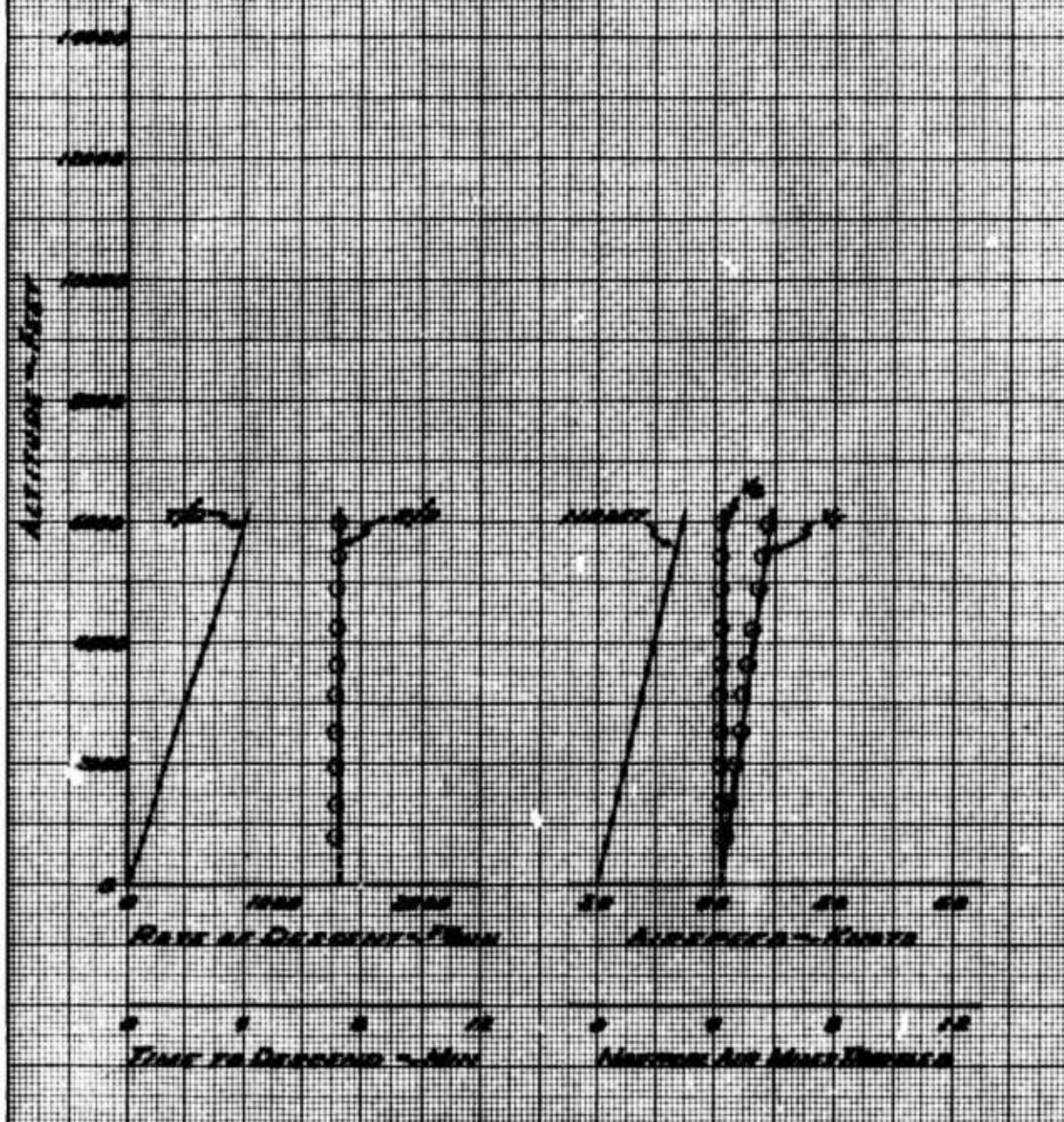


FIGURE No 65
 AUTOSTATIONAL DESCENT PERFORMANCE
 OH-13H SIN 57-6234
 LYCOMING O-435-23 ENGINE
 350 RPM
 GROSS WEIGHT: 2600 LB
 STANDARD DAY

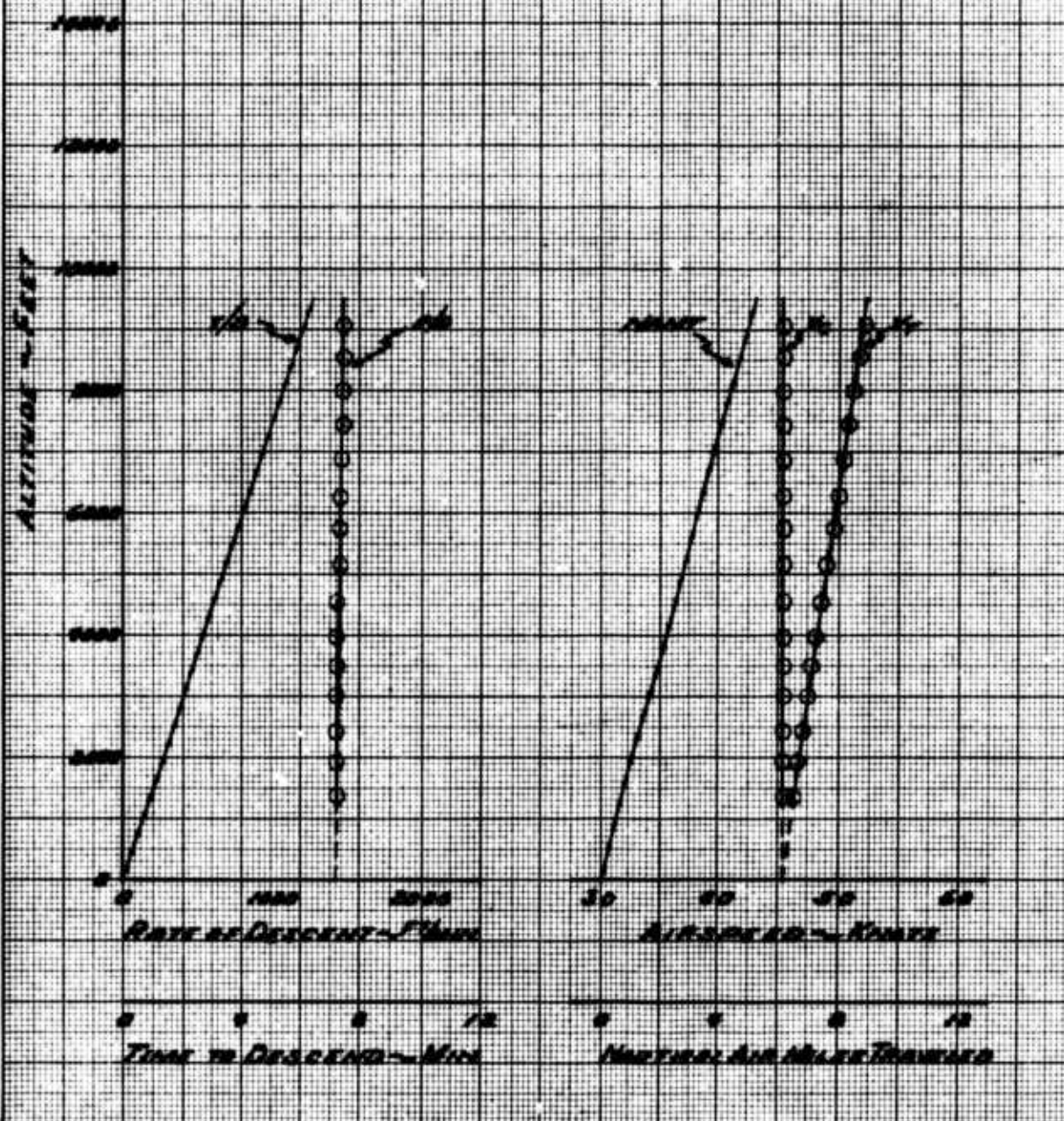


FIGURE No 46
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H SIN 57-6230
 LYCOMING O-435-23 ENGINE
 350 Rotor RPM
 GROSS WEIGHT 12400 LB
 STANDARD DRY

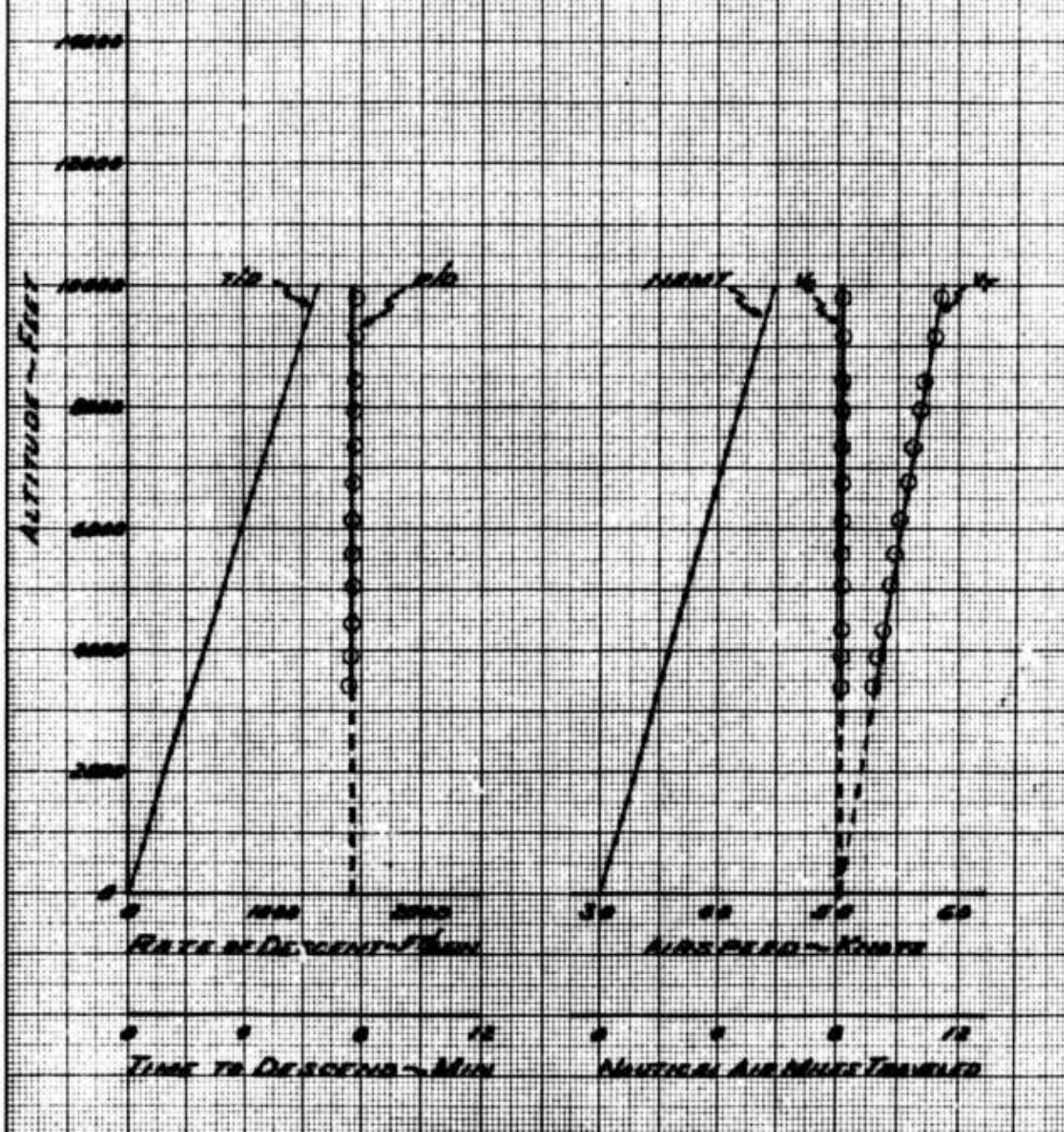


FIGURE No. 47
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H S/N 57-6234
 LYCOMING O-435-23 ENGINE
 350 ROTOR RPM
 GROSS WEIGHT 12600 LB
 STANDARD DAY

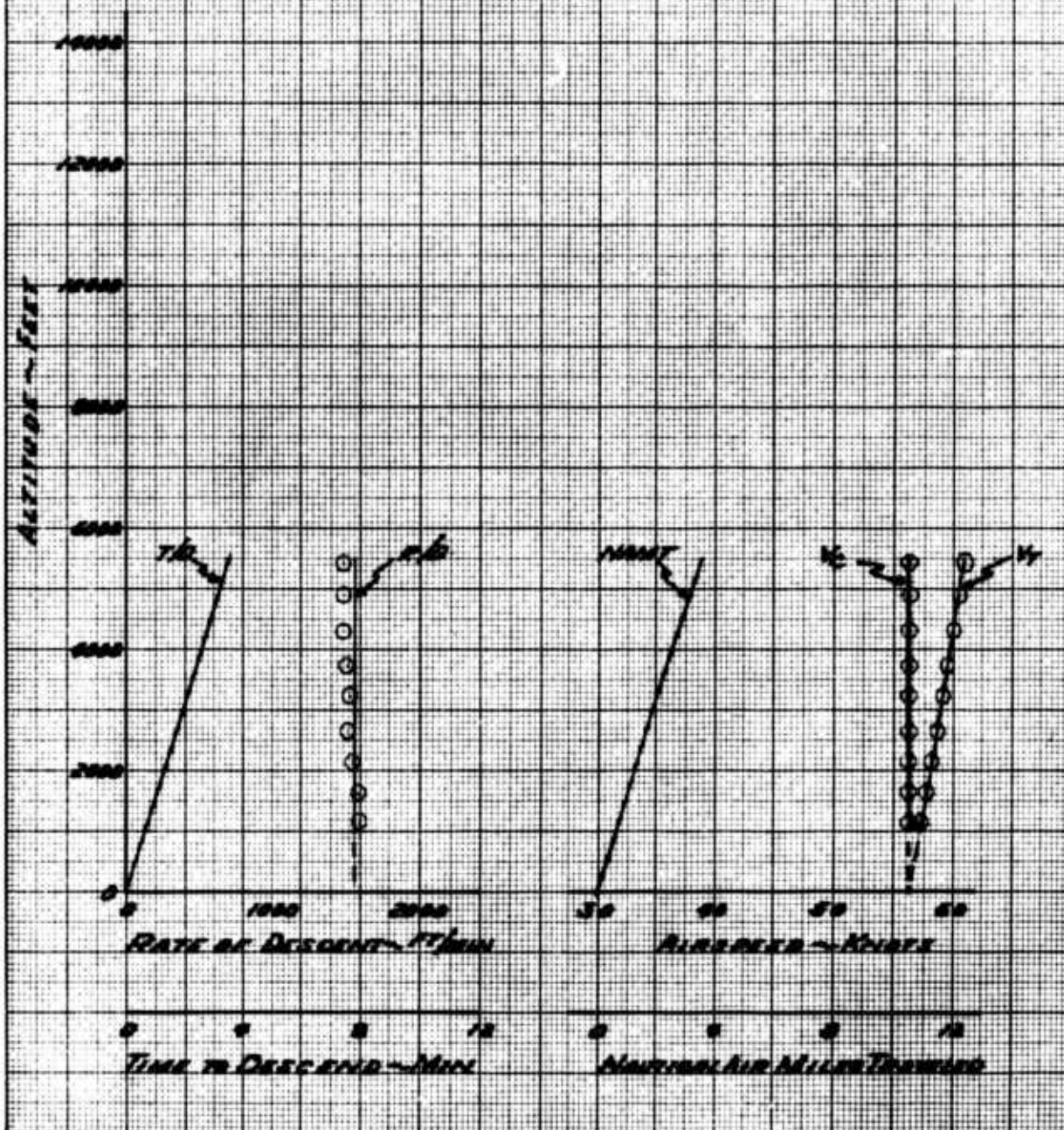


FIGURE No 98
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H SNV 57-6236
 LYCOMING O-435-23 ENGINE
 370 RPM RPM
 GROSS WEIGHT 12500 LB
 STANDARD DAY

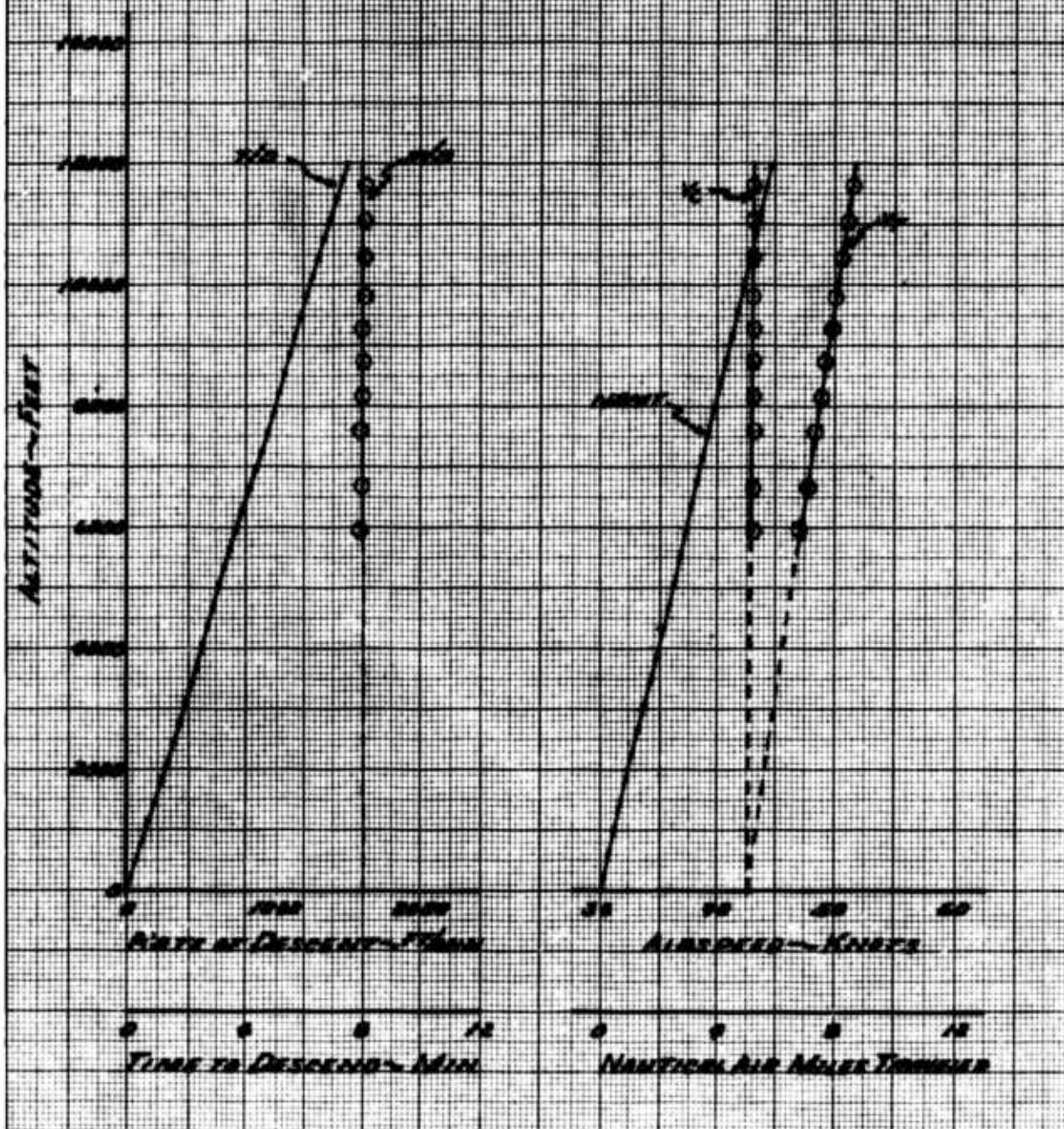


FIGURE No 49
AUTOROTATIONAL DESCENT PERFORMANCE
OH-13H S/N 57-6234
LYONING 0-933-23 ENGINE
360 ROTOR RPM
GROSS WEIGHT 12600 LB
STANDARD DAY

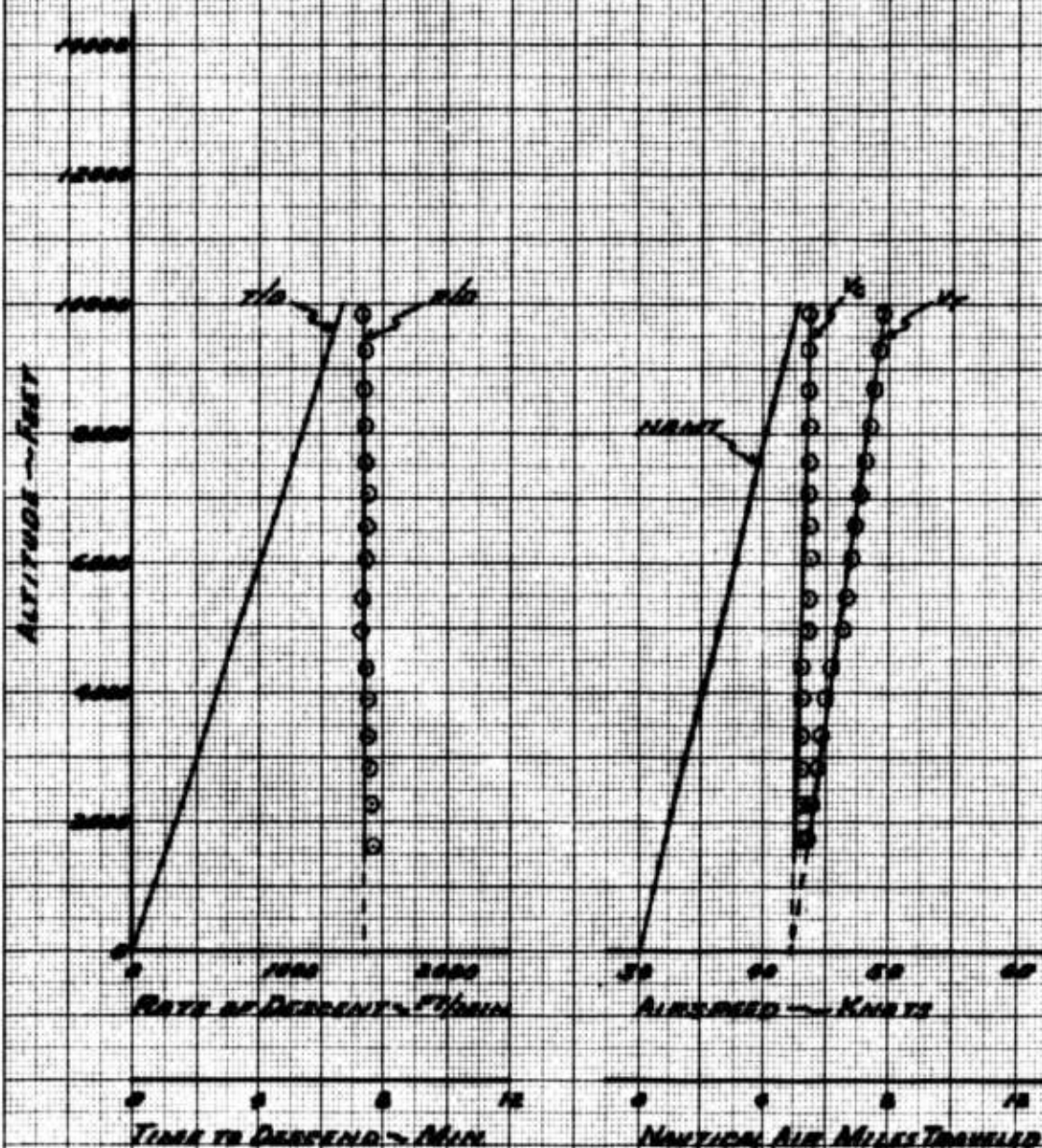


FIGURE No 50
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H SN 57-6234
 LYCOMING O-435-23 ENGINE
 330 ROTOR RPM
 GROSS WEIGHT 12200 LB
 STANDARD DAY

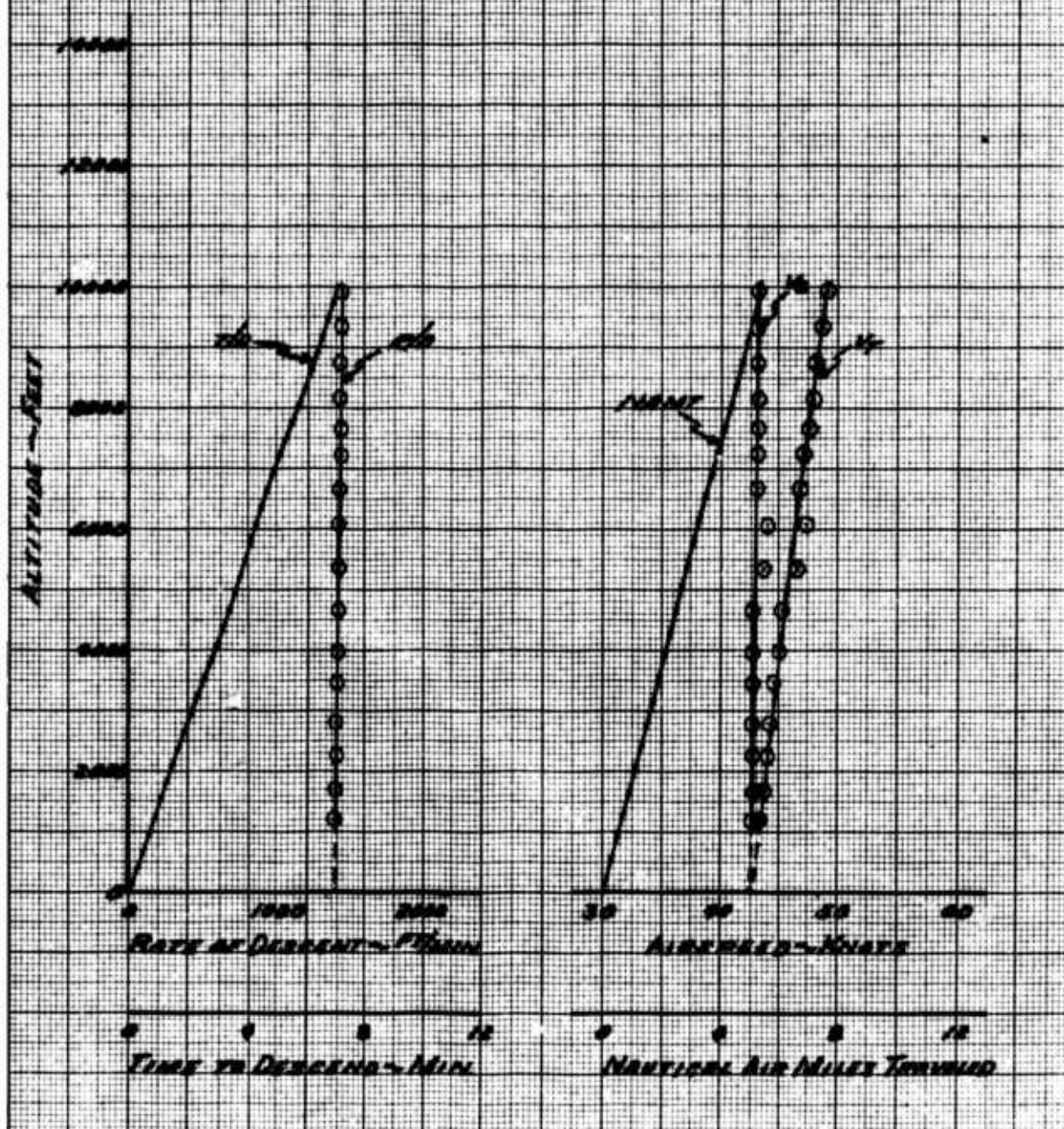


FIGURE NO 51
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H SNV 57-6234
 LYONING Q-435-23 ENGINE
 310 ROTOR RPM
 GROSS WEIGHT 12520 LB
 STANDARD DAY

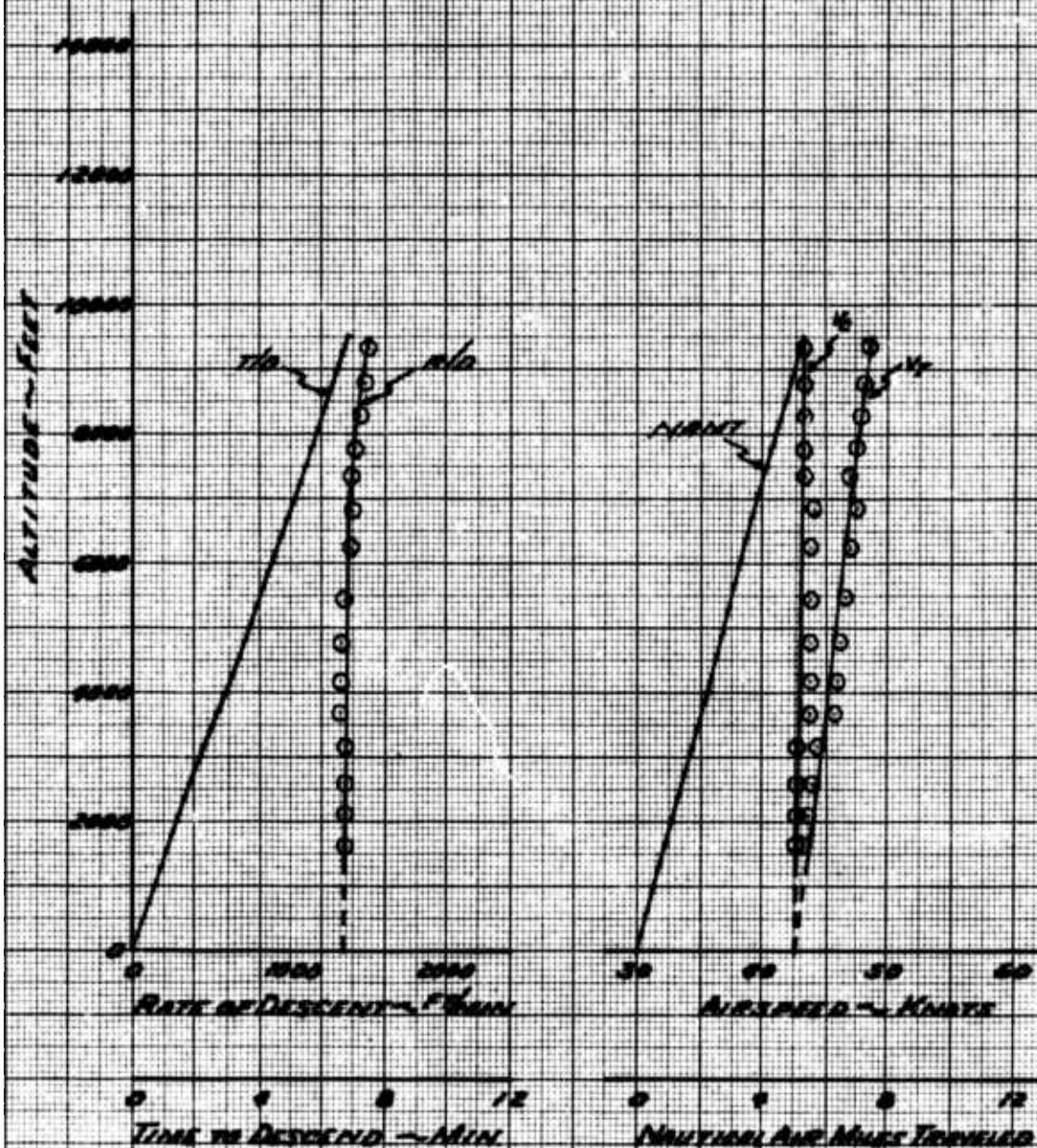


FIGURE No 52
 AUTOROTATIONAL DESCENT PERFORMANCE
 OH-13H SN 57-6236
 LYCOMING O-435-23 ENGINE
 230 RPM
 GROSS WEIGHT - 2510 LB
 STANDARD DAY

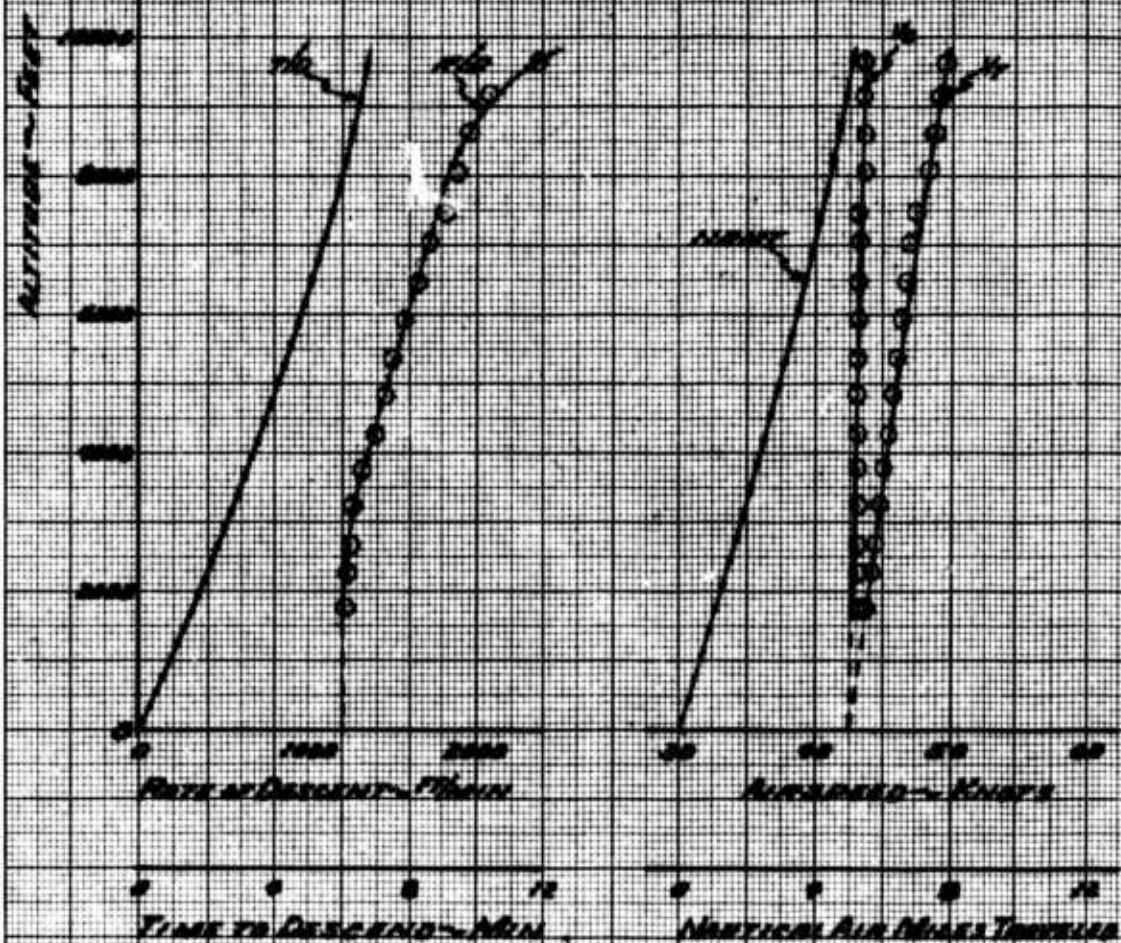


FIGURE No 53
 FUEL FLOW VS BRAKE HORSEPOWER
 OH-13H S/N 57-6239
 LYCOMING O-435-23 ENGINE
 2300 ENGINE RPM
 MA-9-5AA CARBURETOR
 LEVEL FLIGHT
 CARBURETOR AIR COLD

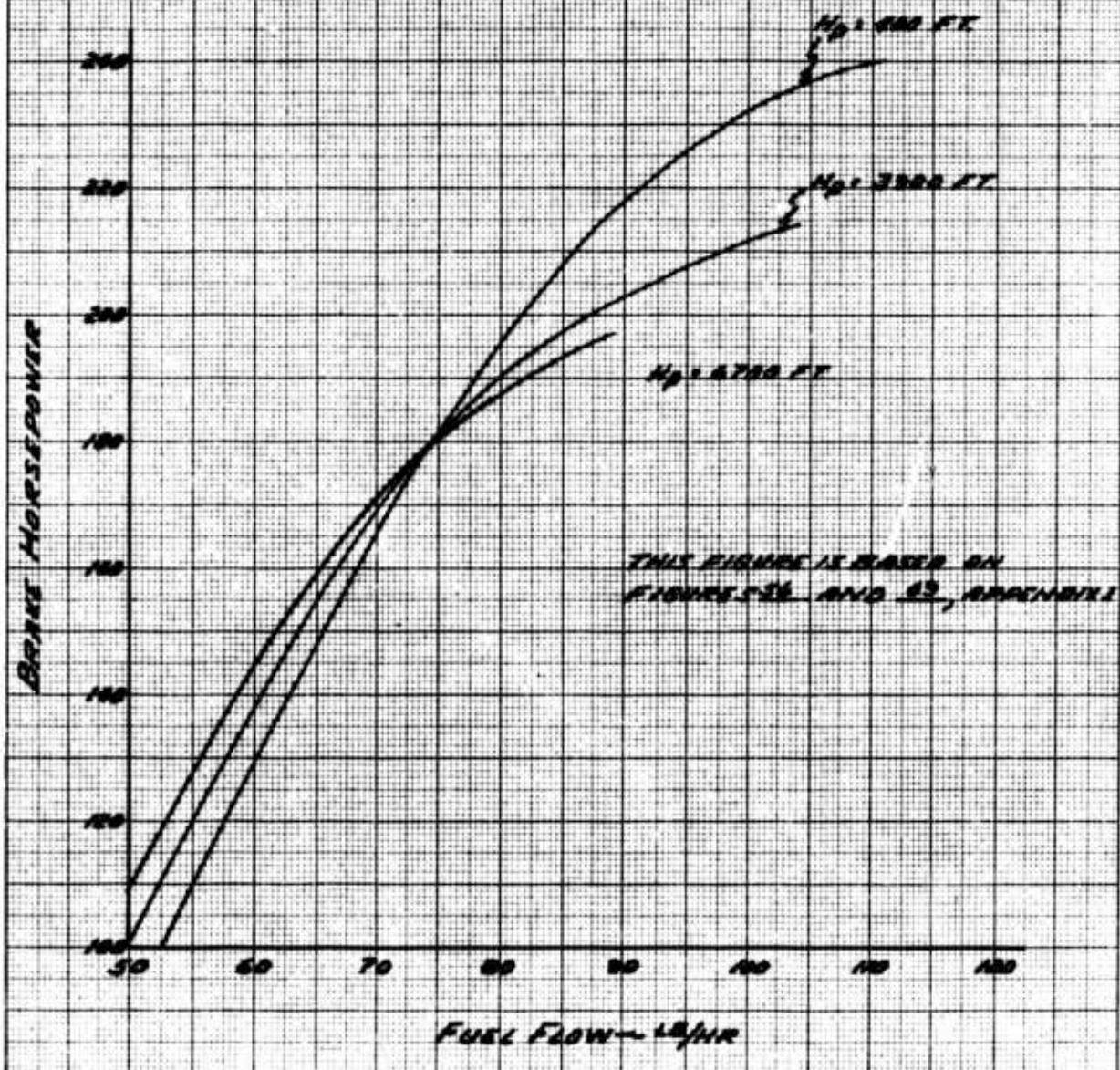


FIGURE No. 54
 FUEL FLOW VS BRAKE HORSEPOWER
 OH-13H S/N 57-6234
 LYCOMING O-435-23 ENGINE
 3100 ENGINE RPM
 MA-9-5AA CARBURETOR
 LEVEL FLIGHT
 CARBURETOR AIR CND

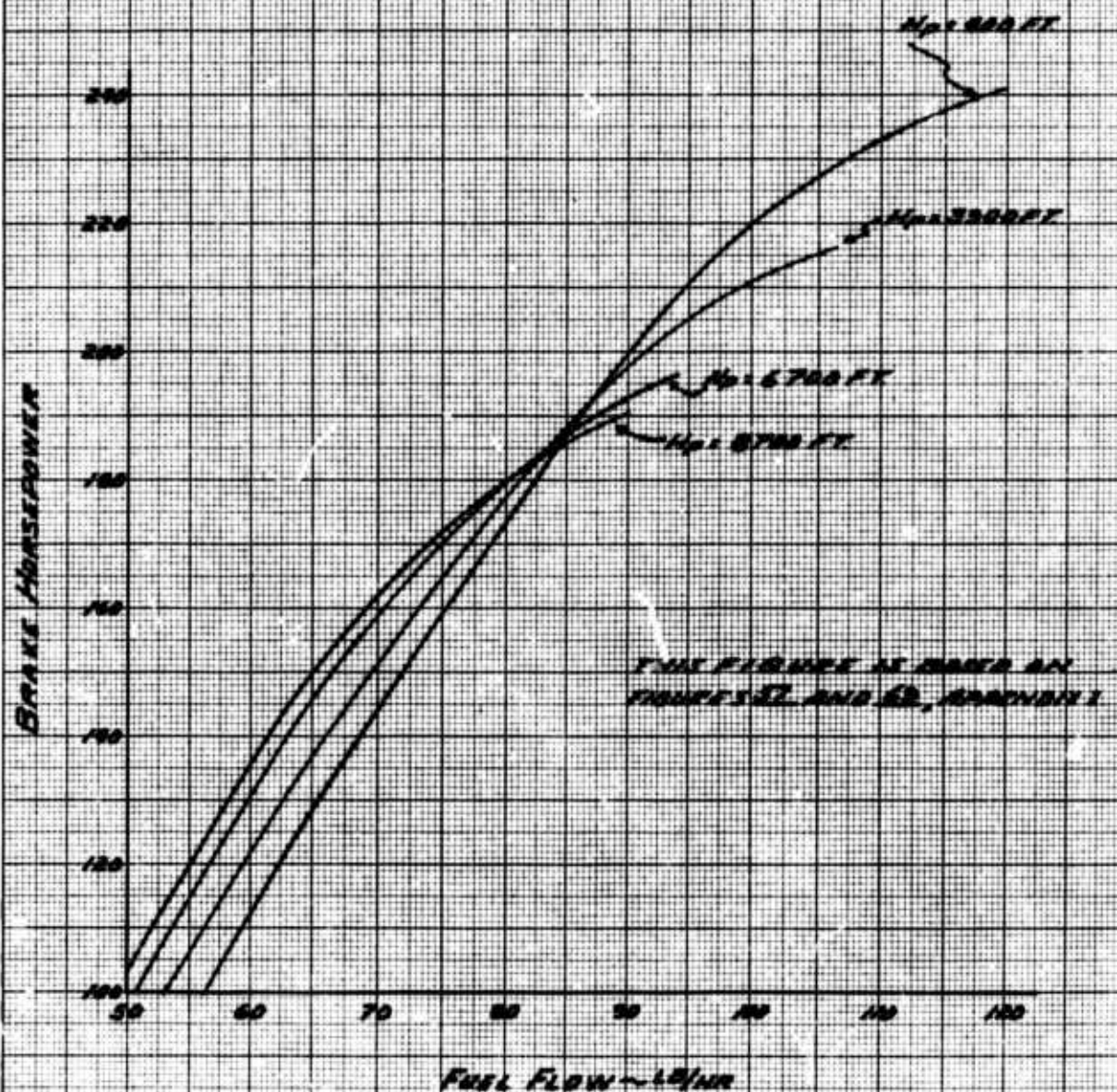


FIGURE No 55
 FUEL FLOW VS BRAKE HORSEPOWER
 OH-13H SN1576236
 LYCOMING O-435-23 ENGINE
 3200 ENGINE RPM
 MA-9-500 CARBURETOR
 LEVEL FLIGHT
 CARBURETOR AIR COLD

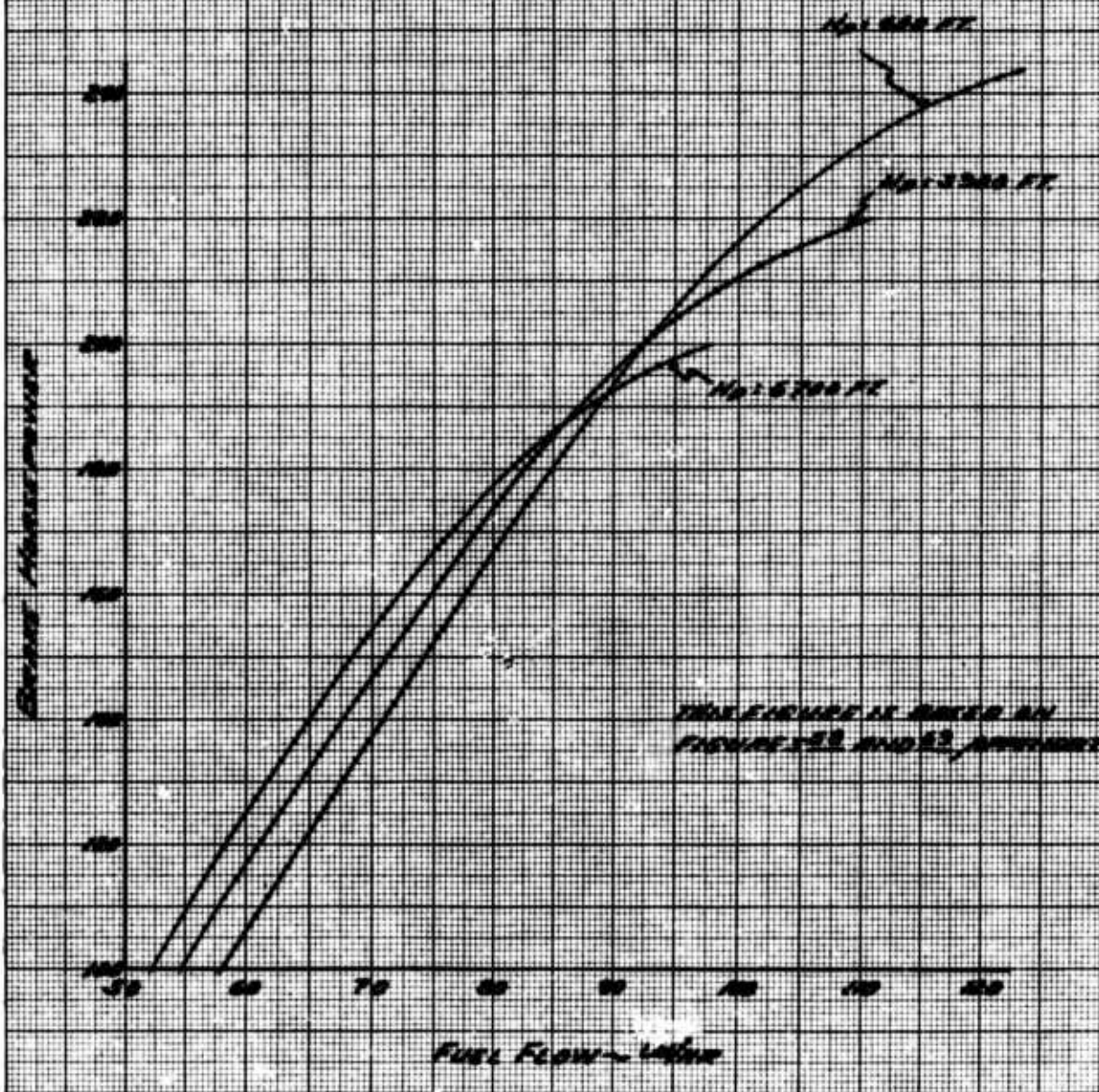


FIGURE NO. 36
 FUEL FLOW VS TEST MANIFOLD PRESSURE
 OH-13H S/N 57-6236
 LYCOMING O-435-23 ENGINE
 322 ROTOR RPM
 2300 ENGINE RPM
 CARBURETOR AIR COOL

SOLID SYMBOLS DENOTE
 FUEL DATA FROM GROUND
 TESTS OPEN SYMBOLS DE-
 NOTE LEVEL FLIGHT DATA

SYMBOL	APPROX. ALTITUDE
▲	800 FEET
●	3000 FEET
■	6700 FEET
○	9000 FEET
△	5100 FEET
◻	5700 FEET

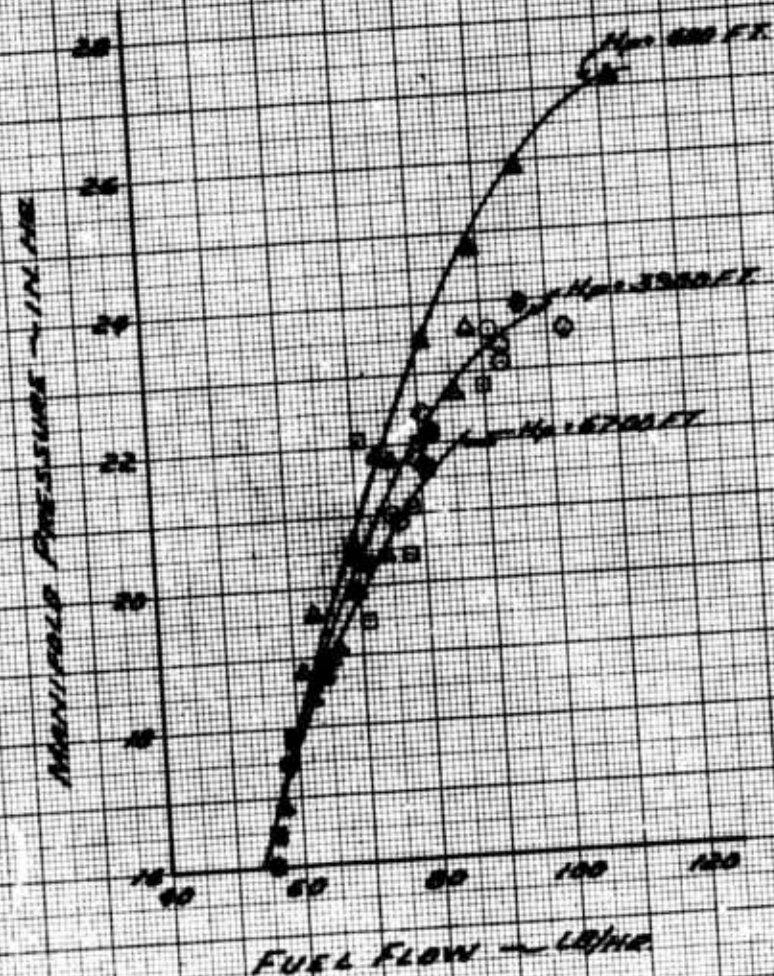


FIGURE NO 57
 FUEL FLOW VS TEST MANIFOLD PRESSURE
 OH-13H SN 57-6234
 LYCOMING O-435-23 ENGINE
 3040 RPM
 3100 ENGINE RPM
 CARBURETOR AIR COLD

SOLID SYMBOLS DENOTE
 FUEL DATA FROM CONDUCTED
 OPEN SYMBOLS DENOTE LEVEL
 FLIGHT DATA

SYMBOL	TEST ALTITUDE
▲	500 FEET
●	1000 FEET
○	1500 FEET
◐	2000 FEET
◑	2500 FEET
◒	3000 FEET
◓	3500 FEET
◔	4000 FEET
◕	4500 FEET

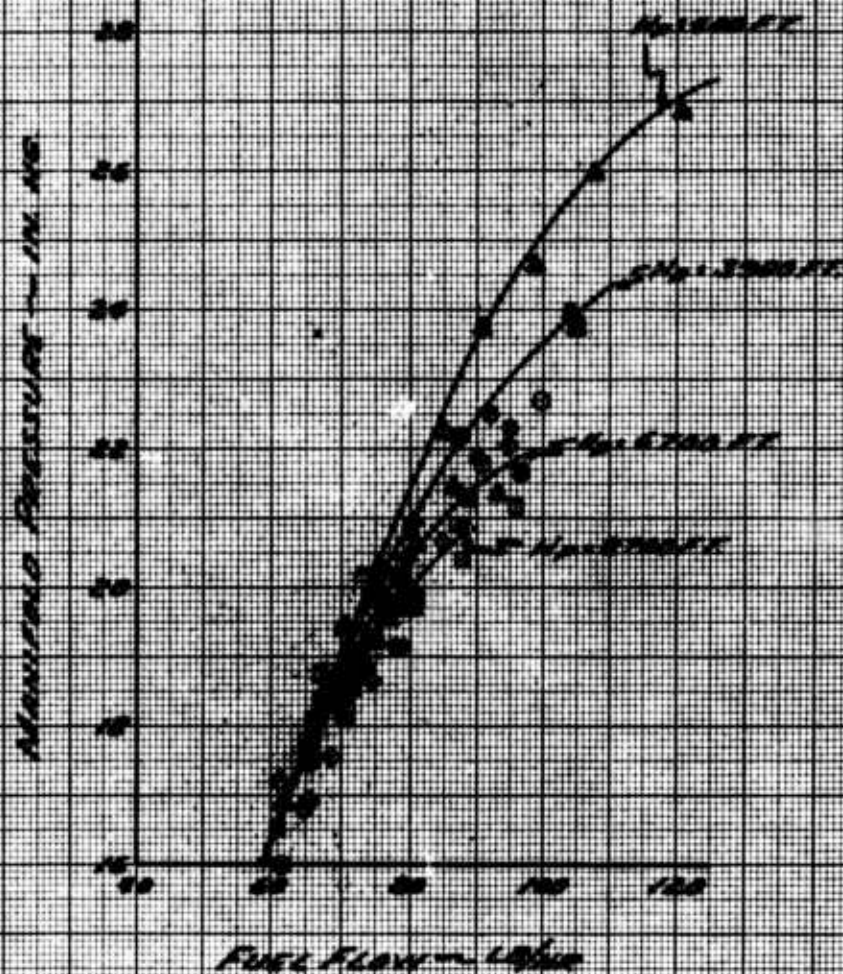
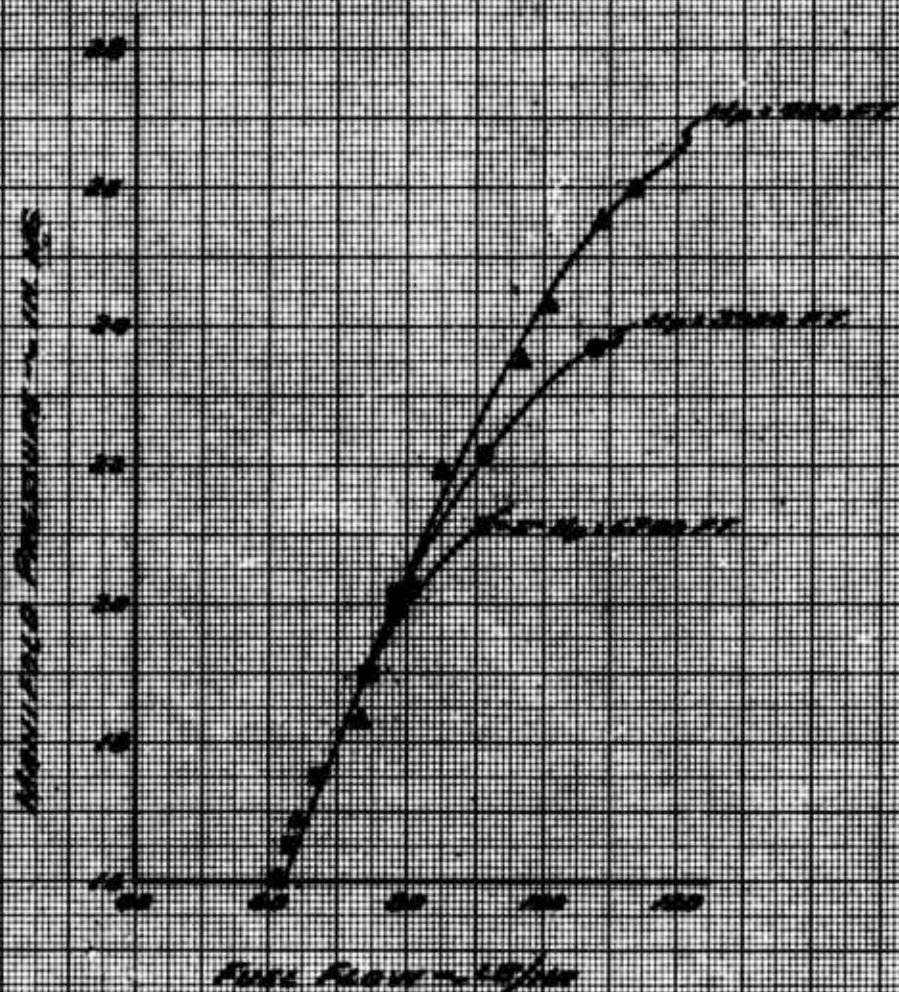


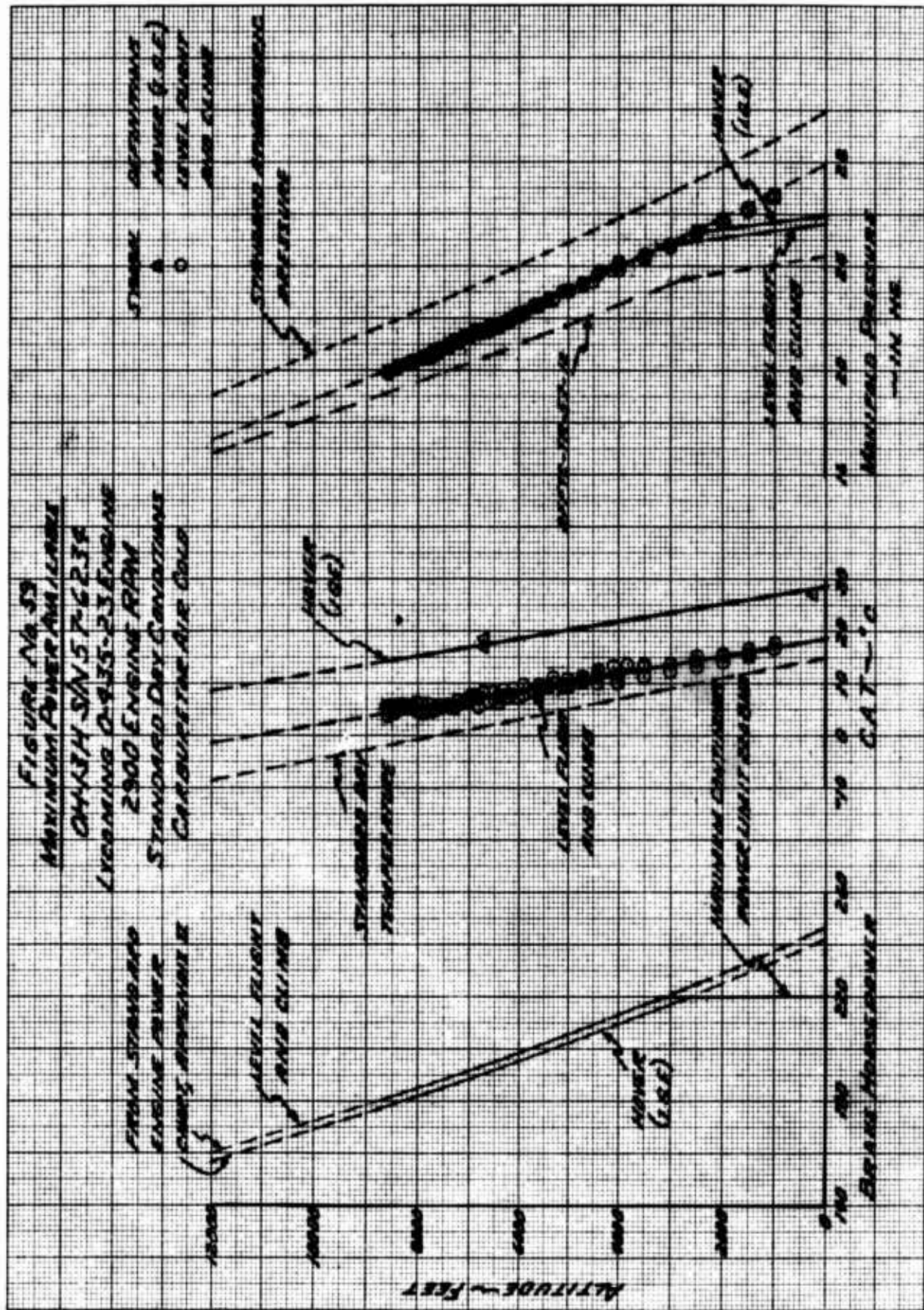
Figure No 38
Fuel Flow vs Test Manifold Pressure

QUICK SYN 574228
 LYCOMING O-435-23 ENGINE
 3550 RPM
 3200 ENGINE RPM
 CONDENSING AIR COOL

TEST FUEL DATA RPM
 3550 RPM
 3200 RPM

SYSTEM	TEST ALTITUDE
1	500 FEET
2	3500 FEET
3	6700 FEET





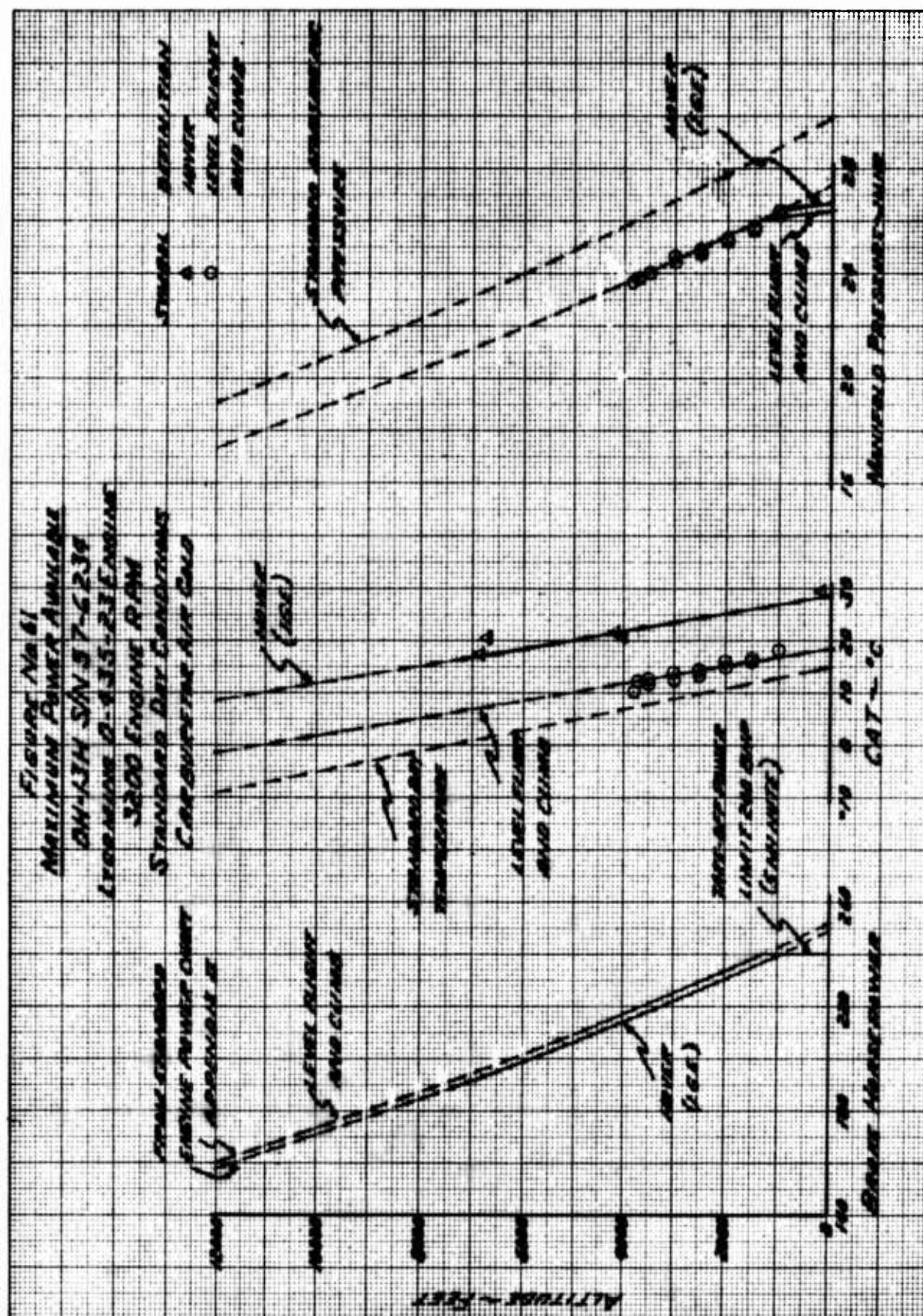


FIGURE No 62
 MAXIMUM POWER AVAILABLE
 OH-134/SIN 57-6234
 LYCOMING O-435-23 ENGINE
 2300 ENGINE RPM
 LEVEL FLIGHT AND CLIMB
 CARBURETOR AIR COLD

NOTE: MANIFOLD PRESSURE SCHEDULE AS PER FIGURE 52, APPENDIX I

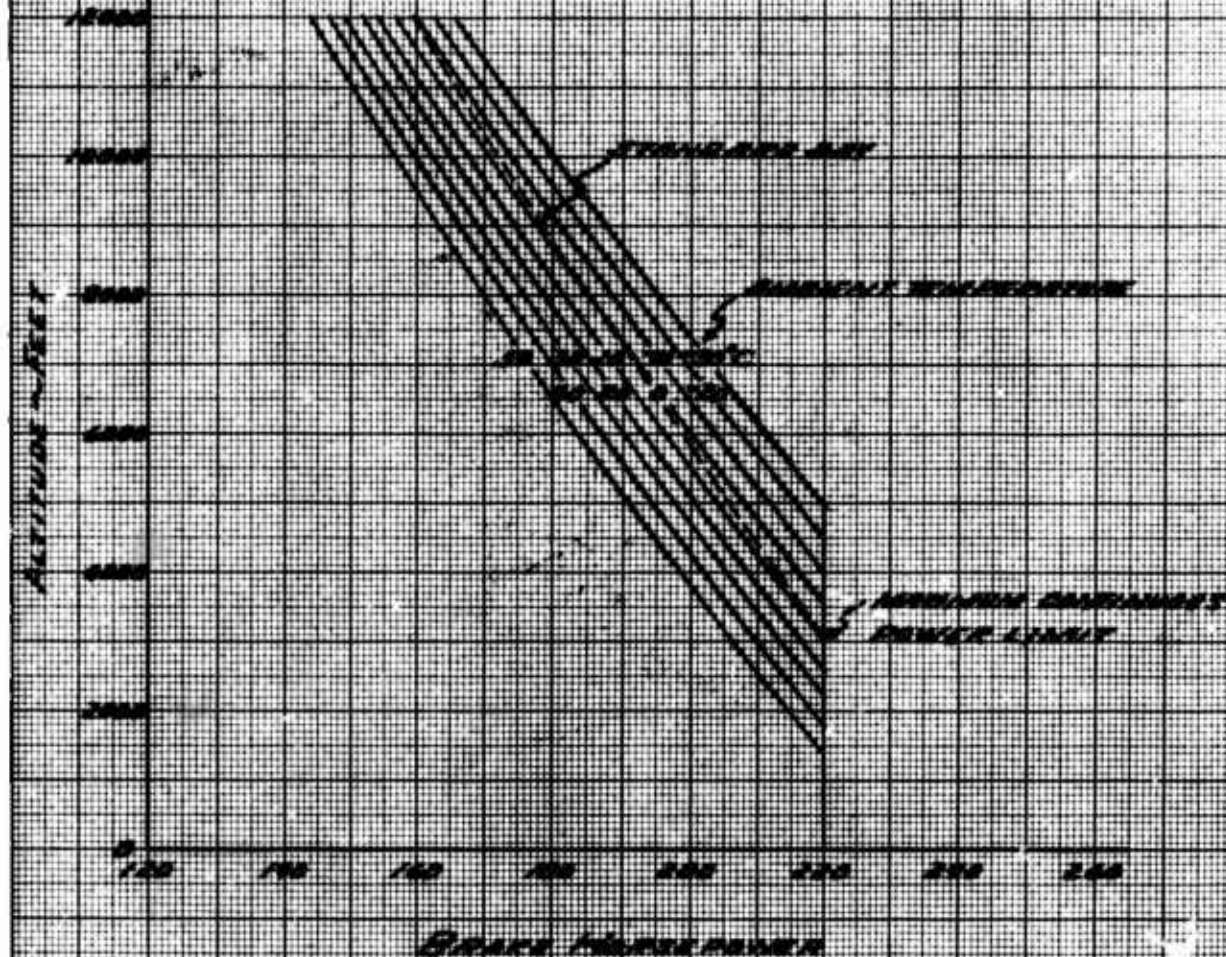


FIGURE No. 63
 MAXIMUM POWER AVAILABLE
 OH-13H S/N 37-6239
 LYCOMING O-635-23 ENGINE
 3100 ENGINE RPM
 LEVEL FLIGHT AND CLIMB
 CARBURETOR AIR COLD

NOTE: MANifold PRESSURE SCHEDULE AS PER FIGURE 60, APPENDIX I

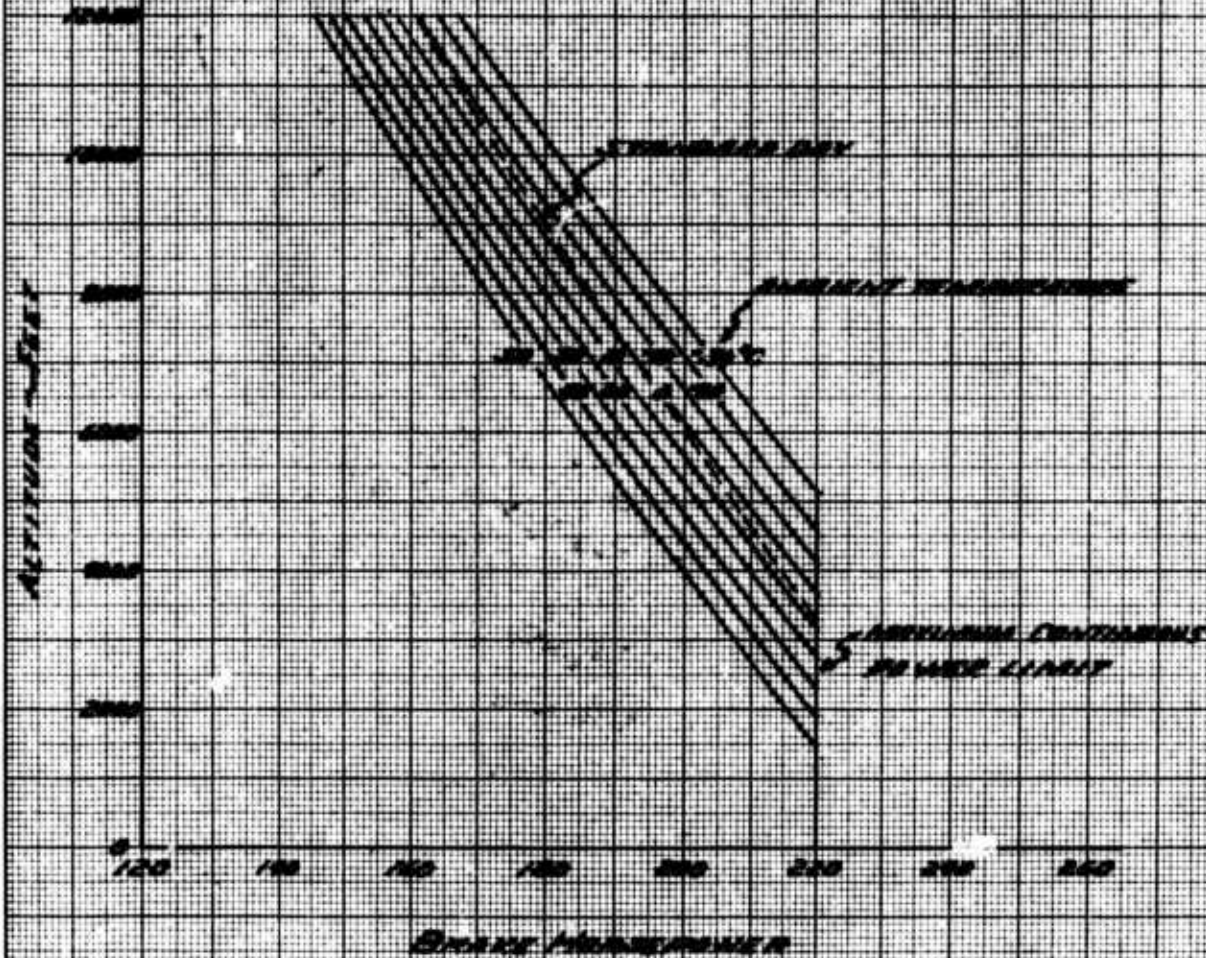


FIGURE 14-68
 MAXIMUM POWER AVAILABLE
 OH-13H S/N 57-6238
 LYERNING O-435-23 ENGINE
 3200 ENGINE RPM
 LEVEL FLIGHT AND CLIMB
 CARBURETOR AIR COLD

NOTE: AIRFIELD PRESSURE
 USE SCHEDULE AS PER
 FIGURE 14-69, APPENDIX I

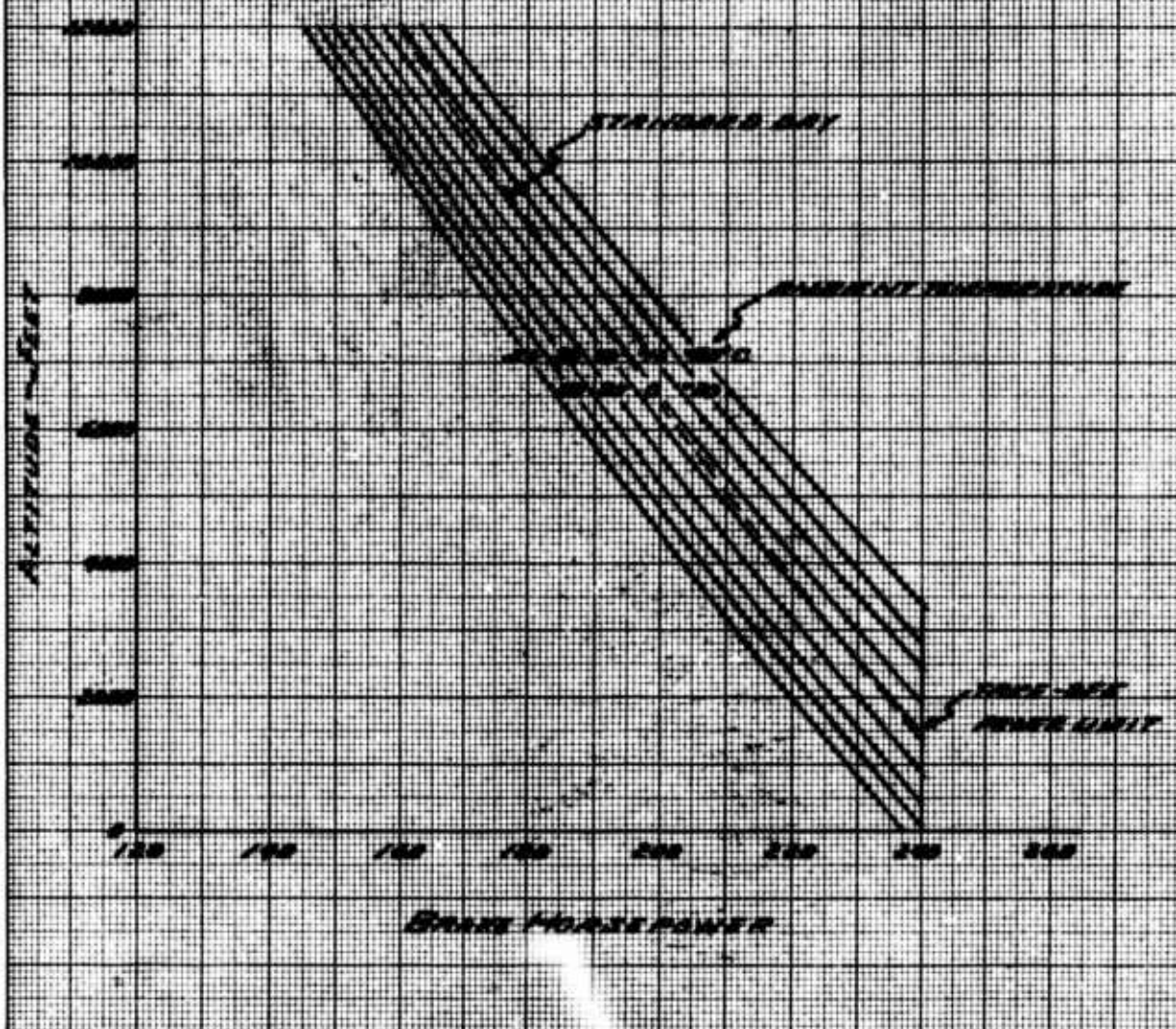


FIGURE No. 63
 MAXIMUM POWER AVAILABLE
 OH-13H SIN 57-6234
 LYCOMING O-435-R3 ENGINE
 2800 ENGINE RPM
 HAVING
 (I.G.E.)
 CARBURETOR AIR COLD

NOTE: DATA VALID FOR
 IN CLIMB EFFECT
 CONDITION

MAXIMUM POWER
 SCHEDULE AS PER FIGURE
 63, APPENDIX 1

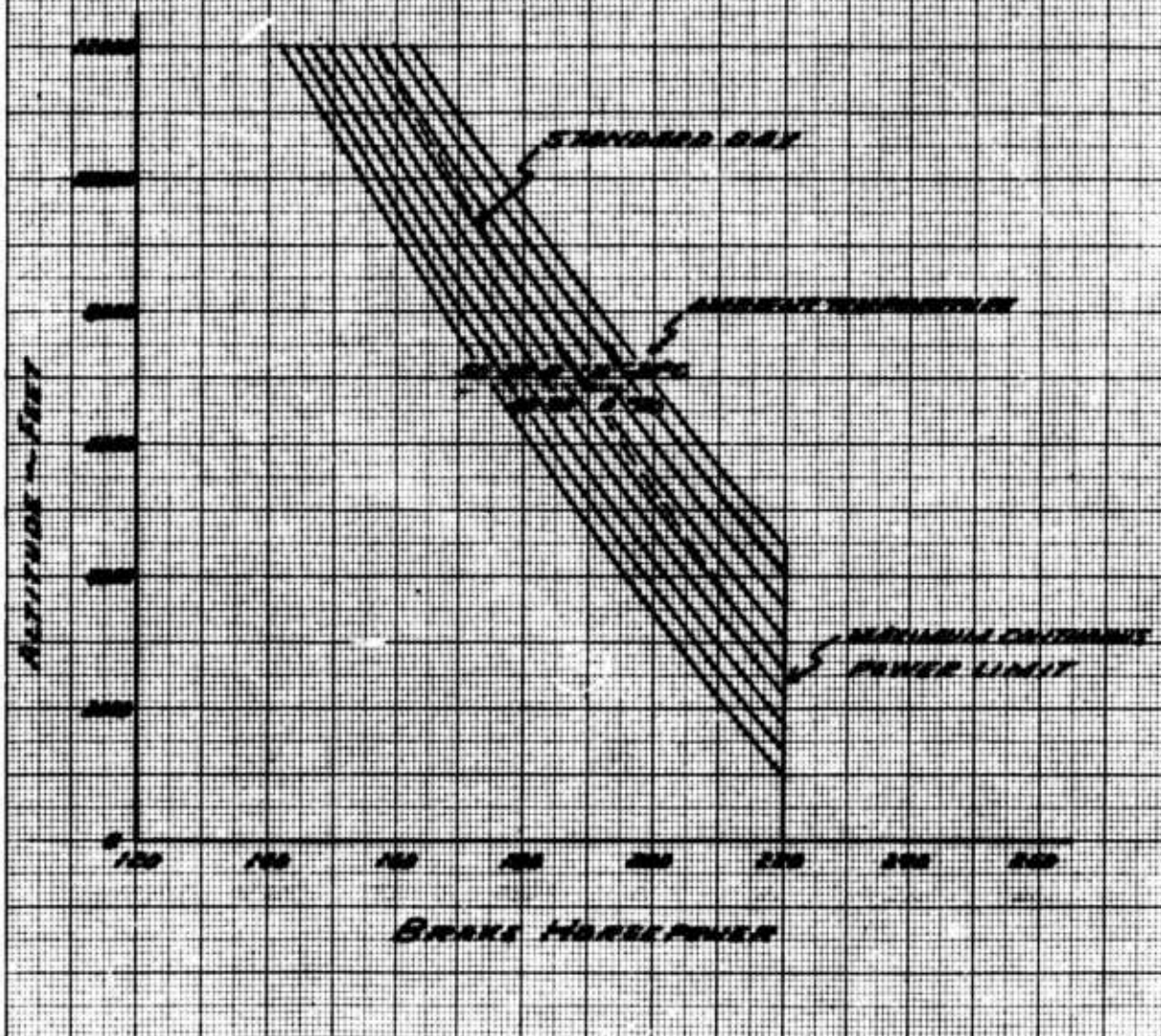


FIGURE No. 46
 MAXIMUM POWER AVAILABLE
 OH-13H SIN 57-6236
 LYCOMING O-435-23 ENGINE
 3100 ENGINE RPM
 HOVERING
 (I.G.E.)
 CARBURETOR AIR COLD

NOTE: DATA VALID FOR
 IN GROUND EFFECT
 OPERATION

BAROMETRIC PRESSURE
 SCHEDULE AS FOR FIGURE
 40, APPENDIX 2

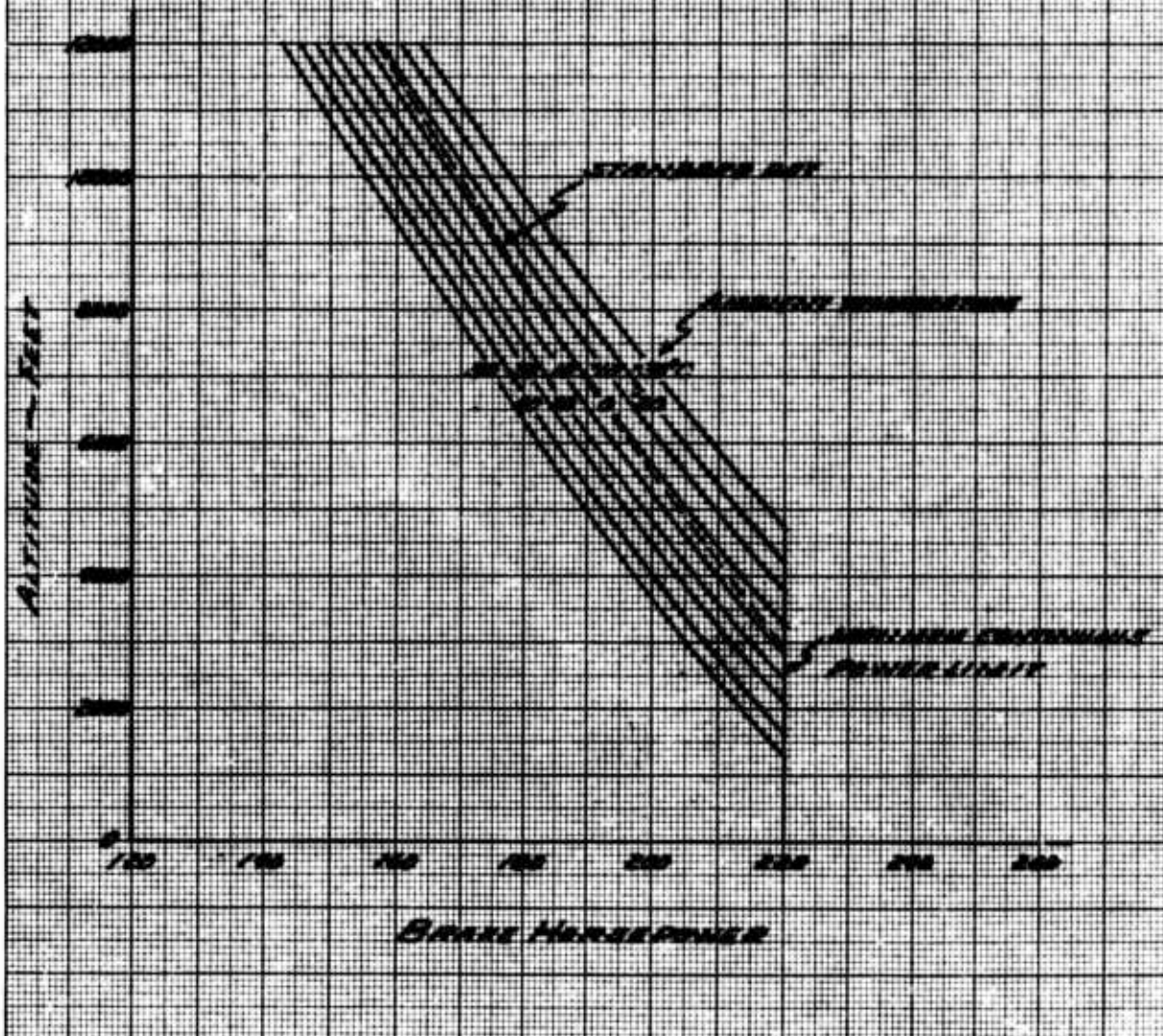


FIGURE No. 67
 MAXIMUM POWER AVAILABLE
 OH-13H S/N 57-6239
 LYCOMING O-435-23 ENGINE
 3200 ENGINE RPM
 HOVERING
 (I.G.E.)
 CARBURETOR AIR COLD

NOTE: DATA VALID FOR
 IN GROUND EFFECT
 CONDITION

MANIFOLD PRESSURE
 SCHEDULE AS PER FIGURE
 61, APPENDIX I

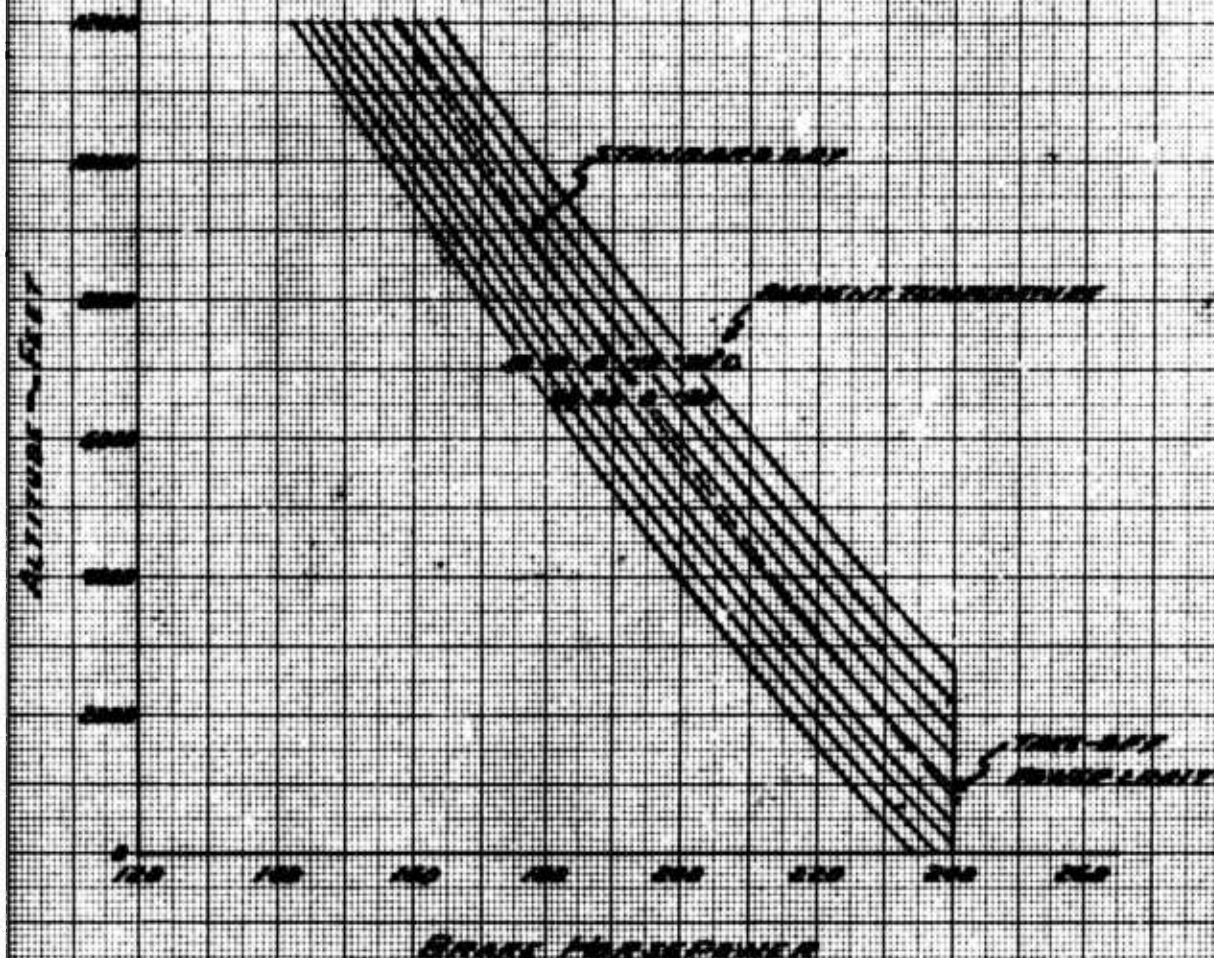


FIGURE No 48
 CARBURETOR AIR RISE VS ALTITUDE
 OH-13H SN 57-6236
 LYCOMING O-435-23 ENGINE
 LEVEL FLIGHT AND CLIMB
 CARBURETOR AIR COLD

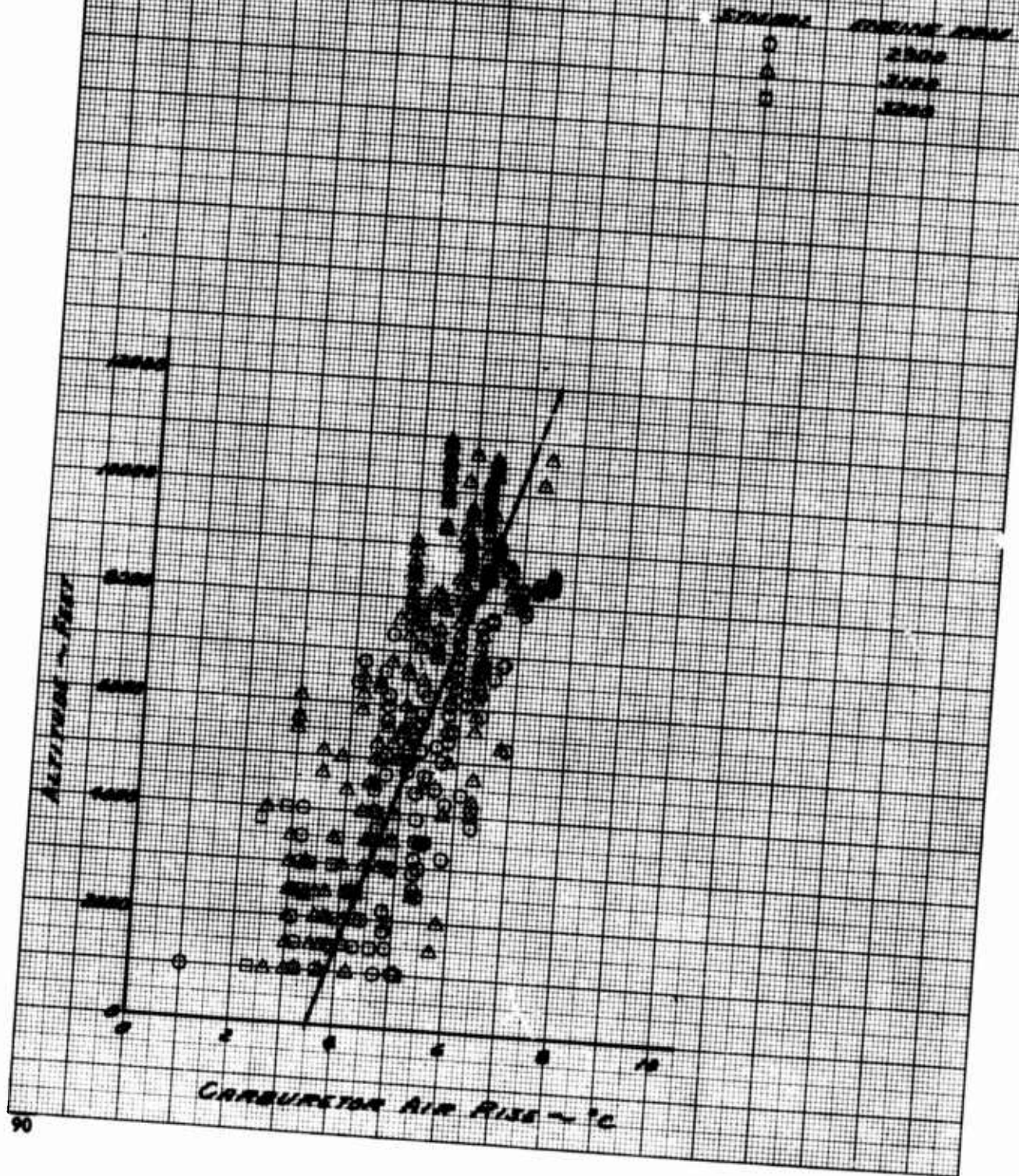
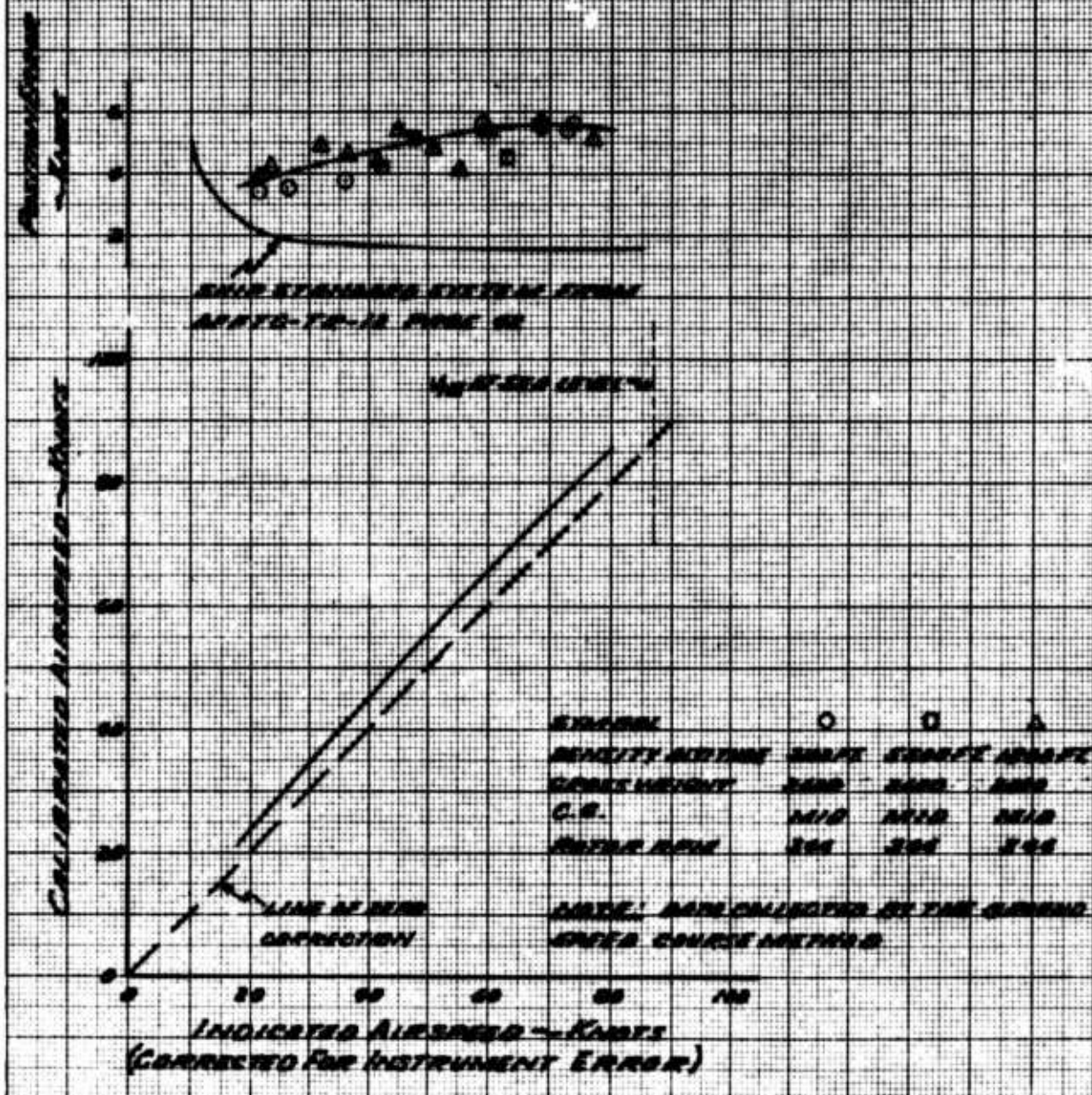


FIGURE 1A-70
 AIRSPEED CALIBRATION
 OH-13H SN-57-6238
 LYCOMING O-435-23 ENGINE
 BOSS SYSTEM
 CARBURETOR AIR FLOW



References

1. Manual No. TM55-1520-204-10, "H-13H Helicopters Operator's Manual," Revised September 1960.
2. AFFTC-TR-57-12, "H-13H Phase IV Performance Test," ASTIA No. AD-124104.
3. AFFTC-TR-57-12, Addendum No. 1, "H-13H Phase IV Performance," ASTIA No. AD-124127.
4. AFFTC-TN-59-22, "Performance, Part II," ASTIA No. AD-215865.
5. "Physics," Hausman and Slack, Von Nostrand Company, Third Edition.
6. "Final Report of Test, Project Nr Avn 1457, Evaluation of the Relocated Ground-Handling Wheels on the H-13-Type Helicopter," ASTIA No. AD-209733.

NOMENCLATURE

Symbol	Description	Units
A	Rotor Disc Area	ft ²
R	Rotor Radius	ft
BHP	Brake Horsepower (33,000 ft-lb/min)	BHP
BHP _c	Chart Horsepower at H _p (33,000 ft-lb/min)	BHP
CAT	Carburetor Air Temperature	°K, °C
C _p	Power Coefficient	None
C _t	Thrust Coefficient	None
dH/dt	Rate of Change of Pressure Altitude	ft/min
H	Altitude	ft
MAP	Manifold Pressure	in. Hg abs
ERPM	Engine Speed (N _E)	RPM

Symbol	Description	Units
RRPM	Rotor Speed (N _R)	RPM
R/C _s	Standard Day Rate of Climb = $R/C_t + \Delta R/C_{hp} + \Delta R/C_w$	ft/min
R/C _t	Test Day Tape Line Rate of Climb = $\frac{dH_c}{dt} \times \frac{T_{a_t}}{T_{a_s}}$	ft/min
R/D	Rate of Descent	ft/min
T	Rotor Thrust	lb
T _a	Ambient Temperature	°K
V _c	Calibrated Airspeed	kt
V _t	True Airspeed V _c $\sqrt{\sigma}$	kt
w	Aircraft Gross Weight	lb
ΔBHP	The Change in Power Between Test Day and Standard Day, BHP _s - BHP _t	BHP
ΔC _p	Dimensionless Excess Power Increment Used in Takeoff Analysis (C _p available) - (C _p required to hover at some skid height)	None
(ΔR/C) _p	Increment of Change to R/C because of Change in Power from Test to Standard Day, $\Delta R/C_p = \frac{\Delta BHP \times 33,000}{w}$	ft/min
NAMPP	Nautical Air Mile Per Pound of Fuel	
BSFC	Brake Specific Fuel Consumption	
μ	Rotor Tip Speed Ratio, $\frac{V_t}{\Omega R}$	

<u>Symbol</u>	<u>Description</u>	<u>Units</u>
ρ	Air Density	slug/ft ³
σ	Ratio of Air Density at H_0 to sea level Air Density Rotor Speed	
Ω	$\frac{2\pi N}{60}$ Angular Velocity	rad/sec

Subscripts

t	Test Conditions
s	Standard Conditions
a	Ambient
p	Pressure

Data Analysis Methods

General

The equations and analysis methods used to reduce the performance data of this helicopter are briefly outlined in this section.

Dimensional analysis of the major items affecting helicopter performance will yield three dimensionless variables which may be used to present performance data in non-dimensional form. The C_p , C_t , μ method is used in this report.^P It should be noted that this non-dimensional method is useful only where blade compressibility and/or stall is not encountered. These variables are defined as follows:

$$C_p = \frac{\text{BHP} \times 550}{\rho A (\Omega R)^3}$$

$$C_t = \frac{W}{\rho A (\Omega R)^2}$$

$$\mu = \frac{V_t}{(\Omega R)}$$

Power Determination

During the test program, it was discovered that the test engine was producing approximately 15 horsepower less than the original OH-13H calibrated engine used for the tests presented in AFFTC-TR-57-12. The loss in horsepower was derived by comparing test data gathered during this program to the data presented in AFFTC-TR-57-12 under identical conditions. This loss in power was attributed to the high usage time on the test engine (650 hours) as a thorough check of engine specifications revealed no discrepancies.

The manifold pressure output of the test engine was approximately 1.3 inches of Hg higher than that of the calibrated engine described in AFFTC-TR-57-12. This was a result of changes made in the intake ducting system and the installation of an altitude-compensating carburetor (MA4-5AA) since the original tests were conducted. Assuming that the original calibrated engine was equipped with the altitude-compensating carburetor and the present intake ducting system, the total Δ BHP between this ideal or standard engine and the test engine used during this program can be found.

$$\frac{11 \text{ BHP}}{\text{in. Hg}} \text{ (Reference Manual No. TM55-1520-204-10)}$$

$$\text{Eng}_c - \text{Eng}_t = 15 \text{ HP}$$

$$\text{MAP}_t - \text{MAP}_c = 1.3 \text{ inches of Hg}$$

$$1.3 \text{ in. of Hg} \times \frac{11 \text{ BHP}}{\text{in. Hg}} = 14.3 \text{ HP}$$

$$c = \text{Calibrated Engine (AFFTC-TR-57-12)}$$

$$t = \text{Test Engine}$$

therefore:

$$\Delta \text{BHP } 15 + 14.3 = 29.3 \text{ HP @ 3000 ft}$$

This loss in horsepower made it impossible to develop the ultimate of the aircraft's ability during this test program. This horsepower difference is taken into account in all data where applicable.

The carburetor air temperature rise presented in the original H-13H report was a constant temperature (4 degrees centigrade) for all flight conditions at all altitudes. The test data obtained during this program revealed that the carburetor air temperature rise varies in a linear fashion from 3.5 degrees C at sea level to 6.8 degrees C at 10,000 feet for climb and level flight condition and from 12.8 degrees C at sea level to 16.7 degrees C at 10,000 feet for hovering (IGE). As a result of this condition, the Δ BHP presented above decreases at a rate of 1.3 HP/1000 feet of altitude above 3000 feet.

Test brake horsepower was determined from a modified engine manufacturer's power chart by correcting the chart horsepower for carburetor air temperature rise as follows:

$$BHP_t = BHP_{ch} \sqrt{\frac{T_{as}}{CAT_t}}$$

where

BHP_t = Test Apparent Horsepower

BHP_{ch} = Chart Horsepower determined from test manifold pressure, RPM, pressure altitude, and modified engine manufacturer's power chart.

TAS = Standard Temperature at Test Pressure Altitude, degrees K

CAT_t = Test Carburetor Air Temperature, degrees K

Humidity Correction

A humidity correction was applied to the hovering summary plot (Figure 3, Appendix 1).

$$BHP_t = BHP_{ta} \left[1 - K_1 \frac{200e}{P_a} \right]$$

where

BHP_t = Test Brake Horsepower

$$\left[1 - K_1 \frac{200e}{P_a} \right] = \text{Humidity Correction Factor}$$

$$K_1 = \frac{\text{Humidity Loss Assumed}}{\text{Humidity Loss Possible}}$$

Assumed to be .5

e = Partial Pressure of the water vapor in air

P_a = Ambient Air Pressure

Power Available

Power available values used in calculations of performance for nonstandard conditions were obtained from a faired curve of power available versus standard altitude.

$$BHP_a = BHP_{ta} \sqrt{\frac{CAT_t}{T_s + (CAT_s - T_s)}}$$

Hovering

The hovering data presented in this report were gathered by using the following two hovering test techniques:

- (a) free-flight hovering
- (b) tethered hovering

During the free-flight hovering, the helicopter skid height was varied by changing gross weight at a constant power setting. At each skid height resulting from a weight change, the skid height was measured and recorded along with all engine-power data.

During the tethered hovering, the helicopter power settings were varied while the skid height remained constant. The variation in power causes an increase or decrease in rotor thrust. This varying thrust was measured by a standard electronic weighing cell. The total thrust used to calculate C_t consisted of the helicopter gross weight, the tethered hovering cable weights, plus the force applied to the load cell. This total thrust and corresponding power settings were recorded.

The hovering test data were then reduced to non-dimensionalized variables, C_p and C_t . The results were plotted in Figure 3 into a plot of C_p versus C_t at 2- and 4-foot skid heights.

From Figure 3 and power available (reference Figure 60 and 61, Appendix 1), the hovering summary curves, Figures 1 and 2, were constructed. The standard-day hovering power available at a 4-foot skid height was determined by using the check climb test data and the hovering carburetor air rise versus altitude (Figures 68 and 69).

Takeoff

All takeoff tests were conducted by utilizing the hovering takeoff run (power limiting) with rotor bleed technique during translational lift. This technique requires that the pilot hover at a 2-foot skid height (power permitting) before initiating the takeoff run. As

the helicopter starts its initial acceleration for the takeoff run, the pilot applies full throttle or limit manifold pressure. During acceleration through translational lift, the rotor rpm is reduced 11 rpm in order to maintain the 2-foot skid height. The helicopter then continues its acceleration at this lower rotor rpm while maintaining a skid height of approximately 2 feet. Just prior to reaching the desired climb-out speed, the aircraft is rotated to climb attitude, and climb-out is accomplished at the desired airspeed.

The gross weight, center of gravity and engine power output were held constant, and the climb-out airspeed was varied for each takeoff curve conducted. Takeoff distance and true airspeed data were recorded with a Fairchild Flight Analyzer.

All data were corrected to a zero wind condition and the weight and power parameters non-dimensionalized form.



PHOTO 7 FAIRCHILD FLIGHT ANALYZER and THEODOLITE

Rotor Inertia Analysis

A limited rotor inertia analysis was conducted to find the amount of horsepower stored in the rotor system of the OH-13H helicopter. Use of part of this stored horsepower improves takeoff performance and prevents the skid tubes from contacting the ground as translational lift occurs. The analysis follows:

$$(1) E_k = \text{Work} = \frac{1}{2} (\omega)^2 - \text{ft} - \text{lb}$$

ω = Angular velocity of rotor system - radians/sec

I = Moment of inertia of rotor system - slugs - ft². The moment of inertia of rotor system for H-13H is 508 slugs - ft².

$$E_k = \frac{1}{2} (\omega)^2 = \frac{1}{2} \left(\frac{\pi}{30} \right)^2 (N_{R_1}^2 - N_{R_2}^2) \\ = .00551 (N_{R_1}^2 - N_{R_2}^2)$$

N_{R_1} = Rotor maximum rpm (355)

N_{R_2} = Rotor rpm after rpm bleed (344)

$$(2) \text{Power} = dE/dT = \frac{E_k - \frac{\text{ft-lb}}{\text{sec}}}{550 \times \text{time}}$$

Average Horsepower =

$$\frac{508 \times .0055 \times (N_{R_1}^2 - N_{R_2}^2)}{550 \quad t}$$

$$N_{R_1}^2 = 126736 @ 355 \text{ RRPM}$$

$$N_{R_2}^2 = 118336 @ 344 \text{ RRPM}$$

$$\text{HP}_{\text{ave}} = \frac{42.7}{t}$$

For a four-second bleed time:

$$\text{HP}_{\text{ave}} = \frac{42.7}{4} = 10.8 \text{ HP}$$

Climbs

Continuous climbs were flown using a climb schedule developed from the AFFTC-TR-57-12 "H-13H Phase IV Performance Test."

The observed rate of the climb was corrected to tapeline values by using the equations.

$$R/C_t = \frac{d\text{Hp}}{dt}$$

$$R/C_s = \frac{d\text{Hp}}{dt} \left(\frac{T}{T_s} \right)$$

where:

R/C_t = Tapeline Rate of Climb

R/C_s = Standard Rate of Climb

$\frac{d\text{Hp}}{dt}$ = Slope of pressure altitude versus time - curve in ft/min

T_t = Test temperature at pressure altitude at which slope is taken - °K

T_s = Standard temperature at pressure altitude at which slope is taken - °K

Power correction to standard conditions was made by using the following equation.

$$\Delta R/C_{\text{power}} = \frac{\Delta \text{BHP} \times 33,000}{W}$$

where:

$$\Delta \text{BHP} = \text{BHP}_s - \text{BHP}_t$$

Weight corrections were made by using

$$R/C_{\text{weight}} = \text{BHP}_s \times 33,000 \left(\frac{1}{W_s} - \frac{1}{W_t} \right)$$

Level Flight

Level-flight tests were conducted at values of constant W/O in both the clean and armament configuration. Standard

power required was calculated by using:

$$BHP_s = BHP_t \frac{\rho_s}{\rho_t}$$

Standard-day true speed was calculated by using:

$$V_{true} = \frac{V_c}{\sqrt{\sigma_s}}$$

Fuel Flow

Fuel-flow data were collected during the program at various altitudes and engine speeds. The test was conducted such that power output was varied over a complete MAP range at each engine speed. The power and fuel-flow data were then reduced to standard conditions at each altitude and presented as a function of brake horsepower and engine rpm. The level flight fuel-flow data were derived

by entering this plot with standard brake horsepower, density altitude, and engine rpm.

Specific range, NAMPP, was determined by dividing TAS by the resulting fuel flow (V_t/W_f).

Specific power, BSFC, was determined by dividing fuel flow by brake horsepower (W_f/BHP).

Autorotation

Continuous autorotation tests were conducted. The data were corrected by using:

$$R/D_t = \frac{dHp}{dt}$$

$$R/D_s = \frac{dHp}{dt} \left(\frac{T}{T_s} \right)$$

APPENDIX II

■ GENERAL AIRCRAFT INFORMATION

Dimensions and Design Data

This descriptive data and design information were obtained from the Model H-13H "Detail Specification for Three Place, Single Engine, Two Bladed Helicopter," Bell Helicopter Report No. 47-947-036, dated 1 March 1955.

Fuselage Group:

Fuselage Length to Tail Rotor Hub	27 ft 4 in.
Fuselage Width (Tread)	7 ft 6 in.
Height (To Rotor Hub)	9 ft 3 5/16 in.
Length (Blades Turning)	41 ft 4 3/4 in.
Design Gross Weight	2350 lb
Maximum Overload Gross Weight	2750 lb

Main Rotor Group:

Airfoil Root and Tip	NACA 0015
Chord Root and Tip	11 in.
Rotor Diameter	35 ft 1 1/2 in.
Blade Area	32.2 sq ft
Disc Area	968.5 sq ft
Vertical Distance from Rotor Head to Bottom of Skid Tube	8 ft 3 5/32 in.

Tail Rotor Group:

Airfoil, Root	NACA 23018
Tip	NACA 23011
Chord, Root	Sta 12.5,
	5.375 in.
Tip	Sta 34.0,
	4.125 in.
Rotor Diameter	5 ft 8 1/2 in.
Disc Area	25.58 sq ft

Transmission Ratios:

Engine to Main Rotor	9:1
Engine to Tail Rotor	.833:1

Aircraft Flight Limits:

Rotor Speed	
Power On	
Maximum Continuous	322-344 RRPM
Takeoff (5 minutes)	344-355 RRPM
Power Off	310-370 RRPM
	(Recommended)

Limit Flight Load Factor @ 2350 lb

Positive	2.5
Negative	.5
Landing	3.75

Center of Gravity Limits:

Forward	Sta 82
Aft	Sta 89
Center of Main Rotor Mast	Sta 87

V never exceed	87 kt from S.L. to 1400 ft. Decrease 3.0 kt per 1000 ft after 1400 ft.
----------------	--

Engine Limits in Flight:

1. Maximum Carburetor Air Temperature	40 deg C
2. Oil Pressure	40-60 PSI
3. Engine Oil Temperature	40-110 deg C
4. Cylinder Head Temperature	100-224 deg C
5. Manifold Pressure (See Figures 59 through 61, Appendix I)	
6. Transmission Oil Temperature	40-130 deg C

Miscellaneous Information:

Fuel	115/145
Fuel Capacity	43 gal
Fuel Usable	41.6 gal
Oil Capacity	8.0 qt

Weight and Balance

The test aircraft was weighed prior to initial flight with an electronic weighing kit by utilizing the three jack points.

Test basic weight (includes instrumentation, ground handling wheels, full oil and trapped fuel)	1839 lb
Crew (2) with parachutes	400
Full Fuel (41.6 gal @ 6.0 lb/gal)	250

The following loading schedules were used and throughout the program an 85.00 inch center of gravity was maintained.

Overload Gross Weight

Test Basic Weight (same as above)	1839 lb
Full Fuel (41.6 gal @ 6.0 lb/gal)	250
Crew (2) with parachutes	400
Ballast	61
	2550 lb

Maximum Overload Gross Weight

Test Basic Weight	1839 lb
Full Fuel (41.6 gal @ 6.0 lb/gal)	250
Crew (2) with parachutes	400
Ballast	261
	2750 lb

Maximum Overload Gross Weight With XM-1 Armament and Ammunition

Test Basic Weight	1839 lb
Crew (2) with parachutes	400
Full Fuel (41.6 gal @ 6.0 lb/gal)	250
XM-1 Armament Kit	133
Ammunition	90
Ballast	38
	2750 lb

XM-1 ARMAMENT KIT SYSTEM

Description

XM-1 Armament Kit. The twin helicopter mounting cal-30 machine-gun XM-1 armament kit is designed for use on the H-13E, H-13G, and H-13H Army helicopters.

It consists basically of two fixed cal..30 machine-guns M37C, helicopter twin cal..30/7.62-mm machine-gun mount (8428015) and associated attaching parts, a sight assembly, elevation indicator, and attaching components.

The cal..30 machine-gun M37C is basically machine-gun M37 modified. Two guns are installed and they are mounted, one on each side of the helicopter on the mount assemblies. The machine-guns are interchangeable and can be quickly detached from the mount. The pneumatic charger assembly controls the charging and safetying operation, and a solenoid is utilized to actuate the trigger.

Helicopter twin cal..30/7.62-mm machine-gun mount consists of two mount assemblies that are installed on each side of the helicopter and straddle the front and rear cross tubes. They are interchangeable and easily removed from the helicopter. Each mount assembly contains a buffer assembly to reduce recoil and counter-recoil forces transmitted to the helicopter during firing. Elevation of the guns is controlled by electrically-operated elevating mechanisms and elevating limit switches contained in the mount. The ammunition box is also attached to the mount.

The machine-guns are sighted with the sight assembly that is mounted on the pilot's side near the top of the plastic (bubble) cabin inclosure.

The graduated elevation indicator is attached near the muzzle end of the left machine-gun barrel to provide the pilot with elevation setting.

During this program, no actual firing of the XM-1 armament kit was conducted. The guns were installed in their respective positions to develop their aerodynamic drag effect during level flight. XM-1 armament-kit firing evaluation is presented in ATA-TR-63-2, "OH-13H Gross Weight Increase/XM-1 Armament Kit Stability and Control Evaluation."

TEST INSTRUMENTATION

Test instrumentation was supplied, installed and maintained by the Instrumentation Branch of the Logistics Division, U.S. Army Aviation Test Activity. This instrumentation was calibrated by the Instrumentation Branch, Performance Engineering Division, Air Force Flight Test Center. A swivel-type pitot-static head was installed on a boom located on the right side of the helicopter. The

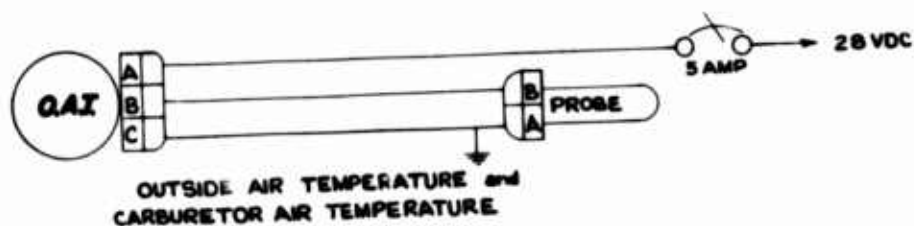
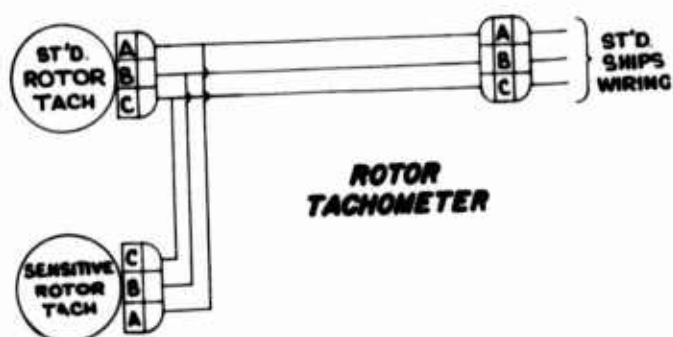
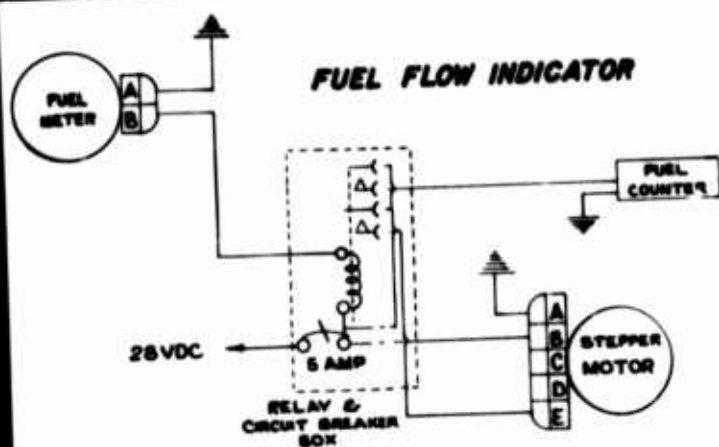
test instrumentation consisted of the following sensitive instruments:

- Airspeed Indicator (Boom System)
- Altimeter (Boom System)
- Rotor Tachometer
- Manifold Pressure
- Free Air Temperature
- Carburetor Air Temperature
- Fuel Totalizer

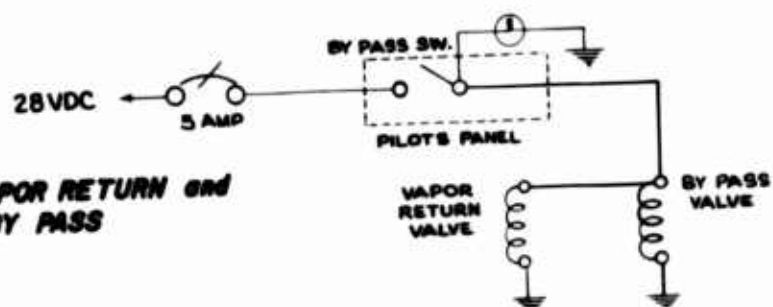


PHOTO 8 INSTRUMENTATION PANEL

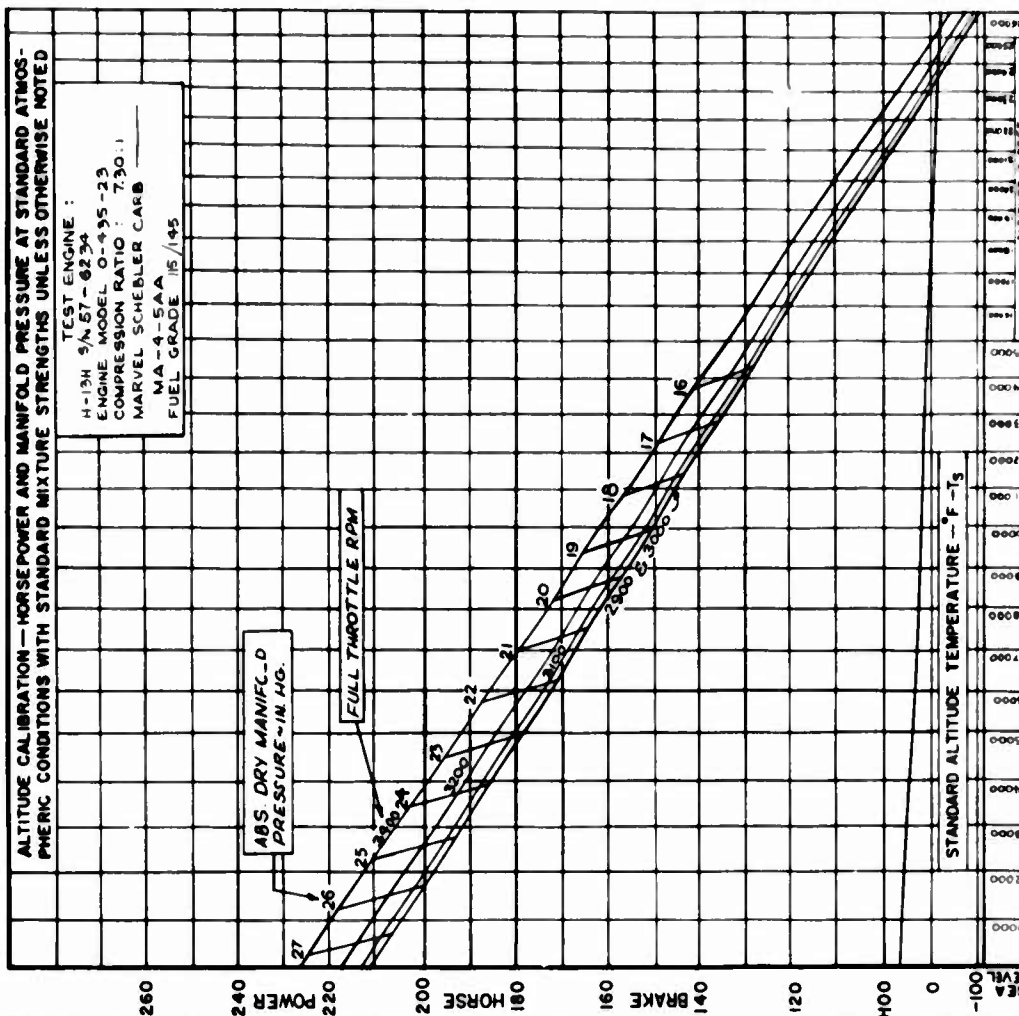
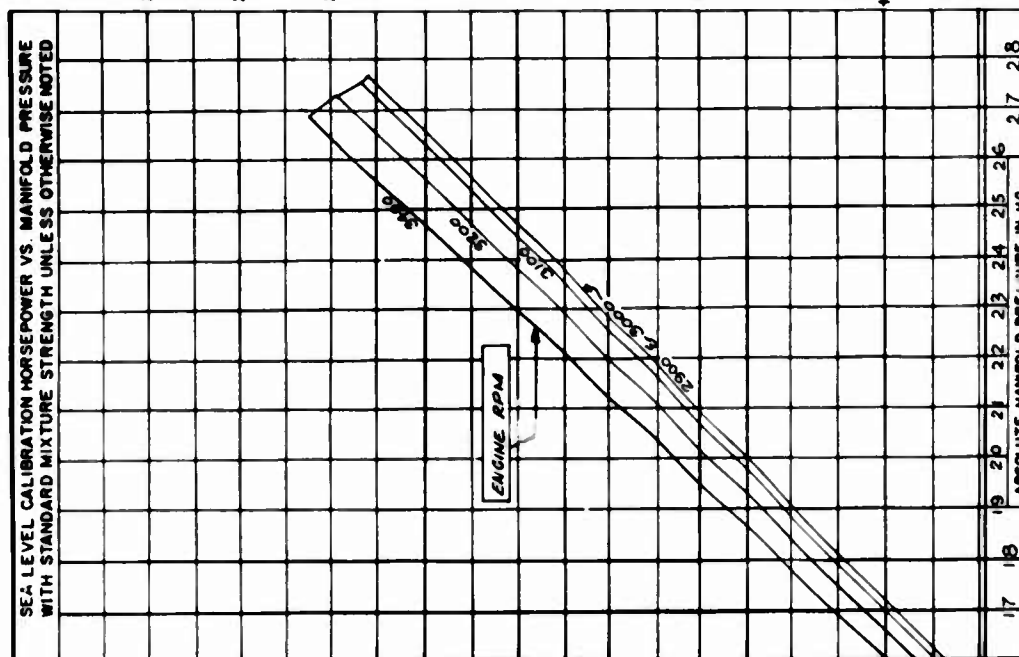
OH-13H INSTRUMENTATION DIAGRAM

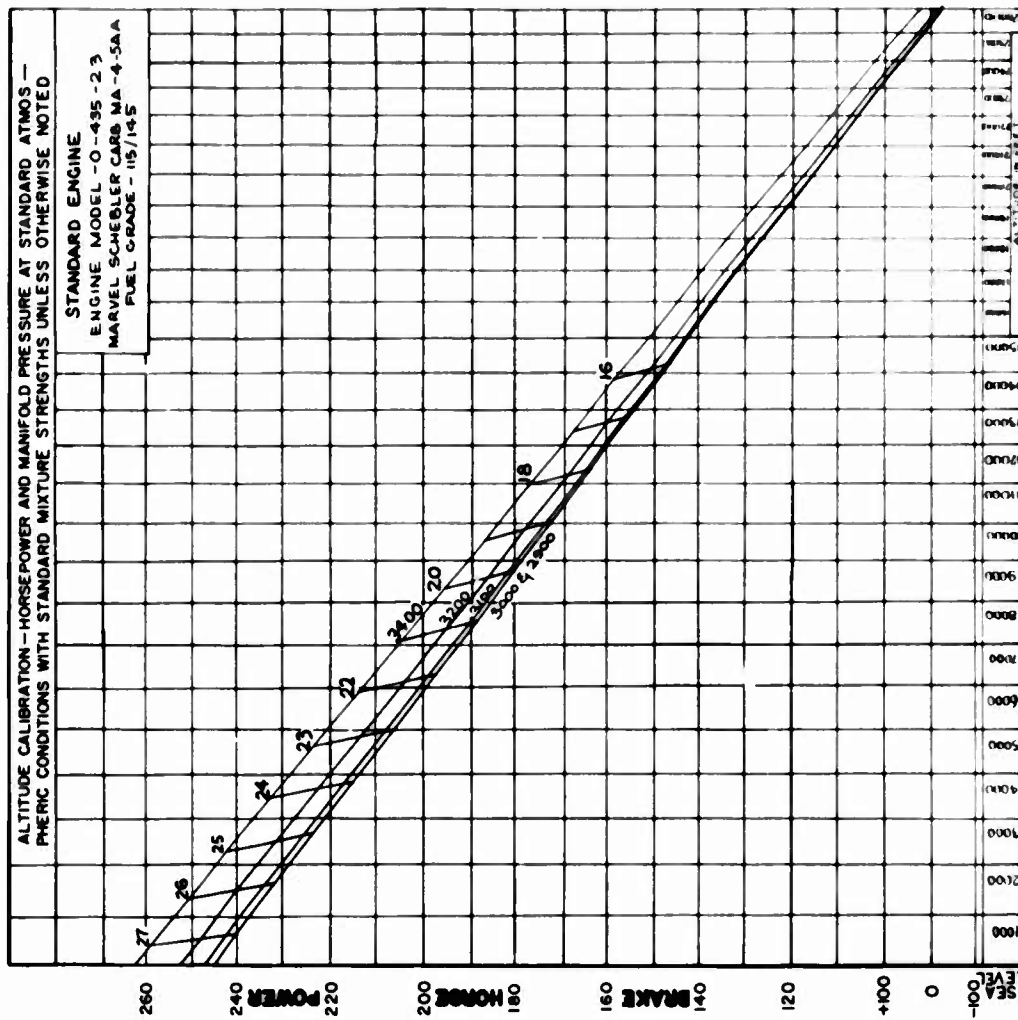
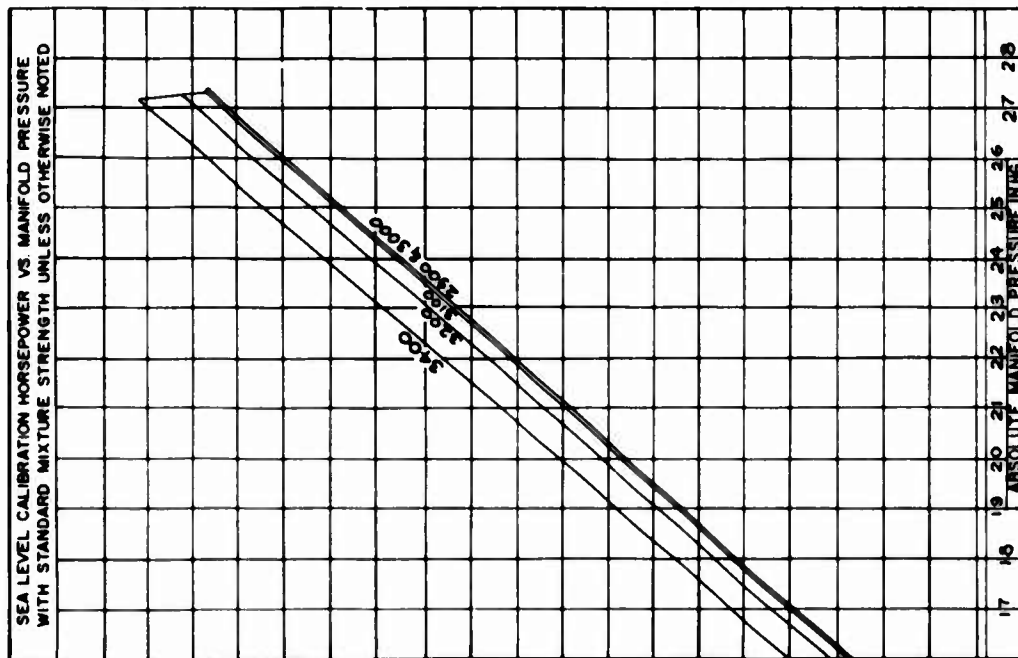


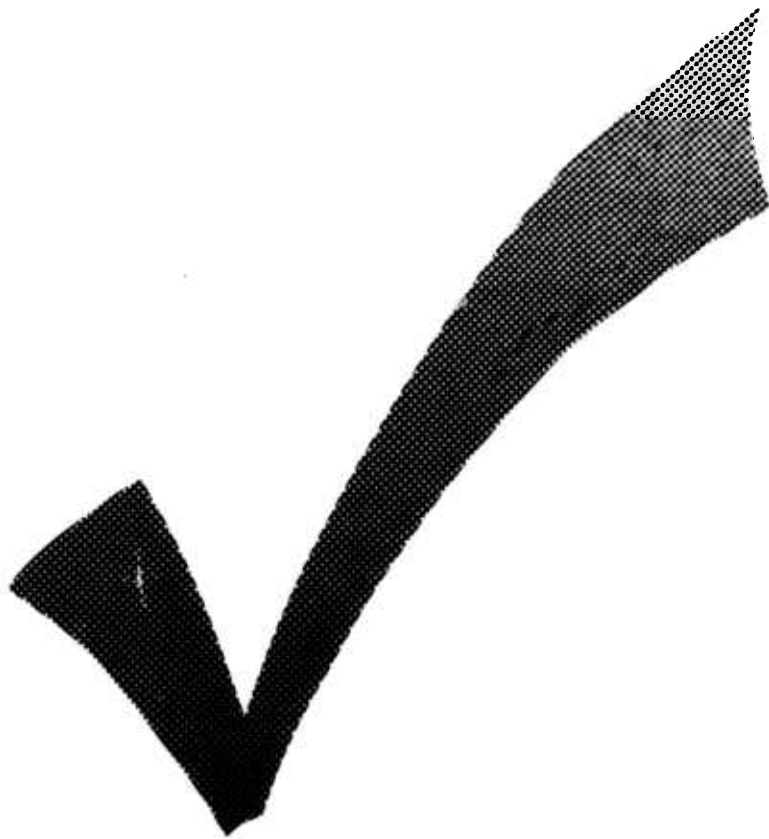
FUEL VAPOR RETURN and BY PASS



NOTE : VAPOR RETURN VALVE NOT USED







APPENDIX III

TEST DATA CORRECTED FOR INSTRUMENT ERROR



TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 67-0234

TEST TETHERED HOVERING									
FUEL WT.	5.98		LB/GAL	DATE 12 SEPT. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	4015	4015	4015	4015	4015	4015	4015	4015	
Skid Height Ft.	4	4	4	4	4	4	4	4	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	18.0	18.0	18.0	18.0	19.5	19.0	19.5	20.0	
CAT OC	31.8	32.3	31.3	31.3	30.2	32.3	31.8	31.3	
MAP In. Hg	23.52	23.47	23.27	23.07	22.92	22.67	22.42	22.38	
Rotor RPM	354.5	354.5	354.5	354.5	355.5	354.5	354.0	353.5	
Gross Weight	2218	2215	2214	2212	2202	2199	2195	2193	
Tension in Cable - Lbs.	337	345	360	268	255	230	226	245	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3191	3191	3191	3191	3200	3191	3186	3182	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST TETHERED HOVERING									
FUEL WT.	6.00		LB/GAL	DATE 20 SEPT. 62					
Point No.	9	10							
Pressure Altitude Ft.	4015	4020							
Skid Height Ft.	4	4							
IAS MPH	—	—							
FAT OC	20.0	20.0							
CAT OC	30.8	32.3							
MAP In. Hg	22.07	21.72							
Rotor RPM	354.5	354.0							
Gross Weight	2197	2192							
Tension in Cable - Lbs.	182	163							
Wet Bulb	—	—							
Dry Bulb	—	—							
Distance to 50' Ft.	—	—							
True Speed at 50' MPH	—	—							
Engine RPM	3191	3186							
Fuel Flow	—	—							
Course Length Ft.	—	—							

Engine-Rotor gear ratio 9.00 to 1

TEST TETHERED HOVERING									
FUEL WT.	6.00		LB/GAL	DATE 20 SEPT. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	4155	4160	4160	4160	4160	4160	4160	4160	
Skid Height Ft.	4	4	4	4	4	4	4	4	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	18.0	18.0	18.0	18.0	18.0	18.0	18.5	19.0	
CAT OC	32.4	34.9	36.5	35.5	33.9	32.9	33.4	31.5	
MAP In. Hg	23.32	23.25	22.97	22.47	21.72	21.31	21.16	20.96	
Rotor RPM	354.0	354.0	355.5	354.5	354.5	354.5	355	354.5	
Gross Weight	2118	2116	2113	2110	2109	2106	2105	2103	
Tension in Cable - Lbs.	427	381	311	343	204	140	128	184	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3186	3186	3200	3191	3181	3191	3186	3191	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST TETHERED HOVERING									
FUEL WT.	5.98		LB/GAL	DATE 21 SEPT. 62					
Point No.	1	2	3	4	5	6	7		
Pressure Altitude Ft.	6810	6810	6810	6810	6810	6810	6810		
Skid Height Ft.	4	4	4	4	4	4	4		
IAS MPH	—	—	—	—	—	—	—		
FAT OC	5.5	5.5	5.5	5.5	5.5	5.5	5.6		
CAT OC	21.2	20.7	20.7	22.4	23.5	25.7	22.9		
MAP In. Hg	21.26	21.10	21.01	20.86	20.74	20.56	20.37		
Rotor RPM	355	355.5	354.5	354.5	354.5	354.5	354.3		
Gross Weight	2160	2159	2157	2156	2153	2154	2153		
Tension in Cable - Lbs.	215	210	190	177	106	67	40		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—	—		
Engine RPM	3195	3200	3191	3191	3191	3191	3191		
Fuel Flow	—	—	—	—	—	—	—		
Course Length Ft.	—	—	—	—	—	—	—		

Engine-Rotor gear ratio 9.00 to 1

MODEL 9H-12H 5/8" NPT-0210

Engine-Motor gear ratio 9.00 to 1

Engine-Rotor gear ratio 9.00 to 1

Engine-Rotor gear ratio 9.00 to 1

Engine-Rotor gear ratio 9.00 to

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 67-0234

TEST TETHERED HOVERING								
FUEL WT.	591		LB/GAL		DATE 22 OCT 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	305	305	305	305	305	295	295	290
Skid Height Ft.	4	4	4	4	4	4	4	4
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	15.2	14.2	15.2	14.2	15.2	14.2	16.2	16.2
CAT OC	27.0	28.0	28.0	27.5	27.5	28.0	27.0	27.0
MAP In. Hg	22.13	22.44	22.77	23.27	23.74	24.11	20.78	26.69
Rotor RPM	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0
Gross Weight	2147.0	2145	2143	2134	2132	2127	2119	2117
Tension in Cable - Lbs.	270	306	368	444	494	530	130	819
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	3007	3007	3007	3007	3007	3007	3007	3007
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	10	11	12	13	14	15	
Pressure Altitude Ft.	285	285	285	285	—	—	—	—
Skid Height Ft.	4	4	4	4	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	16.2	16.7	16.2	16.2	—	—	—	—
CAT OC	28.0	27.0	28.0	28.0	—	—	—	—
MAP In. Hg	25.49	22.13	23.32	24.51	—	—	—	—
Rotor RPM	343.0	343.0	343.0	343.0	—	—	—	—
Gross Weight	2114	2105	2102	2099	—	—	—	—
Tension in Cable - Lbs.	677	357	459	588	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	3007	3007	3007	3007	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST TETHERED HOVERING								
FUEL WT.	589		LB/GAL		DATE 23 OCT 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	305	300	300	300	300	295	295	300
Skid Height Ft.	4	4	4	4	4	4	4	4
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	17.3	17.3	18.3	18.3	18.3	19.3	19.3	18.7
CAT OC	29.7	31.3	31.3	31.3	31.3	31.3	32.3	32.3
MAP In. Hg	21.73	22.96	23.90	25.33	26.74	28.43	28.93	21.93
Rotor RPM	343	343	343	343	343	320.5	320.5	320.5
Gross Weight	2140	2130	2129	2128	2127	2124	2123	2122
Tension in Cable - Lbs.	265	427	519	687	839	80	154	233
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	3007	3007	3007	3007	3007	2885	2885	2885
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9							
Pressure Altitude Ft.	300	—	—	—	—	—	—	—
Skid Height Ft.	4	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	18.7	—	—	—	—	—	—	—
CAT OC	33.4	—	—	—	—	—	—	—
MAP In. Hg	23.04	—	—	—	—	—	—	—
Rotor RPM	320.5	—	—	—	—	—	—	—
Gross Weight	2121	—	—	—	—	—	—	—
Tension in Cable - Lbs.	356	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	2885	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST TETHERED HOVERING								
FUEL WT.	588		LB/GAL		DATE 25 OCT 62			
Point No.	1	2	3	4				
Pressure Altitude Ft.	245	240	240	240	—	—	—	—
Skid Height Ft.	4	4	4	4	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	10.7	10.7	10.7	10.7	—	—	—	—
CAT OC	23.0	23.0	23.0	23.5	—	—	—	—
MAP In. Hg	27.32	26.95	26.48	25.59	—	—	—	—
Rotor RPM	320.5	320.5	320.5	320.5	—	—	—	—
Gross Weight	2151	2149	2147	2140	—	—	—	—
Tension in Cable - Lbs.	806	732	715	610	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	2885	2885	2885	2885	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.								
Pressure Altitude Ft.	—	—	—	—	—	—	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	—	—	—	—	—	—	—	—
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	—	—	—	—	—	—	—	—
Gross Weight	—	—	—	—	—	—	—	—
Tension	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST TETHERED HOVERING								
FUEL WT.	588		LB/GAL		DATE 26 OCT 62			
Point No.	1	2	3	4	5	6	7	
Pressure Altitude Ft.	255	255	255	255	245	245	245	—
Skid Height Ft.	4	4	4	4	4	4	4	—
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	17.2	17.2	17.2	17.2	17.2	17.2	17.2	—
CAT OC	26.3	28.0	29.1	29.1	30.3	29.1	30.3	—
MAP In. Hg	21.53	21.63	22.23	22.75	25.85	25.59	25.28	—
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	—
Gross Weight	2199	2198	2197	2196	2194	2192	2190	—
Tension in Cable - Lbs.	126	148	247	317	658	617	506	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	3191	3191	3191	3191	3191	3191	3191	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.								
Pressure Altitude Ft.	—	—	—	—	—	—	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT OC	—	—	—	—	—	—	—	—
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	—	—	—	—	—	—	—	—
Gross Weight	—	—	—	—	—	—	—	—
Tension	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 57-6234

TEST TETHERED HOVERING								
FUEL WT.	592		LB/GAL	DATE 27 OCT 62				
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	185	185	185	190	190	185	185	185
Skid Height Ft.	4	4	4	4	4	4	4	4
IAS MPH	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
FAT UC	26.9	28.0	29.7	28.5	28.0	29.1	31.3	31.3
MAP In. Hg	25.13	24.62	23.79	23.33	24.31	24.72	25.54	25.05
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
Gross Weight	2157	2156	2147	2142	2131	2129	2127	2118
Tension in Cable - Lbs.	641	572	426	405	356	614	677	680
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	3191	3191	3191	3191	3191	3191	3191	3191
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST AIRSPEED CALIBRATION								
FUEL WT.	592		LB/GAL	DATE 29 OCT 62				
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	1985	1975	1985	1995	1995	1985	1995	1995
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
FAT UC	10.4	9.8	9.8	9.8	9.8	9.8	9.8	9.8
CAT UC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	—	—	—	—	—	—	—	—
Gross Weight	—	—	—	—	—	—	—	—
Time ~ SEC.	43.10	38.5	47.2	42.0	55.2	47.5	40.2	39.4
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Direction	W	E	W	E	W	E	W	E
Course Length Ft.	5790	5790	5790	5790	5790	5790	3580	3580

Engine-Rotor gear ratio 9.00 to 1

TEST AIRSPEED CALIBRATION								
FUEL WT.	592		LB/GAL	DATE 29 OCT. 62				
Point No.	17	18	19	20	21	22		
Pressure Altitude Ft.	1985	1995	1985	1980	1990	1995		
Skid Height Ft.	—	—	—	—	—	—		
IAS MPH	26.0	26.4	25.0	25.0	25.5	25.7		
FAT UC	9.4	9.8	9.2	9.2	9.8	9.8		
CAT UC	—	—	—	—	—	—		
MAP In. Hg	—	—	—	—	—	—		
Rotor RPM	—	—	—	—	—	—		
Gross Weight	—	—	—	—	—	—		
Time ~ SEC.	55.8	46.2	43.9	38.7	61.5	51.2		
Wet Bulb	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—		
Engine RPM	—	—	—	—	—	—		
Direction	W	E	W	E	W	E		
Course Length Ft.	3580	3580	3580	3580	3580	3580		

Engine-Rotor gear ratio 9.00 to 1

TEST AIRSPEED CALIBRATION								
FUEL WT.	592		LB/GAL	DATE 2 AUG 62				
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	2275	2270	2265	2255	2275	2265	2285	2255
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	26.0	26.5	21.2	21.2	26.0	26.0	29.1	29.1
FAT UC	17.5	17.0	18.0	18.0	18.0	18.0	18.5	19.0
CAT UC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	—	—	—	—	—	—	—	—
Gross Weight	—	—	—	—	—	—	—	—
Time ~ SEC.	74.6	62.3	52.7	44.3	88.9	77.0	54.4	47.3
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Direction	W	E	W	E	W	E	W	E
Course Length Ft.	3580	3580	2095	2095	5790	5790	5790	5790

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 57-6234

TEST FREE FLIGHT HOVERING									
FUEL WT.	5.92		LB/GAL		DATE		17 AUG. 62		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3975	3975	3975	3975	3965	3965	3975	3975	
Skid Height Ft.	.5	.5	1.92	2.03	2.03	2.75	4.33	4.57	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	20	22	21	21	21	22	22	22	
CAT OC	31.3	35.5	30.2	33.4	36.0	37.6	38.6	38.6	
MAP In. Hg	23.72	23.67	23.67	23.72	23.72	23.67	23.67	23.67	
Rotor RPM	343	343	343	343	343	343	343	343	
Gross Weight	2632	2603	2571	2545	2519	2492	2466	2439	
Time	—	—	—	—	—	—	—	—	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3087	3087	3087	3087	3087	3087	3087	3087	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15		
Pressure Altitude Ft.	3975	3975	3980	3980	3960	3980	4020		
Skid Height Ft.	5.00	5.25	7.00	7.67	9.25	13.42	22.00		
IAS MPH	—	—	—	—	—	—	—		
FAT OC	22.0	22.5	22.5	24.0	25.0	26.0	27.0		
CAT OC	38.6	38.6	38.1	38.6	38.6	39.6	35.3		
MAP In. Hg	23.67	23.67	23.67	23.67	23.68	23.69	23.67		
Rotor RPM	343	343	343	343	343	343	343		
Gross Weight	2413	2386	2360	2333	2306	2277	2250		
Time	—	—	—	—	—	—	—		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—	—		
Engine RPM	3087	3087	3087	3087	3087	3087	3087		
Fuel Flow	—	—	—	—	—	—	—		
Course Length Ft.	—	—	—	—	—	—	—		

Engine-Rotor gear ratio 9.00 to 1

TEST FREE FLIGHT HOVERING									
FUEL WT.	5.86		LB/GAL		DATE		17 AUG. 62		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3960	3960	3960	3960	3960	3960	3960	3960	
Skid Height Ft.	.42	1.83	1.42	2.25	3.00	3.67	4.08	5.25	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	
CAT OC	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	
MAP In. Hg	23.73	23.73	23.73	23.73	23.74	23.74	23.77	23.77	
Rotor RPM	343	343	343	343	343	343	343	343	
Gross Weight	2645	2619	2593	2566	2522	2485	2458	2432	
Time	—	—	—	—	—	—	—	—	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3087	3087	3087	3087	3087	3087	3087	3087	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15		
Pressure Altitude Ft.	3960	3960	3960	3960	3960	3960	3960		
Skid Height Ft.	6.83	7.00	10.75	10.67	14.83	20.00	17.91		
IAS MPH	—	—	—	—	—	—	—		
FAT OC	23.5	23.5	23.5	23.5	23.5	23.5	23.5		
CAT OC	38.6	38.6	38.6	38.6	38.6	38.6	38.6		
MAP In. Hg	23.73	23.73	23.73	23.73	23.73	23.73	23.73		
Rotor RPM	343	343	343	343	343	343	343		
Gross Weight	2406	2379	2343	2327	2299	2272	2245		
Time	—	—	—	—	—	—	—		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—	—		
Engine RPM	3087	3087	3087	3087	3087	3087	3087		
Fuel Flow	—	—	—	—	—	—	—		
Course Length Ft.	—	—	—	—	—	—	—		

Engine-Rotor gear ratio 9.00 to 1

TEST FREE FLIGHT HOVERING									
FUEL WT.	5.91		LB/GAL		DATE		22 AUG. 62		
Point No.	1	2	3	4	5	6	7	9	
Pressure Altitude Ft.	6740	6740	6740	6740	6740	6740	6740	6740	
Skid Height Ft.	.08	.125	.33	.83	1.23	1.67	2.25	3.08	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	9.2	9.2	9.2	9.2	9.2	9.8	10.9	11.0	
CAT OC	23.5	25.8	25.8	28.0	28.0	28.0	29.1	28.0	
MAP In. Hg	21.25	21.25	21.25	21.25	21.25	21.25	21.25	21.25	
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	
Gross Weight	2559	2519	2493	2477	2441	2414	2388	2361	
Time	—	—	—	—	—	—	—	—	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3191	3191	3191	3191	3191	3191	3191	3191	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST FREE FLIGHT HOVERING									
FUEL WT.	5.91		LB/GAL		DATE		22 AUG. 62		
Point No.	1	2	3	4	5	6	7		
Pressure Altitude Ft.	6700	6700	6700	6700	6700	6700	6700		
Skid Height Ft.	.67	.83	1.25	1.83	2.08	2.83	3.08		
IAS MPH	—	—	—	—	—	—	—		
FAT OC	22.0	21.5	20.5	20.5	20.5	20.5	20.5		
CAT OC	35.5	35.5	36.5	37.0	39.6	40.2	40.7		
MAP In. Hg	21.15	21.15	21.15	21.15	21.15	21.15	21.15		
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5		
Gross Weight	2333	2307	2280	2255	2229	2202	2175		
Time	—	—	—	—	—	—	—		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—	—		
Engine RPM	3191	3191	3191	3191	3191	3191	3191		
Fuel Flow	—	—	—	—	—	—	—		
Course Length Ft.	—	—	—	—	—	—	—		
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OM-13H5/N 57-8234

TEST TAKE-OFFS								
FUEL WT.	586		LB/GAL		DATE 21 AUG 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	3935	3935	3935	3935	3935	3935	3935	3935
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	20.0	20.0	20.0	20.0	20.5	21.0	21.0	21.0
CAT °C	26.9	28.0	28.0	28.0	28.0	28.6	29.1	29.1
MAP In. Hg	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
Gross Weight	2771	2768	2769	2760.0	2756	2747	2766	2761
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	765	905	819	1236	88	666	1213	677
True Speed at 50' Kts.	24.57	41.6	34.5	46.8	16.5	22.0	49.9	33.7
Engine RPM	3191	3191	3191	3191	3191	3191	3191	3191
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	—	—	—	—	—	—	—
Pressure Altitude Ft.	3925	—	—	—	—	—	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	21.0	—	—	—	—	—	—	—
CAT °C	29.1	—	—	—	—	—	—	—
MAP In. Hg	23.77	—	—	—	—	—	—	—
Rotor RPM	354.5	—	—	—	—	—	—	—
Gross Weight	2756	—	—	—	—	—	—	—
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	942	—	—	—	—	—	—	—
True Speed at 50' Kts.	37.9	—	—	—	—	—	—	—
Engine RPM	3191	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST TAKE-OFFS								
FUEL WT.	580		LB/GAL		DATE 3 SEPT 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	4005	4005	4005	4005	4005	4005	4005	4005
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	24.5	24.5	25.0	25.0	25.0	25.5	26.5	26.5
CAT °C	34.0	35.0	35.0	36.0	36.0	36.5	37.0	37.0
MAP In. Hg	23.82	23.82	23.79	23.79	23.75	23.77	23.75	23.75
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
Gross Weight	2627	2649	2641	2634	2652	2642	2634	2630
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	1171	892	893	769	741	780	652	629
True Speed at 50' Kts.	46.6	37.0	40.1	33.0	26.5	29.5	24.0	22.5
Engine RPM	3191	3191	3191	3191	3191	3191	3191	3191
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	—	—	—	—	—	—	—
Pressure Altitude Ft.	—	—	—	—	—	—	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	—	—	—	—	—	—	—	—
CAT °C	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	—	—	—	—	—	—	—	—
Gross Weight	—	—	—	—	—	—	—	—
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' Kts.	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST TAKE-OFFS								
FUEL WT.	587		LB/GAL		DATE 4 SEPT 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	3960	3960	3960	3960	3960	3960	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	22.0	22.0	22.0	23.0	23.0	23.0	—	—
CAT °C	29.1	30.2	30.2	29.7	30.8	30.8	—	—
MAP In. Hg	23.74	23.74	23.74	23.74	23.76	23.76	—	—
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	—	—
Gross Weight	2748	2766	2762	2757	2777	2771	—	—
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	896	873	1080	1270	137	872	—	—
True Speed at 50' Kts.	35.5	34.5	44.0	48.5	31.0	26.0	—	—
Engine RPM	3191	3191	3191	3191	3191	3191	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	—	—	—	—	—	—	—
Pressure Altitude Ft.	—	—	—	—	—	—	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	—	—	—	—	—	—	—	—
CAT °C	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	—	—	—	—	—	—	—	—
Gross Weight	—	—	—	—	—	—	—	—
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' Kts.	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST TAKE-OFFS								
FUEL WT.	596		LB/GAL		DATE 10 SEPT 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	3895	3895	3895	3895	3895	3895	3895	3895
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	23.0	25.0	25.0	25.0	25.0	25.0	19.0	19.0
CAT °C	30.2	32.3	33.4	32.3	32.3	32.4	24.6	24.6
MAP In. Hg	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
Gross Weight	2520	2526	2520	2516	2533	2526	2574	2565
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	527	677	916	738	1075	1243	594	722
True Speed at 50' Kts.	25.1	34.5	43.6	37.3	47.8	44.7	29.5	35.4
Engine RPM	3191	3191	3191	3191	3191	3191	3191	3191
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	—	—	—	—	—	—	—
Pressure Altitude Ft.	3905	—	—	—	—	—	—	—
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	—	—	—	—	—	—	—	—
FAT °C	19.0	—	—	—	—	—	—	—
CAT °C	24.6	—	—	—	—	—	—	—
MAP In. Hg	23.77	—	—	—	—	—	—	—
Rotor RPM	354.5	—	—	—	—	—	—	—
Gross Weight	2559	—	—	—	—	—	—	—
Time	—	—	—	—	—	—	—	—
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	809	—	—	—	—	—	—	—
True Speed at 50' Kts.	41.5	—	—	—	—	—	—	—
Engine RPM	3191	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 87-8234

TEST TAKE-OFFS									
FUEL WT.	594		LB/GAL		DATE		19 SEPT 62		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3045	3045	3045	3045	3045	3045	3045	3045	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	19.0	19.0	19.0	19.5	20.0	20.0	20.0	20.5	
CAT OC	25.7	25.7	26.9	26.9	27.4	28.0	28.0	29.7	
MAP In. Hg	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77	
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	
Gross Weight	2569	2566	2563	2559	2577	2574	2569	2564	
Time	—	—	—	—	—	—	—	—	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	548	509	547	479	464	4	4	756	407
True Speed at 50' Kts.	26.0	24.2	19.0	22.5	20.9	13.6	10.4	22.6	
Engine RPM	3191	3191	3191	3191	3191	3191	3191	3191	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15		
Pressure Altitude Ft.	3045	3045	3045	3045	3045	3045	3045		
Skid Height Ft.	—	—	—	—	—	—	—		
IAS MPH	—	—	—	—	—	—	—		
FAT OC	19.0	20.5	20.5	20.5	21.0	21.0	23.0		
CAT OC	29.1	28.5	28.5	28.5	29.1	29.1	30.8		
MAP In. Hg	23.77	23.77	23.77	23.77	23.77	23.77	23.77		
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5	354.5		
Gross Weight	2559	2581	2577	2574	2568	2565	2560		
Time	—	—	—	—	—	—	—		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	1068	1243	1249	952	1182	958	867		
True Speed at 50' Kts.	46.9	48.2	50.1	46.1	48.9	49.3	41.9		
Engine RPM	3191	3191	3191	3191	3191	3191	3191		
Fuel Flow	—	—	—	—	—	—	—		
Course Length Ft.	—	—	—	—	—	—	—		

Engine-Rotor gear ratio 9.00 to 1

TEST TAKE-OFFS									
FUEL WT.	604		LB/GAL		DATE		17 SEPT 62		
Point No.	1	2	3	4	5	6			
Pressure Altitude Ft.	3055	3055	3055	3075	3075	3075			
Skid Height Ft.	—	—	—	—	—	—			
IAS MPH	—	—	—	—	—	—			
FAT OC	23.0	23.0	23.0	25.0	25.5	26.0			
CAT OC	31.3	31.3	31.3	34.4	36.3	36.5			
MAP In. Hg	23.77	23.77	23.77	23.77	23.77	23.77			
Rotor RPM	354.5	354.5	354.5	354.5	354.5	354.5			
Gross Weight	2466	2471	2463	2475	2474	2463			
Time	—	—	—	—	—	—			
Wet Bulb	—	—	—	—	—	—			
Dry Bulb	—	—	—	—	—	—			
Distance to 50' Ft.	558	461	482	747	1109	542			
True Speed at 50' Kts.	15.8	19.8	25.9	38.8	48.3	31.7			
Engine RPM	3191	3191	3191	3191	3191	3191			
Fuel Flow	—	—	—	—	—	—			
Course Length Ft.	—	—	—	—	—	—			
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST TAKE-OFF									
FUEL WT.	590		LB/GAL		DATE		18 SEPT 62		
Point No.	1	2	3	4	5				
Pressure Altitude Ft.	3955	3955	3955	3955	3955				
Skid Height Ft.	—	—	—	—	—				
IAS MPH	—	—	—	—	—				
FAT OC	22.0	23.0	23.0	23.0	25.0				
CAT OC	30.2	30.2	30.8	30.8	32.3				
MAP In. Hg	23.67	23.67	23.67	23.67	23.71				
Rotor RPM	354.5	354.5	354.5	354.5	354.5				
Gross Weight	2339	2359	2353	2351	2355				
Time	—	—	—	—	—				
Wet Bulb	—	—	—	—	—				
Dry Bulb	—	—	—	—	—				
Distance to 50' Ft.	273	374	460	408	762				
True Speed at 50' Kts.	17.8	18.1	31.2	27.0	46.4				
Engine RPM	3191	3191	3191	3191	3191				
Fuel Flow	—	—	—	—	—				
Course Length Ft.	—	—	—	—	—				
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
FUEL WT.	591		LB/GAL		DATE		7 OCT 1962		
Point No.	17	18	19	20	21	22			
Pressure Altitude Ft.	6990	6690	6790	6890	6890	6990			
Skid Height Ft.	—	—	—	—	—	—			
IAS Kts.	39.5	39.5	39.0	39.0	39.0	39.0			
FAT OC	7.1	7.1	7.6	8.1	8.1	8.1			
CAT OC	13.9	13.9	13.9	13.9	13.9	13.9			
MAP In. Hg	21.73	21.78	21.88	21.85	21.91	21.85			
Rotor RPM	320.5	320.5	320.5	320.5	320.5	320.5			
Gross Weight	2706	2708	2702	2701	2700	2699			
Time - MIN	19.17	15.70	16.70	17.58	18.27	19.20			
Wet Bulb	—	—	—	—	—	—			
Dry Bulb	—	—	—	—	—	—			
Distance to 50' Ft.	—	—	—	—	—	—			
True Speed at 50' MPH	—	—	—	—	—	—			
Engine RPM	2085	2085	2085	2085	2085	2085			
Fuel Flow	—	—	—	—	—	—			
Course Length Ft.	—	—	—	—	—	—			
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS Kts.									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time - MIN									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 87-0234

TEST CHECK CLIMB PAGE 1 OF 2									
FUEL WT. 5.90	LB/GAL		DATE 7 OCT 1962						
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1495	1795	2195	2595	2995	3395	3795	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	42.5	42.5	42.5	42.5	41.5	40.5	40.5	40.5	
FAT OC	13.3	12.3	11.3	10.3	9.7	9.2	9.2	9.2	
CAT OC	17.3	16.3	15.3	14.3	13.5	12.5	11.8	11.3	
MAP In. Hg	26.70	26.81	26.87	26.86	26.80	26.75	26.65	26.50	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2720	2720	2727	2726	2725	2724	2723	2722	
Time ~ MIN	0	9.3	1.48	2.15	2.75	3.23	3.80	4.45	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	3700	4200	4700	5200	5700	6195	6395	6490	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	40.5	40.5	40.0	40.0	40.0	40.0	40.0	40.0	
FAT OC	8.3	8.3	8.3	8.3	8.3	8.3	8.1	8.1	
CAT OC	15.3	14.3	13.3	12.3	11.3	10.3	9.3	8.3	
MAP In. Hg	25.66	25.79	25.86	25.86	25.80	25.75	25.65	25.50	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2720	2720	2719	2718	2717	2716	2715	2714	
Time ~ MIN	5.20	5.93	6.65	7.45	8.00	8.20	9.23	10.45	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 2									
FUEL WT. 5.90	LB/GAL		DATE 7 OCT 1962						
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	5820	6090	6290	6390	6490	6590	6690	6790	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	38.0	37.5	37.0	37.0	37.0	37.0	37.5	38.5	
FAT OC	7.6	7.6	8.1	8.1	8.1	8.2	9.2	9.2	
CAT OC	12.3	12.3	12.3	12.3	12.3	12.8	13.8	15.8	
MAP In. Hg	25.53	25.68	25.87	25.77	25.58	25.65	25.58	25.58	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2712	2711	2710	2709	2708	2707	2706	2705	
Time ~ MIN	11.20	12.13	13.00	13.63	14.23	14.85	15.73	16.68	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	25	26							
Pressure Altitude Ft.	6790	6840							
Skid Height Ft.	-	-							
IAS Kts.	38.5	38.5							
FAT OC	9.2	9.2							
CAT OC	15.3	15.8							
MAP In. Hg	25.49	25.47							
Rotor RPM	3205	3205							
Gross Weight	2705	2703							
Time ~ MIN	17.27	18.27							
Wet Bulb	-	-							
Dry Bulb	-	-							
Distance to 50' Ft.	-	-							
True Speed at 50' MPH	-	-							
Engine RPM	2885	2885							
Fuel Flow	-	-							
Course Length Ft.	-	-							

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 1 OF 3									
FUEL WT. 5.89	LB/GAL		DATE 8 OCT 1962						
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1495	1795	2195	2595	2995	3395	3795	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	42.5	42.5	42.5	41.5	41.5	41.5	40.5	40.5	
FAT OC	14.3	13.3	12.3	11.3	10.3	9.7	9.2	9.2	
CAT OC	18.3	17.3	16.3	15.3	14.3	13.5	12.5	11.8	
MAP In. Hg	26.71	26.78	26.87	26.86	26.80	26.75	26.65	26.50	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2727	2726	2725	2724	2723	2722	2721	2720	
Time ~ MIN	0	6.8	1.35	2.05	2.80	3.45	4.05	4.75	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2884	2884	2884	2884	2884	2884	2884	2884	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	4700	5000	5295	5595	5890	6190	6390	6590	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	40.0	41.0	41.0	40.0	40.0	39.5	39.5	39.0	
FAT OC	10.7	10.7	10.3	10.3	10.3	10.3	10.3	10.3	
CAT OC	16.3	15.3	14.3	13.3	12.3	11.3	10.3	9.3	
MAP In. Hg	23.27	23.29	23.25	23.25	23.18	23.14	23.13	23.05	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2517	2517	2516	2515	2514	2513	2512	2511	
Time ~ MIN	5.78	6.32	6.90	7.62	8.00	9.22	9.80	10.50	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2884	2884	2884	2884	2884	2884	2884	2884	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 3									
FUEL WT. 5.89	LB/GAL		DATE 8 OCT 1962						
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	6790	6995	7195	7395	7600	7700	7800	7900	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	37.0	37.0	37.0	37.0	38.5	38.5	38.5	38.5	
FAT OC	12.8	12.8	11.3	11.3	10.7	10.3	9.7	9.7	
CAT OC	18.7	18.3	17.3	17.3	16.8	16.8	16.8	16.8	
MAP In. Hg	21.63	21.36	21.09	20.98	20.76	20.65	20.54	20.40	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2510	2509	2508	2507	2506	2505	2504	2503	
Time ~ MIN	11.00	11.62	12.30	12.77	13.13	13.50	13.77	14.05	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2884	2884	2884	2884	2884	2884	2884	2884	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	8000	8100	8200	8300	8350	8350	8350	8445	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	
FAT OC	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	
CAT OC	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	
MAP In. Hg	20.41	20.38	20.38	20.33	20.18	20.13	20.08	20.04	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2503	2502	2501	2501	2500	2499	2498	2497	
Time ~ MIN	16.07	16.60	17.28	18.05	18.70	19.20	20.05	20.85	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2884	2884	2884	2884	2884	2884	2884	2884	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 87-8234

TEST CHECK CLIMB PAGE 3 OF 3									
FUEL WT. 5.89	LB/GAL			DATE 8 OCT 1962					
Point No.	33	34	35						
Pressure Altitude Ft.	0495	0525	0555						
Skid Height Ft.	-	-	-						
IAS MPH	38.0	38.0	38.0						
FAT OC	9.2	9.2	9.2						
CAT OC	16.8	16.8	16.8						
MAP In. Hg	20.01	19.99	19.96						
Rotor RPM	320.5	320.5	320.5						
Gross Weight	2496	2496	2496						
Time - MIN	21.97	22.00	22.12						
Wet Bulb	-	-	-						
Dry Bulb	-	-	-						
Distance to 50' Ft.	-	-	-						
True Speed at 50' MPH	-	-	-						
Engine RPM	2884	2884	2884						
Fuel Flow	-	-	-						
Course Length Ft.	-	-	-						

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 1 OF 2									
FUEL WT. 5.91	LB/GAL			DATE 7 OCT 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1495	1995	2495	2995	3495	3995	4400	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	43.0	42.0	42.0	41.5	41.5	40.5	40.5	40.5	
FAT OC	12.3	11.8	11.3	10.3	9.2	8.7	9.2	9.2	
CAT OC	17.3	16.3	15.8	15.3	14.3	13.3	15.3	15.3	
MAP In. Hg	26.64	26.14	25.64	25.37	24.86	24.36	24.12	23.84	
Rotor RPM	320.5	320.5	320.5	320.5	320.5	320.5	320.5	320.5	
Gross Weight	2727	2725	2725	2723	2721	2720	2719	2717	
Time - MIN	0	11	15	2.43	3.35	4.28	5.19	6.27	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2884	2884	2884	2884	2884	2884	2884	2884	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 3 OF 3									
FUEL WT. 5.84	LB/GAL			DATE 10 OCT 1962					
Point No.	33	34	35	36	37	38	39	40	
Pressure Altitude Ft.	9890	10085	10285	10385	10485	10585	10685	10785	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	40.0	40.0	39.5	39.5	39.5	39.5	39.0	39.0	
FAT OC	7.9	6.6	6.6	6.6	6.1	6.1	5.5	5.5	
CAT OC	12.4	11.5	11.5	11.5	11.2	11.2	11.0	10.5	
MAP In. Hg	18.86	18.70	18.55	18.48	18.30	18.21	18.22	18.14	
Rotor RPM	320.5	320.5	320.5	320.5	320.5	320.5	320.5	320.5	
Gross Weight	2521	2520	2519	2519	2518	2517	2516	2515	
Time - MIN	21.42	22.15	23.10	23.65	24.15	24.30	25.25	26.10	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 1 OF 3									
FUEL WT. 5.93	LB/GAL			DATE 9 OCT 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1495	1995	2495	2995	3495	4000	4400	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	43.5	42.5	42.5	41.5	41.5	41.0	40.5	40.5	
FAT OC	15.3	14.8	14.3	13.8	13.8	13.3	12.3	12.3	
CAT OC	19.6	20.7	20.1	19.6	18.7	18.2	17.3	17.3	
MAP In. Hg	26.60	26.20	25.80	25.38	24.86	24.34	23.81	23.69	
Rotor RPM	320.5	320.5	320.5	320.5	320.5	320.5	320.5	320.5	
Gross Weight	2525	2524	2523	2522	2520	2519	2518	2517	
Time - MIN	0	6.6	1.33	2.07	2.82	3.60	4.43	5.13	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 87-8234

TEST CHECK CLIMB									
PAGE 2 OF 3									
FUEL WT. 5.93	LB/GAL		DATE		9 OCT 1962				
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	6720	7095	7235	7395	7600	7700	7800	7900	
Skid Height Ft.									
IAS MPH	39.0	39.0	39.0	39.0	38.5	38.5	38.5	38.5	
FAT OC	14.3	13.3	13.3	12.8	12.3	11.8	11.8	11.8	
CAT OC	19.2	19.2	18.7	18.7	17.7	17.2	17.2	17.2	
MAP In.Hg	21.50	21.57	21.12	21.00	20.86	20.74	20.64	20.51	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2538	2537	2534	2535	2534	2533	2533	2532	
Time - MAIN	11.03	11.95	12.64	13.48	14.40	15.43	16.38	17.38	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow									
Course Length Ft.									
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	8000	8160	8200	8300	8350	8395	8440	8495	
Skid Height Ft.									
IAS MPH	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	
FAT OC	11.8	10.8	10.2	10.2	10.2	9.7	9.7	9.7	
CAT OC	17.2	17.2	17.8	17.8	17.8	16.3	16.3	16.3	
MAP In.Hg	20.82	20.90	20.37	20.29	20.20	20.14	20.10	20.05	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2531	2531	2530	2527	2528	2527	2526	2526	
Time - MAIN	16.02	16.60	17.22	17.87	18.55	19.27	19.88	20.97	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 3 OF 3									
FUEL WT. 5.93	LB/GAL		DATE		9 OCT 1962				
Point No.	33	34							
Pressure Altitude Ft.	8525	8555							
Skid Height Ft.									
IAS MPH	38.0	38.0							
FAT OC	9.7	9.4							
CAT OC	16.3	15.8							
MAP In.Hg	20.02	20.01							
Rotor RPM	3205	3205							
Gross Weight	2524	2523							
Time - MAIN	21.60	22.41							
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	2885	2885							
Fuel Flow									
Course Length Ft.									
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In.Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 2 OF 3									
FUEL WT. 5.93	LB/GAL		DATE		8 OCT 1962				
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	7395	7600	7800	8000	8395	8535	8790	8990	
Skid Height Ft.									
IAS MPH	41.5	41.0	41.0	41.0	40.5	40.5	40.5	40.5	
FAT OC	11.2	10.8	10.2	9.7	9.2	8.7	8.1	8.1	
CAT OC	14.8	15.8	15.3	14.8	14.8	14.4	14.4	13.9	
MAP In.Hg	20.86	20.55	20.43	20.37	20.25	19.87	19.63	19.63	
Rotor RPM	3460	3460	3460	3460	3460	3460	3460	3460	
Gross Weight	2507	2506	2505	2504	2502	2501	2500	2499	
Time - MAIN	11.58	12.22	12.72	13.41	14.00	14.66	15.33	16.03	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3119	3119	3119	3119	3119	3119	3119	3119	
Fuel Flow									
Course Length Ft.									
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	9190	9390	9590	9790	9890	9990	10140	10240	
Skid Height Ft.									
IAS MPH	40.5	40.0	40.0	40.0	40.0	39.5	39.5	39.5	
FAT OC	7.6	7.6	7.1	6.7	6.7	6.7	6.7	6.7	
CAT OC	13.4	13.4	13.4	13.4	13.4	12.9	12.9	12.9	
MAP In.Hg	19.35	19.39	19.00	18.74	18.61	18.79	18.72	18.66	
Rotor RPM	3460	3460	3460	3460	3460	3460	3460	3460	
Gross Weight	2498	2497	2496	2495	2494	2493	2492	2492	
Time - MAIN	30.8	31.0	31.2	31.5	31.8	32.0	32.2	32.2	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3119	3119	3119	3119	3119	3119	3119	3119	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 3 OF 3									
FUEL WT. 5.93	LB/GAL		DATE		8 OCT 1962				
Point No.	33	34	35	36	37	38	39	40	
Pressure Altitude Ft.	10290	10390	10490	10590	10590	10590	10690	10690	
Skid Height Ft.									
IAS MPH	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	
FAT OC	7.6	7.6	7.1	7.1	7.1	7.1	7.1	7.1	
CAT OC	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	
MAP In.Hg	18.6	18.56	18.49	18.42	18.37	18.33	18.24	18.22	
Rotor RPM	3460	3460	3460	3460	3460	3460	3460	3460	
Gross Weight	2490	2489	2488	2486	2485	2484	2483	2483	
Time - MAIN	8.98	10.20	10.98	11.43	12.03	12.92	13.52	14.23	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3119	3119	3119	3119	3119	3119	3119	3119	
Fuel Flow									
Course Length Ft.									
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In.Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 67-0234

TEST CHECK CLIMB									
PAGE 1 OF 3									
FUEL WT. 584 LB/GAL DATE 10 OCT 1962									
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1895	1995	2495	2995	3495	3995	4395	
Skid Height Ft.									
IAS Alt.	46	85.5	85.5	85.0	84.5	84.0	83.5	83.5	
FAT OC	20.2	19.3	19.3	18.8	17.3	16.3	15.8	14.8	
CAT OC	46.8	83.5	83.9	82.9	82.0	80.1	79.2	78.2	
MAP In. Hg	26.7	26.93	26.88	26.63	26.44	26.16	25.88	25.59	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2583	2552	2550	2549	2547	2546	2544	2544	
Time - MIN	0	1.1	1.38	2.12	2.88	3.72	4.58	5.32	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow									
Course Length Ft.									
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	4695	5095	5495	5890	6290	6690	7090	7490	
Skid Height Ft.									
IAS Alt.	43.5	43.0	42.0	42.5	42.5	42.5	42.0	41.5	
FAT OC	14.8	14.8	14.8	13.3	13.3	12.3	11.7	11.2	
CAT OC	19.2	19.2	18.2	17.2	17.2	16.8	16.8	16.8	
MAP In. Hg	23.12	22.70	22.30	21.82	21.62	21.50	21.10	21.10	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2542	2541	2540	2539	2538	2537	2536	2535	
Time - MIN	5.36	6.20	7.08	7.95	8.77	9.67	10.12	10.85	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 2 OF 3									
FUEL WT. 584 LB/GAL DATE 10 OCT 1962									
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	7295	7495	7700	7900	8100	8300	8495	8695	
Skid Height Ft.									
IAS Alt.	41.5	41.0	41.0	41.0	41.0	40.5	40.5	40.5	
FAT OC	10.7	10.2	9.7	9.2	9.2	9.2	9.2	9.2	
CAT OC	15.8	15.3	14.8	14.4	14.1	13.9	13.9	13.9	
MAP In. Hg	20.84	20.67	20.45	20.30	20.13	19.94	19.84	19.72	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2539	2533	2532	2531	2531	2530	2529	2528	
Time - MIN	11.63	12.22	12.82	13.37	13.95	14.52	15.20	15.92	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow									
Course Length Ft.									
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	8890	9090	9290	9390	9490	9590	9690	9790	
Skid Height Ft.									
IAS Alt.	40.5	40.5	40.5	40.5	40.0	40.0	40.0	40.0	
FAT OC	8.7	8.7	8.1	8.1	7.6	7.6	7.9	7.9	
CAT OC	13.6	13.4	13.4	13.4	13.4	13.4	12.9	12.4	
MAP In. Hg	19.55	19.51	19.50	19.48	19.03	19.01	18.96	18.87	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2527	2526	2525	2525	2524	2523	2523	2522	
Time - MIN	16.40	17.45	18.17	18.72	19.25	19.28	20.28	20.45	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 1 OF 3									
FUEL WT. 590 LB/GAL DATE 7 OCT 1962									
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1495	1795	2495	2895	3495	4000	4500	
Skid Height Ft.									
IAS Alt.	46.0	45.5	45.0	45.0	44.5	43.0	43.0	43.0	
FAT OC	15.3	12.3	11.2	10.2	9.7	9.2	9.2	9.2	
CAT OC	19.2	18.2	16.3	15.8	14.8	13.9	13.8	13.8	
MAP In. Hg	26.91	26.95	26.86	26.63	26.45	26.10	25.69	25.27	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2569	2568	2567	2565	2564	2562	2561	2560	
Time - MIN	0	7.0	1.40	2.08	2.85	3.67	4.48	5.37	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Fuel Flow									
Course Length Ft.									
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	5000	5295	5595	5890	6190	6490	6790	7090	
Skid Height Ft.									
IAS Alt.	43.0	43.0	43.0	42.5	42.5	42.5	41.5	41.5	
FAT OC	9.2	8.7	8.7	8.7	8.7	8.2	8.2	8.2	
CAT OC	13.9	12.9	12.4	11.9	11.8	11.3	11.3	11.3	
MAP In. Hg	22.75	22.51	22.28	21.97	21.71	21.45	21.24	21.03	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2558	2557	2556	2555	2554	2553	2551	2551	
Time - MIN	6.40	7.40	7.68	8.47	9.00	9.80	10.65	11.20	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 2 OF 3									
FUEL WT. 590 LB/GAL DATE 7 OCT 1962									
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	7195	7395	7600	7800	8000	8300	8395	8595	
Skid Height Ft.									
IAS Alt.	41.5	41.5	41.0	41.0	40.5	40.5	40.5	40.5	
FAT OC	9.2	9.2	8.7	8.7	8.7	8.7	8.7	8.7	
CAT OC	15.3	15.3	14.8	14.3	14.3	14.3	14.3	14.3	
MAP In. Hg	20.92	20.72	20.58	20.38	20.17	19.93	19.93	19.74	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2550	2549	2548	2547	2546	2545	2544	2543	
Time - MIN	11.77	12.22	12.83	13.37	13.94	14.57	15.33	16.10	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Fuel Flow									
Course Length Ft.									
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	8695	8890	9090	9290	9390	9490	9590	9690	
Skid Height Ft.									
IAS Alt.	40.5	40.5	40.5	40.5	40.5	40.0	39.5	39.5	
FAT OC	8.7	8.7	8.1	8.1	8.1	8.1	8.1	8.1	
CAT OC	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	
MAP In. Hg	19.63	19.53	19.61	19.30	19.20	19.11	19.03	18.94	
Rotor RPM	343.3	343.3	343.3	343.3	343.3	343.3	343.3	343.3	
Gross Weight	2542	2541	2540	2539	2538	2537	2536	2535	
Time - MIN	17.22	18.10	19.03	20.05	20.66	21.37	22.10	23.00	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OM-13H S/N 57-6234

TEST CHECK CLIMB									
PAGE 3 OF 3									
FUEL WT.	5.90	LB/GAL	DATE	7 OCT 1962					
Point No.	33	34	35	36	37	38			
Pressure Altitude Ft.	9780	9890	9990	10090	10090	10190			
Skid Height Ft.									
IAS RPM	39.5	39.2	39.0	39.0	39.0	39.0			
FAT OC	8.1	8.1	8.1	8.1	8.1	7.6			
CAT OC	15.3	15.3	15.3	15.3	15.3	14.8			
MAP In.Hg	18.80	18.82	18.7	18.7	18.7	18.66			
Rotor RPM	343.5	343.5	343.5	343.5	343.5	343.5			
Gross Weight	2538	2538	2538	2538	2538	2538			
Time - MIN	27.18	26.88	26.06	26.57	27.3	28.55			
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3091	3091	3091	3091	3091			
Fuel Flow									
Course Length Ft.									
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS RPM									
FAT OC									
CAT OC									
MAP In.Hg									
Rotor RPM									
Gross Weight									
Time - MIN									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 4 OF 3									
FUEL WT.	5.93	LB/GAL	DATE	8 OCT 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1095	1095	2495	2995	3495	4000	4500	
Skid Height Ft.									
IAS RPM	46.0	45.0	44.5	44.0	44.0	43.5	43.5	43.5	
FAT OC	12.3	12.3	12.3	12.3	12.3	11.8	10.8	9.7	
CAT OC	17.7	17.7	17.7	17.7	16.8	15.8	15.3	14.9	
MAP In.Hg	24.39	25.24	25.07	25.00	24.62	24.23	23.79	23.32	
Rotor RPM	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	
Gross Weight	2526	2526	2526	2526	2526	2526	2519	2517	
Time - MIN	0	62	125	190	262	330	417	502	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3114	3114	3114	3114	3114	3114	3114	3114	
Fuel Flow									
Course Length Ft.									
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	5000	5295	5595	5890	6190	6490	6790	7095	
Skid Height Ft.									
IAS RPM	43.0	42.5	42.5	42.5	42.0	42.0	41.5	41.5	
FAT OC	9.7	10.2	12.3	12.7	12.7	12.7	12.3	11.8	
CAT OC	12.9	15.3	17.2	17.7	17.7	17.7	17.6	17.2	
MAP In.Hg	22.86	22.55	22.29	21.98	21.76	21.50	21.25	21.05	
Rotor RPM	346.0	346.0	346.0	346.0	346.0	346.0	346.0	346.0	
Gross Weight	2516	2516	2516	2516	2516	2516	2510	2508	
Time - MIN	597	650	712	777	843	917	995	1072	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3114	3114	3114	3114	3114	3114	3114	3114	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 3 OF 3									
FUEL WT.	5.92	LB/GAL	DATE	6 OCT 1962					
Point No.	33	34							
Pressure Altitude Ft.	9040	9090							
Skid Height Ft.									
IAS RPM	40.0	40.0							
FAT OC	6.1	6.1							
CAT OC	11.5	11.7							
MAP In.Hg	19.46	19.41							
Rotor RPM	343.7	343.7							
Gross Weight	2682	2680							
Time - MIN	31.15	32.60							
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090							
Fuel Flow									
Course Length Ft.									
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS RPM									
FAT OC									
CAT OC									
MAP In.Hg									
Rotor RPM									
Gross Weight									
Time - MIN									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB									
PAGE 4 OF 3									
FUEL WT.	5.87	LB/GAL	DATE	6 OCT 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1000	1095	2495	2995	3495	4000	4500	
Skid Height Ft.									
IAS RPM	45.0	45.0	45.0	44.5	44.5	44.0	43.0	43.0	
FAT OC	14.3	14.3	14.3	14.3	13.8	12.8	11.3	10.2	
CAT OC	19.6	19.1	19.1	19.1	18.7	18.2	17.8	16.8	
MAP In.Hg	21.90	21.95	21.50	21.08	20.62	20.23	19.76	19.23	
Rotor RPM	343.5	343.5	343.5	343.5	343.5	343.5	343.5	343.5	
Gross Weight	2721	2720	2716	2716	2714	2712	2711	2710	
Time - MIN	0	65	127	192	265	337	410	495	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow									
Course Length Ft.									
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	4700	5000	5295	5595	5890	6190	6490	6790	
Skid Height Ft.									
IAS RPM	43.0	42.0	42.5	42.5	42.5	42.0	42.0	41.5	
FAT OC	9.7	9.7	9.2	9.2	9.2	9.7	9.7	9.2	
CAT OC	14.3	15.8	15.8	15.3	15.3	15.8	15.3	15.3	
MAP In.Hg	21.09	22.81	22.65	22.36	22.05	21.75	21.53	21.28	
Rotor RPM	343.5	343.5	343.5	343.5	343.5	343.5	343.5	343.5	
Gross Weight	2708	2708	2706	2706	2706	2706	2706	2706	
Time - MIN	6.58	7.44	8.32	9.17	9.98	10.88	11.87	12.85	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 57-8234

TEST CHECK CLIMB PAGE 2 OF 3									
FUEL WT. 5.87	LB/GAL		DATE		6 OCT 1962				
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	6995	7195	7400	7600	7800	7900	8000	8100	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS ~~MM~~	41.5	41.5	41.0	41.0	41.0	41.0	41.0	40.5	
FAT OC	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.1	
CAT OC	15.3	15.8	16.1	16.2	16.2	16.2	16.2	16.2	
MAP In. Hg	21.15	20.90	20.80	20.60	20.40	20.30	20.20	20.20	
Rotor RPM	3475	3475	3475	3475	3475	3475	3475	3475	
Gross Weight	2698	2696	2695	2693	2692	2691	2690	2689	
Time ~ MIN	13.85	14.70	15.48	16.06	17.00	18.11	19.08	19.77	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3080	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	8300	8395	8495	8595	8690	8790	8840	8890	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS ~~MM~~	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	
FAT OC	7.1	6.6	6.6	6.1	5.5	5.5	5.5	5.5	
CAT OC	12.9	12.4	12.4	12.0	11.7	11.5	11.5	11.5	
MAP In. Hg	20.05	19.90	19.80	19.70	19.70	19.60	19.60	19.55	
Rotor RPM	3435	3435	3435	3435	3435	3435	3435	3435	
Gross Weight	2687	2686	2686	2685	2684	2684	2679	2678	
Time ~ MIN	21.00	22.03	22.95	24.05	25.35	26.55	27.18	27.92	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 3									
FUEL WT. 5.87	LB/GAL		DATE		6 OCT 1962				
Point No.	33	34	35						
Pressure Altitude Ft.	8740	9040	9090						
Skid Height Ft.	-	-	-						
IAS ~~MM~~	40.0	40.0	40.0						
FAT OC	5.5	5.5	5.5						
CAT OC	11.5	11.5	11.5						
MAP In. Hg	19.51	19.46	19.41						
Rotor RPM	3405	3405	3405						
Gross Weight	2677	2676	2675						
Time ~ MIN	28.87	29.55	30.17						
Wet Bulb	-	-	-						
Dry Bulb	-	-	-						
Distance to 50' Ft.	-	-	-						
True Speed at 50' MPH	-	-	-						
Engine RPM	3090	3090	3090						
Fuel Flow	-	-	-						
Course Length Ft.	-	-	-						
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS ~~MM~~									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time ~ MIN									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 3									
FUEL WT. 5.91	LB/GAL		DATE		9 OCT 1962				
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1095	1190	1295	1395	1495	1595	1695	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS ~~MM~~	45.0	44.5	44.5	44.0	43.5	43.0	42.5	42.0	
FAT OC	13.3	12.2	11.2	10.2	9.2	8.2	8.1	8.1	
CAT OC	18.2	16.8	15.3	14.8	14.4	13.9	13.9	13.9	
MAP In. Hg	26.37	25.90	25.45	25.05	24.57	24.21	23.79	23.39	
Rotor RPM	3435	3435	3435	3435	3435	3435	3435	3435	
Gross Weight	2720	2719	2717	2716	2714	2713	2711	2709	
Time ~ MIN	0	.78	1.58	2.38	3.35	4.32	5.33	6.42	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11						
Pressure Altitude Ft.	1795	1895	1990						
Skid Height Ft.	-	-	-						
IAS ~~MM~~	43.0	43.0	42.5						
FAT OC	7.6	6.6	6.5						
CAT OC	12.0	11.0	10.0						
MAP In. Hg	22.30	22.30	21.90						
Rotor RPM	3435	3435	3435						
Gross Weight	2707	2705	2703						
Time ~ MIN	7.66	8.80	10.30						
Wet Bulb	-	-	-						
Dry Bulb	-	-	-						
Distance to 50' Ft.	-	-	-						
True Speed at 50' MPH	-	-	-						
Engine RPM	3090	3090	3090						
Fuel Flow	-	-	-						
Course Length Ft.	-	-	-						

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 3									
FUEL WT. 5.92	LB/GAL		DATE		6 OCT 1962				
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1000	1095	1195	1295	1395	1490	1590	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS ~~MM~~	45.5	45.0	44.5	44	43.5	43.5	43.5	42.5	
FAT OC	13.7	13.2	12.2	11.2	10.2	10.2	10.2	10.2	
CAT OC	19.6	19.2	18.2	17.2	16.2	16.2	16.2	15.9	
MAP In. Hg	26.39	25.95	25.40	24.95	24.57	24.15	23.69	23.29	
Rotor RPM	3437	3437	3437	3437	3437	3437	3437	3437	
Gross Weight	2728	2727	2725	2724	2722	2720	2719	2717	
Time ~ MIN	0	.85	1.63	2.52	3.59	4.92	5.92	6.50	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	1800	1895	1990	2090	2190	2290	2390	2490	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS ~~MM~~	42.5	42.5	42.5	42.5	41.5	41.5	41.5	41.5	
FAT OC	9.2	8.6	8.1	8.1	8.6	9.2	8.6	8.6	
CAT OC	13.9	13.4	12.9	13.4	13.4	12.9	12.9	13.9	
MAP In. Hg	22.70	22.50	22.20	21.90	21.60	21.40	21.18	21.03	
Rotor RPM	3437	3437	3437	3437	3437	3437	3437	3437	
Gross Weight	2716	2714	2712	2711	2709	2707	2705	2704	
Time ~ MIN	7.72	8.47	9.33	10.46	11.92	12.62	13.98	14.73	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OM-12H S/N 57-0234

TEST CHECK CLIMB PAGE 2 OF 3									
FUEL WT. 5.92	LB/GAL		DATE 6 OCT. 1962						
Point No.	17	18	19	20	21	22	23	24	25
Pressure Altitude Ft.	7295	7500	7700	7900	8100	8300	8500	8700	8900
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	41.0	41.0	41.0	41.0	41.0	40.5	40.5	40.5	40.5
FAT OC	8.4	8.4	8.1	8.1	8.1	7.6	7.6	7.1	7.1
CAT OC	14.4	13.9	13.4	13.4	13.4	12.9	12.9	12.9	12.9
MAP In.Hg	20.83	20.43	20.03	19.63	19.23	18.83	18.43	18.03	17.63
Rotor RPM	3627	3627	3627	3627	3627	3627	3627	3627	3627
Gross Weight	2703	2701	2699	2697	2695	2693	2691	2689	2687
Time ~ MIN	15.77	16.87	18.07	19.27	20.47	21.67	22.87	24.07	25.27
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-
Point No.	26	27	28	29	30	31	32	33	34
Pressure Altitude Ft.	9100	9300	9500	9700	9900	10100	10300	10500	10700
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	40.5	40.5	40.5	40.5	40.5	40.0	40.0	40.0	40.0
FAT OC	7.1	7.1	6.6	6.1	6.1	5.5	5.5	5.5	5.5
CAT OC	12.4	12.2	12.0	11.7	11.5	11.5	11.5	11.5	11.5
MAP In.Hg	20.03	19.63	19.23	18.83	18.43	18.03	17.63	17.23	16.83
Rotor RPM	3627	3627	3627	3627	3627	3627	3627	3627	3627
Gross Weight	2693	2692	2691	2689	2688	2687	2686	2685	2684
Time ~ MIN	22.28	23.37	24.46	25.55	26.64	27.73	28.82	29.91	31.00
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 3 OF 3									
FUEL WT. 5.87	LB/GAL		DATE 9 OCT. 1962						
Point No.	35	36	37	38	39	40	41	42	43
Pressure Altitude Ft.	8200	8300	8400	8500	8600	8700	8800	8900	9000
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	40.5	40.0	40.5	40.5	40.5	40.5	40.5	40.5	40.5
FAT OC	10.2	9.7	9.2	9.2	9.2	9.2	9.2	9.2	9.2
CAT OC	16.8	16.8	15.8	15.8	15.8	15.5	15.5	15.5	15.5
MAP In.Hg	20.00	19.03	18.03	17.03	16.03	15.03	14.03	13.03	12.03
Rotor RPM	3625	3625	3625	3625	3625	3625	3625	3625	3625
Gross Weight	2691	2690	2689	2688	2687	2686	2685	2684	2683
Time ~ MIN	21.39	22.17	22.93	23.67	24.41	25.15	25.89	26.63	27.37
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-
Point No.	44	45	46	47	48	49	50	51	52
Pressure Altitude Ft.	9100	9200	9300	9400	9500	9600	9700	9800	9900
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	40.5	40.5	40.5	40.5	40.5	40.0	40.0	40.0	40.0
FAT OC	9.2	9.2	9.2	9.2	9.2	8.7	8.7	8.7	8.7
CAT OC	15.3	15.3	15.3	15.3	15.3	15.0	15.0	15.0	15.0
MAP In.Hg	19.63	19.23	18.83	18.43	18.03	17.63	17.23	16.83	16.43
Rotor RPM	3625	3625	3625	3625	3625	3625	3625	3625	3625
Gross Weight	2683	2682	2681	2680	2679	2678	2677	2676	2675
Time ~ MIN	28.01	28.33	28.65	28.97	29.29	29.61	29.93	30.25	30.57
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 1 OF 4									
FUEL WT. 5.87	LB/GAL		DATE 10 OCT. 1962						
Point No.	1	2	3	4	5	6	7	8	9
Pressure Altitude Ft.	1000	1400	1800	2200	2600	3000	3400	3800	4200
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	46.0	46.0	45.0	45.0	44.5	44	43.5	43.5	43.5
FAT OC	17.3	18.3	18.3	18.3	17.3	16.3	16.8	15.3	15.3
CAT OC	21.5	22.5	22.5	22.0	21.0	21.0	19.0	19.0	19.0
MAP In.Hg	24.95	24.05	23.15	22.25	21.35	20.45	19.55	18.65	17.75
Rotor RPM	3623	3623	3623	3623	3623	3623	3623	3623	3623
Gross Weight	2534	2533	2532	2531	2530	2529	2528	2527	2526
Time ~ MIN	0	.48	.96	1.44	1.92	2.40	2.88	3.36	3.84
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-
Point No.	10	11	12	13	14	15	16	17	18
Pressure Altitude Ft.	4600	4700	4800	4900	5000	5100	5200	5300	5400
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	42.5	42.5	42.0	42.0	42.0	41.5	41.5	41.0	41.0
FAT OC	19.3	19.3	19.0	19.0	19.0	18.5	18.5	18.0	18.0
CAT OC	18.5	18.5	18.0	18.0	18.0	17.5	17.5	17.0	17.0
MAP In.Hg	23.76	23.50	23.24	22.98	22.72	22.46	22.20	21.94	21.68
Rotor RPM	3623	3623	3623	3623	3623	3623	3623	3623	3623
Gross Weight	2524	2524	2523	2522	2521	2520	2519	2518	2517
Time ~ MIN	4.30	4.82	5.34	5.86	6.38	6.90	7.42	7.94	8.46
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 4									
FUEL WT. 5.87	LB/GAL		DATE 10 OCT. 1962						
Point No.	19	20	21	22	23	24	25	26	27
Pressure Altitude Ft.	4900	5000	5100	5200	5300	5400	5500	5600	5700
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	41.5	41.5	41.5	41.5	41.5	41.0	41.0	41.0	41.0
FAT OC	11.8	11.3	10.8	10.3	9.7	9.7	9.7	9.7	9.7
CAT OC	16.8	16.8	16.0	15.5	15.5	15.5	15.5	15.5	15.5
MAP In.Hg	21.66	21.42	21.18	20.94	20.70	20.46	20.22	19.98	19.74
Rotor RPM	3623	3623	3623	3623	3623	3623	3623	3623	3623
Gross Weight	2519	2518	2517	2516	2515	2514	2513	2512	2511
Time ~ MIN	9.00	9.65	10.00	10.61	11.25	11.93	12.60	13.28	13.96
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-
Point No.	28	29	30	31	32	33	34	35	36
Pressure Altitude Ft.	6300	6400	6500	6600	6700	6800	6900	7000	7100
Skid Height Ft.	-	-	-	-	-	-	-	-	-
IAS MB.	40.5	40.5	40.5	40.5	40.5	40.5	40.0	40.0	40.0
FAT OC	9.2	9.2	9.2	8.7	8.7	8.7	8.7	8.7	8.7
CAT OC	15.5	15.5	15.0	15.0	15.0	15.0	14.5	14.5	14.5
MAP In.Hg	20.04	19.84	19.64	19.44	19.24	19.04	18.84	18.64	18.44
Rotor RPM	3623	3623	3623	3623	3623	3623	3623	3623	3623
Gross Weight	2513	2512	2511	2510	2509	2508	2507	2506	2505
Time ~ MIN	13.69	14.00	14.30	14.61	14.92	15.23	15.54	15.85	16.16
Wet Bulb	-	-	-	-	-	-	-	-	-
Dry Bulb	-	-	-	-	-	-	-	-	-
Distance to 50' Ft.	-	-	-	-	-	-	-	-	-
True Speed at 50' MPH	-	-	-	-	-	-	-	-	-
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	3090
Fuel Flow	-	-	-	-	-	-	-	-	-
Course Length Ft.	-	-	-	-	-	-	-	-	-

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 67-0234

TEST CHECK CLIMB PAGE 3 OF 4									
FUEL WT.	5.89			LB/GAL			DATE 10 OCT 1962		
Point No.	33	34	35	36	37	38	39	40	
Pressure Altitude Ft.	9990	9990	9990	9990	10000	10000	10290	10290	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	
FAT OC	8.1	8.1	7.6	7.6	7.1	7.1	6.6	6.6	
CAT OC	13.5	13.5	14.0	14.0	13.0	12.5	12.5	12.5	
MAP In. Hg	19.12	18.99	18.89	18.87	18.78	18.70	18.67	18.63	
Rotor RPM	3093	3093	3093	3093	3093	3093	3093	3093	
Gross Weight	2365	2365	2365	2365	2365	2365	2365	2365	
Time - MIN	19.18	20.00	20.78	21.39	22.00	22.73	23.26	23.78	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	41	42	43	44	45	46	47	48	
Pressure Altitude Ft.	10390	10390	10390	10390	10690	10690	10760	10760	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	
FAT OC	6.6	6.6	6.1	6.1	6.1	6.1	5.5	5.5	
CAT OC	12.5	12.0	11.5	11.5	11.5	11.5	11.5	11.5	
MAP In. Hg	18.56	18.48	18.40	18.36	18.34	18.31	18.28	18.26	
Rotor RPM	3093	3093	3093	3093	3093	3093	3093	3093	
Gross Weight	2399	2399	2397	2396	2396	2395	2395	2393	
Time - MIN	25.10	25.37	25.80	26.20	26.60	27.05	27.53	28.03	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 4 OF 4									
FUEL WT.	5.89			LB/GAL			DATE 10 OCT 1962		
Point No.	49								
Pressure Altitude Ft.	10860								
Skid Height Ft.	-								
IAS MPH	10.0								
FAT OC	6.0								
CAT OC	11.0								
MAP In. Hg	18.16								
Rotor RPM	3093								
Gross Weight	2492								
Time - MIN	30.30								
Wet Bulb	-								
Dry Bulb	-								
Distance to 50' Ft.	-								
True Speed at 50' MPH	-								
Engine RPM	3090								
Fuel Flow	-								
Course Length Ft.	-								
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 1 OF 2									
FUEL WT.	5.91			LB/GAL			DATE 10 OCT 1962		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1995	1995	2995	2995	3995	3995	4000	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	16.0	15.5	15.0	15.0	14.5	14.0	13.5	13.5	
FAT OC	17.3	17.3	16.8	16.8	16.8	16.8	16.3	16.3	
CAT OC	19.6	21.2	21.2	20.1	19.8	18.7	17.7	18.2	
MAP In. Hg	26.21	25.78	25.84	24.77	24.44	24.00	23.78	23.67	
Rotor RPM	3093	3093	3093	3093	3093	3093	3093	3093	
Gross Weight	2786	2720	2710	2717	2710	2713	2713	2718	
Time - MIN	0	1.82	1.69	2.57	3.07	4.91	5.00	5.38	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3190	3190	3190	3190	3190	3190	3190	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	4300	4700	5000	5295	5995	5790	5790	6190	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	13.0	13.0	13.0	13.0	12.5	11.0	12.0	12.0	
FAT OC	16.3	13.0	13.3	12.3	11.8	11.8	11.8	11.3	
CAT OC	18.2	17.7	17.2	16.9	16.2	17.0	16.2	15.8	
MAP In. Hg	23.34	22.03	22.78	22.87	22.37	22.06	21.70	21.73	
Rotor RPM	3093	3093	3093	3093	3093	3093	3093	3093	
Gross Weight	2710	2709	2706	2707	2705	2705	2703	2702	
Time - MIN	5.99	7.08	7.87	8.57	9.40	9.91	10.62	11.37	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 2									
FUEL WT.	5.91			LB/GAL			DATE 10 OCT 1962		
Point No.	17	18	19						
Pressure Altitude Ft.	6390	6590	6790						
Skid Height Ft.	-	-	-						
IAS MPH	12.0	11.5	11.5						
FAT OC	11.3	10.8	10.8						
CAT OC	15.8	15.8	15.8						
MAP In. Hg	21.54	21.49	21.24						
Rotor RPM	3093	3093	3093						
Gross Weight	2701	2700	2699						
Time - MIN	12.12	12.82	13.62						
Wet Bulb	-	-	-						
Dry Bulb	-	-	-						
Distance to 50' Ft.	-	-	-						
True Speed at 50' MPH	-	-	-						
Engine RPM	3090	3090	3090						
Fuel Flow	-	-	-						
Course Length Ft.	-	-	-						
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 67-6234

TEST CHECK CLIMB PAGE 2 OF 2									
FUEL WT. 5.87	LB/GAL		DATE 9 OCT 1962						
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	1000	1895	2795	3695	4595	5495	6395	7295	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	11.0	15.5	20.0	24.5	29.0	33.5	38.0	42.5	
FAT OC	18.2	18.7	19.2	19.7	20.2	20.7	21.2	21.7	
CAT OC	21.1	21.1	21.2	21.3	21.4	21.5	21.6	21.7	
MAP In. Hg	24.39	24.77	25.15	25.53	25.91	26.29	26.67	27.05	
Rotor RPM	3595	3695	3795	3895	3995	4095	4195	4295	
Gross Weight	2725	2744	2763	2782	2801	2820	2839	2858	
Time - MIN	0	.85	1.66	2.48	3.29	4.10	4.92	5.73	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3190	3190	3190	3190	3190	3190	3190	3190	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	8300	8500	8700	8900	9100	9300	9500	9700	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
FAT OC	15.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	
CAT OC	21.3	21.8	21.8	21.8	21.8	21.8	21.8	21.8	
MAP In. Hg	23.69	23.72	23.75	23.78	23.81	23.84	23.87	23.90	
Rotor RPM	3495	3495	3495	3495	3495	3495	3495	3495	
Gross Weight	2716	2713	2712	2711	2710	2709	2708	2707	
Time - MIN	6.28	6.80	7.32	7.85	8.37	8.89	9.41	9.93	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST CHECK CLIMB PAGE 2 OF 2									
FUEL WT. 5.87	LB/GAL		DATE 9 OCT 1962						
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	6890	6890	6890	6890	6890	6890	6890	6890	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	41.5	41.5	41.0	41.0	41.0	41.0	41.0	40.5	
FAT OC	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	
CAT OC	21.8	21.3	21.3	20.1	20.1	18.6	17.2	15.7	
MAP In. Hg	21.95	21.78	21.65	21.50	21.38	21.15	20.90	20.65	
Rotor RPM	3495	3495	3495	3495	3495	3495	3495	3495	
Gross Weight	2707	2706	2705	2703	2702	2701	2700	2699	
Time - MIN	10.77	11.44	12.15	12.95	13.75	14.50	15.20	15.92	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	25	26	27	28	29	30	31	32	
Pressure Altitude Ft.	7395	7495	7600	7700	7800	7900	8000	8100	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	
FAT OC	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	
CAT OC	18.2	18.2	18.2	17.7	17.7	17.2	17.2	17.2	
MAP In. Hg	20.75	20.65	20.55	20.45	20.38	20.31	20.24	20.16	
Rotor RPM	3495	3495	3495	3495	3495	3495	3495	3495	
Gross Weight	2698	2697	2696	2695	2694	2693	2692	2691	
Time - MIN	16.68	17.22	17.80	18.33	18.87	19.44	20.00	20.57	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3090	3090	3090	3090	3090	3090	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT. 5.91	LB/GAL		DATE 4 OCT 1962						
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	5395	5495	5595	5695	5795	5895	5995	6095	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	12.9	18.6	24.0	29.5	35.0	40.5	46.0	51.5	
FAT OC	7.1	6.6	6.1	5.5	5.5	5.5	5.5	5.5	
CAT OC	11.5	13.4	15.4	17.4	19.4	21.4	23.4	25.4	
MAP In. Hg	22.49	22.58	22.68	22.78	22.88	22.98	23.08	23.18	
Rotor RPM	3495	3495	3495	3495	3495	3495	3495	3495	
Gross Weight	2681	2666	2651	2636	2621	2606	2591	2576	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3087	3087	3087	3087	3087	3087	3087	3087	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9								
Pressure Altitude Ft.	6210								
Skid Height Ft.	-								
IAS Kts.	16.4								
FAT OC	5.0								
CAT OC	11.0								
MAP In. Hg	20.13								
Rotor RPM	3495								
Gross Weight	2616								
Time	-								
Wet Bulb	-								
Dry Bulb	-								
Distance to 50' Ft.	-								
True Speed at 50' MPH	-								
Engine RPM	3087								
Fuel Flow	-								
Course Length Ft.	-								

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT. 5.87	LB/GAL		DATE 6 OCT 1962						
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	8350	8477	8595	8719	8844	8969	9094	9219	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	40.0	40.5	41.0	41.5	42.0	42.5	43.0	43.5	
FAT OC	5.0	6.1	6.1	6.1	6.1	6.1	6.1	6.1	
CAT OC	10.5	12.0	12.9	13.4	13.9	14.4	14.9	15.4	
MAP In. Hg	20.00	19.90	19.79	19.72	19.65	19.57	19.50	19.44	
Rotor RPM	3495	3495	3495	3495	3495	3495	3495	3495	
Gross Weight	2685	2669	2653	2637	2621	2605	2589	2573	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3087	3087	3087	3087	3087	3087	3087	3087	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9								
Pressure Altitude Ft.									
Skid Height Ft.									
IAS Kts.									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 57-8234

TEST SPEED POWER									
FUEL WT.	5.92		LB/GAL	DATE 5 OCT 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3887	3778	3867	3877	3927	3977	4077	4247	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	66.4	66.8	66.8	69.0	74.0	76.4	80.6	88.7	
FAT OC	11.2	11.2	11.2	10.7	11.2	10.7	11.2	10.2	
CAT OC	15.8	15.8	15.8	17.2	17.2	18.2	18.8	17.2	
MAP In. Hg	23.87	23.38	22.33	19.45	18.78	18.8	23.88	18.15	
Rotor RPM	343	349	348	343	343	343	343	343	
Gross Weight	2663	2658	2681	2696	2690	2696	2686	2687	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3087	3087	3087	3087	3087	3087	3087	3087	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10	11						
Pressure Altitude Ft.	4367	4517	4697						
Skid Height Ft.	-	-	-						
IAS Kts.	75.0	77.0	85.5						
FAT OC	10.2	9.7	9.3						
CAT OC	17.2	18.7	15.3						
MAP In. Hg	18.26	20.18	17.78						
Rotor RPM	343	343	343						
Gross Weight	2601	2693	2586						
Time	-	-	-						
Wet Bulb	-	-	-						
Dry Bulb	-	-	-						
Distance to 50' Ft.	-	-	-						
True Speed at 50' MPH	-	-	-						
Engine RPM	3087	3087	3087						
Fuel Flow	-	-	-						
Course Length Ft.	-	-	-						

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	5.91		LB/GAL	DATE 7 OCT 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	4275	4885	4875	5075	5195	5285	5495	5945	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	57.9	55.9	48.4	37.8	28.1	18.0	82.3	86.5	
FAT OC	9.2	9.2	8.7	8.2	8.7	8.2	8.7	8.2	
CAT OC	13.4	14.1	15.5	16.3	14.4	15.8	17.8	18.4	
MAP In. Hg	23.27	21.78	19.68	18.78	19.88	20.97	20.58	22.70	
Rotor RPM	320.5	320.5	319.5	320.5	320.5	320.5	320.5	320.5	
Gross Weight	2671	2668	2660	2653	2681	2680	2615	2618	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2884	2884	2876	2880	2884	2884	2884	2884	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9								
Pressure Altitude Ft.									
Skid Height Ft.									
IAS Kts.									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	6.85		LB/GAL	DATE 1 NOV 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	7199	7278	7416	7477	7518	7888	7689	7709	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	56.8	53.2	58.5	57.5	54.0	57.8	51.2	45.9	
FAT OC	12.7	12.4	11.6	11.6	11.6	11.6	11.9	11.6	
CAT OC	17.2	17.4	18.7	18.2	17.2	18.7	18.7	18.2	
MAP In. Hg	21.27	20.38	19.97	19.11	18.04	18.64	19.78	18.78	
Rotor RPM	349.0	348.5	348.5	348.5	348.5	348.5	348.5	348.5	
Gross Weight	2609	2641	2698	2690	2670	2682	2677	2669	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3096	3091	3100	3096	3091	3091	3091	3091	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9	10							
Pressure Altitude Ft.	7840	7922							
Skid Height Ft.	-	-							
IAS Kts.	58.0	55.5							
FAT OC	11.8	11.5							
CAT OC	17.2	16.2							
MAP In. Hg	19.39	20.61							
Rotor RPM	348.5	348.5							
Gross Weight	2663	2687							
Time	-	-							
Wet Bulb	-	-							
Dry Bulb	-	-							
Distance to 50' Ft.	-	-							
True Speed at 50' MPH	-	-							
Engine RPM	3091	3091							
Fuel Flow	-	-							
Course Length Ft.	-	-							

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	5.92		LB/GAL	DATE 16 AUG 1962					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	4330	4338	4370	4480	4510	4655	4680	4780	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS Kts.	51.5	49.0	46.0	43.0	41.5	36.4	30.0	21.0	
FAT OC	23.0	23.0	22.5	22.5	22.5	22.5	22.0	22.0	
CAT OC	28.5	29.0	29.5	29.0	29.0	28.5	28.0	28.5	
MAP In. Hg	21.88	21.65	20.61	20.17	19.87	19.86	20.06	21.37	
Rotor RPM	348.3	348.7	348.3	348.3	348.3	348.3	348.3	348.3	
Gross Weight	2797	2793	2698	2698	2685	2676	2670	2665	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3088	3088	3088	3088	3088	3088	3088	3088	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	
Point No.	9								
Pressure Altitude Ft.	4790								
Skid Height Ft.	-								
IAS Kts.	41.5								
FAT OC	22.8								
CAT OC	28.5								
MAP In. Hg	19.71								
Rotor RPM	348.3								
Gross Weight	2660								
Time	-								
Wet Bulb	-								
Dry Bulb	-								
Distance to 50' Ft.	-								
True Speed at 50' MPH	-								
Engine RPM	3088								
Fuel Flow	-								
Course Length Ft.	-								

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 67-6234

TEST SPEED POWER									
FUEL WT.	5.90		LB/GAL		DATE 17 AUG. 1962				
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	4610	4710	4760	4800	4850	4900	4950	5000	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	46.0	47.5	48.0	48.5	49.0	49.5	50.0	50.5	
FAT OC	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	
CAT OC	30.4	31.5	32.0	32.0	32.0	32.0	32.0	32.5	
MAP In. Hg	22.59	22.96	22.95	23.06	23.06	23.59	23.72	23.79	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2717	2712	2707	2709	2691	2680	2678	2668	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	5.94		LB/GAL		DATE 18 AUG 1962				
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	5190	5270	5390	5520	5620	5700	5750	5810	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	47.5	47.0	47.5	47.0	47.0	47.0	47.0	47.0	
FAT OC	21.0	21.0	21.0	20.5	20.5	20.5	20.5	20.5	
CAT OC	26.5	27.0	28.5	29.0	29.0	29.0	29.0	29.0	
MAP In. Hg	22.79	22.02	22.04	18.78	18.78	19.97	20.90	18.99	
Rotor RPM	3205	3205	3205	3205	3205	3205	3205	3205	
Gross Weight	2574	2563	2597	2543	2597	2593	2576	2549	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	2885	2885	2885	2885	2885	2885	2885	2885	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	5.86		LB/GAL		DATE 31 OCT. 1962				
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	5931	6020	6180	6341	6571	6641	6682	6712	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	18.6	21.7	22.8	23.5	23.9	24.0	24.7	25.0	
FAT OC	16.0	16.0	15.5	15.4	14.9	13.9	13.9	13.3	
CAT OC	20.7	21.2	21.2	17.4	17.2	17.7	18.7	19.2	
MAP In. Hg	21.23	18.99	18.31	21.77	20.06	18.79	17.98	17.71	
Rotor RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Gross Weight	2559	2597	2598	2598	2598	2598	2598	2598	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	5.86		LB/GAL		DATE 31 OCT. 1962				
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3036	3036	3076	3076	3067	3087	3177	3267	
Skid Height Ft.	-	-	-	-	-	-	-	-	
IAS MPH	47.7	49.0	52.3	53.2	46.5	41.1	33.5	26.0	
FAT OC	20.0	20.0	20.0	20.0	20.0	20.0	19.5	17.6	
CAT OC	22.8	23.5	26.1	25.0	26.3	26.9	25.9	25.0	
MAP In. Hg	24.93	23.12	21.06	19.09	18.78	18.17	18.03	18.66	
Rotor RPM	3091	3091	3091	3091	3091	3091	3091	3091	
Gross Weight	2619	2615	2609	2607	2602	2598	2593	2585	
Time	-	-	-	-	-	-	-	-	
Wet Bulb	-	-	-	-	-	-	-	-	
Dry Bulb	-	-	-	-	-	-	-	-	
Distance to 50' Ft.	-	-	-	-	-	-	-	-	
True Speed at 50' MPH	-	-	-	-	-	-	-	-	
Engine RPM	3090	3090	3085	3085	3090	3090	3085	3085	
Fuel Flow	-	-	-	-	-	-	-	-	
Course Length Ft.	-	-	-	-	-	-	-	-	

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 57-6234

TEST SPEED POWER									
FUEL WT.	5.85		LB/GAL		DATE		1 NOV 1962		
Point No.	1	2	3	4	5	6			
Pressure Altitude Ft.	9829	9649	9726	9878	9778	10058			
Skid Height Ft.									
IAS	20.2	25.0	30.3	43.1	48.0	32.0			
FAT OC	8.4	8.4	8.4	7.4	7.4	7.9			
CAT OC	14.8	15.0	15.3	14.3	13.4	13.9			
MAP In. Hg	19.23	17.96	17.76	18.17	18.39	17.62			
Rotor RPM	343.6	346.8	349.1	346.1	343.8	348.2			
Gross Weight	2596	2597	2599	2620	2617	2511			
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3086	3096	3096	3091	3087			
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER									
FUEL WT.	5.33		LB/GAL		DATE		8 OCT 1962		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	5535	5615	5645	5700	5750	5830	5870	5710	
Skid Height Ft.									
IAS	64.8	69.6	67.6	51.2	42.4	38.3	25.0	12.3	
FAT OC	14.2	14.2	14.8	14.8	14.2	14.2	14.2	14.2	
CAT OC	18.2	18.2	19.2	21.3	21.3	20.1	19.2	19.2	
MAP In. Hg	22.35	20.85	19.80	18.70	17.33	16.33	17.52	20.64	
Rotor RPM	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	
Gross Weight	2463	2466	2466	2469	2462	2427	2421	2413	
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3087	3087	3087	3105	3087	3087	3096	3096	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER - WITH ARMAMENT KIT									
FUEL WT.	5.86		LB/GAL		DATE		31 OCT 1962		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	5931	6070	6100	6591	6571	6611	6650	6728	
Skid Height Ft.									
IAS	14.6	21.7	32.0	59.8	57.3	51.0	40.7	39.8	
FAT OC	16.0	16.0	15.5	14.6	14.6	13.9	13.9	13.3	
CAT OC	24.7	21.2	21.2	17.4	17.2	17.2	16.7	16.2	
MAP In. Hg	21.23	18.99	18.31	21.77	20.84	18.90	17.90	17.71	
Rotor RPM	343.6	343.6	343.6	343.6	343.6	343.6	343.6	343.6	
Gross Weight	2596	2597	2598	2599	2597	2511	2511	2511	
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3087	3087	3091	3091	3091	3091	3091	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER - WITH ARMAMENT KIT									
FUEL WT.	5.86		LB/GAL		DATE		31 OCT 1962		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3436	3436	3436	3436	3407	3407	3407	3407	
Skid Height Ft.									
IAS	67.7	66.0	57.3	59.2	46.5	41.1	38.5	26.0	
FAT OC	20.0	20.0	20.0	20.0	20.0	20.0	19.5	19.5	
CAT OC	23.5	23.5	23.5	25.0	26.3	26.9	25.0	25.0	
MAP In. Hg	21.54	21.40	21.46	19.84	18.75	18.17	18.03	18.56	
Rotor RPM	343.5	343.5	343.5	343.5	343.5	343.5	343.5	343.5	
Gross Weight	2619	2615	2607	2607	2602	2598	2593	2585	
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3091	3087	3087	3091	3091	3087	3087	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 67-0234

TEST SPEED POWER - WITH ARMAMENT KITS									
FUEL WT.	5.85		LB/GAL		DATE		1 NOV. 1962		
Point No.	1	2	3	4	5	6			
Pressure Altitude Ft.	9537	9617	9720	9878	9970	10068			
Skid Height Ft.									
IAS MPH	20.2	26.0	30.3	43.1	48.0	52.0			
FAT OC	8.6	8.6	8.0	7.4	7.4	7.4			
CAT OC	14.8	15.0	15.3	15.3	15.3	15.3			
MAP In. Hg	19.23	20.0	20.11	20.11	20.11	20.11			
Rotor RPM	3025	3025	3025	3025	3025	3025			
Gross Weight	2546	2537	2527	2520	2515	2511			
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3091	3096	3096	3096	3091	3087			
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST SPEED POWER - WITH ARMAMENT KIT									
FUEL WT.	5.85		LB/GAL		DATE		1 NOV. 1962		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	7196	7275	7316	7377	7518	7558	7689	7749	
Skid Height Ft.									
IAS MPH	56.8	53.2	50.5	47.5	34.0	27.0	21.2	45.0	
FAT OC	12.7	18.5	11.6	11.6	11.6	11.6	11.0	11.6	
CAT OC	17.2	17.4	18.7	18.2	19.3	18.2	18.7	18.2	
MAP In. Hg	21.27	20.36	19.87	19.11	18.40	18.85	18.28	18.39	
Rotor RPM	3020	3026	3015	3011	3020	3025	3025	3025	
Gross Weight	2609	2601	2590	2579	2590	2580	2577	2569	
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3096	3091	3090	3096	3091	3091	3091	3091	
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST FUEL FLOW									
FUEL WT.	5.91		LB/GAL		DATE		11 OCT. 62		
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	420	420	420	425	425	425	425	425	
Skid Height Ft.									
IAS MPH									
FAT OC	13.8	15.3	15.3	14.3	14.3	15.8	15.8	17.3	
CAT OC	19.2	24.6	25.2	23.5	24.1	22.9	22.4	23.0	
MAP In. Hg	25.95	25.52	24.30	23.50	21.91	14.93	18.35	16.09	
Rotor RPM	306.5	306.5	306.5	306.5	306.5	306.5	306.5	306.5	
Gross Weight									
Time ~ SEC.	56.72	74.30	85.70	89.20	102.72	83.30	91.40	101.68	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3209	3209	3209	3209	3209	3209	3209	3209	
Fuel Flow ~ GAL.	.3	.4	.4	.4	.4	.5	.5	.5	
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST FUEL FLOW									
FUEL WT.	5.91		LB/GAL		DATE		11 OCT. 62		
Point No.	17	18	19	20	21	22	23	24	
Pressure Altitude Ft.	425	425	425	420	420	420	425	425	
Skid Height Ft.									
IAS MPH									
FAT OC	16.3	17.3	17.8	15.8	14.0	14.3	14.3	15.3	
CAT OC	23.5	23.5	20.0	21.8	23.5	21.5	22.4	25.8	
MAP In. Hg	18.30	16.88	14.95	27.13	25.95	24.78	23.44	21.85	
Rotor RPM	324	324	324	324	324	324	324	324	
Gross Weight									
Time ~ SEC.	97.93	106.94	81.69	77.40	89.50	96.35	106.81	88.8	
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM	3114	3114	3114	2916	2916	2916	2916	2916	
Fuel Flow ~ GAL.	.3	.3	.2	.4	.4	.4	.4	.3	
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OH-13H S/N 67-0224

TEST FUEL FLOWS									
FUEL WT.	5.91	LB/GAL		DATE 22 AUG. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	6705	6705	6705	6705	6705	6705	6705	6705	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	20.5	19.0	19.0	19.0	19.5	19.0	19.5	19.0	
CAT OC	20.0	22.0	22.0	24.4	24.4	21.5	22.5	23.4	
MAP In. Hg	21.16	20.22	19.00	17.52	16.82	21.31	20.16	18.99	
Rotor RPM	324.5	324.5	324.5	324.5	324.5	343.5	343.5	343.5	
Gross Weight	—	—	—	—	—	—	—	—	
Time ~ SEC.	71.10	60.29	60.00	65.18	62.20	73.02	61.40	62.20	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3191	3191	3191	3191	3191	3092	3092	3092	
Fuel Flow ~ GAL.	.3	.3	.3	.2	.2	.3	.3	.3	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	2	10	11	12	13	14	15		
Pressure Altitude Ft.	6705	6705	6705	6705	6705	6705	6705		
Skid Height Ft.	—	—	—	—	—	—	—		
IAS MPH	—	—	—	—	—	—	—		
FAT OC	19.0	19.5	19.5	19.5	19.0	19.0	19.5		
CAT OC	20.4	22.4	22.8	20.8	22.0	24.4	24.9		
MAP In. Hg	17.65	16.82	21.67	20.33	19.01	17.82	16.47		
Rotor RPM	343.5	343.5	320.5	320.5	320.5	320.5	320.5		
Gross Weight	—	—	—	—	—	—	—		
Time ~ SEC.	68.34	72.20	60.30	91.00	102.32	74.19	74.91		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—	—		
Engine RPM	3092	3092	2885	2885	2885	2885	2885		
Fuel Flow ~ GAL.	.2	.2	.3	.3	.3	.2	.2		
Course Length Ft.	—	—	—	—	—	—	—		

Engine-Rotor gear ratio 9.00 to 1

TEST FUEL FLOW									
FUEL WT.	5.86	LB/GAL		DATE 8 AUG. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	3910	2905	3910	3910	3910	3920	3910	3905	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	21.5	20.2	20.5	23.0	23.5	23.0	20.2	20.2	
CAT OC	25.5	32.5	32.5	34.5	37.0	39.0	28.0	29.5	
MAP In. Hg	23.95	22.15	20.45	18.72	17.48	15.98	23.00	22.19	
Rotor RPM	320.5	321.0	321.0	320.5	320.5	320.5	343.5	343.5	
Gross Weight	—	—	—	—	—	—	—	—	
Time ~ SEC.	69.00	106.20	120.36	101.25	75.25	70.60	102.55	96.65	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	2885	2889	2889	2885	2885	2885	3092	3092	
Fuel Flow ~ GAL.	.4	.4	.4	.3	.2	.2	.3	.3	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	3910	3920	3920	3920	3905	3905	3910	3900	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS MPH	—	—	—	—	—	—	—	—	
FAT OC	21.0	25.0	25.5	26.0	26.0	20.0	22.5	24.5	
CAT OC	32.5	36.0	35.5	37.5	28.5	29.0	35.0	34.5	
MAP In. Hg	20.26	18.95	17.86	15.44	23.69	22.11	20.18	19.00	
Rotor RPM	343.5	344.0	343.5	343.5	354.5	354.5	355.0	354.5	
Gross Weight	—	—	—	—	—	—	—	—	
Time ~ SEC.	3910	3920	3920	3920	3905	3905	3910	3910	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	3092	3096	3092	3092	3191	3191	3195	3191	
Fuel Flow ~ GAL.	.4	.3	.3	.3	.3	.4	.4	.3	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST FUEL FLOW									
FUEL WT.	5.86	LB/GAL		DATE 8 AUG. 62					
Point No.	17	18							
Pressure Altitude Ft.	3920	3920							
Skid Height Ft.	—	—							
IAS MPH	—	—							
FAT OC	26.0	27.5							
CAT OC	30.5	37.5							
MAP In. Hg	17.51	16.03							
Rotor RPM	354.5	354.5							
Gross Weight	—	—							
Time ~ SEC.	96.30	104.12							
Wet Bulb	—	—							
Dry Bulb	—	—							
Distance to 50' Ft.	—	—							
True Speed at 50' MPH	—	—							
Engine RPM	3191	3191							
Fuel Flow ~ GAL.	.3	.3							
Course Length Ft.	—	—							
Point No.									
Pressure Altitude Ft.									
Skid Height Ft.									
IAS MPH									
FAT OC									
CAT OC									
MAP In. Hg									
Rotor RPM									
Gross Weight									
Time									
Wet Bulb									
Dry Bulb									
Distance to 50' Ft.									
True Speed at 50' MPH									
Engine RPM									
Fuel Flow									
Course Length Ft.									

Engine-Rotor gear ratio 9.00 to 1

TEST AUTOROTATION									
FUEL WT.	5.91	LB/GAL		DATE 4 OCT. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	5000	4500	4000	3500	3000	2500	2000	1500	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS MPH	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	
FAT OC	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	350	
Gross Weight	2612	2612	2612	2612	2612	2612	2611	2611	
Time ~ SEC.	0	32.5	65.6	98.5	129.0	160.7	191.4	220.7	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9								
Pressure Altitude Ft.	1000								
Skid Height Ft.	—								
IAS MPH	51.0								
FAT OC	19.0								
CAT OC	—								
MAP In. Hg	—								
Rotor RPM	350								
Gross Weight	2611								
Time	2.44.7								
Wet Bulb	—								
Dry Bulb	—								
Distance to 50' Ft.	—								
True Speed at 50' MPH	—								
Engine RPM	—								
Fuel Flow	—								
Course Length Ft.	—								

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 47-6234

TEST AUTOROTATION								
FUEL WT.	5.92		LB/GAL		DATE 6 OCT. 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	8500	8000	7500	7000	6500	6000	5500	5000
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
FAT OC	9.5	9.5	9.0	9.0	9.5	9.5	9.5	10.0
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	349	349	349	349	349	349	349	349
Gross Weight	2603	2603	2603	2603	2602	2602	2602	2602
Time ~ SEC	0	32.3	63.6	94.0	130.0	164.8	196.7	231.5
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	10	11	12				
Pressure Altitude Ft.	4500	4000	3500	3000				
Skid Height Ft.	—	—	—	—				
IAS MPH	45.5	45.5	45.5	45.5				
FAT OC	10.2	10.5	11.5	12.0				
CAT OC	—	—	—	—				
MAP In. Hg	—	—	—	—				
Rotor RPM	349	349	349	349				
Gross Weight	2602	2602	2602	2602				
Time ~ SEC	264.2	297.2	331.7	365.9				
Wet Bulb	—	—	—	—				
Dry Bulb	—	—	—	—				
Distance to 50' Ft.	—	—	—	—				
True Speed at 50' MPH	—	—	—	—				
Engine RPM	—	—	—	—				
Fuel Flow	—	—	—	—				
Course Length Ft.	—	—	—	—				

Engine-Rotor gear ratio 9.00 to 1

TEST AUTOROTATION								
FUEL WT.	5.87		LB/GAL		DATE 6 OCT 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	8000	7500	7000	6500	6000	5500	5000	4500
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
FAT OC	8.0	9.0	9.5	10.0	10.5	10.5	11.0	11.0
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	350	350	350	350	350	350	350	350
Gross Weight	2613	2613	2613	2613	2613	2613	2613	2612
Time ~ SEC	0	33.7	67.6	101.9	138.3	171.6	201.0	245.0
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	10	11	12	13	14	15	
Pressure Altitude Ft.	4000	3500	3000	2500	2000	1500	1000	
Skid Height Ft.	—	—	—	—	—	—	—	
IAS MPH	40.7	40.7	40.7	40.7	40.7	40.7	40.7	
FAT OC	11.5	12.0	13.0	14.0	14.5	15.5	16.0	
CAT OC	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	
Gross Weight	2612	2612	2612	2612	2612	2612	2612	
Time ~ SEC	278.3	320.0	372.0	420.4	473.3	529.2	583.2	
Wet Bulb	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST AUTOROTATION								
FUEL WT.	5.89		LB/GAL		DATE 8 OCT.			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	8500	8000	7500	7000	6500	6000	5500	5000
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
FAT OC	10.5	10.5	10.5	11.0	12.0	13.5	14.0	14.0
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	330	330	330	330	330	330	330	330
Gross Weight	2489	2489	2489	2488	2488	2488	2488	2488
Time ~ SEC	0	35.0	71.6	108.3	145.0	183.4	218.3	256.7
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	10	11	12	13	14	15	16
Pressure Altitude Ft.	4500	4000	3500	3000	2500	2000	1500	1000
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	38.8	37.9	37.9	37.9	37.9	37.9	37.9	37.9
FAT OC	12.0	12.5	12.5	12.5	12.5	13.0	13.5	14.5
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	330	330	330	330	330	330	330	330
Gross Weight	2488	2488	2487	2487	2487	2487	2487	2487
Time ~ SEC	291.1	326.7	361.7	396.3	435.0	472.9	506.7	541.7
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—

Engine-Rotor gear ratio 9.00 to 1

TEST AUTOROTATION								
FUEL WT.	5.89		LB/GAL		DATE 9 OCT. 62			
Point No.	1	2	3	4	5	6	7	8
Pressure Altitude Ft.	8000	7500	7000	6500	6000	5500	5000	4500
Skid Height Ft.	—	—	—	—	—	—	—	—
IAS MPH	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
FAT OC	10.5	11.0	12.0	13.0	14.5	15.5	15.5	14.0
CAT OC	—	—	—	—	—	—	—	—
MAP In. Hg	—	—	—	—	—	—	—	—
Rotor RPM	310	310	310	310	310	310	310	310
Gross Weight	2520	2519	2519	2519	2519	2519	2519	2519
Time ~ SEC	0	33.3	70.0	106.6	145.0	182.8	220.8	258.4
Wet Bulb	—	—	—	—	—	—	—	—
Dry Bulb	—	—	—	—	—	—	—	—
Distance to 50' Ft.	—	—	—	—	—	—	—	—
True Speed at 50' MPH	—	—	—	—	—	—	—	—
Engine RPM	—	—	—	—	—	—	—	—
Fuel Flow	—	—	—	—	—	—	—	—
Course Length Ft.	—	—	—	—	—	—	—	—
Point No.	9	10	11	12	13	14	15	
Pressure Altitude Ft.	4000	3500	3000	2500	2000	1500	1000	
Skid Height Ft.	—	—	—	—	—	—	—	
IAS MPH	38.8	38.8	38.8	38.8	38.8	38.8	38.8	
FAT OC	13.5	13.5	14.5	15.5	16.0	17.0	18.0	
CAT OC	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	
Rotor RPM	310	310	310	310	310	310	310	
Gross Weight	2519	2519	2518	2518	2518	2518	2518	
Time ~ SEC	295.0	331.7	371.7	409.2	447.3	485.0	522.5	
Wet Bulb	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR

MODEL OH-13H S/N 67-8234

TEST AUTO ROTATION									
FUEL WT.	5 89								
LB/GAL	DATE 10 OCT 62								
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	8500	8000	7500	7000	6500	6000	5500	5000	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS RPM	38.8	38.8	38.8	38.8	38.3	38.3	38.3	38.3	
FAT OC	8.0	9.0	9.5	10.0	10.5	12.0	12.5	12.5	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	290	290	290	290	290	290	290	290	
Gross Weight	2509	2509	2509	2509	2509	2509	2509	2509	
Time ~ SEC	0	29.2	49.2	76.7	105.0	135.0	165.0	196.7	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	4500	4000	3500	3000	2500	2000	1500	1000	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS RPM	230.8	265.8	303.3	341.7	378.3	428.3	463.4	502.0	
FAT OC	13.5	14.0	14.5	15.5	16.0	16.5	16.3	19.0	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	290	290	290	290	290	290	290	290	
Gross Weight	2509	2509	2509	2509	2507	2507	2507	2507	
Time ~ SEC	230.8	265.8	303.3	341.7	378.3	428.3	463.4	502.0	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST AUTO ROTATION									
FUEL WT.	5 89								
LB/GAL	DATE 10 OCT 62								
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	10500	10000	9500	9000	8500	8000	7500	7000	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS RPM	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	
FAT OC	7.0	7.5	8.5	9.0	8.5	10.0	10.0	10.5	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	350	
Gross Weight	2485	2485	2485	2485	2485	2484	2484	2484	
Time ~ SEC	0	33.9	67.6	101.7	136.7	174.3	208.3	245.0	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15		
Pressure Altitude Ft.	6500	6000	5500	5000					
Skid Height Ft.	—	—	—	—					
IAS RPM	38.3	38.3	38.3	38.3					
FAT OC	11.0	12.0	12.5	13.0					
CAT OC	—	—	—	—					
MAP In. Hg	—	—	—	—					
Rotor RPM	350	350	350	350					
Gross Weight	2484	2484	2484	2484					
Time ~ SEC	240.0	315.0	351.7	386.7					
Wet Bulb	—	—	—	—					
Dry Bulb	—	—	—	—					
Distance to 50' Ft.	—	—	—	—					
True Speed at 50' MPH	—	—	—	—					
Engine RPM	—	—	—	—					
Fuel Flow	—	—	—	—					
Course Length Ft.	—	—	—	—					

Engine-Rotor gear ratio 9.00 to 1

TEST AUTO ROTATION									
FUEL WT.	5 90								
LB/GAL	DATE 7 OCT 62								
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	9000	8500	8000	7500	7000	6500	6000	5500	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS RPM	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	
FAT OC	9.0	9.0	9.5	9.5	9.5	10.0	10.0	10.5	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	350	
Gross Weight	2522	2522	2522	2522	2522	2521	2521	2521	
Time ~ SEC	0	32.0	63.4	96.7	131.7	163.3	198.4	230.7	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	5000	4500	4000	3500	3000	2500	2000	1500	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS RPM	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	
FAT OC	10.5	10.5	10.0	10.0	10.0	10.0	11.0	11.5	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	350	
Gross Weight	2521	2521	2521	2521	2520	2520	2520	2520	
Time ~ SEC	265.0	297.5	330.8	368.8	391.6	424.2	454.0	485.0	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST AUTO ROTATION									
FUEL WT.	5 90								
LB/GAL	DATE 7 OCT 62								
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	8000	7500	7000	6500	6000	5500	5000	4500	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS RPM	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	
FAT OC	9.0	9.0	9.5	9.5	10.0	9.0	9.5	9.5	
CAT OC	—	—	—	—	—	—	—	—	
MAP In. Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	350	
Gross Weight	2689	2689	2689	2689	2689	2689	2689	2689	
Time ~ SEC	0	35.0	69.2	105.0	138.3	171.6	205.0	238.3	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15		
Pressure Altitude Ft.	4000	3500	3000	2500	2000	1500	1000		
Skid Height Ft.	—	—	—	—	—	—	—		
IAS RPM	31.0	31.0	31.0	31.0	31.0	31.0	31.0		
FAT OC	9.5	9.5	9.5	10.0	10.5	11.0	16.5		
CAT OC	—	—	—	—	—	—	—		
MAP In. Hg	—	—	—	—	—	—	—		
Rotor RPM	350	350	350	350	350	350	350		
Gross Weight	2688	2688	2688	2688	2688	2688	2688		
Time ~ SEC	271.6	306.6	340.8	378.3	411.7	446.7	485.0		
Wet Bulb	—	—	—	—	—	—	—		
Dry Bulb	—	—	—	—	—	—	—		
Distance to 50' Ft.	—	—	—	—	—	—	—		
True Speed at 50' MPH	—	—	—	—	—	—	—		
Engine RPM	—	—	—	—	—	—	—		
Fuel Flow	—	—	—	—	—	—	—		
Course Length Ft.	—	—	—	—	—	—	—		

Engine-Rotor gear ratio 9.00 to 1

TEST DATA CORRECTED FOR INSTRUMENT ERROR
MODEL OM-13H S/N 57-6234

TEST AUTOROTATION									
FUEL WT.	5.91	LB/GAL		DATE 7 OCT. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	8000	7500	7000	6500	6000	5500	5000	4500	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS KIAS	36.0	36.0	36.0	36.0	36.0	36.0	43.3	36.0	
FAT OC	7.0	7.5	8.0	8.5	9.0	9.0	9.5	9.5	
CAT OC	—	—	—	—	—	—	—	—	
MAP In.Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	350	350	350	350	350	350	350	
Gross Weight	2681	2681	2681	2681	2681	2681	2681	2681	
Time ~ SEC	0	38.3	69.0	100.3	136.7	170.9	205.0	238.4	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11						
Pressure Altitude Ft.	4000	—	—	—	—	—	—	—	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS KIAS	36.0	—	—	—	—	—	—	—	
FAT OC	10.0	—	—	—	—	—	—	—	
CAT OC	—	—	—	—	—	—	—	—	
MAP In.Hg	—	—	—	—	—	—	—	—	
Rotor RPM	350	—	—	—	—	—	—	—	
Gross Weight	2680	—	—	—	—	—	—	—	
Time ~ SEC	277.3	—	—	—	—	—	—	—	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST AUTOROTATION									
FUEL WT.	5.93	LB/GAL		DATE 8 OCT. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	10000	9500	9000	8500	8000	7500	7000	6500	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS KIAS	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	
FAT OC	9.0	9.0	9.5	9.5	9.5	10.0	10.5	11.0	
CAT OC	—	—	—	—	—	—	—	—	
MAP In.Hg	—	—	—	—	—	—	—	—	
Rotor RPM	370	370	370	370	370	370	370	370	
Gross Weight	2476	2476	2476	2476	2476	2476	2476	2476	
Time ~ SEC	0.0	32.0	64.2	97.0	130.3	160.3	199.1	239.2	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11						
Pressure Altitude Ft.	6000	5500	5000	—	—	—	—	—	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS KIAS	38.3	38.3	38.3	—	—	—	—	—	
FAT OC	—	19.0	13.0	—	—	—	—	—	
CAT OC	—	—	—	—	—	—	—	—	
MAP In.Hg	—	—	—	—	—	—	—	—	
Rotor RPM	370	370	370	—	—	—	—	—	
Gross Weight	2476	2476	2476	—	—	—	—	—	
Time ~ SEC	—	292.6	324.0	—	—	—	—	—	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1

TEST AUTOROTATION									
FUEL WT.	5.87	LB/GAL		DATE 10 OCT. 62					
Point No.	1	2	3	4	5	6	7	8	
Pressure Altitude Ft.	8500	8000	7500	7000	6500	6000	5500	5000	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS KIAS	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	
FAT OC	9.5	10.0	10.0	10.5	11.0	12.0	13.0	14.0	
CAT OC	—	—	—	—	—	—	—	—	
MAP In.Hg	—	—	—	—	—	—	—	—	
Rotor RPM	360	360	360	360	360	360	360	360	
Gross Weight	2674	2674	2674	2674	2674	2674	2674	2674	
Time ~ SEC	0	35.3	70.0	106.3	139.9	174.1	200.3	244.3	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	
Point No.	9	10	11	12	13	14	15	16	
Pressure Altitude Ft.	4500	4000	3500	3000	2500	2000	1500	1000	
Skid Height Ft.	—	—	—	—	—	—	—	—	
IAS KIAS	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	
FAT OC	19.0	16.0	15.5	16.5	17.0	18.0	18.5	19.0	
CAT OC	—	—	—	—	—	—	—	—	
MAP In.Hg	—	—	—	—	—	—	—	—	
Rotor RPM	360	360	360	360	360	360	360	360	
Gross Weight	2674	2674	2673	2673	2673	2673	2673	2673	
Time ~ SEC	270.3	313.0	347.3	382.3	414.8	450.0	482.3	518.3	
Wet Bulb	—	—	—	—	—	—	—	—	
Dry Bulb	—	—	—	—	—	—	—	—	
Distance to 50' Ft.	—	—	—	—	—	—	—	—	
True Speed at 50' MPH	—	—	—	—	—	—	—	—	
Engine RPM	—	—	—	—	—	—	—	—	
Fuel Flow	—	—	—	—	—	—	—	—	
Course Length Ft.	—	—	—	—	—	—	—	—	

Engine-Rotor gear ratio 9.00 to 1