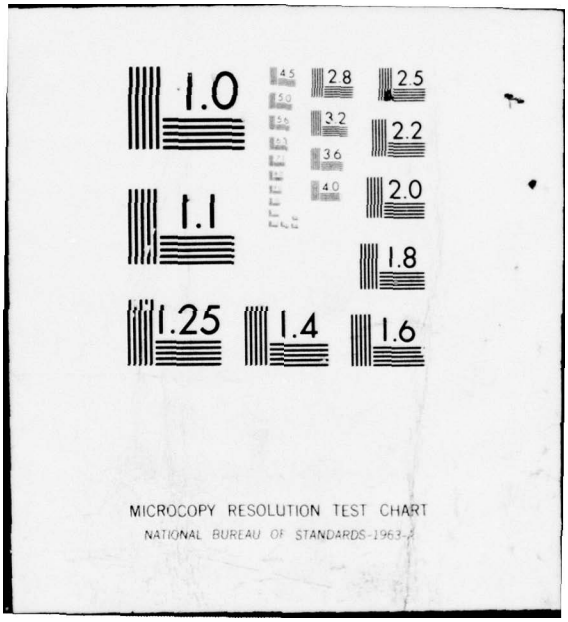
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USAAVSCOM
REPORT - TR 77-9

COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPED WIT ELASTOMERIC FLAPPING BEARINGS IN FAIRBANKS, ALASKA

Thomas L. Guhn
BELL HELICOPTER COMPANY
POST OFFICE BOX 482
FORT WORTH, TEXAS 76101

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27 November 1973

Final Report

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Prepared for

U.S. ARMY AVIATION SYSTEMS COMMAND
Maintenance Engineering Division
Post Office Box 209
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4. TITLE *(and Subtitle)*: COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPED WITH ELASTOMERIC FLAPPING BEARINGS IN FAIRBANKS, ALASKA	5. TYPE OF REPORT & PERIOD COVERED: Final rept.
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This report presents the results of Product Improvement Program Task 69-42.

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

Flight test, Main Rotor, Elastomeric Bearings, Flapping Bearings

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

A flight test evaluation was conducted at Ft. Wainwright, Fairbanks Alaska for the purpose of determining the effect of cold ambient temperatures on the elastomeric bearings in the 640 main rotor and 206-011-850-1 tail rotor. The results of testing are contained in this report in tabular and graphic form. Oscillatory and mean loads exceeded both the infinite life load limits for the non-rotating control tubes and the hydraulic boost capability.

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PREPARED UNDER CONTRACT DAAJ01-72-A-0015
Task No. 69-42

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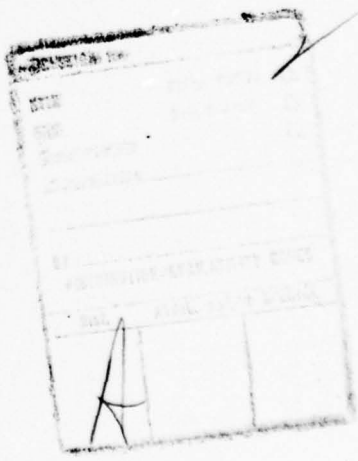
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TABLE OF CONTENTS

	Page
TITLE PAGE	i
PROPRIETARY RIGHTS NOTICE	ii
TABLE OF CONTENTS	iii
LIST OF FIGURES AND TABLES	iv
CROSS INDEX OF GRAPHICAL/TABULAR DATA	v
SUMMARY	vii
INTRODUCTION	1
TEST CONFIGURATION	2
TEST PROCEDURE	4
INSTRUMENTATION	5
FLIGHT LOG AND DATA RECORD	5
RESULTS AND DISCUSSION	6
Warm Temperature Tests	6
Cold Temperature Tests	6
Initial Exploratory Flight	6
Flight Load Survey	7
CONCLUSIONS	8
APPENDIX A - Copy of Text of BHC IOM 81:GM:bd-199	13
APPENDIX B - Graphic and Tabular Data at Arlington, Texas	19
APPENDIX C - Graphic and Tabular Data at Fairbanks, Alaska	97
LIST OF REFERENCES	353
DISTRIBUTION LIST	353

Use or disclosure of data on this page is subject to the restriction on the title page.

LIST OF FIGURES AND TABLES

Figure		Page
1	Airspeed Calibration, Pilot's System	9
2	Official NOAA High and Low Temperature, Fairbanks, Alaska	10
Table		
I	Instrumentation Set-Up Sheet	11
II	Log of Flights	12

CROSS INDEX OF GRAPHICAL/TABULAR DATA

Graphical Data Arlington, Texas Figure	Page	Data Plotted Versus Airspeed	Tabular Data Arlington, Texas Page
3*	20*	Tail Rotor Mast Parallel Bending	58*
5	22	Tail Rotor Mast Perpendicular Bending	61
7	24	Tail Rotor Mast Torque	64
9	26	Tail Rotor Flapping Angle	67
10	27	Tail Rotor Red Pitch Link	70
12	29	Tail Rotor White Yoke Beam, Sta. 1.8	73
13	30	Tail Rotor Red Blade Beam, Sta. 7.0	76
15	32	Tail Rotor Red Blade Beam, Sta. 9.5	79
17	34	Tail Rotor Red Blade Beam, Sta. 15	82
19	36	Tail Rotor White Yoke Chord, Sta. 1.8	85
20	37	Tail Rotor Red Blade Chord, Sta. 7.0	88
22	39	Tail Rotor Red Blade Chord, Sta. 9.5	91
24	41	Tail Rotor Red Blade Chord, Sta. 15	94
26	43	Tail Rotor Blade - Span Distribution	--
Fairbanks, Alaska			Fairbanks, Alaska
41	98	Tail Rotor Mast Parallel Bending	197
46	103	Tail Rotor Mast Perpendicular Bending	209
51	108	Tail Rotor Mast Torque	221
56	113	Tail Rotor Flapping Angle	233
61	118	Tail Rotor Red Pitch Link	245
66	123	Tail Rotor White Yoke Beam, Sta. 1.8	257
71	128	Tail Rotor Red Blade Beam, Sta. 7.0	269

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CROSS INDEX OF GRAPHICAL/TABULAR DATA - (cont)

Graphical Data Fairbanks, Alaska Figure	Page	Data Plotted Versus Airspeed	Tabular Data Fairbanks, Alaska Page
76*	133*	Tail Rotor Red Blade Beam, Sta. 9.5	281*
81	138	Tail Rotor Red Blade Beam, Sta. 15	293
86	143	Tail Rotor White Yoke Chord, Sta. 1.8	305
91	148	Tail Rotor Red Blade Chord, Sta. 7.0	319
96	153	Tail Rotor Red Blade Chord, Sta. 9.5	328
101	158	Tail Rotor Red Blade Chord, Sta. 15	341
106	163	Tail Rotor Blade - Span Distribution	---

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COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPED WITH ELASTOMERIC FLAPPING BEARINGS IN FAIRBANKS, ALASKA

SUMMARY

A tail rotor, P/N 206-011-850-1, equipped with elastomeric flapping bearings, was installed on a Model OH-58A Helicopter and flight tests were conducted at Arlington, Texas, and Fairbanks, Alaska.

The purpose of the tests was to determine the effect of extreme cold temperatures on the operational characteristics of an elastomeric bearing tail rotor and to establish a comparison of loads versus temperature.

The tail rotor evaluated is a standard OH-58A assembly, P/N 206-011-801-9, modified by removing the standard flapping bearings and installing elastomeric flapping bearings.

A Model 640 main rotor, equipped with elastomeric flapping and feathering bearings, was installed and tested concurrently with the elastomeric tail rotor. A description of the 640 main rotor and the test results are presented in Reference 1.

A flight at Fairbanks, Alaska, at -47°C for in-ground-effect (IGE) maneuvers, produced cyclic control feedback and main rotor control loads sufficient to prohibit further flights at this temperature. The 640 main rotor was removed and a standard OH-58A main rotor installed to permit continuation of the tail rotor tests, which was the primary objective of the off site tests.

Data were recorded during the flight test program for various tail rotor hub and blade assembly bending moments and control axial loads. These data are presented in both graphical and tabular form.

A review of the recorded data revealed a 40 percent decrease in tail rotor flapping at the cold temperatures, which was reflected in approximately 50 percent increase in parallel and perpendicular oscillatory bending moments in the tail rotor mast. All other recorded parameters are considered comparable.

It was determined during these tests that, qualitatively, the elastomeric flapping bearing in the 206 tail rotor does not effect the helicopter handling qualities. No operational problems related to the tail rotor elastomeric bearings were encountered during the limited time of these tests.

It is concluded that the data presented herein are adequate for establishing a comparison of loads for the 206-011-850-1 elastomeric flapping bearing tail rotor.

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COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPED WITH ELASTOMERIC FLAPPING BEARINGS IN FAIRBANKS, ALASKA

INTRODUCTION

A 206-011-850-1 tail rotor hub and blade assembly was installed, along with the required instrumentation, and flight test evaluation was conducted for the purpose of determining the effect of cold temperatures on elastomeric bearings. This evaluation was conducted in conjunction with similar tests on the 640 main rotor hub and blade assembly which is also equipped with elastomeric bearings.

The scope of the program consisted of an abbreviated load survey and qualitative evaluation of handling qualities at warm and cold temperatures for the following flight conditions.

1. IGE maneuvers.
2. Stabilized level flight to V_{ne} airspeeds.
3. Power on and power off maneuvers.

Contained within this report is descriptive information of the flight tests as conducted. Graphic presentation of various tail rotor component loads during stabilized flight and tabular data of resultant mean and oscillatory loads for the survey are also presented. Tests were conducted in accordance with Inter-Office Memorandum (IOM) No. 81:GM:bd-199, a copy of which is presented in Appendix A.

Flights were performed at Bell Helicopter Company (BHC) Flight Research Center, Arlington, Texas, and Ft. Wainwright, Fairbanks, Alaska, during the period 21 December 1972 through 6 February 1973.

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TEST CONFIGURATION

Helicopter

The helicopter utilized for the cold weather tests of the 206-011-850-1 tail rotor was a standard Model OH-58A, S/N 68-16697, BHC No. 40011.

Main Rotor

Two main rotors were utilized during the cold weather tests.

1. A standard OH-58A main rotor hub and blade assembly.

2. An all-elastomeric bearing main rotor hub and blade assembly, P/N 640-010-101-1.

Tail Rotor

The test tail rotor was a standard OH-58A assembly, P/N 206-011-801-9, modified in accordance with BHC blueprint 206-011-850-1, which replaced the standard trunnion and flapping bearings with a special trunnion and elastomeric flapping bearings. The elastomeric bearings had an axial spring rate of 1800 pounds per inch and a torsional spring rate of nine inch-pounds per degree.

During the initial buildup of the test tail rotor, considerable difficulty was encountered in achieving an acceptable dynamic balance. The tail rotor was assembled and balanced statically in accordance with the blueprint. The balance instructions directed that spanwise balance be attained in the standard method of washer selection at the blade bolts. However, chordwise balance was to be attained by relocation as required of the shims on either side of the trunnion, which resulted in off-setting the trunnion from the geometric center of the hub and blade assembly.

The tail rotor hub and blade assembly was installed on the helicopter and a shakedown ground run was conducted. During the ground run, a severe tail rotor vibration was experienced. Two additional attempts at static balancing were made with the same results. It was then determined that the elasticity of the flapping bearing was allowing the complete tail rotor hub and blade assembly to shift, creating a severe out-of-balance condition.

This problem was resolved by altering the balancing procedure to include the following:

1. Remove the .050 inch of shims from each side of the trunnion.

2. Center the trunnion in the yoke by shifting the required amount of shims from one side of the trunnion to the other.

3. Preload the flapping bearings axially by seating the inner race against the shims.

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TEST CONFIGURATION - (cont)

Tail Rotor - (cont)

4. Add washers to blade retention bolts as required for spanwise balance.

5. Bond on weights to trailing edge of blade as required for chordwise balance.

Assembly and balancing of the tail rotor using this technique was somewhat difficult, in that a mechanical gear puller was required to apply the preload to the flapping bearing. Application of preload using the trunnion retention nuts was not possible, in that the collet, which secures the trunnion to the flapping bearing by a wedging action, will not permit the retention nut to apply force against the flapping bearing inner race.

Attempts at dynamic balancing with a strobe light and weights selection on the tail rotor mast balance wheel proved less effective because of isolation of the tail rotor hub and blade assembly from the mast by the elastomeric flapping bearings.

Cold Weather Operation Modification

The engine oil system was modified for cold weather operation in accordance with BHC blueprint 206-961-501-1.

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TEST PROCEDURE

To determine the effect of cold temperatures on the elastomeric tail rotor bearings, the following flight conditions were flown to obtain data at Arlington, Texas, and Fairbanks, Alaska.

1. Hover at 354 and 347 N_R.
2. Hover controls reversals.
3. Sideward and rearward flight IGE at 354 N_R.
4. Jump takeoff at 354 N_R.
5. Level flight from 60 to 120 knots in 10-knot increments at 354 N_R.
6. Accelerations and decelerations to 60 knots at 354 N_R.
7. Maximum continuous power climb at 60 knots and 354 N_R.
8. Left and right turns at 1.5 g's, 80 knots, and 354 N_R.
9. Lower power descent at 354 N_R.
10. Simulated power failure in hover IGE at 354 N_R.

Several of the above flight conditions were repeated, hydraulic boost off, for qualitative evaluation.

Except for the first instrumentation shakedown flight, all flights were conducted with a minimum of six hours "cold soak" at the test temperature, prior to takeoff.

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INSTRUMENTATION

The airborne data acquisition system installed in the Model OH-58A Helicopter, S/N 40011, was a standard 18-channel Consolidated Electrodynamics Corporation Model S-114-P3 oscillograph recorder with galvanometers. A calibrate equivalent was used to correlate the initial calibration with data obtained.

Visual instruments for flight control positions were installed in the pilot's auxiliary instrument panel. Prior to the start of the flight tests, pertinent flight and engine instruments were calibrated.

Calibrations

Standard procedures were used by the BHC Standards and Calibration Laboratory to instrument the test helicopter. Calibrations of the parameters recorded during the flight test are on file in the laboratory. Table I, page 11, presents a list of the calibrated items and their respective calibration numbers.

FLIGHT LOG AND DATA RECORD

A log of all ground runs and flights, listing date, flight/ground run number, duration time, configuration, flight conditions and data record number, is presented in Table II, page 12.

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RESULTS AND DISCUSSION

A flight test evaluation has been conducted on a Model OH-58A Helicopter, S/N 68-16697, BHC No. 40011, at the BHC Flight Research Center, Arlington, Texas, and Ft. Wainwright, Fairbanks, Alaska, for the purpose of determining the effect of cold ambient temperatures on the elastomeric bearings in the 640 main rotor and 206-011-850-1 tail rotor. The tail rotor tests were the primary objective of the off site tests with the 640 main rotor tests to be conducted simultaneously and on a non-interference basis. As a result, part of the off site tests were conducted with a standard OH-58A main rotor installed. The results of the main rotor tests are presented in Reference 1. The data contained herein are presented versus indicated airspeed (IAS); consequently, an airspeed calibration is presented in Figure 1.

Warm Temperature Tests

The 640 main rotor, the 206-011-850 tail rotor, and the required instrumentation for both assemblies, were installed and an abbreviated flight test program was conducted at Arlington, Texas, for the purpose of checking out instrumentation and recording of baseline data at a warm temperature. The data recorded during these tests are presented in tabular and graphic form in Appendix B. This portion of the flight evaluation covered the period 21 December 1972 through 7 January 1973. On 8 January 1973, the test helicopter and equipment were transported by a U. S. Air Force C-130 cargo aircraft to Ft. Wainwright, Fairbanks, Alaska.

Cold Temperature Tests

The test helicopter and equipment arrived in Fairbanks, Alaska, on 9 January 1973, and the buildup to flight status was completed on 12 January 1973.

Initial Exploratory Flights

The initial exploratory flight was conducted at -34°C after only one hour "cold soak" and included only IGE maneuvers. A review of the recorded data revealed no significant change in main rotor and tail rotor loads when compared to previous data recorded at warm temperatures. Another exploratory flight was conducted at -47°C after a 24-hour "cold soak." During a recovery from right sideward flight, severe cyclic control feedback and an intermittent hydraulic-pressure-low warning light was experienced. A review of the main rotor controls data confirmed that the oscillatory and mean loads had exceeded both the infinite life load limits for the non-rotating control tubes and the hydraulic boost capability. Based on this information, the 640 main rotor was removed and a standard OH-58A main rotor was installed to permit continuation of the elastomeric tail rotor tests.

During this exploratory flight, it was also noted that the tail rotor response had deteriorated from previous flights. Investigation

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RESULTS AND DISCUSSION - (cont)

Initial Exploratory Flights - (cont)

revealed that the test tail rotor blades contained teflon feathering bearings instead of Du-Metal bearings. Subsequently, another instrumented tail rotor containing Du-Metal feathering bearings was modified to the 206-011-850-1 blueprint and installed. No further tail rotor control problems were encountered.

Flight Load Survey

Following the removal of the 640 main rotor and installation of a standard OH-58A main rotor, a series of flights were conducted for load survey data on the 206-011-850-1 elastomeric tail rotor. A complete list of these flights is contained in a Log of Flights, Table II, together with the gross weight (GW) and center of gravity (cg). The flight conditions tested are defined in the Test Procedure section of this report.

On 30 January 1973, the ambient temperature had warmed to -23°C and the 640 main rotor was reinstalled. Three additional flights were conducted for main rotor evaluation during which tail rotor data were also recorded.

All of the tail rotor elastomeric bearing data, graphic and tabular, recorded during the off site tests are presented in Appendix C.

A comparison of data for warm and cold temperatures was made for similar GW-cg test configurations. The tail rotor flapping at the cold temperature decreased approximately 40 percent as compared to the data recorded at the warm temperatures. This is considered attributable to the decrease in tail rotor blade angle requirements at the lower density altitude which ranged from -2790 to -4555 feet, and the increased stiffness of the elastomeric flapping bearings at the cold temperatures. The increased stiffness of the flapping bearings is reflected in approximately 50 percent higher parallel and perpendicular oscillatory bending moments in the tail rotor mast. All other data parameters are considered comparable.

A time history of the official daily high and low temperatures is presented in Figure 2.

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CONCLUSIONS

It is concluded that the data presented herein are adequate for establishing a comparison of loads for the 206-011-850-1 tail rotor equipped elastomeric flapping bearing for extreme cold environment operation.

It was determined that tail rotor flapping was reduced approximately 40 percent at the cold temperatures, which was reflected in approximately 50 percent increase in tail rotor mast oscillatory bending moment. All other recorded data are considered comparable.

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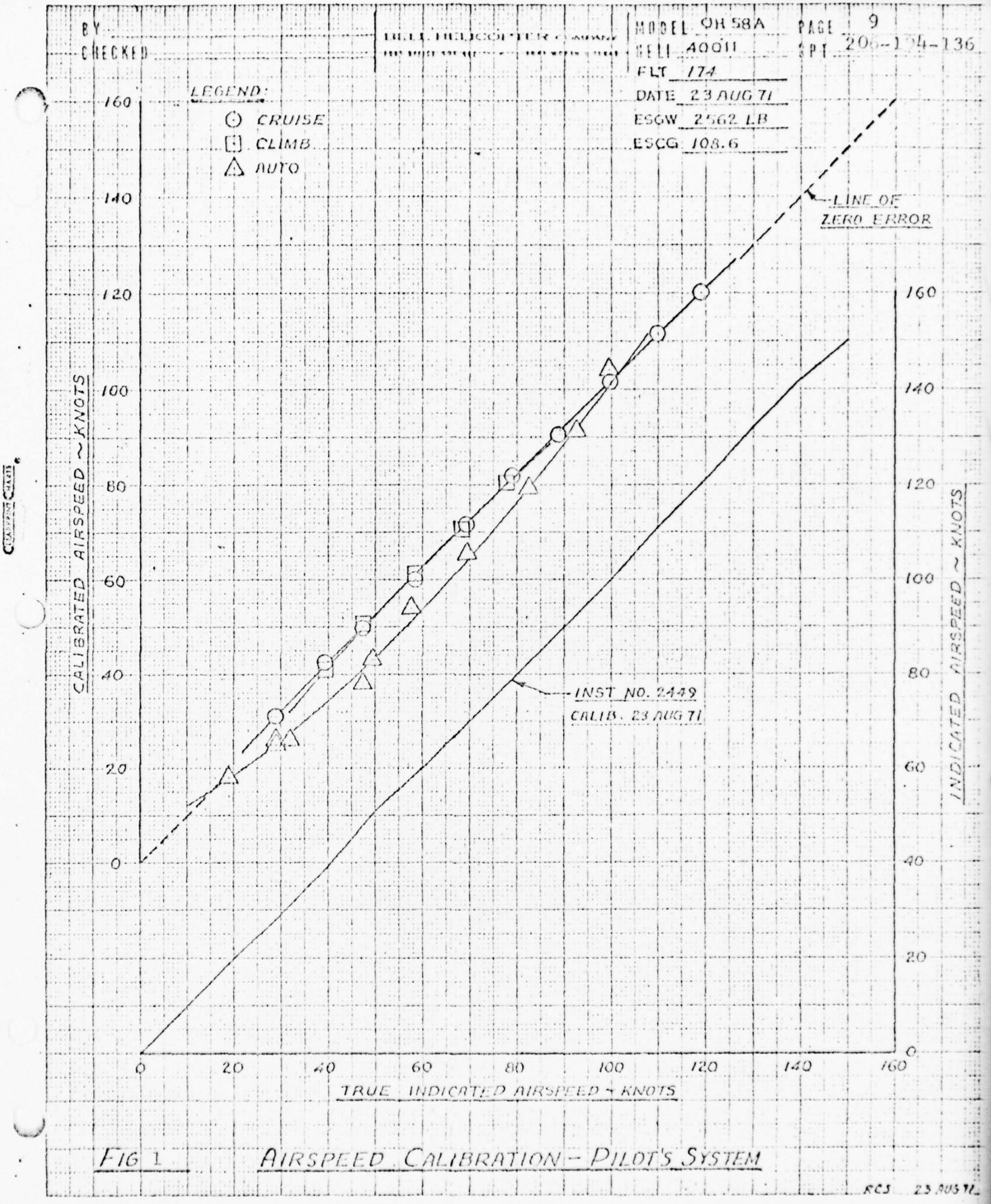


FIG 1 AIRSPEED CALIBRATION – PILOT'S SYSTEM

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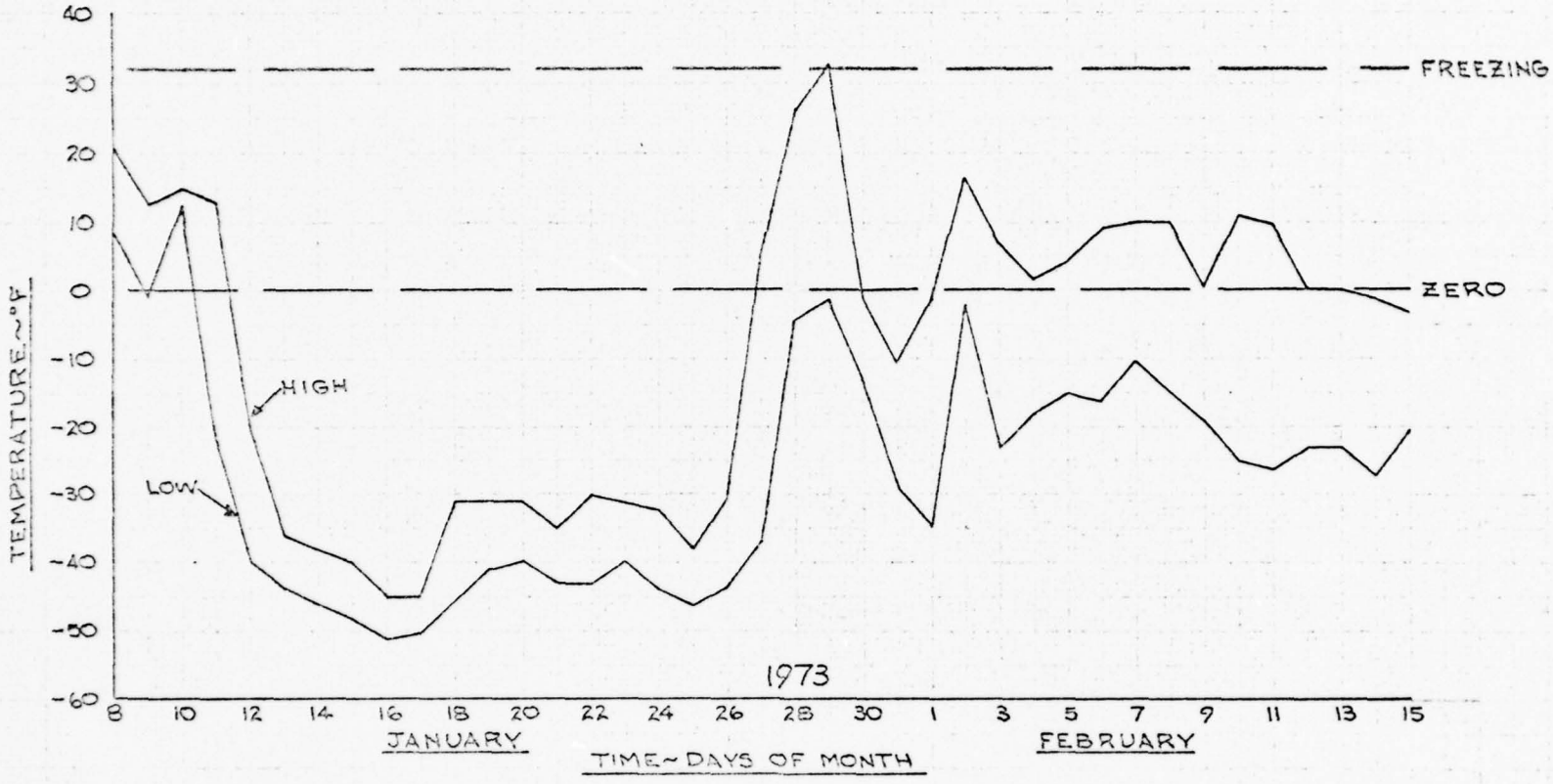


FIG. 2 OFFICIAL NOAA HIGH AND LOW TEMPERATURE ~ FAIRBANKS ALASKA

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TABLE I

Instrumentation Set-Up Sheet, S/N 5815

Purpose: Cold Test - Tail Rotor Elastomeric Flapping Bearings Flight: 42 Date: 12-22-72

Chan. No.	Measured and Location	Sta.	Lab No.	100 K C.E.	Units	Ref. Value
1	T/R Blade Chord, Red 05	15.0	8419A	2099	in.lb	0
2	T/R Blade Chord, Red 03	9.5	8419A	2123	in.lb	0
3	T/R Blade Chord, Red 01	7.0	8419A	3389	in.lb	0
4	T/R Yoke Chord, White 03	1.8	7516C	3806	in.lb	0
5	T/R Yoke Beam, White 04	1.8	7516C	3259	in.lb	0
6	T/R Blade Beam, Red 02	7.0	8419A	901	in.lb	0
7	T/R Blade Beam, Red 04	9.5	8419A	294	in.lb	0
8	T/R Blade Beam, Red 06	15.0	8419A	288	in.lb	0
9	T/R Mast Torque	-	5924E-03	1036	in.lb	0
10	T/R Mast Perpendicular Bending	-	5924E-02	925	in.lb	0
11	T/R Mast Parallel Bending	-	5924E-01	918	in.lb	0
12	T/R Pitch Link - Red	-	5907C	727	lb	0
17	T/R Flapping	-	-	-	%	N/A
18	M/R and T/R Azimuth	-	-	-	-	-

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FORT WORTH, TEXAS

MODEL OH-58A PAGE 11
RPT 206-194-136

TABLE II

LOG OF FLIGHTS

Flt No.	Date	Time (hr)	G. W. (lb)	C. G. Sta.	Temp °C	Record Nos.	Config. No.	Purpose
Arlington, Texas								
41B	12-21-72	0.2	2785	110.13		444-453	One	Instrumentation Checkout
42A	12-22-72	0.8	3083	106.50		467-509	One	Level Flight and Maneuvers
43A	1-3-73	1.2	3083	106.50		577-612	One	Level Flight and Maneuvers
Fairbanks, Alaska								
44A	1-12-73	0.3	2605	107.20	-34	644-652	One	IGE Maneuvers
45	1-16-73	0.3	2785	110.10	-47	666-681	One	IGE Maneuvers
46A	1-19-73	0.3	2585	110.20	-36	692-701	Two	IGE Maneuvers
46B	1-19-73	0.3	2585	110.20	-37	709-717	Two	IGE Maneuvers
47A	1-23-73	0.9	2585	110.20	-35	733.742	Two	IGE Maneuvers
48A	1-24-73	0.6	2785	110.13	-35	747-784	Two	Level Flight and Maneuvers
48B	1-24-73	0.8	2785	110.13	-35	791-817	Two	Level Flight and Maneuvers
48C	1-24-73	1.3	3185	106.00	-34	820-886	Two	Level Flight and Maneuvers
49A	1-30-73	0.7	2585	110.10	-23	895-927	One	Level Flight and Maneuvers
50	1-31-73	0.7	2500	110.10	-25	938-957	One	Level Flight and Maneuvers
52	2-6-73	0.5	2500	110.10	-15	973-990	One	Level Flight and Maneuvers

Configuration No. One: 640 main rotor and elastomeric tail rotor.

Configuration No. Two: Standard OH-58A main rotor and elastomeric tail rotor.

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MODEL OH-58A PAGE 12

RPT 206-194-136

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APPENDIX A

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15 November 1972
81:GM:bd-199

Subject: FLIGHT LOAD SURVEY REQUIREMENTS FOR QUALIFICATION OF ELASTOMERIC TAIL ROTOR HUB ON THE OH-58A HELICOPTER

Reference: (a) BHC Report No. 206-194-113, "Results of Flight Load Survey on Elastomeric Tail Rotor Trunnion Bearings on the 206B-1 Helicopter"

Qualification of the 206-011-850-1 tail rotor hub and blade assembly for use on the OH-58A Helicopter will require flight loads testing at various temperatures in order to assess the effect of temperature on rotor loads. From a previous partial load survey on a Model 206B-1 Helicopter, Reference (a), it was determined that for the hub configuration used in that test there was no effect on any component load. That test was conducted in October, 1971. It is anticipated that the same results will be obtained with the 206-011-850-1 configuration. However, to verify any possible differences, the same conditions should be flown before cold weather testing begins. The required program is outlined below.

Instrumentation

The following items of instrumentation will be recorded on oscillograph at the indicated frequency response:

1.	Tail rotor yoke beam and chord bending at Station 1.8 (both sides)	0 - 135 cps
2.	Tail rotor blade beam and chord bending at Stations 7.0, 9.5, and 15 (both blades)	0 - 135 cps
3.	Tail rotor pitch link axial load (both links)	0 - 135 cps
4.	Tail rotor mast parallel and perpendicular bending	0 - 135 cps
5.	Tail rotor mast torque	0 - 400 cps
6.	Vertical acceleration at c.g.	0 - 11 cps
7.	Main rotor and tail rotor azimuth	
8.	Tail rotor flapping	

Use or disclosure of data on this page is subject to the restriction on the title page.

Flight Conditions

The attached list of flight conditions are to be flown according to the following table.

FT. WORTH			ALASKA		
G.W.	C.G.	H_D (ft)	G.W.	C.G.	H_D (ft)
3000	Fwd	3000	3000	Fwd	3000
3000	Fwd	6000			
*	-	3000	*	-	3000
*	-	6000			

* Minimum flying gross weight with instrumentation

In addition, 10,000 feet data is to be recorded in Fort Worth at minimum flight weight for conditions 35, 37, 44, 47, 50, 57, and 59.

/signed/
G. McLeod
Group Engineer
Fatigue Evaluation

Use or disclosure of data on this page is subject to the restriction on the title page

Condition No.	Condition Name
001	Normal Start
002	Normal Shutdown
003	Steady Hovering 347 rpm
004	Steady Hovering 354 rpm
005	Hovering Left Turn**
006	Hovering Right Turn
007	Longitudinal Control Rvsl
008	Lateral Control Rvsl
009	Rudder Control Rvsl
010	Left Sideward Flight
011	Right Sideward Flight
012	Rearward Flight
013	Jump Takeoff
014	Normal Landing
015	Normal Acceleration
016	Auto-Power
017	Full Auto Landing
018	Lvl Flt, 0.2 VH, 347 rpm
019	Lvl Flt, 0.2 VH, 354 rpm
020	Lvl Flt, 0.3 VH, 347 rpm
021	Lvl Flt, 0.3 VH, 354 rpm
022	Lvl Flt, 0.4 VH, 347 rpm
023	Lvl Flt, 0.4 VH, 354 rpm
024	Lvl Flt, 0.5 VH, 347 rpm
025	Lvl Flt, 0.5 VH, 354 rpm
026	Lvl Flt, 0.6 VH, 347 rpm
027	Lvl Flt, 0.6 VH, 354 rpm
028	Lvl Flt, 0.7 VH, 347 rpm
029	Lvl Flt, 0.7 VH, 354 rpm

**NOTE: All maneuvers will be flown at 354 rpm except when otherwise noted.

Use or disclosure of data on this page is subject to the restriction on the title page.

Condition No.	Condition Name
030	Lvl Flt, 0.8 VH, 347 rpm
031	Lvl Flt, 0.8 VH, 354 rpm
032	Lvl Flt, 0.9 VH, 347 rpm
033	Lvl Flt, 0.9 VH, 354 rpm
034	Lvl Flt, VH, 347 rpm
035	Lvl Flt, VH, 354 rpm
036	Lvl Flt, VNE, 347 rpm
037	Lvl Flt, VNE, 354 rpm
038	Lvl Flt, 1.11 VNE, 347 rpm
039	Lvl Flt, 1.11 VNE, 354 rpm
040	Climb at Max Cont Power
041	Climb at Takeoff Power
042	Left Turn at 0.5 VH
043	Left Turn at 0.7 VH
044	Left Turn at 0.9 VH
045	Right Turn at 0.5 VH
046	Right Turn at 0.7 VH
047	Right Turn at 0.9 VH
048	Long Ctrl Rvsl at VH
049	Lateral Ctrl Rvsl at VH
050	Rudder Ctrl Rvsl at VH
051	Cyclic Pullup at 0.6 VH
052	Cyclic Pullup at 0.9 VH
053	Normal Deceleration
054	Partial Power Descent
055	Power-Auto Transmission at 0.5 VH
056	Power-Auto Transmission at 0.7 VH
057	Power-Auto Transmission at 0.9 VH
058	Auto-Power Transmission at 0.5 VH
059	Auto-Power Transmission at 0.7 VH
059A	Auto-Power Transmission at 0.9 VH

Use or disclosure of data on this page is subject to the restriction on the title page.

Condition No.	Condition Name
030	Lvl Flt, 0.8 VH, 347 rpm
031	Lvl Flt, 0.8 VH, 354 rpm
032	Lvl Flt, 0.9 VH, 347 rpm
033	Lvl Flt, 0.9 VH, 354 rpm
034	Lvl Flt, VH, 347 rpm
035	Lvl Flt, VH, 354 rpm
036	Lvl Flt, VNE, 347 rpm
037	Lvl Flt, VNE, 354 rpm
038	Lvl Flt, 1.11 VNE, 347 rpm
039	Lvl Flt, 1.11 VNE, 354 rpm
040	Climb at Max Cont Power
041	Climb at Takeoff Power
042	Left Turn at 0.5 VH
043	Left Turn at 0.7 VH
044	Left Turn at 0.9 VH
045	Right Turn at 0.5 VH
046	Right Turn at 0.7 VH
047	Right Turn at 0.9 VH
048	Long Ctrl Rvsl at VH
049	Lateral Ctrl Rvsl at VH
050	Rudder Ctrl Rvsl at VH
051	Cyclic Pullup at 0.6 VH
052	Cyclic Pullup at 0.9 VH
053	Normal Deceleration
054	Partial Power Descent
055	Power-Auto Transmission at 0.5 VH
056	Power-Auto Transmission at 0.7 VH
057	Power-Auto Transmission at 0.9 VH
058	Auto-Power Transmission at 0.5 VH
059	Auto-Power Transmission at 0.7 VH
059A	Auto-Power Transmission at 0.9 VH

Use or disclosure of data on this page is subject to the restriction on the title page.

Condition No.	Condition Name
060	Stab Auto 0.5 VH, 330 rpm
061	Stab Auto 0.5 VH, 354 rpm
062	Stab Auto 0.5 VH, 390 rpm
063	Stab Auto 0.7 VH, 330 rpm
064	Stab Auto 0.7 VH, 354 rpm
065	Stab Auto 0.7 VH, 390 rpm
066	Auto Left Turn at 0.5 VH
067	Auto Left Turn at 0.7 VH
068	Auto Right Turn at 0.5 VH
069	Auto Right Turn at 0.7 VH
070	Auto Cyclic P/U at 0.7 VH
071	Auto Long Control Rvsl
072	Auto Lat Control Rvsl
073	Auto Rudder Control Rvsl

Use or disclosure of data on this page is subject to the restriction on the title page

APPENDIX B

Graphic and Tabular Data at Arlington, Texas

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

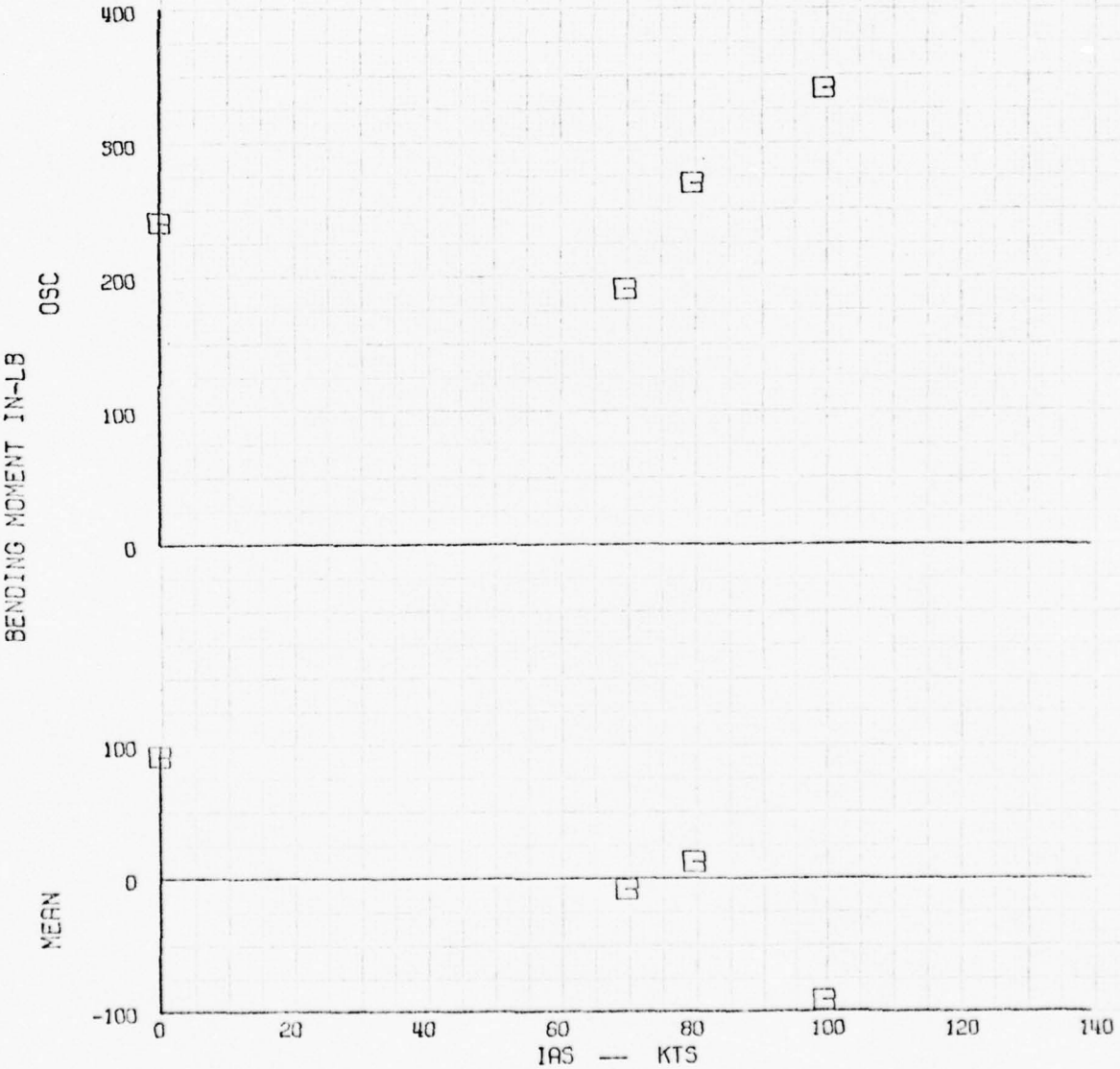


FIG. 3 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

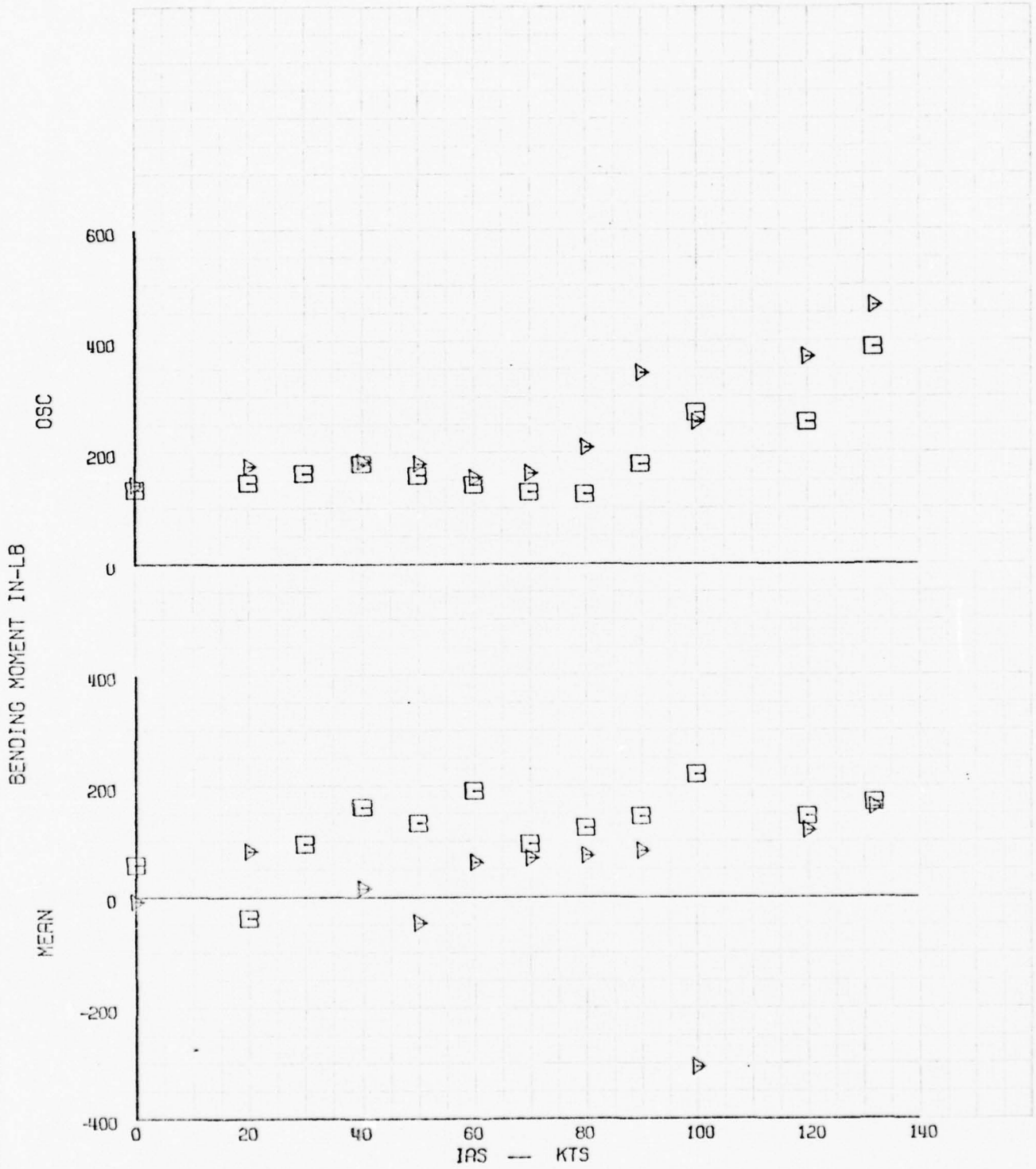


FIG. 4 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

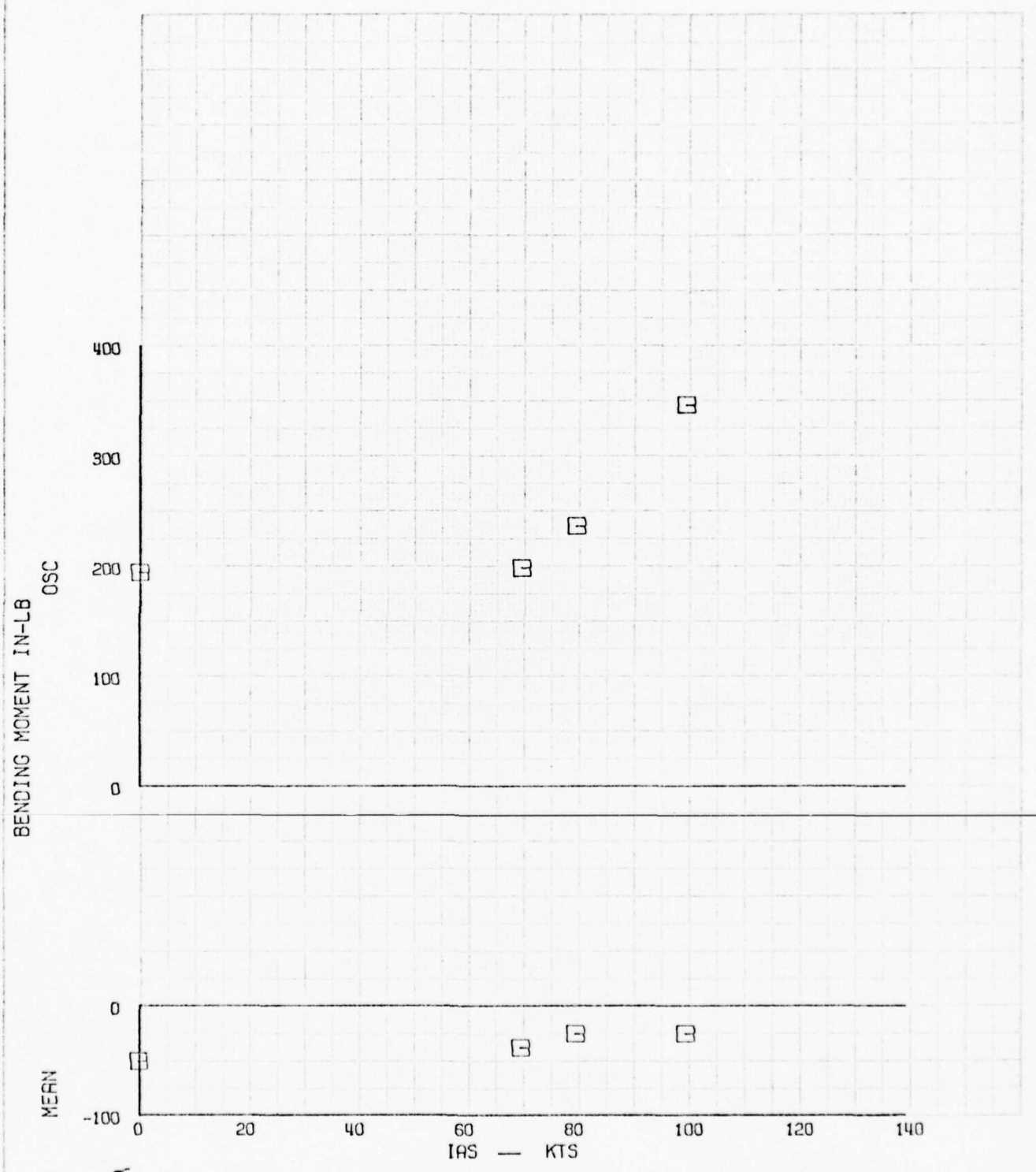


FIG. 5 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

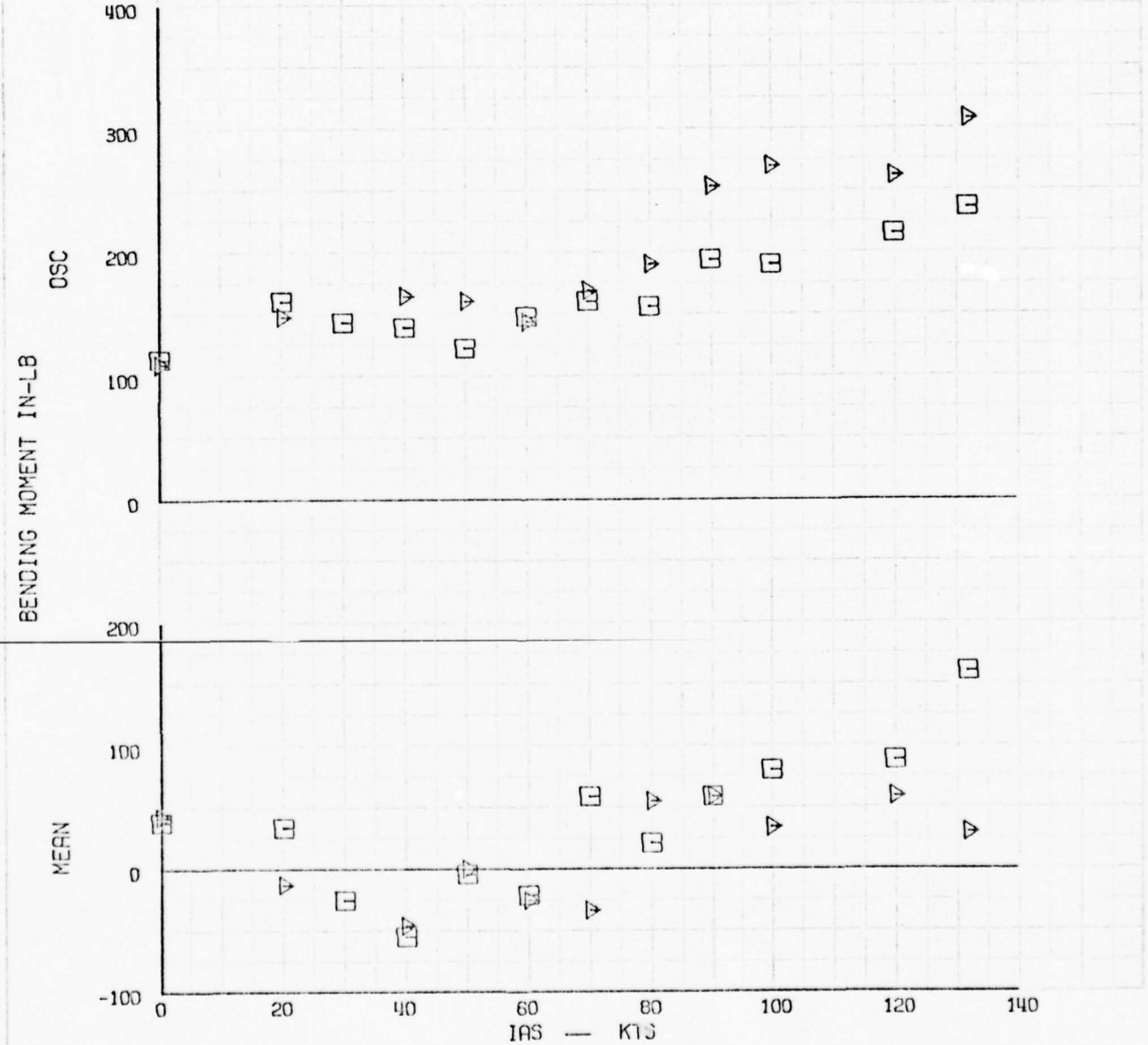


FIG. 6 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

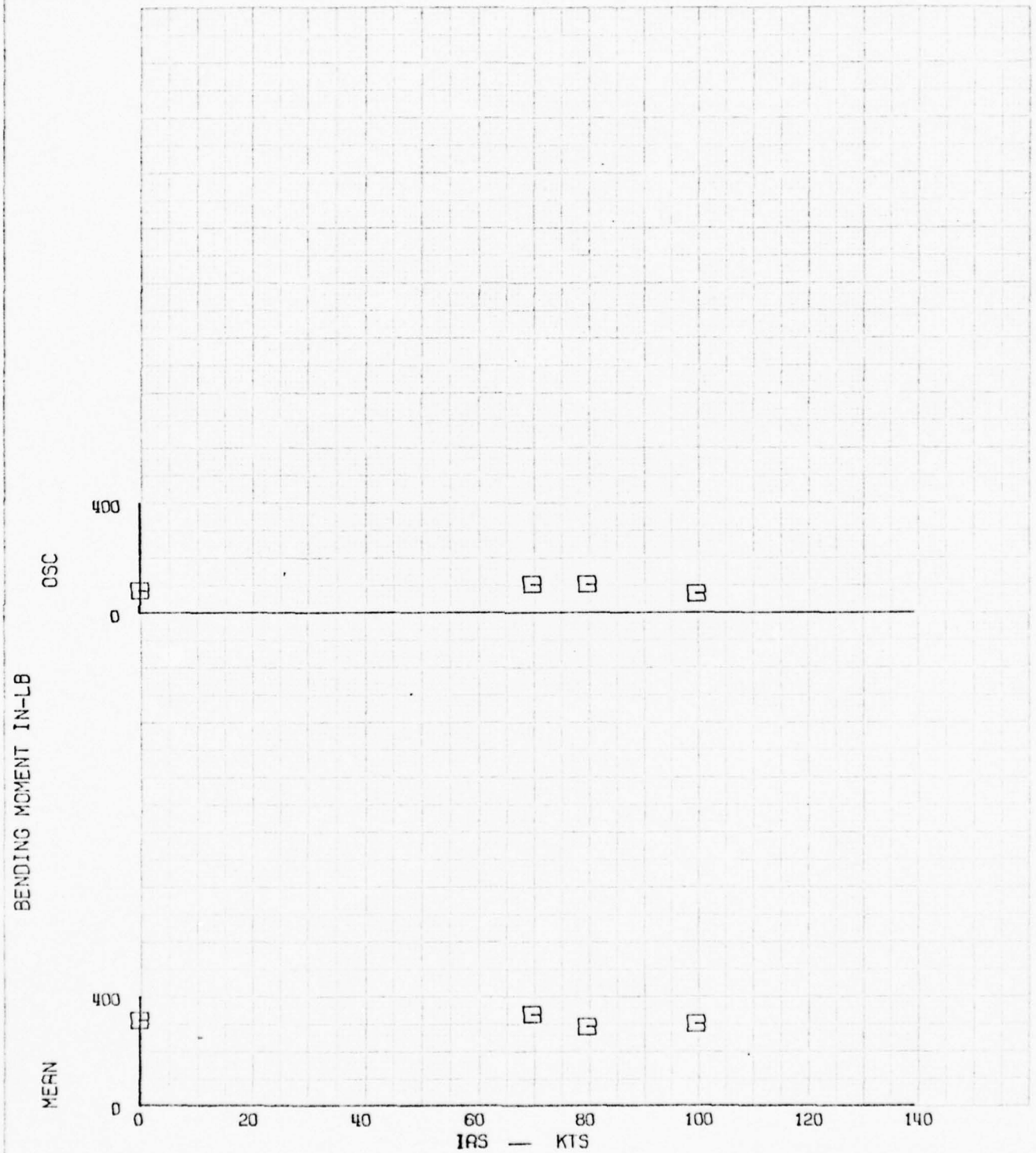


FIG. 7

ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

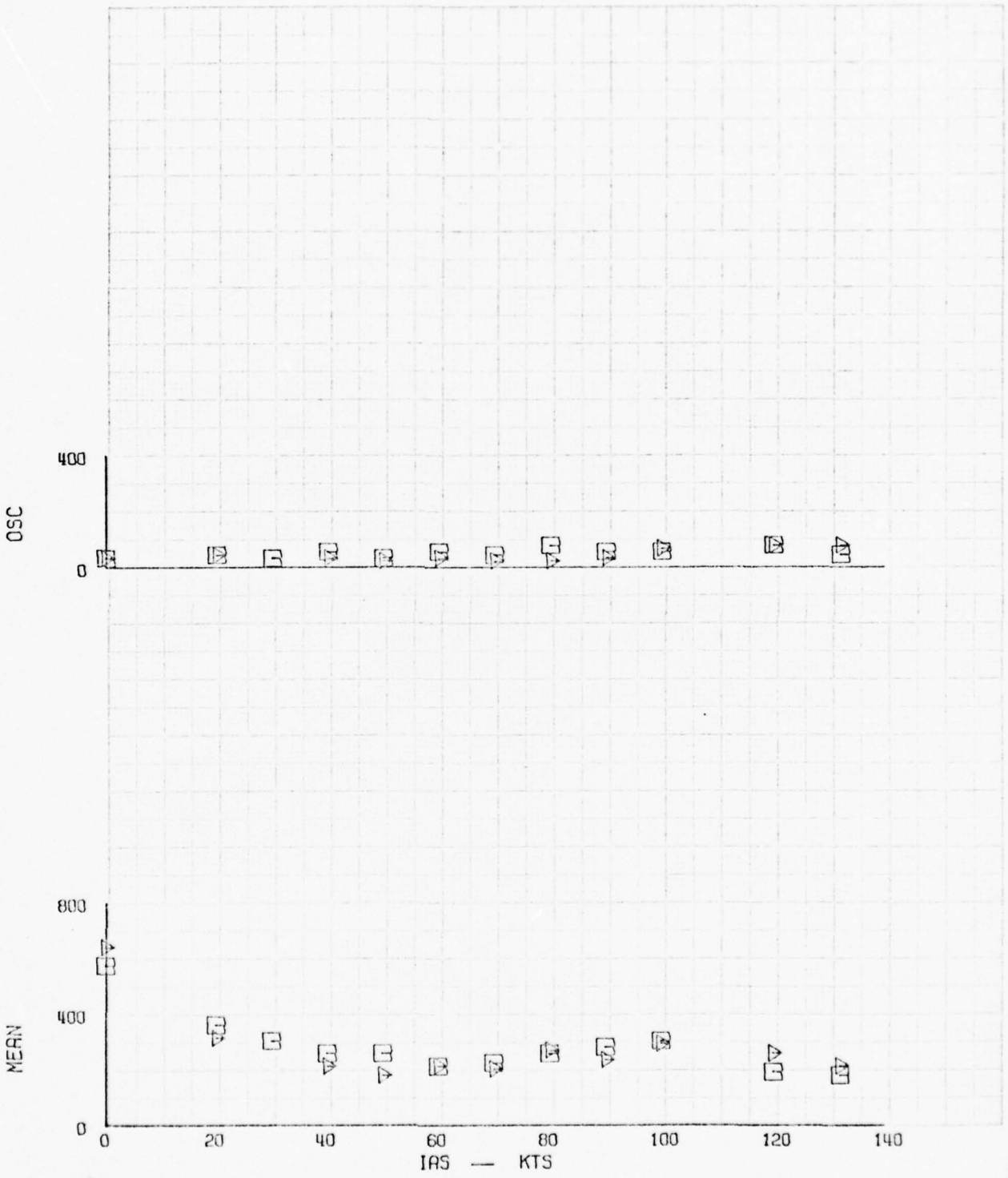


FIG. 8 ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

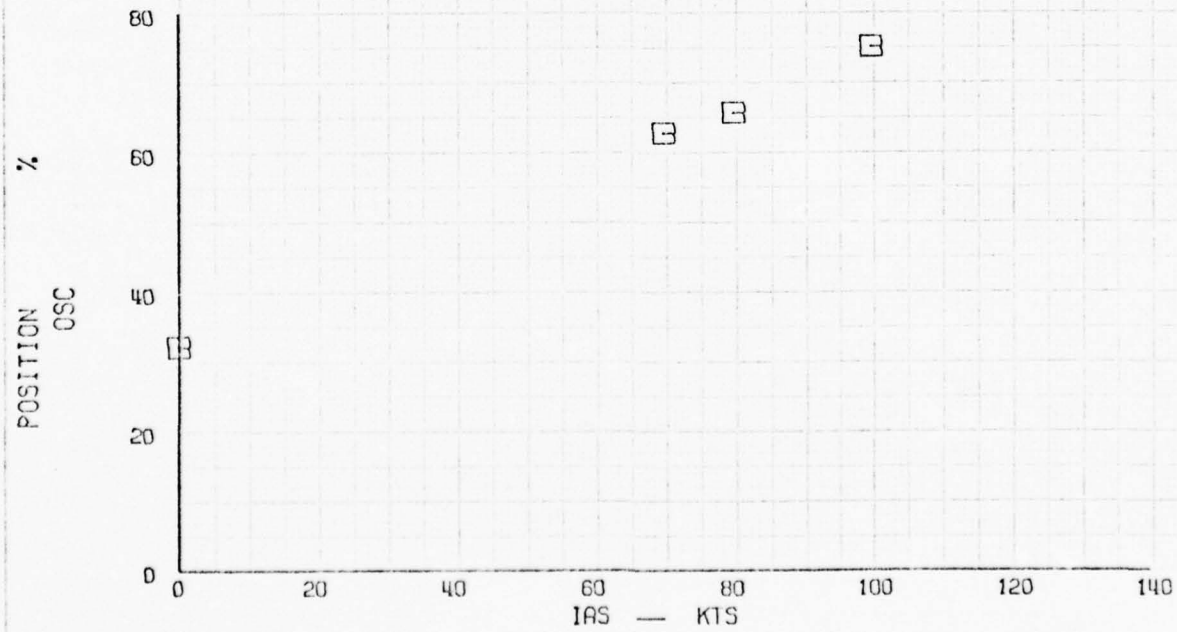


FIG. 9 ITEM D117-TR FLAPPING ANGLE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

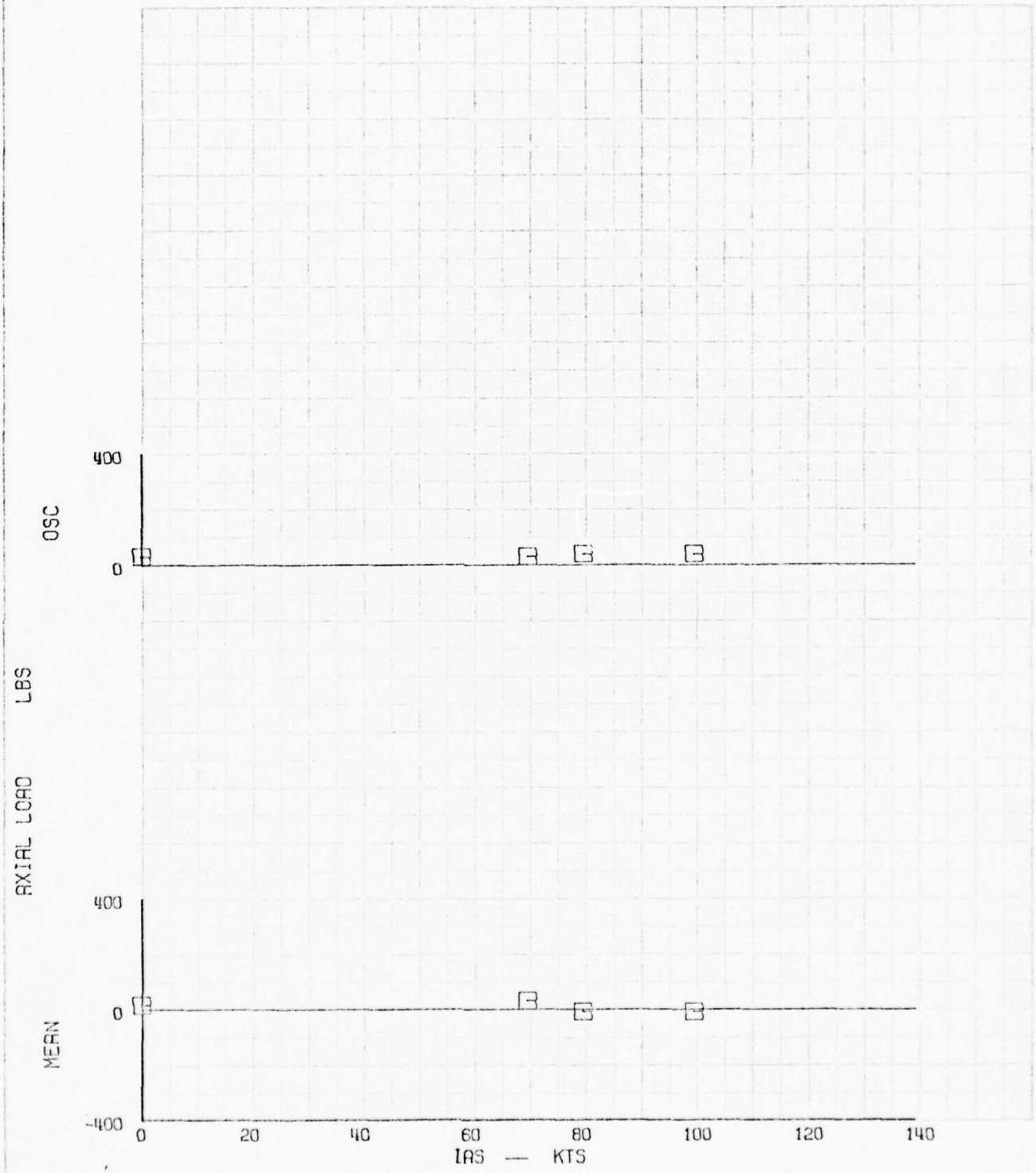


FIG. 10 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 835 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

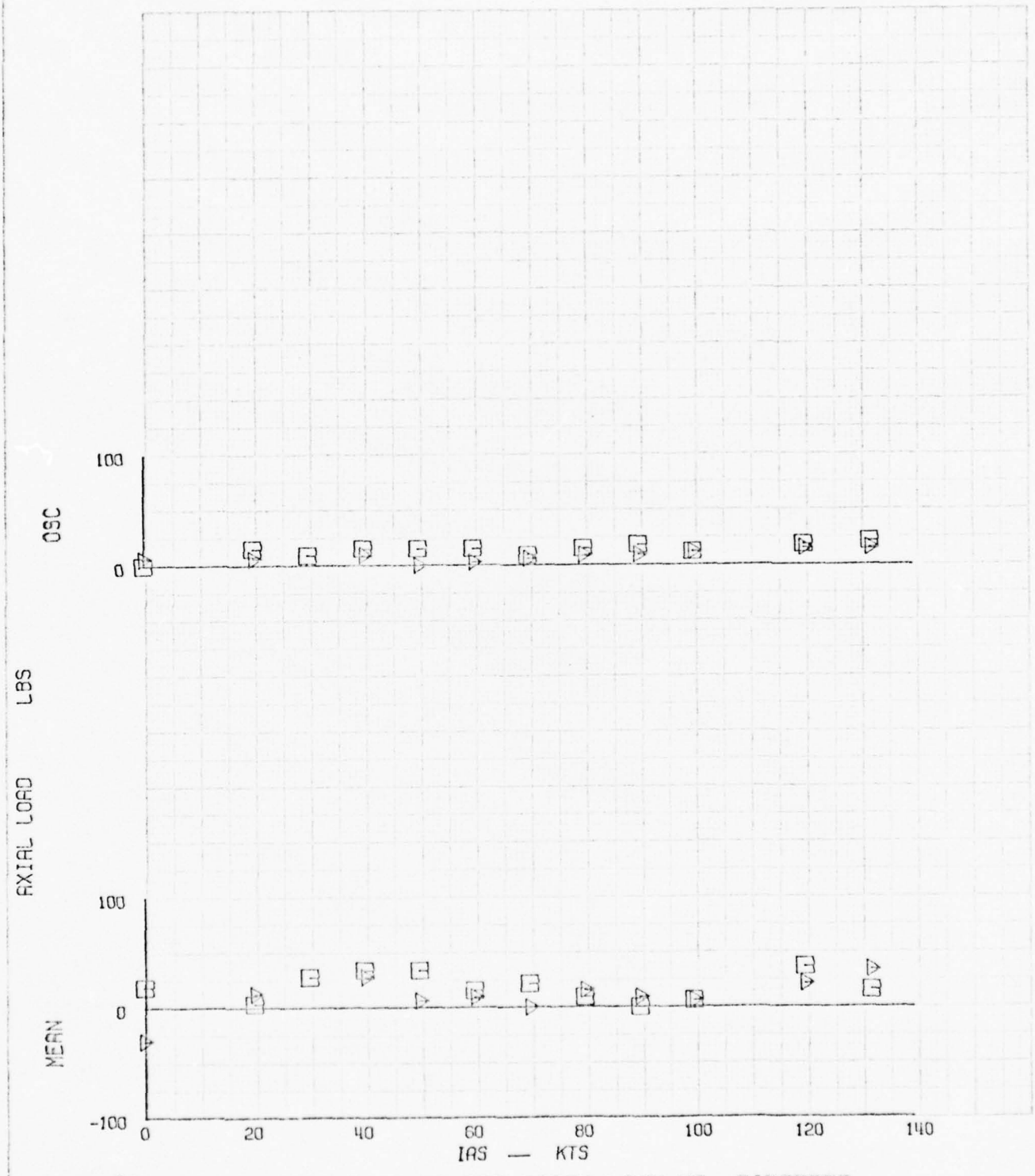


FIG. 11 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

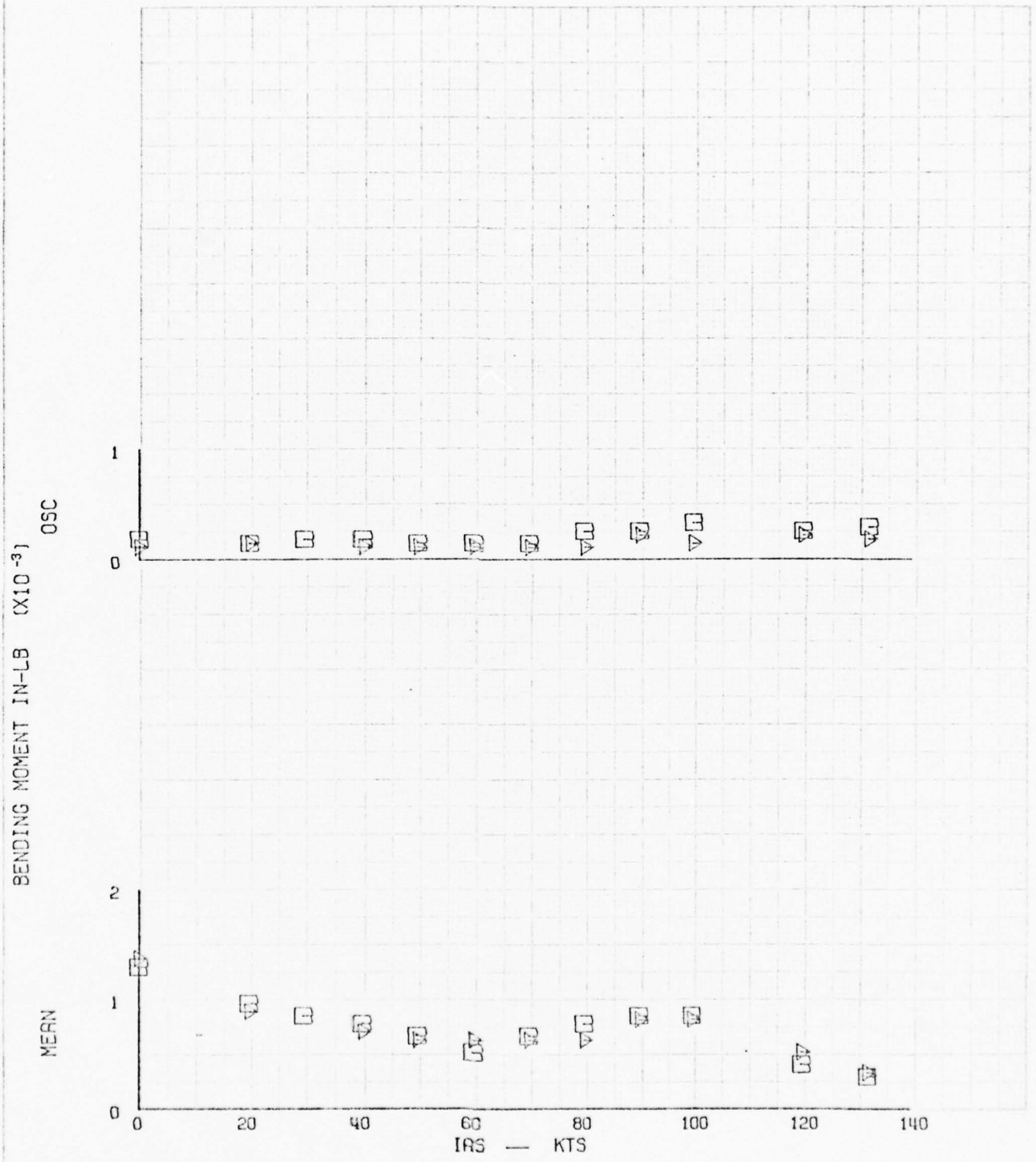


FIG. 12 ITEM B105-TR WHT YOKE BEAM STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

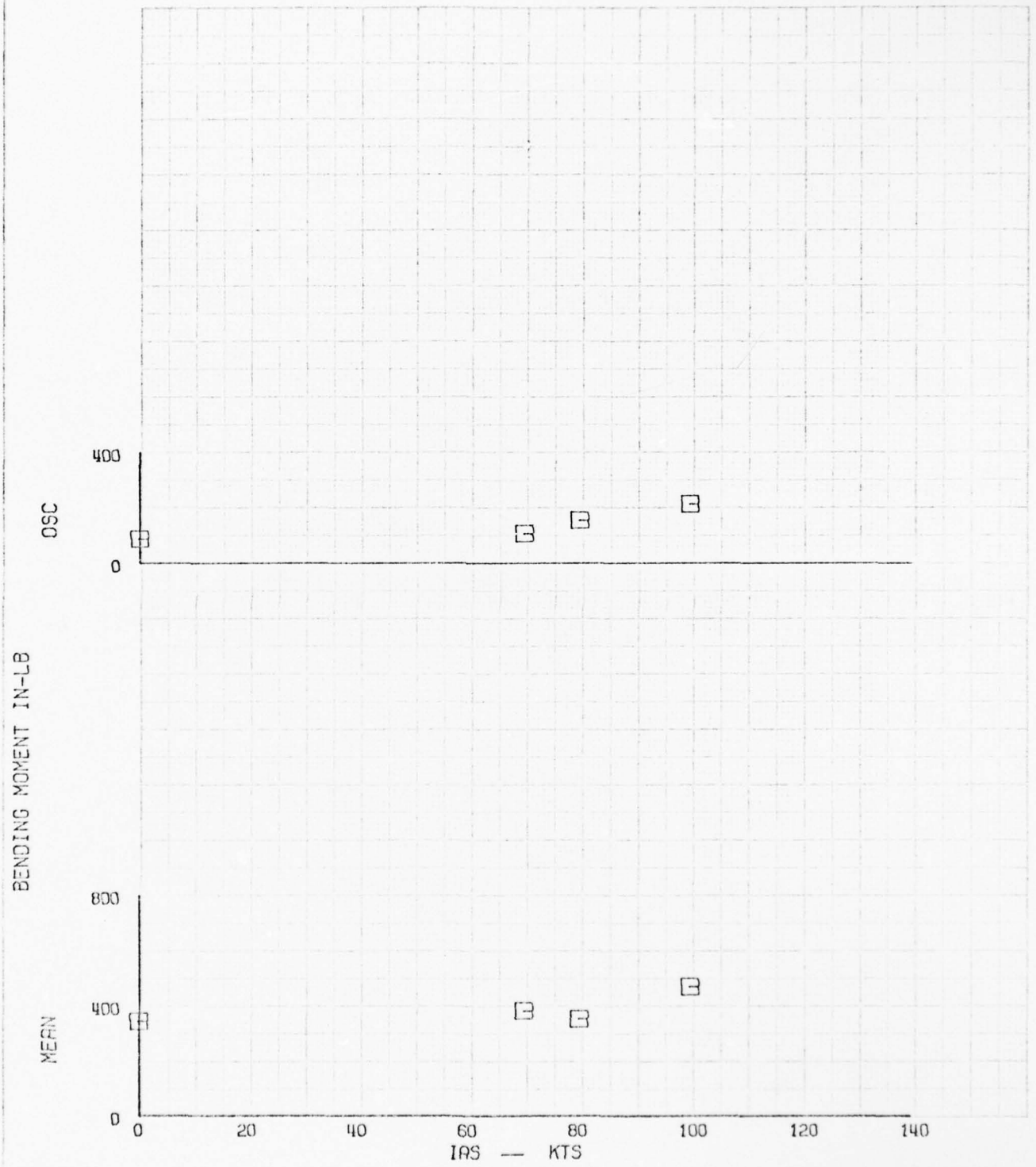


FIG. 13 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

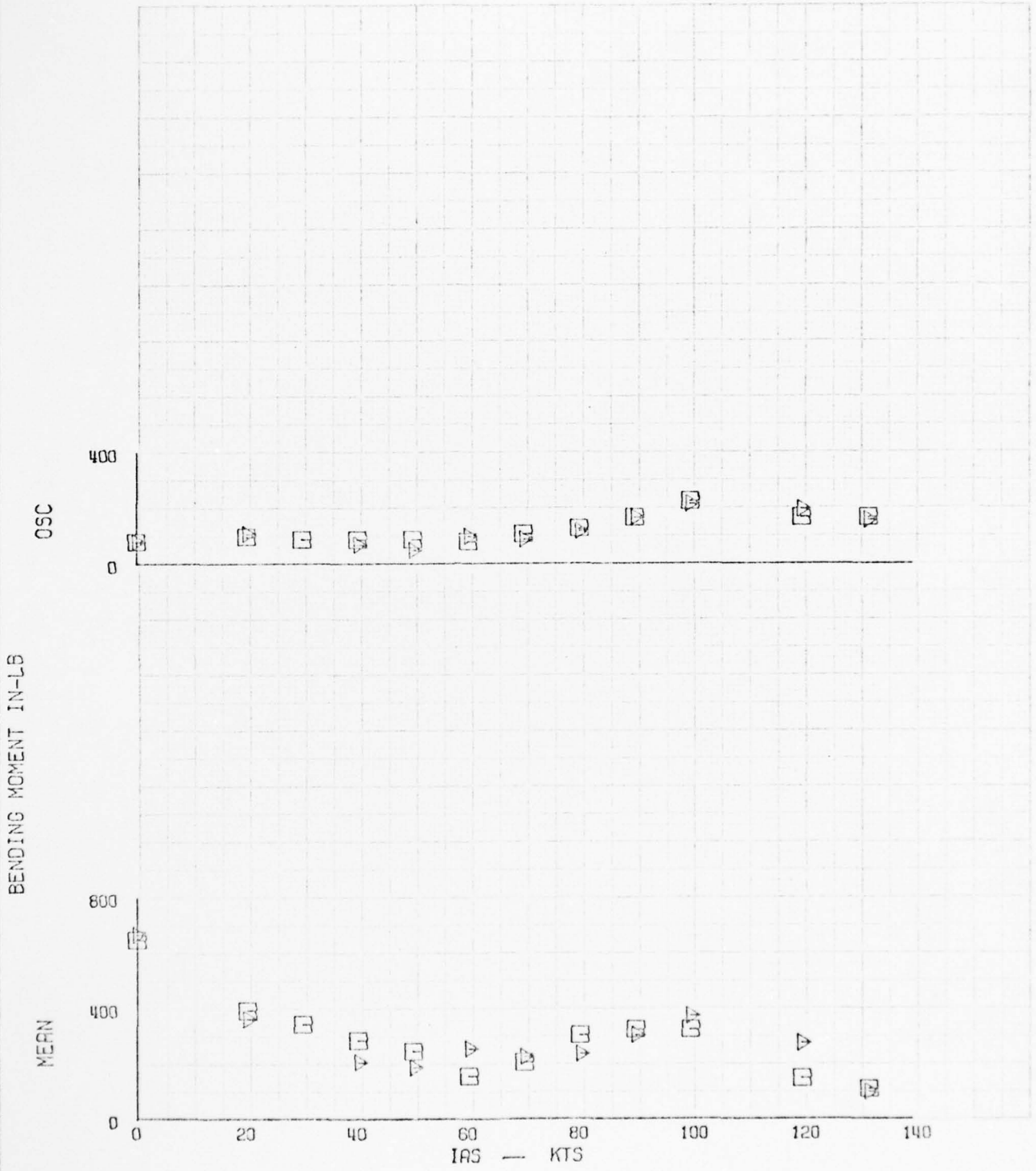


FIG. 14 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM
B 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

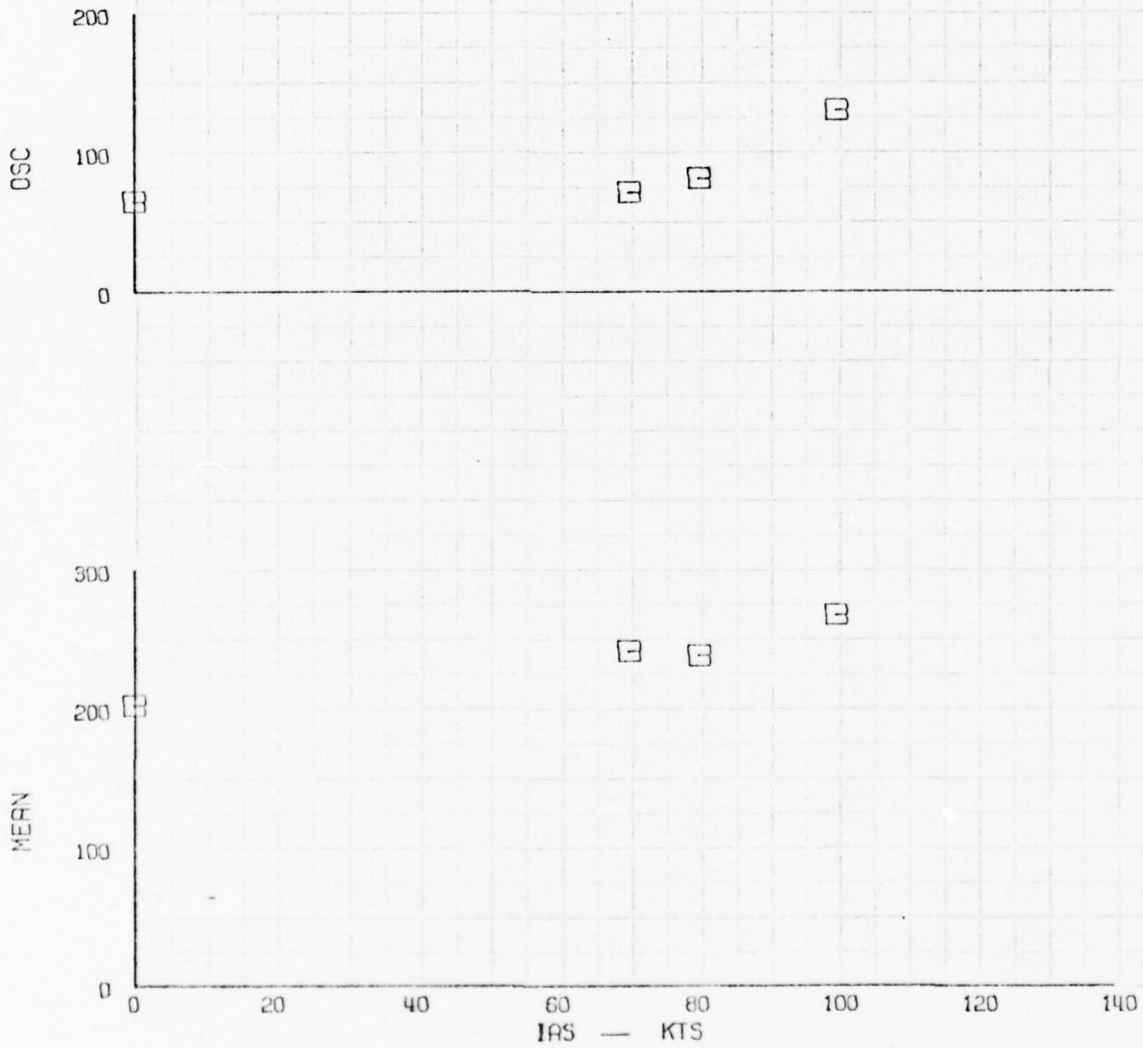


FIG. 15 ITEM B107-TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

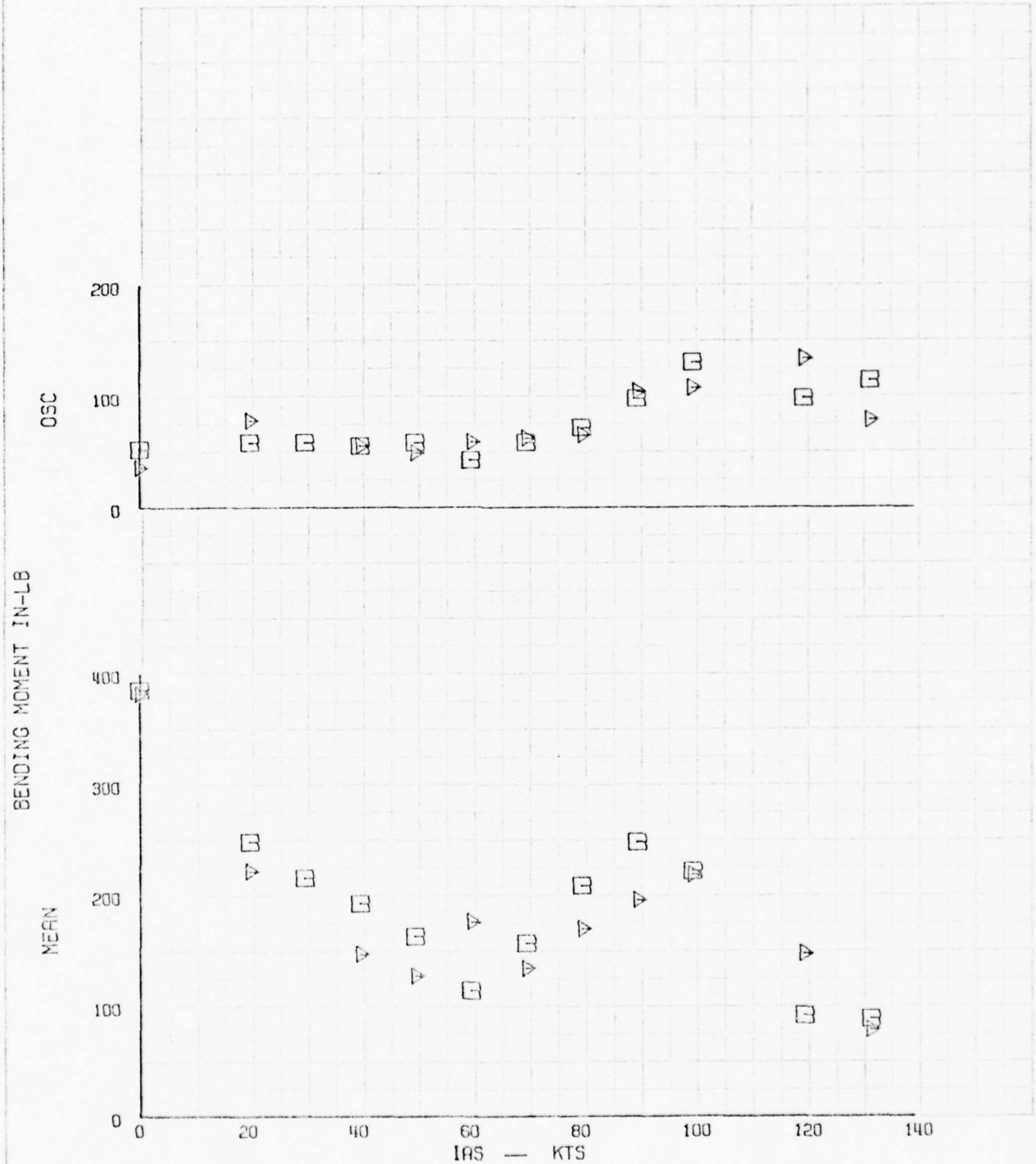


FIG. 14 ITEM B107-TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

04/18/73

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

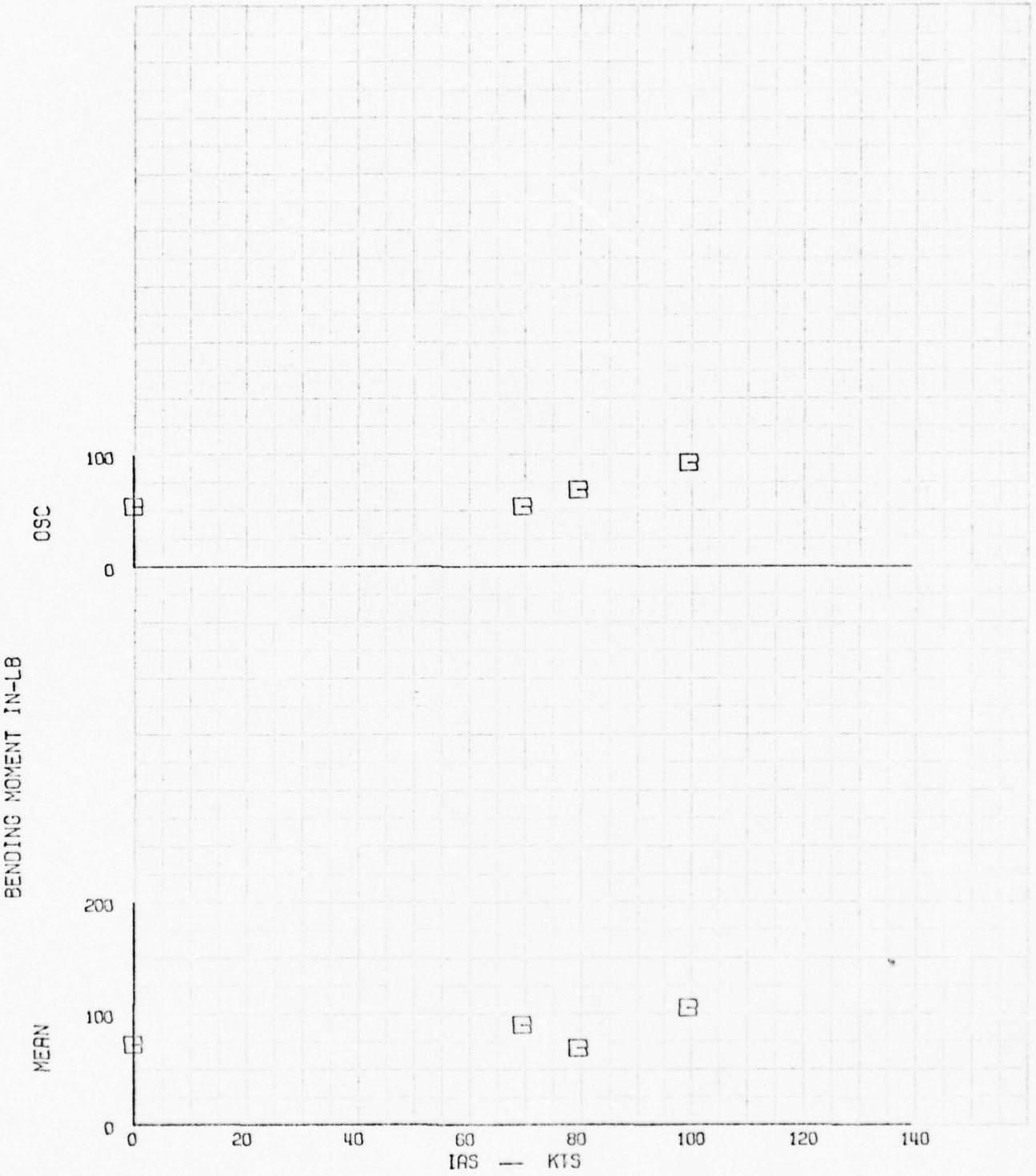


FIG. 17 ITEM B108-TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊟ 347
▶ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

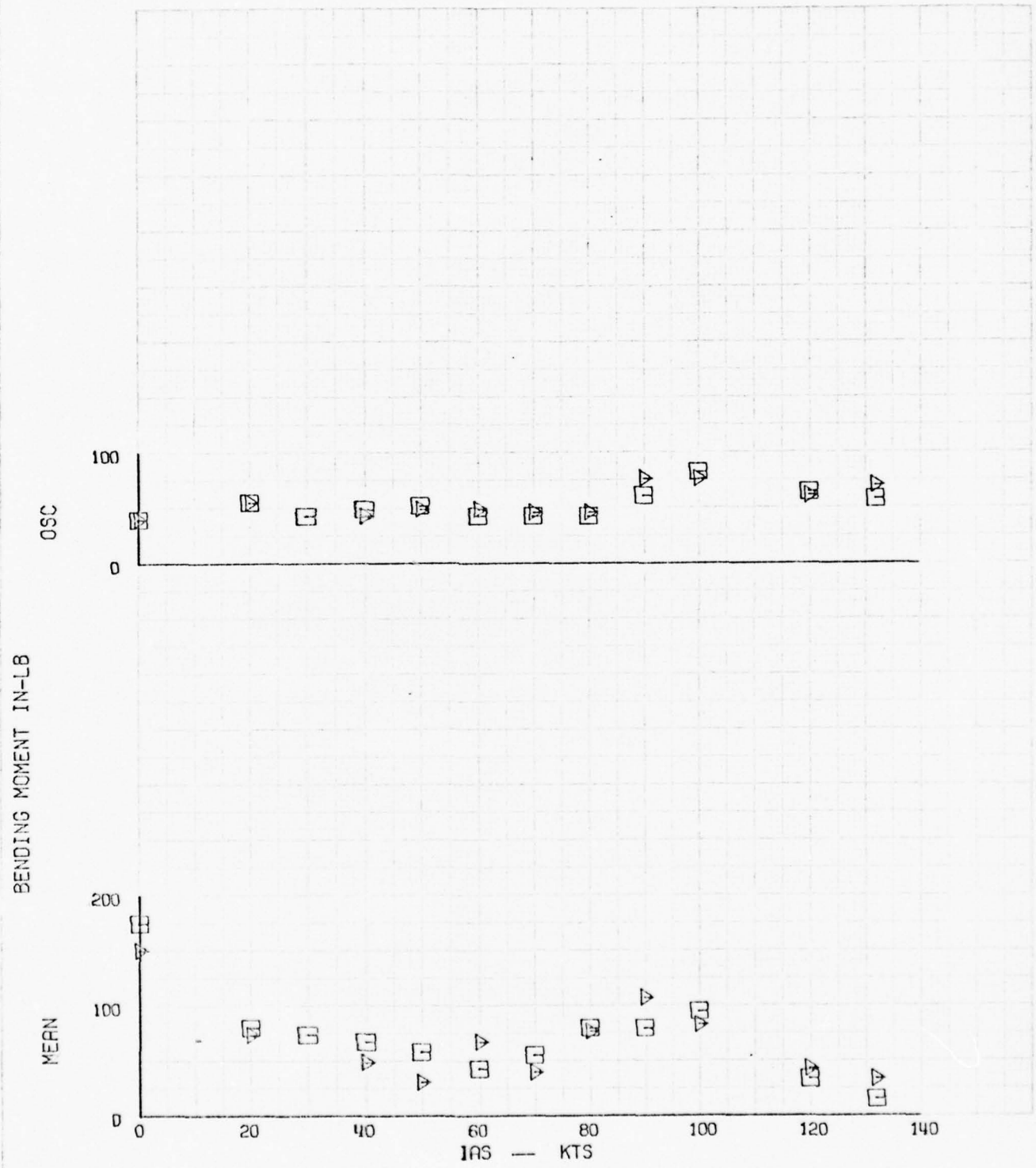


FIG. 18 ITEM B108-TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

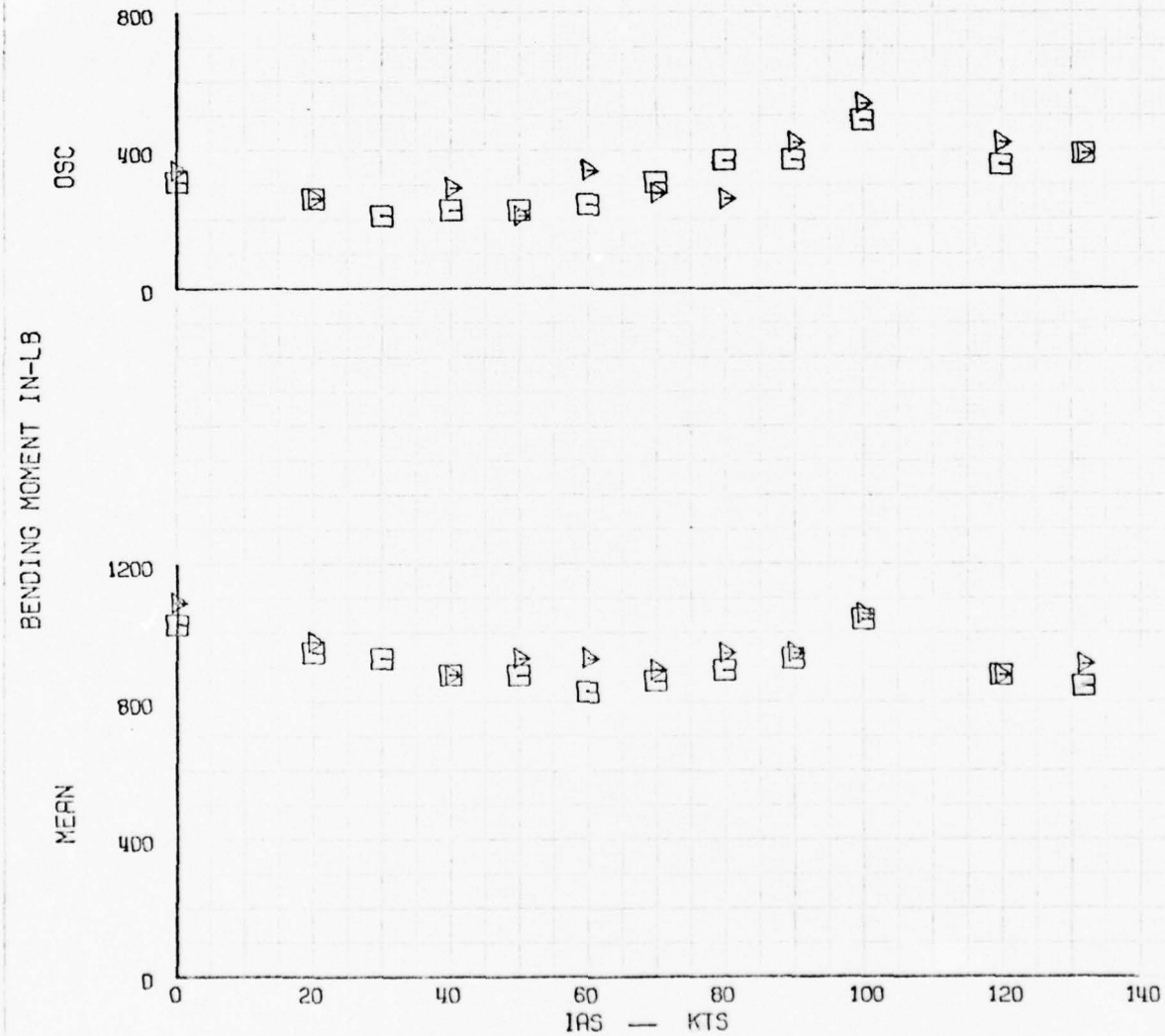


FIG. 19 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

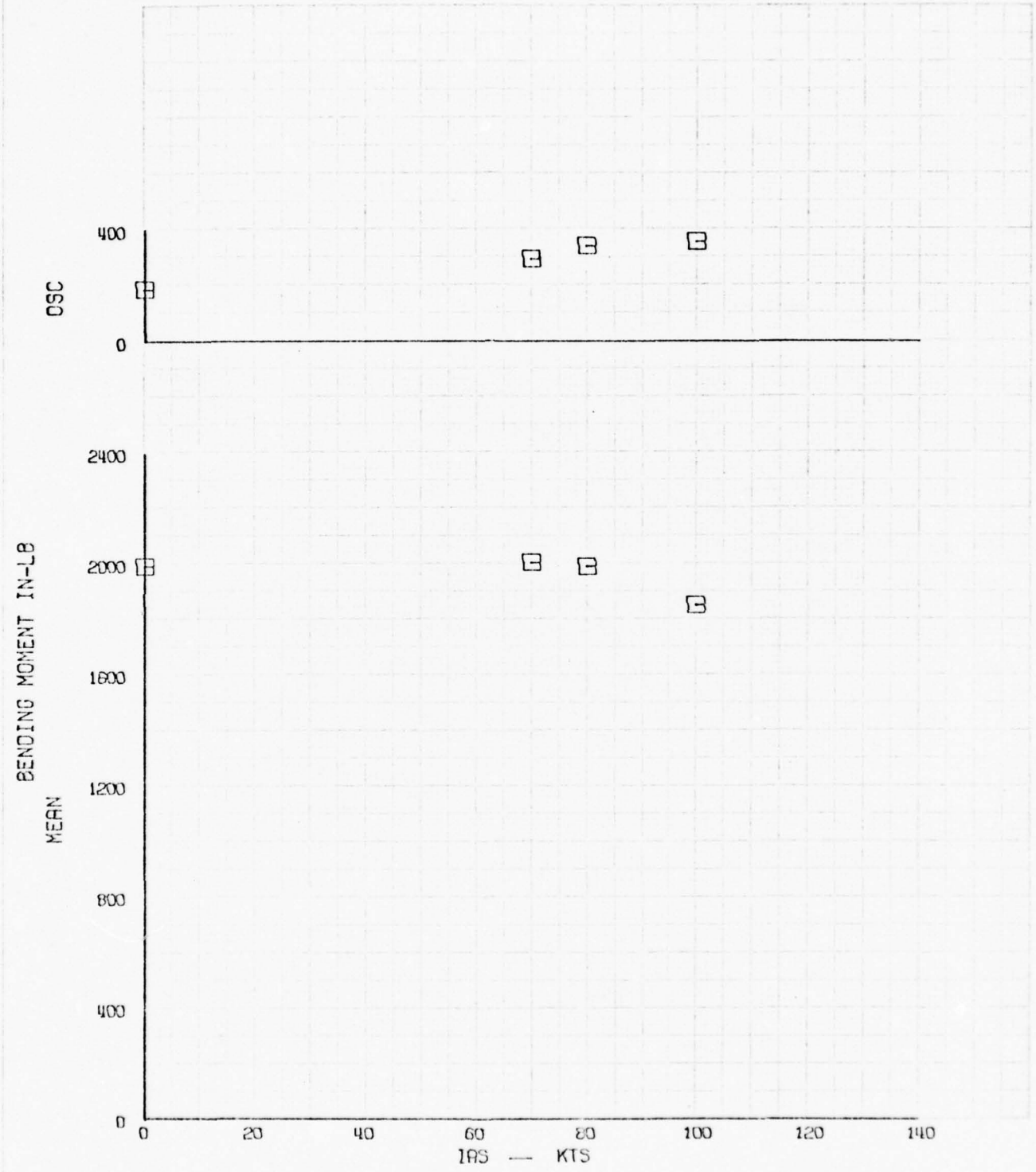


FIG. 20 ITEM B101-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

632-1

11/05/73

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

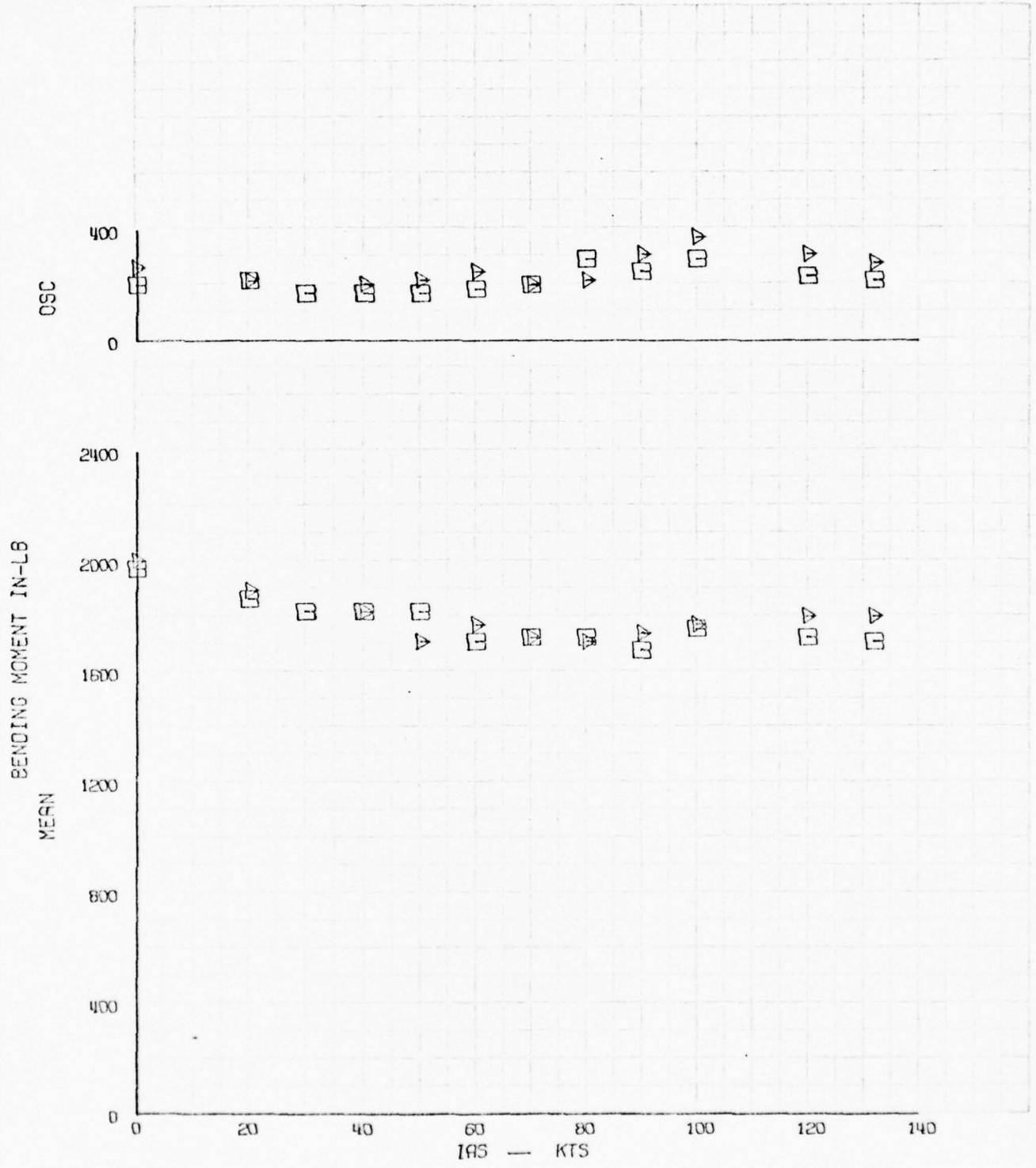


FIG. 21 ITEM B101-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

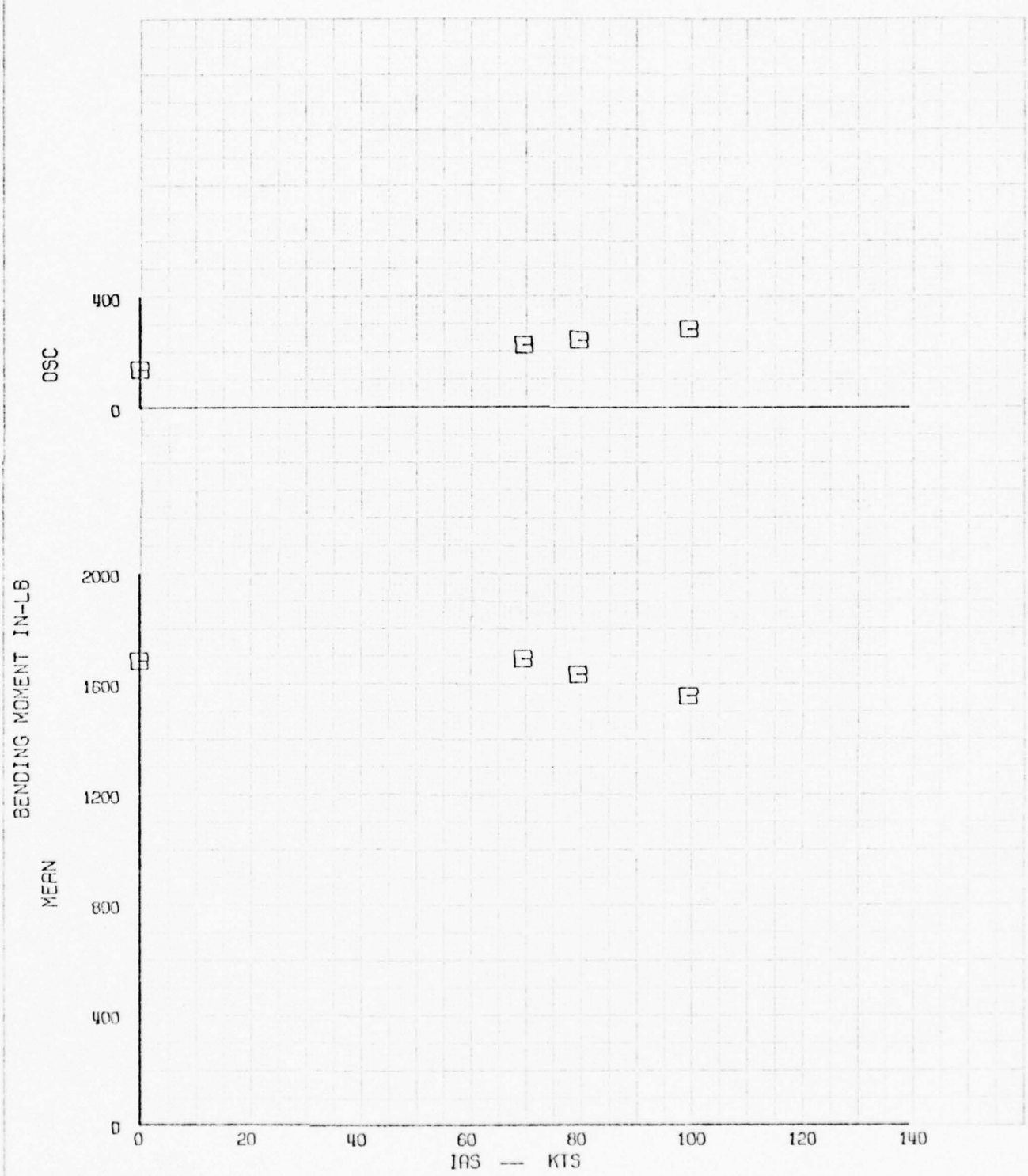


FIG. 22 ITEM B102-TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

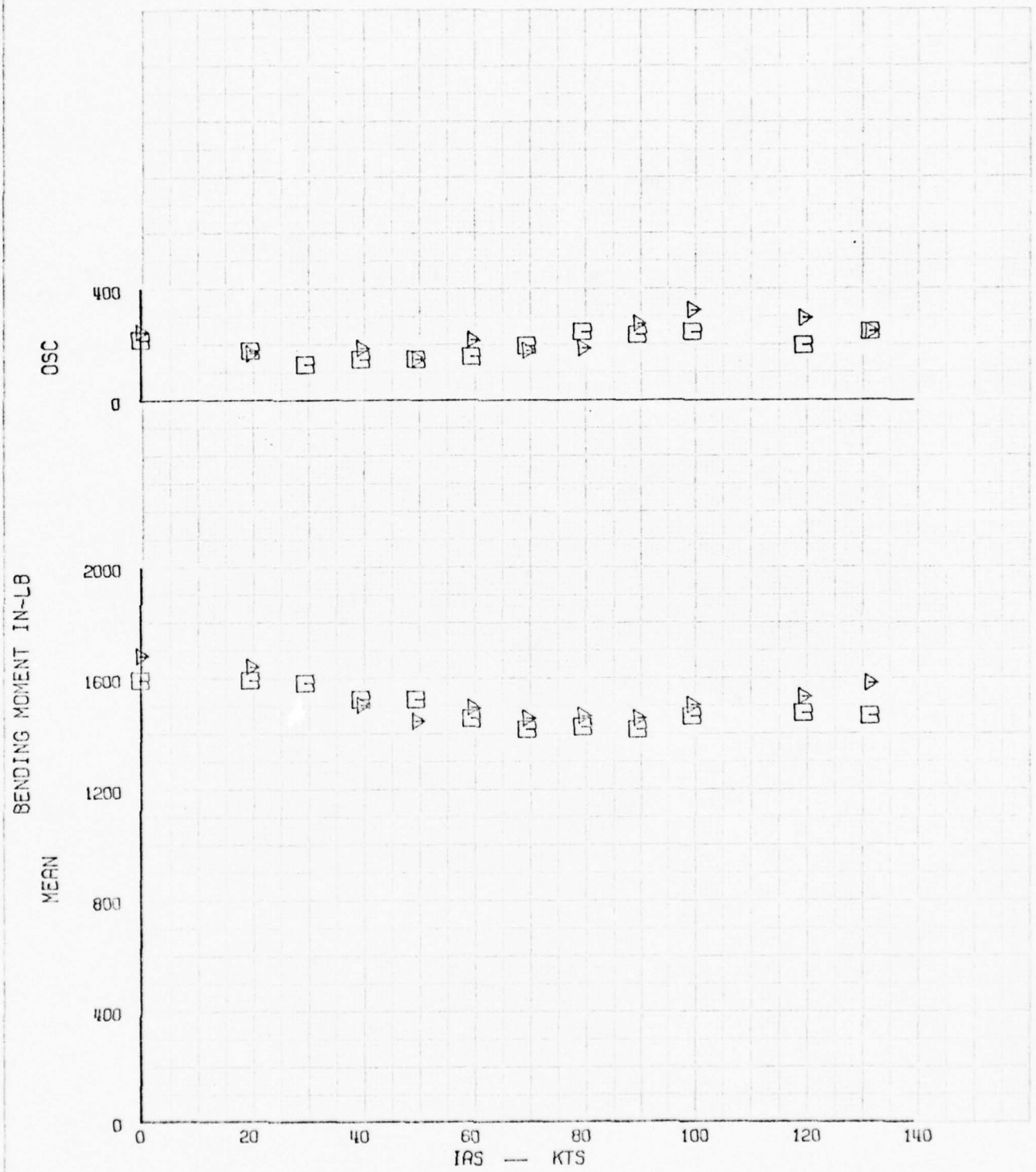


FIG. 23 ITEM B102-TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58
SHIP 40011
FLT 41-B
DATE 21 DEC 72

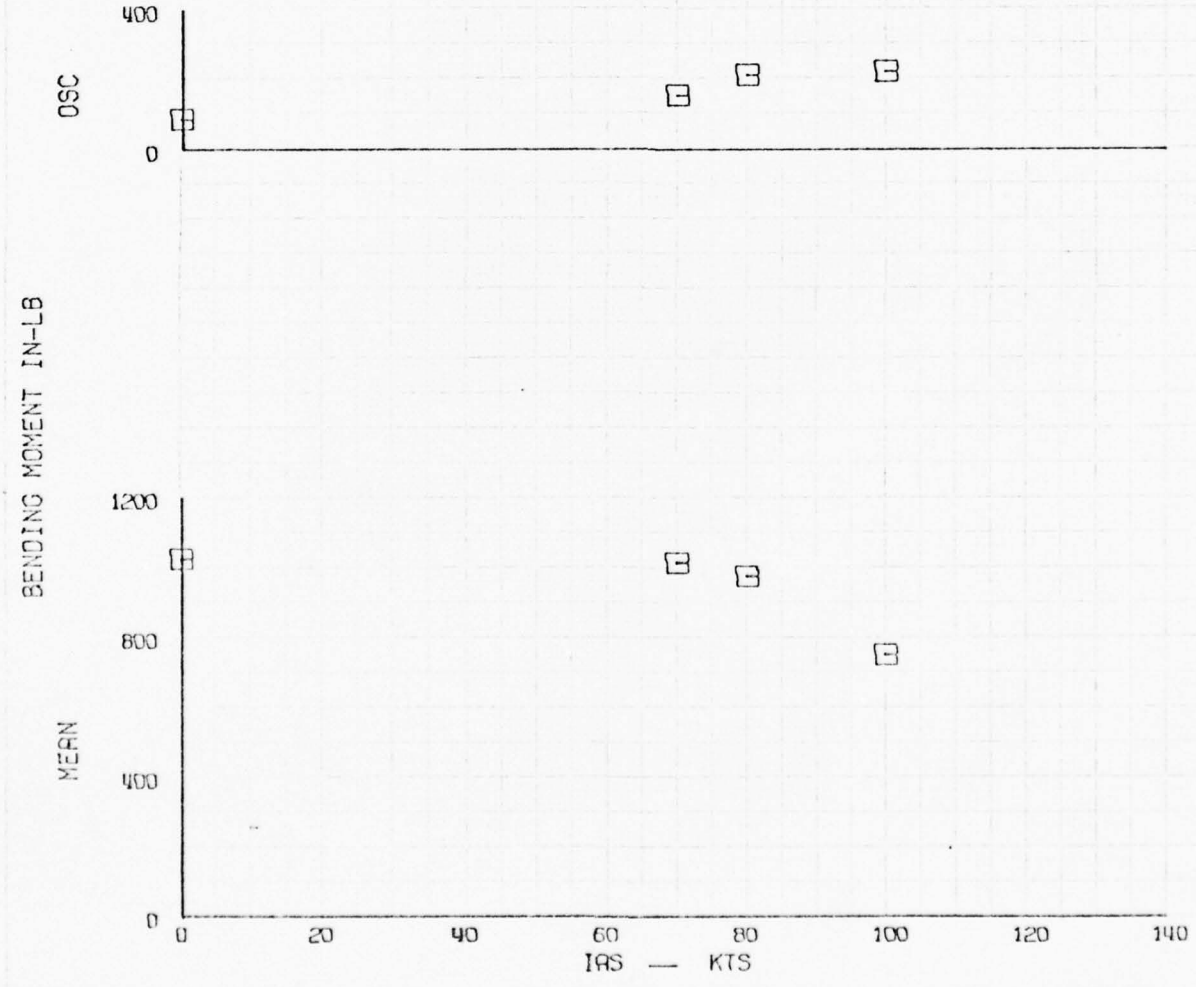


FIG. 24 ITEM B103-TR RED BLADE CHORD STA 15.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE 895 FT HO

SYM
⊟ 347
▶ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58
SHIP 40011
FLT 42-A
DATE 22 DEC 72

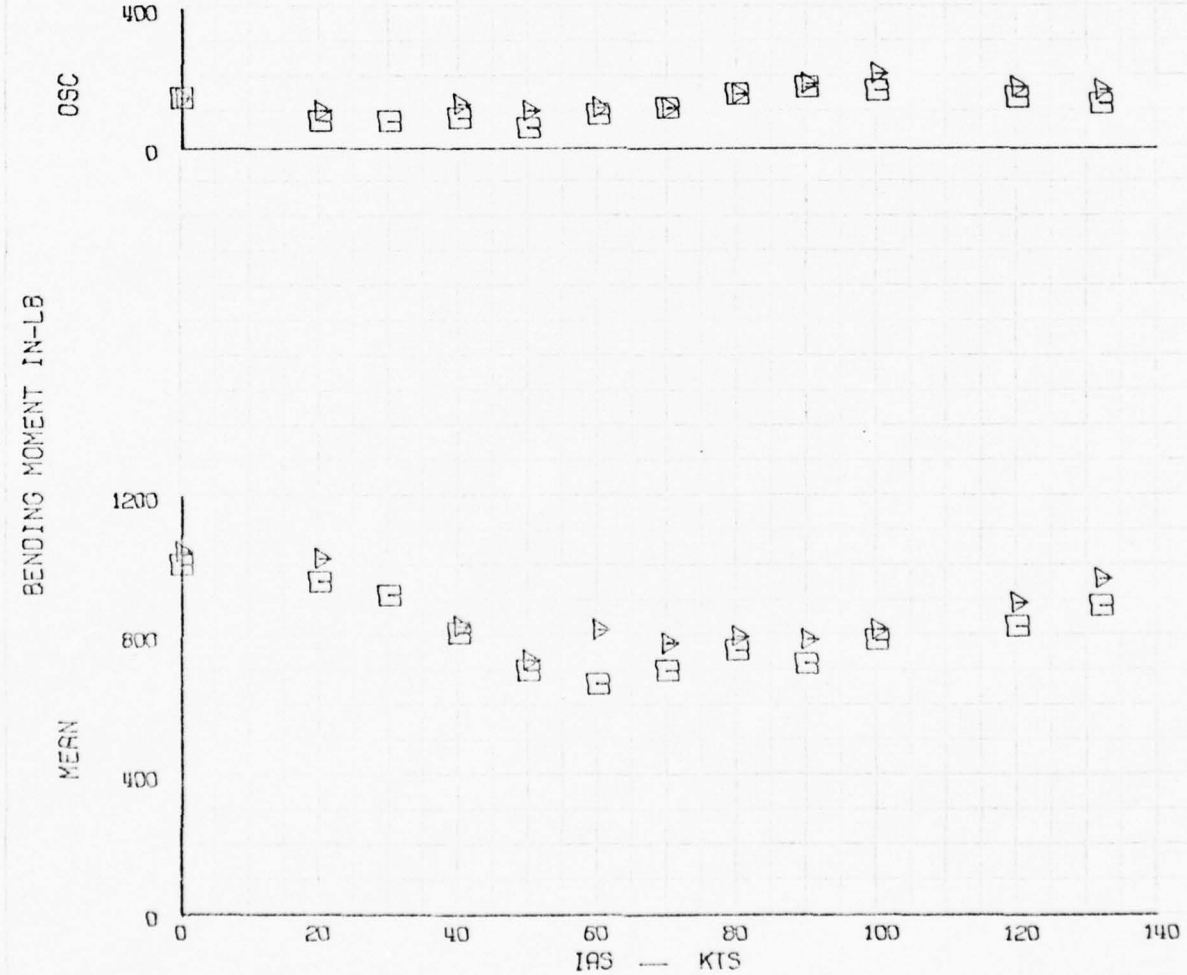


FIG. 25 ITEM B103-TR RED BLADE CHORD STA 15.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3083 C.G. 106.5 ALTITUDE 2400 FT HD

MODEL OH-58
SHIP 40011
FLT. 41-B
DATE 21 DEC 72

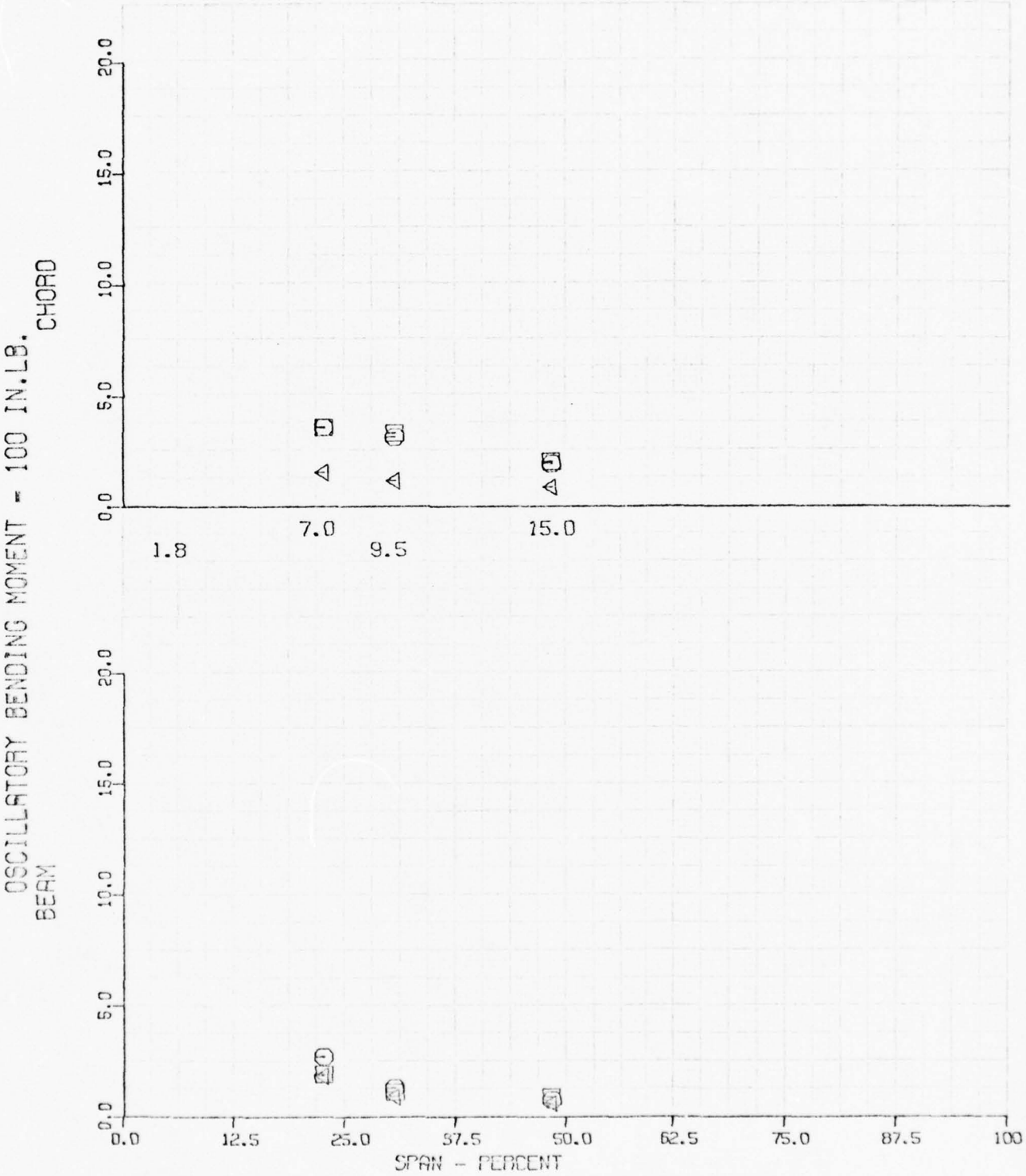


FIG 26 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊟ 0.0 KTS ACCELERATION 0-60
⊖ 60.0 KTS CLIMB - MC POWER
◁ 80.0 KTS CLIMB - BOOST OFF

MODEL OH-58
SHIP 40011
FLT. 41-B
DATE 21 DEC 72

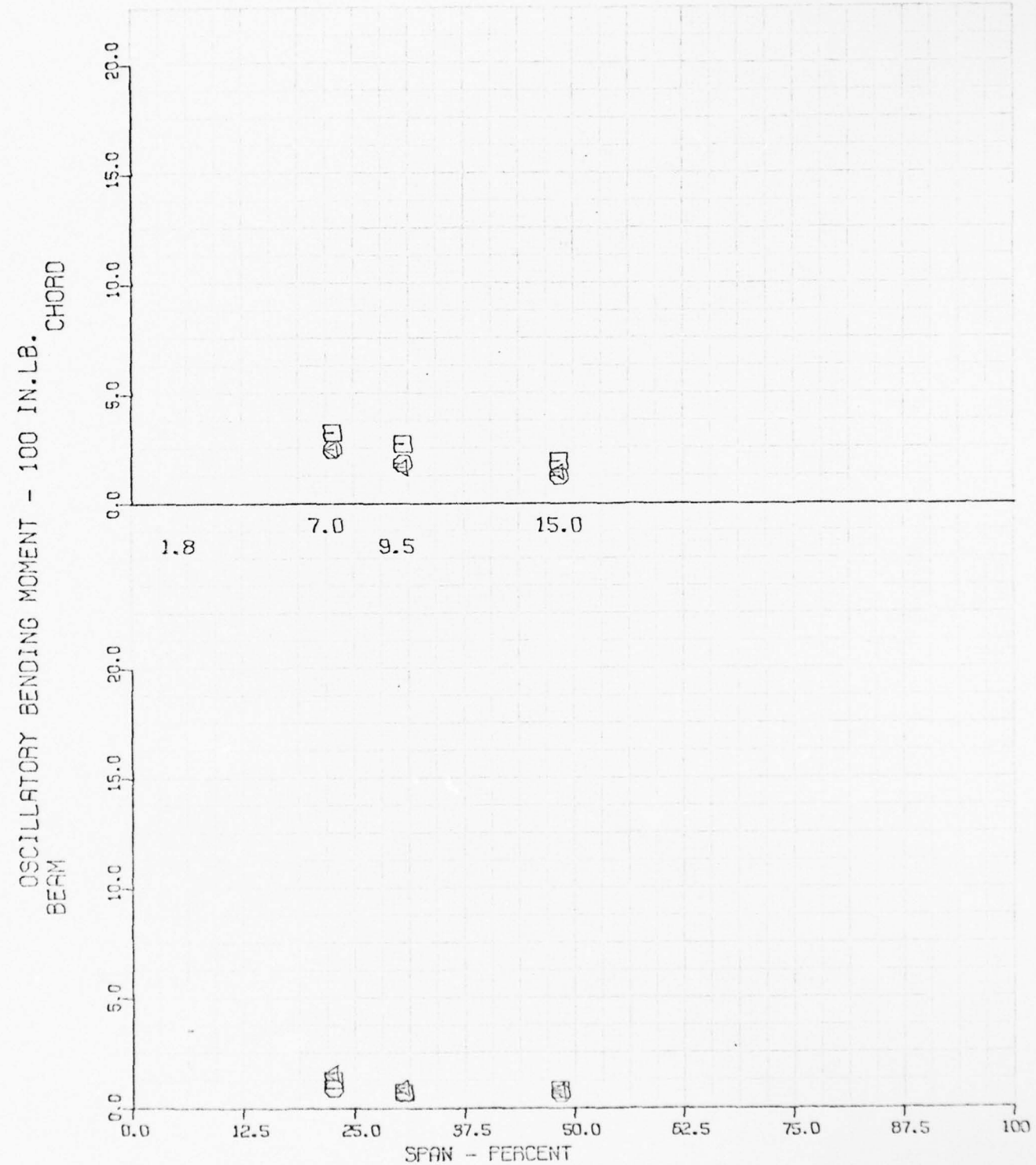


FIG 27 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

MODEL OH-58
SHIP 40011
FLT. 42-A
DATE 22 DEC 72

⊟ 0.0 KTS NORMAL START
⊖ 0.0 KTS HOVER - LEFT TURN
◁ 0.0 KTS HOVER - RIGHT TURN

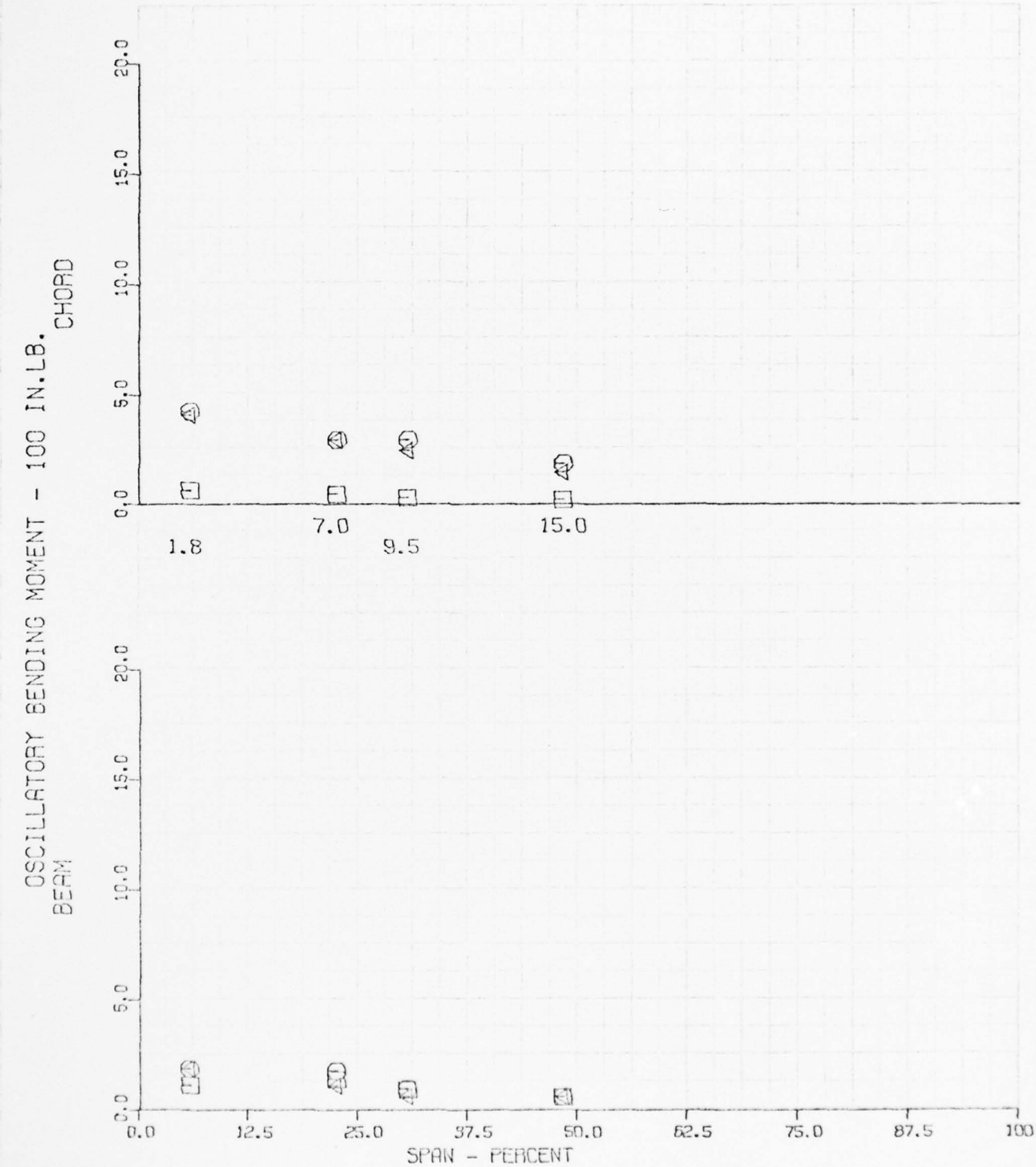


FIG 28 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

⊟ 0.0 KTS NORMAL LANDING
⊖ 0.0 KTS JUMP TAKE-OFF
◁ 0.0 KTS NORMAL ACCELERATION 0-60

MODEL OH-58
SHIP 40011
FLT. 42-A
DATE 22 DEC 72

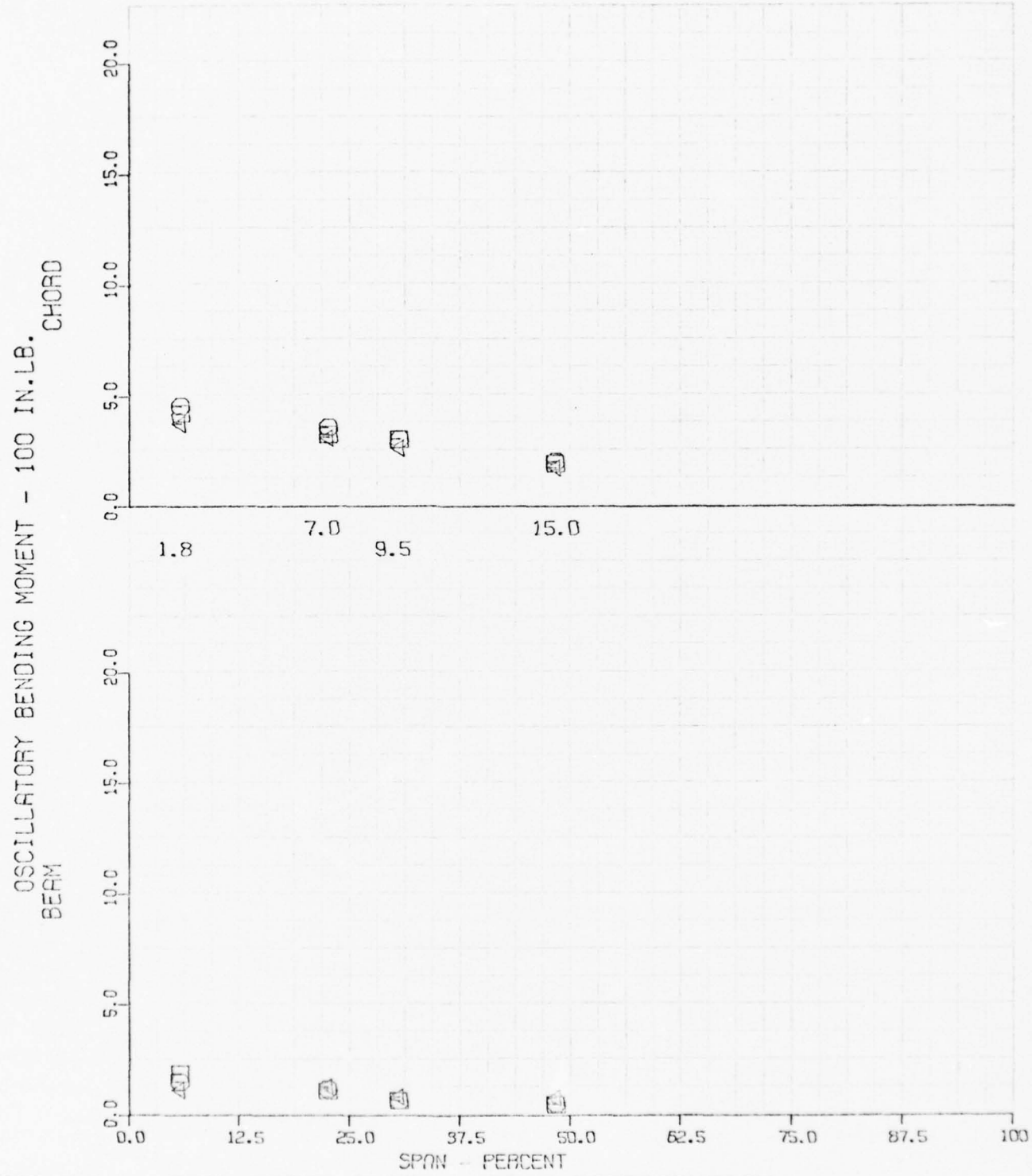


FIG 27 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

⊟ 20.0 KTS LEFT SIDEWARD FLIGHT
⊖ 20.0 KTS RIGHT SIDEWARD FLIGHT
◁ 20.0 KTS REARWARD FLIGHT

MODEL OH-58
SHIP 40011
FLT. 42-A
DATE 22 DEC 72

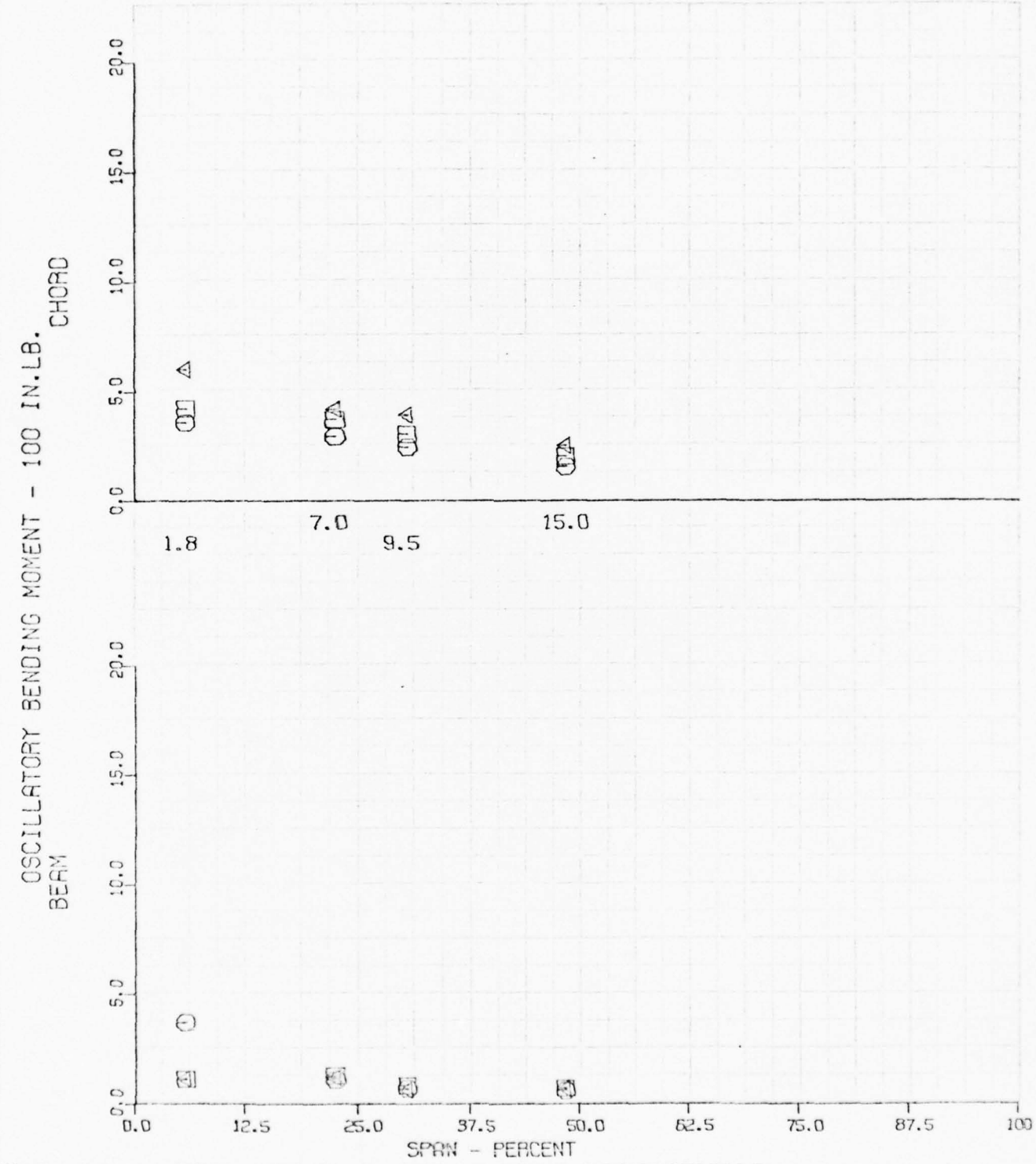


FIG 30 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

MODEL OH-58
SHIP 40011
FLT. 42-A
DATE 22 DEC 72

□ 0.0 KTS HOVER - F/A CONTROL REV
○ 0.0 KTS HOVER - LAT CONTROL REV
△ 0.0 KTS HOVER - DIR CONTROL REV

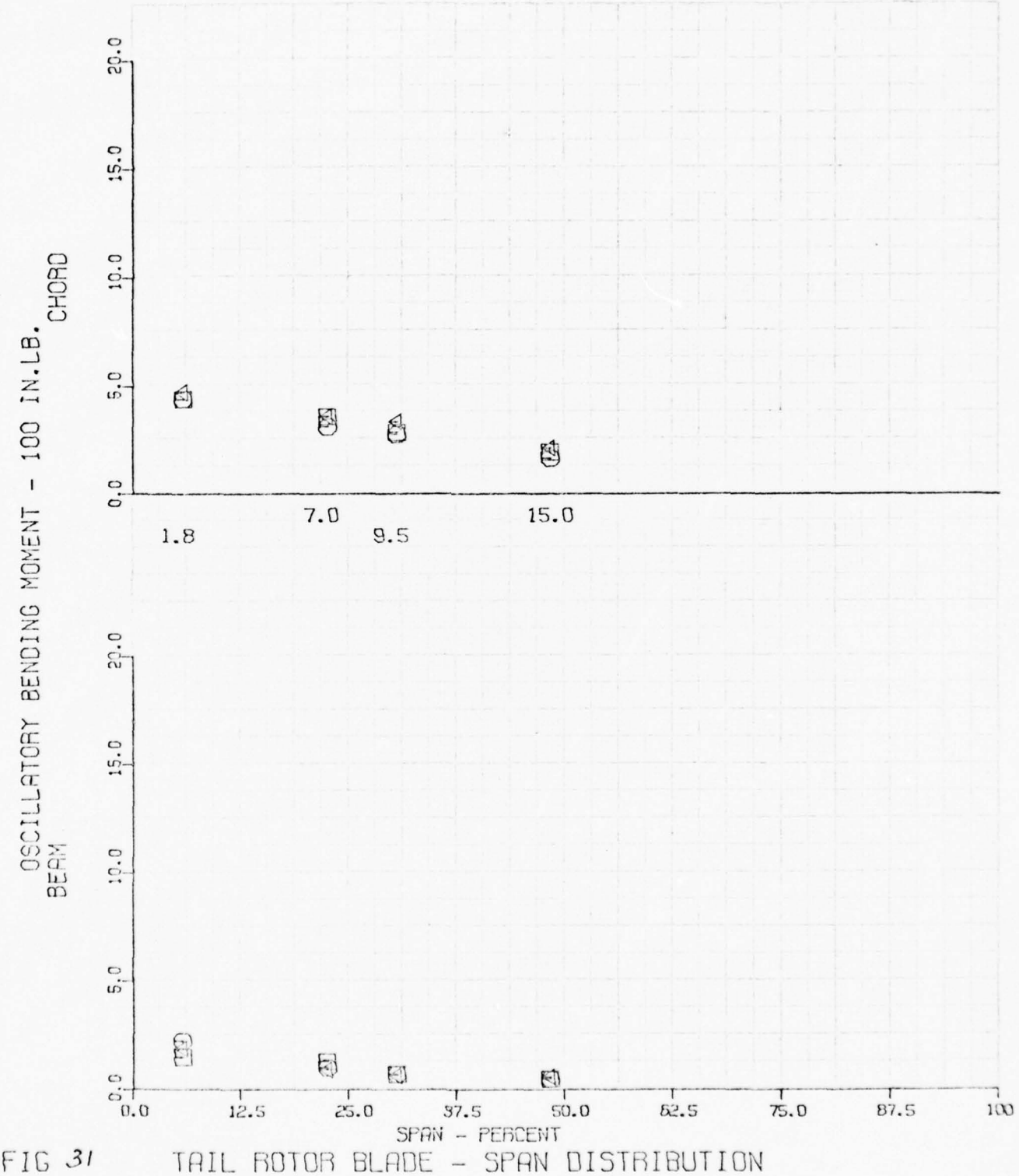


FIG 31 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

⊟ 50.0 KTS LEFT TURN 0.5 VH
⊖ 50.0 KTS RIGHT TURN 0.5 VH

MODEL OH-58
SHIP 40011
FLT. 42-A
DATE 22 DEC 72

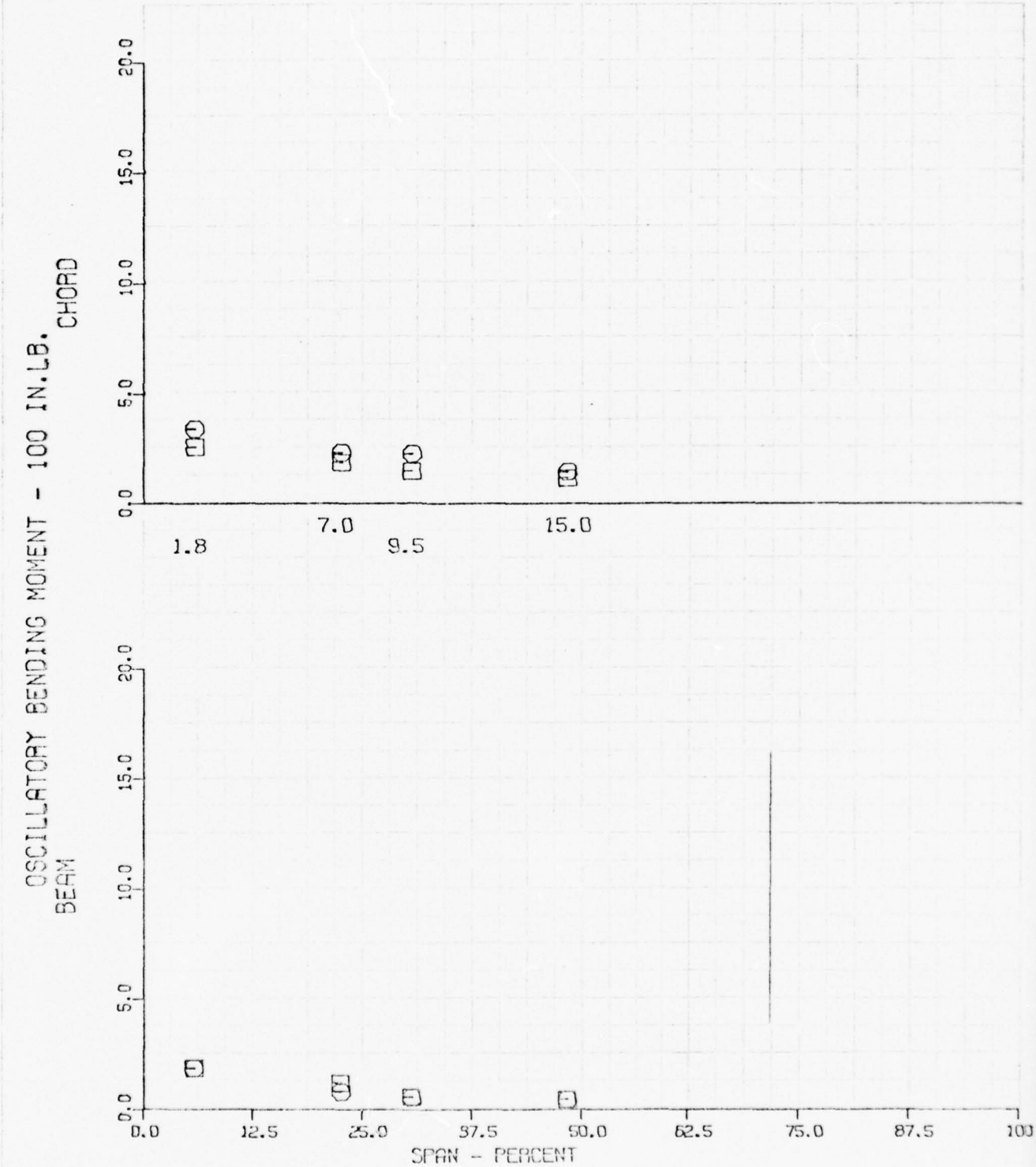


FIG 32 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

60.0 KTS LEVEL FLT 0.6 VH CYC P/U
90.0 KTS LEVEL FLT 0.9 VH CYC P/U
30.0 KTS LEVEL FLT 0.3 VH CYC P/U

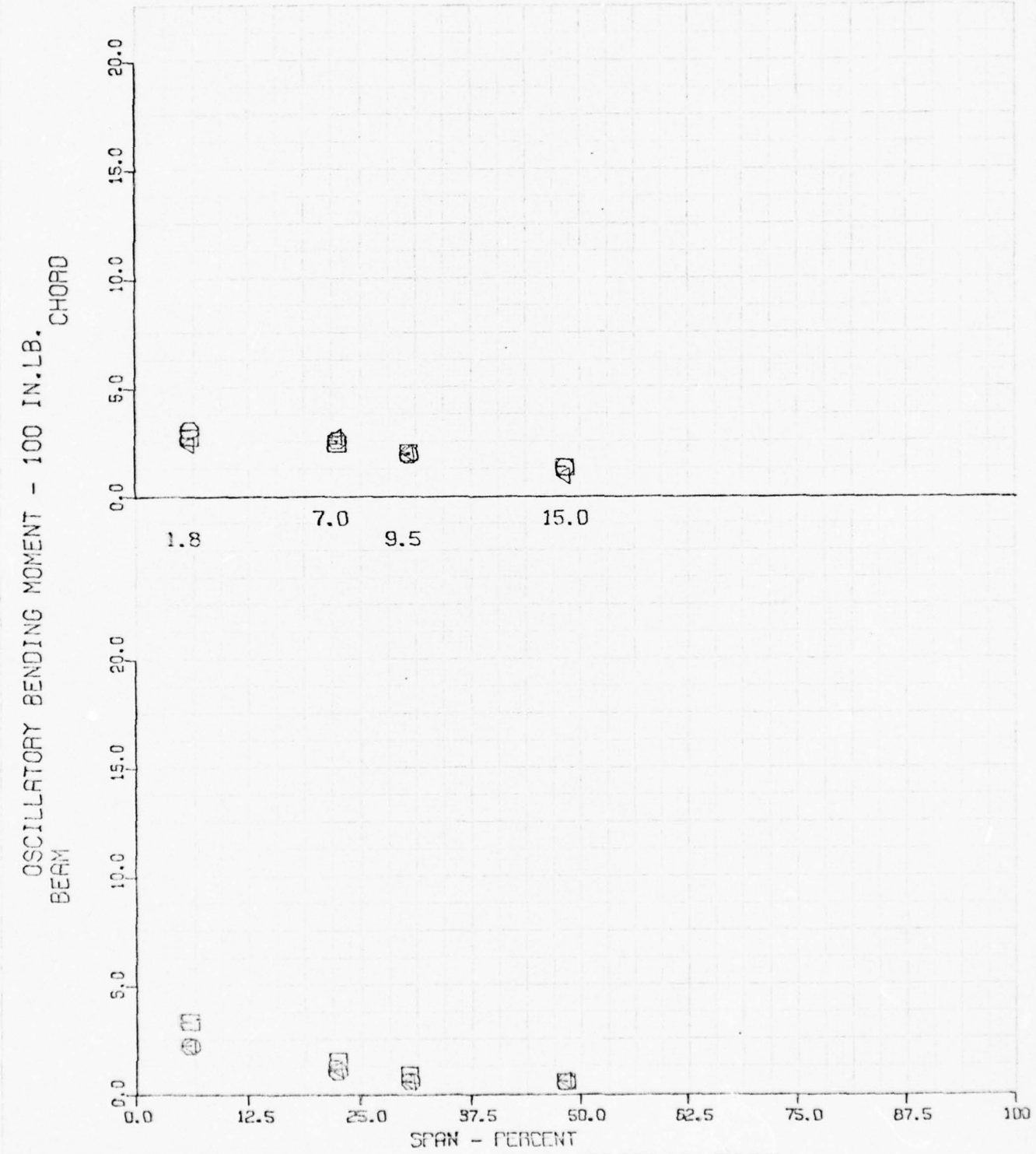


FIG 33 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

⊟ 100.0 KTS LEVEL FLT F/A CONT REV
⊖ 100.0 KTS LEVEL FLT LAT CONT REV
◁ 100.0 KTS LEVEL FLT DIR CONT REV

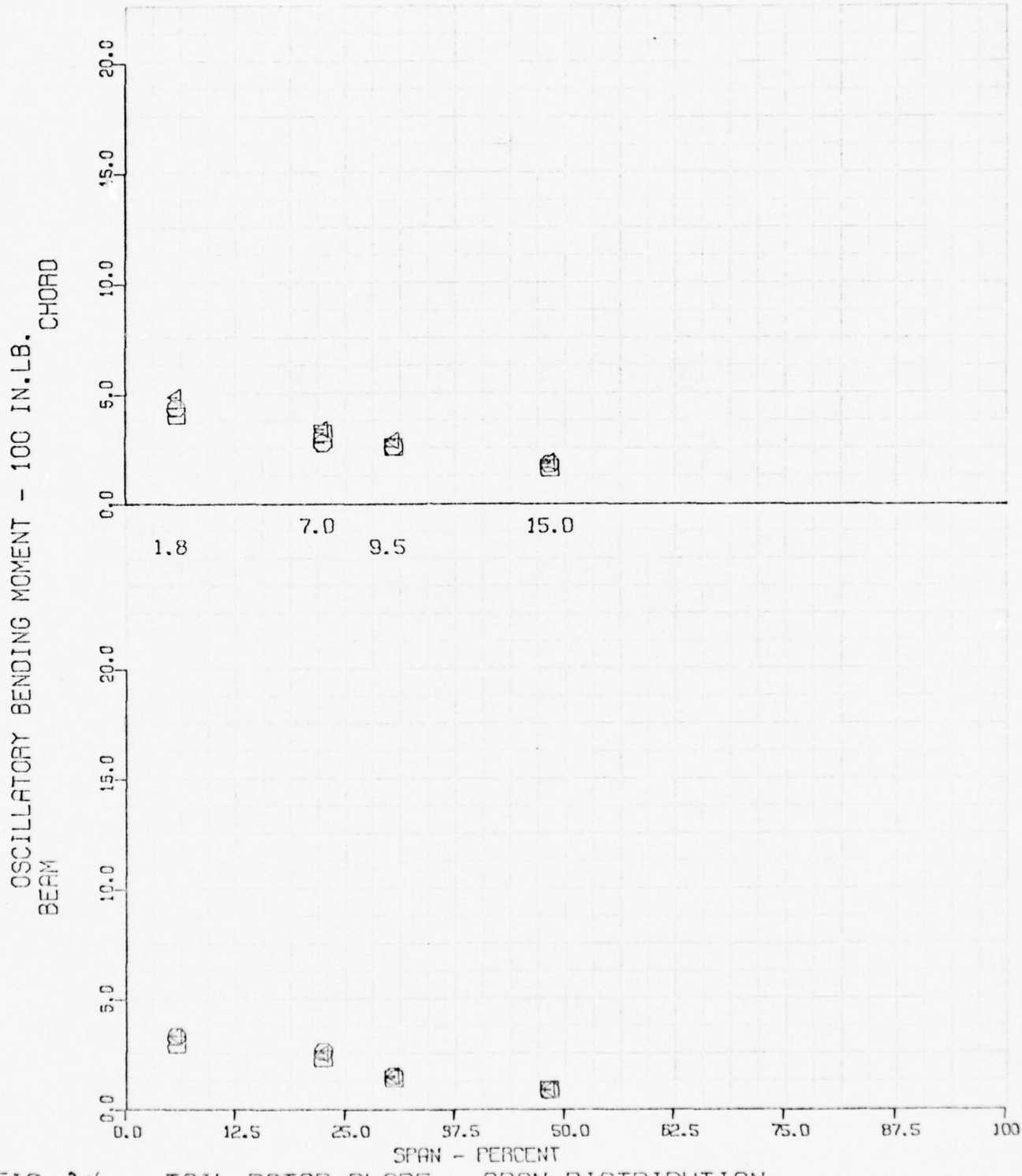


FIG 34 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

11/12/73

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

⊟ 70.0 KTS LEFT TURN 0.7 VH
⊖ 70.0 KTS RIGHT TURN 0.7 VH
◁ 90.0 KTS LEFT TURN 0.9 VH
+ 90.0 KTS RIGHT TURN 0.9 VH

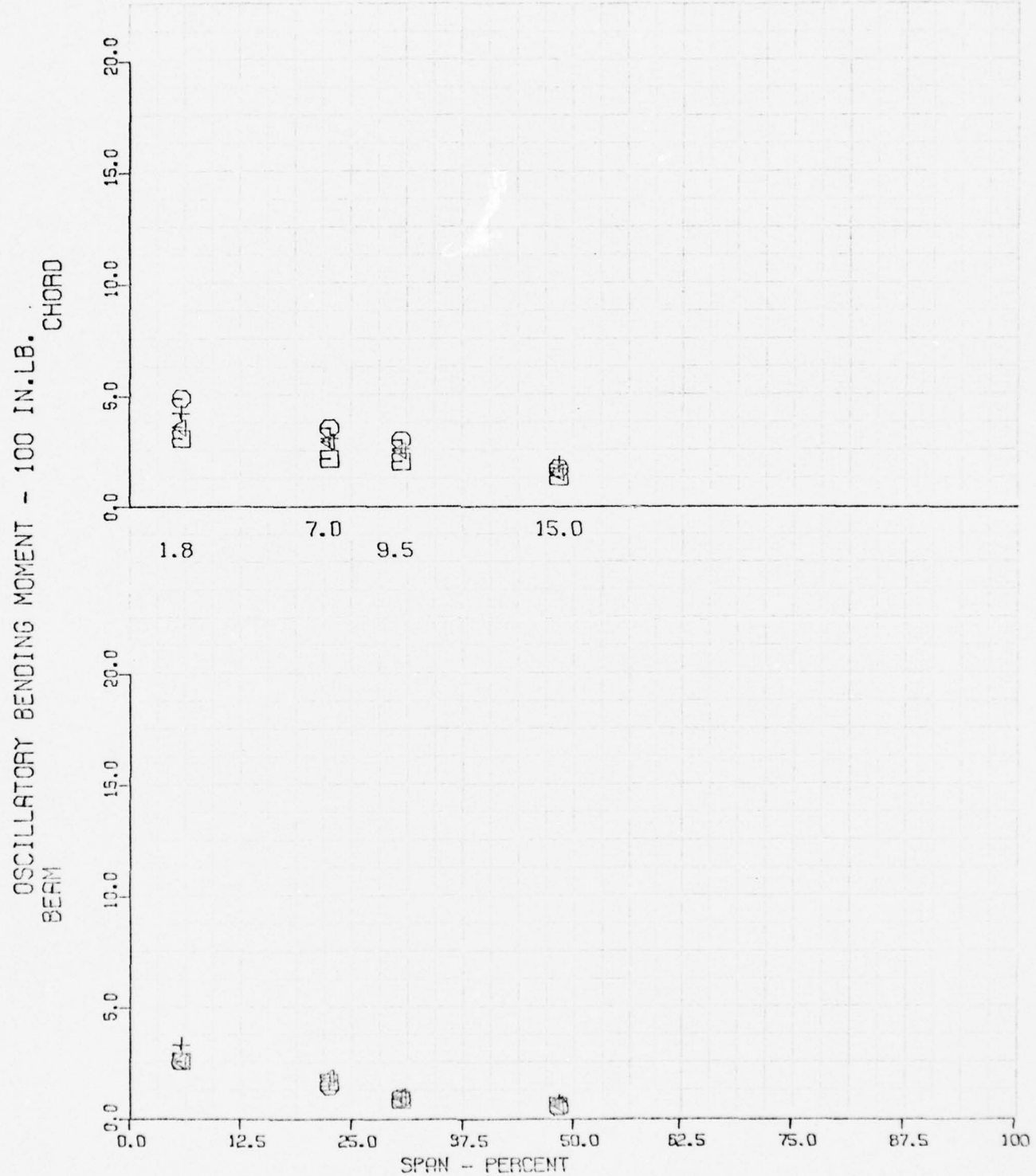


FIG 35 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 105.5

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

⊟ 50.0 KTS TRANS PWR-AUTO 0.5 VH
⊖ 50.0 KTS TRANS AUTO-PWR 0.5 VH
◁ 70.0 KTS TRANS PWR-AUTO 0.7 VH
+ 70.0 KTS TRANS AUTO-PWR 0.7 VH
× 90.0 KTS TRANS PWR-AUTO 0.9 VH
◇ 90.0 KTS TRANS AUTO-PWR 0.9 VH

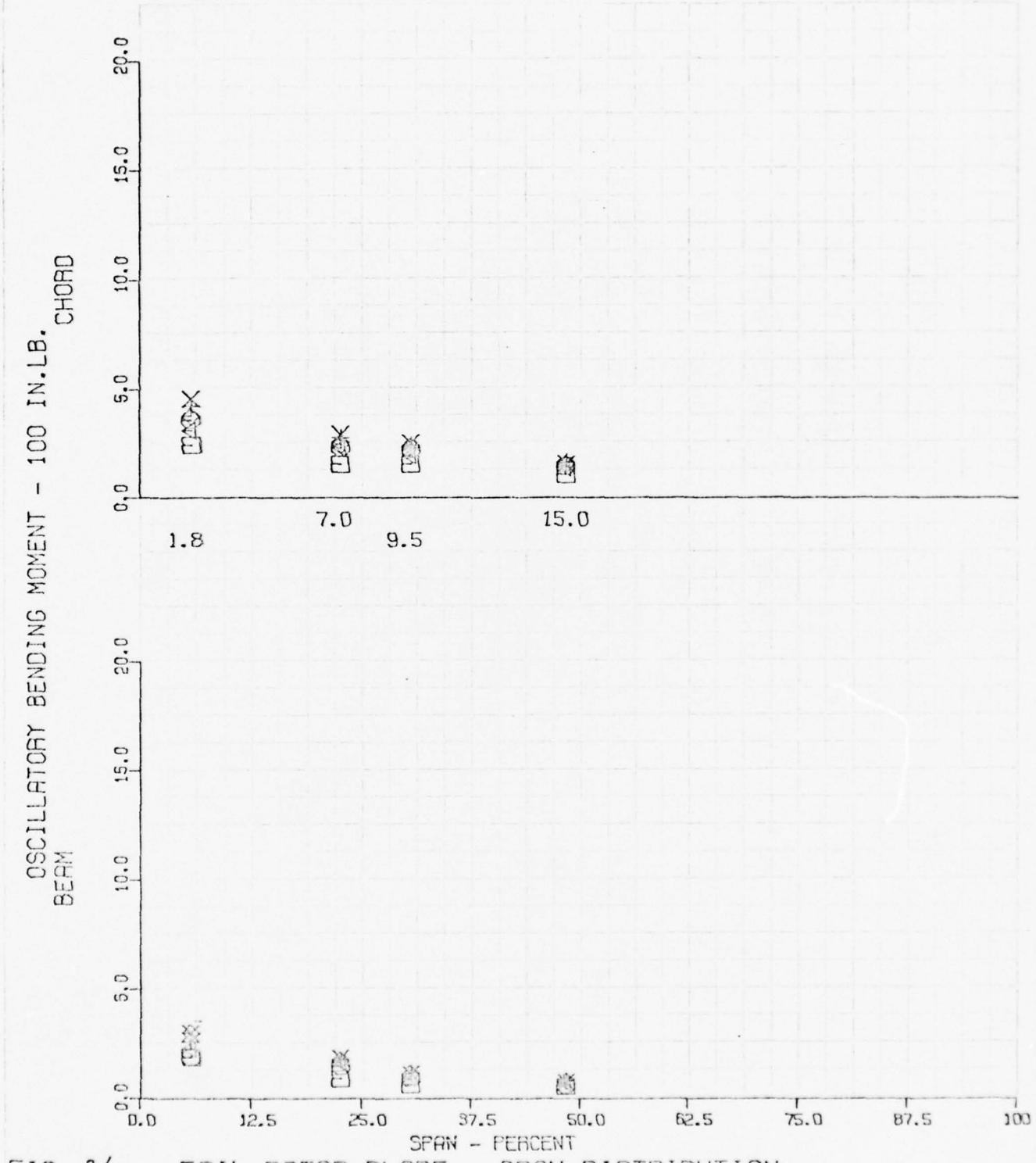


FIG 36 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

⊟ 50.0 KTS STABILIZED AUTO 0.5 VH
⊖ 70.0 KTS STABILIZED AUTO 0.7 VH
◁ 50.0 KTS STABILIZED AUTO 0.5 VH
+ 70.0 KTS STABILIZED AUTO 0.7 VH
× 50.0 KTS STABILIZED AUTO 0.5 VH
◇ 70.0 KTS STABILIZED AUTO 0.6 VH

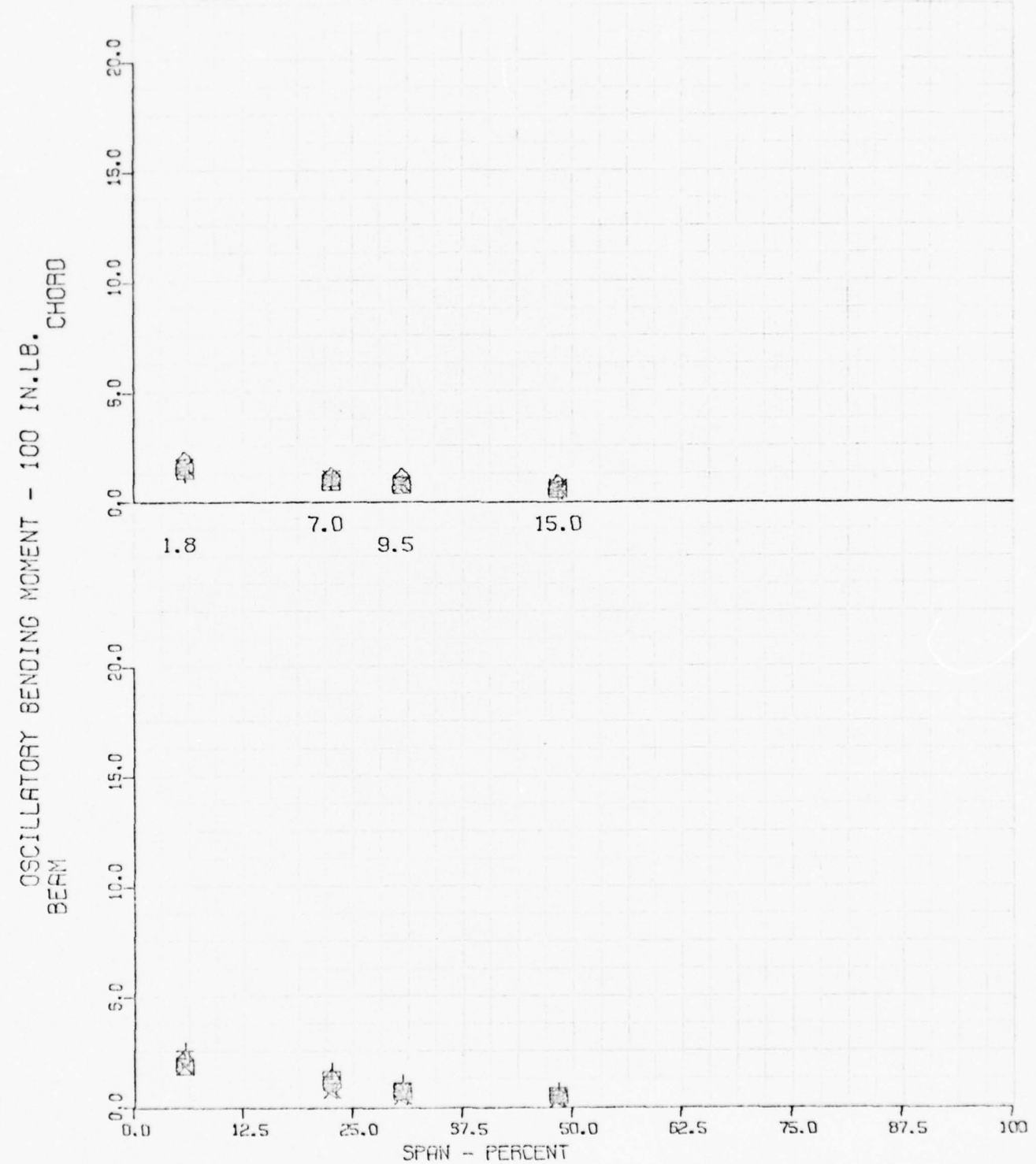


FIG 37 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

⊟	50.0	KTS	AUTO LEFT TURN 0.5 VH
⊖	50.0	KTS	AUTO RIGHT TURN 0.5 VH
◁	70.0	KTS	AUTO LEFT TURN 0.7 VH
+	70.0	KTS	AUTO RIGHT TURN 0.7 VH
×	70.0	KTS	AUTO CYCLIC P/U 0.7 VH

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

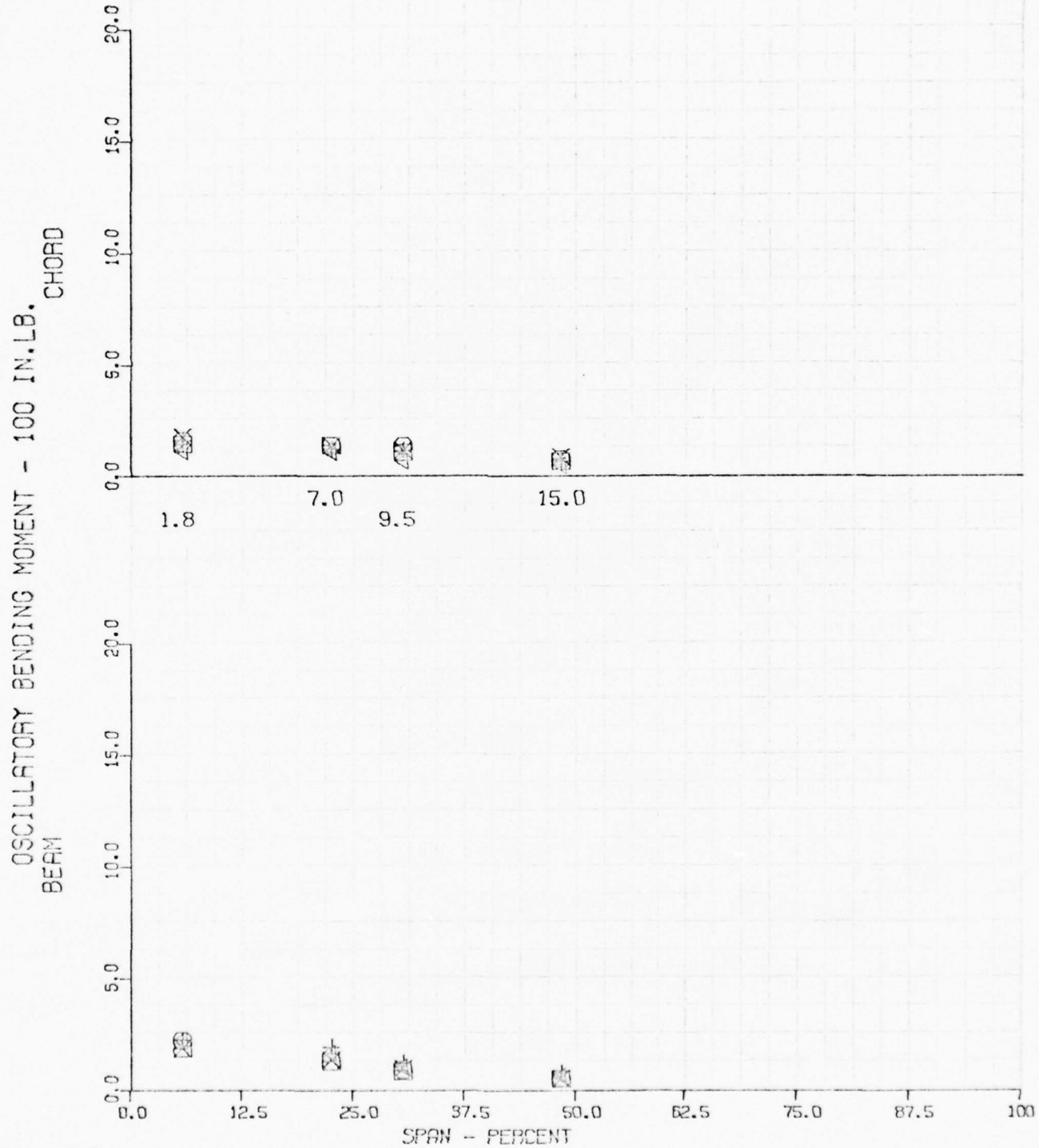


FIG 38 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

⊟ 70.0 KTS STAB AUTO 0.7 VH F/A REV
⊖ 70.0 KTS STAB AUTO 0.7 VH LAT REV
◁ 70.0 KTS STAB AUTO 0.7 VH DIR REV

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

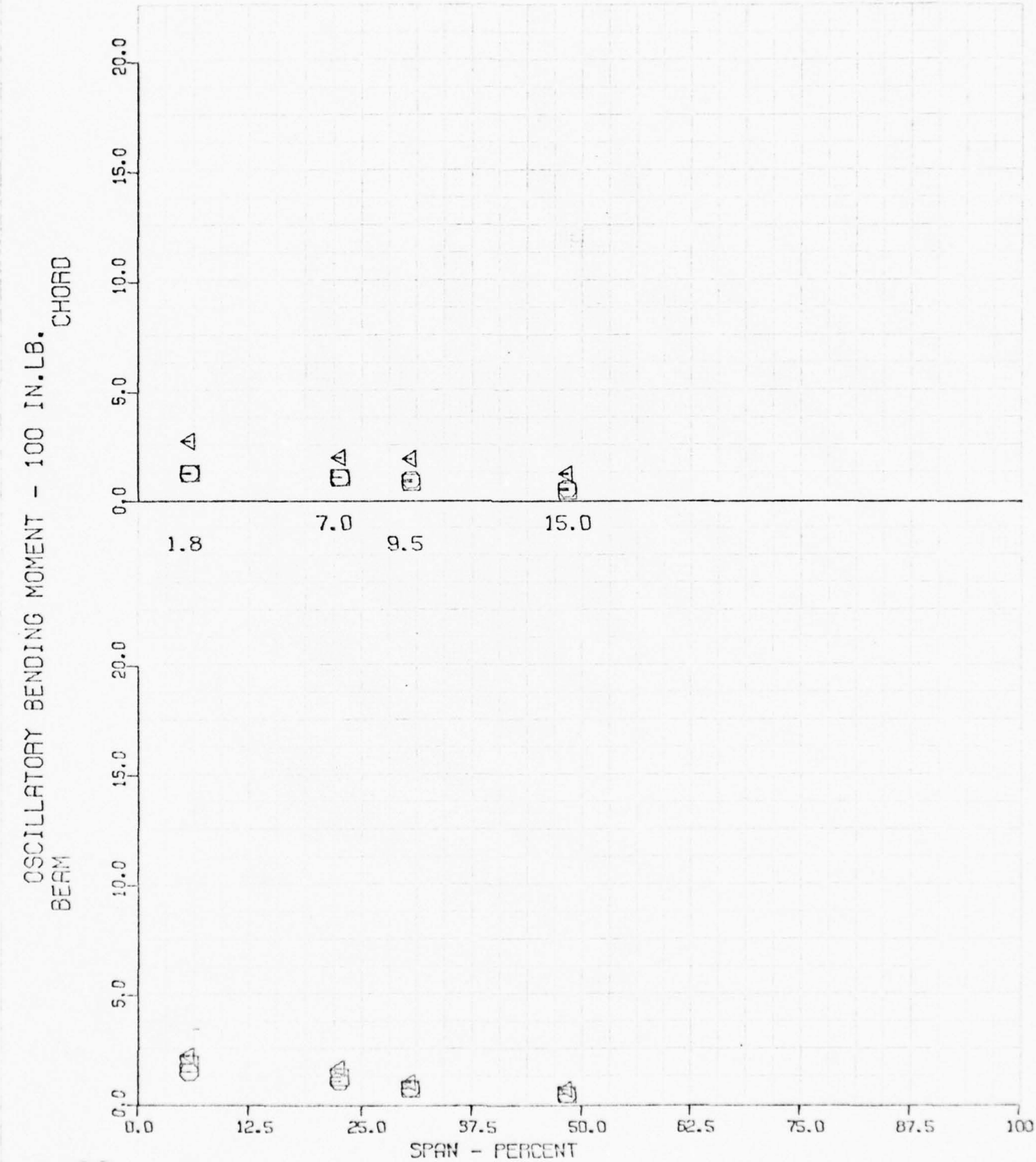


FIG 39 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

⊟ 70.0 KTS PARTIAL POWER DESCENT
⊖ 60.0 KTS TRANS POWER RECOVERY -IGE
◁ 60.0 KTS AUTOROTATION LANDING
+ 60.0 KTS NORMAL DECELERATION 60-0

MODEL OH-58
SHIP 40011
FLT. 43-A
DATE 03 JAN 73

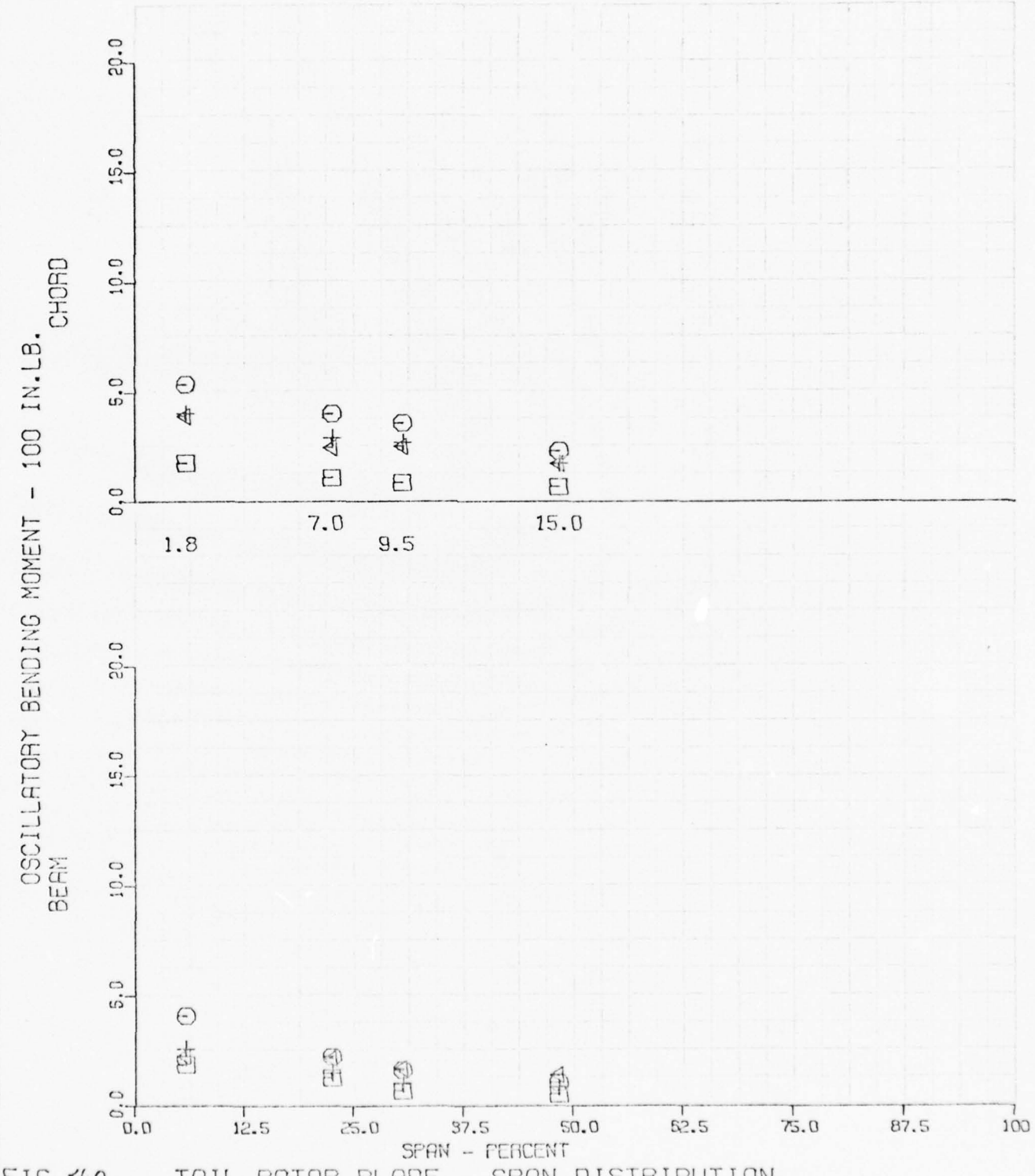


FIG 40 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3083 C.G. 106.5

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
444	HOVER-IGE	630	354		91	241
445	ACCELERATION 0-60	630	354		54	187
446	CLIMB - MC POWER	1000	354	60.0	-25	125
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	-8	191
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	12	270
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	-91	341
450	LEFT TURN	1400	354	100.0	158	316
451	RIGHT TURN	1400	354	100.0	191	266
452	AUTOROTATION	1400	354	80.0	100	307
453	CLIMB - BOOST OFF	1400	354	80.0	-4	145

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL CH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 205-194-135

TR MAST PARALLEL MB
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		0	117
468	HOVER - IGE	620	347		59	134
469	HOVER - IGE	620	354		-8	142
470	HOVER - LEFT TURN	620	354		54	163
471	HOVER - RIGHT TURN	620	354		122	197
472	HOVER - F/A CONTROL REV	620	354		63	189
473	HOVER - LAT CONTROL REV	620	354		29	172
474	HOVER - DIR CONTROL REV	620	354		54	214
475	LEFT SIDEWARD FLIGHT	620	354	20.0	168	243
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	50	201
477	REARWARD FLIGHT	620	354	20.0	67	251
478	NORMAL LANDING	620	354		71	180
479	JUMP TAKE-OFF	620	354		50	184
480	NORMAL ACCELERATION 0-60	620	354		29	222
481	CLIMB - MC POWER	620	354	70.0	50	142
482	CLIMB - TO POWER	620	354	70.0	17	142
483	STAB LEVEL FLIGHT VH	2500	354	100.0	-306	256
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	122	373
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	163	469
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	84	344
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	75	210
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	71	163
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	63	155
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	-46	180
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	17	184
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	84	176
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	-38	147
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	56	163
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	163	130
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	134	159
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	193	142
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	96	130
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	126	126
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	147	180
505	STAB LEVEL FLIGHT VH	2400	347	100.0	222	272
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	147	256
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	172	390
508	LEFT TURN 0.5 VH	2400	354	50.0	63	168
509	RIGHT TURN 0.5 VH	2400	354	50.0	189	230

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL UH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	62	360
578	LEVEL FLT LAT CONT REV	2650	354	100.0	252	277
579	LEVEL FLT DIR CONT REV	2650	354	100.0	-17	389
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	112	385
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	62	335
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	83	182
583	LEFT TURN 0.7 VH	2650	354	70.0	-66	265
584	RIGHT TURN 0.7 VH	2650	354	70.0	58	273
585	LEFT TURN 0.9 VH	2650	354	90.0	161	401
586	RIGHT TURN 0.9 VH	2650	354	90.0	99	380
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	45	211
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	62	153
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	29	161
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	33	207
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	-12	203
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	37	211
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	54	194
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	-8	215
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	-41	248
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-33	240
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	-58	198
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	4	252
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	58	223
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	45	219
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	79	327
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	136	327
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	298	182
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	29	327
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	277	178
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	62	269
609	PARTIAL POWER DESCENT	2600	354	70.0	12	203
610	TRANS POWER RECOVERY -IGE	600	354	60.0	-17	314
611	AUTOROTATION LANDING	600	354	60.0	112	856
612	NORMAL DECELERATION 60-0	600	354	60.0	58	347

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-53 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
444	HOVER-IGE	630	354		-51	194
445	ACCELERATION 0-60	630	354		-46	190
446	CLIMB - MC POWER	1000	354	60.0	-17	161
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	-38	199
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	-25	237
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	-25	346
450	LEFT TURN	1400	354	100.0	-13	351
451	RIGHT TURN	1400	354	100.0	-46	275
452	AUTOROTATION	1400	354	80.0	-42	237
453	CLIMB - BOOST OFF	1400	354	80.0	13	139

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		46	190
468	HOVER - IGE	620	347		38	114
469	HOVER - IGE	620	354		42	110
470	HOVER - LEFT TURN	620	354		-13	165
471	HOVER - RIGHT TURN	620	354		17	144
472	HOVER - F/A CONTROL REV	620	354		-34	151
473	HOVER - LAT CONTROL REV	620	354		-13	131
474	HOVER - DIR CONTROL REV	620	354		-13	131
475	LEFT SIDEWARD FLIGHT	620	354	20.0	42	194
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	-17	144
477	REARWARD FLIGHT	620	354	20.0	-34	220
478	NORMAL LANDING	620	354		25	144
479	JUMP TAKE-OFF	620	354		-8	144
480	NORMAL ACCELERATION 0-60	620	354		25	186
481	CLIMB - MC POWER	620	354	70.0	-13	131
482	CLIMB - TO POWER	620	354	70.0	63	175
483	STAB LEVEL FLIGHT VH	2500	354	100.0	34	270
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	59	262
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	30	303
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	59	254
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	55	190
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	-34	159
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	-25	144
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	0	161
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	-46	165
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	-13	140
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	34	151
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	-25	144
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	-55	139
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	-4	123
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	-21	148
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	59	161
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	21	156
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	59	194
505	STAB LEVEL FLIGHT VH	2400	347	100.0	80	190
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	89	215
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	101	237
508	LEFT TURN 0.5 VH	2400	354	50.0	17	152
509	RIGHT TURN 0.5 VH	2400	354	50.0	-42	177

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL OH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE 8110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	-30	276
578	LEVEL FLT LAT CONT REV	2650	354	100.0	-93	340
579	LEVEL FLT DIR CONT REV	2650	354	100.0	-8	340
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	-81	310
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	-4	276
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	4	183
583	LEFT TURN 0.7 VH	2650	354	70.0	55	242
584	RIGHT TURN 0.7 VH	2650	354	70.0	0	263
585	LEFT TURN 0.9 VH	2650	354	90.0	-34	348
586	RIGHT TURN 0.9 VH	2650	354	90.0	-42	289
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	-4	200
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	30	106
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	4	140
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	-34	178
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	42	195
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	-25	195
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	-47	174
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	-38	183
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	-34	195
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-34	195
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	-102	161
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	-72	225
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	0	195
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	-8	178
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	-76	297
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	-64	284
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	59	187
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	93	229
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	68	153
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	8	195
609	PARTIAL POWER DESCENT	2600	354	70.0	-93	161
610	TRANS POWER RECOVERY -IGE	600	354	60.0	-85	289
611	AUTOROTATION LANDING	600	354	60.0	-119	807
612	NORMAL DECELERATION 60-0	600	354	60.0	-127	297

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		311	81
445	ACCELERATION 0-60	630	354		391	161
446	CLIMB - MC POWER	1000	354	60.0	334	104
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	334	104
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	288	104
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	299	69
450	LEFT TURN	1400	354	100.0	449	150
451	RIGHT TURN	1400	354	100.0	357	127
452	AUTOROTATION	1400	354	80.0	219	58
453	CLIMB - BOOST OFF	1400	354	80.0	242	127

LCN TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL CH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-130

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		124	34
468	HOVER - IGE	620	347		574	34
469	HOVER - IGE	620	354		642	34
470	HOVER - LEFT TURN	620	354		788	113
471	HOVER - RIGHT TURN	620	354		867	56
472	HOVER - F/A CONTROL REV	620	354		619	124
473	HOVER - LAT CONTROL REV	620	354		631	90
474	HOVER - DIR CONTROL REV	620	354		991	90
475	LEFT SIDEWARD FLIGHT	620	354	20.0	856	45
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	754	34
477	REARWARD FLIGHT	620	354	20.0	1092	169
478	NORMAL LANDING	620	354		405	113
479	JUMP TAKE-OFF	620	354		799	34
480	NORMAL ACCELERATION 0-60	620	354		574	79
481	CLIMB - MC POWER	620	354	70.0	248	68
482	CLIMB - TO POWER	620	354	70.0	315	113
483	STAB LEVEL FLIGHT VH	2500	354	100.0	293	68
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	259	79
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	214	79
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	236	34
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	270	23
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	203	23
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	214	34
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	180	23
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	214	34
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	315	45
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	360	45
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	304	34
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	259	56
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	259	34
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	214	56
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	225	45
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	259	79
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	281	56
505	STAB LEVEL FLIGHT VH	2400	347	100.0	304	56
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	191	79
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	180	45
508	LEFT TURN 0.5 VH	2400	354	50.0	225	45
509	RIGHT TURN 0.5 VH	2400	354	50.0	180	45

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL CH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE B109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	233	70
578	LEVEL FLT LAT CONT REV	2650	354	100.0	221	58
579	LEVEL FLT DIR CONT REV	2650	354	100.0	221	105
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	233	93
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	186	93
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	279	93
583	LEFT TURN 0.7 VH	2650	354	70.0	210	70
584	RIGHT TURN 0.7 VH	2650	354	70.0	221	58
585	LEFT TURN 0.9 VH	2650	354	90.0	256	93
586	RIGHT TURN 0.9 VH	2650	354	90.0	175	105
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	186	47
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	116	47
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	128	58
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	128	81
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	279	140
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	163	47
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	128	58
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	128	58
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	175	58
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	198	35
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	151	81
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	163	47
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	140	70
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	151	81
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	221	58
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	233	70
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	128	81
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	175	81
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	81	12
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	198	81
609	PARTIAL POWER DESCENT	2600	354	70.0	116	47
610	TRANS POWER RECOVERY -IGE	600	354	60.0	931	47
611	AUTOROTATION LANDING	600	354	60.0	105	58
612	NORMAL DECELERATION 60-0	600	354	60.0	710	81

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		4.380	32.120
445	ACCELERATION 0-60	630	354		8.030	47.450
446	CLIMB - MC POWER	1000	354	60.0	5.840	48.180
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	2.920	62.780
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	-2.920	65.700
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	3.650	75.190
450	LEFT TURN	1400	354	100.0	2.190	100.010
451	RIGHT TURN	1400	354	100.0	2.920	73.000
452	AUTOROTATION	1400	354	80.0	4.380	43.800
453	CLIMB - BOOST OFF	1400	354	80.0	9.490	37.230

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-199-136

TR FLAPPING ANGLE
ITEM CODE 0117 UNITS D

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		8.394	16.788
468	HOVER - IGE	620	347		3.498	18.886
469	HOVER - IGE	620	354		3.498	17.487
470	HOVER - LEFT TURN	620	354		2.099	34.275
471	HOVER - RIGHT TURN	620	354		0.700	55.260
472	HOVER - F/A CONTROL REV	620	354		4.897	27.281
473	HOVER - LAT CONTROL REV	620	354		4.197	27.980
474	HOVER - DIR CONTROL REV	620	354		1.399	46.167
475	LEFT SIDEWARD FLIGHT	620	354	20.0	3.498	74.647
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	2.099	11.392
477	REARWARD FLIGHT	620	354	20.0	5.596	67.152
478	NORMAL LANDING	620	354		2.099	24.483
479	JUMP TAKE-OFF	620	354		2.798	26.581
480	NORMAL ACCELERATION 0-60	620	354		5.596	48.965
481	CLIMB - MC POWER	620	354	70.0	3.498	31.477
482	CLIMB - TO POWER	620	354	70.0	6.296	44.066
483	STAB LEVEL FLIGHT VH	2500	354	100.0	=VOID=	=VOID=
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	=VOID=	=VOID=
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	=VOID=	=VOID=
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	=VOID=	=VOID=
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	=VOID=	=VOID=
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	=VOID=	=VOID=
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	=VOID=	=VOID=
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	=VOID=	=VOID=
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	=VOID=	=VOID=
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	=VOID=	=VOID=
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	=VOID=	=VOID=
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	=VOID=	=VOID=
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	=VOID=	=VOID=
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	=VOID=	=VOID=
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	=VOID=	=VOID=
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	=VOID=	=VOID=
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	=VOID=	=VOID=
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	=VOID=	=VOID=
505	STAB LEVEL FLIGHT VH	2400	347	100.0	=VOID=	=VOID=
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	=VOID=	=VOID=
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	=VOID=	=VOID=
508	LEFT TURN 0.5 VH	2400	354	50.0	=VOID=	=VOID=
509	RIGHT TURN 0.5 VH	2400	354	50.0	=VOID=	=VOID=

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL CH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS °

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	0.0	55.022
578	LEVEL FLT LAT CONT REV	2650	354	100.0	1.342	53.680
579	LEVEL FLT DIR CONT REV	2650	354	100.0	-0.671	79.849
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	4.697	43.615
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	9.394	34.892
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	4.697	42.273
583	LEFT TURN 0.7 VH	2650	354	70.0	6.039	44.957
584	RIGHT TURN 0.7 VH	2650	354	70.0	20.130	37.576
585	LEFT TURN 0.9 VH	2650	354	90.0	10.736	57.706
586	RIGHT TURN 0.9 VH	2650	354	90.0	14.762	44.286
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	5.368	36.234
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	5.368	12.078
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	6.710	20.130
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	4.697	14.091
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	5.368	33.550
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	2.684	28.182
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	2.684	12.078
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	3.355	14.091
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	7.381	15.433
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	2.684	30.866
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	4.697	12.749
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	3.355	14.091
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	2.684	29.524
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	1.342	24.156
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	-2.013	36.905
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	3.355	35.563
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	1.342	10.736
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	1.342	13.420
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	-0.671	8.723
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	0.671	12.749
609	PARTIAL POWER DESCENT	2600	354	70.0	10.736	20.130
610	TRANS POWER RECOVERY -IGE	600	354	60.0	2.684	41.602
611	AUTOROTATION LANDING	600	354	60.0	9.394	42.944
612	NORMAL DECELERATION 60-0	600	354	60.0	2.013	47.641

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		16	32
445	ACCELERATION 0-60	630	354		89	24
446	CLIMB - MC POWER	1000	354	60.0	8	24
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	32	32
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	-8	40
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	-8	40
450	LEFT TURN	1400	354	100.0	-8	57
451	RIGHT TURN	1400	354	100.0	16	48
452	AUTOROTATION	1400	354	80.0	97	48
453	CLIMB - BOOST OFF	1400	354	80.0	16	32

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		37	6
468	HOVER - IGE	620	347		18	0
469	HOVER - IGE	620	354		-31	6
470	HOVER - LEFT TURN	620	354		-43	6
471	HOVER - RIGHT TURN	620	354		34	9
472	HOVER - F/A CONTROL REV	620	354		-49	12
473	HOVER - LAT CONTROL REV	620	354		-15	3
474	HOVER - DIR CONTROL REV	620	354		-82	15
475	LEFT SIDEWARD FLIGHT	620	354	20.0	-70	9
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	12	6
477	REARWARD FLIGHT	620	354	20.0	-46	9
478	NORMAL LANDING	620	354		24	12
479	JUMP TAKE-OFF	620	354		-55	12
480	NORMAL ACCELERATION 0-60	620	354		-37	6
481	CLIMB - MC POWER	620	354	70.0	6	6
482	CLIMB - TO POWER	620	354	70.0	-6	12
483	STAB LEVEL FLIGHT VH	2500	354	100.0	6	12
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	21	15
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	34	15
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	9	9
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	15	9
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	0	6
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	9	3
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	6	0
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	27	9
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	12	6
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	3	15
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	27	9
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	34	15
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	34	15
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	15	15
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	21	9
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	9	15
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	0	18
505	STAB LEVEL FLIGHT VH	2400	347	100.0	6	12
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	37	18
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	15	21
508	LEFT TURN 0.5 VH	2400	354	50.0	3	15
509	RIGHT TURN 0.5 VH	2400	354	50.0	40	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL OH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR REC PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	0	18
578	LEVEL FLT LAT CONT REV	2650	354	100.0	-6	18
579	LEVEL FLT DIR CONT REV	2650	354	100.0	-24	24
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	6	24
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	3	15
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	-49	18
583	LEFT TURN 0.7 VH	2650	354	70.0	27	15
584	RIGHT TURN 0.7 VH	2650	354	70.0	31	18
585	LEFT TURN 0.9 VH	2650	354	90.0	6	12
586	RIGHT TURN 0.9 VH	2650	354	90.0	9	21
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	43	18
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	9	15
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	-3	15
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	0	18
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	-27	9
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	18	12
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	52	9
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	52	9
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	43	12
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-21	9
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	21	9
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	21	9
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	73	12
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	3	9
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	3	15
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	-21	15
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	49	12
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	-9	15
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	58	15
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	61	12
609	PARTIAL POWER DESCENT	2600	354	70.0	46	15
610	TRANS POWER RECOVERY -IGE	600	354	60.0	-70	21
611	AUTOROTATION LANDING	600	354	60.0	-6	31
612	NORMAL DECELERATION 60-0	600	354	60.0	-67	18

BELL HELICOPTER COMPANY PROGRAM FFCR03 DATE 04/18/73 PA

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTO
TEMPERATURE = 9 DEGREES C

MODEL UH-58 FLT. 41-6 G.W. 2785 PROBLEM NO.
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-

TR WHT YOKE BEAM STA 1.8
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN
444	HOVER-IGE	630	354		=VOID=
445	ACCELERATION 0-60	630	354		=VOID=
446	CLIMB - MC POWER	1000	354	60.0	=VOID=
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	=VOID=
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	=VOID=
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	=VOID=
450	LEFT TURN	1400	354	100.0	=VOID=
451	RIGHT TURN	1400	354	100.0	=VOID=
452	AUTOROTATION	1400	354	80.0	=VOID=
453	CLIMB - BOOST OFF	1400	354	80.0	=VOID=

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2423
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE 3105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		407	111
468	HOVER - IGE	620	347		1296	185
469	HOVER - IGE	620	354		1370	111
470	HOVER - LEFT TURN	620	354		1518	185
471	HOVER - RIGHT TURN	620	354		1148	185
472	HOVER - F/A CONTROL REV	620	354		1259	148
473	HOVER - LAT CONTROL REV	620	354		1333	222
474	HOVER - DIR CONTROL REV	620	354		1593	185
475	LEFT SIDEWARD FLIGHT	620	354	20.0	1741	111
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	1778	370
477	REARWARD FLIGHT	620	354	20.0	926	111
478	NORMAL LANDING	620	354		1296	185
479	JUMP TAKE-OFF	620	354		1481	148
480	NORMAL ACCELERATION 0-60	620	354		1222	111
481	CLIMB - MC POWER	620	354	70.0	1000	111
482	CLIMB - TO POWER	620	354	70.0	1148	185
483	STAB LEVEL FLIGHT VH	2500	354	100.0	815	148
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	518	222
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	333	185
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	815	222
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	630	111
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	630	111
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	630	111
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	630	111
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	704	111
498	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	809	148
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	963	148
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	852	185
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	778	185
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	667	148
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	518	148
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	667	148
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	778	259
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	852	259
505	STAB LEVEL FLIGHT VH	2400	347	100.0	852	333
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	407	259
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	296	296
508	LEFT TURN 0.5 VH	2400	354	50.0	556	185
509	RIGHT TURN 0.5 VH	2400	354	50.0	556	185

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL CH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE B105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	741	296
578	LEVEL FLT LAT CONT REV	2650	354	100.0	704	333
579	LEVEL FLT DIR CONT REV	2650	354	100.0	778	333
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	630	333
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	667	222
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	1185	222
583	LEFT TURN 0.7 VH	2650	354	70.0	630	259
584	RIGHT TURN 0.7 VH	2650	354	70.0	407	259
585	LEFT TURN 0.9 VH	2650	354	90.0	852	259
586	RIGHT TURN 0.9 VH	2650	354	90.0	704	333
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	704	185
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	74	222
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	111	185
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	0	222
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	926	185
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	74	222
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	-185	259
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	-74	222
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	-148	222
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-185	259
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	-185	185
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	-148	148
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	148	222
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	-111	185
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	593	296
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	593	296
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	-185	185
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	-370	222
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	-111	185
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	-37	185
609	PARTIAL POWER DESCENT	2600	354	70.0	111	185
610	TRANS POWER RECOVERY -IGE	600	354	60.0	1370	407
611	AUTOROTATION LANDING	600	354	60.0	296	222
612	NORMAL DECELERATION 60-0	600	354	60.0	1074	259

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		343	88
445	ACCELERATION 0-60	630	354		519	127
446	CLIMB - MC POWER	1000	354	60.0	500	88
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	382	108
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	353	157
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	470	215
450	LEFT TURN	1400	354	100.0	509	196
451	RIGHT TURN	1400	354	100.0	411	274
452	AUTOROTATION	1400	354	80.0	-225	186
453	CLIMB - BOOST OFF	1400	354	80.0	372	157

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.3 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE 0106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
467	NORMAL START	620	200		274	137
468	HOVER - IGE	620	347		646	78
469	HOVER - IGE	620	354		666	78
470	HOVER - LEFT TURN	620	354		803	176
471	HOVER - RIGHT TURN	620	354		558	108
472	HOVER - F/A CONTROL REV	620	354		597	127
473	HOVER - LAT CONTROL REV	620	354		627	98
474	HOVER - DIR CONTROL REV	620	354		852	88
475	LEFT SIDEWARD FLIGHT	620	354	20.0	852	127
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	735	108
477	REARWARD FLIGHT	620	354	20.0	882	118
478	NORMAL LANDING	620	354		539	108
479	JUMP TAKE-OFF	620	354		803	118
480	NORMAL ACCELERATION 0-60	620	354		539	127
481	CLIMB - MC POWER	620	354	70.0	421	88
482	CLIMB - TO POWER	620	354	70.0	529	137
483	STAB LEVEL FLIGHT VH	2500	354	100.0	372	215
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	274	196
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	98	157
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	304	167
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	235	118
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	225	88
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	255	98
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	186	49
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	206	69
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	362	108
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	392	98
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	343	88
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	284	88
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	245	88
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	157	78
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	206	108
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	304	127
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	323	167
505	STAB LEVEL FLIGHT VH	2400	347	100.0	323	225
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	147	167
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	108	167
508	LEFT TURN 0.5 VH	2400	354	50.0	215	118
509	RIGHT TURN 0.5 VH	2400	354	50.0	118	78

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL OH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR REC BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	271	233
578	LEVEL FLT LAT CONT REV	2650	354	100.0	262	262
579	LEVEL FLT DIR CONT REV	2650	354	100.0	233	252
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	194	155
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	281	107
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	426	116
583	LEFT TURN 0.7 VH	2650	354	70.0	203	165
584	RIGHT TURN 0.7 VH	2650	354	70.0	107	145
585	LEFT TURN 0.9 VH	2650	354	90.0	281	184
586	RIGHT TURN 0.9 VH	2650	354	90.0	262	165
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	184	87
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	-136	78
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	-48	126
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	-165	126
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	359	145
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	-107	165
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	-203	165
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	-203	165
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	-233	194
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-233	174
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	-203	126
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	-223	107
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	-339	165
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	-213	136
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	-339	184
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	252	174
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	-223	107
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	-252	136
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	-165	126
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	-174	78
609	PARTIAL POWER DESCENT	2600	354	70.0	10	126
610	TRANS POWER RECOVERY -IGE	600	354	60.0	688	223
611	AUTOROTATION LANDING	600	354	60.0	155	213
612	NORMAL DECELERATION 60-0	600	354	60.0	610	145

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-ICE	630	354		202	65
445	ACCELERATION 0-60	630	354		294	72
446	CLIMB - MC POWER	1000	354	60.0	271	69
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	242	72
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	238	82
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	268	131
450	LEFT TURN	1400	354	100.0	317	114
451	RIGHT TURN	1400	354	100.0	238	134
452	AUTOROTATION	1400	354	80.0	-137	91
453	CLIMB - BOOST OFF	1400	354	80.0	209	91

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL CH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-156

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
467	NORMAL START	620	200		160	88
468	HOVER - IGE	620	347		385	52
469	HOVER - IGE	620	354		382	36
470	HOVER - LEFT TURN	620	354		467	95
471	HOVER - RIGHT TURN	620	354		320	57
472	HOVER - F/A CONTROL REV	620	354		343	69
473	HOVER - LAT CONTROL REV	620	354		369	69
474	HOVER - DIR CONTROL REV	620	354		460	62
475	LEFT SIDEWARD FLIGHT	620	354	20.0	506	82
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	428	69
477	REARWARD FLIGHT	620	354	20.0	519	62
478	NORMAL LANDING	620	354		326	65
479	JUMP TAKE-OFF	620	354		477	65
480	NORMAL ACCELERATION 0-60	620	354		297	82
481	CLIMB - MC POWER	620	354	70.0	225	62
482	CLIMB - TO POWER	620	354	70.0	300	85
483	STAB LEVEL FLIGHT VH	2500	354	100.0	219	108
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	147	134
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	70	78
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	196	104
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	170	65
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	134	62
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	176	59
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	127	49
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	147	56
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	222	78
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	248	59
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	215	59
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	193	36
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	153	59
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	114	42
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	157	59
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	209	72
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	248	98
505	STAB LEVEL FLIGHT VH	2400	347	100.0	222	131
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	91	98
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	88	114
508	LEFT TURN 0.5 VH	2400	354	50.0	160	55
509	RIGHT TURN 0.5 VH	2400	354	50.0	131	52

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL CH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	180	140
578	LEVEL FLT LAT CONT REV	2650	354	100.0	176	150
579	LEVEL FLT DIR CONT REV	2650	354	100.0	163	150
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	127	88
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	170	59
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	258	56
583	LEFT TURN 0.7 VH	2650	354	70.0	124	85
584	RIGHT TURN 0.7 VH	2650	354	70.0	98	91
585	LEFT TURN 0.9 VH	2650	354	90.0	176	98
586	RIGHT TURN 0.9 VH	2650	354	90.0	180	95
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	144	59
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	-59	46
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	-23	82
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	-69	88
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	219	88
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	-88	95
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	-98	111
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	-95	101
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	-101	121
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-121	114
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	-98	72
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	-108	75
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	-173	101
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	-127	95
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	-180	108
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	157	111
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	-111	72
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	-114	75
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	-75	69
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	-69	49
609	PARTIAL POWER DESCENT	2600	354	70.0	39	65
610	TRANS POWER RECOVERY -IGE	600	354	60.0	500	160
611	AUTOROTATION LANDING	600	354	60.0	127	167
612	NORMAL DECELERATION 60-0	600	354	60.0	382	95

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-58 FLT. 41-8 G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		72	54
445	ACCELERATION 0-60	630	354		111	81
446	CLIMB - MC POWER	1000	354	60.0	105	63
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	90	54
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	69	69
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	105	93
450	LEFT TURN	1400	354	100.0	138	90
451	RIGHT TURN	1400	354	100.0	102	78
452	AUTOROTATION	1400	354	80.0	-42	60
453	CLIMB - BOOST OFF	1400	354	80.0	75	75

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE R108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		92	55
468	HOVER - IGE	620	347		175	40
469	HOVER - IGE	620	354		150	40
470	HOVER - LEFT TURN	620	354		196	55
471	HOVER - RIGHT TURN	620	354		153	55
472	HOVER - F/A CONTROL REV	620	354		144	46
473	HOVER - LAT CONTROL REV	620	354		162	46
474	HOVER - DIR CONTROL REV	620	354		116	55
475	LEFT SIDEWARD FLIGHT	620	354	20.0	101	70
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	175	58
477	REARWARD FLIGHT	620	354	20.0	80	67
478	NORMAL LANDING	620	354		138	46
479	JUMP TAKE-OFF	620	354		162	52
480	NORMAL ACCELERATION 0-60	620	354		95	77
481	CLIMB - MC POWER	620	354	70.0	67	55
482	CLIMB - TO POWER	620	354	70.0	107	64
483	STAB LEVEL FLIGHT VH	2500	354	100.0	83	77
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	43	61
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	34	70
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	107	77
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	77	46
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	40	46
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	67	49
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	31	49
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	49	43
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	74	55
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	80	55
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	74	43
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	67	49
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	58	52
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	43	43
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	55	43
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	80	43
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	80	61
505	STAB LEVEL FLIGHT VH	2400	347	100.0	95	83
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	34	64
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	15	58
508	LEFT TURN 0.5 VH	2400	354	50.0	49	43
509	RIGHT TURN 0.5 VH	2400	354	50.0	43	43

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL OH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR REC BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	70	88
578	LEVEL FLT LAT CONT REV	2650	354	100.0	61	85
579	LEVEL FLT DIR CONT REV	2650	354	100.0	58	88
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	52	58
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	48	55
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	79	61
583	LEFT TURN 0.7 VH	2650	354	70.0	45	58
584	RIGHT TURN 0.7 VH	2650	354	70.0	52	52
585	LEFT TURN 0.9 VH	2650	354	90.0	70	64
586	RIGHT TURN 0.9 VH	2650	354	90.0	73	73
587	TRANS PWR-AUTO 0.5 VH	3000	354	50.0	33	52
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	-27	33
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	-12	48
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	-27	52
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	70	58
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	-33	64
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	-42	73
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	-36	61
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	-39	76
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	-64	76
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	-52	45
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	-52	45
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	-88	70
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	-64	52
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	45	70
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	55	73
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	-58	52
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	-58	52
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	-45	52
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	-33	33
609	PARTIAL POWER DESCENT	2600	354	70.0	0	48
610	TRANS POWER RECOVERY -IGE	600	354	60.0	182	103
611	AUTOROTATION LANDING	600	354	60.0	45	136
612	NORMAL DECELERATION 60-0	600	354	60.0	145	79

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL CH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		=VOID=	=VOID=
445	ACCELERATION 0-60	630	354		=VOID=	=VOID=
446	CLIMB - MC POWER	1000	354	60.0	=VOID=	=VOID=
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	=VOID=	=VOID=
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	=VOID=	=VOID=
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	=VOID=	=VOID=
450	LEFT TURN	1400	354	100.0	=VOID=	=VOID=
451	RIGHT TURN	1400	354	100.0	=VOID=	=VOID=
452	AUTOROTATION	1400	354	80.0	=VOID=	=VOID=
453	CLIMB - BOOST OFF	1400	354	80.0	=VOID=	=VOID=

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

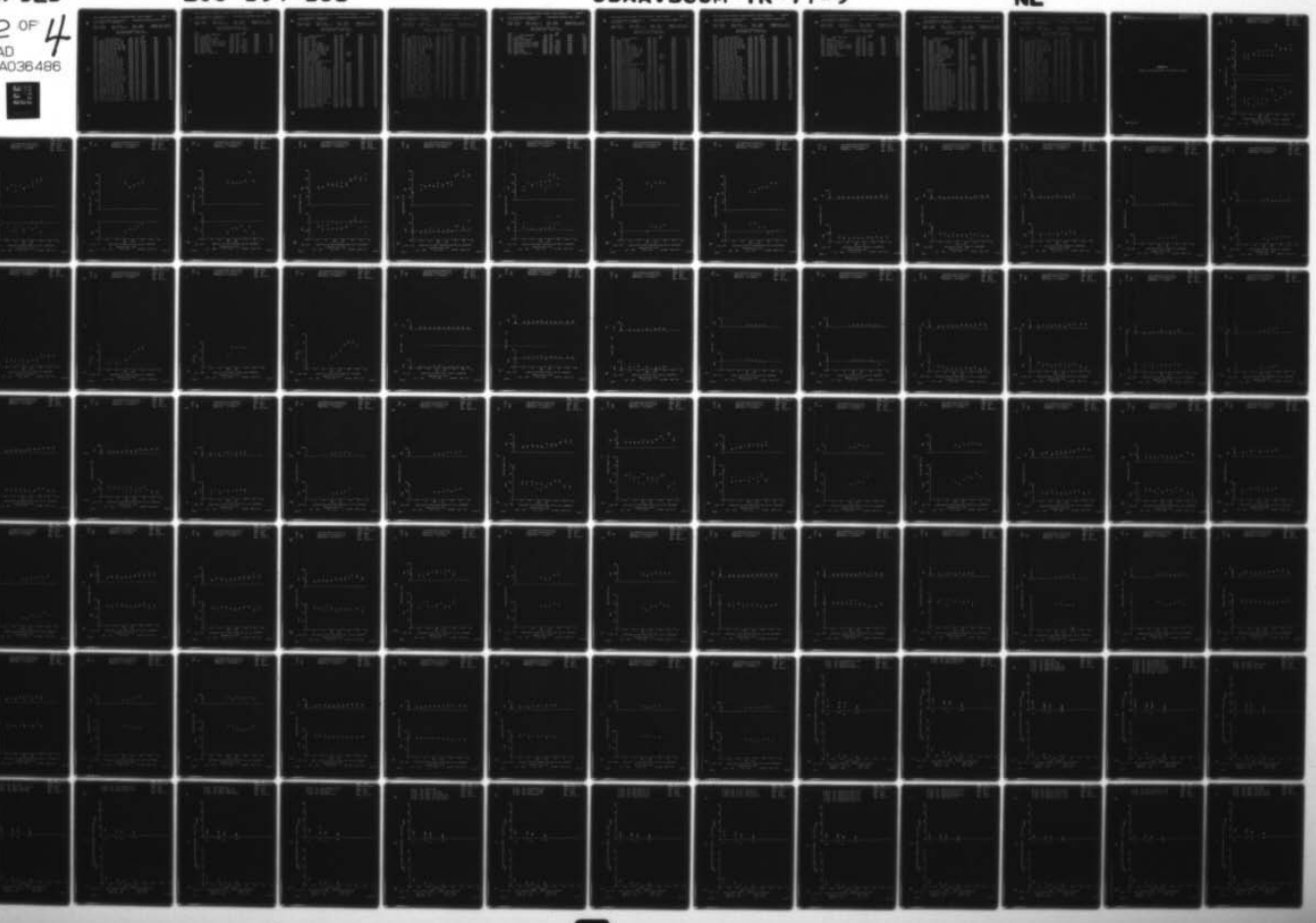
MODEL CH-53 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

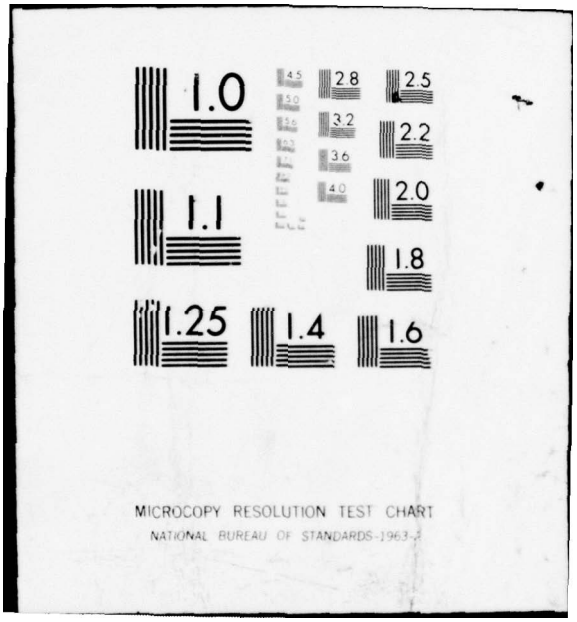
TR WHT YOKE CHORD STA 1.8
ITEM CODE 3104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
467	NORMAL START	620	200		293	65
468	HOVER - IGE	620	347		1025	309
469	HOVER - IGE	620	354		1090	342
470	HOVER - LEFT TURN	620	354		1139	423
471	HOVER - RIGHT TURN	620	354		1057	407
472	HOVER - F/A CONTROL REV	620	354		1122	439
473	HOVER - LAT CONTROL REV	620	354		1090	439
474	HOVER - DIR CONTROL REV	620	354		1057	472
475	LEFT SIDEWARD FLIGHT	620	354	20.0	1171	423
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	1171	358
477	REARWARD FLIGHT	620	354	20.0	992	602
478	NORMAL LANDING	620	354		1073	423
479	JUMP TAKE-OFF	620	354		1106	455
480	NORMAL ACCELERATION 0-60	620	354		992	374
481	CLIMB - MC POWER	620	354	70.0	992	309
482	CLIMB - TO POWER	620	354	70.0	1041	325
483	STAB LEVEL FLIGHT VH	2500	354	100.0	1057	537
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	878	423
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	911	390
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	943	423
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	943	260
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	895	277
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	927	342
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	927	211
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	878	293
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	976	260
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	943	260
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	927	211
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	878	228
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	878	228
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	830	244
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	862	309
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	895	374
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	927	374
505	STAB LEVEL FLIGHT VH	2400	347	100.0	1041	439
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	878	390
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	846	390
508	LEFT TURN 0.5 VH	2400	354	50.0	878	309
509	RIGHT TURN 0.5 VH	2400	354	50.0	862	390

AD-A036 486 BELL HELICOPTER TEXTRON FORT WORTH TEX F/G 1/3
COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPE--ETC(U)
NOV 73 T L GUHN DAAJ01-72-A-0015
UNCLASSIFIED 206-194-136 USAAVSCOM-TR-77-9 NL

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL CH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	960	407
578	LEVEL FLT LAT CONT REV	2650	354	100.0	862	439
579	LEVEL FLT DIR CONT REV	2650	354	100.0	1073	488
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	862	277
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	927	309
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	1090	244
583	LEFT TURN 0.7 VH	2650	354	70.0	960	309
584	RIGHT TURN 0.7 VH	2650	354	70.0	943	488
585	LEFT TURN 0.9 VH	2650	354	90.0	1008	358
586	RIGHT TURN 0.9 VH	2650	354	90.0	943	423
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	960	244
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	895	146
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	992	146
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	846	163
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	911	358
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	895	309
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	846	130
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	895	114
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	911	163
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	846	423
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	846	130
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	846	130
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	862	277
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	927	179
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	943	455
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	927	374
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	781	163
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	1008	195
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	732	146
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	976	163
609	PARTIAL POWER DESCENT	2600	354	70.0	830	179
610	TRANS POWER RECOVERY -IGE	600	354	60.0	830	537
611	AUTOROTATION LANDING	600	354	60.0	423	390
612	NORMAL DECELERATION 60-0	600	354	60.0	1057	407

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 42011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		1990	187
445	ACCELERATION 0-60	630	354		2037	327
446	CLIMB - MC POWER	1000	354	60.0	1835	249
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	2006	295
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	1990	342
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	1850	358
450	LEFT TURN	1400	354	100.0	1913	358
451	RIGHT TURN	1400	354	100.0	1850	358
452	AUTOROTATION	1400	354	80.0	2021	155
453	CLIMB - BOOST OFF	1400	354	80.0	1804	249

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
467	NORMAL START	620	200		606	47
468	HOVER - IGE	620	347		1975	202
469	HOVER - IGE	620	354		2006	264
470	HOVER - LEFT TURN	620	354		2006	295
471	HOVER - RIGHT TURN	620	354		1975	295
472	HOVER - F/A CONTROL REV	620	354		2006	358
473	HOVER - LAT CONTROL REV	620	354		1990	311
474	HOVER - DIR CONTROL REV	620	354		2068	358
475	LEFT SIDEWARD FLIGHT	620	354	20.0	2084	373
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	2068	295
477	REARWARD FLIGHT	620	354	20.0	1975	420
478	NORMAL LANDING	620	354		2006	327
479	JUMP TAKE-OFF	620	354		2006	358
480	NORMAL ACCELERATION 0-60	620	354		2021	311
481	CLIMB - MC POWER	620	354	70.0	1913	233
482	CLIMB - TO POWER	620	354	70.0	1959	280
483	STAB LEVEL FLIGHT VH	2500	354	100.0	1773	373
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	1804	311
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	1804	280
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	1742	311
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	1711	218
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	1726	202
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	1773	249
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	1711	218
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	1819	202
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	1897	218
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	1866	218
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	1819	171
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	1819	171
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	1819	171
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	1710	187
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	1726	202
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	1726	295
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	1679	249
505	STAB LEVEL FLIGHT VH	2400	347	100.0	1757	295
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	1726	233
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	1711	218
508	LEFT TURN 0.5 VH	2400	354	50.0	1710	187
509	RIGHT TURN 0.5 VH	2400	354	50.0	1757	233

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL CH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE 8101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	1780	325
578	LEVEL FLT LAT CONT REV	2650	354	100.0	1795	279
579	LEVEL FLT DIR CONT REV	2650	354	100.0	1857	340
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	1826	248
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	1780	263
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	1888	279
583	LEFT TURN 0.7 VH	2650	354	70.0	1888	217
584	RIGHT TURN 0.7 VH	2650	354	70.0	1996	356
585	LEFT TURN 0.9 VH	2650	354	90.0	1811	294
586	RIGHT TURN 0.9 VH	2650	354	90.0	1795	309
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	1981	155
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	1934	108
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	1996	139
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	1965	139
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	1749	232
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	1872	232
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	1919	93
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	1934	108
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	1961	124
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	1764	279
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	1954	108
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	1903	108
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	1934	201
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	1954	139
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	1903	294
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	1764	248
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	1656	103
606	STABILIZED AUTO 0.5 VH	2500	390	70.0	2259	124
607	STABILIZED AUTO 0.9 VH	3300	330	50.0	1733	93
608	STABILIZED AUTO 0.3 VH	2500	390	50.0	2306	108
609	PARTIAL POWER DESCENT	2600	354	70.0	1780	108
610	TRANS POWER RECOVERY -IGE	600	354	60.0	1888	402
611	AUTOROTATION LANDING	600	354	60.0	959	248
612	NORMAL DECELERATION 60-0	600	354	60.0	1842	294

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
444	HOVER-IGE	630	354		1683	137
445	ACCELERATION 0-60	630	354		1703	274
446	CLIMB - MC POWER	1000	354	60.0	1517	186
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	1693	225
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	1634	245
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	1556	284
450	LEFT TURN	1400	354	100.0	1566	333
451	RIGHT TURN	1400	354	100.0	1429	313
452	AUTOROTATION	1400	354	80.0	1644	117
453	CLIMB - BOOST OFF	1400	354	80.0	1497	166

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL CH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
467	NORMAL START	620	200		442	29
468	HOVER - IGE	620	347		1592	216
469	HOVER - IGE	620	354		1681	246
470	HOVER - LEFT TURN	620	354		1710	295
471	HOVER - RIGHT TURN	620	354		1642	246
472	HOVER - F/A CONTROL REV	620	354		1681	285
473	HOVER - LAT CONTROL REV	620	354		1651	275
474	HOVER - DIR CONTROL REV	620	354		1710	334
475	LEFT SIDEWARD FLIGHT	620	354	20.0	1720	305
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	1701	246
477	REARWARD FLIGHT	620	354	20.0	1632	393
478	NORMAL LANDING	620	354		1661	305
479	JUMP TAKE-OFF	620	354		1681	305
480	NORMAL ACCELERATION 0-60	620	354		1681	265
481	CLIMB - MC POWER	620	354	70.0	1553	177
482	CLIMB - TO POWER	620	354	70.0	1622	226
483	STAB LEVEL FLIGHT VH	2500	354	100.0	1504	324
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	1533	295
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	1583	246
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	1455	275
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	1465	187
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	1455	177
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	1494	216
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	1445	147
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	1504	187
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	1642	167
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	1592	177
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	1583	128
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	1524	147
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	1524	147
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	1495	157
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	1416	197
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	1425	246
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	1416	236
505	STAB LEVEL FLIGHT VH	2400	347	100.0	1465	246
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	1474	197
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	1465	246
508	LEFT TURN 0.5 VH	2400	354	50.0	1425	147
509	RIGHT TURN 0.5 VH	2400	354	50.0	1484	226

LCA TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 6 DEGREES C

MODEL OH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR REC BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	1510	263
578	LEVEL FLT LAT CONT REV	2650	354	100.0	1549	263
579	LEVEL FLT DIR CONT REV	2650	354	100.0	1617	292
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	1568	205
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	1539	195
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	1724	205
583	LEFT TURN 0.7 VH	2650	354	70.0	1607	205
584	RIGHT TURN 0.7 VH	2650	354	70.0	1685	302
585	LEFT TURN 0.9 VH	2650	354	90.0	1578	253
586	RIGHT TURN 0.9 VH	2650	354	90.0	1588	263
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	1714	156
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	1675	78
589	AUTO LEFT TURN 0.5 VH	2800	354	50.0	1743	107
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	1714	136
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	1549	224
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	1578	195
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	1685	88
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	1724	68
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	1714	117
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	1549	244
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	1685	88
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	1656	97
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	1675	195
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	1675	117
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	1578	253
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	1519	234
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	1442	78
606	STABILIZED AUTO 0.6 VH	2500	390	70.0	1948	117
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	1461	78
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	1977	88
609	PARTIAL POWER DESCENT	2600	354	70.0	1549	88
610	TRANS POWER RECOVERY -IGE	600	354	60.0	1685	360
611	AUTOROTATION LANDING	600	354	60.0	896	253
612	NORMAL DECELERATION 60-0	600	354	60.0	1656	273

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 9 DEGREES C

MODEL OH-58 FLT. 41-B G.W. 2785 PROBLEM NO. 2432
SHIP 40011 DATE 21 DEC 72 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 15.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
444	HOVER-IGE	630	354		1024	88
445	ACCELERATION 0-60	630	354		1014	195
446	CLIMB - MC POWER	1000	354	60.0	790	127
447	STABILIZED LEVEL FLIGHT	1400	354	70.0	1014	156
448	STABILIZED LEVEL FLIGHT	1400	354	80.0	975	215
449	STABILIZED LEVEL FLIGHT	1400	354	100.0	751	224
450	LEFT TURN	1400	354	100.0	848	205
451	RIGHT TURN	1400	354	100.0	760	195
452	AUTOROTATION	1400	354	80.0	1004	88
453	CLIMB - BOOST OFF	1400	354	80.0	712	146

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 8 DEGREES C

MODEL OH-58 FLT. 42-A G.W. 3083 PROBLEM NO. 2433
SHIP 40011 DATE 22 DEC 72 C.G. 106.5 REPORT 206-194-136

TR RED BLADE CHORD STA 15.0
ITEM CODE 8103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
467	NORMAL START	620	200		312	19
468	HOVER - IGE	620	347		1004	146
469	HOVER - IGE	620	354		1043	146
470	HOVER - LEFT TURN	620	354		1063	185
471	HOVER - RIGHT TURN	620	354		1004	146
472	HOVER - F/A CONTROL REV	620	354		1034	195
473	HOVER - LAT CONTROL REV	620	354		1024	166
474	HOVER - DIR CONTROL REV	620	354		1053	215
475	LEFT SIDEWARD FLIGHT	620	354	20.0	1082	205
476	RIGHT SIDEWARD FLIGHT	620	354	20.0	1073	156
477	REARWARD FLIGHT	620	354	20.0	995	254
478	NORMAL LANDING	620	354		1034	195
479	JUMP TAKE-OFF	620	354		985	205
480	NORMAL ACCELERATION 0-60	620	354		1053	176
481	CLIMB - MC POWER	620	354	70.0	878	137
482	CLIMB - TO POWER	620	354	70.0	1024	146
483	STAB LEVEL FLIGHT VH	2500	354	100.0	819	214
484	STAB LEVEL FLIGHT VNE	2500	354	120.0	897	176
485	STAB LEVEL FLIGHT 1.1 VNE	2500	354	132.0	965	166
486	STAB LEVEL FLIGHT 0.9 VH	2500	354	90.0	790	185
487	STAB LEVEL FLIGHT 0.8 VH	2500	354	80.0	799	156
488	STAB LEVEL FLIGHT 0.7 VH	2500	354	70.0	780	117
489	STAB LEVEL FLIGHT 0.6 VH	2500	354	60.0	819	117
490	STAB LEVEL FLIGHT 0.5 VH	2500	354	50.0	731	107
491	STAB LEVEL FLIGHT 0.4 VH	2500	354	40.0	829	127
496	STAB LEVEL FLIGHT 0.2 VH	2500	354	20.0	1024	107
497	STAB LEVEL FLIGHT 0.2 VH	2500	347	20.0	955	78
498	STAB LEVEL FLIGHT 0.3 VH	2500	347	30.0	917	78
499	STAB LEVEL FLIGHT 0.4 VH	2500	347	40.0	809	88
500	STAB LEVEL FLIGHT 0.5 VH	2500	347	50.0	702	59
501	STAB LEVEL FLIGHT 0.6 VH	2500	347	60.0	663	98
502	STAB LEVEL FLIGHT 0.7 VH	2500	347	70.0	702	117
503	STAB LEVEL FLIGHT 0.8 VH	2400	347	80.0	761	156
504	STAB LEVEL FLIGHT 0.9 VH	2400	347	90.0	721	176
505	STAB LEVEL FLIGHT VH	2400	347	100.0	790	166
506	STAB LEVEL FLIGHT VNE	1900	347	120.0	829	146
507	STAB LEVEL FLIGHT 1.1 VNE	1900	347	132.0	887	127
508	LEFT TURN 0.5 VH	2400	354	50.0	722	117
509	RIGHT TURN 0.5 VH	2400	354	50.0	829	146

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = 0 DEGREES C

MODEL OH-58 FLT. 43-A G.W. 3083 PROBLEM NO. 2434
SHIP 40011 DATE 03 JAN 73 C.G. 106.5 REPORT 206-194-136

TR RED BLADE CHORD STA 15.0
ITEM CODE 8103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
577	LEVEL FLT F/A CONT REV	2650	354	100.0	880	164
578	LEVEL FLT LAT CONT REV	2650	354	100.0	900	184
579	LEVEL FLT DIR CONT REV	2650	354	100.0	1006	193
580	LEVEL FLT 0.6 VH CYC P/U	2650	354	60.0	967	135
581	LEVEL FLT 0.9 VH CYC P/U	2650	354	90.0	890	135
582	LEVEL FLT 0.3 VH CYC P/U	2650	354	30.0	1161	97
583	LEFT TURN 0.7 VH	2650	354	70.0	890	135
584	RIGHT TURN 0.7 VH	2650	354	70.0	1064	174
585	LEFT TURN 0.9 VH	2650	354	90.0	929	155
586	RIGHT TURN 0.9 VH	2650	354	90.0	909	193
587	TRANS PWR-AUTO 0.5 VH	3600	354	50.0	1074	106
588	STABILIZED AUTO 0.5 VH	3000	354	50.0	1018	48
589	AUTO LEFT TURN 0.5 VH	2300	354	50.0	1055	68
590	AUTO RIGHT TURN 0.5 VH	2300	354	50.0	987	77
591	TRANS AUTO-PWR 0.5 VH	3600	354	50.0	784	145
594	TRANS PWR-AUTO 0.7 VH	3800	354	70.0	871	155
595	STABILIZED AUTO 0.7 VH	3500	354	70.0	1055	48
596	AUTO LEFT TURN 0.7 VH	3000	354	70.0	1055	48
597	AUTO RIGHT TURN 0.7 VH	2700	354	70.0	1016	68
598	TRANS AUTO-PWR 0.7 VH	2000	354	70.0	822	164
599	STAB AUTO 0.7 VH F/A REV	2800	354	70.0	1055	48
600	STAB AUTO 0.7 VH LAT REV	2500	354	70.0	1026	58
601	STAB AUTO 0.7 VH DIR REV	2200	354	70.0	1016	126
602	AUTO CYCLIC P/U 0.7 VH	1800	354	70.0	997	87
603	TRANS PWR-AUTO 0.9 VH	3700	354	90.0	851	155
604	TRANS AUTO-PWR 0.9 VH	3000	354	90.0	813	155
605	STABILIZED AUTO 0.7 VH	3000	330	70.0	909	58
606	STABILIZED AUTO 0.5 VH	2500	390	70.0	1132	87
607	STABILIZED AUTO 0.5 VH	3300	330	50.0	832	58
608	STABILIZED AUTO 0.5 VH	2500	390	50.0	1113	68
609	PARTIAL POWER DESCENT	2500	354	70.0	842	68
610	TRANS POWER RECOVERY -IGE	600	354	60.0	948	232
611	AUTOROTATION LANDING	600	354	60.0	542	174
612	NORMAL DECELERATION 60-0	600	354	60.0	1000	174

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APPENDIX C

Graphic and Tabular Data at Fairbanks, Alaska

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

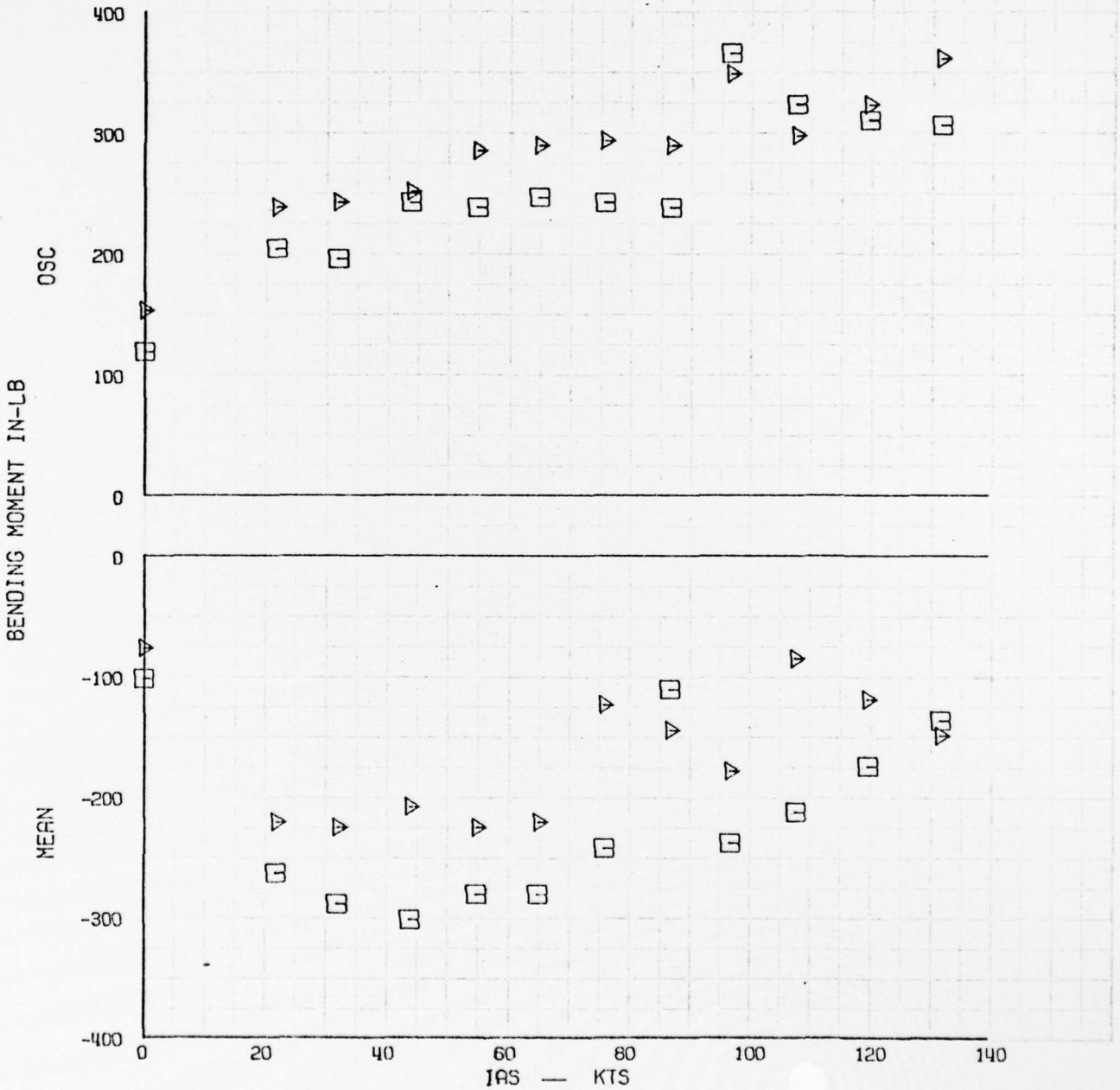


FIG. 41 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
347
354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

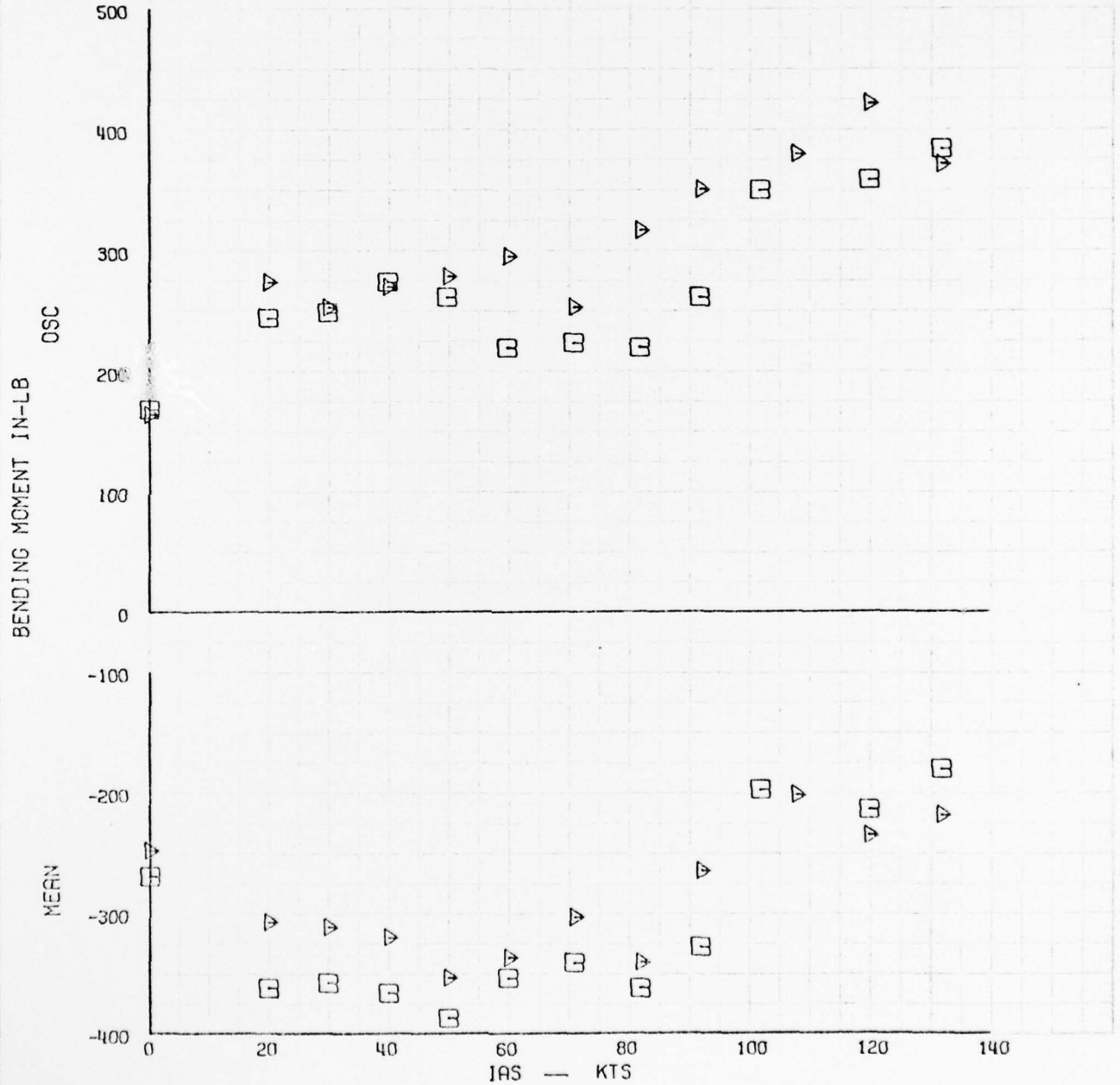


FIG. 42 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

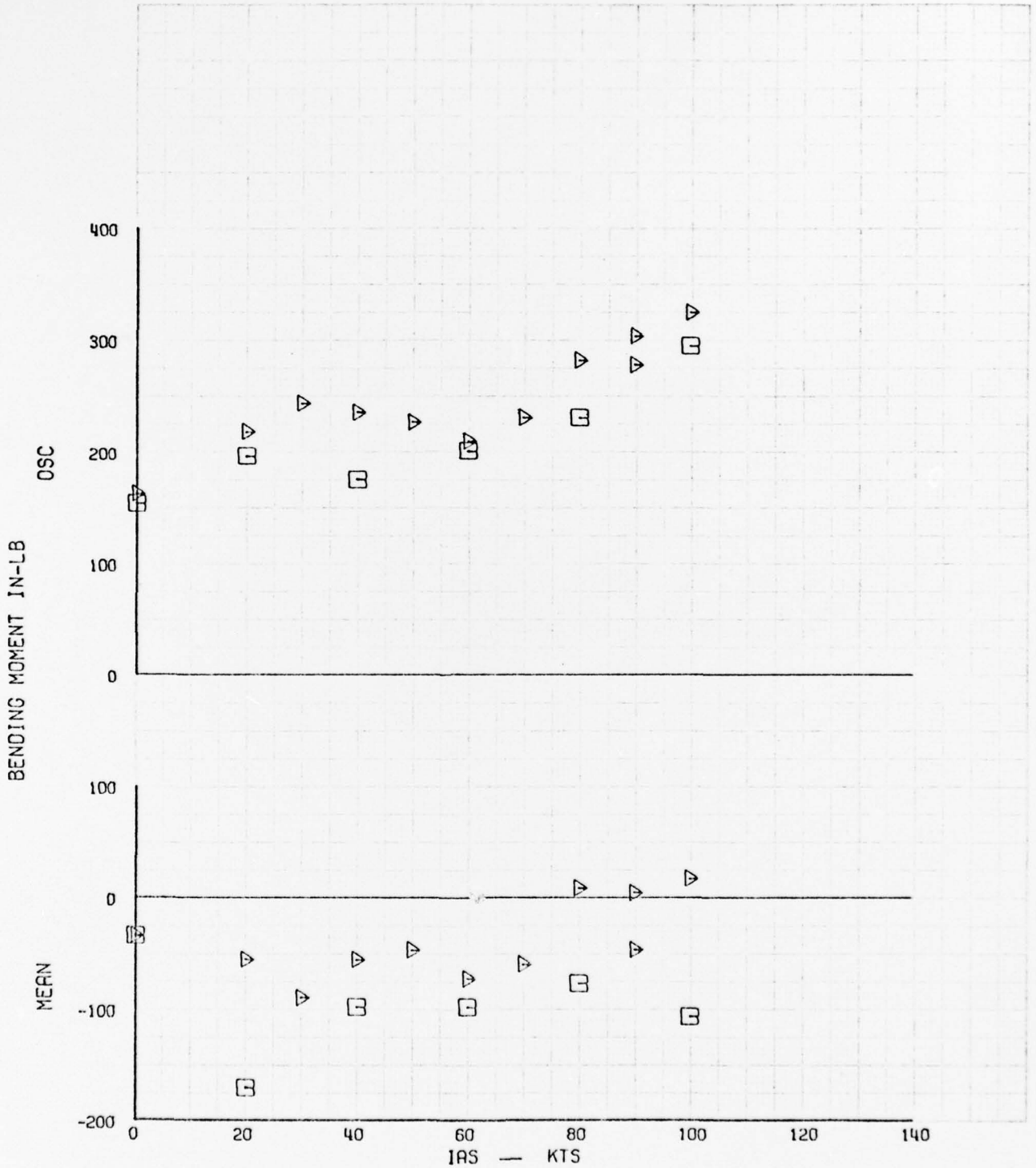


FIG. 43 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

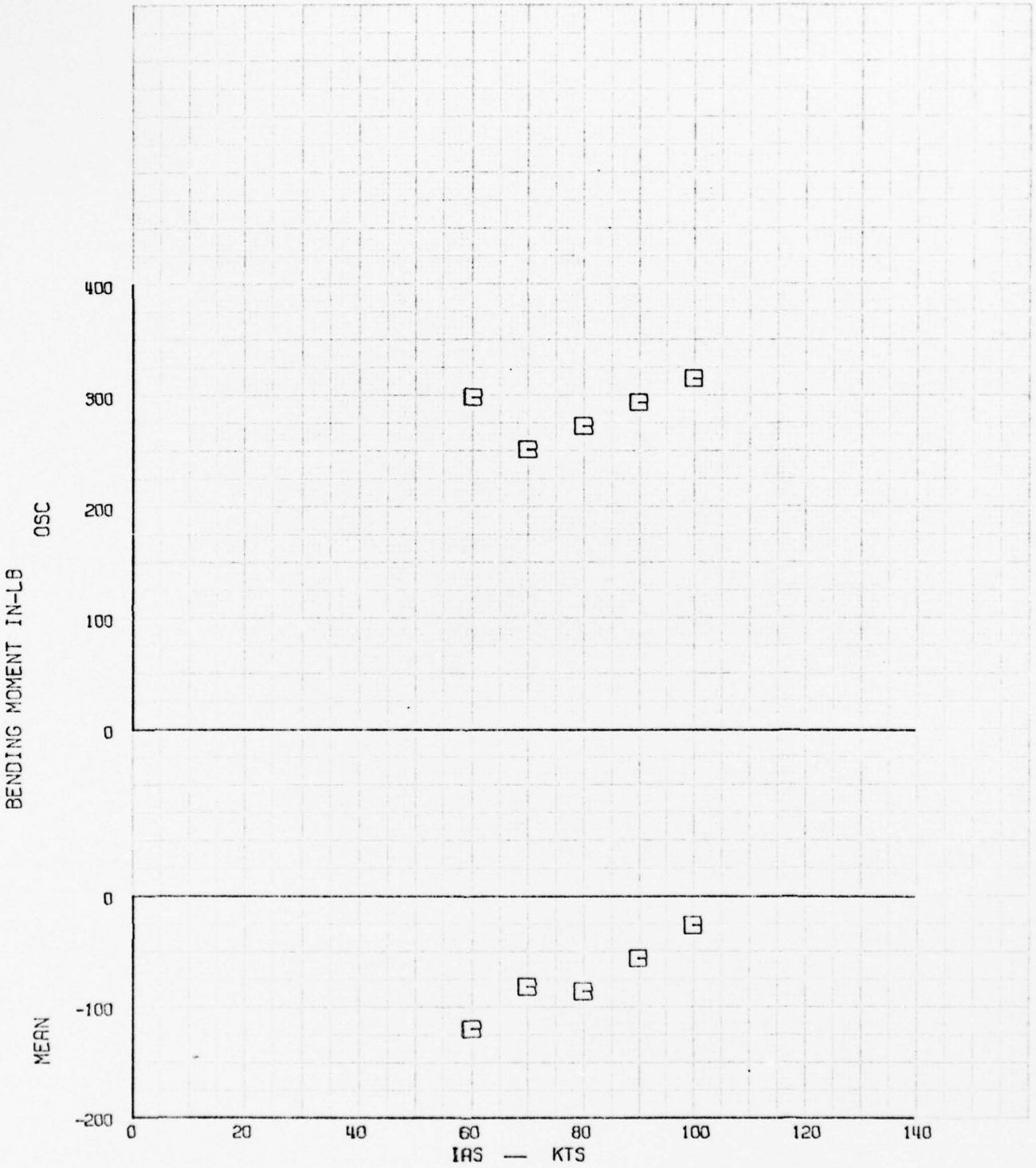


FIG. 44 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

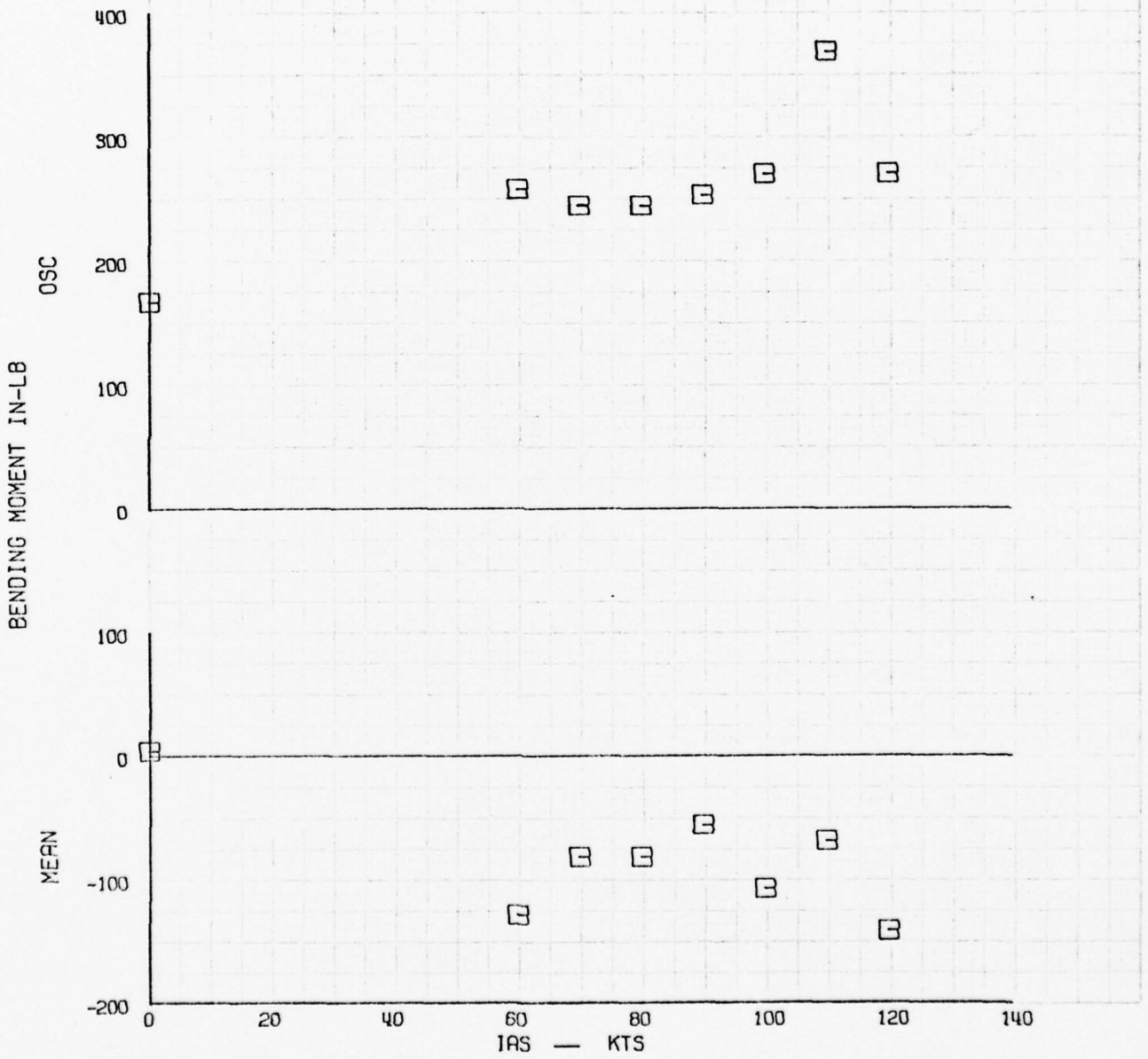


FIG. 45 ITEM B111-TR MAST PARALLEL MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊟ 347
▶ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

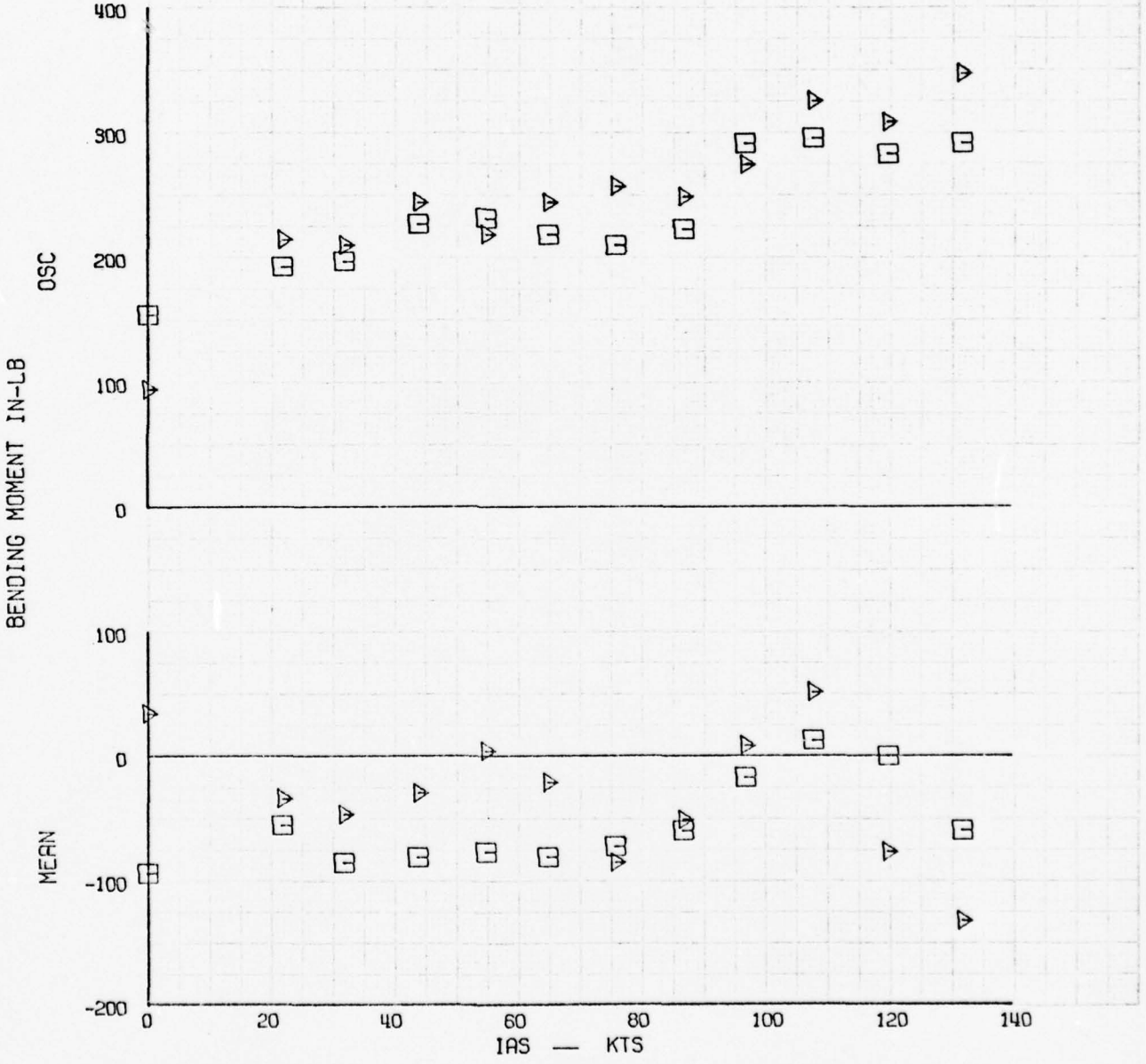


FIG. 46 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

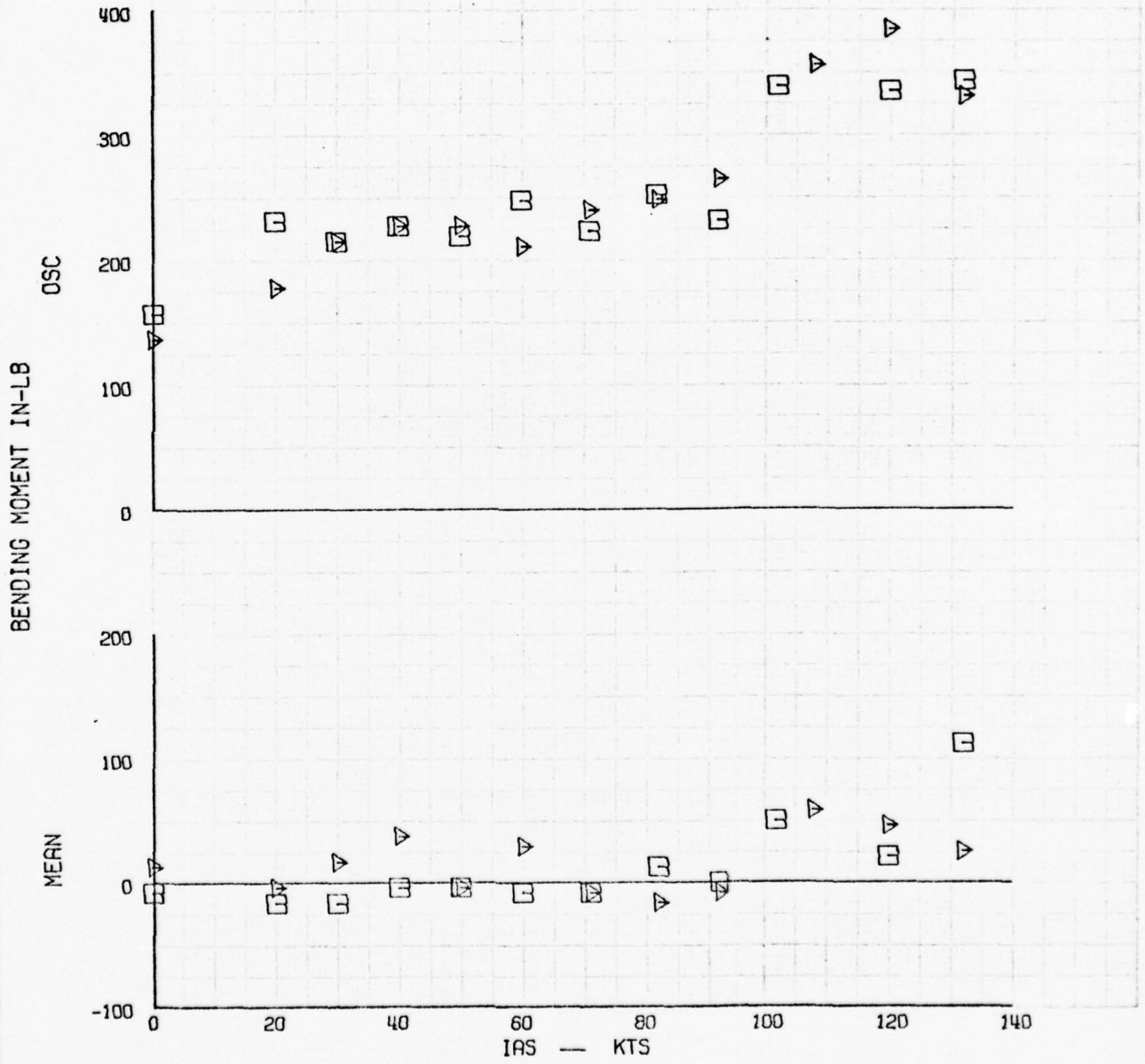


FIG. 47 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM		LOW TEMPERATURE EVALUATION OF	MODEL	OH-58
⊟	347	ELASTOMERIC BEARING TAIL ROTOR	SHIP	40011
▷	354	TEMPERATURE = -23 DEGREES C	FLT	49-A
			DATE	30 JAN 73

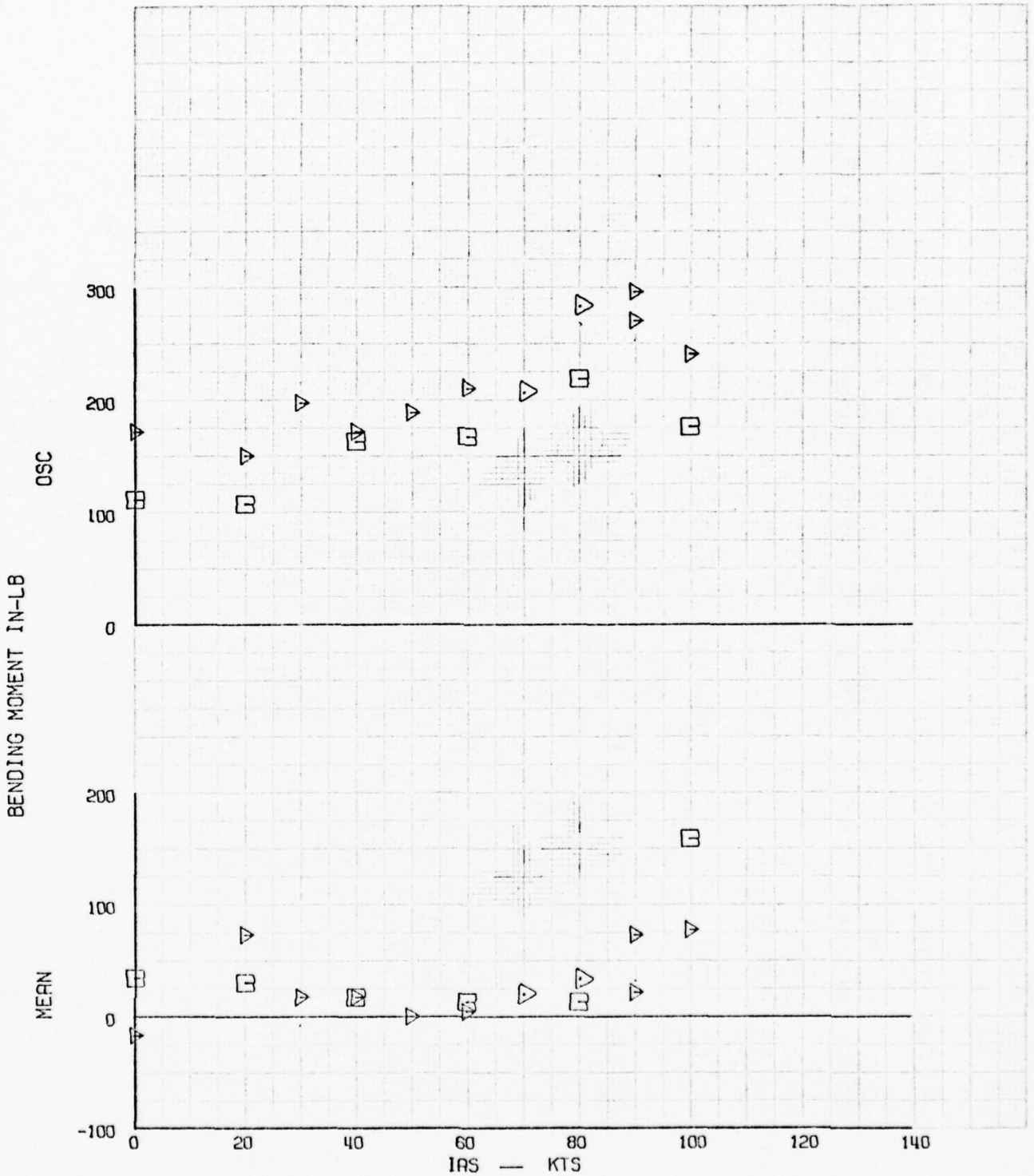


FIG. 48 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

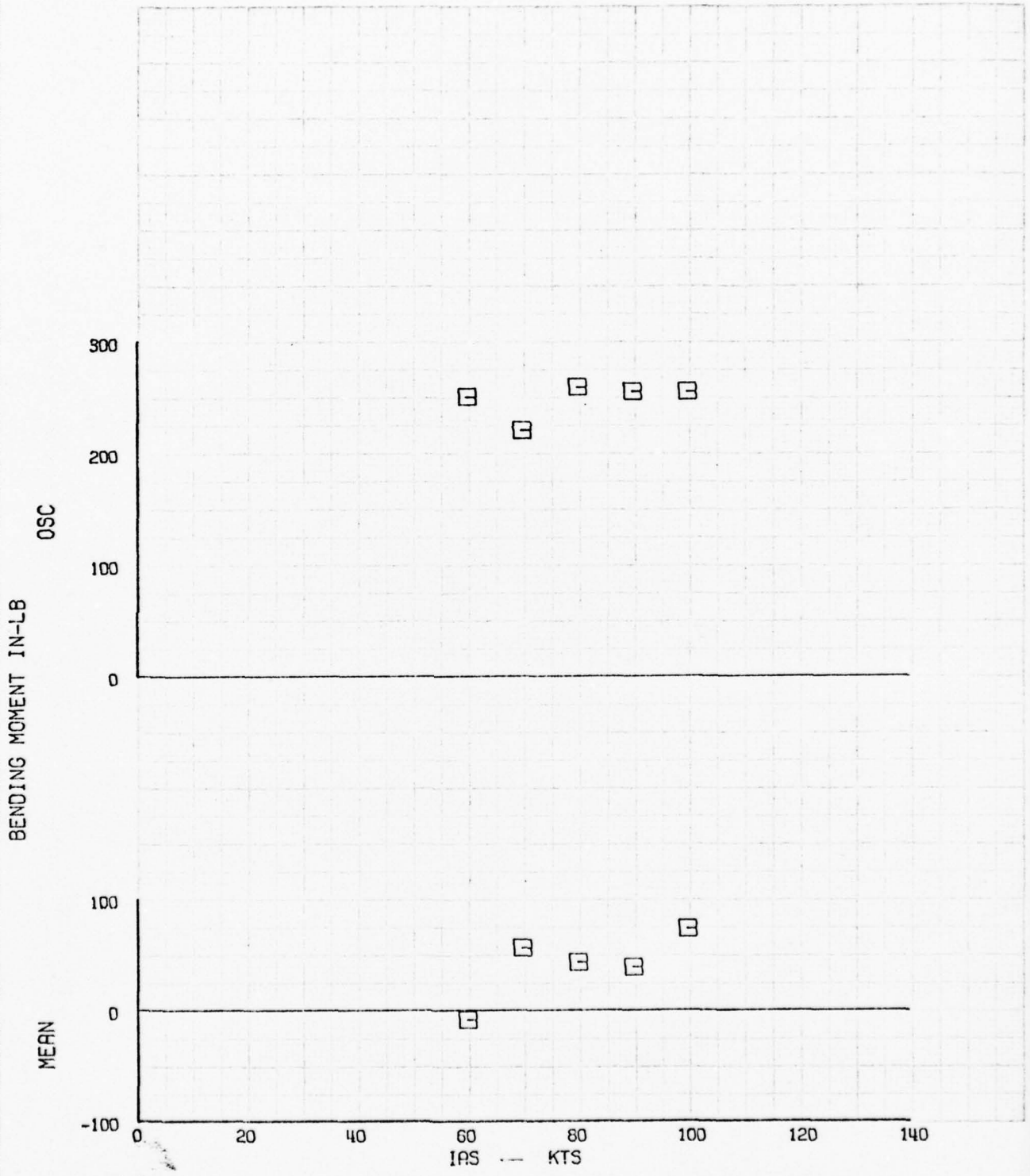


FIG. 49 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL 0H-58
SHIP 40011
FLT 52
DATE 006FEB 73

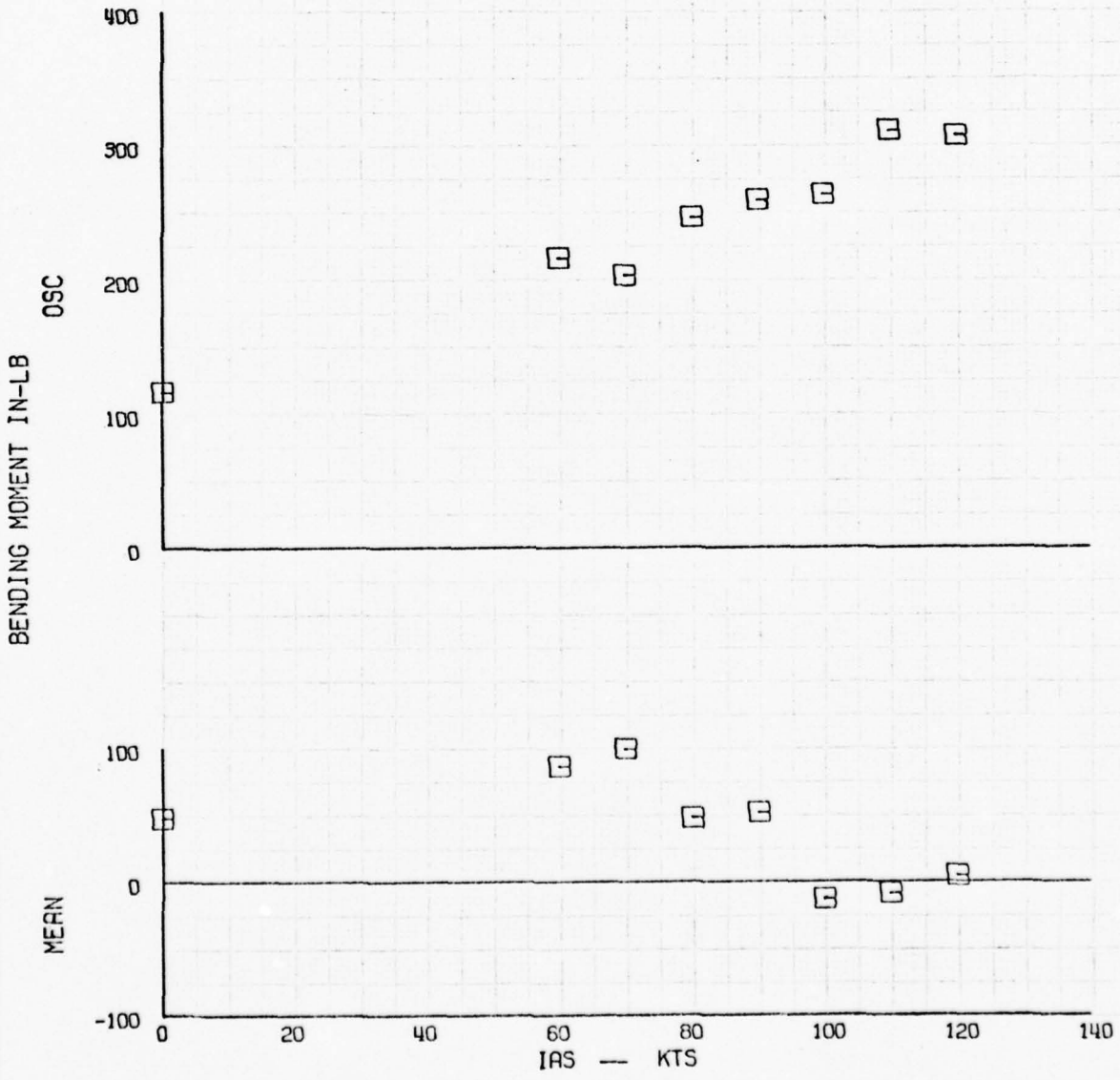


FIG. 50 ITEM B110-TR MAST PERPENDICULAR MB VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
347
354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

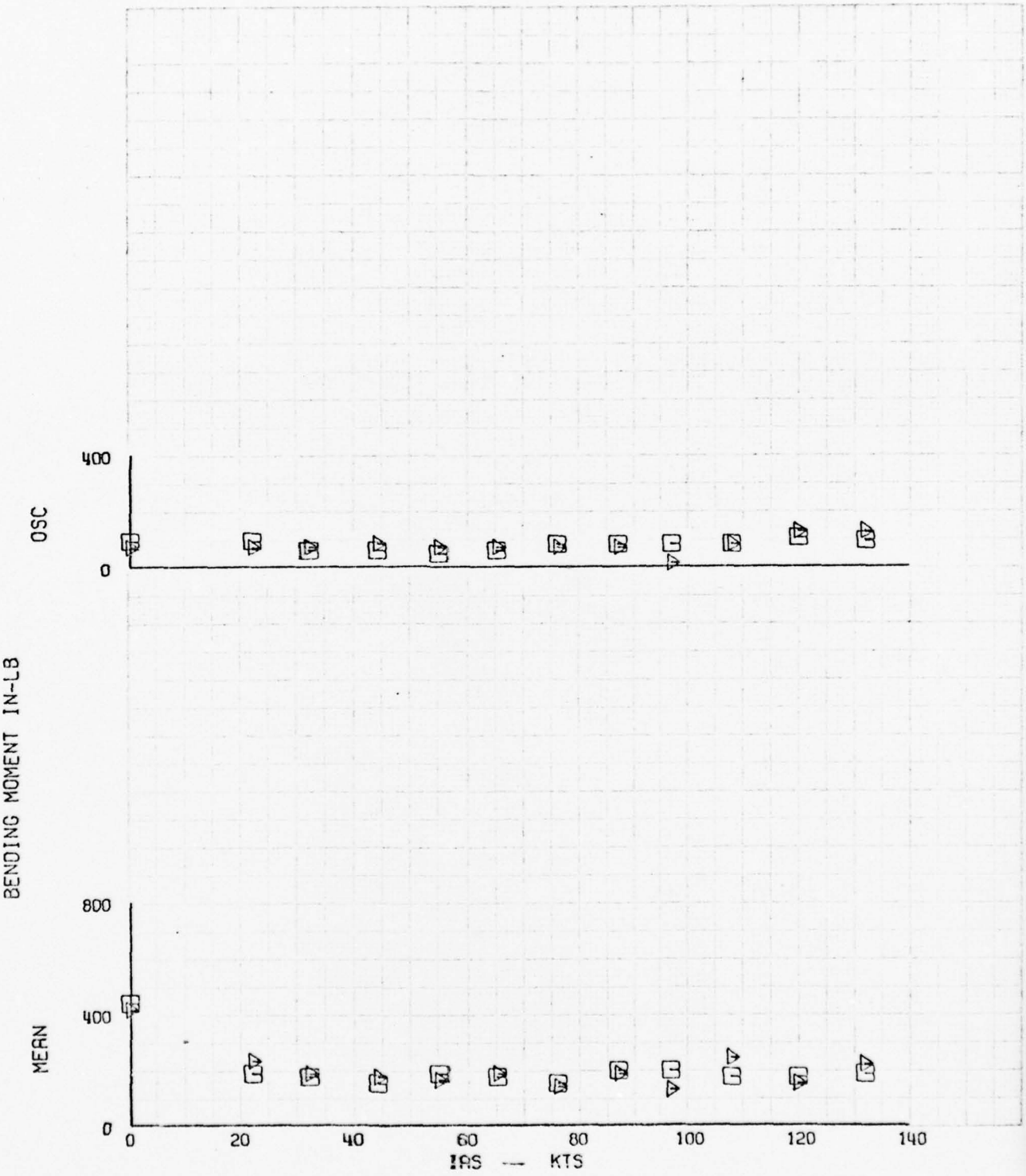


FIG. 51 ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
□ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

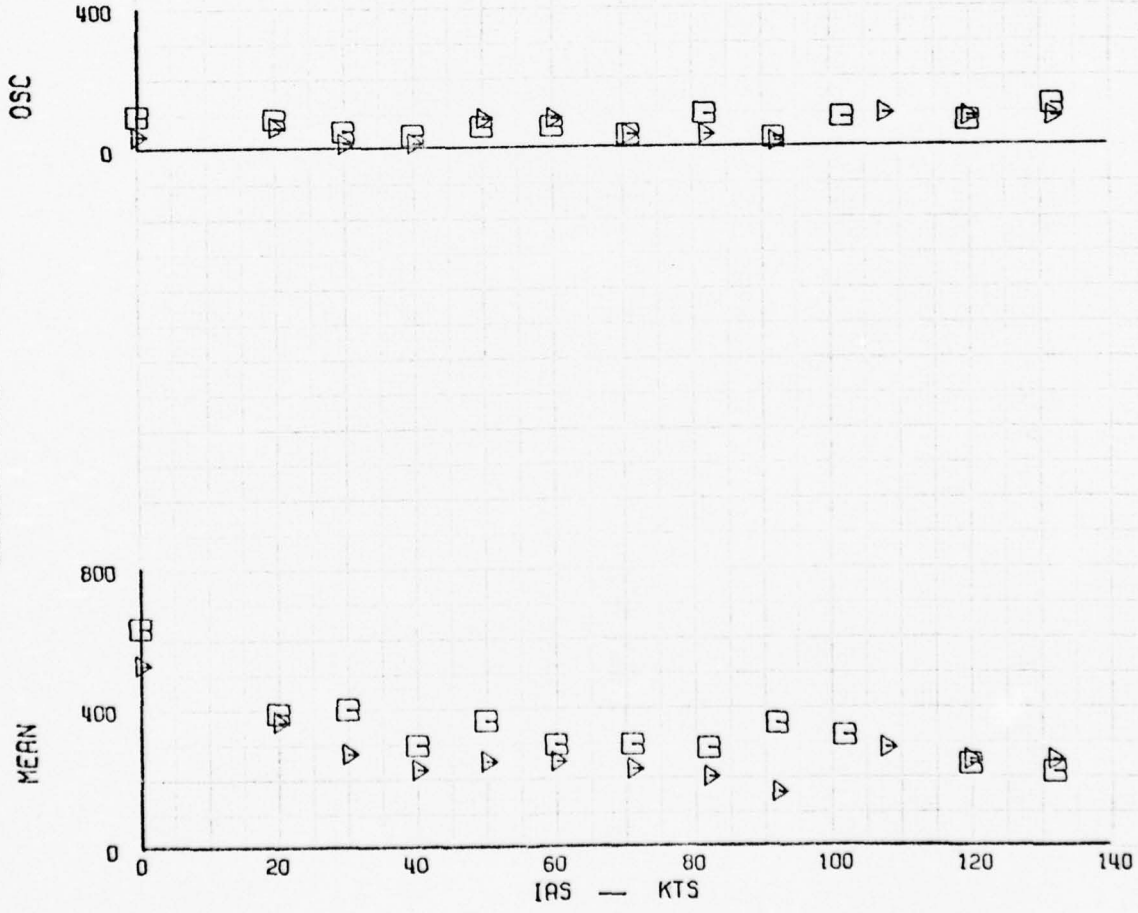


FIG. 52 ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

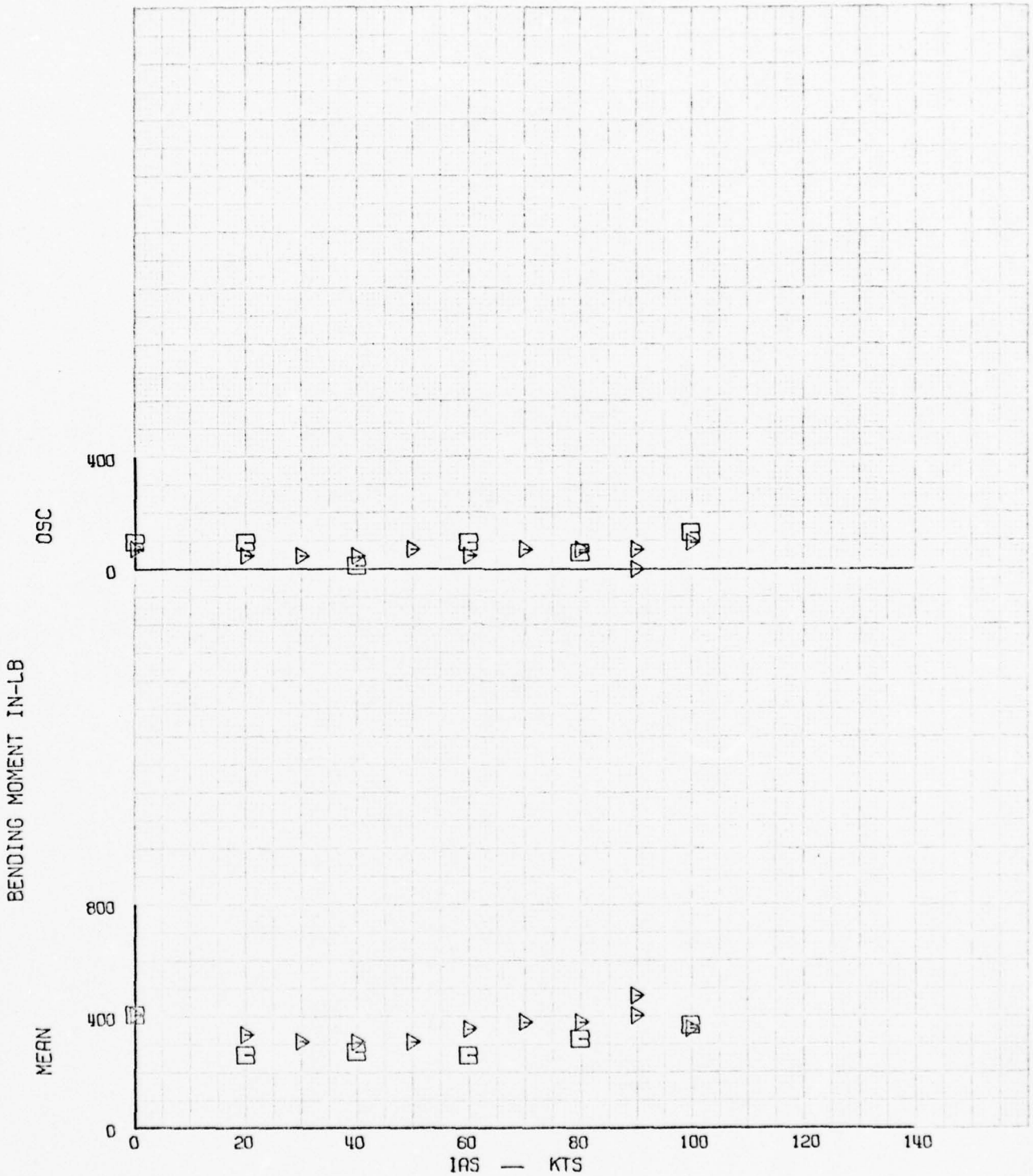


FIG. 59 ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

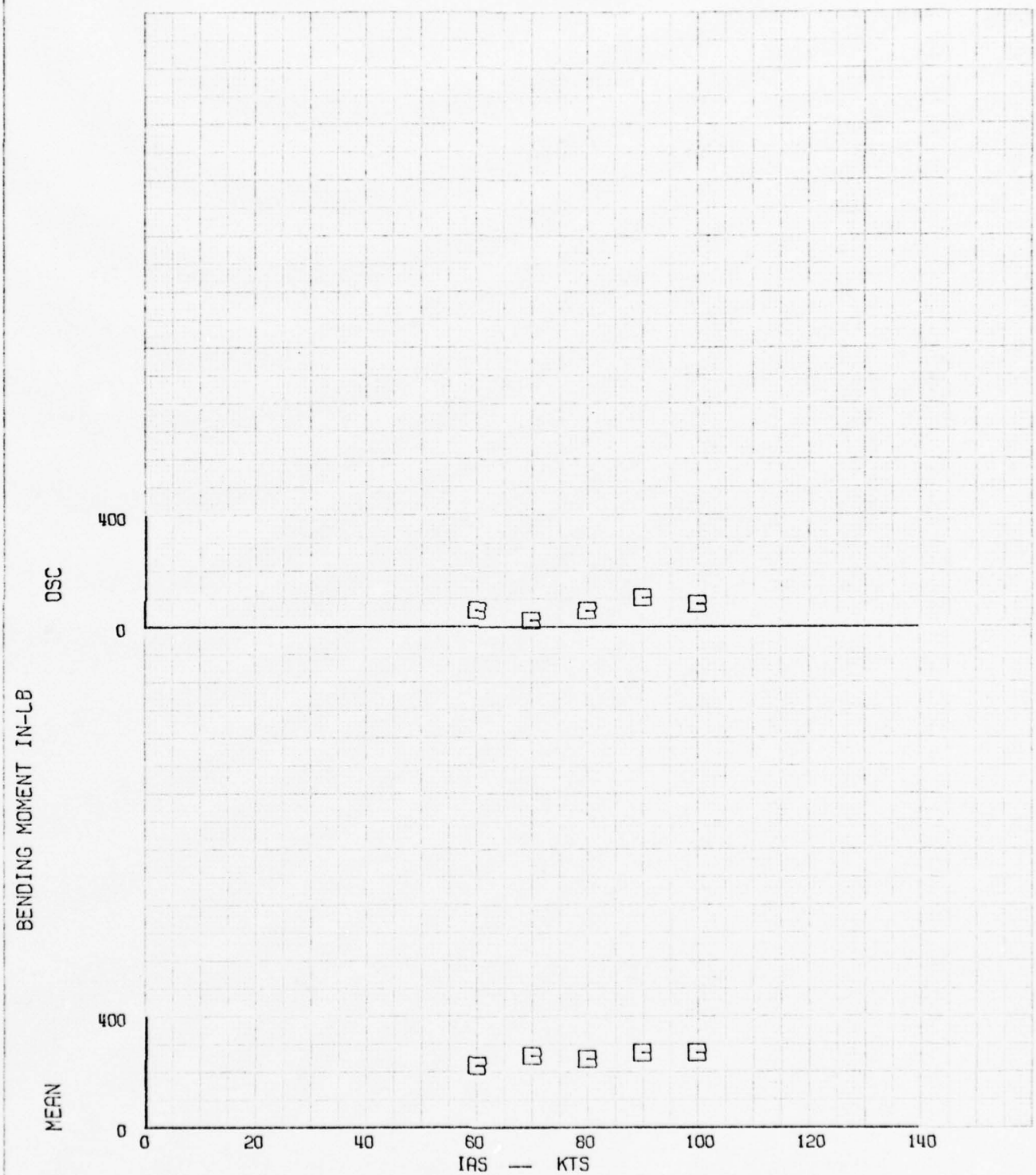


FIG. 54 ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

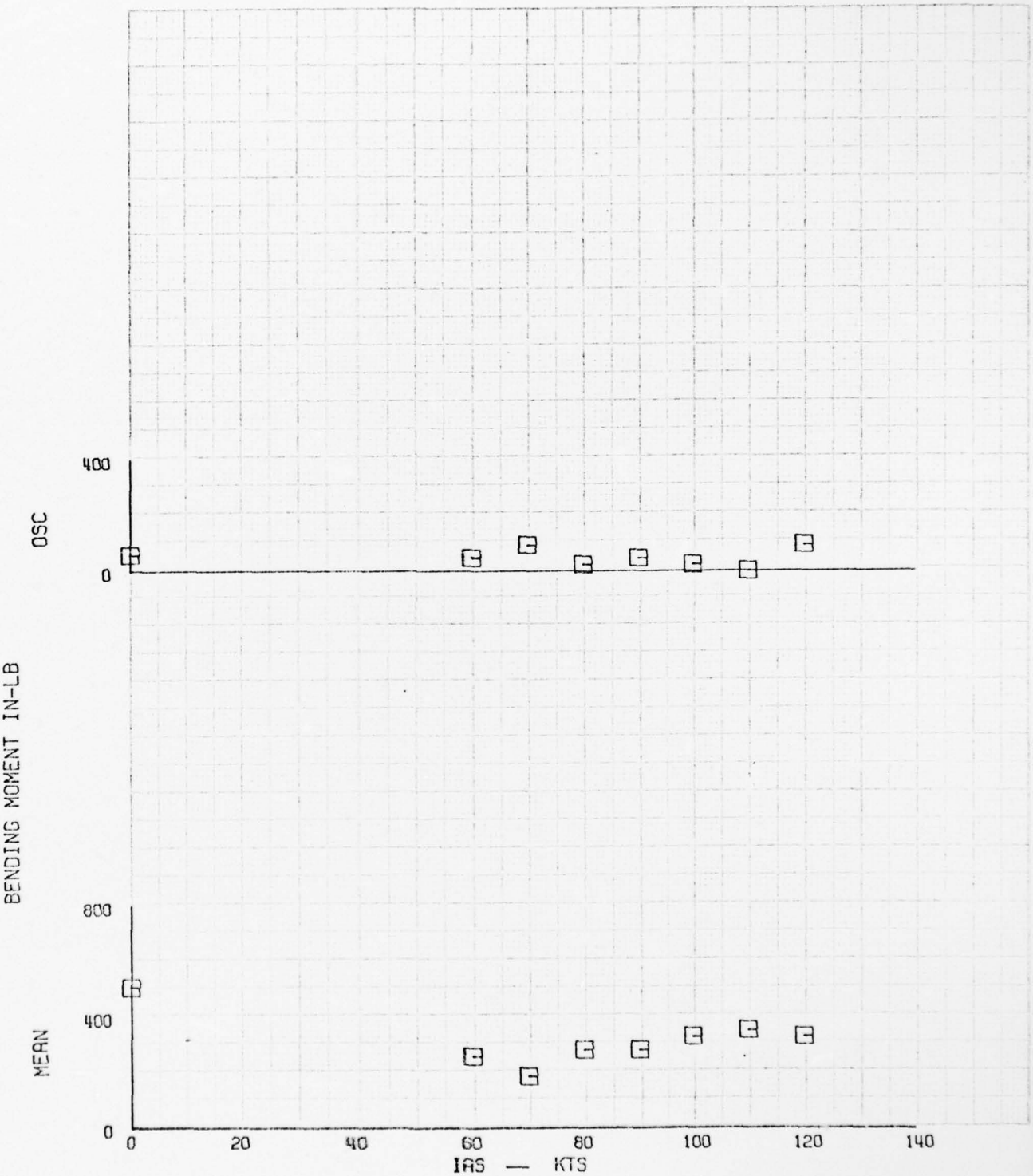


FIG. 55 ITEM B109-TR MAST TORQUE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

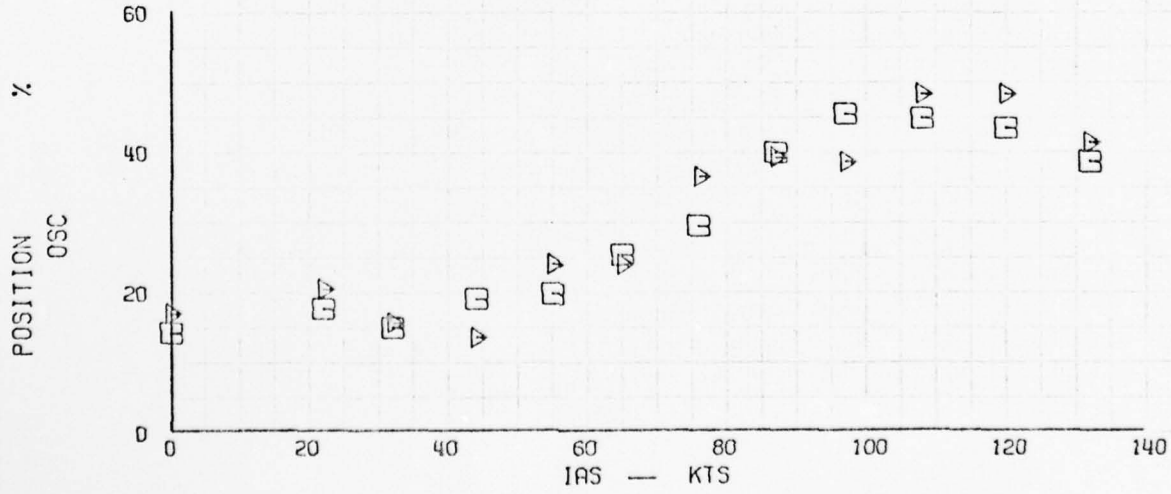


FIG. 56 ITEM D117-TR FLAPPING ANGLE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

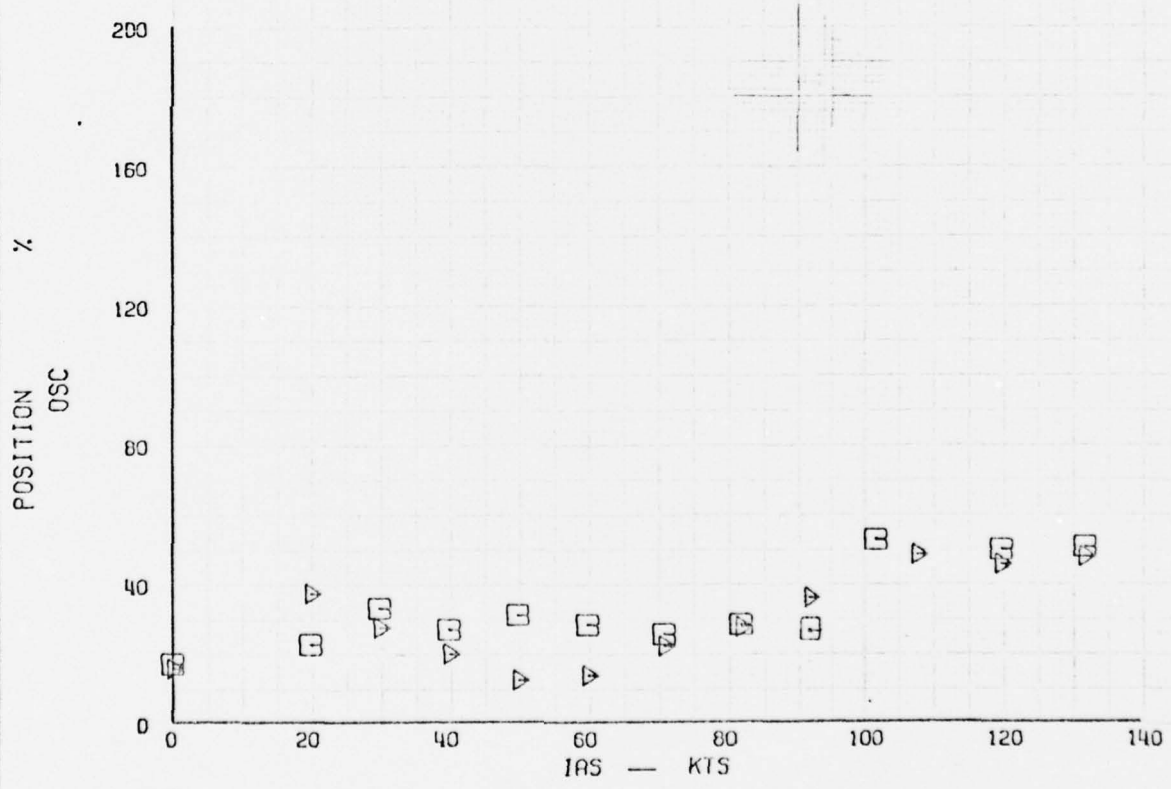


FIG. 57 ITEM D117-TR FLAPPING ANGLE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

2441-13

04/27/73

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

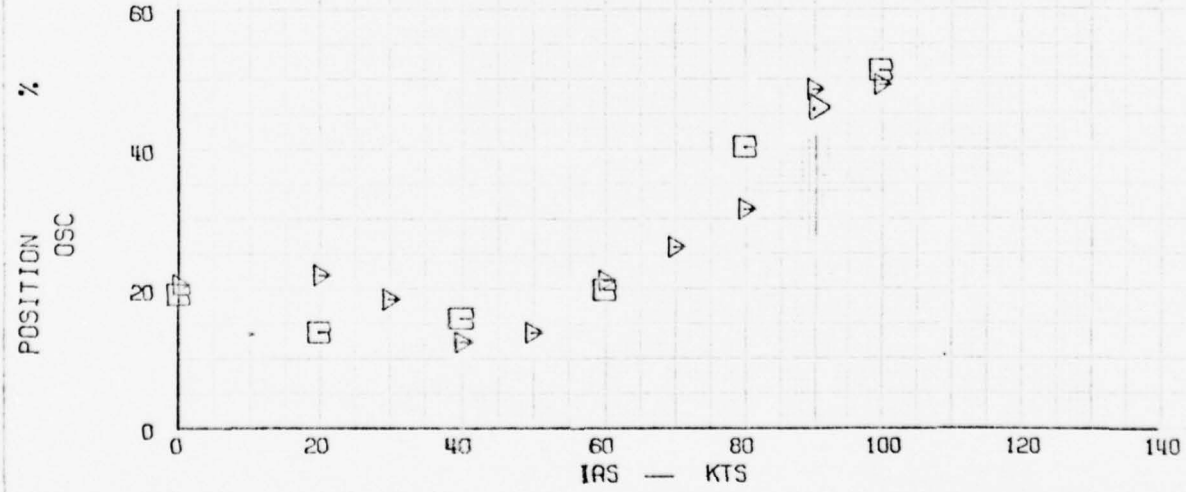


FIG. 58 ITEM 0117-TR FLAPPING ANGLE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

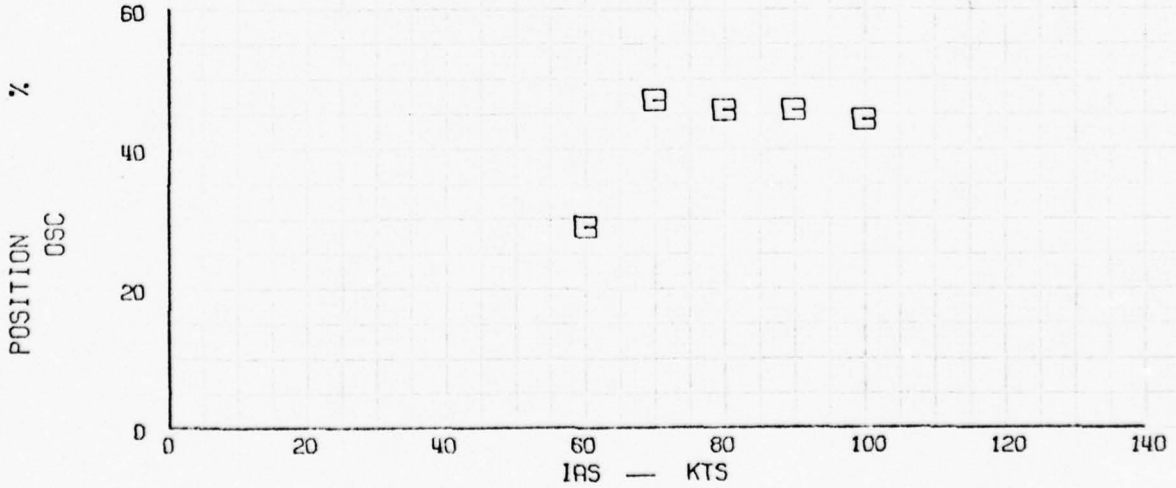


FIG. 59 ITEM D117-TR FLAPPING ANGLE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

REPORT 206-194-136

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

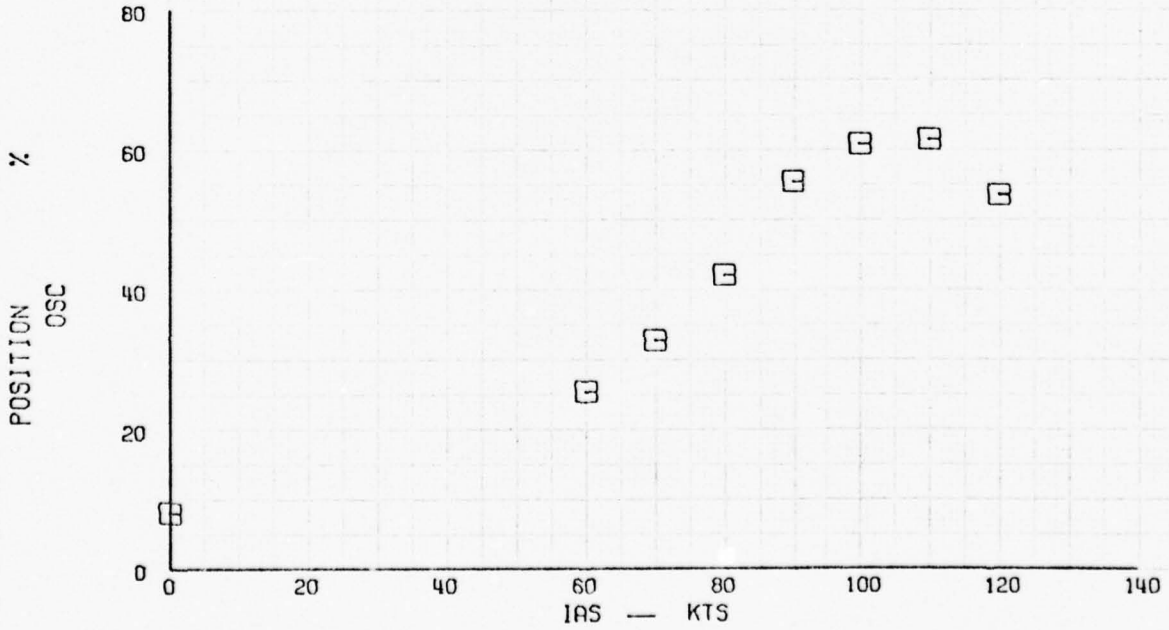


FIG. 60 ITEM 0117-TR FLAPPING ANGLE VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

2444-1

05/07/73

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

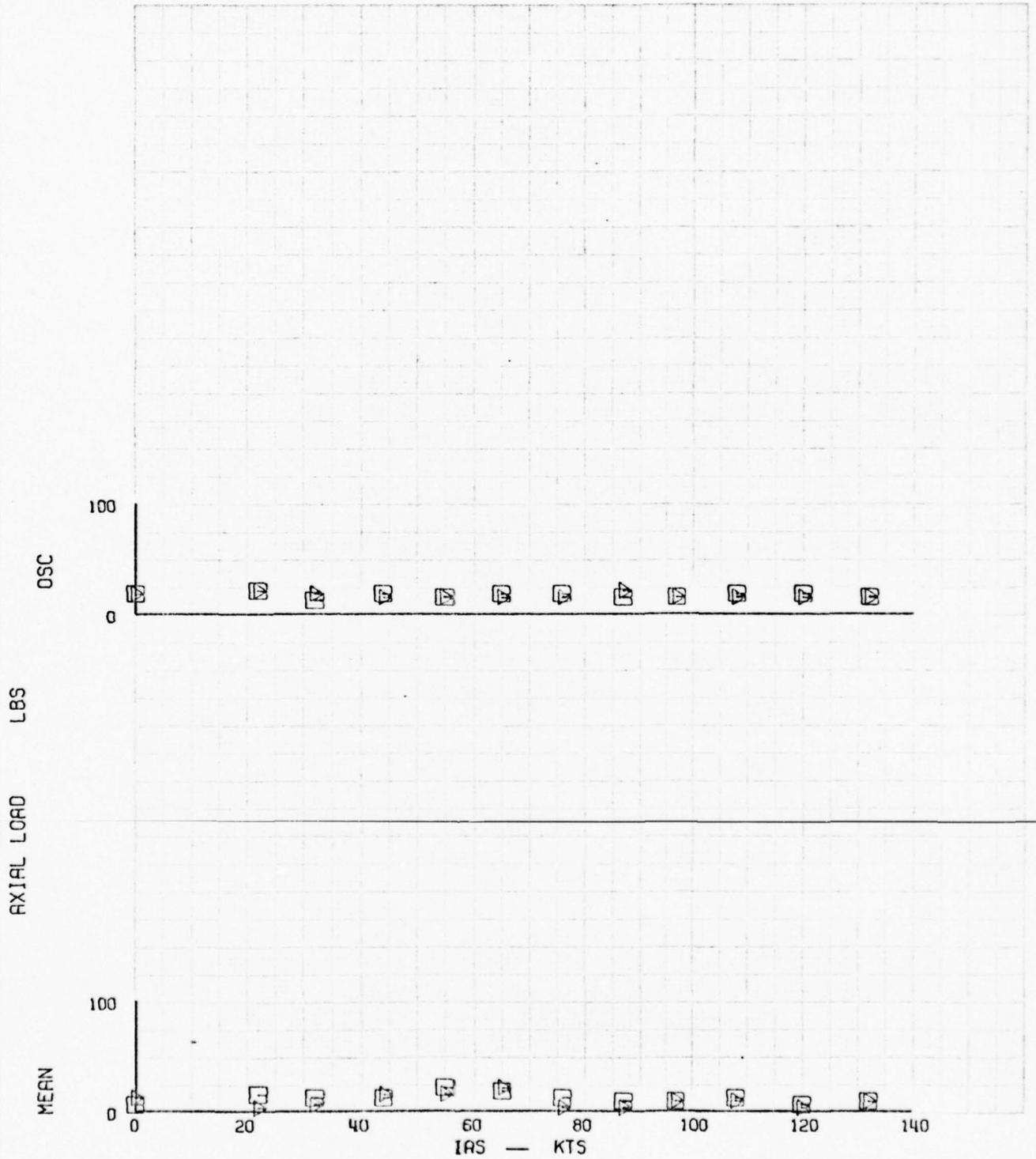


FIG. 61 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

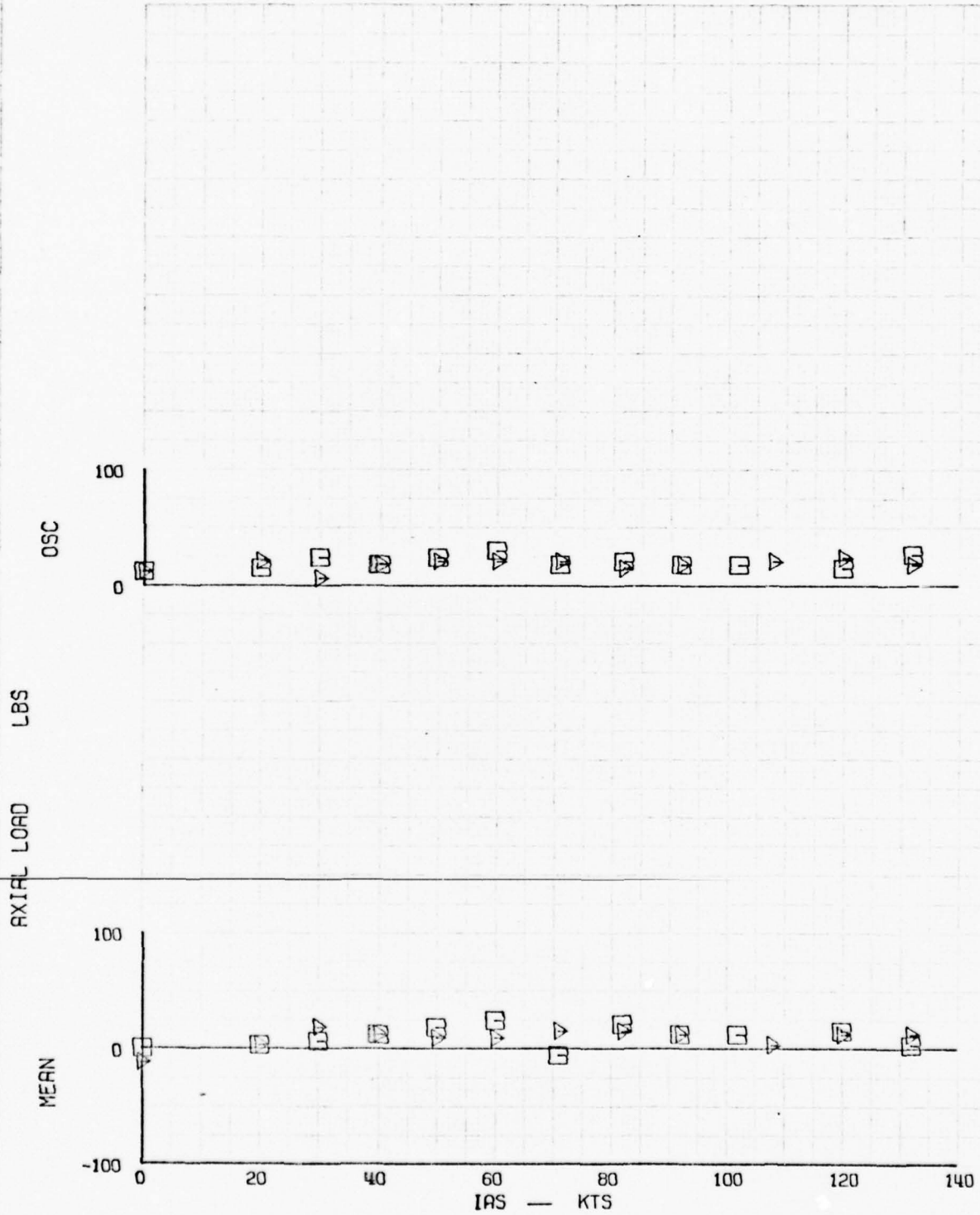


FIG. 62 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

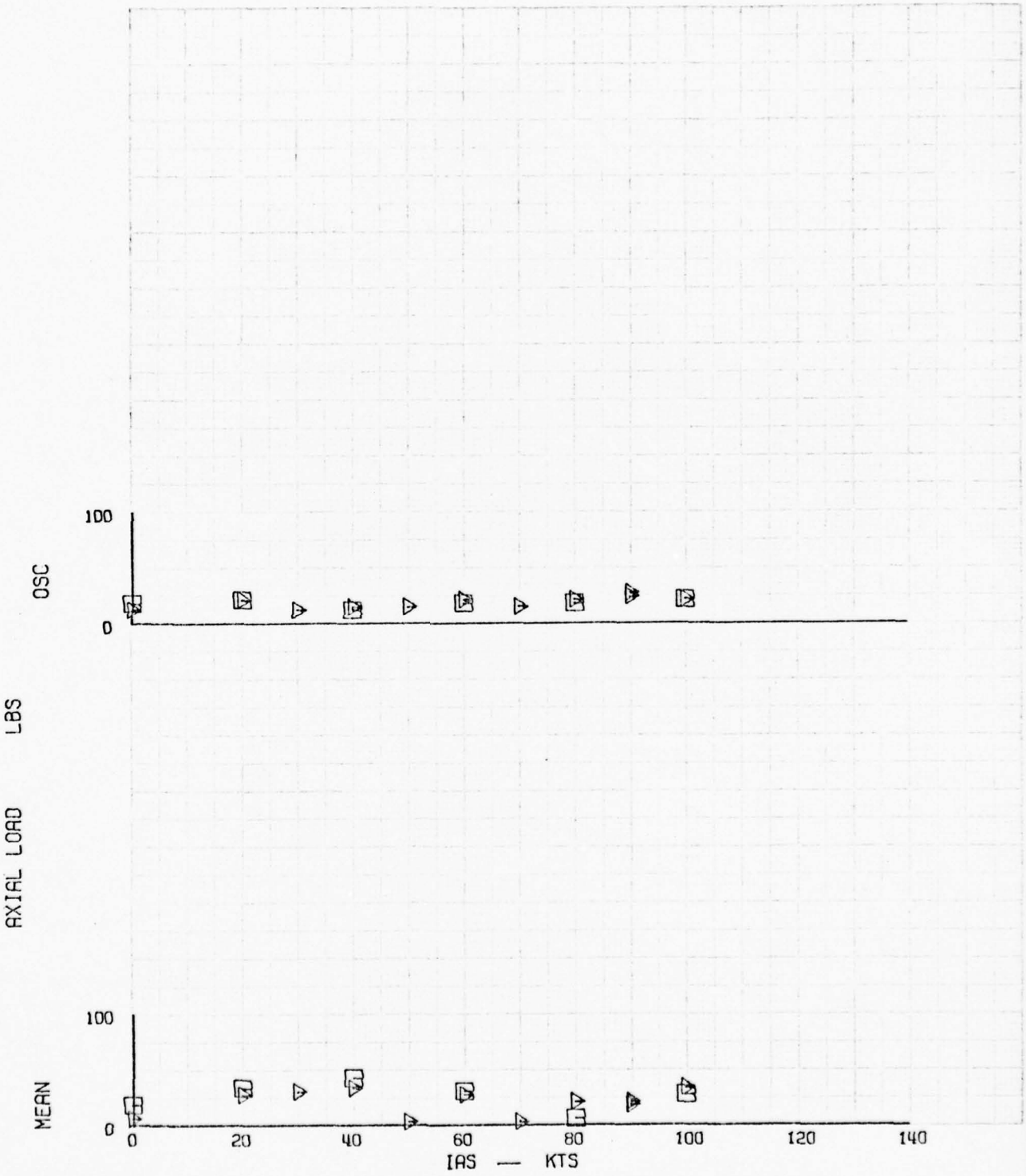


FIG. 63 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

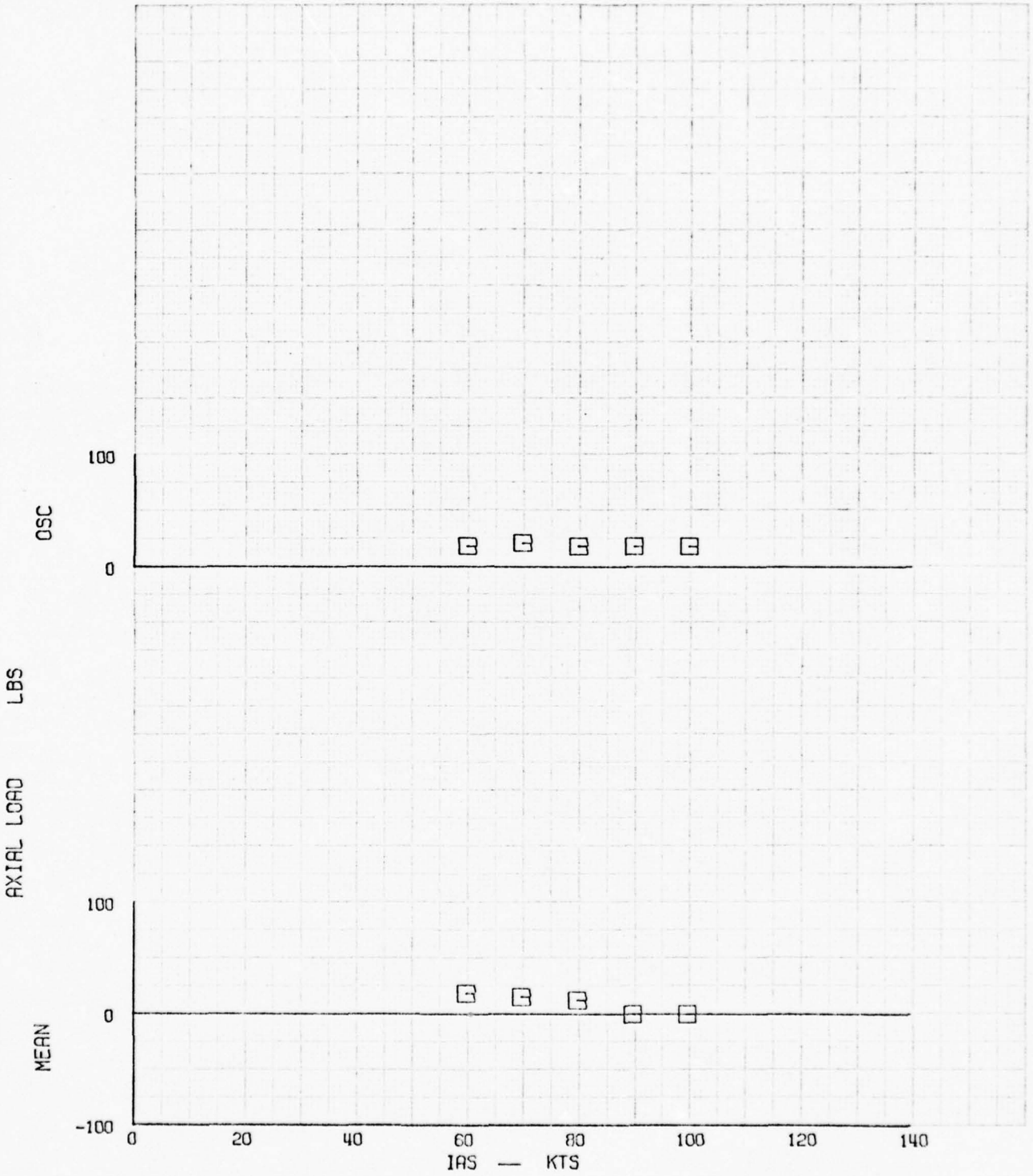


FIG. 64 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

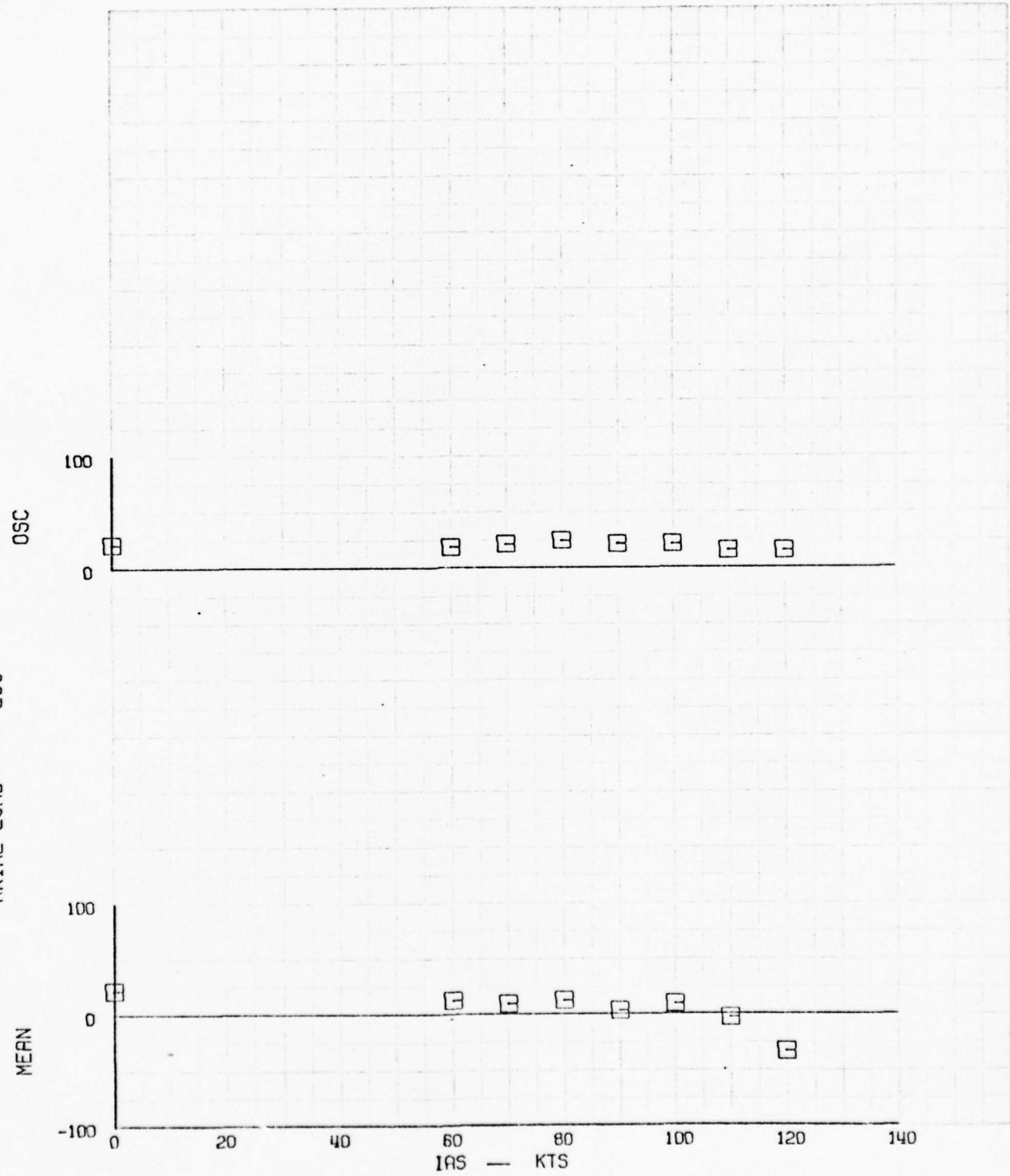


FIG. 65 ITEM F112-TR RED PITCH LINK VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

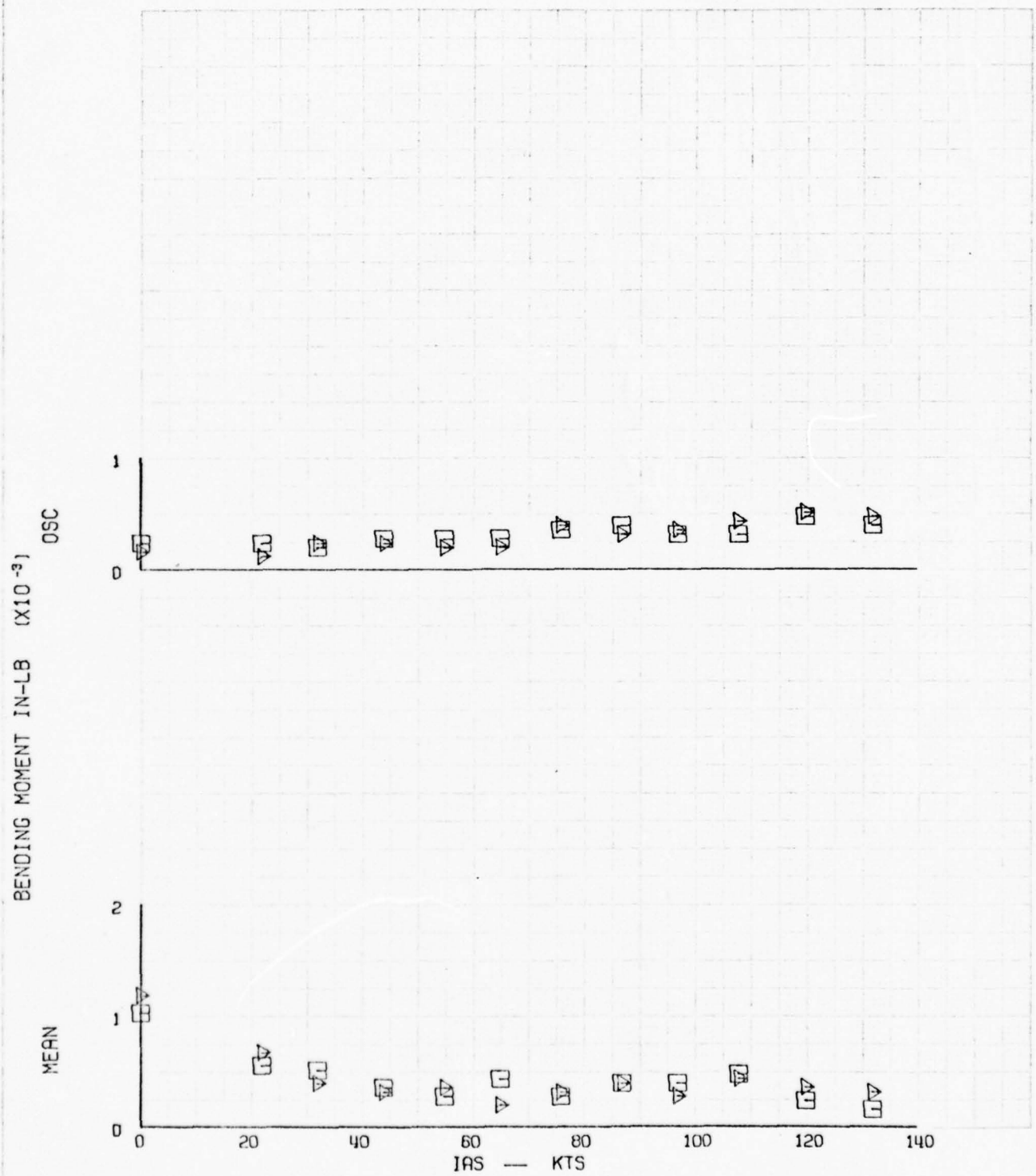


FIG. 66 ITEM B105-TR WHT YOKE BEAM STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

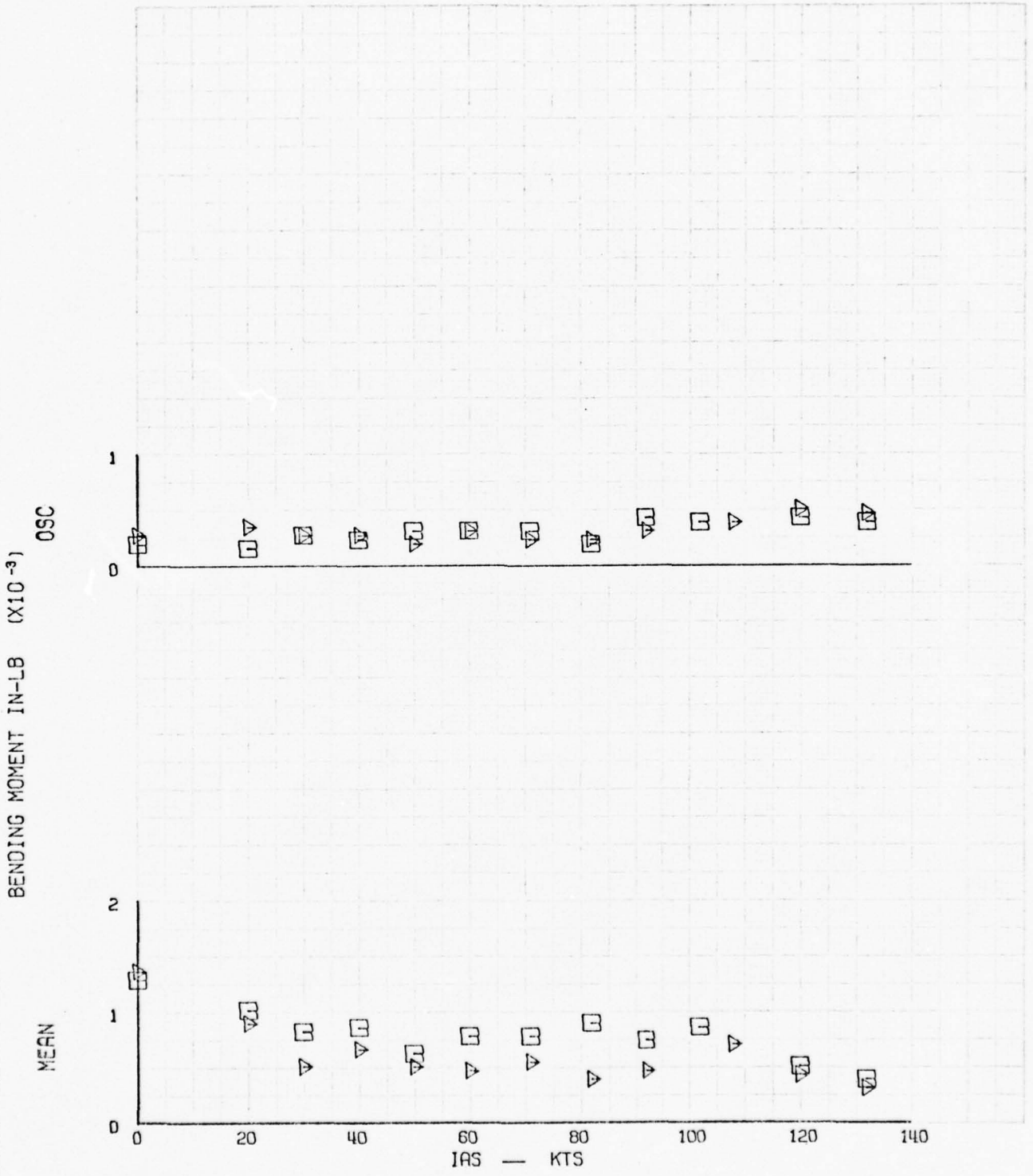


FIG. 67 ITEM B105-TR WHT YOKE BEAM STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

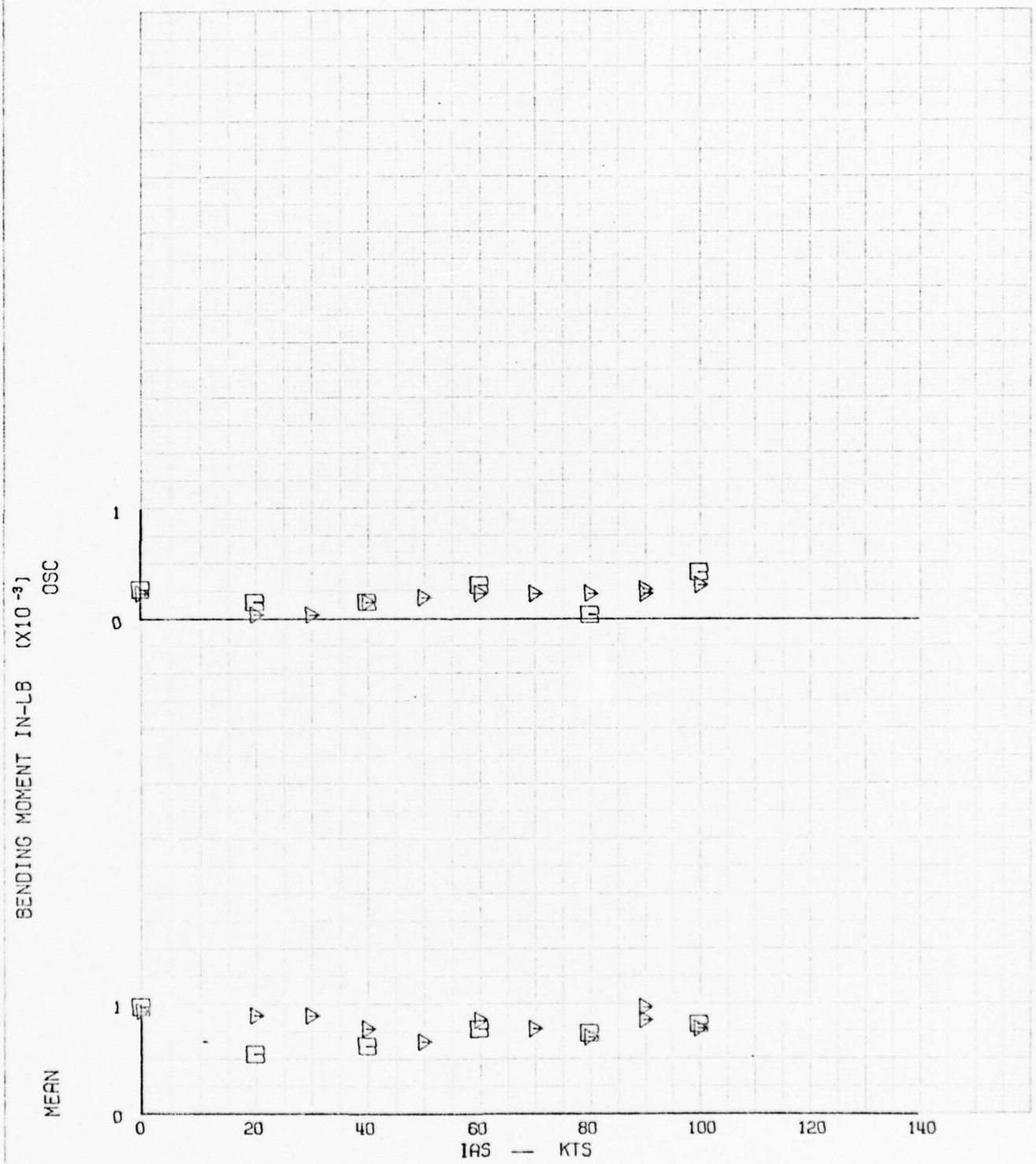


FIG. 68 ITEM B105-TR WHT YOKE BEAM STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

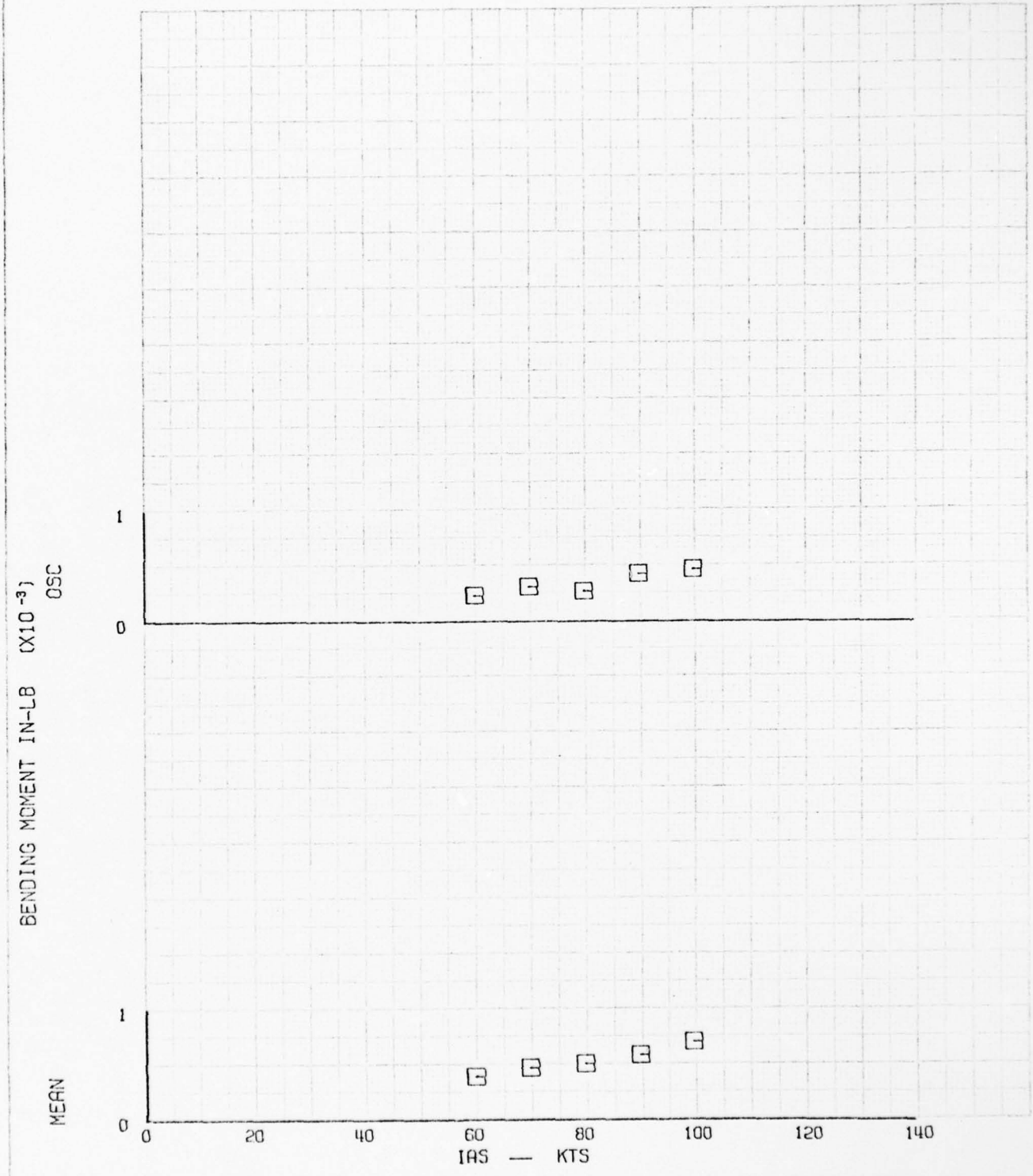


FIG. 69 ITEM B105-TR WHT YOKE BEAM STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

2443-5

04/26/73

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARINGTAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

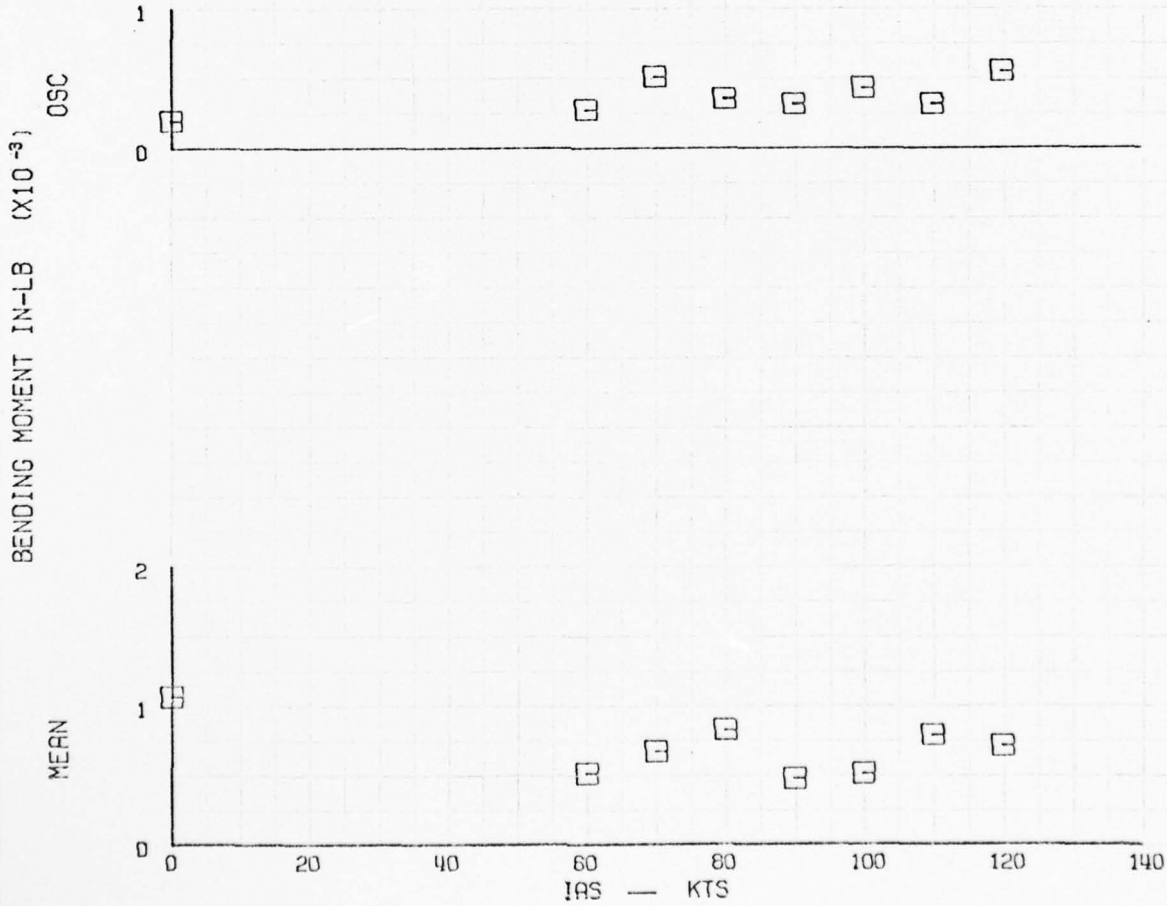


FIG. 70 ITEM B105-TR WHT YOKE BEAM STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

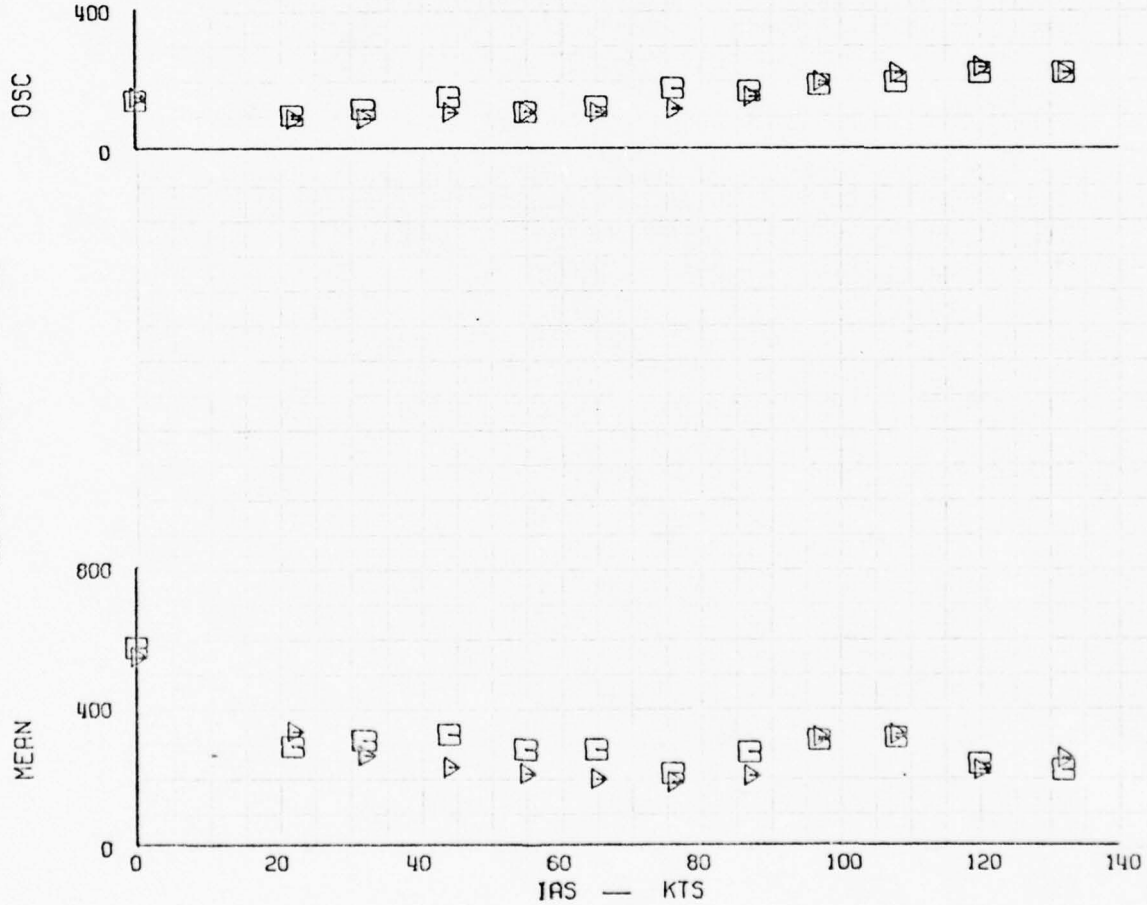


FIG. 71 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL 0H-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

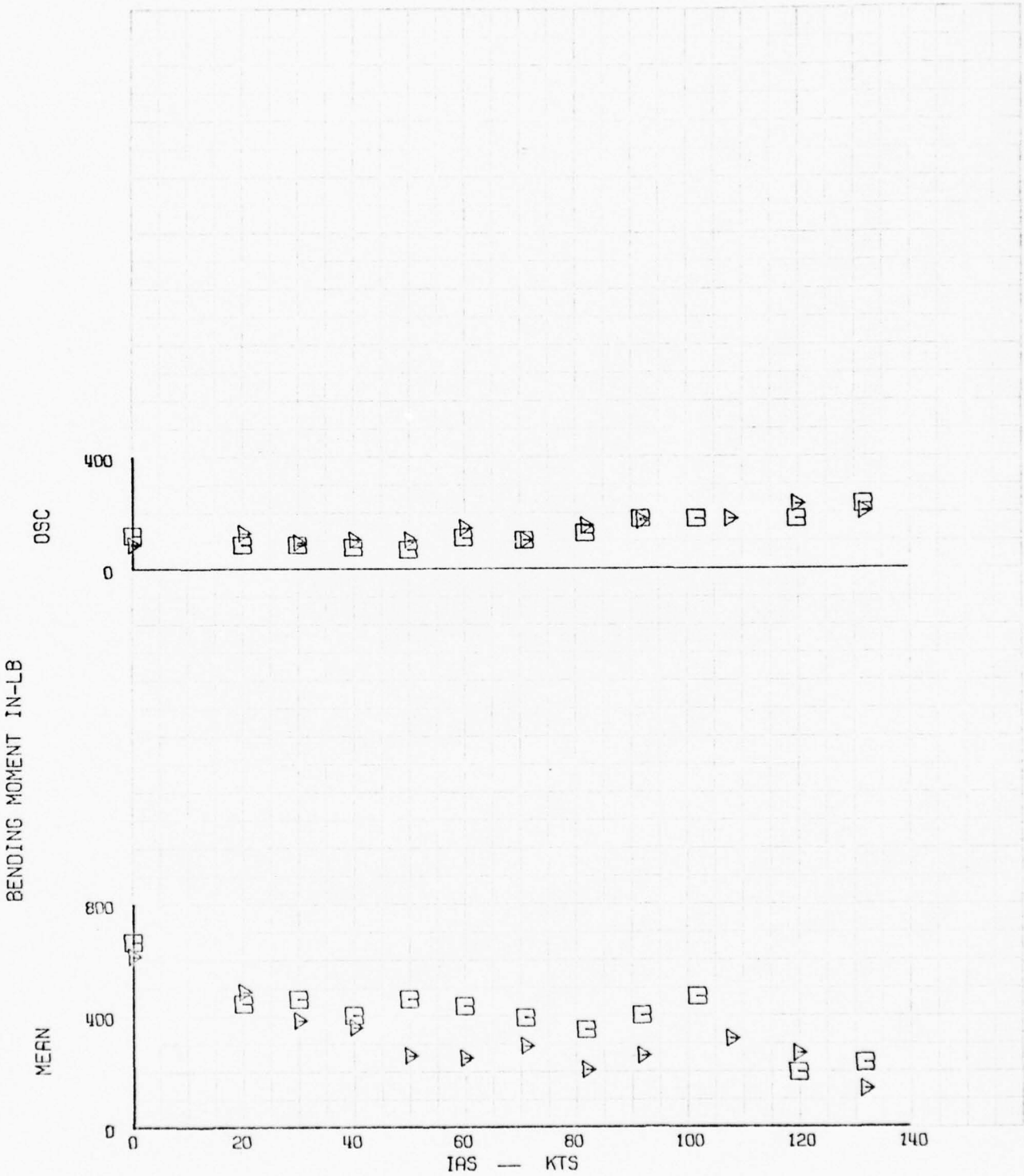


FIG. 72 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

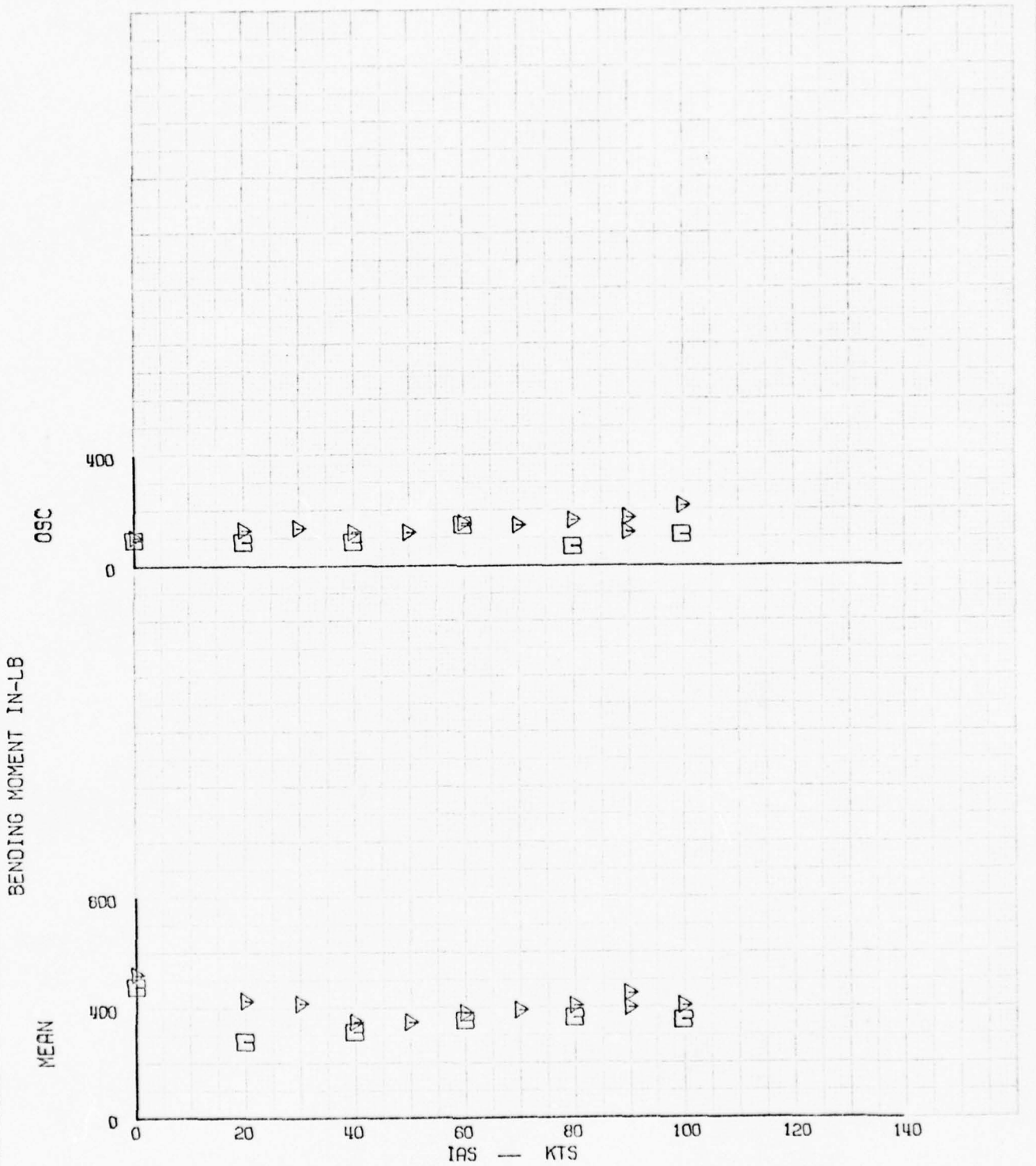


FIG. 73 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

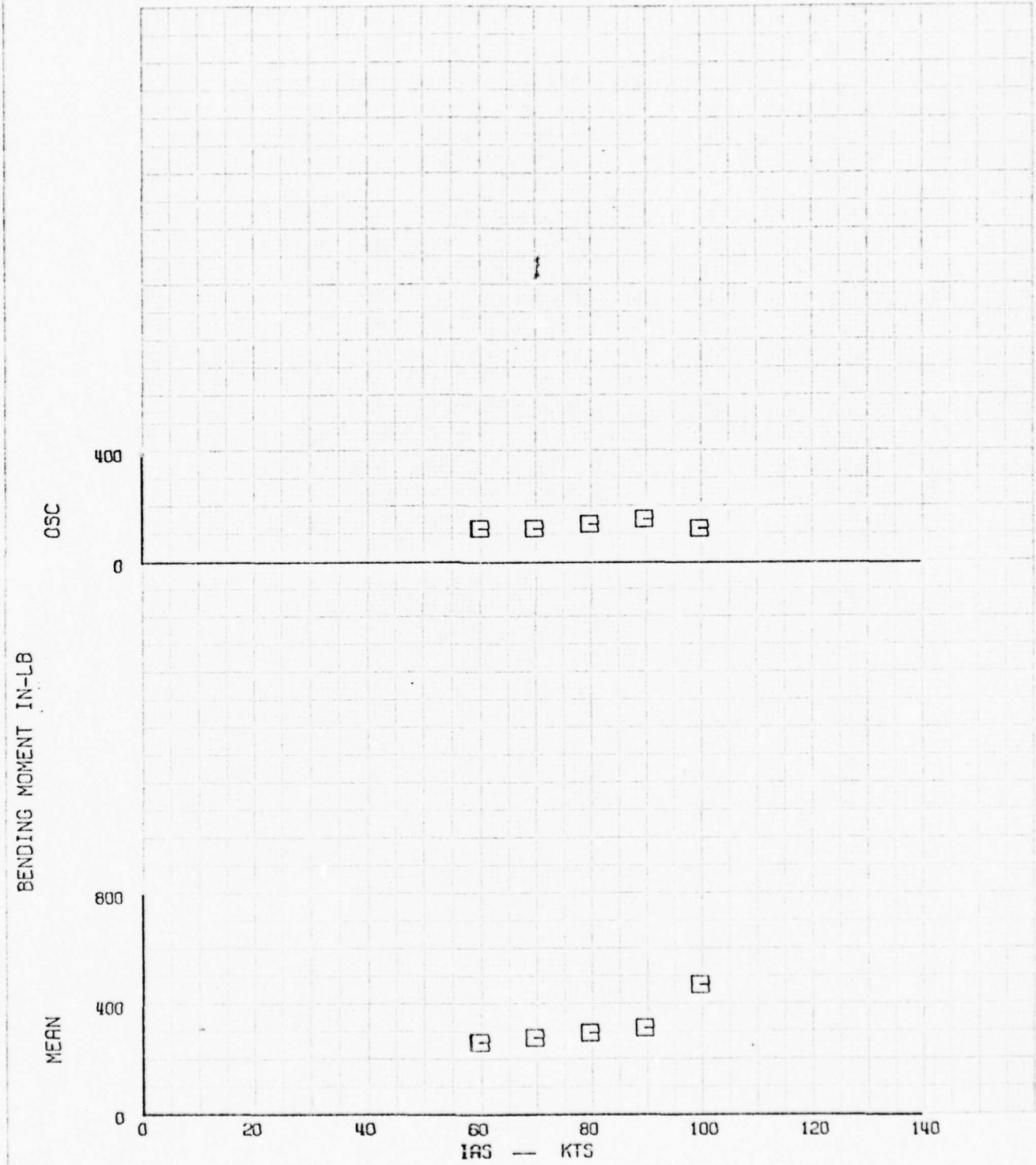


FIG. 74 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

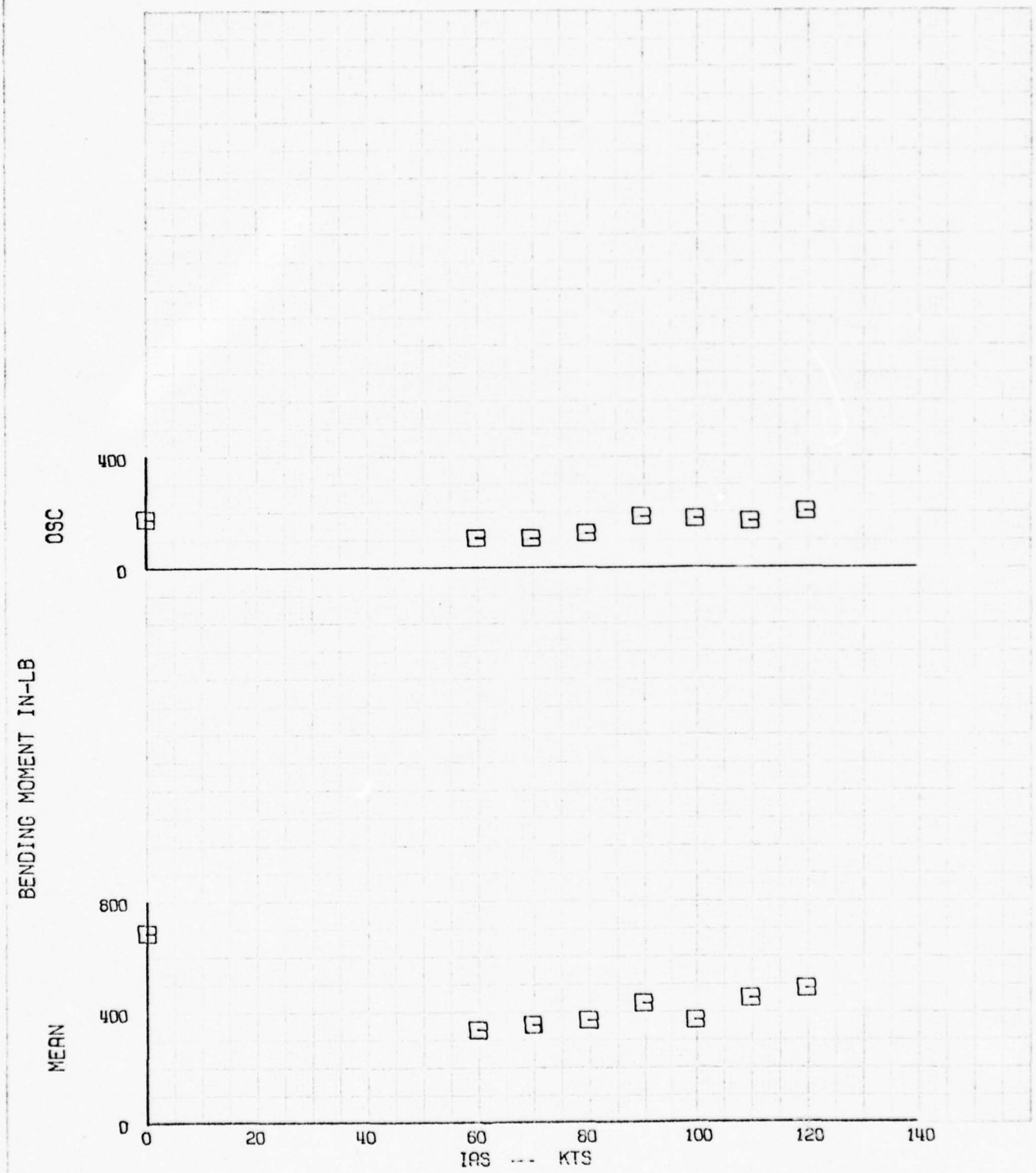


FIG. 75 ITEM B106-TR RED BLADE BEAM STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

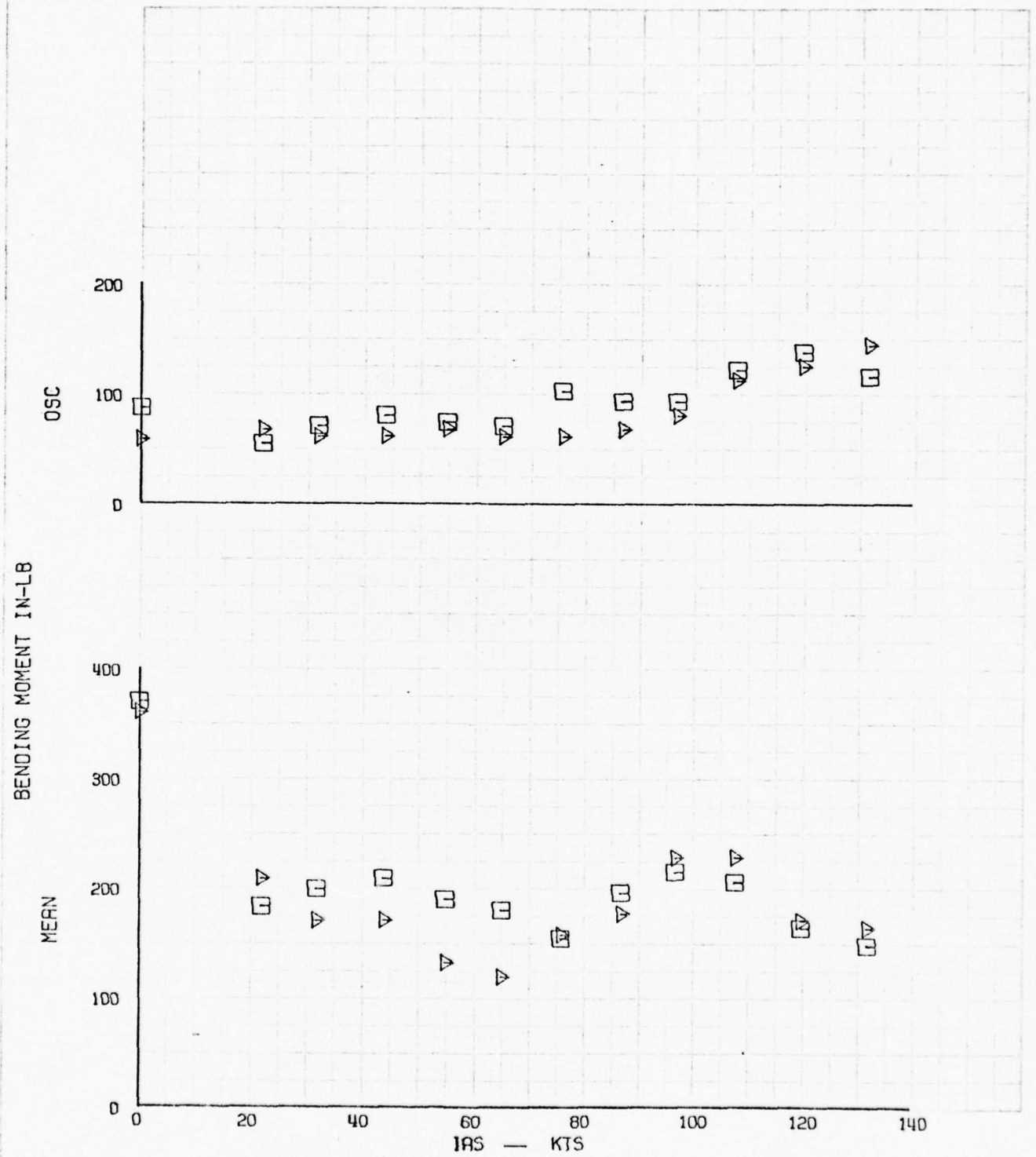


FIG. 76 ITEM B107-TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
⊳ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

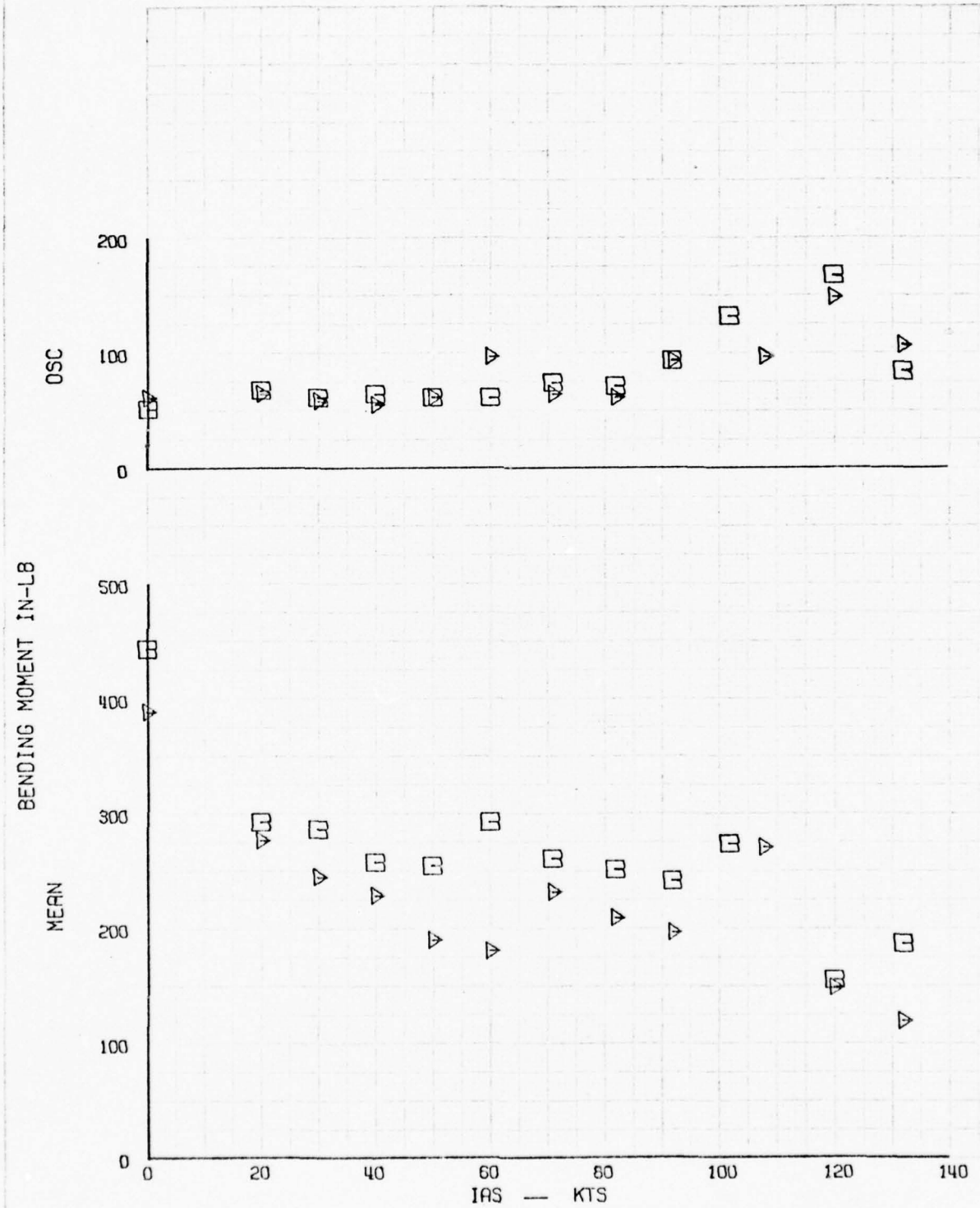


FIG. 77 ITEM B107-TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

2441-5

05/05/73

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

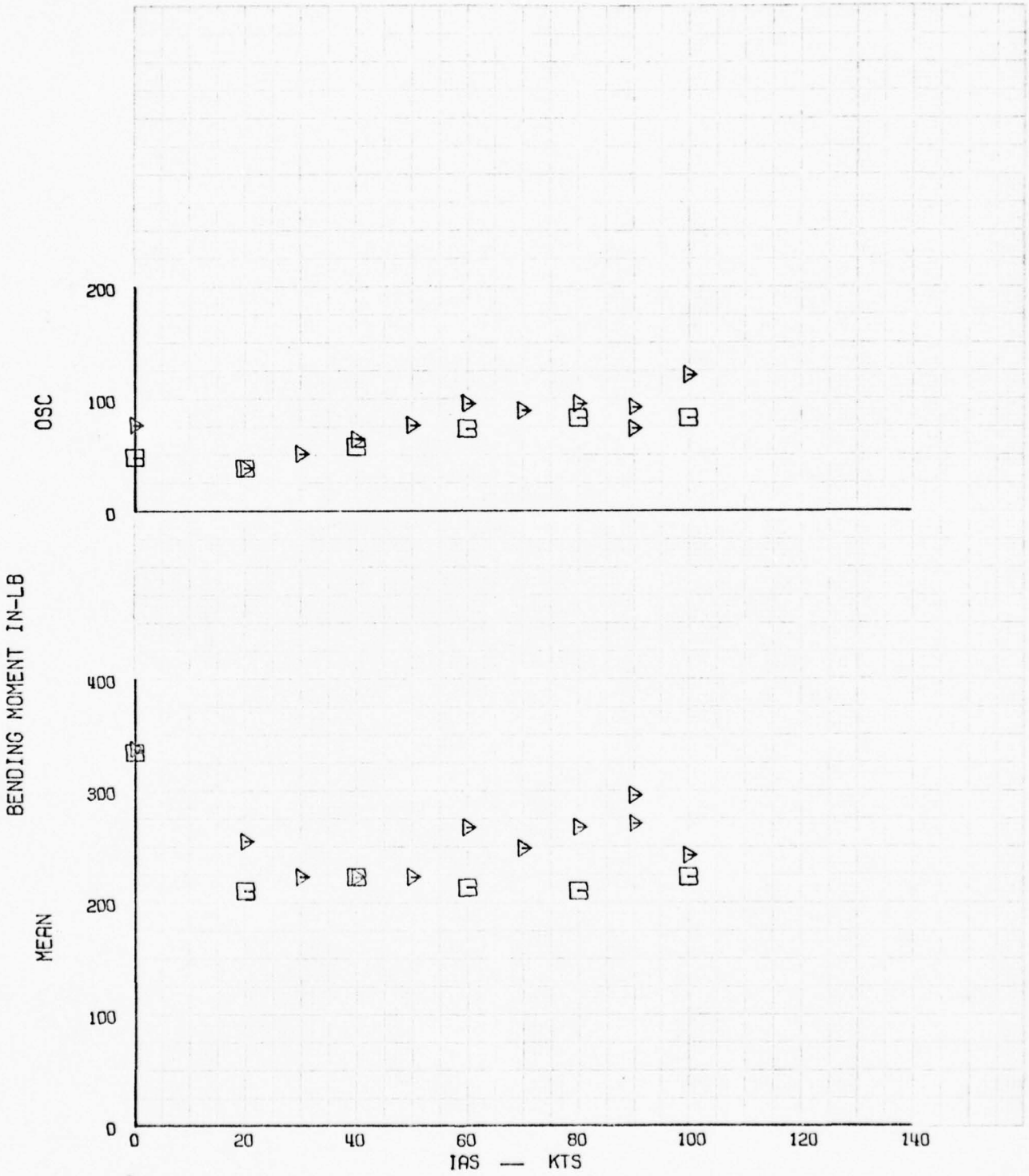


FIG. 78 ITEM B107--TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

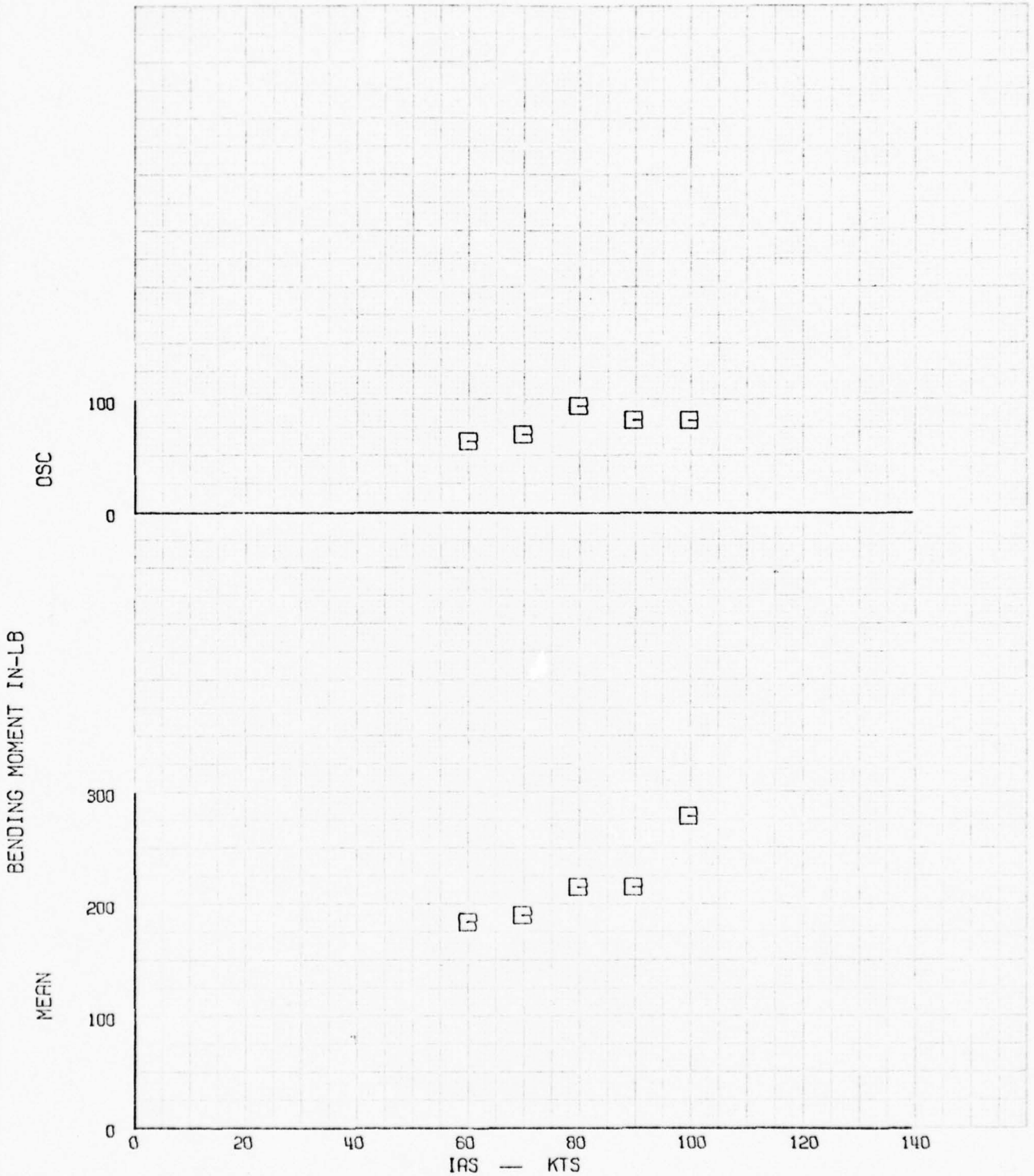


FIG. 79 ITEM B107-TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

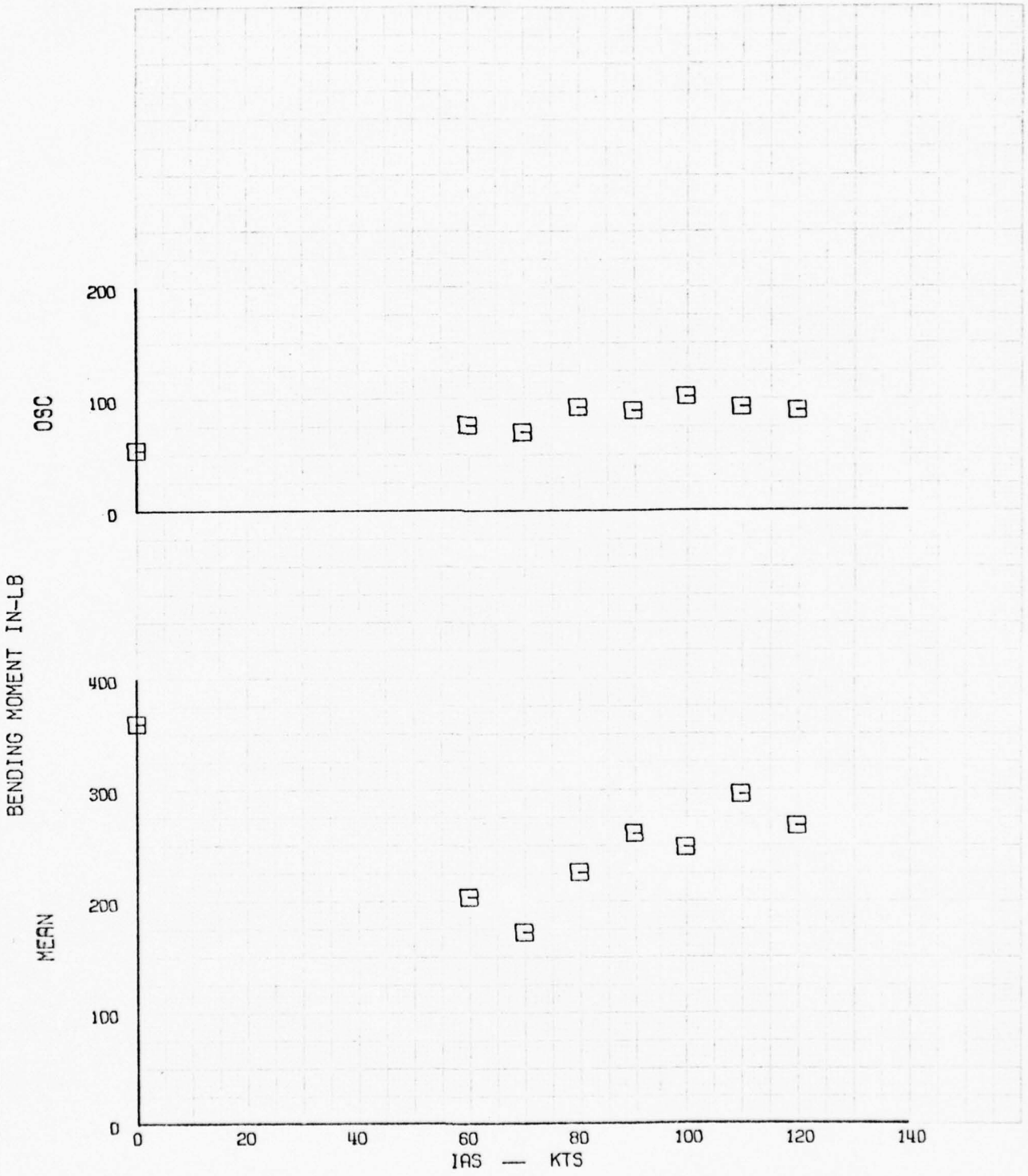


FIG. 80 ITEM B107-TR RED BLADE BEAM STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

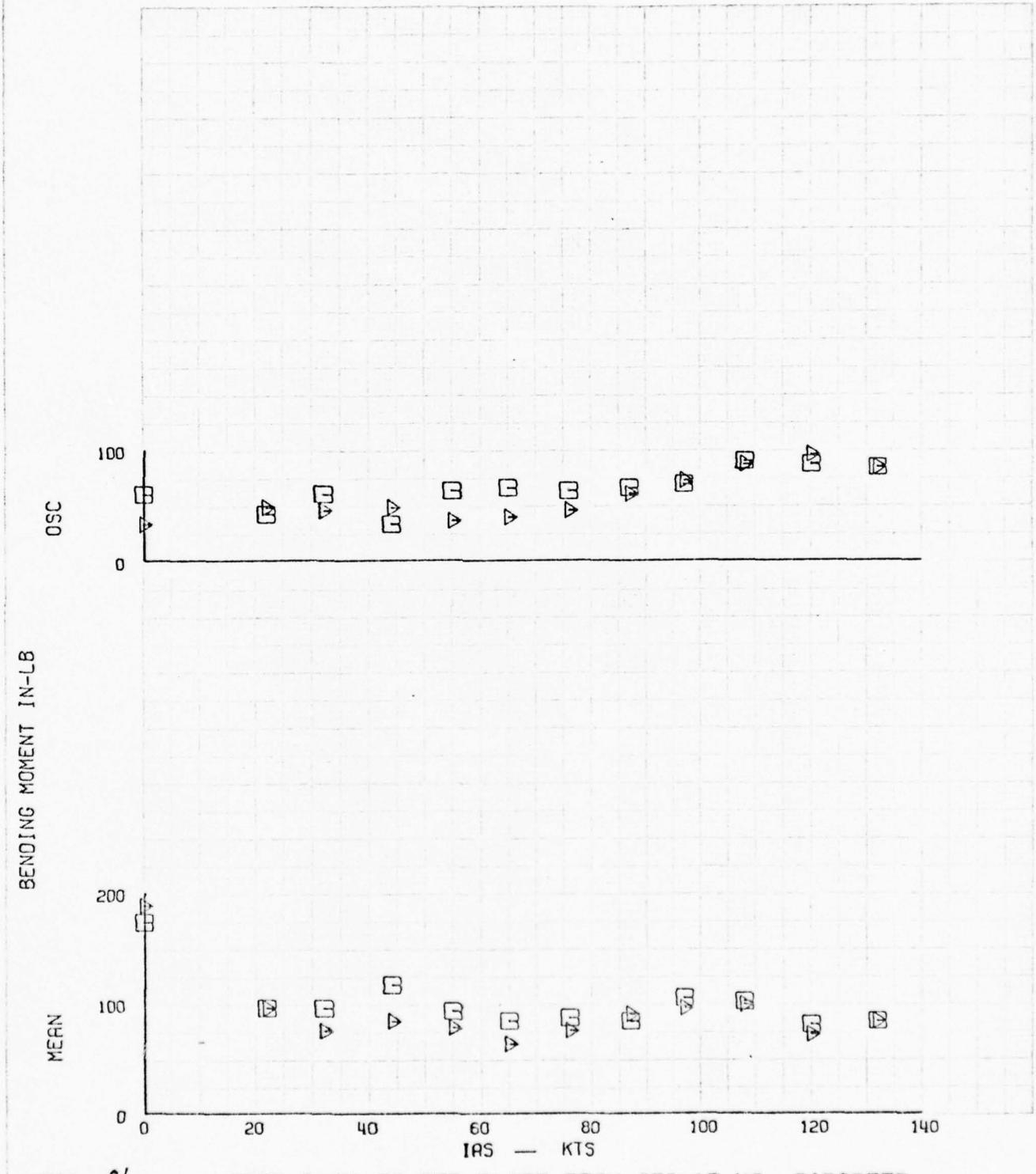


FIG. 81 ITEM B108-TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

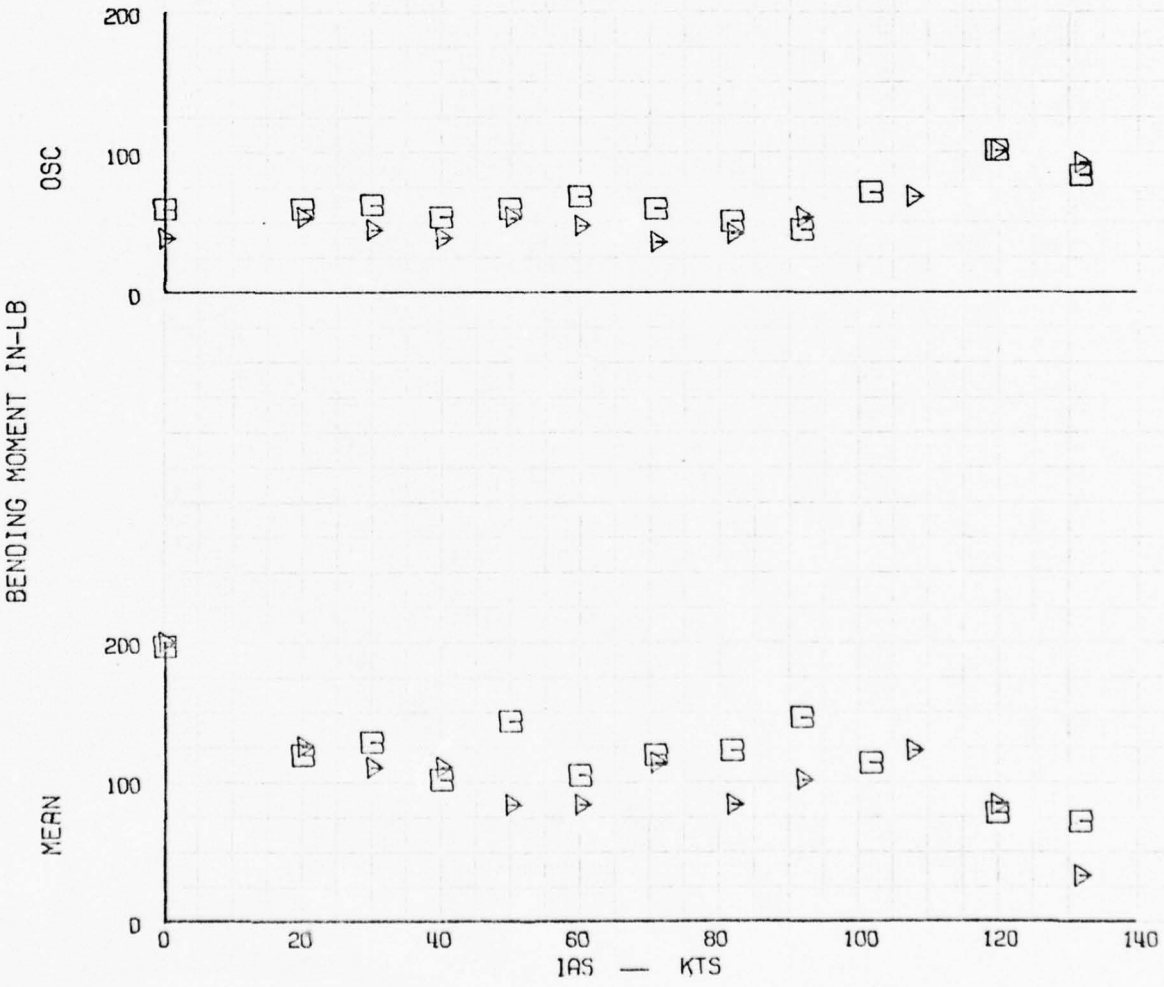


FIG. 82 ITEM B108-TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

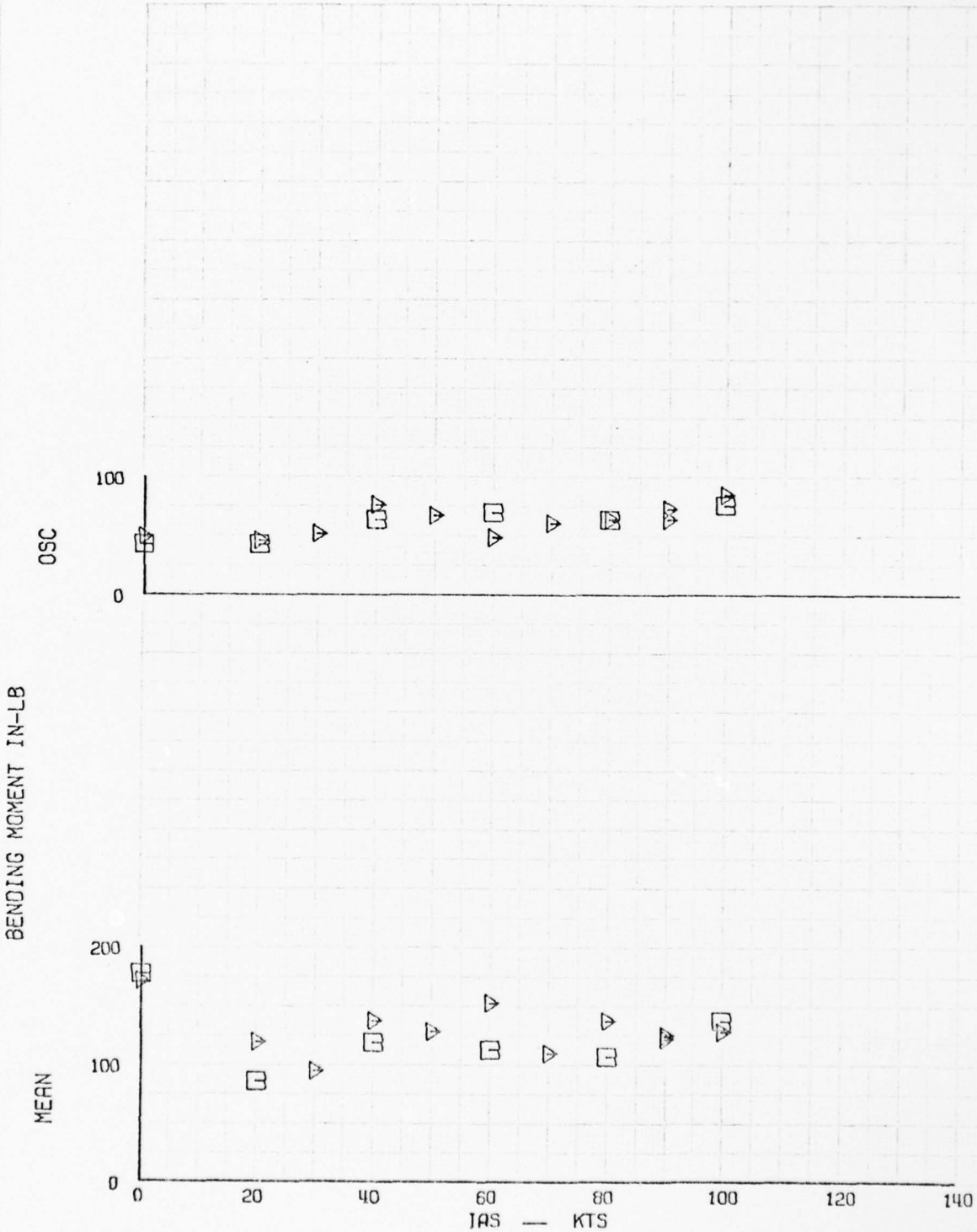


FIG. 83 ITEM B108--TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

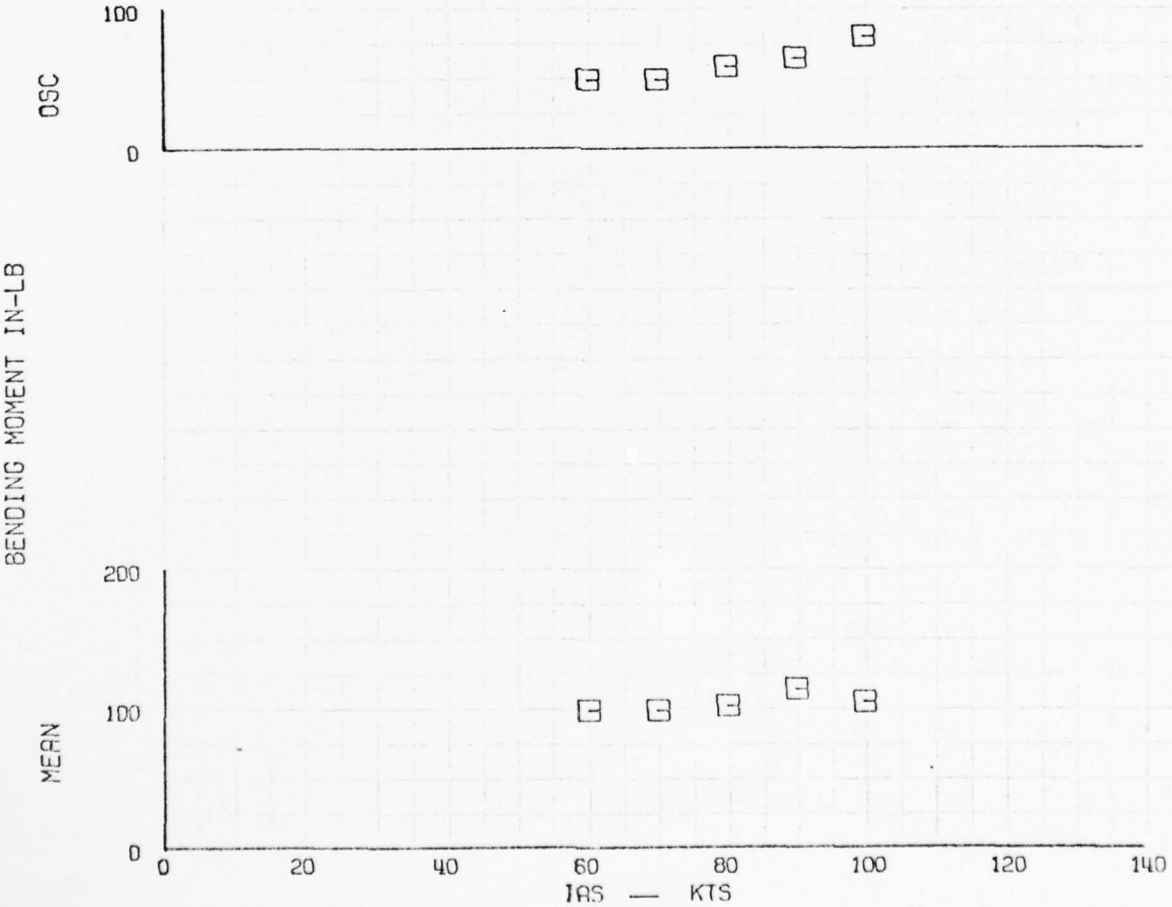


FIG. 84 ITEM B108-TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM ⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

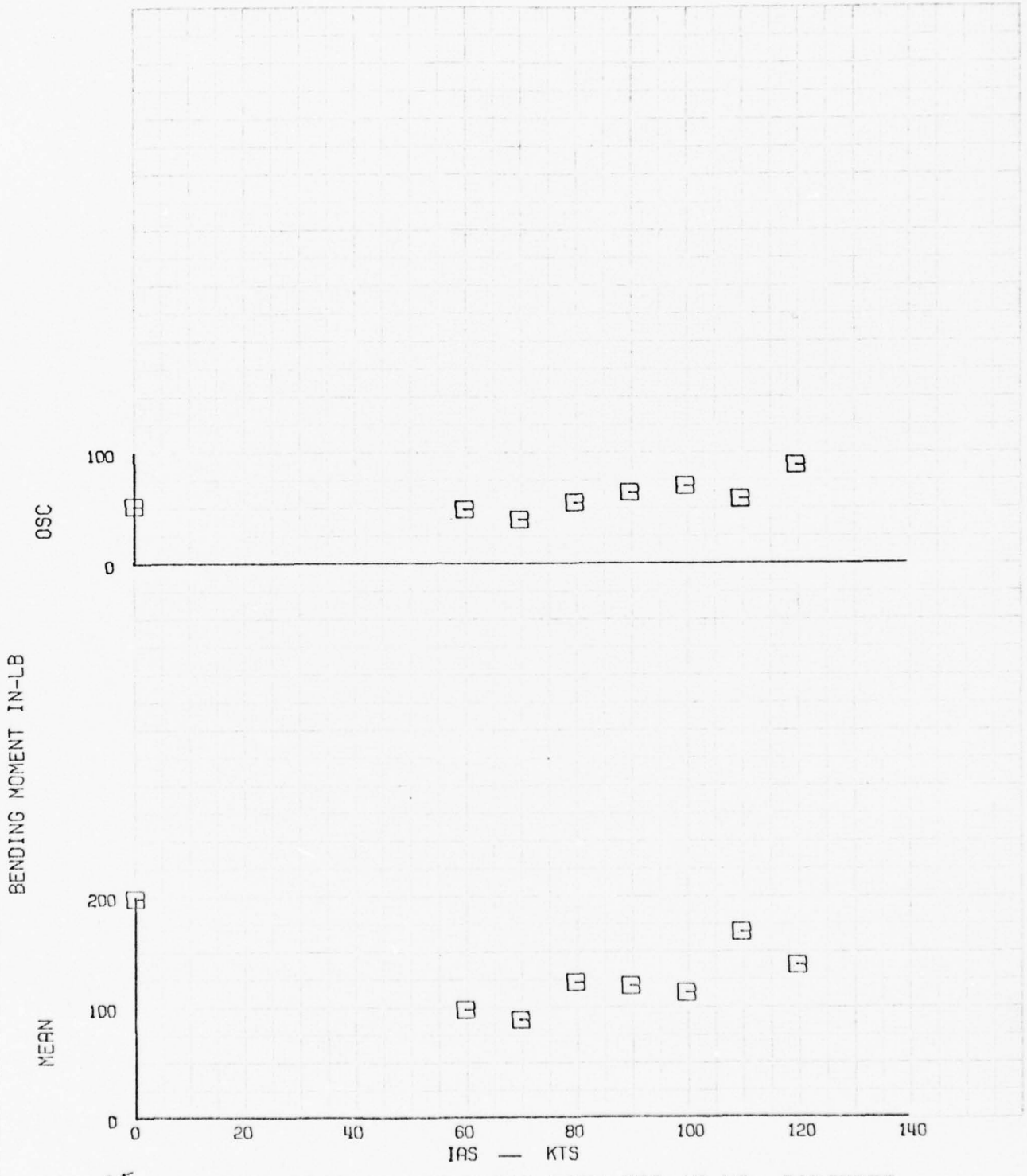


FIG. 85 ITEM B108-TR RED BLADE BEAM STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊟ 347
▵ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

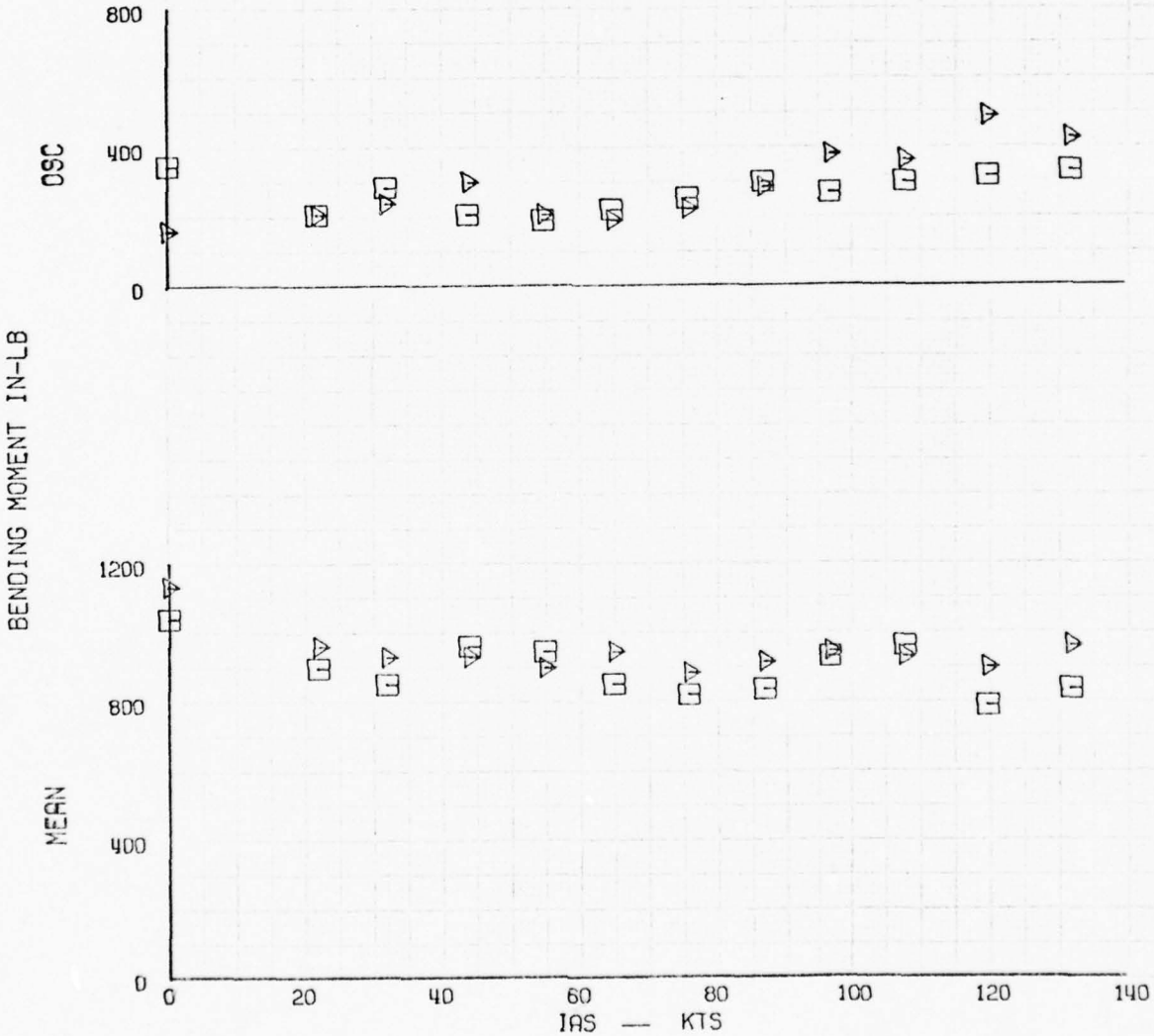


FIG. 86 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

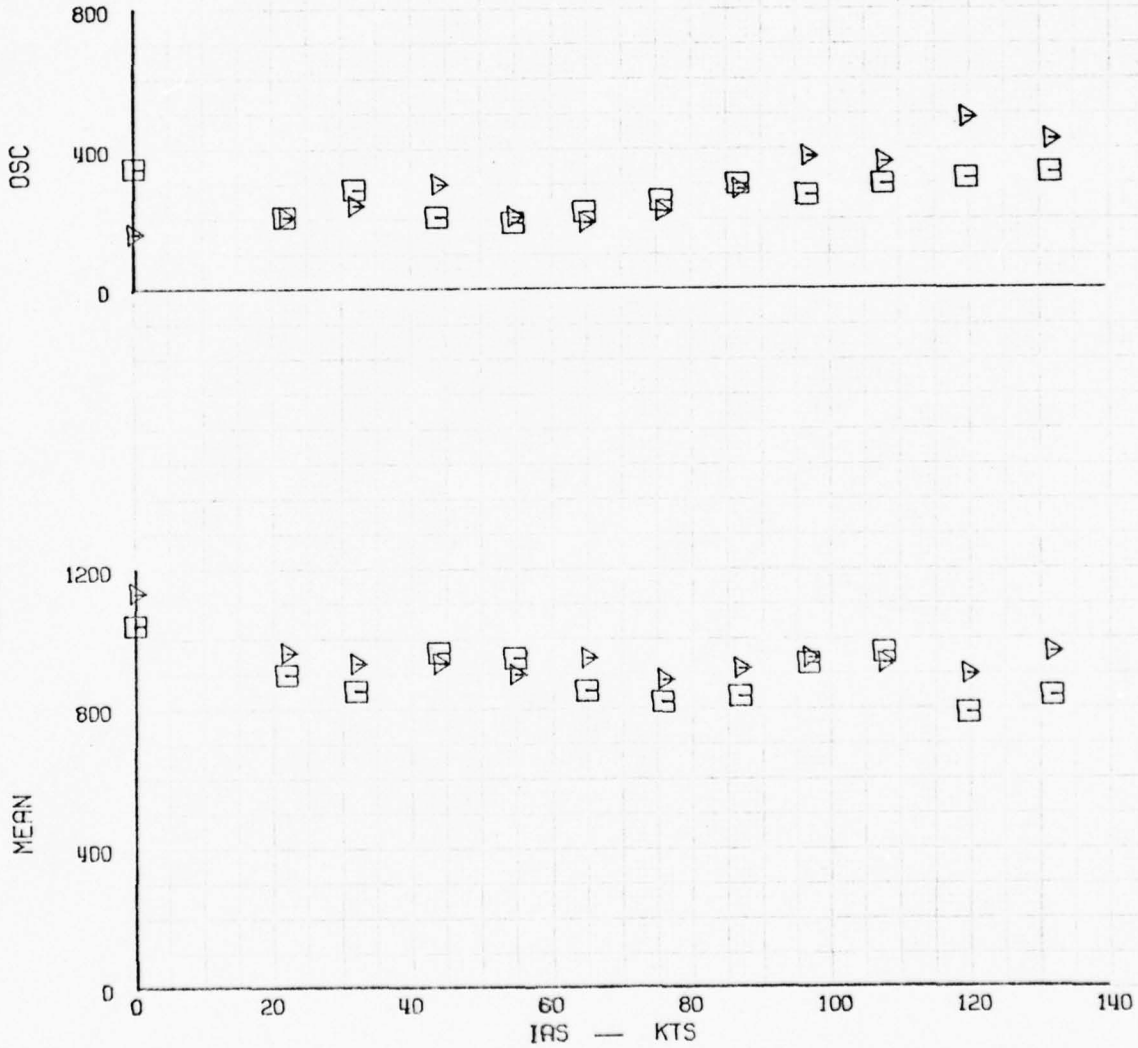


FIG. 86 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

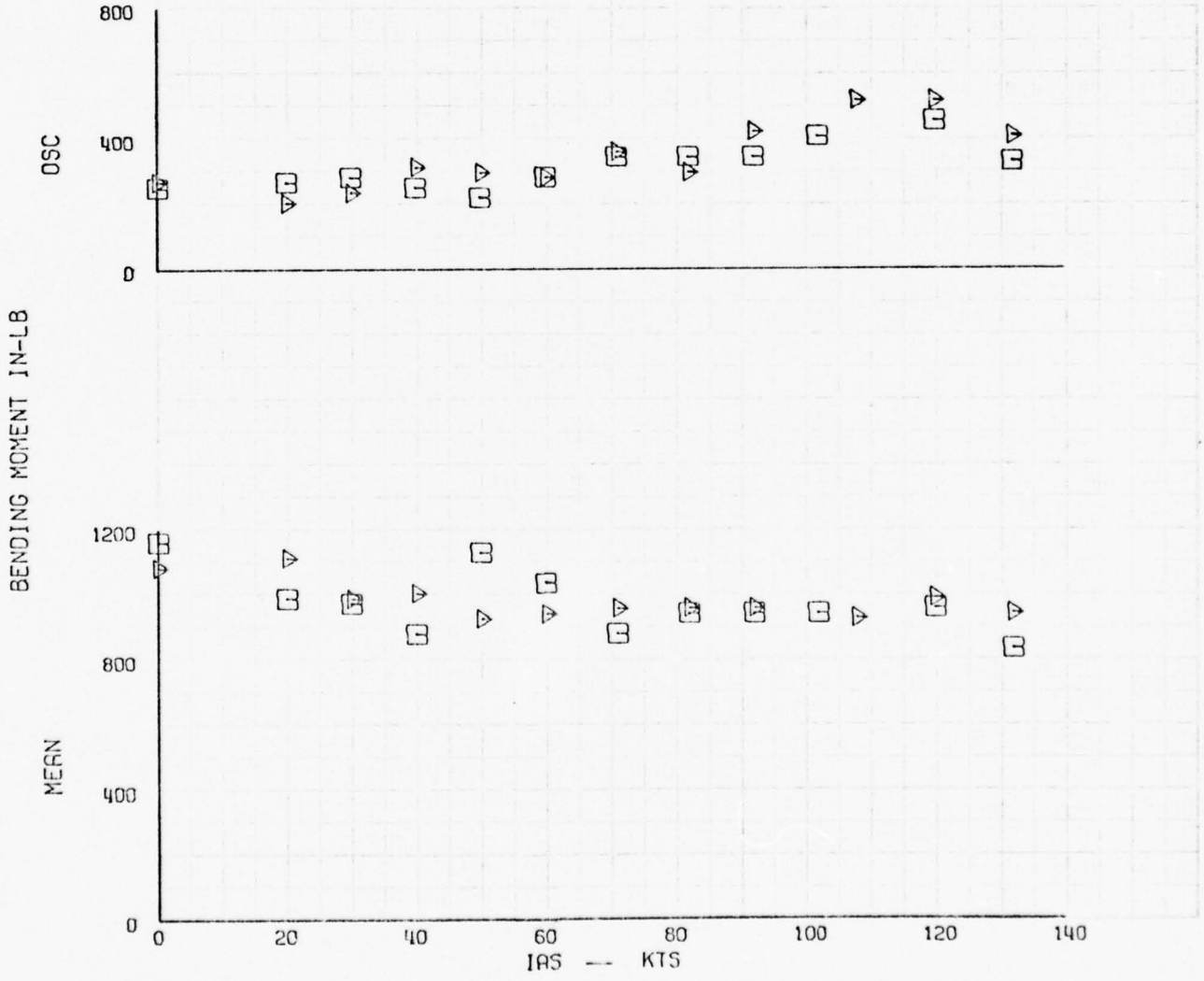


FIG. 87 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

2441-1

05/07/73

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

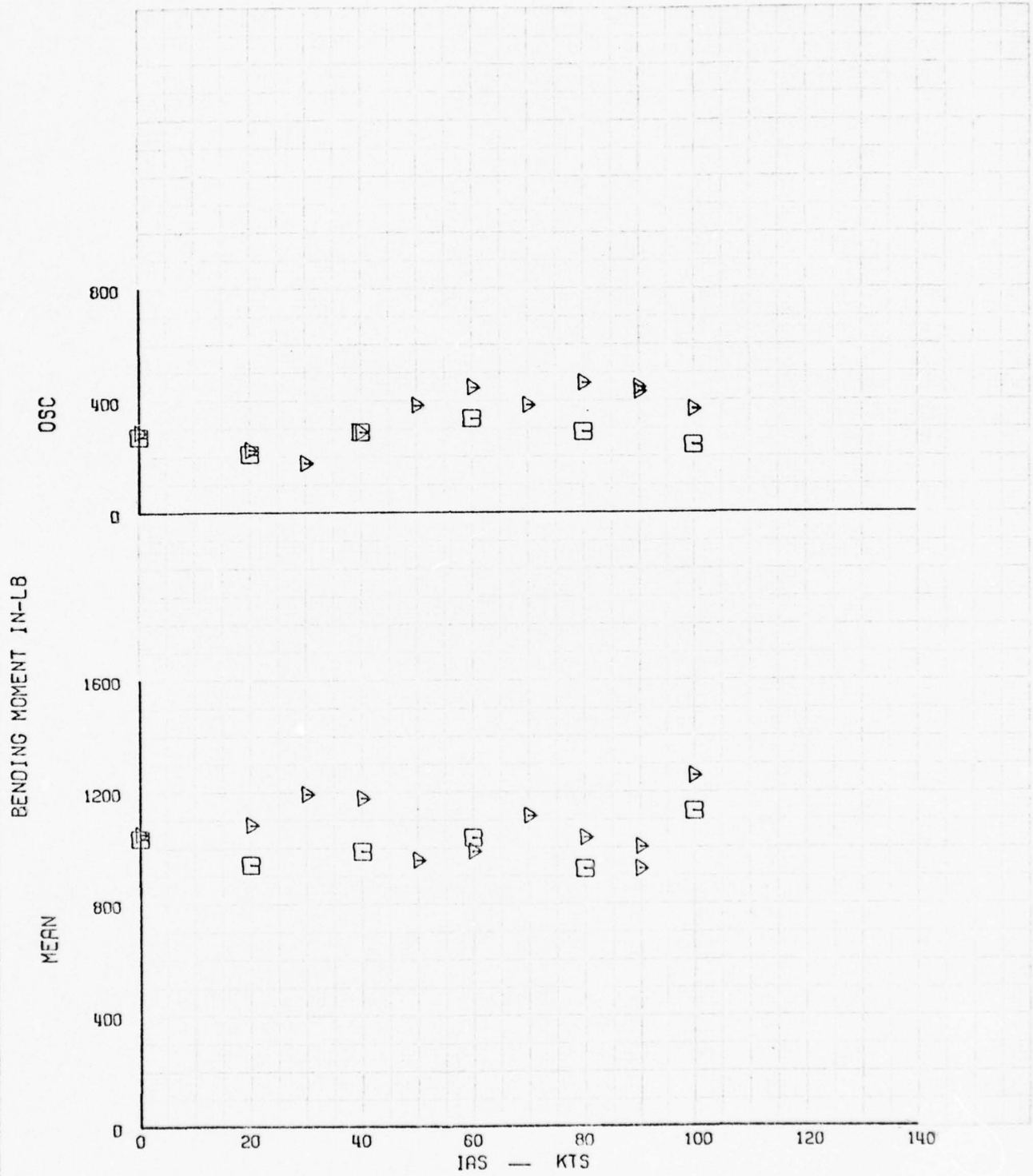


FIG. 88 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HO

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE ≈ -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

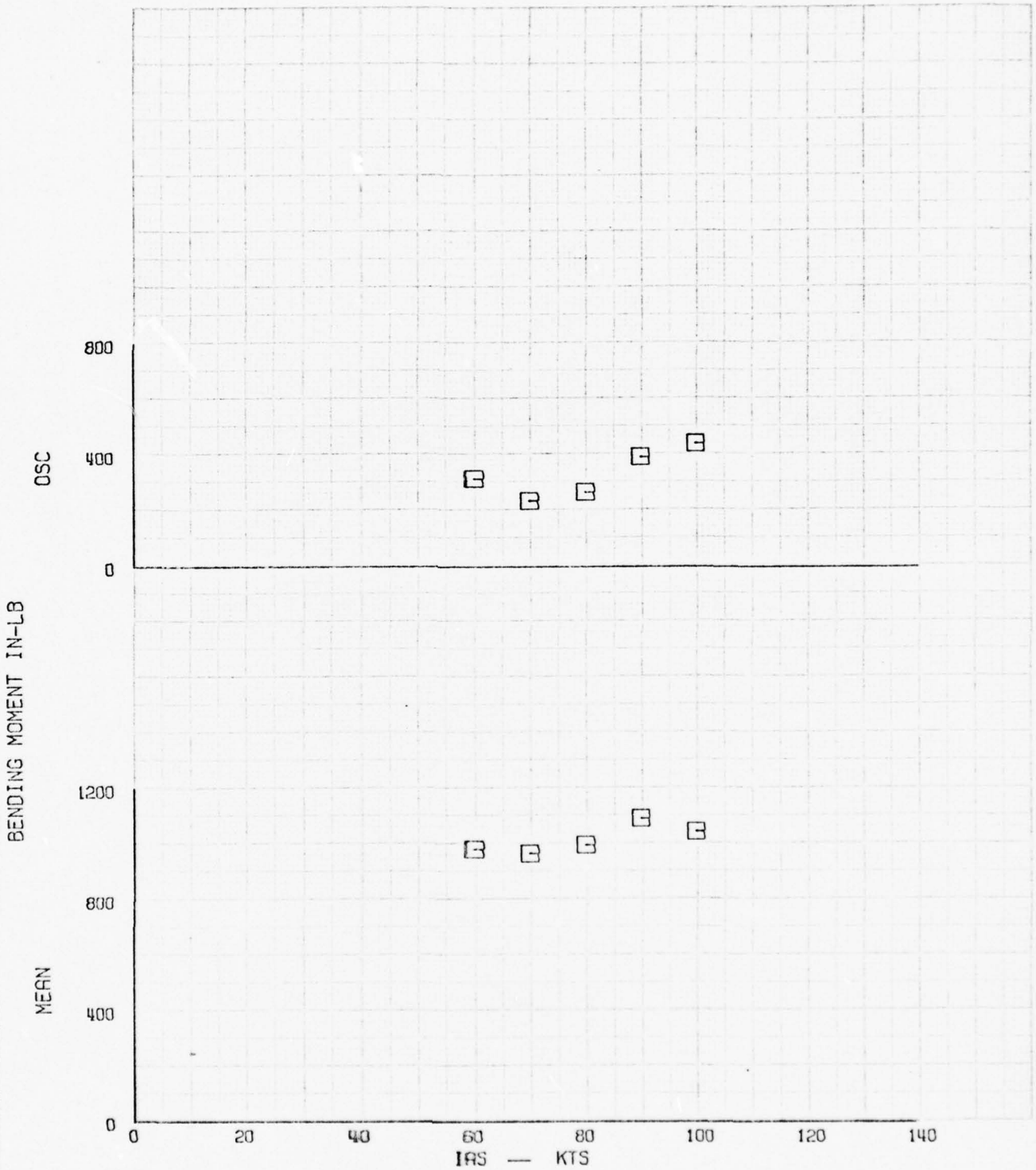


FIG. 89 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

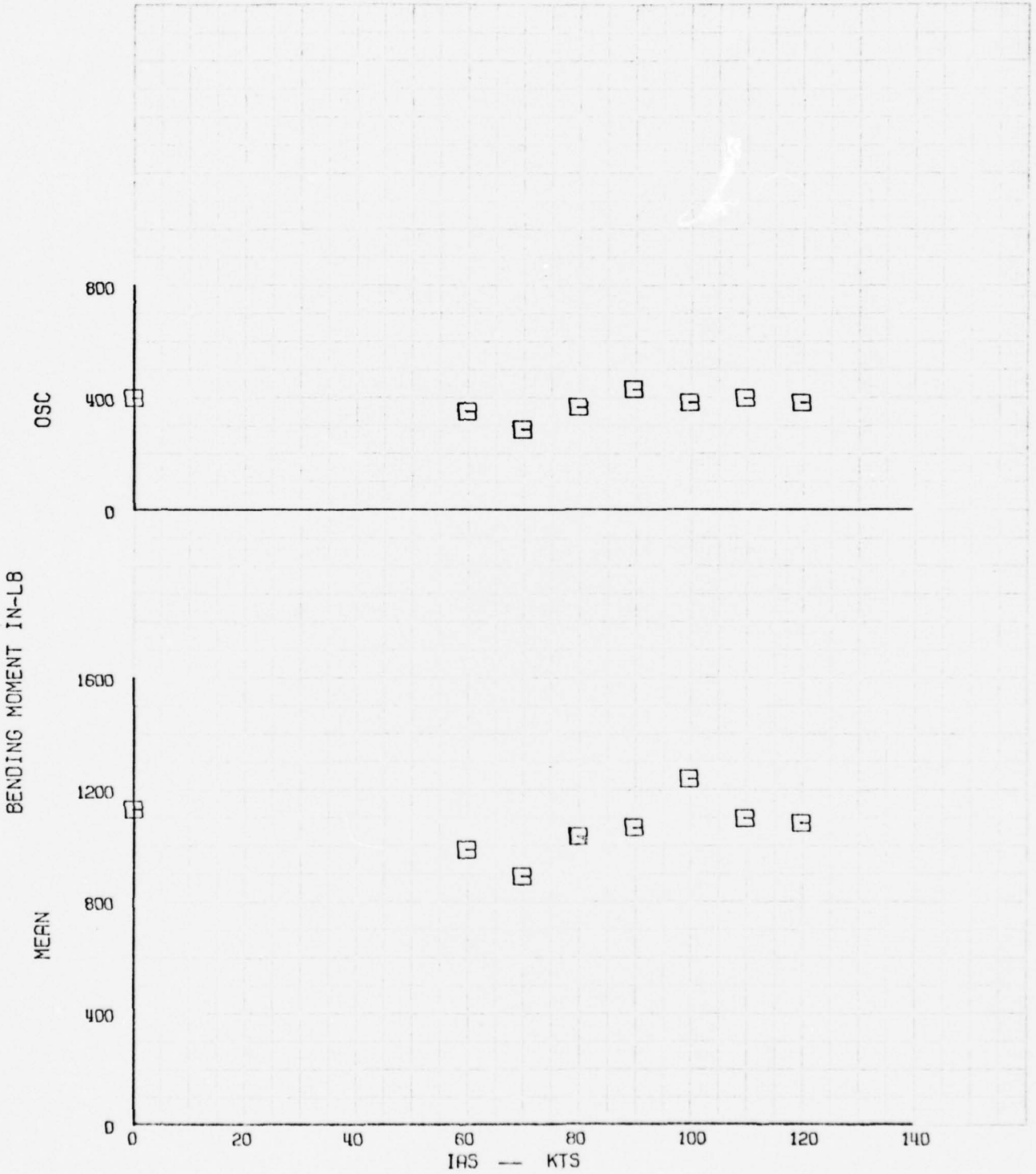


FIG. 90 ITEM B104-TR WHT YOKE CHORD STA 1.8 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

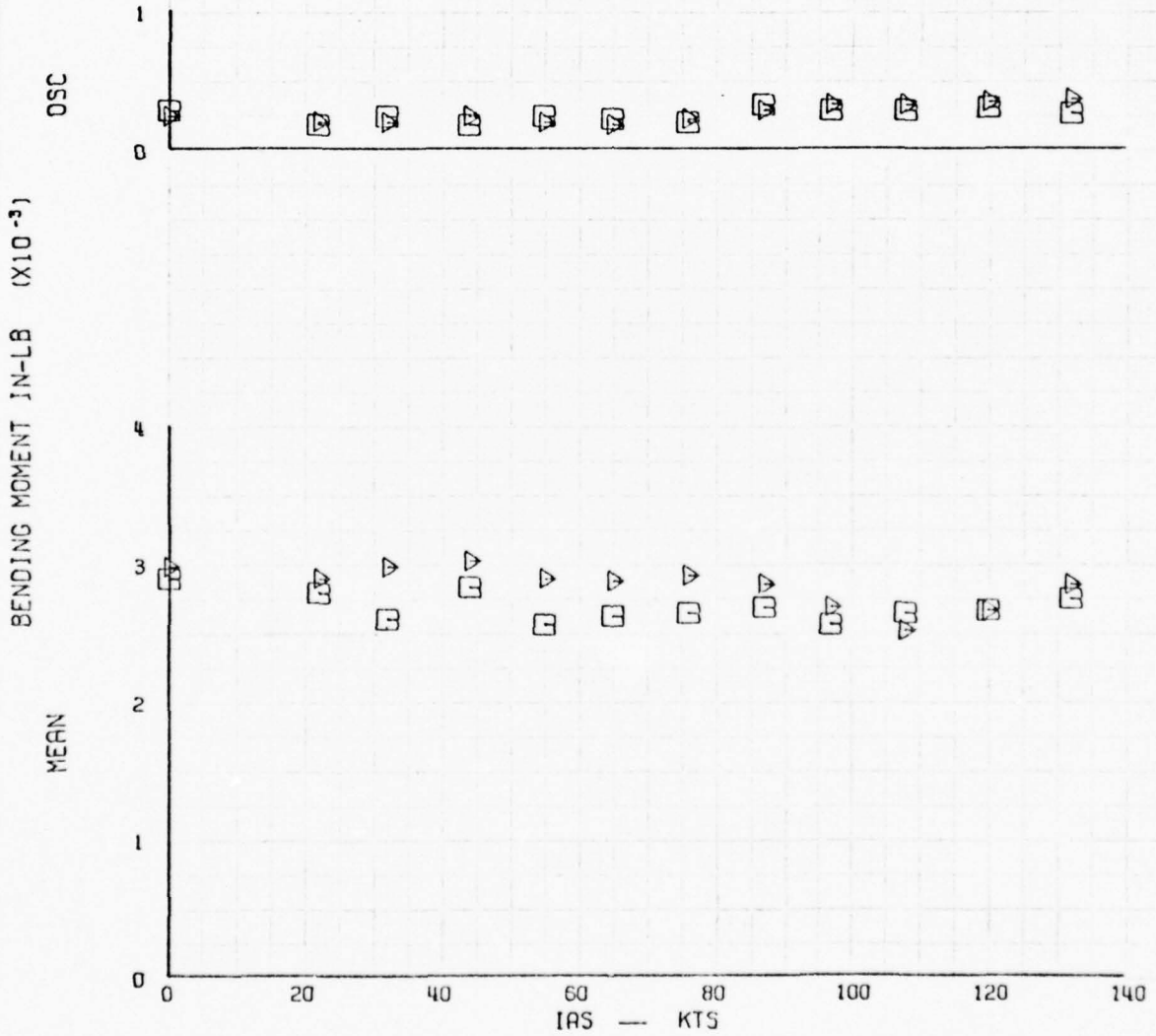


FIG. 91 ITEM B103-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
347
354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

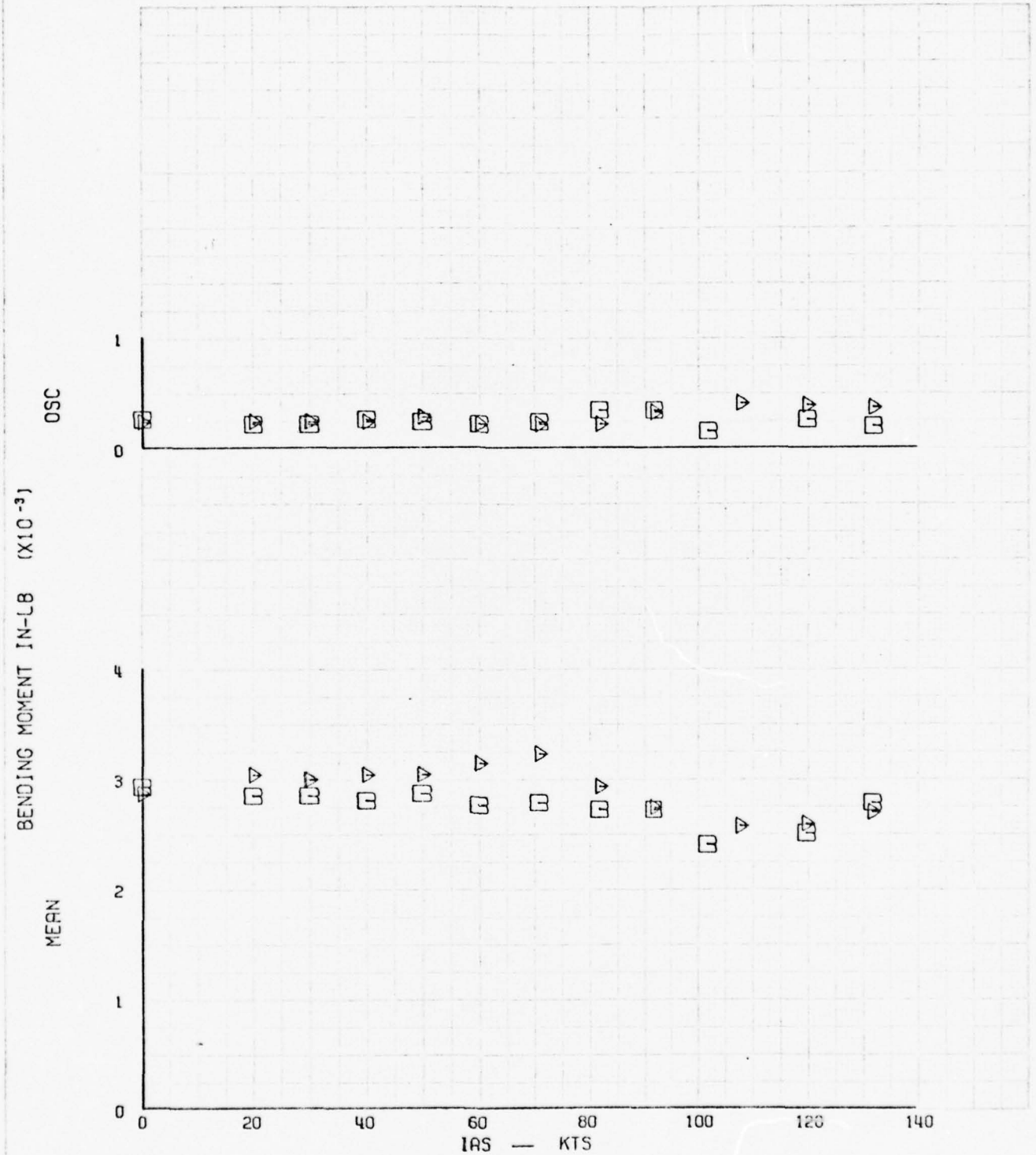


FIG. 92 ITEM B103-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

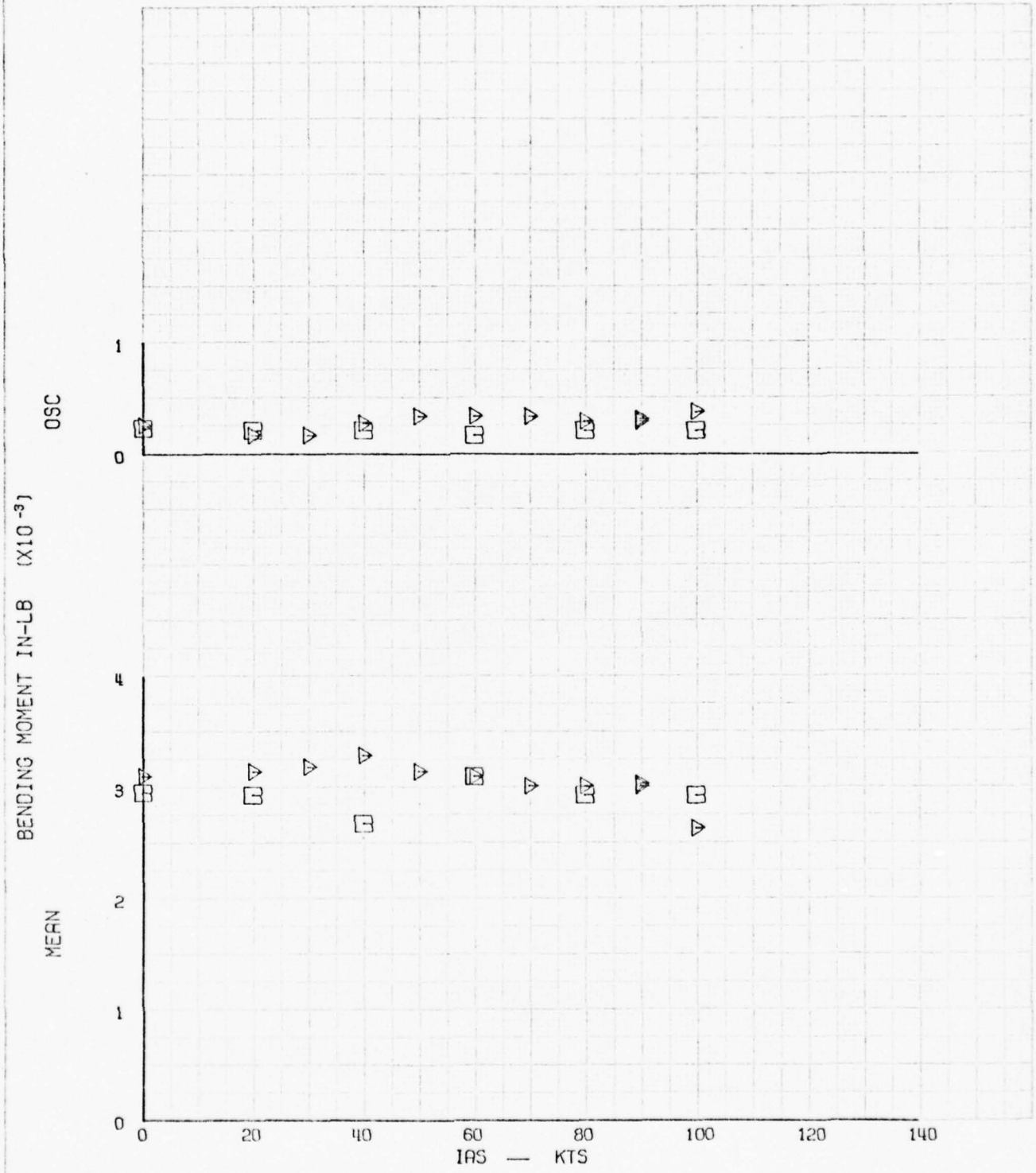


FIG. 93 ITEM B103-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

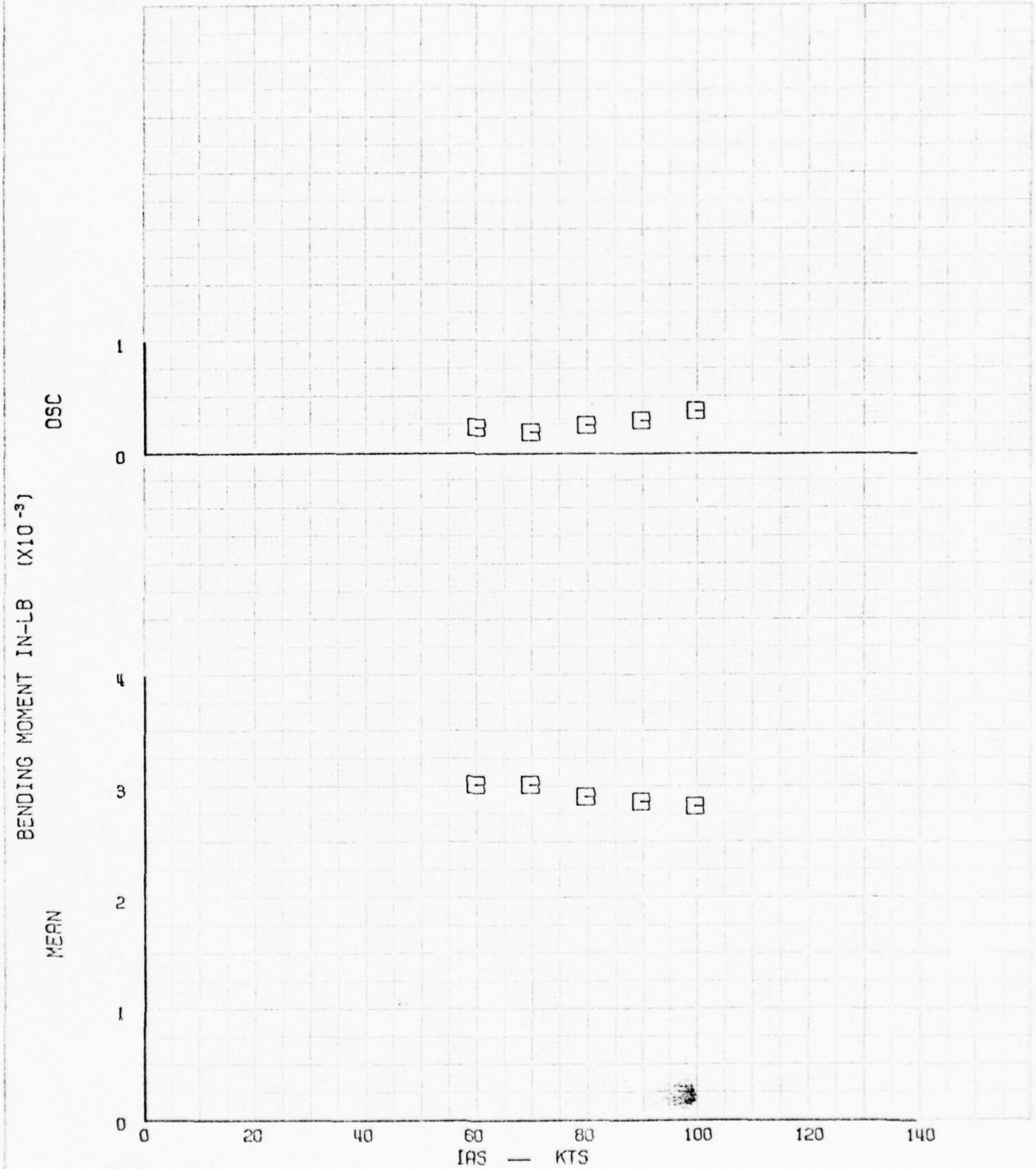


FIG. 94 ITEM B103-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL 0H-58
SHIP 40011
FLT 52
DATE 006FEB 73

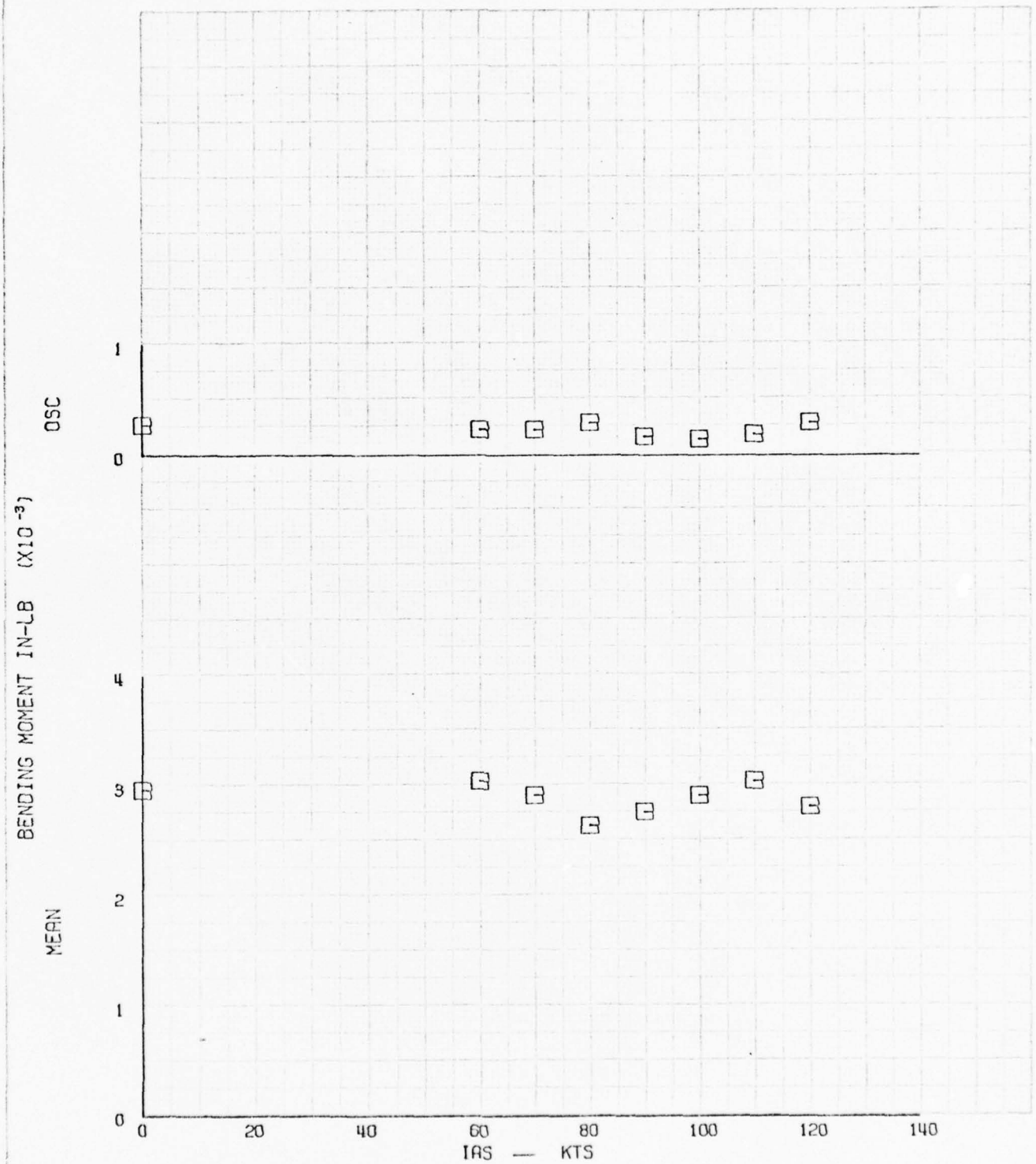


FIG. 95 ITEM B103-TR RED BLADE CHORD STA 7.0 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

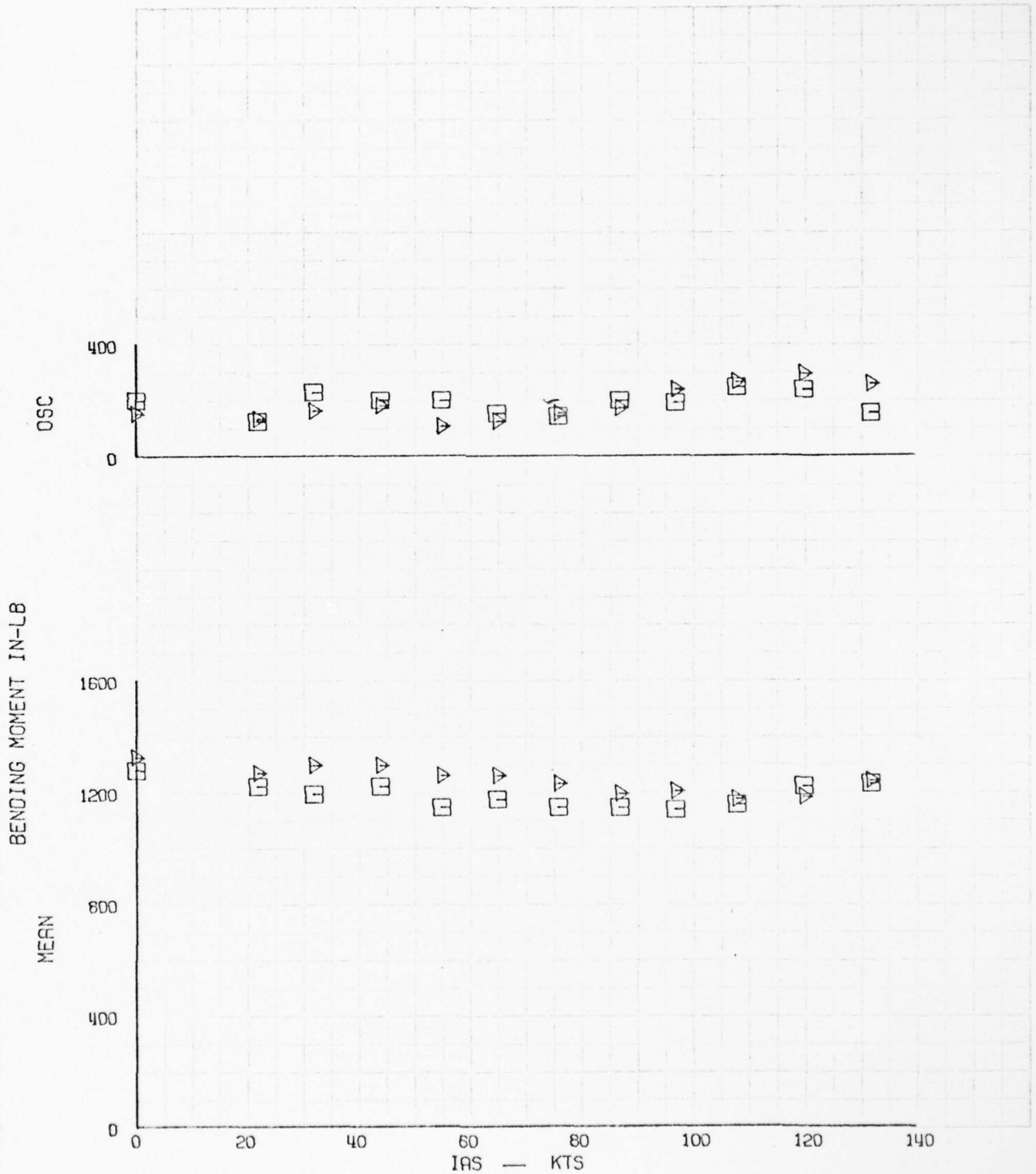


FIG. 96 ITEM B102-TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

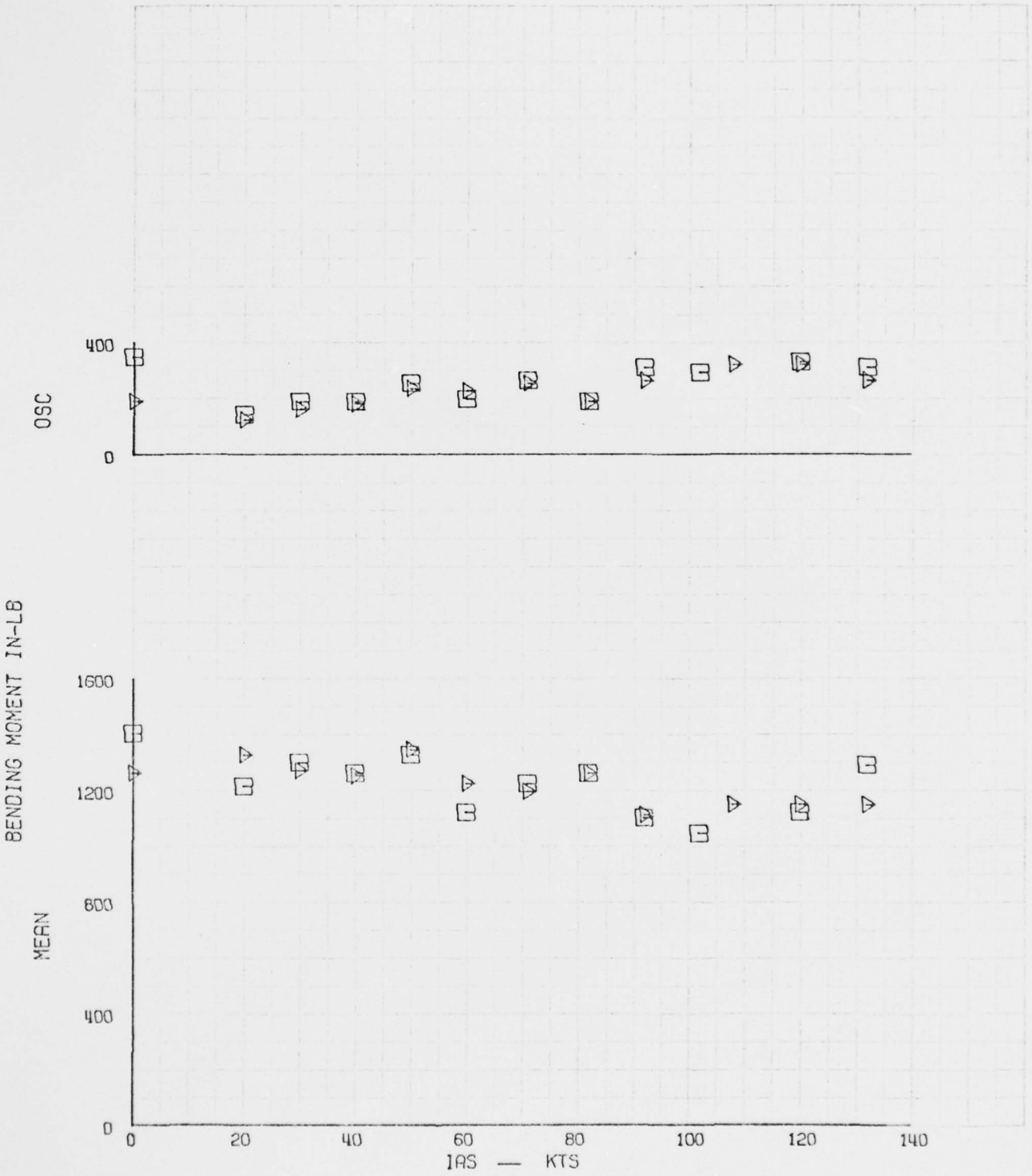


FIG. 97 ITEM B102-TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

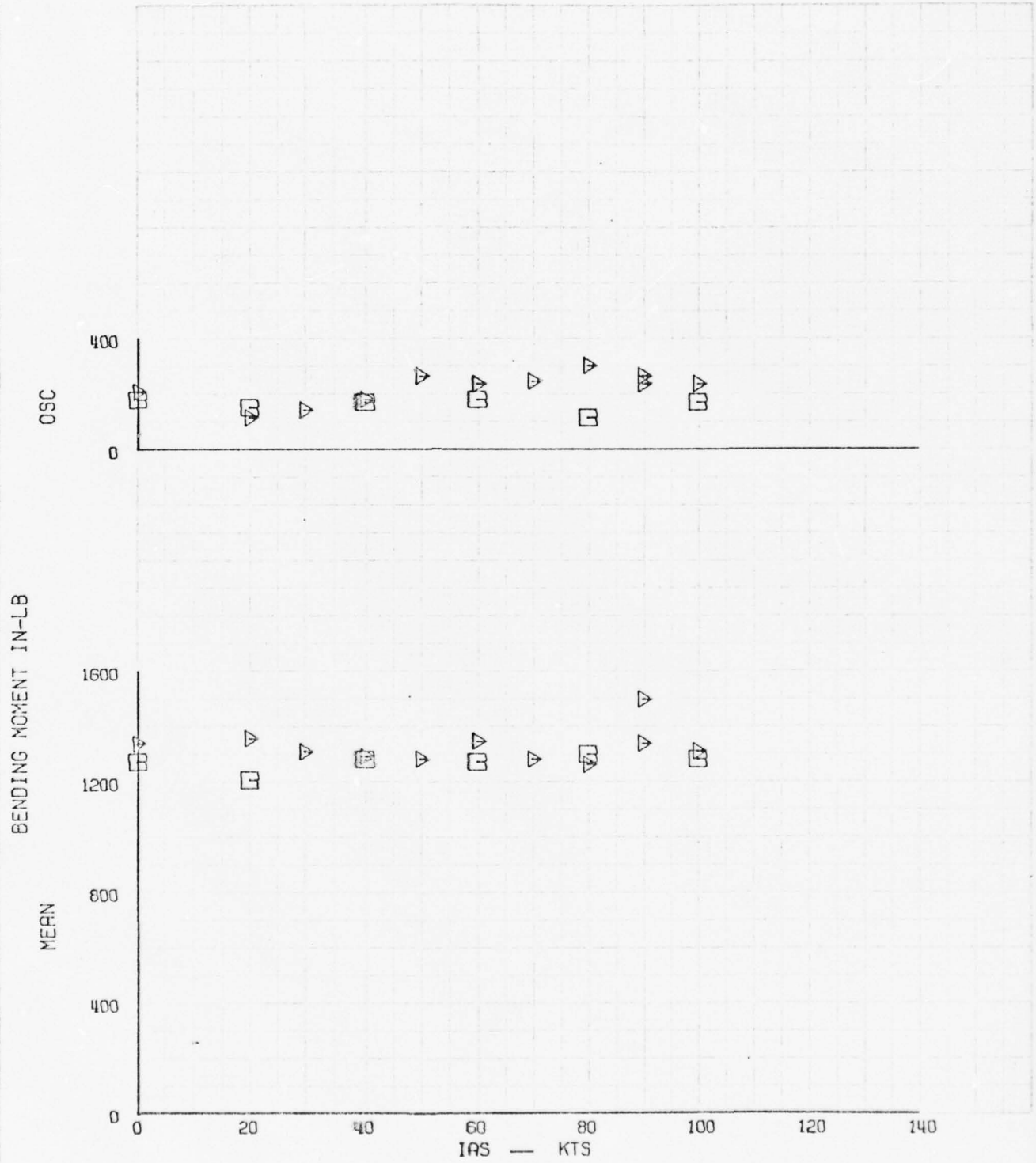


FIG. 98 ITEM B102--TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

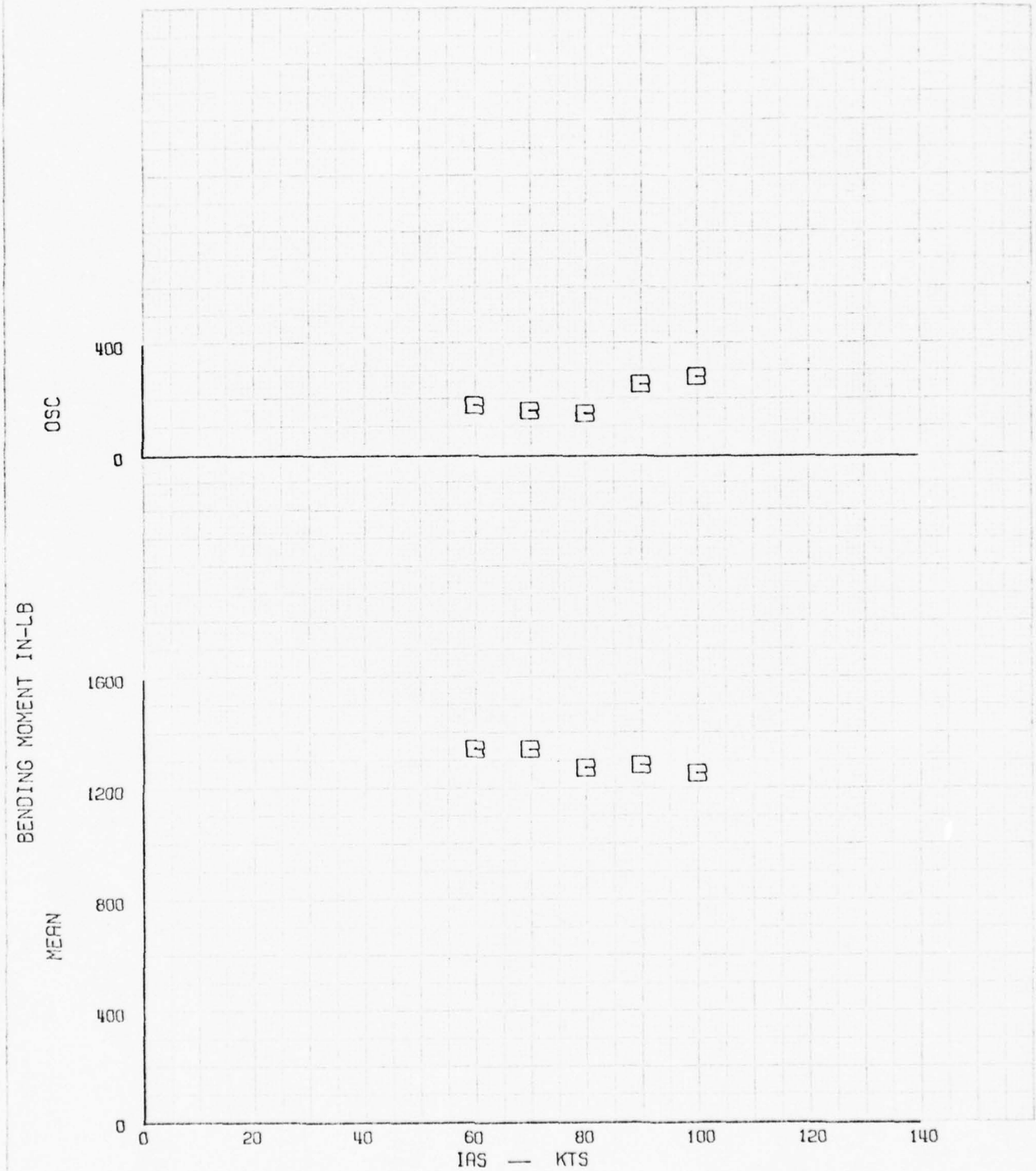


FIG. 99 ITEM B102-TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

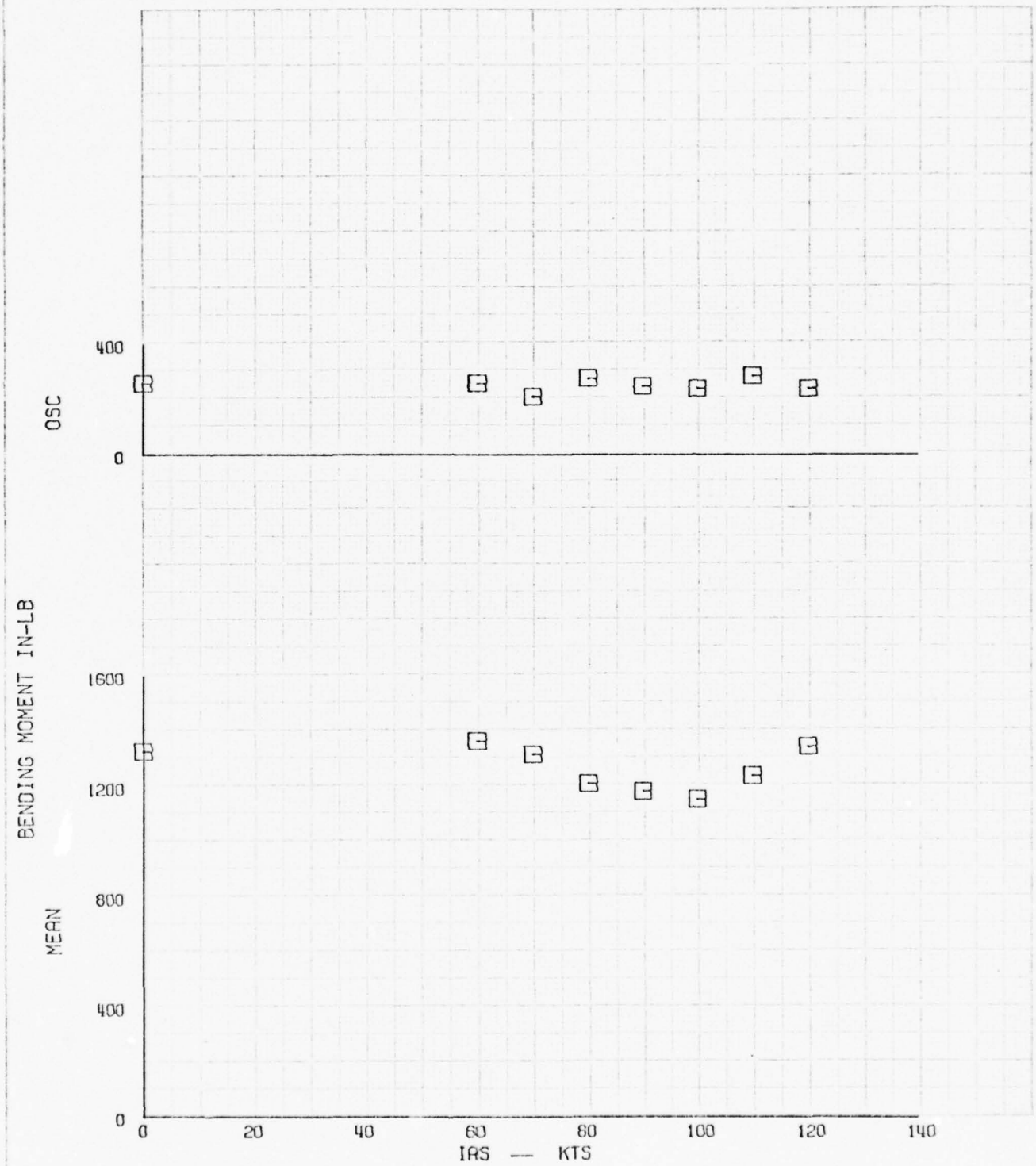


FIG. 100 ITEM B102-TR RED BLADE CHORD STA 9.5 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

SYM
⊡ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-AB
DATE 24 JAN 73

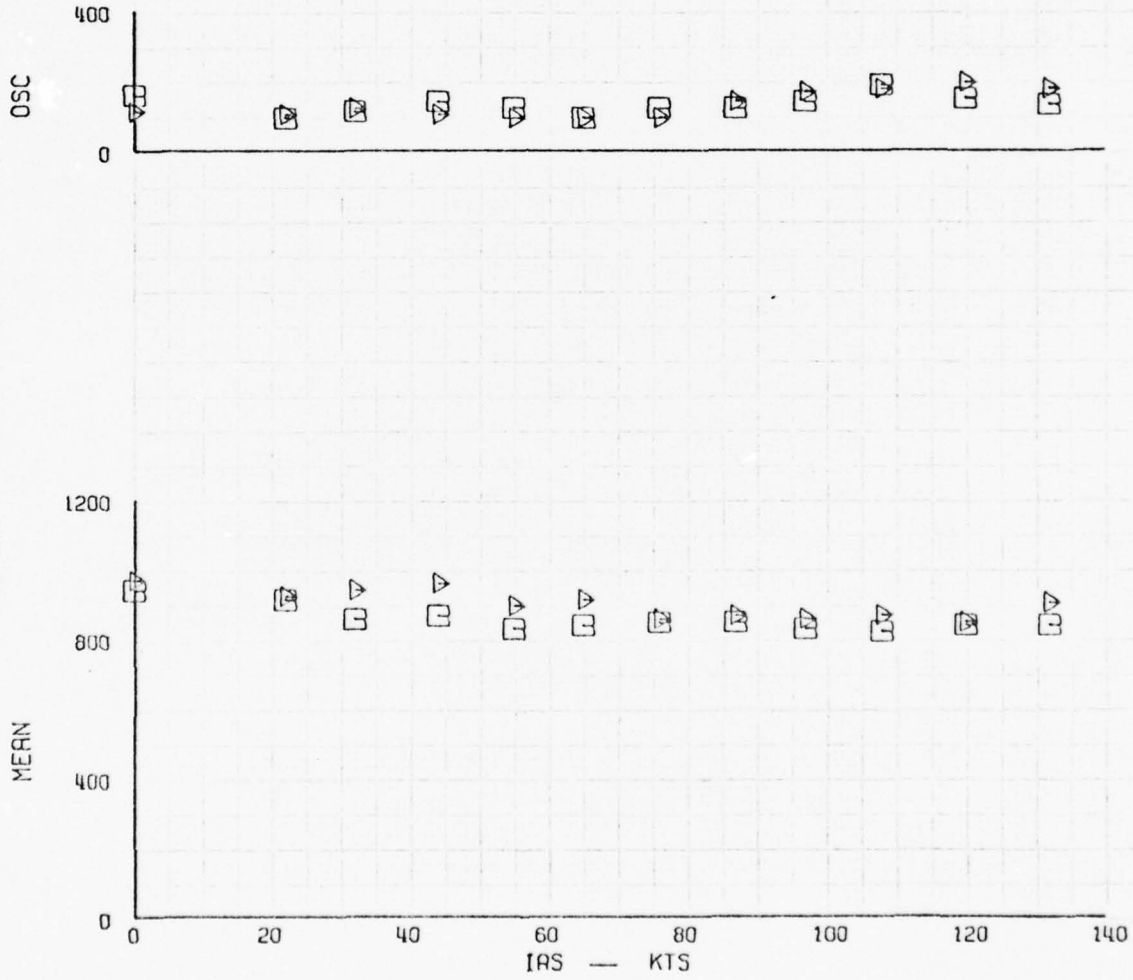


FIG. 101 ITEM B101-TR RED BLADE CHORD STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2785 C.G. 110.1 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58
SHIP 40011
FLT 48-C
DATE 24 JAN 73

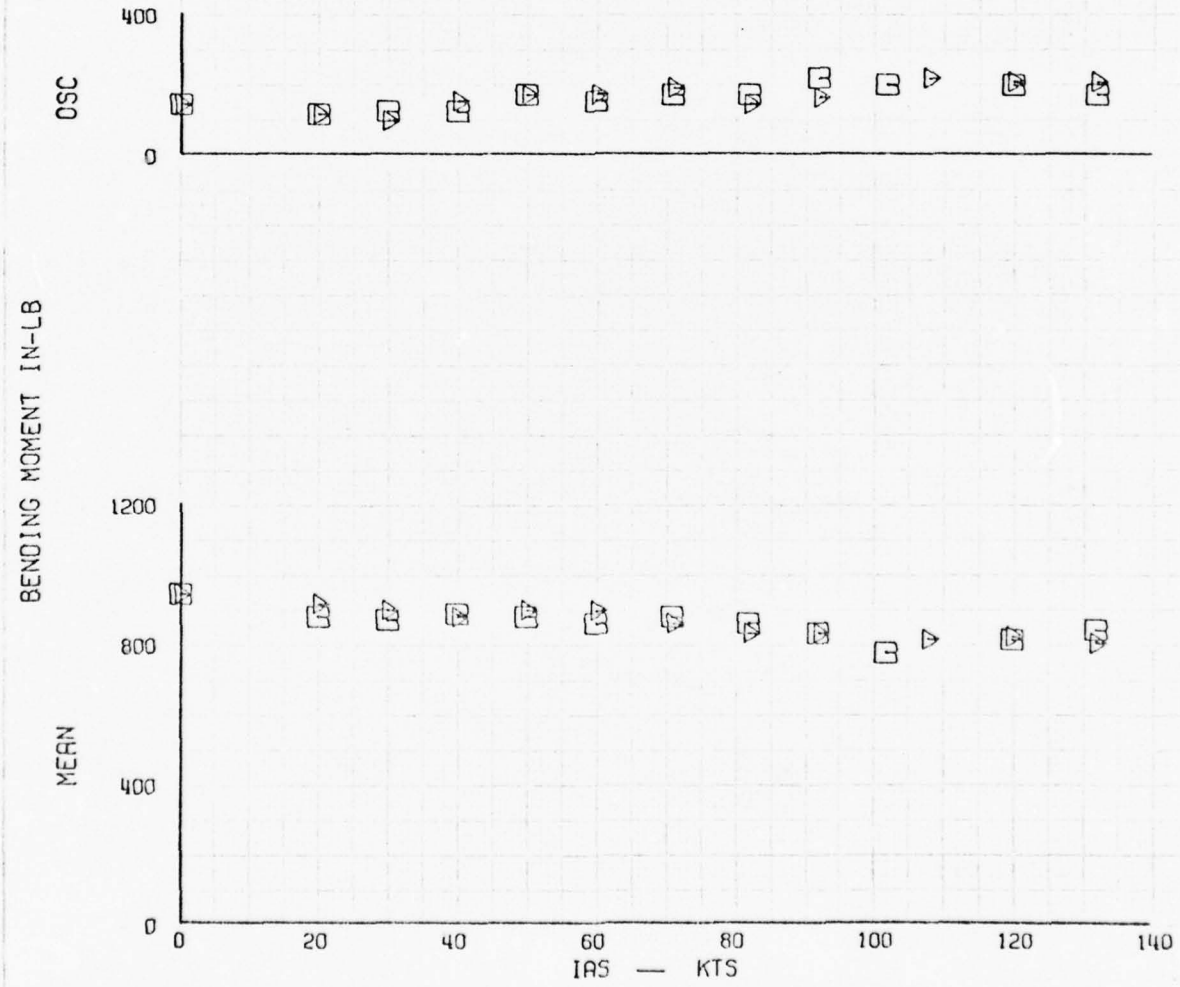


FIG. 102 ITEM B101-TR RED BLADE CHORD STA 15 VS. AIRSPEED
STABILIZED LEVEL FLIGHT
G.W. 3100 C.G. 106.0 ALTITUDE -4555 FT HD

SYM
⊟ 347
▷ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58
SHIP 40011
FLT 49-A
DATE 30 JAN 73

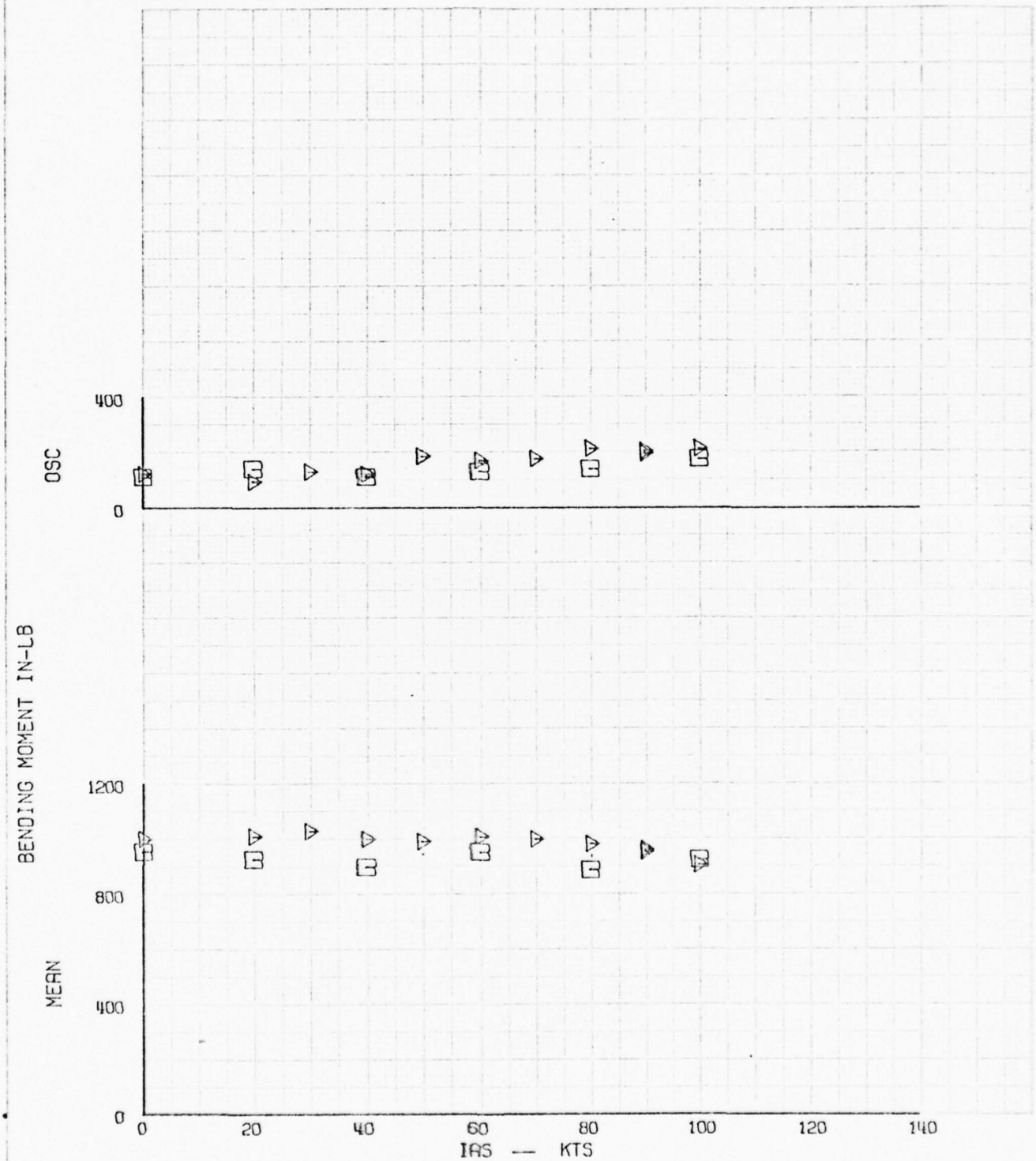


FIG. 103 ITEM B101-TR RED BLADE CHORD STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2585 C.G. 110.1 ALTITUDE -3000 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58
SHIP 40011
FLT 50
DATE 06 FEB 73

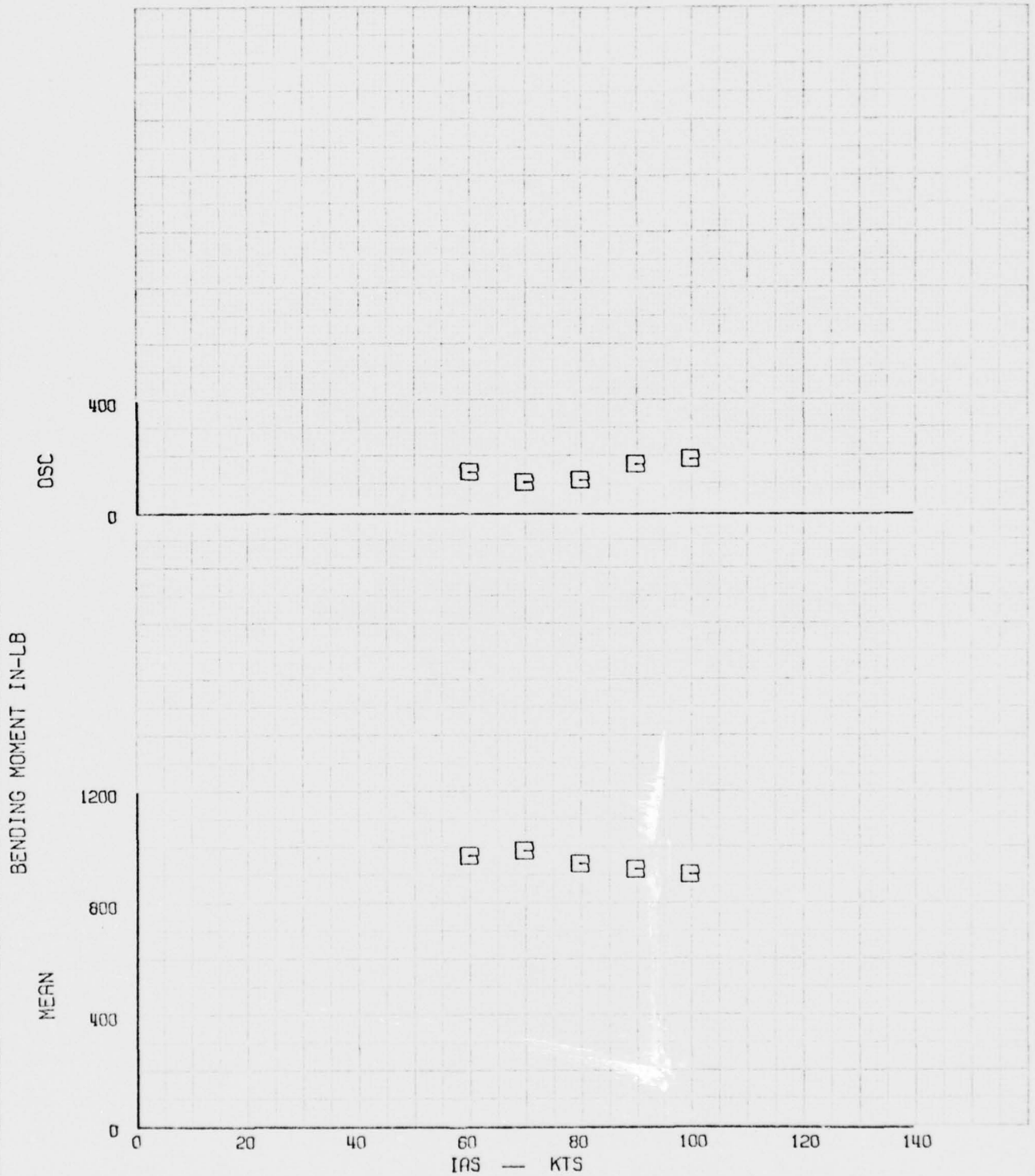


FIG. 104 ITEM B101-TR RED BLADE CHORD STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -3790 FT HD

SYM
⊟ 354

LOW TEMPERATURE EVALUATION OF
ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58
SHIP 40011
FLT 52
DATE 006FEB 73

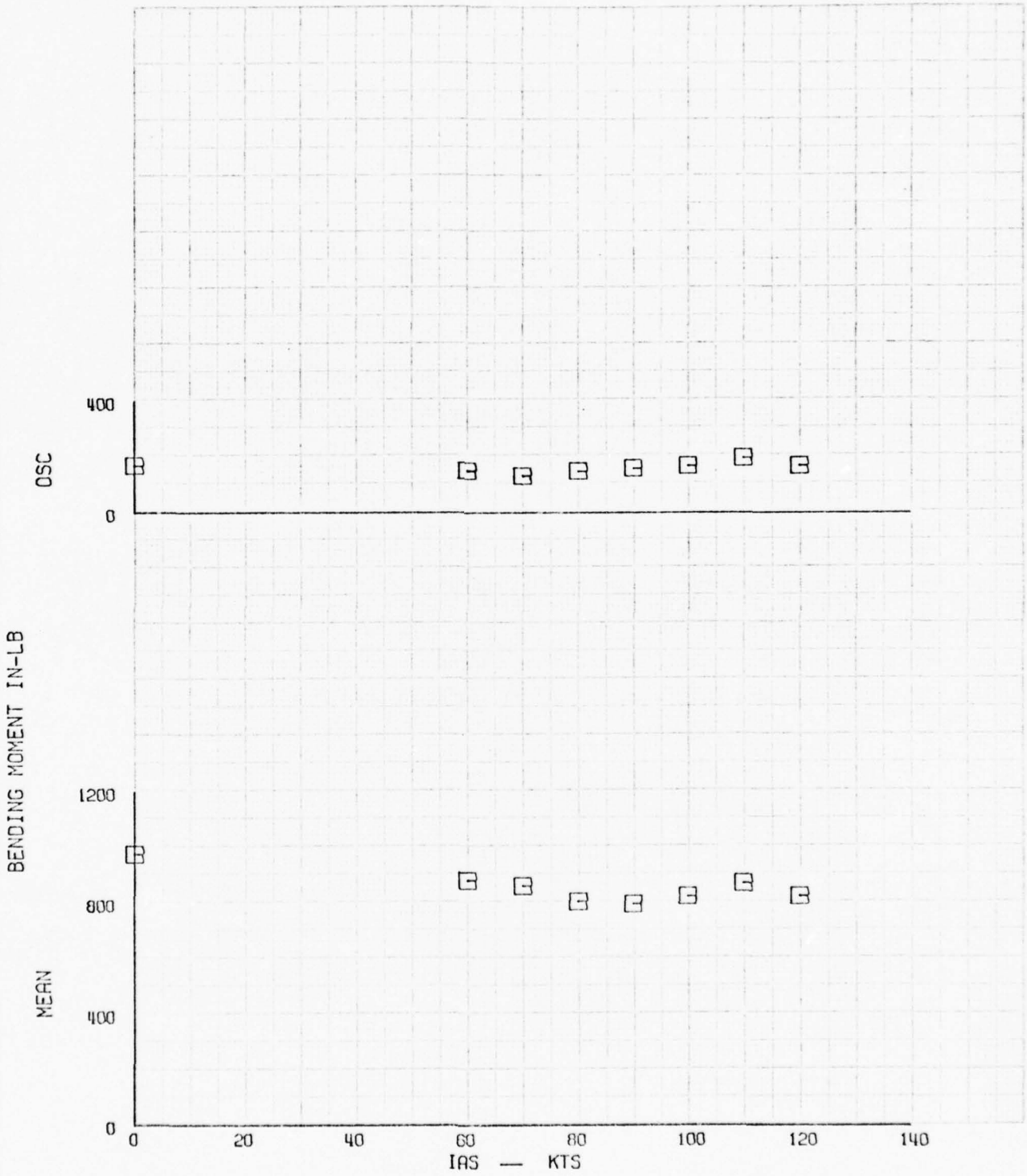


FIG. 105 ITEM B101-TR RED BLADE CHORD STA 15 VS. AIRSPEED

STABILIZED LEVEL FLIGHT

G.W. 2500 C.G. 110.1 ALTITUDE -2790 FT HD

⊟ 0.0 KTS FLAT PITCH AT FLT IDLE
⊖ 0.0 KTS HOVER LEFT TURN
◁ 0.0 KTS HOVER RIGHT TURN
+ 0.0 KTS HOVER DIR CONTROL REV

MODEL OH-58
SHIP 40011
FLT. 44-A
DATE 12 JAN 73

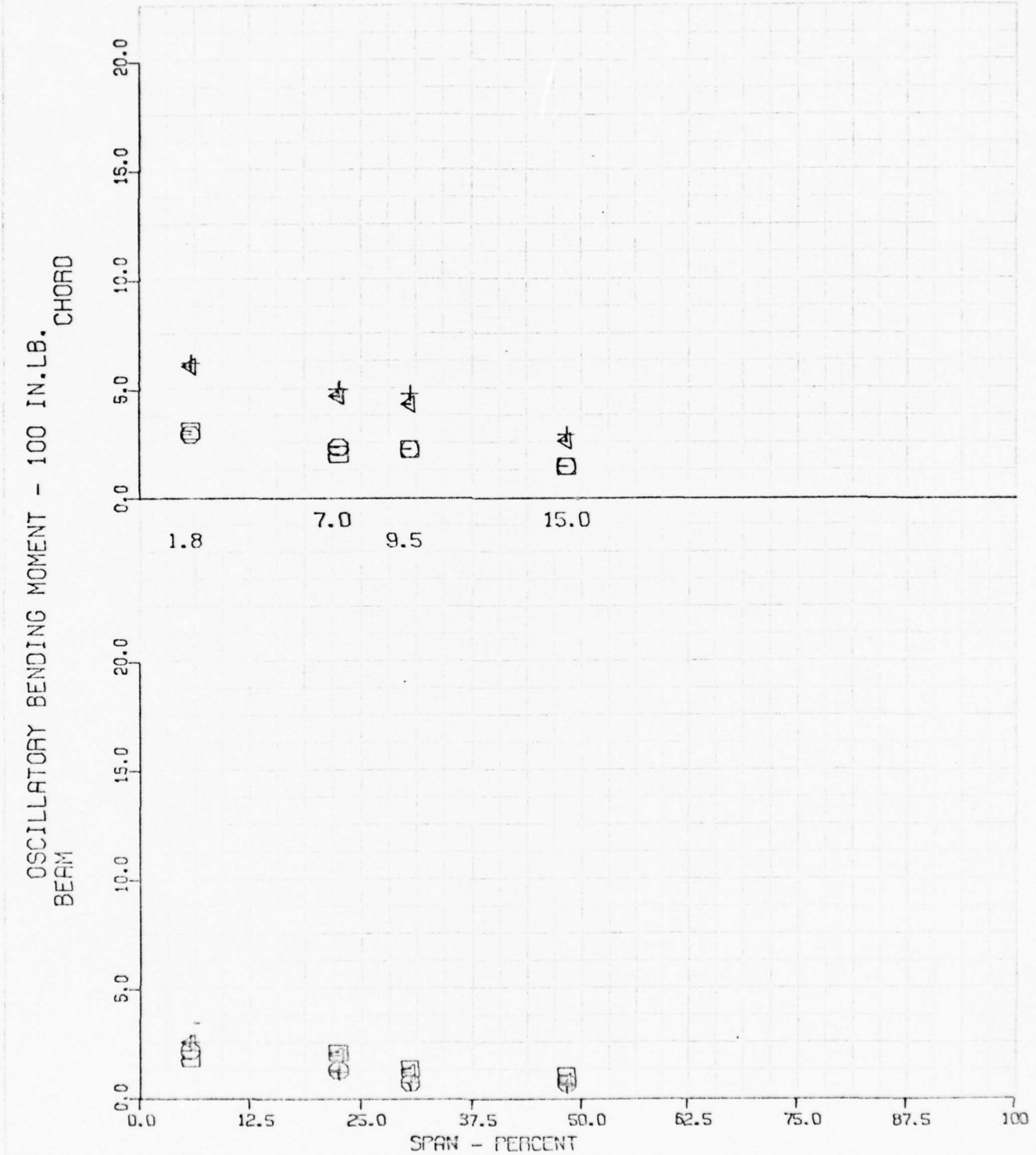


FIG 106 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2600 C.G. 107.0

⊟ 20.0 KTS LEFT SIDEWARD FLIGHT
⊖ 20.0 KTS RIGHT SIDEWARD FLIGHT
◁ 0.0 KTS HOVER AUTOROTATION

MODEL OH-58
SHIP 40011
FLT. 44-A
DATE 12 JAN 73

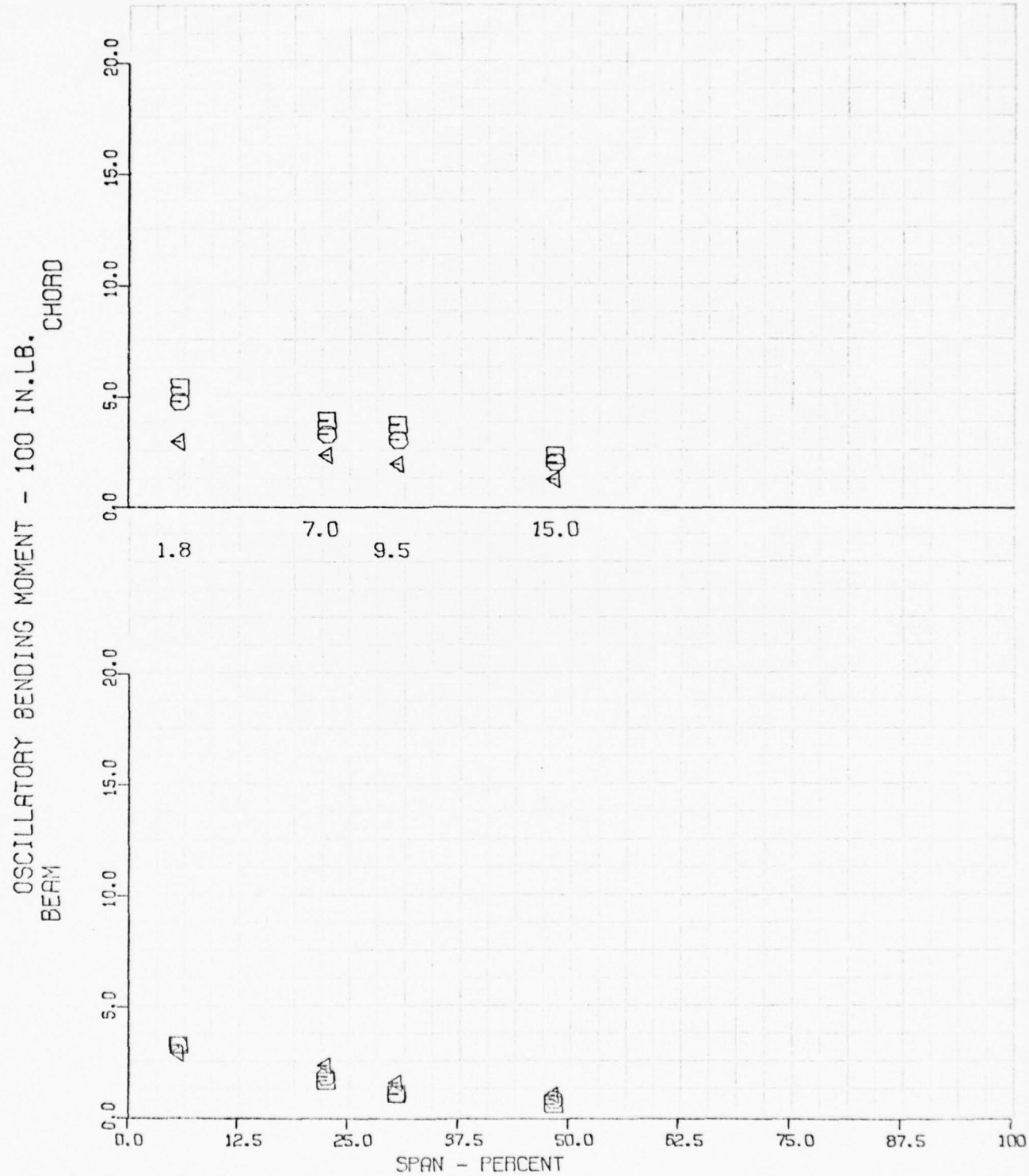


FIG 107 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2600 C.G. 107.0

⊟	0.0	KTS	FLAT PITCH
⊖	0.0	KTS	HOVER LEFT TURN
◁	0.0	KTS	HOVER RIGHT TURN
+	0.0	KTS	HOVER DIR CONTROL REV
×	0.0	KTS	HOVER F/A CONTROL REV
◇	0.0	KTS	HOVER LAT CONTROL REV

MODEL OH-58
SHIP 40011
FLT. 45-A
DATE 16 JAN 73

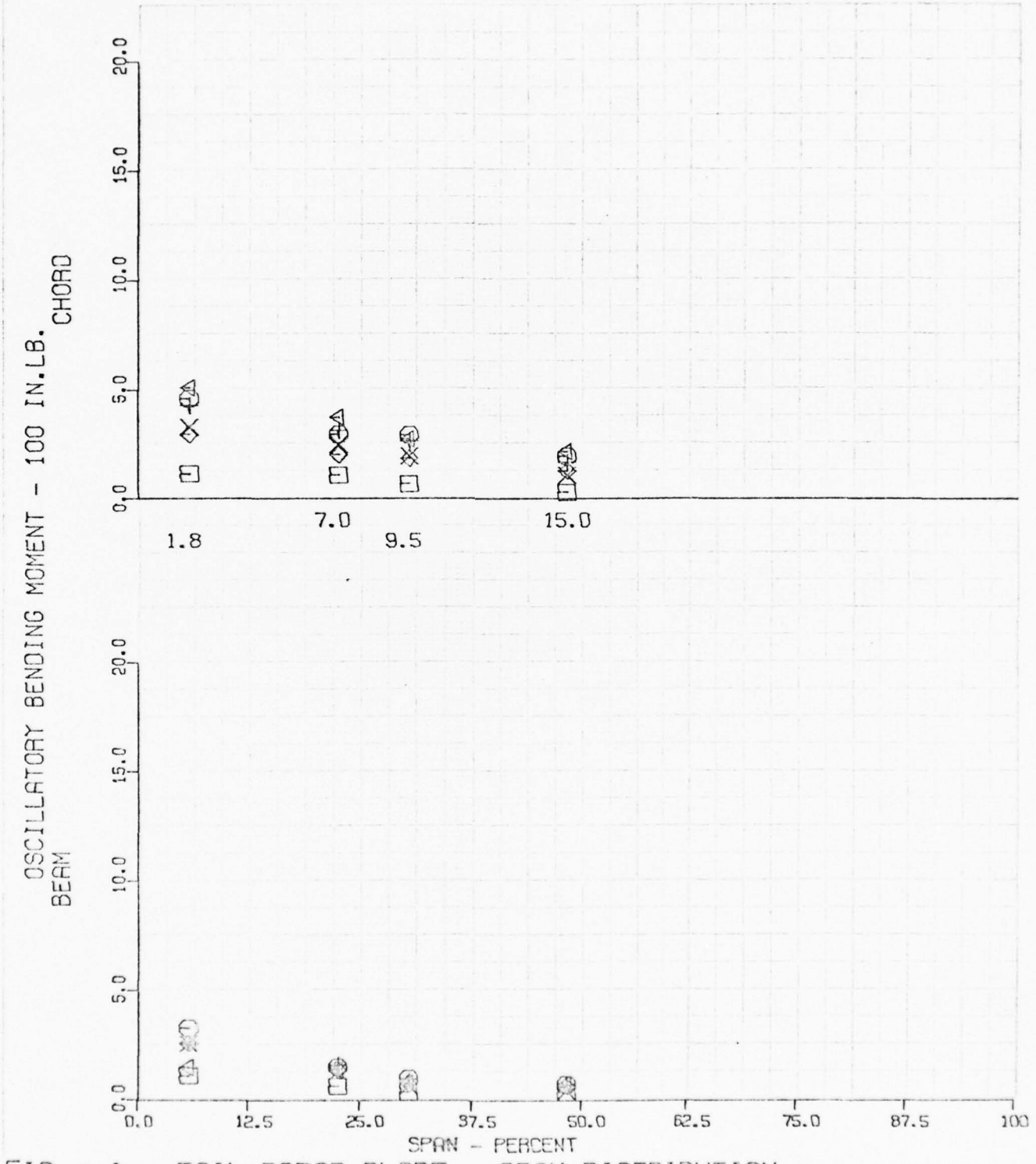


FIG 108 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

MODEL OH-58
SHIP 40011
FLT. 45-A
DATE 16 JAN 73

⊟	20.0	KTS	LEFT SIDEWARD FLIGHT
⊖	20.0	KTS	RIGHT SIDEWARD FLIGHT
◁	0.0	KTS	HOVER THROTTLE CHOP
+	0.0	KTS	GRD RUN-RT FWD CYC INPUT
X	0.0	KTS	HOVER F/A CYCLIC INPUT
◇	0.0	KTS	GRD RUN-LT AFT CYC INPUT
⋇	0.0	KTS	MAX POWER - BOOST OFF

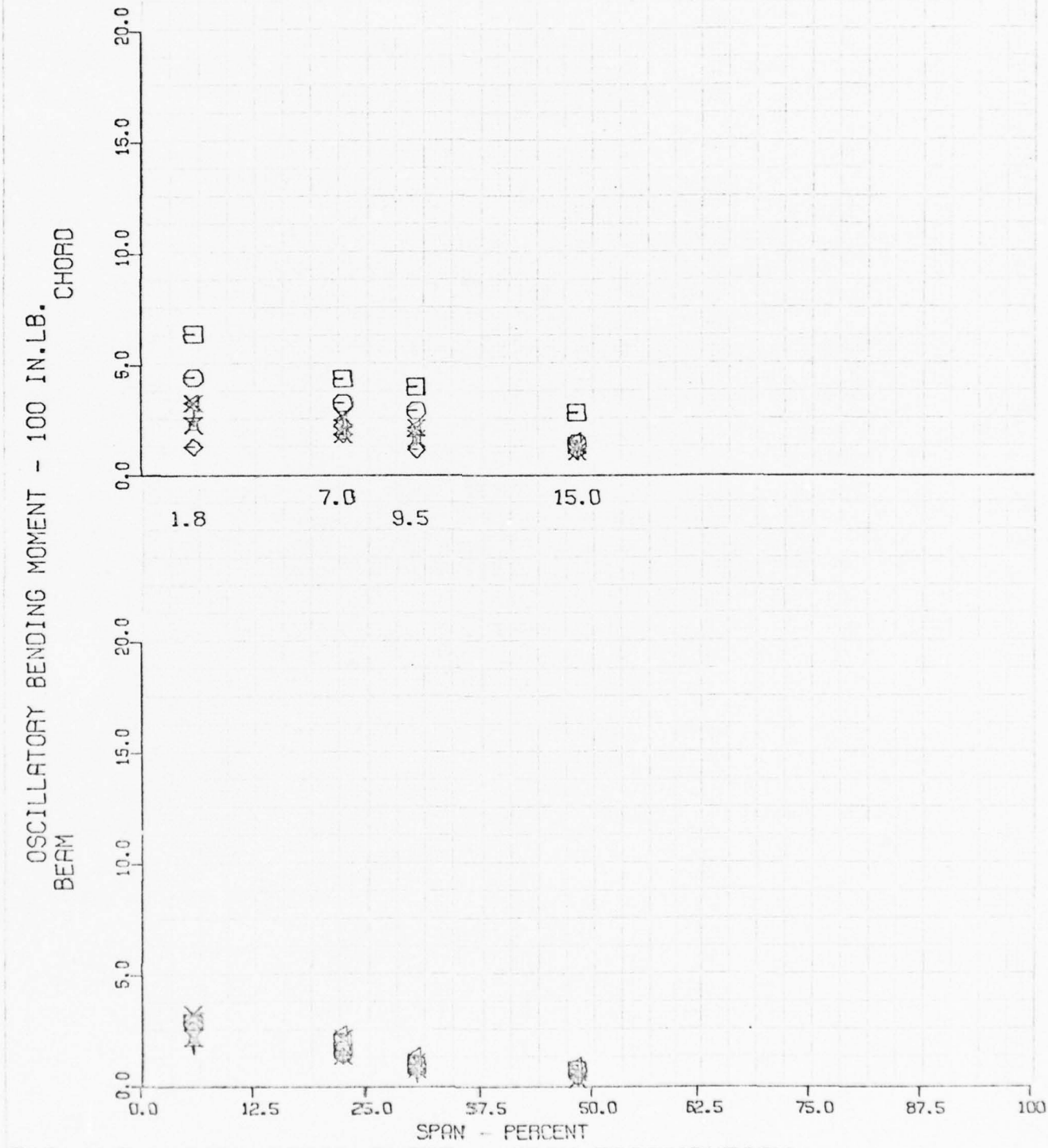


FIG 109 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊟	0.0	KTS	FLATPITCH
⊖	0.0	KTS	HOVER - PEDAL REVERSAL
◁	0.0	KTS	HOVER - LEFT TURN
+	0.0	KTS	HOVER - RIGHT TURN

MODEL OH-58
SHIP 40011
FLT. 46-A
DATE 19 JAN 73

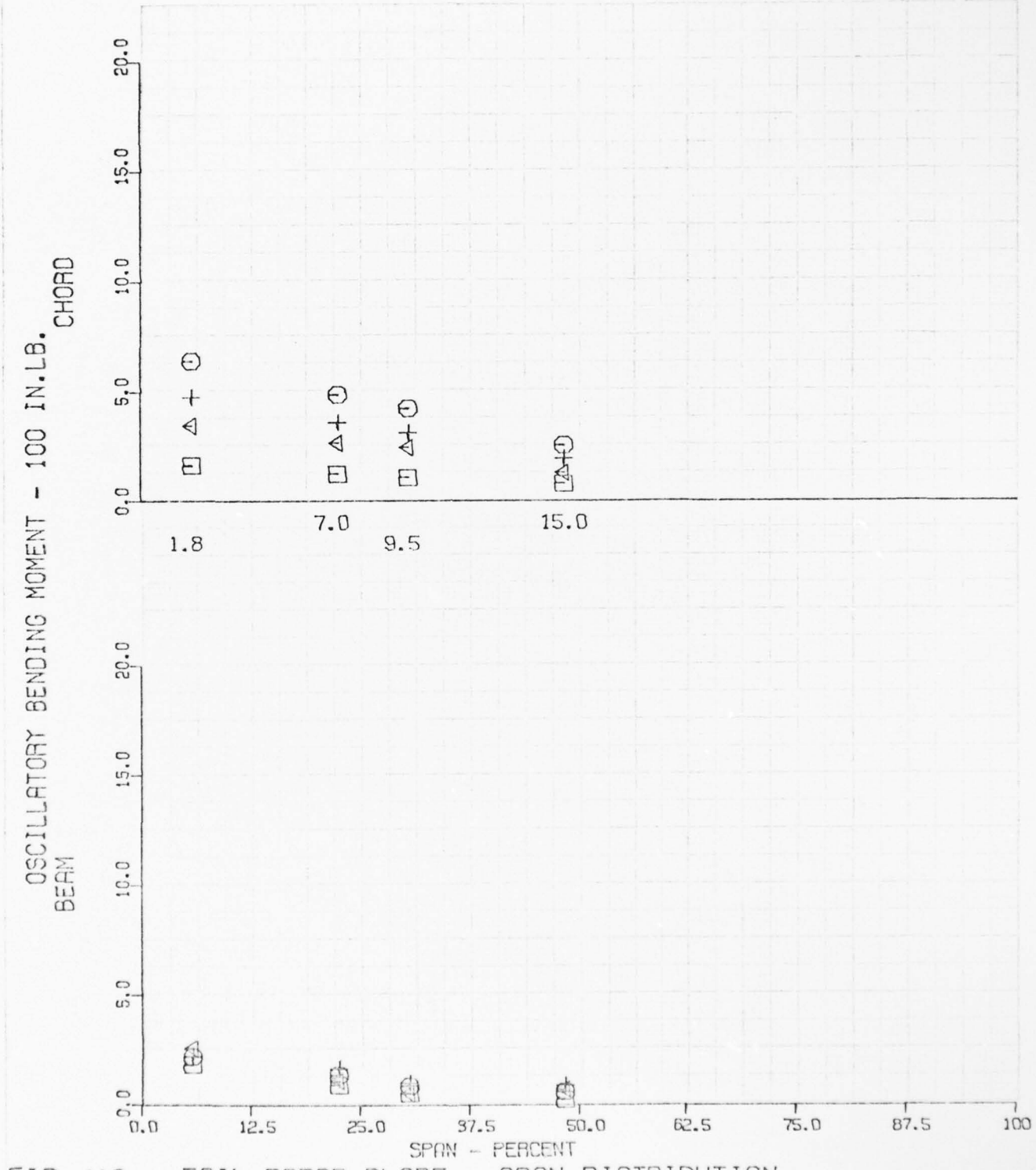


FIG 110 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.2

⊟	20.0	KTS	RIGHT SIDEWARD FLIGHT
⊖	20.0	KTS	LEFT SIDEWARD FLIGHT
◁	0.0	KTS	ACCEL & DECEL 0-60-0
+	0.0	KTS	HOVER - THROTTLE CHOP

MODEL OH-58
SHIP 40011
FLT. 46-A
DATE 19 JAN 73

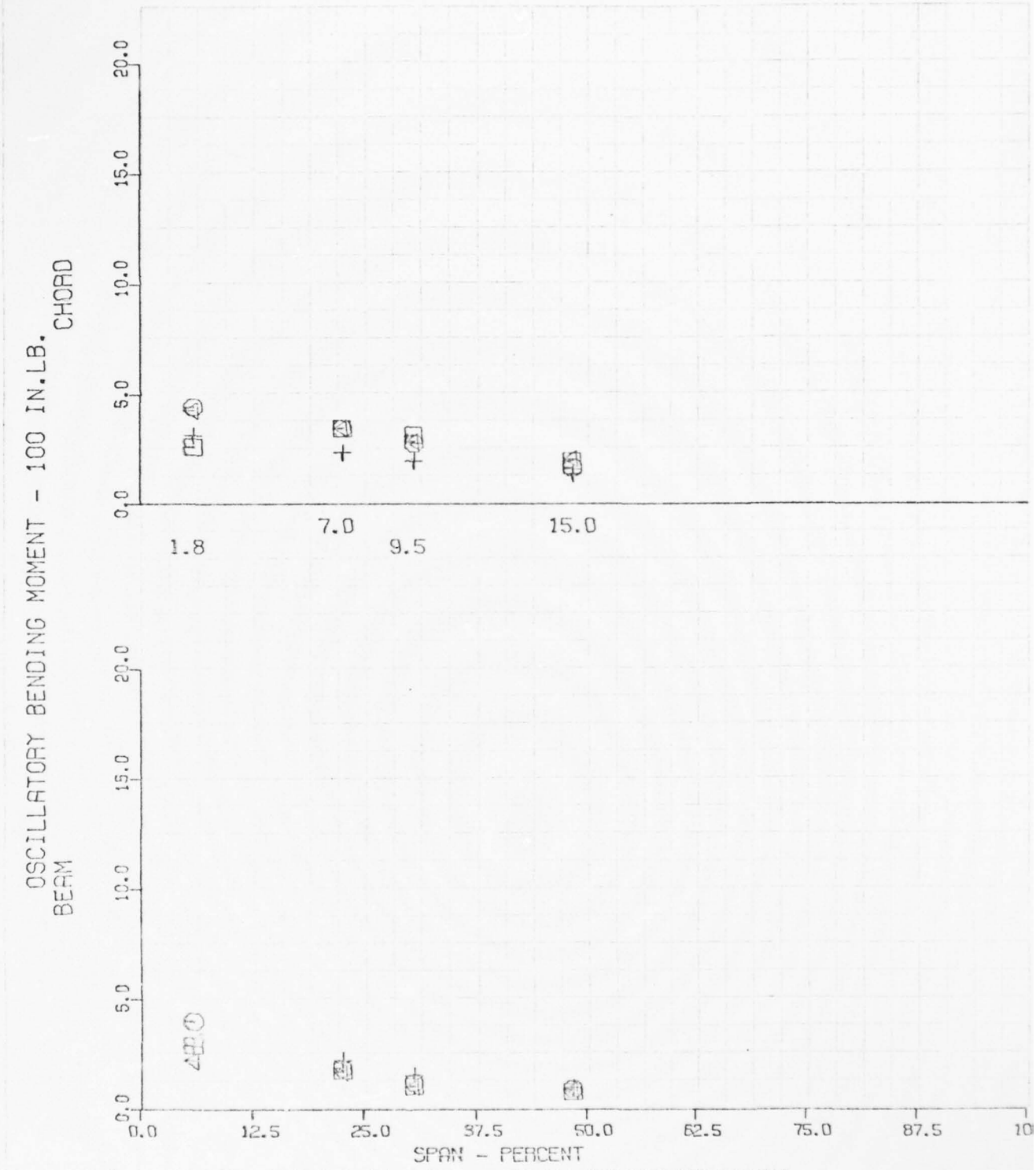


FIG 111 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.2

⊟	0.0	KTS	FLAT PITCH
⊖	0.0	KTS	HOVER - PEDAL REVERSAL
◁	0.0	KTS	HOVER - LEFT TURN
+	0.0	KTS	HOVER - RIGHT TURN

MODEL OH-58
SHIP 40011
FLT. 46-B
DATE 19 JAN 73

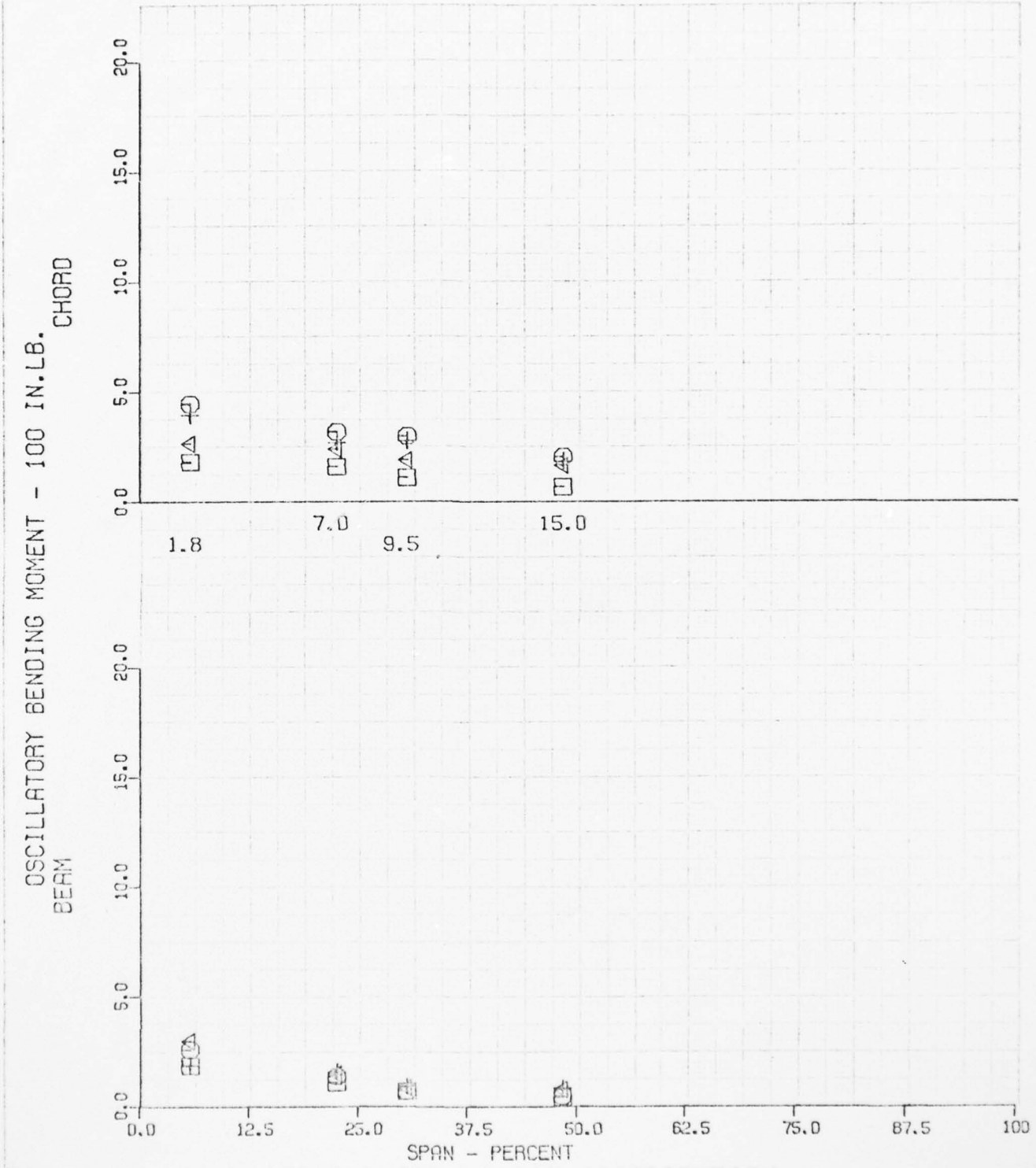


FIG 112 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.2

⊟ 20.0 KTS RIGHT SIDEWARD FLIGHT
⊖ 20.0 KTS LEFT SIDEWARD FLIGHT
◁ 0.0 KTS HOVER - THROTTLE CHOP

MODEL OH-58
SHIP 40011
FLT. 46-B
DATE 19 JAN 73

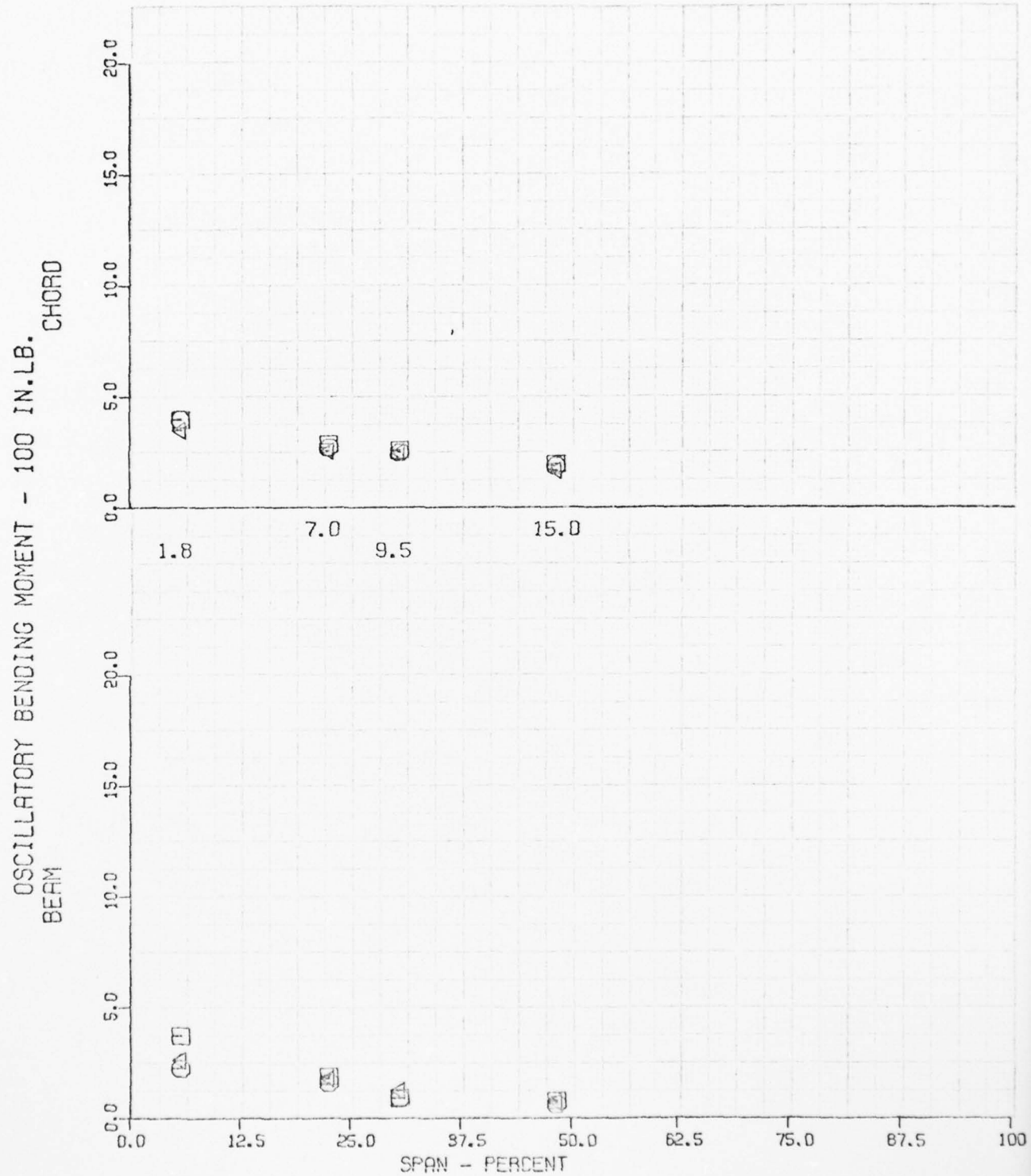


FIG 113 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.2

⊟ 0.0 KTS FLAT PITCH
⊖ 0.0 KTS HOVER - LEFT TURN
◁ 0.0 KTS HOVER - RIGHT TURN
+ 0.0 KTS HOVER - PEDAL REVERSAL

MODEL OH-58
SHIP 40011
FLT. 47-A
DATE 23 JAN 73

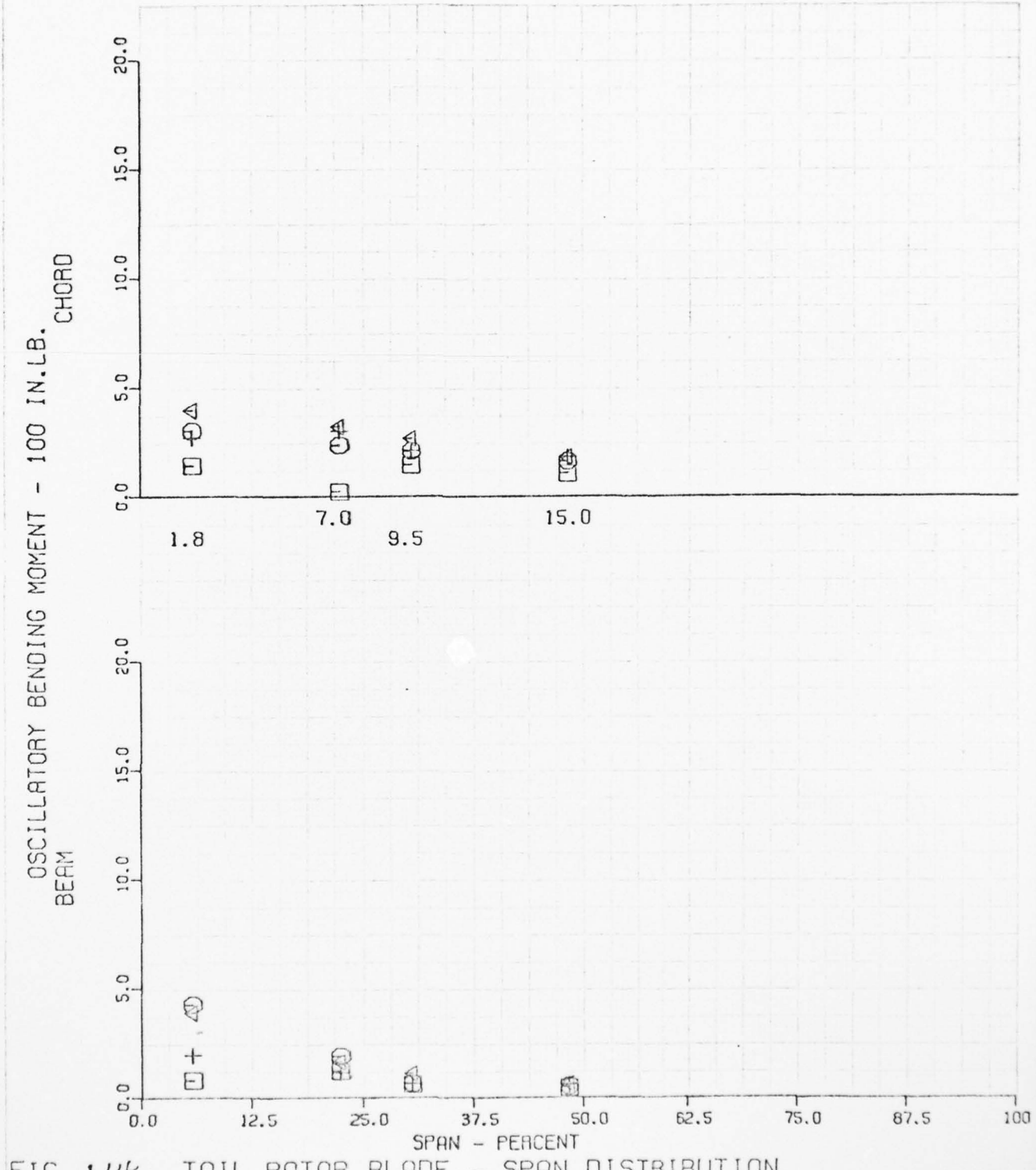


FIG 114 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.2

⊡ 20.0 KTS RIGHT SIDEWARD FLIGHT
⊙ 0.0 KTS ACCELERATION 0-60
◁ 80.0 KTS LEFT TURN
+ 60.0 KTS DECELERATION 60-0

MODEL OH-58
SHIP 40011
FLT. 47-A
DATE 23 JAN 73

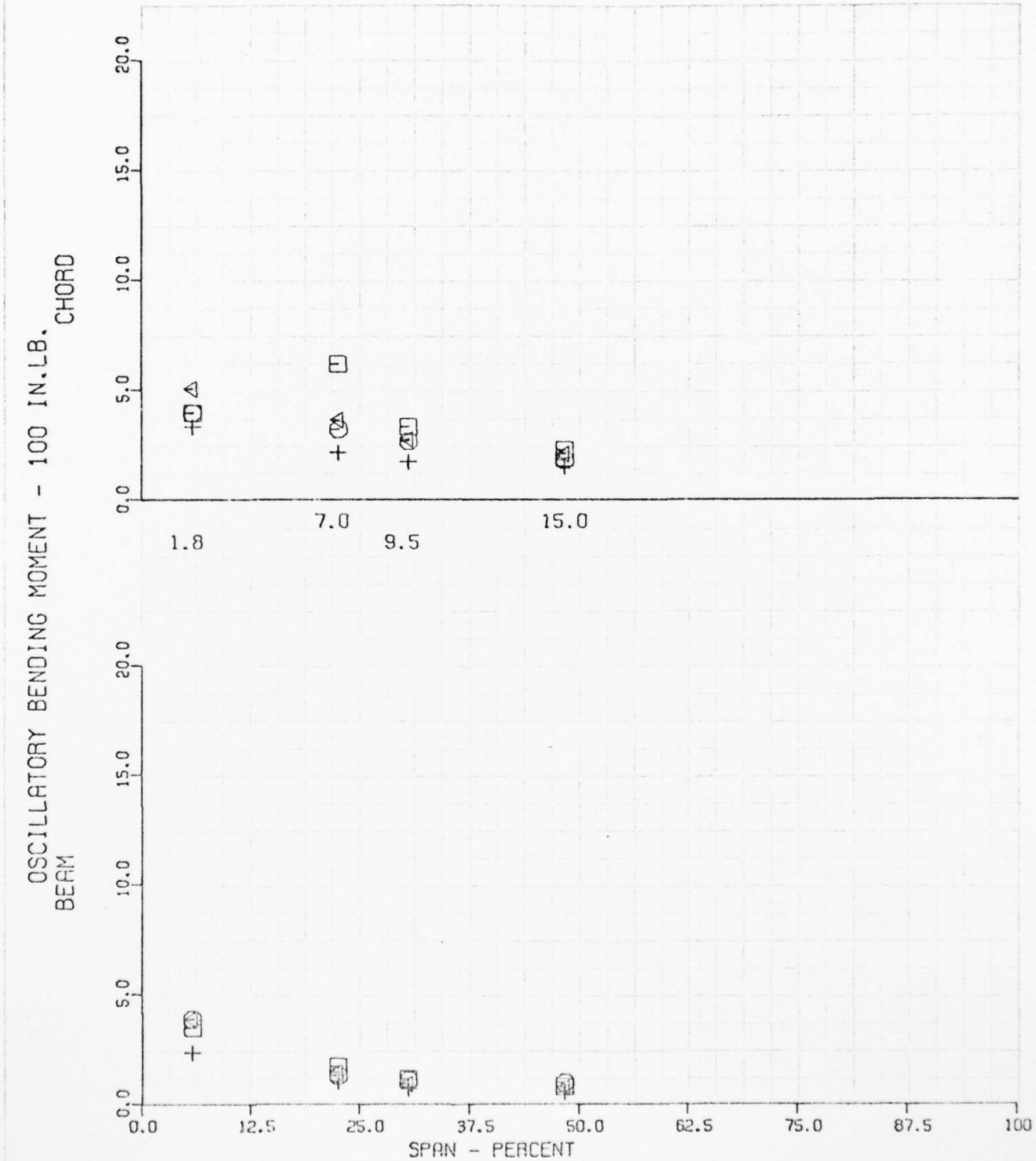


FIG 115 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.2

⊟	0.0	KTS	NORMAL START
⊖	0.0	KTS	HOVER - LEFT TURN
◁	0.0	KTS	HOVER - RIGHT TURN
+	0.0	KTS	HOVER - F/A CONT REVERSAL
×	0.0	KTS	HOVER - LAT CONT REVERSAL
◇	0.0	KTS	HOVER - DIR CONT REVERSAL

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

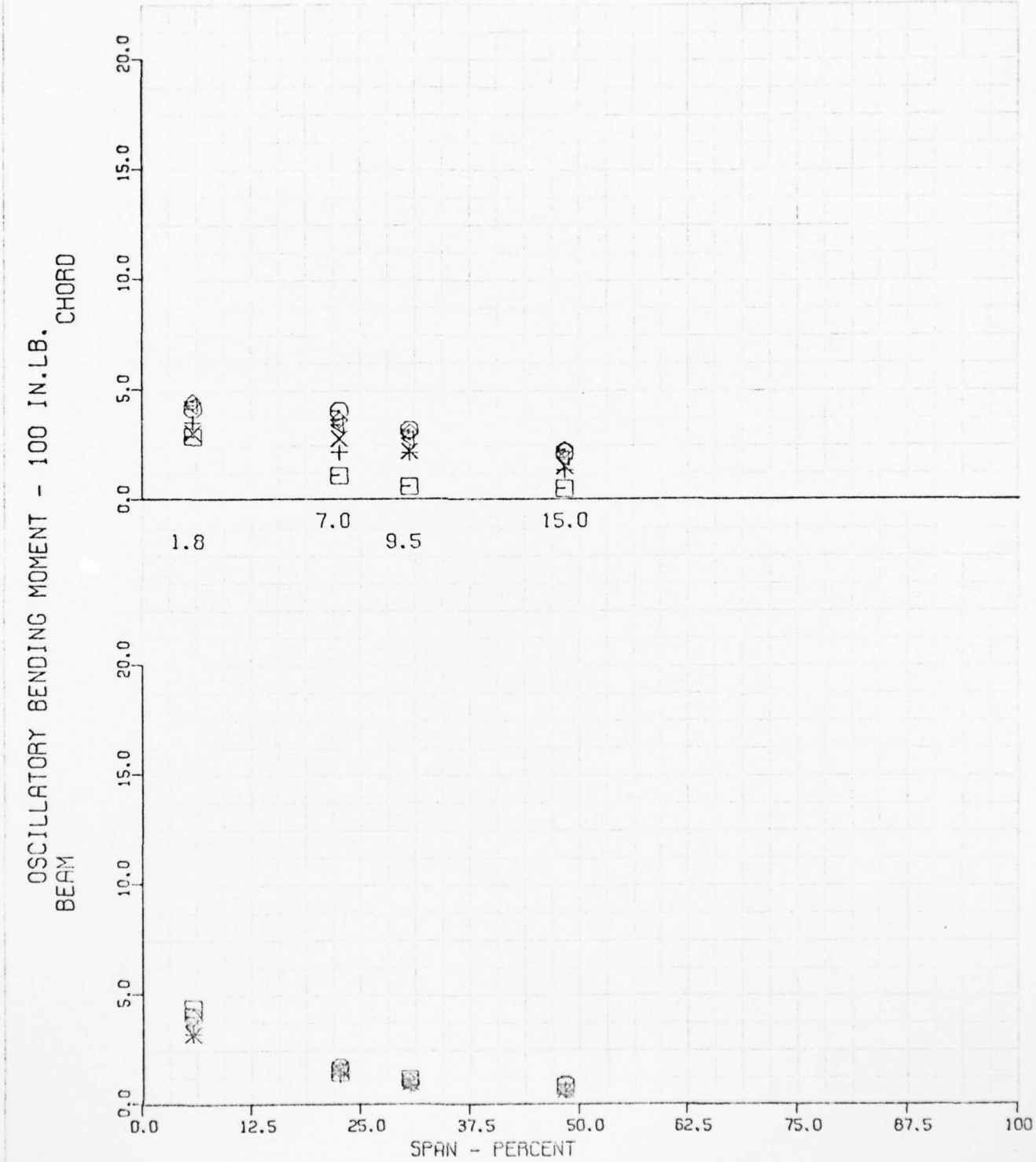


FIG 116 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊟	0.0	KTS	ACCELERATION 0-60
⊖	70.0	KTS	CLIMB - M C POWER
◁	70.0	KTS	CLIMB - T O POWER
+	0.0	KTS	JUMP TAKE-OFF

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

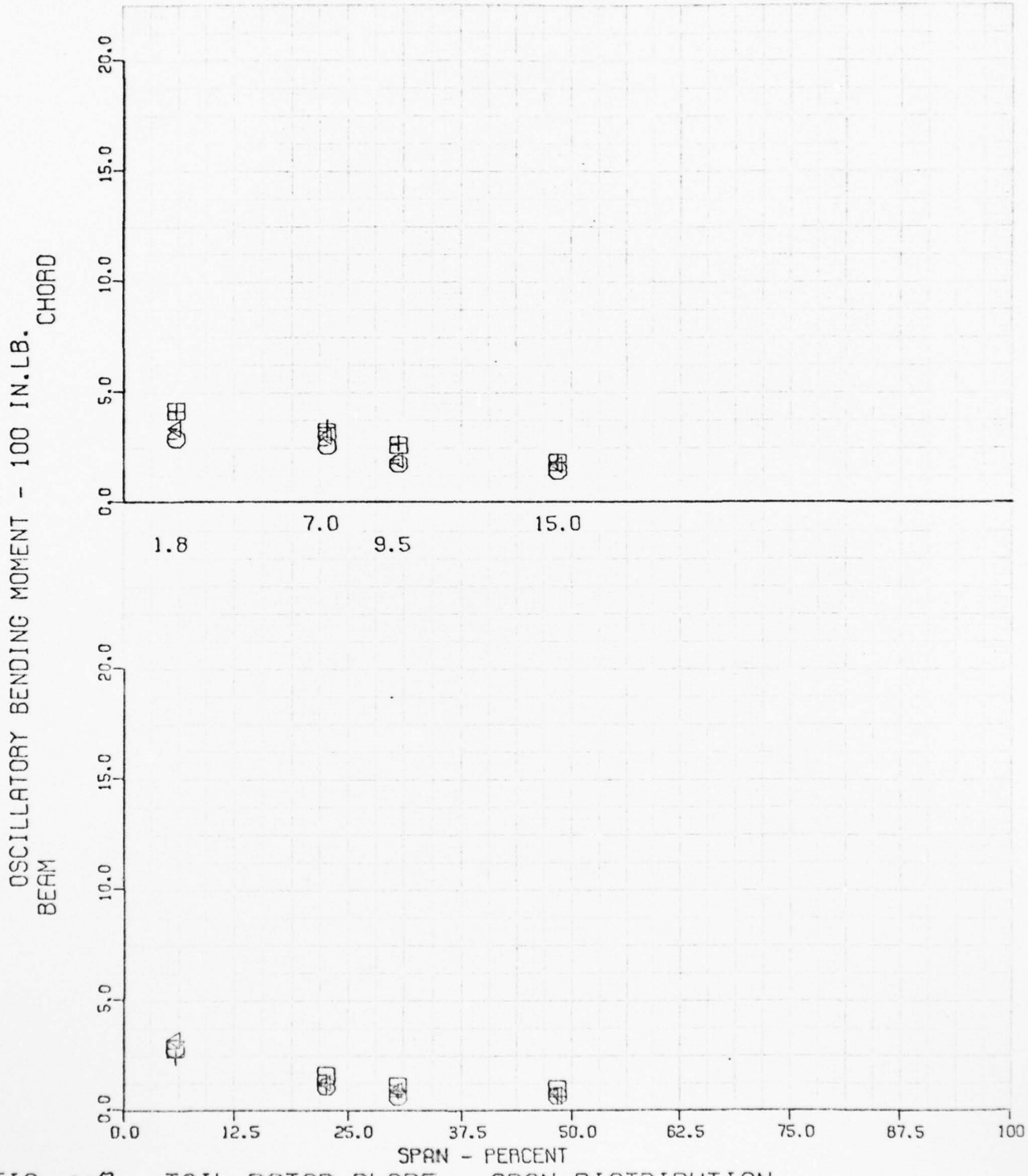


FIG 117 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊖	55.0	KTS	RIGHT TURN ◎ 0.5 VH
◁	76.0	KTS	LEFT TURN ◎ 0.7 VH
+	76.0	KTS	RIGHT TURN ◎ 0.7 VH
×	97.0	KTS	LEFT TURN ◎ 0.8 VH
◇	97.0	KTS	RIGHT TURN ◎ 0.8 VH

MODEL 0H-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

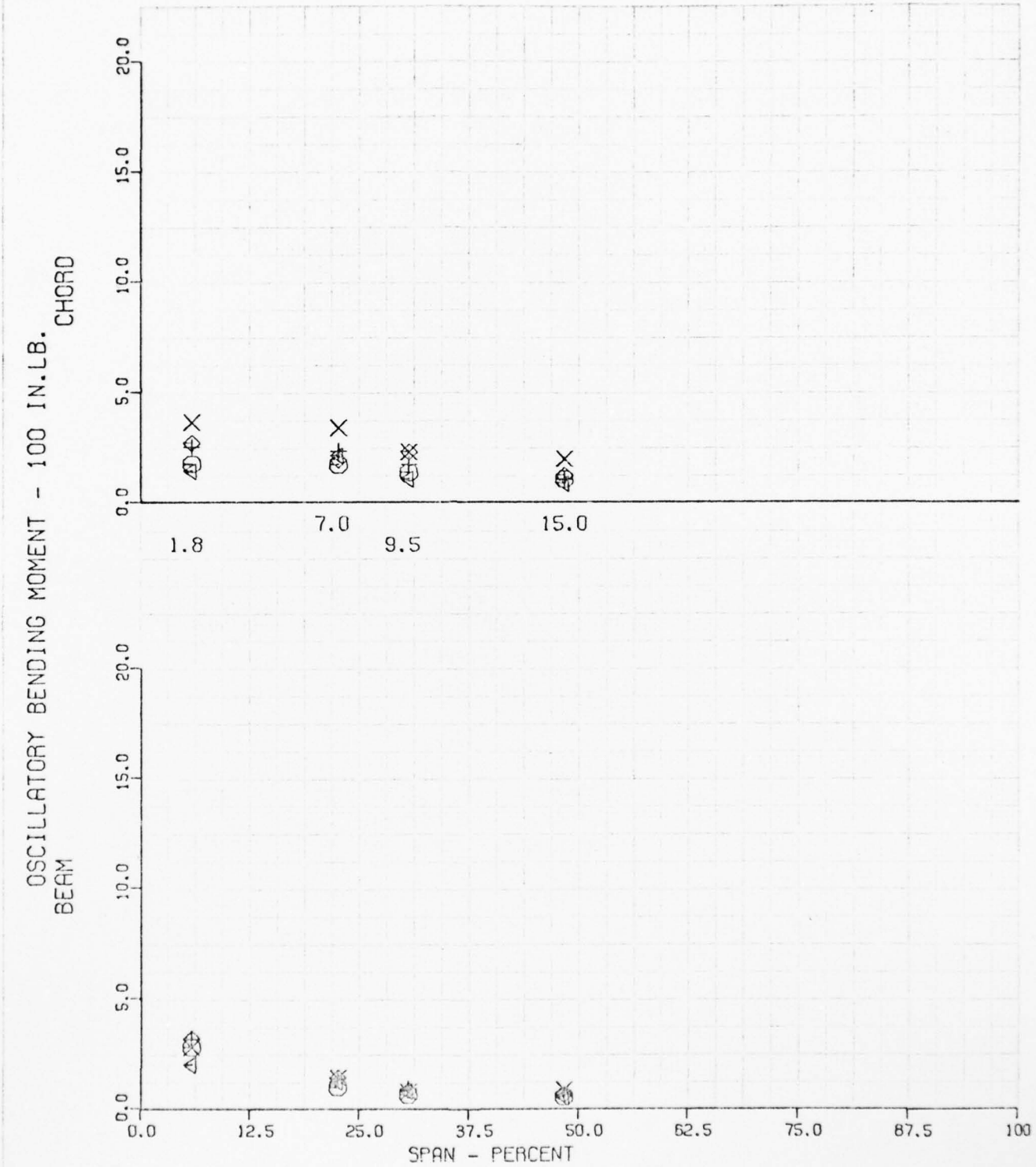


FIG 118 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊖ 108.0 KTS LVL FLT - LAT REV ⊙ VH
◁ 108.0 KTS LVL FLT - DIR REV ⊙ VH
\+ 66.0 KTS LVL FLT - CYC P/U 0.6 VH
× 97.0 KTS LVL FLT - CYC P/U 0.9 VH

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

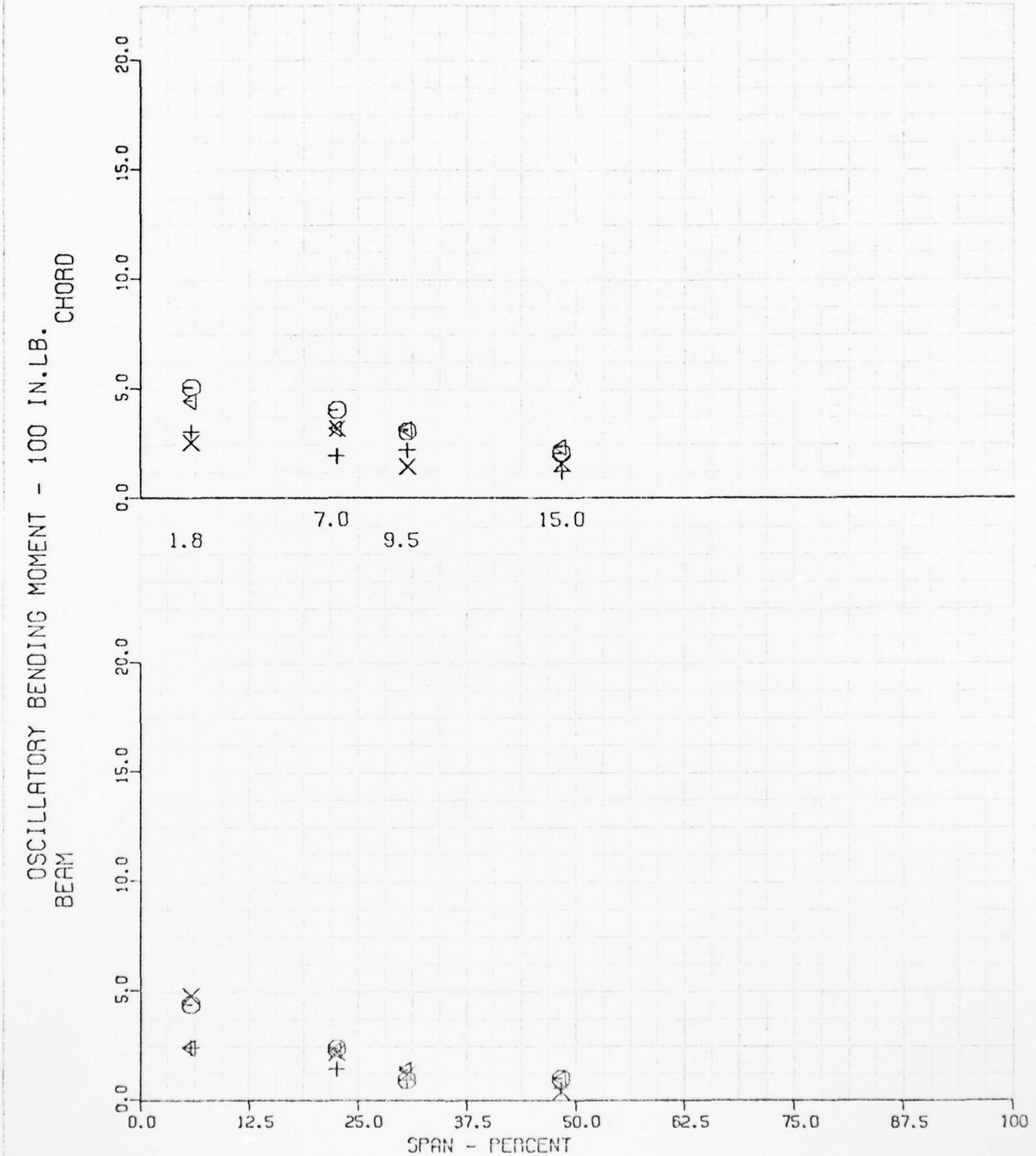


FIG 119 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

⊟	55.0	KTS	TRANS-PWE TO AUTO 0.5 VH
⊖	55.0	KTS	TRANS-AUTO TO PWR 0.5 VH
◁	76.0	KTS	TRANS-PWR TO AUTO 0.7 VH
+	76.0	KTS	TRANS-AUTO TO PWR 0.7 VH
×	97.0	KTS	TRANS-PWR TO AUTO 0.9 VH
◇	97.0	KTS	TRANS-AUTO TO PWR 0.9 VH

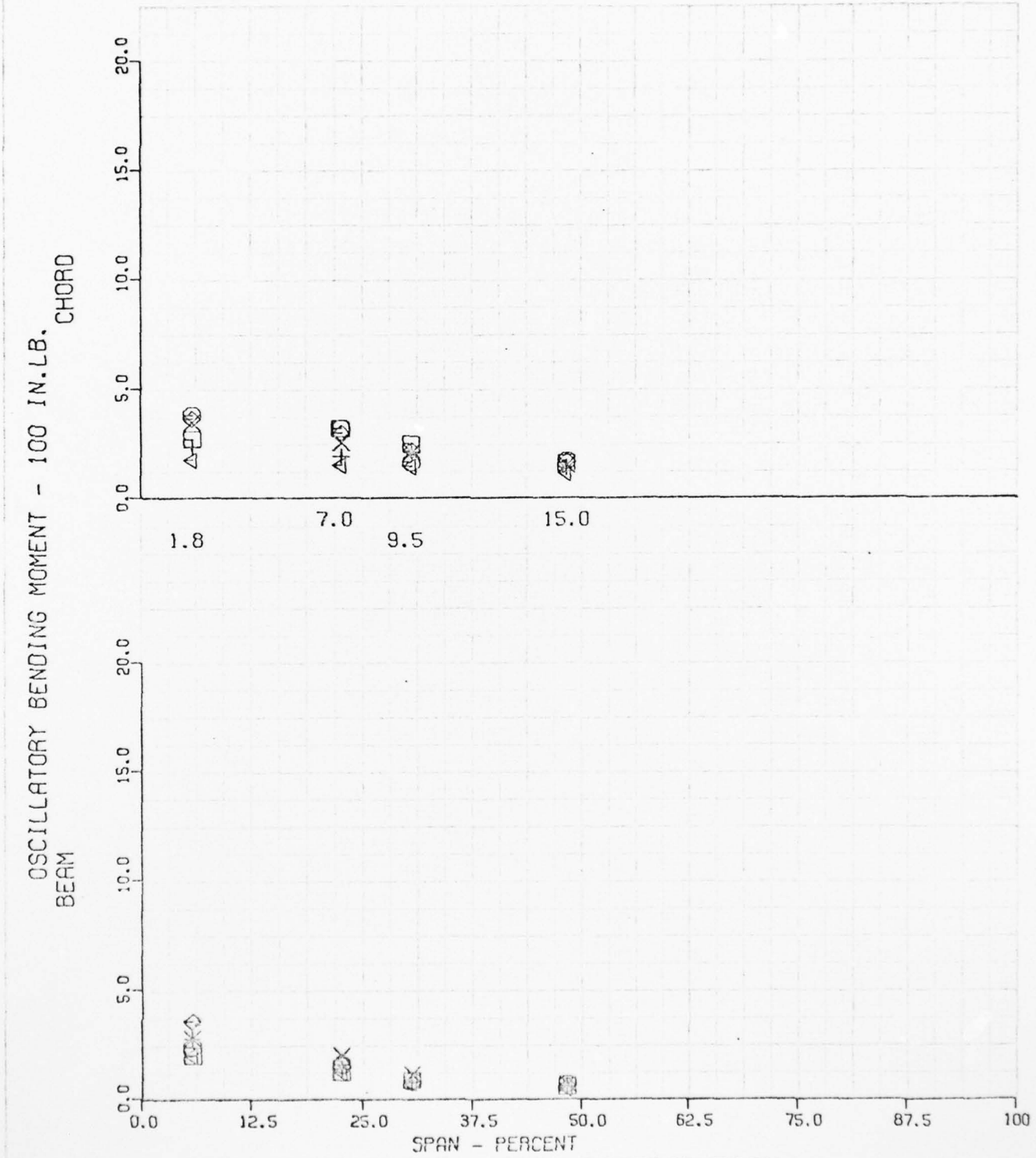


FIG 120 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

⊡ 55.0 KTS STABILIZED AUTO @ 0.5 VH
⊙ 76.0 KTS STABILIZED AUTO @ 0.7 VH
◁ 60.0 KTS PARTIAL POWER DESCENT
\+ 60.0 KTS TRANS POWER RECOVERY-ICE
× 60.0 KTS DECELERATION 60-0

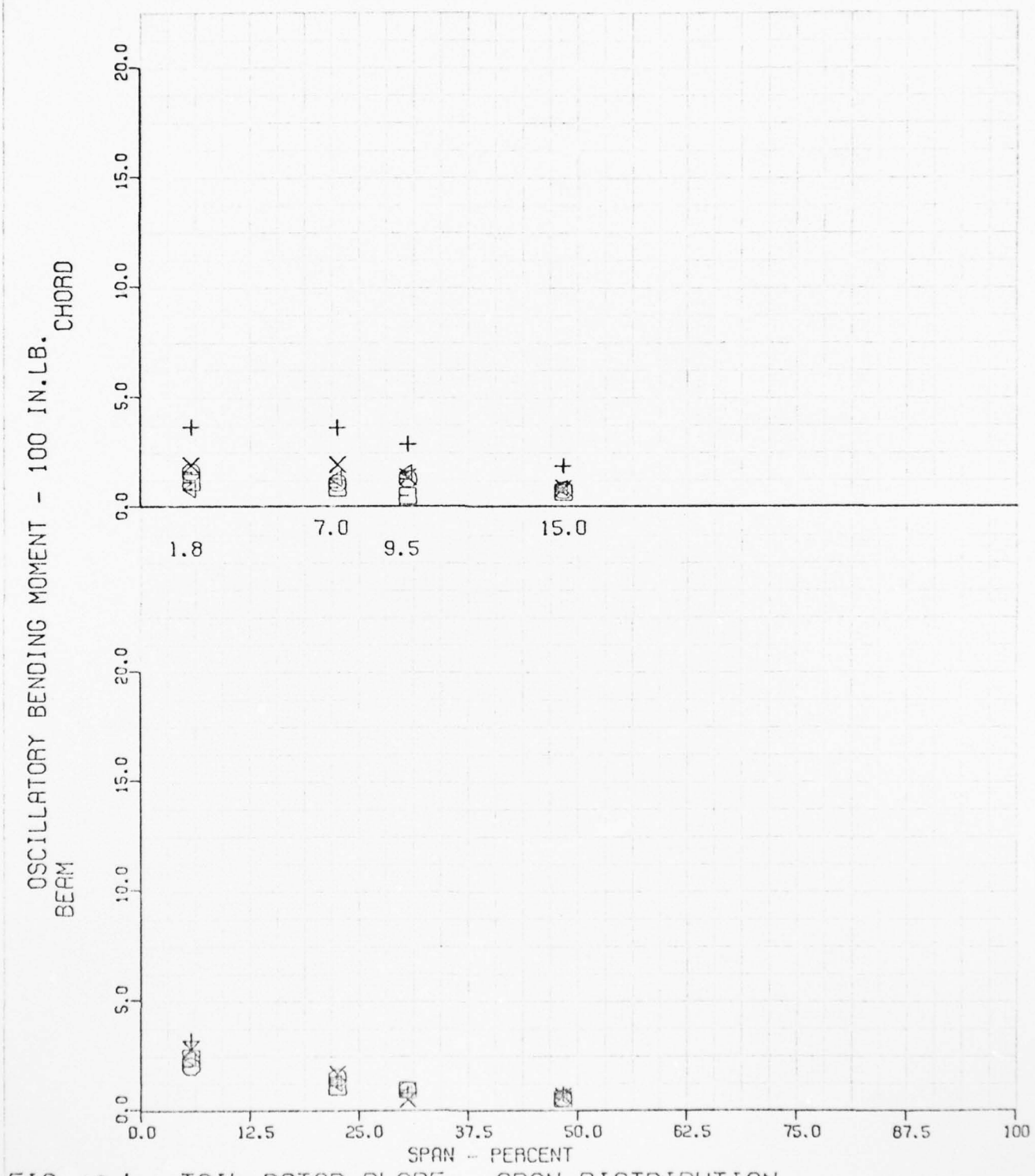


FIG 121 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊡	55.0	KTS	AUTO LEFT TURN @ 0.5 VH
⊙	55.0	KTS	AUTO RIGHT TURN @ 0.5 VH
◁	76.0	KTS	AUTO LEFT TURN @ 0.7 VH
+	76.0	KTS	AUTO RIGHT TURN @ 0.7 VH
×	76.0	KTS	AUTO CYCLIC P/U @ 0.7 VH

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

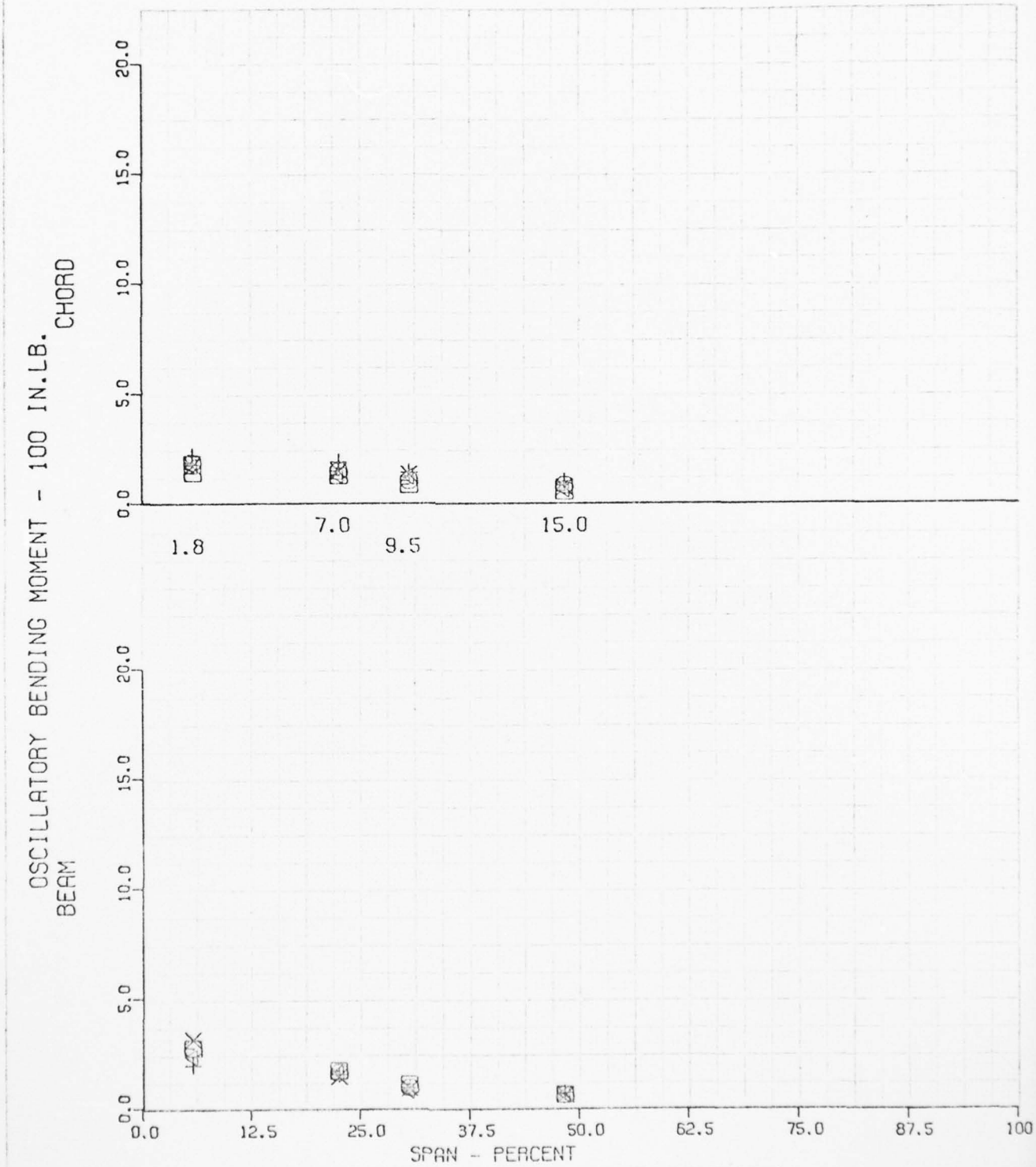


FIG 122 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊟ 76.0 KTS AUTO F/A CONT REV 0.7 VH
⊖ 76.0 KTS AUTO LAT CONT REV 0.7 VH
◁ 76.0 KTS AUTO DIR CONT REV 0.7 VH

MODEL OH-58
SHIP 40011
FLT. 48-AB
DATE 24 JAN 73

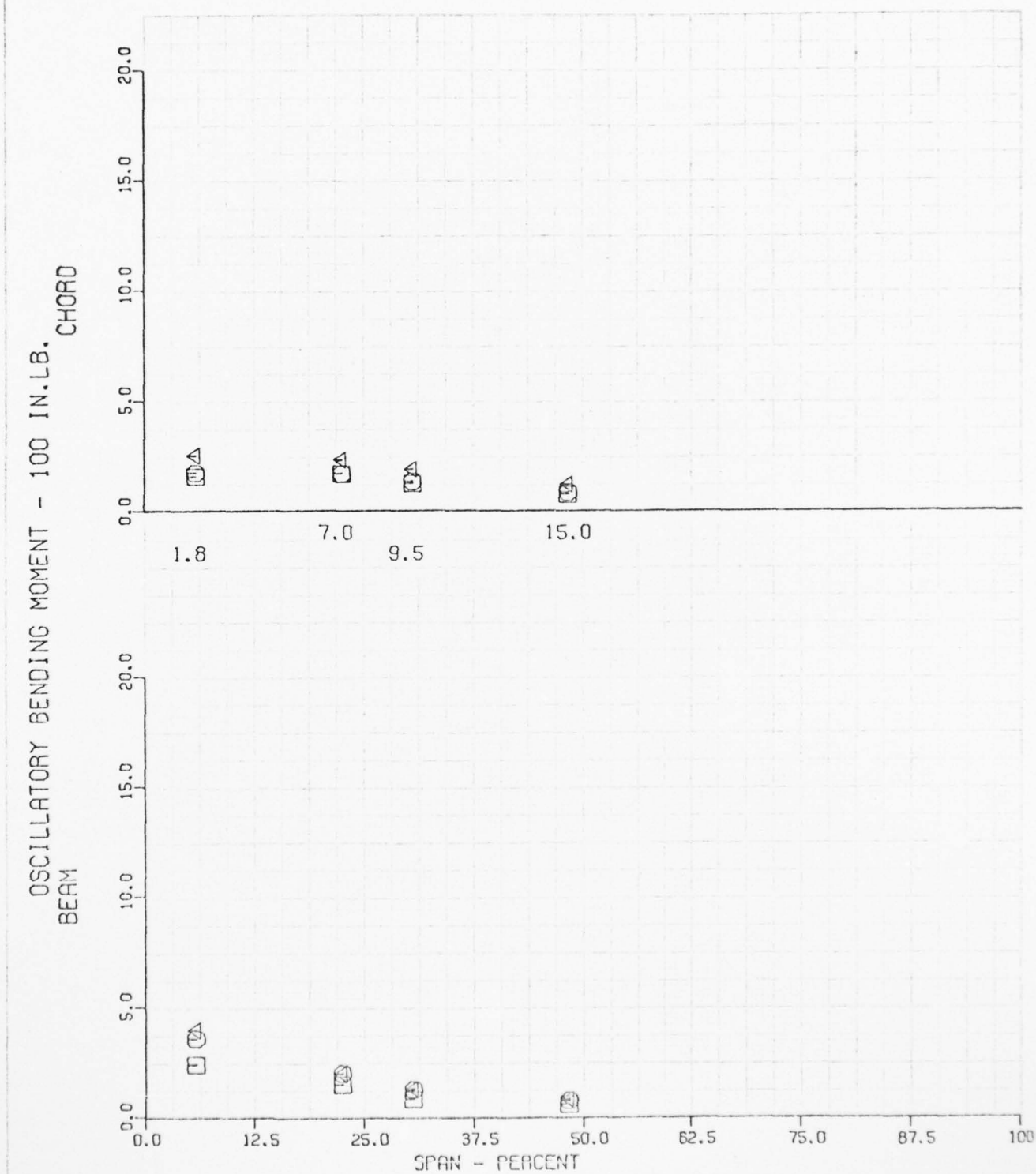


FIG 123 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2785 C.G. 110.1

⊟	0.0	KTS	HOVER - LEFT TURN
⊖	0.0	KTS	HOVER - RIGHT TURN
◁	0.0	KTS	HOVER - F/A CONT REVERSAL
+	0.0	KTS	HOVER - LAT CONT REVERSAL
×	0.0	KTS	HOVER - DIR CONT REVERSAL

MODEL 0H-58
SHIP 40011
FLT. 48-C
DATE 24 JAN 73

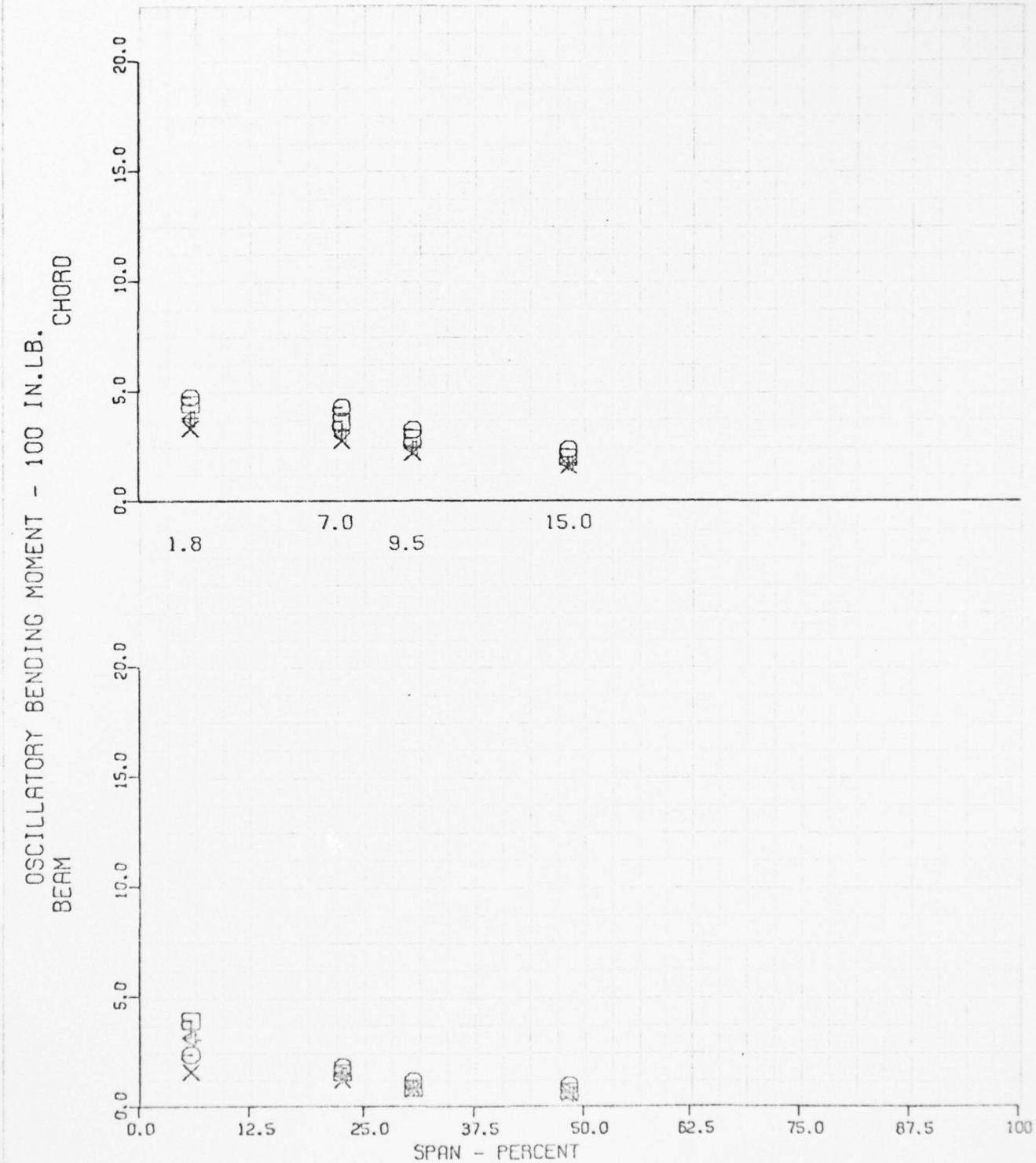
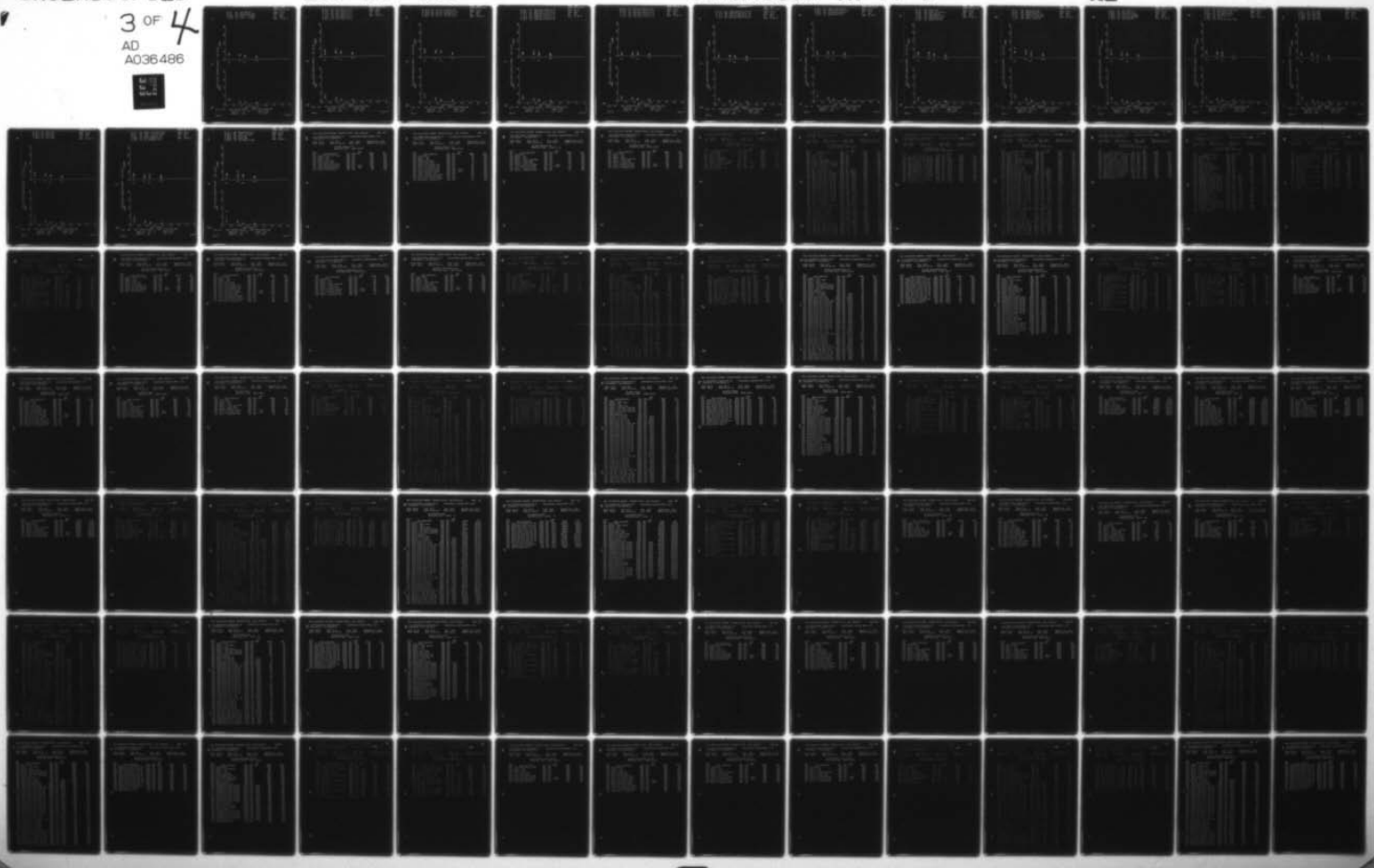


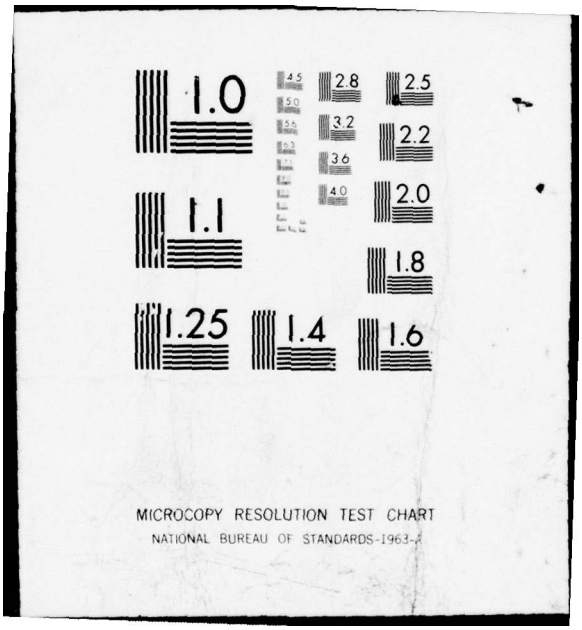
FIG 124 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

AD-A036 486 BELL HELICOPTER TEXTRON FORT WORTH TEX F/G 1/3
COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPE--ETC(U)
NOV 73 T L GUHN DAAJ01-72-A-0015
UNCLASSIFIED 206-194-136 USAAVSCOM-TR-77-9 NL

3 OF 4
AD
A036486




1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3
7.1
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PAGE
REPORT 2
MODEL 0
SHIP 4
FLT. 4
DATE 2

⊡ 0.0 KTS JUMP TAKE-OFF
⊖ 0.0 KTS ACCELERATION 0-60
◁ 70.0 KTS CLIMB - M C POWER
+ 70.0 KTS CLIMB - T O POWER

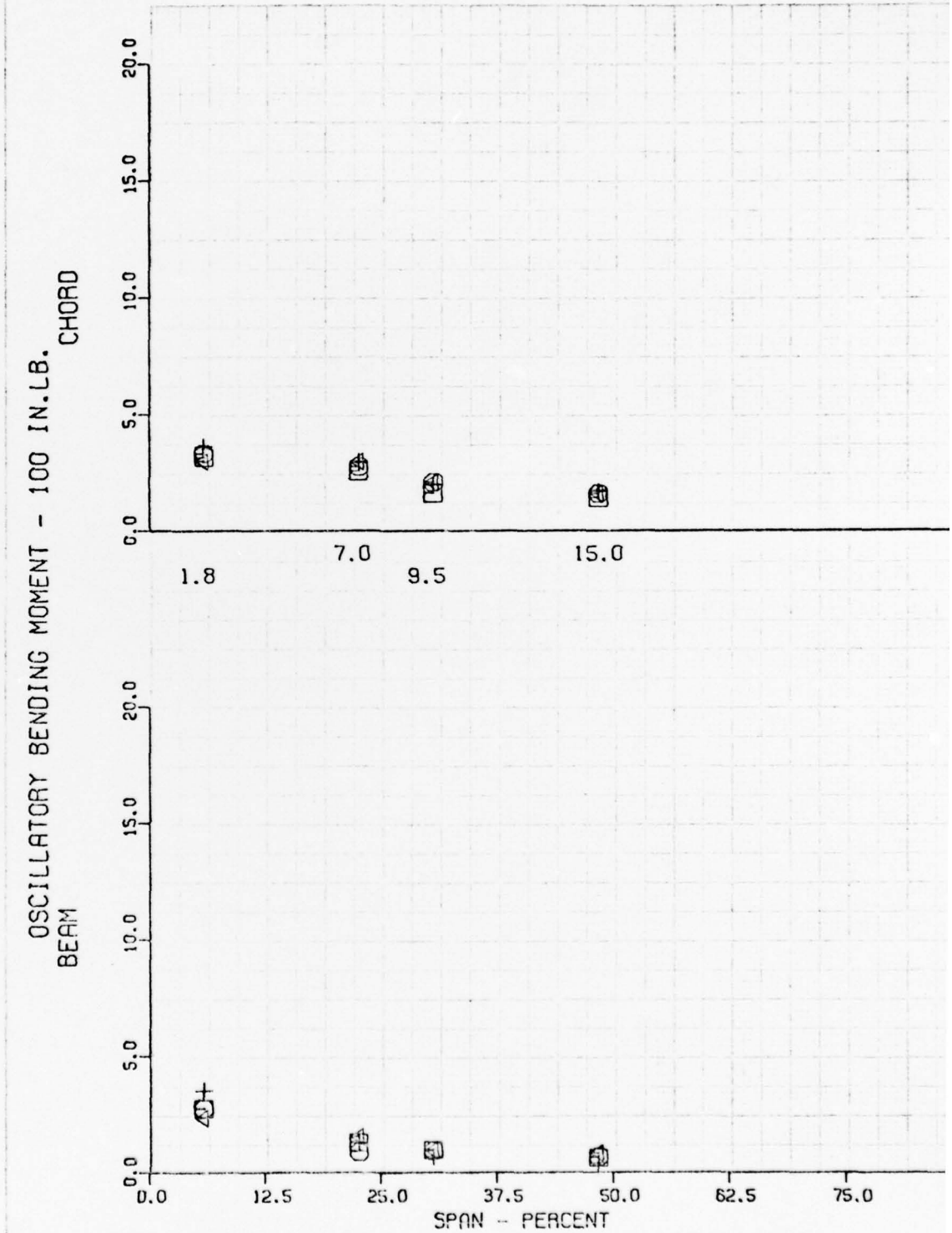


FIG 125 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

2441-15

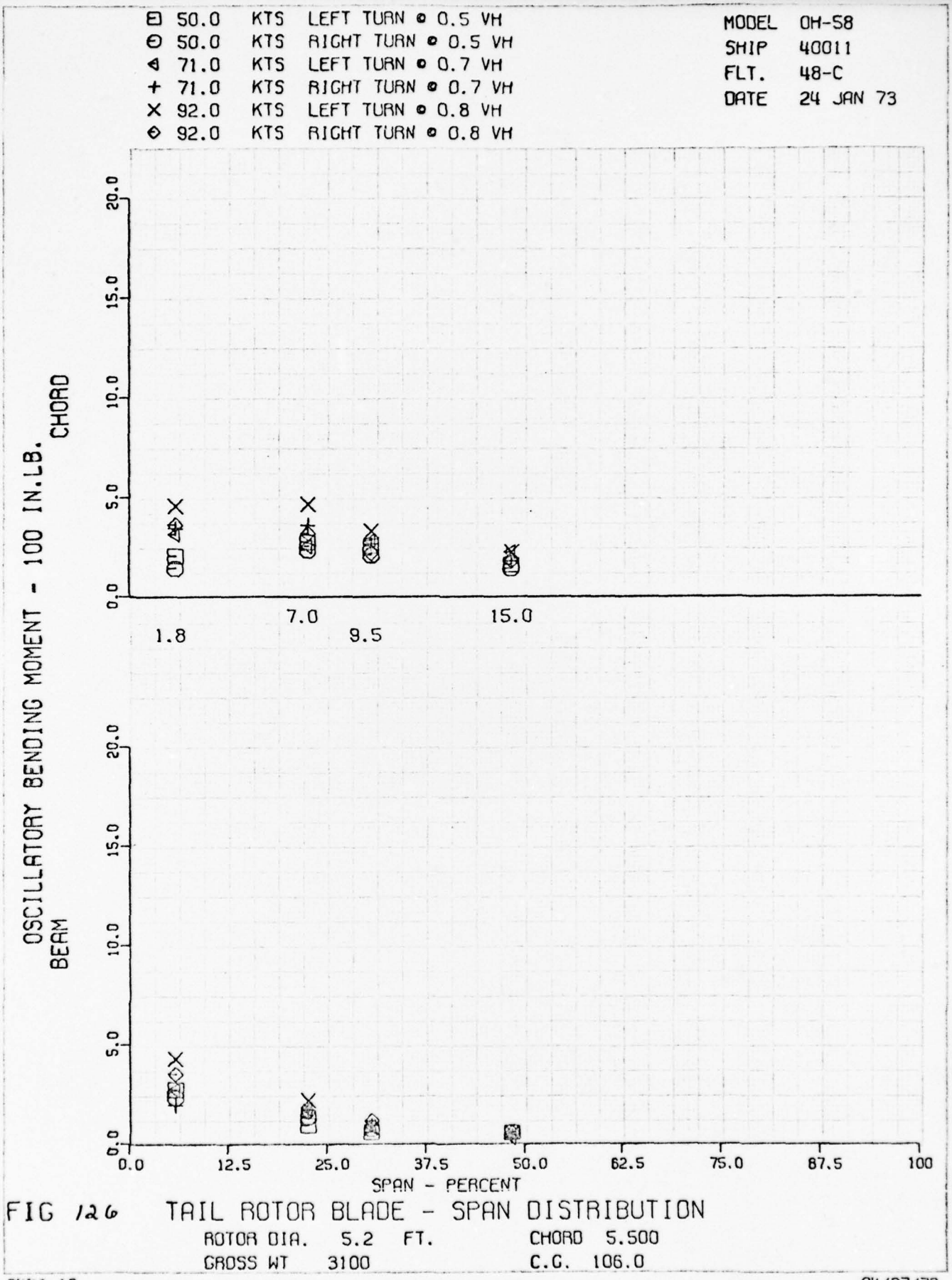


FIG 126 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

⊟ 102.0 KTS LVL FLT - LAT REV ● VH
⊖ 102.0 KTS LVL FLT-LAT CONT REV ● VH
◁ 102.0 KTS LVL FLT - DIR REV ● VH
\+ 61.0 KTS LVL FLT - CYC P/U 0.6 VH

MODEL OH-58
SHIP 40011
FLT. 48-C
DATE 24 JAN 73

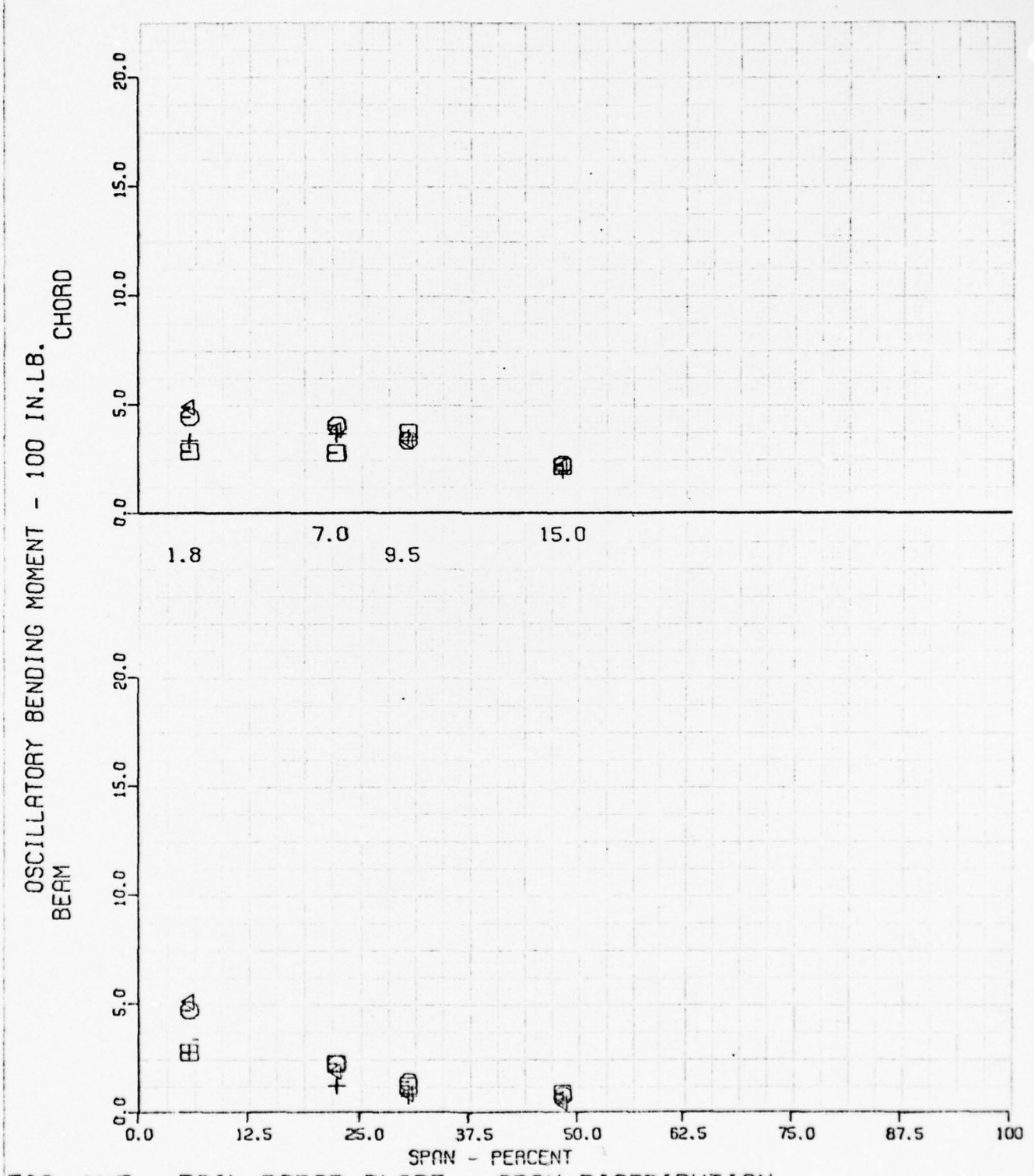


FIG 127 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

MODEL OH-58
SHIP 40011
FLT. 48-C
DATE 24 JAN 73

⊟	50.0	KTS	TRANS-PWE TO AUTO 0.5 VH
⊖	50.0	KTS	TRANS-AUTO TO PWR 0.5 VH
◁	71.0	KTS	TRANS-PWR TO AUTO 0.7 VH
+	71.0	KTS	TRANS-AUTO TO PWR 0.7 VH
×	92.0	KTS	TRANS-PWR TO AUTO 0.9 VH
◇	92.0	KTS	TRANS-AUTO TO PWR 0.9 VH

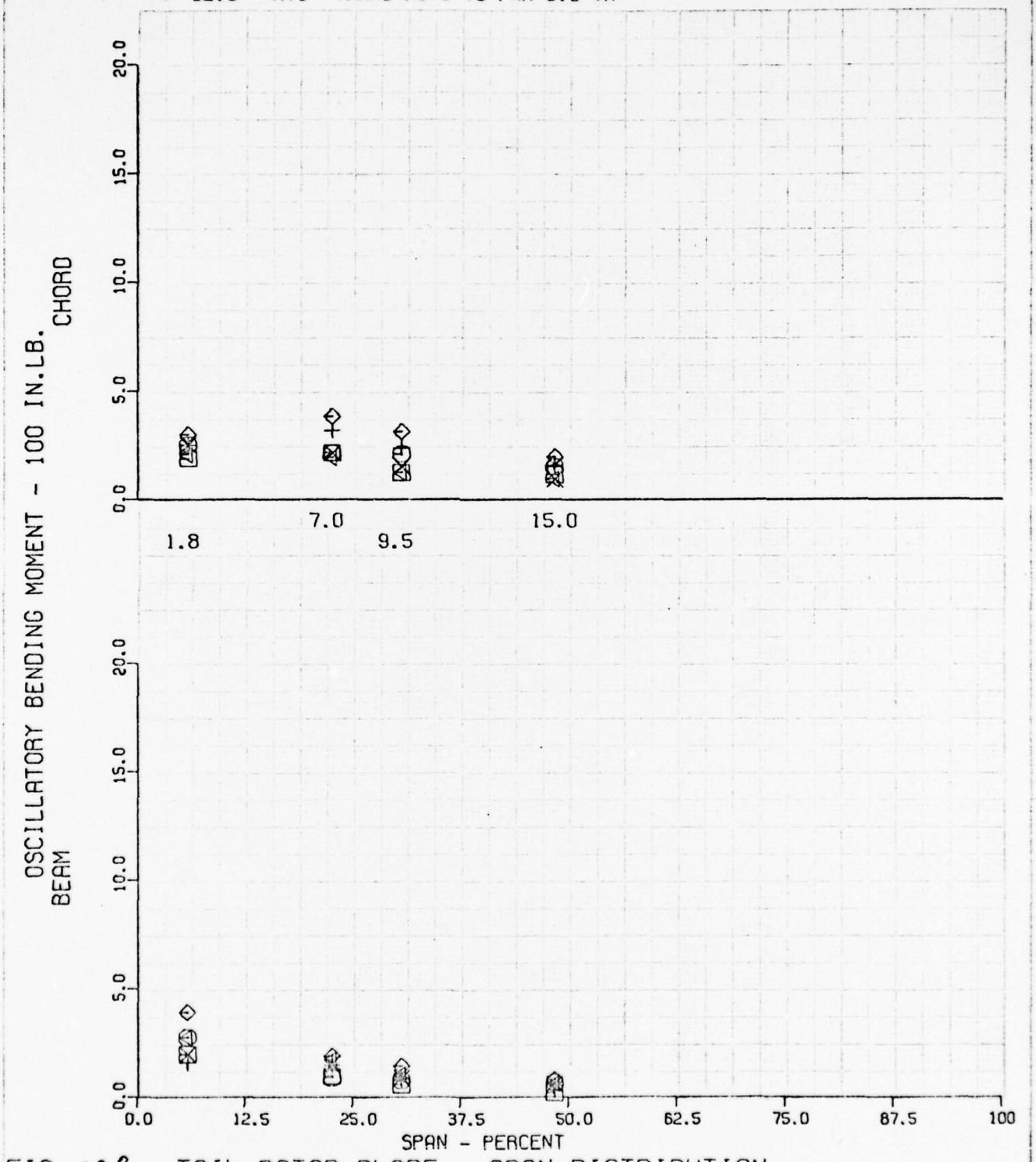


FIG 128 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

⊟ 50.0 KTS AUTO LEFT TURN ● 0.5 VH
⊖ 50.0 KTS AUTO RIGHT TURN ● 0.5 VH
◁ 71.0 KTS AUTO LEFT TURN ● 0.7 VH
\+ 71.0 KTS AUTO RIGHT TURN ● 0.7 VH
× 71.0 KTS AUTO CYCLIC P/U ● 0.7 VH

MODEL 0H-58
SHIP 40011
FLT. 48-C
DATE 24 JAN 73

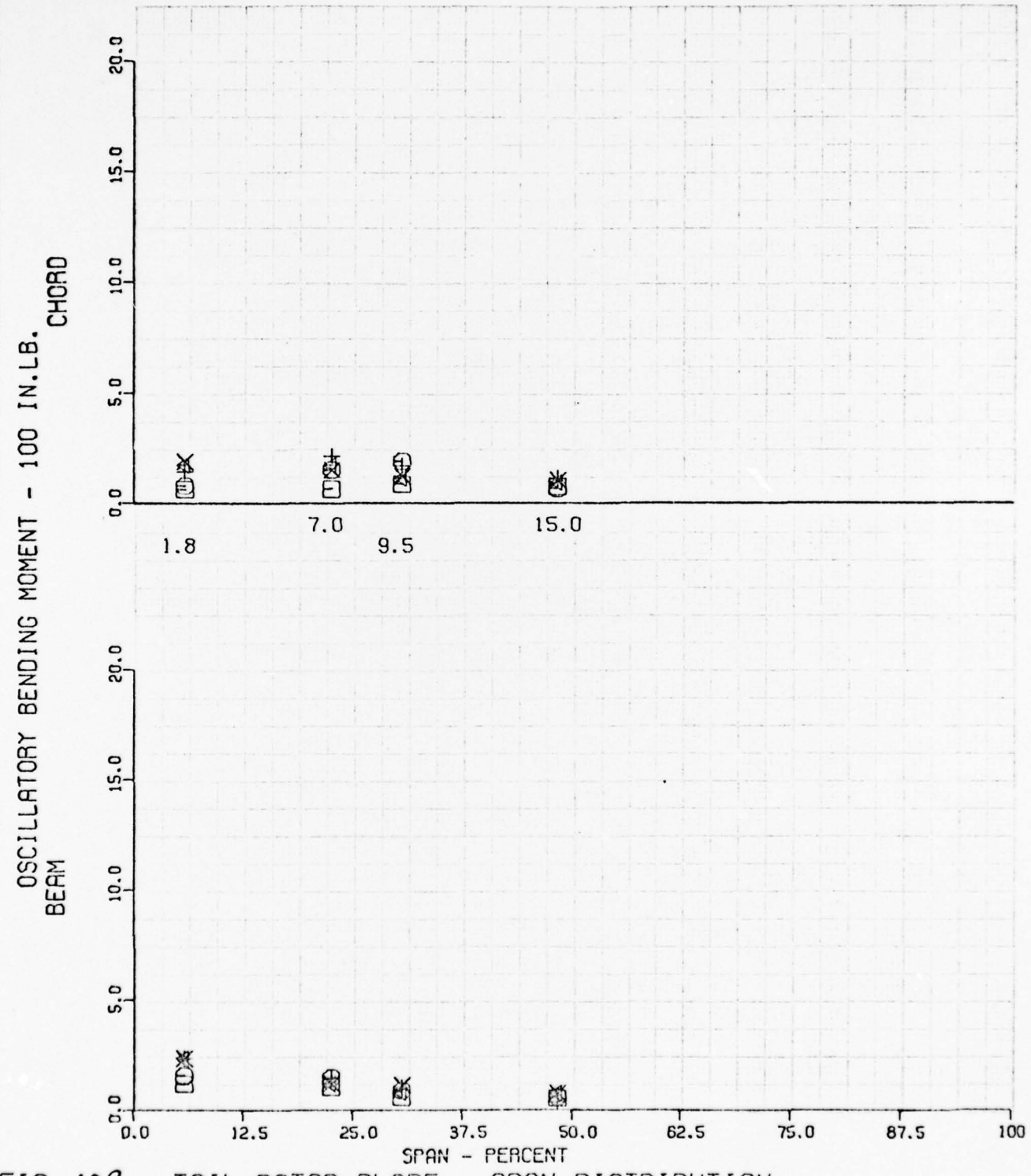


FIG 129 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

MODEL OH-58
SHIP 40011
FLT. 48-C
DATE 24 JAN 73

⊟ 71.0 KTS STABILIZED AUTO ● 0.7 VH
⊖ 71.0 KTS AUTO F/A CONT REV 0.7 VH
◁ 71.0 KTS AUTO LAT CONT REV 0.7 VH
+ 71.0 KTS AUTO DIR CONT REV 0.7 VH

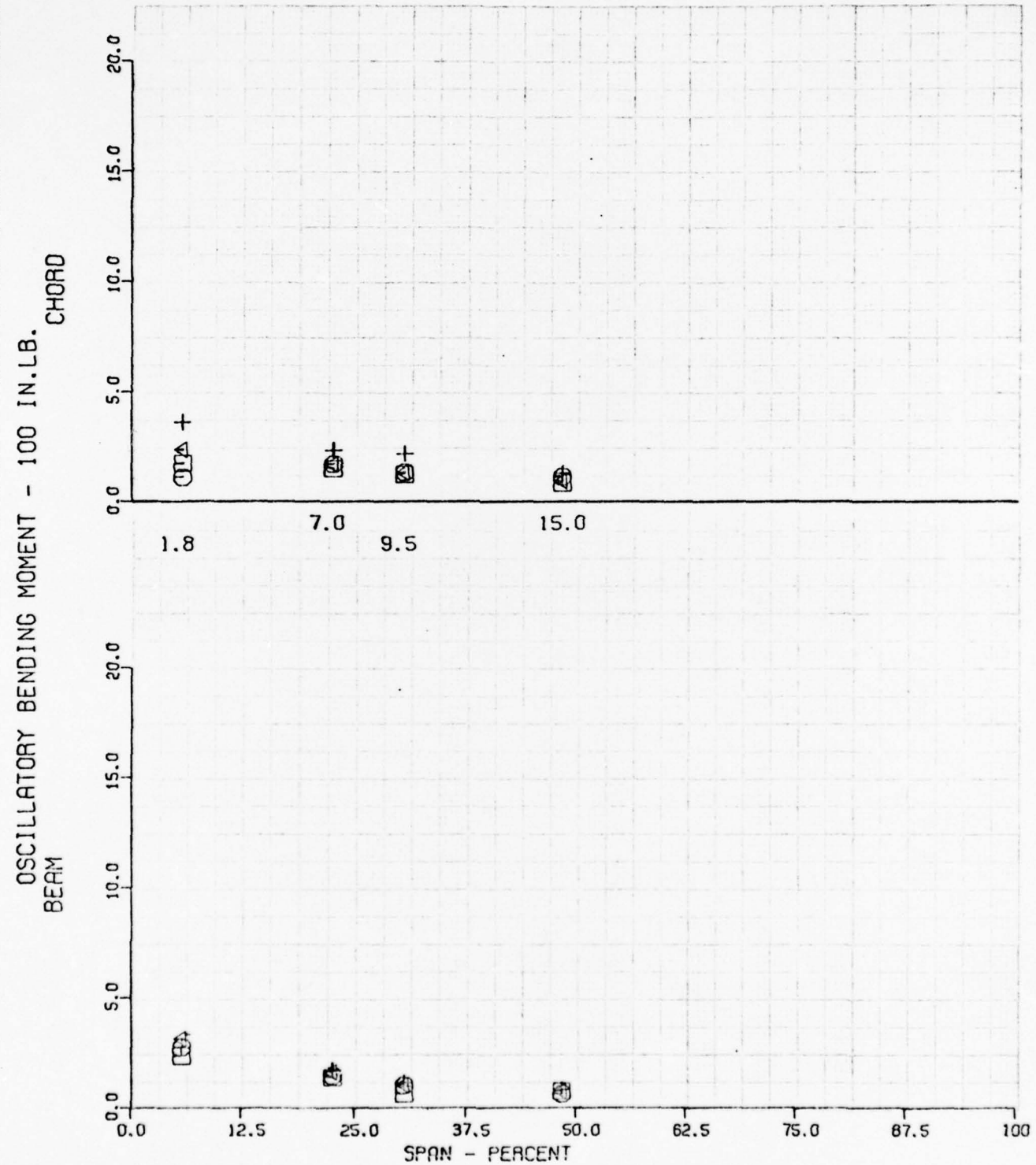


FIG 130 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

⊟	60.0	KTS	PARTIAL POWER DESCENT
⊖	60.0	KTS	TRANS POWER RECOVERY-ICE
◁	60.0	KTS	AUTOROTATION LANDING
+	60.0	KTS	DECELERATION 60-0

MODEL OH-58
SHIP 40011
FLT. 48-C
DATE 24 JAN 73

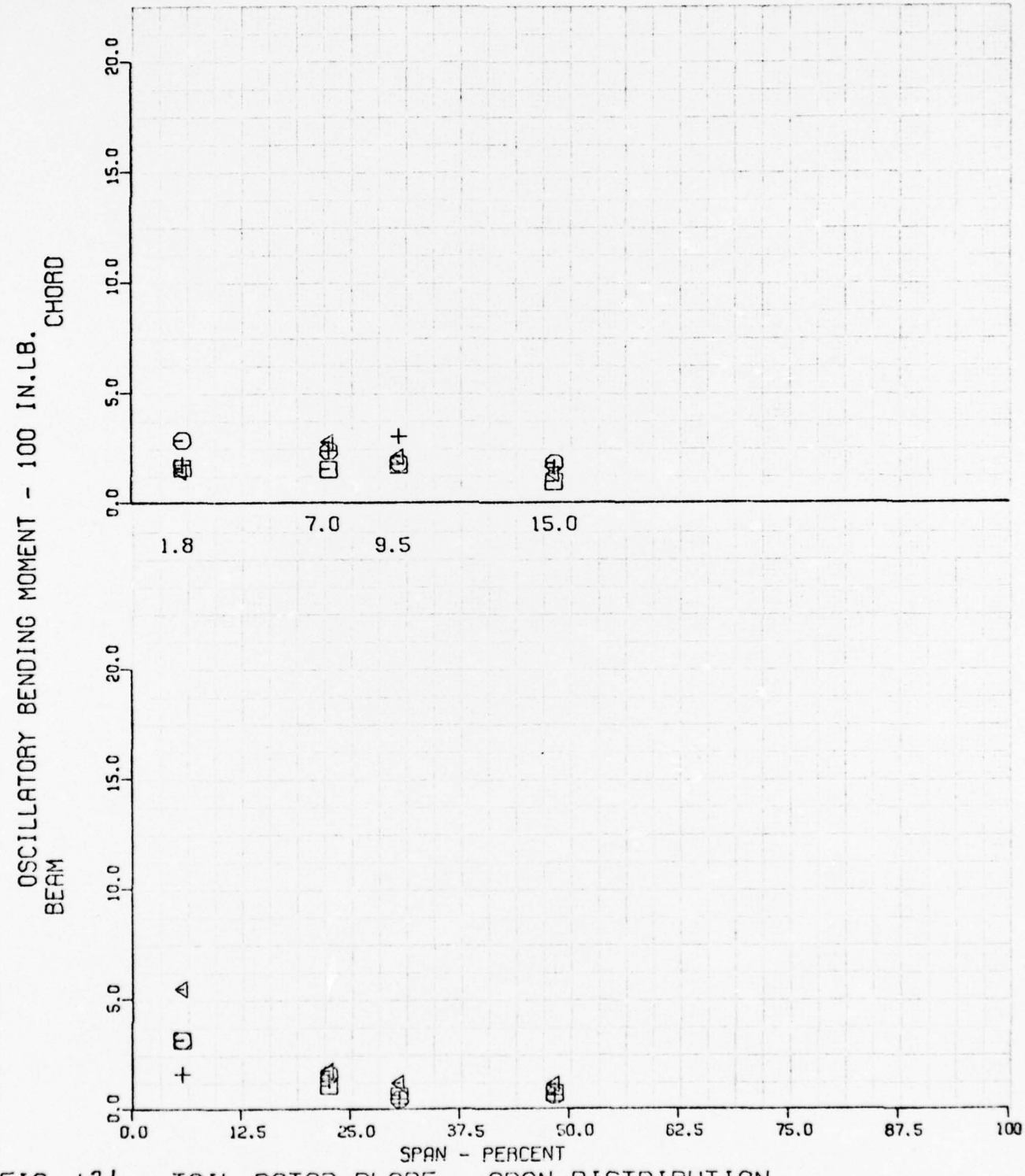


FIG 131 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 3100 C.G. 106.0

⊟	0.0	KTS	FLAT PITCH
⊖	0.0	KTS	HOVER - STIR CYCLIC
◀	0.0	KTS	JUMP TAKE-OFF
+	0.0	KTS	ACCELERATION 0-60
×	60.0	KTS	DECELERATION 60-0
◇	0.0	KTS	NORMAL SHUTDOWN

MODEL OH-58
SHIP 40011
FLT. 49-A
DATE 30 JAN 73

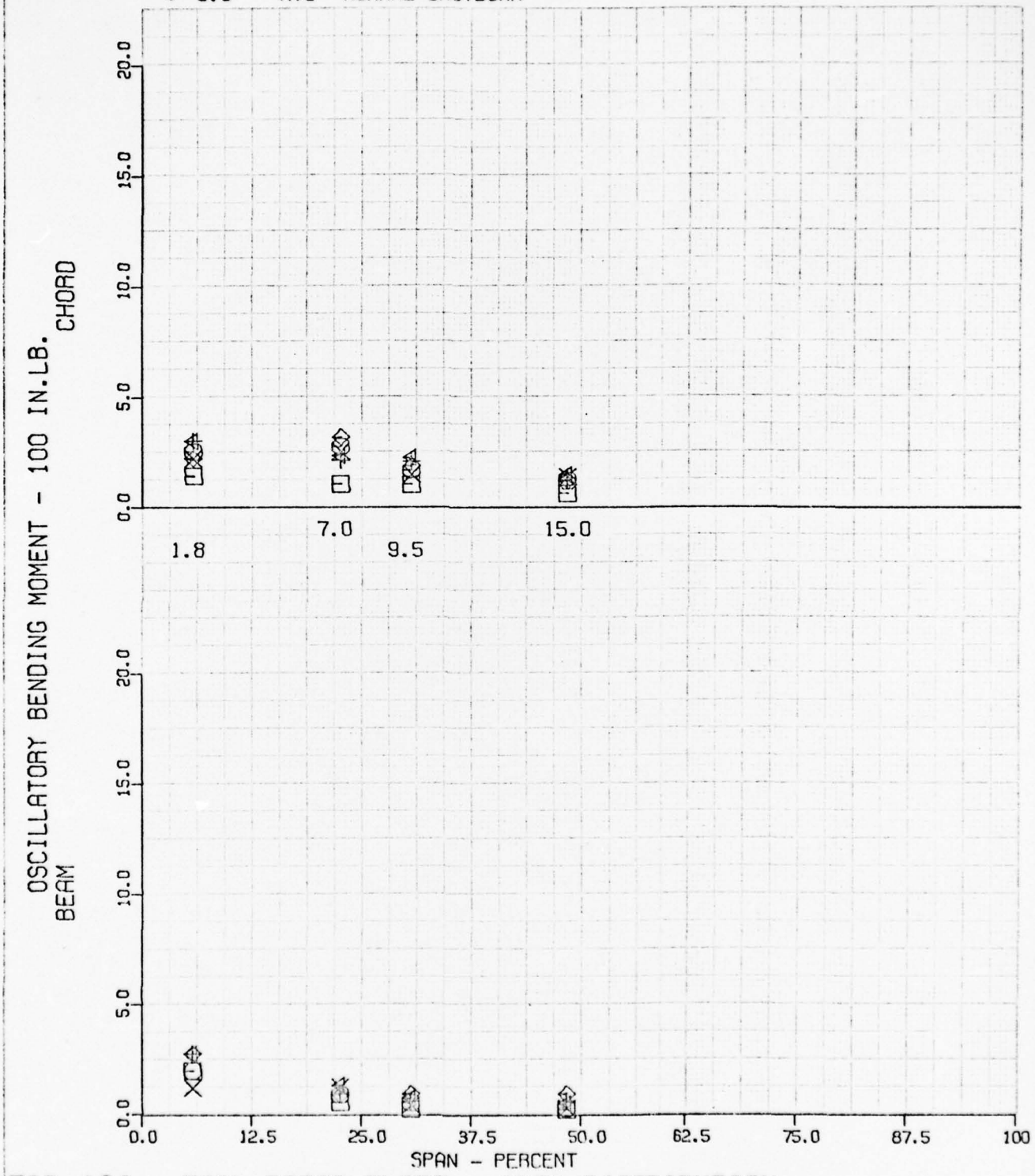


FIG 132 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.1

⊟	0.0	KTS	HOVER LEFT TURN
⊖	0.0	KTS	HOVER RIGHT TURN
◁	0.0	KTS	HOVER F/A CYCLIC REV
+	0.0	KTS	HOVER LAT CYCLIC REV
×	0.0	KTS	HOVER - PEDAL REV

MODEL OH-58
SHIP 40011
FLT. 49-A
DATE 30 JAN 73

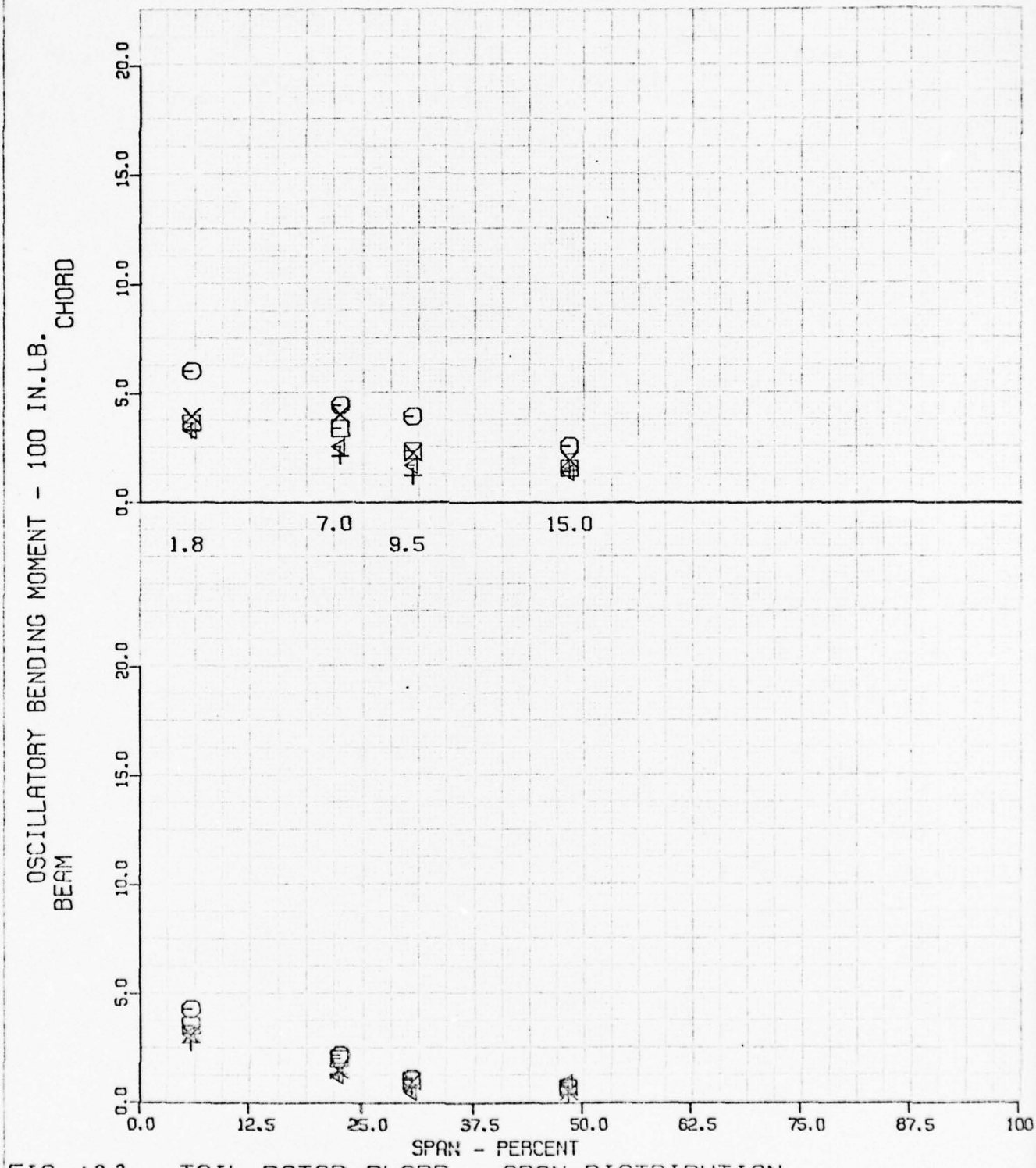


FIG 133 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.1

⊟	80.0	KTS	LEFT TURN 1.4 G
⊖	80.0	KTS	RIGHT TURN 1.5 G
◁	80.0	KTS	F/A CYCLIC REVERSAL
+	80.0	KTS	LAT CYCLIC REVERSAL
×	80.0	KTS	PEDAL REVERSAL

MODEL OH-58
SHIP 40011
FLT. 49-A
DATE 30 JAN 73

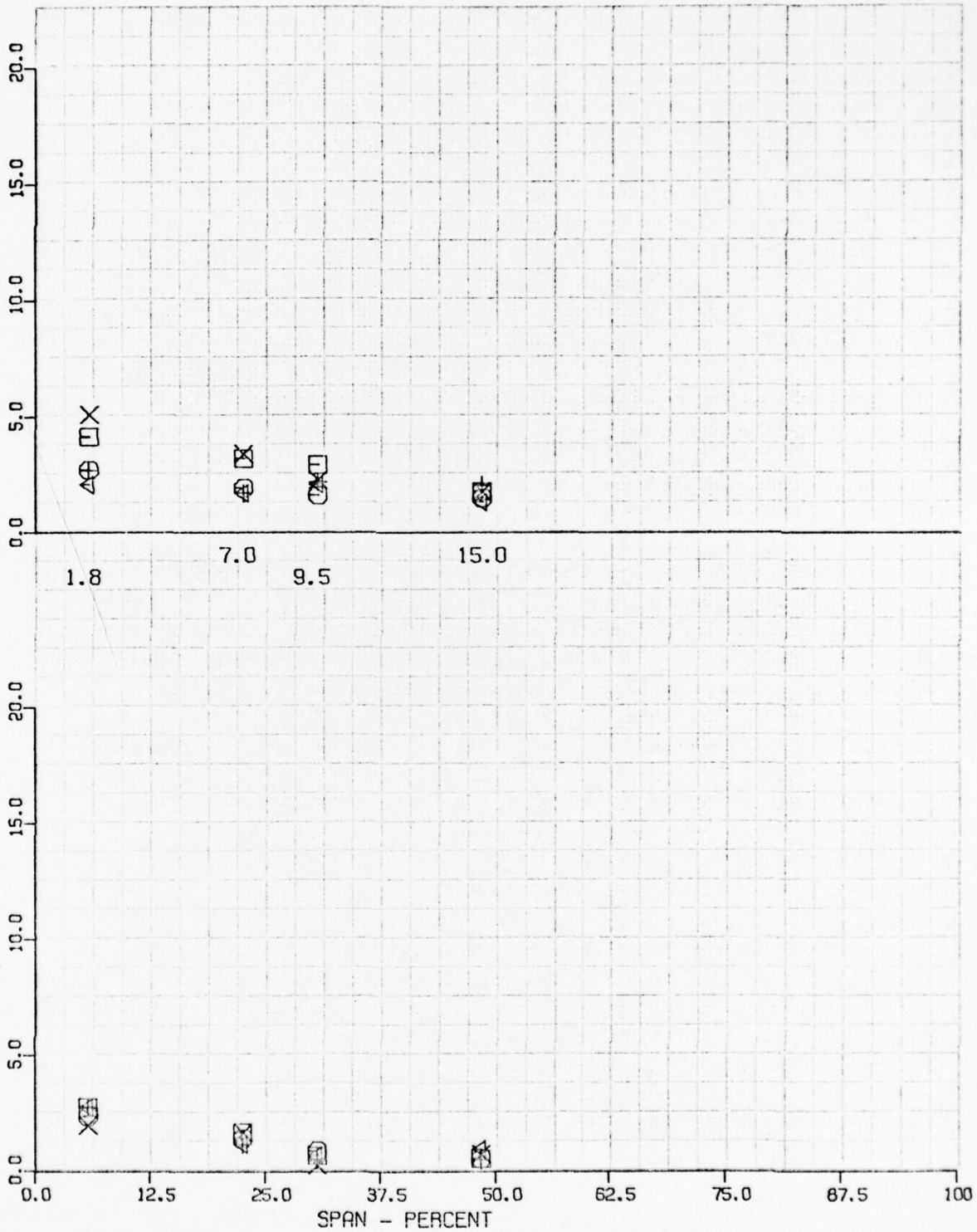


FIG 134 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2585 C.G. 110.1

⊟	0.0	KTS	FLAT PITCH - STIR CYCLIC
⊖	0.0	KTS	ACCELERATION 0-60
◁	60.0	KTS	LOW POWER LET DOWN
+	60.0	KTS	MAX POWER CLIMB
×	60.0	KTS	CLIMB
◇	0.0	KTS	FLAT PITCH/CYCLIC INPUT

MODEL 0H-58
SHIP 40011
FLT. 50
DATE 06 FEB 73

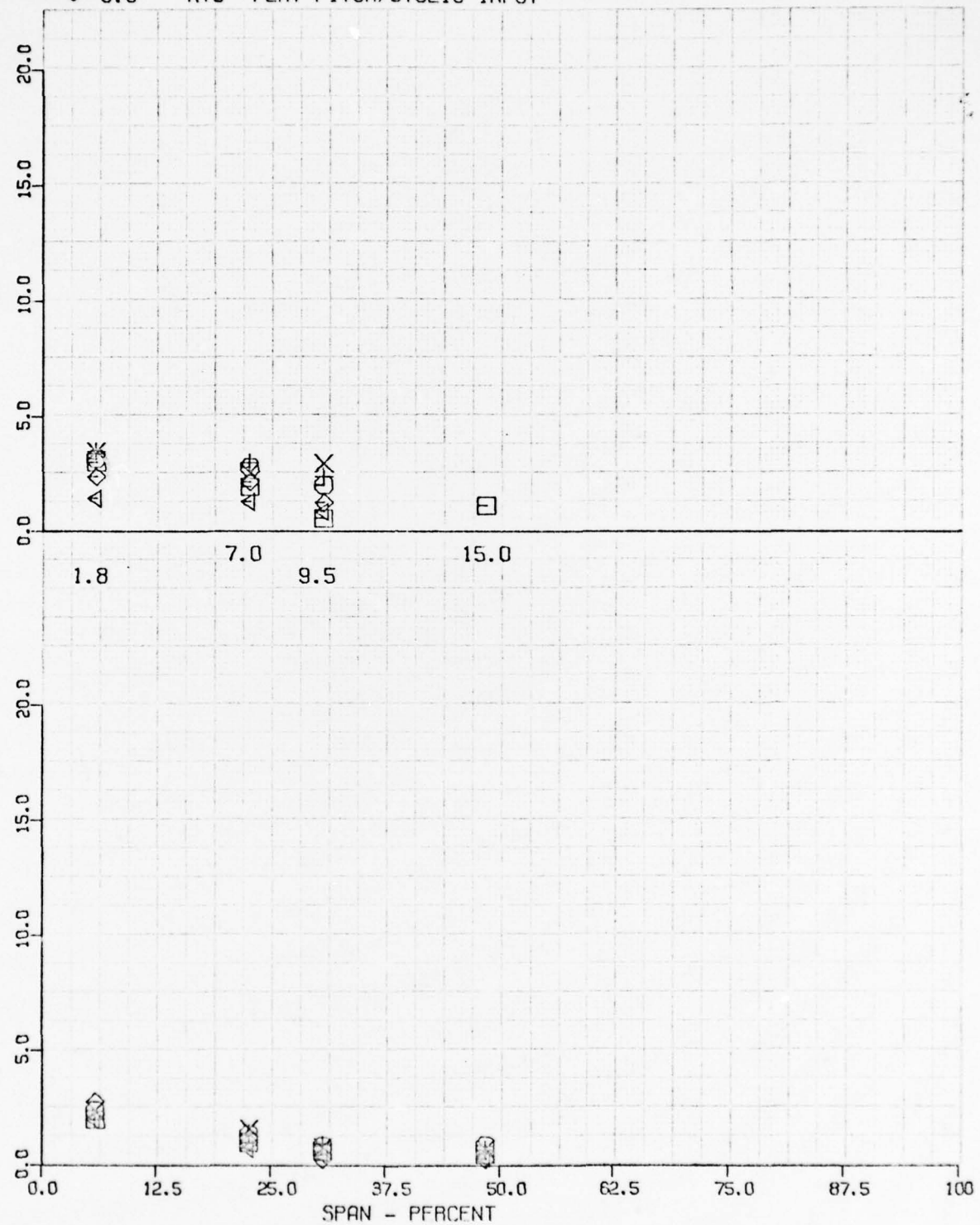


FIG 135 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2500 C.G. 110.1

REPORT 206-194-136

MODEL OH-58
SHIP 40011
FLT. 50
DATE 06 FEB 73

⊟ 60.0 KTS LEFT TURN
⊖ 70.0 KTS LEFT TURN
◁ 70.0 KTS RIGHT TURN
+ 80.0 KTS LEFT TURN
× 80.0 KTS RIGHT TURN

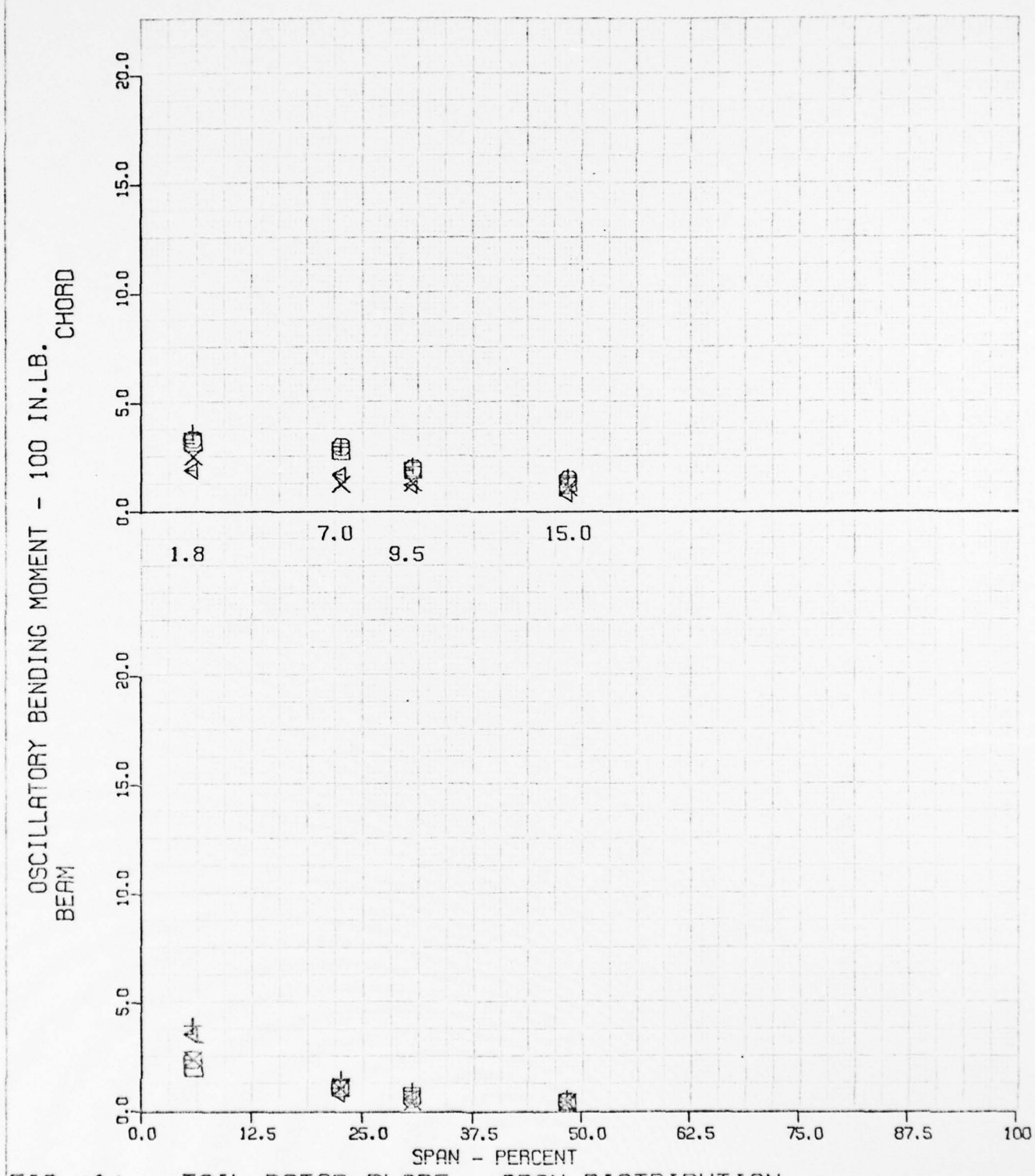


FIG 136 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2500 C.G. 110.1

2443-15

04/26/73

⊟ 90.0 KTS LEFT TURN
⊖ 90.0 KTS RIGHT TURN
◁ 100.0 KTS LEFT TURN
+ 100.0 KTS RIGHT TURN

MODEL OH-58
SHIP 40011
FLT. 50
DATE 06 FEB 73

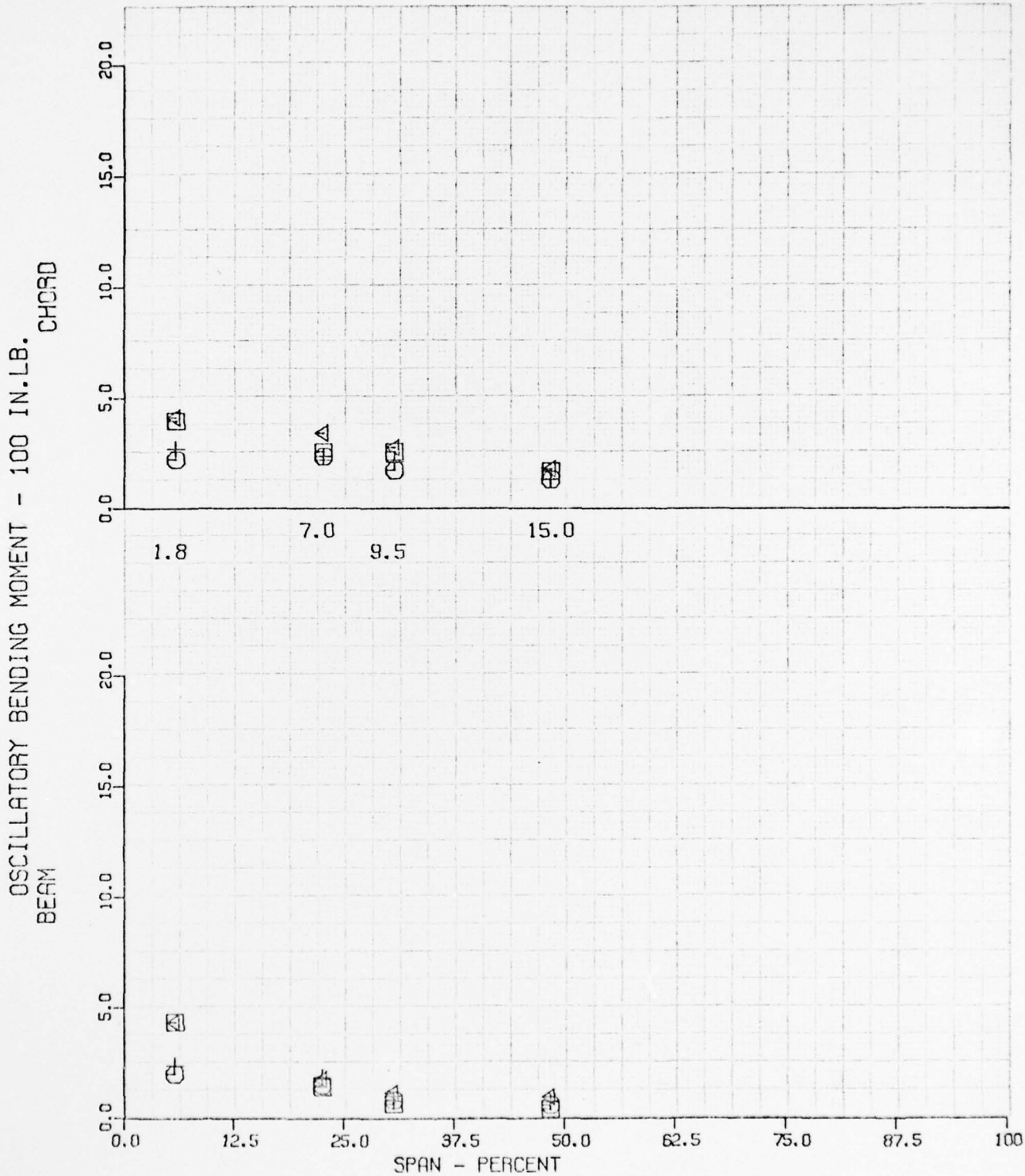


FIG 137 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2500 C.G. 110.1

⊟ 0.0	KTS	HOVER - F/A CYCLIC INPUT	MODEL 0H-58
⊖ 0.0	KTS	HOVER - LAT CYCLIC INPUT	SHIP 40011
◁ 0.0	KTS	HOVER - THROTTLE CHOP	FLT. 52
+ 20.0	KTS	RIGHT SIDEWARD FLIGHT	DATE 006FEB 73
× 20.0	KTS	LEFT SIDEWARD FLIGHT	

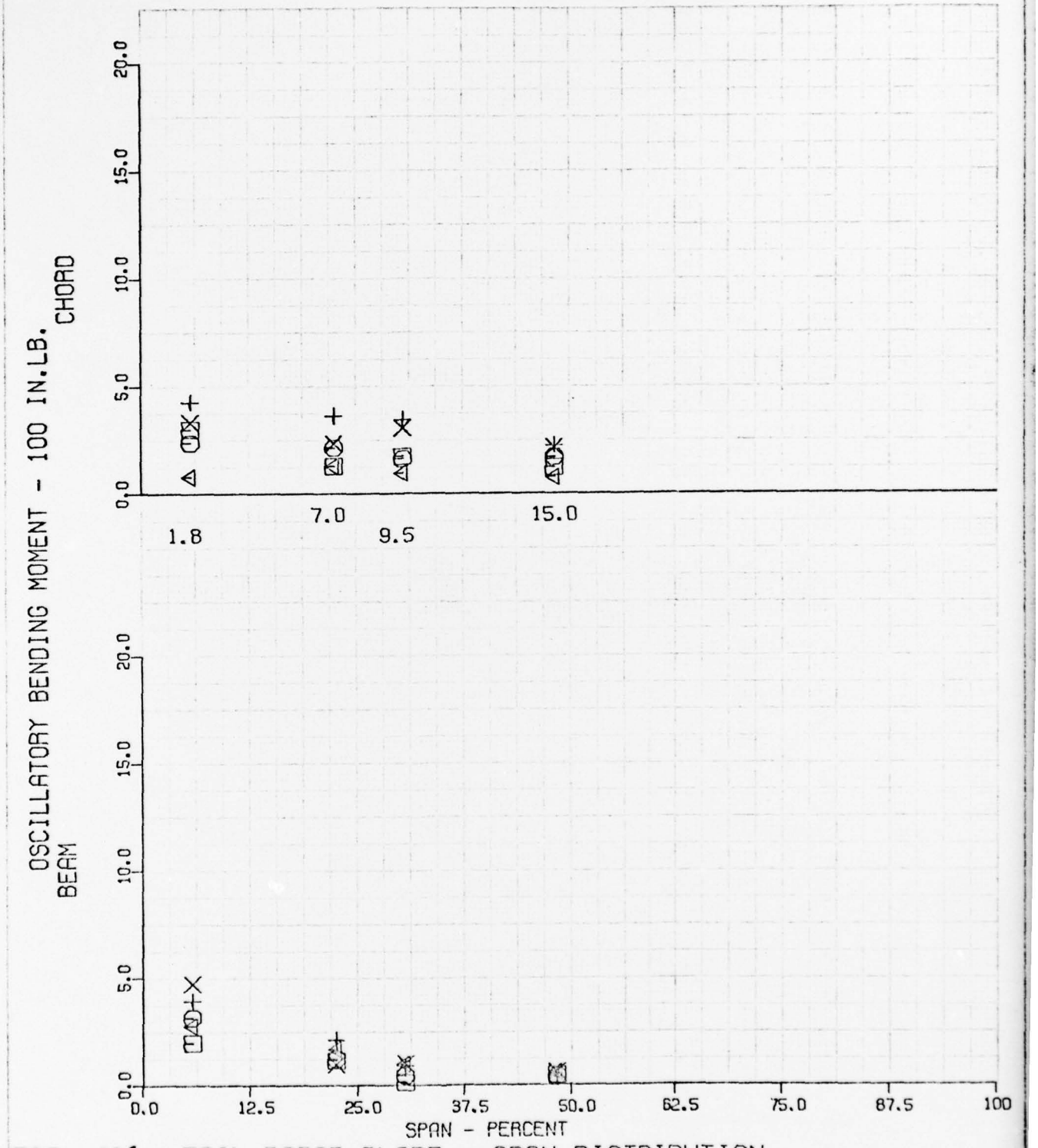


FIG 138 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2500 C.G. 110.1

⊟	0.0	KTS	ACCELERATION 0-60
⊖	60.0	KTS	CLIMB - MC POWER
◁	80.0	KTS	LEFT TURN
+	80.0	KTS	RIGHT TURN
×	60.0	KTS	LOW POWER LET DOWN

MODEL OH-58
SHIP 40011
FLT. 52
DATE 006FEB 73

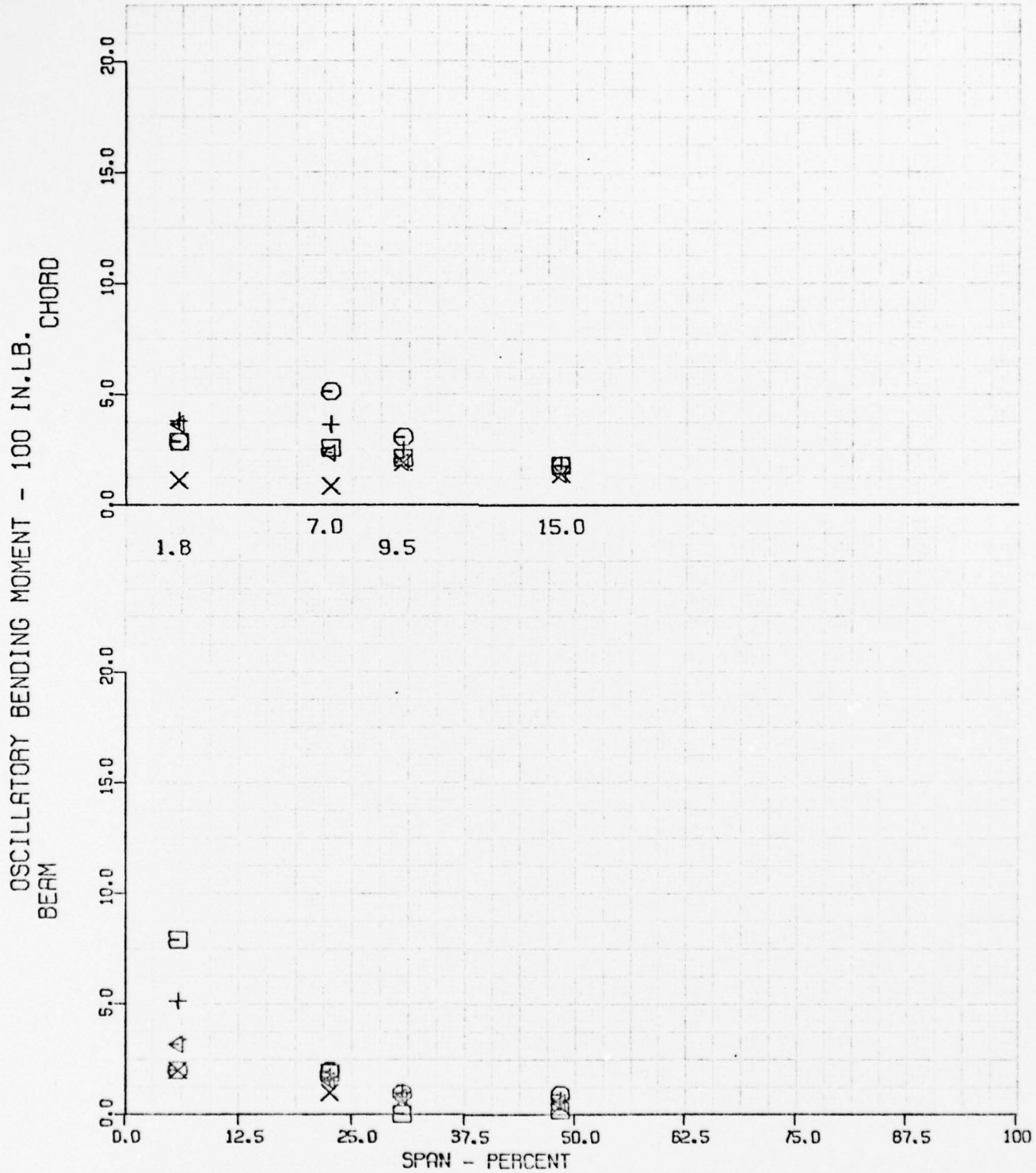


FIG 139 TAIL ROTOR BLADE - SPAN DISTRIBUTION

ROTOR DIA. 5.2 FT. CHORD 5.500
GROSS WT 2500 C.G. 110.1

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		101	143
645	HOVER - IGE	420	354		147	147
646	HOVER - IGE	420	347		156	114
647	HOVER LEFT TURN	420	354		101	211
648	HOVER RIGHT TURN	420	354		143	211
649	HOVER DIR CONTROL REV	420	354		211	211
650	LEFT SIDEWARD FLIGHT	420	354	20.0	160	227
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	88	257
652	HOVER AUTOROTATION	420	354		84	236

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		-38	139
667	HOVER - IGE	800	354		21	164
668	HOVER - IGE	800	347		8	143
669	HOVER LEFT TURN	800	354		38	257
670	HOVER RIGHT TURN	800	354		4	131
671	HOVER DIR CONTROL REV	800	354		17	211
672	HOVER F/A CONTROL REV	800	354		46	114
673	HOVER LAT CONTROL REV	800	354		55	122
674	LEFT SIDEWARD FLIGHT	800	354	20.0	38	232
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	55	181
676	HOVER THROTTLE CHOP	800	354		-13	248
677	GRD RUN-RT FWD CYC INPUT	800	354		13	131
678	HOVER F/A CYCLIC INPUT	800	354		59	118
679	GRD RUN-LT AFT CYC INPUT	800	354		4	114
680	MAX POWER - BOOST OFF	800	354		-17	152

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58	FLT. 46-A	G.W. 2585	PROBLEM NO. 2437
SHIP 40011	DATE 19 JAN 73	C.G. 110.2	REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		-38	129
693	HOVER - IGE	940	354		75	142
694	HOVER - IGE	940	347		121	129
695	HOVER - PEDAL REVERSAL	940	354		58	225
696	HOVER - LEFT TURN	940	354		71	221
697	HOVER - RIGHT TURN	940	354		113	163
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	67	217
699	LEFT SIDEWARD FLIGHT	940	354	20.0	13	221
700	ACCEL & DECEL 0-60-0	940	354		129	205
701	HOVER - THROTTLE CHOP	940	354		-8	217

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		109	152
710	HOVER - IGE	940	354		101	143
711	HOVER - IGE	940	347		131	131
712	HOVER - PEDAL REVERSAL	940	354		72	206
713	HOVER - LEFT TURN	940	354		118	253
714	HOVER - RIGHT TURN	940	354		126	194
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	114	189
716	LEFT SIDEWARD FLIGHT	940	354	20.0	67	219
717	HOVER - THROTTLE CHOP	940	354		-13	265

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL [illegible]
TEMPERATURE = -35 DEGREES C

MODEL UH-1C FLT. 47-A G.W. 2365 PROBLEM NO. 2455
SHIP 43011 DATE 23 JAN 73 C.G. 110.2 REPORT 205-194-130

TR MAST PARALLEL MO
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
733	FLAT PITCH	800	354		-197	251
734	HOVER - IGE	800	354		-193	170
735	HOVER - IGE	800	347		-127	179
736	HOVER - LEFT TURN	800	354		-200	229
737	HOVER - RIGHT TURN	800	354		-193	196
738	HOVER - PEDAL REVERSAL	800	354		-289	229
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	-285	285
740	ACCELERATION 0-60	1500	354		-251	259
741	LEFT TURN	1500	354	80.0	-221	269
742	DECELERATION 60-0	1000	354	80.0	-288	344

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-AB G.W. 2785 PROBLEM NO. 2440
SHIP 40811 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			123	234
748	HOVER - IGE	510	347		-102	119
749	HOVER - IGE	510	354		-76	153
750	HOVER - LEFT TURN	510	354		-106	259
751	HOVER - RIGHT TURN	510	354		-51	179
752	HOVER - F/A CONT REVERSAL	510	354		-81	174
753	HOVER - LAT CONT REVERSAL	510	354		-110	187
754	HOVER - DIR CONT REVERSAL	510	354		-34	187
755	ACCELERATION 0-60	510	354		-157	225
756	STAB LEVEL FLT @ VH	1500	354	108.0	-85	297
757	STAB LEVEL FLT @ VNE	1400	354	120.0	-119	323
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	-149	361
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	-179	348
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	-145	289
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	-123	293
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	-221	299
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	-225	235
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	-208	251
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	-225	242
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	-221	238
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	-263	204
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	-239	196
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	-302	242
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	-280	238
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	-280	246
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	-242	242
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	-110	236
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	-238	366
775	STAB LEVEL FLT @ VH	1400	347	108.0	-213	328
776	STAB LEVEL FLT @ VNE	1400	347	120.0	-174	310
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	-136	306
778	LEFT TURN @ 0.5 VH	1400	354	55.0	-242	327
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	-242	276
780	LEFT TURN @ 0.7 VH	1400	354	76.0	-221	331
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	-166	293
782	LEFT TURN @ 0.8 VH	1400	354	87.0	-181	348
783	RIGHT TURN @ 0.8 VH	1400	354	97.0	-149	285
791	JUMP TAKE-OFF	510	354		-187	238
792	CLIMB - M C POWER	1000	354	70.0	-136	268
793	CLIMB - T O POWER	1400	354	70.0	-145	280
794	LVL FLT - LAT REV @ VH	1400	354	108.0	-166	412
795	LVL FLT - DIR REV @ VH	1400	354	108.0	-77	357
796	LVL FLT - CYC P/U 0.6 VH	1400	354	65.0	-204	348
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	-64	404
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	-234	276
799	STABILIZED AUTO @ 0.5 VH	1700	335	55.0	-395	140
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	-200	370
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	-76	297

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-58 FLT. 48-A8 G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	-421	200
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	-140	327
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	-153	331
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	-85	340
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	-403	170
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	-374	213
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	-340	238
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	-378	225
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	-450	221
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	-387	166
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	-404	225
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	-404	191
814	PARTIAL POWER DESCENT	1700	340	60.0	-72	191
815	TRANS POWER RECOVERY-IGE	600	340	60.0	-208	205
816	DECELERATION 60-0	600	340	60.0	64	319

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 100.0 REPORT 206-194-156

TR MAST PARALLEL MB
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		-269	168
821	HOVER - LEFT TURN	510	354		-295	261
822	HOVER - IGE	510	354		-248	154
823	HOVER - RIGHT TURN	510	354		-286	202
824	HOVER - F/A CONT REVERSAL	510	354		-236	177
825	HOVER - LAT CONT REVERSAL	510	354		-232	181
826	HOVER - DIR CONT REVERSAL	510	354		-324	215
827	JUMP TAKE-OFF	510	354		-320	194
828	ACCELERATION 0-60	510	354		-290	290
829	CLIMB - M C POWER	510	354	70.0	-312	253
830	CLIMB - T O POWER	510	354	70.0	-282	282
831	STAB LEVEL FLT @ VH	1400	354	108.0	-202	379
832	STAB LEVEL FLT @ VNE	1400	354	120.0	-236	421
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	-219	370
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	-265	349
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	-341	316
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	-303	253
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	-337	295
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	-354	278
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	-320	269
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	-312	253
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	-307	274
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	-362	244
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	-358	248
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	-366	274
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	-307	261
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	-354	219
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	-341	223
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	-362	219
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	-328	261
850	STAB LEVEL FLT @ VH	1400	347	102.0	-198	349
851	STAB LEVEL FLT @ VNE	1400	347	120.0	-215	358
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	-181	383
853	LEFT TURN @ 0.5 VH	1400	354	50.0	-295	320
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	-265	341
855	LEFT TURN @ 0.7 VH	1400	354	71.0	-274	349
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	-442	349
857	LEFT TURN @ 0.8 VH	1400	354	92.0	-253	354
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	-375	366
859	LVL FLT - LAT REV @ VH	1400	354	102.0	-244	370
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	-236	379
861	LVL FLT - DIR REV @ VH	1400	354	102.0	-206	366
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	-286	278
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	-274	223
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	-434	232
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	-425	240
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	-408	206
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	-307	316

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-53 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE 5111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	-337	328
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	-278	160
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	-324	265
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	-408	290
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	-345	269
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	-370	345
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	-345	387
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	-383	467
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	-383	240
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	-362	244
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	-400	274
883	PARTIAL POWER DESCENT	1200	354	60.0	-375	307
884	TRANS POWER RECOVERY-IGE	550	354	60.0	-358	248
885	AUTOROTATION LANDING	550	354	60.0	-39	425
886	DECELERATION 60-0	550	354	60.0	-341	333

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE 8111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		17	162
896	HOVER - STIR CYCLIC	630	354		13	216
897	HOVER - IGE	630	354		-34	162
898	HOVER - IGE	630	347		-34	154
899	HOVER LEFT TURN	630	354		-9	179
900	HOVER RIGHT TURN	630	354		-350	205
901	HOVER F/A CYCLIC REV	630	354		-9	205
902	HOVER LAT CYCLIC REV	630	354		30	115
903	HOVER - PEDAL REV	630	354		-90	209
904	JUMP TAKE-OFF	630	354		-60	162
905	ACCELERATION 0-60	800	354		-77	231
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	-56	218
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	-90	243
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	-56	255
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	-47	226
910	STABILIZED LEVEL FLIGHT	1500	354	60.0	-73	209
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	-60	231
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	9	262
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	4	278
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	-47	303
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	17	325
916	LEFT TURN 1.4 G	1300	354	80.0	-68	248
917	RIGHT TURN 1.5 G	1300	354	80.0	-64	286
918	F/A CYCLIC REVERSAL	1300	354	80.0	-115	286
919	LAT CYCLIC REVERSAL	1300	354	80.0	-47	260
920	PEDAL REVERSAL	1300	354	80.0	-64	252
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	-171	196
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	-90	175
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	-98	201
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	-77	231
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	-107	295
926	DECELERATION 60-0	800	354	60.0	-120	299
927	NORMAL SHUTDOWN	630	350		85	205

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -29 DEGREES C

MODEL UH-58 FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 206-194-136

TR MAST PARALLEL MB
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
938	FLAT PITCH - STIR CYCLIC	640	354		9	248
939	ACCELERATION 0-60	640	354		-77	214
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	-120	299
941	LEFT TURN	1100	354	60.0	-85	273
942	LOW POWER LET DOWN	1100	354	60.0	-102	249
943	MAX POWER CLIMB	1100	354	60.0	-77	231
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	-81	252
945	LEFT TURN	1100	354	70.0	-73	252
946	RIGHT TURN	1100	354	70.0	-94	248
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	-85	273
948	LEFT TURN	1100	354	80.0	-111	273
949	RIGHT TURN	1100	354	80.0	-175	278
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	-56	295
951	LEFT TURN	1100	354	90.0	-145	316
952	RIGHT TURN	1100	354	90.0	-13	218
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	-26	316
954	LEFT TURN	1100	354	100.0	-51	282
955	RIGHT TURN	1100	354	100.0	-120	350
956	CLIMB	1100	354	60.0	-51	222
957	FLAT PITCH/CYCLIC INPUT	640	354		-93	243

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL UH-1B FLT. 32 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 206-199-136

TR MAST PARALLEL MC
ITEM CODE B111 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
973	POWER - IGE	70	354		4	167
974	HOVER - F/A CYCLIC INPUT	70	354		-13	176
975	HOVER - LAT CYCLIC INPUT	70	354		-21	150
976	HOVER - THROTTLE CHOP	70	354		86	154
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	-124	296
978	LEFT SIDEWARD FLIGHT	70	354	20.0	-43	146
979	ACCELERATION 0-60	100	354		-43	197
980	CLIMB - MC POWER	1000	354	60.0	-13	202
981	STABILIZED LEVEL FLIGHT	800	354	60.0	-129	257
982	STABILIZED LEVEL FLIGHT	800	354	70.0	-82	245
983	STABILIZED LEVEL FLIGHT	800	354	80.0	-82	245
984	LEFT TURN	800	354	80.0	-133	330
985	RIGHT TURN	800	354	80.0	-137	360
986	STABILIZED LEVEL FLIGHT	800	354	90.0	-56	253
987	STABILIZED LEVEL FLIGHT	800	354	100.0	-107	270
988	STABILIZED LEVEL FLIGHT	800	354	110.0	-69	369
989	STABILIZED LEVEL FLIGHT	800	354	120.0	-142	270
990	LOW POWER LET DOWN	1000	354	60.0	-176	253

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		4	130
645	HOVER - IGE	420	354		-67	135
646	HOVER - IGE	420	347		-59	109
647	HOVER LEFT TURN	420	354		-63	206
648	HOVER RIGHT TURN	420	354		8	227
649	HOVER DIR CONTROL REV	420	354		-25	227
650	LEFT SIDEWARD FLIGHT	420	354	20.0	-122	214
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	-38	240
652	HOVER AUTOROTATION	420	354		-46	307

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		-21	116
667	HOVER - IGE	800	354		-4	141
668	HOVER - IGE	800	347		-21	210
669	HOVER LEFT TURN	800	354		-30	253
670	HOVER RIGHT TURN	800	354		-13	184
671	HOVER DIR CONTROL REV	800	354		-47	218
672	HOVER F/A CONTROL REV	800	354		-13	116
673	HOVER LAT CONTROL REV	800	354		-39	150
674	LEFT SIDEWARD FLIGHT	800	354	20.0	-43	274
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	-39	201
676	HOVER THROTTLE CHOP	800	354		-13	364
677	GRD RUN-RT FWD CYC INPUT	800	354		0	137
678	HOVER F/A CYCLIC INPUT	800	354		-73	133
679	GRD RUN-LT AFT CYC INPUT	800	354		-21	141
680	MAX POWER - BOOST OFF	800	354		-30	175

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE 8110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		8	127
693	HOVER - IGE	940	354		21	140
694	HOVER - IGE	940	347		38	140
695	HOVER - PEDAL REVERSAL	940	354		-21	183
696	HOVER - LEFT TURN	940	354		-8	229
697	HOVER - RIGHT TURN	940	354		59	229
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	59	229
699	LEFT SIDEWARD FLIGHT	940	354	20.0	-13	233
700	ACCEL & DECEL 0-60-0	940	354		4	200
701	HOVER - THROTTLE CHOP	940	354		47	301

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		13	149
710	HOVER - IGE	940	354		-47	124
711	HOVER - IGE	940	347		-51	119
712	HOVER - PEDAL REVERSAL	940	354		-47	209
713	HOVER - LEFT TURN	940	354		-60	230
714	HOVER - RIGHT TURN	940	354		-26	230
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	-13	209
716	LEFT SIDEWARD FLIGHT	940	354	20.0	-17	205
717	HOVER - THROTTLE CHOP	940	354		34	341

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -55 DEGREES C

MODEL UH-1B FLT. 47-A G.W. 2500 PROBLEM NO. 2433
SHIP 40011 DATE 25 JAN 73 C.G. 110.2 REPORT 206-154-130

TR MAST PERPENDICULAR MO
ITEM CODE 8110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	ESC
733	FLAT PITCH	800	354		-257	223
734	HOVER - IGE	800	354		-214	183
735	HOVER - IGE	800	347		-248	183
736	HOVER - LEFT TURN	800	354		-184	227
737	HOVER - RIGHT TURN	800	354		-175	193
738	HOVER - PEDAL REVERSAL	800	354		-180	223
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	-276	261
740	ACCELERATION 0-60	1300	354		-240	291
741	LEFT TURN	1300	354	60.0	-180	317
742	DECELERATION 60-0	1000	354	60.0	-188	274

TCA TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-A3 G.W. 2700 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 75 C.G. 110.1 REPORT 206-199-134

TR MAST PERPENDICULAR MP
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			0	171
748	HOVER - IGE	510	347		-94	134
749	HOVER - OGE	510	354		34	94
750	HOVER - LEFT TURN	510	354		26	248
751	HOVER - RIGHT TURN	510	354		-94	108
752	HOVER - F/A CENT REVERSAL	510	354		-47	184
753	HOVER - LAT CENT REVERSAL	510	354		-56	175
754	HOVER - DIR CENT REVERSAL	510	354		-68	197
755	ACCELERATION 0-60	510	354		-73	201
756	STAB LEVEL FLT @ VH	1500	354	100.0	51	325
757	STAB LEVEL FLT @ VNE	1400	354	120.0	-77	308
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	-133	347
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	9	274
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	-51	248
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	-86	257
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	-21	244
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	4	213
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	-30	244
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	-47	210
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	-34	214
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	-56	193
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	-86	197
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	-81	227
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	-77	231
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	-81	218
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	-73	210
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	-60	223
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	-17	291
775	STAB LEVEL FLT @ VH	1400	347	101.0	13	295
776	STAB LEVEL FLT @ VNE	1400	347	120.0	0	282
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	-60	291
778	LEFT TURN @ 0.5 VH	1400	354	55.0	-21	261
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	-34	282
780	LEFT TURN @ 0.7 VH	1400	354	76.0	-26	265
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	-17	248
782	LEFT TURN @ 0.8 VH	1400	354	97.0	21	321
783	RIGHT TURN @ 0.8 VH	1400	354	97.0	-21	235
791	JUMP TAKE-OFF	510	354		-43	223
792	CLIMB - M C POWER	1000	354	70.0	-4	210
793	CLIMB - T O POWER	1400	354	70.0	-64	261
794	LVL FLT - LAT REV @ VH	1400	354	100.0	-9	317
795	LVL FLT - DIR REV @ VH	1400	354	100.0	-9	291
796	LVL FLT - CYC P/U 0.6 VH	1400	354	66.0	-26	257
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	43	308
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	-21	193
799	STABILIZED AUTO @ 0.5 VH	1700	354	55.0	-146	111
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	-17	300
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	17	248

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-58 FLT. 40-A5 G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-156

TR MAST PERPENDICULAR MB
ITEM CODE 8110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	-150	150
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	-9	274
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	47	321
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	-9	257
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	-134	180
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	-90	157
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	-51	214
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	-107	210
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	-120	180
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	-205	154
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	-154	146
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	-214	171
814	PARTIAL POWER DESCENT	1700	340	60.0	-60	231
815	TRANS POWER RECOVERY-IGE	600	340	60.0	-103	325
816	DECELERATION 60-0	600	340	60.0	-43	334

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		-8	157
821	HOVER - LEFT TURN	510	354		29	244
822	HOVER - IGE	510	354		12	136
823	HOVER - RIGHT TURN	510	354		-33	173
824	HOVER - F/A CONT REVERSAL	510	354		45	145
825	HOVER - LAT CONT REVERSAL	510	354		41	157
826	HOVER - DIR CONT REVERSAL	510	354		21	169
827	JUMP TAKE-OFF	510	354		4	202
828	ACCELERATION 0-60	510	354		17	240
829	CLIMB - M C POWER	510	354	70.0	12	235
830	CLIMB - T O POWER	510	354	70.0	21	202
831	STAB LEVEL FLT @ VH	1400	354	108.0	58	355
832	STAB LEVEL FLT @ VNE	1400	354	120.0	45	384
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	25	330
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	-8	264
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	-17	248
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	-8	240
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	29	211
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	-4	227
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	37	227
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	17	215
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	-4	178
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	-17	231
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	-17	215
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	-4	227
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	-4	219
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	-8	248
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	-8	223
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	12	252
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	0	231
850	STAB LEVEL FLT @ VH	1400	347	102.0	50	339
851	STAB LEVEL FLT @ VNE	1400	347	120.0	21	335
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	112	343
853	LEFT TURN @ 0.5 VH	1400	354	50.0	17	256
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	-12	268
855	LEFT TURN @ 0.7 VH	1400	354	71.0	-41	264
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	4	235
857	LEFT TURN @ 0.8 VH	1400	354	92.0	0	339
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	37	318
859	LVL FLT - LAT REV @ VH	1400	354	102.0	12	310
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	-41	273
861	LVL FLT - DIR REV @ VH	1400	354	102.0	-12	310
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	54	268
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	25	215
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	29	178
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	-21	194
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	-8	173
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	62	260

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR MAST PERPENDICULAR MB
ITEM CODE B110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	41	289
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	-17	165
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	0	248
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	4	227
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	4	219
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	45	301
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	-12	318
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	21	417
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	12	219
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	-45	194
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	45	194
883	PARTIAL POWER DESCENT	1200	354	60.0	4	244
884	TRANS POWER RECOVERY-IGE	550	354	60.0	-33	281
885	AUTOROTATION LANDING	550	354	60.0	-8	496
886	DECELERATION 60-0	550	354	60.0	50	248

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST PERPENDICULAR M8
ITEM CODE 8110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		69	103
896	HOVER - STIR CYCLIC	630	354		39	211
897	HOVER - IGE	630	354		-17	172
898	HOVER - IGE	630	347		34	112
899	HOVER LEFT TURN	630	354		56	202
900	HOVER RIGHT TURN	630	354		-17	172
901	HOVER F/A CYCLIC REV	630	354		60	138
902	HOVER LAT CYCLIC REV	630	354		17	163
903	HOVER - PEDAL REV	630	354		17	181
904	JUMP TAKE-OFF	630	354		60	77
905	ACCELERATION 0-60	800	354		0	215
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	73	151
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	17	198
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	17	172
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	0	189
910	STABILIZED LEVEL FLIGHT	1500	354	60.0	4	211
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	21	211
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	34	284
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	0	258
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	39	297
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	77	241
916	LEFT TURN 1.4 G	1300	354	80.0	0	258
917	RIGHT TURN 1.5 G	1300	354	80.0	86	206
918	F/A CYCLIC REVERSAL	1300	354	80.0	39	254
919	LAT CYCLIC REVERSAL	1300	354	80.0	26	215
920	PEDAL REVERSAL	1300	354	80.0	9	198
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	30	108
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	17	163
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	13	168
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	13	219
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	159	176
926	DECELERATION 60-0	800	354	60.0	129	133
927	NORMAL SHUTDOWN	630	350		69	189

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL CH-53 FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 208-194-136

TR MAST PERPENDICULAR PB
ITEM CODE B110 UNITS IA-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
938	FLAT PITCH - STIR CYCLIC	640	354		43	216
939	ACCELERATION 0-60	640	354		0	216
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	-9	251
941	LEFT TURN	1100	354	60.0	22	246
942	LOW POWER LET DOWN	1100	354	60.0	43	207
943	MAX POWER CLIMB	1100	354	60.0	-13	220
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	56	220
945	LEFT TURN	1100	354	70.0	-13	229
946	RIGHT TURN	1100	354	70.0	22	212
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	43	255
948	LEFT TURN	1100	354	80.0	112	216
949	RIGHT TURN	1100	354	80.0	30	194
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	39	255
951	LEFT TURN	1100	354	90.0	-22	281
952	RIGHT TURN	1100	354	90.0	-4	246
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	73	255
954	LEFT TURN	1100	354	100.0	17	276
955	RIGHT TURN	1100	354	100.0	60	294
956	CLIMB	1100	354	60.0	69	199
957	FLAT PITCH/CYCLIC INPUT	640	354		48	212

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06APR 73 C.G. 110.1 REPORT 206-194-138

TR MAST PERPENDICULAR MS
ITEM CODE 5110 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM.	IAS KTS	MEAN	DSC
973	HOVER - IGE	70	354		48	117
974	HOVER - F/A CYCLIC INPUT	70	354		52	164
975	HOVER - LAT CYCLIC INPUT	70	354		73	82
976	HOVER - THROTTLE CHOP	70	354		35	164
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	65	255
978	LEFT SIDEWARD FLIGHT	70	354	20.0	117	117
979	ACCELERATION 0-60	100	354		52	207
980	CLIMB - MC POWER	1000	354	60.0	73	229
981	STABILIZED LEVEL FLIGHT	800	354	60.0	56	210
982	STABILIZED LEVEL FLIGHT	800	354	70.0	99	203
983	STABILIZED LEVEL FLIGHT	800	354	80.0	48	245
984	LEFT TURN	800	354	80.0	26	268
985	RIGHT TURN	800	354	80.0	60	302
986	STABILIZED LEVEL FLIGHT	800	354	90.0	52	259
987	STABILIZED LEVEL FLIGHT	800	354	100.0	-13	264
988	STABILIZED LEVEL FLIGHT	800	354	110.0	-9	311
989	STABILIZED LEVEL FLIGHT	800	354	120.0	4	307
990	LOW POWER LET DOWN	1000	354	60.0	82	32

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		285	57
645	HOVER - IGE	420	354		546	68
646	HOVER - IGE	420	347		512	102
647	HOVER LEFT TURN	420	354		888	91
648	HOVER RIGHT TURN	420	354		717	125
649	HOVER DIR CONTROL REV	420	354		956	68
650	LEFT SIDEWARD FLIGHT	420	354	20.0	592	91
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	694	194
652	HOVER AUTOROTATION	420	354		159	137

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		469	25
667	HOVER - IGE	800	354		518	99
668	HOVER - IGE	800	347		493	74
669	HOVER LEFT TURN	800	354		666	123
670	HOVER RIGHT TURN	800	354		617	74
671	HOVER DIR CONTROL REV	800	354		419	123
672	HOVER F/A CONTROL REV	800	354		543	123
673	HOVER LAT CONTROL REV	800	354		518	99
674	LEFT SIDEWARD FLIGHT	800	354	20.0	617	123
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	604	111
676	HOVER THROTTLE CHOP	800	354		123	99
677	GRD RUN-RT FWD CYC INPUT	800	354		382	111
678	HOVER F/A CYCLIC INPUT	800	354		543	123
679	GRD RUN-LT AFT CYC INPUT	800	354		358	86
680	MAX POWER - BOOST OFF	800	354		321	74

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		400	94
693	HOVER - IGE	940	354		553	106
694	HOVER - IGE	940	347		495	71
695	HOVER - PEDAL REVERSAL	940	354		636	165
696	HOVER - LEFT TURN	940	354		754	94
697	HOVER - RIGHT TURN	940	354		801	94
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	459	177
699	LEFT SIDEWARD FLIGHT	940	354	20.0	589	94
700	ACCEL & DECEL 0-60-0	940	354		306	118
701	HOVER - THROTTLE CHOP	940	354		59	130

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-8 G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		518	71
710	HOVER - IGE	940	354		553	82
711	HOVER - IGE	940	347		565	94
712	HOVER - PEDAL REVERSAL	940	354		683	94
713	HOVER - LEFT TURN	940	354		848	94
714	HOVER - RIGHT TURN	940	354		341	106
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	495	118
716	LEFT SIDEWARD FLIGHT	940	354	20.0	671	106
717	HOVER - THROTTLE CHOP	940	354		82	106

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -55 DEGREES C

MODEL 214-ST FLT. 47-A G.W. 23585 PROBLEM NO. 2459
SHIP 40011 DATE 25 JAN 73 C.G. 11.62 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE B109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
733	FLAT PITCH	800	354		511	81
734	HOVER - IGE	800	354		457	23
735	HOVER - IGE	800	347		495	35
736	HOVER - LEFT TURN	800	354		771	55
737	HOVER - RIGHT TURN	800	354		472	127
738	HOVER - PEDAL REVERSAL	800	354		978	81
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	633	127
740	ACCELERATION 0-60	1300	354		516	104
741	LEFT TURN	1300	354	80.0	508	92
742	DECELERATION 60-0	1000	354	60.0	276	92

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -54 DEGREES C

MODEL OH-58 FLT. 48-A3 G.W. 2760 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 75 C.G. 110.1 REPORT 206-199-130

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			104	81
748	HOVER - IGE	510	347		437	92
749	HOVER - IGE	510	354		414	69
750	HOVER - LEFT TURN	510	354		852	69
751	HOVER - RIGHT TURN	510	354		311	127
752	HOVER - F/A CONT REVERSAL	510	354		506	138
753	HOVER - LAT CONT REVERSAL	510	354		472	104
754	HOVER - DIR CONT REVERSAL	510	354		932	81
755	ACCELERATION 0-60	510	354		391	115
756	STAB LEVEL FLT @ VH	1500	354	108.0	242	81
757	STAB LEVEL FLT @ VNE	1400	354	120.0	150	127
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	219	127
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	127	12
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	184	69
761	STAB LEVEL FLT @ 0.7 VH	1400	354	78.0	138	69
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	184	69
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	161	69
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	173	81
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	184	69
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	230	69
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	184	92
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	173	58
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	150	58
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	184	46
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	173	58
772	STAB LEVEL FLT @ 0.7 VH	1400	347	78.0	150	81
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	196	81
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	196	81
775	STAB LEVEL FLT @ VH	1400	347	108.0	173	81
776	STAB LEVEL FLT @ VNE	1400	347	120.0	173	104
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	184	92
778	LEFT TURN @ 0.2 VH	1400	354	22.0	196	81
779	RIGHT TURN @ 0.2 VH	1400	354	22.0	161	69
780	LEFT TURN @ 0.7 VH	1400	354	78.0	127	58
781	RIGHT TURN @ 0.7 VH	1400	354	78.0	161	69
782	LEFT TURN @ 0.8 VH	1400	354	87.0	276	115
783	RIGHT TURN @ 0.8 VH	1400	354	87.0	184	92
791	JUMP TAKE-OFF	510	354		633	81
792	CLIMB - M C POWER	1000	354	70.0	357	104
793	CLIMB - T O POWER	1400	354	70.0	380	81
794	LVL FLT - LAT REV @ VH	1400	354	108.0	265	58
795	LVL FLT - DIR REV @ VH	1400	354	108.0	253	92
796	LVL FLT - CYC P/U 0.6 VH	1400	354	66.0	150	81
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	265	58
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	230	115
799	STABILIZED AUTO @ 0.5 VH	1700	335	55.0	58	35
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	150	196
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	78.0	207	115

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-58 FLT. 48-A8 G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-199-150

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	354	76.0	173	58
805	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	242	81
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	196	81
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	161	230
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	150	81
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	138	46
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	138	92
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	173	58
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	150	58
811	AUTO P/A CONT REV 0.7 VH	1700	340	76.0	138	92
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	127	58
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	196	58
814	PARTIAL POWER DESCENT	1700	340	60.0	150	58
815	TRANS POWER RECOVERY-IGE	600	340	60.0	299	921
816	DECELERATION 60-0	600	340	60.0	104	127

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		629	93
821	HOVER - LEFT TURN	510	354		954	93
822	HOVER - IGE	510	354		524	35
823	HOVER - RIGHT TURN	510	354		896	81
824	HOVER - F/A CONT REVERSAL	510	354		570	81
825	HOVER - LAT CONT REVERSAL	510	354		582	116
826	HOVER - DIR CONT REVERSAL	510	354		768	93
827	JUMP TAKE-OFF	510	354		792	140
828	ACCELERATION 0-60	510	354		442	93
829	CLIMB - M C POWER	510	354	70.0	384	58
830	CLIMB - T O POWER	510	354	70.0	326	116
831	STAB LEVEL FLT @ VH	1400	354	108.0	279	93
832	STAB LEVEL FLT @ VNE	1400	354	120.0	244	81
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	244	81
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	151	12
35	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	198	35
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	221	35
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	244	81
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	244	81
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	221	12
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	268	12
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	361	58
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	384	81
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	396	47
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	291	35
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	361	58
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	291	58
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	291	35
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	279	93
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	349	23
850	STAB LEVEL FLT @ VH	1400	347	102.0	314	81
851	STAB LEVEL FLT @ VNE	1400	347	120.0	233	70
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	210	116
853	LEFT TURN @ 0.5 VH	1400	354	50.0	338	105
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	221	105
855	LEFT TURN @ 0.7 VH	1400	354	71.0	326	47
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	303	47
857	LEFT TURN @ 0.8 VH	1400	354	92.0	338	128
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	128	12
859	LVL FLT - LAT REV @ VH	1400	354	102.0	210	163
60	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	210	93
861	LVL FLT - DIR REV @ VH	1400	354	102.0	279	116
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	256	70
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	233	186
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	175	105
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	198	105
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	210	47
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	268	58

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE 8109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	175	105
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	221	81
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	233	70
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	198	81
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	210	70
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	314	81
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	256	70
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	233	303
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	210	93
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	210	93
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	210	93
883	PARTIAL POWER DESCENT	1200	354	60.0	210	47
884	TRANS POWER RECOVERY-IGE	550	354	60.0	466	70
885	AUTOROTATION LANDING	550	354	60.0	233	303
886	DECELERATION 60-0	550	354	60.0	198	81

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE B109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		345	83
896	HOVER - STIR CYCLIC	630	354		333	71
897	HOVER - IGE	630	354		405	71
898	HOVER - IGE	630	347		405	95
899	HOVER LEFT TURN	630	354		738	119
900	HOVER RIGHT TURN	630	354		846	107
901	HOVER F/A CYCLIC REV	630	354		488	107
902	HOVER LAT CYCLIC REV	630	354		453	95
903	HOVER - PEDAL REV	630	354		977	48
904	JUMP TAKE-OFF	630	354		858	24
905	ACCELERATION 0-60	800	354		298	107
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	333	48
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	310	48
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	310	48
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	310	71
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	357	48
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	381	71
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	381	71
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	405	71
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	476	0
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	357	95
916	LEFT TURN 1.4 G	1300	354	80.0	381	95
917	RIGHT TURN 1.5 G	1300	354	80.0	262	95
918	F/A CYCLIC REVERSAL	1300	354	80.0	333	71
919	LAT CYCLIC REVERSAL	1300	354	80.0	262	71
920	PEDAL REVERSAL	1300	354	80.0	310	119
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	262	95
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	274	12
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	262	95
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	322	60
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	369	131
926	DECELERATION 60-0	800	354	60.0	250	107
927	NORMAL SHUTDOWN	630	350		214	119

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL UH-1D FLT. 50 G.W. 2500 PROBLEM NO. 2448
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 205-194-136

TR MAST TORQUE
ITEM CODE B109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIP CYCLIC	640	354		341	106
939	ACCELERATION 0-60	640	354		353	94
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	224	59
941	LEFT TURN	1100	354	60.0	271	59
942	LOW POWER LET DOWN	1100	354	60.0	165	71
943	MAX POWER CLIMB	1100	354	60.0	259	71
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	259	24
945	LEFT TURN	1100	354	70.0	212	71
946	RIGHT TURN	1100	354	70.0	155	59
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	247	59
948	LEFT TURN	1100	354	80.0	247	82
949	RIGHT TURN	1100	354	80.0	224	82
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	271	106
951	LEFT TURN	1100	354	90.0	259	71
952	RIGHT TURN	1100	354	90.0	165	94
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	271	82
954	LEFT TURN	1100	354	100.0	259	165
955	RIGHT TURN	1100	354	100.0	177	82
956	CLIMB	1100	354	80.0	412	82
957	FLAT PITCH/CYCLIC INPUT	640	354		294	82

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL CH-53 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 206-194-136

TR MAST TORQUE
ITEM CODE B109 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		506	59
974	HOVER - F/A CYCLIC INPUT	70	354		542	47
975	HOVER - LAT CYCLIC INPUT	70	354		495	71
976	HOVER - THROTTLE CHOP	70	354		71	71
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	471	118
978	LEFT SIDEWARD FLIGHT	70	354	20.0	350	118
979	ACCELERATION 0-60	100	354		294	106
980	CLIMB - MC POWER	1000	354	60.0	330	71
981	STABILIZED LEVEL FLIGHT	800	354	60.0	259	47
982	STABILIZED LEVEL FLIGHT	800	354	70.0	188	94
983	STABILIZED LEVEL FLIGHT	800	354	80.0	283	24
984	LEFT TURN	800	354	80.0	200	59
985	RIGHT TURN	800	354	80.0	263	47
986	STABILIZED LEVEL FLIGHT	800	354	90.0	283	47
987	STABILIZED LEVEL FLIGHT	800	354	100.0	330	24
988	STABILIZED LEVEL FLIGHT	800	354	110.0	353	0
989	STABILIZED LEVEL FLIGHT	800	354	120.0	330	94
990	LOW POWER LET DOWN	1000	354	60.0	212	71

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		4.900	9.100
645	HOVER - IGE	420	354		2.100	10.500
646	HOVER - IGE	420	347		1.400	14.000
647	HOVER LEFT TURN	420	354		0.700	37.100
648	HOVER RIGHT TURN	420	354		-13.300	100.100
649	HOVER DIR CONTROL REV	420	354		-0.700	55.300
650	LEFT SIDEWARD FLIGHT	420	354	20.0	1.400	33.600
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	-1.400	47.600
652	HOVER AUTOROTATION	420	354		0.700	21.700

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		6.381	3.545
667	HOVER - IGE	800	354		0.000	11.344
668	HOVER - IGE	800	347		1.418	11.344
669	HOVER LEFT TURN	800	354		0.709	21.979
670	HOVER RIGHT TURN	800	354		2.836	25.524
671	HOVER DIR CONTROL REV	800	354		4.963	21.979
672	HOVER F/A CONTROL REV	800	354		0.000	12.762
673	HOVER LAT CONTROL REV	800	354		-0.709	13.471
674	LEFT SIDEWARD FLIGHT	800	354	20.0	5.672	14.180
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	0.000	17.016
676	HOVER THROTTLE CHOP	800	354		2.127	19.143
677	GRD RUN-RT FWD CYC INPUT	800	354		1.418	8.508
678	HOVER F/A CYCLIC INPUT	800	354		-1.418	14.180
679	GRD RUN-LT AFT CYC INPUT	800	354		2.836	14.180
680	MAX POWER - BOOST OFF	800	354		4.254	14.180

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		8.334	16.668
693	HOVER - IGE	940	354		-3.472	14.585
694	HOVER - IGE	940	347		12.501	16.668
695	HOVER - PEDAL REVERSAL	940	354		1.389	40.281
696	HOVER - LEFT TURN	940	354		4.167	30.558
697	HOVER - RIGHT TURN	940	354		9.029	35.420
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	-3.472	38.197
699	LEFT SIDEWARD FLIGHT	940	354	20.0	-3.472	38.197
700	ACCEL & DECEL 0-60-0	940	354		13.196	47.921
701	HOVER - THROTTLE CHOP	940	354		18.752	27.086

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		4.862	10.418
710	HOVER - IGE	940	354		6.251	9.029
711	HOVER - IGE	940	347		6.945	8.334
712	HOVER - PEDAL REVERSAL	940	354		3.473	25.696
713	HOVER - LEFT TURN	940	354		3.473	32.642
714	HOVER - RIGHT TURN	940	354		6.251	43.753
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	1.389	33.336
716	LEFT SIDEWARD FLIGHT	940	354	20.0	4.862	22.919
717	HOVER - THROTTLE CHOP	940	354		9.028	20.140

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -35 DEGREES C

MODEL UH-1D FLT. 47-A G.W. 2585 PROBLEM NO. 2459
SHIP 40011 DATE 23 JAN 73 C.G. 111.2 REPORT 206-194-156

TR FLAPPING ANGLE
ITEM CODE DI17 UNITS D

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DSC
733	FLAT PITCH	800	354		3.999	14.333
734	HOVER - IGE	800	354		5.999	19.320
735	HOVER - IGE	800	347		5.332	17.129
736	HOVER - LEFT TURN	800	354		9.998	25.599
737	HOVER - RIGHT TURN	800	354		9.331	33.991
738	HOVER - PEDAL REVERSAL	800	354		15.330	17.999
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	10.664	36.857
740	ACCELERATION 0-60	1300	354		5.999	43.323
741	LEFT TURN	1300	354	60.0	3.333	34.290
742	DECELERATION 60-0	1000	354	60.0	5.999	31.326

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1B FLT. 40-AB G.W. 9785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 75 C.G. 110.1 REPORT 206-194-1

TR FLAPPING ANGLE
ITEM CODE D117 UNITS °

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			6.945	6.945
748	HOVER - IGE	510	347		4.167	13.890
749	HOVER - IGE	510	354		5.556	16.663
750	HOVER - LEFT TURN	510	354		5.556	33.892
751	HOVER - RIGHT TURN	510	354		6.945	37.503
752	HOVER - F/A CONT REVERSAL	510	354		4.862	20.140
753	HOVER - LAT CONT REVERSAL	510	354		3.473	24.307
754	HOVER - DIR CONT REVERSAL	510	354		2.083	43.753
755	ACCELERATION 0-60	510	354		4.167	41.670
756	STAB LEVEL FLT @ VH	1500	354	100.0	4.861	47.921
757	STAB LEVEL FLT @ VNE	1400	354	120.0	7.639	47.920
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	9.028	40.975
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	7.639	38.198
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	6.945	38.892
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	6.945	36.114
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	9.725	23.613
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	8.334	23.613
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	4.861	13.196
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	5.556	15.279
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	4.862	20.140
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	7.640	17.362
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	7.639	14.585
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	4.861	18.752
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	8.545	19.446
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	9.723	25.002
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	6.945	29.169
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	7.639	39.587
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	4.861	45.142
775	STAB LEVEL FLT @ VH	1400	347	100.0	4.167	44.448
776	STAB LEVEL FLT @ VNE	1400	347	120.0	6.945	43.059
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	7.639	34.398
778	LEFT TURN @ 0.5 VH	1400	354	55.0	8.945	40.281
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	2.778	15.057
780	LEFT TURN @ 0.7 VH	1400	354	76.0	3.472	45.551
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	4.167	41.670
782	LEFT TURN @ 0.9 VH	1400	354	97.0	-2.084	68.755
783	RIGHT TURN @ 0.9 VH	1400	354	97.0	4.861	27.085
791	JUMP TAKE-OFF	510	354		5.945	27.780
792	CLIMB - M C POWER	1000	354	70.0	2.778	31.947
793	CLIMB - T O POWER	1400	354	70.0	5.556	34.725
794	LVL FLT - LAT REV @ VH	1400	354	100.0	5.556	55.338
795	LVL FLT - DIR REV @ VH	1400	354	100.0	9.029	61.911
796	LVL FLT - CYC F/O 0.6 VH	1400	354	60.0	4.167	31.947
797	LVL FLT - CYC F/O 0.9 VH	1400	354	97.0	9.028	46.541
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	10.417	21.529
799	STABILIZED AUTO @ 0.5 VH	1700	333	55.0	6.945	11.112
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	6.945	23.602
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	8.334	21.947

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1B FLT. 48-AC G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 205-194-136

TR FLAPPING ANGLE
ITEM CODE 0117 UNITS °

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	9.723	18.057
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	6.251	32.641
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	22.918	31.253
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	12.501	45.059
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	7.639	14.535
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	4.167	27.780
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	6.945	23.613
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	6.945	38.838
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	5.556	23.613
811	AUTO P/A CONT REV 0.7 VH	1700	340	76.0	5.556	23.613
812	AUTO LAT CONT REV 0.7 VH	1700	340	76.0	6.945	23.613
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	9.029	32.642
814	PARTIAL POWER DESCENT	1700	340	60.0	12.501	23.613
815	TRANS POWER RECOVERY-IGE	600	340	60.0	11.807	36.809
816	DECELERATION (0-)	600	340	60.0	0.0	25.002

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		0.0	16.668
821	HOVER - LEFT TURN	510	354		3.473	32.642
822	HOVER - IGE	510	354		0.0	15.279
823	HOVER - RIGHT TURN	510	354		4.167	44.448
824	HOVER - F/A CONT REVERSAL	510	354		3.472	18.751
825	HOVER - LAT CONT REVERSAL	510	354		0.0	26.391
826	HOVER - DIR CONT REVERSAL	510	354		12.501	20.835
827	JUMP TAKE-OFF	510	354		-0.695	22.918
828	ACCELERATION 0-60	510	354		2.083	49.309
829	CLIMB - M C POWER	510	354	70.0	3.473	27.086
830	CLIMB - T O POWER	510	354	70.0	3.472	34.030
831	STAB LEVEL FLT @ VH	1400	354	108.0	4.861	47.921
832	STAB LEVEL FLT @ VNE	1400	354	120.0	7.639	45.143
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	6.945	47.226
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	4.861	35.420
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	6.251	27.085
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	10.417	21.529
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	4.861	13.196
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	3.472	11.807
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	5.556	19.446
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	7.639	27.086
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	6.251	36.809
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	20.835	22.224
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	15.974	32.642
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	8.334	26.391
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	4.167	30.558
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	12.501	27.780
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	13.890	25.002
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	9.723	27.780
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	-26.391	15.279
850	STAB LEVEL FLT @ VH	1400	347	102.0	6.251	52.087
851	STAB LEVEL FLT @ VNE	1400	347	120.0	4.862	49.309
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	9.723	50.004
853	LEFT TURN @ 0.5 VH	1400	354	50.0	3.472	34.030
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	1.389	19.446
855	LEFT TURN @ 0.7 VH	1400	354	71.0	2.084	46.531
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	0.694	20.140
857	LEFT TURN @ 0.8 VH	1400	354	92.0	10.417	52.087
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	0.695	24.308
859	LVL FLT - LAT REV @ VH	1400	354	102.0	0.0	50.004
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	-0.695	53.477
861	LVL FLT - DIR REV @ VH	1400	354	102.0	12.501	54.171
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	=VOID=	=VOID=
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	15.973	15.973
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	=VOID=	=VOID=
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	=VOID=	=VOID=
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	=VOID=	=VOID=
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	=VOID=	=VOID=

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS %

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	19.446	29.169
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	=VOID=	=VOID=
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	=VOID=	=VOID=
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	=VOID=	=VOID=
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	=VOID=	=VOID=
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	=VOID=	=VOID=
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	18.751	9.029
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	13.890	25.002
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	4.861	15.973
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	6.250	20.140
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	15.973	17.362
883	PARTIAL POWER DESCENT	1200	354	60.0	8.334	20.835
884	TRANS POWER RECOVERY-IGE	550	354	60.0	22.224	23.613
885	AUTOROTATION LANDING	550	354	60.0	=VOID=	=VOID=
886	DECELERATION 60-0	550	354	60.0	=VOID=	=VOID=

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS °

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		6.850	8.220
896	HOVER - STIR CYCLIC	630	354		6.850	12.330
897	HOVER - IGE	630	354		8.220	20.550
898	HOVER - IGE	630	347		10.960	19.180
899	HOVER LEFT TURN	630	354		10.275	43.155
900	HOVER RIGHT TURN	630	354		7.535	65.075
901	HOVER F/A CYCLIC REV	630	354		10.960	17.810
902	HOVER LAT CYCLIC REV	630	354		8.905	22.605
903	HOVER - PEDAL REV	630	354		5.480	39.730
904	JUMP TAKE-OFF	630	354		8.905	19.865
905	ACCELERATION 0-60	800	354		10.275	37.675
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	8.220	21.920
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	10.275	18.495
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	12.330	12.330
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	4.110	16.440
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	11.645	21.235
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	4.110	30.140
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	21.920	31.510
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	3.425	51.375
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	3.425	56.855
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	16.440	49.320
916	LEFT TURN 1.4 G	1300	354	80.0	14.385	54.115
917	RIGHT TURN 1.5 G	1300	354	80.0	17.810	32.880
918	F/A CYCLIC REVERSAL	1300	354	80.0	26.030	31.510
919	LAT CYCLIC REVERSAL	1300	354	80.0	26.715	32.195
920	PEDAL REVERSAL	1300	354	80.0	6.850	58.910
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	5.480	17.810
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	10.275	15.755
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	13.015	19.865
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	3.425	40.415
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	8.905	51.375
926	DECELERATION 60-0	800	354	60.0	21.235	21.235
927	NORMAL SHUTDOWN	630	350		19.180	6.850

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL CH-53 FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 206-194-136

TR FLAPPING ANGLE
ITEM CODE D117 UNITS D

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIR CYCLIC	640	354		6.993	26.581
939	ACCELERATION 0-60	640	354		3.498	30.473
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	3.497	28.679
941	LEFT TURN	1100	354	60.0	1.399	30.374
942	LOW POWER LET DOWN	1100	354	60.0	4.197	8.394
943	MAX POWER CLIMB	1100	354	60.0	2.098	24.482
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	3.497	46.867
945	LEFT TURN	1100	354	70.0	4.897	49.664
946	RIGHT TURN	1100	354	70.0	11.192	22.384
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	4.696	45.467
948	LEFT TURN	1100	354	80.0	0.0	58.758
949	RIGHT TURN	1100	354	80.0	10.492	34.275
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	6.296	45.467
951	LEFT TURN	1100	354	90.0	21.084	51.063
952	RIGHT TURN	1100	354	90.0	9.793	32.177
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	7.694	44.060
954	LEFT TURN	1100	354	100.0	-4.897	79.044
955	RIGHT TURN	1100	354	100.0	2.098	41.270
956	CLIMB	1100	354	80.0	14.689	20.205
957	FLAT PITCH/CYCLIC INPUT	640	354		3.497	8.296

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL GH-99 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 006FEB 73 C.G. 110.1 REPORT 205-194-150

TR FLAPPING ANGLE
ITEM CODE 0117 UNITS D

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		10.664	7.998
974	HOVER - F/A CYCLIC INPUT	70	354		11.331	15.329
975	HOVER - LAT CYCLIC INPUT	70	354		15.996	15.995
976	HOVER - THROTTLE CHOP	70	354		13.330	19.995
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	29.992	31.326
978	LEFT SIDEWARD FLIGHT	70	354	20.0	19.995	37.324
979	ACCELERATION 0-60	100	354		22.661	26.660
980	CLIMB - MC POWER	1000	354	60.0	18.662	18.662
981	STABILIZED LEVEL FLIGHT	800	354	60.0	5.332	25.327
982	STABILIZED LEVEL FLIGHT	800	354	70.0	15.329	32.658
983	STABILIZED LEVEL FLIGHT	800	354	80.0	12.663	41.990
984	LEFT TURN	800	354	80.0	3.999	43.989
985	RIGHT TURN	800	354	80.0	9.331	65.317
986	STABILIZED LEVEL FLIGHT	800	354	90.0	-2.000	55.319
987	STABILIZED LEVEL FLIGHT	800	354	100.0	0.667	60.651
988	STABILIZED LEVEL FLIGHT	800	354	110.0	-1.333	61.318
989	STABILIZED LEVEL FLIGHT	800	354	120.0	-2.665	53.320
990	LOW POWER LET DOWN	1000	354	60.0	=VOID=	=VOID=

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		31	12
645	HOVER - IGE	420	354		3	22
646	HOVER - IGE	420	347		-40	15
647	HOVER LEFT TURN	420	354		136	18
648	HOVER RIGHT TURN	420	354		-86	31
649	HOVER DIR CONTROL REV	420	354		-114	22
650	LEFT SIDEWARD FLIGHT	420	354	20.0	139	15
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	-114	22
652	HOVER AUTOROTATION	420	354		148	12

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		15	15
667	HOVER - IGE	800	354		65	9
668	HOVER - IGE	800	347		95	15
669	HOVER LEFT TURN	800	354		126	15
670	HOVER RIGHT TURN	800	354		-136	12
671	HOVER DIR CONTROL REV	800	354		28	22
672	HOVER F/A CONTROL REV	800	354		-34	9
673	HOVER LAT CONTROL REV	800	354		-28	15
674	LEFT SIDEWARD FLIGHT	800	354	20.0	92	18
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	31	12
676	HOVER THROTTLE CHOP	800	354		148	18
677	GRD RUN-RT FWD CYC INPUT	800	354		-9	9
678	HOVER F/A CYCLIC INPUT	800	354		-102	22
679	GRD RUN-LT AFT CYC INPUT	800	354		15	15
680	MAX POWER - BOOST OFF	800	354		59	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		3	15
693	HOVER - IGE	940	354		-15	9
694	HOVER - IGE	940	347		61	18
695	HOVER - PEDAL REVERSAL	940	354		122	18
696	HOVER - LEFT TURN	940	354		134	18
697	HOVER - RIGHT TURN	940	354		-137	21
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	-116	12
699	LEFT SIDEWARD FLIGHT	940	354	20.0	-55	18
700	ACCEL & DECEL 0-60-0	940	354		125	21
701	HOVER - THROTTLE CHOP	940	354		-76	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		18	18
710	HOVER - IGE	940	354		31	18
711	HOVER - IGE	940	347		-34	15
712	HOVER - PEDAL REVERSAL	940	354		-141	24
713	HOVER - LEFT TURN	940	354		131	15
714	HOVER - RIGHT TURN	940	354		-128	18
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	-125	15
716	LEFT SIDEWARD FLIGHT	940	354	20.0	-131	9
717	HOVER - THROTTLE CHOP	940	354		64	21

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -55 DEGREES C

MODEL UH-1C FLT. 47-A G.W. 2585 PROBLEM NO. 2459
SHIP 45011 DATE 29 JAN 73 C.G. 110.2 REPORT 205-194-136

IR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	SSC
733	FLAT PITCH	800	354		24	18
734	HOVER - IGE	800	354		-3	21
735	HOVER - IGE	800	347		9	15
736	HOVER - LEFT TURN	800	354		21	21
737	HOVER - RIGHT TURN	800	354		12	15
738	HOVER - PEDAL REVERSAL	800	354		55	12
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	-15	21
740	ACCELERATION 0-60	1300	354		-9	21
741	LEFT TURN	1300	354	60.0	3	27
742	DECELERATION 60-0	1300	354	60.0	-9	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-58 FLT. 48-A8 G.W. 2785 PROBLEM NO. 2440
SHIP 40911 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-13

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			12	18
748	HOVER - IGE	510	347		6	18
749	HOVER - IGE	510	354		12	18
750	HOVER - LEFT TURN	510	354		-12	18
751	HOVER - RIGHT TURN	510	354		15	15
752	HOVER - F/A CONT REVERSAL	510	354		-9	15
753	HOVER - LAT CONT REVERSAL	510	354		-3	15
754	HOVER - DIR CONT REVERSAL	510	354		-43	24
755	ACCELERATION 0-60	510	354		15	15
756	STAB LEVEL FLT @ VH	1500	354	108.0	9	15
757	STAB LEVEL FLT @ VNE	1400	354	120.0	3	15
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	9	15
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	9	15
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	3	21
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	3	15
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	21	15
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	15	15
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	15	15
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	6	18
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	3	21
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	15	21
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	12	12
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	12	18
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	21	15
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	18	18
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	12	18
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	9	15
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	9	15
775	STAB LEVEL FLT @ VH	1400	347	108.0	12	18
776	STAB LEVEL FLT @ VNE	1400	347	120.0	6	18
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	9	15
778	LEFT TURN @ 0.8 VH	1400	354	88.0	15	15
779	RIGHT TURN @ 0.8 VH	1400	354	88.0	3	21
780	LEFT TURN @ 0.7 VH	1400	354	76.0	3	15
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	9	21
782	LEFT TURN @ 0.8 VH	1400	354	87.0	0	18
783	RIGHT TURN @ 0.8 VH	1400	354	97.0	18	18
791	JUMP TAKE-OFF	510	354		21	15
792	CLIMB - M C POWER	1000	354	70.0	9	15
793	CLIMB - T O POWER	1400	354	70.0	6	18
794	LVL FLT - LAT REV @ VH	1400	354	108.0	12	18
795	LVL FLT - DIR REV @ VH	1400	354	108.0	6	18
796	LVL FLT - CYC P/U 0.8 VH	1400	354	88.0	18	18
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	18	18
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	43	15
799	STABILIZED AUTO @ 0.5 VH	1700	354	55.0	24	18
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	21	15
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	21	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-AB G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
802	STABILIZED AUTO @ 0.7 VH	1700	354	76.0	36	24
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	9	15
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	24	24
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	9	15
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	15	15
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	24	18
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	18	24
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	24	18
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	24	18
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	21	15
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	24	12
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	36	24
814	PARTIAL POWER DESCENT	1700	340	60.0	15	15
815	TRANS POWER RECOVERY-IGE	800	340	60.0	-27	52
816	DECELERATION 60-0	800	340	60.0	-12	24

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		0	12
821	HOVER - LEFT TURN	510	354		-12	18
822	HOVER - IGE	510	354		-12	12
823	HOVER - RIGHT TURN	510	354		-18	18
824	HOVER - F/A CONT REVERSAL	510	354		-6	18
825	HOVER - LAT CONT REVERSAL	510	354		-21	15
826	HOVER - DIR CONT REVERSAL	510	354		36	12
827	JUMP TAKE-OFF	510	354		-57	15
828	ACCELERATION 0-60	510	354		9	21
829	CLIMB - M C POWER	510	354	70.0	6	18
830	CLIMB - T O POWER	510	354	70.0	9	15
831	STAB LEVEL FLT @ VH	1400	354	108.0	3	21
832	STAB LEVEL FLT @ VNE	1400	354	120.0	12	24
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	12	18
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	12	18
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	15	15
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	15	21
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	9	21
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	9	21
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	12	18
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	18	6
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	3	21
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	3	15
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	6	24
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	12	18
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	18	24
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	24	30
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	-6	18
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	21	21
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	12	18
850	STAB LEVEL FLT @ VH	1400	347	102.0	12	18
851	STAB LEVEL FLT @ VNE	1400	347	120.0	15	15
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	3	27
853	LEFT TURN @ 0.5 VH	1400	354	50.0	3	21
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	-3	15
855	LEFT TURN @ 0.7 VH	1400	354	71.0	18	36
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	0	18
857	LEFT TURN @ 0.8 VH	1400	354	92.0	-6	18
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	-3	21
859	LVL FLT - LAT REV @ VH	1400	354	102.0	-6	24
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	-12	12
861	LVL FLT - DIR REV @ VH	1400	354	102.0	-12	24
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	15	15
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	27	9
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	36	12
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	18	18
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	12	18
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	9	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	36	18
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	33	15
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	48	18
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	30	18
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	30	18
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	30	18
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	39	21
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	9	21
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	42	18
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	36	12
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	48	24
883	PARTIAL POWER DESCENT	1200	354	60.0	21	21
884	TRANS POWER RECOVERY-IGE	550	354	60.0	-9	33
885	AUTOROTATION LANDING	550	354	60.0	6	30
886	DECELERATION 60-0	550	354	60.0	33	15

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		21	15
896	HOVER - STIR CYCLIC	630	354		24	18
897	HOVER - IGE	630	354		6	12
898	HOVER - IGE	630	347		18	18
899	HOVER LEFT TURN	630	354		15	9
900	HOVER RIGHT TURN	630	354		18	18
901	HOVER F/A CYCLIC REV	630	354		24	18
902	HOVER LAT CYCLIC REV	630	354		18	18
903	HOVER - PEDAL REV	630	354		3	21
904	JUMP TAKE-OFF	630	354		27	21
905	ACCELERATION 0-60	800	354		31	18
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	27	21
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	31	12
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	34	15
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	3	15
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	27	21
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	3	15
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	21	21
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	18	24
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	21	27
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	34	21
916	LEFT TURN 1.4 G	1300	354	80.0	24	18
917	RIGHT TURN 1.5 G	1300	354	80.0	27	27
918	F/A CYCLIC REVERSAL	1300	354	80.0	27	27
919	LAT CYCLIC REVERSAL	1300	354	80.0	27	21
920	PEDAL REVERSAL	1300	354	80.0	43	37
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	34	21
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	43	12
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	31	18
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	6	18
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	27	21
926	DECELERATION 60-0	800	354	60.0	9	34
927	NORMAL SHUTDOWN	630	350		27	21

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING **TAIL** ROTOR
TEMPERATURE = -25 DEGREES C

MODEL UH-58 FLT. 30 G.W. 2500 PROBLEM NO. 2443
SHIP 70011 DATE 05 FEB 75 C.G. 110.1 REPORT 205-194-156

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIR CYCLIC	640	354		15	15
939	ACCELERATION 0-60	640	354		21	21
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	18	18
941	LEFT TURN	1100	354	60.0	6	18
942	LOW POWER LET DOWN	1100	354	60.0	3[illegible]	21
943	MAX POWER CLIMB	1100	354	60.0	12	18
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	15	21
945	LEFT TURN	1100	354	70.0	3	15
946	RIGHT TURN	1100	354	70.0	12	18
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	12	18
948	LEFT TURN	1100	354	80.0	0	18
949	RIGHT TURN	1100	354	80.0	12	25
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	0	18
951	LEFT TURN	1100	354	90.0	3	15
952	RIGHT TURN	1100	354	90.0	3	15
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	0	18
954	LEFT TURN	1100	354	100.0	-6	25
955	RIGHT TURN	1100	354	100.0	18	25
956	CLIMB	1100	354	80.0	12	25
957	FLAT PITCH/CYCLIC INPUT	640	354		12	25

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL GH-5S FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 200-194-136

TR RED PITCH LINK
ITEM CODE F112 UNITS LBS

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		21	21
974	HOVER - F/A CYCLIC INPUT	70	354		9	21
975	HOVER - LAT CYCLIC INPUT	70	354		40	34
976	HOVER - THROTTLE CHOP	70	354		71	52
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	12	25
978	LEFT SIDEWARD FLIGHT	70	354	20.0	18	18
979	ACCELERATION 0-60	100	354		28	34
980	CLIMB - MC POWER	1000	354	60.0	21	40
981	STABILIZED LEVEL FLIGHT	800	354	60.0	12	18
982	STABILIZED LEVEL FLIGHT	800	354	70.0	9	21
983	STABILIZED LEVEL FLIGHT	800	354	80.0	12	25
984	LEFT TURN	800	354	80.0	34	28
985	RIGHT TURN	800	354	80.0	0	18
986	STABILIZED LEVEL FLIGHT	800	354	90.0	3	21
987	STABILIZED LEVEL FLIGHT	800	354	100.0	9	21
988	STABILIZED LEVEL FLIGHT	800	354	110.0	-3	15
989	STABILIZED LEVEL FLIGHT	800	354	120.0	-34	15
990	LOW POWER LET DOWN	1000	354	60.0	18	18

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE B105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		616	181
645	HOVER - IGE	420	354		978	253
646	HOVER - IGE	420	347		1050	253
647	HOVER LEFT TURN	420	354		1448	217
648	HOVER RIGHT TURN	420	354		616	253
649	HOVER DIR CONTROL REV	420	354		1557	253
650	LEFT SIDEWARD FLIGHT	420	354	20.0	1123	326
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	905	326
652	HOVER AUTOROTATION	420	354		435	290

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		833	109
667	HOVER - IGE	800	354		1159	217
668	HOVER - IGE	800	347		1014	290
669	HOVER LEFT TURN	800	354		1340	326
670	HOVER RIGHT TURN	800	354		1231	145
671	HOVER DIR CONTROL REV	800	354		1050	253
672	HOVER F/A CONTROL REV	800	354		1123	253
673	HOVER LAT CONTROL REV	800	354		1050	253
674	LEFT SIDEWARD FLIGHT	800	354	20.0	1376	290
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	1014	290
676	HOVER THROTTLE CHOP	800	354		579	290
677	GRD RUN-RT FWD CYC INPUT	800	354		833	181
678	HOVER F/A CYCLIC INPUT	800	354		1267	326
679	GRD RUN-LT AFT CYC INPUT	800	354		833	253
680	MAX POWER - BOOST OFF	800	354		869	217

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		978	181
693	HOVER - IGE	940	354		1159	217
694	HOVER - IGE	940	347		1050	253
695	HOVER - PEDAL REVERSAL	940	354		941	217
696	HOVER - LEFT TURN	940	354		1485	253
697	HOVER - RIGHT TURN	940	354		941	217
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	869	290
699	LEFT SIDEWARD FLIGHT	940	354	20.0	1050	398
700	ACCEL & DECEL 0-60-0	940	354		941	217
701	HOVER - THROTTLE CHOP	940	354		362	290

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE B105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		1074	185
710	HOVER - IGE	940	354		1148	259
711	HOVER - IGE	940	347		1185	296
712	HOVER - PEDAL REVERSAL	940	354		1518	259
713	HOVER - LEFT TURN	940	354		1111	296
714	HOVER - RIGHT TURN	940	354		1000	185
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	1333	370
716	LEFT SIDEWARD FLIGHT	940	354	20.0	1111	222
717	HOVER - THROTTLE CHOP	940	354		407	259

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -35 DEGREES C

MODEL CH-52 FLT. 47-A G.W. 2585 PROBLEM NO. 2439
SHIP 40011 DATE 23 JAN 73 C.G. 111.2 REPORT 230-134-150

TR WHT YOKE BEAM STA 1.8
ITEM CODE 8165 UNITS IN-LBS

FLT. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DEV
733	FLAT PITCH	600	354		693	77
734	HOVER - IGE	800	351		1040	423
735	HOVER - IGE	800	347		1155	308
736	HOVER - LEFT TURN	800	354		1425	424
737	HOVER - RIGHT TURN	800	354		1073	383
738	HOVER - PEDAL REVERSAL	800	354		1687	193
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	856	347
740	ACCELERATION 0-60	1200	354		1463	365
741	LEFT TURN	1500	354	60.0	1155	385
742	DECELERATION 60-0	1000	354	60.0	847	231

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-AB G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 209-194-136

TR WHT YOKE BEAM STA 1.0
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
747	NORMAL START	510			827	433
748	HOVER - IGE	510	347		1024	236
749	HOVER - IGE	510	354		1181	157
750	HOVER - LEFT TURN	510	354		1181	394
751	HOVER - RIGHT TURN	510	354		906	354
752	HOVER - F/A CONT REVERSAL	510	354		1103	315
753	HOVER - LAT CONT REVERSAL	510	354		866	315
754	HOVER - DIR CONT REVERSAL	510	354		1733	394
755	ACCELERATION 0-60	510	354		906	276
756	STAB LEVEL FLT @ VH	1500	354	108.0	433	433
757	STAB LEVEL FLT @ VNE	1400	354	120.0	354	512
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	315	472
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	276	354
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	394	315
761	STAB LEVEL FLT @ 0.7 VH	1400	354	78.0	315	394
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	197	197
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	354	197
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	315	236
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	394	236
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	669	118
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	551	236
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	512	197
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	354	276
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	276	276
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	433	276
772	STAB LEVEL FLT @ 0.7 VH	1400	347	78.0	276	354
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	354	394
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	394	315
775	STAB LEVEL FLT @ VH	1400	347	108.0	472	315
776	STAB LEVEL FLT @ VNE	1400	347	120.0	236	472
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	158	354
778	LEFT TURN @ 0.5 VH	1400	354	55.0	394	236
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	433	276
780	LEFT TURN @ 0.7 VH	1400	354	78.0	354	197
781	RIGHT TURN @ 0.7 VH	1400	354	78.0	236	315
782	LEFT TURN @ 0.9 VH	1400	354	97.0	591	276
783	RIGHT TURN @ 0.9 VH	1400	354	97.0	158	315
791	JUMP TAKE-OFF	510	354		1181	236
792	CLIMB - M C POWER	1000	354	70.0	984	276
793	CLIMB - T O POWER	1400	354	70.0	1103	315
794	LVL FLT - LAT REV @ VH	1400	354	108.0	354	433
795	LVL FLT - DIR REV @ VH	1400	354	108.0	709	236
796	LVL FLT - CYC P/U 0.6 VH	1400	354	60.0	394	236
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	315	472
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	433	197
799	STABILIZED AUTO @ 0.5 VH	1700	325	55.0	-157	236
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	551	236
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	78.0	354	197

TCR TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL TCR
TEMPERATURE = -54 DEGREES C

MODEL 214-38 FLT. 40-A3 G.W. 2700 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-199-138

TR ANT YOKE BEAM STA 1.8
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	339	76.0	-197	197
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	512	276
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	-433	276
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	433	354
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	-118	275
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	-354	276
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	-394	236
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	77.0	-354	197
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	-315	315
811	AUTO P/A CONT REV 0.7 VH	1700	340	76.0	-394	236
812	AUTO LAT CONT REV 0.7 VH	1700	340	76.0	-433	354
813	AUTO DIR CONT REV 0.7 VH	1700	340	76.0	-630	394
814	PARTIAL POWER DESCENT	1700	340	60.0	79	236
815	TRANS POWER RECOVERY-16E	600	340	60.0	709	315
816	DECELERATION 60-4	600	340	60.0	354	276

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE B105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		1285	195
821	HOVER - LEFT TURN	510	354		1635	389
822	HOVER - IGE	510	354		1363	273
823	HOVER - RIGHT TURN	510	354		934	234
824	HOVER - F/A CONT REVERSAL	510	354		1246	311
825	HOVER - LAT CONT REVERSAL	510	354		1285	350
826	HOVER - DIR CONT REVERSAL	510	354		1635	156
827	JUMP TAKE-OFF	510	354		973	273
828	ACCELERATION 0-60	510	354		1207	273
829	CLIMB - M C POWER	510	354	70.0	1090	234
830	CLIMB - T O POWER	510	354	70.0	1051	350
831	STAB LEVEL FLT @ VH	1400	354	108.0	701	389
832	STAB LEVEL FLT @ VNE	1400	354	120.0	428	506
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	311	467
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	467	311
35	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	389	234
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	545	234
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	467	311
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	506	195
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	662	273
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	506	273
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	896	350
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	1012	156
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	818	273
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	857	234
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	623	311
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	779	311
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	779	311
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	896	195
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	740	428
850	STAB LEVEL FLT @ VH	1400	347	102.0	857	389
851	STAB LEVEL FLT @ VNE	1400	347	120.0	506	428
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	389	389
853	LEFT TURN @ 0.5 VH	1400	354	50.0	662	273
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	623	234
855	LEFT TURN @ 0.7 VH	1400	354	71.0	740	273
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	662	195
857	LEFT TURN @ 0.8 VH	1400	354	92.0	662	428
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	195	350
859	LVL FLT - LAT REV @ VH	1400	354	102.0	662	273
60	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	545	467
861	LVL FLT - DIR REV @ VH	1400	354	102.0	740	506
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	584	273
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	350	195
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	-156	234
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	117	117
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	-156	156
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	662	273

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	-350	273
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	-78	234
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	-78	234
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	-311	234
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	-234	234
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	779	156
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	-273	195
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	623	389
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	-195	273
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	-311	311
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	-350	273
883	PARTIAL POWER DESCENT	1200	354	60.0	156	311
884	TRANS POWER RECOVERY-IGE	550	354	60.0	934	311
885	AUTOROTATION LANDING	550	354	60.0	1090	545
886	DECELERATION 60-0	550	354	60.0	545	156

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR WHT YOKE BEAM STA 1.8
ITEM CODE B105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		740	195
896	HOVER - STIR CYCLIC	630	354		973	195
897	HOVER - IGE	630	354		934	234
898	HOVER - IGE	630	347		973	273
899	HOVER LEFT TURN	630	354		1441	350
900	HOVER RIGHT TURN	630	354		1051	428
901	HOVER F/A CYCLIC REV	630	354		1012	311
902	HOVER LAT CYCLIC REV	630	354		896	273
903	HOVER - PEDAL REV	630	354		1713	311
904	JUMP TAKE-OFF	630	354		818	273
905	ACCELERATION 0-60	800	354		896	273
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	896	39
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	896	39
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	779	156
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	662	195
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	857	234
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	779	234
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	701	234
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	973	273
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	857	234
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	779	311
916	LEFT TURN 1.4 G	1300	354	80.0	662	273
917	RIGHT TURN 1.5 G	1300	354	80.0	857	234
918	F/A CYCLIC REVERSAL	1300	354	80.0	506	273
919	LAT CYCLIC REVERSAL	1300	354	80.0	584	273
920	PEDAL REVERSAL	1300	354	80.0	1207	195
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	545	156
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	623	156
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	779	311
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	740	39
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	818	428
926	DECELERATION 60-0	800	354	60.0	662	117
927	NORMAL SHUTDOWN	630	350		584	273

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58 FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 205-199-130

TR WHT YOKE BEAM STA 1.8
ITEM CODE B105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STA CYCLIC	640	354		827	197
939	ACCELERATION 0-60	640	354		945	236
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	394	236
941	LEFT TURN	1100	354	60.0	433	197
942	LOW POWER LET DOWN	1100	354	60.0	-39	197
943	MAX POWER CLIMB	1100	354	60.0	669	197
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	472	315
945	LEFT TURN	1100	354	70.0	630	236
946	RIGHT TURN	1100	354	70.0	512	354
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	512	276
948	LEFT TURN	1100	354	80.0	551	394
949	RIGHT TURN	1100	354	80.0	394	236
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	591	433
951	LEFT TURN	1100	354	90.0	669	433
952	RIGHT TURN	1100	354	90.0	433	197
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	709	472
954	LEFT TURN	1100	354	100.0	669	433
955	RIGHT TURN	1100	354	100.0	236	236
956	CLIMB	1100	354	60.0	1200	236
957	FLAT PITCH/CYCLIC INPUT	640	354		689	276

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL GR-58 FLT. 52 G.W. 2500 PROBLEM NO. 2144
SHIP 40011 DATE 006FEB 73 C.G. 110.1 REPORT 200-194-136

TR WHT YOKE BEAM STA 1.6
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		1063	197
974	HOVER - F/A CYCLIC INPUT	70	354		1063	197
975	HOVER - LAT CYCLIC INPUT	70	354		1024	315
976	HOVER - THROTTLE CHOP	70	354		591	276
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	1102	394
978	LEFT SIDEWARD FLIGHT	70	354	20.0	787	472
979	ACCELERATION 0-60	100	354		1732	787
980	CLIMB - MC POWER	1000	354	60.0	1063	197
981	STABILIZED LEVEL FLIGHT	800	354	60.0	512	276
982	STABILIZED LEVEL FLIGHT	800	354	70.0	669	512
983	STABILIZED LEVEL FLIGHT	800	354	80.0	827	354
984	LEFT TURN	800	354	80.0	551	315
985	RIGHT TURN	800	354	80.0	827	512
986	STABILIZED LEVEL FLIGHT	800	354	90.0	472	315
987	STABILIZED LEVEL FLIGHT	800	354	100.0	512	433
988	STABILIZED LEVEL FLIGHT	800	354	110.0	787	315
989	STABILIZED LEVEL FLIGHT	800	354	120.0	709	551
990	LOW POWER LFT TURN	1000	354	60.0	197	197

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		402	206
645	HOVER - IGE	420	354		529	137
646	HOVER - IGE	420	347		607	157
647	HOVER LEFT TURN	420	354		833	127
648	HOVER RIGHT TURN	420	354		686	196
649	HOVER DIR CONTROL REV	420	354		764	118
650	LEFT SIDEWARD FLIGHT	420	354	20.0	656	167
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	480	186
652	HOVER AUTOROTATION	420	354		353	235

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL CH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		333	59
667	HOVER - IGE	800	354		539	147
668	HOVER - IGE	800	347		509	137
669	HOVER LEFT TURN	800	354		558	147
670	HOVER RIGHT TURN	800	354		646	137
671	HOVER DIR CONTROL REV	800	354		451	157
672	HOVER F/A CONTROL REV	800	354		519	127
673	HOVER LAT CONTROL REV	800	354		509	137
674	LEFT SIDEWARD FLIGHT	800	354	20.0	646	196
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	597	147
676	HOVER THROTTLE CHOP	800	354		235	235
677	GRD RUN-RT FWD CYC INPUT	800	354		392	137
678	HOVER F/A CYCLIC INPUT	800	354		509	215
679	GRD RUN-LT AFT CYC INPUT	800	354		372	137
680	MAX POWER - BOOST OFF	800	354		313	137

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		339	87
693	HOVER - IGE	940	354		514	107
694	HOVER - IGE	940	347		485	116
695	HOVER - PEDAL REVERSAL	940	354		601	136
696	HOVER - LEFT TURN	940	354		669	107
697	HOVER - RIGHT TURN	940	354		707	165
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	368	174
699	LEFT SIDEWARD FLIGHT	940	354	20.0	417	184
700	ACCEL & DECEL 0-60-0	940	354		397	165
701	HOVER - THROTTLE CHOP	940	354		165	223

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58	FLT. 46-B	G.W. 2585	PROBLEM NO. 2438
SHIP 40011	DATE 19 JAN 73	C.G. 110.2	REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		500	108
710	HOVER - IGE	940	354		490	98
711	HOVER - IGE	940	347		519	108
712	HOVER - PEDAL REVERSAL	940	354		646	137
713	HOVER - LEFT TURN	940	354		754	147
714	HOVER - RIGHT TURN	940	354		529	157
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	676	186
716	LEFT SIDEWARD FLIGHT	940	354	20.0	470	157
717	HOVER - THROTTLE CHOP	940	354		196	176

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -55 DEGREES C

MODEL UH-1B FLT. 47-A G.W. 2503 PROBLEM NO. 2459
SHIP 40011 DATE 25 JAN 73 C.G. 110.2 REPORT 205-194-150

IN RED BLADE BEAM STA 7.0
ITEM CODE B1C6 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
733	FLAT PITCH	800	354		357	119
734	HOVER - IGE	800	354		578	156
735	HOVER - IGE	800	347		595	155
736	HOVER - LEFT TURN	800	354		799	167
737	HOVER - RIGHT TURN	800	354		621	161
738	HOVER - PEDAL REVERSAL	800	354		926	111
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	442	170
740	ACCELERATION 0-60	1300	354		571	126
741	LEFT TURN	1300	354	60.0	603	144
742	DECELERATION 60-0	1000	354	60.0	442	132

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-53 FLT. 10-AB G.W. 2750 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 205-077-100

TR RED BLADE BEAM STA 7.0
ITEM CODE 8106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
747	NORMAL START	510			292	137
748	HOVER - IGE	510	347		567	137
749	HOVER - IGE	510	354		541	146
750	HOVER - LEFT TURN	510	354		799	163
751	HOVER - RIGHT TURN	510	354		924	146
752	HOVER - F/A CONT REVERSAL	510	354		593	129
753	HOVER - LAT CONT REVERSAL	510	354		567	195
754	HOVER - DIR CONT REVERSAL	510	354		911	155
755	ACCELERATION 0-60	510	354		533	195
756	STAB LEVEL FLT @ VH	1500	354	100.0	318	215
757	STAB LEVEL FLT @ VNE	1400	354	120.0	215	232
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	249	215
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	309	139
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	198	149
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	180	112
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	189	103
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	206	102
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	223	103
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	258	86
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	326	86
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	285	94
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	301	112
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	318	146
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	275	103
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	275	130
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	206	172
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	266	143
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	301	130
775	STAB LEVEL FLT @ VH	1400	347	100.0	309	109
776	STAB LEVEL FLT @ VNE	1400	347	120.0	232	215
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	215	215
778	LEFT TURN @ 0.5 VH	1400	354	55.0	292	120
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	249	94
780	LEFT TURN @ 0.7 VH	1400	354	76.0	155	120
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	172	137
782	LEFT TURN @ 0.9 VH	1400	354	97.0	361	137
783	RIGHT TURN @ 0.9 VH	1400	354	97.0	241	137
791	JUMP TAKE-OFF	510	354		679	112
792	GLIDE - M C POWER	1000	354	70.0	567	103
793	CLIMB - T O POWER	1400	354	70.0	550	120
794	LVL FLT - LAT REV @ VH	1400	354	100.0	266	232
795	LVL FLT - DIR REV @ VH	1400	354	100.0	326	223
796	LVL FLT - CYC P/P 0.6 VH	1400	354	60.0	292	137
797	LVL FLT - CYC P/P 0.9 VH	1400	354	97.0	283	215
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	292	189
799	STABILIZED AUTO @ 0.5 VH	1700	335	55.0	-17	103
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	361	172
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	241	180

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-53 FLT. 48-AB G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 209-194-136

TR RED BLADE BEAM STA 7.6
ITEM CODE B10C UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	-129	146
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	292	137
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	-215	198
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	309	172
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	-17	172
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	-112	163
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	-26	163
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	-208	155
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	-77	146
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	-129	146
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	-129	198
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	43	198
814	PARTIAL POWER DESCENT	1700	340	60.0	120	120
815	TRANS POWER RECOVERY-IGE	600	340	60.0	250	137
816	DECELERATION 60-0	600	340	60.0	335	163

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		663	119
821	HOVER - LEFT TURN	510	354		850	153
822	HOVER - IGE	510	354		612	85
823	HOVER - RIGHT TURN	510	354		893	179
824	HOVER - F/A CONT REVERSAL	510	354		603	145
825	HOVER - LAT CONT REVERSAL	510	354		629	136
826	HOVER - DIR CONT REVERSAL	510	354		867	119
827	JUMP TAKE-OFF	510	354		535	127
828	ACCELERATION 0-60	510	354		612	85
829	CLIMB - M C POWER	510	354	70.0	459	153
830	CLIMB - T O POWER	510	354	70.0	518	128
831	STAB LEVEL FLT @ VH	1400	354	108.0	314	179
832	STAB LEVEL FLT @ VNE	1400	354	120.0	263	230
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	136	204
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	255	170
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	204	153
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	289	102
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	246	145
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	255	102
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	357	102
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	382	93
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	484	127
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	442	85
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	459	85
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	399	77
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	459	68
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	433	111
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	391	102
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	348	127
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	400	179
850	STAB LEVEL FLT @ VH	1400	347	102.0	468	179
851	STAB LEVEL FLT @ VNE	1400	347	120.0	195	178
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	229	229
853	LEFT TURN @ 0.5 VH	1400	354	50.0	365	93
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	221	136
855	LEFT TURN @ 0.7 VH	1400	354	71.0	400	179
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	340	170
857	LEFT TURN @ 0.8 VH	1400	354	92.0	374	221
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	229	161
859	LVL FLT - LAT REV @ VH	1400	354	102.0	306	221
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	323	221
861	LVL FLT - DIR REV @ VH	1400	354	102.0	391	187
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	306	119
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	195	94
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	-34	119
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	34	102
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	-94	145
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	357	85

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

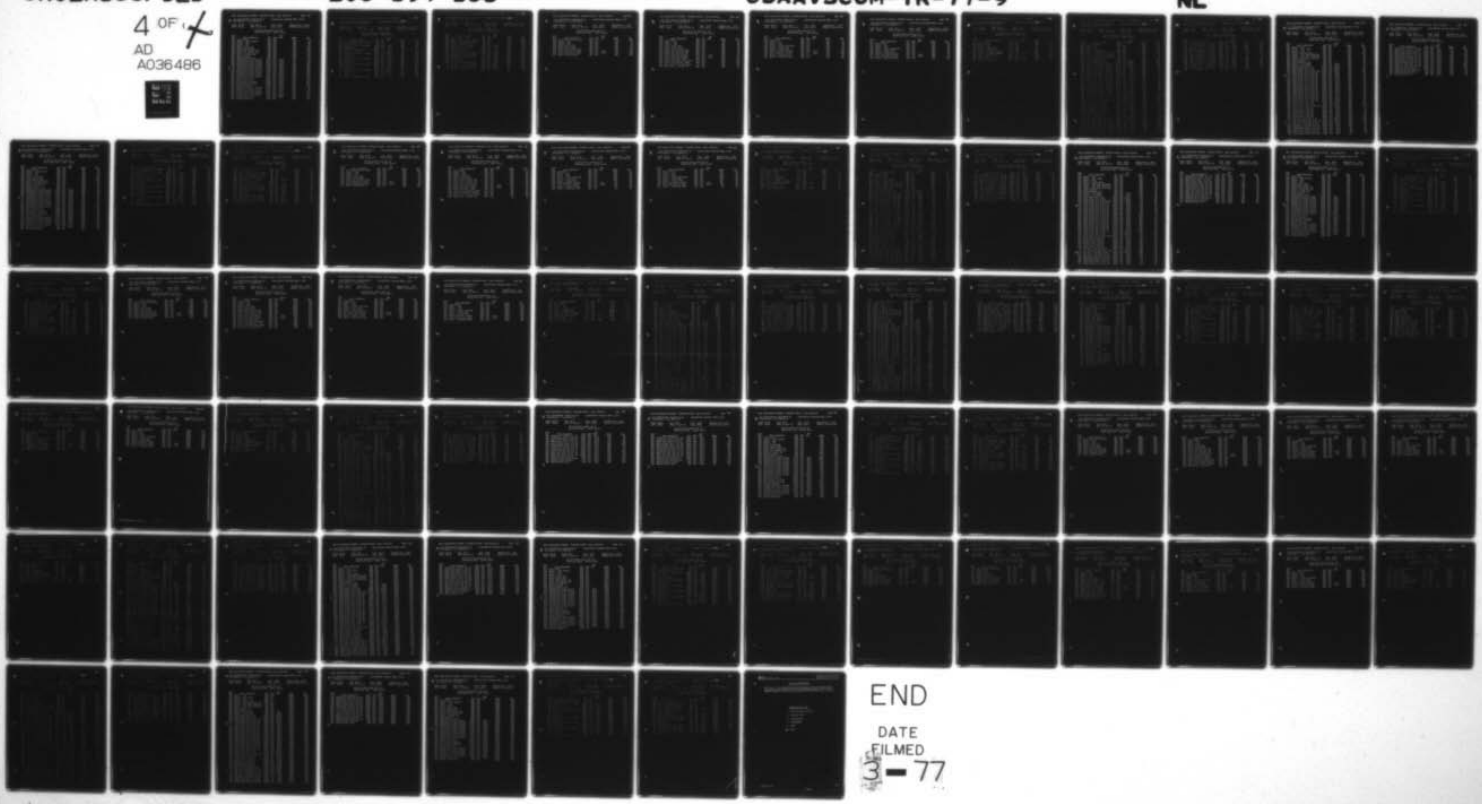
MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	-119	170
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	-119	136
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	-153	119
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	-127	145
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	-136	119
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	434	145
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	-221	153
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	-153	187
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	-127	145
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	-128	161
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	-204	170
883	PARTIAL POWER DESCENT	1200	354	60.0	153	102
884	TRANS POWER RECOVERY-IGE	550	354	60.0	425	153
885	AUTOROTATION LANDING	550	354	60.0	544	170
886	DECELERATION 60-0	550	354	60.0	382	128

AD-A036 486 BELL HELICOPTER TEXTRON FORT WORTH TEX F/G 1/3
COLD WEATHER EVALUATION OF THE 206-011-850-1 TAIL ROTOR EQUIPPE--ETC(U)
NOV 73 T L GUHN DAAJ01-72-A-0015
UNCLASSIFIED 206-194-136 USAAVSCOM-TR-77-9 NL

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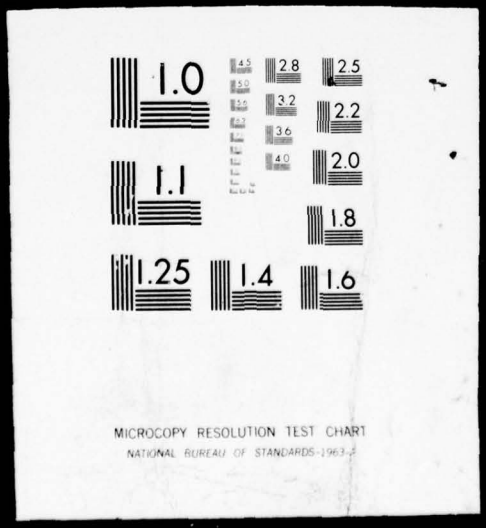
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LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		434	52
896	HOVER - STIR CYCLIC	630	354		400	87
897	HOVER - IGE	630	354		521	104
898	HOVER - IGE	630	347		478	96
899	HOVER LEFT TURN	630	354		773	200
900	HOVER RIGHT TURN	630	354		530	217
901	HOVER F/A CYCLIC REV	630	354		556	122
902	HOVER LAT CYCLIC REV	630	354		478	130
903	HOVER - PEDAL REV	630	354		912	148
904	JUMP TAKE-OFF	630	354		808	130
905	ACCELERATION 0-60	800	354		408	96
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	426	130
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	417	139
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	347	122
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	347	122
910	STABILIZED LEVEL FLIGHT	1500	354	60.0	382	156
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	391	148
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	408	165
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	452	122
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	400	174
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	408	217
916	LEFT TURN 1.4 G	1300	354	80.0	426	165
917	RIGHT TURN 1.5 G	1300	354	80.0	313	139
918	F/A CYCLIC REVERSAL	1300	354	80.0	269	113
919	LAT CYCLIC REVERSAL	1300	354	80.0	356	113
920	PEDAL REVERSAL	1300	354	80.0	304	165
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	278	87
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	313	87
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	356	148
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	365	69
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	356	113
926	DECELERATION 60-0	800	354	60.0	382	122
927	NORMAL SHUTDOWN	630	350		330	87

LOW TEMPERATURE EVALUATION OF PLASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58 FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 08 FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIR CYCLIC	640	354		430	97
939	ACCELERATION 0-60	640	354		518	132
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	263	123
941	LEFT TURN	1100	354	60.0	228	105
942	LOW POWER LET DOWN	1100	354	60.0	53	70
943	MAX POWER CLIMB	1100	354	60.0	404	140
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	281	123
945	LEFT TURN	1100	354	70.0	351	105
946	RIGHT TURN	1100	354	70.0	255	79
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	299	140
948	LEFT TURN	1100	354	80.0	325	149
949	RIGHT TURN	1100	354	80.0	246	105
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	316	158
951	LEFT TURN	1100	354	90.0	246	140
952	RIGHT TURN	1100	354	90.0	219	149
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	474	123
954	LEFT TURN	1100	354	100.0	404	176
955	RIGHT TURN	1100	354	100.0	237	184
956	CLIMB	1100	354	60.0	579	158
957	FLAT PITCH/CYCLIC INPUT	640	354		395	97

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL UH-58 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 7.0
ITEM CODE B106 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		685	176
974	HOVER - F/A CYCLIC INPUT	70	354		508	114
975	HOVER - LAT CYCLIC INPUT	70	354		597	123
976	HOVER - THROTTLE CHOP	70	354		342	167
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	667	211
978	LEFT SIDEWARD FLIGHT	70	354	20.0	342	97
979	ACCELERATION 0-60	100	354		764	184
980	CLIMB - MC POWER	1000	354	60.0	527	192
981	STABILIZED LEVEL FLIGHT	800	354	60.0	334	105
982	STABILIZED LEVEL FLIGHT	800	354	70.0	351	105
983	STABILIZED LEVEL FLIGHT	800	354	80.0	369	123
984	LEFT TURN	800	354	80.0	272	149
985	RIGHT TURN	800	354	80.0	413	167
986	STABILIZED LEVEL FLIGHT	800	354	90.0	430	184
987	STABILIZED LEVEL FLIGHT	800	354	100.0	369	176
988	STABILIZED LEVEL FLIGHT	800	354	110.0	443	167
989	STABILIZED LEVEL FLIGHT	800	354	120.0	483	202
990	LOW POWER LET DOWN	1000	354	60.0	184	97

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE 8107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		238	134
645	HOVER - IGE	420	354		317	75
646	HOVER - IGE	420	347		353	85
647	HOVER LEFT TURN	420	354		486	69
648	HOVER RIGHT TURN	420	354		385	118
649	HOVER DIR CONTROL REV	420	354		493	69
650	LEFT SIDEWARD FLIGHT	420	354	20.0	389	108
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	268	104
652	HOVER AUTOROTATION	420	354		235	157

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		199	29
667	HOVER - IGE	800	354		313	65
668	HOVER - IGE	800	347		317	95
669	HOVER LEFT TURN	800	354		336	95
670	HOVER RIGHT TURN	800	354		389	75
671	HOVER DIR CONTROL REV	800	354		268	91
672	HOVER F/A CONTROL REV	800	354		310	62
673	HOVER LAT CONTROL REV	800	354		294	72
674	LEFT SIDEWARD FLIGHT	800	354	20.0	346	91
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	340	98
676	HOVER THROTTLE CHOP	800	354		157	137
677	GRD RUN-RT FWD CYC INPUT	800	354		248	52
678	HOVER F/A CYCLIC INPUT	800	354		310	108
679	GRD RUN-LT AFT CYC INPUT	800	354		219	69
680	MAX POWER - BOOST OFF	800	354		186	75

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		208	50
693	HOVER - IGE	940	354		311	66
694	HOVER - IGE	940	347		307	69
695	HOVER - PEDAL REVERSAL	940	354		360	83
696	HOVER - LEFT TURN	940	354		407	50
697	HOVER - RIGHT TURN	940	354		350	99
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	235	102
699	LEFT SIDEWARD FLIGHT	940	354	20.0	271	119
700	ACCEL & DECEL 0-60-0	940	354		238	99
701	HOVER - THROTTLE CHOP	940	354		112	152

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		297	68
710	HOVER - IGE	940	354		314	64
711	HOVER - IGE	940	347		324	68
712	HOVER - PEDAL REVERSAL	940	354		392	68
713	HOVER - LEFT TURN	940	354		450	85
714	HOVER - RIGHT TURN	940	354		314	91
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	409	91
716	LEFT SIDEWARD FLIGHT	940	354	20.0	304	88
717	HOVER - THROTTLE CHOP	940	354		135	122

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING **TAIL** ROTOR
TEMPERATURE = -35 DEGREES C

MODEL UH-1D FLT. 47-A G.W. 2365 PROBLEM NO. 2499
SHIP 40011 DATE 23 JAN 73 C.G. 110.2 REPORT 206-134-138

TR RED BLADE BEAM STA 9.5
ITEM CODE 6107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
733	FLAT PITCH	800	354		247	59
734	HOVER - IGE	800	354		377	75
735	HOVER - IGE	800	347		390	65
736	HOVER - LEFT TURN	800	354		465	62
737	HOVER - RIGHT TURN	800	354		393	107
738	HOVER - PEDAL REVERSAL	800	354		586	62
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	302	114
740	ACCELERATION 0-60	1300	354		413	107
741	LEFT TURN	1300	354	60.0	370	91
742	DECELERATION 60-0	1000	354	60.0	263	66

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-53 FLT. 48-AB G.W. 2735 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 205-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE 3107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
747	NORMAL START	510			193	109
748	HOVER - IGE	510	347		370	87
749	HOVER - IGE	510	354		380	58
750	HOVER - LEFT TURN	510	354		485	100
751	HOVER - RIGHT TURN	510	354		312	87
752	HOVER - F/A CONT REVERSAL	510	354		363	80
753	HOVER - LAT CONT REVERSAL	510	354		363	93
754	HOVER - DIR CONT REVERSAL	510	354		572	96
755	ACCELERATION 0-60	510	354		350	106
756	STAB LEVEL FLT @ VH	1500	354	108.0	228	113
757	STAB LEVEL FLT @ VNE	1400	354	120.0	170	125
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	164	145
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	228	80
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	177	68
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	158	61
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	119	61
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	132	68
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	170	61
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	170	61
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	209	68
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	183	55
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	159	71
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	209	80
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	190	74
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	180	71
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	154	105
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	196	93
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	215	93
775	STAB LEVEL FLT @ VH	1400	347	108.0	206	122
776	STAB LEVEL FLT @ VNE	1400	347	120.0	154	133
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	148	116
778	LEFT TURN @ 0.7 VH	1400	354	76.0	199	71
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	151	61
780	LEFT TURN @ 0.7 VH	1400	354	76.0	116	77
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	135	99
782	LEFT TURN @ 0.9 VH	1400	354	97.0	280	74
783	RIGHT TURN @ 0.8 VH	1400	354	97.0	158	80
791	JUMP TAKE-OFF	510	354		408	80
792	CLIMB - M C POWER	1000	354	70.0	354	58
793	CLIMB - T O POWER	1400	354	70.0	383	87
794	LVL FLT - LAT REV @ VH	1400	354	108.0	273	97
795	LVL FLT - DIR REV @ VH	1400	354	108.0	264	139
796	LVL FLT - CYC P/U 0.6 VH	1400	354	65.0	183	87
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	199	116
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	199	84
799	STABILIZED AUTO @ 0.5 VH	1700	335	55.0	-16	87
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	269	77
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	150	71

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -54 DEGREES C

MODEL CH-53 FLT. 48-AB G.W. 27B5 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 208-194-130

TR RED BLADE BEAM STA 9.5
ITEM CODE 8107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	78.0	-48	87
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	78.0	209	74
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	-113	113
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	244	71
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	19	109
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	-48	93
808	AUTO LEFT TURN @ 0.7 VH	1700	340	78.0	3	80
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	78.0	-93	93
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	78.0	-51	90
811	AUTO F/A CONT REV 0.7 VH	1700	340	78.0	-51	77
812	AUTO LAT CONT REV 0.7 VH	1700	340	78.0	-58	122
813	AUTO DIR CONT REV 0.7 VH	1200	340	78.0	48	125
814	PARTIAL POWER DESCENT	1700	340	60.0	116	71
815	TRANS POWER RECOVERY-IGE	800	340	60.0	357	74
816	DECELERATION 60-0	600	340	60.0	283	45

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE 8107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		444	51
821	HOVER - LEFT TURN	510	354		530	80
822	HOVER - IGE	510	354		389	61
823	HOVER - RIGHT TURN	510	354		595	113
824	HOVER - F/A CONT REVERSAL	510	354		383	80
825	HOVER - LAT CONT REVERSAL	510	354		402	80
826	HOVER - DIR CONT REVERSAL	510	354		482	77
827	JUMP TAKE-OFF	510	354		338	93
828	ACCELERATION 0-60	510	354		379	90
829	CLIMB - M C POWER	510	354	70.0	305	93
830	CLIMB - T O POWER	510	354	70.0	360	64
831	STAB LEVEL FLT @ VH	1400	354	108.0	270	96
832	STAB LEVEL FLT @ VNE	1400	354	120.0	148	148
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	119	106
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	196	93
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	209	61
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	231	64
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	180	96
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	190	61
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	228	55
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	244	58
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	276	64
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	293	68
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	286	61
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	257	64
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	254	61
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	293	61
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	260	74
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	251	71
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	241	93
850	STAB LEVEL FLT @ VH	1400	347	102.0	273	132
851	STAB LEVEL FLT @ VNE	1400	347	120.0	154	167
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	186	84
853	LEFT TURN @ 0.5 VH	1400	354	50.0	244	58
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	170	74
855	LEFT TURN @ 0.7 VH	1400	354	71.0	241	87
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	241	93
857	LEFT TURN @ 0.8 VH	1400	354	92.0	309	77
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	154	116
859	LVL FLT - LAT REV @ VH	1400	354	102.0	260	119
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	228	138
861	LVL FLT - DIR REV @ VH	1400	354	102.0	315	84
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	219	71
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	158	55
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	23	80
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	32	58
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	-35	87
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	241	74

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE 8107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	-51	103
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	-29	61
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	-10	80
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	-51	103
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	-10	113
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	280	80
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	-87	87
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	-45	141
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	-68	100
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	-71	103
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	-119	113
883	PARTIAL POWER DESCENT	1200	354	60.0	109	58
884	TRANS POWER RECOVERY-IGE	550	354	60.0	338	42
885	AUTOROTATION LANDING	550	354	60.0	347	116
886	DECELERATION 60-0	550	354	60.0	273	42

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		277	22
896	HOVER - STIR CYCLIC	630	354		254	51
897	HOVER - IGE	630	354		337	76
898	HOVER - IGE	630	347		334	48
899	HOVER LEFT TURN	630	354		477	102
900	HOVER RIGHT TURN	630	354		328	111
901	HOVER F/A CYCLIC REV	630	354		340	48
902	HOVER LAT CYCLIC REV	630	354		305	70
903	HOVER - PEDAL REV	630	354		572	95
904	JUMP TAKE-OFF	630	354		499	73
905	ACCELERATION 0-60	800	354		280	57
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	254	38
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	223	51
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	223	64
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	223	76
910	STABILIZED LEVEL FLIGHT	1500	354	60.0	267	95
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	248	89
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	267	95
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	296	73
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	270	92
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	242	121
916	LEFT TURN 1.4 G	1300	354	80.0	248	64
917	RIGHT TURN 1.5 G	1300	354	80.0	226	86
918	F/A CYCLIC REVERSAL	1300	354	80.0	194	67
919	LAT CYCLIC REVERSAL	1300	354	80.0	245	41
920	PEDAL REVERSAL	1300	354	80.0	340	22
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	210	38
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	223	57
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	213	73
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	210	83
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	223	83
926	DECELERATION 60-0	800	354	60.0	213	41
927	NORMAL SHUTDOWN	630	350		200	92

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL UH-1H FLT. 53 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE B107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIR CYCLIC	640	354		260	57
939	ACCELERATION 0-60	640	354		318	83
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	184	64
941	LEFT TURN	1100	354	60.0	189	73
942	LOW POWER LET DOWN	1100	354	60.0	41	41
943	MAX POWER CLIMB	1100	354	60.0	273	89
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	191	70
945	LEFT TURN	1100	354	70.0	219	54
946	RIGHT TURN	1100	354	70.0	178	57
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	216	95
948	LEFT TURN	1100	354	80.0	204	95
949	RIGHT TURN	1100	354	80.0	210	45
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	216	83
951	LEFT TURN	1100	354	90.0	197	64
952	RIGHT TURN	1100	354	90.0	165	83
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	280	83
954	LEFT TURN	1100	354	100.0	254	114
955	RIGHT TURN	1100	354	100.0	191	76
956	CLIMB	1100	354	80.0	347	80
957	FLAT PITCH/CYCLIC INPUT	640	354		251	22

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 09JFEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 9.5
ITEM CODE 8107 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
973	HOVER - IGE	70	354		359	54
974	HOVER - F/A CYCLIC INPUT	70	354		382	13
975	HOVER - LAT CYCLIC INPUT	70	354		369	45
976	HOVER - THROTTLE CHOP	70	354		200	99
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	413	89
978	LEFT SIDEWARD FLIGHT	70	354	20.0	413	102
979	ACCELERATION 0-60	100	354		388	0
980	CLIMB - MC POWER	1000	354	60.0	321	92
981	STABILIZED LEVEL FLIGHT	800	354	60.0	204	76
982	STABILIZED LEVEL FLIGHT	800	354	70.0	172	70
983	STABILIZED LEVEL FLIGHT	800	354	80.0	226	92
984	LEFT TURN	800	354	80.0	178	76
985	RIGHT TURN	800	354	80.0	264	99
986	STABILIZED LEVEL FLIGHT	800	354	90.0	261	89
987	STABILIZED LEVEL FLIGHT	800	354	100.0	248	102
988	STABILIZED LEVEL FLIGHT	800	354	110.0	296	92
989	STABILIZED LEVEL FLIGHT	800	354	120.0	267	89
990	LOW POWER LET DOWN	1000	354	60.0	114	64

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		108	102
645	HOVER - IGE	420	354		132	54
646	HOVER - IGE	420	347		156	54
647	HOVER LEFT TURN	420	354		204	66
648	HOVER RIGHT TURN	420	354		156	78
649	HOVER DIR CONTROL REV	420	354		216	54
650	LEFT SIDEWARD FLIGHT	420	354	20.0	174	60
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	135	81
652	HOVER AUTOROTATION	420	354		126	102

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE 8108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		101	30
667	HOVER - IGE	800	354		128	56
668	HOVER - IGE	800	347		113	48
669	HOVER LEFT TURN	800	354		116	68
670	HOVER RIGHT TURN	800	354		175	68
671	HOVER DIR CONTROL REV	800	354		110	62
672	HOVER F/A CONTROL REV	800	354		140	39
673	HOVER LAT CONTROL REV	800	354		131	59
674	LEFT SIDEWARD FLIGHT	800	354	20.0	160	71
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	128	74
676	HOVER THROTTLE CHOP	800	354		74	92
677	GRD RUN-RT FWD CYC INPUT	800	354		89	48
678	HOVER F/A CYCLIC INPUT	800	354		131	59
679	GRD RUN-LT AFT CYC INPUT	800	354		80	39
680	MAX POWER - BOOST OFF	800	354		98	27

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE 0108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		104	18
693	HOVER - IGE	940	354		120	58
694	HOVER - IGE	940	347		126	40
695	HOVER - PEDAL REVERSAL	940	354		159	55
696	HOVER - LEFT TURN	940	354		150	64
697	HOVER - RIGHT TURN	940	354		190	86
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	70	77
699	LEFT SIDEWARD FLIGHT	940	354	20.0	113	89
700	ACCEL & DECEL 0-60-0	940	354		70	83
701	HOVER - THROTTLE CHOP	940	354		58	95

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		132	40
710	HOVER - IGE	940	354		135	49
711	HOVER - IGE	940	347		144	52
712	HOVER - PEDAL REVERSAL	940	354		169	46
713	HOVER - LEFT TURN	940	354		187	77
714	HOVER - RIGHT TURN	940	354		126	83
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	175	77
716	LEFT SIDEWARD FLIGHT	940	354	20.0	52	58
717	HOVER - THROTTLE CHOP	940	354		70	70

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -35 DEGREES C

MODEL 0H-58 FLT. 47-A G.W. 2535 PROBLEM NO. 2459
SHIP 40011 DATE 23 JAN 73 C.G. 110.2 REPORT 206-194-126

TR RED BLADE BEAM STA 15
ITEM CODE 6130 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
733	FLAT PITCH	800	354		114	42
734	HOVER - IGE	800	354		196	63
735	HOVER - IGE	800	347		202	63
736	HOVER - LEFT TURN	800	354		226	91
737	HOVER - RIGHT TURN	800	354		223	60
738	HOVER - PEDAL REVERSAL	800	354		286	57
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	169	78
740	ACCELERATION 0-60	1300	354		193	96
741	LEFT TURN	1300	354	80.0	169	72
742	DECELERATION 60-0	1000	354	60.0	154	51

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-53 FLT. 43-A8 G.W. 2765 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 209-194-135

TR RED BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
747	NORMAL START	510			122	75
748	HOVER - IGE	510	347		175	60
749	HOVER - IGE	510	354		138	33
750	HOVER - LEFT TURN	510	354		238	83
751	HOVER - RIGHT TURN	510	354		134	57
752	HOVER - F/A CONT REVERSAL	510	354		179	60
753	HOVER - LAT CONT REVERSAL	510	354		135	60
754	HOVER - DIR CONT REVERSAL	510	354		269	57
755	ACCELERATION 0-60	510	354		146	92
756	STAB LEVEL FLT @ VH	1500	354	108.0	98	86
757	STAB LEVEL FLT @ VNE	1400	354	120.0	72	95
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	83	83
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	95	72
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	89	60
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	74	45
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	63	39
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	77	36
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	63	48
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	74	45
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	95	48
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	95	42
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	95	60
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	116	33
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	92	63
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	83	66
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	85	53
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	83	66
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	104	69
775	STAB LEVEL FLT @ VH	1400	347	108.0	101	89
776	STAB LEVEL FLT @ VNE	1400	347	120.0	80	86
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	83	83
778	LEFT TURN @ 0.5 VH	1400	354	55.0	83	54
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	69	51
780	LEFT TURN @ 0.7 VH	1400	354	76.0	57	51
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	77	60
782	LEFT TURN @ 0.5 VH	1400	354	97.0	107	83
783	RIGHT TURN @ 0.5 VH	1400	354	97.0	99	63
791	JUMP TAKE-OFF	510	354		102	57
792	CLIMB - M C POWER	1000	354	70.0	137	60
793	CLIMB - T O POWER	1400	354	70.0	152	69
794	LVL FLT - LAT REV @ VH	1400	354	108.0	95	95
795	LVL FLT - DIR REV @ VH	1400	354	108.0	131	95
796	LVL FLT - CYC P/U 0.6 VH	1400	354	66.0	86	51
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	149	86
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	107	54
799	STABILIZED AUTO @ 0.5 VH	1700	354	55.0	12	48
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	113	63
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	86	69

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 45-50 G.W. 2765 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-156

TR RED BLADE BEAM STA 15
ITEM CODE 8108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	-15	51
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	75.0	110	51
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	-42	66
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	116	57
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	9	63
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	-18	60
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	-6	66
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	-30	72
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	-18	60
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	-24	54
812	AUTO LAT CONT REV 0.7 VH	1700	340	76.0	-24	72
813	AUTO DIR CONT REV 0.7 VH	1700	340	76.0	24	77
814	PARTIAL POWER DESCENT	1700	340	60.0	57	63
815	TRANS POWER RECOVERY-IGE	600	340	60.0	101	72
816	DECELERATION 60-0	600	340	60.0	128	63

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		197	60
821	HOVER - LEFT TURN	510	354		232	66
822	HOVER - IGE	510	354		200	39
823	HOVER - RIGHT TURN	510	354		265	92
824	HOVER - F/A CONT REVERSAL	510	354		191	54
825	HOVER - LAT CONT REVERSAL	510	354		188	57
826	HOVER - DIR CONT REVERSAL	510	354		280	54
827	JUMP TAKE-OFF	510	354		167	60
828	ACCELERATION 0-60	510	354		167	66
829	CLIMB - M C POWER	510	354	70.0	122	80
830	CLIMB - T O POWER	510	354	70.0	140	39
831	STAB LEVEL FLT @ VH	1400	354	108.0	122	69
832	STAB LEVEL FLT @ VNE	1400	354	120.0	83	101
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	33	92
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	101	54
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	83	42
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	113	36
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	83	48
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	83	54
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	110	39
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	110	45
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	125	54
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	119	60
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	128	63
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	101	54
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	143	60
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	104	69
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	119	60
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	122	51
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	146	45
850	STAB LEVEL FLT @ VH	1400	347	102.0	113	72
851	STAB LEVEL FLT @ VNE	1400	347	120.0	77	101
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	72	83
853	LEFT TURN @ 0.5 VH	1400	354	50.0	101	54
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	86	57
855	LEFT TURN @ 0.7 VH	1400	354	71.0	143	30
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	143	42
857	LEFT TURN @ 0.8 VH	1400	354	92.0	125	54
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	77	54
859	LVL FLT - LAT REV @ VH	1400	354	102.0	110	86
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	104	75
861	LVL FLT - DIR REV @ VH	1400	354	102.0	149	42
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	95	60
867	TRANS-PWE TO AUTO 0.5 VH	1400	354	50.0	101	18
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	3	57
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	21	51
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	-9	57
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	113	66

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE 8108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	-30	60
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	-3	75
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	-3	75
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	15	33
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	27	75
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	179	30
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	-36	60
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	-6	77
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	-21	63
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	-27	75
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	-39	80
883	PARTIAL POWER DESCENT	1200	354	60.0	98	69
884	TRANS POWER RECOVERY-IGE	550	354	60.0	158	57
885	AUTOROTATION LANDING	550	354	60.0	194	110
886	DECELERATION 60-0	550	354	60.0	122	57

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B108 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		146	18
896	HOVER - STIR CYCLIC	630	354		149	27
897	HOVER - IGE	630	354		171	49
898	HOVER - IGE	630	347		177	43
899	HOVER LEFT TURN	630	354		231	67
900	HOVER RIGHT TURN	630	354		195	73
901	HOVER F/A CYCLIC REV	630	354		213	91
902	HOVER LAT CYCLIC REV	630	354		161	40
903	HOVER - PEDAL REV	630	354		292	49
904	JUMP TAKE-OFF	630	354		256	49
905	ACCELERATION 0-60	800	354		128	61
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	119	46
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	94	52
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	137	76
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	128	67
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	152	49
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	110	61
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	137	64
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	122	73
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	125	64
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	128	85
916	LEFT TURN 1.4 G	1300	354	80.0	137	52
917	RIGHT TURN 1.5 G	1300	354	80.0	113	52
918	F/A CYCLIC REVERSAL	1300	354	80.0	149	94
919	LAT CYCLIC REVERSAL	1300	354	80.0	167	46
920	PEDAL REVERSAL	1300	354	80.0	164	73
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	85	43
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	119	64
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	113	70
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	107	64
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	137	76
926	DECELERATION 60-0	800	354	60.0	119	27
927	NORMAL SHUTDOWN	630	350		110	91

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL UH-1S FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 08 FEB 73 C.G. 110.1 REPORT 209-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B100 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	ESC
938	FLAT PITCH - STIR CYCLIC	640	354		132	46
939	ACCELERATION 0-60	640	354		135	86
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	98	49
941	LEFT TURN	1100	354	60.0	90	43
942	LOW POWER LET DOWN	1100	354	60.0	31	31
943	MAX POWER CLIMB	1100	354	60.0	123	68
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	98	49
945	LEFT TURN	1100	354	70.0	114	46
946	RIGHT TURN	1100	354	70.0	77	46
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	101	58
948	LEFT TURN	1100	354	80.0	114	58
949	RIGHT TURN	1100	354	80.0	86	43
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	114	65
951	LEFT TURN	1100	354	90.0	114	40
952	RIGHT TURN	1100	354	90.0	77	58
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	105	80
954	LEFT TURN	1100	354	100.0	120	95
955	RIGHT TURN	1100	354	100.0	71	71
956	CLIMB	1100	354	60.0	148	74
957	FLAT PITCH/CYCLIC INPUT	640	354		117	25

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL UH-56 FLT. 52 G.W. 2500 PROBLEM NO. 2144
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 205-194-136

TR RED BLADE BEAM STA 15
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
973	HOVER - IGE	70	354		198	52
974	HOVER - F/A CYCLIC INPUT	70	354		222	46
975	HOVER - LAT CYCLIC INPUT	70	354		186	40
976	HOVER - THROTTLE CHOP	70	354		143	58
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	241	53
978	LEFT SIDEWARD FLIGHT	70	354	20.0	201	61
979	ACCELERATION 0-60	100	354		225	18
980	CLIMB - MC POWER	1000	354	60.0	143	98
981	STABILIZED LEVEL FLIGHT	800	354	60.0	97	49
982	STABILIZED LEVEL FLIGHT	800	354	70.0	88	40
983	STABILIZED LEVEL FLIGHT	800	354	80.0	122	55
984	LEFT TURN	800	354	80.0	88	52
985	RIGHT TURN	800	354	80.0	110	67
986	STABILIZED LEVEL FLIGHT	800	354	90.0	119	64
987	STABILIZED LEVEL FLIGHT	800	354	100.0	113	70
988	STABILIZED LEVEL FLIGHT	800	354	110.0	107	58
989	STABILIZED LEVEL FLIGHT	800	354	120.0	137	38
990	LOW POWER LET DOWN	1000	354	60.0	53	40

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		476	312
645	HOVER - IGE	420	354		968	410
646	HOVER - IGE	420	347		984	295
647	HOVER LEFT TURN	420	354		1050	295
648	HOVER RIGHT TURN	420	354		902	607
649	HOVER DIR CONTROL REV	420	354		1116	623
650	LEFT SIDEWARD FLIGHT	420	354	20.0	1001	541
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	902	476
652	HOVER AUTOROTATION	420	354		951	295

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58	FLT. 45-A	G.W. 2785	PROBLEM NO. 2436
SHIP 40011	DATE 16 JAN 73	C.G. 110.1	REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE 8104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		902	115
667	HOVER - IGE	800	354		1050	361
668	HOVER - IGE	800	347		886	262
669	HOVER LEFT TURN	800	354		1017	459
670	HOVER RIGHT TURN	800	354		1034	509
671	HOVER DIR CONTROL REV	800	354		1050	427
672	HOVER F/A CONTROL REV	800	354		1017	328
673	HOVER LAT CONTROL REV	800	354		984	295
674	LEFT SIDEWARD FLIGHT	800	354	20.0	1132	640
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	935	443
676	HOVER THROTTLE CHOP	800	354		886	328
677	GRD RUN-RT FWD CYC INPUT	800	354		984	262
678	HOVER F/A CYCLIC INPUT	800	354		1050	328
679	GRD RUN-LT AFT CYC INPUT	800	354		984	131
680	MAX POWER - BOOST OFF	800	354		951	230

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE 8104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		951	164
693	HOVER - IGE	940	354		1034	345
694	HOVER - IGE	940	347		968	312
695	HOVER - PEDAL REVERSAL	940	354		1066	640
696	HOVER - LEFT TURN	940	354		1066	345
697	HOVER - RIGHT TURN	940	354		935	476
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	1181	262
699	LEFT SIDEWARD FLIGHT	940	354	20.0	935	443
700	ACCEL & DECEL 0-60-0	940	354		919	427
701	HOVER - THROTTLE CHOP	940	354		968	312

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL UH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		1038	181
710	HOVER - IGE	940	354		1071	346
711	HOVER - IGE	940	347		1038	313
712	HOVER - PEDAL REVERSAL	940	354		1170	445
713	HOVER - LEFT TURN	940	354		1054	264
714	HOVER - RIGHT TURN	940	354		1054	395
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	1054	395
716	LEFT SIDEWARD FLIGHT	940	354	20.0	1054	395
717	HOVER - THROTTLE CHOP	940	354		1038	346

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING **TAIL** ROTOR
TEMPERATURE = -35 DEGREES C

MODEL UH-1C FLT. 47-A G.W. 2389 PROBLEM NO. 2435
SHIP 40011 DATE 25 JAN 73 C.G. 110.2 REPORT 206-124-155

IN WHT YOKE CHORD STA 1.5
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
733	FLAT PITCH	800	354		991	142
734	HOVER - IGE	800	354		1059	252
735	HOVER - IGE	800	347		1034	230
736	HOVER - LEFT TURN	800	354		1023	279
737	HOVER - RIGHT TURN	800	354		1117	393
738	HOVER - PEDAL REVERSAL	800	354		1275	257
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	1054	393
740	ACCELERATION 0-60	1300	354		1054	393
741	LEFT TURN	1300	354	60.0	544	564
742	DECELERATION 60-0	1000	354	60.0	1023	530

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1S FLT. 48-A3 G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.0
ITEM CODE 8104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			472	283
748	HOVER - IGE	510	347		1039	346
749	HOVER - IGE	510	354		1153	157
750	HOVER - LEFT TURN	510	354		1196	409
751	HOVER - RIGHT TURN	510	354		1054	425
752	HOVER - F/A CONT REVERSAL	510	354		1070	546
753	HOVER - LAT CONT REVERSAL	510	354		1054	299
754	HOVER - DIR CONT REVERSAL	510	354		1070	441
755	ACCELERATION 0-60	510	354		944	409
756	STAB LEVEL FLT @ VH	1500	354	108.0	928	362
757	STAB LEVEL FLT @ VNE	1400	354	120.0	897	488
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	960	425
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	944	378
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	913	283
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	881	220
762	STAB LEVEL FLT @ 0.6 VH	1400	354	66.0	944	189
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	897	205
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	928	299
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	928	236
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	960	205
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	897	205
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	850	236
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	960	205
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	944	189
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	850	220
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	818	252
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	834	299
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	928	267
775	STAB LEVEL FLT @ VH	1400	347	108.0	960	299
776	STAB LEVEL FLT @ VNE	1400	347	120.0	787	315
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	834	330
778	LEFT TURN @ 0.5 VH	1400	354	55.0	975	220
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	928	173
780	LEFT TURN @ 0.7 VH	1400	354	76.0	897	142
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	913	252
782	LEFT TURN @ 0.8 VH	1400	354	87.0	1025	362
783	RIGHT TURN @ 0.8 VH	1400	354	97.0	928	267
791	HOVER TAKE-OFF	510	354		1070	409
792	CLIMB - M C POWER	1000	354	70.0	975	283
793	CLIMB - T O POWER	1400	354	70.0	991	330
794	LVL FLT - LAT REV @ VH	1400	354	108.0	944	504
795	LVL FLT - DIR REV @ VH	1400	354	108.0	944	441
796	LVL FLT - CYC P/U 0.6 VH	1400	354	66.0	897	299
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	1007	252
798	TRANS-PWR TO AUTO 0.5 VH	1700	354	55.0	928	267
799	STABILIZED AUTO @ 0.5 VH	1700	345	55.0	771	110
800	TRANS-AUTO TO PWR 0.5 VH	1700	354	55.0	975	378
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	76.0	991	173

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-AB G.W. 2785 PROBLEM NO. 2440
SHIP 70011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-194-13

TR WHT YOKE CHORD STA 1.8
ITEM CODE 8104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	755	157
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	897	236
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	976	346
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	928	362
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	802	142
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	755	189
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	771	175
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	813	220
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	740	173
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	787	157
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	708	173
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	661	252
814	PARTIAL POWER DESCENT	1700	340	60.0	960	79
815	TRANS POWER RECOVERY-IGE	600	340	60.0	1023	342
816	DECELERATION 60-0	600	340	60.0	409	189

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 40-C G.W. 3100 PROBLEM NO. 2471
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 205-194-130

TR WHT YOKE CHORD STA 1.3
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		1160	251
821	HOVER - LEFT TURN	510	354		1254	439
822	HOVER - IGE	510	354		1081	266
823	HOVER - RIGHT TURN	510	354		1034	470
824	HOVER - F/A CONT REVERSAL	510	354		1120	376
825	HOVER - LAT CONT REVERSAL	510	354		1120	376
826	HOVER - DIR CONT REVERSAL	510	354		1144	329
827	JUMP TAKE-OFF	510	354		1003	313
828	ACCELERATION 0-60	510	354		1113	329
829	CLIMB - M C POWER	510	354	70.0	1050	298
830	CLIMB - T O POWER	510	354	70.0	956	360
831	STAB LEVEL FLT @ VH	1400	354	108.0	925	517
832	STAB LEVEL FLT @ VNE	1400	354	120.0	987	517
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	940	407
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	956	423
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	956	298
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	956	360
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	940	282
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	925	298
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	1003	313
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	987	235
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	1113	204
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	987	266
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	972	282
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	878	251
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	1120	219
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	1034	282
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	878	345
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	940	345
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	940	345
850	STAB LEVEL FLT @ VH	1400	347	102.0	940	407
851	STAB LEVEL FLT @ VNE	1400	347	120.0	956	454
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	831	329
853	LEFT TURN @ 0.5 VH	1400	354	50.0	1113	204
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	1113	141
855	LEFT TURN @ 0.7 VH	1400	354	71.0	1128	313
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	940	345
857	LEFT TURN @ 0.8 VH	1400	354	92.0	1019	454
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	956	360
859	LVL FLT - LAT REV @ VH	1400	354	102.0	1097	282
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	1034	439
861	LVL FLT - DIR REV @ VH	1400	354	102.0	925	486
862	LVL FLT - CYC P/U 0.8 VH	1400	354	81.0	956	329
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	1003	188
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	878	125
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	940	63
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	956	78
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	1050	251

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.3 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.3
ITEM CODE 8104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	893	204
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	862	172
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	925	172
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	956	141
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	940	188
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	1003	251
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	783	251
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	1050	298
880	AUTO P/A CONT REV 0.7 VH	1400	354	71.0	1019	110
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	862	235
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	893	360
883	PARTIAL POWER DESCENT	1200	354	60.0	940	157
884	TRANS POWER RECOVERY-IGE	550	354	60.0	1034	282
885	AUTOROTATION LANDING	550	354	60.0	642	141
886	DECELERATION 60-0	550	354	60.0	956	172

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.8
ITEM CODE 8104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		1000	143
896	HOVER - STIR CYCLIC	630	354		1048	254
897	HOVER - IGE	630	354		1048	286
898	HOVER - IGE	630	347		1032	270
899	HOVER LEFT TURN	630	354		1191	365
900	HOVER RIGHT TURN	630	354		1016	603
901	HOVER F/A CYCLIC REV	630	354		1032	333
902	HOVER LAT CYCLIC REV	630	354		1032	355
903	HOVER - PEDAL REV	630	354		1222	397
904	JUMP TAKE-OFF	630	354		1191	302
905	ACCELERATION 0-60	800	354		968	302
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	1080	222
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	1191	175
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	1175	286
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	953	381
910	STABILIZED LEVEL FLIGHT	1500	354	60.0	984	444
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	1111	381
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	1032	460
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	921	444
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	1000	429
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	1254	365
916	LEFT TURN 1.4 G	1300	354	80.0	1000	413
917	RIGHT TURN 1.4 G	1300	354	80.0	1159	270
918	F/A CYCLIC REVERSAL	1300	354	80.0	1095	206
919	LAT CYCLIC REVERSAL	1300	354	80.0	1159	270
920	PEDAL REVERSAL	1300	354	80.0	1111	508
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	937	206
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	984	286
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	1032	333
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	921	286
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	1127	238
926	DECELERATION 60-0	800	354	60.0	1302	222
927	NORMAL SHUTDOWN	630	350		540	222

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL CH-53 FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40011 DATE 05 FEB 73 C.G. 110.1 REPORT 206-194-136

TR WHT YOKE CHORD STA 1.0
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STEP CYCLIC	640	354		1000	302
939	ACCELERATION 0-60	640	354		1016	317
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	984	318
941	LEFT TURN	1100	354	60.0	1016	317
942	LOW POWER LET DOWN	1100	354	60.0	1000	146
943	MAX POWER CLIMB	1100	354	60.0	984	349
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	968	238
945	LEFT TURN	1100	354	70.0	1032	333
946	RIGHT TURN	1100	354	70.0	921	190
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	1000	270
948	LEFT TURN	1100	354	80.0	1000	365
949	RIGHT TURN	1100	354	80.0	984	254
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	1095	397
951	LEFT TURN	1100	354	90.0	1095	397
952	RIGHT TURN	1100	354	90.0	1048	222
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	1048	444
954	LEFT TURN	1100	354	100.0	1016	413
955	RIGHT TURN	1100	354	100.0	968	270
956	CLIMB	1100	354	60.0	1207	349
957	FLAT PITCH/CYCLIC INPUT	640	354		968	238

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL UH-1N FIT. 52 C.G. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 206-199-130

TR WHT YOKE CHORD STA 1.0
ITEM CODE B104 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	LSC
973	HOVER - IGE	70	354		1127	397
974	HOVER - F/A CYCLIC INPUT	70	354		1095	302
975	HOVER - LAT CYCLIC INPUT	70	354		1095	238
976	HOVER - THROTTLE CHOP	70	354		460	79
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	1191	429
978	LEFT SIDEWARD FLIGHT	70	354	20.0	1254	333
979	ACCELERATION 0-60	100	354		1113	206
980	CLIMB - MC POWER	1000	354	60.0	1140	206
981	STABILIZED LEVEL FLIGHT	800	354	60.0	984	349
982	STABILIZED LEVEL FLIGHT	800	354	70.0	889	206
983	STABILIZED LEVEL FLIGHT	800	354	80.0	1032	365
984	LEFT TURN	800	354	80.0	1032	365
985	RIGHT TURN	800	354	80.0	1040	361
986	STABILIZED LEVEL FLIGHT	800	354	90.0	1064	429
987	STABILIZED LEVEL FLIGHT	800	354	100.0	1238	301
988	STABILIZED LEVEL FLIGHT	800	354	110.0	1095	397
989	STABILIZED LEVEL FLIGHT	800	354	120.0	1000	381
990	LOW POWER LET DOWN	1000	354	60.0	1000	111

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2456
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-134-136

TR RED BLADE CHORD STA 7.0
ITEM CODE 8101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		1765	109
667	HOVER - IGE	800	354		1859	234
668	HOVER - IGE	800	347		1749	219
669	HOVER LEFT TURN	800	354		1796	297
670	HOVER RIGHT TURN	800	354		1749	375
671	HOVER DIR CONTROL REV	800	354		1874	312
672	HOVER F/A CONTROL REV	800	354		1749	250
673	HOVER LAT CONTROL REV	800	354		1734	203
674	LEFT SIDEWARD FLIGHT	800	354	20.0	1781	437
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	1765	328
676	HOVER THROTTLE CHOP	800	354		1656	250
677	GRD RUN-RT FWD CYC INPUT	800	354		1812	219
678	HOVER F/A CYCLIC INPUT	800	354		1765	266
679	GRD RUN-LT AFT CYC INPUT	800	354		1749	187
680	MAX POWER - BOOST OFF	800	354		1781	187

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE 8101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		1726	126
693	HOVER - IGE	940	354		1726	282
694	HOVER - IGE	940	347		1663	251
695	HOVER - PEDAL REVERSAL	940	354		1742	466
696	HOVER - LEFT TURN	940	354		1773	267
697	HOVER - RIGHT TURN	940	354		1773	361
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	1769	345
699	LEFT SIDEWARD FLIGHT	940	354	20.0	1726	345
700	ACCEL & DECEL 0-60-0	940	354		1726	345
701	HOVER - THROTTLE CHOP	940	354		1742	235

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE CHORD STA 15
ITEM CODE 8101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		1059	68
710	HOVER - IGE	940	354		1069	156
711	HOVER - IGE	940	347		1021	146
712	HOVER - PEDAL REVERSAL	940	354		1079	204
713	HOVER - LEFT TURN	940	354		1059	165
714	HOVER - RIGHT TURN	940	354		1079	185
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	1050	194
716	LEFT SIDEWARD FLIGHT	940	354	20.0	1059	185
717	HOVER - THROTTLE CHOP	940	354		1040	165

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -55 DEGREES C

MODEL UH-1D FLT. 47-A G.W. 2585 PROBLEM NO. 2433
SHIP 40911 DATE 23 JAN 73 C.G. 110.2 REPORT 206-924-136

TR RED BLADE CHORD STA 15
ITEM CODE 8101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
733	FLAT PITCH	800	354		952	134
734	HOVER - IGE	800	354		961	115
735	HOVER - IGE	800	347		952	123
736	HOVER - LEFT TURN	800	354		1027	160
737	HOVER - RIGHT TURN	800	354		1008	179
738	HOVER - PEDAL REVERSAL	800	354		1065	179
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	999	226
740	ACCELERATION 0-60	1500	354		952	179
741	LEFT TURN	1500	354	60.0	999	207
742	DECELERATION 60-0	1000	354	60.0	961	151

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING **TAIL** ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1D FLT. 48-AB G.W. 2765 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 205-194-130

TAIL ROTOR BLADE CHORD STA 15
ITEM CODE D101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
747	NORMAL START	510			251	46
748	HOVER - IGE	510	347		959	158
749	HOVER - IGE	510	354		967	112
750	HOVER - LEFT TURN	510	354		1015	214
751	HOVER - RIGHT TURN	510	354		985	186
752	HOVER - F/A CONT REVERSAL	510	354		967	130
753	HOVER - LAT CONT REVERSAL	510	354		1022	149
754	HOVER - DIR CONT REVERSAL	510	354		1004	223
755	ACCELERATION 0-60	510	354		976	177
756	STAB LEVEL FLT @ VH	1500	354	168.0	864	177
757	STAB LEVEL FLT @ VNE	1400	354	120.0	846	195
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	902	177
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	855	167
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	864	139
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	855	93
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	911	93
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	892	93
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	957	102
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	939	121
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	920	102
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	911	93
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	855	112
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	864	139
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	827	121
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	837	93
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	846	121
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	846	121
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	827	139
775	STAB LEVEL FLT @ VH	1400	347	108.0	818	130
776	STAB LEVEL FLT @ VNE	1400	347	120.0	837	149
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	837	130
778	LEFT TURN @ 0.2 VH	1400	354	22.0	902	139
779	RIGHT TURN @ 0.2 VH	1400	354	22.0	864	102
780	LEFT TURN @ 0.7 VH	1400	354	76.0	883	84
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	883	102
782	LEFT TURN @ 0.3 VH	1400	354	97.0	883	195
783	RIGHT TURN @ 0.3 VH	1400	354	97.0	902	121
791	JUMP TAKE-OFF	510	354		939	177
792	CLIMB - M C POWER	1000	354	70.0	920	139
793	CLIMB - T O POWER	1400	354	76.0	837	167
794	LVL FLT - LAT REV @ VH	1400	354	108.0	837	204
795	LVL FLT - DIR REV @ VH	1400	354	108.0	846	232
796	LVL FLT - CYC P/O 0.6 VH	1400	354	65.0	846	121
797	LVL FLT - CYC P/O 0.9 VH	1400	354	97.0	846	156
798	TRANS-PWR TO AUTO 0.5 VH	1400	354	55.0	920	158
799	STABILIZED AUTO @ 0.5 VH	1400	354	55.0	827	65
800	TRANS-AUTO TO PWR 0.5 VH	1400	354	55.0	892	167
801	TRANS-PWR TO AUTO 0.7 VH	1400	354	76.0	892	112

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL CH-58 FLT. 48-AB G.W. 2785 PROBLEM NO. 2440
SHIP 70011 DATE 24 JAN 75 C.G. 116.1 REPORT 206-199-136

TR REC BLADE CHORD STA 15
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	818	74
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	883	139
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	837	149
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	874	167
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	837	56
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	864	84
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	846	65
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	864	102
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	837	74
811	AUTO F/A CENT REV 0.7 VH	1700	340	76.0	799	74
812	AUTO LAT CENT REV 0.7 VH	1500	340	76.0	809	84
813	AUTO DIR CENT REV 0.7 VH	1200	340	76.0	827	121
814	PARTIAL POWER DESCENT	1700	340	60.0	902	84
815	TRANS POWER RECOVERY-IGE	600	340	60.0	911	186
816	DECELERATION 60-0	600	340	80.0	400	84

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE CHORD STA 15
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	837	93
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	846	84
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	855	93
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	874	112
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	864	102
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	883	158
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	744	93
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	809	195
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	818	112
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	837	93
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	837	130
883	PARTIAL POWER DESCENT	1200	354	60.0	855	93
884	TRANS POWER RECOVERY-IGE	550	354	60.0	883	177
885	AUTOROTATION LANDING	550	354	60.0	297	130
886	DECELERATION 60-0	550	354	60.0	957	158

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE CHORD STA 15
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	837	93
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	846	84
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	855	93
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	874	112
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	864	102
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	883	158
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	744	93
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	809	195
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	818	112
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	837	93
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	837	130
883	PARTIAL POWER DESCENT	1200	354	60.0	855	93
884	TRANS POWER RECOVERY-IGE	550	354	60.0	883	177
885	AUTOROTATION LANDING	550	354	60.0	297	130
886	DECELERATION 60-0	550	354	60.0	957	158

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 15
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		980	65
896	HOVER - STIR CYCLIC	630	354		962	121
897	HOVER - IGE	630	354		999	121
898	HOVER - IGE	630	347		952	112
899	HOVER LEFT TURN	630	354		980	159
900	HOVER RIGHT TURN	630	354		990	261
901	HOVER F/A CYCLIC REV	630	354		980	140
902	HOVER LAT CYCLIC REV	630	354		971	149
903	HOVER - PEDAL REV	630	354		1036	196
904	JUMP TAKE-OFF	630	354		933	149
905	ACCELERATION 0-60	800	354		933	131
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	1008	93
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	1027	131
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	999	121
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	990	187
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	1008	168
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	999	177
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	980	215
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	952	205
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	962	196
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	905	215
916	LEFT TURN 1.4 G	1300	354	80.0	999	177
917	RIGHT TURN 1.5 G	1300	354	80.0	990	149
918	F/A CYCLIC REVERSAL	1300	354	80.0	971	131
919	LAT CYCLIC REVERSAL	1300	354	80.0	1046	205
920	PEDAL REVERSAL	1300	354	80.0	980	177
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	924	140
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	896	112
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	952	131
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	887	140
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	924	177
926	DECELERATION 60-0	800	354	60.0	962	140
927	NORMAL SHUTDOWN	630	350		476	121

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL UH-1C FLT. 50 G.W. 2500 PROBLEM NO. 2443
SHIP 40911 DATE 06 FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 15
ITEM CODE B101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIR CYCLIC	640	354		900	113
939	ACCELERATION 0-60	640	354		4746	3602
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	976	150
941	LEFT TURN	1100	354	60.0	994	131
942	LOW POWER LET DOWN	1100	354	60.0	957	56
943	MAX POWER CLIMB	1100	354	60.0	910	178
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	994	113
945	LEFT TURN	1100	354	70.0	957	150
946	RIGHT TURN	1100	354	70.0	872	84
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	947	122
948	LEFT TURN	1100	354	80.0	947	159
949	RIGHT TURN	1100	354	80.0	919	113
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	929	178
951	LEFT TURN	1100	354	90.0	919	159
952	RIGHT TURN	1100	354	90.0	919	131
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	910	197
954	LEFT TURN	1100	354	100.0	910	178
955	RIGHT TURN	1100	354	100.0	882	131
956	CLIMB	1100	354	60.0	891	197
957	TEST PITCH/CYCLIC INPUT	640	354		947	122

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -18 DEGREES C

MODEL CH-53 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40311 DATE 06FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 15
ITEM CODE 8101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		976	169
974	HOVER - F/A CYCLIC INPUT	70	354		947	122
975	HOVER - LAT CYCLIC INPUT	70	354		994	169
976	HOVER - THROTTLE CHOP	70	354		375	75
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	957	225
978	LEFT SIDEWARD FLIGHT	70	354	20.0	985	215
979	ACCELERATION 0-60	100	354		947	178
980	CLIMB - MC POWER	1000	354	60.0	779	178
981	STABILIZED LEVEL FLIGHT	800	354	60.0	882	150
982	STABILIZED LEVEL FLIGHT	800	354	70.0	863	131
983	STABILIZED LEVEL FLIGHT	800	354	80.0	807	150
984	LEFT TURN	800	354	80.0	816	141
985	RIGHT TURN	800	354	80.0	816	178
986	STABILIZED LEVEL FLIGHT	800	354	90.0	797	159
987	STABILIZED LEVEL FLIGHT	800	354	100.0	825	169
988	STABILIZED LEVEL FLIGHT	800	354	110.0	872	197
989	STABILIZED LEVEL FLIGHT	800	354	120.0	825	169
990	LOW POWER LET DOWN	1000	354	80.0	985	141

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		1170	226
645	HOVER - IGE	420	354		1917	265
646	HOVER - IGE	420	347		1868	216
647	HOVER LEFT TURN	420	354		1956	226
648	HOVER RIGHT TURN	420	354		1946	433
649	HOVER DIR CONTROL REV	420	354		1956	482
650	LEFT SIDEWARD FLIGHT	420	354	20.0	1907	374
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	1956	305
652	HOVER AUTOROTATION	420	354		1927	197

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2436
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		1458	68
667	HOVER - IGE	800	354		1575	205
668	HOVER - IGE	800	347		1419	186
669	HOVER LEFT TURN	800	354		1487	294
670	HOVER RIGHT TURN	800	354		1487	274
671	HOVER DIR CONTROL REV	800	354		1517	264
672	HOVER F/A CONTROL REV	800	354		1487	196
673	HOVER LAT CONTROL REV	800	354		1458	186
674	LEFT SIDEWARD FLIGHT	800	354	20.0	1478	401
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	1487	294
676	HOVER THROTTLE CHOP	800	354		1409	215
677	GRD RUN-RT FWD CYC INPUT	800	354		1487	176
678	HOVER F/A CYCLIC INPUT	800	354		1507	215
679	GRD RUN-LT AFT CYC INPUT	800	354		1526	117
680	MAX POWER - BOOST OFF	800	354		1497	166

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		1484	108
693	HOVER - IGE	940	354		1484	246
694	HOVER - IGE	940	347		1465	187
695	HOVER - PEDAL REVERSAL	940	354		1504	423
696	HOVER - LEFT TURN	940	354		1524	246
697	HOVER - RIGHT TURN	940	354		1514	315
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	1514	315
699	LEFT SIDEWARD FLIGHT	940	354	20.0	1455	275
700	ACCEL & DECEL 0-60-0	940	354		1465	285
701	HOVER - THROTTLE CHOP	940	354		1474	197

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58 FLT. 46-B G.W. 2585 PROBLEM NO. 2438
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		1458	109
710	HOVER - IGE	940	354		1518	208
711	HOVER - IGE	940	347		1438	208
712	HOVER - PEDAL REVERSAL	940	354		1508	298
713	HOVER - LEFT TURN	940	354		1518	188
714	HOVER - RIGHT TURN	940	354		1488	278
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	1468	258
716	LEFT SIDEWARD FLIGHT	940	354	20.0	1458	248
717	HOVER - THROTTLE CHOP	940	354		1458	248

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -35 DEGREES C

MODEL CH-53 FLT. 47-A C.N. 2585 PROBLEM NO. 2439
SHIP 45611 DATE 23 JAN 73 C.G. 113.2 REPORT 256-134-15

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	USC
735	FLAT PITCH	800	354		1296	142
734	HOVER - IGE	800	354		1287	170
733	HOVER - IGE	800	347		1277	150
736	HOVER - LEFT TURN	800	354		1400	200
737	HOVER - RIGHT TURN	800	354		1324	200
738	HOVER - PEDAL REVERSAL	800	354		1362	208
739	RIGHT SIDEWARD FLIGHT	800	354	20.0	1353	231
740	ACCELERATION 0-60	1300	354		1324	265
741	LEFT TURN	1300	354	60.0	1354	274
742	DECELERATION 60-0	1300	354	60.0	1324	170

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1N FLT. 46-AB G.W. 2795 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 75 C.G. 110.1 REPORT 205-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DSC
747	NORMAL START	510			322	57
748	HOVER - IGE	510	347		1277	199
749	HOVER - IGE	510	354		1324	151
750	HOVER - LEFT TURN	510	354		1315	312
751	HOVER - RIGHT TURN	510	354		1315	274
752	HOVER - F/A CONT REVERSAL	510	354		1324	200
753	HOVER - LAT CONT REVERSAL	510	354		1372	218
754	HOVER - DIR CONT REVERSAL	510	354		1362	308
755	ACCELERATION 0-60	510	354		1296	255
756	STAB LEVEL FLT @ VH	1500	354	103.0	1173	245
757	STAB LEVEL FLT @ VNE	1400	354	120.0	1102	293
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	1239	255
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	1201	257
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	1192	170
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	1230	151
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	1258	123
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	1258	104
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	1296	180
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	1296	161
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	1268	132
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	1220	123
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	1192	227
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	1220	199
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	1145	199
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	1173	151
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	1145	142
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	1145	199
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	1135	139
775	STAB LEVEL FLT @ VH	1400	347	103.0	1154	246
776	STAB LEVEL FLT @ VNE	1400	347	120.0	1220	237
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	1230	151
778	LEFT TURN @ 0.5 VH	1400	354	55.0	1277	189
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	1211	132
780	LEFT TURN @ 0.7 VH	1400	354	76.0	1296	104
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	1192	170
782	LEFT TURN @ 0.8 VH	1400	354	87.0	1211	227
783	RIGHT TURN @ 0.8 VH	1400	354	87.0	1277	227
791	JUMP TAKE-OFF	510	354		1324	265
792	CLIMB - MAX PWR	1000	354	70.0	1211	170
793	CLIMB - T.O. PWR	1400	354	70.0	1135	139
794	LVL FLT - LAT REV @ VH	1400	354	103.0	1154	303
795	LVL FLT - DIR REV @ VH	1400	354	103.0	1201	312
796	LVL FLT - CYC F/A 0.8 VH	1400	354	87.0	1201	218
797	LVL FLT - CYC F/A 0.9 VH	1400	354	97.0	1277	142
798	TRANS-POS TO AUTO 0.8 VH	1400	354	85.0	1324	246
799	STABILIZE AUTO @ 0.8 VH	1400	354	85.0	1192	47
800	TRANS-AUTO TO POS 0.8 VH	1400	354	85.0	1296	161
801	TRANS-POS TO AUTO 0.7 VH	1400	354	76.0	1201	142

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING **TAIL** FOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1N FLT. 43-A8 G.W. 2785 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 205-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	1154	123
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	1249	208
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	1173	208
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	1220	218
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	1162	85
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	1220	104
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	1220	123
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	1239	142
810	AUTO CYCLIC P/U @ 0.7 VH	1700	340	76.0	1211	132
811	AUTO T/A CONT REV 0.7 VH	1700	340	76.0	1145	123
812	AUTO LAT CONT REV 0.7 VH	1700	340	76.0	1192	132
813	AUTO DIR CONT REV 0.7 VH	1700	340	76.0	1192	139
814	PARTIAL POWER DESCENT	1700	340	60.0	1302	151
815	TRANS POWER RECOVERY-105	600	340	60.0	1268	284
816	DECELERATION 60-0	600	340	60.0	568	132

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE B102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		1403	348
821	HOVER - LEFT TURN	510	354		1243	282
822	HOVER - IGE	510	354		1262	188
823	HOVER - RIGHT TURN	510	354		1337	320
824	HOVER - F/A CONT REVERSAL	510	354		1309	235
825	HOVER - LAT CONT REVERSAL	510	354		1271	235
826	HOVER - DIR CONT REVERSAL	510	354		1215	217
827	JUMP TAKE-OFF	510	354		1233	160
828	ACCELERATION 0-60	510	354		1280	207
829	CLIMB - M C POWER	510	354	70.0	1167	207
830	CLIMB - T O POWER	510	354	70.0	1083	198
831	STAB LEVEL FLT @ VH	1400	354	108.0	1149	320
832	STAB LEVEL FLT @ VNE	1400	354	120.0	1149	320
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	1149	264
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	1111	264
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	1262	188
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	1196	254
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	1224	226
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	1346	235
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	1252	179
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	1271	160
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	1328	122
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	1215	141
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	1299	188
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	1262	188
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	1328	254
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	1120	198
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	1224	264
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	1262	188
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	1102	311
850	STAB LEVEL FLT @ VH	1400	347	102.0	1045	292
851	STAB LEVEL FLT @ VNE	1400	347	120.0	1120	330
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	1290	311
853	LEFT TURN @ 0.5 VH	1400	354	50.0	1271	254
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	1375	207
855	LEFT TURN @ 0.7 VH	1400	354	71.0	1299	282
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	1111	264
857	LEFT TURN @ 0.8 VH	1400	354	92.0	1083	330
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	1102	217
859	LVL FLT - LAT REV @ VH	1400	354	102.0	1083	367
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	1120	330
861	LVL FLT - DIR REV @ VH	1400	354	102.0	1064	330
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	1422	348
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	1328	122
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	1186	94
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	1177	85
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	1262	188
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	1262	207

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	1158	122
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	1215	122
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	1224	113
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	1280	169
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	1233	122
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	1233	235
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	1111	151
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	1139	311
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	1224	132
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	1205	132
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	1215	217
883	PARTIAL POWER DESCENT	1200	354	60.0	1280	169
884	TRANS POWER RECOVERY-IGE	550	354	60.0	1252	179
885	AUTOROTATION LANDING	550	354	60.0	433	207
886	DECELERATION 60-0	550	354	60.0	1469	301

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
EMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		1328	104
896	HOVER - STIR CYCLIC	630	354		1280	169
897	HOVER - IGE	630	354		1337	207
898	HOVER - IGE	630	347		1271	179
899	HOVER LEFT TURN	630	354		1309	235
900	HOVER RIGHT TURN	630	354		1337	395
901	HOVER F/A CYCLIC REV	630	354		1337	169
902	HOVER LAT CYCLIC REV	630	354		1459	122
903	HOVER - PEDAL REV	630	354		1431	226
904	JUMP TAKE-OFF	630	354		1262	226
905	ACCELERATION 0-60	800	354		1262	207
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	1356	113
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	1309	141
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	1290	179
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	1280	264
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	1346	235
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	1280	245
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	1262	301
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	1337	264
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	1497	235
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	1309	235
916	LEFT TURN 1.4 G	1300	354	80.0	1440	292
917	RIGHT TURN 1.5 G	1300	354	80.0	1365	160
918	F/A CYCLIC REVERSAL	1300	354	80.0	1375	207
919	LAT CYCLIC REVERSAL	1300	354	80.0	1422	217
920	PEDAL REVERSAL	1300	354	80.0	1318	226
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	1205	151
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	1280	169
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	1271	179
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	1299	113
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	1280	169
926	DECELERATION 60-0	800	354	60.0	1262	151
927	NORMAL SHUTDOWN	630	350		697	188

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL OH-58 TLT. 50 G.W. 2300 PROBLEM NO. 2543
SHIP 40911 DATE 06 FEB 73 C.G. 110.1 REPORT 205-194-156

TR REF BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
938	FLAT PITCH - STIR CYCLIC	640	354		1374	57
939	ACCELERATION 0-60	640	354		1327	200
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	1346	161
941	LEFT TURN	1100	354	60.0	1355	191
942	LOW POWER LET DOWN	1100	354	60.0	1365	86
943	MAX POWER CLIMB	1100	354	60.0	1231	239
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	1346	162
945	LEFT TURN	1100	354	70.0	1365	200
946	RIGHT TURN	1100	354	70.0	1212	124
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	1279	153
948	LEFT TURN	1100	354	80.0	1366	210
949	RIGHT TURN	1100	354	80.0	1260	134
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	1289	258
951	LEFT TURN	1100	354	90.0	1289	258
952	RIGHT TURN	1100	354	90.0	1260	172
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	1260	286
954	LEFT TURN	1100	354	100.0	1250	277
955	RIGHT TURN	1100	354	100.0	1298	210
956	CLIMB	1100	354	60.0	1250	296
957	FLAT PITCH/CYCLIC INPUT	640	354		1269	124

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL OH-58 FLT. 52 G.W. 2500 PROBLEM NO. 2444
SHIP 40011 DATE 06SFEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 9.5
ITEM CODE 8102 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		1327	258
974	HOVER - F/A CYCLIC INPUT	70	354		1317	172
975	HOVER - LAT CYCLIC INPUT	70	354		1327	162
976	HOVER - THROTTLE CHOP	70	354		515	95
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	1279	344
978	LEFT SIDEWARD FLIGHT	70	354	20.0	1298	305
979	ACCELERATION 0-60	100	354		1317	210
980	CLIMB - MC POWER	1000	354	60.0	993	305
981	STABILIZED LEVEL FLIGHT	800	354	60.0	1365	258
982	STABILIZED LEVEL FLIGHT	800	354	70.0	1317	210
983	STABILIZED LEVEL FLIGHT	800	354	80.0	1212	277
984	LEFT TURN	800	354	80.0	1203	191
985	RIGHT TURN	800	354	80.0	1164	248
986	STABILIZED LEVEL FLIGHT	800	354	90.0	1184	248
987	STABILIZED LEVEL FLIGHT	800	354	100.0	1155	239
988	STABILIZED LEVEL FLIGHT	800	354	110.0	1241	206
989	STABILIZED LEVEL FLIGHT	800	354	120.0	1346	239
990	LOW POWER LET DOWN	1000	354	80.0	1432	191

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2435
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE 6101 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
644	FLAT PITCH AT FLT IDLE	420	247		1522	204
645	HOVER - IGE	420	354		2385	282
646	HOVER - IGE	420	347		2322	251
647	HOVER LEFT TURN	420	354		2432	235
648	HOVER RIGHT TURN	420	354		2416	471
649	HOVER DIR CONTROL REV	420	354		2448	502
650	LEFT SIDEWARD FLIGHT	420	354	20.0	2338	392
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	2401	329
652	HOVER AUTOROTATION	420	354		2369	235

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 44-A G.W. 2600 PROBLEM NO. 2430
SHIP 40011 DATE 12 JAN 73 C.G. 107.0 REPORT 206-194-136

TR RED BLADE CHORD STA 15.0
ITEM CODE 5103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DSC
644	FLAT PITCH AT FLT IDLE	420	247		677	147
645	HOVER - IGE	420	354		1140	186
646	HOVER - IGE	420	347		1079	118
647	HOVER LEFT TURN	420	354		1148	147
648	HOVER RIGHT TURN	420	354		1148	265
649	HOVER DIR CONTROL REV	420	354		1138	294
650	LEFT SIDEWARD FLIGHT	420	354	20.0	1118	235
651	RIGHT SIDEWARD FLIGHT	420	354	20.0	1148	266
652	HOVER AUTOROTATION	420	354		1128	128

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -47 DEGREES C

MODEL OH-58 FLT. 45-A G.W. 2785 PROBLEM NO. 2455
SHIP 40011 DATE 16 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 15.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
666	FLAT PITCH	800	354		877	30
667	HOVER - IGE	800	354		966	138
668	HOVER - IGE	800	347		877	108
669	HOVER LEFT TURN	800	354		867	197
670	HOVER RIGHT TURN	800	354		887	217
671	HOVER DIR CONTROL REV	800	354		936	168
672	HOVER F/A CONTROL REV	800	354		936	108
673	HOVER LAT CONTROL REV	800	354		877	128
674	LEFT SIDEWARD FLIGHT	800	354	20.0	917	286
675	RIGHT SIDEWARD FLIGHT	800	354	20.0	995	148
676	HOVER THROTTLE CHOP	800	354		848	158
677	GRD RUN-RT FWD CYC INPUT	800	354		907	118
678	HOVER F/A CYCLIC INPUT	800	354		946	138
679	GRD RUN-LT AFT CYC INPUT	800	354		956	108
680	MAX POWER - BOOST OFF	800	354		936	108

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -36 DEGREES C

MODEL OH-58 FLT. 46-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 19 JAN 73 C.G. 110.2 REPORT 206-194-136

TR RED BLADE CHORD STA 15.0
ITEM CODE 8103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
692	FLATPITCH	940	354		922	78
693	HOVER - IGE	940	354		971	147
694	HOVER - IGE	940	347		981	98
695	HOVER - PEDAL REVERSAL	940	354		922	255
696	HOVER - LEFT TURN	940	354		971	128
697	HOVER - RIGHT TURN	940	354		903	196
698	RIGHT SIDEWARD FLIGHT	940	354	20.0	922	196
699	LEFT SIDEWARD FLIGHT	940	354	20.0	912	157
700	ACCEL & DECEL 0-50-0	940	354		873	206
701	HOVER - THROTTLE CHOP	940	354		922	137

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -37 DEGREES C

MODEL OH-58	FLT. 46-B	G.W. 2585	PROBLEM NO. 2438
SHIP 40011	DATE 19 JAN 73	C.G. 110.2	REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
709	FLAT PITCH	940	354		1393	158
710	HOVER - IGE	940	354		1473	238
711	HOVER - IGE	940	347		1441	206
712	HOVER - PEDAL REVERSAL	940	354		1520	317
713	HOVER - LEFT TURN	940	354		1441	238
714	HOVER - RIGHT TURN	940	354		1378	269
715	RIGHT SIDEWARD FLIGHT	940	354	20.0	1393	285
716	LEFT SIDEWARD FLIGHT	940	354	20.0	1409	269
717	HOVER - THROTTLE CHOP	940	354		1362	253

EDA TEMPERATURE EVALUATION OF ELASTOMERIC BEARING **TAIL**
TEMPERATURE = -35 DEGREES C

MODEL UH-1B FLT. 47-A G.W. 2585 PROBLEM NO. 2437
SHIP 40011 DATE 23 JAN 73 C.G. 110.2 REPORT 205-124-1

TR RED BLADE CHORD STA 7.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	DSC
733	FLAT PITCH	600	354		2764	21
734	HOVER - IGE	600	354		2932	127
735	HOVER - IGE	600	347		2890	119
736	HOVER - LEFT TURN	600	354		3081	254
737	HOVER - RIGHT TURN	600	354		2954	319
738	HOVER - PEDAL REVERSAL	600	354		2975	267
739	RIGHT SIDEWARD FLIGHT	600	354	20.0	2669	316
740	ACCELERATION 0-60	1300	354		2911	319
741	LEFT TURN	1300	354	20.0	2911	301
742	DECELERATION 60-0	1000	354	60.0	2890	212

LOW TEMPERATURE EVALUATION OF ELASTOMERIC CLAMPING **TAIL** ROTOR
TEMPERATURE = -54 DEGREES C

MODEL UH-58 FLT. 48-A8 G.W. 2763 PROBLEM NO. 2440
SHIP 40011 DATE 24 JAN 73 C.G. 110.1 REPORT 206-199-156

IN RED BLADE CHORD STA 7.0
ITEM CODE 8105 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
747	NORMAL START	510			695	105
748	HOVER - IGE	510	347		2884	274
749	HOVER - IGE	510	354		2968	232
750	HOVER - LEFT TURN	510	354		2926	400
751	HOVER - RIGHT TURN	510	354		2947	337
752	HOVER - F/A CONT REVERSAL	510	354		2947	211
753	HOVER - LAT CONT REVERSAL	510	354		3010	274
754	HOVER - DIR CONT REVERSAL	510	354		3010	358
755	ACCELERATION 0-60	510	354		2926	316
756	STAB LEVEL FLT @ VH	1400	354	108.0	2505	316
757	STAB LEVEL FLT @ VNE	1400	354	120.0	2652	337
758	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	2942	358
759	STAB LEVEL FLT @ 0.9 VH	1400	354	97.0	2673	316
760	STAB LEVEL FLT @ 0.8 VH	1400	354	87.0	2642	274
761	STAB LEVEL FLT @ 0.7 VH	1400	354	76.0	2905	211
762	STAB LEVEL FLT @ 0.6 VH	1400	354	65.0	2863	168
763	STAB LEVEL FLT @ 0.5 VH	1400	354	55.0	2894	189
764	STAB LEVEL FLT @ 0.4 VH	1400	354	44.0	3010	232
765	STAB LEVEL FLT @ 0.3 VH	1400	354	32.0	2968	189
766	STAB LEVEL FLT @ 0.2 VH	1400	354	22.0	2884	189
767	STAB LEVEL FLT @ 0.2 VH	1400	347	22.0	2779	168
768	STAB LEVEL FLT @ 0.3 VH	1400	347	32.0	2589	232
769	STAB LEVEL FLT @ 0.4 VH	1400	347	44.0	2821	168
770	STAB LEVEL FLT @ 0.5 VH	1400	347	55.0	2547	232
771	STAB LEVEL FLT @ 0.6 VH	1400	347	65.0	2610	210
772	STAB LEVEL FLT @ 0.7 VH	1400	347	76.0	2631	189
773	STAB LEVEL FLT @ 0.8 VH	1400	347	87.0	2673	316
774	STAB LEVEL FLT @ 0.9 VH	1400	347	97.0	2547	274
775	STAB LEVEL FLT @ VH	1400	347	108.0	2631	274
776	STAB LEVEL FLT @ VNE	1400	347	120.0	2652	295
777	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	2736	253
778	LEFT TURN @ 0.5 VH	1400	354	55.0	2547	295
779	RIGHT TURN @ 0.5 VH	1400	354	55.0	2736	168
780	LEFT TURN @ 0.7 VH	1400	354	76.0	2947	211
781	RIGHT TURN @ 0.7 VH	1400	354	76.0	2631	232
782	LEFT TURN @ 0.9 VH	1400	354	97.0	2694	337
783	RIGHT TURN @ 0.9 VH	1400	354	97.0	2673	169
791	JUMP TAKE-OFF	510	354		2989	337
792	CLIMB - M C POWER	1000	354	70.0	2652	253
793	CLIMB - T O POWER	1400	354	76.0	2821	295
794	LVL FLT - LAT REV @ VH	1400	354	108.0	2463	400
795	LVL FLT - DIR REV @ VH	1400	354	108.0	2631	316
796	LVL FLT - CYC P/U 0.8 VH	1400	354	87.0	2842	189
797	LVL FLT - CYC P/U 0.9 VH	1400	354	97.0	2589	316
798	TRANS-PWR TO AUTO 0.8 VH	1700	354	88.0	3052	316
799	STABILIZED AUTO @ 0.8 VH	1700	354	88.0	2884	84
800	TRANS-AUTO TO PWR 0.8 VH	1700	354	88.0	2758	316
801	TRANS-PWR TO AUTO 0.7 VH	1700	354	77.0	719	147

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL UH-1B FLT. 46-48 G.W. 2785 PROBLEM NO. 2440
SHIP 40811 DATE 24 JAN 73 C.G. 110.1 REPORT 205-194-13

TR RED BLADE CHORD STA 7.0
ITEM CODE 8103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
802	STABILIZED AUTO @ 0.7 VH	1700	335	76.0	2631	109
803	TRANS-AUTO TO PWR 0.7 VH	1700	354	76.0	2842	189
804	TRANS-PWR TO AUTO 0.9 VH	1700	354	97.0	2526	253
805	TRANS-AUTO TO PWR 0.9 VH	1700	354	97.0	2821	295
806	AUTO LEFT TURN @ 0.5 VH	1700	342	55.0	2905	126
807	AUTO RIGHT TURN @ 0.5 VH	1700	340	55.0	2926	147
808	AUTO LEFT TURN @ 0.7 VH	1700	340	76.0	2947	126
809	AUTO RIGHT TURN @ 0.7 VH	1700	340	76.0	3052	189
810	AUTO CYCLIC F/J @ 0.7 VH	1700	340	76.0	2884	147
811	AUTO F/A CONT REV 0.7 VH	1700	340	76.0	2526	168
812	AUTO LAT CONT REV 0.7 VH	1500	340	76.0	2652	168
813	AUTO DIR CONT REV 0.7 VH	1200	340	76.0	2715	232
814	PARTIAL POWER DESCENT	1700	340	60.0	3115	125
815	TRANS POWER RECOVERY-ICE	600	340	60.0	2842	358
816	DECELERATION 60-0	600	340	60.0	1326	190

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
820	HOVER - IGE	510	347		2919	254
821	HOVER - LEFT TURN	510	354		2898	360
822	HOVER - IGE	510	354		2855	233
823	HOVER - RIGHT TURN	510	354		2961	423
824	HOVER - F/A CONT REVERSAL	510	354		2876	296
825	HOVER - LAT CONT REVERSAL	510	354		2940	317
826	HOVER - DIR CONT REVERSAL	510	354		2855	275
827	JUMP TAKE-OFF	510	354		2792	254
828	ACCELERATION 0-60	510	354		2982	275
829	CLIMB - M C POWER	510	354	70.0	2665	296
830	CLIMB - T O POWER	510	354	70.0	2200	296
831	STAB LEVEL FLT @ VH	1400	354	108.0	2559	402
832	STAB LEVEL FLT @ VNE	1400	354	120.0	2580	381
833	STAB LEVEL FLT @ 1.11 VNE	1400	354	132.0	2686	360
834	STAB LEVEL FLT @ 0.9 VH	1400	354	92.0	2728	317
835	STAB LEVEL FLT @ 0.8 VH	1400	354	82.0	2919	211
836	STAB LEVEL FLT @ 0.7 VH	1400	354	71.0	3215	212
837	STAB LEVEL FLT @ 0.6 VH	1400	354	60.0	3130	212
838	STAB LEVEL FLT @ 0.5 VH	1400	354	50.0	3024	275
839	STAB LEVEL FLT @ 0.4 VH	1400	354	40.0	3024	233
840	STAB LEVEL FLT @ 0.3 VH	1400	354	30.0	2982	233
841	STAB LEVEL FLT @ 0.2 VH	1400	354	20.0	3024	233
842	STAB LEVEL FLT @ 0.2 VH	1400	347	20.0	2834	212
843	STAB LEVEL FLT @ 0.3 VH	1400	347	30.0	2834	212
844	STAB LEVEL FLT @ 0.4 VH	1400	347	40.0	2792	254
845	STAB LEVEL FLT @ 0.5 VH	1400	347	50.0	2855	233
846	STAB LEVEL FLT @ 0.6 VH	1400	347	60.0	2750	211
847	STAB LEVEL FLT @ 0.7 VH	1400	347	71.0	2771	233
848	STAB LEVEL FLT @ 0.8 VH	1400	347	82.0	2707	338
849	STAB LEVEL FLT @ 0.9 VH	1400	347	92.0	2707	338
850	STAB LEVEL FLT @ VH	1400	347	102.0	2390	148
851	STAB LEVEL FLT @ VNE	1400	347	120.0	2496	254
852	STAB LEVEL FLT @ 1.11 VNE	1400	347	132.0	2771	190
853	LEFT TURN @ 0.5 VH	1400	354	50.0	3067	275
854	RIGHT TURN @ 0.5 VH	1400	354	50.0	3067	233
855	LEFT TURN @ 0.7 VH	1400	354	71.0	3046	254
856	RIGHT TURN @ 0.7 VH	1400	354	71.0	2475	360
857	LEFT TURN @ 0.8 VH	1400	354	92.0	2665	465
858	RIGHT TURN @ 0.8 VH	1400	354	92.0	2432	317
859	LVL FLT - LAT REV @ VH	1400	354	102.0	2517	275
860	LVL FLT-LAT CONT REV @ VH	1400	354	102.0	2432	402
861	LVL FLT - DIR REV @ VH	1400	354	102.0	2411	381
866	LVL FLT - CYC P/U 0.6 VH	1400	354	61.0	2771	360
867	TRANS-PWR TO AUTO 0.5 VH	1400	354	50.0	2961	212
868	STABILIZED AUTO @ 0.5 VH	1400	345	50.0	2792	212
869	AUTO LEFT TURN @ 0.5 VH	1400	345	50.0	2686	63
870	AUTO RIGHT TURN @ 0.5 VH	1400	345	50.0	2686	148
871	TRANS-AUTO TO PWR 0.5 VH	1400	354	50.0	2961	212

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -34 DEGREES C

MODEL OH-58 FLT. 48-C G.W. 3100 PROBLEM NO. 2441
SHIP 40011 DATE 24 JAN 73 C.G. 106.0 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
872	TRANS-PWR TO AUTO 0.7 VH	1400	354	71.0	2601	190
873	STABILIZED AUTO @ 0.7 VH	1400	354	71.0	2728	148
874	AUTO LEFT TURN @ 0.7 VH	1400	345	71.0	2792	169
875	AUTO RIGHT TURN @ 0.7 VH	1400	345	71.0	2834	212
876	AUTO CYCLIC P/U @ 0.7 VH	1400	345	71.0	2855	148
877	TRANS-AUTO TO PWR 0.7 VH	1400	354	71.0	2728	317
878	TRANS-PWR TO AUTO 0.9 VH	1400	354	92.0	2453	212
879	TRANS-AUTO TO PWR 0.9 VH	1400	354	92.0	2580	381
880	AUTO F/A CONT REV 0.7 VH	1400	354	71.0	2961	169
881	AUTO LAT CONT REV 0.7 VH	1400	354	71.0	2961	169
882	AUTO DIR CONT REV 0.7 VH	1400	354	71.0	2982	233
883	PARTIAL POWER DESCENT	1200	354	60.0	2855	148
884	TRANS POWER RECOVERY-IGE	550	354	60.0	2855	233
885	AUTOROTATION LANDING	550	354	60.0	1248	275
886	DECELERATION 60-0	550	354	60.0	2982	233

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -23 DEGREES C

MODEL OH-58 FLT. 49-A G.W. 2585 PROBLEM NO. 2442
SHIP 40011 DATE 30 JAN 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE B103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
895	FLAT PITCH	630	354		2996	106
896	HOVER - STIR CYCLIC	630	354		2911	276
897	HOVER - IGE	630	354		3102	255
898	HOVER - IGE	630	347		2954	234
899	HOVER LEFT TURN	630	354		3102	340
900	HOVER RIGHT TURN	630	354		3039	446
901	HOVER F/A CYCLIC REV	630	354		3017	255
902	HOVER LAT CYCLIC REV	630	354		3102	213
903	HOVER - PEDAL REV	630	354		3166	404
904	JUMP TAKE-OFF	630	354		2954	234
905	ACCELERATION 0-60	800	354		2932	212
906	STABILIZED LEVEL FLIGHT	1500	354	20.0	3145	170
907	STABILIZED LEVEL FLIGHT	1500	354	30.0	3187	170
908	STABILIZED LEVEL FLIGHT	1500	354	40.0	3294	276
909	STABILIZED LEVEL FLIGHT	1500	354	50.0	3145	340
10	STABILIZED LEVEL FLIGHT	1500	354	60.0	3102	340
911	STABILIZED LEVEL FLIGHT	1500	354	70.0	3017	340
912	STABILIZED LEVEL FLIGHT	1300	354	80.0	3017	298
913	STABILIZED LEVEL FLIGHT	1300	354	90.0	3017	298
914	STABILIZED LEVEL FLIGHT	1300	354	90.0	3039	319
915	STABILIZED LEVEL FLIGHT	1300	354	100.0	2635	382
916	LEFT TURN 1.4 G	1300	354	80.0	3251	319
917	RIGHT TURN 1.5 G	1300	354	80.0	3081	191
918	F/A CYCLIC REVERSAL	1300	354	80.0	3187	170
919	LAT CYCLIC REVERSAL	1300	354	80.0	3187	170
920	PEDAL REVERSAL	1300	354	80.0	2932	340
921	STABILIZED LEVEL FLIGHT	1300	347	20.0	2932	212
922	STABILIZED LEVEL FLIGHT	1300	347	40.0	2677	213
923	STABILIZED LEVEL FLIGHT	1300	347	60.0	3102	170
924	STABILIZED LEVEL FLIGHT	1300	347	80.0	2932	212
925	STABILIZED LEVEL FLIGHT	1300	347	100.0	2932	212
926	DECELERATION 60-0	800	354	60.0	2975	255
927	NORMAL SHUTDOWN	630	350		1551	319

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -25 DEGREES C

MODEL CH-53 FLT. 50 G.W. 2500 PROBLEM NO. 2563
SHIP 40011 DATE 06 FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 7.0
ITEM CODE 8103 UNITS IN-LB

SEC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	CSC
938	FLAT PITCH - STIR CYCLIC	640	354		2767	193
939	ACCELERATION 0-60	640	354		3067	279
940	STABILIZED LEVEL FLIGHT	1100	354	60.0	3024	236
941	LEFT TURN	1100	354	60.0	3067	279
942	LOW POWER LET DOWN	1100	354	60.0	3003	129
943	MAX POWER CLIMB	1100	354	60.0	2703	300
944	STABILIZED LEVEL FLIGHT	1100	354	70.0	3024	193
945	LEFT TURN	1100	354	70.0	3003	300
946	RIGHT TURN	1100	354	70.0	2574	172
947	STABILIZED LEVEL FLIGHT	1100	354	80.0	2917	257
948	LEFT TURN	1100	354	80.0	3003	300
949	RIGHT TURN	1100	354	80.0	2738	129
950	STABILIZED LEVEL FLIGHT	1100	354	90.0	2874	300
951	LEFT TURN	1100	354	90.0	3003	257
952	RIGHT TURN	1100	354	90.0	2496	236
953	STABILIZED LEVEL FLIGHT	1100	354	100.0	2831	386
954	LEFT TURN	1100	354	100.0	2831	343
955	RIGHT TURN	1100	354	100.0	2982	236
956	CLIMB	1100	354	80.0	2831	257
957	FLAT PITCH/CYCLIC INPUT	640	354		2874	215

LOW TEMPERATURE EVALUATION OF ELASTOMERIC BEARING TAIL ROTOR
TEMPERATURE = -15 DEGREES C

MODEL CH-56 FLT. 52 G.W. 2500 PROBLEM NO. 2194
SHIP 40011 DATE 06FEB 73 C.G. 110.1 REPORT 206-194-136

TR RED BLADE CHORD STA 7.8
ITEM CODE 8103 UNITS IN-LB

REC. NO.	TEST CONDITION	ALT	RPM	IAS KTS	MEAN	OSC
973	HOVER - IGE	70	354		2968	278
974	HOVER - F/A CYCLIC INPUT	70	354		3032	128
975	HOVER - LAT CYCLIC INPUT	70	354		2904	214
976	HOVER - THROTTLE CHOP	70	354		1153	128
977	RIGHT SIDEWARD FLIGHT	70	354	20.0	2978	383
978	LEFT SIDEWARD FLIGHT	70	354	20.0	3053	235
979	ACCELERATION J-56	100	354		2946	256
980	CLIMB - MC POWER	1000	354	80.0	2178	512
981	STABILIZED LEVEL FLIGHT	800	354	60.0	3053	235
982	STABILIZED LEVEL FLIGHT	800	354	70.0	2925	235
983	STABILIZED LEVEL FLIGHT	800	354	80.0	2847	299
984	LEFT TURN	800	354	80.0	2626	235
985	RIGHT TURN	800	354	80.0	2711	303
986	STABILIZED LEVEL FLIGHT	800	354	90.0	2775	171
987	STABILIZED LEVEL FLIGHT	800	354	100.0	2925	149
988	STABILIZED LEVEL FLIGHT	800	354	110.0	3053	192
989	STABILIZED LEVEL FLIGHT	800	354	120.0	2818	299
990	LOW POWER LET DOWN	1000	354	60.0	3074	85

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LIST OF REFERENCES

1. Gardner, T. L., Cold Weather Evaluation of the 640 Main Rotor on a Model OH-58A Helicopter in Fairbanks, Alaska, Bell Helicopter Company Technical Data Report 299-099-643 dated 6-20-73

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1 - Flight Test

1 - 206 Project

4 - USAAVSCOM

1 - BPA

~~22~~ - DDC