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FLIGHT TEST REPORT OF THE MODEL OH-58A HELICOPTER WITH THE 206---ETC(U)
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UNCLASSIFIED 206-194-122 USAAVSCOM-TR-77-12 NL

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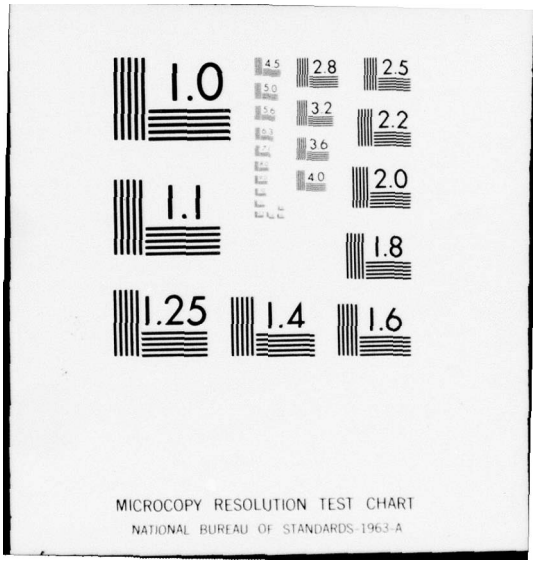
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USAAVSCOM
REPORT - TR77-12

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FLIGHT TEST REPORT OF THE MODEL OH-58A HELICOPTER WITH THE 206-706-129-1 HIGH TUBULAR SKID GEAR KIT INSTALLED

Thomas L. Sanders
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Post Office Box 482
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4 August 1972

FINAL REPORT

Prepared for
U.S. ARMY AVIATION SYSTEMS COMMAND
Maintenance Engineering Division
Post Office Box 209
St. Louis, MO 63166

UNCLASSIFIED

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

This report contains the results of a flight test evaluation conducted on the 206-706-129-1 high skid gear as installed on the model OH58A Helicopter. An L2700-206 HS ski kit, manufactured by Airglas Engineering Company was also installed on the high skid gear and evaluated. The limitations and hover performance of the baisc OH-58A helicopter remained unchanged.

Unclassified

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FLIGHT TEST REPORT OF THE MODEL OH-58A HELICOPTER WITH THE 206-706-129-1 HIGH TUBULAR SKID GEAR KIT INSTALLED

PREPARED UNDER CONTRACT DAAJ01-70-C-0057
P.I.P. Task 69-2A

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CHIEF of LABS* — — DATE

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— DATE

— DATE

* WHEN APPLICABLE

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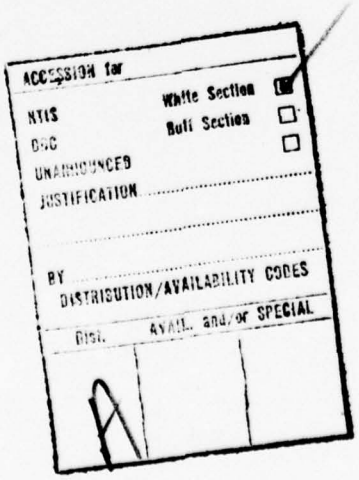

TABLE OF CONTENTS

LIST OF FIGURES AND TABLE

LIST OF FIGURES AND TABLE - (cont)

FLIGHT TEST REPORT OF THE MODEL OH-58A HELICOPTER WITH THE 206-706-129-1 HIGH TUBULAR SKID GEAR KIT INSTALLED

SUMMARY

This report contains the results of a flight test evaluation conducted on the 206-706-129-1 high skid gear as installed on the Model OH-58A Helicopter.

The high tubular skid gear kit consists of basically the same tubular skid tubes as the standard gear, but attaches to higher cross tubes in order to provide additional ground clearance for the helicopter fuselage and tail rotor when landings in rough terrain are required. Two passenger steps are installed on the forward cross tubes for entry to and from the helicopter.

A ten pound lead weight was installed on the forward end of each skid tube to reduce gear vibration during flight and chatter during autorotation touchdown.

An L2700-206HS ski kit, manufactured by Airglas Engineering Company, was installed on the high skid gear for evaluation. A modified 206-050-221 (isolation spring) landing gear cross tube support was installed in addition to the aft 206-052-105-13 strap to reduce landing gear vibration when the ski kit is installed.

The limitations and hover performance that apply to the basic OH-58A Helicopter remain unchanged as the result of the high skid gear and ski kit installation.

FLIGHT TEST REPORT OF THE MODEL OH-58A HELICOPTER WITH THE 206-706-129-1 HIGH TUBULAR SKID GEAR KIT INSTALLED

INTRODUCTION

A flight test evaluation of the Model OH-58A Helicopter, S/N 40621, with a high tubular skid gear and ski kit installed, was conducted from 11 January to 23 February 1972, at the Bell Helicopter Company (BHC) Flight Research Center, Arlington, Texas.

Test emphasis was directed toward the investigation of cabin vertical two-per-rev vibration and helicopter static longitudinal stability as influenced by the installation of the high skid gear and ski kit.

This report contains, in the Results and Discussion, information relative to the various configurations evaluated by BHC Flight Test Pilot Mr. L. W. Hartwig. However, data are not presented for all configurations evaluated, but are on file at the Flight Research Center.

TEST EQUIPMENT

Test Helicopter

A Model OH-58A Helicopter, S/N 40621, was utilized as the test vehicle during the test program.

Landing Gear Kit, P/N 206-706-129-1 (See Figure 1)

The high tubular skid gear assembly provides increased ground to fuselage clearance as compared to the standard skid gear assembly and consists of the following:

(a) Two cross tubes in the general shape of the standard gear cross tubes except extended in height.

(b) Two skid tubes, similar to the standard tubular type skid tubes except extended in length at the toe and at the heel; P/N 206-052-108-5.

(c) A step attached to the forward cross tube on each side of the helicopter to facilitate entry and exit.

(d) An OH-58A 206-052-105 strap on the forward cross tube support.

(e) A 206-052-105-3 strap was removed from the aft cross tube and replaced with a 206-052-105-13 strap, which is larger.

206-050-221 Cross Tube Support Assembly

This support assembly is utilized with the 206 popout float kit on the forward cross tube and isolates the skid tube from the fuselage. This support assembly was modified to accept a 206-052-105-13 strap and was installed on the aft cross tube.

OH-58A Ski Kit

Airglas Engineering Co., Inc., of Anchorage, Alaska, manufactured the L2700-206HS ski kit, which consisted of fiberglass skis with steel runners. A strap attaches the skis to the skid tube. See Figure 2.

TEST EQUIPMENT - (cont)

Instrumentation

An eighteen channel Consolidated Electrodynamics Corporation (CEC) oscillograph recorder was installed to record pilot and copilot vertical vibration data. The accelerometers utilized were the CEC Model A-69.

The fore and aft cyclic stick position was obtained through the use of a visual indicator. The indicator was driven by a rotary potentiometer, mechanically linked to the cyclic stick.

Airspeed Calibration

The airspeed system of the aircraft was calibrated by the trailing bomb method for the flight regimes of climb, level flight, and autorotation. Figure 3, page 10, presents the results.

Log of Flights

A log of all flights listing the data, flight number, duration time, purpose and/or configuration, is shown in Table I.

RESULTS AND DISCUSSION

Prior to testing, all controls were checked for proper rigging and current weight and balance was obtained.

Flight Characteristics

Tests were conducted at the critical conditions of the center of gravity (cg) - gross weight (GW) envelope to determine the flight characteristics of the helicopter with the 206-706-129-1 high skid landing gear and snow ski kit installed. From previous test experience it has been determined that the two conditions of (1) heavy GW, forward cg, and (2) light GW, aft cg, are the most critical. As a result the following configurations were evaluated:

	Configuration	GW	cg	Fig.	Page
1.	206-706-129-1 Kit, High Skid Gear	2991	106.0	4	11
2.	206-706-129-1 Kit, High Skid Gear	2252	114.2	6	13
3.	206-706-129-1 Kit, High Skid Gear and Snow Ski Kit	3006	106.0	8	15
4.	206-706-129-1 Kit, High Skid Gear and Snow Ski Kit	2342	114.2	10	17

Figures 4 through 7 present controllability, stability, and apparent speed stability data for the helicopter at forward cg (Fuselage Sta. 106.0), and aft cg (Fuselage Sta. 114.2) when the 206-706-129-1 high skid gear kit was installed. The passenger doors were on and landing gear steps installed. These flights represent the basic high skid gear configuration and the data show the flight characteristics to be satisfactory.

RESULTS AND DISCUSSION - (cont)

Ground handling operations of the aircraft were satisfactory with the high skid landing gear kit installed.

The ski kit, L2700-206HS, was installed on the high skid gear and Figures 8 through 11 present controllability, stability, and apparent speed stability data for the helicopter at forward and aft cg flight conditions. Data indicate the flight characteristics are acceptable.

Vibration Characteristics

Tests were conducted at the critical condition of the cg-GW envelope to determine the vibration characteristics of the helicopter with the 206-706-129-1 high skid landing gear and snow ski kit installed.

Figures 12 through 15 present the pilot and copilot vertical vibration characteristics of the Model OH-58A Helicopter for the configurations shown.

During evaluation, the high skid gear exhibited unacceptable gear chatter during the slide-on portion of a touchdown autorotation. The addition of lead weights (ten pounds) to the forward end of the skid tubes (see Figure 16) damped the gear chatter and improved the in-flight vibration characteristics of the aircraft. Combinations of less skid tube weight and 206-050-221 (isolation springs) support assembly were evaluated, but were unacceptable due to gear chatter or fuselage vibration.

The L2700-206HS ski kit was installed on the high skid gear and flights made to determine fuselage vibration characteristics as the result of the installation. An excessive amount of skid shake existed above 80 knots. The two-per-rev vibration was considerably reduced with the installation of the ten pound lead weight on the forward end of each skid tube. However, the aft end of the skid tube continued

RESULTS AND DISCUSSION - (cont)

to shake excessively. The aft oscillatory skid motion was damped by the installation of two 206-050-221 (isolation spring) aft cross tube support assemblies. This configuration resulted in an acceptable two-per-rev vertical vibration above 100 knots indicated airspeed (IAS). However, the support assembly was believed to be structurally inadequate and, as a result, the 206-050-221 support assemblies were modified by removing the 206-050-224-1 (strap) support and installing the large 206-052-105 strap (used with high skid gear). Also, the rubber bonded to the inside of the 206-052-105 strap was reduced .040 inch to allow more clearance between the cross tube and the cross tube support to improve isolation spring operation. This configuration produced a marginally acceptable two-per-rev vibration level through the speed regime. A more uniform rubber bond to the inside of the 206-052-105 strap would probably further reduce the two-per-rev vibration level.

All of the changes made to the test landing gear assembly have been incorporated in the production assemblies. The lead weights that were attached to the skid tubes, externally, have been replaced with weights located inside the forward end of the skid tubes.

Hover Performance

The test skid gear is approximately one foot higher than the standard skid gear and, as a result, the four-foot in-ground-effect (IGE) hover performance data previously published for the basic helicopter are the same as three-foot IGE hover performance for the test configuration.

CONCLUSIONS

A flight test evaluation of the Model OH-58A Helicopter, S/N 40621, with the 206-706-129-1 high tubular skid gear and ski kit installed has been successfully completed. On the basis of the results of these tests it is concluded that the new landing gear configurations did not have any significant effects on the flight characteristics of the helicopter. Therefore, the flight limitations that apply to the basic OH-58A Helicopter remain unchanged when the high skid gear is installed with or without the ski kit.

Hover performance with the high skid gear installed will be the same as for the basic helicopter except the skid height above the ground must be lowered from four feet to three feet in order to maintain the same rotor height above the ground.

Fig. 1 High Tubular Skid Gear Kit and Snow Kit as Installed on the Model OH-58A Helicopter, BHC Photo No. 385277

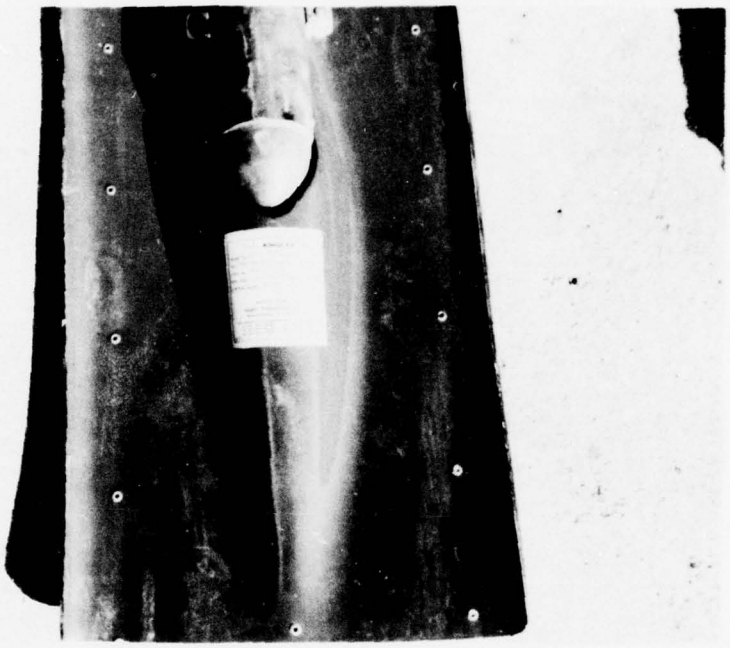

Fig. 2 Airglas L2700-206HS Ski Kit, BHC Photo No. 385275

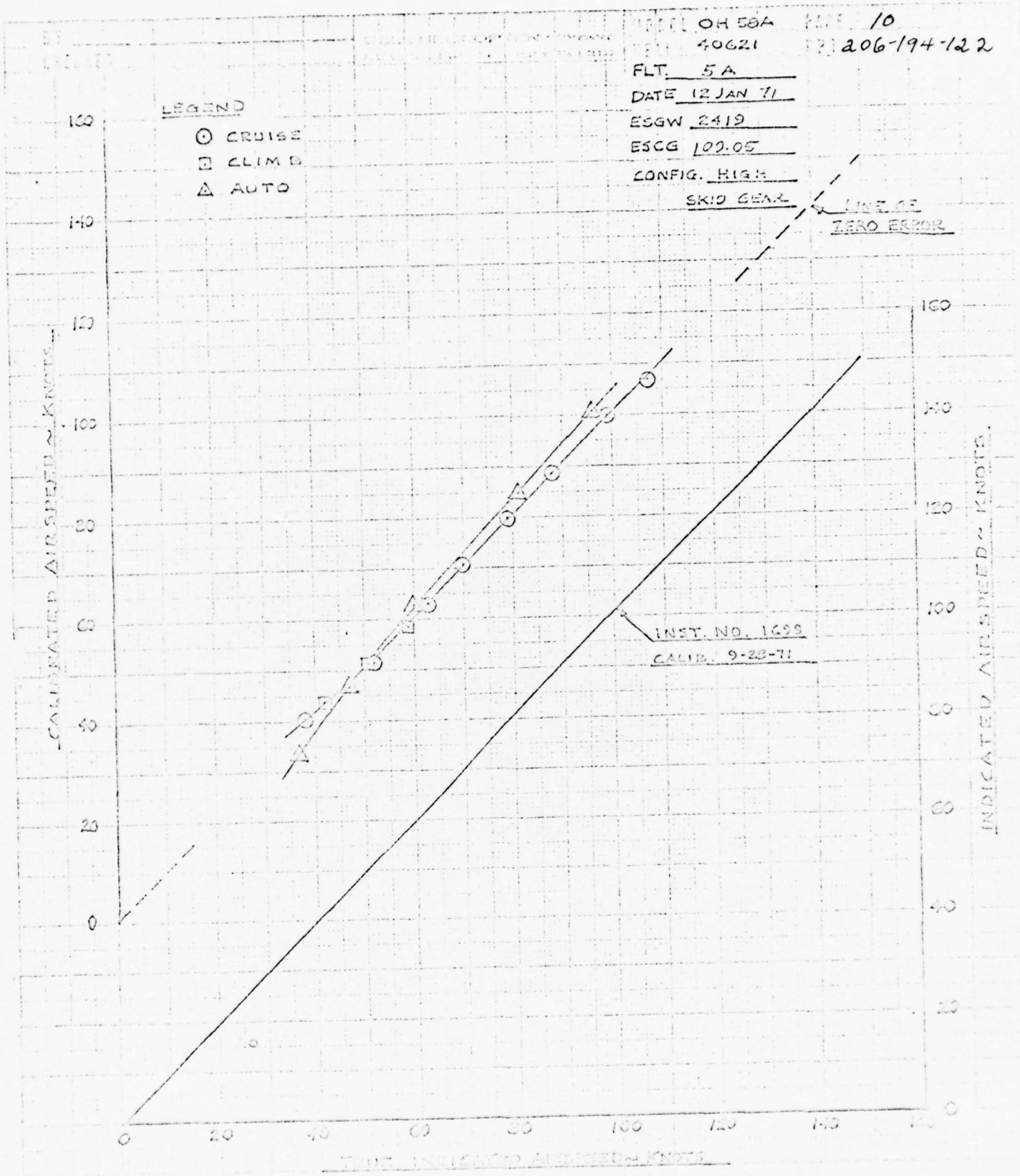

FIG. 3 AIRSPEED CALIBRATION ~ PILOTS SYSTEM

LEGEND						
SYM	FLIGHT CONDITION	AIRSPEED Kcal TRIM	AIRSPEED Kcal RANGE	ROTOR RPM	H_p ~ FT	OAT ~ °C
⊙	LEVEL FLIGHT	97 KTS.	15-60 KTS.	354	2000	0
□	LEVEL FLIGHT	.8 V_{MAX}	.6V_{MAX}-V_{MAX}	354	2000	0
△	LEVEL FLIGHT	1.0 V_{MAX}	.8V_{MAX}-V_L	354	2000	0
◇	CLIMB	V_{MAX} R/C	±15 KTS.	354	3000	0
⊙	AUTOROTATION			354	2000	0
◇	HOVER			354	100	2
⊙	REARWARD					
NOTE: SOLID SYMBOLS ARE THE TRIM CONDITIONS						
NOTED	CONTROLLABILITY					

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT NO 78
DATE 1-14-72
CONFIGURATION 206-706-129-1
HIGH TUBULAR SKID GEAR
KIT INSTALLED

BY
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BELL HELICOPTER COMPANY
FORT WORTH, TEXAS

MODEL OH-58A
BELL
REPORT 206-124-122
PAGE 11

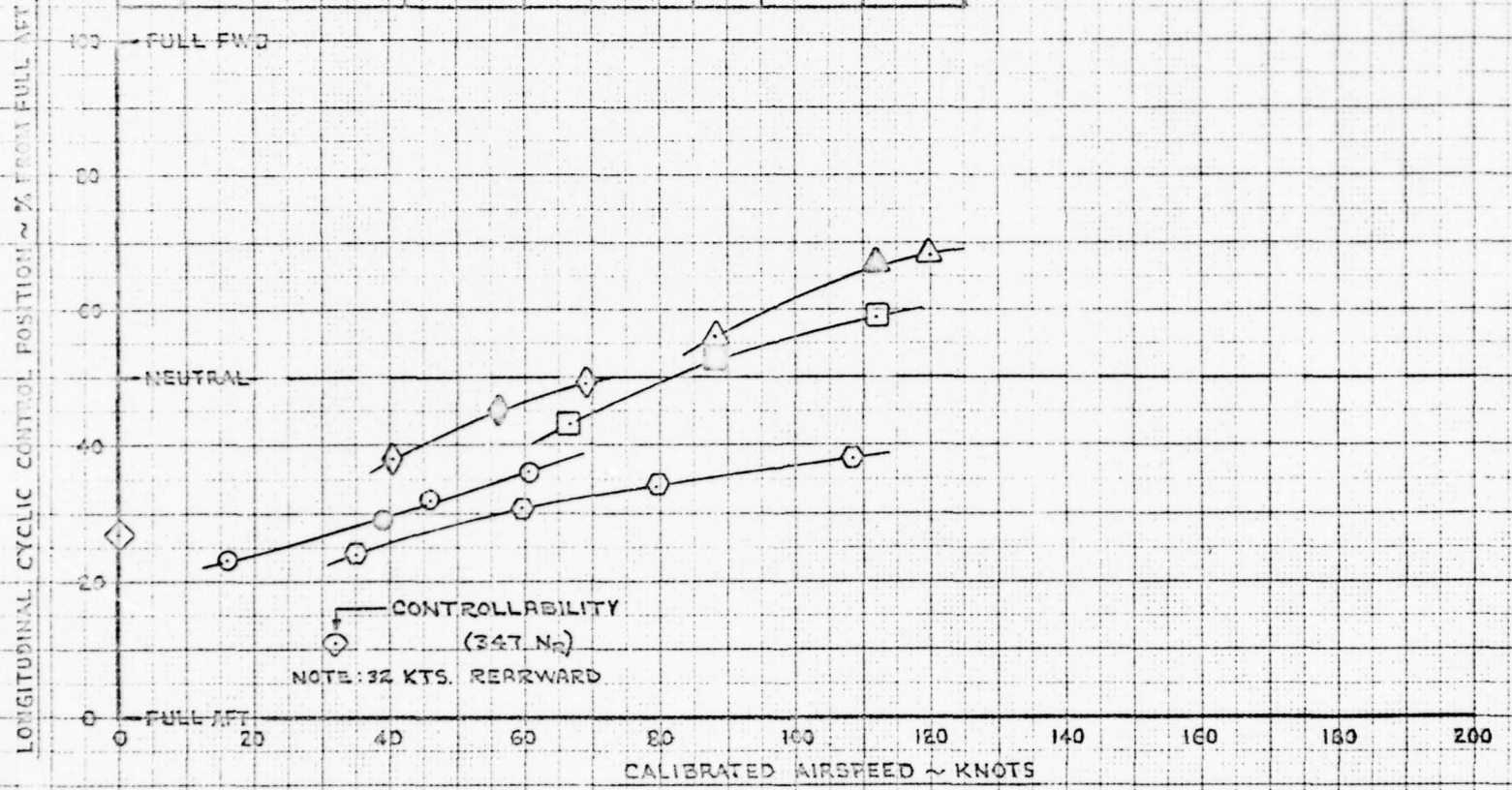

FIG. 4 STATIC LONGITUDINAL STABILITY & CONTROLLABILITY

2991 LB. G.W. LONG. C.G. STA. 106.0 IN. DENSITY ALT. 660 FT.

P

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT NO. 78
DATE 1-14-72
CONFIGURATION 206-706-129-1
HIGH TUBULAR SKID GEAR
KIT INSTALLED

LEGEND

SYM	FLIGHT CONDITION	A/S RANGE KCAS	ROTOR RPM	Hp FEET	OAT °C
⊙	LEVEL FLIGHT		354	2000	0

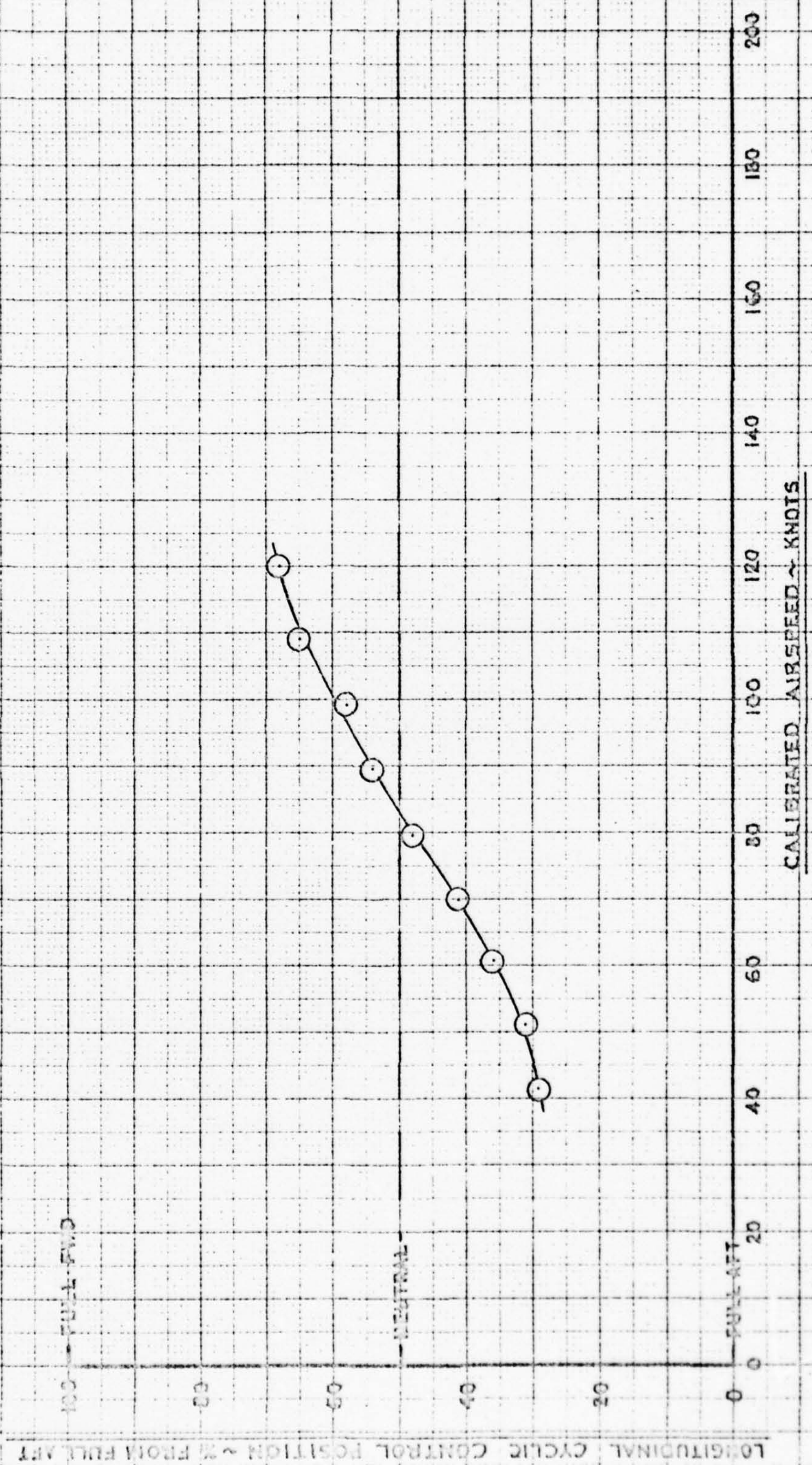

FIG. 5 APPARENT SPEED STABILITY
2991 LB.G.W. LONG. C.G. STA. 106.0 DENSITY ALT. 660 FT.

LEGEND						
SYM	FLIGHT CONDITION	AIRSPEED KCAL TRIM	AIRSPEED KCAL RANGE	ROTOR RPM	H_p ~ FT	OAT ~ °C
○	LEVEL FLIGHT	39 KTS.	15-60 KTS.	354	2000	2
□	LEVEL FLIGHT	.8 V_{MAX}	.6V_{MAX}-V_{MAX}	354	2000	2
△	LEVEL FLIGHT	1.0 V_{MAX}	.8V_{MAX}-V_L	354	2000	2
◇	CLIMB	V_{MAX} R/C	±15 KTS.	354	2000	2
⬡	AUTOROTATION			354	2000	2
◇	HOVER			354	2000	2
NOTE: SOLID SYMBOLS ARE THE TRIM CONDITIONS						
FILLED	CONTROLLABILITY					

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT Nº 7A
DATE 1-14-72
CONFIGURATION: 206-706-129-1
HIGH TUBULAR SKID GEAR
KIT INSTALLED

BY
CHECKED

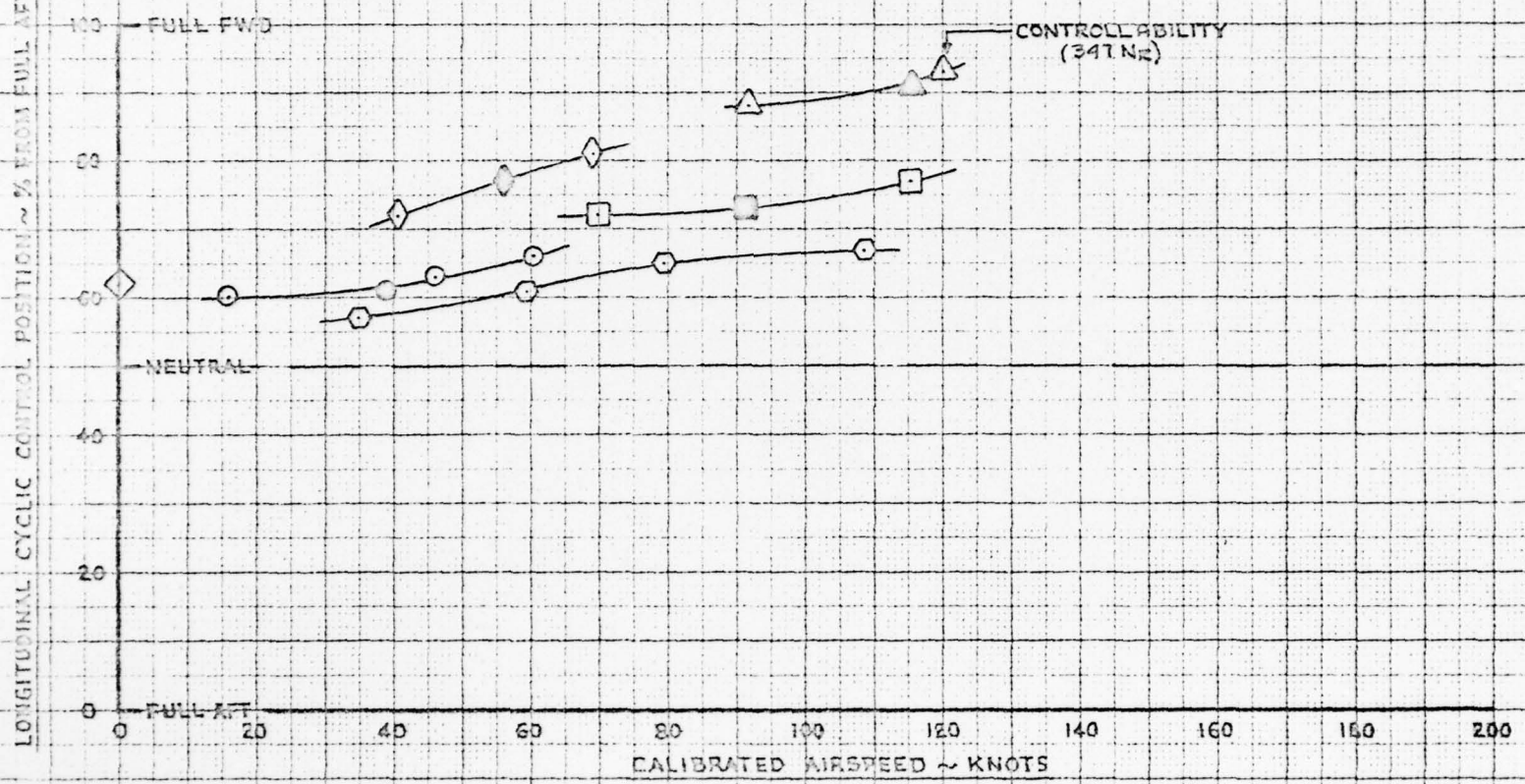

FIG. 6 STATIC LONGITUDINAL STABILITY & CONTROLLABILITY
2252 LB. G.W. LONG. C.G. STA. 114.2 IN. DENSITY ALT. 905 FT.

MODEL OH-58A PAGE 43
BELL REPT 206-947026

LEGEND

SYM	FLIGHT CONDITION	A/S RANGE KCAS	ROTOR RPM	Hp FEET	OAT °C
○	LEVEL FLIGHT		354	2000	2

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT NO. 7A
DATE 1-14-72
CONFIGURATION 206-706-129-1
HIGH TUBULAR SKID GEAR
KIT INSTALLED

BY
CHECKED

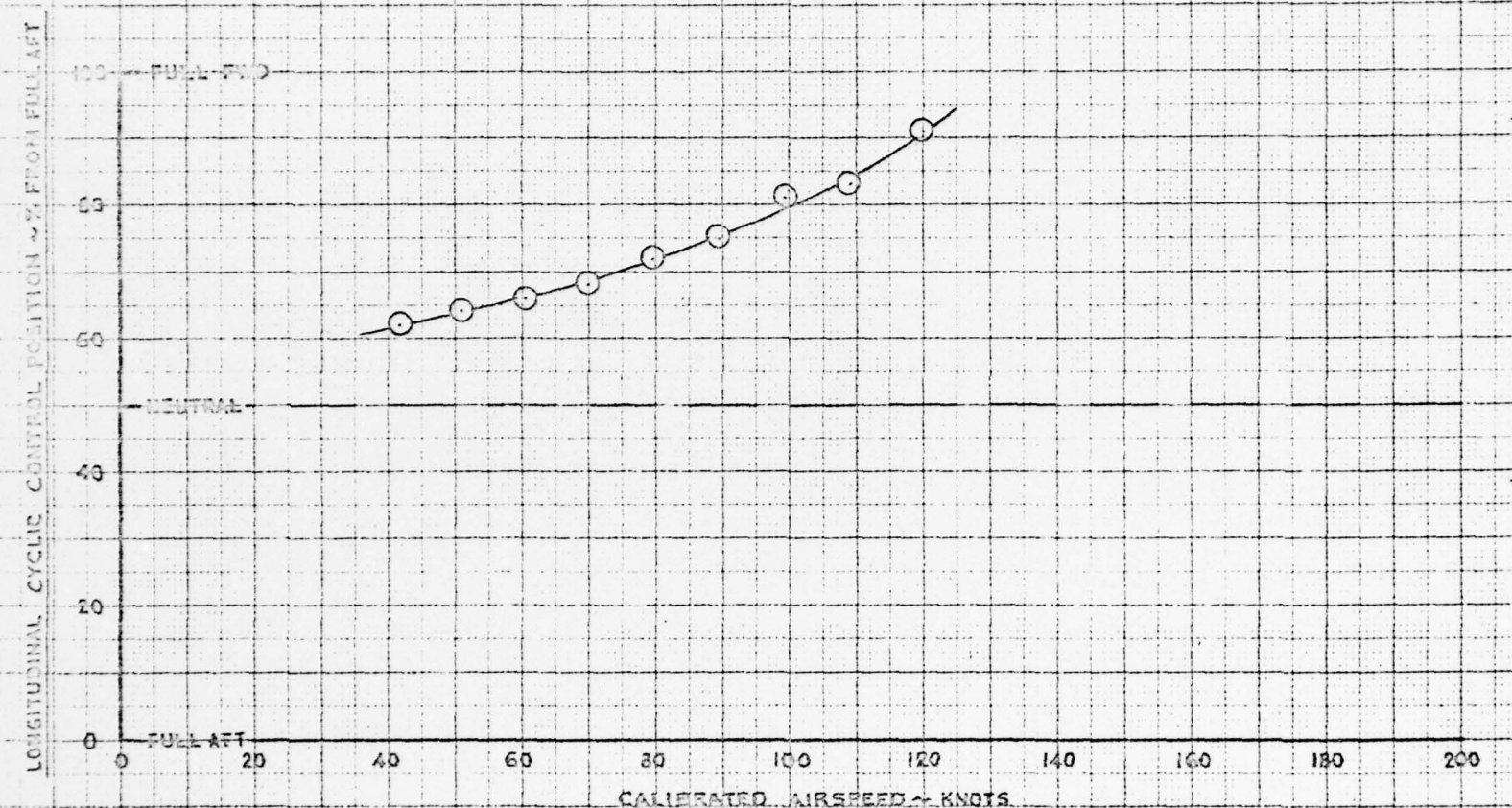

FIG. 7 APPARENT SPEED STABILITY

2252 LB. G.W. LONG. C.G. STA. 114.2 DENSITY ALT. 905 FT.

P

LEGEND						
SYM	FLIGHT CONDITION	AIRSPEED KCAL TRIM	AIRSPEED KCAL RANGE	ROTOR RPM	H_p ~ FT	OAT ~ °C
○	LEVEL FLIGHT	39 KT.	15-60 KT.	354	2000	9
□	LEVEL FLIGHT	$.8V_{MAX}$	$.6V_{MAX}$-V_{MAX}	354	2000	9
△	LEVEL FLIGHT	$1.0V_{MAX}$	$.8V_{MAX}$-V_L	354	2000	9
◇	CLIMB	V_{MAX} R/C	±15 KT.	354	2000	9
⊙	AUTOROTATION			354	2000	9
◇	HOVER			354	2000	9
⊙	REARWARD					
NOTE: SOLID SYMBOLS ARE THE TRIM CONDITIONS						
⊙	CONTROLLABILITY					

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT NO 12A
DATE 2-16-72
CONFIGURATION: 206-706-129-1
HIGH TUBULAR SKID GEAR KIT
AND L2700-206HS SKI KIT
INSTALLED

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BELL HELICOPTER COMPANY
FORT WORTH, TEXAS

MODEL OH-58A
BELL
PAGE 15
RPT 206-194-122

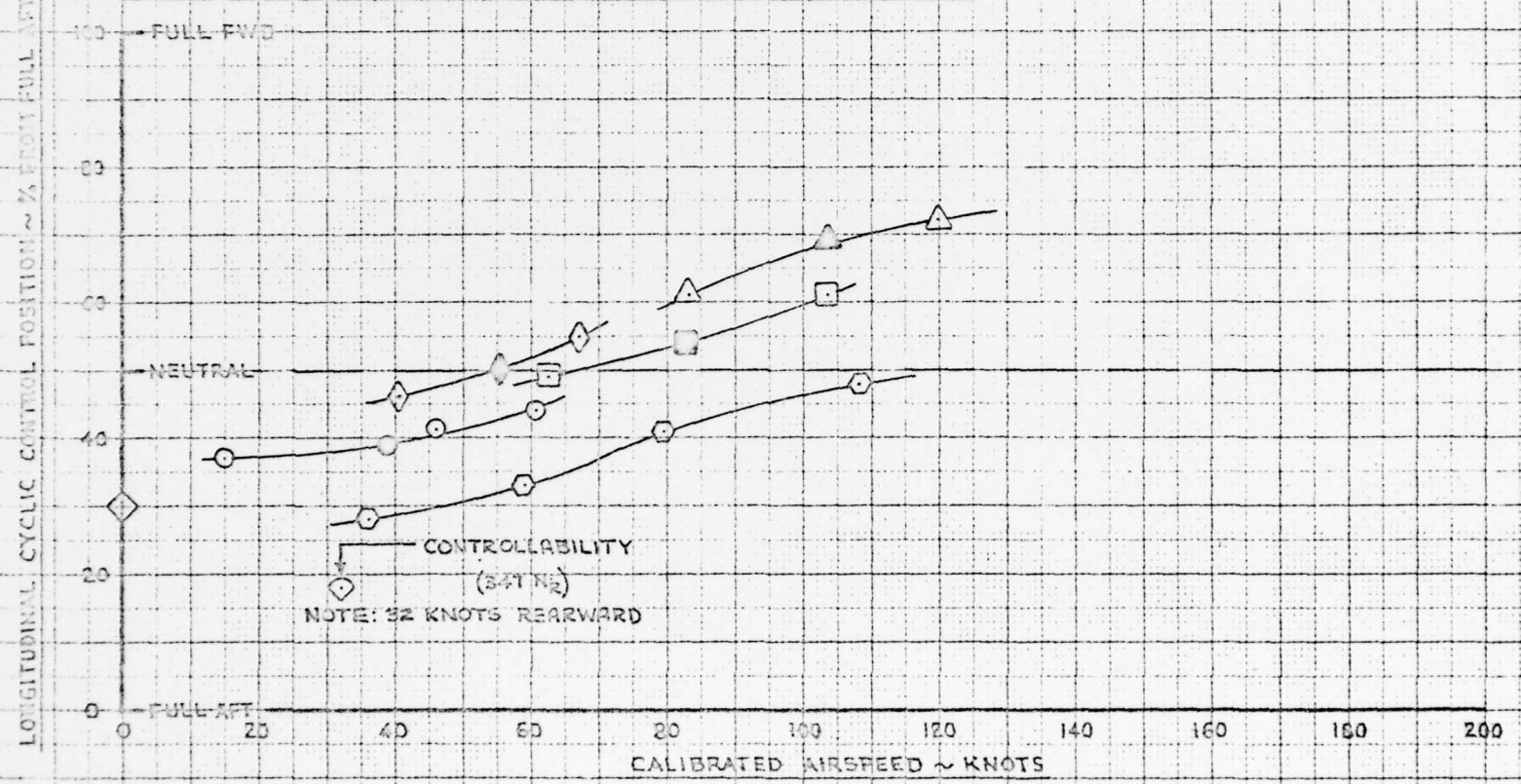

FIG. 8 STATIC LONGITUDINAL STABILITY & CONTROLLABILITY
3006 LB. G.W. LONG. C.G. STA. 106.0 IN. DENSITY ALT. 1760 FT.

LEGEND

SYM	FLIGHT CONDITION	A/S RANGE KCAS	ROTOR RPM	H_p FEET	OAT °C
⊙	LEVEL FLIGHT		354	2000	6

SOLID SYMBOL DENOTES CONTROLLABILITY POINT ~ 347 N_R

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT NO. 12A
DATE
CONFIGURATION: 206-706-129-1
HIGH TUBULAR SKID GEAR
KIT AND L2700-206HS SKI KIT
INSTALLED

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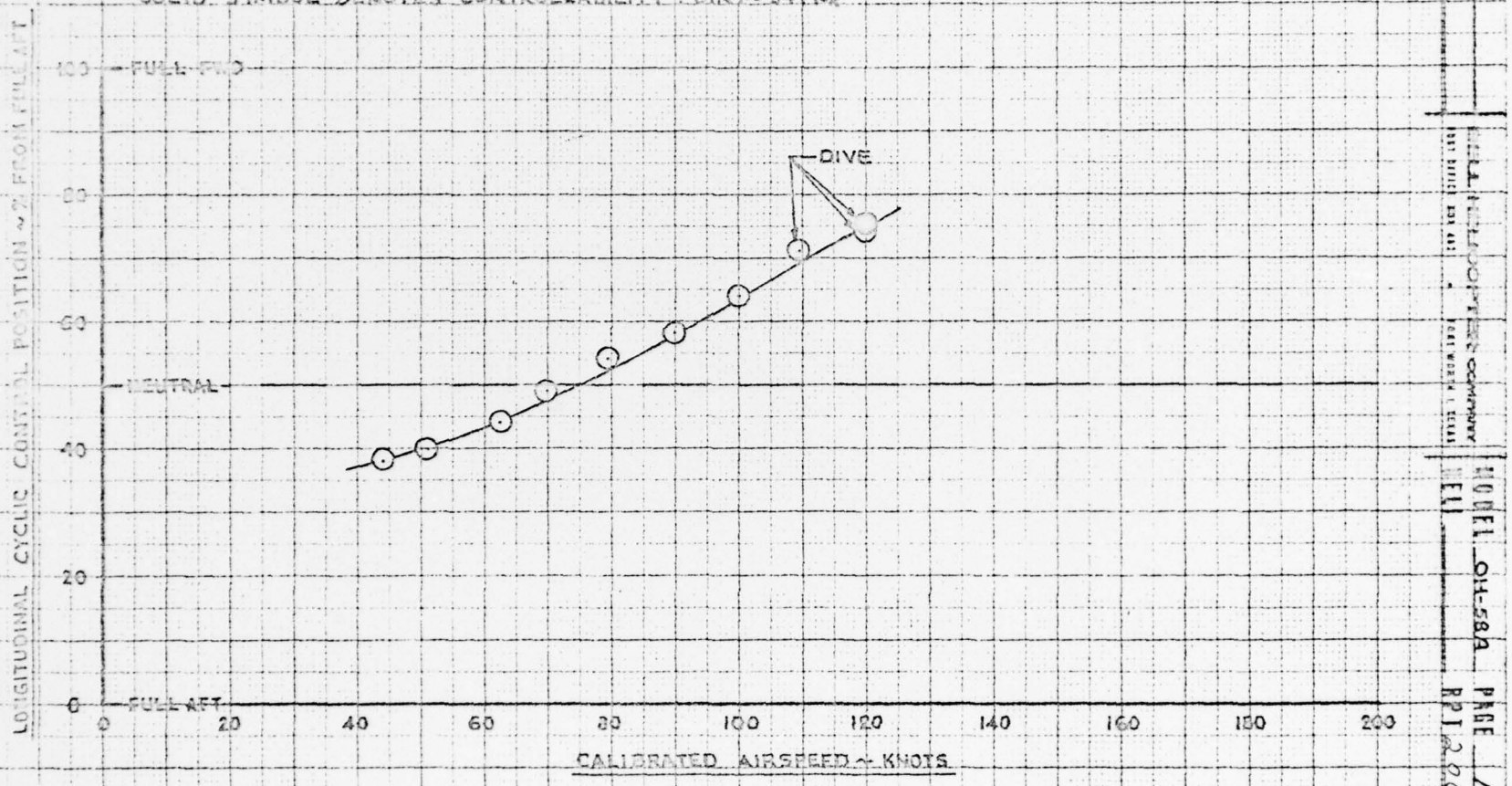

FIG. 9 APPARENT SPEED STABILITY

3006 LB. G.W. LONG. C.G. STA. 106.0 DENSITY ALT. 1640 FT.

P

BELL HELICOPTER COMPANY
FORT WORTH, TEXAS
MODEL OH-58A PAGE 46
RPT. 206-924-122

LEGEND							
SYM	FLIGHT CONDITION	AIRSPEED KCAL TRIM	AIRSPEED KCAL RANGE	ROTOR RPM	H_p ~ FT	OAT ~ °C
⊙	LEVEL FLIGHT	39 KT.	15-60 KT.	354	1050	5
□	LEVEL FLIGHT	.8 V_{MAX}	.6 V_{MAX} - V_{MAX}	354	1500	5
△	LEVEL FLIGHT	1.0 V_{MAX}	.9 V_{MAX} - V_L	354	1500	5
◇	CLIMB	V_{MAX} R/C	±15 KT.	354	1500	5
⬡	AUTOROTATION			354	3000	2
◇	HOVER			354	650	8
NOTE: SOLID SYMBOLS ARE THE TRIM CONDITIONS						
FILLED	CONTROLLABILITY					

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT Nº 118
DATE 2-15-72
CONFIGURATION: 206-706-129-1
HIGH TUBULAR SKID GEAR KIT
AND LZ700-206HS 5K1
KIT INSTALLED

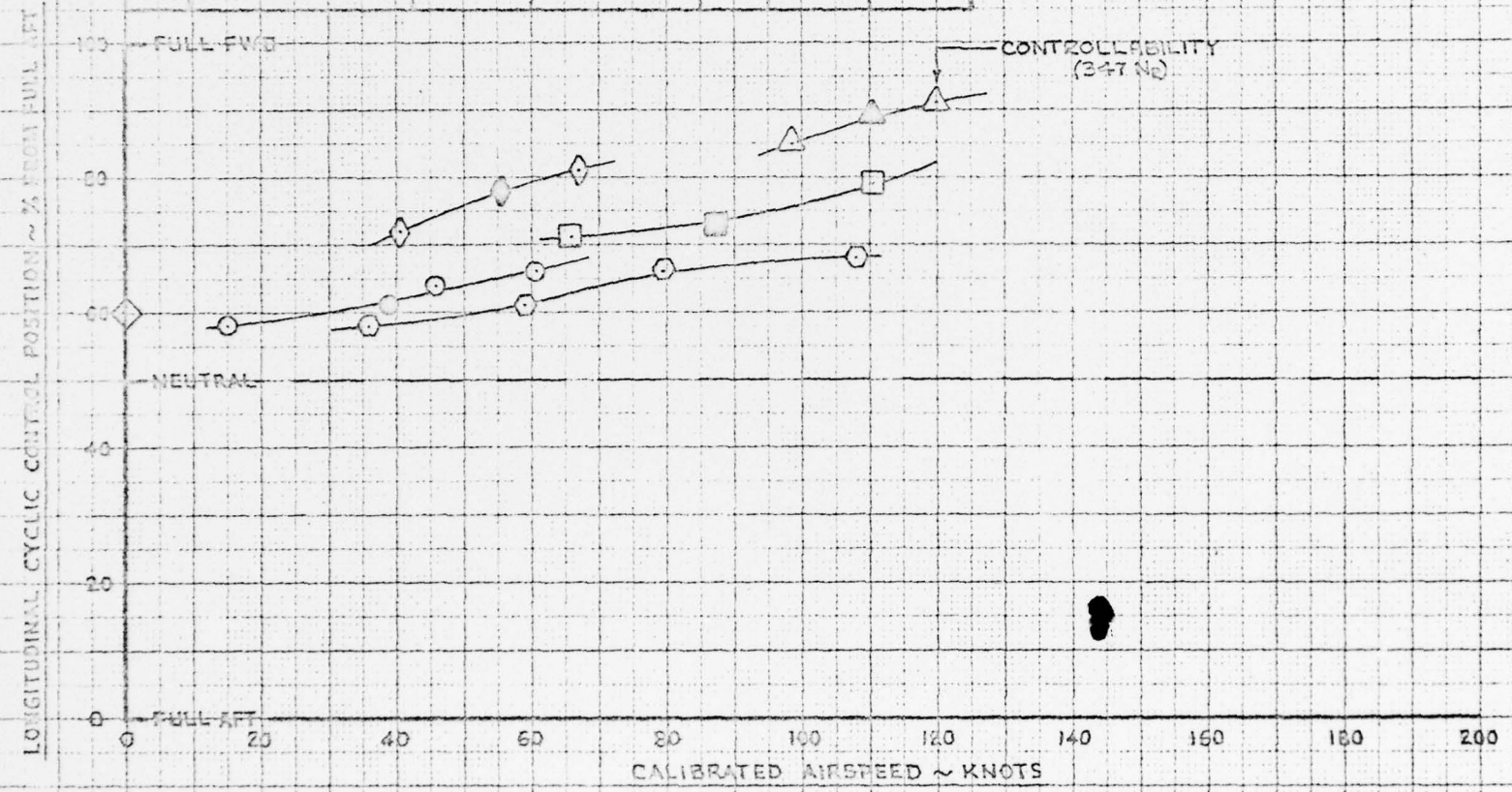

FIG. 10 STATIC LONGITUDINAL STABILITY & CONTROLLABILITY

2342 LB. G.W. LONG. C.G. STA. 114.2 IN. DENSITY ALT. 660 FT.

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FORT WORTH, TEXAS
A DIVISION OF TEXTRON INC.

MODEL OH-58A PAGE 17
BELL REPORT 206-947-12

LEGEND					
SYM	FLIGHT CONDITION	A/S RANGE KCAS	ROTOR RPM	H_p FEET	OAT °C
①	LEVEL FLIGHT		564	1500	12

SOLID SYMBOL DENOTES CONTROLLABILITY POINT ~ 347 N_R

MILITARY S/N 70-15070
BELL S/N 40621
FLIGHT NO. 118
DATE 2-15-72
CONFIGURATION: 206-706-129-1
HIGH TUBULAR SKID GEAR
KIT AND L2700-206HS SKI KIT
INSTALLED

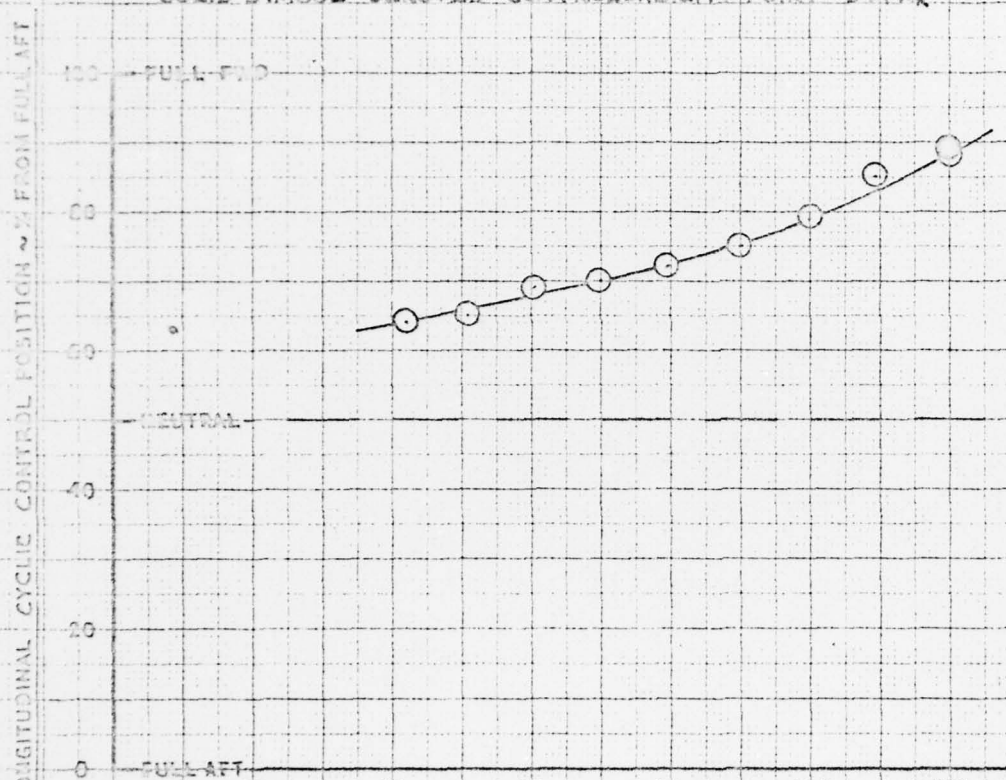

FIG. 11 APPARENT SPEED STABILITY
2342 LB. G.W. LONG. C.G. STA. 114.2 DENSITY ALT. 1500 FT.

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FORT WORTH, TEXAS
MODEL OH-58A PAGE 18
REPT. 206-199-122

2

MODEL OH-58A PART 19
70-15070 206-194-122
BELL NO. 40621

SYM	FLT. NO.	DATE	CONFIG.
———	4A	1-11-72	206-706-129-1 HIGH SKID GEAR
— — — —	7B	1-14-72	206-706-129-1 HIGH SKID GEAR W/206-050-221-3 X-TUBE SUPP. ASSY.
.....	7D	1-14-72	206-706-129-1 HIGH SKID GEAR W/10 LB. LEAD WT. EACH SKID TUBE
— · — · —	9C	1-17-72	STANDARD OH-58A SKID GEAR
— — · —	14	2-23-72	206-706-129-1 HIGH SKID GEAR AND LZ700-206HS SKI KIT

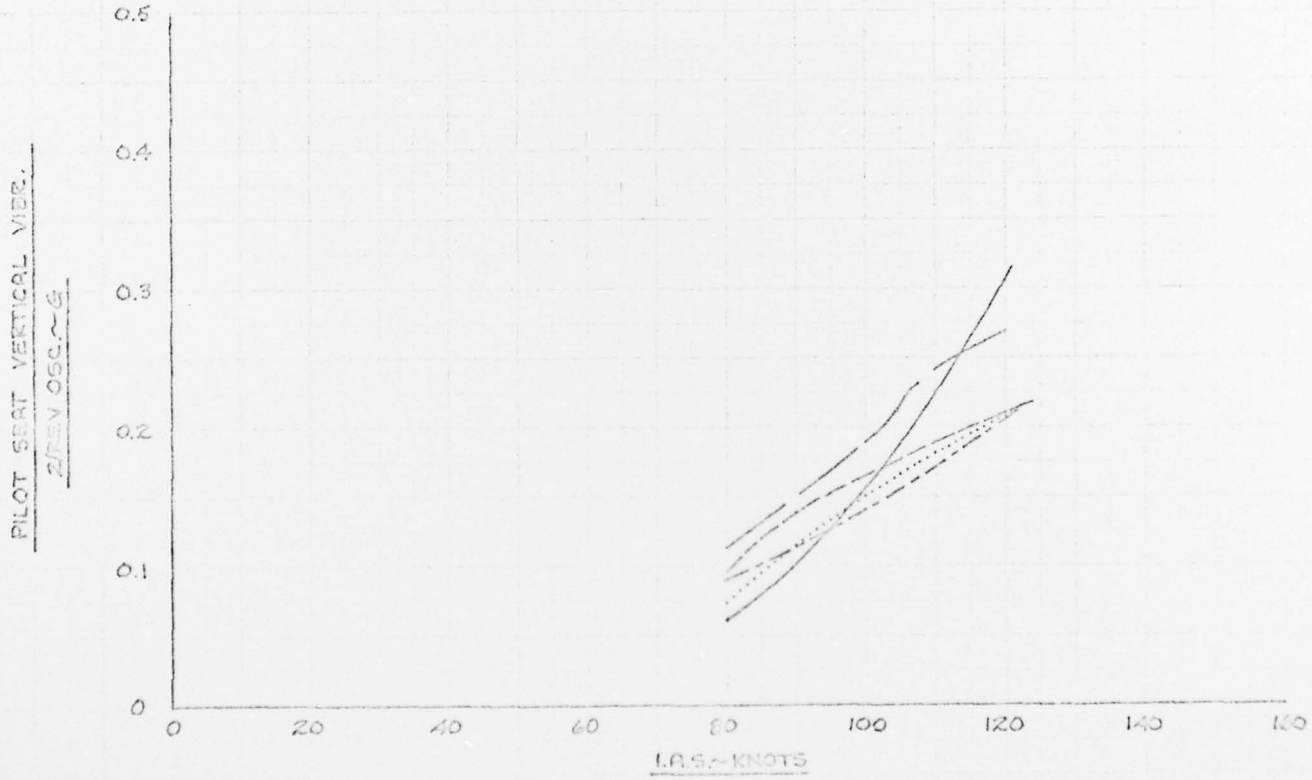

FIG. 14 PILOT SEAT VERTICAL VIBRATION VS. INDICATED AIRSPEED
DURING LEVEL FLIGHT

AVG. G.W. 2697 LB. C.G. STA. 107.0 IN.
(FLT. 4A STA. 107.0 IN)

SYM	FLT. NO.	DATE	CONFIG.
———	4A	1-11-72	206-706-129-1 HIGH SKID GEAR
— — — —	7B	1-14-72	206-706-129-1 HIGH SKID GEAR W/206-050-221-3 X-TUBE SUPP. ASSY.
.....	7D	1-14-72	206-706-129-1 HIGH SKID GEAR W/10 LB. LEAD WT. EACH SKID TUBE
— · — · —	9C	1-17-72	STANDARD OH-58A SKID GEAR
——— ———	14	2-23-72	206-706-129-1 HIGH SKID GEAR AND L2700-206H3 SKI KIT

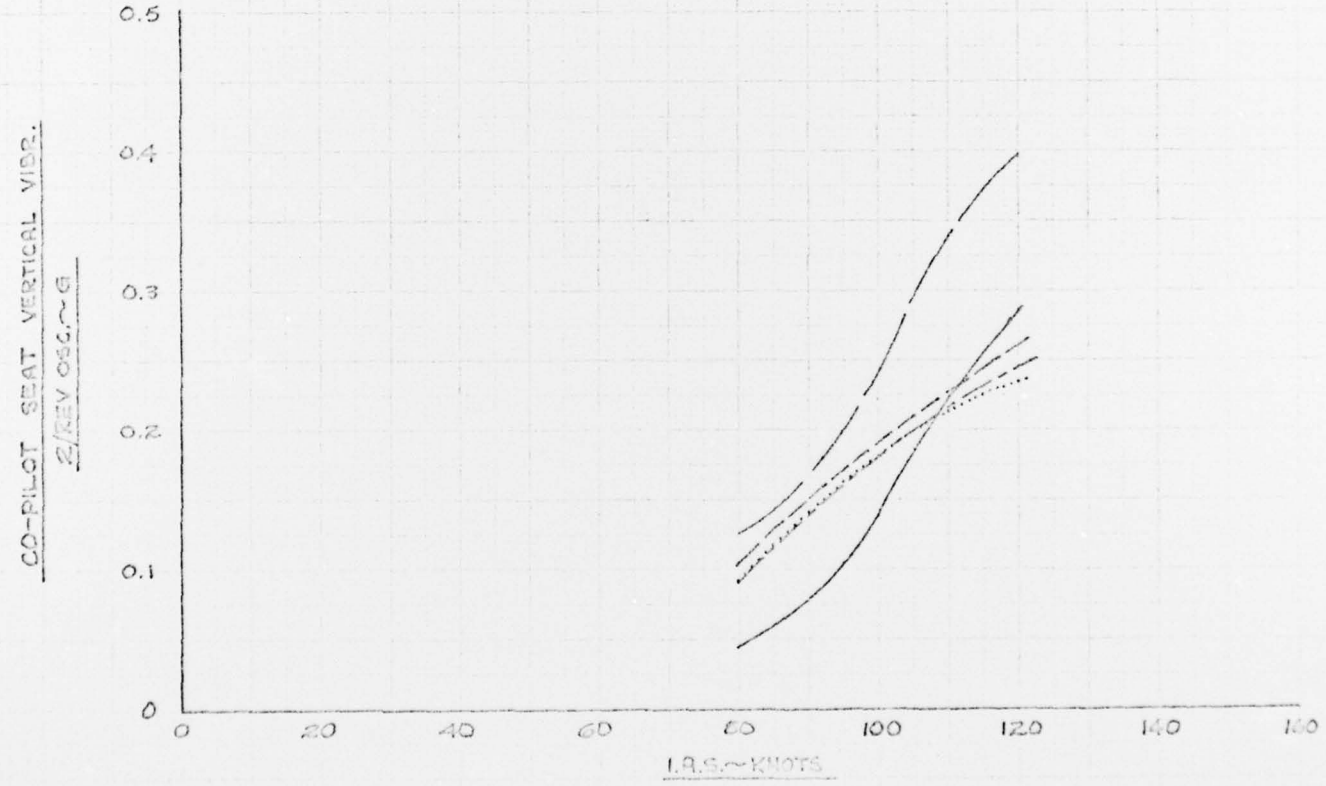

FIG. 13 CO-PILOT SEAT VERTICAL VIBRATION VS. INDICATED AIRSPEED DURING LEVEL FLIGHT

AVG. GW 2687 LB. C.G. STA 165.0 IN. (FLT. IN STA KNOWN)

SYM	FLT. NO.	DATE	CONFIG.
———	4B	1-11-72	206-706-129-1 HIGH SKID GEAR
— — — —	7A	1-14-72	206-706-129-1 HIGH SKID GEAR W/206-050-221-3 X-TUBE SUPP. ASSY.
.....	7E	1-14-72	206-706-129-1 HIGH SKID GEAR W/10 LB. LEAD WT. EACH SKID TUBE
— · — · —	9B	1-17-72	STANDARD OH-58A SKID GEAR
———	11B	2-15-72	206-706-129-1 HIGH SKID GEAR AND L2700-206 HS SKI KIT

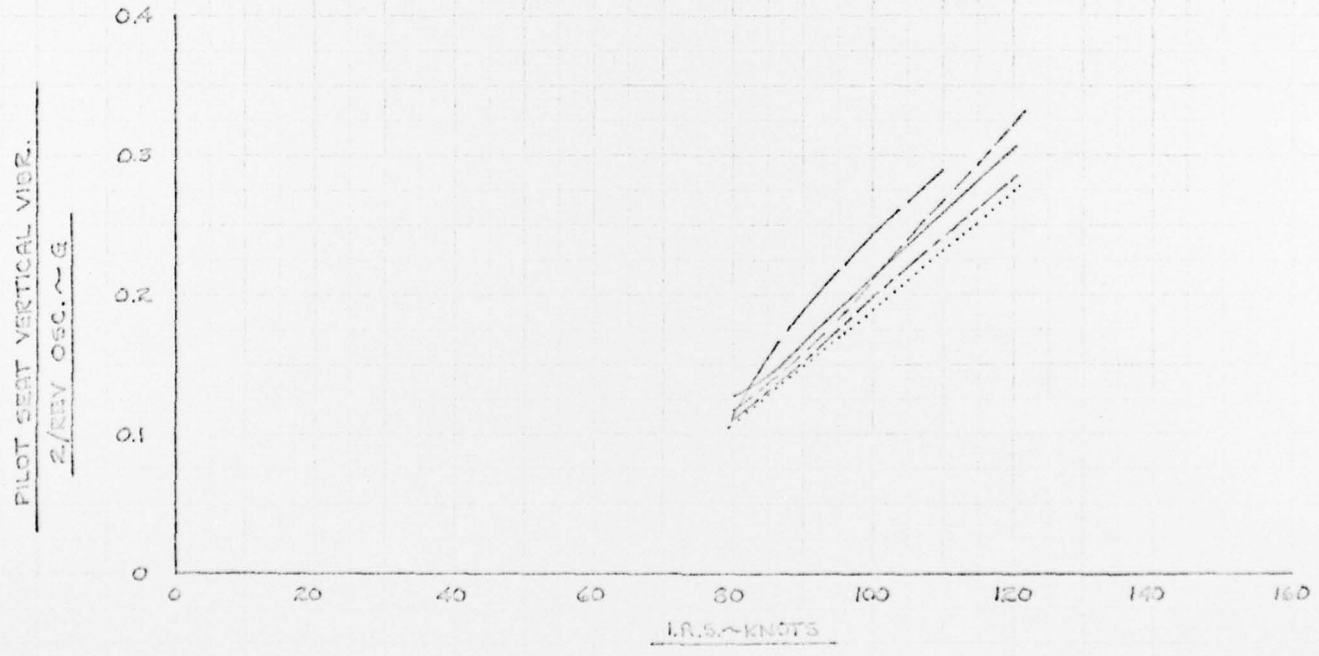

FIG. 14 PILOT SEAT VERTICAL VIBRATION VS. INDICATED AIRSPEED DURING LEVEL FLIGHT

AVG. GW 2552 LB. C.G. STA. 114.2 IN.

SYM	FLT. NO.	DATE	CONFIG.
———	4B	1-11-72	206-706-129-1 HIGH SKID GEAR
— — — —	7A	1-14-72	206-706-129-1 HIGH SKID GEAR W/206-050-221-3 X-TUBE SUPP. ASSY.
.....	7E	1-14-72	206-706-129-1 HIGH SKID GEAR W/10 LB. LEAD WT. EACH SKID TUBE
— · — · —	9B	1-17-72	STANDARD OH-58A SKID GEAR
— — — —	11B	2-15-72	206-706-129-1 HIGH SKID GEAR AND LZ700-206HS SKI KIT

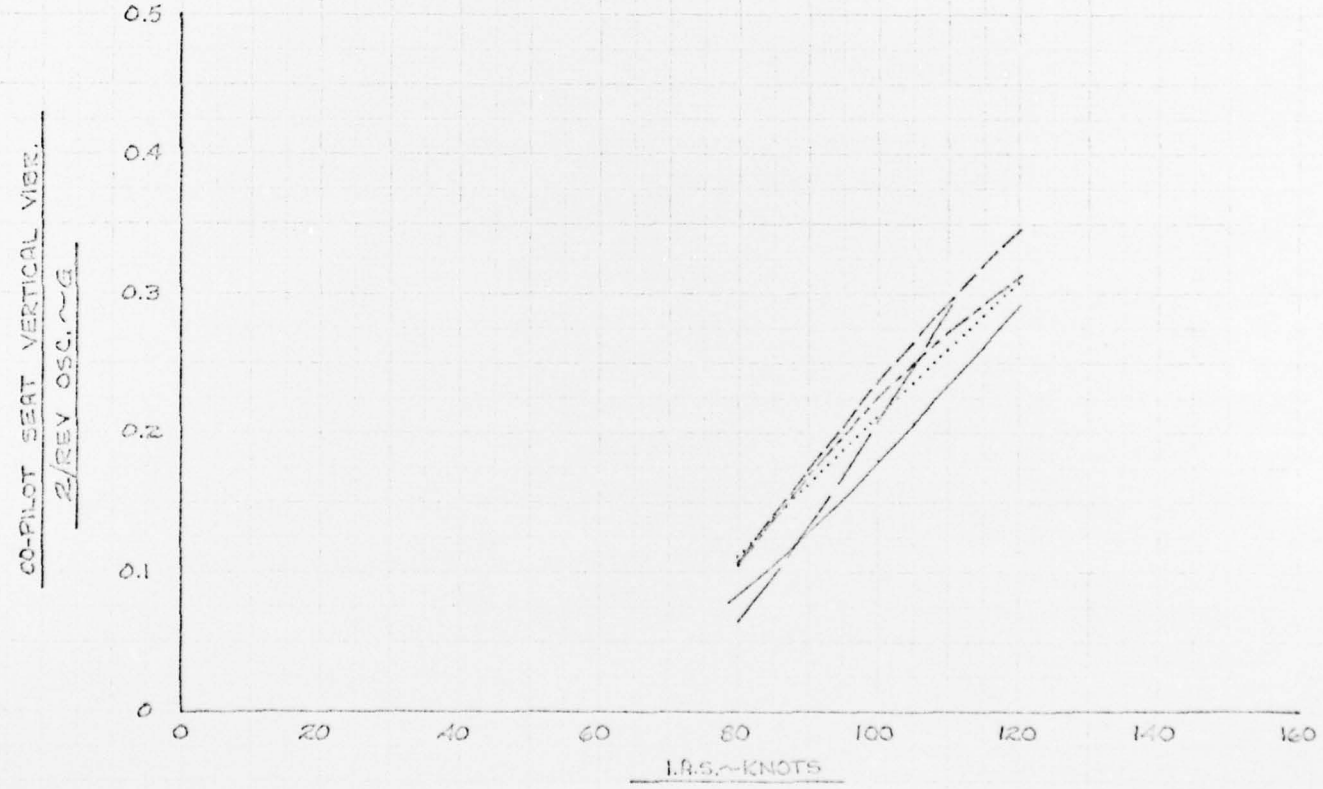

FIG. 15 CO-PILOT SEAT VERTICAL VIBRATION VS INDICATED AIRSPEED DURING LEVEL FLIGHT

AVG. G.W. 2840 LBS. C.G. STA. 114.6 IN.

Fig. 16 High Gear Skid Tube With Ten Pound Lead Weight* and Ski Installed, BHC Photo No. 385276

*Production skid tubes have lead weights located internally.

TABLE I

LOG OF FLIGHTS

G. R. No.	Flt No.	1972 Date	Time (hr)	G. W. (lb)	C. G. Sta.	Configuration/Purpose
1		1-11	0.1			Shakedown; engine fuel pump removed/replaced
	4A	1-11	0.3	2417	109.0	Shakedown with 206-706-129-1 high skid gear
	4B		0.4	2252	114.2	Aft cg evaluation; high skid gear
	5A	1-12	0.4	2417	109.0	Airspeed calibration
	5B		0.2	2427	108.7	5 lb lead added to each skid gear at fwd end
	5C		0.5	2427	108.7	Ferry flight to Globe
	5D		0.2	2417	109.0	Removed 5 lb lead weights from skid gear, added 206-050-221 cross tube support assy
	5E		0.1	2252	114.2	Aft cg evaluation, additional shimming required for 206-050-221 cross tube support assy
	6A	1-13	0.5	2417	109.0	Large high skid gear strap, 206-052-105-13, installed, shimmed for 1/32 in. clearance between cross tube and cross tube support assy
	6B		0.3	2417	109.0	Standard OH-58A straps, 206-052-105-3, installed shimmed for 1/32 in. clearance between cross tube and cross tube support assy
	6C		0.3	2417	109.0	206-050-221 (isolation spring) cross tube support assy installed
	7A	1-14	0.8	2252	114.2	Same configuration; static longitudinal stab.
	7B		0.7	2991	106.0	Same configuration
	7C		0.3	2437	108.4	Removed spring type cross tube support and installed 10 lb lead on fwd end of skid tube
	7D		0.3	3036	106.09	Same configuration; vibration data
	7E		0.3	2272	113.51	Same as 7D

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MODEL OH-58A PAGE 24
RPT 206-194-122

TABLE I

LOG OF FLIGHTS

G. R. No.	Flt No.	Date	Time (hr)	G. W. (lb)	C. G. Sta.	Configuration/Purpose
	8A	1-13	0.3	2437	110.22	Same as 7D
	8B		0.3	2437	110.8	10 lb lead weight removed from end of skid tube to approximately mid point of skid tube (F. S. 106.0); Vibration data
	8C		0.3	2427	110.53	Weight on fwd end of skid tube changed to 5 lb for each tube and 206-250-221 cross tube support assy added to forward cross tube only
	9A	1-17	0.3	2417	109.0	Std OH-58A landing gear installed
	9B		0.2	2250	114.2	Same as 9A
	9C		0.3	2991	106.02	Same as 9A
	10A	2-10	0.3	2417	110.84	Removed std OH-58A landing gear; installed 206-706-129 high landing gear with L2700-206 HS ski kit
	10B		0.2	2437	110.22	10 lb lead weight added to each skid tube
	10C		0.2	2437	110.22	Same configuration, with 206-050-221 cross tube support assy added to aft cross tube only
	11A	2-15	0.5	2342	114.2	Same configuration, static longitudinal stab.
	11B		0.5	2342	114.2	Same configuration, vibration data
	12A	2-16	0.5	3006	106.0	Same as 11B plus static longitudinal stab.
	12B		0.3	3006	106.0	Removed ski kit, lead weight remained on skid skid tubes; vibration data
	13B	2-22	0.3	3006	106.0	Snow ski kit installed, 10 lb lead weight on each skid tube; 206-050-221 cross tube support assy modified to accept 206-052-105-13 strap on aft cross tube

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POST OFFICE BOX 482 • FORT WORTH, TEXAS

MODEL OH-58A PAGE 25
RPT 206-194-122

TABLE I

LOG OF FLIGHTS

G. R. No.	Flt No.	1972 Date	Time (hr)	G. W. (lb)	C. G. Sta.	Configuration/Purpose
	14	2-23	0.3	3006	106.0	Snow ski kit installed, 10 lb lead weight on each skid tube, 206-050-221 cross tube support assy modified to accept 206-052-105-13 strap which had .040 in. rubber removed to allow more clearance between cross tube and improve spring assembly operation

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FORT WORTH, TEXAS
MODEL OH-58A PAGE 26
RPT 206-194-122

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